Premise

HOUSING PLUS

Statement of Environmental Effects

IN SUPPORT OF A DEVELOPMENT APPLICATION

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1. INTRODUCTION

Premise has been commissioned by Housing Plus to prepare a Statement of Environmental Effects (SEE) to accompany a Development Application (DA) for the development of a group home at 4-6 Hepburn Street, McKellers Park, being Lots 26 and 27 DP1022160).

Housing Plus is a Tier 1 community housing provider which provides affordable housing, homelessness services, domestic and family violence service, post-release services, home modifications, employment pathways and other innovative services. The proposed group home forms part of the Housing Plus "Core and Cluster" domestic and family violence program, providing a safe haven for women and children escaping and recovering from domestic violence.

The site is located in the Lithgow City Council (LCC) Local Government Area (LGA). It is made up of two battle-axe lots with a total area of 2,627m^2 and a combined frontage of 8 metres to Hepburn Street to the west. It is presently vacant with exception of some scattered vegetation.

Development for the purposes of group homes is permitted with consent in Zone R1 General Residential applying to the site under clause 2.3 of the *Lithgow Local Environmental Plan 2014* (the LLEP 2014.

This SEE has been prepared pursuant to the relevant provisions of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) and *Environmental Planning and Assessment Regulation 2021* (the EP&A Regulation) and is provided in the following format.

- **Section 2** of this report provides a description of the subject site and its locality.
- **Section 3** outlines the proposed development.
- **Section 4** details the planning framework applicable to the subject site and proposed development.
- **Section 5** identifies the impacts of the proposed development.
- **Section 6** provides a conclusion to the SEE.

1.1 Background to the Core and Cluster Model

Domestic Violence NSW, the peak body for specialist and family violence services in NSW, reports that 1 in 4 Australian Women (23%) have experienced physical or sexual violence by a current or former intimate partner since the age of 15.

While there are many other statistics which may be cited in relation to the prevalence and nature of domestic violence, the key message is that domestic violence has a serious impact on women's health, which contributes to a range of negative health outcomes, including poor mental health, problems during pregnancy and birth, alcohol and illicit drug use, suicide, injuries, and homicide.

In October 2021, the NSW Government announced funding of $484.3 million to provide long term infrastructure to support women and children escaping domestic violence. Specifically, $426.6 million is designated to support the Core and Cluster Program.

The Core and Cluster model is an accommodation model that seeks to improve the quality of accommodation available for women and children seeking refuge from domestic violence. Traditionally, accommodation has been provided in the form of share house environments which required residents to share all amenities and facilities other than bedrooms. The Core and Cluster model improves on the former share house model by providing self-contained living quarters for each resident, including private kitchen and bathroom facilities. Notwithstanding, the Core and Cluster model continues to operate as a single household.

Under the Core and Cluster model, self-contained living quarters (the 'Cluster') are located in close proximity to communal facilities (the 'Core'), which provide access to services such as counselling, legal assistance, education and employment support as well shared spaces.

The fundamental principle of the Core and Cluster model is that the residents have direct access to critical support and assistance while also having the personal space and necessary amenities to effectively deal with personal issues and trauma.

It is relevant to acknowledge that the Victorian Royal Commission into Family Violence 2016 (the 'Commission') has driven the implementation of the 'Core and Cluster' model across Australia. Specifically, the Commission has stated the following:

> *The 'core and cluster' refuge model is preferable to the communal model because it provides self-contained facilities for families while maintaining the positive aspects of communal living, such as onsite support from workers and opportunities to spend time with other families who might have had similar experiences. With this configuration, women can have friends and family visit, have their teenage boys live with them, and have room for attendant carers and other supports. A further benefit is that the core and cluster model provides a base for services, such as legal services, to meet with residents, as well as ensuring that the physical environment has space for child and youth-sensitive facilities, with play areas, books, toys and private space for young people.*

Further, the Commission has highlighted that it is particularly concerned that the stress and anxiety some women experience in group living (i.e. a traditional share house) contributes to their decision to return home to an unsafe environment.

1.2 About the Applicant – Housing Plus

Housing Plus is a Tier 1 community housing provider that specialises in homelessness, domestic and family violence services in regional areas of NSW, including Orange, Dubbo, Bathurst and Mudgee.

Housing Plus has a 30-year history of providing client-centred tenancy and property management services in the Central West and Western regions of NSW.

Critically, Housing Plus has been responsible for one of two trials of the 'Core and Cluster' model in NSW, being 'The Orchard' in Orange.

The Orchard is a purpose-built women and children's domestic and family violence centre. It consists of a 'core' building containing meeting rooms, communal facilities, a crèche and overnight accommodation for one member of staff; and a 'cluster' of three duplex buildings, each containing two two-bedroom villas (six units in total). These are fully enclosed and set in landscaped gardens. The development is built to a 7-star rating under the Nationwide House Energy Rating Scheme.

2. THE SITE & ITS LOCALITY

2.1 The Site

As shown in **Figure 1**, the site comprises two battle-axe lots with a total area of approximately 2,627m^2. It has a single street frontage of eight metres to Hepburn Street to the west, leading to a 48 metre-long east-west access handle between 2 Hepburn Street on the southern side of the handle and 8 Hepburn Street on the

northern side of the handle. Land on the western side of Hepburn Street is occupied by detached, single storey dwelling houses.

The western boundary of the internal part of the lot is in two parts. The southern part has a length of 23.175 metres and is shared with the rear of 2 Hepburn Street, occupied by a recently constructed multi dwelling housing development comprising four units approved under DA096/2020. The northern part has a length of 23 metres and is shared with the rear of 8 and 10 Hepburn Street, both of which are occupied by detached, single storey dwelling houses. A search of the LCC DA tracker did not identify any DAs (under consideration or approved) relating to 8 or 10 Hepburn Street.

The northern side boundary has a length of 44.02 metres and is shared with 10 Wilton Close, occupied by a recently constructed multi dwelling housing development comprising five dwellings within a battle-axe lot. The southern side boundary has a length of 44.985 metres and is shared with Lot 11 DP1029892, a 5.1 hectare vacant lot, with the exception of the south-western corner that is occupied by the Lithgow & District Community Nursery. A search of the LCC DA tracker did not identify any DAs (under consideration or approved) relating to Lot 11 DP1029892.

The eastern, rear boundary has a length of 46.075 metres and is shared with the rear of 8 and a minor portion of 9 Wilton Close. A search of the LCC DA tracker did not identify any DAs (under consideration or approved) relating to 8 or 9 Wilton Close.

The site slopes down from its Hepburn Street boundary to the south-eastern corner. It is presently grassed, contains a small number of shrubs/trees and does not contain any built form. Three metre-wide easements run along the site's eastern and southern boundaries.

2.2 The Locality

As shown in **Figure 2**, the site's local context is defined by Ivatt Street and Sandford Avenue to the east, Coalbrook Street to the south, densely vegetated hills leading up to Marrangaroo to the west and north. Lithgow Main Street is located approximately 900 metres as the crow flies to the south-east of the site.

Development within the locality is predominantly characterised by single storey dwelling houses on lots ranging between 415m^2 and 2,100m^2. One dwelling house, being 12 Ivatt Street, is situated on a lot with an area of 8.8 hectares. Higher density forms of housing include a pair of semi-detached dwellings within a battle-axe lot at 14A and 14 Wilton Close, multi dwelling housing comprising five units at 10 Wilton Close and multi dwelling housing comprising four units at 2 Hepburn Street.

Dwelling houses in the locality are characterised by single storey brick construction with pitched, tiled or metal roofs. The more recently constructed multi dwelling housing are a single storey (10 Wilton Close) or two storeys (2 Hepburn Street), have concrete construction and skillion metal roofs.

Figure 1 – The Subject Site

Figure 2 – The Site Locality

3. THE DEVELOPMENT

3.1 Development Description

As detailed in the architectural plans prepared by Housing Plus (refer to **Appendix A)**, this DA seeks consent for the erection of a group home in the internal part of the site. The group home is consistent with the Housing Plus "Core and Cluster" model, described in **Section 1.1** of this SEE.

Vehicular access is to be provided via a driveway from Hepburn Street, turning north-east into a parking area accommodating parking for six vehicles including one accessible space. A ramp and stairway from the parking area provide access to the communal area that includes landscaped area, children's playground, BBQ facilities and access to a single storey building and a two storey building. The single storey building comprises a reception and waiting area, two consult rooms, accessible bathroom, conference room and staff room.

The two storey building contains a communal space at the ground floor including communal living and dining space, kitchen, bathroom, storage, children's play area and a study nook. The ground floor also contains two independent living units, being the two bedroom Unit 5 and one bedroom Unit 6.

Stairways from the outdoor communal area provide access to a further four independent living units at the top floor, being the two bedroom Units 1 and 4 and two bedroom Units 2 and 3. All of the units have north-west-facing private open space facilitating casual surveillance of the site, as well as south-east-facing windows that enable views towards Lithgow and the hills beyond.

4. STATUTORY PLANNING FRAMEWORK

4.1 Object of the EP&A Act

In New South Wales (NSW), the relevant planning legislation is the *Environmental Planning and Assessment Act 1979* (EP&A Act). The EP&A Act instituted a system of environmental planning and assessment in NSW and is administered by the Department of Planning, Industry & Environment (DPIE). In 2017, the Act was amended to provide a range of updated objects. The objects of the EP&A Act are:

(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

(c) To promote the orderly and economic use and development of land,

(d) To promote the delivery and maintenance of affordable housing,

(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

(g) To promote good design and amenity of the built environment,

(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

(j) To provide increased opportunity for community participation in environmental planning and assessment.

The proposed development is not considered to be antipathetic to the above objects and is specifically consistent with objects (a), (c), (d), (g), (h) and (j).

4.2 Section 1.7

Section 1.7 of the EP&A Act requires consideration of Part 7 of the *Biodiversity Conservation Act 2016* (BC Act). Section 7.2 of the BC Act provides that a development can be considered as "likely to significantly affect threatened species" in three ways, each of which are considered in **Table 1**.

If the development is "likely to significantly affect threatened species", subsection 7.7(2) provides that a biodiversity development assessment report (BDAR) is required to accompany the DA.

Table 1 – Section 7.2 of the BC Act

Test	Assessment
1. it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or	Whilst the site contains some scattered vegetation, it does not form part of a biodiversity corridor and is located in a highly disturbed urban context. Accordingly, removal of the existing vegetation is unlikely to affect threatened species or ecological communities or their habitats according to the test in Section 7.3 and a BDAR is not required.
2. the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or	Section 7.4 of the BC Act provides that development exceeds the biodiversity offsets scheme threshold if it involves the clearing of native vegetation declared in the *Biodiversity Conservation Regulation 2017* (the BC Regulation). Section 7.1 of the BC Regulation provides that development exceeds the threshold if is or involves the clearing of native vegetation: (a) Of an area declared by clause 7.2 of the BC Regulation as exceeding the threshold; or (b) On land included on the Biodiversity Values Map.

Test	Assessment
	With respect to subsection 7.1(a), Section 7.2 of the BC Regulation provides clearing thresholds depending on the minimum lot size applying to the land under an environmental planning instrument (or the actual size of the land where no minimum lot size applies). In the case of the site where the minimum lot size is less than one hectare, as in the case of the site where the minimum lot size under clause 4.1 of the LLEP 2014 is 600m^2, the threshold is 0.25 hectares. Given a site are of 2,625m^2, vegetation clearing as part of the proposed development is unlikely to exceed the 0.25 hectares. With respect to subsection 7.2(b), the site is not mapped on the Biodiversity Values Map. Accordingly, the proposed development is unlikely to exceed the biodiversity offset threshold under Section 7.1 of the BC Regulation and a BDAR is not required.
3. it is carried out in a declared area of outstanding biodiversity value.	The site is not located within a declared area of outstanding biodiversity value. Accordingly, a BDAR is not required.

4.3 Subordinate Legislation

The EP&A Act facilitates the preparation of subordinate legislation, consisting of:

- Environmental Planning Instruments (EPIs) (including State Environmental Planning Policies (SEPP), Local Environmental Plans (LEP), and deemed EPIs; and
- Development Control Plans (DCP).

In relation to the proposed development, the relevant subordinate legislation includes:

- *Lithgow Local Environmental Plan 2014*;
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*;
- *State Environmental Planning Policy (Resilience and Hazard) 2021*;
- *State Environmental Planning Policy (Housing) 2021*; and
- Lithgow City Council Development Control Plan 2021

The requirements of these are discussed in **Section 4.5** of this Statement.

4.4 Integrated Development

Section 4.46 of the EP&A Act provides that development which isn't State significant development that requires development consent and approvals under separate legislation listed in Section 4.46 is integrated development. The proposed development requires approval under Section 100B of the *Rural Fires Act 1997* (the RF Act) and Section 22 of the *Coal Mine Subsidence Compensation Act 2017*.

4.4.1 RF ACT, SECTION 100B

A development requires a bush fire safety authority (BFSA) under Section 100B of the RF Act if it involves the subdivision of bush fire prone land that could lawfully be used for residential or rural residential purposes or if it involves development for a special fire protection purpose (SFPP) in bush fire prone land.

"Bush fire prone land" is defined in Section 10.3 of the EP&A Act as land recorded as bush fire prone land on a bush fire prone land map.

"Special fire protection purposes" is defined in the RF Act as schools, child care centres, hospitals, hotel, motel or other tourist accommodation, a building wholly or principally used as a home or other establishment for mentally incapacity persons, seniors housing, group homes, retirement villages, manufactured home estates, workplaces established solely for the employment of persons with disabilities, respite care centres, student or staff accommodation associated with an educational establishment and community bush fire refuges.

The proposed development does not involve subdivision. However, the proposed development is for a SFPP in bush fire prone land as it involves a group home within a site that contains land identified on the Bush Fire Prone Land Map as Vegetation Buffer (approximately half of the access handle). Accordingly, a Bush Fire Assessment Report (*Statewide Bushfire Consulting, 2023*) is provided at **Appendix B**.

The Bush Fire Assessment Report identifies that the proposed development can meet the requirements for the specific objectives for special fire protection purposes subject to the following recommendations:

- Entire Lot shall be established and managed as an Inner Protection Area (IPA) as outlined in Appendix 4 of PBP;
- Lot 11 DP10298892 within 40m of the building footprint will continue to be managed as an IPA (Grass heights <100mm).
- Property access road in accordance with specifications in Table 3
- Hydrant flows and pressures comply to comply with Table 2.2 of AS2419.1:2005.
- All above-ground water service pipes external to the building are metal, including and up to any taps.
- Any new transmission lines and poles to be installed in compliance with ISSC3 Guideline for Managing Vegetation Near Power Lines.
- Gas services are to be installed and maintained in accordance with AS/NZS 1596:2014. Above-ground gas service pipes, connections and outlets are metal. Gas cylinders kept clear of flammable materials to 10m
- Proposed development to comply with Section 3 and Section 5 (BAL–12.5) of AS3959-2018 including Section 7.5.2 of PBP, NSW variations to AS 3959.
- Adjacent structures: BAL construction requirements of the main occupancy or separated by a minimum of 6m • Fences and gates: hardwood or non-combustible material
- Landscaping to be designed and managed in accordance with Appendix 4 of PBP
- Emergency and Evacuation Management Plan is prepared and made available to all occupants, consistent with the NSW RFS publication: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan and AS 3745:2010.

4.4.2 COAL MINE SUBSIDENCE COMPENSATION ACT 2017 SECTION 22

According to Section 22 (1) of the *Coal Mine Subsidence Compensation Act 2017,* an application for approval to alter or erect improvements, or to subdivide land, within a mine subsidence district is to be made in a form approved by the Chief Executive.

The proposed development does not seek consent for subdivision. However, the application is for the erection of a building within Lithgow Mine Subsidence District, which will require approval from the chief executive.

4.5 Planning Instruments

4.5.1 LOCAL ENVIRONMENTAL PLAN

4.5.1.1 Introduction

The *Lithgow Local Environmental Plan 2014 (LEP)* is the applicable local planning instrument applying to the land. The aims of the LEP are:

(aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,

(a) to encourage sustainable and planned development that complements the unique character and amenity of Lithgow and enhances its towns, villages and rural areas,

(b) to provide for a range of development opportunities that contribute to the social, economic and environmental resources of Lithgow in a way that allows the needs of present and future generations to be met by implementing the principles of ecologically sustainable development,

(c) to manage, facilitate and encourage sustainable growth and development that—

(i) promotes the efficient and effective delivery of utilities, infrastructure and service and minimises long-term costs to government, authorities and the community, and

(ii) protects, enhances and conserves mineral and extractive resources lands, forests and agricultural lands and the contributions they make to the local, regional and State economy, and

(iii) allows for the orderly growth of land uses while minimising conflict between land uses in a zone and land uses in adjoining zones, and

(iv) encourages a range of housing choices in planned urban and rural locations to meet population growth and the diverse needs of the community, and

(v) preserves and protects land that has been identified for future long term urban development from inappropriate fragmentation and development, and

(vi) protects and enhances environmentally sensitive areas, ecological systems, areas of high scenic, recreational, landscape or conservation value and areas that have the potential to contribute to improved environmental outcomes, and

(vii) protects and enhances places and items of environmental, archaeological, cultural or heritage significance, including Aboriginal relics and places, and

(viii) avoids or minimises the impact of development on drinking and environmental water catchments to protect and enhance water availability and safety for human consumption and the maintenance of environmental and recreational values, and

(ix) strengthens and promotes employment land opportunities and appropriate tourism development and growth, and

(x) creates resilience to natural hazards through local land use planning.

The proposed development is not antipathetic to the aims of the plan and is specifically consistent with the aims (a), (b) and (c)(i), (c)(ii), (c)(iii), (c)(iv), (c)(viii) and (c)(ix).

4.5.1.2 Mapping

A review mapping via the NSW Planning Portal identifies the following applicable mapped constraints:

Table 2 – LLEP 2014 Mapping

Map	Constraint	Section Addressed
Land Application Map	Applies	N/A
Land Zoning Map	Zone R1 General Residential	**4.5.1.3**
Additional Permitted Uses Map	N/A	N/A
Lot Size Map	600m^2	N/A
Former Boundaries Map	Lithgow	N/A
Land Reservation Acquisition Map	N/A	N/A
Heritage Map	N/A	N/A
Flood Planning Land Map	N/A	N/A
Natural Resources Sensitivity Land Map	N/A	N/A
Land Reclassification Map	N/A	N/A
Urban Release Area Map	N/A	N/A
Environmentally Sensitive Areas – Biodiversity Overlay Map	N/A	N/A
Environmentally Sensitive Areas – Water Overlay Map	N/A	N/A
Environmentally Sensitive Areas – Land Overlay Map	N/A	N/A
Facilities Buffer Zone Map	N/A	N/A
Active Street Frontages Map	N/A	N/A
Pottery Estate Development Map	N/A	N/A

The above matters, together with other relevant LEP clauses, are discussed in the following sections.

4.5.1.3 Land Use Zoning

Pursuant to subclause 2.3(2), the consent authority must have regard to the objectives for development in a zone when determining a DA in respect of land within the zone.

The site is located within Zone R1 General Residential under clause 2.3 of the LLEP 2014. The proposed land use is characterised as a *group home (permanent)*, defined in the LLEP 2014 as:

> *group home (permanent) or permanent group home means a dwelling—*
>
> *(a) that is occupied by persons as a single household with or without paid supervision or care and whether or not those persons are related or payment for board and lodging is required, and*
>
> *(b) that is used to provide permanent household accommodation for people with a disability or people who are socially disadvantaged,*
>
> *but does not include development to which State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 applies.*

Development for the purposes of a group homes (inclusive of both *group home (permanent)* and *group home (transitional)*) is permitted with consent in Zone R1 General Residential that applies to the site under clause 2.3 of the LLEP 2014. The proposed development is consistent with the objectives of the control as demonstrated in **Table 3**.

Table 3 – LLEP 2014 R1 General Residential Zone Objectives

Objective:	**Comment:**	
To provide for the housing needs of the community.	The proposed development provides for the housing needs of the community by providing six dwellings and associated facilities to support the victims of domestic violence and their dependents.	✓
To provide for a variety of housing types and densities.	The proposed development provides a variety of housing types and densities to support the victims of domestic violence and their dependants through an even mix of both one bedroom and two bedroom dwellings.	✓
To enable other land uses that provide facilities or services to meet the day to day needs of residents.	The proposed development provides for the day to day needs of domestic violence victims and their dependents.	✓
To maintain or improve the water quality of receiving water catchments.	Refer to the attached stormwater management plan (**Appendix C**).	✓

4.5.1.4 Earthworks

Subclause 7.1(2) of the LLEP 2014 provides that development consent is required for earthworks unless the works are exempt under the LLEP 2014 or another environmental planning instrument (EPI) or ancillary to

development for which consent has been given. If development consent is required, LCC is required to consider the matters in subclause 7.1(3).

The proposed development includes earthworks that are not exempt under the LLEP 2014 or another EPI or ancillary to development for which consent has been given. Accordingly, the proposed earthworks are considered in the context of the matters for consideration in subclause 7.1(3) in **Table 4**.

Table 4 – LLEP 2014 Earthworks Considerations

Matters for Consideration:		**Comment:**	
(a)	the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,	The proposed development will have minimal impacts on drainage patterns and soil stability in the locality through construction in accordance with the stormwater management plan (Barnson 2023).	✓
(b)	the effect of the development on the likely future use or redevelopment of the land,	The site is unlikely to be used for any other purposes in the short, medium or long term.	**N/A**
(c)	the quality of the fill or the soil to be excavated, or both,	It is anticipated that the majority of excavated soils will be able to be re-used on-site. Any soils that are to be removed from or imported into the site will comply with LCC standards. It is anticipated that this will be addressed via a condition of consent.	✓
(d)	the effect of the development on the existing and likely amenity of adjoining properties,	Earthworks as part of the proposed development will not impact the amenity of adjoining properties as the site is located downhill of adjoining properties to the north and west. Earthworks will not cause impacts to downslope properties to the east due to primarily occurring forward of the building line of the two buildings to enable level parking and communal open space.	✓
(e)	the source of any fill material and the destination of any excavated material,	It is anticipated that the majority of excavated soils will be able to be re-used on-site. The source of any soils to be removed from or imported into the site will comply with LCC standards.	✓
(f)	the likelihood of disturbing relics,	Refer to **Section 5.4**.	✓
(g)	the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,	The site is not mapped as Sensitive Waterways, Watercourse or Groundwater Vulnerable in the Environmentally Sensitive Areas – Water Overlay Map or as Biodiversity in the Environmentally Sensitive Areas – Biodiversity Overlay Map under the LLEP 2014.	✓

Matters for Consideration:		Comment:	
		The site is located within the Sydney Drinking Water Catchment under *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (the Biodiversity SEPP). As demonstrated in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) the proposed development, will have an acceptable impact on water quality with respect to the Sydney Drinking Water Catchment.	
(h)	any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development,	As discussed in in the stormwater management plan (Barnson, 2023), measures will be implemented to mitigate the impacts of the proposed development.	**N/A**
(i)	the proximity to, and potential for adverse impacts on, any heritage item, archaeological site or heritage conservation area.	The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area under clause 5.10 of the LLEP 2014.	**N/A**

4.5.1.5 Stormwater management

Subclause 7.3(2) of the LLEP 2014 provides that the clause applies to land in Zone RU5 Village and land in all residential, employment and mixed use zones. Where the clause applies, subclause 7.3(3) prevents the consent authority from granting consent unless it is satisfied of the matters in subclause 7.3(3).

The clause applies as the site is located within a residential zone. Accordingly, the proposed development is considered in the context of the matters for satisfaction in subclause 7.3(3) in **Table 5**.

Table 5 – LLEP 2014 Stormwater Considerations

	Matters to be Satisfied	Comment:	
(a)	is designed to maximise the use of water permeable surfaces on the land having regard to the soil characteristics affecting on-site infiltration of water, and	The proposed development has been purposefully designed to maximise the use of water permeable surfaces, having regard to the soil characteristics affecting site infiltration, as discussed in the stormwater management plan (Barnson, 2023). The proposed development retains 952.56m^2 (36% of site area) as landscaped area for on-site stormwater infiltration.	✓
(b)	includes, if practicable, on-site stormwater retention for use as an alternative supply to mains water, groundwater or river water, and	As discussed in the stormwater management plan, the proposed development includes 10,000L of rainwater storage which will be used as an alternative supply to mains water.	✓
(c)	avoids any significant adverse impacts of stormwater runoff on adjoining properties, native bushland and receiving waters, or if	The proposed development will avoid significant adverse impacts of stormwater runoff on adjoining properties, native	✓

	Matters to be Satisfied	Comment:	
	that impact cannot be reasonably avoided, minimises and mitigates the impact.	bushland and receiving waters through implementation of the stormwater management plan (Barnson, 2023).	

4.5.1.6 Essential services

Subclause 7.3(3) of the LLEP 2014 prevents the consent authority from granting the development consent on land to which this clause applies unless it is satisfied that any of the services that are essential for the development, being water and electricity supply, disposal and management of sewage, stormwater drainage or on-site conservation and suitable vehicular access, are available or that adequate arrangements have been made to make them available when required.

Vehicular access to the site will be provided via the existing driveway from Hepburn Street, upgraded in accordance with LCC requirements. The development will be connected to water, electricity and sewer. Stormwater will discharge to via drainage pit in the southeast corner of the site.

4.5.2 STATE ENVIRONMENTAL PLANNING POLICY

4.5.2.1 State Environmental Planning Policy (Biodiversity and Conservation) 2021

4.5.2.1.1 Chapter 2 Vegetation in non-rural areas

Subsection 2.39(1) of the Biodiversity SEPP provides that Chapter 2 of the SEPP applies to non-rural areas of the State being land within specified LGAs and land within specified zones. Where the Chapter applies, Section 2.6 prevents a person from clearing:

- Vegetation in a non-rural area of the State to which Part 2.3 of the Biodiversity SEPP applies without the authority conferred by a permit granted by Council; or
- Native vegetation in a non-rural area of the State that exceeds the biodiversity offsets scheme threshold without approval by the Native Vegetation Panel under Part 2.4 of the Biodiversity SEPP.

Chapter 2 applies as Zone R1 General Residential is specified in subsection 2.39(1). Accordingly, the proposed development is considered in the context of the matters in Section 2.6 below.

With respect to the first point, subsection 2.9(2) of the Biodiversity SEPP provides that a development control plan may declare any vegetation in any non-rural of the State as vegetation to which Part 2.3 applies by reference to the species, size or location of vegetation or presence of vegetation in an ecological community or in the habitat of a threatened species.

The *Lithgow Development Control Plan 2021* (the LDCP 2021) does not declare any vegetation for the purposes of *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*, the predecessor to the Biodiversity SEPP, with the exception of a specified area of the LGA which the site is not located in.

Accordingly, approval for the proposed vegetation removal is not required. LCC may be satisfied of the matters in Section 3.3.7 as the vegetation to be removed is limited to a mix of exotic and low quality, native grasses and shrubs within an urban setting, disconnected from existing contiguous vegetation.

With respect to the second point and as detailed in **Section 4.2**, the development does not exceed the biodiversity offsets scheme threshold. Accordingly, approval by the Native Vegetation Panel is not required.

4.5.2.1.2 Chapter 4 Koala habitat protection 2021

Subsection 4.4(1) of the Biodiversity SEPP provides that Chapter 4 of the SEPP applies to each LGA listed in Schedule 2, subject to certain exceptions. Where the Chapter applies, the development assessment process is dependent upon whether an approved koala plan of management does (Section 4.8) or doesn't (Section 4.9) apply to the land or other (Section 4.10).

Where an approved koala plan of management doesn't apply (Section 4.9), subsection 4.9(2) prevents LCC from granting consent to development on land with an area of at least one hectare (including adjoining land within the same ownership) unless it has assessed whether the development is likely to have any impact on koalas or their habitat. Subsection 4.9(3) allows LCC to grant consent to the DA if it is satisfied that the development is likely to have low or no impact on koalas or their habitat.

The site is subject to the provisions of Section 4.9 as the LCC LGA is listed in Schedule 2 of the SEPP, the exceptions specified in subsection 4.4(3) do not apply, no approved koala plan of management applies and the site has an area less than one hectare. LCC may be satisfied that the development is likely to have low or no impact on koalas or their habitat on the basis that it is located within an urban environment, contains minimal vegetation and is substantially separated from the nearest patch of contiguous vegetation with sufficient width to accommodate koalas.

4.5.2.1.3 Chapter 6 Water catchments

Section 6.1(1) of the Biodiversity SEPP provides that Chapter 6 of the SEPP applies to land in the Sydney Drinking Water, Sydney Harbour, Georges River and Hawkesbury-Nepean Catchments. Where the Chapter applies, the consent authority is required to consider the controls that apply generally (Part 6.2, Division 2), within specific area (Part 6.2, Division 3) and to development for specific purposes (Part 6.2, Division 4), as well as the provisions that apply to the Foreshores and Waterways Area (Part 6.3), heritage conservation in Sydney Harbour (Part 6.4) and the Sydney Drinking Water Catchment (Part 6.5).

Within the Sydney Drinking Water Catchment, declared under the *Water NSW Act 2014*, Section 6.61 of the SEPP prevents the consent authority from granting consent to development unless it is satisfied the development would have a neutral or beneficial effect (NorBE) on water quality. In determining whether the development would have a NorBE on water quality, the consent authority must undertake an assessment using the NorBE Tool. Section 6.63 provides that the assessment must be prepared in accordance with the NorBE Guideline and Section 6.64 provides that the concurrence of the Regulatory Authority is required, unless the consent authority is satisfied the development has no potential impact on water quality.

Chapter 6 applies as the site is located within the Sydney Drinking Water Catchments. This DA is supported by an assessment using the NorBE Tool (refer to **Appendix C**), prepared in accordance with the NorBE Guideline as required under Section 6.63 of the Biodiversity SEPP. Accordingly, LCC may be satisfied that the development has been appropriately designed with regard to water quality and the concurrence of the Regulatory Authority is not required.

With respect to:

- Controls that apply generally (Part 6.2, Division 2), it will not a detrimental impact on:
    - Water quality and quantity due to stormwater management in accordance with the stormwater management plan (Barnson, 2023);
    - Aquatic ecology due to the nearest downstream watercourse, Farmers Creek, being within a constructed drain;
    - Flooding as the site is not identified as flood prone land under the Lithgow Flood Study (Lyall & Associates 2017);

- Recreation and public access as the site does not provide access to recreation or public areas under existing conditions;
- Total catchment management as the negligible increase in stormwater impacts will not impact downstream LGAs.

- Controls that apply within specific areas (Part 6.2, Division 3), the site is not within 100 metres of a natural waterbody, nor is it within a Riverine Scenic Area (limited to the Hawkesbury-Nepean Catchment) or the Hawkesbury Nepean or Sydney Harbour Catchments;
- Controls that apply to development for specific purposes (Part 6.2, Division 4), the development is not for the purposes of aquaculture, artificial waterbodies, heavy and hazardous industries, marinas, moorings, on-site domestic sewerage systems, stormwater management, waste or resource management facilities or demolition; and
- The provisions that apply to the Foreshores and Waterways Area (Part 6.3) and Sydney Harbour (Part 6.4), the site is not located within these areas.

4.5.2.2 State Environmental Planning Policy (Housing) 2021

Chapter 3 of *State Environmental Planning Policy (Housing) 2021* (the Housing SEPP) relates to diverse housing. Part 2 of Chapter 3 relates to group homes. Subsection 61(1) in Chapter 3, Part 2 provides that development for the purposes of a group home may be carried out without consent if it does not contain more than ten bedrooms within one or more group homes on a site and if it is carried out by or on behalf of a public authority. Alternatively, it must be carried out without consent via either a DA or complying development certificate (CDC) application.

Subsection 64(1) of Chapter 3, Part 2 provides that a group home is complying development if it does not contain more than ten bedrooms within one or more group homes on a site, satisfies the general requirements for complying development in Sections 1.18 and 1.19 (except 1.18(1)(h) and 1.19(1)(b)) of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* (the Codes SEPP), is not in a draft heritage conservation area and meets the development standards set out in Schedule 2 of the Housing SEPP.

Where a DA is required, subsection 62(1) of Chapter 3, Part 2 prevents the consent authority from refusing consent to development for the purposes of a group home unless it has made an assessment of the community need for the group home. It also must not impose a condition on a consent granted for a group home only because the development is for the purposes of a group home.

Whilst the proposed development is carried out on behalf of a not-for-profit organisation, it is not carried out on behalf of a public authority. Accordingly, a DA is required. LCC may be satisfied that there is a clear community need for the group home subject of this application as it will provide accommodation and associated services to survivors of domestic violence, an increasingly important issue locally, regionally and nationally (refer to **Section 1**).

4.5.2.3 State Environmental Planning Policy (Resilience and Hazards) 2021

Section 4.4 of *State Environmental Planning Policy (Resilience and Hazards) 2021* (the Hazards SEPP) provides that Chapter 4 applies to the whole of the State. Subsection 4.6(1) of the Hazards SEPP prevents the consent authority from granting development consent on land unless it has considered whether the land is contaminated and, if contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable after remediation) for the purposes for which the development is to be carried out. If the land requires remediation, the consent authority must be satisfied that the remediation will occur before the land is used for that purpose.

Chapter 4 applies as the site is located within the State. LCC may be satisfied that the site is unlikely to be contaminated as a review of the NSW EPA List of Notified Sites (searched 23 August 2023, last updated 8 August 2023) and NSW EPA Contaminated Land Record (searched 23 August) did not identify any recorded sites within McKellars Park.

Further, it is noted that potential for contamination would have been assessed in detail prior to the subdivision of the site, and that any need for rehabilitation would have been assessed at that time.

4.5.3 DEVELOPMENT CONTROL PLANS

4.5.3.1 Lithgow Development Control Plan 2021

The Lithgow City Council Development Control Plan 2021 (LDCP 2021) applies to the site. **Appendix D** provides a summary of relevant matters raised via the DCP together with an assessment of project specific compliance.

As outlined in **Appendix D**, the development is generally compliant with all relevant provisions of the Development Control Plan, with the exception of those relating to bicycle parking, rear setback, building height within the rear 40% of the site, ground floor height, dwelling size and layout, private open space area and location and storage.

Each of the non-compliances are addressed in the following sections.

4.5.3.1.1 Bicycle Parking

The proposed development does not include any bicycle parking, non-compliant with the minimum two spaces required under Section 2.5.7 of the LDCP 2021 for a development comprising six dwellings. The non-compliance is acceptable as:

- The control applies to shop top housing, multi dwelling housing, residential flat buildings and boarding houses, rather than group homes; and
- From the proponent's experience operating group homes in regional NSW for domestic violence survivors and their dependents, residents of the development are unlikely to require bicycle parking.

A review of the objectives under Section 2.5 of the LDCP 2021 did not identify any objectives relevant to the non-compliant bicycle parking provision.

4.5.3.1.2 Rear Setback

The single storey building in the proposed development has a rear setback of 3.3 metres, non-compliant with the minimum 4.5 metres required under Section 6.5.1 of the LDCP 2021. The non-compliance is acceptable as the development remains consistent with the relevant objectives (O1 to O5) of the control under Section 6.5 of the LDCP 2021, as demonstrated in **Table 6**.

Table 6 – LDCP 2021, Section 6.5 Objectives

Objectives:		**Comment:**	
O1.	To ensure these planning controls are consistent with the State Planning Policies and regulatory provisions that apply to each particular type of residential accommodation.	The non-compliant rear setback does not impact the proposal's consistency with the applicable SEPPs.	**N/A**
O2.	To promote higher dwelling densities in areas that are suited to higher densities without	The non-compliant rear setback facilitates the higher dwelling densities through the development of a group home to provide	✓

Objectives:			Comment:	
	significantly compromising the amenity and character of our settlements.		accommodation for survivors of domestic violence and their dependents, without compromising the amenity and character of the local context (refer to **Section 5.1**).	
O3.	To ensure that lot size is of sufficient size to promote good site planning, vehicle access and parking, open space and landscaping, building separations and solar access, dwelling design, and street / visual amenity.		Notwithstanding the non-compliance with the rear setback, the proposed development achieves good site planning, demonstrated through the provision of adequate parking, open space, landscaping, building separation and dwelling design. The non-compliant rear setback will not be visible from the street and will not result in significant additional overshadowing impacts due to being limited to a single storey in height.	✓
O4.	To ensure that the height and scale of development integrates into the existing and desired streetscape and minimises impacts on adjacent properties from shadow, acoustic and visual privacy, and cut and fill.		The non-compliant rear setback will not be visible from the street and will not result in significant additional overshadowing impacts due to being limited to a single storey in height.	✓
O5.	To ensure it is designed with suitable building setbacks and separations to provide good residential amenity to the proposed building and neighbours including:			
	a)	Minimising noise impacts from adjacent roads & neighbouring land uses;	The non-compliant rear setback will not result in any noise impacts.	**N/A**
	b)	Maximising visual privacy;	The non-compliant rear setback will not result in any visual privacy impacts due to being limited to a single storey and associated with a consultation and conference room.	✓
	c)	Maintaining reasonable solar access to primary living spaces and open spaces & minimise overshadowing to/from other dwellings on the site and adjacent sites;	The non-compliant rear setback will not result in significant additional overshadowing impacts due to being limited to a single storey in height.	✓
	d)	Promoting natural cross ventilation;	The non-compliant rear setback does not impact ventilation.	**N/A**
	e)	Encouraging useable private (and possibly communal) open spaces that are accessible from primary living spaces and capable of supporting some significant landscaping;	The non-compliant rear setback does not impact private open space provision.	**N/A**
	f)	Providing opportunities for water and energy efficiency.	The non-compliant rear setback does not impact water and energy efficiency.	**N/A**

4.5.3.1.3 Building Height within Rear 40% of the Site

The proposed development includes buildings with height exceeding 5.4 metres within the rear 40% of the site, non-compliant with Section 6.5.6A of the LDCP 2021.

The non-compliance is acceptable as the development remains generally consistent with the objective of the control, demonstrated in **Table 7** and affects a negligible portion of the proposed development.

Table 7 – LDCP 2021 Objective 6.5.6A(1) Objectives

Objective:	Comment:	
The building height is consistent with the desired scale and character of the street and locality and provides an acceptable impact on the amenity of adjoining properties.	The non-compliant building height will not be visible from the street and will not result in significant: • Additional overshadowing impacts due to being limited to a single storey in height; or • visual privacy impacts due to subject building being orientated away from the private open space of adjoining residential properties.	✓

4.5.3.1.4 Ground Floor Height

The ground floor of the proposed development extends up to three metres above existing ground level at the south-western corner of the two storey building, exceeding the maximum 1.3 metres permitted under Section 6.5.6G of the LDCP 2021. The non-compliance is acceptable as the development remains consistent with the objectives of the control as demonstrated in **Table 8**.

Table 8 – LDCP 2021 Objective 6.5.6G(4) Objectives

Objective:	Comment:	
The development responds to the natural landform of the site, reducing the visual impact and avoiding large amounts of cut and fill and minimise the impacts of retaining walls.	The non-compliant ground floor height: • Will have minimal visual privacy impact due to being located in the southern portion of the site where it may only be visible at a distance of 200 metres from Coalbrook Street, screened by proposed fences along the property boundaries and potential future development within Zone R1 General Residential land adjoining the site's southern boundary; and • Does not require additional fill or retaining walls.	✓

4.5.3.1.5 Dwelling Size and Layout

One bedroom independent living units 2, 3 and 6 in the proposed development are to have an area of 71.36, 71.36 and 61.69m^2 and two bedroom independent living units 1, 4 and 5 in the proposed development are to have an area of 91, 91 and 84.82m^2, non-compliant with the minimum 65m^2 required for the one bedroom

units and 90m^2 required for the two bedroom units under Section 6.5.6K of the LDCP 2021. The non-compliance is acceptable as the development remains consistent with the objectives of the control as demonstrated in **Table 9**.

Table 9 – LDCP 2021 Objectives 6.5.6K(1)

Objectives:	Comment:	
The dwelling has a sufficient area to ensure the layout of rooms are functional, well organised and provide a high standard of amenity.	Each dwelling in the proposed development has sufficient area: • To ensure that they are functional, well-organised and provide a high standard of amenity that meets the needs of domestic violence survivors and their dependents for the duration of their stay within the facility; and • That reflects the quantity of internal communal open space provided as part of the proposed development.	✓

4.5.3.1.6 Private Open Space Area and Location

Each independent living unit will be provided with an area of private open space between 8 and 13m^2 of private open space, non-compliant with the minimum 45m^2 behind the front building line under Section 6.5.6L of the LDCP 2021. The non-compliance is acceptable as the development remains consistent with the objectives of the control as demonstrated in **Table 10**.

Table 10 – LDCP 2021 Objectives 6.5.6L(1) and 6.5.6L(2)

Objectives:	Comment:	
Dwellings provide appropriately sized private open space and balconies to enhance residential amenity.	Each independent living unit within the proposed development is provided with private open space with sufficient area: • That meets the needs of domestic violence survivors and their dependents for the duration of their stay within the facility; and • That reflects the quantity of external communal open space provided as part of the proposed development.	✓
Principal private open space and balconies are appropriately located to enhance liveability for residents	The positioning of the balconies forward of the front building line enables casual surveillance of the site by residents, as well as avoids overlooking of existing and future development on neighbouring properties.	✓

4.5.3.1.7 Storage

The proposed development does not include any storage external to kitchens and bedrooms, non-compliant with the minimum 6m^3 required for the one bedroom units and 8m^3 required for the two bedroom units under

Section 6.5.6M under the LDCP 2021. The non-compliance is acceptable as the development remains consistent with the objectives of the control as demonstrated in **Table 11**.

Table 11 – LDCP 2021 Objectives 6.5.6M(1)

Objectives:	**Comment:**	
Adequate, well designed storage is provided in each dwelling.	Each independent living unit within the proposed development is to be provided with adequate internal storage with sufficient volume: • That meets the needs of domestic violence survivors and their dependents for the duration of their stay within the facility; and • That reflects the quantity of communal storage provided as part of the proposed development.	✓

5. IMPACTS, SITE SUITABILITY & THE PUBLIC INTEREST

5.1 Context and Setting

The local context is characterised by residential lots occupied by detached dwelling houses and a single storey multi dwelling housing development comprising five units adjoining the site's northern boundary and a two storey multi dwelling housing development comprising four units adjoining the site's southern boundary. Dwelling houses in the locality are characterised by brick construction with pitched, tiled or metal roofs whilst multi dwelling housing have concrete construction and skillion metal roofs.

The proposed development is consistent with both established and recent development in the locality, featuring both a single storey building and a two storey building. Both buildings have a mix of brick and metal finish, including a metal roof with matching capping that contributes to a defined bottom and top to the development.

The impact of the proposed development on the context and setting if further mitigated by being located down a 45 metre-long access handle in a battle-axe lot where it will have minimal visibility from surrounding streets. Landscaping throughout the site, to be detailed following DA approval, will also soften the appearance of the proposed development from neighbouring properties and the public domain.

The above is achieved with minimal impacts on the amenity of neighbouring properties. In terms of solar access, overshadowing will predominantly fall over vacant land adjoining the site's southern boundary. Visual privacy impacts at the ground floor will be mitigated by fencing along the property boundaries and at the first floor by being predominantly orientated internally within the site or over vacant land adjoining the site's southern boundary. No significant views are known to be obtained across the site from neighbouring properties.

5.2 Access, Transport and Traffic

The proposed development will result in increased traffic during the construction phase associated with construction staff coming to and from the site in light vehicles, construction materials and equipment being

delivered to and taken from the site in heavy vehicles and excess soils, vegetation and other waste being taken away from the site in heavy vehicles. However, these impacts are expected to be short-lived and manageable through construction in accordance with a construction management plan, to be provided following DA approval.

Once operational, vehicular access to the site is to continue to be from the site's frontage Hepburn Street, upgraded to meet LCC's current standards. The access location has good sightlines along Hepburn Street which is expected to experience low levels of traffic due to only servicing a limited number of residential lots. The vehicular access leads directly to the proposed at-grade parking, accommodating parking for six vehicles including one disabled space, compliant with the minimum required under Section 6.5.6N of the LDCP 2021.

Vehicles accessing the site will generate additional traffic in the surrounding network. The impacts of the additional traffic is expected to be acceptable as:

- In the Housing Plus experience in operating other domestic and family violence accommodation elsewhere in NSW, a significant proportion of residents will arrive at the site by taxi or will be dropped by a trusted family member or friend;
- Once prospective residents accepted to reside in the facility, it is anticipated that they will undertake far fewer trips to and from the site than residents of a typical dwelling house as a high proportion of services are delivered to the site or performed by staff (e.g. bulk grocery deliveries); and
- Vehicle movements are expected to be limited to light vehicles and occasional vans and small trucks, resulting in traffic impacts to the surrounding road network and noise and vibration impacts to residential dwellings similar to any low density multi dwelling housing.

5.3 Servicing

Vehicular access to the proposed development is to be provided via the proposed driveway from the site's Hepburn Street frontage, upgraded to comply with LCC's current standards.

The proposed development will be connected to existing electricity, telecommunications, potable water and sewer infrastructure within the site and surrounding area. It is anticipated that these networks can be augmented to accommodate any additional demand generated by the development.

Stormwater will be treated in accordance with the attached stormwater management plan, and will discharge to a pit in the south east corner of the site.

5.4 Heritage

The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area (HCA) under clause 5.10 of the LLEP 2014.

The due diligence process outlined in *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* outlines the process for determining whether detailed aboriginal heritage conservation considerations are necessary or not. It is considered that the site is within disturbed context and that the proposed development is unlikely to have a detrimental impact on any Aboriginal object or Aboriginal place of heritage significance. Specifically, there are no relevant confirmed site records or other associated landscape feature information on AHIMS, no other sources of information of which a person is already aware or no landscape features that are likely to indicate presence of Aboriginal objects.

This is supported by the results of the Aboriginal Heritage Information Management System (AHIMS) search conducted on 28 April 2023 which did not identify any Aboriginal sites or places within 50 metres buffer of the site.

5.5 Other Land Resources

The proposed development will not have any impact on other land resources due to being for a permitted use within a residential zone in an urbanised area.

5.6 Stormwater and Flooding

The site does not contain any mapped watercourses, nor is it located within 40 metres of the top of bank of any mapped watercourses. It is not identified as being within the flood planning area under the Lithgow Flood Study (Lyall and Associates 2017).

Stormwater that isn't infiltrated in the substantial landscaped areas or re-used in rainwater tanks will drain to LCC infrastructure in accordance with the attached stormwater management plan (**Appendix C**).

5.7 Air and Microclimate

The proposed development will result in negligible air and microclimate impacts during construction. However, these are expected to be short-lived and manageable through construction in accordance with a construction management plan, to be provided following DA approval.

Once operational, the proposed development will not result in any air and microclimate impacts.

5.8 Flora and Fauna

The proposed development is unlikely to have a significant impact on fauna given the site's urbanised setting. It will have minimal impact on flora as vegetation to be removed is limited to a mix of exotic and low quality, native grasses and shrubs within an urban setting, disconnected from existing contiguous vegetation.

Substantial planting of native vegetation is proposed as part of this development, ensuring that it will result in a significant improvement in canopy cover for the benefit of both future residents and biodiversity.

5.9 Waste

The proposed development will result in waste impacts during construction associated with demolition of built form and removal of vegetation. Any excavated material will be reused on-site to the maximum extent possible. Any surplus excavated material and cleared vegetation will be deposited at an approved waste facility in accordance with LCC requirements.

Once operational, the proposed development will generate low levels of household and office waste that will be stored in a bin area near the street frontage. The location of the bin storage enables ease of access by the council standard waste vehicles or contracted waste vehicles.

5.10 Noise & Vibration

The proposed development will result in noise and vibration impacts during the construction phase associated with construction activities and construction vehicles and equipment being delivered to and from the site, construction staff coming to and from the site, construction materials being delivered to the site, excess soils, vegetation and other waste being taken away from the site (refer to **Section 5.9**). However, these are expected to be short-lived and manageable through construction in accordance with a construction management plan, to be provided following DA approval.

Once operational, the proposed development will not result in any vibration impacts and noise impacts are expected to be consistent with eight typical dwelling houses. Any noise impacts from the proposed group home are expected to be not more than that of surrounding residential properties.

5.11 Natural Hazards

The site is not identified as being within the flood planning area under the Lithgow Flood Study (Lyall and Associates 2017).

However, the proposed development is for a SFPP in bush fire prone land as it involves a group home within a site that contains land identified on the Bush Fire Prone Land Map as Vegetation Buffer (approximately half of the access handle). Accordingly, a Bush Fire Assessment Report (*Statewide Bushfire Consulting, 2023*) is provided at **Appendix B**.

The Bush Fire Assessment Report identifies that the proposed development can meet the requirements for the specific objectives for special fire protection purposes subject to meeting the relevant recommendations.

5.12 Technological Hazards

The site is not known to be contaminated. Risks associated with development within a mine subsidence area can be mitigated through construction in accordance with recommendations provided by the Mine Subsidence Board, to be obtained following DA lodgement.

5.13 Safety, Security and Crime Prevention

In April 2001, the NSW Department of Infrastructure, Planning and Natural Resources introduced *Crime Prevention Legislative Guidelines* to Section 4.15 of the Act.

The guidelines require consent authorities to ensure that development provides safety and security to users and the community. The guidelines state that if a development presents a crime risk, the guidelines can be used to justify modification of the development to minimise crime risk, or, refusal of the development on the grounds that crime risk cannot be appropriately minimised.

The guidelines outline four basic principles for use in assessing development applications:

- Surveillance
- Access control
- Territorial reinforcement
- Space management.

Councils need to use these principles, so they do not approve developments that create or exacerbate crime risk.

As previously noted, the fundamental principle of the Core and Cluster model is that the residents have direct access to critical support and assistance while also having the personal space and necessary amenities to effectively deal with personal issues and trauma.

As a result, the proposed group home (transitional) has been designed to minimise the risk of crime. Predominately this has been achieved by applying the principle of access control, including the installation of 1.8m high fencing and a security gate across the frontage of the site which intended to prevent access to the property other than by residents and staff.

Given the manner in which access control has been addressed, it is considered that the design of the proposed group home (transitional) will create a perception that the cost of attempting to commit a crime will outweigh any potentially benefit and that the potential risk of crime is substantially reduced.

Furthermore, it is considered that the manner in which access control has been addressed will complement and facilitate other crime prevention principles:

- Surveillance: the use of a 1.8m high perimeter fence and security gate will minimise possible interaction with the public realm, minimising the need to provide clear sightlines between public and private spaces.
- Territorial reinforcement: the 1.8m high perimeter fence and security gate will create a clear transition between public and private space. This will enhance the residents sense of ownership of communal space within the proposed group home (transitional), which will encourage use and reduce the likelihood of opportunistic crime.
- Space management: this principle is of less relevance as it typically refers to the ensuring management of public open space.

Given that the proposed group home (transitional) will be secured by the 1.8m high fence and security gate, it is highly unlikely that an activity would occur which would lead to vandalism, graffiti etc.

Based on the foregoing assessment, it is considered that the proposed group home (transitional) presents very minor likelihood and magnitude of crime occurring.

5.14 Social Impact

As defined by the NSW Government Office on Social Policy, social impacts are significant events experienced by people as changes in one or more of the following are experienced:

- peoples' way of life (how they live, work or play and interact with one another on a day-to-day basis);
- their culture (shared beliefs, customs and values); or
- their community (its cohesion, stability, character, services and facilities).

Family, domestic and sexual violence is a major and, unfortunately, rapidly growing health and welfare issue in Australia. Domestic Violence NSW, the peak body for specialist and family violence services in NSW, reports that 1 in 4 Australian Women (23%) have experienced physical or sexual violence by a current or former intimate partner since the age of 15 .

Those suffering from domestic and family violence require acute and long-term assistance. As the epidemic of domestic and family violence grows, established facilities are facing increased pressure, especially in regional areas.

The proposed development will have a positive social impact, going some way towards meeting demand for emergency accommodation and professional services for victims. This includes legal, health and employment assistance, as well as other professional services. The significant public benefit provided by the development will far exceed any potential minimal impacts associated with the development as discussed in the preceding sections of this report.

5.15 Economic Impact

Housing Plus is a not-for-profit organisation providing crisis accommodation for victims of domestic and family violence.

The proposed development will have a positive economic impact during the construction phase, creating opportunities for a local construction contractor, equipment hire services and materials suppliers. At the operational phase, employment opportunities would include reception staff, social workers, groundskeepers, and security personnel. The proposed development will also create opportunities for local professionals such as legal, health and employment assistance professionals.

There is no evidence to suggest that development of accommodations for victims of domestic and family violence having a negative effect on property values of adjoining or nearby properties, especially where the accommodation is provided in a high quality facility delivered by a Tier-1 community housing provider.

5.16 Site Design and Internal Design

The proposed development has been designed with reference to the publicly available *Design Guide: Specialist Domestic Violence Accommodation*, prepared by Housing Plus and Custance Architects. The guideline establishes the following design standards for domestic and family violence accommodation (2022, pp. 38, 39):

- *Safety: Good design supports a safety centred approach where clients, staff, and stakeholders feel safe. The physical building design will promote and ensure a safe and secure environment. Safety includes physical safety, as well as mental and emotional safety*
- *Privacy & Dignity: Good design provides private spaces, as well as space for families to interact and be together without creating a sense of isolation. The built form provides good aesthetics both internal and external, that promotes a sense of self-worth and wellbeing.*
- *Operational: Good Design considers and integrates all operational requirements relevant to each provider. Building maintenance policy and strategies, facilities management and performance management will need to be considered. It should be easy to maintain, robust and liveable. The design should ensure maximum end value and future alternative use options.*
- *Trauma Focused Design: Good design means creating calm spaces that promote relaxation, health and recovery through light, texture, colour, space and the careful consideration of sensory factors relating to design. Spaces are welcoming, predictable and clients can have control of their environment.*
- *Flexibility & Adaptability: Good design means the accommodation can meet the needs of many different family structures and levels of independence. The building form is adaptable to meet different family sizes or accessibility needs.*
- *Children Inclusive: Good design is designed for children from newborns to teenagers. Children need to live, play and recover from trauma in a safe and secure environment. They need robust design and furnishings and a place of their own.*
- *Culturally Appropriate Design: Good design considers what people value as culture needs to enable them to feel immediately 'at home' and should consider the cultural, religious and familial demographic of the location.*
- *Fit for Purpose: Good design should consider the built form, urban context and streetscape, and through sympathetic material selection and well considered passive design integration,*

meet the clients' expectations and objectives and comply with the relevant codes for construction.

5.17 Construction Impacts

Construction impacts would be short-lived and manageable. The following standard construction management measures would be implemented to ensure impacts to the locality are minimised:

- Standard construction hours (7 am to 6 pm Monday to Friday and 8 am to 1 pm Saturday and at no times on Public holidays) would be implemented;
- Avoiding dust generating activities during windy and dry conditions; and
- Maintaining all equipment in good working condition such that the construction contractor and site manager ensure the prevention of the release of smoke by construction equipment, which would be in contravention of Section 124 of the *Protection of the Environment Operations Act 1997* and Clause 16 of the *Protection of the Environment Operations (Clean Air) Regulation 2010*.

5.18 Cumulative Impacts

It is not anticipated that the development would result in any cumulative impacts including:

- individual impacts so close in time that the effects of one are not dissipated before the next (time crowded effects);
- individual impacts so close in space that the effects overlap (space crowded effects);
- repetitive, often minor impacts eroding environmental conditions (nibbling effects); or
- different types of disturbances interacting to produce an effect which is greater or different than the sum of the separate effects (synergistic effects).

There are no known major projects being undertaken in proximity to the site that would result in cumulative impacts during either the construction or operation phase of the proposed development.

6. CONCLUSION

6.1 Suitability of the site

The site is suitable for the proposed development because:

- It is located in highly disturbed urban context surrounded by residential properties;
- It has existing connections to essential services, understood to be capable of being augmented to accommodate any increase in demand generated by the proposed development (refer to **Section 5.3**);
- It is unlikely to contain Aboriginal sites or places due to being significantly disturbed (refer to **Section 5.4**);
- It is not known to be contaminated (refer to Section **4.5.2.3**);
- It is not within mapped flood prone area (refer to **Section 5.6**); and
- Vegetation within the site is limited to a mix of exotic and low quality, native grasses and shrubs within an urban setting, disconnected from existing contiguous vegetation (refer to **Section 5.8**).

6.2 The Public Interest

The proposed development is in the public interest because:

- It is permitted with consent in and consistent with the objectives of Zone R1 General Residential in which the proposed development is to occur, as well as compliant and consistent with all other relevant development standards and provisions under the LLEP 2014;
- It is compliant with all development controls under the LDCP 2021, with the exception of those relating to bicycle parking, rear setback, building within the rear 40% of the site, ground floor height, dwelling size and layout, private open space area and location and storage, all of which are considered to be acceptable on merit in the circumstances of the unique features of the site and/or the proposed development;
- It will have minimal detrimental environmental impacts, while providing various social and economic benefits; and
- The site is suitable to the proposed development.

For the reasons set out above, the proposed development is recommended for approval, subject to LCC's standard conditions of consent.

APPENDIX A

PROJECT DRAWINGS

LITHGOW CORE & CLUSTER GROUP HOME WITH COMMUNITY FACILITY

4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790

ARTISTS IMPRESSION

ARTISTS IMPRESSION

PROPERTY DESCRIPTION

LOT 27+28 / DP1269436
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790
SITE AREA - 2,625m^2

DRAWING INDEX

NOT FOR CONSTRUCTION

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ABN: 83 147 459 461

PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER	DRAWING TITLE: COVER PAGE
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT		

PLAN STATUS		
FOR DA APPROVAL		
JOB No. 001	REVISION D	SCALE
DRAWN ML/AT	PRINT DATE 5/10/2023	DRAWING No. 1 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	GENERAL NOTES			

Rev	Date	Description	Drawn By
B	08/09/23	FOR DA APPROVAL	ML/AT
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL

GENERAL NOTES

ALL WINDOWS SHOWN AS VIEWED FROM OUTSIDE (REFER TO FLOOR PLANS FOR DOOR SWING)
BUILDER SHALL VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WINDOW FABRICATION
ALL WINDOWS TO COMPLY WITH AS2047. ALL GLAZING TO COMPLY WITH AS1288
ALL WINDOWS TO COMPLY WITH BASIX/NATHERS REQUIREMENTS
ALL GLAZING TO BE CLEAR UNLESS NOTED OTHERWISE
ALL WINDOW FRAMES SHALL BE SELECTED ALUMINIUM SUITE(S) IN POWDERCOATED FINISH (colour TBC)
ALL OPENABLE GROUND-FLOOR WINDOWS, OTHER THAN HINGED GLAZED DOORS, SHALL BE LOCKABLE IN PARTLY OPEN POSITION (NOM 100MM OPENING) FOR VENTILATION WITH SECURITY
ALL WINDOWS TO COMPLY WITH BCA REQ'S FOR Protection of openable windows
PROVIDE FLYSCREENS TO ALL OPENABLE WINDOWS AND GLAZED DOORS

BY-LAWS AND CODES:

ALL WORKS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (NATIONAL CONSTRUCTION CODE), CURRENT AUSTRALIAN STANDARDS, BUILDING REGULATIONS AND TOWN PLANNING REQUIREMENTS.

THE FOLLOWING CODES ARE A RECOMMENDATION ONLY, ADDITIONAL CODES MAY BE REQUIRED:

AS 1288	GLASS IN BUILDINGS
AS 1562	DESIGN & INSTALLATION OF SHEET ROOF & WALL CLADDING
AS 1680	ARTIFICIAL LIGHTING & VENTILATION
AS 1684	TIMBER FRAMING CODE
AS 1926	POOL FENCING
AS 2049	ROOF TILES
AS 2050	INSTALLATION OF ROOF TILES
AS 2870	RESIDENTIAL SLABS & FOOTINGS
AS 2904	DAMP PROOF COURSES & FLASHINGS
AS 3000	ELECTRICAL
AS 3500	PLUMBING & DRAINAGE
AS 3600	CONCRETE STRUCTURES
AS 3660	BARRIERS FOR SUBTERRANEAN TERMITES
AS 3700	MASONRY IN BUILDINGS
AS 3740	WATERPROOFING OF WET AREAS IN RESIDENTIAL BUILDINGS
AS 3786	SMOKE ALARMS
AS 3798	SITE PREPARATION
AS 4055	WIND LOADINGS FOR HOUSING
AS 4100	STEEL STRUCTURES

APPROVALS:

NO BUILDING WORK SHALL BE UNDERTAKEN PRIOR TO BUILDING APPROVAL BEING ISSUED BY A REGISTERED CERTIFIER OR LOCAL AUTHORITY.

BUILDER/CONTRACTORS:

BUILDER/CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE PROPRIETORS REPRESENTATIVE.
- USE WRITTEN DIMENSIONS ONLY.
- DO NOT SCALE OFF DRAWINGS.
- IF IN DOUBT, ASK.

BUILDER / CONTRACTOR SHALL CHECK AND VERIFY ALL LEVELS ON SITE PRIOR TO CONSTRUCTION. LEVELS SHOWN ON DRAWINGS ARE RECOMMENDED AND APPROXIMATE ONLY. IT SHALL BE THE BUILDERS / CONTRACTORS RESPONSIBILITY TO ENSURE THAT CORRECT GRADES ARE ATTAINED ON SITE.

BUILDER / CONTRACTOR SHALL CHECK & VERIFY THE SITING & ORIENTATION PRIOR TO CONSTRUCTION SETOUT. CONSTRUCTION SETOUT TO BE CARRIED OUT BY A LICENSED SURVEYOR.

BUILDER / CONTRACTOR SHALL CHECK & VERIFY ALL SET-BACKS & HEIGHTS PRIOR TO CONSTRUCTION. NO FOOTINGS, WALLS OR OTHER PHYSICAL ELEMENTS ARE TO ENCROACH THE TITLE BOUNDARY.

BUILDER / CONTRACTOR TO TAKE ALL STEPS NECESSARY TO ENSURE THE STABILITY OF EXISTING AND NEW STRUCTURES THROUGHOUT CONSTRUCTION.

BUILDER / CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS. IF AN EXISTING PLUMBING SERVICE IS TO BE ABANDONED THE CONTRACTOR MUST CUT AND SEAL / DISCONNECT AND MAKE SAFE.

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ASSOCIATED CONSULTANTS DRAWINGS. ALL DRAWINGS TO BE CO-ORDINATED WITH CONSULTANTS DOCUMENTATION PRIOR TO COMMENCEMENT OF WORKS.

LICENSED TRADESPERSONS:

ALL SERVICES TO BE INSTALLED BY LICENSED TRADESPERSONS IN ACCORDANCE WITH THE LOCAL AUTHORITY AND WITH CURRENT MANUFACTURERS SPECIFICATIONS.

SERVICES:

ALL SERVICES SHALL BE CONCEALED. WHERE SERVICES ARE EXPOSED THEY MUST BE CONFIRMED BY THE DESIGNER ON SITE PRIOR TO INSTALLATION UNLESS NOTED OTHERWISE.

EROSION CONTROL:

ALL BUILDING WORKS TO COMPLY WITH LOCAL AUTHORITIES EROSION AND SEDIMENT CONTROL STANDARDS.

SITE SURFACE:

EXCAVATE OVER THE SITE TO GIVE CORRECT LEVELS AND PROFILES AS THE BASIS FOR CONSTRUCTION, PAVING, FILLING, LANDSCAPING AND THE LIKE. MAKE ALLOWANCES FOR COMPACTION AND SETTLEMENT. EXTERNAL GROUND LEVELS ADJACENT TO BUILDINGS SHALL BE IN ACCORDANCE WITH BCA 3.3.2. GRADE SITE AWAY FROM BUILDING A MINIMUM SLOPE OF 1:20 FOR A MINIMUM DISTANCE OF 1000mm TO THE PERIMETER SO THAT THE WATER DRAINS TO THE ROAD OR UNDERGROUND DRAINAGE, NOT ONTO NEIGHBOURING PROPERTIES. BANKS TO BE BATTERED IN ACCORDANCE WITH BCA 3.1.1

TERMITE PROTECTION:

ALL BUILDING WORK TO BE TERMITE PROTECTED IN ACCORDANCE WITH AS 3660. DURABILITY NOTICE TO BE PLACED IN METERBOX INDICATING TYPE OF BARRIER AND REQUIRED PERIODICAL INSPECTIONS AND MAINTENANCE.

MATERIALS:

ALL MATERIALS SHALL BE NEW UNLESS SPECIFIED OTHERWISE.

MATERIALS RELATING TO CONSTRUCTION IN CLOSE PROXIMITY OF COASTAL & INDUSTRIAL ENVIRONMENTS TO BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

STRUCTURAL STEEL:

ALL STEEL TO STRUCTURAL ENGINEERS DESIGN. UNLESS NOTED OTHERWISE, ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANISED. A COLD GAL PAINTED FINISH SHALL BE APPLIED TO ANY FIELD WELDING BE IT EXISTING OR NEW STEELWORK. ALL STEELWORK CAST IN CONCRETE FOOTINGS OR SLABS SHALL HAVE A BITUMEN FINISH APPLIED TO FULL EXTENT OF CAST IN CONCRETE STEEL. CHECK ALL DIMENSIONS ON SITE PRIOR TO FABRICATION OF ANY STEELWORK.

SLABS & FOOTINGS:

ALL SLABS & FOOTINGS TO STRUCTURAL ENGINEERS DETAILS. MINIMUM 200mm POLYETHYLENE UNDERLAY ON COMPACTED SAND BED. LAP AND TAPE ALL JOINTS AND PENETRATIONS.

RETAINING WALLS:

ALL RETAINING WALLS TO STRUCTURAL ENGINEERS DETAILS. PROVIDE RUBBLE BACKFILL AND AGG DRAINAGE TO ALL RETAINING WALLS. BUILDER TO PROVIDE TANKING WHERE REQUIRED. RETAINING WALLS THAT EXCEED 1m IN HEIGHT
WILL REQUIRE ADDITIONAL APPROVAL PRIOR TO THE RELEASE OF A FINAL CERTIFICATION FORM 21.

BRICKWORK:

BRICK VENEER WALLS SHALL BE CONSTRUCTED WITH LIGHT DUTY WALL TIES. W33 AT 450mm CENTRES HORIZONTALLY AND 514mm CENTRES VERTICALLY. W41 AT 450mm CENTRES HORIZONTALLY AND 429mm CENTRES VERTICALLY. PROVIDE ARTICULATION JOINTS TO COMPLY WITH CEMENT AND CONCRETE ASSOCIATION CONSTRUCTION.

WALL FRAMING

GROUND FLOOR	EXTERNAL AND LOAD BEARING	INTERNAL
BOTTOM PLATES:-	90 X 35 MGP 12	70 X 35 MGP 10
TOP PLATES	90 X 70 MGP 12 OR 2/ 90 X 35 MGP 12	70 X 35 MGP 10
STUDS	90 X 35 MGP 12 AT 450 C/C	70 X 35 MGP 10 AT 450 C/C

FOR ROOF SPAN UP TO 5100mm

FIRST FLOOR	EXTERNAL AND LOAD BEARING	INTERNAL
BOTTOM PLATE	90 X 35 MGP 12	70 X 35 MGP 10
TOP PLATE	90 X 70 MGP 12 OR 2/ 90 X 35 MGP 12	70 X 35 MGP 10
STUDS	90 X 35 MGP 12 AT 450 C/C	70 X 35 MGP 10 AT 450 C/C

FOR ROOF SPAN UP TO 5100mm

NOGGINGS AT 1350mm C/C MAXIMUM. NOGGINGS IN WET AREAS ARE TO LINE UP HORIZONTALLY THROUGHOUT. FOR CAVITY SLIDING DOORS PROVIDE 90mm STUD WALL FRAMES.

LINTEL SIZES TO STRUCTURAL ENGINEERS DETAILS.

ROOF FRAMING:

ROOF PITCH AS INDICATED ON PLANS. ROOF TRUSSES TO BE "GANGNAIL" TYPE TRUSSES SUPPLIED AND FIXED TO ENGINEERS DETAILS AT 600mm C/C UNLESS NOTED OTHERWISE. CEILING BINDERS TO BE EVENLY SPACED THROUGHOUT THE CEILING SPACE. ROOF BATTENS TO BE TO MANUFACTURERS SPECIFICATIONS FOR CLADDING TYPE.

FLOOR FRAMING:

FLOOR FRAMING TO STRUCTURAL ENGINEERS DETAILS.

WALL LININGS:

EXTERIOR WALL LININGS AS INDICATED ON PLANS. INTERIOR WALL LININGS TO BE FLUSH PLASTERBOARD LINING UNLESS NOTED OTHERWISE. 6mm VILLABOARD TO WET AREAS FIXED OFF IN ACCORDANCE WITH THE BCA AND MANUFACTURERS SPECIFICATIONS. FEATURE WALLS AS INDICATED ON PLANS.

CEILING LININGS:

CEILING LINING TO BE FLUSH PLASTERBOARD FIXED TO MANUFACTURERS SPECIFICATIONS UNLES NOTED OTHERWISE.

FLOOR LININGS:

FLOOR LININGS AS INDICATED ON PLANS. BUILDER/CONTRACTOR TO CONFIRM ALL REBATES IN TOP OF SLAB TO ENSURE TOP OF FLOOR FINISHES ARE FLUSH UNLES NOTED OTHERWISE. EXPOSED TIMBER FLOORS TO HAVE VAPOUR PERMEABLE FOIL TO UNDERSIDE.

BRACING & TIE-DOWN:

BRACING & TIE-DOWN TO STRUCTURAL ENGINEERS DETAILS.

ROOF DRAINAGE:

DOWNPIPES TO BE LOCATED AS PER THE PLANS.
ALLOW TO CONNECT TO IN-GROUND STORMWATER
DRAINS WITH 90mm UPVC AT 1:100 MINIMUM GRADE.
ALLOW FOR I.O.'S AT EACH CHANGE IN DIRECTION AND AT 6000mm CENTRES.

WATERPROOFING:

WATERPROOFING IS TO BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON. ALL WET AREAS TO BE WATERPROOFED IN ACCORDANCE WITH BCA 3.9 & AS 3740. BUILDER TO PROVIDE CERTIFICATE OF INSTALLATION AND COMPLIANCE.

APPLIANCES & EQUIPMENT:

BUILDER TO CO-ORDINATE ALL APPLIANCE AND EQUIPMENT LOCATIONS ON SITE WITH JOINER. INSTALLATION AND FINAL CONNECTION BY CONTRACTOR.

SANITARY COMPARTMENTS:

SANITARY COMPARTMENT DOORS TO COMPLY WITH BCA 3.8.3. DOORS TO SWING OUT FROM PAN. DISTANCE FROM PAN TO DOOR EDGE TO BE 1200mm OR LIFT OFF HINGES TO BE INSTALLED ENSURING DOOR IS READILY REMOVABLE FROM OUTSIDE.

FIRE SAFETY:

CONSTRUCTION WITHIN 900 OF A BOUNDARY (NO CLOSER THAT 450 OF A BOUNDARY OR 900 OF ASSOCIATED ENCROACHMENTS OF ANOTHER BUILDING) TO BE OF NON-COMBUSTIBLE MATERIALS & WALLS WITHIN 900 OF A BOUNDARY TO HAVE A MINIMUM FIRE RESISTANCE LEVEL OF 60/60/60 IN ACCORDANCE WITH BCA 3.7.1.

POOL FENCING:

POOL FENCING TO BE IN ACCORDANCE WITH AS 1926 AND LOCAL AUTHORITIES REQUIREMENTS.

STAIRS & BALUSTRADES:

STAIRS & BALUSTRADES TO COMPLY WITH BCA 3.9. STEPS TO BE PROVIDED WHERE FALL FROM DWELLING EXCEEDS 190mm.

SITE DISCHARGE:

STORMWATER AND SANITARY PLUMBING TO BE CONNECTED TO EXISTING COUNCIL SYSTEM IN ACCORDANCE WITH LOCAL AUTHORITIES REQUIREMENTS.

WATER LINES:

ALL HOT WATER LINES SHALL BE FULLY INSULATED. ALL DOMESTIC HOT WATER TO BASINS, SHOWERS AND BATHS TO HAVE A MAXIMUM TEMPERATURE OF 50°C. ALLOW TO SUPPLY AND INSTALL TEMPERING VALVES WHERE REQUIRED, AS NOMINATED IN THE BCA AND RELEVANT CODES AND STANDARDS.

DISTRIBUTION BOARD:

PROVIDE NEW DISTRIBUTION BOARD AS REQUIRED. ALL ELECTRICAL OUTLETS SHALL BE PROTECTED BY OVER-CURRENT / EARTH LEAKAGE CIRCUIT BREAKERS IN ACCORDANCE WITH AUSTRALIAN STANDARDS.

ELECTRICAL ACCESSORIES:

LIGHT SWITCHES TO BE LOCATED 1200mm ABOVE THE FINISHED FLOOR LEVEL UNLES NOTED OTHERWISE.

ANTENNA:

SUPPLY AND INSTALL A ROOF MOUNTED ANTENNA - COMBINED VHF/UHF. ANTENNA TO BE HIDDEN FROM VIEW TO STREET AND WATERFRONT. LOCATION TO BE CONFIRMED BY DESIGNER.

LIGHT & VENTILATION:

PROVIDE A MINIMUM OF 10% NATURAL LIGHT AND 5% NATURAL VENTILATION TO HABITABLE ROOMS IN ACCORDANCE WITH BCA 3.8.4 AND 3.8.5 AND RELEVANT AUSTRALIAN STANDARDS.

ARTIFICIAL LIGHT:

PROVIDE ARTIFICIAL LIGHTING IN ACCORDANCE WITH AS 1680 TO ALL ROOMS WITHOUT NATURAL LIGHTING.

SOUND:

TO BE IN ACCORDANCE WITH BCA 3.8.6.

SUB-FLOOR:

SUB-FLOOR ACCESS AND VENTILATION
TO BE IN ACCORDANCE WITH BCA 3.4.1.

ENERGY EFFICIENCY:

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH BCA ENVIRONMENTAL GUIDELINES, APPROVED ENERGY EFFICIENCY REPORT AND ESD CONSULTANT CERTIFICATES.

INSULATION:

INSULATION TO BE IN ACCORDANCE WITH ENERGY EFFICIENCY & ACOUSTIC REPORTS. INSULATION REQUIREMENTS INDICATED IN REPORTS MUST BE MET AS A MINIMUM. ALL EXTERNAL WALLS & ROOF TO HAVE VAPOUR PERMEABLE SARKING.

HYDRAULICS:

HYDRAULIC WORKS TO BE CARRIED OUT IN ACCORDANCE WITH:
- THE PLUMBING AND DRAINAGE ACT 2002
- AS 3500
- LOCAL AUTHORITY
- ANY OTHER RELEVANT JURISDICTION

SANITARY PLUMBING:

SANITARY PLUMBING SHALL BE UPVC CLASS HD WITH SOLVENT WELD JOINTS AND SHALL BE LAID AT A MINIMUM GRADE OF 1:60 UNLESS NOTED OTHERWISE. CONNECT SANITARY PLUMBING TO COUNCIL SEWER IN ACCORDANCE WITH AUTHORITY REQUIREMENTS. WHERE NO LOCAL AUTHORITY SEWER CONNECTION IS AVAILABLE ALL WASTE WATER TO BE CONNECTED TO AN ON SITE TREATMENT PLANT IN ACCORDANCE WITH ENGINEERS DETAILS.

FIRE PROOF PENETRATIONS:

PENETRATIONS MADE THROUGH FIRE RELATED ELEMENTS SHALL BE MADE USING FIRE STOP COLLARS TO MAINTAIN THE INTEGRITY OF THE ELEMENT BEING PENETRATED.

ENCASING UNDERGROUND SERVICES:

UNDERGROUND WATER & FIRE SERVICES TO BE ENCASED IN 100mm OF SAND.

WEATHERSTRIPS:

EXTERNAL DOORS TO CONTAIN WEATHER STRIPS (TYPE TO BE CONFIRMED BY DESIGNER PRIOR TO MANUFACTURE).

WINDOWS AND DOORS:

WINDOW & DOOR DIMENSIONS TO BE CONFIRMED ON SITE. DIMENSIONS ARE TO OUTSIDE OF FRAMES UNLESS SHOWN OTHERWISE. WINDOW SUPPLIER TO ADJSUT DIMENSIONS TO SUIT STANDARD FRAME SIZES WITH THE DESIGNERS APPROVAL. WINDOW & DOOR JOINER TO CONFIRM FRAME SIZES TO SUIT AS-BUILT WALL DEPTHS ON SITE.

MAKE ALLOWANCES FOR DOOR AND SCREEN TRACKS TO BE RECESSED INTO FLOOR FINISH / SLAB. DEPTH OF RECESS / REBATE TO BE CONFIRMED BY BUILDER / CONTRACTOR.

BUILDER / CONTRACTOR TO INSTALL NECESSARY FLASHINGS TO ALL WINDOWS, DOORS & OPENINGS.

BUILDER / CONTRACTOR TO CONFIRM ALL STRUCTURAL OPENINGS WITH MANUFACTURER PRIOR TO CONSTRUCTION.

INSTALL DOOR BOTTOM AND FRAME SEALS ON AND AROUND ALL EXTERNAL OPENINGS TO PREVENT HEAT LOSS.

LEGEND

A/R	ANCHOR ROD	MW	MICROWAVE OVEN
AP	ACCESS PANEL	OBS	OBSCURE GLASS
B	BATH	OHC	OVERHEAD CUPBOARD
BE	BEAM TO ENG. DETAIL	P	PANTRY
CH	CEILING HEIGHT	R	ROBE
CD	CLOTHES DRYER	RH	RANGE HOOD
CVS	CENTRAL VACUUM SYSTEM	PW	PLATE WARMER
COL	COLUMN TO ENG. DETAIL	RHS	RECTANGULAR STEEL COLUMN TO ENG. DETAIL
CBD	CUPBOARD	SHS	SQUARE STEEL COLUMN TO ENG. DETAIL
CO	CUPBOARD OVER	SSD	STRUCTURAL STEP DOWN
CB	CONCEALED BEAM	SD	SLIDING DOOR / STEP DOWN
CM	COFFEE MACHINE	SO	STEAM OVEN
DW	DISH WASHER	S	SINK
DP	DOWNPIPE	SH	SHOWER
FSD	FINISHED STEP DOWN	SPA	SPA BATH
ENS	ENSUITE BATHROOM	SP	SPREADER
FR	REFRIGERATOR	T	LAUNDRY TUB
FV	FIXED VENT	UBO	UNDER BENCH OVEN
FW	FLOOR WASTE	V	VANITY
GD	GARBAGE DISPOSAL UNIT	VP	VACUUM POINT (FOR CVS)
HP	HOT PLATE / HOB PLATE	WC	WATER CLOSET / TOILET
HWS	HOT WATER SYSTEM	WM	WASHING MACHINE
L	LINEN	WO	WALL OVEN
		WIR	WALK-IN-ROBE

NOT FOR CONSTRUCTION

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Nominated Architect: ABN: 83 147 459 461

PROJECT ADDRESS	DESIGN & ARCHITECTURE	PROJECT MANAGER		PROJECT	DRAWING TITLE	PLAN STATUS
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	HOUSING PLUS	DARREN WOODING		LITHGOW CORE & CLUSTER	GENERAL NOTES	FOR DA APPROVAL
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT			

JOB No.	REVISION	SCALE
001	D	

DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	2 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	GENERAL NOTES II			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

LHA SILVER DETAILS

DWELLING ACCESS

A. PROVIDE A SAFE, CONTINUOUS STEP-FREE PATHWAY FROM THE FRONT BOUNDARY OF THE PROPERTY TO AN ENTRY DOOR TO THE DWELLING. THIS PROVISION DOES NOT APPLY WHERE THE AVERAGE SLOPE OF THE GROUND WHERE THE PATH WOULD FEATURE IS STEEPER THAN 1:14.

B. THE PATH OF TRAVEL REFERRED TO IN (A) SHOULD HAVE A MINIMUM CLEAR WIDTH OF 1000MM AND HAVE:
   I. NO STEPS;
   II. AN EVEN, FIRM, SLIP RESISTANT SURFACE;
   III. A CROSSFALL OF NOT MORE THAN 1:40;
   IV. A MAXIMUM PATHWAY SLOPE OF 1:14

C. THE PATH OF TRAVEL REFERRED TO IN (A) MAY BE PROVIDED VIA AN ASSOCIATED CAR PARKING SPACE FOR THE DWELLING. WHERE A CAR PARKING SPACE IS RELIED UPON AS THE SAFE AND CONTINUOUS PATHWAY TO THE DWELLING ENTRANCE, THE SPACE SHOULD INCORPORATE:
   I. MINIMUM DIMENSIONS OF AT LEAST 3200MM (WIDTH) X 5400MM (LENGTH);
   II. AN EVEN, FIRM AND SLIP RESISTANT SURFACE; AND
   III. A LEVEL SURFACE (1:40 MAXIMUM GRADIENT, 1:33 MAXIMUM GRADIENT FOR BITUMEN)

DWELLING ENTRANCE

SILVER LEVEL

A. THE DWELLING SHOULD PROVIDE AN ENTRANCE DOOR WITH -
   I. A MINIMUM CLEAR OPENING WIDTH OF 820MM.
   II. A LEVEL (STEP-FREE) TRANSITION AND THRESHOLD (MAXIMUM VERTICAL TOLERANCE OF 5MM BETWEEN ABUTTING SURFACES IS ALLOWABLE PROVIDED THE LIP IS ROUNDED OR BEVELLED); AND
   III. REASONABLE SHELTER FROM THE WEATHER.

B. A LEVEL LANDING AREA OF AT LEAST 1200MM X 1200MM SHOULD BE PROVIDED AT THE LEVEL (STEP FREE) ENTRANCE DOOR. A LEVEL LANDING AREA AT THE ENTRANCE DOOR SHOULD BE PROVIDED ON THE ARRIVAL SIDE OF THE DOOR (I.E. THE EXTERNAL SIDE OF THE DOOR) TO ALLOW A PERSON TO SAFELY STAND AND THEN OPEN THE DOOR.

C. WHERE THE THRESHOLD AT THE ENTRANCE EXCEEDS 5MM AND IS LESS THAN 56MM, A RAMPED THRESHOLD MAY BE PROVIDED.

D. THE LEVEL (STEP-FREE) ENTRANCE SHOULD BE CONNECTED TO THE SAFE AND CONTINUOUS PATHWAY AS SPECIFIED IN ELEMENT 1.

INTERNAL DOORS & CORRIDORS
- DOORWAYS TO ROOMS ON THE ENTRY LEVEL USED FOR LIVING, DINING, BEDROOM, BATHROOM, KITCHEN, LAUNDRY AND SANITARY COMPARTMENT PURPOSES SHOULD PROVIDE:
A MINIMUM CLEAR OPENING WIDTH OF 820MM AND A LEVEL TRANSITION AND THRESHOLD (MAXIMUM VERTICAL TOLERANCE OF 5MM BETWEEN ABUTTING SURFACES IS ALLOWABLE PROVIDED THE LIP IS ROUNDED OR BEVELLED).

- INTERNAL CORRIDORS/PASSAGEWAYS TO THE DOORWAYS SHOULD PROVIDE A MINIMUM CLEAR WIDTH OF 1000MM.
* CORRIDOR WIDTHS SHOULD BE MEASURED AS DESCRIBED IN CLAUSE 6.3 OF A.S1428.1-2009.

TOILET
- A MINIMUM 1200MM CLEAR CIRCULATION SPACE FORWARD OF THE TOILET PAN EXCLUSIVE OF THE SWING OF THE DOOR AS SHOWN ON PLAN.
- REINFORCE WALL AROUND THE TOILET AS SHOWN IN FIGURE 6

SHOWER
- PROVIDE NON-SLIP HOB LESS SHOWER RECESS. SHOWER SCREENS ARE PERMITTED PROVIDED THEY CAN BE EASILY REMOVED LATER.
- REINFORCE WALLS AROUND THE SHOWER AS SHOWN IN FIGURE 8

FOR HOB LESS SPECIFICATION SEE AUSTRALIAN STANDARD AS3740-3.6.
REINFORCEMENT GUIDELINES FOR WALLS IN BATHROOMS AND TOILETS ARE FOUND IN ELEMENT 6

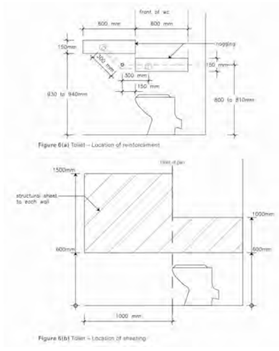

Figure 6(a) Toilet – Location of reinforcement

Figure 6(b) Toilet – Location of sheeting

REINFORCEMENT OF BATHROOM & TOILET WALLS

SILVER LEVEL

A. EXCEPT FOR WALLS CONSTRUCTED OF SOLID MASONRY OR CONCRETE, THE WALLS AROUND THE SHOWER, BATH (IF PROVIDED) AND TOILET SHOULD BE REINFORCED TO PROVIDE A FIXING SURFACE FOR THE SAFE INSTALLATION OF GRABRAILS.

B. THE WALLS AROUND THE TOILET ARE TO BE REINFORCED BY INSTALLING:
   I. NOGGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH FIGURE 6(A); OR
   II. SHEETING WITH A THICKNESS OF AT LEAST 12MM IN ACCORDANCE WITH FIGURE 6(B).

C. THE WALLS AROUND THE BATH ARE TO BE REINFORCED BY INSTALLING:
   I. NOGGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH FIGURE 7(A); OR
   II. SHEETING WITH A THICKNESS OF AT LEAST 12MM IN ACCORDANCE WITH FIGURE 7(B).

D. THE WALLS AROUND THE HOB LESS SHOWER RECESS ARE TO BE REINFORCED BY INSTALLING:
   I. NOGGINGS WITH A THICKNESS OF AT LEAST 25MM IN ACCORDANCE WITH FIGURE 8(A); OR
   II. SHEETING WITH A THICKNESS OF AT LEAST 12MM IN ACCORDANCE WITH FIGURE 8(B).

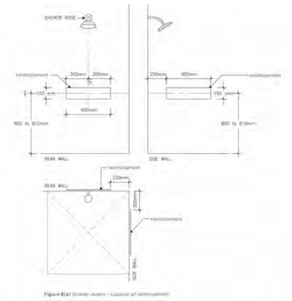

Figure 8(a) Shower recess – Location of reinforcement

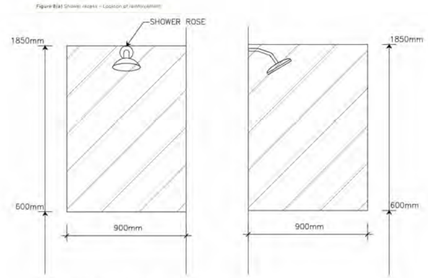

Figure 8(b) Shower recess – Location of sheeting

ABBREVIATIONS

AFL	ABOVE FLOOR LEVEL
AHD	AUSTRALIAN HEIGHT DATUM
B	BATH (AS SPECIFIED)
B'BAR	BREAKFAST BAR OVERHANG
BE	BEAM TO ENG'S DETAIL
BR	BROOM CUPBOARD
CBD	CUPBOARD
CD	CLOTHES DRYER
CH	CEILING HEIGHT
COL	STEEL COLUMN TO ENG'S DETAIL
CONC	CONCRETE
CSD	CAVITY SLIDING DOOR
CT	COOK TOP
DN	DOWN
DP	DOWN PIPE
DR	DRAWERS
DW	DISHWASHER SPACE
ENS	ENSUITE
FC	FIBRE CEMENT
FHT	FULL HEIGHT TILING
FOW	FACE OF WALL SLIDING DOOR
FW	FLOOR WASTE
GAS CYL	REPLACEABLE GAS CYLINDERS
H	TILED HOB 150mm ABOVE BATH
HSR	HUME SMARTROBE DOOR SYSTEM
LOB	LINE OF BULKHEAD
LOH	LIFT OFF HINGES
MH	MANHOLE ROOF ACCESS
MHF	METAL HEAD FLASHING
MSD	MIRROR SLIDING DOOR
MVSD	1/2 MIRROR & 1/2 VINYL S/DOOR
MW	SPACE FOR MICROWAVE OVEN
NBN	NATIONAL BROADBAND NETWORK
OBS	OBSCURE GLASS
OHC	OVERHEAD CUPBOARDS
PTY	PANTRY
RK	ROBE HOOK
ROBE	WARDROBE
RH	RANGE HOOD
REF	REFRIGERATOR SPACE
RHS	RECT. HOLLOW SECT. STEEL POST
S	SINK
SD	SLIDING GLASS DOOR
S/S	STAINLESS STEEL
SH	SHELVES
SHR	SHOWER
SHS	SQ. HOLLOW SECTION STEEL POST
SL	DOOR GLASS SIDE LIGHT
SPR	SPREADER
T	LAUNDRY TUB
UBO	UNDER BENCH OVEN
V	BATHROOM VANITY UNIT
VSD	VINYL SLIDING DOOR
WO	WALL OVEN
WC	TOILET PAN (WATER CLOSET)
WM	WASHING MACHINE SPACE
WIL	WALK-IN LINEN CLOSET
WIR	WALK-IN ROBE
XO	GLASS SLIDING (X), GLASS FIXED (O)

DENOTES WIRED SMOKE DETECTOR

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PROJECT ADDRESS	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436		
DESIGN & ARCHITECTURE	HOUSING PLUS	PROJECT MANAGER	DARREN WOODING
HYDRAULIC		STRUCTURAL/CIVIL	
LANDSCAPE CONSULTANT		PROJECT	LITHGOW CORE & CLUSTER
DRAWING TITLE	GENERAL NOTES II		
PLAN STATUS	FOR DA APPROVAL		
JOB No.	001	REVISION	D
SCALE			
DRAWN	ML/AT	PRINT DATE	5/10/2023
DRAWING No.	3 of 19		

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	SITE LAYOUT PLAN			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

NOTE:

THESE PLANS SHOULD ONLY BE READ AS A GENERAL SPECIFICATION. HOUSING PLUS PARTERVE THE RIGHT TO AMEND THE DETAILS ON THESE PLANS WITHOUT NOTICE. THIS INCLUDES BUT IS NOT LIMITED TO, ALTERING MEASUREMENTS, INCLUSIONS, COLOURS AND MATERIALS AS WELL AS DWELLING LOCATION AND ORIENTATION WHICH ARE SUBJECT TO CHANGE DEPENDANT ON SITE CONDITIONS, LOCATION OF SERVICES AND EASEMENTS AND APPROVAL BY THE PRINCIPLE CERTIFYING AUTHORITY

SITE LEGEND

- Proposed dwellings
- Landscape area
- Footpath, Driveway and Car Park area
- Existing level - Refer also to survey
- RL 9.100 — Proposed levels - Refer also to drainage drawing
- FIELD GULLY PIT CONNECTED TO STORMWATER LINE (5 OFF)
- SEWER LINE
- RAINWATER LINE
- UNDERGROUND ELECTRICAL CONDUIT & SERVICE PILLAR
- EXISTING OVERHEAD ELECTRICAL CABLE & POLE
- WATER RETICULATION LINE & WATER METER
- GAS RETICULATION LINE
- TELSTRA LINE
- SPOON DRAIN
- EARTH BERM
- SEDIMENT FENCE (ON FALL SIDE ONLY)

0 1 2 3 4 5

SITE NOTES:

NOTE: PAD LEVEL TO BE CONFIRMED ON SITE. SITE CUT/FILL BATTERS ARE APPROXIMATE ONLY AND MAY VARY TO SOILS AND SITE CONDITIONS. IT IS THE OWNER'S RESPONSIBILITY TO STABILISE THE SITE INCLUDING BATTERS AND PROVIDE SEDIMENTATION CONTROL AFTER HANDOVER IF REQUIRED.

ALL STORMWATER AND DRAINAGE TO BE IN ACCORDANCE WITH CURRENT NCC PLUMBING CODE OF AUSTRALIA VOL. 3 (SECTION D) IN ADDITION TO AS/NZS. 3500.

ENSURE 100mm DIAMETER AGRICULTURAL DRAINS ARE PROVIDED TO THE BASE OF ALL CUTS AND RETAINING WALLS AND ARE CONNECTED TO THE STORMWATER SYSTEM VIA SCREENED SILT PITS AS REQUIRED.

EXTERNAL FINISHED SURFACES SURROUNDING THE BUILDING MUST BE DRAINED TO DISPERSE WATER AWAY FROM THE BUILDING GRADED TO A SLOPE NOT LESS THAN 50mm OVER THE FIRST 1000mm FROM THE BUILDING.

SPOON DRAIN & EARTH BERM TO DIVERT OVERLAND SURFACE WATER AROUND BUILDING PAD.

THE HEIGHT OF OVERFLOW RELIEF GULLIES (ORG) RELATIVE TO DRAINAGE FITTINGS AND GROUND LEVEL MUST BE A MINIMUM OF 150mm BELOW THE LOWEST SANITARY FIXTURE.

CONNECT DOWNPIPES TO LEGAL POINT OF DISCHARGE VIA 100mm DIAMETER UPVC STORMWATER PIPE LAID WITH A MINIMUM FALL OF 1:100. DISCHARGE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.

DISCHARGE STORMWATER TO LOCAL AUTHORITY REQUIREMENTS.

PROVIDE ABLEFLEX EXPANSION JOINT FILLER BETWEEN HOUSE AND DRIVEWAY/TERRACE/PORCH SLAB.

FILL BATTER GRADIENT @ 1 : 2 WHERE ACHIEVABLE (MAX. 1 : 1.5), CUT BATTER GRADIENT @ 1:1.5

SEDIMENT CONTROL BARRIER AS REQUIRED FOR CONSTRUCTION PURPOSES ONLY

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PROJECT ADDRESS	DESIGN & ARCHITECTURE	PROJECT MANAGER		PROJECT	DRAWING TITLE	PLAN STATUS
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	HOUSING PLUS	DARREN WOODING		LITHGOW CORE & CLUSTER	SITE LAYOUT PLAN	FOR DA APPROVAL
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT			

JOB No.	REVISION	SCALE
001	D	1:200
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	4 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	SITE FLOOR PLAN			

Rev	Date	Description	Drawn By
B	09/09/23	FOR DA APPROVAL	ML/AT
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL

24
DP 1022160

25
DP 1022160
NO. 8
BRICK RESIDENCE
WITH METAL ROOF

26
DP 1022160
1,384m² BY TITLE
VACANT

27
DP 1022160
1,241m² BY TITLE
VACANT

28
DP 1022160
NO. 2
TOWNHOUSE UNDER
CONSTRUCTION

SP 96004

15
DP 866964

16
DP 866964

11
DP 1029892

HEPBURN STREET

HYDRANT

4%
1:25

2.5%
1:40

6.25%
1:16

16.6%
1:16

INTERCOM/ ENTRY SWIPE WITH SECURITY CAMERA

SECURITY GATE

REFER TO ENGINEER'S DETAIL FOR CARPARKING AND RETAINING WALLS

NEW 1.8m TIMBER FENCE AROUND BOUNDARY

GRADING OF SOIL TO RETAINING WALL

*ESTIMATED DESIGN
NOT BUILD AT TIME OF SURVEY

STORE

CLASS 5 BUILDING
CORE BUILDING

CLASS 5 BUILDING
COMMUNAL BUILDING

UNIT 5

UNIT 6

STAIR ACCESS

RAMP ACCESS

BIN

3M EASEMENT

SEWER MANHOLE
(DROP PIT)
TOP LID 918.13
INV. DROP: APPROX.
917.38
INV. BASE: 916.46

SEWER MANHOLE
(DROP PIT)
TOP LID: 920.68
INV. DROP: APPROX.
919.93
INV. BASE: 918.95

SEWER
MANHOLE
TOP LID:
919.69
INV. BASE:
918.07

BURIED SEWER
MANHOLE
TOP LID: 915.91
INV. BASE: 914.88

BURIED
DRAINAGE PIT
TOP LID: 915.92

DRAINAGE
PIT
TOP LID:
918.61

DRAINAGE
PIT
TOP LID:
918.73

SITE FLOOR PLAN

Scale 1:200

0 1 2 3 4 5

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PROJECT ADDRESS
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790
LOT 27+28, DP1269436

PROJECT
LITHGOW CORE & CLUSTER

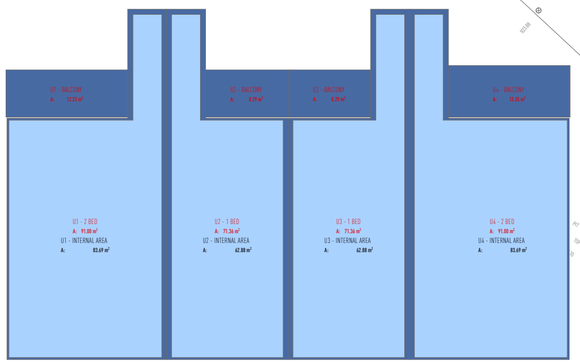
DRAWING TITLE
SITE FLOOR PLAN

PLAN STATUS
FOR DA APPROVAL

JOB No.	REVISION	SCALE
001	D	1:200

DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	5 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	AREA CALCULATION PLAN			
Rev	Date	Description	Drawn By	
B	09/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



AREA CALCULATION (UPPER)
Scale 1:200

AREA CALCULATION (GROUND)
Scale 1:200

AREAS	
SITE AREA	2,625m²
TOTAL FLOOR AREA	691.13m²
FSR:	0.261
PRIVATE OPEN SPACE:	81.82m²
LANDSCAPE AREA	1037.4m² / 39.5%
ROOF AREA	456.30m²

AREA CALCULATION CORE/COMMUNAL

COMMUNAL	158.40
CORE	127.92
STORAGE	20.97
	307.29 m²

AREA CALCULATION - UNIT 1

U1 - 2 BED	91.00
U1 - BALCONY	12.23
	103.23 m²

AREA CALCULATION - UNIT 2

U2 - 1 BED	71.36
U2 - BALCONY	8.29
	79.65 m²

AREA CALCULATION - UNIT 3

U3 - 1 BED	71.36
U3 - BALCONY	8.29
	79.65 m²

AREA CALCULATION - UNIT 4

U4 - 2 BED	91.00
U4 - BALCONY	13.35
	104.35 m²

AREA CALCULATION - UNIT 5

U5 - 2 BED	84.82
	84.82 m²

AREA CALCULATION - UNIT 6

U6 - 1 BED (PWD)	61.69
	61.69 m²

AREA CALCULATION - LANDSCAPE

RESIDUE LANDSCAPE AREA	952.15
SOFT LANDSCAPE AREA	120.77
YARNING CIRCLE	62.64
	43.25% / 1,135.56 m²

AREA CALCULATION - INTERNAL

COMMUNAL INTERNAL AREA	141.05
CORE INTERNAL AREA	112.85
STORAGE INTERNAL AREA	17.27
U1 - INTERNAL AREA	83.69
U2 - INTERNAL AREA	62.88
U3 - INTERNAL AREA	62.88
U4 - INTERNAL AREA	83.69
U5 - INTERNAL AREA	73.80
U6 - INTERNAL AREA	52.99
	691.10 m²

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PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING	PROJECT: LITHGOW CORE & CLUSTER
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT

DRAWING TITLE: AREA CALCULATION PLAN

PLAN STATUS: FOR DA APPROVAL

JOB No.	REVISION	SCALE
001	D	1:200
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	6 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	GROUND FLOOR LAYOUT PLAN			

Rev	Date	Description	Drawn By
B	08/09/23	FOR DA APPROVAL	ML/AT
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL

NOTE:
FIRE SEPARATION WALLS BETWEEN EACH UNIT AND COMMUNAL BUILDING

ACCESSIBLE UNIT/ UNIT 6 TO BE COMPLIANT WITH AS1428.1

NOTE:

- TIMBER CONSTRUCTION TO COMPLY WITH AS1684-2010
- ENSURE FULL ARCHITRAVE OVER WINDOWS UNDER BULKHEAD
- TERMITE TREATMENT IN ACCORDANCE WITH AS3660.1 REVISED 2014
- W.C. DOORS TO BE FITTED WITH LIFT-OFF HINGES OR TO SWING OUT IN ACCORDANCE WITH NCC. F3.8.3.3
- WET AREAS TO BE WATERPROOFED IN ACCORDANCE WITH NCC. F.3.8.1.2
- SMOKE ALARMS TO BE INSTALLED IN ACCORDANCE WITH NCC. F.3.7.2
- ALL EXTERNAL WALLS WITHIN 900mm FROM AN ALLOTMENT BOUNDARY TO HAVE AN FRL OF NOT LESS THAN 60/60/60 WHEN TESTED FROM THE OUTSIDE (NO PROTECTION REQUIRED FOR THE WALL AT RIGHT ANGLES OR MORE TO THE BOUNDARY) AS PER NCC 3.7
- REFER TO ENGINEER'S DRAWINGS FOR BRICKWORK EXPANSION JOINTS RECESS ALL EXTERIOR DOOR TRACKS/SILLS
- FINISHED RL'S TO BE CONFIRMED ONSITE.
- TOP OF INTERIOR FLOOR FINISHES TO BE FLUSH UNLESS NOTED OTHERWISE.
- THRESHOLD DETAIL TO BE CO-ORDINATED WITH WINDOW & DOOR MANUFACTURERS DETAILS TO MAINTAIN WARRANTY.
- STRUCTURAL RL'S & STEP-DOWNS SHOWN UNLESS NOTED OTHERWISE.
- ALL STEP-DOWNS & REBATES TO BE CONFIRMED ONSITE.

GROUND FLOOR LAYOUT PLAN

Scale 1:100

0 1 2 3 4 5

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PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING	PROJECT: LITHGOW CORE & CLUSTER
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT

DRAWING TITLE: GROUND FLOOR LAYOUT PLAN

PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	7 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	FIRST FLOOR LAYOUT PLAN			

Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

NOTE:

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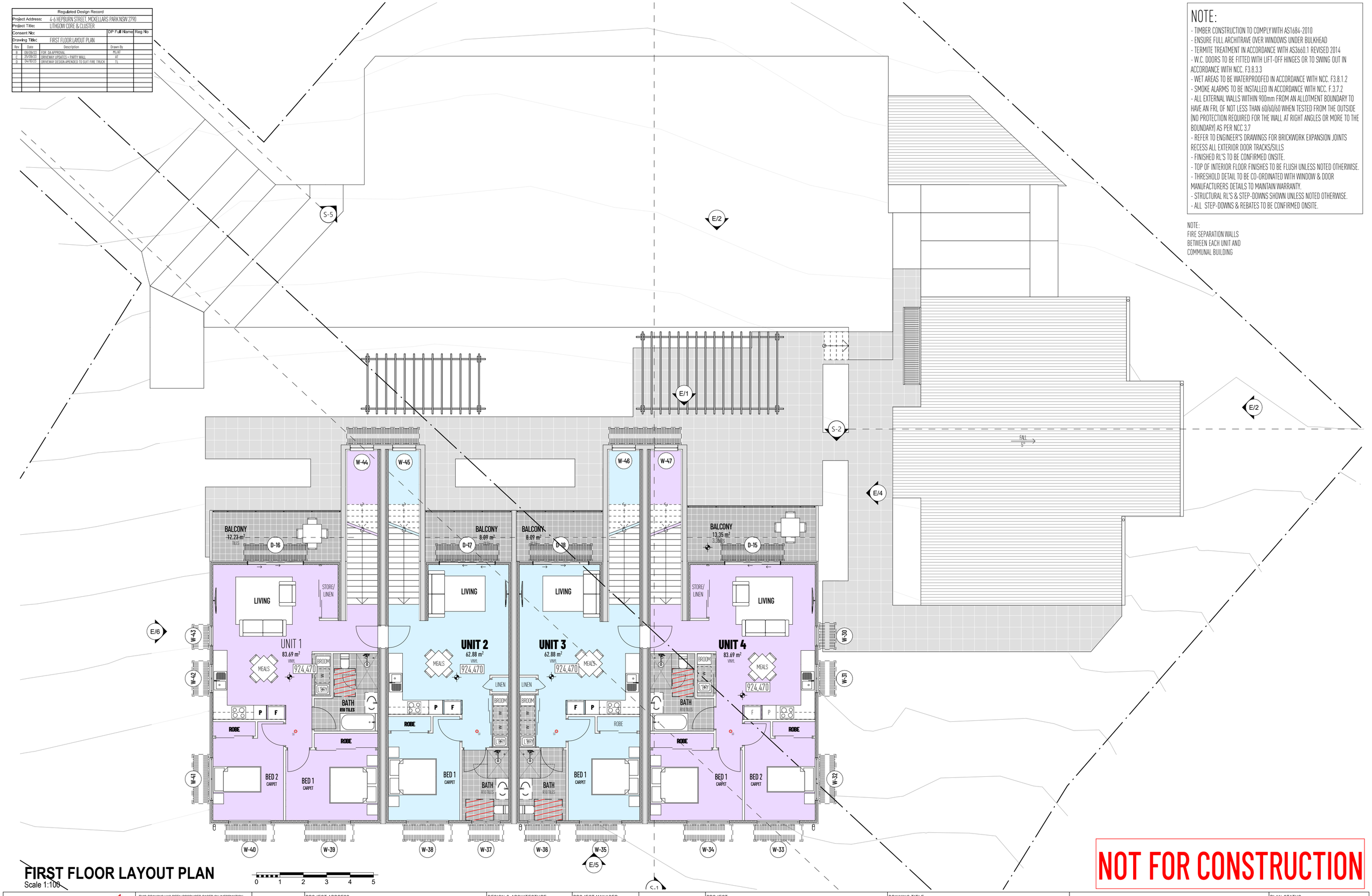
NOTE:
FIRE SEPARATION WALLS
BETWEEN EACH UNIT AND
COMMUNAL BUILDING



FIRST FLOOR LAYOUT PLAN

Scale 1:100

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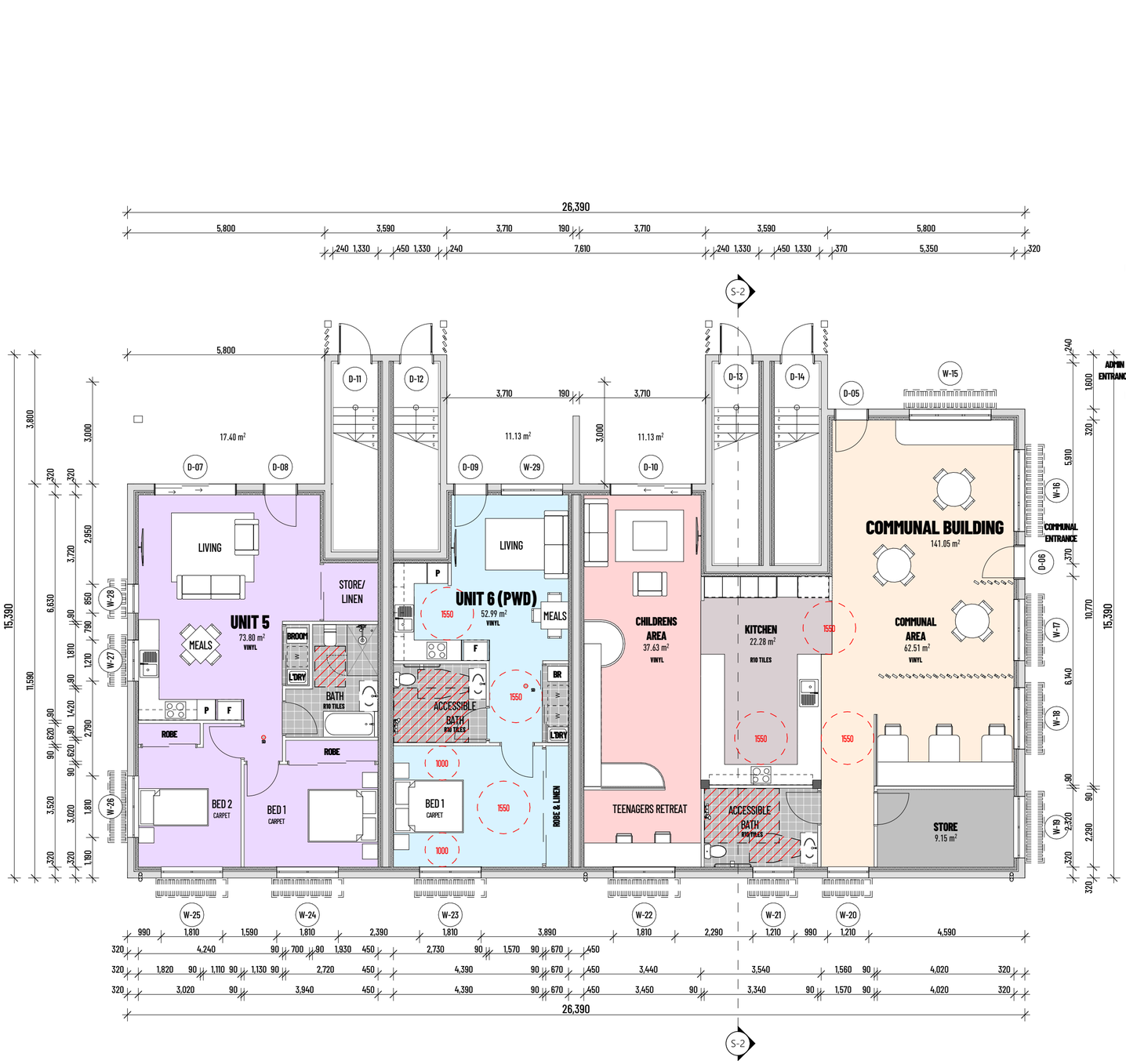
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT

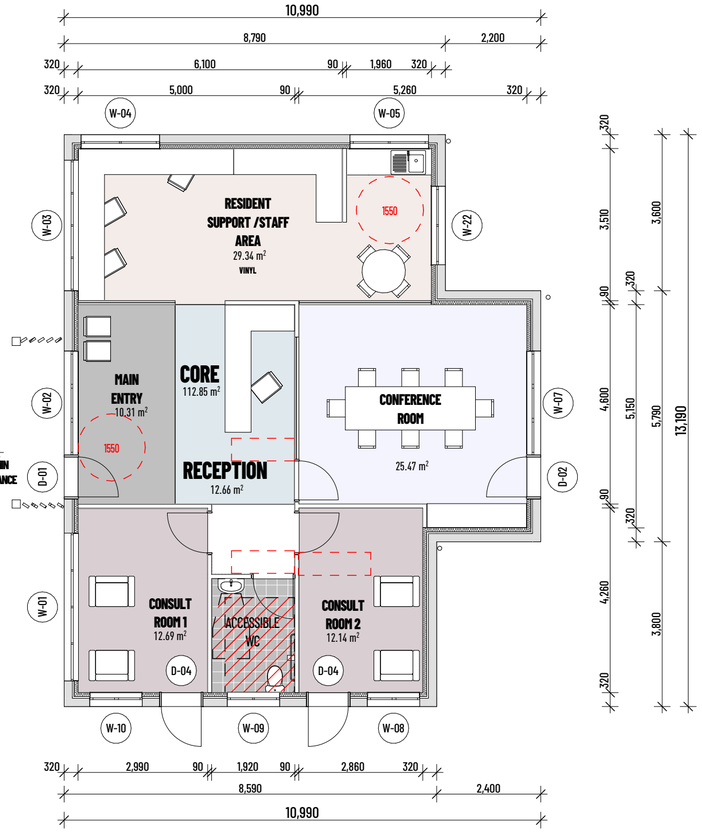
PROJECT	LITHGOW CORE & CLUSTER
DRAWING TITLE	FIRST FLOOR LAYOUT PLAN

PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	8 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	GROUND FLOOR PLAN DIMENSION			

Rev	Date	Description	Drawn By	
B	09/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	





GROUND FLOOR PLAN

Scale 1:100

0 1 2 3 4 5

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PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT	

DRAWING TITLE: GROUND FLOOR PLAN DIMENSION

PLAN STATUS: FOR DA APPROVAL

JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	9 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	FIRST FLOOR PLAN DIMENSION			

Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
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FIRST FLOOR PLAN

Scale 1:100

0 1 2 3 4 5

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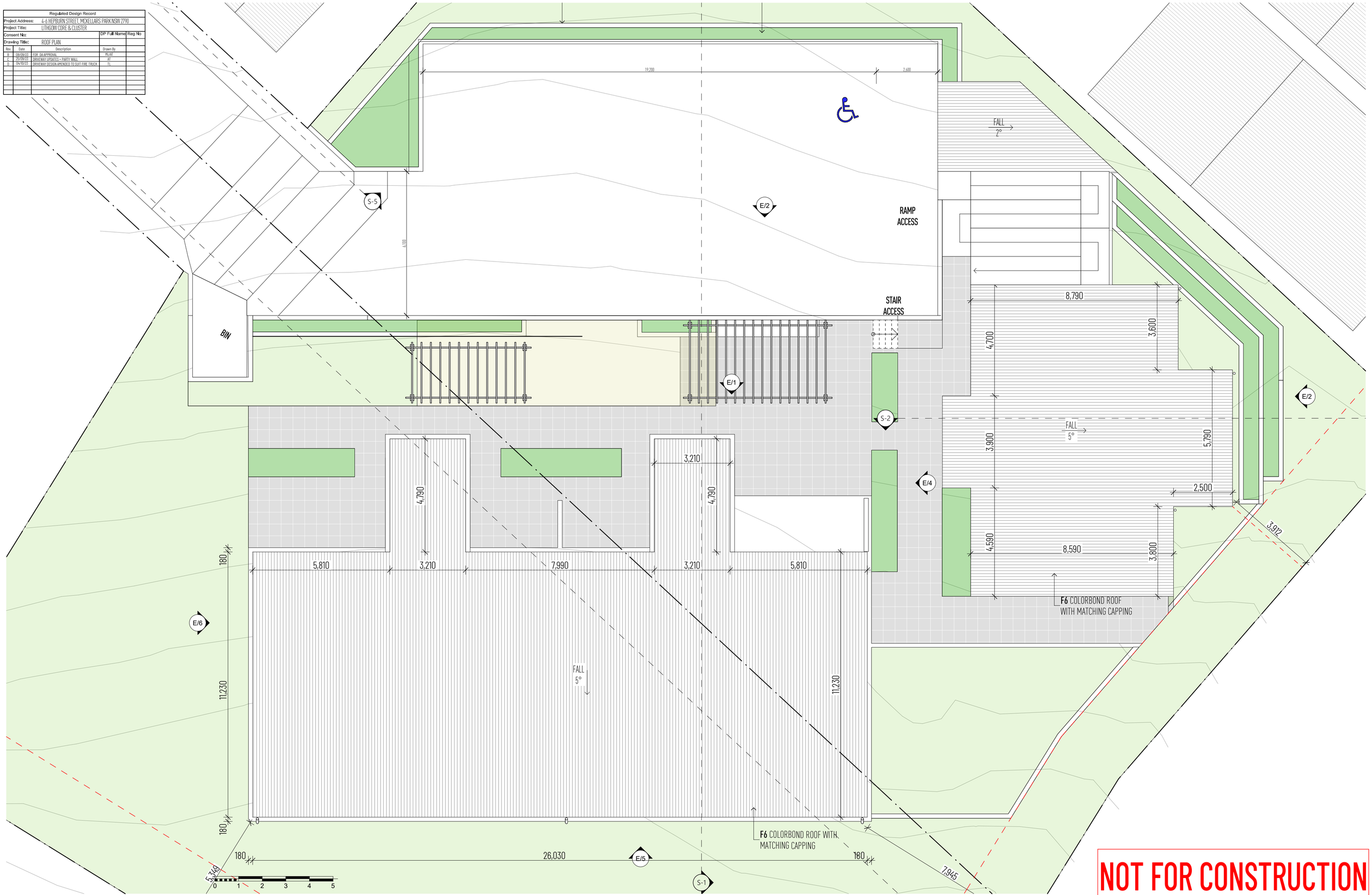
PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER	DRAWING TITLE: FIRST FLOOR PLAN DIMENSION
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT		

PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	10 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	ROOF PLAN			

Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	29/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



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ROOF PLAN

Scale 1:100

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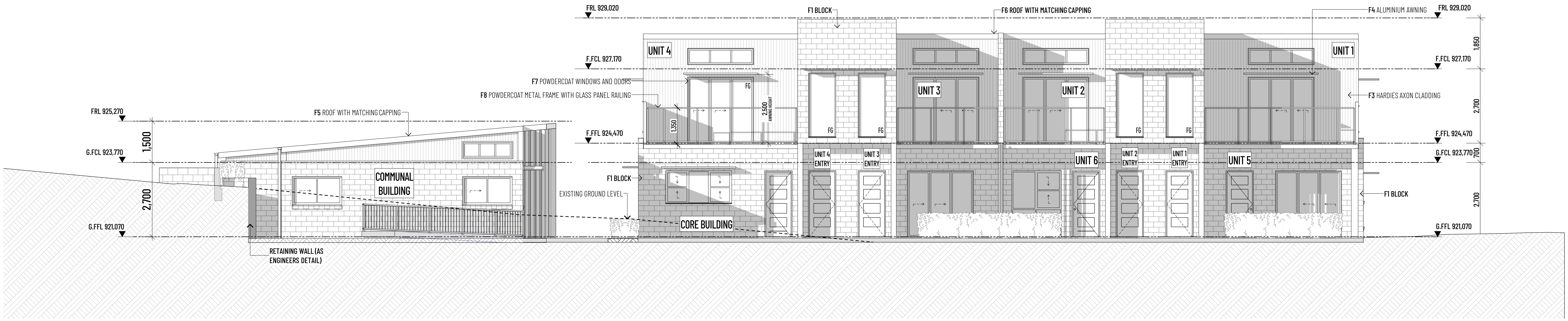
PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER	DRAWING TITLE: ROOF PLAN
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT		

PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	11 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	NORTH ELEVATIONS			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



NORTH WESTERN ELEVATION

Scale 1:100

CARPARK ELEVATION

Scale 1:100

LEGEND

F1 AUSTRAL BRICKS GB ASPECT HONED BLOCK IN PORCELAIN
F2 AUSTRAL BRICKS GB SANDSTONE ROCK FACE IN ENDEAVOUR BLEND
F3 JAMES HARDIE AXON CLADDING PAINTED WHITE
F4 KNOTWOOD ALUMINIUM AWNING IN WHITE ASH
F5 CUSTOM ORB ROOFING IN COLORBOND DUNE
F6 ROOF CAPPING, GUTTERS & DOWNPIPES IN COLORBOND DUNE
F7 POWDERCOATED WINDOWS IN COLORBOND JASPER
F8 PAINTED IN COLORBOND DUNE

0 1 2 3 4 5

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PROJECT ADDRESS
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790
LOT 27+28, DP1269436

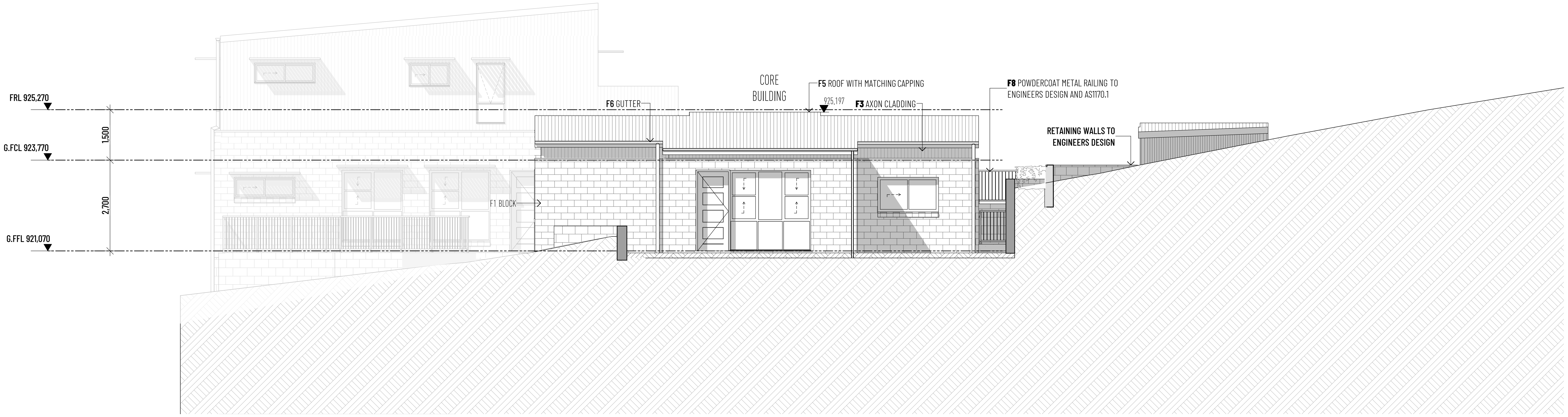
DESIGN & ARCHITECTURE: HOUSING PLUS
PROJECT MANAGER: DARREN WOODING
HYDRAULIC
STRUCTURAL/CIVIL
LANDSCAPE CONSULTANT

PROJECT: LITHGOW CORE & CLUSTER

DRAWING TITLE: NORTH ELEVATIONS

PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	12 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	EAST ELEVATIONS			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



NORTH EASTERN ELEVATION (CORE BUILDING)

Scale 1:100

NORTH EASTERN ELEVATION (COMMUNAL BUILDING)

Scale 1:100

LEGEND

- **F1** AUSTRAL BRICKS GB ASPECT HONED BLOCK IN PORCELAIN
- **F2** AUSTRAL BRICKS GB SANDSTONE ROCK FACE IN ENDEAVOUR BLEND
- **F3** JAMES HARDIE AXON CLADDING PAINTED WHITE
- **F4** KNOTWOOD ALUMINIUM AWNING IN WHITE ASH
- **F5** CUSTOM ORB ROOFING IN COLORBOND DUNE
- **F6** ROOF CAPPING, GUTTERS & DOWNPIPES IN COLORBOND DUNE
- **F7** POWDERCOATED WINDOWS IN COLORBOND JASPER
- **F8** PAINTED IN COLORBOND DUNE

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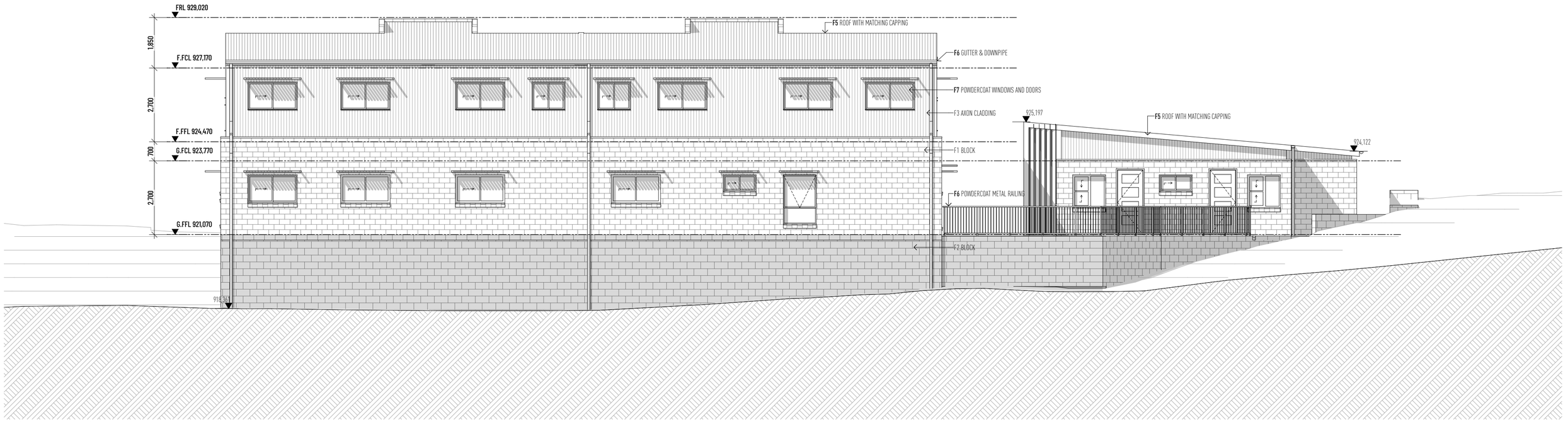
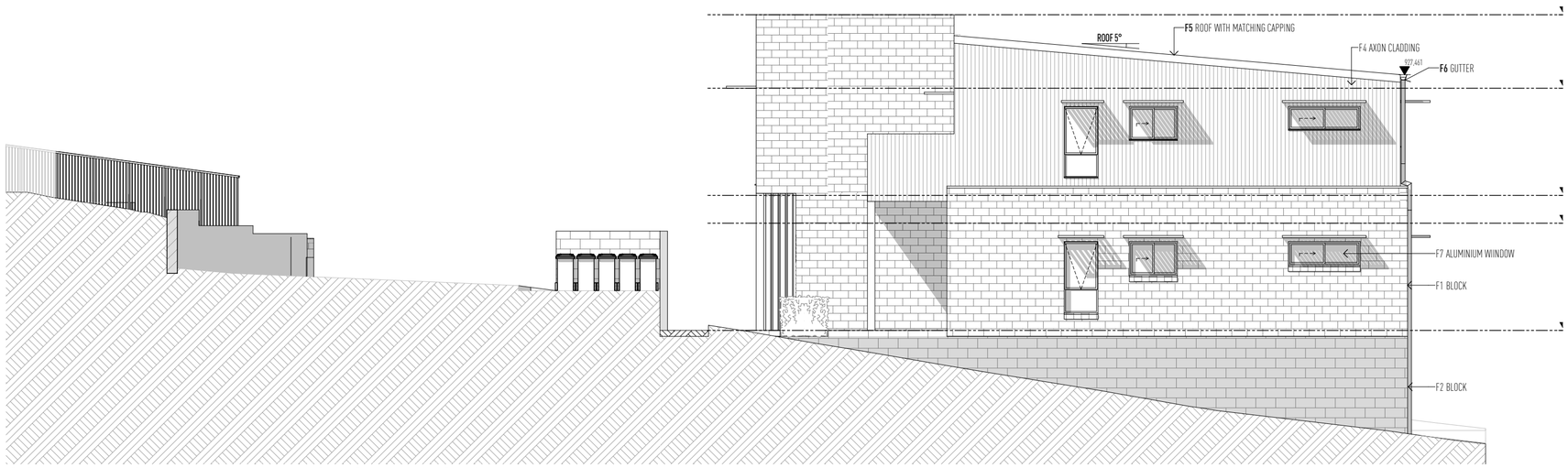
PROJECT ADDRESS	DESIGN & ARCHITECTURE	PROJECT MANAGER		PROJECT	DRAWING TITLE	PLAN STATUS		
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	HOUSING PLUS	DARREN WOODING		LITHGOW CORE & CLUSTER	EAST ELEVATIONS	FOR DA APPROVAL		
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT			JOB No. 001	REVISION D	SCALE 1:100
						DRAWN ML/AT	PRINT DATE 5/10/2023	DRAWING No. 13 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	SOUTH & WEST ELEVATIONS			

Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	29/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



SOUTH EASTERN ELEVATION
Scale 1:100



SOUTH WESTERN ELEVATION (UNIT 1 & 5)
Scale 1:100

LEGEND

F1	AUSTRAL BRICKS GB ASPECT HONED BLOCK IN PORCELAIN
F2	AUSTRAL BRICKS GB SANDSTONE ROCK FACE IN ENDEAVOUR BLEND
F3	EASY LAP PANEL IN COLOBOND DUNE
F4	JAMES HARDIE AXON CLADDING PAINTED WHITE
F5	KNOTWOOD ALUMINIUM AWNING IN WHITE ASH
F6	CUSTOM ORB ROOFING IN COLORBOND DUNE
F7	ROOF CAPPING, GUTTERS & DOWNPIPES IN COLORBOND DUNE
F8	POWDERCOATED WINDOWS IN COLORBOND JASPER
F9	PAINTED IN COLORBOND DUNE

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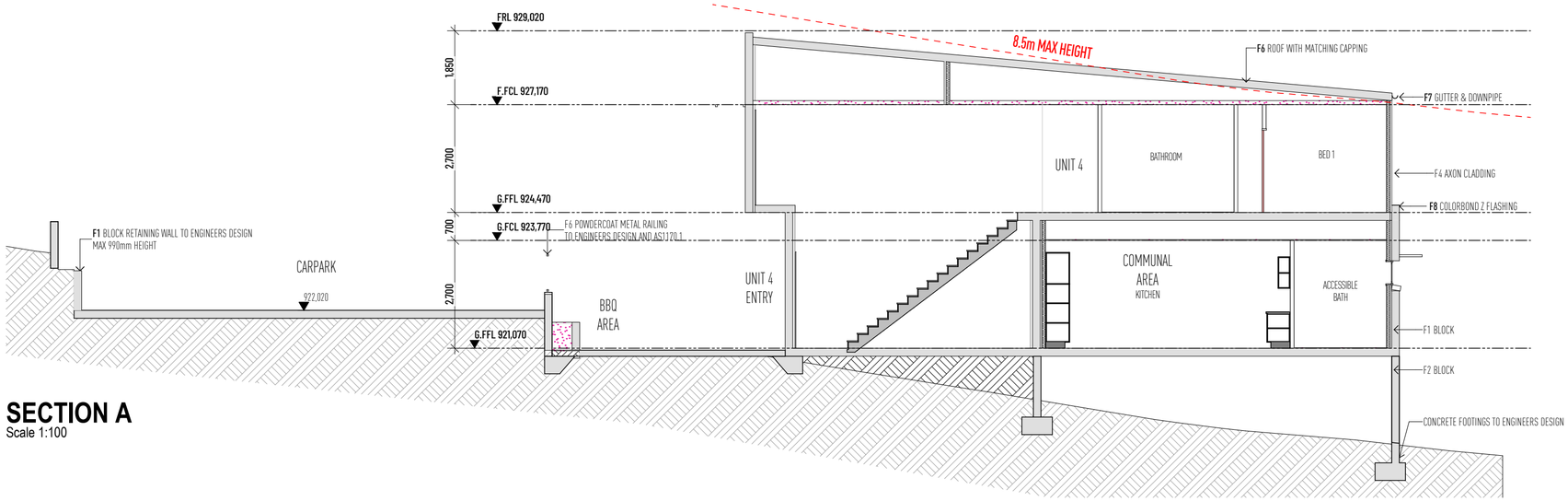
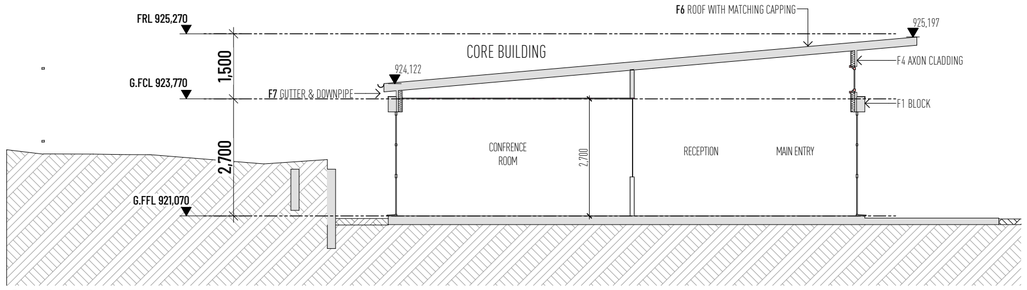
PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER	DRAWING TITLE: SOUTH & WEST ELEVATIONS		PLAN STATUS: FOR DA APPROVAL
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT				JOB No. 001 / REVISION D / SCALE 1:100
							DRAWN ML/AT / PRINT DATE 5/10/2023 / DRAWING No. 14 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	SECTIONS			

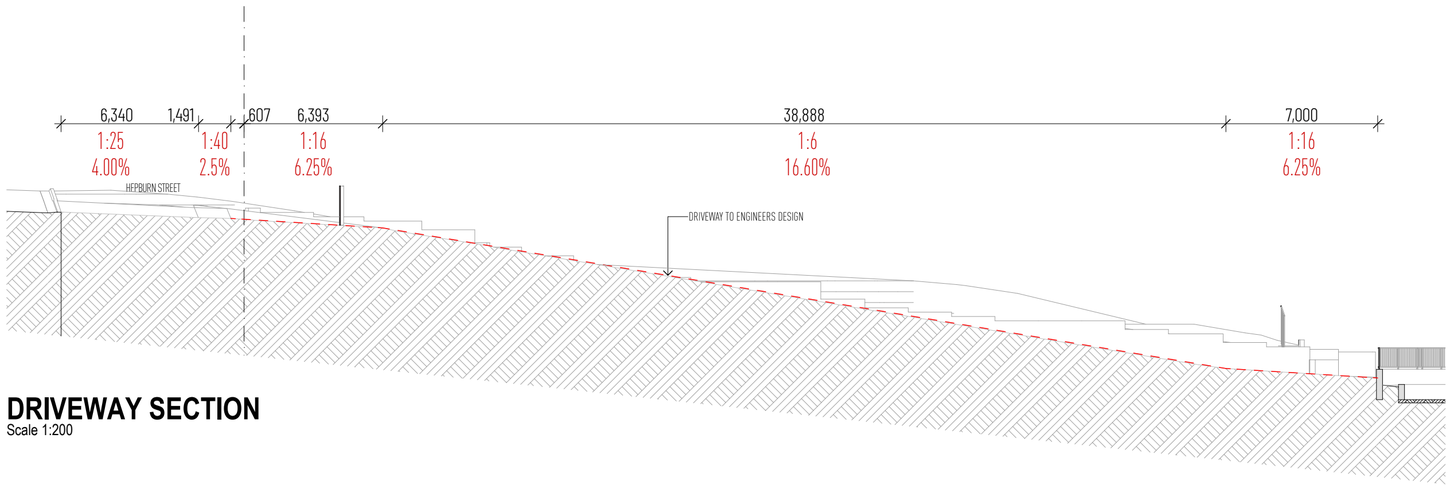
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	



SECTION A
Scale 1:100



SECTION B
Scale 1:100



DRIVEWAY SECTION
Scale 1:200

0 1 2 3 4 5

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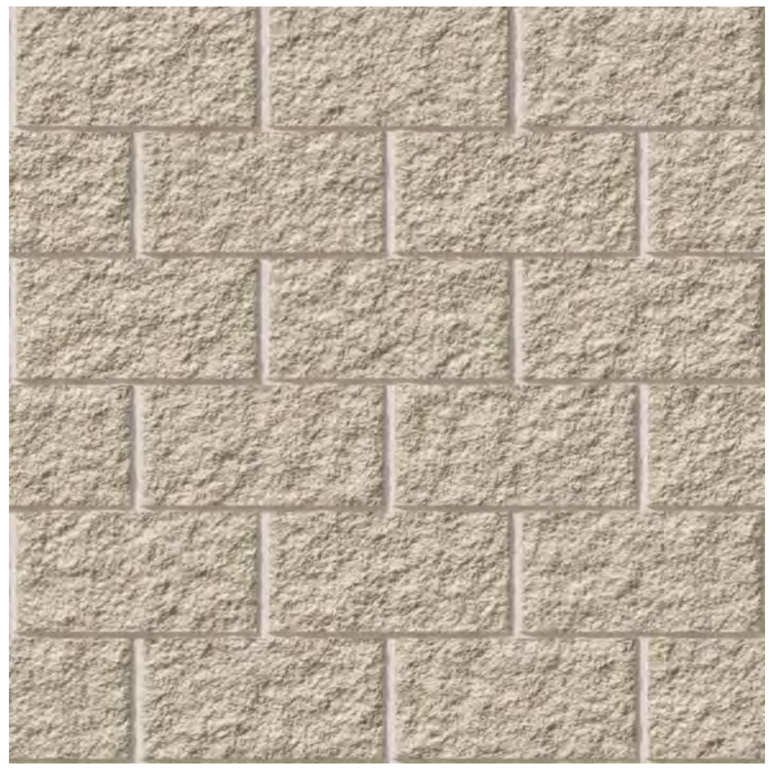
PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING		PROJECT: LITHGOW CORE & CLUSTER	DRAWING TITLE: SECTIONS
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT		

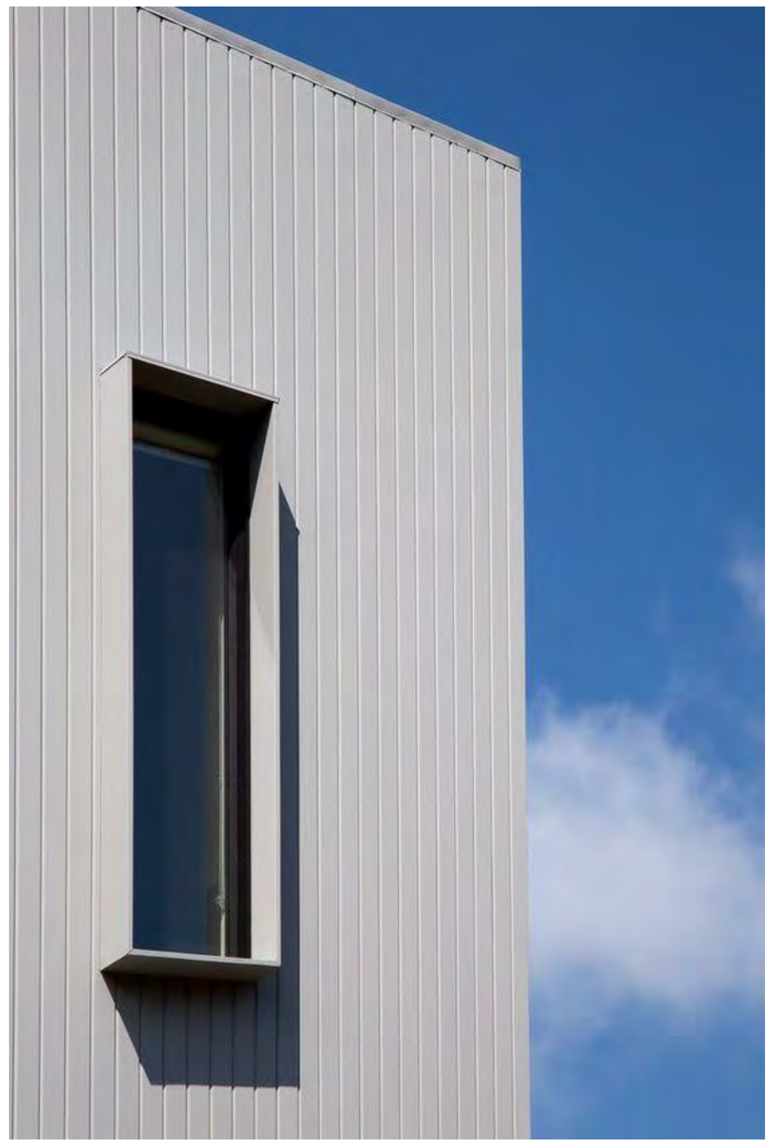
PLAN STATUS		
FOR DA APPROVAL		
JOB No.	REVISION	SCALE
001	D	1:100, 1:200
DRAWN	PRINT DATE	DRAWING No.
ML/AT	5/10/2023	15 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	MATERIALS BOARD			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

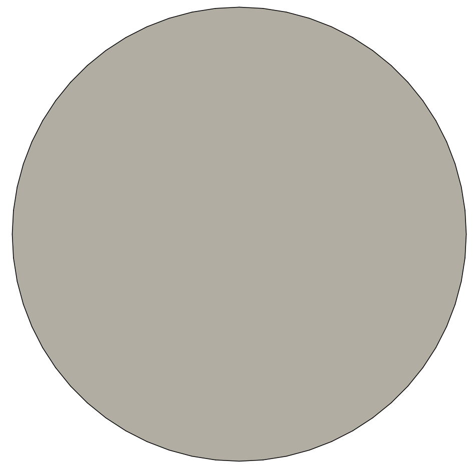
F1 AUSTRAL BRICKS GB ASPECT HONED BLOCK IN PORCELAIN



F2 AUSTRAL BRICKS GB SANDSTONE ROCK FACE IN ENDEAVOUR BLEND



F3 JAMES HARDIE AXON CLADDING PAINTED WHITE



F8 COLORBOND DUNE

F4 KNOTWOOD ALUMINIUM AWNING IN WHITE ASH

F5 CUSTOM ORB ROOFING IN COLORBOND DUNE

F6 ROOF CAPPING, GUTTERS & DOWNPIPES IN COLORBOND DUNE

F7 POWDERCOATED WINDOWS IN COLORBOND JASPER

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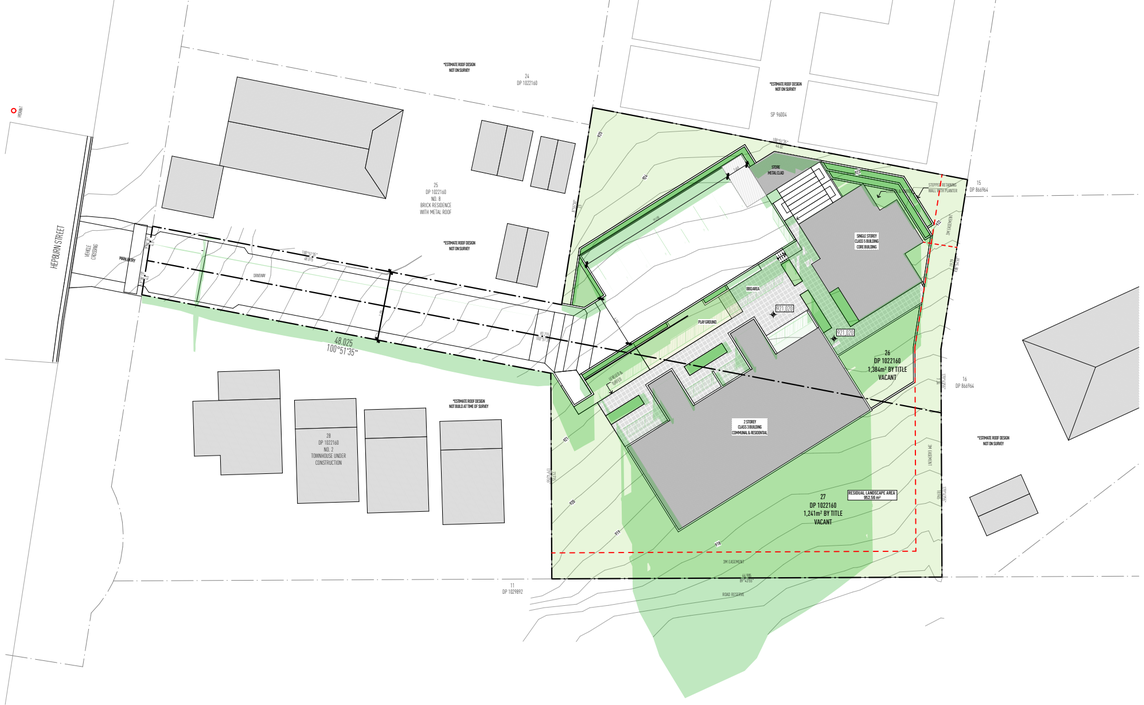
PROJECT ADDRESS	DESIGN & ARCHITECTURE	PROJECT MANAGER		PROJECT	DRAWING TITLE	PLAN STATUS		
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	HOUSING PLUS	DARREN WOODING		LITHGOW CORE & CLUSTER	MATERIALS BOARD	FOR DA APPROVAL		
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT			JOB No. 001	REVISION D	SCALE
						DRAWN ML/AT	PRINT DATE 5/10/2023	DRAWING No. 16 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	SHADOW DIAGRAM			

Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

WINTER SOLSTICE 9AM
Scale 1:500



WINTER SOLSTICE 12PM
Scale 1:500

0 5 10 15

WINTER SOLSTICE 3PM
Scale 1:500

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PROJECT ADDRESS: 4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790 LOT 27+28, DP1269436	DESIGN & ARCHITECTURE: HOUSING PLUS	PROJECT MANAGER: DARREN WOODING	PROJECT: LITHGOW CORE & CLUSTER
	HYDRAULIC	STRUCTURAL/CIVIL	LANDSCAPE CONSULTANT

DRAWING TITLE: SHADOW DIAGRAM

PLAN STATUS: FOR DA APPROVAL

JOB No.	REVISION	SCALE
001	D	1:500
DRAWN: ML/AT	PRINT DATE: 5/10/2023	DRAWING No.: 17 of 19

Regulated Design Record				
Project Address:	4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790			
Project Title:	LITHGOW CORE & CLUSTER			
Consent No:			DP Full Name	Reg No
Drawing Title:	WINDOW/DOOR SCHEDULE			
Rev	Date	Description	Drawn By	
B	08/09/23	FOR DA APPROVAL	ML/AT	
C	25/09/23	DRIVEWAY UPDATES + PARTY WALL	AT	
D	04/10/23	DRIVEWAY DESIGN AMENDED TO SUIT FIRE TRUCK	TL	

WINDOW LIST

ID	W-01	W-02	W-03	W-04	W-05	W-07	W-08	W-09	W-10	W-11	W-12	W-13	W-14	W-15	W-16	W-17	W-18	W-19	W-20
STORY	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Sub Floor L1	Sub Floor L1	Sub Floor L1	Sub Floor L1	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor
W x H	3,410×1,030	2,410×2,400	3,010×1,030	1,810×1,030	1,810×1,030	2,410×2,400	1,210×1,200	1,210×600	1,210×1,200	3,410×600	3,410×600	3,010×600	1,810×600	2,410×1,200	2,410×2,100	1,810×2,100	1,810×2,100	1,810×600	1,210×1,800
HEAD HEIGHT	2,190	2,400	2,190	2,190	2,190	2,400	2,190	2,190	2,190	700	700	700	700	2,400	2,400	2,400	2,400	2,190	2,190
ELEVATION																			
AREA	3.51	5.78	3.10	1.86	1.86	5.78	1.45	0.73	1.45	2.05	2.05	1.81	1.09	2.89	5.06	3.80	3.80	1.09	2.18
QTY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOTES																			

WINDOW LIST

ID	W-21	W-22	W-22	W-23	W-24	W-25	W-26	W-27	W-28	W-29	W-30	W-31	W-32	W-33	W-34	W-35	W-36	W-37	W-38
STORY	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor
W x H	1,210×600	1,810×1,030	1,810×1,030	1,810×1,030	1,810×1,030	1,810×1,030	1,810×600	1,210×857	850×1,800	1,810×2,400	850×1,800	1,210×700	1,810×600	1,810×1,030	1,810×1,030	1,810×1,030	1,210×1,030	1,210×1,030	1,810×1,030
HEAD HEIGHT	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,400	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190
ELEVATION																			
AREA	0.73	1.86	1.86	1.86	1.86	1.86	1.09	1.04	1.53	4.34	1.53	0.85	1.09	1.86	1.86	1.86	1.25	1.25	1.86
QTY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOTES																			

WINDOW LIST

ID	W-39	W-40	W-41	W-42	W-43	W-44	W-45	W-46	W-47	W-48	W-49	W-50	W-51
STORY	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Upper Floor	Ceiling	Ceiling	Ceiling	Ceiling
W x H	1,810×1,030	1,810×1,030	1,810×600	1,210×857	850×1,800	1,000×2,345	1,000×2,345	1,000×2,345	1,000×2,345	2,410×600	2,410×600	2,410×600	2,410×600
HEAD HEIGHT	2,190	2,190	2,190	2,190	2,190	2,550	2,550	2,550	2,550	750	750	750	750
ELEVATION													
AREA	1.86	1.86	1.09	1.04	1.53	2.35	2.35	2.35	2.35	1.45	1.45	1.45	1.45
QTY	1	1	1	1	1	1	1	1	1	1	1	1	1
NOTES													

DOOR LIST

ID	D-01	D-02	D-04	D-04	D-05	D-06	D-07	D-08	D-09	D-10	D-11	D-12	D-13	D-14	D-15	D-16	D-17	D-18
W x H	920×2,360	920×2,360	920×2,360	920×2,360	920×2,360	920×2,360	2,410×2,400	920×2,360	920×2,360	2,410×2,400	920×2,360	920×2,360	920×2,360	920×2,360	2,410×2,400	2,410×2,400	2,410×2,400	2,410×2,400
R/L	L	R	L	R	L	R	L	R	L	R	R	L	R	L	R	L	R	L
ELEVATION																		
QTY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOTES																		

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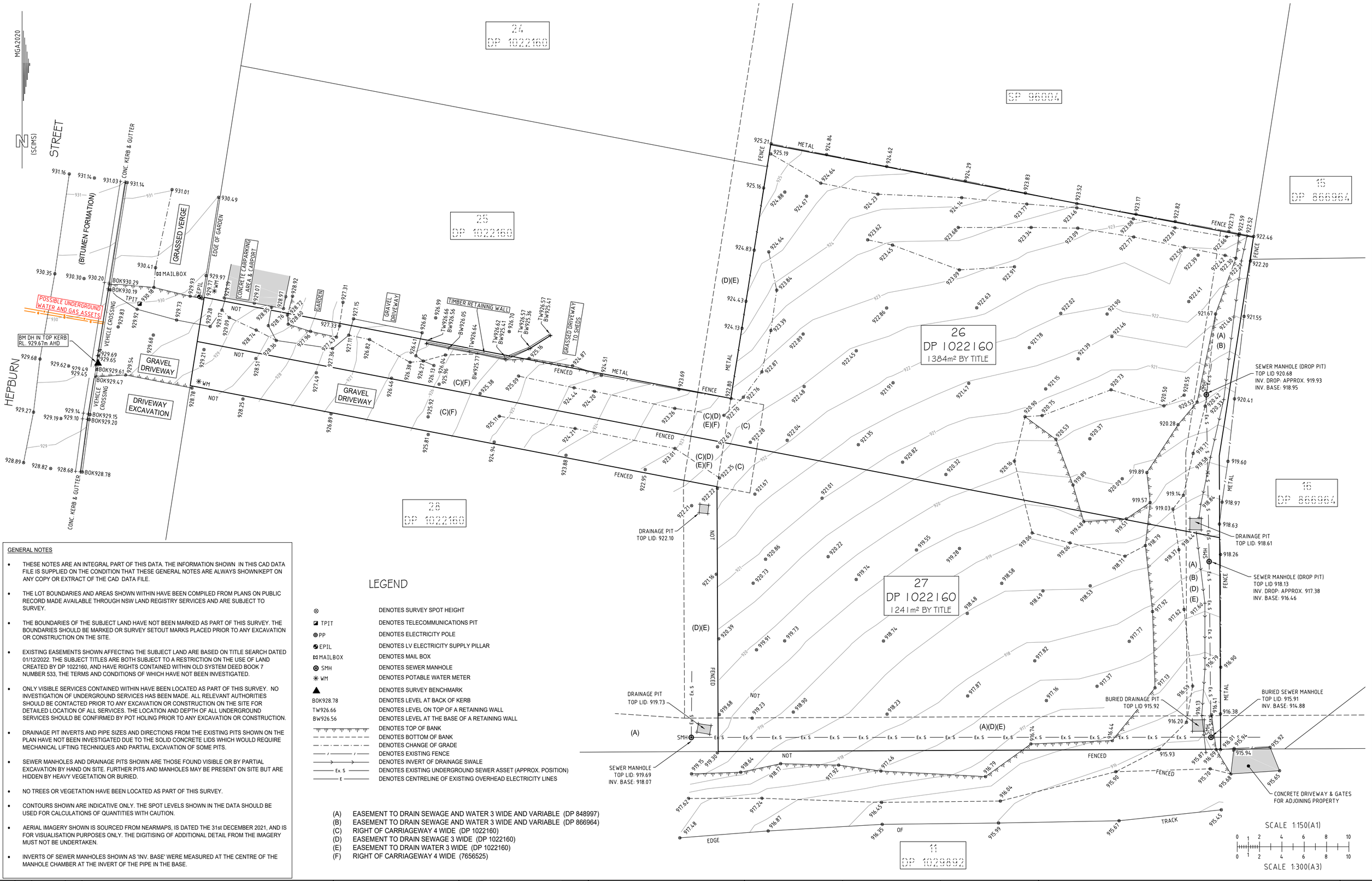
PROJECT ADDRESS
4-6 HEPBURN STREET, MCKELLARS PARK NSW 2790
LOT 27+28, DP1269436

DESIGN & ARCHITECTURE: HOUSING PLUS
PROJECT MANAGER: DARREN WOODING
HYDRAULIC
STRUCTURAL/CIVIL
LANDSCAPE CONSULTANT

PROJECT
LITHGOW CORE & CLUSTER

DRAWING TITLE
WINDOW/DOOR SCHEDULE

PLAN STATUS: FOR DA APPROVAL
JOB No. 001 | REVISION D | SCALE
DRAWN ML/AT | PRINT DATE 5/10/2023 | DRAWING No. 18 of 19



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- ONLY VISIBLE SERVICES CONTAINED WITHIN HAVE BEEN LOCATED AS PART OF THIS SURVEY. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THE SITE FOR DETAILED LOCATION OF ALL SERVICES. THE LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES SHOULD BE CONFIRMED BY POT HOLING PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
- DRAINAGE PIT INVERTS AND PIPE SIZES AND DIRECTIONS FROM THE EXISTING PITS SHOWN ON THE PLAN HAVE NOT BEEN INVESTIGATED DUE TO THE SOLID CONCRETE LIDS WHICH WOULD REQUIRE MECHANICAL LIFTING TECHNIQUES AND PARTIAL EXCAVATION OF SOME PITS.
- SEWER MANHOLES AND DRAINAGE PITS SHOWN ARE THOSE FOUND VISIBLE OR BY PARTIAL EXCAVATION BY HAND ON SITE. FURTHER PITS AND MANHOLES MAY BE PRESENT ON SITE BUT ARE HIDDEN BY HEAVY VEGETATION OR BURIED.
- NO TREES OR VEGETATION HAVE BEEN LOCATED AS PART OF THIS SURVEY.
- CONTOURS SHOWN ARE INDICATIVE ONLY. THE SPOT LEVELS SHOWN IN THE DATA SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.
- AERIAL IMAGERY SHOWN IS SOURCED FROM NEARMAPS, IS DATED THE 31st DECEMBER 2021, AND IS FOR VISUALISATION PURPOSES ONLY. THE DIGITISING OF ADDITIONAL DETAIL FROM THE IMAGERY MUST NOT BE UNDERTAKEN.
- INVERTS OF SEWER MANHOLES SHOWN AS 'INV. BASE' WERE MEASURED AT THE CENTRE OF THE MANHOLE CHAMBER AT THE INVERT OF THE PIPE IN THE BASE.

LEGEND

⊗	DENOTES SURVEY SPOT HEIGHT
TPIT	DENOTES TELECOMMUNICATIONS PIT
PP	DENOTES ELECTRICITY POLE
EPIL	DENOTES LV ELECTRICITY SUPPLY PILLAR
MAILBOX	DENOTES MAIL BOX
SMH	DENOTES SEWER MANHOLE
WM	DENOTES POTABLE WATER METER
▲	DENOTES SURVEY BENCHMARK
BOK928.78	DENOTES LEVEL AT BACK OF KERB
TW926.66	DENOTES LEVEL ON TOP OF A RETAINING WALL
BW926.56	DENOTES LEVEL AT THE BASE OF A RETAINING WALL
	DENOTES TOP OF BANK
	DENOTES BOTTOM OF BANK
	DENOTES CHANGE OF GRADE
	DENOTES EXISTING FENCE
	DENOTES INVERT OF DRAINAGE SWALE
Ex. S	DENOTES EXISTING UNDERGROUND SEWER ASSET (APPROX. POSITION)
E	DENOTES CENTRELINE OF EXISTING OVERHEAD ELECTRICITY LINES

(A) EASEMENT TO DRAIN SEWAGE AND WATER 3 WIDE AND VARIABLE (DP 848997)
(B) EASEMENT TO DRAIN SEWAGE AND WATER 3 WIDE AND VARIABLE (DP 866964)
(C) RIGHT OF CARRIAGEWAY 4 WIDE (DP 1022160)
(D) EASEMENT TO DRAIN SEWAGE 3 WIDE (DP 1022160)
(E) EASEMENT TO DRAIN WATER 3 WIDE (DP 1022160)
(F) RIGHT OF CARRIAGEWAY 4 WIDE (7656525)

REVISIONS			
A	22/12/2022	SD	FOR CLIENT ISSUE
REV.	DATE	BY	DESCRIPTION

MAGNET FILE: 22100 DETAIL MASTER.MJO
AUTOCAD FILE: 22100-D01_A.dwg
JOB REFERENCE: 22100

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Integrated Consulting
Planning | Bushfire | Surveying
PO BOX 9026 BATHURST WEST 2795
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DATE OF SURVEY: 16/12/2022	LOCALITY: McKELLARS PARK	SCALE: 1:150 @ A1 1:300 @ A3	
SURVEYED BY: SD	LGA: LITHGOW CITY	CONTOUR INTERVAL: 0.5m	
DRAWN BY: SD	HORIZONTAL DATUM: MGA2020 (GROUND SCALED)	VERTICAL DATUM: AHD71	
CHECKED BY: SD	ORIGIN OF COORDS: SSM 67528	ORIGIN OF LEVELS: SSM 67528 RL. 928.79m (SCIMS)	

CLIENT: HOUSING PLUS

PLAN SHOWING DETAIL OVER LOTS 26 AND 27 IN DP 1022160, BEING 4-6 HEPBURN STREET, McKELLARS PARK. DETAIL & LEVELS

DRAWING No: 22100-D01_A
SHEET No: 2 OF 2

A1
REVISION A

APPENDIX B

BUSH FIRE ASSESSMENT REPORT

Bush Fire Assessment Report

Group Home (Core and Cluster)

Special Fire Protection Purpose - SFPP

4 - 6 Hepburn St, McKellars Park

Document Tracking:

CLIENT:	Darren Wooding
	DarrenW@housingplus.com
DATE:	21/08/2023
JOB REFENCE:	22SBC_539
VERSION:	1.1
PREPARED BY:	Steven Houghton
`	Graduate Diploma in Bushfire Protection.

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

DISCLAIMER:

Client use only	This document is intended for client use only. This document must be used for the stated purpose only. It must not be distributed to a third party or used for an alternative purpose without written approval of the author.
Limit Liability	The author is not liable to any person for damage or loss of life resulting from actions taken or not taken as recommended in this report.
Changeable guidelines	This report is based on the author's interpretation of *Planning for Bush Fire Protection 2019 (PBP)* and *Australian Standard AS 3959-2018 'Construction of buildings in bushfire-prone areas* as at the time of writing.
Conflict of interest	This report reflects the opinions and recommendations of the author only, and not those of the Rural Fire Service (RFS). Should Council or the RFS modify the recommendations or reject an assessment or proposal the author will not be held liable for any financial loss incurred as a result.
Remaining risk	Notwithstanding the recommendations made by the author, there can be no absolute guarantee that a bushfire will not occur or cause damage to property because of the extreme number of variables that bushfires present.
Measures not upheld in perpetuity	It is the responsibility of the client to maintain all bushfire protection measures proposed on an ongoing basis.

Contents

1 Introduction

1.1 Purpose statement

The subject Lot/site is 'Bush fire prone land' as determined by local council bush fire prone land mapping under s.146 of the Environmental Planning and Assessment Act (EP&A) 1974.

The purpose of this report to show that the proposed developed will satisfy the broad aims and objectives of *Planning for Bushfire Protection 2019 (PBP)* and *Australian Standard AS 3959-2018 'Construction of buildings in bushfire-prone areas* as (AS 3959 – 2018) at the time of writing.

Specifically, the proposed development can comply with the Specific Objectives under Section 6.2 of PBP for Special Fire Protection Purpose (SFPP) development **(Section 4).**

1.2 Proposal description

This report forms part of the submission requirements to support a Development Application summarised in **Table 1.**

Table 1: Proposal summary

Property Details	4-6 Hepburn Street Mckellars Park 2790 Lot/Section/Plan no: 26/-/DP1022160 Council: LITHGOW CITY COUNCIL	
Type of Proposal	☑ Group Home **(Figure 1)** ☑ Integrated Development	☑ Zoned R1- Residential
Development	Group Home - Class 3 (Core) and 1a (Cluster - Residential units)	
Information relied upon	• Site Plan – Provided by proponent (**Figure 1)** • Site visit and collection of evidence. • FireMaps (FPAA), NearMaps (Aerial Imagery) and ePlanning (NSW Government) - cadastral and topographic information and for NSW	
Version 1.1	Change to development design, no change in Setbacks to boundary noted. Replace old site plan with new. No change in assessment.	

1.3 Assessment pathway and other known constraints

The proposal was assessed in accord with s.100B of the Rural Fires Act (RF Act) and *'Planning for Bush Fire Protection 2019' (RFS 2019),* herein referred to as PBP. Proposals for SFPP development on Bush fire Prone Land require an approval from the NSW RFS in the form of a BFSA under RF Act s.100B.

No threatened species or other known significant environmental or heritage constraints are known or have been advised. Council as the determining authority will assess more thoroughly any potential environmental and heritage issue.

1.4 Occupant Characteristics

The occupants of the development are considered to comprise of transient residents of unrelated persons, staff and visitors whose characteristics are described in the following:

Transient residents: The subject occupants could range in levels of familiarity with the building and its layout subject to the length of stay.

Staff: The subject occupants are expected to be reasonably familiar with the building, its layout and provided with relevant training for evacuation and emergency scenarios.

Visitors: The subject occupants are not expected to be familiar with the building and its layout. However, are expected to be completely conscious and accompanied by staff or residents during their stay.

1.5 Core and Cluster

It is understood the proposed development contains a 'Core' area (Class 5 development under the National Construction Code of Australia 2021 (NCC) and Cluster (Class 3 development) units.

Extract from the Housing Plus Social Impact Statement:

The core building is located on the same site as the cluster buildings. This houses the office and administrative spaces for support staff and the communal spaces for staff and residents. The ability to provide on-site support services for women and children is an important function of the core building.

The core and cluster model ideally has 6 self-contained units on one site. One site could have 12 to 20 people in residence at a time. The cluster models cater for short-term accommodation of approximately 3-months duration, depending on individual/family need.

1.6 Bush fire prone land and vacant lot – 11/DP10298892

The only area captured within the BFPL buffer is the access/driveway area as shown in **Image 1** below and is not within 100 of the proposed building footprint.

It is understood the vacant lot to the south is owned by local council (Lot 11 DP10298892). This Lot is not mapped as Bushfire Prone land. It does however contain vegetation that would be assessed as Grassland under PBP if not mowed/slashed to grass heights 10cm or lower.

The 40m SFPP APZ extends into this area as mapped in Figure 2. At the time of the site visit, the lot generally complies with the conditions of an APZ (**Photo 1, Section 2.1**).

It is recommended in consultation with local council, that this area continues to be managed to APZ standards. See **Section 3.1**.

Image 1: BFPL Mapping showing Category 1 Forest to the west. Lot to the south not mapped, however the required APZ penetrates into this area.

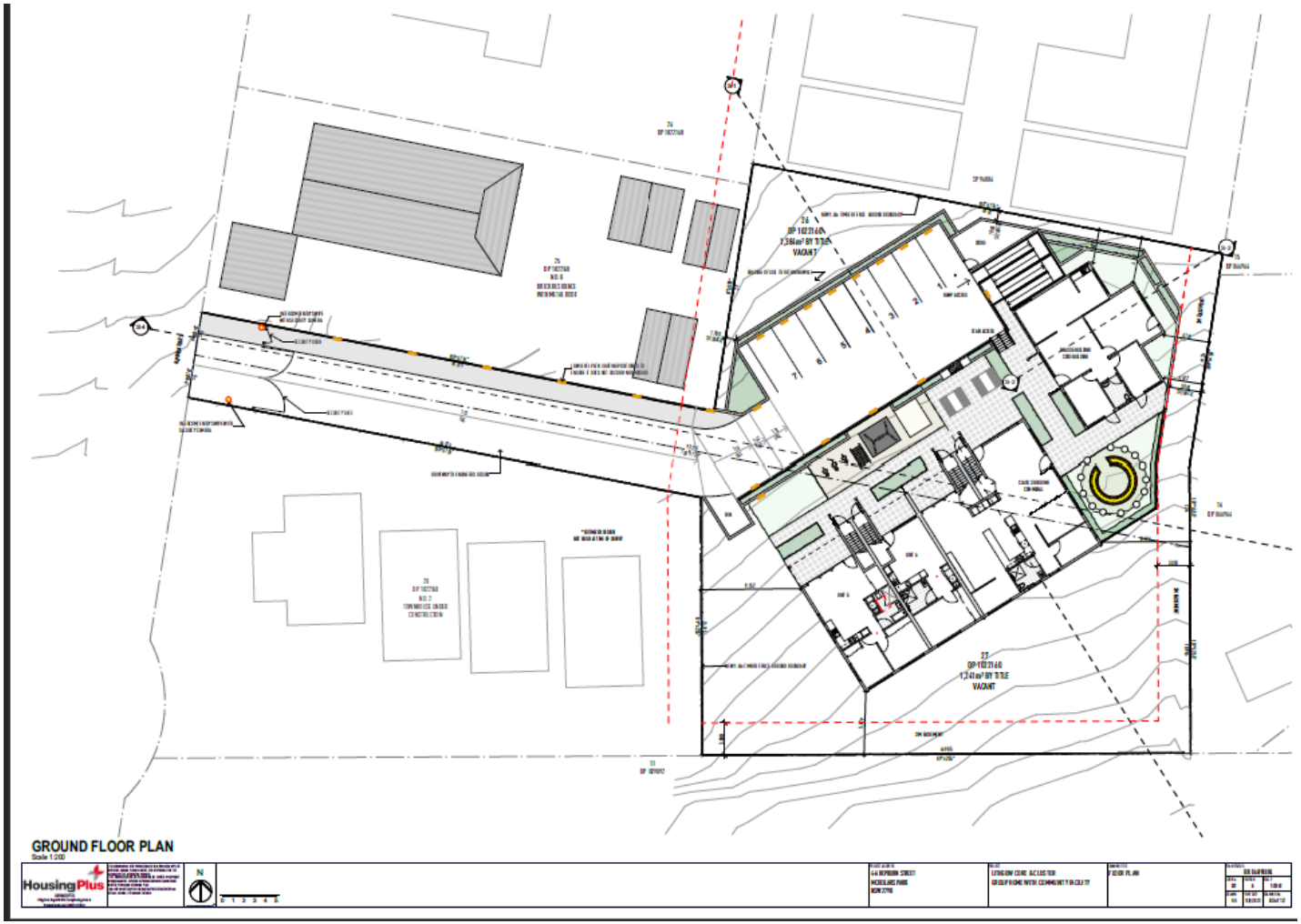

Figure 2: Site plan – Proposed development

2 Bush fire assessment

The bush fire hazard assessment methodology is detailed below and summarised in **Table 2.**

2.1 Vegetation

Vegetation formations according to Keith (2004) were identified in all directions around the proposed development to 140m.

There is an area of Dry Sclerophyll (Eucalypt) vegetation to the west within 140m of the development, behind managed residential lots, outside the 100m assessment radius for the building footprint (**Figure 1)**, categorised as Forest under PBP.

The vacant lot to the south (Lot 11 DP10298892) generally complies to the conditions of an APZ, however is assessed as Grassland under PBP due to the potential for grass heights to exceed the conditions for an APZ (>100mm in height) if not managed over time (mowed/slashed).

Photo 1: Looking south-east over Lot 11/DP102398892. Not considered high risk however the area within the 40m APZ is recommended to be managed to APZ standards.

2.2 Effective Slope

The effective slope is the slope that most significantly influences the bush fire behavior and has been derived from topographic 2 m contour data as shown in **Figure 2**.

2.3 Fire weather

The Lot is situated within a Fire Area with FFDI of 80

2.4 Asset Protection Zones (APZ)

An APZ is an area around the building or asset that has the fuel (vegetation) reduced to provide a buffer from the bushfire hazard and provide defendable space for firefighting operations.

For SFPP development, radiant heat levels of greater than 10kW/m² (1200K) are not experienced by emergency service personnel and occupants during firefighting and emergency management around a building.

The minimum APZ around the facility will be provided in accordance with Table A1.12.1 in Appendix 1 of PBP.

2.5 Separation Distance

The distance measured from the bushfire hazard to the closet building element. This represents the available APZ in that direction as shown in **Figure 2.**

2.6 Bush Fire Attack level (BAL)

The site assessment methodology for determining the construction requirements for bushfire prone areas is calculated using Appendix 1 of PBP 2019 which determines the appropriate BAL

Table 2: Bush fire hazard assessment

Transect	Vegetation formation	Effective Slope	Minimum APZ[1]	Proposed APZ	BAL[2]	Comments
South	Grassland	Downslope >0-5 Deg	40m	≥40m	**BAL-12.5**	The Minimum can APZ comply. Refer Section 3.1 The development is exposed to is **BAL-12.5**

[1]PBP 2019 – Table A1.12.1 - Minimum distances for APZs – SFPP developments (<10kW/m2, 1200K)

[2]PBP 2019 - Table 6.8a (page 56) - a construction level of BAL-12.5 under AS 3959 or NASH Standard and section 7.5 of PBP is applied

Figure 2: Bush fire hazard assessment

3 Bush fire protection measures

The following Bushfire Protection Measures are based on the development type and the assessed level of risk described in **Section 2.**

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

3.1 Asset Protection Zone (APZ)

An APZ is a buffer zone between a bush fire hazard and buildings. The APZ is managed to minimise fuel loads and reduce potential radiant heat levels, flame, smoke, and ember attack.

Recommendations:

- At the commencement of works and in perpetuity, the entire Lot shall be established and managed as an Inner Protection Area (IPA) as outlined in Appendix 4 of PBP;

- The area within Lot 11 DP10298892 within 40m of the building footprint will continue to be managed as an IPA (Grass heights <100mm).

- When establishing an IPA, the following requirements are recommended:
    - Tree canopy cover be less than 15% at maturity;
    - Trees at maturity are not touching or overhang the building;
    - Lower limbs are removed up to a height of 2m above the ground;
    - Tree canopies are separated by 2 to 5m;
    - Preference is given to smooth-barked and evergreen trees;
    - Large discontinuities or gaps in vegetation are provided to slow down or break the progress of fire towards buildings;
    - Shrubs are not located under trees;
    - Shrubs do not form more than 10% of ground cover;
    - Clumps of shrubs are separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
    - Grass to be kept mown (as a guide grass no more than 100mm in height);

3.2 Access arrangements

Design of access roads shall enable safe access and egress for residents attempting to leave the area at the same time that emergency service personnel are arriving to undertake firefighting operations.

Access road to be constructed in accordance with the property access requirements of Table 5.3b of PBP 2019, as outlined in **Table 3** below.

Table 3: PBP: Performance criteria and acceptable solutions – Table 5.3b of PBP.

Performance Criteria	Acceptable Solutions	Proposal Compliance
The intent may be achieved where:		
firefighting vehicles can access the dwelling and exit the property safely	• minimum 4m carriageway width	**To comply** A minimum carriageway width of four meters is recommended for main access road
	• in forest, woodland and heath situations, rural property access roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m at the passing bay;	**Not applicable** Does not pass through any bush fire hazard
	• minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;	**To comply**
	• provide a suitable turning area in accordance with Appendix 3;	**To comply** Turning area to accommodate firefighting vechicles: refer **Appendix A**
	• curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;	**To comply**
	• the minimum distance between inner and outer curves is 6m;	**To comply**

	• the crossfall is not more than 10 degrees	**To comply**
	• maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and	**To comply**
	• a development comprising more than three dwellings has access by dedication of a road and not by right of way.	**To comply**

3.3 Water supply

An adequate supply of water is essential for firefighting purposes. The water supply would enable occupants to stay and defend if chosen to and allow fire-fighting personnel to attach equipment for use.

The subject Lot is connected to reticulated water, with regular hydrants situated along Hepburn Street. A summary of the relevant Acceptable Solutions in Table 6.8c of PBP for Water supply is recommended below.

Recommendations for Water supply:

- fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005;
- Hydrant flows and pressures comply with Table 2.2 of AS2419.1:2005 (reasonably assumed).
- hydrants are not located within any road carriageway;
- reticulated water supply to SFPPs uses a ring main system for areas with perimeter roads.
- All new above-ground water service pipes external to the building are metal, including and up to any taps.

3.4 Electricity services

The location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings. A summary of the relevant Acceptable Solutions in Table 6.8c of PBP for Electricity services is recommended below.

Recommendations for Electricity services:

- Where practicable, new electrical transmission lines are underground. Where overhead, are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
- No part of a tree is closer to a power line than the distance set out in accordance with the specifications in *ISSC3 Guideline for Managing Vegetation Near Power Lines.*

3.5 Gas services

The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings. A summary of the relevant Acceptable Solutions in Table 6.8c of PBP for Gas services is recommended below.

Recommendations for Gas services:

- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014and the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal;
- if gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so they do not act as a catalyst to combustion;
- polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used; and
- above-ground gas service pipes external to the building are metal, including and up to any outlets.

3.6 Construction standards

In accordance with the Performance Criteria for SFPP development use under Table 6.8a of PBP 2019, the proposed development can withstand bush fire attack in the form of wind, embers, radiant heat and flame contact.

Recommendations for Construction:

New construction is to comply with Section 3 (Construction General) and Section 5 (BAL–12.5) of *Australian Standard AS 3959-2018 'Construction of buildings in bushfire-prone areas* as (AS 3959 – 20018). Alternately, the relevant sections of '*NASH Standard – Steel Framed Construction in Bushfire Areas (NASH 2014)'* may be applied

- In accordance with Section 7.5.2 of PBP, variations to AS 3959 apply in NSW for the purposes of NSW G5.2(a)(i) of Volume One and NSW 3.10.5.0(c)(i) of Volume Two of the National Constriction Code (NCC);

Fences and Gates: All fences in bush fire prone areas should be made of either hardwood or non-combustible material. In circumstances where the fence is within 6m of a building or in areas of BAL-29 or greater, they should be made of non-combustible material only.

3.7 Landscaping

Landscaping within the APZ is designed and managed in accordance with the requirements of 'Asset protection zone standards' outlined in Appendix 4 of PBP – 2019. A summary of the relevant requirements is provided below:

Recommendations:

- 1m wide area suitable for pedestrian traffic provided around the curtilage of the building;
- Planting is limited in the immediate vicinity of the building;
- Planting does not provide a continuous canopy to the building (i.e. Plants are isolated)
- Landscape species are chosen to ensure tree canopy cover is less than 15% at maturity;
- Trees do no touch or overhang buildings;
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips;
- Use smooth bark trees species which generally do not spread fire up into the crown;
- Avoid planting of deciduous species that increase fuel at surface/ ground level (i.e. leaf litter); Avoid climbing species to walls and pergolas;
- Locate combustible materials such as mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building;
- Low flammability vegetation species are used.

3.8 Emergency Management

Intent of measures: to provide suitable emergency and evacuation arrangements for occupants of SFPP developments.

The emergency and evacuation management plan should include a mechanism for the early relocation of occupants. Emergency management requirements and procedures must be clearly displayed within the property to ensure current occupants are aware of the bush fire risk

Recommendations for Emergency Management

- Bush Fire Emergency and Evacuation Management Plan is to be prepared consistent with the:
    - NSW RFS publication: *A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan*;
    - AS 3745:2010; Australian Standard AS 3745:2010 *Planning for emergencies in facilities*; and Australian Standard AS 4083:2010, and;
    - *Planning for emergencies – Health care facilities*

- A copy of the bush fire emergency management plan should be provided to the Local Emergency Management Committee (LEMC)

- Emergency Planning Committee is established to consult with residents (and their families in the case of aged care accommodation and schools) and staff in developing and implementing an Emergency Procedures Manual; and

- Detailed plans of all emergency assembly areas including on site and off-site arrangements as stated in AS 3745:2010 are clearly displayed, and an annually emergency evacuation is conducted.

4 Specific objectives for existing SFPP facilities:

Table 4 lists the specific objectives for SFPP development from PBP and how they are satisfied.

Table 4: Specific objectives

Specific Objective	Comment
Minimise levels of radiant heat, localised smoke and ember attack through increased APZ, building design and siting;	Minimum APZ can comply. All new construction will comply with BAL-12.5 under AS 3959 or NASH Standard and section 7.5 of PBP is applied
Provide an appropriate operational environment for emergency service personnel during firefighting and emergency management;	Provision for vehicle access to facility on existing public road network, with ample space to conduct firefighting operations within the prescribed APZ with reticulated water supply available. Emergency management requirements and procedures will be clearly displayed within the property (Section 3.8)
Ensure the capacity of existing infrastructure (such as roads and utilities) can accommodate the increase in demand during emergencies as a result of the development;	The proposal can comply with all Acceptable Solutions for access, utilities, and landscaping. Refer **Sections 3.2 -3.6.**
Ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants.	Recommendations include **(Section 3.8):** • Bush Fire Emergency and Evacuation Management Plan is to be prepared • Emergency Planning Committee is to be established • Emergency assembly areas including onsite and off-site arrangements and an annually emergency evacuation is conducted.

5 Conclusions and recommendations

The proposed development can meet the requirements for the specific objectives for SFPP development (**Section 4**) by compliance with all acceptable solutions within PBP-2019

Table 5: Conclusions and Recommendations

Performance Criteria	Report Section	Summary of Recommendations Refer Dot points in report section for all recommendations
Asset Protection Zones	3.1	• Entire Lot shall be established and managed as an Inner Protection Area (IPA) as outlined in Appendix 4 of PBP; • Lot 11 DP10298892 within 40m of the building footprint will continue to be managed as an IPA (Grass heights <100mm).
Access	3.2	• Property access road in accordance with specifications in **Table 3**.
Water supply	3.3	• Hydrant flows and pressures comply to comply with Table 2.2 of AS2419.1:2005 • All above-ground water service pipes external to the building are metal, including and up to any taps.
Electricity service	3.4	• Any new transmission lines and poles to be installed in compliance with ISSC3 *Guideline for Managing Vegetation Near Power Lines*.
Gas service	3.5	• Gas services are to be installed and maintained in accordance with AS/NZS 1596:2014.Above-ground gas service pipes, connections and outlets are metal. Gas cylinders kept clear of flammable materials to 10m
Construction standards	3.6	• Proposed development to comply with Section 3 and Section 5 (**BAL–12.5**) of AS3959-2018 including Section 7.5.2 of PBP, NSW variations to AS 3959 • Adjacent structures: BAL construction requirements of the main occupancy or separated by a minimum of 6m • Fences and gates: hardwood or non-combustible material
Landscaping	3.7	• Designed and managed in accordance with Appendix 4 of *PBP*
Emergency management	3.8	• Emergency and Evacuation Management Plan is prepared and made available to all occupants, consistent with the NSW RFS publication: *A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan* and AS 3745:2010.

Provided the buildings, APZ areas, Landscaping, Access and Utilities on site are constructed, designed and maintained in accordance with the recommendations described in this report, the proposed development can satisfy the aims, objectives and performance requirements of PBP 2019 considered relevant to the development under s.100B of the NSW Rural Fires Act.

Steven Houghton
Statewide Bushfire Consulting
FPAA BPAD Certified Practitioner No. BPAD46241

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

6 References

Keith, D. 2004. *Ocean Shores to Desert Dunes*. Department of Environment and Conservation, Sydney.

NSW Rural Fire Service (RFS) 2019. *Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners*. Government Publishing Service, Canberra.

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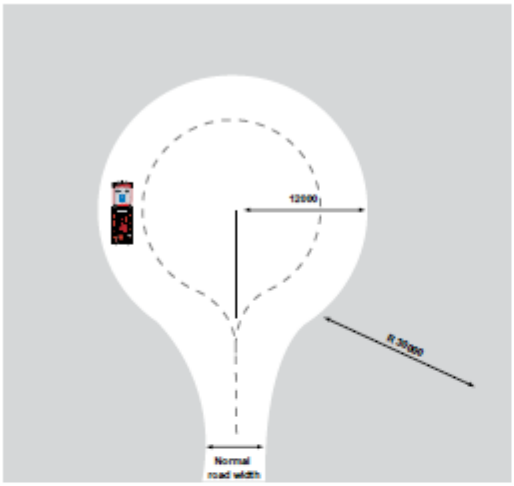
Standards Australia (SA). 2014. *The storage and handling of LP Gas*, AS/NZS 1596:2014. SAI Global, Sydney.

7 Appendix A – Turning head requirements

Multipoint turning options

Type A



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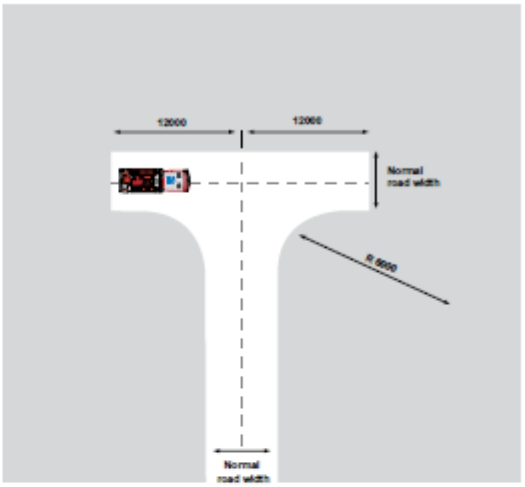

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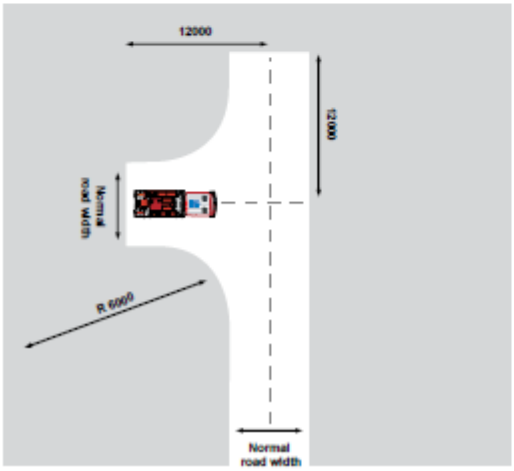

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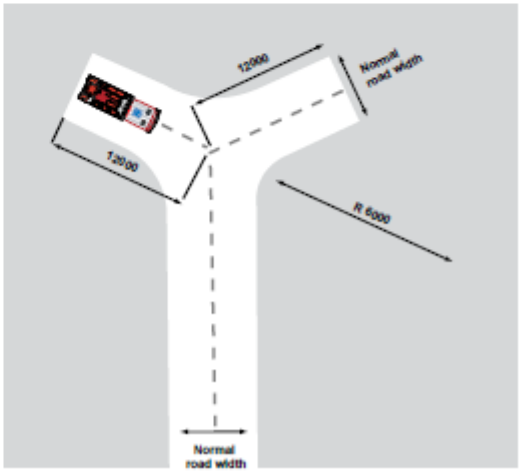

APPENDIX C

NORBE ASSESSMENT

barnson.
DESIGN . PLAN . MANAGE

Water Sensitive Urban Design – MUSIC Model report

Client: Housing Plus Orange
Site Address: 4-6 Hepburn Street Lithgow NSW 2790

12 October 2023

Our Reference : 40560-ER02_B

DISCLAIMER

This report has been prepared solely for Housing Plus Orange in accordance with the scope provided by the client and for the purpose(s) as outlined throughout this report.

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Project Name:	MUSIC Model Report - 4-6 Hepburn Street Lithgow NSW 2790
Client:	Housing Plus Orange
Project Number:	40560
Report Reference:	40560 ER02_A
Date:	19/10/2023

Prepared by:	Reviewed by:
	
Nardus Potgieter **MSc(Chem) BSc(Hons)(Env.Tech.)** Senior Environmental Scientist	**Luke Morris** **B.E. MIEAust CPEng (NPER)** Director

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Appendices

1. INTRODUCTION

1.1 Overview

Barnson was engaged by Housing Plus Orange to undertake a stormwater management design and numerical simulation to determine stormwater runoff quality, for a residential development proposed at 4-6 Hepburn Street Lithgow NSW 2790.

The proposed development is for a core and cluster refuge facility, which will include buildings housing administrative offices and amenities, residential units as well as covered and outdoor play areas and a paved parking area. The proposed development is situated within the Lithgow City Council local authority area. In accordance with the requirements of the State Environmental Planning Policies (SEPP) and Clause 60 of the Environmental Planning and Assessment Regulation 2021, Lithgow City Council requires sufficient information to enable Water NSW to undertake a neutral or beneficial effect (NorBE) on water quality assessment for the development.

The purpose of this report is to present the information relevant to the numerical simulation prepared, using the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) software package, in support of a NorBE assessment for the proposed development.

2. BACKGROUND

1.2 Site Description

The site proposed for the re-development is located at Lot 26 and 27//DP 1022160, 4-6 Hepburn Street Lithgow NSW 2790. The site has a total area of 3,010 m^2 and has historically been unoccupied as surrounding lots were developed. The site has been used as storage area for materials used in neighbouring developments as well as access route for vehicles and has clearly driven across during this time, with a vehicle track crossing the site visible. Figure 2.1 show a recent aerial photo of the development site with the driveway into the site showing signs of gravel covering a portion of it. The site is bordered by residential properties to the northeast and south and fronts onto Park Street to the west.

The vacant, unpaved areas of the property is mostly bare soil with some lawn grass and tree cover. Appendix A includes a survey plan of the development site indicating the size of the site. Table 2.1 present a summary of the areas relating to the existing site.

The proposed development involves the construction of two new buildings comprising administrative offices and residential units. The building will be constructed on a concrete slab which will be formed on compacted engineered fill. The western portion of the site will be sealed to provide vehicle access and parking. Appendix B includes a plan presenting the layout of the proposed development. Table 2.1 includes a summary of the areas occupied by the structures, parking and landscaping/play areas as shown on the design plan.

Figure 2.1: Development Site

Table 2.1: Summary of development site land use areas.

Land Use	Area (m^2)
Lot 26 & 27//DP 1022160	3,010 (total lot area)
Existing Site	
Unpaved area	3,010
Compacted driveway area (assumed)	300 (approx.)
Proposed Development	
Structure (Roof)	450
Parking and driveway	725
Paved play areas and walkways	235
Play area/landscaping	1600

3. STORMWATER QUALITY MODELING

3.1. Objectives and Targets

The objectives and targets for a WSD Strategy can differ for each development type and are to be achieved within a proposed development through the provision of appropriate water sensitive design measures.

The objectives for the proposed development are:

- *To reduce urban stormwater runoff by harvesting rainwater for use where appropriate*

Capture rainwater for re use (e.g. flushing of toilets and landscaping/garden maintenance).

- *To control the hydrological impacts of development on receiving surface and ground water systems by controlling the frequency, magnitude and duration of flows to preserve, as far as practicable, pre-development groundwater and surface water regimes and interactions.*

Ensure that post-development stormwater runoff volumes are the same or lower than pre-development volumes.

- *To safeguard the environment by maintaining or improving the quality of stormwater run-off.*

Water quality modelling was undertaken of a pre-development and the post-development (mitigated) scenario using the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) software to demonstrate the mean annual load pre- and post-development as well as that load-based stormwater quality targets are achieved. A stormwater treatment train has been developed and modelled to determine the effectiveness of the proposed system in achieving the relevant water quality objectives.

The stormwater quality targets are (Sydney Water)

- 85% reduction in Total Suspended Solids (TSS) from typical urban loads;
- 45% reduction in Total Nitrogen (TN) from typical urban loads;
- 60% reduction in Total Phosphorus (TP) from typical urban loads; and
- 90% reduction in Gross Pollutants (GP) from typical urban loads.

3.2. Rainfall and Evapotranspiration Parameters

Table 3.1 summarises the meteorological and rainfall-runoff data used in the MUSIC model.

Table 3.1: Meteorological and Rainfall Runoff Data

Information	Details
Rainfall Station	Zone_B_6min_CORANG_M_MACDONALDS_CK
Time step	6 minute
Modelling period	January 1997 – Dec 2001

3.3. Catchment Parameters

Based on the existing and proposed land uses, the existing Development Site has been modelled as a single catchment which is a vacant lot in an urban setting, with compaction due to material

storage and vehicles driving over it estimated for 10% of the site. The remainder of the site is accepted as 100% pervious.

The proposed development will consist mainly of covered (roof) structures and paved parking/driveway, with the remainder occupied by play/landscape areas. The proposed development was modelled as six catchments given that run-off from each catchment is channelled to different areas. The proposed stormwater management plan, attached as Appendix C present the different areas of the site with an indication of where water from each area drains to. The landscaping and play areas surrounding the proposed buildings were modelled as two catchments to allow for runoff draining along swales from the different areas of the site. Table 3.2 present a summary of the catchment areas while in Table 3.3 present source node and pollutant generation parameters for the catchments modelled for the existing site and proposed development.

Table 3.2: Source Node Parameters

Land use / Surface Type	Sub-catchment Areas (ha)	Total Area (ha)
Pre-development		
Pervious landscape (pervious)	0.2709(90%)	0.1786
Compacted (impervious)	0.003 (10%)	
Post development		
Roof (Roof A and Roof B)	0.045	0.045
Driveway and parking area	0.0725	0.0960
Concrete play areas and pathways	0.0235	
Landscape at parking area	0.075	0.16
Landscape	0.065	
Swales and Detention	0.02	

According to the eSpade hydrologic soil group mapping data (http://www.environment.nsw.gov.au/eSpade2WebApp), the development site falls in Group C, which is characterised by slow infiltration. The source node parameters used for the simulation of the runoff characteristics of the modelled catchments are as listed in Table 3.3

Table 3.3: MUSIC rainfall runoff parameters

MUSIC Parameter	Value
Impervious rainfall threshold	
Combined impervious surfaces (mm)	1.5
Roof surfaces (mm)	0.5
Pervious area parameters	
Soil Storage Capacity (mm)	100
Initial Storage (% of capacity)	25
Field Capacity (mm)	70
Infiltration Capacity Coefficient a (mm/day)	180
Infiltration Capacity Exponent b (scalar)	3
Groundwater Properties	

Initial Depth (mm)	10
Daily Recharge Rate (%)	25
Daily Baseflow Rate (%)	25
Daily Deep Seepage Rate (%)	0

The pre-development scenario was modelled as a urban residential land use.

3.4. Proposed Treatment measures for post-development case

3.4.1. General

Based on the existing stormwater management design for the proposed development, the features of the development and the range of available Stormwater Quality Improvement Devices (SQIDs), this study has developed an overall concept that will satisfy the requirements of downstream environmental protection. Figure 3.1 shows a schematic representation of the proposed treatment train elements.

The sections that follow sections describe the modelling parameters applied to MUSIC for each of the treatment nodes included as part of the water quality assessment. Annexure C is a stormwater management plan.

3.4.2. Stormwater pit inserts

Gross pollutant trap (GPT) stormwater pit insert is proposed for the stormwater pit that discharges from the development site. The treatment node used to model the GPTs, is the default available in the MUSIC model software and the performance criteria selected are in accordance with Water NSW guide, Using MUSIC in the Sydney Drinking Water Catchment (2023).

Parameters for the GPT treatment efficiency are summarised in Table 3.4.

Table 3.4: GPT Treatment Node Parameters

Parameter	Value in MUSIC Model	Capture Efficiency
High Flow by-pass (m^3/s)	100	-
Low Flow by-pass (m^3/s)	0.0	-
TSS Input (mg/L) Output (mg/L)	1000 350	65%
TN Input (mg/L) Output (mg/L)	5.0 4.3	14%
TP Input (mg/L) Output (mg/L)	1.0 0.85	15%
Gross Pollutants Input (mg/L) Output (mg/L)	15 1.5	90%

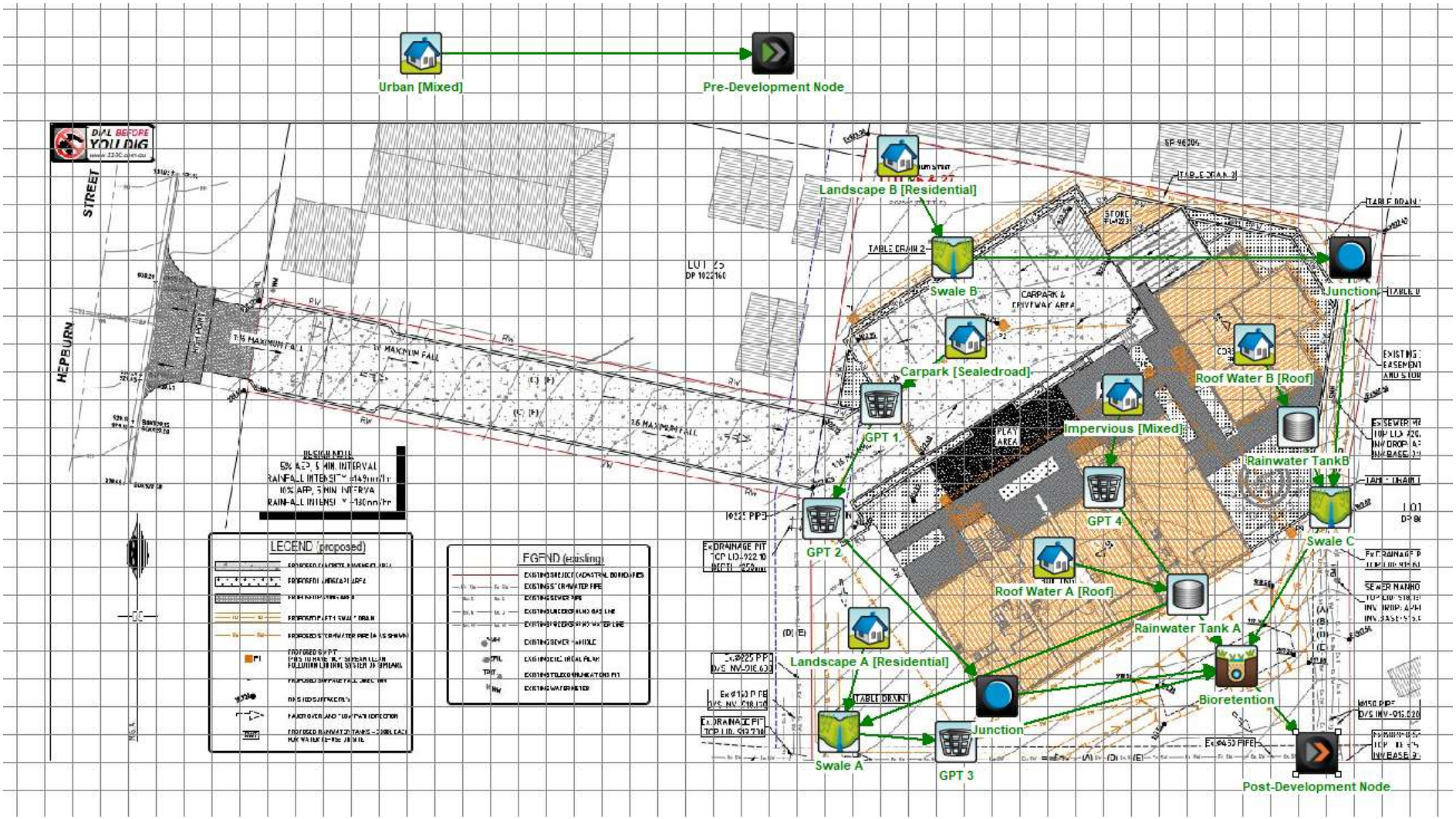

Figure 3.1: Treatment train concept

3.4.3. Swale

Three overland vegetated swales will be retained on site to capture flow from the landscaped areas and convey this to the on-site detention. The swales were modelled using default MUSIC parameters and the storage properties as listed in Table 3.5.

Table 3.5: Swale Treatment Node Parameters

Storage Parameter	Value in MUSIC Model		
	Swale A	Swale B	Swale C
Length (m)	35	40	40
Bed Slope (%)	3	3	3
Base Width (m)	1.0	1.0	1.0
Top Width (m)	2.0	2.0	2.0
Depth (m)	0.1	0.1	0.1
Vegetation height (m)	0.1	0.1	0.1
Exfiltration rate	0	0	0

3.4.4. Rainwater Tanks

Rainwater tanks are included in the design to capture roof run-off for re-use. The following storage and re-use parameters were used for the model.

Table 3.6: Rainwater Tank Treatment Node Parameters

Parameter	Value in MUSIC Model
High Flow by-pass (m^3/s)	100
Low Flow by-pass (m^3/s)	0.0
Number of tanks	2
Total volume of tanks (kL)	5kL each

3.4.5. Bio-retention

A bioretention system is proposed that will serve a dual purpose of detaining stormwater flow and filtering the stormwater to remove nutrients and suspended particulates. The structure will receive stormwater flow from all catchments before it is released off-site. Table 3.7 present a summary of the storage and filter media properties used in the simulation of the system.

Table 3.7: Bio-retention Treatment Node Parameters

Parameter	Value in MUSIC Model
High Flow by-pass (m^3/s)	100
Low Flow by-pass (m^3/s)	0.0
Extended detention depth (m)	0.2
Surface Area (m^2)	80
Filter Area (m2)	36

Saturated hydraulic conductivity (mm/hour)	100
Filter depth (m)	0.5
Exfiltration rate (mm/hour)	0

3.5. Results

The mean annual pollutant loads for the pre- and post-development scenarios are summarised in Table 3.8. The comparative cumulative frequency curves for pollutant concentration (phosphorus and nitrogen) are provided in Figure 3.2 and Figure 3.3, respectively.

Table 3.8: Pre- and Post-development residual loads

Parameter	Annual Pollutant Loading (kg/yr)			
	TSS	TP	TN	GP
Pre development	114	0.262	2.08	10.6
Post development with measures	7.39	0.163	1.04	0
Difference	106.61	0.099	1.04	10.6
% Improvement	94%	38%	50%	100%
Neutral or beneficial effect	Y	Y	Y	Y

The graphed results indicate that post-development pollutant concentrations are less than the pre-development level between the 50th and 98th percentiles. This aspect of NorBE is therefore met for this development.

The pollutant reduction targets achieved (as modelled in MUSIC) are summarised in Table 3.9

Table 3.9: Treatment Train Effectiveness

Parrameter	Sources	Residual Load	% Reduction	Reduction target %
Flow (ML/yr)	1.34	1.27	5.22	-
Total Suspended Solids (kg/yr)	264	7.39	97.2	85
Total Phosphorus (kg/yr)	0.498	0.163	67.3	45
Total Nitrogen (kg/yr)	2.9	1.04	64.1	60
Gross Pollutants (kg/yr)	27.2	0	100	90

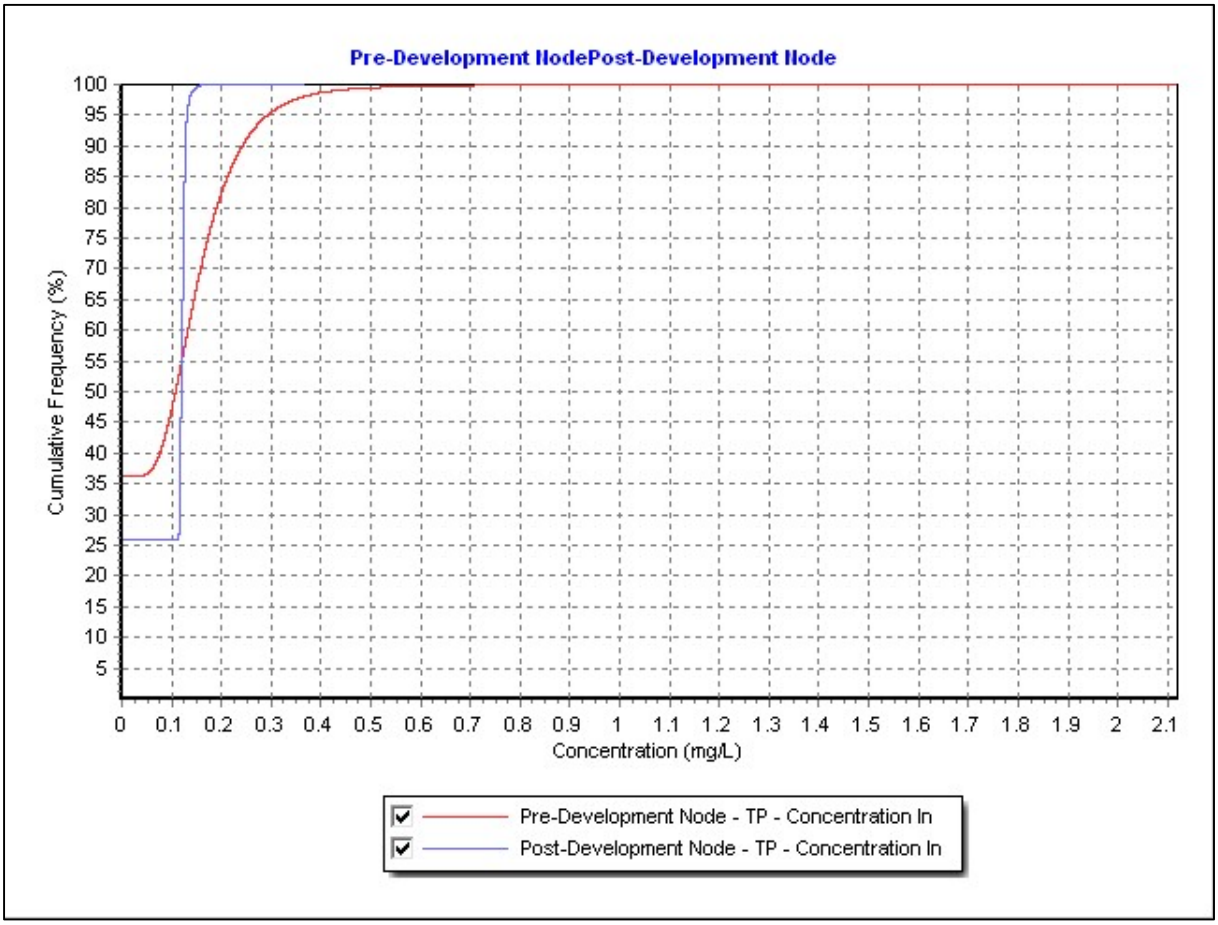

Figure 3.2: Pre- and post-development cumulative frequency graphs for total phosphorus concentrations

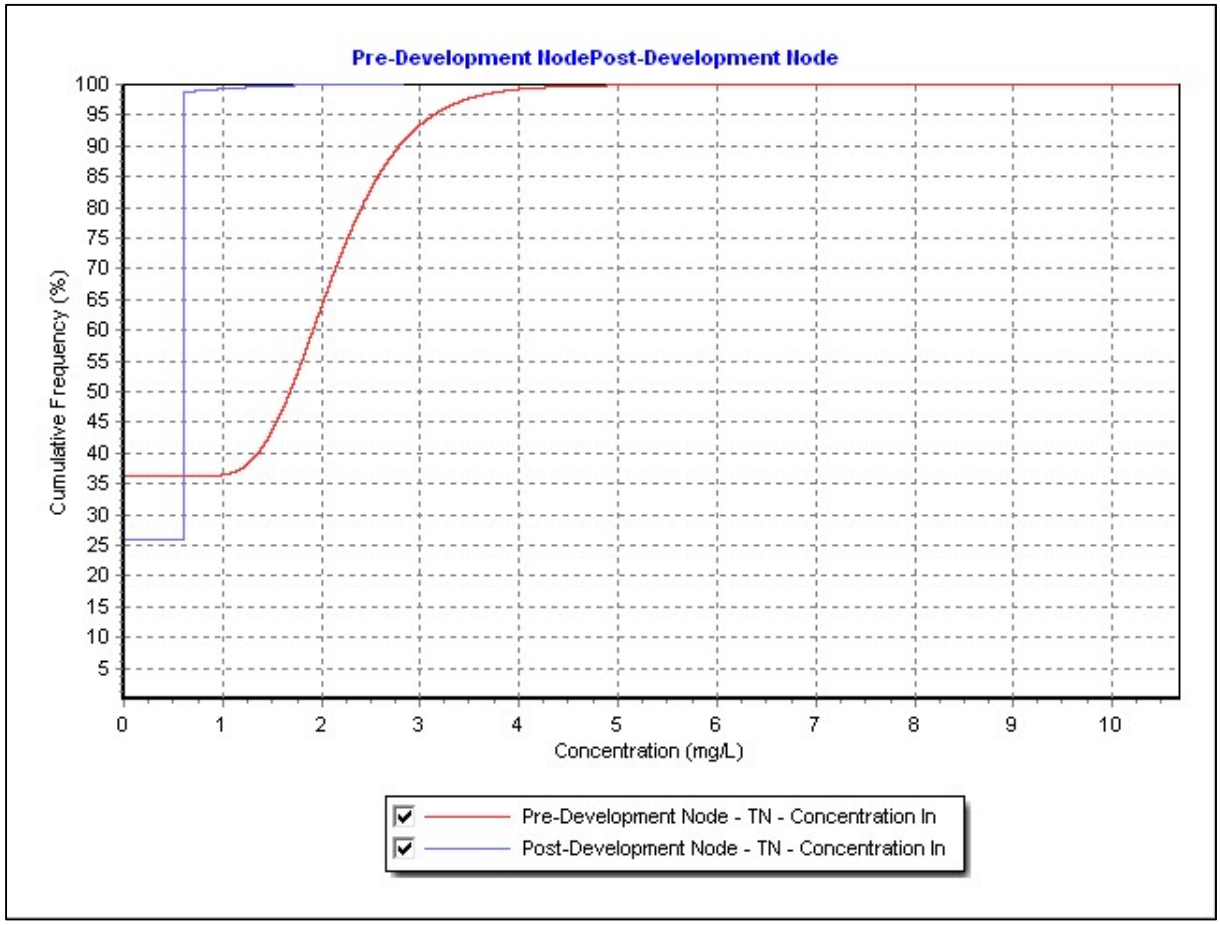

Figure 3.3: Pre- and post-development cumulative frequency graphs for total nitrogen concentrations

4. OPERATION AND MAINTENANCE

4.1. General

Future operation and maintenance of the proposed SQIDs is considered important to the efficient and sustainable operation of the stormwater management system.

The following aspects are noted:

- The WSD measures proposed will all be located inside the development site and will be maintained by the site owner/operator.
- All WSD measures will be installed at the time the stormwater management pits and pipes are installed. No special scheduling of construction is foreseen. Construction stage sediment and erosion control measures fall outside the scope of this WSD strategy
- The proposed measures are designed to be easily accessed and maintained by personnel responsible for landscaping and general site maintenance.
- The proposed WSD measures, aside from the rainwater harvesting, contain no mechanical or electrical components that would require maintenance.

- In regards maintenance access the following is considered:
  - All-weather site access will be available;
  - Acceptable clearances to obstacles including power lines, trees, fences and parked cars will be available for maintenance access;
  - Steep gradients would not restrict access/egress for maintenance vehicles;
  - Access road pavement would have sufficient strength for maintenance vehicles;
  - The risk of conflict between traffic and maintenance personnel will be low; and
  - Parked vehicles would not prevent access.

4.2. Operational and Maintenance Recommendations:

- Ensure harvested roof runoff is used in landscape maintenance, flushing toilets and for operation of on-site washing machine(s). Only when demands cannot be met from the on-site rainwater storage may reticulated water supply be used.
- Check GPT once a fortnight and after a significant rain event. Clean out trap basket if retained gross pollutants are present.
- Maintain vegetation in swales to ensure efficient trapping of pollutants. Check swales fortnightly and after a significant rain event and remove any gross pollutants or accumulated debris.
- Ensure that height of vegetation is swales are maintained to the top edge of the swale (approx. 0.1m in height).
- Maintain roof water gutters by installing protection measures to prevent debris (i.e. leaves, windblown debris) from entering charged lines.
- Clean out gutters and rainwater tank inlet screen at least once a quarter.
- Check rainwater collection tank annually for accumulated sediment and flush tank if sediment is occupying more than 10% of storage capacity.

5. CONCLUSION

The proposed WSD strategy was demonstrated to meet all three the objectives listed in Section 3.1. These are:

- *To reduce urban stormwater runoff by harvesting rainwater for use where appropriate*

The proposed stormwater management plan includes rainwater harvesting from the roof of the proposed development. The runoff will be captured in rainwater tanks (total capacity 10,000L) for re use in the flushing of toilets, washing machines and landscaping/garden maintenance.

- *To control the hydrological impacts of development on receiving surface and ground water systems by controlling the frequency, magnitude and duration of flows to preserve, as far as practicable, pre-development groundwater and surface water regimes and interactions.*

The proposed stormwater management plan includes on-site detention to ensure that post-development stormwater runoff volumes are the same or lower than pre-development volumes.

- *To safeguard the environment by maintaining or improving the quality of stormwater run-off.*

A simulation of runoff water quality for both the pre-development and post-development scenario has demonstrated that the SQIDs proposed for water quality treatment will meet the listed reduction targets.

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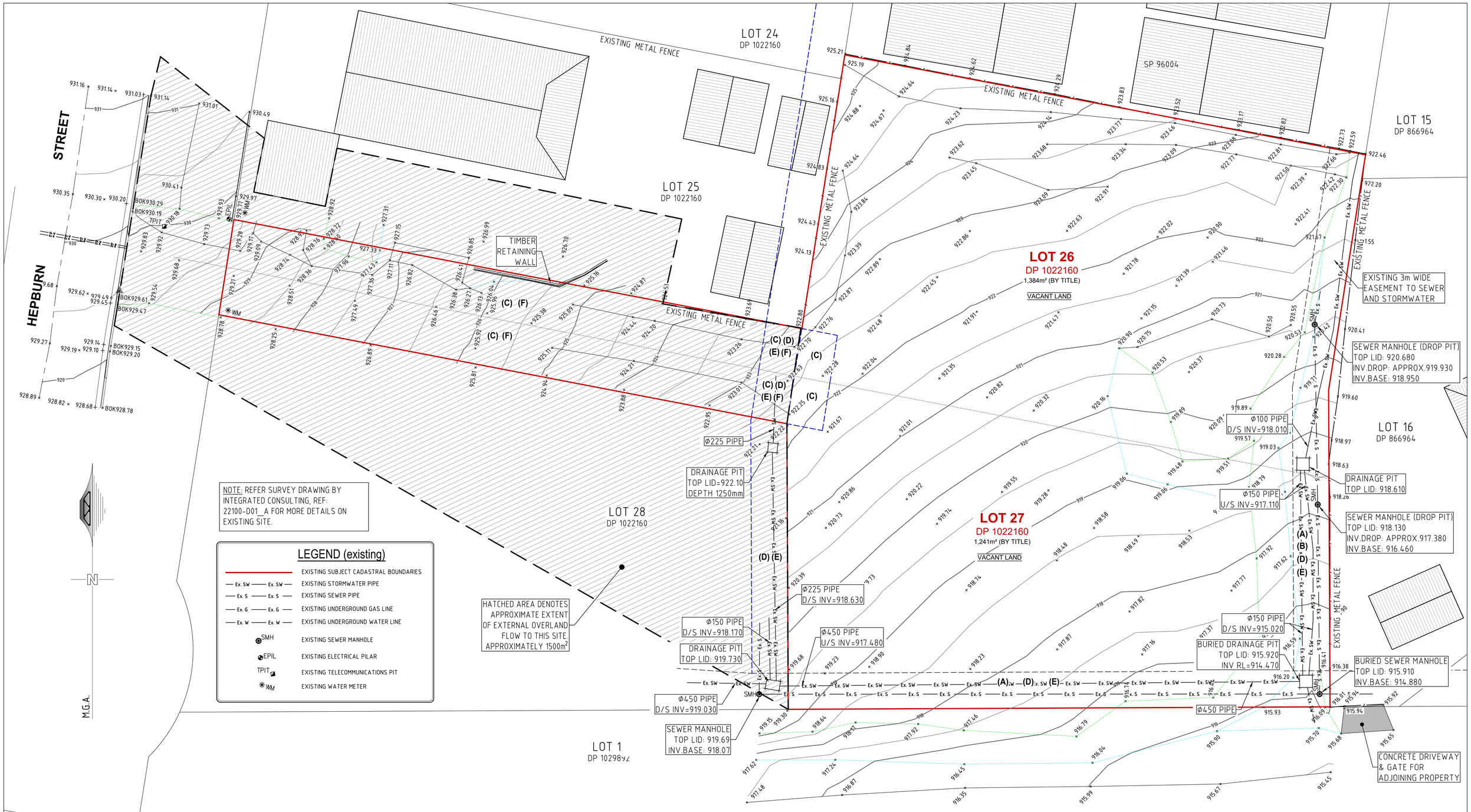
APPENDIX A

Existing Site Survey Plan



LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- Ex. SW — EXISTING STORMWATER PIPE
- Ex. S — EXISTING SEWER PIPE
- Ex. G — EXISTING UNDERGROUND GAS LINE
- Ex. W — EXISTING UNDERGROUND WATER LINE
- SMH — EXISTING SEWER MANHOLE
- EPIL — EXISTING ELECTRICAL PILAR
- TPIT — EXISTING TELECOMMUNICATIONS PIT
- WM — EXISTING WATER METER

(A) EASEMENT TO DRAIN SEWAGE AND WATER 3 WIDE AND VARIABLE (DP 848997)
(B) EASEMENT TO DRAIN SEWAGE AND WATER 3 WIDE AND VARIABLE (DP 866964)
(C) RIGHT OF CARRIAGEWAY 4 WIDE (DP 1022160)
(D) EASEMENT TO DRAIN SEWAGE 3 WIDE (DP 1022160)
(E) EASEMENT TO DRAIN WATER 3 WIDE (DP 1022160)
(F) RIGHT OF CARRIAGEWAY 4 WIDE (7656525)

EXISTING SITE PLAN

REDUCTION RATIO 1:150 @ A1
1:300 @ A3

SCALE 1:150(A1)
0 1 2 4 6 8 10
SCALE 1:300(A3)

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A	21-08-2023	ISSUED FOR REVIEW
B	12-10-2023	ISSUED FOR DA

Project
PROPOSED CORE & CLUSTER REFUGE

Site Address
4-6 HEPBURN STREET
LITHGOW NSW 2790

Client
HOUSING PLUS ORANGE

Drawing Title
EXISTING SITE PLAN

Design	LB	Original Sheet Size	A1
Drawn	LB		
Check	DOS	Revision	B

Certification

Project No 40560

Drawing No C101

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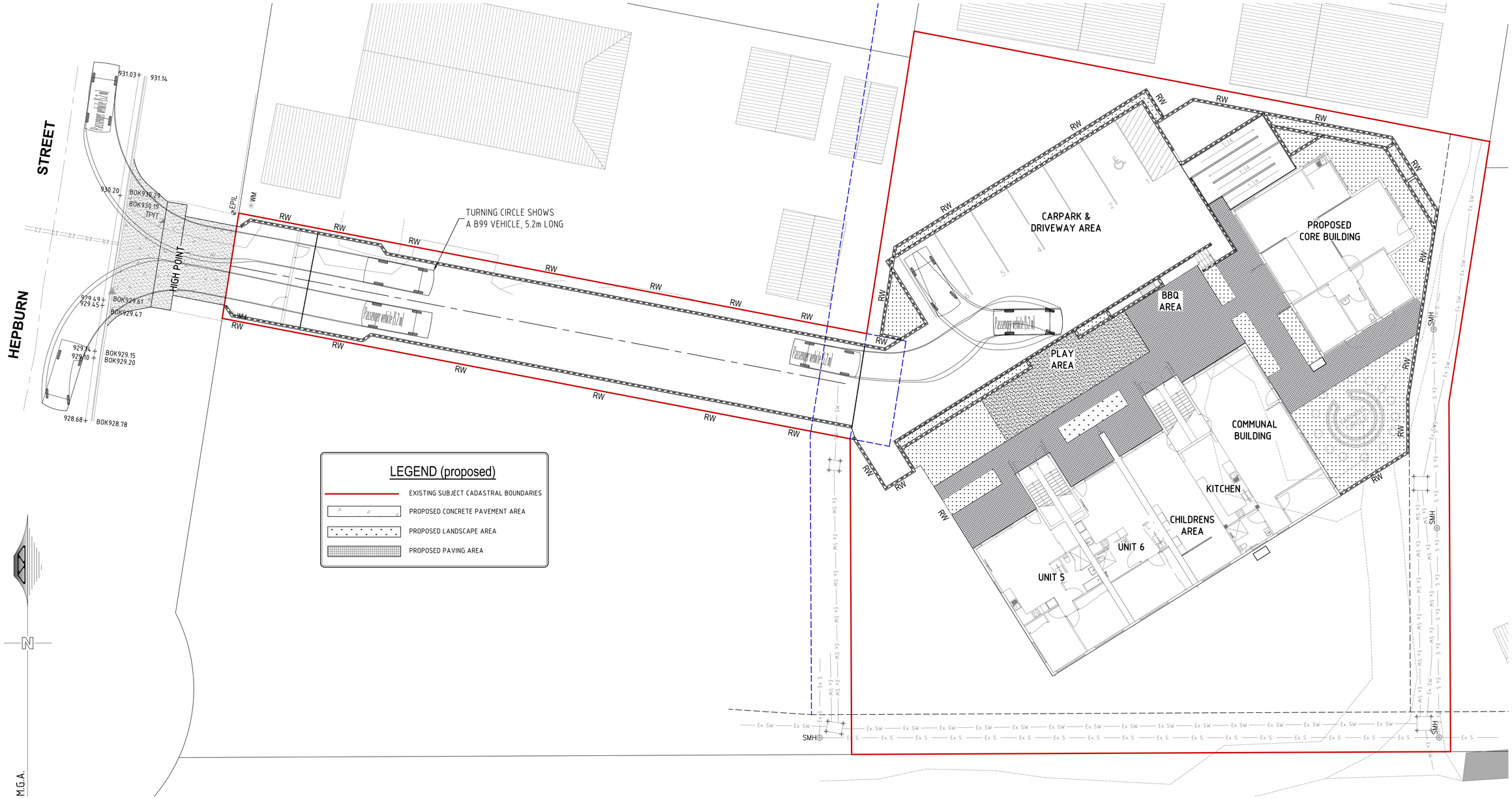
APPENDIX B

Proposed Development Layout



PROPOSED PASSENGER VEHICLE TURNING
PATHS AT ENTRY/ EXIT & CARPARKING

REDUCTION RATIO 1:150 @ A1
1:300 @ A3

SCALE 1:150(A1)

0 1 2 4 6 8 10

0 1 2 4 6 8 10

SCALE 1:300(A3)

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Project
PROPOSED CORE & CLUSTER REFUGE

Site Address
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LITHGOW NSW 2790

Client
HOUSING PLUS ORANGE

Drawing Title
PASSENGER VEHICLE TURNING
PATHS AT ENTRY/ EXIT & CARPARKING

Design LB
Drawn LB
Check DOS

Original Sheet Size A1
Revision B

Certification

Project No 40560
Drawing No C140

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APPENDIX C

Preliminary Stormwater Management Plan

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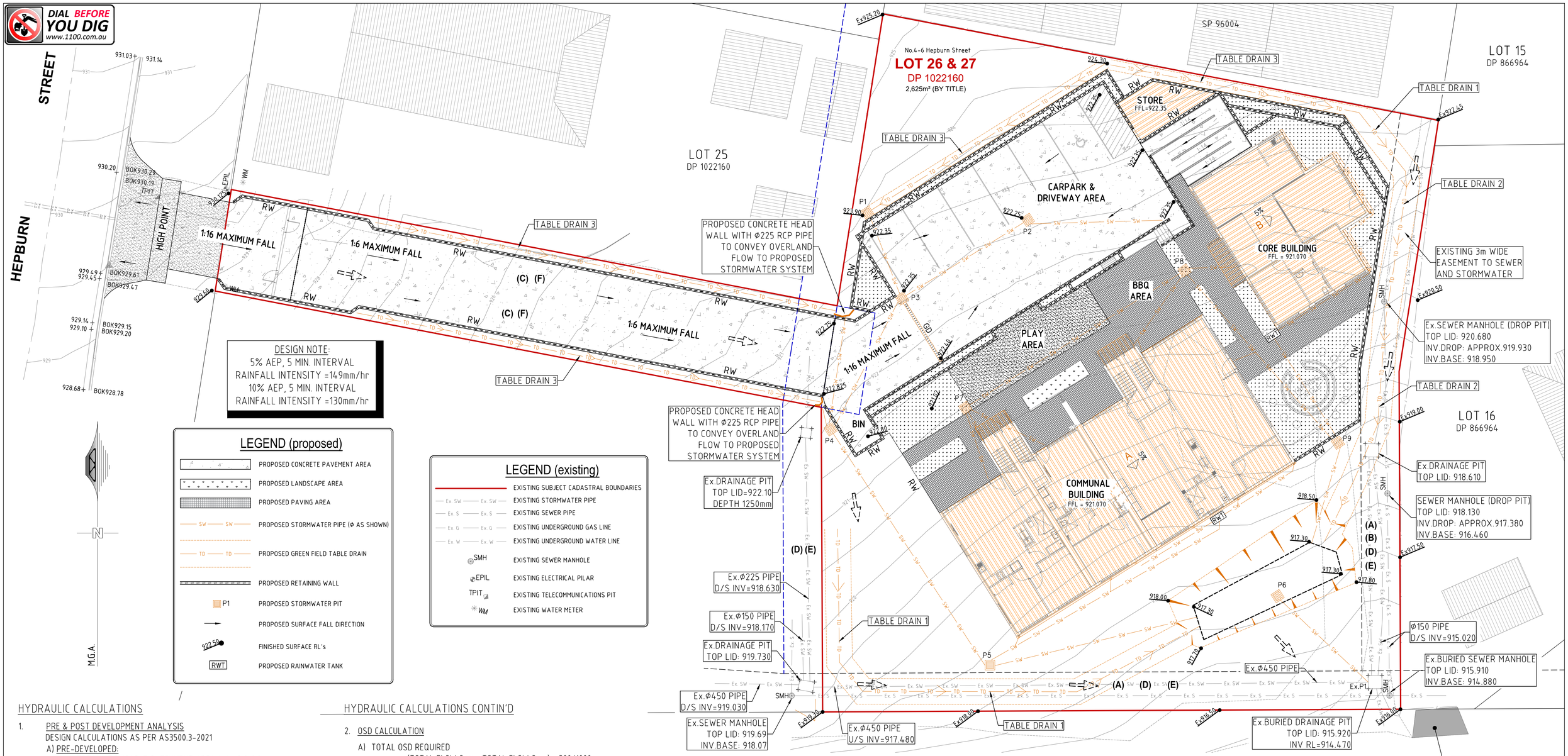

DESIGN NOTE:
5% AEP, 5 MIN. INTERVAL
RAINFALL INTENSITY =149mm/hr
10% AEP, 5 MIN. INTERVAL
RAINFALL INTENSITY =130mm/hr

LEGEND (proposed)

- PROPOSED CONCRETE PAVEMENT AREA
- PROPOSED LANDSCAPE AREA
- PROPOSED PAVING AREA
- SW — SW — PROPOSED STORMWATER PIPE (Ø AS SHOWN)
- TD — TD — PROPOSED GREEN FIELD TABLE DRAIN
- PROPOSED RETAINING WALL
- P1 PROPOSED STORMWATER PIT
- PROPOSED SURFACE FALL DIRECTION
- 922.50 FINISHED SURFACE RL's
- RWT PROPOSED RAINWATER TANK

LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- Ex. SW — Ex. SW — EXISTING STORMWATER PIPE
- Ex. S — Ex. S — EXISTING SEWER PIPE
- Ex. G — Ex. G — EXISTING UNDERGROUND GAS LINE
- Ex. W — Ex. W — EXISTING UNDERGROUND WATER LINE
- SMH EXISTING SEWER MANHOLE
- EPIL EXISTING ELECTRICAL PILAR
- TPIT EXISTING TELECOMMUNICATIONS PIT
- WM EXISTING WATER METER

HYDRAULIC CALCULATIONS

1. PRE & POST DEVELOPMENT ANALYSIS
DESIGN CALCULATIONS AS PER AS3500.3-2021

A) PRE-DEVELOPED:
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 3,010.0 sq.m
- -RAINFALL INTENSITY (I) = 149 mm/hr (5min 5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOF AREA = 1.0
- -Ar = TOTAL ROOF AREA= 0sq.m
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 0sq.m
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS GRASS AREA = 3,010 sq.m
- -TOTAL FLOW Q_{PRE} = (Cr Ar + Ci Ai + Cp Ap). I / 3600 = 37.37 l/s

B) POST-DEVELOPED FLOW TO PIT :
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 3,010.0 sq.m
- -RAINFALL INTENSITY (I) = 149mm/hr (5min 5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOF AREA = 1.0
- -Ar = TOTAL ROOF AREA= 450.0 sq.m
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 960.0 sq.m
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS GRASS AREA = 1,600.0 sq.m
- -TOTAL FLOW Q_{POST} = (Cr Ar + Ci Ai + Cp Ap). I / 3600) = 74.25 l/s

HYDRAULIC CALCULATIONS CONTIN'D

2. OSD CALCULATION

A) TOTAL OSD REQUIRED
= (TOTAL FLOW Q_{POST} - TOTAL FLOW Q_{PRE}) x 300/1000
= (74.25 - 37.37) x 300/1000 = 11.0 m^3

B) PROPOSED ABOVE GROUND ONSITE BASIN VOLUME
= (80+36)/2 x 0.2m = 11.6 m^3

C) CONTROLLED FLOW FROM OSD = 37.37 l/s

3. ORIFICE FLOW CALCULATIONS

OSD BASIN ORIFICE FLOW CALCULATIONS:
- AVAILABLE HEAD ABOVE PIPE CENTER LINE = 0.95-(0.225/2)m = 0.838m
- EXIT VELOCITY = $\sqrt{(2gh)}$ = 4.0548m/s
- ORIFICE COEFFICIENT = 0.8
- FLOW THROUGH Φ121 ORIFICE PLATE = 0.8 x 4.0548 x $0.121^2/4 \times \pi$ = 0.0373 m^3/s
- CONTROL OUTFLOW THROUGH Φ121 ORIFICE = 37.3 l/s

STORMWATER PIT SCHEDULE

MARK	TOP R.L.	DEPTH (mm)	IL INLET	IL OUTLET	LxB	LID TYPE
P1	923.900	2000	-	921.900	900x900	MD GRATED (GALV)
P2	922.250	500	921.770	921.750	600x600	HD GRATED (GALV)
P3	922.350	750	921.620	921.600	600x600	HD GRATED (GALV)
P4	922.000	550	921.470	921.450	900x900	MD GRATED (GALV)
P5	918.300	800	917.520	917.500	900x900	MD GRATED (GALV)
P6	917.500	1000	916.520	916.500	900x900	MD GRATED (GALV)
Ex.P1	915.920	1450	915.020	914.470	TBC	Ex. BURIED PIT
P7	921.000	400	-	920.600	600x600	MD GRATED (GALV)
P8	921.000	600	920.420	920.400	600x600	MD GRATED (GALV)
P9	919.000	600	918.420	918.400	600x600	MD GRATED (GALV)

PROPOSED STORMWATER MANAGEMENT PLAN

REDUCTION RATIO 1:150 @ A1
1:300 @ A3

STORMWATER ANALYSIS

1. DESIGN CALCULATIONS AS PER AS3500.3-2021
2. EAVES GUTTERS DESIGNED FOR 5% AEP, 5 MINUTE INTENSITY. GUTTERS TO BE INSTALLED AT FALL 1:500 OR STEEPER. EAVE GUTTERS: GUTTER TO HAVE EQUIVALENT CROSS SECTIONAL AREA AS SPECIFIED.

CATCHMENT, GUTTERS, & DOWNPIPES						
LOCATION	AREA (m^2)	ROOF PITCH	FLOW l/s	GUTTER (m^2)	DP's	MAX m^2/DP
ROOF - A	325	5.0°	14.12	8,400	6xΦ100	60
ROOF - B	125	5.0°	5.43	8,400	3xΦ100	60

SCALE 1:150(A1)
0 1 2 4 6 8 10
SCALE 1:300(A3)
0 1 2 4 6 8 10

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Project
PROPOSED CORE & CLUSTER REFUGE

Site Address
4-6 HEPBURN STREET
LITHGOW NSW 2790

Client
HOUSING PLUS ORANGE

Drawing Title
PROPOSED STORMWATER MANAGEMENT PLAN

Design LB
Drawn LB
Check DOS

Original Sheet Size A1
Revision C

Certification

Project No 40560
Drawing No C110

Document Set ID: 2192078
Version: 1, Version Date: 20/10/2023

STORMWATER NOTES

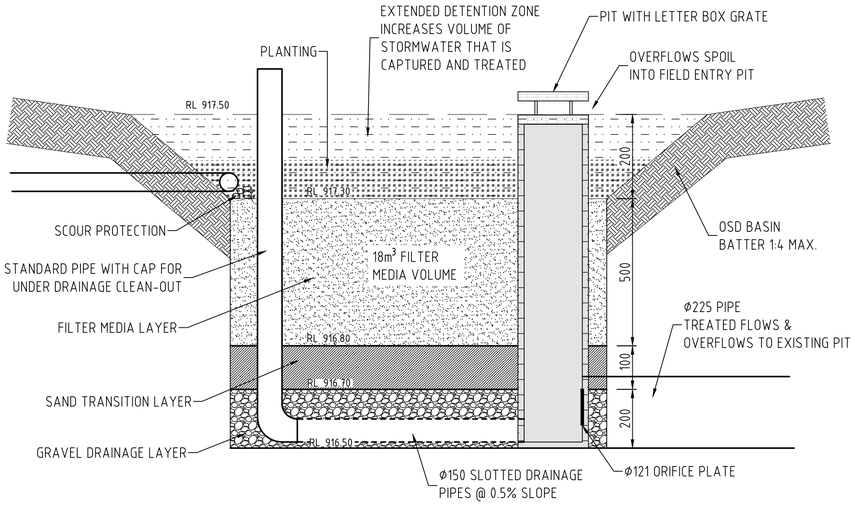
1. ALL DOWNPIPE LINES SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS (U.N.O)
2. EQUIVALENT STRENGTH VCP OR FCP PIPES MAY BE USED.
3. MINIMUM GRADE TO STORMWATER LINES TO BE 0.5% MINIMUM (U.N.O)
4. CONTRACTORS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
5. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
6. APPROVED PRECAST PITS MAY BE USED.
7. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES, BACKFILL THE TRENCH WITH THE SAND TO 200mm ABOVE THE PIPE .WHERE THE PIPE IS UNDER PAVEMENTS, BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150mm LAYERS TO 98% MAX. DRY DENSITY.
8. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS, SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
9. ALL PIPES IN THE ROADWAY AND FOOTPATH AREAS, WHERE THE DEPTH OF PIPE IS LESS THAN 500mm FROM THE FINISHED SURFACE LEVEL ARE TO BE CONCRETE ENCASED.

PIPE TRENCH - FILL NOTES:

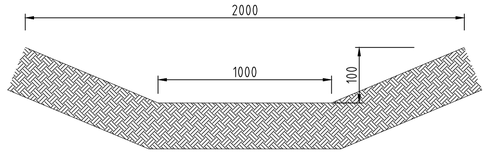
1. BEDDING SAND
BEDDING SAND SHALL BE GRANULAR MATERIAL HAVING A LOW PERMEABILITY AND HIGH STABILITY WHEN SATURATED, CONFORMING TO THE GRADING LIMITS FOR BEDDING SAND AS INDICATED IN THE CONTRACT DOCUMENTS. BEDDING SAND SHALL BE COMPACTED TO A DENSITY INDEX OF 95% AS DETERMINED IN ACCORDANCE WITH AS1289.

2. APPROVED IMPORTED GRANULAR FILL
ONLY IMPORTED GRANULAR FILL MATERIAL APPROVED BY THE SUPERINTENDENT SHALL BE USED. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK TO A DRY DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL AND WITH A MOISTURE CONTENT NO MORE THAN 1% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.

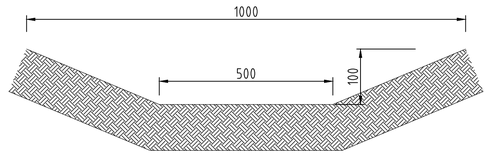
3. ORDINARY EXCAVATED FILL MATERIAL
ORDINARY EXCAVATED FILL MATERIAL IS EXCAVATED TRENCH MATERIAL THAT IS FREE OF VEGETABLE MATTER, HUMUS, LARGE CLAY LUMPS AND ROCK BOULDERS. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK, TO A DENSITY OF 95% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL WITH A MOISTURE CONTENT OF NOT MORE THAN 1% ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.



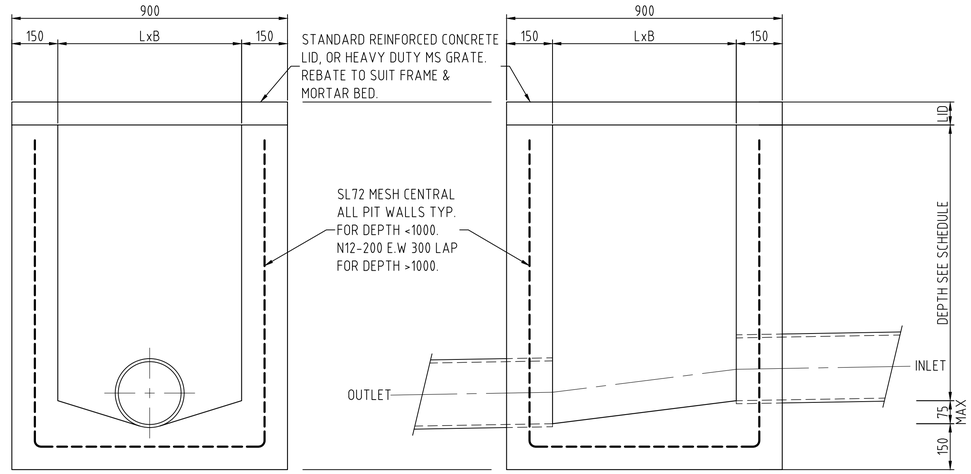
ON-SITE DETENTION / BIORETENTION BASIN
NTS



EARTH SWALE TYPE 1 & TYPE 2
NTS



EARTH SWALE - TYPE 3
NTS



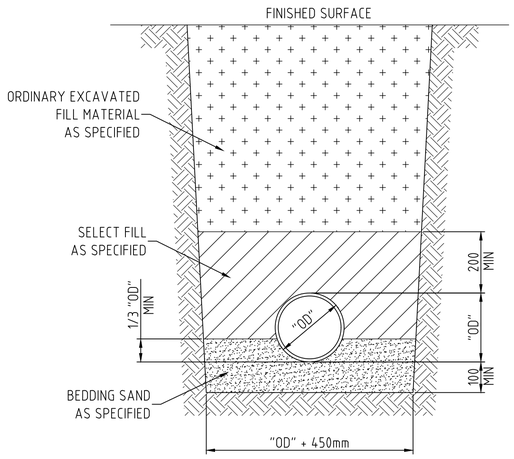
STORMWATER PIT
SCALE = 1:10

PRECAST EQUIVALENT MAY BE USED

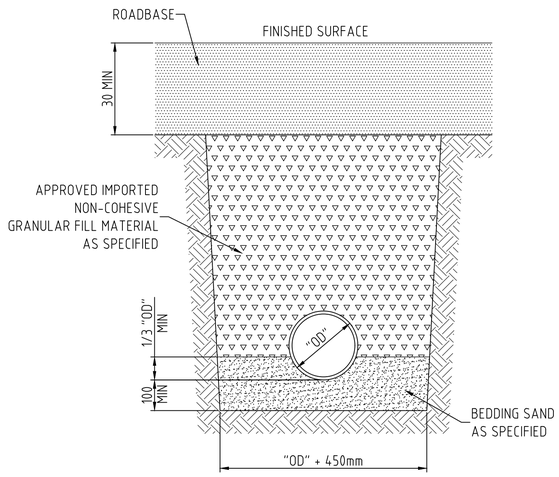
PIT DIMENSIONS		
DEPTH	L	B
<= 900	600	600
>1000	900	900

SEE SCHEDULE L DIMENSION IN DIRECTION OF DOWNSTREAM PIPE.

PROVIDE STEP IRONS IF DEPTH GREATER THEN 1500.

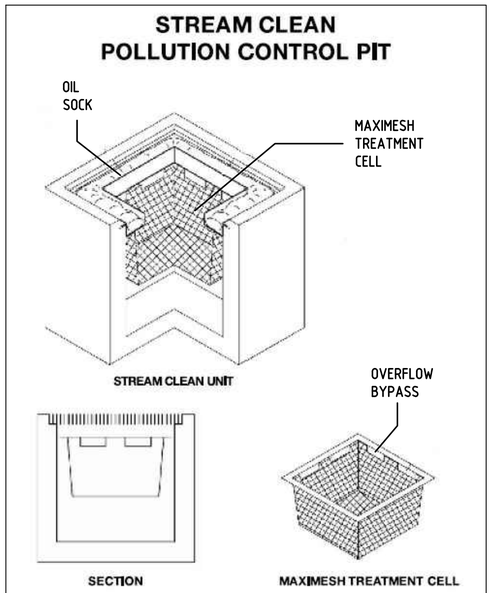


PIPE TRENCH - EARTH FOUNDATION
SCALE = 1:10



PIPE TRENCH - ROADWAY
SCALE = 1:10
NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL

STREAM CLEAN POLLUTION CONTROL PIT



Order Code	Description	Mass kg
Stream/G	600 x 600 x 650 Stream Clean pit including Maximesh treatment cell and oil filtration sock	570
SCB66	Stream Clean basket	15
Filtration Sock	Oil filtration sock	3

SWALE & BIO-RETENTION BASIN SPECIFICATION:

1. VEGETATION AS PER PLANTING AND VEGETATION GUIDE.
2. SWALE TO BE LINED WITH NOMINAL TURF APPLICABLE AND SUITABLE TO DESIGN AREA. PROVIDE TURF UNDERLAY OF SAME MATERIAL TO FILTER MATERIAL. ALTERNATE: DECORATIVE PEBBLES AND ROCKS.

3. FILTER MEDIA SPECIFICATION.
SANDY LOAM, PARTICLE SIZE d 50= 0.45mm, WITH SATURATED
HYDRAULIC CONDUCTIVITY OF 100mm/hr
VARIANCE OF MATERIALS COMPOSITION
CLAY 5.5%, < 0.002mm SIZE
SILT < 30%, 0.002mm - 0.05mm SIZE
SAND 50 - 70%, 0.05mm TO 2.0mm SIZE
ORGANIC CONTENT BETWEEN 5 - 15% IN ACCORDANCE WITH AS1289.4.1.1. PH RANGE 6.0 - 7.5.
COMPONENTS WITH HIGH LEVELS SILTY, CLAY, SILT, OR LOW ORGANIC MATTER TO BE REJECTED

4. MINIMUM FILTER AREA = 36 m^2

5. TRANSITION LAYER.
SAND / COARSE SAND COMPRISING TYPICAL PARTICLE DISTRIBUTION OF % PASSING
1.4mm = 100%
1.0mm = 80%
0.7mm = 44%
0.5mm = 8.4%
MINIMUM HYDRAULIC CONDUCTIVITY = 100mm / hr

6. DRAINAGE LAYER
2mm TO 5mm GRADING CONSISTING OF COARSE SANDS AND/OR FINE GRAVELS TO MAX 5mm

7. PERFORATED PIPES.
MINIMUM OPENINGS PER METRE = 3150mm^2
SUGGESTED SIZES 15mm LONG x 3mm THICK INLETS x 70 PER METRE
2 PIPES MINIMUM REQUIRED (STANDARD AG DRAIN)
WALL ROUGHNESS 'K' VALUE (SMOOTHNESS) = 0.007
PROVIDE GEOTEXTILE FILTER SOCK TO PREVENT SILTS, SANDS AND GRAVEL INGRESS TO PIPE MINIMUM
SLOPE VALUE OF PERFORATED PIPES = 0.5%

SUBMISSION FOR DA

barnson
DESIGN . PLAN . MANAGE

BARNSON PTY LTD

phone 1300 BARNSON (1300 227 676)
email generalenquiry@barnson.com.au
web barnson.com.au

Rev	Date	Description
A	21-08-2023	ISSUED FOR INFORMATION
B	08-09-2023	ISSUED FOR REVIEW
C	12-10-2023	ISSUED FOR DA

Project
PROPOSED CORE & CLUSTER REFUGE

Site Address
4-6 HEPBURN STREET
LITHGOW NSW 2790

Client
HOUSING PLUS ORANGE

Drawing Title
STORMWATER NOTES & DETAILS

Design LB
Drawn LB
Check DOS

Original Sheet Size A1
Revision C

Certification

Project No 40560
Drawing No C111

APPENDIX D

DCP COMPLIANCE TABLE

D.1 Chapter 2 – Site Requirements

Controls:			Comment:	Compliance:
2.2 Site Analysis, Local Character & Context				
2.2.2 Site Analysis & Development Response				
1)	Site Analysis: Any new development (or significant alterations and additions) demonstrates that the design of the proposed development has responded to an analysis of the Site and its relevant context (depending on extent of potential impact). This is set out in more detail in the DA Guide but may include, but is not limited to (where relevant):			
	a)	The site topography, climate and natural environment;	The proposed development responds to the site topography through being positioned perpendicular to the slope to minimise the extent of required earthworks and enable district views.	✓
	b)	Natural hazards on or near the Site;	Natural hazards in the context of the site are limited to bush fire and mine subsidence risk, both of which are to be managed as discussed in **Section 4.4.1** and **Section 4.4.2**.	✓
	c)	Potential land use conflicts;	The proposed development will not result in land use conflicts as both group homes and surrounding dwelling houses and multi dwelling housing are a type of residential accommodation under the LLEP 2014.	✓
	d)	Heritage items or heritage conservation areas;	The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area under clause 5.10 of the LLEP 2014.	**N/A**
	e)	Surrounding built form and landscape/streetscape character; and	The proposed development will not have any impact on built form and streetscape character due to being located within a battle-axe lot, screened by existing residential uses to the east, north and west and potential future development within land in	✓

Controls:			Comment:	Compliance:
			Zone R1 General Residential adjoining the site's southern boundary.	
	f)	Amenity for the Site and adjacent sites (where relevant).	The proposed development will ensure a high level of amenity for domestic violence survivors through facilities that will support them and their dependents. This is achieved through internal communal spaces and facilities, external communal open space and contemporary and self-sufficient accommodation with dedicated private open space. The above is achieved with minimal amenity impacts to neighbouring properties. In terms of: • Bulk and scale, the development's two storey height and positioning within a battle-axe lot screened by existing and potential future residential uses ensures minimal impact; • Overshadowing, impacts are minor and concentrated over vacant lands to the south; • Visual privacy, impacts from ground floor windows are mitigated by existing and/or retained fences along property boundaries whilst impacts from first floor windows are mitigated through their being substantially separate from property boundaries; • Acoustic privacy, impacts are expected to be minimal due to the limited area of the external communal open space; and • Views, no significant views are known to be obtained across the site from neighbouring properties.	✓
2)	Evidence: To demonstrate a suitable response to the site analysis, Council may require an applicant to lodge a number of supporting studies/plans in accordance with Council's DA Guide.		Noted. It is considered that sufficient information has been provided with the DA to demonstrate that the proposed development presents a suitable response to the opportunities and constraints of the site.	✓
2.2.3 Local Character & Context				

Controls:		Comment:	Compliance:
1)	Character: All applications demonstrate that the proposed development has considered the local existing and desired future character of the area and that the proposed development is consistent with and/or integrates with this character.	The proposed development will not have any impact on the existing character due to being located within a battle-axe lot, screened by existing residential uses to the east, north and west and potential future development within land in Zone R1 General Residential adjoining the site's southern boundary. It is consistent with the desired future character, providing for residential development within vacant land in Zone R1 General Residential.	✓
2)	Heritage: Where a development site is in a Heritage Conservation Area in Chapter 4 – Heritage & Cultural Conservation then the application addresses the relevant character statement(s) for that site.	The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area under clause 5.10 of the LLEP 2014.	**N/A**
3)	Site-Specific: Where a site is covered in Chapter 9 – Location Specific Controls of this DCP – any character and form controls in that Chapter are addressed (where relevant).	The site is not identified in Chapter 9 of the LDCP 2021.	**N/A**
2.2.4 Visually Prominent Sites			
Development on a visually prominent site, particularly in rural and/or environmental zones or in heritage conservation areas, is sited and designed to minimise visual and environmental impact by:			
a)	Locating buildings below key ridgelines;	The proposed development is located below the ridgeline.	✓
b)	Responding to the site contours to minimise visually obtrusive changes in the landform;	The proposed development responds to the site topography through being positioned perpendicular to the slope to minimise the extent of required earthworks and enable district views.	✓
c)	Retaining significant vegetation, particularly where it can act as a buffer to development;	There is no existing vegetation within the site that can be used as a buffer to development.	**N/A**

Controls:		Comment:	Compliance:
d)	Using a cluster of smaller buildings rather than large single buildings;	The proposed development comprises a cluster of two small to medium sized buildings, one of single storey height and the other of two storeys.	✓
e)	Blending into the existing landform or back-drop with appropriate form and materials;	Blending into the existing landform is not appropriate in the context of the site as the back-drop is residential uses. The proposed development is not inconsistent with the existing residential back-drop.	**N/A**
f)	Articulating large buildings and/or facades.	The proposed development is articulated through: • Brick finish at the ground floor of both the single storey and two storey buildings and metal finish for the capping over the single storey building and the second storey of the two storey building, ensuring a light-weight appearance of the upper elements of the development; and • Windows, doors and balconies in all elevations to ensure the visual interest of the development from all viewpoints.	✓
2.2.5 Reflective Materials			
1)	Reflectivity: External materials avoid use of reflective materials:	The proposed development does not include reflective materials.	✓
	a) If they are visible from a public place or neighbouring dwelling; and		
	b) There is a reasonable probability of glare affecting driver safety, residential amenity, or the building being too visually intrusive.		
2)	Heritage: Factory pre-coloured non-reflective materials are preferred though alternatives may be required in heritage conservation areas.	The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area under clause 5.10 of the LLEP 2014.	**N/A**
2.3 Slope Response, Earthworks & Retaining Walls			
2.3.1 Earthworks			

Controls:			Comment:	Compliance:
1)	Description: All development that involves any significant earthworks provides a plan and/or description of the location, extent and depth of earthworks that forms part of the application.		Earthworks as part of the proposed development are described as part of the architectural plans (refer to **Appendix A**).	✓
2)	LLEP2014: All development that involves any significant earthworks addresses Clause 7.1 - Earthworks of LLEP2014.		Refer to **Section 4.5.1.4**.	✓
3)	Design: Developments on sloping sites are sited, designed and use construction techniques that respond to the topographical (slope) & hydrological (water) features of the site. Alternatives to slab on ground construction should be utilised where, due to gradient and characteristics of the site, such form of construction is inappropriate.		The proposed development responds to the site topography through being positioned perpendicular to the slope to minimise the extent of required earthworks and enable district views. Stormwater has been carefully considered and is addressed in the attached stormwater management plan (Barnson, 2023).	✓
4)	Impact: Depending on the likelihood and significance of impact of any proposed earthworks on the matters raised in the objectives of this Section, Council may require justification for the need for those earthworks AND additional plans/reports/certification to demonstrate that the impacts can be avoided, mitigated or minimised (for examples, see table below).		The proposed earthworks are limited to the extent required as part of the proposed development. No further justification is deemed necessary.	**N/A**
5)	Drainage: Disturbance to natural drainage patterns is minimised and addresses Section 2.5 Stormwater Management of this DCP.		Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023).	✓
6)	Batters:			
	a)	Cut and fill batters do not exceed a slope of 1V:2H (vertical to horizontal) depending on soil classification or Council is satisfied of sufficient site stability by a Geo-technical and/or Structural Report; and	If batters are required, they would be designed to comply with the requirements specified opposite following DA approval. A geotechnical or structural report would also be provided at that time.	✓
	b)	All batters are to be provided with both short and long-term stabilisation to prevent soil erosion and do not extend onto public or adjoining land without permission.		

Controls:		Comment:	Compliance:
2.3.2 Retaining Walls			
1)	Application: Where new or altered retaining wall(s) are proposed (excluding exempt development), the application provides details of retaining wall location, height & materials including Site Plan(s) and relevant Section(s)/Elevation(s).	Retaining walls would be designed to comply with the requirements specified opposite following DA approval.	✓
2)	Impacts: All retaining wall(s) associated with residential uses address the objectives in this Section and address any potential impact(s).		
3)	Structural Design: Retaining walls (that are not exempt development) are designed by a suitably qualified structural engineer and/or installed in accordance with the manufacturer's specifications.		
2.4 Stormwater Management			
1)	Application: Development applications (in accordance with Council's DA Guide) may need to provide a Stormwater Drainage (Concept) Plan (SDCP) and/or Soil and Water Management Plan (SWMP) addressing stormwater management on the Site.	Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) and civil engineering design plans. Stormwater management infrastructure has been designed having regard to the applicable guidelines.	✓
2)	Guidelines: All Stormwater drainage is designed to comply with Council's Engineering Guidelines – Section 3 – Stormwater Drainage.		
3)	Drinking Catchment: Unless there is 'no identifiable potential impact', all development within the Sydney Drinking Water Catchment demonstrates a neutral or beneficial effect upon water quality in accordance with the requirements of SEPP (Sydney Water Drinking Catchment) 2011.		
4)	Water tanks: BASIX, Council, RFS or Water NSW may require water tanks to be provided that capture roof water, reduce stormwater quantities, and allow for limited re-use on-site in accordance with the stormwater plan(s).		

Controls:			Comment:	Compliance:
5)	On-Site Detention (OSD): Council may require a development to incorporate OSD on the site for larger developments or subdivisions where (guided by the stormwater assessment):			
	a)	There is a significant modification between pre-and post-development flows; and/or		
	b)	The downstream hydraulic capacity of one or more components in a drainage system is inadequate for the design flow.		
6)	Discharge: Stormwater runoff is designed to flow to Council's stormwater system, interallotment drainage easement, or other legal point of discharge.			
7)	Inter-Allotment Drainage: Where site topography prevents the discharge of stormwater directly to the street gutter of a Council controlled pipe system (predominantly in an urban area), then:			
	a)	Inter-allotment drainage is to be provided to accept runoff from all existing or future impervious areas that are likely to be directly connected;		
	b)	Details of proposed stormwater management infrastructure and overland flow paths as well as permission from any adjoining lots for the proposed easement will be required with the application; and		
	c)	Appropriate easements are to be acquired over any affected property prior to the issue of either the subdivision or construction certificate (as relevant).		
2.5 Vehicle Access & Parking				
2.5.1 Guidelines & Standards				
All development is e.g., designed to be consistent with (as amended):				

Controls:				Comment:	Compliance:
1)	Council's Guidelines for Civil Engineering Design and Construction for Development (2012) ('Engineering Guidelines');			Compliance with the requirements specified opposite would be ensured following DA approval and as required by LCC via any applicable conditions of consent.	✓
2)	RTA (now Transport for NSW) (2002) Guide to Traffic Generating Developments; and			The Guide to Traffic Generating Developments (RTA 2002) does not provide any controls or guidance related to group homes.	**N/A**
3)	Relevant Australian Standards including but not limited to (as amended):			Compliance with the requirements specified opposite would be ensured following DA approval and as required by LCC via any applicable conditions of consent	✓
	a)	AS2890 – Parking facilities including:			
		i)	AS2890.1 (2004) – Off-street car parking;		
		ii)	AS2890.2 (2018) – Off-street commercial vehicle facilities;		
		iii)	AS2890.3 (2015) – Bicycle parking facilities;		
		iv)	AS2890.6 (2009) – Off-street parking for people with disabilities		
	b)	AS1428 – Design for Access and Mobility.			
4)	Relevant Austroads Guidelines; and			As above.	✓
5)	Relevant Council Policies.			As above.	✓
2.5.2 Vehicle Access & Driveways					
1)	Access: The applicant demonstrates that any proposed site vehicle access location and design has considered the site opportunities and constraints as well as public safety including, but not limited to:				
	a)	Assessing the type of road(s) the site will access and its posted speed limit;		Access to the proposed development is to be from Hepburn Street, a two-way local street without line marking and with a posted speed limit of 50 kilometres per hour and formed kerb and gutter and unrestricted parking on both sides.	✓

Controls:			Comment:	Compliance:
	b)	Avoiding direct access to an arterial road (e.g., highway or main road) unless there is an existing suitable access or no suitable alternative;	As above.	✓
	c)	Avoiding or minimising impacts on street trees and utilities/services in the street;	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements. As such, it will not impact on any existing street trees or utilities/services in the street.	✓
	d)	Locating and designing access points to minimise interference with natural and street drainage;	As above.	✓
	e)	Ensuring appropriate sight-lines (clear of obstructions) at driveway exits to vehicular traffic and pedestrians/bicycles;	The vehicular access to the site will achieve appropriate sightlines given Hepburn Street's straight alignment.	✓
	f)	Assessing potential conflicts with other vehicles and pedestrians/ bicycles on and off-site;	Potential for conflicts with other vehicles or pedestrians/bicycles is low given Hepburn Street carries a low volume of traffic due to terminating in a cul-de-sac and servicing no more than 20 residential lots south of Busby Street.	✓
	g)	Separating vehicle and pedestrian accessways for larger developments (See Section 2.6 - Pedestrian Access, Mobility & Safety of this DCP for details);	The proposed development is not considered a larger development.	**N/A**
	h)	Ensuring the landscape design does not impact safety whilst screening or softening the visual impact of any parking areas;	The parking area associated with the proposed development will not have significant visual impact on any parking areas.	**N/A**
	i)	Minimising impacts on on-street parking;	The parking area associated with the proposed development would not be visible or would have minimal visibility from the street.	✓
	j)	Minimising the visual impact of larger driveways or on-site parking areas.	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements. The parking area associated with the proposed development would not be visible or would have minimal visibility from the street.	✓

Controls:				Comment:	Compliance:
2)	Policy: All works comply with Council Policy No.10.18 – Specification for the Construction of Driveways, Footpath/Gutter Crossings and Foot-paving (as amended).			Compliance with the requirements specified opposite would be ensured following DA approval and as required by LCC via any applicable conditions of consent.	✓
3)	All Weather Access: All weather access is required to all development to ensure that emergency services are able to access them at all times.			Vehicular access to the site is to be sealed for all weather access.	✓
4)	Proximity to Intersection(s) & Sight-Lines: Any driveway:				
	a)	Has a minimum separation of 6m from the kerb return of a street corner/intersection in an urban area (this setback may increase where it is near a major arterial road or there are reduced sight-lines); and		The vehicular access to the site is over six metres from the nearest intersection.	✓
	b)	Complies with AS2890.1 (as amended) including:		Compliance with the requirements specified opposite would be ensured following DA approval and as required by LCC via any applicable conditions of consent.	✓
		i)	Figure 3.1: Prohibited Locations of Access Driveways; and		
		ii)	Figure 3.2: Sight Distance Requirements at Access Driveways.		
5)	Direction of Travel: Vehicle access and egress to/from a lot occurs in a forward direction, except as follows:			The design of the vehicular access to the site ensures that both access and egress will be in a forward direction.	✓
	a)	With direct access to an arterial road, only single dwelling houses or secondary dwellings;			
	b)	With direct access to a non-arterial (local) road only single dwellings, secondary dwellings, dual occupancies (attached or detached), bed and breakfast accommodation and short-term holiday lets of these dwelling types. Unless the applicant has demonstrated there are specific site constraints, exceptional circumstances, and safety has been addressed (e.g., emergency vehicles) at the discretion of Council and/or TfNSW.			
6)	Access to Street: Vehicle access is designed to:				

Controls:			Comment:	Compliance:
	a)	Meet the requirements of Council's Engineering Guidelines in Section 2.3.8 – Driveway Construction;	Compliance with the requirements specified opposite would be ensured following DA approval and as required by LCC via any applicable conditions of consent.	✓
	b)	Cross the footpath or footway at right angles to the centreline of the road;		
	c)	Be clear of obstructions, which may prevent drivers having a timely view of pedestrians or vehicles;		
	d)	Be 0.5m clear of drainage structures at the kerb or gutter and not impact other utility infrastructure (or relocation is at the cost of the developer);		
	e)	Be properly signposted, where there are separate access and exit points;		
	f)	Take into consideration any requirements in the former RTA (2002) Guidelines for Traffic Generating Development (as amended or replaced) – Section 6.2 Access requirements.		
7)	Slope: Driveways and car parking areas in urban areas does not exceed a maximum grade of 25% with suitable transitions at the boundary and garages to prevent scraping for the standard design vehicle.		The project drawings (Appendix A) demonstrate a maximum driveway grade of 16.6%.	✓
8)	Driveway Width:			
	a)	Driveways serving one (1) to two (2) dwellings or in rural areas are a minimum width of 3.5m.	The site is located within an urban area.	**N/A**
	b)	Shared driveways serving three (3) or more dwellings (up to eight (8) dwellings) have a minimum width of 4.5m (3.5m carriageway plus landscaping) increasing to 5.5m forward of the front building line or provide for passing bays (in accordance with AS 2890.1) based on the size of the development/length of the driveway.	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements.	✓
	c)	Driveways servicing commercial or industrial development (or residential development not covered in (a) or (b) above) have	The driveway in the proposed development is to serve a residential development.	**N/A**

Controls:			Comment:	Compliance:
		sufficient width to enable safe either two-way or separated one-way vehicle movement in and out of the Site without blocking sight-lines.		
	d)	Driveways do not dominate the street and provide the minimum width to achieve safety whilst being integrated with the landscape design for the site.	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements.	✓
9)	Setbacks/Gates (Rural Areas): The primary access gate or opening for each lot/development is set back in accordance with:		The site is located within an urban area.	**N/A**
	a)	Council Policy 10.7 – Public Gates and Grids on Local Roads;		
	b)	Council's Engineering Guidelines; or		
	c)	Any TfNSW requirements for a highway or arterial road (where relevant).		
2.5.3 Loading/Unloading, Delivery & Servicing Facilities				
1)	Numbers/Spaces: All new development (except in accordance with Section 2.5.6 – Exemptions to Off-Street Car Parking Requirements of this DCP) provides sufficient numbers and size of spaces on-site for service vehicles based on:		Dedicated spaces for service vehicles is not required as unloading would be limited to occasional light vehicles and vans that would parking in one of the parking spaces for the duration of the unloading. This is unlikely to impact availability of parking for residents or staff as it would be carried out in the mornings when the facility is at its least busy.	**N/A**
	a)	The expected frequency of servicing; and		
	b)	The likely vehicle size/type of delivery vehicle (see Section 5 of the former RTA (2002) Guidelines for Traffic Generating Development (as amended or replaced) relating to courier, delivery and service vehicles), unless otherwise agreed with Council;		
2)	Street Servicing: Servicing from the street frontage is not permitted unless there are site constraints that would prevent off-street servicing from occurring (exemption generally limited to Zone B2 Local Centre in LLEP2014 but justification still required).		Street servicing is not proposed.	✓

Controls:			Comment:	Compliance:
3)	Design: Layout and dimensions are to comply with AS2890.2 Off street commercial vehicle facilities (where applicable).			
4)	Residential Impacts: In mixed use developments (or adjacent to residential zones or residential accommodation) servicing facilities for non-residential uses are located and designed to protect the amenity of residents.		The proposed development is not mixed use.	**N/A**
5)	Loading / Unloading Design: Servicing area(s) are located and designed so:		Dedicated loading bays are not required as unloading would be limited to occasional light vehicles and vans that would parking in one of the parking spaces for the duration of the unloading. This is unlikely to impact availability of parking for residents or staff as it would be carried out in the mornings when the facility is at its least busy.	**N/A**
	a)	They can be accessed in a safe and efficient manner;		
	b)	They do not result in any service vehicles extending over public roads or footpaths during loading and unloading operations;		
	c)	They do not utilise or crossover vehicle circulation, parking spaces or pedestrian paths unless all loading/unloading occurs outside the normal business hours of the premises;		
	d)	They are located behind the building line to any street;		
	e)	They are suitably screened from public spaces, especially where there may be open (outdoor) storage of goods.		
2.5.4 Parking Location, Design & Circulation				
1)	Parking Location: Parking location considers and addresses (where relevant):			
	a)	Providing consistent front building setbacks to the street;	The site is a battle-axe lot.	**N/A**
	b)	Minimising visual impact of off-street parking areas/garages/garage doors/driveways on street activity and character;	The parking area associated with the proposed development would not be visible or would have minimal visibility from the street.	✓
	c)	Providing screening that can minimise this impact (where appropriate) in urban areas;	As above.	**N/A**

Controls:			Comment:	Compliance:
	d)	Proximity of customer parking to customer entrances and staff parking to staff entrances including accessible parking and access;		
	e)	Minimising impacts of traffic movements and parking on any neighbouring dwellings/residential areas;	Traffic movements and parking associated with the proposed development will result in minimal amenity impacts to neighbouring properties due to the parking area being cut into the slope, resulting in a retaining wall with a height of up to 0.99 metres that will minimise headlight and engine noise emission from the site.	✓
	f)	Addressing site conditions such as slope and drainage;	The parking area associated with the proposed development is to be located in the highest portion of the site to minimise the change in level between higher vehicular access point and the parking area.	✓
	g)	Ease of access to and from the street and navigation to parking areas;	The street and parking area associated with the proposed development are easily accessible to authorised persons via the driveway in the access handle.	✓
	h)	Separation of customer parking from courier and service delivery vehicle parking and/or loading and unloading facilities for safety and accessibility;	Dedicated spaces for service vehicles is not required as unloading would be limited to occasional light vehicles and vans that would parking in one of the parking spaces for the duration of the unloading. This is unlikely to impact availability of parking for residents or staff as it would be carried out in the mornings when the facility is at its least busy.	**N/A**
2)	Parking Design: Parking spaces, manoeuvring areas, and driveways are designed in accordance with Section 2.5.1 - Guidelines & Standards of this DCP above.		Compliance with the requirements specified opposite would be ensured following DA approval.	✓
3)	Accessible Parking:			
	a)	All development provides accessible car parking as set out in the National Construction Code and the relevant Australian Standard(s) (AS).	As above.	✓

Controls:			Comment:	Compliance:
	b)	The dimensions for accessible car spaces (including headroom & access) comply with AS 2890.6 - Off-street parking for people with disabilities.	The proposed development includes parking spaces designed in accordance with AS2890 and AS1428.1 as required.	✓
4)	Safety: The design of all internal vehicle manoeuvring areas demonstrates consideration of the safety and access for all users (private vehicles, service vehicles, pedestrians, bicycles etc.) and minimise potential conflicts.		Internal manoeuvring areas associated with the proposed development are unlikely to result in potential conflicts due to the low volume of vehicles expected to access the development (refer to **Section 5.2**).	✓
5)	Sealed Vehicle Areas:		All vehicular manoeuvring areas associated with the proposed development are to be sealed. Gravel surfaces are not proposed.	✓
	a)	All vehicle manoeuvring areas on-site in urban areas are sealed.		
	b)	Gravel surfacing is not permissible except where there are no conflicts (noise and dust) with adjacent lots and suitable drainage is provided.		
6)	Stormwater: Parking areas and driveways are designed, surfaced and graded to reduce runoff and allow stormwater to be controlled on site in accordance with Section 2.4 – Stormwater Management of this DCP.		Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) and civil engineering design plans.	✓
7)	Vehicle Sizes: Internal vehicle manoeuvring and parking areas is designed to accommodate the size, turning radii and the pavement loading of the largest vehicle that is likely to be used by the proposed development/activity.		The parking area associated with the proposed development has been designed to accommodate the size and type of vehicles that would access the development.	✓
8)	Operation Hours: Free and uninterrupted access to car parking areas is maintained at all times during the hours of operation of the proposed development. Any restrictions or overlapping uses should be addressed in the application.		Free and uninterrupted access is to be provided to the authorised persons to the parking area associated with the proposed development.	✓
9)	Basement Parking: Basement car parking is not to protrude more than 1m above finished ground level except at the entrance to the car park.		Basement parking is not proposed.	**N/A**
10)	Stacked Parking: Stacked (or' tandem') car parking is not acceptable for medium to high density housing, commercial or industrial uses, or		Stacked parking is not proposed.	**N/A**

Controls:			Comment:	Compliance:
	visitor/customer parking unless justified in a relevant report (see Section 2.5.2 - Traffic Assessments, Studies & Plans of this DCP) based on special site considerations and parking management arrangements.			
11)	Circulation: Larger car parking areas provide rational circulation patterns with ease-of navigation and minimise the use of dead-end aisles.		The parking area associated with the proposed development provides parking for six vehicles.	**N/A**
12)	Parking Navigation: Signage addresses/takes into consideration the following:		Signage would be detailed following DA approval.	✓
	a)	Parking areas are well sign-posted to indicate the location of off-street parking, exit and entry points, and the circulation spaces on the site, with directional signposting from the building entrance/exit (where necessary);		
	b)	Pavement arrows clearly indicate the direction of traffic circulation (if one-way);		
	c)	Parking areas are clearly delineated as well as parking spaces for specific users (e.g., disabled spaces/staff/visitors).		
13)	Lighting: Lighting of car parking areas is to be in accordance with AS1158.3 Pedestrian Area (Category P) Lighting whilst avoiding impacts on neighbouring properties (see AS4282 Control of Obtrusive Effects of Outdoor Lighting).		Compliance with the requirements specified opposite would be ensured following DA approval and in accordance with any condition of consent imposed by LCC.	✓
14)	Visual Impact: Design should integrate parking areas including garages and carports to minimise the visual dominance and impact of parking areas and structures, particularly when viewed from the street/public domain.		The proposed development does not include garages or carports.	**N/A**
2.5.5 On-Site Parking Numbers				
On-Site Parking Numbers: Each development provides the number of off-street car parking spaces for each development type:				

Controls:				Comment:	Compliance:
1)	Set out in the Table of Car Parking Requirements below (unless the proposed development satisfies Section 2.5.6 – Exemptions to Off-Street Car Parking Requirements of this DCP); OR			Group homes are not listed in the Table of Car Parking Requirements. However, the seven parking proposed complies with the seven required for multi dwelling housing comprising three one bedroom units and three two bedroom units.	**N/A**
2)	If the use is not listed – in accordance with the Guide to Traffic Generating Developments on the Transport for NSW (former Roads & Maritime Services) website (as amended); OR			Group homes are not listed in the Guide to Traffic Generating Developments. However, the six parking spaces proposed exceeds the minimum two spaces required for group homes erected under the complying development provisions in the Housing SEPP.	**N/A**
3)	For any other use (or for larger developments), in accordance with an assessment of the parking demand for the development determined on merit having regard to the nature of the development and traffic generation. Council may require a Traffic & Parking Report with three (3) cases / examples from the region.			A traffic and parking report is not necessary as parking provision is compliant with the requirement for multi dwelling housing and exceeds the minimum required for group homes under the complying development provisions in the Housing SEPP.	**N/A**
4)	Parking for multi-tenanted or mixed-use facilities are provided to satisfy the peak cumulative parking requirements of the development as a whole. A comparison survey of similar development is provided with the application.			The proposed development is not multi-tenanted or mixed use.	**N/A**
2.5.6 Exemptions to Off-Street Car Parking Requirements					
				An exemption to parking provision requirements is not required.	**N/A**
2.5.7 Bicycle Parking					
1)	All development set out below is to provide on-site bike parking in accordance with the requirements in the table below:			The proposed development does not include any bicycle parking. Justification for the non-compliance is provided in **Section 4.5.3.1.1**.	**Acceptable on merit**
	Proposed Use	**Resident/Employees**	**Customer/Visitor**		

Controls:				Comment:	Compliance:
	Shop top housing, multi-dwelling housing, residential flat buildings & boarding houses	1 space per 4 units (or rooms for boarding houses)	1 space per 20 units/rooms		
	Serviced apartments, hotels & motels	1 space per 4 staff (peak staff level)	1 per 20 units/rooms		
	New commercial, retail, community, educational, recreational development	1 space per 15 car parking spaces			
2)	The location, design and construction of bicycle facilities is to comply with AS2890.3 – Parking facilities – Bicycle parking.			As above.	**N/A**
3)	Bicycle parking for residents and/or staff is located close to building entry/exits and lifts and be given priority over other parking uses to ensure they are well located, designed and ultimately used.			As above.	**N/A**
4)	Bicycle parking spaces are clearly marked and easily accessible, have good surveillance and provide a means of securely locking bicycle frames and wheels.			As above.	**N/A**
5)	Minimum locker provisions for work places are in accordance with the NSW Planning Guidelines for Walking and Cycling.			As above.	**N/A**
2.6 Pedestrian Access, Mobility & Safety					
2.6.1 Accessibility					
1)	Access to Premises Standards: Disability (Access to Premises — Buildings) Standards 2010 (as amended or replaced) under the Disability Discrimination Act 1992;			Compliance with the requirements specified opposite would be ensured following DA approval.	✓
2)	National Construction Code (NCC); and			As above.	✓

Controls:			Comment:	Compliance:
3)	Australian Standards (including AS1428 – Design for Access and Mobility).		As above.	✓
2.6.2 Pedestrians				
1)	Separation: Pedestrian and vehicle access for all larger developments (e.g., > 10 dwellings or for commercial/industrial development) is separated and clearly marked/defined. All other development can provide shared movements with reduced vehicle speeds and appropriate signage and markings.		The proposed development is for the purposes of a group home with six units.	**N/A**
2)	Entrances: Entrances to buildings are clearly visible from primary street frontages and enhanced as appropriate to improve legibility and accessibility.		The site is a battle-axe lot.	**N/A**
3)	Mixed-Use Buildings: Mixed-use buildings, particularly those with residential uses, have separate residential and commercial entrances to the street.		The proposed development is not mixed use.	**N/A**
4)	Access ramps: Access ramps (to meet accessibility standards above) are integrated into building design and located outside the road reserve/public footpath to minimise visual impact and impact on footpath safety and flows.		The access ramp associated with the proposed development is located entirely within the site where it will not be visible from the street.	✓
5)	Lighting: Lighting of pedestrian areas is to be in accordance with AS1158.3 Pedestrian Area (Category P) Lighting whilst avoiding impacts on neighbouring properties (see AS4282 Control of Obtrusive Effects of Outdoor Lighting).		Compliance with the requirements specified opposite would be ensured following DA approval.	✓
2.6.3 Street Numbering & Letterboxes				
1)	Identification:		As each dwelling in the proposed development would be used by domestic violence survivors on a temporary basis, unique	✓
	a)	Each new lot has an appropriate street number that is clearly visible from the street (as determined by Council in accordance		

Controls:			Comment:	Compliance:
		with Council Policy No.10.10 – Addressing, Road Naming & Locality Naming);	addresses for each unit are not required. A single address would be provided to the entire development.	
	b)	Each new building has a letterbox (in areas with mail delivery).		
2)	Number of Letterboxes: Separate letterboxes are provided for each dwelling/tenant with an additional letterbox for the Owners' Corporation for Strata/Community Title/multiple-tenancies (where applicable).		As above. Mail would arrive at the office component of the proposed development and be distributed to residents by staff.	✓
3)	Location of Letterboxes: Letterboxes are:		Compliance with the requirements specified opposite would be ensured following DA approval and as required by any condition of consent	✓
	a)	Located where it is easily visible from the road frontage and near major pedestrian entrances;		
	b)	Accessible for Australia Post employees (in accordance with their requirements);		
	c)	Clearly marked with the correct building/unit number;		
	d)	For medium density residential, commercial and mixed-use developments - are shown on the relevant plan(s) and integrated with the building and/or landscape design.		
2.7 Designing for Crime Prevention				
2.7.1 Crime Risk Assessment				
1)	A Crime Risk Assessment is submitted in support of the following types of development unless, in the opinion of Council, it is considered unwarranted: New buildings or significant alterations and additions (that are likely to affect the crime prevention principles below) to the following:			
	a)	Subdivisions creating more than four (4) lots, creating any new public roads, or extending an existing public road by more than 50m;	The proposed development does not include subdivision.	**N/A**

Controls:			Comment:	Compliance:
	b)	Larger retail & commercial (>1000m2 new floor space) developments;	The proposed development does not include retail or commercial uses.	**N/A**
	c)	Industrial development with multiple tenancies;	The proposed development does not include industrial uses.	**N/A**
	d)	Educational establishments (e.g., schools; universities) or child care centres;	The proposed development does not include educational or child care uses.	**N/A**
	e)	Health service facilities (e.g., hospitals, medical centres etc.);	The proposed development does not include health uses.	**N/A**
	f)	Transport depots & passenger transport facilities (e.g., bus stops, taxi ranks or similar) and any adaptive re-use of these facilities (e.g., railway stations);	The proposed development does not include transport uses.	**N/A**
	g)	Large sporting (e.g., Indoor, outdoor and major recreational facilities) or community facilities;	The proposed development does not include sporting uses.	**N/A**
	h)	Medium and high-density residential accommodation (10 or more dwellings);	The proposed development is for the purposes of a group home comprising six units.	**N/A**
	i)	Mixed-use developments (5 or more dwellings);	The proposed development is not mixed use.	**N/A**
	j)	Seniors housing and group homes (more than 8 people);	The proposed development is for the purposes of a group home that may accommodate more than eight people, depending on the presence of dependents in association with domestic violence survivors. Accordingly, a basic crime risk assessment is provided in **Section 5.13**.	✓
	k)	Tourist and visitor accommodation in urban areas (more than 6 rooms);	The proposed development does not include tourist uses.	**N/A**
	l)	Hotels and clubs or other premises that serve alcohol;	The proposed development does not include hotels or clubs.	**N/A**
	m)	Amusement centres; Entertainment facilities; Function centres; Restricted premises; Sex service premises (brothels); Tattoo parlours;	The proposed development does not include amusement uses.	**N/A**
	n)	Highway service centres & service stations;	The proposed development does not include service stations.	**N/A**

Controls:				Comment:	Compliance:
	o)	At the discretion of Council where a site is adjacent to an area:		The site is not located in an area with significant pedestrian activity or where there is a higher potential risk of crime.	**N/A**
		i)	With limited street lighting and significant pedestrian activity; and/or		
		ii)	Where there is a higher potential risk of crime or impacts on pedestrian safety.		
2)	A Crime Risk Assessment provides:			Refer to **Section 5.13**.	✓
	a)	A detailed site analysis of the physical surrounds of the proposed development and the potential opportunity/relative risk of crime and known evidence of criminal behaviour; and			
	b)	How the proposed design (built form and landscape) has addressed the site analysis and relative risk in sub-section (a) using the principles as set out in the table below in accordance with the NSW Guidelines for Safer by Design / Crime Prevention Through Environmental Design ('CPTED') (see the NSW Police website).			
2.8 Utilities, Easements & Infrastructure					
2.8.1 Connection to Utilities					
1)	Reticulated Sewer/Water: Where reticulated sewer/water is available within reasonable proximity to the lot (or as required by the relevant authority), any new development is connected to those utilities in accordance with Council's:			Compliance with the requirements specified opposite would be ensured following DA approval.	✓
	a)	Engineering Guidelines;			
	b)	Policy 3.1 – Water service and meter installation;			
	c)	Policy 3.4 – Backflow Prevention – Containment;			
	d)	Policy 3.5 – Sewer connection,			

Controls:			Comment:	Compliance:
	unless the applicant can demonstrate why that connection would not be appropriate and/or propose an alternative system that is acceptable to Council.			
2)	Electricity: New development is connected to grid-electricity unless the applicant can demonstrate a sufficiently sized and appropriate alternative (off-grid) system will be constructed prior to occupation to meet the reasonable needs of that type of development.		As above.	✓
2.8.2 Building Near Utilities/Easements/Drainage Lines				
1)	Building near Easements: Permanent buildings, structures or works are not to be located over an easement unless there is express written authorisation from the relevant authority benefited by the easement in accordance with Council Policy 5.1 – Building Over Easements.		All known easements and infrastructure have been identified by survey and are shown on the attached project drawings (**Appendix A**).	✓
2)	Setbacks from Utilities: Where an easement does not exist, the structure is located:		As above.	✓
	a)	A minimum distance equivalent to the invert depth of the pipeline plus one (1) metre; and/or		
	b)	Outside the 'zone of influence' from the known utility location; or		
	c)	In accordance with the relevant utility authority requirements.		
3)	Drainage: Development does not compromise the integrity of a drainage or stormwater line originating from outside the development site.		Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) and civil engineering design plans.	✓
2.8.3 On-Site Sewage Management				
			On-site sewage management is not proposed.	**N/A**
2.8.4 Liquid Trade Waste				
			The proposed development will not generate liquid trade waste.	**N/A**

Controls:		Comment:	Compliance:
2.8.5 Re-Use of Waste-Water			
		Re-use of waste-water is not proposed.	**N/A**
2.8.6 Water Supply			
1)	Dwelling Tank Size: Each dwelling that does not have access to a reticulated potable water supply has a minimum tank capacity of 20,000L per bedroom or the requirements set out in the BASIX Certificate (whichever is greater). Additional capacity may be required for garden watering and other purposes.	The proposed development is to be connected to reticulated water supply.	**N/A**
2)	Bushfire: On bushfire prone land (or where Council conditions this requirement), the draw-offpoint for water for domestic purposes is located to ensure a sufficient volume of stored water remains in the tank(s) at all times and there is a connection point to access this water for use in fire-fighting in accordance with the RFS (2019) Planning for Bushfire Protection Guidelines (as amended).	Refer to **Section 4.4.1**. A Bush Fire Assessment Report (*Statewide Bushfire Consulting, 2023*) is provided at **Appendix B**. The Bush Fire Assessment Report identifies that the proposed development can meet the requirements for the specific objectives for special fire protection purposes subject to recommendations.	✓
3)	Other Uses: Where there is no reticulated water supply, land uses other than residential accommodation provide a calculation of their estimated (conservative) monthly water consumption and nominate a source and storage that provides a minimum of three (3) months' supply on-site.	The proposed development is to be connected to reticulated water supply.	**N/A**
4)	Health: Uses that either utilise water in the production of food or provide water to the public (e.g., Tourist & Visitor Accommodation) address water quality and treatment in accordance with relevant NSW Department of Health Guidelines.	The proposed development is for the purposes of a group home.	**N/A**
2.9 Solid Waste Management			
2.9.1 Hazardous Materials & Asbestos			

Controls:		Comment:	Compliance:
		Neither hazardous materials nor asbestos are known to occur within the site. The proposed development will not use asbestos or generate hazardous materials.	**N/A**
2.9.2 Solid Waste Management Plan – Larger Developments			
Any development that (in Council's opinion):		It is anticipated that waste generated during construction can be managed through standard construction measures. Once operational, the proposed development will generate minimal waste, limited to office waste and residential waste equivalent to a small multi dwelling housing development. Nevertheless, a waste management plan can be provided following DA approval if required.	✓
a)	Is larger than a single dwelling, dual occupancy, secondary dwelling, semi-detached dwelling or use of these buildings for tourist or visitor accommodation;		
b)	Generates significant volumes of waste; or		
c)	Significantly modifies existing approved waste management systems; or		
d)	Require private waste contractors during the demolition, construction and/or operation of the development (excluding those uses in the control above),		
provide a Waste Management Plan in accordance with Council's DA Guide.			
2.9.3 Waste Storage & Collection – Larger Developments			
1)	Access: Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents/tenants without crossing a private lot.	The bin storage will be readily accessible to all residents from the parking area in the proposed development.	✓
2)	Ramp Gradient: Where waste storage is provided in a basement car park, a maximum ramp gradient of 1:6 is to be provided to the waste collection point.	The proposed development does not include a basement.	**N/A**
3)	Rear Lane: Where a rear lane has provision for waste collection trucks used by Council, the collection point is to be from the rear lane.	The site does not have frontage to a rear lane.	**N/A**
4)	Communal Waste Collection Point: Where waste vehicles are unable to access a site, a communal on-site collection point is to provided that:	A communal waste collection point will be provided within the site.	✓

Controls:			Comment:	Compliance:
	a)	Is less than 10m from the street boundary;	All bins will be delivered to the street frontage for pick up in accordance with the LCC requirements.	
	b)	Is located on a surface with a gradient less than 1:20;		
	c)	Does not require access through a security door or gate;		
	d)	Has a path that connects the collection area to the street boundary with a gradient less than 1:8 and is free of steps for the transfer of bins to the collection vehicle.		
5)	Screening: If a waste collection point is used for permanent storage of bins:		The bin storage area associated with the proposed development will not be visible from the street.	✓
	a)	It is to be screened from view from the public domain (e.g., within garages, basement car parking, or screened enclosures); and		
	b)	Any waste storage structure forward of the building line is to have a height no greater than 1.3m.		
6)	Amenity: Communal waste areas are to be located at least 3m from any bedroom or living room window.		Over three metres' separation is provided between the bin storage area and windows associated with the proposed development.	✓
2.10 Amenity / Buffers for Sensitive Uses				
2.10.1 Noise & Vibration				
			The site is not located in proximity to any significant noise or vibration sources. It is anticipated that noise and vibration impacts during construction can be mitigated through standard construction measures. Once operational, the proposed development will not generate any vibration. Noise emission is expected to be equivalent to a small multi dwelling housing development.	✓
2.10.2 Air Emissions, Odour & Dust				

Controls:	Comment:	Compliance:
	The site is not located in proximity to any significant air emissions, odour or dust sources. It is anticipated that construction air emissions, odour and dust can be mitigated through standard construction measures. Once operational, the proposed development will not generate any air emissions, odour or dust.	✓
2.10.3 Buffers to Sensitive Land Uses		
	The site does not adjoin any sensitive uses that require buffers.	**N/A**
2.10.4 Buffers & Landscaping		
	As above.	**N/A**
2.10.5 Agriculture & Right to Farm		
	The site does not adjoin farmland.	**N/A**
2.11 Water & Energy Efficiency		
	The proposed development will comply with the National Construction Code – Section J relating to energy efficiency for commercial buildings.	

D.2 Chapter 3 – Natural Environment & Hazards

Design Criteria / Controls		Assessment	Compliance
3.2 Bushfire Prone Land			
Where a proposed development is on land identified as bush fire prone on the Bush Fire Prone Land Map, the design and management of any proposed development on that bush fire prone land complies with the following:			
1)	Rural Fire Act 1997 (NSW) & the associated Rural Fires Regulation 2013 (as amended); and	Refer to **Section 4.4.1**.	✓

Design Criteria / Controls			Assessment	Compliance
2)	NSW Rural Fire Service (2019) Planning for Bush Fire Protection (Bush Fire Guidelines).		As above.	✓
3)	Any development application involving the erection of a dwelling house or alterations and additions to an existing dwelling house on bush fire prone land addresses the requirements contained in:		The proposed development is for the purposes of a group home. Refer to **Section 4.4.1**.	**N/A**
	a)	The NSW Rural Fire Service (RFS) publication titled "Building in Bush Fire Prone Areas Single Dwelling Applicants Kit" found on the RFS website (www.rfs.nsw.gov.au); and		
	b)	Australian Standard AS3959 – 2009 Construction of Buildings in Bush Fire Prone Areas (for any Construction Certificate application). A suitably qualified person may need to provide a schedule of compliance with the applicable construction standards. This schedule will form part of the approval documentation and the applicant will be required to comply with it during the course of construction; and		
4)	National Construction Code (NCC) may specify additional controls for the construction of buildings on bush fire prone lands.		Refer to **Section 4.4.1**.	✓
3.3 Vegetation Management & Biodiversity				
3.3.1 Vegetation Clearing for Development Requiring Consent				
			Refer to **Section 4.5.2.1.1**.	✓
3.3.2 Threatened/Endangered Species/Ecological Communities				
			Refer to **Section 4.2**.	✓
3.3.3 LLEP2014 – Terrestrial Biodiversity				
			The site is not mapped as Biodiversity on the Environmentally Sensitive Areas – Biodiversity Overlay Map under clause 7.4 of the LLEP 2014.	**N/A**

Design Criteria / Controls	Assessment	Compliance
3.3.4 Clearing NOT Associated with Development (Non-Rural Zones)		
	Clearing is associated with development.	**N/A**
3.3.5 Clearing NOT Associated with Development (Rural Zones)		
	As above. The site is not located within a rural zone.	**N/A**
3.3.6 Declared Vegetation in this DCP		
	Refer to **Section 4.5.2.1.1**.	✓
3.3.7 Tree Removal Criteria		
	Refer to **Section 4.5.2.1.1**.	✓
3.4 Land & Soils		
3.4.1 Contaminated Land		
	Refer to **Section 4.5.2.3**.	**N/A**
3.4.2 Sensitive Land Areas		
	The site is not identified as Sensitive Land Areas on the Environmentally Sensitive Areas – Land Overlay Map under clause 7.7 of the LLEP 2014.	**N/A**
3.4.3 Erosion & Sedimentation		
Erosion of land through poor land management and development practices can result in significant sedimentation and water quality issues in watercourses and drainage corridors. The applicant addresses (where relevant) the relative risk of certain developments causing erosion and sedimentation in accordance with the requirements of Landcom, Fourth Edition (2004) Managing Urban Stormwater: Soils and Construction ('Blue Book') (as amended) including, but not limited to:	A soil and erosion management plan is to be provided following DA approval.	✓

Design Criteria / Controls		Assessment	Compliance
a)	Assessment of site constraints and opportunities;		
b)	Management of soils/earthworks;		
c)	Vegetation retention and enhancement;		
d)	Management of water;		
e)	Sediment and waste control; and		
f)	Site access, stabilisation and maintenance.		
3.4.4 Other Geological or Soil-Related Issues			
		There are no known geological or soil-related issues relating to the site.	**N/A**
3.5 Flood Prone Land			
		The site is not identified as flood prone land under the Lithgow Flood Study (Lyall & Associates 2017).	**N/A**
3.6 Ground & Surface Water Protection			
		Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) and civil engineering design plans.	✓
3.7 Mine Subsidence Risk			
		Refer to **Section 4.4.2**.	✓

D.3 Chapter 6 – Residential Development

Design Criteria / Controls	Assessment	Compliance
6.2 General Controls		

Design Criteria / Controls		Assessment	Compliance
6.2.1 Site Analysis & Potential Land Use Conflicts			
Any development application covered by this chapter demonstrates that the proposal:		Refer to **Appendix D.1**.	✓
a)	Complies with the Site Analysis requirements in DCP Chapter 2 – Site Requirements (including any other relevant chapters in this DCP & the DA Guide); and		
b)	Has responded to the Site Analysis to produce a high-quality design that minimises the potential for land use conflict and integrates with the surrounding site context.		
6.2.2 Site Suitability			
Site analysis and constraints (for individual sites) may indicate that even if a development meets the minimum lot size in Clause 4.1A LLEP2014 (where relevant), it may still not be suitable to support the proposed development or density. The applicant must ensure that the existing lot area is of sufficient size:			
a)	To meet the objectives of the relevant land use zone;	Refer to **Section 4.5.1.3**.	✓
b)	To cater for slope and minimise cut, fill and retaining (see Chapter 2 – Site Requirements);	The proposed development responds to the site topography through being positioned perpendicular to the slope to minimise the extent of required earthworks and enable district views.	✓
c)	To provide suitable areas (in accordance with this Chapter) of deep soil landscaped area and private open space areas for each dwelling with orientation for solar access and minimise the amount of site covered by buildings or impermeable/hardstand areas.	The proposed development retained 386.26m^2 of deep soil landscaped area.	✓
d)	To provide a reasonable standard of amenity and functionality consistent with the area character.	The proposed development will ensure a high level of amenity for domestic violence survivors through facilities that will support them and their dependents in bouncing back. This is achieved through internal communal spaces and facilities, external	✓

Design Criteria / Controls		Assessment	Compliance
		communal open space and contemporary and self-sufficient accommodation with dedicated private open space. The above is achieved with minimal amenity impacts to neighbouring properties. In terms of: • Bulk and scale, the development's two storey height and positioning within a battle-axe lot screened by existing and potential future residential uses ensures minimal impact; • Overshadowing, impacts are minor and concentrated over vacant lands to the south; • Visual privacy, impacts from ground floor windows are mitigated by existing and/or retained fences along property boundaries whilst impacts from first floor windows are mitigated through their being substantially separate from property boundaries; • Acoustic privacy, impacts are expected to be minimal due to the limited area of the external communal open space; and • Views, no significant views are known to be obtained across the site from neighbouring properties.	
6.2.3 Landscaping & Tree Protection			
Plan(s): Where required by Council's DA Guide, the application is accompanied by a Landscape (Concept) Plan (or a Site Plan for simpler applications such as single dwellings) that addresses the landscaping requirements in this Section of the DCP. See the landscape requirements for specific residential types in the Sections below.		A detailed landscape plan is project with the project drawings (**Appendix A**).	✓
6.2.4 Fencing			
1)	Application: All applications where new or altered fencing is proposed (that is not exempt development) provide details of fencing location, height and materials including Site Plan(s) and relevant Elevation(s).	Fencing details are shown in the site plan (refer to **Appendix A**).	✓

Design Criteria / Controls			Assessment	Compliance
2)	Code SEPP: All fencing complies with the requirements of the Codes SEPP and addresses any potential impact(s). Where a variation is sought then the proposed fencing must address DCP Section 1.6 Variations to DCP Controls including the objectives of this Section.		The proposed fencing is compliant with the exempt development provisions in Part 2, Division 1, Subdivision 17 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* (the Codes SEPP).	✓
3)	Solid Metal Fencing: Metal (solid) fencing (e.g., Colorbond) is not to be installed in the following locations:		Solid metal fencing is not proposed.	✓
	a)	Fences fronting any street (other than a rear lane where metal fencing already is present);		
	b)	Fences fronting a public open space or recreation area (unless it is setback and screened by significant landscaping); and		
	c)	On heritage items and in heritage conservation areas (unless permitted by the Codes SEPP).		
4)	Sight Distances: Fencing preserves safe sight distances for all vehicle entry and exit locations, including those on adjoining properties, especially on corner lots.		Fencing along the property boundaries as part of the proposed development will preserve safe sight distances for all vehicles entering and exiting the site and on adjoining properties.	✓
5)	Reflectivity: If fencing is constructed of metal panels it is of low reflectivity, factory pre-coloured materials or galvanised iron.		Fencing along the property boundaries as part of the proposed development is to be of timber construction.	**N/A**
6)	Surface Water: Fencing does not redirect the flow of surface stormwater or floodwaters onto an adjoining property.		Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) (**Appendix C**) and civil engineering design plans. It is not anticipated that the proposed fencing would have any significant impact on surface water flow.	✓
7)	Flood Prone Land: If the land is affected by flood related development controls (see DCP Chapter 3 – Natural Environment & Hazards) the fence types are designed to allow flood conveyance and prevent additional flooding on adjacent properties.		The site is not identified as flood prone land under the Lithgow Flood Study (Lyall & Associates 2017).	**N/A**

Design Criteria / Controls		Assessment	Compliance
8)	Landscaping: Long fenced areas fronting public streets or internal driveways are softened with landscaping by setting back parts or all of the fence-line to allow for planting on the subject lot so the fence is partially screened from the street.	The proposed development does not result in long fenced areas fronting public streets.	**N/A**
6.2.5 Sustainable Design			
Residential development should seek to promote sustainable development that maximises residential amenity whilst minimising material, water and energy consumption. A BASIX Certificate may be required for certain development under SEPP (BASIX) 2004 and is a starting point for sustainable development.		The proposed development will comply with the National Construction Code – Section J relating to energy efficiency for commercial buildings.	✓
6.3 Dwellings/Secondary Dwellings/Dual Occupancies (Large Lot Residential, Rural & Environmental Zones)			
		The proposed development does not include dwelling houses, secondary dwellings or dual occupancies.	**N/A**
6.4 Dwellings/Secondary Dwellings (Urban Areas)			
		As above.	**N/A**
6.5 Medium to Higher Density Housing			
6.5.1 Siting & Setbacks			
All new medium to higher density housing is designed to meet the minimum setbacks from the lot boundaries as set out in the SETBACK TABLE below taking into account DCP Section 6.4.2 – Average Setback of Adjacent Dwellings.		The proposed development is setback: • Over 50 metres from the street boundary, compliant with the minimum seven metres required for the two storey building; • A minimum of 3.076 metres from the northern side boundary and a minimum of 5.829 metres from the southern side boundary, compliant with the minimum 1.5 metres required for the single storey building and three metres required for the two storey building respectively; and	**Acceptable on merit**
Setback Table			
Location	**Building Setback**		
Great Western Highway	• 10m		
Other Classified Roads	• 8m		

Design Criteria / Controls		Assessment	Compliance
Front Setback to Primary Street **(Zone R1 General Residential)**	• 4.5m - single storey OR average setback of adjacent dwellings (whichever is greater) • 6.0m – two or more storeys OR average setback of adjacent dwellings (whichever is greater)	• A minimum of 3.577 metres from the rear boundary for the single storey building and a minimum 7.9 metres from the rear boundary for the two storey building, non-compliant with the minimum 4.5 metres required for the single storey building but compliant with the minimum six metres required for the two storey building. Justification for the non-compliance with respect to the rear setback of the single storey building is provided in **Section 4.5.3.1.2**.	
Front Setback to Primary Street **(Zone R2 Low Density Residential)**	• 6.0m – single storey or average setback of adjacent dwellings (whichever is greater) • 7.0m – two or more storeys OR average setback of adjacent dwellings (whichever is greater)		
Garages fronting a Public Road	• 5.5m from the front boundary AND • 0.5m behind the front building line		
Secondary Street (Corner Lots)	• 4m – single storey • 6m – two storeys or greater		
Side Boundary	• 1.5m - single storey • 3m - two storeys or greater		
Rear Boundary (no road frontage)	• 4.5m - single storey • 6m - two storeys or greater		
Public Reserves	• 3m		
6.5.2 Low Rise Medium Density Housing			
		The proposed development is not low-rise medium density housing.	**N/A**
6.5.3 Dual occupancies (Side by Side and Rear)			

Design Criteria / Controls	Assessment	Compliance
	The proposed development is not a dual occupancy.	**N/A**
6.5.4 Manor Houses and Dual Occupancy (One Above the Other)		
	The proposed development is not a manor house or dual occupancy.	**N/A**
6.5.5 Terraces		
	The proposed development is not a terrace.	**N/A**
6.5.6 Multi-Dwelling Houses		
6.5.6A Building Envelopes		
The maximum building height for any building(s) is 8.5m.	Maximum building height is nominally 8.8m, being 0.3m higher than the preferred maximum building height. The maximum building height occurs at the southwest corner of the two-storey cluster building and is a function of the topography of the site. The impact of the exceedance is negligible insofar as it will be substantially screened and setback from the adjoining residential properties and will not have a the scale or character of buildings as experienced from Hepburn Street. Justification for the non-compliance is provided in **Section 4.5.3.1.3**	**Acceptable on merit**
The maximum number of storeys (excluding basements) is 2.	The proposed development has a maximum height of two storeys.	✓
Any building(s) on the rear 40% of the site should not exceed 5.4m.	The proposed development includes buildings with height exceeding 5.4 metres within the rear 40% of the site. Justification for the non-compliance is provided in **Section 4.5.3.1.3**.	**Acceptable on merit**
Refer to Section 6.5.1 of this DCP for front setbacks.	The proposed development is compliant with the front setback requirements in Section 6.5.1 of the LDCP 2021.	✓

<table>
<tr><th>Design Criteria / Controls</th><th>Assessment</th><th>Compliance</th></tr>
<tr><td>Refer to Section 6.5.1 of this DCP for side setbacks.</td><td>The proposed development is compliant with the side setback requirements in Section 6.5.1 of the LDCP 2021.</td><td>✓</td></tr>
<tr><td colspan="3">6.5.6B Gross Floor Area / Floor Space Ratio</td></tr>
<tr><td>The following maximum gross floor area applies to all buildings on a lot:
• 50% of lot area</td><td>The proposed development has a gross floor area of 691.10m^2 (26% of site area), not exceeding the maximum 1,312.5m^2 (50% of site area) permitted.</td><td>✓</td></tr>
<tr><td>6.5.6C Landscaped Area</td><td></td><td></td></tr>
<tr><td>The minimum landscaped area is to be 30%.</td><td>The proposed development will include a landscape area of 1,1345m^2, being 43.25% of the site area.</td><td>✓</td></tr>
<tr><td>The minimum dimension of any area included in the landscaped area calculation is 1.5m.</td><td>Only those landscape areas with a minimum dimension of 1.5 metres are included in the landscape area calculation.</td><td>✓</td></tr>
<tr><td>At least 50% of the area forward of the building line is to be landscaped area.</td><td>Over 50% of the area forward of the front building line is landscaped area.</td><td>✓</td></tr>
<tr><td>An ongoing maintenance plan is to be provided as part of the landscape plan.</td><td>Planting and maintenance notes are provided as part of the landscape plan.</td><td>✓</td></tr>
<tr><td>Minimum soil standards for plant sizes are provided in accordance with the Table below.
<table>
<tr><th>Tree size</th><th>Height</th><th>Spread</th><th>Minimum Soil Area</th><th>Min Soil Depth</th></tr>
<tr><td>Large trees</td><td>>12m</td><td>>8m</td><td>10x10m</td><td>1.2m</td></tr>
<tr><td>Medium trees</td><td>8-12m</td><td>4-8m</td><td>6x6m</td><td>1.0m</td></tr>
<tr><td>Small trees</td><td>5-8m</td><td><4m</td><td>3.5mx3.5m</td><td>0.8m</td></tr>
<tr><td>Shrubs</td><td></td><td></td><td></td><td>0.5-0.6m</td></tr>
<tr><td>Groundcover</td><td></td><td></td><td></td><td>0.3-0.45m</td></tr>
</table></td><td>Planting details and notes are provided as part of the landscape plan</td><td>✓</td></tr>
</table>

Design Criteria / Controls					Assessment	Compliance
Turf				0.2m		
The following tree plantings are to be provided: • Front: 1 tree with mature height of 5m if primary road setback is greater than 3m. • Rear: 1 tree with mature height of 8m.					A detailed landscape plan is project with the project drawings (**Appendix A**).	✓
Mature trees are to be retained, particularly those along the boundary, (except those where approval is granted by Council for their removal).					Not applicable.	**N/A**
Landscape features including trees and rock outcrops are retained where they contribute to the streetscape character or are located within the rear setback.					Trees within the site do not contribute to the streetscape character as the site is a battle-axe lot.	**N/A**
The landscape plan is to provide for a combination of tree planting - for shade, mid height shrubs, lawn and ground covers					A detailed landscape plan is project with the project drawings (**Appendix A**).	✓
The landscape plan indicates that at least 50% of the overall number of trees and shrubs are species native to the region.					A detailed landscape plan is project with the project drawings (**Appendix A**).	✓
6.5.6D Local Character and Context						
Provide in the Design Verification Statement a description how the built form of the development contributes to the character of the local area using the guidance in Section 3D Local Character and Context.					Refer to **Section 5.1**.	✓
6.5.6E Public Domain Interface						
The front door of each dwelling is directly visible from the street.					Compliance with the control cannot be achieved due to the site being a battle-axe lot.	**N/A**
Each dwelling has a habitable room that faces the street or public space.					As above.	**N/A**
Private courtyards within the front setback are only located within the articulation zones and / or behind the required front building line.					The proposed development does not include private courtyards within the front setback.	**N/A**
Front fences:					The proposed development does not include a front fence.	**N/A**

Design Criteria / Controls	Assessment	Compliance
• Are visually permeable (no more than 50% of the allowable fence area will be solid masonry, timber or metal). • Average height no greater than 1.2m. • Have a consistent character with other front fences in the street. • Are not to be constructed of solid metal panels or unfinished timber palings.		
High solid walls are only used to shield a dwelling from the noise of classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.	The proposed development does not include high solid walls.	**N/A**
Retaining walls greater than 600mm within the front setback are to be softened by planting for a minimum depth of 600mm on the low side of the retaining wall.	The proposed development does not include retaining walls that would be visible from the street.	**N/A**
Where development adjoins public parks, open space or bushland, or is a corner site, the design positively addresses this interface using any of the following design solutions: • Habitable room windows facing the public domain. • Street access, pedestrian paths and building entries. • Paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space. • Walls fronting the public spaces are to have openings not less than 25% of the surface area of the wall.	The site has a single street frontage and does not adjoin public park, public open space or bushland.	**N/A**
6.5.6F Pedestrian and Vehicle Circulation		
Vehicle circulation and parking complies with AS2890.1.	The proposed development includes parking designed in accordance with AS2890.	✓

Design Criteria / Controls	Assessment	Compliance
Dwellings are to be connected by new internal streets and lanes which are overlooked by windows from habitable rooms and or private open space.	Habitable room windows in the proposed development overlook the internal vehicular manoeuvring areas and pedestrian pathways.	✓
Where new streets or lanes are created: • Lanes: shared or pedestrian surfaces with a width of common area including landscape - minimum 6m. • Streets: width of common area including landscape - minimum 12m.	The proposed development does not include new streets or lanes.	**N/A**
Where less than 20 car spaces are provided reduce carriageway width to 3.5m, with passing areas as required by AS 2890.1.	The carriageway width of the carpark is 6.1m.	✓
Internal vehicle circulation must be: • at least 1m setback from a fences; • at least 1m setback from another dwelling; • at least 2.5m setback from a window in a habitable room if the window exceeds 1m2; and • the setbacks should contain plants to soften edges.	The internal vehicular circulation associated with the proposed development is: • Setback a minimum of one metre from fences along the property boundaries; • Separated from dwellings in the proposed development by over one metre; • Separated from habitable room windows in the proposed development by over 2.5 metres; and • Soften by landscaping along its edges.	✓
Terminate driveways and streets with trees, open space or the window of a dwelling - not a garage or car space.	The driveway providing access to the proposed development is to terminate at the pedestrian access ramp to and window from the Core component of the proposed development.	✓
Streets to be designed to accommodate appropriate service vehicles likely to access the site.	The proposed development does not include new streets.	**N/A**
Where on street parking is currently available in front of the development, the proposed driveways are located so that at least one car space remains.	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements. As such, it will not impact on any existing street parking.	✓

Design Criteria / Controls	Assessment	Compliance
Car parking not associated with a dwelling must be: • setback from a fence is to be at least 1m • setback from another dwelling is to be at least 1m • setback from a habitable room window is to be at least 3m if the window exceeds 1m^2. • The setbacks should contain plants.	The internal vehicular circulation associated with the proposed development is: • Setback a minimum of one metre from fences along the property boundaries; • Separated from dwellings in the proposed development by over one metre; • Separated from habitable room windows in the proposed development by over three metres; and • Soften by landscaping along its edges.	✓
New streets and lanes • maximum length of a dead end laneway - 40m. • minimum width between structures - 6m.	The proposed development does not include new streets or lanes.	**N/A**
Provide safe shared spaces for vehicles, cyclists and pedestrians by including measures that reduce vehicle speeds such as changes in pavement texture at entries or key nodes, reduce demarcation between pedestrian and vehicle spaces.	As above.	**N/A**
Pedestrian paths that are separated from an internal road or lane by a kerb or landscaped area are to be provided where there are more than 20 dwellings.	The proposed development comprises six independent living units only.	**N/A**
Where pedestrian circulation is separated from vehicle circulation the paths are still to function like streets with pavement at least 1.5m wide, clearly identifiable dwelling entrances and clear lines of sight to create a legible and safe network.	Where separated from the vehicle circulation path, pedestrian footpaths in the proposed development have width exceeding 1.5 metres.	✓
Roads and pedestrian spaces are to have lighting designed in accordance with A1158.3.1 that avoids light spill in to private spaces.	Compliance with the requirements specified opposite would be ensured following DA approval and as required by any condition of consent.	✓
Basement car parking not to protrude more than 1m above finished ground level except at the entrance to the car park.	The proposed development does not include basement parking.	**N/A**

Design Criteria / Controls	Assessment	Compliance
Basement car park entrances to have a maximum width of 3.5m where there are less than 10 dwellings being serviced by the car park.	As above.	**N/A**
The maximum height of the car park entry is to be 2.7m.	As above.	**N/A**
Where driveways are adjacent a tree, it is either outside the drip line or complies with the recommendations in a report prepared by a qualified arborist.	Vehicular access to the site is to be via an existing crossover, upgraded to LCC's requirements. As such, there will not be any additional impacts on street trees.	✓
6.5.6G Orientation, Siting and Subdivision		
The minimum lot size for carrying out Multi- Dwelling housing is specified in Clause 4.1A (2) of Lithgow LEP 2014.	The site area of 2,625m^2 exceeds the minimum 800m^2 required under clause 4.1A of the LLEP 2014.	✓
The minimum lot width measured at the building line is to be 20m.	The site exceeds the minimum lot width requirement of 20 metres at the front building line.	✓
Each dwelling is to have a frontage to an existing public street or new pedestrian or vehicle street or lane.	Compliance with the control cannot be achieved due to the site being a battle-axe lot.	**N/A**
The frontage measured at the building line is to be at least 5m.	As above.	**N/A**
Dwellings should be orientated away from side boundaries and towards the front and rear	The proposed development is orientated towards the front and rear to the extent possible without resulting in building footprint that would require extensive cut and fill.	✓
A window that is more than 3m from the boundary to a living room of an adjoining dwelling is to receive more than 3 hours of direct sunlight between 9am and 3pm on the winter solstice (June 21). If the window currently receives less than 3hrs – direct sunlight is not reduced.	As shown in the project drawings (**Appendix A**), the proposed development will not reduce direct sunlight to any window of an adjoining development to less than 3 hours on the winter solstice.	✓
Where the location of the living room of an adjoining dwelling cannot be verified the proposed development is accommodated within a building envelope defined by a 35° plane springing from 3.6m above the boundary.	As above.	✓
Unless a dwelling is over a basement, the ground floor is not more than 1.3m above ground level, and no more than 1m below ground level.	The ground floor of the proposed development extends up to 2.7 metres above existing ground level at the south-western	**Acceptable on merit**

Design Criteria / Controls	Assessment	Compliance
	corner of the two storey building, exceeding the maximum 1.3 metres permitted. Justification for the non-compliance is provided in **Section 4.5.3.1.4**.	
Dwellings are located to step with the Topography	The proposed development responds to the site topography through being positioned perpendicular to the slope to minimise the extent of required earthworks and enable district views.	✓
All lots must have access to reticulated water and sewer, electricity, telecommunications, and where available gas.	Refer to **Section 4.5.1.6**	✓
Basement car parking should not be provided within the setbacks described in 2.4A.	The proposed development does not include a basement.	**N/A**
The minimum separation between two or more buildings containing dwelling on the same lot is 3m.	Only one building in the proposed development contains dwellings.	**N/A**
Provide a break of 3m between buildings more than 45m long.	The proposed development does not include buildings that are more than 45 metres-long.	**N/A**
6.5.6H Solar and Daylight Access		
The living room or private open space in each dwelling is to receive a minimum of 2 hours direct sunlight between 9 am and 3pm on the winter solstice (June 21).	The living room and/or private open space associated with each dwelling in the proposed development is to receive at least two hours of direct sunlight between 9am and 3pm on 21 June.	✓
Daylight may not be borrowed from other rooms, except where a room has a frontage to a classified road.	Noted. The site does not have frontage to a classified road.	✓
No part of a habitable room is to be more than 8m from a window.	No part of a habitable room in the proposed development is more than eight metres from a window.	✓
No part of a kitchen work surface is to be more than 6m from a window or skylight.	No part of a kitchen work surface in the proposed development is more than six metres from a window.	✓
Courtyards are to be: • Be fully open to the sky; and	The proposed development does not include a courtyard.	**N/A**

Design Criteria / Controls	Assessment	Compliance
• Have a minimum dimension of one third of the perimeter wall height, an area of 4m^2.		
A window is visible from 75% of the floor area of a habitable room.	Windows are visible from over 75% of the floor area of all habitable rooms in the proposed development.	✓
6.5.6I Natural Ventilation		
Natural ventilation is available to each habitable room.	Each dwelling in the proposed development has openings in opposite walls and to enable naturally cross ventilation.	✓
Each dwelling is to be naturally cross ventilated.	As above.	✓
6.5.6J Ceiling Height		
Minimum ceiling heights are: • 2.7m to ground floor habitable rooms. • 2.7m to upper level living rooms. • 2.4m to upper level habitable rooms (excluding living rooms). The ceiling height is measured from finished floor level to finished ceiling level.	2.7 metre floor to ceiling heights are provided to all independent living units in the proposed development.	✓
6.5.6K Dwelling Size and Layout		
Dwellings are required to have the following minimum internal floor areas: • 1 bed: 65m^2 • 2 beds: 90m^2 • 3+ beds: 115m^2	One bedroom Units 2, 3 and 6 in the proposed development have an area of 60.94, 60.94 and 56.01m^2 respectively, non-compliant with the minimum 65m^2 required. Two bedroom Units 1, 4 and 5 in the proposed development have an area of 78.59, 78.59 and 71.63m^2, non-compliant with the minimum 90m^2 required. Justification for the non-compliance is provided in **Section 4.5.3.1.5**.	**Acceptable on merit**

Design Criteria / Controls	Assessment	Compliance
The minimum internal areas outlined above only contain one bathroom. The minimum area of each additional bathroom is 5m2 added onto the minimum dwelling area.	Each of the dwellings in the proposed development have a single bathroom.	**N/A**
The minimum area of any additional bedroom is 12m2. The area of each additional bedroom is then added to the minimum internal floor area contained in the table above.	The maximum number of bedrooms in any dwelling in the proposed development is two.	**N/A**
Kitchens should not be part of a circulation space such as a hallway.	Kitchens in the proposed development do not form part of circulation space.	✓
One bedroom has a minimum area of 10m2 excluding space for a wardrobe.	Each independent living unit in the proposed development contains bedrooms that have an area of at least $10m^2$, excluding wardrobes	✓
Bedrooms have a minimum dimension of 3m in any direction (excluding wardrobe space).	Each independent living unit in the proposed development contains bedrooms that have an a minimum dimension of 3m.	✓
Combined living and dining rooms are to have a minimum area of: • 1 and 2 beds: $24m^2$ • 3+ beds: $28m^2$	Combined living and dining areas of each independent living unit in the proposed development have area exceeding $24m^2$.	✓
Living room or lounge rooms are to have a minimum width of 4m (excluding fixtures).	All living rooms in the proposed development have width exceeding four metres.	✓
6.5.6L Principal Private Open Spaces		
The area of principal private open space provided for each dwelling is at least $45m^2$ with a minimum dimension of 5m.	Each independent living unit in the proposed development is to be provided with between 11 and $17m^2$ of private open space, non-compliant with the minimum $45m^2$ required. Justification for the non-compliance is provided in **Section 4.5.3.1.6**.	**Acceptable on merit**
Provide a consolidated paved area of $12m^2$ with minimum dimension of 3m.	Each independent living unit in the proposed development is to be provided with between 11 and $17m^2$ m^2 of private open space which is entirely paved.	✓

Design Criteria / Controls	Assessment	Compliance
The principal private open space is located behind the front building line.	Each independent living unit in the proposed development is to be provided with private open space in the form of courtyards or balconies forward of the front building line. Justification for the non-compliance is provided in **Section 4.5.3.1.6**.	**Acceptable on merit**
The principal private open space is located adjacent to the living room, dining room or kitchen to extend the living space.	Each dwelling in the proposed development is to be provided with private open space directly adjacent to the living room, dining room or kitchen to extend the living space.	✓
$8m^2$ of the private open space is to be covered to provide shade and protection from rain.	Each dwelling in the proposed development is to be provided with private open space, of which at least $8m^2$ is covered to provide shade and protection from rain.	✓
6.5.6M Storage		
In addition to storage in kitchens and bedrooms, the following storage with a minimum dimension of 500mm is provided: • 1 bed: $6m^3$ • 2 beds: $8m^3$ • 3+ beds: $10m^3$	The proposed development does not include storage. Justification for the non-compliance is provided in **Section 4.5.3.1.7**.	**Acceptable on merit**
At least 50% of the required storage is located inside the dwelling.	As above.	**Acceptable on merit**
Storage not located in dwellings is secure and clearly allocated to specific dwellings, if in a common area.	As above.	**Acceptable on merit**
6.5.6N Car and Bicycle Parking		
A minimum of 1 off-street enclosed car parking space for one- and two-bedroom units; and A minimum of 2 off-street (one enclosed) car parking spaces for units with 3 or more bedrooms.	The proposed development includes six parking spaces as required for a development comprising three one bedroom and three two bedrooms dwellings.	✓

<table>
<tr><th>Design Criteria / Controls</th><th>Assessment</th><th>Compliance</th></tr>
<tr><td>Visitor parking is to be provided where the development contains more than 5 dwellings. Provide 1 space per 5 dwellings.</td><td>Given the nature of the use, a visitor car parking space is not required. Further, given that the proposed development does not comprise of multiple dwellings, it is considred unnecessary to provide further detailed justification.</td><td>Acceptable on merit</td></tr>
<tr><td>Car parking spaces and circulation are to comply with AS 2890.1:2004</td><td>The proposed development includes parking designed in accordance with AS2890.</td><td>✓</td></tr>
<tr><td>Covered space is to be provided for the secure storage of at least 1 bicycle per dwelling.</td><td>The nature of proposed development is not likely to demand for bicycle storage as it is not a typical residential accommodation.</td><td>✓</td></tr>
<tr><td>Basement car parking is not to protrude more than 1m above finished ground level except at the entrance to the car park.</td><td>The proposed development does not include a basement.</td><td>N/A</td></tr>
<tr><td>The maximum dimensions of any basement car park entry is to be 2.7m high by 3.5m wide.</td><td>As above.</td><td>N/A</td></tr>
<tr><td>Where a driveway is adjacent to an existing tree, it is either outside the drip line or complies with the recommendations in a report prepared by a qualified arborist.</td><td>Vehicular access to the site is to be via an existing crossover, upgraded to LCC’s requirements. As such, it will not impact on any existing street trees.</td><td>✓</td></tr>
<tr><td>The setback of a car space from a primary, secondary or parallel road is to be at least:
<table>
<tr><th>Setback of dwelling from road</th><th>Maximum width of garage door opening</th></tr>
<tr><td>>4.5m</td><td>1m behind the building line</td></tr>
<tr><td><4.2m</td><td>5.5m</td></tr>
<tr><td colspan="2">The maximum width of all garage doors facing a primary or secondary road:</td></tr>
<tr><th>Lot width</th><th>Maximum width of garage door opening</th></tr>
<tr><td>12m - 15m</td><td>3.2m</td></tr>
</table></td><td>The proposed development does not include garages.</td><td>N/A</td></tr>
</table>

Design Criteria / Controls		Assessment	Compliance
>15m - 20m	6m		
>20m - 25m	9.2m		
>25m	12m		
6.5.6O Visual Privacy			
Orientate living room windows, primary private open space to the street front or rear.		The living room windows are oriented to the face the internal vehicular manoeuvring areas and pedestrian footpaths.	✓
At least one window for each habitable room is provided without the need for a privacy screen.		Windows in the north-western elevation will not require privacy screens.	✓
A privacy screen is required when:		Some of the windows in the south-western, south-eastern and north-eastern elevations may require privacy screens in accordance with the requirements specified opposite. It is anticipated that these privacy screens can be detailed following DA approval, if required by LCC.	✓
Distance from Boundary	**Finished Floor Level Above Ground Level (Existing)**		
<3m	1-3m		
<6m	>3m		
Distance from windows in Dwelling on Same Lot	**Finished Floor Level Above Ground Level (Existing)**		
<6m	1-3m		
<12m	>3m		
A privacy screen is required at the edge of that part of a terrace, deck, balcony or verandah that is parallel or faces towards a side or rear boundary		Balconies associated with dwellings in the proposed development are sufficiently separated from the site boundaries as to not require privacy screens.	**N/A**
Distance from Boundary	**Finished Floor Level Above Ground Level (Existing)**		
<3m	1-3m		
<6m	>3m		

Design Criteria / Controls		Assessment	Compliance
Distance from Windows in Dwelling on Same Lot	**Finished Floor Level Above Ground Level (Existing)**		
<6m	1-2m		
<12m	>2m		
Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.		Windows that may require privacy screens are primarily located in the southern elevations and therefore would not enable significant solar penetration.	✓
6.5.6P Acoustic Privacy			
Electrical, mechanical, hydraulic and air conditioning equipment is housed so that it does not create an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997 either within or at the boundaries of any property at any time of the day.		Compliance with the requirement specified opposite would be ensured following DA approval.	✓
6.5.6Q Noise and Pollution			
Any development within the 20 ANEF contour is to be constructed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion.		The development is not within the 20 ANEF contour.	**N/A**
Dwellings that are within 100m of a classified road or 80m from a rail corridor are to have LAeq measures are not exceeding: • In any bedroom: 35dB(A) between 10pm-7am. • Anywhere else in the building (other than a kitchen, garage, bathroom or hallway): 40dB(A) at any time. This can be achieved by: • A full noise assessment prepared by a qualified acoustic engineer. • Complying with relevant noise control treatment for sleeping areas and other habitable rooms in Appendix C of Draft Guide to Infrastructure Development Near Rail Corridors Busy Roads.		The site is not located within 100 metres of a classified road or within 80 metres of a rail corridor.	**N/A**
6.5.6R Architectural Form and Roof Design			

Design Criteria / Controls	Assessment	Compliance
Provide in the Design Verification Statement a description as to how the architectural form reduces the visual bulk and responds and provides a cohesive design response.	Refer to **Section 5.1**.	✓
The roof design is integrated harmoniously with the overall building form.	The proposed development is articulated through brick finish at the ground floor of both the single storey and two storey buildings and metal finish for the capping over the single storey building and the second storey of the two-storey building, ensuring a light-weight appearance of the upper elements of the development.	✓
Skylights and ventilation systems are integrated into the roof design.	The proposed development does not include skylights.	**N/A**
6.5.6S Visual Appearance and Articulation		
Provide in the Design Verification Statement a description as to how the aesthetics and articulation contribute to the character of the local area.	Refer to **Section 5.1**.	✓
The development may have a primary road articulation zone that extends up to 1.5m forward of the minimum required setback from the primary road and a secondary road articulation zone that extends up to 1m forward of the minimum required setback from the secondary road. The following elements can be located in the articulation zone: • An entry feature or portico. • A balcony, deck, pergola, terrace or verandah. • A window box treatment. • A bay window or similar feature. • An awning or other feature over a window. • A sun shading feature. • An eave.	A primary road articulation zone cannot be provided due to the site being a battle-axe lot.	**N/A**
6.5.6T Pools and Detached Development		

Design Criteria / Controls	Assessment	Compliance
Swimming pools and spas are to have a maximum height above ground level (existing): • At the water line – 1.2m, • At the top of the coping - 1.4m, and • Where the coping is more than 300mm wide – 600mm. The setback of a swimming pool from a secondary road must be consistent with the setback of a dwelling house from the secondary road boundary.	The proposed development does not include pools or spas.	**N/A**
Swimming pools and spas are to be located in the rear yard with a minimum setback of 1m from any side or rear boundary.	As above.	**N/A**
The swimming pool pump must be located in an enclosure that is sound proofed.	As above.	**N/A**
Maximum height above ground level (existing) - 4.5m.	Detached development as part of the proposed development, limited to a pergola over the communal open space, does not exceed 4.5 metres in height.	✓
A detached studio with a frontage to a rear lane or parallel road may have a height of 6m.	The proposed development does not include a detached studio.	**N/A**
Maximum floor area for detached development: • generally: 45m2 • detached studios: 36m2	Detached development as part of the proposed development, limited to a pergola over the communal open space, does not have any floor area as it is open on all sides.	✓
Side setbacks are the same as for the dwelling (see Section 6.5.1) except for the following: • side setback: 0.9m, or • side setback with wall height less than 3.3m: 0m, and adjoining lot building is <0.9m from boundary and building wall is of masonry construction with no windows, • side setback of detached studio with frontage to a lane: 0m	Detached development as part of the proposed development, limited to a pergola over the communal open space, is setback well over the minimum required under Section 6.5.1 and the additional requirements specified opposite.	✓

<table>
<tr><th colspan="2">Design Criteria / Controls</th><th>Assessment</th><th>Compliance</th></tr>
<tr><td colspan="2">• side setback of detached studio without a frontage to a lane:</td><td rowspan="9"></td><td rowspan="9"></td></tr>
<tr><td>Lot width at building line</td><td>Rear setback</td></tr>
<tr><td>0-18m</td><td>900mm</td></tr>
<tr><td>>18m</td><td>1.5m</td></tr>
<tr><td colspan="2">Rear setbacks for detached development are as followed:</td></tr>
<tr><td>Lot area</td><td>Rear setback</td></tr>
<tr><td>0 - 900m2</td><td>900mm</td></tr>
<tr><td>>900-1500m2</td><td>1.5m</td></tr>
<tr><td>>1500m2</td><td>2.5m</td></tr>
<tr><td colspan="2">The maximum floor level of a detached deck, patio, pergola or terrace that is less than 0.9m from the side boundary is 0.6m above ground level (existing).</td><td>The proposed development does not include detached decks, patios, pergolas or terraces.</td><td>N/A</td></tr>
<tr><td colspan="3">6.5.6U Energy Efficiency</td><td></td></tr>
<tr><td colspan="2">Provide an outdoor area for clothes drying that can accommodate at least 16 lineal metres of clothes line for each dwelling.</td><td>Adequate space is available within the private open space with each dwelling in the proposed development to accommodate clothes drying facilities.</td><td>✓</td></tr>
<tr><td colspan="2">Any clothes drying area should be screened from public and communal areas.</td><td>Landscaping or balustrades along the edges of private open space associated with each dwelling in the proposed development provide adequate screening of drying clothes.</td><td>✓</td></tr>
<tr><td colspan="3">6.5.6V Water Management and Conservation</td><td></td></tr>
<tr><td colspan="2">A stormwater system must:
• Comply with requirements in the DCP that applies to the land.
• Be approved (if required) under s.68 of the Local Government Act 1993.</td><td>Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) and civil engineering design plans.</td><td>✓</td></tr>
</table>

Design Criteria / Controls	Assessment	Compliance
Detention tanks are to be located under paved areas, driveways or in basements.	Stormwater management is addressed in the attached stormwater management plan (Barnson, 2023) and civil engineering design plans.	✓
6.5.6W Waste Management		
Provide storage space for the type and number of bins designated in council's waste policy.	The proposed development includes a bin storage area for ten near the site entrance.	✓
Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents without crossing a private lot.	Access to the bin storage area in the proposed development does not require crossing a private lot.	✓
Where waste storage is provided in the basement car park, a maximum ramp gradient of 1:6 is to be provided to the waste collection point.	The proposed development does not include a basement.	**N/A**
Where a rear lane has provision for waste collection trucks used by council, the collection point is to be from the rear lane.	The site does not have rear lane frontage.	**N/A**
Despite any requirements in council's waste policy, on-site waste vehicle access is not required where: • there are less than 20 dwellings, or • the development is Torrens title subdivided	The proposed development comprises six dwellings.	✓
Where vehicle access is not provided to the site, any communal on-site collection point is to: • be less than 10m from the street boundary, • be located on a surface with a gradient less than 1:20 • not require access through a security door or gate (unless this is permitted by council waste policy). • have path that connects the collection area to the street boundary with a gradient less than 1:8 and free of steps for the transfer of bins to the collection vehicle	Vehicular access is available to authorised vehicles.	**N/A**

Design Criteria / Controls	Assessment	Compliance
If the waste collection point is used for permanent storage of bins, it is to be screened from view from the public domain and any structure to have height no greater than 1.3m, if forward of the building line.	The bin storage area forming part of the proposed development will not be visible from the street due to the site being a battle-axe lot.	✓
Storage areas for rubbish and recycling bins are to be provided: • Within garages; • In a screened enclosure that is part of the overall building design; or • In the basement car park.	The bin storage area forming part of the proposed development is provided in a screened enclosure.	✓
Communal waste areas are to be located at least 3m from any bedroom or living room window.	The bin storage area is separated from the nearest bedroom or living room windows in the proposed development by over three bedrooms.	✓
6.5.6X Universal Design		
All dwellings are to include the Liveable Housing Design Guideline's Silver level universal design features.	The proposed development has been designed to achieve the Liveable Housing Design Guideline's Silver level.	✓
6.5.6Y Communal Areas and Open Space		
Where more than 10 dwellings are proposed a communal space with minimum area of 5% of the site area with a minimum dimension of 8m is to be provided for active communal open space.	The proposed development comprises six dwellings.	**N/A**
The active communal open space is at least 3m from a habitable room of a dwelling on the lot.	The communal open space forming part of the proposed development is separated from habitable rooms by approximately 5.5 metres.	✓
The active communal open space is to receive at least 2hrs of direct sunlight between 9am and 3pm at the winter solstice (June 21) to 50% of the required area.	The communal open space forming part of the proposed development is to receive unrestricted solar access between 9am and 3pm on 21 June.	✓
Communal areas and open space are visible from habitable rooms and private open space while maintaining visual privacy.	The communal open space forming part of the proposed development will be visible from habitable rooms and private open space in the proposed development.	✓

Design Criteria / Controls		Assessment	Compliance
Where communal open space is provided, it has a direct connection to the internal street along the longest edge.		The communal open space forming part of the proposed development is provided along the internal vehicular manoeuvring area.	✓
Public through site links should have direct line of site between public streets.		The proposed development does not include public through-site links.	**N/A**
Daylight and natural ventilation is provided to all common circulation above ground.		Internal, above ground circulation is limited to stairways providing access to dwellings in the second storey of the proposed development. Windows are provided over the stairways to enable daylight penetration and natural ventilation.	✓
Provide lighting to common spaces.		Lighting would be detailed following DA approval.	✓
6.5.7 Residential Flat (Apartment) Buildings			
		The proposed development is not for the purposes of a residential flat building.	**N/A**
6.5.8 Shop Top Housing/Mixed Use Developments			
		The proposed development is not for the purposes of shop top housing or mixed use development.	**N/A**
6.6 Ancillary & Other Development			
6.6.1 Water Tanks, Pools & Spas & Equipment			
1)	Considerations: Council will consider any applications for water tanks, pools or spas on their merits (with regards to the relevant controls in the Codes SEPP and the visual impact / amenity objectives in this Chapter.	The proposed development includes water tanks that will not be visible from the street due to the site being a battle-axe lot.	✓
2)	Front Setback: Water tanks, pools and spas in urban areas/zones are located behind the front building line	As above.	✓
3)	Pools: Pools are located in the rear yard and have a minimum setback of 1m from any side or rear boundary.	The proposed development does not include a swimming pool.	**N/A**

Design Criteria / Controls		Assessment	Compliance
4)	Heritage: In heritage conservation areas or on land containing heritage items, pools and spas are located behind the rear building line or where they are screened and not visible from the public domain.	The site is not identified as being or adjoining a Heritage Item or within a Heritage Conservation Area under clause 5.10 of the LLEP 2014.	**N/A**
5)	Noise: Machinery (e.g., pumps, filtration equipment, generators, heat pumps or air-conditioners) are located away from sensitive areas of adjacent dwellings (e.g., bedrooms) or suitably shielded to meet standard noise requirements and may require timer switches to avoid operation during night-time hours.	The proposed development does not include machinery.	**N/A**
6.6.2 Temporary Accommodation			
		The proposed development does not include temporary accommodation of the type described in LDCP 2014, Section 6.6.2.	**N/A**
6.6.3 Conversion/Use of Non-Habitable Buildings			
		The proposed development does not include conversion or use of non-habitable buildings.	**N/A**
6.6.4 Second Hand (re-Sited/Relocated) Dwellings			
		The proposed development does not include second hand dwellings.	**N/A**
6.6.5 Manufactured / Transportable Homes			
		The proposed development does not include manufactured or transportable homes.	**N/A**
6.6.6 Exhibition Homes in Urban Residential Zones			
		The proposed development does not include exhibition homes.	**N/A**
6.6.7 Shipping Containers			

Design Criteria / Controls	Assessment	Compliance
	The proposed development does not include shipping containers.	**N/A**

APPENDIX E

AHIMS BASIC SEARCH RESULT

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 4-6 Hepburn Street (1)

Client Service ID : 831008

Premise Australia Pty Ltd

Date: 20 October 2023

154 Peisley Street
Orange New South Wales 2800

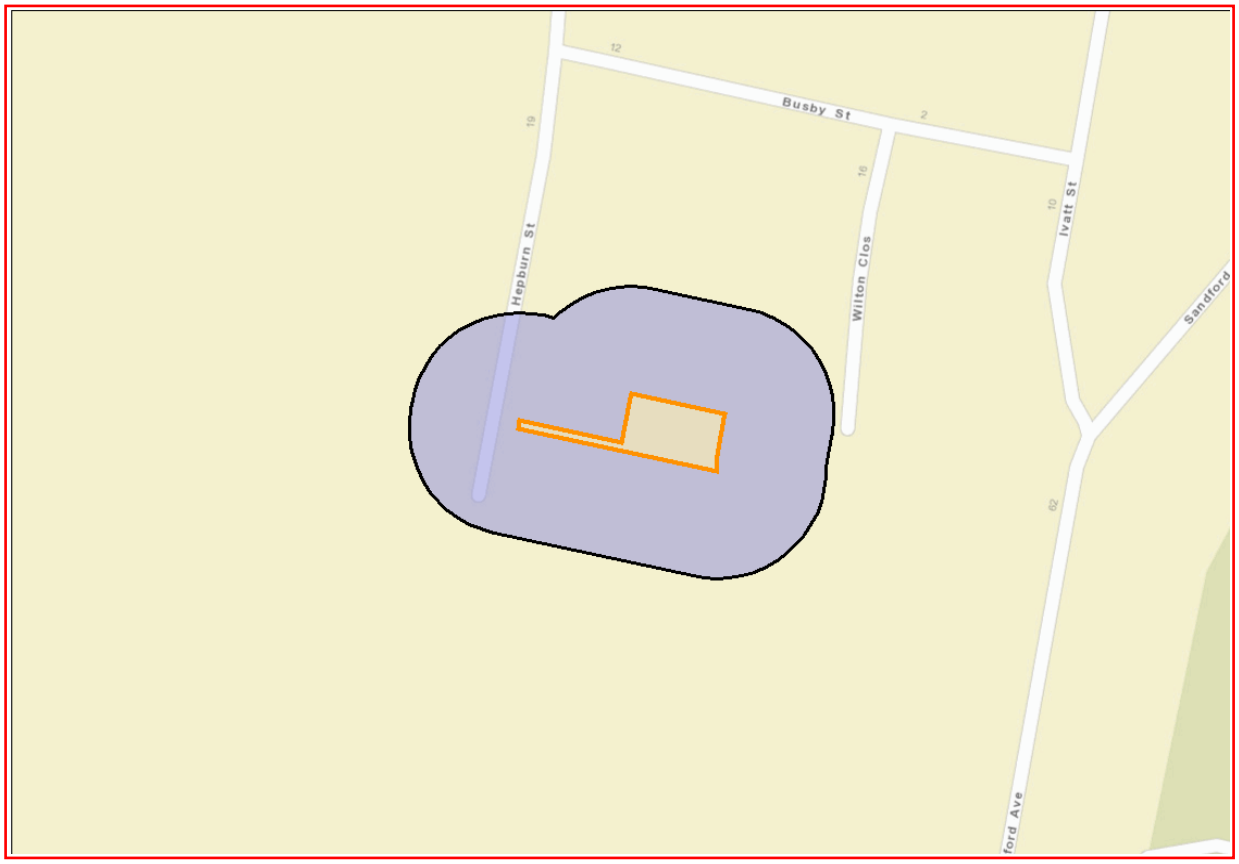
Attention: Mark Raikhman

Email: mark.raikhman@premise.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 26, DP:DP1022160, Section : - with a Buffer of 50 meters, conducted by Mark Raikhman on 20 October 2023.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 4-6 Hepburn Street (2)

Client Service ID : 831009

Premise Australia Pty Ltd

Date: 20 October 2023

154 Peisley Street
Orange New South Wales 2800

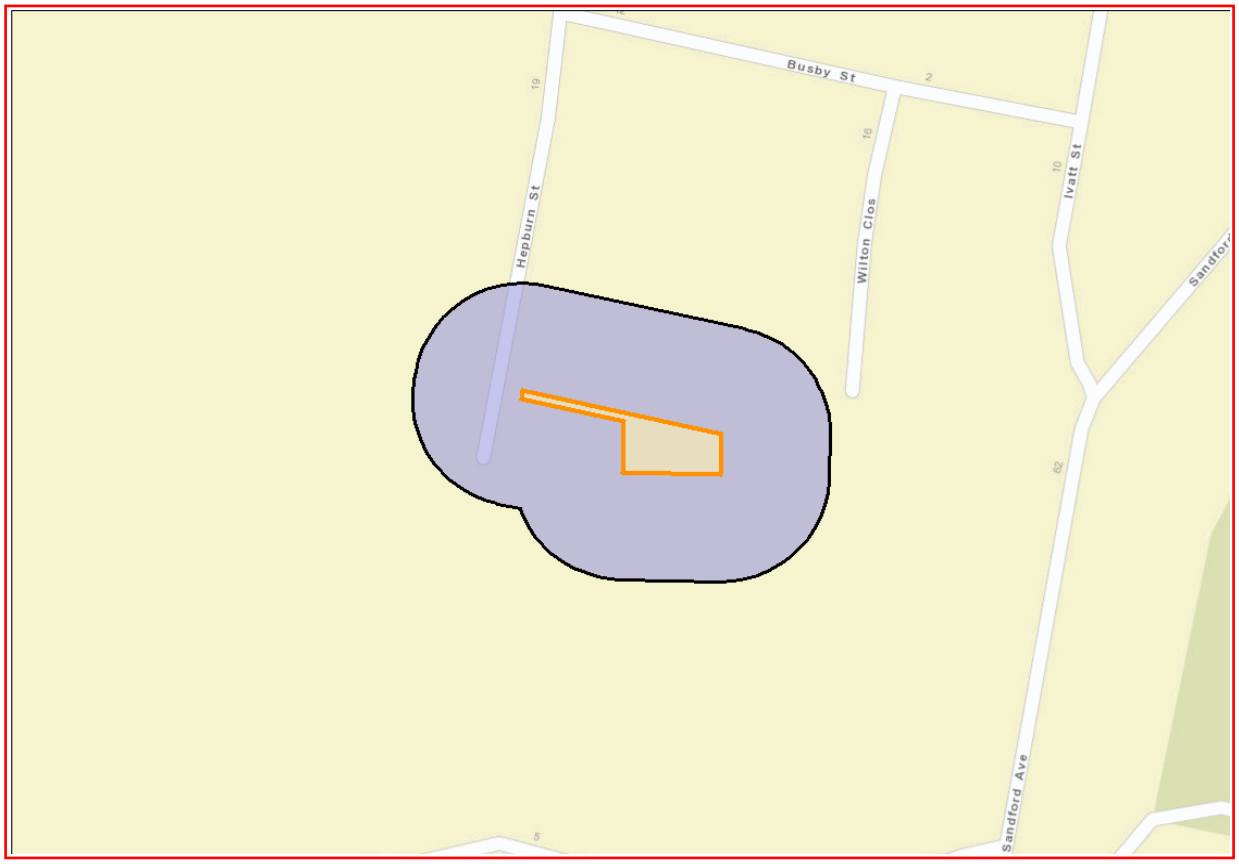
Attention: Mark Raikhman

Email: mark.raikhman@premise.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 27, DP:DP1022160, Section : - with a Buffer of 50 meters, conducted by Mark Raikhman on 20 October 2023.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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