

PENRITH CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA18/0240
Proposed development:	Demolition of Existing Structures, Construction of a Six (6) Storey Residential Flat Building containing 45 Apartments and Two (2) Levels of Basement Car Parking
Property address:	43 Barber Avenue, PENRITH NSW 2750 41 Barber Avenue, PENRITH NSW 2750
Property description:	Lot 31 DP 2296 Lot 30 DP 2296
Date received:	12 March 2018
Assessing officer	Kathryn Saunders
Zoning:	Zone R4 High Density Residential - LEP 2010
Class of building:	Class 2 , Class 7a
Recommendations:	Refuse

Executive Summary

This application is to be determined by the Penrith Local Planning Panel who are the consent authority for the development application (as directed by the Minister for Planning under Section 9.1 of the Act), as the development is a development type to which State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development applies, and is 4 or more storeys in height.

Council is in receipt of a development application for the demolition of all structures and the construction of a 6 storey residential flat building containing 45 apartments at 41 and 43 Barber Avenue, Penrith. The subject site is zoned R4 High Density Residential under Penrith Local Environmental Plan 2010 (PLEP). Development for the purposes of a residential flat building is a permissible land use in the zone, with consent.

The proposal complies with the maximum permissible height of 18m under PLEP 2010. No floor space ratio applies to the site.

Key issues identified for the proposed development and site include:

- Inconsistency with State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development,
- Inconsistency with key objectives and the design criteria of the Apartment Design Guide (ADG) including communal open space, building separation and residential amenity,
- Non compliance with PLEP including the aims of objectives of the Plan, the objectives of the R4 High Density Residential zone and the objectives of the height of buildings clause,
- Non compliance with Penrith Development Control Plan 2014 (PDCP), including setbacks, waste management, parking requirements, landscaping, context and character, amenity and streetscape presentation,
- Site isolation,
- Overbearing and visual and acoustic impacts related to bulk and scale, and
- Insufficient information related to Water Sensitive Urban Design (WSUD), site isolation, solar access and materials and finishes.

These key issues were raised with the applicant and in correspondence dated 5 April 2018 it was requested that the development application be withdrawn. The application was not withdrawn and amended plans were

submitted on 20 June 2018 and 10 July 2018. A review was undertaken of the amended plans and the applicant was advised to provide a final set for assessment on 7 August 2018. Further amended plans were provided to Council on 14 August 2018 prepared by a new architect, which form the basis of this assessment.

The application has been notified to adjoining properties and was exhibited and advertised between 30 March and 13 April 2018 in accordance with the applicable legislation. One submission was received from the adjoining owner of the dual occupancy development to the east, which raised matters related site isolation, overshadowing impacts, privacy during and post construction and adverse effects on the tenants.

The development application was also referred to the Nepean Local Area Command (LAC) of the NSW Police. A response was received from the Nepean LAC which raised no concerns with the proposal by did outline considerations related to Crime Prevention Through Environmental Design and general crime statistics for the locality which does not preclude determination of the application.

An assessment under Section 4.15 (formerly Section 79C) of the Environmental Planning and Assessment Act 1979 has been undertaken and the application is recommended for refusal. Matters related to bulk and scale, building separation, waste management, site isolation, parking, landscaping, common open space and amenity have not been adequately addressed by the amended design. Information related to water sensitive urban design and solar access has also not been provided.

Relevant History

DA15/0407 - Development Application seeking approval for demolition of all structures on the site and the construction of a 6 storey residential flat building comprising 53 apartments and basement car parking lodged 29 April 2015. The applicant and the original architect attended a meeting with Council 16 June 2015 with meeting minutes issued on 19 June 2018. The applicant was advised that the proposal was unsatisfactory with particular regard to the following:

- non-compliant height of the building,
- basement setbacks and deep soil,
- waste management and the DCP requirement to provide for dual chutes,
- inappropriate and unsupportable building separation distances,
- front setback and streetscape amenity,
- layout and density of units and the use of snorkel windows,
- insufficient solar access information and request for views from the sun diagrams,
- access and parking, stormwater considerations, and
- accessibility and the design.

Amended concept sketches were submitted on 16 September 2015 and in correspondence issued to the applicant dated 29 September 2015, it was noted that substantial amendments had not been made to warrant support of the proposal. Amended plans were submitted and although the yield had been reduced to 45 units, various matters remained unresolved and the application was refused 31 August 2016.

Class 1 Appeal Land & Environment Court of NSW (LEC)

A Class 1 appeal was lodged with the LEC on 28 February 2017 (Case no. 2017/00063245). Council met with the applicant as part of the Section 34 Conference and subsequently the appeal was withdrawn.

Pre-lodgement and Urban Design Review Panel Meetings

The applicant did not attend a pre-lodgement meeting. The development application was referred to Council's UDRP member (who also attended the s.34 Conference as part of the above mentioned LEC proceedings). In correspondence dated 16 April 2018, the following was noted:

- *The current proposal improves when compared to the preceding application however, the current proposal contains a number of shortcomings:*

Context and Character - Landscaping is unsatisfactory, minimal deep soil along the frontage, lack of canopy tree planting, extensive paving in front setback

Built Form and Scale - Height is non-compliant and insufficient planning grounds provided to justify [note: The proposed height has been amended and is now proposed to be compliant], fifth and sixth storeys should incorporate pronounced setbacks from levels below: these levels in the current street elevation have additional setback of 0.5m which is not sufficient, side elevations display excessive bulk due to the extent of planar

facades which are punctuated by relatively small windows and repetitive layouts.

Amenity - Habitable rooms exposed to the main pedestrian entrance compromise acoustic and/or visual privacy and landscaping of the street setback is compromised by the proposed kerbside collection and related storage.

The applicant attended a UDRP meeting where advice was provided regarding the amended concept drawings. The revised architectural plans prepared by the new architect did not adequately address the matters raised (as they relate to the new design) and requested information related to site isolation, WSUD, solar access and materials and finishes remain outstanding.

Site & Surrounds

The subject site is located on the northern side of Barber Avenue between Colless Street to the west, and Parker Street to the east. The site comprises two allotments each containing a single storey dwelling house with ancillary structures. The site has a total area of 1686.2sqm's.

Development in the immediate vicinity of the site is dominated by residential flat buildings under construction. The greater area is populated by a mixture of single dwelling houses and multi dwelling housing. The site shares its eastern boundary with no. 39 and 39a Barber Avenue which contains a single storey attached dual occupancy. The western boundary is shared with three allotments with frontage to Colless Street known as 2 and 4 Colless Street which contains a 6 storey residential flat building near completion. A residential flat building is also near completion at no. 35-37 Barber Avenue.

Astina Serviced Apartments is located at the intersection of Lethbridge and Parker Street which is located 200 metres to the south-east. Penrith High School is located 75m to the west and Nepean Hospital is located 260 metres to the east of the site. Penrith Railway Station is located approximately 1.4km's to the north-west.

Barber Avenue is a local two lane avenue with marked on-street parking bays. Two street trees and a power pole with overhead wires are located within the verge fronting the site and no pedestrian pavement is currently provided along the northern side of Barber Avenue.

Proposal

The development application originally sought approval for the demolition of all structures on the site and the construction of a 6 storey residential flat building containing 44 units (2 x 1 bed, 36 x 2 bed and 6 x 3 bed) with a maximum height of RL 69.55m AHD.

The development proposal was amended several times during the assessment of the application. The final proposal comprises of the following:

- Demolition of all structures on the site and construction of a 6 storey residential flat building containing 45 Apartments (15 x 1 bed, 23 x 2 bed & 7 x 3 bed);
- Two levels of basement car parking with access from Barber Avenue, containing 7 bicycle parking spaces, 52 residential spaces (including 3 x accessible and 7 x stacked spaces) and 8 x visitor car spaces (including 2 x accessible spaces), and 1 x shared car wash/visitor space.
- Provision of an in-dented loading/waste collection bay within the verge along the frontage of the site to Barber Avenue.
- Ancillary pavement, landscaping, fencing, utility services and retaining walls;
- Tree removal (7 trees including 2 street trees); and
- A maximum height of RL 68.65m AHD or 17.57m.

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy No 55—Remediation of Land
- State Environmental Planning Policy No 65—Design Quality of Residential Flat Development
- Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

Planning Assessment

• Section 79C - Evaluation

The development proposal has been assessed in accordance with the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration:

Section 79C(1)(a)(i) The provisions of any environmental planning instrument

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 aims ensure consistency in the implementation of the BASIX scheme throughout the States and achieves its aim by overriding provisions of other environmental planning instruments and development control plans that would otherwise add to, subtract from or modify any obligations arising under the BASIX scheme.

The Policy requires certain kinds of residential development to be accompanied by a list of commitments to be carried out. This application is subject to these requirements as it involves the construction of a residential flat building. BASIX Certificate No. 889684M was submitted with the development application demonstrating compliance with set sustainability targets for water and energy efficiency and thermal comfort. Information submitted with the development application and accompanying BASIX certificate are assessed to satisfy the provisions of the Policy, however, the application is recommended for refusal based on other matters detailed elsewhere within this report.

State Environmental Planning Policy No 55—Remediation of Land

The proposal has been assessed against the applicable provisions of the State Environmental Planning Policy No 55 - Remediation of Land and is found to be acceptable. The development application as modified after lodgement and the accompanying additional information was referred to Council's environmental management team and no objections were raised. It was noted however, that the construction waste management plan differed in approach to the re-use of topsoil, to the advice that was recommended within the submitted Stage 1 Preliminary Site Investigation (PSI) report prepared by Construction Sciences dated 19/07/2018.

The PSI report recommends in its executive summary, that top soil be tested prior to re-use on the site which is contrary to the construction waste management plan which states that top soil is to be re-used on site. This matter could be clarified by a number of management options including by conditions of consent however, as the development application is recommended for refusal, further clarification from the applicant or relevant conditions of consent are not recommend.

State Environmental Planning Policy No 65—Design Quality of Residential Flat Development

An assessment has been undertaken of the development proposal against the aims and objectives and specific provisions of State Environmental Planning Policy No. 65—Design Quality of Residential

Apartment Development. In particular, the development proposal has been assessed against Clause 30 of the Policy which states that:

"Development consent must not be granted if, in the opinion of the consent authority, the development or modification does not demonstrate that adequate regard has been given to the design quality principles, and the objectives specified in the Apartment Design Guide for the relevant design criteria"

It has not been demonstrated that adequate regard has been given to the nine design quality principles of the Policy. The development application as lodged, was submitted with a design verification statement prepared by JS Architects although the statement does not address the matters required to be addressed under Clause 50(1B) of the Environmental Planning and Assessment Act 2000 (the Regulations), in that no explanation that verifies how the development:

- (i) addresses how the design quality principles are achieved, and*
- (ii) demonstrates, in terms of the Apartment Design Guide, how the objectives in Parts 3 and 4 of that guide have been achieved.*

Further, the amended set of architectural plans prepared by CK Design were not accompanied by a design verification statement, also in conflict with the requirements of Clause 50(1A) and (1B) of the Regulations. An assessment against Schedule 1 Design quality principles, of the Policy has been undertaken and is included in **Table 1** and an assessment against the accompanying Apartment Design Guide is also provided in **Table 2** below.

Table 1: Assessment Against Schedule 1 - Design Quality Principles		Officer Discussion
Principle 1: Context and neighbourhood character	Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.	The design does not respond to the context of the site. The development as proposed does not have regard to the recommended building separation distances and does not adequately respond to the smaller scale development to the east which, as a result of the proposed development will be isolated.

Principle 2: Built form and scale	Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook	As detailed above the development does not adequately respond to the site's context, that being an infill development adjacent a dual occupancy on an isolated site.
Principle 3: Density	Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.	The development is considered to be excessive in bulk and scale and does not provide for acceptable internal or external amenity for residents. The density of the development is considered to be resulting in poor unit amenity and insufficient landscaping and common open space is proposed.
Principle 4: Sustainability	Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.	Insufficient information is provided to allow Council to be satisfied that adequate solar access is provided in accordance with the Apartment Design Guide rates. Shadow diagrams and the shadow analysis do not include shadow impacts from adjoining sites.

Principle 5: Landscape	Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks. Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management.	Deep soil identified on the calculations drawing (plan no. A1-23) is not deep soil and is identified on the submitted hydraulic plans as OSD concrete lid. Deep soil is not co-located with common open space. Inadequate landscaping is provided to the street frontage. Minimal deep soil is provided for substantial or sustainable canopy tree planting. The site or the streetscape is not enhanced or complemented by the development.
Principle 6: Amenity	Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.	The amenity of the lower scale development to the east has not been adequately addressed by the scale, density, landscaping or massing of the development. The centrally located one bedroom units to the north and south, typical on levels 1 through 4 are assessed to be two bedroom units due to their dimensions, layout and proportions. It is not accepted that the bedroom marked 'study' should not have the same level of consideration given to acoustic and visual privacy than any other. In this regard, the windows to these rooms open to the lift lobby and are next to the entry door to the adjacent apartment. These unit layouts are impractical and not supportive of the SEPP principles.

Principle 7: Safety	Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.	The safety, security and privacy of units U4, U7, U12, U16, U19, U23, U29 and U33 are not reflective of the good design principles of the Policy or the ADG. Poor CPTED outcomes are foreseeable. The entryway to the site via the side is not improved by the inactivity of this area or the location of the lift entry doors that face away from the ground floor lobby entry. Awnings over the entryway and lobby areas, prohibit a view down to the entryway from the units above. The design of the entry walkway and lobby does not reduce or remove areas for concealment or crime.
Principle 8: Housing Diversity and Social Interaction	Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.	The mix of units in the development is acceptable.

Principle 9: Aesthetics	Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	The development is assessed to be excessive in bulk and scale. As detailed elsewhere in this table and in the assessment of the development against the Apartment Design Guide (ADG) below, the development is contrary to the design criteria and design guidance statements of the ADG. The design of the building does not respond adequately to the constraints of the site, the site dimensions or the needs of the future residents. The development will detract from the streetscape and does not provide for adequate landscaping, deep soil or canopy tree planting along the frontage of the site.
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Table 2: Assessment Against the Apartment Design Guide (ADG)

Part 3	Required	Discussion	Complies
3A-1	Each element in the Site Analysis Checklist should be assessed.	A Site Analysis plan was submitted with the application and identifies applicable elements as required within the Checklist. A written description of the proposal and subject site are also included in the submitted Statement of Environmental Effects and accompanying plans and reports.	Yes.

3B-1	Buildings to address street frontages.	In some circumstances it is considered that residential entry to the flat building can be provided from the side of the site to a central lobby. However in these instances the access pathway must be wide, open to the sky, be well landscaped and be high in amenity and patronage. The access pathway should consider the acoustic and visual privacy of other units. The proposed access to the lobby at ground floor is not supported as no landscaped buffer is provided to the neighbour to the east, the paved pathway is too narrow (1m wide) and the entryway is too deep into the site (19m) and flanked by opportunities for concealment or crime. 1.5m high 'palisade' style fencing and gates and 1.5m high concrete walls are proposed across the site frontage with little area provided for landscaping. No deep soil areas capable of accommodating substantial planting such as canopy trees are provided within the front setback or along the entryway or adjacent the lobby. The location of the basement fire egress, fire hydrant booster set, electrical substation and extent of hard stand areas do not elevate streetscape presence and are considered detracting.	No.
3B-2	Living areas, Private Open Space (POS) and Communal Open Space (COS) to received compliant levels of solar access.	Refer discussion under Part 3D and 4A.	N/A.
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	Submitted shadow diagrams do not adequately demonstrate that additional overshadowing attributed to the subject development, does not reduce the amount of solar access available for the private open spaces and living zones of the adjacent property to the east (39 & 39a Barber Avenue). The submitted shadow diagrams do not take into consideration existing development around the site, including the existing residential flat building to the north and east at 146-144 High Street and 37 Barber Avenue.	No.
	If the proposal will significantly reduce the solar access of neighbours, building separation should be increased.	As discussed above, inadequate information has been submitted with the development application to enable an accurate assessment in this regard.	No.

3C-1	Terraces, balconies and courtyard apartments should have direct street entry, where appropriate.	Ground floor apartments with street frontage to Barber Avenue are not provided with direct access to the street and are proposed to be enclosed with 1.5m high palisade fencing and gates. 1.5m high concrete walls are proposed along the eastern side courtyard boundary of the most eastern ground floor unit, fronting Barber Avenue and along the western side boundary shared with the adjacent residential flat building.	No.
	Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings.	Limited level difference is provided between the pavement height and the finished floor height of the ground floor apartments resulting in the proposal for a 1.5m high fence along the sites frontage and 1.5m high concrete walls along the side boundaries forward of the building.	No.
	Upper level balconies and windows to overlook the street.	All apartments along the street frontage overlook Barber Avenue.	Yes.
	Length of solid walls should be limited along street frontages.	A 1.5m high concrete wall is proposed along the western boundary and a 1.5m high concrete wall is proposed along the eastern courtyard boundary. The negative impacts of these elements on the streetscape character of the area are not acceptable.	No.
	Opportunity for concealment to be minimised.	Due to the central location of the indented lobby, areas of concealment and crime are provided at several locations along the main ground floor lobby entry. These are exacerbated by awnings over parts of the entryway which prevent views to the entry pathway from above. The lift also faces internally and away from the lobby entry doors.	No.
	Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets.	No seating near the building entry is provided. The area marked as 'deep soil' and 'Communal Open Space' on the ground floor plan and calculations plan (A1-07 and A1-23) is also nominated on the hydraulic/stormwater plans as a concrete on site detention tank. Mail box locations are not nominated on plans.	No.

3C-2	Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided.	Mail box locations are not nominated on plans.	No.
	Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view.	The electrical substation is located forward of the building and is not provided with screening such as landscaped areas. Garbage storage rooms are not adequately integrated into the building and roller door entries are proposed to be aligned with the building, fronting the street. landscaping is inadequate and will not mitigate against negative streetscape and visual impacts. The location of the fire hydrant booster set is not practical and clashes with the location of the stormwater services. The location and area proposed to be provided to accommodate the booster set is not practical.	No.
3D-1	Communal Open Space (COS) to have minimum area of 25% of site.	421.55sqm's of COS is required under the ADG (25% of total site area). Submitted plans state that 163sqm's or 9.66% of site is provided as COS. The area of COS is provided centrally along the eastern boundary of the site. It is unclear from the plans what areas have been used to calculate COS. Notwithstanding the above, the reduced area of COS is not supported. The COS area is located on top of the concrete lid of the on site detention tank and as such no landscaping is capable of being accommodated. The COS is not co-located with deep soil and it is not demonstrated that compliant solar access is achieved. The proposed COS area is not assessed to be a high amenity or usable space for residents.	No.
	Achieve a minimum of 50% direct sunlight to the principle usable part of the communal open space.	Refer to discussion above.	No.
	COS to be consolidated into a well-designed, usable area.	Refer to discussion above.	No.
	COS to be co-located with deep soil.	Refer to discussion above.	No.
3D-2	COS is to be provided with facilities such as barbeque areas and seating.	No facilities, seating or barbeque areas are provided within the COS area.	No.

	COS is to be well lit and readily visible from habitable rooms.	Views down to the COS area are limited due to the adoption of highlight windows (responding to privacy impacts attributed to reduced boundary setbacks). Projecting awnings over ground floor also limit views to the southern end and lobby side of the COS.	No.
3D-4	Boundaries should be clearly defined between public open space and private areas.	Boundaries between public and private space are unclear as the public pavement is proposed to be located on private property to accommodate a waste collection pull-in bay within Council's verge.	No.
3E-1	Deep soil is to be provided at a rate 15% with a minimum dimension of 6m.	Deep soil is calculated as being 11.8% and is provided in a 6m wide strip along the rear of the site. Small pockets of deep soil are provided within the front setback however, it is uncertain if these can be delivered due to the location of services. These pockets of deep soil are also constrained such that they are unable to accommodate substantial or significant planting, such as canopy trees.	No.
3F-1	Minimum required shared separation distances between habitable rooms and balconies are to be as follows: 1-4 Storeys – 12m 5-8 storeys – 18m	Building separation is as follows (measured from the face of the balcony/building to the side boundary): • The proposal for storeys 1-4 is a minimum of 4.5m. • The proposal for the fifth storey is 6m (west) and 6.4m (east boundary). • The proposal for the sixth floor is 9m (east and west). These limited side boundary setbacks result in: - a 12m building separation to the western side neighbour for levels 1-4 and 12m's at fifth floor and 15m's at sixth floor, and - a minimum of 6.2m building separation to the east for floors 1-4, and 10.9m for floors 5 and 6. It is unclear how the reduced separation distances impact the balconies and windows of the apartment building to the west as plans do not include sufficient detail. In this respect, the reduced separation distances are not supported.	No.

3F-2	Communal open space, common areas and access paths to be separated from private open space and windows to apartments.	Privacy to the ground floor rooms of the unit adjacent to the shared lobby access is not addressed by the design. Landscaping and deep soil is not provided such that it can assist in providing amenity or screening. Proposed landscaping along the entryway and within the COS area cannot be accommodated in this location as this is identified as a concrete lid of the OSD tank on the submitted hydraulic/stormwater plans.	No.
	Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas.	Rooms marked 'study' are considered to be bedrooms which have operable windows to the main lobby areas and thoroughfares and are not supported.	No.
	Balconies, and private terraces should be located in front of living rooms to increase internal privacy.	Balconies are generally provided adjacent living rooms.	Yes.
	Windows should be offset from the windows of adjacent buildings.	Inadequate information is provided to allow a proper assessment of this element.	No.
3G-1	Building entries to be clearly identifiable.	The entryway is inadequately articulated with landscaping and is too deep set into the development. The design of the entry is not clear from the street.	No.
3G-2	Building access ways and lift lobbies to be clearly visible from the public domain and communal spaces.	The main pedestrian entry is not visible from the street. The lift faces away from the lobby entry and proposed COS area.	No.
3H-1	Carpark access should be integrated with the building's overall façade.	The entry to the basement carpark is not adequately integrated into the building as it is located proud of the building footprint along the western elevation. The location of the driveway access limits the ability of the development to provide a landscaped buffer, forward of the building along the western boundary, shared with the adjacent flat building.	No.

	Clear sight lines to be provided for drivers and pedestrians.	The safety of pedestrian is not protected due to the location of a 1.5m high concrete walls extending along the western boundary of the site, to the front boundary. Adequate sight lines are not provided for pedestrians or drivers exiting the basement car park due to the location of the electrical substation and wall, along the eastern side of the driveway.	No.
	Garbage collection, loading and servicing areas are screened.	The bulky waste and garbage areas are not screened from the street.	No.
3J-1	The site is not located within 800m of a railway station and is required to comply with the car parking rates as stipulated within the Penrith DCP 2014.	Refer discussion under Penrith DCP 2014.	N/A
3J-2	Secure undercover bicycle parking should be provided for motorbikes and scooters.	13 secure bicycle parking spaces are provided at Basement 1.	Yes.
3J-3	Carpark design and access is safe and secure - A clearly defined and visible lobby area or waiting area should be provided to lifts and stairs.	Lift lobby areas within Basement 1 and 2 are clearly defined and appropriately located.	Yes.
4A-1	Living rooms and private open spaces of at least 70% of apartments to receive 2 hours direct sunlight between 9am and 3pm mid-winter.	Submitted plans do not demonstrate that compliance with this design criteria is met in that the shadow diagrams do not include the shadow thrown by the existing residential apartment buildings to the west and north of the subject site. A review of the submitted 'Solar & Cross Ventilation' plan (plan no. A1-26) has been undertaken and it is unclear if the diagrams are indicating solar access to living zones or open spaces and if the access has taken into consideration the site's context (residential flat buildings to the west and east).	No.

4A-2	Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms.	Highlight windows are proposed for all west facing bedrooms for most units as a primary source of light. 'Snorkel' style windows are proposed for the remainder which will result in poor ambient lighting due to their being recessed, narrow and covered by awnings or the slab of the building over. 1400mm wide x 600h windows are provided to the kitchens fronting Barber Avenue, these result in poor opportunity for passive surveillance and poor internal solar access and light penetration.	No.
4A-3	Sun shading devices are to be utilised.	With the exception of the roof over fifth floor, no sun shading devices are provided to the highlight windows of the bedrooms facing west.	No.
4B-3	60% of apartments are naturally ventilated and overall depth of cross-through apartments 18m maximum glass-to-glass line.	The submitted plans indicate that 62.22% of apartments can achieve natural cross ventilation. This calculation includes the cross over apartments facing west at levels 1-2 and 3-4.	Yes.
4C-1	Finished floor to finished ceiling levels are to be 2.7m for habitable rooms, 2.4m for non-habitable rooms.	The proposal is for 3m measured from finished floor to finished floor level resulting in a 2.7m finished floor to underside of ceiling, which is compliant with the ADG.	Yes.
4D-1	Apartment are to have the following min. internal floor areas: 1 bed – 50sqm 2 bed – 70sqm 3 bed – 90sqm Additional bathroom areas increase minimum area by 5sqm.	All proposed apartment sizes comply with the ADG requirements.	Yes.
4D-2	In open plan layouts the maximum habitable room depth is 8m from a window.	All units comply with this requirement with the exception of some units that have a depth of 8.2m although this is considered a minor non-compliance.	Yes.
4D-3	Master bedrooms to be 10sqm's and other rooms 9sqm's.	All units comply.	Yes.
	Bedrooms to have a minimum dimension of 3m.	All units comply.	Yes.
	Living rooms to have minimum width of 3.6m for a 1 bedroom unit and 4m for 2 & 3 bedrooms.	All units comply.	Yes.

4E-1	All units to have the following primary balcony areas: 1 bed – 8sqm (2m deep) 2 bed – 10sqm (2m deep) 3 bed – 12sqm (2.4m deep)	All units comply.	Yes.
4E-3	Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design.	Air conditioning units are not nominated on plans.	No.
4F-1	Daylight and natural ventilation to be provided to all common circulation spaces.	Inadequate levels of natural light is provide for the lift lobby areas at all levels. No natural light is provided to the lift lobby at the sixth storey. Natural ventilation at the ground floor is not achievable for security reasons as glazing will be secured at all times.	No.
4F-1	Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully controlled.	As discussed above, a number of units throughout the building are nominated on plans as one bedroom units with a second bedroom labelled 'study'. As the room 'study' is of a scale and design such that its use a bedroom is facilitated, these units are considered two bedroom units. Their size is greater than the minimum required for a 2 bedroom unit (being 70sqm's) and in this respect their scale and layout is acceptable as a two bedroom unit. Notwithstanding the above, these bedrooms have windows that open directly onto common circulation spaces near the lift lobby and in several instances are located adjacent to the entry door to other units.	No.
4G-1	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is to be provided: 1 bed – 4m ³ 2 bed – 6m ³ 3 bed – 10m ³ With 50% of the above to be provided within the Units.	Submitted plans indicate that storage cages are provided with the basement carpark. Adequate area for internal storage could be accommodated within apartments.	Yes.

4K-1	Flexible apartment configurations are provided to support diverse household types.	The development proposes a range of unit sizes, configurations and number of bedrooms to accommodate change over time and cater for differing households. Unit mix is calculated as follows: 7 x 1 bedroom apartments (15.55%) 31 x 2 bedroom apartments (68.9%) 7 x 3 bedroom units (15.55%) It is noted that several 2 bedroom apartments throughout the development are nominated on plans as 1 bedroom units with study. As the study is of a scale and design which would facilitate its use as a bedroom, and the affected units are of an area equivalent to that of a two bedroom unit, these units are taken to be two bedroom units.	Yes.
4L-1	Direct street access should be provided to ground floor apartments.	No direct street access is provided for ground floor apartments.	No.
4M-1	Building facades to be well resolved with an appropriate scale and proportion to the streetscape and human scale.	The proposal was subject to a review by Council's Urban Design Review Panel and was initially not supported. Several altered designs were proposed in amended plans. The latest set of plans prepared by CK Design are not considered to address the concerns raised by the panel. The facades are inadequately articulated and setbacks are insufficient to provide adequate separation, landscaping, privacy or to moderate impacts of bulk, scale or privacy and overbearing. The scale of the building does not adequately address the street or neighbouring sites. Proposed materials do not provide relief from sheer wall heights which are punctuated with self imposed horizontally proportioned window openings, provided to mitigate privacy impacts owing to minimal building separation distances. No varying ground, mid and upper level materials are proposed to assist in the break up of bulk or to provide elements of contrast.	No.

4O-1	Landscape design to be sustainable and enhance environmental performance.	The submitted landscape plans prepared by Online Landscaping indicates a selection of trees, shrubs and ground covers for the site. The landscaping proposal and architect's plans do not adequately address the impact of the hydraulic design or services on the quality and sustainability of landscaping proposed. The proposed landscaping will not enhance the environmental performance of the structure. No sections are provided through upper level planting proposed for level 4 (fifth storey) and it is unclear if planting would be sustainable or is practical or would mitigate against privacy impacts.	No.
4Q-2	Adaptable housing is to be provided in accordance with the relevant Council Policy.	A total of 6 adaptable units is proposed (10.5%) which is acceptable having regard to the legislation.	Yes.
4U-1	Adequate natural light is provided to habitable rooms.	Apartment depths and open floor plan arrangements allow light into kitchens, dining and living areas. Notwithstanding the above, the depth of the snorkel windows to the bedrooms is considered excessive and will not provide high amenity to these rooms. Plans indicate that these windows are covered by awnings or floor slab of the level over and are deeply recessed and narrow.	No.
4V-2	Water sensitive urban design systems to be designed by suitably qualified professional.	The development application was referred to Council's internal Environmental Waterways Unit and was not supported as the following information remains outstanding: - A WSUD Strategy and electronic version of the MUSIC Model was not provided as requested - Revised concept plans prepared in accordance with Council's WSUD Technical Guidelines inclusive of sections and details of treatment devices, and - A draft operation and maintenance manual for all stormwater treatment measures.	No.
4W-1	A Waste Management Plan is to be provided.	A Waste Management Plan is generally acceptable subject to conditions if required.	Yes.
	Circulation design allows bins to be easily manoeuvred between storage and collection points.	Waste areas and manoeuvring does not comply with Council's DCP which requires waste to be collected in the site. The proposed waste collection bay located within the verge along frontage of the site is not supported and detracts from the streetscape. Inadequate information has been provided with regard to its ability to be accommodated within the verge width or with regard to swept paths.	No.

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the application against the relevant criteria within Sydney Regional Environmental Plan No. 20—Hawkesbury-Nepean River (No. 2—1997) and although the proposal may not impact regionally upon the scenic and landscape values of the area or the health and conservation of the Hawkesbury-Nepean River, the application is found to be unsatisfactory with regard to bulk, scale and streetscape presentation and is not sympathetic to the local context and is recommended for refusal for the reasons stated at the end of this report.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 1.2 Aims of the plan	Does not comply - See discussion
Clause 2.3 Permissibility	Complies
Clause 2.3 Zone objectives	Does not comply - See discussion
Clause 2.7 Demolition requires development consent	Complies
Clause 4.1A Minimum lot sizes for dual occupancies, multi dwelling housing and residential flat buildings	Complies
Clause 4.3 Height of buildings	Complies
Clause 4.4 Floor Space Ratio	N/A
Clause 4.6 Exceptions to development standards	N/A
Clause 7.1 Earthworks	Complies
Clause 7.4 Sustainable development	Does not comply - See discussion
Clause 7.6 Salinity	Complies
Clause 7.7 Servicing	Complies

Clause 1.2 Aims of the plan

The development proposal is not considered to be consistent with the Aims of Plan which are set out under Clause 1.2 of Penrith Local Environmental Plan 2010 in that:

- (a) The development proposal is in opposition to Council's vision for Penrith, including Council's strong commitment to healthy and safe communities and environmental protection and enhancement; and
- (b) The development proposal does not safeguard residential amenity.

- Insufficient information has been provided to allow an accurate assessment of the amenity impacts associated with the proposed minimal building separation distances. A boundary side setback 4.5 metres from the building line to the western and southern boundaries is proposed for the first four storeys of the building in conflict with the Apartment Design Guide (ADG) requirement for a minimum of 12m shared. The design does not comply with the recommended building separation distance of 18m for 5th floor, which is proposed to have a side boundary setback of 7m.
- No sections or other details have been provided which indicate the relationship proposed balconies and habitable rooms will have with the adjoining development to the west, particularly with regard to overbearing and noise and privacy impacts.
- The streetscape elevation plan does not show sufficient detail to understand the environmental impacts of reduced building separation distances.
- The landscape plan does not correlate with the architectural plans or the concept stormwater/hydraulic plans. In particular, the area nominated as 'deep soil' on the architectural plans is also the area nominated for an On Site Detention Tank with a concrete lid at RL 50.20m AHD which is 20mm higher than the finished floor area of the ground floor lobby.

Clause 2.3 Zone objectives

The proposed development is assessed to be contrary to the objectives of the R4 High Density Residential zone, in that the proposal does not demonstrate that:

- (a) A high level of residential amenity is achieved and can be maintained; and
- (b) the development reflects the desired future character and dwelling densities of the area.

As detailed further with the discussion under SEPP 65 of this report, the development proposal does not provide for a high level of residential amenity for the future occupants of the development. The development proposal does not provide for acceptable levels of landscaping, deep soil, internal privacy, building separation and solar access to apartments.

The development does not adequately respond to the adjacent isolated site to the east in that building separation is not increased. The privacy and overbearing impacts of a reduced building separation along the eastern boundary are not moderated by landscaping or other design attributes.

Further, the development does not comply with the recommended shared separation distances and communal open space requirements of the ADG and as such, does not represent the desired future character or dwelling densities for the area.

Clause 7.4 Sustainable development

Clause 7.4 of the PLEP 2010 requires the consent authority to have regard to the principles of sustainable development as they relate to the development based on a "whole of building" approach and requires the consent authority to consider each of the following:

- (a) conserving energy and reducing carbon dioxide emissions,*
- (b) embodied energy in materials and building processes,*
- (c) building design and orientation,*
- (d) passive solar design and day lighting,*
- (e) natural ventilation,*
- (f) energy efficiency and conservation,*
- (g) water conservation and water reuse,*
- (h) waste minimisation and recycling,*
- (i) reduction of vehicle dependence,*
- (j) potential for adaptive reuse.*

The development is not accompanied by information demonstrating that passive solar design has been adequately considered particularly with regard to the following:

- (i) overshadowing impacts on the development from adjacent sites,
- (ii) the location and design of 'snorkel' style windows to bedrooms throughout the building,
- (iii) lack of solar access to sixth storey lobby, and the
- (iv) lack of solar access to communal open space

and in this respect, the development proposal is not considered to comply with the clause.

Section 79C(1)(a)(ii) The provisions of any draft environmental planning instrument

There are no draft Environmental Planning Instruments that have been placed on public exhibition that apply to the subject development proposal.

Section 79C(1)(a)(iii) The provisions of any development control plan

Development Control Plan 2014

Provision	Compliance
DCP Principles	Complies
C1 Site Planning and Design Principles	Does not comply - see Appendix - Development Control Plan Compliance
C2 Vegetation Management	Complies
C3 Water Management	Does not comply - see Appendix - Development Control Plan Compliance
C4 Land Management	Complies
C5 Waste Management	Does not comply - see Appendix - Development Control Plan Compliance
C6 Landscape Design	Does not comply - see Appendix - Development Control Plan Compliance
C7 Culture and Heritage	Complies
C8 Public Domain	Does not comply - see Appendix - Development Control Plan Compliance
C9 Advertising and Signage	N/A
C10 Transport, Access and Parking	Does not comply - see Appendix - Development Control Plan Compliance
C11 Subdivision	N/A
C12 Noise and Vibration	N/A
C13 Infrastructure and Services	Complies
D2.1 Single Dwellings	N/A
D2.2. Dual Occupancies	N/A
D2.3 Secondary Dwellings	N/A
D2.4 Multi Dwelling Housing	N/A
D2.5 Residential Flat Buildings	Does not comply - see Appendix - Development Control Plan Compliance
D2.6 Non Residential Developments	N/A

Section 79C(1)(a)(iiia) The provisions of any planning agreement

There are no planning agreements in place that apply to this development application.

Section 79C(1)(a)(iv) The provisions of the regulations

Part 6, Division 1, Clause 50

The development application as originally lodged, was submitted with a design verification statement prepared by JS Architects although the statement does not address the matters required to be addressed under Clause 50(1B) of the Environmental Planning and Assessment Act 2000 (the Regulations), in that no explanation was provided that verifies how the development:

- (i) addresses how the design quality principles are achieved, and*
- (ii) demonstrates, in terms of the Apartment Design Guide, how the objectives in Parts 3 and 4 of that guide have been achieved.*

Further, the amended set of architectural plans prepared by CK Design were not accompanied by a design verification statement in conflict with the requirements of Clause 50(1A) and (1B) of the Regulations. It is considered that the development proposal does not comply with State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development and no design verification has been submitted in support of the proposal as required by the Regulations (and as discussed elsewhere within this report).

Part 8, Division 2, Clause 143

In accordance with Clause 143 of the Regulations, an assessment of the fire protection and structural capacity of the proposed building is necessary. The application was referred to Council's Building Surveyors for assessment with no objections raised and it is assessed that the development as proposed may be capable of complying with the applicable provisions of the Building Code of Australia, subject to standard conditions of consent.

As the development application is recommended for refusal with regard to other matters, no such conditions are recommended.

Section 79C(1)(b) The likely impacts of the development

Likely impacts of the proposed development as identified throughout the assessment process include the following:

Streetscape Impacts and Landscaping

The proposal has been assessed to be unacceptable with regard to streetscape impacts. The proposal does not adequately address the street frontage and is not considered to be sympathetic to the existing or future desired character of the area. The proposed front setback is minimal and inadequately landscaped. The proposal to locate a waste collection bay along the frontage of the site detracts from streetscape quality and is contrary to the PDCP waste requirements.

Traffic and Car Parking

The proposal will have a negative and unacceptable impact of the availability of on-street car parking in that the development does not allow for Council's waste trucks to enter and leave the site in a forwards direction for the purposes of waste collection. The on street pull in bay detracts from streetscape quality and amenity.

The proposal does not comply with the applicable car parking rates under PDCP 2014 in that no service space is provided. This will result in a reliance on on-street car parking spaces which are already in high demand due to the proximity of the site to local schools and the Nepean Hospital.

Character, Bulk and Scale & Privacy Impacts

The proposal will result in negative and unacceptable impacts related to bulk and scale. The proposed flat building does not comply with the applicable upper level shared separation distances of the ADG and will have negative overbearing, over shadowing and privacy impacts on neighbouring sites. Insufficient levels of landscaping will also contribute to the prominence of the building within the streetscape.

Waste Management

The proposal has failed to demonstrate that waste management and collection can be safely and efficiently provided for at the site. Although waste chutes are provided these are proposed to discharge to two 240l bins which is not supported. The location of the waste room and the waste collection pull-in bay proposed to be located within the verge at ground floor results in a poor streetscape presentation and the overall waste management proposal is not compliant with Section C5 Waste Management of PDCP 2014.

Site Isolation

The single storey dual occupancy development at 39 and 39a Barber Avenue, which shares its western boundary with the subject site, will be isolated by the proposed development. The Land and Environment Court of NSW has established Planning Principles with regard to redevelopment.

Council generally requires evidence of two recent valuations and that a genuine offer to the owner of the land has been made. In addition, Council requested that evidence of any negotiation documentation is provided including any formal refusal of the offer or counter offer or the like. If the submitted documentation supports the applicant's position, that amalgamation of the site is practically unachievable in the circumstances, then the development proposal shall appropriately respond to the isolated site.

A copy of a letter issued to Aboriginal Housing Office (AHO) offering to purchase the dual occupancies, dated 13 August 2018 was submitted. No address is provided as to where this letter was sent or details provided confirming if the correspondence was received. The letter makes reference to an email and details of the email were not attached. The correspondence included two restricted access valuations of the site; one is dated 14 May 2018, prepared by Tommy Azar Registered Valuer no. 69383 and the second is dated 23 May 2018 and was prepared by Rediscover Property.

The submitted Statement of Environmental Effects states that the proponent has made a number of approaches to the land owner however they have not indicated a willingness to sell the land and that a boarding house scheme has been provided as part of the set of architects plans (refer architects plan no. A1-30) and that the site is therefore not entirely isolated as the site retains development potential.

It is not agreed that the site is not isolated by the proposed development as the site is not of a sufficient area or proportion to allow development for the purposes of a residential flat building. The submitted boarding house plans have been reviewed and it is not demonstrated that a proposal for a 6 storey boarding house could be supported given the constraints of the site.

The development proposal does not adequately responded to the isolated site in its general design or separation distances and having regard to the LEC principles on redevelopment (isolation of site by redevelopment of adjacent sites), documentation provided with regard to offers, negotiation and valuation is insufficient to satisfy Council that appropriate actions have been undertaken to amalgamate the site.

As detailed within the report the development as proposed has been assessed to be unacceptable in terms of the likely impacts and is not supported.

Section 79C(1)(c)The suitability of the site for the development

The site is not suitable for the following reasons:

- Although the development for the purposes of residential flat buildings is permissible within the R4 High Density Residential zone, the proposed development design is not compatible with or sympathetic to the context of the site.
- It is not demonstrated that the development is representative of the future desired character of the area;
- It is not demonstrated by the submitted plans that the site can adequately manage waste storage or collection in an acceptable or compliant manner; and
- The selected site is unable to accommodate the development as proposed within an acceptable building envelope or as envisaged by the applicable controls for the site.

Section 79C(1)(d) Any Submissions

Community Consultation

In accordance with Clause 4.4 of Appendix F4 of Penrith Development Control Plan 2010, the proposed development was notified to nearby and adjoining residents and exhibited and advertised between 30 March and 13 April 2018. Council has received one submission in response.

The following matters were raised in the submission received and has formed part of the assessment.

Matter	Officer Comments
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<i>Site isolation</i>	<i>It is agreed that 39 and 39a Barber Avenue containing a single storey dual occupancy will be isolated by the proposed infill development.</i> <i>The applicant has not submitted adequate information to demonstrate that an acceptable level of negotiation has taken place between the owners of the effected sites and the design of the proposed residential flat building does not adequately respond to the isolated site. Departures from the built form controls of the Apartment Design Guide are not supported.</i> <i>It is acknowledged that plans have been prepared to indicate a 6 storey boarding house could be constructed on the site although it is not accepted that this is the highest form of development permissible on the land and the sketches do not demonstrate that the design achieves an acceptable level of compliance to be supported by Council.</i> <i>Adequate justification is not provided with regard to the proposed reduced building separation distances which may impact potential development on the isolated site.</i> <i>The development application is recommended for refusal.</i>
<i>Overshadowing</i>	<i>It is agreed that the proposed development will overshadow 39 and 39a Barber Avenue to the east. Additional information was sought from the applicant to allow a more thorough review of the impacts of solar access on 39 and 39a Barber Avenue.</i> <i>The additional information received included hourly overshadowing diagrams for June and also included shadow impacts at 9am, Midday and 3pm for September and December however the shadow diagrams do not include shadows thrown from existing development in the location including from the 6 storey residential flat building to the east of 39 and 39a Barber Avenue or from the dual occupancy itself.</i> <i>As the development is recommended for refusal, further information was not sought.</i>
<i>Privacy and adverse effects on the tenant during and after development completion.</i>	<i>It is agreed that there will be negative impacts on the acoustic and visual privacy of the tenants during construction. These impacts are not unexpected or detrimental in the sense that they are temporary, for the period of construction and in some ways can be limited via conditions of consent including nominating maximum noise levels and/or limiting construction hours.</i> <i>The limited side setbacks and landscaping proposed as part of the development application will result in impacts of overbearing and privacy which will be detrimental to the occupants of the adjoining site and the design response does not take into consideration these impacts on the isolated property.</i>

Referrals

The application was referred to the following stakeholders and their comments have formed part of the assessment:

Referral Body	Comments Received
Building Surveyor	No objections - subject to conditions
Development Engineer	No objections - subject to conditions
Landscape Architect	Not supported
Environmental - Environmental management	Not supported
Environmental - Waterways	Not supported
Waste Services	Not supported
Traffic Engineer	Not supported
Community Safety Officer	No objections - subject to conditions
Tree Management Officer	Not supported, however conditions provided

Section 79C(1)(e)The public interest

The proposed development has been assessed to be contrary to the primary aims, objectives and controls of the applicable planning instruments and will result in negative and unacceptable impacts in the locality and as such, support of the proposal would not be in the public interest.

Section 94 - Developer Contributions Plans

The following development contributions plans apply to the development proposal:

- Cultural Facilities Section 94 Development Contributions Plan, adopted 5 May 2003;
- Penrith City District Open Space Facilities Development Contributions Plan, adopted 17 December 2007; and
- Penrith City Local Open Space Section 94 Development Contribution Plan, adopted 25 June 2007.

As the development application is recommended for refusal, a condition related to development contributions payable, is not recommended.

Conclusion

The development application has been assessed against the relevant environmental planning policies including State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment development, Penrith Local Environmental Plan 2010 and Penrith Development Control Plan 2014. The development proposal does not satisfy the primary aims, objectives and provisions of these policies and is found to be contrary to the primary design criteria and design guidance statement of the Apartment Design Guide.

Documentation submitted in support of the development application does not adequately address Land and Environment Court planning principles related to site redevelopment resulting in isolation of sites. As the site was unable to be acquired an assessment of the design was undertaken having regard to the development potential of the isolated site and it is not considered that an adequate design response has been provided.

The proposal will have a negative impact on the surrounding character of the area owing to reduced building separation distances, limited common open space area and insufficient area provided for landscaping along the frontage of the site. Further, requested information related to site isolation, materials and finished and stormwater management (WSUD) has not been provided.

It is for the above reasoning that support of the development application would not be in the public interest and would set an undesirable precedent given the level of non-compliance and related impacts. The application is recommended for refusal for the attached reasons.

Recommendation

1. That DA18/0240 for the demolition of all structures, tree removal and construction of a 6 storey residential flat building at 41-43 Barber Avenue, Penrith be Refused for the following reasons; and
2. That those making submissions are notified of the determination.

Refusal

1 X Special 02 (Refusal under Section 4.15(1)(a)(i) of EP&A Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act 1979 as the proposal is inconsistent with the following provisions of Penrith Local Environmental Plan 2010 in that:

- (i) The proposal is inconsistent with the aims of the plan in particular, those related to relating to Council's commitment to the provision of healthy and safe communities and environmental protection and enhancement and fails to demonstrate how the design meets the current and emerging needs of Penrith's communities and safeguards residential amenity.
- (ii) The proposal is inconsistent with the zone objectives for the R4 High Density Residential zone, specifically:
 - (a) the proposal does not ensure that a high level of residential amenity is achieved and maintained; and
 - (b) the proposal does not represent or reflect the desired future character and dwelling densities of the area.

2 X Special 03 (Refusal under Section 79C(1)(a)(i) of EPA Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act 1979 as the proposal is inconsistent with the following provisions of the State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development and the accompanying Apartment Design Guide in that:

- (i) the proposal fails to demonstrate that the design is representative of the nine Design Quality Principles listed under Schedule 1; and
- (ii) the proposal does not comply with the applicable provisions of the Apartment Design Guide including the objectives and design guidance statements in particular those related to:
 - (a) Communal open space provision
 - (b) Principles of Crime Prevention Through Environmental Design
 - (c) Building separation
 - (d) Solar access
 - (e) Servicing and waste management provisions.

3 X Special 04 (Refusal under Section 79C(1)(a)(iii) of EPA Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979 as the proposal is inconsistent with the following provisions of Penrith Development Control Plan 2014:

- (i) The proposal is not satisfactory having regard to the objectives and controls under Section D2 Residential Development - Residential Flat Buildings, specifically:
 - (a) Part D2.5 - Residential Flat Buildings,
 - (b) Part C1 Site Planning and Design Principles in particular context, amenity and streetscape character,
 - (c) Part C3 Water Management,
 - (d) Part C5 Waste Management,
 - (e) Part C6 Landscape Design,
 - (f) Part C8 Public Domain, and
 - (g) Part C10 Transport, Access and Parking in particular, service vehicle parking provision.

4 [X Special 06 \(Refusal under Section 79C\(1\)\(a\)\(iv\) of EPA Act 1979\)](#)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(iv) of the Environmental Planning and Assessment Act as the proposed development was not accompanied by all of the information as required under Schedule 1 Forms of the Regulations including:

- Proposed finished levels of the land in relation to existing and proposed buildings and roads,
- Development compliance with building setbacks and building envelope controls, marked on plans, sections and elevations,
- A sample board of the proposed materials and colours of the façade, and
- Detailed sections of proposed facades.

The amended set of architectural plans were not accompanied by a design verification statement in conflict with the requirements of Clause 50(1A) and (1B) of the Regulations.

5 [X Special 07 \(Refusal under Section 79C\(1\)\(b\) of EPA Act 1979\)](#)

The application is not satisfactory for the purpose of Section 4.15(1)(b) of the Environmental Planning and Assessment Act 1979 due to the negative impacts likely to resulting from the proposed development related to:

- (i) streetscape and local character,
- (ii) limited landscaping,
- (iii) traffic, access and car parking,
- (iv) bulk, scale and overbearing,
- (v) solar access and privacy impacts,
- (vi) waste management impacts,
- (vii) amenity, safety and security impacts related to the ground floor layout, and
- (viii) site isolation.

6 [X Special 08 \(Refusal under Section 79C\(1\)\(c\) of EPA Act 1979\)](#)

The application is not satisfactory for the purpose of Section 4.15(c) of the Environmental Planning and Assessment Act 1979 as the site is not suitable for the scale of the proposed development.

7 [X Special 09A \(Refusal under Section 4.15\(1\)\(e\) of EPA Act 1979\)](#)

The application is not satisfactory for the purpose of Section 4.15(1)(e) of the Environmental Planning and Assessment Act 1979 as the proposal is not in the public interest.

8 [X Special 9 \(Refusal under Section 79C\(1\)\(d\) of EPA Act 1979\)](#)

The application is not satisfactory for the purpose of Section 4.15(1)(d) of the Environmental Planning and Assessment Act 1979 due to matters raised in received submissions which include site isolation, overshadowing and privacy and amenity impacts.

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part C - City-wide Controls

C1 Site Planning and Design Principles

Although the proposal is assessed as being not entirely inconsistent with the height general scale of adjacent buildings of a similar type and use, the presentation of the development to the street, including the limited front setback and ability of the design to provide a meaningful and sustainable area for landscaping is not supported and is contrary to this section of the DCP.

The proposed development proposes a 5.5m front setback to Barber Avenue which does not comply with the PDCP requirement to provide a front setback which is the average of the front setbacks of the immediate neighbours or 5.5m whichever is the greater. The average of the immediate neighbours is measured as being approximately 6.35m.

Section C1 of the DCP also states that the building façade treatment shall promote a high architectural quality and adopt a façade treatment which defines, activates and enhances the public domain and street character. The DCP also states that façade design shall express important corners by giving visual prominence to parts of the façade and should add to articulation. The proposed façade treatments and materials and finishes do not assist to break up bulk or substantially add to the articulation of the building. The requested sample board of materials and finishes was not submitted and detailed sections of the facades were not provided.

Submitted shadow diagrams do not take into consideration existing development around the site and in this respect a thorough assessment of the suitability of the bulk and scale of the development cannot be undertaken.

Clause 1.2.5 relates to the principles of Crime Prevention Through Environmental Design (CPTED). The proposal is not acceptable having regard to this section of the DCP with areas for concealment provided. The entry is narrow, long and to the side of the building and contains blind corners. The lift doors do not face the lobby at the ground floor and upper level awnings restrict the view down to the lobby and entryway from the street.

C3 Water Management

Inadequate information has been submitted with the development application to allow a proper assessment of the proposal against this section of the DCP. The proposal was referred to Council's Environmental Waterways unit who have reviewed the documentation. In correspondence issued to the applicant, dated 5 April 2018 the following was noted:

- (a) Insufficient information has been submitted to demonstrate compliance with the requirements of Council's WSUD Policy. A WSUD Strategy is to be prepared in accordance with Council's WSUD Technical Guidelines. Plans must show the location of all treatment devices and are to include cross sections, show invert levels and extended detention depths.*
- (b) The concept stormwater design proposes that the stormwater treatment measures would include stormwater 360 filter cartridges. Plans are to provide sufficient detail to determine the number and size of filters.*
- (c) Council requires the submission of an electronic MUSIC model in support of the proposed stormwater drainage design.*

It was also noted in this correspondence that the landscape, architect and hydraulic plans do not correlate (i.e. deep soil is noted on architects plans in the same location as an OSD tank).

C5 Waste Management.

The development proposal does not comply with the requirements of the DCP as follows:

Dual waste chutes

The DCP requires that all residential flat buildings be designed with dual waste chutes discharging to the basement to a linear carousel device or similar. It is unclear from the submitted plans or waste management plan how waste from the chutes will be managed.

Chutes appear to discharge at ground floor into 240l bins which will then be emptied. Council

does not support the use of 240L bins at the base of chutes as these will fill quickly and require an unreasonable and impractical intensity of management.

The submitted waste management plan states that a contractor will empty and replace the 240l bins and will also wash bins. No area is identified for the washing of bins or for the storage of service (replacement) 240l bins. No area is provided at each floor for the storage of bulky waste items too large for the chutes.

No amenities are provided for use by the building manager and no detail is provided as to how access for residents will be managed to the bulky waste storage area.

On-site collection

The DCP stipulates under Clause 5.2.4.4 that on site collection is required for waste collection. The proposal for a waste collection pull in bay along the frontage of the site is not supported. No dimensions are provided to demonstrate that the verge width can accommodate a truck bay. Further, Council does not support the proposal to relocate the public pavement along the Barber Avenue frontage onto private land, in order to accommodate the waste bay.

C6 Landscape Design

The development proposal is inconsistent with the provisions of this section of the DCP in that: (a) Landscaping along the frontage of the site is limited and is not representative of the desired future character of the area. Landscaping design does not enhance the amenity of the site or streetscape and is not adequately co-located with deep soil. Insufficient areas within the frontage of the site are provided for canopy tree planting.

(b) Proposed landscaping does not assist in moderating the bulk or scale of the development and does not positively contribute to the amenity of the site or mitigate against the negative impacts of overlooking or overbearing.

(c) The proposed landscaping does not assist in screening utility areas or the electrical substation.

(d) Landscaping and deep soil shown on the architects plans does not take into consideration the location of the OSD tank.

C8 Public Domain

The proposal to relocate a portion of the pedestrian pavement from the verge, into the site is contrary to the requirements to provide a safe and accessible environment for the public and does not align with the DCP objectives related to territorial reinforcement and delineation of public and private spaces. Public pavements located on private land can result in insurance, ownership and maintenance issues in the future and in this regard the proposal is not supported.

The proposal to remove two street trees may be supportable subject to adequate tree replacement conditions, however the development proposal is being refused based on other ground. Notwithstanding the above, submitted plans do not propose replacement street tree planting.

C10 Transport, Access and Parking

As set out within Table C10.2 car parking is to be provided at the following rates:

- 1 x space per 1 & 2 bedroom unit,
- 2 x spaces per 3 bedroom unit,
- 1 x space per 5 dwellings for visitor parking,
- 1 x space per 40 units for a service vehicle, and
- 1 car wash space per 50 units (to a maximum of 4).

The proposal for 52 residential car parking spaces (inclusive of 3 accessible spaces and 7 stacked spaces), complies with the above requirement for provision of car parking spaces for 1, 2 and 3 bedroom units and the 7 stacked spaces are able to be managed by allocating these to the 7 x 3 bedroom units proposed. A total of 9 x visitor car parking spaces and 1 x dual use car wash space is proposed which complies with the DCP requirement.

The development does not provide for a service space. The block bounded by High Street to

the north, Parker Street to the east, Colless Street to the west and Derby Street to the south is identified as having little on-street car parking available due to recent up zoning of the area to R4 High Density Residential and proximity to Nepean Hospital and other health services businesses, Penrith High School and the city centre and in this regard the proposal for no service space is not supported.

Council's Traffic Unit raised objection to the proposal to install a waste collection pull-in bay along the frontage of the site and the loss of on street car parking spaces on both sides of Barber Avenue. Concerns are also raised with regard to the cumulative effect of successive waste collection pull-in bays within the street including from legacy sites.

D2 Residential Development

The proposal has been assessed against the applicable provisions of the chapter and is found to be unacceptable. Particular clauses are discussed below:

Landscaped Area

The proposal is contrary to the controls of the clause in that the proposal does not provide effective separation between the subject building and neighbouring dwellings and does not incorporate a high quality landscaped front setback fronting Barber Avenue. The front setback area is not contextually sympathetic and is dominated by hardstand areas, waste infrastructure, a substation and insufficient deep soil is provided to allow for canopy tree planting.

Front and Rear Setbacks

The DCP states that setbacks are to reflect the character of established garden suburbs and provide for development of flora and fauna corridors. The proposal does not comply with the DCP requirement to setback an average of the adjoining sites and proposes a minimum of 5.5m. Little area is provided for substantial landscaping which may contribute to streetscape amenity.

Visual and Acoustic Privacy

The development does not demonstrate that negative privacy and overbearing impacts will result, related to the non-compliance with the respective 12m and 18m shared separation distance requirements of the ADG. It is not demonstrated that the design responds appropriately to the isolated site (single storey dual occupancy) to the east.

Building Design

The development does not incorporate sufficient architectural articulation or façade variation to adequately address the bulk and scale of the building. The building design does not align with the ADG recommended building separation distances which will result in overbearing and privacy impacts. The building is not affectively landscaped particularly along the Barber Avenue frontage and the sides of the development. Common open space is minimal and not co-located with deep soil.

The entry is located deep into the site and is via the eastern side boundary. The entry way is narrow and limited opportunity is provided for social interaction. Safety and security impacts related to its design are also discussed elsewhere in this report.

No natural light is provided to the sixth floor lobby.

Garden Design

The front setback does not include sufficient landscaping to soften the building or contribute to streetscape amenity. The proposal does not comply with this Clause in that the development does not contribute to a canopy of interlocking trees and shrubs and does not provide a civic garden frontage appropriate for the established neighbourhood character.

Paving Design

The proposed streetscape presentation does not provide for an attractive 'address' or minimise widths of driveway and hardstands along the frontage of the site.

Fences and Retaining Walls

The proposed front and side fencing is not supported. A mixture of 1.5m high concrete walls and 1.5m high galvanised steel rails are proposed. The fencing is excessive on height and does not contribute a quality streetscape presence or allow opportunity for passive surveillance of the street.

Solar Access & Cross Ventilation Calculations																					
Dwelling	9AM	10AM	11AM	12NOON	1PM	2PM	Total	Total 2hrs	Total 3hrs	Count	Count Calc	Count Calc Percent	Solar 2hrs Percent	Solar Access 2hrs	Solar 3hrs Percent	Solar Access 3hrs	Cross Vent	Cross Vent Calc	Cross Vent Percent	Cross Ventilation	
UNIT 01	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 02	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 03	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 04	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
UNIT 05	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 06	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	Yes	1		2%	Yes
UNIT 07	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 08	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 09	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 10	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 11	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 12	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
UNIT 13	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 14	Yes	No	No	No	No	No	1	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 15	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	Yes	1		2%	Yes
UNIT 16	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 17	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 18	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 19	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
UNIT 20	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 21	Yes	No	No	No	No	No	1	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 22	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	Yes	1		2%	Yes
UNIT 23	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 24	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 25	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 26	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 27	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 28	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 29	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
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UNIT 31	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
UNIT 32	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	Yes	1		2%	Yes
UNIT 33	No	No	No	No	No	No	0	0	0	1	1	2%	0%	No	0%	No	No	0		0%	No
UNIT 34	No	No	No	Yes	Yes	Yes	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 35	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 36	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 37	Yes	Yes	No	No	No	No	2	1	0	1	1	2%	2%	Yes	0%	No	No	0		0%	No
UNIT 38	Yes	Yes	Yes	No	No	No	3	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 39	No	No	Yes	Yes	Yes	Yes	4	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 40	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 41	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 42	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 43	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
UNIT 44	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	No	0		0%	No
UNIT 45	Yes	Yes	Yes	Yes	Yes	Yes	6	1	1	1	1	2%	2%	Yes	2%	Yes	Yes	1		2%	Yes
Grand total: 45							35	34	45	45		100%	78%		76%					71%	

Sheet List	
Sheet Number	Sheet Name
A1-01	COVER PAGE
A1-02	SURVEY PLAN
A1-03	SITE & DEMOLITION PLAN
A1-04	SITE ANALYSIS
A1-05	BASEMENT
A1-06	BASEMENT
A1-07	GROUND FLOOR PLAN
A1-08	LEVEL 1 & 3
A1-09	LEVEL 2
A1-10	LEVEL 4
A1-11	LEVEL 5
A1-12	ROOF PLAN
A1-13	ELEVATIONS
A1-14	ELEVATIONS
A1-15	SECTION
A1-16	SHADOW DIAGRAM
A1-17	SHADOW DIAGRAM
A1-18	SHADOW DIAGRAM
A1-19	SHADOW DIAGRAM
A1-20	3D SHADOW ANALYSIS
A1-21	3D SHADOW ANALYSIS
A1-22	3D SHADOW ANALYSIS
A1-23	CALCULATIONS
A1-24	SHEDULE OF FINISHES
A1-25	SHEDULE OF FINISHES
A1-26	SOLAR & CROSS VENTILATION
A1-27	BUILDING HEIGHT PLANE
A1-28	FENCE PLAN
A1-29	SITE ISOLATION PLAN
A1-30	SITE ISOLATION PAN

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Issue	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

DEVELOPMENT APPLICATION

PROPOSED UNIT DEVELOPMENT

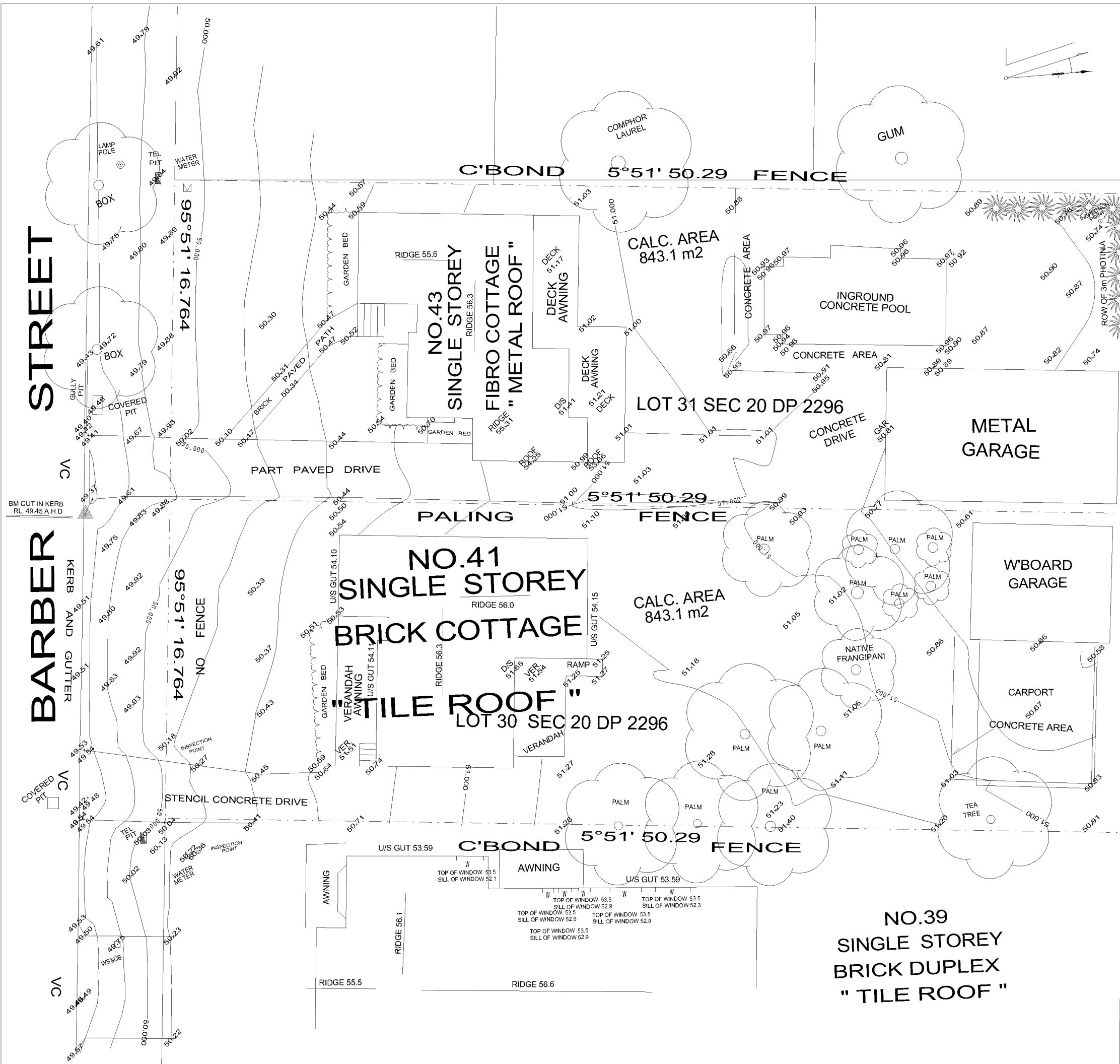
ADDRESS:

41-43 BARBER ST, PENRITH

CLIENT:

ELCON PTY LTD





- WARNING.
1. Plan compiled from information at land title office as regards dimensions and these are subject to final survey.
 2. All details and features shown hereon have been plotted in relation to the occupations (fences and/or wall, etc.) These occupations have not yet accurately located in relation to the boundaries.
 3. The details and features and contours are shown to scale plot accuracy only, copying may distort the scale
 4. Services structures shown hereon are those that were visible at the time of survey and have been located by field survey. Further services may be present prior to any construction or excavation on site the relevant authorities should be contacted for possible location of further underground services and detailed of all services
 5. No boundary has been surveyed.

DETAIL SURVEY

41-43 BARBER STREET
LOT 30 -31 SEC 20 DP 2296
PENRITH

NOTE: ORIGIN OF A.H.D IS PM 41909 RL. 49.83 A.H.D

CEDAR SURVEYING SERVICES
LAND AND ENGINEERING SURVEYING

DANNY KHALAF
B. GEOMATIC ENGINEERING (U.N.S.W)

postal address.
26 ISABEL STREET.
BELMORE NSW 2192

MOBILE: 0410 435 762
Email : dannykhalaf@optusnet.com.au

REDUCTION RATIO :	1:100	DATE :	17/11/2014
CONTOUR INTERVAL :	0.2m	JOB NO :	3100
DRAWING :	CCAD5/DATA/3100	DRAWN BY :	ABN 19403440563
DATUM :	A.H.D	SURVEYED BY :	DK
SHEET :	1 OF 1	DATE	10/11/2014
		DATE	16/11/2014

BARBER STREET

BM CUT IN KERB
RL. 49.45 A.H.D.
A1-15

COVERED
PIT

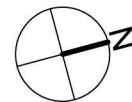
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No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

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SITE & DEMOLITION
PLAN
PRELIMINARY NOT FOR
CONSTRUCTION



DEVELOPMENT APPLICATION	
PROPOSED UNIT DEVELOPMENT	
CLIENT:	ELCON PTY LTD
ADDRESS:	41-43 BARBER ST, PENRITH

CONSTRUCTION MANAGEMENT PLAN

A SIGN MUST BE PLACED ON SITE DETAILING THE BUILDERS NAME, LICENCE NUMBER AND CONTACT DETAILS.
SEDIMENT TRAPS AND FILTERS MUST BE PLACED AROUND ALL DRAINS AFFECTED BY CONSTRUCTION WORKS TO PREVENT SEDIMENT ENTERING THE STORMWATER SYSTEM. SEDIMENT CONTROL TRAPS ARE TO BE CHECKED REGULARLY.
THE SITE SHOULD BE SECURED BY A CONTINUOUS FENCE, HOARDING OR SUITABLE BARRIER CONSTRUCTED IN ACCORDANCE WITH PUBLIC SAFETY AND AMENITY.
"A CODE OF GOOD PRACTICE AT CONSTRUCTION SITES"
BEFORE AND DURING WORK, EXCAVATIONS MUST BE FENCED SO THEY DO NOT POSE A DANGER TO LIFE OR PROPERTY TO THE SATISFACTION OF THE RELEVANT BUILDING SURVEYOR. ANY DAMAGE TO FOOTPATH, ROAD, KERB, CHANNEL, STORMWATER DRAINS OR STREET FURNITURE THAT RESULTS FROM EXCAVATION, DEMOLITION OR BUILDING WORKS IS THE RESPONSIBILITY OF THE BUILDER OR THE DEVELOPER. ANY DAMAGE THAT MAY IMPACT PEDESTRIANS, CYCLISTS AND MOTORISTS SAFETY SHALL BE REPAIRED IMMEDIATELY. WHEN USING SKIP OR RUBBISH BINS, TAKE THE FOLLOWING STEPS TO PREVENT DISRUPTION TO PUBLIC AREAS.
PROTECT PAVEMENTS AND STREETS AND CONDUCT DILAPIDATION SURVEYS BEFORE AND AFTER WORKS HAVE TAKEN PLACE.
ADEQUATE BARRIERS MUST BE INSTALLED TO PREVENT THE PUBLIC FROM ACCESSING THE CONSTRUCTION AREA. ANY OCCUPATION OR ACTIVITY PRESENTING A HAZARD TO THE PUBLIC MUST BE PROVIDED WITH SUITABLE BARRIERS IN ACCORDANCE WITH THE PUBLIC SAFETY AND AMENITY "A CODE OF GOOD PRACTICE AT CONSTRUCTION SITES"
EXCAVATIONS ADJACENT TO OR IN CLOSE PROXIMITY TO A ROAD OR PATHWAY MUST BE DESIGNED TO SUPPORT THE ROAD OR PATHWAY IN ACCORDANCE WITH THE PUBLIC SAFETY AND AMENITY "A CODE OF GOOD PRACTICE ON CONSTRUCTION SITES" DIAL 1100 (DIAL BEFORE YOU DIG) TO LOCATE SERVICES ON FOOTPATH PRIOR TO EXCAVATION.
ALL EXISTING TREES MUST BE PROTECTED WHEREVER POSSIBLE WHERE THEY ARE NEAR PROPOSED DEMOLITION, EXCAVATION AND CONSTRUCTION WORKS.
PERMITTER FENCING MUST BE DESIGNED TO MINIMISE THE IMPACT OF DUST ON ADJOINING PROPERTIES AND THE GENERAL PUBLIC.
ENSURE SEDIMENT FROM THE BUILDING SITE IS RETAINED ON SITE DURING CONSTRUCTION. PREVENT CONTAMINATION OR DAMAGE TO STORMWATER DRAINS AND WATERWAYS.
LIAISE WITH NEIGHBOURS RESIDENCES TO APPLY FULL TRAFFIC CONTROL WHEN CONCRETING. ENSURE ALL DUST IS CONTAINED WITHIN THE CONSTRUCTION SITE AND THAT SURROUNDING RESIDENCES ARE NOT AFFECTED.

CONSTRUCTION WORKS PLAN

GENERAL NOTES:
ALL GAS, POWER, WATER TO BE TEMPORARILY DISCONNECTED BEFORE DEMOLITION BEGINS
ESTIMATED DURATION OF DEMOLITION = 2 WEEKS
NO EXTERNAL SCAFFOLDING TO BE USED
TEMPORARY HOARDING TO COUNCIL PROPERTY - MAXIMUM TIME 4 WEEKS
ALL WORKS ARE TO ENSURE SAFE ACCESS AND EGRESS FROM THE SITE. ALL ROAD AND FOOTPATH AREAS ARE TO BE PROTECTED FROM BUILDING ACTIVITIES.
ALL LOADING AND UNLOADING OF GOODS AND MATERIALS IS TO BE ON SITE WITH THE APPROPRIATE SAFETY MEASURES TAKEN TO ENSURE SAFETY OF ALL WORKERS ON SITE.
EXISTING NATIVE VEGETATION TO BE RETAINED UNLESS NOTED OTHERWISE.
SOIL AND EXCAVATED MATERIAL IS NOT TO BE TRANSPORTED ONTO SURROUNDING FOOTPATHS AND ROADS.
THE METHOD OF SUPPORT TO ANY EXCAVATION ADJACENT TO ADJOINING PROPERTIES OR ROAD RESERVES, IS TO BE DETAILED AND DESIGNED BY A CHARTERED CIVIL ENGINEER, WITH NATIONAL PROFESSIONAL ENGINEERING REGISTRATION (NPER) IN THE CONSTRUCTION OF CIVIL WORKS OR A SURVEY COMPANY OF REGISTERED SURVEYORS WITH "PRELIMINARY ACCREDITATION" FROM THE INSTITUTE OF SURVEYORS NSW INC. OR AN ACCREDITED CERTIFIER. SEPARATE APPROVAL UNDER OTHER LEGISLATION IS REQUIRED WHERE IT IS PROPOSED TO ERECT A HOARDING OR TEMPORARY FENCE ON COUNCIL LAND (ROADS ACT 1993).

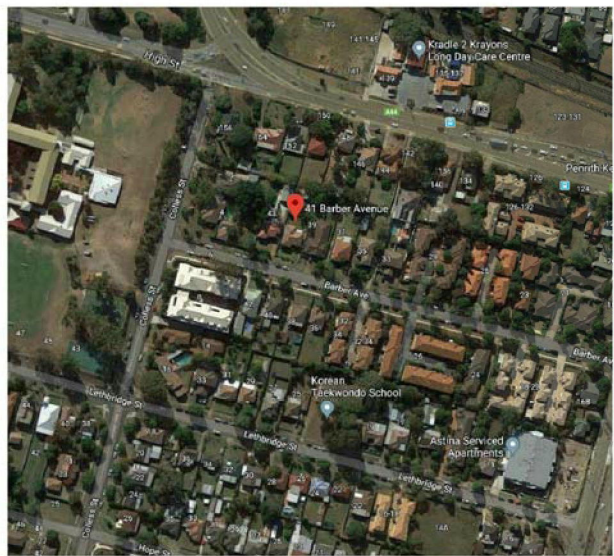
DEMOLITION WORKS PLAN

1. PRIOR TO DEMOLITION, THE APPLICANT SHALL SUBMIT THIS WORK PLAN IN ACCORDANCE WITH AS 2801 - 2001 AND OTHER RELEVANT STANDARDS.
2. HAZARDOUS DUST MUST NOT BE ALLOWED TO ESCAPE FROM THE SITE OR CONTAMINATE THE IMMEDIATE ENVIRONMENT. THE USE OF FINE MESH DUST PROOF SCREENS, AT WORK (NOHSC 1012, 1994) AND ASINZS 2179.1, 1994.
3. ALL CONTRACTORS DIRECTLY INVOLVED IN THE REMOVAL OF HAZARDOUS DUSTS AND SUBSTANCES SHALL WEAR PROTECTIVE EQUIPMENT CONFORMING TO ASINZS 1716, 2003.
4. ANY EXISTING ACCUMULATION OF DUST (EG. CEILINGS VOIDS, AND WALL CAVITIES, MUST BE REMOVED BY THE USE OF AN INDUSTRIAL VACUUM FITTED WITH A HIGH EFFICIENCY PARTICULATE STREET GUTTER AND STORMWATER SYSTEMS.
5. ALL DUSTY SURFACES AND DUST CREATED FROM WORK IS TO BE SUPPRESSED BY A FINE WATER SPRAY. WATER USED AS A SUPPRESSANT SPRAY IS NOT TO BE ALLOWED TO ENTER THE DEMOLITION IS NOT TO BE PERFORMED DURING HIGH WINDS THAT MAY CAUSE DUST TO SPREAD BEYOND THE SITE BOUNDARIES WITHOUT ADEQUATE CONTAINMENT.
7. ALL LEAD CONTAMINATED MATERIAL IS TO BE DISPOSED OF IN ACCORDANCE WITH THE NSW ENVIRONMENTAL PROTECTION AUTHORITIES REQUIREMENTS.

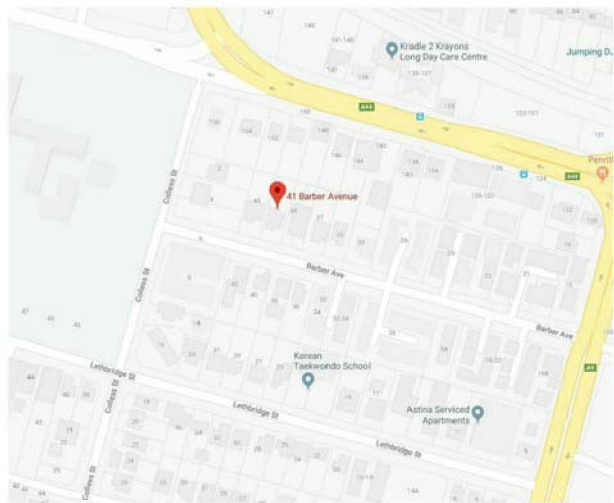
REFER TO LANSCAPE PLAN
FOR TREES LOCATIONS



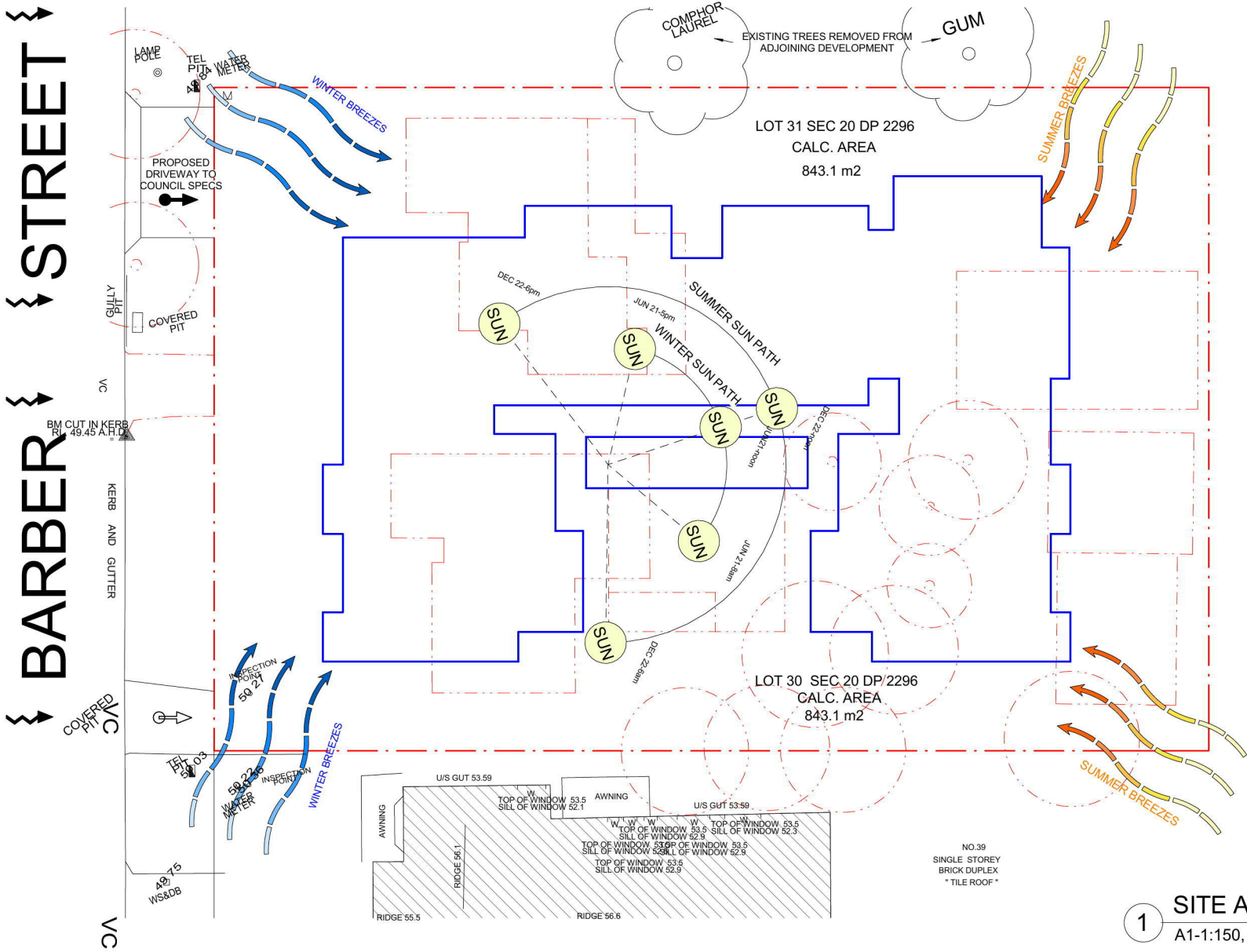
EXISTING STREETSCAPE



AERIAL IMAGE



SITE LOCATION



1 SITE ANALYSIS

No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

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SITE ANALYSIS

PRELIMINARY NOT FOR
CONSTRUCTION



DEVELOPMENT APPLICATION
PROPOSED UNIT DEVELOPMENT

CLIENT:
ELCON PTY LTD

ADDRESS:
41-43 BARBER ST, PENRITH

Scale	As indicated	
Drawn by NH	Date JULY/18	A1-04
Checked by CK	Sheet number	
Project number 18028		

STREET

BARBER

LAMP
POLE
TEL
PIT
WATER
METER

PROPOSED
DRIVEWAY TO
COUNCIL SPECS

GULLY
PIT

COVERED
PIT

BM CUT IN KERB
RL. 49.45 A.H.D.

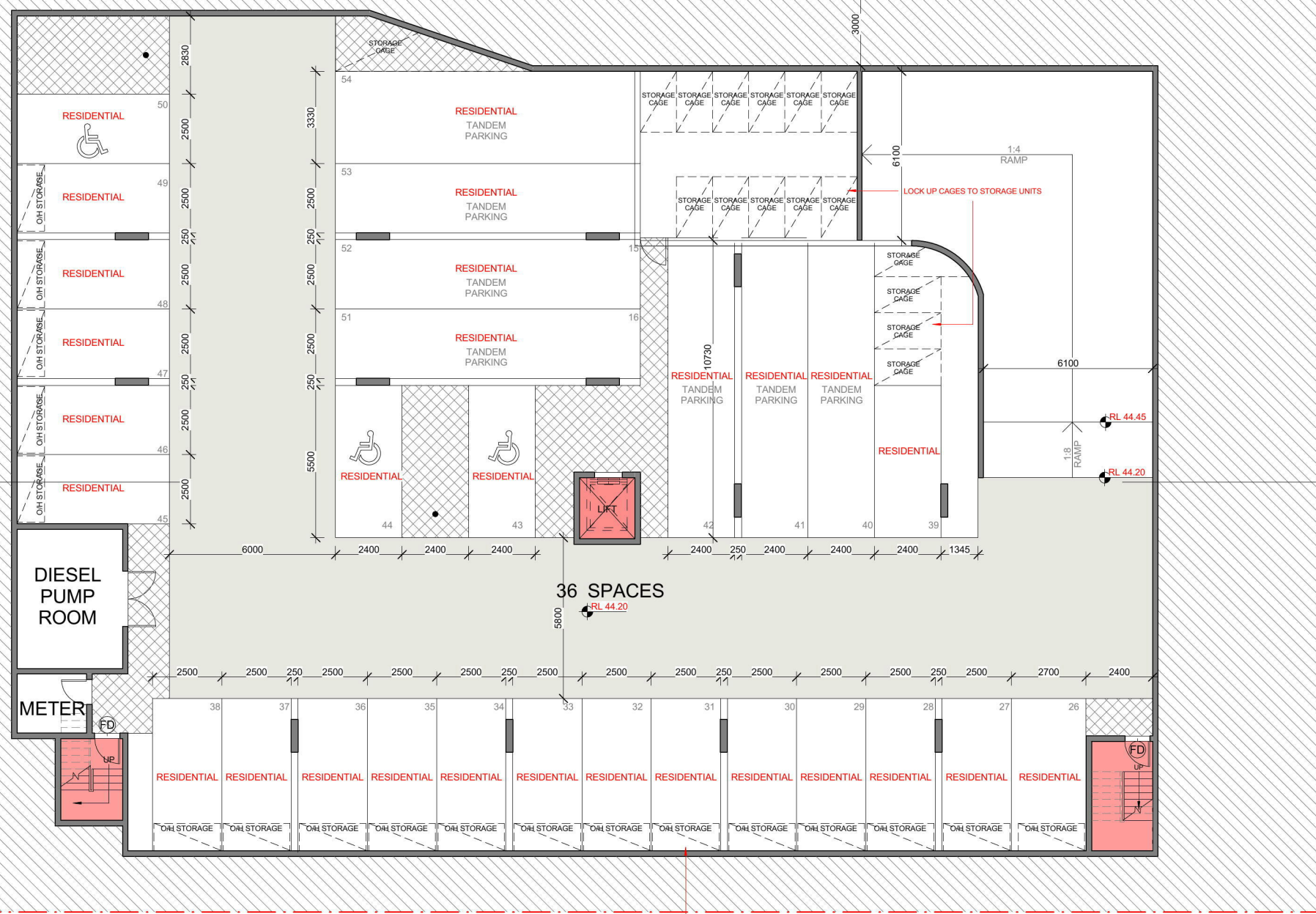
1
A1-15

KERB AND GUTTER

COVERED
PIT

TEL
PIT

50122-
50136
WATER
METER
INSPECTION
POINT



36 SPACES

RL 44.20

LOCK UP CAGES TO STORAGE
UNITS

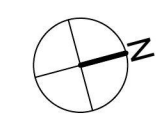


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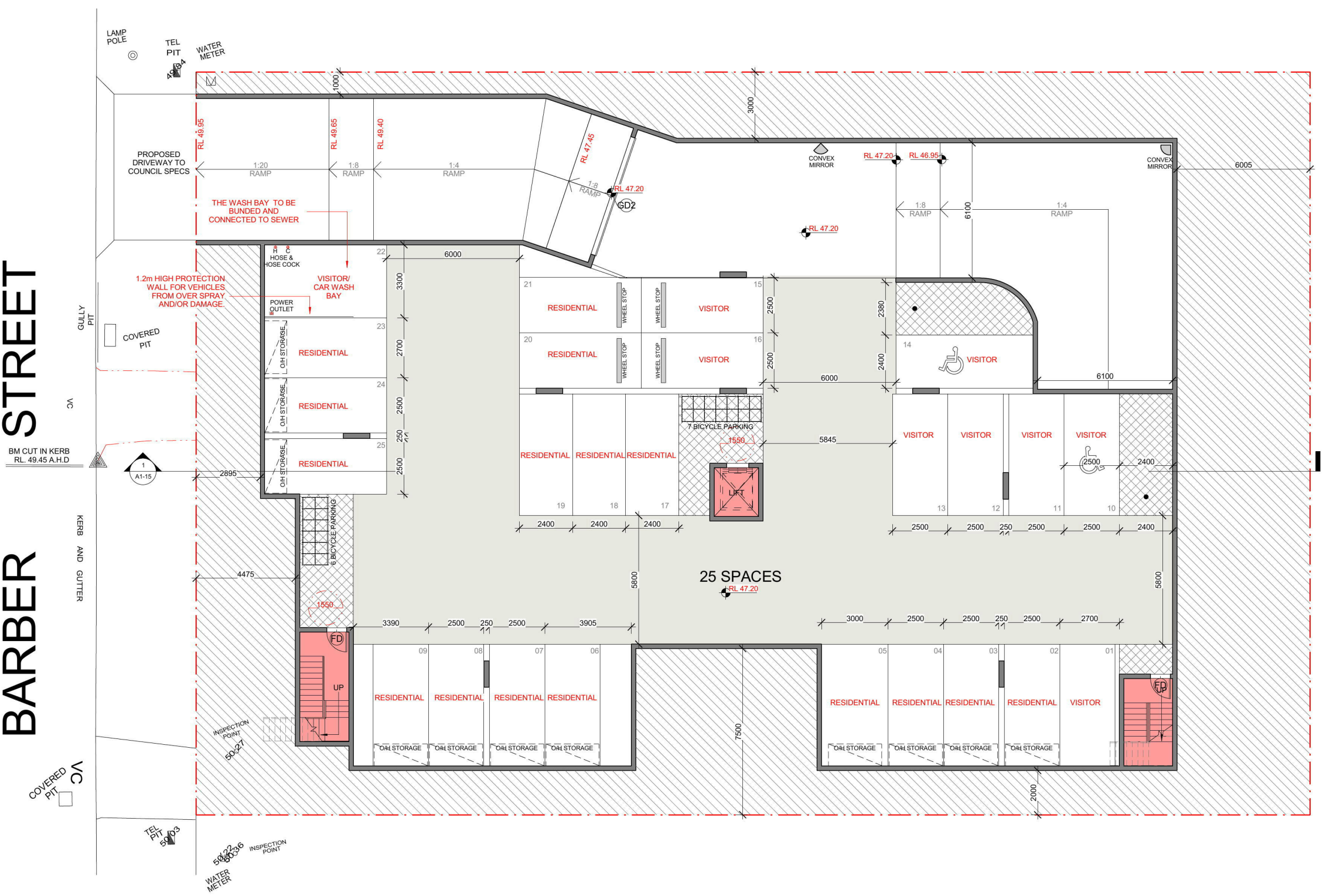
BASEMENT 2
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BARBER STREET



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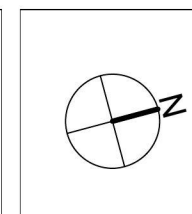
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No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

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BASEMENT 1

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DEVELOPMENT APPLICATION

PROPOSED UNIT DEVELOPMENT

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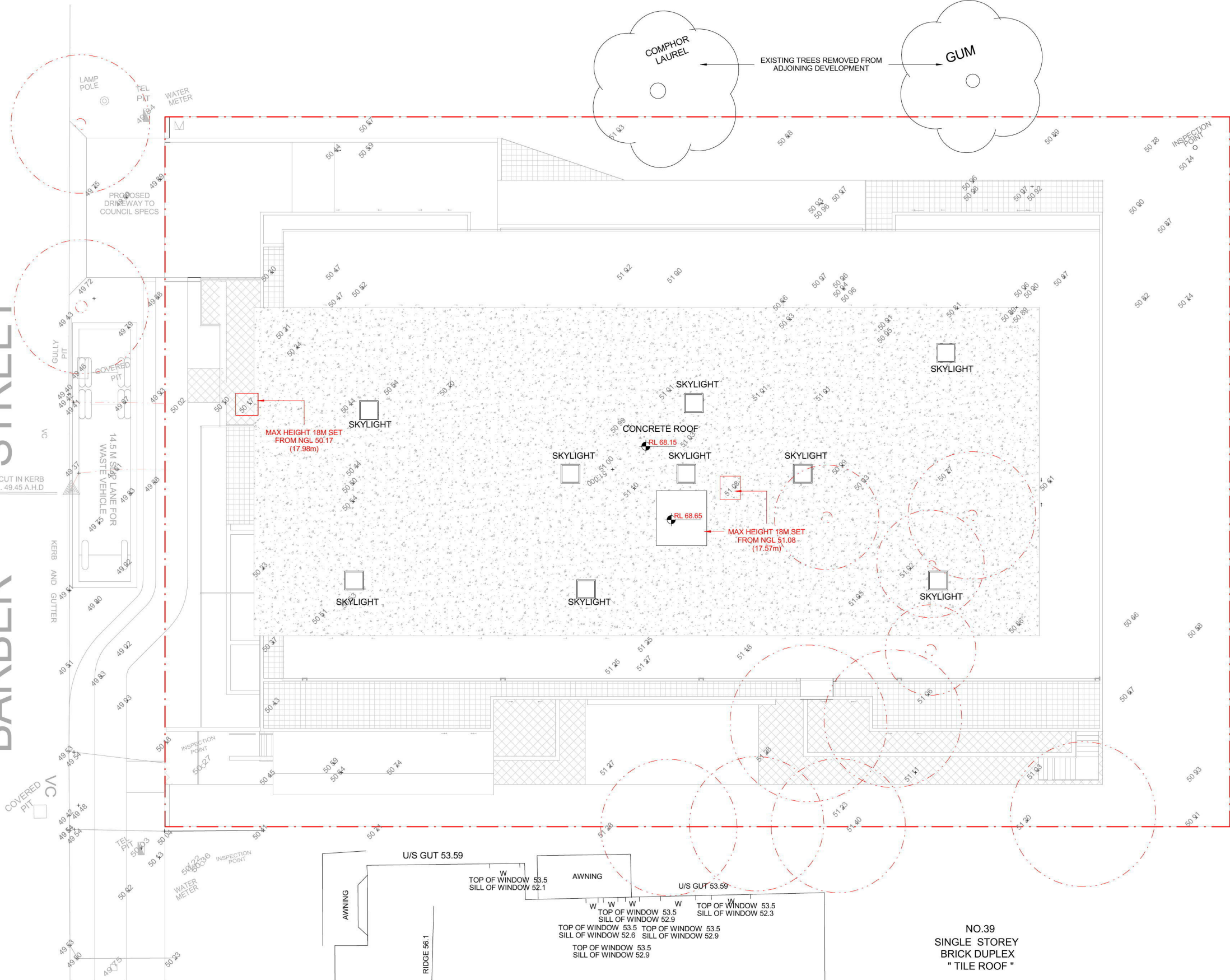
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Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-06

BARBER STREET



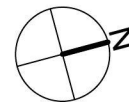
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No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

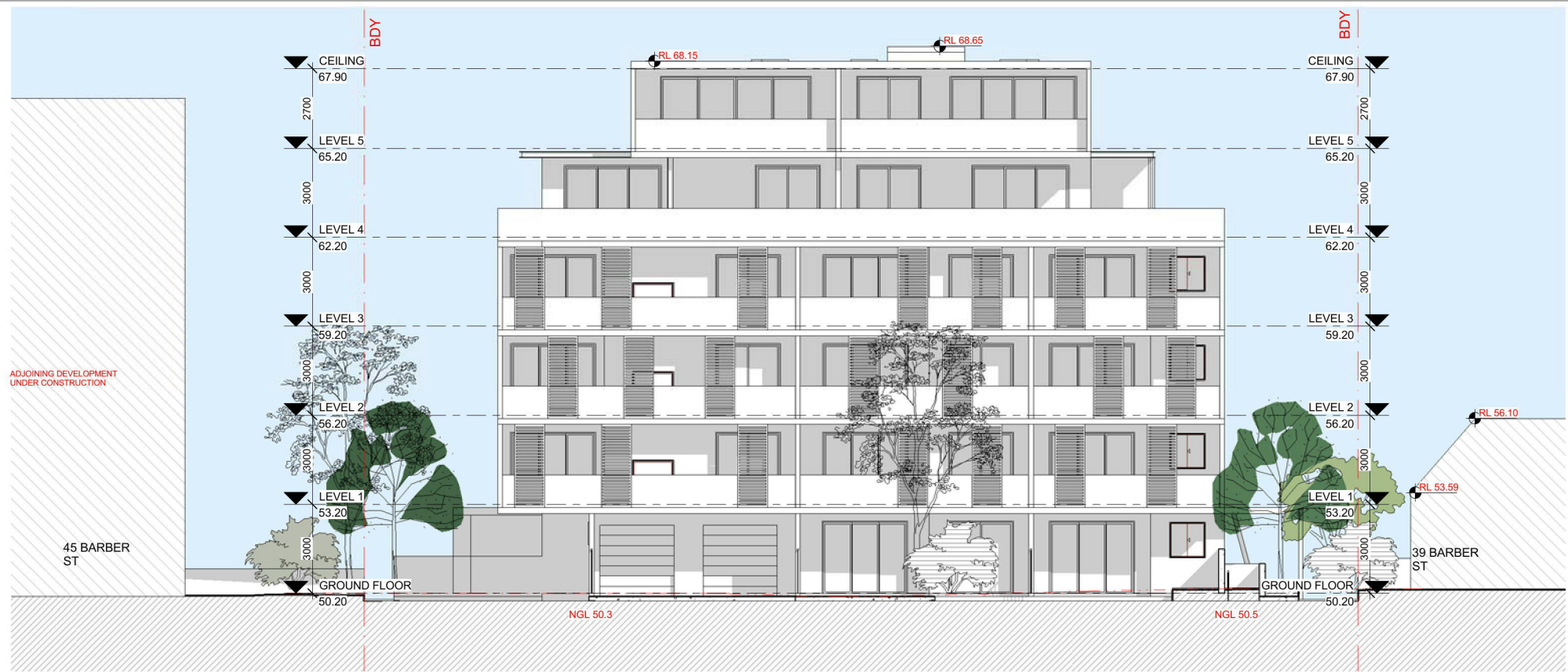
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Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-12



1 SOUTH ELEVATION
A1-1:100, A3 1:200



2 WEST ELEVATION
A1-1:100, A3 1:200

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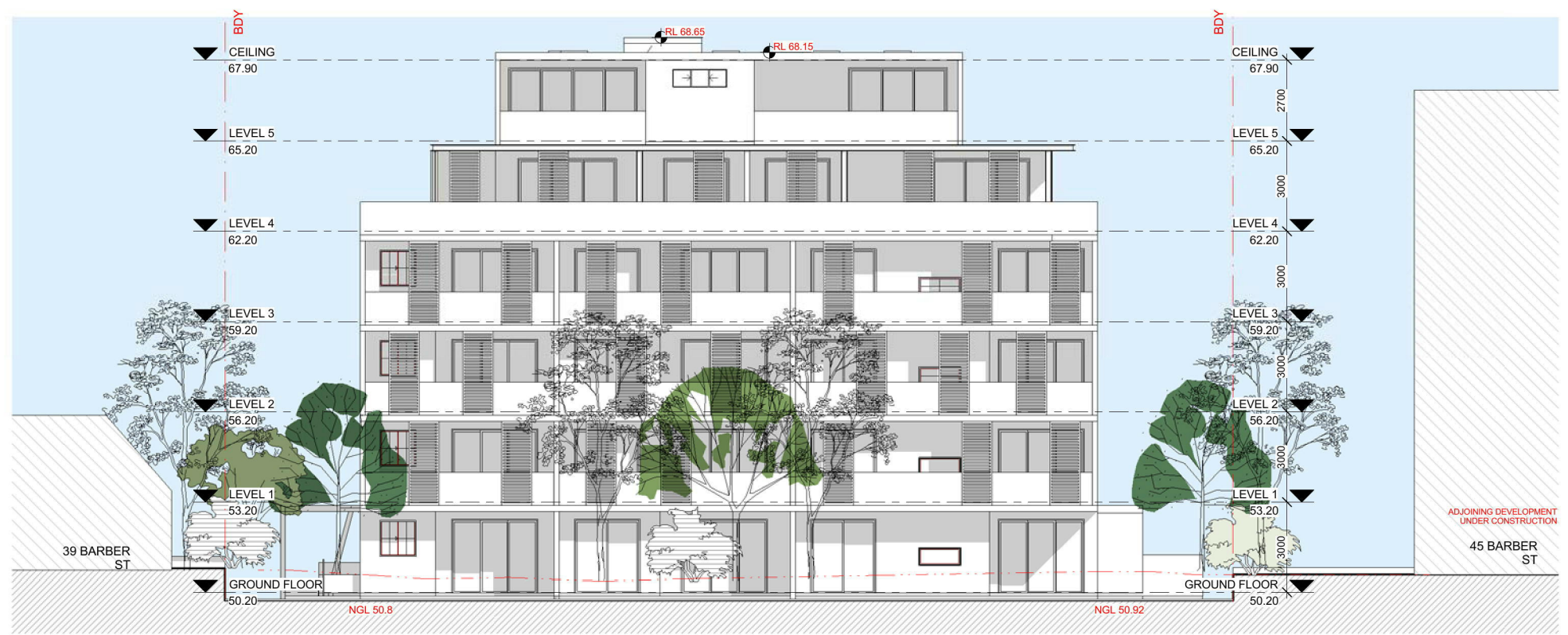
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ELEVATIONS
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Scale	A1-1:100, A3 1:200	
Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-13

1 NORTH ELEVATION
A1-1:100, A3 1:200



2 EAST ELEVATION
A1-1:100, A3 1:200



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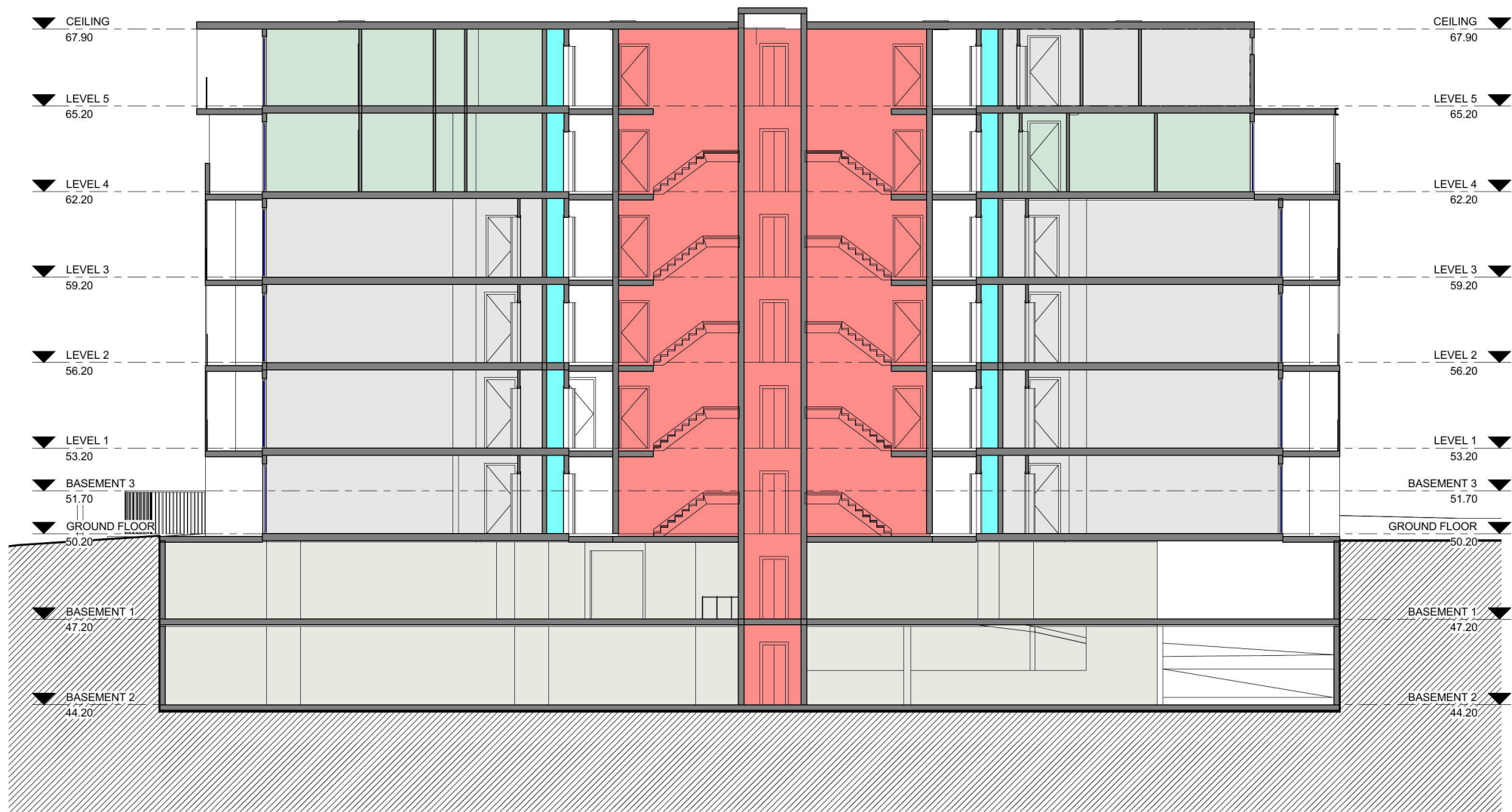
ELEVATIONS
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CONSTRUCTION

DEVELOPMENT APPLICATION
PROPOSED UNIT DEVELOPMENT

CLIENT:
ELCON PTY LTD

ADDRESS:
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SECTION

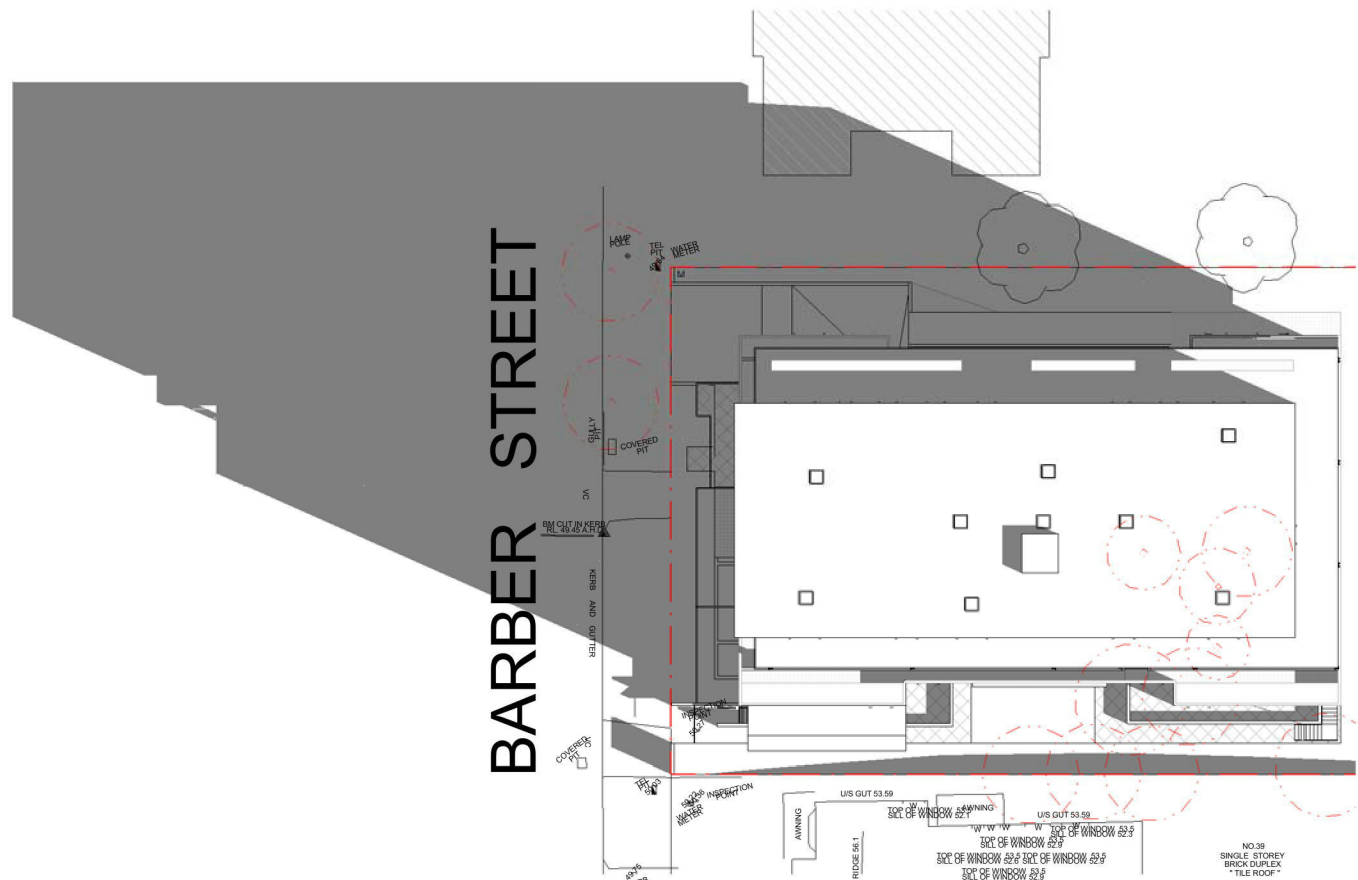
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DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT

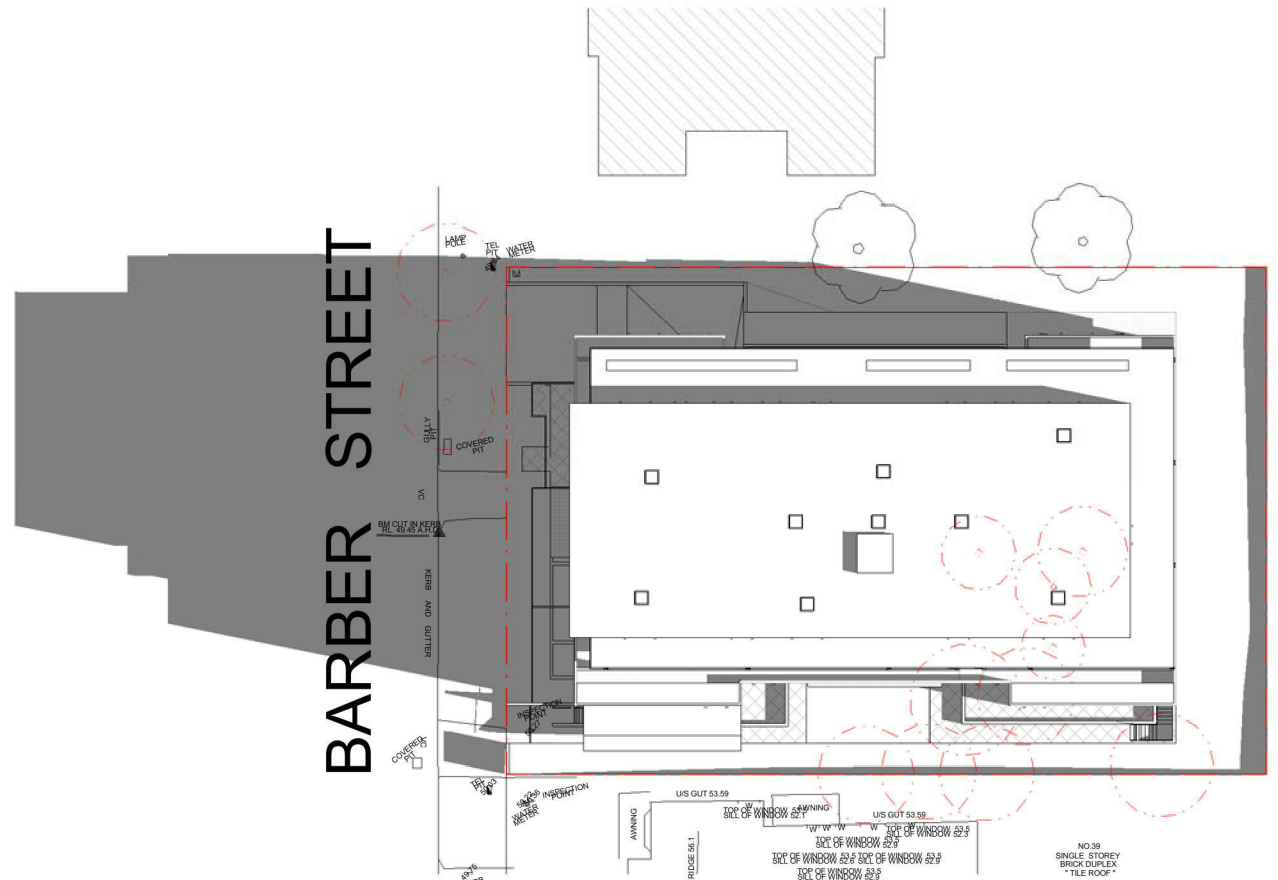
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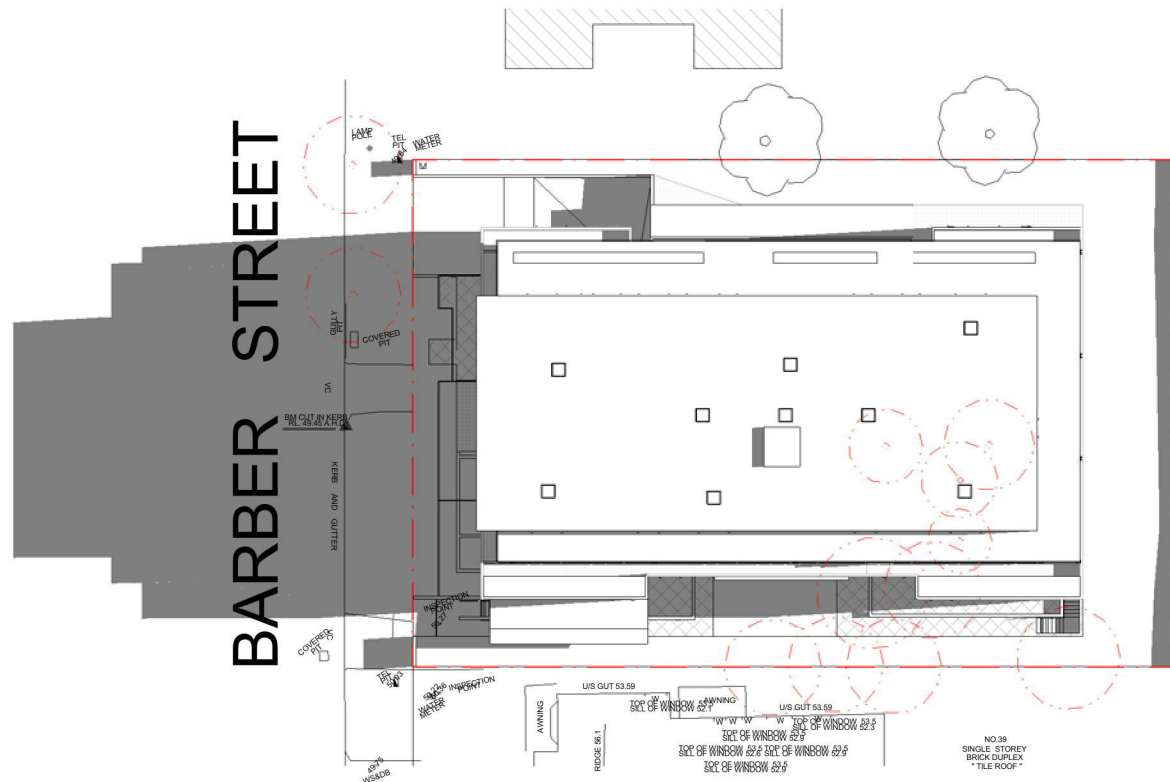
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Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-15



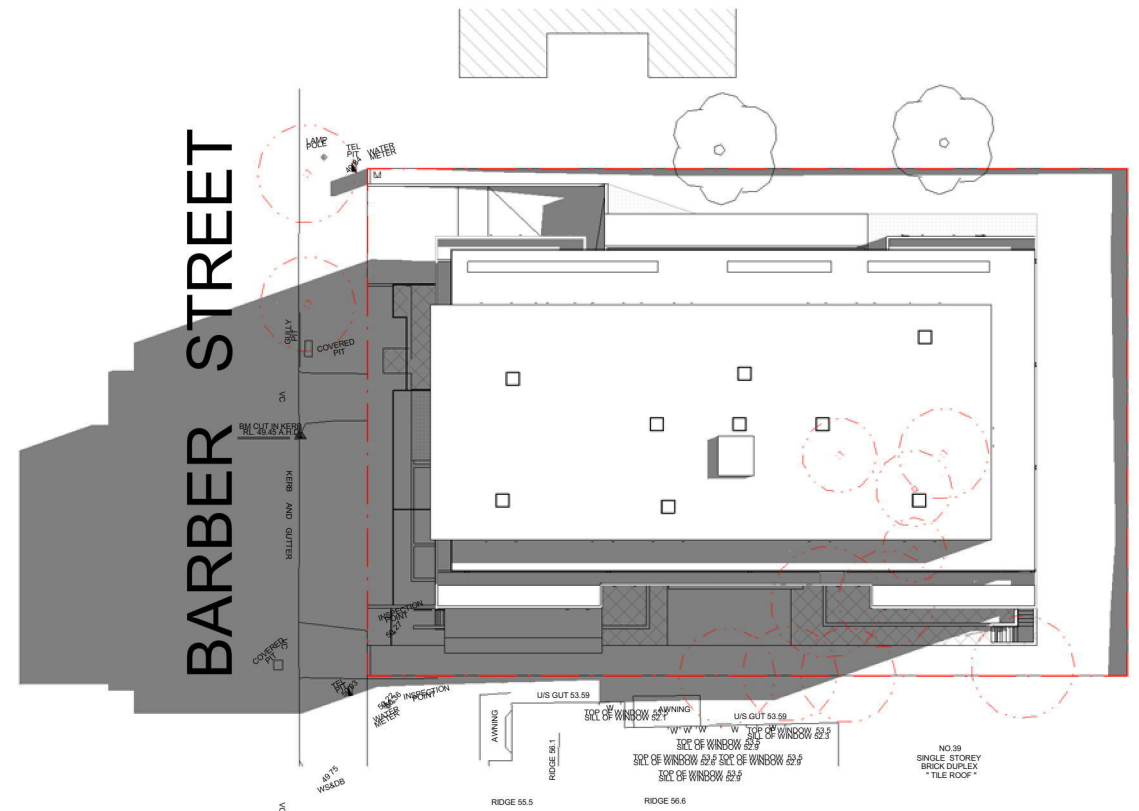
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A1-1:250, A3 1:500



2 SHADOW DIAGRAM - JUN 21 10am
A1-1:250, A3 1:500



3 SHADOW DIAGRAM - JUN 21 11am
A1-1:250, A3 1:500



4 SHADOW DIAGRAM - JUN 21 12pm
A1-1:250, A3 1:500

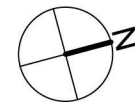


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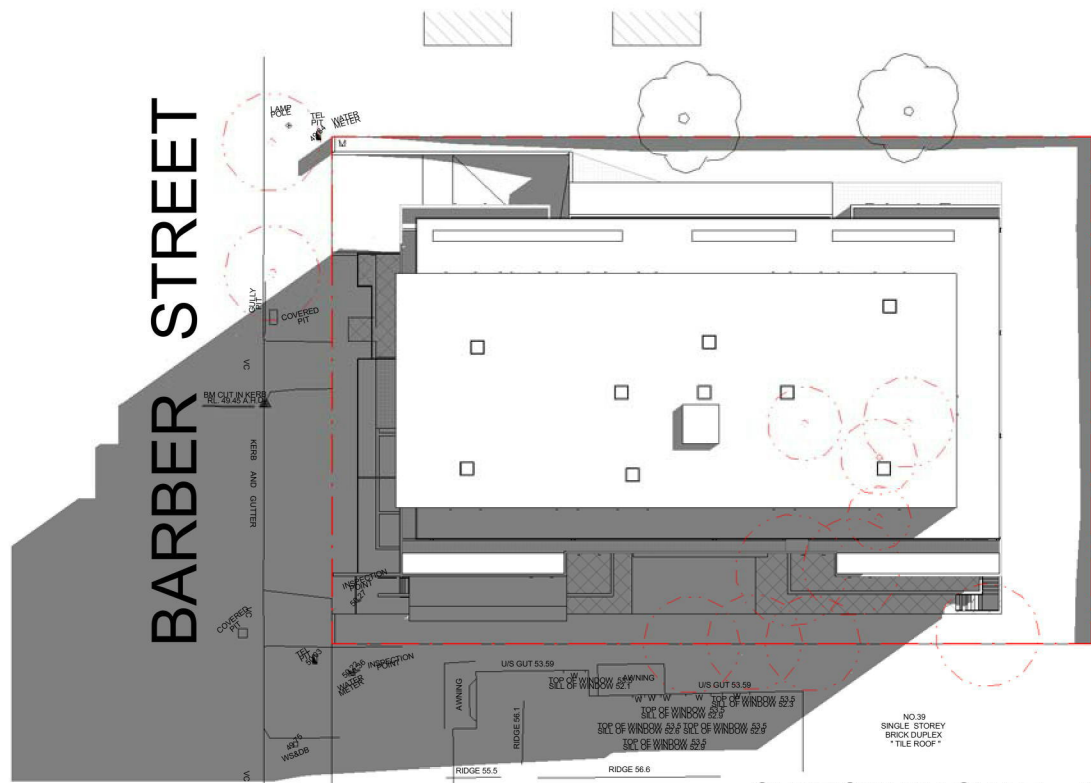
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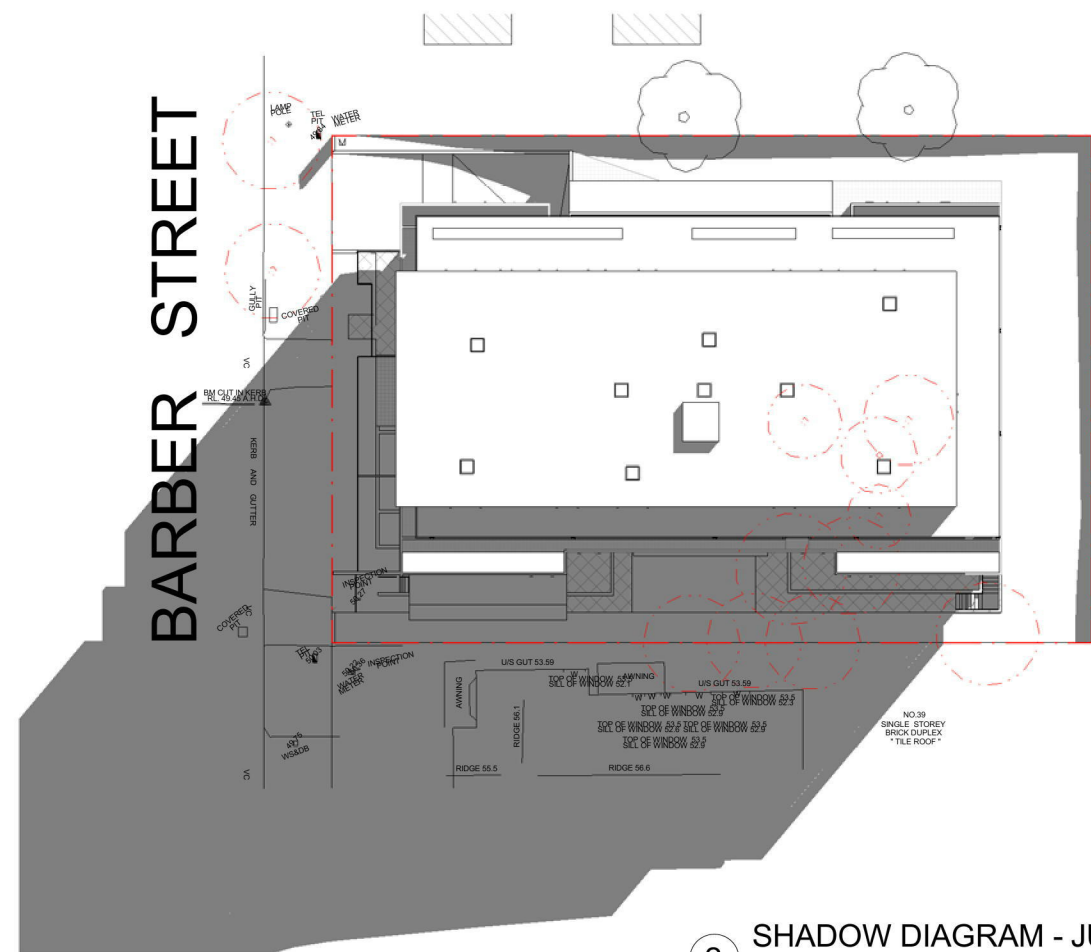


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PROPOSED UNIT DEVELOPMENT	
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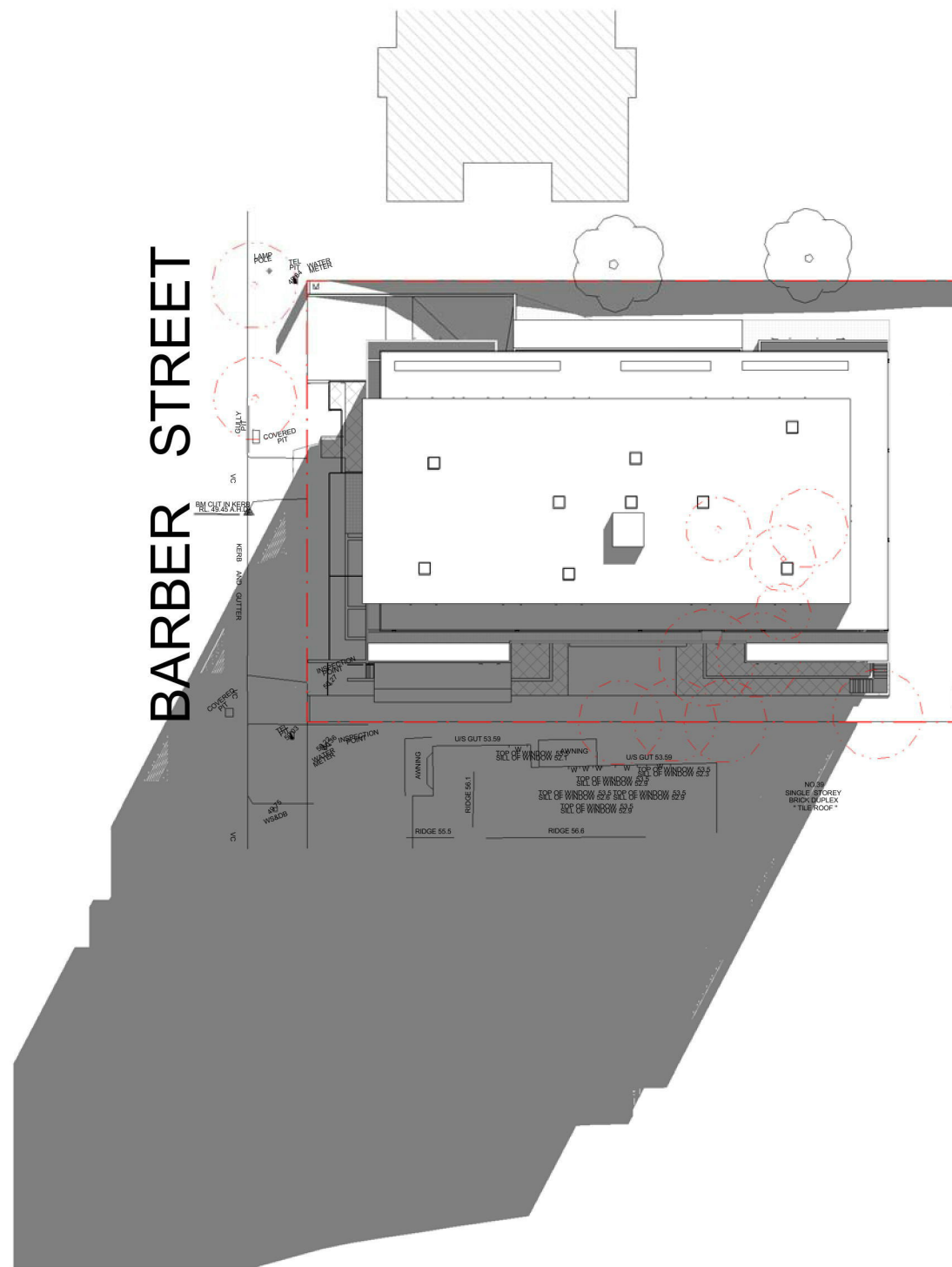
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Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-16



1 SHADOW DIAGRAM - JUN 21 1pm
A1-1:250, A3 1:500



2 SHADOW DIAGRAM - JUN 21 2pm
A1-1:250, A3 1:500



3 SHADOW DIAGRAM - JUN 21 3pm
A1-1:250, A3 1:500

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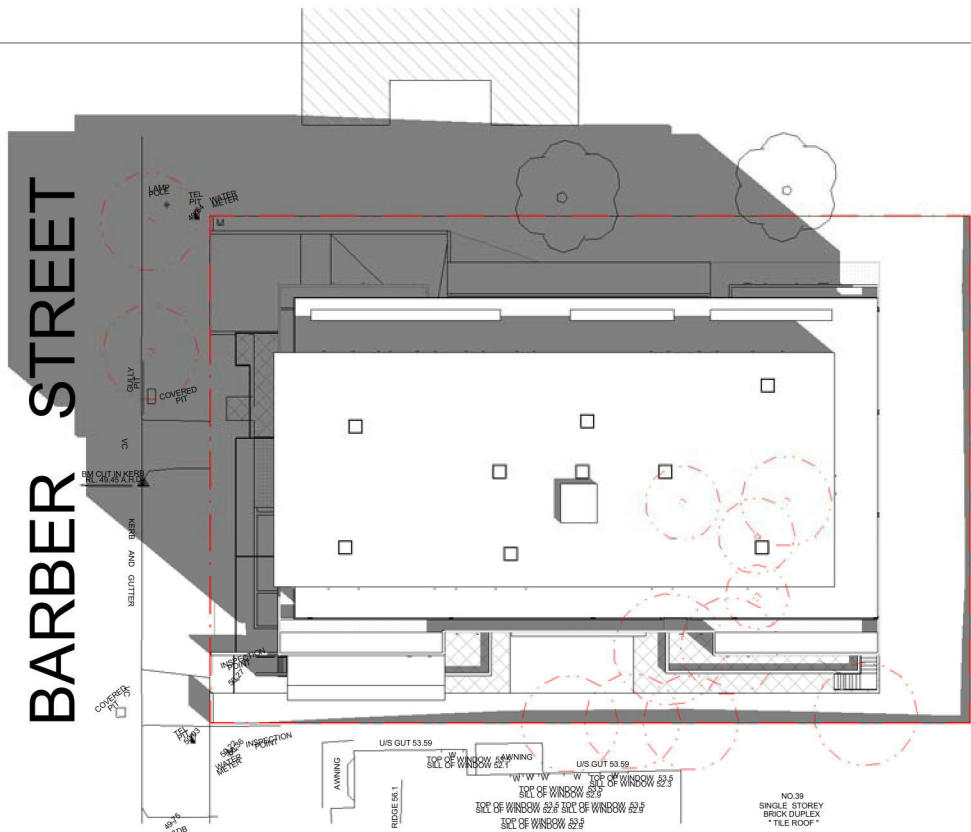
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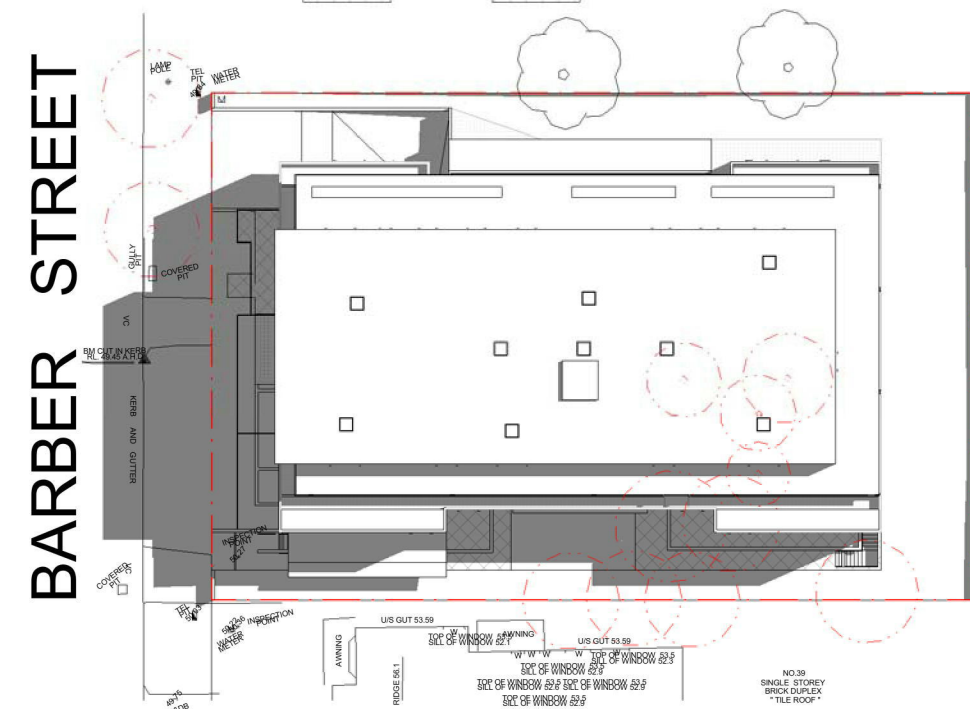
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SHADOW DIAGRAM

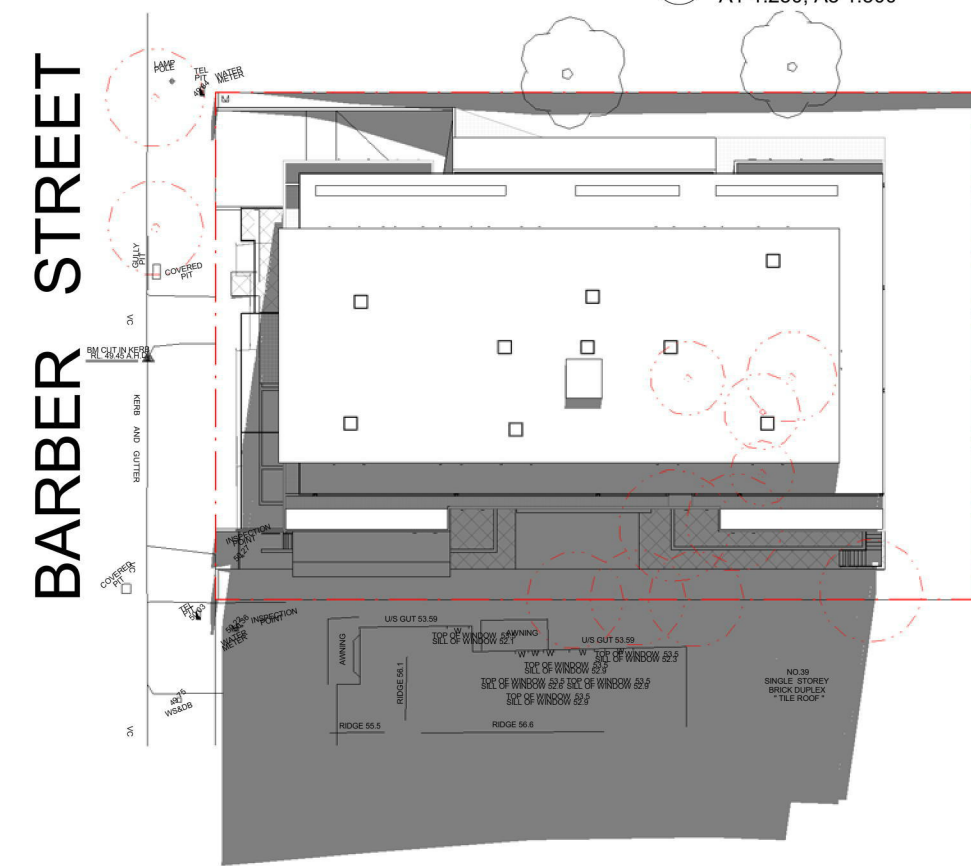
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	PROPOSED UNIT DEVELOPMENT		Drawn by NH	Date JULY/18
	CLIENT: ELCON PTY LTD		Checked by CK	Sheet number
	ADDRESS: 41-43 BARBER ST, PENRITH		Project number 18028	A1-17



1 SHADOW DIAGRAM - SEPT 21 9am
A1-1:250, A3 1:500



2 SHADOW DIAGRAM - SEPT 21 12pm
A1-1:250, A3 1:500



3 SHADOW DIAGRAM - SEPT 21 3pm
A1-1:250, A3 1:500

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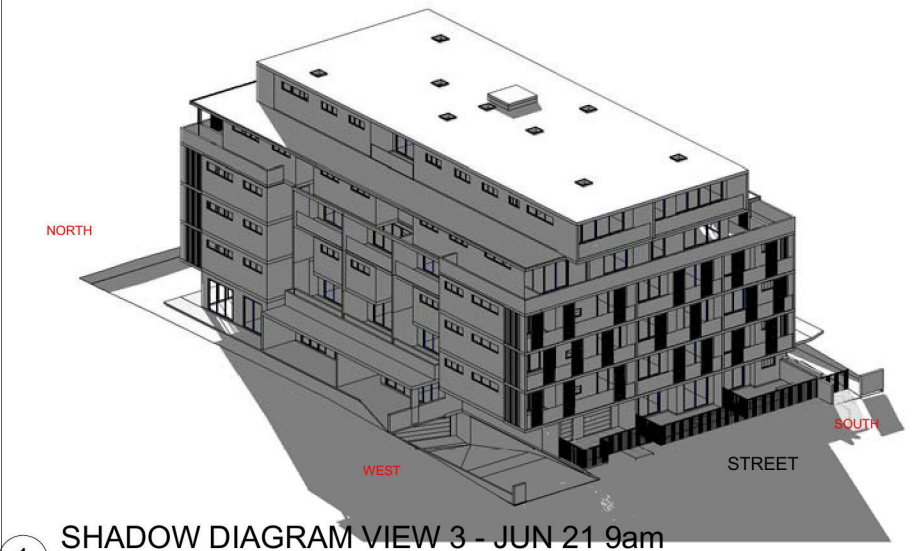
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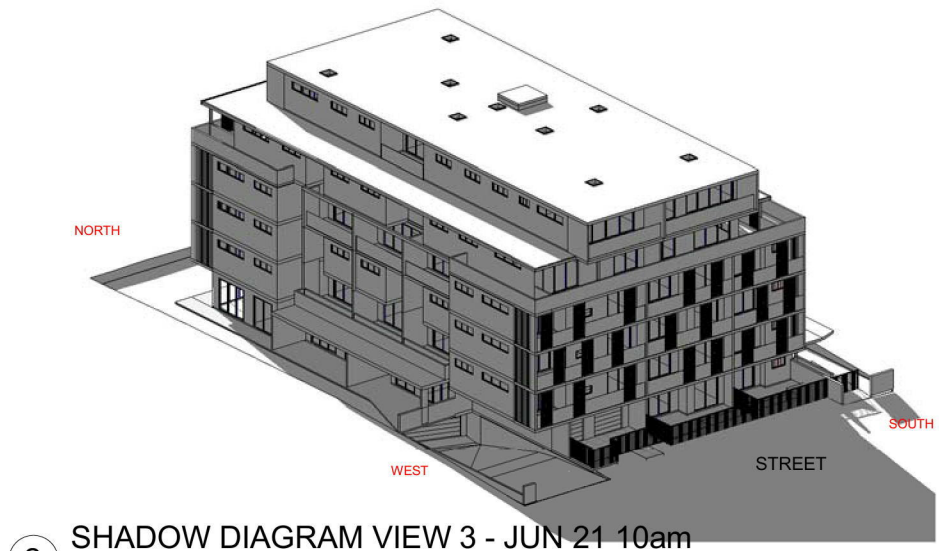
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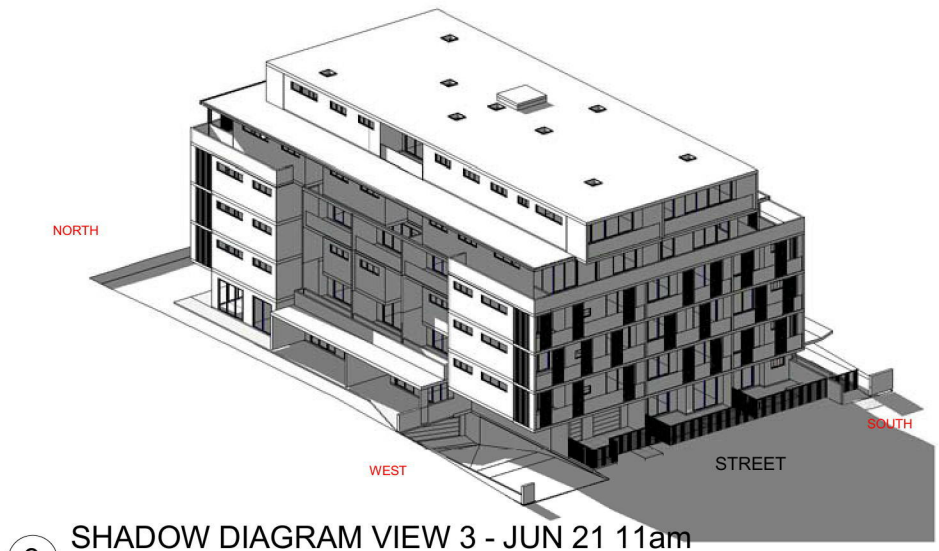
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	CLIENT: ELCON PTY LTD		Checked by CK	Sheet number
	ADDRESS: 41-43 BARBER ST, PENRITH		Project number 18028	A1-18



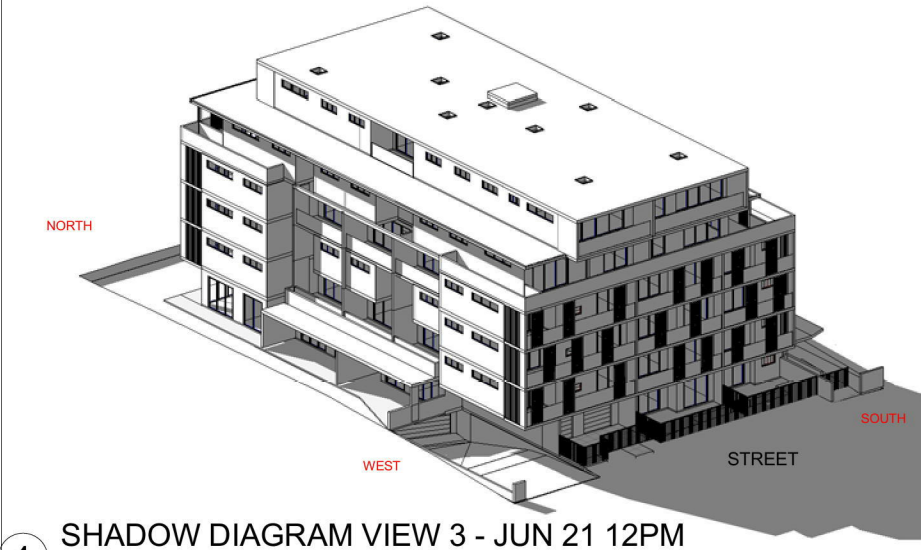
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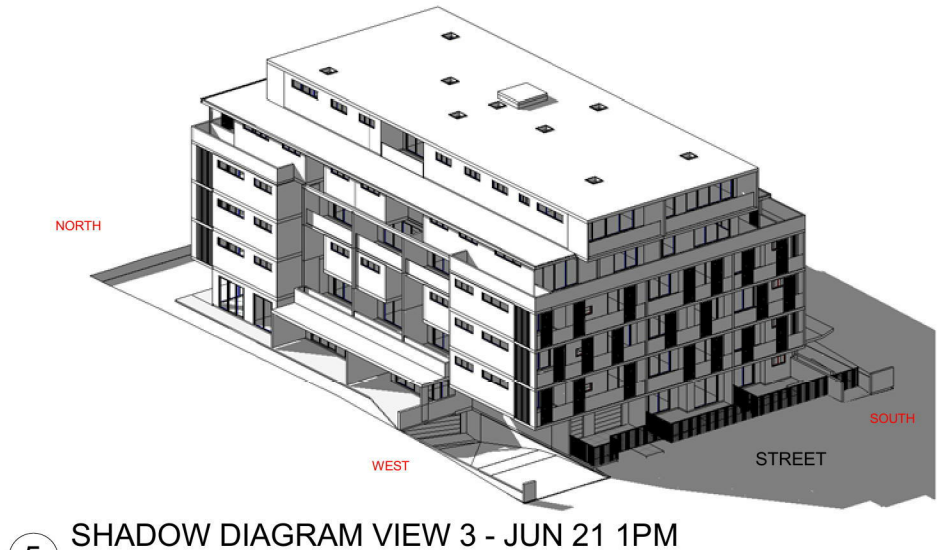
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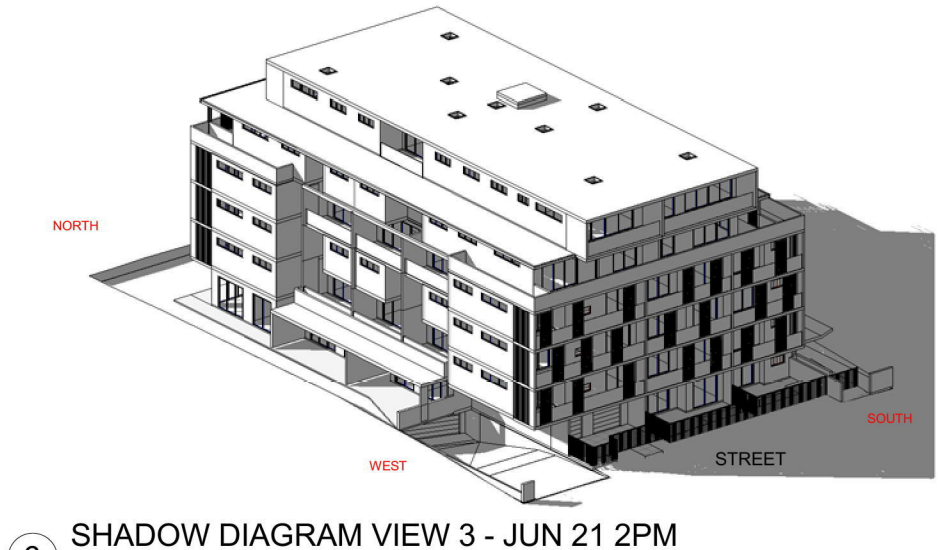
3 SHADOW DIAGRAM VIEW 3 - JUN 21 11am



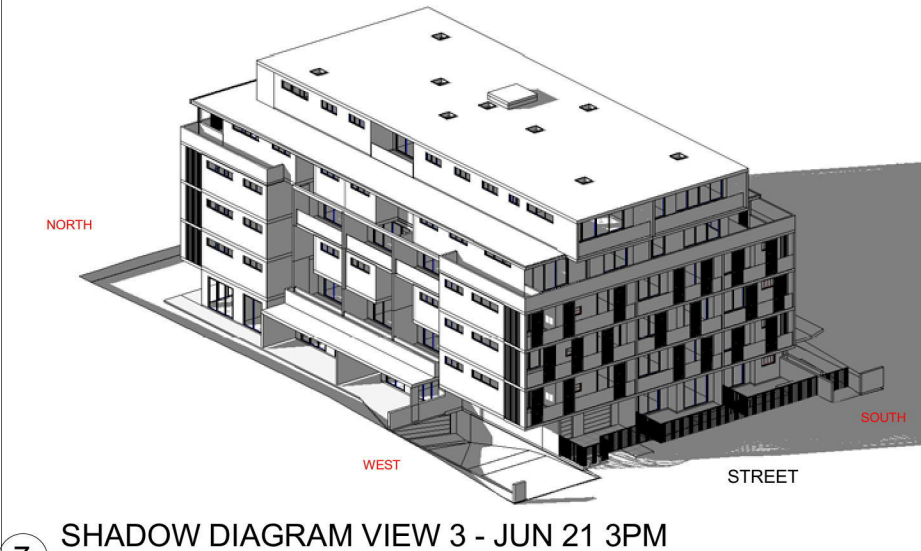
4 SHADOW DIAGRAM VIEW 3 - JUN 21 12PM



5 SHADOW DIAGRAM VIEW 3 - JUN 21 1PM



6 SHADOW DIAGRAM VIEW 3 - JUN 21 2PM



7 SHADOW DIAGRAM VIEW 3 - JUN 21 3PM

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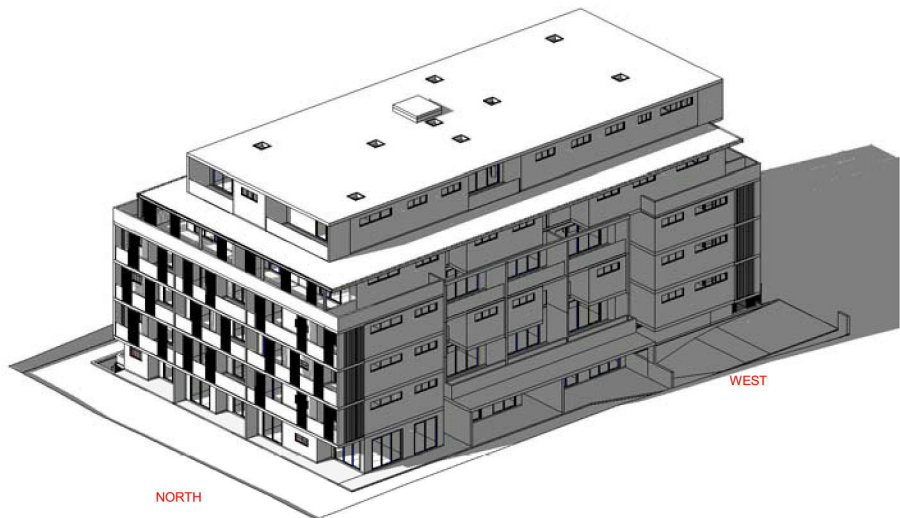
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No.	Description	Date

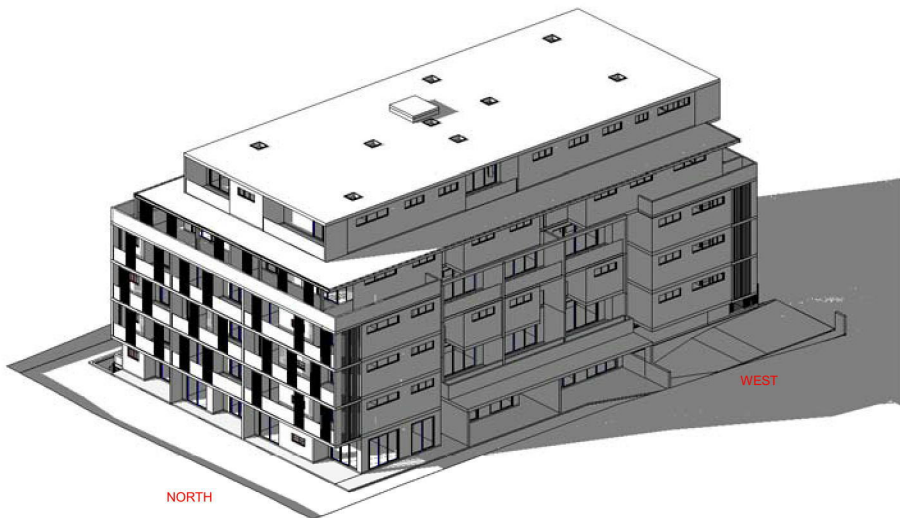
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3D SHADOW ANALYSIS

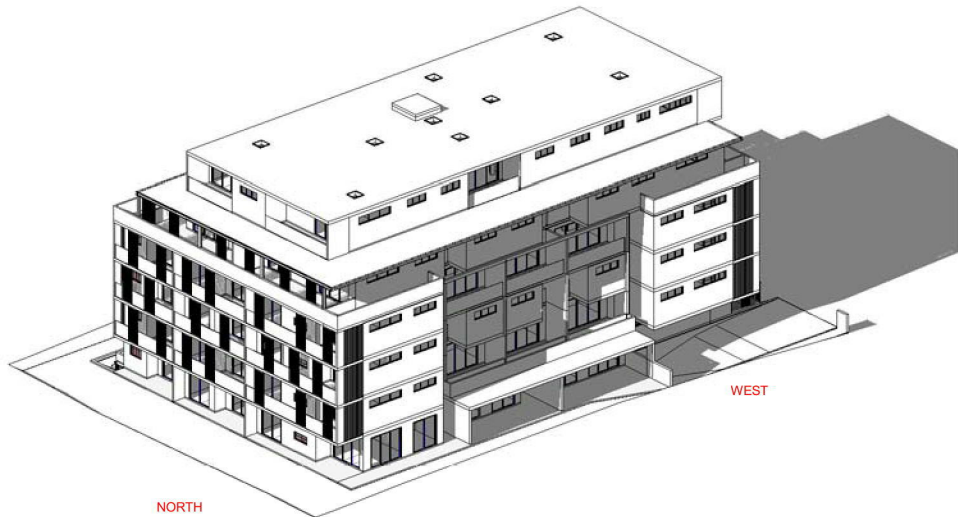
DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT			Scale	
CLIENT: ELCON PTY LTD	Drawn by		NH	Date JULY/18
	Checked by		CK	Sheet number
	ADDRESS: 41-43 BARBER ST, PENRITH		Project number 18028	A1-20



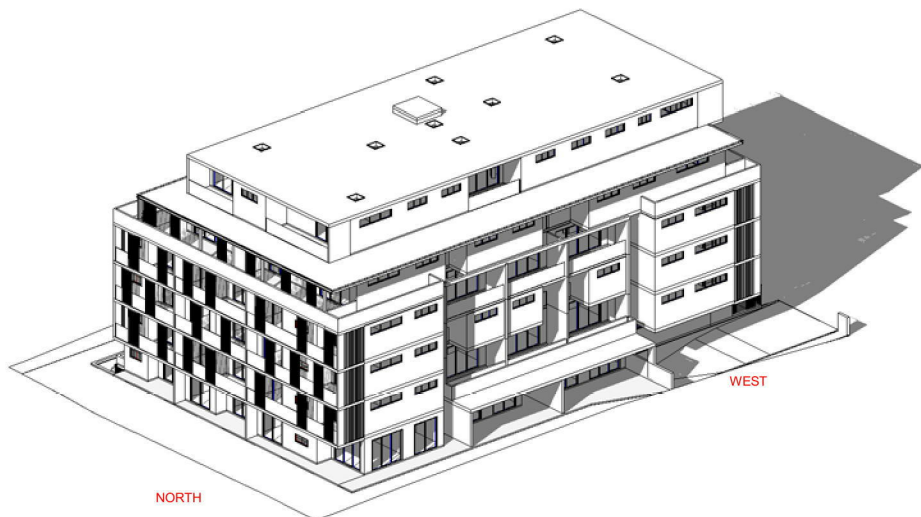
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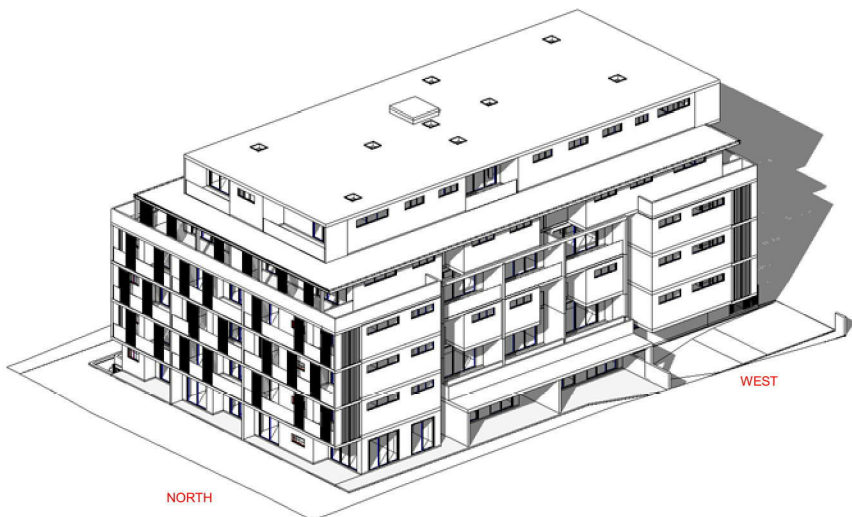
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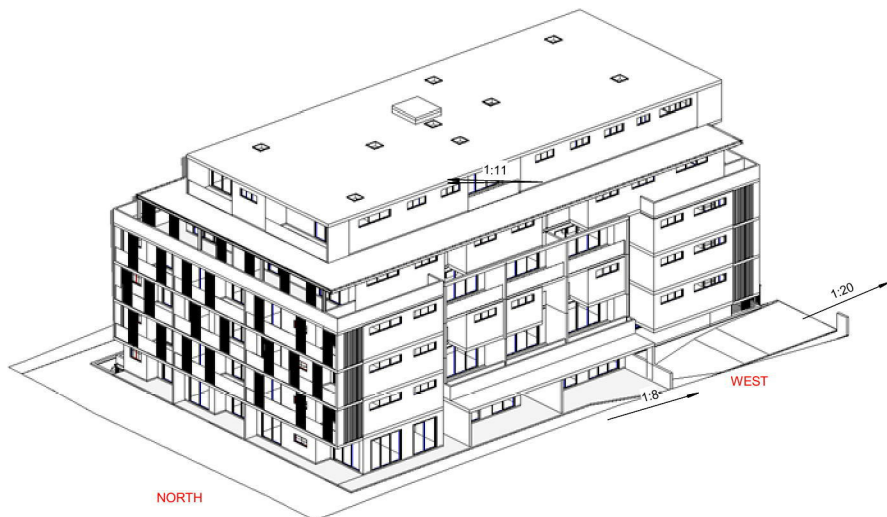
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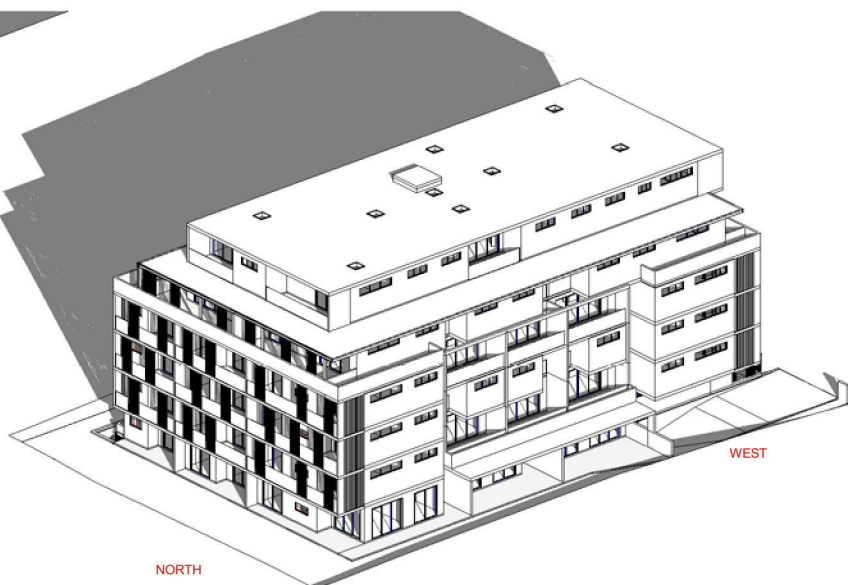
4 SHADOW DIAGRAM VIEW 2- JUN 21 12PM



5 SHADOW DIAGRAM VIEW 2- JUN 21 1PM



6 SHADOW DIAGRAM VIEW 2- JUN 21 2PM



7 SHADOW DIAGRAM VIEW 2- JUN 21 3PM



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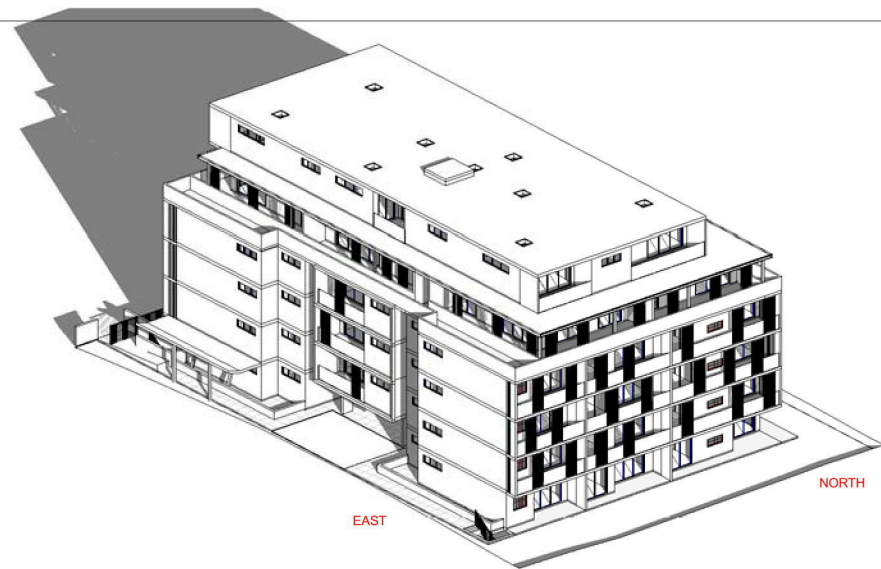
3D SHADOW
ANALYSIS

DEVELOPMENT APPLICATION
PROPOSED UNIT DEVELOPMENT

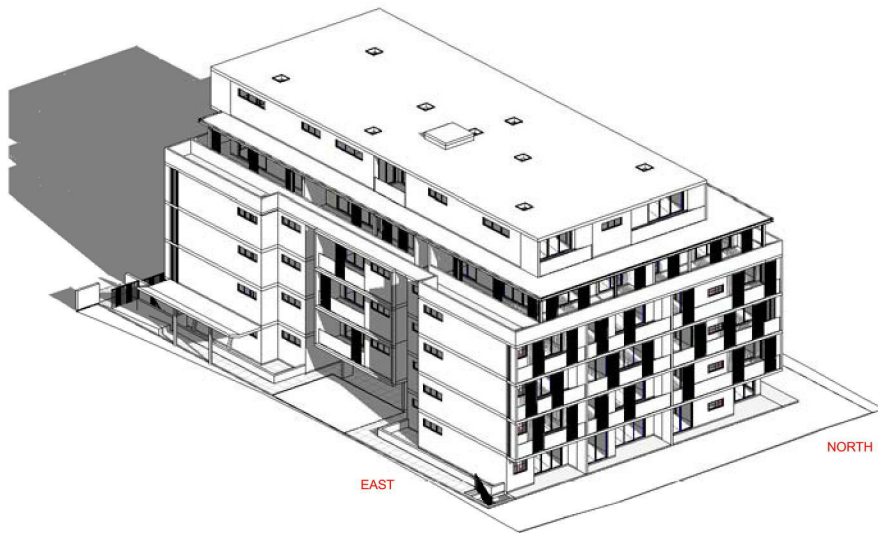
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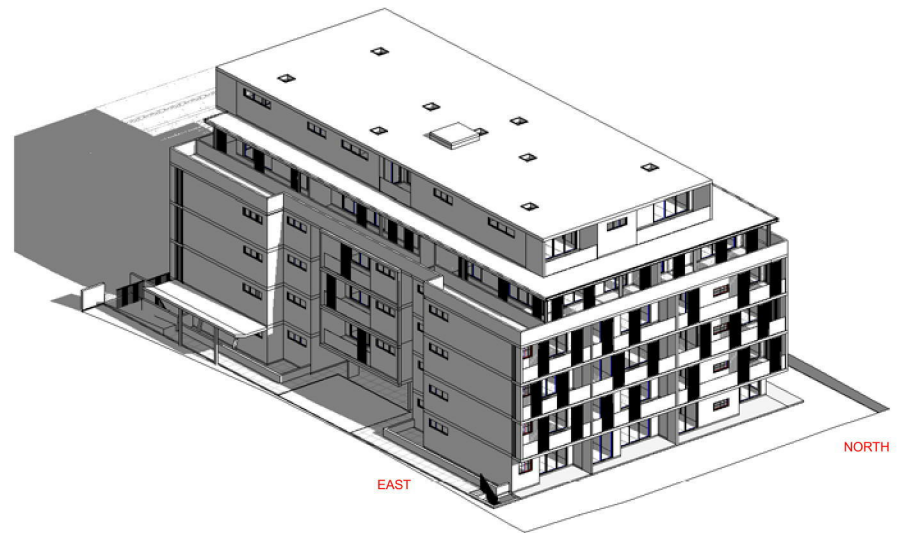
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Drawn by	NH
Date	JULY/18
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Project number	18028
	A1-21



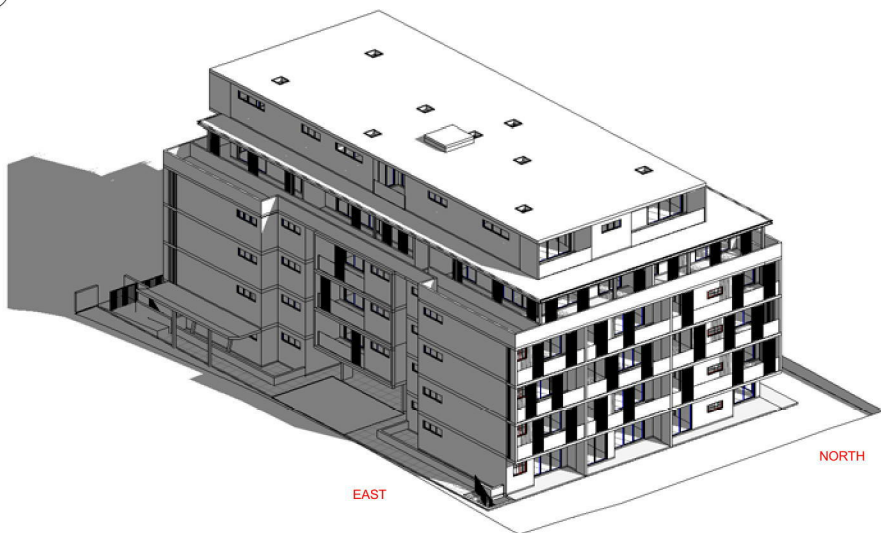
1 SHADOW DIAGRAM - JUN 21 9am



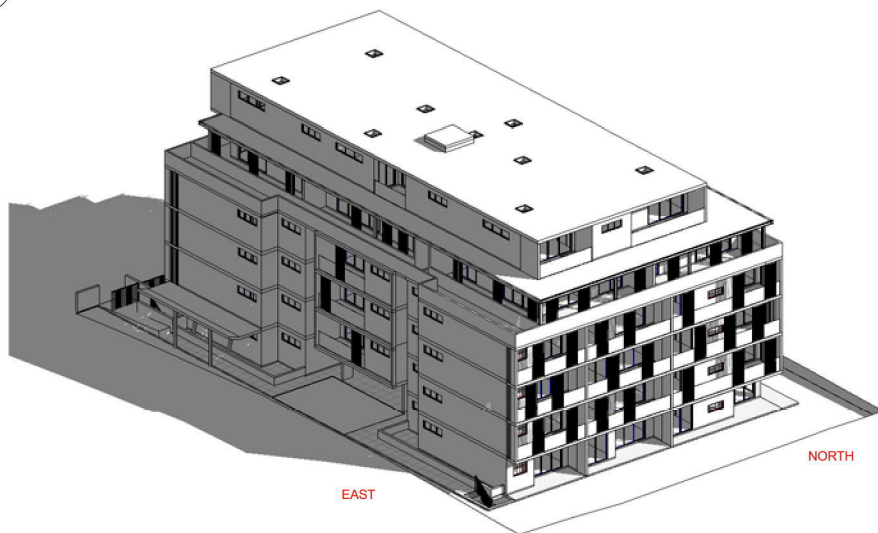
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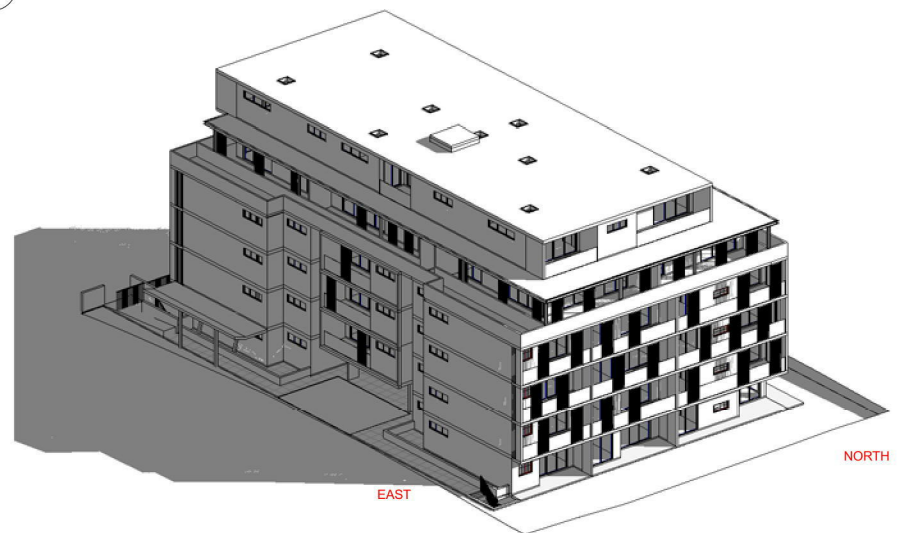
3 SHADOW DIAGRAM - JUN 21 11am



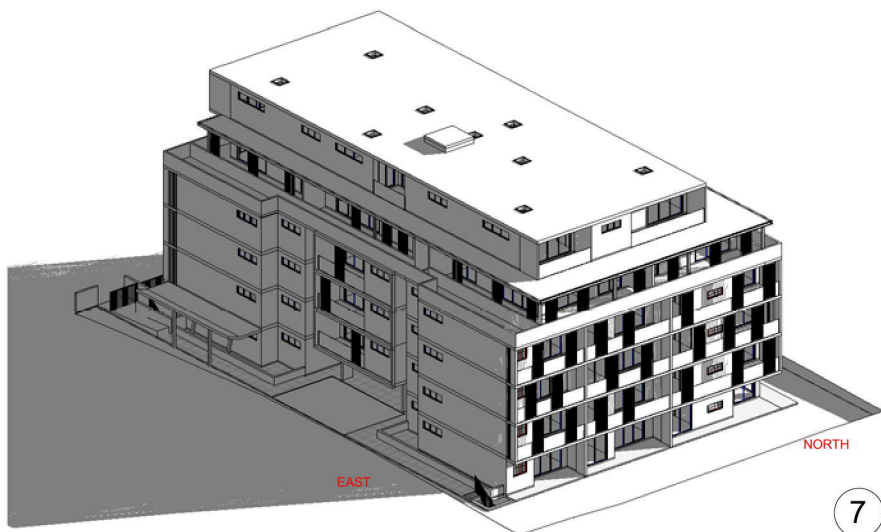
4 SHADOW DIAGRAM - JUN 21 12PM



5 SHADOW DIAGRAM - JUN 21 1PM



6 SHADOW DIAGRAM - JUN 21 2PM



7 SHADOW DIAGRAM - JUN 21 3PM

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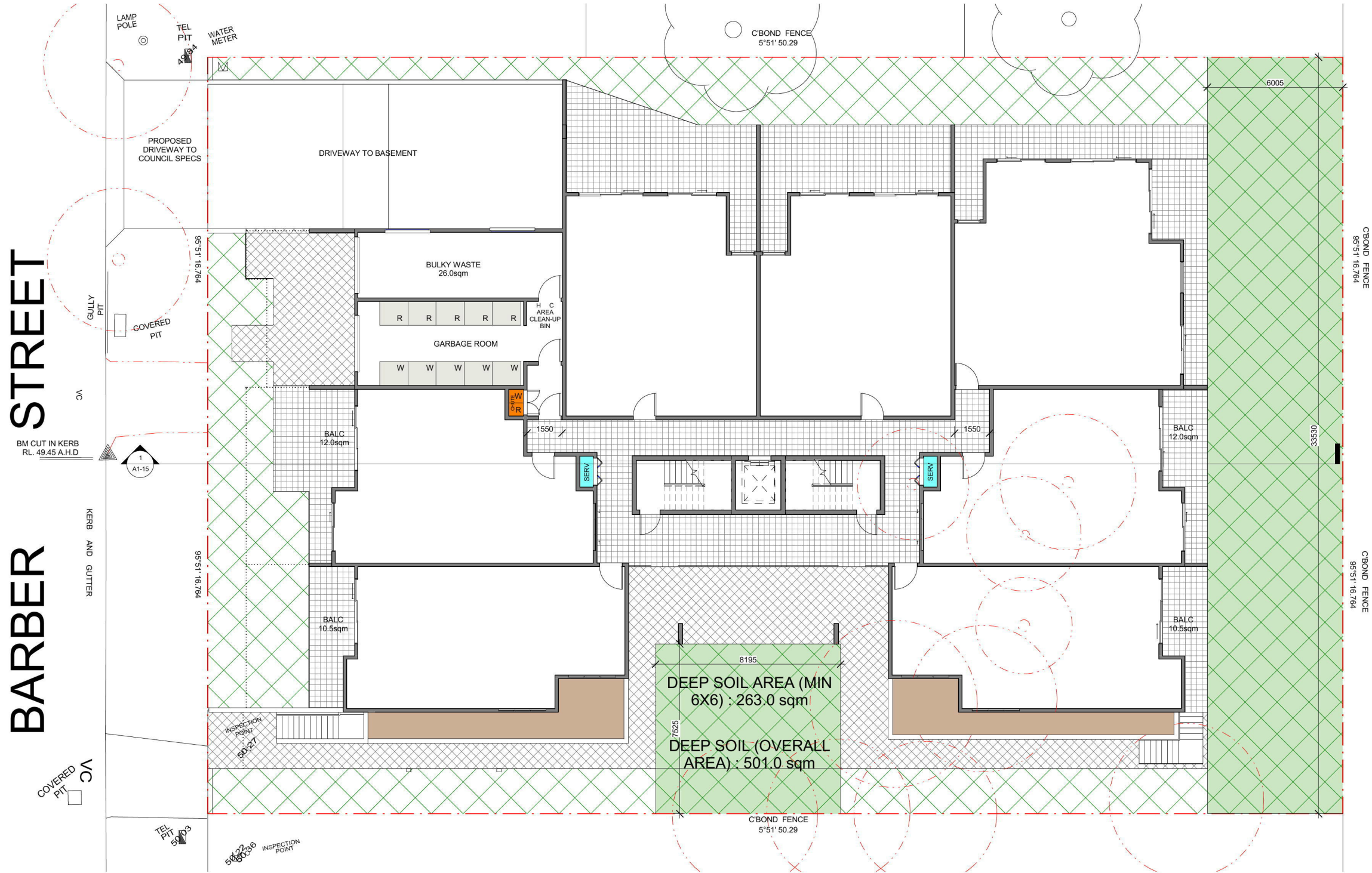
No.	Description	Date

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3D SHADOW ANALYSIS

DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT		Scale
CLIENT: ELCON PTY LTD	Drawn by NH	Date JULY/18
ADDRESS: 41-43 BARBER ST, PENRITH	Checked by CK	Sheet number
	Project number 18028	A1-22

BARBER STREET



SITE AREA	1686.2 sqm
UNIT MIX	
1 BED	14 UNITS
2 BED	24 UNITS
3 BED	7 UNITS
TOTAL UNITS	45 UNITS
F.S.R PROPOSED	
REQUIRED (N/A)	3422.5sqm
LANDSCAPE AREA	
REQUIRED (421.55 sqm)	25%
PROPOSED (502.0sqm)	29.7%
DEEP SOIL AREA	
REQUIRED (252.93 sqm)	15%
PROPOSED (263.0sqm)	15.5%
SOLAR ANALYSIS	
REQUIRED	70%
PROPOSED	71%
CAR PARKING	
RESIDENTIAL	51
VISITOR	9
TOTAL REQUIRED	61
TOTAL PROPOSED	61



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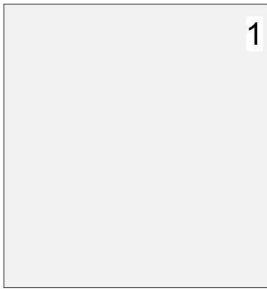
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CALCULATIONS
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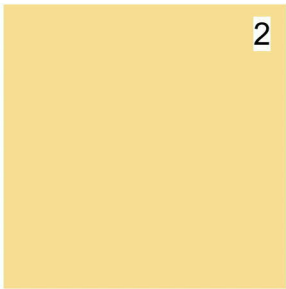


DEVELOPMENT APPLICATION	
PROPOSED UNIT DEVELOPMENT	
CLIENT:	ELCON PTY LTD
ADDRESS:	41-43 BARBER ST, PENRITH

Scale	1 : 100	
Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-23



PAINTED RENDER
DULUX LEXICON



PAINTED RENDER DULUX
- SUNDAZE



PAINTED RENDER
DULUX - SHALE GREY



WINDOWS & DOOR FRAME & PRIVACY
SCREENS- POWDERCOATED BLACK



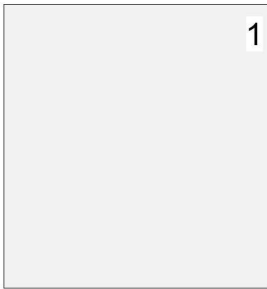
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No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

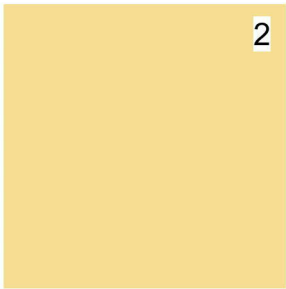
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SCHEDULE OF
FINISHES
PRELIMINARY NOT FOR
CONSTRUCTION

DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT		Scale
CLIENT: ELCON PTY LTD	Drawn by NH	Date JULY/18
ADDRESS: 41-43 BARBER ST, PENRITH	Checked by CK	Sheet number
	Project number 18028	A1-24



1
PAINTED RENDER
DULUX LEXICON



2
PAINTED RENDER DULUX
- SUNDAZE



3
PAINTED RENDER
DULUX - SHALE GREY



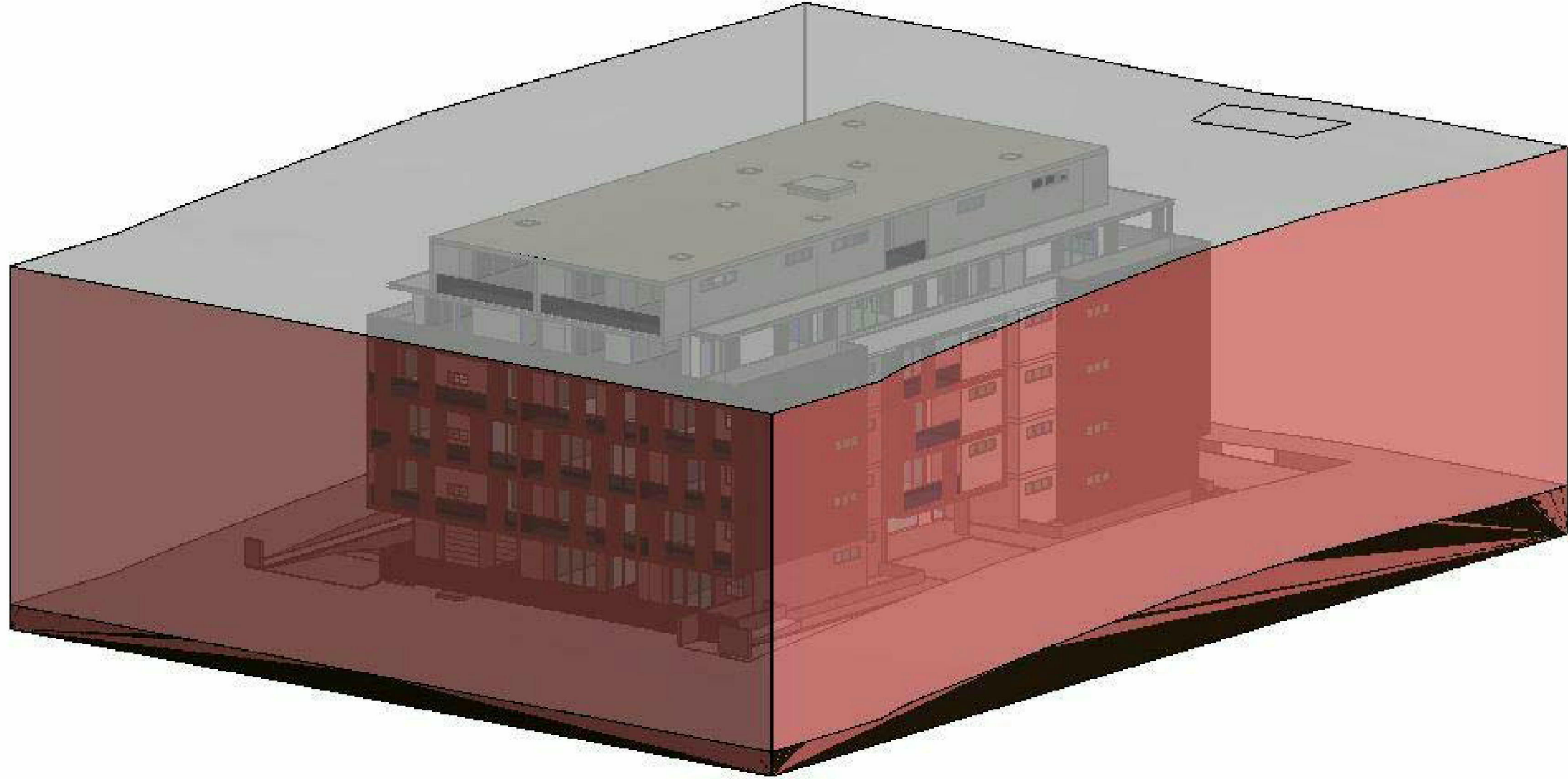
4
WINDOWS & DOOR FRAME & PRIVACY
SCREENS- POWDERCOATED BLACK

No.	Description	Date
A	ISSUED FOR DEVELOPMENT APPLICATION	6/8/18

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SCHEDULE OF
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DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT		Scale
CLIENT: ELCON PTY LTD	Drawn by NH	Date JULY/18
ADDRESS: 41-43 BARBER ST, PENRITH	Checked by CK	Sheet number
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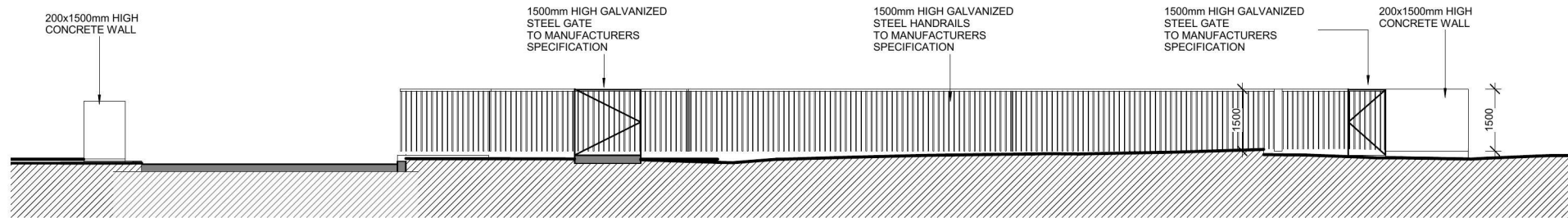
No.	Description	Date
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**BUILDING HEIGHT
PLANE**
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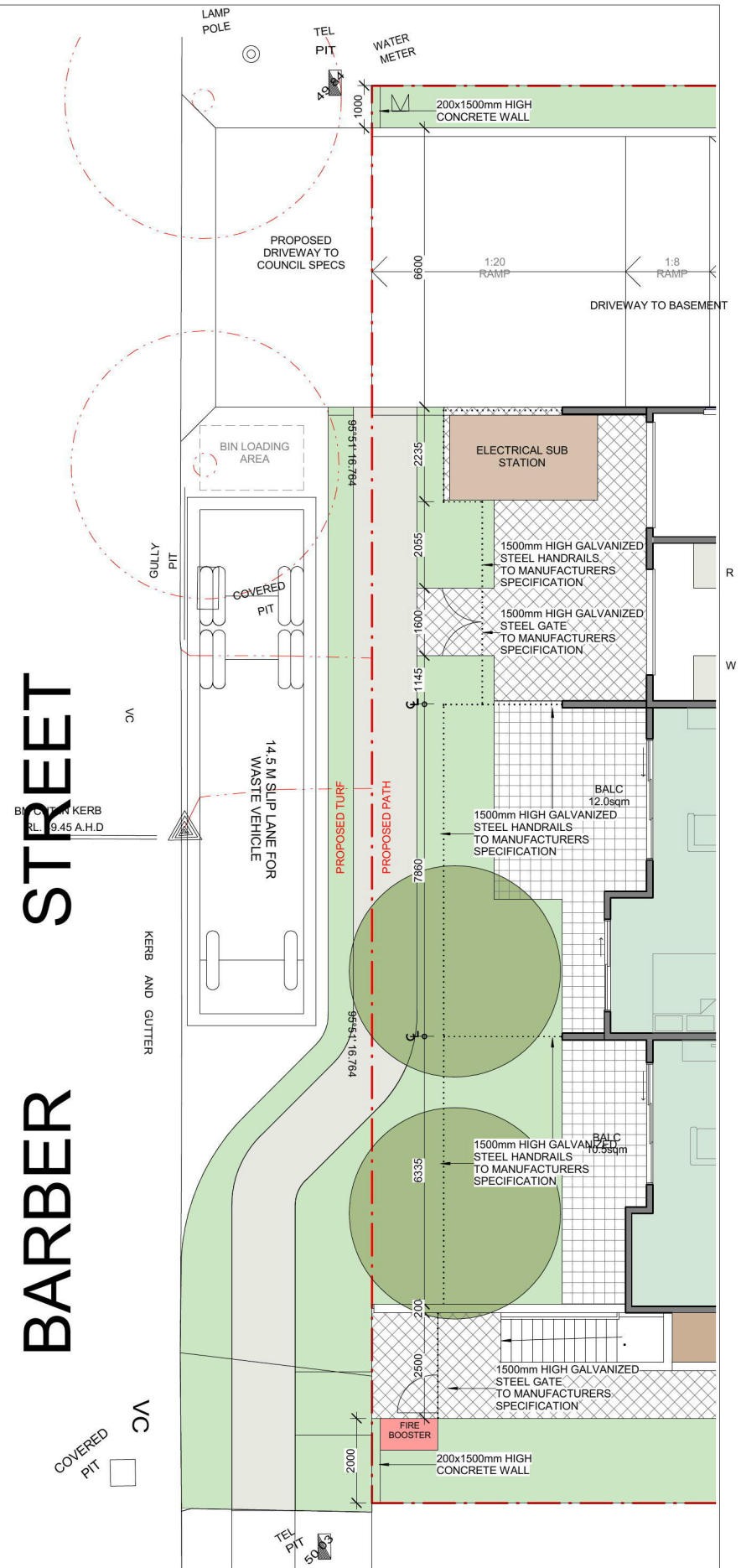
DEVELOPMENT APPLICATION PROPOSED UNIT DEVELOPMENT	
CLIENT:	ELCON PTY LTD
ADDRESS:	41-43 BARBER ST, PENRITH

Scale	
Drawn by	NH
Checked by	CK
Project number	18028
Date	JULY/18
Sheet number	A1-27



1 SOUTH FENCE ELEVATION
1:75

BARBER STREET



2 FENCE PLAN
1:75

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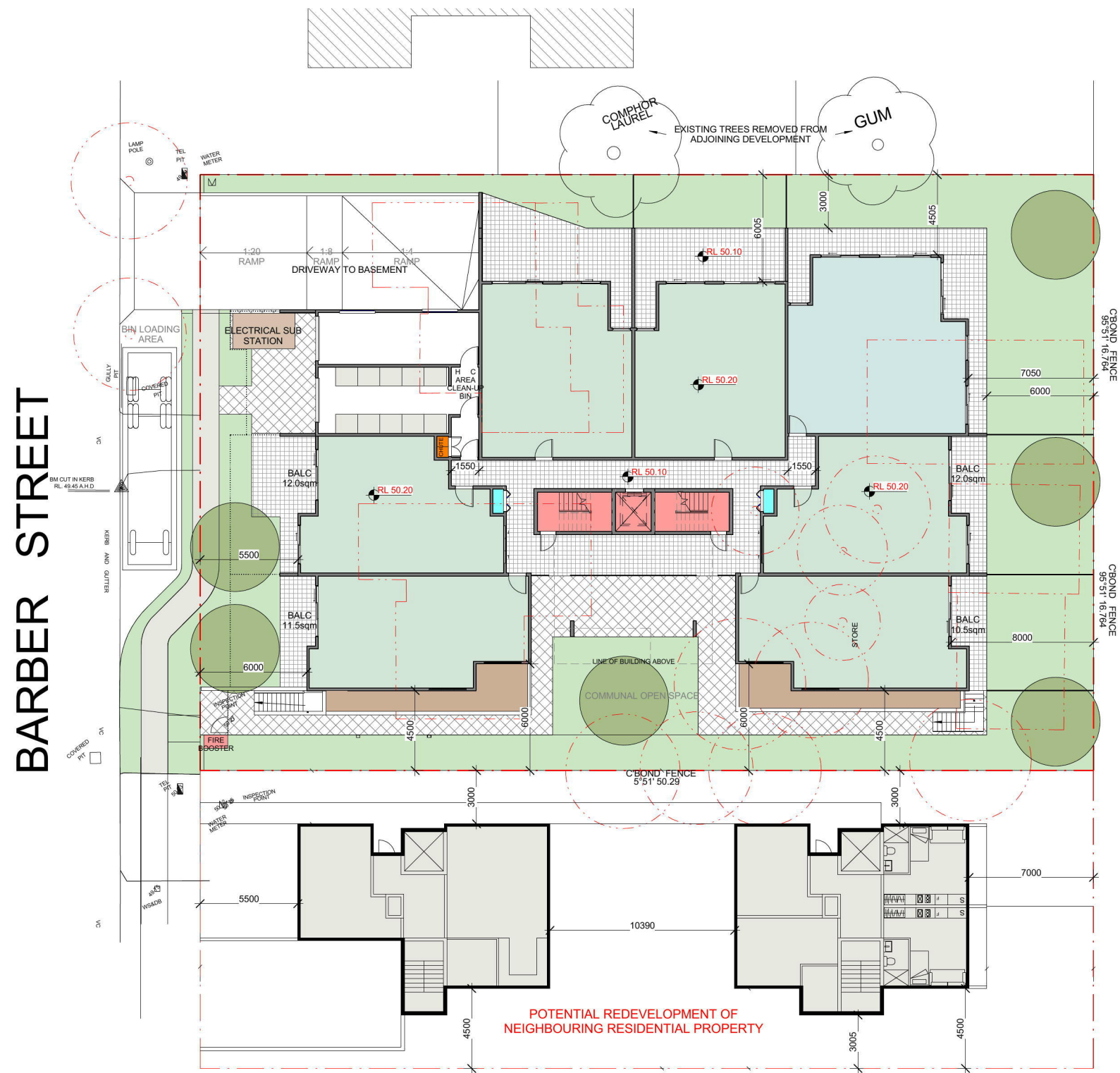
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FENCE PLAN



DEVELOPMENT APPLICATION	
PROPOSED UNIT DEVELOPMENT	
CLIENT:	ELCON PTY LTD
ADDRESS:	41-43 BARBER ST, PENRITH

Scale	1:75	
Drawn by	NH	Date JULY/18
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Project number	18028	A1-28



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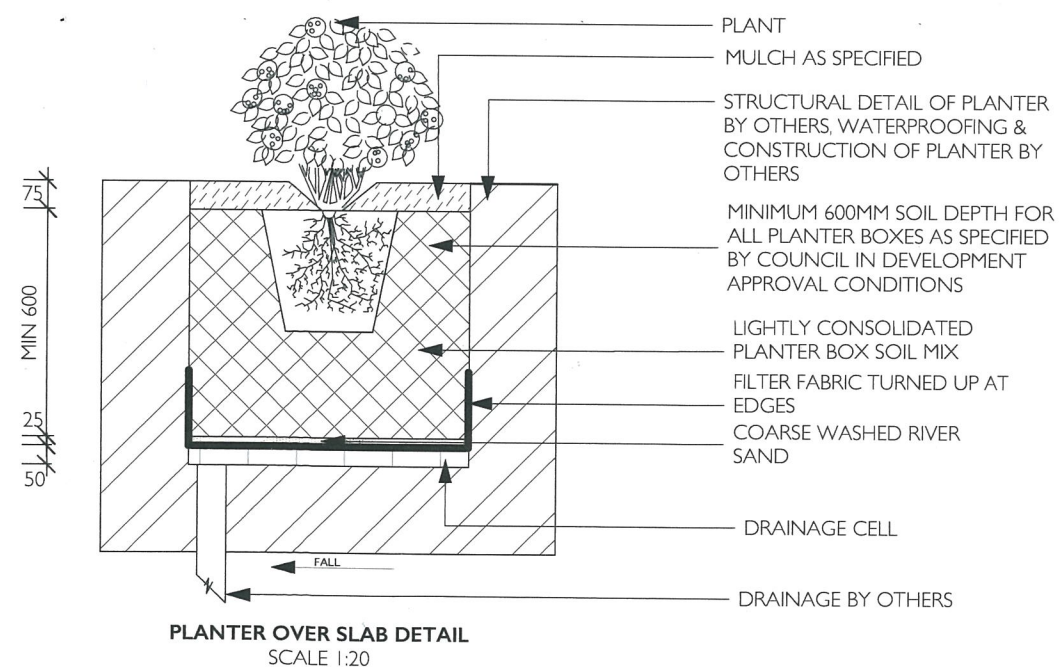
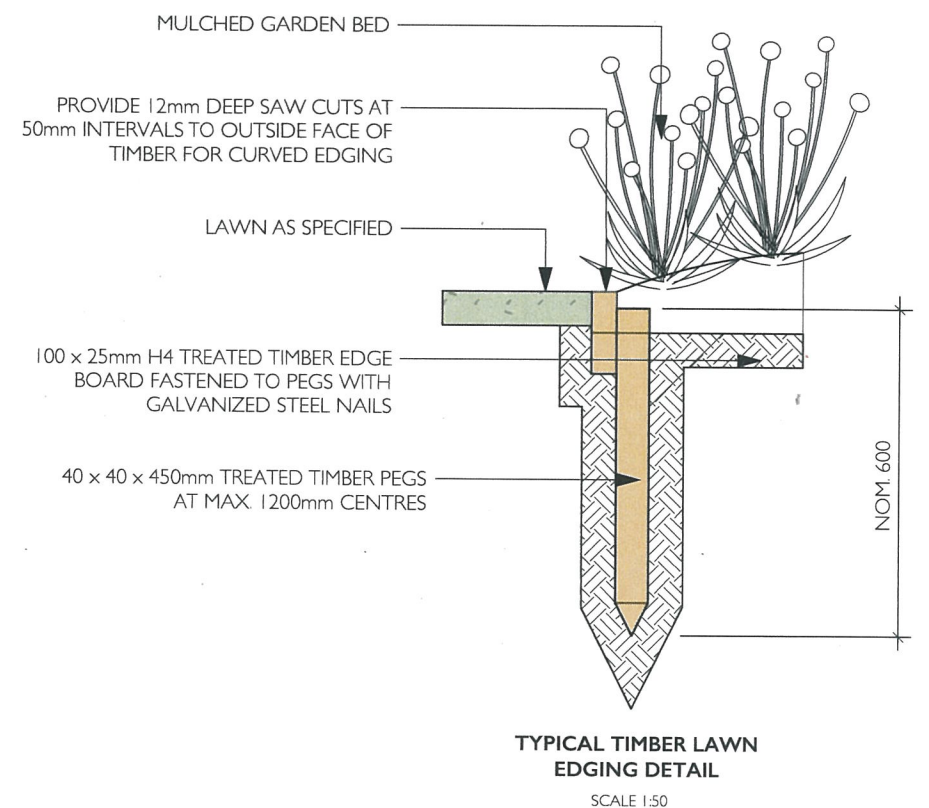
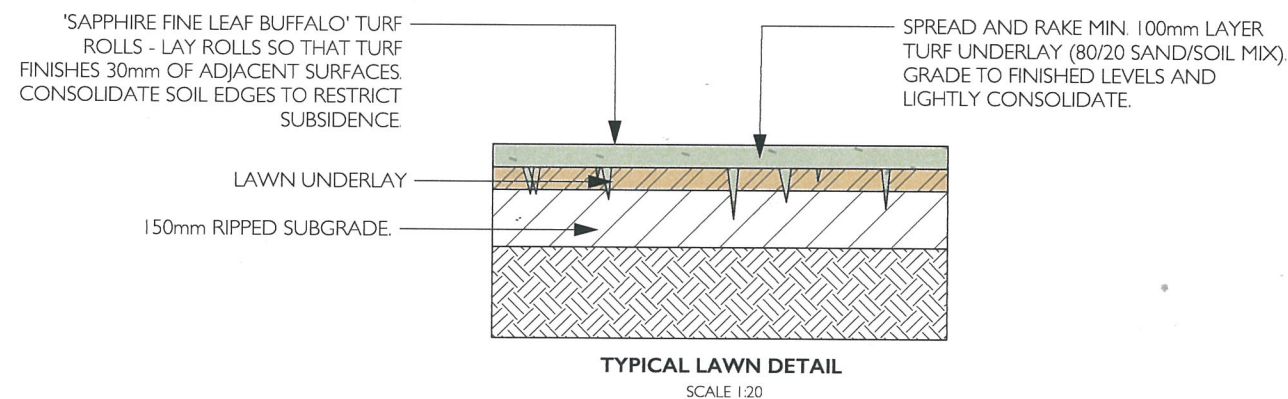
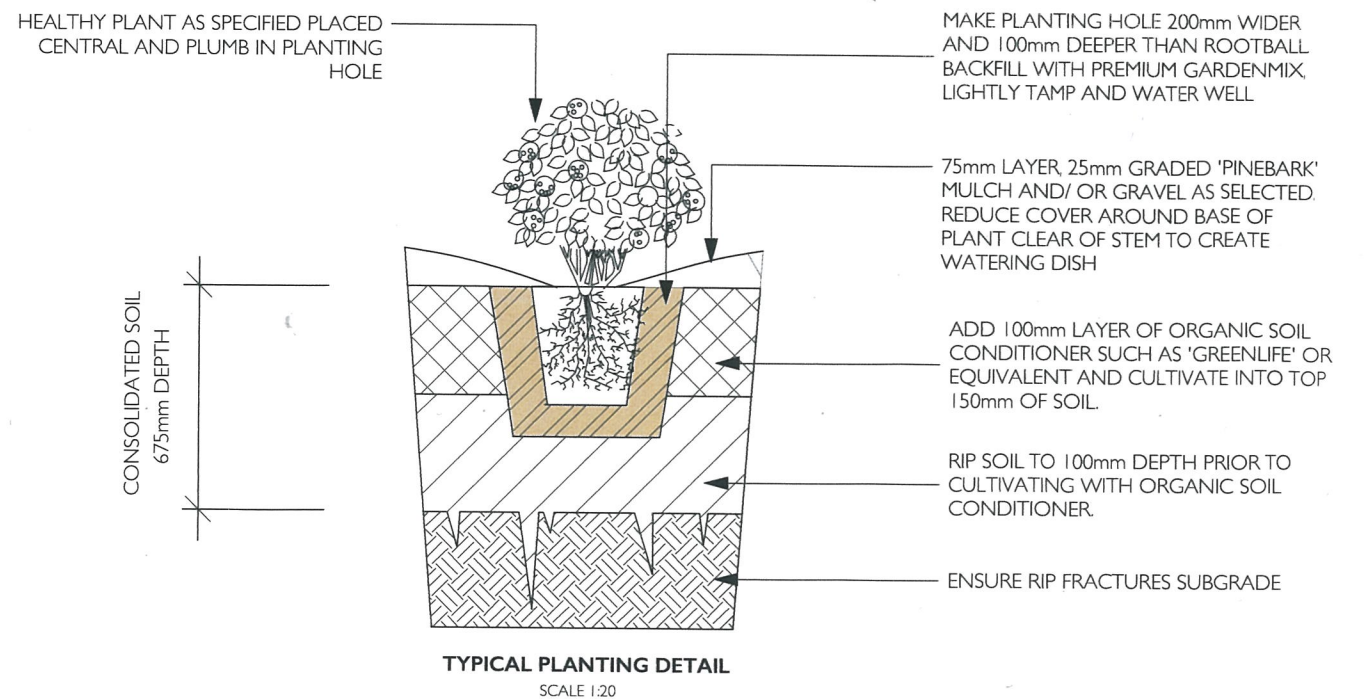
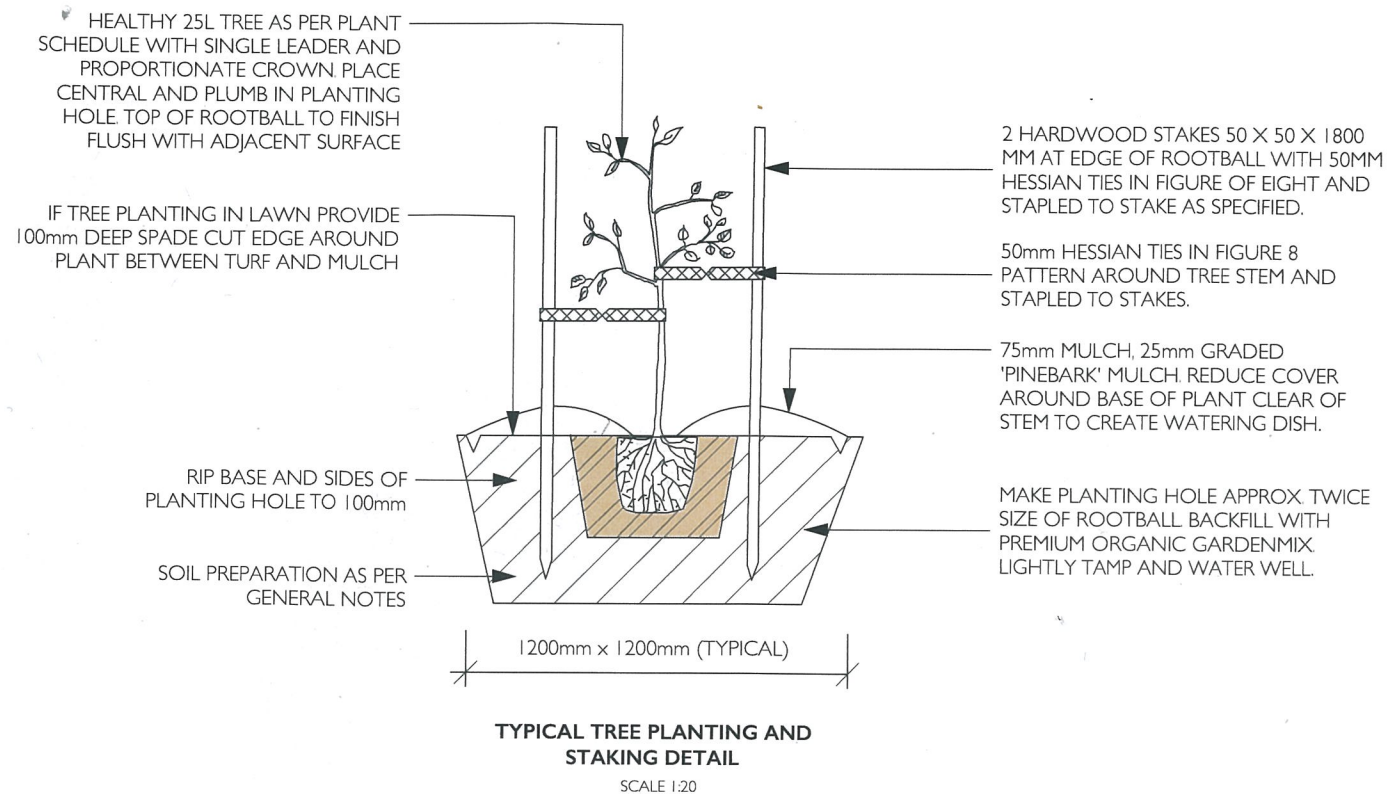
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SITE ISOLATION
PLAN
PRELIMINARY NOT FOR
CONSTRUCTION



DEVELOPMENT APPLICATION	
PROPOSED UNIT DEVELOPMENT	
CLIENT:	ELCON PTY LTD
ADDRESS:	41-43 BARBER ST, PENRITH

Scale	1 : 150	
Drawn by	NH	Date JULY/18
Checked by	CK	Sheet number
Project number	18028	A1-29



NOTE: DO NOT SCALE FROM DRAWINGS

SPECIFICATION

PRELIMINARIES/ GENERAL

The following general conditions should be considered prior to the commencement of landscape works:
The landscape plans should be read in conjunction with the architectural plans, hydraulic plans, service plans and survey prepared for the proposed development. All services including existing drainage should be accurately located prior to the commencement of landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect. Installation of conduit for required irrigation, electrical and other services shall be completed prior to the commencement of hardscape works and hardstand pours. All outdoor lighting specified by architect or client to be installed by qualified electrician. Anomalies that occur in these plans should be brought to our immediate attention. Where an Australian Standard applies for any landscape material testing or installation technique, that standard shall be followed.

PROTECTION OF ADJACENT FINISHES

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works

EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site. Erosion & pollution control measures shall incorporate the following: Construction of a sediment trap at the vehicle access point to the subject sit, sediment fencing using a geotextile filter fabric in the location indicated on the erosion control plan or as instructed on site by the landscape architect, earth banks to prevent scour of stockpile, sandbag kerb sediment traps, straw bale & geotextile sediment filter, exposed banks shall be pegged with an approved Jute matting in preparation for mass planting.

SOIL WORKS/PLANTING

Planting Mix: Planting mix for tree pit backfill shall be "Organic Garden Mix" consisting of 50% Black Soil 20% Coarse Sand 30% Organic Material as available from Australian Native Landscapes, Phone: [02] 9450 1444, or approved equivalent. Samples shall be provided to the Superintendent prior to ordering or delivery to site. Any material delivered to site, that is rejected by the Superintendent, shall be removed by the contractor at his own expense. Minimum depths of mix to all planting bed areas is as specified on details.

Mulch to garden bed : Mulch to planter beds shall be graded 'pinebark 'mulch, free from fines and is available from Australian Native Landscapes Pty Ltd Phone (02) 9450 1444, or approved equivalent. Spread mulch so that after settling, it is smooth and evenly graded between design surface levels Flush with adjacent finished levels of the required depths (75mm); and sloped towards the base of plant stems in plantation beds, but not in contact with the stem (not closer than 50mm in the case of gravel mulches). Place after the preparation of the garden bed, planting and all other work.

Plant Material: All plant material must be true to the species. No substitutes will be allowed. All plants shall be free of fungus and insect damage. All plants shall be healthy, well shaped, not soft or force grown and not root bound.

Timber Edging: Timber edging shall be 100 x 25mm h4 treated timber edge board fastened to pegs with galvanized steel nails.
Treated timber pegs to be 40 x 40 x 450mm at max. 1200mm centre.
Stakes: Trees in 2 x 50x50x1800mm Hardwood Stake with double Nylon tie. Staking Use durable hardwood, straight, free from knots or twists, pointed at one end. Drive stakes into the ground a minimum one third of their length, avoiding damage to the root system.
Ties: Provide a 50mm wide Nylon webbing tie per stake, fixed securely to the stakes, one tie at half the height of the main stem and the other as necessary to stabilise the plant.
Lawn Areas: All new turfed areas are to be selected weed free Soft Leaf Buffalo. Turf shall be laid neatly butted with staggered joints, flush with adjacent surfaces and have even running falls to all drainage points.All new turfed area shall have a minimum 150mm depth of weed free top soil, placed and leveled prior to turfing.

DECORATIVE PEBBLE

Decorative Pebble Material: Decorative pebble shall be Crushed Western White Gravel, gravel to be of uniform size or graded material in the size 20-50 mm grade to nominal 75mm thickness as available from Australian Native Landscapes. Ph: (02) 9450 1444.

RETAINING WALLS

Details of retaining walls, position, materials and structural engineering by others.

CLOTHESLINE

Clothesline shall be positioned as shown on the plan. install as per manufacturer's details to Landscape Architect's approval.

PAVING

Paving area to be filled of excavated as falls and levels of the plan. Stormwater system to be installed by builder with Surface drainage on paving towards grated drains with all drains connected to stormwater system.

STEPPING STONES

Stepping stones shall be positioned as shown on the plan. They shall be placed on 25mm river bed as indicated on the details sheet. Dimensions of the stepping stone as shown on the plan or as indicated otherwise.

FENCING

Fencing to be retained unless advised by others. Refer to landsape plan..

IRRIGATION SYSTEM AND REQUIREMENTS DESCRIPTION OF WORKS

The scope of works in this section comprises the design and specification (for comment by Superintendent), supply, and installation of fully automated commercial drip irrigation system to all landscaped areas and to Councils requirements. The general location and extent of the areas to be irrigated is as shown on plans and includes:"i. Planter bed areas to be irrigated by "Techline" dripline at 750mm intervals, capable of delivering 20mm / week ii. Garden bed areas to be irrigated by "Techline" dripline at 750mm intervals, capable of delivering 20mm / week iii. Turfed areas to be irrigated by "Uniram" dripline at 500mm intervals, capable of delivering 30mm / week.The Contractor shall provide shop drawings and materials and equipment specifications for comment by the Superintendent. Not with standing comments on the irrigation design being provided by the Superintendent responsibility for the technical design, operation and adequacy of performance of the irrigation system will remain with the Contractor.

PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done so in accordance with a qualified Aborist. Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health. Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip-line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained. Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

FEES, PERMITS AND APPROVALS

The Contractor shall be responsible for securing all necessary inspections and approvals. Before commencement of any works on the site the Contractor shall obtain approval from the Superintendent for the works to proceed and submit the necessary notification forms to all authorities having jurisdiction. These shall include but are not limited to the following:: Connection Fees & Inspection Fees , Water Authority Document Inspection Fees, Water Authority Service Connection Charges ,Water Authority,The Contractor shall pay all fees, permits, royalties, deposits, and charges and shall produce documentary evidence to the Superintendent upon request.

EXISTING FACILITIES , UTILITIES AND SERVICES

The Contractor's attention is drawn to the existence of utility services within the works site. The Contractor shall be fully responsible for ascertaining exact locations and levels of services or consumer mains which may be encountered during the course of the works. The Contractor shall liaise and consult with services authorities as required during the course of the project.Any damage to services or infrastructure facilities caused by any actions of the Contractor shall be repaired entirely to the satisfaction of the owner of such services and costs incurred shall be borne solely by the Contractor.When a service must be interrupted to enable the carrying out of works under this contract such interruption shall be at a time agreed with the responsible authority or owner and the Superintendent. The Contractor shall organise and be responsible for all necessary notifications and approvals required.Costs of relocation diversion, temporary removal and replacement of any service shall be borne by the Contractor.

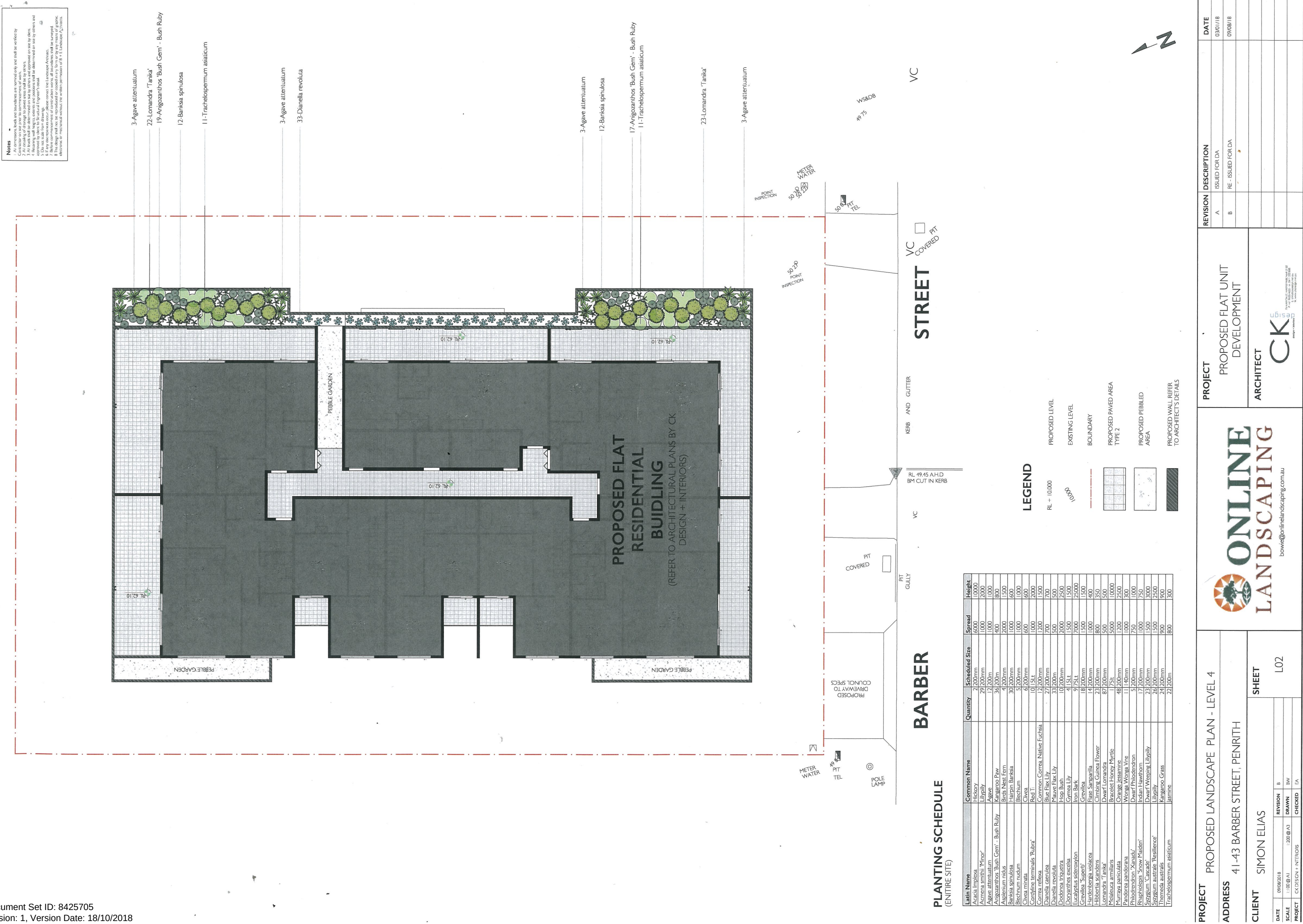
MAINTENANCE / PLANT ESTABLISHMENT

Maintenance shall apply to all hard and soft landscape materials installed prior to the "handover" and acceptance by Principles Representative and the Site Superintendent. The maintenance period shall convenience at the granting of practical completion and shall extend for 26 weeks. Maintenance shall consist of the following works: Follow a daily watering programme to be approved by Superintendent. Water all plants individually, twice per week or when necessary to ensure constant plant growth. Water all turf and native grassed areas, twice per week. Apply appropriate weed control sprays and hand weed as required to maintain planting areas, native grassing bed areas, turfed areas, paved areas, and tree pits in turf free of weed or rogue grass growth., Regularly tidy and top up mulch and trim edges to prevent spill over onto paved / grassed areas. Spray to control pests and diseases.Replace plants, which fail with plants of a similar size and quality as originally specified to approval of Superintendent. Costs of replacement shall be the responsibility of the Contractor. Replacement planting will be undertaken within 2 weeks of identification of dead material or instruction be the Superintendent. Report any incidence of plants stolen or destroyed by vandalism. Adjust stakes and ties to plants as necessary. Ensure that strangulation of plants does not occur. Prune and shape plants as directed or where necessary., Make good any defects or faults arising out of defective workmanship or materials. Fertilise lawn areas to maintain healthy growth. Make good any erosion or soil subsidence, which may occur including soft areas in pathways. Mow lawn to maintain neat healthy growth. A final inspection shall be made by the Superintendent before handover. Any items requiring rectification shall be repaired before the works are finally approved, and retention moneys released.



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PROJECTLANDSCAPE SPECIFICATION			
ADDRESS41 - 43 BARBER STREET, PENRITH			
CLIENTSIMON ELIAS			SHEETL04
DATE	9/08/2018	REVISION	A
SCALE		DRAWN	BW
PROJECT	CK DESIGN + INTERIORS	CHECKED	EA



Statement of Environmental Effects

LOT CONSOLIDATION, DEMOLITION OF EXISTING STRUCTURES AND THE CONSTRUCTION OF A 6 STOREY RESIDENTIAL FLAT BUILDING DEVELOPMENT CONTAINING 45 APARTMENTS OVER BASEMENT CARPARKING FOR 61 VEHICLES AT 41-43 BARBER AVENUE, PENRITH



Prepared by: Think Planners Pty Ltd
Document Date: August 2018
Consent Authority: Penrith City Council

QUALITY ASSURANCE

PROJECT: Statement of Environmental Effects– 6 Storey RFB

ADDRESS: Lots 30 & 31 DP 2296 Section 20: 41-43 Barber Avenue, Penrith

COUNCIL: Penrith City Council

AUTHOR: Think Planners Pty Ltd

ARCHITECT: JS Architects Pty Ltd

Date	Purpose of Issue	Rev	Reviewed	Authorised
November 2017	Draft Issue	Draft	SK	AB
27 February 2018	Revised for DA	Final	SK/AB	AB
August 2018	Revised DA Issue	Final	JW/AB	AB

<i>Integrated Development (under S91 of the EP&A Act). Does the development require approvals under any of the following legislation?</i>	
<i>Fisheries Management Act 1994</i>	<i>No</i>
<i>Heritage Act 1977</i>	<i>No</i>
<i>Mine Subsidence Act 1992</i>	<i>No</i>
<i>Mining Act 1992</i>	<i>No</i>
<i>National Parks and Wildlife Act 1974</i>	<i>No</i>
<i>Petroleum (Onshore) Act 1991</i>	<i>No</i>
<i>Protection of the Environment Operations Act 1997</i>	<i>No</i>
<i>Roads Act 1993</i>	<i>No</i>
<i>Rural Fires Act 1997</i>	<i>No</i>
<i>Water Management Act 2000</i>	<i>No</i>
<i>Concurrence</i>	
<i>SEPP 1- Development Standards</i>	<i>No</i>
<i>SEPP 64- Advertising and Signage</i>	<i>No</i>
<i>SEPP 71 – Coastal Protection</i>	<i>No</i>
<i>SEPP (Infrastructure) 2007</i>	<i>No</i>
<i>SEPP (Major Development) 2005</i>	<i>No</i>
<i>SREP (Sydney Harbour Catchment) 2005</i>	<i>No</i>

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Executive Summary

This Statement of Environmental Effects has been prepared in support of a Development Application for the consolidation of two lots, demolition of existing structures, removal of identified trees in-order to construct a 6 storey '*Residential Flat Building*' at 41 & 43 Barber Avenue, Penrith.

The proposal consists of 45 residential units with a total of 61 car parking spaces within a double basement level. The development proposal has undergone substantial revision in response to ongoing concerns raised by Council with regard to the design of the development and to adopt a more suitable form of development on the site.

The proposal incorporates the following dwelling mix:

- 14x 1 bedroom units
- 24 x 2 bedroom units
- 7 x 3 bedroom units.

Located within close proximity to Nepean Hospital, a large regional hospital servicing Western Sydney, the subject site, known legally as Lots 30 & 31 Section 20 in DP 2296, resides along the northern side of Barber Avenue, approximately 70m east of the intersection of Colless Street and Barber Avenue. Nestled between Penrith CBD to the north west, Kingswood Station and Kingswood commercial strip to the north east, the site is also within walking distance to a small neighbourhood shop, medical centres, Penrith High School and local parks. Bus stops with services between Penrith and Mt Druitt (774, 775 & 776) and service to Luddenham (789) is within a 400m radius of the development site.

The site comprises of 2 separate allotments and once consolidated will result in creating a regular shaped land parcel with a frontage of 33.53m to Barber Avenue, a site depth of 50.29m, resulting in a with a total site area of 1686.19m². The allotment currently contains a dwelling on each lot. The site has been zoned R4 High Density Residential with a maximum height limit of 18m, under the Penrith Local Environmental Plan 2010.

'*Residential Flat Buildings*' are permissible with consent within the R4 zone. The proposed 6 storey residential flat building has been designed to comply with key planning requirements, including building height, setbacks, landscaped area and car parking.

The site is located within a large residential block bounded by the Parker Street to the east, High Street to the north, Barber Avenue to the south and Colless Street to the west. The existing built form character within the residential block comprises predominantly of older style one and two storey residential dwellings of mixed ages and architectural styles on modest lots interspersed by large multi-dwelling housing development and a number of residential apartments under construction.

With the Penrith Local Environmental Plan zoning land within the subject residential block for higher residential densities up to 18m it is anticipated that the built form character of existing low density housing within the subject block will undergo a substantial shift towards higher densities over the medium term. This is evident with multiple DAs currently with Council for comparable RFB and mixed use developments within the wider locality.

The subject area is ideal for future urban intensification as it is located within close proximity to a large commercial centre, regional hospital, schools, public transportation and recreational opportunities.

The amalgamation of the two land parcels will permit an orderly development of the site and also permitting the site to fulfil its zoning potential while being consistent with Council's vision for the subject area.

Having regard to the benefits of the proposal and considering the absence of adverse environmental, social or economic impacts, and that the proposal represents an appropriate use of well-located land, the application is submitted to Council for assessment. Think Planners Pty Ltd recommends the approval of the application, subject to necessary, relevant and appropriate conditions of consent.

Site and Locality

The subject site is legally described as Lots 30 & 31 Section 20 DP 2296. It is proposed to amalgamate 2 lots, demolish existing structures, removal of identified trees and the construction of a 6 storey '*Residential Flat Building*' at 41-43 Barber Avenue, Penrith.

Located within close proximity to Nepean Hospital, a large regional hospital servicing Western Sydney, the site resides along the northern side of Barber Avenue, approximately 70m east of the intersection of Colless Street and Barber Avenue. Nestled between Penrith CBD to the north west, Kingswood Train Station and Kingswood commercial strip to the north east, the site is also within walking distance to a small neighbourhood shop, medical centres, Penrith High School and local parks. Bus stops with services between Penrith and Mt Druitt (774, 775 & 776) and service to Luddenham (789) is within a 400m radius of the development site.

The site comprises of 2 separate allotments and once consolidated will result in creating a regular shaped land parcel with a frontage of 33.53m to Barber Avenue, a site depth of 50.29m, resulting in a with a total site area of 1,686.19m² with a dwelling currently located on each lot. The subject site is predominately flat.

The site is located within an established residential area and currently accommodates two residential dwellings and associated structures, as demonstrated by Photograph 1 below.

Photograph 1: Shows 41 & 43 Barber Avenue, Penrith.



The development site is surrounded by older style single storey residential dwellings and a duplex to the east, with Barber Street separating the site from a recently constructed flat building and low density housing to south.

It is noted that the site currently accommodates two single storey residential dwellings and associated structures. The site also contains existing trees and vegetation, with the majority of the trees to be removed to accommodate the proposal.

The aerial extract and photographs of the locality below provides context to the development site.



Figure 1: Locality Map (Source: Google Map)

An aerial photograph of the current state of development in the vicinity of the site is provided below and shows the extent of development occurring in the locality. The form of development on adjoining properties has informed the design of the building with particular reference to the adjoining residential flat building to the west with window placements and designs.

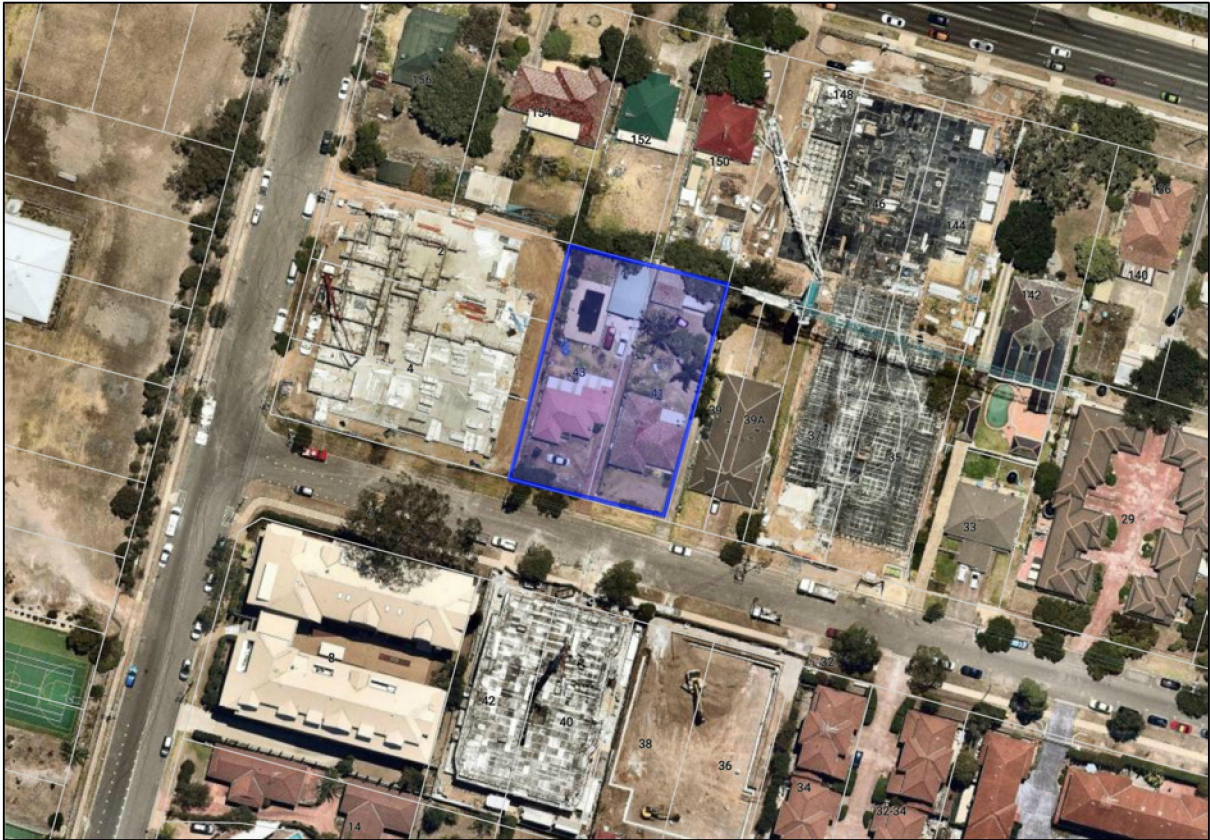


Figure 2: Locality Map (Source: Nearmap)

The development site is zoned R4 High Density Residential under the provisions of the Penrith Local Environmental Plan 2010 as illustrated by Council's zoning map extract in the following page.

'Residential Flat Buildings' are permissible with consent within the R4 zone and the subject site is permitted a maximum building height of 18m.

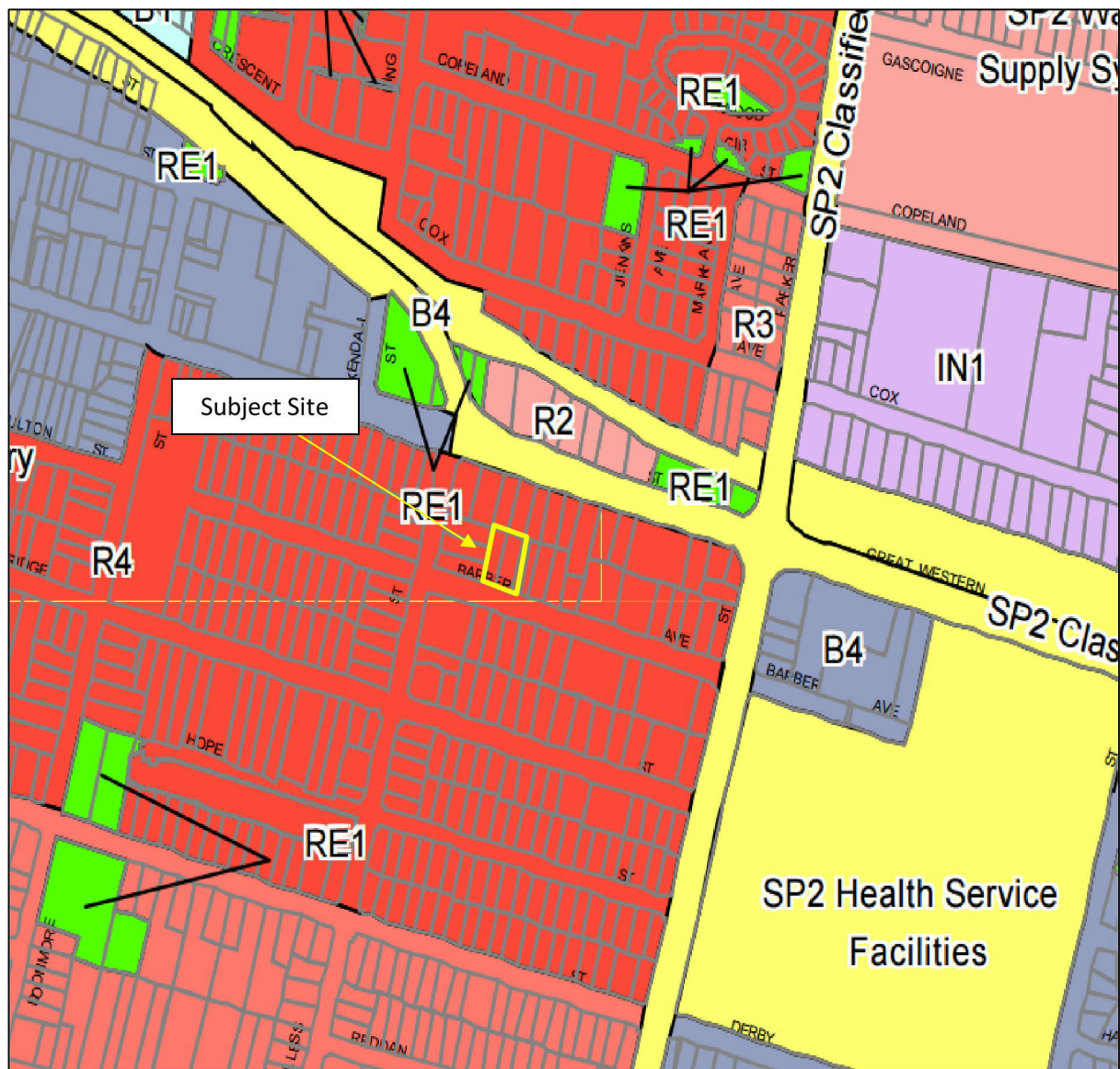


Figure 3: Zoning Map Sheet LZN_013 Extract (Source: Penrith LEP 2010)

The 2 x existing dwellings are in a reasonable condition; however, they are significantly underutilising the sites full development potential given the R4 High Density Residential zone permits higher density residential developments such as residential flat buildings of up to 18m.

The site also resides within a large residential block bounded by the Northern Road to the east, Barber Avenue to the south, Colless Street to the west and High Street to the north.

The existing built form character within the residential block comprises predominantly of older style one and two storey residential dwellings of mixed ages with some multi dwelling housing including the development adjoining the site to the east.

This is illustrated by an aerial map in the following page.



Figure 4: Aerial Map of Surrounding Area (Source: Google Map)

With the Penrith LEP zoning land within the residential block for higher residential density with building permitted up to 18m and considering its proximity to both Penrith City Centre and Kingwood commercial strip, a major regional hospital and large industrial precinct and considering the current high demand of housing, it is anticipated that the built form character of existing low density housing within the subject block will undergo a substantial shift towards higher densities over the medium term. This is evident with multiple DAs currently with Council for comparable RFB and mixed-use development within the wider locality.

A Plan for Growing Sydney supports higher density residential developments in strategic locations to accommodate future population growth. The subject area is ideal for future urban intensification as it is located within close proximity to a large commercial centre, industrial precincts, regional hospital, schools, public transportation and recreational opportunities. The amalgamation of the two land parcels will permit an orderly development of the site and also permitting the site to fulfil its zoning potential.

The proposal also seeks to provide an important streetscape presence beyond the existing facades currently present in the locality and play an important role in the renewal process by setting the design standard and tone for future character and residential built forms along Barber Avenue and also within the subject residential block. The development site is also located near key arterial roads such as the Great Western Highway and The Northern Road.

An aerial photograph, that demonstrates the sites location within the wider locality, is provided in the following page.



Figure 5: Broader Locality Map (Source: Google Map)

Photographs are provided below and within the following pages that give context to the locality and also the relationship of the development site with adjoining developments.

Photograph 2: Shows the existing multi dwelling housing development located opposite the subject site (8 Colless Street).



Photographs 3: Shows the existing streetscape of Barber Avenue, viewing eastwards.



Photographs 4: Shows the existing streetscape of Barber Avenue, viewing westwards.



Heritage

The site is not identified as a heritage item; it is not located within a heritage conservation area. There is a heritage listed item on the block, as illustrated by the heritage extract map below.



Figure 6: Heritage Map Sheet Extract (Source: Penrith LEP 2010)

The property at 142 High Street contains the heritage listed dwelling known as “Kelvin Brae” which is a Federation house. There is no available Statement of Significance for the heritage item however, Council’s database states that the house is a good example of a Federation bungalow retaining original details to its slate and terracotta roof. It should be noted that the house has been altered by rendering and enlarging the windows.

There is sufficient separation between the development site and the heritage items with existing and anticipated land uses to provide adequate buffer between the proposed flat building and 142 High Street and as such ensuring the heritage significance of the local heritage item is maintained. As such a statement of heritage impact is not required.

Description of Proposal

The proposal involves the amalgamation of the existing allotments, demolition of existing structures and construction of a 6 storey residential flat building with the following aspects:

Unit Mix

The proposal incorporates a total of 45 units with the following dwelling mix:

- 14x 1 bedroom units
- 24 x 2 bedroom units
- 7 x 3 bedroom units.

Parking

The development proposal includes a total of 61 parking spaces within two basement levels, and the access ramp to the basement is located on the north-western section of the site. The parking breakdown is as follows:

- 52 residential car parking spaces (including 5 accessible parking spaces); and
- 9 visitor car parking spaces.

Waste Collection

The proposal has been designed to enable waste to be collected from Barber Avenue with a truck being able to utilise a 'pull in bay' to collect the waste.

No chute system is proposed with waste area provided in every habitable level with 4 bins per level that will be taken by the manager to the ground floor collection area located at the ground floor.

Site Isolation

The proponent has made a number of approaches to the Aboriginal Housing Office regarding the adjoining property however they have not indicated a willingness to sell the land. However to show that residual development potential is maintained for that site a boarding house scheme has been prepared to show the development potential. Therefore that site is not entirely 'isolated' as the site remains development potential.

Planning Controls

Statutory Controls

The relevant Statutory Planning Controls include:

- State Environmental Planning Policy (BASIX)
- State Environmental Planning Policy No.55- Remediation of Land
- State Environmental Planning Policy No.65 –Design Quality of Residential Apartment Development
- Sydney Regional Environmental Plan No. 20- Hawkesbury Nepean River
- Penrith Local Environmental Plan 2010.

Policy Controls

The applicable policy control documents are:

- Penrith Development Control Plan 2014

Consideration of Planning Controls

The following summarises the relevant planning controls in relation to the proposal and the compliance of each.

State Environmental Planning Policy BASIX

The application has been assessed and is accompanied by a complying BASIX certificate demonstrating a commitment to thermal and water efficiency.

State Environmental Planning Policy No. 55- Land Contamination

Given the historical use of the site for urban purposes, land contamination is not likely. However a site investigation has been carried out to deal with the issue of the adjoining property that formerly contained a service station which was removed and remediated.

That report confirms the site is suitable for the development.

SEPP 65 Design Quality of Residential Apartment Development and the Apartment Design Guide

The development application is accompanied by a design verification statement by Chris Khoury, verifying that he has directed and designed the proposal, and that the design quality principles set out in Part 2 of the SEPP are achieved for the residential flat development.

A description of compliance with the applicable development controls such as setbacks, building depth, separation, height, etc. is provided in the local planning controls discussion and tables below.

The table below provides a detailed discussion against the relevant provisions of the Apartment Design Guide, noting that a number of these provisions are embodied within the Penrith Local Environmental Plan 2010 and supporting Penrith Development Control Plan 2014.

An assessment against the relevant objectives and design guidelines contained in parts 3 and 4 of the Apartment Design Guide can be found below.

Clause 6A of the amended SEPP states that development control plans cannot be inconsistent with the Apartment Design Guide for the following matters set out in parts 3 and 4 of the guide:

- (a) visual privacy
- (b) solar and daylight access
- (c) common circulation and spaces
- (d) apartment size and layout
- (e) ceiling heights
- (f) private open space and balconies
- (g) natural ventilation
- (h) storage.

The SEPP states that if a development control plan contains provisions that specify requirements, standards or controls in relation to a matter to which clause 6A applies, those provisions are of no effect.

ADG Element	Design Criteria/Design Guideline	Proposed	Compliance
Part 3 – Siting the Development			
3A Site Analysis	Appendix 1 of the ADG	Provided	Yes
3B Orientation	Building to define the street, by facing it and incorporating direct access from the street	The proposed residential flat building complex has been designed to address and provide direct pedestrian access via Barber Avenue. Passive surveillance opportunities are provided from primary living areas and balconies that overlook the public domain.	Yes
	Where an adjoining building does not currently receive 2 hours of sunlight in midwinter, solar access should not be further reduced by > 20%	Not applicable	N/A
	4 hours of solar access should be retained to solar collectors on neighbouring buildings	Adjoining properties do not contain solar collectors	N/A
3C Public Domain Interface	Terraces, balconies should have direct street entry, where appropriate.	Direct street address is provided to the 2 units that face directly onto Barber Avenue.	Yes
	Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	Appropriate location of mail boxes provided. Complies.	Yes
	Substations, pump rooms, garbage storage rooms and other service rooms should be	The garbage storage room is located within the ground floor level; however it is located within the building and will not be visible from the Street.	Yes

	located in the basement carpark or out of view		
3D Communal and Public Open Space	<u>Design Criteria:</u> Communal open space has a minimum area equal to 25% of the site 50% of the principal COS should receive 2 hours of sunlight between 9am and 3pm.	Council has previously indicated a preference to privatise ground floor courtyards to adopt POS rather than COS. Therefore the ground floor has been allocated as private POS to maximise amenity for these units. There is a total of 163m² or 10% of the site area This is variation to the COS control however improves amenity for the ground floor units. A rooftop COS was also considered however it would exceed the building height control and therefore the current proposal with a small ground floor COS was considered preferable. This is considered to be preferable to nominate common areas to the rear of the site.	Variation
3E Deep Soil Zones	<u>Design Criteria:</u> A deep soil zone equivalent to 7% of the site area must be provided If the site is between 650m² to 1500m² then the DSZ must have minimum dimensions of 3m If over 1500m² then min dimensions of 6m <u>Design Guidelines:</u> On some sites it may be possible to provide larger deep soil zones: 10% of the site as deep soil on sites	118m² required and a deep soil area of 442.04m² or 26.22% of the site is provided. Complies. N/A Complies with Minimum Dimension of 6m It is noted that the proposal provides a total of 15.5% of the site area for deep soil zones. Complies.	Yes N/A Yes Yes

	with an area of 650m²- 1,500m² • 15% of the site as deep soil on sites greater than 1,500m²		
3F Visual Privacy	<u>Design Criteria:</u>		
Building Separation Up to 4 storeys (up to 12m)	12m between habitable rooms (6m)	A minimum 6m building separation from the primary building line is provide to the majority of the site's eastern, northern and western boundaries. It is noted there are encroachments, however these rooms are either blank walls, or they are provided with visual privacy features such as highlight windows and screening devices, there are negligible privacy impacts. Therefore, the proposal is still consistent with the underlying principles of the building separation control. In addition the proposal has adopted a T element to the front and rear with 4.5m separation that then pulls into the required 6m through the middle of the building to align with previous UDRP comments on the ability to consider a 4.5m to the front and rear and 6m through the middle. Those areas within the 4.5m are treated with raised sill heights or limited openings to create a non-habitable condition.	Variation- Design Treatment Provided
5-8 Storeys (up to 25m)	18m between habitable rooms (9m)	The 6th floor is recessed with a separation of 9m building separation. However the 5th floor does not comply with the intent being to avoid excessive stepping to the building. With those windows within the 9m separation treated to avoid privacy impacts and is therefore suitable- noting windows on the eastern side of the 5th floor meet the 9m and planter boxes are proposed to balcony edges to mitigate privacy.	Variation to Front of Building

		The encroachment will not result in additional privacy impacts to neighbouring properties and therefore the proposal is still consistent with the underlying principles of the building separation control. N/A- R4 Zoning adjoining.	N/A
3G Pedestrian Access and Entries	Building entries should be clearly identifiable and communal entries should be clearly distinguished from private areas	The building provides clearly distinguishable entry point from Barber Avenue.	Yes
3H Vehicle Access	Car park access should be integrated with the building's overall façade Car park entry and access should be located on secondary streets or lanes where available	The vehicular access point from Barber Avenue which integrates with the overall design of the building. N/A	Yes N/A
3J Carparking	<u>Design Criteria:</u> Carparking for sites within 800m of a railway station or light rail stop can provide parking at the rate of: <u>Design Guidelines:</u> Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	N/A as not within 800m of a railway station. Designed to comply with the Penrith DCP 2014. The proposal provides appropriate undercover and secure residential bicycle parking spaces within the basement levels.	N/A Yes
Part 4 – Designing the Building			
4A Solar Access	<u>Design Criteria:</u> Living rooms and private open space of at least 70% of units to receive 2 Hours Solar	78% of units achieve the required 2 hours of solar access at mid-winter.	Yes

	Access between 9am and 3pm Mid-Winter A maximum of 15% of apartments receive no direct sunlight between 9am and 3pm Mid Winter	< 15% single aspect south facing units.	N/A
4B Natural Ventilation	<u>Design Criteria:</u> 60% of Units are cross ventilated in a building up to 9 storeys Overall width of a cross over or cross through apartment is < 18m <u>Design Guidelines:</u> The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	71% of units are cross ventilated. < 18m Development has a mix of dual aspect apartments, single aspect and corner apartments. See attached architectural plans for detail.	Yes Yes Yes
4C Ceiling Height	<u>Design Criteria:</u> 2.7m for habitable and 2.4m for non-habitable.	Complies	Yes
4D Unit Sizes	<u>Design Criteria:</u> Studio 35m² 1 bed 50m² 2 bed 70m² 3 bed 90m² + 5m² for each unit with more than 1 bathroom. Habitable Room Depths Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% <u>Design Guidelines:</u> Limited to 2.5m x Ceiling Height	All units comply with many units exceeding . Every habitable room is provided with a window. N/A as open plan layouts provided	Yes

Bedroom sizes Master Other	10m ² 9m ²	Comply Comply	Yes Yes Yes
Living rooms/dining areas have a minimum width of: 3.6m 4m	Studio/1 br 2br/ 3br	Comply Comply	Yes Yes
Open Plan Layouts that include a living, dining room and kitchen.	8m to a window	Complies given unit depths and design layouts.	Yes
4E Private Open Space	<u>Design Criteria:</u>		
Balcony Sizes 1 bed 2 bed 3 bed	8m ² & 2m depth 10m ² & 2m depth 12m ² & 2.4m depth	Complies Complies Complies	Yes Yes Yes
Ground level/ podium apartments	15m ² & 3m depth	Minimum 15m ² and > 3m.	Yes
4F Common Circulation and Spaces Common Circulation Units per Plate	<u>Design Criteria:</u> 8 Unit per Plate	Lift core is to serve a maximum of 8 units per plate.	Yes
Corridors > 12m	Are articulated	Corridors are articulated.	
4G Storage	1 bed 6m ³ 2 bed 8m ³ 3 bed 10m ³ Min 50% of required storage is within the apartment	The proposal provides: 1 bed: >6m ³ 2 bed: >8m ³ 3 bed: >10m ³ This is provided within the basement/ground floor and within the units themselves, with a minimum of 50% of storage to be provided within each individual unit. The proposed development is considered to offer storage space that aligns with the provisions of the ADG.	Yes

4H Acoustic Privacy	Adequate building separation is provided within the development and from neighboring buildings/adjacent uses	Development has provided adequate separation from neighbor buildings/properties in-line with 3F Visual Privacy – design criteria above.	Yes
	Windows and door openings are generally orientated away from noise source	Where appropriate windows and door openings are orientated away from noise sources.	Yes
	Noisy areas within buildings including building enters and corridors should be located next to or above each other and quieter areas next to or above quieter areas.	The application is designed to create different 'zones' with more active areas clustered together and more passive areas also clustered together to maximise acoustic privacy and also take advantage of the lot orientation.	Yes
4K Apartment Mix	A variety of apartment types is provided	A diversity of apartments is proposed as follows: • 14x 1 bedroom units • 24 x 2 bedroom units • 7 x 3 bedroom units. The proposed unit mix will offer a variety of housing choice. The proposal is designed with a mix of units to provide a variety of housing choices that responds to market demand, noting that the bedroom numbers and size of units are varied that will provide for a range of sizes to meet the needs of occupants and also provide different pricing points for the alternative sizes which will contribute to affordability.	Yes
4M Facades	Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale	The proposed facades are well articulated with a mixture of vertical and horizontal features including windows, projecting walls and balconies and framed elements. Overall the proposed facade is considered a quality design outcome that is compatible with other comparable modern RFB within the wider Penrith LGA.	Yes

4O Landscape Design	1 large tree or 2 medium trees per 80m ² of DSZ	Consistent as per landscaping, noting where appropriate existing trees are to be retained.	Yes
4Q Universal Design 20% of the total apartments	Achieve Liveable House Guidelines silver level universal design features	The residential flat building provides 9/44 units as accessible units, or 20.45% of units, and is therefore compliant.	Yes
4U Energy Efficiency		The development application is accompanied BASIX certificate indicating energy efficiency for each residential unit provided. Furthermore, it is noted that more than 70% of units achieve the minimum 2 hours of solar access at mid-winter and over 60% units achieve natural ventilation.	Yes
4V Water Management and Conservation	Reduce mains consumption, and reduce the quantity of storm water runoff.	The application has been provided with a BASIX certificate indicating energy efficiency for each residential unit provided.	Yes
4W Waste Management	Supply WMP Allocate storage area	Provided Appropriate waste storage areas are provided.	Yes Yes
4X Building Maintenance	To ensure long life and ease of maintenance for the development.	The proposed material is considered durable which may be easily cleaned.	Yes

Sydney Regional Environmental Plan (SREP) No. 20 Hawkesbury Nepean River

The development proposal incorporates a drainage concept that demonstrates that stormwater can be adequately conveyed to the existing street network. Appropriate erosion and sediment controls can be implemented throughout construction and it is anticipated that conditions of consent will reinforce this. It is noted that the proposal meets the recently adopted WSUD measures required to achieve appropriate water quality for stormwater discharge.

Penrith Local Environmental Plan 2010

The subject site is zoned R4 High Density Residential under the provisions of the Penrith LEP 2010 as indicated on the zoning extract map below.

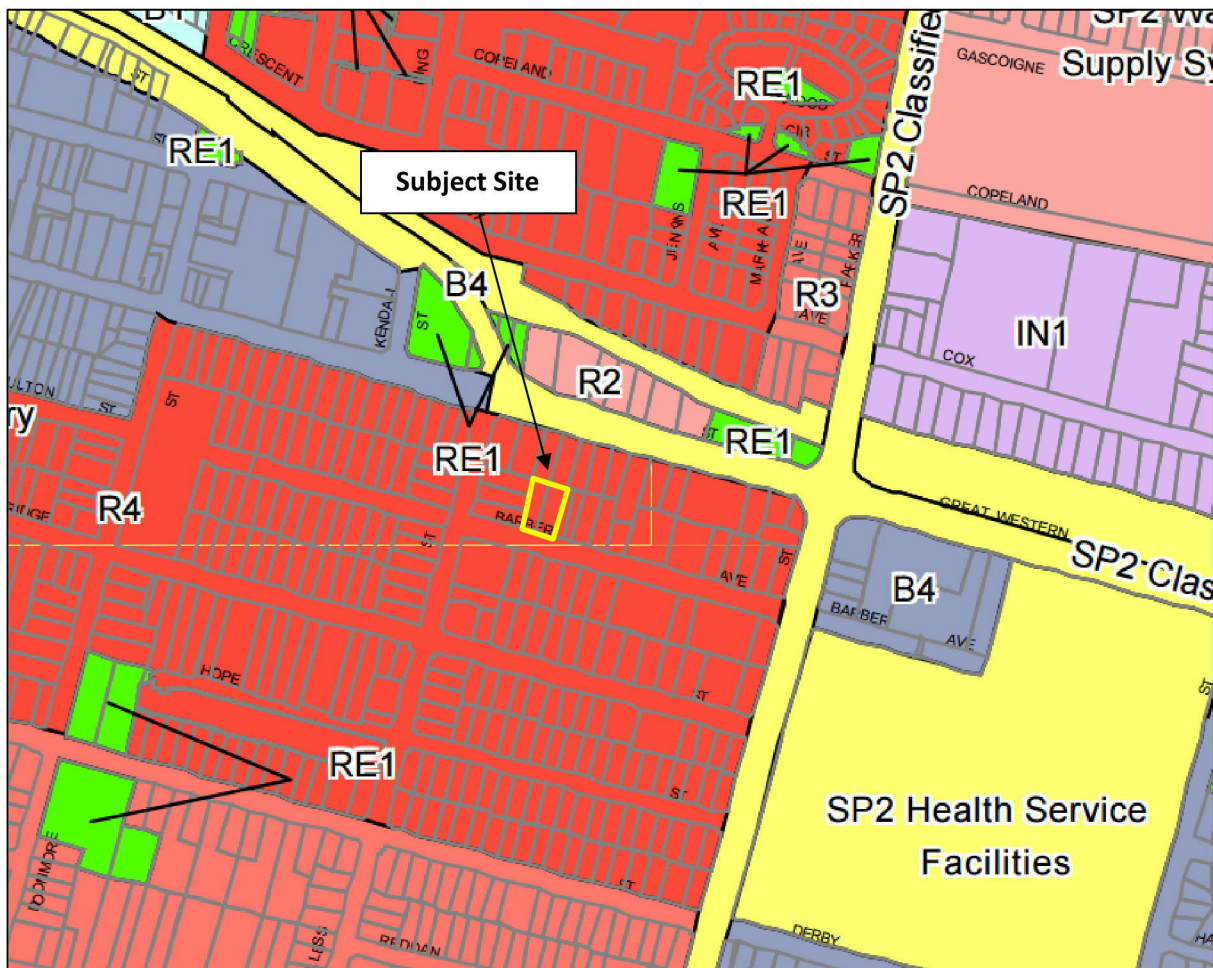


Figure 7: Zoning Map Sheet LZN_013 Extract (Source: Penrith LEP 2010)

A Residential Flat Building is permissible with consent and the proposal is consistent with the definition contained within the LEP:

Residential flat building means a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing.

The development proposal is also consistent with the prescribed R4 zone objectives that are stipulated as:

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To ensure that a high level of residential amenity is achieved and maintained.

- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

The proposed development provides a residential flat building that will provide a variety of housing types and contribute towards increasing the housing stock of Penrith, while being consistent with the emerging high-density character of the subject area. The site is well located and provides access to essential services, public transportation, schools, shops and recreation opportunities.

The residential flat development incorporates a contemporary design that achieves a good presentation to Barber Avenue. The locality has been zoned for high density development and as such it is expected to transform over the next 5 to 10 years with planning controls permitting greater density in the locality. The proposal aims to provide a strong interface to Barber Avenue while being consistent with the future high density character of the precinct.

The table below provides detail on the development standards relevant to the current proposal as well as other relevant LEP provisions.

Penrith Local Environmental Plan 2010 - Compliance Table			
Relevant Clause	Control	Comment	Complies
Zoning	R4 – High Density	Residential Flat Buildings are permissible with Council consent in the R4 – High Density Residential zone.	Yes
Part 2 Permitted or Prohibited Development			
2.3	Zone Objectives and Land Use Table	The proposal is consistent with the zone objectives of the R4 – High Density zone and will provide additional housing in the catchment of public transport and services while contributing to range of housing types to suit the needs of residents within a high density context. The proposal will appropriately fulfil the site's zoning potential, provide an attractive built form that will address the public domain and increase housing stock within the locality.	Yes
2.6	Subdivision – Consent Requirements	No subdivision is proposed. Not applicable.	N/A
2.7	Demolition Requires Consent	Council consent is sought for the demolition of the existing structures on the site.	Yes

Part 4 Principal Development Standards			
4.1A	Minimum Subdivision Lot Size: Residential Flat Building: 800m ²	A minimum lot size of 800m ² is identified for the site under the Penrith Local Environmental Plan 2010 Clause 4.1A. The subject site has a total site area of 1,686.19m ² . Complies.	Yes
4.3	Height of Buildings - 18m	Penrith Local Environmental Plan states that the maximum building height within the subject site is 18m. The building complies with the height limit. Noting that RL's are provided on the roof to confirm compliance is achieved.	Yes
4.4	Floor Space Ratio	No FSR control applies to the subject site. Not relevant.	N/A
Part 5 Miscellaneous Provisions			
5.9	Preservation of trees or vegetation	Council consent is sought for the removal of identified trees from the site, noting that where appropriate, existing trees are to be retained. Proposed extensive landscape treatment seek to soften the built form and integrate with the development and the site's context within a high residential density context. It is highlighted that no significant vegetation is to be impacted as part of the proposal. Landscaping of the site is to be undertaken in accordance with the attached Landscape Plan.	Yes
5.10	Heritage	The site does not contain a heritage item and is not located within a heritage conservation area. There is a heritage listed item located on the residential block, however there is a sufficient amount of separation between the site and the heritage item, and therefore a Statement of heritage impact is not required, as the development of a Residential Flat Building on the subject site is unlikely to have a negative effect on the heritage listed item as compared to the adjoining development under construction that immediately borders that site.	Yes

Part 7 Additional Local Provisions			
7.1	Earthworks	This application seeks Council consent for the excavation of the site as per the attached plans. It is considered that the proposed excavation will have minimal adverse environmental or amenity impact. The proposal results in an appropriate outcome when considering the nature of the development, the unique characteristics of the site and compliance with relevant Council controls. The proposal will not adversely affect or disrupt drainage and flood patterns, flood storage or soil stability in the area. The proposed excavation is consistent with the current and future use of the land and will develop the site into context with its surrounds and in accordance with Councils current and proposed planning strategies. It is considered unlikely due to the location of the site as well as previous development that excavation will lead to the disturbance of relics.	Yes
7.2	Flood planning	The site is not identified as being flood prone by Council's flood planning land map sheet FLD_013.	N/A
7.3	Development on Natural Resources Sensitivity Land	The site is not identified on the Natural Resources Sensitive Map. Not applicable.	N/A
7.4	Sustainable Development	The proposal satisfies the LEP in that: <i>(a) conserving energy and reducing carbon dioxide emissions,</i> <i>(b) embodied energy in materials and building processes,</i> Proposal incorporates a BASIX certificate relating to energy efficiency. <i>(c) building design and orientation,</i> <i>(d) passive solar design and day lighting,</i> <i>(e) natural ventilation,</i>	Yes

		The majority of units receive good solar access and natural ventilation. <i>(f) energy efficiency and conservation,</i> <i>(g) water conservation and water reuse,</i> Proposal incorporates a BASIX certificate relating to energy/water efficiency. <i>(h) waste minimisation and recycling,</i> Waste management and recycling is addressed through the attached waste management plan. <i>(i) reduction of vehicle dependence,</i> Proposal is located within a 400m radius of bus stops with regular services to Penrith, Mt Druitt and Luddenham that gives alternative means of transport. <i>(j) potential for adaptive reuse.</i> Given the zoning of the site as R4 there is limited adaptive re-use potential on the site.	
7.5	Protection of Scenic Character and Landscape Values	The site is not identified on the Land with Scenic and Landscape Values Map. (SLV_013). Not applicable.	N/A
7.6	Salinity	Due to the nature and location of the site it is not likely to be affected by Saline Soils. Not applicable.	N/A
7.7	Servicing	The development site is well serviced by water and sewer and the required utility clearances will be obtained prior to works commencing on site.	Yes

Penrith Development Control Plan 2014

The key DCP controls are contained in the table below.

Penrith Development Control Plan 2014 – Compliance Table			
Clause	Controls	Comment	Complies
C1 Site Planning and Design Principles			
1.1	Site Planning	<u>1.1.1 Site Analysis</u> A Site Analysis has been prepared and is attached as part of this application. The site analysis identifies the relevant considerations required by Council and acknowledges the unique opportunities and constraints of the site that have informed the design of the development proposal.	Yes
		<u>1.1.2 Key Areas with Scenic and Landscape Values</u> The subject site is not located within the Scenic and Landscape Values Map under the Penrith LEP 2010.	N/A
		Not applicable.	
1.2	Design Principles	<u>1.2.2 Built Form – Energy Efficiency and Conservation</u> The proposed development maximises solar access to units and is designed in a manner that achieves natural light and ventilation. A BASIX certificate is attached to this statement.	Yes
		<u>1.2.3 Building Form – Height, Bulk and Scale</u> It is considered that the proposal will result in an appropriate outcome on site that responds to the unique characteristics of the site.	Yes
		The site complies with the maximum height control that applies for the site under Penrith LEP 2010 and adopts a 6 storey form. It is noted that the subject area is currently ongoing a transformation from low density residential dwelling to a high density housing, with the proposal designed to be consistent with the future high density built form character of the precinct.	

		<u>1.2.4 Responding to the Site's Topography and Landform</u> The subject site is predominately flat and is ideal to accommodate the proposed Residential Flat Development. <u>1.2.5 Safety and Security (Principles of Crime Prevention through Environmental Design)</u> The proposed development incorporates active façades that will permit casual surveillance of Barber Avenue as well as the common areas of the proposal. The proposal incorporates open space and landscaped areas that will contribute to activity and natural surveillance of the area. The proposed landscaping and fencing is appropriate when considering CPTED principles and will not permit easy concealment of intruders. The proposed development is appropriate and provides measures, built elements, landscaping and design features that are consistent with CPTED principles. <u>1.2.6 Maximising Access and Adaptability</u> Proposal has been designed to provide access to and from the site for people with mobility issues.	Yes Yes Yes
C2 Vegetation Management			
2.1	Preservation of Trees and Vegetation	Council consent is sought for the removal of identified trees from the site, noting that where appropriate, existing trees are to be retained. The site is not identified as being located within the Natural Resources Sensitive Map under Penrith LEP 2010. Proposed extensive landscape treatment seek to soften the built form and integrate with the development and the site's context within a high residential density context.	Yes

		It is highlighted that no significant vegetation is to be impacted as part of the proposal. Landscaping of the site is to be undertaken in accordance with the attached Landscape Plan.	
2.2	Biodiversity Corridors and Areas of Remnant Indigenous Vegetation in Non-Urban Areas	The subject site is not identified as being within a Natural Resource Sensitive Land under Penrith LEP 2010. Not applicable.	N/A
2.3	Bushfire Management	Subject site is not identified as being within a Bushfire Prone Land. Not applicable.	N/A
C3 Water Management			
3.1	Water Conservation	The development application is accompanied by a complying BASIC certificate that outlines how water usage will be minimised.	Yes
3.2	Catchment Management and Water Quality	Appropriate management of the site during the demolition and construction phases will contribute towards protecting the catchments natural water systems. A Stormwater Management Plan has been prepared and is attached as part of this application.	Yes
3.3	Watercourses, Wetlands and Riparian Corridors	Subject site is not located within close proximity to a watercourse, wetland or riparian corridor. Not applicable.	N/A
3.4	Groundwater	The proposed development is to be for an RFB development. Although the proposal contains a 2 level basement it is not considered that the proposal will impede existing ground water flows. It is considered that the risk of site contamination occurring during construction and future use of the site is low. Not applicable.	N/A
3.5	Flood Planning	The subject site is not identified as being flood prone. Not applicable.	N/A

3.6	Stormwater Management and Drainage	The proposed development incorporates Water Sensitive Urban Design (WSUD) principles that seek to minimise and manage the impact of stormwater on site and within the area. The proposed development appropriately addresses the unique characteristics of the site and will allow for the efficient management of stormwater. A Stormwater Management Plan has been prepared and is attached as part of this application.	Yes
C4 Land Management			
4.1	Site Stability and Earthworks	This application seeks Council consent for the excavation of the site as per the attached plans. It is considered that the proposed excavation, will have minimal adverse environmental or amenity impact. The proposal results in an appropriate outcome when considering the nature of the development, the unique characteristics of the site and compliance with relevant Council controls. The proposal will not adversely affect or disrupt drainage and flood patterns, flood storage or soil stability in the area. The proposed excavation is consistent with the current and future use of the land and will develop the site into context with its surrounds and in accordance with Councils current and proposed planning strategies. It is considered unlikely due to the location of the site as well as previous development that excavation will lead to the disturbance of relics.	Yes
4.3	Erosion and Sedimentation	This application seeks Council consent for the excavation of the site as per the attached plans. It is considered that the proposed excavation, will have minimal adverse environmental or amenity impact.	Yes

		The proposal results in an appropriate outcome when considering the nature of the development, the unique characteristics of the site and compliance with relevant Council controls. An Erosion and Sediment Control Plan is attached as part of this application.	
4.4	Contaminated Lands	See discussion against SEPP 55.	Yes
4.5	Salinity	Due to the nature and location of the site it is not likely to be affected by Saline Soils. Not relevant.	N/A
C5 Waste Management			
	A bin chute is to be provide to all RFB's over 3 storeys in height.	A Waste Management Plan is attached as part of this application. Notwithstanding this it is noted that waste is to be appropriately managed during the demolition and construction stages of the development. A communal bin area is located within the ground floor level and a pull in bay is proposed. A chute system is proposed that discharges to the ground floor that will be managed by the building manager. The proposal does not provide an on-site waste collection arrangement on the basis that: - On site collection is a poor design outcome; - Other developments in immediate proximity to the site utilise a pull in bay and therefore it responds to the site context. - Basement collection is not feasible nor desirable on the site and the pull in bay is the most suitable response.	Variation
C6 Landscape Design			
		A landscape concept plan, prepared by a Landscape Architect, accompanies this development application.	Yes

		The concept plan details the landscape embellishment works proposed and it can be seen that these works will substantially improve the streetscape presentation of the site as well as softening the proposed built form.	
C7 Culture and Heritage			
7.1	European Heritage	The site does not contain a heritage item and is not located within a heritage conservation area. There is a heritage listed item located on the residential block, however there is a sufficient amount of separation between the site and the heritage item, and therefore a Statement of heritage impact is not required, as the development of a Residential Flat Building on the subject site is unlikely to have a negative effect on the heritage listed item.	Yes
7.3	Significant Trees and Gardens	The subject site does not contain any trees or gardens that is considered to be of cultural, historical, scientific or aesthetic significance. Not relevant.	N/A
C10 Transport, Access and Parking			
10.2	Traffic Management and Safety	It is considered that the vehicular access and exit points are clearly defined and provide for the safe and efficient movement of vehicular traffic on site and for entering and exiting the site. The proposed parking area and ancillary driveways will not contribute to the creation of traffic hazards. The proposal provides for the safe and efficient movement of pedestrian and vehicular traffic within the site and both entering and exiting the site. Vehicle and pedestrian routes are clearly indicated and accessible.	Yes
10.3	Key Transport Corridors	The subject site is not located within a key transport corridor. Not relevant.	N/A

10.5	Parking, Access and Driveways Parking Rates 1 space per 1 or 2 br unit (38) 2 spaces per 3 br unit (14) Resident: 50 spaces required. Visitor: 1 space for every 5 dwellings: 9 1 space per 40 units for service vehicles =1 Total: 59 required plus vehicle service bay.	Proposed dimensions for car parking spaces are consistent with Council control. See plan for detail. The development proposes the construction of 45 units comprising that equates to 52 spaces and 9 visitor spaces. Utilising the DCP rates, the development requires: Resident Spaces: 52 Visitor Spaces: 9 Total: 61 The proposal provides for 52 resident spaces and 9 visitor spaces and complies noting the stacked parking is for the 3 bedroom units only.	Yes
D2 Residential Development			
2.5	Residential Flat Buildings New residential flat building development should adopt key features of established suburban design. Within the relevant zones, established development provides parking areas which are concealed from the street and consequently avoids the appearance of "garage architecture"	<u>2.5.2 Preferred Configuration for Residential Flat Buildings</u> The development has courtyards and private open space areas that front Barber Avenue. Units front Barber Avenue and adopts a traditional orientation with the living room and courtyards to the primary street setback. Parking is provided within the basement and will not result in "garage architecture". The proposed layout and siting of the units are consistent with the layout patterns of other comparable RFB developments within the Penrith LGA.	Yes Yes Yes
2.5.3	Development Site Minimum lot width of 20m in the R4 High Density Residential zone.	The proposal has a site frontage of 33.53m and as such complies with Council's minimum lot width requirements for Residential Flat Buildings within the R4 zone.	Yes

2.5.4	Urban Form		Yes
	1. For dwellings fronting the street, adopt a traditional orientation: a) living rooms, verandahs and the paths to entrances face the street rather than neighbouring properties; and b) private gardens fill the front setback area; and c) garages are concealed behind dwellings.	There are 2 units that front Barber Avenue and adopt a traditional orientation with their living room and courtyards addressing the site's front setbacks. Where appropriate, the front setback areas are to be landscaped and garages are within a basement so as not to dominate the streetscape.	
	2. Dwellings behind the street frontage should adopt similar principles: a) living rooms and entrances face the street, and / or the landscaped rear boundary setback; and b) private gardens fill the rear setback area.	Given the depth of the site, courtyards and living areas are orientated towards all boundaries. The building design has however, maximised the number of dwellings that have living areas facing the front and rear setbacks.	Variation
	3. Avoid "gun-barrel" style developments with long rows of attached dwellings, long straight driveways and rows of uniform width side setback:	The development avoids the visual appearance of a 'gun barrel' style development by adopting the design suggestions within this section of the DCP.	Yes
	a) step the alignment of all facades – generally one corner and a substantial indentation for every 10m run of wall;	The building has a number of steps and indents that visually breaks up the bulk of the building.	Yes
	b) divide buildings into separate wings – a deep indentation located centrally in the longest walls; or a central garden courtyard;	Centrally located indents are proposed from the eastern pedestrian entry and the access from the common open space into the centre of the building from the southern setback. These indentations help to break up the bulk of the building and add visual interest to the building design.	Yes
	c) vary the width of side setbacks – a combination of garden courtyards and access ways; and	The development has been articulated through shadow casting features and stepping external walls.	Yes
	d) lined by an "avenue" of shady overhanging trees;	Deep rooted landscaping is provided along the perimeter of all boundaries.	Yes

	e) cap the stepped floor plan with a variety of pitched roof forms;	The indented roof provides visual relief to the development.	Yes
	f) Windows should be inserted into every elevation.	Windows are provided along all elevations.	Yes
2.5.5	Landscaped Area Where more than 10 dwellings are proposed, a centrally located communal open space area that is accessible and available to all residents of the development, comprising 10% of the minimum landscaped area requirement. Landscaped area equivalent to 35% of the site with a minimum width of 2m and no basement encroaching	163m² provided which complies with the DCP control which only requires 43sqm. Therefore the proposal meets the DCP. The proposal provides for 29% of landscaped area and varies the control however is sufficient to meet the intent of the control to provide a flat building in a landscape setting as shown on the submitted	Yes Variation
2.5.6	Front and Rear Setbacks Rear Setback: 6m Front Setback: Average of neighbouring development or 5.5m minimum. Balconies can have a 4.5m setback provided less than 50% of the elevation	6m to the building line. Complies Proposal adopts a 5.5m setback which is consistent with the emerging setback associated with approved developments and aligns with the neighbouring site to the west. Using the average of the dual occupancy is not appropriate given the emerging character of the locality which will adopt a series of 5-6 storey developments with setback of 5.5m-6m. Balconies are setback more than 4.5m however are > 50% of the elevation and varies the control. However this is a specific design response to present a suitable urban design outcome on the site and has merit with regard to the extent of balcony areas proposed.	Yes Yes Yes-Setback Variation to 50% control

	Garages and parking space are not to be located within the front setback.	Parking is provided with the basements and is not located within the front setback.	Yes
2.5.7	Side Setbacks Cut and fill and maximum ground floor heights: a) on sloping sites provide stepping building platforms in line with existing topography with floors no higher than 1m above natural ground level; b) restrict cut-and-fill to a maximum of 500mm;	Cut and fill is limited noting that the building is designed mainly to match existing ground levels- with the front of the building slightly elevated over the street level which is an appropriate response to provide privacy and passive surveillance over the street. The extent of the cut to the side and rear is 500mm and still provides suitable amenity for residents and does not generate privacy impacts given the cut proposed which will lower the effective floor level.	Yes
	Pitches for main roofs are not to be in excess of 25 degrees in order to reduce the visual scale.	The development proposes a flat roof, which is <25 degrees.	Yes
	Zero setbacks are not permitted	N/A	N/A
2.5.8	Visual and Acoustic Privacy and Outlook		
	Windows oriented towards their own private garden courtyard;	Windows from primary living are orientated towards private open space areas to provide an appropriate outlook.	Yes
	At least 9m between any windows that face each other	The proposal is consistent with the controls within the ADG as discussed previously. It is considered that the proposed development produces an appropriate outcome on site that will provide a high level of residential amenity for future residents and will not adversely impact upon residential amenity currently enjoyed by adjoining properties.	Yes
		An acoustic report is submitted with this application. The recommendations of this acoustic report will be adopted for the proposed development.	Yes

2.5.9	Solar Planning A minimum of 4 hours sunlight between 9am and 3pm on 21 June, to living zones (i.e. areas other than bedrooms, bathrooms, kitchen and laundry) of each dwelling, and the living zones of any adjoining dwellings;	The proposal incorporates appropriate design features including window size and location that will permit adequate solar penetration as well as cross ventilation of the proposed dwellings. It is noted that 78% of dwellings receive a minimum of 2 hours sunlight between 9am and 3pm during winter and all private courtyards, which are oriented to the north to receive adequate solar access.	Yes – ADG Prevails
	A minimum of 3 hours sunlight between 9am and 3pm on 21 June, to 40% of the main private open spaces of the dwelling and main private open spaces of any adjoining dwellings	The proposal does not result in unacceptable overshadowing of adjoining residential properties. Appropriate setbacks are employed to ensure solar access and privacy to adjoining development is maintained noting the orientation of the site.	Yes
	Where the existing overshadowing by buildings and fences reduces sunlight to less than the minimums noted above, the development is to not further reduced sunlight to the specified areas by more than 20%.		
2.5.10	Significant Townscapes & Landscapes	There is significant separation between the subject site and the heritage item and therefore the development will not have an impact on it.	Yes
2.5.12	Building Design	1. The development adopts a variety of architectural features designed to minimise the apparent scale and bulk of the proposed 6 storey RFB by: - Incorporation of stepping alignment of walls - Indents to the building - stepping the height of the building with a 6 storey massing in the middle of the site - Projecting balconies and awnings.	Yes

		2. The proposal incorporates physical articulation of the built form and a mixed palette of building materials and finishes that are typical of comparable newer MUH along High Street and generally within the Penrith LGA. Materials used are consistent with that existing in the area while being contemporary in character, including wall and awning cladding and a mix of face and painted brickworks. The range of materials significantly contributes to the articulation of the building and reducing the overall bulk and mass of the building. 3. The facades of the proposed units include windows and doors along all visible walls and the use projecting verandahs to provide an attractive built form.	Yes Yes
2.5.13	Energy Efficiency	The application has been provided with a BASIX certificate indicating appropriate energy efficiency for each residential unit is provided. Furthermore, living rooms have been oriented to the north with the proposal incorporates appropriate design features including window size and location that will permit adequate solar penetration as well as natural ventilation. 75% of units will achieve more than 2 hours solar access at mid-winter (ADG prevails) and provides 59.1% of units are naturally cross-ventilated. Appropriate shading devices including overhanging eaves are proposed to provide adequate shading from the summer sun.	Yes

2.5.14	Design of Dwelling and Private Courtyards Corridors at least 1.2m wide and stairs with landings at least 1.2m deep. Ground floor courtyards minimum 20m² Upper courtyards 10m² and 2.5m x 2.5m and incorporate an outdoor drying area that is screened to 1.5m above floor level.	Comply. Complies with ADG All upper storey apartments have a minimum area > 8m² and have room for an outdoor drying area.	Yes Complies with ADG Complies with ADG
2.5.15	Garage Design Basements should have a low appearance, rising no higher than 1.5m above ground; Vehicle entrances designed to complement the architecture and landscaping of each building: Individual up and down ramps; undercover storage:	The basement does not protrude above natural ground level. The double width driveway vehicle entrance and egress to High Street is consistent with the existing low density character of the area and will assist with ensuring compatibility with the surrounding built form. Provided. Complies. Provided. Complies	Yes Yes Yes Yes
2.5.16	Garden Design	Where appropriate, small to medium trees are to be planted along the sites front and side boundaries. See landscaping plans for detail.	Yes
2.5.17	Paving Design	Where appropriate, hard paved surfaces are minimised to maximise landscaping and gardens.	Yes

		The proposal provides attractive driveways and provide for verge plantings beside driveways and paths.	
2.5.18	Fencing and Retaining Walls	Proposed fencing is to be consistent with that existing within Penrith Local Government Area of similar residential flat buildings. The proposed fencing is compliant with Council controls.	Yes
2.5.19	Safety and Security	The proposed development incorporates an active façade that will permit casual surveillance to Barber Avenue as well as to driveways and landscaped areas of the proposal. The proposal incorporates open space and landscaped areas that will contribute to activity and natural surveillance of the area. The proposed landscaping and fencing is appropriate when considering CPTED principles and will not permit easy concealment of intruders. The proposed development is appropriate and provides measures, built elements, landscaping and design features that are consistent with CPTED principles.	Yes
2.5.20	Accessibility and Adaptability 10% of dwellings must be adaptable	5 adaptable units are provided. Proposal has been designed to provide access to and from the site for people with a disability.	Yes
2.4.22	Storage and Services 10m ³ of storage per unit	The proposal provides >10m ³ of storage through a combination of basement storage areas and areas within the units. Letter boxes and other services are provided.	Yes Yes

Conclusion

Following a review of the relevant planning controls, it is concluded that the proposed development is consistent with the objectives, planning strategies and detailed controls of these planning documents.

Consideration has been given to the potential environmental and amenity impacts that are relevant to the proposed development and this report addresses these impacts.

Having regard to the benefits of the proposal and taking into account the absence of adverse environmental, social or economic impacts, and that the proposal represents an appropriate use of well-located land, the application is submitted to Council for assessment. Think Planners Pty Ltd recommends the approval of the application, subject to necessary, relevant and appropriate conditions of consent.

WARNING:
EXISTING SERVICES HAVE BEEN PLOTTED FROM RECORDS SUPPLIED BY THE PUBLIC UTILITY AUTHORITIES. LOCATIONS HAVE INTERPRETED FROM THESE RECORDS ARE APPROXIMATE ONLY. EXTREME CAUTION SHOULD BE TAKEN WHEN EXCAVATING

STORMWATER DESIGN AND CONSTRUCTION TO COMPLY WITH BCA 3.1.2

ALL DEMOLITION OF ANY STRUCTURES SHOULD SATISFY AS 2601-1991

ALL DRAINAGE AND PLUMBING WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.3:2 PLUMBING AND DRAINAGE CODE

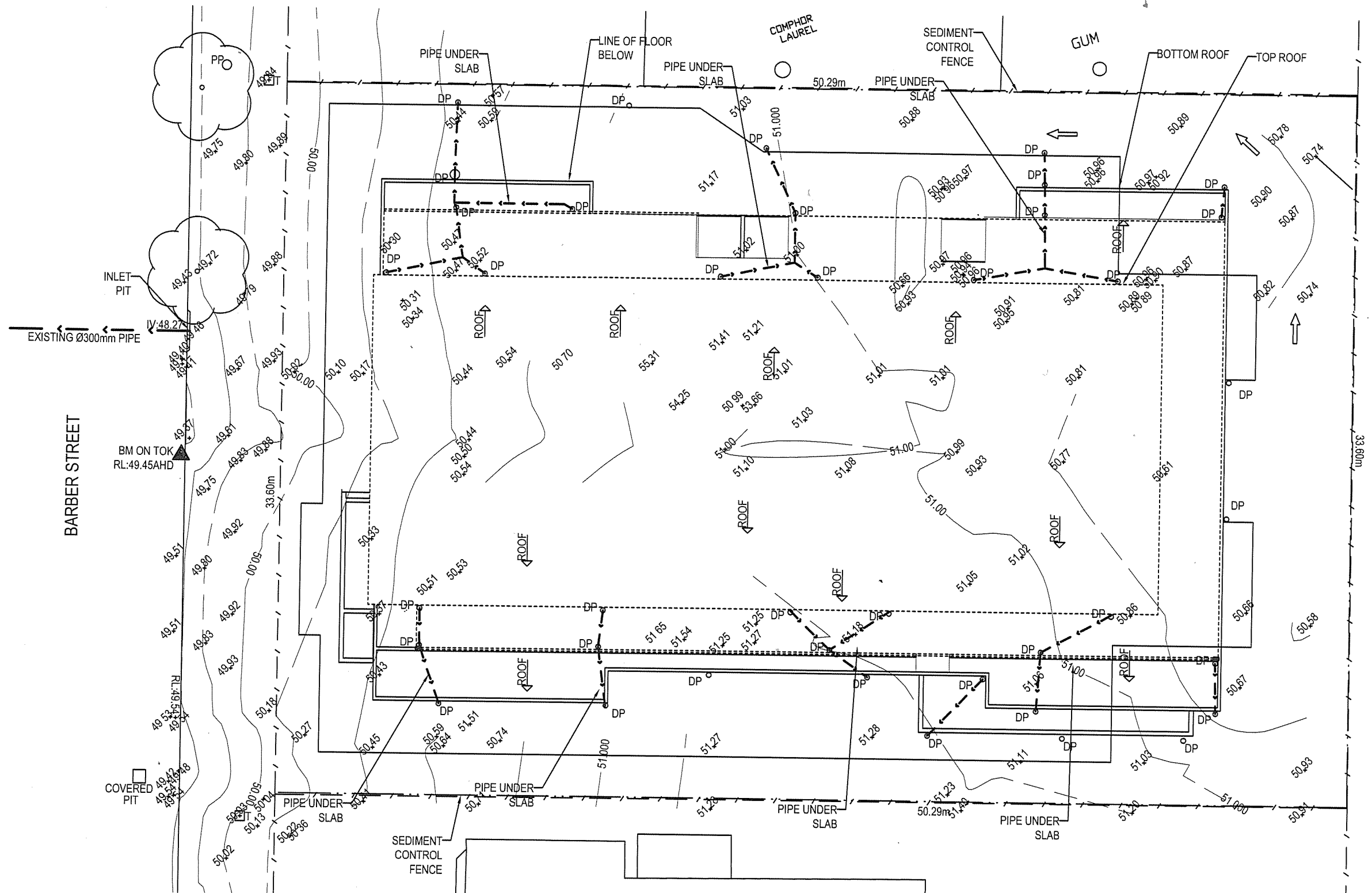
THE CHARGED PORTION OF DRAINAGE SYSTEM, RISING OUT OF THE GROUND, MUST BE SEALED. SEALED PORTION OF DOWN PIPE MUST BE PAINTED.

ANY GRATED PIT IN KID'S PLAY AREAS SHALL BE PROVIDED WITH CHILD PROOF "J" TYPE SPRING LOCK

ROOF GUTTER AND DRAINAGE DESIGN TO COMPLY WITH BCA AND AUSTRALIAN STANDARDS AS/NZS 3500:2003 PLUMBING AND DRAINAGE STANDARDS

EXISTING FOOTPATH AROUND NEW DRIVEWAY TO BE RECONSTRUCTED AS SATISFYING COUNCIL

DOWN PIPE TO BE 90mm OR 100*75mm MINIMUM SIZE AND FOR 45 Sqm MAXIMUM



STORMWATER MANAGEMENT PLAN-LEVEL 5
SCALE 1 : 200 IN A3

C	10/08/18	PLAN FULLY MODIFIED, DESIGN CHANGED AND ISSUED FOR DA
B	01/11/17	PLAN MODIFIED, DESIGN CHANGED AND ISSUED FOR DA
A	28/03/15	ISSUED FOR DA
ISSUE:	DATE:	REVISIONS
TITLE: STORMWATER AND SEDIMENT MANAGEMENT PLAN		ISSUED FOR CONSTRUCTION
		DRAWN: MM
		DATE: 28/03/15
SCALE:		AS NOTED
JOB No: 5788		SHEET No: 01 OF 08



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APPROVED:

CLIENT: SIMON ELIAS
CLIENT No: 5788
PROJECT: 41-43 BARBER AVENUE
PENRITH

STORMWATER DRAINAGE NOTES

ALL WORK IN ACCORDANCE WITH THE LOCAL GOVERNMENT ACT, COUNCIL'S STANDARD SPECIFICATION & CODES & TO THE SATISFACTION OF COUNCIL'S SUPERVISING OFFICER.

THIS PLAN TO BE READ IN CONJUNCTION WITH PLANS PREPARED BY THE ARCITECTS AND STRCTURAL ENGINEER.

ALL LINES TO BE Ø100mm AT 1% MINIMUM GRADE UNLESS NOTED OTHERWISE ON PLAN.

INSTALL TEMPORARY SEDIMENT BARRIERS AROUND ALL INLET PITS TO DETAIL UNTIL SURROUNDING AREAS ARE PAVED OR TURFED.

CONTRACTOR IS TO VERIFY THE LOCATION & LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF EXCAVATION FOR DRAINAGE.

ALL PITS TO BE BENCHED TO HALF PIPE SECTION AND TO HAVE GALVANISED STREEL GRATES AND SURROUNDS.

PIPE GRADES SHOWN ARE INDICATIVE MINIMUM AND TO BE LAID TO INVERT LEVELS AS SHOWN REDUNTANT VEHICLE CROSSING ARE TO BE REMOVED AND REPLACED WITH INTERGRAL CONCRETE KERB AND GUTTER TO THE SATISFACTION OF COUNCIL.

PLANTER BOXES ARE TO BE LINED WITH 'BIDEM A24' PERMANENT GEOTEXTILE PABRIC.

CONNECT PLANTERS VIA FLOOR WASTES, TO STORMWATER DRAINAGE SYSTEM

BALCONIES ARE TO BE CONNECTED VIA FLOOR WASTES TO PROPOSED DRAINAGE SYSTEM

REINFORCEMENTS DETAILS ARE ACCORDING TO STRUCTURAL PLAN

REMOVAL OF ANY TREES MUST COMPLY WITH COUNCIL APPROVAL

CONSTRUCTION OF FOOTPATH AND/OR DRIVEWAY TO SATISFY COUNCIL STANDARDS

ABBREVIATED ROOF WATER RUNOFF CALCULATIONS

ARI = 1:100 yr.

I = 206.1mm/hr.

Tc = 6 mm.

C = 1

Q = CIA/3600 l/s

RUNOFF RATE FOR EACH CATCHMENT

AREAS AREA₂ MARKED ON THE PLAN.

SYMBOLS & NOTATIONS

STORMWATER DRAINAGE LINE



GRATED INLET PIT

G.

DESIGNED GRATE LEVEL

I.

INVERT LEVEL OF PIPE

DP

DOWN PIPE Ø90mm OR 100x75mm

RL

REDUCED LEVEL (DESIGNED)

SILT BARRIER FENCE



SURFACE RUNOFF DIRECTION

AREA CALCULATIONS

SITE AREA	:1686.20 Sqm
EXISTING SITE	
BUILDING	:285.50 Sqm
METAL SHED	:84.42 Sqm
WBOARD SHED	:44.50 Sqm
GARAGE	:54.70 Sqm
METAL GARAGE	:84.70 Sqm
DRIVEWAYS	:213.20 Sqm
TOTAL IMPERVIOUS AREA	:767.02 Sqm
PERCENTAGE	:45.49%

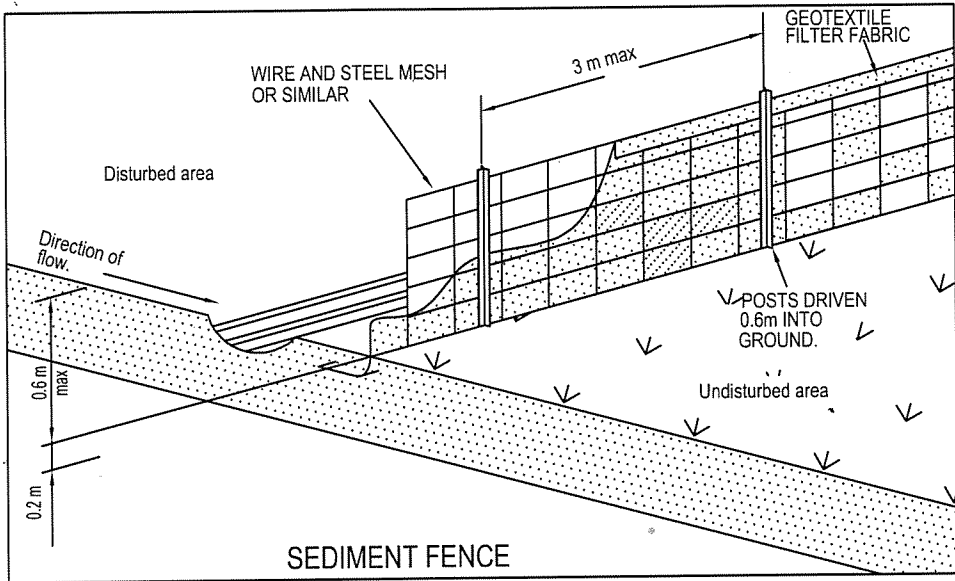
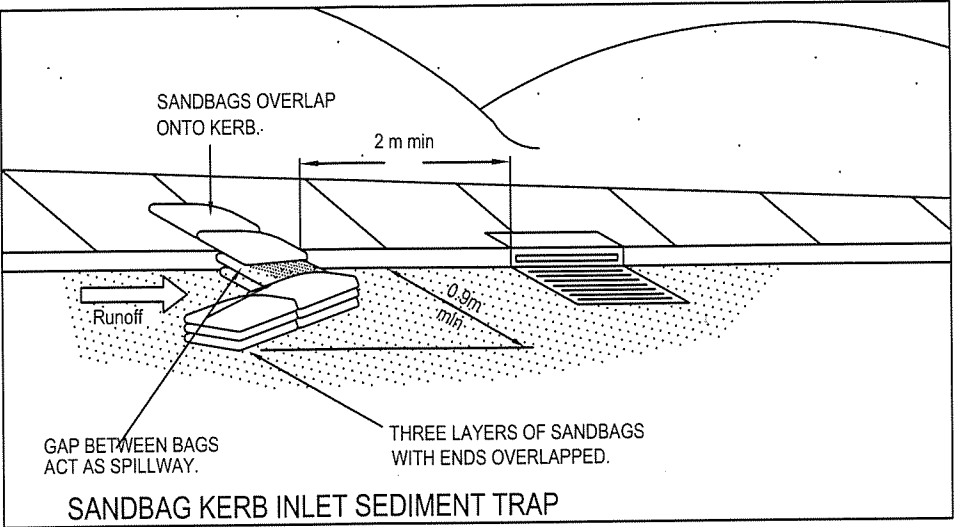
PROPOSED SITE	
BUILDING	:1057.33 Sqm
DRIVEWAY	:50.40 Sqm
TOTAL IMPERVIOUS AREA	:1107.73 Sqm
PERCENTAGE	:65.70%

INCREASE OF IMP. AREA :340.71 Sqm

AS PER COUNCIL STORMWATER DCP FOLLOWING PLAN IS REQUIRED

STORMWATER MANAGEMENT PLAN

1. OSD
2. PUMPOUT SYSTEM FOR BASEMENT
3. INSTALLATION OF NEW PIPE SYSTEM



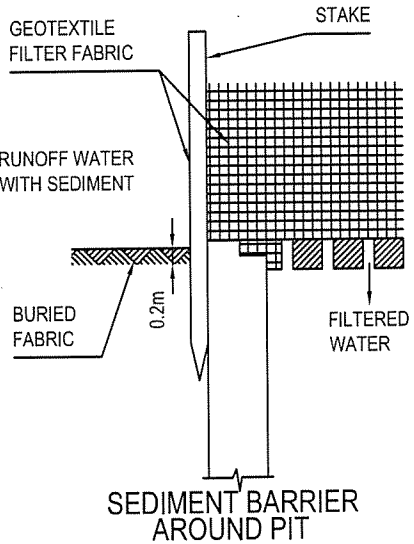
FULL SEARCH OF UNDERGROUND SERVICES SHOULD BE UNDERTAKEN BEFORE COMMENCE OF ANY WORKS

EROSION & SEDIMENT CONTROL

1. Sediment control devices are to be in place prior to any demolition or contraction.
2. Construct a silt barrier fence where shown on plan and to details above.
3. Sediment control devices are to be maintained, in good working order, until completion of all site works or to the satis faction of Council's supervising officer.
4. Provide HAY BALE BARRIERS around all existing surface inlet pits during cons.
5. Install stabilised site access as per detail over.

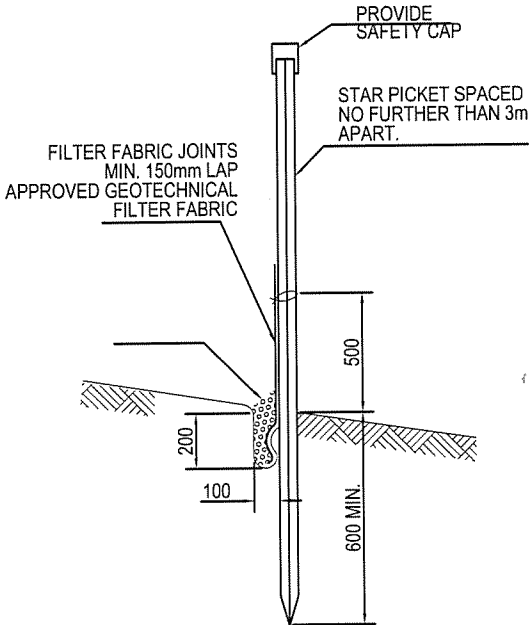
IMPORTANT

All existing services shown on this plan are approximate location only. The contractor is to verify the exact location and level of all existing services prior to commencement of excavation work for pipe laying. The contractor is to meet the full cost to relocate or adjust Telstra, Energy Australia, Sydney water or Natural gasservices as required.



CONSTRUCTION NOTES

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE
2. SUPPORT GEOTEXTILE WITH MESH TIED TO POSTS AT 1000mm CENTRES.
3. DO NOT COVER INLET WITH GEOTEXTILE.
4. INSTALL & SUPPORY GEOTEXTILE AS PER SITE FENCE BARRIER DETAIL.



SILT FENCE BARRIER DETAIL

PROVIDE SILT FENCE AT BOUNDARY OF SITE AS SHOWN ON PLAN



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APPROVED:

CLIENT: SIMON ELIAS

CLIENT No: 5788

PROJECT: 41-43 BARBER AVENUE
PENRITH

TITLE: STORMWATER AND SEDIMENT
MANAGEMENT PLAN

ISSUED FOR CONSTRUCTION

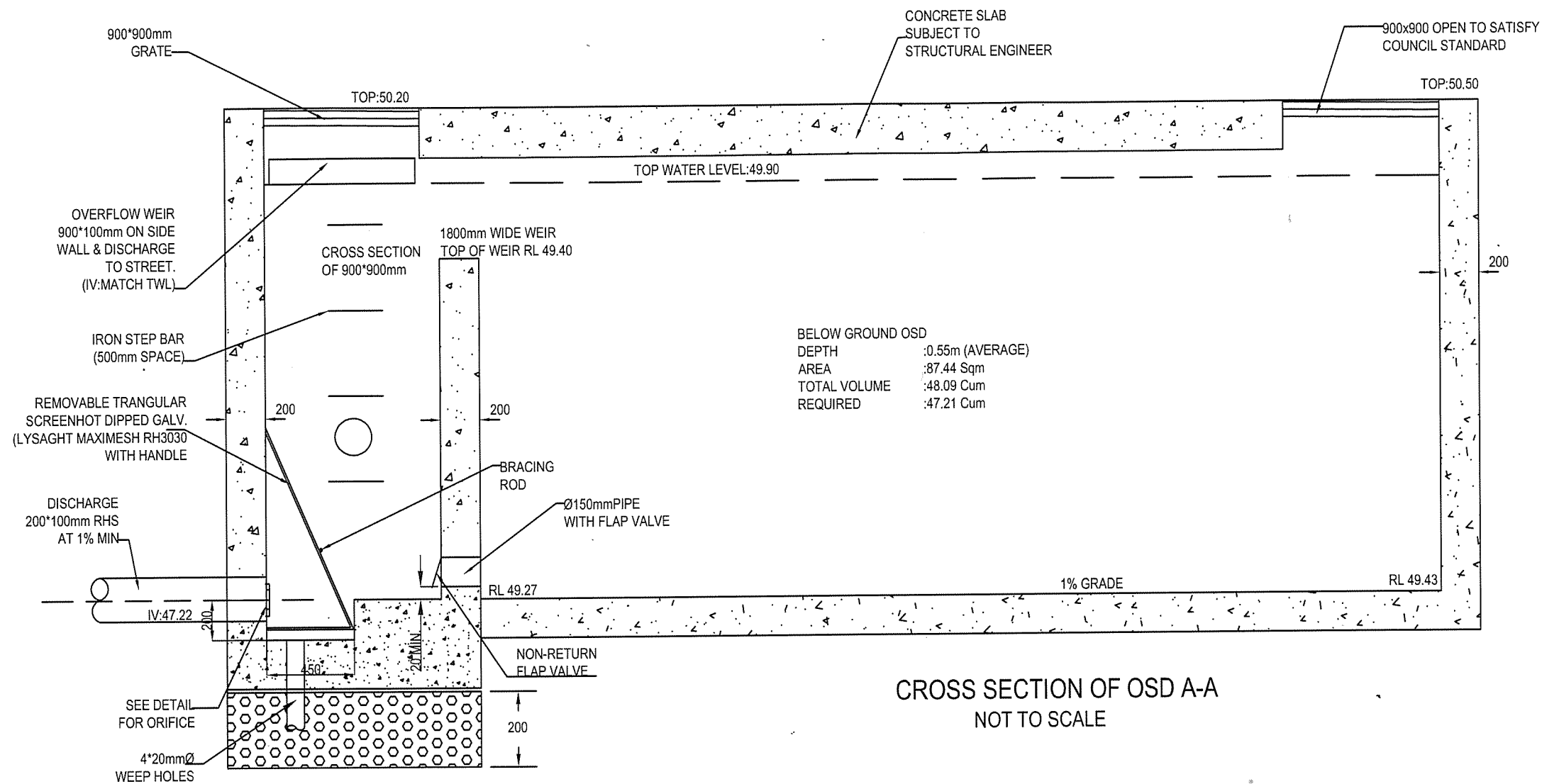
DRAWN: MM

DATE: 28/03/15

SCALE: AS NOTED

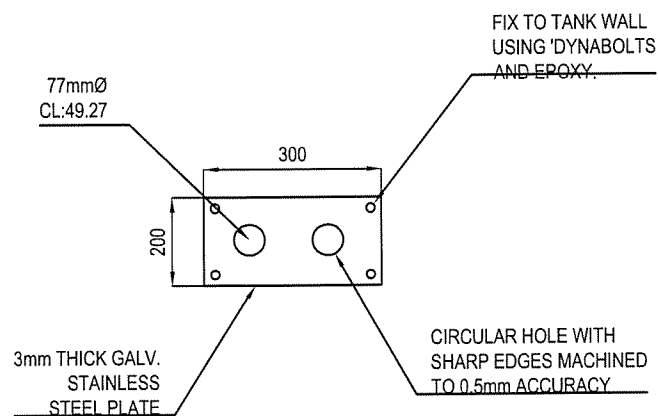
JOB No: 5788

SHEET No: 03 OF 08



CROSS SECTION OF OSD A-A
NOT TO SCALE

ALL WALLS FORMING THE DETENTION BASIN SHALL BE CONSTRUCTED WHOLLY WITHIN THE PROPERTY BOUNDARIES AND THE SITE BEING DEVELOPED



ORIFICE PLATE
(NOT TO SCALE)

SEE SHEET 4 FOR STORMWATER FILTER AND INTERNAL SECTION DETAILS AND FOR MORE DETAILS PLEASE VISIT www.stormwater360.com.au OR CALL 1300 354 722 FOR INSTALLATION OF STORMWATER FILTER AND MAINTENANCE

OSD CALCULATIONS

SITE AREA	=1686.20 Sq.m
AREA TO OSD	:1686.20 Sqm
AS PER COUNCIL STORMWATER MANUAL	
PSD	:120 lit/sec/hac
SSR	:280 m ³ /hac
PSD	:20.23 lit/sec
SSR	:47.21 m ³
AS DETAILED IN PLAN	
OSD AREA	:87.44 Sqm
TOTAL VOLUME PROVIDED	:48.09 m ³
TOP WATER LEVEL	:49.90 m
ORIFICE CENTRELINE	:48.65 m
ORIFICE(DOUBLE)	:77 mm

THIS IS AN
ON SITE STORMWATER
DETENTION SYSTEM
REQUIRED BY COUNCIL

IT IS AN OFFENSE TO REDUCE THE VOLUME OF THE TANK/BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROL THE FLOW

THE BASIN OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIC BY THE OWNER

THIS PLATE MUST NOT BE REMOVED

C	10/08/18	PLAN FULLY MODIFIED, DESIGN CHANGED AND ISSUED FOR DA
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ISSUE:	DATE:	REVISIONS
TITLE: STORMWATER AND SEDIMENT MANAGEMENT PLAN		ISSUED FOR CONSTRUCTION
		DRAWN: MM
		DATE: 28/03/15
		SCALE: AS NOTED
		JOB No: 5788 SHEET No: 04 OF 08

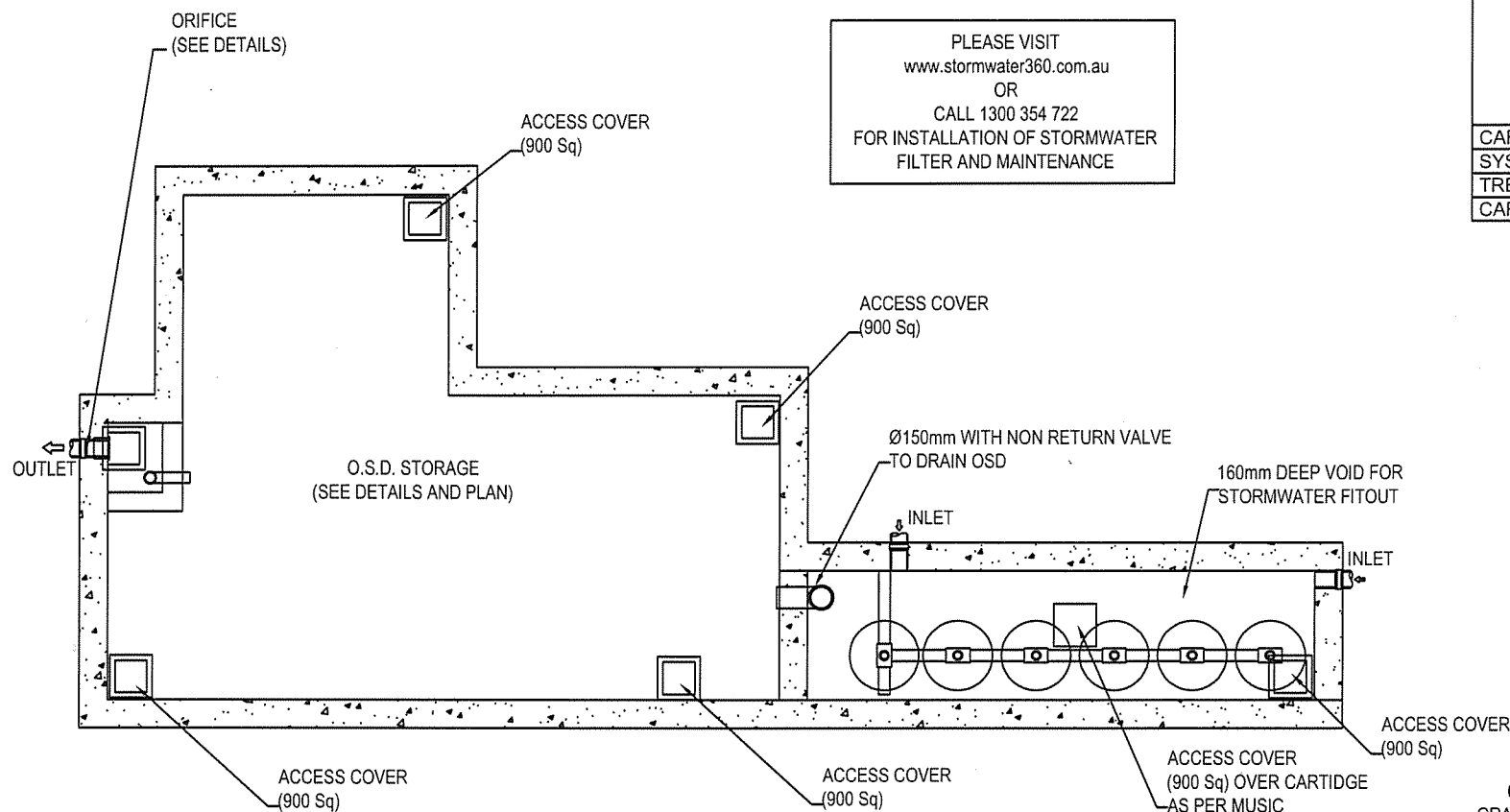
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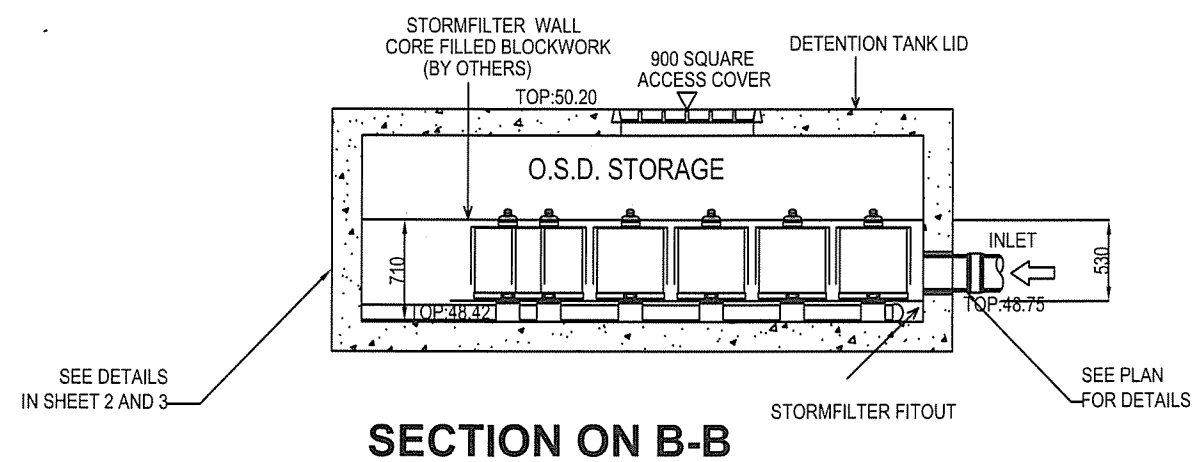
CLIENT: SIMON ELIAS

CLIENT No: 5788

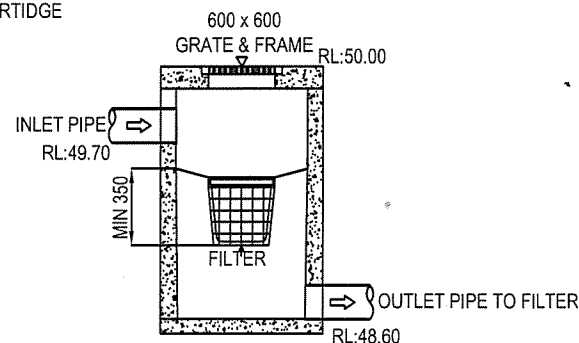
PROJECT: 41-43 BARBER AVENUE
PENRITH



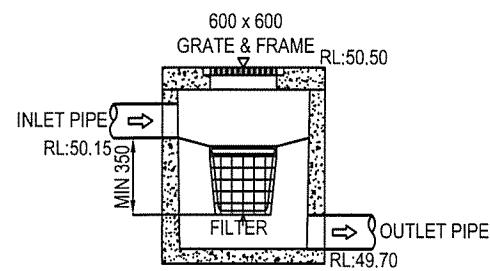
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(NOT TO SCALE)



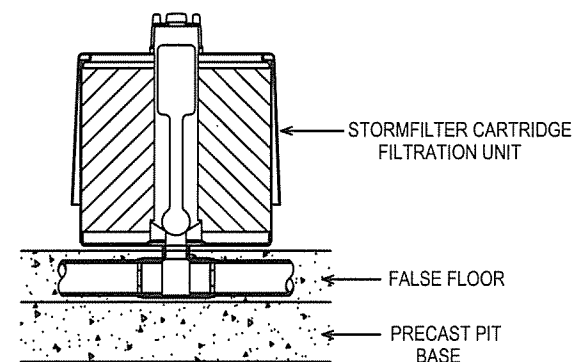
SECTION ON B-B



ENVIROPD-1
(NOT TO SCALE)



ENVIROPD-2
(NOT TO SCALE)



STORMFILTER
CARTRIDGE DETAIL
(NOT TO SCALE)

STORMFILTER DESIGN TABLE

- THE SIZE 3.2 x 1.8m STORMFILTER TREATMENT CAPACITY VARIES BY NUMBER OF FILTER CARTRIDGES INSTALLED AND BY REGION SPECIFIC INTERNAL FLOW CONTROLS.
- THE STANDARD CONFIGURATION IS SHOWN. ACTUAL CONFIGURATION OF THE SPECIFIED STRUCTURE(S) PER CIVIL ENGINEER WILL BE SHOWN ON SUBMITTAL DRAWING(S).
- ALL PARTS PROVIDED AND INTERNAL ASSEMBLY BY STORMWATER360 UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	690	460	310
SYSTEM HYDRAULIC DROP (H - REQ'D. MIN.)	930	700	550
TREATMENT BY MEDIA SURFACE AREA L/S/m ²	1.4	0.7	1.4
CARTRIDGE FLOW RATE (L/s)	1.42	0.71	0.95
		0.47	0.63
			0.32

GENERAL NOTES

1. INLET AND OUTLET PIPING SHALL BE SPECIFIED BY SITE CIVIL ENGINEER (SEE PLANS) AND PROVIDED BY CONTRACTOR. STORMFILTER IS PROVIDED WITH OPENINGS AT INLET AND OUTLET LOCATIONS.
2. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE PRODUCT, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED. PLEASE CONTACT STORMWATER360 FOR OPTIONS.
3. THE FILTER CARTRIDGE(S) ARE SIPHON-ACTUATED AND SELF-CLEANING. THE STANDARD DETAIL DRAWING SHOWS THE MAXIMUM NUMBER OF CARTRIDGES. THE ACTUAL NUMBER SHALL BE SPECIFIED BY THE SITE CIVIL ENGINEER ON SITE PLANS OR IN DATA TABLE BELOW. CONCRETE STRUCTURE TO BE PROVIDED BY OTHERS.
4. SEE STORMFILTER DESIGN TABLE FOR REQUIRED HYDRAULIC DROP. FOR SHALLOW, LOW DROP OR SPECIAL DESIGN CONSTRAINTS, CONTACT STORMWATER360 FOR DESIGN OPTIONS.
5. ALL WATER QUALITY PRODUCTS REQUIRE PERIODIC MAINTENANCE AS OUTLINED IN THE O&M GUIDELINES. PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS.
6. STRUCTURE AND ACCESS COVERS DESIGNED BY OTHERS. ACCESS COVERS TO BE A MINIMUM 900X900 ABOVE CARTRIDGES.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES AND VARY REGIONALLY.
8. ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY SITE CIVIL ENGINEER.
9. CARTRIDGE HEIGHT AND ASSOCIATED DESIGN PARAMETERS PER STORMFILTER DESIGN TABLE.
10. STORMFILTER BY STORMWATER360: SYDNEY (AU) PHONE: 1300 354 722 www.stormwater360.com.au

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APPROVED:

CLIENT: SIMON ELIAS

CLIENT No: 5788

PROJECT: 41-43 BARBER AVENUE
PENRITH

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MANAGEMENT PLAN

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DRAWN: MM

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SCALE: AS NOTED

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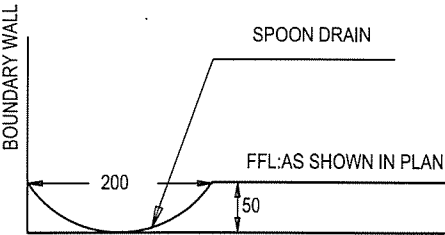
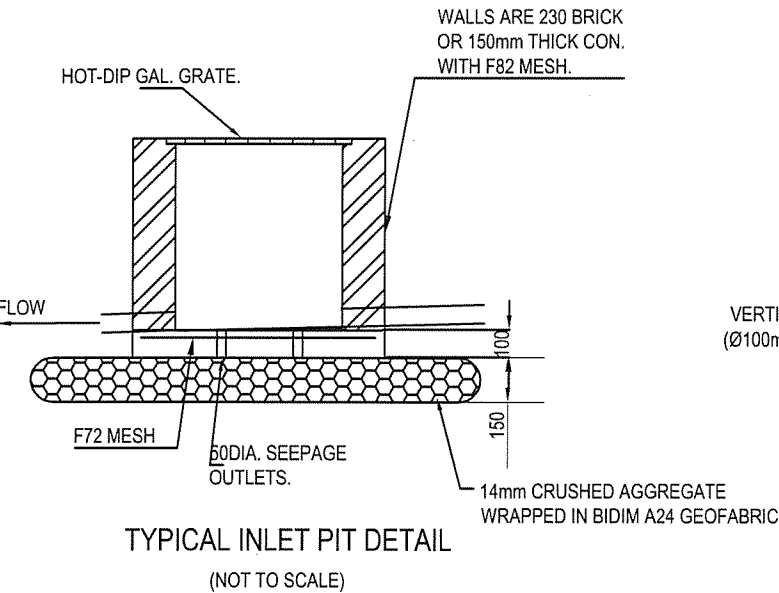
SHEET No: 05 OF 08

WARNING:
PUMP OUT SYSTEM
FAILURE IN BASEMENT
WHEN LIGHT IS FLASHING
AND SIREN SOUNDING

**BASEMENT PUMPOUT FAILURE
WARNING SIGN**

NOTE:
1- SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE
LOCATION WHERE VEHICLES ENTER THE BASEMENT

COLOUR:
WARNING : RED
BORDER AND LETTERING : BLACK



SECTION OF SPOON DRAIN
SCALE N.T.S.

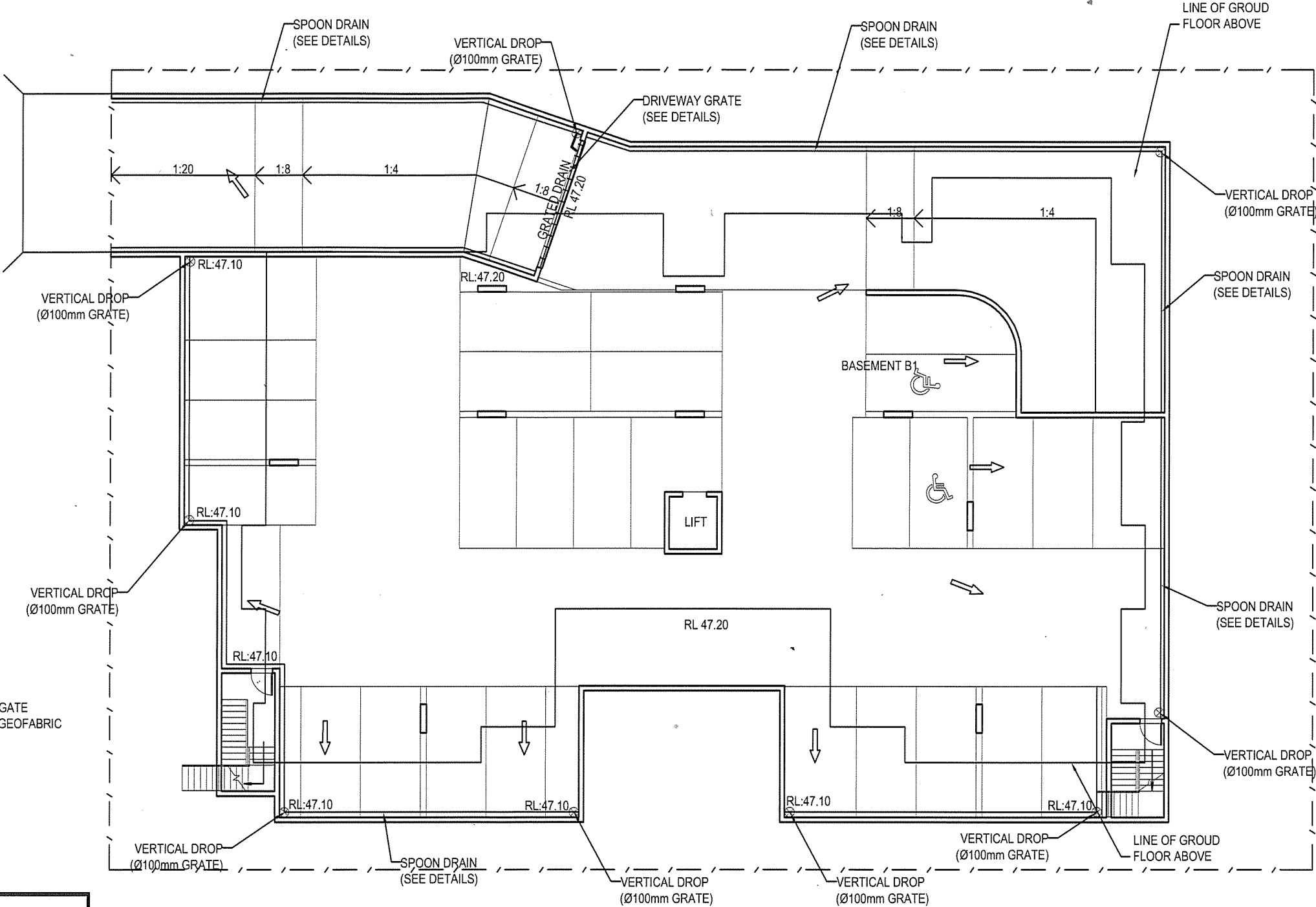


DESIGN AND LAYOUT
OF PARKING AS
PER AS2890.1-2004

FULL SEARCH OF UNDERGROUND
SERVICES SHOULD BE UNDERTAKEN
BEFORE COMMENCE OF ANY WORKS

SUBSOIL DRAINAGE
SYSTEM AS PER
SECTION 6,
AS3500.3-1990

DESIGN AND CONSTRUCTION
OF SUBSOIL DRAINAGE
AS PER AS3500.3-1990



STORMWATER MANAGEMENT PLAN-UPPER BASEMENT

SCALE 1 : 200 IN A1

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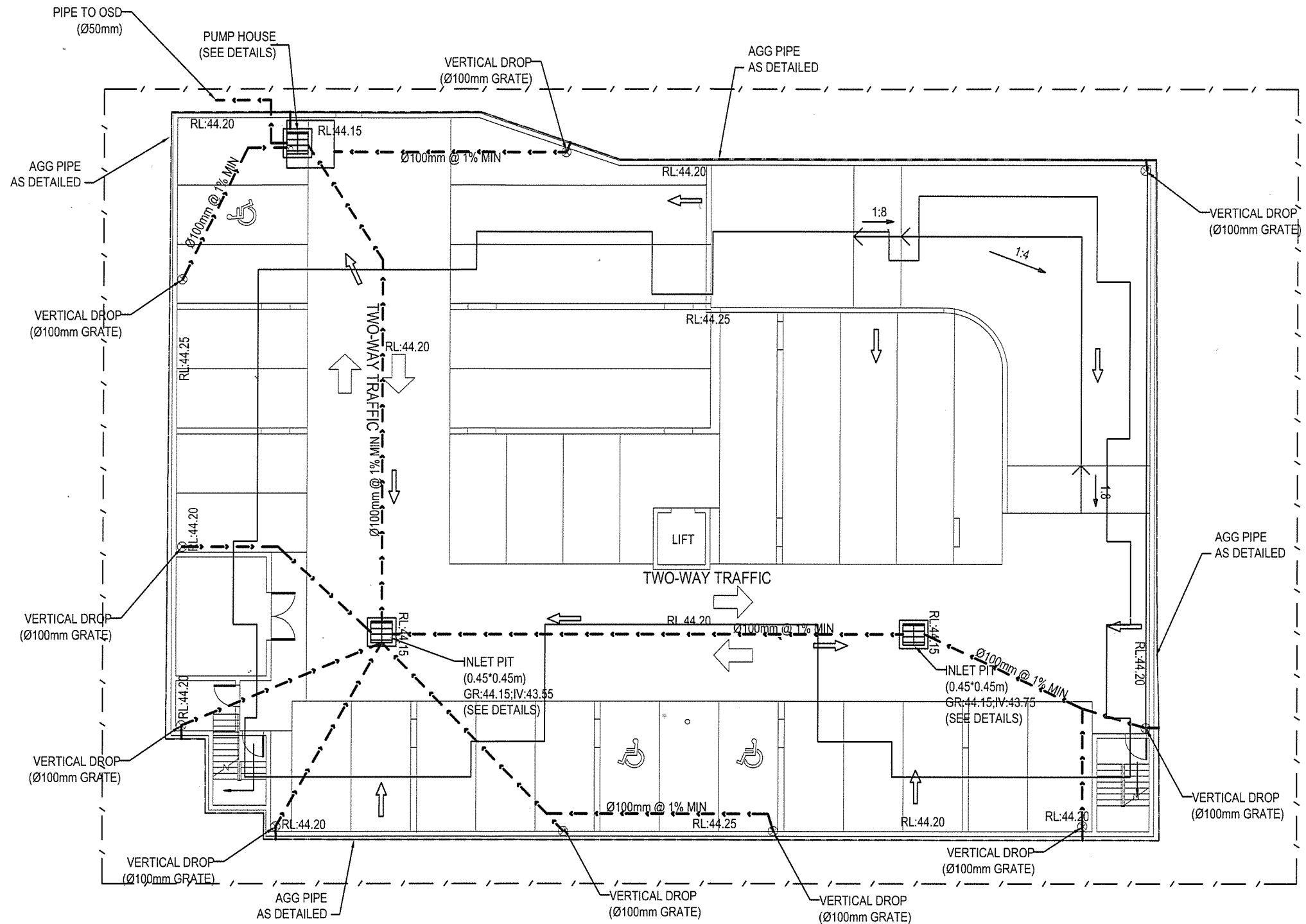
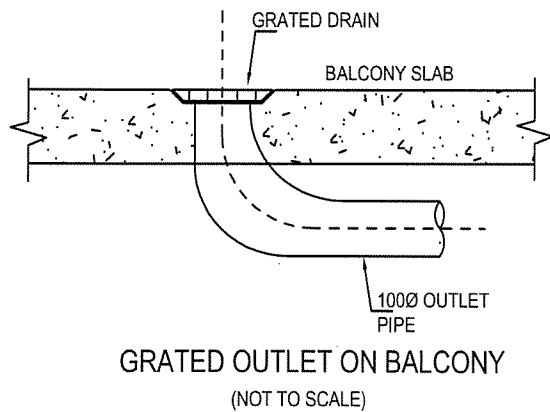
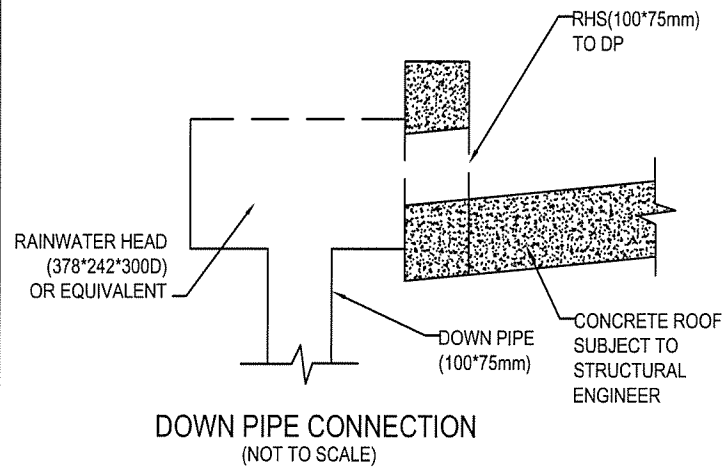
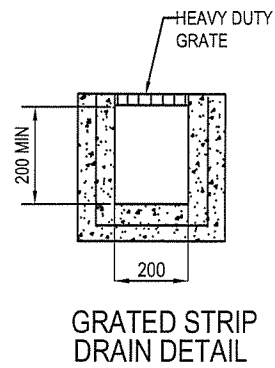
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JOB No: 5788

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FULL SEARCH OF UNDERGROUND SERVICES SHOULD BE UNDERTAKEN BEFORE COMMENCE OF ANY WORKS



STORMWATER MANAGEMENT PLAN-LOWER BASEMENT

SCALE 1 : 200 IN A1

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PROJECT: 41-43 BARBER AVENUE
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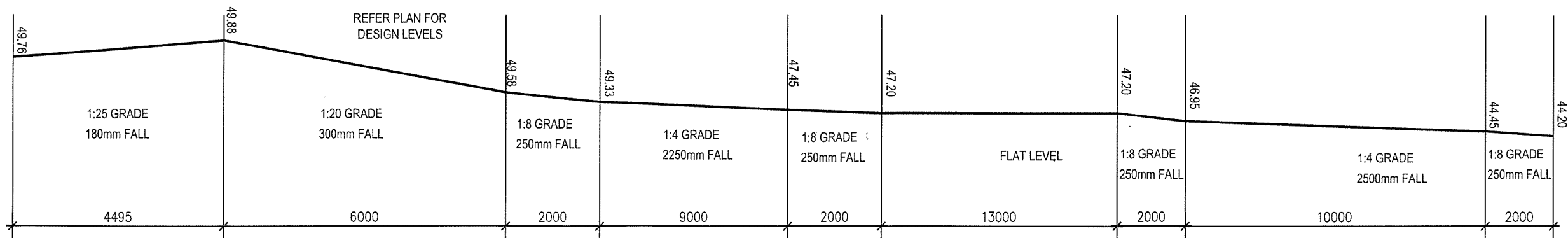


WARNING:
PUMP OUT SYSTEM
FAILURE IN BASEMENT
WHEN LIGHT IS FLASHING
AND SIREN SOUNDING

**BASEMENT PUMPOUT FAILURE
WARNING SIGN**

NOTE:
1- SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE
LOCATION WHERE VEHICLES ENTER THE BASEMENT

COLOUR:
WARNING : RED
BORDER AND LETTERING : BLACK



RAMP DETAIL
NOT TO SCALE

FULL SEARCH OF UNDERGROUND
SERVICES SHOULD BE UNDERTAKEN
BEFORE COMMENCE OF ANY WORKS

PUMP SPECIFICATIONS

STANDARD PUMP-OUT NOTES

THE PUMP-OUT SYSTEM IS DESIGNED TO WORK IN THE FOLLOWING MANNER -

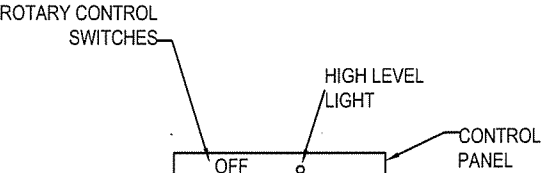
THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW
BOTH PUMPS TO HAVE EQUAL OPERATION LOAD & PUMP LIFE.

A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED
WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK.
IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.

A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm
ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE &
DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.

A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY
THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE
OTHER PUMP THAT IS NOT OPERATING & ACTIVATE THE ALARM.

AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT & A PUMP
FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE
TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY
BACK-UP IN CASE OF POWER FAILURE.



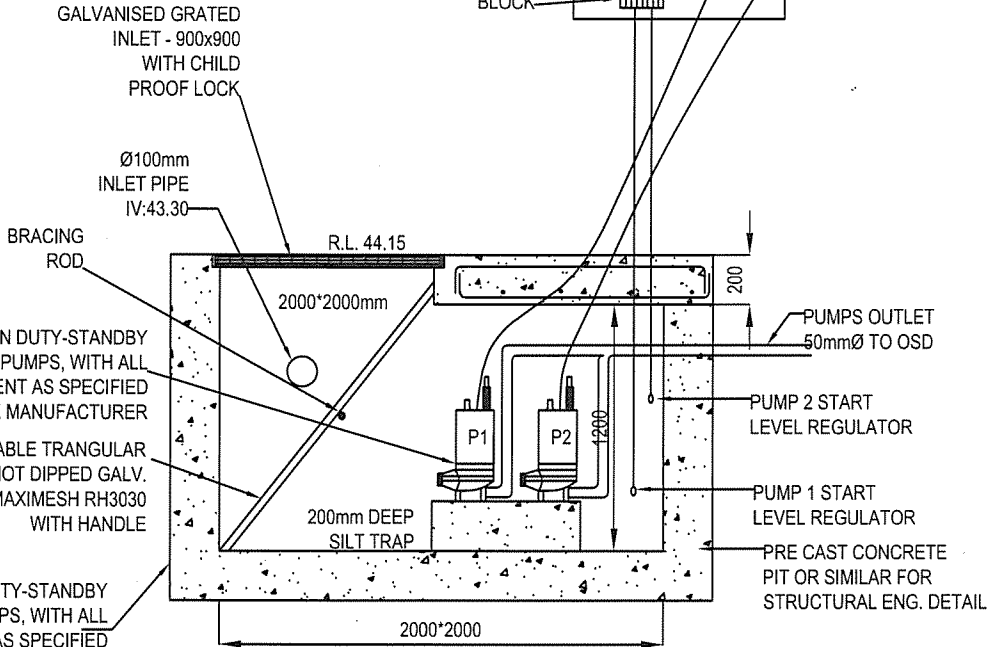
PROVIDE TWIN DUTY-STANDBY
SUBMERSIBLE PUMPS, WITH ALL
RELEVANT EQUIPMENT AS
SPECIFIED BY MANUFACTURER

ALL THE BASEMENT WALLS
TO BE WATERPROOFED AND
PROVIDE AGG LINES AND
SPOON DRAIN TO REMOVE
SEEPAGE WATER.

NOTE: IN ORDER TO MAXIMISE
VISIBILITY IN THE BASEMENT CAR
PARKS, ALL BASEMENT CEILINGS
ARE TO BE PAINTED WHITE

PUMP WELL DETAILS

SUMP SIZE AND PUMP SIZE BASE ON 100 YEAR 90 MIN STORM
INTENSITY IS 52.60 mm/hr
DRIVEWAY: 50.40 Sqm
VOLUME = (50.40 * 52.60 / 3600) * 90 * 60 = 3.98 m³
STORAGE PROVIDED 2000x2000x1000 = 4.00 m³
PUMP OUT RATE BASED ON 5 YR 60 MIN. STORM = 38.40 mm/hr
PUMP RATE = 52.60 * 38.40 / 3600 = 0.56 lit/Sec (MIN)
DUAL PUMPS TO BE INSTALLED IN SUMP AND CONNECTED TO
CONTROL PANEL WHICH WILL ALLOW FOR THE PUMPS TO ACT
ALTERNATIVELY PUMPING 0.6 lit/sec AT 10 m HEAD (MIN)



PUMP/SUMP TANK DETAIL
(UNDERGROUND CARPARK)
(NTS)

PUMPS TO BE REGULARLY
INSPECTED AND SERVICED



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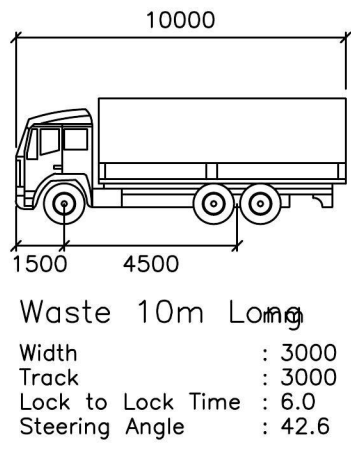
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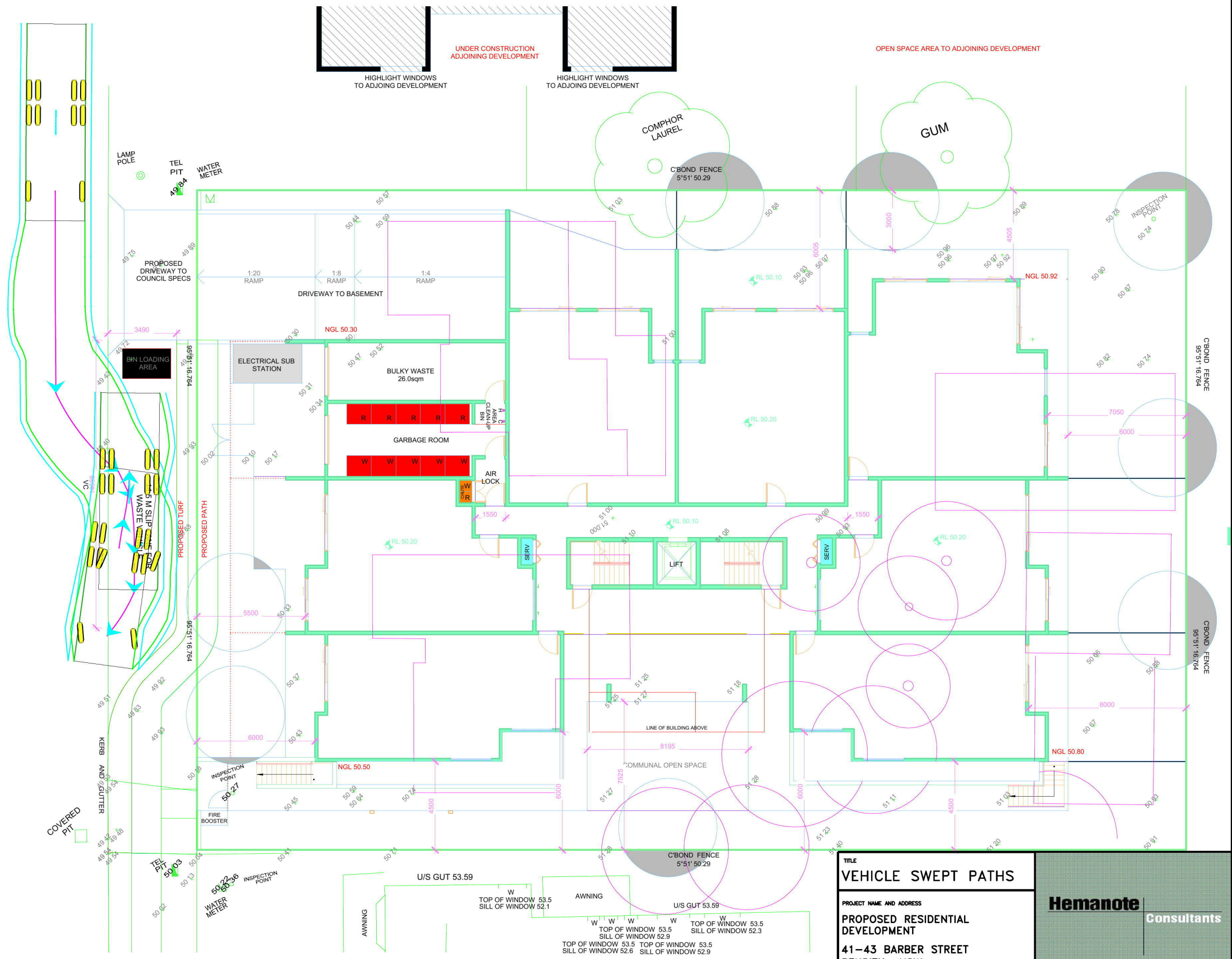
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SHEET No: 08 OF 08



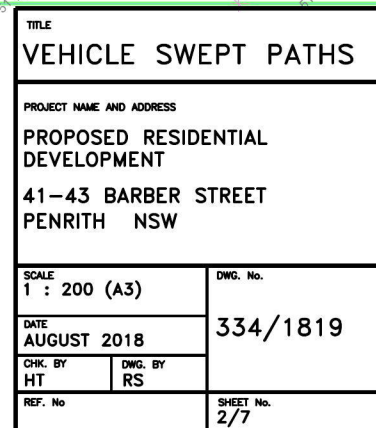
BARBER STREET



TITLE	
VEHICLE SWEEP PATHS	
PROJECT NAME AND ADDRESS	
PROPOSED RESIDENTIAL DEVELOPMENT	
41-43 BARBER STREET	
PENRITH NSW	
SCALE	DWG. No.
1 : 200 (A3)	334/1819
DATE	
AUGUST 2018	
CHK. BY	DWG. BY
HT	RS
REF. No	SHEET No.
	1/7

Hemanote
Consultants

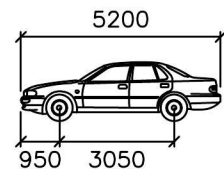
HEMANOTE CONSULTANTS
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PO BOX 743
MOOREBANK NSW 1875
CONTACTS: 0414 251 845 & 0414 445 497
EMAIL: hemanote@optusnet.com.au



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B99

Width : 1940 mm
Track : 1840 mm
Lock to Lock Time : 6.0
Steering Angle : 33.9

STREET

BARBER

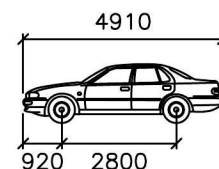
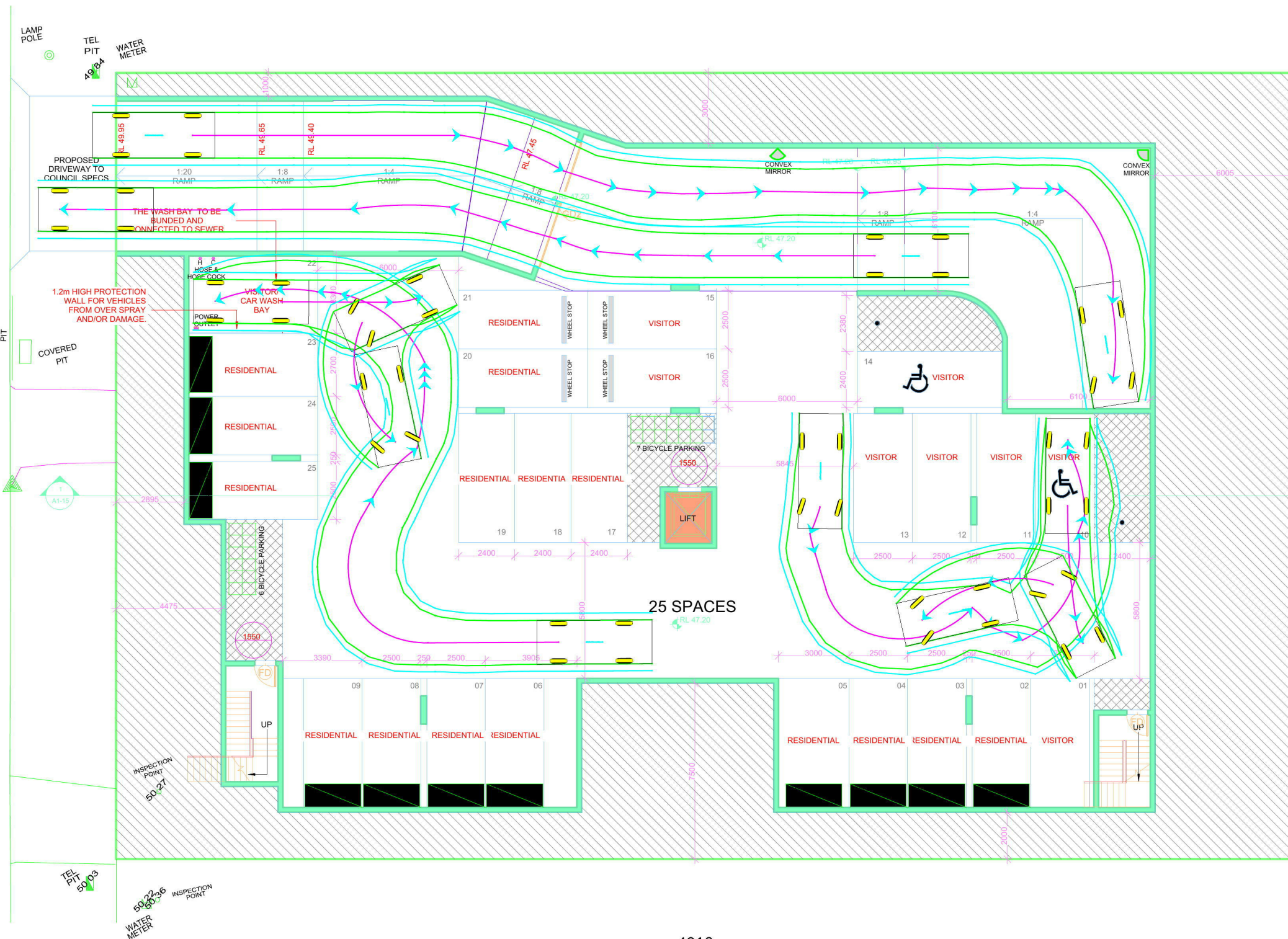
BM CUT IN KERB
RL. 49.45 A.H.D

GULLY PIT

VC

KERB AND GUTTER

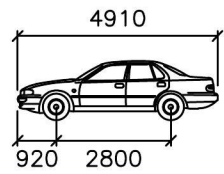
COVERED PIT
VC



B85

Width : 1870 mm
Track : 1770 mm
Lock to Lock Time : 6.0
Steering Angle : 34.1

TITLE VEHICLE SWEEP PATHS		Hemanote Consultants	
PROJECT NAME AND ADDRESS PROPOSED RESIDENTIAL DEVELOPMENT 41-43 BARBER STREET PENRITH NSW			
SCALE 1 : 200 (A3)	DWG. No. 334/1819	HEMANOTE CONSULTANTS ABN 94 606 345 117 PO BOX 743 MOOREBANK NSW 1875 CONTACTS: 0414 251 845 & 0414 445 497 EMAIL: hemanote@optusnet.com.au	
DATE AUGUST 2018			
CHK. BY HT	DWG. BY RS		
REF. No	SHEET No. 3/7		



B85

Width : 1870 mm
Track : 1770 mm
Lock to Lock Time : 6.0
Steering Angle : 34.1

STREET
BARBER

BM CUT IN KERB
RL 49.45 A.H.D

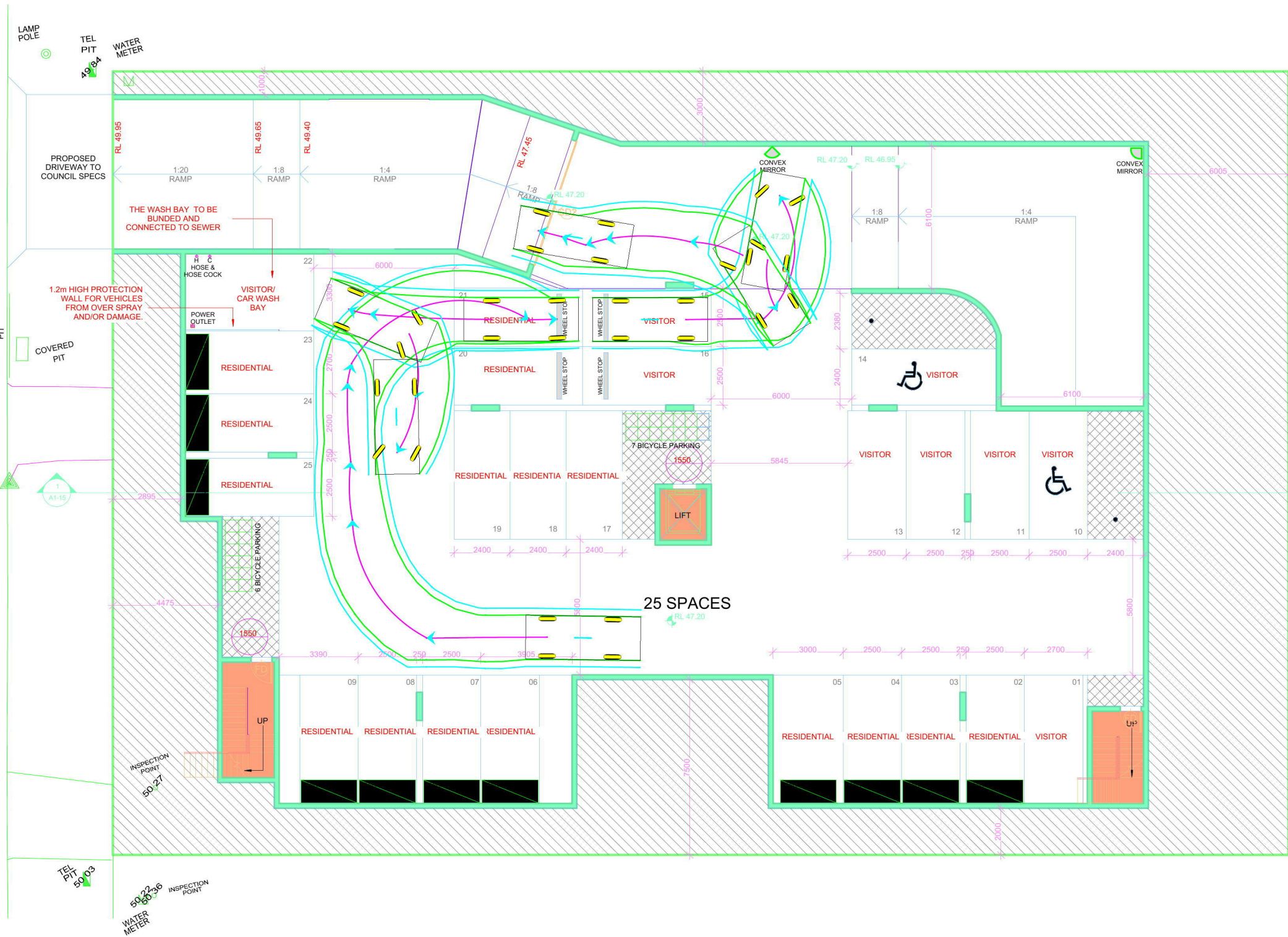
COVERED
PIT

GULLY
PIT

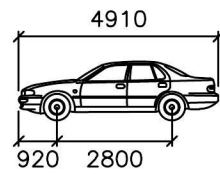
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KERB
AND GUTTER

VC



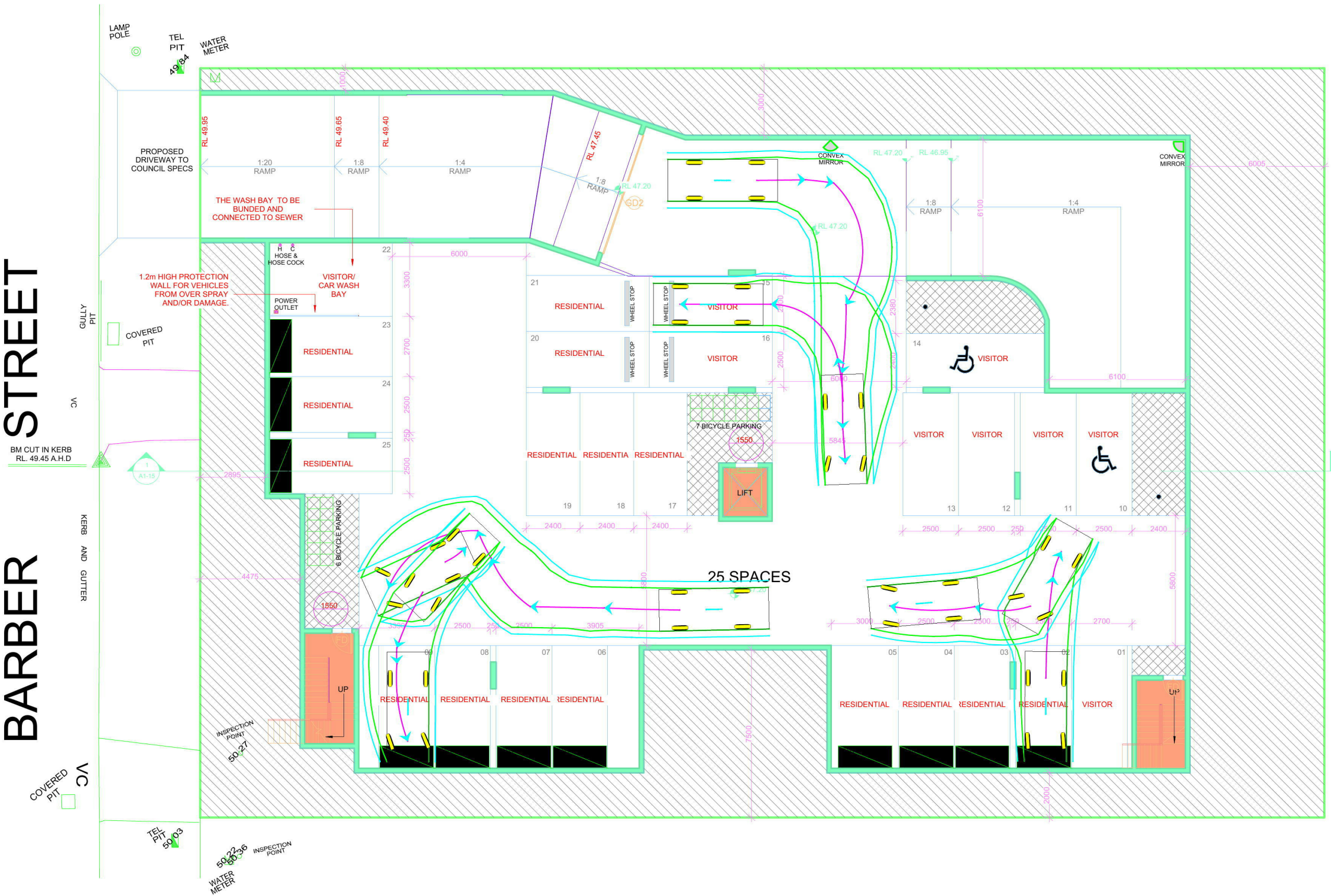
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SHEET No. 4/7		



B85

Width : 1870 mm
Track : 1770 mm
Lock to Lock Time : 6.0
Steering Angle : 34.1

STREET
BARBER

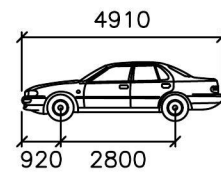
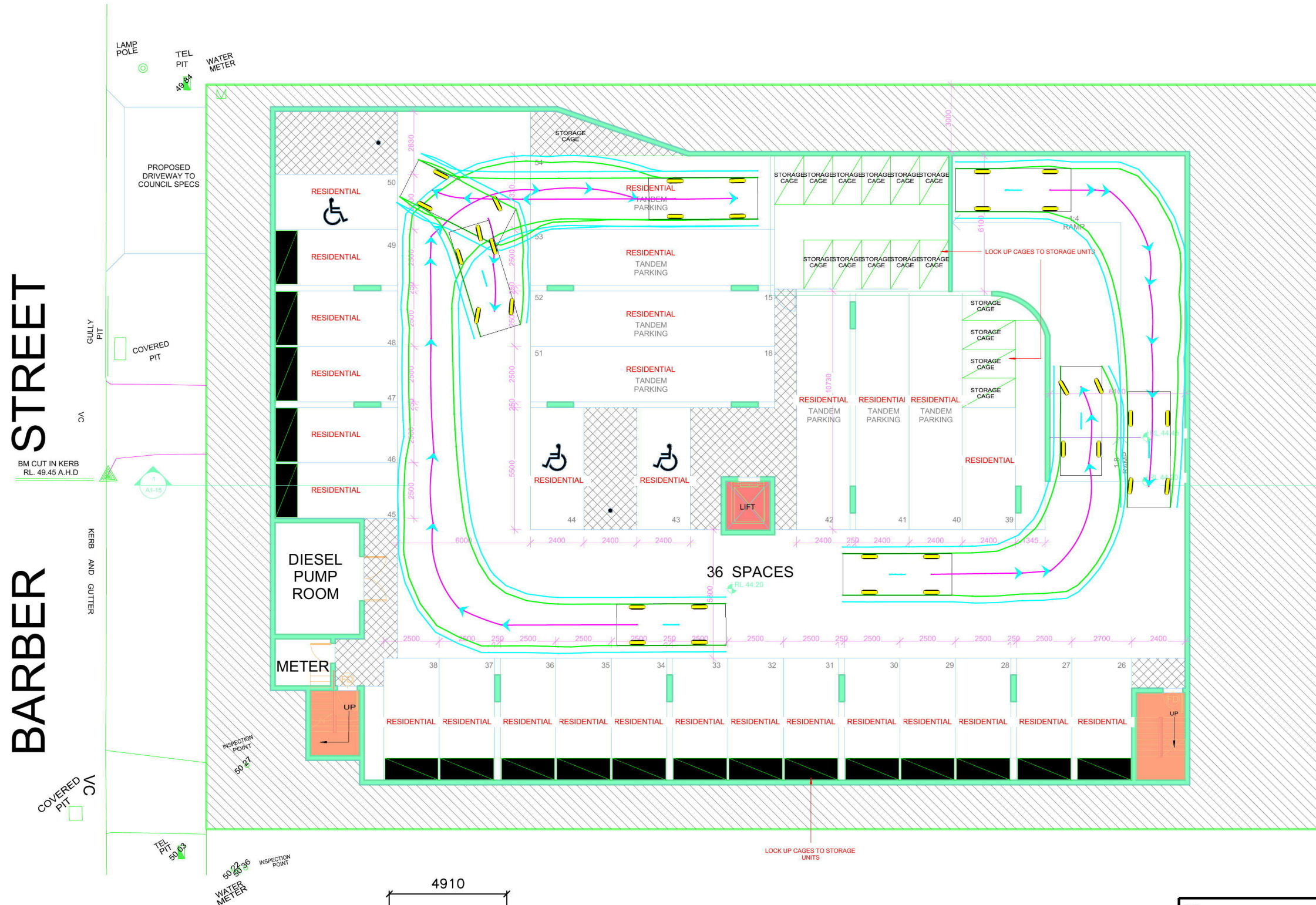


TITLE VEHICLE SWEEP PATHS		Hemanote Consultants
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DATE AUGUST 2018	SHEET No. 5/7	
CHK. BY HT		
DWG. BY RS		
REF. No.		

B99

	mm
Width	: 1940
Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

BARBER STREET



B85

	mm
Width	: 1870
Track	: 1770
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

TITLE

VEHICLE SWEEP PATHS

PROJECT NAME AND ADDRESS

PROPOSED RESIDENTIAL DEVELOPMENT

41-43 BARBER STREET
PENRITH NSW

Hemanote

Consultants

SCALE 1 : 200 (A3)	DWG. No. 334/1819	
DATE AUGUST 2018		
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CHK. BY HT	DWG. BY RS	
REF. No	SHEET No. 6/7	

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TRAFFIC IMPACT REPORT AND CAR PARKING CERTIFICATION

41-43 BARBER AVENUE, PENRITH NSW 2750

Proposed Residential Flat Building

Prepared for:

Simon Elias

Date Prepared:

Aug 2018

Revision:

2.1

Penrith City Council Application #:

TBC

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Introduction

SafeWay Traffic Management Solutions was commissioned by Mr Simon Eliass to prepare a Traffic Impact Report and a Car Parking Certification for the proposed multi-unit residential development at 41-43 Barber Avenue in Penrith with 3,300² total area.

The subject site is located with frontage to Barber Avenue. The proposal includes construction of a residential flat building with 45 units (7 X 1 bedroom units + 31 X 2 bedroom units + 7 X 3 bedroom unit). On site car parking has been proposed within the basement levels 1 and 2 with following provisions;

- A total of 62 residential car spaces(including 5 disabled car spaces);
- A total of 9 visitor car spaces (including 5 disabled car space and a common loading bay); and
- 13 Resident bicycle bays.

This report will assess the traffic impacts of this proposed development on the surrounding environment and the compliance of the proposed car parking with the Australian Standards and relevant clauses presented within the Penrith City Council Development Control Plan (DCP).

In the course of preparing this assessment, the subject site and its environment have been inspected, plans of the development examined, and all relevant traffic data collected and analysed.

Background and Existing Conditions

Location and Land Use

The subject site is currently occupied by two separate single storey residential dwellings (one at no. 41 and the other at no.43, Barber Avenue). The proposal involves demolition of these two existing residential dwellings and construction of a multi-storey residential building over a total land area of 3,200 square metres.

Barber Avenue at the frontage of the subject site is a local road which provides access to the sites present on both sides of this avenue from Colless Street to The Northern road. The area in the vicinity of the subject site is chiefly of residential nature.

Figure 1 shows the site from the local road network from a street map perspective.

Figure 2 presents an aerial photograph of the subject site and the surrounding areas.

Figure 3 presents a photo of Barber Avenue as seen at the frontage of the subject site.

Figure 4 presents a photo of Barber Avenue as seen at the frontage of the subject site.

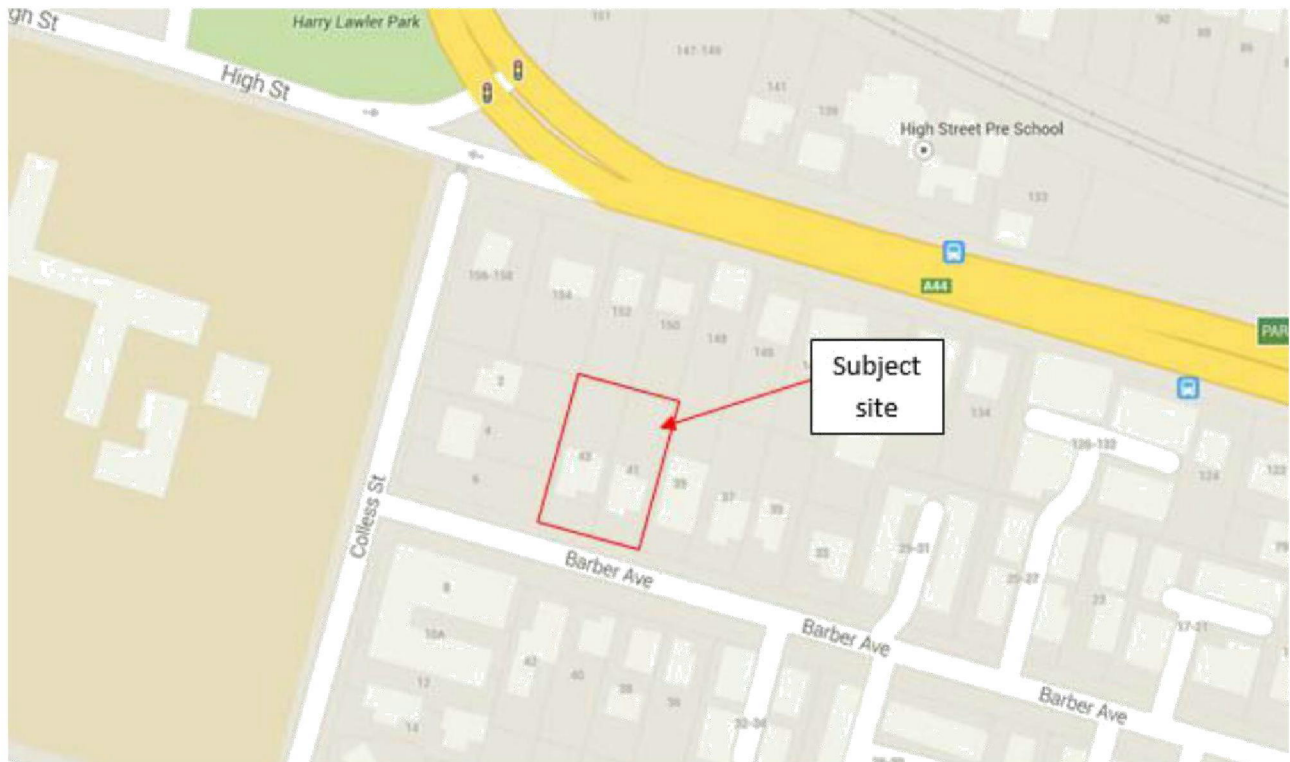


Figure 1: Location of the Subject Site on an Street View



Figure 2: Location of the Subject Site on Aerial View



Figure 3: Barber Avenue as seen from the frontage of the subject site



Figure 4: Barber Avenue as seen from the frontage of the subject site

Public Transport

The subject site has convenient accessibility to a large number of bus services. The following table outlines the details of the bus services available in the vicinity of the site. **Figure 5** illustrates the bus route map within the area of the subject site.

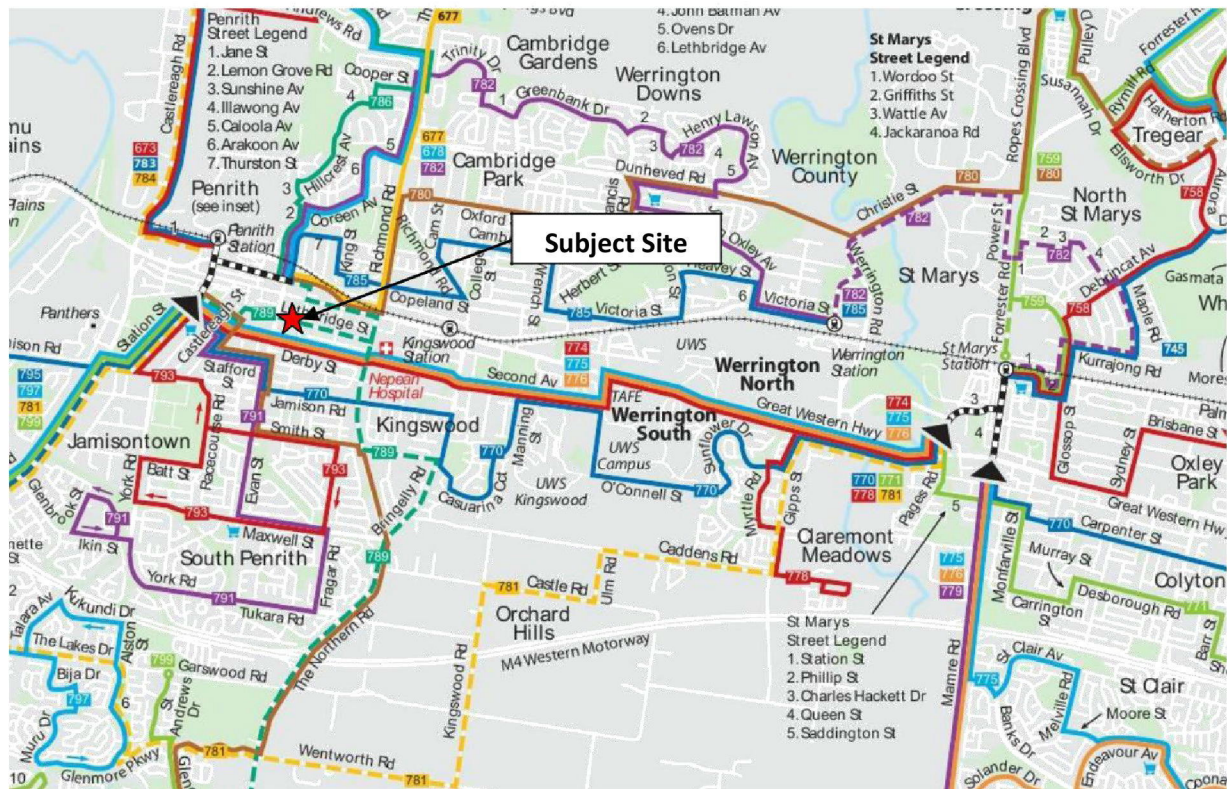


Figure5: Local Bus Services

Six different bus routes are serving the region frequently and it is an outstanding advantage for this site.

Table 1: Accessible Bus lines for the proposed development

Service	Location	Distance [m]	Walking Time [min]	Origin		Destination	Route Description	Number of Service		
								AM Peak (7-9 am)	Pm Peak (4-6 pm)	Off peak
677	High street near Parker street Bus stop: 2750439	205	6	Richmond	Penrith	via Londonder ry	2	2	1 bus/h	
		143	5	Penrith	Richmond	via Londonder ry	2	2	1 bus/h	
780		205	6	Mt Druitt	Penrith	via Cambridge Park	6	6	3 bus/h	
		143	5	Penrith	Mt Druitt	via Cambridge Park	6	6	3 bus/h	
774	Derby St Near Colless St Bus stop : 2750244	364	5	Mt Druitt	Penrith	Via St. Marys stn	4	4	2 bus/h	
		388	5	Penrith	Mt Druitt	Via St. Marys stn	4	4	2 bus/h	
775		364	5	Mt Druitt	Penrith	Via St. Marys	4	4	2 bus/h	
		388	5	Penrith	Mt Druitt	Via St. Marys	4	4	2 bus/h	
776		364	5	Mt Druitt	Penrith	Via UWS	4	4	2 bus/h	
		388	5	Penrith	Mt Druitt	Via UWS	4	4	2 bus/h	
789	Penrith PS And HS, Lethbridge St	235	4	Penrith	Luddenha m	via The Northern Rd service	1	-	1 bus/day	

As per the details presented in the section above, it is clear that the subject site is serviced by frequent bus services which are also easily accessible from the subject site. Therefore, this site is well located to access the public transport services.

Traffic Impacts of the Proposed Development

The proposed development at the subject site includes construction of a residential flat building with 45 units, on a land area of approximately 3,200 square metres, with the following unit structure;

Table 1: Proposed Unit Structure

Floor Level	1 Bedroom Units	2 Bedroom Units	3 Bedroom Units	Total Units
Ground Floor	0	6	1	7
Level 1	1	7	2	10
Level 2	1	4	2	7
Level 3	1	7	2	10
Level 4	1	4	0	5
Level 5	3	3	0	6
Total Units	7	31	7	45

The subject site is categorised under “Medium Density Residential Flat Building” in Section 3.3.2 of NSW RTA Guide to Traffic Generating Development (2002) document. The following trip rates have been outlined in this document;

- **Smaller units and flats (up to two bedrooms):**
 - Daily vehicle trips = 4-5 per dwelling
 - Weekday peak hour vehicle trips = 0.4-0.5 per dwelling.
- **Larger units and town houses (three or more bedrooms):**
 - Daily vehicle trips = 5.0-6.5 per dwelling
 - Weekday peak hour vehicle trips = 0.5-0.65 per dwelling.

Using the above rates for the subject site, we obtain the following peak hour trips; 0.5 (upper bound) trips per unit X 38 units (1 and 2 bedrooms) = 19 trips

Total peak hour trips generated by the proposed development = 19 trips (rounded up)

This number of trips during each peak hour is rather insignificant as it represents 1 vehicle every 2 minutes during each peak hour (assuming 100% out during the AM peak hour and 100% in during the PM peak hour and a uniform distribution of trips across each hour – justified due to the residential nature of the development).

As such, it is clear that the additional development traffic represents a very small fraction of the existing traffic volumes and therefore the additional traffic generated from the proposal is unlikely to generate any material impact on the existing traffic operations in the vicinity.

Basement Car Parking Assessment

On site car parking has been proposed, at the subject site, within the basement level with following provisions;

- A total of 59 resident car spaces;
- A total of 9 visitor car spaces (including 5 disabled car space and a common loading bay); and
- 13 Resident bicycle bays.

Full scale drawings of the proposed development are provided as part of the Development Application package and hence reference should be made to these drawings.

Penrith City Council DCP - Car Parking Requirements

The car parking requirements for residential developments are contained in Part A of the Penrith City Council DCP.

Car parking provisions for residential flat buildings must be made as follows;

Table 2: DCP Car Parking Requirements

Unit Type	Minimum Spaces Required	Number of Units	Minimum Spaces
Studio/1 bedroom	1	7	7
2 bed room	1	31	31
Visitor/dwelling	0.2	45	9
3 bedroom	2	7	14
TOTAL			61

From the requirements presented in the table above, it is evident that a total of 61 car spaces are required for the overall development (52 car spaces for residents and 9 car spaces for visitors).

The proposal includes a total of 62 resident car spaces and a total of 9 visitor car spaces (including 5 disabled car space). Therefore the proposed car parking is well compliant with the DCP car parking requirements.

Penrith City Council DCP - Bicycle Parking Requirements

As per the Penrith City Council DCP, at multi-unit housing developments, bicycle parking should be provided at the following rates;

Table 3: DCP Bicycle Parking Requirements

Unit Type	Minimum Spaces Required	Maximum Space Required	Number of Units	Bicycle Spaces Required
1 bedroom	0.2	0.3	7	1.4
2 bed room	0.2	0.3	31	6.2
3 bed room	0.2	0.3	7	1.4
Visitor/dwelling	0.05	0.1	45	2.25
Total Bicycle Spaces Required				12

As per the above table, the proposed development will need to provide a total of 12 bicycle parking spaces. The proposal includes 12 bicycle bays provided within the basement level and it is compliant with the DCP bicycle parking requirements.

Delivery/service/loading bay - NSW RTA Guide to Traffic Generating Development

The subject site is categorised in Section 5.2.3 of NSW RTA Guide to Traffic Generating Development (2002) document in the section of residential but more than 50 units which should provide a car space for loading bay. The proposal includes 1 common loading bays provided within the basement level 1 and it is compliant with the RTA NSW 2002.

AS 2890.1-2004 Compliance

This section will investigate the compliance of the proposed basement car park with the requirements outlined in AS 2890.1-2004.

Car Space Dimensions

The subject car parking user class as per AS 2890.1-2004 is Class 1A (residential parking). The following table indicates the standard compliance of the 21 X 90 degree parking spaces provided;

Table 4: Compliance of car spaces with the design standard

Component	Standard Dimension (m)	Dimension Provided (m)	Compliance/Comments
A	2.4	2.4	Compliant
C*	5.4	5.4	Compliant
Aisle Width	5.8	5.8 or more	Compliant

* where parking is to a wall or high kerb not allowing any overhang and where parking is controlled by wheel stops installed at right angles to the direction of parking.

as per AS 2890.1-2004 "Spaces shall be located at least 300 mm clear of obstructions higher than 150 mm such as walls, fences and Columns."

As it can be seen from the table above, the proposed car park design complies well with the basic car space and aisle width dimensional requirements.

Sight Distance for Vehicles

Barber Avenue is a local road with a recommended standard speed limit of 50km/hr. For such speed limits at a domestic driveway, a sight distance of 40m is required along both road directions. It is recommended to ensure that this can be achieved, which may require keeping the greyed area clear of visual obstructions (as seen in the table below extracted from AS 2890.1-2004).

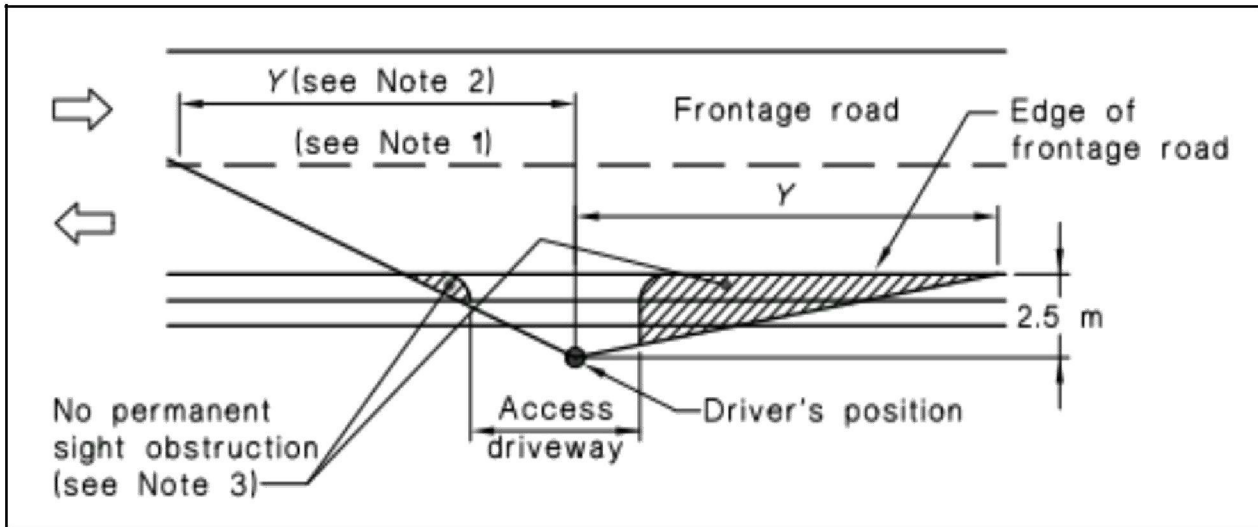


Figure 6: Entering sight distance specifications (excerpt from AS/NZS 2890.1:2004)

Sight Distance for Pedestrians

In order to provide adequate visibility of pedestrians walking along the foot path, the area outlined in **Figure 6** below must be kept clear of visual obstructions.

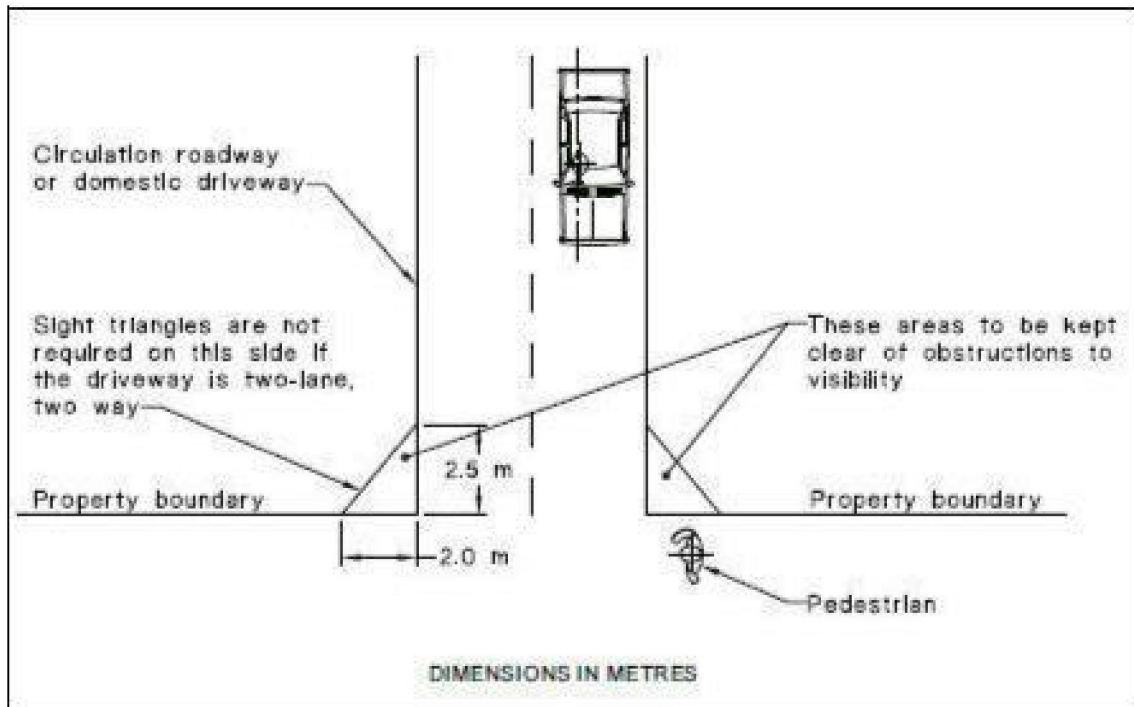


Figure 7: Minimum Sightlines for Pedestrian Safety (AS 2890.1:2004)

Disabled Car Spaces

Four dedicated parking spaces have been provided within the proposed car park. All of these spaces are designed as per the required dimensions: 2400mm width and 5400mm length.

A shared space (shaded area) on one side of the dedicated space is also provided at 2400mm X 5400mm, for two dedicated spaces at each basement level. Space identification (white symbol of access) has also been proposed as per the site plans. It is advised to provide bollard at the shared spaces as required by the Australian Standard.

Blind Aisles

At blind aisles, the aisle shall be extended a minimum of 1 m beyond the last parking space. This 1m extension has been provided at the blind aisle in order to improve manoeuvrability of vehicles when reversing out.

Ramp to the Car Park

AS 2890.1-2004 states the grade requirements for straight ramps at private or residential car parks as follows:

- (i) Longer than 20 m—1 in 5 (20%) maximum.
- (ii) Up to 20 m long—1 in 4 (25%) maximum. The allowable 20 m maximum length shall include any parts of grade change transitions at each end that exceed 1 in 5 (20%).
- (iii) A stepped ramp comprising a series of lengths each exceeding 1 in 5 (20%) grade shall have each two lengths separated by a grade of not more than 1 in 8 (12½%) and at least 10 m long.

The stepped ramp provided to the basement car park at the subject site is longer than 20m. The maximum grade at the ramp is 20% and the length of the 20% ramp is more than 10 m, and this complies with the maximum grade stipulated in the Australian Standard.

Also, the ramp width shall be 3.0 m as per the Australian Standards since the ramps to the basement car parks are one way ramps. This condition has been satisfied in the design by the provision of 3.6 width and two 0.3 m clearance obstruction of the ramp.

Column Location and Spacing

There are columns supporting the building structure at the basement levels car parking. The design envelope around a parked vehicle which is to be kept clear of columns is shown in the Figure and the Table below. As per this table (an excerpt from AS/NZS 2890.1:2004, section 5.2), at the 90 degree parking angles, the minimum X and Y dimensions are to be 750mm and 3650mm respectively. From the CAD drawings, the X and Y values are measured to be 750mm and 3650mm (or more) respectively. Since these two dimensions satisfy the minimum requirements, the column spacing is compliant with the standard.

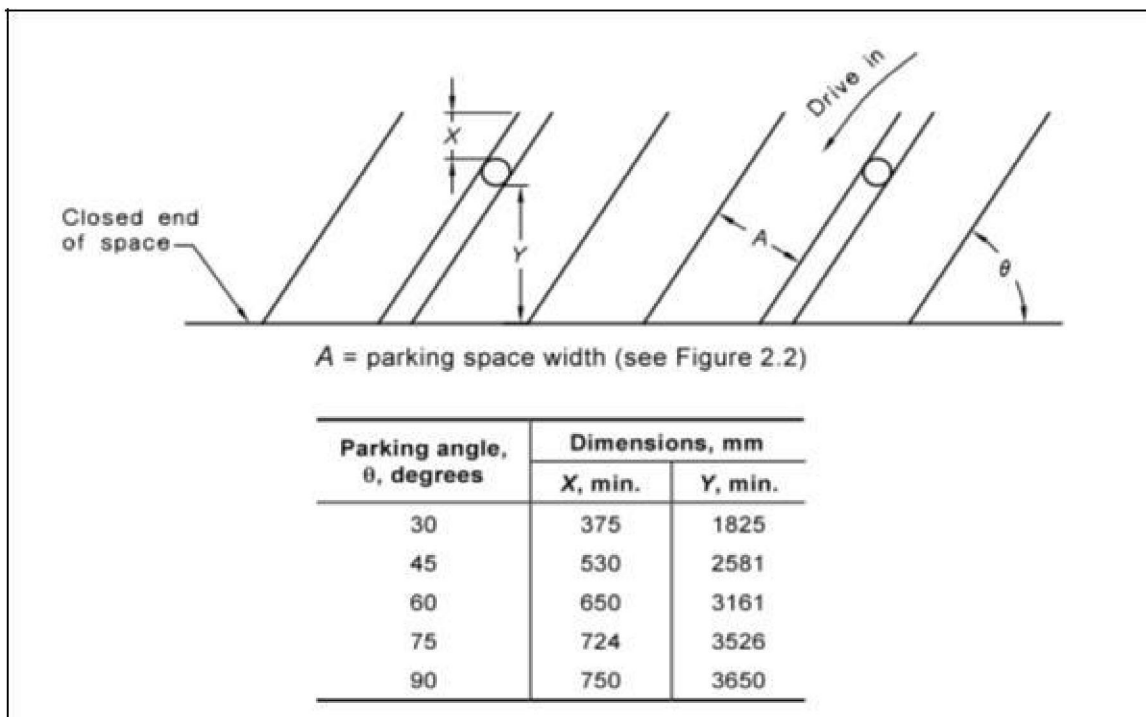


Figure 8: Column spacing requirements (excerpt from AS/NZS 2890.1:2004)

Swept Path Assessment

A swept path assessment of 85th percentile vehicles (dimensions in line with AS 2890.1-2004) have been undertaken within the basement car park. The results of these swept path assessments indicate sufficient manoeuvrability conditions for 85th percentile vehicles at this location.

Conclusions

Based on the assessment presented in this report, it is considered that:

- The proposed site is very well located to the public transport services.
- The proposed site will generate additional, but low levels of trips in the weekday AM and PM peak hours. These trips can be accommodated at the nearby roads without affecting intersection performance or increasing delays and queues.
- The car parking assessment indicates that the provision of car parking at the proposed site is well compliant with the requirements outlined in the Penrith Council DCP.
- The proposal includes 13 bicycle bays provided within the basement level and it is compliant with the DCP bicycle parking requirements.
- The car park assessment indicates that the design is compliant with the requirements outlined in AS 2890.1-2004;
- The swept path assessment undertaken to test the manoeuvrability of 85th percentile vehicles within the basement level indicate sufficient manoeuvrability conditions of these vehicles within the design constraints.

Based on this study, there are no traffic engineering reasons why a planning permit for the proposed residential development at should be refused.

WASTE MANAGEMENT PLAN

TO ACCOMPANY DEVELOPMENT
APPLICATION

PROPOSED FLAT BUILDING

At:

**41-43 Barber St
Penrith**

Issued by:

JS ARCHITECTS PTY LTD

Ph: 8814-6991 Fax: 8814-6992

Issued: 12 March 2018

DESIGN, CONSTRUCTION, DEMOLITION, NEW DESIGN, RECYCLING, REUSE CYCLE

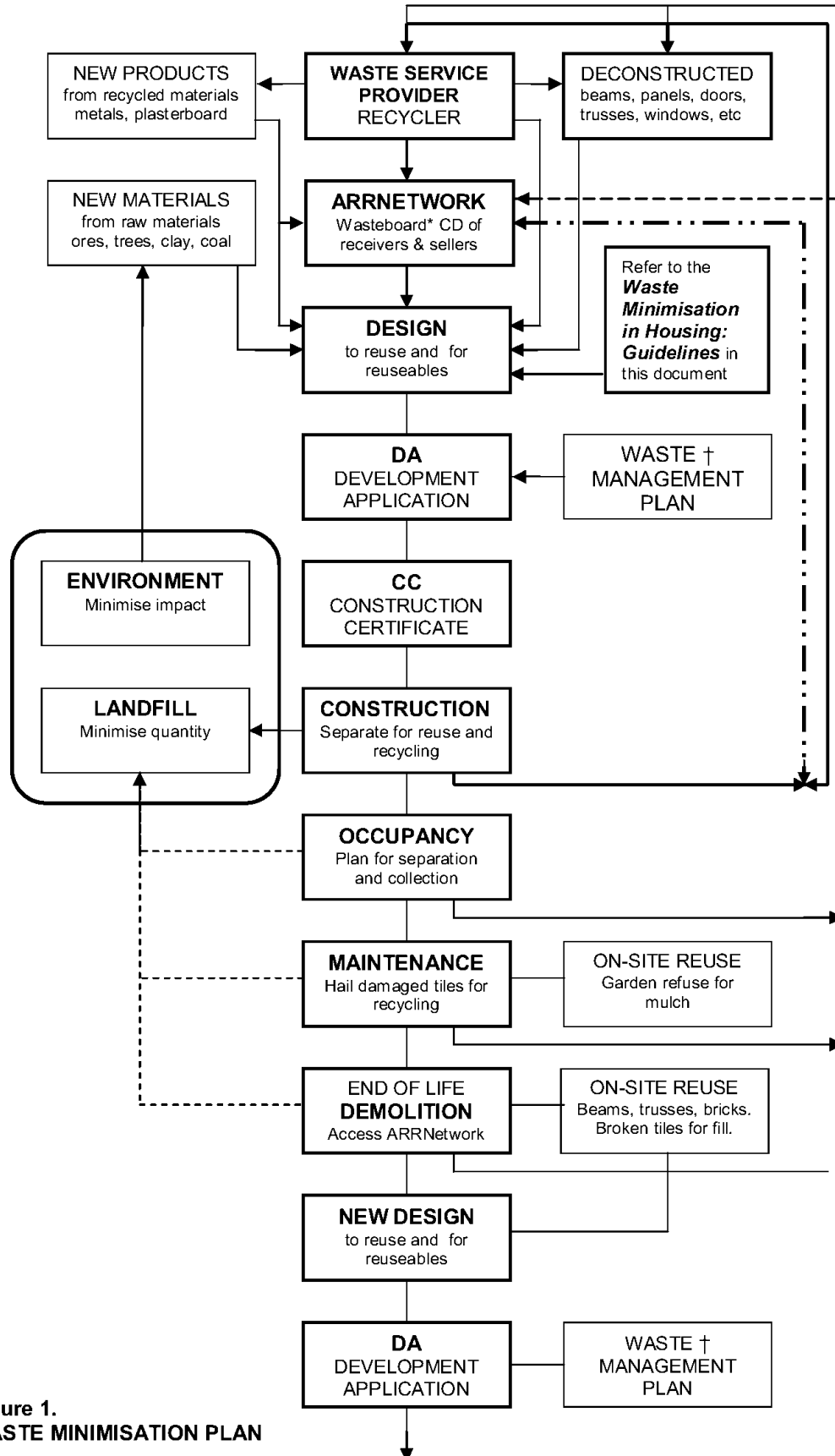


Figure 1.
WASTE MINIMISATION PLAN

WASTE MANAGEMENT PLAN: DEMOLITION

SECTION ONE - DEMOLITION STAGE				
MATERIALS ON-SITE		DESTINATION		
		REUSE AND RECYCLING		DISPOSAL
Type of Material	Estimated Volume cubic metres	ON-SITE Specify proposed reuse or on-site recycling methods	OFF-SITE Specify contractor and recycling outlet	Specify contractor and landfill site
Excavation Material	15840	Keep and re-use topsoil for landscaping. Store on-site. Use some behind retaining walls.		Refer to attachment
Green Waste	25	Will be separated. Some chipped & stored on-site for re-use on landscaping	Refer to attachment	Refer to attachment
Bricks	24	Clean lime mortar from bricks. Re-use bricks in new footings. Broken bricks for internal walls.	Refer to attachment	Nil
Concrete	35	Existing driveway to remain during construction	Refer to attachment	Nil
Timber - Please specify <i>oregon & pine</i>	46	Re-use for formwork & studwork. Chip remainder for use in landscaping	Refer to attachment	Nil
Plasterboard	45	Break-up & use in landscaping	Refer to attachment	Nil
Metals <i>water pipes gutters lead</i>	5	Nil	Refer to attachment	Nil
Other- <i>roof tiles</i>	20	Broken tiles for fill	Refer to attachment	Nil
<i>door fittings</i>		On-site sale		Nil

WASTE MANAGEMENT PLAN: CONSTRUCTION

SECTION TWO - CONSTRUCTION STAGE				
MATERIALS ON-SITE		DESTINATION		
		REUSE AND RECYCLING		DISPOSAL
Type of Material	Estimated Volume cubic metres	ON-SITE Specify proposed reuse or on-site recycling methods	OFF-SITE Specify contractor and recycling outlet	Specify contractor and landfill site
Excavation Material		 Covered in Section One as part of DEMOLITION		
Green Waste				
Bricks	40	Use for fill behind retaining walls.	Refer to attachment	Nil
Concrete	30	Use for fill behind retaining walls	Refer to attachment	Nil
Timber - Please specify oregon pine particle board finishes skirting and architraves	30	Chip for landscaping. Sell some for firewood.	Refer to attachment	Nil
Plasterboard	20	Break-up & use in landscaping	Refer to attachment	Nil
Metals copper steel reo mesh aluminium	20	Nil	Refer to attachment	Nil
Other- Plastics	10	Nil	Refer to attachment	

Demolition Waste & Recycling List

Waste Reduction & Recovery Tips:

Materials:	Company Name	Company Address	Contact Details
Excavation Material / Soil Waste	Enviroguard	Cnr Mamre & Erskine Park Rds, Erskine Park	9834 3411
Green Waste	Ecocycle	155 Newton Road Wetherill Park	9757 2999
Bricks	Brandown	Lot 9 Elizabeth Drive Kemps Creek	9826 1256
Concrete	Brandown	Lot 9 Elizabeth Drive Kemps Creek	9826 1256
Timber	Artistic Popular Furniture	10 Raglan Road Auburn	9644 3054
Metals	Parramatta Scrap Metal	12 North Roack Road North Parramatta	9630 2974
Roof Tiles	Obsolete Tiles	3 South St Rydalmere	9684 6333
Door Fittings	Recycling Works	45 Parramatta Road Annandale	9517 2711
Plastics	Chromford	120-122 Ballandella Road, Pendle Hill	9631 6644
Plasterboard	Ecocycle	155 Newton Road Wetherill Park	9757 2999
Fibro Containing Asbestos	Enviroguard	Cnr Mamre & Erskine Park Rds, Erskine Park	9834 3411

Ongoing Management Plan

Collation of Waste	Council waste vehicles will be servicing the buildings by accessing the site with a mid-rigid truck to waste bins loading bay area off the street. Each floor has 2 waste bins located within the corridor and their bins are wheeled to the main waste storage area by strata appointed contractor twice a week or as needed.
Washing of bins and the bin bay:	The body corporate on strata levy will engage a selected contractor to perform fortnightly washing of waste bins.
Arranging for the prompt removal of dumped furniture and large items:	Must be in accordance with Private contractor agreement. The service will require the Strata Manager to book in the collection service. The residents can only place items within designated storage room on ground floor.
Ensuring all residents are informed of the waste and recycling arrangements:	Every resident will be issued a clear notice of waste and recycling timetable of disposal.