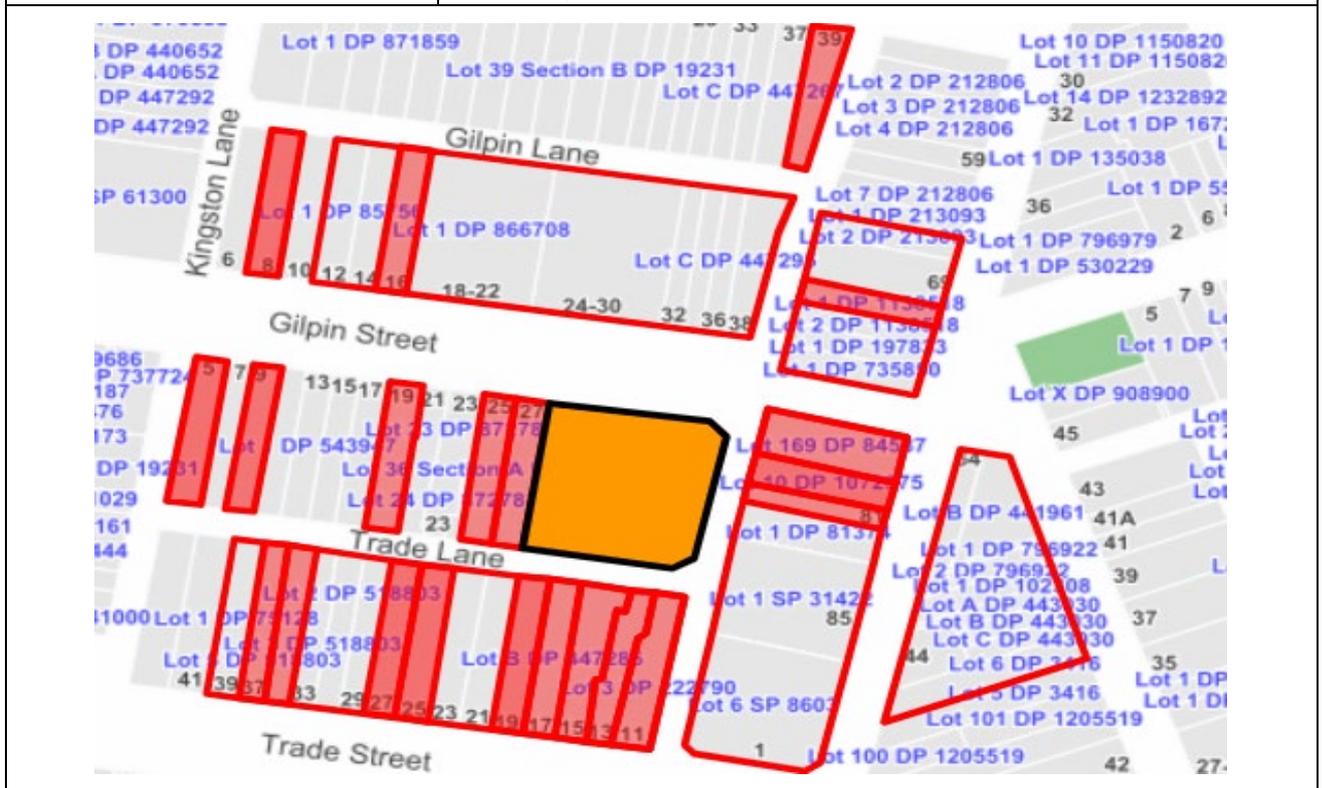


INNER WEST

DEVELOPMENT ASSESSMENT REPORT

| | |
|---|---|
| Application No. | DA/2020/0993 |
| Address | 29 Gilpin Street CAMPERDOWN NSW 2050 |
| Proposal | Demolition of existing structures and tree removal. Construction of 7 attached dwellings with associated parking and landscaping. Torrens title subdivision into 7 lots |
| Date of Lodgement | 18 November 2020 |
| Applicant | ES Design |
| Owner | Unique Developments Pty Ltd |
| Number of Submissions | Initial: 22 Renotification: 8 |
| Value of works | \$2,359,611.00 |
| Reason for determination at Planning Panel | Number of submissions |
| Main Issues | Privacy, Solar Access, Landscaping & Private Open Space and Built Form & Design. |
| Recommendation | Refusal |
| Attachment A | Without Prejudice Draft Conditions of Consent (if not refused) |
| Attachment B | Plans of proposed development |
| Attachment C | Arboricultural Impact Assessment and Tree Management Plan |
| Attachment D | Traffic Impact Assessment |



LOCALITY MAP

| | | | | |
|---------------|---|------------|---|--------|
| Subject Site |  | Objectors |  | ↑ N |
| Notified Area |  | Supporters |  | |

1. Executive Summary

This report is an assessment of the application submitted to Council for subdivision of the existing lot into 7 Torrens title allotments, demolition of existing structures, tree removal and construction of 7 attached dwellings with associated parking and landscaping at 29 Gilpin Street, Camperdown.

The original and revised application were notified in accordance with Council's notification policy. In response, a total of 30 submissions were received, including 1 petition.

The main issues that have arisen from the application include:

- The proposal as presented will result in adverse privacy impacts on future and surrounding occupiers;
- The proposal has not been designed to maximise solar access to the open space areas servicing the dwellings;
- Sufficient areas of private open space and landscaping have not been afforded to certain dwellings;
- The bulk and scale of the development does not complement the character of the surrounds and results in adverse amenity impacts on future and surrounding occupiers; and
- The general design, materiality and presentation of the development is considered not compatible with the streetscape and locality.

Considering the above issues, it is considered the application is unsupportable and as a result, is recommended for refusal.

2. Proposal

The proposal (as revised) seeks consent for subdivision of the existing lot into 7 Torrens title allotments, demolition of existing structures, tree removal and construction of 7 attached dwellings with associated parking and landscaping.

The proposal in detail is as follows:

- Demolition of all existing structures;
- Tree removal;
- Subdivision including associated works of the allotment into 7 Torrens title allotments as follows:
 - Lot 1: 154.46sqm (area) and 3.18m (frontage) / 4.06m (splay);
 - Lot 2: 154.46sqm (area) and 4.72m (frontage);
 - Lot 3: 154.65sqm and 4.72m (frontage);
 - Lot 4: 154.75sqm and 4.72m (frontage);
 - Lot 5: 154.86sqm and 4.72m (frontage);
 - Lot 6: 154.96sqm and 4.72m (frontage); and
 - Lot 7: 157sqm and 4.78m (frontage).
- Construction works as follows:
 - Construction of an attached dwelling on each allotment;
 - Construction of a garage and loft structure on Lots 3 to 7 accessed from Trade Lane; and
 - Construction of a parking space servicing Lot 2 accessed from Trade Lane.

- Landscaping and general site works, including tree retention and new planting.

3. Site Description

The subject site is located on the southern side of Gilpin Street and at the corner shared with St. Marys Lane. The site is bounded at its rear by Trade Lane. The site consists of 1 allotment, which is generally square in shape with splayed corners on its eastern side. The site consists of a total area of 1,086sqm and is legally described as Lot 411 in DP 737291.

The site has a frontage to Gilpin Street of approximately 31.56m, an eastern frontage to St Marys Lane of approximately 24.2m and a rear boundary to Trade Lane of approximately 29.3m. The site has a cross fall from east to west of between approximately 1.5m to 2m.

The site supports 6 multi-dwelling housing units with associated garages and parking spaces. The site also supports a series of trees and vegetation, some of which are mature. Adjoining the site directly to the west are a series of dwellings, including terrace houses. To north of the site and on the opposite side of Gilpin Street are a mix of low and medium density residential dwellings.

To the south of the site and on the opposite side of Trade Lane are a series of low density, residential dwellings, including terrace houses; some of which containing parking structures that address the Lane. To the east of the site and on the opposite side of St Marys Lane are predominantly low-density residential dwellings, some of which containing parking structures that address the Lane.

The wider surrounds comprise mainly of low-density, residential dwellings on narrow allotments; with some medium density development on larger allotments found sporadically throughout.



Figure 1: Zoning Map of the subject site (highlighted in dark red).



Figure 2: Site photo taken from Gilpin Street facing south.

4. Background

4(a) Site history

The following outlines the relevant development history of the subject site:

| Application | Proposal | Decision & Date |
|--------------|--|---------------------|
| BA 536/82 | Six (6) new two-storey townhouses. | Approved 22/09/1982 |
| DA No. 66/81 | Application to erect 2 x 2 bedroom and 4 x 3 bedroom two-storey town houses with parking on-site for twelve (12) vehicles. | Approved 08/01/1982 |

4(b) Application history

The following table outlines the relevant history of the subject application.

| Date | Discussion |
|--------------------------|--|
| 18/11/2020 | Application lodged. |
| 01/12/2020 to 22/12/2020 | Application notified. |
| 23/02/2021 | Request for information (RFI) letter issued to the applicant requiring the following amendments/information: <ul style="list-style-type: none"> • Design revisions to improve built form outcomes; • Design revisions to improve solar access outcomes; • Design revisions to improve the development’s streetscape compatibility; • Design revisions to allow for tree protection and provision; • Design revisions to improve landscaping and private open space (POS) provision; • Design revisions to improve the design of the car parking spaces/structures; |

| | |
|--------------------------|--|
| | <ul style="list-style-type: none"> • Design revisions to improve visual and acoustic privacy outcomes; • Design provisions to improve stormwater design and management; • Provision of a subdivision analysis plan; • Further information to satisfy general matters; and • Design revisions to improve waste management outcomes. <p>Given the volume of matters raised, it was recommended that the application be withdrawn, and a new application be submitted when the above matters were satisfactorily resolved.</p> |
| 03/03/2021 | Meeting held between Council staff and the applicant to discuss RFI letter. |
| 17/03/2021 | Extension request granted by Council to applicant to provide RFI response. |
| 26/03/2021 | <p>Revised plans and additional information submitted in response to Council's RFI letter. This information forms the basis of the assessment below.</p> <p><u>Note:</u> Whilst it is acknowledged that the revised plans and additional information address some of the matters raised within the RFI letter, other matters remain unresolved, which are discussed further within this report.</p> |
| 08/04/2021 to 29/04/2021 | Revised proposal renotified. |

5. Assessment

The following is a summary of the assessment of the application in accordance with Section 4.15 of the *Environmental Planning and Assessment Act 1979 (EP&A Act 1979)*.

5(a) Environmental Planning Instruments

The application has been assessed against the relevant Environmental Planning Instruments (EPIs) listed below:

- *State Environmental Planning Policy No. 55—Remediation of Land*;
- *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004*;
- *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*; and
- *Marrickville Local Environmental Plan 2011 (MLEP 2011)*.

The following provides further discussion of the relevant issues:

5(a)(i) *State Environmental Planning Policy No 55—Remediation of Land*

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) provides planning guidelines for remediation of contaminated land. The Marrickville Development Control Plan 2011 (MDCP 2011) provides controls and guidelines for remediation works. *SEPP 55* requires the consent authority to be satisfied that “the site is, or can be made, suitable for the proposed use” prior to the granting of consent.

Based on a review of Council’s records, the current use of the site, the information supplied with the application and a site inspection, it is considered the site has not been used in the

past for activities which could have potentially contaminated the site. It is considered that the site will not require remediation in accordance with *SEPP 55*.

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

BASIX Certificates were submitted with the application, which are referenced in the without prejudice draft conditions of consent in Attachment A if approval is granted.

5(a)(iii) State Environmental Planning Policy (Vegetation in Non-Rural Areas) (Vegetation SEPP)

The *Vegetation SEPP* concerns the protection/removal of vegetation identified under the *SEPP* and gives effect to the local tree preservation provisions of Council’s Tree Management Development Control Plan (TMDCP) contained within Part 2.20 *Tree Management* of MDCP 2011. The following is proposed with respect to existing and new vegetation:

- Removal of a *Acmena smithii* (Lilly Pilly);
- Removal of a *Eucalyptus fastigata* (Brown Barrel);
- Removal of two *Eucalyptus scoparia* (Wallangarra White Gum);
- Protection and retention of five *Lagerstroemia indica* (Crepe Myrtle) located on Gilpin Street;
- Protection and retention of a *Jacaranda mimosifolia* (Jacaranda) in the rear south eastern corner of the site; and
- Provision of new tree plantings within the site to offset the tree removal proposed.

Considering the above, the proposal is deemed acceptable with respect to the *Vegetation SEPP* and Part 2.20 *Tree Management* of MDCP 2011, subject to the imposition of conditions requiring the protection of existing, significant vegetation and the provision of new tree plantings; which are referenced in the without prejudice draft conditions of consent in Attachment A if approval is granted.

5(a)(iv) Marrickville Local Environment Plan 2011 (MLEP 2011)

The application was assessed against the following relevant clauses of the *Marrickville Local Environmental Plan 2011 (MLEP 2011)* in the table below.

| Control | Proposed | Compliance |
|--|---|------------|
| Clause 1.2 Aims of Plan | The proposal is considered consistent with the relevant aims of the plan, except for the following: <ul style="list-style-type: none"> • Clause (Cl.) 2(h) – As demonstrated further within this report, the proposal does not promote a high standard of design in the private and public domain. | No |
| Clause 1.8A Savings provision relating to | During the assessment of the application <i>MLEP 2011</i> was amended. The amendments are not relevant to this application. | Yes |

| | | |
|--|--|----------------------------|
| development applications | | |
| <p>Clause 2.3 Zone objectives and Land Use Table</p> <p><i>R3 Medium Density Residential</i></p> | <p>The proposal satisfies this clause as follows:</p> <ul style="list-style-type: none"> • The application proposes subdivision of the site into 7 Torrens title allotments and construction of attached dwellings on the respective new allotments; • Subdivision is permissible with consent under Cl. 2.6 of the <i>MLEP 2011</i> (refer to discussion below); • Attached dwellings are permissible with consent in the R3 Medium Density Residential zone; and • The proposal is consistent with the relevant objectives of the zone | Yes |
| <p>Clause 2.6 Subdivision – consent requirements</p> | <p>The application seeks consent for subdivision of the existing allotment into 7 Torrens title lots, which is permissible with consent.</p> | Yes |
| <p>Clause 2.7 Demolition requires development consent</p> | <p>The proposal satisfies the clause as follows:</p> <ul style="list-style-type: none"> • Demolition works are proposed, which are permissible with consent; and • If the application is to be supported, standard conditions are recommended in Attachment A to manage impacts which may arise during demolition. | Yes, subject to conditions |
| <p>Clause 4.3 Height of building</p> <p><u>Lots 1 to 7</u></p> <ul style="list-style-type: none"> • (max. 9.5m) | <p>The building height of each respective dwelling complies with the 9.5m limit.</p> | Yes |
| <p>Clause 4.4 Floor space ratio</p> <p><u>Maximum (enabled by Cl. 2A)</u></p> <ul style="list-style-type: none"> • Lot 1: 1:1 (154.4sqm). • Lot 2: 1:1 (154.4sqm). • Lot 3: 1:1 (154.6sqm). • Lot 4: 1:1 (154.7sqm). • Lot 5: 1:1 (154.8sqm). • Lot 6: 1:1 (154.9sqm). | <p>The application proposes compliant floor space ratios for each allotment/dwelling.</p> | Yes |

| | | |
|--|---|--|
| <ul style="list-style-type: none"> • Lot 7: 1:1 (1547sqm). | | |
| <p>Clause 4.5 Calculation of floor space ratio and site area</p> | <p>The respective site areas and floor space ratios for the proposal have been calculated in accordance with the clause.</p> | <p>Yes</p> |
| <p>Clause 6.2 Earthworks</p> | <p>The application is considered to adequately satisfy this clause in that the proposed earthworks are unlikely to have a detrimental impact on environmental functions and processes, existing drainage patterns, or soil stability; given their minor nature and that a basement is not proposed.</p> | <p>Yes</p> |
| <p>Clause 6.5 Development in areas subject to aircraft noise</p> | <p>The site is located within the ANEF 20-25 contour, and as such an Acoustic Report was submitted with the application. The proposal is capable of satisfying this clause as follows:</p> <ul style="list-style-type: none"> • Conditions of consent are included in Attachment A if approval is granted to ensure that the proposal will meet the relevant requirements of Table 3.3 (Indoor Design Sound Levels for Determination of Aircraft Noise Reduction) in AS 2021:2015, thereby ensuring the proposal's compliance with the relevant provisions Cl. 6.5 <i>MLEP 2011</i> and Part 2.6 of the MDCP 2011, respectively. | <p>Able to comply, subject to conditions</p> |

5(b) Draft Environmental Planning Instruments

The Draft Inner West Local Environmental Plan 2020 (IWLEP 2020) was placed on public exhibition commencing on 16 March 2020 and accordingly is a matter for consideration in the assessment of the application under Section 4.15(1)(a)(ii) of the *EP&A Act 1979*.

The proposal generally satisfies the objectives of Draft IWLEP 2020, except for the following provisions:

Clause 2.3 Zone objectives and Land Use Table

Draft Zone R3 Medium Density Residential

- As detailed further within this report, the design of the proposal does ensure the following draft objectives are satisfied:
 - To provide housing that is compatible with the desired future character of the locality.
 - To protect and enhance the amenity of existing and future residents and the neighbourhood.

5(c) Development Control Plans

The proposal has been assessed against the relevant provisions of the Marrickville Development Control Plan 2011 (MDCP 2011) within the table below.

| Part | Compliance |
|---|---|
| Part 2.1 – Urban Design | Yes |
| Part 2.3 – Site and Context Analysis | Yes |
| Part 2.6 – Acoustic and Visual Privacy | No – see discussion below this table. |
| Part 2.7 – Solar Access and Overshadowing | No – see discussion below this table. |
| Part 2.9 – Community Safety | Yes |
| Part 2.10 – Parking | No – see discussion below this table. |
| Part 2.11 – Fencing | Yes |
| Part 2.18 – Landscaping and Open Space | No – see discussion below this table. |
| Part 2.20 – Tree Management | Yes – refer to SEPP discussion further above |
| Part 2.21 – Site Facilities and Waste Management | Yes, subject to conditions |
| Part 2.24 – Contaminated Land | Yes – refer to SEPP discussion further above. |
| Part 2.25 – Stormwater Management | Yes, subject to conditions |
| Part 3 – Subdivision | Yes |
| Part 4.1 – Low Density Residential Development | No – see discussion below this table. |
| Part 9 – Strategic Context (Part 9.4 Newtown North and Camperdown Precinct) | Yes |

The following provides discussion of the relevant issues:

(i) Part 2.6 – Acoustic and Visual Privacy

Part 2.6 of MDCP 2011 includes objectives and controls with respect to mitigating privacy impacts resultant from new development. An assessment of the proposal has been carried out against the relevant provisions under this Part and the following key matters have been identified:

- The proposed first floor rear-facing balconies are considered to result in adverse overlooking impacts on the proposed areas of POS, given that their locations provide unrestricted views of these areas; and
- Sufficient detail has not been submitted for the proposed privacy screening to service the front and rear openings of the loft structures. This is required to demonstrate that adverse overlooking impacts on the proposed areas of POS or adjoining and surrounding properties will not result. In this regard, it has not been demonstrated the proposed privacy screening is fixed and has a block out density of at least 75%. As a result, the proposal does not satisfy Control (C) C3(v)(a) of Part 2.6.3.

Considering the above, the proposal does not satisfy Objective (O) O1 and O2 of Part 2.6.1 under MDCP 2011, as it does not provide adequate visual privacy for future residents or allows for a design that ensures adequate levels of visual privacy.

(ii) Part 2.7 – Solar Access and Overshadowing

Part 2.7 of MDCP 2011 contains objectives and controls relating to solar access and overshadowing.

Overshadowing:

The site has a north-south orientation and is adjoined directly to the west by a series of low-density, residential dwellings, with their areas of POS located within the southern, rear portions of their respective sites. To the south of the site and on the opposite side of Trade Lane are a series of low-density, dwellings, with their areas of POS located within the northern, rear portion of their respective sites. To the east of the site and on the opposite side of St Marys Lane are a series of low-density, dwellings, with their areas of POS located near the western, rear portion of their respective sites.

Shadow diagrams in plan form for 21 June (mid-winter) were submitted to demonstrate the proposal's impact on the site and the surrounds. An assessment of the proposal against the relevant provisions of this Part is below:

C2 of Part 2.7.3 of MDCP 2011 states:

Direct solar access to windows of principal living areas and principal areas of open space of nearby residential accommodation must not be reduced to less than 2 hours between 9:00am and 3:00pm on 21 June.

The shadow diagrams submitted indicate that on 21 June:

- The proposal results in overshadowing of portions of the POS areas servicing the properties at nos. 25 and 27 Gilpin Street respectively. These impacts occur between 9:00am and 11:00am on 21 June and are similar to the impacts currently caused by the existing buildings on the subject site.
- The proposal results in overshadowing of windows servicing the adjoining property at 27 Gilpin Street, which are located within close proximity to the eastern boundary. These impacts occur between 9:00am and 11:00am on 21 June and are similar to the impacts currently caused by the existing buildings on the subject site.
- The proposal results in additional overshadowing on the areas of POS and rear garages of a series of properties located on Trade Street. The impacts to these areas of POS primarily occur between 9:00am to 11:00am on 21 June.
- The proposal results in additional overshadowing on the areas of POS and garages/rear structures of a series of properties located on St Marys Street. The impacts to the areas of POS occur between 1:00pm to 3:00pm on 21 June.

Overall, considering the above assessment, the development is considered to have an acceptable impact on the surrounds in terms of additional overshadowing relative to the site

conditions and controls. As such, the development is considered acceptable with respect to O3 under Part 2.7.1.

Solar Access:

The site has a north-south orientation, with the proposed areas of POS located on the southern side of the respective allotments. In addition, the proposed principal living areas have a southern aspect.

Solar access diagrams in plan form for 21 June (mid-winter) were submitted to demonstrate the level of solar access received by each respective allotment proposed.

C8 of Part 2.7.5 of MDCP 2011:

Where site orientation permits, new buildings and additions must be sited and designed to maximise direct solar access to north-facing living areas and outdoor recreation areas such that:

i. At least one habitable room (other than a bedroom) must have a window having an area not less than 15% of the floor area of the room, positioned within 30 degrees east and 20 degrees west of true north and allow for direct sunlight for at least two hours over a minimum of 50% of the glazed surface between 9.00am and 3.00pm on 21 June.

ii. Private open space receives a minimum two hours of direct sunlight over 50% of its finished surface between 9.00am and 3.00pm on 21 June.

The solar access diagrams submitted indicate that on 21 June:

- The proposed areas of POS provided for each dwelling do not receive a minimum two hours direct sunlight over 50% of their respective finished surfaces between 9:00am and 3:00pm on 21 June.
- A secondary living area on the ground floor with two windows orientated to the north have been provided for each dwelling, which should allow for direct sunlight for at least two hours over a minimum of 50% of the glazed surfaces between 9.00am and 3.00pm on 21 June.

Notwithstanding the southern orientation of the proposed areas of POS, it is considered the dwellings have not been designed to maximise solar access. As detailed further under Part 5(c)(v) below, this is attributed the bulk and scale of the development, which is exacerbated by the extent of the proposed second floor and roof form. As such, it is considered the proposal does not comply with C8 of Part 2.7.5 and O2 of Part 2.7.1

(iii) Part 2.10 – Parking

Part 2.10 of the MDCP 2011 contains objectives and controls relating to the provision of car parking for new development. This includes a requirement for a new attached dwelling to be provided with 1 on-site car parking space.

Whilst the proposal as originally submitted provided a car parking space for each dwelling, the spaces provided for Dwelling 1 and Dwelling 2 resulted in the adverse loss of an existing, mature Jacaranda tree, located in the rear south eastern corner of the site. In addition, the car parking space provided for Dwelling 1 did not comply with relevant Australian Standards. As such, the applicant was requested to delete the car parking space for Dwelling 1 and modify the car parking space for Dwelling 2.

As per the relevant provisions under this Part, in addition to certain provisions under Part 4.1 and Part 9.4 of MDCP 2011, the requirement for off-street parking may be waived if it results in adverse impacts on the site and surrounds. In this instance, it considered appropriate to waive the need for a car parking space for Dwelling 1 given the following:

- Provision of a parking space for Dwelling 1 in its rear portion would result in potential safety impacts on the adjoining laneways, given that it would not comply with relevant Australian Standards;
- The variation is offset by nearby public transport, including bus stops located on Salisbury Road (approximately within 400m walking distance of the site) and Newtown Train Station (approximately within 800m walking distance of the site) that provide access to the Sydney Central Business District (CBD) and surrounding suburbs; and
- Cycleways are located nearby, including on Railway Avenue, which provide an active transport option for future occupants.

Considering the above, the proposal is considered satisfactory with respect to the relevant car parking provisions under Part 2.10, Part 4.1 and Part 9.4 of the MDCP 2011, despite the variation to its requirements.

(iv) Part 2.18 – Landscaping and Open Space

Part 2.18 of MDCP 2011 includes objectives and controls with respect to the provision of POS and landscaped areas for new dwellings. An assessment of the proposal has been carried out against the relevant provisions under this Part and the following matters have been identified:

- O7 of Part 2.18.1: The proposed POS areas provided do not receive adequate sunlight.
- C12 of Part 2.18.11.1: The proposed POS areas provided do not comply with the relevant requirements, as a minimum of 45sqm (with at least 50% being pervious) for the following dwellings:
 - Dwellings 3 to 7 are provided with POS areas of approximately 39sqm.

Notwithstanding the southern orientations of the proposed areas of POS, it is considered the POS areas have not been designed to maximise solar access. As detailed further under Part 5(c)(v) below, this is attributed the bulk and scale of the development, which is exacerbated by the extent proposed second floor and roof form.

In terms of the provision of 45sqm of POS for Dwellings 3 to 7, it is considered that compliance should be achieved given the following:

- The proposal includes the complete demolition of the existing buildings currently on the site. As such, existing buildings or structures do not inhibit the design of compliant POS areas for each dwelling; and
- Several dwellings within Gilpin and Trade Streets, respectively, appear to have POS areas that equal 45qm or more.

Considering the above, the proposal does not satisfy controls and objectives under Part 2.18 of MDCP 2011.

(v) Part 4.1 – Low Density Residential Development

Part 4.1 MDCP 2011 includes objectives and controls relating to the design of new dwellings, including attached dwellings. In addition, Part 4.1 also includes provisions relating to loft structures above garages. An assessment of these provisions has been undertaken and the following key matters have been identified:

Streetscape and design

The proposal as presented is not considered to satisfy the following relevant provision:

- C2 of Part 4.1.5: The proposal does not complement the visual cohesiveness and identifiable uniformity in bulk and scale of most dwellings in Gilpin Street, which comprise predominately terrace housing. This is evidenced by the over-scaled, half hexagon roof forms and their associated second floors, which are considered exaggerated and excessive in size, height, and length. As a result, these elements are deemed not consistent with the roof forms of the surrounding terrace housing, which adopt predominately traditional and modest forms.
- The above results in the development appearing incongruous with the relatively consistent streetscape, particularly when viewed from the corner of Gilpin Street and St Marys Lane, as shown on the revised eastern elevation. It is considered the eastern elevation highlights the excessive and over scaled nature of the roof form/second floor.

Considering the above, the proposal does not satisfy O8 and O9 of Part 4.1.5, as it does not complement the identifiable uniformity within the streetscape in terms of bulk, scale and height, nor does it design complement the character of the area.

Built form and character

The proposal as presented is not considered to satisfy the following relevant provisions:

- C8 of Part 4.1.6: The bulk and relative mass of the dwellings and associated garages/studios results in adverse impacts in terms of visual bulk on future occupiers, surrounding properties, and the streetscape, which is attributed to their respective scales, heights and lengths.
- C10(ii.) of Part 4.1.6.2: The proposed nil setbacks on the eastern and western side of the development are considered to result in visual bulk impacts on surrounding properties and the streetscape. In addition, it is considered these nil side setbacks further restrict the obtainment of a sufficient level of solar access for the proposed dwellings.

- C10(iii.) & C12 of Part 4.1.6.2: The proposed rear setbacks of the first and second floors do not maintain the established setback pattern on the southern side of Gilpin Street, nor do they allow for adequate sunlight access for the proposed POS areas. In addition, the proposed rear setbacks do not result in acceptable visual bulk impacts for surrounding properties or provide adequate separation to protect the loss of amenity for future occupiers within the proposed areas of POS.
- C13 of Part 4.1.6.3: The proposed respective site coverages do not allow for the adequate provision of open space, nor do they appear consistent with the respective site coverages of several dwellings located nearby.

Considering the above, the proposal does not satisfy O10 and O12 of Part 4.1.6, as the development is not deemed to be of a scale and form that enhances the character and quality of the streetscape or provide for sufficient areas of POS that receive adequate solar access.

In addition, O13 of Part 4.1.6.2 has not been satisfied, as the proposed rear setbacks do not enable the development to provide sufficient separation between buildings for adequate visual and acoustic privacy, solar access and air circulation.

Further, O16 of Part 4.1.6.3 has not been satisfied, as the respective levels of proposed site coverage do not allow for the adequate provision of open space.

Loft structures over garages

The proposal as presented is not considered to satisfy the following relevant provisions:

- C31(ii.) of Part 4.1.7.5: The size, scale and lengths of the proposed loft structures above the garages servicing Dwellings 3 to 7 result in adverse amenity impacts on the proposed areas of POS, in addition to surrounding properties, in terms of visual bulk. This is exacerbated by their respective roof forms, which seek to provide excessive floor to ceiling heights.
- C31 (iii.) of Part 4.1.7.5: The proposed bulk and scale of the loft and garage structures servicing Dwellings 3 to 7 appear visually dominant compared to other rear lane structures and dwellings within the surrounds.
- C31 (iv.) of Part 4.1.7.5: The size, scale and length of the loft structures appear to adversely impact the character of the laneway, which comprises modest garages, outbuildings and roller doors.

Considering the above, the proposal does not satisfy O18 and O19 of Part 4.1.7, as it does not ensure the proposed car parking and associated loft structures enhance the character of the lane, or become dominant elements on the site or in the streetscape.

Additional controls for contemporary dwellings

The proposal as presented is not considered to satisfy the following relevant provisions:

- C50 & C55 of Part 4.1.9: It is considered the proposed materiality and colours of the dwellings do not have a consistent or sympathetic relationship with several period buildings within Gilpin Street and the locality.

5(d) The Likely Impacts

These matters have been considered as part of the assessment of the development application. As outlined within this report, it is considered that the proposed development will have a significant adverse impact upon the locality.

5(e) The suitability of the site for the development

It is considered that the proposal will have an adverse impact on the adjoining properties and therefore it is considered that the site is unsuitable to accommodate the development as proposed.

5(f) Any submissions

The application as originally submitted was notified in accordance with Council's notification policy. In response, 22 submissions (including 1 petition) were received. In addition, the revised proposal submitted was re-notified. In response, 8 submissions were received.

The submissions received raised the following concerns, which have already been discussed throughout the main body of this report:

- Acoustic and visual privacy.
- Bulk and scale.
- Character.
- Design quality.
- MLEP 2011 Building Height and FSR development standard compliance.
- Overdevelopment.
- Private open space and landscaping provision.
- Setbacks.
- Site coverage.
- Solar access and overshadowing.
- Subdivision.
- Traffic and parking.
- Tree protection and removal.

In addition to the above, the submissions raised the following concerns, which are discussed under the respective headings below:

| Concern | Comment |
|---|---|
| <p>Air-conditioning impacts</p> <p>Concern was raised with respect to potential acoustic impacts caused by air conditioning units.</p> | <p>Development consent is not required for the installation of air-conditioning units, which can be carried out under <i>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008</i>.</p> <p>Notwithstanding the above, acoustic amenity related conditions and advisory notes have been included in Attachment A if the application is approved, to ensure the proposal does not result in adverse impacts in this regard.</p> |

| | |
|---|---|
| <p>Asbestos Removal</p> <p>Concern was raised with respect to asbestos removal.</p> | <p>Standard notes are included in Attachment A if the application is approved outlining the proponent's responsibilities regarding the removal of asbestos, which is required to be undertaken in accordance with the relevant legislative requirements.</p> |
| <p>Construction impacts</p> <p>Concern was raised that the proposal would negatively impact the surrounds during its construction.</p> | <p>Standard construction hours are included in Attachment A if the application is approved to protect the amenity of the surrounds by restricting early morning and late-night construction works.</p> <p>It is considered there is not scope under current relevant legislation or regulations to delay construction of the proposal or limit construction to specific or reduced hours during the day.</p> <p>With respect to impacts caused by vehicles associated with the construction of the proposal, any incidents with respect to this issue that may arise should be reported to Council for investigation.</p> |
| <p>Loss of pathway and green space adjacent to St Marys Lane</p> <p>Concern was raised that the proposal will result in the loss of a pathway and green space on the eastern side of the site that is adjacent to St Marys Lane.</p> | <p>Based on the survey submitted and Council's mapping system, the pathway and green space adjacent to St Marys Lane appear to form part of the subject site and are private property. Also, the retention of the above items is not mandated by any relevant EPIs or planning policy.</p> <p>Considering the above, it is considered there is no suitable planning mechanism to require their retention.</p> |
| <p>Permissibility</p> <p>Concern was raised the proposed loft structures would be used for the purposes of tourist and visitor accommodation, which is not permissible in the site's R3 Medium Density Residential zone.</p> | <p>The proposed loft structures do not contain kitchens or kitchenettes. As such, they are not considered separate dwellings or domiciles, but ancillary to the dwellings in which they serve and therefore permissible under the site's zoning.</p> |
| <p>Sustainability</p> <p>Concern was raised that the proposal does not satisfy Council's sustainability principles.</p> | <p>There are not legislative requirements enforcing Council's sustainability principles for this type of development. Sustainability outcomes for the development are governed by the <i>State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004</i>, which has been discussed previously within this report.</p> |

5(g) The Public Interest

The public interest is best served by the consistent application of the requirements of the relevant EPIs, and by Council ensuring that any adverse effects on the surrounding area and the environment are appropriately managed.

As detailed within this report, given the several inconsistencies with a relevant EPI and the MDCP 2011, which results in adverse impacts on the surrounds, approval of the proposal is not considered to be in the public interest.

6 Referrals

6(a) Internal

The application was referred to the following internal sections and issues raised in those referrals have been discussed in section 5 above.

- Development Engineering.
- Resource Recovery.
- Urban Design.
- Urban Forests.

6(b) External

External referrals were not required.

7. Section 7.11 Contributions/7.12 Levy

Section 7.11 contributions would be payable for the proposal if approved.

The carrying out of the proposed development would result in an increased demand for public amenities and public services within the area. A condition requiring that contribution to be paid should be imposed on any consent granted, which is included in Attachment A.

8. Conclusion

The application has been assessed in accordance with Section 4.15 of the *EP&A Act 1979* and is considered to be unsatisfactory.

The proposal does not comply with the key aims, objectives and design parameters contained in *Marrickville Local Environmental Plan 2011* and *Marrickville Development Control Plan 2011*.

It has not been demonstrated that the development would not result in significant impacts on future residents, nearby residential properties, the streetscape and therefore, is not considered to be in the public interest.

The application is considered unsupportable and in view of the circumstances, refusal of the application is recommended.

9. Recommendation

- A. That the Inner West Local Planning Panel exercising the functions of the Council as the consent authority, pursuant to s4.16 of the *Environmental Planning and Assessment Act 1979*, refuse Development Application No. DA/2020/0993 for subdivision of the existing lot into 7 Torrens title allotments, demolition of existing structures, tree removal and construction of 7 attached dwellings with associated parking and landscaping at 29 Gilpin Street, Camperdown for the following reasons:
1. The proposed development is inconsistent and has not demonstrated compliance with the relevant Aims of the *Marrickville Local Environmental Plan 2011*, having regard to Section 4.15 (1)(a)(i) of the *Environmental Planning and Assessment Act 1979*:
 2. The proposed development is inconsistent and has not demonstrated compliance with the Marrickville Development Control Plan 2011, having regard to Section 4.15 (1)(a)(iii) of the *Environmental Planning and Assessment Act 1979*:
 - a) Part 2.6 – Acoustic and Visual Privacy;
 - b) Part 2.7 – Solar Access and Overshadowing;
 - c) Part 2.18 – Landscaping and Open Spaces; and
 - d) Part 4.1 – Low Density Residential Development.
 3. The proposed development is inconsistent and has not demonstrated compliance with the Draft Inner West Local Environmental Plan 2020, having regard to Section 4.15 (1)(a)(ii) of the *Environmental Planning and Assessment Act 1979*:
 - a) Draft Clause 2.3 - Zoning objectives and Land Use Table.
 4. The proposal will result in adverse environmental impacts in the locality, having regard to Section 4.15 (1)(b) of the *Environmental Planning and Assessment Act 1979*.
 5. The adverse environmental impacts of the proposal mean that the site is not considered to be suitable for the development as proposed, having regard to Section 4.15 (1)(c) of the *Environmental Planning and Assessment Act 1979*.
 6. The proposal by virtue of its various inconsistencies with the relevant planning documents is considered contrary to the public interest, having regard to Section 4.15 (1)(d) and (e) of the *Environmental Planning and Assessment Act 1979*.

Attachment A – Without Prejudice Draft Conditions of Consent (if not refused)

Attachment A - Without Prejudice Draft Conditions of Consent (if not refused)

DOCUMENTS RELATED TO THE CONSENT

1. Documents related to the consent

The development must be carried out in accordance with plans and documents listed below:

| Plan, Drawing and Issue No. | Plan Name | Date Issued | Prepared by |
|---|---------------------|--------------------|--------------------|
| Demolition Plan, 20153-02, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Subdivision Plan, 20153-03, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Site Plan, 20153-04, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Ground Floor Plan, 20153-05, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| First Floor Plan, 20153-06, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Second Floor Plan, 20153-07, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Roof Plan, 20153-08, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| North and East Elevation, 20153-09, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| South and West Elevations, | Architectural Plans | 22/03/2021 | ES Design |

| | | | |
|---|---------------------|------------|----------------------------------|
| 20153-10, Issue B | | | |
| North and South Elevations (Garage), 20153-11, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Section View, 20153-12, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Section View, 20153-13, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Schedule of External Materials, Colours and Finishes, 20153-14, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Front Fence Details, 20153-15, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Long Sections Along Trade Lane, 20153-27, Issue B | Architectural Plans | 22/03/2021 | ES Design |
| Landscape Planting Plan, L01/1-K25118, Rev. C | Landscape Plan | 18/03/2021 | Michael Siu Landscape Architects |
| Site Drainage Plan, H306-S1/4, Rev. B | Stormwater Plans | 22/03/2021 | TAA Consulting Engineers |
| First Floor Plan, H306-S2/4, Rev. B | Stormwater Plans | 22/03/2021 | TAA Consulting Engineers |
| Second Floor Plan, H306-S2/4, Rev. B | Stormwater Plans | 22/03/2021 | TAA Consulting Engineers |
| Roof Plan, H306-S2/4, Rev. B | Stormwater Plans | 22/03/2021 | TAA Consulting Engineers |

| | | | |
|---|-----------------|------------|-----------------------------------|
| Arboricultural Impact Assessment & Tree Management Plan | Arborist Report | 18/03/2021 | Horticultural Management Services |
| Certificate No. 1142351S_03 | BASIX | 26/03/2021 | Noura Al Hazzouri |
| Certificate No. 1142686S | BASIX | 12/10/2020 | Noura Al Hazzouri |
| Certificate No. 1142687S | BASIX | 12/10/2020 | Noura Al Hazzouri |
| Certificate No. 1142688S | BASIX | 12/10/2020 | Noura Al Hazzouri |
| Certificate No. 1142690S | BASIX | 12/10/2020 | Noura Al Hazzouri |
| Certificate No. 1142691S | BASIX | 12/10/2020 | Noura Al Hazzouri |
| Certificate No. 1142692S | BASIX | 12/10/2020 | Noura Al Hazzouri |

As amended by the conditions of consent.

DESIGN CHANGE

2. Design Change

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended plans demonstrating the following:

- a. The centrally located internal walls located within the rear bedrooms on the first floor of Dwelling 6 and Dwelling 7 are to be deleted, as they appear to be proposed in error.
- b. Lighting to service the front entry door of each dwelling. The lighting is to comply with the Australian Standard AS4282:1992 Control of Obtrusive Effects of Outdoor Lighting.

FEES

3. Security Deposit - Custom

Prior to the commencement of demolition works or prior to the issue of a Construction Certificate, the Certifying Authority must be provided with written evidence that a security deposit and inspection fee has been paid to Council to cover the cost of making good any damage caused to any Council property or the physical environment as a consequence of carrying out the works and as surety for the proper completion of any road, footpath and drainage works required by this consent.

| | |
|--------------------------|-------------|
| Security Deposit: | \$28,266.00 |
| Inspection Fee: | \$236.70 |

Payment will be accepted in the form of cash, bank cheque, EFTPOS/credit card (to a maximum of \$10,000) or bank guarantee. Bank Guarantees must not have an expiry date.

The inspection fee is required for the Council to determine the condition of the adjacent road reserve and footpath prior to and on completion of the works being carried out.

Should any of Council's property and/or the physical environment sustain damage during the course of the demolition or construction works, or if the works put Council's assets or the environment at risk, or if any road, footpath or drainage works required by this consent are not completed satisfactorily, Council may carry out any works necessary to repair the damage, remove the risk or complete the works. Council may utilise part or all of the security deposit to restore any damages, and Council may recover, in any court of competent jurisdiction, any costs to Council for such restorations.

A request for release of the security may be made to the Council after all construction work has been completed and a final Occupation Certificate issued.

The amount nominated is only current for the financial year in which the initial consent was issued and is revised each financial year. The amount payable must be consistent with Council's Fees and Charges in force at the date of payment.

4. Section 7.11 (Former Section 94) Contribution

Prior to the issue of a Construction Certificate written evidence must be provided to the Certifying Authority that a monetary contribution of \$120,000.00 indexed in accordance with Marrickville Section 94/94A Contributions Plan 2014] ("CP") has been paid to the Council.

The above contribution is the contribution applicable as at 06/05/2021.

*NB Contribution rates under Marrickville Section 94/94A Contributions Plan 2014 are indexed quarterly (for the method of indexation refer to Section 2.15 of the Plan).

The indexation of the contribution rates occurs in the first week of the months of February, May, August and November each year, following the release of data from the Australian Bureau of Statistics.

The contribution payable has been calculated in accordance with the CP and relates to the following public amenities and/or services and in the following amounts:

| Public Amenities Type: | Contribution \$ |
|------------------------|---------------------|
| Recreation Facilities | \$102,118.33 |
| Community Facilities | \$13,244.89 |
| Traffic Facilities | \$2,283.83 |
| Plan Administration | \$2,352.94 |
| TOTAL | \$120,000.00 |

A copy of the CP can be inspected at any of the Inner West Council Services Centres or viewed online at:

<https://www.innerwest.nsw.gov.au/develop/planning-controls/section-94-contributions>

Payment methods:

The required contribution must be paid either **by BPAY (to a maximum of \$500,000); unendorsed bank cheque (from an Australian Bank only); EFTPOS (Debit only); credit card (Note: A 1% credit card transaction fee applies to all credit card transactions; cash (to a maximum of \$10,000).** It should be noted that personal cheques or bank guarantees cannot be accepted for the payment of these contributions. **Prior to payment contact Council's Planning Team to review charges to current indexed quarter, please allow a minimum of 2 business days for the invoice to be issued before payment can be accepted.**

*NB A 0.75% credit card transaction fee applies to all credit card transactions.

5. Long Service Levy

Prior to the issue of a Construction Certificate, written evidence must be provided to the Certifying Authority that the long service levy in accordance with Section 34 of the *Building and Construction Industry Long Service Payments Act 1986* has been paid at the prescribed

rate of 0.35% of the total cost of the work to either the Long Service Payments Corporation or Council for any work costing \$25,000 or more.

GENERAL CONDITIONS

6. Tree Protection

No trees on public property (footpaths, roads, reserves etc.) are to be removed or damaged during works unless specifically approved in this consent or marked on the approved plans for removal.

Prescribed trees protected by Council's Management Controls on the subject property and/or any vegetation on surrounding properties must not be damaged or removed during works unless specific approval has been provided under this consent.

Any public tree within five (5) metres of the development must be protected in accordance with Council's *Development Fact Sheet—Trees on Development Sites*.

No activities, storage or disposal of materials taking place beneath the canopy of any tree (including trees on neighbouring sites) protected under Council's Tree Management Controls at any time.

The trees identified below are to be retained and protected in accordance with the conditions of consent throughout the development. Tree numbers correspond with the Amended Arboricultural Impact Assessment Report prepared by Horticultural Management Services, 18 March 2021.

| Tree No. | Botanical/Common Name | Location |
|----------|--|------------------------|
| 1 | <i>Lagerstroemia indica</i> (Crepe Myrtle) | Gilpin Street |
| 2 | <i>Lagerstroemia indica</i> (Crepe Myrtle) | Gilpin Street |
| 3 | <i>Lagerstroemia indica</i> (Crepe Myrtle) | Gilpin Street |
| 4 | <i>Lagerstroemia indica</i> (Crepe Myrtle) | Gilpin Street |
| 5 | <i>Lagerstroemia indica</i> (Crepe Myrtle) | Gilpin Street |
| 14 | <i>Jacaranda mimosifolia</i> (Jacaranda) | Rear/south east corner |

Details of the trees must be included on all Construction Certificate plans and shall be annotated in the following way:

- a. Green for trees to be retained;
- b. Red for trees to be removed;

- c. Blue for trees to be pruned

7. Project Arborist

Prior to the commencement of any demolition or construction works within close proximity to protected trees a Project Arborist must be engaged for the duration of the site preparation, demolition, construction and landscaping to supervise works. Details of the Project Arborist must be submitted to the Certifying Authority before work commences.

8. Works to Trees

Approval is given for the following works to be undertaken to prescribed trees on the site after the issuing of a Construction Certificate:

| Tree/location | Approved works |
|--|----------------|
| <i>Syzygium smithii</i> (Lilly Pilly) | Remove tree |
| <i>Eucalyptus fastigata</i> (Brown Barrel) | Remove tree |
| <i>Eucalyptus scoparia</i> (Wallangarra White Gum) | Remove tree |
| <i>Eucalyptus scoparia</i> (Wallangarra White Gum) | Remove tree |

Removal or pruning of any other tree (that would require consent of Council) on the site is not approved and shall be retained and protected in accordance with Council's *Development Fact Sheet—Trees on Development Sites*.

9. Boundary Alignment Levels

Alignment levels for the site at all pedestrian and vehicular access locations must match the existing back of footpath levels at the boundary or as otherwise approved by the public domain plans.

10. Privacy

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended plans indicating that the first floor front and rear openings servicing the proposed lofts being amended in the following manner:

- a. Provided with suitable externally fixed screening with a minimum block out density of 75%. Demonstration is also required that the screening and openings that it serves comply with any relevant provision under the National Construction Code.

11. Waste Management Plan

Prior to the commencement of any works (including any demolition works), the Certifying Authority is required to be provided with a Recycling and Waste Management Plan (RWMP) in accordance with the relevant Development Control Plan.

12. Erosion and Sediment Control

Prior to the issue of a commencement of any works (including any demolition works), the Certifying Authority must be provided with an erosion and sediment control plan and specification. Sediment control devices must be installed and maintained in proper working order to prevent sediment discharge from the construction site.

13. Verification of Levels and Location

Prior to the pouring of the ground floor slab or at dampcourse level, whichever is applicable or occurs first, the Principal Certifier must be provided with a survey levels certificate prepared by a Registered Surveyor indicating the level of the slab and the location of the building with respect to the boundaries of the site to AHD.

14. Works Outside the Property Boundary

This development consent does not authorise works outside the property boundaries on adjoining lands.

PRIOR TO ANY DEMOLITION**15. Resource Recovery and Waste Management Plan - Demolition and Construction**

Prior to any demolition works, the Certifying Authority must be provided with a Resource Recovery and Waste Management Plan - Demolition and Construction that includes details of materials that will be excavated and their proposed destination or reuse.

16. Hoardings

The person acting on this consent must ensure the site is secured with temporary fencing prior to any works commencing.

If the work involves the erection or demolition of a building and is likely to cause pedestrian or vehicular traffic on public roads or Council controlled lands to be obstructed or rendered inconvenient, or building involves the enclosure of public property, a hoarding or fence must

be erected between the work site and the public property. An awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling onto public property.

Separate approval is required from the Council under the *Roads Act 1993* to erect a hoarding or temporary fence or awning on public property.

17. Construction Traffic Management Plan

Prior to any demolition, the Certifying Authority, must be provided with a detailed Construction Traffic Management Plan (CTMP) to cater for construction prepared by a person with RMS accreditation to prepare a work zone traffic management plan. Details must include haulage routes, estimated number of vehicle movements, truck parking areas, work zones, crane usage, etc., related to demolition/construction activities. A work zone approval must be obtained.

18. Dilapidation Report

Prior to any works commencing (including demolition), the Certifying Authority and owners of identified properties, must be provided with a colour copy of a dilapidation report prepared by a suitably qualified person. The report is required to include colour photographs of the adjoining property (27 Gilpin Street, Camperdown) to the Certifying Authority's satisfaction. In the event that the consent of the adjoining property owner cannot be obtained to undertake the report, copies of the letter/s that have been sent via registered mail and any responses received must be forwarded to the Certifying Authority before work commences.

19. Advising Neighbors Prior to Excavation

At least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.

20. Construction Fencing

Prior to the commencement of any works (including demolition), the site must be enclosed with suitable fencing to prohibit unauthorised access. The fencing must be erected as a barrier between the public place and any neighbouring property.

PRIOR TO CONSTRUCTION CERTIFICATE

21. Bin Storage Area - Residential

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with a report detailing the ongoing waste generation requirements of the development and demonstrate that the bin storage area is to be provided within the site that will fully accommodate the number of bins required for all waste generated by a development of this type and scale. The number of bins required must be calculated based on a weekly collection of garbage, and a fortnightly collection of recycling.

The area must also include 50% allowance for manoeuvring of bins. The bin storage area is to be located away from habitable rooms, windows, doors and private useable open space, and to minimise potential impacts on neighbours in terms of aesthetics, noise and odour.

The bin storage area is to meet the design requirements detailed in the Marrickville DCP 2011 and must include doorways/entrance points of 1200mm.

22. Waste Transfer Route

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with a plan demonstrating that the path of travel between the bin storage area/bulky waste storage area and the designated waste/recycling collection point is has a minimum 1200mm wall-to-wall clearance, be slip-proof, of a hard surface, be free of obstructions and at no point have a gradient exceeding 1:12.

23. Paving/Decking Within the Vicinity of Trees

Prior to the issue of the Construction Certificate, the Certifying Authority must be provided with amended Landscape Plans demonstrating that the rear car space, Unit 2, is paved within the specified radius of the trunks of the following tree, and constructed in a way so as to ensure that existing moisture infiltration and gaseous exchange are maintained or improved. When preparing an area for paving with the specified radius, the soil surface must not be skimmed or excavated. The new surface and subgrade must be established at grade.

| Tree No. | Botanical/Common Name | Radius in Metres |
|----------|---|------------------|
| 14 | <i>Jacaranda mimosifolia</i> (Jacaranda) | 4 metres |

24. Dilapidation Report – Pre-Development – Minor

Prior to the issue of a Construction Certificate or any demolition, the Certifying Authority must be provided with a dilapidation report including colour photos showing the existing condition of the footpath and roadway adjacent to the site.

25. Stormwater Drainage System – Minor Developments (OSD is required)

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with stormwater drainage design plans incorporating on site stormwater detention and/or on site retention/ re-use facilities (OSR/OSD), certified by a suitably qualified Civil Engineer that the design of the site drainage system complies with the following specific requirements:

- a. Stormwater runoff from all roof areas within the property being collected in a system of gutters, pits and pipeline and be discharged, together with overflow pipelines from any rainwater tank(s), by gravity to the kerb and gutter of a public road/directly to Council's piped drainage system via the OSD/OSR tanks generally in accordance with plans H306-S1/4 to S4/4 (Sheets 1 to 4) submitted TAA Consulting Engineers dated 22/3/2020 (Rev B) subject to the following;
- b. Comply with Council's Stormwater Drainage Code, Australian Rainfall and Runoff (A.R.R.), Australian Standard AS3500.3-2018 'Stormwater Drainage' and Council's DCP;
- c. Charged or pump-out stormwater drainage systems are not permitted including for roof drainage;
- d. (OSR) tanks must be increased to 4000L capacity and connected to a pump system for internal reuse for laundry purposes, the flushing of all toilets and for outdoor usage such as irrigation in accordance with C5 of Part 2.25 Stormwater Management of the Marrickville DCP;
- e. Pipe and channel drainage systems including gutters must be designed to convey the one hundred (100) year Average Recurrence Interval (ARI) flows from the contributing catchment to the OSD/OSR tanks;
- f. Details of the 100-year ARI overflow route in case of failure/blockage of the drainage system must be provided;
- g. A minimum 150mm step up shall be provided between all external finished surfaces and adjacent internal floor areas except where a reduced step is permitted under Section 3.1.2.3 (b) of the Building Code of Australia for Class 1 buildings;
- h. No nuisance or concentration of flows to other properties;
- i. An inspection opening or stormwater pit must be installed inside the property, adjacent to the boundary, for all stormwater outlets;
- j. New pipelines within the footpath area that are to discharge to the kerb and gutter must be sewer grade uPVC pipe with a maximum diameter of 100mm;
- k. All stormwater outlets through sandstone kerbs must be carefully core drilled in accordance with Council standard drawings;

- l. All redundant pipelines within footpath area must be removed and footpath/kerb reinstated;
- m. No impact to street tree(s).

26. Public Domain Works – Prior to Construction Certificate

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with a public domain works design, prepared by a qualified practising Civil Engineer who holds current Chartered Engineer qualifications with the Institution of Engineers Australia (CEng) or current Registered Professional Engineer qualifications with Professionals Australia (RPEng) and evidence that the works on the Road Reserve have been approved by Council under Section 138 of the *Roads Act 1993* incorporating the following requirements:

- a. The public domain along all frontages of the site inclusive of footpath, kerb and gutter, street trees, etc. must be reconstructed and upgraded in accordance with the Street Tree Master plan and the Public Domain Design Guide or scheme;
- b. The construction of heavy duty vehicular crossings to all vehicular access locations and removal of all redundant vehicular crossings to the site;
- c. New concrete footpath and make good any damaged kerb and gutter along the frontage of the site. The kerb type (concrete or stone) must be consistent with the majority of kerb type at this location as determined by the Council Engineer;
- d. Cross sections are to be provided at the boundary at a minimum distance of every 5m and at all pedestrian and vehicular access locations. Note, the cross fall of the footpath must be set at 2.5%. These sections will set the alignment levels at the boundary.
- e. Long Section design for the new laybacks and kerb and gutter at the rear of the site
- f. A long section, along both sides of the proposed vehicular crossing and ramp, drawn at a 1:20 or 1:25 natural scale, shall be submitted to and approved by Council before the issue of a Construction Certificate. The long section shall begin from the centreline of the adjacent road to a minimum of 3 metres into the property. The long section approved by Council shall define the Alignment Levels at the property boundary. The long section shall show both existing surface levels and proposed surface levels with changes
- g. Installation of a stormwater outlet to the kerb and gutter.

All works must be completed prior to the issue of an Occupation Certificate.

27. Parking Facilities - Domestic

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with plans certified by a suitably qualified Civil Engineer demonstrating that the design of the vehicular access and off-street parking facilities must comply with Australian Standard

AS/NZS2890.1-2004 Parking Facilities – Off-Street Car Parking and the following specific requirements:

- a. The internal vehicle hardstand area must be redesigned such that the level at the boundary must match the invert level of the adjacent gutter plus 110mm at both sides of the vehicle entry. This will require the internal garage slab or hard stand area to be adjusted locally at the boundary to ensure that it matches the above-issued alignment levels;
- b. The garage slab or driveway must rise within the property to be 170mm above the adjacent road gutter level and higher than the street kerb and footpath across the full width of the vehicle crossing. Please note that the garage floor level to all dwellings must be adjusted to comply;
- c. No vehicular access is permitted to dwelling 1;
- d. A minimum of 2200mm headroom must be provided throughout the access and parking facilities. Note that the headroom must be measured at the lowest projection from the ceiling, such as lighting fixtures, and to open garage doors;
- e. Longitudinal sections along each outer edge of the access and parking facilities, extending to the centreline of the road carriageway must be provided, demonstrating compliance with the above requirements;
- f. The garage/carport/parking space must have minimum clear internal dimensions of 3000 x 5400 mm (length x width) and a minimum door opening width of 2700 mm. The dimensions must be exclusive of obstructions such as walls, doors and columns, except where they do not encroach inside the design envelope specified in Section 5.2 of AS/NZS 2890.1-2004; and
- g. The external form and height of the approved structures must not be altered from the approved plans.

28. Sydney Water – Tap In

Prior to the issue of a Construction Certificate, the Certifying Authority is required to ensure approval has been granted through Sydney Water's online 'Tap In' program 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.

Note: Please refer to the web site <http://www.sydneywater.com.au/tapin/index.htm> for details on the process or telephone 13 20 92

29. Acoustic Report – Aircraft Noise

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended plans detailing the recommendations of an acoustic report prepared by a suitably qualified Acoustic Engineer demonstrating compliance of the development with the relevant provisions of Australian Standard AS 2021:2015 Acoustics – Aircraft noise intrusion – Building siting and construction.

30. Fibre-ready Facilities

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with evidence that arrangements have been made for:

- a. The installation of fibre-ready facilities to all individual lots and/or premises the development so as to enable fibre to be readily connected to any premises that is being or may be constructed on those lots. Demonstrate that the carrier has confirmed in writing that they are satisfied that the fibre ready facilities are fit for purpose.
- b. The provision of fixed-line telecommunications infrastructure in the fibre-ready facilities to all individual lots and/or premises the development demonstrated through an agreement with a carrier.

DURING DEMOLITION AND CONSTRUCTION

31. Documentation of Demolition and Construction Waste

All waste dockets from the recycling and/or disposal of any demolition and construction waste generated from the works must be retained on site.

32. Tree Protection

To protect the following tree/s, ground, trunk and branch protection must be installed prior to any works commencing in accordance with the approved *Tree Protection Plan*, Sections 12.1 and 14.0 - 18.6, Amended Arboricultural Impact Assessment Report prepared by Horticultural Management Services, 18 March 2021 and with Council's *Development Fact Sheet—Trees on Development Sites*:

| Tree No. | Botanical/Common Name/Location |
|----------|--|
| 1 | <i>Lagerstroemia indica</i> (Crepe Myrtle) Protect lower branches |
| 2 | <i>Lagerstroemia indica</i> (Crepe Myrtle) Protect lower branches |
| 3 | <i>Lagerstroemia indica</i> (Crepe Myrtle) Protect lower branches |
| 4 | <i>Lagerstroemia indica</i> (Crepe Myrtle) Protect lower branches |
| 5 | <i>Lagerstroemia indica</i> (Crepe Myrtle) Protect lower branches |
| 14 | <i>Jacaranda mimosifolia</i> (Jacaranda) Trunk and ground protection |

33. Tree Protection Zone

To protect the following tree/s, no work must commence until its/their Protection Zone is fenced off at the specified radius from the trunk/s to prevent any activities, storage or the

disposal of materials within the fenced area in accordance with the Tree Protection Plan and Council's *Development Fact Sheet—Trees on Development Sites*. The fence/s (including existing boundary fencing) must be maintained intact until the completion of all demolition/building work on site.

| Tree No. | Botanical/Common Name | Radius in metres |
|----------|--|------------------|
| 14 | <i>Jacaranda mimosifolia</i> (Jacaranda) | 4 metres radius |

34. Inspections by Project Arborist

The trees to be retained must be inspected, monitored and treated by the Project Arborist during and after completion of development works to ensure their long-term survival. Regular inspections and documentation from the Project Arborist to the Certifying Authority are required at the following times or phases of work:

| Tree No./ Botanical/ Common Name | Time of Inspection | Key stage/ Hold point |
|---|--------------------------------|---|
| 1. <i>Lagerstroemia indica</i> (Crepe Myrtle) 2. <i>Lagerstroemia indica</i> (Crepe Myrtle) 3. <i>Lagerstroemia indica</i> (Crepe Myrtle) 4. <i>Lagerstroemia indica</i> (Crepe Myrtle) 5. <i>Lagerstroemia indica</i> (Crepe Myrtle) 14. <i>Jacaranda mimosifolia</i> (Jacaranda) | Prior to commencement of works | <ul style="list-style-type: none"> Inspection and sign off installation of tree protection measures. |
| | During Works | <ul style="list-style-type: none"> Supervise all site preparation and demolition works within the TPZ; Supervise all works inside or above the TPZ; Supervise all excavation, trenching works, landscaping works and tree/planting |

| | | |
|--|--|---|
| | | replenishment within the TPZ; <ul style="list-style-type: none"> Supervise all tree work. |
|--|--|---|

Recommendations to ensure the tree/s long term survival must be carried out immediately upon receipt of the report.

35. Limited Root Pruning

No tree roots of 30mm or greater in diameter located within the specified radius of the trunk/s of the following tree/s must be severed or injured in the process of any works during the construction period:

| Tree No. | Botanical/Common Name | Radius in metres |
|----------|--|------------------|
| 14 | <i>Jacaranda mimosifolia</i> (Jacaranda) | 6 metres |

All excavation within the specified radius of the trunks of Tree 14 being hand dug, to a depth of one (1) metre under direct supervision of the Project Arborist and then by mechanical means as agreed by the Project Arborist. If tree roots less than 30mm diameter are required to be severed for the purposes of constructing the approved works, they must be cut cleanly using a sharp and *fit for purpose tool*. The pruning must be undertaken by a practicing Arborist.

36. Construction Hours – Class 1 and 10

Unless otherwise approved by Council, excavation, demolition, construction or subdivision work are only permitted between the hours of 7:00am to 5:00pm, Mondays to Saturdays (inclusive) with no works permitted on, Sundays or Public Holidays.

37. Survey Prior to Footings

Upon excavation of the footings and before the pouring of the concrete, the Certifying Authority must be provided with a certificate of survey from a registered land surveyor to verify that the structure will not encroach over the allotment boundaries.

PRIOR TO OCCUPATION CERTIFICATE**38. Project Arborist Certification**

Prior to the issue of any Occupation Certificate, the Principal Certifier is to be provided with certification from the project arborist that the requirements of the conditions of consent related to the landscape plan prepared by Michael Siu, Revision C, dated 18/03/2021, and the role of the project arborist have been complied with.

39. Public Domain Works

Prior to the issue of an Occupation Certificate, the Principal Certifier must be provided with written evidence from Council that the following works on the Road Reserve have been completed in accordance with the requirements of the approval under Section 138 of the *Roads Act 1993* including:

- a. Heavy duty concrete vehicle crossing(s) at the vehicular access location(s);
- b. The redundant vehicular crossing to the site must be removed and replaced by kerb and gutter and footpath. Where the kerb in the vicinity of the redundant crossing is predominately stone (as determined by Council's Engineer) the replacement kerb must also be in stone;
- c. The existing concrete footpath across the frontage of the site must be reconstructed; and
- d. Other works subject to the *Roads Act 1993* approval.

All works must be constructed in accordance with Council's standards and specifications and AUS-SPEC#2- "Roadworks Specifications".

40. No Encroachments

Prior to the issue of an Occupation Certificate, the Principal Certifier must ensure that any encroachments on to Council road or footpath resulting from the building works have been removed, including opening doors, gates and garage doors with the exception of any awnings or balconies approved by Council.

41. Protect Sandstone Kerb

Prior to the issue of an Occupation Certificate, the Principal Certifier must ensure that any damaged stone kerb has been replaced.

42. Works as Executed – Site Stormwater Drainage System

Prior to the issue of an Occupation Certificate, the Principal Certifier must be provided with Certification by a suitably qualified Civil Engineer who holds current Chartered Engineer qualifications with the Institution of Engineers Australia (CPEng) or current Registered Professional Engineer qualifications with Professionals Australia (RPEng) that:

- a. The stormwater drainage system has been constructed in accordance with the approved design and relevant Australian Standards; and
- b. Works-as-executed plans of the stormwater drainage system certified by a Registered Surveyor, to verify that the drainage system has been constructed, OSD/OSR system commissioned and stormwater quality improvement device(s) and any pump(s) installed in accordance with the approved design and relevant Australian Standards have been submitted to Council. The works-as-executed plan(s) must show the as built details in comparison to those shown on the drainage plans approved with the Construction Certificate. All relevant levels and details indicated must be marked in red on a copy of the Principal Certifier stamped Construction Certificate plans.

43. Operation and Management Plan

Prior to the issue of an Occupation Certificate, the Principal Certifier must be provided with an Operation and Management Plan has been prepared and implemented for the on-site detention and/or on-site retention/re-use facilities and stormwater quality improvement device(s) and pump(s). The Plan must set out the following at a minimum:

- a. The proposed maintenance regime, specifying that the system is to be regularly inspected and checked by qualified practitioners; and
- b. The proposed method of management of the facility, including procedures, safety protection systems, emergency response plan in the event of mechanical failure, etc.

44. Heavy Duty Vehicle Crossing

Prior to the issue of an Occupation Certificate, the Principal Certifier must ensure that heavy duty concrete vehicle crossing/s, in accordance with Council's Standard crossing and footpath specifications and AUS-SPEC#2-"Roadworks Specifications" has been constructed at the vehicular access locations.

45. Aircraft Noise –Alterations and Additions

Prior to the issue of any Occupation Certificate, the Principal Certifier must be provided with a report prepared and submitted by an accredited Acoustics Consultant certifying that the final construction meets AS2021-2015 with regard to the noise attenuation measures referred to in the "Before the Issue of a Construction Certificate" Section of this Determination. Such report

must include external and internal noise levels to ensure that the external noise levels during the test are representative of the typical maximum levels that may occur at this development.

Where it is found that internal noise levels are greater than the required dB(A) rating due to faulty workmanship or the like, necessary corrective measures must be carried out and a further certificate being prepared and submitted to the Principal Certifier in accordance with this condition.

PRIOR TO SUBDIVISION CERTIFICATE

46. Redundant Vehicle Crossing

Prior to the issue of a Subdivision Certificate, the Principal Certifier must verify that all redundant vehicular crossings to the site must be removed and replaced by kerb and gutter and footpath paving in accordance with Council's Standard crossing and footpath specifications and AUS-SPEC#2-"Roadworks Specifications". Where the kerb in the vicinity of the redundant crossing is predominately stone, the replacement kerb must also be in stone.

47. Separate Drainage Systems

Prior to the issue of a Subdivision Certificate, the Principal Certifier must be provided with a plan detailing that separate drainage systems must be provided to drain each proposed lot.

48. Section 73 Certificate

Prior to the issue of a Subdivision Certificate, the Certifying Authority must be provided with the Section 73 Certificate. A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water Corporation.

49. Release of Subdivision Certificate

Prior to the release of a Subdivision Certificate, the Certifying Authority must be provided with a copy of the Final Occupation Certificate.

ON-GOING

50. Bin Storage

Each residential unit is responsible for its bins. Bins are to be kept within the property boundary at all times except when awaiting emptying by Council. Bins are to be returned to the property within 1 hours of having been serviced.

51. Tree Establishment

The tree/s planted as part of this consent is/are to be maintained in a healthy and vigorous condition for 12 months from the issue of an Occupation Certificate. If any of the tree/s is/are found faulty, damaged, dying or dead within 12 months of the issue of an Occupation Certificate it/they must be replaced with the same species within one (1) month (up to 3 occurrences).

52. Operation and Management Plan

The Operation and Management Plan for the on-site detention and/or on-site retention/re-use and/or stormwater quality improvement devices and/or Pump facilities, approved with the Occupation Certificate, must be implemented and kept in a suitable location on site at all times.

ADVISORY NOTES**Consent of Adjoining property owners**

This consent does not authorise the applicant, or the contractor engaged to do the tree works to enter a neighbouring property. Where access to adjacent land is required to carry out approved tree works, Council advises that the owner's consent must be sought. Notification is the responsibility of the person acting on the consent. Should the tree owner/s refuse access to their land, the person acting on the consent must meet the requirements of the *Access To Neighbouring Lands Act 2000* to seek access.

Arborists standards

All tree work must be undertaken by a practicing Arborist. The work must be undertaken in accordance with AS4373—*Pruning of amenity trees* and the Safe Work Australia Code of Practice—*Guide to Managing Risks of Tree Trimming and Removal Work*. Any works in the vicinity of the Low Voltage Overhead Network (including service lines—pole to house connections) must be undertaken by an approved Network Service Provider contractor for the management of vegetation conflicting with such services. Contact the relevant Network Service Provider for further advice in this regard.

Tree Protection Works

All tree protection for the site must be undertaken in accordance with Council's *Development Fact Sheet—Trees on Development Sites* and AS4970—*Protection of trees on development sites*.

Tree Pruning or Removal (including root pruning/mapping)

Removal or pruning of any other tree (that would require consent of Council) on the site is not approved and must be retained and protected in accordance with Council's *Development Fact Sheet—Arborist Reports*.

Permits

Where it is proposed to occupy or carry out works on public roads or Council controlled lands, the person acting on this consent must obtain all applicable Permits from Council in accordance with Section 68 (Approvals) of the *Local Government Act 1993* and/or Section 138 of the *Roads Act 1993*. Permits are required for the following activities:

- a. Work zone (designated parking for construction vehicles). Note that a minimum of 2 months should be allowed for the processing of a Work Zone application;
- b. A concrete pump across the roadway/footpath;
- c. Mobile crane or any standing plant;
- d. Skip Bins;
- e. Scaffolding/Hoardings (fencing on public land);
- f. Public domain works including vehicle crossing, kerb & guttering, footpath, stormwater, etc.;
- g. Awning or street veranda over the footpath;
- h. Partial or full road closure; and
- i. Installation or replacement of private stormwater drain, utility service or water supply.

If required contact Council's Road Access team to ensure the correct Permit applications are made for the various activities. Applications for such Permits must be submitted and approved by Council prior to the commencement of the works associated with such activity.

Insurances

Any person acting on this consent or any contractors carrying out works on public roads or Council controlled lands is required to take out Public Liability Insurance with a minimum cover of twenty (20) million dollars in relation to the occupation of, and approved works within those lands. The Policy is to note, and provide protection for Inner West Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public property.

Prescribed Conditions

This consent is subject to the prescribed conditions of consent within clause 98-98E of the *Environmental Planning and Assessment Regulations 2000*.

Notification of commencement of works

At least 7 days before any demolition work commences:

- a. the Council must be notified of the following particulars:
 - i. the name, address, telephone contact details and licence number of the person responsible for carrying out the work; and
 - ii. the date the work is due to commence and the expected completion date; and
- b. a written notice must be placed in the letter box of each directly adjoining property identified advising of the date the work is due to commence.

Storage of Materials on public property

The placing of any materials on Council's footpath or roadway is prohibited, without the prior consent of Council.

Toilet Facilities

The following facilities must be provided on the site:

- a. Toilet facilities in accordance with WorkCover NSW requirements, at a ratio of one toilet per every 20 employees; and
- b. A garbage receptacle for food scraps and papers, with a tight fitting lid.

Facilities must be located so that they will not cause a nuisance.

Infrastructure

The developer must liaise with the Sydney Water Corporation, Ausgrid, AGL and Telstra concerning the provision of water and sewerage, electricity, natural gas and telephones respectively to the property. Any adjustment or augmentation of any public utility services including Gas, Water, Sewer, Electricity, Street lighting and Telecommunications required as a result of the development must be undertaken before occupation of the site.

Other Approvals may be needed

Approvals under other acts and regulations may be required to carry out the development. It is the responsibility of property owners to ensure that they comply with all relevant legislation. Council takes no responsibility for informing applicants of any separate approvals required.

Failure to comply with conditions

Failure to comply with the relevant provisions of *the Environmental Planning and Assessment Act 1979* and/or the conditions of this consent may result in the serving of penalty notices or legal action.

Other works

Works or activities other than those approved by this Development Consent will require the submission of a new Development Application or an application to modify the consent under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

Obtaining Relevant Certification

This development consent does not remove the need to obtain any other statutory consent or approval necessary under any other Act, such as (if necessary):

- a. Application for any activity under that Act, including any erection of a hoarding;
- b. Application for a Construction Certificate under the *Environmental Planning and Assessment Act 1979*;
- c. Application for an Occupation Certificate under the *Environmental Planning and Assessment Act 1979*;
- d. Application for a Subdivision Certificate under the *Environmental Planning and Assessment Act 1979* if land (including stratum) subdivision of the development site is proposed;
- e. Application for Strata Title Subdivision if strata title subdivision of the development is proposed;
- f. Development Application for demolition if demolition is not approved by this consent; or
- g. Development Application for subdivision if consent for subdivision is not granted by this consent.

Disability Discrimination Access to Premises Code

The *Disability Discrimination Act 1992* (Commonwealth) and the *Anti-Discrimination Act 1977* (NSW) impose obligations on persons relating to disability discrimination. Council's determination of the application does not relieve persons who have obligations under those Acts of the necessity to comply with those Acts.

National Construction Code (Building Code of Australia)

A complete assessment of the application under the provisions of the National Construction Code (Building Code of Australia) has not been carried out. All building works approved by

this consent must be carried out in accordance with the requirements of the National Construction Code.

Notification of commencement of works

Residential building work within the meaning of the *Home Building Act 1989* must not be carried out unless the PCA (not being the council) has given the Council written notice of the following information:

- a. In the case of work for which a principal contractor is required to be appointed:
 - i. The name and licence number of the principal contractor; and
 - ii. The name of the insurer by which the work is insured under Part 6 of that Act.
- b. In the case of work to be done by an owner-builder:
 - i. The name of the owner-builder; and
 - ii. If the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

Dividing Fences Act

The person acting on this consent must comply with the requirements of the *Dividing Fences Act 1991* in respect to the alterations and additions to the boundary fences.

Permits from Council under Other Acts

Where it is proposed to occupy or carry out works on public roads or Council controlled lands, the person acting on this consent must obtain all applicable Permits from Council in accordance with Section 68 (Approvals) of the *Local Government Act 1993* and/or Section 138 of the *Roads Act 1993*. Permits are required for the following activities:

- a. Work zone (designated parking for construction vehicles). Note that a minimum of 2 months should be allowed for the processing of a Work Zone application;
- b. A concrete pump across the roadway/footpath;
- c. Mobile crane or any standing plant;
- d. Skip bins;
- e. Scaffolding/Hoardings (fencing on public land);
- f. Public domain works including vehicle crossing, kerb & guttering, footpath, stormwater, etc.;
- g. Awning or street verandah over footpath;
- h. Partial or full road closure; and
- i. Installation or replacement of private stormwater drain, utility service or water supply.

Contact Council's Road Access team to ensure the correct Permit applications are made for the various activities. A lease fee is payable for all occupations.

Noise

Noise arising from the works must be controlled in accordance with the requirements of the *Protection of the Environment Operations Act 1997* and guidelines contained in the New South Wales Environment Protection Authority Environmental Noise Control Manual.

Amenity Impacts General

The use of the premises must not give rise to an environmental health nuisance to the adjoining or nearby premises and environment. There are to be no emissions or discharges from the premises, which will give rise to a public nuisance or result in an offence under the *Protection of the Environment Operations Act 1997* and Regulations. The use of the premises and the operation of plant and equipment must not give rise to the transmission of a vibration nuisance or damage other premises.

Lead-based Paint

Buildings built or painted prior to the 1970's may have surfaces coated with lead-based paints. Recent evidence indicates that lead is harmful to people at levels previously thought safe. Children particularly have been found to be susceptible to lead poisoning and cases of acute child lead poisonings in Sydney have been attributed to home renovation activities involving the removal of lead based paints. Precautions should therefore be taken if painted surfaces are to be removed or sanded as part of the proposed building alterations, particularly where children or pregnant women may be exposed, and work areas should be thoroughly cleaned prior to occupation of the room or building.

Dial before you dig

Contact "Dial Prior to You Dig" prior to commencing any building activity on the site.

Asbestos Removal

A demolition or asbestos removal contractor licensed under the Work Health and Safety Regulations 2011 must undertake removal of more than 10m² of bonded asbestos (or otherwise specified by WorkCover or relevant legislation).

Removal of friable asbestos material must only be undertaken by a contractor that holds a current Class A Friable Asbestos Removal Licence.

Demolition sites that involve the removal of asbestos must display a standard commercially manufactured sign containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' measuring not less than 400mm x 300mm is to be erected in a prominent visible position on the site to the satisfaction of Council's officers. The sign is to be erected prior to demolition

work commencing and is to remain in place until such time as all asbestos has been removed from the site to an approved waste facility.

All asbestos waste must be stored, transported and disposed of in compliance with the Protection of the Environment Operations (Waste) Regulation 2014. All receipts detailing method and location of disposal must be submitted to Council as evidence of correct disposal.

Notice to Council to deliver Residential Bins

Council should be notified of bin requirements three months prior to the occupation of the building to ensure timely delivery.

Council will place an order for the required bins. Delivery will occur once the applicant has completed a Request for New Service.

Street Numbering

If any new street numbers or change to street numbers (this includes unit and shop numbers) are required, a separate application must be lodged with and approved by Council’s GIS Team before being displayed.

Useful Contacts

| | |
|----------------------------|--|
| BASIX Information | 1300 650 908 weekdays 2:00pm - 5:00pm www.basix.nsw.gov.au |
| Department of Fair Trading | 13 32 20 www.fairtrading.nsw.gov.au Enquiries relating to Owner Builder Permits and Home Warranty Insurance. |
| Dial Prior to You Dig | 1100 www.dialprior toyoudig.com.au |
| Landcom | 9841 8660 To purchase copies of Volume One of “Soils and Construction” |

| | | | |
|---|----------|--------------|--|
| Long Service Corporation | Payments | 131441 | www.lspc.nsw.gov.au |
| NSW Food Authority | | 1300 552 406 | www.foodnotify.nsw.gov.au |
| NSW Government | | | www.nsw.gov.au/fibro www.diysafe.nsw.gov.au Information on asbestos and safe work practices. |
| NSW Office of Environment and Heritage | | 131 555 | www.environment.nsw.gov.au |
| Sydney Water | | 13 20 92 | www.sydneywater.com.au |
| Waste Service - Environmental Solutions | SITA | 1300 651 116 | www.wasteservice.nsw.gov.au |
| Water Efficiency Labelling and Standards (WELS) | | | www.waterrating.gov.au |
| WorkCover Authority of NSW | | 13 10 50 | www.workcover.nsw.gov.au Enquiries relating to work safety and asbestos removal and disposal. |

Attachment B – Plans of proposed development

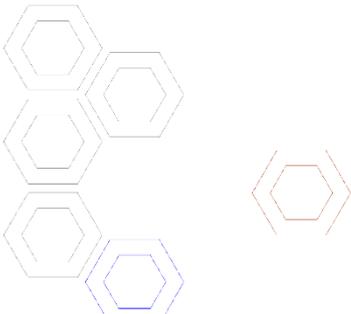
DEVELOPMENT APPLICATION

DRAWING SCHEDULE

- 01 SITE ANALYSIS PLAN
- 02 DEMOLITION PLAN
- 03 PROPOSED SUBDIVISION PLAN
- 04 PROPOSED SITE PLAN
- 05 PROPOSED GROUND FLOOR PLAN
- 06 PROPOSED FIRST FLOOR PLAN
- 07 PROPOSED SECOND FLOOR PLAN
- 08 PROPOSED ROOF PLAN
- 09 NORTH AND EAST ELEVATION
- 10 SOUTH AND WEST ELEVATIONS
- 11 NORTH AND SOUTH ELEVATIONS (GARAGE)
- 12 SECTION VIEW
- 13 SECTION VIEW
- 14 SCHEDULE OF EXTERNAL MATERIALS, COLOURS AND FINISHES
- 15 FRONT FENCE DETAILS
- 16 SHADOW DIAGRAMS 21ST OF JUNE - 9AM
- 17 SHADOW DIAGRAMS 21ST OF JUNE - 10AM
- 18 SHADOW DIAGRAMS 21ST OF JUNE - 11AM
- 19 SHADOW DIAGRAMS 21ST OF JUNE - 12PM
- 20 SHADOW DIAGRAMS 21ST OF JUNE - 1PM
- 21 SHADOW DIAGRAMS 21ST OF JUNE - 2PM
- 22 SHADOW DIAGRAMS 21ST OF JUNE - 3PM
- 24 ELEVATION SHADOW DIAGRAMS 21ST OF JUNE - GARAGE (NORTH FACE)
- 26 NEIGHBOUR ALLOTMENT ANALYSIS
- 27 LONG SECTIONS ALONG TRADE LANE

ISSUE DETAILS

- A 08.03.21 ISSUED FOR DEVELOPMENT APPLICATION
- B 27.03.2021 ISSUED FOR RESPONSE TO LETTER OF ASSESSMENT







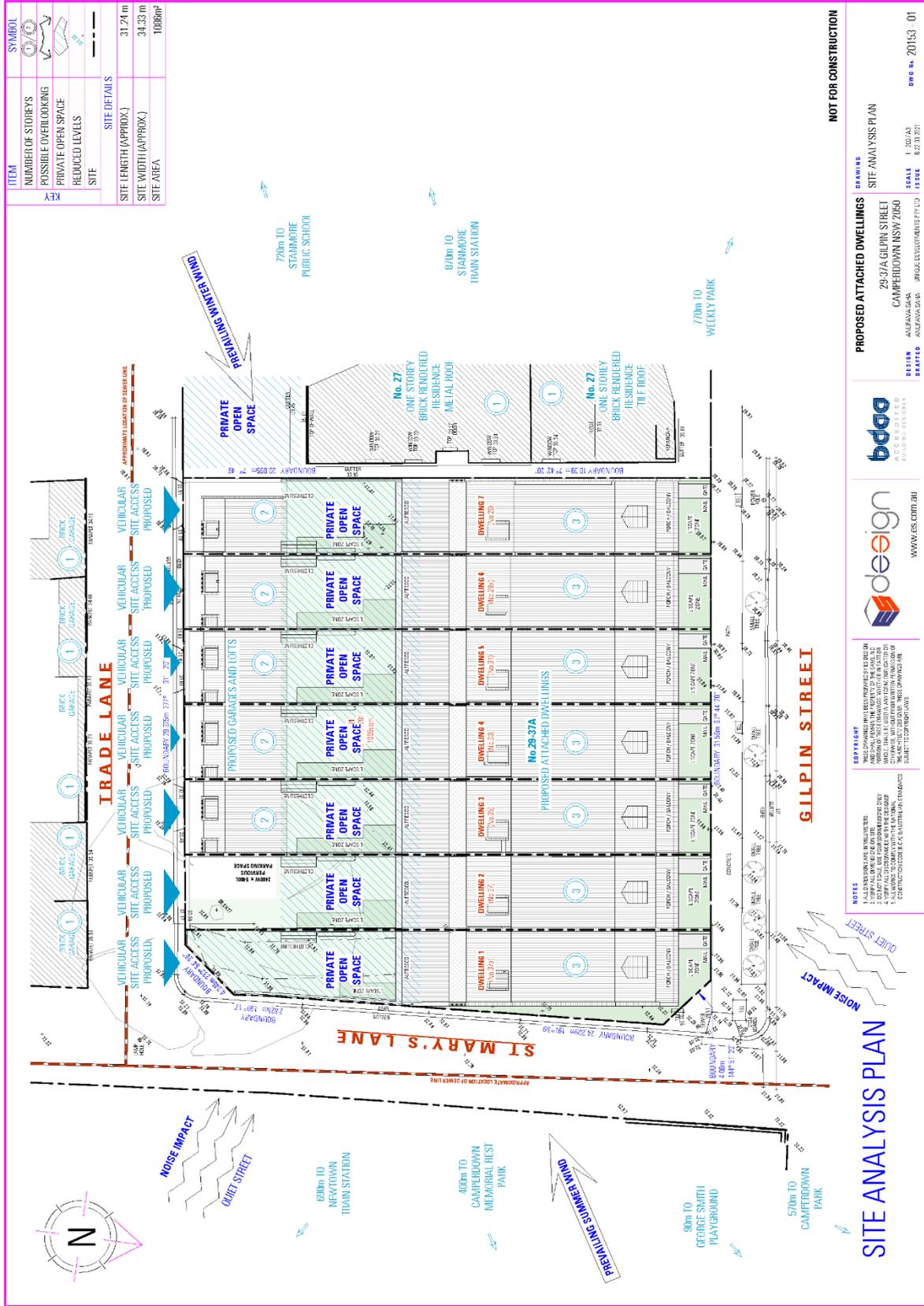

ADDITIONAL INFORMATION

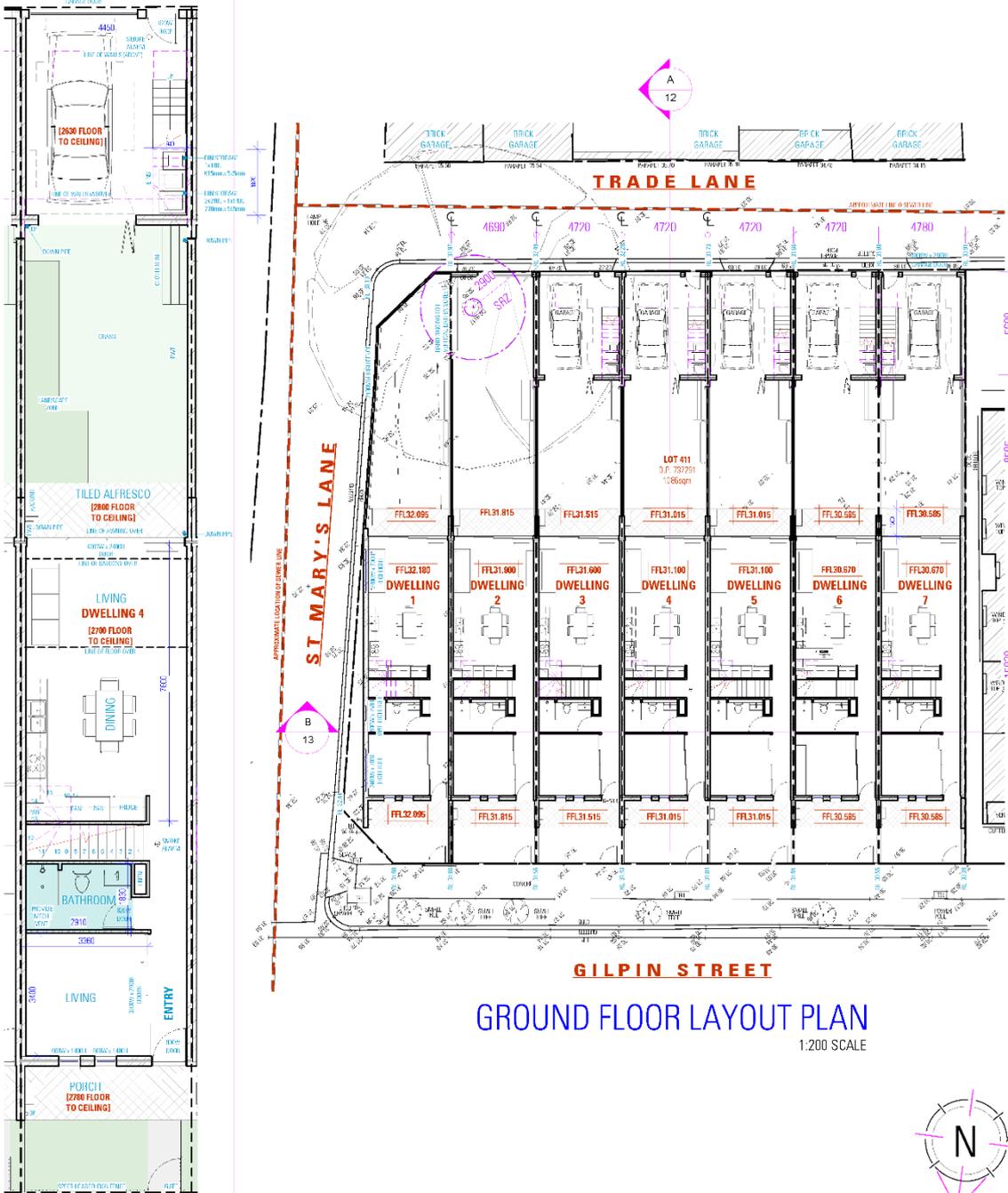
- A01 OWNER'S CONSENT FORM
- A02 SURVEY PLAN
- A03 BANK & WATERS CERTIFICATION
- A04 STORMWATER PLAN
- A05 LANDSCAPE PLAN
- A06 ACOUSTIC REPORT (HAF) ASSESSMENT
- A07 STATEMENT OF ENVIRONMENTAL EFFECTS
- A08 WASTE MANAGEMENT PLAN
- A09 QUANTITY SURVEYORS REPORT
- A10 ARBORIST REPORT
- A11 TRAFFIC ASSESSMENT REPORT

PROPOSED ATTACHED DWELLINGS

29-37A GILPIN STREET,
CAMPERDOWN NSW 2050

UNIQUE DEVELOPMENTS PTY LTD





GROUND FLOOR PLAN (TYPICAL)

1:100 SCALE

GROUND FLOOR LAYOUT PLAN

1:200 SCALE

NOT FOR CONSTRUCTION

- NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS
 2. REFER TO ALL DIMENSION LINES
 3. DO NOT SCALE. USE DIMENSION LINES ONLY
 4. VERIFY ALL INFORMATION WITH THE PROPERTY
 5. ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE APPLICABLE BUILDING REGULATIONS AND ALL APPLICABLE STANDARDS

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PROPOSED ATTACHED DWELLINGS

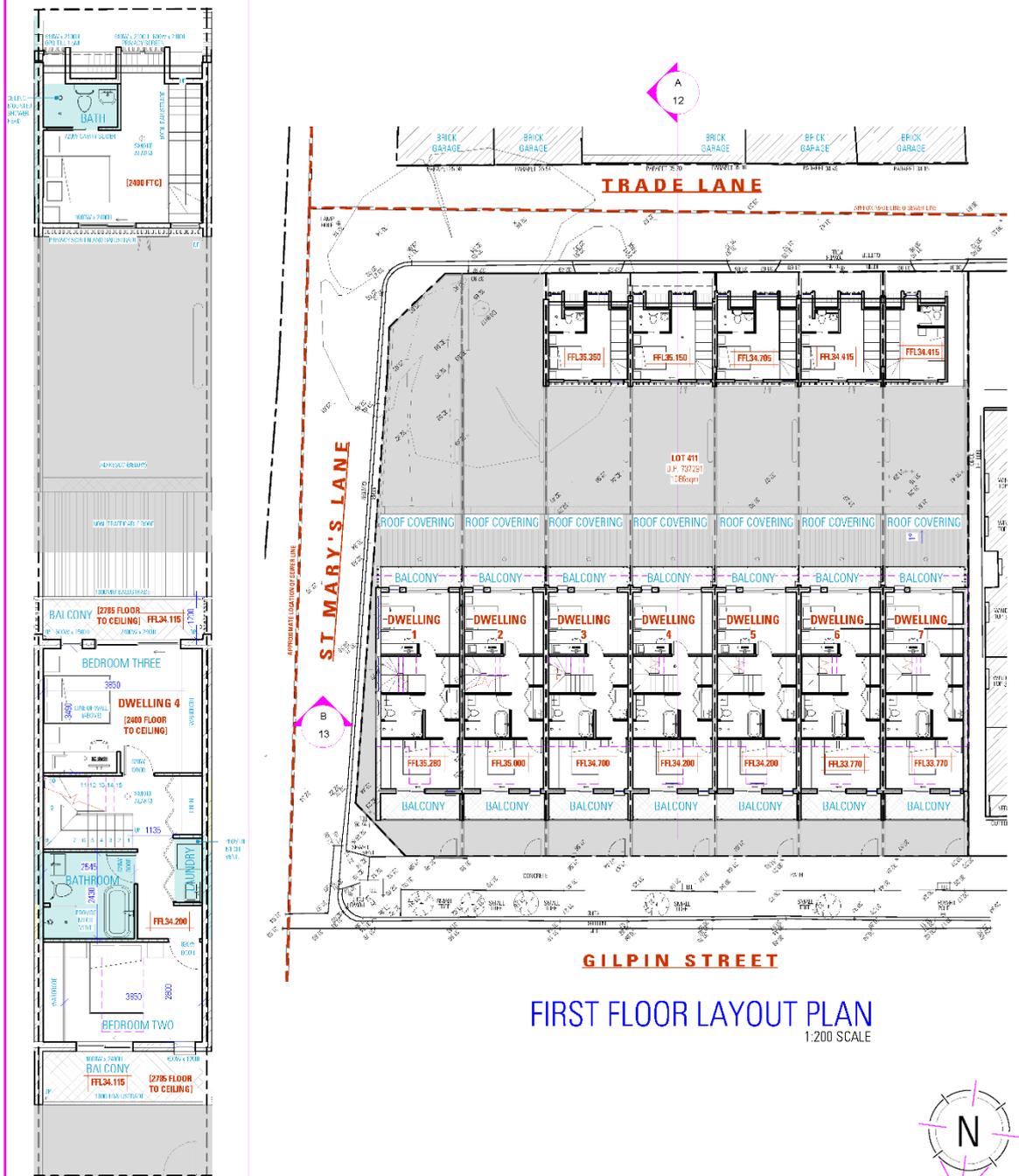
DRAWING
PROPOSED GROUND FLOOR PLAN

29-37A GILPIN STREET
CAMPERDOWN NSW 2050

DESIGN DRAFTED AMELIARAS SALAS IRENE DE VITO/PAUL SPYRIDIS

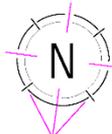
SCALE As indicated/As indicated

DWG No. 20153 - 05



FIRST FLOOR PLAN (TYPICAL)
1:100 SCALE

FIRST FLOOR LAYOUT PLAN
1:200 SCALE



NOT FOR CONSTRUCTION

- NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS
 2. SEE REF. AND DIMENSIONS LISTINGS
 3. DO NOT SCALE, USE DIMENSIONS LISTINGS ONLY
 4. VERIFY ALL INFORMATION WITH THE PROJECT ARCHITECT
 5. ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES OF PRACTICE AND STANDARDS

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PROPOSED ATTACHED DWELLINGS

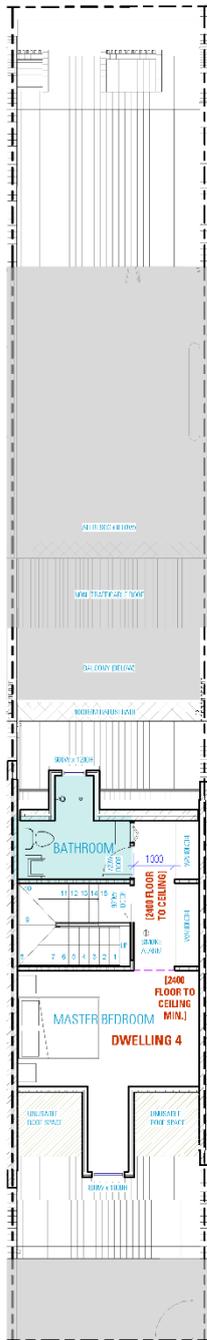
29-37A GILPIN STREET
CAMPERDOWN NSW 2050

DRAWING
PROPOSED FIRST FLOOR PLAN

DESIGN: ANJELMÁS SALAS
DRAFTED: ANJELMÁS SALAS
DATE: 10/10/2020

SCALE: AS SHOWN
ISSUE: 1/2/2021

DWG No. 20153 - 06



SECOND FLOOR PLAN (TYPICAL)

1:100 SCALE

- NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS
 2. SEE REF. AND DEPENDENT DRAWINGS
 3. DO NOT SCALE. USE DIMENSIONS ONLY
 4. VERIFY ALL INFORMATION WITH THE PROPERTY
 5. ALL WORK TO BE DONE WITH THE EXISTING
 6. CONSTRUCTION TO BE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS

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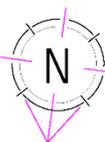
PROPOSED ATTACHED DWELLINGS

29-37A GILPIN STREET
CAMPERDOWN NSW 2050

DESIGN: ANJELMAY SALAS
DRAFTED: ANJELMAY SALAS
CHECKED: DEBORAH PULSIFER
DATE: 12/10/2021

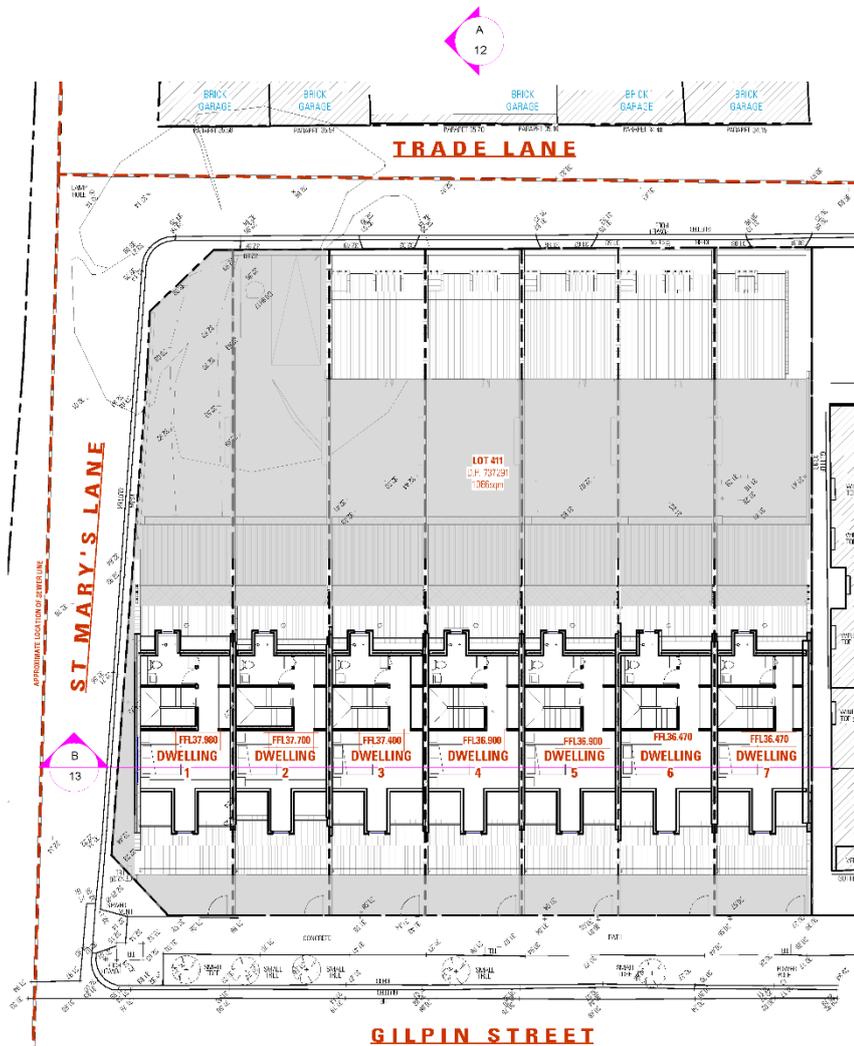
DRAWING
PROPOSED SECOND FLOOR PLAN

SCALE: AS SHOWN
ISSUE: 1/2/2021



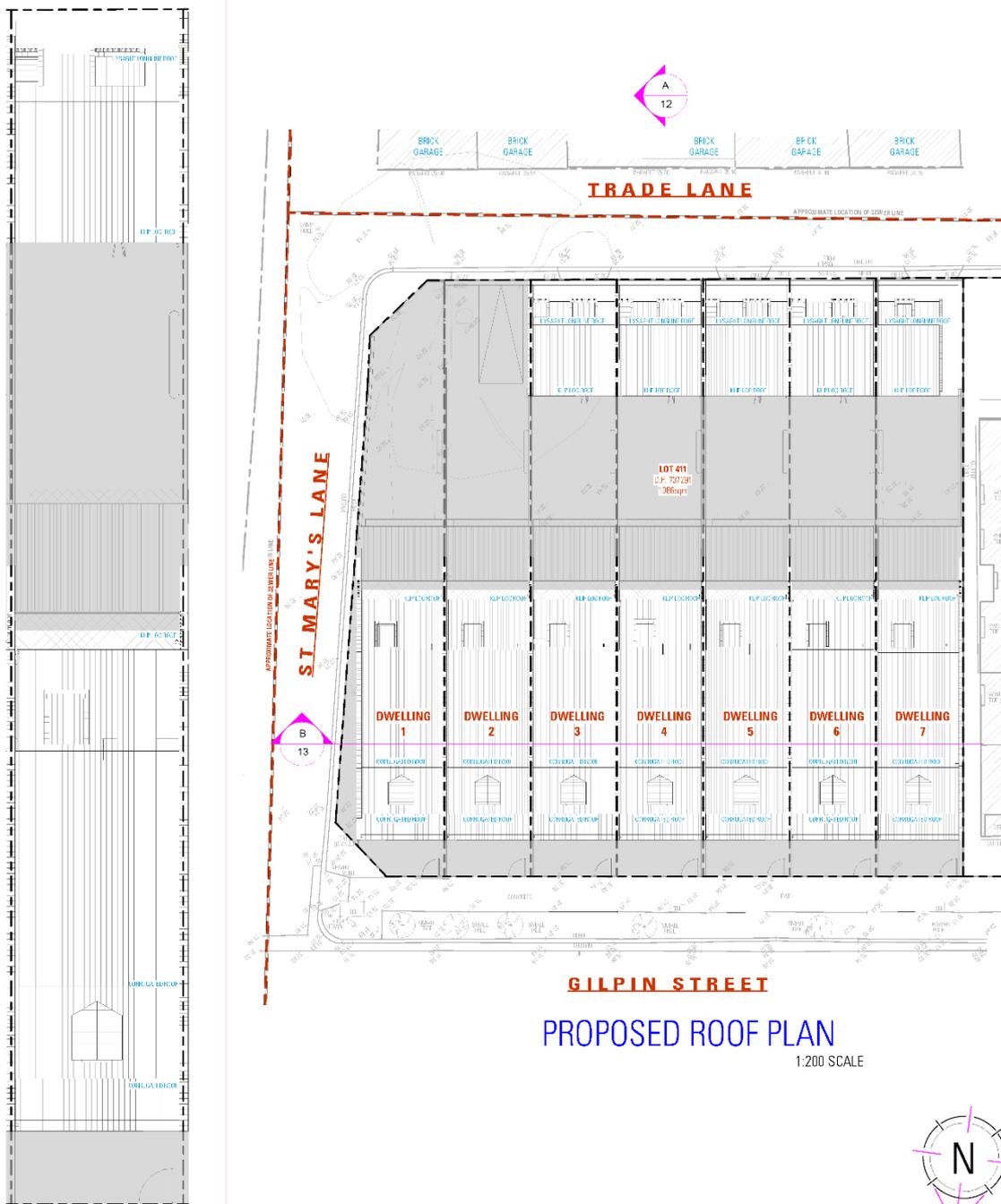
NOT FOR CONSTRUCTION

DWG No. 20153-07



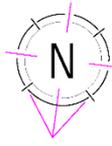
SECOND FLOOR LAYOUT PLAN

1:200 SCALE



ROOF PLAN (TYPICAL)
1:100 SCALE

PROPOSED ROOF PLAN
1:200 SCALE



NOT FOR CONSTRUCTION

- NOTES**
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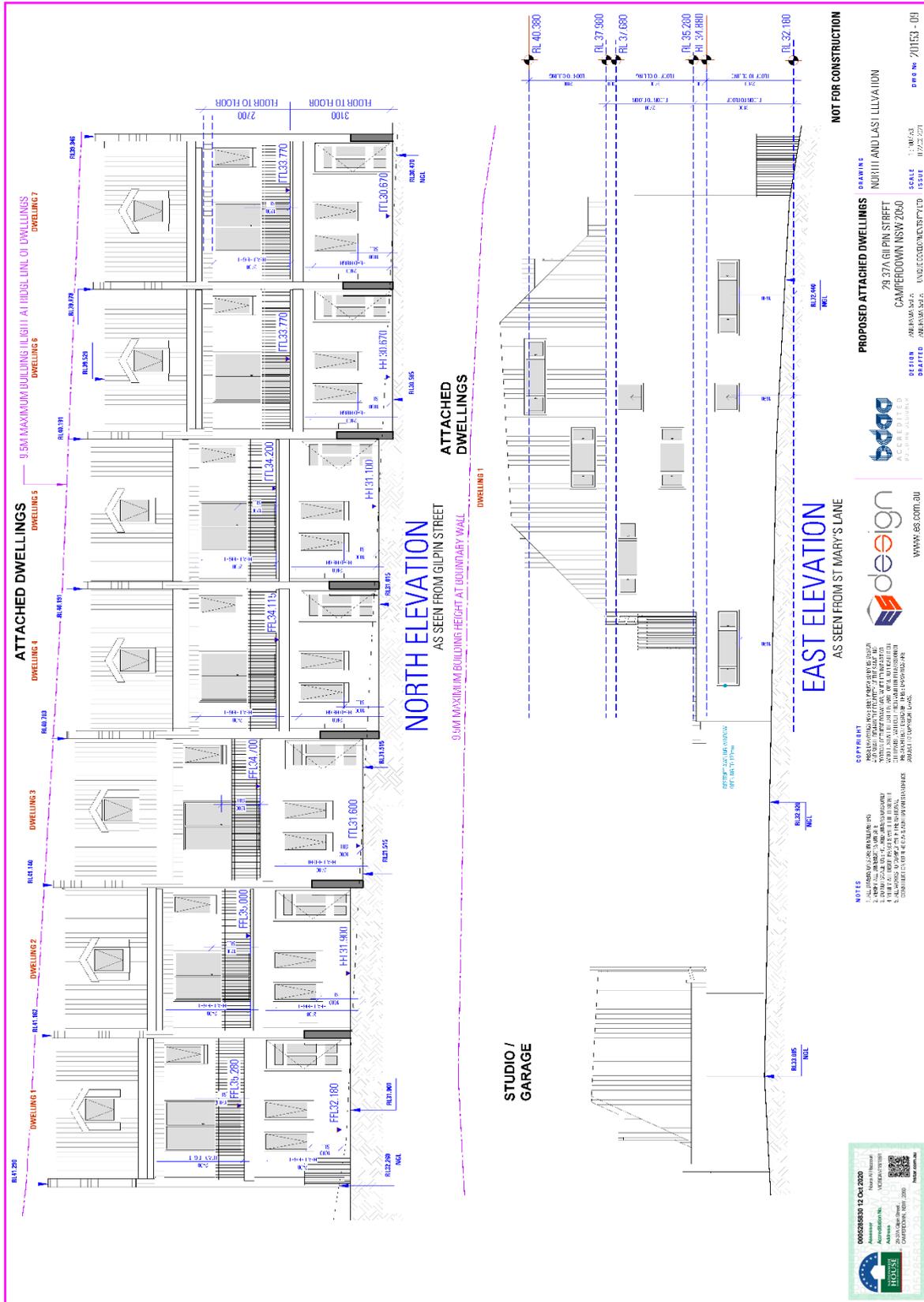
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DRAFTED: JOE BERRY NGUYEN

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SCALE: AS SHOWN
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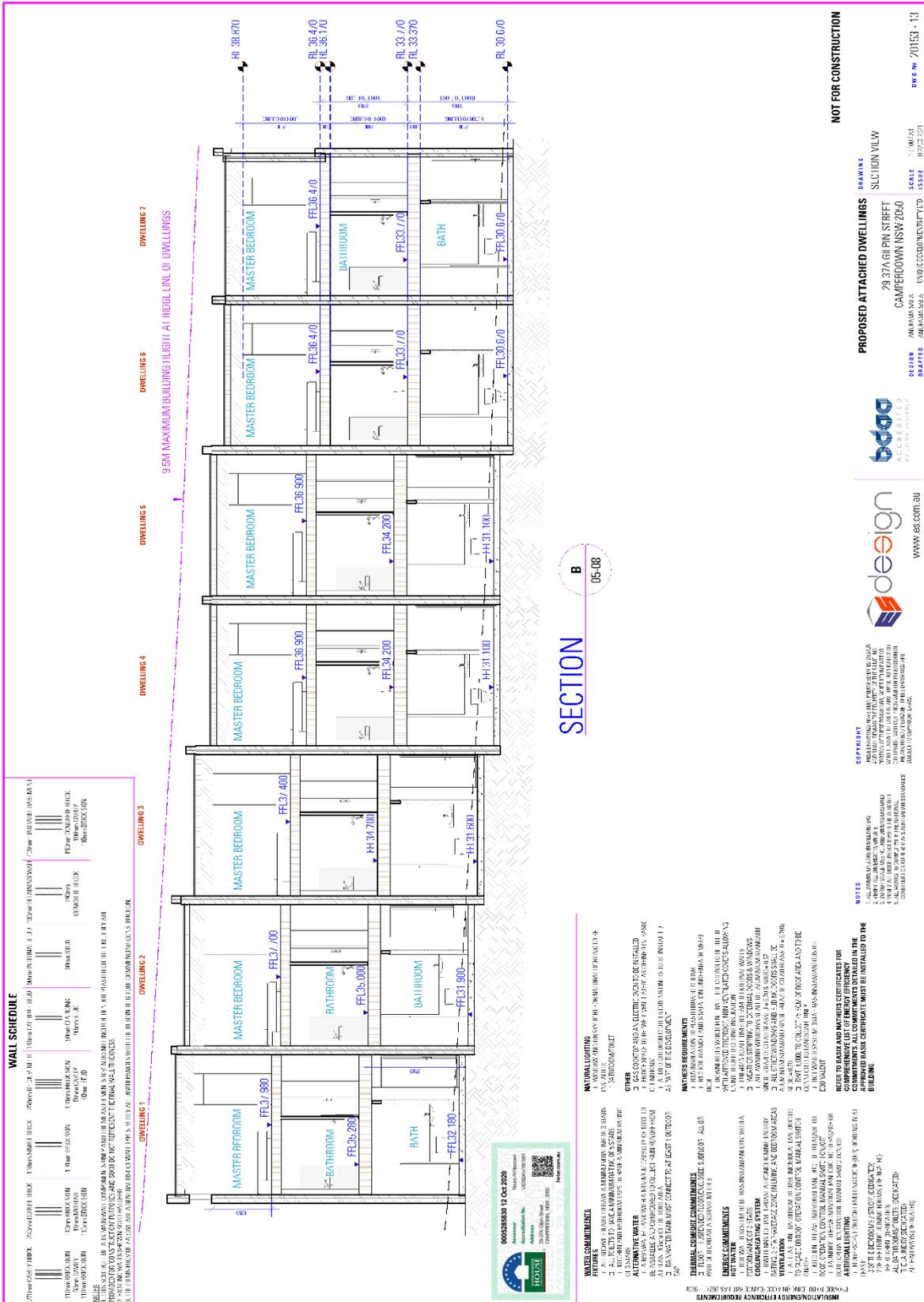
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PROPOSED ATTACHED DWELLINGS

79/37A GILPIN STREET
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DESIGN
MARRAS & PARTNERS

DRAWING
SECTION VIEW

SCALE
1:100

DATE
07/2024

DWG NO.
2/1153 - 13



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3. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICES ACT 2009 AND THE SERVICES REGULATIONS 2010.

4. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICES ACT 2009 AND THE SERVICES REGULATIONS 2010.

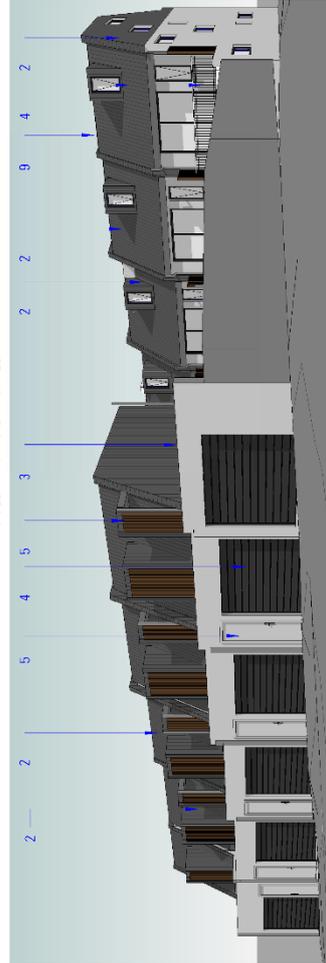
5. ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICES ACT 2009 AND THE SERVICES REGULATIONS 2010.

SCHEDULE OF EXTERNAL MATERIALS, COLOURS AND FINISHES



- 1  ROOF SHEETING - COLORBOND CORRUGATED IN DULUX MONUMENT
- 2  ROOF SHEETING - LYSAGHT LONGLINE 305
- 3  RENDER AND PAINT FINISH - DULUX STEPNEY
- 4  GUTTERS, DOWNPIPES, FASCIA, EAVES, BALUSTRADES, FRONT FENCE (POWDER COATED ALUMINIUM), GARAGE DOOR - DULUX MONUMENT
- 5  POWDER COATED ALUMINIUM WINDOWS, GLASS FRAMES DULUX WESTERN CEDAR
- 6  SOLID CORE TIMBER ENTRY DOORS DULUX WESTERN CEDAR
- 7  BOUNDARY FENCING - DULUX SHALE GREY WITH DULUX MONUMENT CAPPING
- 8  RAINWATER TANKS - DULUX SHALE GREY
- 9  ROOF SHEETING - COLORBOND KLIP LOC LYSAGHT 408 IN DULUX MONUMENT

NORTH ELEVATION
AS SEEN FROM GILPIN STREET



SOUTH ELEVATION
AS SEEN FROM TRADE LANE

NOTES

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2. FINISHES TO BE DULUX MONUMENT
3. ALL DIMENSIONS ARE IN MILLIMETRES
4. ALL DIMENSIONS ARE IN MILLIMETRES
5. ALL DIMENSIONS ARE IN MILLIMETRES
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29-37A GILPIN STREET
CAMPELDOWN NSW 2060

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DATE: 08/01/2014

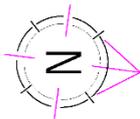
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DWG NO: 20153-14

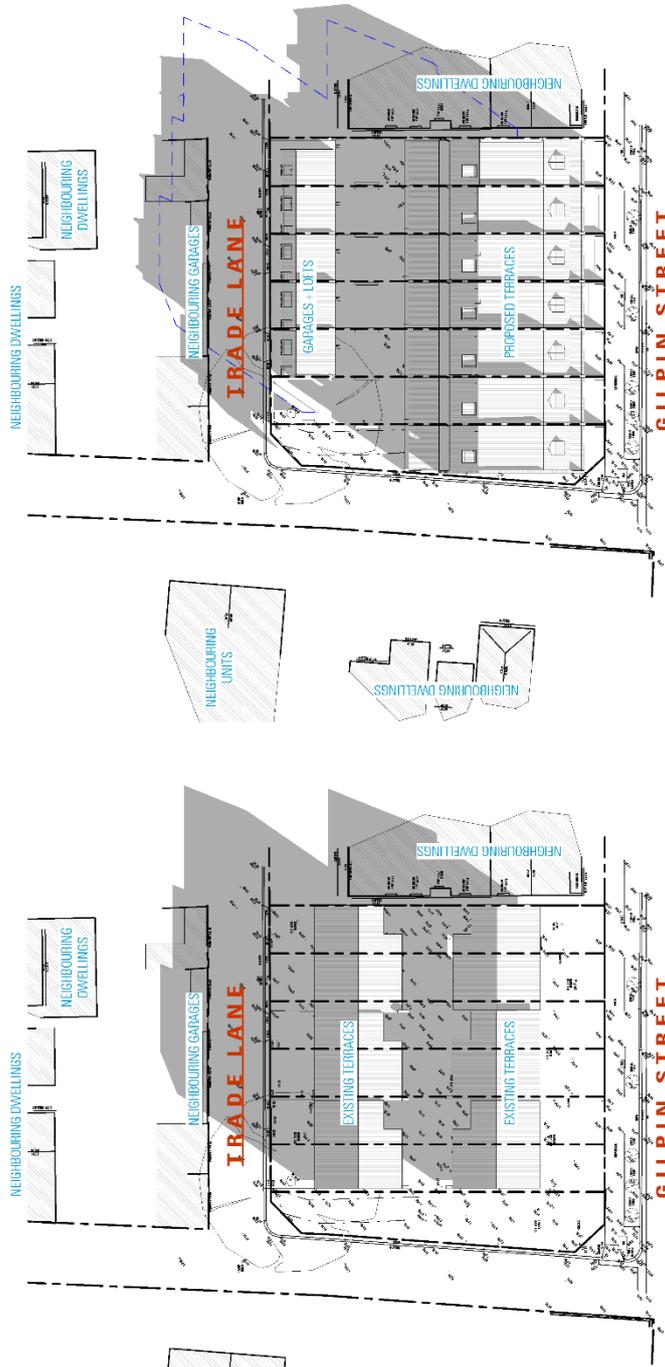


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SHADOW DIAGRAMS - 21st OF JUNE - 9AM



EXTENT OF EXISTING SHADOW
OUTLINES SHOWN IN DASHED LINE



PROPOSED SHADOWS 9AM

EXISTING SHADOWS 9AM

NOT FOR CONSTRUCTION

NOTES
 1. ALL DIMENSIONS ARE IN METRES.
 2. THIS SHADOW DIAGRAM IS A VISUAL REPRESENTATION OF THE SHADOWS CAST BY THE PROPOSED DEVELOPMENT AT THE SPECIFIED DATE AND TIME.
 3. THE SHADOWS ARE CAST FROM THE NORTH.
 4. THE SHADOWS ARE CAST FROM THE NORTH.
 5. THE SHADOWS ARE CAST FROM THE NORTH.

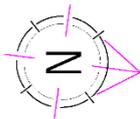
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PROPOSED ATTACHED DWELLINGS
 DRAWING
 SHADOW DIAGRAMS 21ST OF JUNE - 9AM
 29-37A GILPIN STREET
 CAMPELDOWN NSW 2060
 JAMBOR SOA
 JAMBOR SOA
 UNDER ELECTROREGISTRY
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 DATE 09/09/2016
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SHADOW DIAGRAMS - 21st OF JUNE - 10AM



EXTENT OF EXISTING SHADOW
OUTLINES SHOWN IN DASHED LINE



EXISTING SHADOWS 10AM

PROPOSED SHADOWS 10AM

NOTES

- 1. ALL SHADOWS ARE BASED ON A SUN ALTITUDE OF 80.5 DEGREES.
- 2. SHADOWS ARE BASED ON A SUN AZIMUTH OF 100.0 DEGREES.
- 3. SHADOWS ARE BASED ON A SUN ALTITUDE OF 80.5 DEGREES.
- 4. SHADOWS ARE BASED ON A SUN AZIMUTH OF 100.0 DEGREES.
- 5. SHADOWS ARE BASED ON A SUN ALTITUDE OF 80.5 DEGREES.
- 6. SHADOWS ARE BASED ON A SUN AZIMUTH OF 100.0 DEGREES.

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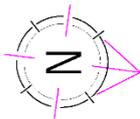
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SHADOW DIAGRAMS 21ST OF JUNE -
10AM
29-37A GILPIN STREET
CAMPELDOWN NSW 2050
DRAWN: JAMIE HOPKIN, UNDEL ELECTRODESIGN/UE
SCALE: 1:800
DATE: 09/03/2011

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SHADOW DIAGRAMS - 21st OF JUNE - 11AM



EXISTING SHADOWS 11AM

PROPOSED SHADOWS 11AM

NOTES

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2. THIS SHADOW DIAGRAM IS FOR INFORMATION ONLY AND DOES NOT REPRESENT A COMMITMENT TO ANY DEVELOPMENT.
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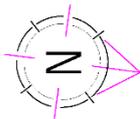
PROPOSED ATTACHED DWELLINGS

SHADOW DIAGRAMS 21ST OF JUNE - 11AM

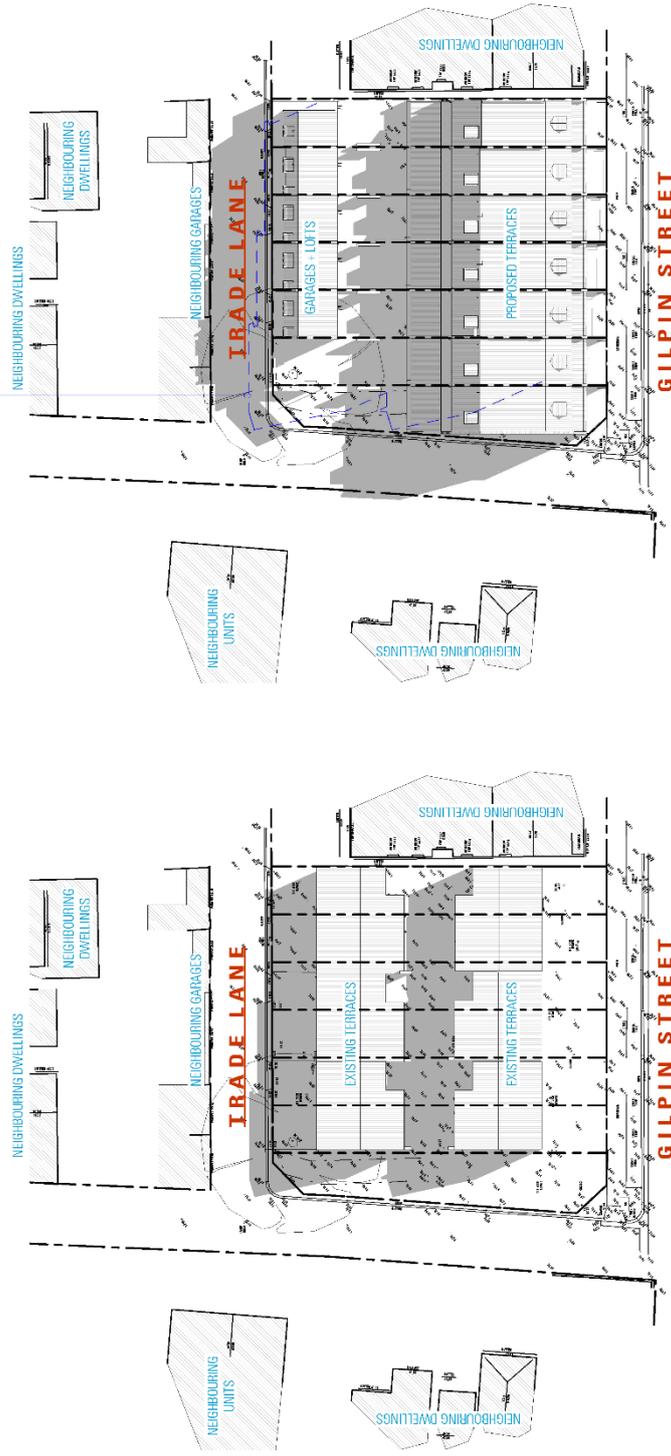
29-37A GILPIN STREET
CAMPELDOWN NSW 2060

DATE: 20/06/2018 SCALE: 1:800 DWG NO: 20153-18

SHADOW DIAGRAMS - 21st OF JUNE - 1PM



EXTENT OF EXISTING SHADOW
OUTLINES SHOWN IN DASHED LINE



PROPOSED SHADOWS 1PM

EXISTING SHADOWS 1PM

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NOTES
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 4. THE SHADOWS ARE CAST FROM THE PROPOSED DEVELOPMENT ONTO THE SURROUNDING AREAS.
 5. THE SHADOWS ARE CAST FROM THE PROPOSED DEVELOPMENT ONTO THE SURROUNDING AREAS.

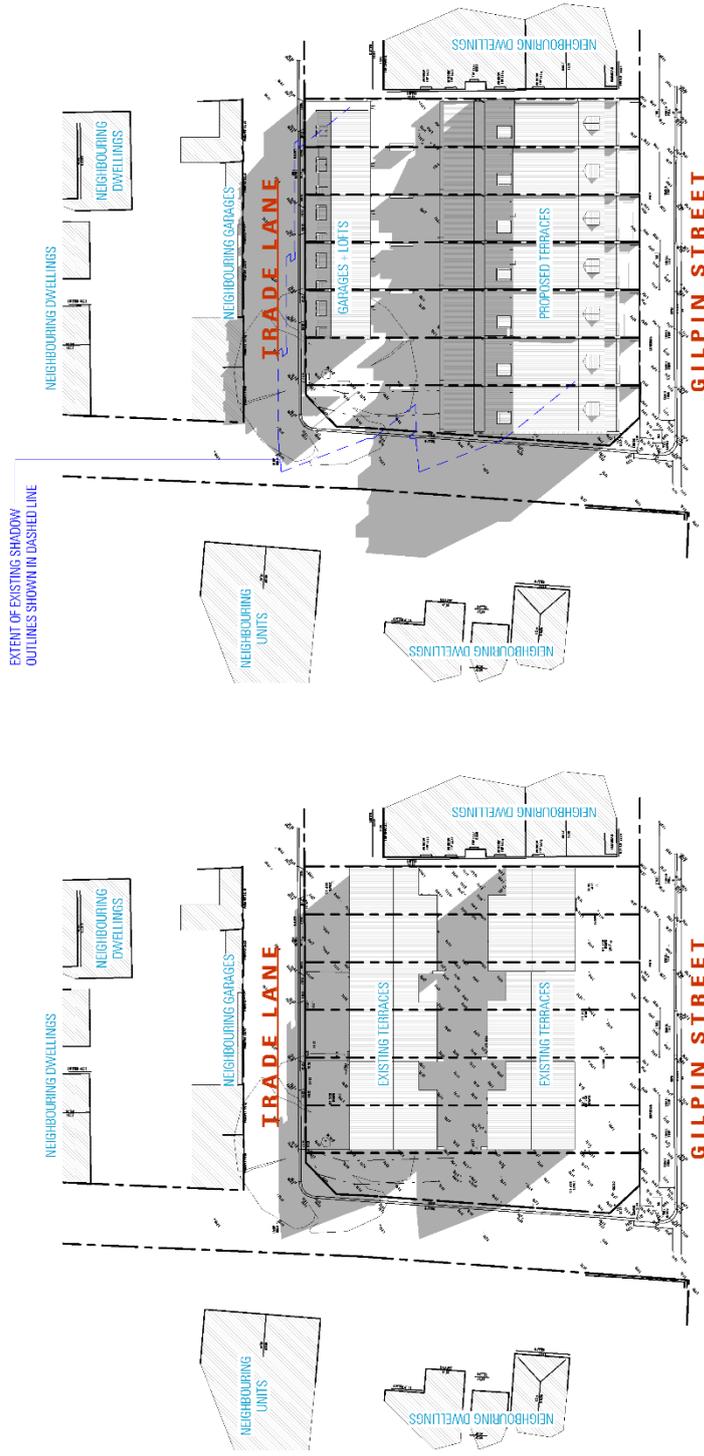
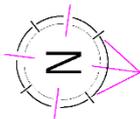
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 SCALE: 1:800
 DATE: 09/03/2011
 DWG NO.: 20153-20

SHADOW DIAGRAMS - 21st OF JUNE - 2PM



EXISTING SHADOWS 2PM

PROPOSED SHADOWS 2PM

NOTES

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SHADOW DIAGRAMS 21ST OF JUNE - 2PM

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CAMPEDOWN NSW 2060

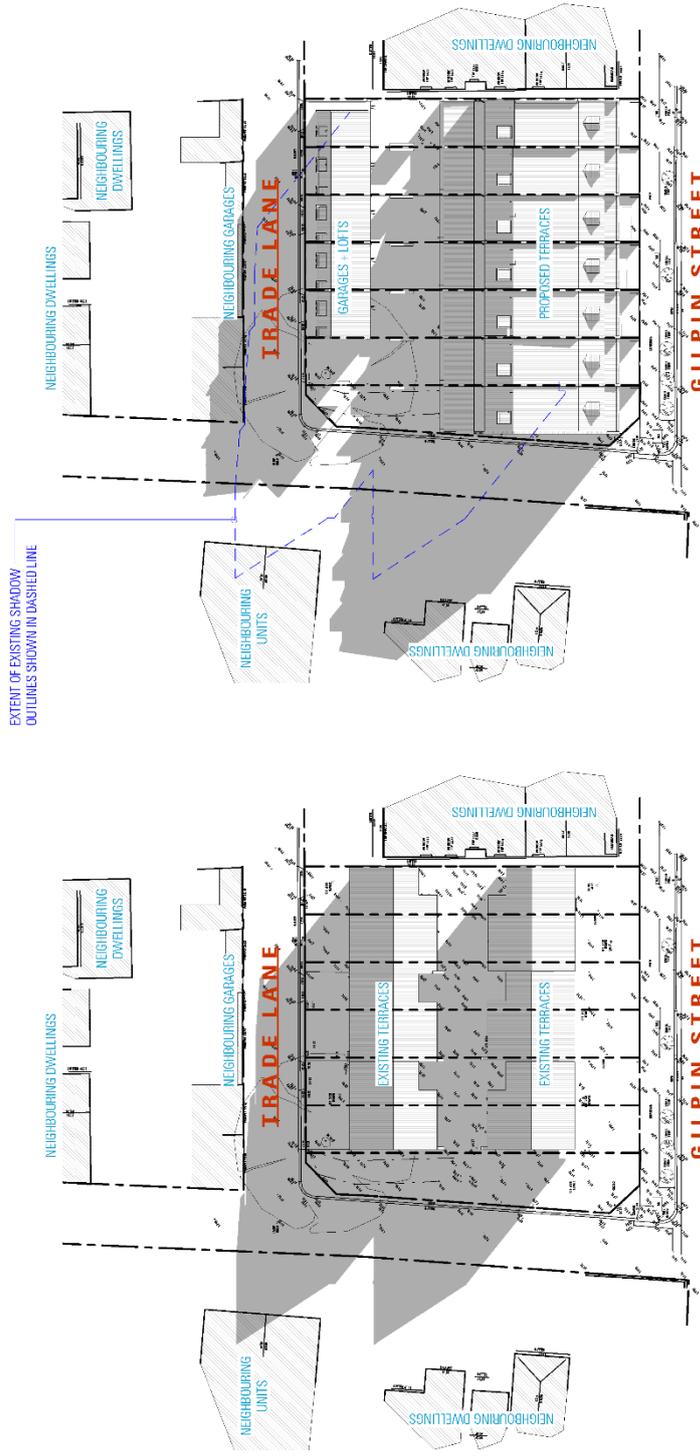
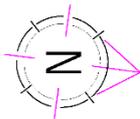
SCALE 1:800

DATE 09/03/2011

DWG NO. 20153-21

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SHADOW DIAGRAMS - 21st OF JUNE - 3PM



EXISTING SHADOWS 3PM

PROPOSED SHADOWS 3PM

NOTES

- 1. ALL SHADOWS ARE BASED ON A SUN ALTITUDE OF 57.5° AND AN AZIMUTH OF 100.0°.
- 2. SHADOWS ARE SHOWN ON THE ROOFS OF THE PROPOSED BUILDING.
- 3. SHADOWS ARE SHOWN ON THE ROOFS OF THE PROPOSED BUILDING.
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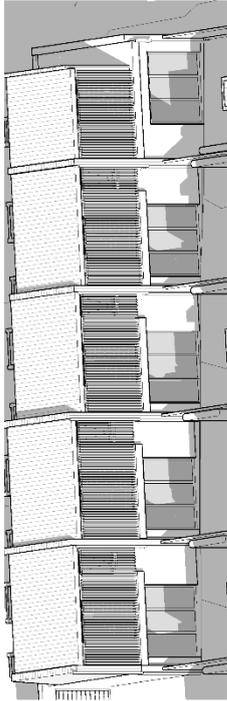


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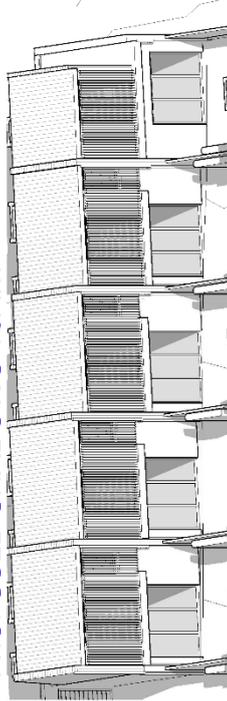


PROPOSED ATTACHED DWELLINGS DRAWING
 SHADOW DIAGRAMS 21ST OF JUNE - 3PM
 29-37A GILPIN STREET
 CAMPELDOWN NSW 2060
 SCALE 1:800 (A3)
 DATE 10/05/2011
 DWG No. 20153-22

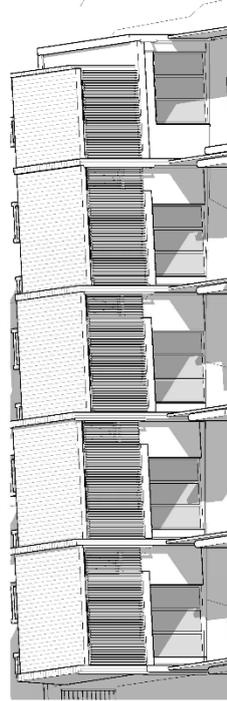
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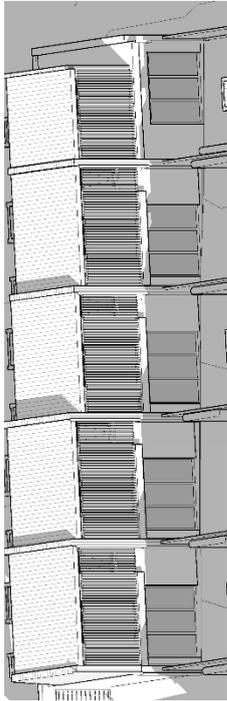
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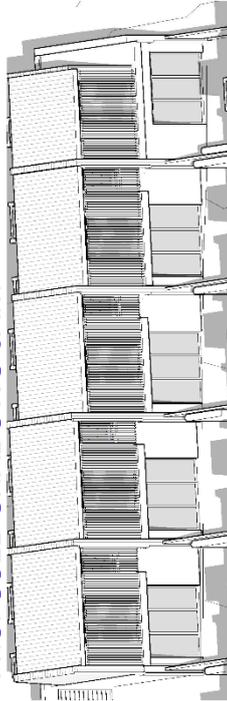
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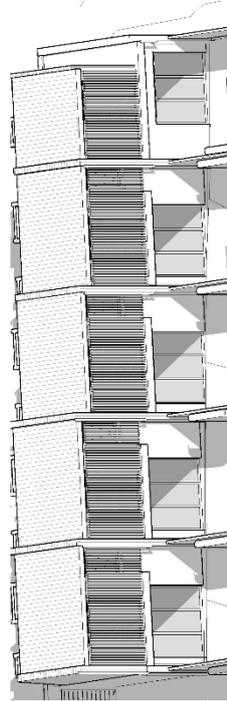
PROPOSED SHADOWS 2PM



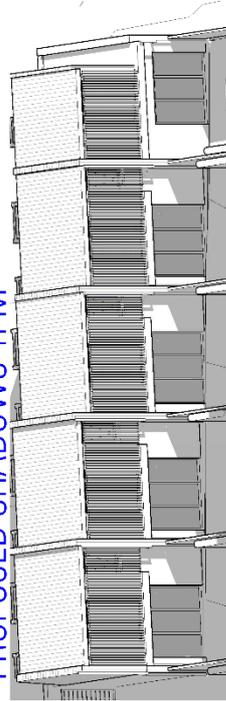
PROPOSED SHADOWS 9AM



PROPOSED SHADOWS 11AM



PROPOSED SHADOWS 1PM



PROPOSED SHADOWS 3PM

ELEVATION SHADOW DIAGRAMS - 21st OF JUNE - GARAGE

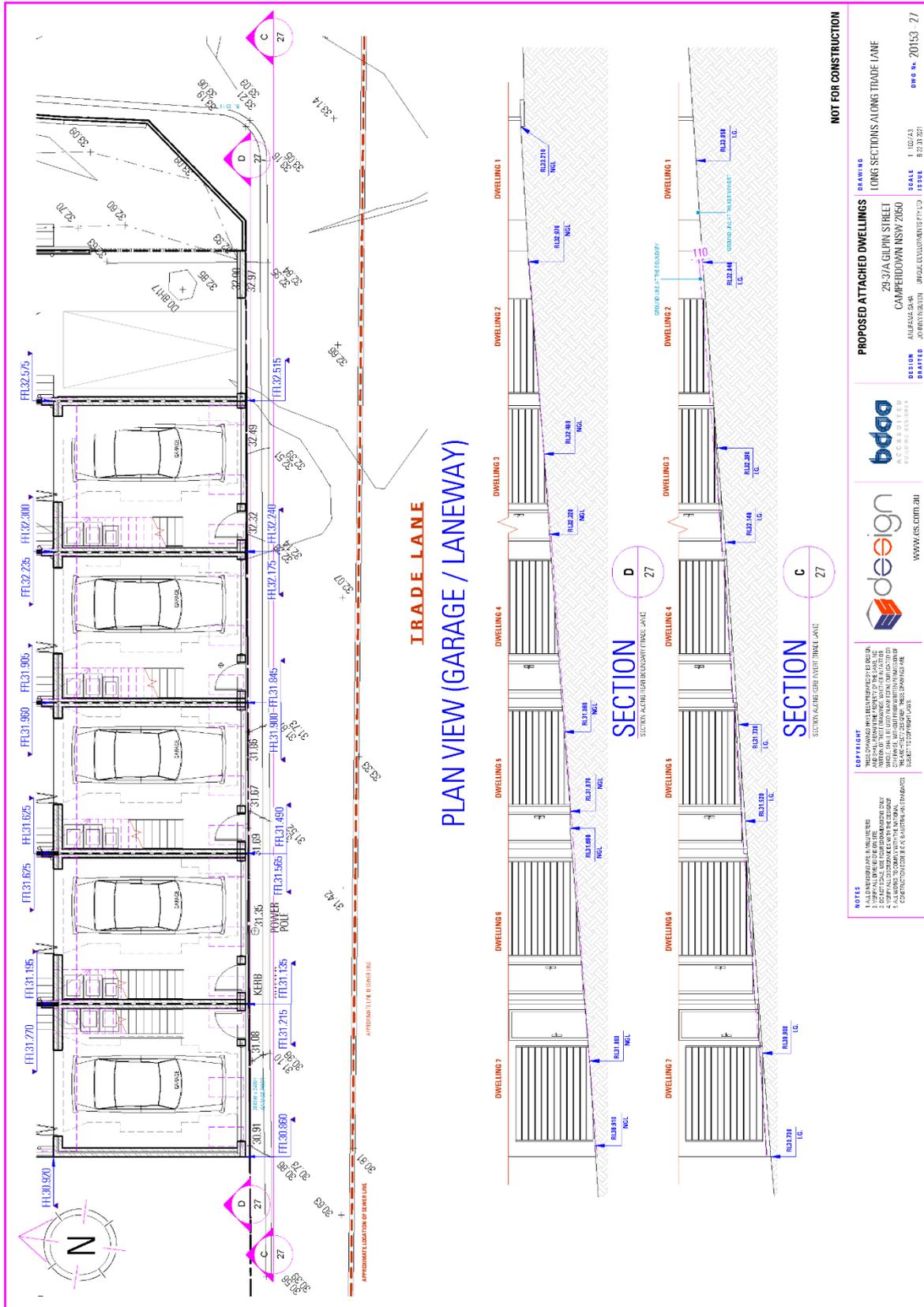
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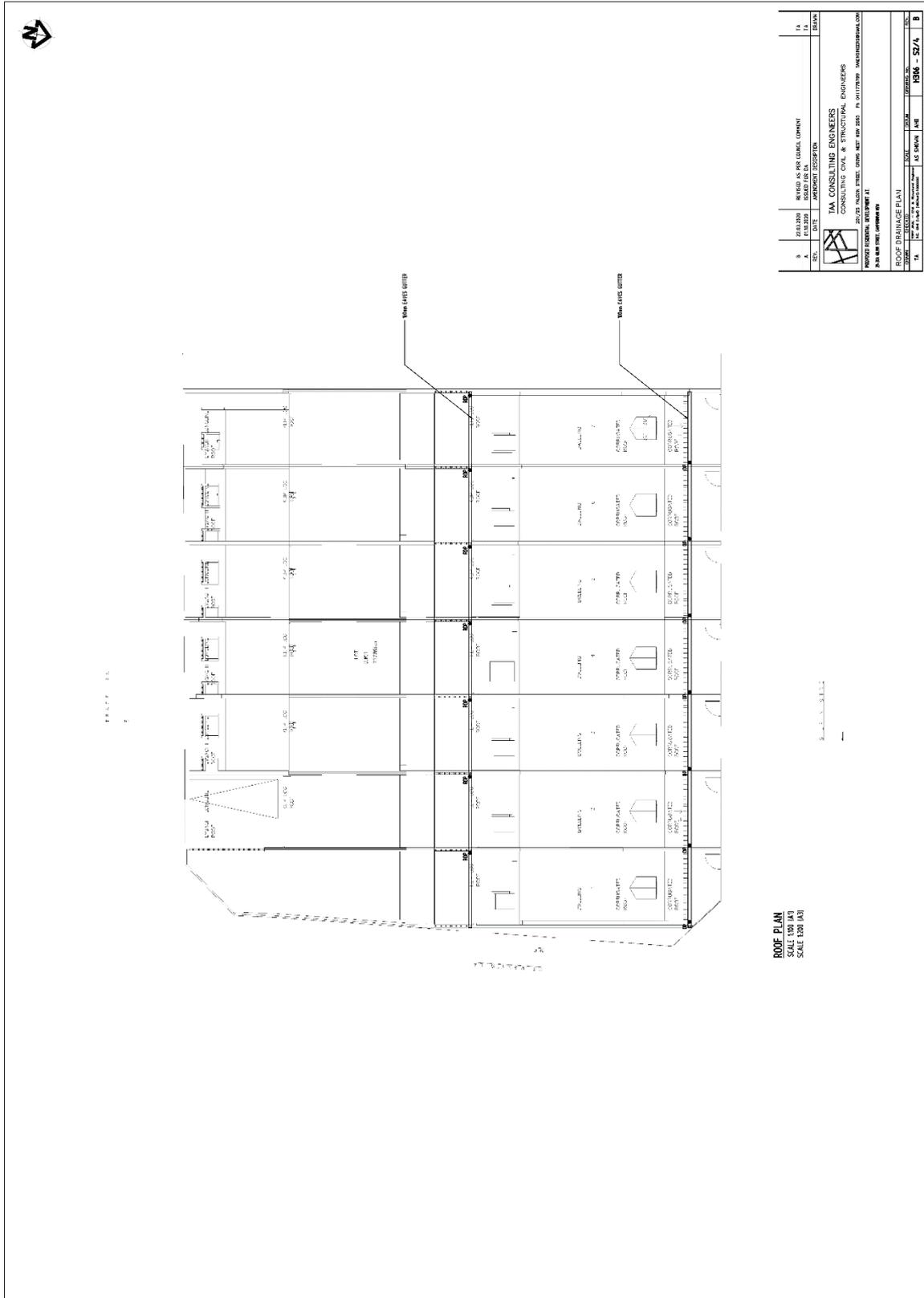
PROPOSED ATTACHED DWELLINGS DRAWING
ELEVATION SHADOW DIAGRAMS 21ST
OF JUNE - GARAGE (NORTH FACE)
29-37A GILPIN STREET
CAMPELDOWN NSW 2060
SCALE 1:100
DATE 08/07/2011
DRAWN BY JAMIE COOPER
CHECKED BY JAMIE COOPER

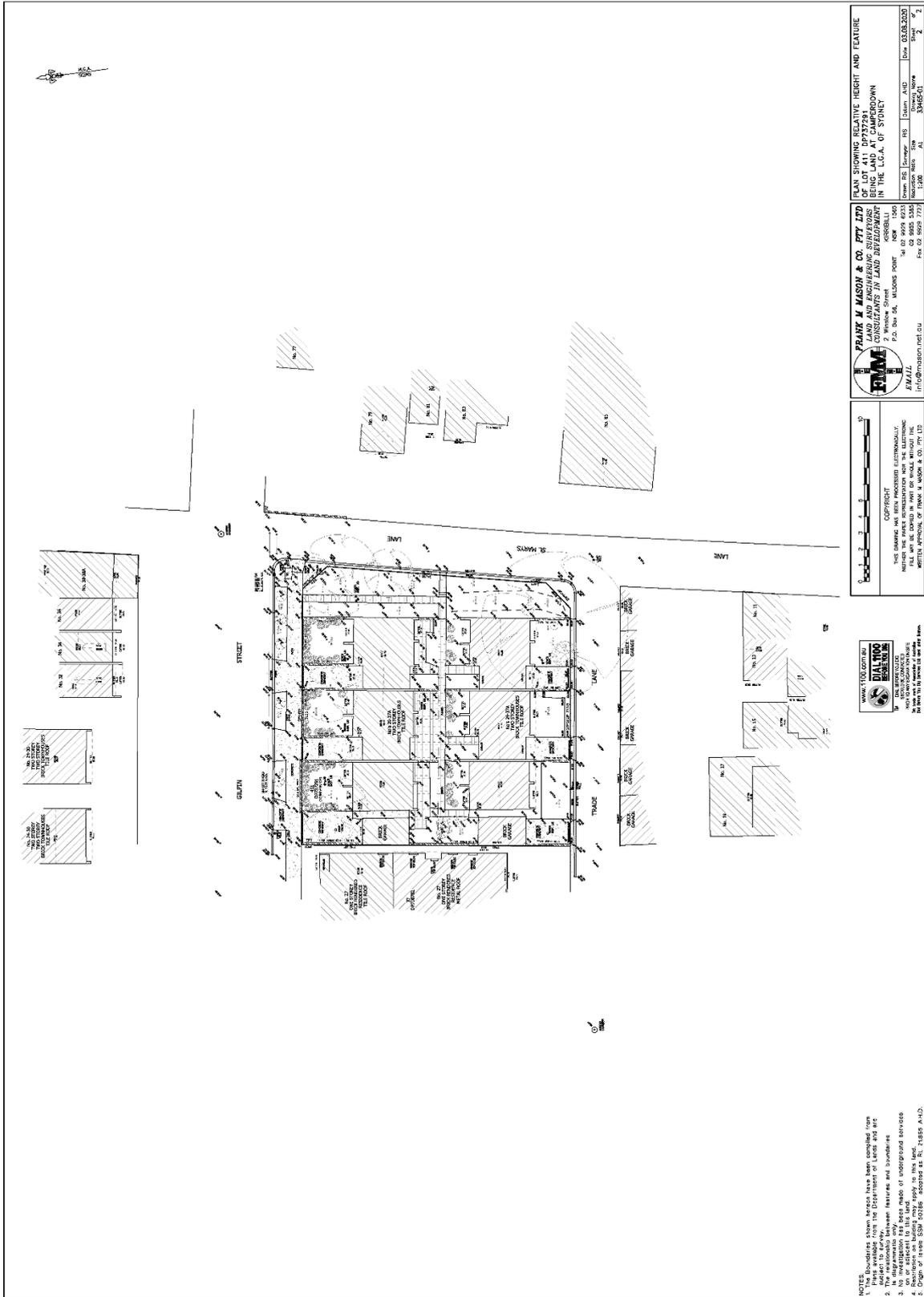


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PLAN SHOWING RELATIVE HEIGHT AND FEATURE OF LOT 411 DP23291 BEING LAND AT CAMPTOWN IN THE LGA OF STUNT

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 CONSULTANTS IN LAND SURVEYING
 FRANK MASON & CO. PTY LTD
 2 Winkler Street
 PO Box 34, Mudgee NSW
 NSW 2855
 Tel: 02 9429 4033
 Fax: 02 9429 1172

DATE: 03.08.2007

Drawn: [Name] Scale: [Scale]
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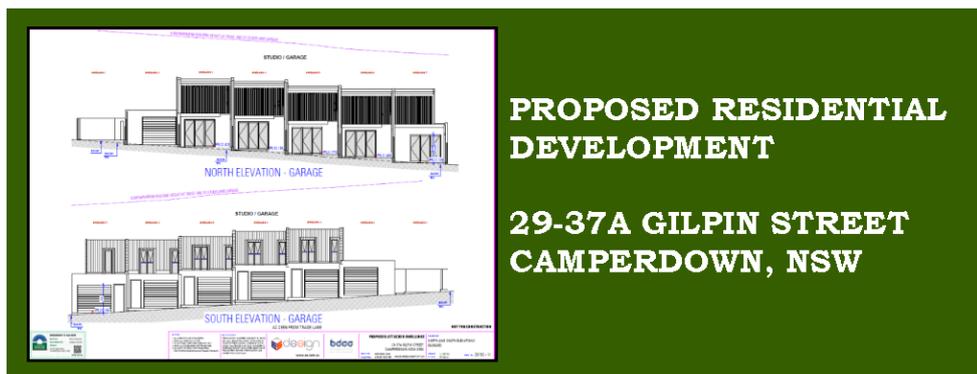
1. Boundaries shown hereon have been compiled from flight evidence from the Department of Lands and are not guaranteed.
2. The relationship between features and boundaries is not guaranteed.
3. No investigation has been made of underground services.
4. Dimensions on building may refer to the face.
5. Origin of level: SDA 102.00m. Reference to: N.T. 1885 A.O.D.

Attachment C – Arboricultural Impact Assessment and Tree Management Plan



9 Hickson Circuit
Harrington Park NSW 2567
M: 0425 308 275
E: scott@hortmanagement.com.au

ARBORICULTURAL IMPACT ASSESSMENT AND TREE MANAGEMENT PLAN



Report prepared for:

ES Engineering and Design P/L
Level 1 Suite 10
1 Cooks Avenue
Canterbury NSW 2193

Report prepared by:

Scott Freeman - Principal
Horticultural Management Services
Diploma of Arboriculture
Diploma of Horticulture
Diploma of Conservation and Land Management

24th September 2020
Amended 18th March 2021



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Every effort has been made in this report to include, assess, and address all defects, structural weaknesses, instabilities of the subject trees. All inspections were made from ground level using only visual means and no intrusive or destructive means of inspection were used. For many structural defects such as decay and inclusions, internal inspection is required by means of resistograph or similar. No such investigation has been made in this case. Trees are living organisms and are subject to failure through a variety of causes not able to be identified by means of this inspection and assessment.

Information contained in this report covers only the subject tree that was assessed and reflects the condition of the subject tree at the time of inspection. Any finding, conclusion or recommendations only apply to the circumstances and no greater reliance should be assumed or drawn by the Client.

There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the subject trees or the subject site may not arise in the future.

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1.0 INTRODUCTION AND BACKGROUND

Horticultural Management Services were engaged to conduct an Arboriculture Assessment Report with particular regard to the Commonwealth Environment Protection and Biodiversity Conservation Act 1999, with reference made to the Office of Environment and Heritage (OEH) (formerly National Parks and Wildlife Services), replaced by the Biodiversity Conservation Act 2016, Biosecurity Act 2015 and Inner West Council Tree Preservation Order (TPO).

This Arboricultural Assessment Report and Tree Management Plan was prepared by Horticultural Management Services.

It is understood that this report is to form part of a Development Application for a proposed residential development of the existing sites, which includes the demolition of the existing dwelling, new driveway excavation/locations, tree removal and associated landscaping as per Annexure A Proposed Development Layout.

A site investigation was undertaken on Monday 21st September 2020 to determine the existing trees overall health, structural integrity and identification of other physical conditions that may be present within the proposed development site or adjoining the site, which may be affected by the proposed development application.

The purpose of this report is to identify the trees within the development site, provide information on their individual current health and condition, determine their remaining life expectancy and significance in the landscape and assess their suitability for retention/preservation.

The potential impact of the proposed development has also been assessed, together with recommendations for amendments to the design or construction to ensure the retention of trees considered worthy of preservation.

This assessment takes into consideration the ecological qualities of all trees and other significant vegetation on the site and its biotic, ecological, historical, and visual significance.

The scope of this report includes the allocation of SULE ratings (Safe Useful Life Expectancy), identification of arboricultural and recommended work as required.

Information contained in this report covers only the subject trees that were assessed and reflects the condition of the subject trees on site at the time of inspection.

2.0 SITE LOCATION

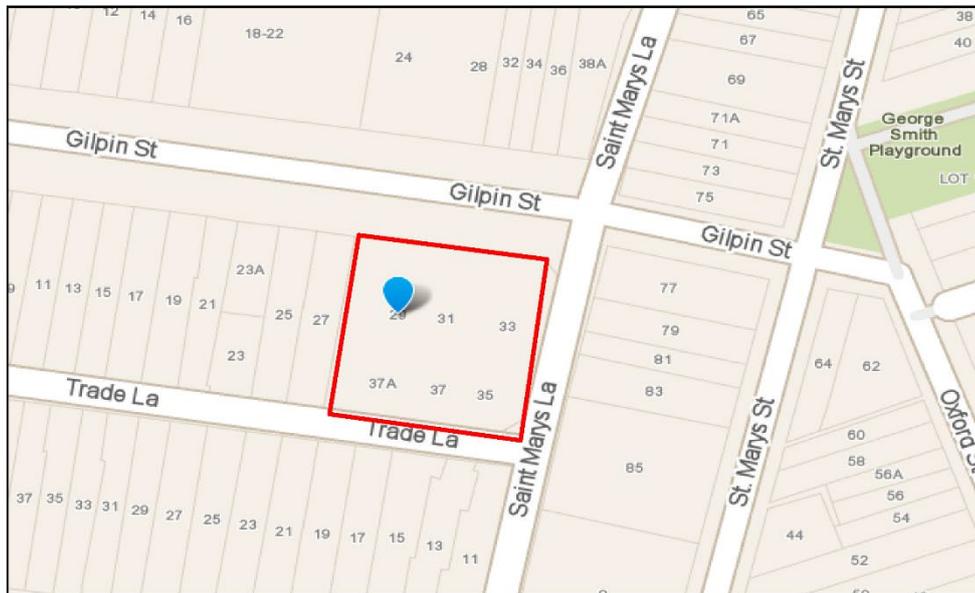


Figure 1 Shows the location of the study site. Source whereis.com.au

2.1 AERIAL SITE LOCATION



Figure 2 Shows an aerial location of the study site. Source Googleearth.com

3.0 AIMS

To detail the condition of the trees and consider the location and condition of such in relation to their surrounds.

Provide as an outcome of the assessment, the following:

- Carry out an inspection of the subject trees within and adjacent to the site/s and site conditions,
- Assess the condition of the subject tree(s),
- A description of the trees and other vegetation on the subject site,
- Observations made,
- Discussion on the trees in their current landscape,
- Determine the subject trees' Landscape Significance including cultural, environmental, and aesthetic values,
- Consider the benefits of retention or removal of the trees for the medium to long-term benefit of the trees and on-going public safety,
- Provide recommendations for Tree Management, if or as required, within the context of a development application, and
- Prepare site specific tree protection specifications for trees recommended for retention,

4.0 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The site is identified as 29-37A Gilpin Street, Camperdown NSW.

It is understood that this report is to form part of a Development Application for a proposed residential development of the existing sites, which includes the demolition of the existing dwelling, new driveway excavation/locations, tree removal and associated landscaping as per Annexure A Proposed Development Layout.

Relevant site plans and or documents were viewed prior to undertaking the Arborist Assessment with plans reviewed being;

ES Engineering Plan Numbers 20153 – 04.

A site plan accompanies this report and identifies all trees located on and or adjoining this proposed development site, which may be impacted upon. The sites contain a mixture of introduced exotic and native planted vegetation observed. The herbaceous or grass vegetation consists of a mixture of introduced pastoral grasses/weed species due to the sites long term residential pursuits.

5.0 METHODOLOGY

This report was determined as a result of a comprehensive site inspection undertaken on Monday 21st September 2020. The subject trees were inspected by Horticultural Management Services (HMS).

The comments and recommendations in this report are based on findings from this site inspection. Each tree has been provided with identification number for reference purposed denoted on the attached tree location plan and correlating with the Tree Assessment Schedule and as discussed within the report.

The method of assessment applied to the proposed development site is adapted from the principles developed by the Local Government Tree Resources Association (LGTRA). This recognised form of assessment considers the trees health/condition and subsequent stability, both in the long and short term at the time of the assessment and including but not limited to;

- Species identification (botanical and common),
- Height and form,
- Observations made including an evaluation of the tree's health and vigour using Crown spread and cover, foliage size, colour, extension growth, presence of disease or pest infestation, canopy density, presence of deadwood, dieback and epicormic growth as indicators,
- Condition, using visible evidence of structural defects, instability, evidence of previous pruning and physical damage as indicators,
- Suitability of the tree to the site and its existing location; in consideration of damage or potential damage to services or structures, available space for future development and nuisance issues,
- Likely future amenity based on a visual assessment,
- The trees tolerance to development impacts based on surface observations,
- Significance -specific heritage, cultural or intrinsic importance,
- Amenity value -as shade, windbreak etc or subjective, aesthetic values,
- Habitat value -both as an individual tree and as part of an ecological community,
- Observations of soil conditions and likely root spread,
- Overall condition assessment and suitability,
- Hazard/failure potential of tree to damage property or result in death,
- Safe Useful Life Expectancy (SULE) after Barrell (1995),

Retention Value, was based on the subject tree's Remaining Life Expectancy Range and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structure, and site suitability.

Landscape Significance, was determined by assessing the combination of the cultural, environmental, and aesthetic values of the subject trees. Whilst these values are subjective, a rating of high, moderate, low, or insignificant has been allocated to the trees. This provides a relative value of the trees' Landscape Significance which may aid in determining their Retention Value. A more detailed explanation is outlined in Section 5.3 Landscape Significance.

Tree height and canopy spread were estimated only. Diameter at Breast Height (DBH) was determined by measuring the main stem at 1.4m above ground. Photos were taken of the subject trees and subject site for the inclusion in this tabled report.

The components of **tree risk assessment** include the trees failure potential or in the case of the proposed, an environment conducive to tree failure.

5.1 VISUAL TREE ASSESSMENT

The inspection was limited to a visual examination of the subject trees from ground level.

This assessment process is used to determine the sustainability of each tree in the landscape. The assessment of each tree was made using Visual Tree Assessment (VTA).

All trees were assessed from the ground without dissection, probing or coring. No woody tissue testing was undertaken as part of this assessment.

Destructive, resistance testing, or aerial inspections have not been undertaken as part of this assessment. The health of the trees was determined by assessing the following:

- a) Foliage size and colour,
- b) Pest and disease infestation noted,
- c) Extension growth,
- d) Canopy density and form,
- e) Percentage of deadwood noted/observed,
- f) Presence of epicormic growth observed,
- g) Visible evidence of structural defects or instability,
- h) Evidence of previous pruning or physical damage,
- i) Observations made including an evaluation of the tree's health and vigour using Crown spread and cover, foliage size, colour, extension growth, presence of disease or pest infestation, canopy density, presence of deadwood, dieback and epicormic growth as indicators,
- j) Condition, using visible evidence of structural defects, instability, evidence of previous pruning and physical damage as indicators,
- k) Suitability of the tree to the site and its existing location; in consideration of damage or potential damage to services or structures, available space for future development and nuisance issues,

5.2 HERITAGE SIGNIFICANCE

There are no trees within the site that have been identified as Heritage Items under Council Planning Instrument or identified within a Significant Tree Register.

5.3 LANDSCAPE SIGNIFICANCE

The sites **Landscape Significance** was determined by assessing the combination of the cultural, environmental, and aesthetic values of the subject trees.

Whilst these values are subjective, a rating of high, moderate, low, or insignificant has been allocated to the trees.

This provides a relative value of the trees' Landscape Significance which may aid in determining their overall retention value. Generally, the following criteria have been used to determine the Landscape Significance of the subject trees.

| LANDSCAPE SIGNIFICANCE | DESCRIPTION |
|------------------------|---|
| HIGH | The subject tree is listed as a Heritage Item under the <i>Local Environmental Plan</i> with a local or state level of significance. |
| | The subject tree forms part of the curtilage of a heritage item. |
| | The subject tree creates a 'sense of place' or is considered 'landmark' tree. |
| | The subject tree is of local, cultural, or historical importance or is widely known. |
| | The subject tree is listed on Council's Significance Tree Register. |
| | The subject tree is scheduled as a Threatened Species or Threatened Plant Community under the <i>Biodiversity Conservation Act (2016)</i> |
| | The subject tree is a remnant tree. |
| | The subject tree is a locally indigenous species and is representative of the original vegetation of the area. |
| | The subject tree provides habitat to a threatened species. |
| MODERATE | The subject tree makes a positive contribution to the visual character or amenity of the area. |
| | The subject tree provides a specific function such as screening or minimising the scale of a building. |
| | The subject tree has a known habitat value. |
| | The subject tree is a good representative of the species in terms of aesthetic value. |
| LOW | The subject tree is an environmental pest species or is exempt under the provisions of the local Council's Tree Preservation Order. |
| | The subject tree makes little or no contribution to the amenity of the locality. |
| | The subject tree is a poor representative of the species in terms of aesthetic value. |
| INSIGNIFICANT | The subject tree is declared a Noxious Weed under the Biosecurity Act (1993). |

*NOTE: If the tree can be categorised into more than one value, the higher value should be allocated.

5.4 TREES ON ADJOINING LAND

In accordance with Council's requirements, trees adjoining the development have been assessed as part of this report.

There are no additional trees on adjoining properties that will be affected by this development.

5.5 IMPACT ASSESSMENT

A summary of each tree identified within the study site is outlined in section 10.0 Assessment of Existing Trees Identified on Site.

The assessment in each case has considered the following issues;

- Structural Root Zones (SRZ),
- Building works or footprint within TPZ or SRZ,
- Optimum Tree Protection Zones (TPZ) and Structural Root Zones (SRZ),
- SULE Rating for value of the tree assessed,
- Assessment of the likely impact of the proposed works,
- Recommendations for retention, management, or removal,

Changing the drainage patterns around a tree by constructing a building, driveways, road, and paths etc will alter the amount of water the tree receives and may cause root death or damage. Trenches dug beside or adjoining large trees for water, sewer or services may also damage the roots and will make a tree unstable.

Older trees will tolerate far less stress than younger trees as with age they become less responsive and find it very strenuous to respond to changes in their environment.

The components of tree risk assessment include the trees failure potential or in the case of land clearing/management, an environment conducive to tree failure.

Other factors are also considered related to the site, such as potential development or land use, soil condition and prevailing winds must be considered in conjunction when assessing the potential of failure for any tree.

6.0 PRUNING/REMOVAL STANDARDS

Any pruning recommended in this report is to be to the Australian Standard® AS4373 'Pruning of Amenity Trees', Amenity Tree Industry "Code of Practise 1998 and conducted in accordance with the NSW Work Cover Authority Code of Practice for Tree Work 2007.

All pruning or removal works are to be in accordance with the appropriate Tree Management Policy where applicable, or Tree Management Order (TMO), or Tree Preservation Order (TPO) and applicable consent conditions.

Tree maintenance work is specialised and in order to be undertaken safely and to ensure the works carried out are not detrimental to the survival of the tree or surrounding vegetation, all works should be undertaken by a qualified Arborist with appropriate competencies recognised within the Australian Qualification frame work, with a minimum of 5 years of continual experience within the industry of operational amenity arboriculture, and covered by appropriate and current types of insurance to undertake such works.

Any pruning near electricity wires should be undertaken in accordance with relative Electrical Safety Rules and be performed by persons individually authorised by Energy Australia with a "Work Near Overhead Power Lines" Certificate to undertake this scope of works.

7.0 TREE PROTECTION ZONES AND ROOT SYSTEM

On average the trees roots will extend to the outer reaches of their canopies, depending on morphology and disposition of the individual trees' roots, when known to be influenced by past or existing site conditions including but not limited to;

- The individual tree species,
- Soil type, structure, and location,
- Topography and existing drainage,
- Location of either manmade hard structures of group environment,
- Pruning requirements, if required,

These roots have two major functions, which are to obtain water and minerals from the soil and to give anchorage support to the tree.

This area is known as the Tree Protection Zone (TPZ), this is a designated area around tree where optimum protection and preservation efforts are implemented.

No disturbance should occur within this area. It is calculated by using a formula that considers the tolerance level of the species to disturbance, its age class, and its condition and trunk diameter.

The main area for surface feeding roots to occur is from the tree trunk to the outer canopy known as the drip zone. These fibrous roots are less likely to occur under or near other buildings, as there is little surface moisture or soil air presence for root survival. These fibrous roots are those that take up water and nutrients.

While some tree roots will deeply penetrate the soil profile, in search of available water, most will occupy the first 60-70cm of the soil, as to obtain the needed sustenance. At times, it will not be possible to retain the optimum TPZ around each tree and any activities proposed within this area must be carefully analysed to minimise any effects on its health and/or stability.

The actual spread of the root system is largely dependent on the species involved, and their localised environment. Any work carried out within the TPZ should be reviewed and supervised by an appropriately qualified Arborist.

Construction works proposed to be undertaken around the trees if not correctly assessed may modify the natural water table and reduce the amount of soil air and moisture present/available to the trees and their longevity may be greatly diminished.

If under the course of construction, the tree roots are damaged or adversely affected, their demise will cause drought stress; poor uptake of water and nutrients, slower dispersal of gums and resins and could, in the long term, have an effect on the movement of certain compounds which make up the structure of the tree.

8.0 TREE PROTECTION ZONE

A Tree Protection Zone (TPZ) is a radial distance measured from the centre of the trunk of the tree. The intention of the TPZ is to minimise incursions to the root system and canopy to ensure the long-term health and stability of the tree.

A commonly used delineation for the TPZ is the dripline (extent of the crown spread projected to the ground plane). However, this may not provide adequate protection for trees that have prominent leans or distorted imbalanced or narrow crowns. A more appropriate guideline is the trunk diameter.

The Tree trunk measurement is recorded and known as the Diameter at Breast Height (DBH) at 1.4 metres from ground level using a metric tape measure. The TPZ area is then calculated by $X \times 12$, another formula is then applied for the trees Structural Root Zone (SRZ) if the development is proposed to encroach into the TPZ.

Other factors included within the TPZ are the individual tree species, soil type, location, and proposed scope of works.

The above criteria also consider the following elements;

- The trunk diameter,
- The sensitivity/tolerance of the species to construction impacts,
- The level of maturity,
- The health, vigour, and structural integrity of the tree,
- The trees root and crown formation,

Construction Tolerance considers the following elements,

- Good – Good tolerance to construction impacts,
- Moderate – Moderate tolerance to construction impacts,
- Poor- Poor tolerance to construction impacts,

Maturity class of the tree considers the following elements,

- Over-mature – Greater than 80% of the life expectancy for the species,
- Mature – Greater than 50 – 80% of the life expectancy for the species,
- Immature – Less than 20% of the life expectancy for the species,

8.1 NORMAL STRUCTURAL ROOT FORM OF A TREE

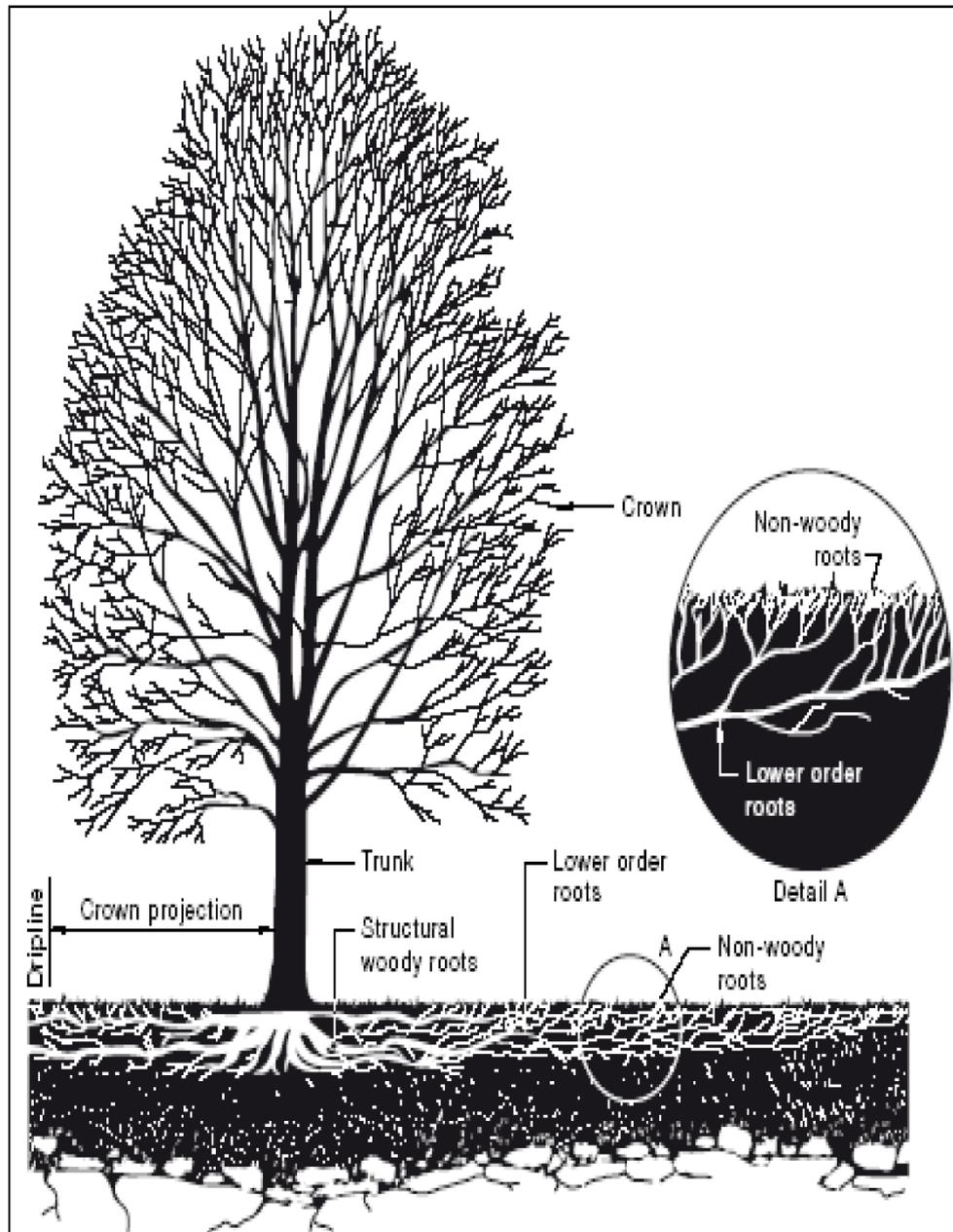


Figure 3 Shows a diagram of a typical tree root structure.
Source: Australian Standards - AS 4970-2009 Protection of trees on development sites.

8.2 TYPES OF TREE ROOTS

The trees root system develops in accordance with its pre-determined, height, soil conditions (availability of water and nutrients) and location of the root systems in response to the need to support the tree.

Unless conditions are uniform around the tree, which would be highly unusual, the extent of the root-systems can be irregular and difficult to predict. As tree roots are very opportunistic, they will not generally show the symmetry seen in the aerial parts.

The majority of the root system is in the surface 600mm to 700mm, extending radially for distances which are frequently in excess of the tree height.

8.3 ROOT PLATE

This forms the main structural woody roots which provides overall anchorage for the tree. It is this central part of the root-system (large root mass with sub-soil normally attached) which may tilt over or rotates in storm events.

8.4 WOODY ROOTS

Beyond the root plate the root system rapidly subdivides into smaller diameter woody roots (hydrotropic) which conduct water and nutrients from the non-woody roots.

8.5 NON-WOODY ROOTS

Off the smaller diameter woody root system, a mass of non-woody, fine feeder roots system develops. These are the roots which are active in water and nutrient uptake, are very fine in structure, typically less than 0.5mm diameter, and include mycorrhizal associations with some soil fungi. They are short lived, growing in response to the needs of the tree, with the majority dieing back each winter.

Conditions should be conducive for maintaining the growth of these non-woody roots to provide for the water and nutrient requirements of the tree.

Non-woody roots are vulnerable to damage, and once it occurs, water and nutrient uptake will be restricted until new ones are produced. Vigorous young trees will be capable of rapid regeneration, but more mature to over mature trees will respond slowly, if at all.

Any root damage and or demise may cause some drought stress; poor uptake of water and nutrients, slower dispersal of gums and resins and could, in the long term, have an effect on the movement of certain compounds which make up the structure of the tree, resulting in the slow decline to death of the trees.

9.0 DEFINITION OF ASSESSED HEALTH AND CONDITION OF TREE

The condition of each tree has been related in overall terms as one of the following headings and information is presented in section 11.0 Assessment of Existing Trees Identified on Site.

Good, the tree is generally healthy, vigorous, and free from the presence of major disease, obvious structural weaknesses, and fungal or insect infestation and is expected to continue to live in the same condition as at the time of the inspection. Only small recommendations may be required to help continue the trees longevity.

Fair, the tree is generally vigorous but has some indication of decline due to the early effects of disease, fungal or insect infestation, or has been affected by physical (storm damage) or mechanical damage (Vandalism or involved in an accident by a vehicle) or is faltering due to the modification of the tree’s environment essential for its survival.

This tree group may recover with remedial work undertaken by a Qualified Arborist where appropriate or without intervention and may regain some vigour and stabilise over time. Medium recommendations are required to bring this tree up to a satisfactory standard.

Poor, the tree is exhibiting symptoms of advanced and irreversible decline due to factors such as fungal infestation, termite damage, ring barking of the trees trunk due to borer infestation, major die-back in branches and the foliage is thinning in the crown due to various effects, epicormic growth is present throughout the inner canopy while the tree is using up its stored sugar and is in a state of stress.

This tree group will decline further to death over a period of time regardless of remedial works or modifications undertaken.

Dead, the tree is no longer alive and is in poor structural condition, that may cause damage to people or property and removal is strongly recommended.

9.1 TREE AGE CLASS TERMINOLOGY

The following maturity class have been allocated to each tree and considers the following elements,

| | |
|---------------------|--|
| Immature: | Less than 20% of the life expectancy for the species, |
| Semi-mature: | Middle age trees, 20% to 50% of life expectancy, |
| Mature: | Greater than 50 – 80% of the life expectancy for the species, |
| Over-mature: | Greater than 80% of the life expectancy for the species, senescent tree, or those declining irreversibly to death, |

9.2 SAFE USEFUL LIFE EXPECTANCY (SULE)

The remaining Safe Useful Life Expectancy of a tree is an estimate of the sustainability of the tree within the site/landscape, calculated based on an estimate of the average age of the species in an urban area, compared with its estimated current age.

The estimated SULE of each tree is discussed with the following values;

- Greater than 40 years (Long),
- Between 15 and 40 years (Medium),
- Between 5 and 15 years (Short),
- Less than 5 years,
- Dead or hazardous,

9.3 ASSESSED STRUCTURAL CONDITION

This refers to the tree's form and growth habit modified by its environment, the state of the trunk and main structural branches.

It includes the presence of defects as decay, weak branch junctions and other visible abnormalities. Although some trees without defects fail in major storms, the presence of any defect will increase the chances of failure.

- Good;** Trees with a single dominant trunk along which evenly spaced branches are spread. Branches have properly formed collars which provide strong attachment to the trunk and are about 25% of the trunk diameter. Minor structural defects may be present with low failure potentials.
- Average;** Trees with structural defects with low failure potential.
- Fair;** Trees with structural defects with medium failure potentials and require monitoring on an annual basis.
- Poor;** Trees with defects which have failed, or have a high risk of failing soon, and corrective action must be taken soon as possible.

9.4 ECOLOGICAL VALUE OF TREE

These categories are based upon the criteria used in the Thyer Tree Valuation Method (1996) to evaluate a tree's ecological benefit.

- 0.** None Weed species
- 1.** Low Restricts desirable plants or of little benefit to fauna.
- 2.** Medium Beneficial to flora & fauna provides food source and/or shelter.
- 3.** High Remnant /indigenous species of native vegetation.
- 4.** Very High Indigenous species being an integral part of a natural ecosystem.

9.5 VISUAL AMENITY PROVIDED-PROMINENCE

Criteria for the assessment of amenity values are based upon the criteria used in the Thyer Tree Valuation Method (1996) to evaluate a tree's visibility in the local area.

The amenity value of a tree is a measure of its visibility, its overall position within the site, its contribution to the visual amenity and character of the area, its living crown size/spread, visual appearance including natural form/habit and crown density percentage.

As a rule, a prominent (location) larger and significant subject tree, with good form, habit, density etc will achieve a higher amenity value.

- 0.** None Seldom/rarely seen (remote location).
- 1.** Low Seen frequently by private owners or adjacent residents.
- 2.** Medium Seen by neighbourhood residents and or passers-by.
- 3.** High Known locally or seen by many passers-by.
- 4.** Very High Of local historical importance or known widely.

9.6 RETENTION VALUE WITHIN THE LANDSCAPE

The **Retention Values** of the trees have been determined based on the estimated longevity of the individual tree with consideration of its landscape significance rating. Together with recommendations contained within this report the information should be used to determine the most appropriate action for protection, retention of trees considered worthy of preservation and or removal.

| Retention Value Rating | Landscape/Environmental Significance | | | | | | |
|--|--------------------------------------|----------------------|--------------------------|--------------|--------------------|--------|--------|
| | 1- Very High | 2- Very High to High | 3- High to Moderate | 4 - Moderate | 5- Moderate to Low | 6- Low | 7- Nil |
| HIGH – (H) Greater than 40 Years | High Retention Value | | | | | | |
| MEDIUM - (M) 15 to 40 Years | | | Moderate Retention Value | | | | |
| LOW – (L) 5 to 15 years | | | Low Retention Value | | | | |
| Less than 5 Years | | | | | | | |
| Dead or Hazardous | | | | | | | |

Table 2 Landscape Significance Value

9.7 RISK LEVEL MATRIX- CONSEQUENCES OF EVENT OCCURRING

Occupational Health and Safety Legislation places a “Duty of Care” on individuals and companies to ensure potential hazards and risks regarding tree management are eliminated as best as possible and develop controls for long term tree management.

Whilst a trees overall health may be hard to determine to a “Lay or Common person” there are some visible signs that may flag potential safety concerns including but not limited to; Limb shedding, poor canopy and foliage colour, major deadwood or die-back of out limbs etc.

The Risk Matrix table below involves determining the potential risk verses the probable consequence of exposure to the hazard and the likelihood of the event occurring.

| RISK LEVEL MATRIX – CONSEQUENCES OF EVENT OCCURRING | | | | | |
|---|-------------------------|------------------------|------------------------------|-------------------|---------------------------|
| LIKELIHOOD | Catastrophic (Fatality) | Major (Serious Injury) | Moderate (Medical treatment) | Minor (First Aid) | Insignificant (No Injury) |
| Almost Certain | E 25 | E 23 | E 20 | H 16 | H 11 |
| Likely | E 24 | E 21 | H 17 | H 12 | M 7 |
| Possible | E 22 | E 18 | H 13 | M 8 | L 4 |
| Unlikely | E 19 | H 14 | M 9 | L 5 | L 2 |
| Rare | H 15 | H 10 | M 6 | L 3 | L 1 |

Table 3 RISK LEVEL MATRIX

Risk Levels are; **E = Extreme** (18 to 25) – Act Now
H = High (12 to 17) – ASAP
M = Moderate (7 to 11) – Plan, and
L = Low Risk (1 to 6) – Review/assess tree annually

9.8 ENVIRONMENTAL ZONE DEFINITIONS

- 1. Landscaped:** Ornamental gardens including managed open lawns, tree/shrub planting.
- 2. Remnant:** Remnant vegetation significant to a local ecological community but managed with hard scaped areas i.e. paved areas, driveways,
- 3. Natural Bushland:** Natural bushland vegetation significant to local and broader ecological Vegetation communities and or identified under the Threatened Species Conservation Act 1995. Natural Bushland can then be defined further subject to ground truthing into the following sub-sections.
- a) Good.** High-quality vegetation and habitat values,
 - b) Medium.** Good quality vegetation with some introduced weed species, and
 - c) Poor.** Low-quality remnant vegetation, high-level weed infestation (and range of weed species), erosion, limited native habitat, requires site specific Vegetation Management Plan.
- 4. Mapped Environmental Constraint Areas:**
As per Council mapping e.g. Slope constraint (> 18°), watercourse buffer, sensitive vegetation buffer, Flora/Fauna significant/buffer as identified on site.

10.0 TREE IDENTIFICATION ASSESSMENT SUMMARY

| Tree Number | Tree Species | Height | DBH @ 1.4m | SRZ Required | TPZ Required | Tree Age | Tree Health | Tree Structure | SULE Rating | Ecological Significance | Landscape/ Visual Significance | Tree to be Retained and Arborist Comments | Low Tree to be retained, protected, and monitored. |
|-------------|---|--------|-------------|--------------|--------------|----------|-------------|----------------|-------------|--|--|---|---|
| | | | | | | | | | | | | | |
| 1. | Crepe Myrtle <i>Lagerstroemia indica</i> Street Tree | 2m | Multi trunk | 1.7m | 2.4m | Mature | Good | Good | 3 | * High * Moderate * Low * Nil | * High * Moderate * Low * Nil | * Yes * No | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this Street tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. |
| 2. | Crepe Myrtle <i>Lagerstroemia indica</i> Street Tree | 2m | Multi trunk | 1.7m | 2.4m | Mature | Good | Good | 3 | Nil | Low | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this Street tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. | |

| | | | | | | | | | | | | |
|----|---|----|-------------|------|------|--------|------|------|---|-----|-----|---|
| 3. | Crepe Myrtle <i>Lagerstroemia indica</i> Street Tree | 2m | Multi trunk | 1.7m | 2.4m | Mature | Good | Good | 3 | Nil | Low | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this Street tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. |
| 4. | Crepe Myrtle <i>Lagerstroemia indica</i> Street Tree | 2m | Multi trunk | 1.7m | 2.4m | Mature | Good | Good | 3 | Nil | Low | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this Street tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. |
| 5. | Crepe Myrtle <i>Lagerstroemia indica</i> Street Tree | 2m | Multi trunk | 1.7m | 2.4m | Mature | Good | Good | 3 | Nil | Low | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this Street tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. |

| | | | | | | | | | | | | |
|----|---|-----|-------|------|------|--------|------|------|----|-----|-----------------|---|
| 6. | Lilly Pilly <i>Acmena smithii</i> | 9m | 350mm | 2.2m | 4.2m | Mature | Good | Good | 3 | Low | Low to Moderate | No, this tree is required to be removed as it is located within Unit 7 with site modifications to its TPZ/SRZ. It is presently located close to the existing dwelling and is doing damage to the brick retaining wall; hence removal is warranted. It is recommended that this tree be removed and replaced within the landscape master plan. |
| 7. | Brown Barrel <i>Eucalyptus fastigata</i> | 12m | 480mm | 2.5m | 5.8m | Mature | Poor | Poor | 4C | Nil | Low | No, this tree is required to be removed due to its poor declining health and condition with noted major canopy loss, major dead wood, limbs that overhang the existing dwelling and adjoining street parking area. This tree is required to be removed regardless of any development due to WH&S concerns. It is recommended that this tree be removed and replaced within the landscape master plan. |

| | | | | | | | | | | | | |
|----|---|----|-------|------|------|--------|--------------|------|---|-----|-----------------|--|
| 8. | Wallangarra white gum <i>Eucalyptus scoparia</i> | 9m | 280mm | 2.1m | 3.4m | Mature | Good to Fair | Good | 3 | Low | Low to Moderate | No, this tree is required to be removed as it is located within Unit 1 with site modifications to its TPZ/SRZ, hence it is unable to be retained and its removal is supported. It is recommended that this tree be removed and replaced within the landscape master plan. |
| 9. | Wallangarra white gum <i>Eucalyptus scoparia</i> | 9m | 340mm | 2.2m | 4.1m | Mature | Good to Fair | Good | 3 | Low | Low to Moderate | No, this tree is required to be removed as it is located within Unit 1 with site modifications to its TPZ/SRZ, hence it is unable to be retained and its removal is supported. It is recommended that this tree be removed and replaced within the landscape master plan. |

| | | | | | | | | | | | | |
|-----|--|------|-------|------|------|--------|------|------|---|----------|-----------------|--|
| 10. | Leyland conifer <i>Cupressocypripis leylandii</i> | 8m | 390mm | 2.3m | 4.7m | Mature | Good | Good | 3 | Nil | Low to Moderate | No, this tree is required to be removed as it is located within Unit 1 with site modifications to its TPZ/SRZ, hence it is unable to be retained and its removal is supported. It is recommended that this tree be removed and replaced within the landscape master plan. |
| 11. | Weeping Bottlebrush <i>Callistemon viminalis</i> | 2.5m | 100mm | 1.5m | 2m | Mature | Fair | Fair | 3 | Moderate | Nil to Low | No, minor planted ornamental tree, that is TPO Exempt due to height requirements. It may be removed without further consideration |
| 12. | Dead tree removed Stump only | | | | | | | | | | | Dead tree removed Stump only. |
| 13. | Flowering plum <i>Prunus spp</i> | 2m | 220mm | 1.7m | 2.6m | Mature | Good | Good | 3 | Nil | Nil to Low | No, minor planted ornamental tree, that is TPO Exempt due to height requirements. It may be removed without further consideration |

| | | | | | | | | | | | | |
|-----|---|------|-------------|------|------|--------|------|------|---|------------|-----------------|---|
| 14. | Jacaranda <i>Jacaranda mimosifolia</i> | 9m | 600mm | 2.9m | 7.2m | Mature | Good | Good | 3 | Nil | Low to Moderate | Yes, based on AS4970-2009 Protection of Trees on Development Sites, this tree is sufficiently distanced to be safely retained, protected, and monitored through tree protection measures tabled. It is located within the open space deep soil area. Dwelling 3 is tabled to be within part of this trees TPZ, however, there is already paved/concrete within this area. The vertical batten screen is proposed to be hand dug to reduce impacts to the trees SRZ. Any works within its SRZ area is to be hand dug by the project arborist. |
| 15. | Weeping Bottlebrush <i>Callistemon viminalis</i> | 2.5m | Multi trunk | 1.5m | 2m | Mature | Good | Good | 3 | Nil to Low | Nil to Low | No, minor planted ornamental tree, that is TPO Exempt due to height requirements. It may be removed without further consideration |

| | | | | | | | | | | | |
|-----|---|---------|------|----|--------|------|------|---|-----|------------|---|
| 16. | Ornamental planted palms, 3m or Less Bird of paradise Cabbage tree <i>Cordyline australis</i> Kentia palm <i>Howea forsteriana</i> | various | 1.5m | 2m | Mature | Good | Good | 3 | Nil | Nil to Low | No, minor planted ornamental species, TPO Exempt due to height and or species noted. They may be removed without further consideration. |
|-----|---|---------|------|----|--------|------|------|---|-----|------------|---|

Figure 4 Shows a list of trees observed and assessed in relation to this application by a Qualified Horticulturist and AQF Level 5 Arborist (Dip Arb)

11.0 TREE IDENTIFICATION BASED ON PROPOSED DEVELOPMENT

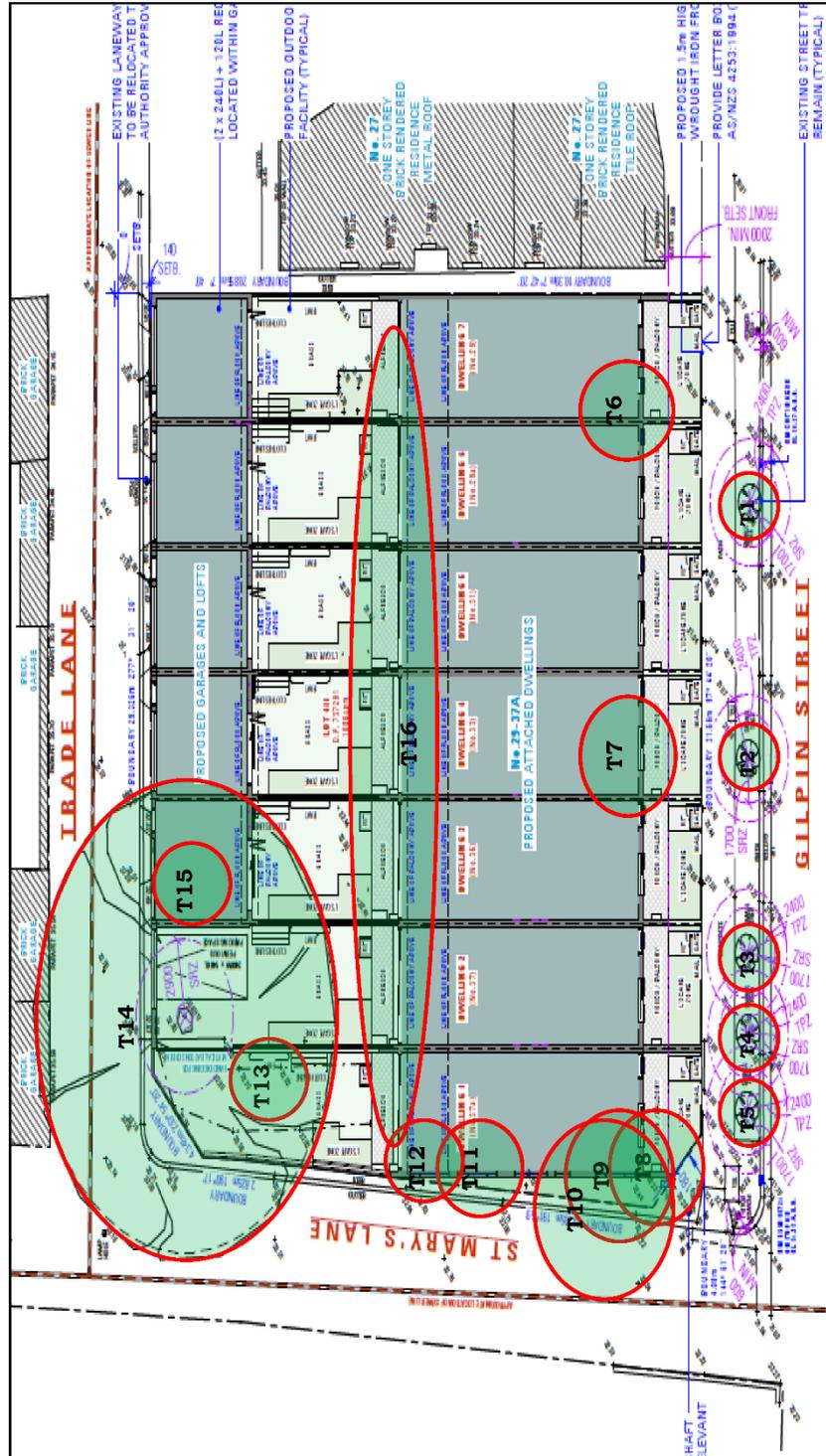


Figure 5 Shows the trees location assessed based on the plans provided

12.0 TREES PROPOSED TO BE RETAINED OR REMOVED BASED ON DESIGN

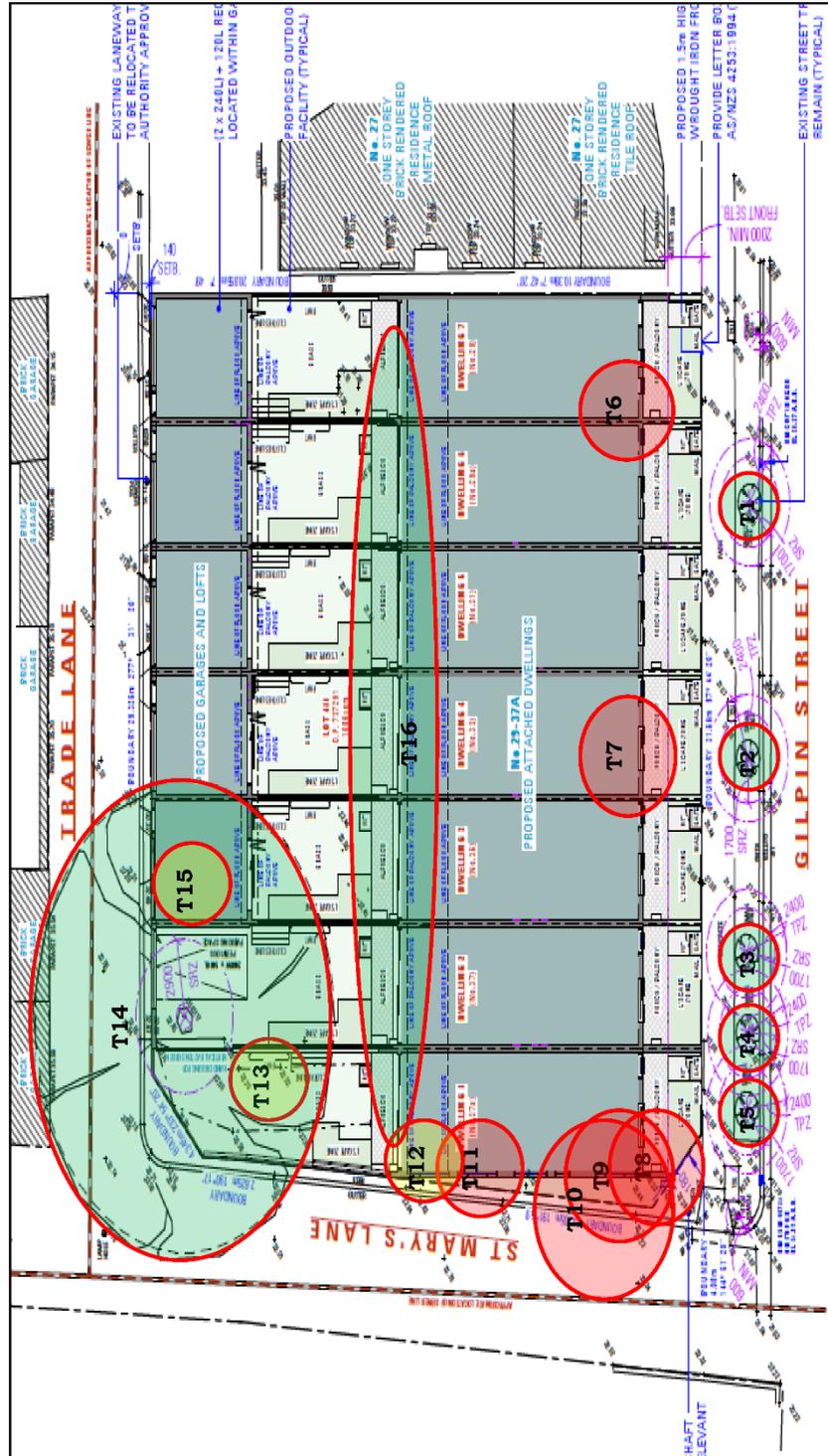


Figure 6 Shows the trees proposed to be retained with removed trees in RED with TPO Exempt species in Yellow.

12.1 TREE MANAGEMENT PLAN (TMP) FOR RETAINED TREES

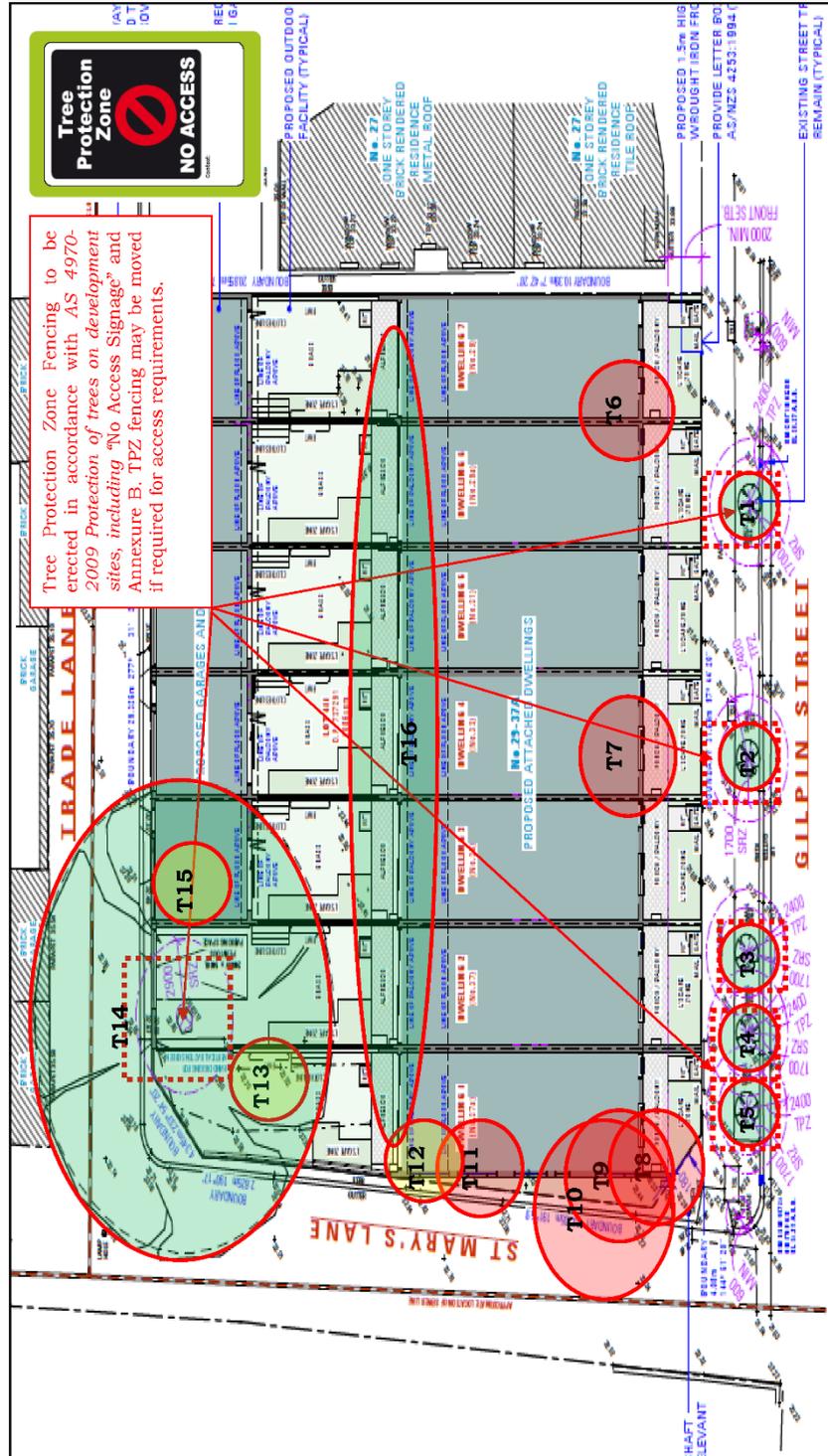


Figure 7 Shows the Tree Management Plan proposed

13.0 SITE PHOTOGRAPHS



Figure 8 Shows Street Trees 3, 4 and 5 from a distance.



Figure 9 Shows Street Tree 1 and site Tree 6 from a distance.



Figure 10 Shows Tree 6 in close proximity to the existing dwelling and damaging the existing brick retaining wall and driveway area.



Figure 11 Shows Tree 7 in poor declining condition and visual amenity.



Figure 12 Shows Tree 7 upper canopy foliage in poor health and density.



Figure 13 Shows again Tree 7 structurally poor upper canopy.



Figure 14 Shows Trees 8 and 9 lower trunks.

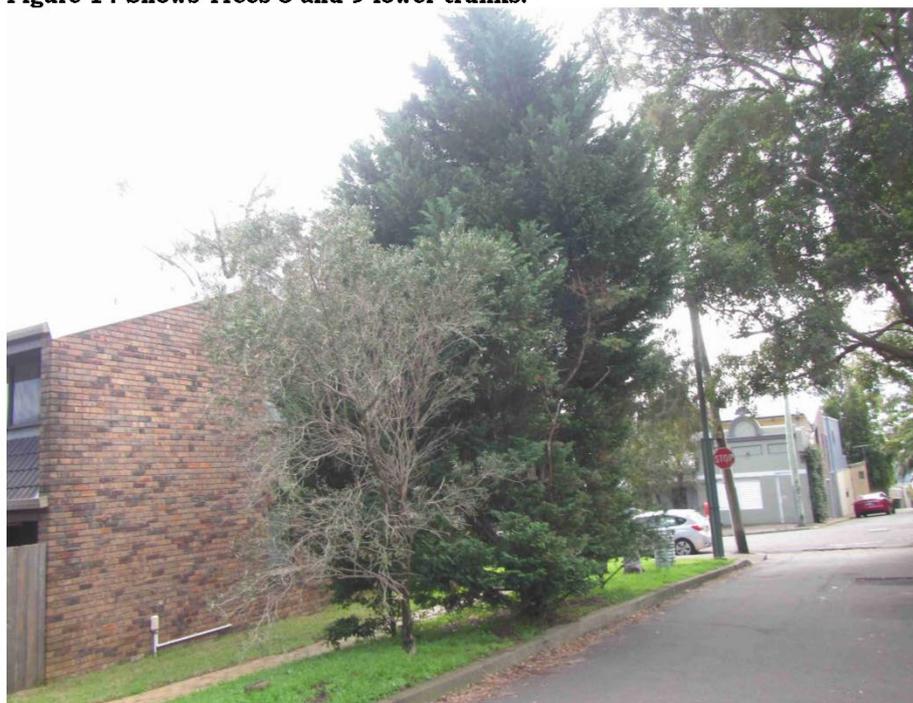


Figure 15 Shows Trees 11 and 12 from a distance to be removed.



Figure 16 Shows Tree 14 from a distance



Figure 17 Shows previous pruning scars with epicormic extension regrowth from a distance.



Figure 18 Shows again previous pruning scars with extension regrowth.



Figure 19 Shows Tree 14 within the rear lane from a distance.



Figure 20 Shows Tree 15, being a minor poor bottlebrush.



Figure 21 Shows minor exempt shrubs that may be removed without further consideration.

**14.0 RETENTION OF ADJOINING STREET TREES 1, 2, 3, 4, 5 AND 14
(General Overview)**

The following points may be considered for the long-term retention of trees under this application.

- Avoid large changes to the surface structure due to modification of the tree's moisture / surface feeding roots,
- A Qualified Arborist/Horticulturalist undertakes all Arboricultural works,
- All trenching near the trees as required is to be hand dug to ensure minimal disturbance to additional surface feeding roots,
- Any tree roots discovered are cut cleanly with root pruning devices,
- Vertical deep watering points for stressed mature trees if or as required,
- Air-knife treatments, to alleviate soil compaction where trees are suffering stress, and to inspect tree root structures and growth patterns,
- Any proposed work located near the trunk or outer canopy of the trees drip line, were services are known to be in the vicinity, any excavation for services should be hand dug to ensure minimal impact to the trees surface feeding and support roots,
- Any tree roots that are exposed will be removed by approved Arboricultural techniques and have a root hormone i.e. Formula 20® or equivalent applied at the manufacture's specification,
- Any trenches undertaken near tree drip zones will be backfilled and compacted with an approved Australian Standard orchid mix 60/40 containing washed river sand and peat moss to a minimum depth of 700mm, the remaining soil profile is to be filled with an approved topsoil to meet the existing soil surface,
- No building waste is to be disposed of/or stored near the tree trunk or drip zone,
- To ameliorate impact of any development, advanced plants may be used in the Landscape Master Plan,
- Plantings should take into consideration the high priority of the streetscape and visual amenity,
- Any vegetation removed during the development is not mulched and used in landscaping due to the high levels of weed infestation on the site and the likelihood that seeds, and viable cuttings may be spread throughout the development,
- To ameliorate impact of any development, standard erosion and sediment controls are recommended,
- The trees drip line/zone is to be mulched to the Horticultural standard of 75mm,
- Regular watering is to be undertaken in hot dry periods to alleviate any short-term stress or loss of available water,
- Erection of a chain mesh safety fence be installed to ensure the protection of Trees Critical Root Zone as per Annexure B,
- A qualified Arborist should monitor these trees over a twelve (12) month period to evaluate the trees recovery and provide technical information to Council as required.

15.0 SENSITIVE CONSTRUCTION APPROACH FOR SITE TREES

Where works are unavoidable within the Tree Protection Zone (TPZ) and or Structural Root Zone (SRZ) of trees to be retained, the following should be considered, but not limited to;

- Minimise the direct and indirect impacts to tree roots and soil such as root severance or damage, soil excavation, compaction, and contamination,
- Allow for the free movement of water and oxygen within the soil of the TPZ,
- Allow for future rooting area adjacent to the TPZ,

Where the placement of footings within the SRZ cannot be avoided, root sensitive footing systems should be considered i.e. Terrabond®, Rocla Tri hex® paver or Eco paver® series would be sufficient to allow surface moisture and air into both trees surface feeding zone. These footings systems are minimal in their need for excavation by comparison to strip footings.

Footing systems such as pier and beam, screw pile and waffle slab have the potential to reduce the impact on trees by retaining sections of soil and roots between the piers.

To achieve the most benefit from this type of construction, the following is recommended;

- Discontinuous footings should be used within the SRZ of the subject tree. (standard footing design could be used outside this area),
- All beams should be above the natural soil grade/surface,
- The footing design should allow for the greatest achievable span between Piers (as per engineer's specifications/advice),
- Piers should not be placed within the Root Plate Radius of the subject tree,
- Foundations for the proposed piers should be initially hand dug to a depth of 500mm or to rock. If any roots are found that are greater than 40mmø, the pier position should be relocated, subject to engineer's advice,
- The proposed excavations should not result in the severance of roots greater than 40mmø,
- Care should be taken to avoid soil compaction between piers and any drilling machinery should remain outside the Tree Protection Zone. If access within the Tree Protection Zone by machinery cannot be avoided, appropriate compaction control methods should be used,
- Consider the type of equipment that will be used to drill holes for the piers and the clearance/tolerance requirement under the subject tree's canopy,
- These construction methods may require the implementation of post-construction maintenance such as irrigation and mulching. This would assist in minimising the potential impacts on tree health by providing favourable environment conditions for continued root growth and development.

Where achievable, pedestrian / vehicular access ways should be constructed of a semipermeable material (as listed above) and placed above grade to minimize the need for excavation. The strength of the pavement shall be selected to reduce the reliance on sub-base for strength.

Where appropriate, hand excavation and root pruning should be undertaken along the length of excavations adjacent to SRZs prior to any machine construction work. Major roots (greater than 40mmø) should not be severed or damaged. Minor roots (less than 40mmø) to be pruned should be cleanly severed.

16.0 PRE-CONSTRUCTION TREE PROTECTION MEASURES

16.1 APPOINTMENT OF SITE ARBORIST

A Site Arborist shall be appointed prior the commencement of all works on- site.

The Site Arborist shall monitor the trees to be retained and supervise the tree protection measures. The Site Arborist shall have a minimum qualification equivalent (using the Australian Qualifications Framework) of NSW TAFE Certificate Level 5 or above in Arboriculture. An allowance of Five-(5) working days’ notice to allow inspections to be undertaken at the following stages would be considered standard practice.

| INSPECTION/HOLD POINT | INSPECTION PERSONNEL |
|---|--|
| Identification of retained trees and installation of tree protection zone including protection fencing, silt fencing and appropriate signage. | Site Arborist to undertake with Site Supervisor. |
| Modification of the Tree Protection Zone if or as required. | Site Arborist to undertake with Site Supervisor. |
| Works within the Tree Protection Zone if or as required. | Site Arborist to undertake with Site Supervisor. |
| Completion of the construction works (Post Construction) and final inspection/sign off. | Site Arborist to undertake with Site Supervisor. |

16.2 EDUCATION

The project development applicant, contractors and site workers shall receive a copy of the final/Council approved Arborist Assessment and specifications with a minimum of 3 working days prior to commencing work on-site.

Contractors and site workers undertaking works within the Tree Protection Zones shall sign the site log confirming they have read and understand these specifications, prior to undertaking works on-site.

16.3 SITE WORKS TREE PROTECTION ZONES

The trees identified to be retained shall be protected prior to and during the construction process from activities that may result in an adverse effect on its health, structure, or longevity.

The area within the Tree Protection Zone shall exclude the following activities, unless otherwise stated and or approved by Council/Consent Authority;

- | | |
|---|--|
| Modification of existing soil levels, Excavations and trenching, Cultivation of the soil, Mechanical removal of vegetation, Soil disturbance, Movement of natural rock, Storage of materials, plant, or equipment, Erection of site sheds, | Affixing of signage or hoarding to the tree, Preparation of building materials, Disposal of waste materials and chemicals, Movement of pedestrian or vehicular traffic, Temporary or permanent location of services, |
|---|--|

16.4 TREE PROTECTION FENCING

Tree Protection Fencing shall be installed at the perimeter of the Tree Protection Zone as specified.

As a minimum, the Tree Protection Fence shall consist of 1.8m high temporary chain wire panels supported by steel poles/stakes. They shall be fastened together and supported to prevent sideways movement. The fence must have a lockable opening for access. The tree’s woody roots shall not be damaged during the installation of the Tree Protection Fencing.

Shade cloth material shall be attached to the outer surface of the Tree Protection Fence. The shade cloth material shall be transparent to provide visibility into the Tree Protection Zone.

The Tree Protection Fence shall be erected prior to the commencement of works on-site and shall be maintained in good condition for the duration of the development period.

The Tree Protection Fence shall only be removed, altered, or relocated with the authorization from the Site Arborist in consultation with the Site Supervisor.

16.5 SIGNAGE

Tree Protection Signage shall be attached to the Tree Protection Zone and displayed in a prominent position on each tree protection fencing.

The signs shall be repeated at 10m intervals or closer where the fence changes direction. The signage shall be installed prior to the commencement of works on-site and shall be maintained in good condition for the duration of the development period.

The lettering for each sign shall be a minimum 72-point font size. The signs shall be a minimum size of 600 x 500mm. The lettering on the sign should comply with AS 1319. Each sign shall advise the following details;



- This fence has been installed to prevent damage to the tree and its natural environment. **Access is restricted.**
- If access, encroachment, or incursion into this Tree Protection Zone is required, prior authorisation is required by the Site Arborist.
- Name, address, and telephone number of the firm.

Source AS 4970-2009 Protection of trees on development sites

16.6 SILT FENCING, SEDIMENT CONTROL AND SOIL EROSION

To protect the sites habitat from soil erosion, an approved sedimentation control fence should be erected prior to the construction process.

The purpose of the silt fencing and sediment control is to ensure that no soil material (erosion) enters or leaves the building site into Tree Protection Zones or any nearby dams or creeks etc. Silt fence shall be installed parallel to the contours in the area immediately above the Tree Protection Zone. The silt fence shall be installed by securing geo-fabric to secure post fencing.

The post pickets shall be placed at 200mm below existing soil surface. Any sedimentation barrier used is to remain in place for a minimum of 12 weeks after practical completion and can be removed after this time provided, plant growth, health; density and condition have been noted by the Site Arborist.

A hay/straw bale shall be placed up slope from the silt fence and secured with timber stakes. The bottom of the geo-fabric shall be folded underneath the hay/straw bale.

To allow for the maintenance of both the Tree Protection Fence and the silt fence, the two- (2) fences shall be constructed separately and stand independently of each other. The silt fence shall be erected prior to the commencement of works on-site and shall be maintained in good condition for the duration of the development period.

It should be noted that the installation of silt fences as part of this Tree Protection Plan are not erosion and sediment control measures for the development.

The method and type of barrier is to be directed by Council and or as identified in EPA Guidelines, which covers the recently revised document "**Managing Urban Storm water: Soil and Construction Vol.1 (4th Edition)**" (also referred to as the "**Blue Book**"). The Blue Book covers a range of technical and management issues relating to erosion and sediment control in urban development (including standard drawings).

In addition, contractors must refrain from including but not limited to doing any of the following activities within or adjoining the tree protection zones.

- Stockpiling of soils, rubble, or other materials,
- Placement of a site office or shed,
- Mixing materials,
- Parking of construction machinery or other vehicles,
- Repairing machinery and or re-fuelling,
- Lighting of fires,

The Site should be left in a clean and tidy manner ensuring suitable mulch cover is applied within the trees drip zone prior to the sedimentation barrier removed.

17.0 SITE MANAGEMENT OF RETAINED TREES

17.1 MATERIALS STORAGE

No materials shall be stored or located within the specified Tree Protection Zone.

A silt fence shall be installed down slope of any storage points. Storage points (where applicable) shall be covered when not in use. An appropriate Environmental spill kit shall always be on site for any unlikely spillages.

17.2 WASTE STORAGE

Waste storage shall not be located within the specified Tree Protection Zone.

A silt fence box style collection point shall be installed down slope from any waste/rubbish collection point. All rubbish shall be stored to prevent material loss caused by wind and or water. Skip bins shall be covered when not in use.

All debris collected should be removed from the site and disposed of in an authorized waste management facility. Natural debris such as logs, and rocks may be left as wildlife habitat provided it does not present a safety hazard or become an obstruction. In such cases, it should be appropriately re-arranged and or secured.

Site sheds shall not be located within the specified Tree Protection Zone for any reason.

18.0 TREE PROTECTION MEASURES FOR CONSTRUCTION PROCESS

18.1 SITE ACCESS

Pedestrian and vehicular movement shall not occur within any section of the specified Tree Protection Zone.

18.2 TEMPORARY SERVICES

Temporary services i.e. water, electricity, sewer shall not be located within any section of the Tree Protection Zone, for any purpose.

18.3 WORKS WITHIN THE TREE PROTECTION ZONE

The Tree Protection Zone may need to be modified during the construction process to allow access between the tree to be retained and the construction works.

The Tree Protection Zone shall remain intact as specified and approved by Council until these works are to project completion. If access, encroachment, or incursion into the Tree Protection Zone is deemed essential, prior authorization is required by the Site Arborist.

The modification of the Tree Protection Zones may necessitate the dismantling of sections of the Tree Protection Fencing in the short term as part of the construction process. The Tree Protection Fence shall only be removed, altered, or relocated with the authorization of the Site Arborist in writing.

18.3.1 TREE TRUNK PROTECTION WORKS

Where deemed necessary by the Site Arborist, trunk protection shall be provided. Trunk protection may vary subject to the scope of works, trees age, height, and environmental conditions. For semi mature to mature trees shall be installed by wrapping around two-(2) layers of carpet underlay or similar around the trunk to a minimum height of 2m or where the lower scaffold branches allow.

The trunk shall further be protected with 2m lengths of timbers (75 x 50 x 200mm) spaced at 100mm centres, secured by wire rope. The wire rope shall not be fixed to the tree in any way.

18.3.2 TREE BRANCH PROTECTION WORKS

Where deemed necessary by the Site Arborist, branch protection shall be provided. Branch protection shall be installed by wrapping around two-(2) layers of carpet underlay or similar around the branch, secured by wire rope.

The wire rope shall not be fixed to the tree in any way.

18.3.3 ROOT PRUNING AND EXCAVATION WORKS

Minor roots (less than 40mm in diameter) to be pruned shall be cleanly severed with sharp, sterilised pruning implements. Hessian material shall be placed over the face of the excavation. Exposed roots shall be kept in a moist condition during the construction phase.

The main area for surface feeding roots to occur is from the tree trunk to the outer canopy known as the drip zone. These fibrous roots are less likely to occur under or near other buildings, as there is little surface moisture or soil air presence for root survival. These fibrous roots are those that take up water and nutrients.

While some tree roots will deeply penetrate the soil profile, in search of available water, most will occupy the first 60-70cm of the soil, as to obtain the needed sustenance. At times, it will not be possible to retain the optimum TPZ around each tree and any activities proposed within this area must be carefully analysed to minimise any effects on its health and/or stability.

The actual spread of the root system is largely dependent on the species involved, and their localised environment. Any work carried out within the Tree Protection Zone should be reviewed and supervised by the engaged Site Arborist.

Construction works proposed to be undertaken around the trees if not correctly assessed may modify the natural water table and reduce the amount of soil air and moisture present/available to the trees and their longevity may be greatly diminished.

If under the course of construction, the tree roots are damaged or adversely affected, their demise will cause drought stress; poor uptake of water and nutrients, slower dispersal of gums and resins and could, in the long term, have an effect on the movement of certain compounds which make up the structure of the tree. Where major roots (greater than 40mm \varnothing) are encountered during excavations, further advice from the Site Arborist shall be sought prior to any pruning. Certain instances may require hand digging to ensure the trees health and overall stability.

18.3.4 TREE DAMAGE DURING WORKS

In the event of the tree that is to be retained becoming damaged during the development period, the Site Arborist shall be informed to inspect and provide advice on remedial action if or as required.

18.3.5 COMPLETION OF WORKS WITHIN TREE PROTECTION ZONE

Upon completion of the works within the Tree Protection Zone, the Tree Protection Fencing shall be erected until site machinery, sheds, storage facilities are removed.

Where the construction of new structures does not provide sufficient area for the specified Tree Protection Zone, the Tree Protection Zone shall be modified by the Site Arborist prior to any works commencing and be documented.

18.4 SOIL PROTECTION WORKS

Where deemed necessary by the Site Arborist, the ground surface within the Tree Protection Zone shall be protected by laying geo-textile over the existing mulch cover.

Large diameter (up to 70mm) recycled railway ballast (basalt) shall be placed over the geo-textile material to a depth of 100mm.

The soil layers shall not be inverted during the excavation works and topsoil shall be stockpiled on site for use in the landscape works. However, it is expected that stringent controls are imposed and implemented to minimise adverse impacts on the soil. These should be site specific and are beyond the scope of this report.

18.5 PEST AND DISEASE MONITORING

All plants should be monitored for pest and disease every two weeks as part of the programmed site inspections. Insecticide is not recommended for native plant species unless the problem becomes severe.

Most native plants will re-shoot after insect predation has passed.

18.6 MONITORING

The Site Arborist shall monitor the site fortnightly throughout the development period to ensure these specifications are maintained.

A site log shall record the details of the site inspections for review by the Principal Certifying Authority prior to the release of the Compliance/Occupation Certificate.

Any changes to the proposed design or through development on site will require additional arboricultural assessment.

The applicant/contractor shall complete all works tabled in this Arborist Assessment in accordance with this program as agreed with, any variations are to be formally submitted to the Site Arborist and or Certifying Authority for approval.

The work shall be deemed 'practically complete' when all works have been completed to the satisfaction of the Contractor and Certifying Authority.

19.0 POST CONSTRUCTION MAINTENAINCE PROCESS

Upon the completion of construction works, a final assessment of the tree(s) shall be undertaken by the Site Arborist in consultation with the Site Supervisor. Items to be inspected and addressed shall include but not limited to;

- Tree Protection Zone measures, (*where they adequate*)
- Any damage to the tree's root system, (*if applicable*)
- Any visible damage to the tree's trunk, branches, or canopy, (*if applicable*)
- Any changes in levels, soil structure, erosion, or loss of organic matter, (*if applicable*)
- Changes to wind loading in the crown through pruning requirement and effects of new structures, (*if applicable*)
- Pest and disease infestation, (*if observed*)
- Drought stress,
- Requirement for decompaction works, (*if applicable*)
- Requirement for further pruning works, (*if required*)
- Requirement for ongoing maintenance such as watering, mulching.

20.0 CONCLUSION

The trees which are subject of this report are protected under Inner West Council Tree Preservation Order.

Consideration of retaining mature significant vegetation to the area was paramount. After close visual and physical investigation of the various trees condition the results from field investigations are as follows;

Site and street trees numbered 1, 2, 3, 4, 5 and 14 are sufficiently distanced to be retained with no adverse impacts anticipated to these trees based upon their separation distance and best practice arboricultural techniques tabled that will ensure no impacts to the TPZ and or SRZ, furthermore, these trees required to be monitored annually.

Approval is recommended for the removal of Ten-(10) Trees and or Shrubs Numbered 6, 7, 8, 9, 10, 11, 12, 13, 15 and 16 due to their location within the proposed development layout, demolition works, excavation zones and considered scope of works. All considerations, options regarding their retention were considered.

Trees Numbered 12, 13, 15 and 16 are TPO Exempt due species or height requirements and may be able to be removed without further consideration.

Furthermore, based on the proposed layout, access requirements, considered construction requirements within the trees present location and site modifications, the development would result in the long term modifications to these trees natural environment through but not limited to; loss of surface and anchorage roots, soil compaction to the trees natural water table including redirection through the required cut and fill levels that would result in the decline of the tree's health and overall stability in the long term, therefore, they are supported to be removed and replaced with advanced trees in the landscape master plan.

As stated, this tabled report is a snapshot of the existing trees structural condition, health and condition at that point in time on site and should be used as a guide when assessing this Development Application.

In summary, there are no unforeseen tree/vegetation issues that would arise out of the proposed development that would require modification to the proposal.

21.0 RECOMMENDATIONS

After close visual and physical investigation of the trees condition (VTA) the results from the field investigations indicated the following;

Subject to Council process, approval is recommended for the removal of Ten-(10) Trees and or Shrubs Numbered 6, 7, 8, 9, 10, 11, 12, 13, 15 and 16 due to their location within the proposed development layout, demolition works, excavation zones and considered scope of works. All considerations, options regarding their retention were considered.

Tree Numbered 7, is required to be removed due to WH&S concerns from its declining health and density, regardless of any development proposal.

Site and street trees numbered 1, 2, 3, 4, 5 and 14 are sufficiently distanced to be retained with no adverse impacts anticipated to these trees based upon their separation distance and best practice arboricultural techniques tabled that will ensure no impacts to the TPZ and or SRZ, furthermore, these trees required to be monitored annually.

Thus, these proposed works comply with the *Australian Standards - AS 4970-2009 Protection of trees on development sites*.

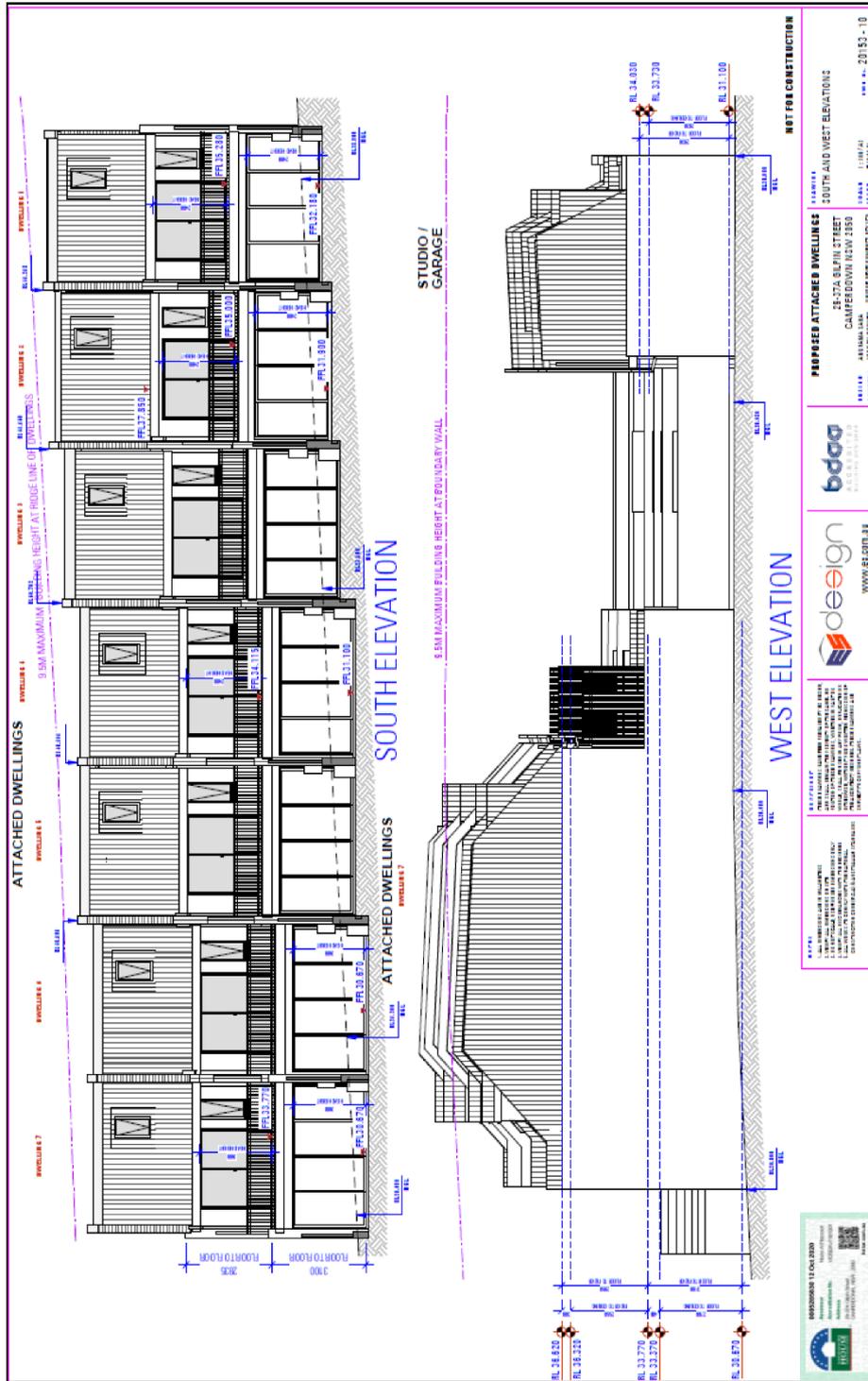
The following points may be considered for the tree protection and retention under this application;

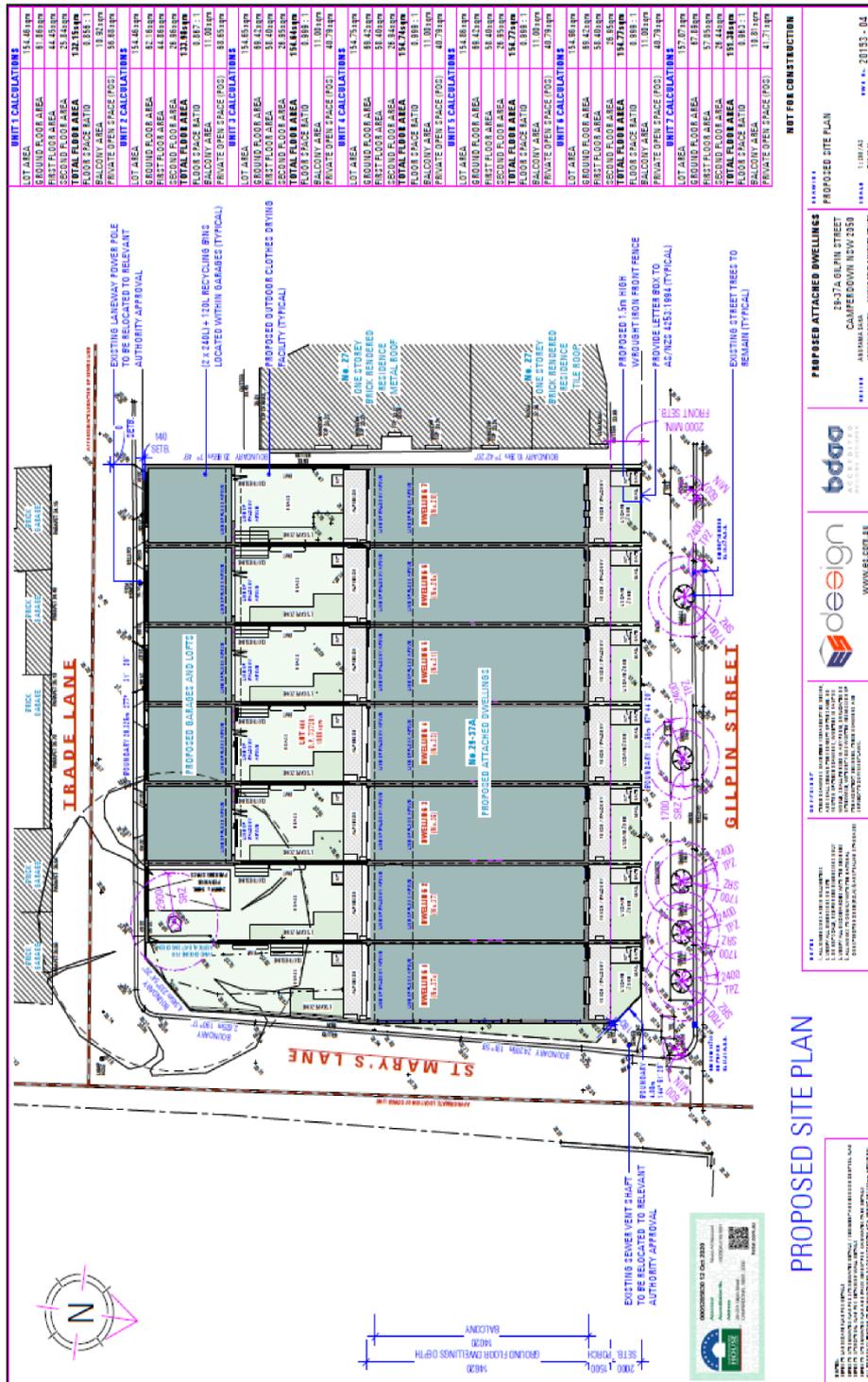
- Avoid large changes to the surface structure due to modification of the tree's moisture / surface feeding roots,
- A Qualified Arborist/Horticulturalist undertakes any required Arboricultural works,
- Tree Numbered 14, Vertical batten screen is recommended to be hand dug by the project arborist,
- Any proposed works and or stormwater service line located near any trunk or outer canopy of the trees drip line will be hand dug to ensure minimal impact to the trees surface feeding and support roots,
- Any tree roots discovered are cut cleanly with root pruning devices,
- No building waste is to be disposed of/or stored near the tree trunk or drip zone,
- To ameliorate impact of any development, standard erosion and sediment controls are recommended,
- Erection of a chain mesh safety fence be installed to ensure the protection of Trees Critical Root Zone as per Annexure B,
- A qualified Arborist should monitor these trees over a twelve (12) month period to evaluate the trees recovery and provide technical information to Council as required.

No long-term impacts or adverse effects are anticipated to local fauna; furthermore, there are no unforeseen circumstances that would warrant this application to be declined.

ANNEXURE A: PROPOSED RESIDENTIAL DEVELOPMENT LAYOUT







| UNIT 1 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 81.85sqm |
| FIRST FLOOR AREA | 44.85sqm |
| SECOND FLOOR AREA | 28.11sqm |
| TOTAL FLOOR AREA | 154.81sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 18.81sqm |
| PRIVATE OPEN SPACE (POS) | 58.81sqm |

| UNIT 2 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 82.18sqm |
| FIRST FLOOR AREA | 44.85sqm |
| SECOND FLOOR AREA | 28.11sqm |
| TOTAL FLOOR AREA | 154.81sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 18.81sqm |
| PRIVATE OPEN SPACE (POS) | 58.85sqm |

| UNIT 3 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 82.18sqm |
| FIRST FLOOR AREA | 44.85sqm |
| SECOND FLOOR AREA | 28.11sqm |
| TOTAL FLOOR AREA | 154.81sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 18.81sqm |
| PRIVATE OPEN SPACE (POS) | 40.73sqm |

| UNIT 4 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.75sqm |
| GROUND FLOOR AREA | 86.42sqm |
| FIRST FLOOR AREA | 56.80sqm |
| SECOND FLOOR AREA | 28.54sqm |
| TOTAL FLOOR AREA | 171.76sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 11.80sqm |
| PRIVATE OPEN SPACE (POS) | 40.73sqm |

| UNIT 5 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 86.42sqm |
| FIRST FLOOR AREA | 56.80sqm |
| SECOND FLOOR AREA | 28.54sqm |
| TOTAL FLOOR AREA | 171.76sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 11.80sqm |
| PRIVATE OPEN SPACE (POS) | 40.73sqm |

| UNIT 6 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 86.42sqm |
| FIRST FLOOR AREA | 56.80sqm |
| SECOND FLOOR AREA | 28.54sqm |
| TOTAL FLOOR AREA | 171.76sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 11.80sqm |
| PRIVATE OPEN SPACE (POS) | 40.73sqm |

| UNIT 7 CALCULATIONS | |
|--------------------------|-----------|
| LOT AREA | 154.81sqm |
| GROUND FLOOR AREA | 86.42sqm |
| FIRST FLOOR AREA | 56.80sqm |
| SECOND FLOOR AREA | 28.54sqm |
| TOTAL FLOOR AREA | 171.76sqm |
| FLOOR SPACE RATIO | 0.899:1 |
| BALCONY AREA | 11.80sqm |
| PRIVATE OPEN SPACE (POS) | 41.71sqm |

PROPOSED ATTACHED DWELLINGS
 38-37A GILPIN STREET
 CAMMERDOWN NSW 1550

PROPOSED SITE PLAN

DATE: 17/08/22
 DRAWN: JESSIE BAKER
 CHECKED: JESSIE BAKER
 PROJECT: 201912 - 04

NOT FOR CONSTRUCTION

CLIENT: **design** WWW.DESIGN.EB

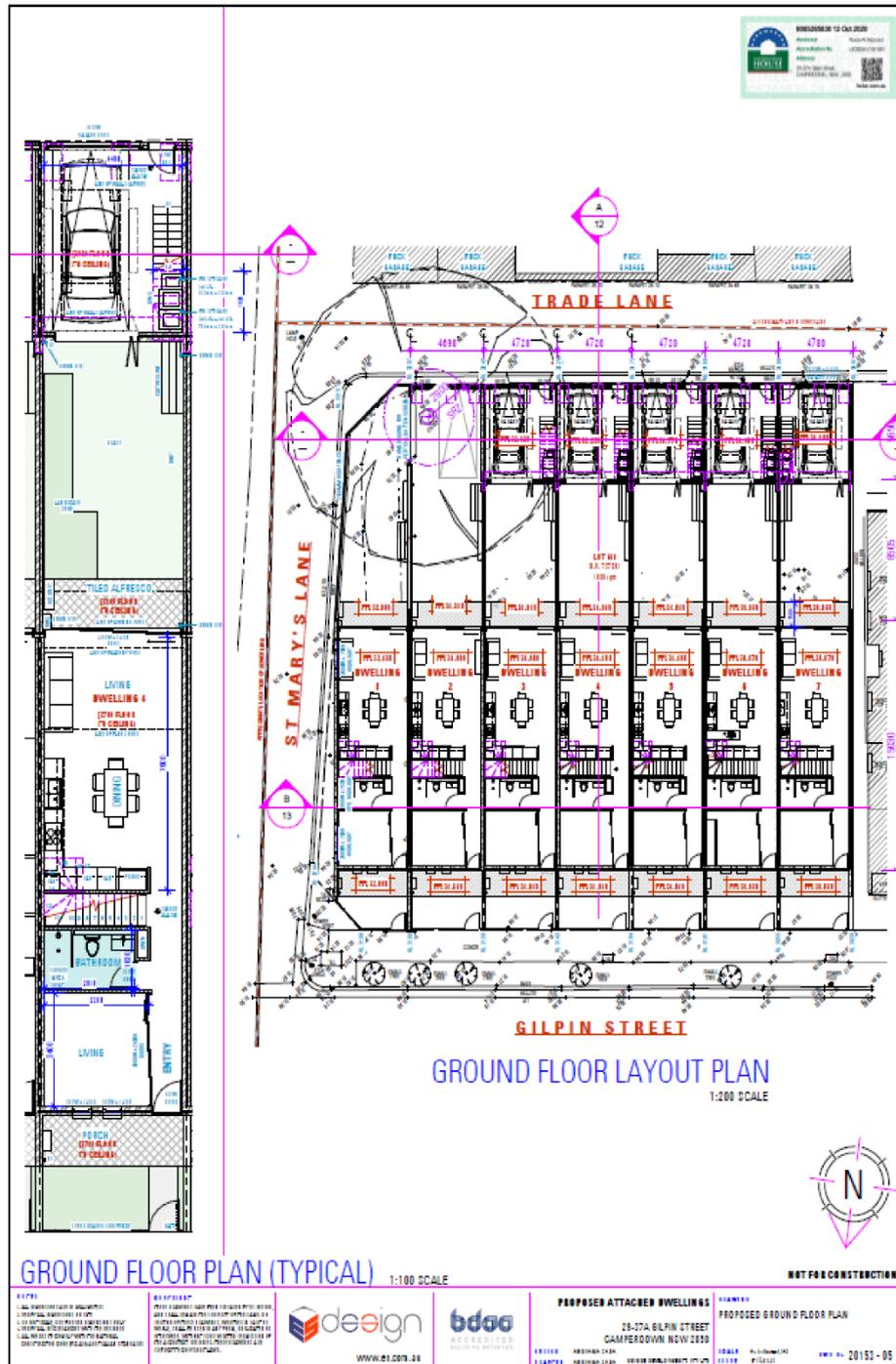
PREPARED BY: **bdoo** BUILDING DESIGN OFFICES PTY LTD

NOTES:
 1. THIS PLAN IS A PRELIMINARY DESIGN AND IS SUBJECT TO APPROVAL BY THE LOCAL COUNCIL.
 2. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE LOCAL COUNCIL.
 3. THE DESIGNER ACCEPTS NO LIABILITY FOR ANY DAMAGE OR LOSS ARISING FROM THE USE OF THIS PLAN.

PROPOSED ATTACHED DWELLINGS
 38-37A GILPIN STREET
 CAMMERDOWN NSW 1550

PROPOSED ATTACHED DWELLINGS
 38-37A GILPIN STREET
 CAMMERDOWN NSW 1550





ANNEXURE C: S.U.L.E- SAFE USEFUL LIFE EXPECTANCY (Barrell 1995)

| | 1 LONG | 2 MEDIUM | 3 SHORT | 4 REMOVAL | 5 MOVED OR REPLACED |
|---|--|---|---|--|---|
| | Likely to be useful for over 40 years with acceptable risk and assuming reasonable maintenance | Likely to be useful for 15-40 years with acceptable risk and assuming reasonable maintenance | Trees that appeared to be retainable at the time of assessment for 5 to 15 years with acceptable level of risk. | Tree to be removed within the next 5 years | Tree which can be reliably moved or replaced. |
| A | Structurally sound trees growing in positions that can accommodate future growth | Trees which may only live 15-40 years | Trees that may only live between 5 and 15 more years. | Dead, dying, suppressed or declining trees through disease or inhospitable conditions. | Small tree less than 5m in height. |
| B | Trees which could be made suitable for long term retention by further care | Trees which may live for more than 40 years but which would be removed for safety or nuisance reasons | Trees which may live for more than 15 years but which would be removed for safety or nuisance reasons | Dangerous trees through instability or recent loss of adjacent trees. | Young trees less than 15 years old but over 5m in height. |
| C | Trees of special significance for history, commemorative or rarity reasons that warrant extraordinary efforts to secure their long-term future | Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting | Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings | Dangerous trees through structural defects including cavities, decay included bark, wounds, or poor form. | Trees that have been pruned to artificially control growth. |
| D | | Trees which could be made suitable for medium term retention by remedial care | Trees which require substantial remediation tree care and are only suitable for retention in the short term. | Damaged trees that are clearly not safe to retain. | |
| E | | | | Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings | |
| F | | | | Trees damaging Or which may cause damage to existing structures within the next 5 years | |
| G | | | | Trees that will become dangerous after removal of other trees for reasons given in A) to F) | |

NOTE: No tree is "safe" i.e. entirely without hazard potential. The SULE rating given to any tree in this report assumes that reasonable maintenance will be provided by & qualified arborist using correct and acknowledged techniques. Retained trees are to have a reasonable setback and be protected from root damage. Incorrect practices can significantly accelerate tree decline and increase hazard potential.

ANNEXURE D: DEFINITION OF TREE TERMINOLOGY

This attachment is to accompany this Arborist Assessment to explain the terminology used and the rationale and assessment of factors used in the Safe Useful Life Expectancy (SULE) method of tree evaluation.

TERMINOLOGY USED:

DBH: Acronym for trunk diameter at breast height (1.4m from ground level)

DEADWOOD: Many trees are noted as having various diameter deadwood over the course of their lifecycle. Deadwood is a normal function for plant growth and development. The trees upper canopy foliage or crown condition is an important indicator of an individual trees' health. Dieback is the progressive death of branches or shoots originating from the tips. Dieback and decline are parts of a disease complex that have similar causal agents. Crown dieback is a recognizable, visible symptom of the early stages of decline and potential tree death (www.fhm.fs.fed.us).

The safety of the target, namely pedestrians, is considered the primary basis for deadwood removal. As deadwood has an ecological value, the removal of deadwood is usually only carried where it is a potential hazard to site users. Dead wooding a tree does not increase its life expectancy.

EPICORMIC GROWTH: The production of epicormic growth from dormant buds is a response to stress. Epicormic growth may be initiated by various causes such as branch loss, excessive pruning, fire damage, drought, defoliation and/or disease.

Epicormic growth comes from dormant buds held in the cambium. Under normal growth conditions, these buds are held in a dormant state by hormones produced in the canopy. These shoots are often produced by the tree in response to injury or environmental stress. Epicormic growth has implications for tree structure as the attachment of an epicormic shoot is much weaker than that of a 'naturally' developed branch (Fakes, 2004).

MYCORRHIZAE / RHIZOSPHERE: Mycorrhizae are fungi that grow in symbiotic association with tree roots (especially the fine root hairs) and are attributed with increasing the uptake of nutrients, particularly phosphorus, and reducing infection from soil borne pathogens. They greatly increase the surface area of a tree's root system. Mycorrhizae require aerobic soil conditions and are reduced in number by compaction, waterlogging and over-use of soil fertilisers. Forest litter or similar mulch provides ideal conditions for the proliferation of mycorrhizae. Rhizosphere is a term describing the peripheral area of a tree's root system where this symbiotic association most commonly occurs.

CONDITION: An evaluation of the structural status of the tree including defects that may affect the useful life of an otherwise healthy specimen. Such influencing factors include cavities and decay, weak unions between scaffolds (major branches) or trunks and faults of form or habit.

TREE HAZARD POTENTIAL: An assessment of the risks associated in retaining a tree in its existing or proposed surrounds. Factors to consider are the growth characteristics of the species, tree vitality, condition and the frequency and type of potential targets. The impact the proposed works may have on tree vitality can only be assumed.

CO-DOMINANT STEMS: Co-dominant stems were noted on several trees throughout the subject site. The term 'co-dominant' is used to describe two or more stems or leaders that are approximately the same diameter and emerge from the same location on the main trunk. The junction where the two stems meet is a common location of above ground tree failure (Harris, Clark & Matheny, 1999).

The relative size of the two leaders is important to the tree's structural stability. Co-dominant stems split apart more easily than branches that are small, relative to trunk size. This is because the only way trunk xylem can grow around a branch, and form a strong attachment, is for the trunk to be larger in diameter than the branch attachment. If the branch diameters are near the same size, their attachment will be weak because their xylem tissues are essentially parallel and are not able to grow around each other. Co-dominant stems typically lack this overlapping tissue present in a collar, which can lead to possible failure at the point of attachment. Additionally, the weight and leverage of the co-dominant stems will increase with age, intensifying the stress on the attachment (Harris, Clark & Matheny, 1999).

Furthermore, co-dominant stems do not have built in protection zones as with normal branches. This is because they are extensions of the stem. This enables pathogens and insects to spread downward and upward with little natural protection (Shigo, 1989).

DOMINANT: Trees with crowns above the upper layer of the canopy and generally receiving light from above and the sides.

EDGE: Trees located on the edge of a more dominant canopy of trees, and frequently possessing asymmetrical crowns, (heavier on the open side) and trunks that may be distorted due to competing with others for valuable nutrients i.e. soil air, water, light.

FOREST: Trees that have grown in a forest setting and only have about 1/3 of their canopy located on tall straight trunks.

INCLUDED BRANCH JUNCTIONS: Included bark was noted on trees throughout the site. Included bark often forms when two branches or trunks grow together at sharply acute angles, producing a wedge of inward-rolling bark.

Junctions with included bark form weak attachments, as there is little connective tissue between the two stems. Although all co-dominant stems should be considered comparatively weak, co-dominant stems that have bark trapped in the union are significantly weaker than those that do not have bark included (Smiley, 2003).

Tree failure can occur when the strength of wood is exceeded by a mechanical stress and/or is compromised by the presence of defects.

INTERMEDIATE: Trees that have been overtopped, and become part of the understorey canopy

PROJECT ARBORIST: The person responsible for carrying out the tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring and certification. The project arborist will be suitably experienced and competent in arboriculture, having acquired through training, qualification (minimum Australian Qualification Framework (AQF) Level 5, Diploma of Horticulture (Arboriculture)) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this Standard.

STRUCTURAL ROOT ZONE (SRZ): The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres.

This zone considers a tree's structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

TREE: Long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks (or as defined by the determining authority).

TREE PROTECTION ZONE (TPZ): A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

VIGOUR: Ability of a tree to sustain its life processes. The term 'vigour' in this document is synonymous with commonly used terms such as 'health' and 'vitality'.

VITALITY: Indicates the energy reserves of the tree and is determined by the observed crown colour and density, the percentage of dead / dying branches and epicormic growth. The vitality of the canopy and that of the root system is interdependent; root damage or heavy pruning draws on a tree's energy reserves. The tree's ability to initiate internal defence systems (compartmentalisation of damage) is reduced and it can also become predisposed to attack by insects and pathogens.

WORK: Any physical activity in relation to land that is specified by the determining authority.

WOUNDING: Generally, the wounds were located on the lower 2m of trees' trunk or on exposed roots. This suggests that the wounding may be a result of mechanical injury from landscape maintenance equipment. However, wounds were also noted higher up on the trunk and main branches. The likely cause of this wounding is branch failure, splitting or cracking during high wind events.

The primary effect of wounding is reduced translocation of water, minerals, and sugars because of loss of bark, cambium, and sapwood. Mechanical injury may also have implications for tree structure as the long-term effects of tree wounding is the potential development of decay. The long-term effects of tree wounding are the potential development of decay and loss of wood strength (Harris, Clark, Matheny, 1999).

ANNEXURE E: REFERENCES

1. American Society of Consulting Arborists (1995), *A Guide to Report Writing for Consulting Arborists*, International Society of Arboriculture, USA.
2. Australian Standards - AS 4970-2009 Protection of trees on development sites.
3. Barrell, J., (1993) 'Pre-planning Tree Surveys: Safe Useful Life Expectancy (SULE) is the Natural Progression' *Arboricultural Journal* Vol. 17, pp 33-46, AB Academic Publishers, Great Britain.
4. Barrell, J., (1995) 'Pre-development Tree Assessment', from *Trees & Building Sites*, Proceedings of an International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings, The International Society of Arboriculture, Illinois, USA, pp. 132-142.
5. Barrell, J., (2001) 'Safe Useful Life Expectancy Categories updated 4/01' from *Management of Mature Trees*, proceeding of the 4th NAAA Tree Management Seminar, National Arborists Association of Australia, Sydney, Australia, Appendix 3.
6. Bradshaw, Hunt & Walmsley (1995), *Trees in the Urban Landscape*, E & FN Spon, London.
7. Fakes J (2004), *Introduction to Arboriculture*, Ryde TAFE, NSW.
8. Fakes J (2005), *Arboriculture Notes*, Ryde TAFE, NSW.
9. Gilman E (1997), *Trees for Urban and Suburban Landscapes: An Illustrated Guide to Pruning*, Delmar, USA.
10. Hadlington & Johnston (1988), *Australian Trees: Their Care & Repair*, UNSW Press, Sydney.
11. Harris R W, 1983, *Arboriculture*. Prentice- Hall Inc., Englewood Cliffs, New Jersey.
12. Harris, Clark & Matheny (1999), *Arboriculture: Integrated Management of Landscape Trees*,
13. Heatwole, H. & Lawman, M. (1986) 'Dieback. death of an Australian landscape' Reed Books Pty Ltd. Frenchs Forest, NSW
14. Matheny & Clark (1994), *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*, International Society of Arboriculture, USA.
15. Mattheck & Breloer (1994), *The Body Language of Trees: A Handbook for Failure Analysis*, The Stationary Office, London.
16. Rowell, R. J. (1980) *'Ornamental Flowering Trees of Australia'* Reed Books Pty Ltd.
17. *Shrubs and Vines*, Prentice Hall, New Jersey.
18. Simon, Dormer & Hartshorne (1973), *Lowson's Botany*, Bell & Hyman, London.
19. Thyer, P. (1996) 'Thyer Tree Valuation Method'
20. www.whereis.com.au.
21. www.Nearmaps.com.
22. Inner West Council Tree Preservation Order (TPO).

ANNEXURE F: CERTIFICATION

I certify that the enclosed “Arboricultural Impact Assessment and Tree Management Plan” for the proposed development at 29-37A Gilpin Street, Camperdown NSW has been prepared by Horticultural Management Services.

To the best of my knowledge and professional integrity, it is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Qualifications:

- *Diploma of Arboriculture*
- *Diploma of Horticulture*
- *Diploma of Conservation and Land Management*

Scott Freeman

Scott Freeman
Principal
Horticultural Management Services

Amended 18.3.2021

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Attachment D – Traffic Impact Assessment



Ref: 0308r01v03

22/03/2021

Lachlan Morris c/- ES Design
Suite 10, Level 1/1 Cooks Avenue
Canterbury NSW 2193

Attention: Anupama Saha

**RE: 29 – 37A GILPIN STREET, CAMPERDOWN
DEVELOPMENT APPLICATION FOR A PROPOSED RESIDENTIAL TERRACE DEVELOPMENT
TRAFFIC IMPACT ASSESSMENT**

Dear Anupama,

PDC Consultants has been commissioned by Lachlan Morris to undertake a traffic impact assessment for the Development Application (DA) relating to a proposed residential terrace development at 29 – 37A Gilpin Street, Camperdown. Specifically, the DA seeks consent for the demolition of all existing structures and construction of a residential terrace development comprising:

- Seven (7) four-bedroom residential dwellings;
- Six (6) car parking spaces, five (5) in the form of single-vehicle enclosed garages and one (1) in the form of a softscape car parking space;
- Six (6) vehicle access driveways onto Trade Lane.

The site is located in the Inner West Council local government area (LGA) however, a consolidated Development Control Plan for the Inner West Council LGA has not been drafted or proposed. The proposed development has therefore been assessed in accordance with the Marrickville Development Control Plan 2011 (MDCP 2011) and Local Environmental Plan 2011, which remain the applicable controls at the time of report preparation.

LOCATION AND SITE

The subject site is located at 29 – 37A Gilpin Street, Camperdown, being approximately 700 metres north-west of Newtown Rail Station and 4.2 kilometres south-west of the Sydney CBD. More specifically, the site is located on the southern side of Gilpin Street between its intersections with St Marys Lane in the east and Kingston Lane in the west.

The site is comprised of a single lot, formally identified as Lot 411 / DP737291. The site is generally square in configuration with an area of approximately 1,086 m². It has three street frontages being Gilpin Street to the north, St Marys Lane to the east and Trade Lane to the south. The western boundary borders a neighbouring residential dwelling

PDC Consultants

ABN: 70 615 064 670

info@pdcconsultants.com.au | www.pdcconsultants.com.au
+61 2 7900 6514 | Suite 202 / 27-39 Abercrombie St, Chippendale NSW 2008



The site currently accommodates six residential dwellings, three with vehicular access to a single, at-grade garage provided from Trade Lane and three with vehicle accesses provided via driveways onto Gilpin Street. **Figure 1** provides an appreciation of the site in a local context.

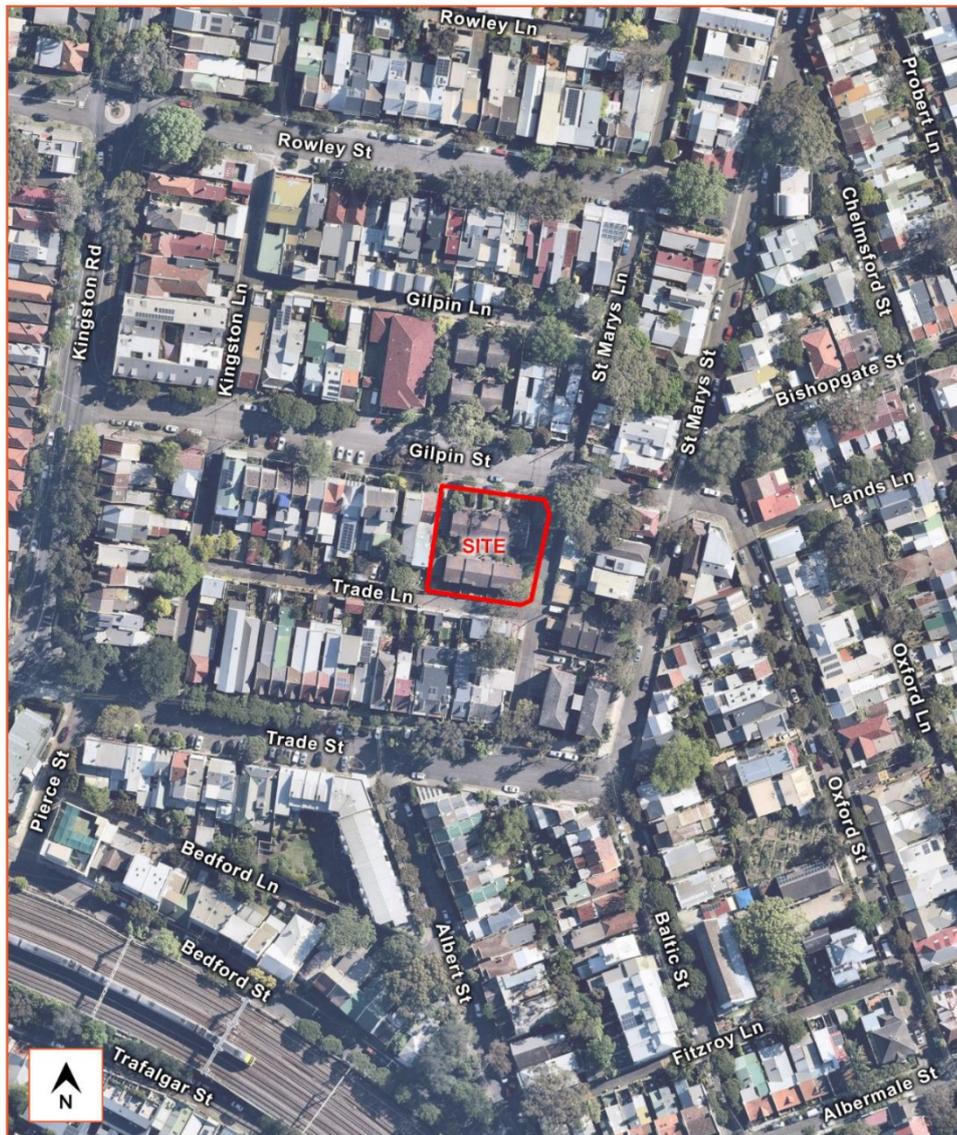


Figure 1: Site Plan



ROAD NETWORK

The road network in the vicinity of the site is shown in **Figure 2**, with the following roads considered noteworthy:

- Parramatta Road: forms part of the Great Western Highway (HW 5) and runs in an east – west alignment between its intersection with Broadway to the east and Great Western Highway in the west. Near the site it is a six-lane divided carriageway with bus lanes in each direction and is subject to speed zoning restrictions of 60 km/h. Clearway parking restrictions are in operation on both sides of Parramatta Road 6am – 10am and 3pm – 7pm Monday to Friday.
- Enmore Road: a state road (MR 167), that runs in an east – west direction, intersecting with Princes Highway at King Street to the east and Stanmore Road to the west. It is subject to 50km/h speed zoning restrictions and accommodates two lanes of traffic in each direction. Clearway restrictions operate along with several, intermittent parking restrictions permitting parking at various times throughout the day.
- Gilpin Street: a local road that runs in an east – west direction between St Marys Street in the east and Kingston Road in the west. It is subject to 50km/h speed zoning restrictions and accommodates a single lane of traffic in each direction. Unrestricted parallel and 90-degree parking is provided along its length.
- Trade Lane: a local road that runs in an east – west direction between St Marys Lane in the east and Kingston Lane in the west. It is subject to 50km/h speed zoning restrictions and accommodates a single lane of traffic in each direction. Parking is unrestricted, through the presence of several private driveways and its narrow width render parallel parking unfeasible and unlikely.
- St Marys Lane: a local road that runs in a north – south direction between Trade Street in the south and Salisbury Road in the north. Parking is unrestricted, through the presence of several private driveways and its narrow width render parallel parking unfeasible and unlikely.

PUBLIC TRANSPORT SERVICES

Figure 3 shows the public bus services that operate in the vicinity of the site. The site is situated within 400 metres of bus stops located along Salisbury Road which are serviced by one (1) bus service. An additional 18 bus services can be accessed via bus stops within 800 metres of the site.

As also indicated on **Figure 3**, the site is situated approximately 700 metres north-west of Newtown Rail Station, which provides access to several destinations between Leppington, Parramatta and Sydney CBD along the T2 Inner West & Leppington Line.

EXISTING TRAFFIC GENERATION

The existing development currently accommodates six residential dwellings, which yield a trip rate of 0.95 trips / dwelling / hour during the 7-9am (AM) peak period and 0.99 trips / dwelling / hour during the 4-6pm (PM) peak period, under the Roads and Maritime Services Guide to Traffic Generating Developments 2013 Update (RMS Guide Update) . Application of these rates to the existing residential dwellings results in the following traffic generation:

- 6 vehicle trip / hour (1 in, 5 out) during the AM peak period;
- 6 vehicle trip / hour (5 in, 1 out) during the PM peak period.

The above assumes a 20% inbound and 80% outbound split during the AM peak period noting that residents would typically leave for work in the weekday morning, and vice versa for the weekday PM peak period. Notwithstanding, it is considered that the most relevant use of the above is to determine the net change in traffic generation resulting from the proposed development, as is discussed later in this Statement.

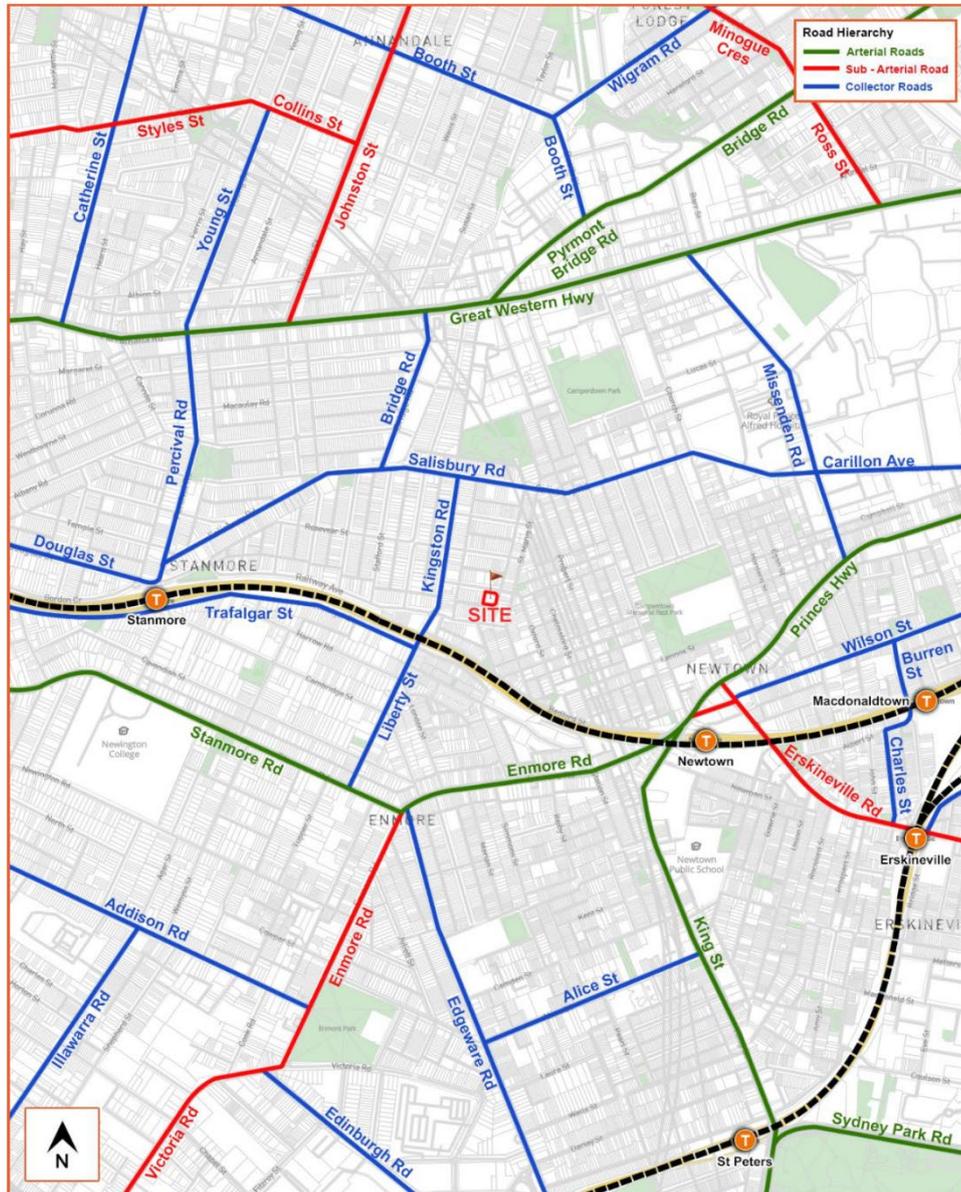


Figure 2: Existing Road Hierarchy



Figure 3: Public and Active Transport Services



PROPOSED DEVELOPMENT

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared separately by Sutherland & Associates Planning. In summary, the DA seeks consent for the demolition of all existing structures and construction of a residential terrace development comprising:

- Seven (7) four-bedroom residential dwellings;
- Six (6) car parking spaces, five (5) in the form of single-vehicle enclosed garages and one (1) in the form of a softscape car parking space;
- Six (6) vehicle access driveways onto Trade Lane.

A copy of the relevant architectural drawings, prepared by ES Design are included in **Attachment 1**, for reference.

PARKING REQUIREMENTS

Car Parking

The car parking requirements of the proposed development have been assessed in accordance with the MDCP 2011. **Table 1** below shows the minimum and maximum car parking requirement for the development, based on the applicable ‘single dwelling house’ parking rate from the MDCP 2011, and the proposed provision in response.

Table 1: Car Parking Requirement & Provision

| TYPE | NO. | DCP PARKING RATE (AREA 2) | REQUIREMENT | PARKING PROVISION |
|-----------------------|-----|---------------------------|-------------|-------------------|
| Single dwelling house | 7 | 1 per dwelling house | 7 | 6 |
| TOTAL | | | 7 | 6 |

It is evident from **Table 1** that the development requires one (1) space per dwelling under the MDCP 2011. In response, the development provides a total of six (6) car spaces, one (1) for each of six (6) of the dwellings, and therefore is deficient by one (1) space when assessed against the requirements of the MDCP 2011. The proposed car parking provision is however considered acceptable and will ensure that the majority of car parking demands are accommodated on-site, with little to no reliance on on-street parking.

Accessible Car Parking

MDCP 2011 does not provide accessible car parking rates for residential dwellings. Given only a single car parking space is being provided for each dwelling, zero (0) accessible spaces are proposed, which is considered appropriate for a residential development of this nature.

Motorcycle Parking

The MDCP 2011 does not stipulate motorcycle parking requirements for residential dwellings. Nil (0) spaces are proposed for the development, which is considered appropriate for a residential development of this nature.

Bicycle Parking

The MDCP 2011 does not stipulate bicycle parking requirements for residential dwellings. Nil (0) spaces are proposed for the development; however, it will be possible to store bicycles within individual garages or elsewhere within each residential dwelling. Provision is therefore considered appropriate for a residential development of this nature.



Service Vehicle Parking & Waste Collection

Residential dwellings are generally not required to make provision for service vehicle parking, with any servicing or deliveries to the dwellings likely to be sporadic in nature and by tradesmen with vans / utility vehicles of up to a B99 Design Vehicle, which would be able to utilise available on-street parking along Gilpin Street, noting that these servicing demands would typically occur during weekday daylight hours and hence will not coincide with the peak period for on-street parking, being weekday evenings and weekends.

Additionally, it is considered appropriate that the waste collection of the development be undertaken on-street along Trade Lane, as currently occurs for existing residential dwellings on the site and those neighbouring the site. This arrangement is considered acceptable and will ensure that waste can be collected safely and efficiently, whilst also being consistent with existing waste collection services in the area.

TRAFFIC GENERATION

Trip Generation

Application of the traffic generation rates discussed earlier in this Statement results in the following peak period traffic generation for the seven (7) proposed residential dwellings:

- 7 vehicle trips / hour (1 in, 6 out), during the AM peak period;
- 7 vehicle trips / hour (6 in, 1 out), during the PM peak period.

The above is not a net increase in traffic generation, as it does not take into consideration the generation of the existing dwellings. In this regard the net increase in generation as a result of the proposed development is expected to be as follows:

- 1 vehicle trips / hour (0 in, 1 out), during the AM peak period;
- 1 vehicle trips / hour (1 in, 0 out), during the PM peak period.

Traffic Impacts

The proposed development will result in a net increase in traffic generation of one (1) vehicle trip / hour during both the weekday AM and PM peak periods. This will have no material impact on the performance of the external road network and accordingly, no external improvements will be required to facilitate the development.

DESIGN ASPECTS

The design of the enclosed vehicle garages generally complies with Australian Standard 2890.1-2004 (AS 2890.1) with the following comments considered noteworthy:

- The overall internal width the five (5) single vehicle garages are 4.4 metres, thus exceeding the minimum requirement of 3.0 metres required by Clause 5.4(a) of AS 2890.1.
- Garage doorway widths are provided at 3.0 metres, thus providing satisfactory access, and generally complying with Figure 5.4 of AS 2890.1.
- The proposed arrangements have also been assessed using swept path analysis, with the results included in **Attachment 2** for reference. These results confirm compliance with AS 2890.1 and that the proposed access arrangements will operate safely and efficiently.



- All walls and vertical obstructions are located outside of the space design envelope, as required under Figure 5.2 of AS 2890.1.
- Grades of internal garage hardstand areas are to comply with Clause 2.4.6 of AS 2890.1.

In summary, the internal parking arrangements have been designed in accordance with AS 2890.1. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

SUMMARY

- PDC Consultants has been commissioned by Lachlan Morris to prepare a traffic impact assessment to accompany a DA relating to the site at 29 – 37A Gilpin Street, Camperdown. Specifically, the DA seeks consent for the demolition of all existing structures and construction of a residential terrace development comprising:
 - Seven (7) four-bedroom residential dwellings;
 - Six (6) car parking spaces, five (5) in the form of single-vehicle enclosed garages and one (1) in the form of a softscape car parking space;
 - Six (6) vehicle access driveways onto Trade Lane.
- The traffic generation assessment confirms that the proposed development will generate one (1) additional vehicle trip / hour during both the AM and PM peak periods. This will have no material impact on the performance of the external road network or on key intersections in the locality and accordingly, no external improvements will be required to facilitate the development.
- Seven (7) car parking spaces are required under the MDCP 2011. In response, the development provides six (6) car spaces, and therefore is deficient by one (1) car parking space. The proposed car parking provision is however considered acceptable and will ensure that car parking demands are accommodated on-site, with little to no reliance on on-street parking.
- The proposed car parking arrangements generally comply with the relevant requirements of AS 2890.1. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

The proposed development is therefore supportable on traffic planning grounds. Please contact the undersigned should you have any queries or require any further information.

Yours sincerely,

A handwritten signature in black ink that reads 'Ben Midgley'.

Ben Midgley
Principal Traffic Engineer, PDC Consultants

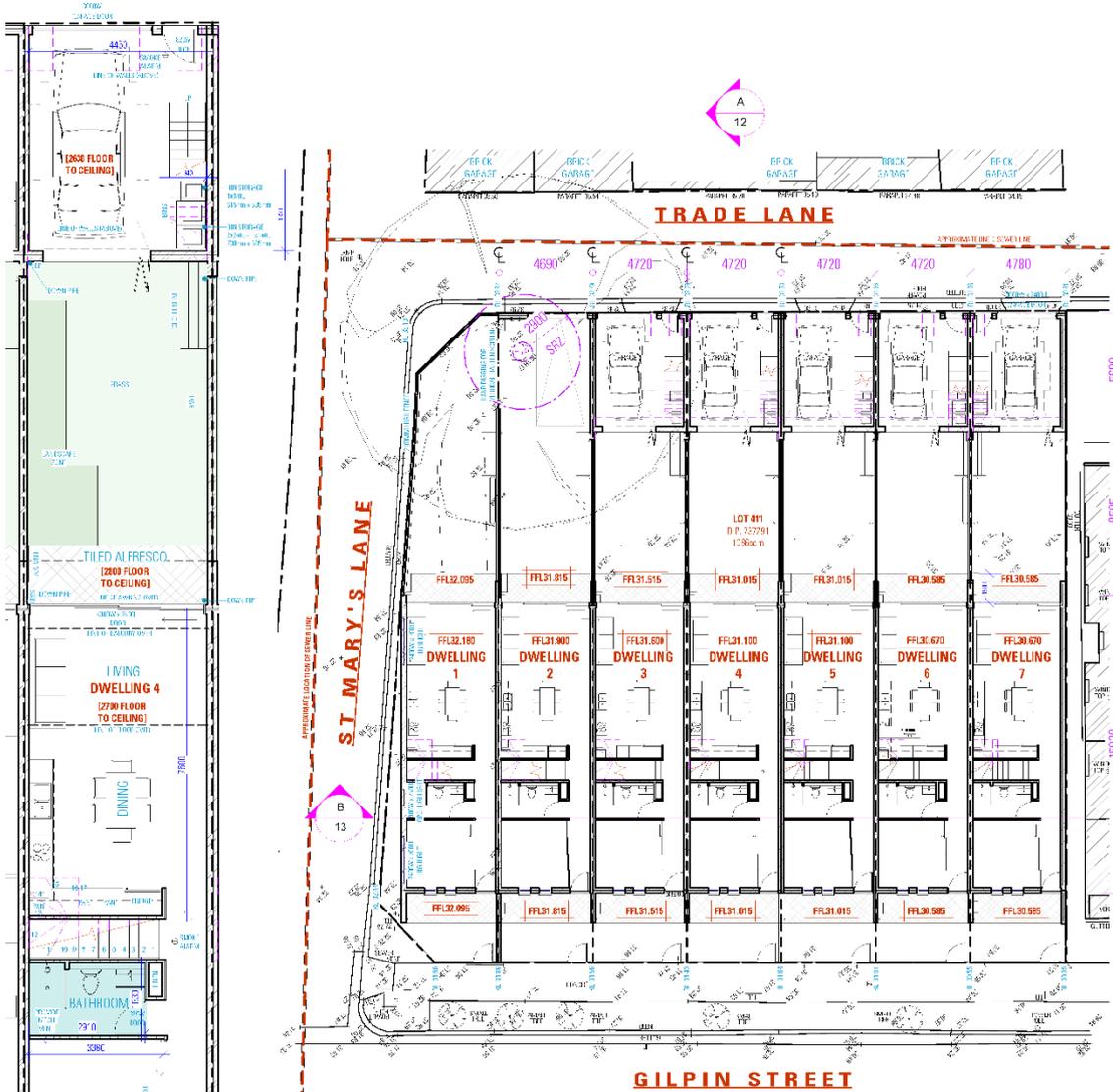
Email: bmidgley@pdccconsultants.com.au

Attachments:

- 1) Amended Architectural Drawings
- 2) Swept Path Drawings

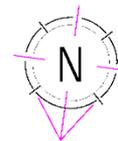


Attachment 1



GROUND FLOOR LAYOUT PLAN

1:200 SCALE



GROUND FLOOR PLAN (TYPICAL)

1:100 SCALE

NOT FOR CONSTRUCTION

- NOTES**
1. ALL DIMENSIONS ARE IN METRES.
 2. ALL WALLS ARE 200MM THICK UNLESS OTHERWISE SPECIFIED.
 3. ALL FLOORS ARE TO BE FINISHED TO THE FINISH LEVEL SHOWN.
 4. ALL ROOFS ARE TO BE FINISHED TO THE FINISH LEVEL SHOWN.
 5. ALL GLASS IS TO BE 10MM THICK UNLESS OTHERWISE SPECIFIED.
 6. ALL DOORS ARE TO BE 2100MM HIGH UNLESS OTHERWISE SPECIFIED.

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PROPOSED ATTACHED DWELLINGS DRAWING

29-37A GILPIN STREET CAMPERDOWN NSW 2050

| | | | |
|---------|----------------|-------|------------|
| DESIGN | SAURASH SARKAR | SCALE | AS SHOWN |
| DRAFTED | SAURASH SARKAR | ISSUE | R27/23/271 |

DWG No. 20153-05



Attachment 2

