

Agenda

Strathfield Independent Hearing and Assessment Panel Meeting

Notice is hereby given that a Strathfield Independent Hearing and Assessment Panel Meeting will be held at Council Town Hall (Supper Room), 65 Homebush Road, Strathfield on:

Thursday, 1 February 2018

Commencing at 10:30am for the purpose of considering items included on the Agenda

Persons in the gallery are advised that the proceedings of the meeting are being recorded for the purpose of ensuring the accuracy of the Minutes. However, under the Local Government Act 1993, no other tape recording is permitted without the authority of the Council or Committee. Tape recording includes a video camera and any electronic device capable of recording speech.

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TO: Strathfield Independent Hearing and Assessment Panel Meeting - 1 February 2018

REPORT: SIHAP – Report No. 1

SUBJECT: DA2017/145
49 MYRNA ROAD, STRATHFIELD
LOT 49 DP 14613

DA NO. 2017/145

SUMMARY

Proposal: Demolition of existing structures and construction of two (2) storey dwelling house with basement car parking and swimming pool.

Applicant: In Vision Design

Owner: Mahesh Katragadda

Date of lodgement: 29th September 2017

Notification period: 9th October 2017- 22nd October 2017

Submissions received: One (1) written submission was received

Assessment officer: BC

Estimated cost of works: \$950,000

Zoning: R2 - SLEP 2012

Heritage: N/A

Flood affected: Yes

RECOMMENDATION OF OFFICER: REFUSAL

EXECUTIVE SUMMARY

- 1.0 Approval is sought for the demolition of existing structures and construction of two (2) storey dwelling house with basement car parking.
- 2.0 The plans and documentation submitted as part of the development application were notified in accordance with Part L of the Strathfield Consolidated Development Control Plan 2005. One (1) written submission was received during this time regarding visual privacy.
- 3.0 The proposed development results in a number of non-compliances with Council's DCP requirements with respect to streetscape compatibility, articulation, and bulk and scale of the dwelling.
- 4.0 As such, it is recommended that the Development Application be refused.

DESCRIPTION OF THE SITE AND LOCALITY

The subject site is legally described as Lot 49 DP 14613 and is commonly known as 49 Myrna Road, Strathfield. The site is located on the western side of 49 Myrna Road, Strathfield and has an area of 626m².

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The site is rectangular in shape and has a frontage of 15.24m to the east, rear boundary of 15.24m to the west, a side boundary length of 41.15m to the north, and side boundary length of 41.15m to the south.

The site has a natural fall to the rear and slopes in a south-western direction. The site has a cross-fall of 2.32m.

Existing development on the site comprises of a single storey dwelling house with an existing driveway in the northern side of the site. Vehicular access is provided to the site via an existing driveway from Myrna Road.

The current streetscape is characterised by a mixture of single and two (2) storey dwelling houses. The existing streetscape is met with a mixture of facebrick and rendered external finishes with predominantly a pitched roof form.

The surrounding area is characterised by low lying residential development with Freshwater Park, Strathfield Golf Club and the Cooks River located south-west of the subject site.

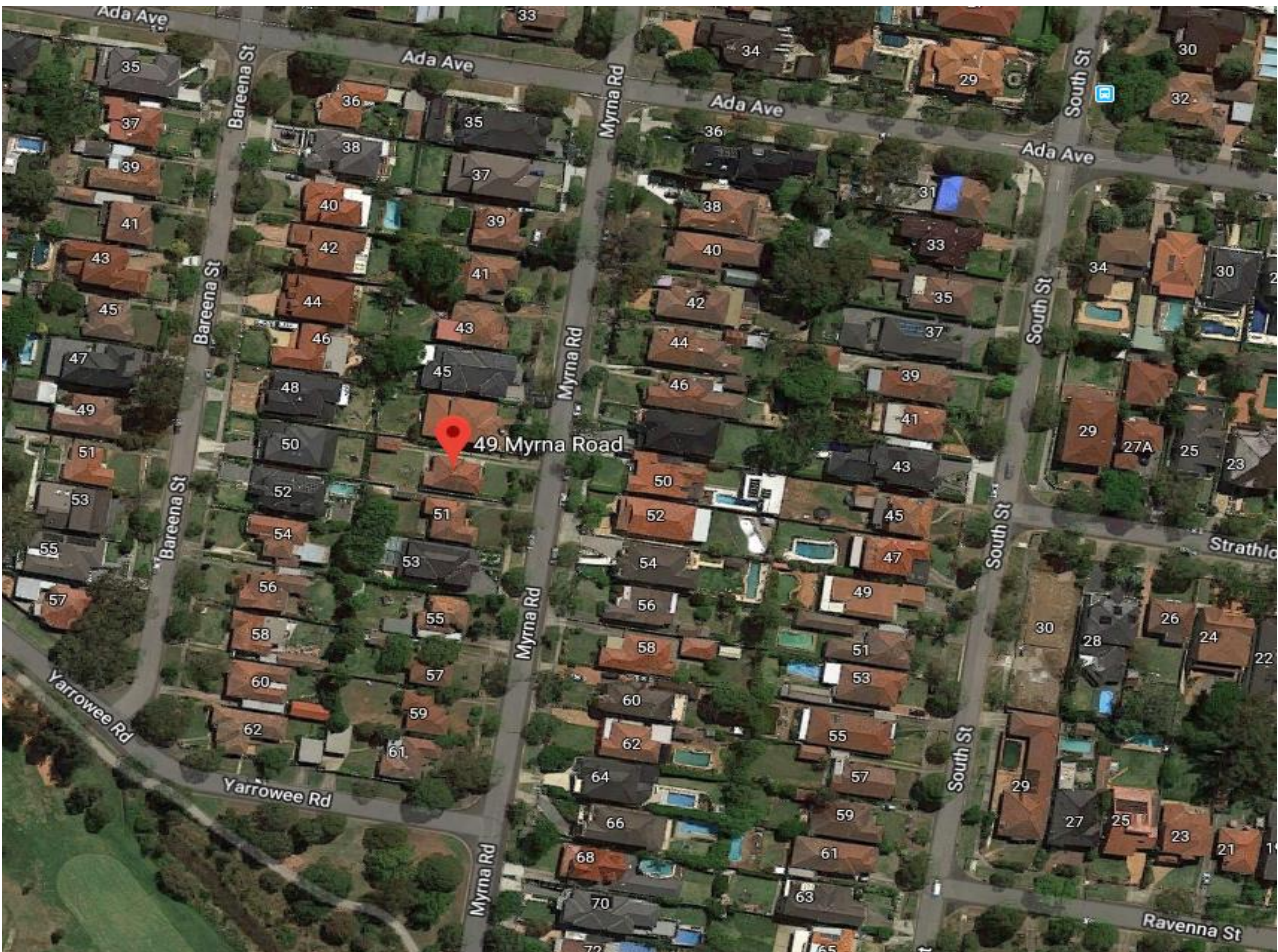


Figure 1: Aerial view of subject site and surrounding development.

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Figure 2: Streetscape view of subject site



Figure 3: View from subject site looking east showing flat roof two (2) storey dwelling under construction at No.50 Myrna Road

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Figure 4: View of existing streetscape from subject site

PROPERTY BURDENS AND CONSTRAINTS

A sewer line bisects the property in a north south direction.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The application seeks Council approval for demolition of existing structures and construction of two (2) storey dwelling house with basement car parking and swimming pool

The specific elements of the proposal are:

Demolition of existing structures which includes:

- Single storey dwelling house;
- Carport/garage;
- Driveway; and
- Front fence/retaining wall.

Basement level:

- Construction of basement level car parking (180m²); and
- Basement will include storage space, plant room with pool equipment and A/C Unit, powder room and cellar.

Ground floor level:

- The ground floor has a floor area of approximately 186m²;
- Open plan living, dining and kitchen area;
- Study/Office;
- Laundry;
- Bathroom
- Family entertainment room;

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- Guest bedroom; and
- Outdoor terrace area.

First floor level:

- The first floor has a floor area of approximately 193m²;
- Five (5) bedrooms; and
- Family sitting room.

External works:

- 2800L Rainwater Tank will be located outside living area along southern side setback;
- Fencing forward of building line will be 1.5m above natural ground level. This fencing will consist of grey sandstone and grey flat metal pickets as infill;
- The driveway will be relocated to the southern side due to the existing power pole along the northern side of street frontage;
- 25K/L In-ground Swimming pool; and
- Associated landscaping and drainage works.

REFERRALS

INTERNAL REFERRALS

Council's Engineer has commented on the proposal as follows:

- *"In accordance with Council's stormwater management code section 4.5 exception to gravity disposal may be given at the discretion of the Council's Director Operations for sites that do not drain to the street, only for single residential dwelling construction where genuine attempts at acquiring a downstream easement have failed. Written documentation of these attempts, including reasonable financial consideration, must be included in any application for exception.*
- *For non-gravity disposal system where applicant has been unable to acquire easement through adjoining downstream properties alternatives which may be considered in accordance with section 4.5 of the stormwater code are minor regrading of the site to elevate building platform to enable gravity drainage system to the street frontage (subject to planning/building constraints on floor/roof height and impact on overland flow paths), roof or paved areas of less than 40m² being connected to a suitably designed rubble/absorption pit and installation of an on-site detention system connecting to a pit and pump system which incorporate twin pumps, and an emergency overflow system connection into a rubble/absorption pit system. The overall system is to be covered by a Restriction As To User on the property title covering maintenance.*
- *The front boundary where the proposed vehicular crossing is located is affected by overland flow of stormwater for the 1 in 100yr ARI storm event and a crest of minimum 300mm is required".*

Amended plans were submitted during the assessment process having consideration for the abovementioned concerns. Council's Engineer offered no further objections to the proposal, subject to the imposition of recommended conditions of consent.

Landscaping Comments

Council's Tree Coordinator has commented on the proposal as follows:

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“The proposal appears acceptable subject to conditions below”

Council’s Tree Coordinator offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

SECTION 79C CONSIDERATIONS – EP&A Act, 1979

In determining a development application, the consent authority is to take into consideration the following matters of consideration contained within section 79C of the Environmental Planning and Assessment Act, 1979 as relevant to the development application:

79C(1)(a) the provisions of:
(i) any environmental planning instrument

STATE ENVIRONMENTAL PLANNING POLICY (SEPP) – BASIX 2004

In accordance with the BASIX SEPP all new housing in NSW is required to meet a designated target for energy and water reduction.

A BASIX Certificate was submitted as part of the application which indicates that the proposal meets the required reduction targets.

STRATHFIELD LOCAL ENVIRONMENTAL PLAN (SLEP) 2012

An assessment of the proposal against the general aims of SLEP 2012 is included below:

Cl. 1.2(2) Aims	Complies
(a) <i>To achieve high quality urban form by ensuring that new development exhibits design excellence and reflects the existing or desired future character of particular localities and neighbourhoods in Strathfield</i>	No
(b) <i>To promote the efficient and spatially appropriate use of land, the sustainable revitalisation of centres, the improved integration of transport and land use, and an appropriate mix of uses by regulating land use and development</i>	Yes
(c) <i>To promote land uses that provide a wide range of employment, recreation, retail, cultural, service, educational and other facilities for the local community</i>	Yes
(d) <i>To provide opportunities for economic growth that will enhance the local community</i>	Yes
(e) <i>To promote future development that integrated land use and transport planning, encourages public transport use, and reduced the traffic and environmental impacts of private vehicle use</i>	Yes
(f) <i>To identify and protect environmental and cultural heritage</i>	Yes
(g) <i>To promote opportunities for social, cultural and community activities</i>	Yes
(h) <i>To minimise risk to the community by identifying land subject to flooding and restricting incompatible development</i>	Yes

Comments: The proposed dwelling development is a contemporary design which proposes a bulk, scale and character which is incompatible with both the existing and the desired future character of the streetscape. Refer to likely impacts discussion.

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Permissibility

The subject site is Zoned R2- Low Density Residential under Strathfield Local Environmental Plan (SLEP) 2012.

Dwelling houses are permissible within the R2 Zone with consent and is defined under SLEP 2012 as follows:

“Dwelling house means a building containing only one dwelling”

The proposed development for the purpose of demolition of existing structures and construction of two (2) storey dwelling house with basement car parking, front fence and in-ground swimming pool is consistent with the definition above and is permissible within the R2- Low Density Residential Zone with consent.

Zone Objectives

An assessment of the proposal against the objectives of the R2- Low Density Residential Zone is included below:

Objectives	Complies
➤ <i>To provide for the housing needs of the community within a low density residential environment.</i>	Yes
➤ <i>To enable other land uses that provide facilities or services to meet the day to day needs of residents</i>	Yes

Comments: The proposed development has considered the zone objectives of R2 Zones under the SLEP 2012.

Part 4: Principal development standards

An assessment of the proposal against the relevant provisions contained within Part 4 of the SLEP 2012 is provided below.

Height of building

Cl.	Standard	Controls	Proposed	Complies
4.3	Height of building	9.5m	9.3m	Yes

	Objectives	Complies
(a)	<i>To ensure that development is of a height that is generally compatible with or which improves the appearance of the existing area</i>	Yes
(b)	<i>To encourage a consolidation pattern that leads to the optimum sustainable capacity height for the area</i>	Yes
(c)	<i>To achieve a diversity of small and large development options.</i>	Yes

Comments:

- The proposed development seeks a maximum height of 9.3m which demonstrates compliance with Clause 4.3 of the SLEP 2012.
- The proposed height is appropriate for the gradient of the site and is compatible with the immediately adjoining properties.

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Figure 5: Streetscape elevation of proposed development

Floor space ratio

Cl.	Standard	Controls	Proposed	Complies
4.4	Floor space ratio	0.60:1 (375.6m ²)	0.574 (359.21m ²)	Yes

	Objectives	Complies
(a)	To ensure that dwellings are in keeping with the built form character of the local area	Yes
(b)	To provide consistency in the bulk and scale of new dwellings in residential areas	Yes
(c)	To minimise the impact of new development on the amenity of adjoining properties	Yes

Comments:

- The proposed development achieves compliance with the relevant FSR provisions applying to the site under the SLEP 2012. There is a mixture of single storey and two (2) dwelling houses amongst the existing streetscape.
- As shown in Figure 5, the bulk and scale of the proposed development is not compatible with the existing streetscape.

Part 6: Local Provisions

The relevant provisions contained within Part 6 of the SLEP 2012 are addressed below as part of this assessment:

6.1 Acid sulfate soils

The subject site is identified as having Class 5 soils and is not located within 500m of Class 1, 2, 3, or 4 soils. Therefore, the proposed development was not required to be accompanied by an Acid Sulfate Soils Management Plan and has satisfied the requirements of Clause 6.1 of the SLEP 2012.

6.2 Earthworks

The proposed development involves excavation for one (1) level of basement.

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6.3 Flood planning

The site is affected by the 1 in 100 year flood level attributed by the Cooks River. A flood impact statement was prepared to and has been addressed to ensure the floor level is 500mm above the maximum 100 year ARI flood level. Council's Engineer offered no objections to the proposal.

6.4 Essential services

Clause 6.4 of the SLEP 2012 requires consideration to be given to the adequacy of essential services available to the subject site. The proposed development is located within a well serviced area and features existing water and electricity connection and access to Council's stormwater drainage system. As such, the subject site is considered to be adequately serviced for the purposes of the proposed development.

79C(1)(a)(ii) any draft environmental planning instruments

There are applicable draft planning instruments that are or have been placed on public exhibition, to consider as part of this assessment. The draft Part A of Strathfield Consolidated Development Control Plan 2005 which is currently under public exhibition has been considered as part of this assessment.

Section 2.2.1 of the draft SCDCP 2005 states that proposed dwellings should incorporate elements of design sympathetic to the streetscape. The proposed development fails to be sympathetic to the existing streetscape with the proposed materials and finishes as well as the flat roof form not the predominant feature of the streetscape and therefore cannot be supported.

Section 2.2.4 requires proposed dwellings to be similar in roof pitch, material and colour within the immediate streetscape. The proposed development seeks a skillion roof form of 3 degrees, as well as materials such as zinc cladding and grey sandstone and colours such as Dulux monument that are not presented as the predominant building form of the existing streetscape. Therefore, revising Section 2.2.1 and 2.2.4 of the draft Part A of the SCDCP 2005, the proposed development cannot be supported.

79C(1)(a)(iii) any development control plan

STRATHFIELD CONSOLIDATED DEVELOPMENT CONTROL PLAN (SCDCP) 2005

The following is an assessment of the proposal's compliance with the relevant provisions contained within SCDCP 2005.

PART A – DWELLING HOUSES AND ANCILLARY STRUCTURES

An assessment of the proposal against the objectives contained within Clause 1.3 of Part A of SCDCP 2005 is included below:

No.	Objectives	Complies
A	<i>To preserve and enhance the residential amenity and heritage value of buildings in the Strathfield Municipality</i>	Yes
B	<i>To encourage construction of environmentally sustainable dwelling houses and ancillary structures</i>	Yes
C	<i>To preserve the appearance of dwellings in tree-lined streets and park-like settings</i>	Yes
D	<i>To maintain compatible architectural styles of dwelling houses within the streetscape</i>	Yes
E	<i>To encourage innovation in housing design and detail</i>	Yes
F	<i>To maintain continuity of streetscape by requiring new and altered</i>	No

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	<i> dwellings to be constructed to a similar size and scale to adjoining developments</i>	
G	<i> To provide a high standard of dwelling house design, construction and finish</i>	Yes
H	<i> To maximise solar access to existing and proposed developments</i>	Yes
I	<i> To provide adequate and convenient on-site car parking</i>	Yes

Comments: As previously discussed, the proposed dwelling is incompatible with the prevailing size and scale of existing dwellings in the streetscape. The proposed dwelling will therefore appear out of character with the immediate streetscape.

Streetscape

Cl. 3.2 Objectives	Complies
A. <i> Ensure that development respects the height, scale, character, materials and architectural qualities of the surrounding neighbourhood, including any adjoining or nearby heritage item or heritage conservation area</i>	No
B. <i> Protect and retain the amenity of adjoining properties</i>	No
C. <i> Discourage the use of non-responsive streetscape elements</i>	Yes
D. <i> Ensure that each new dwelling, addition or alteration respects the predominant height, bulk and scale of existing residential development in the immediate vicinity</i>	No
E. <i> Ensure that the dominant building rhythm of the streetscape is reflected in the building design in terms of the spacing and proportion of the built elements</i>	No
F. <i> Retain a feeling of openness and space between built elements by maintaining landscaped setbacks</i>	Yes
G. <i> Ensure that new dwellings have facades, which define, address, and enhance the public domain</i>	No
H. <i> Preserve the appearance of dwellings set in the tree lined streets and park-like environment</i>	Yes
I. <i> Achieve quality architecture in new development through the appropriate composition and articulation of building elements</i>	Yes
J. <i> Encourage building materials, colours and finishes that are sympathetic to the materials and finishes of surrounding buildings and can be integrated into the overall building form</i>	No
K. <i> To ensure fencing is sympathetic to the design of the dwelling and enhances the character of both the individual house and street</i>	No

Cl.	Element	Controls	Complies
3.3.1	<i> Neighbourhood character and amenity</i>	(1) <i> New dwellings positioned and oriented to address the street frontage and complement the existing pattern of development in the street</i> (2) <i> Consistently occurring positive building façade features within existing streetscape incorporated into the dwelling design</i>	No
3.3.2	<i> Scale, massing and rhythm</i>	(1) <i> Overall scale, massing, bulk and layout to complement existing streetscape</i> (2) <i> New buildings, alterations and additions shall reflect dominant building rhythm in the street</i>	No
3.3.3	<i> Street edge and garden setting</i>	(1) <i> Retain existing trees within the front setback</i> (2) <i> At least two (2) canopy trees within the front setback with minimum mature height of 10m</i> (3) <i> Driveway location must not necessitate the removal of any street tree</i>	Yes

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		(4) <i>At least 50% of the front setback area must comprise deep soil landscaping</i>	
3.3.4	<i>Materials, colours, roof forms and architectural detailing</i>	(1) <i>Roof design to be similar in pitch, materials and colour to roofs in the immediate streetscape</i> (2) <i>Colours of garages, window frames, ventilation and downpipes and balustrading on main facades and elevation to complement external design of the building</i> (3) <i>Building form to be articulated to avoid large expanses of unbroken wall.</i> (4) <i>In relation to heritage items or buildings within a conservation area, cement render of previously unrendered masonry is not permitted</i> (5) <i>Materials used for additions and ancillary structures to be compatible with the existing dwelling house</i> (6) <i>Monotone face brick walls and tiled roofs used where they are existing in the immediate streetscape</i> (7) <i>Highly reflective materials are not acceptable for roof or wall cladding</i>	No
3.3.5	<i>Fencing</i>	(1) <i>Front and side fencing facing a secondary street to be sympathetic to the style of the dwelling.</i> (2) <i>Any fencing forward of the building line may be topped by an additional 0.8m high open timber picket, wrought iron, palisade or similar element. Brick piers over 1m are permitted to support decorative elements, provided they are equally spaced along the street, and do not exceed a height of 1.8m.</i> (3) <i>Solid fencing forward of the building line shall not exceed 1m above NGL.</i> (4) <i>Solid fencing up to 1.8m along a secondary frontage.</i> (5) <i>Side and rear fences permitted up to 1.8m high.</i> (6) <i>Materials not supported for front fences: unrendered cement block, galvanised or aluminium sheeting, fibre-cement board, brushwood, barbed wire, or fencing with a spear type design.</i> (7) <i>Side fencing shall be stepped to reflect the topography of the street.</i> (8) <i>Side and rear fences to allow stormwater to flow through or under the fence.</i> (9) <i>Fencing on corner allotments to incorporate a minimum 1.5m x 1.5m splay adjacent to the road intersection to maintain sight distances for pedestrians and drivers.</i> (10) <i>Solid fences adjoining vehicular access driveways to be provided with a minimum 1m x 1m splay to maintain sight distances for pedestrians and drivers.</i> (11) <i>Corner splays must be landscaped.</i> (12) <i>Council does not permit trees to be removed to facilitate a fence design.</i> (13) <i>Dividing fences between private property and Council parks, reserves, open space etc. must be constructed only in timber palings (lapped and capped) with a maximum height of 1.8m.</i> (14) <i>No gates or entries from private property onto Council's parks, reserves, open space, etc. are</i>	No

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permitted.

Comments:

- The Dulux ‘white on white’ painted finish which forms part of the flat roof structure is not in character with dwelling houses within the streetscape which are predominantly met with tiled pitched roofs.
- The contemporary grey colour palette of the sandstone and zinc cladding is not in character with the materials and colours of the existing streetscape.
- Section 3.3.5 of Part A of the SCDCP 2005 states that “*solid fencing forward of the building line shall not exceed a height of 1m above NGL*”. The current proposed fence is proposed to exceed this as it is 1.5m above NGL which fails to achieve a sense of openness into the streetscape.
- The proposed building materials and finishes are modern in appearance and are of complete contrast to the existing streetscape and would also impinge on the original character of surrounding dwellings which are predominantly with pitched tiled roof forms.

Architectural Design and Details

Cl. 5.2 Objectives	Complies
A. <i>Encourage architecture that is innovative and that uses high quality detailing, blending elements characteristic of Strathfield with contemporary materials and features</i>	Yes
B. <i>Encourage building materials and finishes which are sympathetic to the materials and finishes within the surrounding context</i>	No
C. <i>Require the use of colours that are sympathetic to the surrounding dwelling and streetscape that is within proximity of the new development.</i>	No
D. <i>Reduce the use of highly reflective colours and materials that create visual prominence</i>	Yes
E. <i>Building forms should be compatible with the existing dwelling house (in the case of alteration and additions) or with adjoining dwelling houses and the streetscape in terms of type, form and colour</i>	No

Cl.	Element	Controls	Complies
5.3.1	<i>Building forms</i>	(1) <i>Flat roofs may be considered where there are similar roof forms present in the immediate street. Flat roofs are not appropriate in the case of heritage items or heritage conservation areas.</i> (2) <i>Where a dwelling is located on a street corner it shall be designed to address both street frontages. Blank walls shall not be presented to either frontage and walls shall be articulated or staggered so as to avoid appearing unduly bulky or long.</i>	No
5.3.2	<i>Two (2) storey porticoes</i>	(1) <i>Two (2) storey porticoes may be considered where they are in scale with the proposed dwelling and compatible with the streetscape.</i> (2) <i>Two (2) storey porticoes are to be vertically articulated or broken to reduce their height.</i> (3) <i>No porticoes or associated porches shall protrude more than 1m forward of the front building façade.</i> (4) <i>Porticoes are not to extend higher than the understorey of the eaves/guttering.</i>	Yes

Comments:

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- The predominant roof style is a pitched roof form due to the traditional style dwellings within the existing streetscape. The proposed dwelling results in two skillion and flat roof forms which extend out toward the southern side setback of the site. Refer to Likely Impacts discussion.
- This is not compatible with either of the original dwellings or recently constructed dwellings in the streetscape.

Ecologically Sustainable Development

Cl. 6.2	Objectives	Complies
A.	<i>Encourage passive and active strategies in the design of dwellings and promote the achievement of ecologically sustainable practices</i>	Yes
B.	<i>Ensure dwellings are designed to allow sufficient natural ventilation and lighting whilst minimising heat gain during summer and maximising solar access during winter, thereby reducing the need for artificial cooling and heating</i>	Yes
C.	<i>Minimise the over use of Sydney's limited high quality domestic water supply by ensuring new dwellings incorporate water storage tanks for use in toilet flushing, landscape irrigation and to encourage new dwellings, additions and alterations to incorporate water saving devices and water conservation strategies</i>	Yes
D.	<i>Utilise low greenhouse impact water systems technology in all new dwellings</i>	Yes
E.	<i>Achieve greater efficiency in domestic energy consumption, thereby helping to alleviate the effects of greenhouse emissions</i>	Yes

Cl.	Element	Controls	Complies
6.3.1	<i>Solar access and natural lighting</i>	(1) <i>The design of new dwellings should ensure that living areas face north, sleeping areas face to the east or south, and utility areas to the west or south to maximise winter solar access.</i> (2) <i>In new dwellings, solar access to the windows of habitable rooms and to at least 50% of private open space must be provided or achieved for a minimum period of 4 hours between 9.00am and 3.00pm at the winter solstice (June 22).</i> (3) <i>In the case of alterations or additions to existing dwellings, solar access to the windows of habitable rooms and to the majority of private open space of adjoining properties must be substantially maintained or achieved for a minimum period of 3 hours between 9.00am and 3.00pm at the winter solstice (June 22).</i>	Yes
6.3.2	<i>Natural heating</i>	(1) <i>Living areas should be oriented to the north to maximise direct solar access</i> (2) <i>Where it is proposed to plant trees to the north of the dwelling they must be deciduous to allow solar access during the winter</i> (3) <i>Materials with a high thermal mass are encouraged</i>	Yes
6.3.3	<i>Natural cooling</i>	(1) <i>Windows and walls should be shaded by the use of shading devices, eaves, louvres and trees. Shading devices should be sympathetic to dwelling design and not detract from the appearance of the dwelling</i> (2) <i>Windows should be positioned to capture breezes and allow for cross-ventilation</i>	Yes
6.3.5	<i>Water tanks</i>	(1) <i>Above ground water tanks shall be located behind the dwelling. Where it is not possible to locate a water tank wholly behind the dwelling, it should be</i>	Yes

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		located behind the front building line and screened from view from the public domain with appropriate landscaping (2) Above ground water tanks must be located at least 450mm from any property boundary	
6.3.6	Hot water heater units	(1) Hot water units shall be located behind the dwelling. Where it is not possible to locate the unit either internally or wholly behind the dwelling, it must be located behind the front building line and screened from view from the public domain with appropriate landscaping (2) Hot water systems are not to be located on balconies unless they are screened from public view	Yes

Comments:

- A BASIX Certificate was submitted with the development application meeting designated target for energy and water reduction. In accordance with the BASIX Certificate a 2,800L rainwater tanks is to be installed outside the living room along the southern side setback.
- As the subject site is orientated as an east-west lot overshadowing is inevitable.

Building Height

Cl. 8.2	Objectives	Complies
A.	Dwelling houses and ancillary structures, including garages are to be no more than two (2) storey's high	Yes
B.	Ensure that the overall size and height of dwellings relative to NGL responds to the adjoining dwellings, site topography and the desired future scale of buildings in the street.	Yes
C.	Provide suitable anchor points on the external load bearing walls for where additions are proposed	Yes
D.	Promote the continuation of pyramidal roof forms within Strathfield where they are already prevalent	Yes
E.	Achieve development that does not reduce or restrict reasonable solar access to living and outdoor areas	Yes

Cl.	Element	Controls	Complies
8.3.1	Building height	(1) 3.5m maximum height for outbuildings, detached garages and carports (2) The building height shall follow the gradient for any given site	Yes
8.3.2	Roof pitches and shape	(1) Pitched roofs should be designed with a pitch between 23.5 and 45 degrees. (2) An attic may be built in the roof space of either a two (2) storey dwelling or a single storey dwelling or garage provided access to the attic is via internal stairs. (3) Flat roofs will be considered where they are already present in the street or where a street has no discernible architecture style. (4) Balconies are not permitted in the attic of a garage, unless: a) less than 1.8m ² in area; b) they are located in the centre of the wall or roof facing into the site; and c) do not allow any significant overlooking of adjoining properties.	No

Comments:

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- Directly across from the subject site on the eastern side of Myrna Road at No.50 Myrna Road is a new flat roof dwelling which is currently under construction. No.50 Myrna Road is a CDC approved flat roof two storey dwelling which has incorporated an external cavity facebrick finish to achieve some form of compatibility within the existing streetscape. However, the predominant architectural styling of roof is of pitched form throughout the existing streetscape and therefore the current proposed skillion and flat roof design cannot be supported.

Landscaped Areas

Cl. 9.2 Objectives	Complies
A. Encourage landscaping that is appropriate to the style and scale of the dwelling and adjoining development	Yes
B. Encourage new dwellings to preserve existing landscape elements on site and encourage the integration of existing landscape elements in the design of the proposal	Yes
C. Ensure adequate deep soil planting is retained on each allotment	Yes
D. Ensure both existing and new landscaping provides suitable shade and facilitates convective cooling breeze paths in summer	Yes
E. Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna	Yes
F. Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna	Yes
G. Provide functional private open and outdoor spaces for active or passive use by residents	Yes
H. Provide private open areas with provision for clothes drying facilities screened from the street and lane or a public place	Yes
I. Encourage the greater provision of more effective shade within the community	Yes
J. Encourage the integration of existing trees into the design of the new or altered dwelling	Yes
K. Require owners assess the feasibility of retaining existing site trees prior to the design of a development	Yes
L. Ensure protection of trees during construction is adequate	Yes

Cl.	Element	Controls	Complies
9.3.1	Minimum landscaped area	36% as per Table 2 of Part A SCDCP 2005	Yes
9.3.2	Planting of landscaped areas	(1) Minimum 25% of canopy trees to comprise locally sourced indigenous species (2) Planting areas shall include a mix of low-lying shrubs, medium-high shrubs and canopy trees in location where they will soften the built form. (3) Where no existing canopy trees are present on a site at least two (2) canopy trees must be provided in the front yard and one (1) canopy tree in the rear yard. (4) New structures shall be positioned to provide for the retention and protection of existing significant trees, especially near property boundaries, and natural features such as rock outcrops.	No
9.3.3	Private outdoor living space	Private open space is to be provided in a single parcel rather than a fragmented space and shall be directly accessible from internal living areas of the dwelling	Yes
9.3.4	Tree removal and preservation	(1) Development shall provide for the retention and protection of existing significant trees, especially near property boundaries (2) The trunk of a proposed canopy tree must be	Yes

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- planted a minimum of 4m from built structures, or a minimum of 3m from pier beam footings*
- (3) *New dwellings must be setback a minimum of 5m from any significant tree listed in Council's significant tree register*
 - (4) *Building works should be located outside of the canopy spread of existing trees, with suitable setbacks depending upon species and size*
 - (5) *Trees planted on side boundaries adjacent to neighbouring dwellings and structures must have a minimum 0.6m deep root deflection barrier provided for a minimum of 1.5m either side of the tree centre*

Comments:

- 41.13% (257.46m²) of the subject site is proposed as deep soil landscaping which complies with 36% (225.36m²) required within Section 9.3.1 of the SCDCP 2005.
- The outdoor terrace area is directly accessible to deep soil private open space and from the open plan kitchen, living and dining area.
- The proposal fails to include the provision of two (2) canopy tree which are required to attain a minimum mature height of 10m to be located within the front setback of the site.

Setbacks

<i>Cl</i>	<i>Objectives</i>	<i>Complies</i>
10.2		
A.	<i>Establish and maintain the desired setbacks from the street and define the street edge</i>	Yes
B.	<i>Provide a transitional area between public and private space</i>	Yes
C.	<i>Create a perception of openness in streets</i>	Yes
D.	<i>Assist in achieving passive surveillance whilst protecting visual privacy</i>	Yes
E.	<i>Preserve and enhance the established garden settings within each local area</i>	Yes
F.	<i>Ensure new development is compatible with the established streetscape character</i>	Yes
G.	<i>Maintain view corridors between dwellings</i>	Yes
H.	<i>Reinforce a sense of openness of the locality</i>	Yes
I.	<i>Ensure that all new and existing dwellings achieve adequate visual and acoustic privacy</i>	Yes
J.	<i>Allow for appropriate access for services and utilities easements</i>	Yes
K.	<i>Minimise overshadowing of neighbouring properties from new developments</i>	Yes

<i>Cl.</i>	<i>Element</i>	<i>Controls</i>	<i>Complies</i>
10.3.1	<i>Street setback</i>	(1) <i>9m or prevailing setback in the street block</i> a) <i>1.5m for secondary street setbacks for dwellings on corner allotments</i> b) <i>3m where main entrance to dwelling from secondary frontage</i> (2) <i>Despite subclause (1), a primary street setback of less than 9m may be considered where:</i> a) <i>the predominant setback is the street block is less than 9m</i> b) <i>the proposed setback is not less than the setback of the existing dwelling</i> c) <i>the proposed setback would not be in conflict with the character of the existing streetscape</i> (3) <i>The street setback is measured at right angles from the</i>	Yes

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		<i>lot boundary to the front wall of a dwelling</i>	
		(4) <i>In the case of a corner site with two (2) frontages, the 9m setback applies to the narrowest or primary street frontage</i>	
10.3.2	Side and rear setbacks	(1) <i>New dwellings and extensions: 25% of the width of the block with minimum 1.5m setbacks for each side</i> (2) <i>Minimum 6m rear setback to provide adequately sized outdoor living areas and adequate deep soil areas for shading/screening trees</i> (3) <i>Subject to meeting minimum landscaped areas, ancillary facilities such as garages/outbuildings may be located within the rear setback area</i> (4) <i>Following minimum setbacks apply to ancillary structures:</i> a) <i>Nil for detached garages and carport structures open on three (3) sides; 0.5m for all other</i> b) <i>0.5m setback from side and rear boundaries for garden sheds, studios, cabanas</i> c) <i>1m for pool concourse</i> d) <i>1m from any boundary and 3m from neighbouring habitable buildings for tennis courts</i>	Yes
10.3.3	East-west lots	(1) <i>Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</i> (2) <i>Primary frontage facing east: minimum side setback should be on the north</i> (3) <i>The wider setbacks on the southern side may require relocation of driveway or crossing</i>	Yes

Comments:

- The street setback is 9.15m to the main building line.
- The minimum setback on the northern boundary is 1.81m and the minimum setback on the southern boundary is 1.5m, totalling 3.31m. 25% of the width of the subject site is 3.81m. However, the combined side setback on each side is staggered to meet the minimum requirement of 3.81m.
- The rear setback is approximately 9.67m from the internal living areas and 6.72m to the outdoor terrace.
- The existing driveway is proposed to be relocated from the northern side to the southern side to reduce potential overshadowing impacts.

Vehicle Access and Parking

Cl. 11.2	Objectives	Complies
A.	<i>Ensure that the area of access driveways is minimised in the design of the new development, addition or alteration</i>	Yes
B.	<i>Ensure driveway widths are kept to a minimum to allow for maximum landscaped areas</i>	Yes
C.	<i>Ensure that construction materials used for driveways respect the architectural qualities of the dwelling</i>	Yes
D.	<i>Garages and carports should not visually dominate the street façade of the dwelling</i>	Yes

Cl.	Element	Controls	Complies
11.3.1	Driveway and grades	(1) <i>Existing driveways must be used unless the applicant can demonstrate that:</i> (a) <i>relocation would improve solar access to the property and/or adjoining properties;</i>	Yes

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		<p>(b) the amenity of any adjoining residences would not be unduly affected (with regard to sleeping areas);</p> <p>(c) relocation would not impact on street trees, on street parking or the streetscape; and</p> <p>(d) relocation would not adversely impact the safety of vehicles or pedestrians</p> <p>(2) Kerb and footpath crossings as part of the public domain must only be finished in natural finished concrete and not customised finishes that match the property driveway. Coloured concrete is not permitted in the driveway crossing outside the property boundary.</p> <p>(3) Driveway crossings, including apron and layback shall be located a minimum of 1m clear of any existing stormwater pits, lintels or poles and 2m clear of the trunk of any trees within the road reserve</p> <p>(4) The maximum width of driveways at the property boundary is to be 3m.</p> <p>(5) Vehicles accessing sites which front main roads shall be capable of entering and exiting in a forward direction (i.e., vehicle manoeuvring shall be fully maintained within the site).</p> <p>(6) Vehicular turning areas for garages shall comply with the relevant Australian Standard.</p> <p>(7) Areas of concrete visible from a public road (including driveways and pedestrian ways) are to be kept to a minimum and coloured charcoal, grey or brown.</p> <p>(8) New dual or combined driveways are not encouraged. Existing dual driveways may be retained in circumstance where:</p> <p style="padding-left: 40px;">a) The area of deep soil planting in the front garden is at least 50% of the front setback area; and</p> <p style="padding-left: 40px;">b) Where the entry and egress are able to be undertaken in a safe manner in accordance with Australian road rules.</p>	
11.3.2	Garages and carports	<p>(1) Two (2) car parking spaces are to be provided and maintained behind the front building line of all new dwellings (i.e. garage/or allocated/stacked space). For lots less than 15m in width consideration may be given to one (1) car space. Where alterations and additions to existing dwellings are proposed and two (2) spaces are available, these spaces must be maintained.</p> <p>(2) Garages are to be recessed behind the main front facade of the dwelling and/or designed so as not to dominate the appearance of the building or streetscape.</p> <p>(3) Garages are not to be converted or used for any purpose other than that for which they are approved, that is, garages must not be converted into rumpus rooms, living areas, bedrooms, offices, etc.</p> <p>(4) Garages should be provided no more than at 150mm above ground level at their entry unless the slope of the site exceeds 1:8 (12.5%) in which case a suspended garage may be acceptable.</p> <p>(5) The minimum dimensions of parking spaces and garages shall comply with the relevant standards.</p>	Yes
11.3.3	East-west lots	<p>(4) Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</p> <p>(5) Primary frontage facing east: minimum side setback should be on the north</p>	Yes

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(6) *The wider setbacks on the southern side may require relocation of driveway or crossing*

Comments:

- A single level basement is proposed accommodating for two (2) car parking spaces, storage space, powder room and a cellar.
- The proposal seeks to relocate the existing driveway from the northern side to the southern side to ensure the power pole on the southern side is not impacted upon the safe passage of vehicles to and from the site.
- The development proposes a 3m wide driveway at the front property boundary and therefore meets the requirements of Section 11.3.1 of the SCDCP 2005.

Basements

Cl. 12.2	Objectives	Complies
A.	<i>Ensure that any proposed basement minimises disturbance to natural drainage systems</i>	Yes
B.	<i>Basements are to have discreet entries, safe access and a high degree of natural cross-ventilation</i>	Yes
C.	<i>Minimise excavation to reduce disturbance to NGL particularly adjacent to site boundaries</i>	Yes
D.	<i>To ensure that flooding, drainage or ventilation impacts would not be created for the site, or for adjoining or nearby properties</i>	Yes

Cl.	Element	Controls	Complies
12.3.1	<i>Basement car parking</i>	(1) <i>The maximum area of a basement shall be limited to and contained within the footprint of the dwelling at ground level</i> (2) <i>The height of the dwelling will be measured from NGL and will need to satisfy the building height controls in this policy. Where a basement is proposed, the maximum height of the basement above NGL is limited to 1m measured to the predominant finished floor level of the level above. Where the basement exceeds 1m, it will be considered a storey and included in the calculation of maximum FSR</i> (3) <i>Minimum internal clearance of 2.2m in accordance with BCA requirements</i> (4) <i>Driveways shall comply with the relevant Australian Standards (AS1428.1 and a maximum 1:4 gradient)</i> (5) <i>Basement entries and ramps/driveways within the property are to be no more than 3.5m wide</i> (6) <i>Basements are not to be used for habitable purposes</i> (7) <i>No excavation is permitted within the required minimum side setbacks. Furthermore, the location of basement walls may warrant increased setbacks to provide sufficient area for water proofing, drainage etc.</i> (8) <i>Driveway ramps are to be perpendicular to the property boundary at the street frontage</i> (9) <i>Basements shall be designed to permit vehicles to enter and exit the basement in a forward direction</i> (10) <i>Provision of pump-out systems and stormwater prevention should be in accordance with Council's Stormwater Management Code</i> (11) <i>Basements may not be permissible on flood affected sites. Applicants should check with Council and consider the submitting a pre-lodgement application</i>	Yes

Comments:

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- The basement will accommodate for two (2) car parking spaces.
- Basement will exceed 900mm above NGL and will located within the footprint of the building.
- The basement has a proposed minimum internal clearance of 2.2m which complies with Section 12.3.1 of SDCDP 2005.

Altering Natural Ground Level (cut and fill)

Cl. 13.2 Objectives	Complies
A. <i>Encourage minimal use of cut and fill to reduce site disturbance</i>	Yes
B. <i>Ensure existing trees and shrubs are undisturbed and maintain ground water tables</i>	Yes
C. <i>Minimise impacts on overland flow/drainage and encourage the maintenance of existing ground levels</i>	Yes

Cl.	Element	Controls	Complies
13.3.1	Cut and fill	(1) Fill is limited to a maximum of 1m above natural ground level (NGL) (2) For all excavation works that require the use of fill, only clean fill is to be used (3) Cut and fill batters must be stabilised consistent with the soil properties. (4) Vegetation or structural measures are to be implemented as soon as the site is disturbed (5) All areas of excavation shall be setback from property boundaries in accordance with the building setback controls. No excavations shall be made to the ground within the minimum required setbacks (6) Where excavation work is proposed, the work must not affect or undermine the soil stability or structural stability of any buildings on adjoining properties (7) A dilapidation report may be required for all buildings which adjoin proposed excavation areas (8) Avoid excessive fill or floor levels to ensure convenient access between internal spaces and external recreation areas and to minimise potential impacts from overlooking	Yes

Privacy

Cl. 14.2 Objectives	Complies
A. <i>Maintain reasonable sharing of views from public places and living areas</i>	Yes
B. <i>Ensure that public views and vistas are protected, maintained and where possible, enhanced</i>	Yes
C. <i>Ensure that canopy trees take priority over views</i>	Yes
D. <i>Ensure that the placement of balconies does not adversely impact on the visual privacy of adjoining properties</i>	Yes

Cl.	Element	Controls	Complies
14.3.1	Views and view sharing	(1) Buildings shall maintain views where possible from surrounding and nearby properties and those available to the public from nearby public domain areas (2) Established building lines are to be maintained to preserve view sharing	Yes
14.3.2	Visual	<i>Private open space, recreation areas and living rooms of</i>	Yes

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	<i>privacy</i>	<i>proposed and any existing adjoining dwellings are to be protected from direct overlooking within 9m by: (1) arranging the layout of a building so as to reduce opportunities for overlooking; (2) the use of fixed screening devices; (3) the separation of buildings; (4) the considered placement of windows and openings; (5) appropriate evergreen screen plants and trees; and (6) ensuring finished floor levels are not excessively elevated above NGL</i>	
14.3.3	<i>Windows</i>	<i>Windows shall be designed to avoid overlooking of adjacent dwellings and where a transparent window is to be located within 9m of windows of an adjoining dwelling, the window must: (a) be offset from the edge of any windows in the adjoining dwelling by a distance of at least 0.5m; or (b) have a sill height of at least 1.7m about the floor; or have fixed, obscure glazing in any part of the window less than 1.7m above the floor</i>	Yes
14.3.4	<i>Balconies and screening</i>	<i>(1) Upper storey balconies are not permitted on side boundaries, except where facing the secondary frontage of a corner lot, and provided other setback controls can be achieved (2) Elevated decks, verandahs and balconies shall incorporate privacy screens where necessary and shall be located at the front or rear of the building only (3) Small upper floor rear balconies measuring no more than 1m in depth by 2m in length may be permitted where an applicant can demonstrate that the balcony would not unreasonably impact upon the privacy of adjoining premises (including buildings and outdoor spaces) (4) Second storey balconies extending for the full width of the front façade are not permitted</i>	Yes
14.3.5	<i>Acoustic privacy</i>	<i>(1) Noise-sensitive rooms, such as bedrooms, should be located away from noise sources, including main roads, parking areas, living areas and recreation areas and the like (2) Double glazing, laminated glass, vibration-reducing footings or other materials, should be considered to minimise the effects of noise and/or vibrations (3) Suitable acoustic screen barriers or other noise mitigation measures may be required where physical separation is not able to be achieved</i>	Yes

Comments:

- All windows have been appropriately located and/or treated so as to minimise opportunities for overlooking into neighbouring properties.
- Plans were amended to demonstrate the removal of the proposed rear balcony which as a result has improved the residential amenity of adjoining properties.

Access, Safety and Security

Cl. 15.2	Objectives	Complies
A.	<i>Increase the safety and perception of safety in public and semi-public spaces</i>	Yes
B.	<i>Encourage the incorporation of crime prevention principles in the design of the proposed development</i>	Yes

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C.	<i>Provide casual surveillance of the public domain to promote a safe pedestrian environment</i>	Yes
D.	<i>Provide privacy to rooms overlooking the street whilst maintaining surveillance</i>	Yes
E.	<i>Ensure the safety of pedestrians by separating pedestrian access from vehicle access</i>	Yes
F.	<i>Encourage the provision of an accessible entry to dwellings to accommodate a greater range of lifestyles and improve residential amenity and convenience</i>	Yes

Cl.	Element	Controls	Complies
15.3.1	Address and entry sightlines	(1) <i>Buildings are to be designed to allow occupants to overlook public places in order to maximise passive surveillance</i> (2) <i>Design landscaping and materials around dwellings and buildings, so that when plants are mature they do not unreasonably restrict views of pathways, parking and open space areas</i> (3) <i>External lighting should enhance safe access and security around the dwelling and light spill must not adversely impact on adjoining properties</i> (4) <i>Lighting must be designed and located so that it minimises the possibility of vandalism or damage, is appropriate for the street and minimises glare</i> (5) <i>Security lighting must be fitted with motion detectors to reduce energy use and meet relevant Australian Standards</i>	Yes
15.3.2	Pedestrian entries	(1) <i>Pedestrian entries and vehicular entries should be suitably separated to ensure pedestrian and resident safety</i> (2) <i>Building entrances and house numbers are to be clearly visible from the street, easily identifiable and appropriately lit</i> (3) <i>Walkways and landscaping should be used to direct visitors to the main building entrance</i> (4) <i>One (1) entry to the dwelling should be designed to be as accessible as possible. This entry should be a generous width, without steps, and should be located to facilitate movement</i> (5) <i>The path to any accessible entry should be appropriately paved, ideally achieve a 1:14 grade, and incorporate barriers or handrails where there is a drop off or change in level at the side of the path</i>	Yes

Comments:

- The proposed ground floor and first floor windows along the front façade of the dwelling house would provide adequate passive surveillance to the street. However, the privacy screen on the first floor window of the front façade fails to achieve adequate passive surveillance to the street frontage.
- The pedestrian entry and vehicle entry are suitably separated.

Water and Soil Management

Cl. 16.2	Objectives	Complies
A.	<i>Encourage the incorporation of Sydney Water's Water Management Strategies in the development</i>	Yes

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B.	<i>Ensure compliance with Council's Stormwater Management Code</i>	Yes
C.	<i>Ensure compliance with the NSW State Governments Flood Prone Lands Policy</i>	Yes
D.	<i>Ensure that appropriate soil erosion and sediment control measures are implemented on all sites that involve soil disturbances during construction</i>	Yes
E.	<i>Ensure new building work does not detrimentally affect the existing drainage system of any area of the Municipality</i>	Yes
F.	<i>Ensure that new development in areas that may be affected by acid – sulfate soils do not adversely impact the underlying ground conditions and soil acidity</i>	Yes
G.	<i>Ensure that economic and social costs, which may arise from damage to property from flooding, are not greater than that which can reasonably be managed by the property owner and general community</i>	Yes

Cl.	Element	Controls	Complies
16.3.1	<i>Onsite water management and stormwater control</i>	1) <i>Developments shall comply with Council's Stormwater Management Code</i> 2) <i>On site detention devices may be required to assist in the management of stormwater on site.</i>	Yes
16.3.2	<i>Acid sulfate soils</i>	<i>Development is to ensure that sites with potential to contain acid sulfate soils are managed in a manner consistent with the provisions contained in Strathfield Draft LEP 2008 and the relevant standards and guidelines</i>	Yes
16.3.3	<i>• Flood prone areas and through site drainage</i>	(1) <i>Flood affected properties must comply with Council's Interim Flood Prone Lands Policy (Flood Prone Areas and Through Site Drainage)</i> (2) <i>Where a site is subject to flooding applicants should seek written advice from Councils Planning & Environment section in relation to minimum habitable floor height for the site</i> (3) <i>In areas subject to major overland flow from adjoining properties, applicants are required to engage a suitably qualified hydraulics engineer and lodge a drainage/flood report prepared by a hydraulics engineer</i> (4) <i>Applicants must comply with Council's Stormwater Management Code with regard to drainage and stormwater detention matters. Full details and plans of the stormwater system are to be submitted for approval as part of the development application</i>	Yes
16.3.3	<i>Flood prone areas and through site drainage</i>	(1) <i>Flood affected properties must comply with Council's Interim Flood Prone Lands Policy (Flood Prone Areas and Through Site Drainage)</i> (2) <i>Where a site is subject to flooding applicants should seek written advice from Councils Planning & Environment section in relation to minimum habitable floor height for the site</i> (3) <i>In areas subject to major overland flow from adjoining properties, applicants are required to engage a suitably qualified hydraulics engineer and lodge a drainage/flood report prepared by a hydraulics engineer</i> (4) <i>Applicants must comply with Council's Stormwater Management Code with regard to drainage and stormwater detention matters. Full details and plans of the stormwater system are to be submitted for approval as part of the development application</i>	Yes
16.3.4	<i>• Soil erosion and</i>	(1) <i>Appropriate soil erosion and sediment control measures must be detailed in the development application and implemented prior to the commencement</i>	Yes

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sediment control	of work. (2) The following sediment control measures are recommended: a) perimeter bank and channels; b) turf filter strips; c) sediment fences; d) sediment traps; and e) roof guttering. (3) Applicants may be required to provide plans showing stormwater quality treatment techniques to prevent sediments and polluted waters from discharging from the site during the construction phase. Such plans will show temporary measures designed in accordance with the NSW Department of Housing, Managing Urban Stormwater, Soils and Construction Manual.
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Comments:

- The site is affected by the 1 in 100 year flood level and a flood impact statement was therefore provided with the application to demonstrate consideration for flood affectation of the site. This is considered acceptable by Council's Development Engineer.

Services and Utilities

Cl.	Element	Controls	Complies
17	Electricity / telecommunications / water / sewer	Services are to be provided in accordance with the relevant service authority requirements	Yes

Comments:

- A Sydney Water sewer line bisects the property north to south.

Ancillary Structures

Cl. 20.1	Objectives	Complies
A.	Ensure that the design and location of ancillary structures takes into account the streetscape and overall environmental impact	Yes
B.	Ensure that the provision of ancillary structures, such as air conditioning units, are considered at the design stage of a proposed development	Yes

Cl.	Element	Controls	Complies
20.2.1	Waste bin storage and management	1) Developments shall comply with Part H of SCDCP 2005 2) On site detention devices may be required to assist in the management of stormwater on site.	Yes
20.2.2	Retaining walls	(1) Retaining walls are to be no more than a maximum of 1.2m in height (2) Council requires retaining walls in excess	Yes
20.2.4	Air conditioning	1) Air-conditioning units are to be located within a proposed dwelling or within a suitable building and appropriately soundproofed from any habitable room of an adjoining property 2) Where an air-conditioning unit cannot be located in a building or concealed in a structure (as indicated above), it is to be located in the central third of the rear wall of the dwelling and be a minimum of 3m from any boundary 3) Any building work associated with the installation	Yes

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		of an air-conditioning unit must not reduce the structural integrity of any existing buildings	
		4) Only residential grade air conditioners are to be installed and not commercial grade air conditioners	
		5) Air-conditioning units must be installed to comply with the Protection of the Environment Operations Act 1997 and Protection of the Environment Operations (Noise Control) Regulation 2000	
20.2.7	Swimming pools	1) Where a pool is more than 1m above ground, the space between the bond beam/concourse and the ground is to be suitably finished with decorative blocks or other approved material and landscaped to Council's satisfaction	Yes
		2) Swimming Pool enclosures shall comply with the Swimming Pools Act and relevant Australian Standards as amended	
		3) The outside edge of a pool concourse (and any paved/concreted area adjacent to the concourse) must be separated from a property boundary by an area of land at least 1m wide of deep soil soft landscape area containing a continuous planting of screening shrubs	
		4) An approved depth indicator must be attached to each end of the pool	
		5) The pool filter and pump equipment are to be located where they will not create a nuisance to neighbouring property owners/occupiers	
		6) Lighting should be installed so as not to cause nuisance	

Comments:

- The Air-Conditioning Unit is to be located within the basement.
- The proposed in-ground swimming pool complies with the relevant controls within Section 20.2.7 of the SCDP 2005.

PART H - WASTE MANAGEMENT (SCDCP 2005)

The proposed development was accompanied by a Waste Management Plan detailing the types of waste created as a result of the demolition of existing structures and construction of a two (2) storey dwelling house with basement car parking, front fence and in-ground swimming pool. The waste minimisation strategies detailed in this waste management plan are to an acceptable standard.

79C(1)(iia) any planning agreement or draft planning agreement

No planning agreement has been entered into under section 93F of the *Environmental Planning and Assessment Act 1979*.

(i) matters prescribed by the regulations

Clause 92 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* requires Council to take into consideration the provisions of the Government Coastal Policy and Australian Standard AS2601-1991: *The Demolition of Structures*, in the determination of a development application.

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Having regard to these prescribed matters, the proposed development is not located on land subject to the Government Coastal Policy as determined by Clause 92(1)(a)(ii) however does involve the demolition of a building for the purposes of *AS 2601 – 1991: The Demolition of Structures*.

Should this application be approved, appropriate conditions of consent are included within the recommended to ensure compliance with any relevant regulations.

(ii) any coastal zone management plan

The NSW Government projects sea levels to rise by 40cm in 2050 and by 90cm in 2100 above the relative mean sea level in 1990. These planning benchmarks are to be considered in the assessment of development applications through the applicable coastal zone management plan or alternatively the provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

Although Council is not subject to a coastal zone management plan, the sea level rise planning benchmarks have also been established in order to assess the likely increase in the frequency, duration and height of flooding and as a consequence likely property and infrastructure damage on affected and potentially affected land. Council is therefore required to consider the impact of sea level rise and resultant flooding from Powell's Creek and Cook's River which are tributaries of Sydney Harbour (Parramatta River) and Botany Bay respectively.

The proposed development is located on a site that is affected by the existing 1 in 100 year flood event or is likely to be as a result of the planning benchmarks for sea level rise mentioned above. Accordingly, the proposed development has been assessed against the relevant provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

79C(1)(b) the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

Streetscape

Section 8.3.2 of Part A of the SCDP 2005 states that *"flat roofs will be considered where they are already present in the street or where a street has no discernible architecture style"*. As previously discussed, the dwellings located within the immediate vicinity of the subject site are generally comprised of single storey dwellings as well as more recently constructed two (2) storey dwellings featuring exposed brown brick exteriors or cream coloured rendered brick exteriors with pitched tiled roofs. Directly across from the subject site at No.50 Myrna Road, is a dwelling with a flat roof design which is currently under construction. No.50 Myrna Road is a CDC approved flat roof two (2) storey dwelling which has incorporated an external cavity facebrick finish to achieve some form of compatibility within the existing streetscape. Whilst a skillion and/or flat roof form could be supported in principle, the design of the dwelling is modern, excessive in bulk and combined with a skillion roof which is not compatible in the streetscape.

The proposed development fails to address the prevailing traditional style and character of the existing streetscape through its incorporation of darker colours; modern building materials; large windows which don't adequately address the street frontage as they are screened from view; and a skillion and flat roof form which is comprised of two (2) obscurely angled roof elements. In particular, the proposed obscure roof structure combined with a dark grey zinc cladding wall which splays along the eastern front elevation of the dwelling results in unnecessary bulk of the structure.

DA2017/145

49 Myrna Road, Strathfield

Lot 49 DP 14613 (Cont'd)

Section 3.3.5 of Part A of the SCDCP 2005 states that solid fencing forward of the building line shall not exceed a height of 1m above NGL. The proposal seeks to construct a solid fence of traditional grey sandstone to a maximum height of 1.5m above NGL. This restricts a sense of openness in the streetscape and is of complete contrast to other fences in the street. As the materials, colours and style of the front fence are also not compatible with the existing streetscape, it cannot be supported.

Overall, the proposed design of the dwelling and fence is considered inconsistent with the design pattern of existing development in the streetscape and is therefore unable to be supported.

Materials and Colours

The proposed development seeks to incorporate a variety of building materials including white coloured render, dark grey zinc cladding, and grey sandstone. Dwellings in the streetscape are predominantly comprised of exposed brown or red brick exterior finishes with the eastern adjoining dwellings across Myrna Road incorporating a cream and white render finish respectively. The proposed material colours and finishes combined with large portions of blank white rendered walls with dark coloured accents will result in a direct contrast to dwellings in the streetscape and is therefore not supported.

Landscaping

Section 9.3.2 of Part A of the SCDCP 2005 requires a minimum two (2) canopy tree plantings to be provided in the front setback of the site and one (1) in the rear yard. Canopy tree plantings are required to be provided to assist in softening the built form whilst also encouraging landscaping which is suitable to be proposed development. The proposal has failed to provide two (2) canopy tree plantings which are required to reach a mature height of 10m to be located within the front setback of the site and one (1) canopy tree within the rear of the subject site.

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

Due to the prevailing architectural style of the streetscape, the proposed contemporary-style development is considered incompatible with dwellings in the streetscape and would therefore severely impact streetscape amenity. As such, the proposed contemporary-style development is considered unsuitable for the site.

79C(1)(d) any submissions made in accordance with this Act or the regulations

The application was notified in accordance with Part L of the SCDCP 2005 from **9th October 2017** to **22nd October 2017**, with **One (1)** written submission received, raising the following concerns:

1. Visual Privacy

Assessing officer's comments: Plans were amended showing that the rear first floor balcony had been taken out of the proposed development. The viewing window where the balcony was previously will not adversely impact the amenity of adjoining residents as it is setback greater than 9m to the adjoining properties which is required in Section 4.3.2 of Part A of the SCDCP 2005. As such, the proposed rear balcony has been removed and will ensure the amenity of adjoining residents is not adversely impacted upon.

79C(1)(e) the public interest

The public interest is served through the detailed assessment of this development application under the relevant local planning controls and legislation and consideration of any submissions

DA2017/145
49 Myrna Road, Strathfield
Lot 49 DP 14613 (Cont'd)

received relating to it by Council. The proposed development is not considered to be contrary to the public interest.

SECTION 94 CONTRIBUTIONS

Section 94 of the EP&A Act 1979 relates to the collection of monetary contributions from applicants for use in developing key local infrastructure. The Act reads as follows:

- “(1) If a consent authority is satisfied that development for which development consent is sought will or is likely to require the provision of or increase the demand for public amenities and public services within the area, the consent authority may grant the development consent subject to a condition requiring:*
- (a) the dedication of land free of cost, or*
 - (b) the payment of a monetary contribution,*
 - or both.*
- (2) A condition referred to in subsection (1) may be imposed only to require a reasonable dedication or contribution for the provision, extension or augmentation of the public amenities and public services concerned.”*

STRATHFIELD INDIRECT SECTION 94 CONTRIBUTIONS PLAN

Section 94 Contributions are applicable to the proposed development in accordance with the Strathfield Indirect Development Contributions Plan 2010-2030 however given that the application is recommended for refusal, a calculation has not been provided.

CONCLUSION

The application has been assessed having regard to Section 79C of the Environmental Planning and Assessment Act 1979, the Strathfield Local Environmental Plan 2013 and the Strathfield Development Control Plan 2005 and is considered to be unsatisfactory for approval.

RECOMMENDATION

That Development Application No. 2017/145 for demolition of existing structures and construction of a two (2) storey dwelling house with basement car parking and swimming pool at 49 Myrna Road be **REFUSED**, for the following reasons:

1. The proposal fails to satisfy the objectives of Section 3.2 (a), (b), (d), (e), (i) and (j) of Part A of the SDCDP 2005 in that the dwelling is inconsistent with the established streetscape character in Myrna Road which are traditional in style (Section 79C (1)(a)(iii) of the Environmental Planning and Assessment Act 1979).
2. The application does not achieve compliance with Section 3.3.2 (1) and (2) of the SDCDP 2005 in that the proposal is not in keeping with the dominant traditional character of the streetscape and is inconsistent with the massing of surrounding residential dwellings which are single storey and are all well-articulated (Section 79C (1)(a)(iii) of the Environmental Planning and Assessment Act 1979).
3. The proposal fails to satisfy the objectives of Section 5.2 (a), (b), (c) and (e) of Part A of the SDCDP 2005 in that the proposal seeks to utilise contemporary-style building materials and finishes which are incompatible with existing dwellings in the streetscape in terms of type, form and colour (Section 11.3.2 of Part A of the SDCDP 2005 (Section 79C(1)(a)(iii) of the Environmental Planning and Assessment Act 1979).
4. The proposed skillion and flat roof form of the dwelling fails to integrate with other roof forms

DA2017/145

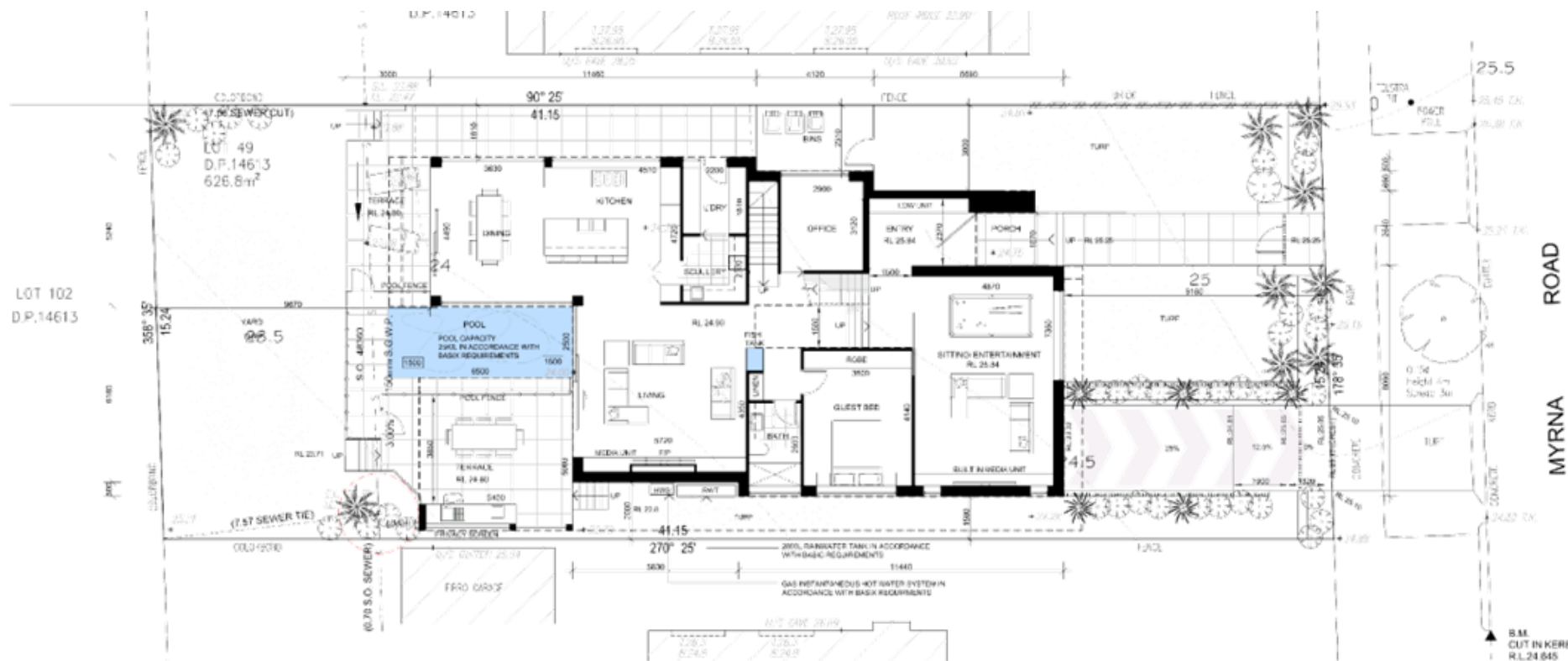
49 Myrna Road, Strathfield

Lot 49 DP 14613 (Cont'd)

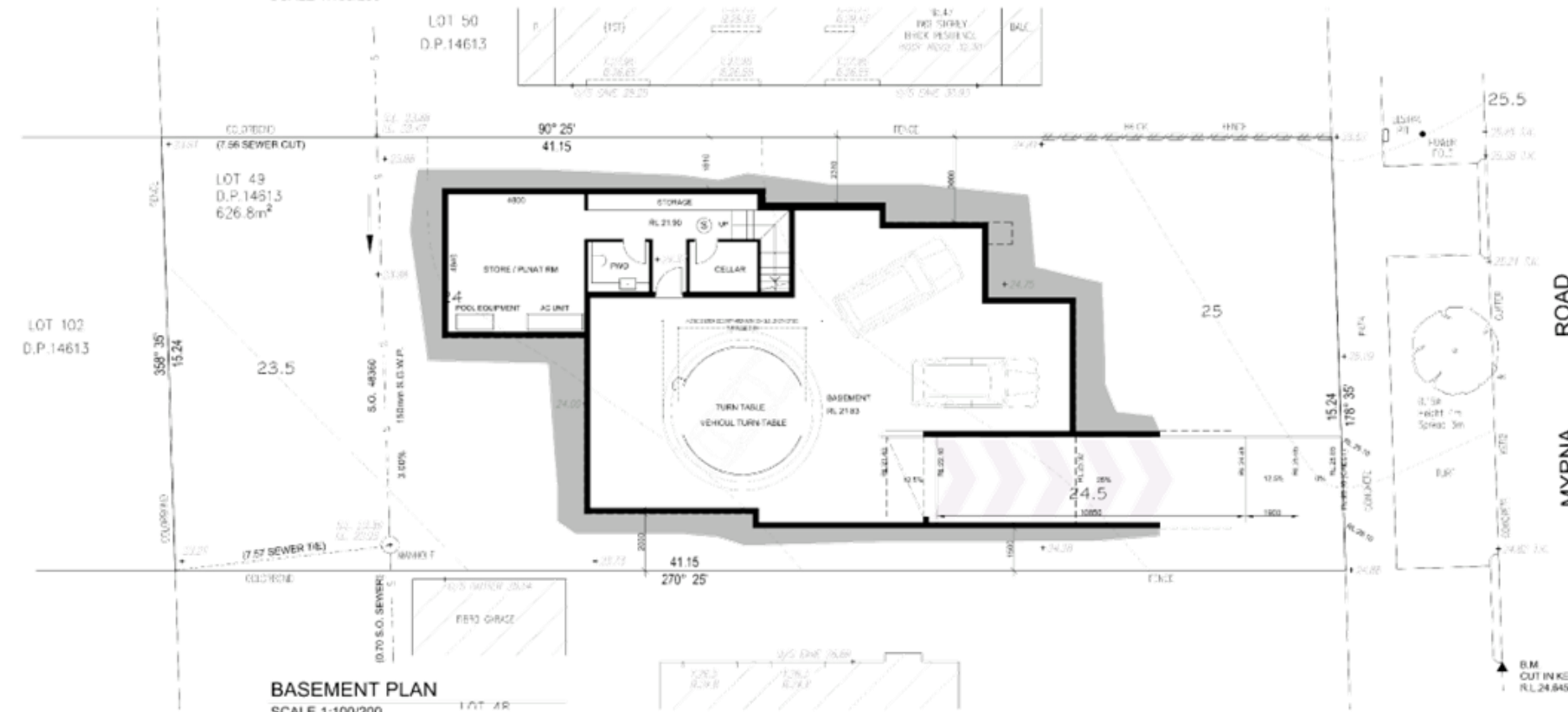
in the immediate streetscape and therefore fails to comply with Section 3.3.3 (1) of the SDCDP 2005 (Section 79C(1)(a)(iii) of the Environmental Planning and Assessment Act 1979).

ATTACHMENTS

1. [↓](#) DA2017/145- 49 Myrna Road Architectural Plans



GROUND FLOOR PLAN
SCALE 1:100/200



BASEMENT PLAN
SCALE 1:100/200

KEY PROPOSAL STATISTICS - NEW DWELLING HOME	
SITE AREA:	626.80m ²
FRONTAGE:	15.24m
NUMBER OF DWELLINGS:	1
*ALLOWABLE FSR	
4.4C: Exceptions to floor space ratio (Zone R2)	
Lot area (m ²)	Floor space ratio
> 625.8	0.60 t
Maximum FSR = 376.08m ²	
*GROSS FLOOR AREA	
PROPOSED	
GROUND FLOOR AREA:	178.0m ²
FIRST FLOOR AREA:	166.6m ²
BASEMENT (HABITABLE) AREA:	30.0m ²
PROPOSED FSR:	376.60m ² (0.599:1)
*LANDSCAPING	
REQUIRED	39% (244.45m ²)
PROPOSED	41% (257.00m ²)
gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:	
(a) the area of a mezzanine, and	
(b) habitable rooms in a basement or an attic, and	
(c) any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:	
(d) any area for common vertical circulation, such as lifts and stairs, and	
(e) any basement	
(f) storage, and	
(g) vehicular access, loading areas, garbage and services, and	
(h) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and	
(i) car parking to meet any requirements of the consent authority (including access to that car parking), and	
(j) any space used for the loading or unloading of goods (including access to it), and	
(k) terraces and balconies with outer walls less than 1.4 metres high, and	
(l) voids above a floor at the level of a storey or storey above	

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NATHERS Specs:

- Floor slabs: - Concrete ground floor.
- Exterior walls: - Cavity brick - with foil bubble wrap (aircell) in cavity. Or, wall system of R1.6 rating. Modelled with default medium colour finishes. - Concrete blockwork modelled for basement level. - "Exterior walls" = All unit walls that are not party walls to other units.
- Glazing: - Please refer to NATHERS report for minimum SHGC & U-Values for each window.
- Ceiling: - R3.0 ceiling insulation to all ceilings to roof. Assessed with sealed downlights.
- Ceiling fans: - 4x1400mm in living/kitchen, 1 x 1400mm in entertainment room, 3 x 1400mm in cinema/store area, and 1 x 1400mm in sitting/stair area.
- Metal roof modelled with light colour finishes, and as unventilated.

6.4 NATIONWIDE HOUSE
www.nathers.gov.au

Certificate no: 0001900465
Assessor Name: John Boutros
Accreditation no: VIC/DAV/16/1763
Certificate date: 29 Sep 2017
Dwelling Address: 49 Myrna Rd Strathfield, NSW 2135

NOTES:

- ALL EXISTING UTILITIES, SERVICES AND SERVICES ARE SHOWN AS SHOWN ON THE SITE PLAN AND SHOWN ON THE SITE PLAN. THE CLIENT IS ADVISED THAT THE CLIENT IS RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES AND SERVICES. THE CLIENT IS ADVISED THAT THE CLIENT IS RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES AND SERVICES.
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NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR PERMIT	15/12/17	M.K.
2	ISSUED FOR PERMIT	15/12/17	M.K.
3	ISSUED FOR PERMIT	15/12/17	M.K.

M. KATRAGADDA

PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL

**LOT 49 D.P.14613
49 MYRNA ROAD
STRATHFIELD**

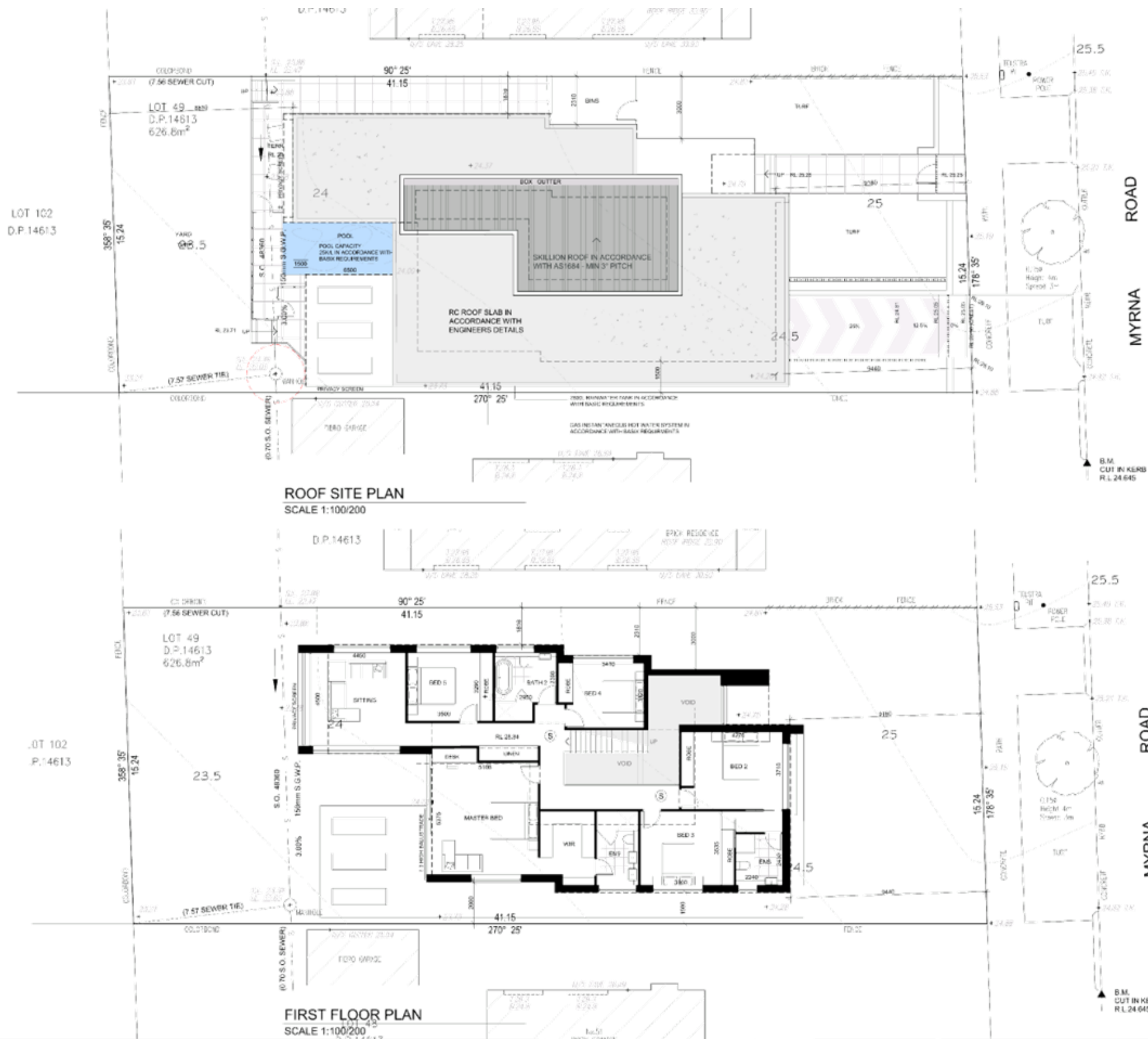
BASEMENT, GROUND FLOOR PLAN + CALCULATION SHEET

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1291

Scale: 1:100 / 1:200 / 1:500
Date: AUG 2017
Sheet: 01



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DA2017/145
8 December 2017**

- BASIX COMMITMENTS**
- WATER COMMITMENTS**
- THE APPLICANT MUST INSTALL SHOWERHEADS WITH A MINIMUM RATING OF 3 STAR (> 4.5 BUT <= 5.1) IN ALL SHOWERS IN THE DEVELOPMENT.
 - THE APPLICANT MUST INSTALL A TOILET FLUSHING SYSTEM WITH A MINIMUM RATING OF 4 STAR IN EACH TOILET IN THE DEVELOPMENT.
 - THE APPLICANT MUST INSTALL TAPS WITH A MINIMUM RATING OF 3 STAR IN THE KITCHEN IN THE DEVELOPMENT.
 - THE APPLICANT MUST INSTALL BASIN TAPS WITH A MINIMUM RATING OF 5 STAR IN EACH BATHROOM IN THE DEVELOPMENT.
- ALTERNATIVE WATER**
- RAINWATER TANK**
- THE APPLICANT MUST INSTALL A RAINWATER TANK OF AT LEAST 3000 LITRES ON THE SITE. THIS RAINWATER TANK MUST MEET, AND BE INSTALLED IN, ACCORDANCE WITH, THE REQUIREMENTS OF ALL APPLICABLE REGULATORY AUTHORITIES.
 - THE APPLICANT MUST CONFIGURE THE RAINWATER TANK TO COLLECT RAIN RUNOFF FROM AT LEAST 80 SQUARE METRES OF THE ROOF AREA OF THE DEVELOPMENT (EXCLUDING THE AREA OF THE ROOF WHICH DRAINS TO ANY STORMWATER TANK OR PRIVATE DRAIN).
 - THE APPLICANT MUST CONNECT THE RAINWATER TANK TO:
 - ALL TOILETS IN THE DEVELOPMENT
 - AT LEAST ONE OUTDOOR TAP IN THE DEVELOPMENT (NOTE: NSW HEALTH DOES NOT RECOMMEND THAT RAINWATER BE USED FOR HUMAN CONSUMPTION IN AREAS WITH POTABLE WATER SUPPLY).
 - A TAP THAT IS LOCATED WITHIN 10 METRES OF THE SWIMMING POOL IN THE DEVELOPMENT.
- SWIMMING POOL**
- THE SWIMMING POOL MUST NOT HAVE A VOLUME GREATER THAN 20 KILOLITRES.
 - THE SWIMMING POOL MUST BE SHADED.
 - THE SWIMMING POOL MUST BE OUTDOORS.
- FLOOR AND WALL CONSTRUCTION**
- | FLOOR - CONCRETE SLAB ON GROUND | AREA |
|---------------------------------------|---------------------------|
| 190.0 SQUARE METRES | 190.0 SQUARE METRES |
| FLOOR - SUSPENDED FLOOR/OPEN SUBFLOOR | 190.0 SQUARE METRES |
| FLOOR - SUSPENDED FLOOR ABOVE GARAGE | ALL OR PART OF FLOOR AREA |
- ENERGY COMMITMENTS**
- HOT WATER**
- THE APPLICANT MUST INSTALL THE FOLLOWING HOT WATER SYSTEM IN THE DEVELOPMENT OR A SYSTEM WITH A HIGHER ENERGY RATING: GAS INSTANTANEOUS WITH A PERFORMANCE OF 4.5 STARS.
- COOLING SYSTEM**
- THE APPLICANT MUST INSTALL THE FOLLOWING COOLING SYSTEM OR A SYSTEM WITH A HIGHER ENERGY RATING, IN AT LEAST 1 LIVING AREA: AIR CONDITIONING - DUCTING ONLY; ENERGY RATING: NA.
 - THE APPLICANT MUST INSTALL THE FOLLOWING COOLING SYSTEM OR A SYSTEM WITH A HIGHER ENERGY RATING, IN AT LEAST 1 BEDROOM: AIR CONDITIONING - DUCTING ONLY; ENERGY RATING: NA.
- HEATING SYSTEM**
- THE APPLICANT MUST INSTALL THE FOLLOWING HEATING SYSTEM OR A SYSTEM WITH A HIGHER ENERGY RATING, IN AT LEAST 1 LIVING AREA: AIR CONDITIONING - DUCTING ONLY; ENERGY RATING: NA.
 - THE APPLICANT MUST INSTALL THE FOLLOWING HEATING SYSTEM OR A SYSTEM WITH A HIGHER ENERGY RATING, IN AT LEAST 1 BEDROOM: AIR CONDITIONING - DUCTING ONLY; ENERGY RATING: NA.
- VENTILATION**
- THE APPLICANT MUST INSTALL THE FOLLOWING EXHAUST SYSTEMS IN THE DEVELOPMENT:
 - AT LEAST 1 BATHROOM: INDIVIDUAL FAN, DUCTED TO FACADE OR ROOF. OPERATION CONTROL: MANUAL SWITCH ON/OFF.
 - KITCHEN: INDIVIDUAL FAN, DUCTED TO FACADE OR ROOF. OPERATION CONTROL: MANUAL SWITCH ON/OFF.
 - LAUNDRY: INDIVIDUAL FAN, DUCTED TO FACADE OR ROOF. OPERATION CONTROL: MANUAL SWITCH ON/OFF.
- ARTIFICIAL LIGHTING**
- THE APPLICANT MUST ENSURE THAT THE PRIMARY TYPE OF ARTIFICIAL LIGHTING IS FLUORESCENT OR LED LIGHTING (CODE LED) LIGHTING IN EACH OF THE FOLLOWING ROOMS, AND WHERE THE WORD 'RECYCLED' APPEARS, THE FITTINGS FOR THESE LIGHTS MUST ONLY BE CAPABLE OF ACCEPTING FLUORESCENT OR LIGHT EMITTING DIODE (LED) LAMPS:
- AT LEAST 7 OF THE BEDROOMS / STUDY, DEDICATED
 - AT LEAST 2 OF THE LIVING / DINING ROOMS, DEDICATED
 - THE KITCHEN, DEDICATED
 - ALL BATHROOM/TOILETS, DEDICATED
 - THE LAUNDRY, DEDICATED
 - ALL HALLWAYS, DEDICATED
- NATURAL LIGHTING**
- THE APPLICANT MUST INSTALL A WINDOW AND/OR SKYLIGHT IN THE KITCHEN OF THE DWELLING FOR NATURAL LIGHTING.
 - THE APPLICANT MUST INSTALL A WINDOW AND/OR SKYLIGHT IN 2 BATHROOM(S)/TOILET(S) IN THE DEVELOPMENT FOR NATURAL LIGHTING.
- SWIMMING POOL**
- THE DEVELOPMENT MUST NOT INCORPORATE ANY HEATING SYSTEM FOR THE SWIMMING POOL.
 - THE APPLICANT MUST INSTALL A TIMER FOR THE SWIMMING POOL PUMP IN THE DEVELOPMENT.
- ALTERNATIVE ENERGY**
- THE APPLICANT MUST INSTALL A PHOTOVOLTAIC SYSTEM WITH THE CAPACITY TO GENERATE AT LEAST 2.5 KW-HOURS OF ELECTRICITY AS PART OF THE DEVELOPMENT. THE APPLICANT MUST CONNECT THIS SYSTEM TO THE DEVELOPMENT'S ELECTRICAL SYSTEM.
- OTHER**
- THE APPLICANT MUST INSTALL A GAS COOKTOP & ELECTRIC OVEN IN THE KITCHEN OF THE DWELLING.
 - THE APPLICANT MUST CONSTRUCT EACH REFRIGERATOR SPACE IN THE DEVELOPMENT SO THAT IT IS 'WELL VENTILATED' AS DEFINED IN THE BASIX DEFINITIONS.
 - THE APPLICANT MUST INSTALL A FRIED OUTDOOR CLOTHES DRYING LINE AS PART OF THE DEVELOPMENT.

NATIONWIDE HOUSE
6.4
46
www.nathouse.gov.au

Certificate no: 0001980465
Assessor Name: John Boutros
Accreditation no: VIC/DAV/16/1763
Certificate date: 29 Sep 2017
Dwelling Address: 49 Myrna Rd, Strathfield, NSW 2135
www.nathouse.gov.au

NOTES

1. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

2. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

3. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

4. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

5. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

LEGEND

1. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

2. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

3. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

4. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

5. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

M. KATRAGADDA

PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL

LOT 49 D.P.14613 49 MYRNA ROAD STRATHFIELD

ROOF SITE PLAN, FIRST FLOOR PLAN + BASIX COMMITMENTS

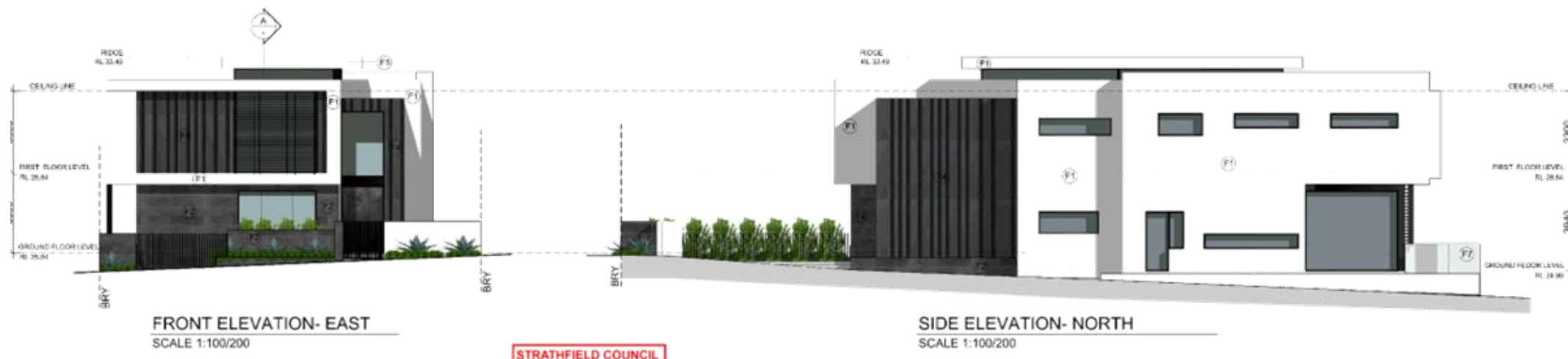
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02



FINISH	DESCRIPTION
F1	DALUX WHITE ON WHITE MAIN BODY COLOUR
F2	SANDSTONE TRADITION FEATURE STONE WALLS
F3	COLOURBOND MONUME WINDOW AND DOOR POWDER COAT
F4	ZINC CLADDING FEATURE VERTICAL CLADDING
F5	GREY FLAT-BAR FENCE FRONT FENCE
F6	METAL CLAD DOOR FROM AXILOTAL FEATURE FRONT PIVOT DOOR
F7	FRAMELESS GLASS BALUSTRADE BALCONY BALUSTRADE

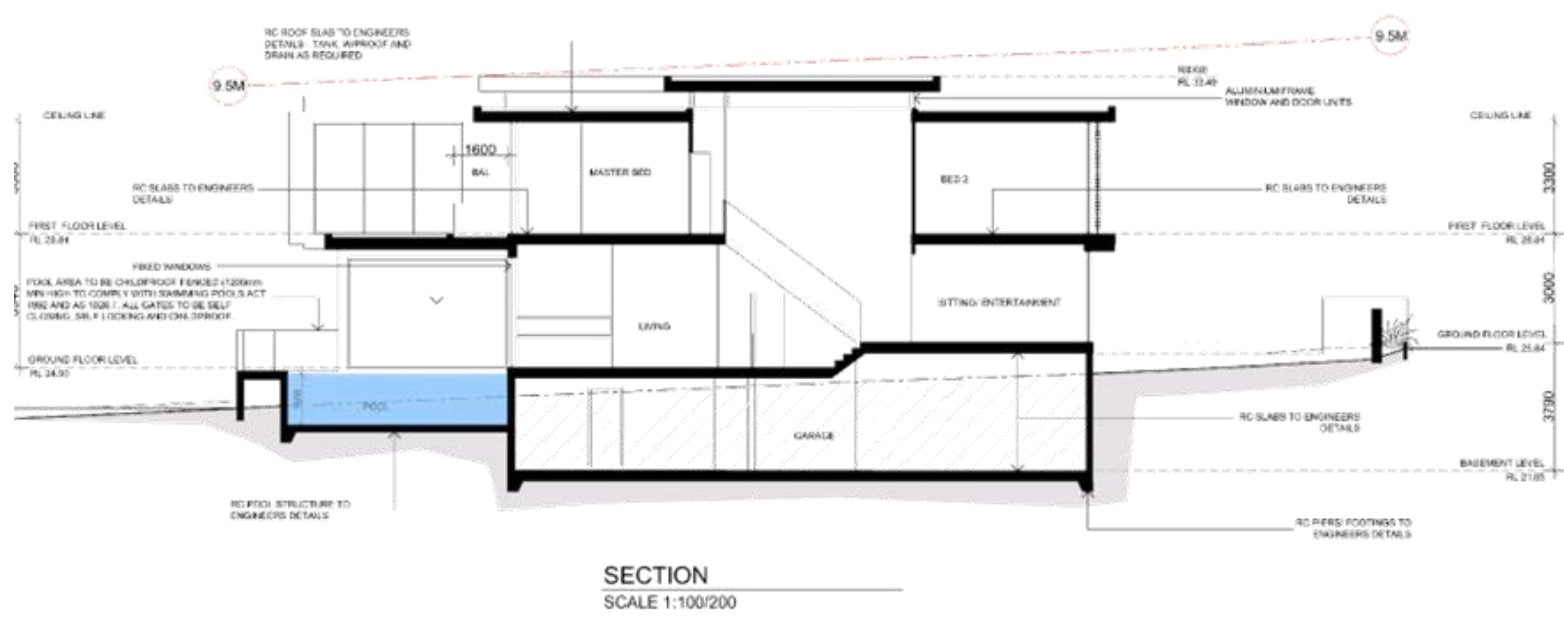
FINISHES SCHEDULE

STRATHFIELD COUNCIL RECEIVED DA2017/145
8 December 2017



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46 MYPNA RD
STRATHFIELD NSW 2135
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Certificate no: 0001980465
Assessor Name: John Boutros
Accreditation no: VIC/BDAV/16/1763
Certificate date: 29 Sep 2017
49 Myrna Rd
Strathfield, NSW 2135



NOTES:

- ALL FINISHES TO BE AS SHOWN ON DRAWINGS UNLESS OTHERWISE SPECIFIED.
- ALL FINISHES TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
- ALL FINISHES TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL FINISHES TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL FINISHES TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR TENDERS	2017/11/17	MD
2	ISSUED FOR TENDERS	2017/11/17	MD
3	ISSUED FOR TENDERS	2017/11/17	MD

M. KATRAGADDA

LOT 49 D.P. 14613
49 MYRNA ROAD
STRATHFIELD

PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL

ELEVATIONS, SECTIONS, STREETScape ELEVATION + FINISHES SCHEDULE

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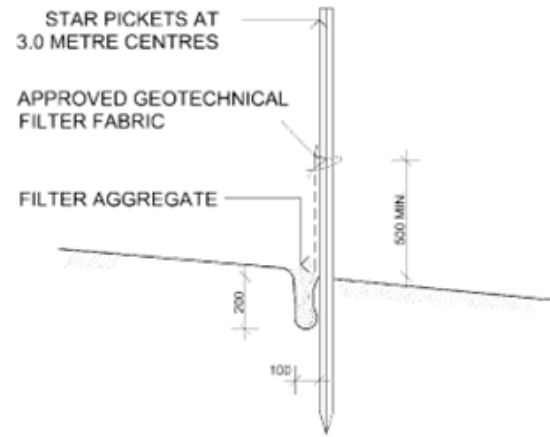
49 MYRNA RD
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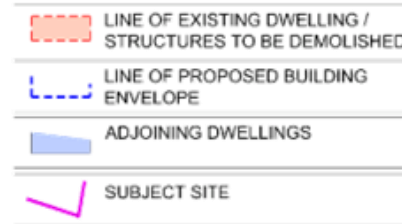
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Scale: 1:100 / 1:200
Issue: B
Date: AUG 2017
Sheet: 03

SEDIMENT & EROSION CONTROL LEGEND	
1 CATCH DRAINS AND PERIMETER BANKS Allow for diversion of up slope stormwater around the work site and other disturbed surfaces.	
2 SEDIMENT BARRIER FENCE Refer to Detail	
3 SAND AND SOIL STOCKPILES Place stockpiles wholly on the construction site and behind a sediment barrier. Soil or cement should be covered at the end of each day if excessive wind or rain is likely.	
4 CONCRETE WASTE AND WASHING Place stockpiles wholly on the construction site and behind a sediment barrier. Soil or cement should be covered at the end of each day if excessive wind or rain is likely.	
5 LITTER AND WASTE CONTROL All hard waste and litter must be stored on site to prevent any materials from entering the stormwater system and adjacent areas by wind or water action.	
6 SINGLE GRAVELLED ENTRY / EXIT Restrict vehicle access to one entry/exit point, adding gravel to the access point to allow all weather entry/exit, to reduce the amount of soil carried off the site by vehicles, and to provide a permanent base for the driveway.	

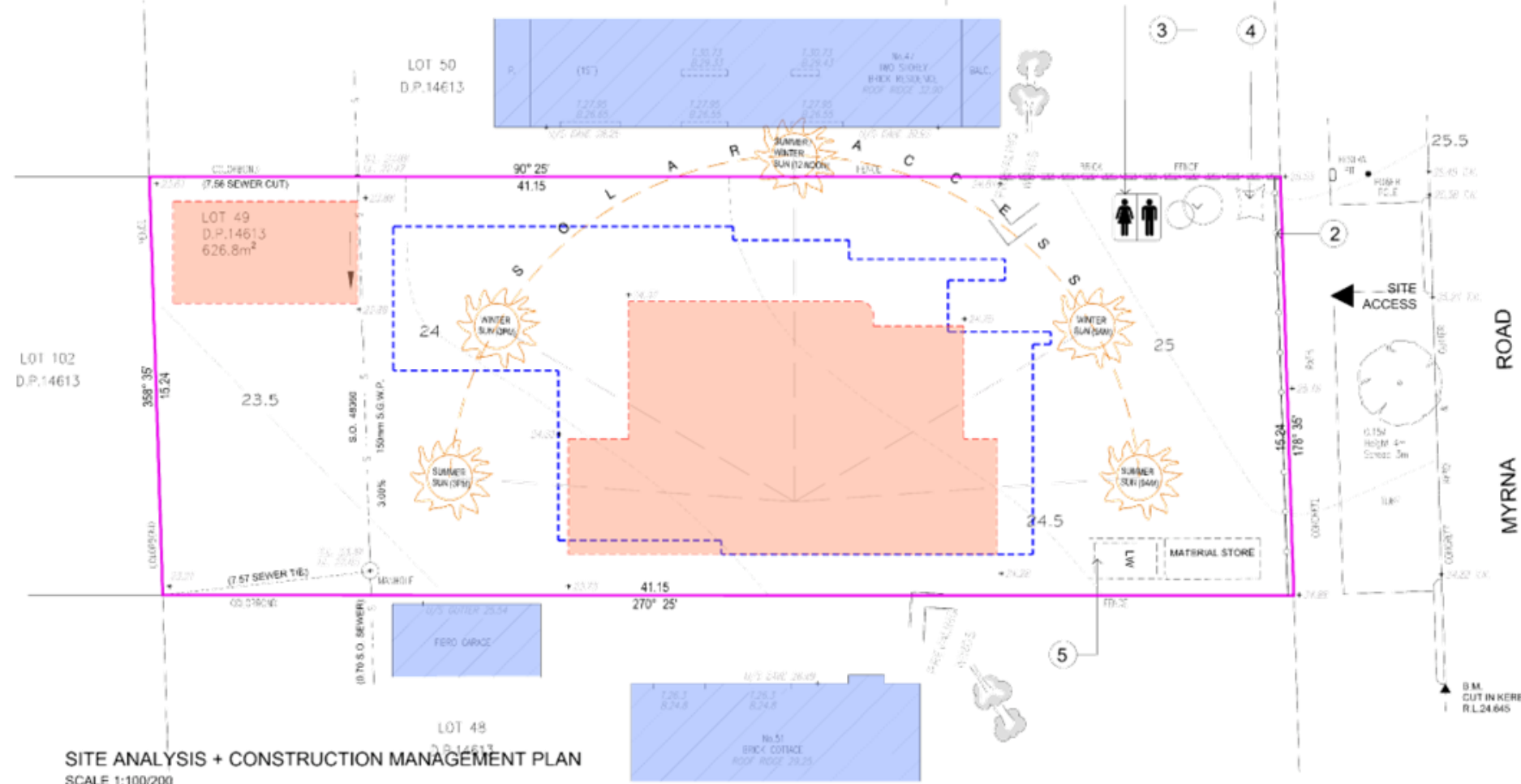


SILT FENCE BARRIER DETAIL
NOT TO SCALE



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29 September 2017

Installing portable toilets
Portable toilets should be:
• situated on stable, flat ground to ensure effective operation and stability
• accessible by a clear path suitable for all weather conditions.



SITE ANALYSIS + CONSTRUCTION MANAGEMENT PLAN
SCALE 1:100/200

DISCLAIMER:
ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AS AMENDED AND ALL OTHER APPLICABLE STANDARDS, REGULATIONS AND BY-LAWS.
THESE DOCUMENTS ARE THE PROPERTY OF INVISION DESIGN. ANY USE NOT INTENDED BY INVISION DESIGN IS STRICTLY PROHIBITED.
INVISION DESIGN ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR ANY DAMAGES, LOSSES OR INJURIES OF ANY KIND, INCLUDING ECONOMIC LOSS, ARISING FROM THE USE OF THESE DOCUMENTS.
THESE DOCUMENTS ARE THE PROPERTY OF INVISION DESIGN. ANY USE NOT INTENDED BY INVISION DESIGN IS STRICTLY PROHIBITED.

NOTES:
1. ALL EXISTING UTILITIES, SERVICES AND STRUCTURES TO BE DEMOLISHED ON SITE WILL BE REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES AND SERVICES PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES.
3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJOINING PROPERTIES AT ALL TIMES.
4. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL PORTABLE TOILETS.
5. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL MATERIAL STORES.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL SITE ACCESS POINTS.
7. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL SEWER CUTS.
8. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL DRAINAGE SYSTEMS.
9. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL UTILITIES AND SERVICES.
10. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO ALL STRUCTURES TO BE DEMOLISHED.

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
2	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
3	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
4	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
5	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
6	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
7	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
8	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
9	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN
10	ISSUED FOR TENDERS	15/08/17	INVISION DESIGN



M. KATRAGADDA

PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL

LOT 49 D.P.14613
49 MYRNA ROAD
STRATHFIELD

SITE ANALYSIS + CONSTRUCTION MANAGEMENT PLAN

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Web: www.invision.com.au

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Scale: 1:100 / 1:200
Sheet: A
Date: AUG 2017
Sheet: 00

CONSTRUCTION MANAGEMENT NOTES

1. NO VEGETATION OR GRASS COVER IS TO BE REMOVED EXCEPT WITHIN AREAS OF NEW CONSTRUCTION.
2. INSTALL HAY BALES OR SEDIMENT CONTROL FENCING AS NECESSARY TO ENSURE THAT SILT FROM ANY DISTURBED AREAS IS TRAPPED ON-SITE.
3. PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORK ON THE FOOTPATH AREA TO PROVIDE SAFE ALTERNATIVE ACCESS FOR PEDESTRIANS.
4. ALL WASTE MATERIALS ARE TO BE REMOVED FROM SITE OR STOCKPILED WITHIN THE SITE PRIOR TO REMOVAL.
5. ALL CONSTRUCTION MATERIALS & SITE SHEDS ARE TO BE KEPT WITHIN THE SITE AT ALL TIMES.

SOIL & WATER MANAGEMENT NOTES

1. WHEREVER POSSIBLE, EXISTING VEGETATION & GRASS COVER IS TO BE LEFT UNDISTURBED.
2. REMOVAL OR DISTURBANCE OF VEGETATION & TOP SOIL SHALL BE CONFINED TO WITHIN 3m OF THE APPROVED BUILDING AREA.
3. TEMPORARY SILT FENCE (AS SHOWN) TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
4. AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, AND PARTICULAR AFTER STORM EVENTS.

ON-SITE CLEANING AND SERVICING (TEMPORARY TOILET)

THE BUILDER SHOULD ENSURE PORTABLE TOILETS ARE CHECKED DAILY AND CLEANED AS REQUIRED. IF THERE IS NO CONTRACTED CLEANING ARRANGEMENT, THE BUILDER SHOULD MAKE ALTERNATE ARRANGEMENTS TO HAVE THE TOILETS CLEANED AND MAINTAINED.

IN ADDITION TO CLEANING AS REQUIRED, TOILETS MUST ALSO BE SERVICED REGULARLY. ON-SITE SERVICING IS GENERALLY UNDERTAKEN BY THE HIRE COMPANY AND SHOULD INCLUDE BUT IS NOT LIMITED TO:

- CHECKING PUMPS AND COMPONENTS FOR EFFECTIVE OPERATION
- REPAIRING ANY DEFECTS
- PUMPING AND RINSING EMPTY SEWAGE STORAGE TANKS
- ADDING DEODORISER AND TREATMENT CHEMICALS TO THE SEWAGE STORAGE TANK
- REFILLING THE HOLDING TANK WITH WATER
- REPLENISHING SOAP OR OTHER HAND DISINFECTANT
- REPLACING TOILET PAPER
- CLEANING AND DISINFECTING THE INTERNAL COMPARTMENT, INCLUDING FITTINGS SUCH AS PUMP AND DOOR HANDLES, THE FLOOR, SEAT AND BOWL.



1) 61 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(2) 59 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(3) 57 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(4) 55 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED
ROOF



(5) 53 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED
ROOF



(6) 51 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(7) 49 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



8) 47 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE +
TILED ROOF



(9) 45 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED ROOF



(10) 43 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(11) 41 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF - ADJOINING DWELLING TO THE SOUTH
OF SUBJECT SITE



(12) 39 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF - SUBJECT SITE TO BE DEMOLISHED



(13) 37 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED ROOF
- ADJOINING DWELLING TO THE NORTH
OF SUBJECT SITE



(14) 42 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF

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LOCATION MAP



(15) 44 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(16) 46 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(17) 48 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED
ROOF



(18) 50 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE + TILED
ROOF



(19) 52 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(20) 54 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED
ROOF



(21) 56 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE + TILED ROOF



(22) 58 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE + TILED ROOF



(23) 60 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED



(24) 62 MYRNA ROAD
SINGLE STOREY BRICK RESIDENCE +
TILED ROOF



(25) 64 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED ROOF



(26) 66 MYRNA ROAD
DOUBLE STOREY BRICK RESIDENCE + TILED

CONTRACTOR
ALL WORK IS TO COMPLY WITH THE RELEVANT CODE OF AUSTRALIAN RELEVANT
AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.
DRAWING CONTRACTOR & ALL RELEVANT SUB CONTRACTORS TO CHECK & VERIFY ALL
DIMENSIONS & ASSOCIATED DRAWING PARTS PRIOR TO MANUFACTURE, CONSTRUCTION &
INSTALLATION ON SITE. DO NOT SCALE OFF DRAWINGS WHEN DIMENSIONS TAKE
PREFERENCE.
AN ARCHITECT ACCEPTS NO LIABILITY OR RESPONSIBILITY RESULTING FROM QUALITY
DEFECTS OR DEFERRED METHOD OF CONSTRUCTION FOR ANY BUILDING DEFECT.
THESE DRAWINGS ARE THE PROPERTY OF AN ARCHITECT. DRAWINGS ARE NOT TO BE
REPRODUCED IN PART OR IN WHOLE ON ANY MEDIUM WITHOUT THE WRITTEN PERMISSION
OF AN ARCHITECT.

NOTE
ALL EXISTING & OVERALL DIMENSIONS ARE NOMINAL & SUBJECT TO VARIATION ON SITE.
WHERE ANY DISCREPANCY OCCURS BETWEEN NEW WORK & EXISTING BETWEEN NEW WORK &
EXISTING DIMENSIONS - EXISTING DIMENSIONS TAKE PREFERENCE WHERE
NECESSARY - OTHERWISE NOTIFY IN WRITING DESIGN.
NOTE
SELECTED TEMPORARY PROTECTION TO BE USED ON SITE IN ACCORDANCE WITH LOCAL AUTHORITIES
WITH LOCAL COUNCIL'S REQUIREMENTS, S.E.A. & ALL RELEVANT AUSTRALIAN STANDARDS.
NOTE (2)
SMOKE DETECTORS TO COMPLY WITH REQUIREMENTS OF SPECIFICATION E11 IN NSW FIRE AND
SMOKE ALARMS SHALL COMPLY WITH AS 309 AND BE CONNECTED TO THE MAIN POWER
SUPPLY.

LEGEND
FF - FACE BRICK WORK
MP - METAL SHEATHING CLADDING
TC - TEXTURED GYPSUM FINISH
BN - BLENDED FINISH
BG - BAGGED FINISH
MB - MERIC BLOCK WITH
FL - FINE CEMENT SHEETING
ST - STONE CLADDING
PV - POLY VINYL CLADDING
TH - TIMBER CLADDING
AW - ALUMINIUM FRAME WINDOW
TW - TIMBER FRAME WINDOW
RT - ROOF TILE
CR - COLOURED ROOF SHEETING
SG - ROOF SHINGLES

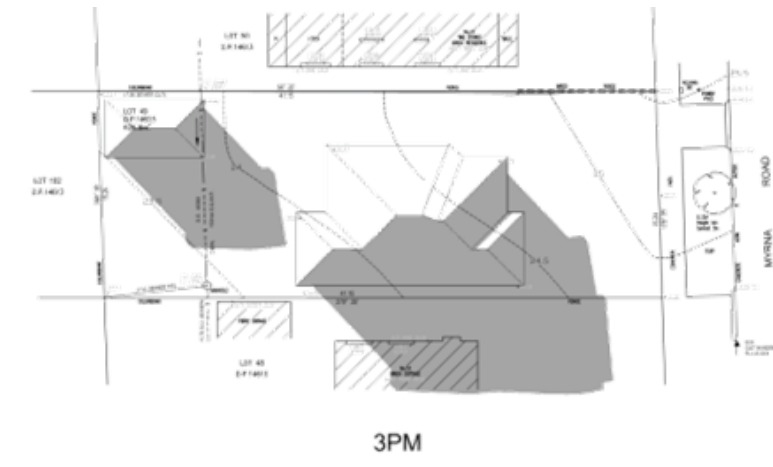
DATE	ISSUE	BY	DATE

TRUE NORTH

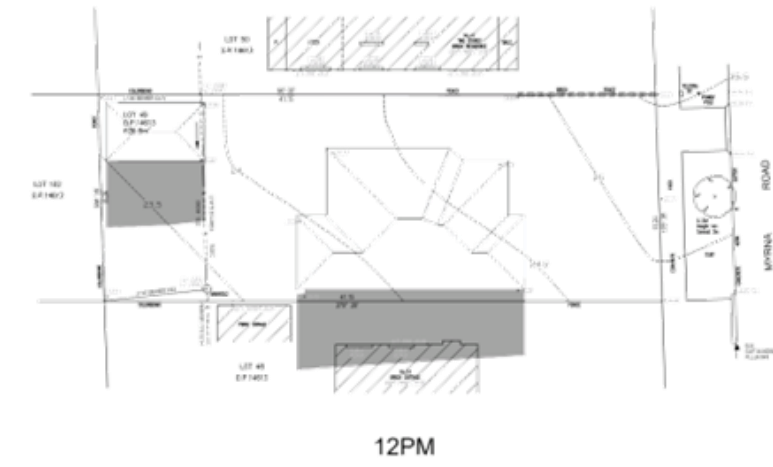
Client	M. KATRAGADDA	Address	LOT 49 D.P. 14613 49 MYRNA ROAD STRATHFIELD
Project	PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL	Drawing Title	STREET CHARACTER ANALYSIS

Shed 2, Level 1,
490 Murrumbidgee Highway,
Strathfield South
NSW 2134
Phone: +61 438 839 424
Fax: +61 2 9586 6111
Web: www.invisiondesign.com.au

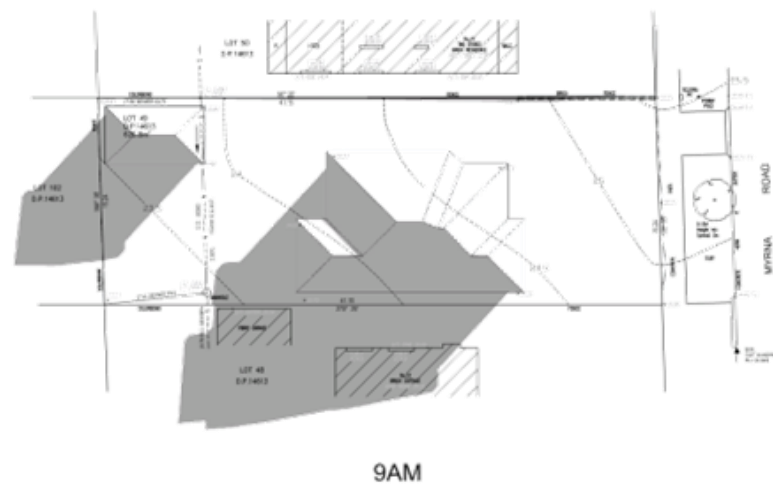
BDA Building Designers Association	Sheet	D.S.	Scale
	1291	T.T.	1:100 A 1:200 A
	Date		Issue
	AUG 2017		A
	Sheet		000



3PM



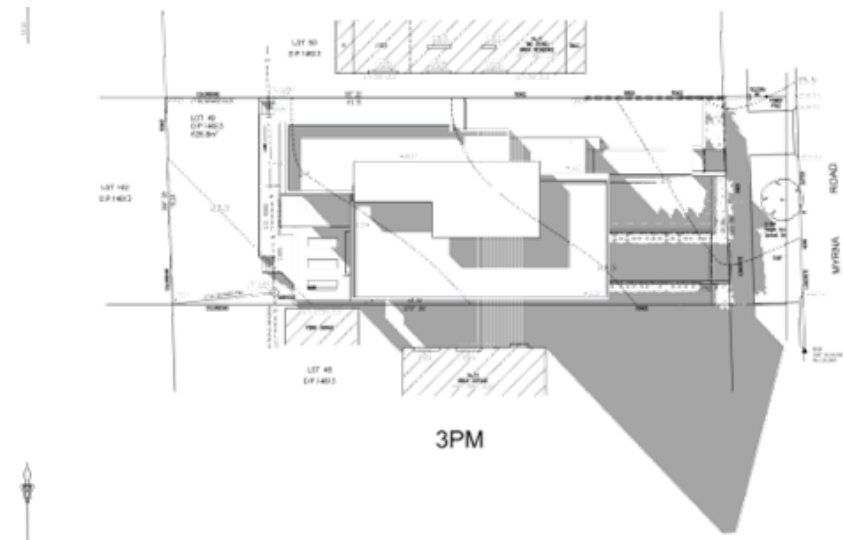
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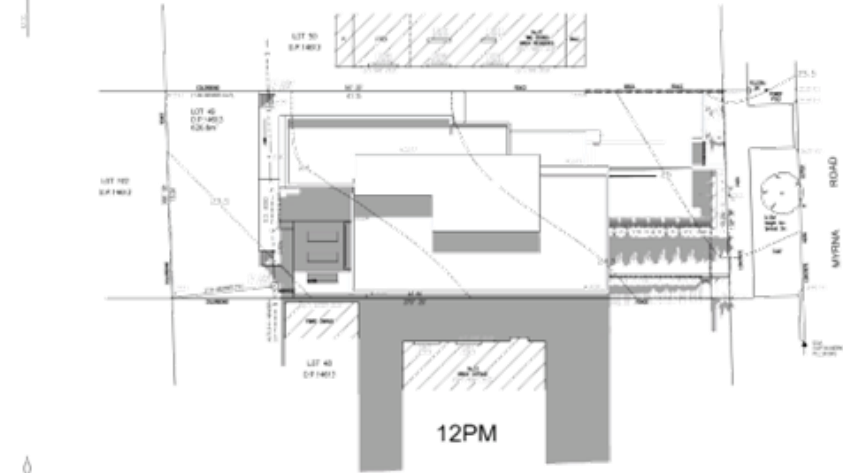
9AM

EXISTING SHADOW DIAGRAMS
SCALE 1:250/500

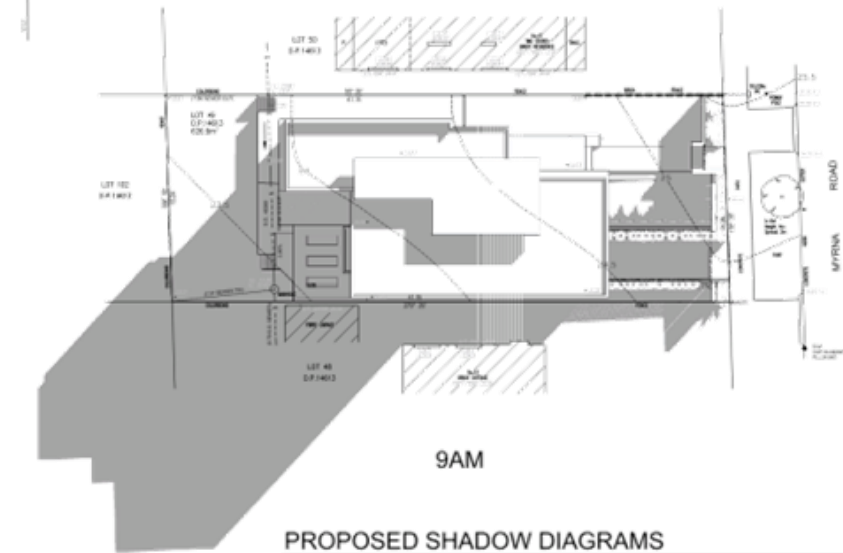
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3PM



12PM



9AM

PROPOSED SHADOW DIAGRAMS
SCALE 1:250/500

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NO.	DATE	BY	CHKD
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48	2017/10/03	DAVID	DAVID
49	2017/10/03	DAVID	DAVID
50	2017/10/03	DAVID	DAVID



Client	M. KATRAGADDA	Address	LOT 49 D.P. 14613 49 MYRNA ROAD STRATHFIELD
Project	PROPOSED NEW 2 STOREY DWELLING OVER BASEMENT INCLUDING FRONT FENCE+ POOL	Drawing title	EXISTING + PROPOSED SHADOWS DIAGRAMS (MID WINTER - JUNE 21)

Studio 2, Level 11,
470 Murrumbidgee Highway,
Geelong Road South,
HIV 2134

Phone: +61 438 839 426
Fax: +61 2 9086 6111
Web: www.invision.com.au

<p>3DA</p> <p>Member of the Building Designers Association</p> <p>Ad Number 1291</p>	<p>Drawn D.S.</p> <p>Checked T.T.</p> <p>Date AUG 2017</p>	<p>Scale 1:250 1:500 A</p> <p>Issue A</p> <p>Sheet 04</p>
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LEGEND

	DRIVEWAY
	TURF AREAS
	DEEP SOIL GARDENS
	PROPOSED RESIDENCE
	PAVED TYPE 1 (SELECTED 3.4.01/PAVEMENT CONDITION)

EXISTING TREE LEGEND

	EXISTING TREES TO BE RETAINED
	TREES TO BE REMOVED

PLAN NOTES

This plan should be read in conjunction with the architectural and hydraulics plans. Work specific to these plans should be prepared in accordance to these plans, including specification and details prior to the installation of landscaping, and should not be altered or compromised during landscape construction.

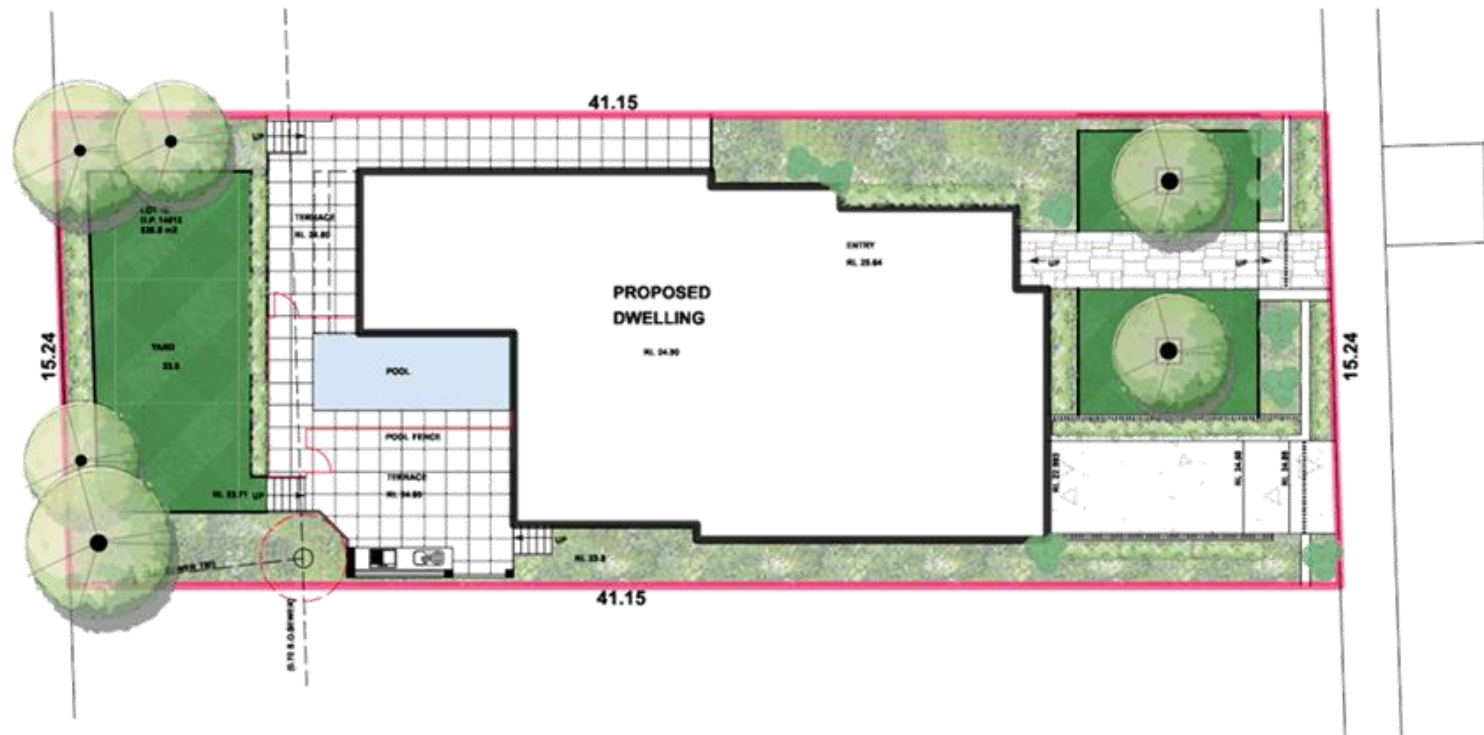
Retaining wall details to engineers design.
Elements such as drainage swales may be incorporated in garden bed areas (using non-floatable mulch) without compromising the capacity or form.

The Design & location of new letter boxes shall be in accordance with Australia Post's "Requirements for Delivery of Mail to Residential Premises" published Feb '97. All noxious weeds listed in Councils weed lists & located on the site shall be continually removed & suppressed. Reinstate all boundary fencing in poor condition with Council approved 1.8m fencing to rear of building line, rake to 1m forward of BL. Pollution, sediment & erosion control devices as specified shall be in place, and maintained for the duration of the construction period. Proposed excavation near existing established trees to be supervised by arborist.

This plan has been prepared for DA approval only, not for construction.

Planting proposed using commercially available plant species selected from local planting lists and the BASIX local plant list
D.A approved landscape plan's are required to be constructed as approved to obtain occupancy certificate.

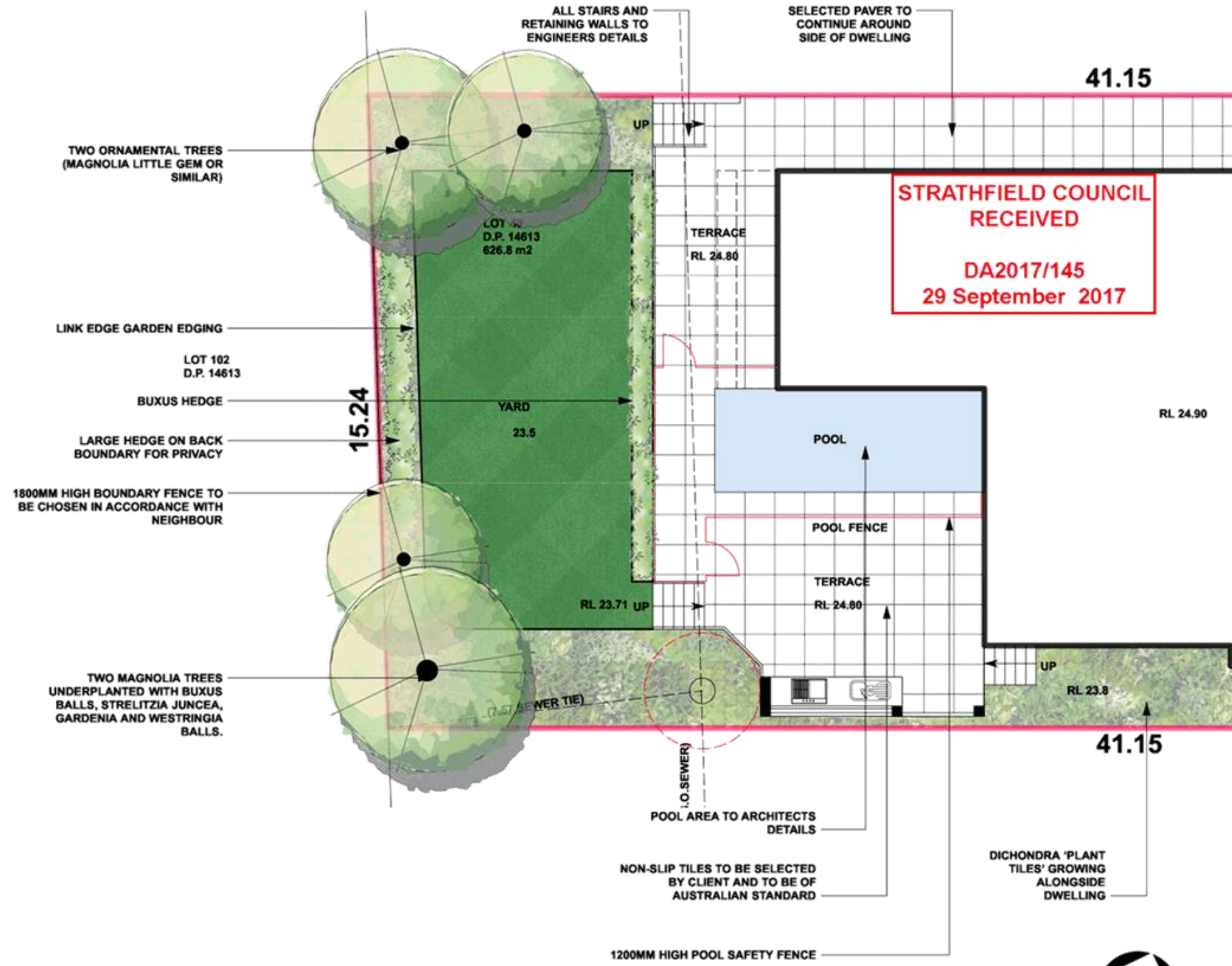
B 28/9/17 FINAL ISSUE FOR DA
A 12/9/17 DRAFT ISSUE FOR REVIEW
ISSUE DATE COMMENT
AMENDMENTS -
NOTES
GENERAL NOTES
All work to be carried out in accordance with the Building Code of Australia, all Local and State Government Ordinances, relevant Australian Standards, Local Authorities Regulations and all other relevant Authorities concerned. All structural work and site drainage to be subject to Engineer's design or certification where required by Council. This shall include i.e. slabs and footings, r.c. and steel beams & columns, wind bracing to AS 1170 and AS4586, anchor bolts or bolts, tie-downs, bracing etc., driveway slabs and drainage to Council's satisfaction. All timbers to be in accordance with SAA Timber Structure Code AS1720 and SAA Timber Framing Code AS 1684. All work to be carried out in a professional and workman-like manner according to the plans and specification.
NOTES
Do not scale off the drawings unless otherwise stated and use figured dimensions in preference.
All dimensions are to be checked and verified on site before the commencement of any work, all dimensions and levels are subject to final survey and adjust.
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		<p>Address 49 MYRNA ROAD STRATHFIELD</p>	<p>L-01 B</p>
		<p>Drawing Title SITE PLANS/CALCS</p>	
		<p>Client M. KATRAGADDA Scale 1:200@A3 Drawing No. 1700</p>	



REFER TO L-03

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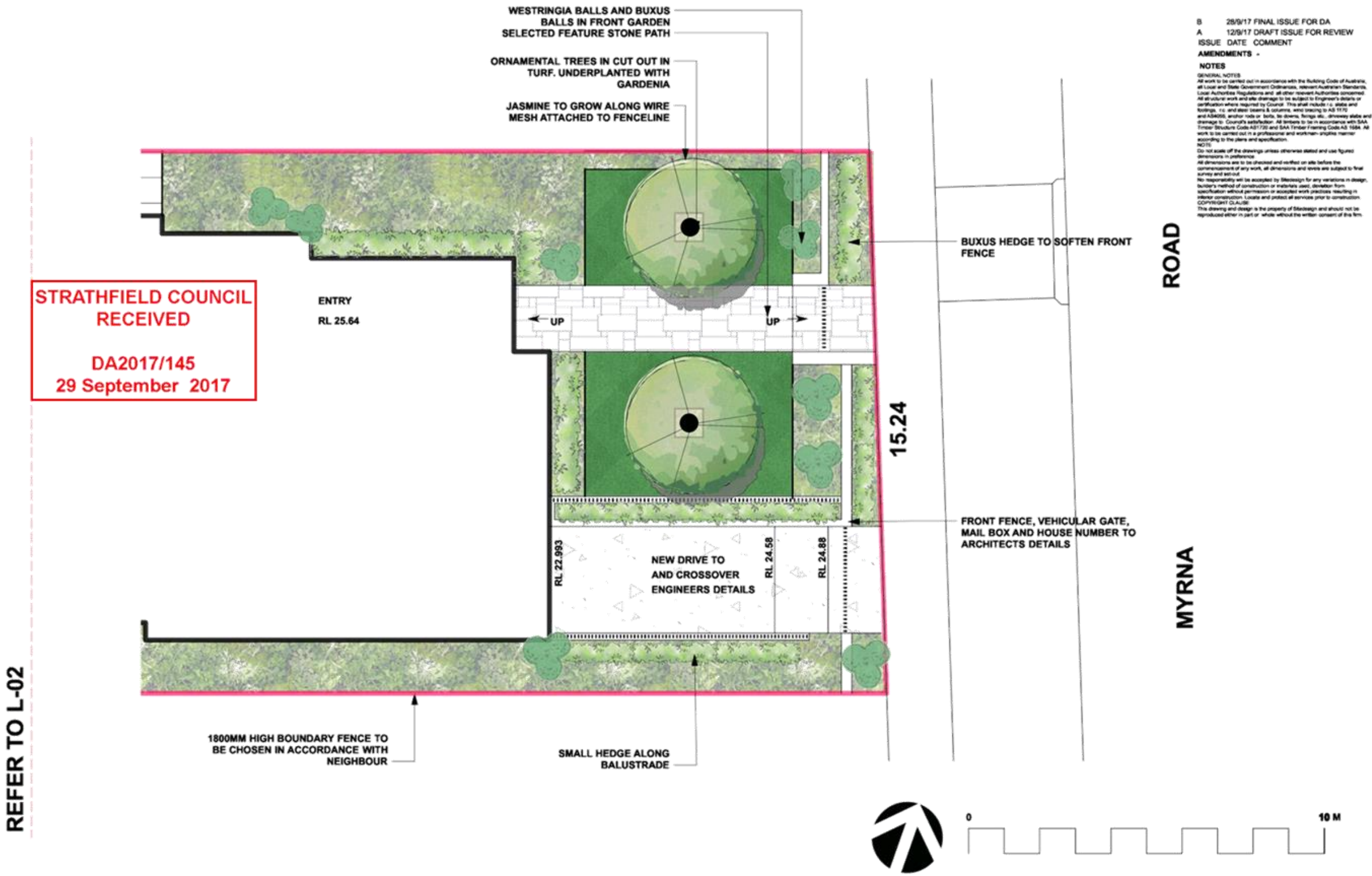
EXISTING TREE LEGEND



LEGEND



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		<p>Address 49 MYRNA ROAD STRATHFIELD</p>	<p>L-02 B</p>
		<p>Drawing Title LANDSCAPE PLAN</p>	
		<p>Client M. KATRAGADDA Scale 1:100@A3 Drawing No. 1700</p>	



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		<p>Address 49 MYRNA ROAD STRATHFIELD</p>	<p>L-03 B</p>
		<p>Drawing Title LANDSCAPE PLAN</p>	
		<p>Client M. KATRAGADDA Scale 1:100@A3 Drawing No. 1700</p>	



Buxus microphylla japonica
Buxus Ball



Buxus microphylla japonica
Japanese Box



Magnolia 'Teddy bear'
Magnolia



Gardenia augusta 'Florida'
Gardenia



Elaeocarpus reticulatus
Blueberry Ash



Westringia Grey Box
Grey Box 'Westringia'



Strelitzia juncea
Narrow leafed bird of paradise

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29 September 2017**

IRRIGATION NOTE

NOTE
ALL GARDENS TO HAVE INSTALLED A DRIP IRRIGATION SYSTEM CONTROLLED FROM WITHIN THE STORE AND RUN OF TANK WATER (POSSIBLE TOWN WATER TOP UP). IRRIGATION SYSTEM CAN BE DESIGNED AND INSTALLED BY SITEDESIGN + IRRIGATION
CALL DAVID JAMES +61 488 358 180

EXEMPT TREE REMOVAL
Any declared noxious plant. The applicant is to ensure that all noxious plants are properly identified and controlled/removed.
iv) Any tree species exempted by the Sutherland Shire Local Environmental Plan 2015.

IRRIGATION TAP KEY
The private open space of each dwelling must be provided with one tap with a removable water key, connected to a pump and the rainwater tank/OSD tank.

PRIOR TO OCCUPATION/OCCUPATION CERTIFICATE
The landscape works must be completed in accordance with the approved Landscape Plan and amendments required by conditions of consent. A Final Landscape Inspection must be carried out and a certificate issued by Council's landscape officer prior to occupation or the issue of an occupation certificate (interim or final). This certificate is required to ensure that all landscaping works and the deep soil percentage requirements have been carried out in accordance with 'A' above, and that all new indigenous plants on the site and within the road reserve are the correct species.

LANDSCAPE MAINTENANCE NOTES

MONTH	MOWING/EDGING/BLOWING	FERTILISING (SEASOIL)	CHECK IRRIGATION	HAND WEED REMOVAL	PRUNING	WEED SPRAYING	WATERING/IRRIGATION	PLANT REPLACEMENT IF REQUIRED
DEC	W	M	M	W	F	M	D	W
JAN	W	M	M	W	F	M	D	W
FEB	W	M	M	W	F	M	D	W
MAR	F	M	M	F	M	M	D	W
APR	F	N/A	M	F	M	M	D	W
MAY	F	N/A	M	M	N/A	M	D	W
JUNE	M	N/A	M	M	N/A	N/A	2ND D	W
JULY	M	N/A	M	M	N/A	N/A	2ND D	W
AUG	M	N/A	M	M	N/A	N/A	2ND D	W
SEP	M	M	M	M	N/A	N/A	2ND D	W
OCT	F	F	M	F	M	M	D	W
NOV	F	F	M	F	M	M	D	W

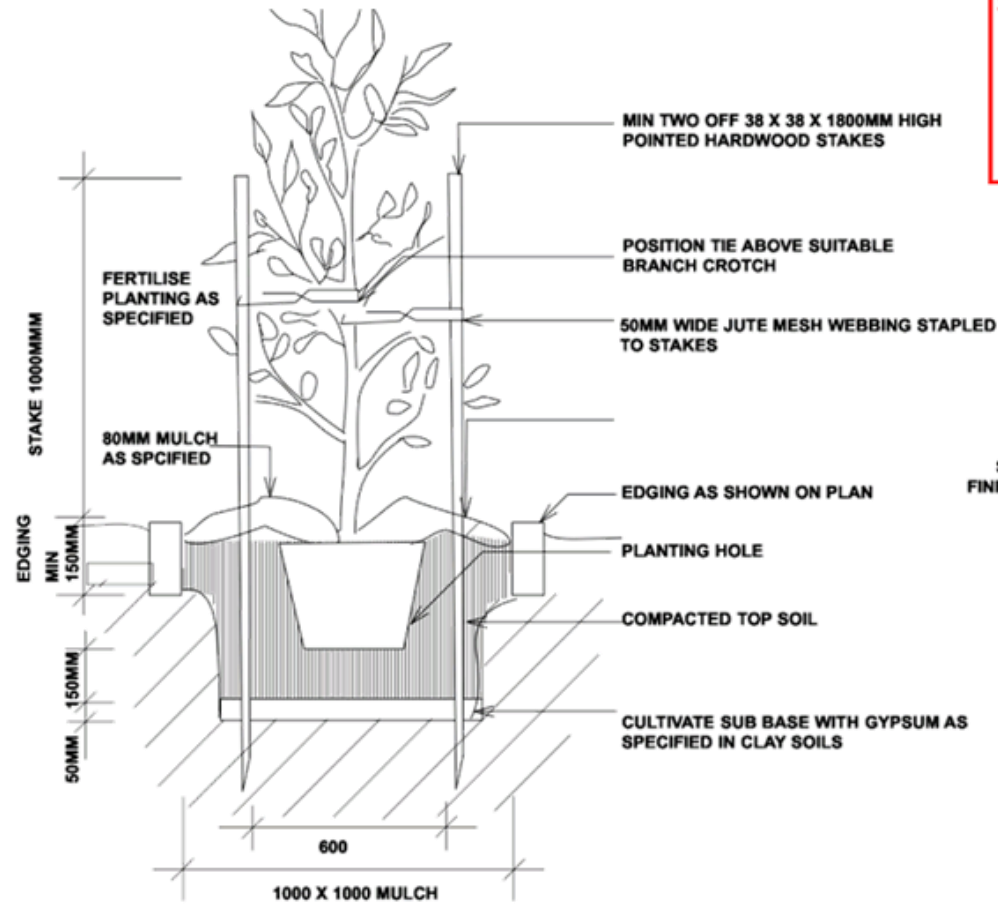
PLANTING ESTABLISHMENT PERIOD - 12 MONTHS
LANDSCAPE MATERIAL ESTABLISHMENT - 12 MONTHS
KEY: D-DAILY, W-WEEKLY, F-FORTNIGHTLY, M-MONTHLY, 2ND DAY.

Plant List					
ID	Common Name	Botanical Name	Scheduled Size	Mature Height	Mature Spread
Trees					
EReti	Blueberry Ash	Elaeocarpus reticulatus	45L	5 - 10m	2-4m
Mag-tb	Magnolia	Magnolia 'Teady Bear'	45L	2-4m	2.0 - 3.5m
Shrubs					
Acm-smi	Lillypilly	Acmena smithii 'Minor'	200mm	2-3m	2m
Bux-bal	Littleleaf Boxwood, English Boxwood	Buxus balls	200mm	0.7m	0.7m
bux-mi'ja'	Japanese Box	Buxus microphylla 'japonica'	300mm	0.5 - 1.2m	0.5m
Gar-aug-fl	Gardenia	Gardenia augusta 'Florida'	200mm	1m	1m
pit 'gb'	Pittosporum	Pittosporum 'Golf Ball'	200mm	0.6-1.2m	1.2 - 2.0m
san-stu	Mother in-laws Tongue	Sansevieria stuckyi	200mm	0.75 - 0.9m	0.6 - 0.9m
Str-reg-jun	Narrow-leafed Bird of Paradise	Strelitzia juncea	200mm	0.9 - 1.5m	0.9 - 1.2m
Wes-bal	Coastal Rosemary	Westringia 'balls'	200mm	0.6m	0.9m
Ground Covers					
Aga-att	lion's tail	Agave attenuata	150mm	0.75 - 0.9m	0.5 - 1.2m
Tra-jas	Star Jasmine	Trachelospermum jasminoides	150mm	3 - 5m	3.5 - 6m
Grasses					
Climbers					
Aquatic Plants					
Perennials					
Ferns					
Total					

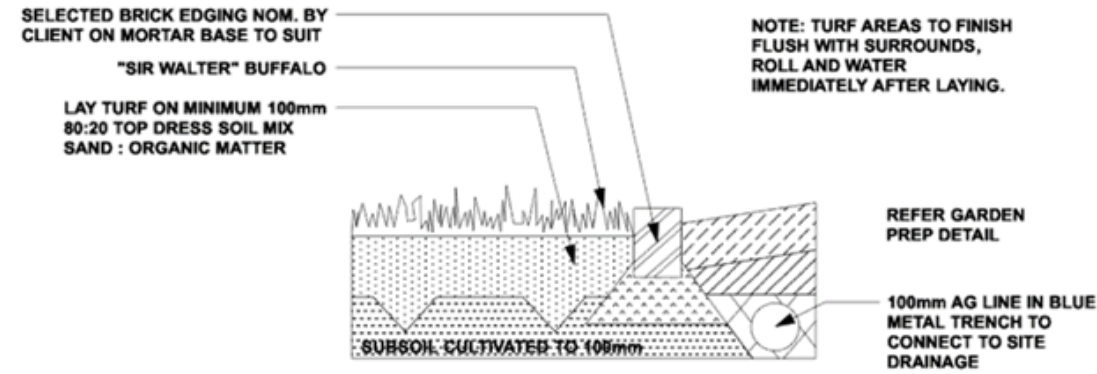
<p>creating places to live in and enjoy</p> <p>LANDSCAPE ARCHITECTS // CONSTRUCTION // MAINTENANCE // IRRIGATION</p>	<p>SITEDESIGN +STUDIOS</p>	<p>SOUTH SYDNEY STUDIO PO BOX 978 CRONULLA 2230 p 1300 22 44 55 info@sdstudios.com.au www.sdstudios.com.au</p>	<p>Project PROPOSED NEW 2 STOREY DWELLING</p> <p>Address 49 MYRNA ROAD STRATHFIELD</p> <p>Drawing Title PLANTING DETAILS</p> <p>Client M. KATRAGADDA Scale Drawing No. 1700</p>	<p>Page L-04 B</p>
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**STRATHFIELD COUNCIL
RECEIVED**

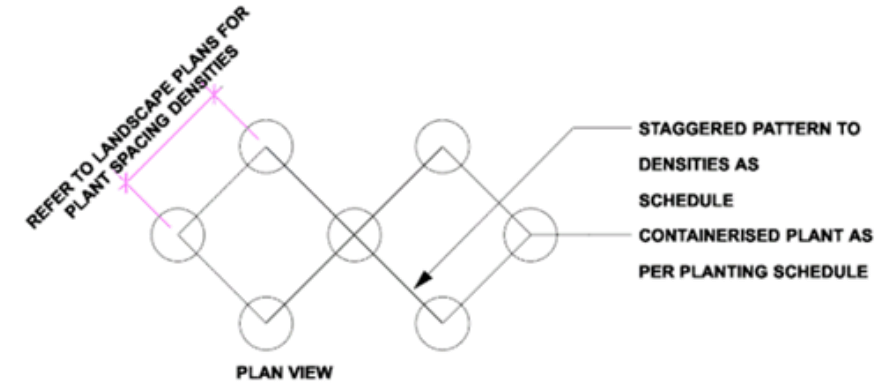
**DA2017/145
29 September 2017**



TYPICAL TREE PLANTING DETAIL
NTS

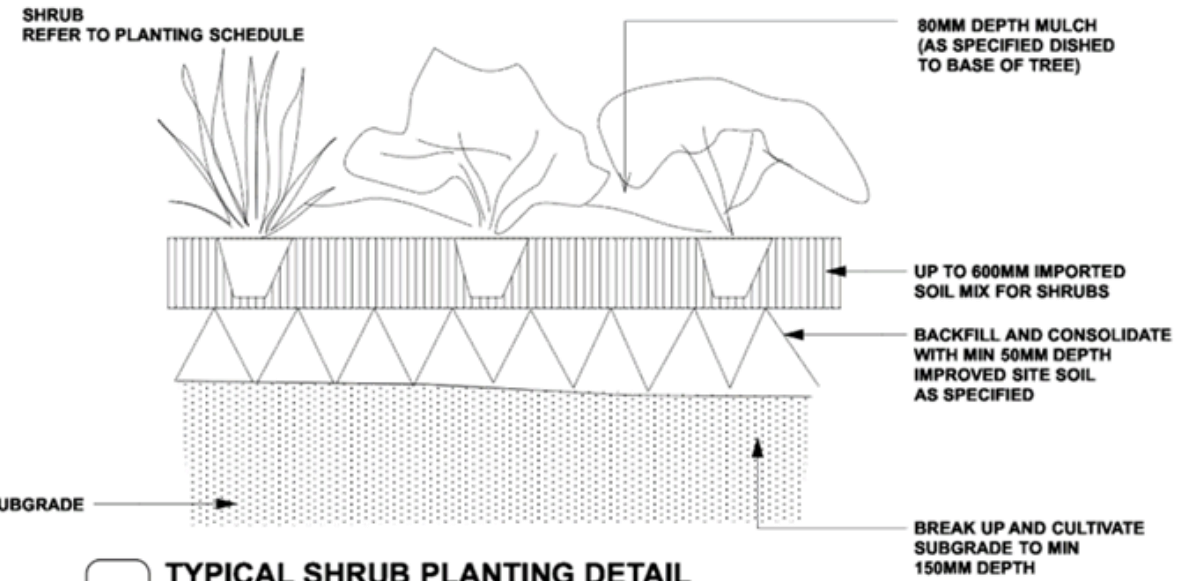
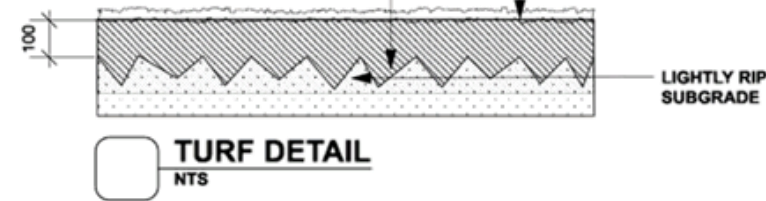


TYPICAL TURF AND BRICK EDGE DETAIL
NTS



SIR WALTER TURF ROLLS AS SPECIFIED. LAY ROLLS SO THAT TURF FINISHES 300MM PROUD OF ADJACENT SURFACES. LIGHTLY COMPACT EDGES TO PREVENT SUBSIDENCE.

SPREAD & RAKE MIN. 100MM LAYER OF TURF UNDERLAY SOIL (80/20 SAND/SOIL MIX). GRADE TO FINISHED LEVELS & LIGHTLY CONSOLIDATE



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Project **PROPOSED NEW 2 STOREY DWELLING**
Address **49 MYRNA ROAD STRATHFIELD**
Drawing Title **DETAILS**
Client **M. KATRAGADDA** Scale Drawing No. **1700**

Page
L-05 B

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 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 landscape works and handstand 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 techniques, that standard shall be followed.

1.02 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.

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done so in accordance with NATSPEC Guide 2 "A Guide to Assessing Tree Quality". 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.

1.04 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 site.
- 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 stockpiles
- Sandbag kerb sediment traps
- Straw bale & geotextile sediment filter.
- Exposed banks shall be pegged with an approved Jute matting in preparation for mass planting

Refer to "Site/soil Reference Kit" as prepared by DLWC & WSRCC (1997) for construction techniques

SOIL WORKS

2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)

The specified soil conditioner for site top-soil improvement shall be an organic mix, equal to "Botany Humus", as supplied by ANL. Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting

New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer d) below) and Imported "Organic Garden Mix" as supplied by ANL or approved equal. All mixes are to comply with AS 4419 Soils for landscaping & garden use, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf

The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 80% washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom compost or soil conditioner, or other approved lawn top dress.

Site Topsoil

Site topsoil is to be clean and free of unwanted matter such as gravel, CO2 lumps, grass, weeds, tree roots, sticks, rubbish and plastics, and any deleterious materials and materials toxic to plants. The topsoil must have a pH of between 5.5 and 7. Use 100% imported soil mix when site topsoil runs out.

2.02 INSTALLATION

a) Establishing Subgrade Levels

Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:

Mass Planting Beds - 300mm below existing levels with specified imported soil mix.

Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

b) Subgrade Cultivation

Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a thorough breakup of the subgrade into a reasonably coarse 1/8". Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix.

c) Drainage Works

Install surface and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits.

d) Placement and Preparation of Specified Soil Conditioner & Mixes.

Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported "Organic Garden Mix" as supplied by ANL, or approved equal.

Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm.

Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine 1/8" and good growing medium in preparation for planting.

Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm.

Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material

All trees supplied above a 25L container size must be grown and planted in accordance with *Clarke, R 1996 Purchasing Landscape Trees: A guide to assessing tree quality, Natapac Guide No. 2*. Certification that trees have been grown to Natapac guidelines is to be provided upon request of Council's Tree Management Officer.

Above - Ground Assessment:

The following plant quality assessment criteria should be followed:

Plant size to type, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is apically dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure

Below - Ground Assessment:

Good root division & direction, rootball occupancy, rootball depth, height of crown, non-audering For further explanation and description of these assessment criteria, refer to Ross Clark's book.

All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does not conform to the standards listed above.

b) Stakes and Ties

Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, unpainted, straight hardwood, free of knots and pointed at one end. They shall be 2200mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.

c) Fertilisers

Fertilisers shall be approved slow release fertilisers suitable for the proposed planting types. Note that for native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall be used.

d) Mulch

Mulch shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris.

e) Turf

Turf shall be "Sir Walter" Buffalo or equivalent (unless stated otherwise), free from any weeds and other grasses, and be in a healthy growing condition.

3.02 INSTALLATION

a) Setting Out

All planting set out shall be in strict accordance with the drawings, or as directed. Note that proposed tree planting located near services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting.

b) Planting

All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, incorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set snug vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

c) Staking and Tying

Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching

Mulch should be spread so that a compacted thickness of 75mm is achieved after settlement in all planting beds and around each individual plant. Apply immediately following planting and watering in, ensuring that a 50mm radius is maintained around the trunk of each plant. There shall be no mixing of soil and mulch material.

e) Turfing

Moisten soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a lawn fertilizer and thoroughly water in. Keep turf moist until roots have taken and sods/rolls cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

f) Steel Garden Edging

The Contractor shall install stone edging as shown on the drawings, to all mass planting beds adjoining turf or gravel mulched areas, and where required. The resultant edge shall be true to line and flush with adjacent surfaces.

HARDSCAPE WORKS

4.01 GENERAL

The Contractor shall undertake the installation of all hardscape works as detailed on the drawing, or where not detailed, by manufacturers specification.

Paving - refer to typical details provided, and applicable Australian Standards. Permeable paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a suitable, non-slip, practical surface. In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be set out as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be brought to the attention of the Landscape Architect.

Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owners which may arise from this application. Any enquiries in this regard may be made to the Crown Lands Division on (02) 8536 5332

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION)

An automated drip-irrigation system is to be installed to all gardens, planters and lawn areas in accordance with the approved Irrigation Design.

This system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest industry standards and to maximise the efficient usage of water.

The installer is required to obtain all approvals necessary for the completion of works in accordance with the Laws of Australia, Laws of the State of NSW, Council By-Laws and Ordinances.

Drawings:

- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide irrigation drawings for approval upon engagement.

Design Requirements:

- The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas.
- It shall incorporate a suitable back flow prevention device for the scale of works, an in-line filter, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for specified planting.
- The irrigation application rate shall not exceed the infiltration rate of the soil or creates run-off.
- The landscape contractor shall check the existing pressure available from the ring mains and size irrigation piping to suit. Supply shall be from local hose cock where available.
- All piping and fittings shall be buried 50mm below the finished soil levels in garden and lawn areas, and secured in position at 500mm centres with galvan wire pins.
- Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Services Co-ordination:

- Co-ordination required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provisions.
- The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit locations.
- Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects:

Upon completion of installation, the system shall be tested, including:

- Main Line Pressure Test: The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time.
- Dripper Pressure Test: Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The test pressure is then tested under the same conditions to check it does not exceed 300Kpa.
- All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

Warranty:

- A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation:

- On request, a detailed irrigation performance specification report can be issued.

12 MONTH MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contracted works by accepted landscaping or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent in the contracted works.

This shall include, but not be limited to, the following items where and as required: Watering all planting and lawn areas.

- Clearing litter and other debris from landscaped areas.
- Removing weeds, pruning and general plant maintenance.
- Replacement of damaged, stolen or unhealthy plants. Make good areas of soil subsidence or erosion.
- Topping up of mulched areas.
- Spray / treatment for insect and disease control.
- Fertilizing with approved fertilizers at correct rates.
- Mowing lawns & trimming edges each 14 days in summer or 18 days in winter. Adjusting ties to Stakes.
- Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.



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Project PROPOSED NEW 2 STOREY DWELLING

Address 49 MYRNA ROAD STRATHFIELD

Drawing Title SPECIFICATION

Client M. KATRAGADDA

Scale

Drawing No. 1700

Page

L-06 B



TO: Strathfield Independent Hearing and Assessment Panel Meeting - 1 February 2018

REPORT: SIHAP – Report No. 2

SUBJECT: DA2017/158
47 BARKER ROAD, STRATHFIELD
LOT 146 DP 12405

DA NO. DA2017/158

SUMMARY

Proposal: Demolition of existing structures and construction of a two (2) storey dwelling with basement parking, swimming pool and front fence.

Applicant: Morrison Homes

Owner: Kandasamy Dhanapalan

Date of lodgement: 26 October 2017

Notification period: 2 November 2017 to 15 November 2017

Submissions received: 1

Assessment officer: KL

Estimated cost of works: \$1,739,027.95

Zoning: R2 Low Density Residential - SLEP 2012

Heritage: N/A

Flood affected: No

RECOMMENDATION OF OFFICER: **APPROVAL**

EXECUTIVE SUMMARY

- 1.0 Approval is sought for the demolition of existing structures and construction of a new two (2) storey dwelling house with basement parking, swimming pool and front fence.
- 2.0 The application was notified in accordance with Part L of the SCDCP 2005 from 8 August 2017 to 21 August 2017. One (1) written submission was received. Concerns raised were in relation to potential asbestos and pool fence compliance.
- 3.0 The proposed development generally complies with the relevant statutory controls.
- 4.0 It is recommended that the Development Application be approved subject to recommended conditions of consent.

DESCRIPTION OF THE SITE AND LOCALITY

The subject site is legally described as Lot 146 DP 12405 and is commonly known as 47 Barker Road, Strathfield. The site is located on the northern side of street and has an area of 708m².

The locality is characterised by a mixture of single and two storey dwellings that are predominantly brick buildings with tiled roofing.

The streetscape is currently under a state of transition with two (2) storey dwellings being the predominant dwelling type in the streetscape. There is also a growing emergence of more

DA2017/158
47 Barker Road, Strathfield
LOT 146 DP 12405 (Cont'd)

contemporary-style dwellings in the streetscape including the dwelling immediately west of the subject site.

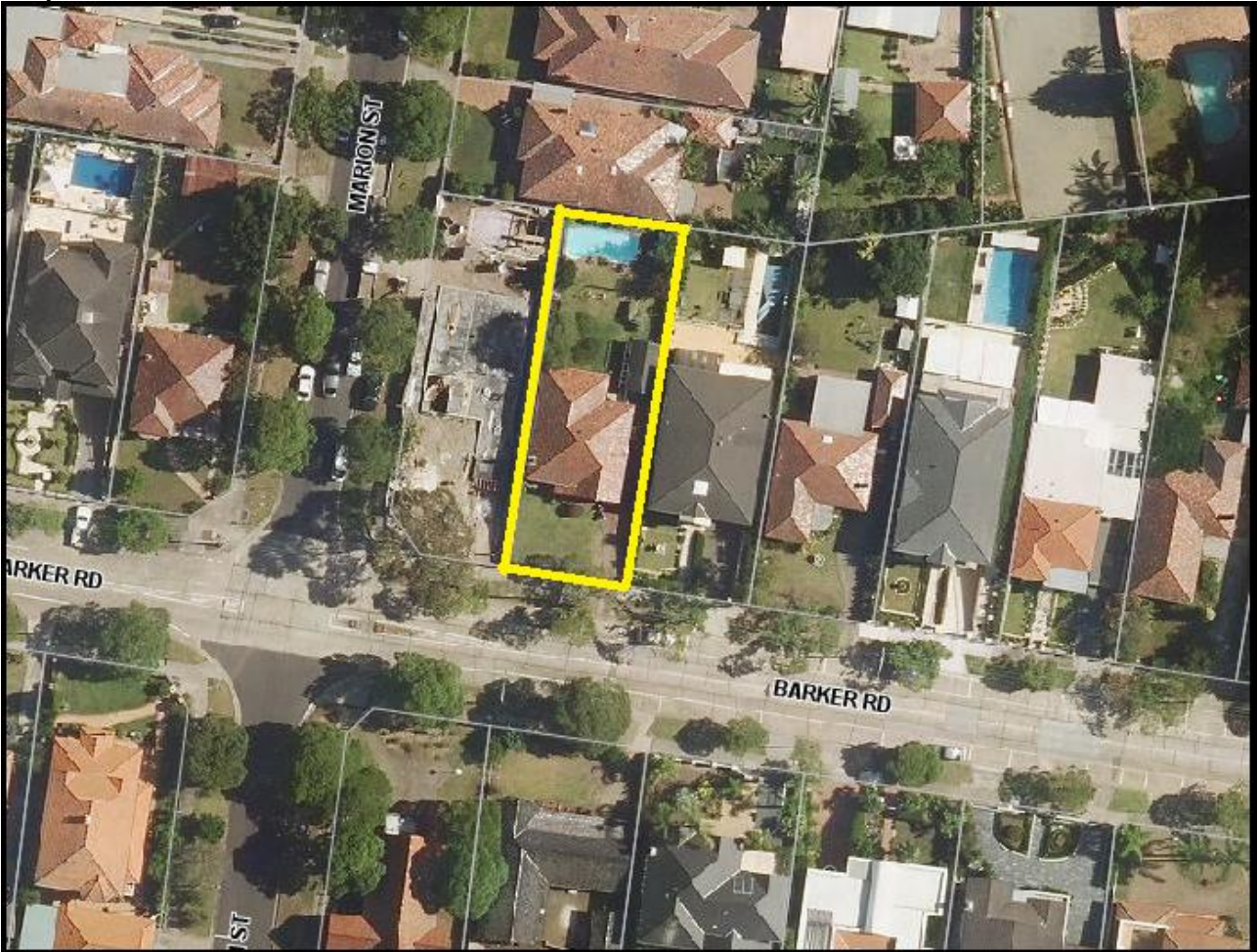


Figure 1: Locality plan

PROPERTY BURDENS AND CONSTRAINTS

There are no easements or burdens on the land which could affect, or be affected by, the proposed development.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The application seeks Council approval for demolition of existing structures and construction of a two (2) storey dwelling with basement parking, swimming pool and front fence.

The specific elements of the proposal are:

Basement level:

- Parking and Gym

Ground floor level:

- Guest Room, Study Room, Kitchen, Family Room, Dining Room and Media Room

First floor level:

- 4 Bedrooms, 3 Bathrooms, Upper lounge room and a Study Nook

External works:

DA2017/158
 47 Barker Road, Strathfield
 LOT 146 DP 12405 (Cont'd)

- Swimming Pool

REFERRALS

INTERNAL REFERRALS

Engineering Comments

Council's Engineer has commented on the proposal as follows:

The subject site has a natural fall to the front and disposal by means of gravity is attainable, hence enabling the applicant to submit a compliant design. The rising main from the pump out pit connects to the boundary pit.

Council's Engineer offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

Landscaping Comments

Council's Tree Coordinator offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

SECTION 79C CONSIDERATIONS – EP&A Act, 1979

In determining a development application, the consent authority is to take into consideration the following matters of consideration contained within section 79C of the Environmental Planning and Assessment Act, 1979 as relevant to the development application:

79C(1)(a) the provisions of:

- (i) any environmental planning instrument

STATE ENVIRONMENTAL PLANNING POLICY (SEPP) – BASIX 2004

In accordance with the BASIX SEPP all new housing in NSW is required to meet a designated target for energy and water reduction.

A BASIX Certificate was submitted as part of the application which indicates that the proposal meets the required reduction targets. An appropriate condition of consent will be imposed to ensure future compliance with these targets.

STRATHFIELD LOCAL ENVIRONMENTAL PLAN (SLEP) 2012

An assessment of the proposal against the general aims of SLEP 2012 is included below:

Cl. 1.2(2)	Aims	Complies
(a)	<i>To achieve high quality urban form by ensuring that new development exhibits design excellence and reflects the existing or desired future character of particular localities and neighbourhoods in Strathfield</i>	Yes
(b)	<i>To promote the efficient and spatially appropriate use of land, the sustainable revitalisation of centres, the improved integration of transport and land use, and an appropriate mix of uses by regulating land use and development</i>	Yes
(c)	<i>To promote land uses that provide a wide range of employment, recreation, retail, cultural, service, educational and other facilities for the local community</i>	Yes
(d)	<i>To provide opportunities for economic growth that will enhance the local</i>	Yes

DA2017/158
47 Barker Road, Strathfield
LOT 146 DP 12405 (Cont'd)

<i>community</i>		
(e)	<i>To promote future development that integrated land use and transport planning, encourages public transport use, and reduced the traffic and environmental impacts of private vehicle use</i>	Yes
(f)	<i>To identify and protect environmental and cultural heritage</i>	Yes
(g)	<i>To promote opportunities for social, cultural and community activities</i>	Yes
(h)	<i>To minimise risk to the community by identifying land subject to flooding and restricting incompatible development</i>	Yes

Comments: The existing streetscape comprises of a mixture of exposed facebrick and rendered masonry single and two (2) storey dwelling with pitched and flat roof forms. The proposed development provides an appropriate level of articulation throughout the front and side elevations, creating a compatible bulk and scale.

Permissibility

The subject site is Zoned R2 Low Density Residential under the Strathfield Local Environmental Plan (SLEP) 2012.

The construction of a two (2) storey dwelling is permissible within the R2 Low Density Residential Zone with consent and is defined under the SLEP 2012 as follows:

“Dwelling house means a building containing only one dwelling”

The proposed development for the purpose of a two (2) storey dwelling is consistent with the definition above and is permissible within the R2 Low Density Residential Zone with consent.

Zone Objectives

An assessment of the proposal against the objectives of the R2 Low Density Residential Zone is included below:

Objectives	Complies
➤ To provide for the housing needs of the community within a low density residential environment.	Yes
➤ To ensure that development of housing does not adversely impact the heritage significance of adjacent heritage items and conservation areas.	Yes

Comments: The proposed development comprises of a two (2) storey dwelling achieving the above objectives of the R2 Low Density Residential Zone.

Part 4: Principal development standards

An assessment of the proposal against the relevant provisions contained within Part 4 of the SLEP 2012 is provided below.

Height of building

Cl.	Standard	Controls	Proposed	Complies
4.3	Height of building	9.5m	8.05m	Yes

Objectives		Complies
(a)	<i>To ensure that development is of a height that is generally compatible with or which improves the appearance of the existing area</i>	Yes
(b)	<i>To encourage a consolidation pattern that leads to the optimum sustainable capacity height for the area</i>	Yes

DA2017/158
 47 Barker Road, Strathfield
 LOT 146 DP 12405 (Cont'd)

(c)	<i>To achieve a diversity of small and large development options.</i>	Yes
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Floor space ratio

Cl.	Standard	Controls	Proposed	Complies
4.4	Floor space ratio	0.57:1 (407.2m ²)	0.53:1 (375.4m ²)	Yes

	Objectives	Complies
(a)	<i>To ensure that dwellings are in keeping with the built form character of the local area</i>	Yes
(b)	<i>To provide consistency in the bulk and scale of new dwellings in residential areas</i>	Yes
(c)	<i>To minimise the impact of new development on the amenity of adjoining properties</i>	Yes
(d)	<i>To minimise the impact of development on heritage conservation areas and heritage items</i>	Yes
(e)	<i>In relation to Strathfield Town Centre:</i> i. <i>to encourage consolidation and a sustainable integrated land use and transport development around key public transport infrastructure, and</i> ii. <i>to provide space for the strategic implementation of economic, social and cultural goals that create an active, lively and people-oriented development</i>	Yes
(f)	<i>In relation to Parramatta Road Corridor – to encourage a sustainable consolidation pattern that optimises floor space capacity in the Corridor</i>	Yes

Part 5: Miscellaneous Provisions

The relevant provisions contained within Part 5 of the SLEP 2012 are addressed below as part of this assessment:

5.9 Preservation of trees or vegetation

Council’s Tree Coordinator offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

Part 6: Local Provisions

The relevant provisions contained within Part 6 of the SLEP 2012 are addressed below as part of this assessment:

6.4 Essential services

Clause 6.4 of the SLEP 2012 requires consideration to be given to the adequacy of essential services available to the subject site. The proposed development is located within a well serviced area and features existing water and electricity connection and access to Council’s stormwater drainage system. As such, the subject site is considered to be adequately serviced for the purposes of the proposed development.

79C(1)(a)(ii) any draft environmental planning instruments

There are no applicable draft planning instruments that are or have been placed on public exhibition, to consider as part of this assessment.

79C(1)(a)(iii) any development control plan

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STRATHFIELD CONSOLIDATED DEVELOPMENT CONTROL PLAN (SCDCP) 2005

The following is an assessment of the proposal’s compliance with the relevant provisions contained within SCDCP 2005.

PART A – DWELLING HOUSES AND ANCILLARY STRUCTURES

An assessment of the proposal against the objectives contained within Clause 1.3 of Part A of SCDCP 2005 is included below:

No.	Objectives	Complies
A	<i>To preserve and enhance the residential amenity and heritage value of buildings in the Strathfield Municipality</i>	Yes
B	<i>To encourage construction of environmentally sustainable dwelling houses and ancillary structures</i>	Yes
C	<i>To preserve the appearance of dwellings in tree-lined streets and park-like settings</i>	Yes
D	<i>To maintain compatible architectural styles of dwelling houses within the streetscape</i>	Yes
E	<i>To encourage innovation in housing design and detail</i>	Yes
F	<i>To maintain continuity of streetscape by requiring new and altered dwellings to be constructed to a similar size and scale to adjoining developments</i>	Yes
G	<i>To provide a high standard of dwelling house design, construction and finish</i>	Yes
H	<i>To maximise solar access to existing and proposed developments</i>	Yes
I	<i>To provide adequate and convenient on-site car parking</i>	Yes

Comments:

- The proposal seeks to construct a new two (2) storey dwelling with rendered exterior walls utilising earthy tones which are consistent with the dwellings within the immediate streetscape.
- The bulk and scale of the dwelling is appropriate to those within the surrounding streetscape.
- The proposed development will result in an acceptable level of solar access to the adjoining properties.

Streetscape

Cl. 3.2 Objectives	Complies
A. <i>Ensure that development respects the height, scale, character, materials and architectural qualities of the surrounding neighbourhood, including any adjoining or nearby heritage item or heritage conservation area</i>	Yes
B. <i>Protect and retain the amenity of adjoining properties</i>	Yes
C. <i>Discourage the use of non-responsive streetscape elements</i>	Yes
D. <i>Ensure that each new dwelling, addition or alteration respects the predominant height, bulk and scale of existing residential development in the immediate vicinity</i>	Yes
E. <i>Ensure that the dominant building rhythm of the streetscape is reflected in the building design in terms of the spacing and proportion of the built elements</i>	Yes
F. <i>Retain a feeling of openness and space between built elements by maintaining landscaped setbacks</i>	Yes
G. <i>Ensure that new dwellings have facades, which define, address, and enhance the public domain</i>	Yes
H. <i>Preserve the appearance of dwellings set in the tree lined streets and</i>	Yes

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park-like environment

I.	<i>Achieve quality architecture in new development through the appropriate composition and articulation of building elements</i>	Yes
J.	<i>Encourage building materials, colours and finishes that are sympathetic to the materials and finishes of surrounding buildings and can be integrated into the overall building form</i>	Yes
K.	<i>To ensure fencing is sympathetic to the design of the dwelling and enhances the character of both the individual house and street</i>	Yes

Cl.	Element	Controls	Complies
3.3.1	<i>Neighbourhood character and amenity</i>	(1) <i>New dwellings positioned and oriented to address the street frontage and complement the existing pattern of development in the street</i> (2) <i>Consistently occurring positive building façade features within existing streetscape incorporated into the dwelling design</i>	Yes
3.3.2	<i>Scale, massing and rhythm</i>	(1) <i>Overall scale, massing, bulk and layout to complement existing streetscape</i> (2) <i>New buildings, alterations and additions shall reflect dominant building rhythm in the street</i>	Yes
3.3.3	<i>Street edge and garden setting</i>	(1) <i>Retain existing trees within the front setback</i> (2) <i>At least two (2) canopy trees within the front setback with minimum mature height of 10m</i> (3) <i>Driveway location must not necessitate the removal of any street tree</i> (4) <i>At least 50% of the front setback area must comprise deep soil landscaping</i>	Yes
3.3.4	<i>Materials, colours, roof forms and architectural detailing</i>	(1) <i>Roof design to be similar in pitch, materials and colour to roofs in the immediate streetscape</i> (2) <i>Colours of garages, window frames, ventilation and downpipes and balustrading on main facades and elevation to complement external design of the building</i> (3) <i>Building form to be articulated to avoid large expanses of unbroken wall.</i> (4) <i>In relation to heritage items or buildings within a conservation area, cement render of previously unrendered masonry is not permitted</i> (5) <i>Materials used for additions and ancillary structures to be compatible with the existing dwelling house</i> (6) <i>Monotone face brick walls and tiled roofs used where they are existing in the immediate streetscape</i> (7) <i>Highly reflective materials are not acceptable for roof or wall cladding</i>	Yes
3.3.5	<i>Fencing</i>	(1) <i>Front and side fencing facing a secondary street to be sympathetic to the style of the dwelling.</i> (2) <i>Any fencing forward of the building line may be topped by an additional 0.8m high open timber picket, wrought iron, palisade or similar element. Brick piers over 1m are permitted to support decorative elements, provided they are equally spaced along the street, and do not exceed a height of 1.8m.</i> (3) <i>Solid fencing forward of the building line shall not exceed 1m above NGL.</i> (4) <i>Solid fencing up to 1.8m along a secondary frontage.</i>	Yes

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- (5) Side and rear fences permitted up to 1.8m high.
- (6) Materials not supported for front fences: unrendered cement block, galvanised or aluminium sheeting, fibre-cement board, brushwood, barbed wire, or fencing with a spear type design.
- (7) Side fencing shall be stepped to reflect the topography of the street.
- (8) Side and rear fences to allow stormwater to flow through or under the fence.
- (9) Fencing on corner allotments to incorporate a minimum 1.5m x 1.5m splay adjacent to the road intersection to maintain sight distances for pedestrians and drivers.
- (10) Solid fences adjoining vehicular access driveways to be provided with a minimum 1m x 1m splay to maintain sight distances for pedestrians and drivers.
- (11) Corner splays must be landscaped.
- (12) Council does not permit trees to be removed to facilitate a fence design.
- (13) Dividing fences between private property and Council parks, reserves, open space etc. must be constructed only in timber palings (lapped and capped) with a maximum height of 1.8m.
- (14) No gates or entries from private property onto Council's parks, reserves, open space, etc. are permitted.

Comments:

- The bulk and scale of the dwelling is appropriate to those within the surrounding streetscape.
- The proposed development includes a complying front fence with a maximum height of 1.2m.

Architectural Design and Details

Cl. 5.2	Objectives	Complies
A.	<i>Encourage architecture that is innovative and that uses high quality detailing, blending elements characteristic of Strathfield with contemporary materials and features</i>	Yes
B.	<i>Encourage building materials and finishes which are sympathetic to the materials and finishes within the surrounding context</i>	Yes
C.	<i>Require the use of colours that are sympathetic to the surrounding dwelling and streetscape that is within proximity of the new development.</i>	Yes
D.	<i>Reduce the use of highly reflective colours and materials that create visual prominence</i>	Yes
E.	<i>Building forms should be compatible with the existing dwelling house (in the case of alteration and additions) or with adjoining dwelling houses and the streetscape in terms of type, form and colour</i>	Yes

Cl.	Element	Controls	Complies
5.3.1	<i>Building forms</i>	(1) Flat roofs may be considered where there are similar roof forms present in the immediate street. Flat roofs are not appropriate in the case of heritage items or heritage conservation areas. (2) Where a dwelling is located on a street corner it shall be designed to address both street frontages. Blank walls	Yes

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		<i>shall not be presented to either frontage and walls shall be articulated or staggered so as to avoid appearing unduly bulky or long.</i>	
5.3.2	<i>Two (2) storey porticoes</i>	(1) <i>Two (2) storey porticoes may be considered where they are in scale with the proposed dwelling and compatible with the streetscape.</i> (2) <i>Two (2) storey porticoes are to be vertically articulated or broken to reduce their height.</i> (3) <i>No porticoes or associated porches shall protrude more than 1m forward of the front building façade.</i> (4) <i>Porticoes are not to extend higher than the understorey of the eaves/guttering.</i>	Yes
5.3.3	<i>Dormers</i>	<i>Dormers shall be traditionally proportioned and rectilinear.</i>	Yes

Comments:

- The proposal seeks to construct a flat roof. The dwellings immediately adjoining the site provided flat roof and there are other various examples of dwellings in close proximity which are provided with flat roof forms. Please refer to Likely Impacts discussion.
- In addition, whilst the proposed built form complies with the side setback controls, it fails to achieve the objectives of the built form by providing articulation. As such, a condition of consent is to be imposed to provide articulation via recessing the guest room and the study nook via 300mm. Please refer to Likely Impacts discussion.

Ecologically Sustainable Development

Cl. 6.2	Objectives	Complies
A.	<i>Encourage passive and active strategies in the design of dwellings and promote the achievement of ecologically sustainable practices</i>	Yes
B.	<i>Ensure dwellings are designed to allow sufficient natural ventilation and lighting whilst minimising heat gain during summer and maximising solar access during winter, thereby reducing the need for artificial cooling and heating</i>	Yes
C.	<i>Minimise the over use of Sydney's limited high quality domestic water supply by ensuring new dwellings incorporate water storage tanks for use in toilet flushing, landscape irrigation and to encourage new dwellings, additions and alterations to incorporate water saving devices and water conservation strategies</i>	Yes
D.	<i>Utilise low greenhouse impact water systems technology in all new dwellings</i>	Yes
E.	<i>Achieve greater efficiency in domestic energy consumption, thereby helping to alleviate the effects of greenhouse emissions</i>	Yes

Cl.	Element	Controls	Complies
6.3.1	<i>Solar access and natural lighting</i>	(1) <i>The design of new dwellings should ensure that living areas face north, sleeping areas face to the east or south, and utility areas to the west or south to maximise winter solar access.</i> (2) <i>In new dwellings, solar access to the windows of habitable rooms and to at least 50% of private open space must be provided or achieved for a minimum period of 4 hours between 9.00am and 3.00pm at the winter solstice (June 22).</i> (3) <i>In the case of alterations or additions to existing dwellings, solar access to the windows of habitable rooms and to the majority of private open space of adjoining properties must be substantially maintained or achieved for a minimum period of 3 hours between</i>	Yes

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9.00am and 3.00pm at the winter solstice (June 22).			
6.3.2	Natural heating	(1) Living areas should be oriented to the north to maximise direct solar access (2) Where it is proposed to plant trees to the north of the dwelling they must be deciduous to allow solar access during the winter (3) Materials with a high thermal mass are encouraged	Yes
6.3.3	Natural cooling	(1) Windows and walls should be shaded by the use of shading devices, eaves, louvres and trees. Shading devices should be sympathetic to dwelling design and not detract from the appearance of the dwelling (2) Windows should be positioned to capture breezes and allow for cross-ventilation	Yes
6.3.5	Water tanks	(1) Above ground water tanks shall be located behind the dwelling. Where it is not possible to locate a water tank wholly behind the dwelling, it should be located behind the front building line and screened from view from the public domain with appropriate landscaping (2) Above ground water tanks must be located at least 450mm from any property boundary	Yes
6.3.6	Hot water heater units	(1) Hot water units shall be located behind the dwelling. Where it is not possible to locate the unit either internally or wholly behind the dwelling, it must be located behind the front building line and screened from view from the public domain with appropriate landscaping (2) Hot water systems are not to be located on balconies unless they are screened from public view	Yes

Comments: A BASIX Certificate accompanied the application meeting the designated target for energy and water reduction.

Building Height

Cl. 8.2	Objectives	Complies
A.	Dwelling houses and ancillary structures, including garages are to be no more than two (2) storey's high	Yes
B.	Ensure that the overall size and height of dwellings relative to NGL responds to the adjoining dwellings, site topography and the desired future scale of buildings in the street.	Yes
C.	Provide suitable anchor points on the external load bearing walls for where additions are proposed	Yes
D.	Promote the continuation of pyramidal roof forms within Strathfield where they are already prevalent	Yes
E.	Achieve development that does not reduce or restrict reasonable solar access to living and outdoor areas	Yes

Cl.	Element	Controls	Complies
8.3.1	Building height	(1) 3.5m maximum height for outbuildings, detached garages and carports (2) The building height shall follow the gradient for any given site	Yes
8.3.2	Roof pitches and shape	(1) Pitched roofs should be designed with a pitch between 23.5 and 45 degrees. (2) An attic may be built in the roof space of either a two (2) storey dwelling or a single storey dwelling or garage provided access to the attic is via internal stairs. (3) Flat roofs will be considered where they are already present in the street or where a street has no discernible architecture style.	Yes

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- (4) *Balconies are not permitted in the attic of a garage, unless:*
- a) *less than 1.8m² in area;*
 - b) *they are located in the centre of the wall or roof facing into the site; and*
 - c) *do not allow any significant overlooking of adjoining properties.*

Comments: The maximum height for the proposed development is 8.05m and comfortably satisfies the maximum height requirement for the subject site.

Landscaped Areas

Cl. 9.2 Objectives	Complies
A. <i>Encourage landscaping that is appropriate to the style and scale of the dwelling and adjoining development</i>	Yes
B. <i>Encourage new dwellings to preserve existing landscape elements on site and encourage the integration of existing landscape elements in the design of the proposal</i>	Yes
C. <i>Ensure adequate deep soil planting is retained on each allotment</i>	Yes
D. <i>Ensure both existing and new landscaping provides suitable shade and facilitates convective cooling breeze paths in summer</i>	Yes
E. <i>Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna</i>	Yes
F. <i>Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna</i>	Yes
G. <i>Provide functional private open and outdoor spaces for active or passive use by residents</i>	Yes
H. <i>Provide private open areas with provision for clothes drying facilities screened from the street and lane or a public place</i>	Yes
I. <i>Encourage the greater provision of more effective shade within the community</i>	Yes
J. <i>Encourage the integration of existing trees into the design of the new or altered dwelling</i>	Yes
K. <i>Require owners assess the feasibility of retaining existing site trees prior to the design of a development</i>	Yes
L. <i>Ensure protection of trees during construction is adequate</i>	Yes

Cl.	Element	Controls	Complies
9.3.1	<i>Minimum landscaped area</i>	<i>43% (304.5m²) as per Table 2 of Part A SCDGP 2005</i>	Yes
9.3.2	<i>Planting of landscaped areas</i>	<ul style="list-style-type: none"> (1) <i>Minimum 25% of canopy trees to comprise locally sourced indigenous species</i> (2) <i>Planting areas shall include a mix of low-lying shrubs, medium-high shrubs and canopy trees in location where they will soften the built form.</i> (3) <i>Where no existing canopy trees are present on a site at least two (2) canopy trees must be provided in the front yard and one (1) canopy tree in the rear yard.</i> (4) <i>New structures shall be positioned to provide for the retention and protection of existing significant trees, especially near property boundaries, and natural features such as rock outcrops.</i> 	Yes
9.3.3	<i>Private outdoor living space</i>	<i>Private open space is to be provided in a single parcel rather than a fragmented space and shall be directly accessible from internal living areas of the dwelling</i>	Yes
9.3.4	<i>Tree removal</i>	<i>(1) Development shall provide for the retention and</i>	Yes

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- and preservation*
- protection of existing significant trees, especially near property boundaries*
 - (2) The trunk of a proposed canopy tree must be planted a minimum of 4m from built structures, or a minimum of 3m from pier beam footings*
 - (3) New dwellings must be setback a minimum of 5m from any significant tree listed in Council's significant tree register*
 - (4) Building works should be located outside of the canopy spread of existing trees, with suitable setbacks depending upon species and size*
 - (5) Trees planted on side boundaries adjacent to neighbouring dwellings and structures must have a minimum 0.6m deep root deflection barrier provided for a minimum of 1.5m either side of the tree centre*

Comments: A total of 380m² of landscaped area is proposed.

Setbacks

Cl	Objectives	Complies
10.2		
A.	<i>Establish and maintain the desired setbacks from the street and define the street edge</i>	Yes
B.	<i>Provide a transitional area between public and private space</i>	Yes
C.	<i>Create a perception of openness in streets</i>	Yes
D.	<i>Assist in achieving passive surveillance whilst protecting visual privacy</i>	Yes
E.	<i>Preserve and enhance the established garden settings within each local area</i>	Yes
F.	<i>Ensure new development is compatible with the established streetscape character</i>	Yes
G.	<i>Maintain view corridors between dwellings</i>	Yes
H.	<i>Reinforce a sense of openness of the locality</i>	Yes
I.	<i>Ensure that all new and existing dwellings achieve adequate visual and acoustic privacy</i>	Yes
J.	<i>Allow for appropriate access for services and utilities easements</i>	Yes
K.	<i>Minimise overshadowing of neighbouring properties from new developments</i>	Yes

Cl.	Element	Controls	Complies
10.3.1	<i>Street setback</i>	<ul style="list-style-type: none"> <i>(1) 9m or prevailing setback in the street block</i> <ul style="list-style-type: none"> <i>a) 1.5m for secondary street setbacks for dwellings on corner allotments</i> <i>b) 3m where main entrance to dwelling from secondary frontage</i> <i>(2) Despite subclause (1), a primary street setback of less than 9m may be considered where:</i> <ul style="list-style-type: none"> <i>a) the predominant setback is the street block is less than 9m</i> <i>b) the proposed setback is not less than the setback of the existing dwelling</i> <i>c) the proposed setback would not be in conflict with the character of the existing streetscape</i> <i>(3) The street setback is measured at right angles from the lot boundary to the front wall of a dwelling</i> <i>(4) In the case of a corner site with two (2) frontages, the 9m setback applies to the narrowest or primary street frontage</i> 	Yes
10.3.2	<i>Side and rear</i>	<i>(1) New dwellings and extensions: 25% of the width of the block with minimum 1.5m setbacks for each side</i>	Yes

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	<i>setbacks</i>	(2) <i>Minimum 6m rear setback to provide adequately sized outdoor living areas and adequate deep soil areas for shading/screening trees</i> (3) <i>Subject to meeting minimum landscaped areas, ancillary facilities such as garages/outbuildings may be located within the rear setback area</i> (4) <i>Following minimum setbacks apply to ancillary structures:</i> a) <i>Nil for detached garages and carport structures open on three (3) sides; 0.5m for all other</i> b) <i>0.5m setback from side and rear boundaries for garden sheds, studios, cabanas</i> c) <i>1m for pool concourse</i> d) <i>1m from any boundary and 3m from neighbouring habitable buildings for tennis courts</i>	
10.3.3	<i>East-west lots</i>	(1) <i>Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</i> (2) <i>Primary frontage facing east: minimum side setback should be on the north</i> (3) <i>The wider setbacks on the southern side may require relocation of driveway or crossing</i>	Yes

Comments:

- The proposed front setback ranges from 8.9m to 11.84m. A small portion of the ground floor will result in a side setback of 1m to the west.
- The rest of the ground floor and the first floor provide 1.955m to the west and 1.95m to the east, achieving the required 25% of the total width of the frontage.

Vehicle Access and Parking

Cl. 11.2	Objectives	Complies
A.	<i>Ensure that the area of access driveways is minimised in the design of the new development, addition or alteration</i>	Yes
B.	<i>Ensure driveway widths are kept to a minimum to allow for maximum landscaped areas</i>	Yes
C.	<i>Ensure that construction materials used for driveways respect the architectural qualities of the dwelling</i>	Yes
D.	<i>Garages and carports should not visually dominate the street façade of the dwelling</i>	Yes

Cl.	Element	Controls	Complies
11.3.1	<i>Driveway and grades</i>	(1) <i>Existing driveways must be used unless the applicant can demonstrate that:</i> (a) <i>relocation would improve solar access to the property and/or adjoining properties;</i> (b) <i>the amenity of any adjoining residences would not be unduly affected (with regard to sleeping areas);</i> (c) <i>relocation would not impact on street trees, on street parking or the streetscape; and</i> (d) <i>relocation would not adversely impact the safety of vehicles or pedestrians</i> (2) <i>Kerb and footpath crossings as part of the public domain must only be finished in natural finished concrete and not customised finishes that match the property driveway. Coloured concrete is not permitted in the driveway crossing outside the property boundary.</i> (3) <i>Driveway crossings, including apron and layback shall be located a minimum of 1m clear of any existing</i>	Yes

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		<p>stormwater pits, lintels or poles and 2m clear of the trunk of any trees within the road reserve</p> <p>(4) The maximum width of driveways at the property boundary is to be 3m.</p> <p>(5) Vehicles accessing sites which front main roads shall be capable of entering and exiting in a forward direction (i.e., vehicle manoeuvring shall be fully maintained within the site).</p> <p>(6) Vehicular turning areas for garages shall comply with the relevant Australian Standard.</p> <p>(7) Areas of concrete visible from a public road (including driveways and pedestrian ways) are to be kept to a minimum and coloured charcoal, grey or brown.</p> <p>(8) New dual or combined driveways are not encouraged. Existing dual driveways may be retained in circumstance where:</p> <p style="padding-left: 20px;">a) The area of deep soil planting in the front garden is at least 50% of the front setback area; and</p> <p style="padding-left: 20px;">b) Where the entry and egress are able to be undertaken in a safe manner in accordance with Australian road rules.</p>	
11.3.2	Garages and carports	<p>(1) Two (2) car parking spaces are to be provided and maintained behind the front building line of all new dwellings (i.e. garage/or allocated/stacked space). For lots less than 15m in width consideration may be given to one (1) car space. Where alterations and additions to existing dwellings are proposed and two (2) spaces are available, these spaces must be maintained.</p> <p>(2) Garages are to be recessed behind the main front facade of the dwelling and/or designed so as not to dominate the appearance of the building or streetscape.</p> <p>(3) Garages are not to be converted or used for any purpose other than that for which they are approved, that is, garages must not be converted into rumpus rooms, living areas, bedrooms, offices, etc.</p> <p>(4) Garages should be provided no more than at 150mm above ground level at their entry unless the slope of the site exceeds 1:8 (12.5%) in which case a suspended garage may be acceptable.</p> <p>(5) The minimum dimensions of parking spaces and garages shall comply with the relevant standards.</p>	Yes
11.3.3	East-west lots	<p>(4) Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</p> <p>(5) Primary frontage facing east: minimum side setback should be on the north</p> <p>(6) The wider setbacks on the southern side may require relocation of driveway or crossing</p>	Yes

Comments: Suitable conditions of consent are included requiring compliance with Council's policies and relevant Australian Standards in relation to driveway access, car parking dimensions, and maneuverability to ensure vehicles are able to leave the site in a forward direction.

Basements

Cl. 12.2	Objectives	Complies
A.	Ensure that any proposed basement minimises disturbance to natural drainage systems	Yes

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B.	<i>Basements are to have discreet entries, safe access and a high degree of natural cross-ventilation</i>	Yes
C.	<i>Minimise excavation to reduce disturbance to NGL particularly adjacent to site boundaries</i>	Yes
D.	<i>To ensure that flooding, drainage or ventilation impacts would not be created for the site, or for adjoining or nearby properties</i>	Yes

Cl.	Element	Controls	Complies
12.3.1	<i>Basement car parking</i>	(1) <i>The maximum area of a basement shall be limited to and contained within the footprint of the dwelling at ground level</i> (2) <i>The height of the dwelling will be measured from NGL and will need to satisfy the building height controls in this policy. Where a basement is proposed, the maximum height of the basement above NGL is limited to 1m measured to the predominant finished floor level of the level above. Where the basement exceeds 1m, it will be considered a storey and included in the calculation of maximum FSR</i> (3) <i>Minimum internal clearance of 2.2m in accordance with BCA requirements</i> (4) <i>Driveways shall comply with the relevant Australian Standards (AS1428.1 and a maximum 1:4 gradient)</i> (5) <i>Basement entries and ramps/driveways within the property are to be no more than 3.5m wide</i> (6) <i>Basements are not to be used for habitable purposes</i> (7) <i>No excavation is permitted within the required minimum side setbacks. Furthermore, the location of basement walls may warrant increased setbacks to provide sufficient area for water proofing, drainage etc.</i> (8) <i>Driveway ramps are to be perpendicular to the property boundary at the street frontage</i> (9) <i>Basements shall be designed to permit vehicles to enter and exit the basement in a forward direction</i> (10) <i>Provision of pump-out systems and stormwater prevention should be in accordance with Council's Stormwater Management Code</i> (11) <i>Basements may not be permissible on flood affected sites. Applicants should check with Council and consider the submitting a pre-lodgement application</i>	Yes

Comments:

- The proposed basement parking area is contained within the footprint of the dwelling at ground level.
- The minimum internal clearance of 2.2m in accordance with BCA requirements is achieved.

Altering Natural Ground Level (cut and fill)

Cl. 13.2	Objectives		Complies
A.	<i>Encourage minimal use of cut and fill to reduce site disturbance</i>		Yes
B.	<i>Ensure existing trees and shrubs are undisturbed and maintain ground water tables</i>		Yes
C.	<i>Minimise impacts on overland flow/drainage and encourage the maintenance of existing ground levels</i>		Yes
Cl.	Element	Controls	Complies
13.3.1	<i>Cut and fill</i>	(1) <i>Fill is limited to a maximum of 1m above natural ground level (NGL)</i>	Yes

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- (2) For all excavation works that require the use of fill, only clean fill is to be used
- (3) Cut and fill batters must be stabilised consistent with the soil properties.
- (4) Vegetation or structural measures are to be implemented as soon as the site is disturbed
- (5) All areas of excavation shall be setback from property boundaries in accordance with the building setback controls. No excavations shall be made to the ground within the minimum required setbacks
- (6) Where excavation work is proposed, the work must not affect or undermine the soil stability or structural stability of any buildings on adjoining properties
- (7) A dilapidation report may be required for all buildings which adjoin proposed excavation areas
- (8) Avoid excessive fill or floor levels to ensure convenient access between internal spaces and external recreation areas and to minimise potential impacts from overlooking

Comments: The proposal is acceptable with regards to Clause 13.3.1 of Part A of SCDCP 2005.
Privacy

Cl. 14.2	Objectives		Complies
A.	Maintain reasonable sharing of views from public places and living areas		Yes
B.	Ensure that public views and vistas are protected, maintained and where possible, enhanced		Yes
C.	Ensure that canopy trees take priority over views		Yes
D.	Ensure that the placement of balconies does not adversely impact on the visual privacy of adjoining properties		Yes

Cl.	Element	Controls	Complies
14.3.1	Views and view sharing	(1) Buildings shall maintain views where possible from surrounding and nearby properties and those available to the public from nearby public domain areas (2) Established building lines are to be maintained to preserve view sharing	Yes
14.3.2	Visual privacy	Private open space, recreation areas and living rooms of proposed and any existing adjoining dwellings are to be protected from direct overlooking within 9m by: (1) arranging the layout of a building so as to reduce opportunities for overlooking; (2) the use of fixed screening devices; (3) the separation of buildings; (4) the considered placement of windows and openings; (5) appropriate evergreen screen plants and trees; and (6) ensuring finished floor levels are not excessively elevated above NGL	Yes
14.3.3	Windows	Windows shall be designed to avoid overlooking of adjacent dwellings and where a transparent window is to be located within 9m of windows of an adjoining dwelling, the window must: (a) be offset from the edge of any windows in the adjoining dwelling by a distance of at least 0.5m; or (b) have a sill height of at least 1.7m about the floor; or have fixed, obscure glazing in any part of the window less than 1.7m above the floor	Yes
14.3.4	Balconies	(1) Upper storey balconies are not permitted on side	Yes

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	<i>and screening</i>	<i>boundaries, except where facing the secondary frontage of a corner lot, and provided other setback controls can be achieved</i>	
		(2) <i>Elevated decks, verandahs and balconies shall incorporate privacy screens where necessary and shall be located at the front or rear of the building only</i>	
		(3) <i>Small upper floor rear balconies measuring no more than 1m in depth by 2m in length may be permitted where an applicant can demonstrate that the balcony would not unreasonably impact upon the privacy of adjoining premises (including buildings and outdoor spaces)</i>	
		(4) <i>Second storey balconies extending for the full width of the front façade are not permitted</i>	
14.3.5	<i>Acoustic privacy</i>	(1) <i>Noise-sensitive rooms, such as bedrooms, should be located away from noise sources, including main roads, parking areas, living areas and recreation areas and the like</i>	Yes
		(2) <i>Double glazing, laminated glass, vibration-reducing footings or other materials, should be considered to minimise the effects of noise and/or vibrations</i>	
		(3) <i>Suitable acoustic screen barriers or other noise mitigation measures may be required where physical separation is not able to be achieved</i>	

Comments:

- The proposal is acceptable with regards to Clause 14.2 of Part A of SCCP 2005. A condition is included to ensure all bathroom, ensuite and toilet windows are installed with obscure glazing.
- In addition, a special condition of consent is to be imposed for the proposed stairwell window on the western elevation is to be fixed obscure glazing to minimise overlooking to adjoining properties.

Access, Safety and Security

Cl. 15.2	Objectives	Complies
A.	<i>Increase the safety and perception of safety in public and semi-public spaces</i>	Yes
B.	<i>Encourage the incorporation of crime prevention principles in the design of the proposed development</i>	Yes
C.	<i>Provide casual surveillance of the public domain to promote a safe pedestrian environment</i>	Yes
D.	<i>Provide privacy to rooms overlooking the street whilst maintaining surveillance</i>	Yes
E.	<i>Ensure the safety of pedestrians by separating pedestrian access from vehicle access</i>	Yes
F.	<i>Encourage the provision of an accessible entry to dwellings to accommodate a greater range of lifestyles and improve residential amenity and convenience</i>	Yes

Cl.	Element	Controls	Complies
15.3.1	<i>Address and entry sightlines</i>	(1) <i>Buildings are to be designed to allow occupants to overlook public places in order to maximise passive surveillance</i>	Yes
		(2) <i>Design landscaping and materials around dwellings and buildings, so that when plants are mature they do not unreasonably restrict views of pathways, parking and open space areas</i>	
		(3) <i>External lighting should enhance safe access and</i>	

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		<p>security around the dwelling and light spill must not adversely impact on adjoining properties</p> <p>(4) Lighting must be designed and located so that it minimises the possibility of vandalism or damage, is appropriate for the street and minimises glare</p> <p>(5) Security lighting must be fitted with motion detectors to reduce energy use and meet relevant Australian Standards</p>	
15.3.2	<i>Pedestrian entries</i>	<p>(1) Pedestrian entries and vehicular entries should be suitably separated to ensure pedestrian and resident safety</p> <p>(2) Building entrances and house numbers are to be clearly visible from the street, easily identifiable and appropriately lit</p> <p>(3) Walkways and landscaping should be used to direct visitors to the main building entrance</p> <p>(4) One (1) entry to the dwelling should be designed to be as accessible as possible. This entry should be a generous width, without steps, and should be located to facilitate movement</p> <p>(5) The path to any accessible entry should be appropriately paved, ideally achieve a 1:14 grade, and incorporate barriers or handrails where there is a drop off or change in level at the side of the path</p>	Yes

Comments:

- The proposed ground floor and first level windows provided to the front façade of the dwelling will provide passive surveillance to the street.
- The pedestrian entry and vehicle entry are suitably separated.

Water and Soil Management

Cl. 16.2	Objectives	Complies
A.	<i>Encourage the incorporation of Sydney Water’s Water Management Strategies in the development</i>	Yes
B.	<i>Ensure compliance with Council’s Stormwater Management Code</i>	Yes
C.	<i>Ensure compliance with the NSW State Governments Flood Prone Lands Policy</i>	Yes
D.	<i>Ensure that appropriate soil erosion and sediment control measures are implemented on all sites that involve soil disturbances during construction</i>	Yes
E.	<i>Ensure new building work does not detrimentally affect the existing drainage system of any area of the Municipality</i>	Yes
F.	<i>Ensure that new development in areas that may be affected by acid – sulfate soils do not adversely impact the underlying ground conditions and soil acidity</i>	Yes
G.	<i>Ensure that economic and social costs, which may arise from damage to property from flooding, are not greater than that which can reasonably be managed by the property owner and general community</i>	Yes

Cl.	Element	Controls	Complies
16.3.1	<i>Onsite water management and stormwater control</i>	<p>1) Developments shall comply with Council’s Stormwater Management Code</p> <p>2) On site detention devices may be required to assist in the management of stormwater on site.</p>	Yes
16.3.2	<i>Acid sulfate soils</i>	<i>Development is to ensure that sites with potential to contain acid sulfate soils are managed in a manner consistent with the provisions contained in Strathfield Draft LEP 2008 and</i>	Yes

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<i>the relevant standards and guidelines</i>			
16.3.3	<ul style="list-style-type: none"> • Flood prone areas and through site drainage 	<ol style="list-style-type: none"> (1) Flood affected properties must comply with Council's Interim Flood Prone Lands Policy (Flood Prone Areas and Through Site Drainage) (2) Where a site is subject to flooding applicants should seek written advice from Councils Planning & Environment section in relation to minimum habitable floor height for the site (3) In areas subject to major overland flow from adjoining properties, applicants are required to engage a suitably qualified hydraulics engineer and lodge a drainage/flood report prepared by a hydraulics engineer (4) Applicants must comply with Council's Stormwater Management Code with regard to drainage and stormwater detention matters. Full details and plans of the stormwater system are to be submitted for approval as part of the development application 	Yes
16.3.3	Flood prone areas and through site drainage	<ol style="list-style-type: none"> (1) Flood affected properties must comply with Council's Interim Flood Prone Lands Policy (Flood Prone Areas and Through Site Drainage) (2) Where a site is subject to flooding applicants should seek written advice from Councils Planning & Environment section in relation to minimum habitable floor height for the site (3) In areas subject to major overland flow from adjoining properties, applicants are required to engage a suitably qualified hydraulics engineer and lodge a drainage/flood report prepared by a hydraulics engineer (4) Applicants must comply with Council's Stormwater Management Code with regard to drainage and stormwater detention matters. Full details and plans of the stormwater system are to be submitted for approval as part of the development application 	Yes
16.3.4	<ul style="list-style-type: none"> • Soil erosion and sediment control 	<ol style="list-style-type: none"> (1) Appropriate soil erosion and sediment control measures must be detailed in the development application and implemented prior to the commencement of work. (2) The following sediment control measures are recommended: <ol style="list-style-type: none"> a) perimeter bank and channels; b) turf filter strips; c) sediment fences; d) sediment traps; and e) roof guttering. (3) Applicants may be required to provide plans showing stormwater quality treatment techniques to prevent sediments and polluted waters from discharging from the site during the construction phase. Such plans will show temporary measures designed in accordance with the NSW Department of Housing, Managing Urban Stormwater, Soils and Construction Manual. 	Yes

Comments: Conditions of consent are to be imposed to ensure compliance with the proposed sediment and erosion control plan.

Ancillary Structures

Cl. 20.1 Objectives	Complies
A. Ensure that the design and location of ancillary structures takes into account the streetscape and overall environmental impact	Yes

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B.	<i>Ensure that the provision of ancillary structures, such as air conditioning units, are considered at the design stage of a proposed development</i>	Yes	
Cl.	Element	Controls	Complies
20.2.1	<i>Waste bin storage and management</i>	<ol style="list-style-type: none"> 1) <i>Developments shall comply with Part H of SCDCP 2005</i> 2) <i>On site detention devices may be required to assist in the management of stormwater on site.</i> 	Yes
20.2.2	<i>Retaining walls</i>	<ol style="list-style-type: none"> (1) <i>Retaining walls are to be no more than a maximum of 1.2m in height</i> (2) <i>Council requires retaining walls in excess</i> 	Yes
20.2.4	<i>Air conditioning</i>	<ol style="list-style-type: none"> 1) <i>Air-conditioning units are to be located within a proposed dwelling or within a suitable building and appropriately soundproofed from any habitable room of an adjoining property</i> 2) <i>Where an air-conditioning unit cannot be located in a building or concealed in a structure (as indicated above), it is to be located in the central third of the rear wall of the dwelling and be a minimum of 3m from any boundary</i> 3) <i>Any building work associated with the installation of an air-conditioning unit must not reduce the structural integrity of any existing buildings</i> 4) <i>Only residential grade air conditioners are to be installed and not commercial grade air conditioners</i> 5) <i>Air-conditioning units must be installed to comply with the Protection of the Environment Operations Act 1997 and Protection of the Environment Operations (Noise Control) Regulation 2000</i> 	Yes
20.2.5	• <i>Outbuildings</i>	<ol style="list-style-type: none"> 1) <i>No outbuilding shall be constructed forward of the front building façade of the dwelling</i> 2) <i>New garden sheds, studios, cabanas and the like are limited to a maximum gross floor area of 40m²</i> 3) <i>Windows will not be permitted facing an adjoining property, unless the windows in the proposed outbuilding are screened by boundary fencing or:</i> <ol style="list-style-type: none"> a) <i>have a sill height of at least 1.7m above the floor; or</i> b) <i>have fixed translucent (or otherwise treated) glazing in any part of the window less than 1.7m above the floor</i> 4) <i>Any external lighting of an outbuilding is to be positioned or shielded to prevent glare to adjacent premises</i> 5) <i>Under no circumstances is the roof area of an outbuilding to be accessible for any purpose or used as an entertaining or viewing area</i> 6) <i>No kitchen facilities will be permitted in an outbuilding. A small fridge and a sink alone are not considered to constitute a kitchen</i> 7) <i>Outbuildings are not to be used for habitable purposes</i> 	Yes
20.2.7	<i>Swimming pools</i>	<ol style="list-style-type: none"> 1) <i>Where a pool is more than 1m above ground, the space between the bond beam/concourse and the ground is to be suitably finished with decorative</i> 	Yes

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- blocks or other approved material and landscaped to Council's satisfaction*
- 2) *Swimming Pool enclosures shall comply with the Swimming Pools Act and relevant Australian Standards as amended*
 - 3) *The outside edge of a pool concourse (and any paved/concreted area adjacent to the concourse) must be separated from a property boundary by an area of land at least 1m wide of deep soil soft landscape area containing a continuous planting of screening shrubs*
 - 4) *An approved depth indicator must be attached to each end of the pool*
 - 5) *The pool filter and pump equipment are to be located where they will not create a nuisance to neighbouring property owners/occupiers*
 - 6) *Lighting should be installed so as not to cause nuisance*

Comments: The proposed swimming pool to the rear of the proposed dwelling is located 700mm from the side boundary to the east and a deep soil soft landscape area surrounding the edge of the pool is provided.

PART H - WASTE MANAGEMENT (SCDCP 2005)

The proposal was accompanied by a Waste Management Plan prepared in accordance with Part H of the SCDCP 2005. Compliance with the waste minimisation strategies of this waste management plan is enforced via recommended conditions of consent.

79C(1)(iia) any planning agreement or draft planning agreement

No planning agreement has been entered into under section 93F of the *Environmental Planning and Assessment Act 1979*.

(i) matters prescribed by the regulations

Clause 92 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* requires Council to take into consideration the provisions of the Government Coastal Policy and Australian Standard AS2601–1991: *The Demolition of Structures*, in the determination of a development application.

Having regard to these prescribed matters, the proposed development is not located on land subject to the Government Coastal Policy as determined by Clause 92(1)(a)(ii) and does not involve the demolition of a building for the purposes of AS 2601 – 1991: *The Demolition of Structures*.

(ii) any coastal zone management plan

The NSW Government projects sea levels to rise by 40cm in 2050 and by 90cm in 2100 above the relative mean sea level in 1990. These planning benchmarks are to be considered in the assessment of development applications through the applicable coastal zone management plan or alternatively the provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

Although Council is not subject to a coastal zone management plan, the sea level rise planning benchmarks have also been established in order to assess the likely increase in the frequency, duration and height of flooding and as a consequence likely property and infrastructure damage on

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affected and potentially affected land. Council is therefore required to consider the impact of sea level rise and resultant flooding from Powell's Creek and Cook's River which are tributaries of Sydney Harbour (Parramatta River) and Botany Bay respectively.

The proposed development is not located on a site that is subject to flooding attributed to either Powell's Creek or Cook's River and is therefore not required to be considered under the provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

As previously mentioned, Council's Development Engineer raised no objections to the proposal, subject to the imposition of recommended conditions of consent.

79C(1)(b) *the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality*

Flat Roof

The proposal seeks a two (2) storey dwelling with a flat roof. There is a large diversity of roof forms in the near vicinity, from skillion roofs, hipped roofs and gabled roofs. The pitches of the roofs also vary, from low pitched roofs to 45 plus degree falls. Roof slopes tend to vary depending on the style and age of the dwelling. The roof is generally flat and an examination of the surrounding streetscape has identified that there are other flat roof dwellings in the near vicinity. As not one single roof form dominates the streetscape and the surrounding context, and the proposed works harmonises with the established varied roof forms in the near vicinity, the proposed flat roof is considered acceptable.

Built form

Whilst the proposed built form complies with the side setback controls, it fails to achieve the objectives of the setback controls which requires the building to be articulated throughout. As such, a condition of consent is to be imposed to provide a recess wall to the guest room and the study nook upon the western elevation of the dwelling by 300mm. This will break the bulk of the dwelling and reduce the scale of the dwelling when viewed from the street.

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

The proposed development is considered to be suitable for the subject site resulting in a dwelling that will integrate well with the surrounding streetscape that will not compromise the amenity of adjoining residents through the imposition of the recommended conditions of consent.

79C(1)(d) *any submissions made in accordance with this Act or the regulations*

The application was notified in accordance with Part L of the SCDCP 2005 from **2 November 2017** to **15 November 2017**, with **one (1)** submissions received, raising the following concerns:

1. *Concerns were raised in relation to the proposed pool pump location.*

Assessing officer's comments: A condition of consent has been imposed to ensure any mechanical plant associated with swimming pool to be acoustically treated to comply with the Protection of the Environment Operations Act 1997.

2. *Concerns were raised in relation to potential asbestos on site.*

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Assessing officer's comments: No record indicates presence of potential asbestos on site. However, condition of consent has been imposed to ensure demolition works are to be carried out in compliance with relevant requirements.

3. *Concerns were raised in relation to the proposed pool fence height being 700mm from the neighbouring fence.*

Assessing officer's comments: A condition of consent has been imposed to ensure the proposed pool is constructed in accordance relevant legislations.

4. *Concerns were raised in relation to the requirement of dilapidation survey for the proposed excavation.*

Assessing officer's comments: As the proposed construction includes one level of basement parking, dilapidation survey is required from the neighbouring property. Accordingly, a condition of consent has been imposed.

79C(1)(e) the public interest

The public interest is served through the detailed assessment of this development application under the relevant local planning controls and legislation and consideration of any submissions received relating to it by Council. The proposed development is not considered to be contrary to the public interest.

SECTION 94 CONTRIBUTIONS

Section 94 of the EP&A Act 1979 relates to the collection of monetary contributions from applicants for use in developing key local infrastructure. The Act reads as follows:

- “(1) If a consent authority is satisfied that development for which development consent is sought will or is likely to require the provision of or increase the demand for public amenities and public services within the area, the consent authority may grant the development consent subject to a condition requiring:

 - (a) the dedication of land free of cost, or*
 - (b) the payment of a monetary contribution,*
 - or both.**
- (2) A condition referred to in subsection (1) may be imposed only to require a reasonable dedication or contribution for the provision, extension or augmentation of the public amenities and public services concerned.”*

STRATHFIELD INDIRECT SECTION 94 CONTRIBUTIONS PLAN

Section 94 Contributions are applicable to the proposed development in accordance with the Strathfield Indirect Development Contributions Plan 2010-2030 as follows:

Local Amenity Improvement Levy	\$17,392.00
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CONCLUSION

The application has been assessed having regard to Section 79C of the Environmental Planning and Assessment Act 1979, the Strathfield Local Environmental Plan 2013 and the Strathfield Development Control Plan 2005 and is considered to be satisfactory for approval, subject to the recommended conditions of consent.

RECOMMENDATION

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That Development Application No. DA2017/158 for demolition of existing structures and construction of a two (2) storey dwelling with basement parking, front fence and swimming pool at 47 Barker Road, Strathfield be **APPROVED**, subject to the following conditions:

SPECIAL CONDITIONS (SC)

1. STAIRWELL WINDOW (SC)

The proposed stairwell window on the western elevation is to be provided with fixed obscure glazing. Details demonstrating compliance with this requirement shall be submitted to and approved by a Principle Certifying Authority **prior to the issue of a Construction Certificate.**

(Reason: To minimise privacy concerns)

2. SIDE SETBACK AGAINST WESTERN BOUNDARY (SC)

The proposed guest room on the ground floor and overhead study nook on the first floor to the western elevation of the dwelling is to be recessed a minimum 300mm from the building wall. Details demonstrating compliance with this requirement shall be submitted to and approved by a Principle Certifying Authority **prior to the issue of a Construction Certificate.**

(Reason: To ensure articulation of the proposed built form.)

GENERAL CONDITIONS (GC)

3. APPROVED PLANS AND REFERENCE DOCUMENTATION (GC)

The development, except where modified by a condition(s) of consent, is to be carried out in accordance with the following plans and reference documentation:

Plans affixed with Council's 'Development Consent' stamp relating to Development Consent No. DA2017/158:

Drawing No.	Title/Description	Prepared by	Issue / Revision & Date	Date received by Council
2 of 9	Demolition Plan	Morrison Homes	J1270 Issue A	26.10.2017
1 of 9	Driveway Profile	Morrison Homes	J1270	26.10.2017
3 of 9	Basement Floor Plan	Morrison Homes	J1270	26.10.2017
4 of 9	Ground Floor Plan	Morrison Homes	J1270	26.10.2017
5 of 9	First Floor Plan	Morrison Homes	J1270	26.10.2017
6 of 9	Elevations 1	Morrison Homes	J1270	26.10.2017
7 of 9	Elevations 2	Morrison Homes	J1270	26.10.2017
C01.01	Sediment and Erosion Control Plan	Engineering Studio	Issue A	26.10.2017
C.01.02	Sediment and Erosion Control Details	Engineering Studio	Issue A	26.10.2017
C02.01	Stormwater Drainage Plan	Engineering Studio	Issue A	26.10.2017
C02.02	Basement Stormwater Drainage Plan	Engineering Studio	Issue A	26.10.2017
C02.03	Stormwater Details	Engineering Studio	Issue A	26.10.2017

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	Sheet 1			
C02.04	Stormwater Details Sheet 2	Engineering Studio	Issue A	26.10.2017
F102	Landscape Plan	Sticks & Stones	7.10.2017	26.10.2017
0002020 766	Nathers Certificate	Certified Engergy	11 Oct 2017	26.10.2017

Reference Documentation affixed with Council's 'Development Consent' stamp relating to Development Consent No. DA2017/158:

Title / Description	Prepared by	Issue/Revision & Date	Date received by Council
Arborist Report	Rennie Bros. Tree Surgeons	19 Oct 2017	26 Oct 2017
Schedule of Finishes	Morrison Homes		26 Oct 2017
Cost Summary	Morrison Homes	14 Sept 2017	26 Oct 2017
Statement of Environmental Effects	Morrison Homes	14 Sept 2017	26 Oct 2017
Waste Management Plan	Morrison Homes	2/10/2016	26 Oct 2017

In the event of any inconsistency, the conditions of this consent shall prevail.

(Reason: To ensure that the form of the development undertaken is in accordance with the determination of Council.)

4. CONSTRUCTION HOURS (GC)

No construction or any other work related activities shall be carried out on the site outside the hours of 7.00 am to 5.00 pm Mondays to Fridays and 8am to 1pm Saturdays.

No building activities are to be carried out at any time on a Sunday or public holiday.

Where the development involves the use of jackhammers/ rock breakers and the like or other heavy machinery, such equipment may only be used between the hours of 7.00 am - 5.00 pm Monday to Friday only.

(Reason: To maintain amenity to adjoining land owners.)

5. CONSTRUCTION WITHIN BOUNDARIES (GC)

The development including but not limited to footings, walls, roof barges and guttering must be constructed wholly within the boundary of the premises. No portion of the proposed structure shall encroach onto the adjoining properties. Gates must be installed so they do not open onto any footpath or adjoining land.

(Reason: Approved works are to be contained wholly within the subject site.)

6. DEMOLITION – GENERALLY (GC)

Alteration and demolition of the existing building is limited to that documented on the approved plans (by way of notation). No approval is given or implied for removal and/or rebuilding of any portion of the existing building which is not shown to be altered or demolished.

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(Reason: To ensure compliance with the approved development.)

7. DEMOLITION - SITE SAFETY FENCING (GC)

Site fencing is to be erected to a minimum height of 1.8m complying with WorkCover Guidelines, to exclude public access to the site, prior to any demolition works occurring and maintained for the duration of the demolition works.

If applicable, a separate Hoarding Application for the erection of an A class (fence type) or B class (overhead type) hoarding along the street frontage(s) complying with WorkCover requirements must be obtained including:

payment to Council of a footpath occupancy fee based on the area of footpath to be occupied and Council's Schedule of Fees and Charges before the commencement of work; and
provision of a Public Risk Insurance Policy with a minimum cover of \$10 million in relation to the occupation of and works within Council's road reserve, for the full duration of the proposed works, must be obtained with a copy provided to Council.

(Reasons: Statutory requirement and health and safety.)

8. FENCING - FRONT FENCE HEIGHT (GC)

Solid fencing forward of the building line (including the building line to a secondary street frontage on a corner site) shall not exceed a height of 1m above natural ground level. The fence may be topped by an additional maximum 0.8m high open timber picket, wrought iron, palisade or similar element.

Brick piers over 1m in height are permitted to support the decorative elements, provided they are equally spaced along the street, and do not exceed a height of 1.8m. Plans demonstrating compliance with this condition are to be submitted to the

(Reason: To ensure a positive contribution to the streetscape in accordance with the Strathfield Consolidated DCP 2005.)

9. LANDSCAPING - CANOPY TREES IN FRONT SETBACK (GC)

New development shall provide at least two (2) canopy trees within the front setback adjacent the front boundary (existing trees may be included). New canopy trees shall be at least three (3) metres high at the time of planting and capable of reaching a mature height of 10m.

Species shall be selected from Council's Recommended Tree List (Available from Council's website or from the Customer Service Centre). Compliance with this condition is to be demonstrated to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

(Reason: To ensure the landscape character of the locality is maintained.)

10. LANDSCAPING - TREES PERMITTED TO BE REMOVED (GC)

The following listed trees are permitted to be removed to accommodate the proposed development:

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Tree No. in Arborist Report	Tree	Location
2	Olea europaea sp (Olive)	Rear property
4	Prunus sp. (Stone fruit)	Rear property
3	Malus sp (flowering Crabapple)	Rear property
5	Cinnamomum camphora (Camphor laurel)	Rear property
6	Schefflera actinophylla (Umbrella tree)	Rear property

All trees permitted to be removed by this consent shall be replaced by species selected from Council’s Recommended Tree List.

Replacement trees shall be a minimum 50 litre container size. Trees are to conform to the NATSPEC guide and Guide for assessing the quality of and purchasing of landscape trees by Ross Clarke, 2003. Trees are to be true to type, healthy and vigorous at time of delivery and planting, shall be pest and disease free, free from injury and wounds and self-supporting; and shall be maintained until maturity.

All trees are to be staked and tied with a minimum of three (3) hardwood stakes. Ties are to be hessian and fixed firmly to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant.

Root deflection barriers having a minimum depth of 600mm are to be installed adjacent to all footpaths and driveways.

Soil conditioner/fertilizer/moisture retention additive/s are to be applied in accordance with manufacturer’s recommendations, and mixed into the backfilling soil after planting tree/s.

A minimum 75mm depth of organic mulch shall be placed within an area 0.5m from the base of the tree.

Details demonstrating compliance shall be demonstrated to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

(Reason: To ensure appropriate planting back onto the site.)

11. LANDSCAPING - TREE PRESERVATION (GC)

All street trees and trees on private property that are protected under Council’s controls, shall be retained except where Council’s prior written consent has been obtained. The felling, lopping, topping, ringbarking, wilful destruction or removal of any tree/s unless in conformity with this approval or subsequent approval is prohibited.

All healthy trees and shrubs identified for retention on the approved drawings are to be suitably protected in accordance with Australian Standard AS4970 – Protection of Trees on Development prior to the commencement of any works (including any demolition and excavation) and maintained for the duration of the works.

(Reason: To ensure the protection of trees to be retained on the site.)

12. MATERIALS – CONSISTENT WITH SUBMITTED SCHEDULE (GC)

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All external materials, finishes and colours are to be consistent with the schedule submitted and approved by Council with the development application.

(Reason: To ensure compliance with this consent.)

13. PRINCIPAL CERTIFYING AUTHORITY (PCA) IDENTIFICATION SIGN (GC)

Prior to commencement of any work, signage must be erected in a prominent position on the work site identifying:

- i) the Principal Certifying Authority (PCA) by showing the name, address and telephone number of the PCA;
- ii) the Principal Contractor by showing the Principal Contractor's name, address and telephone number (outside of work hours) for that person; and
- iii) the sign must state that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the work is being carried out, but must be removed when the work has been completed.

This clause does not apply to building work, subdivision work or demolition work that is carried out inside an existing building that does not affect the external walls of the building.

(Reason: Statutory requirement.)

14. PRIVACY - SCREEN PLANTING TO SIDE AND REAR BOUNDARIES (GC)

Evergreen shrubs with a minimum 5 litre container size achieving a minimum mature height of 3m shall be planted along the side and rear boundaries to provide suitable privacy screening. Screen planting shall be maintained at all times. Details of the selected plants shall be submitted to and approved by the Principal Certifying Authority. Compliance with this condition shall be certified by the Principal Certifying Authority, prior to occupation of the premises.

(Reason: To maintain privacy amenity to neighbouring residences.)

15. SITE MANAGEMENT (DURING DEMOLITION AND CONSTRUCTION WORKS)

All of the following are to be satisfied/complied with during demolition, construction and any other site works:

- i) All demolition is to be carried out in accordance with Australian Standard AS 2601-2001.
- ii) Demolition must be carried out by a registered demolition contractor.
- iii) A single entrance is permitted to service the site for demolition and construction. The footway and nature strip at the service entrance must be planked out.
- iv) No blasting is to be carried out at any time during construction of the building.
- v) Care must be taken during demolition/ excavation/ building/ construction to prevent any damage to adjoining buildings.
- vi) Adjoining owner property rights and the need for owner's permission must be observed at all times, including the entering onto land for the purpose of undertaking works.
- vii) Any demolition and excess construction materials are to be recycled wherever practicable.
- viii) The disposal of construction and demolition waste must be in accordance with the requirements of the Protection of the Environment Operations Act 1997.

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- ix) All waste on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997. All excavated material should be removed from the site in an approved manner and be disposed of lawfully to a tip or other authorised disposal area.
- x) All waste must be contained entirely within the site.
- xi) Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place which can lawfully accept it. All non-recyclable demolition materials are to be disposed of at an approved waste disposal depot in accordance with legislation.
- xii) All materials on site or being delivered to the site are to generally be contained within the site. The requirements of the Protection of the Environment Operations Act 1997 must be complied with when placing/stockpiling loose material, disposing of concrete waste, or other activities likely to pollute drains or water courses.
- xiii) Details as to the method and location of disposal of demolition materials (weight dockets, receipts, etc.) should be kept on site as evidence of approved methods of disposal or recycling.
- xiv) Any materials stored on site must be stored out of view or in such a manner so as not to cause unsightliness when viewed from nearby lands or roadways.
- xv) Public footways, include nature strips and roadways adjacent to the site must be maintained and cleared of obstructions during construction. No building materials, waste containers or skips may be stored on the road reserve or footpath without prior separate approval from Council, including payment of relevant fees.
- xvi) Building operations such as brick-cutting, washing tools or paint brushes, and mixing mortar not be performed on the roadway or public footway or any other locations which could lead to the discharge of materials into the stormwater drainage system.
- xvii) All site waters during excavation and construction must be contained on site in an approved manner to avoid pollutants entering into waterways or Council's stormwater drainage system.
- xviii) Any work must not prohibit or divert any natural overland flow of water.
- xix) Toilet facilities for employees must be provided in accordance with WorkCover NSW.
- xx) Protection pads are to be installed to the kerb and gutter where trucks and vehicles enter the site.

(Reason: To ensure that demolition, building and any other site works are undertaken in accordance with relevant legislation and policy and in a manner which will be non-disruptive to the local area.)

16. **STORMWATER MANAGEMENT PLAN - CERTIFICATION REQUIREMENT (GC)**

A detailed Stormwater Management Plan (SWMP) in line with Council's Stormwater Management Code is to be prepared and certified by a practicing Chartered Professional Engineer on the National Professional Engineer's Register (NPER) at Engineers Australia and submitted to the Principal Certifying Authority and Council, prior to the issue of a Construction Certificate. The SWMP is to be based on the approved development as modified by any conditions of consent.

(Reason: To ensure appropriate provision is made for the disposal and management of stormwater generated by the development, and to ensure public infrastructure in Council's care and control is not overloaded.)

17. **UTILITIES AND SERVICES - PROTECTION OF (GC)**

Any footings or excavation to be located or undertaken adjacent to Council's stormwater must be designed to address the following requirements:

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- i) all footings and excavation must be located wholly within the site and clear of any easement boundaries;
- ii) all footings and excavation must be located a minimum of 1000mm from the centreline of the pipeline or 500mm from the outside of the pipeline, whichever is the greater distance from the centreline; and
- iii) footings must extend to at least the depth of the invert of the pipeline unless the footings are to be placed on competent bedrock.

If permanent excavation is proposed beneath the obvert of the pipeline, suitable means to protect the excavation and proposed retaining structures from seepage or other water flow from the pipeline and surrounding subsoil, must be provided. The design must be prepared by a qualified practicing Structural/Civil Engineer.

Construction plans must be approved by the appropriate utility's office (e.g. council, Sydney Water Corporation) to demonstrate that the development complies with the utility's requirements.

The applicant must provide written evidence (e.g. compliance certificate, formal advice) of compliance with the requirements of all relevant utility providers (e.g. Water, Energy, Telecommunications, Gas).

(Reason: To ensure protection of Council assets.)

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE (CC)

18. BASIX COMMITMENTS (CC)

The approved BASIX Certificate shall be submitted to the Principal Certifying Authority with the application for a Construction Certificate.

Where a change or changes are proposed in the BASIX commitments, the applicant must submit a new BASIX Certificate to the Principal Certifying Authority and Council. If any proposed change in the BASIX commitments is inconsistent with the development consent the applicant will be required to submit a modification to the development consent to Council under Section 96 of the Environmental Planning and Assessment Act 1979.

All commitments in the BASIX Certificate must be shown on the plans accompanying the Construction Certificate.

(Reason: Statutory compliance.)

19. BUILDING CODE OF AUSTRALIA - COMPLIANCE WITH (CC)

All architectural drawings, specifications and related documentation shall comply with the Building Code of Australia (BCA). All work must be carried out in accordance with the requirements of the Building Code of Australia (BCA).

In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, such a contract of insurance is to be in force before any building work authorised to be carried out by the consent commences.

Details demonstrating compliance with this condition are to be submitted to the Principle

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Certifying Authority, prior to issue of the Construction Certificate.

(Reason: This is a 'prescribed' condition under clause 98(1) of the Environmental Planning and Assessment Regulation 2000.)

20. CAR PARKING - BASEMENT CAR PARKING REQUIREMENTS (CC)

Details demonstrating compliance with the following is to be submitted to the Principal Certifying Authority, prior to issue of the Construction Certificate:

- i) Minimal internal clearance of the basement is 2.2m in accordance with BCA requirements.
- ii) Driveways shall comply with Australian/New Zealand Standard AS/NZS 2890.1:2004 - Parking facilities - Off-street car parking and achieve a maximum gradient of 1:4.
- iii) Basement entries and ramps/driveways within the property are to be no more than 3.5m wide.
- iv) Provision of pump-out systems and stormwater prevention shall be in accordance with Council's Stormwater Management Guide.

(Reason: To ensure suitable development.)

21. CAR PARKING - COMPLIANCE WITH AS/NZS 2890.1:2004 (CC)

Car parking dimensions must comply with the Australian/New Zealand Standard AS/NZS 2890.1:2004 - Parking facilities - Off-street car parking. Details demonstrating compliance are to be submitted to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: To ensure compliance with Australian Standards relating to parking of vehicles.)

22. COMMENCEMENT OF WORKS (NO WORKS UNTIL A CC IS OBTAINED)

Building work, demolition or excavation must not be carried out until a Construction Certificate has been issued by either Strathfield Council or a Principal Certifying Authority.

Demolition of any part of a building triggers 'commencement of erection of building' pursuant of section 81A(2) of the EP&A Act 1979. Accordingly, demolition works must not commence until a Construction Certificate has been issued, a Principal Certifying Authority has been appointed and a Notice of Commencement has been issued.

(Reason: To ensure compliance with statutory provisions.)

23. CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN (CC)

The applicant must prepare and submit a Construction and Environmental Management Plan (CEMP) to the Principal Certifying Authority, including:

- i) Detailed information on any approvals required from other authorities prior to or during construction.
- ii) Traffic management, including details of:
 - ingress and egress of vehicles to the site;
 - management of loading and unloading of materials;
 - the location of heavy vehicle parking off-site; and

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- designated routes for vehicles to the site.
- iii) The proposed areas within the site to be used for a builder's site office and amenities, the storage of excavated material, construction materials and waste containers during the construction period.
- iv) Erosion and sediment control, detailing measures and procedures consistent with the requirements of Council's guidelines for managing stormwater, including:
 - the collection and treatment of stormwater and wastewater generated on site prior to discharge; and
 - procedures to prevent run-off of solid material and waste from the site.
- v) Waste management, including:
 - details of the types and estimated volumes of waste materials that will be generated;
 - procedures for maximising reuse and recycling of construction materials; and
 - details of the off-site disposal or recycling facilities for construction waste.
- vi) Dust control, outlining measures to minimise the generation and off-site transmission of dust and fine particles, such as watering or damp cloth fences.
- vii) A soil and water management plan, which includes:
 - measures to minimise the area of soils exposed at any one time and conserve top soil;
 - identification and protection of proposed stockpile locations;
 - preservation of existing vegetation and revegetation;
 - measures to prevent soil, sand, sediments leaving the site in an uncontrolled manner;
 - measures to control surface water flows through the site in a manner that diverts clean run-off around disturbed areas, minimises slope gradient and flow distance within disturbed areas, ensures surface run-off occurs at non-erodible velocities, and ensures disturbed areas are promptly rehabilitated;
 - details of sediment and erosion control measures in place before work commences;
 - measures to ensure materials are not tracked onto the road by vehicles entering or leaving the site; and
 - details of drainage to protect and drain the site during works.
- viii) Asbestos management procedures:
 - Anyone who removes, repairs or disturbs bonded or a friable asbestos material must hold a current removal licence from Workcover NSW holding either a Friable (Class A) or a Non- Friable (Class B) Asbestos Removal License which ever applies and a current WorkCover Demolition License where works involve demolition. To find a licensed asbestos removalist please see www.workcover.nsw.gov.au
 - Removal of asbestos by a person who does not hold a Class A or Class B asbestos removal license is permitted if the asbestos being removed is 10m² or less of non-friable asbestos (approximately the size of a small bathroom). Friable asbestos materials must only be removed by a person who holds a current Class A asbestos license.
 - Before starting work, a work site-specific permit approving each asbestos project must be obtained from Workcover NSW. A permit will not be granted without a current Workcover licence. All removal, repair or disturbance of or to asbestos material must comply with the following:
 - The Work Health and Safety Act 2011;
 - The Work Health and Safety Regulation 2011;
 - How to Safety Remove Asbestos Code of Practice – WorkCover 2011; and
 - Safe Work Australia Code of Practice for the Management and Control of Asbestos in the Workplace.
 - Following completion of asbestos removal works undertaken by a licensed

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asbestos removalist re-occupation of a workplace must not occur until an independent and suitably licensed asbestos removalist undertakes a clearance inspection and issues a clearance certificate.

- The developer or demolition contractor must notify adjoining residents at least two (2) working days (i.e. Monday to Friday exclusive of public holidays) prior to the commencement of asbestos removal works. Notification is to include, at a minimum:
 - the date and time when asbestos removal works will commence;
 - the name, address and business hours contact telephone number of the demolisher, contractor and/or developer;
 - the full name and license number of the asbestos removalist/s; and
 - the telephone number of WorkCover's Hotline 13 10 50
 - warning signs informing all people nearby that asbestos removal work is taking place in the area. Signs should be placed at all of the main entry points to the asbestos removal work area where asbestos is present. These signs should be weatherproof, constructed of light-weight material and adequately secured so they remain in prominent locations. The signs should be in accordance with AS 1319-1994 Safety signs for the occupational environment for size, illumination, location and maintenance; and
 - appropriate barricades installed as appropriate to prevent public access and prevent the escape of asbestos fibres. Barricades must be installed prior to the commencement of asbestos removal works and remain in place until works are completed.

(Reason: Safety, amenity and protection of public infrastructure and the environment.)

24. **COUNCIL PERMITS – FOR ALL ACTIVITIES ON COUNCIL LAND (CC)**

Works Permit

(as per Section 68 of the Local Government Act 1993 and Section 138 and 139 of the Roads Act 1993)

A Works Permit is required for construction of a vehicular crossing (driveway), new stormwater down pipe connection to kerb and gutter, new footpath and/or stormwater connection. A Works Permit Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Standing Plant Permit

This permit must be applied for where it is intended to park a concrete pump, crane or other plant on the roadway or footpath. A Standing Plant Permit Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website. Please note a Road Closure Permit is not required for standing plant.

Skip Bin Permit

This permit must be applied for if you intend to place a skip bin on the roadway or footpath. A Skip Bin Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Temporary Full or Part Road Closure Permit

This permit must be applied for if you require a full or a part road closure to take place to assist in your construction works. Please use the Works Permit Application Form, which is available from Council's Customer Service Centre or can be downloaded from Council's

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website. The applicable fees and charges are located on Council's website. Please note a Road Closure Permit is not required for standing plant.

Hoarding Permit

This permit must be applied for if you intend to erect a Class A (fence type) or Class B (overhead type) hoarding along the street frontage(s). A Hoarding Permit Application Form is available from Council's Customer Service Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Work Zone Permit

This permit must be applied for if you require permanent parking along the kerbside at the front of the site during construction works. A Work Zone Permit Application Form is available from Council's Customer Service Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Ground Anchoring Permit

This permit must be applied for, for the installation of ground anchors under Council's footway/road reserve. It does not cover ground anchors under private properties. A separate approval is required to be obtained from Roads and Maritime Services (RMS) if it is proposed to install ground anchors under a State or Classified Regional Road (please refer to the end of this application form for more information).

(Reason: Council requirement)

25. EROSION AND SEDIMENTATION CONTROL PLAN (CC)

An Erosion and Sediment Control Plan is to be prepared where construction or excavation activity requires the disturbance of the soil surface and existing vegetation. Details including drawings and specifications must provide adequate measures for erosion and sediment control to ensure:

- i) Compliance with the approved Soil and Water Management Plan.
- ii) Removal or disturbance of vegetation and top soil is confined to within 3m of the approved building area (no trees to be removed without approval).
- iii) All uncontaminated run-off is diverted around cleared or disturbed areas.
- iv) Silt fences or other devices are installed to prevent sediment and other debris escaping from the cleared or disturbed areas into drainage systems or waterways.
- v) All erosion and sediment controls are fully maintained for the duration of demolition/development works.
- vi) Controls are put into place to prevent tracking of sediment by vehicles onto adjoining roadways.
- vii) All disturbed areas are rendered erosion-resistant by turfing, mulching, paving or similar.
- viii) All water pumped or otherwise removed from excavations or basement areas is filtered to achieve suspended solids/non filterable residue levels complying with the Australian Water Quality guidelines for Fresh and Marine Waters.
- ix) Pumped or overland flows of water are discharged so as not to cause, permit or allow erosion before the commencement of work (and until issue of the occupation certificate).

Details of the proposed soil erosion and sedimentation controls are to be submitted to the Principal Certifying Authority with the Construction Certificate Application. Under no circumstances are any works to commence, prior to these details being approved by the Principal Certifying Authority and the controls being in place on the site.

(Reason: Environmental protection.)

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26. PRIVACY - OBSCURE GLAZING IN WET AREAS (CC)

All bathroom, ensuite and toilet windows shall be installed with obscure glazing. Plans shall be notated accordingly and details demonstrating compliance submitted to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: Privacy amenity.)

27. SECTION 94 CONTRIBUTION PAYMENT - INDIRECT CONTRIBUTIONS PLAN) (CC)

In accordance with the provisions of Section 94A(1) of the Environmental Planning and Assessment Act 1979 and the Strathfield Indirect Development Contributions Plan 2010-2030, a contribution in the form of cash, cheque or credit card (financial transaction fee applies) shall be paid to Council for the following purposes:

Local Amenity Improvement Levy	\$17,390.00
--------------------------------	-------------

The total amount of the contribution is valid as at the date of determination and is subject to quarterly indexation. The amount of the contribution under this condition shall be indexed in accordance with clause 4.12 of the Strathfield Indirect Development Contributions Plan 2010-2030.

Contributions must be receipted by Council and submitted to the Accredited Certifier, prior to the issue of any Construction Certificate.

A copy of this condition is to be presented to Council's Customer Service Centre when paying the contribution so that it can be recalculated.

Note: A copy of Strathfield Council's Section 94 Indirect Development Contributions Plan may be downloaded from Council's website.

(Reason: To enable the provision of public amenities and services required/anticipated as a consequence of increased demand resulting from the development.)

28. SWIMMING POOLS / SPAS (CONSTRUCTION OF)

The approved swimming pool/spa must comply with all relevant legislation including:

- i) Swimming Pools Amendment Act 1992 (as amended);
- ii) Swimming Pools Regulations 2008; and
- iii) Australian Standard AS1926.1-2012 – Safety Barriers for Swimming Pools.

Details demonstrating compliance with this condition shall be demonstrated to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: Safety and statutory compliance.)

29. SWIMMING POOLS / SPAS - MECHANICAL PLANT ENCLOSURE (CC)

Any mechanical plant associated with the swimming pool and spa shall be acoustically treated to comply with the Protection of the Environment Operations Act 1997. Details are to be submitted to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

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(Reason: To ensure the acoustic amenity of the neighbouring residents.)

30. DILAPIDATION REPORT - PRE-COMMENCEMENT (CC)

Subject to access being granted, a pre-commencement Dilapidation Report is to be undertaken on all adjoining properties, which in the opinion of a suitably qualified engineer, could be potentially affected by the construction of the project. The Dilapidation Report shall be carried out prior to the issue of a Construction Certificate.

The Dilapidation Report is to be prepared by a suitably Qualified Engineer with current Corporate Membership with the Institution of Engineers, Australia or Geotechnical Practitioner. The report shall include a photographic survey of adjoining properties detailing the physical condition of those properties, both internally and externally, including walls, ceilings, roof, structural members and other such items.

If access for undertaking the dilapidation survey is denied by an adjoining owner, the applicant must demonstrate, in writing, to Council's satisfaction attempts have been made to obtain access and/or advise the affected property owner of the reason for the survey and these attempts have been unsuccessful. Written concurrence must be obtained from Council in such circumstances.

The Report shall cover structural and geotechnical factors likely to arise from the development. A copy of this Report shall be submitted to Council as a record. The person having the benefit of the development consent must, at their own cost, rectify any damage caused to other properties during the construction of the project.

(Reason: To ensure no damage to adjoining properties occurs.)

CONDITIONS TO BE SATISFIED PRIOR TO THE COMMENCEMENT OF WORKS (CW)

31. APPOINTMENT OF A PRINCIPAL CERTIFYING AUTHORITY (PCA) (CW)

No work shall commence in connection with this Development Consent until:

- i) A construction certificate for the building work has been issued by the consent authority or a Principal Certifying Authority.
- ii) The person having the benefit of the development consent has appointed a principal certifying authority for the building work, and notified the principal certifying authority that the person will carry out the building work as an owner/builder, if that is the case.
- iii) The principal certifying authority has, no later than 2 days before the building work commences:
 - notified the Council of his or her appointment, and
 - notified the person having the benefit of the development consent of any critical stage inspections and other inspections that are to be carried out in respect of the building work.
- iv) The person having the benefit of the development consent, if not carrying out the work as an owner-builder, has:
 - appointed a principal contractor for the building work who must be the holder of a contractor licence if any residential building work is involved;
 - notified the principal certifying authority of such appointment; and
 - unless that person is the principal contractor, notified the principal contractor of any critical stage inspections and other inspections that are to be carried out in respect of the building work.

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- v) The person having the person having the benefit of the development consent has given at least 2 days notice to the Council of the person's intention to commence the erection of the building.

Note: If the principal certifying authority is the Council, the nomination will be subject to the payment of a fee for the service to cover the cost of undertaking all necessary inspections and the issue of the appropriate certificates.

Under the Environment Planning and Assessment (Quality of Construction) Act, 2003, a sign must be erected in a prominent position on the work site showing the name, address and telephone number of the principal certifying authority; the name of the principal contractor (if any) for the building work and a telephone number at which that person may be contacted outside working hours. That sign must also state that unauthorised entry is prohibited. The sign must not be removed until all work has been completed.

(Reason: Statutory requirement.)

32. **NOTICE OF COMMENCEMENT (CW)**

No work shall commence until the following details are submitted to Council:

- i) a Notice of Commencement (form will be attached with issue of a Construction Certificate or available from our website) within two (2) days of the date on which it is proposed to commence works associated with the Development Consent;
- ii) details of the appointment of a Principal Certifying Authority (either Council or another Principal Certifying Authority); and
- iii) details of the name, address and licence details of the Builder.

(Reason: Statutory requirement.)

CONDITIONS TO BE SATISFIED DURING DEMOLITION AND BUILDING WORKS (DW)

33. **SITE REQUIREMENTS DURING DEMOLITION AND CONSTRUCTION**

All of the following are to be satisfied/complied with during demolition, construction and any other site works:

- i) All demolition is to be carried out in accordance with Australian Standards AS 2601-2001.
- ii) Demolition must be carried out by a registered demolition contractor.
- iii) A single entrance is permitted to service the site for demolition and construction. The footway and nature strip at the service entrance must be planked out with close boarded, hardwood timber footpath protection pads. The pad shall cover the entire width of the footpath opening for the full width of the fence.
- iv) No blasting is to be carried out at any time during construction of the building.
- v) Care must be taken during demolition/ excavation/ building/ construction to prevent any damage to adjoining buildings.
- vi) Adjoining owner property rights and the need for owner's permission must be observed at all times, including the entering onto land for the purpose of undertaking works.
- vii) Any demolition and excess construction materials are to be recycled wherever practicable.
- viii) The disposal of construction and demolition waste must be in accordance with the requirements of the Protection of the Environment Operations Act 1997.
- ix) All waste on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or

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- water as defined by the Protection of the Environment Operations Act 1997.
- x) All excavated material should be removed from the site in the approved manner and be disposed of lawfully to a tip or other authorised disposal area.
 - xi) Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place which can lawfully accept it. All non-recyclable demolition materials are to be disposed of at an approved waste disposal depot in accordance with legislation.
 - xii) All materials on site or being delivered to the site are to generally be contained within the site. The requirements of the Protection of the Environment Operations Act 1997 must be complied with when placing/stockpiling loose material, disposing of concrete waste, or other activities likely to pollute drains or water courses.
 - xiii) Details as to the method and location of disposal of demolition materials (weight dockets, receipts etc.) should be kept on site as evidence of approved methods of disposal and recycling.
 - xiv) Any materials stored on site must be stored out of view or in such a manner so as not to cause unsightliness when viewed from nearby lands or roadways.
 - xv) Public footways and roadways adjacent to the site must be fully maintained and cleared of obstructions during construction unless prior separate approval from Council is obtained including payment of relevant fees.
 - xvi) Building operations such as brick cutting, washing tools or paint brushes, and mixing mortar not be performed on the roadway or public footway or any other locations which could lead to the discharge of materials into the stormwater drainage system.
 - xvii) All site waters during excavation and construction must be contained on site in an approved manner to avoid pollutants entering into waterways or Council's stormwater drainage system.
 - xviii) Stamped plans, specifications, documentation and the consent shall be available on site at all times during construction.

(Reason: To ensure that demolition, building and any other site works are undertaken in accordance with relevant legislation and policy and in a manner which will be non-disruptive to the local area.)

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE (OC)

34. OCCUPATION OF BUILDING (OC)

A person must not commence occupation or use (or change of use where an existing building) of the whole or any part of a new building (within the meaning of section 109H (4) of the Act) unless an Interim Occupation Certificate or Final Occupation Certificate has been issued in relation to the building or part.

The Principal Certifying Authority is required to be satisfied, amongst other things, that:

- i) all required inspections (including each applicable mandatory critical stage inspection) have been carried out; and
- ii) any preconditions to the issue of the certificate required by a development consent have been met.

Note: New building includes an altered portion of, or an extension to, an existing building.

(Reason: Statutory requirement.)

35. SWIMMING POOLS / SPAS - REGISTRATION AND REQUIREMENTS (OC)

The approved swimming pool/spa must comply with all relevant legislation including:

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- i) Swimming Pools Amendment Act 1992 (as amended);
- ii) Swimming Pools Regulations 2008; and
- iii) Australian Standard AS1926.1-2012 – Safety Barriers for Swimming Pools.

Swimming pool owners must register their swimming pool or spa on the NSW Swimming Pool Register. A copy of a valid certificate of compliance or relevant occupation certificate must be attached to new residential tenancy agreements to rent property with a swimming pool or spa pool. Note: This requirement does not apply to a lot in strata or community title schemes with more than two lots.

A copy of a valid certificate of compliance or relevant occupation certificate must be attached to new residential tenancy agreements to rent property with a swimming pool or spa pool. Note: This requirement does not apply to a lot in strata or community title schemes with more than two lots; or for any off the plan contacts.

Details demonstrating compliance with this condition shall be demonstrated to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

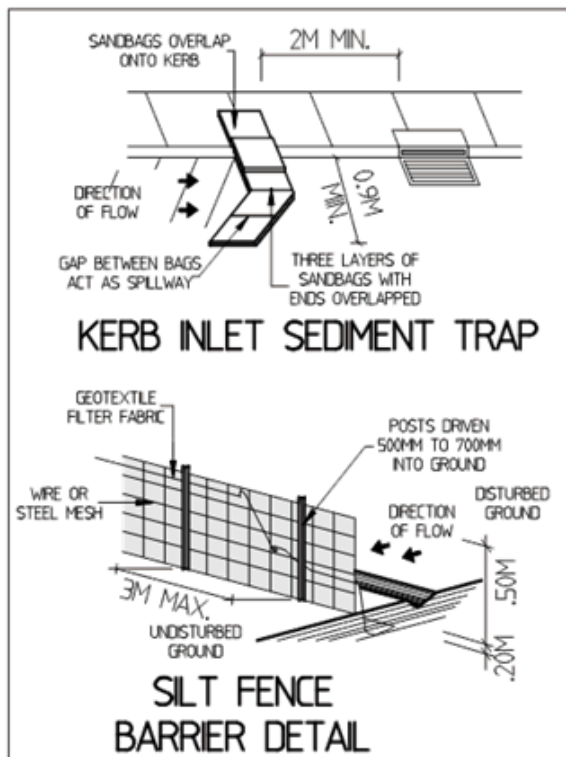
(Reason: Safety and statutory compliance.)

ATTACHMENTS

1. [↓](#) Architectural Plans

**STRATHFIELD COUNCIL
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**DA2017/158
26 Oct 2017**

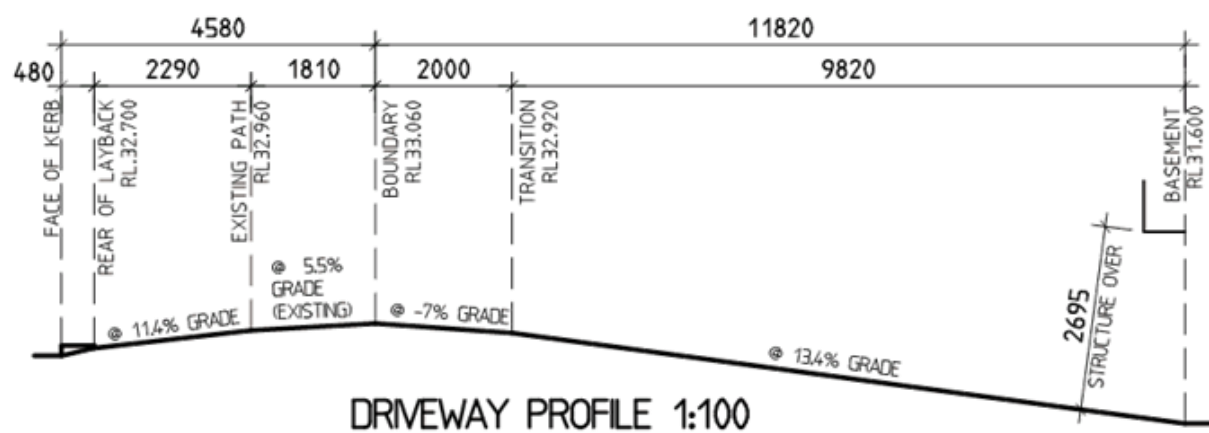


SEDIMENT CONTROL NOTES:

- ALL EROSION AND SEDIMENTATION CONTROL MEASUREMENTS, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE STANDARDS OF THE SOIL CONSERVATION OF N.S.W.
- ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AROUND AND STABILISED AS EARLY AS POSSIBLE DURING DEVELOPMENT
- SEDIMENT TRAPS SHALL BE CONSTRUCTED AROUND ALL INLET PITS, CONSISTING OF 300MM WIDE X 300MM DEEP TRENCH.
- ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM OF 60% FULL OF MATERIALS, INCLUDING THE MAINTENANCE PERIOD.
- ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
- SOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREA WHERE WATER MAY CONCENTRATE.
- FILTER SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR APPROVED EQUIVALENT BETWEEN POST AT 2M CENTRES), FABRIC SHALL BE BURIED 150MM ALONG ITS LOWER EDGE.

SITE CALCULATIONS		SITE AREA = 708.2SQM
LANDSCAPED AREA	REQUIRED 4.3% OR 304.55SQM	PROVIDED 53.7% 380SQM
FLOOR SPACE RATIO	PERMISSIBLE 407.2SQM	PROVIDED 375.4SQM

FLOOR AREAS	
GROUND FLOOR AREA	191.2SQM
BASEMENT FLOOR AREA	191.2SQM
PORCH FLOOR AREA	3.2SQM
ALFRESCO AREA	23.8SQM
FIRST FLOOR AREA	184.2SQM
TOTAL FLOOR AREA	593.6SQM OR 63.95QS
POOL AREA	27.2SQM



PO BOX 7484
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FOR MR & MRS DHANAPALAN	PAGE SIZE A3	DWG NO. J1270	PAGE NO. 1 OF 9	ISSUE A	DATE 22-09-17	REVISION DA PLANS	DRAWN PK
AT LOT 146, N°47 BARKER ROAD, STRATHFIELD			DP NO. 12405				



Certificate no.: 0003020766
 Assessor Name: Jamie Bonnellin
 Accreditation no.: 100765
 Certificate date: 13 Oct 2017
 Drafting Address: 47, Barker Road
 Strathfield, NSW
 2135
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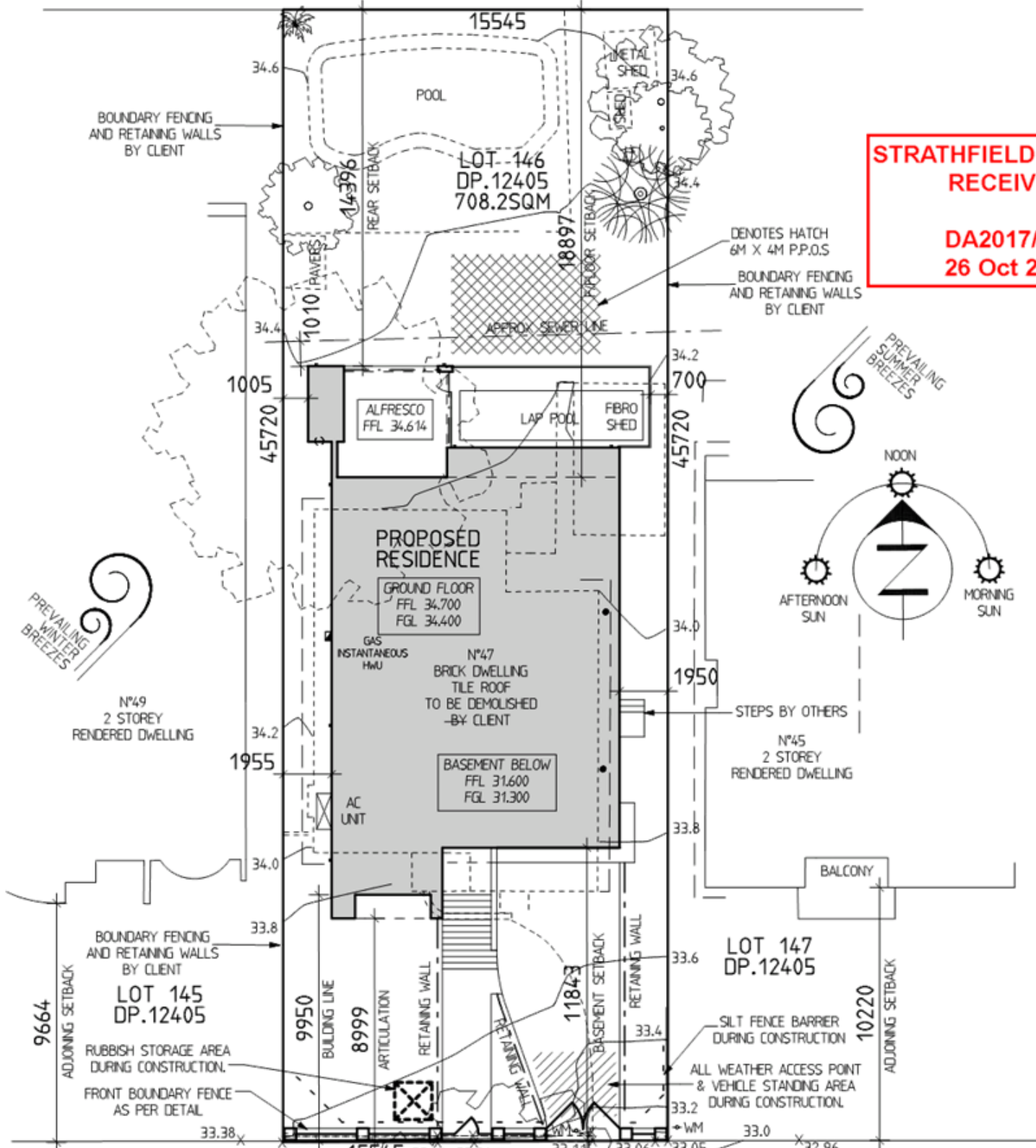


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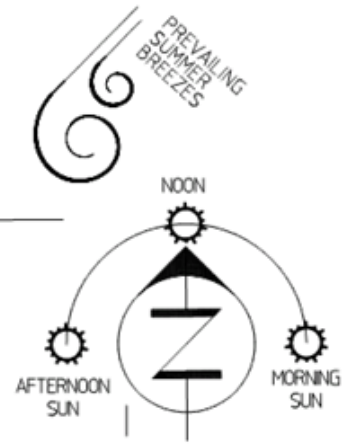


LOT 144 DP.12405

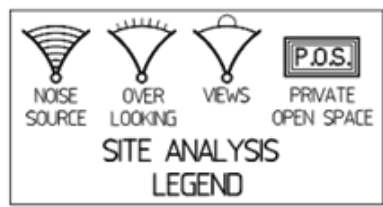
BRICK DWELLING TILE ROOF



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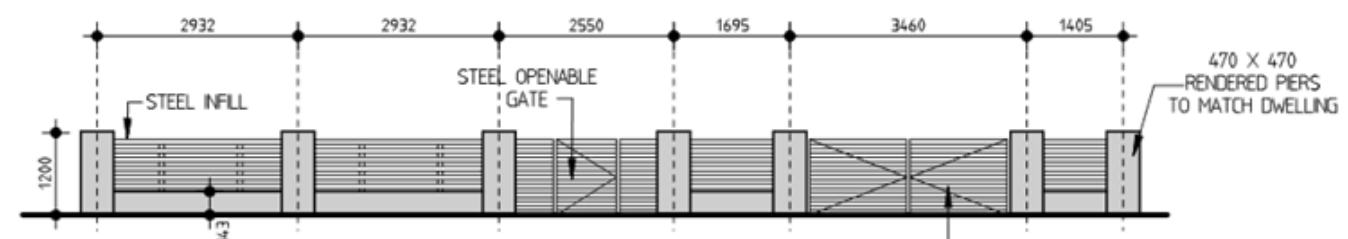


REFER TO HYDRAULICS ENGINEERS PLAN FOR FULL DETAILS. SITE PLAN TO BE CROSSED REFERENCED WITH HYDRAULIC PLANS. ANY DISCREPANCIES ARE TO BE VARIFIED BEFORE PROCEEDING



BARKER ROAD
SITE ANALYSIS & SITE PLAN 1:200

- DENOTES EXISTING TREE'S TO REMAIN
- DENOTES EXISTING TREE'S TO BE REMOVED
- DENOTES RETAINING TO ENG'S DETAILS
- DENOTES SILT FENCE BARRIER
- DENOTES DROPPED EDGE BEAM
- ||| DENOTES LINE OF BATTER TO CUT OR FILL



TYPICAL FENCE DETAIL
BARKER ROAD FRONTAGE

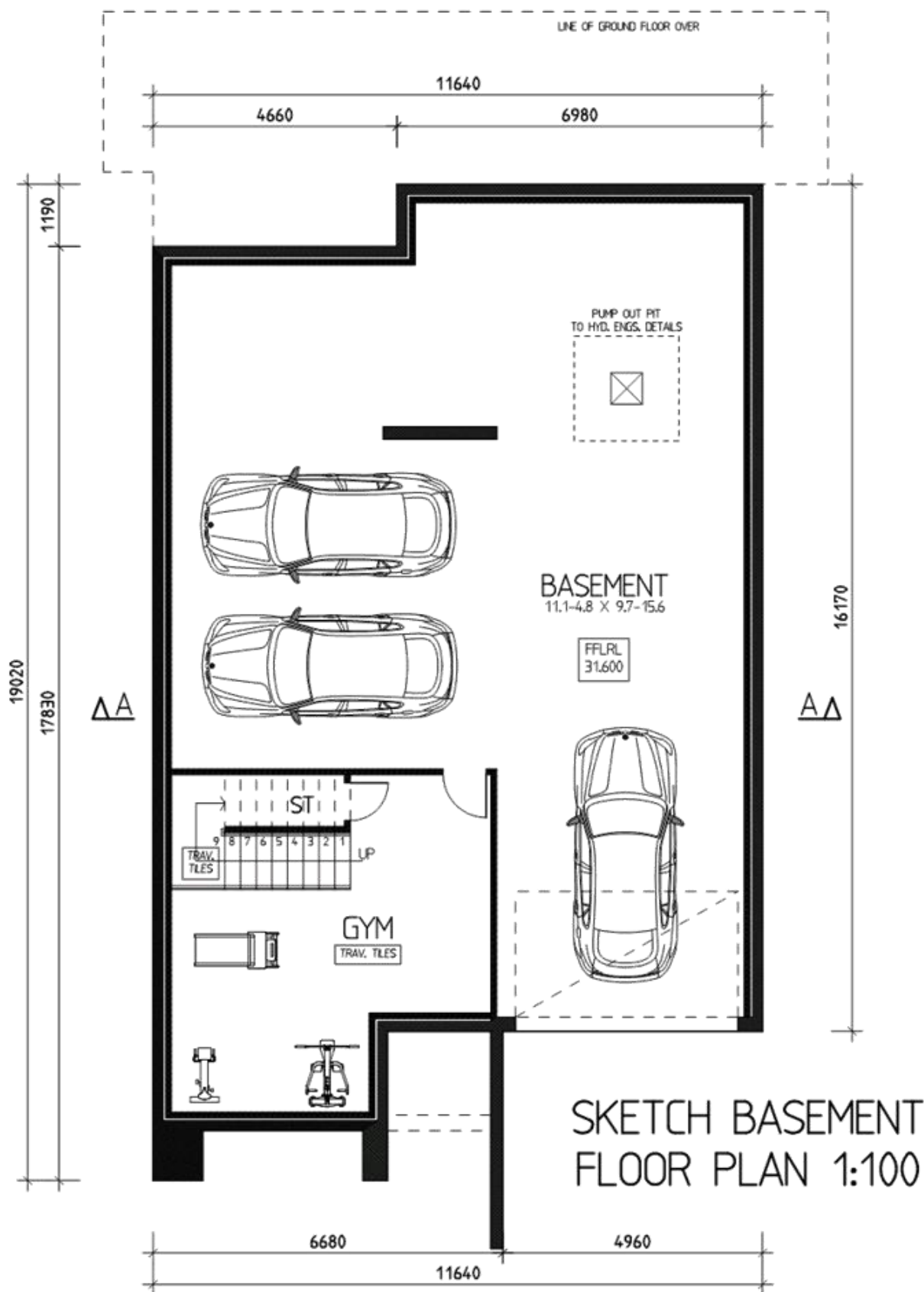
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FOR	MR & MRS DHANAPALAN	PAGE SIZE	A3	DWG NO.	J1270	PAGE NO.	2 OF 9	ISSUE	DATE	REVISION	DRAWN
AT	LOT 146, N°47 BARKER ROAD, STRATHFIELD	DP NO.	12405							DA PLANS	PK

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SKETCH BASEMENT
FLOOR PLAN 1:100




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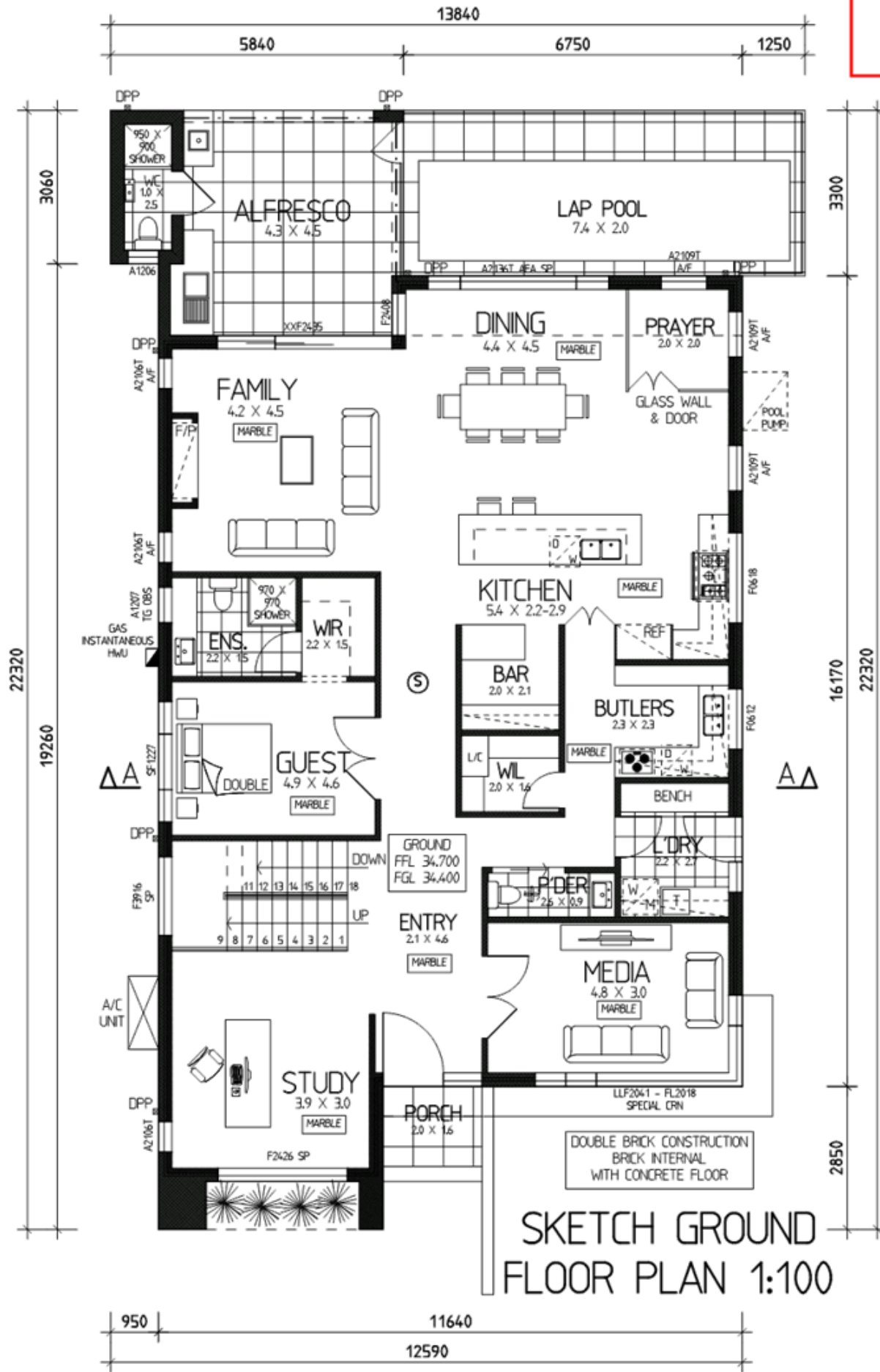
 - DENOTES EXHAUST FAN CONNECTED TO LIGHT SWITCH TO BE DUCTED TO EXTERNAL WALL OR ROOF SPACE. TO BE DETERMINED ON SITE BY THE BUILDER.
 - MECHANICAL VENTILATION IS TO BE DESIGNED TO PREVENT THE TRAVEL OF EXHAUST AIR BETWEEN THE LAUNDRY & OR SHOWER & MUST TRAVEL DIRECTLY TO THE OUTSIDE OF THE BUILDING.
 - THE KITCHEN RANGE HOOD EXHAUST SYSTEM MUST NOT BE CONNECTED TO THE LAUNDRY & OR THE SHOWER EXHAUST SYSTEM.

REFER TO HYDRAULICS ENGINEERS PLAN FOR FULL DETAILS. SITE PLAN TO BE CROSSED REFERENCED WITH HYDRAULIC PLANS. ANY DISCREPANCIES ARE TO BE VARIFIED BEFORE PROCEEDING

 DENOTES LOCATION OF INTERCONNECTED HARDWIRED SMOKE DETECTOR



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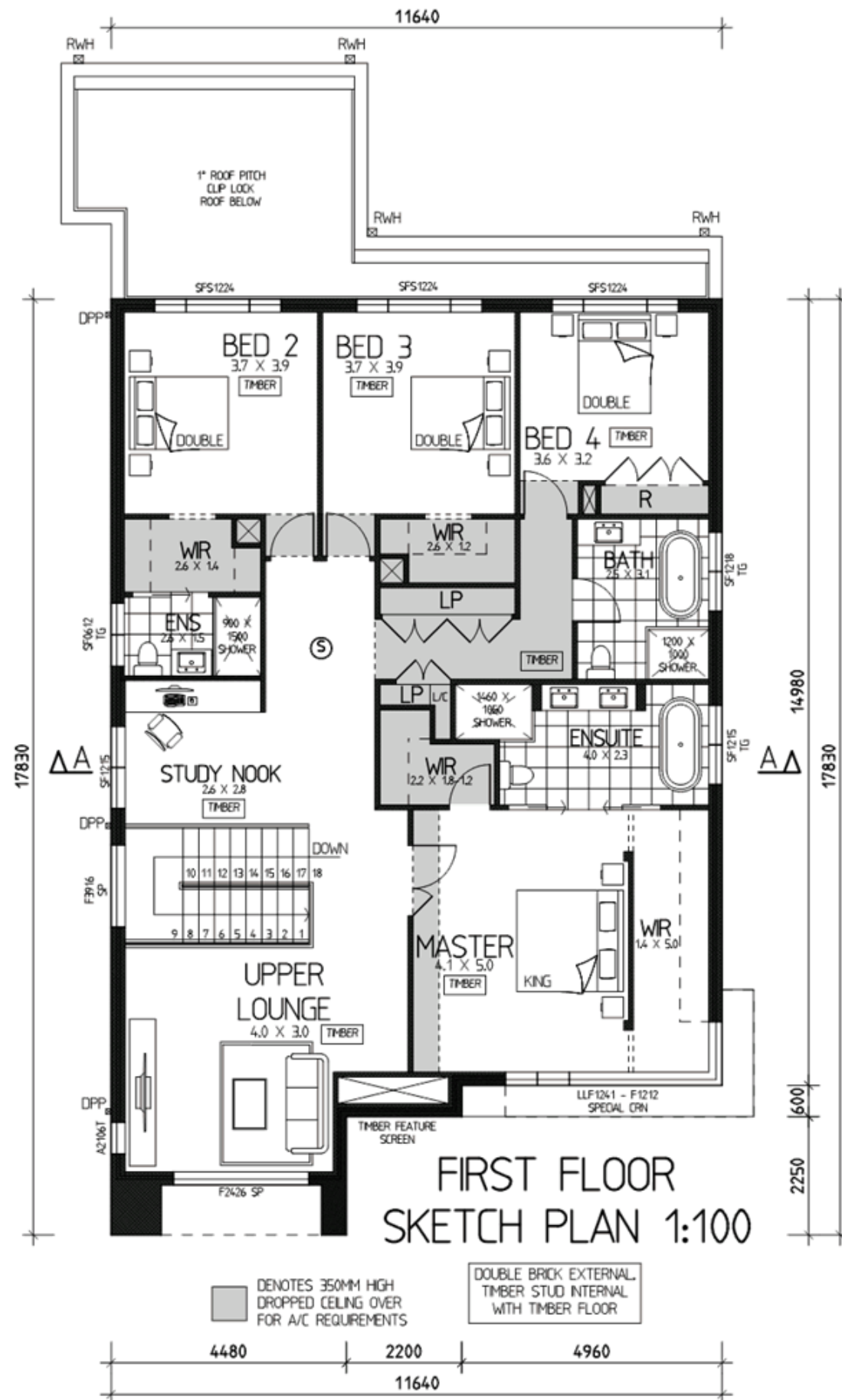
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REFER TO HYDRAULICS ENGINEERS PLAN FOR FULL DETAILS. SITE PLAN TO BE CROSSED REFERENCED WITH HYDRAULIC PLANS. ANY DISCREPANCIES ARE TO BE VARIFIED BEFORE PROCEEDING

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 DENOTES 350MM HIGH DROPPED CEILING OVER FOR A/C REQUIREMENTS
 DOUBLE BRICK EXTERNAL TIMBER STUD INTERNAL WITH TIMBER FLOOR


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AT	LOT 146, N°47 BARKER ROAD, STRATHFIELD			DP NO.	12405										

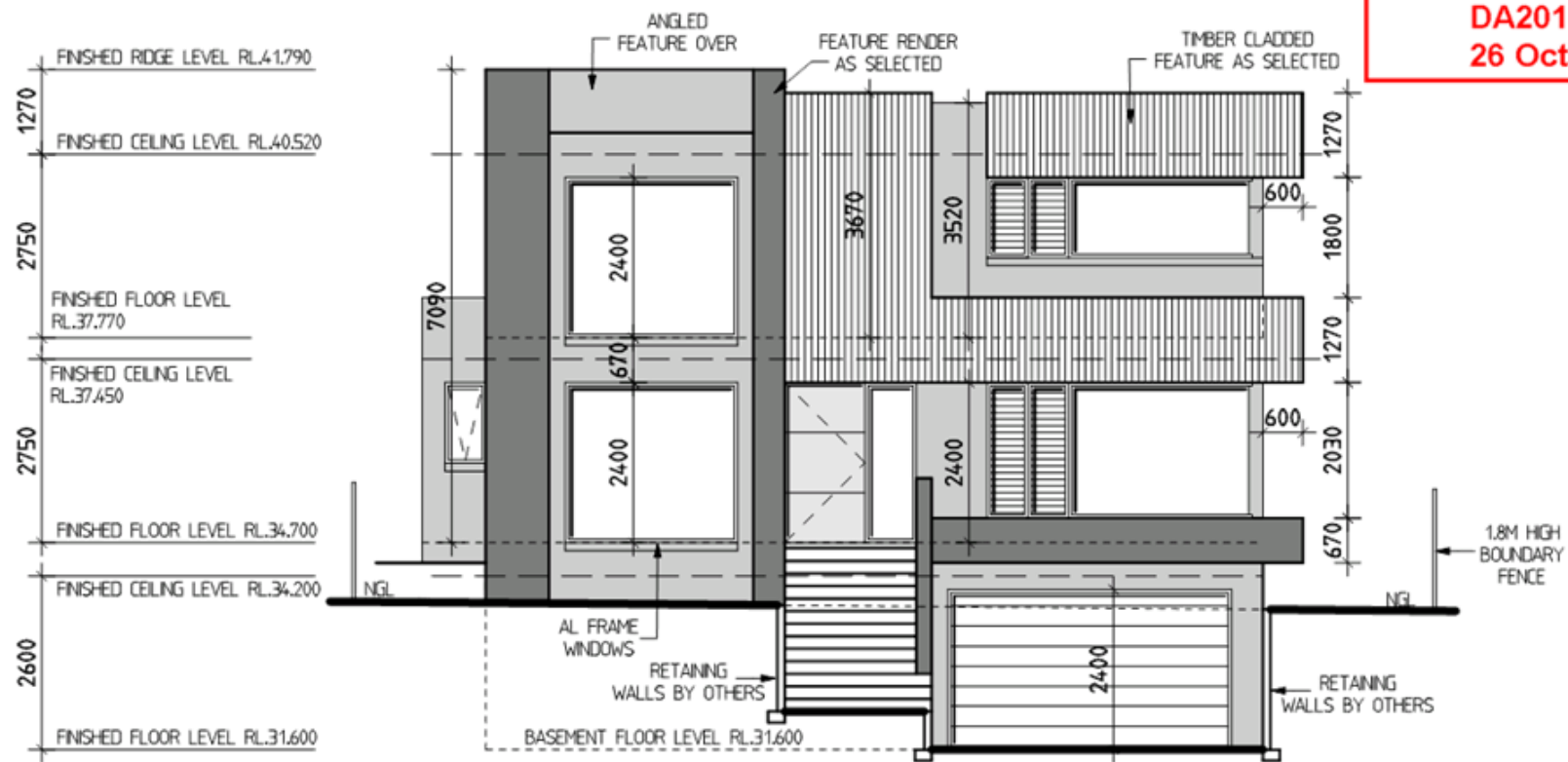

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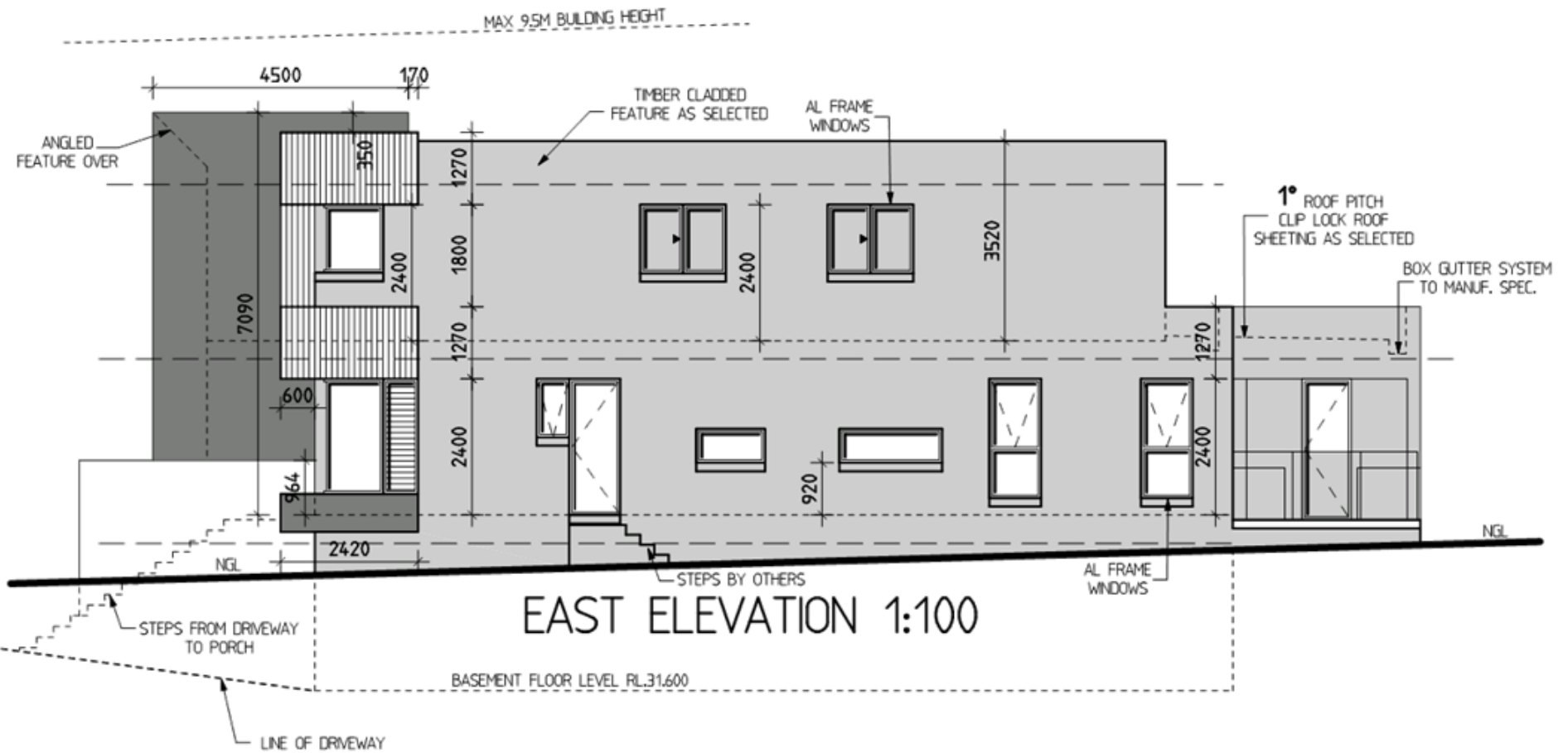

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EAST ELEVATION 1:100



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AT	LOT 146, N°47 BARKER ROAD, STRATHFIELD		OP NO.	12405											

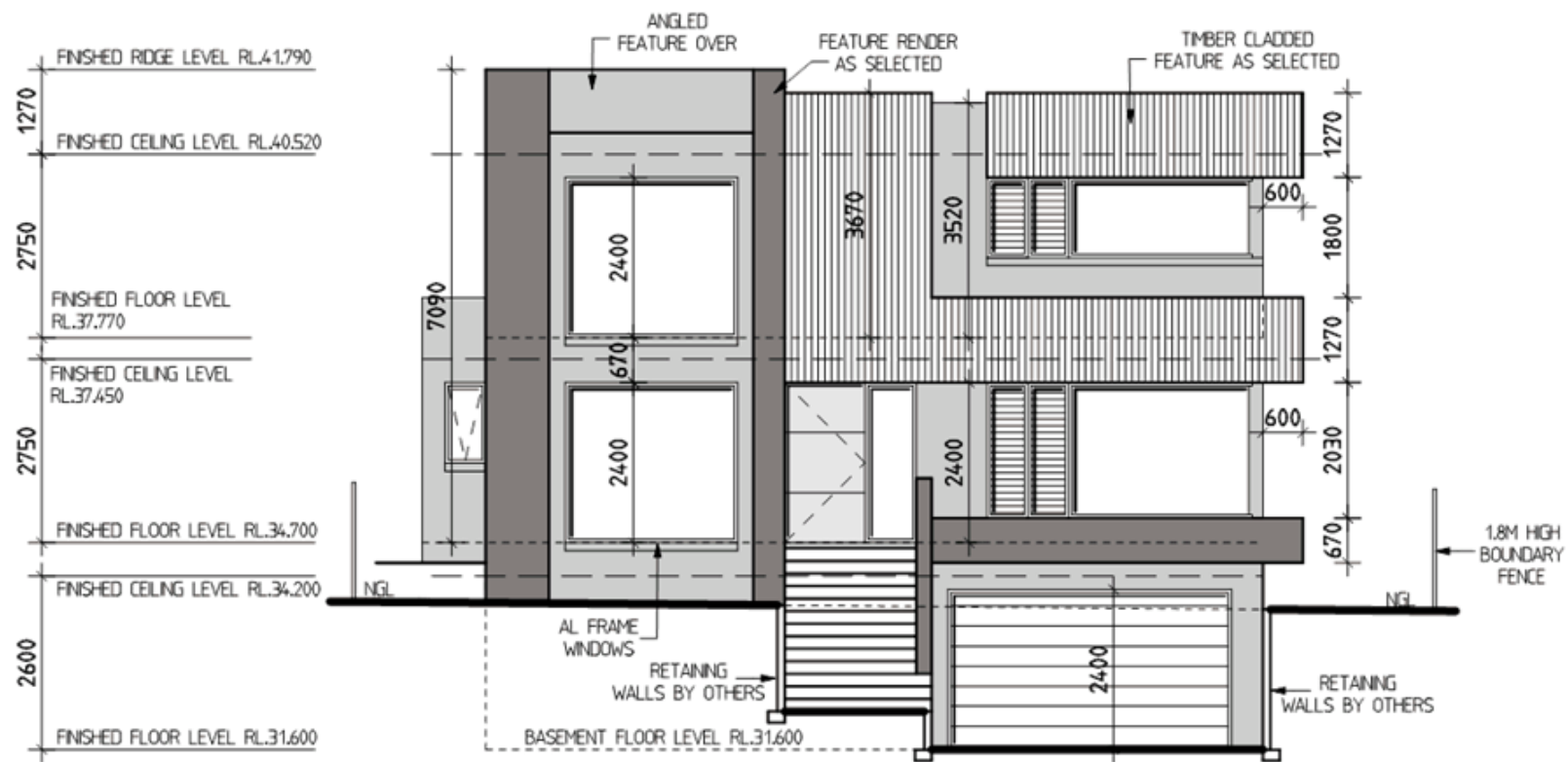


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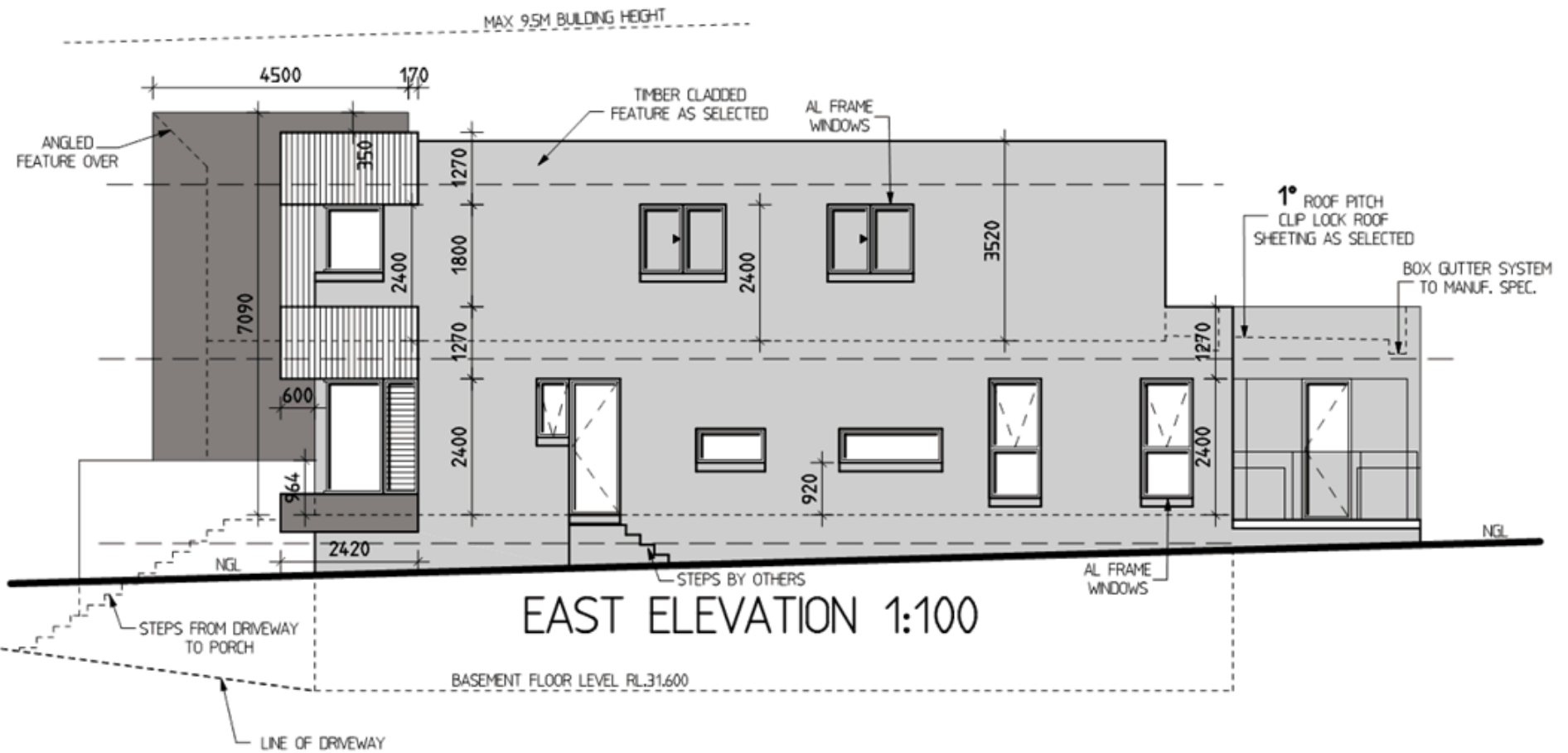


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SOUTH ELEVATION 1:100



EAST ELEVATION 1:100



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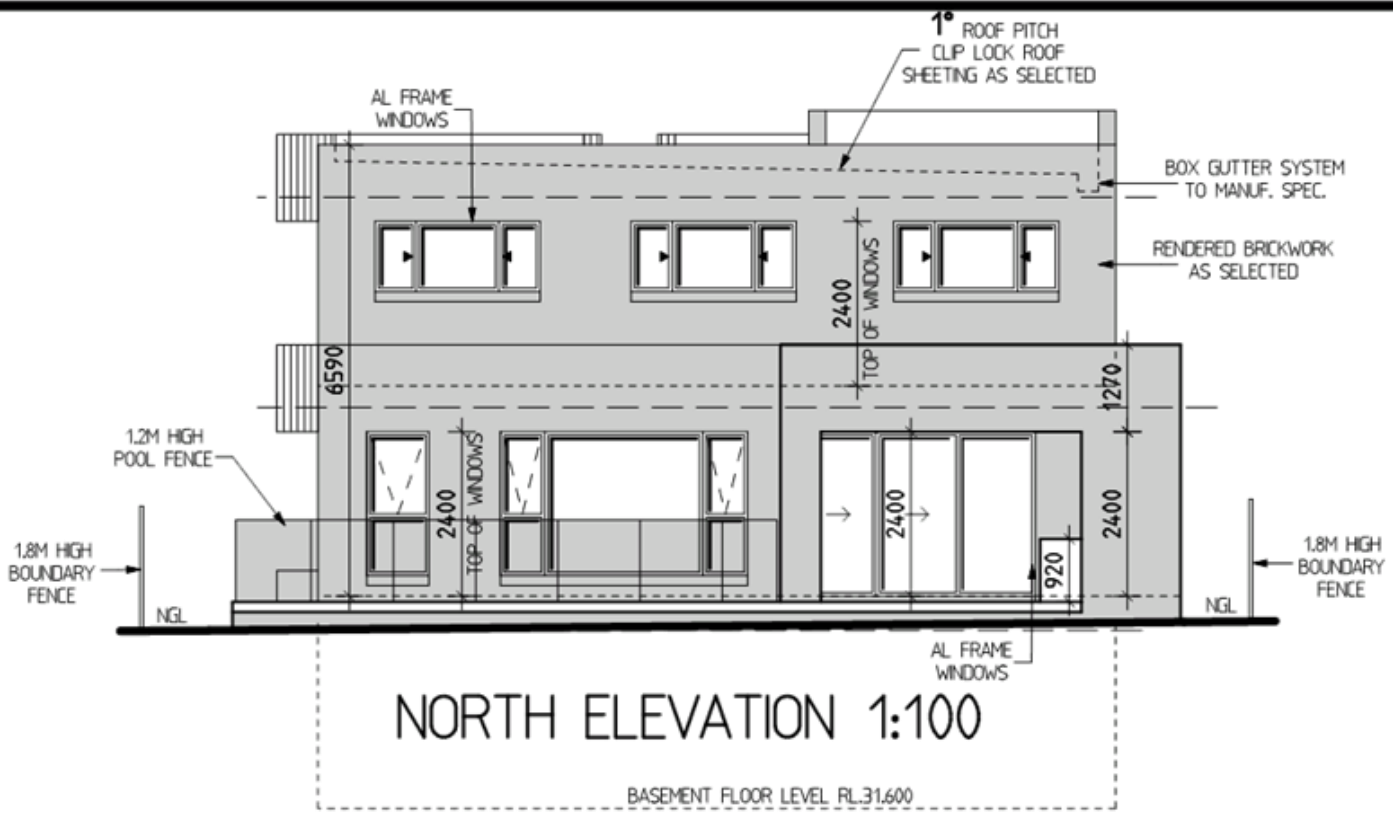
FOR	MR & MRS DHANAPALAN	PAGE SIZE	A3	DWG NO.	J1270	PAGE NO.	6 OF 9	ISSUE	A	DATE	22-09-17	REVISION	DA PLANS	DRAWN	RK
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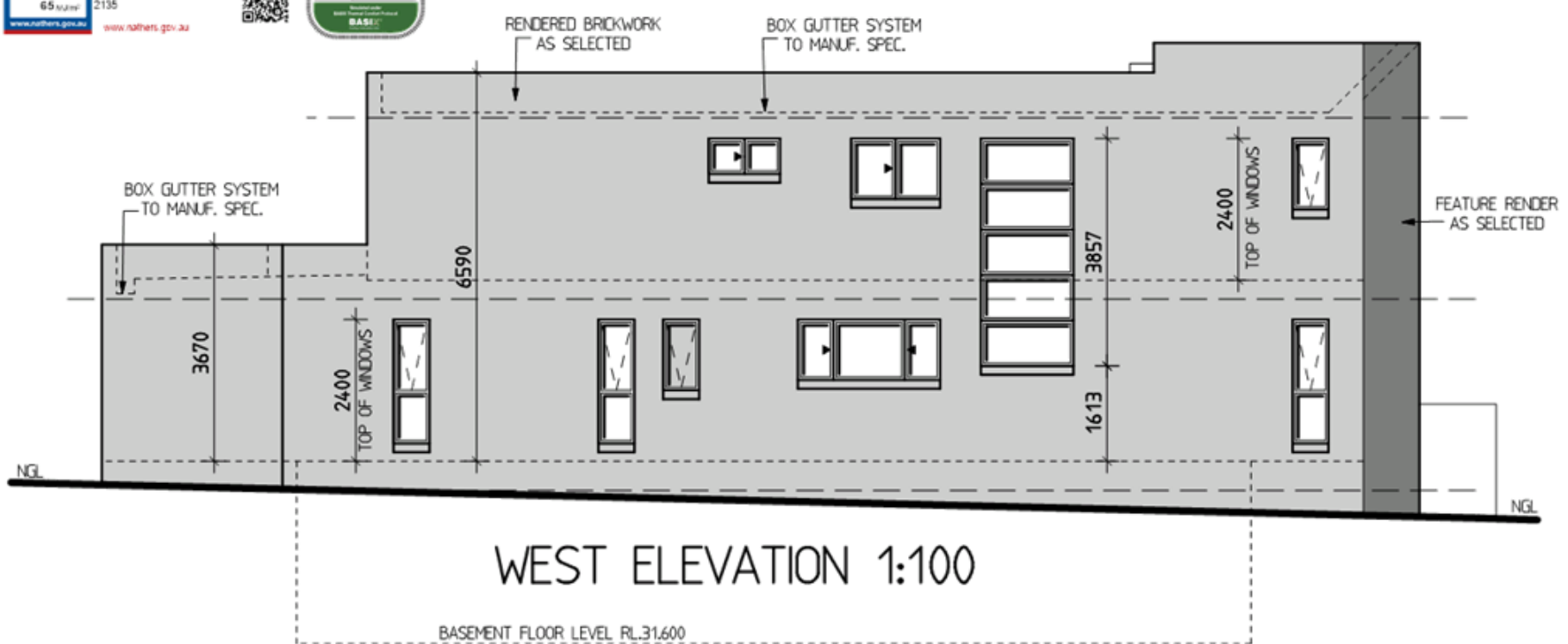


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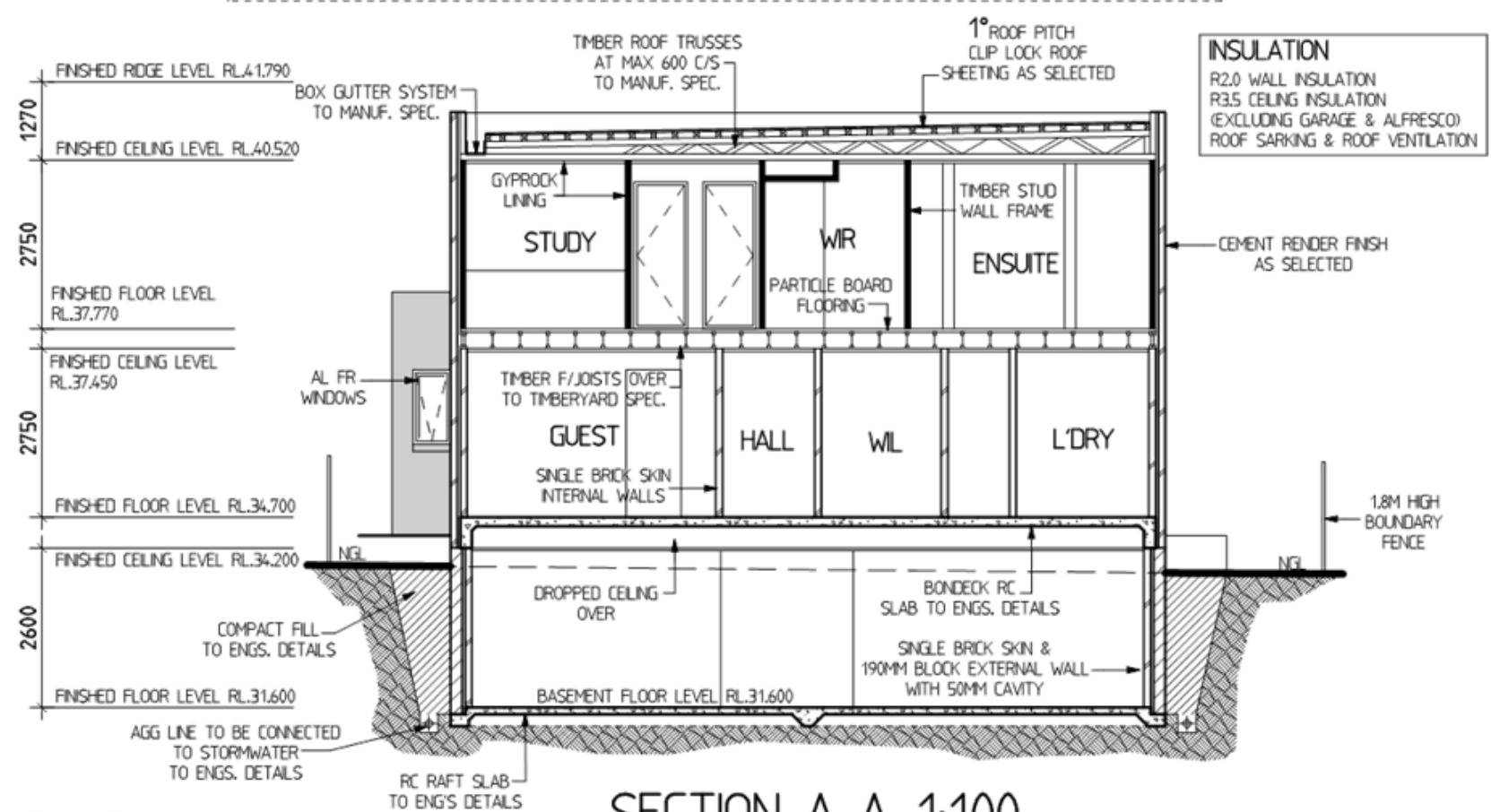


NORTH ELEVATION 1:100

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 Assessor name: Jamie Bonnell
 Accreditation no.: 100765
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WEST ELEVATION 1:100



SECTION A-A 1:100

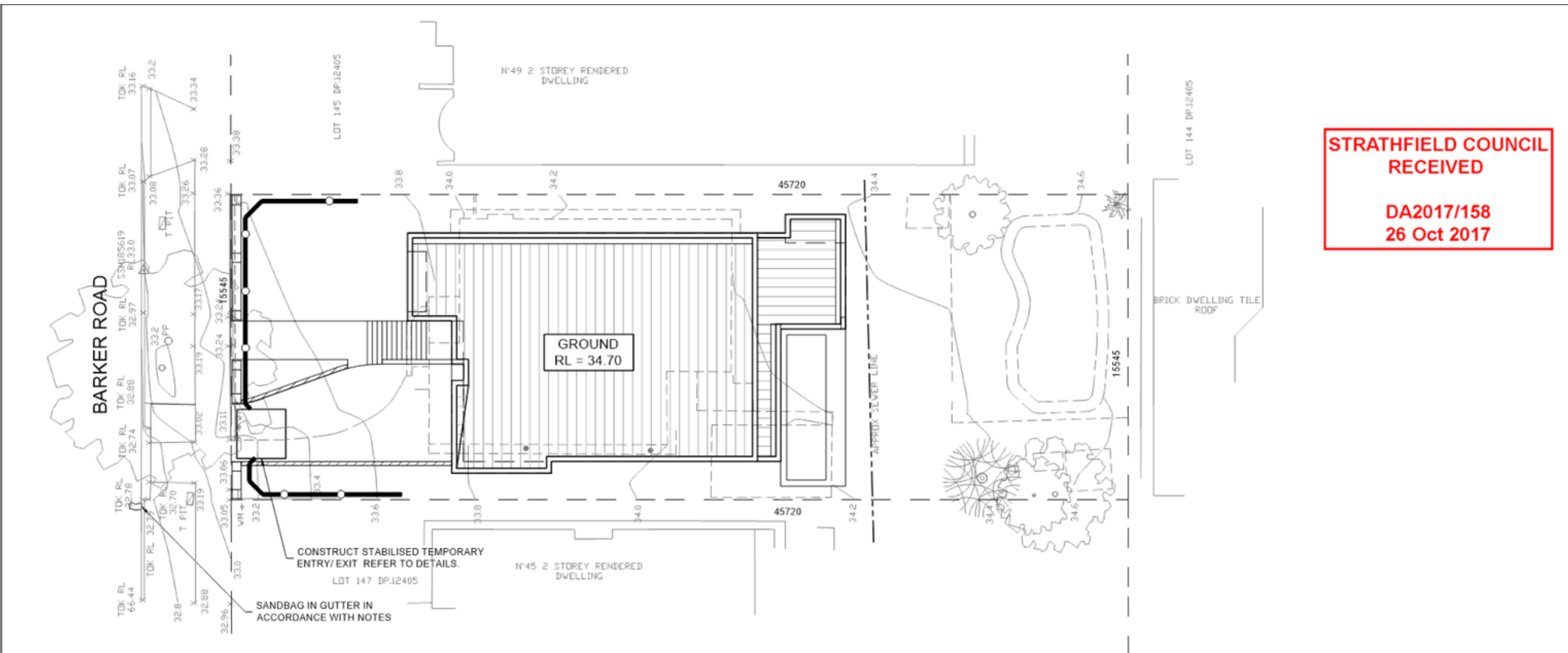
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SEDIMENT & EROSION CONTROL PLAN
1:200
- DENOTES SEDIMENT FENCE

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

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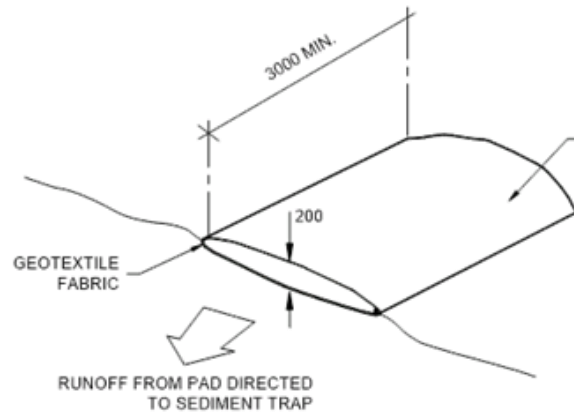
PROPOSED RESIDENCE
AT 47 BARKER ROAD, STRATHFIELD
FOR MORRISON HOMES

SEDIMENT & EROSION CONTROL PLAN

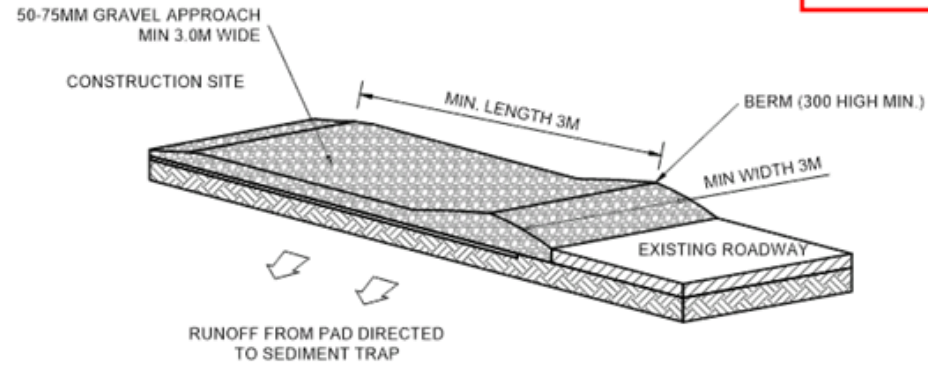
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17810	C01.01	A3
DESIGNED BY:	DATE:	
B.C.	OCTOBER 2017	
DRAWN BY:	SCALE:	
F.J.	1:200 UNO	

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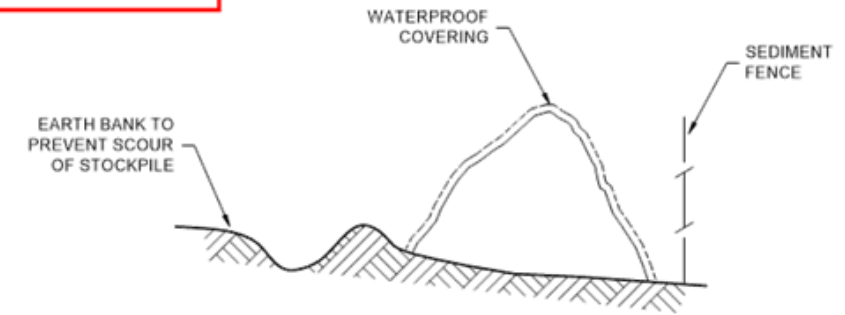
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OPTION 1 - EXISTING DRIVEWAY TO REMAIN



OPTION 2 - DRIVEWAY TO BE RENEWED

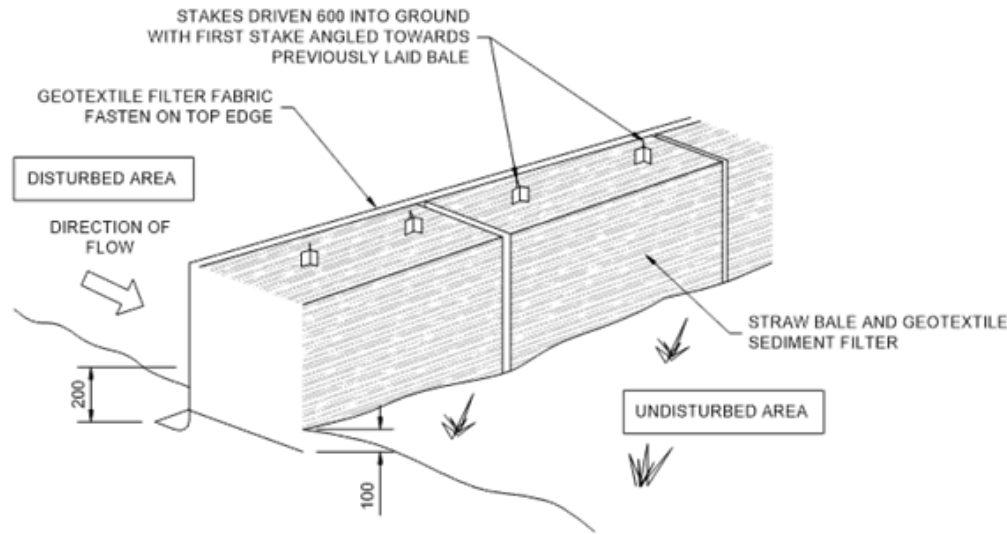


BUILDING MATERIAL STOCKPILES

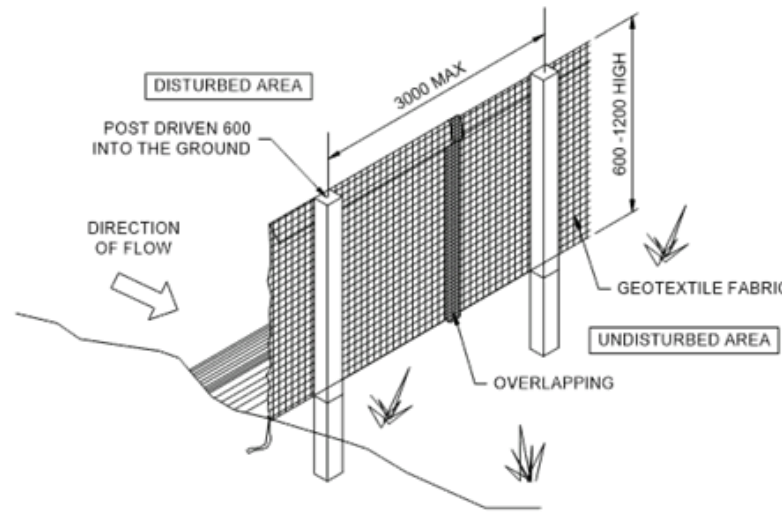
N.T.S
ALL STOCKPILES OF BUILDING MATERIAL SUCH AS SAND AND SOIL MUST BE PROTECTED TO PREVENT SCOUR AND EROSION.
THEY SHOULD NEVER BE PLACED IN THE STREET GUTTER WHERE THEY WILL WASH AWAY WITH THE FIRST RAINSTORM.

VEHICLE ACCESS TO SITE

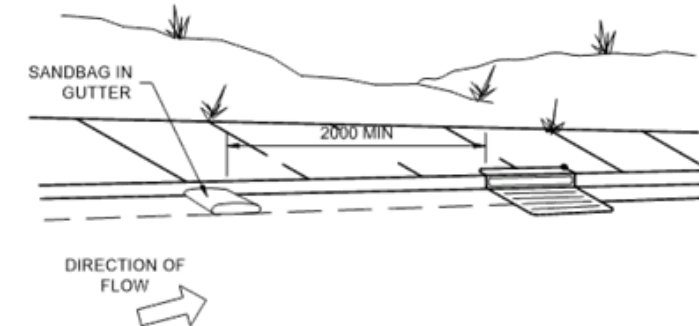
N.T.S
VEHICLE ACCESS TO THE BUILDING SITE SHOULD BE RESTRICTED TO A SINGLE POINT SO AS TO REDUCE THE AMOUNT OF SOIL DEPOSITED ON THE STREET PAVEMENT.



STRAW BALE DETAIL
N.T.S



SEDIMENT AND EROSION FENCE DETAIL
N.T.S



SANDBAG KERB SEDIMENT TRAP
N.T.S
IN CERTAIN CIRCUMSTANCES EXTRA SEDIMENT TRAPPING MAY BE NEEDED IN THE STREET GUTTER.

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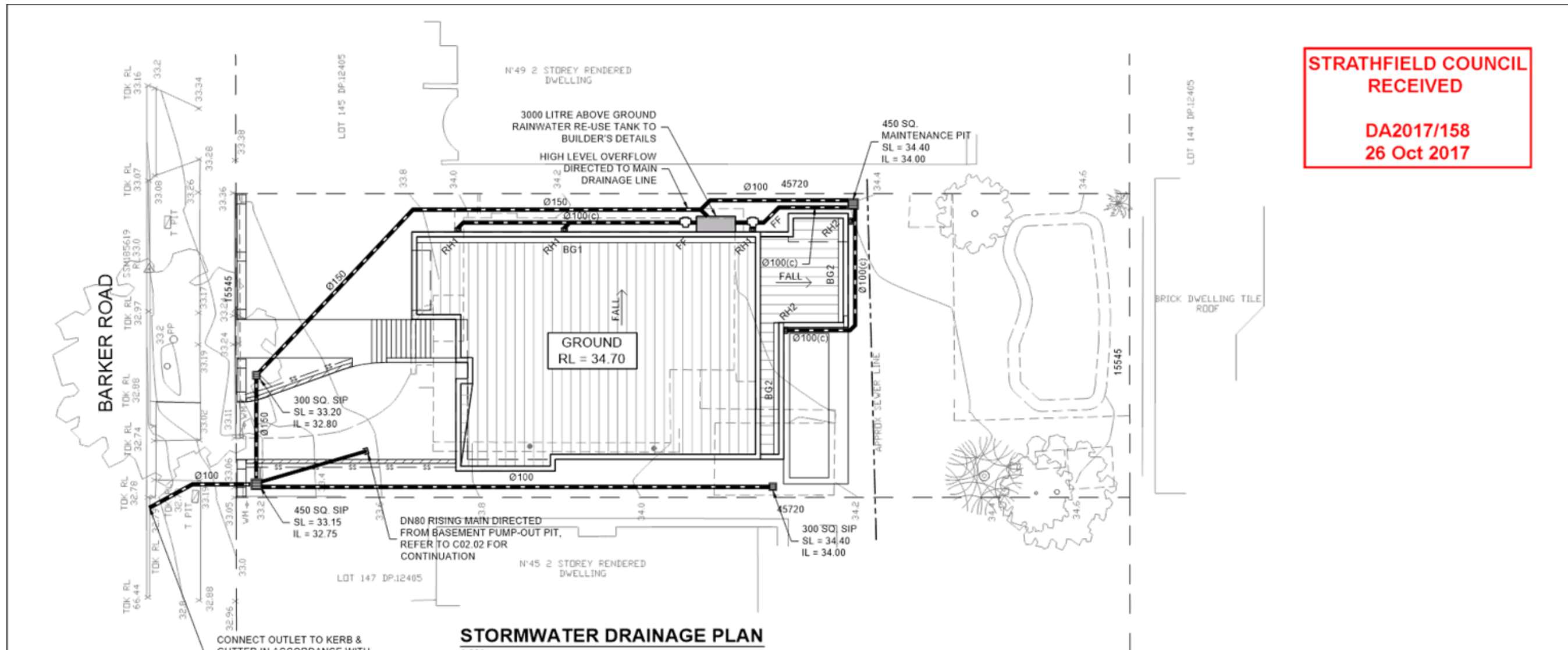
PROPOSED RESIDENCE
AT 47 BARKER ROAD, STRATHFIELD
FOR MORRISON HOMES

SEDIMENT & EROSION CONTROL DETAILS

JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
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B.C.	OCTOBER 2017	
DRAWN BY:	SCALE:	
F.J.	1:20 U.N.O	

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STORMWATER DRAINAGE PLAN
1:200

STORMWATER DESIGN SUMMARY

COUNCIL: STRATHFIELD MUNICIPAL COUNCIL	
100 YEAR, 5 MIN STORM	= 209 mm/hr
20 YEAR, 5 MIN STORM	= 166 mm/hr
TOTAL SITE AREA = 708.2 m ²	
PROPOSED ROOF AREA = 226.8 m ²	
IMPERVIOUS PATHS & DRIVEWAYS	= 98.7 m ²
TOTAL IMPERVIOUS SITE AREA	= 325.5 m ²
IMPERVIOUS SITE PERCENTAGE	= 45.9%

IMPERVIOUS AREA PERCENTAGE < 65%, THEREFORE NO OSD REQUIRED.

100% PROPOSED ROOF AREA DIRECTED TOWARDS 3000 LITRE RAINWATER RE-USE TANK. HIGH LEVEL OVERFLOW DIRECTED TOWARDS KERB & GUTTER VIA GRAVITY DRAINAGE.

STORMWATER DRAINAGE NOTES

- ALL DRAINAGE LINES SHALL BE uPVC (CLASS SH) STORMWATER DRAINAGE PIPE, U.N.O.
- ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN, U.N.O.
- FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL, TYPICAL
- MINIMUM EFFECTIVE BOX GUTTER SLOPE = 1:200 U.N.O.

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

LEGEND

- INSPECTION POINT
- FIRST FLUSH RAINWATER DEVICE TO BUILDER'S DETAIL
- CHARGED PIPE
- PROPOSED BELOW GROUND PIPELINE
- SUBSOIL DRAINAGE LINE
- PROPOSED SURFACE INLET PIT
- BG1 300W x 120D BOX GUTTER
- BG2 200W x 100D BOX GUTTER
- RH1 300W x 130D x 110L RAINWATER HEAD FITTED WITH Ø90 DOWN PIPE
- RH2 200W x 115D x 110L RAINWATER HEAD FITTED WITH Ø90 DOWN PIPE

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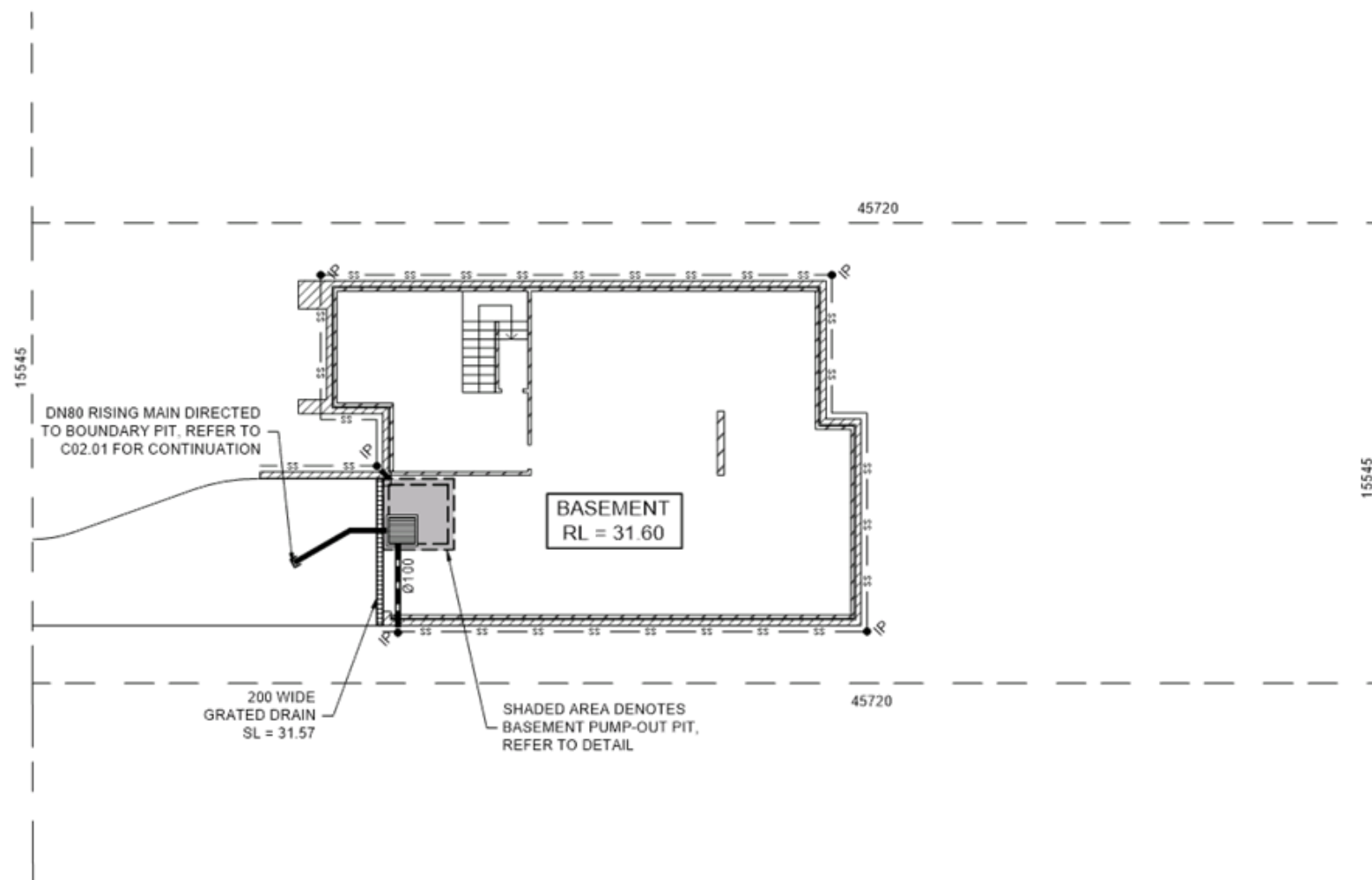
STORMWATER DRAINAGE PLAN

JOB NUMBER: 17810	DWG NUMBER: C02.01	ORIGINAL SIZE: A3
DESIGNED BY: B.C.	DATE: OCTOBER 2017	
DRAWN BY: F.J.	SCALE: 1:200 U.N.O.	

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BARKER ROAD



BASEMENT STORMWATER DRAINAGE PLAN
1:200

STORMWATER DRAINAGE NOTES

- ALL DRAINAGE LINES SHALL BE uPVC (CLASS SH) STORMWATER DRAINAGE PIPE, U.N.O.
- ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN, U.N.O.

LEGEND

- INSPECTION POINT
- PROPOSED BELOW GROUND PIPELINE
- SUBSOIL DRAINAGE LINE
- PROPOSED SURFACE INLET PIT

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

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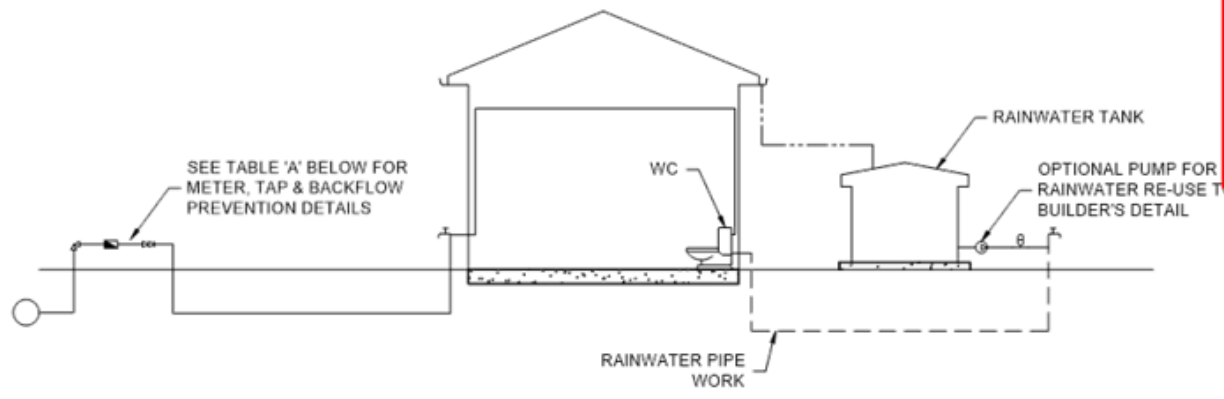
PROPOSED RESIDENCE
AT 47 BARKER ROAD, STRATHFIELD
FOR MORRISON HOMES

BASEMENT STORMWATER DRAINAGE PLAN

JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
17810	C02.02	A3
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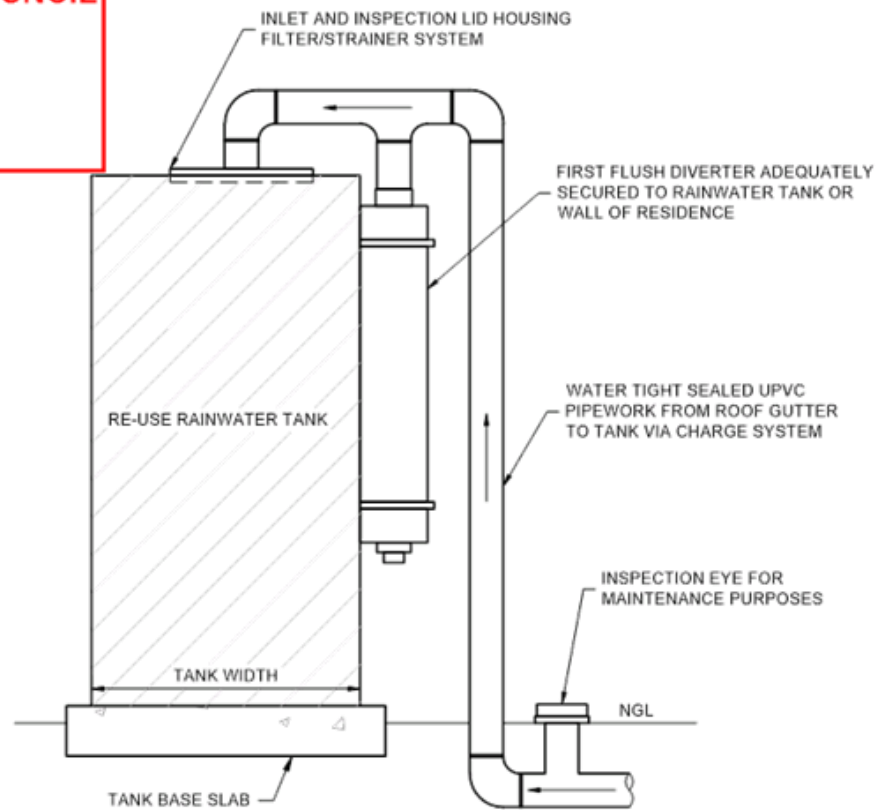
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26 Oct 2017**



RAINWATER TANK LOCATION	METER SIZE (mm)	TYPE OF TAP	TYPE OF BACKFLOW PREVENTION
ABOVE GROUND	20	BALL VALVE	DUAL CHECK VALVE (COMBINED WITH METER)
	25	BALL VALVE	DUAL CHECK VALVE
	≥ 32	BALL VALVE	DUAL CHECK VALVE
BELOW GROUND	20	BALL VALVE	TESTABLE DOUBLE CHECK VALVE
	25	BALL VALVE	TESTABLE DOUBLE CHECK VALVE
	≥ 32	BALL VALVE	TESTABLE DOUBLE CHECK VALVE

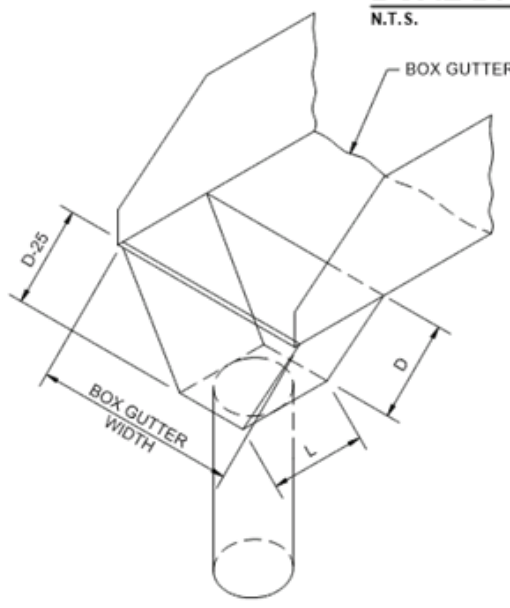
	PRESSURE VESSEL
	METER
	BALL VALVE RIGHT ANGLE TYPE
	DUAL CHECK VALVE
	PUMP
	GARDEN TAP
	DRINKING WATER SUPPLY PIPES
	RAINWATER SUPPLY PIPES
	DOWN PIPES

- DIAGRAM NOTES:
- DRAWING TO BE READ IN CONJUNCTION WITH SYDNEY WATER PLUMBING REQUIREMENTS
 - FOR TANKS 10,000 LITRES OR LESS, COUNCIL DEVELOPMENT CONSENT IS NOT REQUIRED, IF THEIR CONDITIONS FOR INSTALLATION ARE FOLLOWED.
 - FOR TANKS GREATER THAN 10,000 LITRES COUNCIL DEVELOPMENT CONSENT IS GENERALLY REQUIRED.
 - FOR TANKS MORE THAN 10,000 LITRES APPROVAL IS REQUIRED FOR BUILDING OVER SEWERS.
 - SYDNEY WATER'S APPROVAL IS REQUIRED FOR ANY TOP UP FROM DRINKING WATER SUPPLY, REGARDLESS OF TANK SIZE. NO DIRECT CONNECTION IS ALLOWED BETWEEN THE DRINKING WATER SUPPLY AND THE RAINWATER TANK SUPPLY.
 - RAINWATER PIPEWORK IS SHOWN ON THE DIAGRAM AS SUPPLYING INTERNAL AND EXTERNAL RAINWATER USES. CUSTOMERS MAY WANT ONE OR THE OTHER.
 - ANY DESIGNED ACCESS LID INTO RAINWATER RE-USE TANK IS TO HAVE A LOCKABLE LID. IF THE LID IS DESIGNED TO BE ACCESSED BY A MAINTENANCE PERSON, IT MUST BE AT LEAST 600 mm x 900 mm IN SIZE.

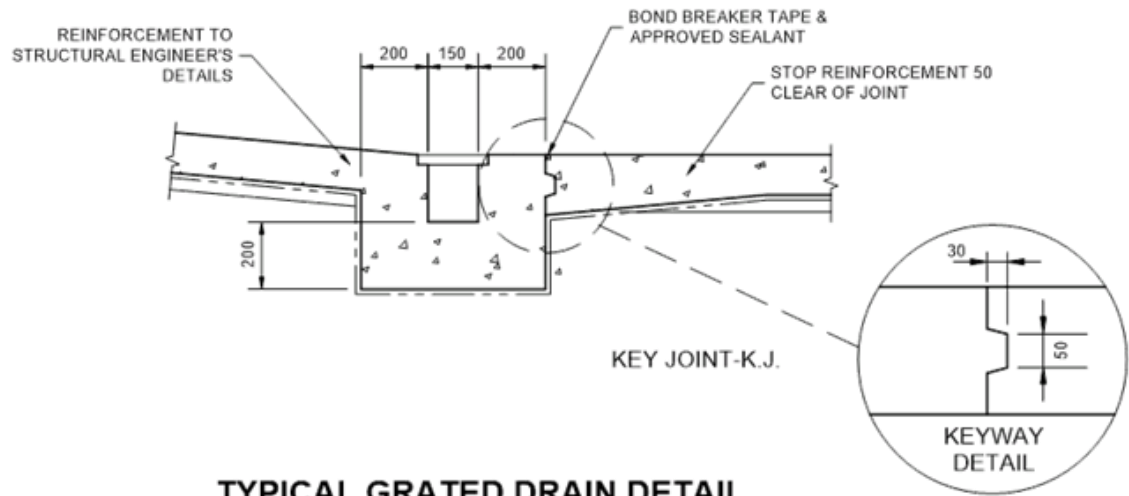


DUAL DRINKING WATER & RAINWATER SUPPLY DIAGRAM
N.T.S.

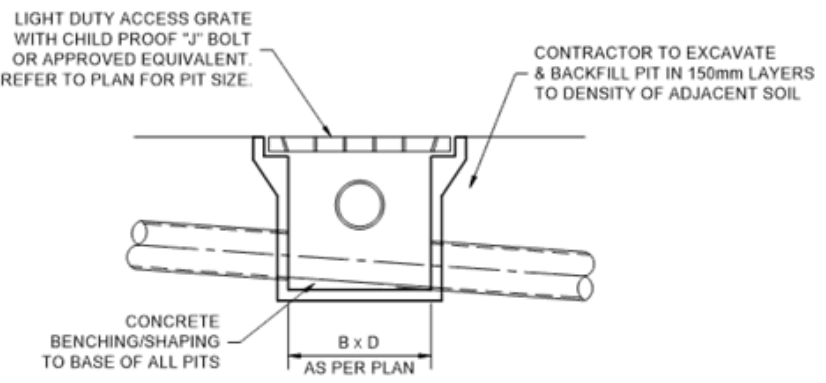
TYPICAL FIRST FLUSH DETAIL
N.T.S.



RAINWATER HEAD SECTION
N.T.S.



TYPICAL GRATED DRAIN DETAIL
1:20



TYPICAL SURFACE INLET PIT DETAIL
1:20

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

REV	DATE	DESCRIPTION	BY
A	16/10/17	ISSUED FOR APPROVAL	F.J.

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PROPOSED RESIDENCE
AT 47 BARKER ROAD, STRATHFIELD
FOR MORRISON HOMES

STORMWATER DETAILS SHEET 1

JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
17810	C02.03	A3
DESIGNED BY:	DATE:	
B.C.	OCTOBER 2017	
DRAWN BY:	SCALE:	
F.J.	1:20 U.N.O	

STANDARD PUMP OUT DESIGN NOTES
 THE PUMP OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED IN THE FOLLOWING MANNER:-

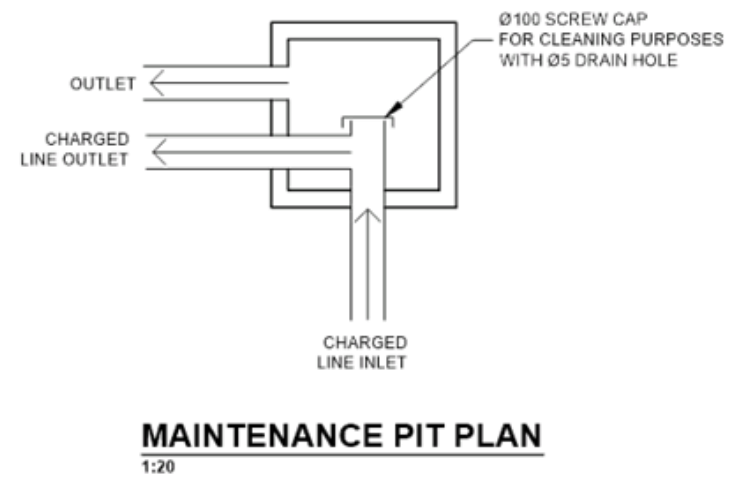
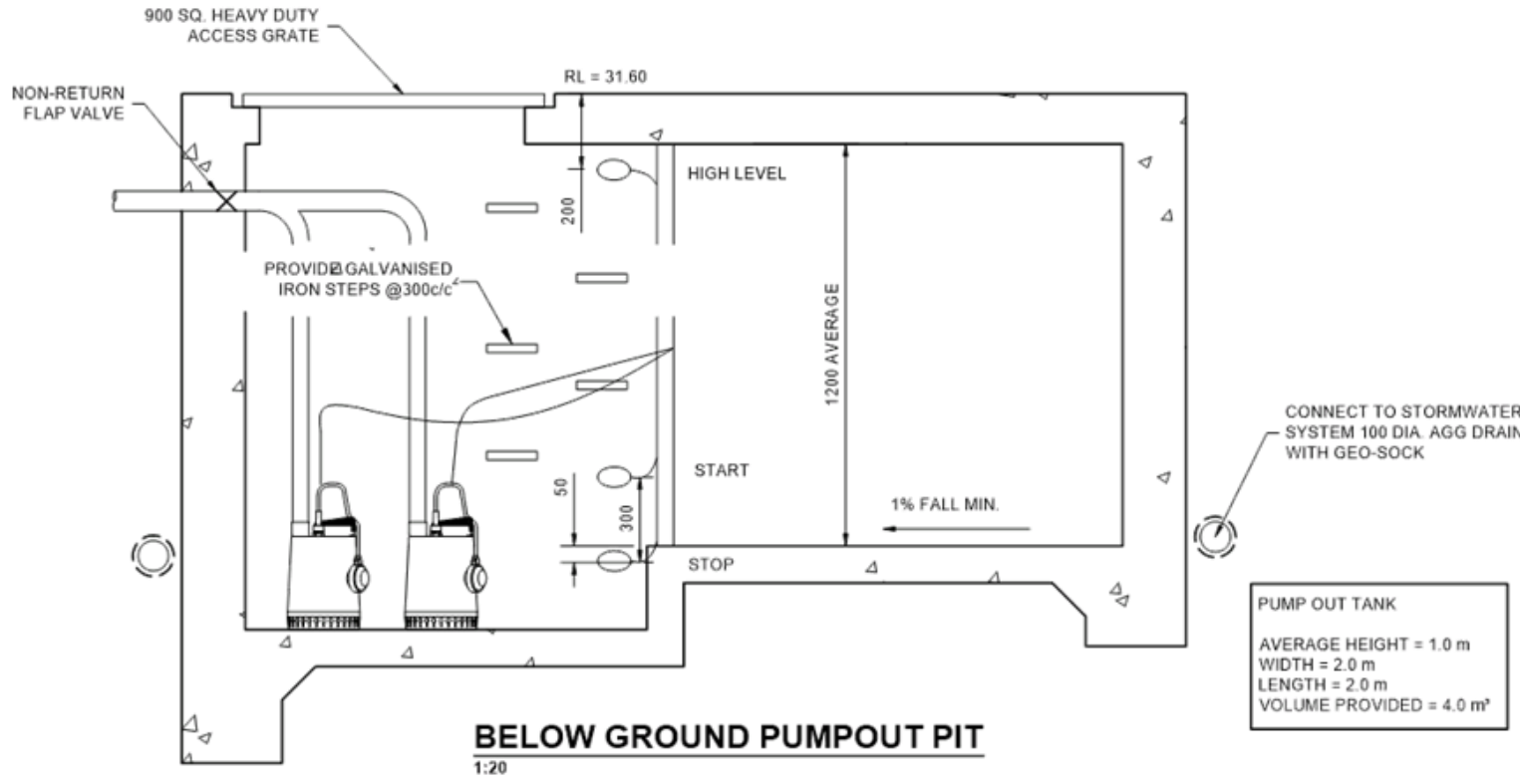
- > THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATIVELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- > A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT 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 AND 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 AND ACTIVATE THE ALARM.

PUMP DESIGN SUMMARY

CATCHMENT AREA	
DRIVEWAY = 51.1 m ²	
1:100 ARI 2 HOUR STORM	= 38.0 mm/h
MINIMUM PUMP TANK STORAGE REQUIRED = 38.0*2*51.1	= 3883.6 l
PUMP OUT TANK STORAGE PROVIDED	= 4000 l
1:100 ARI 5 MIN STORM	= 209 mm/h
MINIMUM PUMP OUT RATE = 209/3600 x 51	= 2.97 l/s
MINIMUM PUMP HEAD REQUIRED	= 2.5m
2-DAVEY D75 SUBMERSIBLE SUMP PUMPS OR APPROVED EQUIVALENT	

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**DA2017/158
26 Oct 2017**



NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

REV	DATE	DESCRIPTION	BY
A	16/10/17	ISSUED FOR APPROVAL	F.J.

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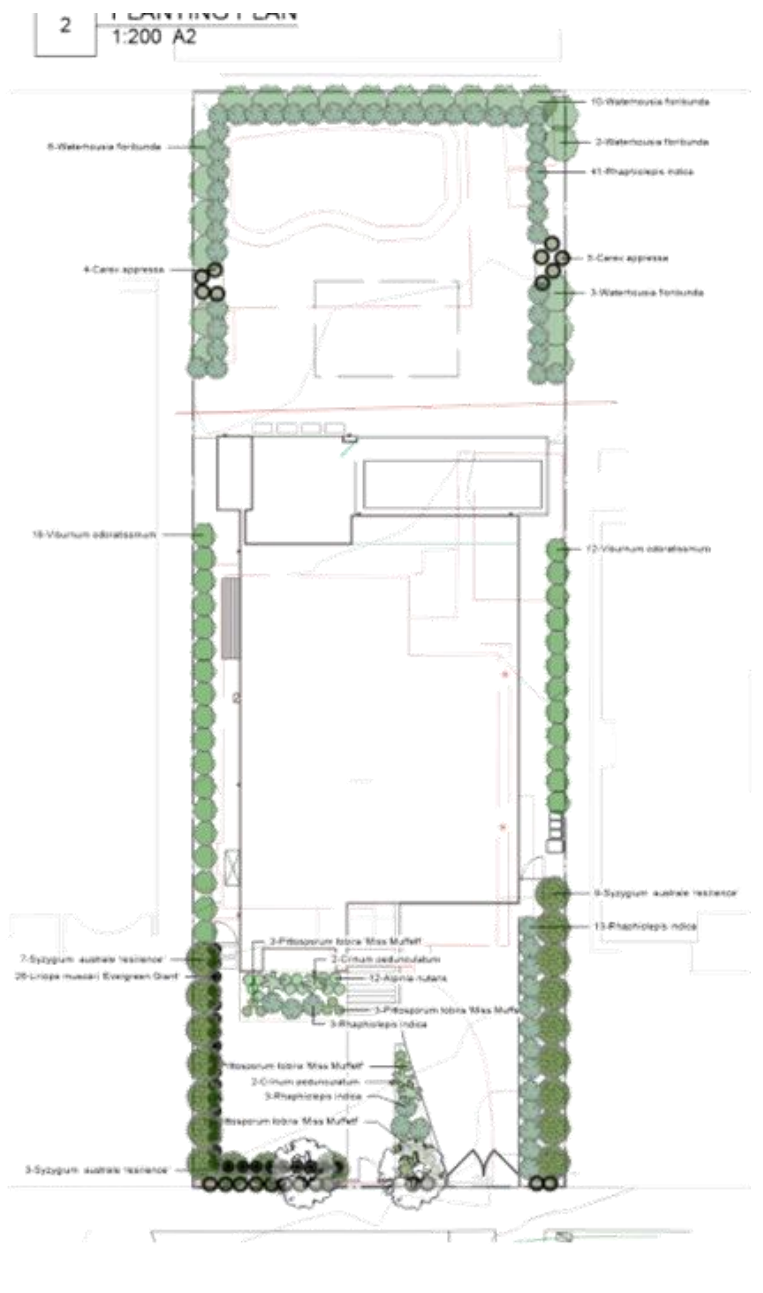
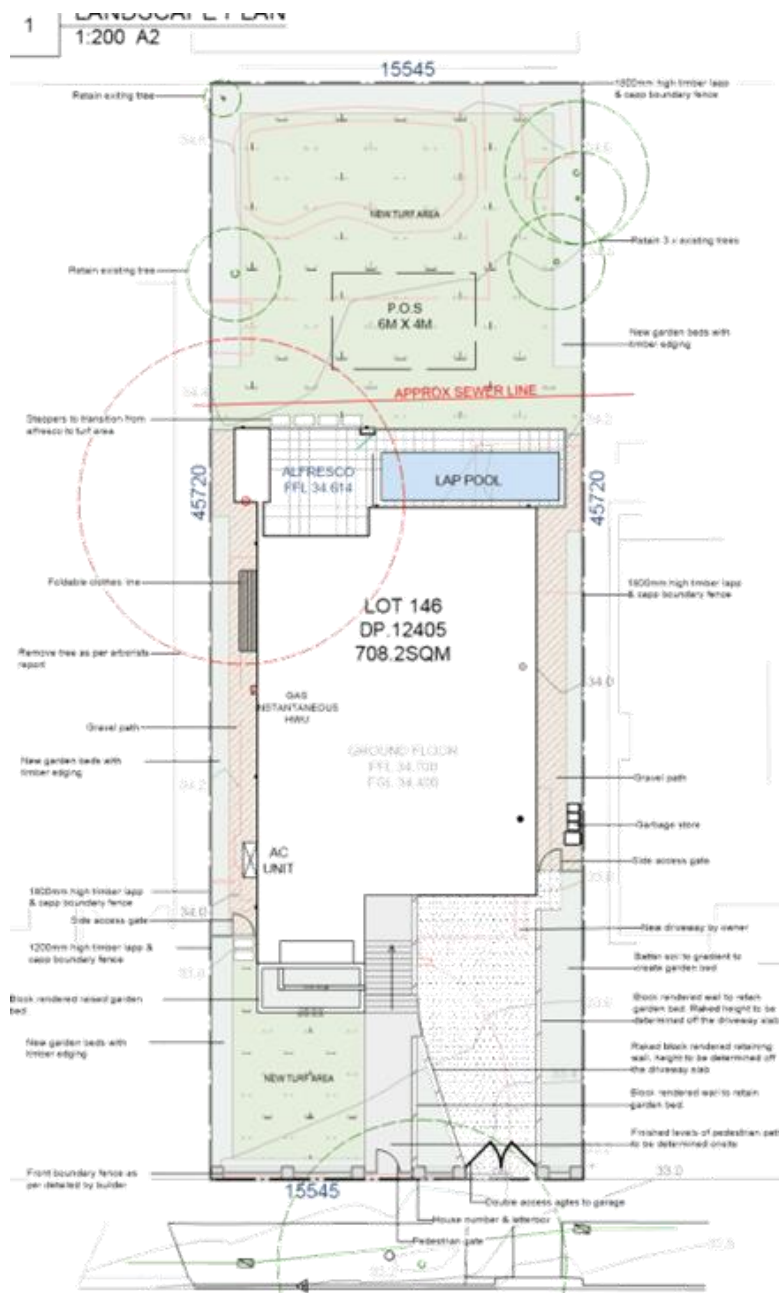
Phone: (02) 8020 2960
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 BALUNDAH HILLS NSW 2153

PROPOSED RESIDENCE
 AT 47 BARKER ROAD, STRATHFIELD
 FOR MORRISON HOMES

STORMWATER DETAILS SHEET 2

JOB NUMBER: 17810	DWG NUMBER: C02.04	ORIGINAL SIZE: A3
DESIGNED BY: B.C.	DATE: OCTOBER 2017	
DRAWN BY: F.J.	SCALE: 1:20 U.N.O	



3 SITE NOTES

SITE NOTES:

SITE PREPARATION
Any existing trees and vegetation to be retained shall be preserved and protected from damage of any sort during the execution of landscape work. In particular, root systems of existing plants must not be disturbed. Any newly site works should be carried out carefully using hand tools. Trees shall not be removed or topped unless specifically written approval to do so is given in writing on plan. Storage of materials, rising of materials, vehicle parking, disposal of liquids, machinery repairs and refuelling, site office and sheds shall not occur within three (3) metres of any existing or new trees. Do not accumulate soil, rubble or other debris cleared from the site, or building materials within the drop line of existing or new trees.

SERVICE
Services and utilities shown have been located by physical evidence and/or by reference to surveys provided. They may not have been opened to verify the type of utility. Excavation has not been carried out to confirm underground location. Service details should be confirmed with the relevant service authority during design and prior to commencement of construction.

SOIL PREPARATION
All proposed planting areas to be deep ripped to 300mm. Clay soils to be combined with 50-100mm of A.N.L. Organic Clay Breaker. 75mm depth of A.N.L. Organic Garden Mix to be imported and combined with 25mm depth Green life compost or approved equivalent. Care to be taken to hand outside in any area where existing tree roots exist to preserve health of trees.

NEW PLANTINGS
Newly planted super advanced trees are to be secured with 3 @ 1.8m x 22mm x 22mm hardwood stakes with tension bars to prevent excessive movement. Planting holes for plants are to be large enough to take the root ball with additional space for back soil not presented as mulch.

MULCHING
All planting areas, unless otherwise specified to be mulched with A.N.L. or equivalent forest floor. Mulch depth 50mm or 50mm deep with catchment dish to be left around base of plants.

FERTILISER
On completion of work all planting areas are to be fertilised with organic life slow release fertiliser (Compostic 5-9 month) which is to be sufficiently watered in.

GARDEN EDGING
All planter beds adjacent to lawn areas to have flush timber edges of hardwood or H4 grade treated pine or 50mm galvanneal steel.

IRRIGATION
Automatic watering system to be selected and installed to extend to all landscaped areas included in works including lawn areas. The Landscape Contractor is to liaise with Council as necessary to ensure that the irrigation system conforms with all Water Board, Council & Australian Standards and Regulations.

PAVING
All paving to be selected by client.
All steps made and pool coping to be finished. All paving to be laid to manufacturer's recommendations. All paving adjacent to houses to have a minimum fall of 1:100 directed away from residence. Sealing of all paving should be a consideration with the supplier on this to be sought by the client.

DRAINAGE
To prevent runover at the bottom of the fall, install a grated surface drain at the edge of the paving. If draining a large area or you are likely to get a lot of silt in the runoff captured by the drain, install a sump or clean out section between the drain and the stormwater pipe to collect silt and sand. Clean it out periodically.

POOL ENCLOSURE
Pool fencing installed to comply Australian Standards for Pool enclosure requirements regarding height and gate features. A3-1525.

TURF
Turf to be as specified. Turf to be laid on 50mm gravel over 200mm deep stone base prepared area. Turf areas to be evenly graded. Adequate drainage to be provided under lawn area.

RETAINING WALLS
All retaining walls over 100mm to be to Engineers specifications.

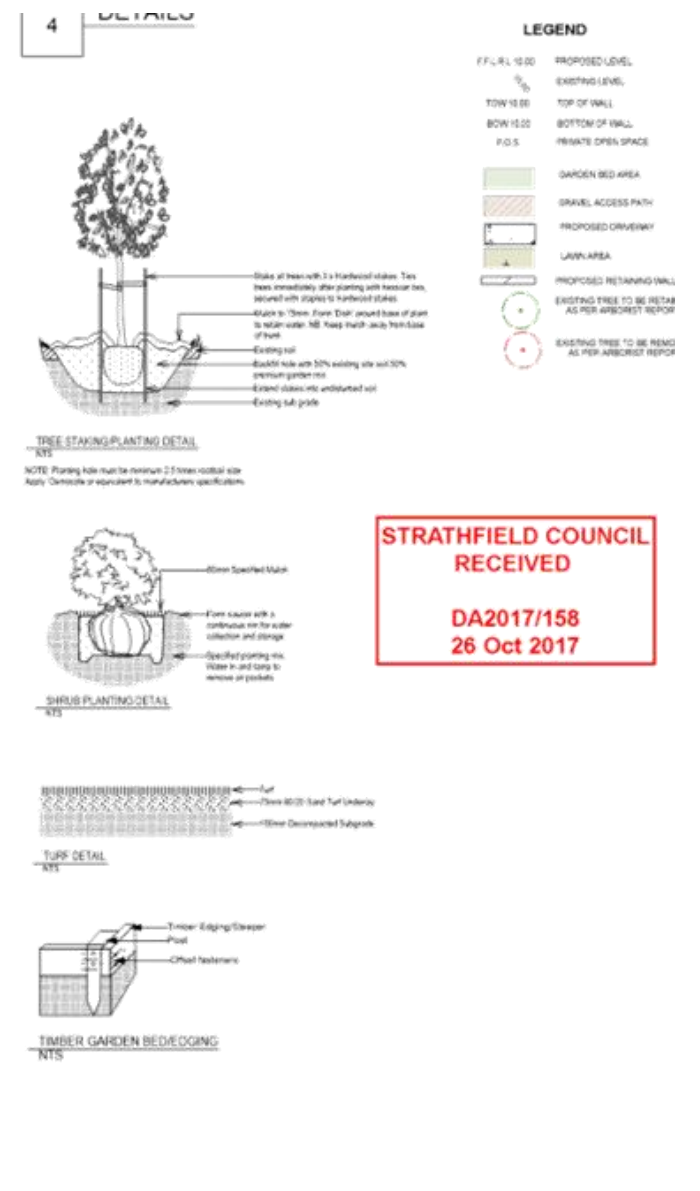
WALL CONSTRUCTION
All civil, structural and hydraulic work associated with this project shall be to consulting Engineers details. All external walls to be constructed in accordance with Clause D2.73 of the Building Code of Australia.

WATER FEATURES
All water features to be fenced and/or waterproof membranes to be installed. All work to be completed checked for waterproofness before final finishes or claddings are applied.

PLANTING
Unless specified, installed and maintained by Sticks & Stones Landscape Design takes no responsibility taken for the vigour, condition or life span of any plant materials.

EXTRAS
30mm x 200mm conduit required under all paving and paths for cable access.

TREE REMOVAL
Where trees are recommended for removal, client should seek council approval to do so.



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5 PLANT SCHEDULE

ID	Qty	Latin Name	Common Name	Scheduled Size	Mature Height / Spread
An	12	Alpina nutans	Dwarf Cardamon	140mm	1000mm/1000mm
Cpm	4	Crinum pedunculatum	Swamp Lily	140mm	500mm/500mm
Css	22	Carex appressa	Green Sedge	140mm	500mm/500mm
Li	2	Lagerstroemia indica	Crepe Myrtle	45L	3M/2M
Lm	26	Liriope muscari 'Evergreen Giant'	Evergreen Giant Layturf	140mm	600mm/600mm
PtMM	20	Pitiosporum tobira 'Miss Muffett'	Miss Mufflet	200mm	300mm/300mm
Ri	60	Rhaphiolepis indica	Indian Hawthorn	200mm	2M/1M (hedge to 1M/1M)
Spm-1	19	Syzygium australe 'resilience'	Syzygium resilience	300mm	3M/1.5M (hedge to 2M)
Wf	21	Waterhousea floribunda	Weeping Lilly Pilly	45L	6M/2M (hedge to 2.5M/1M)
Wo	30	Viburnum odoratissimum	Viburnum	300mm	5M/2M (hedge to 2.5M/1M)

6 PLANT IMAGES



STICKS & STONES NOTES: 1. Drawn to the best of our knowledge. 2. All work to be completed in accordance with the relevant Australian Standards and Building Code of Australia. 3. All work to be completed in accordance with the relevant Australian Standards and Building Code of Australia. 4. All work to be completed in accordance with the relevant Australian Standards and Building Code of Australia.

DRAWING NAME: Landscape Plan

CLIENT: c/o MORRISON HOMES

ADDRESS: 47 Barker Road STRATHFIELD

PROJECT NO.: Project No.

DRAWING NO.:

SCALE: 0 2 4 8 16

DATE DRAWN: 7.10.20

DRAWN BY: FE

TO: Strathfield Independent Hearing and Assessment Panel Meeting - 1 February 2018

REPORT: SIHAP – Report No. 3

SUBJECT: DA2017/161
24 AMAROO AVENUE, STRATHFIELD
LOT 18 DP 35941

DA NO. 2017/161

SUMMARY

Proposal: Demolition of existing structures and construction of a new two (2) storey dwelling with front fence.

Applicant: Yue Qiu

Owner: Yue Qiu

Date of lodgement: 8 November 2017

Notification period: 20th November 2017- 3rd December 2017

Submissions received: Three (3)

Assessment officer: BC

Estimated cost of works: \$825,000

Zoning: R2 - SLEP 2012

Heritage: N/A

Flood affected: Yes

RECOMMENDATION OF OFFICER: APPROVAL

EXECUTIVE SUMMARY

- 1.0 Approval is sought for the demolition of existing structures and construction of a two (2) storey dwelling house with front fence.
- 2.0 The plans and documentation submitted as part of the development application were notified in accordance with Part L of the Strathfield Consolidated Development Control Plan 2005. Three (3) written submissions were received during this time.
- 3.0 The proposed development results in a two (2) storey dwelling house with a front fence. The colour palette and external finishes are compatible with the surrounding streetscape and generally comply with the provisions of the Strathfield Local Environmental Plan 2012 and Strathfield Consolidated Development Control Plan 2005.
- 4.0 It is recommended that the Development Application be approved subject to conditions.

DESCRIPTION OF THE SITE AND LOCALITY

The subject site is legally described as Lot 18 DP 35941 and is commonly known as 24 Amaroo Avenue, Strathfield. The site is located on the eastern side of Amaroo Avenue and has an area of 537.5m².

DA2017/161
24 Amaroo Avenue, Strathfield
Lot 18 DP 35941 (Cont'd)

The site is rectangular in shape and has a frontage of 16.77m to the west, rear boundary of 16.77m to the east, a side boundary length of 32.09m to the north, and side boundary length of 32.12m to the south.

The site has a natural fall to the front and slopes in a north-eastern direction with a cross-fall of 0.78m

Existing development on the site comprises of a single storey dwelling house with carport on the northern side of subject site and metal shed in the rear. Vehicular access is provided to the site via an existing driveway from the northern side of the subject site.

The current streetscape is characterised by a mixture of single and two (2) storey dwelling houses. The existing streetscape is met with predominantly facebrick external finishes, although there are examples of dwellings with a rendered exterior finish.

The surrounding area is characterised by low lying residential development with Edwards Park and High Street Community Library within the immediate vicinity to the east of the subject site. Liverpool Road is located directly to the south of the subject site where mixed use development and medium density residential development is predominant.

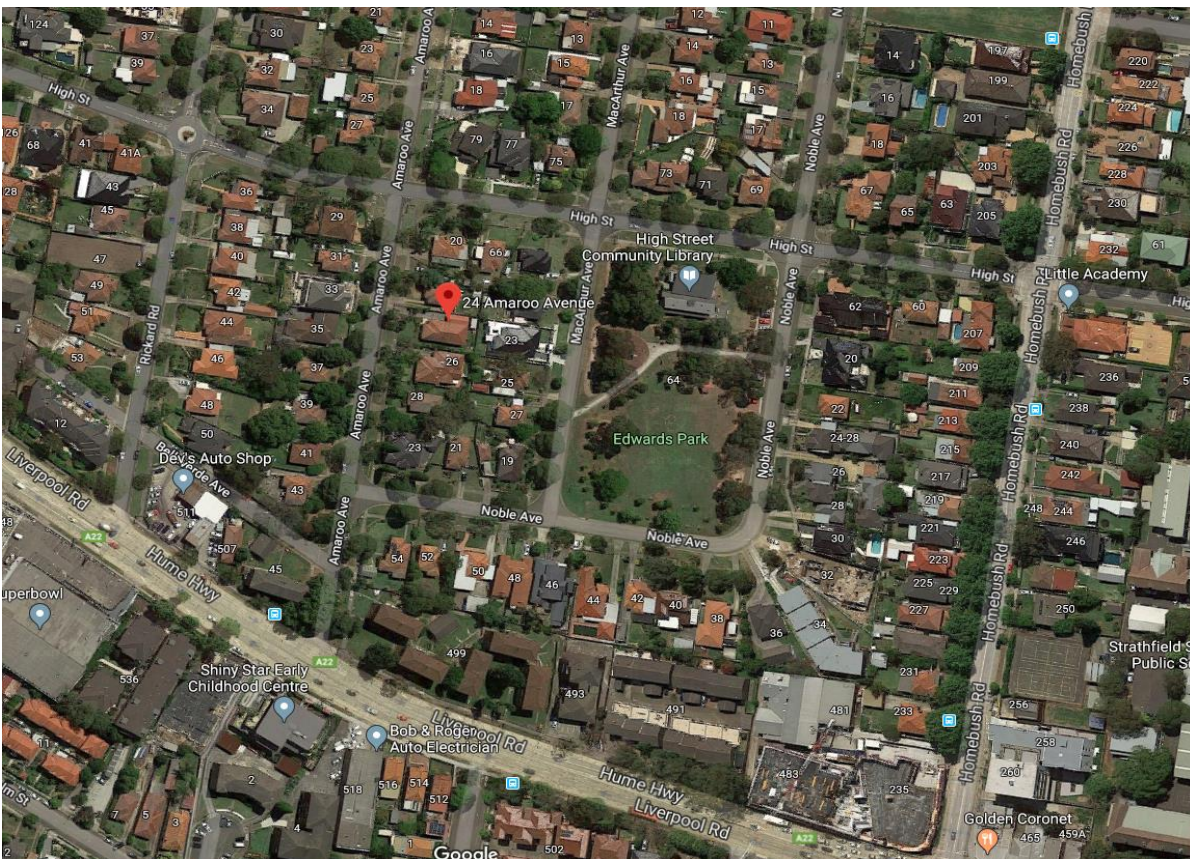


Figure 1: Aerial View of subject site and surrounding area

DA2017/161
24 Amaroo Avenue, Strathfield
Lot 18 DP 35941 (Cont'd)



Figure 2: Streetscape view of existing single storey dwelling houses



Figure 3: View of existing streetscape from subject site

DA2017/161
24 Amaroo Avenue, Strathfield
Lot 18 DP 35941 (Cont'd)



Figure 4: View of existing streetscape from subject site

PROPERTY BURDENS AND CONSTRAINTS

A sewer line bisects the property to the rear running north to south.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The application seeks Council approval for the demolition of existing structures and construction of a two (2) storey dwelling house with front fence and double garage.

The specific elements of the proposal are:

Demolition of existing structures which includes:

- Existing single storey dwelling house;
- Existing carport and driveway;
- Existing metal shed; and
- Removal of Nerium Oleander on nature strip, Umbrella tree and Jacaranda within front setback supported by Council's Tree Coordinator.

Ground floor level:

- The ground floor has a floor area of approximately 190m²;
- Open plan living, dining and kitchen area;
- Double garage with storage space;
- Home cinema;
- Laundry;
- Bathroom; and
- Guest bedroom with ensuite.

First floor level:

DA2017/161
 24 Amaroo Avenue, Strathfield
 Lot 18 DP 35941 (Cont'd)

- The first floor has a floor area of approximately 183m²;
- Four (4) bedrooms. Three (3) with ensuites; and
- Sitting Area/family room.

External works:

- Associated drainage and landscape works, and front fence.

REFERRALS

INTERNAL REFERRALS

Engineering Comments

Council's Engineer has commented on the proposal as follows:

"I have referred to the development application referenced above and reviewed the stormwater drainage concept plan prepared by LAM Consulting Engineers issue P1 drawing no. HDA01-HDA03 job no. 3325 dated 29.09.2017. The subject site has a natural fall to the front and disposal by means of gravity is attainable, hence enabling the applicant to submit a compliant design. The provision of water sensitive urban design is not required as the site is less than 2000m². OSD provision is not required as the site cumulative imperviousness is less than 65% of total site area. The site discharges to the street kerb and gutter by means of a gravity pipe via the boundary pit. The roof runoff drains into the proposed above ground rainwater tank in accordance with BASIX requirements via downpipes by gravity means. The overflow from the tank drains into the boundary pit by gravity means via the overflow pipe. The turf runoff drains into the boundary pit via grated surface inlet pit by gravity means. From an engineering perspective, the concept plan is feasible and there are no objections to its approval subject to the following conditions attached."

Council's Engineer offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

Landscaping Comments

Council's Tree Coordinator has commented on the proposal as follows:

"The proposal is generally acceptable and is supported subject to the conditions"

Council's Tree Coordinator offered no objections to the proposal, subject to the imposition of recommended conditions of consent.

SECTION 79C CONSIDERATIONS – EP&A Act, 1979

In determining a development application, the consent authority is to take into consideration the following matters of consideration contained within section 79C of the Environmental Planning and Assessment Act, 1979 as relevant to the development application:

79C(1)(a) the provisions of:

- (i) any environmental planning instrument

STATE ENVIRONMENTAL PLANNING POLICY (SEPP) – BASIX 2004

In accordance with the BASIX SEPP all new housing in NSW is required to meet a designated target for energy and water reduction.

DA2017/161
 24 Amaroo Avenue, Strathfield
 Lot 18 DP 35941 (Cont'd)

A BASIX Certificate was submitted as part of the application which indicates that the proposal meets the required reduction targets. An appropriate condition of consent will be imposed to ensure future compliance with these targets.

STRATHFIELD LOCAL ENVIRONMENTAL PLAN (SLEP) 2012

An assessment of the proposal against the general aims of SLEP 2012 is included below:

Cl. 1.2(2) Aims	Complies
(a) <i>To achieve high quality urban form by ensuring that new development exhibits design excellence and reflects the existing or desired future character of particular localities and neighbourhoods in Strathfield</i>	Yes
(b) <i>To promote the efficient and spatially appropriate use of land, the sustainable revitalisation of centres, the improved integration of transport and land use, and an appropriate mix of uses by regulating land use and development</i>	Yes
(c) <i>To promote land uses that provide a wide range of employment, recreation, retail, cultural, service, educational and other facilities for the local community</i>	Yes
(d) <i>To provide opportunities for economic growth that will enhance the local community</i>	Yes
(e) <i>To promote future development that integrated land use and transport planning, encourages public transport use, and reduced the traffic and environmental impacts of private vehicle use</i>	Yes
(f) <i>To identify and protect environmental and cultural heritage</i>	Yes
(g) <i>To promote opportunities for social, cultural and community activities</i>	Yes
(h) <i>To minimise risk to the community by identifying land subject to flooding and restricting incompatible development</i>	Yes

Comments: The proposed development is generally consistent with the aims of the Strathfield Local Environmental Plan (SLEP) 2012 which seeks the demolition of all existing structures and construction of a two (2) storey dwelling house with double garage and front fence.

Permissibility

The subject site is Zoned R2- Low Density Residential under Strathfield Local Environmental Plan (SLEP) 2012.

Dwelling houses are permissible within the R2 Zone with consent and is defined under SLEP 2012 as follows:

“Dwelling house means a building containing only one dwelling.”

The proposed development for the purpose of demolition of all existing structures and construction of a two (2) storey dwelling house with double garage and front fence is consistent with the definition above and is permissible within the R2 Zone with consent.

Zone Objectives

An assessment of the proposal against the objectives of the R2- Low Density Residential Zone is included below:

Objectives	Complies
➤ To provide for the housing needs of the community within a low density residential environment.	Yes

DA2017/161
 24 Amaroo Avenue, Strathfield
 Lot 18 DP 35941 (Cont'd)

- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.* Yes

Comments: The proposed development has considered the objectives of R2 Zone under the SLEP 2012 and is compliant.

Part 4: Principal development standards

An assessment of the proposal against the relevant provisions contained within Part 4 of the SLEP 2012 is provided below.

Height of building

Cl.	Standard	Controls	Proposed	Complies
4.3	Height of building	9.5m	9.38m	Yes
Objectives				Complies
(a)	<i>To ensure that development is of a height that is generally compatible with or which improves the appearance of the existing area</i>			Yes
(b)	<i>To encourage a consolidation pattern that leads to the optimum sustainable capacity height for the area</i>			Yes
(c)	<i>To achieve a diversity of small and large development options.</i>			Yes

Comments:

- Amended plans were submitted during the assessment process to include RL's of the proposed dwelling and confirm compliance with the maximum permitted height requirements.
- The proposed development seeks a maximum height of 9.3m which demonstrates compliance with Clause 4.3 of the SLEP 2012.
- The proposed height is appropriate for the gradient of the site and compatible with immediately adjoining properties.

Floor space ratio

Cl.	Standard	Controls	Proposed	Complies
4.4	Floor space ratio	0.625:1 (335.94m ²)	0.596:1 (320.46m ²)	Yes
Objectives				Complies
(a)	<i>To ensure that dwellings are in keeping with the built form character of the local area</i>			Yes
(b)	<i>To provide consistency in the bulk and scale of new dwellings in residential areas</i>			Yes
(c)	<i>To minimise the impact of new development on the amenity of adjoining properties</i>			Yes
(d)	<i>To minimise the impact of development on heritage conservation areas and heritage items</i>			N/A
(e)	<i>In relation to Strathfield Town Centre:</i>			Yes
	<i>i. to encourage consolidation and a sustainable integrated land use and transport development around key public transport infrastructure, and</i>			
	<i>ii. to provide space for the strategic implementation of economic, social and cultural goals that create an active, lively and people-oriented development</i>			
(f)	<i>In relation to Parramatta Road Corridor – to encourage a sustainable consolidation pattern that optimises floor space capacity in the Corridor</i>			Yes

DA2017/161
 24 Amaroo Avenue, Strathfield
 Lot 18 DP 35941 (Cont'd)

Comments:

- The proposed development achieves compliance with the relevant FSR provisions applying to the site under the SLEP 2012 which implies that it is appropriate for the site. The street is in a state of transition from predominantly single storey dwellings to two (2) storey dwellings. There is therefore a mixture of single storey and two (2) storey dwelling houses amongst the existing streetscape.
- As shown in Figure 5, the bulk and scale of the proposed dwelling house is consistent with the northern adjoining dwelling at 22 Amaroo Avenue. The dwelling at No.33 Amaroo Avenue as pictured in Figure 4 is also consistent with the bulk and scale proposed.
- The proposal is unlikely to adversely impact upon the amenity of adjoining properties by the imposition of recommended conditions.



Figure 5: Streetscape Elevation of subject site and adjoining properties

Part 6: Local Provisions

The relevant provisions contained within Part 6 of the SLEP 2012 are addressed below as part of this assessment:

6.1 Acid sulfate soils

The subject site is identified as having Class 5 soils and is located within 500m of Class 4 soils. However, excavation will not exceed 2m below the natural ground surface and is therefore unlikely to disturb soils.

6.2 Earthworks

Appropriate conditions of consent to be imposed.

6.3 Flood planning

The site is located within the 1 in 100 year flood level. The proposed development is consistent with the objectives of Clause 6.3 of the SLEP 2012 as it will provide a minimum 500mm freeboard above the 1 in 100 year flood level. Council’s Engineer has reviewed the application and has offered no objections to the proposal subject to imposition of recommended conditions of consent.

6.4 Essential services

Clause 6.4 of the SLEP 2012 requires consideration to be given to the adequacy of essential services available to the subject site. The proposed development is located within a well serviced area and features existing water and electricity connection and access to Council’s stormwater drainage system. As such, the subject site is considered to be adequately serviced for the purposes of the proposed development.

DA2017/161
 24 Amaroo Avenue, Strathfield
 Lot 18 DP 35941 (Cont'd)

79C(1)(a)(ii) any draft environmental planning instruments

Draft Part A of the Strathfield Consolidated Development Plan 2005 has been considered in respect of the proposal and there are no inconsistencies between the current Part A of the SCDCP 2005 and the Draft SCDCP 2005.

79C(1)(a)(iii) any development control plan

STRATHFIELD CONSOLIDATED DEVELOPMENT CONTROL PLAN (SCDCP) 2005

The following is an assessment of the proposal's compliance with the relevant provisions contained within SCDCP 2005.

PART A – DWELLING HOUSES AND ANCILLARY STRUCTURES

An assessment of the proposal against the objectives contained within Clause 1.3 of Part A of SCDCP 2005 is included below:

No.	Objectives	Complies
A	To preserve and enhance the residential amenity and heritage value of buildings in the Strathfield Municipality	Yes
B	To encourage construction of environmentally sustainable dwelling houses and ancillary structures	Yes
C	To preserve the appearance of dwellings in tree-lined streets and park-like settings	Yes
D	To maintain compatible architectural styles of dwelling houses within the streetscape	Yes
E	To encourage innovation in housing design and detail	Yes
F	To maintain continuity of streetscape by requiring new and altered dwellings to be constructed to a similar size and scale to adjoining developments	Yes
G	To provide a high standard of dwelling house design, construction and finish	Yes
H	To maximise solar access to existing and proposed developments	Yes
I	To provide adequate and convenient on-site car parking	Yes

Comments: The proposed rendered masonry finish and pitched roof form is compatible with the surrounding streetscape, specifically the adjoining dwelling to the north.

Streetscape

Cl. 3.2 Objectives	Complies
A. Ensure that development respects the height, scale, character, materials and architectural qualities of the surrounding neighbourhood, including any adjoining or nearby heritage item or heritage conservation area	Yes
B. Protect and retain the amenity of adjoining properties	Yes
C. Discourage the use of non-responsive streetscape elements	Yes
D. Ensure that each new dwelling, addition or alteration respects the predominant height, bulk and scale of existing residential development in the immediate vicinity	Yes
E. Ensure that the dominant building rhythm of the streetscape is reflected in the building design in terms of the spacing and proportion of the built elements	Yes
F. Retain a feeling of openness and space between built elements by maintaining landscaped setbacks	Yes

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G.	<i>Ensure that new dwellings have facades, which define, address, and enhance the public domain</i>	Yes
H.	<i>Preserve the appearance of dwellings set in the tree lined streets and park-like environment</i>	Yes
I.	<i>Achieve quality architecture in new development through the appropriate composition and articulation of building elements</i>	Yes
J.	<i>Encourage building materials, colours and finishes that are sympathetic to the materials and finishes of surrounding buildings and can be integrated into the overall building form</i>	Yes
K.	<i>To ensure fencing is sympathetic to the design of the dwelling and enhances the character of both the individual house and street</i>	Yes

Cl.	Element	Controls	Complies
3.3.1	<i>Neighbourhood character and amenity</i>	<ol style="list-style-type: none"> (1) <i>New dwellings positioned and oriented to address the street frontage and complement the existing pattern of development in the street</i> (2) <i>Consistently occurring positive building façade features within existing streetscape incorporated into the dwelling design</i> 	Yes
3.3.2	<i>Scale, massing and rhythm</i>	<ol style="list-style-type: none"> (1) <i>Overall scale, massing, bulk and layout to complement existing streetscape</i> (2) <i>New buildings, alterations and additions shall reflect dominant building rhythm in the street</i> 	Yes
3.3.3	<i>Street edge and garden setting</i>	<ol style="list-style-type: none"> (1) <i>Retain existing trees within the front setback</i> (2) <i>At least two (2) canopy trees within the front setback with minimum mature height of 10m</i> (3) <i>Driveway location must not necessitate the removal of any street tree</i> (4) <i>At least 50% of the front setback area must comprise deep soil landscaping</i> 	Yes
3.3.4	<i>Materials, colours, roof forms and architectural detailing</i>	<ol style="list-style-type: none"> (1) <i>Roof design to be similar in pitch, materials and colour to roofs in the immediate streetscape</i> (2) <i>Colours of garages, window frames, ventilation and downpipes and balustrading on main facades and elevation to complement external design of the building</i> (3) <i>Building form to be articulated to avoid large expanses of unbroken wall.</i> (4) <i>In relation to heritage items or buildings within a conservation area, cement render of previously unrendered masonry is not permitted</i> (5) <i>Materials used for additions and ancillary structures to be compatible with the existing dwelling house</i> (6) <i>Monotone face brick walls and tiled roofs used where they are existing in the immediate streetscape</i> (7) <i>Highly reflective materials are not acceptable for roof or wall cladding</i> 	Yes
3.3.5	<i>Fencing</i>	<ol style="list-style-type: none"> (1) <i>Front and side fencing facing a secondary street to be sympathetic to the style of the dwelling.</i> (2) <i>Any fencing forward of the building line may be topped by an additional 0.8m high open timber picket, wrought iron, palisade or similar element. Brick piers over 1m are permitted to support decorative elements, provided they are equally spaced along the street, and do not exceed a height of 1.8m.</i> (3) <i>Solid fencing forward of the building line shall not</i> 	No

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- exceed 1m above NGL.
- (4) Solid fencing up to 1.8m along a secondary frontage.
 - (5) Side and rear fences permitted up to 1.8m high.
 - (6) Materials not supported for front fences: unrendered cement block, galvanised or aluminium sheeting, fibre-cement board, brushwood, barbed wire, or fencing with a spear type design.
 - (7) Side fencing shall be stepped to reflect the topography of the street.
 - (8) Side and rear fences to allow stormwater to flow through or under the fence.
 - (9) Fencing on corner allotments to incorporate a minimum 1.5m x 1.5m splay adjacent to the road intersection to maintain sight distances for pedestrians and drivers.
 - (10) Solid fences adjoining vehicular access driveways to be provided with a minimum 1m x 1m splay to maintain sight distances for pedestrians and drivers.
 - (11) Corner splays must be landscaped.
 - (12) Council does not permit trees to be removed to facilitate a fence design.
 - (13) Dividing fences between private property and Council parks, reserves, open space etc. must be constructed only in timber palings (lapped and capped) with a maximum height of 1.8m.
 - (14) No gates or entries from private property onto Council's parks, reserves, open space, etc. are permitted.

Comments:

- The proposed scoria coloured terracotta roof tiles and rendered masonry finish is consistent with the other rendered finish dwelling houses in the streetscape.
- The proposed 'Dulux Exterior Low Sheen Acrylic' rendered paint finish is comparable to the rendered finish of the front fence and the rendered paint finish of other dwelling houses within the streetscape.
- 79.84m² (53.16%) of the front setback is proposed as deep soil landscaping.
- The relocation of the driveway will not result in any impacts to the street tree.
- The proposal seeks to construct a rendered pier and infill front fence with a maximum solid base of 470mm with an overall maximum height of 1.8m. A condition of consent is recommended to ensure the front fence is reduced in height to 1.6m so as to remain in scale with the front fence of the adjoining properties. The front fence infill comprises of vertically orientated wrought metal pickets. The fence is appropriately stepped to accommodate for the gradient of the site.

Architectural Design and Details

Cl. 5.2 Objectives	Complies
A. Encourage architecture that is innovative and that uses high quality detailing, blending elements characteristic of Strathfield with contemporary materials and features	Yes
B. Encourage building materials and finishes which are sympathetic to the materials and finishes within the surrounding context	Yes
C. Require the use of colours that are sympathetic to the surrounding dwelling and streetscape that is within proximity of the new development.	Yes

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D.	<i>Reduce the use of highly reflective colours and materials that create visual prominence</i>	Yes
E.	<i>Building forms should be compatible with the existing dwelling house (in the case of alteration and additions) or with adjoining dwelling houses and the streetscape in terms of type, form and colour</i>	Yes

Cl.	Element	Controls	Complies
5.3.1	<i>Building forms</i>	(1) <i>Flat roofs may be considered where there are similar roof forms present in the immediate street. Flat roofs are not appropriate in the case of heritage items or heritage conservation areas.</i> (2) <i>Where a dwelling is located on a street corner it shall be designed to address both street frontages. Blank walls shall not be presented to either frontage and walls shall be articulated or staggered so as to avoid appearing unduly bulky or long.</i>	Yes
5.3.2	<i>Two (2) storey porticoes</i>	(1) <i>Two (2) storey porticoes may be considered where they are in scale with the proposed dwelling and compatible with the streetscape.</i> (2) <i>Two (2) storey porticoes are to be vertically articulated or broken to reduce their height.</i> (3) <i>No porticoes or associated porches shall protrude more than 1m forward of the front building façade.</i> (4) <i>Porticoes are not to extend higher than the understorey of the eaves/guttering.</i>	Yes
5.3.3	<i>Dormers</i>	<i>Dormers shall be traditionally proportioned and rectilinear.</i>	Yes

Comments:

- Two (2) storey portico is appropriately articulated and forms part of the front façade and balcony. The portico extends 0.9m forward of the main building line.
- As previously stated, the proposed building form and schedule of colours and finishes is generally compatible with the surrounding streetscape.

Ecologically Sustainable Development

Cl. 6.2	Objectives	Complies
A.	<i>Encourage passive and active strategies in the design of dwellings and promote the achievement of ecologically sustainable practices</i>	Yes
B.	<i>Ensure dwellings are designed to allow sufficient natural ventilation and lighting whilst minimising heat gain during summer and maximising solar access during winter, thereby reducing the need for artificial cooling and heating</i>	Yes
C.	<i>Minimise the over use of Sydney's limited high quality domestic water supply by ensuring new dwellings incorporate water storage tanks for use in toilet flushing, landscape irrigation and to encourage new dwellings, additions and alterations to incorporate water saving devices and water conservation strategies</i>	Yes
D.	<i>Utilise low greenhouse impact water systems technology in all new dwellings</i>	Yes
E.	<i>Achieve greater efficiency in domestic energy consumption, thereby helping to alleviate the effects of greenhouse emissions</i>	Yes

Cl.	Element	Controls	Complies
6.3.1	<i>Solar access</i>	<i>(1) The design of new dwellings should ensure that living areas face north, sleeping areas face to the east or</i>	Yes

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	<i>and natural lighting</i>	<p>south, and utility areas to the west or south to maximise winter solar access.</p> <p>(2) In new dwellings, solar access to the windows of habitable rooms and to at least 50% of private open space must be provided or achieved for a minimum period of 4 hours between 9.00am and 3.00pm at the winter solstice (June 22).</p> <p>(3) In the case of alterations or additions to existing dwellings, solar access to the windows of habitable rooms and to the majority of private open space of adjoining properties must be substantially maintained or achieved for a minimum period of 3 hours between 9.00am and 3.00pm at the winter solstice (June 22).</p>	
6.3.2	<i>Natural heating</i>	<p>(1) Living areas should be oriented to the north to maximise direct solar access</p> <p>(2) Where it is proposed to plant trees to the north of the dwelling they must be deciduous to allow solar access during the winter</p> <p>(3) Materials with a high thermal mass are encouraged</p>	Yes
6.3.3	<i>Natural cooling</i>	<p>(1) Windows and walls should be shaded by the use of shading devices, eaves, louvres and trees. Shading devices should be sympathetic to dwelling design and not detract from the appearance of the dwelling</p> <p>(2) Windows should be positioned to capture breezes and allow for cross-ventilation</p>	Yes
6.3.5	<i>Water tanks</i>	<p>(1) Above ground water tanks shall be located behind the dwelling. Where it is not possible to locate a water tank wholly behind the dwelling, it should be located behind the front building line and screened from view from the public domain with appropriate landscaping</p> <p>(2) Above ground water tanks must be located at least 450mm from any property boundary</p>	Yes
6.3.6	<i>Hot water heater units</i>	<p>(1) Hot water units shall be located behind the dwelling. Where it is not possible to locate the unit either internally or wholly behind the dwelling, it must be located behind the front building line and screened from view from the public domain with appropriate landscaping</p> <p>(2) Hot water systems are not to be located on balconies unless they are screened from public view</p>	Yes

Comments:

- A BASIX Certificate was submitted with the development application meeting the designated target for energy and water reduction. In accordance with the BASIX Certificate a 2,500L rainwater tank is to be installed within the southern setback of the site. The rainwater tank will be setback a minimum 900mm from the southern side boundary.
- The shadow diagrams indicate that adjoining dwellings will receive at minimum 4 hours of solar access. 50% of private open space will receive solar access between 9am and 3pm on June 21st.

Building Height

Cl. 8.2 Objectives	Complies
A. <i>Dwelling houses and ancillary structures, including garages are to be no more than two (2) storey's high</i>	Yes
B. <i>Ensure that the overall size and height of dwellings relative to NGL</i>	Yes

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	<i>responds to the adjoining dwellings, site topography and the desired future scale of buildings in the street.</i>	
C.	<i>Provide suitable anchor points on the external load bearing walls for where additions are proposed</i>	Yes
D.	<i>Promote the continuation of pyramidal roof forms within Strathfield where they are already prevalent</i>	Yes
E.	<i>Achieve development that does not reduce or restrict reasonable solar access to living and outdoor areas</i>	Yes

Cl.	Element	Controls	Complies
8.3.1	<i>Building height</i>	(1) 3.5m maximum height for outbuildings, detached garages and carports (2) The building height shall follow the gradient for any given site	Yes
8.3.2	<i>Roof pitches and shape</i>	(1) Pitched roofs should be designed with a pitch between 23.5 and 45 degrees. (2) An attic may be built in the roof space of either a two (2) storey dwelling or a single storey dwelling or garage provided access to the attic is via internal stairs. (3) Flat roofs will be considered where they are already present in the street or where a street has no discernible architecture style. (4) Balconies are not permitted in the attic of a garage, unless: a) less than 1.8m ² in area; b) they are located in the centre of the wall or roof facing into the site; and c) do not allow any significant overlooking of adjoining properties.	No

Comments:

- A pitched roof is proposed and is consistent with the predominant roof style in the streetscape.
- The pitch of the roof is proposed to have a fall of 22.5 degrees and is thus a minor departure from the minimum 23.5 degree fall required in Section 8.3.2 of the SCDCP 2005. The roof pitch is considered acceptable and is generally consistent with roof pitches and the building form within the streetscape.

Landscaped Areas

Cl. 9.2	Objectives	Complies
A.	<i>Encourage landscaping that is appropriate to the style and scale of the dwelling and adjoining development</i>	Yes
B.	<i>Encourage new dwellings to preserve existing landscape elements on site and encourage the integration of existing landscape elements in the design of the proposal</i>	Yes
C.	<i>Ensure adequate deep soil planting is retained on each allotment</i>	Yes
D.	<i>Ensure both existing and new landscaping provides suitable shade and facilitates convective cooling breeze paths in summer</i>	Yes
E.	<i>Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna</i>	Yes
F.	<i>Encourage the use of native flora such as open woodland canopy trees, to provide a habitat for native fauna</i>	Yes
G.	<i>Provide functional private open and outdoor spaces for active or passive use by residents</i>	Yes
H.	<i>Provide private open areas with provision for clothes drying facilities screened from the street and lane or a public place</i>	Yes
I.	<i>Encourage the greater provision of more effective shade within the</i>	Yes

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	<i>community</i>	
J.	<i>Encourage the integration of existing trees into the design of the new or altered dwelling</i>	Yes
K.	<i>Require owners assess the feasibility of retaining existing site trees prior to the design of a development</i>	Yes
L.	<i>Ensure protection of trees during construction is adequate</i>	Yes

Cl.	Element	Controls	Complies
9.3.1	<i>Minimum landscaped area</i>	<i>36% as per Table 2 of Part A SCDCP 2005</i>	Yes
9.3.2	<i>Planting of landscaped areas</i>	(1) <i>Minimum 25% of canopy trees to comprise locally sourced indigenous species</i> (2) <i>Planting areas shall include a mix of low-lying shrubs, medium-high shrubs and canopy trees in location where they will soften the built form.</i> (3) <i>Where no existing canopy trees are present on a site at least two (2) canopy trees must be provided in the front yard and one (1) canopy tree in the rear yard.</i> (4) <i>New structures shall be positioned to provide for the retention and protection of existing significant trees, especially near property boundaries, and natural features such as rock outcrops.</i>	Yes
9.3.3	<i>Private outdoor living space</i>	<i>Private open space is to be provided in a single parcel rather than a fragmented space and shall be directly accessible from internal living areas of the dwelling</i>	Yes
9.3.4	<i>Tree removal and preservation</i>	(1) <i>Development shall provide for the retention and protection of existing significant trees, especially near property boundaries</i> (2) <i>The trunk of a proposed canopy tree must be planted a minimum of 4m from built structures, or a minimum of 3m from pier beam footings</i> (3) <i>New dwellings must be setback a minimum of 5m from any significant tree listed in Council's significant tree register</i> (4) <i>Building works should be located outside of the canopy spread of existing trees, with suitable setbacks depending upon species and size</i> (5) <i>Trees planted on side boundaries adjacent to neighbouring dwellings and structures must have a minimum 0.6m deep root deflection barrier provided for a minimum of 1.5m either side of the tree centre</i>	Yes

Comments:

- 39% (211.28m²) of the subject site is proposed as deep soil landscaped space which complies with the 36% (193.5m²) minimum landscaping requirements.
- The proposal will include the retention of the 'Brushbox' street tree and the planting of a Lagerstroemia Indica within the front setback. Council's Tree Coordinator has provided recommended conditions of consent to ensure the trees stated in the landscape plan are given substantially larger pot sizes. Another condition of consent is recommended to ensure two (2) canopy trees are to be planted within the front setback and one (1) within the rear yard to comply with Section 9.3.2 of the SCDCP 2005.
- The rear yard is directly accessible to the internal open plan living, dining and kitchen area.

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Setbacks

Cl	Objectives	Complies
10.2		
A.	<i>Establish and maintain the desired setbacks from the street and define the street edge</i>	Yes
B.	<i>Provide a transitional area between public and private space</i>	Yes
C.	<i>Create a perception of openness in streets</i>	Yes
D.	<i>Assist in achieving passive surveillance whilst protecting visual privacy</i>	Yes
E.	<i>Preserve and enhance the established garden settings within each local area</i>	Yes
F.	<i>Ensure new development is compatible with the established streetscape character</i>	Yes
G.	<i>Maintain view corridors between dwellings</i>	Yes
H.	<i>Reinforce a sense of openness of the locality</i>	Yes
I.	<i>Ensure that all new and existing dwellings achieve adequate visual and acoustic privacy</i>	Yes
J.	<i>Allow for appropriate access for services and utilities easements</i>	Yes
K.	<i>Minimise overshadowing of neighbouring properties from new developments</i>	Yes

Cl.	Element	Controls	Complies
10.3.1	Street setback	(1) <i>9m or prevailing setback in the street block</i> a) <i>1.5m for secondary street setbacks for dwellings on corner allotments</i> b) <i>3m where main entrance to dwelling from secondary frontage</i> (2) <i>Despite subclause (1), a primary street setback of less than 9m may be considered where:</i> a) <i>the predominant setback is the street block is less than 9m</i> b) <i>the proposed setback is not less than the setback of the existing dwelling</i> c) <i>the proposed setback would not be in conflict with the character of the existing streetscape</i> (3) <i>The street setback is measured at right angles from the lot boundary to the front wall of a dwelling</i> (4) <i>In the case of a corner site with two (2) frontages, the 9m setback applies to the narrowest or primary street frontage</i>	Yes
10.3.2	Side and rear setbacks	(1) <i>New dwellings and extensions: 25% of the width of the block with minimum 1.5m setbacks for each side</i> (2) <i>Minimum 6m rear setback to provide adequately sized outdoor living areas and adequate deep soil areas for shading/screening trees</i> (3) <i>Subject to meeting minimum landscaped areas, ancillary facilities such as garages/outbuildings may be located within the rear setback area</i> (4) <i>Following minimum setbacks apply to ancillary structures:</i> a) <i>Nil for detached garages and carport structures open on three (3) sides; 0.5m for all other</i> b) <i>0.5m setback from side and rear boundaries for garden sheds, studios, cabanas</i> c) <i>1m for pool concourse</i> d) <i>1m from any boundary and 3m from neighbouring habitable buildings for tennis courts</i>	Yes

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10.3.3	<i>East-west lots</i>	(1) <i>Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</i> (2) <i>Primary frontage facing east: minimum side setback should be on the north</i> (3) <i>The wider setbacks on the southern side may require relocation of driveway or crossing</i>	Yes
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Comments:

- The street setback is predominantly 9m with the ground floor entry porch extended from the main building line to a street setback of 8.1m.
- Section 10.3.2 of the SCDCP 2005 states that 25% of the width of the subject site is to be the combined setback of each side. The minimum combined setback of the subject site having a frontage of 16.765m is 4.19m. The minimum side setback on the northern boundary is 2.7m and 1.55m on the southern side setback, thus totalling 4.25m and in compliance with Section 10.3.2 of the SCDCP.
- The rear setback is approximately 6m to the internal living areas of the proposed dwelling house.
- The subject site is orientated facing west and has proposed to relocate the driveway to the southern side to reduce any potential overshadowing impacts.

Vehicle Access and Parking

Cl. 11.2	Objectives	Complies
A.	<i>Ensure that the area of access driveways is minimised in the design of the new development, addition or alteration</i>	Yes
B.	<i>Ensure driveway widths are kept to a minimum to allow for maximum landscaped areas</i>	Yes
C.	<i>Ensure that construction materials used for driveways respect the architectural qualities of the dwelling</i>	Yes
D.	<i>Garages and carports should not visually dominate the street façade of the dwelling</i>	Yes

Cl.	Element	Controls	Complies
11.3.1	<i>Driveway and grades</i>	(1) <i>Existing driveways must be used unless the applicant can demonstrate that:</i> (a) <i>relocation would improve solar access to the property and/or adjoining properties;</i> (b) <i>the amenity of any adjoining residences would not be unduly affected (with regard to sleeping areas);</i> (c) <i>relocation would not impact on street trees, on street parking or the streetscape; and</i> (d) <i>relocation would not adversely impact the safety of vehicles or pedestrians</i> (2) <i>Kerb and footpath crossings as part of the public domain must only be finished in natural finished concrete and not customised finishes that match the property driveway. Coloured concrete is not permitted in the driveway crossing outside the property boundary.</i> (3) <i>Driveway crossings, including apron and layback shall be located a minimum of 1m clear of any existing stormwater pits, lintels or poles and 2m clear of the trunk of any trees within the road reserve</i> (4) <i>The maximum width of driveways at the property boundary is to be 3m.</i> (5) <i>Vehicles accessing sites which front main roads shall be capable of entering and exiting in a forward</i>	Yes

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		<p>direction (i.e., vehicle manoeuvring shall be fully maintained within the site).</p> <p>(6) Vehicular turning areas for garages shall comply with the relevant Australian Standard.</p> <p>(7) Areas of concrete visible from a public road (including driveways and pedestrian ways) are to be kept to a minimum and coloured charcoal, grey or brown.</p> <p>(8) New dual or combined driveways are not encouraged. Existing dual driveways may be retained in circumstance where:</p> <p>a) The area of deep soil planting in the front garden is at least 50% of the front setback area; and</p> <p>b) Where the entry and egress are able to be undertaken in a safe manner in accordance with Australian road rules.</p>	
11.3.2	Garages and carports	<p>(1) Two (2) car parking spaces are to be provided and maintained behind the front building line of all new dwellings (i.e. garage/or allocated/stacked space). For lots less than 15m in width consideration may be given to one (1) car space. Where alterations and additions to existing dwellings are proposed and two (2) spaces are available, these spaces must be maintained.</p> <p>(2) Garages are to be recessed behind the main front facade of the dwelling and/or designed so as not to dominate the appearance of the building or streetscape.</p> <p>(3) Garages are not to be converted or used for any purpose other than that for which they are approved, that is, garages must not be converted into rumpus rooms, living areas, bedrooms, offices, etc.</p> <p>(4) Garages should be provided no more than at 150mm above ground level at their entry unless the slope of the site exceeds 1:8 (12.5%) in which case a suspended garage may be acceptable.</p> <p>(5) The minimum dimensions of parking spaces and garages shall comply with the relevant standards.</p>	Yes
11.3.3	East-west lots	<p>(4) Primary frontage facing west: the southern side setback should be utilised for the driveway/garage entry to reduce overshadowing</p> <p>(5) Primary frontage facing east: minimum side setback should be on the north</p> <p>(6) The wider setbacks on the southern side may require relocation of driveway or crossing</p>	Yes

Comments:

- The application seeks to relocate the driveway from northern side to the southern side. The driveway will be clear of any existing street trees, power poles and pits.
- The garage will provide two (2) car parking spaces and will be conditioned to ensure the minimum dimensions of parking spaces and garages will comply with relevant standards.
- A standard condition of consent is to be imposed to ensure the driveway width remains at 3m from the front property boundary.

Altering Natural Ground Level (cut and fill)

Cl. 13.2	Objectives	Complies
A.	Encourage minimal use of cut and fill to reduce site disturbance	Yes
B.	Ensure existing trees and shrubs are undisturbed and maintain	Yes

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ground water tables

C.	<i>Minimise impacts on overland flow/drainage and encourage the maintenance of existing ground levels</i>	Yes
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Cl.	Element	Controls	Complies
13.3.1	<i>Cut and fill</i>	(1) <i>Fill is limited to a maximum of 1m above natural ground level (NGL)</i> (2) <i>For all excavation works that require the use of fill, only clean fill is to be used</i> (3) <i>Cut and fill batters must be stabilised consistent with the soil properties.</i> (4) <i>Vegetation or structural measures are to be implemented as soon as the site is disturbed</i> (5) <i>All areas of excavation shall be setback from property boundaries in accordance with the building setback controls. No excavations shall be made to the ground within the minimum required setbacks</i> (6) <i>Where excavation work is proposed, the work must not affect or undermine the soil stability or structural stability of any buildings on adjoining properties</i> (7) <i>A dilapidation report may be required for all buildings which adjoin proposed excavation areas</i> (8) <i>Avoid excessive fill or floor levels to ensure convenient access between internal spaces and external recreation areas and to minimise potential impacts from overlooking</i>	Yes

Comments: Cut and fill will be used and thus minimal excavation is to take place.

Privacy

Cl. 14.2	Objectives	Complies
A.	<i>Maintain reasonable sharing of views from public places and living areas</i>	Yes
B.	<i>Ensure that public views and vistas are protected, maintained and where possible, enhanced</i>	Yes
C.	<i>Ensure that canopy trees take priority over views</i>	Yes
D.	<i>Ensure that the placement of balconies does not adversely impact on the visual privacy of adjoining properties</i>	Yes

Cl.	Element	Controls	Complies
14.3.1	<i>Views and view sharing</i>	(1) <i>Buildings shall maintain views where possible from surrounding and nearby properties and those available to the public from nearby public domain areas</i> (2) <i>Established building lines are to be maintained to preserve view sharing</i>	Yes
14.3.2	<i>Visual privacy</i>	<i>Private open space, recreation areas and living rooms of proposed and any existing adjoining dwellings are to be protected from direct overlooking within 9m by:</i> (1) <i>arranging the layout of a building so as to reduce opportunities for overlooking;</i> (2) <i>the use of fixed screening devices;</i> (3) <i>the separation of buildings;</i> (4) <i>the considered placement of windows and openings;</i> (5) <i>appropriate evergreen screen plants and trees; and</i> (6) <i>ensuring finished floor levels are not excessively elevated above NGL</i>	No
14.3.3	<i>Windows</i>	<i>Windows shall be designed to avoid overlooking of adjacent dwellings and where a transparent window is to be</i>	Yes

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		located within 9m of windows of an adjoining dwelling, the window must: (a) be offset from the edge of any windows in the adjoining dwelling by a distance of at least 0.5m; or (b) have a sill height of at least 1.7m about the floor; or have fixed, obscure glazing in any part of the window less than 1.7m above the floor	
14.3.4	Balconies and screening	(1) Upper storey balconies are not permitted on side boundaries, except where facing the secondary frontage of a corner lot, and provided other setback controls can be achieved (2) Elevated decks, verandahs and balconies shall incorporate privacy screens where necessary and shall be located at the front or rear of the building only (3) Small upper floor rear balconies measuring no more than 1m in depth by 2m in length may be permitted where an applicant can demonstrate that the balcony would not unreasonably impact upon the privacy of adjoining premises (including buildings and outdoor spaces) (4) Second storey balconies extending for the full width of the front façade are not permitted	Yes
14.3.5	Acoustic privacy	(1) Noise-sensitive rooms, such as bedrooms, should be located away from noise sources, including main roads, parking areas, living areas and recreation areas and the like (2) Double glazing, laminated glass, vibration-reducing footings or other materials, should be considered to minimise the effects of noise and/or vibrations (3) Suitable acoustic screen barriers or other noise mitigation measures may be required where physical separation is not able to be achieved	Yes

Comments:

- Windows 21, 22, 23 and 24 located to the upper rear elevation of the dwelling are provided with less than 9m separation from the private open space area at adjoining property. This results in opportunities for overlooking contrary to Section 14.3.2 of the SCDCP 2005. Accordingly, a special condition is to be imposed to redesign all four (4) windows to highlight windows with a minimum sill height of 1.7m from the floor. This will mitigate opportunities for overlooking into adjoining properties.

Access, Safety and Security

Cl. 15.2	Objectives	Complies
A.	Increase the safety and perception of safety in public and semi-public spaces	Yes
B.	Encourage the incorporation of crime prevention principles in the design of the proposed development	Yes
C.	Provide casual surveillance of the public domain to promote a safe pedestrian environment	Yes
D.	Provide privacy to rooms overlooking the street whilst maintaining surveillance	Yes
E.	Ensure the safety of pedestrians by separating pedestrian access from vehicle access	Yes
F.	Encourage the provision of an accessible entry to dwellings to accommodate a greater range of lifestyles and improve residential amenity and convenience	Yes

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 24 Amaroo Avenue, Strathfield
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Cl.	Element	Controls	Complies
15.3.1	<i>Address and entry sightlines</i>	(1) <i>Buildings are to be designed to allow occupants to overlook public places in order to maximise passive surveillance</i> (2) <i>Design landscaping and materials around dwellings and buildings, so that when plants are mature they do not unreasonably restrict views of pathways, parking and open space areas</i> (3) <i>External lighting should enhance safe access and security around the dwelling and light spill must not adversely impact on adjoining properties</i> (4) <i>Lighting must be designed and located so that it minimises the possibility of vandalism or damage, is appropriate for the street and minimises glare</i> (5) <i>Security lighting must be fitted with motion detectors to reduce energy use and meet relevant Australian Standards</i>	Yes
15.3.2	<i>Pedestrian entries</i>	(1) <i>Pedestrian entries and vehicular entries should be suitably separated to ensure pedestrian and resident safety</i> (2) <i>Building entrances and house numbers are to be clearly visible from the street, easily identifiable and appropriately lit</i> (3) <i>Walkways and landscaping should be used to direct visitors to the main building entrance</i> (4) <i>One (1) entry to the dwelling should be designed to be as accessible as possible. This entry should be a generous width, without steps, and should be located to facilitate movement</i> (5) <i>The path to any accessible entry should be appropriately paved, ideally achieve a 1:14 grade, and incorporate barriers or handrails where there is a drop off or change in level at the side of the path</i>	Yes

Comments:

- The proposed ground floor and first floor windows along the front façade of the dwelling would provide adequate passive surveillance to the street.
- The pedestrian entry and vehicular access are suitably separated.

Water and Soil Management

Cl. 16.2	Objectives	Complies
A.	<i>Encourage the incorporation of Sydney Water's Water Management Strategies in the development</i>	Yes
B.	<i>Ensure compliance with Council's Stormwater Management Code</i>	Yes
C.	<i>Ensure compliance with the NSW State Governments Flood Prone Lands Policy</i>	Yes
D.	<i>Ensure that appropriate soil erosion and sediment control measures are implemented on all sites that involve soil disturbances during construction</i>	Yes
E.	<i>Ensure new building work does not detrimentally affect the existing drainage system of any area of the Municipality</i>	Yes
F.	<i>Ensure that new development in areas that may be affected by acid – sulfate soils do not adversely impact the underlying ground conditions and soil acidity</i>	Yes
G.	<i>Ensure that economic and social costs, which may arise from damage to property from flooding, are not greater than that which can reasonably be</i>	Yes

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managed by the property owner and general community

Cl.	Element	Controls	Complies
16.3.1	Onsite water management and stormwater control	1) Developments shall comply with Council's Stormwater Management Code 2) On site detention devices may be required to assist in the management of stormwater on site.	Yes
16.3.2	Acid sulfate soils	Development is to ensure that sites with potential to contain acid sulfate soils are managed in a manner consistent with the provisions contained in Strathfield Draft LEP 2008 and the relevant standards and guidelines	Yes
16.3.3	• Flood prone areas and through site drainage	(1) Flood affected properties must comply with Council's Interim Flood Prone Lands Policy (Flood Prone Areas and Through Site Drainage) (2) Where a site is subject to flooding applicants should seek written advice from Councils Planning & Environment section in relation to minimum habitable floor height for the site (3) In areas subject to major overland flow from adjoining properties, applicants are required to engage a suitably qualified hydraulics engineer and lodge a drainage/flood report prepared by a hydraulics engineer (4) Applicants must comply with Council's Stormwater Management Code with regard to drainage and stormwater detention matters. Full details and plans of the stormwater system are to be submitted for approval as part of the development application	Yes
16.3.4	• Soil erosion and sediment control	(1) Appropriate soil erosion and sediment control measures must be detailed in the development application and implemented prior to the commencement of work. (2) The following sediment control measures are recommended: a) perimeter bank and channels; b) turf filter strips; c) sediment fences; d) sediment traps; and e) roof guttering. (3) Applicants may be required to provide plans showing stormwater quality treatment techniques to prevent sediments and polluted waters from discharging from the site during the construction phase. Such plans will show temporary measures designed in accordance with the NSW Department of Housing, Managing Urban Stormwater, Soils and Construction Manual.	Yes

Comments:

- The site is located within the 1 in 100 year flood level. A flood impact statement accompanied the development application. Council's Engineer has offered no objections to the proposal subject to the imposition of recommended conditions of consent.
- A sediment erosion and control plan accompanied the development application and a condition is recommended ensuring its compliance.

Services and Utilities

Cl.	Element	Controls	Complies
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 24 Amaroo Avenue, Strathfield
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17	Electricity / telecommunications / water / sewer	Services are to be provided in accordance with the relevant service authority requirements	Yes
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Comments:

- A Sydney Water sewer line bisects the property north to south. Accordingly, a condition of consent has been recommended to ensure the proposed development does not affect Sydney Water infrastructure.

Ancillary Structures

Cl. 20.1	Objectives	Complies
A.	Ensure that the design and location of ancillary structures takes into account the streetscape and overall environmental impact	Yes
B.	Ensure that the provision of ancillary structures, such as air conditioning units, are considered at the design stage of a proposed development	Yes

Cl.	Element	Controls	Complies
20.2.1	Waste bin storage and management	1) Developments shall comply with Part H of SDCDP 2005 2) On site detention devices may be required to assist in the management of stormwater on site.	Yes
20.2.2	Retaining walls	(1) Retaining walls are to be no more than a maximum of 1.2m in height (2) Council requires retaining walls in excess	Yes
20.2.4	Air conditioning	1) Air-conditioning units are to be located within a proposed dwelling or within a suitable building and appropriately soundproofed from any habitable room of an adjoining property 2) Where an air-conditioning unit cannot be located in a building or concealed in a structure (as indicated above), it is to be located in the central third of the rear wall of the dwelling and be a minimum of 3m from any boundary 3) Any building work associated with the installation of an air-conditioning unit must not reduce the structural integrity of any existing buildings 4) Only residential grade air conditioners are to be installed and not commercial grade air conditioners 5) Air-conditioning units must be installed to comply with the Protection of the Environment Operations Act 1997 and Protection of the Environment Operations (Noise Control) Regulation 2000	Yes

Comments:

- The Air Conditioning Unit has not been shown on the plan. The Statement of Environmental Effects states that it is to be located outside of the stairwell 2.7m from the northern side boundary of the proposed two (2) storey dwelling. A special condition is recommended to ensure the A/C Unit is concealed within a soundproof structure and be of residential grade only.

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PART H - WASTE MANAGEMENT (SCDCP 2005)

The proposed development was accompanied by a Waste Management Plan detailing the types of waste created as a result of the demolition of existing structures and construction of a two (2) storey dwelling house with double garage.

An appropriate condition of consent will be recommended to ensure waste is appropriately managed and is contained to that specified within the Waste Management Plan.

79C(1)(iia) any planning agreement or draft planning agreement

No planning agreement has been entered into under section 93F of the *Environmental Planning and Assessment Act 1979*.

(i) matters prescribed by the regulations

Clause 92 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* requires Council to take into consideration the provisions of the Government Coastal Policy and Australian Standard AS2601–1991: *The Demolition of Structures*, in the determination of a development application.

Having regard to these prescribed matters, the proposed development is not located on land subject to the Government Coastal Policy as determined by Clause 92(1)(a)(ii) however does involve the demolition of a building for the purposes of AS 2601 – 1991: *The Demolition of Structures*.

Should this application be approved, appropriate conditions of consent are included within the recommended to ensure compliance with any relevant regulations.

(ii) any coastal zone management plan

The NSW Government projects sea levels to rise by 40cm in 2050 and by 90cm in 2100 above the relative mean sea level in 1990. These planning benchmarks are to be considered in the assessment of development applications through the applicable coastal zone management plan or alternatively the provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

Although Council is not subject to a coastal zone management plan, the sea level rise planning benchmarks have also been established in order to assess the likely increase in the frequency, duration and height of flooding and as a consequence likely property and infrastructure damage on affected and potentially affected land. Council is therefore required to consider the impact of sea level rise and resultant flooding from Powell's Creek and Cook's River which are tributaries of Sydney Harbour (Parramatta River) and Botany Bay respectively.

The proposed development is located on a site that is affected by the existing 1 in 100 year flood event or is likely to be as a result of the planning benchmarks for sea level rise mentioned above. Accordingly, the proposed development has been assessed against the relevant provisions of the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*.

79C(1)(b) the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

Visual Privacy

DA2017/161**24 Amaroo Avenue, Strathfield****Lot 18 DP 35941 (Cont'd)**

Section 14.3.2 of Part A of the Strathfield Consolidated Development Control Plan 2005 states *“private open space, recreation areas and living rooms of proposed and any existing adjoining dwellings are to be protected from direct overlooking within 9m”*. The four (4) east-facing windows (W21, W22, W23 and W24) which service bedrooms, result in potential opportunities for direct overlooking into the adjoining property to the east (rear). The windows are located 6m from the rear boundary and therefore are contrary to Section 14.3.2 of the SCDCP 2005. As such, a condition has been recommended to replace all windows as highlight windows so as to restrict views and protect amenity of adjoining residents.

Streetscape

Section 3.3.5 of Part A of the SCDCP 2005 specifies *“any fencing forward of the building line may be topped by an additional maximum 0.8m high open timber picket, wrought iron, palisade or similar element. Brick piers over 1m in height are permitted to support the decorative elements, provided they are equally spaced along the street and do not exceed a height of 1.8m”*. The proposal seeks to construct a rendered pier and infill front fence with a maximum solid base of 470mm with an overall maximum height of 1.8m. The design of the fence is sympathetic to the proposed two (2) storey dwelling house and generally provides a feeling of openness amongst the existing streetscape. However, it is contrary to Section 3.3.5 of the SCDCP as the metal picket infill will exceed the maximum 0.8m permitted. Accordingly, a condition of consent is recommended to reduce the fence height to 1.6m to better correspond to adjoining property fences (No.22 and No.26 Amaroo Avenue). This is to ensure that the front fence is appropriate to the prevailing scale and character of the adjoining properties in the streetscape.

Roof Pitch

Section 8.3.2 of Part A of the SCDCP 2005 states that *“pitched roofs should be designed with a pitch between 23.5 and 45 degrees of horizontal”*. The pitch of the roof is proposed to have a fall of 22.5 degrees and is thus a minor departure from the minimum 23.5 degree fall required in Section 8.3.2 of the SCDCP 2005. The roof pitch is considered acceptable and is generally consistent with the roof pitch and building form within the existing streetscape.

Flooding

The subject site is located within the 1 in 100 year flood event attributed to the Cooks River and Cox Creek. Council's Engineer has recommended that all flood sensitive equipment including the rainwater tank, hot water system and Air Conditioning Unit be located above the 1 in 100 year flood level. As such, a special condition of consent has been recommended to ensure the proposed development is not adversely impacted by a 1 in 100 year flood event.

Landscaping

The subject site is proposing a front fence along the western street frontage which results in potential adverse implications to Council's street tree. Council's Tree Coordinator has thereforerecommended that the front fence be constructed using pier and beams to avoid damaging roots from street tree (Brushbox). All works and construction of the front fence are to be under the supervision of an AQF level 5 Arborist. This is to ensure the protection of trees to be retained on Council's Road Reserve.

Council's Tree Coordinator has also recommended that the trees and shrubs proposed to revegetate the subject site in accordance with the submitted Landscape Plan prepared by RFA Landscape Architects require substantially larger pot sizes. Accordingly, a special condition of consent has been recommended to ensure the trees and shrubs in the submitted landscape plan attain a larger pot size.

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

The proposed development is considered to be suitable to the site in that it provides for the housing needs within a low density residential environment.

79C(1)(d) any submissions made in accordance with this Act or the regulations

The application was notified in accordance with Part L of the SCDCP 2005 from **20th November 2017** to **3rd December 2017**, with **Three (3)** written submissions received, raising the following concerns:

1. *Tree Preservation- concern was raised over the removal of the Jacaranda Tree within front setback.*

Assessing officer's comments: Council's Tree Coordinator has reviewed the application and supports the removal of the Jacaranda located within the front setback of the site. The Jacaranda is proposed to be removed to relocate the existing driveway from the northern side to the southern side. As the subject site is west facing, relocating the driveway and garage to the southern side will reduce potential overshadowing impacts. This will therefore create the best result so as not to adversely impact adjoining properties.

2. *Visual Privacy- concern was raised over the potential direct overlooking opportunities for the rear windows in the eastern elevation.*

Assessing officer's comments: The four (4) rear windows (W21, 22, 23 and 24) service bedrooms yet present potential opportunities for direct overlooking into the adjoining property to the east (rear). The windows are located 6m from the rear boundary to the private open space of the adjoining property and is therefore contrary to Section 14.3.2 of the SCDCP 2005. Accordingly, a condition of consent has been recommended to redesign the windows as highlight windows with a sill height of 1.7m above the floor level to ensure overlooking opportunities are restricted and thus not to adversely impact the amenity of adjoining residents.

3. *Shared Fencing- concern was raised over compatibility of the front and side fencing within front setback to adjoining properties.*

Assessing officer's comments: Objective K of Section 3 of Part A of the Strathfield Consolidated Development Control Plan 2005 states "*to ensure fencing is sympathetic to the design of the dwelling and enhances the character of both the individual house and street*". The proposed fence is recommended to be reduced in height so as to complement the height of the front fences to the adjoining properties.

Side fencing between adjoining properties is governed by the Dividing Fences Act 1991. Shared fencing arrangements such as construction phases of fencing are to be agreed upon between adjoining residents.

79C(1)(e) the public interest

The public interest is served through the detailed assessment of this development application under the relevant local planning controls and legislation and consideration of any submissions received relating to it by Council. The proposed development is not considered to be contrary to the public interest.

SECTION 94 CONTRIBUTIONS

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Section 94 of the EP&A Act 1979 relates to the collection of monetary contributions from applicants for use in developing key local infrastructure. The Act reads as follows:

- “(1) If a consent authority is satisfied that development for which development consent is sought will or is likely to require the provision of or increase the demand for public amenities and public services within the area, the consent authority may grant the development consent subject to a condition requiring:*
- (a) the dedication of land free of cost, or*
 - (b) the payment of a monetary contribution, or both.*
- (2) A condition referred to in subsection (1) may be imposed only to require a reasonable dedication or contribution for the provision, extension or augmentation of the public amenities and public services concerned.”*

STRATHFIELD INDIRECT SECTION 94 CONTRIBUTIONS PLAN

Section 94 Contributions are applicable to the proposed development in accordance with the Strathfield Indirect Development Contributions Plan 2010-2030 as follows:

Local Amenity Improvement Levy	\$8,250.00
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CONCLUSION

The application has been assessed having regard to Section 79C of the Environmental Planning and Assessment Act 1979, the Strathfield Local Environmental Plan 2013 and the Strathfield Development Control Plan 2005 and is considered to be satisfactory for approval, subject to the recommended conditions of consent.

RECOMMENDATION

That Development Application No. 2017/161 for demolition of existing structures and construction of a new two (2) storey dwelling with front fence and double garage at 24 Amaroo Avenue, Strathfield be **APPROVED**, subject to the following conditions:

SPECIAL CONDITIONS (SC)

1. FLOODING (SC)

Rainwater tank, hot water tank system, air conditioning units and other flood sensitive equipment must be located above the 1 in 100 year flood level.

(Reason: To ensure the proposed development is not adversely impacted by a 1 in 100 year flood event.)

2. LANDSCAPING (SC)

- a) Construction of front fence to be constructed using pier and beams to avoid damaging roots from *Lophostemon confertus* (Brushbox) growing in nature strip. All works to be under the supervision of an AQF level 5 Arborist.

(Reason: To ensure the protection of trees to be retained on Council's Road Reserve.)

- b) Trees and shrubs proposed to revegetate this site in accordance with submitted Landscape plan prepared by RFA Landscape Architects require substantially larger pot

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sizes. 5L stock is not considered acceptable for replacement tree stock. (Please note that some tree species are listed in shrubs column on Landscape plan).

(Reason: To ensure the trees and shrubs in the submitted landscape plan attain a larger pot size to cater for natural growth of the vegetation)

3. AIR-CONDITIONING (SC)

The air-conditioning unit which is required to be provided in accordance with the BASIX Certificate shall be a residential system and shall be enclosed within an appropriate soundproof box. To protect the amenity of adjacent properties, the condenser unit for the air conditioner must have a certificate prepared by a suitably qualified person confirming that the unit has been tested for heating and cooling on the highest settings and that the noise levels generated do not exceed 5 dB(A) above background noise levels when tested at the property boundary between 8 pm and 10 pm. Details demonstrating compliance shall be submitted to and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.

(Reason: To ensure the Air-Conditioning Unit is designed and constructed according to the approved BASIX Certificate and to minimise the impact of the noise and amenity of adjoining properties.)

4. PRIVACY (SC)

The following privacy measures shall be installed and maintained at all times:

- a) Windows (W21, 22, 23 and 24) depicted on Elevations- 2 of 2, A302 prepared by Urbanform Design must have a sill height of at least 1.7m above the finished floor level or have fixed obscure glazing in any part of the windows less than 1.7m above finished floor level.
- b) Amended plans must be prepared and submitted to the Principal Certifying Authority for approval prior to the issue of a Construction Certificate.

(Reason: To ensure direct overlooking is restricted and the amenity of adjoining residents is not adversely impacted.)

5. FENCING- FRONT FENCE HEIGHT (SC)

The fence is to be no higher than 1.6m above natural ground. Solid fencing forward of the building line (including the building line to a secondary street frontage on a corner site) shall not exceed a height of 1m above natural ground level. The fence may be topped by an additional maximum 0.8m high open timber picket, wrought iron, palisade or similar element.

Brick piers over 1m in height are permitted to support the decorative elements, provided they are equally spaced along the street, and do not exceed a height of 1.6m. Plans demonstrating compliance with this condition are to be submitted to the Principal Certifying Authority prior to the issue of Construction Certificate.

(Reason: To ensure the front fence is kept in the appropriate scale and character of the adjoining properties and existing streetscape.)

GENERAL CONDITIONS (GC)

6. APPROVED PLANS AND REFERENCE DOCUMENTATION (GC)

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The development, except where modified by a condition(s) of consent, is to be carried out in accordance with the following plans and reference documentation:

Plans affixed with Council's 'Development Consent' stamp relating to Development Consent No. 2017/161:

Drawing No.	Title/Description	Prepared by	Issue / Revision & Date	Date received by Council
A201	Proposed Ground Floor Plan	Urbanform Design	A 26 September 2017	8 November 2017
A202	Proposed First Floor Plan and Proposed Roof Plan	Urbanform Design	A 26 September 2017	8 November 2017
A002	Survey Plan	RHCO-Richard Hogan & Co. Surveying & Development Consultants	A	8 November 2017
A101	Site Analysis Plan	Urban Form Design	A 26 September 2017	8 November 2017
A102	Sedimentation Control and Demolition Plan	Urbanform Design	A 26 September 2017	8 November 2017
A103	Proposed Site Plan	Urbanform Design	A 26 September 2017	8 November 2017
A301	Elevations 1 Of 2	Urbanform Design	B	9 January 2018
A302	Elevations 2 of 2	Urbanform Design	B	9 January 2018
A303	Street Elevation & Section A-A	Urbanform Design	B	9 January 2018
A401	Shadow Diagrams	Urbanform Design	A 26 September 2017	8 November 2017
HDA01	Site Plan & Legend	LAM Consulting Engineers	P1 29 September 2017	8 November 2017
HDA02	Stormwater Floor Plan & Roof Plan	LAM Consulting Engineers	P1 29 September 2017	8 November 2017
HDA03	Sediment Control Plan	LAM Consulting Engineers	P1 29 September 2017	8 November 2017
L-01	Landscape Plan	Ray Fuggle and Associates Landscape Architects	A 22 September 2017	8 November 2017

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Reference Documentation affixed with Council's 'Development Consent' stamp relating to Development Consent No. 2017/161:

Title / Description	Prepared by	Issue/Revision & Date	Date received by Council
Statement of Environmental Effects	Urbanform Designs	22 September 2017	8 November 2017
Basix Certificate No.863000S_02	Urbanform Design	6 October 2017	8 November 2017
External Finishes Schedule	Urbanform Designs		8 November 2017
Waste Management Plan	Urbanform Designs	25 September 2017	8 November 2017
Arboricultural Impact Assessment Report	Glenyss Laws Consulting Arborist	1 November 2017	8 November 2017
NatHERS Certificate No.0002076826	Building & Energy Consultants Australia Pty Ltd	25 October 2017	8 November 2017
Flood Certificate	WMA Water	5 September 2017	15 November 2017

In the event of any inconsistency, the conditions of this consent shall prevail.

(Reason: To ensure that the form of the development undertaken is in accordance with the determination of Council.)

7. CONSTRUCTION HOURS (GC)

No construction or any other work related activities shall be carried out on the site outside the hours of 7.00 am to 5.00 pm Mondays to Fridays and 8am to 1pm Saturdays.

No building activities are to be carried out at any time on a Sunday or public holiday.

Where the development involves the use of jackhammers/ rock breakers and the like or other heavy machinery, such equipment may only be used between the hours of 7.00 am - 5.00 pm Monday to Friday only.

(Reason: To maintain amenity to adjoining land owners.)

8. CONSTRUCTION WITHIN BOUNDARIES (GC)

The development including but not limited to footings, walls, roof barges and guttering must be constructed wholly within the boundary of the premises. No portion of the proposed structure shall encroach onto the adjoining properties. Gates must be installed so they do not open onto any footpath or adjoining land.

(Reason: Approved works are to be contained wholly within the subject site.)

9. DEMOLITION – GENERALLY (GC)

Alteration and demolition of the existing building is limited to that documented on the approved plans (by way of notation). No approval is given or implied for removal and/or

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rebuilding of any portion of the existing building which is not shown to be altered or demolished.

(Reason: To ensure compliance with the approved development.)

10. DEMOLITION - SITE SAFETY FENCING (GC)

Site fencing is to be erected to a minimum height of 1.8m complying with WorkCover Guidelines, to exclude public access to the site, prior to any demolition works occurring and maintained for the duration of the demolition works.

If applicable, a separate Hoarding Application for the erection of an A class (fence type) or B class (overhead type) hoarding along the street frontage(s) complying with WorkCover requirements must be obtained including:

- payment to Council of a footpath occupancy fee based on the area of footpath to be occupied and Council's Schedule of Fees and Charges before the commencement of work; and
- provision of a Public Risk Insurance Policy with a minimum cover of \$10 million in relation to the occupation of and works within Council's road reserve, for the full duration of the proposed works, must be obtained with a copy provided to Council.

(Reasons: Statutory requirement and health and safety.)

11. LANDSCAPING - CANOPY TREES IN FRONT SETBACK (GC)

New development shall provide at least two (2) canopy trees within the front setback adjacent the front boundary (existing trees may be included). New canopy trees shall be at least three (3) metres high at the time of planting and capable of reaching a mature height of 10m.

Species shall be selected from Council's Recommended Tree List (Available from Council's website or from the Customer Service Centre). Compliance with this condition is to be demonstrated to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

(Reason: To ensure the landscape character of the locality is maintained.)

12. LANDSCAPING - TREES PERMITTED TO BE REMOVED (GC)

The following listed trees are permitted to be removed to accommodate the proposed development:

Tree No. in Arborist Report	Tree	Location
2	Nerium Oleander	Nature strip
3	Schefflera actinophylla (Umbrella tree)	Front setback
4	Jacaranda mimosifolia	Front setback

All trees permitted to be removed by this consent shall be replaced by species selected from Council's Recommended Tree List.

Replacement trees shall be a minimum 50 litre container size. Trees are to conform to the NATSPEC guide and Guide for assessing the quality of and purchasing of landscape trees

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by Ross Clarke, 2003. Trees are to be true to type, healthy and vigorous at time of delivery and planting, shall be pest and disease free, free from injury and wounds and self-supporting; and shall be maintained until maturity.

All trees are to be staked and tied with a minimum of three (3) hardwood stakes. Ties are to be hessian and fixed firmly to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant.

Root deflection barriers having a minimum depth of 600mm are to be installed adjacent to all footpaths and driveways.

Soil conditioner/fertilizer/moisture retention additive/s are to be applied in accordance with manufacturer's recommendations, and mixed into the backfilling soil after planting tree/s.

A minimum 75mm depth of organic mulch shall be placed within an area 0.5m from the base of the tree.

Details demonstrating compliance shall be demonstrated to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

(Reason: To ensure appropriate planting back onto the site.)

13. LANDSCAPING - TREE PRESERVATION (GC)

All street trees and trees on private property that are protected under Council's controls, shall be retained except where Council's prior written consent has been obtained. The felling, lopping, topping, ringbarking, wilful destruction or removal of any tree/s unless in conformity with this approval or subsequent approval is prohibited.

All healthy trees and shrubs identified for retention on the approved drawings are to be suitably protected in accordance with Australian Standard AS4970 – Protection of Trees on Development prior to the commencement of any works (including any demolition and excavation) and maintained for the duration of the works.

(Reason: To ensure the protection of trees to be retained on the site.)

14. MATERIALS – CONSISTENT WITH SUBMITTED SCHEDULE (GC)

All external materials, finishes and colours are to be consistent with the schedule submitted and approved by Council with the development application.

(Reason: To ensure compliance with this consent.)

15. PRINCIPAL CERTIFYING AUTHORITY (PCA) IDENTIFICATION SIGN (GC)

Prior to commencement of any work, signage must be erected in a prominent position on the work site identifying:

- i) the Principal Certifying Authority (PCA) by showing the name, address and telephone number of the PCA;
- ii) the Principal Contractor by showing the Principal Contractor's name, address and telephone number (outside of work hours) for that person; and
- iii) the sign must state that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the work is being carried out, but must be removed

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when the work has been completed.

This clause does not apply to building work, subdivision work or demolition work that is carried out inside an existing building that does not affect the external walls of the building.

(Reason: Statutory requirement.)

16. PRIVACY - SCREEN PLANTING TO SIDE AND REAR BOUNDARIES (GC)

Evergreen shrubs with a minimum 5 litre container size achieving a minimum mature height of 3m shall be planted along the side and rear boundaries to provide suitable privacy screening. Screen planting shall be maintained at all times. Details of the selected plants shall be submitted to and approved by the Principal Certifying Authority. Compliance with this condition shall be certified by the Principal Certifying Authority, prior to occupation of the premises.

(Reason: To maintain privacy amenity to neighbouring residences.)

17. SITE MANAGEMENT (DURING DEMOLITION AND CONSTRUCTION WORKS)

All of the following are to be satisfied/complied with during demolition, construction and any other site works:

- i) All demolition is to be carried out in accordance with Australian Standard AS 2601-2001.
- ii) Demolition must be carried out by a registered demolition contractor.
- iii) A single entrance is permitted to service the site for demolition and construction. The footway and nature strip at the service entrance must be planked out.
- iv) No blasting is to be carried out at any time during construction of the building.
- v) Care must be taken during demolition/ excavation/ building/ construction to prevent any damage to adjoining buildings.
- vi) Adjoining owner property rights and the need for owner's permission must be observed at all times, including the entering onto land for the purpose of undertaking works.
- vii) Any demolition and excess construction materials are to be recycled wherever practicable.
- viii) The disposal of construction and demolition waste must be in accordance with the requirements of the Protection of the Environment Operations Act 1997.
- ix) All waste on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997. All excavated material should be removed from the site in an approved manner and be disposed of lawfully to a tip or other authorised disposal area.
- x) All waste must be contained entirely within the site.
- xi) Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place which can lawfully accept it. All non-recyclable demolition materials are to be disposed of at an approved waste disposal depot in accordance with legislation.
- xii) All materials on site or being delivered to the site are to generally be contained within the site. The requirements of the Protection of the Environment Operations Act 1997 must be complied with when placing/stockpiling loose material, disposing of concrete waste, or other activities likely to pollute drains or water courses.
- xiii) Details as to the method and location of disposal of demolition materials (weight dockets, receipts, etc.) should be kept on site as evidence of approved methods of disposal or recycling.

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- xiv) Any materials stored on site must be stored out of view or in such a manner so as not to cause unsightliness when viewed from nearby lands or roadways.
- xv) Public footways, include nature strips and roadways adjacent to the site must be maintained and cleared of obstructions during construction. No building materials, waste containers or skips may be stored on the road reserve or footpath without prior separate approval from Council, including payment of relevant fees.
- xvi) Building operations such as brick-cutting, washing tools or paint brushes, and mixing mortar not be performed on the roadway or public footway or any other locations which could lead to the discharge of materials into the stormwater drainage system.
- xvii) All site waters during excavation and construction must be contained on site in an approved manner to avoid pollutants entering into waterways or Council's stormwater drainage system.
- xviii) Any work must not prohibit or divert any natural overland flow of water.
- xix) Toilet facilities for employees must be provided in accordance with WorkCover NSW.
- xx) Protection pads are to be installed to the kerb and gutter where trucks and vehicles enter the site.

(Reason: To ensure that demolition, building and any other site works are undertaken in accordance with relevant legislation and policy and in a manner which will be non-disruptive to the local area.)

18. STORMWATER MANAGEMENT PLAN - CERTIFICATION REQUIREMENT (GC)

A detailed Stormwater Management Plan (SWMP) in line with Council's Stormwater Management Code is to be prepared and certified by a practicing Chartered Professional Engineer on the National Professional Engineer's Register (NPER) at Engineers Australia and submitted to the Principal Certifying Authority and Council, prior to the issue of a Construction Certificate. The SWMP is to be based on the approved development as modified by any conditions of consent.

(Reason: To ensure appropriate provision is made for the disposal and management of stormwater generated by the development, and to ensure public infrastructure in Council's care and control is not overloaded.)

19. SYDNEY WATER - STAMPED PLANS PRIOR TO COMMENCEMENT (GC)

The approved plans must be submitted to a Sydney Water Quick Check agent or Customer Centre to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met. Plans will be appropriately stamped.

For Quick Check agent details please refer to the web site www.sydneywater.com.au (see Building Developing and Plumbing then Quick Check) or telephone 13 20 92. The consent authority or a Certifying Authority must ensure that a Quick Check agent/Sydney Water has stamped the plans before the commencement of work.

(Reason: Compliance with Sydney Water requirements.)

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE (CC)

20. BASIX COMMITMENTS (CC)

The approved BASIX Certificate shall be submitted to the Principal Certifying Authority with the application for a Construction Certificate.

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Where a change or changes are proposed in the BASIX commitments, the applicant must submit a new BASIX Certificate to the Principal Certifying Authority and Council. If any proposed change in the BASIX commitments is inconsistent with the development consent the applicant will be required to submit a modification to the development consent to Council under Section 96 of the Environmental Planning and Assessment Act 1979.

All commitments in the BASIX Certificate must be shown on the plans accompanying the Construction Certificate.

(Reason: Statutory compliance.)

21. BUILDING CODE OF AUSTRALIA - COMPLIANCE WITH (CC)

All architectural drawings, specifications and related documentation shall comply with the Building Code of Australia (BCA). All work must be carried out in accordance with the requirements of the Building Code of Australia (BCA).

In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, such a contract of insurance is to be in force before any building work authorised to be carried out by the consent commences.

Details demonstrating compliance with this condition are to be submitted to the Principle Certifying Authority, prior to issue of the Construction Certificate.

(Reason: This is a 'prescribed' condition under clause 98(1) of the Environmental Planning and Assessment Regulation 2000.)

22. CAR PARKING - VEHICULAR ACCESS RAMPS (CC)

Vehicular access ramps shall comply with the provisions of AS/NZS 2890.1:2004. Plans to be submitted shall contain the following details:

- i) Longitudinal section along the extreme wheel paths of each driveway/access ramp at a scale of 1:25 demonstrating compliance with the scraping provisions of AS/NZS 2890.1:2004. It shall include all levels and grades, including those levels stipulated as boundary levels, both existing and proposed. It shall extend from the centre-line of the roadway through to the parking area.
- ii) Sections showing the clearance to the underside of any overhead structure (minimum headroom requirements 2200mm minimum for standard headroom clearance or 2400mm where disabled access provisions are to be provided) demonstrating compliance with the provisions of AS/NZS 2890.1:2004.
- iii) Longitudinal section along the gutter line showing how it is intended to transition the vehicular crossing into the existing kerb and gutter. Boundary levels shall generally run parallel with the kerb levels.
- iv) Location of verge trees, street furniture and service installations.
- v) Superimposition of vehicle turning circles for access into parking spaces.
- vi) Certification that the design complies with AS/NZS 2890.1:2004 by a Qualified Engineer.

The certification referred to in (vi) above shall be submitted to the Principal Certifying Authority prior to the issue of a Construction Certificate (for the design) and to the Principal Certifying Authority prior to the issue of any Occupation Certificate for the 'as-built works'.

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(Reason: To ensure adequate vehicular access can be achieved.)

23. CAR PARKING - COMPLIANCE WITH AS/NZS 2890.1:2004 (CC)

Car parking dimensions must comply with the Australian/New Zealand Standard AS/NZS 2890.1:2004 - Parking facilities - Off-street car parking. Details demonstrating compliance are to be submitted to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: To ensure compliance with Australian Standards relating to parking of vehicles.)

24. COMMENCEMENT OF WORKS (NO WORKS UNTIL A CC IS OBTAINED)

Building work, demolition or excavation must not be carried out until a Construction Certificate has been issued by either Strathfield Council or a Principal Certifying Authority.

Demolition of any part of a building triggers 'commencement of erection of building' pursuant of section 81A(2) of the EP&A Act 1979. Accordingly, demolition works must not commence until a Construction Certificate has been issued, a Principal Certifying Authority has been appointed and a Notice of Commencement has been issued.

(Reason: To ensure compliance with statutory provisions.)

25. CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN (CC)

The applicant must prepare and submit a Construction and Environmental Management Plan (CEMP) to the Principal Certifying Authority, including:

- i) Detailed information on any approvals required from other authorities prior to or during construction.
- ii) Traffic management, including details of:
 - ingress and egress of vehicles to the site;
 - management of loading and unloading of materials;
 - the location of heavy vehicle parking off-site; and
 - designated routes for vehicles to the site.
- iii) The proposed areas within the site to be used for a builder's site office and amenities, the storage of excavated material, construction materials and waste containers during the construction period.
- iv) Erosion and sediment control, detailing measures and procedures consistent with the requirements of Council's guidelines for managing stormwater, including:
 - the collection and treatment of stormwater and wastewater generated on site prior to discharge; and
 - procedures to prevent run-off of solid material and waste from the site.
- v) Waste management, including:
 - details of the types and estimated volumes of waste materials that will be generated;
 - procedures for maximising reuse and recycling of construction materials; and
 - details of the off-site disposal or recycling facilities for construction waste.
- vi) Dust control, outlining measures to minimise the generation and off-site transmission of dust and fine particles, such as watering or damp cloth fences.
- vii) A soil and water management plan, which includes:
 - measures to minimise the area of soils exposed at any one time and conserve top soil;
 - identification and protection of proposed stockpile locations;

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- preservation of existing vegetation and revegetation;
 - measures to prevent soil, sand, sediments leaving the site in an uncontrolled manner;
 - measures to control surface water flows through the site in a manner that diverts clean run-off around disturbed areas, minimises slope gradient and flow distance within disturbed areas, ensures surface run-off occurs at non-erodible velocities, and ensures disturbed areas are promptly rehabilitated;
 - details of sediment and erosion control measures in place before work commences;
 - measures to ensure materials are not tracked onto the road by vehicles entering or leaving the site; and
 - details of drainage to protect and drain the site during works.
- viii) Asbestos management procedures:
- Anyone who removes, repairs or disturbs bonded or a friable asbestos material must hold a current removal licence from Workcover NSW holding either a Friable (Class A) or a Non- Friable (Class B) Asbestos Removal License which ever applies and a current WorkCover Demolition License where works involve demolition. To find a licensed asbestos removalist please see www.workcover.nsw.gov.au
 - Removal of asbestos by a person who does not hold a Class A or Class B asbestos removal license is permitted if the asbestos being removed is 10m² or less of non-friable asbestos (approximately the size of a small bathroom). Friable asbestos materials must only be removed by a person who holds a current Class A asbestos license.
 - Before starting work, a work site-specific permit approving each asbestos project must be obtained from Workcover NSW. A permit will not be granted without a current Workcover licence. All removal, repair or disturbance of or to asbestos material must comply with the following:
 - The Work Health and Safety Act 2011;
 - The Work Health and Safety Regulation 2011;
 - How to Safety Remove Asbestos Code of Practice – WorkCover 2011; and
 - Safe Work Australia Code of Practice for the Management and Control of Asbestos in the Workplace.
 - Following completion of asbestos removal works undertaken by a licensed asbestos removalist re-occupation of a workplace must not occur until an independent and suitably licensed asbestos removalist undertakes a clearance inspection and issues a clearance certificate.
 - The developer or demolition contractor must notify adjoining residents at least two (2) working days (i.e. Monday to Friday exclusive of public holidays) prior to the commencement of asbestos removal works. Notification is to include, at a minimum:
 - the date and time when asbestos removal works will commence;
 - the name, address and business hours contact telephone number of the demolisher, contractor and/or developer;
 - the full name and license number of the asbestos removalist/s; and
 - the telephone number of WorkCover's Hotline 13 10 50
 - warning signs informing all people nearby that asbestos removal work is taking place in the area. Signs should be placed at all of the main entry points to the asbestos removal work area where asbestos is present. These signs should be weatherproof, constructed of light-weight material and adequately secured so they remain in prominent locations. The signs should be in accordance with AS 1319-1994 Safety signs for the occupational environment for size, illumination, location and maintenance; and
 - appropriate barricades installed as appropriate to prevent public access and

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prevent the escape of asbestos fibres. Barricades must be installed prior to the commencement of asbestos removal works and remain in place until works are completed.

(Reason: Safety, amenity and protection of public infrastructure and the environment.)

26. **COUNCIL PERMITS – FOR ALL ACTIVITIES ON COUNCIL LAND (CC)**

Works Permit

(as per Section 68 of the Local Government Act 1993 and Section 138 and 139 of the Roads Act 1993)

A Works Permit is required for construction of a vehicular crossing (driveway), new stormwater down pipe connection to kerb and gutter, new footpath and/or stormwater connection. A Works Permit Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Standing Plant Permit

This permit must be applied for where it is intended to park a concrete pump, crane or other plant on the roadway or footpath. A Standing Plant Permit Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website. Please note a Road Closure Permit is not required for standing plant.

Skip Bin Permit

This permit must be applied for if you intend to place a skip bin on the roadway or footpath. A Skip Bin Application Form is available from Council's Customer Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Temporary Full or Part Road Closure Permit

This permit must be applied for if you require a full or a part road closure to take place to assist in your construction works. Please use the Works Permit Application Form, which is available from Council's Customer Service Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website. Please note a Road Closure Permit is not required for standing plant.

Hoarding Permit

This permit must be applied for if you intend to erect a Class A (fence type) or Class B (overhead type) hoarding along the street frontage(s). A Hoarding Permit Application Form is available from Council's Customer Service Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Work Zone Permit

This permit must be applied for if you require permanent parking along the kerbside at the front of the site during construction works. A Work Zone Permit Application Form is available from Council's Customer Service Centre or can be downloaded from Council's website. The applicable fees and charges are located on Council's website.

Ground Anchoring Permit

This permit must be applied for, for the installation of ground anchors under Council's footway/road reserve. It does not cover ground anchors under private properties. A separate approval is required to be obtained from Roads and Maritime Services (RMS) if it is proposed to install ground anchors under a State or Classified Regional Road (please refer to the end of this application form for more information).

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(Reason: Council requirement)

27. EROSION AND SEDIMENTATION CONTROL PLAN (CC)

An Erosion and Sediment Control Plan is to be prepared where construction or excavation activity requires the disturbance of the soil surface and existing vegetation. Details including drawings and specifications must provide adequate measures for erosion and sediment control to ensure:

- i) Compliance with the approved Soil and Water Management Plan.
- ii) Removal or disturbance of vegetation and top soil is confined to within 3m of the approved building area (no trees to be removed without approval).
- iii) All uncontaminated run-off is diverted around cleared or disturbed areas.
- iv) Silt fences or other devices are installed to prevent sediment and other debris escaping from the cleared or disturbed areas into drainage systems or waterways.
- v) All erosion and sediment controls are fully maintained for the duration of demolition/development works.
- vi) Controls are put into place to prevent tracking of sediment by vehicles onto adjoining roadways.
- vii) All disturbed areas are rendered erosion-resistant by turfing, mulching, paving or similar.
- viii) All water pumped or otherwise removed from excavations or basement areas is filtered to achieve suspended solids/non filterable residue levels complying with the Australian Water Quality guidelines for Fresh and Marine Waters.
- ix) Pumped or overland flows of water are discharged so as not to cause, permit or allow erosion before the commencement of work (and until issue of the occupation certificate).

Details of the proposed soil erosion and sedimentation controls are to be submitted to the Principal Certifying Authority with the Construction Certificate Application. Under no circumstances are any works to commence, prior to these details being approved by the Principal Certifying Authority and the controls being in place on the site.

(Reason: Environmental protection.)

28. FLOODING - COMPLY WITH FLOOD IMPACT REPORT (CC)

The applicant shall comply with the flood recommendations provided in the Flood Impact Report prepared by WMA Water. A certificate from a suitably qualified Engineer shall be submitted to the Certifying Authority stating compliance with these recommendations, prior to the issue of a Construction Certificate.

(Reason: To mitigate flood risk and associated damage.)

29. PRIVACY - OBSCURE GLAZING IN WET AREAS (CC)

All bathroom, ensuite and toilet windows shall be installed with obscure glazing. Plans shall be notated accordingly and details demonstrating compliance submitted to the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: Privacy amenity.)

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30. **SECTION 94 CONTRIBUTION PAYMENT - INDIRECT CONTRIBUTIONS PLAN) (CC)**

In accordance with the provisions of Section 94A(1) of the Environmental Planning and Assessment Act 1979 and the Strathfield Indirect Development Contributions Plan 2010-2030, a contribution in the form of cash, cheque or credit card (financial transaction fee applies) shall be paid to Council for the following purposes:

Local Amenity Improvement Levy	\$8,250
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The total amount of the contribution is valid as at the date of determination and is subject to quarterly indexation. The amount of the contribution under this condition shall be indexed in accordance with clause 4.12 of the Strathfield Indirect Development Contributions Plan 2010-2030.

Contributions must be received by Council and submitted to the Accredited Certifier, prior to the issue of any Construction Certificate.

A copy of this condition is to be presented to Council's Customer Service Centre when paying the contribution so that it can be recalculated.

Note: A copy of Strathfield Council's Section 94 Indirect Development Contributions Plan may be downloaded from Council's website.

(Reason: To enable the provision of public amenities and services required/anticipated as a consequence of increased demand resulting from the development.)

31. **SECURITY PAYMENT - DAMAGE DEPOSIT FOR COUNCIL INFRASTRUCTURE (CC)**

A security (damage deposit) of **\$12,200.00** (calculated in accordance with Council's adopted Fees and Charges) shall be paid to Council, prior to the issue of a Construction Certificate.

The deposit is required as security against any damage to Council property during works on the site. The applicant must bear the cost of all restoration works to Council's property damaged during the course of this development. All building work must be carried out in accordance with the Building Code of Australia.

Payment may be accepted in the form of cash, bank guarantee, cheque or credit card (financial transactions fees apply). Note: Additional fees apply for the lodgement of a bank guarantee in lieu of cash bond applies in accordance with Council's adopted Fees and Charges.

Any costs associated with works necessary to be carried out to rectify any damages caused by the development, shall be deducted from the Damage Deposit.

Note: Should Council property adjoining the site be defective e.g. cracked footpath, broken kerb etc., this should be reported in writing, or by photographic record, submitted to Council at least seven (7) days prior to the commencement of any work on site. This documentation will be used to resolve any dispute over damage to infrastructure. It is in the applicant's interest for it to be as full and detailed as possible.

The damage deposit shall be refunded upon completion of all works upon receipt of a Final Occupation Certificate stage and inspection by Council.

(Reason: Protection of Council infrastructure.)

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32. STORMWATER - RAINWATER RE-USE (CC)

A rainwater re-use system shall be provided in accordance with either the BASIX minimum requirements, any relevant Council Rainwater Policy and/or specification of the management of stormwater, whichever is applicable. A detailed stormwater plan showing the proposed re-use system shall be submitted to and approved by the Principal Certifying Authority, prior to the issue of a Construction Certificate.

(Reason: Compliance and amenity.)

33. STORMWATER DRAINAGE (CC)

The following stormwater precautions are required to be provided on the site:

- i) Grated drains shall be provided along the basement entry at the vehicular crossing(s) and are to connect to the internal drainage system.
- ii) Overflow paths shall be provided to allow for flows in excess of the capacity of the pipe/drainage system draining the site.
- iii) Allowance shall be made for surface runoff from adjacent properties, and to retain existing surface flow path systems through the site. Any redirection or treatment of these flows shall not adversely affect any other properties
- iv) Boundary fencing shall be erected in such a manner as not to interfere with the natural flow of ground and surface water to the detriment of any other party.

(Reason: To ensure the site is drained appropriately and does not interfere with the natural flow of flood waters.)

34. TRAFFIC - CONSTRUCTION TRAFFIC MANAGEMENT PLAN (CC)

A Construction Traffic Management Plan (CTMP) is to be prepared by an appropriately qualified Traffic Management Consultant and submitted to and approved by Council's Engineering Section, prior to the commencement of any works including demolition.

The following matters should be addressed in the CTMP (where applicable):

- i) description of the demolition, excavation and construction works;
- ii) site plan/s showing the site, roads, footpaths, site access points and vehicular movements;
- iii) size, type and estimated number of vehicular movements (including removal of excavated materials, delivery of materials and concrete to the site);
- iv) proposed route(s) from the arterial (state) road network to the site and the proposed route from the site back to the arterial road network;
- v) impacts of the work and vehicular movements on the road network, traffic and pedestrians and proposed methods to safely manage pedestrians and construction related vehicles in the frontage roadways;
- vi) any Traffic Control Plans (TCP's) proposed to regulate traffic and pedestrian movements for construction activities (such as concrete pours, crane installation/removal etc.);
- vii) proposed hours of construction related activities and vehicular movements to and from the site;
- viii) current/proposed approvals from other Agencies and Authorities (including Roads and Maritime Services, Police and State Transit Authority);
- ix) any activities proposed to be located or impact upon Council's road, footways or any public place;

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- x) measures to maintain public safety and convenience;
- xi) any proposed road and/or footpath closures;
- xii) turning areas within the site for construction and spoil removal vehicles, allowing a forward egress for all construction vehicles on the site;
- xiii) locations of work zones (where it is not possible for loading/unloading to occur on the site) in the frontage roadways accompanied by supporting documentation that such work zones have been approved by the Local Traffic Committee and Council;
- xiv) location of any proposed crane and concrete pump and truck standing areas on and off the site (and relevant approvals from Council for plant on road);
- xv) a dedicated unloading and loading point within the site for all construction vehicles, plant and deliveries;
- xvi) material, plant and spoil bin storage areas within the site, where all materials are to be dropped off and collected;
- xvii) on-site parking area for employees, tradespersons and construction vehicles as far as possible;
- xviii) proposed areas within the site to be used for the storage of excavated material, construction materials and waste and recycling containers during the construction period; and
- xix) how it is proposed to ensure that soil/excavated material is not transported onto surrounding footpaths and roadways.

(Reason: To mitigate traffic impacts on the surrounding area during the construction period.)

35. TREE BONDS (CC)

A tree bond of **\$6,600.00** (calculated in accordance with Council's adopted Fees and Charges) shall be paid to Council, prior to the issue of a Construction Certificate.

The deposit is required as security against any damage to existing trees to be retained on Council's road reserve, during works on the site. The applicant must bear the cost of all restoration works to Council's property damaged during the course of this development.

Payment may be accepted in the form of cash, bank guarantee, cheque or credit card (financial transactions fees apply). Note: Additional fees apply for the lodgement of a bank guarantee in lieu of cash bond applies in accordance with Council's adopted Fees and Charges.

(Reason: To ensure the protection of trees to be retained on Council's Road Reserve.)

36. VEHICULAR CROSSINGS - WORKS PERMIT FOR CONSTRUCTION OF (CC)

Full-width, heavy-duty concrete vehicular crossing(s) shall be provided across the footpath at the entrance(s) and/or exit(s) to the site and designed in accordance with Council's guidelines and specifications. In this regard, a Works Permit is to be obtained (available from Council's Customer Services Centre or downloaded from Council's website), and the appropriate fees and charges paid, prior to the lodgement of a Construction Certificate.

(Reason: To ensure appropriate access to the site can be achieved.)

37. WATER SUSTAINABILITY – GENERALLY (CC)

Water collected in the rainwater tank must comprise roof water only and not surface water. Water from the rainwater tank must only be used for following purposes and not for human consumption:

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- i) toilet flushing;
- ii) clothes washing;
- iii) garden irrigation;
- iv) car washing and similar outdoor uses;
- v) filling swimming pools, spa pools and ornamental ponds; and
- vi) fire fighting.

(Reason: To promote sustainable water management practice.)

CONDITIONS TO BE SATISFIED PRIOR TO THE COMMENCEMENT OF WORKS (CW)

38. APPOINTMENT OF A PRINCIPAL CERTIFYING AUTHORITY (PCA) (CW)

No work shall commence in connection with this Development Consent until:

- i) A construction certificate for the building work has been issued by the consent authority or a Principal Certifying Authority.
- ii) The person having the benefit of the development consent has appointed a principal certifying authority for the building work, and notified the principal certifying authority that the person will carry out the building work as an owner/builder, if that is the case.
- iii) The principal certifying authority has, no later than 2 days before the building work commences:
 - notified the Council of his or her appointment, and
 - notified the person having the benefit of the development consent of any critical stage inspections and other inspections that are to be carried out in respect of the building work.
- iv) The person having the benefit of the development consent, if not carrying out the work as an owner-builder, has:
 - appointed a principal contractor for the building work who must be the holder of a contractor licence if any residential building work is involved;
 - notified the principal certifying authority of such appointment; and
 - unless that person is the principal contractor, notified the principal contractor of any critical stage inspections and other inspections that are to be carried out in respect of the building work.
- v) The person having the benefit of the development consent has given at least 2 days notice to the Council of the person's intention to commence the erection of the building.

Note: If the principal certifying authority is the Council, the nomination will be subject to the payment of a fee for the service to cover the cost of undertaking all necessary inspections and the issue of the appropriate certificates.

Under the Environment Planning and Assessment (Quality of Construction) Act, 2003, a sign must be erected in a prominent position on the work site showing the name, address and telephone number of the principal certifying authority; the name of the principal contractor (if any) for the building work and a telephone number at which that person may be contacted outside working hours. That sign must also state that unauthorised entry is prohibited. The sign must not be removed until all work has been completed.

(Reason: Statutory requirement.)

39. HOME BUILDING COMPENSATION FUND (CW)

No residential building work within the meaning of the Home Building Act 1989 may

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commence until:

- i) A contract of insurance in accordance with Part 6 of the Home Building Act 1989 is entered into and in force, where such a contract is required under that Act (this is a prescribed condition of consent pursuant to clause 981(b) Environmental Planning and Assessment Regulation 2000.
- ii) The PCA is satisfied that the principal contractor for the work is the holder of the appropriate licence and is covered by the appropriate insurance, in each case if required by the Home Building Act 1989 (unless the work is to be carried out by an owner-builder).
- iii) If the work is to be carried out by an owner builder, that the owner builder is the holder of any owner -builder permit required under the Home Building Act 1989.
- iv) Written notice of the following information has been provided to Council (this is a prescribed condition of consent pursuant to clause 98B of the Environmental Planning and Assessment Regulation 2000):
 - In the case of work for which a principal contractor is required to be appointed:
 - the name and licence number of the principal contractor; and
 - the name of the insurer by which the work is insured under Part 6 of the Home Building Act 1989.In the case of work to be done by an owner-builder:
 - the name of the owner-builder; and
 - if the owner-builder is required to hold an owner-builder permit under the Home Building Act 1989, the number of the owner-builder permits.

Where Council is not the PCA, the PCA is responsible for notifying Council of the above matters.

Note: Where arrangements for doing residential building work change while the work is in progress so that the above information becomes out of date, the PCA (where not the Council) must provide Council with written notice of the updated information.

(Reason: Statutory requirement.)

40. NOTICE OF COMMENCEMENT (CW)

No work shall commence until the following details are submitted to Council:

- i) a Notice of Commencement (form will be attached with issue of a Construction Certificate or available from our website) within two (2) days of the date on which it is proposed to commence works associated with the Development Consent;
- ii) details of the appointment of a Principal Certifying Authority (either Council or another Principal Certifying Authority); and
- iii) details of the name, address and licence details of the Builder.

(Reason: Statutory requirement.)

CONDITIONS TO BE SATISFIED DURING DEMOLITION AND BUILDING WORKS (DW)

41. OBSTRUCTION OF PUBLIC WAY NOT PERMITTED DURING WORKS (DW)

The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances, without the prior approval of Council.

(Reason: To maintain public access and safety.)

DA2017/161
24 Amaroo Avenue, Strathfield
Lot 18 DP 35941 (Cont'd)

42. PUBLIC INFRASTRUCTURE AND SERVICES (DW)

The applicant must comply with the requirements (including financial costs) of any relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RMS, Council etc.) in relation to any connections, works, repairs, relocation, replacements and/or adjustments to public infrastructure or services affected by the development.

(Reason: To maintain public infrastructure and/or services.)

43. SITE REQUIREMENTS DURING DEMOLITION AND CONSTRUCTION

All of the following are to be satisfied/complied with during demolition, construction and any other site works:

- i) All demolition is to be carried out in accordance with Australian Standards AS 2601-2001.
- ii) Demolition must be carried out by a registered demolition contractor.
- iii) A single entrance is permitted to service the site for demolition and construction. The footway and nature strip at the service entrance must be planked out with close boarded, hardwood timber footpath protection pads. The pad shall cover the entire width of the footpath opening for the full width of the fence.
- iv) No blasting is to be carried out at any time during construction of the building.
- v) Care must be taken during demolition/ excavation/ building/ construction to prevent any damage to adjoining buildings.
- vi) Adjoining owner property rights and the need for owner's permission must be observed at all times, including the entering onto land for the purpose of undertaking works.
- vii) Any demolition and excess construction materials are to be recycled wherever practicable.
- viii) The disposal of construction and demolition waste must be in accordance with the requirements of the Protection of the Environment Operations Act 1997.
- ix) All waste on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997.
- x) All excavated material should be removed from the site in the approved manner and be disposed of lawfully to a tip or other authorised disposal area.
- xi) Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place which can lawfully accept it. All non-recyclable demolition materials are to be disposed of at an approved waste disposal depot in accordance with legislation.
- xii) All materials on site or being delivered to the site are to generally be contained within the site. The requirements of the Protection of the Environment Operations Act 1997 must be complied with when placing/stockpiling loose material, disposing of concrete waste, or other activities likely to pollute drains or water courses.
- xiii) Details as to the method and location of disposal of demolition materials (weight dockets, receipts etc.) should be kept on site as evidence of approved methods of disposal and recycling.
- xiv) Any materials stored on site must be stored out of view or in such a manner so as not to cause unsightliness when viewed from nearby lands or roadways.
- xv) Public footways and roadways adjacent to the site must be fully maintained and cleared of obstructions during construction unless prior separate approval from Council is obtained including payment of relevant fees.
- xvi) Building operations such as brick cutting, washing tools or paint brushes, and mixing mortar not be performed on the roadway or public footway or any other locations

**DA2017/161
24 Amaroo Avenue, Strathfield
Lot 18 DP 35941 (Cont'd)**

- which could lead to the discharge of materials into the stormwater drainage system.
- xvii) All site waters during excavation and construction must be contained on site in an approved manner to avoid pollutants entering into waterways or Council's stormwater drainage system.
 - xviii) Stamped plans, specifications, documentation and the consent shall be available on site at all times during construction.

(Reason: To ensure that demolition, building and any other site works are undertaken in accordance with relevant legislation and policy and in a manner which will be non-disruptive to the local area.)

44. SURVEY REPORT OF APPROVED LEVELS DURING AND POST CONSTRUCTION (DW)

A Survey Certificate to Australian Height Datum shall be prepared by a Registered Surveyor as follows:

- i) At the completion of the first structural floor level prior to the pouring of concrete indicating the level of that floor and the relationship of the building to the boundaries.
- ii) At the completed height of the building, prior to the placement of concrete in form work, or the laying of roofing materials.
- iii) At the completion of the development.

Progress certificates in response to points (1) through to (3) shall be provided to the Principal Certifying Authority at the time of carrying out relevant progress inspections. Under no circumstances is work allowed to proceed until such survey information is submitted to and approved by the Principal Certifying Authority.

(Reason: To ensure compliance with the approved plans.)

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE (OC)

45. CAR PARKING - SURPLUS VEHICULAR CROSSINGS (OC)

All surplus vehicular crossings and/or kerb laybacks must be removed and reinstated with concrete kerb and gutter or to the existing edging profile as specified by Council. The nature strip is to be restored and the footpath area reinstated. All of the above are to be restored to the satisfaction of Council's Engineer and at full cost to the applicant, prior to the issue of any Occupation Certificate.

(Reason: Maintenance of public infrastructure.)

46. ENGINEERING WORKS (CERTIFICATION OF)

Prior to occupation of the premises, a Work As Executed (WAE) Plan of all engineering and/or drainage works is to be submitted to the Principal Certifying Authority. The WAE Plan is to be certified by a suitably Qualified Engineer, with Corporate Membership standing in the Institution of Engineers Australia and registered on the National Professional Engineers Register (NPER) under the appropriate professional category, demonstrating that:

- i) the stormwater drainage system; and/or
- ii) the car parking arrangement and area; and/or
- iii) any related footpath crossing works; and/or
- iv) the proposed basement pump and well system; and/or
- v) the proposed driveway and layback; and/or

DA2017/161

24 Amaroo Avenue, Strathfield

Lot 18 DP 35941 (Cont'd)

- vi) any other civil works

have been constructed in accordance with the approved plans and any relevant Standards and Council policies/specifications.

For major works, such as subdivisions, works within the road reserve (requiring separate S138 approval) and as where specified by Council, a Part 4A Certificate will be required. It is strongly recommended that an Engineer supervise all engineering related works.

Where Council is not the Principal Certifying Authority, an electronic copy of the above documents is to be provided to Council, prior to the issue of any Occupation Certificate.

(Reason: Asset management.)

47. FIRE SAFETY CERTIFICATION (OC)

A fire safety certificate shall be obtained in accordance with Part 9, Division 4 of the Environmental Planning and Assessment Regulation 2000, prior to the issue of any Occupation Certificate.

An fire safety certificate is a certificate issued by the owner of a building to the effect that each essential fire safety measure specified in the current fire safety schedule for the part of the building to which the certificate relates:

- i) has been assessed by a properly qualified person; and
- ii) was found, when it was assessed, to be capable of performing to at least the standard required by the current fire safety schedule for the building for which the certificate is issued.

An interim fire safety certificate must be provided before an interim occupation certificate can be used for a building under Clause 153(2) of the Environmental Planning & Assessment Regulation 2000.

A final fire safety certificate must be provided before an interim occupation certificate can be used for a building under Clause 153(1) of the Environmental Planning & Assessment Regulation 2000.

A copy of the fire safety certificate and fire safety schedule shall be:

- i) submitted to Strathfield Council;
- ii) submitted to the Commissioner of the New South Wales Fire Brigade; and
- iii) prominently displayed in the building.

(Reason: Fire safety and statutory requirement.)

48. OCCUPATION OF BUILDING (OC)

A person must not commence occupation or use (or change of use where an existing building) of the whole or any part of a new building (within the meaning of section 109H (4) of the Act) unless an Interim Occupation Certificate or Final Occupation Certificate has been issued in relation to the building or part.

The Principal Certifying Authority is required to be satisfied, amongst other things, that:

- i) all required inspections (including each applicable mandatory critical stage

DA2017/161

24 Amaroo Avenue, Strathfield

Lot 18 DP 35941 (Cont'd)

- inspection) have been carried out; and
- ii) any preconditions to the issue of the certificate required by a development consent have been met.

Note: New building includes an altered portion of, or an extension to, an existing building.

(Reason: Statutory requirement.)

49. RAINWATER TANKS (OC)

Rainwater tanks must be installed on residential properties by a suitably qualified and licensed plumber and in accordance with the following:

- i) Australian/New Zealand Standard AS/NZS 3500:2003;
- ii) NSW Code of Practice Plumbing and Drainage, 2006 produced by Committee on Uniformity of Plumbing and Drainage Regulations in NSW (CUPDR); and
- iii) Council's rainwater tank policy.

Details demonstrating compliance with this condition are to be submitted to the Principal Certifying Authority, prior to the issue of any Occupation Certificate.

(Reason: To protect public health and amenity.)

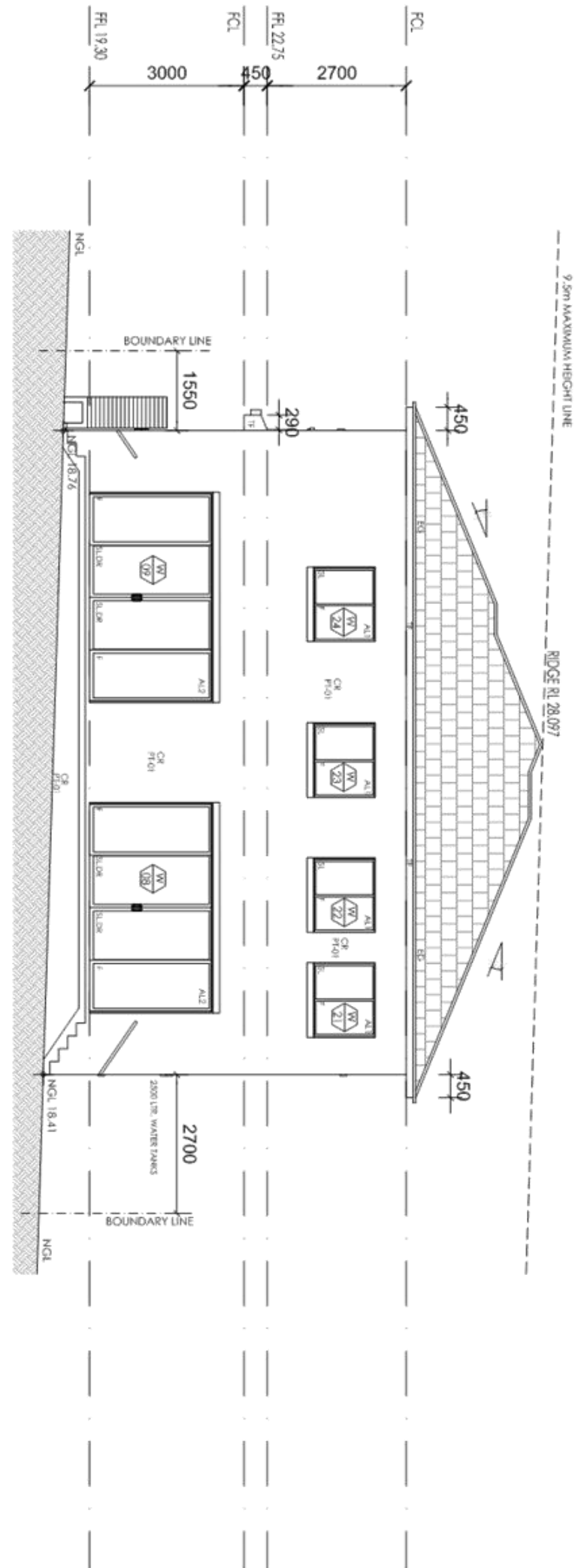
50. STORMWATER - CERTIFICATION OF THE CONSTRUCTED DRAINAGE SYSTEM (OC)

The constructed stormwater system shall be certified by a suitably qualified person, in accordance with Council's Stormwater Management Code, prior to the issue of any Occupation Certificate.

(Reason: Adequate stormwater management.)

ATTACHMENTS

1. [↓](#) DA2017/161 - Architectural Plans - 24 Amaroo Avenue, Strathfield

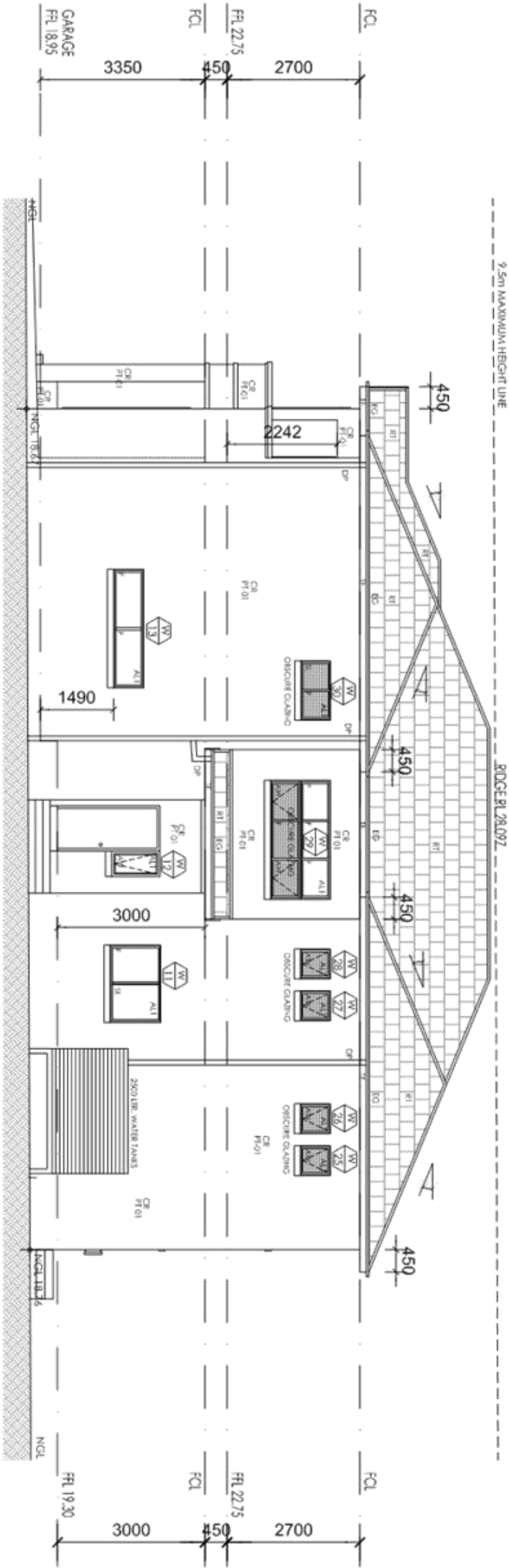


16 REAR (EAST) ELEVATION
Scale: 1:100

EXTERNAL FINISHES

AL1	ALU. FRAMED WINDOWS, POWDER COAT
AL2	ALU. FRAMED DOORS, POWDER COAT
GL	GLASS HANDRAIL, LAMINATED GLASS
CE	CEMENT RENDER, PAINT FINISH
DP	DOWNPIPE, ALUM. PAINT FINISH
DA	SELECTED DECORATIVE ARCHITRAVE MOLDING
EG	ALUM. EAVES GUTTER, PAINT FINISH
FG	FIBRE CEMENT SHEET CLADDING
GC	METAL GARAGE DOOR, PAINT FINISH
PT	PAINT FINISH TO RENDERED WALLS
RF	SELECTED ROOF TILES: BORAL - CONCRETE SHINGLE FLAT TILE
SC	SELECTED SANDSTONE CAPPING

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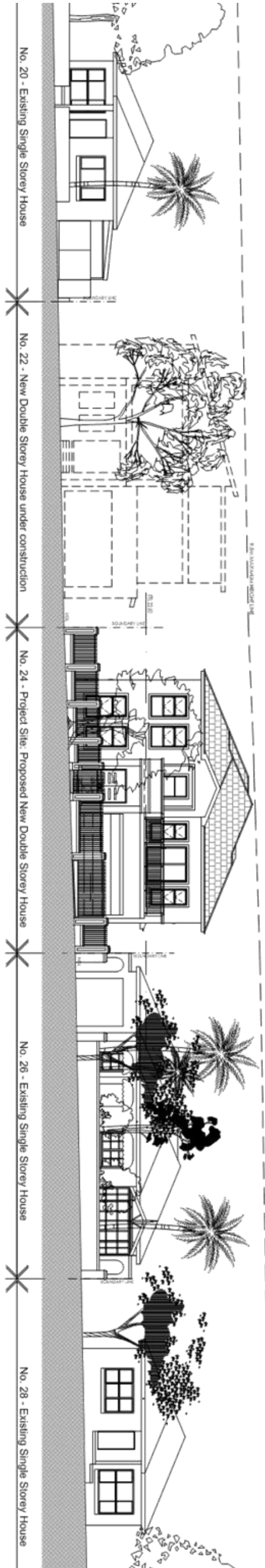
17 SIDE (SOUTH) ELEVATION
Scale: 1:100

PROJECT: PROPOSED NEW RESIDENCE
 DRAWING NO: A302
 DATE: 15.08.17
 SCALE: 1:100

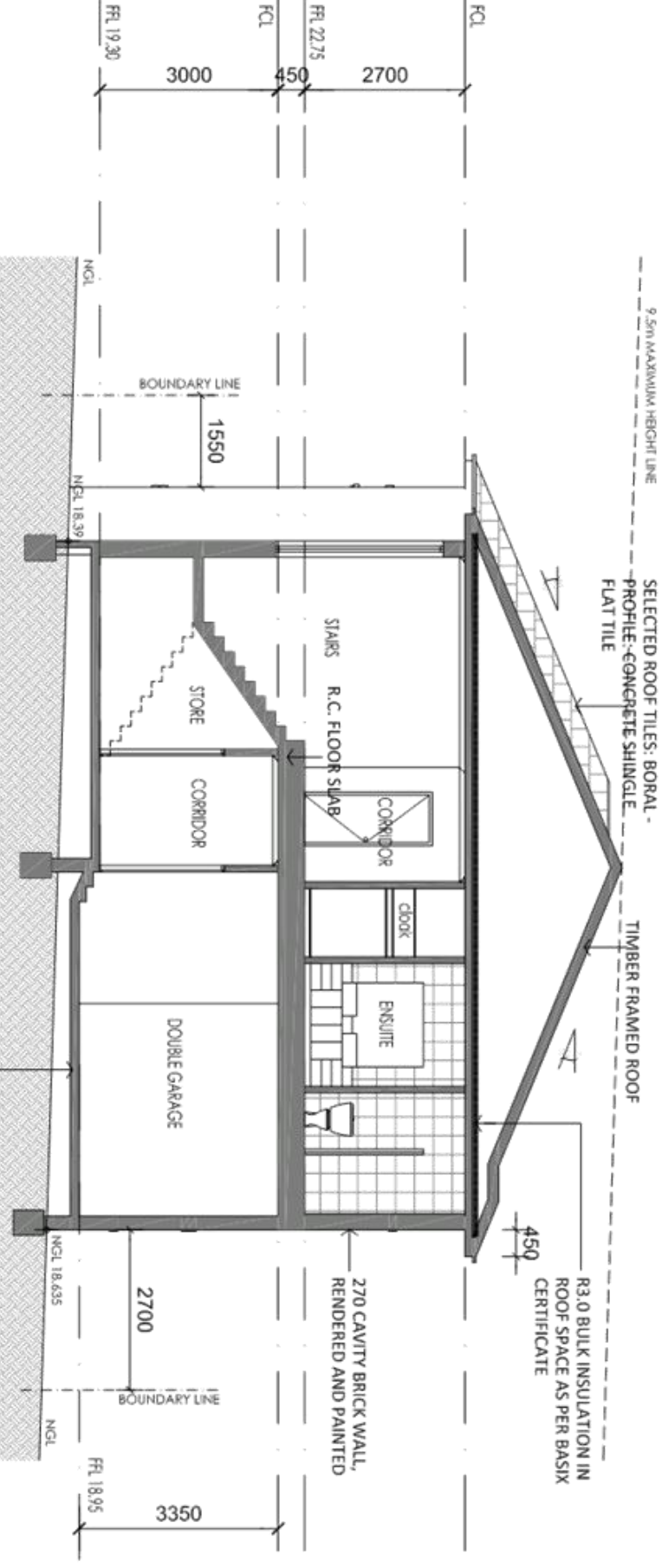
PROJECT ADDRESS:
 No 24 AMAROO AVENUE, STRATHFIELD, NSW
 DRAWING NO:
 ELEVATIONS - 2 OF 2

CLIENT: YUE QIU
 PROJECT: PROPOSED NEW RESIDENCE
urbanform design
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 17008 L.R. 1:1000B
 A302 15.08.17

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9 January 2018



19 STREETScape ELEVATION
SCALE: 1:200



18 SECTION A - A
SCALE: 1:100

R.C. SLAB TO FUTURE ENGINEER'S DETAILS

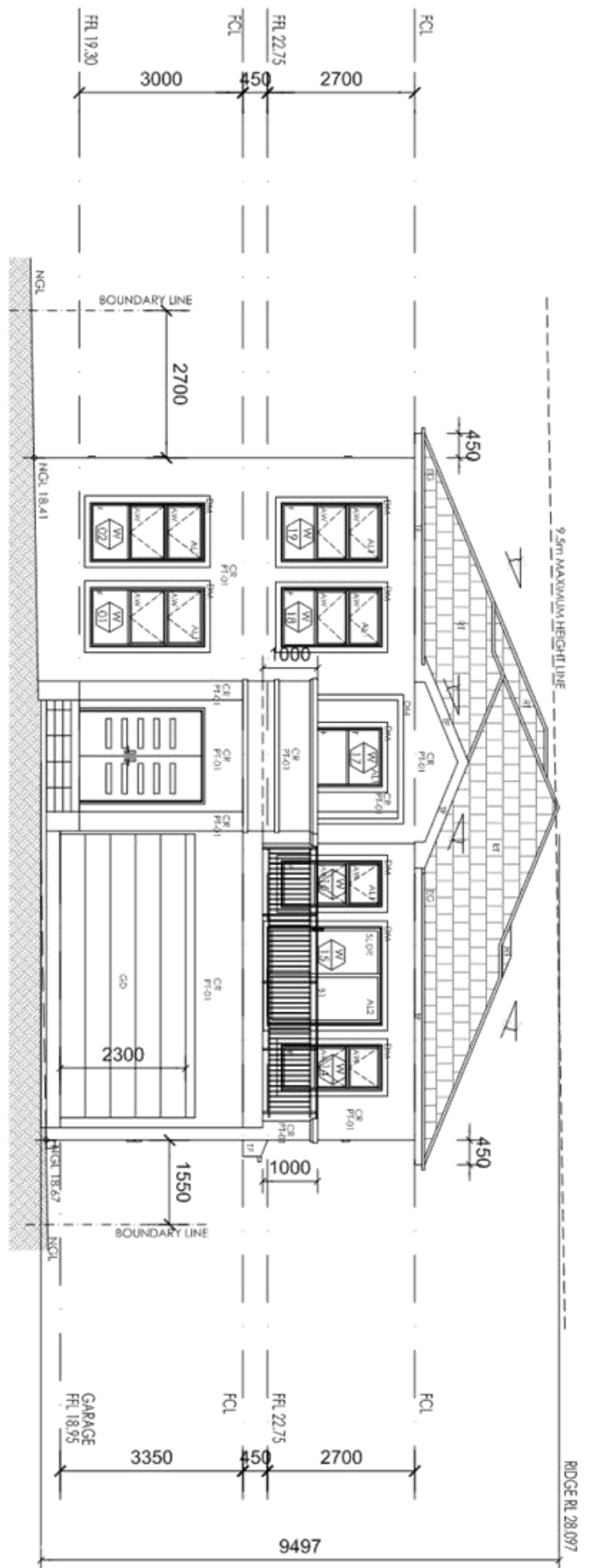
No 24 AMAROO AVENUE, STRATHFIELD, NSW
STREET ELEVATION & SECTION A-A

CLIENT: YUE QIU
PROJECT: PROPOSED NEW RESIDENCE
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Project no: 17008
Drawing no: A303
Scale: 1:100(B)
Date: 15.08.17

10/15/2017
L.R.
15.08.17

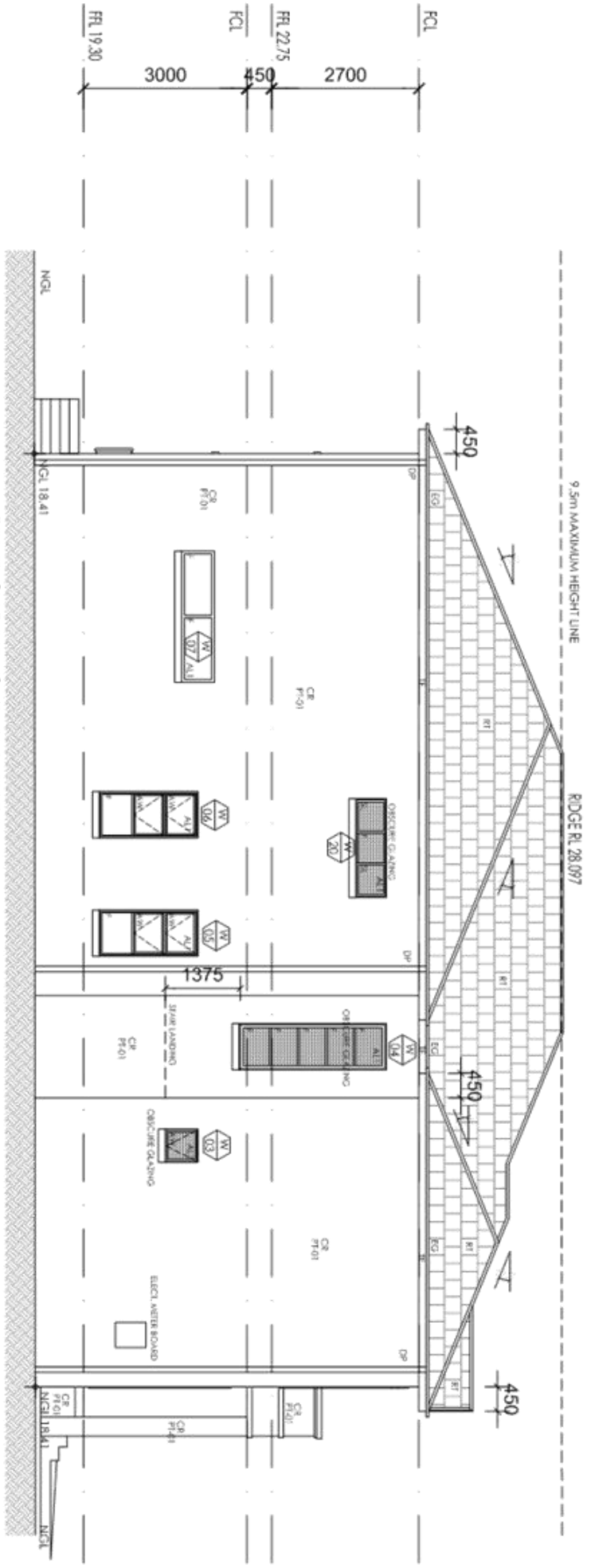
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DATE: 23.08.17
DRAWN BY: L.R.
CHECKED BY: L.R.



14 FRONT (WEST) ELEVATION
SCALE: 1:100

EXTERNAL FINISHES	
A1	ALU. FRAMED WINDOWS, POWDER COAT
A2	ALU. FRAMED DOORS, POWDER COAT
B1	GLASS HANDRAIL, LAMINATED GLASS
C1	CEMENT RENDER, PAINT FINISH
D1	DOWNPIPE, ALUM. PAINT FINISH
D2	SELECTED DECORATIVE ARCHITRAVE MOLDING
E1	ALUM. EAVES GUTTER, PAINT FINISH
F1	FIBRE CEMENT SHEET CLADDING
G1	METAL GARAGE DOOR, PAINT FINISH
H1	PAINT FINISH TO RENDERED WALLS
I1	SELECTED ROOF TILES: BORAL - CONCRETE SHINGLE FLAT TILE
J1	TIMBER FASCIA, PAINT FINISH

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9 January 2018



15 SIDE (NORTH) ELEVATION
SCALE: 1:100

STRATHFIELD INDEPENDENT HEARING AND ASSESSMENT PANEL MEETING
 1 FEBRUARY 2018
 15/08/17

PROJECT ADDRESS:
 No 24 AMAROO AVENUE, STRATHFIELD, NSW
 DRAWING NO.:
 A301
 DATE:
 15.08.17

CLIENT:
YUE QIU
 PROJECT:
PROPOSED NEW RESIDENCE

 Urbanform design • interior • development • fit-out
 Level 6/100 King Street, Sydney, NSW
 Phone: 02 9554 2241 • 04 11 533 402
 Email: info@urbanform.com.au
 Website: www.urbanform.com.au
 PROJECT REF: 17008
 DRAWING NO.: A301
 DATE: 15.08.17
 SCALE: 1:100@

PROPOSED NEW RESIDENCE

At: Lot 18, 24 Amaroo Ave., Strathfield NSW

DEVELOPMENT APPLICATION



3D MODEL STUDY - FINAL DESIGN



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**DA2017/161
8 November 2017**

DRAWING REGISTER

ARCHITECTURAL

A001	DRAWING REGISTER & COVER PAGE
A002	SURVEY PLAN - RHCO - Richard Hogan & Co.
A101	SITE ANALYSIS PLAN
A102	SEDIMENTATION CONTROL & DEMOLITION PLAN
A103	SITE PLAN - PROPOSED SITE DATA & CALCULATIONS
A104	BASIX COMMITMENTS - 1 OF 3 SHEETS
A105	BASIX COMMITMENTS - 2 OF 3 SHEETS
A106	LANDSCAPE CALCULATION PLAN 1 OF 3
A107	LANDSCAPE CALCULATION PLAN 2 OF 3
A108	LANDSCAPE CALCULATION PLAN 3 OF 3
A201	GROUND FLOOR PLAN
A202	FIRST FLOOR PLAN & ROOF PLAN
A301	ELEVATIONS
A302	ELEVATIONS
A303	SECTION & STREET ELEVATION
A401	SHADOW DIAGRAMS

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ISSUE: 0000000101 DATE: 26.07.17
A DA SUBMISSION LR

0 1 2 3 4 5m
project address:
No 24 AMAROO AVENUE, STRATHFIELD, NSW
drawing title:
COVER SHEET / DRAWING REGISTER

client:
YUE QIU

project:
PROPOSED NEW RESIDENCE

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Louis Rizzo & Associates
9 Warwick Street, SYDNEY, N.S.W.
p.o. box 980, GYMBA, N.S.W. 2227
phone: (02) 9544 7241 - 0411 509 402
email: louis@urbanform.com.au
web: www.urbanform.com.au

project ref:
17008

author:
L.R.

scale:
1:100@A3

drawing no.:

date:
25.07.17

issue:
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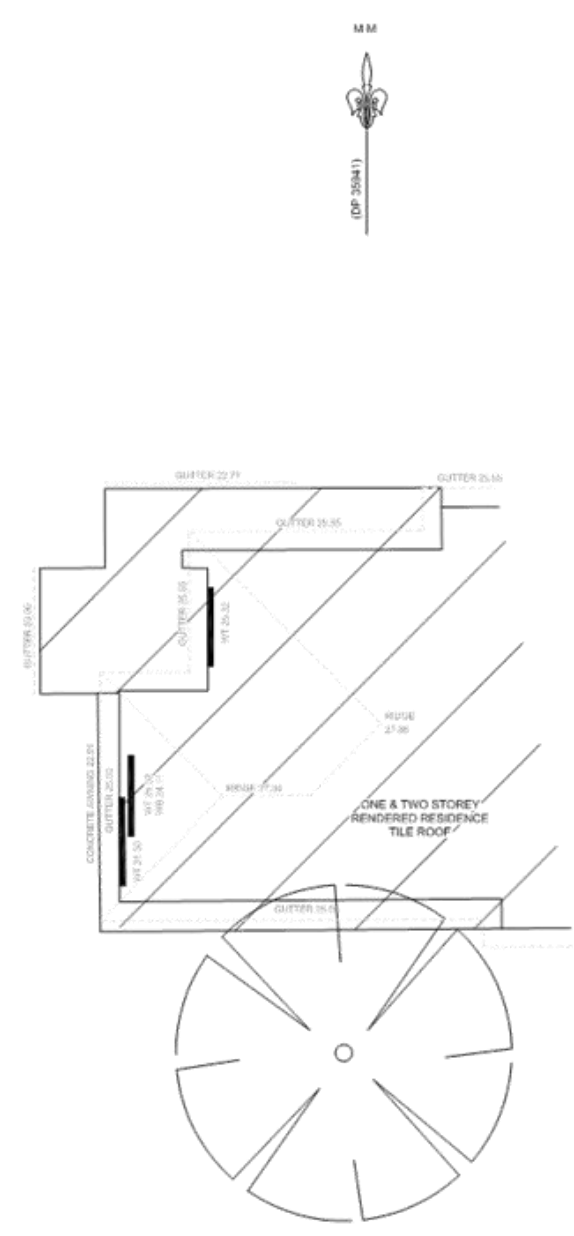
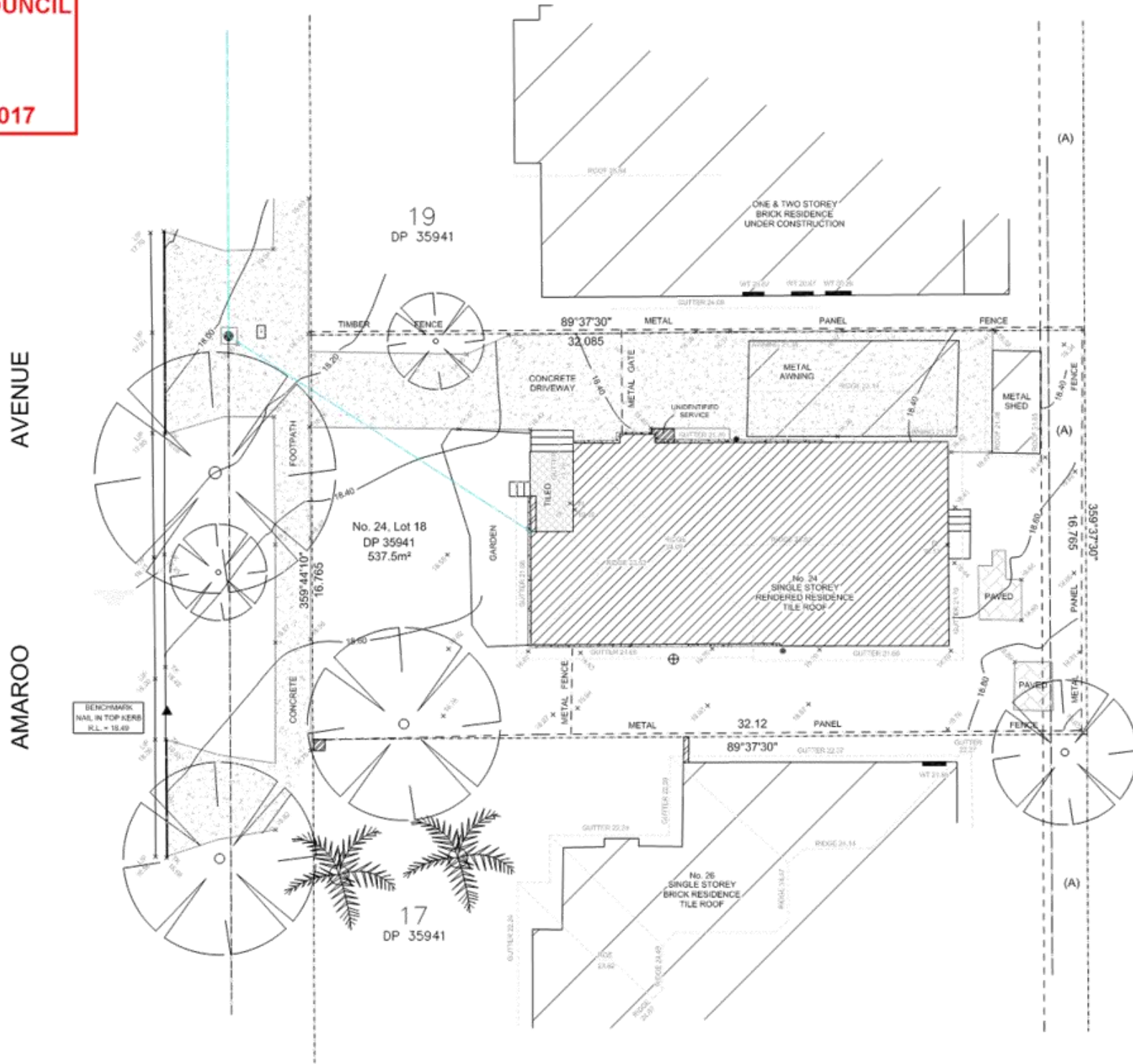
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8 November 2017**

- LEGEND:**
- WATER
 - COMMS. PIT
 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
- WT DENOTES LEVEL AT TOP OF WINDOW
WB DENOTES LEVEL AT BOTTOM OF WINDOW
VC DENOTES VEHICULAR CROSSING
TK DENOTES LEVEL AT TOP OF KERB
LIP DENOTES LEVEL AT LIP OF KERB

(A) EASEMENT FOR DRAINAGE 1.83 WIDE

- NOTES:**
1. THIS DETAIL SURVEY IS NOT A 'SURVEY' AS DEFINED BY THE SURVEYING & SPATIAL INFORMATION ACT 2002.
 2. DATUM OF LEVELS - AUSTRALIAN HEIGHT DATUM
 3. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE OF LAND & PROPERTY INFORMATION (NSR) AND ARE SUBJECT TO FINAL SURVEY.
 4. NO SEARCH MADE OF LOCATION AND NATURE OF TELEPHONE, ELECTRICITY, SEWER, WATER, GAS AND DRAINAGE RECORDS AT THE RELEVANT AUTHORITY PRIOR TO ANY CONSTRUCTION. THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR LOCATION OF SERVICES.
 5. THE POSITION OF IMPROVEMENTS IN RELATION TO BOUNDARIES IS DIAGRAMMATIC ONLY.
 6. VISIBLE, ACCESSIBLE SERVICES LOCATED ONLY.
 7. SIGNIFICANT TREES LOCATED ONLY.
 8. NEIGHBOURING HOUSES, ROOFS AND ROOF POSITIONS ARE APPROXIMATE ONLY.
 9. THIS TITLE BLOCK AND NOTES IS AN INTEGRAL PART OF THIS DRAWING WHICH IS NOT TO BE REMOVED.
 10. CONTOURS ARE INDICATIVE ONLY. SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.



1 EXISTING SITE PLAN
Scale: 1:200



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17-19 Penrith Plaza NSW 2750
Phone: 02 4732 6599
Email: admin@hoganco.com.au

RHCO - Richard Hogan & Co.
Surveying & Development Consultants
PO BOX 4365 Penrith Plaza NSW 2750
Phone : 02-4732-6599
email : admin@hoganco.com.au

client:
YUE QIU

project:
PROPOSED NEW RESIDENCE

urbanform design
building design + interiors + development + urban

Level 11/20 8 Ardmore
9 Howard Street, SYDNEY, N.S.W.
p.o. box 980, GYMCA, N.S.W. 2227
phone: 02 9544 7241-0411 503 422
email: iou@urbanform.com.au
web: www.urbanform.com.au

project address:
No 24 AMAROO AVENUE, STRATHFIELD, NSW

project ref:
17008

author:
L.R.

scale:
1:200@A

drawing title:
SURVEY PLAN

date:
25.07.17

issue:
A



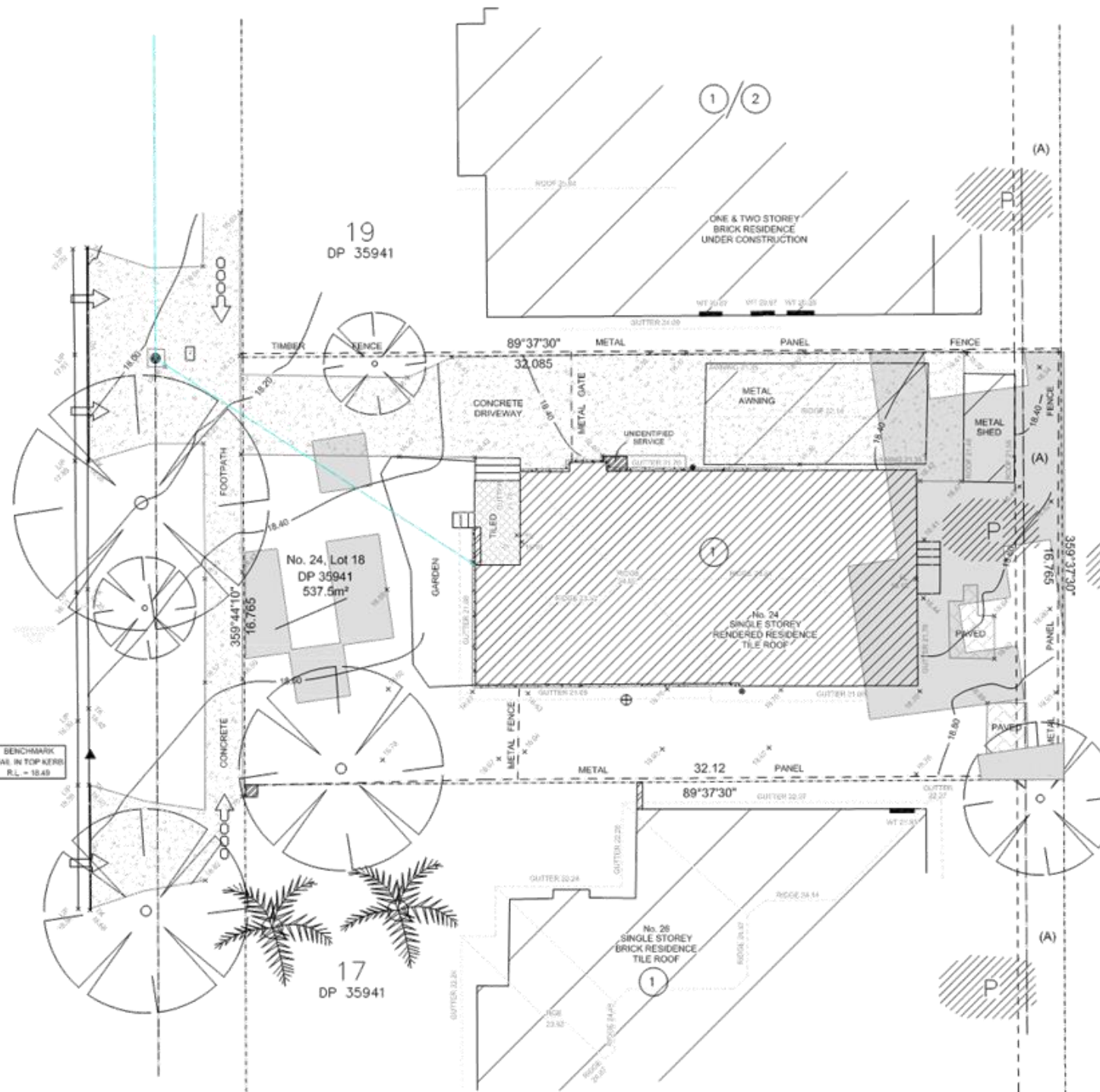
- LEGEND:**
- WATER
 - COMMS. PIT
 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
 - FLOOD AFFECTED SITE AREA
- WT DENOTES LEVEL AT TOP OF WINDOW
 WB DENOTES LEVEL AT BOTTOM OF WINDOW
 VC DENOTES VEHICULAR CROSSING
 TK DENOTES LEVEL AT TOP OF KERB
 LP DENOTES LEVEL AT LIP OF KERB
 (A) EASEMENT FOR DRAINAGE 1.83 WIDE

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 8 November 2017**

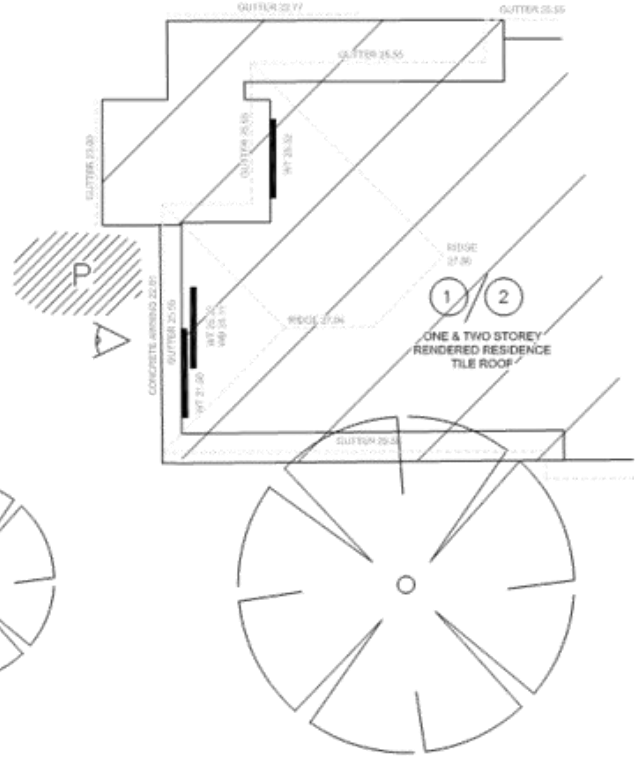
GENERAL TRAFFIC NOISE

AMAROO AVENUE



2 SITE ANALYSIS PLAN
 Scale: 1:200

- LEGEND**
- ①/③ NUMBER OF STOREYS
 - △ OVERLOOKING
 - ☼ EXISTING TREES
 - PROPOSED DEVELOPMENT SITE
 - ▨ PRIVATE OPEN SPACE
 - - - EXISTING SITE CONTOUR
 - ← VEHICLE ACCESS
 - ⊞ PEDESTRIAN ACCESS



client: **YUE QIU**
 project: **PROPOSED NEW RESIDENCE**

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project address: **No 24 AMAROO AVENUE, STRATHFIELD, NSW**
 drawing title: **SITE ANALYSIS PLAN**

project ref: **17008**
 drawing no.: **A101**
 issue: **A**

author: **L.R.**
 date: **25.07.17**

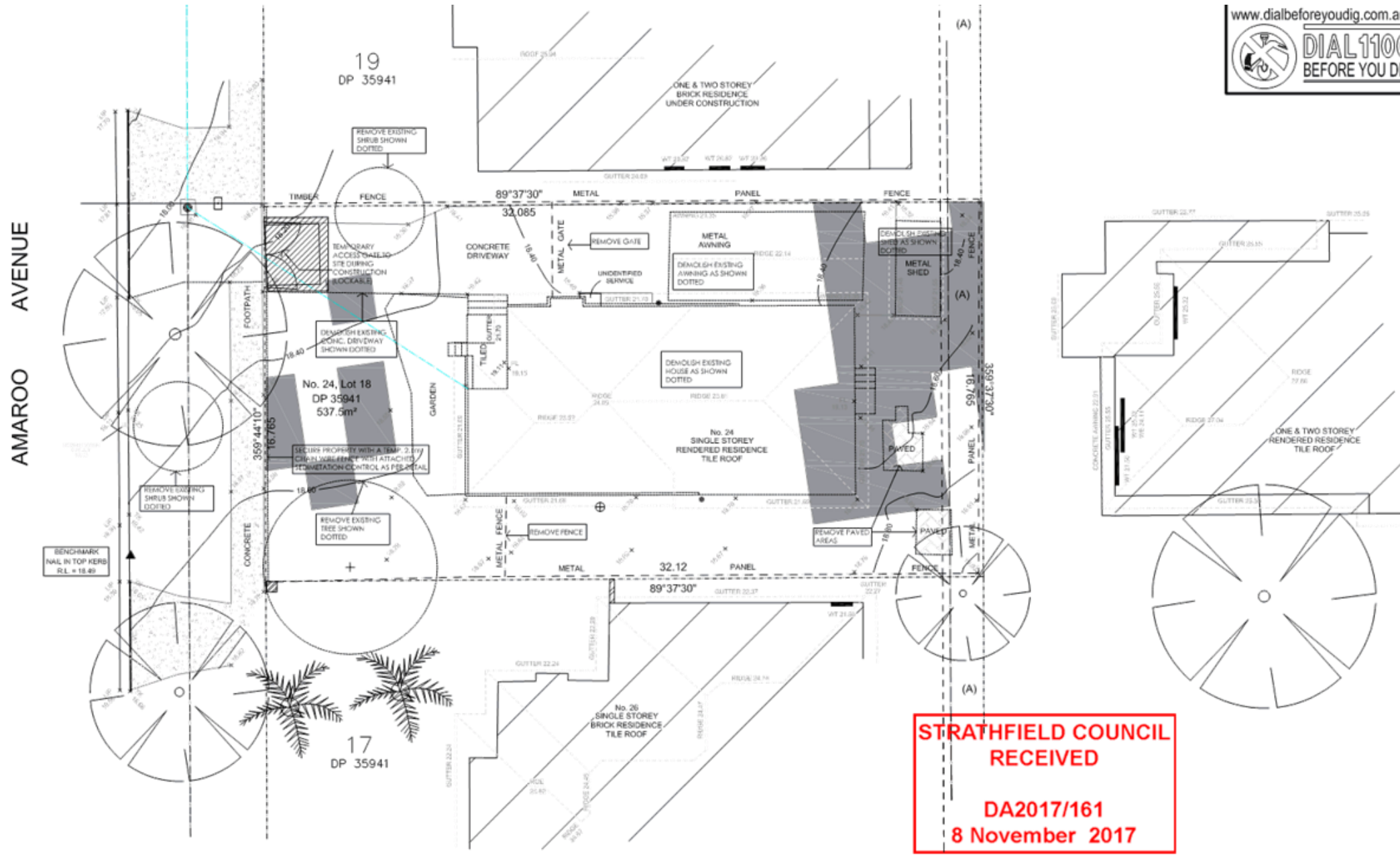
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project ref: **17008**
 drawing no.: **A101**
 issue: **A**

- LEGEND:**
- WATER
 - COMMS. PIT
 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
 - FLOOD AFFECTED SITE AREA

- WT DENOTES LEVEL AT TOP OF WINDOW
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- VC DENOTES VEHICULAR CROSSING
- TK DENOTES LEVEL AT TOP OF KERB
- LP DENOTES LEVEL AT LIP OF KERB

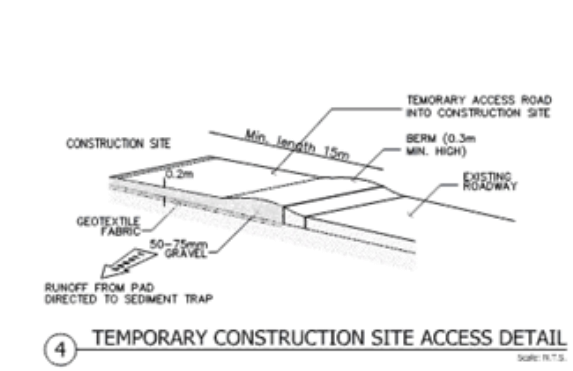
(A) EASEMENT FOR DRAINAGE 1.83 WIDE



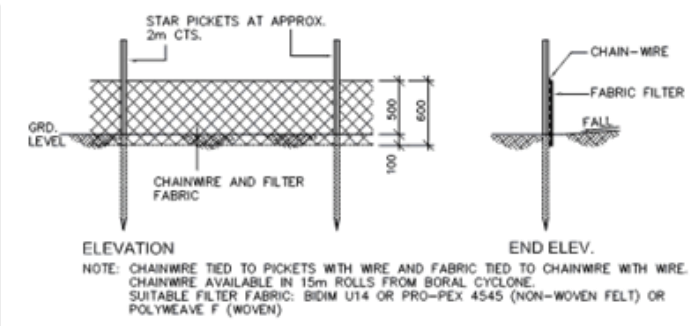
SEDIMENTATION / EROSION CONTROL NOTES:

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S STANDARD SPECIFICATION AND TO THE SATISFACTION OF COUNCIL'S ENGINEERS.
- EXISTING CONTOURS SHOWN THUS: - - - - - 10.00
- EXISTING SPOT LEVELS SHOWN THUS: (9.94)
- DESIGN CONTOURS SHOWN THUS: ————— 10.00
- DESIGN SPOT LEVELS SHOWN THUS: RL 10.00
- EROSION AND SEDIMENTATION CONTROLS SHALL BE CONSTRUCTED AS SHOWN ON THIS PLAN AND/OR WHERE DIRECTED BY COUNCIL ENGINEER.
- SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE IMPLEMENTED PRIOR TO OR IN CONJUNCTION WITH THE FIRST PHASE OF EARTHWORKS AND SHALL BE REMOVED ONLY WHEN THE AREA ABOVE IT IS STABILISED. EACH SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSPECTED AFTER EACH STORM FOR STRUCTURAL DAMAGE OR CLOGGING BY SILT AND OTHER DEBRIS AND PROMPTLY REPAIRED OR REPLACEMENT IF REQUIRED.
- WHERE SITE REGRADING OR FILLING IS BEING UNDERTAKEN, SURFACE WATER SHALL BE DIRECTED AWAY FROM THE FACE OF BATTERS.
- TOPSOIL STOCKPILES SHALL BE LOCATED OUTSIDE HAZARD AREAS SUCH AS DRAINAGE DEPRESSIONS.
- ALL AREAS NOT SUBJECT TO CONSTRUCTION WORKS SHALL BE RETAINED FREE FROM DISTURBANCE OR DAMAGE DURING THE CURRENCY OF THE WORKS.
- DIVERSION CHANNELS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN LEVELS AND SUCH THAT RUNOFF WILL DISCHARGE ONTO STABLE DISPOSAL AREAS (I.E. AREAS NOT SUBJECT TO CONSTRUCTION WORKS) OR TO SEDIMENTATION AND EROSION CONTROL DEVICE
- 1. A SILT/SEDIMENTATION FENCE SHALL BE EMBEDDED AT LEAST 150mm INTO THE SOIL PREVENT WATER TUNNELLING BENEATH FENCE (SEE STANDARD DETAIL FOR SILT FENCING). AT THE LOWEST POINT ALONG THE FENCE AND AT THE UPHILL SIDE A LEVEL SPREADER OF AT LEAST 3 METRES LONG AND 1.5 METRES WIDE SHALL BE EXCAVATED AT ZERO GRADE.

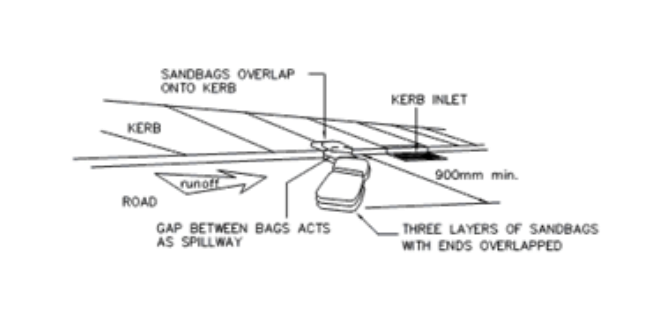
3 SEDIMENTATION CONTROL AND DEMOLITION PLAN
Scale: 1:200



4 TEMPORARY CONSTRUCTION SITE ACCESS DETAIL
Scale: N.T.S.



5 SILT FENCE
Scale: N.T.S.



6 SAND BAG KERB INLET SEDIMENTATION TRAP
Scale: N.T.S.

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DESIGN: ANANDARATHA DATE: 07/01/17
DRAWN: A DATE: 20/01/17

project address: No 24 AMAROO AVENUE, STRATHFIELD, NSW
SEDIMENTATION CONTROL AND DEMOLITION PLAN

client: YUE QIU
project: PROPOSED NEW RESIDENCE
urbanform design
building design + interiors + development + landscape



project ref: 17008
drawing no.: A102
author: L.R.
date: 25.07.17
scale: 1:200@A3
issue: A

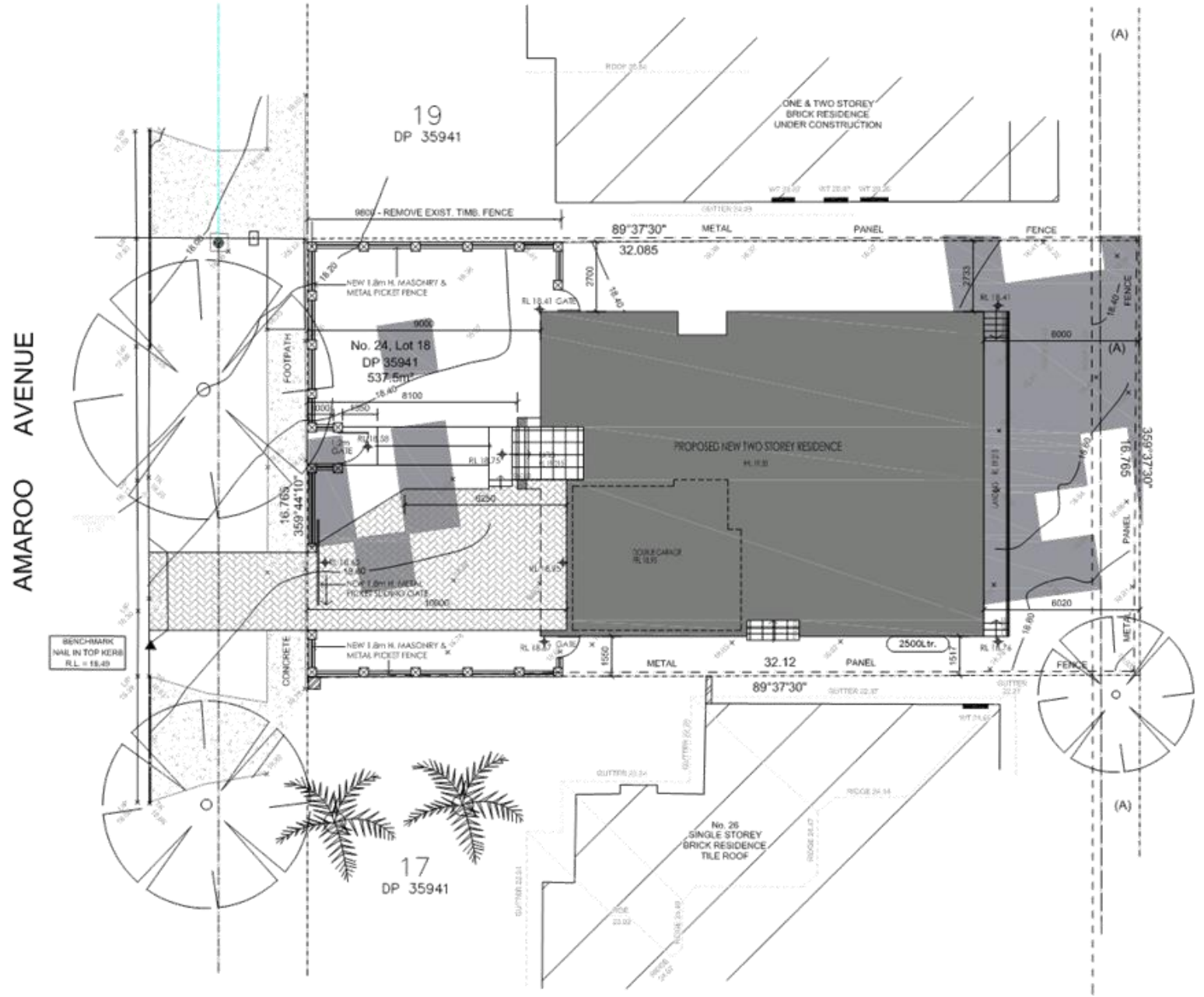
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- LEGEND:**
- WATER
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 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
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 VC DENOTES VEHICULAR CROSSING
 TK DENOTES LEVEL AT TOP OF KERB
 LP DENOTES LEVEL AT LIP OF KERB

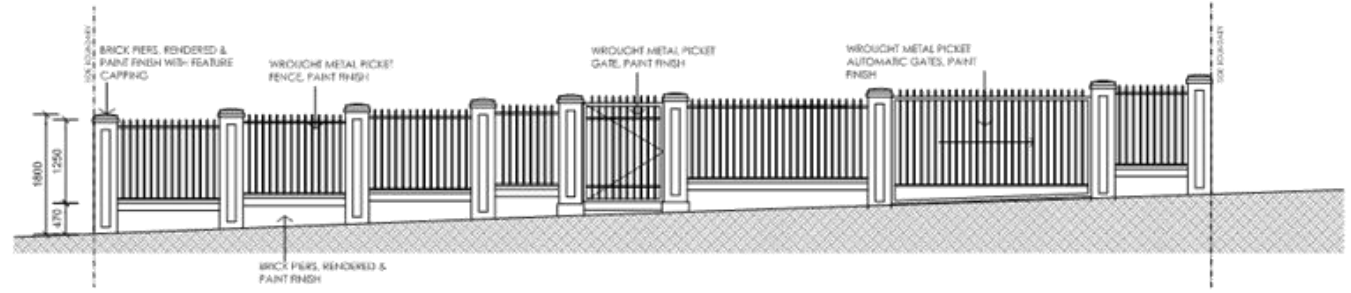
(A) EASEMENT FOR DRAINAGE 1.83 WIDE

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DA2017/161
8 November 2017



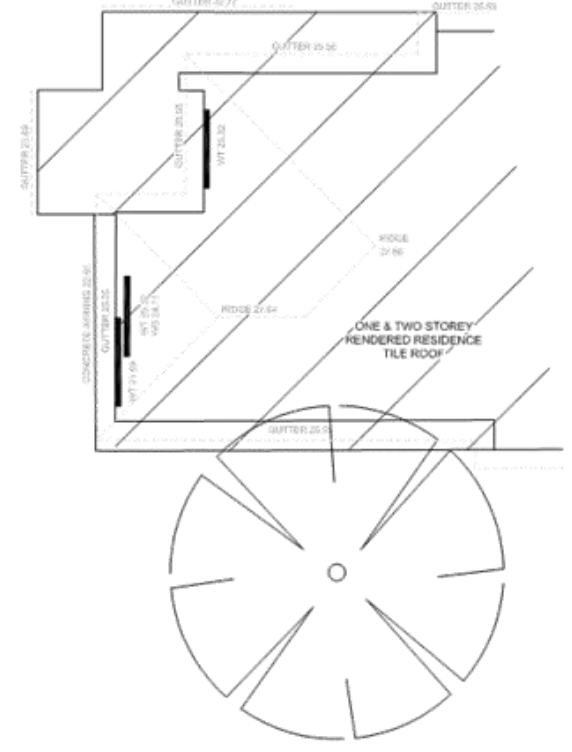
7 PROPOSED SITE PLAN
 Scale: 1:200



8 PROPOSED FRONT FENCE (SIDE FRONT MASONRY/PICKET FENCES ARE SAME IN HEIGHT AND MATERIAL)
 Scale: 1:100

SITE CALCULATIONS - TABLE OF AREAS:

EXISTING SITE AREA: 537.5m ²	SITE DETAILS: Lot 18, DP35941, 24 Amaroo Avenue, Strathfield, NSW		
SITE ZONING: R2	FLOOR SPACE RATIO: 0.625 : 1 (336 m ²)	PROVIDED: 316 m ²	COMPLIANCE: YES
BUILDING HEIGHT AND SETBACKS			
MAXIMUM BUILDING HEIGHT (from exist. grd. lvl):	9.5m	9.4m	YES
FRONT SETBACK:	9.0m	9.0m (Garage 10m)	YES
SIDE SETBACK:			
- 25% of block width (4.191m) with min. 1.5m setbacks to sides	2.7m + 1.55m = 4.25m		YES
REAR SETBACK:	6.0m		YES
LANDSCAPING			
MIN. LANDSCAPE AREA (L.A.) - 36.5% of site area:	196m ²	249.5m ²	YES
MIN. DEEP SOIL SOIL LANDSCAPING SOI of FRONT SETBACK:	75.5m ²	88.5m ²	YES
MIN. LANDSCAPE WIDTH:	1.5m	1.55m+	YES
MIN. PRIVATE OPEN SPACE (MIN. 3m wide):	24m ²	146m ²	YES
CAR PARKING & ACCESS			
MIN. NUMBER OF CAR SPACES:	1 CAR SPACE	2+1	YES
GARAGE SETBACK - BEHIND BUILDING LINE:	1m	1m	YES
MAX. GARAGE DOOR WIDTH:	6m	5.4m	YES



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DATE: 28/05/2017
 DRAWING NO.: A103
 ISSUE: A

client: **YUE QIU**

project: **PROPOSED NEW RESIDENCE**

urbanform design
 building design + interiors + development + landscape

10m

project address: **No 24 AMAROO AVENUE, STRATHFIELD, NSW**
PROPOSED SITE PLAN

project ref: **17008**
 drawing no.: **A103**
 issue: **A**

author: **L.R.**
 date: **25.07.17**

scale: **1:200 @ A3**

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BASIX Certificate

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

Single Dwelling

Certificate number: 8630005_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au.

Secretary
Date of issue: Tuesday, 07 November 2017
To be valid, this certificate must be lodged within 3 months of the date of issue.

Project summary		
Project name	YUE QIU RESIDENCE 01_02	
Street address	24 Amaroo Avenue Strathfield 2135	
Local Government Area	Strathfield Municipal Council	
Plan type and plan number	deposited 35941	
Lot no.	18	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	5	
Project score		
Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	Target 50

Certificate Prepared by	
Name / Company Name:	Urbanform Designs P/L
ABN (if applicable):	19 085 203 756

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DA2017/161
8 November 2017

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0- DARWINA_3_3_7 Certificate No. 8630005_02 Tuesday, 07 November 2017 page 1/7

Description of project

Project address		Assessor details and thermal loads	
Project name	YUE QIU RESIDENCE 01	Assessor number	BDAM/12/1456
Street address	24 Amaroo Avenue Strathfield 2135	Certificate number	000000000
Local Government Area	Strathfield Municipal Council	Climate zone	56
Plan type and plan number	Deposited Plan 35941	Area adjusted cooling load (MJ/m ² /year)	23
Lot no.	24	Area adjusted heating load (MJ/m ² /year)	35
Section no.	-	Project score	
Project type		Water	✓ 40 Target 40
Project type	separate dwelling house	Thermal Comfort	✓ Pass Target Pass
No. of bedrooms	5	Energy	✓ 53 Target 50
Site details			
Site area (m ²)	538		
Roof area (m ²)	224		
Conditioned floor area (m ²)	295.0		
Unconditioned floor area (m ²)	6.5		
Total area of garden and lawn (m ²)	250		

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0- DARWINA_3_3_7 Certificate No. 8630005 Tuesday, 07 November 2017 page 2/7

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC-CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 25 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 6 but <= 7.5 L/min plus spray force and/or coverage tests) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 5 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 2500 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 85 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to:			
• all toilets in the development		✓	✓
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0- DARWINA_3_3_7 Certificate No. 8630005 Tuesday, 07 November 2017 page 3/7

Thermal Comfort Commitments

Thermal Comfort Commitments	Show on DA plans	Show on CC-CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate these specifications.			
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓
Floor and wall construction	Area		
floor - concrete slab on ground	All or part of floor area square metres		
floor - suspended floor above garage	All or part of floor area		

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0- DARWINA_3_3_7 Certificate No. 8630005 Tuesday, 07 November 2017 page 4/7

client:
YUE QIU

project:
PROPOSED NEW RESIDENCE

urbanform design

building design + interiors + development + landscape

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 phone: 02 9344 7241- 0411 303 402
 email: louis@urbanform.com.au
 web: www.urbanform.com.au

project address:
No 24 AMAROO AVENUE, STRATHFIELD, NSW

BASIX COMMITMENTS - 1 OF 2 SHEETS

project ref:
17008

drawing no.:
A104

issue:
A

author:
L.R.

date:
06.09.17

scale:
1:200@A3

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DESIGN: ANANDRATHA DATE: 07/11/17
 A DA SUBMISSION 30.05.17 LR

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 3.5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1 phase airconditioning: Energy rating: 3.5 Star		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1 phase airconditioning: Energy rating: 3.5 Star		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1 phase airconditioning: Energy rating: 3.5 Star		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1 phase airconditioning: Energy rating: 3.5 Star		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development: At least 1 Bathroom: individual fan, ducted to façade or roof. Operation control: manual switch on/off Kitchen: individual fan, ducted to façade or roof. Operation control: manual switch on/off Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓ ✓ ✓	✓ ✓ ✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for these lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps: • at least 5 of the bedrooms / study: dedicated		✓	✓

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 (DARWIN, 3_0_2) Certificate No: 1803055 Tuesday, 07 November 2017 page 5/7

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
• at least 3 of the living / dining rooms: dedicated		✓	✓
• the kitchen: dedicated		✓	✓
• all bathrooms/toilets: dedicated		✓	✓
• the laundry: dedicated		✓	✓
• all hallways: dedicated		✓	✓
Natural lighting			
The applicant must install a window and/or skylight in 4 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 (DARWIN, 3_0_2) Certificate No: 1803055 Tuesday, 07 November 2017 page 6/7

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a ✓ in the "Show on DA plans" column must be shown on the plans accompanying the development application to the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a ✓ in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a ✓ in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

BASIX Planning & Environment www.basix.nsw.gov.au Version: 3.0 (DARWIN, 3_0_2) Certificate No: 1803055 Tuesday, 07 November 2017 page 3/7

client: **YUE QIU**

project: **PROPOSED NEW RESIDENCE**

urbanform design
building design + interiors + development + research

10m

project address: **No 24 AMAROO AVENUE, STRATHFIELD, NSW**

project ref: **17008**

author: **L.R.**

scale: **1:200@A3**

drawing no.: **A105**

date: **06.09.17**

issue: **A**

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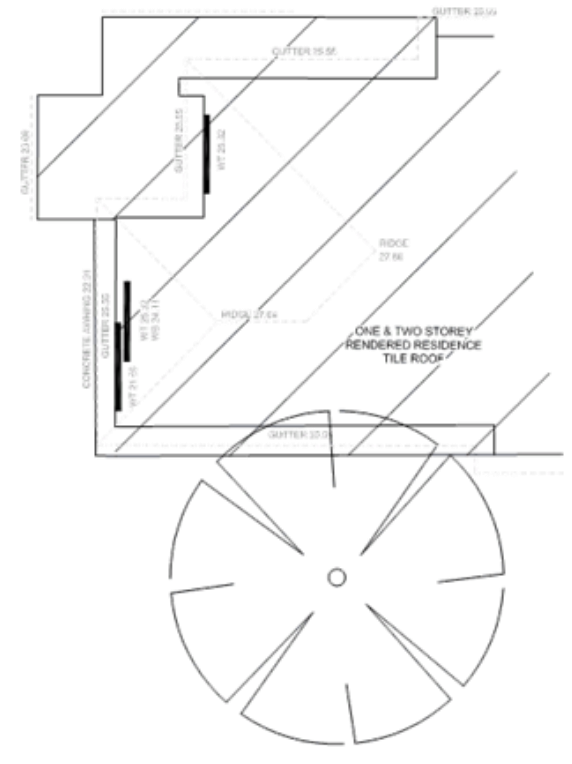
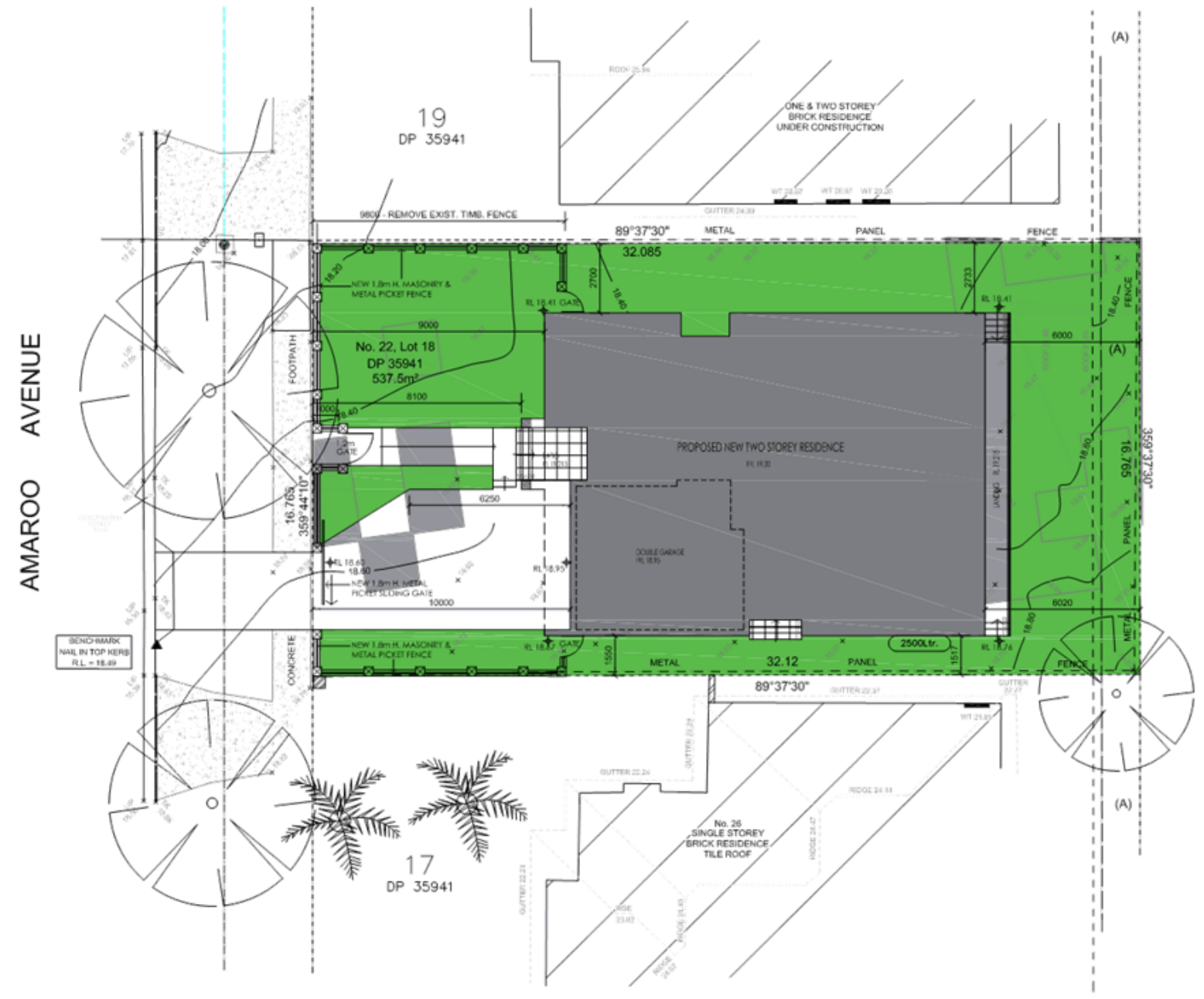
DATE: 06/09/2017
BY: [Signature]

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**DA2017/161
8 November 2017**

- LEGEND:**
- WATER
 - COMMS PIT
 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
 - FLOOD AFFECTED SITE AREA
- WT DENOTES LEVEL AT TOP OF WINDOW
WB DENOTES LEVEL AT BOTTOM OF WINDOW
VC DENOTES VEHICULAR CROSSING
TK DENOTES LEVEL AT TOP OF KERB
LIP DENOTES LEVEL AT LIP OF KERB

(A) EASEMENT FOR DRAINAGE 1.83 WIDE



7 PROPOSED SITE PLAN
Scale: 1:200

LANDSCAPE AREA REQUIRED - 196.0 m2
LANDSCAPE AREA PROVIDED - 249.5 m2

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DESIGN: AMAROO/2017/161 DATE: 07/11/17
A DA SUBMISSION 20/07/17 LN

client: **YUE QIU**

project: **PROPOSED NEW RESIDENCE**

urbanform design
building design + interiors + development + landscape

Louie Rizzo (Architect)
9 warwick Street, SYDNEY, N.S.W.
p.o. box 980, GYMEA, N.S.W. 2227
phone: 02 9344 7241 - 0411 303 402
email: louie@urbanform.com.au
web: www.urbanform.com.au

project address: **No 24 AMAROO AVENUE, STRATHFIELD, NSW**

project ref: **17008**

author: **L.R.**

scale: **1:200@A3**

drawing no.: **A106**

date: **25.07.17**

issue: **A**

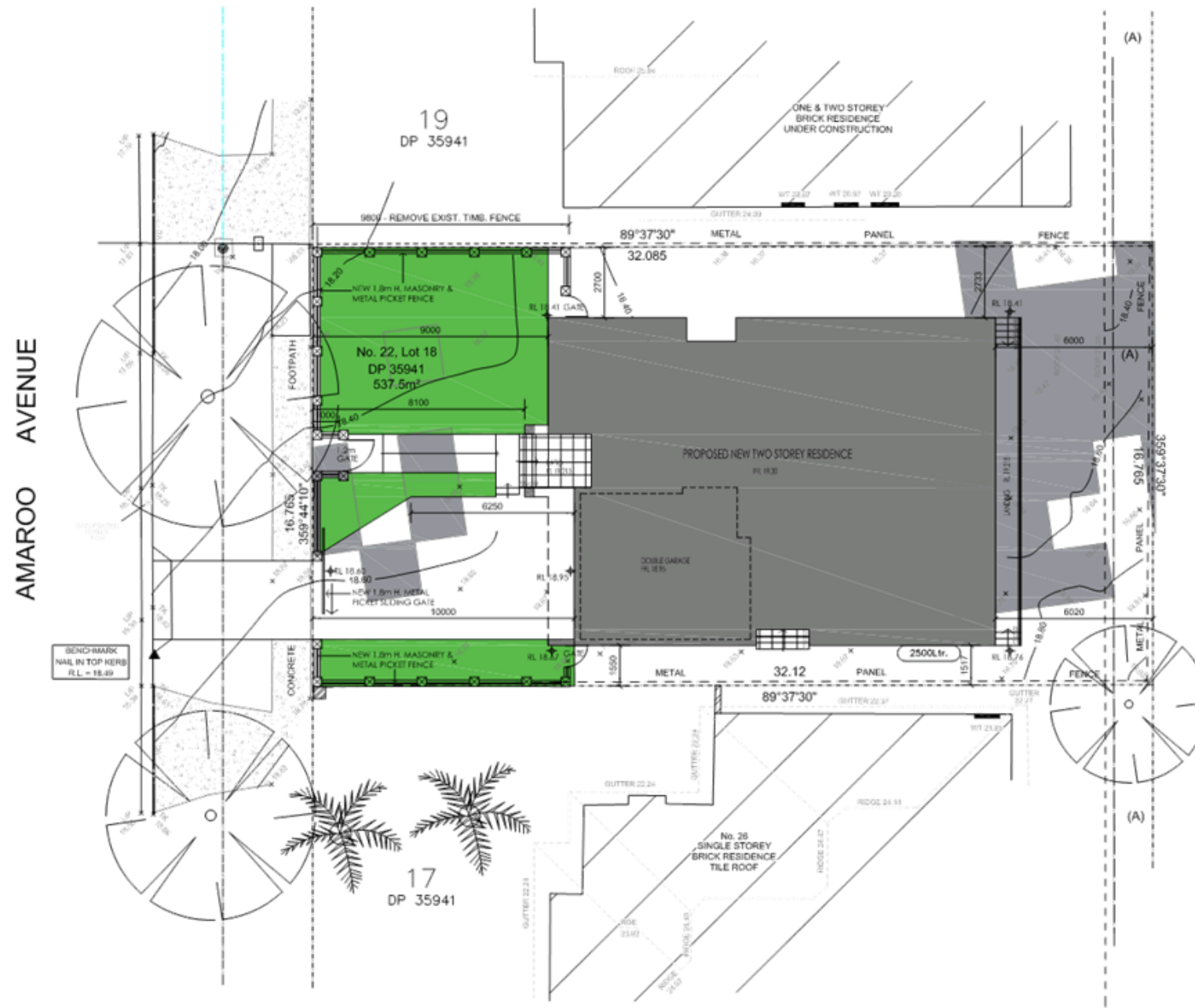
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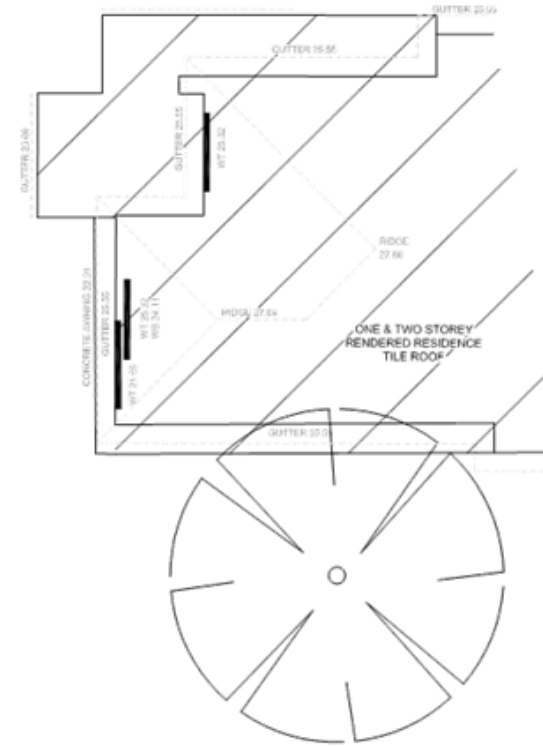
DA2017/161
8 November 2017

- LEGEND:**
- WATER
 - COMMS PIT
 - WATER METER
 - ⊕ POWER POLE
 - ⊕ SEWER INSPECTION POINT
 - FLOOD AFFECTED SITE AREA
- WT DENOTES LEVEL AT TOP OF WINDOW
WB DENOTES LEVEL AT BOTTOM OF WINDOW
VC DENOTES VEHICULAR CROSSING
TK DENOTES LEVEL AT TOP OF KERB
LP DENOTES LEVEL AT LIP OF KERB

(A) EASEMENT FOR DRAINAGE 1.83 WIDE



7 PROPOSED SITE PLAN
Scale: 1:200



MIN. DEEP SOIL LANDSCAPING 50% of FRONT SETBACK REQUIRED - 78.5 m2
MIN. DEEP SOIL LANDSCAPING 50% of FRONT SETBACK PROVIDED - 88.5 m2

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DATE: 20/07/17
BY: DA SUBMISSION

project address: No 24 AMAROO AVENUE, STRATHFIELD, NSW
drawing title: LANDSCAPE CALCULATION PLAN - 2 OF 3

client: YUE QIU
project: PROPOSED NEW RESIDENCE

urbanform design
building design + interiors + development + landscape

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project ref: 17008
drawing no.: A107
author: L.R.
date: 25.07.17
scale: 1:200@A3
issue: A

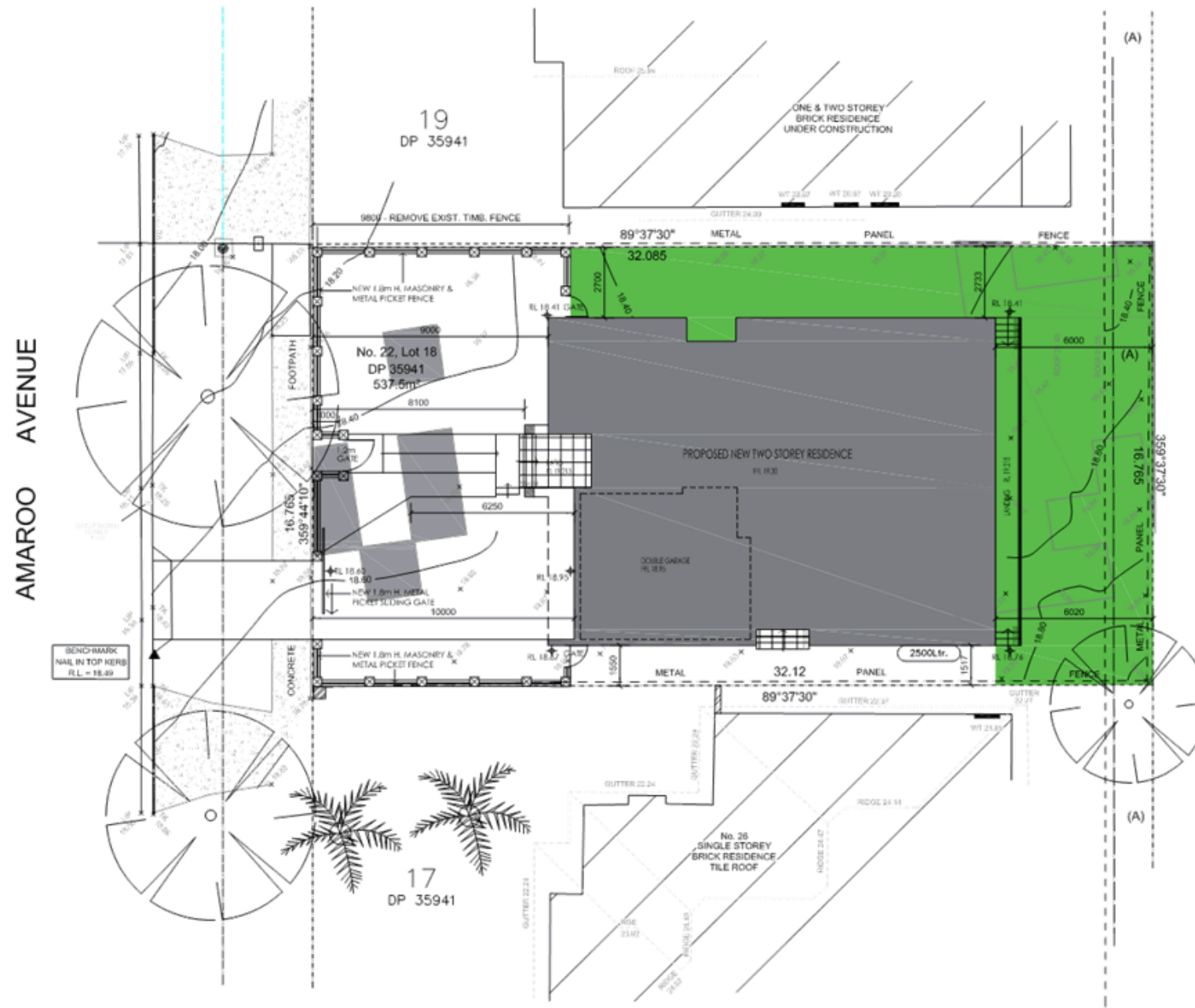
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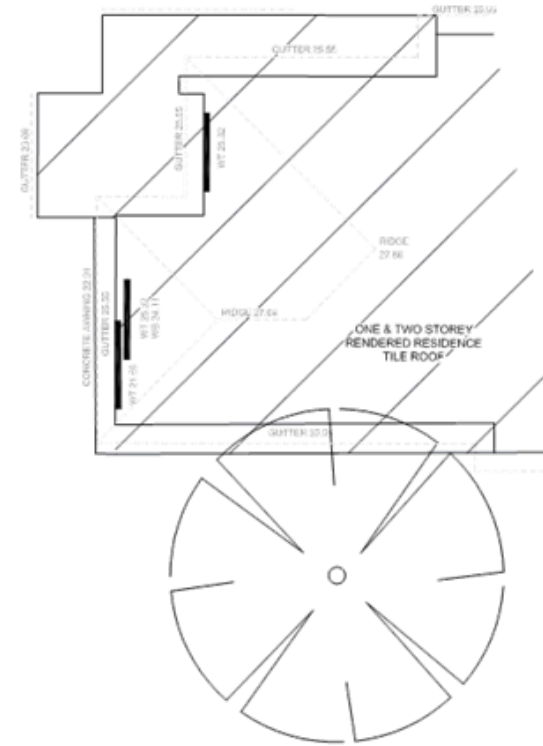
**DA2017/161
8 November 2017**

- LEGEND:**
- WATER
 - COMMS PIT
 - WATER METER
 - ⊙ POWER POLE
 - ⊕ SEWER INSPECTION POINT
 - FLOOD AFFECTED SITE AREA
- WT DENOTES LEVEL AT TOP OF WINDOW
 WB DENOTES LEVEL AT BOTTOM OF WINDOW
 VC DENOTES VEHICULAR CROSSING
 TK DENOTES LEVEL AT TOP OF KERB
 LP DENOTES LEVEL AT LIP OF KERB

(A) EASEMENT FOR DRAINAGE 1.83 WIDE



7 PROPOSED SITE PLAN
Scale: 1:200



MIN. PRIVATE OPEN SPACE (MIN. 3m wide) REQUIRED: - 24 m2
 MIN. PRIVATE OPEN SPACE (MIN. 3m wide) PROVIDED: - 146 m2

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DATE: 20/07/2017
 DRAWING NO.: A108
 ISSUE: 1

project address: No 24 AMAROO AVENUE, STRATHFIELD, NSW
 drawing title: LANDSCAPE CALCULATION PLAN - 3 OF 3

client: **YUE QIU**
 project: **PROPOSED NEW RESIDENCE**
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 building design + interiors + development + landscape

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 web: www.urbanform.com.au

project ref: **17008**
 drawing no.: **A108**
 issue: **A**
 author: **L.R.**
 date: **25.07.17**
 scale: **1:200@A3**

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NATHERS - THERMAL COMFORT SUMMARY

Building Elements	Material	Detail
External Walls	Cavity Brick	Foil sided bubble wrap (Arcell permicar / Polyr Performa 4 or the like) total system R value R11.7
Internal walls	Single Skin Brick	-
Ceiling	Plasterboard	R3.6 bulk insulation to ceilings with roof above (excluding garage)
Floors	Concrete	As per plans
Roof	Roof Tiles	Roil (insulation) to underside of roof
Windows/Doors	Awning windows / Sliding windows/doors & Fixed windows	U value 6.70 or less and SHGC 0.57 +/- 5%
	Aluminum frame, single glazed clear	U value 6.70 or less and SHGC 0.70 +/- 5%

Lighting: This dwelling have been rated with non-ventilated LED downlights as per NATHERS Certificate.
Note: Insulation specified must be installed in accordance with Part 3.12.1.1 of the BCA.
Note: Self-closing damper to all exhaust fans.

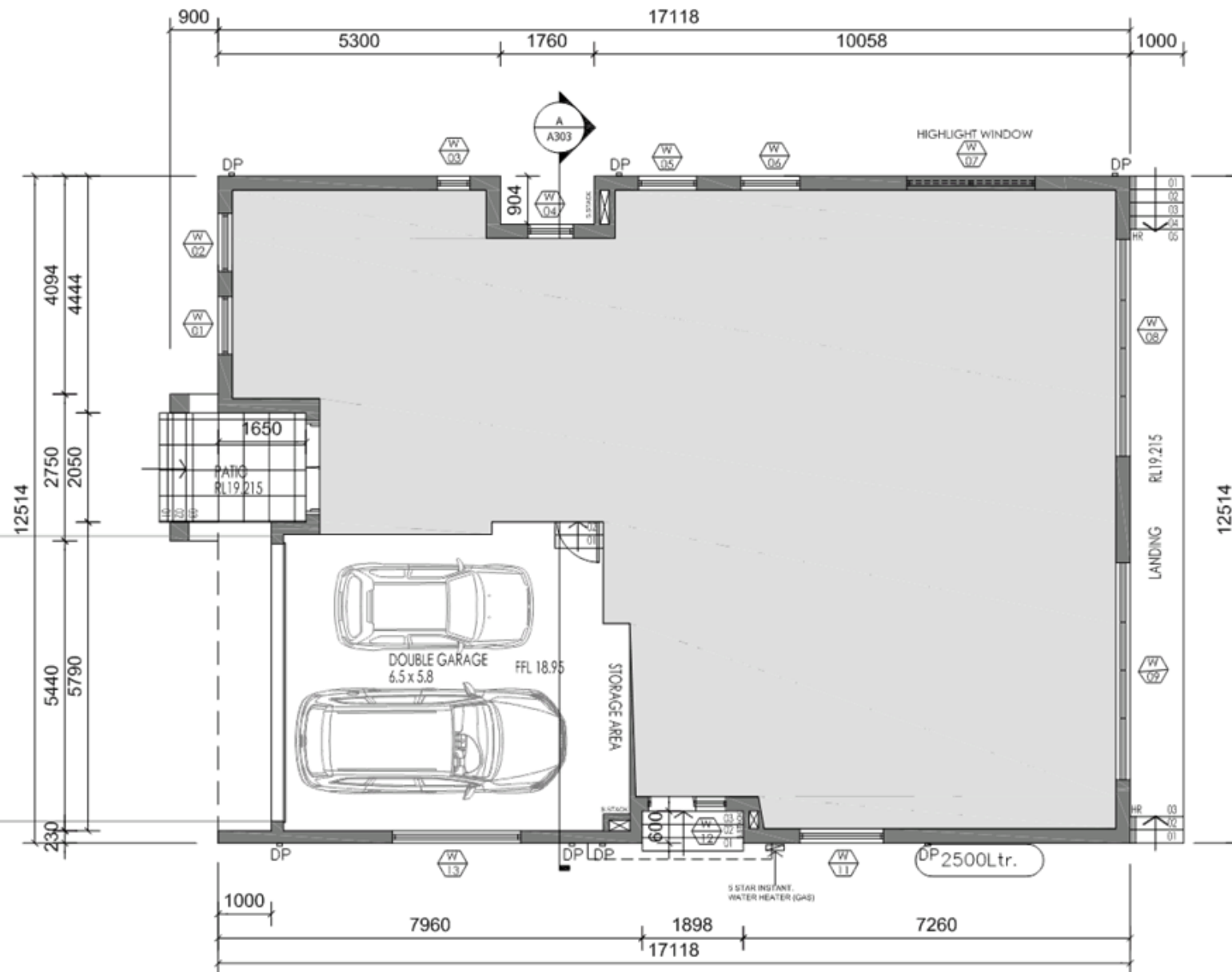
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**DA2017/161
8 November 2017**

WINDOW SCHEDULE

WINDOW NUMBER	WINDOW SIZE W x H	Nbr. Of	WINDOW FLYSCREEN	SLIDING DOOR FLYSCREEN	COMMENTS
W01, W02	1080 x 2100	2	yes	-	alum. framed awning/ fixed window
W03	610 x 600	1	yes	-	alum. framed sliding window, obscure glass
W04	850 x 2700	1	-	-	alum. framed fixed window, obscure glass
W05, W06	1080 x 1810	2	yes	-	alum. framed awning/ fixed window
W07	2410 x 600	1	-	-	alum. framed fixed window
W08, W09	4080 x 2400	2	-	yes	alum. framed sliding doors
W11	1570 x 1030	1	yes	-	alum. framed sliding window
W12	565 x 945	1	yes	-	alum. framed awning window
W13	2410 x 610	1	-	-	alum. framed fixed window
W14, W16	850 x 1850	2	yes	-	alum. framed awning/ fixed window
W15	1570 x 2100	1	yes	-	alum. framed sliding doors
W17	1080 x 1200	1	-	-	alum. fixed window
W18, W19	1080 x 1850	2	yes	-	alum. framed awning/ fixed window
W20	1710 x 610	1	yes	-	alum. framed sliding window, obscure glass
W21, W22, W23, W24	1450 x 1200	4	yes	-	alum. framed sliding window
W25, W26, W27, W28	610 x 600	4	yes	-	alum. framed sliding window, obscure glass
W29	2410 x 1200	1	yes	-	alum. framed awning window, bottom half have obscure glass for privacy
W30	1210 x 600	1	yes	-	alum. framed sliding window, obscure glass
W10 NOT USED					

ALL WINDOWS TO COMPLY TO RELEVANT STANDARDS



TYPICAL EXTERNAL WALL DETAIL

BUILDING SYSTEM CERTIFICATION ANALYSIS

PRODUCT	R VALUE (W/m²K)	SHGC (W/m²K)	U VALUE (W/m²K)
POLYMER PERFORMANCE 4.0	11.7	0.57	6.70
DOUBLE BRICK WALL	11.7	0.57	6.70

Product: POLYMER PERFORMANCE 4.0
 Model: POLYMER PERFORMANCE 4.0
 Version: 1.0
 Date: 13/03/17

BUILDING AREAS: GROUND FLOOR LEVEL

RESIDENCE:	Area (m²)
F.S.R. FLOOR AREA	141 m
GROSS FLOOR AREA	213 m
PATIO, PORCH, ETC	4.6 m

client: **YUE QIU**
 project: **PROPOSED NEW RESIDENCE**

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 web: www.urbanform.com.au

project address: **No 24 AMAROO AVENUE, STRATHFIELD, NSW**
PROPOSED GROUND FLOOR PLAN

project ref: **17008**
 drawing file: **A201**
 issue: **A**

author: **L.R.**
 date: **25.07.17**

scale: **1:100@A3**

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DESIGN: A.M.A. (ARCHITECT) DATE: 20.07.17
 DRAWN: DA SUBMISSION DATE: 18

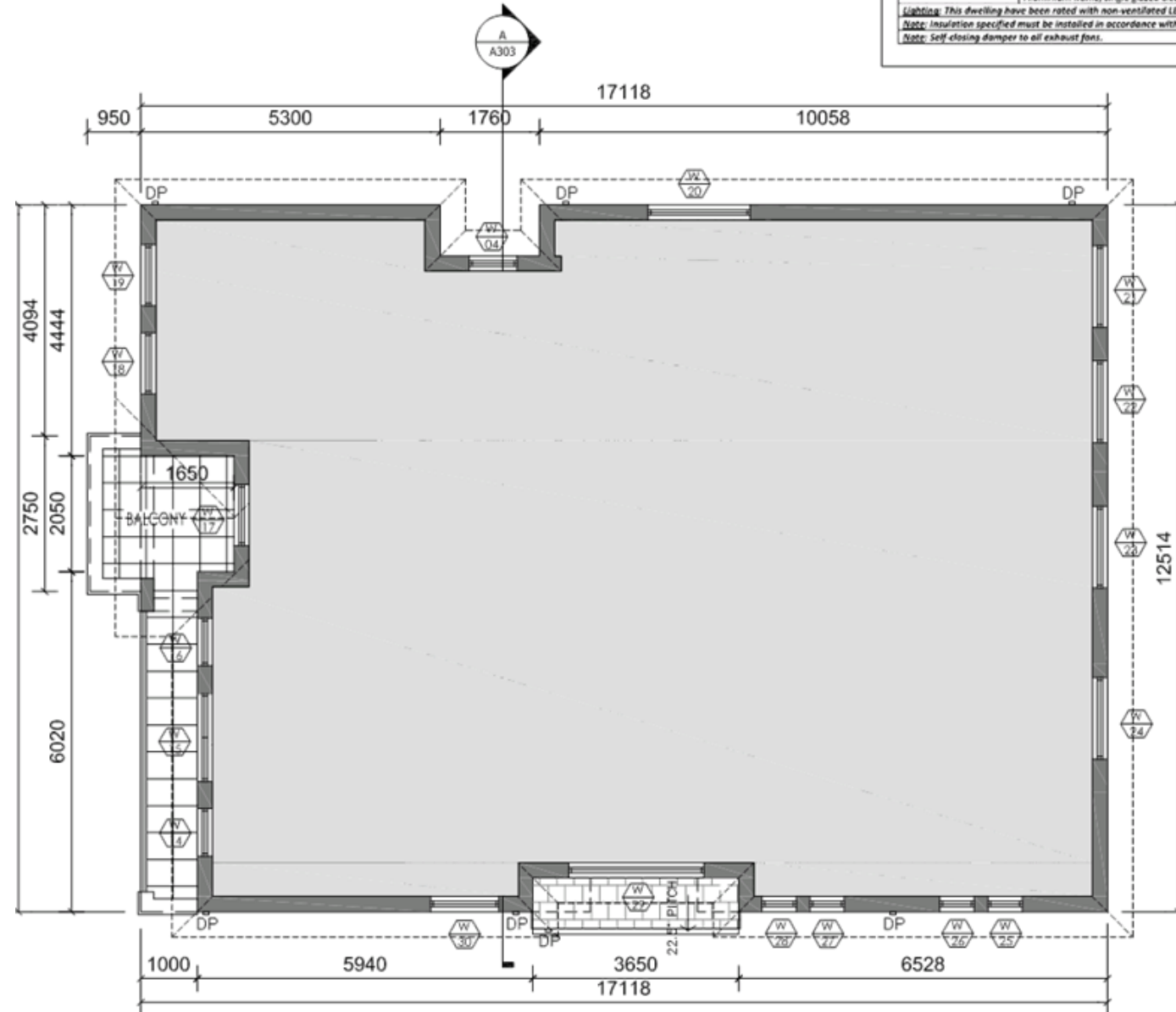
NATHERS - THERMAL COMFORT SUMMARY

Building Elements	Material	Detail
External Walls	Cavity Brick	Foil sided bubble wrap (Anceel permiclar / Polysar Performa 4 or the like) total system R value R0.7
Internal walls	Single Skin Brick	-
Ceiling	Plasterboard	R3.0 bulk insulation to ceilings with roof above (excluding garage)
Floors	Concrete	As per plans
Roof	Roof Tiles	Foil (insulation) to underside of roof
Windows/Doors	Alumina windows:	U value 0.70 or less and SHGC 0.57 +/- 5%
	Aluminium frame, single glazed clear	
	Sliding windows/doors & fixed windows:	U value 0.70 or less and SHGC 0.70 +/- 5%
	Aluminium frame, single glazed clear	

Lighting: This dwelling has been rated with non-ventilated LED downlights as per NATHERS Certificate.
Note: Insulation specified must be installed in accordance with Part 3.12.1.1 of the BCA.
Note: Self-closing damper to all exhaust fans.

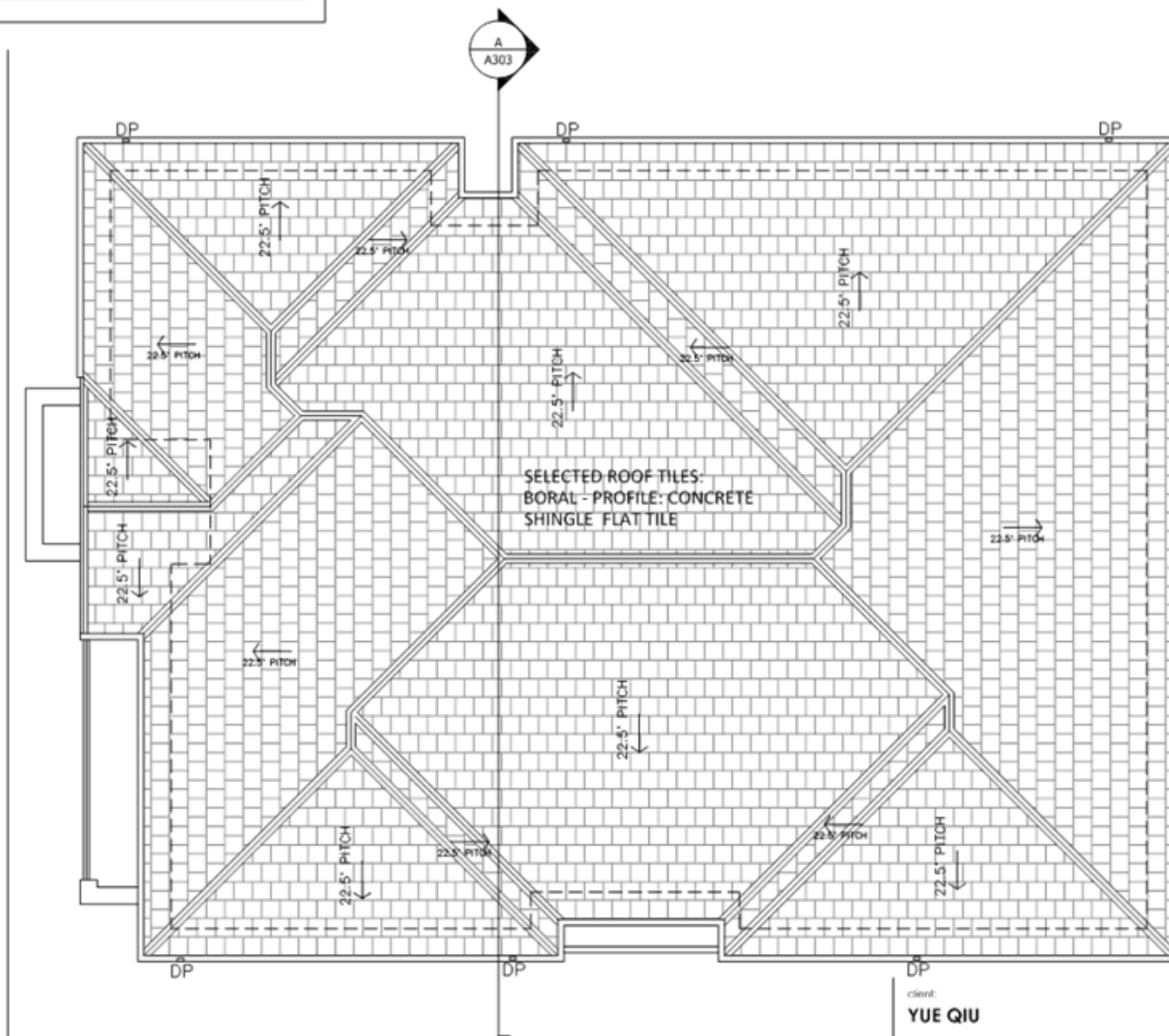
**STRATHFIELD COUNCIL
RECEIVED**

**DA2017/161
8 November 2017**



10 PROPOSED FIRST FLOOR PLAN
Scale: 1:100

BUILDING AREAS: FIRST FLOOR LEVEL	
RESIDENCE:	
F.S.R. FLOOR AREA	141 m
GROSS FLOOR AREA	201 m
PATIO, PORCH, ETC.	11.9 m



11 PROPOSED ROOF PLAN
Scale: 1:100

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DESIGN: A.M.A. (A.M.A.) DATE: 20.08.17
A DA SUBMISSION

project address: No 24 AMAROO AVENUE, STRATHFIELD, NSW
 PROPOSED FIRST FLOOR PLAN & ROOF PLAN

project ref: 17008
 drawing no.: A202
 issue: A

author: L.R.
 date: 15.08.17
 scale: 1:100@A3

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client: YUE QIU
 project: PROPOSED NEW RESIDENCE

urbanform design
 building design + interiors + development + landscape

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EXISTING RESIDENCE



20 PROPOSED NEW RESIDENCE
SHADOW DIAGRAM - 9am - 21st June
Scale: NTS



STRATHFIELD COUNCIL
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DA2017/161
8 November 2017



EXISTING RESIDENCE



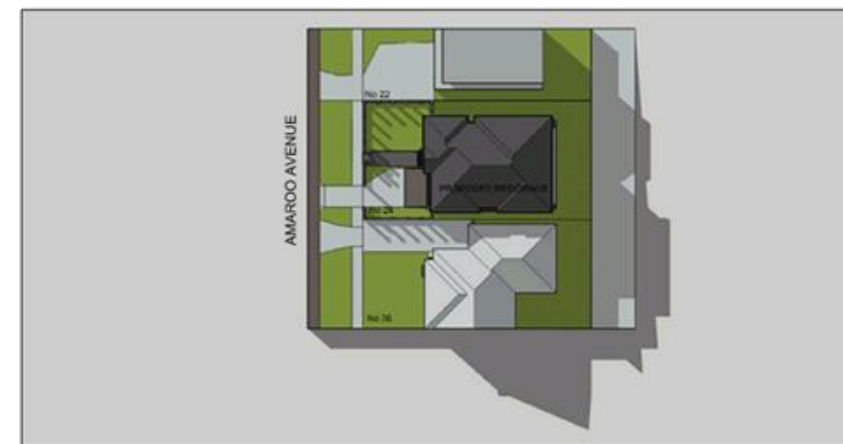
21 PROPOSED NEW RESIDENCE
SHADOW DIAGRAM - 12noon - 21st June
Scale: NTS



EXISTING RESIDENCE



22 SHADOW DIAGRAM - 3pm - 21st June
Scale: NTS



PROPOSED NEW RESIDENCE

project address: No 24 AMAROO AVENUE, STRATHFIELD, NSW
drawing title: SHADOW DIAGRAMS

client: YUE QIU
project: PROPOSED NEW RESIDENCE
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project ref: 17008
drawing no.: A401
issue: A
author: L.R.
date: 18.09.17
scale: 1:200@A3

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DATE: 18/09/2017
DRAWN BY: L.R.
CHECKED BY: L.R.
DATE: 18/09/17

TO: Strathfield Independent Hearing and Assessment Panel Meeting - 1 February 2018

REPORT: SIHAP – Report No. 4

SUBJECT: DA1996/109/01
6-8 DUNLOP STREET, STRATHFIELD SOUTH
LOT 1 DP 812668

DA NO. 1996/109/01

SUMMARY

Proposal: Section 96(2) modification involving the extension of hours of operation and increase in truck movements

Applicant: Sandhub Pty Ltd

Owner: Mango & Chubb Pty Ltd

Date of lodgement: 23 November 2017

Notification period: 6 December 2017 to 31 December 2017

Submissions received: (18) written submissions received

Assessment officer: ND

Estimated cost of works: NIL

Zoning: IN1 General Industrial - SLEP 2012

Heritage: N/A

Flood affected: Yes

Is a Clause 4.6 variation proposed? No

RECOMMENDATION OF OFFICER: REFUSAL

EXECUTIVE SUMMARY

- 1.0 On 11 March 1997, Council approved Development Application No. DA06/109 to continue the use of the premises as a joinery works and builders' yard industrial building and to extend the development by provision of additional officer area and factory floor space for the existing joinery works and to provide a truck wash bay and storage area.
- 2.0 The modification application seeks to amend Condition No. 13 to increase the hours of operation and Condition no. 30 to increase the number of truck movements at the premises.
- 3.0 The proposed modification is in response to an Order issued on 27 September 2017 pursuant to Section 121B of the *Environmental Planning & Assessment Act* 1979 for non-compliance with Conditions No. 13, 18, 19, 30 of the Development Consent.
- 4.0 In accordance with Part L of the SCDCP 2005, the modification application was notified from 6 December 2017 to 31 December 2017 with (18) written submissions received. Concerns were raised in relation to noise and dust emissions from the site and associated traffic impacts on the surrounding roads.
- 5.0 The proposed increase to the hours of operation and number of truck movements is considered incompatible with the adjacent residential zoned area. The generation of noise

DA1996/109/01
 6-8 Dunlop Street, Strathfield South
 Lot 1 DP 812668 (Cont'd)

from the trucks will have an adverse impact on the acoustic amenity and traffic movements upon the surrounding residential area.

- 6.0 As a result of the likely residential and traffic impacts of the proposed modification application, it is unable to be supported and is recommended for refusal.

BACKGROUND

- 11 March 1997** Council approved DA1996/109 to continue the use of the premises as a joinery works and builders' yard industrial building and to extend the development by provision of additional officer area and factory floor space for the existing joinery works and to provide a truck wash bay and storage area.
- 26 March 2013** Reminder letter sent to the owners of Conditions No. 13 and 18 of the consent; *"in particular, that the scaffolding activity is operating before 7am and offensive fumes are emanating from the premises"*.
- 25 September 2015** Reminder letter sent to the owners of Conditions No. 13 and 18 of the consent; *"In particular, noise emissions and operating outside the approved hours."*
- 16 November 2016** Reminder letter sent to owners of Condition No. 13 of the consent; *"In particular, noise emissions and operating outside the approved hours. A recent inspection by Council's Ranger observed trucks exiting the premises at 6:10am."*
- 14 February 2017** A site inspection undertaken by Council Officers identified that premises was in breach of the approved hours of operation (Condition No. 13). Consequently a Penalty Infringement Noticed was issued.
- 31 March 2017** Reminder letter sent to the owners of Condition No. 13 of the consent; *"in particular working outside of the approved hours of operation."*
- 4 September 2017** Noticed of Proposed Order issued for non-compliances with Conditions No. 13, 18, 19 and 30.
- 27 September 2017** An Order pursuant to Section 121B of the *Environmental Planning & Assessment Act 1979* was issued in relation to Conditions No. 13, 18, 19 and 30 of DA1996/109.

DESCRIPTION OF THE SITE AND LOCALITY

The subject site consists of one (1) parcel of land legally described as Lot 1 in DP 812668 and is commonly known as 6-8 Dunlop Street, Strathfield. The site is located on the eastern side of Dunlop Street, Strathfield South in a 'L-shape' orientation with direct vehicular access to Dunlop Street and comprises of a car parking area, office and builder's yard (as shown in Figures 1 and 2) The builder's yard provides building materials and recycled products for the construction industry and is also the main location for the loading and unloading of materials for the site.

Dunlop Street is a cul-de-sac that contains industrial and commercial premises including a concrete batching plant, printing business and engineering related premises. The subject site adjoins other Dunlop Street premises on all sides, except the north-east corner of the site that directly adjoins low density residential properties. The wider streetscape to the north and east also comprises of low density residential housing (illustrated in Figure 1). As Dunlop Street is a cul-de-

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6-8 Dunlop Street, Strathfield South
Lot 1 DP 812668 (Cont'd)

sac, all heavy vehicles for the site must pass through the residential street Dean Street to access the wider road network.



Figure 1: Aerial view of the subject site, surrounding industrial and residential properties. The subject site is outlined in yellow.



Figure 2: View of existing premises (No. 6-8 Dunlop Street, Strathfield South) from Dunlop Street.

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Lot 1 DP 812668 (Cont'd)



Figure 3: View inside subject premises.

PROPERTY BURDENS AND CONSTRAINTS

There are no easements or burdens on the land which could affect, or be affected by, the proposed development.

DESCRIPTION OF THE PROPOSED MODIFICATION

The application seeks to modify the hours of operation and the number of truck movements granted under the original consent (DA1996/109).

Condition 13

Existing:

- a) *The hours of operation shall be restricted to **7am to 4:30pm Monday to Saturday.***
- b) *The delivery of goods, material and the like to the premises and the dispatch of goods, material and the like from the premises shall only take place between **7am to 4:30pm Monday to Saturday** and no goods, materials or the like shall be delivered or dispatched outside of these hours.*

Proposed:

- a) *The hours of operation shall be restricted to **6:30am to 5:00pm Monday to Friday and 7am to 4:30pm Saturday.***
- b) *The delivery of goods, material and the like to the premises and the dispatch of goods, material and the like from the premises shall only take place between **6:30am to 5:00pm Monday to Friday and 7am to 4:30pm Saturday** and no goods, materials or the like shall be delivered or dispatched outside of these hours.*

Condition 30

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Existing:

The maximum number of truck movements to and from the site on any day shall not exceed (24).

Proposed:

The maximum number of truck movements to and from the site on any day shall not exceed (80).

REFERRALS

INTERNAL REFERRALS

Compliance

Council's Compliance Officer has commented on the proposal as follows:

Over the past few years there have been complaints in relation to the premises operating outside of the approved hours of operation, noise complaints and the excessive truck movements. A Penalty Infringement Notice was issued in February 2017 for operating outside of the approved hours of operation.

Traffic Comments

Council's Traffic Engineer has commented on the proposal as follows:

- *Both Dunlop Street and Dean Street have kerb side parking along both kerb alignments, thereby narrowing the available width for manoeuvring movements to 5.5m to 6.0m. This width is insufficient for two trucks to go past each other necessitating them to stop until one truck performs the manoeuvre.*
- *The existing geometric feature of the intersection of Dunlop Street and Dean Street and the road in general is insufficient to cater the increased demand for the trucks to manoeuvre in an out of Dunlop Street. This forces the vehicles into the parking lanes. Also forces the driver to wait longer durations until it is safe to exit out of their properties.*
- *Dean Street has been designed to the standards of a local road and is not designed to carry excessive volumes of heavy vehicles resulting in its wear and tear.*

Environmental Health Comments

Council's Environmental Health Officer has commented on the proposal as follows:

- *I have doubts as to the expectation that the proposed acoustic barrier will reduce noise levels so as to be compliant with the Industrial Noise Policy.*
- *The Traffic Impact Assessment confirms that their daily truck movements are now 75 per day which far exceeds the 24 allowed by their current consent.*
- *The premises has carried out some works which included tree removal and laying down hardstand concrete slabs in the area immediately adjacent to 20 William Street. This area is indicated on the approved site plan under DA96/109 as "existing grassed area" and there is no record of an approval for any modification of this on Council's file.*

SECTION 96(2) OF THE EP&A ACT 1979

Section 96(2) of the Environmental Planning and Assessment states as follows:

(2) Other modifications

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 Lot 1 DP 812668 (Cont'd)

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and
- (b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 5) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and
- (c) it has notified the application in accordance with:
 - (i) the regulations, if the regulations so require, or
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and
- (d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.

With regard to sub-clause (a), the proposed development (as modified) is substantially the same development as the development for which consent originally granted in that the development remains to be for the purposes of a joinery works and builder's yard providing construction and landscaping materials. The modification application does not propose any building works.

With regard to sub-clause (b), the proposed modification does not need to be referred to the relevant Minister, public authority or approval body.

In relation to sub-clauses (c) and (d), the Application was publicly notified from 6 December 2017 to 31 December 2017 in accordance with Part L of the Strathfield Consolidated Development Control Plan 2005 with (18) written submissions received.

Section 96(3) of the *Environmental Planning and Assessment Act 1979* requires consideration be given to the matters the matters referred to in Section 79C(1). An assessment of the subject application pursuant to the heads of consideration of Section 79C of the *Environmental Planning and Assessment Act* and the relevant matters described in Subsection (1)(a), (b), (c), (d) and (e) of Section 79C has been considered below.

SECTION 79C CONSIDERATIONS – EP&A Act, 1979

In determining a development application, the consent authority is to take into consideration the following matters of consideration contained within section 79C of the *Environmental Planning and Assessment Act, 1979* as relevant to the development application:

79C(1)(a) the provisions of:

- (i) any environmental planning instrument**

STRATHFIELD LOCAL ENVIRONMENTAL PLAN (SLEP) 2012

An assessment of the proposal against the general aims of SLEP 2012 is included below:

Cl. 1.2(2) Aims	Complies
a) <i>To achieve high quality urban form by ensuring that new development exhibits design excellence and reflects the existing or desired future character of particular localities and neighbourhoods in Strathfield</i>	No
b) <i>To promote the efficient and spatially appropriate use of land, the sustainable revitalisation of centres, the improved integration of transport and land use, and</i>	No

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 6-8 Dunlop Street, Strathfield South
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an appropriate mix of uses by regulating land use and development

c)	<i>To promote land uses that provide a wide range of employment, recreation, retail, cultural, service, educational and other facilities for the local community</i>	Yes
d)	<i>To provide opportunities for economic growth that will enhance the local community</i>	No
e)	<i>To promote future development that integrated land use and transport planning, encourages public transport use, and reduced the traffic and environmental impacts of private vehicle use</i>	Yes
h)	<i>To minimise risk to the community by identifying land subject to flooding and restricting incompatible development</i>	No

Comments:

- The proposed modification results in the intensification of the site. Whilst the use is permissible within the IN1 – General Industrial zone of the site, the traffic generation and hours of operation are not considered appropriate for the location.
- Whilst the use of the site as a builder’s yard is permitted within the IN1 – General Industrial zoning, the proposed hours of operation and truck movements is not appropriate and will reduce the residential amenity of the surrounding streetscape.
- The proposed modification will likely result in the generation of dust, noise and adverse traffic impacts. As the subject site is adjoined by residential dwellings, the modification is considered to be spatially inappropriate.

Floor space ratio

Cl.	Standard	Controls	Proposed	Complies
4.4C	<i>Floor space ratio >1,000m²</i>	1:1 (8,065.86m ²)	Unchanged	Yes

Comments:

The proposed modification application does not seek to alter the existing floor area of the premises which complies with the maximum FSR of 1:1 for the subject site.

79C(1)(a)(ii) any draft environmental planning instruments

There are no applicable draft planning instruments that are or have been placed on public exhibition, to consider as part of this assessment.

79C(1)(a)(iii) any development control plan

STRATHFIELD CONSOLIDATED DEVELOPMENT CONTROL PLAN (SCDCP) 2005

The following is an assessment of the proposal’s compliance with the relevant provisions contained within SCDCP 2005.

PART D – INDUSTRIAL DEVELOPMENT

An assessment of the proposal against the objectives contained within Clause 1.2 of Part d of SCDCP 2005 is included below:

No.	Objectives	Complies
a)	<i>To improve the quality of industrial development within the Strathfield Municipality</i>	No
b)	<i>To ensure the orderly development of industrial sites to minimise their environmental impact while maximising their functional potential</i>	No
c)	<i>To ensure development is consistent with the principles of Ecologically Sustainable Development</i>	No

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d)	To encourage high quality building design and industrial streetscape aesthetics	No
e)	To ensure that new industrial development is of a type, scale, height, bulk and character that is compatible with the streetscape characteristics of the surrounding area	No
f)	To promote high quality landscape areas which complement the overall development of the site and which assist in enhancing streetscape quality	No
g)	To ensure that development will not unreasonably impact upon the amenity of any residential area in the vicinity	No
h)	To ensure that traffic generated by industrial development does not adversely impact upon local or regional traffic movements	No
i)	To ensure that each development has adequate on-site parking and maneuvering areas for vehicles	Yes
j)	To encourage employee amenity within industrial developments	Yes

Comments:

- The proposed increase from (24) to (80) truck movements daily is a substantial increase and will likely result in adverse impact upon local traffic movements, especially along Dean Street which is a R2 Low Density Residential zoned area. From a functionality context, the location of the premises is not suitable for the proposed intensification of the business.
- The proposed extension of hours from 7:00am start to 6:30am Monday to Friday is not consistent with the surrounding industrial and commercial streetscape.
- Aerial views and site inspections of the premises confirm that unauthorised works in the north-east corner of the site (immediately adjoining a dwelling house) have been undertaken involving tree removal and the replacement of grass with concrete and fitted with bunkers for construction/landscaping materials. Subsequently there is very little landscaping and acoustic buffering between residential properties and the subject site.



Figure 4: View of unauthorised works within the subject premises with no acoustic barrier.

2.4 Development Adjoining Residential Zones

Objectives	Complies
➤ To ensure industrial development does not unreasonably impact or intrude upon any adjoining residential area(s).	Yes
Cl. 2.4 Aims	Complies
5. Noise associated with the premises including plant and equipment will be subject to	No

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	<i>the NSW Environmental Protection Authority's Environmental Noise Control Manual and Industrial Noise Policy 2000 and the Protection of the Environment Operations Act 1997.</i>	
6.	<i>Noise generated from fixed sources or motor vehicles associated with the proposed industrial development must be effectively insulated or otherwise minimized.</i>	No
7.	<i>The operating noise level of plant and equipment shall generally not exceed 5dB(A) above the background noise level when measured at the boundaries of the premises between the hours of 7:00am and 10:00pm. If existing background levels are above the Environmental Protection Authority (EPA) criteria, then a merit based assessment will be carried out.</i>	No
8.	<i>If operating noise levels of plant and equipment are proposed outside the hours of 7:00am and 10:00pm, the applicant may be subject to a merit based assessment which may need to be supported by an Acoustical Engineers' report.</i>	No
9.	<i>The development shall not otherwise cause nuisance to residents, by way of hours of operation, traffic movement, parking, headlight glare, security lighting and the like.</i>	No

Comments:

- The application was accompanied by an Acoustic Report with recommendations to minimise noise emissions within the builder's yard. However, there is insufficient documentation as to the effectiveness and ability of the proposed acoustic barrier to reduce the noise to achieve compliance with the Industrial Noise Policy (2000).
- Council's Environmental Health & Compliance Coordinator noted that the accompanying Acoustic Report did not state whether the premises ceased operations whilst the background noise was measured. Further, the premises at 7-15 Water Street has been issued an Order for operating without Development Consent (Development Application was subsequently submitted and refused). Consequently the measured background noise is not a true indication of the noise emissions of the streetscape.
- The proposed extension of hours of operation, specifically from the approved 7:00am to the proposed 6:30am Monday to Friday is not suitable due to the close proximity of the subject site to residential properties.
- The width of the road along Dean Street is not sufficient enough to accommodate two (2) trucks going past each other in opposite sites, without utilising the kerb side, where unrestricted parking is permitted. The proposed modification will significantly increase the frequency of this occurrence.

2.9.2 Access and Manoeuvring

Objectives	Complies
➤ <i>To ensure that provision is made for safe vehicular ingress and egress having regard to the nature of vehicles likely to patronize the site.</i>	Yes
➤ <i>To ensure satisfactory on-site manoeuvring for vehicles, including the loading/unloading of goods.</i>	Yes
➤ <i>To minimize potential for congestion or hazard on adjoining roads at points of ingress/egress.</i>	Yes
➤ <i>To ensure that traffic generated by industrial development does not adversely affect local or regional traffic movements.</i>	No
➤ <i>To ensure that any traffic generated by the development will not impact unreasonably upon the amenity of any residential areas in the vicinity.</i>	No

Comments:

- The subject site has sufficient on-site space for the manoeuvring of vehicles including the loading and unloading of construction materials and other goods sold at the site.
- As previously stated, the width of Dean Street and the design of the T-intersection of Dean Street and Dunlop Street cannot adequately accommodate for heavy vehicles (specifically double barrel trucks), forcing the vehicles to utilise the parking lanes and slowing the traffic flow of the area.

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- Due to the truck weight restrictions in the immediately surrounding streets, all truck movements associated with the premises must use the same section of Dean Street comprising of low density residential properties.

2.14 Air, Noise and Water Pollution

Objectives		Complies
➤ To ensure industrial developments do not create a pollution problem by the discharge of an unacceptable level of air, noise and/or water emissions.		Yes
Cl.	Aims	Complies
2.14		
1.	The emission of any air impurities including offensive odours, the discharge of any waste into any waters or the emission of noise associated with any development shall not contravene the Protection of the Environment Operations Act 1997.	No
3.	The proposed building(s) must be designed (orientated, insulated etc) to inhibit the transmission of noise. Hours of operation and access to the site through residential streets may be restricted where the proposed development involves the generation of noise likely to affect residential areas. Council may require an acoustic report from a suitably qualified acoustic consultant where a proposed development may create excessive noise.	No
4.	The use of the premises including plant and equipment will be subject to strict compliance with the NSW Environmental Protection Authority's Environmental Noise Control Manual and the Industrial Noise Policy 2000.	No

Comments:

- An Acoustic Report was submitted with the proposed modification application which put forward recommendations to mitigate the noise emitted from the premises. In particular, the Report recommended that the northern corner of the site (location of closest residential property) not be accessed by staff, trucks, forklifts or front loaders until 7:00am. Further, the Report recommended that “no trucks are to be loaded or unloaded with material until 7:00am”. In light of the recommendations, the proposed starting time from 7:00am to 6:30am Monday to Saturday is not supported.

79C(1)(iia) any planning agreement or draft planning agreement

No planning agreement has been entered into under section 93F of the *Environmental Planning and Assessment Act 1979*.

(i) matters prescribed by the regulations

Clause 92 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* requires Council to take into consideration the provisions of the Government Coastal Policy and Australian Standard AS2601–1991: *The Demolition of Structures*, in the determination of a development application.

Appropriate conditions are included on the original consent to ensure compliance with the relevant regulations.

(ii) any coastal zone management plan

The proposed modification application does not seek to alter any conditions relating to flood planning provisions. Therefore no further assessment is required.

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6-8 Dunlop Street, Strathfield South
Lot 1 DP 812668 (Cont'd)

79C(1)(b) *the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality*

The proposed modification application seeks to increase the hours of operation of the existing premises (builder's yard) and the number of heavy vehicle movements from (24) to (80). The lodgement of the application is in response to an Order issued by Council for breaches of consent pertaining to hours of operation, noise and truck movements. It is noted that the Acoustic and Traffic Reports accompanying the application confirm that the premises is currently in breach of the consent conditions.

Acoustic Impacts

The proposed modification application fails to achieve the objectives outlined in Part D Industrial Development, Section 2.4 Development Adjoining Residential Zones and Section 2.14 Air, Noise and Water Pollution of the SCDCP 2005. The movement of trucks and forklifts within the premises is one (1) source of noise associated with the application. An Acoustic Report accompanied the application including recommendations of measures such as an acoustic barrier to reduce the noise emissions emitted from the builder's yard. However, no information as to the effectiveness of the measure was included.

The proposed hours of operation specifically for the starting time to be amended from 7:00am to 6:30am on weekdays are not consistent with the surrounding industrial premises located in Dunlop Street. Additionally the proposed starting time is not appropriate due to the close proximity of the premises to residential properties (immediately adjoining to the north-east) and the nature of land use involving truck audio reversing alarms.

In addition to the noise emitted from the premises itself, the nature of the land use requires the transportation of goods to and from the site. The subject site is located in the cul-de-sac Dunlop Street, whereby the only direct vehicular access is via the T-intersection of Dunlop Street and Dean Street. As illustrated in Figure 5, a number of streets connected to Dean Street have "no truck over 4 tonnes" restrictions. Consequently, all of the proposed (80) truck movements will traverse the same R2 Low Density Residential zoned section of Dean Street and its residing residents. Currently there is no alternative access route. As the premises is currently operating in breach of its hours of operation and maximum truck vehicle movements, the submissions received during the notification period of this Section 96 modification application provides an insight into the likely impacts if the application is approved.

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 6-8 Dunlop Street, Strathfield South
 Lot 1 DP 812668 (Cont'd)



Figure 5: Aerial view of the subject site, surrounding road network and truck weight restrictions.

Traffic Impacts

Contrary to Objectives (b) and (h) of Part D Industrial Development of the SCDP 2005, the proposed increase in truck movements from (24) to (80) will adversely impact upon the traffic movements of the surrounding area. As previously discussed, Dean Street permits unrestricted parking on both kerb alignments resulting in an available road width of 5.5m to 6.0m. From a manoeuvring capacity, it is not possible for two (2) trucks to pass each other with parked vehicles on both kerb-sides. The proposed hours of operation will result in the premises overlapping with morning and evening traffic peaks results in on-flow disrupts to the broader road networks, specifically at the Homebush Road, Dean Street and Water Street traffic light intersection located approximately 250m from the Dean Street and Dunlop Street T-intersection.

In addition to impacting the traffic of the locality (namely Dunlop Street and Dean Street), the proposed increase in the number of trucks will incur impacts to the actual roads. Dunlop Street and Dean Street are local roads and have therefore not been designed to accommodate heavy vehicle capacities at high volumes. Overtime this will result in deteriorating conditions due to wear and tear.

It is important to note that Council rangers on several occasions have recorded the subject premises operating earlier than the 6:30am proposed in the modification application. Additionally the submitted Traffic Impact Assessment states *“the peak daily heavy vehicle generation 80-85 trucks to and from the site, occurring on the Tuesday surveyed”* however, the application proposes the number of truck movements be amended to (80). Subsequently, the ability of the premises to achieve full compliance with the proposed hours of operation and truck movements are reserved.

Whilst the IN1 – General Industrial zoning of the site in terms of its location is not desirable, there is scope for the land to be used for industrial purposes in a scale and manner that will maintain an appropriate level of residential amenity. Notwithstanding, the proposed application ultimately seeks to intensify the use of the site which will result in unacceptable acoustic and traffic impacts. Accordingly, the application is recommended for refusal.

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6-8 Dunlop Street, Strathfield South
Lot 1 DP 812668 (Cont'd)

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

The application does not adequately address the potential impacts of the proposed modification on the surrounding locality including acoustic and traffic impacts. The proposed extension of hours of operation and additional truck movements is likely to result in an unacceptable level of noise emissions and thereby adversely affecting the amenity of the surrounding residents. Additionally, the proposed (80) heavy vehicle truck movements will likely result in traffic impacts for the immediate road network including wear and tear on the roads and vehicle and pedestrian safety. As such, the proposed modification is considered unsuitable and is not supported.

79C(1)(d) any submissions made in accordance with this Act or the regulations

The application was notified in accordance with Part L of the SCDP 2005 from 6 December 2017 to 31 December 2017, with (18) written submissions received, raising the following concerns:

1. Trucks along Dean Street

Concern is raised regarding the speed of trucks associated with the subject premises whilst driving along Dean Street and in close proximity to the parked cars. The speeding trucks make exiting out of residential driveways a safety issue.

Assessing officer's comments: The speeding of trucks and other vehicles associated with the premises is a Police matter. Previously discussed, the width of Dean Street is not sufficient to accommodate the passing of two (2) trucks and parked cars along both kerb-sides. As a result of this likely impact the proposed application is unable to be supported and is recommended for refusal.

2. Hours of Operation

Concern is raised regarding the proposed modification to the hours of operation, specifically as the premise is already operating outside of the approved hours.

Assessing officer's comments: As previously discussed in the background section of this report, the premise has been operating outside of the approved hours of operation and is therefore seeking retrospective approval. Due to the close proximity of the subject site to residential properties, the proposed starting time of 6:30am is not supported.

3. Truck road restrictions and damage to the roads

Concern is raised for the incompatibility of the surrounding roads (including the road itself) with the loaded weights of the trucks to and from the existing premises.

Assessing officer's comments: Specific streets within the immediate vicinity of Dunlop Street have "no truck over four tonne" road restrictions, consequently all of the trucks accessing the site must utilise a portion of Dean Street. This has been discussed throughout the report and the adverse impacts it has on the road itself and acoustic amenity of the locality. Accordingly, the proposal has been recommended for refusal.

4. Dust emissions

Concern is raised regarding the dust emissions and noise from the site and trucks onto the surrounding residential properties.

Assessing officer's comments: The proposed increase of the number of trucks movements and will likely increase the amount of dust emissions and noise. As a result of the multiple adverse impacts of the proposal to the surrounding locality the application has been recommended for refusal.

79C(1)(e) the public interest

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6-8 Dunlop Street, Strathfield South
Lot 1 DP 812668 (Cont'd)

The public interest is served through the detailed assessment of this development application under the relevant local planning controls and legislation and consideration of any submissions received relating to it by Council. The proposed modification application will result in a loss of amenity to the surrounding residences and impacts on the surrounding road network and is therefore considered not to be in the public interest.

SECTION 94 CONTRIBUTIONS

Section 94 of the *EP&A Act 1979* relates to the collection of monetary contributions from applicants for use in developing key local infrastructure and is not applicable for this application.

CONCLUSION

The application has been assessed having regard to Section 79C of the *Environmental Planning and Assessment Act 1979*, the *Strathfield Local Environmental Plan 2012* and the Strathfield Development Control Plan 2005 and is considered to be unsatisfactory. Accordingly, the application is recommended for refusal.

RECOMMENDATION

Pursuant to Section 96(2) of the *Environmental Planning and Assessment Act 1979*, the proposed modification(s) to Development Consent No. 1996/109 involving the extension of hours of operation and increase in truck movements at 6-8 Dunlop Street, Strathfield South be **REFUSED**, for the following reasons:

1. The proposal does not achieve Objective (g) in Part D Industrial Development of the SCDCP 2005 as the modified hours of operation will adversely impact on the acoustic amenity of the surrounding residents (*Section 79C (1)(a)(iii) of the Environmental Planning and Assessment Act 1979*).
2. The proposal fails to achieve Objective (h) in Part D Industrial Development, as the traffic generated by the increased truck movements will disrupt the surrounding road network. (*Section 79C (1)(a)(iii) of the Environmental Planning and Assessment Act 1979*).
3. In accordance with *Section 79C(1)(c) of the Environmental Planning and Assessment Act 1979*, the proposed hours of operation and increase of truck movements is not suitable due to the close proximity of the site to residential properties.
4. Pursuant to the provisions of *Section 79C(1)(e) of the Environmental Planning and Assessment Act 1979*, it is considered that the proposed modification would not be in the public interest.

ATTACHMENTS

1. [↓](#) DA1996.109.01 - Acoustic Report (Final) - 6 - 8 Dunlop St, Strathfield South
2. [↓](#) DA1996.109.01 - Traffic Report (Final) - 6 - 8 Dunlop St, Strathfield South

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Acoustic Report

**- Proposed Extension of Operations at
Existing Builder's Yard -
at**

No. 6-8 Dunlop St, Strathfield South

Prepared by: Domeniki Tsagaris B.E. (UNSW), M.I.E Aust

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Approved by: Moussa Zaioor (M.I.E. Aust), CPENG,

Australian Acoustical Society (Member).

Date: November 16, 2017

Reference No: 2017-659

**STRATHFIELD COUNCIL
RECEIVED**

**DA1996/109/01
23 November 2017**

1

Acoustic Report – No. 6-8 Dunlop St. Strathfield South
Reference No: 2017-659

DOCUMENT CONTROL

<i>Date</i>	<i>Revision History</i>	<i>Prepared By</i>	<i>Reviewed and Authorised by</i>
30/10/17	Initial Report	Domeniki Tsagaris	Moussa Zaioor
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1. CONSULTING BRIEF

Acoustic Noise & Vibration Solutions P/L was engaged to investigate the environmental noise impact of the proposed extension of operations to the existing builder's yard (Sandhub Pty Ltd) at No. 6-8 Dunlop St, Strathfield South (Figure 1 – Site Location); on the surrounding residential environment, as per Strathfield Council requirements.

The report will be carried out in accordance with the NSW Environmental Protection Authority (EPA), NSW Industrial Noise Policy and Strathfield Council Conditions/Requirements.

This commission involves the following:

- Inspect the site and environs.
- Measure the background noise levels at critical locations and times.
- Prepare an Environmental Noise Impact Report
- Establish acceptable noise level criterion.
- Quantify noise emissions from the existing operation
- Calculate the level of noise emission, taking into account building envelope transmission loss, screen walls and distance attenuation.
- Provide in principle noise control recommendations (if necessary)

2. DESCRIPTION OF OPERATIONS AND ENVIRONS

The existing builder's yard is currently located in a mixed industrial, commercial and residential environment (Figure 2 – Surrounding Environment). The site at No. 6-8 Dunlop St is currently occupied by several other industrial & commercial properties as follows (Figure 3 – Adjacent Site Properties at No. 6-8 Dunlop St):

- **Hanson Concrete Batching Plant (directly south of the site)**
Monday – Friday: 7:00am – 5:00pm
Saturday: 7:00am – 12:00am
- **Focus Print Group (directly north of the site)**
Monday to Friday: 8:30am – 5:00pm
- **Hosking Australia (directly north of the site)**
Monday to Friday: 8:30am – 5:00pm

Operation of the Hanson Concrete Batching Plant dominates the existing background noise levels as their trucks enter and exit the site for deliveries and pickups from the batching plant (please refer to Figures 4 & 5 – Hanson Concrete Batching Plant).

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Other commercial and industrial premises surround the site along Dunlop St, (south, west and north of the site) and east of the site on Water St and operate at similar hours as follows (Figure 6 – Adjacent Industrial/Commercial Properties):

- **Hems Global (No. 7-15 Water St, Strathfield South)**
Monday – Friday: 8:00am – 6:00pm
- **GHP Australia Bus Depot & Repair (No. 7-15 Water St, Strathfield South)**
Monday to Friday: 7:00am – 5:00pm
Saturday: 8:00am – 2:30pm
- **Ausland Tiles & Bathroom (No. 17-23 Water St, Strathfield South)**
Monday – Friday: 8:30am – 5:00pm
Saturday: 9:00am – 5:00pm
- **Bun Fun Trading (No. 11 Dunlop St, Strathfield South)**
Monday-Friday: 9:00am – 5:00pm

The nearest residential properties are located north-east of the site along William St (Figure 7 – Residential Receivers) with the most potentially affected receiver being the residential property located at No. 20 William St (Figure 8 – Nearest Residential Receiver @ No. 20 William St).

The nearest residential receiver at No. 20 William St is affected by the operation of the existing builder's yard, located directly west/south-west of the receiver and the industrial/commercial properties at Water Street, located directly south of the receiver (Figure 6).

Another potential receiver that may be affected by the proposed operations is the residential property located at No. 130 Dean St, Strathfield South (Figure 7 & 9) as trucks/vehicles access Dunlop St through Dean St. However, trucks/vehicles from other commercial/industrial sites located in Dunlop St also contribute to traffic noise as they access Dunlop St from Dean St.

The existing site operates as a building materials supplier, providing a range of materials to the building industry, including the following:

- Sand
- Soil
- Gravel
- Mulch
- Bricks & Concrete Blocks
- Bagged Cement

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Trucks access the site throughout the day through Dunlop St to load and unload material before transporting it to various job sites across Sydney and NSW. The following equipment is used on site to load and unload the material, as well as moving it around the site:

- Two (2) Forklifts
- Two (2) Front Loaders
- One (1) Sweeper

Please refer to Figures 10 – 14 for Site Photographs

An administration office is located on site with approximately thirty (30) parking spaces for staff (Figure 15 – Site Administration Office).

Vehicles access the site through a shared battle-axe driveway that is also used to access the Hanson Plant and the other warehouses businesses (Focus Print Group & Hosking Australia).

This report has been prepared in conjunction with the Traffic Impact Assessment prepared by Stanbury Traffic Planning dated November 2017. As per the above Traffic Impact Assessment, an average of 75 heavy vehicle movements was recorded for a weekday. These movements occurred during the main hours of operation.

It was recorded that very few heavy vehicle movements were made during the early or late hours of operation, with mainly passenger vehicles (staff) entering and leaving the site at the beginning and end of the work day.

The existing builder's yard has current council approval (DA96/109) to operate as follows:

- *The hours of operation shall be restricted to 7am to 4:30pm Monday to Saturday.*
- *The delivery of goods, material and the like to the premises and the despatch of goods, materials and the like from the premises shall only take place between 7am to 4:30pm Monday to Saturday and no goods, material or the like shall be delivered or despatched outside these hours.*
- *The maximum number of truck movements to and from the site on any day shall not exceed 24.*

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A Section 96 application is being submitted to council, to seek an amendment to the approved hours of operation and truck movements as follows:

- *The proposed hours of operation for the builder's yard will be as follows:*
 - Monday – Friday: 6:30am to 5:00pm*
 - Saturday: 7:00am to 4:30pm (as approved)*
 - Sunday & Public Holidays: Closed*
- *Increase of approved number of truck movements from 24 per day to 80 per day*

The main noise produced by the use of the yard will be from the following:

- Heavy Vehicle movements (including starting up, accelerating, reversing etc)
- Loading & Unloading of Trucks
- Opening & Closing of Vehicle Doors & Reverse Alarms

The existing background noise levels are dominated by noise produced by the surrounding industrial and commercial properties (especially the Hanson Concrete Batching Plant & the GHP Australia Bus Depot).

The noise emissions from the proposed extension of operations at No. 6-8 Dunlop St, Strathfield South, must not exceed the acceptable levels at the nearby receptor location. Noise control recommendations may be required for the business to comply with the noise criteria set out in Section 4 of this report. The noise controls in Section 6 of this report are reasonable and feasible in reducing the noise from the proposed extension of operations.

3. MEASURED BACKGROUND NOISE LEVELS – ATTENDED & UNATTENDED NOISE SURVEY

On the 6th October, 2017, an engineer from this office visited the site to carry out acoustic measurements for this assessment. Unattended background noise measurements were carried out at the boundary of the nearest residential receiver at No. 20 William St (Figure 16 – Noise Reading Locations Point A). The unattended environment noise monitoring was conducted for 7 days between Friday the 6th October and Friday 13th October, 2017.

The noise survey was conducted to determine a conservative reading of the existing day [7:00 -18:00] and early morning noise levels [22:00-7:00] $L_{(A90, 15 \text{ minutes [1hr]})}$ and $L_{(Aeq, 15 \text{ minutes [1 hr]})}$. All sound pressure levels are rounded to the nearest whole decibel. All measurements were taken in accordance with the Australian Standards AS 1055 “Acoustics- Description and Measurements of Environmental Noise”.

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All sound level measurements and analysis carried throughout this report are carried with Svantek 957 Noise and vibration level meter which has the following features:

- Type 1 sound level measurements meeting IEC 61672:2002
- General vibration measurements (acceleration, velocity and displacement) and HVM meeting ISO 8041:2005 standard
- Three parallel independent profiles
- 1/1 and 1/3 octave real time analysis
- Acoustic dose meter function
- FFT real time analysis (1920 lines in up to 22.4 kHz band)
- Reverberation Time measurements (RT 60)
- Advanced Data Logger including spectra logging
- USB Memory Stick providing almost unlimited logging capacity
- Time domain signal recording
- Advanced trigger and alarm functions
- USB 1.1 Host & Client interfaces (real time PC “front end” application supported)
- RS 232 and IrDA interfaces
- Modbus protocol

Machine was calibrated prior to reading. Any readings affected by strong wind or rain have been disregarded. The Full Average Statistical Noise Parameters $L_{(Aeq, 15 \text{ minutes})}$, $L_{(A90, 15 \text{ minutes})}$, $L_{(A10, 15 \text{ minutes})}$, $L_{(A1, 15 \text{ minutes})}$ are presented in Figure 17 – Noise Survey. A Summary of those readings is presented in the table below.

Table 3.1 - Summary of Noise Readings
6th October, 2017 – 13th October, 2017

At Point A	Leq dB(A)	L90 dB(A)	RBL
Day (7am-6pm)	69	62	60
Evening (6pm-10pm)	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾
Night (10pm-7am)	57 ⁽²⁾	49 ⁽²⁾	47

(1)Builders Yard will not operate past 5:00pm
(2)Builders Yard will only operate from 6:30am

L₉₀ – the A-weighted sound pressure level that is exceeded for 90% of the time over which a given sound is measured. This is considered to represent the background noise.
L_{Aeq} – the level of noise equivalent to the energy average of noise levels occurring over a defined measurement period.

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Attended noise measurements were also carried out at the boundary of No. 130 Dean St, to ascertain traffic noise measurements (Figure 6 – Noise Reading Location Point B):

Table 3.2 – Attended Traffic Noise Measurements at No. 130 Dean St

At Point B	Leq dB(A)	L90 dB(A)	Octave Band Centre Frequencies (Hz)							
			63	125	250	500	1k	2k	4k	8k
6th October, 2017 11:00am – 12:00pm	69	48	70	65	58	59	60	58	52	45

However as previously mentioned, trucks/vehicles from other commercial/industrial sites located in Dunlop St also contribute to traffic noise as they access Dunlop St from Dean St.

Attended noise measurements were also carried out in the centre of the builder’s yard at No. 6-8 Dunlop St, Strathfield during regular operations which will be discussed later in Section 5 of this report.

4. ACCEPTABLE NOISE LEVELS FOR RESIDENTIAL RECEPTOR

The NSW Industrial Noise Policy that came into force in January 2000 replaced chapters 19, 20, 21 & 82 of the ENCM (Environmental Noise Control Manual). The new policy seeks to promote environmental well-being through preventing and minimizing noise by providing a frame work and process for deriving noise limits conditions for consent and licenses.

The Industrial Noise Policy recommends two separate noise criteria’s to be considered for the assessment of the proposed development, the Intrusive Noise Criteria and the Amenity Noise Criteria, which are further explained below.

The assessment criteria listed in this report for the proposed extension of operations at No. 6-8 Dunlop St, Strathfield South will be the lowest of the intrusive or amenity criteria for each time period in order to protect residential receivers from intrusive noise and a loss of acoustic amenity.

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4.1. Intrusive Noise Criteria

Section 2.2.1 of the Noise Guide for Local Government states that a noise source is generally considered to be intrusive if the noise from the source when measured over a 15 minute period exceeds the background noise by more than 5 dB(A).

Similarly The Industrial Noise Policy in section 2.1 summarizes the intrusive criteria as below:

$$L_{Aeq\ 15\ minute} \leq \text{rating background level plus 5}$$

According to Section 2.1 of the NSW Industrial Noise Policy (2000) states that ‘the intrusiveness of an industrial noise source may generally be considered acceptable if the equivalent continuous (energy-average) A-weighted level of noise from the source (represented by the L_{Aeq} descriptor) measured over a 15 minute period, does not exceed the Rating Background Level (RBL) measured in the absence of the source by more than 5 dB.’

Section 3.1 of the above policy defines the background level as $L_{A90,15\ minutes}$ which is the Noise exceeded 90% percent of a time period over which annoyance reactions may occur (taken to be 15 minutes). The RBL is defined as the overall single-figure $L_{A90,15\ minutes}$ background level representing each assessment period (day/evening/night) over the whole monitoring period.

Where a noise source contains certain characteristics, such as tonality, impulsiveness, intermittency, irregularity or dominant low-frequency content, there is evidence to suggest that it can cause greater annoyance than other noise at the same noise level. Correction factors may be applied to the noise annoyance criteria to determine the project specific criteria.

The allowable noise emission criterion is as follows:

Table 4.1 – Intrusive Noise Criteria

Time of Day	RBL dB(A) (measured)	Plus 5dB(A)	Leq dB(A) (calculated)
Day (7am-5pm)	60	+5dB(A)	65
Evening (6pm-10pm)	NA*	+5dB(A)	NA*
Night (6:30am-7am)	47	+5dB(A)	52

*NA as the builder’s yard is not proposed to operate between 5:00pm & 6:30am

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4.2. Amenity Noise Criteria

In the Industrial Noise Policy it is stated that “To limit continuing increases in noise levels, the maximum ambient noise level within an area from industrial noise sources should not normally exceed acceptable noise levels for the area”.

Relevant parts of the recommended noise levels from industrial noise sources shown in Table 2.1 of the “NSW Industrial Noise Policy”, are shown below:

Table 4.2.1 - Recommended Noise Levels from Industrial Noise Sources

Type of Receiver	Indicate Noise Amenity Area	Time of the Day	Recommended LAeq Noise Level, dB(A)	
			Acceptable	Recommended Maximum
Residence	Urban/Industrial Interface – for existing situations only	Day	65	70
		Evening	55	60
		Night	50	55

Modifications are made to the Acceptable Noise Level (ANL) to account for the existing level of industrial noise. These are shown in Table 2.2 of the “NSW Industrial Noise Policy) below

Table 4.2.2 – Modification to the Acceptable Noise Level (ANL) to account for existing level of Industrial Noise (Table 2.2 of the Industrial Noise Policy)

Total existing LAeq noise level from Industrial sources, dB(A)	Maximum LAeq noise level from new sources alone, dB(A)
>Acceptable noise level plus 2	Existing noise level minus 10
Acceptable noise level plus 1	Acceptable noise level minus 8
Acceptable noise level	Acceptable noise level minus 8
Acceptable noise level minus 1	Acceptable noise level minus 6
Acceptable noise level minus 2	Acceptable noise level minus 4
Acceptable noise level minus 3	Acceptable noise level minus 3
Acceptable noise level minus 4	Acceptable noise level minus 2
Acceptable noise level minus 5	Acceptable noise level minus 2
Acceptable noise level minus 6	Acceptable noise level minus 1
< Acceptable noise level minus 6	Acceptable noise level

4.3. Summary of Noise Criteria

In summary the noise criteria is applicable as follows:

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Table 4.3 – Noise Criteria Summary

Time of Day	RBL (L₉₀)	Intrusive Criteria = RBL + 5	Existing L_{Aeq}	ANL (Acceptable Noise Level)	Amenity Criteria	Final Criteria to be Used
Day (7am-5pm)	60	65	69	65	59	59
Night (6:30am- 7am)	47	52	57	50	47	47

**The noise impact assessment in this report will only apply to the day time and early morning period as the builder's yard will not operate during the evening and the majority of the night period.*

4.4 SLEEP AROUSAL

As the site is proposed to operate for a small portion of the morning period (6:30am – 7:00am), there is potential for sleep arousal on the nearest residential receiver at No. 20 William St (Figures 7 & 8).

The Environment Protection Authority NSW 1999 guideline aims at limiting the level of sleep disturbance due to environmental noise. It states that the L_{A1, 1 minute} level of any noise should not exceed the ambient L_{AF90} noise level by more than 15dB.

This guideline takes into account the emergence of noise events, but does not directly limit the number of such events or their highest level, which are also found to affect sleep disturbance.

Applying the above thus the sleep disturbance criteria for the above project is L_{A1, 1 minute} and should not be exceeded by [L_{A90} =54 dB(A) plus 15]= 69 dB(A).

There are other studies on sleep disturbance like the one carried the enHealth Council (2004) and the guidelines published by the World Health Organisation (1999) were reviewed and analysed in terms of the guidance on noise exposure and sleep disturbance. The enHealth report states that:

‘ as a rule for planning for short-term or transient noise events, for good sleep over 8 hours the indoor sound pressure level measured as a maximum instantaneous value not exceed approximately 45 dB(A) L_{A,(Max)} more than 10 or 15 times per night’.

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5. NOISE FROM SITE OPERATIONS

5.1. Noise from Site Operations

As previously described, the existing site operates as a building materials supplier, providing a range of materials to the building industry, including the following:

- Sand
- Soil
- Gravel
- Mulch
- Bricks & Concrete Blocks
- Bagged Cement

Trucks access the site throughout the day through Dunlop St to load and unload material before transporting it to various job sites across Sydney and NSW. The following equipment is used on site to load and unload the material, as well as moving it around the site:

- Two (2) Forklifts
- Two (2) Front Loaders
- One (1) Sweeper

The main source of noise from the builder's yard will be from the following

- trucks entering and exiting the site
- trucks maneuvering inside the site (including reverse alarms and doors closing)
- forklifts and front loaders maneuvering (loading/unloading materials)

Trucks would normally enter the site and park in a designated area while a forklift and/or front loader is used to load and unload the materials. Total truck maneuvering while they enter, park & exit the site is approximated to be a total of three (3) minutes. Noise emitted by the trucks may include a reverse alarm while parking, engine starting & doors closing/slamming.

Vehicles access the site through a shared battle-axe driveway that is also used to access the Hanson Plant and the other warehouses businesses on site. As per the Traffic Impact Assessment previously discussed, an average of 75 heavy vehicle movements was recorded for a weekday. These movements occurred during the main hours of operation. It was recorded that very few heavy vehicle movements were made during the early or late hours of operation, with mainly passenger vehicles (staff) entering and leaving the site at the beginning and end of the work day.

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The most common scenario that will occur during the hours of operation is as follows:

Scenario – Truck entering the site, use of Front Loader/Forklift for a period of 10 minutes to load and unload material for off-site work and then truck exiting the site. The total scenario is expected to have a duration of approximately 15 minutes.

This is expected to occur a maximum of 40 times per day (as per the proposed 80 truck movements) and an approximate 4 times per hour (ie once every 15 minutes). The current approval allows 12 trucks (ie 24 trucks movements) into the site per day and therefore an approximate one (1) truck per hour is allowed.

This section provides specific sound power level measurements carried out on site or at similar sites. These are given in terms of maximum sound power levels in decibels.

Table 5.1.1 – SPL Levels for Main Noise Sources from Proposed Site Operations

Noise Source	Typical Maximum Sound Power Level Lw (dBA)
Vehicle Accelerating	95
Vehicle Starting	95
Vehicle Door Closing	90
Heavy Tipper Truck Maneuvering	100
Light Truck Maneuvering (including reverse alarm)	97
Bobcat/Front Loader/Forklift Maneuvering	84

On the 6th October, 2017, attended noise measurements were carried out in the centre of the site (Figure 6 – Noise Reading Location Point C) while the above scenario occurred. Results were as follows:

Table 5.1.2 – Recorded Noise Level during Site Activities

At Point C	Leq dB(A)	L90 dB(A)	Octave Band Centre Frequencies (Hz)							
			63	125	250	500	1k	2k	4k	8k
6 th October, 2017 10:00am – 11:00am	73	66	78	71	67	66	61	62	56	49

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Noise heard from these sources will be governed by the existing background noise levels which include noise emitted by the operation of the surrounding industrial/commercial properties, especially the Hanson Concrete Plant. Noise measurements were carried out while Hanson Batching Concrete Plant was in operation with no operation occurring at the builder's yard. Noise level was found to be similar to the noise levels listed in the table above (**Leq 73 dB(A)**).

5.2 Northern Corner of Existing Site

The most critical area of the site is located in the northern corner of the builder's yard, directly adjacent to the western boundary of the nearest receiver at No. 20 William St (Figure 18 – Northern Corner of Site adjacent to Nearest Receiver). The area is used for material storage with forklifts and front loaders accessing the area to access the material (Figure 19 – Material Storage).

The inner corner closest to the receiver is used for the storage of pallets and is cornered off by the use of stone blocks wall (as seen in Figure 18) and are placed off the boundary nearest to the receiver (Figure 20 – Block Wall off Boundary). A 1.8 metre mesh fence is located around the boundary separating the area from the nearest receiver (Figure 21 – Mesh Fence in Northern Corner of Site).

Access to the above area has the most potential to impact the nearest residential receiver at No. 20 William St due to its close proximity to the receiver's boundary.

Provided recommendations in Section 6 of this report are adhered to, any activity undertaken in this northern area of the site will not exceed the daytime & early morning noise criteria listed in Section 4 of this report.

5.3 Predicted Noise Level at Nearest Residential Receiver from Site Activities

The predicted noise level at the boundary of the nearest residential receiver (No. 20 William St) from the use and operation of the proposed extension of operations, has been calculated using above listed noise levels, including noise reduction from the existing sound barrier fence and taking into account any transmission loss from the distance between the nearest receiver and the builder's yard.

The centre of the site is located approximately 50 metre from the boundary of the nearest receiver. However, the storage area located in the northern corner of the site, is located only 10 metre from the western boundary of the receiver at No. 20 William St.

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As previously mentioned, the most common scenario to occur on site would be a truck entering the site from Dunlop St, use of Front Loader/Forklift for a period of 10 minutes to load and unload material and then the truck exiting the site. The total scenario is expected to have a duration of approximately 15 minutes.

This is expected to occur an approximate 4 times per hour (ie once every 15 minutes) with the current approval allowing an approximate one (1) truck per hour.

The main source of noise from the builder’s yard will be from the following

- trucks entering and exiting the site
- trucks maneuvering inside the site (including reverse alarms and doors closing)
- forklifts and front loaders maneuvering (loading/unloading materials)

The following noise calculations express the noise emitted by the operation of the yard under the *current approved conditions*:

Table 5.3.1 – Predicted Maximum Noise Level at Nearest Residential Receiver (No. 20 William St) of Main Noise Producing Activities at Builder’s Yard (for approved one truck per hour)

Activity	dB(A)	Sound Power Level (db) at Octave Band Centre Frequencies (Hz)							
		63	125	250	500	1k	2k	4k	8k
Use of One (1) Front Loader	84	67	75	75	81	79	73	64	63
Use of One (1) Forklift	84	67	75	75	81	79	73	64	63
Truck Maneuvering (including reverse alarm)	97	80	88	88	94	91	86	77	76
Total <i>Leq₁₅</i> from Above Scenario occurring once per hour as approved at Boundary of Nearest Receiver	50*	53	41	41	47	44	39	30	29

**Provided recommendations in Section 6 of this report are adhered to.*

It should be noted that existing commercial/industrial sites are located at the rear of the nearest receiver (No. 20 William St) at No. 7-15 Water St Strathfield South (Figure 22 – Water St Sites) and contribute to existing background noise levels. The sites include GHP Australia which is a bus deposit providing Mechanical & Diesel Repairs to buses on site (Figure 23 – GHP Bus Depot); and HEMS Global, hydrogen based diesel reduction system manufacturer. The operations from the above (mainly the servicing of the bus depot) contribute to the noise effect experienced by the residential receiver at No. 20 William St.

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The following noise calculations express the noise emitted by the operation of the yard under the proposed extension of operations (ie approximately four trucks per hour entering and exiting the site):

Table 5.3.1 – Predicted Maximum Noise Level at Nearest Residential Receiver (No. 20 William St) of Main Noise Producing Activities at Builder’s Yard (four times per hour)

Activity	dB(A)	Sound Power Level (db) at Octave Band Centre Frequencies (Hz)							
		63	125	250	500	1k	2k	4k	8k
Use of One (1) Front Loader	84	67	75	75	81	79	73	64	63
Use of One (1) Forklift	84	67	75	75	81	79	73	64	63
Truck Maneuvering (including reverse alarm)	97	80	88	88	94	91	86	77	76
Total $L_{eq,15}$ from Above Scenario occurring four (4) times per hour at Boundary of Nearest Receiver	54*	57	45	45	51	48	43	34	33
Complies with the Requirements of the NSW Industrial Noise Policy and Section 4 Criteria	Yes* ✓								

*Note**: Provided Recommendations in Section 6 of this report are adhered to. Compliance for *day time only*. The above predicted noise level exceeds the early morning criteria. Please refer to recommendations in Section 6 of this report for early morning operations.

As a result, the addition of four (4) truck visits (ie eight truck movements per hour) into the site will have a negligible increase to the existing approved operation. The noise produced from the extension of operations at the existing builder’s yard will meet the criteria set out in Section 4 of this report, provided all recommendations in Section 6 are implemented.

5.4 Predicted noise levels from truck noise on receiver at Dean st

Attended noise measurements were also carried out at the boundary of No. 130 Dean St, to ascertain traffic noise measurements from trucks passing the site as they enter Dunlop St (Figure 6 – Noise Reading Location Point B). However as previously mentioned, trucks/vehicles from other commercial/industrial sites located in Dunlop St also contribute to traffic noise as they access Dunlop St from Dean St.

The table below lists recorded noise levels from traffic passing the site, into Dunlop St with the exception of trucks from the builder’s yard at No. 6-8 Dunlop St.

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Table 5.4 – Attended Noise Measurements at No. 130 Dean St

At Point B 14th November, 2017 11:00am – 12:00pm	Leq dB(A)	L90 dB(A)
Existing Traffic Noise from Trucks Accessing Dunlop St (excluding trucks from builders yard)	69	48
Predicted Noise Level with the addition of Four (4) Trucks per hour from Builders Yard passing No. 106 Dean St	69	48

As can be seen from the table above, the addition of four (4) heavy vehicles to the existing traffic noise passing the residential receiver at No. 130 Dean St, Strathfield South will be negligible and will therefore have no negative effect.

6.0 NOISE CONTROL RECOMMENDATIONS

6.1 Noise Control at Source

The noise at the builder’s yard is generated from a combination of vehicle movements and mobile plant, however the dominant noise source is from trucks moving around the site particularly when loading/unloading material and reversing.

Alternatives to audio reversing alarms should be sought *where practicable* and audio reversing alarms should only be used in situations where this is essential to the health and safety of on-site personnel.

6.2 Procurement of Vehicles and Machinery

Stakeholders of the builder’s yard should endeavor to procure and use low-noise, well-maintained plant, equipment and machinery *where feasible and reasonable*. Consideration of equipment noise levels should be part of the business stakeholder’s role.

They should look at different types of equipment that do the same job and compare the noise level data. Noise emission labels are often provided on equipment and can be used to assist in this process. Investigate and inquire from suppliers about lower-noise plant, equipment and machinery.

6.3 Sound Barrier at Boundary of Nearest Receiver

We recommend that the mesh fence located along the northern boundary of the site, adjacent to the nearest receiver at No. 20 William St (Figure 21 – Mesh Fence) be

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replaced with a 2.1 metre gap free sound barrier. The barrier can be colourbond steel, masonry or lapped & capped timber (Figure 24 – Sound Barrier Location).

6.4 Restricted Work Zone Access

Access to northern corner of the site, directly adjacent to the western boundary of the nearest receiver at No. 20 William St (Figure 18), is to be restricted to day time use only (ie 7:00am to 5:00pm).

No trucks, forklifts or front loaders are to access the northern corner of the site during the early morning period (ie 6:30am – 7:00am) – please refer to Figure 25 – Restricted Access Zone.

6.5 Restriction on Vehicular Activity

No trucks are to be loaded or unloaded with material until 7:00am between Monday & Saturday. Trucks may enter and leave the site from 6:30am but must be loaded with the required material the day before.

Trucks are to be loaded one (1) at a time during the day.

Staff entering and exiting the site during the early hours (between 6:30am-7:00am) are to be advised to do so in a quiet manner.

6.6 Noise Management Plan

A Noise Management Plan should be implemented and should include the following:

- Install a contact number at the front of the civil contracting business so that complaints regarding the operation can be made.
- Implement a complaint handling procedure. If a noise complaint is received the complaint should be recorded on a Complaint Form. The Complaint Form should contain the following:
 - Name and Address of the Complainant
 - Time and Date the Complaint was received
 - The nature of the complaint and the time/date the noise was heard
 - The name of the employee that received the complaint
 - Actions taken to investigate the complaint and the summary of the results of the investigation
 - Indication of what was occurring at the time the noise was happening (if applicable)
 - Required remedial action (if applicable)

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- Validation of the remedial action
- Summary of feedback to the complaint

Also a permanent register of complaints should be held on the premises, which shall be reviewed monthly by staff to ensure all complaints are being responded to. All complaints received shall be reported to management with initial action/investigation commencing within 7 days. The complaint should also be notified of the results and actions arising from the investigation.

7.0 NOISE IMPACT STATEMENT

Acoustic Solutions has taken background noise level measurements at the boundary of the nearest residential receiver adjacent to the existing builder's yard at No. 6-8 Dunlop St, Strathfield South.

The levels of noise emission from the proposed extension of operations at the existing builder's yard at No. 6-8 Dunlop St, Strathfield South have been calculated and quantified using reliable test data.

As per our calculations, the use and extension of operations will not exceed the criteria shown in Section 4 of this report at the boundary of the most affected noise sensitive location (No. 20 William St, Strathfield South), provided all recommendations in Section 6 of this report are fully implemented. We are confident that the noise emission levels will be controlled and not exceed the criteria outlined in Section 4 of this report and will satisfy Strathfield Council conditions/requirements.

Should you require further explanations, please do not hesitate to contact us.

Yours sincerely,



M. Zaioor
M.S. Eng'g Sci. (UNSW).
M.I.E.(Aust), CPEng.
Australian Acoustical Society (Member).

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Figure 1 - Site Location

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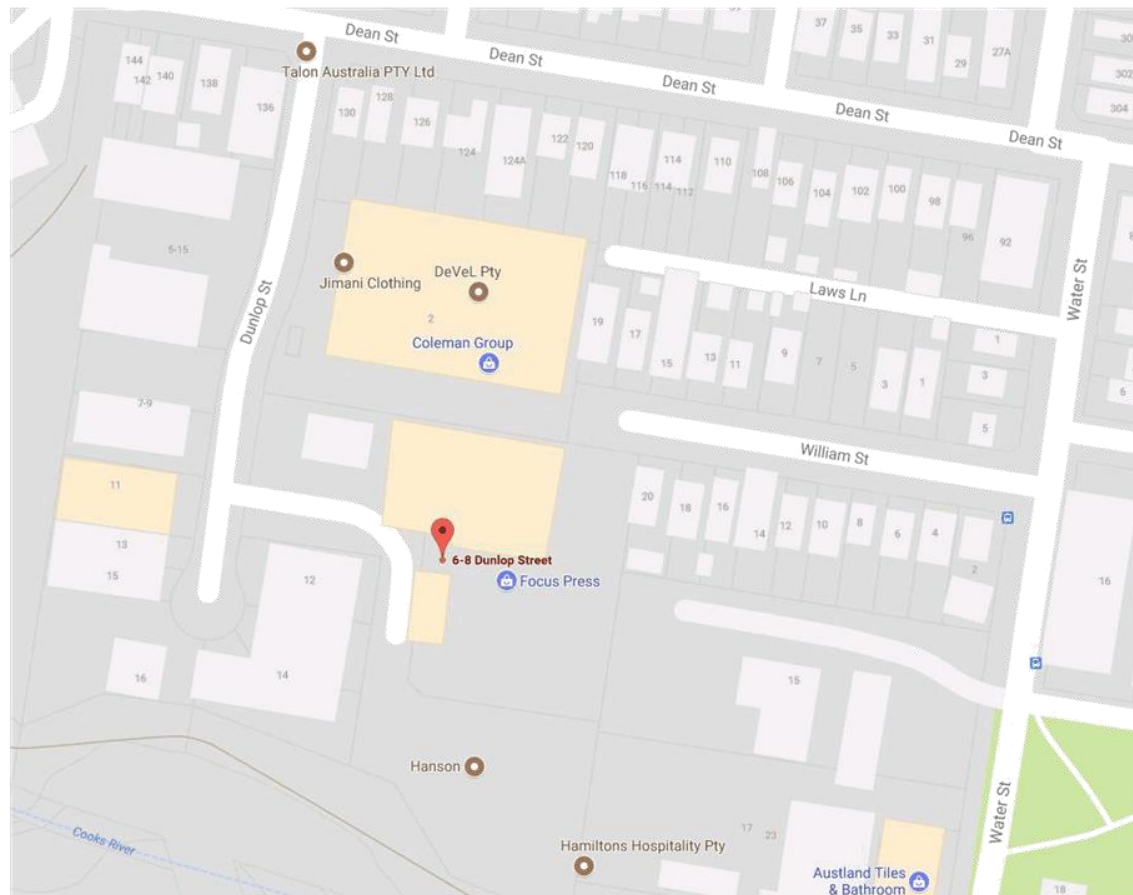


Figure 2 - Surrounding Environment

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Figure 3 - Adjacent Site Properties at No. 6-8 Dunlop St

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Figure 4 - Hanson Concrete Batching Plant

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Figure 5 – Hanson Concrete Batching Plant

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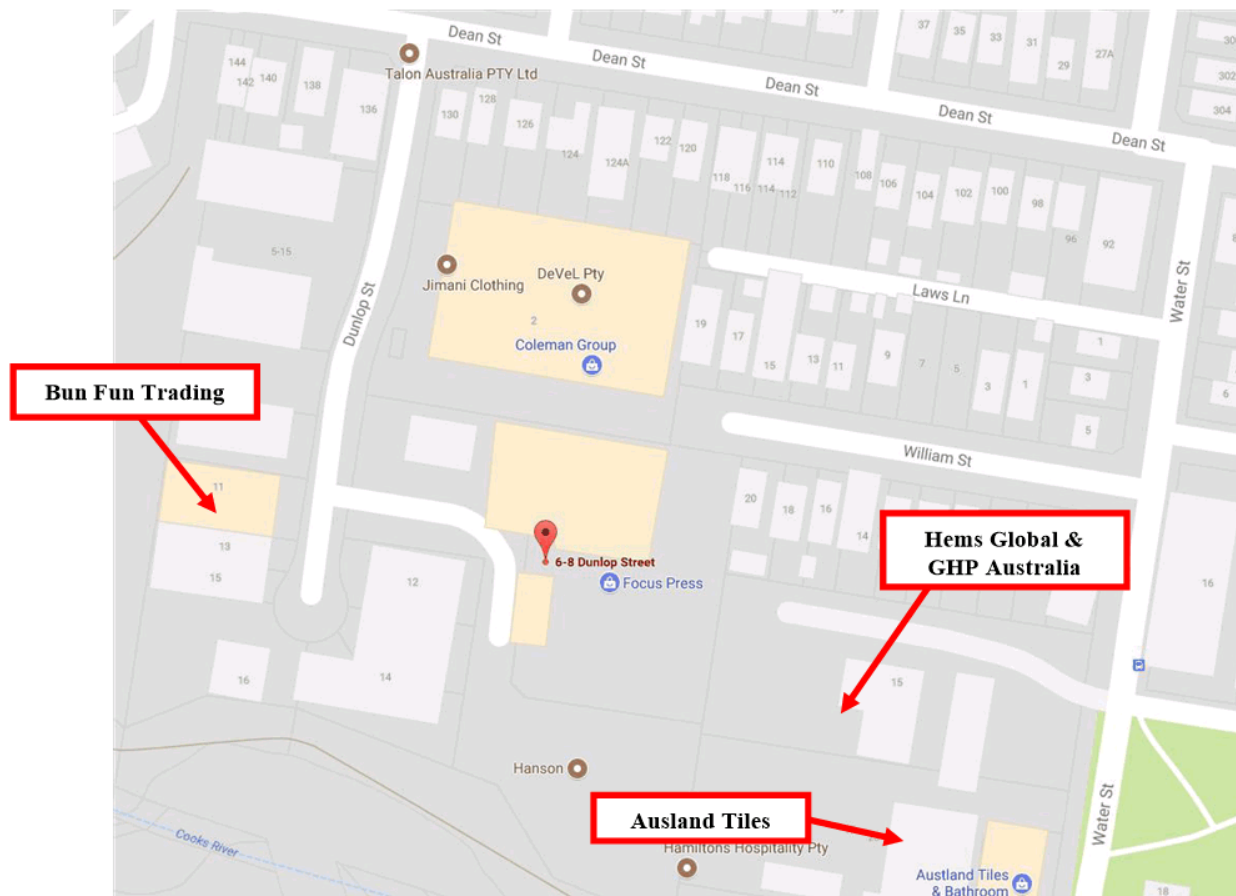


Figure 6 - Adjacent Industrial/Commercial Properties

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Figure 7 - Residential Receivers

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Figure 8 - Nearest Residential Receiver at No. 20 William St, Strathfield South

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Figure 9 - Potential Residential Receiver at No. 130 Dean St, Strathfield South

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Figure 10 – Entry to Site

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Figure 11 – Entry to Site

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Figure 12 – Site Activities

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Figure 13 – Site Activities

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Figure 14 – Site Activities

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Figure 15 – Site Administration Office

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Figure 16 - Noise Reading Locations

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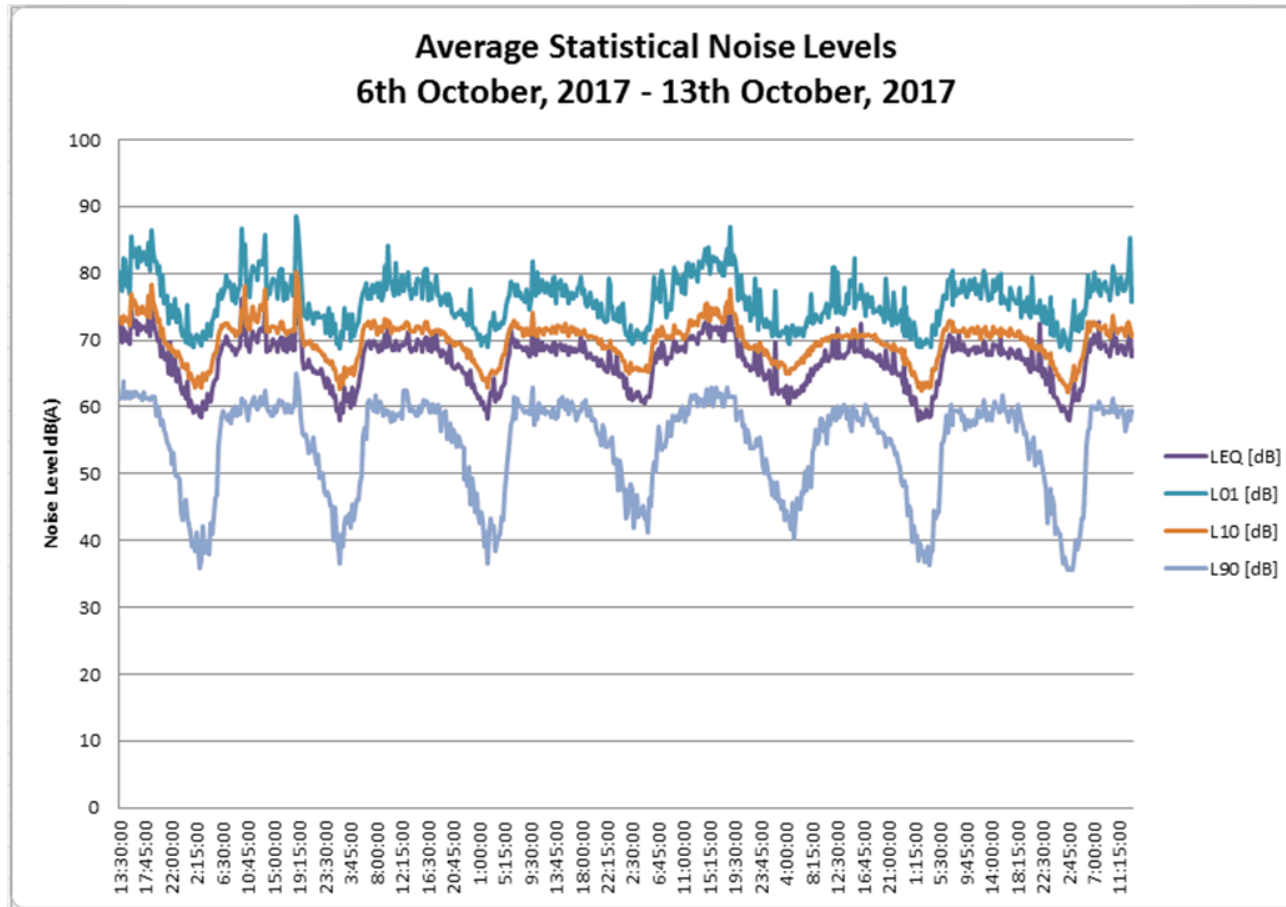


Figure 17 - Unattended Noise Survey

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Figure 18 – Northern Corner of Site adjacent to nearest Residential Receiver

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Figure 19 - Access to Storage Material in Northern Corner

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Figure 20 - Stone Block Wall off Boundary

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Figure 21 – Mesh Fence in Northern Corner adjacent to Nearest Receiver

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Figure 22 – Existing Industrial Commercial/Industrial Notes at No. 7-15 Water St

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Figure 23 – GHP Australia Bus Depot at No. 7-15 Water St

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Figure 24 - Sound Barrier Location

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Figure 25 - Restricted Work Zone



STANBURY
TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

TRAFFIC IMPACT ASSESSMENT

SECTION 96 APPLICATION FOR ALTERATIONS TO APPROVED
OPERATIONAL CHARACTERISTICS OF BUILDER'S YARD
6 – 8 DUNLOP STREET, STRATHFIELD SOUTH

PREPARED FOR SANDHUB PTY. LIMITED
OUR REF: 17-126



**STRATHFIELD COUNCIL
RECEIVED**
DA1996/109/01
23 November 2017

NOVEMBER 2017

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2. Survey of shared access driveway traffic movements
3. Survey of Dunlop street traffic movements
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5. SIDRA output (existing conditions)

1. INTRODUCTION

1.1 Background & Scope of Assessment

Stanbury Traffic Planning has been commissioned by Sandhub Pty. Limited to undertake an assessment of the operational characteristics of an existing builder's yard situated within a portion of 6 – 8 Dunlop Street, South Strathfield.

Whilst the subject premises have been operating as builder's yard for approximately 20 years, recent inspections by Council compliance staff have indicated that current site operations are not in accordance with conditions of development consent (DA96/109 dated 17 March 1997), relating to hours of operation and delivery of goods and the maximum daily truck generation.

An Order to comply with the 1997 consent has subsequently been issued by Strathfield Council on 27 September 2017.

A Section 96 Application has accordingly been formulated which seeks consent to modify the approved operational characteristics including, but not limited to an extension of the approved operational hours and an increase in the maximum number of trucks servicing the site on a daily basis.

The aim of this assessment is to investigate and report upon the existing operational and traffic generating characteristics of the builder's yard and the ability or otherwise of the surrounding road network to accommodate this traffic generating potential.

This report provides the following scope of assessment:

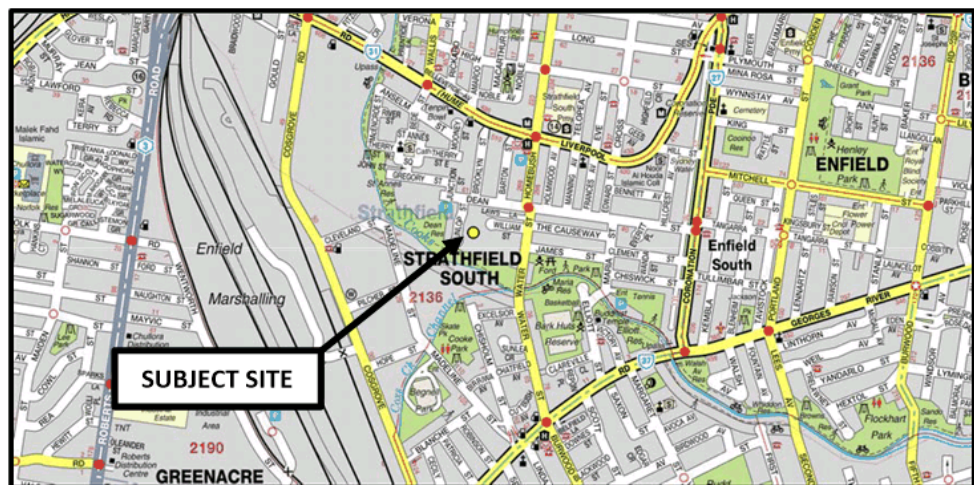
- Section 1 provides a summary of the site location, details in conjunction with the existing and surrounding land-uses;
- Section 2 describes the existing operational and traffic generation characteristics of the subject premises;
- Section 3 describes the existing traffic demands and conditions surrounding and servicing the subject premises including a description of the surrounding road network, traffic demands and operational performance; and
- Section 4 undertakes an assessment of the ability of the surrounding road network to accommodate the existing and proposed operational characteristics.

1.2 Site Details

1.2.1 Site Location

The land within which the builder’s yard is contained is located on the eastern side of Dunlop Street, approximately 150m to the south of Dean Street, Strathfield South. The site location is illustrated below and overlaid within a local and aerial context by **Figure 1** and **Figure 2**, respectively.

FIGURE 1
SITE LOCATION WITHIN A LOCAL CONTEXT



Source: UBD’s Australian City Streets – Version 4

FIGURE 2
SITE LOCATION WITHIN AN AERIAL CONTEXT



Source: Six Maps (accessed 4/11/17)

1.2.2 Site Description

The land within which the builder's yard is located provides a real property address of Lot 1 DP 812668 and a street address of 6 – 8 Dunlop Street, Strathfield South. This land provides an "L" shaped parcel of land providing an approximate frontage to Dunlop Street of 37m. The subject allotment extends to the east away from Dunlop Street approximately 130m and thence to the south some 90m to provide a total area in the order of 8,350m².

The builder's yard is located within eastern portion of the site (identified within **Figure 2** above), being set-back from Dunlop Street, providing a total area in the order of 4,400m². The builder's yard is accessed via a single driveway connection to a battle axe type roadway linking with Dunlop Street via a single combined ingress / egress driveway, some 60m to the west of the builder's yard. This battle axe roadway also services the following separate uses in addition to the builder's yard:

- A warehouse, accommodating a printing business, located within western portion of 6 – 8 Dunlop Street, separately accessed via the battle axe roadway to the west; and
- A further open yard, accommodating a concrete batching plant, located to the south, separately accessed via the battle axe roadway to the south.

1.3.3 Existing Use

The portion of the site subject to this assessment accommodates a builder's yard operated by Sandhub, a building materials supplier primarily providing landscaping materials such as sand, soils, decorative stones, mulch and the like to the building industry.

1.2.3 Surrounding Uses

The builder's yard is adjoined by the following land-uses:

- A concrete batching plant is located to the south, being accessed via the previously presented battle axe roadway also servicing the builder's yard and connecting with Dunlop Street via a shared access driveway;
- A warehouse is located to the north-west of the premises, also being accessed via the battle axe roadway servicing the builder's yard, connecting with Dunlop Street via a shared access driveway;
- An industrial development, fronting and being accessed via Water Street is located to the south-east;
- Detached residential dwellings occupy land to the north-east fronting and being accessed via William Street; and
- An industrial development is located to the south-south of the site (on the opposite side of the battle axe roadway servicing the concrete batching plant, fronting and being accessed via Dunlop Street.

2. OPERATIONAL CHARACTERISTICS

2.1 Approved Operational Characteristics

It has previously been presented that the portion of the site subject to this assessment accommodates a builder's yard operated by Sandhub, a building materials supplier primarily providing landscaping materials such as sand, soils, decorative stones, mulch and the like to the building industry.

The builder's yard operation is subject to development consent DA96/109 dated 17 March 2017 issued by Strathfield Council. The following sub-sections of this report detail the conditions of this consent relevant to this assessment.

2.1.1 Approved Hours of Operation

Condition of consent no. 13 of DA96/109 specifies the following approved hours of operation:

- (a) *The hours of operation shall be restricted to 7am to 4:30pm Monday to Saturday.*
- (b) *The delivery of goods, material and the like to the premises and the despatch of goods, materials and the like from the premises shall only take place between 7am to 4:30pm Monday to Saturday and no goods, material or the like shall be delivered or despatched outside these hours.*

2.1.2 Heavy Vehicle Generation

Condition of consent no. 30 of DA96/109 specifies the following maximum heavy vehicle generation associated with the subject use:

The maximum number of truck movements to and from the site on any day shall not exceed 24.

2.2 Existing Operational Characteristics

In order to accurately ascertain the existing operational characteristics of the builder's yard, this Practice commissioned the undertaking of mechanical tube surveys of traffic movements to and from the subject use. The tube counter was placed within the single access driveway connecting the builder's yard to the battle axe type shared access roadway linking with Dunlop Street, thereby only capturing ingress and egress traffic movements specifically associated with the subject use.

The surveys were undertaken for a full week between and including the 16th and 22nd of October, 2017. The following sub-sections of this report provide a summary of the survey results, whilst more detailed summaries are provided within **Appendix 1** and full output details are available upon request.

2.2.1 Existing Hours of Operation

The mechanical tube surveyor provides hourly summaries of movements to and from the premises. The following provides a summary of the hours during which traffic was surveyed to enter or exit the subject premises, whilst full details are contained within **Appendix 1**:

- 6am – 6pm on the Monday, Wednesday and Thursday surveyed;
- 6am – 5pm on the Tuesday and Friday surveyed; and
- 7am – 4pm on the Saturday surveyed.

No vehicle movements were detected on the Sunday surveyed.

The following should however be acknowledged when assessing the above results:

- The exact time of the vehicle movement is not identified by the survey. In this regard, a vehicle could enter the premises at 6:59am and the survey would indicate activity commencing at 6:00am. Similarly, a vehicle could exit the premises at 5:01pm and the survey would indicate activity until 6:00pm.
- Volumes of traffic were very low in the first and last hour of surveyed activity (largely being restricted to passenger vehicles and being less than five movements). These vehicles were most likely therefore employee passenger vehicles entering and exiting the premises prior and following the official hours of operation or opening hours.

In consideration of the above, the hours of operation of the builder's yard don't appear to be significantly inconsistent with that approved. Notwithstanding this, the Section 96 Application involves altering condition of consent no. 13 as follows:

- The hours of operation shall be restricted to 6:30am to 5:00pm Monday to Friday and 7:00am to 4:30pm Saturday (closed on Sundays and Public Holidays).*
- The delivery of goods, material and the like to the premises and the despatch of goods, materials and the like from the premises shall only take place between 6:30am to 5:00pm Monday to Friday and 7:00am – 4:30pm Saturday. No goods, material or the like shall be delivered or despatched outside these hours.*

2.2.2 Existing Traffic Generation

The followings provides a summary of the existing traffic generation characteristics of the builder's yard, as identified by the weeklong mechanical survey, whilst full details are contained within **Appendix 1**:

- The peak hourly traffic generation was 51 movements, comprising 28 inbound and 23 outbound movements, occurring between 9:00am and 10:00am on the Tuesday surveyed;
- The average weekday peak hourly traffic generation was 34 movements, comprising 17 inbound and 17 outbound movements, surveyed to occur between 12:00pm – 1:00pm;
- The peak daily traffic generation was 275 movements, comprising 139 inbound and 136 outbound movements, occurring on the Tuesday surveyed; and
- The average daily traffic generation (between Monday and Saturday) was 248 movements, comprising 123 inbound and 125 outbound movements.

2.2.3 Existing Heavy Vehicle Generation

The mechanical survey identified that 60% of vehicles entering and exiting the premises were heavy vehicles (not passenger vehicles).

The following therefore provides a summary of the existing heavy vehicle traffic generation, whilst full details are contained within **Appendix 1**:

- The peak daily heavy vehicle generation 80 – 85 trucks to and from the site, occurring on the Tuesday surveyed; and
- The average daily heavy vehicle generation (between Monday and Saturday) was in the order of 75 trucks to and from the site.

The following should however be acknowledged when assessing the above results:

- The builder's yard experiences notable seasonal variation in operational demands commensurate with the building industry; and
- This Practice has been advised that the survey period (October) captured traditional peak operational period of the yard when materials are being sourced for projects with completion times before Christmas.

Notwithstanding the above, the surveyed average daily heavy vehicle generation of 75 heavy vehicles to and from the site exceeds the maximum of 24 specified within the consent.

The Section 96 Application accordingly involves altering condition of consent no. 30 as follows:

The maximum number of truck movements to and from the site on any day shall not exceed 80.

3 EXISTING TRAFFIC CONDITIONS

3.1 Access Arrangements

It has previously been presented that the builder's yard is accessed via a single driveway connection to a battle axe type roadway linking with Dunlop Street via a single combined ingress / egress driveway, some 60m to the west of the builder's yard. This battle axe type roadway also services an existing printing business located within the warehouse building and a concrete batching plant located to the north-west and south of the subject premises, respectively.

The battle axe roadway forms a single combined ingress / egress access driveway connection to Dunlop Street, providing a width of approximately 10m, situated some 150m to the south of Dean Street and 30m to the north of the terminating Dunlop Street cul-de-sac.

3.2 Surrounding Public Road Network

Dunlop Street performs an access function to primarily abutting industrial development, under the care and control of Strathfield Council. It provides a north-south alignment, extending approximately 200m to the south of Dean Street, prior to forming a terminating cul-de-sac. Traffic flow is governed by a continuation of the sign posted local 50km/h speed limit provided within Dean Street.

Dunlop Street provides a 12m wide pavement providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments, on approach to Dean Street. The pavement width reduces to approximately 9.5m in the vicinity of the shared access driveway connection, with kerbside parking being prohibited to facilitate abutting site access and egress movements and vehicular turnaround on approach and within the terminating cul-de-sac.

Dunlop Street forms a T-junction with Dean Street to the north, operating under Stop signage control, with Dean Street performing the priority route.

Dean Street performs a minor collector road function, facilitating connectivity between the abutting precinct and Homebush Road and Water Road, with which Dean Street intersects under traffic signal control. Dean Street provides a 13m wide pavement primarily providing one through lane of traffic in each direction in conjunction with formalised parallel parking lanes along both alignments. Kerbside parking restrictions apply within Dean Street on approach to Homebush Road / Water Road to facilitate the provision of two approach and departure lanes in the vicinity of the traffic signal control.

Dean Street is governed by a sign posted load limit of 4 tonnes to the west of Dunlop Street. A raised threshold and vegetated channelised medians are provided to supplement this load limitation.

Homebush Road and Water Road combine to provide higher order north-south collector roads, facilitating connecting to Liverpool Road to the north and Punchbowl Road to the south, intersecting with both under traffic signal control.

3.3 Existing Traffic Volumes & Characteristics

3.3.1 Shared Access Driveway

In order to accurately ascertain the existing operational characteristics of the shared access driveway (servicing the subject builder's yard, the adjoining warehouse accommodating a printing business and the adjacent concrete batching plant), this Practice commissioned a further mechanical tube survey. The tube counter was placed within the access driveway connection to Dunlop Street, thereby capturing ingress and egress movements associated with the various uses serviced by the shared access driveway.

The surveys were undertaken for a full week between and including the 16th and 22nd of October, 2017.

The followings provides a summary of the existing traffic volume characteristics of the shared access driveway as identified by the weeklong mechanical survey, whilst full details are contained within **Appendix 2**:

- The peak hourly traffic volume was 72 movements, occurring between 12:00am – 1:00pm on the Tuesday surveyed;
- The average weekday peak hourly traffic volume was 53 movements, surveyed to occur between 12:00pm – 1:00pm;
- The peak daily traffic volume was 596 movements, occurring on the Tuesday surveyed; and
- The average daily traffic volume (between Monday and Saturday) was 522 movements.

Further to the above, 52% of all traffic movements to and from the shared driveway were surveyed to comprise heavy vehicles.

3.3.2 Dunlop Street

In order to accurately ascertain the existing operational characteristics Dunlop Street, this Practice commissioned a further mechanical tube survey. The tube counter was placed within Dunlop Street, immediately to the south of Dean Street, thereby capturing ingress and egress movements associated with the various abutting industrial uses.

The surveys were undertaken for a full week between and including the 16th and 22nd of October, 2017.

The followings provides a summary of the existing traffic volume characteristics of Dunlop Street as identified by the weeklong mechanical survey, whilst full details are contained within **Appendix 3**:

- The peak hourly traffic volume was 111 movements, occurring between 10:00am – 11:00am on the Monday surveyed;
- The average weekday peak hourly traffic volume was 86 movements, surveyed to occur between 10:00am – 11:00am;
- The peak daily traffic volume was 1,057 movements, occurring on the Monday surveyed; and
- The average daily traffic volume was 974 movements.

Further to the above, 33% of all traffic movements within Dunlop Street were surveyed to comprise heavy vehicles.

3.3.3 Junction of Dean Street & Dunlop Street

Weekday peak period traffic movement surveys of the junction of Dean Street and Dunlop Street were commissioned order to accurately ascertain existing commuter peak traffic demands. Surveys were undertaken between 6:00am – 9:00am and 3:00pm – 6:00pm on the 11th of October, 2017.

Figure 3 overleaf provides a summary of the surveyed peak hour (8:00am – 9:00am and 4:15pm – 5:15pm) traffic flows at the surveyed junction. Full details are contained within **Appendix 4** for reference.

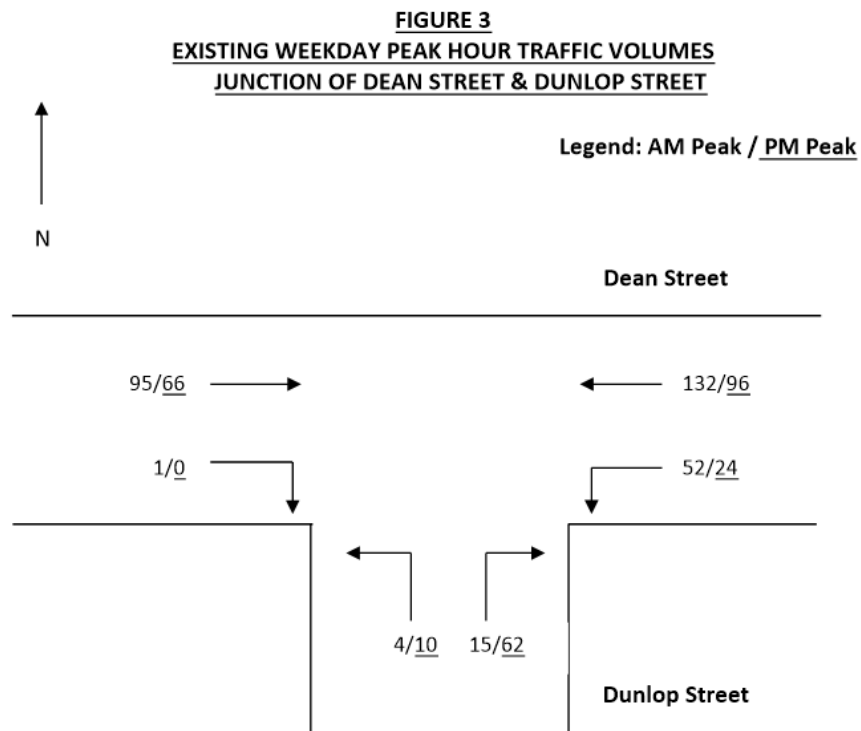


Figure 3 indicates the following:

- Dunlop Street accommodates directional traffic demands of between approximately 20 and 70 vehicles during weekday commuter peak hours; and
- Dean Street accommodates directional traffic demands of between approximately 100 – 200 vehicles during weekday commuter peak hours.

3.4 Existing Road Network Operation

3.4.1 Dunlop Street

Reference is made to the Roads & Maritime Services' *Guide to Traffic Generating Developments* in order to undertake an assessment of the operational performance of Dunlop Street. This publication indicates that a single lane of traffic accommodating peak hour traffic demands of less than 200 vehicles provides a level of service 'A'. Such a level service indicates '*a condition of free flow in which drivers are virtually unaffected by the presence of others in the traffic stream*'.

The abovementioned low traffic demands within Dunlop Street has indicated that motorists are able to enter and exit abutting properties with little or no delay. Further, the safety of private development access movements are assisted by the consistent vertical and horizontal alignment of Dunlop Street, resulting in good sight distance provisions to / from site access driveways.

3.4.2 Dean Street

Dean Street accommodates higher traffic demands than Dunlop Street commensurate with its higher order function in the road network. Traffic demands within Dean Street are still less than 200 vehicles per hour in each direction during weekday commuter peak periods, thereby resulting in a level of service 'A' for motorists.

3.4.3 Junction of Dean Street and Dunlop Street

The junction of Dean Street and Dunlop Street has been analysed utilising the SIDRA computer intersection analysis program in order to objectively assess the operation of the primary access junction servicing the subject site. SIDRA is a computerised traffic arrangement program which, when volume and geometrical configurations of an intersection are imputed, provides an objective assessment of the operation efficiency under varying types of control (i.e. signs, signal and roundabouts). Key indicators of SIDRA include level of service where results are placed on a continuum from A to F, with A providing the greatest intersection efficiency and therefore being the most desirable by the Roads and Maritime Services.

SIDRA uses detailed analytical traffic models coupled with an iterative approximation method to provide estimates of the abovementioned key indicators of capacity and performance statistics. Other key indicators provided by SIDRA are average vehicle delay, the number of stops per hour and the degree

of saturation. Degree of saturation is the ratio of the arrival rate of vehicles to the capacity of the approach. Degree of saturation is a useful and professionally accepted measure of intersection performance.

SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out in **Table 1** below (being the RMS NSW method of calculation of Level of Service).

TABLE 1 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS GIVE WAY & STOP SIGNS		
Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
A	Less than 14	Good
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Near capacity
E	57 to 70	At capacity and requires other control mode
F	> 70	Unsatisfactory and requires other control mode

The existing conditions have been modelled utilising the peak hour traffic volumes presented within **Figure 3**. **Table 2** provides a summary of the SIDRA output data whilst more detailed summaries are included as **Appendix 5**.

TABLE 2 SIDRA OUTPUT – EXISTING WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF DEAN STREET & DUNLOP STREET		
	AM	PM
Dunlop Street		
Delay	10.4	9.9
Degree of Saturation	0.02	0.09
Level of Service	A	A
Eastern Dean Street Approach		
Delay	5.9	5.9
Degree of Saturation	0.10	0.07
Level of Service	A	A
Western Dean Street Approach		
Delay	6.7	6.3
Degree of Saturation	0.05	0.04
Level of Service	A	A
Total Intersection		
Delay	10.4	9.9
Degree of Saturation	0.10	0.09
Level of Service	A	A

Table 2 indicates the that the junction of Dean Street and Dunlop Street provides all movements with a level of service 'A', representing good conditions with spare capacity.

4. IMPACTS OF PROPOSAL

4.1 Hours of Operation

The builder's yard is currently approved to operate between 7:00am – 4:30pm Monday to Saturday. Surveys of the operation of the premises indicate that whilst some vehicle movements occur before 7:00am and following 4:30pm on weekdays, the extent of these movements is very low (generally less than five passenger vehicles per hour), being most likely attributable to employee passenger vehicle movements to and from the premises.

The hours of operation of the builder's yard don't appear to be significantly inconsistent with that approved. Notwithstanding this, the Section 96 Application involves altering condition of consent no. 13 to provide some flexibility with respect to the accommodation of variations in existing operational demands:

- (a) *The hours of operation shall be restricted to 6:30am to 5:00pm Monday to Friday and 7:00am to 4:30pm Saturday (closed on Sundays and Public Holidays).*
- (b) *The delivery of goods, material and the like to the premises and the despatch of goods, materials and the like from the premises shall only take place between 6:30am to 5:00pm Monday to Friday and 7:00am to 4:30pm Saturday. No goods, material or the like shall be delivered or despatched outside these hours.*

The surrounding road network has been presented to provide motorists with a good level of service throughout the commuter peak period (with 6:00am – 9:00am and 3:00pm – 6:00pm being surveyed and assessed). The extent of the variation, being an additional 30 minutes of operation during the morning between 6:30am – 7:00am and afternoon between 4:30pm – 5:00pm, is therefore considered to be negligible and generally in accordance with the normal hours of operation of any development within industrially zoned land.

4.2 Heavy Vehicle Generation

The builder's yard is approved to generate up to 24 trucks to and from the site in any given day. It is not known how this ceiling was determined, being most likely that which was stated would be generated at the time of the original application, rather than a generation limit for which the surrounding road network was considered to be capable of accommodating.

Section 2 of this report indicates that the existing builder's yard operations generate an average of approximately 75 heavy vehicles to and from the site per day. This traffic is largely spread evenly throughout 7:00am – 4:00pm, with very few movements outside this period. This equates to, on average, approximately nine heavy vehicles travelling to and from the site in any one hourly period.

The Section 96 Application accordingly involves altering condition of consent no. 30 as follows in order to accommodate existing operational demands with some flexibility for peak influxes in demand:

The maximum number of truck movements to and from the site on any day shall not exceed 80.

Section 3 of this report presents that motorists within the immediately surrounding road network (comprising Dunlop Street and Dean Street on approach to Homebush Road / Water Street) are provided with a good level of service, with spare capacity. The surrounding road network is therefore considered to be capable of accommodating the proposed variation to the approved heavy vehicle traffic generating capacity.

Whilst it is acknowledged that transit routes between the subject site and the surrounding arterial road network result in heavy vehicles being required to pass residential properties, the following should also be acknowledged:

- The intrusion of heavy vehicle movements on local roads with abutting residential development is unavoidable in the subject instance whereby a small pocket of industrially zoned land is enveloped by residentially zoned land;
- The proximity of the site to the arterial road network in Liverpool Road and Punchbowl Road is such that heavy vehicle transit route intrusion on local roads with abutting residential properties is limited to Homebush Road, Water Road and Dean Street;
- The geometrical configuration of the abovementioned local transit routes are capable of accommodating heavy vehicle movements in a safe manner without unreasonable encroachment on opposing travel lanes and kerbs;
- The positive traffic signal control at major intersections along the transit routes (including the intersections of Homebush Road / Water Road / Dean Street, Liverpool Road / Homebush Road and Punchbowl Road / Water Road) provide exclusive phases within which turning movements can occur in a safe and efficient manner; and
- The transit routes are not restricted by load limits and do not adjoin / service particularly sensitive land-uses such as schools or aged care facilities.

In consideration of the above, it is not envisaged that the proposed increase to the approved heavy vehicle traffic generation of the builder's yard will result in any unreasonable impacts on the safety and efficiency of the surrounding road network.

5. CONCLUSION

This report investigates and presents the existing operational and traffic generating characteristics of the builder's yard located at 6 – 8 Dunlop Street, Strathfield South, and assesses the ability or otherwise of the surrounding road network to accommodate this traffic generating potential. Based on this assessment, the following conclusions are now made:

- The subject premises have been operating as builder's yard for approximately 20 years, being subject to conditions of development consent (DA96/109 dated 17 March 1997) restricting operational characteristics including, but not being limited, to:
 - Hours of operation are to be limited to 7:00am – 4:30pm Monday to Saturday; and
 - The maximum number of trucks servicing the site on a daily basis is 24.
- Surveys of the site operation have however indicate the following:
 - Whilst the hours of operation of the builder's yard don't appear to be significantly inconsistent with that approved, very low numbers of primarily passenger vehicles were surveyed to enter and exit the site marginally outside the approved hours, most likely being attributed to staff travelling to and from the site; and
 - The existing premises generate higher volumes of heavy vehicle movements to and from the site than approved.
- A Section 96 Application has subsequently been formulated which seeks consent to modify the approved operational characteristics including, but not limited to the following:
 - An extension of the approved operational hours from 7:00am – 4:30pm Monday to Saturday to 6:30am – 5:00pm Monday to Friday whilst the approved Saturday hours are to be remain at 7:00am – 4:30pm (closed on Sundays and Public Holidays); and
 - An increase in the maximum number of trucks servicing the site on a daily basis from 24 to 80.
- The surrounding road network has been assessed to provide motorists with a good level of service with spare capacity;
- The site is located in close proximity to the surrounding arterial road network such that heavy vehicle transit route intrusion on local roads with abutting residential properties is limited to Homebush Road, Water Road and Dean Street;
- The geometrical configuration of the abovementioned local transit routes are capable of accommodating heavy vehicle movements in a safe manner without unreasonable encroachment on opposing travel lanes and kerbs;

- Positive traffic signal control at major intersections along the local transit routes provide exclusive phases within which turning movements can occur in a safe and efficient manner;
- The extent of the variation in operational hours is considered to be negligible and generally in accordance with the normal hours of operation of any development within industrially zoned land; and
- It is considered that the surrounding road network is capable of accommodating the proposed increase to the approved heavy vehicle traffic generation of the builder's yard without unreasonable impacts on safety and efficiency.

Having regard to the findings of this report, the surrounding road network is capable of accommodating the existing peak operational demands of the builder's yard and indeed, provides capacity to accommodate additional capacity.

APPENDIX 1

Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - Site access
Location	South Strathfield
Site No	3
Start Date	16-Oct-17
Description	Volume Summary
Direction	EB



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	18	28	17	16	10	11	0	123	97
PM Peak	16	17	13	28	13	11	0		
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	1	0	0	0	0	0
6:00	5	2	3	2	3	0	0	3	2
7:00	9	10	4	12	10	11	0	9	8
8:00	15	7	12	13	6	7	0	11	9
9:00	13	28	13	11	9	9	0	15	12
10:00	18	10	14	9	7	5	0	12	9
11:00	10	20	17	16	9	6	0	14	11
12:00	16	17	13	28	13	8	0	17	14
13:00	12	11	13	9	9	9	0	11	9
14:00	10	12	12	11	11	11	0	11	10
15:00	8	14	11	10	6	1	0	10	7
16:00	9	8	8	9	4	0	0	8	5
17:00	5	0	2	6	0	0	0	3	2
18:00	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	130	139	122	137	87	67	0	123	97

7-19	125	137	119	134	84	67	0	120	95
6-22	130	139	122	136	87	67	0	123	97
6-24	130	139	122	136	87	67	0	123	97
0-24	130	139	122	137	87	67	0	123	97

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Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - Site access
Location	South Strathfield
Site No	3
Start Date	16-Oct-17
Description	Volume Summary
Direction	WB



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct		
AM Peak	17	23	14	16	15	15	0		
PM Peak	18	19	14	23	13	8	0	125	98
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	10	4	7	4	1	0	0	5	4
7:00	11	10	6	13	15	15	0	11	10
8:00	17	6	9	13	6	6	0	10	8
9:00	12	23	13	8	8	10	0	13	11
10:00	16	8	13	15	7	7	0	12	9
11:00	10	17	14	16	8	6	0	13	10
12:00	18	19	13	23	13	6	0	17	13
13:00	11	16	11	9	13	6	0	12	9
14:00	11	13	14	19	7	8	0	13	10
15:00	7	10	12	13	4	1	0	9	7
16:00	8	8	8	7	4	0	0	7	5
17:00	3	2	2	4	1	0	0	2	2
18:00	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	134	136	122	144	87	65	0	125	98

7-19	124	132	115	140	86	65	0	119	95
6-22	134	136	122	144	87	65	0	125	98
6-24	134	136	122	144	87	65	0	125	98
0-24	134	136	122	144	87	65	0	125	98

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Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - Site access
Location	South Strathfield
Site No	3
Start Date	16-Oct-17
Description	Volume Summary
Direction	Combined




Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	34	51	31	32	25	26	0	248	196
PM Peak	34	36	26	51	26	19	0		
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	1	0	0	0	0	0
6:00	15	6	10	6	4	0	0	8	6
7:00	20	20	10	25	25	26	0	20	18
8:00	32	13	21	26	12	13	0	21	17
9:00	25	51	26	19	17	19	0	28	22
10:00	34	18	27	24	14	12	0	23	18
11:00	20	37	31	32	17	12	0	27	21
12:00	34	36	26	51	26	14	0	35	27
13:00	23	27	24	18	22	15	0	23	18
14:00	21	25	26	30	18	19	0	24	20
15:00	15	24	23	23	10	2	0	19	14
16:00	17	16	16	16	8	0	0	15	10
17:00	8	2	4	10	1	0	0	5	4
18:00	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	264	275	244	281	174	132	0	248	196

7-19	249	269	234	274	170	132	0	239	190
6-22	264	275	244	280	174	132	0	247	196
6-24	264	275	244	280	174	132	0	247	196
0-24	264	275	244	281	174	132	0	248	196

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APPENDIX 2

Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - adjacent to road
Location	South Strathfield
Site No	1
Start Date	16-Oct-17
Description	Volume Summary
Direction	EB




Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	35	37	31	26	21	19	1	278	214
PM Peak	30	38	27	26	23	21	1		
0:00	0	0	0	0	0	1	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	2	1	1	0	0	0	0	1	1
5:00	0	2	2	0	0	0	0	1	1
6:00	12	7	9	10	4	4	1	8	7
7:00	25	25	16	20	21	19	0	21	18
8:00	21	15	24	26	17	9	0	21	16
9:00	35	37	22	14	14	10	0	24	19
10:00	32	23	31	21	20	10	1	25	20
11:00	22	33	26	18	17	8	0	23	18
12:00	29	38	24	23	23	6	0	27	20
13:00	30	27	27	25	23	8	1	26	20
14:00	23	30	26	26	12	21	0	23	20
15:00	18	26	26	25	13	4	1	22	16
16:00	30	27	24	23	17	4	0	24	18
17:00	22	20	22	21	5	0	1	18	13
18:00	5	4	8	12	1	0	0	6	4
19:00	1	2	3	5	0	0	0	2	2
20:00	3	1	0	6	0	0	0	2	1
21:00	0	0	0	2	3	0	0	1	1
22:00	0	0	0	2	1	0	0	1	0
23:00	0	0	0	0	0	0	0	0	0
Total	310	318	291	279	191	104	5	278	214

7-19	292	305	276	254	183	99	4	262	202
6-22	308	315	288	277	190	103	5	276	212
6-24	308	315	288	279	191	103	5	276	213
0-24	310	318	291	279	191	104	5	278	214

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Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - adjacent to road
Location	South Strathfield
Site No	1
Start Date	16-Oct-17
Description	Volume Summary
Direction	WB




Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	30	29	28	28	25	21	1	244	188
PM Peak	28	34	22	24	24	9	1		
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	1	1	2	0	0	0	0	1	1
5:00	0	4	2	4	3	2	0	3	2
6:00	30	25	27	28	25	21	1	27	22
7:00	20	18	18	26	24	6	0	21	16
8:00	29	29	28	20	21	8	0	25	19
9:00	23	24	19	26	11	10	0	21	16
10:00	30	21	22	16	13	9	1	20	16
11:00	20	27	22	16	15	9	0	20	16
12:00	28	34	19	24	24	6	0	26	19
13:00	25	25	21	20	14	9	1	21	16
14:00	18	19	20	22	15	8	0	19	15
15:00	11	29	22	13	4	0	1	16	11
16:00	12	17	16	18	8	1	0	14	10
17:00	7	3	7	10	1	0	0	6	4
18:00	1	1	0	2	1	0	1	1	1
19:00	1	0	1	3	0	0	0	1	1
20:00	1	0	0	5	0	0	1	1	1
21:00	0	1	1	2	2	0	0	1	1
22:00	0	0	0	0	1	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	257	278	247	255	182	89	6	244	188

7-19	224	247	214	213	151	66	4	210	160
6-22	256	273	243	251	178	87	6	240	185
6-24	256	273	243	251	179	87	6	240	185
0-24	257	278	247	255	182	89	6	244	188

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Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Driveway 6-8 Dunlop Street - adjacent to road
Location	South Strathfield
Site No	1
Start Date	16-Oct-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct		
AM Peak	62	61	53	46	45	25	2		
PM Peak	57	72	48	48	47	29	2	522	402
0:00	0	0	0	0	0	1	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	3	2	3	0	0	0	0	2	1
5:00	0	6	4	4	3	2	0	3	3
6:00	42	32	36	38	29	25	2	35	29
7:00	45	43	34	46	45	25	0	43	34
8:00	50	44	52	46	38	17	0	46	35
9:00	58	61	41	40	25	20	0	45	35
10:00	62	44	53	37	33	19	2	46	36
11:00	42	60	48	34	32	17	0	43	33
12:00	57	72	43	47	47	12	0	53	40
13:00	55	52	48	45	37	17	2	47	37
14:00	41	49	46	48	27	29	0	42	34
15:00	29	55	48	38	17	4	2	37	28
16:00	42	44	40	41	25	5	0	38	28
17:00	29	23	29	31	6	0	1	24	17
18:00	6	5	8	14	2	0	1	7	5
19:00	2	2	4	8	0	0	0	3	2
20:00	4	1	0	11	0	0	1	3	2
21:00	0	1	1	4	5	0	0	2	2
22:00	0	0	0	2	2	0	0	1	1
23:00	0	0	0	0	0	0	0	0	0
Total	567	596	538	534	373	193	11	522	402

7-19	516	552	490	467	334	165	8	472	362
6-22	564	588	531	528	368	190	11	516	397
6-24	564	588	531	530	370	190	11	517	398
0-24	567	596	538	534	373	193	11	522	402

N3630_South Strathfield_MATRIX ATC 7 Day OCT 2017_Updated (2).xlsm Volume Summary 14/11/2017

APPENDIX 3

Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Dunlop Street - immediate approach to Dean Street
Location	South Strathfield
Site No	2
Start Date	16-Oct-17
Description	Volume Summary
Direction	NB



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	54	46	48	43	39	24	7	498	391
PM Peak	63	67	58	59	51	26	7		
0:00	1	0	0	1	2	3	0	1	1
1:00	1	2	2	0	0	0	0	1	1
2:00	0	0	1	1	1	0	0	1	0
3:00	3	0	2	0	1	1	0	1	1
4:00	2	1	3	1	0	0	1	1	1
5:00	0	4	5	0	1	0	0	2	1
6:00	17	17	15	11	6	3	1	13	10
7:00	26	21	22	29	33	24	2	26	22
8:00	31	25	35	40	23	8	3	31	24
9:00	48	46	33	25	28	17	7	36	29
10:00	54	45	48	43	39	17	4	46	36
11:00	43	37	36	32	35	18	4	37	29
12:00	51	51	35	2	43	15	7	36	29
13:00	37	44	40	31	46	13	5	40	31
14:00	37	47	53	49	33	26	3	44	35
15:00	37	42	46	41	33	7	7	40	30
16:00	59	67	58	59	51	8	2	59	43
17:00	63	43	46	41	25	4	4	44	32
18:00	14	16	16	30	13	6	4	18	14
19:00	7	8	8	8	10	6	6	8	8
20:00	6	8	3	12	4	5	2	7	6
21:00	0	2	3	7	5	3	0	3	3
22:00	3	4	3	3	3	2	0	3	3
23:00	1	2	1	2	1	1	0	1	1
Total	541	532	514	468	436	187	62	498	391

7-19	500	484	468	422	402	163	52	455	356
6-22	530	519	497	460	427	180	61	487	382
6-24	534	525	501	465	431	183	61	491	386
0-24	541	532	514	468	436	187	62	498	391

N3630_South Strathfield_MATRIX ATC 7 Day OCT 2017_Updated (2).xlsm Volume Summary 14/11/2017

Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Dunlop Street - immediate approach to Dean Street
Location	South Strathfield
Site No	2
Start Date	16-Oct-17
Description	Volume Summary
Direction	SB




Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct		
AM Peak	59	50	54	57	49	23	5	476	374
PM Peak	49	48	49	34	42	17	9		
0:00	1	1	0	1	1	2	0	1	1
1:00	1	2	2	1	0	0	0	1	1
2:00	0	0	1	0	1	0	0	0	0
3:00	3	0	2	0	1	1	0	1	1
4:00	2	0	6	2	1	0	1	2	2
5:00	7	13	9	8	8	6	1	9	7
6:00	41	38	35	39	38	23	1	38	31
7:00	46	41	50	57	47	9	3	48	36
8:00	42	48	54	51	49	11	3	49	37
9:00	59	50	45	41	35	18	5	46	36
10:00	57	43	40	35	28	16	3	41	32
11:00	38	47	35	36	31	12	4	37	29
12:00	49	48	25	6	42	12	6	34	27
13:00	34	47	49	26	40	17	6	39	31
14:00	37	33	43	34	33	11	4	36	28
15:00	39	44	39	32	16	4	6	34	26
16:00	25	21	24	26	22	4	1	24	18
17:00	15	12	16	14	6	5	2	13	10
18:00	8	10	3	8	10	6	4	8	7
19:00	6	5	7	8	2	6	9	6	6
20:00	4	3	0	12	2	3	5	4	4
21:00	2	2	5	3	5	2	0	3	3
22:00	0	1	1	2	4	3	0	2	2
23:00	0	1	0	1	0	0	0	0	0
Total	516	510	491	443	422	171	64	476	374

7-19	449	444	423	366	359	125	47	408	316
6-22	502	492	470	428	406	159	62	460	360
6-24	502	494	471	431	410	162	62	462	362
0-24	516	510	491	443	422	171	64	476	374

N3630_South Strathfield_MATRIX ATC 7 Day OCT 2017_Updated (2).xlsm Volume Summary 14/11/2017

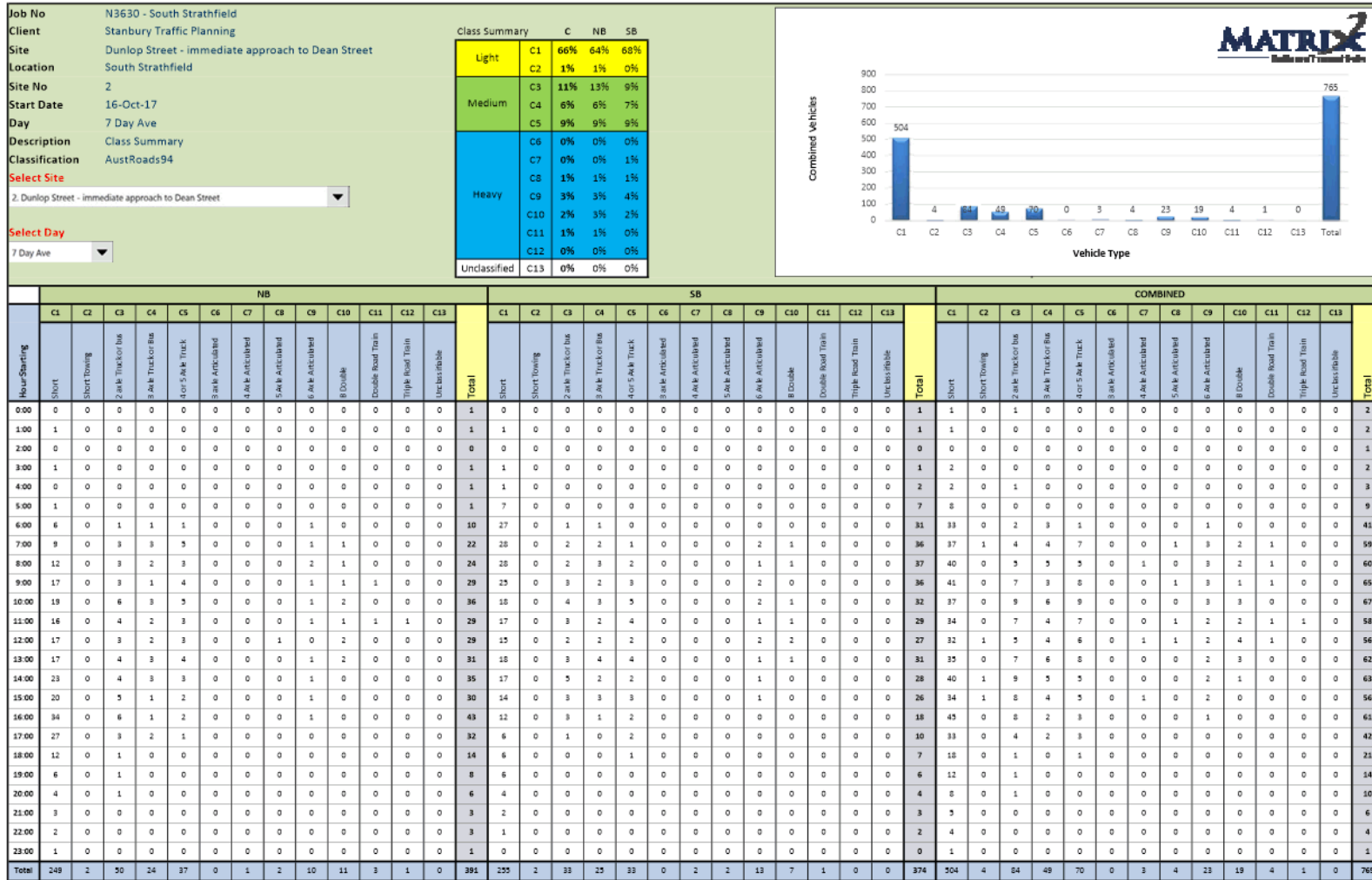
Job No	N3630 - South Strathfield
Client	Stanbury Traffic Planning
Site	Dunlop Street - immediate approach to Dean Street
Location	South Strathfield
Site No	2
Start Date	16-Oct-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 22-Oct		
AM Peak	111	96	89	91	80	35	12	975	765
PM Peak	100	99	96	85	86	37	15		
0:00	2	1	0	2	3	5	0	2	2
1:00	2	4	4	1	0	0	0	2	2
2:00	0	0	2	1	2	0	0	1	1
3:00	6	0	4	0	2	2	0	2	2
4:00	4	1	9	3	1	0	2	4	3
5:00	7	17	14	8	9	6	1	11	9
6:00	58	55	50	50	44	26	2	51	41
7:00	72	62	72	86	80	33	5	74	59
8:00	73	73	89	91	72	19	6	80	60
9:00	107	96	78	66	63	35	12	82	65
10:00	111	88	88	78	67	33	7	86	67
11:00	81	84	71	68	66	30	8	74	58
12:00	100	99	60	8	85	27	13	70	56
13:00	71	91	89	57	86	30	11	79	62
14:00	74	80	96	83	66	37	7	80	63
15:00	76	86	85	73	49	11	13	74	56
16:00	84	88	82	85	73	12	3	82	61
17:00	78	55	62	55	31	9	6	56	42
18:00	22	26	19	38	23	12	8	26	21
19:00	13	13	15	16	12	12	15	14	14
20:00	10	11	3	24	6	8	7	11	10
21:00	2	4	8	10	10	5	0	7	6
22:00	3	5	4	5	7	5	0	5	4
23:00	1	3	1	3	1	1	0	2	1
Total	1057	1042	1005	911	858	358	126	975	765

7-19	949	928	891	788	761	288	99	863	672
6-22	1032	1011	967	888	833	339	123	946	742
6-24	1036	1019	972	896	841	345	123	953	747
0-24	1057	1042	1005	911	858	358	126	975	765

N3630_South Strathfield_MATRIX ATC 7 Day OCT 2017_Updated (2).xlsm Volume Summary 14/11/2017

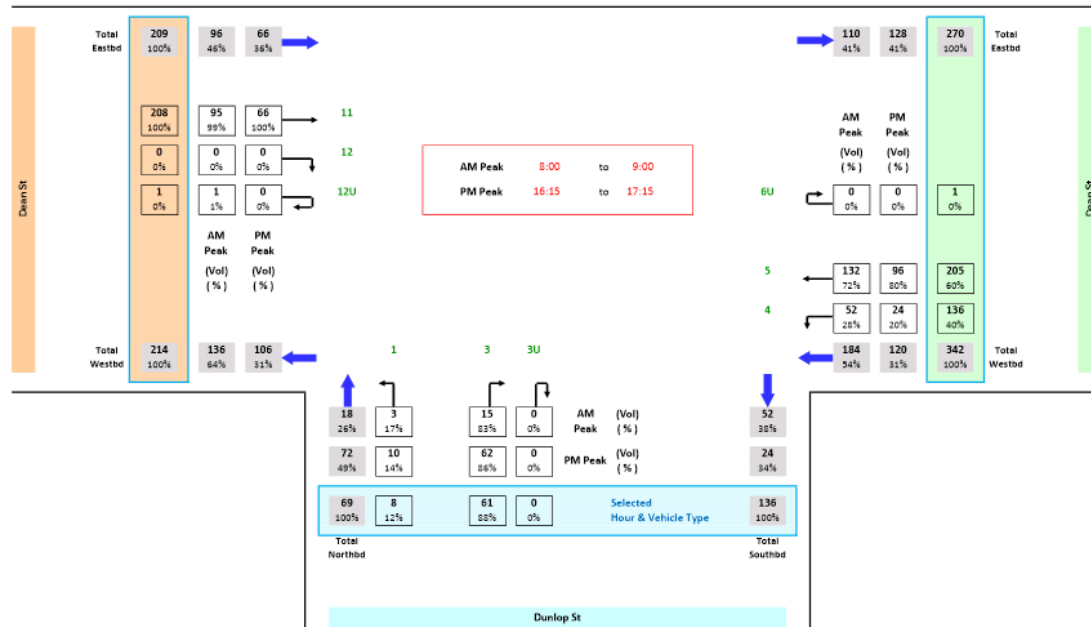


APPENDIX 4

Job No. : N3630
 Client : Stanbury Traffic Planning
 Suburb : South Strathfield
 Location : 1. Dean St / Dunlop St
 Day/Date : Wednesday, 11th October 2017
 Weather : Fine
 Description : Classified Intersection Count
 : Intersection Diagram



Hour Starting: AM Totals
 Vehicle Type: All Vehicles



APPENDIX 5

MOVEMENT SUMMARY

 Site: [Dean Street & Dunlop Street]

Existing AM
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Dunlop Street											
1	L2	4	33.0	0.024	10.1	LOS A	0.1	0.7	0.32	0.92	50.2
3	R2	15	33.0	0.024	10.4	LOS A	0.1	0.7	0.32	0.92	49.6
Approach		19	33.0	0.024	10.3	LOS A	0.1	0.7	0.32	0.92	49.7
East: Dean Street East											
4	L2	52	33.0	0.104	5.9	LOS A	0.0	0.0	0.00	0.16	55.7
5	T1	132	5.0	0.104	0.0	LOS A	0.0	0.0	0.00	0.16	58.8
Approach		184	12.9	0.104	1.7	NA	0.0	0.0	0.00	0.16	57.9
West: Dean Street West											
11	T1	95	5.0	0.051	0.0	LOS A	0.0	0.1	0.01	0.01	59.9
12	R2	1	33.0	0.051	6.7	LOS A	0.0	0.1	0.01	0.01	55.9
Approach		96	5.3	0.051	0.1	NA	0.0	0.1	0.01	0.01	59.9
All Vehicles		299	11.7	0.104	1.7	NA	0.1	0.7	0.02	0.16	57.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: [Dean Street & Dunlop Street]

Existing PM
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Dunlop Street											
1	L2	10	33.0	0.085	9.9	LOS A	0.3	2.6	0.28	0.94	50.4
3	R2	62	33.0	0.085	9.9	LOS A	0.3	2.6	0.28	0.94	49.8
Approach		72	33.0	0.085	9.9	LOS A	0.3	2.6	0.28	0.94	49.9
East: Dean Street East											
4	L2	24	33.0	0.067	5.9	LOS A	0.0	0.0	0.00	0.12	56.0
5	T1	96	5.0	0.067	0.0	LOS A	0.0	0.0	0.00	0.12	59.2
Approach		120	10.6	0.067	1.2	NA	0.0	0.0	0.00	0.12	58.5
West: Dean Street West											
11	T1	66	5.0	0.036	0.0	LOS A	0.0	0.1	0.01	0.01	59.9
12	R2	1	33.0	0.036	6.3	LOS A	0.0	0.1	0.01	0.01	55.9
Approach		67	5.4	0.036	0.1	NA	0.0	0.1	0.01	0.01	59.8
All Vehicles		259	15.5	0.085	3.3	NA	0.3	2.6	0.08	0.32	56.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.