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19 Buscall Court, Sinnamon Park Development Application for Reconfiguring a lot (Code Assessment) for a 1 into 2 lot subdivision and access easement

Town Planning Report

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1.0 Summary

Tactica Planning & Development ('**Tactica**') acts on behalf of Louette and Allan Cadman (the '**Applicant**') in regards to 19 Buscall Court, Sinnamon Park properly described as Lot 1 on RP203172 (the '**subject site**'), to prepare and lodge a Code Assessable development application requesting a Development Permit for Reconfiguring a Lot (RaL) for a 1 into 2 lot subdivision and access easement ('**the Development**'), with Brisbane City Council ('**Council**').

Proposed are two freehold lots, of 912 m^2 (Lot 3) and 627 m^2 (Lot 4), as illustrated with the proposed plan of subdivision provided in **Appendix 5** of this development application package. The site is intended to be developed consistent with the development outcomes envisaged for the Low Density Residential Zone. The proposal has been identified in Brisbane City Plan 2014 Version 35 (City Plan v35) as a Code Assessable form of development, proposing to subdivide 1 lot into 2 lots where all lots are greater than 400m^2 and all rear access lots are greater than 600m^2.

In accordance with the information included herein, it is our position that the proposal will have no adverse amenity impacts, is compatible with surrounding development and is keeping with the character of the locality as envisaged in the City Plan v35.

As such, it is our view that the proposal warrants favourable consideration by Council, subject to reasonable and relevant conditions.

1.1 Development application details

Table 1: Development Application Details

Proposed development:	Reconfiguring a Lot
Type of approval sought:	Reconfiguring a Lot (**RaL**) for a 1 into 2 lot subdivision and access easement
Site address:	19 Buscall Court, Sinnamon Park
Real property description:	Lot 1 on RP203172
Site area:	1,539m^2
Assessment manager:	Brisbane City Council ('**Council**')
Applicant details:	Louette and Allan Cadman C/- Tactica Planning & Development
Owner	Louette Cadman Allan Charles Cadman

1.2 Planning instrument details

Table 2: Planning Instrument Details

State planning policy:	NATURAL HAZARDS RISK AND RESILIENCE • Flood hazard area - local government flood mapping area STRATEGIC AIRPORTS AND AVIATION FACILITIES • Obstacle limitation surface area • Obstacle limitation surface contours • Wildlife hazard buffer zone
Regional plan: **Designation:**	ShapingSEQ Regional Plan Urban Footprint
Planning scheme:	Brisbane City Plan 2014 Version 35
Preliminary approval:	N/A
Strategic framework:	Not applicable – Code assessment
Zone:	Low Density Residential
Neighbourhood plan:	Centenary Suburbs Neighbourhood Plan
Level of assessment:	Code Assessment
Applicable overlays:	Airport environs overlay Bicycle network overlay Community purposes network overlay Critical infrastructure and movement network overlay Dwelling house character overlay Road hierarchy overlay Streetscape hierarchy overlay
Applicable Assessment Benchmarks	
Zone code:	Low density residential zone code
Neighbourhood plan code:	Centenary Suburbs Neighbourhood Plan

Development Code:	Subdivision code
Prescribed secondary Codes:	Filling and excavation code Infrastructure design code Landscape work code Outdoor lighting code Stormwater code Transport, access, parking and servicing code
Overlay codes:	Bicycle network overlay code Community purposes network overlay code Road hierarchy overlay code Streetscape hierarchy overlay code

1.3 Referral agencies

The development has been reviewed against the provisions of the Planning Regulation 2017. It is noted that the application does not trigger any referrals.

2.0 Site details

2.1 Site description

The subject site is located at 19 Buscall Court, Sinnamon Park. The site takes access from an existing vehicle cross over to Buscall Court which is classified as a neighbourhood road and has a total road frontage of 10.78m.

The site slopes to the street and has level area for existing and proposed dwellings resulting from the subdivision. Sewer and water infrastructure is available at the sites frontage.

There are presently no street trees within the road reserve fronting the site. Existing vegetation on the property is not considered significant and is not affected by City Plan overlays.

Table 3: Site description

Site characteristic	Description
Existing land use	Dwelling House
Existing structures	Dwelling house (post war) and pool
Frontage and access	10.78m wide road frontage to Buscall Court
Topography and views	Topography includes a mild slope at the sites frontage that grades to the street from level area for existing and future dwellings.
Existing vegetation	No significant vegetation on-site.
Existing waterways	No mapped waterways

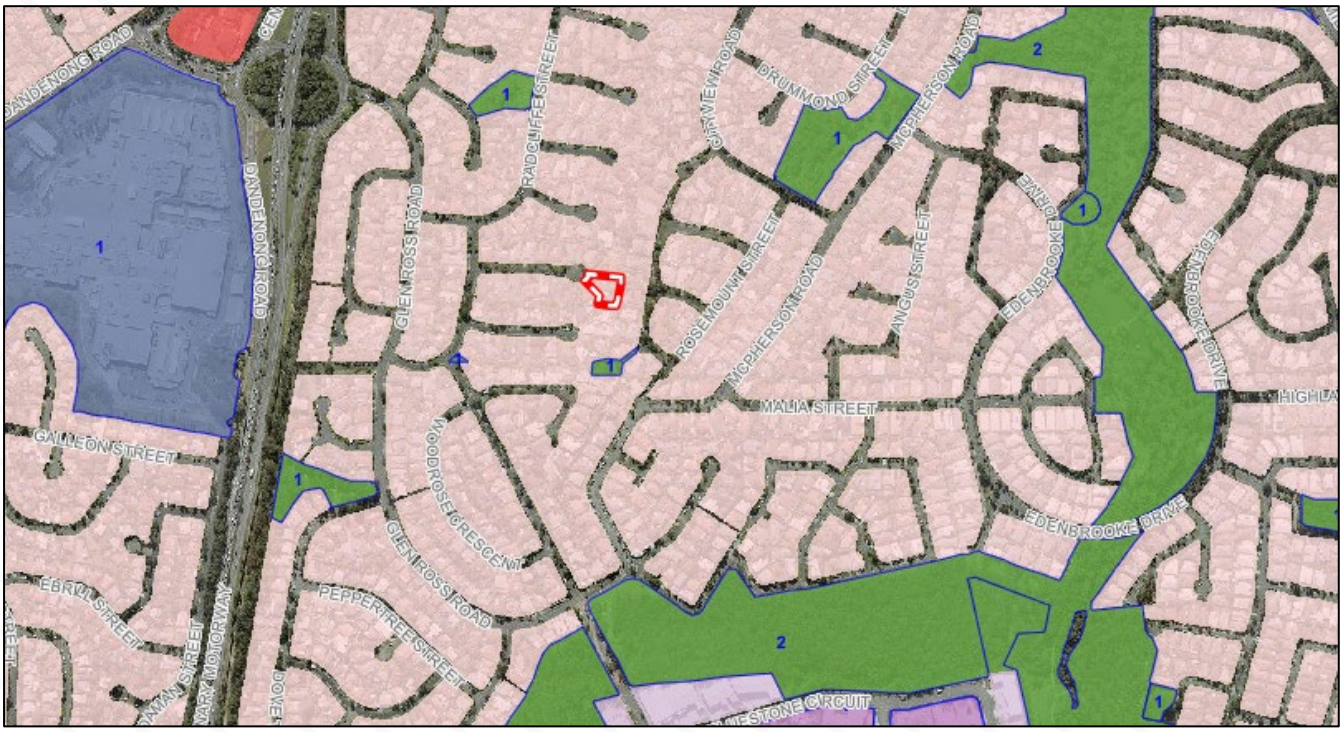

Figure 1: Cadastral view and site identification
Source: City Plan eplan

Figure 2: Satellite view and site identification
Source: City Plan eplan

Figure 3: 19 Buscall Court streetview
Source: Google streetview

2.2 Surrounding land uses

Table 4: Surrounding land uses

Surrounding land uses		Photos
North	18 Buscall Court Dwelling house	 Source: Landchecker
South	16-20 Donnelly Court Dwelling houses Rear lot subdivision (A005133426)	 Source: Google streetview

East	17 Buscall Court Dwelling house	 Source: Google streetview
West	12-15 Elsie Place Dwelling houses	 Source: Landchecker

3.0 Proposed development details

The proposed development is seeking Council approval for a Code Assessable Reconfiguring a Lot for a 1 into 2 Lot Subdivision including an access easement. Further detail regarding the proposed development is provided below:

- The subject site is currently improved by a Dwelling house including a pool. The existing dwelling will be partially demolished to accommodate a 1m side boundary setback and the existing pool will be demolished.
- The proposed lots will be freehold in title and are both proposed will have areas of 912m^2 (Lot 3) and 627m^2 (Lot 4).
- The existing residential vehicle crossover is proposed to be modified to accommodate a shared access for both proposed lots with provision of an access easement at the front of proposed lot 3.
- All water, sewer, communication and electrical connections are to be via the existing road reserve infrastructure and will accord with relevant standards as per conditions of approval.
- The proposed lot dimensions maintain the existing development pattern and support the continued low density residential amenity and sense of openness inherent to the locality.

The plan of subdivision illustrates this outcome, below:

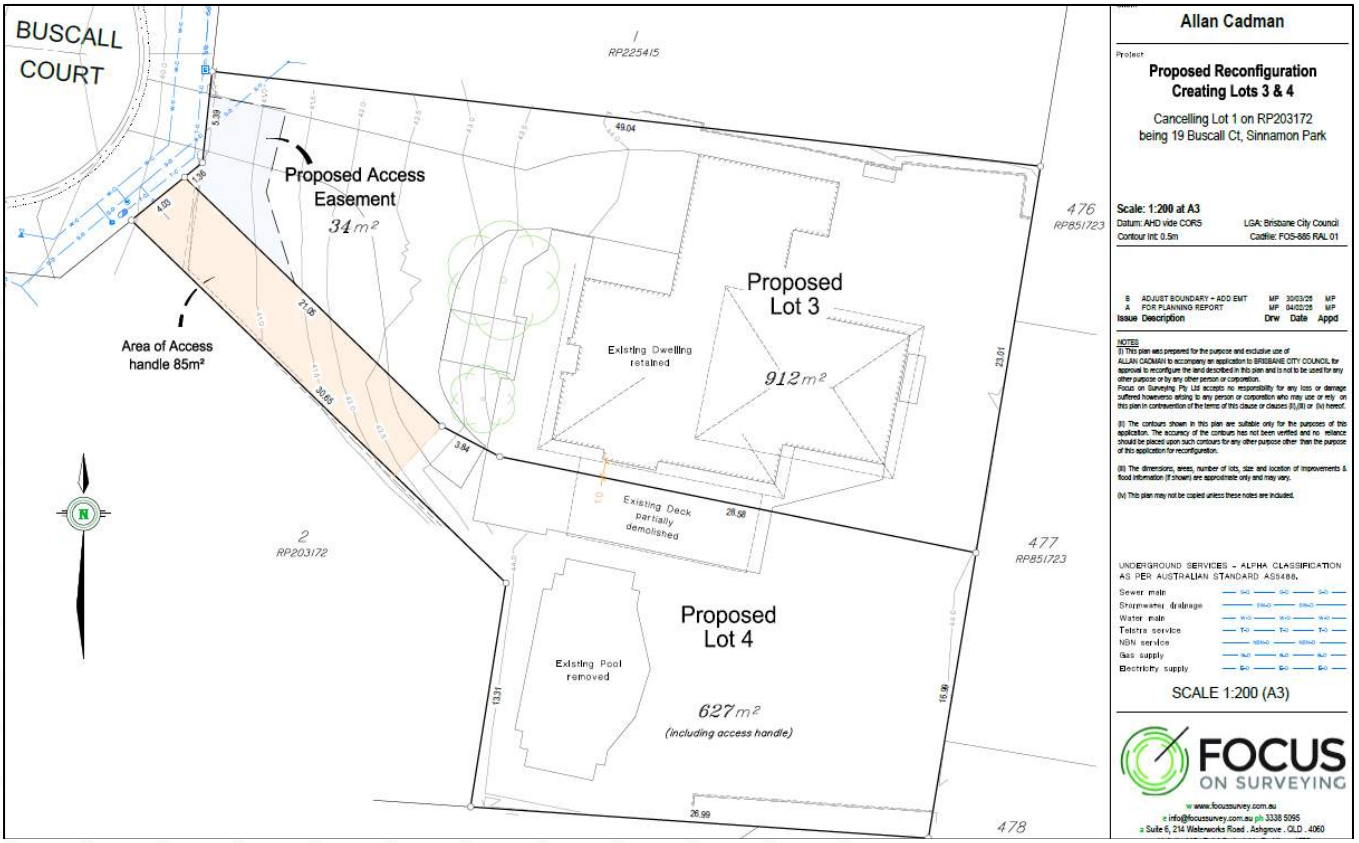

Figure 4: Plan of proposed subdivision
Source: Focus surveying

The plan of subdivision is provided as **Appendix 5**. Further detailed summary regarding the proposal is provided below.

Table 5: Summary of development aspects

Reconfiguring a lot	
Existing lots	1 lot
Reconfiguration	1 lot into 2 lot subdivision including access easement
Proposed number of lots (subdivision)	2 lots
Stages (subdivision)	No staging proposed
Lease agreement details (subdivision)	N/A
Boundary realignment (boundary realignment)	N/A
Dimensions (boundary realignment)	N/A
Easement (easement)	An access easement with an area of 34m^2 is proposed in favour of proposed lot 4

4.0 Council Planning Assessment

4.1 Pre-lodgement

A pre-lodgement meeting was held with Brisbane City Council to support the planning of this development application. Following the prelodgement meeting the development plans have been amended to address Council comments including:

- Provision for shared vehicular access from Buscall Court
- Proposed demolition of existing pool
- Submission of engineering drawings to demonstrate retaining walls associated with the proposed rear lot access result in wall height less than 1m
- Revised lot 4 layout to accommodate a minimum 1m boundary setback of the existing dwelling on Proposed Lot 3

4.2 City Plan v35

In accordance with the s5.6 Categories of development and assessment - Reconfiguring a lot of the City Plan v35, the proposed development triggers Code Assessment, this is explained in further detail below:

Table 6: Assessment Triggers

Assessment Trigger Type	Table of Assessment	Level of Assessment	Assessment Benchmarks
Reconfiguring a Lot	Table 5.6.1— Reconfiguring a lot	Code assessment	An assessment against the following codes is triggered: • Low Density Residential zone code • Subdivision code • Prescribed secondary codes including: o Filling and excavation code o Infrastructure design code o Landscape work code o Outdoor lighting code o Stormwater code o Transport, access, parking and servicing code
Neighbourhood plans	Table 5.91 - Centenary suburbs neighbourhood plan	No change	Centenary suburbs neighbourhood plan code
Airport environs	Table 5.10.2: Airport environs overlay	No change in the level of assessment	An assessment against the Airport environs overlay code is not triggered as matters pertaining to aircraft operations are not proposed.
Bicycle network overlay	Table 5.10.3 - Bicycle network overlay	No change in the level of assessment	An assessment against the Bicycle network overlay code is triggered.
Community purposes network overlay	Table 5.10.7A: Community purposes network overlay	No change in the level of assessment	An assessment against the Community purposes network overlay is triggered.

Assessment Trigger Type	Table of Assessment	Level of Assessment	Assessment Benchmarks
Critical infrastructure and movement network overlay	Table 5.10.8: Critical infrastructure and movement network overlay	No change in the level of assessment	Not applicable
Road hierarchy overlay	Table 5.10.18: Road hierarchy overlay	No change in the level of assessment	An assessment against the Road hierarchy overlay code is triggered.
Streetscape hierarchy overlay	Table 5.10.20: Streetscape hierarchy overlay	No change in the level of assessment	An assessment against the Streetscape hierarchy overlay code is triggered.

The Assessment Benchmarks that apply to the proposed development application are as follows:

- Zone Codes
  - Low density residential zone code (refer to section 4.3 of this report for an assessment against the Zone Overall Outcomes)
- Neighbourhood plan code
  - Centenary suburbs neighbourhood plan code
- Development code
  - Subdivision Code
- Other development codes:
  - Filling and excavation code
  - Infrastructure design code
  - Landscape work code
  - Outdoor lighting code
  - Stormwater code
  - Transport, access, parking and servicing code
- Overlay Codes
  - Bicycle network overlay code
  - Community purposes network overlay code
  - Road hierarchy overlay code
  - Streetscape hierarchy overlay code

Please refer to **Appendix 4** for a copy of the completed codes.

A review of the relevant 'Codes' establishes that the development complies with all of the Performance Outcomes and Overall Outcomes.

4.3 Zone Purpose Assessment

This is a Code Assessable Development Application under the Planning Act 2016 (PA 2016), and the higher order objectives of the City Plan v35 (including Purpose and Overall Outcomes), are not relevant to the assessment of this development application in accordance with s45 of the PA 2016.

Notwithstanding, for completeness, the Zone Purpose and Overall Outcomes relevant to development are addressed below:

Table 7: Low density residential zone Purpose assessment

Low density residential zone benchmark	Compliance
(1) The purpose of the low density residential zone is to provide for: *a. a variety of low density dwelling types,*	**Complies** The proposal is for Reconfiguring a Lot and does not include a material change of use. The proposed

Low density residential zone benchmark	Compliance
including dwelling houses; and b. *community uses, and small-scale services, facilities and infrastructure, to support local residents.*	subdivision provides for lot sizes which meet the with minimum area expectations of the zone. The proposed lot dimensions will enable anticipated future development for a Dwelling house to establish consistent with other development in the local area.
(2) The purpose of the zone will be achieved through overall outcomes for: a. *zone role;* b. *development location and uses;* c. *development form.*	Refer to responses below.
(3) Zone role overall outcomes are: a. *Development in the zone supports the implementation of the policy direction set in the Strategic framework, in particular:* i. *Theme 2: Brisbane's outstanding lifestyle, Element 2.1 – Brisbane's identity and Element 2.2 – Brisbane's housing and accommodation choices;* ii. *Theme 5: Brisbane's CityShape and Element 5.5 – Brisbane's Suburban Living Areas.*	**Complies** The proposed subdivision provides lots of compatible size and dimension envisaged by the Low density residential zone and complies with all relevant codes.
(4) Development location and uses overall outcomes are:	
a. *Development provides for suburban living in dwelling houses of predominantly 1 or 2 storeys in height, on appropriately sized and configured vacant lots, which maintain the low density detached housing suburban identity of the Low density residential zone.*	**Not applicable** No change of land use is proposed.
b. *Development provides for other housing types at a house scale to provide housing diversity offering choice to different household types and individuals to suit residents through different life-cycle stages.*	**Not applicable** No change of land use is proposed.
c. *Development maintains a low density character in which multiple dwellings are not accommodated.*	**Not Applicable** No change of land use is proposed.
d. *Development for other housing types, being a residential care facility or retirement facility together with ancillary convenience activities and allied services (care co-located uses), which provide housing diversity and enable people to remain within their local neighbourhood throughout their life cycle, may be accommodated at*	**Not Applicable** No change of land use is proposed.

Low density residential zone benchmark	Compliance
appropriate locations where development meets the bulk and building height requirements of the Retirement and residential care facility code.	
e. *Development for a relocatable home park or tourist park may continue to operate and expand where on an existing site to provide housing diversity.*	**Not Applicable** No change of land use is proposed.
f. *Development for a dwelling unit may occur as part of a non-residential use.*	**Not applicable** No change of land use is proposed.
g. *Development reflects and supports the high level of comfort, quiet, privacy and safety (including impacts of glare, odour, light, noise, traffic, parking, servicing and hours of operation) reasonably expected within a predominantly low density permanent residential environment.*	**Complies** The proposal is for Reconfiguring a Lot and does not include a material change of use. The proposed subdivision provides for lot sizes compatible with the low density residential zone. The proposed lot dimensions will enable anticipated future development for a Dwelling house to establish consistent with other development in the local area.
h. *Development for commercial character building activities on land within the Commercial character building overlay is to comply with the Commercial character building (activities) overlay code.*	**Not applicable** No change of land use is proposed.
i. *Development for a compatible and individual small-scale non-residential use which is a community care centre, community use, health care service, office, shop or veterinary service (together with any associated caretaker's accommodation or dwelling unit), where not on land within the Commercial character building overlay is to:* i. *have a gross floor area of less than 250m^2;* ii. *serve local residents' day-to-day needs;* iii. *not undermine the viability of a nearby centre.*	**Not applicable** No change of land use is proposed.
j. *Development for a home-based business may operate in a dwelling house and is of a scale and nature that protects the amenity of adjoining residents.*	**Not applicable** No change of land use is proposed.
k. *Development for a non-residential use serves a local community facility need only, such as a childcare centre or a substation, and is of a bulk and scale that is compatible with and integrates with the built form intent for the Low*	**Not applicable** No change of land use is proposed.

Low density residential zone benchmark	Compliance
density residential zone.	
l. Development for rooming accommodation accommodates five persons or less.	**Not applicable** No change of land use is proposed.
(5) Development form overall outcomes are:	Refer to responses below.
a. Development is of a form and scale that reinforces a distinctive subtropical character of low rise, low density buildings set in green landscaped areas.	**Complies** The proposed subdivision provides for lot sizes with regular rectangular shapes and lot widths in excess of 10m. The proposed lots will enable the establishment of low rise, low density buildings consistent with the expected built form of the Low density residential zone.
b. Development for a dwelling house is of a height, bulk, scale and form which is compatible with the low density detached housing suburban identity of the Low density residential zone.	**Complies**
c. Development for a dwelling house occurs on appropriately sized and configured lots, and: *i. where not on a rear lot, has a minimum lot size of 400m²;* *ii. where on a rear lot, has a minimum lot size of 600m²;* *iii. maintains a block pattern that accommodates traditional backyards and large trees.*	**Complies** The proposed subdivision provides for lot sizes compliant with the low density residential zone with rectangular dimensions. The proposed lot dimensions will provide the opportunity for backyards and large trees to establish.
d. Development supports a subtropical character by ensuring that a dwelling house on a small lot is of a size and scale that minimises negative impacts on amenity and private open space of other dwellings by maintaining access to sunlight, daylight and privacy.	**Not applicable** No change of land use is proposed.
e. Development of a dwelling house on a small lot comprising a new premises or an increase in gross floor area of an existing premises is located within a defined building envelope that: *i. provides safety from fire hazards;* *ii. maximises the retention of backyard spaces as private landscaped space;* *iii. avoids overbearing development involving bulk or setback which is inconsistent with the character of a dwelling house on an adjoining lot.*	**Complies** The proposal is for Reconfiguring a Lot and does not include a material change of use. The proposed subdivision provides for lot sizes which meet minimum lot size and accommodate the minimum rectangle dimension in Table 9.4.10.3.B for establishing a small lot (rear lot with less than 600m² exclusive of the access way). The proposed lots are sufficient in dimension and characteristic to enable future Dwelling houses to be established in compliance with the Dwelling house code.
f. Development responds to land constraints, mitigates any adverse impacts on environmental values and	**Complies** The proposed subdivision complies with the relevant overlays and codes applicable to the

Low density residential zone benchmark	Compliance
addresses other specific characteristics, as identified by overlays affecting the site or in codes applicable to the development.	development.

4.4 Variations to Assessment Benchmarks

Following a review of the relevant Assessment Benchmarks/'Codes' detailed in section 4.2 above, it has been established that the development complies with all the Performance Outcomes and Overall Outcomes applicable in assessment. Where the proposed development does not comply with an Assessable Outcome, an Alternative Outcome, complying with the relevant Performance Outcome is proposed in the table below.

Table 8: Proposed variations to the planning scheme

Performance outcomes	Acceptable outcome	Proposed Alternative Outcome
Subdivision code		
PO1 Development results in lots and an arrangement of lots that: a. enable the relevant outcomes and standards required by the planning scheme to be complied with for the intended use; b. are consistent with the zones, zone precincts, neighbourhood plans and overlays that apply to the site; c. feature a useable shape able to accommodate the minimum rectangle dimension in Table 9.4.10.3.B and anticipated future development; d. complement the streetscape, local context and character for the locality; e. address development constraints.	**AO1.1** Development provides lots with dimensions in compliance with Table 9.4.10.3.B. Note—Dwelling density may also be specified in the planning scheme in addition to the minimum or average lot sizes specified in Table 9.4.10.3.B. Development must comply with both parameters. Note—Parts 1 to 3 of Table 9.4.10.3.B provide the minimum dimensions for standard, small and rear lots to accommodate the range of residential development intended for the Low density residential zone, Character residential zone, Low-medium density residential zone and the Emerging community zone. Note—Part 4 of Table 9.4.10.3.B provides dimensions for lots in other zones and in the South East Queensland Regional Plan area under certain circumstances. Where a zone is not identified in Part 4 of Table 9.4.10.3.B the relevant dimensions are either use or activity specific and no acceptable outcome is prescribed. Note—The Dwelling house code and Dwelling house (small lot) code provide requirements for dwelling houses on standard lots and small lots. Table 9.4.10.3.B is not part of the assessment for a dwelling house other than as identified in the tables of assessment in Part 5. Note—Where located within the Traditional building character overlay or a neighbourhood plan, the overlay or neighbourhood plan may vary lot size or dimensions.	The following response is provided to each outcome identified in PO1: (a) and (c) - The Subdivision code minimum rectangular dimension for a standard lot in Table 9.4.10.3B Part 1 is 14m x 20m. The proposed lots have an area of 912m^2 (Lot 3) and 627m^2 (Lot 4). A rectangle with area of 14 x 20m is identified on proposed lot 4 with slope less than 5%. An existing dwelling will be retained on the larger lot 3 notwithstanding there is sufficiently larger area than 14m x 20m available on lot 3. (b) The proposed lots are consistent with the low density residential zone. The proposed subdivision provides for lot sizes compliant with the low density residential zone (exceeding 600sqm) with sufficient rectangular dimensions available in accordance with Table 9.4.10.3B. The proposed lot dimensions will provide the opportunity for backyards and large trees to establish. (d) Following prelodgemnet advice, the proposed

Performance outcomes	Acceptable outcome	Proposed Alternative Outcome
		development utilises a shared vehicular access point to complement the streetscape, local context and character for the locality which includes rear lots of a similar nature (e.g. adjacent rear access lot subdivision at of 18 Donnelly Court Council reference no. A005133426). (e) The development site is not subject to any City Plan overlay development constraints.

4.5 Grounds for approval despite any conflicts

Following a review of the relevant 'Assessment Benchmarks' detailed in the sections above, it has been established that the development complies with all the Performance Outcomes and Overall Outcomes. It is therefore considered that there are no conflicts with the Planning Scheme.

5.0 State Planning Assessment

5.1 Pre-lodgement Meeting

A pre-lodgement meeting was not held with the state as no referrals were triggered.

5.2 Planning Act 2016

Chapter 3, Part 1, and Part 2 of the Planning Act 2016 (PA 2016) details an overview of the requirements that apply to development assessment and these requirements are summarised below:

Table 9: Development Assessment Overview

SECTION	*COMMENT*	*COMPLIES*
s43 Categorising instruments	The proposed development has been assessed against relevant categorising instruments and assessment benchmarks.	**Yes**
s44 Categories of development	The proposed RaL development application is Assessable development and a development approval is required.	**Yes**
s45 Categories of assessment	The proposed development is code assessment and the development application includes an assessment against: • the assessment benchmarks in a categorising instrument (i.e., City Plan v35) for the development; and • any matters prescribed by regulation	**Yes**
s48 Who is the assessment manager	Brisbane City Council (Council) is the Assessment Manger.	**Yes**
s51 Making development applications	The proposed development application: • Is made in the approved form • Lodged to Council as the Assessment Manger • Includes completed Forms (Council and State Government) • Includes an application fee to Council and the referral fee for State Government triggers • Includes consent from the landowners	**Yes**
s53 Publicly notifying certain development applications	The proposed development triggers Code assessment and Public Notification is not required	**Yes**
s54 Copy of application to referral agency	The proposed development application does not trigger referral to referral agencies.	**N/A**

5.3 State interests

The following is an assessment against relevant state interests.

5.3.1 Planning Regulation 2017

Schedule 10 applies to particular development (assessment benchmarks and referral arrangements) and is summarised below.

Table 10: Schedule 10 Overview

SECTION	COMMENT	COMPLIES
Part 1 Airport land	Development on airport land is not proposed	N/A
Part 2 Brothels	A material change of use of premises for a brothel is not proposed	N/A
Part 3 Clearing native vegetation	Operational work that is the clearing of native vegetation is not proposed	N/A
Part 4 Contaminated land	All or part of the premises is not on: • the contaminated land register; or • the environmental management register	N/A
Part 5 Environmentally relevant activities	An environmentally relevant activity is not proposed.	N/A
Part 6 Fisheries	The development application is not for any of the following: • Aquaculture • The removal, destruction or damage of a marine plant • Constructing or raising waterway barrier works	N/A
Part 7 Hazardous chemical facilities	A material change of use for a hazardous chemical facility is not proposed	N/A
Part 8 Heritage places	Development on a heritage place is not proposed.	N/A
Part 9 Infrastructure-related referrals	The proposed development does not trigger Infrastructure-related referrals.	N/A
Part 10 Koala habitat area	A material change of use in priority koala assessable development area is not proposed.	N/A
Part 11 Noise sensitive place on noise attenuation land	Reconfiguring a lot for a noise sensitive place is not proposed on noise attenuation land	N/A
Part 12 Operational work for reconfiguring a lot	Operational work for reconfiguring a lot is not proposed	N/A
Part 13 Ports	Development is not proposed on port land	N/A
Part 14 Reconfiguring a lot under Land Title Act	Reconfiguring a lot under the Land Title Act is not proposed.	N/A
Part 15 SEQ development area	The proposed Reconfiguring a lot is not completely or partly in an SEQ development area	N/A
Part 16 SEQ regional landscape and rural production area and SEQ rural living area	Development is within the urban footprint	N/A
Part 16A Southport Spit	Side is not located in the Southport Spit	N/A
Part 17 Tidal works or work in a coastal management district	Tidal works in a CMD are not proposed.	N/A
Part 18 Urban design	The primary land use is residential.	N/A
Part 19 Water-related development	Water related development is not proposed	N/A
Part 20 Wetland protection area	Site is not located in a wetland protection	N/A

	area	
Part 21 Wind farms	No wind farm is proposed.	N/A

5.3.2 Planning Regulation 2017 (Schedule 12)

Schedule 12 Particular reconfiguring a lot does not apply to the proposed RaL subdivision as demonstrated in the Table below.

Table 11: Schedule 12 - Application of Schedule

SECTION	COMMENT
(1) This schedule applies to reconfiguring a lot if— *(a) the lot is in—* *(i) an industry zone; or* *(ii) a residential zone, other than a park residential zone or rural residential zone; and* *(b) the reconfiguration is the subdivision of 1 lot, other than a rear lot, into 2 lots (each a created lot); and* *(c) each created lot is at least the minimum lot size for the relevant zone stated in a local instrument; and* *(d) the reconfiguration is consistent with the purpose statement for the relevant zone stated in a local instrument.*	This schedule applies as demonstrated below: (a) The proposed development is within a residential zone. (b) The RaL is the subdivision of 1 lot into 2 lots. (c) All subdivision provides for lot sizes which accommodate the minimum rectangle dimension in Table 9.4.10.3.B for the Low density residential zone. (d) The RaL is consistent with the Zone purpose.
(2) However, this schedule does not apply if— *(a) all or part of the premises are in an erosion prone area or any of the following areas under a local instrument—* *(i) a flood hazard area;* *(ii) a bushfire hazard area;* *(iii) a landslide hazard area;* *(iv) a storm tide inundation area; or* *(b) an overlay in a local instrument applies to all or part of the premises.*	An overlay applies to the premises. Therefore schedule 12 does not apply.

5.3.3 Planning Regulation 2017 (Schedule 12A)

Schedule 12A Particular reconfiguring a lot does not apply to the proposed RaL subdivision as demonstrated in the Table below.

Table 12: Schedule 12A - Application of schedule

SECTION	COMMENT
(1) This schedule applies to reconfiguring a lot if— *(a) the reconfiguration is the subdivision of the lot into 2 or more lots (each a created lot); and* *(b) the lot being reconfigured is wholly or partly in a prescribed zone under a local instrument applying to then lot; and* *(c) no part of the lot being reconfigured is in either of the following zones under a local instrument applying to the lot—* *(i) a rural residential zone stated in schedule 2;* *(ii) a zone, other than a zone stated in*	This schedule does not apply as demonstrated below: (a) The proposed RaL subdivision is for only 2 lots. Therefore, Schedule 12A does not apply.

schedule 2, that is of a substantially similar type to a zone mentioned in subparagraph (i); and

(d) at least 1 created lot is intended mainly for a residential purpose; and

(e) the reconfiguration is associated with the construction or extension of a road.

5.3.4 State Development Assessment Provisions

An Extract from the DA Mapping is provided below:

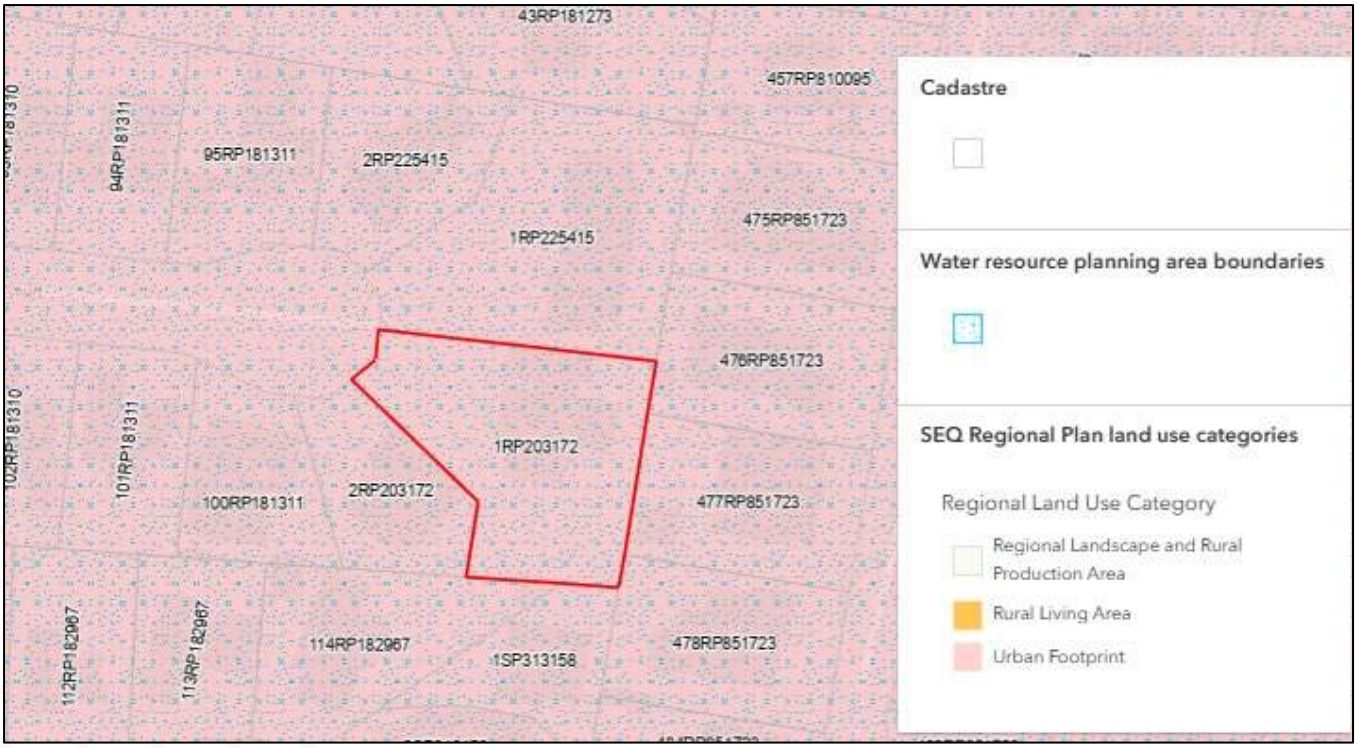

Figure 5: DA Mapping
Source: DA Mapping System

There are no SPR Codes/Assessment Benchmarks that apply to the proposed development application. Therefore, no assessment against the SDAP is triggered.

5.3.5 State Planning Policy

An Extract from the SPP Mapping is provided below:

Figure 6: SPP Mapping
Source: SPP Mapping System

The SPP includes assessment benchmarks that may be applicable where a local government planning scheme does not adequately reflect the SPP.

The amended State Planning Policy (SPP) contains state interests that are intended to protect and enhance Queensland's continued development. It is a key component of the State's land use planning system that enables responsible development whilst seeking to guide development to create a liveable, sustainable and prosperous Queensland.

The proposed development for a 1 Into 2 lot subdivision within the Low density residential zone on a site which is not affected by Natural hazards, risk and resilience and coastal hazards and is not affected by Strategic airports and aviation facilities (building restricted area). The State Planning Policy assessment benchmarks are therefore not applicable.

6.0 Conclusion

This planning assessment report has been prepared on behalf of Louette and Allan Cadman (the '**Applicant**') in support of a Reconfiguration of Lot for a 1 into 2 lot subdivision including access easement at 19 Buscall Court, Sinnamon Park.

As detailed in this development application package, Tactica and the Project Team have completed a thorough assessment against the relevant planning legislation associated with this development application. An assessment of v35 of the City Plan and the Planning Act 2016 has been completed and this report demonstrates that the proposed development complies with the following:

- the relevant State and Local planning instruments; and
- all applicable Assessment Benchmarks of the City Plan v35.

The information provided in this report (and accompanying Appendices) demonstrates that the proposed development complies with all applicable Performance Outcomes and Overall Outcomes of v35 of the City Plan.

The development will make efficient use of existing infrastructure and will not cause adverse impacts upon the character and amenity of the surrounding locality which is predominantly residential in nature.

We therefore recommend that Council favourably consider the proposed development and approve the development application, subject to reasonable and relevant conditions.

7.0 Appendices

The following Appendices accompany the proposed development application.

Table 13: Development Application Appendixes

Appendix
1. DA Form 1 – Development application details
2. Landowners Consent
3. Brisbane City Council Prelodgement Advice
4. Assessment Benchmarks/Codes
5. Plan of Subdivision - Focus on surveying
6. Stormwater Management Plan Report - Ark Consulting Group Pty Ltd
7. Engineering Services Report (including Erosion Hazard Assessment) - Ark Consulting Group Pty Ltd
8. Engineering Drawings - Ark Consulting Group Pty Ltd

Appendix 1
DA Form 1 – Development application details

DA Form 1 – Development application details

Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (*individual or company full name*)	Louette and Allan Cadman C/- Tactica Planning & Development
Contact name *(only applicable for companies)*	Tactica Planning & Development
Postal address *(P.O. Box or street address)*	3A/37 James Street
Suburb	Burleigh Heads
State	QLD
Postcode	4219
Country	Australia
Contact number	
Email address *(non-mandatory)*	planning@tacticaplan.com.au
Mobile number *(non-mandatory)*	0409 664 330
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	T3025

1.1) Home-based business
☐ Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
☒ Yes – the written consent of the owner(s) is attached to this development application ☐ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises *(complete 3.1) or 3.2), and 3.3) as applicable)*

***Note**: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

3.1) Street address and lot on plan

☒ Street address **AND** lot on plan (*all lots must be listed*), ***or***

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).*

a)	Unit No.	Street No.	Street Name and Type	Suburb
		19	Buscall Court	Sinnamon Park
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
		1	RP203172	Brisbane City Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)

3.2) Coordinates of premises *(appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)*

***Note**: Place each set of coordinates in a separate row.*

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) *(if applicable)*
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) *(if applicable)*
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:	N/A

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:	
Name of port authority for the lot:	N/A

☐ In a tidal area

Name of local government for the tidal area *(if applicable)*:	
Name of port authority for tidal area *(if applicable)*	N/A

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*	
Name of airport:	N/A
☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*	
EMR site identification:	N/A
☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*	
CLR site identification:	N/A

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☒ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☒ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

Reconfiguration of 1 lot into 2 lots and access easement

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*

☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☐ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development
☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
☒ Not required
6.4) Is the application for State facilitated development?
☐ Yes - Has a notice of declaration been given by the Minister?
☒ No

Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	☐ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☒ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete *DA Form 2 – Building work details*

Division 1 – Material change of use

***Note**: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.*

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition *(include each definition in a new row)*	Number of dwelling units *(if applicable)*	Gross floor area (m^2) *(if applicable)*

8.2) Does the proposed use involve the use of existing buildings on the premises?
☐ Yes
☐ No

8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation?	
☐ Yes – provide details below or include details in a schedule to this development application	
☐ No	
Provide a general description of the temporary accepted development	Specify the stated period dates under the Planning Regulation

Division 2 – Reconfiguring a lot

***Note**: This division is only required to be completed if any part of the development application involves reconfiguring a lot.*

9.1) What is the total number of existing lots making up the premises?
1

9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)*	
☒ Subdivision *(complete 10)*	☐ Dividing land into parts by agreement *(complete 11)*
☐ Boundary realignment *(complete 12)*	☒ Creating or changing an easement giving access to a lot from a constructed road *(complete 13)*

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created	2			

10.2) Will the subdivision be staged?	
☐ Yes – provide additional details below ☒ No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment			
12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m^2)	Lot on plan description	Area (m^2)
12.2) What is the reason for the boundary realignment?			

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? *(attach schedule if there are more than two easements)*				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? *(e.g. pedestrian access)*	Identify the land/lot(s) benefitted by the easement
Proposed	6.78m	9m	Access Easement	Proposed Lot 4

Division 3 – Operational work

***Note**: This division is only required to be completed if any part of the development application involves operational work.*

14.1) What is the nature of the operational work?		
☐ Road work	☐ Stormwater	☐ Water infrastructure
☐ Drainage work	☐ Earthworks	☐ Sewage infrastructure
☐ Landscaping	☐ Signage	☐ Clearing vegetation
☐ Other – please specify:		

14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)*	
☐ Yes – specify number of new lots:	
☐ No	

14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*

$

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Brisbane City Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

☐ Yes – a copy of the decision notice is attached to this development application
☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
☒ No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?
***Note**: A development application will require referral if prescribed by the* Planning Regulation 2017.

☒ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the *Planning Act 2016***:

☐ Clearing native vegetation
☐ Contaminated land *(unexploded ordnance)*
☐ Environmentally relevant activities (ERA) *(only if the ERA has not been devolved to a local government)*
☐ Fisheries – aquaculture
☐ Fisheries – declared fish habitat area
☐ Fisheries – marine plants
☐ Fisheries – waterway barrier works
☐ Hazardous chemical facilities
☐ Heritage places – Queensland heritage place *(on or near a Queensland heritage place)*
☐ Infrastructure-related referrals – designated premises
☐ Infrastructure-related referrals – state transport infrastructure
☐ Infrastructure-related referrals – State transport corridor and future State transport corridor
☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
☐ Infrastructure-related referrals – near a state-controlled road intersection
☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
☐ Koala habitat in SEQ region – key resource areas
☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
☐ Ports – Brisbane core port land – hazardous chemical facility
☐ Ports – Brisbane core port land – taking or interfering with water
☐ Ports – Brisbane core port land – referable dams
☐ Ports – Brisbane core port land – fisheries
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*
☐ SEQ development area
☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use

☐ SEQ northern inter-urban break – tourist activity or sport and recreation activity
☐ SEQ northern inter-urban break – community activity
☐ SEQ northern inter-urban break – indoor recreation
☐ SEQ northern inter-urban break – urban activity
☐ SEQ northern inter-urban break – combined use
☐ Tidal works or works in a coastal management district
☐ Reconfiguring a lot in a coastal management district or for a canal
☐ Erosion prone area in a coastal management district
☐ Urban design
☐ Water-related development – taking or interfering with water
☐ Water-related development – removing quarry material *(from a watercourse or lake)*
☐ Water-related development – referable dams
☐ Water-related development –levees *(category 3 levees only)*
☐ Wetland protection area

Matters requiring referral to the **local government:**
☐ Airport land
☐ Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government)*
☐ Heritage places – Local heritage places

Matters requiring referral to the **Chief Executive of the distribution entity or transmission entity:**
☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:
- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council:**
☐ Ports – Brisbane core port land

Matters requiring referral to the **Minister responsible for administering the *Transport Infrastructure Act 1994*:**
☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
☐ Ports – Strategic port land

Matters requiring referral to the **relevant port operator**, if applicant is not port operator**:**
☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the **Chief Executive of the relevant port authority:**
☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the **Gold Coast Waterways Authority:**
☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the **Queensland Fire and Emergency Service:**
☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

☐ Yes – referral response(s) received and listed below are attached to this development application
☒ No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*.

PART 6 – INFORMATION REQUEST

19) Information request under the DA Rules

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties*
- *Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or*
- *Part 2under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development*

Further advice about information requests is contained in the DA Forms Guide.

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? *(e.g. a preliminary approval)*

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval ☐ Development application			
☐ Approval ☐ Development application			

21) Has the portable long service leave levy been paid? *(only applicable to development applications involving building work or operational work)*

☐ Yes – a copy of the receipted QLeave form is attached to this development application

☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid

☒ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached

☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below

☒ No

***Note**: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.*

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – *Form 536: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application

☒ No

***Note**: See www.business.qld.gov.au for further information about hazardous chemical notifications.*

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.*

2. See https://www.qld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

***Note**: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.*

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes – the development application involves premises in the koala habitat area in the koala priority area

☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area

☒ No

***Note**: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.desi.qld.gov.au for further information.*

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au for further information.*

DA templates are available from planning.statedevelopment.qld.gov.au. If the development application involves:

- *Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1*
- *Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2*
- *Taking overland flow water: complete DA Form 1 Template 3.*

Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

☐ Yes – the relevant template is completed and attached to this development application

☒ No

DA templates are available from planning.statedevelopment.qld.gov.au. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated *resource* allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

***Note**: See guidance materials at www.daf.qld.gov.au for further information.*

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Resources at www.resources.qld.gov.au and www.business.qld.gov.au for further information.*

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

***Note**: Contact the Department of Environment, Science and Innovation at www.desi.qld.gov.au for further information.*

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application

☒ No

***Note**: See guidance materials at www.resources.qld.gov.au for further information.*

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work *(only required if application involves prescribed tidal work)*
- ☐ A certificate of title

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for further information.*

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

***Note**: See guidance materials at www.desi.qld.gov.au for information requirements regarding development of Queensland heritage places.*

For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at www.planning.statedevelopment.qldgov.au for information regarding assessment of Queensland heritage places.

Name of the heritage place:		Place ID:	

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.14) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☐ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☒ No

***Note**: See guidance materials at www.planning.statedevelopment.qld.gov.au for further information.*

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 ***Note**: See the Planning Regulation 2017 for referral requirements*	☒ Yes
If building work is associated with the proposed development, Parts 4 to 6 of *DA Form 2 – Building work details* have been completed and attached to this development application	☐ Yes ☒ Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application ***Note**: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.*	☒ Yes
Relevant plans of the development are attached to this development application ***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*	☒ Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued *(see 21)*	☐ Yes ☒ Not applicable

25) Applicant declaration
☒ By making this development application, I declare that all information in this development application is true and correct ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001* ***Note**: It is unlawful to intentionally provide false or misleading information.*
Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website. Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where: • such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or • required by other legislation (including the *Right to Information Act 2009*); or • otherwise required by law. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.*

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: | Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment *Note: For completion by assessment manager if applicable*			
Description of the work			
QLeave project number			
Amount paid ($)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			

Appendix 2
Landowners Consent

Individual owner's consent for making a development application under the *Planning Act 2016*

I, Louette Cadman and Allan Charles Cadman

as owners of the premises identified as follows:

19 Buscall Court, Sinnamon Park Qld 4073

Lot 1 RP203172

consent to the making of a development application under the *Planning Act 2016* by:

Louette and Allan Cadman
C/- Tactica Planning & Development

on the premises described above for:

The lodgement of a development application for Reconfiguring a Lot (1 into 2 lot subdivision) including access easement and the carrying out of any searches relating to the premises

Louette Cadman	Allan Charles Cadman
Signature	Signature
7/4/2026	07 April 2026
Date	Date

Appendix 3
Brisbane City Council Prelodgement Advice

PRELODGEMENT ADVICE

COMMERCIAL IN CONFIDENCE

Application Number:	A006958911
Applicant:	Allan Cadman C/- Tactica Plan & Development Pty Ltd 3A/37 james Street BURLEIGH HEADS QLD 4220
Address of Site:	19 BUSCALL CT SINNAMON PARK QLD 4073
Real Property Description:	L1 RP.203172
Zone:	LOW DENSITY RESIDENTIAL ZONE
Name of Ward:	Jamboree

Proposal:
Reconfiguring a Lot (1 into 2 lots)

City Plan details:
Zone: LOW DENSITY RESIDENTIAL ZONE
Neighbourhood Plan: CENTENARY SUBURBS NEIGHBOURHOOD PLAN

Key matters identified by the applicant:

- Level of assessment
- Suitability of two vehicle crossovers
- Building setbacks
- Dual occupancy

Signed Date of advice: 12 March 2026

Disclaimer
The aim of a prelodgement is to provide initial advice on nominated matters relevant to a development proposal to assist in the timely processing of applications and the initial advice provided is based on the provisions of the planning scheme in effect on the date the advice is provided. It cannot replace the in-depth investigation normally associated with the formal assessment of an application and consideration of any public submissions. While the advice is given in good faith, it in no way binds a decision by the Council.
Please note that as this is a Council document it will be subject to the provisions of the *Right to Information Act 2009*. Please note a copy of this page will be provided to the relevant Ward Councillor for THEIR INFORMATION ONLY.

Detailed description of proposal

Advice pertianing to a Development permit for Reconfiguring a Lot (1 into 2 lots). Details of the development is as follows:

- Proposed Lot 3: 910m^2 with 6.7m frontage
- Proposed Lot 4: 629m^2 with 4m frontage (rear lot)

Supporting information provided by applicant

The following documents were provided as part of the prelodgement request:

- App 1 - Proposed Subdivision – Dated: 13 February 2026
- Assessment Report – Dated: 13 February 2026
- Enquiry Form – Dated: 13 February 2026

Meeting details

Meeting Date & Time:	Friday 6 March 2026 at 11:00am	
Meeting Location:	Microsoft Teams	
In Attendance:	Council:	Applicant:
	Kristian Baker	Justin Collofello
	Julijana Lozovskis	Brian Aghazadeh

Prelodgement advice

Note: An in-depth assessment has not been carried out for the proposed development. The following advice primarily addresses the key matters that have been identified by the applicant on the DS enquiry form.

1. Application process and allotment configuration

The proposal triggers a code assessable Reconfiguring a Lot (1 into 2 lots) under Table 5.6.1 of the Planning Scheme, as the rear allotment is greater than the minimum rear lot 600m^2 minimum.

While proposed Lot 4 does result in a rear lot that is less than 600m^2 (when excluding the access handle), Council will give consideration for the allotment size and configuration if it can demonstrate an internal rectangular dimension of 14 x 20m (as prescribed by Table 9.4.10.3.B of the Subdivision code) is achieved, allowing a usable area for a future Dwelling house.

If supported, Council will likely Condition proposed Lot 4 to demolish all structures from the site, inclusive of the in-ground swimming pool.

Whilst the Dwelling house retained in Lot 3 does seek to alter the boundary setbacks, as a standard lot, the Queensland Development Code MP1.2 (QDC) will prevail over the Planning Scheme. It may be beneficial to undertake early engagement with a private building certifier to clarify if the extent of Building works required to the Dwelling house complies with the standards set in QDC. It may be beneficial to submit details of the private building certifiers' advice as supporting application material in the future development application as conditions would be imposed requiring the works to be completed prior to the sealing of the plan of survey.

2. Access and servicing

Separate crossovers will be problematic as the road frontage is at the end of a cul-de-sac. Vehicular access is to be via a shared crossover to accommodate sufficient bin storage presentation along the projected street frontage. An access easement in favour in both lots will also be required over the proposed driveway, and the proposal should consider replacing/relocating the existing driveway configuration to simplify the design.

Bin presentation is to be demonstrated on any future subdivision plans, ensuring sufficient area is provided (approximately 3.6m in length).

Identify the extent of cut and filling (including the location and heights of any proposed retaining walls), in accordance with the Filling and excavation code via a Concept earthworks plan.

The developmetn is to achieve a Lawful Point of Discharge which is likely kerb adaptors to the kerb and channel in Buscall Court. Guidelines as to what Council constitutes to be a satisfactory Lawful point of discharge may be found in section 4.6 of the Infrastructure Design Planning Scheme Policy (PSP).

An Erosion and Hazard Assessment Form is required to be lodged with any development application that will result in soil disturbing activity (There are three categories of hazard ie. low, medium and high and conditions will be imposed based on the category of hazard).

3. Other land uses

A Dual occupancy land use triggers an impact assessable development application and is not an anticipated land use within the Low density residential zone.

Should the premises construct a secondary dwelling (either through assessable or accepted development provisions) and then seek a future Reconfiguring a Lot (1 into 2 lots), Council raises concerns with separating the secondary dwelling from a main dwelling as it conflicts with the purpose of the Subdivision code and land use definition of secondary dwelling.

Miscellaneous information

Urban Utilities (UU)

Council does not undertake water and sewer assessment of any planning applications lodged on or after 1 July 2014. On this basis it is highly recommended that you contact UU to discuss any water and sewer issues that may affect development of this site. Whilst not a legislative requirement it is highly recommended that you obtain a Service Advice Notice (SAN) from UU prior to lodging your development application with Council. If you do this it will negate the need of any potential modification to a planning approval being required due to water sewer issues.

State Assessment and Referral Agency (SARA)

Where an application is required to be referred to the State government as a concurrence or advice agency Council recommends early discussions with those agencies to minimise the state assessment period and potential delays relating to providing responses to their information requests.

Please note: Applications are required to address the State Planning Policy. (www.dsdmip.qld.gov.au/)

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented movement controls in areas of Queensland (biosecurity zones) where this pest species has been detected. These controls apply to individuals and commercial operators, and restrict the movement of materials that could carry fire ants which include soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Breaches of these controls can potentially impact the community, economy and the environment. Penalties for non-compliance with movement controls within fire ant biosecurity zones apply under the *Biosecurity Act 2014*.

If you are unsure of your obligations contact the Department of Agriculture and Fisheries, Queensland Government (www.daf.qld.gov.au/) (Biosecurity Queensland).

Appendix 4
Assessment Benchmarks/Codes

- Centenary suburbs neighbourhood plan code
- Subdivision Code
- Filling and excavation code (refer Appendix 7)
- Infrastructure design code
- Landscape work code
- Outdoor lighting code
- Stormwater code (refer Appendix 7)
- Transport, access, parking and servicing code (refer Appendix 7)
- Bicycle network overlay code
- Community purposes network overlay code
- Road hierarchy overlay code
- Streetscape hierarchy overlay code

7.2.3.5 Centenary suburbs neighbourhood plan code

7.2.3.5.1 Application

1. This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work in the Centenary suburbs neighbourhood plan area if:
    a. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for a neighbourhood plan (section 5.9); or
    b. impact assessable development.
2. Land in the Centenary suburbs neighbourhood plan area is identified on the NPM-003.5 Centenary suburbs neighbourhood plan map and includes the following precincts:
    a. Mount Ommaney mixed use centre precinct (Centenary suburbs neighbourhood plan/NPP-001);
    b. Mount Ommaney Hotel site precinct (Centenary suburbs neighbourhood plan/NPP-002);
    c. Centenary sport and recreation precinct (Centenary suburbs neighbourhood plan/NPP-003):
        i. Centenary sport and recreation (private) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003a);
        ii. Centenary sport and recreation (public) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003b);
        iii. Centenary sport and recreation (private) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003c).
    d. Monier Road precinct (Centenary suburbs neighbourhood plan/NPP-004);
    e. Seventeen Mile Rocks industrial precinct (Centenary suburbs neighbourhood plan/NPP-005);
    f. Jennifer Street precinct (Centenary suburbs neighbourhood plan/NPP-006);
    g. Horizon Drive bushland precinct (Centenary suburbs neighbourhood plan/NPP-007);
    h. Old turf farm precinct (Centenary suburbs neighbourhood plan/NPP-008);
    i. Sinnamon Farm heritage precinct (Centenary suburbs neighbourhood plan/NPP-009).
3. When using this code, reference should be made to section 1.5, section 5.3.2 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—This neighbourhood plan includes a table of assessment with variations to categories of development and assessment. Refer to Table 5.9.15.A, Table 5.9.15.B, Table 5.9.15.C and Table 5.9.15.D.

7.2.3.5.2 Purpose

1. The purpose of the Centenary suburbs neighbourhood plan code is to provide finer grained planning at a local level for the Centenary suburbs neighbourhood plan area.
2. The purpose of the Centenary suburbs neighbourhood plan code will be achieved through overall outcomes including overall outcomes for each precinct of the neighbourhood plan area.
3. The overall outcomes for the neighbourhood plan area are:
    a. Development reflects the area's strong sense of place, which includes its relationship to the Brisbane River, predominantly low-density housing supported by

a variety of different housing types and sizes in specific areas accommodating the community's housing needs at various stages of life, environmental values and a sense of community identity.

b. Multiple dwellings are not accommodated in the Low density residential zone.
c. Development maintains the different functions of retail centres across the neighbourhood plan area.
d. The natural assets of the area, particularly the Brisbane riverfront parklands, Wolston Creek, Mount Ommaney Creek, Jindalee Creek and the Horizon Drive bushland precinct, are protected and rehabilitated enhancing their ecological, hydrological and recreational functions and their contribution to the biodiversity of the city.
e. Development within parts of Wolston Creek that reduces koala habitat provides supplementary habitat planting within the site to maintain habitat connectivity.
f. An accessible network of green space focused on the Brisbane River, environment and waterway corridors, natural area corridors and desirable parkland is retained and enhanced throughout the area. These green spaces contain valuable bushland areas and public parks and offer a wide range of recreational opportunities. Privately owned sport and recreation land is protected from intrusion from other land uses to ensure the ongoing provision of a range of sport and recreation venues and community activities. Walking and cycling opportunities are enhanced throughout the green-space network.
g. Development provides for public transport usage, cycling and walking and incorporates easy and convenient access to these modes, avoiding safety hazards in accordance with Figure a.
h. Development is of a height, scale and form which is consistent with the amenity and character, community expectations and infrastructure assumptions intended for the relevant precinct, sub-precinct or site and is only developed at a greater heights, scale and form where there is both a community need and an economic need for the development.

4. Mount Ommaney mixed use centre precinct (Centenary suburbs neighbourhood plan/NPP-001) overall outcomes are:
   a. This precinct becomes a mixed use centre accommodating a range of centre activities including multiple dwellings, commercial/office, retail, entertainment and community uses.
   b. Development is in accordance with a structure plan, which meets the requirements of the Centenary suburbs neighbourhood plan code.
   c. The existing Mount Ommaney centre is predominantly for retail uses and to meet the needs of the community in terms of retail services, housing choice, local entertainment choices, and the ability to work in the local area. This precinct incorporates a community hub, Council library, bus interchange, cycle facilities and excellent pedestrian and cyclist links.
   d. A town square is the focus for community and after-hours activity. The square is surrounded by uses with active building frontages, particularly at ground level. Food and drink outlets with provision for outdoor dining and community uses are particularly encouraged outside of the main centre building, to achieve a more active hub outside of retail trading hours. Uses fronting the town square are capable of operating independently of the main shopping complex.
   e. Development provides a high level of pedestrian permeability, connectivity and comfort to encourage walking and cycling within and to the precinct and to provide better links to surrounding residential, employment, parkland and educational facilities.
   f. Convenient and secure bike locking facilities are provided at all access points to the centre, including the bus interchange. Conflict between pedestrians and vehicles is minimised.
   g. Parking is concealed from view and located in basements or multistorey car parking areas to allow for more efficient use of this site.
   h. Residential living within the centre has residential amenity preserved, commensurate with levels achievable and expected in a vibrant, mixed use centre.
5. Mount Ommaney Hotel site precinct (Centenary suburbs neighbourhood plan/NPP-002) overall outcomes are:
   a. Medium density residential development, hotel and short-term accommodation uses are appropriate in this precinct.
   b. Access to the site is achieved via Dandenong Road.

c. Safe and direct pedestrian access to Mount Ommaney mixed use centre is provided generally in accordance with Figure a.

6. Centenary sport and recreation precinct (Centenary suburbs neighbourhood plan/NPP-003) overall outcomes are:
   a. The precinct includes McLeod Country Golf Club, Peter Lightfoot Oval, Jindalee Golf Club, Jindalee Bowls Club, Jindalee Pool, a private sport club/facility and a number of Council-owned allotments which are to be used for sport and recreation purposes or community facilities. Should these uses discontinue or the sites be sold, any other form of development is not supported due to the high need for additional publicly accessible sport and recreation classified land in the Centenary suburbs neighbourhood plan area.
   b. Development other than for sport and recreational purposes, community facilities or reconfiguring a lot other than volumetric subdivision associated with an existing or approved building is inconsistent with the outcomes sought for this precinct.
   c. The Centenary sport and recreation (private) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003a) forms part of an important link for wildlife, including koalas, between the Brisbane River and the Horizon Drive bushland precinct. Development in this sub-precinct:
      i. for any material change of use or reconfiguration of a lot ensures that this link is protected and enhanced with additional native vegetation.
   d. Development in Centenary sport and recreation (public) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003b):
      i. addresses potential flooding constraints.
   e. The Centenary sport and recreation (private) sub-precinct (Centenary suburbs neighbourhood plan/NPP-003c) consists of privately owned sport and recreation land. Development in this sub-precinct:
      i. addresses potential flooding constraints and considers sites to the north of Sinnamon Road that are constrained by vehicular access issues.
7. Monier Road precinct (Centenary suburbs neighbourhood plan/NPP-004) overall outcomes are:
   a. This precinct remains an industrial area as it provides a local industry and employment node within the Centenary suburbs and Western gateway area.
   b. Uses that compromise this industrial focus such as showroom and shop, do not locate in this precinct.
   c. Low impact industry in this precinct provides a buffer to the existing medium and high impact industrial land uses.
   d. Further expansion of residential uses into the precinct is not supported, as the precinct forms a transition between existing residential uses in Sinnamon Park and established industrial areas to the south and south-west across Monier Road.
   e. Vehicular access to this precinct is achieved via at least 2 access points.
   f. Bellwood Street remains closed to through traffic to ensure protection of residential areas from impacts associated with industrial traffic.
8. Seventeen Mile Rocks industrial precinct (Centenary suburbs neighbourhood plan/NPP-005) overall outcomes is:
   a. This precinct provides a local industry and employment node within the Centenary suburbs.
   b. Industrial uses are protected from further intrusion by residential uses and further reconfiguring of a lot is discouraged.
   c. Development for residential uses is not to occur within the precinct.
   d. Commercial uses are supported only where they provide commercial support to and have a direct nexus with surrounding industrial uses.
9. Jennifer Street precinct (Centenary suburbs neighbourhood plan/NPP-006) overall outcomes are:
   a. This precinct is a low impact industrial node and acts as a buffer between the existing industrial area in Counihan Road and nearby sensitive land uses to the south.
   b. Low impact industry uses are consistent with the outcomes sought in this precinct. Other industrial uses, showrooms and any type of retailing are not consistent with the outcomes sought, due to the proximity of the site to sensitive land uses.
   c. The site bounded by Jennifer Street, Seventeen Mile Rocks Road and the unformed Yalford Street contains significant landscape trees. This area is retained

and rehabilitated. Development with an interface to this corridor is sensitive to the corridor's environmental values and protects and enhances the vegetation and habitat values.

d. Buildings do not exceed 9m above ground level due to the visual prominence of the area affected by its topography.
e. In the long term, the industrial activity in the Seventeen Mile Rocks Road industrial precinct is consolidated in an employment centre. Within Jennifer Street only those interim uses which do not compromise existing industrial uses and the long-term industrial intent are consistent with the outcomes sought.
f. An office, where directly connected with industrial uses in this precinct, is consistent with the outcomes sought for the precinct.

10. Horizon Drive bushland precinct (Centenary suburbs neighbourhood plan/NPP-007) overall outcomes are:
    a. This precinct supports significant areas of remnant native vegetation that form part of an ecological corridor that links the Brisbane River to this precinct via the McLeod Country Golf Course and Peter Lightfoot Oval. The precinct contains an important habitat and movement corridor for local wildlife.
    b. Council-owned land within this precinct is used as a park for nature conservation purposes and may accommodate nature-based recreation.
    c. Remnant native vegetation on privately owned land in this precinct is protected.
    d. Further development is not consistent with the outcomes sought.
11. Old turf farm precinct (Centenary suburbs neighbourhood plan/NPP-008) overall outcome is:
    a. This precinct is intended for residential uses and includes land that is required for park and waterway purposes that must be enhanced and protected as part of any redevelopment of the site in accordance with Figure b.
12. Sinnamon Farm heritage precinct (Centenary suburbs neighbourhood plan/NPP-009) overall outcomes are:
    a. Development conserves the heritage values and protects the amenity of nearby residential areas, including respecting existing residential building scale.
    b. Non-residential uses such as community use, function facility, food and drink outlet, office or short-term accommodation may be supported where development:
        i. preserves the character and fabric of rural structures within their original farm setting;
        ii. maintains the existing level of separation between Seventeen Mile Rocks Road and the established residential area to the north of the precinct in its traffic layout design.

7.2.3.5.3 Performance outcomes and acceptable outcomes

Table 7.2.3.5.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
General		
PO1 Development is of a height, scale and form that achieves the intended outcome for the precinct, improves the	**AO1** Development complies with the number of storeys and building height in Table 7.2.3.5.3.B.	**Not applicable** The proposed development is for reconfiguring a lot

amenity of the neighbourhood plan area, contributes to a cohesive streetscape and built form character and is: a. consistent with the anticipated density and assumed infrastructure demand; b. aligned with community expectations about the number of storeys to be built; c. proportionate to and commensurate with the utility of the site area and frontage width; d. designed to avoid a significant and undue adverse amenity impact to adjoining development; e. sited to enable existing and future buildings to be well separated from each other and to avoid affecting the potential development of an adjoining site. Note—Development that exceeds the intended number of storeys or building height can place disproportionate pressure on the transport network, public space or community facilities in particular. Note—Development that is over-scaled for its site can result in an undesirable dominance of vehicle access, parking and manoeuvring areas that significantly reduce streetscape character and amenity.	Note—Neighbourhood plans will mostly specify a maximum number of storeys where zone outcomes have been varied in relation to building height. Some neighbourhood plans may also specify height in metres. Development must comply with both parameters where maximum number of storeys and height in metres are specified.	
If in the Mt Ommaney mixed use centre precinct (Centenary suburbs neighbourhood plan/NPP-001)		
PO2 Development provides high-quality design outcomes which includes the following features: a. an expanded and upgraded bus interchange that accommodates the provision of park-and-ride facilities; b. key transport spines in accordance with Figure a; c. a high level of accessibility by all modes of transport including pedestrians, cyclists, public transport and private vehicle access that is appropriate for the proposed land uses; d. efficient use of the site to allow for a wider variety of land uses including residential, office,	**AO2** No acceptable outcome is prescribed.	**Not applicable**

entertainment and community uses; e. strategic placement of buildings to maintain key transport spines and allow for future multistorey development; f. efficient site use for car parking, for example via a multistorey parking station; g. multistorey low-rise buildings designed to allow for future development above them; h. provision of a community hub which centres around a town square and encourages night-time use of the site and includes provision for a community meeting place, library, food and drink outlet and entertainment uses; i. provision for deep planting of large trees; j. design of buildings that are externalised such that views to the outside are available; k. rehabilitation of open sections of waterway. Note—A structure plan prepared in accordance with the Structure planning planning scheme policy can assist in demonstrating achievement of this outcome and is a useful tool to integrate subdivision layout with the relevant spatial attributes in overlays and neighbourhood plans.		
PO3 Development size, bulk and height maintains a human scale especially in relation to heights at street level.	**AO3** Development has a maximum plot ratio as specified in Table 7.2.3.5.3.C.	**Not applicable**
PO4 Development avoids design of parking areas which undermine the visual attraction of the centre, dominate the centre, or diminish the quality of spaces between buildings.	**AO4** Development conceals parking within basements or the building structure or within separate building structures.	**Not applicable**
If in the Mount Ommaney Hotel site precinct (Centenary suburbs neighbourhood plan/NPP-002)		
PO5 Development supports the intent of the area and is compatible with the medium density character of the	**AO5** Development has a maximum plot ratio as specified in Table 7.2.3.5.3.C.	**Not applicable**

precinct.		
If in the Seventeen Mile Rocks industrial precinct (Centenary suburbs neighbourhood plan/NPP-005) or Jennifer Street precinct (Centenary suburbs neighbourhood plan/NPP-006)		
PO6 Development for a commercial or office use has a direct connection to and association with the surrounding industrial uses.	**AO6** Development for an office use provides administrative, clerical or other office services directly associated with or supporting the surrounding industrial uses. The majority of the business client base is drawn from the existing industrial uses in the Jennifer Street or Seventeen Mile Rocks industrial precincts.	**Not applicable**
PO7 Development supports the intent of the area and maintains the prominence of the topography.	**AO7** Development has a maximum plot ratio as specified in Table 7.2.3.5.3.C.	**Not applicable**
If in the Sinnamon Farm heritage precinct (Centenary Suburbs neighbourhood plan/NPP-009)		
PO8 Development does not compromise the function of the local road hierarchy and does not introduce non-residential traffic to residential roads.	**AO8** Development provides vehicle access only from Seventeen Mile Rocks Road.	**Not applicable**
PO9 Development minimises light nuisance, particularly to any adjoining residential uses.	**AO9** Development complies with the requirements of AS 4282-1997 Control of the obtrusive effects of outdoor lighting.	**Not applicable**
PO10 Development enhances the amenity, character and identity of the precinct.	**AO10** Development is designed to: a. locate air-conditioning units and refrigeration units so they are not visually obtrusive and do not cause adverse visual or noise impacts on adjoining premises; b. make the location and appearance of rubbish bin storage areas unobtrusive.	**Not applicable**

PO11 Development ensures that the amenity of adjoining uses is maintained, with impacts eliminated or sufficiently mitigated.	**AO11** Development for potentially noisy activities such as intensive activity spaces such as function rooms and outdoor entertainment areas adjacent to a residential use provide a 1.8m-high acoustic fence and landscaping.	**Not applicable**

Table 7.2.3.5.3.B—Maximum building height

Location of development	Building height (number of storeys)	Building height (m)
If in the Mount Ommaney mixed use centre precinct (Centenary suburbs neighbourhood plan/NPP-001)		
Development of a shop or shopping centre use	3	10.5
Development of an office use only	5	Not specified
Development of a mixed office/residential use	5	Not specified
Development of a mixed office/shop or shopping centre use	5	Not specified
Development of a residential use only	5	Not specified
If in the Mount Ommaney Hotel site precinct (Centenary suburbs neighbourhood plan/NPP-002)		
Any development in this precinct	2 above ground level at Endeavour Street and when viewed from Dandenong Street	9.5m above ground level at Endeavour Street and when viewed from Dandenong Street
If in the Jennifer Street precinct (Centenary suburbs neighbourhood plan/NPP-006)		
Any development in this precinct	Not specified	9

Table 7.2.3.5.3.C—Maximum plot ratio

Precinct	Maximum plot ratio

If in the Mount Ommaney mixed use centre precinct (Centenary suburbs neighbourhood plan/NPP-001)	
Development of a shop or shopping centre use only	75% of the precinct area
Development of an office use only	125% of the precinct area
Development of a mixed office/shop or shopping centre use	125% of the precinct area
Development of a mixed office/residential use	175% of the precinct area
Development of a residential use only	175% of the precinct area
If in the Mount Ommaney Hotel site precinct (Centenary suburbs neighbourhood plan/NPP-002)	
Any development in this precinct	100%
If in the Jennifer Street precinct (Centenary suburbs neighbourhood plan/NPP-006)	
Any development in this precinct	Not specified

Note—'Precinct areas' within the Mount Ommaney mixed use centre precinct are to be identified in a structure plan prepared in accordance with the Structure planning planning scheme policy.

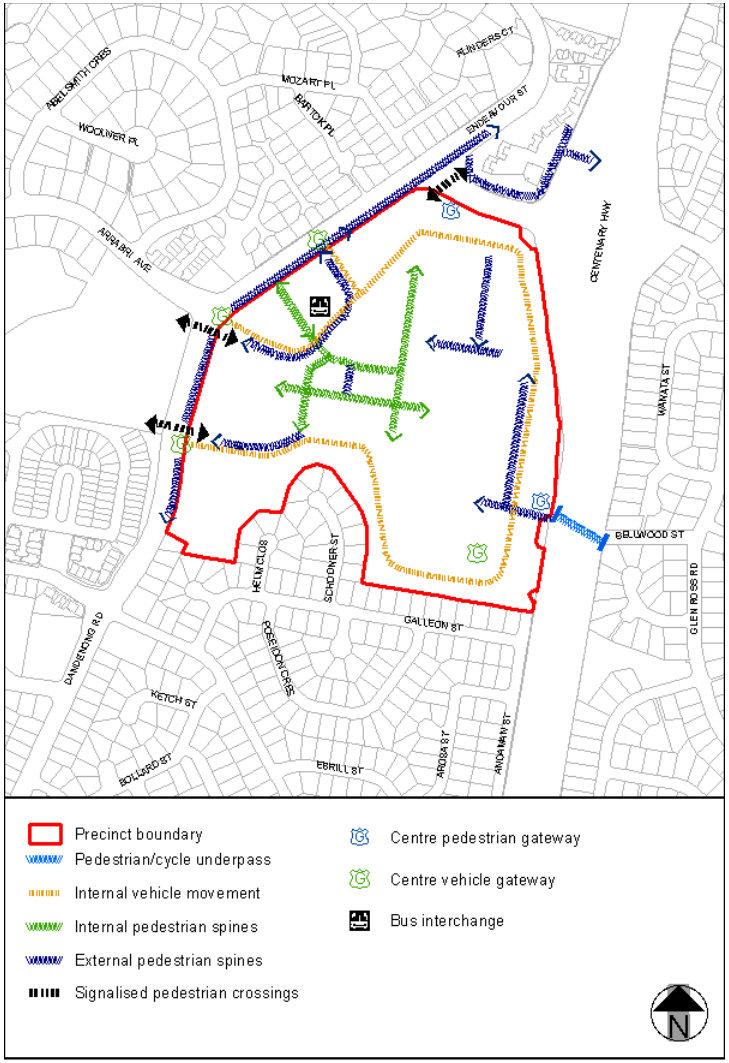

Figure a—Movement plan - Mt Ommaney mixed use centre precinct

View the high resolution of Figure a—Movement plan — Mt Ommaney mixed use centre precinct

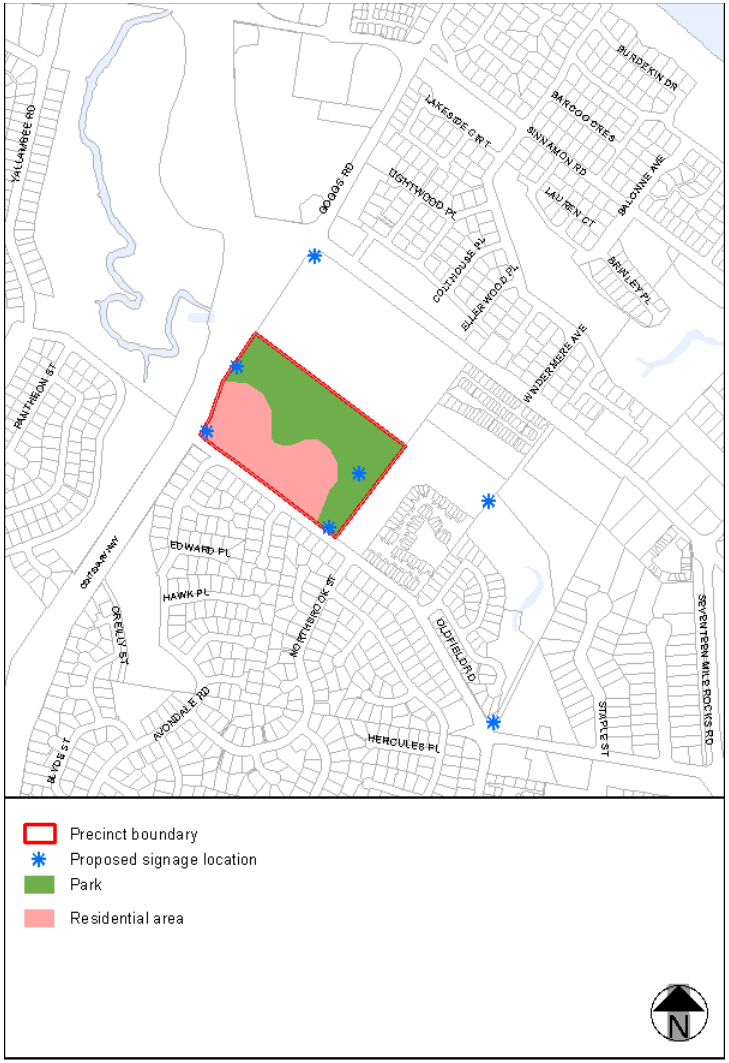

Figure b—Indicative layout - Old turf farm precinct

View the high resolution of Figure b—Indicative layout — Old turf farm precinct

9.4.10 Subdivision code

9.4.10.1 Application

1. This code applies to assessing reconfiguring a lot if:
    a. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for a neighbourhood plan (section 5.9), reconfiguring a lot (section 5.6) or an overlay (section 5.10); or
    b. impact assessable development, to the extent relevant.

Note—This code applies to all aspects of reconfiguring a lot, ranging from a single site where no road is created to a new residential community, as well as other types of reconfiguring a lot.

Editor's note—Reconfiguring a lot involving only the subdivision of 1 lot into 2 lots is subject to the regulated categories of development and assessment in section 5.4, if in a zone in the Residential zones category or in a zone in the Industry zones category. In this instance, the Reconfiguring a lot (subdividing one lot into two lots) and associated operational works code, being a requirement under the Regulation will also apply.

2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where buildings are approved, they and the land they are on can be separately titled either in freehold or other title forms. The provisions in this code relating to reconfiguring a lot of existing or approved buildings do not apply to the reconfiguring a lot of a dwelling house in a zone in the Residential zones category. A dwelling house, including the main dwelling, plus any secondary dwelling or ancillary outbuildings, in a zone in the Residential zones category is always to remain as a sole lot by any title or tenure. A reconfiguring a lot proposal that does separate these components of a dwelling house and includes them on individual title is inappropriate and incompatible development and is highly unlikely to be supported. This ensures that the expectation of residents for a high standard of residential amenity is protected.

Note—If reconfiguring a lot is proposed in conjunction with a development application for a use or uses that require assessment, the development application for the reconfiguring a lot will not be approved until the development application for the intended change of use has been determined.

Note—This code may be applied in conjunction with or subsequent to a material change of use and the sealing of a plan of subdivision may be subject to matters relating to the material change of use.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:
- biodiversity areas, guidance and requirements are provided in the Biodiversity areas planning scheme policy;
- crime prevention through environmental design, guidance is provided in the Crime prevention through environmental design planning scheme policy;
- infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy;
- refuse and recycling, guidance is provided in the Refuse planning scheme policy;
- structure plan preparation, guidance is provided in the Structure planning planning scheme policy;
- transport, access, parking or servicing, standards and guidelines are provided in the Transport, access, parking and servicing planning scheme policy;
- significant vegetation, guidance is provided in the Vegetation planning scheme policy;
- climate-responsive subtropical design of buildings or outdoor spaces, guidance is provided in the Subtropical building design planning scheme policy.

9.4.10.2 Purpose

1. The purpose of the Subdivision code is to regulate development for reconfiguring a lot.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development for reconfiguring a lot proposed in conjunction with or subsequent to a material change of use maintains or improves the:
        i. landscape and built form character, environmental and other values of the site or locality;

ii. safe and efficient operation of existing and future lawful uses and activities on the site or adjacent premises;
iii. amenity of intended uses and existing surrounding residential uses;
iv. comfort, quiet, privacy and safety (including the impacts of glare, odour, light, noise, traffic, parking, servicing and hours of operation) reasonably expected in the zone or zone precinct that applies to the site.

b. Development for reconfiguring a lot results in lots and an arrangement of lots that:
   i. achieve the relevant outcomes and comply with the standards required by the planning scheme for the zones, zone precincts, neighbourhood plans and overlays that apply to the site;
   ii. accommodate lawful uses;
   iii. are of an appropriate size, dimensions and arrangement suited to their intended use and proximity to infrastructure, services and facilities needed by the development;
   iv. are arranged and configured to complement the pattern of development in the locality;
   v. address development constraints that impact land use and development and mitigate adverse impacts to character and environmental values.
c. Development for reconfiguring a lot under the *Land Title Act 1994* and the *Body Corporate and Community Management Act 1997* occurs in a manner that achieves good urban design outcomes.
d. Development for reconfiguring a lot associated with or resulting from a material change of use provides lots and arrangement of lots for the purposes of titling and any easement relevant to the development.
e. Development for reconfiguring a lot of an existing building and associated land can be separately titled either in freehold or other title forms.
f. Development for reconfiguring a lot relating to existing or approved buildings does not apply to the reconfiguring a lot of a dwelling house in a zone in the Residential zones category and a dwelling house, including the main dwelling, plus any secondary dwelling or ancillary outbuildings, in a zone in the residential zones category is always to remain as a sole lot by any title or tenure.
g. Development for reconfiguring a lot provides infrastructure and services that:
   i. comply with the relevant standards in the planning scheme;
   ii. effectively integrate with existing and planned infrastructure and services to the extent these are identified or necessary to support the development for its intended purpose;
   iii. maximise the quality and utility of the public realm.

9.4.10.3 Performance outcomes and acceptable outcomes

Table 9.4.10.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—General performance outcomes and acceptable outcomes for reconfiguring a lot		
PO1	**AO1.1**	**Complies with performance outcome** Refer to submitted planning report for a response to

Development results in lots and an arrangement of lots that: a. enable the relevant outcomes and standards required by the planning scheme to be complied with for the intended use; b. are consistent with the zones, zone precincts, neighbourhood plans and overlays that apply to the site; c. feature a useable shape able to accommodate the minimum rectangle dimension in Table 9.4.10.3.B and anticipated future development; d. complement the streetscape, local context and character for the locality; e. address development constraints.	Development provides lots with dimensions in compliance with Table 9.4.10.3.B. Note—Dwelling density may also be specified in the planning scheme in addition to the minimum or average lot sizes specified in Table 9.4.10.3.B. Development must comply with both parameters. Note—Parts 1 to 3 of Table 9.4.10.3.B provide the minimum dimensions for standard, small and rear lots to accommodate the range of residential development intended for the Low density residential zone, Character residential zone, Low-medium density residential zone and the Emerging community zone. Note—Part 4 of Table 9.4.10.3.B provides dimensions for lots in other zones and in the South East Queensland Regional Plan area under certain circumstances. Where a zone is not identified in Part 4 of Table 9.4.10.3.B the relevant dimensions are either use or activity specific and no acceptable outcome is prescribed. Note—The Dwelling house code and Dwelling house (small lot) code provide requirements for dwelling houses on standard lots and small lots. Table 9.4.10.3.B is not part of the assessment for a dwelling house other than as identified in the tables of assessment in Part 5. Note—Where located within the Traditional building character overlay or a neighbourhood plan, the overlay or neighbourhood plan may vary lot size or dimensions. **AO1.2** Development requiring a building envelope plan or a development footprint plan ensures the building envelope plan or development footprint plan is shown on the plan of subdivision to be registered for the lot where meeting the requirements of the *Land Title Act 1994* and the *Land Act 1994*. Note—A building envelope plan or a development footprint plan can be a means of addressing a range of site development matters. Parts of this code and other codes in the planning scheme determine the circumstances for the application of a building envelope plan or a development footprint plan. Note—A building envelope plan or a development footprint plan may also be used to determine where other matters are registered on title, such as a registered environmental covenant over land outside of the building envelope or development footprint which is not to be the subject of vegetation clearing.	the performance outcome.
	AO1.3 Development where not intending sharing by formal title arrangements or common use does not result in a building or	

	structure being located: a. across a proposed lot boundary; or b. within a setback required by the planning scheme. Note—Examples of uses requiring sharing by formal title arrangement include the shared building walls that might exist between dwellings in a duplex or multiple dwelling development. However, dwelling houses including all supporting walls must be wholly contained within a lot. Note—The development application may indicate that a building or structure is to be demolished or redesigned pending approval of the reconfiguring of a lot to correct this situation. This is to be carried out before the approval of the subdivision survey plan. Note—Where development involves work for walls or structures (other than a fence) on or near to a proposed lot boundary and the proposed lots do not meet the requirements of Table 9.4.10.3.B, the structure is to be located in the position identified by the preceding development approval or approved plans, planning scheme and Building Regulation. Note—In the circumstance of a shared building wall and the proposed lots do not meet the requirements of Table 9.4.10.3.B, the relevant plan of subdivision will not be approved until the following shows that the location of the structure is correctly located: • physical inspection is undertaken at the framing stage of construction; • written evidence in the form of a plan of subdivision is prepared by a suitably qualified person; • other evidence received and agreed by the Council.	
PO2 Development creates useable lots that: a. do not rely on excessive cut and fill; b. do not intrude into areas of waterway and environmental significance; c. ensure any cutting, filling, retaining walls and earthworks: i. minimise adverse impacts to vegetation, natural features and topography; ii. avoid adverse impacts on coastal resources and processes where for development of canals and artificial waterways;	**AO2.1** Development ensures that any cutting, filling, retaining walls and earthworks: a. result in a maximum vertical dimension or minimum horizontal dimension of 1m for either: i. a single level change; or ii. any step in a series of level changes. b. locates the crest of any cut or toe of any fill no closer than 0.6m to any lot boundary; c. limits cut and fill to less than 1m in height for construction of transport network elements. Note—Development may be required to accommodate cutting, filling, retaining walls and earthworks by providing larger lot dimensions than those stated in Table 9.4.10.3.B. Note—The transport network is any element that provides for the	**AO2.1 Complies** The development proposes a retaining wall with height less than 1m to support a proposed driveway designed on bored piers. Refer to the submitted engineering report for details.

d. minimise adverse impacts to the utility of existing or proposed transport network elements.	movement of vehicles, pedestrians or cyclists other than the internal function and operation of a site and may include public space, publicly accessible private space or private space if through movement or public access is intended. **AO2.2** Development involving a lot with an area less than 450m^2 is located on a site with a maximum average slope of: a. 1 into 10 on the shortest lot axis; b. 1 into 15 on the longest axis.	**AO2.2 Not Applicable** Proposed lots are greater than 450m^2.
	AO2.3 Development ensures that the minimum rectangle dimension specified in Table 9.4.10.3.B is located on land with an existing slope of less than 1 in 5 prior to any cutting, filling, retaining walls or earthworks occurring on the site. Note—A minimum rectangle dimension sited on level to gently sloping land is required to ensure that lots are able to be developed for a dwelling in accordance with the requirements of the planning scheme. Note—The minimum rectangle dimension is to be located within the net developable area of any site where in the Emerging community zone.	**AO2.3 Complies** Each proposed lot has a minimum rectangle dimension of 14 x 20m as specified in Table 9.4.10.3.B with an existing slope of less than 1 in 5.
	AO2.4 Development does not involve the creation of canals or artificial waterways.	**AO2.4 Complies** Development does not involve the creation of canals or artificial waterways.
PO3 Development provides roads, associated pavement and concrete kerb and channel to every road the development has frontage to and lot access, that is designed and constructed: a. in compliance with the road corridor design standards in the Infrastructure design planning scheme policy; b. for the type of vehicle, pedestrian and cyclist use appropriate to the site and intended use; c. to be safe for the vehicles, buses, pedestrians and cyclists expected to be accessing the lot; d. to maintain the safety and efficiency of the	**AO3.1** Development provides roads, pavement and concrete kerb and channel that provide for: a. design and construction in accordance with the road hierarchy; b. safe travel for pedestrian, cyclists and vehicles; c. access to properties for all modes; d. utilities; e. high levels of aesthetics and amenity, improved liveability and future growth; f. a high-quality streetscape; g. a low-maintenance asset with minimal whole-of-life cost.	**AO3.1 Complies** The development fronts Buscall Court which has a concrete kerb and channel.

transport network for vehicles, buses, pedestrians and cyclists; e. at an adequate width, suitable gradient and appropriate construction standard; f. to avoid unreasonable detriment or nuisance to an adjacent premises; g. to preserve the amenity and function of the public realm in accommodating: i. high levels of pedestrian traffic; ii. large subtropical street trees; iii. on-street parking.	Editor's note—See Section B for additional requirements where new road is proposed. **AO3.2** Development provides access to each lot in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	**AO3.2 Complies** Refer to submitted engineering report and drawings.
	AO3.3 Development provides each lot with access to a public road other than a major road, that is: a. direct; or b. via a formal access arrangement that is: i. registered on a title over another lot; or ii. a reciprocal access easement; or iii. over common property; iv. located as far away as practicable from an existing or proposed dwelling; v. compliant with the road corridor design standards in the Infrastructure design planning scheme policy; c. the width specified: i. in the Transport, access, parking and servicing planning scheme policy where an access way to a rear lot in the Low density residential zone, Character residential zone, Low-medium density residential zone or Emerging community zone; or ii. in Table 9.4.10.3.B where in any other zone; d. compliant with the standard vehicle type requirements for the zone and zone precinct applicable to the site and intended use.	**AO3.3 Complies** The proposed rear access way has a width of 4m and driveway of 2.5m to comply with the applicable standard. An access easement is proposed to allow for access to proposed Lot 4 over proposed Lot 3.
	AO3.4 Development provides safe sight distances at the following locations: a. an access point along the frontage of each lot;	**AO3.2 Complies** Refer to submitted engineering report and drawings.

	b. a junction and an intersection, including corner truncation; c. a pedestrian or cyclist crossing.	
	AO3.5 Development provides grades within a lot that: a. enable vehicular access to be achieved in accordance with the Transport, access, parking and servicing planning scheme policy; b. do not require cut and fill in excess of 1m in height.	**AO3.5 Complies** Refer to submitted engineering report and drawings. Cut and fill is less than 1m in height.
PO4 Development provides for the delivery of infrastructure and maintains the safety, efficiency and capacity of infrastructure networks. Editor's note—See section 128 (Necessary infrastructure conditions) and section 145 (Conditions local government may impose) of the *Planning Act 2016*.	**AO4.1** Development provides land and works for infrastructure and services in compliance with the: a. Local government infrastructure plan; b. standards in the Infrastructure design planning scheme policy; c. Refuse planning scheme policy; d. Transport, access, parking and servicing planning scheme policy; e. Long term infrastructure plan; f. codes and planning scheme policies that apply to the site.	**AO4.1 Complies** Refer to submitted engineering report and drawings.
	AO4.2 Development provides a stormwater system in compliance with the standards in the Stormwater code that has sufficient capacity to enable lawful uses appropriate to the intended use for the locality under the planning scheme.	**AO4.2 Complies** Refer to submitted engineering report and drawings.
	AO4.3 Development provides for a corner truncation of each corner of a site with a road frontage, if not already provided, that is: a. in compliance with the road corridor design standards in the Infrastructure design planning scheme policy; or b. a 6m long by 3 equal chord truncation if a minor	**AO4.3 Not applicable**

	road.	
PO5 Development provides for safe and healthy occupation of the lots relative to risks, hazards and land uses that adversely affect the normal occupation of the lot by the intended land use and activities associated with that use.	**AO5** Development ensures that lot density, location, arrangement and dimensions address potential adverse impacts on the normal occupation of the lot for its intended use and associated activities, by: a. identifying the sources of potential hazards including air, noise, dust, light, contaminated land and electromagnetic emissions; b. avoiding the hazard; or c. mitigating hazard impacts, including through buffers, structures or other necessary measures. Note—Overlays and neighbourhood plans provide information about potential risks and hazards and how to address them. However, the planning scheme may not reflect risks and hazards determined as part of the analysis of the site and its surrounds and assessment of the development or changed circumstances or those associated with: • contaminated land; • transport noise corridors on State-controlled roads and the rail network. The Queensland Government's Contaminated land register and Environmental management register should be consulted regarding contaminated land. The State Planning Policy Interactive Mapping System should be consulted regarding transport noise corridors.	**AO5 Not applicable** There are no nearby sources of potential hazards
Additional performance outcomes and acceptable outcomes for reconfiguring a lot involving: a. rearranging the boundaries of a lot; or b. volumetric format plan subdivision; or c. a site in 2 or more zones, zone precincts, neighbourhood plan precincts or overlay sub-categories.		
PO6 Development ensures that any rearrangement of a lot boundary: a. does not create additional lots; b. wholly contains infrastructure and services within the lot they serve; c. results in lots having a dimension, arrangement and size that maintains or	**AO6** No acceptable outcome is prescribed.	**Not applicable**

improves consistency with the: i. character intended for the locality; ii. outcomes of the zones, zone precincts, neighbourhood plans and overlays applicable to the site.		
PO7 Development ensures that volumetric format plan subdivision and any associated statutory easements: a. facilitate efficient development; b. ensure reasonable and practical access to services, facilities and infrastructure appropriate to the current and any intended future use of the premises; c. are in accordance with an existing development approval or approved building; d. are consistent with the outcomes of the zones, zone precincts, neighbourhood plans and overlays applicable to the site.	**AO7** No acceptable outcome is prescribed.	**Not applicable**
PO8 Development ensures that a subdivision involving 2 or more zones, zone precincts, a neighbourhood plan precinct or overlay sub-categories, provides for the: a. different lot design requirements that are applicable to the zones, zone precincts, neighbourhood plans and overlays and applicable to the site; b. lawful uses intended for the site and the locality.	**AO8.1** Development ensures that the boundary between the zones, zone precincts, neighbourhood plans, overlays and land uses are reflected in the design, arrangement and boundaries for proposed lots to the extent relevant. **AO8.2** Development includes separation, buffers, management zones or other means to address any adverse amenity, health or safety impacts caused by an adjacent use. **AO8.3** Development provides lot dimensions and size in each different zone, zone precinct, neighbourhood plan and land use that is in compliance with Table 9.4.10.3.B.	**Not applicable**
Section B—Transport, traffic and movement outcomes for reconfiguring a lot involving:		

a. 10 or more lots; or b. road reserve or new road; or c. cycle or pedestrian routes.		
PO9 Development ensures that the transport network and all its component elements is designed to: a. facilitate the efficient and cost-effective provision and maintenance of infrastructure; b. deliver the intended functional outcome of each element; c. have a clear hierarchical structure using the existing network classification; d. provide a high level of internal accessibility and external connectivity for local vehicle, pedestrian and bicycle networks and where relevant, public transport and freight networks. Note—A traffic impact assessment may be required in accordance with the Transport, access, parking and servicing planning scheme policy to demonstrate this performance outcome is satisfied. Note—The transport network is any element that provides for the movement of vehicles, pedestrians or cyclists other than the internal function and operation of a site and may include public space, publicly accessible private space or private space if through movement or public access is intended.	**AO9** Development provides a transport network that: a. is designed and constructed in compliance with the Infrastructure design planning scheme policy and the Transport, access, parking and servicing planning scheme policy; b. completes, aligns and integrates with the relevant components of the surrounding transport network identified through: i. the Road hierarchy overlay map; ii. the Bicycle network overlay map; iii. the Streetscape hierarchy overlay map; iv. any other overlay, neighbourhood plan, preliminary approval, development approval, structure plan or other plans agreed by the Council, over the subject site or land adjoining and in the locality of the subject site; v. a traffic impact assessment report in accordance with the Transport, access, parking and servicing planning scheme policy and the report outcomes as agreed by the Council; c. when resulting in a stub road for a proposed future road connection, provides a turn-around area or easement in compliance with the Refuse planning scheme policy and the Infrastructure design planning scheme policy. Note—The majority of relevant standards identified in the planning scheme are located in the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy. Note—This outcome can be demonstrated through an application that: • is accompanied by sufficient information (including computer modelling	**Not applicable**

	input and output data) to allow the proposed development to be properly assessed against the requirements of this code and the standards and guidelines of the Transport, access, parking and servicing planning scheme policy; • is certified by a Registered Professional Engineer Queensland that all plans, documents and dimensioned drawings comply with the requirements of this code and/or the standards and guidelines of the Transport, access, parking and servicing planning scheme policy and that any computer modelling input and output data is accurate, reasonable and carried out in accordance with sound traffic engineering practices.	
PO10 Development provides permeable, connected, attractive and safe pedestrian and bicycle networks that: a. are designed to provide permeability for pedestrians and cyclists having regard to the surrounding area and existing and future networks; b. are safe, suitably shaded and embellished, attractive and efficient; c. link destinations such as major developments, public transport stops and parks along the safest, most direct and convenient routes; d. provide routes that are on areas of least slope and avoid potential hazards such as flooding; e. run predominantly along public spaces including streets or parks that are fronted by dwellings; f. are located where there is casual surveillance, avoiding an area with a major break in surveillance and an unlit area at night; g. are widened at potential vehicle conflict points. Note—While the road layout may include no through roads such as cul-de-sacs in limited circumstances, the pedestrian and bicycle network may not.	**AO10.1** Development provides a pedestrian and bicycle network that connects into the broader network of proposed and existing pathways, that: a. is in compliance with the Infrastructure design planning scheme policy and any overlay, neighbourhood plan, preliminary approval, development approval that applies to the site or structure plan relevant to the site; or b. uses a pedestrian and bicycle accessibility grid-based network throughout the development where no overlay, neighbourhood plan, preliminary approval, development approval or structure plan applies. Note—The Infrastructure design code requires the creation of footpaths and bikeways in compliance with the standards and specifications in the transport network and road corridor design sections of the Infrastructure design planning scheme policy, where in the road reserve or through a park. **AO10.2** Development provides pathway links outside the road corridor that: a. comply with the Infrastructure design planning scheme policy; b. incorporate key elements of crime prevention through environmental design, including:	**Not applicable**

Note—Pedestrian and bicycle networks should be designed in conjunction with the design of the road network and lot layout.	i. having a maximum length of 40m; ii. providing a direct line of sight between ends of the link; iii. connecting between the road network and the park where development is located between them. Note—For guidance in achieving the key elements of crime prevention through environmental design, refer to the Crime prevention through environmental design planning scheme policy. Note—A minimum of 50% of any park frontage should be to a minor road.	
PO11 Development provides a road reserve and carriageway that is of sufficient design, width and arrangement to preserve the function of the road hierarchy and address all impacts on the road network, including: a. safe and efficient movement of users, including vehicles, cyclists and pedestrians; b. vehicle parking; c. access to properties, including accommodation of the largest design service vehicle; d. construction and maintenance of public utilities; e. landscaping, street trees and shading; f. safety and visibility; g. integrated pedestrian and cyclist movement and safety; h. noise reduction; i. required design vehicles; j. utility services.	**AO11** Development provides a road reserve and carriageway that is designed in compliance with its road hierarchy classification within the Infrastructure design planning scheme policy.	**Not applicable**
PO12 Development provides a road network that: a. includes a minor road network that creates convenient and safe movement between uses	**AO12.1** Development provides a road network which is designed and constructed in compliance with the Infrastructure design planning scheme policy.	**Not applicable**

and to major roads; b. positively contributes to and enhances the bicycle network and streetscape hierarchy; c. caters for the expected vehicle, pedestrian and cyclist use; d. utilises geometry consistent with the standards relevant for the road hierarchy; e. provides safe vehicular access to each lot where direct lot access is allowed; f. prevents the needs for traffic-calming devices and ensures speed management is achieved by geometric design and arrangement of roads and paths; g. provides safe pedestrian and cyclist crossings; h. minimises the need for earthworks; i. provides minor roads adjoining and overlooking the public parks network; j. enables the creation of lots that facilitate sufficient solar access for potential dwellings, buildings, structures and activity areas; k. maximises the quality of the public realm, provision of street trees and availability of on-street parking.	**AO12.2** Development provides a minor road frontage for a minimum 50% of any park edge where involving new park or adjoining the site of an existing or approved park. **AO12.3** Development provides road network that: a. is generally orientated on a modified grid pattern that allows for topographic constraints; b. facilitates the following orientation wherever possible: i. generally north-south roads, to allow lots to have their long axes typically orientated east-west; ii. generally east-west roads, to allow lots to have their long axes typically orientated north-south.	
PO13 Development provides connected road, pedestrian and bicycle networks.	**AO13** Development involving new road ensures that a no through road is included only where: a. physical features obstruct road network continuity; b. it is demonstrated that there is no alternative road layout, option or arrangement to provide for road continuity; c. connections with a direct line of sight are provided to existing, proposed or potential through-streets for pedestrians and cyclists at the end of any no through road;	**Not applicable**

	d. a manoeuvring area is dedicated for the road stub at the end of a no through minor road, in compliance with the standards in the Infrastructure design planning scheme policy and the Transport, access, parking and servicing planning scheme policy; e. if for residential development, a no through road: i. accommodates a maximum of 200 vehicle movements per day; ii. provides a visible manoeuvring area from the no through road entrance; iii. is no longer than 150m. f. if for industrial development, a no through road accommodates a maximum of 1,000 vehicle movements per day. Note—Physical features that might obstruct road network connectivity include waterways, parks or significant land use change. The road layout should be designed to overcome the constraint or alternative arrangements such as infrastructure solutions should be provided. If no practical option exists, then this must be demonstrated in the development application.	
PO14 Development maximises opportunities to provide on-street car parking where: a. in compliance with the intended function of the road; b. taking into consideration kerb space requirements for: i. bus stops, passenger set down, servicing and traffic control devices; ii. street trees and landscaping; iii. street furniture and public signage; iv. utilities and other infrastructure.	**AO14** Development provides on-street car parking in compliance with the Infrastructure design planning scheme policy and Transport, access, parking and servicing planning scheme policy.	**Not applicable**
PO15 Development provides intersection designs that ensure: a. safety, efficient function and visibility for	**AO15** Development provides intersections that are designed in compliance with the Infrastructure design planning scheme policy.	**Not applicable**

vehicles, pedestrians and cyclists; b. verge areas that provide sufficient space for safe pedestrian movement; c. sufficient space for infrastructure and traffic management.		
PO16 Development provides a transport network that caters for the extension of existing or future public transport routes and infrastructure including safe pedestrian set-down and pick-up facilities.	**AO16** Development provides bus infrastructure and intersections that are designed in compliance with the Infrastructure design planning scheme policy and the Transport, access, parking and servicing planning scheme policy.	**Not applicable**
PO17 Development provides a transport network that is: a. designed to operate safely for users, pedestrians and cyclists; b. ensures emergency access or evacuation in emergencies.	**AO17** Development provides a secondary road access if access to lots is used by more than 1,000 vehicles per day. Note—The secondary access is to provide emergency vehicles with an alternative route where the primary route may be heavily trafficked and the effectiveness of emergency response is reduced.	**Not applicable**
Section C—Specific performance outcomes and acceptable outcomes applicable to development		
Section C1—Development for reconfiguring a lot involving any of the following: a. a site that is more than 1ha in the Emerging community zone; or b. the number of potential dwellings is 20 or more in the Emerging community zone; or c. a site that is more than 7,000m^2 in the Low density residential zone; or d. the number of lots is 20 or more; or e. the opening of a new road, creation of a park, the creation of a bicycle and pedestrian network element; or f. the creation of more than 50% of the lots with an area less than 350m^2 where not associated with a material change of use or in accordance with an approved building. Note—Refer to the Structure planning planning scheme policy for guidance on how to calculate potential dwelling numbers for lots not intended to accommodate dwelling houses or where reconfiguring a lot is not proposed in conjunction with a material change of use.		
PO18 Development delivers contained, sustainable and functional communities comprised of walkable, highly connected and legible neighbourhoods that ensure: a. the lot frontage of all residential lots is within:	**AO18.1** Development is designed and sited in compliance with: a. the structure outlined in a neighbourhood plan, a development approval or a preliminary approval that is relevant to the full nature and extent of the	**Not applicable**

i. 400m walking distance from a local park, community hub or other central focal point to create a strong and positive neighbourhood identity; ii. 800m walking distance of a local shop and services; b. the greatest intensity of development is within 400m walking distance from: i. a centre other than a Neighbourhood centre; ii. high frequency public transport; c. if residential development, a variety of lot sizes are provided to accommodate a range of dwellings consistent with the zones, zone precincts, neighbourhood plans and overlays that apply to the site; d. connected transport and public parks networks are provided to encourage public and active transport use within and between neighbourhoods; e. an interconnected street pattern that results in safe, connected and permeable neighbourhoods; f. centrally located parks; g. sites are provided for community activities, services and facilities and utilities; h. integrated development with compatible surrounding development approvals and established residential areas; i. the outcomes of neighbourhood plans are delivered; j. site characteristics and setting are addressed including character and environmental values and development constraints, as detailed in an applicable neighbourhood plan or overlay or as determined through a structure planning	development and that clearly indicates the following: i. integration, connection and relationship of the site with surrounding land uses; ii. roads, pathways, bicycle and public transport stops and stations; iii. character and environmental values and development constraints; iv. parks and key destinations such as centres and community facilities; or b. a structure plan prepared in accordance with the Structure planning planning scheme policy. Note—A neighbourhood plan, preliminary approval or development approval must provide comprehensive information that guides the land use pattern, scale, arrangement, connections, transport network and relationship of the development to surrounding features and values. A structure plan must be prepared in accordance with the Structure planning planning scheme policy where this information is insufficient. **AO18.2** Development likely to generate significant pedestrian movements provides a layout with a: a. maximum street block length of 220m; b. maximum street block depth of 80m; c. mid-block pedestrian pathway: i. every 150m of street block length or part thereof where a street block length exceeds 200m; ii. providing a minimum 5m wide direct line of sight between the link ends.	

process. Note—A structure plan prepared in accordance with the Structure planning planning scheme policy can assist in demonstrating the achievement of this outcome. A structure plan must be prepared where in the Emerging community zone. Note—In interpreting PO18(b)(ii) the term 'high frequency public transport' means a public transport stop providing 4 or more services per hour in the peak periods of 7am to 9am and 4pm to 6pm.		
PO19 Development ensures that the layout retains and responds to: a. physical features such as topography, natural drainage systems and significant vegetation; b. existing heritage or character buildings; c. adjoining existing uses and the transport and public park networks.	**AO19.1** Development retains and incorporates significant vegetation within a park, the road reserve, waterways or corridors, common property or private open space areas. Note—The Vegetation planning scheme policy provides guidance on determining what significant vegetation is to be considered in demonstrating achievement of this outcome **AO19.2** Development integrates heritage or character buildings with community facilities or shared facilities.	**Not applicable**
PO20 Development provides a layout that supports pedestrian access to public transport services by locating: a. a high proportion of dwellings close to public transport stops; b. higher density residential development close to transport stops; c. non-residential or high trip-generating uses immediately proximate to transport stops.	**AO20** Development provides 90% or more of lots and all non-residential uses intended for public visitation within a 400m walking distance of an existing or future stop on a public transport route or a dedicated public pedestrian access point to a railway or busway station.	**Not applicable**
PO21 Development provides a high proportion of lots that can accommodate climate-responsive subtropical building design for solar access and breeze.	**AO21.1** Development provides lots that are generally designed and positioned to locate: a. small lots or the greatest dwelling densities on north-facing slopes with gradients of less than 15%; b. larger lots or the lowest dwelling densities on south-	**Not applicable**

	facing slopes or parts of the site where solar access is poor. **AO21.2** Development involving a small lot that has a building envelope plan, or provides for integrated small lot development, identifies on the building envelope plan private open space orientated to the north or north-east if this can be accommodated to the rear or side of buildings.	
PO22 Development provides a range of lot sizes and types mixed in one location and located on any street frontage that: a. meet the housing choice outcomes for the zone, zone precinct or neighbourhood plan; b. is consistent with the surrounding lot character; or c. provides a gradual transition in lot character where the site's location provides opportunities to locate near public transport stops and stations and enables ease of access to services and facilities. Note—A performance outcome for a small lot that does not comply with AO22.2 requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and the *Land Act 1994*.	**AO22.1** Development provides a range of lot sizes that comply with: a. the zone, zone precinct, neighbourhood plan, preliminary approval or development approval; or b. if there is no neighbourhood plan, preliminary approval or development approval that specifies or provides sufficient information on the range, scale, mix and density of lots, a maximum of 18 dwellings per hectare in the Low density residential zone, and 24 dwellings per hectare in the Low-medium density residential zone; or c. if there is no neighbourhood plan, preliminary approval or development approval that specifies or provides sufficient information on the range, scale, mix and density of lots, the requirements of Table 9.4.10.3.B and surrounding lot character consistent with the proposed uses of the site. Note—The density of dwellings per hectare is calculated based on the number of dwellings (such as dwelling houses, multiple dwellings) relative to the area of the site for proposed lots intended for dwellings and inclusive of land intended to be included in the Local zone precinct of the Open space zone and local roads. **AO22.2** Development fronting an existing or proposed road provides: a. no more than 6 contiguous small lots that are separated by no less than 2 standard lots from other small lots, where in the Emerging community zone,	**Not applicable**

	Low density residential zone and Character residential zone; b. no more than 6 contiguous small lots that feature abutting built to boundary walls, where in the Low-medium density residential zone; c. if adjoining land in the Residential zones category or the Emerging community zone: i. a consistent lot character; ii. a gradual transition in lot sizes, dimensions and layout where within 400m walking distance from a centre other than a Neighbourhood centre, and high frequency public transport. Note—Identification of a development footprint plan can assist in demonstrating achievement of this acceptable outcome. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*. Note—In interpreting AO22.2(c)(ii) the term 'high frequency public transport' means a public transport stop providing 4 or more services per hour in the peak periods of 7am to 9am and 4pm to 6pm.	
PO23 Development involving lots for non-residential, centre or mixed use development is provided in the following appropriate locations that take advantage of: a. site access opportunities or restrictions; b. positive streetscape or park interface opportunities; c. opportunities to locate near transport stops or on transport routes; d. uses and building forms to act as noise buffers to external noise sources such as major roads, railways or other non-residential uses; e. development interfaces and land use transitions to residential uses.	**AO23** Development involving lots for non-residential, centre or mixed use development in a residential neighbourhood or subdivision are located: a. with a frontage to a road higher than a minor road in the road hierarchy that can serve as the primary vehicle access point; b. on the end of street blocks or corners; c. within 200m walking distance of a dedicated public pedestrian access point of, or is integrated with, a public transport stop or station; d. so that the change of use between residential and non-residential uses occurs along the shared rear boundaries of lots.	**Not applicable**

PO24 Development provides a lot mix and location within a residential neighbourhood or subdivision that supports positive streetscape outcomes and balances expected building forms, driveway frequency, on-street parking, water sensitive urban design and other elements.	**AO24.1** Development where providing lots for multiple dwellings: a. facilitates direct pedestrian and vehicle access to ground-floor dwellings; b. locates lots: i. on corner sites; or ii. at the ends of street blocks; or iii. where they have dual frontage. Note—Vehicle access in the form of shared driveways and crossovers is desirable to maximise the availability of on-street car parking and provision of street trees. **AO24.2** Development ensures that a lot that is less than 350m^2 or with a frontage width less than 10m: a. is located mid-block or adjacent to a park where there is dual frontage; b. is located in a group up to but not more than 6 in a row to enable integrated design and construction solutions; c. if serviced by a rear lane, the lane is no longer than 60m in length.	**Not applicable**
	AO24.3 Development provides for larger lots located on corners or at the end of T-intersections.	
PO25 Development involving a lot intended for a dwelling house is of a regular shape and an appropriate size and dimensions: a. for the siting and construction of any existing or potential dwelling houses and any ancillary building or activity; b. to maximise outdoor private space, privacy and amenity; c. to provide convenient on-site vehicle access	**AO25.1** Development provides lots that are rectangular or regular in shape, with the depth dimension greater than the width dimension and in accordance with Table 9.4.10.3.B. **AO25.2** Development with lots less than 600m^2 provides lots that are rectangular or regular in shape and has a minimum of 65% of lots orientated in accordance with Figure a.	**Not applicable**

and parking.		
PO26 Development provides land for park purposes that is well distributed and located and is consistent with: a. the nature of surrounding parks; b. the needs of occupants and visitors; c. the safety and connection to the transport network.	**AO26** Development provides land for park purposes that is in compliance with the Park planning and design code and the Local government infrastructure plan.	**Not applicable**
Section C2—Detailed performance outcomes and acceptable outcomes for a small lot: a. not complying with the dimensions in Table 9.4.10.3.B; or b. with a frontage width of less than 10m.		
PO27 Development ensures that each small lot is of a suitable size, frontage width and configuration to enable the development of a dwelling house, associated ancillary structures and site access without adversely impacting the: a. intended character of a locality; b. quality of the public realm and the provision of street trees; c. availability of on-street car parking; d. natural, character or heritage features of the lot. Note—A performance outcome for a small lot that does not comply with AO27.1, AO27.2, AO27.3 and AO27.4 requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*.	**AO27.1** Development where a small lot and not complying with the dimensions in Table 9.4.10.3.B provides a development footprint plan: a. formed by the acceptable outcomes for side and rear boundary setbacks for a dwelling house in compliance with the Dwelling house (small lot) code; b. 3m to the primary street frontage or the least setback of an adjoining dwelling, wherever is greater; c. 1.5m to any secondary street frontage where for a corner lot; d. 3m to any private open space on an existing or proposed adjoining small lot. Note—This acceptable outcome requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*. Note—The development footprint plan does not override the Dwelling house (small lot) code other than to the extent provided for in that code. **AO27.2** Development where a small lot and not complying with the	**AO27 Complies** Proposed Lot 3 with road frontage less than 10m will retain an existing dwelling and utilise the existing crossover with modifications proposed to accommodate shared vehicular access to Proposed Lot 4. The subdivision results in no impact to existing street trees

	dimensions in Table 9.4.10.3.B provides a minimum of 16m^2 principle private open space with a minimum dimension of 4m. Note—This acceptable outcome requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*. Note—The development footprint does not override the Dwelling house (small lot) code other than to the extent provided for in that code.	
	AO27.3 Development locates the development footprint plan so that no more than 6 dwelling houses in a row provide for co-located built to boundary walls. Note—This acceptable outcome requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*.	
	AO27.4 Development where a small lot with a frontage width of less than 10m provides a development footprint plan demonstrating that any vehicle parking areas, access or driveway is in a location that: a. minimises impacts to existing street trees and on-street car parking; b. maximises opportunities for street tree planting and on-street car parking. Note—This acceptable outcome requires identification of a development footprint plan. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act 1994*.	
Section C3—Additional performance outcomes and acceptable outcomes if involving reconfiguring a lot in a zone in the Industry zones category or the Extractive industry zone		
PO28	**AO28.1**	**Not applicable**

Development provides a lot layout plan that: a. facilitates the integration of industrial development with other adjacent industrial development and the transport network elements intended for industrial traffic; b. minimises impacts to existing or potential incompatible land uses.	Development involving an industrial lot ensures vehicle access is to a road intended for industrial access, not a residential street. **AO28.2** Development provides lots or easements for non-industrial uses such as private open space, environmental or stormwater management that create spatial separation between industrial lots and other incompatible land uses.	
PO29 Development for industrial uses that are proposed to be serviced by a railway, road freight depot, intermodal terminal, airport or seaport maximises access to these facilities.	**AO29** Development provides lots that are arranged to: a. provide direct frontage to a railway, road freight depot, intermodal terminal, airport or seaport loading and unloading area; b. be accessed by shared access ways, over private land or public road in the site, linking to the loading and unloading areas.	**Not applicable**
PO30 Development in the General industry C zone precinct of the Industry zone and the Extractive industry zone, provides lots that: a. are of a size that facilitates a variety of industrial and industry compatible land uses; b. are not subdivided or otherwise fragmented into unviable lot sizes.	**AO30** Development on land in the General industry C zone precinct of the Industry zone and the Extractive industry zone retained in large lots in compliance with Table 9.4.10.3.B.	**Not applicable**
Section C4—Additional performance outcomes and acceptable outcomes for lot design if reconfiguring a lot in a zone in the Centre zones category, Mixed use zone, Community facilities zone or Specialised centre zone Note—If a reconfiguration of a lot for commercial development occurs prior to a development application for a material change of use, the reconfiguration of a lot design is to have regard to the relevant development code.		
PO31 Development: a. facilitates the integration of centre and mixed uses with adjacent uses and features;	**AO31** No acceptable outcome is prescribed.	**Not applicable**

b. complements and enhances existing or proposed public spaces; c. ensures minimum impact on the amenity of adjacent and nearby areas; d. provides for reasonable buffers between any existing or potential incompatible land uses.		
Section C5—Additional performance outcomes and acceptable outcomes for lot design if reconfiguring a lot in the Environmental management zone, Rural zone or a very-low density residential potential development area identified in a neighbourhood plan		
PO32 Development provides a lot design that protects, maintains and enhances ecological features, significant vegetation, koala habitat trees and rural land values. Note—Ecological features, significant vegetation and koala habitat trees can be identified through an ecological assessment as outlined in the Biodiversity areas planning scheme policy and accommodated through the approach described in the Structure planning planning scheme policy. Note—This performance outcome requires identification of a development footprint plan or building envelope plan. A development footprint plan or building envelope plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and the *Land Act 1994*.	**AO32** Development identifies a development footprint plan or building envelope plan for each lot and demonstrates that lot design and layout conserves ecological features, significant vegetation, koala habitat trees and rural land values in a spatial configuration that: a. consolidates and connects areas to be conserved for biodiversity purposes on site and in combination with adjoining sites; b. minimises fragmentation of areas to be conserved for biodiversity purposes by infrastructure; c. does not further fragment viable rural land. Note—This acceptable outcome requires identification of a development footprint plan or building envelope plan. A development footprint plan or building envelope plan will form part of a development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and the *Land Act 1994*.	**Not applicable**
PO33 Development provides vehicular access that is: a. available to each lot or building envelope area; b. does not result in the loss of ecological features, significant vegetation and koala habitat trees. Note—Ecological features, significant vegetation and koala habitat	**AO33** Development provides vehicle access via a road and within a lot that is designed to minimise the clearing of vegetation and potential threat to fauna movement. Note—Identification of a development footprint plan can assist in demonstrating achievement of this acceptable outcome. A development footprint plan will form part of the development approval and may be conditioned to be included on the plan of subdivision to be registered for the lot subject to the requirements of the *Land Title Act 1994* and *Land Act*	**Not applicable**

trees can be identified through an ecological assessment as outlined in the Biodiversity areas planning scheme policy.	*1994*.	
Section D—Additional performance outcomes and acceptable outcomes if reconfiguring a lot other than involving the creation of freehold lots		
If dividing land into parts by an agreement that is a lease or an exclusive use agreement or lease or the reconfiguring of an existing or approved building whether or not including land		
PO34 Development does not result in: a. the use of a premises being impaired or made unlawful; b. dependent activities of a use becoming separated by titling; c. the functioning of the relevant development approval being compromised. Note—For instance, where premises are used for any industrial use that includes an ancillary office, the office cannot be separately titled as it is dependent on the industrial use component. Note—For instance, while the reconfiguring a lot for a multiple dwelling provides individually titled units through a building form plan with a land component, the private courtyard for each unit is to be included in the title of each unit and not in the common property unless expressly required by an overlay. For example, land subject to hazard may necessitate private courtyards be within common property for maintenance purposes. Note—In some instances it is appropriate to allow for reconfiguring a lot of land by either community title or a standard format plan if a combined development application for a material change of use includes an existing building that is to be retained on the site and separately titled. Reconfiguration of an existing use does not materially change the nature of the existing approval.	**AO34.1** Development ensures: a. the use of premises remains lawful; b. development remains in compliance with planning and building standards and development approvals. **AO34.2** Development of premises for its intended or approved use is lawful and in compliance with planning and building standards and development approvals.	**Not applicable**
If involving a standard format lot with common property such as requiring a community management scheme under the *Body Corporate and Community Management Act 1997* Note—If a building is to be constructed prior to reconfiguring a lot, assessment of the development is to be undertaken as part of the development application for a material change of use if that development is assessable under the planning scheme. Reconfiguring a lot can be assessed simultaneously or subsequently against the relevant parts of this code.		
PO35	**AO35**	**Not applicable**

Development involving common property under the *Body Corporate and Community Management Act 1997*, provides residential lots that have an appropriate area and dimensions: a. for siting and constructing the intended building and any ancillary outbuilding and structure; b. for the provision of private open space, vehicle access and parking; c. that are consistent with the zone, zone precinct, neighbourhood plan and overlay outcomes applicable to the site. Note—If a building is to be constructed prior to reconfiguring a lot, assessment of the development is to be undertaken as part of the development application for a material change of use if that development is assessable under the planning scheme. Reconfiguring a lot can be assessed simultaneously or subsequently against the relevant parts of this code.	No acceptable outcome is prescribed	
PO36 Development provides internal access ways and driveways that: a. are designed to clearly indicate the function of the access way; b. provide acceptable levels of access, functionality, safety, amenity and convenience for users, as well as catering for car parking facilities.	**AO36.1** Development for the purposes of residential development or the residential components of development, provides lots that are of a size and dimension to accommodate the following: a. internal access ways that are designed in compliance with Table 9.4.10.3.C; b. internal driveways serving a single dwelling that are a maximum of 3m wide; c. driveways serving more than 3 lots that are at least 4m wide. **AO36.2** Development involving other purposes, has internal access ways and driveways in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	**Not applicable**

Table 9.4.10.3.B—Minimum lot dimensions and size of a lot

Note—This table provides minimum lot size and dimensions information and does not amend the categories of development and assessment. Consult the tables of assessment in Part 5 for applicable categories of development and assessment.

Table 9.4.10.3.B Part 1—Standard lots in the Low density residential zone, Character residential zone, Low-medium density residential zone and Emerging community zone

Zone or Zone precinct	Minimum lot size (m^2) (1)	Minimum rectangle dimension (m)	Average lot width (m)
If in the Low density residential zone, Character residential zone, Low-medium density residential zone or Emerging community zone			
Development of a residential lot	450	14 x 20	15

Table 9.4.10.3.B Part 2—Small lots in the Low density residential zone, Character residential zone, Low-medium density residential zone and Emerging community zone

Zone or Zone precinct	Minimum lot size (m^2) (1)	Minimum rectangle dimension (m)	Average lot width & minimum frontage (m)
If in the Low density residential zone			
Development for a residential lot	400	9 x 15	10
Where average lot size is 400m^2 for the development (calculated excluding rear lots) and all lots comply with minimum rectangle dimension and average lot width requirements	350	6 x 15	10
Where any part of the lot frontage is within 200m walking distance of any part of the lot frontage of a site or sites in a zone in the Centre zones category with a combined site area of more than 2,000m^2	300	6 x 15	7.5
If in the Character zone precinct of the Character residential zone			
Development of a residential lot	Not applicable		

If in the Infill housing zone precinct of the Character residential zone			
Development of a residential lot	300	6 x 15	7.0
Where adjoining the side boundary of a lot 400m^2 or greater containing an existing dwelling house	300	6 x 15	7.5
If in the 2 storey mix zone precinct of the Low-medium density residential zone			
Development of a residential lot	260	6 x 15	7.0
Where adjoining the side boundary of a lot 400m^2 or greater containing an existing dwelling house	260	6 x 15	7.5
If in the 2 or 3 storey mix zone precinct of the Low-medium density residential zone			
Development of a residential lot	260	6 x 15	7.0
Where adjoining the side boundary of a lot 400m^2 or greater and vehicle access is from a secondary frontage (typically a rear lane)	260	6 x 15	6.5
Where adjoining the side boundary of a lot 400m^2 or greater containing an existing dwelling house	260	6 x 15	7.5
If in the Up to 3 storeys zone precinct of the Low-medium density residential zone			
Development of a residential lot	180	6 x 15	6.5
Where adjoining the side boundary of a lot 400m^2 or greater and vehicle access is from a secondary frontage (typically a rear lane)	180	6 x 15	6.0
Where adjoining the side boundary of a lot 400m^2 or greater containing an existing dwelling house	180	6 x 15	7.5
If in the Emerging community zone			
Development of a residential lot	350 (2)	9 x 15	10

Where a proposed dwelling house lot and an adjoining lot on a side boundary is 400m^2 or greater	350 (2)	6 x 15	7.5
Where a proposed dwelling house lot and all adjoining lots are smaller than 400m^2	350 (2)	6 x 15	6.0

Table 9.4.10.3.B Part 3—Rear lots in the Low density residential zone, Character residential zone, Low-medium density residential zone and Emerging community zone

Zone or Zone precinct	Minimum lot size (m^2) (1)	Minimum rectangle dimension (m)	Average lot width (m)
If in the Low density residential zone or Character zone precinct of the Character residential zone			
Development of a residential lot	600 (3)	14 x 20	15
If in the Infill housing precinct of the Character residential zone			
Development of a residential lot	450 (3)	9 x 15	10
If in the Low-medium density residential zone or Emerging community zone			
Development of a residential lot	350 (3)	6 x 15	10

Notes applying to Table 9.4.10.3.B Parts 1, 2 and 3—

(1) Minimum lot size is calculated including the land area of an easement in favour of Council or truncation to be dedicated as road at the time the lot is created, provided the minimum rectangle dimension is accommodated within the balance area of the lot.

(2) Minimum lot size is an average lot size for the development (calculated excluding all lots greater than 900m^2 and including only those lots intended for a dwelling house) provided all lots comply with minimum rectangle dimension requirements.

(3) The minimum lot size is calculated excluding the access way to a rear lot or the area of any easement that also serves as an access way.

Table 9.4.10.3.B Part 4—All other zones

Zone or South East Queensland Regional Plan area	Minimum lot size (m^2) - standard lot and (rear lot) (1)	Minimum rectangle dimension (m)	Average lot width (m)	Minimum access way width (m) for rear lot

If in the Rural residential zone				
Development of a lot	10,000 (10,000)	14 x 20	40	7.5
If in the Medium density residential zone				
Development of a lot	800 (800)	18 x 20	20	7.5
If in the High density residential zone				
Development of a lot	800 (800)	18 x 20	20	7.5
If in a zone in the Centre zones category				
Development of a lot	800 (800)	18 x 20	20	7.5
If in the Mixed use zone				
Development of a lot	800 (800)	18 x 20	20	7.5
If in the Extractive industry zone or General industry C zone precinct of the Industry zone				
Development of a lot	100,000 (100,000)	80 x 100	200	15
If in the General industry B zone precinct of the Industry zone				
Development of a lot	2,000 (2,000)	20 x 40	25 (40)[(3)]	7.5
If in the General industry A zone precinct of the Industry zone				
Development of a lot	1,000 (1,000)	18 x 30	25 (25)[(3)]	7.5
If in the Low impact industry zone				
Development of a lot	1,000 (1,000)	18 x 30	25 (25)[(3)]	7.5
If in the Industry investigation zone				
Development of a lot	100,000 (40,000)	80 x 100	100	15
If in the Special industry zone				

Development of a lot	100,000 (100,000)	80 x 100	100	15
If in the South East Queensland Regional Plan Urban Footprint where not in the above zones				
Development of a lot	100,000 (100,000)	50 x 80	Not specified	10
If in the South East Queensland Regional Plan Regional Landscape and Rural Production Area(4)				
Development of a lot	1,000,000 (1,000,000)	50 x 80	Not specified	10

Notes applying to Table 9.4.10.3.B Part 4—

(1) The minimum lot size is calculated:

- including the land area of an easement in favour of Council or truncation to be dedicated as road at the time the lot is created, provided the minimum rectangle dimension is accommodated within the balance area of the lot;
- excluding the access way to a rear lot or the area of any easement that also serves as an access way.

(2) The minimum rectangle dimension excludes any area required for fire management or a bushfire management footprint plan.

(3) The distance in brackets is the minimum frontage to a major road shown in the Road hierarchy overlay.

(4) Subdivision of land within the South East Queensland Regional Landscape and Rural Production Area must comply with Schedule 10 of the *Planning Regulation 2017*. A minimum lot size of 100ha applies unless the subdivision meets an exemption as described in the *Planning Regulation 2017*.

Table 9.4.10.3.C—Design of access ways in community title development

Minimum carriageway width	6.5m
Minimum total access way reserve	10m
Minimum verge width	1.5m
Footpath	1.5m
Cul-de-sac design for service vehicle	3 point turn
Kerb and channel	Required

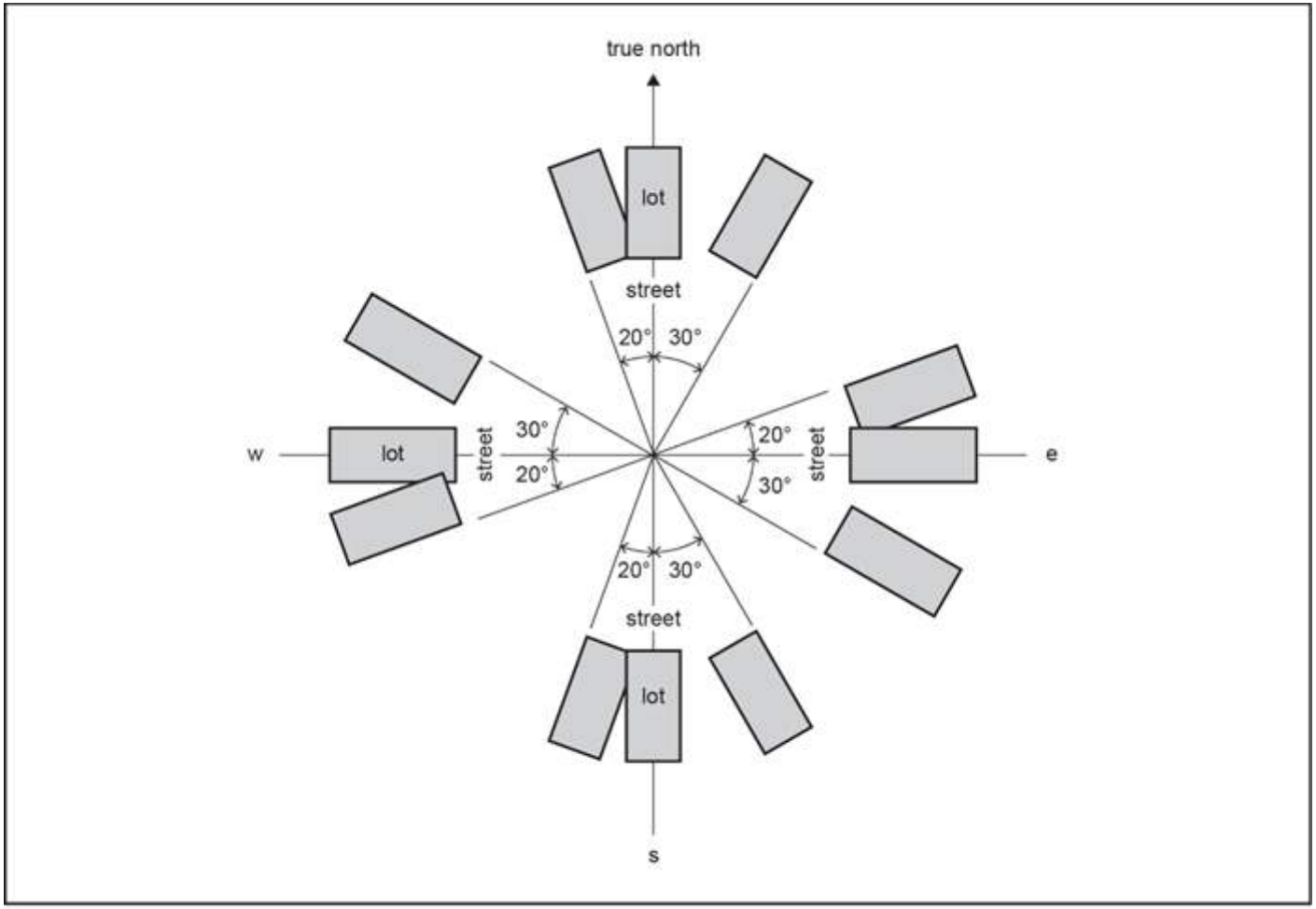

Figure a—Preferred orientation for long axis of lots

View the high resolution of Figure a—Preferred orientation for long axis of lots

9.4.5 Landscape work code

9.4.5.1 Application

1. This code applies to assessing:
    a. operational work for landscape work which is assessable development if this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for operational work (section 5.8), or an overlay (section 5.10); or
    b. a material change of use or reconfiguring a lot if:
        i. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for material change of use (section 5.5) reconfiguring a lot (section 5.6), or an overlay (section 5.10); or
        ii. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- crime prevention through environmental design, guidance is provided in the Crime prevention through environmental design planning scheme policy;
- maintenance, growing media, assessment with regards to climatic factors, water sensitive landscape design, irrigation and structural considerations, guidance is provided in the Landscape design planning scheme policy;
- planting species selection, guidance is provided in the Planting species planning scheme policy;
- landscaping to support the subtropical design of buildings or outdoor spaces, guidance is provided in the Subtropical building design planning scheme policy.

9.4.5.2 Purpose

1. The purpose of the Landscape work code is to assess the suitability of the landscape work aspect of development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Landscape work retains, protects and integrates significant on-site vegetation into development design.
    b. Landscape work ensures acoustic barriers and landscaping create effective buffers to adjacent sites.
    c. Landscape work is sustainable, effective, functional and safe through appropriate maintenance, design for climate, structural considerations and growing media.
    d. Landscape work ensures planting species selection is appropriate to the planting environment, climate and development setting, long-term performance, and balances the intended form and scale of the development.
    e. Landscape work in artificial growing environments is designed, installed and maintained to ensure the intended functional and aesthetic outcomes required for the development are achieved and sustained over the long term.

9.4.5.3 Performance outcomes and acceptable outcomes

Table 9.4.5.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development ensures that trees are protected from development impacts.	**AO1.1** Development ensures that trees identified in a landscape concept plan or development approval are retained and protected in accordance with AS 4970-2009 Protection of trees on development sites. **AO1.2** Development ensures that tree surgery and pruning is carried out in accordance with AS 4373-2007 Pruning of amenity trees for: a. vegetation damaged as a result of the development; b. vegetation requiring pruning of branches and/or roots.	**Not Applicable** There are no significant trees present on site.
PO2 Development provides acoustic barriers and long fences along street frontages which: a. are enhanced by appropriate planting; b. are of high visual quality; c. are designed for longevity; d. provide maintenance access and promote pedestrian permeability in appropriate circumstances.	**AO2.1** Development ensures that an acoustic barrier or fence which is required by a use code to be provided along a fence or within the site: a. is designed in compliance with the standards in the Infrastructure design planning scheme policy; b. incorporates elements of visual interest appropriate to the scale of the development for a fence or acoustic barrier over 40m long; c. incorporates a gate for maintenance access to the street frontage side of the barrier or fence if a gate can open on to a publicly accessible area within the site; d. incorporates a gate or appropriately designed opening for public pedestrian access where linking two publicly accessible areas. **AO2.2**	**Not Applicable**

	Development ensures that a planting buffer required by a use code for an acoustic barrier or fence incorporates: a. species in accordance with the Planting species planning scheme policy; b. a minimum of 2 tier planting.	
PO3 Development provides species as a screen or buffer which maintain the amenity of adjoining premises.	**AO3** Development ensures that a landscape buffer required by a use code incorporates: a. species in accordance with the Planting species planning scheme policy; b. a minimum of 2 tier planting.	**Not Applicable** A landscape buffer is not required as a consequence of the proposed 1 into 2 lot subdivision.
PO4 Development provides growing media and volumes appropriate for landscape work to ensure the long-term performance, ease of maintenance and sustainability of plantings.	**AO4.1** Development provides growing media and volumes for landscape work in accordance with the Landscape design planning scheme policy. Note—Notations of proposed growing media and soil volume calculations for the documented mature vegetation size and scale may assist in demonstrating compliance with the acceptable outcome. **AO4.2** Development provides species which are chosen to ensure the long-term performance and access requirements of the landscape.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision.
	AO4.3 Development provides podium planting in compliance with the Infrastructure design planning scheme policy.	
PO5 Development provides landscaping in a common area which provides for clear sightlines and good visibility to entrance and exit points.	**AO5.1** Development incorporates a plant selection along a pathway which ensures: a. a clear trunk height of minimum 1.8m at maturity; b. a shrub height of maximum 1m at maturity. Refer to the Crime prevention through environmental design planning scheme policy. **AO5.2**	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision

	Landscaping and mounding do not interfere with visibility along a pathway. Refer to the Crime prevention through environmental design planning scheme policy.	
PO6 Development provides landscaping which supports a legible environment that can be safely navigated by pedestrians and cyclists.	**AO6** Development ensures that the landscape design provides cues to distinguish between a public area, a semi-public area and a private area. Note—Cues could include changes in levels, surface or landscape treatment or fencing.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO7 Development provides a plant selection which achieves the functional and aesthetic outcomes to balance the form and scale of the development including: a. screening and buffering; b. street presentation; c. shading; d. amenity.	**AO7** Development provides species in accordance with the Planting species planning scheme policy.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO8 Development provides planting densities and stock sizes which are optimised to: a. reduce maintenance and erosion; b. achieve amenity and ecological outcomes; c. provide the level of coverage for any green facades, green walls or green roofs to achieve the functional and aesthetic outcomes of the landscape work for the life of the development. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance with the performance outcome and acceptable outcomes.	**AO8.1** Development provides planting densities and stock sizes when planting in natural ground which achieves: a. full coverage of the mulched planting areas within 2 years; b. 95% coverage of the extent of the elevation within 2 years where for green facades. **AO8.2** Development achieves the minimum planting coverage for any artificial growing environment as specified in the Landscape design planning scheme policy.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO9 Development provides planting areas in open-air car	**AO9.1** Development provides species in a car park that are	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision

parking areas which are designed and constructed to ensure that landscaping and shade trees thrive and achieve a minimum 50% shade cover within 5 years of planting.	selected in accordance with the Planting species planning scheme policy. **AO9.2** Development provides planting areas within car parking areas that are protected by wheel stops or bollards.	
PO10 Development for a shade structure does not compromise landscape outcomes.	**AO10** Development for a shade structure in a car park allows unimpeded access to natural sunlight and rainwater for landscaping and shade trees.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO11 Development involving the construction of retaining walls provides for: a. safety; b. an attractive appearance appropriate to the surrounding area; c. easy maintenance; d. longevity; e. minimal water seepage impacts.	**AO11** Development of a retaining wall: a. is constructed in compliance with the structures standards in the Infrastructure design planning scheme policy and is certified by a Registered Professional Engineer Queensland; b. incorporates planting areas.	**Not Applicable** The proposed retaining wall is less than 1m in height and landscape works are not proposed or required.
PO12 Development provides for: a. water sensitive urban design measures which are employed within the landscape design to maximise stormwater use; b. drainage and stormwater management measures to reduce any adverse impacts on the landscape; c. stormwater harvesting to be maximised and any adverse impacts of stormwater minimised; d. reticulated irrigation to all artificial growing environments. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance	**AO12.1** Development provides drainage for artificial growing environments which is connected to the stormwater drain. **AO12.2** Development ensures that the maximum site stormwater harvest capacity is utilised to meet the irrigation demand of the development before alternate irrigation sources are utilised, and is in accordance with the standards in the Landscape design planning scheme policy. **AO12.3** Development provides areas of pavement, turf, landscaping and mulched garden beds which are adequately drained. Note—This may be achieved through the provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision

with the performance outcome and acceptable outcomes.	connections.	
	AO12.4 Development provides a reticulated irrigation system to all landscaping areas in accordance with the Landscape design planning scheme policy.	
PO13 Development provides landscaping and supporting growing environments which: a. are safe; b. ensure efficient and effective maintenance; c. ensures success and long-term performance. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance with the performance outcome and acceptable outcomes.	**AO13.1** Development ensures that all turf areas on the site are accessible externally by standard lawn maintenance equipment and receive adequate sunlight. **AO13.2** Development ensures that where landscape work on structures are serviced from tank water, the control devices are located in a common area.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
	AO13.3 Development provides one hose cock within each private landscape and recreation area.	
	AO13.4 Development provides landscaping that uses appropriate materials to maintain the function of an overland flow path.	
	AO13.5 Development ensures that all artificial growing environments are accessible for safe and practical maintenance from within the site.	
	AO13.6 Development ensures that all artificial growing environments are designed to be durable and to prevent material movement from structures.	
	AO13.7 Development ensures that artificial growing environments are designed to allow for flush out.	

	AO13.8 Irrigation systems are designed to prevent overspray outside of planting areas.	
PO14 Development ensures that the location and type of planting do not compromise the function and accessibility of services and facilities.	**AO14** Development provides plant species which are selected and sited, taking into consideration the location and access requirements of overhead and underground services.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO15 Development ensures that landscaping in artificial growing environments is appropriately designed, located and supported to ensure long-term performance, safety and function. Note—Guidance is provided in the Landscape design planning scheme policy.	**AO15.1** Artificial growing environments are designed in accordance with the Landscape design planning scheme policy and are considered in the structural design of the development. **AO15.2** Artificial growing environments include appropriate drainage and waterproofing in accordance with the Landscape design planning scheme policy.	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision
PO16 Development incorporating a rooftop garden provides landscaping that: a. is integrated into the rooftop garden design; b. ensures that landscaped open spaces dominate the built form elements; c. contributes to shade of communal open space; d. enhances the visual amenity and function of different rooftop garden spaces; e. contributes to greening the building appearance when viewed from external public vantage points. Note—External public vantage points means from at least two mostly unobstructed views of the development from a public area.	**AO16.1** Development incorporating a rooftop garden provides landscaping that includes: a. planting at the perimeter of the rooftop for a minimum extent of 50% of the rooftop perimeter facing at least two different elevations of the building; b. a diverse mix of suitable planting species including ground covers, shrubs and trees at different heights in accordance with the Planting species planning scheme policy; c. suitable medium shrubs and small trees in accordance with the Planting species planning scheme policy providing a minimum 25% shade cover of rooftop communal open space within 5 years. **AO16.2**	**Not Applicable** Landscape works are not proposed or required as a consequence of the proposed 1 into 2 lot subdivision

	Development for a rooftop garden where Section 1.7.7(3) applies, or where exceeding maximum building height, provides soft landscaping features that are: a. a minimum 75% open to the sky; b. provided in addition to any artificial soft landscape features.	

9.4.4 Infrastructure design code

9.4.4.1 Application

1. This code applies to assessing a material change of use, reconfiguring a lot or building work if:
    a. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for a material change of use (section 5.5), reconfiguring a lot (section 5.6),operational work (section 5.8), or an overlay (section 5.10); or
    b. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- ecological assessment, koala habitat or development design, guidance is provided in the Biodiversity areas planning scheme policy;
- infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy;
- noise and dust impacts during construction and/or demolition, guidance is provided in the Management plans planning scheme policy;
- noise impact assessment, guidance is provided in the Noise impact assessment planning scheme policy;
- refuse and recycling, guidance is provided in the Refuse planning scheme policy;
- parking or servicing management during construction, guidance is provided in the Transport, access, parking and servicing planning scheme policy.

9.4.4.2 Purpose

1. The purpose of the Infrastructure design code is to assess the suitability of infrastructure for development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development is provided with a safe, connected and efficient transport network for all modes that has a minimal whole-of-life cost.
    b. Development provides for public utilities and services to the standards acceptable to the Council and the reasonable expectations of service providers.
    c. Development involving infrastructure which is intended to become a Council asset is safe, aesthetically pleasing, functional, fit for purpose, durable, minimises environmental impacts and has minimal whole-of-life cost.
    d. Development provides for a public space to be safe and inviting, allowing high levels of pedestrian activity.
    e. Development ensures that the community and environment are not unreasonably disrupted or impacted by construction or demolition for the development.
    f. Development involving infrastructure is designed with consideration of, and to integrate with, other related and interfacing infrastructure components.
    g. Development accessed by common private title is provided with appropriate fire hydrant infrastructure and has unimpeded access for refuse vehicles and for emergency service vehicles to protect people, property and the environment.
    h. Development ensures major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System is not compromised.

i. Development for major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System avoids or otherwise minimises adverse impacts on surrounding land uses.

9.4.4.3 Performance outcomes and acceptable outcomes

Table 9.4.4.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development provides roads, pavement, edging and landscaping which: a. are designed and constructed in accordance with the road hierarchy; b. provide for safe travel for pedestrians, cyclists and vehicles; c. provide access to properties for all modes; d. provide utilities; e. provide high levels of aesthetics and amenity, improved liveability and future growth; f. provide for the amelioration of noise and other pollution; g. provide a high-quality streetscape; h. provide a low-maintenance asset with a minimal whole-of-life cost. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO1** Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	**Complies** Refer to submitted engineering reports for details of proposed vehicular access to existing road.
PO2 Development provides road pavement surfaces which: a. are well designed and constructed; b. durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles;	**AO2** Development provides road pavement surfaces which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	**Not applicable** New road is not proposed.

c. ensures the safe passage of vehicles, pedestrians and cyclists, the discharge of stormwater run-off and the preservation of all-weather access; d. allows for reasonable travel comfort.		
PO3 Development provides a pavement edge which is designed and constructed to: a. control vehicle movements by delineating the carriageway for all users; b. provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids.	**AO3** Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	**Complies** Refer to submitted engineering reports for details of proposed vehicular access to existing road.
PO4 Development provides verges which are designed and constructed to: a. provide safe access for pedestrians clear of obstructions and access areas for vehicles onto properties; b. provide a sufficient area for public utility services; c. be maintainable by the Council.	**AO4** Development provides verges which are designed and constructed in compliance with the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy.	**Complies** Refer to submitted engineering reports for details of proposed vehicular access to existing road.
PO5 Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which: a. allows equitable access for all modes; b. is safe and secure; c. has 24-hour access; d. is a low-speed shared zone environment; e. has a high-quality streetscape.	**AO5** Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which is embellished in compliance with the streetscape locality advice standards in the Infrastructure design planning scheme policy.	**Not applicable**
PO6	**AO6**	**Complies**

Development of an existing premises provides at the frontage to the site, if not already provided, the following infrastructure to an appropriate urban standard: a. an effective, high-quality paved roadway; b. an effective, high-quality roadway kerb and channel; c. safe, high-quality vehicle crossings over channels and verges; d. safe, accessible, high-quality verges compatible and integrated with the surrounding environment; e. safe vehicle access to the site that enables ingress and egress in a forward gear; f. provision of and required alterations to public utilities; g. effective drainage; h. appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals.	Development of an existing premises provides at the frontage of the site, if not already existing, the following infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the Infrastructure design planning scheme policy: a. concrete kerb and channel; b. forming and grading to verges; c. crossings over channels and verges; d. a constructed bikeway; e. a constructed verge or reconstruction of any damaged verge; f. construction of the carriageway; g. payment of costs for required alterations to public utility mains, services or installations; h. construction of and required alterations to public utility mains, services or installations; i. drainage works; j. installation of electrical conduits.	Refer to submitted engineering reports for details of proposed vehicular access to existing road.
PO7 Development provides both cycle and walking routes which: a. are located, designed and constructed to their network classification (where applicable); b. provide safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; c. provide safe and comfortable access to properties for pedestrians and cyclists; d. incorporate water sensitive urban design into stormwater drainage; e. provide for utilities; f. provide for a high level of aesthetics and amenity, improved liveability and future growth;	**AO7** Development provides cycle and walking routes which are located, designed and constructed in compliance with the road corridor design and off-road pathway design standards in the Infrastructure design planning scheme policy.	**Not Applicable**

g. are a low-maintenance asset with a minimal whole-of-life cost; h. minimise the clearing of significant native vegetation. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.		
PO8 Development provides refuse and recycling collection, separation and storage facilities that are located and managed so that adverse impacts on building occupants, neighbouring properties and the public realm are minimised.	**AO8.1** Development provides refuse and recycling collection and storage facilities in accordance with the Refuse planning scheme policy. **AO8.2** Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development. Note—Refer to the Refuse planning scheme policy for further guidance.	**Complies** Refer to submitted engineering drawings showing available location for refuse collection.
PO9 Development ensures that: a. land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; b. the water supply meets the stated standard of service for the intended use and fire-fighting purposes.	**AO9.1** Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use is commenced. **AO9.2** Development provides the lot with reticulated water supply and sewerage to a standard acceptable to the distributor—retailer.	**Complies** Refer to submitted engineering reports/
PO10 Development provides public utilities and street lighting which are the best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	**AO10.1** Development provides public utilities and street lighting which are located and aligned to: a. avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; b. minimise earthworks;	**Not applicable**

	c. avoid crossing waterways, waterway corridors and wetlands or if a crossing is unavoidable, tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work. Note—Guidance on the restoration of habitat is included in the Biodiversity areas planning scheme policy. **AO10.2** Development provides compatible public utility services and street-lighting services which are co-located in common trenching for underground services.	
	AO10.3 Development provides public utilities and street lighting which are designed and constructed in compliance with the public utilities standards in the Infrastructure design planning scheme policy.	
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	**AO11** Development provides land with the following services to the standards of the approved supplier: a. electricity; b. telecommunications services; c. gas service where practicable.	**Will comply** The proposed development will provide for a new lot capable of being serviced with urban utilities.
PO12 Development ensures that major public projects promote the provision of affordable, high-bandwidth telecommunications services throughout the city.	**AO12** Development provides conduits which are provided in all major Council and government works projects to enable the future provision of fibre optic cabling, if: a. the additional expense is unlikely to be prohibitive; or b. further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or	**Will comply** The proposed development will provide for a new lot capable of being serviced with urban utilities.

	c. there is a clear gap in the telecommunications network; or d. there is a clear gap in the bandwidth available to the area. Editor's note—An accurate, digital 'as built' three-dimensional location plan is to be supplied for all infrastructure provided in a road.	
PO13 Development provides public art identified in a neighbourhood plan or park concept plan which: a. is provided commensurate with the status and scale of the proposed development; b. is sited and designed: i. as an integrated part of the project design; ii. as conceptually relevant to the context of the location; iii. to reflect and respond to the cultural values of the community; iv. to promote local character in a planned and informed manner.	**AO13** Development provides public art identified in a neighbourhood plan or park concept plan which is sited and designed in compliance with the public art standards in the Infrastructure design planning scheme policy.	**Not applicable**
PO14 Development provides signage of buildings and spaces which promote legibility to help users find their way.	**AO14** Development provides public signage: a. at public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; b. which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located. Editor's note—Signage is to be in accordance with Local Law Number 1 (Control of Advertisements Local Law).	**Not applicable**
PO15	**AO15**	**Not applicable**

Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	Development that provides community facilities which form part of the development is designed in compliance with the community facilities standards in the Infrastructure design planning scheme policy.	
PO16 Development provides public toilets which: a. are required as part of a community facility or park; b. are located, designed and constructed to be: i. safe; ii. durable; iii. resistant to vandalism; iv. able to service expected demand; v. fit for purpose.	**AO16** Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure design planning scheme policy.	**Not applicable**
PO17 Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: a. safe movement of intended users; b. an attractive appearance appropriate to the general surroundings and any adjacent structures; c. functionality and easy maintenance; d. minimal whole-of-life cost; e. longevity; f. current and future services. Note—All bridges and elevated and associated elements must be designed and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO17** Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure design planning scheme policy.	**Not applicable**
PO18	**AO18**	**Not applicable**

Development provides culverts which are designed and constructed using proven methods, materials and technology to provide for: a. safety; b. an attractive appearance appropriate to the general surroundings; c. functionality and easy maintenance; d. minimal whole-of-life cost; e. longevity; f. future widening; g. current and future services; h. minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns. Note—All culverts and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	
PO19 Development provides batters, retaining walls, and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: a. safety; b. an attractive appearance appropriate to the surrounding area; c. easy maintenance; d. minimal whole-of-life cost; e. longevity; f. minimal water seepage. Note—All retaining walls and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	**AO19** Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	**Not applicable**
If for development with a gross floor area greater than 1,000m^2		
PO20	**AO20**	**Not applicable**

Development ensures that construction is managed so that use of public spaces and movement on pedestrian, cyclist and other traffic routes is not unreasonably disrupted and existing landscaping is adequately protected from short- and long-term impacts. Note—The preparation of a construction management plan can assist in demonstrating achievement of this performance outcome. Note—The Transport, access, parking and servicing planning scheme policy provides advice on the management of vehicle parking and deliveries during construction.	Development ensures that during construction: a. the ongoing use of adjoining and surrounding parks and public spaces, such as malls and outdoor dining, is not compromised; b. adjoining and surrounding landscaping is protected from damage; c. safe, legible, efficient and sufficient pedestrian, cyclist and vehicular accessibility and connectivity to the wider network are maintained.	
PO21 Development ensures that construction and demolition activities are guided by measures that prevent or minimise adverse impacts including sleep disturbance at a sensitive use, due to noise and dust, including dust from construction vehicles entering and leaving the site. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO21.1** Development ensures that demolition and construction: a. only occur between 6:30am and 6:30pm Monday to Saturday, excluding public holidays; b. do not occur over periods greater than 6 months. **AO21.2** Development including construction and demolition does not release dust emissions beyond the boundary of the site. **AO21.3** Development construction and demolition does not involve asbestos-containing materials.	**Not applicable**
PO22 Development ensures that: a. construction and demolition do not result in damage to surrounding property as a result of vibration; b. vibration levels achieve the vibration criteria in Table 9.4.4.3.B, Table 9.4.4.3.C, Table 9.4.4.3.D and Table 9.4.4.3.E. Note—A vibration impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO22** Development ensures that the nature and scale of construction and demolition do not generate noticeable levels of vibration.	**Not applicable**

If for a material change of use or reconfiguring a lot in an urban area (as defined in the Regulation) involving premises that is, or will be, accessed by common private title, where involving buildings, either attached or detached, that are not covered by other legislation mandating fire hydrants		
PO23 Development ensures that fire hydrants are: a. installed and located to enable fire services to access water safely, effectively and efficiently; b. suitably identified so that fire services can locate them at all hours.	**AO23.1** Above or below ground fire hydrants are provided on residential, commercial and industrial streets and private roads, at not more than 90m intervals, and at each street intersection. Note—On residential streets, above ground fire hydrants may be single outlet. On commercial and industrial streets above ground fire hydrants should have dual valved outlets. **AO23.2** Fire hydrants are identified by: a. raised reflectorised pavement markers (RRPM) on sealed roads; b. marker posts at the fence line where on an unsealed road, as road (HR) or path (HP) hydrants.	**Not applicable**
PO24 Development ensures road widths and construction within the development, are adequate for refuse vehicles and for fire emergency vehicles to gain access to a safe working area close to buildings and near water supplies whether or not on-street parking spaces are occupied.	**AO24** Internal private roads have a minimum roadway clearance between obstructions of 3.5m wide and 4.8m high in addition to any width required for on-street parking.	**Not applicable**
Development for major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where not in the Utility services zone precinct of the Special purpose zone		
PO25 Development avoids or otherwise minimises adverse impacts on surrounding land uses through the use of buffers and setbacks and the appropriate design and location of plant and operational areas within the site.	**AO25** No acceptable outcome is prescribed.	**Not applicable**

Development potentially impacting on major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where the infrastructure is not in the Utility services zone precinct of the Special purpose zone		
PO26 Development is sited and designed to: a. avoid safety risks to people or property; b. minimise noise and visual impacts to people and property; c. ensure the physical integrity and operation, maintenance and expansion of the infrastructure is not compromised.	**AO26** No acceptable outcome is prescribed.	**Not applicable**

Table 9.4.4.3.B—Recommended intermittent vibration levels for cosmetic damage

Type of building	**Peak particle velocity (mm/s)**		
Reinforced or framed structures; industrial and heavy commercial buildings	50mm/s at 4Hz and above		
Unreinforced or light-framed structures; residential or light commercial type buildings	Below 4Hz	4Hz to 15Hz	15Hz and above
	0.6mm/s	15mm/s at 4Hz increasing to 20mm/s at 15Hz	20mm/s at 15Hz increasing to 50mm/s at 40Hz and above

Table 9.4.4.3.C—Recommended blasting vibration levels for human comfort

Type of building	Type of blasting operations	Peak component particle velocity (mm/s)
Residences, educational establishments and places of worship	Operation blasting longer than 12 months or more than 20 blasts	5mm/s for 95% blasts per year 10mm/s maximum unless agreement is reached with the occupier that a higher limit may apply
Residences, educational establishments and places of worship	Operation blasting longer than 12 months or more than 20 blasts	10mm/s maximum unless agreement is reached with the occupier that a higher limit may apply
Industry or commercial premises	All blasting	25mm/s maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications or levels that do not adversely affect the equipment operation.

Table 9.4.4.3.D—Recommended levels for continuous and impulsive vibration acceleration (m/s^2) 1—80Hz for human comfort

Location	Assessment period(1)	Preferred values(3)		Maximum values(3)	
Continuous vibration		z-axis	x and y axes	z-axis	x and y axes
Critical areas(2)	Day or night	0.005 m/s^2	0.0036 m/s^2	0.01 m/s^2	0.0072 m/s^2
Residences	Day	0.01 m/s^2	0.0071 m/s^2	0.02 m/s^2	0.014 m/s^2
-	Night	0.007 m/s^2	0.005 m/s^2	0.014 m/s^2	0.01 m/s^2
Offices, educational establishments and places of worship	Day or night	0.02 m/s^2	0.014 m/s^2	0.04 m/s^2	0.028 m/s^2

Workshops	Day or night	0.04 m/s^2	0.029 m/s^2	0.08 m/s^2	0.058 m/s^2
Impulsive vibration					
Critical areas	Day or night	0.005 m/s^2	0.0036 m/s^2	0.01 m/s^2	0.0072 m/s^2
Residences	Day	0.3 m/s^2	0.21 m/s^2	0.6 m/s^2	0.42 m/s^2
-	Night	0.1 m/s^2	0.071 m/s^2	0.2 m/s^2	0.14 m/s^2
Offices, educational establishments and places of worship	Day or night	0.64 m/s^2	0.46 m/s^2	1.28 m/s^2	0.92 m/s^2
Workshops	Day or night	0.64 m/s^2	0.46 m/s^2	1.28 m/s^2	0.92 m/s^2

Note—

(1) Day is 7am to 10pm and night is 10pm to 7am.

(2) Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring.

(3) Situations exist where vibration above the preferred values can be acceptable, particularly for temporary or short-term events. Further guidance is given in the Noise impact assessment planning scheme policy.

Table 9.4.4.3.E—Recommended vibration dose values for intermittent vibration ($m/s^{1.75}$) for human comfort

Location	**Daytime(1)**		**Night time(1)**	
	Preferred value	**Maximum value**	**Preferred value(3)**	**Maximum value(3)**
Critical areas(2)	0.1 $m/s^{1.75}$	0.2 $m/s^{1.75}$	0.1 $m/s^{1.75}$	0.2 $m/s^{1.75}$
Residences	0.2 $m/s^{1.75}$	0.4 $m/s^{1.75}$	0.13 $m/s^{1.75}$	0.26 $m/s^{1.75}$
Offices, educational establishments and places of worship	0.4 $m/s^{1.75}$	0.8 $m/s^{1.75}$	0.4 $m/s^{1.75}$	0.8 $m/s^{1.75}$
Workshops	0.8 $m/s^{1.75}$	1.6 $m/s^{1.75}$	0.8 $m/s^{1.75}$	1.6 $m/s^{1.75}$

Note—

(1) Day is 7am to 10pm and night is 10pm to 7am.

(2) Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring.

(3) Situations exist where vibration above the preferred values can be acceptable, particularly for temporary or short-term events. Further guidance is given in the Noise impact assessment planning scheme policy.

9.4.7 Outdoor lighting code

9.4.7.1 Application

1. This code applies to assessing:
    a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for building work (section 5.7) or an overlay (section 5.10); or
    b. building work for outdoor lighting which is assessable development if this code is an applicable code identified in the assessment benchmarks column of a table of assessment for building work (section 5.7) or an overlay (section 5.10); or
    c. a material change of use or reconfiguring a lot if:
        i. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for material change of use (section 5.5) or reconfiguring a lot (section 5.6); or
        ii. impact assessable development, to the extent relevant.

Editor's note—Where for the purpose of lighting of a tennis court in a zone in the residential zones category, a compliance statement prepared by a suitably qualified person must be submitted to Council with a development application for building work.

2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Editor's note—For a proposal to be accepted development subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcomes that the proposal fails to meet need to be assessed against the corresponding assessable acceptable outcomes or performance outcomes and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

9.4.7.2 Purpose

1. The purpose of the Outdoor lighting code is to assess the suitability of outdoor lighting.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. outdoor lighting efficiently lights a desired area while minimising the adverse impacts of spill lighting on adjoining uses.
    b. outdoor lighting does not create an adverse impact on the behaviour of native fauna.

9.4.7.3 Performance outcomes and acceptable outcomes

Table 9.4.7.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development provides outdoor lighting that does not have an adverse impact on any person, activity or fauna because of light emissions, either directly or by reflection.	**AO1.1** Development ensures that technical parameters, design, installation, operation and maintenance of outdoor lighting: a. comply with the requirements of AS 4282-1997 Control of the obtrusive effects of outdoor lighting; b. maintain a minimum of 20lux at the footpath level where in a zone in the centre zones category or the Mixed use zone. Note—The effects of outdoor lighting should be mitigated where a window of a habitable room of a nearby dwelling will be illuminated beyond maximum permissible values outlined in AS 4282-1997 Control of the obtrusive effects of outdoor lighting. **AO1.2** Development provides floodlighting that is restricted to a type that gives no upward component of light where mounted horizontally, such as a full cut off luminar.	**Not applicable** The proposed development does not propose outdoor lighting.

8.2.3 Bicycle network overlay code

8.2.3.1 Application

1. This code applies to assessing development of land adjoining or having frontage to (i.e. where the overlay sub-category is located in adjoining road reserve, public land or river), or traversed by, cycle routes or Riverwalks identified in the Bicycle network overlay map, if:
    a. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
    b. impact assessable development.
2. The Bicycle network overlay map identifies the following sub-categories:
    a. Primary cycle route sub-category;
    b. Secondary cycle route sub-category;
    c. Local cycle route sub-category;
    d. Riverwalk — Typology 1 (City reaches north and south) sub-category;
    e. Riverwalk — Typology 2 (Urban reaches) sub-category;
    f. Riverwalk — Floating walkway (Riverwalk connection subject to future construction) sub-category.
3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- bicycle network design and construction, guidance is provided in the Infrastructure design planning scheme policy;
- planting species selection, guidance is provided in the Planting species planning scheme policy.

Editor's note—The desired standard of service for the provision of trunk infrastructure is specified in the Local government infrastructure plan.

8.2.3.2 Purpose

1. The purpose of the Bicycle network overlay code is to:
    a. Implement the policy direction in the Strategic framework in particular:
        i. Theme 2: Brisbane's outstanding lifestyle and Element 2.1 — Brisbane's identity;
        ii. Theme 4: Brisbane's highly effective transport and infrastructure networks and Element 4.1 — Brisbane's transport infrastructure networks.
    b. Provide for the assessment of the suitability of development in the Bicycle network overlay.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development contributes to the safe and efficient operation of the existing and planned bicycle network.
    b. Cycle routes and pathways are integrated, connected, direct, convenient, legible, safe and suitably shaded to cater for cyclists of all skill levels.
    c. Cycle routes are designed and constructed to fulfil the transit functions corresponding to their network classification allowing commuter and recreation

cyclists to travel efficiently and safely.

d. The Riverwalk component of the bicycle network provides a continuous inner-Brisbane riverside publicly dedicated shared pedestrian and cyclist pathway; including pavement, shade trees, furniture and lighting; as well as public amenity outcomes such as shade structures, public art and viewing platforms at key locations.
e. Development does not compromise the completion of the bicycle network.

8.2.3.3 Performance outcomes and acceptable outcomes

Table 8.2.3.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
General		
PO1 Development contributes to the safe and efficient provision and operation of the bicycle network.	**AO1** Development provides cycle routes in accordance with the bicycle network classification and design standard identified on the Bicycle network overlay map and set out in the road corridor design and off-road pathways standards of the Infrastructure design planning scheme policy. Note—On a site not traversed or adjoining a route on the Bicycle network overlay map, pedestrian and cyclist movement and permeability is addressed by the Subdivision code (for reconfiguring a lot) and Centre or mixed use code or residential codes (for material change of use).	**Not applicable** The subject site is located on a neighbourhood street minor at the head of a cul de sac where no footpath presently exists or planned.
PO2 Development protects a cycle route or Riverwalk for the bicycle network shown on the Bicycle network overlay map to ensure the following are not compromised: a. the long term infrastructure for the bicycle network in the Long term infrastructure plans; b. the existing and planned infrastructure for the bicycle network in the Local government infrastructure plan;	**AO2** Development protects a cycle route or Riverwalk for the bicycle network shown on the Bicycle network overlay map in compliance with the following: a. for long term infrastructure for the bicycle network in the Long term infrastructure plans; b. the existing and planned infrastructure for the bicycle network in the Local government infrastructure plan;	**Not applicable** The subject site is located on a neighbourhood street minor at the head of a cul de sac where no cycle route presently exists or planned.

c. the provision of long term, existing and planned infrastructure for the bicycle network which: i. is required to service the development or existing and future urban development in the planning scheme area; or ii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	c. the standards for the bicycle network in the Infrastructure design planning scheme policy.	
PO3 Development provides for the payment of extra trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: i. trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; ii. long term infrastructure for the bicycle network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the bicycle network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the	**AO3** No acceptable outcome is prescribed.	**Not applicable**

Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the Planning Act 2016.		
Additional performance outcomes and acceptable outcomes for a site adjacent to or traversed by the Riverwalk–Typology 1 sub-category or Riverwalk–Typology 2 sub-category		
PO4 Development contributes to the creation of publicly accessible riverfront by providing a shared, continuous riverside pathway.	**AO4** Development fronting the river provides a publicly accessible riverfront pathway via a linear land dedication of 10m width as measured from the riverfront ambulatory boundary.	**Not applicable**
PO5 Development provides a high-quality, vibrant and safe riverside path with a strong pedestrian and cyclist amenity focus.	**AO5.1** Development designs and constructs Riverwalk for the full river frontage of its site, including tree planting, furniture, lighting, balustrading and pavement treatments in compliance with the off-road pathways and public riverside facilities standards in the Infrastructure design planning scheme policy. **AO5.2** Development ensures that new Riverwalk sections are designed and constructed to connect to existing adjoining sections of the Riverwalk. **AO5.3** Development provides connections between the Riverwalk and adjoining riverfront premises, street networks, pathways, public infrastructure and other destinations in compliance with the public riverside facilities standards in the Infrastructure design planning scheme policy.	**Not applicable**
PO6 Development ensures that Riverwalk contributes to the sense of place and cultural significance of the river with	**AO6** Development includes public art along the Riverwalk where specified in a neighbourhood plan, in compliance	**Not applicable**

inclusion of public art to highlight: a. activity nodes; b. entrances and gateways; c. landmarks and features of interest; d. visual connectors to the river.	with the public art standards in the Infrastructure design planning scheme policy.	
PO7 Development protects existing native riparian vegetation and enhances the Brisbane River's landscape values.	**AO7.1** Development retains and enhances existing riparian vegetation through the design and construction of Riverwalk. **AO7.2** Riverwalk and adjoining development is planted with large subtropical riparian tree species that are complementary in scale and height to the adjacent built form. Note—For suitable plant species, refer to the Planting species planning scheme policy.	**Not applicable**
PO8 Development adjoining Riverwalk: a. contributes to the creation of a vibrant and active waterfront; b. provides direct access to Riverwalk; c. allows for visual interaction and surveillance of the public domain.	**AO8.1** Development adjoining land in the Riverwalk — Typology 1 sub-category incorporates active frontages at the ground storey for a minimum of 90% of the riverside frontage. **AO8.2** Development adjoining land in the Riverwalk — Typology 2 sub-category orientates living areas, balconies and private open space at the ground storey to the Riverwalk frontage for passive surveillance.	**Not applicable**
PO9 Development ensures that the interface between the Riverwalk and the Brisbane River: a. supports a safe and publicly accessible waterfront; b. enhances the views of the river, both near and far.	**AO9.1** Development ensures that the design and construction of any structure over water is in compliance with the standards in the Infrastructure design planning scheme policy. **AO9.2**	**Not applicable**

	Development ensures that any revetment wall: a. minimises impact on the riparian edge; b. is constructed in compliance with the standards in Infrastructure design planning scheme policy.	

8.2.8.A Community purposes network overlay code

8.2.8.A.1 Application

1. This code applies to assessing development in the Community purposes network overlay, if:
    a. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
    b. impact assessable development.
2. Land within the Community purposes network overlay is identified on the Community purposes network overlay map and is included in the following sub-categories:
    a. Existing trunk park sub-category;
    b. Existing non-trunk park sub-category;
    c. Existing community facilities and land for community facilities sub-category;
    d. LGIP planned land for community facilities specific location sub-category;
    e. LGIP planned park acquisition specific location sub-category;
    f. LGIP planned park upgrade specific location sub-category;
    g. LGIP planned park embellishment specific location sub-category;
    h. LGIP planned corridor park specific location sub-category;
    i. Long term land for community facilities specific location sub-category;
    j. Long term park specific location sub-category;
    k. Long term corridor park specific location sub-category.
3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Editor's note—Standards for the provision of trunk infrastructure are specified in the Local government infrastructure plan.

8.2.8.A.2 Purpose

1. The purpose of the Community purposes network overlay code is to:
    a. Implement the policy direction in the Strategic framework in particular:
        i. Theme 4: Brisbane's highly effective transport and infrastructure, Element 4.2 — Brisbane's other infrastructure networks and Element 4.3 — Brisbane's coordinated infrastructure planning and delivery;
        ii. Theme 5: Brisbane's CityShape and Element 5.6 — Brisbane's Greenspace System.
    b. Provide for the assessment of the suitability of development in the Community purposes network overlay.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development which is assumed future urban development contributes to the completion of the Community purposes network through the provision of the

existing and planned infrastructure for the parks network and land for the community facilities network in the Local government infrastructure plan.

b. Development which is not assumed future urban development contributes to the completion of the Community purposes network through the provision of additional trunk infrastructure costs for long term infrastructure for the parks network and land for the community facilities network in the Long term infrastructure plans.
c. Development which provides existing and planned infrastructure for the Community purposes network in the Local government infrastructure plan ensures the provision, location, layout and configuration of the park and land for community facilities meets community needs and contributes quality assets.
d. Development does not compromise the completion of the Community purposes network.

8.2.8.A.3 Performance outcomes and acceptable outcomes

Table 8.2.8.A.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
If on a site in the Existing trunk park sub-category, Existing non-trunk park sub category, LGIP planned park acquisition specific location sub-category, LGIP planned park upgrade specific location sub-category, LGIP planned park embellishment specific location sub-category, LGIP planned corridor park specific location sub-category, Long term park specific location sub-category or Long term corridor park specific location sub-category		
PO1 Development which is assumed future urban development provides the existing and planned infrastructure for the parks network in the Local government infrastructure plan on the site: a. to serve the recreational needs of Brisbane's residents, workers and visitors on a local, district and metropolitan scale; b. to maximise recreational, visual, cultural and biodiversity values; c. of a sufficient size, suitable topography and regular shape for the intended use and anticipated intensity and level of use; d. to meet the requirements of intended users; e. to provide, in appropriate locations, that provide	**AO1** Development which is assumed future urban development provides land and embellishments for existing and planned infrastructure for the parks network in the Local government infrastructure plan on the site in compliance with the standards for the parks network in the Park planning and design code and the Infrastructure design planning scheme policy.	**Not Applicable**

for a diversity of recreational opportunities and avoid duplicating facilities in nearby parks.		
PO2 Development provides for the payment of additional trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan: i. trunk infrastructure to be provided earlier than planned in the Local government infrastructure plan; ii. long term infrastructure for the parks network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the parks network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of additional trunk infrastructure costs under the Act for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the *Planning Act 2016*.	**AO2** No acceptable outcome is prescribed.	**Not Applicable**
PO3 Development protects a park shown on the Community purposes network overlay map to ensure the following are not compromised: a. the long term infrastructure for the parks network in the Long term infrastructure plans and an	**AO3** Development protects a park shown on the Community purposes network overlay map in compliance with the following: a. for long term infrastructure for the parks network, the Long term infrastructure plans;	**Not Applicable**

applicable neighbourhood plan; b. the existing and planned infrastructure for the parks network in the Local government infrastructure plan; i. the provision of long term, existing and planned infrastructure for the parks network which: ii. is required to service the development or existing and future urban development in the planning scheme area; or iii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	b. for existing and planned infrastructure for the parks network, the Local government infrastructure plan; c. the standards for the parks network in the Park planning and design code and the Infrastructure design planning scheme policy.	
If on a site in the Existing community facilities and land for community facilities sub-category, LGIP planned land for community facilities specific location sub-category or Long term land for community facilities specific location sub-category		
PO4 Development which is assumed future urban development provides the existing and planned infrastructure for the land for community facilities network in the Local government infrastructure plan on the site: a. to serve the physical, social and cultural needs of Brisbane's residents, workers and visitors on a local, district and metropolitan scale; b. to maximise recreational, social and cultural values; c. of a sufficient size, suitable topography and regular shape for the intended use and anticipated intensity and level of use; d. to meet the requirements of the intended users;	**AO4** Development which is assumed future urban development provides land for existing and planned infrastructure for the land for community facilities network in the Local government infrastructure plan on the site in compliance with the standards for the land for the community facilities network in the Community facilities code and the Infrastructure design planning scheme policy.	**Not Applicable**

e. to provide, in appropriate locations, for a diversity of community service, cultural and leisure opportunities, that are integrated or co-located with complementary uses and avoid duplicating facilities on nearby land in the community facilities network.		
PO5 Development provides for the payment of additional trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: i. trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; ii. long term infrastructure for the land for community facilities network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the land for community facilities network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of additional trunk infrastructure costs under the Act for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the *Planning Act 2016*.	**AO5** No acceptable outcome is prescribed.	**Not Applicable**
PO6 Development protects land for community facilities	**AO6** Development protects land for community facilities	**Not Applicable**

shown on the Community purposes network overlay map to ensure the following are not compromised: a. the long term infrastructure for the land for community facilities network in the Long term infrastructure plans and an applicable neighbourhood plan; b. the existing and planned infrastructure for the land for community facilities network in the Local government infrastructure plan; c. the provision of long term, existing and planned infrastructure for the land for community facilities network which: i. is required to service the development or existing and future urban development in the planning scheme areas; or ii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	network shown on the Community purposes network overlay map in compliance with the following: a. for long term infrastructure for the land for community facilities network, the Long term infrastructure plans; b. for existing and planned infrastructure for the land for community facilities network, the Local government infrastructure plan; c. the standards for the land for community facilities network in the Community facilities code and the Infrastructure design planning scheme policy.	

8.2.18 Road hierarchy overlay code

8.2.18.1 Application

1. This code applies to assessing development on of land adjoining or having frontage or access to roads identified in the Road hierarchy overlay, if:
    a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
    b. assessable development, where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
    c. impact assessable development.
2. The Road hierarchy overlay map identifies the following sub-categories:
    a. Motorway sub-category;
    b. Arterial road sub-category;
    c. Suburban road sub-category;
    d. District road sub-category;
    e. Neighbourhood road sub-category;
    f. Local road sub-category;
    g. Future motorway sub-category;
    h. Future arterial road sub-category;
    i. Future suburban road sub-category;
    j. Future district road sub-category;
    k. Primary freight route sub-category;
    l. Primary freight access sub-category.
3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to road types, traffic impact reports and hierarchy design and construction, guidance is provided in the Infrastructure design planning scheme policy.

Note—Laneways are a type of public road identified in the Road hierarchy overlay and are required in locations where specified in the Streetscape hierarchy overlay map.

Editor's note—The desired standard of service for the provision of trunk infrastructure is specified in the Local government infrastructure plan.

Editor's note—For a proposal to be accepted development subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code that relate to the applicable sub-category and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcomes that the proposal fails to meet need to be assessed against the corresponding assessable acceptable outcomes or performance outcomes and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

8.2.18.2 Purpose

1. The purpose of the Road hierarchy overlay code is to:
    a. Implement the policy direction in the Strategic framework, in particular:
        i. Theme 4: Brisbane's highly effective transport and infrastructure and Element 4.1 — Brisbane's transport infrastructure networks;
        ii. Theme 2: Brisbane's outstanding lifestyle and Element 2.1 — Brisbane's identity.
    b. Provide for the assessment of the suitability of development in the Road hierarchy overlay.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development contributes to the safe and efficient operation of the existing and planned road hierarchy and to the function of the road as part of Brisbane's public domain.
    b. Development accessing roads is consistent with and does not compromise the road hierarchy in its use, function, flow, or capacity by buses, pedestrians and cyclists.
    c. Development that changes the function of a road by generating traffic does so such that the new function of the road in the hierarchy is compatible with the surrounding road hierarchy and where necessary is reconstructed to meet its new design parameters.
    d. Development that provides a new road internal and connecting to the road hierarchy complements or completes the existing road hierarchy.
    e. Development does not compromise the completion of the road hierarchy.
    f. Development ensures that land uses are located to support and implement a safe and efficient road hierarchy facilitating the efficient movement of people and goods.

8.2.18.3 Performance outcomes and acceptable outcomes

Table 8.2.18.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development for a material change of use		
PO1 Development ensures that: a. vehicle access is provided to each premises, which has no significant impact on the safety, efficiency, function, convenience of use or capacity of:	**AO1.1** Development ensures that an access driveway is provided from: a. a minor road; b. a district road or suburban road if the development has high traffic-generating	**Not Applicable**

i. the road hierarchy shown on the Road hierarchy overlay map; ii. public transport operations; iii. pedestrian and cyclist movement; b. the safety and efficiency of primary freight routes are protected and enhanced, supporting major industry areas; c. site access driveways in the road area accommodate all turns only when such arrangements are safe and can be demonstrated to not inhibit transport system operation.	potential. **AO1.2** Development ensures that an access driveway is not provided to or from a primary freight route identified on the Road hierarchy overlay map.	
	AO1.3 Development ensures that a use other than a use with high traffic-generating potential gains all vehicular access, other than for service vehicles, via the lowest order road in the road hierarchy to which the site has frontage.	
	AO1.4 Development ensures that a turn to and from a major road is restricted to a left turn only.	
	AO1.5 Development ensures that vehicle access is provided to an abutting site that only has frontage to an arterial road, to facilitate access to the abutting site via an alternative street.	
Section B—If for assessable development for a material change of use		
PO2 Development does not compromise the safety, efficiency and function of the road hierarchy and addresses all the impacts to the road network.	**AO2.1** Development ensures that the traffic generated by the development is consistent with the road hierarchy classification, function and expected traffic flows for the area. **AO2.2** Development mitigates an impact on the road hierarchy if the development: a. is for a major development; or b. involves an access driveway to a major road; or c. involves an access driveway within 100m of a	**Not Applicable**

	signalised intersection. Note—This can be demonstrated in a transport impact assessment report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Transport, access, parking and servicing planning scheme policy.	
Section C—If for assessable development for a material change of use or reconfiguring of a lot		
PO3 Development makes provision for the extension, expansion and widening of the existing and future road network where required.	**AO3** No acceptable outcome is prescribed.	**Not Applicable**
PO3A Development provides for the payment of extra trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: i. trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; ii. long term infrastructure for the road network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the road network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution.	**AO3A** No acceptable outcome is prescribed.	**Not Applicable**

Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the *Planning Act 2016*.		
If on a site in or adjacent to the District road sub-category which has a width less than 20 metres, or to the Suburban road sub-category or to the Arterial road sub-category		
PO4 Development protects a corridor for the road network shown on the Road hierarchy overlay map to ensure the following are not compromised: a. the long term infrastructure for the road network in the Long term infrastructure plans; b. the existing and planned infrastructure for the road network in the Local government infrastructure plan; c. the provision of long term, existing and planned infrastructure for the road network which: i. is required to service the development or existing and future urban development in the planning scheme area; or ii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	**AO4** Development protects a corridor for the road network shown on the Road hierarchy overlay map in compliance with the following: a. for the long term infrastructure for the road network, the Long term infrastructure plans; b. for existing and planned infrastructure for the road network, the Local government infrastructure plan; c. the standards for the road network in the Infrastructure design planning scheme policy.	**Not Applicable**
Section D—If reconfiguring a lot or involving an extension or change to the road hierarchy		
PO5 Development ensures that a new road connection provides: a. safe, efficient and convenient connectivity of the new road to the major road network; b. a minimum number of intersections to the major	**AO5** Development provides access to the road network in a manner that preserves the function of the road hierarchy and addresses all impacts to the road network.	**AO1 COMPLIES** A shared access driveway is proposed via a minor road to provide for a future Dwelling house. Refer to the submitted engineering drawings for further details.

road network.		
PO6 Development ensures that an extension of or change to the road network: a. provides internal connectivity and connects to the external road network; b. provides pedestrian connectivity to facilitate ease of access by the shortest reasonable route to neighbourhood facilities, parks, schools, shops, bus routes, transport facilities or open space systems; c. provides cycle connectivity to facilitate ease of access by the shortest reasonable distance to the next higher order cycle route; d. includes the provision of bus routes that provide ease of access to bus customers; e. minimises vehicle volumes and speed in residential streets while providing connectivity to major roads in a reasonable travel time; f. provides a street layout that minimises travel time and traffic volumes on minor roads; g. provides high permeability for pedestrian and cycle networks; h. provides safe accessibility to lots by having more than one street providing access to the area; i. preserves the function of the road hierarchy and addresses all impacts to the road network.	**AO6.1** Development ensures that a new or upgraded road is designed and constructed in accordance with its road hierarchy classification as shown on the Road hierarchy overlay and the standards in the Infrastructure design planning scheme policy. **AO6.2** Development preserves the function of the road hierarchy and addresses all impacts on the road network. Note—This can be demonstrated in a transport impact assessment report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy (Traffic impact assessment and definitions section).	**Not Applicable**
PO7 Development ensures that premises and vehicle access are located and controlled so as to have no significant impact on the safety, efficiency, function, convenience of use or capacity of the major road network and preserves the function of the road hierarchy.	**AO7** Development ensures that residential lots are laid out to ensure a future use does not directly ingress from or egress to a major road.	**Complies** Access is proposed via a minor road.

PO8 Development ensures that an intersection is designed and constructed in accordance with its hierarchical classification as shown on the Road hierarchy overlay map.	**AO8** Development ensures that an intersection is designed to the standard of the highest order road at the point of intersection in accordance with the road design standard in the Infrastructure design planning scheme policy.	**Not Applicable**

8.2.20 Streetscape hierarchy overlay code

8.2.20.1 Application

1. This code applies to assessing development of land adjoining or having frontage to (i.e. where the overlay sub-category is located in adjoining road reserve or public land), or traversed by or containing, any of the overlay sub-categories identified in the Streetscape hierarchy overlay map, if:
    a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
    b. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
    c. impact assessable development.
2. The Streetscape hierarchy overlay map identifies the following sub-categories:
    a. Subtropical boulevard — in centre verge width 6m sub-category;
    b. Subtropical boulevard — in centre verge width 5m sub-category;
    c. Subtropical boulevard — in centre verge width 3.75/4.25m sub-category;
    d. Subtropical boulevard — out of centre verge width 6m sub-category;
    e. Subtropical boulevard — out of centre verge width 5m sub-category;
    f. Subtropical boulevard — out of centre verge width 3.75/4.25m sub-category;
    g. Centre street major sub-category;
    h. Centre street minor sub-category;
    i. Neighbourhood street major sub-category;
    j. Neighbourhood street minor sub-category;
    k. Industrial street sub-category;
    l. Pathway link sub-category;
    m. Corner land dedication sub-category;
    n. Locality street sub-category;
    o. Laneway sub-category;
    p. Wildlife movement solution sub-category.
3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:
- design of public realm, guidance is provided in the Infrastructure design planning scheme policy.
- crime prevention through environmental design, guidance is provided in the Crime prevention through environmental design planning scheme policy.

Editor's note—The desired standard of service for the provision of trunk infrastructure is specified in the Local government infrastructure plan.

Editor's note—For a proposal to be accepted development subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code that relate to the applicable sub-category and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcomes that the proposal fails to meet need to be assessed against the corresponding assessable acceptable outcomes or performance outcomes and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

8.2.20.2 Purpose

1. The purpose of the Streetscape hierarchy overlay code is to:
    a. Implement the policy direction in the Strategic framework, in particular:
        i. Theme 2: Brisbane's outstanding lifestyle and Element 2.1 — Brisbane's identity;
        ii. Theme 4: Brisbane's highly effective transport and infrastructure and Element 4.1 — Brisbane's transport infrastructure networks.
    b. Provide for the assessment of the suitability of development in the Streetscape hierarchy overlay.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development ensures that verges are wide enough to support high levels of pedestrian movement and have sufficient space to accommodate large subtropical street tree plantings.
    b. Development ensures that existing street trees are retained and new subtropical tree species in the verge make a significant contribution to shade tree cover and carbon sequestration.
    c. Development ensures that subtropical planting reinforces city gateways, thresholds and nodes.
    d. Development ensures that verges comprise consistent and high-quality treatments with improved footpaths and increased shade and shelter appropriate to their anticipated pedestrian use and where the use will change from the current zone.
    e. Development protects and contributes to safe, direct and convenient access for pedestrians and cyclists of all ages and abilities throughout sites and throughout neighbourhoods.
    f. Development maintains options for the safe movement of wildlife along a corridor.

8.2.20.3 Performance outcomes and acceptable outcomes

Table 8.2.20.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development		
PO1 Development must improve pedestrian movement and amenity by providing for verges to a width that is	**AO1** Development ensures that a verge is provided via a linear land dedication to create a minimum verge width as	**Not Applicable** The proposed development does not include construction of new roads.

appropriate to accommodate large subtropical street tree planting and high levels of pedestrian movement.	specified in Table 8.2.20.3.B and the streetscape locality advice and road corridor design standards in the Infrastructure design planning scheme policy.	
PO2 Development must construct verges including street tree planting, street furniture, paving, lighting and verge and kerb treatments that establish a high-quality subtropical streetscape with a strong pedestrian amenity focus.	**AO2.1** Development ensures that existing street trees are retained and protected. **AO2.2** Development ensures that street tree planting, street furniture, paving, lighting and verge and kerb treatment are designed and constructed in compliance with the specifications of the streetscape locality advice and road corridor design standards in the Infrastructure design planning scheme policy.	**AO2 Complies** There is no existing street trees located in the verge fronting the development site. Council may condition the provision for street planting if deemed reasonable or relevant.
Section B—If for assessable development		
PO3 Development ensures that the design of a corner land dedication identified on the Streetscape hierarchy overlay map: a. facilitates a high level of pedestrian movement and activity; b. enforces the sense of arrival to individual precincts and major connections; c. provides a landmark definition through its materials and landscaping including deep-planting feature trees, seating and public art that integrates with the public realm.	**AO3.1** Development ensures that a corner land dedication is provided: a. where identified in the Streetscape hierarchy overlay map; b. in compliance with a neighbourhood plan and the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy. **AO3.2** Development ensures that landscaping including a large feature tree and seating is provided in a corner land dedication area in compliance with the specifications and standards in the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy.	**Not Applicable**
	AO3.3 Development ensures that public art is provided in a	

	corner land dedication area where identified in a neighbourhood plan and in compliance with the specifications and standards in the streetscape locality advice and public art standards in the Infrastructure design planning scheme policy.	
If in or on a site adjoining the Wildlife movement solution sub-category		
PO4 Development incorporates effective wildlife movement infrastructure that enables safe wildlife movement across and past transport infrastructure.	**AO4** Development ensures that infrastructure solutions are: a. provided at the locations identified on the Streetscape hierarchy overlay map; b. designed to: i. account for daily and seasonal movement needs of native wildlife, such as foraging, breeding, predator and natural disaster avoidance; ii. achieve physical separation of native wildlife and the road; iii. adopt designs and treatments known to be used by native species, including significant fauna species listed in the Biodiversity area overlay code. Note—Refer to the Infrastructure design planning scheme policy for further guidance of the design of wildlife movement solutions.	**Not Applicable**

Table 8.2.20.3.B—Required verge widths for the streetscape hierarchy

Streetscape type	Required width
Any Streetscape type adjoining the frontage of a lot which forms part of Council's public park network	In compliance with the Infrastructure design planning scheme policy
Subtropical boulevard — in centre verge width 6m	6m

Subtropical boulevard — in centre verge width 5m	5m
Subtropical boulevard — in centre verge width 3.75/4.25m	3.75m or 4.25m for new roads
Subtropical boulevard — out of centre verge width 6m	6m
Subtropical boulevard — out of centre verge width 5m	5m
Subtropical boulevard — out of centre verge width 3.75/4.25m	3.75m or 4.25m for new roads
Centre street major	5m
Centre street minor	3.75m or 4.25m for new roads
Neighbourhood street major	3.75m or 4.25m for new roads
Neighbourhood street minor	3.75m or 4.25m for new roads
Industrial street	3.75m or 4.25m for new roads
Pathway link	In compliance with Chapter 4 Pathway design outside the road corridor of the Infrastructure design planning scheme policy
Corner land dedication	Range $25m^2$ to $81m^2$
Locality street	In compliance with the Infrastructure design planning scheme policy
Laneway	In compliance with the Infrastructure design planning scheme policy

Appendix 5
Plan of Subdivision - Focus on Surveying

BUSCALL COURT

/
RP225415

476
RP851723

477
RP851723

2
RP203172

478
RP851723

114
RP182967

/
SP313158

Proposed Access Easement
34 m²

Area of Access handle 85m²

Proposed Lot 3
912 m²

Existing Dwelling retained

Existing Deck partially demolished

Existing Pool removed

Proposed Lot 4
627 m²
(including access handle)

49.04
5.39
1.36
4.03
21.05
30.65
3.84
1.0
28.58
23.01
44.0
13.31
16.99
26.99

N

Client
Allan Cadman

Project
Proposed Reconfiguration Creating Lots 3 & 4

Cancelling Lot 1 on RP203172
being 19 Buscall Ct, Sinnamon Park

Scale: 1:200 at A3
Datum: AHD vide CORS
Contour Int: 0.5m
LGA: Brisbane City Council
Cadfile: FOS-885 RAL 01

Issue	Description	Drw	Date	Appd
B	ADJUST BOUNDARY + ADD EMT	MP	30/03/26	MP
A	FOR PLANNING REPORT	MP	04/02/26	MP

NOTES
(i) This plan was prepared for the purpose and exclusive use of ALLAN CADMAN to accompany an application to BRISBANE CITY COUNCIL for approval to reconfigure the land described in this plan and is not to be used for any other purpose or by any other person or corporation.
Focus on Surveying Pty Ltd accepts no responsibility for any loss or damage suffered howeverso arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (ii),(iii) or (iv) hereof.

(ii) The contours shown in this plan are suitable only for the purposes of this application. The accuracy of the contours has not been verified and no reliance should be placed upon such contours for any other purpose other than the purpose of this application for reconfiguration.

(iii) The dimensions, areas, number of lots, size and location of improvements & flood information (if shown) are approximate only and may vary.

(iv) This plan may not be copied unless these notes are included.

UNDERGROUND SERVICES - ALPHA CLASSIFICATION AS PER AUSTRALIAN STANDARD AS5488.

Sewer main	S-D S-D S-D
Stormwater drainage	SW-D SW-D
Water main	W-D W-D W-D
Telstra service	T-D T-D T-D
NBN service	NBN-D NBN-D
Gas supply	G-D G-D G-D
Electricity supply	E-D E-D E-D

SCALE 1:200 (A3)

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Sheet No.
1 of 1

Dwg. No. **FOS-885 RAL 01**
Issue **B**

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO COUNCIL APPROVAL, SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF NATURAL RESOURCES & MINES.

Appendix 6
Stormwater Management Plan Report - Ark Consulting Group Pty Ltd

ARK CONSULTING GROUP

Engineering A Sustainable & Affordable Community

Stormwater Management Plan (SMP) Report

19 Buscall Ct, Sinnamon Park

For

Mr. Allan Cadman& Ms. Louette Cadman

Project No. ARK-26-164

April 2026

REPORT CONTROL SHEET

Date:	Saturday, 4 April 2026				
Report Title:	Stormwater Management Plan (SMP)				
Site address:	19 Buscall Ct, Sinnamon Park				
Our Ref No:	ARK-26-164				
Author:	Brian Aghazadeh				
Certifier:	Brian (Seyedvahid) Aghazadeh Senior Civil Engineer (RPEQ) 18146 Date: 2026.04.16 18:47:11+10'00'				
Revision:	A				
Date:	2026-04-04				

Disclaimer:
This report is a professional opinion based on the information available at the time of writing. It is not intended as a quote, guarantee or warranty and does not cover any latent defects.

This report will comment on the civil infrastructure to the project and may outline probable costs but the extent of the commission of ARK Consulting Group does not extend to detailed cost feasibility, as such the costs should not be relied on for financing arrangements.

This report has been prepared specifically for the aforementioned client, site and project. It has been written solely for the purpose of providing engineering advice on the above issues for Council for this development site. Please note that this report has been compiled based on the information that is current at the time of report printing, and that the recommendations supplied within this report are based solely on the above.

Also, no further analysis has been conducted beyond the nominated lawful point of discharge. Any existing drainage issues downstream from the analysed area shall be considered to remain the responsibility of the Council to investigate and maintain.

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1.0 INTRODUCTION

ARK Consulting Group has been commissioned by Mr. Allan Cadman& Ms. Louette Cadman (hereafter referred to as the "Client") to prepare a site based Stormwater Management Plan (sbSMP) Report for a proposed development located at 19 Buscall Ct, Sinnamon Park (LOT 1 on RP203172).

This Report addresses the Council's Planning Scheme and related provisions applicable to this development. Data obtained from Council records, a detailed survey, and Before You Dig Australia (BYDA) have been utilised in the preparation of this report.

This report is specific to the client and site, intended solely for the purpose of providing engineering advice regarding the aforementioned issues for consideration by local authorities concerning this development site.

1.1 BASIS OF THE REPORT

This report has been compiled based on, and with consideration given to:

a) BCC Planning Scheme Polices and mapping system

b) Discussions between ARK Consulting Group and the consultant team,

c) Site survey, and

d) Site layout

It is to be noted that this report has been compiled based on information current at the time of report printing and the recommendations supplied within this report are based solely on the above.

2.0 SITE CHARACTERISTICS

2.1 LOCATION & DESCRIPTION

LOT 1 on RP203172 encompasses 0.1538 hectares and is designated as Low Density Residential according to the BCC Planning Scheme. The site is currently developed with an existing residential dwelling and associated structures, including hardstand areas and access paving. Surrounding land uses include:

The site is currently developed with an existing dwelling, associated hardstand areas, driveway access, and a swimming pool (proposed to be removed as part of the development).

The site has frontage to **Buscall Court along its southern boundary** and is surrounded by established residential development.

The site is serviced by existing infrastructure, including:

- Water supply
- Sewer infrastructure
- Electrical and telecommunications services

The proposed development comprises a **reconfiguration of a lot (1 into 2 subdivision)**, with the existing dwelling retained on the front lot and a new rear lot created via an access handle.

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Figure 1 Locality Plan (source: QLD Globe, Google Earth)

2.2 TOPOGRAPHY

The site exhibits a moderate overall fall from the **north-east corner toward the south-west frontage**.

Survey data indicates:

- **Highest elevation:** approximately RL **44.3 m AHD** (north-east corner)
- **Lowest elevation:** approximately RL **39.6 m AHD** (south-west frontage)

This represents an overall fall of approximately **4.7 m across the site**.

The site can be broadly divided into two distinct topographical zones:

- The **rear portion of the site (approximately 25 m from the rear boundary)** is relatively flat, with grades generally up to **1%**, forming a suitable building platform area.
- The **front portion of the site (approximately 24 m toward the frontage)**, which includes the existing access driveway and landscaped areas, has a significantly steeper gradient of approximately **16%**, directing surface runoff toward Buscall Court.

Existing overland flow generally follows this natural gradient, draining toward the street frontage. This established drainage pattern has been adopted in the proposed development to ensure consistency with existing site conditions and to avoid adverse impacts on adjoining properties.

The site topography has been a key consideration in developing the stormwater management strategy, ensuring:

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- Maintenance of existing overland flow paths
- Integration of access driveway and building platform requirements
- Compatibility with the proposed lawful point of discharge to Buscall Court

2.3 FLOOD AND OVERLANDFLOW OVERLAY

A review of the available Brisbane City Council flood mapping indicates that the subject site is **not affected by mapped riverine flooding, creek flooding, or storm tide inundation**.

The site is not located within a **Flood Overlay** and is therefore not subject to flood-related development constraints under the Brisbane City Plan.

In terms of overland flow, the site exhibits a **well-defined natural drainage path from the north-east toward the south-west frontage (Buscall Court)**, consistent with the surveyed topography. No formal overland flow paths are mapped across the site, and no concentrated upstream catchment is identified that would result in significant overland flow impacts.

Given the site's moderate slope and direct discharge to the street, overland flow is considered to be:

- **Minor and locally generated**, primarily from rainfall on-site
- **Effectively conveyed toward the frontage** without impacting adjoining properties

The proposed development maintains this existing drainage regime, ensuring that:

- Overland flow paths are preserved
- No obstruction to flow occurs
- Runoff continues to discharge safely to Buscall Court

Based on the above, the site is **not constrained by flood or overland flow overlays**, and the proposed development is considered appropriate from a flooding and overland flow perspective.

Further details are provided in the **Property Flood Report included in Appendix D**.

3.0 STORMWATER MANAGEMENT STRATEGY

Catchment

The proposed development comprises a **reconfiguration of a lot (1 into 2 subdivision)**, creating:

- **Lot 3 (front lot)** retaining the existing dwelling
- **Lot 4 (rear lot)** for future residential development

For stormwater assessment purposes, the site is treated as a **single catchment**, with runoff generated from:

- Roof areas
- Driveways and paved surfaces
- Landscaped areas

Existing Condition

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Under existing conditions, the site comprises:

- An existing dwelling
- Driveway and hardstand areas
- Swimming pool and associated paved surfaces

The total existing impervious area (including roof, driveway, and pool surrounds) is estimated to be approximately:**730 m²**

The remaining area consists of landscaped surfaces allowing infiltration and attenuation of runoff.

Proposed Condition

The proposed development includes both **new impervious areas** and **removal of existing impervious surfaces**, as summarised below.

Additional Impervious Areas

- Access handle driveway (Lot 4): **93 m²**
- Internal driveway (Lot 4): **30 m²**
- Future dwelling roof (Lot 4): **100 m²**
- Proposed carport (Lot 3): **43 m²**

Total additional impervious area:
→ 266 m²

Impervious Areas to be Removed

- Existing patio / alfresco: **52 m²**
- Existing roof and roofed structures to be removed: **85 m²**

Total impervious area removed:
→ 137 m²

Net Change in Impervious Area

- Existing impervious area: **730 m²**
- Net increase: **+129 m² (266 m² – 137 m²)**

Accordingly, the proposed development results in a **moderate increase in impervious area**.

Runoff Characteristics

Stormwater runoff from the site is influenced by:

- Site topography, with a fall from **north-east to south-west toward Buscall Court**
- A combination of impervious and pervious surfaces
- Established residential urban conditions

The steeper front portion of the site (approximately **16% grade**) promotes efficient conveyance of runoff toward the street, while the rear portion is relatively flat and will be graded to ensure positive drainage.

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Although the development results in a net increase in impervious area, stormwater impacts are mitigated through:

- Controlled drainage design
- Provision of on-site detention

As a result:

- Post-development runoff will be **controlled to pre-development levels**
- No adverse impact on downstream properties is expected

3.1 PRELIMINARY ASSESSMENT USING RATIONAL METHOD

A preliminary assessment of stormwater discharge has been undertaken using The Rational Method in accordance with Council's engineering planning scheme policies and QUDM. The findings are presented in the below sections.

Refer to **Appendix B** for Rational Method Calculations.

Pre-Development Stormwater Discharge
The property covers an area of 765 square meters. It includes existing dwelling, storage sheds and hardstands with hardstand areas for service vehicles, site driveways, and on-site parking which are part of the site's impervious surface. The remaining area is landscaped as noted in this report.

The pre-development catchment details are provided below in **Table 1** and the pre-development stormwater discharge (calculated using the rational method) is provided in

Table 1 Pre-Development Catchment (Rational)

Catchment	Development Site Area (m^2)	Pre-Development Impervious Area (m^2) (%)	Pre-Development Pervious Area (m^2) (%)
	Catchment Ex.A (Contributing to node D01 for subject lot)		
Ex.A	1,538 m^2	730 m^2 or 47.5%	808 m^2 or 52.5%

***Note:** existing site condition has been assessed using Nearmap imagery and existing land survey'*

Time of Concentration = **5 Minutes** (Catchment Ex.A) Calculated using Friend's Equation; QUDM V4 Section 4.6.6

Surface: light cover grass + med soil permeability

C_{10} Runoff Coefficient = **0.74** (Catchment Ex. A) – QUDM V4, Table 4.5.4 – Table of C_{10} Values

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Table 2 Pre-Development Discharge (calculated using the Rational Method)

ARI (yr)	AEP	C	I (mm/hr)	Pre-Development Discharge (m^3/s)
			Node OUT (9min)	@ Node OUT
1	63%	0.59	107.00	**0.027**
2	39%	0.63	122.00	**0.033**
5	18%	0.70	168.00	**0.050**
10	10%	0.74	199.00	**0.063**
20	5%	0.78	229.00	**0.076**
50	2%	0.85	269.00	**0.098**
100	1%	0.89	299.00	**0.113**

3.2 POST-DEVELOPMENT STORMWATER DISCHARGE

Following the proposed development, the site will comprise a **reconfiguration of a lot (1 into 2 subdivision)**, including:

- Retention of the existing dwelling on **Lot 3 (front lot)**
- Creation of **Lot 4 (rear lot)** with access handle, driveway, and future dwelling
- Associated hardstand areas including driveways and a proposed carport

The post-development impervious areas have been estimated as follows:

- **Total impervious area:** approximately **859 m²**
- **Total site area:** approximately **1,538 m²**
- **Remaining area:** landscaped and pervious surfaces (approximately **679 m²**)

The landscaped areas will remain permeable and will continue to allow for infiltration, thereby contributing to attenuation of runoff from the site.

Comparison with Existing Condition

Under existing conditions, the site comprises a residential dwelling, driveway, and pool area, resulting in an estimated impervious area of approximately: **730 m²**

Following development:

- Additional impervious area is introduced through the new dwelling and access driveway
- Existing impervious areas (including portions of roof and patio) are removed and replaced with landscaped surfaces

Accordingly:

- The proposed development results in a **net increase in impervious area of approximately 129 m²**
- This increase is considered **moderate relative to the total site area**

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The post-development catchment details are provided below in **Table 3** and the post-development stormwater discharge (calculated using the rational method) is provided in **Table 4**.

Table 3 Post-Development Catchment (Rational)

Catchment	Development Site Area (m^2)	Post-Development Impervious Area (m^2) (%)	Post-Development Pervious Area (m^2) (%)
	Catchment C1 (Contributing to node D01 for subject lot)		
P.A	1,538 m^2	859 m^2 or 55.9%	679 m^2 or 44.1%

Time of Concentration = **5.0 Minutes** Catchments P1– Calculated using Friend's Equation; QUDM V4 Section 4.6.6 – Figure 4.4

C_{10} Runoff Coefficient = **0.76** (Catchments C1A) – QUDM V4, Table 4.5.3 – Table of C_{10} Values

Table 4 Post-Development Discharge – Unmitigated (calculated using the Rational Method)

ARI (yr)	AEP	C	I (mm/hr)	Post-Development Discharge (m^3/s)
		Node A	Node A (8min)	@ Node A
1	63%	0.61	107.00	**0.028**
2	39%	0.65	122.00	**0.034**
5	18%	0.72	168.00	**0.052**
10	10%	0.76	199.00	**0.065**
20	5%	0.80	229.00	**0.078**
50	2%	0.87	269.00	**0.100**
100	1%	0.91	299.00	**0.116**

Pre & Post-Development Comparison (Rational)
From the calculations undertaken a comparison of pre-development and post-development stormwater discharge is presented in the table below.

Table 5 Comparison of Pre & Post-Development Discharge (calculated using the Rational Method)

Catchment	ARI (yr)	AEP	Total Site Discharge			
			Pre-Development Discharge (m^3/s)	Post-Development Discharge (m^3/s)	Difference + / - (m^3/s)	Difference + / - (%)
Pre vs Post Development Discharge Contributing to Node D01 (Site Development Area)						
Site	1	63%	0.013	0.013	+0.001	+2.70%
	2	39%	0.016	0.016	+0.001	+2.70%
	5	18%	0.025	0.024	+0.001	+2.70%
	10	10%	0.031	0.030	+0.002	+2.70%
	20	5%	0.037	0.037	+0.002	+2.70%
	50	2%	0.048	0.047	+0.003	+2.70%
	100	1%	0.056	0.055	+0.003	+2.70%

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3.3 SUMMARY OF PRELIMINARY ASSESSMENT

A quantitative assessment of pre- and post-development stormwater discharge has been undertaken using the **Rational Method**, with the results summarised in **Table 5**.

The analysis indicates that the proposed development results in only a **minor increase in peak discharge**, with an average increase of approximately **2.7% across all storm events (ARI 1 to 100 year)**.

In some storm events, the post-development discharge is marginally lower than the pre-development condition, reflecting the redistribution of impervious areas and site grading.

Overall:

- The increase in peak flow is **negligible**
- The discharge rates remain **consistent with existing conditions**
- No material change in runoff behaviour is expected

Assessment Against Council Requirements

The results demonstrate that the proposed development:

- Does **not significantly increase peak flows**
- Will **not adversely impact downstream properties or infrastructure**
- Maintains runoff characteristics within acceptable limits for a **code assessable development**

Given the small magnitude of change, the site's direct discharge to the **Buscall Court kerb and channel**, and the established urban drainage context, the development is considered to have **no adverse hydraulic impact**.

Detention Requirement

Based on the above assessment, stormwater detention is **not required**.

This is consistent with **Brisbane City Council Planning Scheme Policy (PSP) – Clause 7.5.2**, which states that detention is generally not required where:

- The increase in runoff is minor and does not create adverse impacts
- Stormwater is discharged to Council's drainage system (kerb and channel)
- The development forms part of an established urban catchment

Conclusion

The proposed development results in a **negligible increase in peak discharge (approximately 2.7%)**, which is considered acceptable.

Accordingly, the stormwater management strategy, relying on direct discharge to the street system, is **appropriate and compliant**, and **no on-site detention is required**.

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4.0 STORMWATER QUALITY

4.1 ASSESSMENT CRITERIA

The State Interest for Water Quality, as outlined in the State Planning Policy (July 2014), applies to development applications that meet certain criteria. These criteria include:

- Material change of use for urban purposes: This applies to developments that involve a land area greater than 2,500 square meters and will result in either:
    - An impervious area greater than 25% of the net developable area.
    - Six or more dwellings.
- Reconfiguring a lot for urban purposes: This applies to developments that involve a land area greater than 2,500 square meters and will result in six or more lots.
- Operational works for urban purposes: This applies to developments that involve disturbing more than 2,500 square meters of land.

As the total development area is less than 2,500 m² the requirements for a water quality assessment **do not apply** to this development.

5.0 CONCLUSION

This Stormwater Management Plan (SMP) has been prepared to support the proposed **reconfiguration of a lot (1 into 2 subdivision)** at 19 Buscall Court, Sinnamon Park.

The assessment demonstrates that the proposed development adopts a **practical and compliant stormwater management strategy**, which is appropriate for the scale and nature of the development.

Key findings of this report are summarised as follows:

- The site benefits from a **well-defined natural drainage pattern**, falling toward Buscall Court, which provides a suitable and direct **lawful point of discharge (LPD)** via the kerb and channel system.
- The proposed drainage system collects runoff from roofed and paved areas and conveys it via an underground pipe network to the street, ensuring **controlled and compliant discharge**.
- The development results in a **minor increase in impervious area** (approximately 129 m²), which translates to a **negligible increase in peak discharge (approximately 2.7%)**, as demonstrated by Rational Method calculations.
- The increase in stormwater runoff is considered **insignificant** and does not result in adverse impacts on downstream properties or Council infrastructure.
- In accordance with **Brisbane City Council Planning Scheme Policy (Clause 7.5.2)**, stormwater detention is **not required**, as:
    - The increase in runoff is minor
    - The site discharges directly to Council's drainage system
    - No adverse flooding or nuisance impacts are expected
- The site is **not affected by flood or overland flow overlays**, and the proposed development maintains existing overland flow paths without obstruction.
- The development does not trigger the **State Planning Policy (July 2014) water quality requirements**, as the site area is less than 2,500 m² and the scale of development is limited.

Overall, the proposed stormwater management approach:

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- Maintains existing drainage conditions
- Provides compliant and reliable discharge
- Avoids adverse impacts on surrounding properties
- Satisfies relevant Council and State planning requirements

Accordingly, the stormwater strategy is considered **suitable, feasible, and compliant**, and the development is appropriate to proceed without the need for additional stormwater mitigation measures such as on-site detention.

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APPENDIX A – DEVELOPMENT PLANS & CONCEPT CIVIL DRAWINGS

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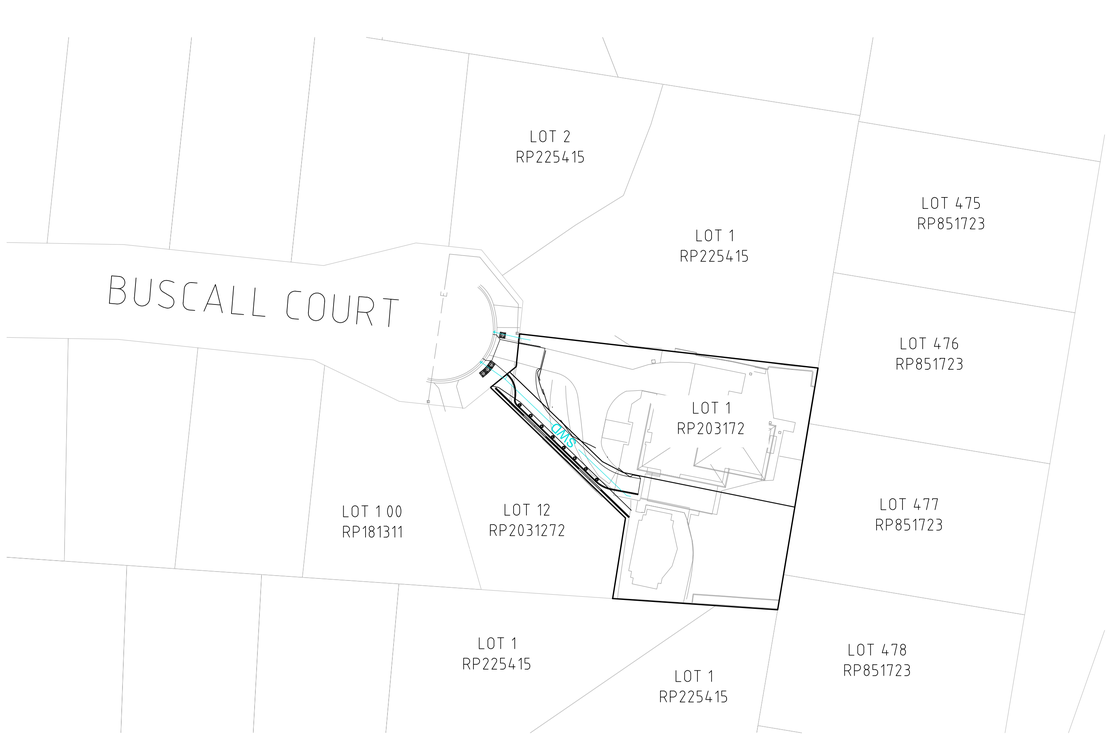
RESIDENTIAL DEVELOPMENT

for **Mr. Allan Cadman& Ms. Louette Cadman**

DRAWING LIST

NO.	DRAWING NUMBER	TITLE	LATEST REVISION	DATE
1	ARK 26164-DA01	COVERSHEET	A	29.03.2026
2	ARK 26164-DA02	NOTES	A	29.03.2026
3	ARK 26164-DA03	ROAD AND DRAINAGE LAYOUT	A	29.03.2026
4	ARK 26164-DA04	EARTHWORKS LAYOUT	A	29.03.2026
5	ARK 26164-DA05	SITE CROSS SECTIONS	A	29.03.2026
6	ARK 26164-DA06	SERVICES LAYOUT	A	29.03.2026
7	ARK 26164-DA07	BORED PIERS AND DRIVEWAY DETAILS	A	29.03.2026



SITE LAYOUT PLAN
SCALE 1:750 @ A1

LOCALITY MAP
(GOOGLE MAP)
NTS

SURVEY INFORMATION

SURVEYOR: FOCUS ON SURVEYPARISH OF: REFER SURVEY
COUNTY OF: REFER SURVEY
LOCAL AUTHORITY: IPSWICH CITY COUNCIL

LEVEL DATUM: N/A PSMno: -

REFERENCE PLANS No. FOS-885
SURVEY DATE: 19.01.2026

WORKS BOUNDARY

0 10 20 30 40 50m
10 7.5 5 2.5
SCALE 1:500 (A1) 1:1000 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: COVER

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ARK-26-164	DA01	A

FOR APPROVAL

GENERAL NOTES

1. ALL ELEVATIONS REFER TO THE AUSTRALIAN HEIGHT DATUM (AHD).
2. ALL RELEVANT SERVICE AUTHORITIES MUST BE NOTIFIED IN WRITING A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE START OF WORKS.
3. IF SURVEY CONTROL MARKS (TBM'S) ARE MISSING AT THE START OF CONSTRUCTION, THEY MUST BE RE-ESTABLISHED BY A LICENSED SURVEYOR. THE CONTRACTOR WILL THEN BE RESPONSIBLE FOR THEIR ONGOING PROTECTION AND MAINTENANCE.
4. EXISTING SURFACE LEVELS DISPLAYED ON THESE DRAWINGS ARE BASED ON A 2D SURVEY COMBINED WITH LIDAR DATA. THESE LEVELS HAVE INFORMED THE ENGINEERING DESIGN AND QUANTITY ESTIMATES. THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION MATCHES THE DESIGN INTENT AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE SUPERINTENDENT.
5. THE CONTRACTOR MUST OBTAIN APPROVAL FOR THE TRAFFIC MANAGEMENT PLAN FROM THE LOCAL COUNCIL AT LEAST SEVEN (7) DAYS BEFORE WORK BEGINS—EARLIER IF REQUIRED. THE TRAFFIC MANAGEMENT AND CONTROL PLANS, INCLUDING ACCESS ARRANGEMENTS, MUST ALSO BE ENDORSED BY THE RESPONSIBLE ROAD AUTHORITY.
6. ALL CONSTRUCTION VEHICLES ARE TO REMAIN WITHIN THE DESIGNATED ROAD RESERVE AND CAR PARK. ANY DAMAGE TO EXISTING FOOTPATHS OR KERB & CHANNEL MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. BEFORE ANY WORK COMMENCES, INSTALL ALL NECESSARY VEGETATION PROTECTION, EROSION CONTROL, AND SITE-SPECIFIC SEDIMENT MANAGEMENT MEASURES.
8. ANY STRUCTURES SUCH AS BUILDINGS, TROUGHS, OR FENCES MARKED FOR REMOVAL SHALL BE DISMANTLED AS INSTRUCTED BY THE ENGINEER. REMOVAL COSTS ARE TO BE INCLUDED IN EARTHWORKS UNLESS OTHERWISE SPECIFIED IN THE SCHEDULE.
9. THE CONTRACTOR MUST LOCATE AND CONFIRM THE POSITION OF ALL EXISTING SERVICES BEFORE BEGINNING WORK. ANY EXISTING SERVICES OR STRUCTURES ARE TO BE PRESERVED IN GOOD CONDITION THROUGHOUT THE PROJECT. DAMAGE TO EXISTING SERVICES IS THE CONTRACTOR'S RESPONSIBILITY AND COST TO REPAIR.
10. THE WORKSITE MUST BE CLEARED OF ALL UNWANTED MATERIALS, INCLUDING DEAD WOOD, STONES, VEGETATION, OLD FOUNDATIONS, CONCRETE, DEBRIS, OR OTHER WASTE. VOIDS LEFT BY REMOVALS MUST BE FILLED WITH APPROVED COMPACTED FILL.
11. ALL SPOIL AND CLEARED MATERIAL MUST BE REMOVED FROM SITE. NO STOCKPILING OR FILLING SHALL OCCUR ON PUBLIC RESERVES OR COMMON PROPERTY UNLESS AUTHORISED BY THE SITE ENGINEER OR SUPERINTENDENT.
12. TOPSOIL MUST BE STRIPPED AND STOCKPILED BEFORE EARTHWORKS BEGIN. ONCE CIVIL WORKS ARE COMPLETE, TOPSOIL SHALL BE REPLACED IN LANDSCAPE AREAS. ANY EXCESS MUST BE DISPOSED OF OFF-SITE.
13. UNLESS OTHERWISE INDICATED, ALL EARTH BATTERS ARE TO BE FORMED AT A SLOPE OF 1 VERTICAL TO 4 HORIZONTAL (1:4).
14. ALL EXISTING SERVICES SHOWN ON THESE DRAWINGS MUST BE PHYSICALLY LOCATED ON SITE PRIOR TO ANY CONSTRUCTION WORK. COORDINATE WITH THE APPROPRIATE AUTHORITIES TO CONFIRM THEIR EXACT POSITION.

FLEXIBLE PAVEMENTS

1. ALL EXTERNAL WORK SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY. ALL NECESSARY TESTING SHALL BE CARRIED OUT AT THE CONTRACTOR'S EXPENSE WITH COPIES OF TEST CERTIFICATES SUPPLIED TO THE SUPERINTENDENT.
2. PROVISIONAL PAVEMENT DESIGN IS BASED ON A MINIMUM SUB-GRADE CBR OF 5 UNDER SERVICE CONDITIONS. THE STATED PAVEMENT DESIGN IS SUBJECT TO REVISION ON THE BASIS OF CONFIRMATORY SOAKED CBR TESTS AT THE TIME OF BOXING.
3. BASE AND SUB-BASE MATERIAL SHALL NOT BE INSTALLED UNTIL A SATISFACTORY PROOF ROLL HAS BEEN CONDUCTED ON THE SUB-GRADE.
4. SEALING SHALL NOT TAKE PLACE UNTIL A SATISFACTORY PROOF ROLL AND INSPECTION HAS BEEN CARRIED OUT ON THE FINISHED SURFACE.

EARTHWORKS NOTES

1. THE STANDARD FOR THE PROVISION OF EARTHWORKS ARE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", MODIFIED TO SUIT ALL LOCAL CONDITIONS, PRACTICES AND LOCAL AUTHORITY STANDARDS AS REQUIRED AND AS APPROVED IN WRITING BY THE SUPERINTENDENT.
2. SUPERVISION, INSPECTION AND TESTING IS TO BE CARRIED OUT IN ACCORDANCE WITH SECTION 8 AND APPENDIX B OF AS 3798. FOR ALL STRUCTURAL FILL THE SCOPE OF SERVICES TO BE PROVIDED BY THE GEOTECHNICAL TESTING AUTHORITY IS TO BE IN ACCORDANCE WITH LEVEL 1 AS DETAILED IN APPENDIX B AND IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS. LEVEL 3 SUPERVISION IS NOT PERMITTED FOR STRUCTURAL FILL, BUT IS ACCEPTABLE FOR NONSTRUCTURAL FILL.
3. CLEARED VEGETATION SHALL BE MULCH AND DISPOSED OF OFFSITE. BURNING OFF IS NOT CONSIDERED AN ACCEPTABLE MEANS OF DISPOSAL AND WILL NOT BE APPROVED.
4. EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVEL AND ARE TO INCLUDE TOPSOIL WHERE APPROPRIATE.
5. PRIOR TO WORKS, THE CONTRACTOR IS TO CHECK AND CONFIRM ANY STRUCTURES OR FENCING ENCROACHING THE WORKS AREA AND NOTIFY THE SUPERINTENDANT.
6. ALL SPOT HEIGHTS ARE GENERALLY FOR THE CORNER OF A LOT OR TOP/BOTTOM OF A BATTER, AND ARE FOR ASSISTANCE ONLY. IF A DISREPENCY OCCURS BETWEEN CONTOURS AND SPOT HEIGHTS, CONTACT SUPERINTENDANT FOR DIRECTION.
7. TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AS DIRECTED BY GEOTECHNICAL CONSULTANT AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
8. TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
9. THE ROAD PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE MINIMUM PAVEMENT THICKNESS FOR THE LOCAL AUTHORITY. THESE DEPTHS ARE PROVISIONAL ONLY AND ARE SUBJECT TO SOIL TESTING OF SUBGRADE MATERIALS AND LOCAL AUTHORITY APPROVAL.
10. ALL FOOTPATHS, BATTERS, ALLOTMENT FILL AREAS AND DISTURBED AREAS SHALL BE TOPSOILED FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING.
11. THE LOCATION OF RETAINING WALLS RELATIVE TO PROPERTY BOUNDARIES SHOULD BE AS SHOWN ON THE RETAINING WALL DETAILS (AS APPLICABLE), AND NOT SCALED FROM THE LAYOUT PLAN OR DIGITAL FILES. WHERE DISCREPANCY OCCURS, CONTACT SUPERINTENDING ENGINEER PRIOR TO WORKS.
12. AT COMPLETION OF RETAINING WALL CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SAFETY FENCING ON TOP OF ANY WALLS THAT ARE GREATER THAN 1.0m HIGH.
13. ALL ON-SITE VEHICLES AND MACHINERY TO REMAIN A MINIMUM DISTANCE FROM RETAINING WALL EQUIVALENT TO THE HEIGHT OF THE RETAINING WALL DURING THE FULL PERIOD OF CONSTRUCTION OF THE RETAINING WALL.
14. IF THERE ARE ANY OTHER WALLS WITHIN INFLUENCE OF THIS WALL, THE ENGINEER IS TO BE CONTACTED FOR RE-DESIGN.
15. EXTENT OF RETAINING WALL MAY DETERMINED ON SITE IN CONSULTATION WITH THE ENGINEER.

STORMWATER DRAINAGE

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HYDRAULICS CONSULTANT'S DRAWINGS.
2. ROOF WATER DRAINAGE IS TO BE CONNECTED TO PITS OR PIPES AS SHOWN ON DRAWINGS IN ACCORDANCE WITH THE HYDRAULICS CONSULTANT'S REQUIREMENTS.
3. UNDERGROUND STORMWATER LINES ARE TO BE CONSTRUCTED USING RCP STORMWATER DRAINAGE CLASS 2 PIPE TO AS 1254 OR APPROVED EQUIVALENT. ALL STORMWATER PIPES AND PITS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RELEVANT AUSTRALIAN AND LOCAL AUTHORITY STANDARDS.
4. STORMWATER PITS ARE TO BE CONSTRUCTED IN SITU IN ACCORDANCE WITH STD DRAWINGS OR VARIED AS NOTED ON THE DRAWINGS. PREFABRICATED STORMWATER PITS MAY BE USED SUBJECT TO WRITTEN APPROVAL FROM THE SUPERINTENDENT. CLASS D HEAVY DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN TRAFFIC AREAS, CLASS B LIGHT DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN LANDSCAPED OR PEDESTRIAN AREAS UNLESS NOTED OTHERWISE. ALL GRATES TO COMPLY WITH AS3996 FOR BICYCLE & WHEELCHAIRS AND TO BE NON SLIP.
5. ALL TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH CRUSHER DUST.
6. IF AN EXISTING SERVICE OR STRUCTURE CROSSES THE LINE OF A REQUIRED TRENCH, PROVIDE PERMANENT SUPPORT FOR THE EXISTING SERVICE.
7. WHERE A STORMWATER LINE CHANGE IN DIRECTION EXCEEDS MANUFACTURERS LIMITS, USE A MANHOLE OR SPECIALLY MANUFACTURED PRECAST BEND UNITS.
8. PROVIDE ANCHOR BLOCKS WHERE NEEDED TO RESTRAIN LATERAL MOVEMENT OF THE PIPELINES AT JUNCTIONS AND CHANGES IN DIRECTION.
9. WHERE ENCASEMENT IS SPECIFIED, USE 20MPa CONCRETE TO A DEPTH OF 150mm AROUND THE PIPE.
10. FOR DETAILS ON PIPE SURROUNDS AND BEDDING REFER TO IPWEA DS-030.
11. FOR INFORMATION ON PIPE LAYING, JOINTING AND DEFECT IDENTIFICATION REFER TO MORETON BAY REGIONAL COUNCIL 'AUS-SPEC C220'.
12. CAST INSITU GULLIES AND MANHOLES MAY BE CAST AGAINST THE GROUND, HOWEVER CONCRETE COVER SHALL BE INCREASED BY 50mm IN THIS CASE.
13. BENCH MANHOLES TO HALF HEIGHT OF CONNECTING PIPES USING SOLID CONCRETE AND RENDER WITH A SAND-CEMENT MORTAR TO A SMOOTH FINISH.
10. FOR DETAILS OF INLET STRUCTURES REFER TO IPWEA STD DS-050.

SETOUT NOTES:

1. SETOUT PAVEMENT MARKING FROM CONTROL LINES UNLESS DIMENSIONED OTHERWISE.
2. ALL LONGITUDINAL AND TRANSVERSE PAVEMENT MARKING TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURE 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2010) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. ALL INTERSECTION ARROWS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. ALL CHEVRONS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.4,5.5 AND 5.6 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. ALL PAVEMENT MATERIALS TO COMPLY WITH AS4049.1-2005 AND ARE TO BE REFLECTORISED.

SIGNAGE NOTES:

1. ALL ROAD SIGNS ARE TO COMPLY WITH REQUIREMENTS SPECIFIED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. EXACT LOCATIONS OF TRAFFIC SIGNS TO BE AGREED ON-SITE WITH AUTHORITIES OFFICER.

RRPM NOTES:

1. PLACEMENT OF RRPMS TO BE AS PER 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

SEDIMENT & EROSION CONTROL NOTES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

1. AVOID STRIPPING & EXCAVATING UNTIL NECESSARY.
2. CONSTRUCTION OF AN ENTRY/EXIT POINT TO THE SITE SHOULD BE MANAGED SO THAT SEDIMENT IS NOT TRACKED OFF THE SITE.

BULK EARTHWORKS

3. TOPSOIL SHOULD BE STOCKPILED ON SITE FOR LATER USE.
4. WHERE PRACTICABLE MAINTAIN VEGETATION IN A HEALTHY STATE DURING THE CONSTRUCTION PROCESS.
5. WHEN UP SLOPE WATER IS DIVERTED AROUND A WORK SITE IT IDEALLY SHOULD BE DISCHARGED AS SHEET FLOW THROUGH AN UNDISTURBED AREA.

CONSTRUCTION OPERATIONS

6. THIS PLAN SUGGESTS MINIMUM SEDIMENT & EROSION PROTECTION. THE CONTRACTOR SHALL TAKE ANY OTHER MEASURES AS NECESSARY IN CONSULTATION WITH THE SUPERVISING ENGINEER.
7. ADHERE TO STORMWATER INLET PROTECTION DIAGRAM ON I.P.W.E.A.Q. STD. DWG. D-0041.
8. PLACE 12mm THICK PLATE OVER MANHOLES UNTIL CI FRAMES & LID ARRIVE. THIS IS TO KEEP SEDIMENT OUT OF DRAINAGE SYSTEM.
9. SAND BAGS ARE TO BE PLACED AT 45° TO THE ROAD AS SPECIFIED:
   (a) ROAD GRADE (0.5% TO 5%) - 25m MAX. CENTRES
   (b) ROAD GRADE (5% TO 10%) - 15m MAX. CENTRES
   (c) ROAD GRADE (10% TO 15%) - 10m MAX. CENTRES
   (d) ROAD GRADE (15% TO 20%) - 5m MAX. CENTRES
10. ERODABLE MATERIAL MISTAKENLY PLACED WITHIN THE ROAD RESERVE (INCLUDING ACCIDENTAL SPILLAGE & TRACKING OF SUCH MATERIALS ONTO THE ROAD) THAT CANNOT BE PREVENTED THROUGH REASONABLE MEANS, MUST BE:
    (a) REMOVED IMMEDIATELY IF RAINFALL IS IMMINENT OR OCCURRING.
    (b) REMOVED PRIOR TO THE END OF THE DAY'S WORK IF RAINFALL IS NOT EXPECTED.
11. MATERIALS SHOULD BE SWEPT FROM THE ROAD, NOT WASHED DOWN THE GUTTER.
12. ALL SOLID WASTE SHOULD BE STORED ON SITE IN SUCH A MANNER THAT IT IS PREVENTED FROM LEAVING THE SITE EITHER BY THE ACTION OF WIND OR WATER.
13. SMALLER MATERIALS, SUCH AS LITTER, SHOULD BE CONTAINED IN COVERED BINS.

STOCKPILES

14. STOCKPILES ARE NOT TO BE STORED ON THE FOOTPATH OR THE ROAD RESERVE, UNLESS APPROVED BY COUNCIL.
15. WHERE NECESSARY STOCKPILE LOSSES CAN BE MINIMIZED WITH THE USE OF COVERS.
16. ALL STOCKPILES & BUILDING MATERIAL SHOULD BE LOCATED WITHIN THE SEDIMENT CONTROL ZONE.
17. TO MINIMIZE EROSION & THE LOSS OF SAND & SOIL, STOCKPILES SHOULD NOT BE LOCATED WITHIN AN OVERLAND FLOW PATH. IF IT IS IMPRACTICAL TO AVOID STORMWATER RUNOFF BEING DIRECTED TO A STOCKPILE, THEN A PERIMETER BANK SHOULD BE CONSTRUCTED UP SLOPE OF THE STOCKPILE TO DIRECT RUNOFF IN A CONTROLLED MANNER AROUND THE STOCKPILE.

SEDIMENT BARRIERS

SEDIMENT FENCE

18. INSTALL SEDIMENT FENCE(S) ALONG THE LOW SIDE OF THE SITE & IDEALLY ALONG A LINE OF CONSTANT LAND LEVEL TO PREVENT THE CONCENTRATION OF STORMWATER RUNOFF. IN AREAS WHERE IT IS EITHER UNDESIRABLE OR IMPRACTICAL TO BURY THE LOWER EDGE OF THE SEDIMENT FENCE, THE LOWER 200mm (MIN) PORTION OF THE FABRIC SHOULD BE PLACED ON THE GROUND UP SLOPE OF THE FENCE & BURIED UNDER A 100mm (MIN) LAYER OF AGGREGATE REFER I.P.W.E.A.Q. STD. DWG. D-0040.

FIELD INLET GULLIES

19. SEDIMENT CONTROLS FOR STORMWATER INLETS LOCATED WITHIN THE PROPERTY BOUNDARIES MAY CONSIST OF GEOTEXTILE FABRIC PLACED EITHER DIRECTLY OVER THE GRATED INLET OR AROUND THE INLET SUPPORT BY A TIMBER FRAME. FIELD INLET PROTECTION IS NECESSARY WHERE INLETS DRAIN AREAS OF BARE & UNPROTECTED SOIL. DURING STORMS, PONDING SHOULD BE ALLOWED TO OCCUR AROUND THE STORMWATER INLET TO ASSIST IN THE SETTLING OUT OF SEDIMENTS. REFER I.P.W.E.A.Q. D-0041.

PAVEMENT INLET GULLY

20. A ROADSIDE INLET BARRIER IS TO BE INSTALLED, SO THAT IT SHOULD NOT BE ALLOWED TO FULLY BLOCK THE INLET STRUCTURE. ON A HILLSIDE, SEDIMENT BARRIERS MAY CONSIST OF A TEMPORARY DAM CONSTRUCTED FROM SAND & GRAVEL BAGS AT LEAST 4 METRES UP SLOPE FROM THE GULLY INLET.

GRASS SEEDING & TURFING

21. ALL DISTURBED AREAS ARE TO BE SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
22. AFTER FINAL TRIMMING OF FOOTPATHS PROVIDE ONE STRIP OF TURF 0.4m WIDE TO BACK OF KERB & CHANNEL AS SPECIFIED.

MAINTENANCE

23. SEDIMENT FENCES SHOULD BE REPLACED IF THE FABRIC IS RIPPED OR OTHERWISE DAMAGED. THE MAINTENANCE OF THE SEDIMENT FENCES INCLUDES THE REMOVAL OF SEDIMENT DEPOSITED UP SLOPE OF THE FENCE & RETRENCHING THE FABRIC WHEN THE FENCE IS 25% FULL.
24. FOLLOWING STORM EVENTS, THE ROAD RESERVE & ALL SEDIMENT BARRIERS SHOULD BE INSPECTED & ANY EXCESSIVE SEDIMENT RESIDUE SHOULD BE APPROPRIATELY REMOVED.
25. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES FOR THE FULL EXTENT OF THE DEFECTS LIABILITY PERIOD.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: NOTES

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ARK-26-164	DA02	A

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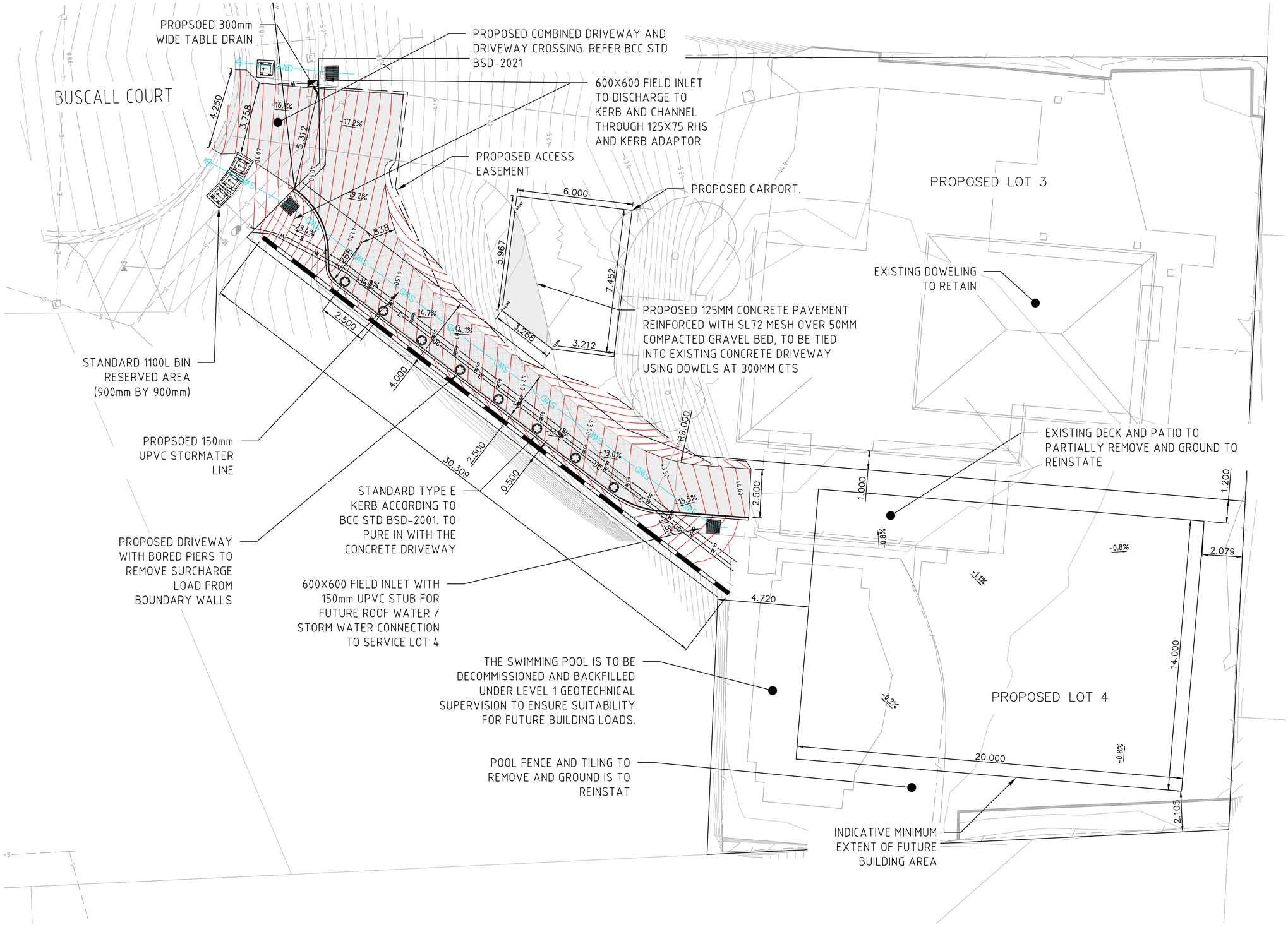

LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL- MAX HEIGHT 1.0m
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)
- TREES PROPOSED TO REMOVE

HATCHING LEGEND

- EXTENT OF PROPOSED CONCRETE DRIVEWAY AND CROSS OVER IN ACCORDANCE WITH BCC STD BSD-2021
- EXTENT OF PROPOSED CONCRETE DRIVEWAY OVER BORED PIERS. REFER BORED PIERS DETAILS DRAWING

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

LAYOUT

SCALE 1:100 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: ROAD AND DRAINAGE LAYOUT

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Job No.	Drawing No.	Revision
ARK-26-164	DA03	A

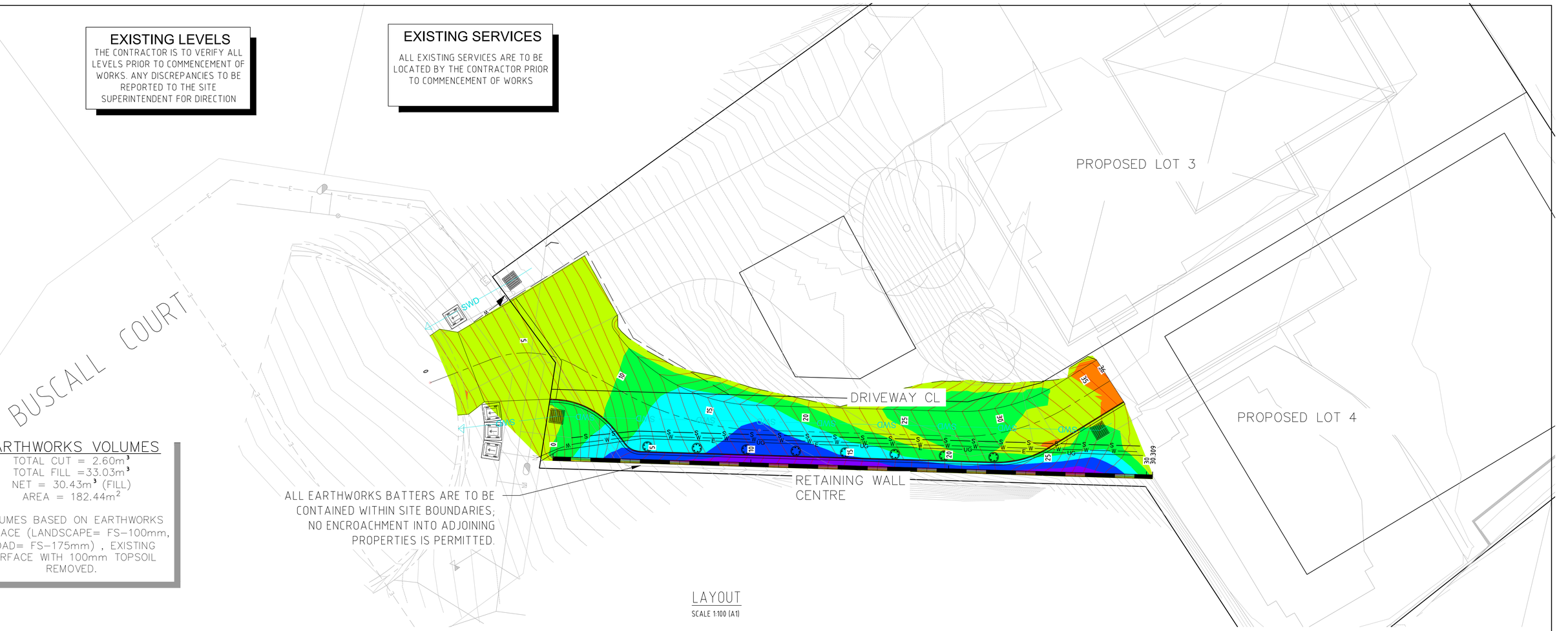
FOR APPROVAL

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS



EARTHWORKS VOLUMES

TOTAL CUT = 2.60m³
TOTAL FILL =33.03m³
NET = 30.43m³ (FILL)
AREA = 182.44m²

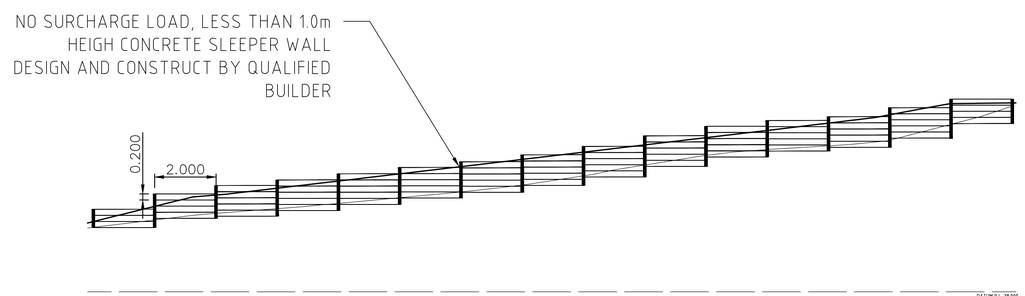
VOLUMES BASED ON EARTHWORKS SURFACE (LANDSCAPE= FS−100mm, ROAD= FS−175mm) , EXISTING SURFACE WITH 100mm TOPSOIL REMOVED.

LAYOUT

SCALE 1:100 (A1)

LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL MAXIMUM 1.0m
- PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) EXISTING SURFACE LEVEL (m AHD)



CHAINAGE	0.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000	23.000	24.000	25.000	26.000	27.000	28.000	29.000	30.000	30.309
DEPTH	0.163	0.291	0.418	0.545	0.597	0.619	0.659	0.700	0.726	0.751	0.775	0.799	0.823	0.833	0.836	0.853	0.780	0.715	0.665	0.625	0.584	0.576	0.615	0.671	0.732	0.786	0.827	0.773	0.695	0.474	0.166	-0.001

RETAINING WALL LONG SECTION

SCALE 1:100 (A1)

EARTHWORKS DEPTH

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	−0.50	−0.30	0.00	
2	−0.30	−0.10	3.46	
3	−0.10	0.10	84.74	
4	0.10	0.30	48.06	
5	0.30	0.50	28.10	
6	0.50	0.70	13.97	
7	0.70	0.90	4.11	

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: EARTHWORKS LAYOUT

ARK Consulting Group Pty Ltd
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28 Daintree Pl, Riverhills 4074
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Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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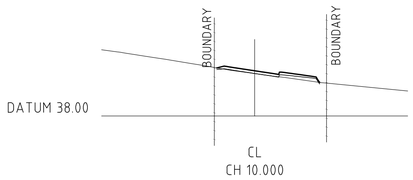
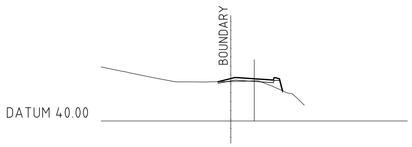
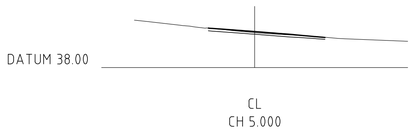
Certified

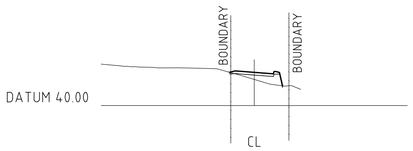
Job No.	Drawing No.	Revision
ARK-26-164	DA04	A

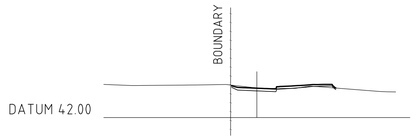
FOR APPROVAL

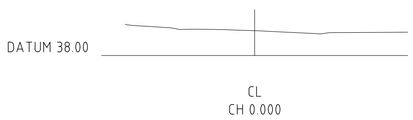


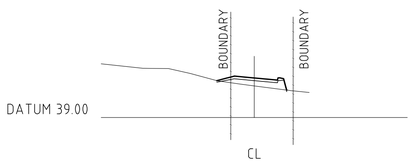


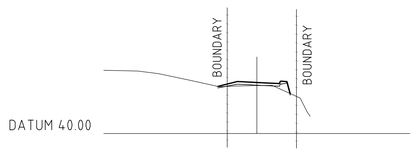












NOTE

ALL BATTERS TO BE MAXIMUM 1V IN 4H SLOPE AND VEGETATED

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 4 8 12 16 20m

SCALE 1:200 (A1) 1:400 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SITE CROSS SECTION

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Office:
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Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA05	A

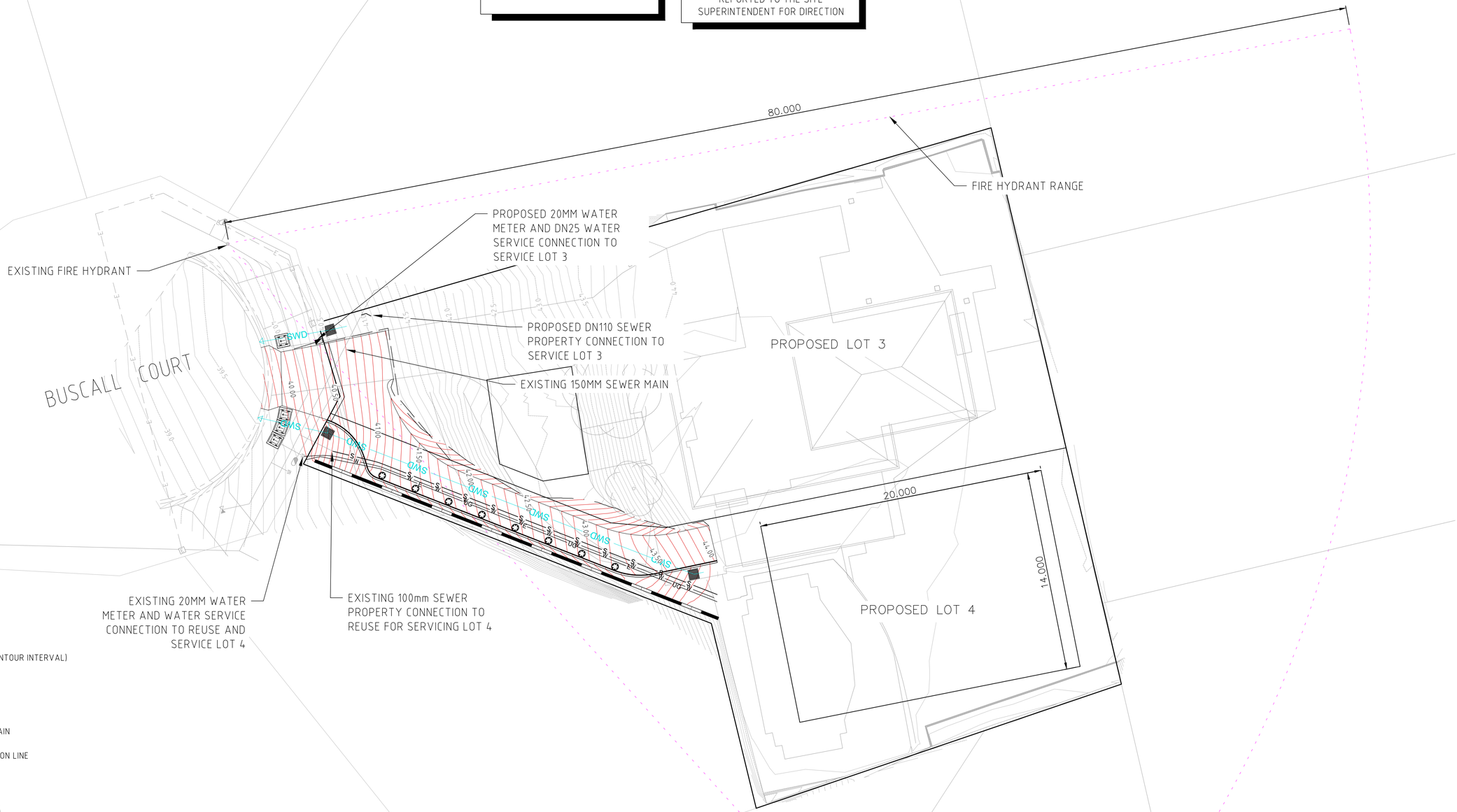
FOR APPROVAL

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION



LEGEND:

- 13.0 — EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- S S S — EXISTING SEWER MAIN
- W W W — EXISTING WATER MAIN
- D D D — EXISTING BSW DRAINAGE MAIN
- T T T — EXISTING TELECOMMUNICATION LINE
- E E E — EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- s s s — PROPOSED SEWER CONNECTION
- w w w — PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)

LAYOUT

SCALE 1:250 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SERVICES LAYOUT

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QLD
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Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

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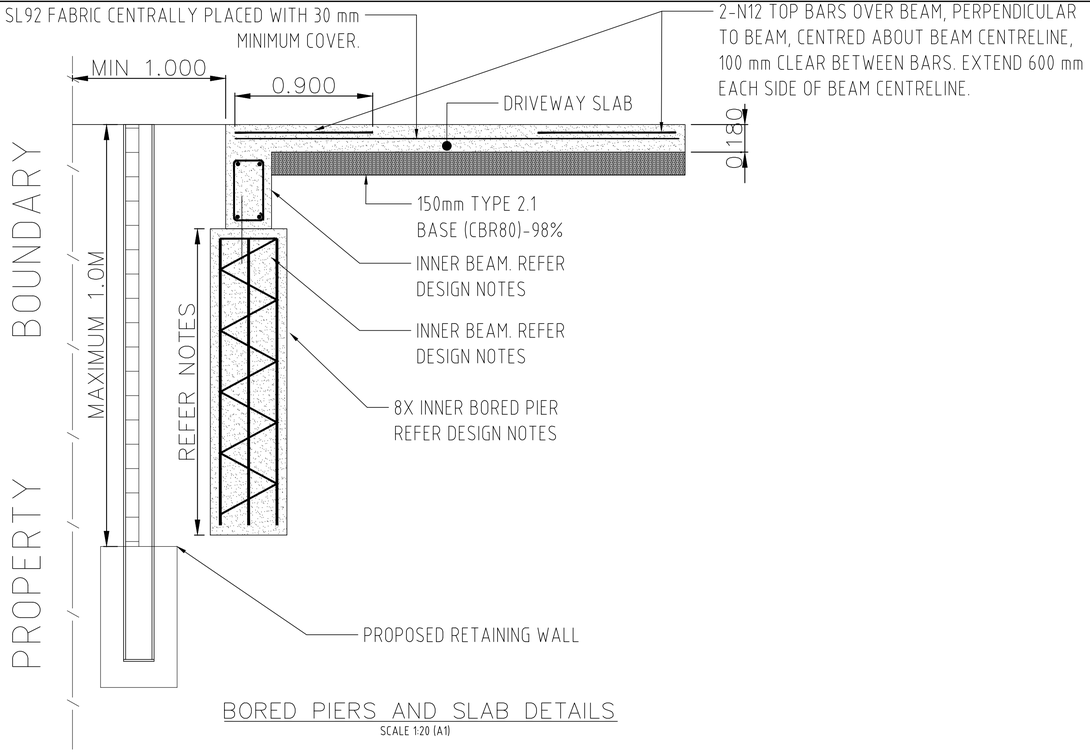
Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA06	A

FOR APPROVAL



BORED PIERS AND SLAB DETAILS
SCALE 1:20 (A1)

NOTE:
BEAMS AND DRIVEWAY SLAB TO BE CAST MONOLITHICALLY. PIERS TO BE CONSTRUCTED PRIOR TO BEAM AND SLAB POUR WITH REINFORCEMENT PROJECTING INTO BEAM.

PILE TO BEAM CONNECTION:
500 DIA BORED PIER WITH 6-N16 VERTICAL BARS. CONTINUE 4-N16 BARS INTO BEAM. PROVIDE ADDITIONAL N16 STARTER / DOWEL BARS AS REQUIRED TO SUIT BEAM REINFORCEMENT LAYOUT. REMAINING PIER BARS TO TERMINATE WITH FULL DEVELOPMENT LENGTH WITHIN PILE HEAD. ROUGHEN AND CLEAN PILE HEAD PRIOR TO BEAM POUR.

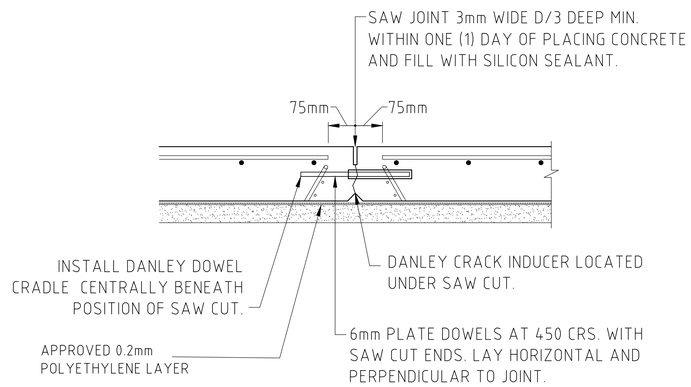
EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 0.4 0.8 1.2 1.6 2.0m
0.4 0.3 0.2 0.1
SCALE 1:20 (A1) 1:40 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.



NOTE: GALVANISE DOWELS FOR EXTERNAL APPLICATIONS.

CJ – CONTRACTION JOINT
(DANLEY PLATE DOWELLED JOINT)
N.T.S.

STRUCTURAL DESIGN NOTES:

1. GENERAL

ALL STRUCTURAL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:
AS3600 – CONCRETE STRUCTURES
AS1170 – STRUCTURAL DESIGN ACTIONS
AS2159 – PILING DESIGN AND INSTALLATION
AS2870 – RESIDENTIAL SLABS AND FOOTINGS
DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE.
CONTRACTOR SHALL VERIFY ALL SITE LEVELS, SETOUT AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK.
ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

2. PILE FOUNDATIONS
ALL PIERS SHALL BE 500 DIA BORED CONCRETE PIERS UNLESS NOTED OTHERWISE.
REINFORCEMENT:
6-N16 VERTICAL BARS WITH R10 SPIRAL @200 PITCH, REDUCE TO R10 SPIRAL @100 PITCH IN TOP 600.
CLEAR COVER TO REINFORCEMENT: 65 mm.
PIERS SHALL BE FOUNDED MINIMUM 1.5 m BELOW EXISTING GROUND LEVEL AND EXTENDED DEEPER AS REQUIRED TO FOUND IN COMPETENT MATERIAL.
ALL FOUNDING LEVELS SHALL BE INSPECTED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
DO NOT FOUND PIERS IN FILL MATERIAL.
EXCAVATIONS SHALL BE CLEANED OF LOOSE MATERIAL AND WATER PRIOR TO POURING CONCRETE.
CONCRETE SHALL BE PLACED IMMEDIATELY AFTER EXCAVATION WHERE PRACTICABLE.

3. BEAMS
INNER BEAM:
300x500 RC BEAM WITH 2-N20 TOP, 2-N20 BOTTOM AND R10 CLOSED TIES @200 c/c (200x400).
PROVIDE 2-N16 TOP AND BOTTOM EXTRA BARS 1200 LONG CENTRED OVER EACH PILE.
CLEAR COVER TO REINFORCEMENT 40 mm.
OUTER BEAM (WHERE SHOWN):
300x450 RC BEAM WITH 2-N16 TOP, 2-N16 BOTTOM AND R10 CLOSED TIES @200 c/c (200x350).
PROVIDE 2-N12 TOP AND BOTTOM EXTRA BARS 1000 LONG CENTRED OVER EACH PILE.
CLEAR COVER 40 mm.

4. DRIVEWAY SLAB
DRIVEWAY SLAB SHALL BE 180 THICK 32 MPa REINFORCED CONCRETE.
PROVIDE SL92 MESH CENTRALLY PLACED WITH 30 mm COVER.
PROVIDE 2-N12 TOP BARS CONTINUOUS OVER INNER AND OUTER BEAMS, EXTENDING 600 mm EACH SIDE OF BEAM CENTRELINE.
CONTRACTION / DOWEL JOINTS:
PROVIDE SAWN CONTRACTION JOINTS AT MAXIMUM 3 m SPACING ALONG DRIVEWAY. REFER DETAILS
PROVIDE N12 EDGE BAR CONTINUOUS ALONG SLAB EDGE.
PROVIDE 20 mm COMPRESSIBLE ISOLATION JOINT BETWEEN DRIVEWAY AND ADJACENT RETAINING WALL OR STRUCTURES.

5. SUBGRADE AND BASE PREPARATION
ALL SLAB-ON-GROUND AREAS SHALL BE FOUNDED ON MINIMUM 150 mm COMPACTED ROAD BASE.
SUBGRADE SHALL BE PROOF-ROLLED AND COMPACTED TO MINIMUM 98% MODIFIED DRY DENSITY (MDD).
ANY SOFT OR UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.

6. CONCRETE MATERIAL AND CONSTRUCTION
ALL STRUCTURAL CONCRETE SHALL BE MINIMUM 32 MPa COMPRESSIVE STRENGTH.
CONCRETE SHALL BE PLACED, COMPACTED AND CURED IN ACCORDANCE WITH AS3600 AND AS1379.
CONCRETE SHALL BE ADEQUATELY VIBRATED TO ENSURE FULL COMPACTION.
CONCRETE SURFACES SHALL BE CURED FOR A MINIMUM OF 7 DAYS.
REINFORCEMENT SHALL BE CLEAN AND FREE OF OIL, LOOSE SCALE OR OTHER CONTAMINATION BEFORE PLACING CONCRETE.

7. REINFORCEMENT
ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS 4671.
REINFORCEMENT SHALL BE ACCURATELY POSITIONED AND SECURED PRIOR TO CONCRETE PLACEMENT.
MINIMUM LAPS, ANCHORAGE AND DEVELOPMENT LENGTHS SHALL COMPLY WITH AS3600.
REINFORCEMENT SHALL BE SUPPORTED ON APPROVED BAR CHAIRS TO MAINTAIN SPECIFIED COVER.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: BORED PIERS AND DRIVEWAY DETAILS

Office:
28 Daintree Pl, Riverhills 4074 QLD
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Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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Job No.	Drawing No.	Revision
ARK-26-164	DA07	A

FOR APPROVAL

BUSCALL COURT

/
RP225415

476
RP851723

477
RP851723

2
RP203172

478
RP851723

114
RP182967

/
SP313158

Proposed Access Easement
34 m²

Area of Access handle 85m²

Proposed Lot 3
912 m²

Existing Dwelling retained

Existing Deck partially demolished

Existing Pool removed

Proposed Lot 4
627 m²
(including access handle)

49.04
5.39
1.36
4.03
21.05
30.65
3.84
1.0
28.58
23.01
44.0
13.31
16.99
26.99

N

Client
Allan Cadman

Project
Proposed Reconfiguration Creating Lots 3 & 4

Cancelling Lot 1 on RP203172
being 19 Buscall Ct, Sinnamon Park

Scale: 1:200 at A3
Datum: AHD vide CORS
Contour Int: 0.5m
LGA: Brisbane City Council
Cadfile: FOS-885 RAL 01

Issue	Description	Drw	Date	Appd
B	ADJUST BOUNDARY + ADD EMT	MP	30/03/26	MP
A	FOR PLANNING REPORT	MP	04/02/26	MP

NOTES
(i) This plan was prepared for the purpose and exclusive use of ALLAN CADMAN to accompany an application to BRISBANE CITY COUNCIL for approval to reconfigure the land described in this plan and is not to be used for any other purpose or by any other person or corporation.
Focus on Surveying Pty Ltd accepts no responsibility for any loss or damage suffered howeverso arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (ii),(iii) or (iv) hereof.

(ii) The contours shown in this plan are suitable only for the purposes of this application. The accuracy of the contours has not been verified and no reliance should be placed upon such contours for any other purpose other than the purpose of this application for reconfiguration.

(iii) The dimensions, areas, number of lots, size and location of improvements & flood information (if shown) are approximate only and may vary.

(iv) This plan may not be copied unless these notes are included.

UNDERGROUND SERVICES - ALPHA CLASSIFICATION AS PER AUSTRALIAN STANDARD AS5488.

Sewer main	S-D S-D S-D
Stormwater drainage	SW-D SW-D
Water main	W-D W-D W-D
Telstra service	T-D T-D T-D
NBN service	NBN-D NBN-D
Gas supply	G-D G-D G-D
Electricity supply	E-D E-D E-D

SCALE 1:200 (A3)

FOCUS ON SURVEYING
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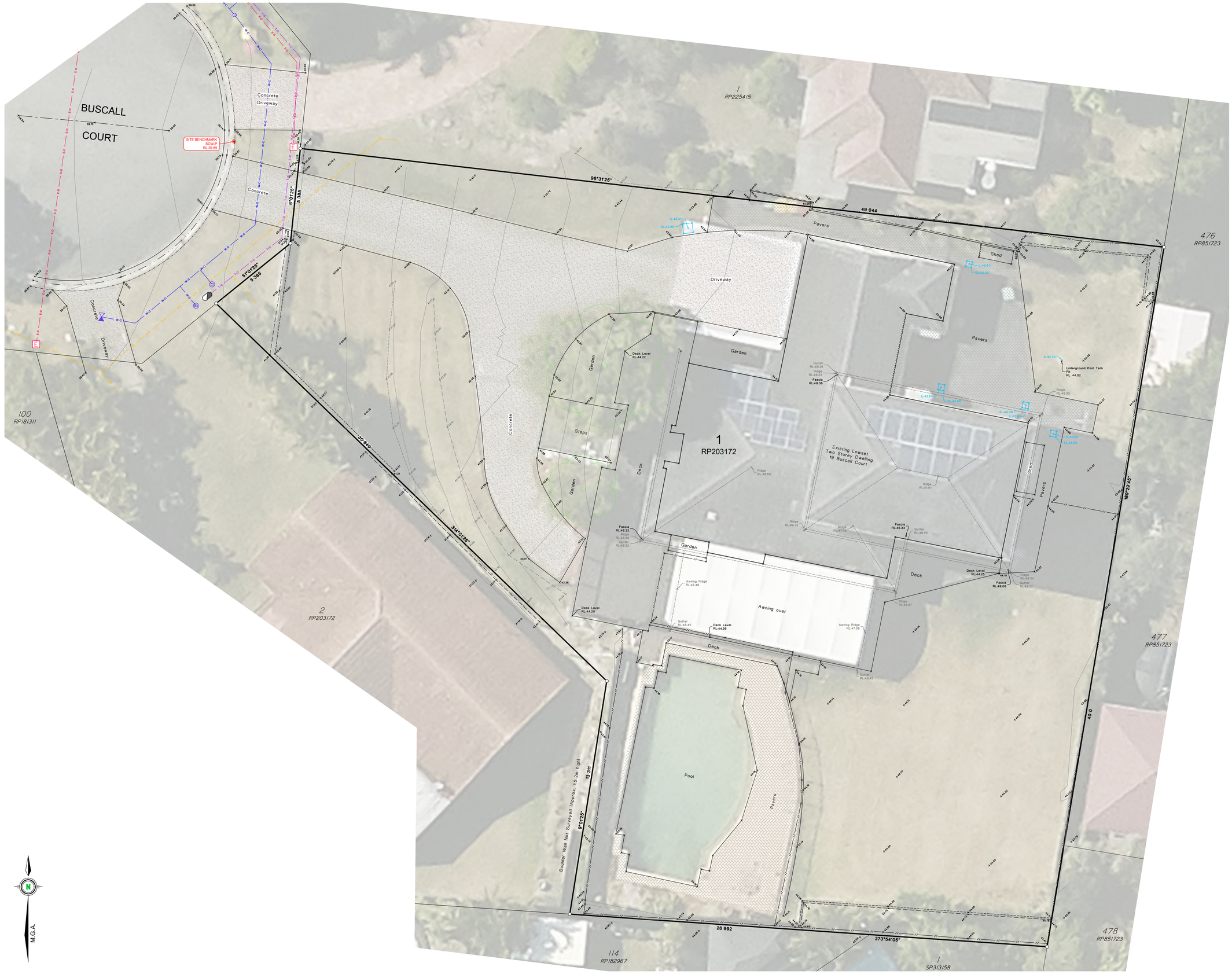
e info@focussurvey.com.au ph 3338 5095
a Suite 6, 214 Waterworks Road . Ashgrove . QLD . 4060
a Unit 4b, 115a Point Cartwright . Buddina . 4575

Sheet No.
1 of 1

Dwg. No. **FOS-885 RAL 01**
Issue **B**

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO COUNCIL APPROVAL, SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF NATURAL RESOURCES & MINES.



Client

Allan Cadman

Project

Detail Survey of 19 Buscall Court, Sinnamon Park

Described as Lot 1 onRP203172

Scale: 1:100 at A1

Datum: AHD vide PSM134153 — Locality: Sinnamon Park
RL: 26.03m — LGA: Brisbane City
Contour Int: 0.5m — Cadfile: FOS-885.DET.01

Issue	Description	Drw	Date	Appd
A	INITIAL ISSUE	SSD	26.01.26	MP

Notes

The title boundaries shown hereon were not marked at the time of survey and have been compiled from previous survey.
Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

LEGEND

AWN	Awning / eave	
BU	Building	
BW	Bottom of wall	
CG	Change of grade	
EBX	Electricity Box	
EBX	Light Pole	
FHY	Fire Hydrant	
FNC	Fence	
IOT	Sewer inspection opening	
KCL	Kerb lip	
KIN	Kerb invert	
KTB	Kerb top back	
TAP	Tap	
TEP	Telstra Pit	
TW	Top of wall	
WMT	Water Meter	

UNDERGROUND SERVICES - ALPHA CLASSIFICATION AS PER AUSTRALIAN STANDARD AS5488.

Sewer main	S-O S-O S-O
Stormwater drainage	SW-O SW-O SW-O
Water main	W-O W-O W-O
Telstra service	T-O T-O T-O
NBN service	NBN-O NBN-O NBN-O
Gas supply	G-O G-O G-O G-O
Electricity supply	E-O E-O E-O
Communication Service	C-O C-O C-O

0 3 6 m

SCALE 1:100 (A1)

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e info@focussurvey.com.au ph 3338 5095
a Suite 6, 214 Waterworks Road. Ashgrove . QLD . 4060
a Unit 4b, 115a Point Cartwright . Buddina . 4575

Sheet No.	Surveyed By:	Date Surveyed:
1 of 1	MT	19.01.26

Dwg. No. — Issue

FOS-885.DET.01_image — A

APPENDIX B – RATIONAL METHOD CALCULATIONS

Office: 28 Daintree Place, Riverhills QLD 4074 Ph: 04 517 998 27

brian@arkcg.com.au www.arkcg.com.au ABN: 14 688 605 183

RATIONAL METHOD CALCULATIONS

Post-Development @ Node OUT

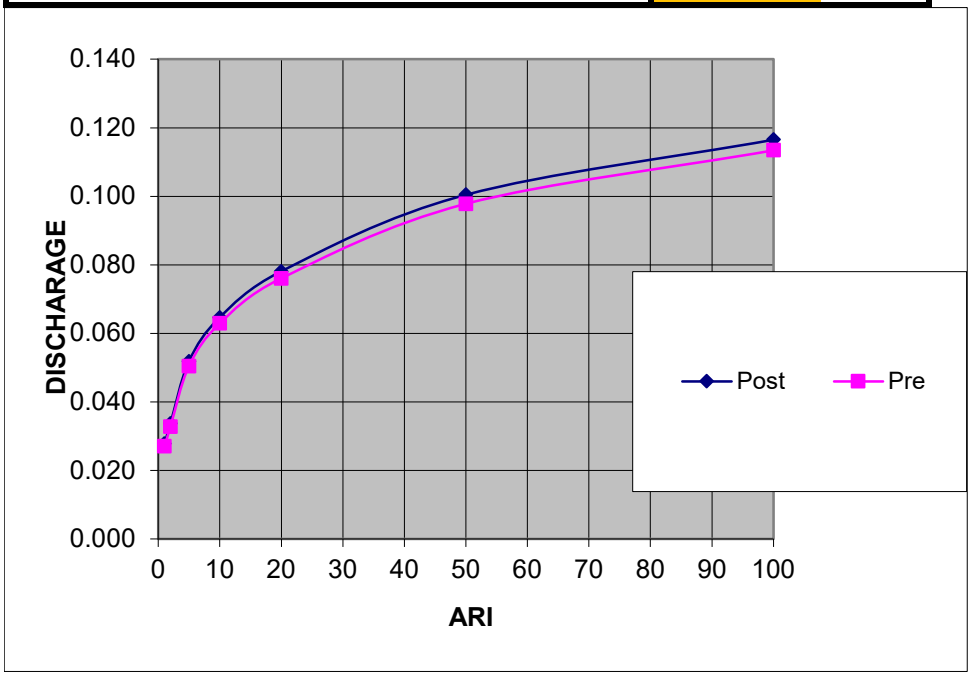
Project: 19 Buscall Court, Sinnamon Park
Location of Discharge: Brisbane City Council
Catchment Condition: Local Catchment (Site Only) - Catchments P.A
Other Comments: Job Number ARK-26164

Time of Concentration:	**5.0**	minutes	
	Site	External	Total
Sub-Catchment Areas (ha)	0.154	0.00	0.15 ha
C10 Runoff Coefficients	0.76	0.00	

ARI (years)	Rainfall Intensity (mm/hr)	Rainfall Depth (mm)	F_y	Runof Coefficient Site	Runof Coefficient External	Runof Coefficient 0	Discharges (cumecs) Site	Discharges (cumecs) Ext.	Discharges (cumecs) 0	TOTAL
1	107.00	9	0.80	0.61	0.00	0.0	0.028	0.000	0.0	**0.028**
2	122.00	10	0.85	0.65	0.00	0.0	0.034	0.000	0.0	**0.034**
5	168.00	14	0.95	0.72	0.00	0.0	0.052	0.000	0.0	**0.052**
10	199.00	17	1.00	0.76	0.00	0.0	0.065	0.000	0.0	**0.065**
20	229.00	19	1.05	0.80	0.00	0.0	0.078	0.000	0.0	**0.078**
50	269.00	22	1.15	0.87	0.00	0.0	0.100	0.000	0.0	**0.100**
100	299.00	25	1.20	0.91	0.00	0.0	0.116	0.000	0.0	**0.116**

Friend's Equation for shallow overland flow		
Travel Length:	30.0	metres
Fall:	1.00	metres
Cathcment Slope:	3.33	%
Horton's roughness value (n)	0.015	
Travel Time - from QUDM V3 Section 4.6.6 (c)	**4.0**	min
Pipe and Channel Flow		
Flow Distance:	25.0	metres
Fall of Pipe/Channel	1.0	m
Flow Time from QUDM V4 Fig. 4.5 **lookup**	**1.0**	min
Standard Inlet Times		
Inlet Time from QUDM V4 Table 4.6.2		min
TIME OF CONCENTRATION	5.0	min

ARI	% of Q100
1	24%
2	29%
5	44%
10	55%
20	67%
50	86%
100	100%



HORTON'S 'n'

Paved Surface	0.015
Bare Soil	0.0275
Poorly Grassed	0.035
Average Grassed	0.045
Densely Grassed	0.06

RATIONAL METHOD CALCULATIONS

Pre-Development @ Discharge Node OUT

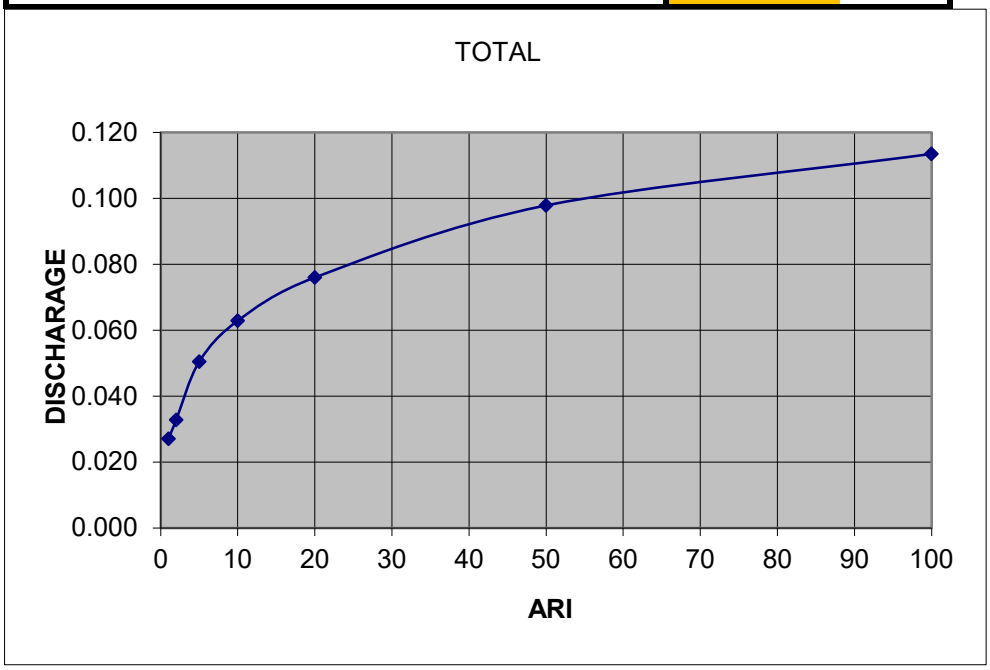
Project: 19 Buscall Court, Sinnamon Park
Location of Discharge: Brisbane City Council
Catchment Condition: Local Catchment (Site Only) - Catchment Ex.A
Other Comments: Job Number ARK-26164

Time of Concentration:	**5.0**	minutes		
		Site	External	Total
Sub-Catchment Areas (ha)		0.154	0.00	0.15 ha
C10 Runoff Coefficients		0.74	0.00	

ARI (years)	Rainfall Intensity (mm/hr)	Depth (mm)	F_y	Runof Coefficient Site	External	0	Discharges (cumecs) Site	Ext.	0	TOTAL
1	107.00	9	0.80	0.59	0.00	0.0	0.027	0.000	0.0	**0.027**
2	122.00	10	0.85	0.63	0.00	0.0	0.033	0.000	0.0	**0.033**
5	168.00	14	0.95	0.70	0.00	0.0	0.050	0.000	0.0	**0.050**
10	199.00	17	1.00	0.74	0.00	0.0	0.063	0.000	0.0	**0.063**
20	229.00	19	1.05	0.78	0.00	0.0	0.076	0.000	0.0	**0.076**
50	269.00	22	1.15	0.85	0.00	0.0	0.098	0.000	0.0	**0.098**
100	299.00	25	1.20	0.89	0.00	0.0	0.113	0.000	0.0	**0.113**

Friend's Equation for shallow overland flow		
Travel Length:	50.0	metres
Fall:	4.00	metres
Cathcment Slope:	8%	%
Horton's roughness value (n)	0.015	
Travel Time - from QUDM V4 Section 4.6.6	**5.0**	min
Pipe and Channel Flow		
Flow Distance:	-	metres
Fall of Pipe/Channel	-	m
Flow Time from QUDM V4 Fig. 4.5 **lookup**	**0.0**	min
Standard Inlet Times		
Inlet Time from QUDM V4 Table 4.6.2		min
TIME OF CONCENTRATION	5.0	min

ARI	% of Q100
1	24%
2	29%
5	44%
10	55%
20	67%
50	86%
100	100%



HORTON'S 'n'

Paved Surface	0.015
Bare Soil	0.0275
Poorly Grassed	0.035
Average Grassed	0.045
Densely Grassed	0.06

APPENDIX C – FLOOD REPORT

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FloodWise Property Report

19 BUSCALL CT, SINNAMON PARK 4073
Lot 1 on RP203172

Dedicated to a better Brisbane

THE PURPOSE OF THIS REPORT IS FOR BUILDING AND DEVELOPMENT

Brisbane City Council's FloodWise Property Report **provides technical flood planning information** including estimated flood levels, habitable floor level requirements and more. **This report uses the adopted flood planning information in Brisbane City Plan 2014**, that guides how land in Brisbane is used and developed for the future. Find out more about planning and building. To understand how to be **resilient and prepare for floods**, visit Council's Be Prepared webpage. Find more information about how to read a FloodWise Property Report.

This property has no flood levels

Brisbane City Council has not assigned flood level information for this property however it may be affected by one or more flood or property development flags. Please refer to the Flood Planning and Development Information below for details. The property may have 0.2% AEP flood level which will appear on the Flood Planning Information table if applicable. For professional advice or detailed assessment of a property contact a Registered Professional Engineer of Queensland.

Visit the Be Prepared page to find more information on how to prepare your home or business for potential flooding.

Combined 1% AEP for river, creek and storm tide flood extent (if applicable) from the adopted Brisbane City Plan 2014.
Read more about Brisbane City Plan 2014.

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Are you resilient and ready for flood?

- Sign up to the Brisbane Severe Weather Alert at **brisbane.qld.gov.au/beprepared**
- Visit bom.gov.au for the latest weather updates.
- Have an evacuation plan, emergency kit and important phone numbers ready.
- Observe where water flows from and to during heavy rain.
- Consider how flood-resilient building techniques will have you home faster and with less damage.

Life threatening emergencies **000** Police/fire/ambulance (mobiles **000** and **112**)	State Emergency Service (SES) **132 500** Energex **13 19 62** Brisbane City Council **3403 8888**

Technical Summary

This section of the FloodWise Property Report contains more detailed flood information for this property so **surveyors, builders, certifiers, architects, and engineers can plan and build** in accordance with Council's planning scheme.

Find more information about planning and building in Brisbane or talk to a Development Services Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

Flood Planning and Development Information

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

Flood overlay code

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the flood planning areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in **Council's planning scheme**.

Flood planning areas (FPA)		
River	**Creek / waterway**	**Overland flow**
		Not Applicable

To find more information about Council's flood planning areas (FPAs) for Brisbane River and Creek/waterway flooding to guide future building and development in flood prone areas, please review **Council's Flood Planning Provisions**.

Coastal hazard overlay code

The Coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new developments. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following Coastal hazard overlay sub-categories are explained in Council's **planning scheme**.

Coastal hazard overlay sub-categories
There are currently no Coastal hazard overlay sub-categories that apply to this property.

Note: Where land is identified within one for more flood planning areas on the Flood overlay or is identified within one of the Storm tide inundation area sub-categories on the Coastal hazard overlay, the assessment criteria that provides the highest level of protection from any source of flooding applies.

Property development flags
Large allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, please consult a Registered Professional Engineer of Queensland (RPEQ).

Useful Flood Information Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

- **0.2% AEP** - A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year.
- **1% AEP** - A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year.
- **2% AEP** - A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.
- **5% AEP** - A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year.
- **20% AEP** - A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.

Data quality

- **Data Quality Code A** - Level data based on recent surveyor report or approved as-constructed drawings.
- **Data Quality Code B** - Level data based on ground-based mobile survey or similar.
- **Data Quality Code C** - Level data derived from Airborne Laser Scanning or LiDAR information.

Defined Flood Level (DFL) - The DFL is used for commercial and industrial development. The Defined flood level (DFL) for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m/s. DFL is only applicable for non-residential uses affected by Brisbane River flooding.

Flood planning area (FPA) - Council has developed five Flood planning areas (FPAs) as part of Brisbane City Plan 2014 Flood overlay mapping for Brisbane River, Creek/waterway flooding and Overland flow to guide future building and development in flood prone areas. Storm tide flooding is mapped separately. The FPAs are designed to recognise the flood hazard for different flooding types. Flood hazard is a combination of frequency of flooding, the flood depth, and the speed at which the water is travelling. **Find more information here**.

Maximum and minimum ground level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum habitable floor level (dwelling house) - The minimum level in metres AHD at which habitable areas of development (generally induding bedrooms, living rooms, kitchen, study, family, and rumpus rooms) must be constructed as required by the Brisbane City Plan 2014.

Indicative existing floor level - The approximate level in metres AHD of the lowest habitable floor in the existing building (excluding apartments). The data is sourced from a range of sources with varying accuracy levels.

Property - A property will contain 1 or more lots. The multiple lot warning is shown if you have selected a property that contains multiple lots.

Residential flood level (RFL) - This flood level for the Brisbane River equates to the 1% annual exceedance probability (AEP) flood level.

To learn more, visit **Brisbane City Council's Flood Information Hub**

Brisbane City Council's Online Flood Tools

Council provides several online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Council's online flood tools for planning and development purposes indude:

- **FloodWise Property Report**
- **Flood Overlay Code**

For more information on Council's planning scheme and online flood tools for planning and development:

- phone (07) 3403 8888 and ask to talk to a Development Services Planning Information Officer

- visit brisbane.qld.gov.au/planning-building

Council's Planning Scheme - The Brisbane City Plan 2014 (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Disclaimer

1. Defined flood levels and residential flood levels, minimum habitable floor levels and indicative existing floor levels are determined from the best available information to Council at the date of issue. These levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating levels.
2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property Report. Council disdaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.

Planning to build or renovate?

For information, guidelines, tools and resources to help you track, plan or apply for your development visit brisbane.qld.gov.au/planning-building

You can also find the Brisbane City Plan 2014 and Neighbourhood Plans as well as other information and training videos to help, with your building and development plans.

Appendix 7
Engineering Services Report - Ark Consulting Group Pty Ltd

Inclusive of Erosion Hazard Assessment and Response to following City Plan Codes:

- Filling and excavation code
- Stormwater code
- Transport, access, parking and servicing code

ARK CONSULTING GROUP

Engineering A Sustainable & Affordable Community

Engineering Services Report (ESR)

19 Buscall Ct, Sinnamon Park

For

Mr. Allan Cadman& Ms. Louette Cadman

Project No. ARK-26-164

April 2026

REPORT CONTROL SHEET

Date:	Sunday, 5 April 2026				
Report Title:	Engineering Services Report (ESR)				
Site address:	19 Buscall Ct, Sinnamon Park				
Our Ref No:	ARK-26-164				
Author:	Brian Aghazadeh				
Certifier:	Brian (Seyedvahid) Aghazadeh Senior Civil Engineer (RPEQ) 18146 Date: 2026.04.16 18:46:56+10'00'				
Revision:	A				
Date:	2026-04-05				

Disclaimer:
This report is a professional opinion based on the information available at the time of writing. It is not intended as a quote, guarantee or warranty and does not cover any latent defects.

This report will comment on the civil infrastructure to the project and may outline probable costs but the extent of the commission of ARK Consulting Group does not extend to detailed cost feasibility, as such the costs should not be relied on for financing arrangements.

This report has been prepared specifically for the aforementioned client, site and project. It has been written solely for the purpose of providing engineering advice on the above issues for Council for this development site. Please note that this report has been compiled based on the information that is current at the time of report printing, and that the recommendations supplied within this report are based solely on the above.

Also, no further analysis has been conducted beyond the nominated lawful point of discharge. Any existing drainage issues downstream from the analysed area shall be considered to remain the responsibility of the Council to investigate and maintain.

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Figure 1 Locality Plan (source: QLD Globe, Google Earth)..... 5

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No table of figures entries found.

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1.0 INTRODUCTION

ARK Consulting Group has been commissioned by Mr. Allan Cadman& Ms. Louette Cadman (hereafter referred to as the "Client") to prepare an Engineering Service Report for a proposed residential development located at 19 Buscall Ct, Sinnamon Park (LOT 1 on RP203172).

This Engineering Services Report addresses the Council's Planning Scheme and related provisions applicable to this development. Data obtained from Council records, a detailed survey, and Before You Dig Australia (BYDA) have been utilised in the preparation of this report.

This report is specific to the client and site, intended solely for the purpose of providing engineering advice regarding the aforementioned issues for consideration by local authorities concerning this development site.

1.1 BASIS OF THE REPORT

This report has been compiled based on, and with consideration given to:

a) BCC Planning Scheme Polices and mapping system

b) Discussions between ARK Consulting Group and the consultant team,

c) Site survey, and

d) Site layout

It is to be noted that this report has been compiled based on information current at the time of report printing and the recommendations supplied within this report are based solely on the above.

2.0 SITE CHARACTERISTICS

2.1 LOCATION & DESCRIPTION

LOT 1 on RP203172 encompasses 0.1538 hectares and is designated as General Residential according to he BCC Planning Scheme

The site is currently developed with an **existing detached dwelling**, associated driveway, hardstand areas, and a swimming pool (proposed to be removed as part of the development).

The site has primary frontage to **Buscall Court along its southern boundary** and is surrounded by established residential development.

Existing site conditions include:

- One existing residential dwelling with associated driveway and hardstand areas
- A moderate slope falling from the **north-east toward the south-west frontage (Buscall Court)**
- No existing stormwater infrastructure identified at the rear of the site
- Existing underground services available, including water, sewer, electrical, and telecommunications
- Established residential land uses adjoining the site

The locality of the site is shown in **Figure 1**.

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Figure 1 Locality Plan (source: QLD Globe, Google Earth)

2.2 TOPOGRAPHY

The subject site generally falls from the **north-east corner toward the south-west frontage (Buscall Court)**, consistent with the available survey data.

The site exhibits an overall fall of approximately **4.7 m**, with:

- A relatively **flat rear portion** (approximately 25 m from the rear boundary) with grades generally up to **1%**
- A steeper **front portion** (approximately 24 m toward the frontage), predominantly comprising the existing driveway and landscaped areas, with an average gradient of approximately **16%**

This topographic profile influences the following key design elements:

- Earthworks and formation of the building platform on the rear lot
- Driveway design along the access handle and frontage
- Management of level transitions between flat and steep sections of the site
- Stormwater drainage strategy and lawful point of discharge selection
- Overland flow direction toward the Buscall Court frontage

The defined slope of the site provides favourable conditions for **gravity-based drainage**, while requiring careful design of surface levels and access to ensure functionality and compliance.

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2.3 EXISTING PROPERTY LEVELS

The existing ground levels across the site are summarised below:

- **Maximum Ground Elevation:** RL **44.3 m AHD** (north-east corner)
- **Minimum Ground Elevation:** RL **39.6 m AHD** (south-west frontage)
- **Average Ground Elevation:** RL **approximately 42.0 m AHD**

Elevation Data Source: Site survey and supporting survey information

The site exhibits an overall elevation difference of approximately **4.7 m**, consistent with the natural fall described in Section 2.2.

2.4 SOILS

No site-specific geotechnical investigation has been undertaken as part of this assessment.

Based on regional mapping and typical conditions within the Sinnamon Park area, the site is expected to comprise **residual soils derived from weathered rock**, generally consisting of clayey and sandy materials of varying stiffness.

Given the existing development on the site, including the dwelling, driveway, and associated structures, the soils are considered to be **generally suitable for residential development**, subject to standard engineering design and construction practices.

The proposed development will involve:

- Minor earthworks associated with subdivision and building platform preparation
- Construction of a new driveway along the access handle
- Future building works on the rear lot

All earthworks and structural design (including foundations, pavements, and retaining structures) will be undertaken in accordance with:

- Relevant Australian Standards
- Site-specific conditions observed during construction

A **geotechnical investigation will be required at detailed design stage** to:

- Confirm subsurface conditions
- Provide design parameters (e.g. bearing capacity, CBR values)
- Inform foundation and pavement design

Where required, construction will be carried out under appropriate geotechnical supervision to ensure compliance with design assumptions.

2.5 ACID SULPHATE SOILS

According to BCC information, the site is not located in a potential and actual sulphate zone, however ASS's are normally found in Holocene sediments and are generally found at levels lower than 5.0 m AHD. The

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minimum level of the site is at approximately 39.6.0m AHD. It is not expected that ASS will be encountered, however in the event that acid sulphate soils are encountered on the site, a suitable Acid Sulphate Soils Management Plan will be developed by an appropriately qualified consultant. In addition, management of the acid sulphate soil will be required by the principal contractor in accordance with the requirements of the State Planning Policy involving ASS's.

2.6 CONTAMINATED SOILS

It is not expected to encounter contaminated soils on the site as per initial geotechnical investigation. If contaminated soils are suspected of being present further action will be taken.

2.7 EROSION AND SEDIMENT CONTROL

The ESC hazard level is considered Meduim.

ESC controls will include:

- Sediment barriers
- Rock check dams
- Stabilised entry/exit point
- Temporary diversion of minor overland flow
- Routine site inspections by a supervising engineer

ESC Hazard check list, fact sheet and checklist is provided in **Appendix C**.

2.8 FLOODING

A review of the Brisbane City Council flood mapping indicates that the subject site is **not affected by mapped riverine flooding, creek flooding, or storm tide inundation**.

The site is not located within a **Flood Overlay** under the Brisbane City Plan and is therefore not subject to flood-related development constraints.

In terms of overland flow, the site exhibits a **well-defined natural drainage path from the north-east toward the south-west frontage (Buscall Court)**, consistent with the surveyed topography.

No significant upstream catchment has been identified that would generate concentrated overland flow through the site. Overland flow is therefore considered to be:

- **Minor and locally generated**, primarily from on-site rainfall
- **Directed toward the street frontage**, following the natural site gradient

The proposed development has been designed to:

- Maintain existing overland flow paths
- Avoid obstruction of flow routes
- Ensure safe conveyance of major storm events toward Buscall Court

Based on the above, the site is considered **not constrained by flooding or overland flow**, and the proposed development is appropriate from a flood management perspective.

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3.0 ENGINEERING SERVICES

3.1 WATER RETICULATION

The subject site is serviced by an existing **DN100 water main located within Buscall Court**, which forms part of the Council / Urban Utilities water supply network.

Existing Infrastructure

- An existing **20 mm water service and meter** is currently provided to the site
- The existing water service is proposed to be **retained to service Lot 4 (rear lot)**

Proposed Servicing Strategy

To accommodate the proposed subdivision, the following water servicing arrangement is proposed:

- Retain the existing **20 mm water service and meter** to service **Lot 4**
- Provide a new **20 mm water service connection and water meter** to service **Lot 3 (front lot)**
- The new connection will be made to the existing **DN100 water main within Buscall Court**

The proposed configuration ensures that:

- Each lot is provided with an **independent water service**
- Services are located within the road frontage and accessible for maintenance
- The arrangement complies with **Urban Utilities servicing requirements**

3.2 SEWER RETICULATION

An existing **DN150 sewer main** is located within or adjacent to the site and will be retained.

Proposed Servicing Strategy

- The existing sewer infrastructure will be utilised to service the development
- A new **DN110 uPVC sewer service connection** will be provided to service **Lot 3**
- The existing connection will be retained or modified as required to service **Lot 4**, subject to:
    - Condition assessment
    - Capacity adequacy

All sewer works will be designed and constructed in accordance with **Urban Utilities standards and SEQ codes**.

3.3 ELECTRICITY SERVICES

Electricity supply to the proposed development will be provided by **Energex** via the existing low-voltage (LV) network along **Buscall Court**. The subject site sits within an established residential precinct with adequate network availability.

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3.4 FILLING & EXCAVATION

The proposed development will involve **minor earthworks** associated with subdivision, driveway construction, and preparation of the future building platform.

The earthworks strategy has been developed to respond to the existing site topography, which comprises:

- A relatively **flat rear portion** suitable for building
- A **steeper front portion (driveway area)** sloping toward Buscall Court

Proposed Earthworks

- Earthworks across the site will be **minimised** to maintain existing ground conditions where practical
- The rear portion of the site will require **minor filling and trimming** to achieve a suitable building platform
- The access driveway along the frontage and access handle will involve **cut and fill** to achieve compliant grades

In general:

- Earthworks are expected to be **less than 1.0 m in height**, except locally within the driveway area
- No bulk earthworks or large-scale regrading is proposed

Driveway Considerations

Due to the proximity of **existing neighbouring retaining walls**, the proposed driveway will be constructed using a **bored pier system** to:

- Transfer loads away from adjacent structures
- Minimise ground disturbance
- Avoid surcharge loading on neighbouring retaining walls

Fill Placement and Compaction

All fill material will:

- Be placed in controlled layers
- Be compacted in accordance with **AS 3798 (Guidelines on Earthworks for Commercial and Residential Developments)**

Where required:

- Fill will be placed under **Level 1 geotechnical supervision**
- Certification will be provided confirming suitability for future building loads

General Considerations

The proposed earthworks design ensures:

- Compatibility with existing site levels and drainage patterns
- Maintenance of overland flow paths toward Buscall Court
- No adverse impact on adjoining properties
- Stability of the site and surrounding structures

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3.5 STORMWATER MANAGEMENT

The proposed stormwater management strategy has been developed to respond to the existing site conditions and ensure compliance with Brisbane City Council requirements.

Existing Conditions

The site currently drains in a **south-westerly direction toward Buscall Court**, consistent with the natural topography.

Stormwater runoff is presently managed via:

- Overland flow toward the street frontage
- Informal drainage across hardstand and landscaped areas

No defined stormwater infrastructure has been identified at the rear of the site.

Proposed Stormwater Strategy

The proposed development will implement a formal stormwater drainage system, including:

- Collection of roofwater and surface runoff via **roof drainage systems and grated pits**
- Conveyance through an **underground stormwater pipe network**
- Discharge to **Buscall Court kerb and channel** via **kerb adaptors**

This arrangement provides a **direct and compliant lawful point of discharge**.

Stormwater servicing will be arranged such that:

- Each lot is appropriately drained
- Runoff is controlled and conveyed without nuisance
- The existing drainage regime is maintained

Stormwater Quantity Management

A stormwater quantity assessment has been undertaken using the **Rational Method**, which indicates:

- A **minor increase in impervious area** associated with the proposed development
- A corresponding **negligible increase in peak discharge (approximately 2.7%)**

Given the small scale of change, the site's direct connection to the Council drainage system, and the absence of adverse downstream impacts, stormwater detention is **not required**.

This is consistent with **Brisbane City Council Planning Scheme Policy (Clause 7.5.2)**, which allows detention to be waived where:

- The increase in runoff is minor
- Discharge is to Council infrastructure
- No flooding or nuisance impacts are created

Overland Flow

The proposed development maintains existing overland flow paths toward Buscall Court.

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The design ensures:

- No obstruction of flow paths
- Safe conveyance of major storm events (e.g. Q100)
- No ponding within developable areas

4.0 CONCLUSION

This Engineering Services Report has been prepared to support the proposed **reconfiguration of a lot (1 into 2 subdivision)** at 19 Buscall Court, Sinnamon Park.

The assessment demonstrates that the site is capable of being **adequately serviced by existing infrastructure**, with appropriate upgrades and extensions where required.

Key conclusions are summarised as follows:

- The site is located within an established urban area and is **well serviced by existing water, sewer, electrical, and telecommunications infrastructure**.
- Water servicing will be achieved by:
    - Retaining the existing **20 mm water service and meter** for Lot 4
    - Providing a new **20 mm water service connection** for Lot 3 from the existing **DN100 water main in Buscall Court**
- Sewer servicing will be achieved via:
    - Connection to the existing **DN150 sewer main**, with new service connections provided as required for each lot, subject to confirmation of capacity and condition
- Stormwater will be managed through a formal drainage system discharging to the **Buscall Court kerb and channel**, providing a compliant lawful point of discharge.
- A stormwater quantity assessment confirms that the development results in a **negligible increase in peak discharge (approximately 2.7%)**, and therefore **stormwater detention is not required**, in accordance with Brisbane City Council Planning Scheme Policy (Clause 7.5.2).
- The site is **not affected by flood constraints**, and existing overland flow paths are maintained without adverse impact.
- Earthworks associated with the development are **minor**, with appropriate measures proposed to ensure stability and compatibility with existing site conditions and neighbouring structures.

Overall, the proposed development:

- Is capable of being serviced in accordance with relevant standards
- Will not adversely impact existing infrastructure or adjoining properties
- Complies with applicable Council planning requirements

Accordingly, the development is considered **appropriate and feasible from an engineering servicing perspective**.

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APPENDIX A – DEVELOPMENT PLANS & CONCEPT CIVIL DRAWINGS

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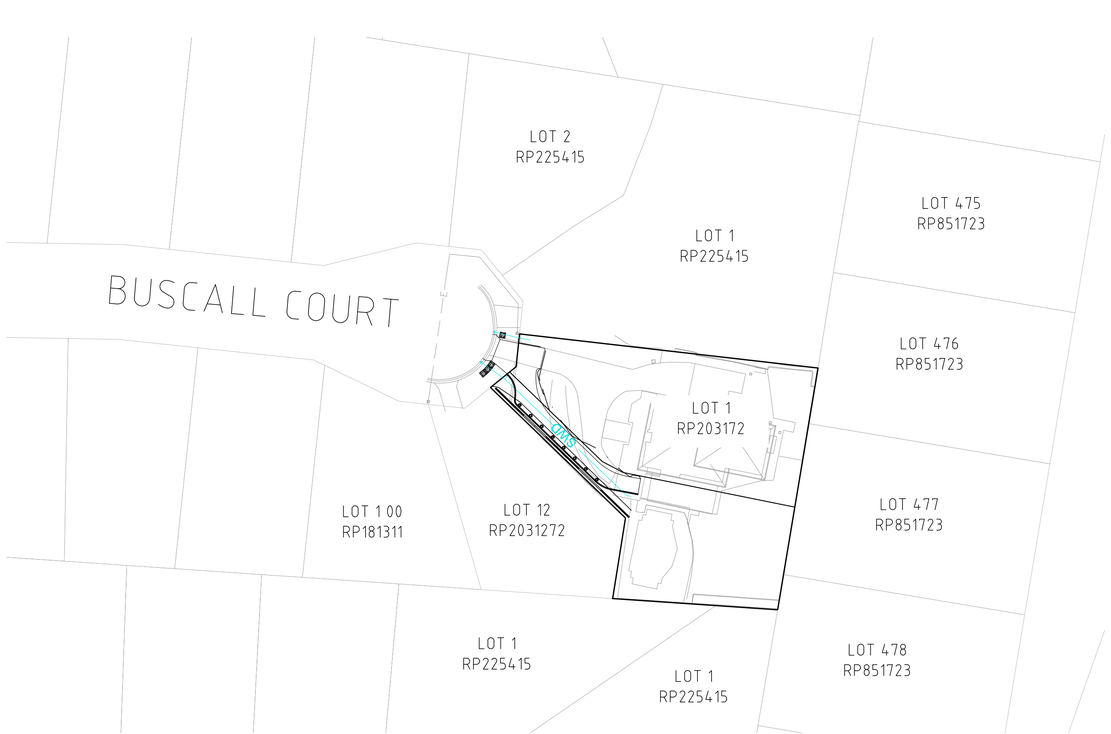
RESIDENTIAL DEVELOPMENT

for **Mr. Allan Cadman& Ms. Louette Cadman**

DRAWING LIST

NO.	DRAWING NUMBER	TITLE	LATEST REVISION	DATE
1	ARK 26164-DA01	COVERSHEET	A	29.03.2026
2	ARK 26164-DA02	NOTES	A	29.03.2026
3	ARK 26164-DA03	ROAD AND DRAINAGE LAYOUT	A	29.03.2026
4	ARK 26164-DA04	EARTHWORKS LAYOUT	A	29.03.2026
5	ARK 26164-DA05	SITE CROSS SECTIONS	A	29.03.2026
6	ARK 26164-DA06	SERVICES LAYOUT	A	29.03.2026
7	ARK 26164-DA07	BORED PIERS AND DRIVEWAY DETAILS	A	29.03.2026



SITE LAYOUT PLAN
SCALE 1:750 @ A1

LOCALITY MAP
(GOOGLE MAP)
NTS

SURVEY INFORMATION

SURVEYOR: FOCUS ON SURVEYPARISH OF: REFER SURVEY
COUNTY OF: REFER SURVEY
LOCAL AUTHORITY: IPSWICH CITY COUNCIL

LEVEL DATUM: N/A PSMno: -

REFERENCE PLANS No. FOS-885
SURVEY DATE: 19.01.2026

WORKS BOUNDARY

0 10 20 30 40 50m
10 7.5 5 2.5
SCALE 1:500 (A1) 1:1000 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: COVER

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Checked	BA
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Scale

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Job No.	Drawing No.	Revision
ARK-26-164	DA01	A

FOR APPROVAL

GENERAL NOTES

1. ALL ELEVATIONS REFER TO THE AUSTRALIAN HEIGHT DATUM (AHD).
2. ALL RELEVANT SERVICE AUTHORITIES MUST BE NOTIFIED IN WRITING A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE START OF WORKS.
3. IF SURVEY CONTROL MARKS (TBM'S) ARE MISSING AT THE START OF CONSTRUCTION, THEY MUST BE RE-ESTABLISHED BY A LICENSED SURVEYOR. THE CONTRACTOR WILL THEN BE RESPONSIBLE FOR THEIR ONGOING PROTECTION AND MAINTENANCE.
4. EXISTING SURFACE LEVELS DISPLAYED ON THESE DRAWINGS ARE BASED ON A 2D SURVEY COMBINED WITH LIDAR DATA. THESE LEVELS HAVE INFORMED THE ENGINEERING DESIGN AND QUANTITY ESTIMATES. THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION MATCHES THE DESIGN INTENT AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE SUPERINTENDENT.
5. THE CONTRACTOR MUST OBTAIN APPROVAL FOR THE TRAFFIC MANAGEMENT PLAN FROM THE LOCAL COUNCIL AT LEAST SEVEN (7) DAYS BEFORE WORK BEGINS—EARLIER IF REQUIRED. THE TRAFFIC MANAGEMENT AND CONTROL PLANS, INCLUDING ACCESS ARRANGEMENTS, MUST ALSO BE ENDORSED BY THE RESPONSIBLE ROAD AUTHORITY.
6. ALL CONSTRUCTION VEHICLES ARE TO REMAIN WITHIN THE DESIGNATED ROAD RESERVE AND CAR PARK. ANY DAMAGE TO EXISTING FOOTPATHS OR KERB & CHANNEL MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. BEFORE ANY WORK COMMENCES, INSTALL ALL NECESSARY VEGETATION PROTECTION, EROSION CONTROL, AND SITE-SPECIFIC SEDIMENT MANAGEMENT MEASURES.
8. ANY STRUCTURES SUCH AS BUILDINGS, TROUGHS, OR FENCES MARKED FOR REMOVAL SHALL BE DISMANTLED AS INSTRUCTED BY THE ENGINEER. REMOVAL COSTS ARE TO BE INCLUDED IN EARTHWORKS UNLESS OTHERWISE SPECIFIED IN THE SCHEDULE.
9. THE CONTRACTOR MUST LOCATE AND CONFIRM THE POSITION OF ALL EXISTING SERVICES BEFORE BEGINNING WORK. ANY EXISTING SERVICES OR STRUCTURES ARE TO BE PRESERVED IN GOOD CONDITION THROUGHOUT THE PROJECT. DAMAGE TO EXISTING SERVICES IS THE CONTRACTOR'S RESPONSIBILITY AND COST TO REPAIR.
10. THE WORKSITE MUST BE CLEARED OF ALL UNWANTED MATERIALS, INCLUDING DEAD WOOD, STONES, VEGETATION, OLD FOUNDATIONS, CONCRETE, DEBRIS, OR OTHER WASTE. VOIDS LEFT BY REMOVALS MUST BE FILLED WITH APPROVED COMPACTED FILL.
11. ALL SPOIL AND CLEARED MATERIAL MUST BE REMOVED FROM SITE. NO STOCKPILING OR FILLING SHALL OCCUR ON PUBLIC RESERVES OR COMMON PROPERTY UNLESS AUTHORISED BY THE SITE ENGINEER OR SUPERINTENDENT.
12. TOPSOIL MUST BE STRIPPED AND STOCKPILED BEFORE EARTHWORKS BEGIN. ONCE CIVIL WORKS ARE COMPLETE, TOPSOIL SHALL BE REPLACED IN LANDSCAPE AREAS. ANY EXCESS MUST BE DISPOSED OF OFF-SITE.
13. UNLESS OTHERWISE INDICATED, ALL EARTH BATTERS ARE TO BE FORMED AT A SLOPE OF 1 VERTICAL TO 4 HORIZONTAL (1:4).
14. ALL EXISTING SERVICES SHOWN ON THESE DRAWINGS MUST BE PHYSICALLY LOCATED ON SITE PRIOR TO ANY CONSTRUCTION WORK. COORDINATE WITH THE APPROPRIATE AUTHORITIES TO CONFIRM THEIR EXACT POSITION.

FLEXIBLE PAVEMENTS

1. ALL EXTERNAL WORK SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY. ALL NECESSARY TESTING SHALL BE CARRIED OUT AT THE CONTRACTOR'S EXPENSE WITH COPIES OF TEST CERTIFICATES SUPPLIED TO THE SUPERINTENDENT.
2. PROVISIONAL PAVEMENT DESIGN IS BASED ON A MINIMUM SUB-GRADE CBR OF 5 UNDER SERVICE CONDITIONS. THE STATED PAVEMENT DESIGN IS SUBJECT TO REVISION ON THE BASIS OF CONFIRMATORY SOAKED CBR TESTS AT THE TIME OF BOXING.
3. BASE AND SUB-BASE MATERIAL SHALL NOT BE INSTALLED UNTIL A SATISFACTORY PROOF ROLL HAS BEEN CONDUCTED ON THE SUB-GRADE.
4. SEALING SHALL NOT TAKE PLACE UNTIL A SATISFACTORY PROOF ROLL AND INSPECTION HAS BEEN CARRIED OUT ON THE FINISHED SURFACE.

EARTHWORKS NOTES

1. THE STANDARD FOR THE PROVISION OF EARTHWORKS ARE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", MODIFIED TO SUIT ALL LOCAL CONDITIONS, PRACTICES AND LOCAL AUTHORITY STANDARDS AS REQUIRED AND AS APPROVED IN WRITING BY THE SUPERINTENDENT.
2. SUPERVISION, INSPECTION AND TESTING IS TO BE CARRIED OUT IN ACCORDANCE WITH SECTION 8 AND APPENDIX B OF AS 3798. FOR ALL STRUCTURAL FILL THE SCOPE OF SERVICES TO BE PROVIDED BY THE GEOTECHNICAL TESTING AUTHORITY IS TO BE IN ACCORDANCE WITH LEVEL 1 AS DETAILED IN APPENDIX B AND IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS. LEVEL 3 SUPERVISION IS NOT PERMITTED FOR STRUCTURAL FILL, BUT IS ACCEPTABLE FOR NONSTRUCTURAL FILL.
3. CLEARED VEGETATION SHALL BE MULCH AND DISPOSED OF OFFSITE. BURNING OFF IS NOT CONSIDERED AN ACCEPTABLE MEANS OF DISPOSAL AND WILL NOT BE APPROVED.
4. EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVEL AND ARE TO INCLUDE TOPSOIL WHERE APPROPRIATE.
5. PRIOR TO WORKS, THE CONTRACTOR IS TO CHECK AND CONFIRM ANY STRUCTURES OR FENCING ENCROACHING THE WORKS AREA AND NOTIFY THE SUPERINTENDANT.
6. ALL SPOT HEIGHTS ARE GENERALLY FOR THE CORNER OF A LOT OR TOP/BOTTOM OF A BATTER, AND ARE FOR ASSISTANCE ONLY. IF A DISREPENCY OCCURS BETWEEN CONTOURS AND SPOT HEIGHTS, CONTACT SUPERINTENDANT FOR DIRECTION.
7. TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AS DIRECTED BY GEOTECHNICAL CONSULTANT AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
8. TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
9. THE ROAD PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE MINIMUM PAVEMENT THICKNESS FOR THE LOCAL AUTHORITY. THESE DEPTHS ARE PROVISIONAL ONLY AND ARE SUBJECT TO SOIL TESTING OF SUBGRADE MATERIALS AND LOCAL AUTHORITY APPROVAL.
10. ALL FOOTPATHS, BATTERS, ALLOTMENT FILL AREAS AND DISTURBED AREAS SHALL BE TOPSOILED FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING.
11. THE LOCATION OF RETAINING WALLS RELATIVE TO PROPERTY BOUNDARIES SHOULD BE AS SHOWN ON THE RETAINING WALL DETAILS (AS APPLICABLE), AND NOT SCALED FROM THE LAYOUT PLAN OR DIGITAL FILES. WHERE DISCREPANCY OCCURS, CONTACT SUPERINTENDING ENGINEER PRIOR TO WORKS.
12. AT COMPLETION OF RETAINING WALL CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SAFETY FENCING ON TOP OF ANY WALLS THAT ARE GREATER THAN 1.0m HIGH.
13. ALL ON-SITE VEHICLES AND MACHINERY TO REMAIN A MINIMUM DISTANCE FROM RETAINING WALL EQUIVALENT TO THE HEIGHT OF THE RETAINING WALL DURING THE FULL PERIOD OF CONSTRUCTION OF THE RETAINING WALL.
14. IF THERE ARE ANY OTHER WALLS WITHIN INFLUENCE OF THIS WALL, THE ENGINEER IS TO BE CONTACTED FOR RE-DESIGN.
15. EXTENT OF RETAINING WALL MAY DETERMINED ON SITE IN CONSULTATION WITH THE ENGINEER.

STORMWATER DRAINAGE

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HYDRAULICS CONSULTANT'S DRAWINGS.
2. ROOF WATER DRAINAGE IS TO BE CONNECTED TO PITS OR PIPES AS SHOWN ON DRAWINGS IN ACCORDANCE WITH THE HYDRAULICS CONSULTANT'S REQUIREMENTS.
3. UNDERGROUND STORMWATER LINES ARE TO BE CONSTRUCTED USING RCP STORMWATER DRAINAGE CLASS 2 PIPE TO AS 1254 OR APPROVED EQUIVALENT. ALL STORMWATER PIPES AND PITS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RELEVANT AUSTRALIAN AND LOCAL AUTHORITY STANDARDS.
4. STORMWATER PITS ARE TO BE CONSTRUCTED IN SITU IN ACCORDANCE WITH STD DRAWINGS OR VARIED AS NOTED ON THE DRAWINGS. PREFABRICATED STORMWATER PITS MAY BE USED SUBJECT TO WRITTEN APPROVAL FROM THE SUPERINTENDENT. CLASS D HEAVY DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN TRAFFIC AREAS, CLASS B LIGHT DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN LANDSCAPED OR PEDESTRIAN AREAS UNLESS NOTED OTHERWISE. ALL GRATES TO COMPLY WITH AS3996 FOR BICYCLE & WHEELCHAIRS AND TO BE NON SLIP.
5. ALL TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH CRUSHER DUST.
6. IF AN EXISTING SERVICE OR STRUCTURE CROSSES THE LINE OF A REQUIRED TRENCH, PROVIDE PERMANENT SUPPORT FOR THE EXISTING SERVICE.
7. WHERE A STORMWATER LINE CHANGE IN DIRECTION EXCEEDS MANUFACTURERS LIMITS, USE A MANHOLE OR SPECIALLY MANUFACTURED PRECAST BEND UNITS.
8. PROVIDE ANCHOR BLOCKS WHERE NEEDED TO RESTRAIN LATERAL MOVEMENT OF THE PIPELINES AT JUNCTIONS AND CHANGES IN DIRECTION.
9. WHERE ENCASEMENT IS SPECIFIED, USE 20MPa CONCRETE TO A DEPTH OF 150mm AROUND THE PIPE.
10. FOR DETAILS ON PIPE SURROUNDS AND BEDDING REFER TO IPWEA DS-030.
11. FOR INFORMATION ON PIPE LAYING, JOINTING AND DEFECT IDENTIFICATION REFER TO MORETON BAY REGIONAL COUNCIL 'AUS-SPEC C220'.
12. CAST INSITU GULLIES AND MANHOLES MAY BE CAST AGAINST THE GROUND, HOWEVER CONCRETE COVER SHALL BE INCREASED BY 50mm IN THIS CASE.
13. BENCH MANHOLES TO HALF HEIGHT OF CONNECTING PIPES USING SOLID CONCRETE AND RENDER WITH A SAND-CEMENT MORTAR TO A SMOOTH FINISH.
10. FOR DETAILS OF INLET STRUCTURES REFER TO IPWEA STD DS-050.

SETOUT NOTES:

1. SETOUT PAVEMENT MARKING FROM CONTROL LINES UNLESS DIMENSIONED OTHERWISE.
2. ALL LONGITUDINAL AND TRANSVERSE PAVEMENT MARKING TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURE 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2010) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. ALL INTERSECTION ARROWS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. ALL CHEVRONS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.4,5.5 AND 5.6 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. ALL PAVEMENT MATERIALS TO COMPLY WITH AS4049.1-2005 AND ARE TO BE REFLECTORISED.

SIGNAGE NOTES:

1. ALL ROAD SIGNS ARE TO COMPLY WITH REQUIREMENTS SPECIFIED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. EXACT LOCATIONS OF TRAFFIC SIGNS TO BE AGREED ON-SITE WITH AUTHORITIES OFFICER.

RRPM NOTES:

1. PLACEMENT OF RRPMS TO BE AS PER 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

SEDIMENT & EROSION CONTROL NOTES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

1. AVOID STRIPPING & EXCAVATING UNTIL NECESSARY.
2. CONSTRUCTION OF AN ENTRY/EXIT POINT TO THE SITE SHOULD BE MANAGED SO THAT SEDIMENT IS NOT TRACKED OFF THE SITE.

BULK EARTHWORKS

3. TOPSOIL SHOULD BE STOCKPILED ON SITE FOR LATER USE.
4. WHERE PRACTICABLE MAINTAIN VEGETATION IN A HEALTHY STATE DURING THE CONSTRUCTION PROCESS.
5. WHEN UP SLOPE WATER IS DIVERTED AROUND A WORK SITE IT IDEALLY SHOULD BE DISCHARGED AS SHEET FLOW THROUGH AN UNDISTURBED AREA.

CONSTRUCTION OPERATIONS

6. THIS PLAN SUGGESTS MINIMUM SEDIMENT & EROSION PROTECTION. THE CONTRACTOR SHALL TAKE ANY OTHER MEASURES AS NECESSARY IN CONSULTATION WITH THE SUPERVISING ENGINEER.
7. ADHERE TO STORMWATER INLET PROTECTION DIAGRAM ON I.P.W.E.A.Q. STD. DWG. D-0041.
8. PLACE 12mm THICK PLATE OVER MANHOLES UNTIL CI FRAMES & LID ARRIVE. THIS IS TO KEEP SEDIMENT OUT OF DRAINAGE SYSTEM.
9. SAND BAGS ARE TO BE PLACED AT 45° TO THE ROAD AS SPECIFIED:
   (a) ROAD GRADE (0.5% TO 5%) - 25m MAX. CENTRES
   (b) ROAD GRADE (5% TO 10%) - 15m MAX. CENTRES
   (c) ROAD GRADE (10% TO 15%) - 10m MAX. CENTRES
   (d) ROAD GRADE (15% TO 20%) - 5m MAX. CENTRES
10. ERODABLE MATERIAL MISTAKENLY PLACED WITHIN THE ROAD RESERVE (INCLUDING ACCIDENTAL SPILLAGE & TRACKING OF SUCH MATERIALS ONTO THE ROAD) THAT CANNOT BE PREVENTED THROUGH REASONABLE MEANS, MUST BE:
    (a) REMOVED IMMEDIATELY IF RAINFALL IS IMMINENT OR OCCURRING.
    (b) REMOVED PRIOR TO THE END OF THE DAY'S WORK IF RAINFALL IS NOT EXPECTED.
11. MATERIALS SHOULD BE SWEPT FROM THE ROAD, NOT WASHED DOWN THE GUTTER.
12. ALL SOLID WASTE SHOULD BE STORED ON SITE IN SUCH A MANNER THAT IT IS PREVENTED FROM LEAVING THE SITE EITHER BY THE ACTION OF WIND OR WATER.
13. SMALLER MATERIALS, SUCH AS LITTER, SHOULD BE CONTAINED IN COVERED BINS.

STOCKPILES

14. STOCKPILES ARE NOT TO BE STORED ON THE FOOTPATH OR THE ROAD RESERVE, UNLESS APPROVED BY COUNCIL.
15. WHERE NECESSARY STOCKPILE LOSSES CAN BE MINIMIZED WITH THE USE OF COVERS.
16. ALL STOCKPILES & BUILDING MATERIAL SHOULD BE LOCATED WITHIN THE SEDIMENT CONTROL ZONE.
17. TO MINIMIZE EROSION & THE LOSS OF SAND & SOIL, STOCKPILES SHOULD NOT BE LOCATED WITHIN AN OVERLAND FLOW PATH. IF IT IS IMPRACTICAL TO AVOID STORMWATER RUNOFF BEING DIRECTED TO A STOCKPILE, THEN A PERIMETER BANK SHOULD BE CONSTRUCTED UP SLOPE OF THE STOCKPILE TO DIRECT RUNOFF IN A CONTROLLED MANNER AROUND THE STOCKPILE.

SEDIMENT BARRIERS

SEDIMENT FENCE

18. INSTALL SEDIMENT FENCE(S) ALONG THE LOW SIDE OF THE SITE & IDEALLY ALONG A LINE OF CONSTANT LAND LEVEL TO PREVENT THE CONCENTRATION OF STORMWATER RUNOFF. IN AREAS WHERE IT IS EITHER UNDESIRABLE OR IMPRACTICAL TO BURY THE LOWER EDGE OF THE SEDIMENT FENCE, THE LOWER 200mm (MIN) PORTION OF THE FABRIC SHOULD BE PLACED ON THE GROUND UP SLOPE OF THE FENCE & BURIED UNDER A 100mm (MIN) LAYER OF AGGREGATE REFER I.P.W.E.A.Q. STD. DWG. D-0040.

FIELD INLET GULLIES

19. SEDIMENT CONTROLS FOR STORMWATER INLETS LOCATED WITHIN THE PROPERTY BOUNDARIES MAY CONSIST OF GEOTEXTILE FABRIC PLACED EITHER DIRECTLY OVER THE GRATED INLET OR AROUND THE INLET SUPPORT BY A TIMBER FRAME. FIELD INLET PROTECTION IS NECESSARY WHERE INLETS DRAIN AREAS OF BARE & UNPROTECTED SOIL. DURING STORMS, PONDING SHOULD BE ALLOWED TO OCCUR AROUND THE STORMWATER INLET TO ASSIST IN THE SETTLING OUT OF SEDIMENTS. REFER I.P.W.E.A.Q. D-0041.

PAVEMENT INLET GULLY

20. A ROADSIDE INLET BARRIER IS TO BE INSTALLED, SO THAT IT SHOULD NOT BE ALLOWED TO FULLY BLOCK THE INLET STRUCTURE. ON A HILLSIDE, SEDIMENT BARRIERS MAY CONSIST OF A TEMPORARY DAM CONSTRUCTED FROM SAND & GRAVEL BAGS AT LEAST 4 METRES UP SLOPE FROM THE GULLY INLET.

GRASS SEEDING & TURFING

21. ALL DISTURBED AREAS ARE TO BE SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
22. AFTER FINAL TRIMMING OF FOOTPATHS PROVIDE ONE STRIP OF TURF 0.4m WIDE TO BACK OF KERB & CHANNEL AS SPECIFIED.

MAINTENANCE

23. SEDIMENT FENCES SHOULD BE REPLACED IF THE FABRIC IS RIPPED OR OTHERWISE DAMAGED. THE MAINTENANCE OF THE SEDIMENT FENCES INCLUDES THE REMOVAL OF SEDIMENT DEPOSITED UP SLOPE OF THE FENCE & RETRENCHING THE FABRIC WHEN THE FENCE IS 25% FULL.
24. FOLLOWING STORM EVENTS, THE ROAD RESERVE & ALL SEDIMENT BARRIERS SHOULD BE INSPECTED & ANY EXCESSIVE SEDIMENT RESIDUE SHOULD BE APPROPRIATELY REMOVED.
25. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES FOR THE FULL EXTENT OF THE DEFECTS LIABILITY PERIOD.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: NOTES

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Job No.	Drawing No.	Revision
ARK-26-164	DA02	A

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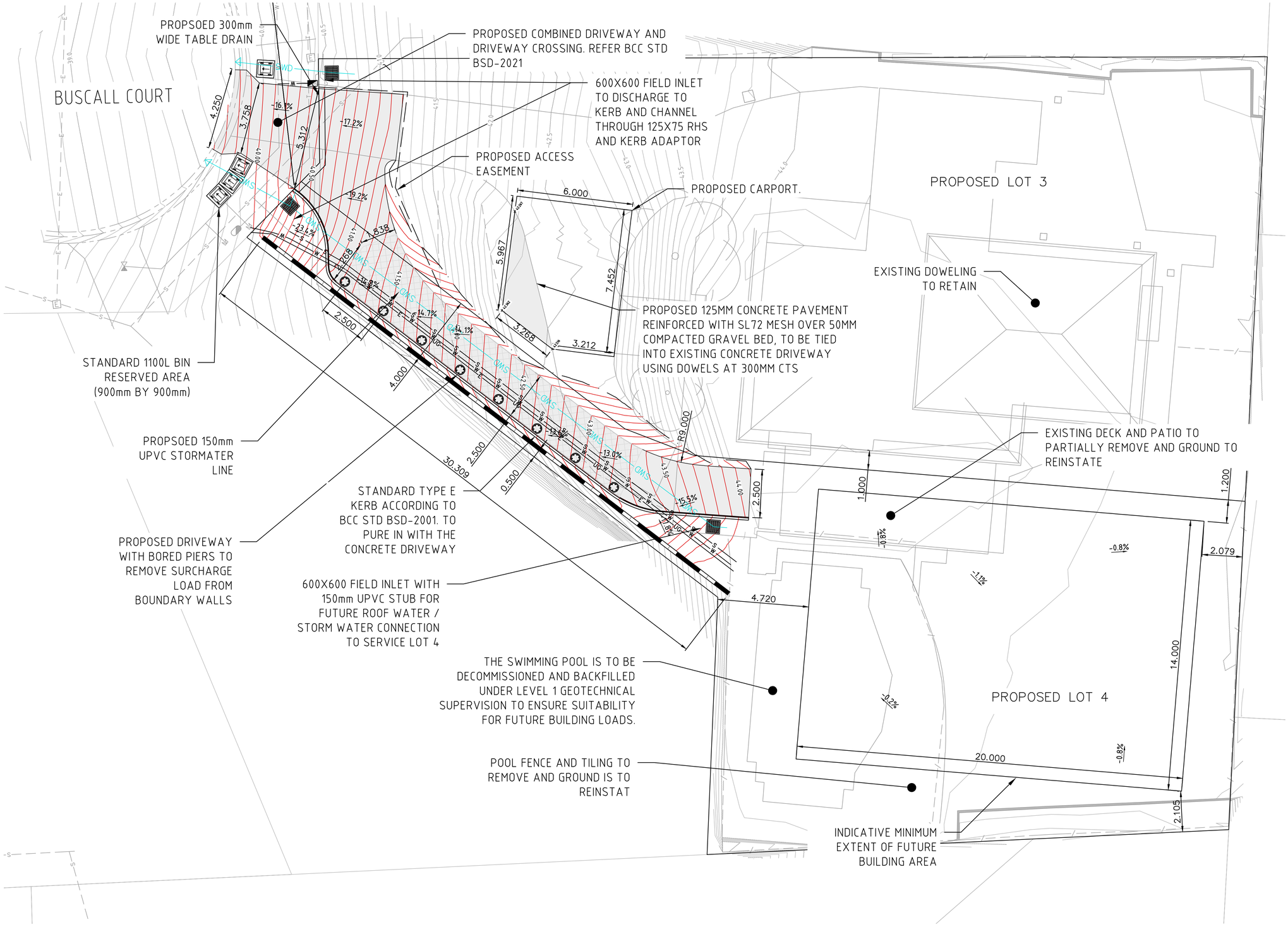

LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL- MAX HEIGHT 1.0m
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)
- TREES PROPOSED TO REMOVE

HATCHING LEGEND

- EXTENT OF PROPOSED CONCRETE DRIVEWAY AND CROSS OVER IN ACCORDANCE WITH BCC STD BSD-2021
- EXTENT OF PROPOSED CONCRETE DRIVEWAY OVER BORED PIERS. REFER BORED PIERS DETAILS DRAWING

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

LAYOUT

SCALE 1:100 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: ROAD AND DRAINAGE LAYOUT

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Date	MAR26
Checked	BA
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Job No.	Drawing No.	Revision
ARK-26-164	DA03	A

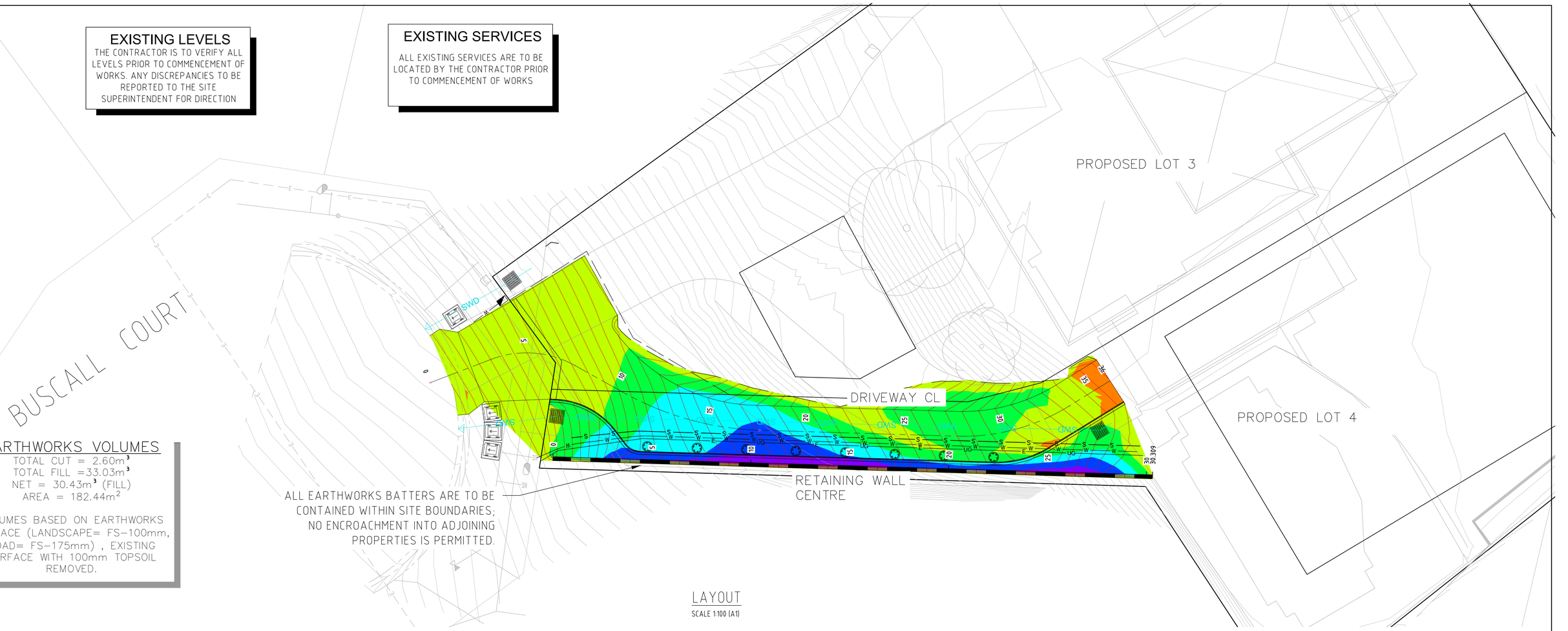
FOR APPROVAL

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS



EARTHWORKS VOLUMES

TOTAL CUT = 2.60m³
TOTAL FILL =33.03m³
NET = 30.43m³ (FILL)
AREA = 182.44m²

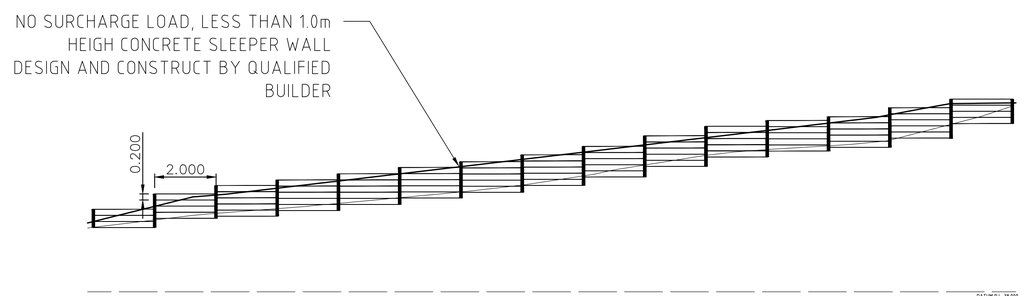
VOLUMES BASED ON EARTHWORKS SURFACE (LANDSCAPE= FS−100mm, ROAD= FS−175mm) , EXISTING SURFACE WITH 100mm TOPSOIL REMOVED.

LAYOUT

SCALE 1:100 (A1)

LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL MAXIMUM 1.0m
- PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) EXISTING SURFACE LEVEL (m AHD)



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DEPTH	0.163	0.291	0.418	0.545	0.597	0.619	0.659	0.700	0.726	0.751	0.775	0.799	0.823	0.833	0.836	0.853	0.780	0.715	0.665	0.625	0.584	0.576	0.615	0.671	0.732	0.786	0.827	0.773	0.695	0.474	0.166	-0.001

RETAINING WALL LONG SECTION

SCALE 1:100 (A1)

EARTHWORKS DEPTH

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	−0.50	−0.30	0.00	
2	−0.30	−0.10	3.46	
3	−0.10	0.10	84.74	
4	0.10	0.30	48.06	
5	0.30	0.50	28.10	
6	0.50	0.70	13.97	
7	0.70	0.90	4.11	

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: EARTHWORKS LAYOUT

ARK Consulting Group Pty Ltd
Office:
28 Daintree Pl, Riverhills 4074
QLD
Email: brian@arkcg.com.au
Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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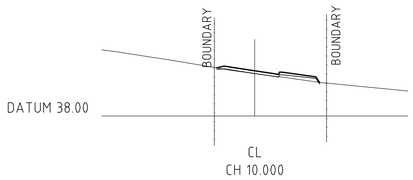
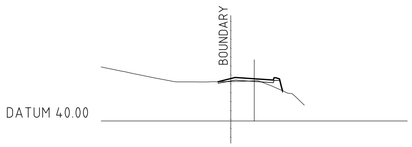
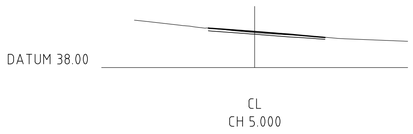
Certified

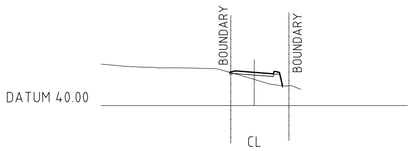
Job No.	Drawing No.	Revision
ARK-26-164	DA04	A

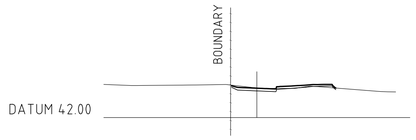
FOR APPROVAL

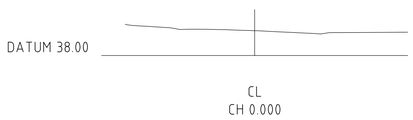


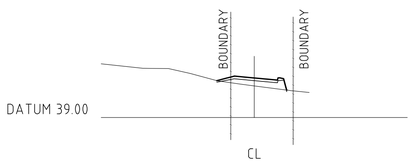


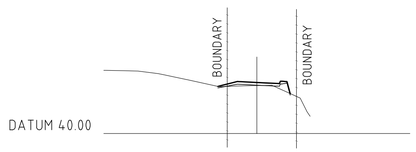












NOTE

ALL BATTERS TO BE MAXIMUM 1V IN 4H SLOPE AND VEGETATED

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 4 8 12 16 20m

SCALE 1:200 (A1) 1:400 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SITE CROSS SECTION

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Office:
28 Daintree Pl, Riverhills 4074
QLD
Email: brian@arkcg.com.au
Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA05	A

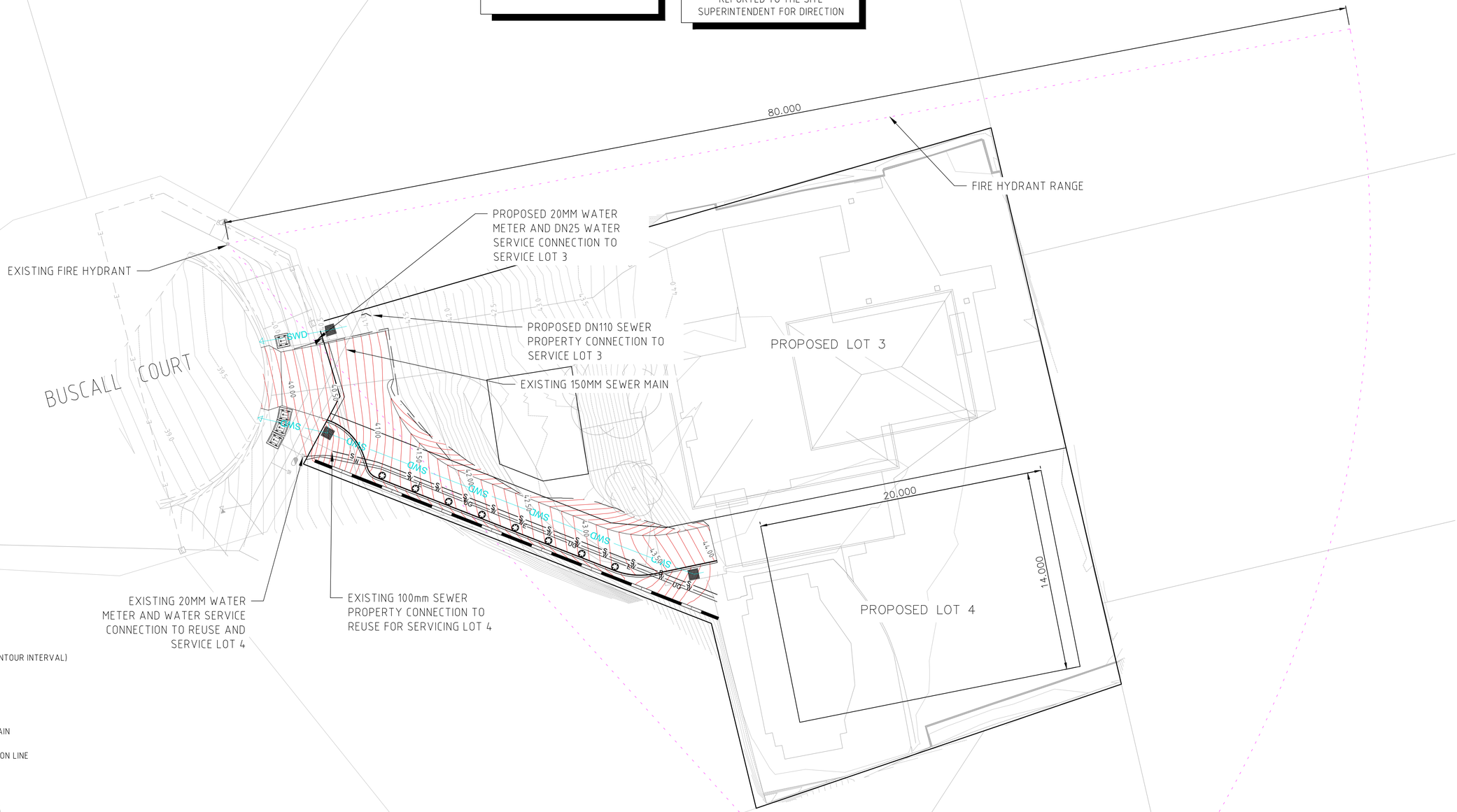
FOR APPROVAL

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION



LEGEND:

- 13.0 — EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- S S S — EXISTING SEWER MAIN
- W W W — EXISTING WATER MAIN
- D D D — EXISTING BSW DRAINAGE MAIN
- T T T — EXISTING TELECOMMUNICATION LINE
- E E E — EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- s s s — PROPOSED SEWER CONNECTION
- w w w — PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)

LAYOUT

SCALE 1:250 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SERVICES LAYOUT

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QLD
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Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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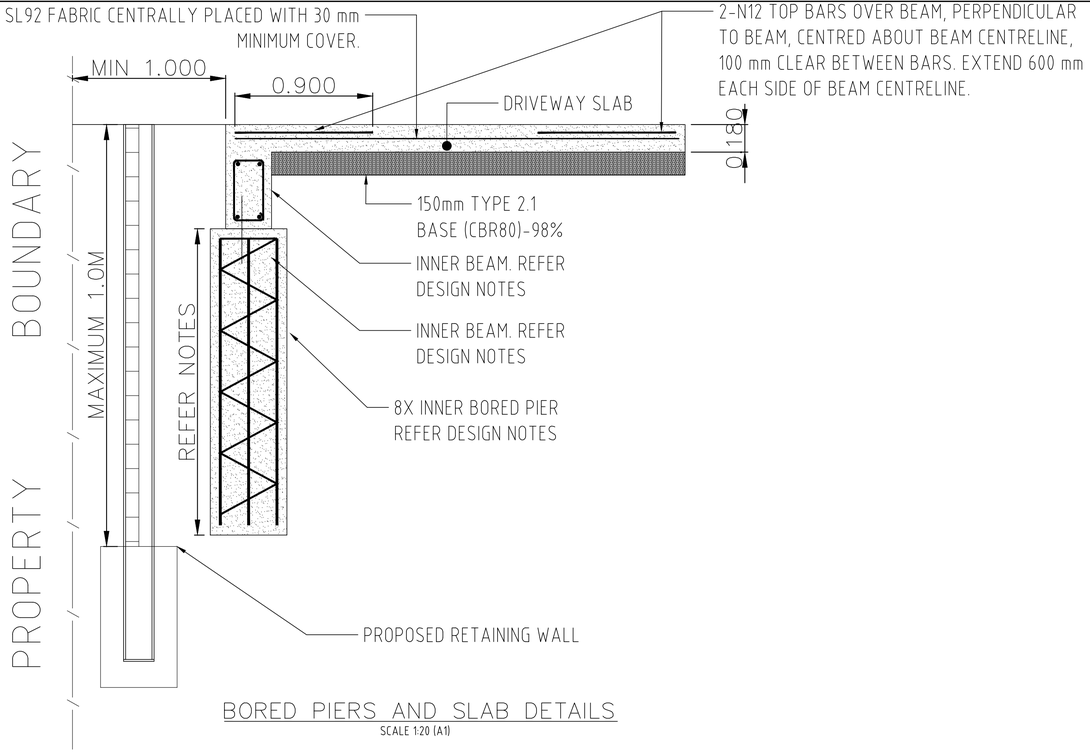
Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA06	A

FOR APPROVAL



BORED PIERS AND SLAB DETAILS
SCALE 1:20 (A1)

NOTE:
BEAMS AND DRIVEWAY SLAB TO BE CAST MONOLITHICALLY. PIERS TO BE CONSTRUCTED PRIOR TO BEAM AND SLAB POUR WITH REINFORCEMENT PROJECTING INTO BEAM.

PILE TO BEAM CONNECTION:
500 DIA BORED PIER WITH 6-N16 VERTICAL BARS. CONTINUE 4-N16 BARS INTO BEAM. PROVIDE ADDITIONAL N16 STARTER / DOWEL BARS AS REQUIRED TO SUIT BEAM REINFORCEMENT LAYOUT. REMAINING PIER BARS TO TERMINATE WITH FULL DEVELOPMENT LENGTH WITHIN PILE HEAD. ROUGHEN AND CLEAN PILE HEAD PRIOR TO BEAM POUR.

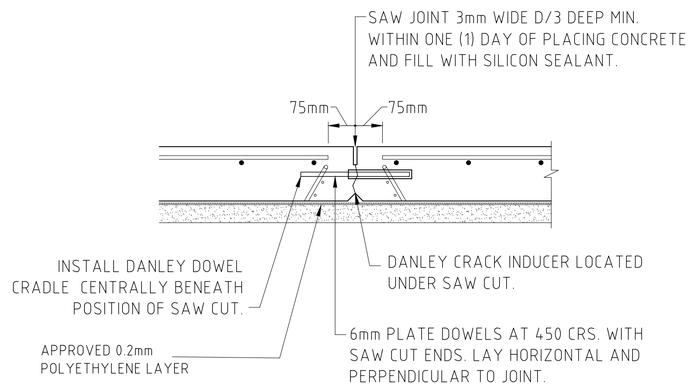
EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 0.4 0.8 1.2 1.6 2.0m
0.4 0.3 0.2 0.1
SCALE 1:20 (A1) 1:40 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.



NOTE: GALVANISE DOWELS FOR EXTERNAL APPLICATIONS.

CJ – CONTRACTION JOINT
(DANLEY PLATE DOWELLED JOINT)
N.T.S.

STRUCTURAL DESIGN NOTES:

1. GENERAL

ALL STRUCTURAL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:
AS3600 – CONCRETE STRUCTURES
AS1170 – STRUCTURAL DESIGN ACTIONS
AS2159 – PILING DESIGN AND INSTALLATION
AS2870 – RESIDENTIAL SLABS AND FOOTINGS
DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE.
CONTRACTOR SHALL VERIFY ALL SITE LEVELS, SETOUT AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK.
ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

2. PILE FOUNDATIONS
ALL PIERS SHALL BE 500 DIA BORED CONCRETE PIERS UNLESS NOTED OTHERWISE.
REINFORCEMENT:
6-N16 VERTICAL BARS WITH R10 SPIRAL @200 PITCH, REDUCE TO R10 SPIRAL @100 PITCH IN TOP 600.
CLEAR COVER TO REINFORCEMENT: 65 mm.
PIERS SHALL BE FOUNDED MINIMUM 1.5 m BELOW EXISTING GROUND LEVEL AND EXTENDED DEEPER AS REQUIRED TO FOUND IN COMPETENT MATERIAL.
ALL FOUNDING LEVELS SHALL BE INSPECTED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
DO NOT FOUND PIERS IN FILL MATERIAL.
EXCAVATIONS SHALL BE CLEANED OF LOOSE MATERIAL AND WATER PRIOR TO POURING CONCRETE.
CONCRETE SHALL BE PLACED IMMEDIATELY AFTER EXCAVATION WHERE PRACTICABLE.

3. BEAMS
INNER BEAM:
300x500 RC BEAM WITH 2-N20 TOP, 2-N20 BOTTOM AND R10 CLOSED TIES @200 c/c (200x400).
PROVIDE 2-N16 TOP AND BOTTOM EXTRA BARS 1200 LONG CENTRED OVER EACH PILE.
CLEAR COVER TO REINFORCEMENT 40 mm.
OUTER BEAM (WHERE SHOWN):
300x450 RC BEAM WITH 2-N16 TOP, 2-N16 BOTTOM AND R10 CLOSED TIES @200 c/c (200x350).
PROVIDE 2-N12 TOP AND BOTTOM EXTRA BARS 1000 LONG CENTRED OVER EACH PILE.
CLEAR COVER 40 mm.

4. DRIVEWAY SLAB
DRIVEWAY SLAB SHALL BE 180 THICK 32 MPa REINFORCED CONCRETE.
PROVIDE SL92 MESH CENTRALLY PLACED WITH 30 mm COVER.
PROVIDE 2-N12 TOP BARS CONTINUOUS OVER INNER AND OUTER BEAMS, EXTENDING 600 mm EACH SIDE OF BEAM CENTRELINE.
CONTRACTION / DOWEL JOINTS:
PROVIDE SAWN CONTRACTION JOINTS AT MAXIMUM 3 m SPACING ALONG DRIVEWAY. REFER DETAILS
PROVIDE N12 EDGE BAR CONTINUOUS ALONG SLAB EDGE.
PROVIDE 20 mm COMPRESSIBLE ISOLATION JOINT BETWEEN DRIVEWAY AND ADJACENT RETAINING WALL OR STRUCTURES.

5. SUBGRADE AND BASE PREPARATION
ALL SLAB-ON-GROUND AREAS SHALL BE FOUNDED ON MINIMUM 150 mm COMPACTED ROAD BASE.
SUBGRADE SHALL BE PROOF-ROLLED AND COMPACTED TO MINIMUM 98% MODIFIED DRY DENSITY (MDD).
ANY SOFT OR UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.

6. CONCRETE MATERIAL AND CONSTRUCTION
ALL STRUCTURAL CONCRETE SHALL BE MINIMUM 32 MPa COMPRESSIVE STRENGTH.
CONCRETE SHALL BE PLACED, COMPACTED AND CURED IN ACCORDANCE WITH AS3600 AND AS1379.
CONCRETE SHALL BE ADEQUATELY VIBRATED TO ENSURE FULL COMPACTION.
CONCRETE SURFACES SHALL BE CURED FOR A MINIMUM OF 7 DAYS.
REINFORCEMENT SHALL BE CLEAN AND FREE OF OIL, LOOSE SCALE OR OTHER CONTAMINATION BEFORE PLACING CONCRETE.

7. REINFORCEMENT
ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS 4671.
REINFORCEMENT SHALL BE ACCURATELY POSITIONED AND SECURED PRIOR TO CONCRETE PLACEMENT.
MINIMUM LAPS, ANCHORAGE AND DEVELOPMENT LENGTHS SHALL COMPLY WITH AS3600.
REINFORCEMENT SHALL BE SUPPORTED ON APPROVED BAR CHAIRS TO MAINTAIN SPECIFIED COVER.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: BORED PIERS AND DRIVEWAY DETAILS

Office:
28 Daintree Pl, Riverhills 4074 QLD
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Website: www.arkcg.com.au
Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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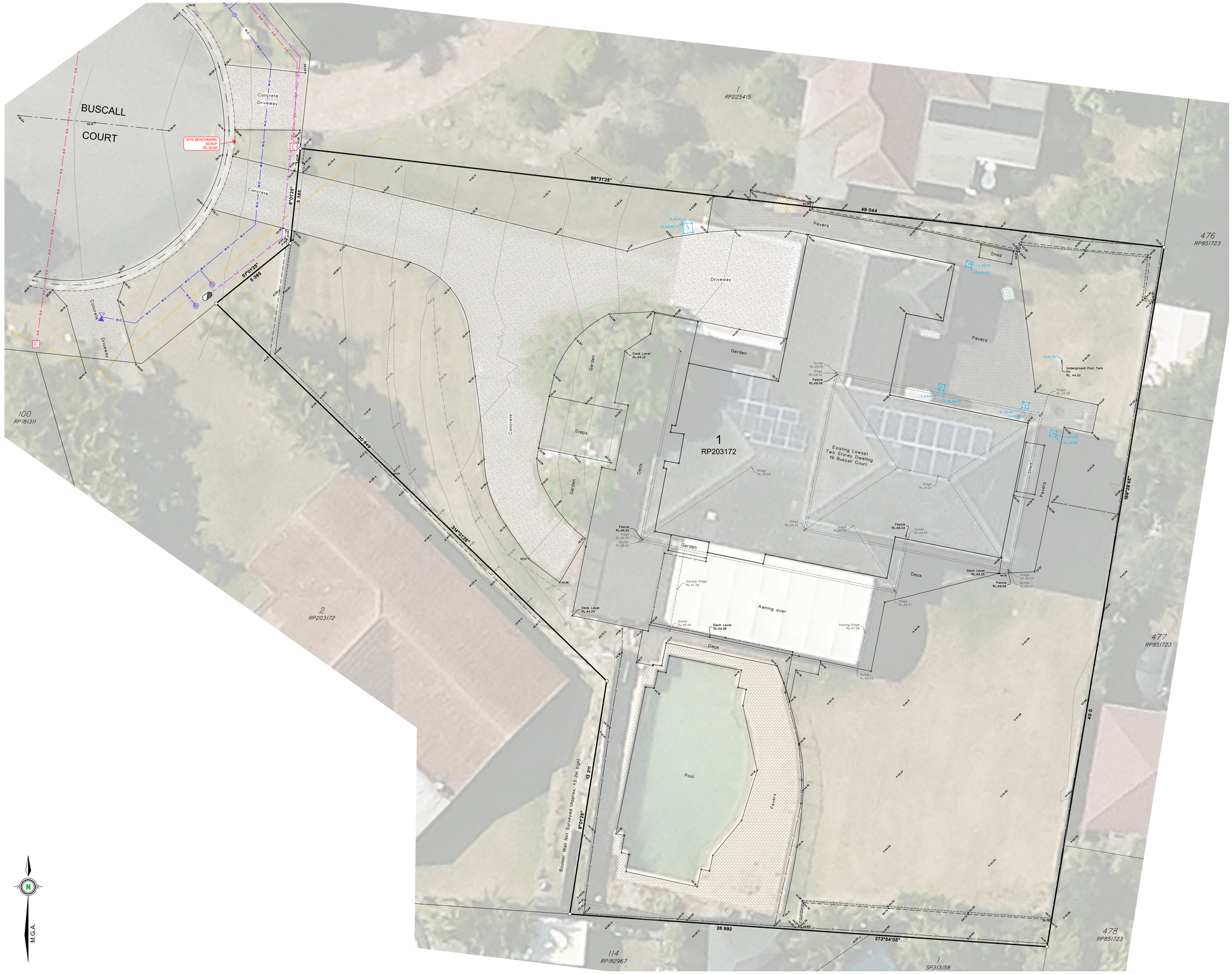
Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA07	A

FOR APPROVAL



Client

Allan Cadman

Project

Detail Survey of 19 Buscall Court, Sinnamon Park

Described as Lot 1 onRP203172

Scale: 1:100 at A1

Datum: AHD vide PSM134153 — Locality: Sinnamon Park
RL: 26.03m — LGA: Brisbane City
Contour Int: 0.5m — Cadfile: FOS-885.DET.01

Issue	Description	Drw	Date	Appd
A	INITIAL ISSUE	SSD	26.01.26	MP

Notes

The title boundaries shown hereon were not marked at the time of survey and have been compiled from previous survey.
Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

LEGEND

AWN	Awning / eave	
BU	Building	
BW	Bottom of wall	
CG	Change of grade	
EBX	Electricity Box	
EBX	Light Pole	
FHY	Fire Hydrant	
FNC	Fence	
IOT	Sewer inspection opening	
KCL	Kerb lip	
KIN	Kerb invert	
KTB	Kerb top back	
TAP	Tap	
TEP	Telstra Pit	
TW	Top of wall	
WMT	Water Meter	

UNDERGROUND SERVICES - ALPHA CLASSIFICATION AS PER AUSTRALIAN STANDARD AS5488.

Sewer main	S-O S-O S-O
Stormwater drainage	SW-O SW-O SW-O
Water main	W-O W-O W-O
Telstra service	T-O T-O T-O
NBN service	NBN-O NBN-O NBN-O
Gas supply	G-O G-O G-O G-O
Electricity supply	E-O E-O E-O
Communication Service	C-O C-O C-O

0 3 6 m

SCALE 1:100 (A1)

FOCUS ON SURVEYING

w www.focussurvey.com.au
e info@focussurvey.com.au ph 3338 5095
a Suite 6, 214 Waterworks Road. Ashgrove . QLD . 4060
a Unit 4b, 115a Point Cartwright . Buddina . 4575

Sheet No.	Surveyed By:	Date Surveyed:
1 of 1	MT	19.01.26

Dwg. No. — Issue

FOS-885.DET.01_image — A

BUSCALL COURT

/
RP225415

476
RP851723

477
RP851723

2
RP203172

478
RP851723

114
RP182967

/
SP313158

Proposed Access Easement
34 m²

Area of Access handle 85m²

Proposed Lot 3
912 m²

Existing Dwelling retained

Existing Deck partially demolished

Existing Pool removed

Proposed Lot 4
627 m²
(including access handle)

49.04
5.39
1.36
4.03
21.05
30.65
3.84
1.0
28.58
23.01
44.0
13.31
16.99
26.99

N

Client
Allan Cadman

Project
Proposed Reconfiguration Creating Lots 3 & 4

Cancelling Lot 1 on RP203172
being 19 Buscall Ct, Sinnamon Park

Scale: 1:200 at A3
Datum: AHD vide CORS
Contour Int: 0.5m
LGA: Brisbane City Council
Cadfile: FOS-885 RAL 01

Issue	Description	Drw	Date	Appd
B	ADJUST BOUNDARY + ADD EMT	MP	30/03/26	MP
A	FOR PLANNING REPORT	MP	04/02/26	MP

NOTES
(i) This plan was prepared for the purpose and exclusive use of ALLAN CADMAN to accompany an application to BRISBANE CITY COUNCIL for approval to reconfigure the land described in this plan and is not to be used for any other purpose or by any other person or corporation.
Focus on Surveying Pty Ltd accepts no responsibility for any loss or damage suffered howeverso arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (ii),(iii) or (iv) hereof.

(ii) The contours shown in this plan are suitable only for the purposes of this application. The accuracy of the contours has not been verified and no reliance should be placed upon such contours for any other purpose other than the purpose of this application for reconfiguration.

(iii) The dimensions, areas, number of lots, size and location of improvements & flood information (if shown) are approximate only and may vary.

(iv) This plan may not be copied unless these notes are included.

UNDERGROUND SERVICES - ALPHA CLASSIFICATION AS PER AUSTRALIAN STANDARD AS5488.

Sewer main	S-D S-D S-D
Stormwater drainage	SW-D SW-D
Water main	W-D W-D W-D
Telstra service	T-D T-D T-D
NBN service	NBN-D NBN-D
Gas supply	G-D G-D G-D
Electricity supply	E-D E-D E-D

SCALE 1:200 (A3)

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w www.focussurvey.com.au
e info@focussurvey.com.au ph 3338 5095
a Suite 6, 214 Waterworks Road . Ashgrove . QLD . 4060
a Unit 4b, 115a Point Cartwright . Buddina . 4575

Sheet No.
1 of 1

Dwg. No. **FOS-885 RAL 01**
Issue **B**

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO COUNCIL APPROVAL, SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF NATURAL RESOURCES & MINES.

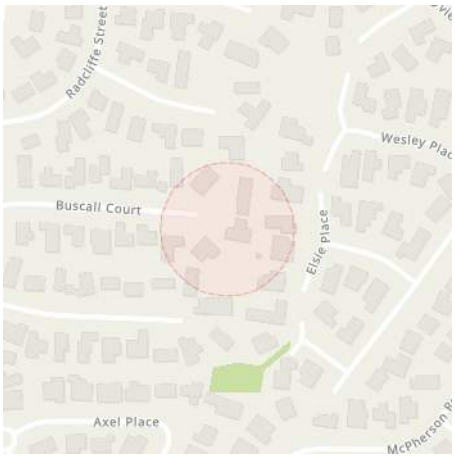
APPENDIX B – BEFORE YOU DIG AUSTRALIA (BYDA)

Office: 28 Daintree Place, Riverhills QLD 4074 Ph: 04 517 998 27

brian@arkcg.com.au www.arkcg.com.au ABN: 14 688 605 183

Job ID 52801686
ARK25157

Review responses online



Received 5 of 6 responses
Waiting for more

19 Buscall Court, Sinnamon Park QLD 4073

Job dates
24/04/2026 → 17/12/2026

These plans expire on
2 May 2026

Lodged by
Brian Aghazadeh

Authority	Status	Page
BYDA Confirmation		2
APA Group Gas Networks (90073)	Received	4
Brisbane City Council	Received	15
Energex QLD	Received	18
NBN Co Qld	Waiting	-
Queensland Urban Utilities	Received	63
Telstra QLD FA	Received	68

Job No 52801686

BEFORE YOU DIG byda.com.au — Look up and Live

Zero damage - Zero harm - Zero disruption

byda.com.au

Contact Details

Contact	Contact number	Company	Enquirer ID
Brian Aghazadeh	0451 799 827	ARK Consulting Group	3283460

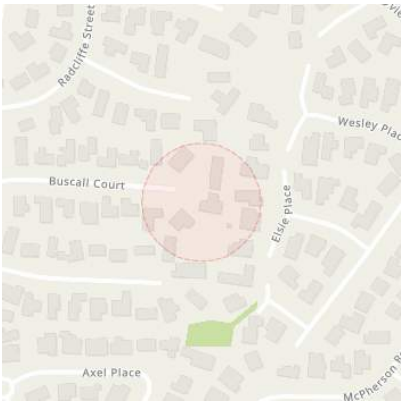
Email
brian@arkcg.com.au

Address
99 Sumners Road
Jamboree Heights QLD 4074

Job Site and Enquiry Details

WARNING: The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
04/04/2026	24/04/2026	17/12/2026	Private	Design	Both Footpath, Road, Nature Strip	Planning & Design, Subdivision



Check that the location of the job site is correct. If not, you must submit a new enquiry.

If the scope of works change or plan validity dates expire, you must submit a new enquiry.

Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.

User Reference	Address	Notes/description
ARK25157	19 Buscall Court Sinnamon Park QLD 4073	-

Your Responsibility and Duty of Care

- **Lodging an enquiry does not authorise project commencement.** Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the Privacy Policy and Term of Use.
- For more information on safe digging practices, visit www.byda.com.au

Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
270794702	APA Group Gas Networks (90073)	1800 085 628	NOTIFIED
270794701	Brisbane City Council	(07) 3403 8888	NOTIFIED
270794704	Energex QLD	13 12 53	NOTIFIED
270794700	NBN Co Qld	1800 687 626	NOTIFIED
270794703	Queensland Urban Utilities	13 26 57	NOTIFIED
270794705	Telstra QLD FA	1800 653 935	NOTIFIED

END OF UTILITIES LIST

The 5Ps of Safe Excavation

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a skilled Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

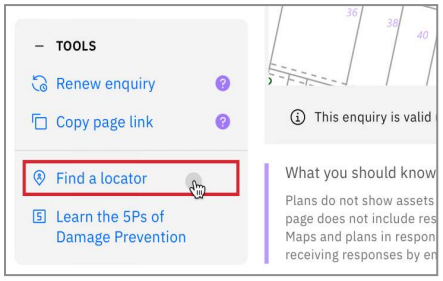
Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

Engage a skilled Locator



When you lodge an enquiry you will see skilled Locators to contact

Visit the Certified Locator website directly and search for a locator near you

certloc.com.au/locators

Get FREE Quotes for Contractors & Equipment Fast

GET QUOTE

Use iseekplant's FREE marketplace to get quotes for the equipment or services you need on your project. Compare quotes from trusted local contractors and get your project done on time and in budget.

1. Fill out your job details in our FREE quick quote form.
2. We send the request to trusted local contractors.
3. The local contractors will contact you directly with quotes

Use iseekplant to find trusted contractors near you today, visit:
blog.iseekplant.com.au/byda-isp-get-quotes

Book a FREE BYDA Session

BOOK NOW

BYDA offers free training sessions to suit you and your organisation's needs covering safe work practices when working near essential infrastructure assets. The free sessions are offered in two different formats - online and face-to-face.

To book a session, visit:
byda.com.au/contact/education-awareness-enquiry-form

Lodge your FREE enquiry online any time at byda.com.au

APA Group Gas Networks (90073)

Referral
270794702

Member Phone
1800 085 628

Responses from this member

Response received Sat 4 Apr 2026 11.24am

File name	Page
Response Body	5
270794702.pdf	6

PLEASE NOTE: This is an automated response. Please **DO NOT REPLY to this email**. If you require further information in relation to this Before You Dig response, please contact

BYDA_APA@apa.com.au

Enquiry Details:

Impact	not affected
Sequence Number	270794702
Enquirer Id	3283460
Activity	Planning and Design,Subdivision
Job Number	52801686
User Reference	ARK25157
Message	

Site Details:

Address	19 Buscall Court Sinnamon Park QLD 4073

Enquirers Details:

Contact	Brian Aghazadeh
Company	ARK Consulting Group
Email	brian@arkcg.com.au
Phone	+61451799827
Address	99 Sumners Road Jamboree Heights QLD 4074

APA Group

APA
Australia's energy infrastructure partner

BEFORE YOU DIG
www.byda.com.au

Before You Dig Australia

Classification: Networks

Enquiry date	04/04/2026
Sequence number	270794702
Work site address	19 Buscall Court Sinnamon Park QLD 4073

Enquiry Date:	04/04/2026
Enquirer:	Brian Aghazadeh
Sequence Number:	270794702
Work Site Address:	19 Buscall Court
	Sinnamon Park
	QLD 4073

Thank you for your Before You Dig enquiry regarding the location of gas assets.

We confirm there are NO Gas Assets located in close vicinity of the above location.

Caution: Damage to gas assets may result in explosion, fire and personal injury.

Please ensure you read and comply with all the relevant information contained in this response to your BYDA enquiry.

Before You Dig Checklist

1. Plan

- Review maps provided with this BYDA response and confirm the location of your work site is correct.

2. Prepare

- Electronically locate gas assets and mark locations.
- Note: Look for visible evidence of gas assets at the worksite which may not be shown on plans.

3. Pothole

- Not applicable where no gas assets present.

4. Protect

- Not applicable where no gas assets present.

5. Proceed

- Only proceed with your work once you are confident no gas assets are located in vicinity to your work location.
- APA BYDA response (including maps) are on site for reference at all times, and less than 30 days old.

Contacts

Contacts APA Group	
Enquiry	**Contact Numbers**
General enquiries or feedback regarding this information or gas assets.	APA – Before You Dig Officer Phone: 1800 085 628 Email: BYDA_APA@apa.com.au
Gas Emergencies	Phone: 1800 GAS LEAK (1800 427 532)

Site Watch

Site Watch is where an APA field officer attends your work site to monitor and ensure controls are in place to protect critical gas assets from damage during work.

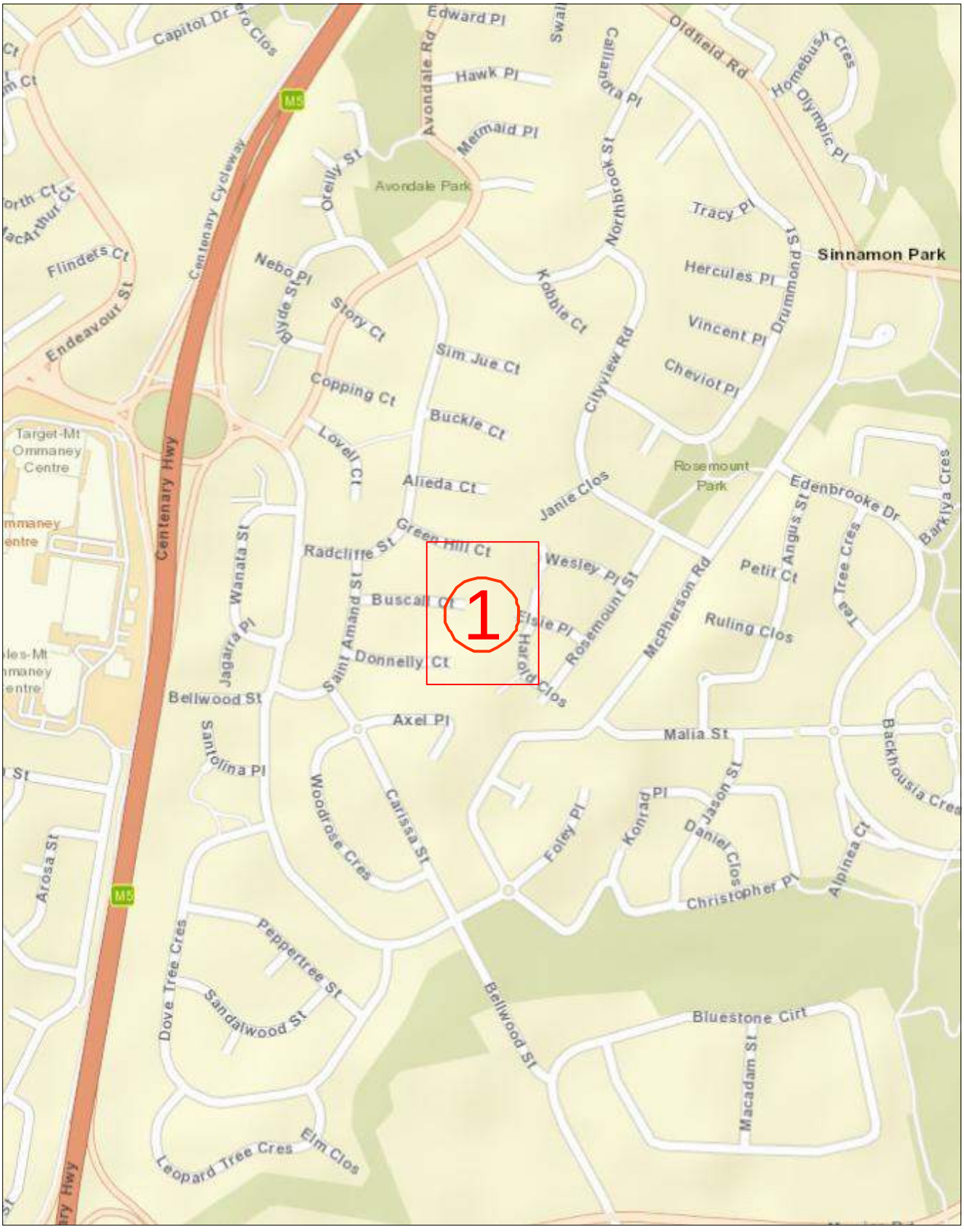
The following rates* apply for this service (1 hour minimum charge):

Item	Rate (excl. gst)
Site Watch – Business Hours	$143.42 per hour
Site Watch – After Hours	$175.06 per hour
Cancellation Fee *Fee applies where cancelations received after 12pm (midday), 1 business day prior to the booking*	$286.84

Contact APA – Before You Dig officer for state specific hours of business.

**The specified rates do not apply to Origin Energy LPG assets. All charges and invoicing related to these assets will be administered directly by Origin Energy. For further information contact Origin Energy.*

Site Address:	19 Buscall Court Sinnamon Park QLD 4073	**Sequence Number:**	270794702



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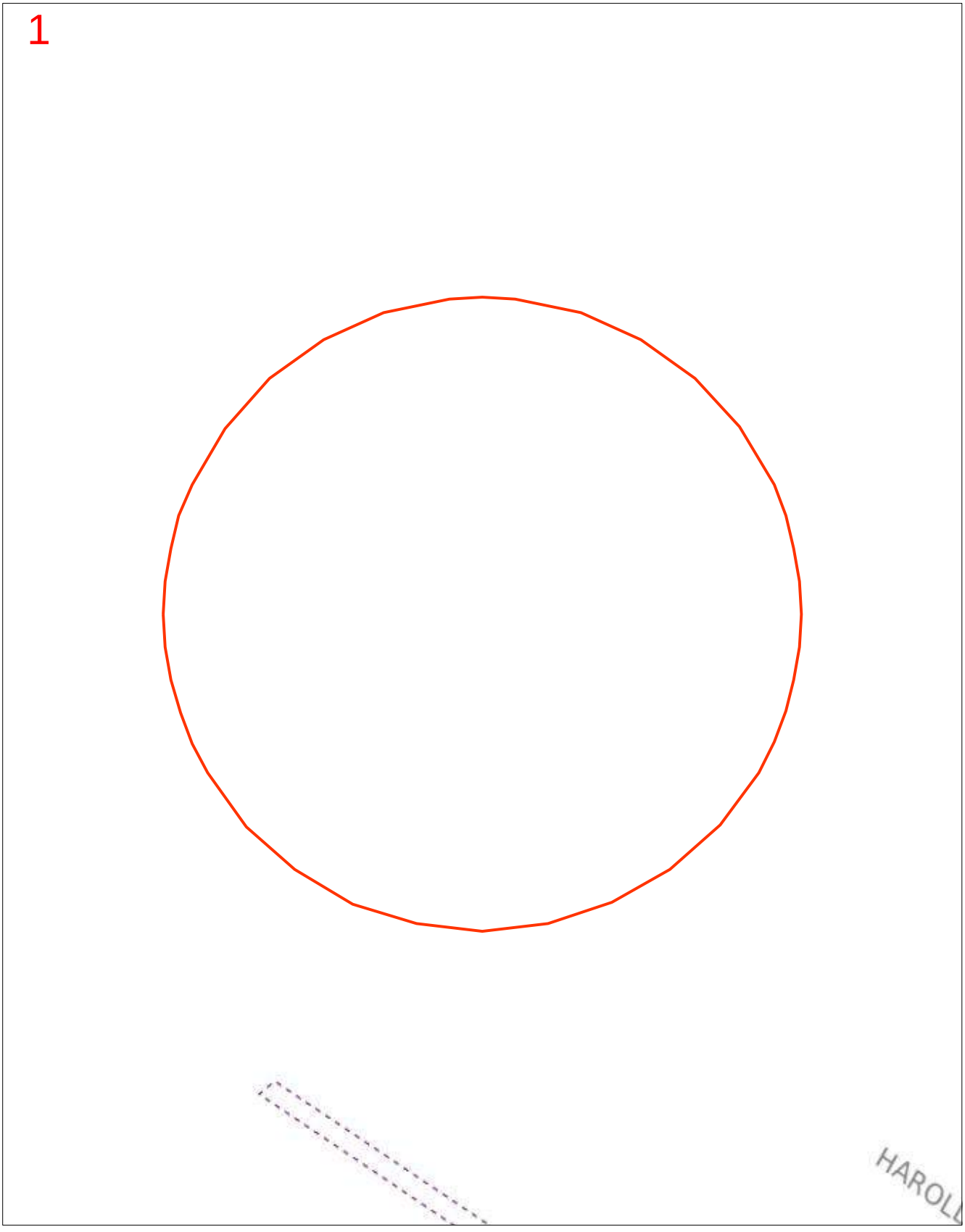
Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS,
© OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Site Address:	19 Buscall Court Sinnamon Park QLD 4073	**Sequence Number:**	270794702



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Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS,
© OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Legend

PIPE LEGEND: GAS TYPE AND PRESSURE

	Low pressure	Medium pressure	High pressure	Transmission
Natural gas				
Natural gas – proposed				
LPG (yellow dash)	*not applicable*			*not applicable*
Hydrogen blended (aqua dash)	*not applicable*			*not applicable*

PIPE LEGEND: SPECIAL DESIGNATION

	Low pressure	Medium pressure	High pressure	Transmission
Critical main (yellow highlight)				
Casing (grey highlight)				*not applicable*

These designations typically apply to any pipe type and pressure

PIPE LEGEND: OTHER STATUS

- Abandoned pipe
- Idle or inactive pipe

ABBREVIATION

BoK	Back of kerb
C	Depth of cover
CP	Cathodic protection
FoK	Front of kerb
NTI	Not tied in

OBJECT SYMBOLS

- Valve
- Buried valve
- Regulator station
- Gas connected property
- CP test station
- CP anode
- CP bond wire
- CP rectifier terminal
- Syphon
- Marker
- Part service^

^A live gas service terminated underground within the property boundary, available for future extension to the gas meter.

PIPE CODE AND MATERIAL

P*	Polyethylene (PE)
P3	Polyvinyl chloride (PVC)
S*	Steel
C*	Cast iron
CU	Copper
N2	Nylon
W2	Wrought galv iron
W3	PE coat wrought galv iron

INTERPRETATION EXAMPLE

40P6 in 80C2 — High pressure, 40 mm polyethylene in an 80 mm cast iron casing

63S8 — Medium pressure, 63 mm steel

Pipe diameter in millimetres is shown before pipe code.
40P6 = 40 mm nominal diameter

This map was created in colour and should be printed in colour

Important information

- Refer to requirements relating to construction, excavation and other work activities in the **APA Guidelines for Works Near Existing Gas Assets** document with this BYDA response.
- BYDA enquiries are valid for 30 days. If your works commence after 30 days from the date of this response a new enquiry is required to validate location information.
- **For some BYDA enquiries, you may receive two (2) responses from APA. Please read both responses carefully as they relate to different assets.**
- Gas (inlet) services connecting Gas Assets in the street to the gas meter on the property are not marked on the map. South Australia Only – if a meter box is installed on the property, a sketch of the gas service location may be found inside the gas meter box. APA does not guarantee the accuracy or completeness of these sketches.

Free Gas Pipeline Awareness Training and Information

PROFESSIONALS

APA offers online and in-person toolbox forums to support safe work near underground gas assets. Topics include distribution and transmission pipelines, the permit process, and gas emergencies, with content suited for companies of all sizes. A Continuing Professional Development certificate is available upon completion.

Scan the QR code to register for an online toolbox, or email **damageprevention@apa.com.au** to request an in-person presentation.

HOMEOWNERS

If you're working near your home's gas pipes stay safe and view APA's video guide **'Working Safely Near Gas Lines: A DIY Homeowner's Guide'** which offers simple tips to avoid damaging gas pipes.

Scan the QR code to view the video, or for more information email **damageprevention@apa.com.au**

Disclaimer and legal details

- This information is valid for 30 days from the date of this response.
- This information has been generated by an automated system based on the area highlighted in your BYDA request and has not been independently verified.
- Map location information is provided as AS5488-2022 Quality Level D, as such supplied location information is indicative only.
- Whilst APA has taken reasonable steps to ensure that the information supplied is accurate, the information is provided strictly on the condition that no assurance, representation, warranty or guarantee (express or implied) is given by APA in relation to the information (including without limitation quality, accuracy, reliability, completeness, currency, sustainability, or suitability for any particular purpose) except that the information has been disclosed in good faith.
- Any party who undertakes activities in the vicinity of APA operated assets has a legal duty of care that must be observed. This legal obligation requires all parties to adhere to a standard of reasonable care while performing any acts that could foreseeably harm these assets

APA

Australia's energy infrastructure partner

Brisbane City Council

Referral
270794701

Member Phone
(07) 3403 8888

Responses from this member

Response received Sat 4 Apr 2026 11.24am

File name	Page
Response Body	16
ASSET 270794701.pdf	17

Attention: Brian Aghazadeh

Thank you for your enquiry with Brisbane City Council's Before You Dig service.

Job Number: **52801686**
Sequence Number: **270794701**

The attached .PDF file contains the location of Council's relevant services for your requested location. If you are having trouble viewing these files, it is recommended you upgrade your version of Adobe Reader. You can download the latest version of Adobe Reader for free at http://get.adobe.com/reader/

If you require more information, Council offers a convenient online mapping subscription service containing additional services data. The online service offers a wide variety of spatial information suitable for searches over large areas, including information previously available only by visiting Council's Customer Service Centres.

For more information on Council's online mapping services, visit http://www.brisbane.qld.gov.au/planning-building/planning-guidelines-and-tools/online-tools/ebimap/index.htm

Kind regards,

Brisbane City Council
Before You Dig

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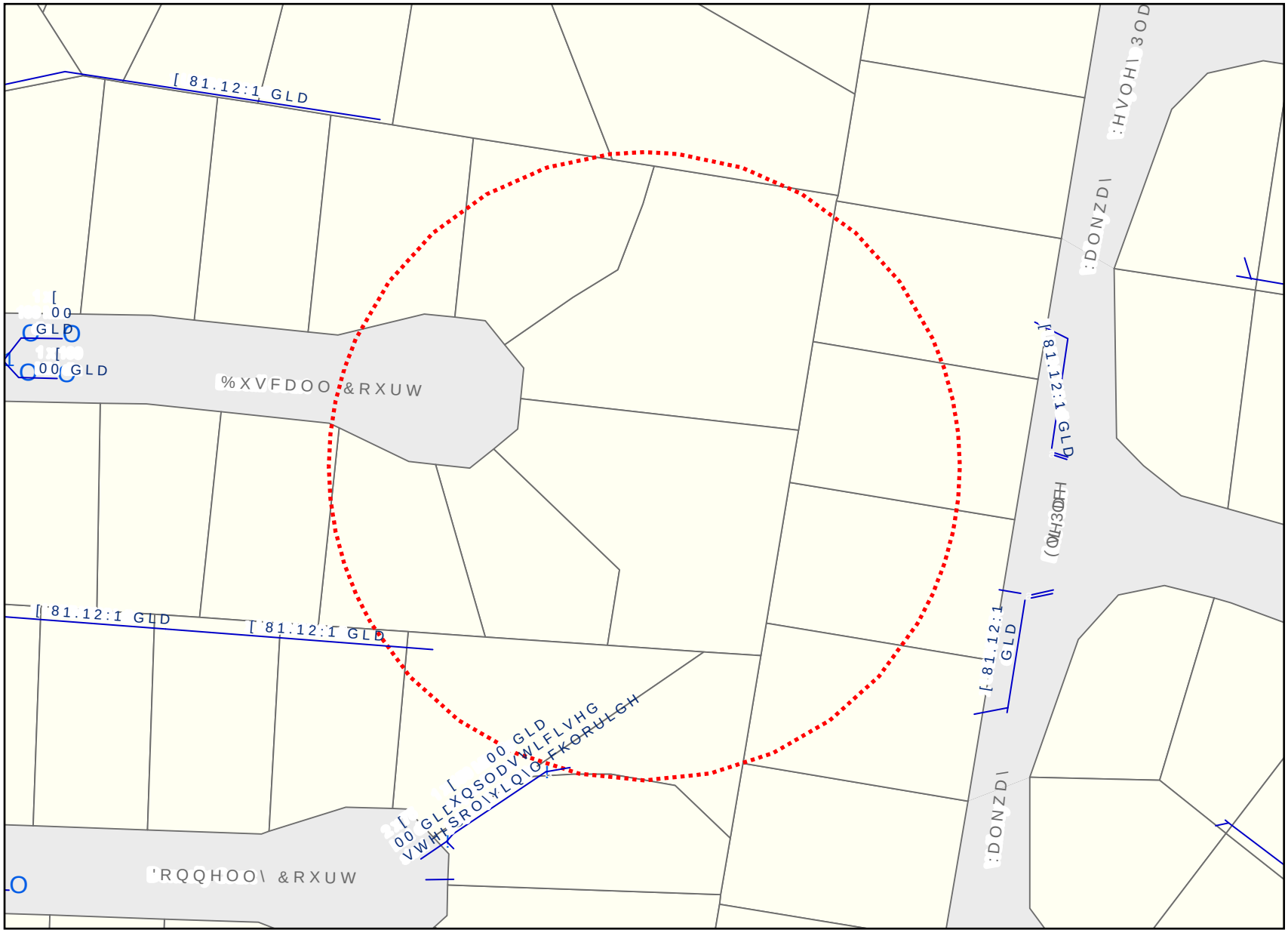

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Energex QLD

Referral
270794704

Member Phone
13 12 53

Responses from this member

Response received Sat 4 Apr 2026 11.26am

File name	Page
Response Body	19
270794704 - Energex Plan.pdf	22
Energex BYDA Terms and Conditions.pdf	27
Working Near Overhead and Underground Electric Lines.pdf	32

Assets found

Before You Dig Australia (BYDA) Request

Please DO NOT SEND A REPLY to this email as it has been automatically generated and replies are not monitored.

The attached Plan details ENERGEX's Assets in relation to Your nominated search area.

Ensure You read and understand the important notes outlined below.

You:	**BYDA Enquiry No:**
Brian Aghazadeh	270794704
Company:	**Date of Response:**
ARK Consulting Group	04 Apr 2026
Search Location:	**Period of Plan Validity:**
19 Buscall Court Sinnamon Park, QLD 4073	4 Weeks

External Comments (if any):

WARNING: When working in the vicinity of Energex's Assets You have a legal *Duty of Care* that must be observed.

It is important that You note:

1. Immediately report life threatening emergencies to Emergency Services on **000** or to ENERGEX on **13 19 62**.
2. Please read and understand all the information and disclaimers provided - including the Terms and Conditions on the attached pages.
3. We have only searched the area which has been nominated in the request. If this nominated area is not what You require, please resubmit another enquiry with BYDA.
4. Plans provided by ENERGEX are only an indication of the presence of underground Assets within the nominated area. Locations provided are approximate and the plans are not suitable for scaling purposes, as exact ground cover and alignments cannot be provided. You must confirm the exact location of Assets by use of an electronic cable locator followed by careful, non-mechanical excavation (i.e. potholing).
5. Plans provided by ENERGEX do not encompass ENERGEX's overhead Assets.
6. ENERGEX, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and details supplied pursuant to the BYDA Request and You agree to indemnify ENERGEX against any claim or demand for any such loss or damage to You, Your servants or Your agents.
7. You are responsible for any damage to underground Assets caused by works pursuant to or in any way connected with this BYDA Request.

8. In addition to underground cables marked on attached plan, there could be underground earth conductors, underground substation earth conductors, Multiple Earthed Networks (MEN) conductors, Single Wire Earth Return (SWER) Substation Earth Conductors, Air Break Switch (ABS) Earth Mats or Consumer Mains in the vicinity or private underground cables (inc. consumers' mains that may run from ENERGEX mains onto private property) in the vicinity of the nominated work area(s) that are not marked on the plans.
9. Independent underground cable locators can be found by using the "Find a locator" option available within the BYDA enquiry response with LV Cable (up to 1kV), HV Cable (1kV-<33kV) & HV cable (33kV and over) displayed.
10. The ENERGEX Before You Dig Australia (BYDA) information map(s) provide the vicinity of underground cable and will not be adequate for conveyancing purposes. A Request for Search (Property Search) can be arranged through ENERGEX.
11. The attached plans are only valid for a period of four weeks from receipt. If excavation does not commence within four weeks, a new plan should be obtained.
12. The ENERGEX BYDA map (named maps.pdf) may contain shaded area(s), indicating the location of planned work(s). Should You find planned works that You believe may affect Your planned work(s), please contact the ENERGEX BYDA team on the details listed below.
13. ENERGEX may contact You to discuss Your proposed excavation in the vicinity of feeders identified on the attached plan(s).
14. Do not access any Assets, for example, conduits, cables, pits or cabinets.
15. Your work will need to comply with:
    - Working near overhead and underground electric lines - Electrical safety code of practice 2020
    - Managing Electrical Risk in Workplace Electrical Safety Code of Practice (2013)
    - Excavation Work Code of Practice (2021)

NOTE: Where Your proposed work location contains ENERGEX 33kV or greater Underground cables please access the Energex before you dig Website for more information.

General enquiries (7:00am - 5:30pm Mon to Fri)	**13 12 53**
Life threatening emergencies only triple zero (000) or	**13 19 62**

To re-submit or change the nominated search area please visit **BYDA.com.au**

E: **custserve@energex.com.au**

E: **byda@energyq.com.au** ABN: 40 078 849 055

Disclaimer: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

If you are unable to launch any of the files for viewing and printing, you may need to download and install free viewing and printing software such as Adobe Acrobat Reader (for PDF files)

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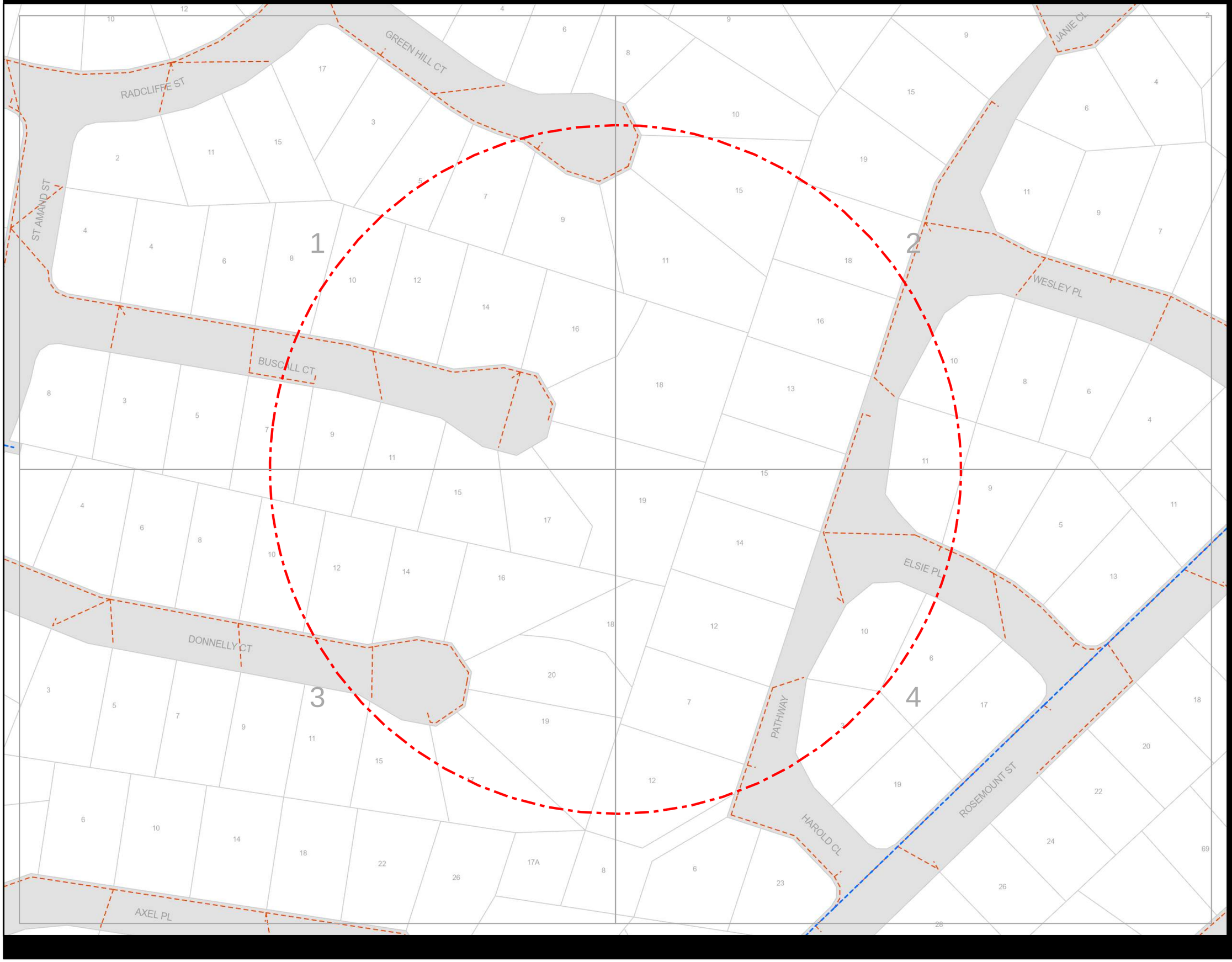
OVERVIEW



- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

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BUSCALL CT
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U514822
P841013-A
U514824
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U514823

Substation
Cable Marker
Pit
Pole
Pillar
LV Cable (up to 1kV)
HV Cable (1kV – <33kV)
HV Cable (33kV and over)
Pit Boundary
Planned Work Area

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U32402-E
U32408-C
U32405-E
U72357-D
P370130
PATHWAY
JANIE CL
WESLEY PL
ELSIE PL

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HV Cable (1kV – <33kV)
HV Cable (33kV and over)
Pit Boundary
Planned Work Area

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AXEL PL
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U74070-B

Substation
Cable Marker
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Pole
Pillar
LV Cable (up to 1kV)
HV Cable (1kV – <33kV)
HV Cable (33kV and over)
Pit Boundary
Planned Work Area

$6 &DWHJRU\ 3'

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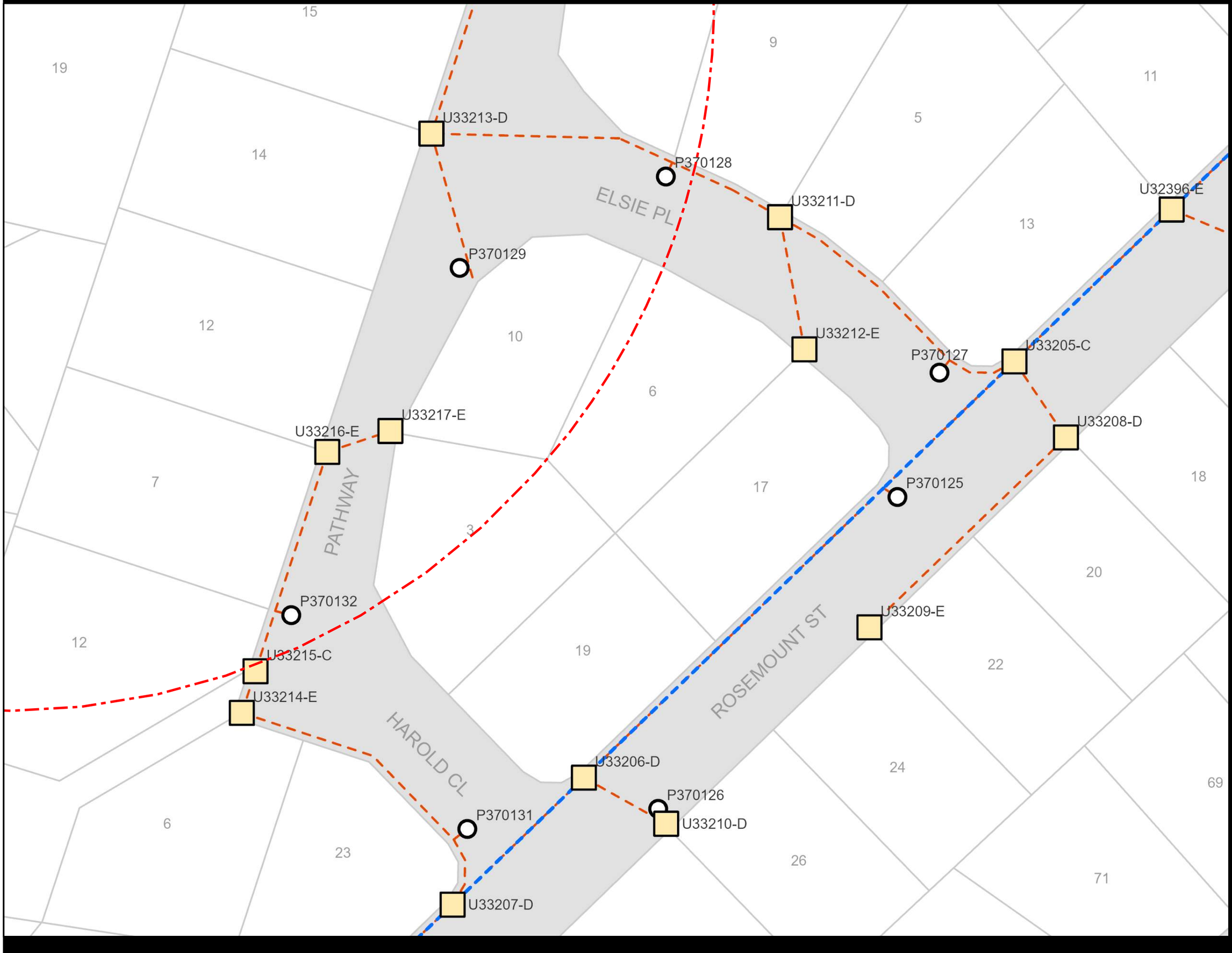

Substation
Cable Marker
Pit
Pole
Pillar
LV Cable (up to 1kV)
HV Cable (1kV – <33kV)
HV Cable (33kV and over)
Pit Boundary
Planned Work Area

$6 &DWHJRU\ 3'' 3O

Responsibilities – (When Working in the Vicinity of Energex Assets)

Extreme care must be taken during non-mechanical or mechanical excavation as damage to Energex Assets can lead to injury or death of workers or members of the public. Assets include underground cables, conduits and other associated underground Asset used for controlling, generating, supplying, transforming or transmitting electricity.

In accordance with the Electrical Safety Act 2002, a Person Conducting a Business or Undertaking (**PCBU**) must ensure the person's business or undertaking is conducted in a way that is electrically safe. This includes:

a) ensuring that all Assets used in the conduct of the person's business or undertaking are electrically safe;

b) if the person's business or undertaking includes the performance of electrical work, ensuring the electrical safety of all persons and property likely to be affected by the electrical work; and

c) if the person's business or undertaking includes the performance of work, whether or not electrical work, involving contact with, or being near to, exposed parts, ensuring persons performing the work are electrically safe.

In addition, a PCBU at a workplace must ensure, so far as is reasonably practicable, that no person, Asset or thing at the workplace comes within an unsafe distance of an underground electric line.

Workers and other persons must also take reasonable care for their own and other person's electrical safety. This includes complying, so far as is reasonably able, with any reasonable instructions given by Energex to ensure compliance with the Electrical Safety Act 2002

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

The following matters must be considered when working near Energex Assets:

The PCBU must ensure, so far as is reasonably practicable, that no person, Asset or thing at the workplace comes within an unsafe distance of an underground electric line (see section 68 of the Electrical Safety Regulation 2013)

1. It is the responsibility of the architect, consulting engineer, developer and head contractor in the project planning stages to design for minimal impact and protection of Energex Assets.
2. It is the constructor's responsibility to:
   a) Anticipate and request plans of Energex Assets for a location at a reasonable time before construction begins.
   b) Visually locate Energex Assets by hand or vacuum excavation where construction activities may damage or interfere with Energex Assets.
   c) notify Energex if the information provided is found to be not accurate or Assets are found on site that are not recorded on the Energex BYDA plans.
   d) Read and understand all the information and disclaimers provided.

   Note: A constructor may include but not limited to a PCBU, Designer, Project Manager, Installer, Contractor, Electrician, Builder, Engineer or a Civil Contractor

3. Comply with applicable work health and safety and electrical safety codes of practice including but not limited to:
   a) Working near Assets – Electrical safety codes of practice 2020
   b) Managing electrical risk in the workplace – Managing Electrical Risks in the workplace Code of Practice 2021
   c) Excavation work – Code of practice 2021

IMPORTANT NOTES:

- As the alignment and boundaries of roadways with other properties (and roads within roadways) frequently change, the alignments and boundaries contained within Energex plans and maps will frequently differ from present alignments and boundaries "on the ground". Accordingly, in every case where it appears that alignments and boundaries have shifted, or new roadways have been added, the constructor should obtain confirmation of the actual position of Energex cables and pipelines under the roadways. In no case should the constructor rely on statements of third parties in relation to the position of Energex cables and pipelines. It is the applicant's responsibility to accurately locate all services as part of the design and/or prior to excavation.
- Energex does not provide information on private underground installations, including consumers' mains that may run from Energex mains onto private property. Assets located on private property are the responsibility of the owner for identification and location.
- Energex plans are circuit diagrams or pipe indication diagrams only and indicate the presence of Asset in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty; as such levels can change over time.
- All underground conduits are presumed to contain asbestos. Refer to the:
  - Electrical safety codes of practice 2020
  - Model Code of Practice: How to manage and control asbestos in the workplace | Safe Work Australia
  - How to manage and control asbestos in the workplace code of practice 2021 (Workplace Health and Safety Queensland (WHSQ)
  - How to safely remove asbestos code of practice 2021 (WHSQ)
- Plans provided by Energex are not guaranteed to show the presence of above ground Assets.
- In addition to underground cables marked on attached plan there could be underground substation, underground earth conductors, Multiple Earthed Neutral(MEN) conductors, Single Wire Earth Return(SWER), substation Earth Conductors, ABS Earth Mats or Consumer Mains in the vicinity or private underground cables (inc. consumers' mains that may run from Energex mains onto private property) in the vicinity of the nominated work area(s) that are not marked on the plans.
- Being aware of Your obligations including but not limited to [ss 304, 305] Excavation work— underground essential services information under the Work Health and Safety Regulation 2011 , Chapter 6 Construction work, Part 6.3 Duties of person conducting business or undertaking. This includes but is not limited to taking reasonable steps to obtain the current information & providing this information to persons engaged to carry out the excavation work. For further information please refer to: - http://www.legislation.qld.gov.au/LEGISLTN/SLS/2011/11SL240.pdf
- Energex plans are designed to be printed in colour and as an A3 Landscape orientation.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

Conditions – (When Working in the Vicinity of Energex Assets)

Records:
The first step before any excavation commences is to obtain records of Energex Assets in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by Energex must be made available to all construction groups on site. Where Asset information is transferred to plans for the proposed work, care must be exercised to ensure that important detail is not lost in the process.

Plans and or details provided by Energex are current for four weeks from the date of dispatch and should be disposed of by shredding or any other secure disposal method after use. A new BYDA enquiry must be made for proposed works/activities to be undertaken outside of the four-week period.

Energex retains copyright of all plans and details provided in connection with Your request.

Energex plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose.

On receipt of BYDA plans and before commencing excavation work or similar activities near Energex's Assets check to see that it relates to the area You have requested and carefully locate this Asset first to avoid damage. If You are unclear about any information contained in the plan, You must contact Energex on the General Enquiries number listed below for further advice.

Energex, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Energex against any claim or demand for any such loss or damage.

The contractor is responsible for all Asset damages when works commence prior to obtaining Energex plans, or failure to follow agreed instructions, or failure to demonstrate all reasonable measures were taken to prevent the damage once plans were received from Energex.

Energex reserves all rights to recover compensation for loss or damage caused by interference or damage, including consequential loss and damages to its Assets, or other property.

NOTE: Where Your proposed work location contains Energex 33kV or greater Underground cables please access the Energex BYDA website for more information.

Location of Assets:
Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to them. The exact location of Assets likely to be affected shall be confirmed by use of an electronic cable and pipe locater followed by **careful hand or vacuum excavation to the level of cable protection cover strips or conduits.** When conducting locations, please be aware that **no** unauthorised access is permitted to Energex Assets– including Pits, Low Voltage Disconnection Boxes, Low Voltage Pillars or High Voltage Link Boxes.

Hand or vacuum excavation must be used in advance of excavators. In any case, where any doubt exists with respect to interpretation of cable records, You must contact Energex on the General Enquires number listed below for further advice.

If the constructor is unable to locate Energex underground Assets within 5 metres of nominal plan locations, they must contact the Energex General Enquires number listed below for further advice.

If unknown cables or conduits (i.e. not shown on issued BYDA plans) are located during excavation:
1. Call the ELECTRICITY EMERGENCIES number listed below
2. Treat Assets as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged Asset must cease and the area must be vacated until a clearance to continue work has been obtained from an Energex officer.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

Asset Installation Methods:
Energex Assets are installed with a variety of protection devices including:

1. Clay paving bricks or tiles marked “Electricity” or similar (also unmarked)
2. Concrete or PVC cover slabs
3. PVC, A/C or fibro conduit, fibre reinforced concrete, iron or steel pipe
4. Concrete encased PVC or steel pipe
5. Thin plastic marker tape
6. Large pipes housing multiple ducts
7. Multiple duct systems, including earthenware or concrete 2, 4, and 6-way ducts and shamrocks

Note: Some Assets are known to be buried without covers and may change depth or alignment along the route.

Excavating Near Assets:
For all work within 2.5 m of nominal location, the constructor is required to hand or vacuum excavate (pothole) and expose the Assett, hence proving its exact location before work can commence.

Cable protection cover strips shall not be disturbed. Excavation below these cover strips, or into the surrounding backfill material is not permitted.

Excavating Parallel to Assets:
If construction work is parallel to Energex cables, then hand or vacuum excavation (potholing) at least every 4m is required to establish the location of all cables, hence confirming nominal locations before work can commence. *Generally, there is no restriction to excavations parallel to Energex cables to a depth not exceeding that of the cable.* ***Note: Cable depths & alignment may change suddenly***.

Separation from Assets:
Any service(s) must be located at the minimum separation as per the tables below:

Table 1. Minimum Separation Requirements for Underground Services Running Parallel with Energex Assets

(Minimum Separation required in mm)							
Voltage Level	**Gas**	**Communication or TV**	**Water**		**Sanitary drainage**		**Storm Water**
			≤DN 200	**>DN200**	**≤DN 200**	**>DN 200**	
LV	250	100	500	*1000	500	1000	500
HV		300					
*Contact Energex/council to obtain specific separation distances							

Table 2. Minimum Separation Requirements for Underground Services Crossing Energex Assets

(Minimum Separation required in mm)					
Voltage Level	**Gas**	**Communication or TV**	**Water**	**Sanitary drainage**	**Storm Water**
LV & HV	100	100	300	300	100

Where the above table does not list a separation requirement for a particular underground service then 300mm shall be used.

Excavating Across Assets:
The standard clearance between services shall be maintained as set down in Table 2 above. If the width or depth of the excavation is such that the Asset will be exposed or unsupported, then Energex shall be contacted to determine whether the Assets should be taken out of service, or whether they need to be protected or supported. In no case shall an Asset cover be removed without approval. An Asset cover may only be removed under the supervision of an Energex authorised representative. Protective cover strips when removed must be replaced under Energex supervision. Under no circumstances shall they be omitted to allow separation between Energex Assets and other services.

Heavy Machinery Operation Over Assets:
Where heavy "Crawler" or "Vibration" type machinery is operated over the top of Assets, a minimum cover of 450 mm to the cable protective cover mains must be maintained using load bearing protection whilst the machinery is in operation. For sensitive cables (i.e. 33 and 110kV fluid and gas filled cables), there may be additional constraints placed on vibration and settlement by Energex.

Directional Boring Near Assets:
When boring parallel to Assets, it is essential that trial holes are carefully hand or vacuum excavated at regular intervals to prove the actual location of the Asset before using boring machinery. Where it is required to bore across the line of Assets, the actual location of the Asset shall first be proven by hand or vacuum excavation. A trench shall be excavated 1m from the side of the Asset where the auger will approach to ensure a minimum clearance of 500mm above and below all LV, 11kV, 33kV & 110/132kV Asset shall be maintained.

Explosives:
Explosives must not be used within 10 metres of Assets, unless an engineering report is provided indicating that no damage will be sustained. Clearances should be obtained from Energex's Planning Engineer for use of explosives in the vicinity of Energex cables.

Damage Reporting:
All damage to Assets must be reported no matter how insignificant the damage appears to be. Even very minor damage to Asset protective coverings can lead to eventual failure of Assets through corrosion of metal sheaths and moisture ingress.

If any Damaged Asset is found:
1. Call the ELECTRICITY EMERGENCIES number listed below
2. Treat Assets as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged Asset must cease and the area must be vacated until a clearance to continue work has been obtained from an Energex officer.

Solutions and Assistance:
If Asset location plans or visual location of Asset by hand or vacuum excavation reveals that the location of Energex Asset is situated wholly or partly where the developer or constructor plans to work, then Energex shall be contacted to assist with Your development of possible engineering solutions.

If Energex relocation or protection works are part of the agreed solution, then payment to Energex for the cost of this work shall be the responsibility of the, PCBU, principal developer or constructor. Energex will provide an estimated quotation for work on receipt of the PCBU's, developer's or constructor's order number before work proceeds.

It will be necessary for the developer or constructor to provide Energex with a written Safe Work Method Statement for all works in the vicinity of or involving Energex Assets. This Safe Work Method Statement should form part of the tendering documentation and work instruction. Refer Interactive Tool on Safe Work Australia site: Interactive SWMS guidance tool - Overview (safeworkaustralia.gov.au)

Vacuum Excavations (Hydro Vac)

When operating hydro vac equipment to excavate in vicinity of Assets fitted with:

- Nonconductive (neoprene rubber or equivalent) vacuum (suction) hose
- Oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 Pound force per Square Inch(PSI).

Maintain a minimum distance of 200mm between end of pressure wand and underground electrical Assets. DO NOT insert the pressure wand jet directly into subsoil.

Ensure pressure wand is not directly aimed at underground electrical Assets (cables/conduits).

Safety Notices (Underground Work)

It is recommended that You obtain a written Safety Advice from Energex when working close to Energex Assets. For Safety Advice please contact custserve@energex.com.au

Further information on Working Safely around Energex Assets: Working near powerlines | Energex

Thank You for Your interest in maintaining a safe and secure Electricity Distribution network. Energex welcomes Your feedback on this document via email to byda@energyq.com.au.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

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Part of Energy Queensland

Electricity Entity Requirements - Working Near Overhead and Underground Electric Lines

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1. PURPOSE AND SCOPE

The purpose of this document is to set out the Electricity Entity requirements for anyone who may be contemplating working or operating plant near any Ergon Energy or Energex's overhead or underground electric lines.

2. DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Term	Definition
Applicant	A person contacting or submitting an application to the Electricity Entity for Safety Advice.
Authorised Person	For work near an electrical line, means a person who has enough technical knowledge and experience to do work that involves being near to the electrical line; and has been approved by the person in control of the electrical line (Electricity Entity) to do work near to the electrical line.
Authorised Person (Electrical)	An Electrical Mechanic or Electrical Linesperson (holding current Queensland Licence) working on behalf of an electrical contractor, an Electrical Contractor, or a person who holds an electrical mechanic licence and is performing work for the person or a relative of the person at premises owned or occupied by the person or relative, and accredited with the Electricity Entity who is permitted to remove and replace LV service fuse(s) when isolation of customer LV service line is required to eliminate the exclusion zone around the LV service line, or to work on the customer's mains and / or switchboard.
Earthworks	Any digging, penetration or disturbance of ground including but not limited to post hole digging, excavating, trenching, directional boring, bore hole sinking, driving pickets/posts into ground, cut and fill, dam or levee bank construction, blasting.
Electricity Entity	Where Electricity Entity appears throughout this document, it relates to either Energex or Ergon Energy area of responsibility. Refer to respective contact details below. **Energex:** • General Enquiries - ph 13 12 53 • Loss of Supply - ph 13 62 62 • Emergencies - ph 13 19 62 **Ergon Energy:** • General Enquiries - ph 13 74 66 • Loss of Supply - ph 13 22 96 • Emergencies - ph 13 16 70
Exclusion Zone	A safety envelope around an electric line as specified by the Electrical Safety Regulation 2013.
RPA (Drone)	Australia's safety laws for remotely piloted aircraft (RPA) / drones are defined under the Civil Aviation Safety Authority. Under this definition the use of RPA's are not classified as Operating plant (section 5.2) as prescribed in this document.

Term	Definition
Instructed Person	For an electrical line, means a person who is acting under the supervision of an Authorised Person for the electrical line.
Safety Advice	A written notice identifying the known electrical hazards at a specific site and advising the control measures required to be implemented by Responsible Person (person responsible for worksite) to reduce the likelihood of harm to person, plant or vehicle at site.
Safety Observer	A safety observer or "spotter", for the operation of operating plant, means a person who: (a) observes the operating plant; and (b) advises the operator of the operating plant if it is likely that the operating plant will come within an exclusion zone for the operating plant for an overhead electric line. This is a person who has undergone specific training and is competent to perform the role in observing, warning and communicating effectively with the operator of the operating plant.
Untrained Person	For an electrical line, means a person who is not an Authorised Person or an Instructed Person for the electrical line.

3. REFERENCES

Electrical Safety Regulation 2013: Part 5 - Overhead and Underground Electric Lines

Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines

Work Health and Safety Act 2011

Work Health and Safety Regulation 2011

Energex: Safety Advice Request Form

Ergon Energy: Safety Advice Request Form

Copies of the relevant Acts, Regulation and Codes of Practice and any other relevant legislation can be found on the Queensland Government web site - https://www.worksafe.qld.gov.au/.

Disclaimer

This document refers to various standards, guidelines, calculations, legal requirements, technical details and other information and is not an exhaustive list of all safety matters that need to be considered.

Over time, changes in industry standards and legislative requirements, as well as technological advances and other factors relevant to the information contained in this document, may affect the accuracy of the information contained in this document. Whilst care is taken in the preparation of this material, Energex and Ergon Energy do not guarantee the accuracy and completeness of the information. Accordingly, caution should be exercised in relation to the use of the information in this document.

To the extent permitted by law, Energex and Ergon Energy will not be responsible for any loss, damage or costs incurred as a result of any errors, omissions or misrepresentations in relation to the material in this document or for any possible actions ensuing from information contained in the document.

4. ABOUT THIS GUIDE

This guide to working near the Electricity Entity network is designed to assist any person working, contemplating work or operating plant near any Electricity Entity overhead or underground electric lines to meet their duties under the Work Health and Safety Act 2011, Electrical Safety Act 2002, Electrical Safety Regulation 2013 and relevant Codes of Practice including Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines and help to identify the steps needed to ensure risks are minimised for all who work or are likely to be affected by the work in these situations.

“The Electrical Code of Practice 2020 Working Near Overhead and Under Ground Electric Lines” provides practical advice on ways to manage electrical risk when working near electric lines including the exclusion zones that apply. An electronic copy of this Code of Practice as well as, Electrical Safety Act and Regulation is available at the Queensland Government Electrical Safety Office web site at https://www.worksafe.qld.gov.au/electricalsafety. You should obtain a copy and read this material, to enable you to fully understand your obligations, and prospective means of complying with them.

4.1. Who does the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements apply to?

A person, worker or Person Conducting a Business or Undertaking (PCBU) at a workplace is required to comply with the Electricity Entity Requirements and the requirements of Electrical Safety Regulation 2013 Part 5 Overhead and Underground Electric Lines and Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines to ensure that no person, plant or thing comes within an unsafe distance (exclusion zone) of an overhead electric line. Compliance with these regulatory requirements is essential to reduce the risk of electric shock and contact with Electricity Entity electric lines and other assets which can have deadly consequences.

Examples of work activities where risk of person, plant or equipment coming near or into contact with overhead electric lines include but are not limited to:

- Pruning or felling trees or vegetation near overhead electric lines, including the service wire into a building.
- Carrying out building work, scaffolding or demolition adjacent to overhead electric lines.
- Painting fascia, replacing roofing, guttering or external cladding near service line point of entry to a building.
- Operating cranes, tip trucks, cane harvesters, elevated work platforms, fork lifts, grain augers, excavators, irrigators, etc near OH electric lines.
- Erecting or maintaining advertising signs or billboards near overhead electric lines.
- Dam or levee bank construction.

Examples of work activities that could involve risk of damage to underground cables or earthing systems include but are not limited to:

- Digging holes, excavating, sawing, trenching, under boring, sinking bore holes, earthworks or laying cables, pipes, etc or driving implements into the ground (e.g. star pickets, fence posts) near where underground cables or earthing systems may be located.

4.2. Are you working or planning to work near overhead or underground electric lines?

Electrical Safety Regulation Section 68 requires that before carrying out any work at a workplace where there is a risk of any person, plant or thing encroaching the exclusion zone of overhead electric lines, the person, worker or PCBU is required to ensure that the potential hazards are identified, a risk assessment conducted and the necessary control measures implemented to minimise electrical safety risks to ensure the safety of all workers and other persons at the workplace. The Electrical Safety Regulation 2013 and Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines detail the Exclusion Zones that must be maintained.

4.2.1 Work near overhead electric lines

Where a risk assessment has been conducted and control measures implemented in accordance with requirement of Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements (this document) and it has identified that exclusion zones from overhead electric lines cannot be maintained, the person, worker or PCBU is then required to contact Electricity Entity and request written Safety Advice (refer Section 4.3 below).

The person, worker or PCBU shall be required to maintain exclusion zones until such times as the Electricity Entity has provided written Safety Advice.

A person, worker or PCBU would not be required to contact the Electricity Entity and request a written Safety Advice where their risk assessment and implemented control measures ensure that exclusion zones from overhead electric lines will be maintained throughout performance of work to be undertaken at a particular site.

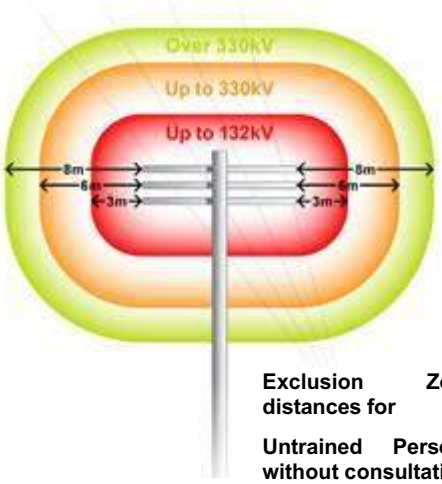
4.2.2 Exclusion Zones

An exclusion zone is a safety envelope around an overhead electric line. No part of a worker, operating plant or vehicle should enter an exclusion zone while the overhead electric line is energised (live).

Exclusion zones keep people, operating plant and vehicles a safe distance from energised overhead lines.

You must keep yourself and anything associated with the work activity out of the exclusion zone (e.g. a safe distance) unless it is not reasonably practicable to do so; and the person conducting a business or undertaking complies with the requirements of Section 68(2) of the Electrical Safety Regulation in relation to:

- conducting a risk assessment.
- implementing control measures
- adhering to any requirements of an Electricity Entity responsible for the line



Exclusion Zone - Untrained Person (distances in mm)

Nominal phase to phase voltage of electric line	Untrained Person		
	Person	Operating Plant	Operating Vehicles
Insulated LV: Consultation with and verified by the Entity	No exclusion zone prescribed	1000	300
LV with NO consultation with Electricity Entity	3000	3000	600
LV With consultation with Electricity Entity	1000		
>LV up to 33 kV with NO consultation with Electricity Entity	3000		900
LV up to 33 kV with consultation with Electricity Entity	2000		
>33 kV up to 132 kV	3000		2100
>132 kV up to 220 kV	4500	6000	2900
>220 kV up to 275 kV	5000		
>275 kV up to 330 kV	6000		3400

(information extracted from Electrical Safety Regulation 2013 Schedule 2)

Exclusion Zone - Instructed Person and Authorised Person (distances in mm)

Nominal phase to phase Voltage of electric line	Instructed Person (IP) & Authorised Person (AP)		
	AP and IP	Operating Plant with Safety Observer or another Safe System of work	Operating of Vehicles
Insulated LV: Consultation with and verified by the Entity	No exclusion zone prescribed	No exclusion zone prescribed	No exclusion zone prescribed
LV	No exclusion zone prescribed	1000	600
>LV up to 33 kV	700	1200	700
>33 kV up to 50 kV	750	1300	750
>50 kV up to 66 kV	1000	1400	1000
>66 kV up to 110 kV		1800	
>110 up to 132	1200		1200
>132 kV up to 220 kV	1800	2400	1800
>220 kV up to 275 kV	2300	3000	2300
>275kV up to 330kV	3000	3700	3000

(information extracted from Electrical Safety Regulation 2013 Schedule 2)

4.2.3 Work near underground electrical lines (underground electrical assets)

Before carrying out any earthworks at a location, the person, worker or PCBU is required to ensure that the potential hazards are identified, a risk assessment conducted, and the necessary control measures implemented to minimise the risk of damaging identified or unidentified underground electrical assets and to ensure the safety of all workers and other persons at the workplace. The Electrical Safety Regulation 2013 and Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements detail the requirement for work near underground electric lines.

4.3. Obtaining Safety Advice

To obtain written Safety Advice where identified as being required in Section 4.2.1 above, complete the Safety Advice Request Form which is accessible via the Electricity Entity website:

Energex: Safety Advice Request Form

Ergon Energy: Safety Advice Request Form

On receipt, the Electricity Entity will contact the Applicant to advise date and time to meet at site to provide written Safety Advice. It is advisable to bring to the meeting your copy of the Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines (and Before You Dig Australia Plan for location of underground assets where required), as reference to this will be necessary during the meeting. Control measures provided by the Electricity Entity may incur a fee.

Failure to adhere to the Electrical Safety Regulation Section 68 requirements and mandatory control measures as documented on written Safety Advice as issued will result in written non-compliance advice being sent to the Electrical Safety Office.

Where this work is required to occur on a regular basis at a workplace, the PCBU may consider arranging to have one or more employees trained and subsequently accredited with the Electricity Entity as Authorised Persons.

4.4. Authorised Person and how to become one?

Under the Electrical Safety Regulation 2013, the exclusion zones for working near or operating plant or vehicles near exposed, low voltage or high voltage electric lines vary depending on whether a person is classed as an “Untrained Person”, “Authorised Person” or “Instructed Person”. An Authorised Person is permitted to carry out work closer to the electric lines than an Untrained Person (refer Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines Appendix B Exclusion Zones for Overhead Electric Lines).

To become an Authorised Person, the employer / self-employed person must first satisfy the “person in control” of the electric line, in this case the Electricity Entity, that their Applicants possess the required competencies. They must then apply in writing to Electricity Entity for approval.

Removal or replacement of LV service fuse to permit work on consumers’ mains, installation switchboard, consumer’s terminals or eliminate an exclusion that would exist requires the Electrical Mechanic to hold a current Queensland Electrical Mechanic Licence and perform the work in accordance with their documented safe system of work.

An ’Authorised Person’ Electrical **must not**:

a. confirm the insulation properties of Ergon Energy Network or Energex electric lines;

b. work on or have direct contact with the works of an electricity entity (the works of Ergon Energy Network or Energex) including the entities’ electrical lines, electrical installations, electrical equipment or other entity infrastructure unless specifically approved;

c. replace a blown low voltage (**LV**) fuse after loss of supply to a customer’s connection;

d. reinstate an LV service fuse that has been removed by Ergon Energy Network or Energex;

e. alter, remove or relocate an Ergon Energy Network or Energex overhead LV service line or LV pillar connection;

f. perform LV isolation within locked Ergon Energy Network or Energex assets;

g. perform unauthorised work within locked Ergon Energy Network or Energex assets; or

h. climb Ergon Energy Network or Energex electricity poles or other infrastructure.

An Authorised Person’ Electrical **is approved** to undertake the following activities:

i. work on or near the point of attachment of Ergon Energy’s or Energex’s termination;

j. remove and replace LV service fuses when required to isolate a service line to eliminate the exclusion zone around the LV service line, or to work on the Customer’s consumer mains or switchboard;

k. isolate a Customer's LV service line at an underground pillar or service pole by removing a fuse wedge(s) from a service line, in accordance with electricity industry practices; or

l. Safety Observing under schedule 2 of the *Electrical Safety Regulation* 2013 (Qld) for the operation of operating plant, after receiving appropriate training to perform the role.

An 'Authorised Person' Non-Electrical **must not**:

a. confirm the insulation properties of Ergon Energy Network or Energex electric lines;

b. work on or have direct contact with the works of an electricity entity (the works of Ergon Energy Network or Energex) including the entities' electrical lines, electrical installations, electrical equipment or other entity infrastructure unless specifically approved; or

c. climb Ergon Energy Network or Energex electricity poles or other infrastructure.

An 'Authorised Person Non-Electrical' **is approved** to undertake the following activities:

d. Safety Observing under schedule 2 of the *Electrical Safety Regulation 2013 (Qld) for the operation of operating plant*, after receiving appropriate training to perform the role.

Websites

Energex: Authorised person | Energex

Ergon Energy: Authorised person | Ergon Energy

4.5. Contacting Electricity Entity for Safety Advice or Authorised Person Enquiries

By phone: Call Electricity Entity on General Enquiries phone number:

Energex:

- General Enquiries - ph 13 12 53

Ergon Energy:

- General Enquiries - ph 13 74 66

By email

Authorised Persons: AuthorisedPerson@energyq.com.au

Safety Advice: SafetyAdvice@energyq.com.au

Websites

Energex: Safety advice | Energex

Ergon Energy: Safety advice | Ergon Energy

5. OVERHEAD ELECTRIC LINES

The following table sets out preparatory work options that may be required to be performed by the Electricity Entity (or electrical contractor where identified as being permitted who is an Authorised Person - Electrical) to assist a person, worker or PCBU in minimising the electrical safety risks of, encroaching within the exclusion zone or, contact with electric lines.

Category of work		**Description**	**Costing arrangement**
Safety Advice	Base information	Provide Safety Advice (Can only be performed by the Entity)	**Nil cost to customer.**

Category of work		Description	Costing arrangement
LV Service isolation	1. Isolation carried out by customer's electrical contractor	Isolation of overhead or underground service by removal of the service fuse(s). (Preferred option to isolate supply and eliminate the exclusion zone).	No involvement by the Electricity Entity. May be a cost charged by the customer's electrical contractor.
	2. Isolation carried out by Electricity Entity	Customer requested isolation of overhead or underground service by removal of the service fuse(s) or Customer requested physical disconnection and reconnection of overhead or underground service.	**Cost to customer.**
Insulation integrity verification	3. Verification of insulation integrity to reduce exclusion zone to no exclusion zone prescribed e.g. no contact permitted	Verification of insulation integrity to classify as insulated service - Insulation integrity can only be verified at the time of inspection - visual inspection is required before confirmation in all cases. When service insulation integrity verified - no exclusion zone prescribed e.g. no contact permitted. (Can only be performed by the Entity)	**Cost to customer.**
Service replacement	4. Open wire service, service fuse(s) at house/building	Replacement of service with new XLPE service cable and service fuse(s) installed at origin (pole end) of service to allow isolation of service. Insulation integrity can be verified for new XLPE services at the time of installation - visual inspection is required before confirmation.	**Nil cost to customer** for service replacement. Customer responsible for necessary installation, Mains Connection Box and service support bracket upgrade and associated costs if required.

Category of work		Description	Costing arrangement
		Service installations where: a. the consumer's mains cannot be insulated and an exclusion zone must be maintained, and b. the service cannot be isolated at the service fuse. Service to be isolated by breaking the service cable connection to the LV mains at the pole. Service fuse(s) to be installed at origin (pole end) of service prior to reconnection.	**Nil cost to customer** for first disconnection and reconnection. **Cost to customer** for subsequent requests.
	5. All other service replacements	Customer requested replacement of existing service with new XLPE service cable to classify as insulated service, in lieu of isolation, to allow work close (no exclusion zone prescribed e.g. no contact permitted). Service fuse(s) to be installed at origin (pole end) of service.	**Cost to customer** for service replacement. Customer responsible for necessary installation, Mains Connection Box and service support bracket upgrade and associated costs if required.
Tiger Tails	Installation of Tiger Tails (for visual indication only - not for providing electrical insulation of LV mains)	Customer requested coverage of LV mains for visual indication only (not permitted on HV mains). The Entity may also fit tiger tails to LV service line for visual indication only.	**Cost to customer**.
Aerial Markers	Installation of aerial marker flags or rota markers (for visual indication only)	Customer requested temporary or permanent installation of appropriate aerial marker devices on LV or HV mains.	**Cost to customer**.
Switching	Customer requested switching	Customer requested switching to allow customer/contractor to work close (no exclusion zone prescribed e.g. no contact permitted).	**Cost to customer**.

5.1. Isolation of supply to customer installation to eliminate exclusion zone around LV service line

An Electrical Mechanic (holding current Queensland Licence) working on behalf of an electrical contractor and accredited with the Electricity Entity as an Authorised Person (Electrical) is permitted to remove and replace LV service fuse(s) when isolation of customer LV service line is required to eliminate the exclusion zone around the LV service line, or to work on the customer's mains and/or switchboard. Isolation of the customer's LV service line by an Authorised Person (Electrical) is only permitted at an underground service pillar or service pole by removing a fuse wedge(s) from a service line, in accordance with Electricity Industry practices e.g. from ground level using appropriate insulated tools, PPE and insulating mats. In those situations where the service fuse/circuit breaker is not located at supply end of the LV service, contact the Electricity Entity to arrange for Safety Advice where elimination of exclusion zone around LV service line is required.

Any controls used by the Authorised Person (Electrical) to identify and confirm isolation and ensure supply to the customer's installation is not inadvertently re-energised shall comply with Electrical Safety Regulation 2013 Section 14 and 15 requirements.

NOTE: **The Authorised Person (Electrical) will not be permitted to replace a blown LV service fuse(s) after loss of supply to a customer's installation or to alter the Electricity Entity overhead LV services. The low voltage pole top service fuse shall only be removed by use of an approved, in test, insulated telescopic pole device while standing at ground level and wearing class 00 insulating gloves. At no time is it permissible for an Authorised Person (Electrical) to climb or work aloft on the Electricity Entity's poles or assets unless approved by the Electricity Entity.**

5.2. Operating Plant

It can be extremely difficult for operating plant operators to see overhead lines and to judge distances from them. Contact with overhead lines can pose a risk of grounding live conductors and electrocution.

In many cases the likelihood of damage or injury can be reduced by setting up and operating the machinery well clear of overhead electric lines.

In situations where operating plant is operated by an Authorised Person or Instructed Person without a Safety Observer or another safe system, the exclusion zone requirements (refer Section 1) for an Untrained Person applies (refer Electrical Safety Regulation 2013 Schedule 2 or Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines).

For an Authorised or Instructed Person and their Operating Plant to approach overhead electric lines closer than the exclusion zone distances for an Untrained Person, a Safety Observer or another safe system shall be used. Refer to the Electrical Safety Regulation 2013 and the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines for exclusion zone distances for Authorised and Instructed Persons operating plant with a Safety Observer or another safe system.

Where a Safety Observer is used, the Safety Observer shall:

- Be trained to perform the role.
- Not be required to carry out any other duties at the time, and
- Not be required to observe more than one item of plant operating at a time, and
- Attend all times when the item of plant is operating.

Other control measures for operating plant may include, but are not restricted to:

- Constructing physical barriers or height warning indicators either side of the overhead electric line that are lower than the maximum travel height permissible without encroaching within the exclusion zone of the overhead electric line.
- Applying appropriate signage at least 8 to 10 m either side of overhead electric lines.
- Arrange for visual indicators such as Rota Markers, Tiger Tails or aerial markers to fitted to the overhead electric lines - only erected by the Electricity Entity (tiger tails are only permitted on LV mains).
- Ground barriers, where appropriate.
- Informing workers of required work practices.
- Ensuring operators are aware of the height and reach of their machinery in both stowed and working positions.
- Lowering all machinery to the transport position when relocating.
- Providing workers with maps or diagrams showing the location of underground and overhead electric lines, and
- Where possible, directing work away from overhead electric lines not towards them.

5.3. Scaffolding Requirements

The following information provided is for guidance only and shall be read in conjunction with the Electrical Safety Regulation 2013, Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and AS/NZS 4576:1995: Guidelines for Scaffolding.

Requirements shall be complied with where scaffolding is required to be erected within 4 m of nearby overhead electric lines:

- The scaffolding shall not be erected before contacting and obtaining Safety Advice from the Electricity Entity.
- Erection of scaffolding to comply with requirements of AS/NZS 4576:1995: Guidelines for Scaffolding.

The scaffolding can be either:

- nonconductive material scaffolding; or
- metallic scaffolding with solid nonconductive barriers (with no gaps, holes or cuts) securely fixed to the outside and/or top of the scaffolding to prevent encroachment within exclusion zones or contact with the energised mains.

Where scaffolding is erected within 3 m of nearby overhead electric lines:

- It shall be fitted with fully enclosed non-conductive solid barriers to prevent encroachment within exclusion zones or contact with the energised mains fully enclosed.
- The person required to erect and/or disassemble scaffolding as well as the required solid barrier affixed to the scaffolding should be an Authorised Person (approved in writing by the Electricity Entity - refer requirements of Section 1.4 of this Reference).
- A Safety Observer shall be used during performance of this work where there is a risk of encroachment within 3 m of nearby energised overhead electric lines for voltages up to 33 kV. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.

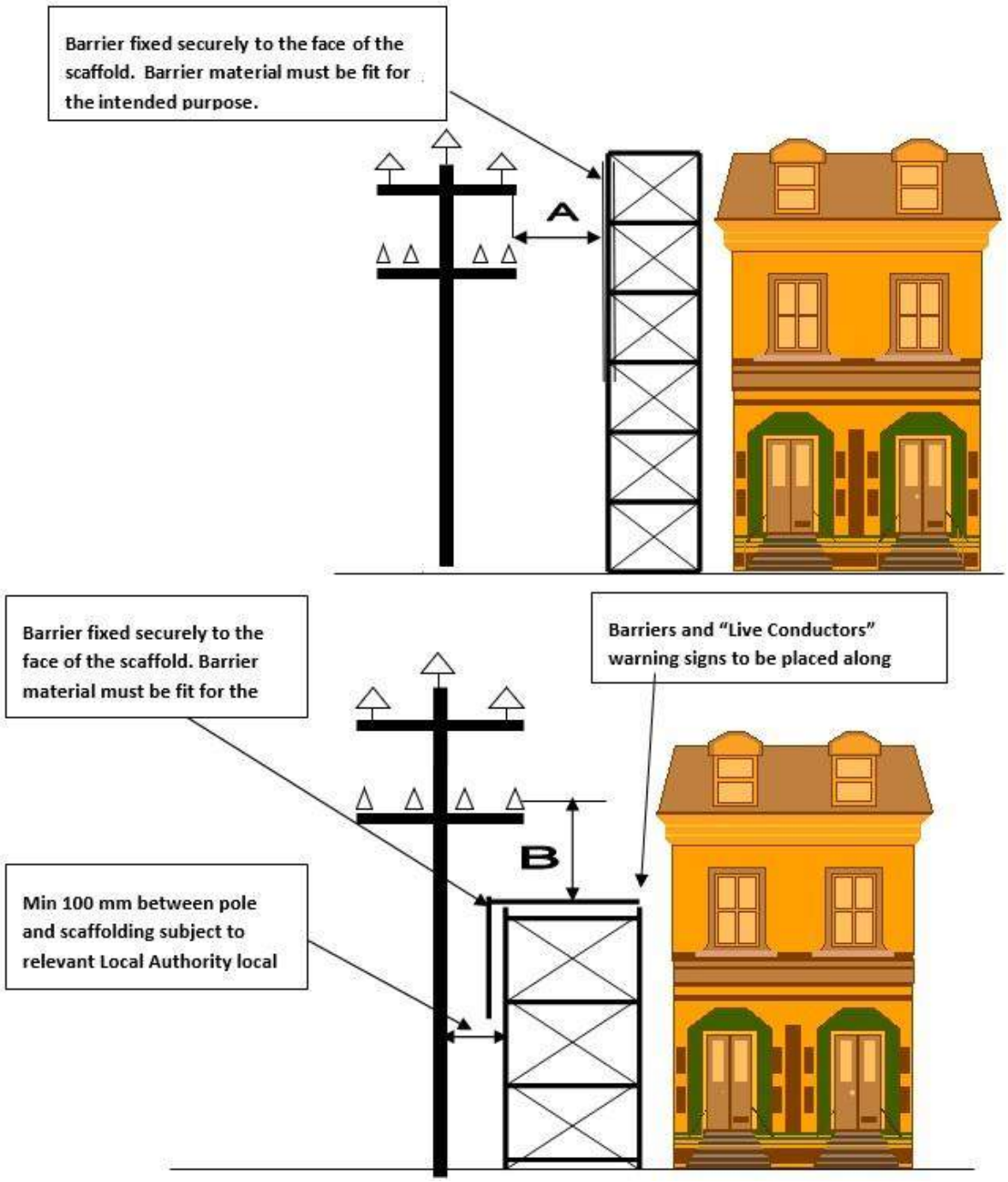
- Alternatively, consideration should be given to the de-energisation of the nearby electric lines where possible for the duration of this work. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.
- Comply with the horizontal and vertical statutory clearances from overhead electric lines as set out in Electrical Safety Regulation 2013 Schedule 4.
- Persons are not permitted to go outside of or climb on top of the solid barrier fixed on the outside and/or top of the scaffolding.

Where an insulated low voltage service line passes through the scaffolding, it should either be de-energised for duration of work or be fully enclosed by non-conductive material (e.g. form ply).

Minimum statutory clearances from nearby overhead electric lines for scaffolding erected with barriers affixed.

Voltage Level	**Horizontal Distance "A" (in metres)**	**Vertical Distance "B" (in metres)**
Low voltage conductors (uninsulated)	1.5m	2.7m
Low voltage conductors (insulated) - these distances can only be applied after the integrity of the insulation has been verified by the Electricity Entity	0.3m	0.6m
Above LV and up to 33 kV (uninsulated)	1.5m	3.0m
Above LV and up to 33 kV (insulated)	Contact Electricity Entity for consultation.	
Above 33 kV (uninsulated)	Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.	

NOTE: **Dimensions "A" and "B" is between the scaffolding and the closest conductor of the overhead electric line. Dimension B is also taken from the lowest part of the mid span sag adjacent to the scaffolding.**



5.4. High Load transport under Overhead Electric Lines

Any person or company transporting a High Load (load in excess of 4.6 m high) under overhead electric lines must comply with Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and is required to submit a Notification to Transport High Load form to the relevant Electricity Entity of the intended route and details of the high load involved. Before any person or company can transport a high load (load in excess of 4.6 m high), authorisation to travel must be received in writing from the Electricity Entity. Refer details below to contact the Electricity Entity for high load enquiries or to submit Notification to Transport High Load form:

Email: highloads@energyq.com.au

Phone: (07) 4932 7566 (7:30am to 3:00pm, Monday to Friday)

Energex: Vehicles with high loads | Energex

Ergon Energy: Vehicles with high loads | Ergon Energy

The Road Transport Operator has the overarching responsibility of transporting the load and is required to comply with the directions of the police, pilot, High Load Escort, and Energex / Ergon Energy Network.

When arranging the transporting of the high load, the Road Transport Operator shall determine the lowest practicable height that the load can be reduced to.

The Road Transport Operator is to have a Safe System of Work in place that supports the safe transportation of the High Load so as not to breach any exclusion zone to Entity powerlines or assets along the travel route.

5.5. Additional Details and Fact Sheets on Electricity Entity Requirements

Additional details and Fact Sheets on Electricity Entity requirements for working near overhead electric lines are located on the following internet sites

Energex: Working near powerlines | Energex

Ergon Energy: Working near powerlines | Ergon Energy

6. UNDERGROUND ELECTRICAL ASSETS

6.1. Responsibilities When Working in the Vicinity of Electricity Entity Underground Electrical Assets

Everyone has a legal “Duty of Care” that must be observed when working in the vicinity of underground electrical assets which includes underground cables, conduits and other associated underground equipment. When discharging this “Duty of Care” in relation to Electricity Entity underground electrical assets, the following points must be considered:

1. It is the responsibility of the architect, consulting Engineer, developer, and principal contractor in the project planning stages to design for minimal impact and protection of Electricity Entity underground electrical assets. The Electricity Entity will provide plans on request via BYDA showing the presence of the underground electrical assets to assist at this design stage.
2. It is the constructor’s responsibility to:
    a. Anticipate and request BYDA plans of Electricity Entity underground electrical assets for a particular location at a reasonable time before earthworks begins.
    b. Visually locate Electricity Entity underground electrical assets by use of an electronic cable locator followed by careful non-mechanical excavation (potholing using hydrovac or hand tools) when earthworks activities may damage or interfere with Electricity Entity plant.
    c. After completion of steps (a) and (b) above, if there is a risk of the Electricity Entity underground electrical assets being damaged or its structural integrity compromised by your planned earthworks activities, contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

    A constructor may include but not limited to designer, project manager, installer, contractor, civil contractor.
3. The alignments and boundaries contained within BYDA plans and maps will sometimes differ from present alignments and boundaries “on the ground”. Accordingly, in every case, the constructor should obtain confirmation of the actual position of Electricity Entity cables and pipelines under the roadways by non-mechanical excavation (potholing using hydrovac or

hand tools) when earthworks activities may damage or interfere with Electricity Entity underground electrical assets. In no case should the constructor rely on statements of third parties in relation to the position of Electricity Entity underground electrical assets.

6.2. Conditions of Supply of Information

- Plans and details of Electricity Entity underground electrical assets provided by BYDA are only current for 4 weeks from the date of dispatch and should not be referred to after this period, if you go past this time, please re-apply to BYDA as underground services may have been updated.

- The Electricity Entity agrees to provide plans if an Electricity Entity underground electrical assets location request is made to Before You Dig Australia (BYDA) , online at https://www.byda.com.au or the free iPhone Application, only on the basis that at least 2 business day notice is given and the BYDA applicant agrees to the terms of this agreement.

Note that the Electricity Entity only provides information on underground electrical assets it owns. Contact the owner of any privately owned underground electrical assets for details of their assets located at site.

- The Electricity Entity retains copyright of all plans and details provided in connection to your request.
- BYDA plans or other details are provided for the use of the BYDA applicant, its servants, or agents, for the sole purpose of the applicant's responsibilities in relation to the Electricity Entity underground electrical assets and shall not be used for any other purpose.
- BYDA plans are diagrams only and indicate the presence of Electricity Entity underground electrical assets in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty as such levels can change over time.
- On receipt of BYDA plans and before commencing excavation work or similar activities near Electricity Entity's underground electrical assets, carefully locate this plant first to avoid damage.
- The Electricity Entity, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and of details so supplied to the BYDA applicant, its servants or agents, and the BYDA applicant agrees to indemnify the Electricity Entity against any claim or demand for any such loss or damage to the BYDA applicant, its servants, or agents or to any third party.
- The constructor is responsible for all damages to the Electricity Entity underground electrical assets when work commences prior to obtaining BYDA plans, or at any time after that for failure to follow agreed instructions contained in this document or any other advice provided by the Electricity Entity.
- By undertaking any work, you acknowledge that the Electricity Entity reserves all rights to recover compensation for loss or damage to the Electricity Entity caused by interference or damage, including consequential loss and damage to its cable network, or other property.
- Be aware that some underground conduits may contain asbestos. Refer to "Code of Practice for the Management and Control of Asbestos in Workplace [NOHSC: 2018 (2005)]" for guidance.

6.3. When Working in the Vicinity of Electricity Entity Underground Electrical Assets, You Must Observe the Following Conditions

6.3.1 Records

The first step before any excavation commences is to obtain BYDA plans of Electricity Entity underground electrical assets in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by BYDA must be made available to all relevant work groups on site. Where underground electrical asset information is transferred to plans for the proposed work, care must be exercised that important detail is not lost in the process.

6.3.2 Location of underground electrical assets

Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to underground electrical assets. The exact location of underground electrical assets likely to be affected shall be confirmed by use of an electronic cable locator followed by careful non mechanical excavation to the level of concrete slabs or conduits. Non mechanical excavation (potholing using hydrovac or hand tools) must be used in advance of excavators. In any case, where doubt exists with respect to interpretation of cable records, contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

If during excavation, cables or conduits are damaged:

- call Electricity Entity (Emergencies phone number - refer page 3) to report damaged cables or conduits.
- treat cables as if alive, post a person to keep all others clear of the excavation until the Electricity Entity crew attend to make safe.

If **unknown** cables or conduits (e.g. not shown on issued BYDA plans) are located during excavation:

- call Electricity Entity (Emergencies phone number - refer page 3) to report.
- treat cables as if alive, post a person to keep all others clear of the excavation until the Electricity Entity crew attend to make safe.

If the constructor is unable to locate Electricity Entity underground electrical assets within 2.5 m of nominal plan locations, they should contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

6.3.3 Remote or On-Site Cable Location conducted by Electricity Entity

This service shall only be provided at Electricity Entity's discretion:

- The Electricity Entity may provide this site visit only when underground cables (33 kV or above) are present.
- Due to remote locations where external cable locator or hydro vac service providers are not readily available, Electricity Entity may attend site and assist with cable location (fees may apply for this service).
- The Electricity Entity may provide either remote over the phone or on-site cable location advice to assist in the location of Electricity Entity underground electrical assets, including how to visually locate and protect the plant when excavating.
- Where the Electricity Entity provides on-site cable location advice, any markings provided for the purpose of identifying cable location are for general guidance only, and the constructor

is still responsible for non-mechanical excavation (potholing using hydrovac or hand tools) to visually locate Electricity Entity underground electrical assets.

- If the constructor is unable to locate Electricity Entity underground electrical assets within 2.5 m of nominal plan locations, they should contact Electricity Entity (General Enquiries phone number - refer page 3) to request further advice.

6.3.4 Electrical Cables

Electricity Entity cables may have warning covers e.g.:

- Clay paving bricks or tiles marked “Electricity” or similar (also unmarked)
- Concrete or PVC cover slabs
- PVC, asbestos or fibro conduit, fibre reinforced concrete, iron or steel pipe
- Concrete encased PVC or steel pipe
- Thin plastic marker tape
- Large pipes housing multiple ducts
- Multiple duct systems, including earthenware or concrete

NOTE: **Some cables are known to be buried without covers.**

6.3.5 Separation from Electricity Entity underground electrical assets

If location plans or visual location of Electricity Entity underground electrical assets by non-mechanical excavation (potholing using hydrovac or hand tools) reveals that the location of Electricity Entity underground electrical assets is situated where the developer or constructor plans to work, then contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

The developer or constructor shall ensure that minimum separation distance from Electricity underground electrical assets (refer Minimum Separation Requirements tables below) is complied with when installing, altering or repairing other underground services located in the vicinity.

If the Electricity Entity relocation or protection works are part of the agreed solution, then payment to the Electricity Entity for the cost of this work shall be the responsibility of the principal developer or constructor. The Electricity Entity will provide an estimate for work on receipt of the developer’s or constructor’s order number before work proceeds.

It will be necessary for the developer or constructor to provide the Electricity Entity with a written Work Method Statement for all works in the vicinity of, or involving Electricity Entity underground electrical assets. This Work Method Statement should form part of the tendering documentation and work instruction. All Work Method Statements shall be submitted to the Electricity Entity prior to the commencement of site earthworks.

Minimum Separation Requirements

Underground Services Running Parallel with Electricity Entity Electrical Assets (Minimum Separation required in mm)							
Voltage Level	Gas	Communication or TV	Water		Sanitary drainage		Storm Water
			≤DN 200	>DN200	≤DN 200	>DN 200	
LV	300 (Ergon) 250 (Energex)	100	500	*1000	500	1000	500
HV		300					
*Contact your local utility/council to obtain specific separation distances							

Underground Services Crossing Electricity Entity Electrical Assets (Minimum Separation required in mm)					
Voltage Level	Gas	Communication or TV	Water	Sanitary drainage	Storm Water
LV	100	100	300	300	100
HV					

Notes:

- These clearances are each Electricity Entity's minimum requirements, additional separation may be required by the Service Owner. The greater of the separation requirements shall apply.
- Where the above tables do not list a separation requirement for a particular underground service type, the following minimum separation from electricity entity electrical assets shall apply:
- LV = 100 mm
- HV = 300 mm
- Compliance with these minimum separation requirements does not guarantee that issues such as Earth Potential Rise (EPR) and Low Frequency Induction (LFI) are managed, where these issues need to be managed, advice will need to be sought from an RPEQ Engineer
- All separation distances are measured from the exterior surface of the conduit / cable not centrelines or inner wall surfaces.

6.4. Additional Details and Fact Sheets on Electricity Entity Requirements

Additional details and Fact Sheets on Electricity Entity requirements for working near underground electrical assets are located on the following internet sites.

Energex: Working near powerlines | Energex

Ergon Energy: Working near powerlines | Ergon Energy

7. EXCAVATION

7.1. Excavating near Poles and Stay Wires

The following requirements are to be compiled with to minimise the risk of compromising the structural integrity of the Electricity Entity poles and stay foundations when excavation or trenching work is performed nearby that could result in the failure of one or more poles and grounding of supported electric lines.

- Excavation and trenching work undertaken by a person, worker or PCBU in the vicinity of poles and stay foundations shall:
- only be commenced after requirements of Section 3 have been complied with for any underground electrical assets located within the work site.
- upon completion of excavation and site earthworks do not restrict the Electricity Entity vehicle access to pole site for purpose of carrying out maintenance activities.
- comply with exclusion zones as detailed in the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines.
- not be attempted**:**
    - within 5 m (horizontal distance) of **pole stays** where the excavation depth is greater than 250 mm before contacting the Electricity Entity to determine requirements.
    - within 5 m (horizontal distance) of Electricity Entity poles with earth leads or cables running down into the ground before contacting the Electricity Entity to determine requirements.
    - within “Do Not Disturb” zone of pole prior to a certified engineering assessment having been completed by a Registered Professional Engineer Queensland, and then reviewed and approved by the Electricity Entity before proceeding with work. Approval by the Electricity Entity shall not relieve the PCBU of its duties to perform the work in a safe and proper manner and in accordance with all applicable legislation.
    - if the soil is exceedingly wet (saturated) or there is more than minimal wind loading unless additional pole support is provided in accordance with certified engineering assessment and approved by Electricity Entity.
    - when a severe weather event is occurring or expected (e.g. severe weather warning has been issued by Bureau of Meteorology).
- be backfilled as soon as possible (within same day where pole is required to be supported) soil mechanically compacted in layers of 150 mm and all rock and vegetable material excluded from the backfill.
- be backfilled and pole stabilised before removal of additional support required by a certified engineering assessment are permitted to be removed.

The PCBU shall be responsible for arrangement and costs of required certified engineering assessments, approvals by other regulatory bodies (eg councils, Main Roads, pipeline owners, telecommunication owners) and placement and removal of associated pole supporting equipment.

Electricity Entity poles must not be fitted with non-approved pole holding devices.

Only approved mechanical holding devices (e.g. Proline, Borer Lifter, etc) used in accordance with a certified engineering assessment are permitted and shall be:

- only attached and removed by the Electricity Entity or persons approved by the Electricity Entity.

- used to restrain both the pole head and foot to maintain pole stability during nearby excavation work.
- set up and positioned to maximise support effectiveness and minimise impact on traffic, pedestrian, excavation and machinery at site; and maintain exclusion zone from overhead lines. If insufficient clearance exists to maintain exclusion zones to pole supporting equipment, arrangements may be required for de-energising the electric line.

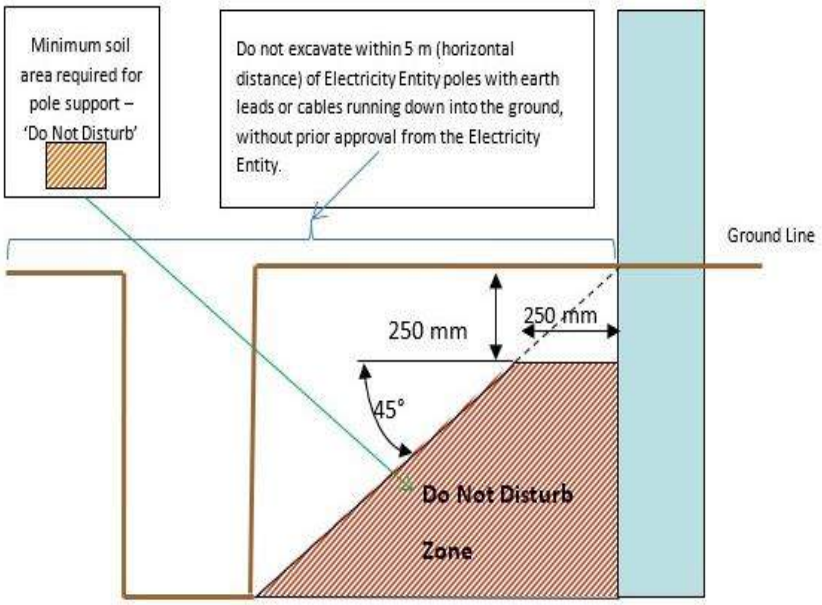


Figure 1 - Do Not Disturb Zone requirements when excavating near poles

Maximum Trench Depth	Minimum Distance from pole without pole support
Not more than 0.25 m (250 mm)	Can trench or hand dig (where cables and leads exist) right up to pole
1.0 m	1.0 m
1.5 m	1.5 m
2.0 m	2.0 m
2.5 m	2.5 m
3.0 m	3.0 m

7.1.1 Certified Engineering Assessment

Where required to be provided by the PCBU, a Certified Engineering Assessment shall:

- Ensure the stability of the Electricity Entity poles and foundations is maintained during and as a result of excavation work completed within the 'Do Not Disturb' zone.
- Include detailed design drawing of pole support method.
- Be completed and certified by a Registered Professional Engineer Queensland.
- Consider and address the following key points as a minimum:
    - Pole loading (vertical and lateral) including line deviation angles, direction of lean (towards or away from resultant loading)

- Direction of pole lean.
- Pole inspection (conducted to meet the Electricity Entity's requirements at customer cost)
- Pole foundation depth
- Proximity of excavation in relation to pole
- Soil condition
- Proposed shoring methods as well as installation and removal process
- Duration and staging of work
- Requirement to independently support pole during work
- Proximity of existing adjacent underground services and excavations
- Proposed backfilling and reinstatement method
- Monitoring and engineering/ geotechnical supervision during excavation work progress
- Other equipment attached to pole (e.g. underground cables, transformer, ACR, ABS.) must be taken into consideration and in some circumstances will prevent the pole being supported.

7.2. Excavating Near Underground Electrical Assets

For all work within 2.5 m of nominal location, the constructor is required to use non-mechanical excavation (potholing using hydrovac or hand tools) and expose the underground electrical assets, hence proving its exact location before earthworks can commence.

7.2.1 Excavating Parallel to Underground Electrical Assets

If excavation work is parallel to the Electricity Entity underground electrical cables, then non mechanical excavation (potholing using hydrovac or hand tools) at least every 4 m is required to establish the location of all cables, hence confirming nominal locations before work can commence. If an excavation exceeds the depth of the cables and it is likely that that the covers or bedding material around the cables/pipes will move causing Electricity Entity cables or conduits to be unsupported, contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

NOTE: Be aware that cable depths and directions may change suddenly along the route.

7.2.2 Excavating Across Underground Electrical Assets

Refer Minimum Separation Requirements table in Section 6.3.5 of this document for distances that shall be maintained to prevent inadvertent contact with or damage to underground electrical assets. If the width or depth of excavation is such that the Electricity Entity cables will be unsupported, contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice. In no case shall a cable cover be removed without approval. A cable cover may only be replaced under the supervision of an Electricity Entity officer. Protective cover strips when removed must be replaced under Electricity Entity supervision. Under no circumstances shall protective cover strips be omitted to achieve the minimum separation distance required between Electricity Entity cables and other underground services.

7.2.3 Heavy Machinery Operation Over Underground Electrical Assets

Where heavy "crawler" or "vibration" type machinery is operated over the top of cables, a minimum cover of 450 mm to the cable protective cover must be maintained. Alternatively, subject to a Certified Engineering Assessment, use load bearing protection whilst the machinery is in operation.

7.2.4 Directional Boring Near Underground Electrical Assets

When boring parallel to cables, it is essential that trial holes are carefully dug using non mechanical excavation (pot holing using hydrovac or hand tools) at regular intervals to prove the actual location of the conduits/cables before using boring machinery. Where it is required to bore across the line of cables/conduits, the actual location of the cables/conduits shall be proven by non-mechanical excavation (pot holing using hydrovac or hand tools). A trench shall be excavated 1 m from the side of the cables where the auger will approach to ensure a minimum clearance of 500 mm from cables/conduits can be maintained.

7.2.5 Hydro Vac Operation

When operating hydro vac equipment to excavate in vicinity of underground electrical assets (cables/conduits):

- Fitted with:
  - nonconductive (neoprene rubber or equivalent) vacuum (suction) hose.
  - oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 psi.
- Maintain a minimum distance of 200 mm between end of pressure wand and underground electrical assets. DO NOT insert the pressure wand jet directly into subsoil.
- Ensure pressure wand is not directly aimed at underground electrical assets (cables / conduits).

7.3. Blasting

Explosives must not be used within 5 m of cables/conduits, unless an engineering report is provided indicating that no damage will be sustained. Clearances shall be obtained from the Electricity Entity for use of explosives in the vicinity of cables/conduits. Contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

The Electricity Entity will accept the level of 25 mm / sec as a peak component particle velocity upper limit as defined in AS 2187.2 Appendix J for blasting operations in the vicinity of these power lines.

Electric line insulators and conductors are particularly susceptible to damage from fly rock and adequate control measure including the use of blast mats shall be used to manage this. Contact Electricity Entity for consultation and application.

8. REPORTING DAMAGE CAUSED TO OVERHEAD OR UNDERGROUND ELECTRIC LINES

Any damage caused to the Electricity Entity overhead electric lines, poles, stays, underground cables, conduits and pipes must be reported no matter how insignificant the damage appears to be. Even very minor damage to cable protective coverings can lead to eventual failure of cables through corrosion of metal sheaths and moisture ingress.

All work in the vicinity of damaged overhead or underground electric lines shall cease and the area be made safe and vacated until clearance to continue earthworks has been obtained from the Electricity Entity. Call Electricity Entity (Emergencies phone number - refer page 3).

9. INFRASTRUCTURE NEAR ELECTRIC LINES

9.1. Easements and Wayleaves

This information, whilst not a legal document, has been developed to assist the community in answering some commonly asked questions about our easements and wayleaves, and briefly outlines what you can do where land is affected by an easement or where consent to installing electrical infrastructure has been given.

9.1.1 What is an Electricity Easement?

An electricity easement is the authority held by the Electricity Entity to use your land near overhead and underground electric lines and substations (electrical assets). Electricity Entity holds this authority for your own safety and to allow employees access to electrical assets at all times. Whilst it will depend on the terms of the particular grant of easement, electrical easements generally give the Electricity Entity the right to access, maintain, repair, rebuild and to restrict development within a defined area.

The easement, which is registered on the property's title, contains a plan showing the dimensions of the easement and its location on the property together with the rights and restrictions over the easement area. The Department of Natural Resources and Mines https://www.resources.qld.gov.au/ or your solicitor will be able to provide this information. Easements may also exist for telephone lines, water and sewage mains and natural gas supply lines.

9.1.2 Why are easements necessary?

Easements are also created to allow the Electricity Entity clear, 24 hour access to the electric lines. It is important to keep the easement clear at all times so regular maintenance, line upgrades, damage or technical faults can be attended to immediately to provide a safe and reliable supply of electricity. Interference with Electricity Entity's rights and electrical equipment may compromise safety of the public and the occupiers of the property. Therefore, it is essential that Electricity Entity's rights are understood and observed.

9.1.3 How do I know if there are easements on my property?

Contact your solicitor or The Department of Natural Resources and Mines to obtain a Title Search that shows all registered easements on the property.

9.1.4 Who owns the land the easement is on?

The ownership of that land encumbered with the easement remains with the property owner.

9.1.5 How does an easement affect what I can do with my property?

An easement controls what you can build, what size trees you can plant and what outdoor activities you can carry out in the easement area.

An easement affects the use of the property by limiting the development that can be undertaken within the easement area. The exact rights granted to an Electricity Entity under an electricity easement will depend on the wording used in the grant of easement. Property owners and occupiers should also be aware that an Electricity Entity has the right of access to land to undertake certain works (including reading meters and disconnecting supply). These rights of access are granted by Queensland legislation not the easement and so may not be registered on the property's title and therefore may not be revealed in a Title Search.

9.1.6 Who is responsible for maintenance of easement area?

You must provide a continuous, unobstructed area along the full length of the easement to allow an Electricity Entity access to electric lines, transformers, underground cables and other equipment at all times. A width of 4.5 m is typically required for the safe passage of vehicles and heavy plant.

You must NOT place obstructions in the easement within 5 m of any electric lines, transformer, power pole, equipment or supporting wire.

Maintenance of the easement area is generally the responsibility of the property owner and/or occupier, however, complying with regulatory and safety requirements associated with Electricity Entity's electrical assets within the easement area is the responsibility of the Electricity Entity.

9.1.7 What type of maintenance work does Electricity Entity undertake on easements?

To enable Electricity Entity to construct, maintain, repair and rebuild electric lines on some properties, access roads and tracks are required on or adjacent to the easement area. As required, Electricity Entity is able to construct access tracks, retain the right of use of these tracks and maintain them to a suitable level to permit access for its vehicles. Where gates are installed within the easement area, an Electricity Entity lock may be required to enable continual access along the easement corridor.

In addition, periodic vegetation management works are also undertaken by Electricity Entity to ensure that a specified minimum clearance between vegetation and the electric lines is maintained.

Where possible, property owners will be contacted prior to easement maintenance and vegetation works commencing.

9.1.8 Where consent (Wayleave) to installing Electricity Entity infrastructure has been given

Much of Electricity Entity's above ground electricity network is constructed without easements. Instead, the consent of the owner of the affected land is obtained and the electrical infrastructure is installed. Historically this consent has been in the form of a document known as a Wayleave.

This consent (or Wayleave) is a document evidencing the agreement from a particular owner, but it is not registered on the title of the land like an easement.

Once consent is obtained from an owner, Queensland legislation (the Electricity Act 1994) says that the consent of all future owners to the electrical infrastructure is not required.

Queensland legislation grants Electricity Entity rights to access, maintain, repair and replace electrical assets installed with consent.

9.2. Contact Electricity Entity when planning construction work near electric lines

When planning and before commencement (regardless of whether or not local council approval is required), it is essential to confirm that the proposed construction work (e.g. building, structure, sign, crane, scaffold) does not breach the minimum statutory clearance distances that must be maintained from nearby Electricity Entity overhead or underground electric lines. Refer Electrical Safety Regulation 2013, Schedule 4 and 5 for information on statutory clearance distances that must be complied with.

It is extremely dangerous and potentially life threatening to allow anything to come in close proximity to the conductors of an electric line.

We advise not to build **under** or **near** powerlines or add to a structure under or near powerlines. This can cause exclusion zones to be encroached, which may endanger others now and in the future. Please note obligations under section 30 of the Electrical Safety Act 2002 and sections 68 of the Electrical Safety Regulation 2013.

There is an obligation to notify the Electricity Entity, before any work starts, where work is likely to involve a building or other structure coming within clearance requirements for an overhead or underground electric line.

Where it is necessary for an Electricity Entity to relocate electric lines due to statutory clearance breach caused by work performed nearby, the Electricity Entity may be entitled to recover costs from the PCBU, property owner or occupier who caused the breach. Refer Electrical Safety Regulation 2013, Section 209 Building or adding to structure near electric lines.

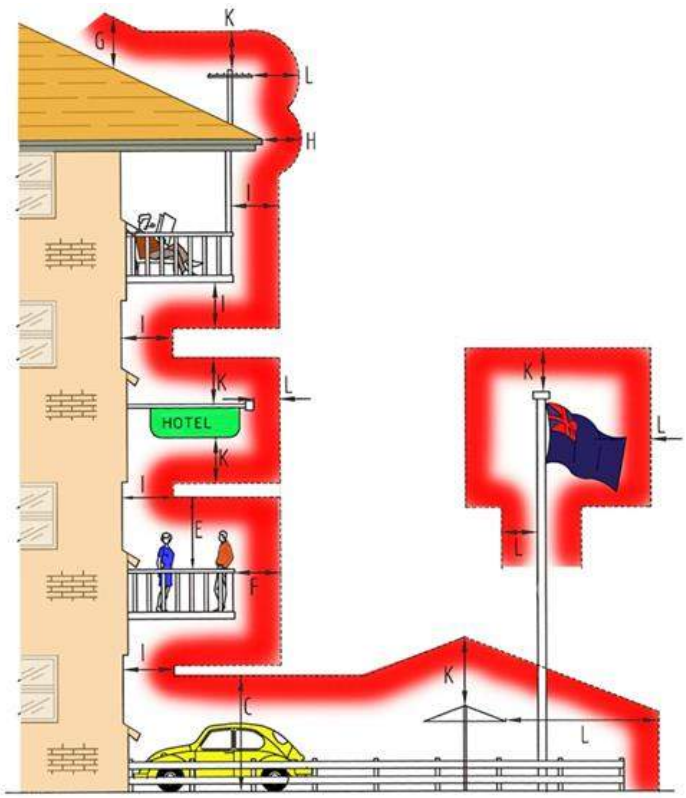
Although it is preferred that the area around Electricity Entity electrical assets (including within an Easement area) is free of development, the following examples provide property owners and occupiers with an indication of what type of development is acceptable and what is not.

NOTE: **Do not assume that your local council approval is sufficient approval for you to proceed with your work. The local council may not check whether or not your proposed construction work will comply with the Electricity Entity's statutory clearance requirements.**

9.3. What clearances must be maintained once construction work is completed?

Electrical Safety Regulation 2013, Schedule 4 - Clearance of overhead electric lines and Schedule 5 - Clearance of low voltage overhead service lines detail the statutory clearances that must be maintained from overhead electric lines for completed buildings and structures. These statutory clearances will need to be taken into consideration during the planning phase of determining the location for a building or structure. The table below sets out the minimum statutory clearances required for voltage levels up to 33 kV. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.

Where the Electricity Entity has identified a breach of statutory clearance resulting from erection of a building or structure, the statutory breach will be reportable to the Electrical Safety Office as a Dangerous Electrical Event and any costs incurred in subsequent remedial work to achieve required statutory clearances may be recovered from the person or company who caused the breach of statutory clearance.



CODE	LOCATION	DIRECTION	INSULATED CABLE (ABC) (Note 1)	BARE	MORE THAN 1000 VOLTS BUT NOT MORE THAN 33kV
MINIMUM CLEARANCE FROM ROADS, GROUND, OR BOUNDARIES					
A	Crossing the carriageway, roadway	VERTICALLY	5.5m	5.5m	6.7m
A1	Designated "Over Dimension Routes"	VERTICALLY	7.0m	7.0m	7.5m
B	At other positions, footpath	VERTICALLY	5.5m	5.5m	5.5m
C	Other than roads but trafficable	VERTICALLY	5.5m	5.5m	5.5m
C1	Areas totally inaccessible to traffic or mobile machinery	VERTICALLY	4.5m	4.5m	4.5m
D	Cuttings, embankments, easement boundaries	HORIZONTALLY	1.5m	1.5m	2.1m
X	Real Property Boundaries	HORIZONTALLY	0.0m	0.0m	0.0m
MINIMUM CLEARANCE FROM STRUCTURES AND BUILDINGS					
E F	Unroofed terraces, balconies, sun-decks, paved areas, etc, subject to pedestrian traffic only. A hand rail or wall surrounding such an area and on which a person may stand. (Note)	VERTICALLY AND HORIZONTALLY (Note)	2.7m 1.2m	3.7m 1.5m	4.6m 2.1m
G H	Roofs or similar structures not used for traffic or resort but on which a person may stand. A parapet surrounding such a roof and on which a person may stand. (Note)	VERTICALLY AND HORIZONTALLY (Note)	2.7m 0.9m	3.7m 1.5m	3.7m 2.1m
I	Covered places of traffic or resort such as windows which are capable of being opened, roofed open verandahs and covered balconies.	IN ANY DIRECTION	1.2m	1.5m	2.1m
J	Blank walls, windows which cannot be opened. (Note)	HORIZONTALLY	0.6m	1.5m	1.5m
K L	Other structures not normally accessible to persons. (Note)	VERTICALLY HORIZONTALLY (Note)	0.6m 0.3m	2.7m 1.5m	3.0m 1.5m

NOTE:
The vertical clearance and the horizontal clearance specified shall be maintained.

Electricity Entity Requirements - Working Near Overhead and Underground Electric Lines

The following list of examples is not exhaustive, and it may be necessary to contact the Electricity Entity if doubt exists as to what is permitted around electricity assets.

What is PERMITTED around Electricity Entity overhead or underground electric lines	***What is NOT PERMITTED around Electricity Entity overhead or underground electric lines***
✓ Erection of fences to a maximum height of 2.4 m is generally acceptable, provided they do not affect access to, and work on, the poles, electric lines and/or cables. Trees, shrubs and plants should be located clear of vehicle access. **Note:** Maximum Growth Height of 3 m. ✓ Clothes hoists and barbecues should be located clear of the vehicle access way. **Note:** Maximum Height 2.5 m. ✓ Installation of underground utility services, such as low voltage electricity, gas, telephone and water, is generally acceptable, subject to clearances from Electricity Entity poles and supporting structures, and underground electric mains. ✓ Excavating, filling and altering of nearby land may be acceptable but full details need to be provided to the Electricity Entity for assessment. ✓ Vehicles, mobile plant and equipment within the easement area need to maintain the minimum statutory clearances distances from overhead electric lines. Normal farming, grazing and other agricultural activities can be carried out. Take care when ploughing or operating mobile machinery or irrigation equipment near Electricity Entity's equipment. ✓ Parking of vehicles, trucks, trailers, etc. is normally allowed. **Note:** Maximum Load and Aerial Height of 4 m. Barriers of an approved design (e.g. bollards) may be required to protect poles from vehicle contact damage. Heavy vehicle or operating plant crossings may need a protective concrete cover to ensure underground cables are not damaged.	✗ Build houses, sheds, garages or other large structures. Building of roofed/ unroofed verandas, swimming pools and pergolas are generally not acceptable. ✗ Flying kites or model aircraft within the easement. ✗ Driving fence posts or stakes into ground within easements where there is underground cabling. ✗ Storing liquids such as petrol, diesel fuel, or any flammable or combustible material that will burn. ✗ Installing lighting poles. ✗ Stockpiling soil or garbage within the easement. ✗ Planting trees in large quantities that could create a fire hazard or that grow in excess of the approved maximum height of 3 m. ✗ Storing or using explosives. ✗ Residing in or occupying any caravan or mobile home within an easement. ✗ Placing obstructions within the vicinity of any Electricity Entity assets (e.g. power pole, overhead electric line, equipment or pole stay) that impede access to or work on these assets.

9.4. What about Electric and Magnetic Fields?

The Electricity Entity operates its electric lines within the current guidelines set by the National Health and Medical Research Council for exposure to 50/60 hertz electric and magnetic fields (EMF) and is mindful of some community concern about such fields and health. Contact the Electricity Entity (General Enquiries phone number - refer page 3). Alternatively, further information can be sourced from:

Energy Networks Association (ENA) brochure - "Electric and Magnetic Fields - What We Know", January 2014

http://www.ena.asn.au/sites/default/files/emf-what-we-know-jan-2014-final_1_1.pdf

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) brochure - "Electricity and Health", May 2011

http://www.arpansa.gov.au/RadiationProtection/Factsheets/is_electricity.cfm

Queensland Urban Utilities

Referral
270794703

Member Phone
13 26 57

Responses from this member

Response received Sat 4 Apr 2026 11.24am

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Urban Utilities Important Information.pdf	67

GPO Box 2765
Brisbane QLD 4001

Date: 04 Apr 2026

Before You Dig Australia Response

Please DO NOT SEND A REPLY to this email as it has been automatically generated and replies are not monitored.

Dear Brian Aghazadeh

We appreciate your diligence in contacting the Before You Dig Australia service (**BYDA**) prior to engaging in work or activities which may affect the water and sewerage infrastructure of Urban Utilities.

Job Number:	52801686
Sequence Number:	270794703
Enquiry Date:	4/4/2026 12:24:00 pm
Enquiry Location:	19 Buscall Court Sinnamon Park QLD 4073

WARNING: When working in the vicinity of Urban Utilities' assets you have a legal *Duty of Care* that must be observed.

Our records indicate the presence of infrastructure owned by Urban Utilities within your nominated search area, as shown on the attached plan.

Please note that you may be liable for any loss or damage to our infrastructure which is caused by any works or activities which you undertake over or near such infrastructure. Additionally, your works or activities may conflict with other works scheduled in your nominated search area. To avoid any unnecessary impacts, before any undertaking you must obtain the following approvals:

- And/or a Urban Utilities Network Access Permit for self assessable works or activities that are within two metres of our infrastructure (refer to Urban Utilities Network Access Permit Webpage)
- Either a Build Over Asset (BOA) Approval for assessable building works undertaken within specified distances of our infrastructure (refer to DHPW BOA Factsheet)

We have provided additional information about your responsibilities in relation to our infrastructure in the Important Information sheet attached to this letter. By accessing BYDA to obtain our records about our infrastructure, you warrant that you have read the sheet and agree to the terms and conditions set out therein.

For further enquiries or assistance with interpretation of plans and search content please contact our BYDA Support Team by email networkaccess@urbanutilties.com.au. Alternatively, you can write to us at Urban Utilities, PO Box 2765, Brisbane QLD 4001.

Thank you for taking the time to consult the BYDA service.

Yours sincerely

Before You Dig Australia Support Team
Urban Utilities
networkaccess@urbanutilties.com.au

To best manage the risk of damage and liabilitiy, we recommend that you engage the services of a BYDA Certified Locator

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Important Notice

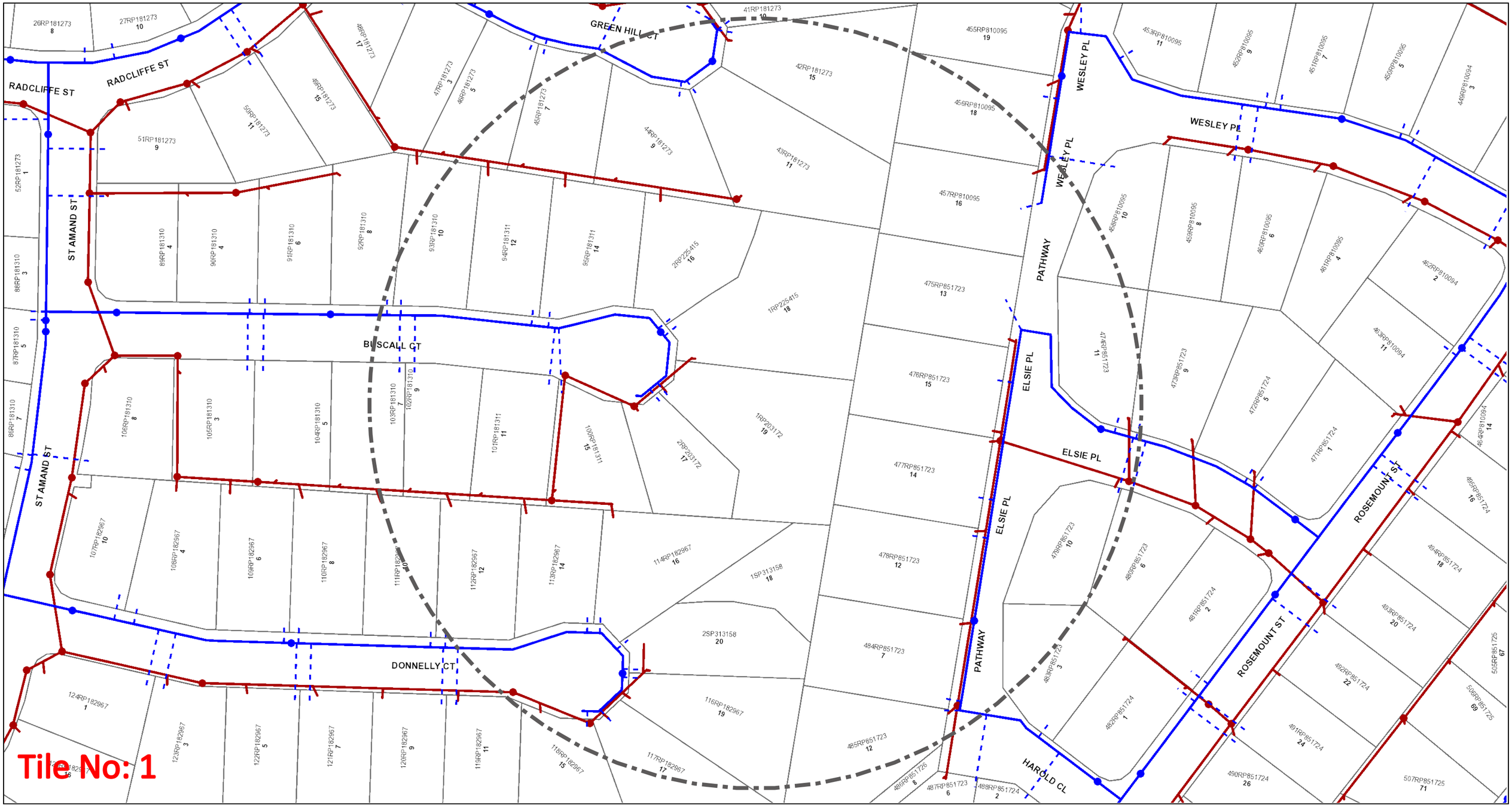
This enquiry response, including any associated documentation, has been assessed and compiled from the information detailed within the BYDA enquiry outlined above. **Please ensure that the BYDA enquiry details and this response accurately reflect your proposed works.**

This response is intended for use only by the addressee. If you have received the enquiry response in error, please let us know by telephone and delete all copies; you are advised that copying, distributing, disclosing or otherwise acting in reliance on the response is expressly prohibited.

Disclaimer: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Urban Utilities nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

If you are unable to launch any of the files for viewing and printing, you may need to download and install free viewing and printing software such as Adobe Acrobat Reader (for PDF files)

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



UrbanUtilities

N

Map Scale
1:1000

Before You Dig Australia- Urban Utilities Water, Recycled Water and Sewer Infrastructure

BYDA Reference No: 270794703

Date BYDA Ref Received: 04/04/2026

Date BYDA Job to Commence: 24/04/2026

Date BYDA Map Produced: 04/04/2026

This Map is valid for 30 days

Produced By: Urban Utilities

Sewer
- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures

Water
- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures
- Water Service (Indicative only)

Recycled Water
- Infrastructure
- Major Infrastructure
- Network Pipelines
- Network Structures

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Urban Utilities nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

The plans are indicative and approximate only and provided without warranties of any kind, express or implied including in relation to accuracy, completeness, correctness, currency or fitness for purpose.

Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans.

This plan should be used as guide only. Any dimensions should be confirmed on site by the relevant authority.

Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2020]. In consideration of the State permitting the use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws. © State of Queensland Department of Natural Resources and Mines [2020]

For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 23 64 (24/7).

www.urbanutilities.com.au

ABN 86 673 835 011

GPO Box 2765
Brisbane QLD 4001

Important Information

Disclaimer

All Urban Utilities' records, data and information supplied via BYDA ("**Data**") is **indicative** only. You agree that any Data supplied to you has been or will be provided only for your convenience and has not been and will not be relied upon by you for any purpose.

You also agree that Urban Utilities does not assume any responsibility or duty of care in respect of, or warrant, guarantee or make any representation as to the Data (including its accuracy, reliability, currency or suitability).

Because the location of Urban Utilities' infrastructure shown on the Data is approximate only, you must first physically locate the infrastructure by utilising relevant site detection methodologies prior to performing any works or undertaking any activities near or adjacent to infrastructure. Possible site detection methodologies include hand digging, potholing, trenching and/or probing. You are solely responsible for the selection of appropriate site detection methodologies at all times.

To the fullest extent permitted by law, Urban Utilities will not be liable to you in contract, tort, equity, under statute or otherwise arising from or in connection with the provision of any Data to you via BYDA.

Compliance with laws

There may be both indicated and unmarked hazards, dangers or encumbrances, including underground asbestos pipes and abandoned mains within your nominated search area. You are solely responsible for ensuring that appropriate care is taken at all times and that you comply with all mandatory requirements relating to such matters, including in relation to workplace health and safety.

Damaged Infrastructure

Please note that it is an offence under Section 192 of the *Water Supply (Safety and Reliability) Act 2008* to interfere with our infrastructure without Urban Utilities' written consent.

You may be liable to Urban Utilities for any loss of or damage to our infrastructure, together with any consequential or indirect loss or damage (including without limitation, loss of use, loss of profits or loss of revenue) arising from or in connection with any interference with Urban Utilities' infrastructure by you or any other person for which you are legally responsible.

Any damage to Urban Utilities' Infrastructure must be reported immediately to the (24 Hours) Faults and Emergencies Team on 13 23 64.

Links

Technical Standards: https://urbanutilities.com.au/development/help-and-advice/standards-and-guidelines

Copyright

All Data is copyright.

Referral
270794705

Member Phone
1800 653 935

Responses from this member

Response received Sat 4 Apr 2026 11.26am

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Telstra Map Legend 4.0b.pdf	75

Attention: Brian Aghazadeh

Site Location: 19 Buscall Court, Sinnamon Park, QLD 4073

Your Job Reference: ARK25157

Please do not reply to this email, this is an automated message -

Important - this site is within or in the vicinity of a **RED IMPORTED FIRE ANT RESTRICTED AREA**
Movement controls apply. Penalties of up to $220,000 for individuals and $1.1 million for corporations may apply.
Call **13 25 23** or visit www.daff.qld.gov.au/fireants for further information.

Thank you for requesting Telstra information via Before You Dig Australia (BYDA).

This response contains Telstra information relating to your recent BYDA request.

Please refer to all enclosed attachments for more information.
Information for opening Telstra Asset Plans as well as some other useful contact information is noted in the attached documents.

Report Damage to Telstra Equipment: Report damages to Telstra equipment - Telstra

Please note:
When working in the vicinity of telecommunications plant you have a 'Duty of Care' that must be observed.
Ensure you read all documents (attached) - they contain important information.
Please also refer to the **Before you Dig Australia - BEST PRACTISE GUIDES and The five Ps of safe excavation** https://www.byda.com.au/before-you-dig/best-practice-guides/, The essential steps that must be undertaken prior to commencing construction activities

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing them. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy. Further on site investigation is required to validate the exact location of Telstra assets prior to commencing work. A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works.
See the **Before You Dig Australia - BEST PRACTISE GUIDES and The five Ps of safe excavation** https://www.byda.com.au/before-you-dig/best-practice-guides/..
Please note that:
- it is a criminal offence under the *Criminal Code Act* 1995 (Cth) to tamper or interfere with telecommunications infrastructure.
- Telstra will take action to recover compensation for damage caused to property and assets, and for interference with the operation of Telstra's networks and customers' services.

Telstra's plans contain Telstra's confidential information and are provided on the basis that they are used solely for identifying the location or vicinity of Telstra's infrastructure to avoid damage to this infrastructure occurring as part of any digging or other excavation activity. You must not use Telstra's plans for any other purpose or in a way that will cause Telstra loss or damage and you must comply with any other terms of access to the data that have been provided to you by Telstra (including Conditions of Use or Access).

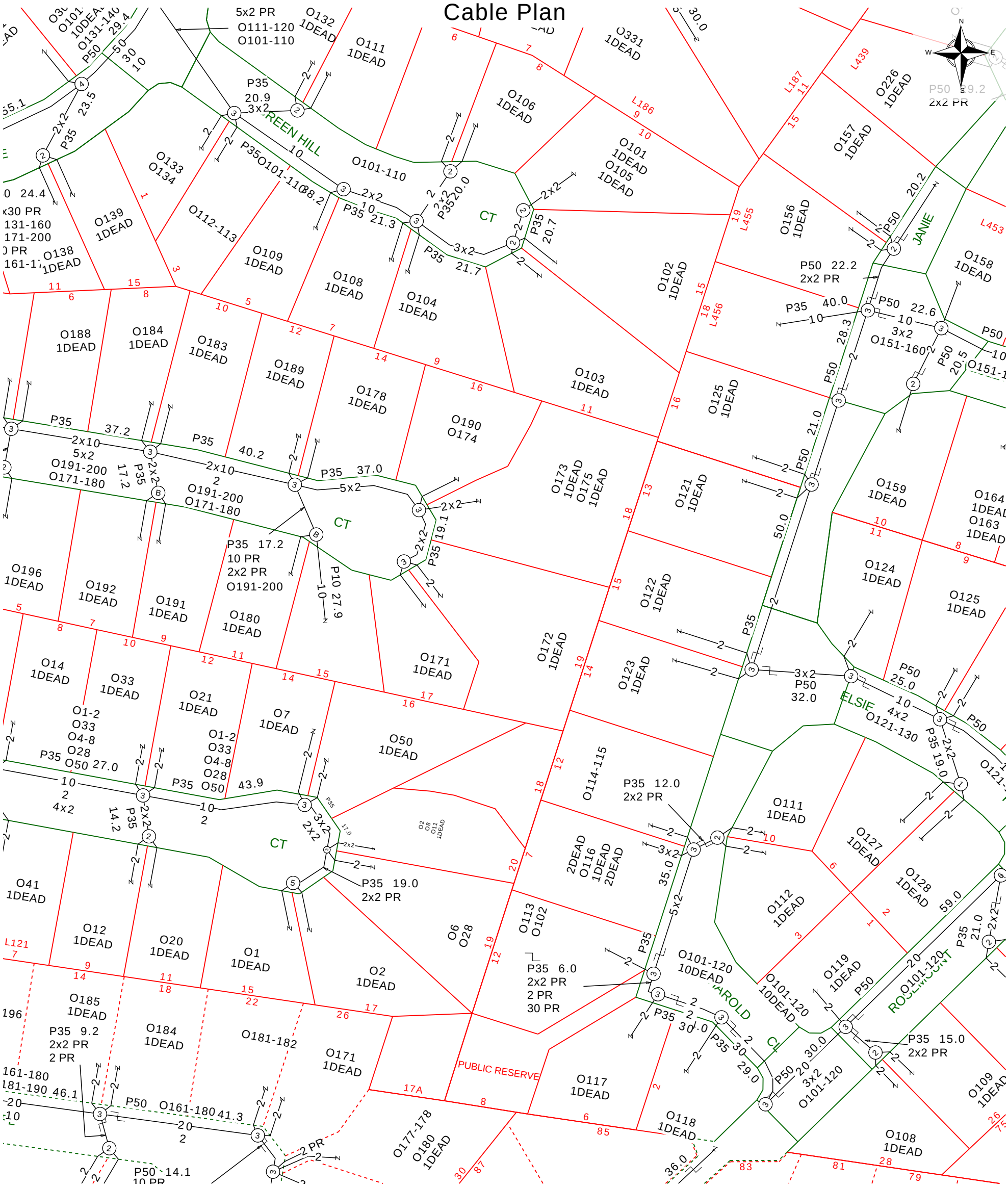
(See attached file: Telstra Duty of Care v32.0c.pdf)

(See attached file: Telstra Map Legend 4.0b.pdf)

(See attached file: AccreditedPlantLocators 2025-01-08a.pdf)

(See attached file: 270794705.pdf)

Cable Plan


GREEN HILL
JANIE
CT
ELSIE
HAROLD
ROSEMOUNT
PUBLIC RESERVE
O101-110
O111-120
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O106 1DEAD
O101 1DEAD
O105 1DEAD
O226 1DEAD
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O121-130
P35 20.9 3x2
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P35 21.3
P35 21.7
P35 20.0
P50 22.2 2x2 PR
P50 20.2
P50 22.6
P35 40.0
P50 20.5
P35 37.2 2x10 5x2
P35 40.2
P35 37.0 5x2
P35 17.2 10 PR 2x2 PR
P10 27.9
P35 19.1
P35 12.0 2x2 PR
P35 19.0 2x2 PR
P35 6.0 2x2 PR 2 PR 30 PR
P50 32.0
P50 25.0
P35 15.0 2x2 PR
P50 14.1 10 PR
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P50 43.9
P35 O50 27.0
P50 O161-180 41.3
P35 14.2
P35 17.2
P50 30.0
P50 29.4
P50 23.5
P35 24.4
P50 O101-110 88.2
P35 O50 43.9
P35 O50 27.0
P35

General Information

Before you Dig Australia – BEST PRACTISE GUIDES

The five Ps of safe excavation
https://www.byda.com.au/before-you-dig/best-practice-guides/

OPENING ELECTRONIC MAP ATTACHMENTS –

Telstra Cable Plans are generated automatically in either PDF or DWF file types.
Dependent on the site address and the size of area selected.
You may need to download and install free viewing software from the internet e.g.

DWF Map Files (all sizes over A3)
Autodesk Viewer (Internet Browser) https://viewer.autodesk.com/ or
Autodesk Design Review http://usa.autodesk.com/design-review/ for DWF files. (Windows PC)

PDF Map Files (max size A3)
Adobe Acrobat Reader http://get.adobe.com/reader/

Telstra BYDA map related enquiries email Telstra.Plans@team.telstra.com
1800 653 935 (AEST Business Hours only)

REPORT ANY DAMAGE TO THE TELSTRA NETWORK IMMEDIATELY
Report online - https://www.telstra.com.au/forms/report-damage-to-telstra-equipment
Ph: 13 22 03
If you receive a message asking for a phone or account number say:
"I don't have one" then say "Report Damage" then press 1 to speak to an operator.

Telstra New Connections / Disconnections
13 22 00

Telstra asset relocation enquiries: 1800 810 443 (AEST business hours only).
NetworkIntegrity@team.telstra.com
https://www.telstra.com.au/consumer-advice/digging-construction

Telstra Aerial Assets Group (overhead network)
1800 047 909

CERTLOC Certified Locating Organisation (CLO)
certloc.com.au/locators/
Only Telstra authorised personnel and CERTLOC Locators can access Telstra's Pit and Pipe Network.

Before You Dig Australia

Think before you dig

This document has been sent to you because you requested plans of the Telstra network through Before You Dig Australia (BYDA).

If you are working or excavating near telecommunications cables, or there is a chance that cables are located near your site, you are responsible to avoid causing damage to the Telstra network.

Please read this document carefully. Taking your time now and following the BYDA's Best Practices and 5 Ps of Safe Excavation https://www.byda.com.au/before-you-dig/best-practice-guides/

can help you avoid damaging our network, interrupting services, and potentially incurring civil and criminal penalties.

Our network is complex and working near it requires expert knowledge. Do not attempt these activities if you are not qualified to do so.

Disclaimer and legal details

*Telstra advises that the accuracy of the information provided by Telstra conforms to Quality Level D as defined in AS5488-2013.

It is a criminal offence under the Criminal Code Act 1995 (Cth) to tamper or interfere with telecommunications infrastructure.

Telstra will also take action to recover costs and damages from persons who damage assets or interfere with the operation of Telstra's networks.

By receiving this information including the indicative plans that are provided as part of this information package you confirm that you understand and accept the risks of working near Telstra's network and the importance of taking all the necessary steps to confirm the presence, alignments and various depths of Telstra's network. This in addition to, and not in replacement of, any duties and obligations you have under applicable law.

When working in the vicinity of a telecommunications plant you have a "Duty of Care" that must be observed. Please read and understand all the information and disclaimers provided below.

The Telstra network is complex and requires expert knowledge to interpret information, to identify and locate components, to pothole underground assets for validation and to safely work around assets without causing damage. If you are not an expert and/or qualified in these areas, then you must not attempt these activities. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers. Construction activities and/or any activities that potentially may impact on Telstra's assets must not commence without first undertaking these steps. Construction activities can include anything that involves breaking ground, potentially affecting Telstra assets.

If you are designing a project, it is recommended that you also undertake these steps to validate underground assets prior to committing to your design.

This Notice has been provided as a guide only and may not provide you with all the information that is required for you to determine what assets are on or near your site of interest. You will also need to collate and understand all information received from other Utilities and understand that some Utilities are not a part of the BYDA program and make your own enquiries as appropriate. It is the responsibility of the entities undertaking the works to protect Telstra's network during excavation / construction works.

Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose.

Telstra plans or other details are provided only for the use of the applicant, its servants, agents, or CERTLOC Certified Locating Organisation (CLO). The applicant must not give the plans or details to any parties other than these and must not generate profit from commercialising the plans or details.

Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.

Please ensure Telstra plans and information provided always remains on-site throughout the inspection, location, and construction phase of any works.

Telstra plans are valid for 60 days after issue and must be replaced if required after the 60 days.

Data Extraction Fees

In some instances, a data extraction fee may be applicable for the supply of Telstra information. Typically, a data extraction fee may apply to large projects, planning and design requests or requests to be supplied in non-standard formats. For further details contact Telstra Location Intelligence Team.

Telstra does not accept any liability or responsibility for the performance of or advice given by a CERTLOC Certified Locating Organisation (CLO). Certification is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.

Neither the Certified Locating Organisation nor any of its employees are an employee or agent for Telstra. Telstra is not liable for any damage or loss caused by the Certified Locating Organisation or its employees.

Once all work is completed, the excavation should be reinstated with the same type of excavated material unless specified by Telstra.

The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

When using excavators and other machinery, also check the location of overhead power lines.

Workers and equipment must maintain safety exclusion zones around power lines

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works. The exact position of Telstra assets can only be validated by physically exposing them. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

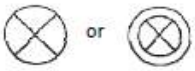
Privacy Note

Your information has been provided to Telstra by BYDA to enable Telstra to respond to your BYDA request. Telstra keeps your information in accordance with its privacy statement. You can obtain a copy at www.telstra.com.au/privacy or by calling us at 1800 039 059 (business hours only).

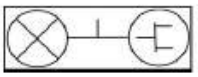
LEGEND

Exchange
(Major Cable Present)

Footway Access Chamber
(can vary from 1-lid to 12-lid)



Pillar / Cabinet
(above ground / free standing)



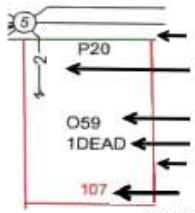
Above ground complex equipment housing (eg RIM)
Please Note: This equipment is powered by 240V Electricity

OC — Other Carrier Telecommunications Cable/Asset

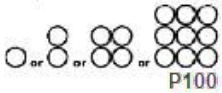
Dist — Distribution cables in Main Cable ducts

MC — Main Cable ducts on a Distribution plan

▲ — Blocked or damaged duct.



Roadside / Front Boundary
2 pair lead-in to property from pit in street 1
pair working (pair ID 059)
1 pair dead (i.e. spare, not connected)
Side / Rear Property Boundary
Property Number



Single to multiple round conduit
Configurations 1,2,4,9 respectively
(attached text denotes conduit type and size)

Multiple square conduit
Configurations 2, 4, 6 respectively
(attached text denotes conduit type and size)

Cable Jointing Pit
(number / Letter indicating Pit Type)

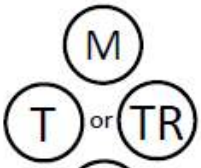
Elevated Joint
(above ground joint on buried cable)

Telstra Plant in shared Utility trench

Aerial Cable

Aerial Cable
(attached to joint Use Pole eg. Power)

Direct Buried Cable



Marker Post Installed

Buried Transponder

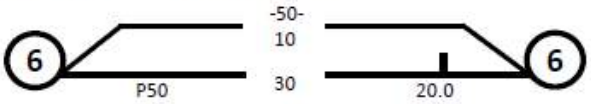
Marker Post, Transponder

Optical Fibre cable direct buried

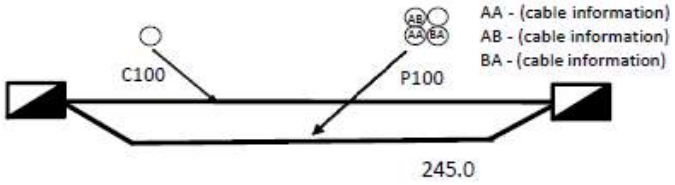
Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galanised iron, E - Earthenware
Conduit sizes *nominally* range from 20mm to 100mm
P50 50mm PVC conduit
P100 100mm PVC conduit
A100 100mm asbestos cement conduit

Some Examples of how to read Telstra Plans



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route



AA - (cable information)
AB - (cable information)
BA - (cable information)

Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along

Protect our Network:

by maintaining the following distances from our assets:

- 1.0m Mechanical Excavators, Farm Ploughing, Tree Removal
- 500mmVibrating Plate or Wacker Packer Compactor
- 600mm Heavy Vehicle Traffic (over 3 tonnes) not to be driven across Telstra ducts or plant.
- 1.0mJackhammers/Pneumatic Breakers
- 2.0m Boring Equipment (in-line, horizontal and vertical)

For more info contact a CERTLOC Certified Locating Organisation (CLO) or Telstra Location Intelligence Team 1800 653 935

End of document

This document may exclude some files (eg. DWF or ZIP files)

This document was automatically generated at a point-in-time. Be aware that the source information from which this document was created may have changed since it was produced. This document may contain incomplete or out-of-date information. Always check your enquiry details in the BYDA Referral Service for the most recent information. For copyright information refer to individual responses.

APPENDIX C – EROSION AND SEDIMENT CONTROL FACT SHEET AND CHECKLIST

Office: 28 Daintree Place, Riverhills QLD 4074 Ph: 04 517 998 27

brian@arkcg.com.au www.arkcg.com.au ABN: 14 688 605 183

BRISBANE CITY COUNCIL ABN 72 002 765 795

Erosion Hazard Assessment

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment- Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?
Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low', 'medium' or 'high'.

When is the EHA required?
An Erosion Hazard Assessment form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement
The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

2 Based on the erosion hazard assessment overleaf, is the side:

☐ ***A 'low' risk site***

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at https://waterbydesign.com.au/download/erosion-sediment-control-for-small-construction-sites

☑ ***A 'medium' risk site***

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

☐ ***A 'high' risk site***

If the development is approved, the applicant will need to engage a RPEQ and CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

3 Site Information and Certification

Application number (if known)

Site address

19 BUSCALL COURT
SINNAMON PARK
Postcode **4073**

I certify that:

☑ I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.

☑ I am a person with suitable qualifications and/or experience in erosion and sediment control.

☑ The Erosion Hazard Assessment was completed in accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning Scheme Policy.

☑ The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to the environment.

☑ I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part of its development assessment process and the provision of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action against me/ enforcement action against me.

Certified by *(Print name)*
BRIAN AGHAZADEH

Certifier's signature

Date:
2026.04.05
10:13:41+10'00'

Date
05 / 04 / 2026

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Assessment Table

Table 1: Low Risk Test

		Yes	*No*
1.1	is the area of land disturbance > 1000 m2?	☐	☑
1.2	does any land disturbance occur in a BCC mapped waterway corridor?	☐	☑
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%?	☑	☐
1.4	does any land disturbance occur below 5 m AHD?	☐	☑
1.5	does development involve endorsement of a staging plan?	☐	☑
1.6	is there an upstream catchment passing through the site > 1 hectare?	☐	☑

If you answered ***'No'*** to **ALL** of these questions, then the site is **low risk** with respect to erosion and sediment control. (Do not continue to Table 2)

If you answered ***'Yes'*** to **ANY** of these questions, then proceed to ***Table 2***

Table 2: Medium Risk Test

		Yes	*No*
2.1	is the area of land disturbance > 1 hectare?	☐	☑

If ***'No'*** then the site is **medium risk** with respect to erosion and sediment control. (Do not continue to Table 3)

If ***'Yes'*** then proceed to ***Table 3***

Table 3: High Risk Test

		Yes	*No*
3.1	is there an upstream catchment passing through the site > 1 hectare?	☐	☐
3.2	does any land disturbance occurs in a BCC mapped waterway corridor?	☐	☐
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%?	☐	☐

If you answered ***'No'*** to **ALL** of these questions, then the site is also **medium risk** with respect to erosion and sediment control.

If you answered ***'Yes'*** to **ANY** of these questions, then the site is **high risk** with respect to erosion and sediment control.

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Erosion Hazard Assessment

Supporting Technical Notes – June 2014

Introduction

These technical notes must be read in conjunction with the ***Erosion Hazard Assessment*** form June 2014 (or later version). These technical notes have been provided to assist users in understanding and completing the *Erosion Hazard Assessment* form, with respect to the Council's requirements[1] for Erosion and Sediment Control (ESC) during land-disturbing activities.

[1] For information on the Council's requirements for stormwater management with respect to erosion and sediment control, refer to *Section 7.11 of the Infrastructure Design Planning Scheme Policy,* which is in *Schedule 6 of the Brisbane City Plan 2014*.

Explaining the Erosion Hazard Assessment form

There are many conditions on a construction site that contribute to the overall hazard and risk of soil erosion and sediment pollution to the environment. The *Erosion Hazard Assessment* (EHA) determines whether that risk is 'low', 'medium' or 'high' by using a series of questions to assess the risk to the environment, based on the Council's requirements for stormwater management and Erosion and Sediment Control (ESC).

The front page of the *Erosion Hazard Assessment* form briefly describes what an *Erosion Hazard Assessment* is, and when it is required by Council. The front page also includes a five step process explaining the completion and certification requirements of the form.

The back page of the *Erosion Hazard Assessment* form provides a list of potential site condition 'hazards' affecting erosion and sediment pollution potential. The questions in the Assessment Table determine whether your site's risk is 'low', 'medium' or 'high'.

Technical Notes

The *Erosion Hazard Assessment* form must be certified by a person with suitable qualifications and/or experience in soil erosion and sediment control. A suitably qualified and/or experienced professional in erosion and sediment control is defined as a person with:

1. Professional affiliations with an engineering, environmental engineering, soil science, or scientific organisation (eg. International Erosion Control Association, Engineers Australia, Australian Water Association, Stormwater Queensland); or
2. At least two years experience in the management of soil erosion and sediment control that can be verified by an independent third party.

When is the EHA required?

An *Erosion Hazard Assessment* form must be completed and lodged with the BCC for any Development Application (ie. MCU or ROL), that will result in soil disturbance **or** Operational Works or Compliance Assessment Application for filling or excavation.

Explanation of Terms used in the Erosion Hazard Assessment form

REQUIREMENTS are specific issues and/or actions required to be addressed by the Applicant.

WARNINGS are advices and/or advance notices of issues that should be considered or addressed by the Applicant during the process (the timing of this may vary).

COMMENTS are provided as general information that is relevant to the issue being discussed and may be of assistance to the Applicant.

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Technical Notes

Technical Note [1]

Slope of Site

REQUIREMENTS:

Applicants must demonstrate that adequate ESC measures and practices can be implemented on-site to protect downstream environmental values throughout the construction period, and until the site is adequately stabilised against erosion. This particularly applies to sites involving cut and fill earthworks, benching of allotments, allotment batters and/or retaining wall construction.

Sites with any slope that is steeper than 5% and longer than 3 metres in length (before, during or after construction) has a higher risk of soil erosion and sediment pollution and is classified as either a 'medium' or 'high' risk site. Whether the site is actually 'medium' or 'high' risk depends on the presence of other hazards at the site, summarised in Table 2 and 3 of the *Erosion Hazard Assessment*.

If there is any slope on the site that is steeper than 15% and longer than 3 metres in length (before, during or after construction), and the site is greater than 1 hectare in area, the site is 'high' risk with respect to erosion & sediment control.

For medium and high risk sites the applicant will need to engage a Registered Professional Engineer (RPEQ) to prepare an ESC Program and Plan and supporting documentation - in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. For high risk sites, the plans and program will need to be certified by a Certified Professional in Erosion and Sediment Control (CPESC).

WARNINGS:

Steep sites are likely to require more stringent drainage and erosion controls than flatter sites.

COMMENTS:

As a 'rule of thumb' the steeper the land, the greater the need for adequate drainage control to minimise erosion and prevent mulch from being washed from the site.

Technical Note [2]

Area of Disturbance

REQUIREMENTS:

Sites with an expected soil disturbance in excess of 1000 m^2 must submit an *ESC Program and Plan* to the Council.

The area of disturbance refers to the total area of soil exposed to rainfall either as a result of:-

(a) the removal of existing vegetation, mulch or sealed surfaces (eg. concrete, bitumen);
(b) as a result of past practices; and/or
(c) natural conditions.

Areas of exposed, non-erodible material such as rock, have not been included. However, some highly weathered rocks can become a source of sediment and turbidity, and thus should not be counted as 'non-erodible' material. For site works where significant volumes or areas of excavation are likely to be encountered (eg. underground carparks, known 'shallow rock' areas), ESC issues must be adequately addressed. If in doubt seek advice from a suitably qualified and experienced geotechnical engineer and/or soil scientist.

Applicants must account for, and comply at all times with any water restriction requirements imposed under the *Water Act 2000*.

WARNINGS:

A sediment basin will usually be required by Council if:

(a) the disturbed area exceeds 1 hectare; or
(b) the disturbed soils are dispersive[3]; and/or
(c) there is a need to control run-off turbidity (eg. the local waterway management plan indicates a high priority for turbidity control).

Note that soil type or site location can affect whether Council will require a sediment basin, even if the disturbed area is less than 1 hectare.

Refer also to **Technical Note 4** for explanation of the effect of undiverted 'clean' catchments in sediment basin design.

COMMENTS:

For soil disturbances greater than 1 hectare in area, the stabilisation phase should be staged to minimise the duration that soil is exposed to rain.

[3] Dispersive soils release a cloud of fine clay particles when brought into contact with water. These clay particles may stay suspended for an indefinite period of time, resulting in turbid 'dirty' water, which impacts on plant and animal life in our waterways, including Moreton Bay's vital seagrass meadows, and causes environmental harm.

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Technical Note [3]

Waterway Corridor Disturbance

REQUIREMENTS:

All developments that involve the disturbance of land within a BCC mapped waterway corridor are classified as a 'medium' or 'high' risk site and the applicant must prepare an *ESC Program and Plan* which must be certified by an RPEQ and/or a CPESC. Adequate instream sediment control structures are required in order to manage the potential environmental harm associated with such activities. Flow bypassing for the maintenance of environmental flows or construction management, temporary lining of exposed 'live' excavations (ie. within the functioning stormwater system) must also be determined in accordance with best practice ESC guidelines.

WARNINGS:

Permits and/or licences may be required from the State Government for works that disturb waterways, including possible submission of the *ESC Program* to the relevant State Government Department. There can be considerable timeframes for obtaining such approvals.

COMMENTS:

Soil disturbances and/or works within a waterway (whether flowing constantly or only during wet weather) can cause significant erosion and sedimentation problems, leading to environmental harm if not properly managed.

Technical Note [4]

External Catchments

REQUIREMENTS:

Upstream catchments that pass through the site increase risk of soil erosion and sediment pollution.

External catchments must be diverted past areas of soil disturbance whenever possible. Where external catchments cannot be diverted past areas of soil disturbance, then such catchment areas must be included in the disturbance area calculations for the design of temporary drainage and sediment control measures, such as Catch Drains, Diversion Channels and Sediment Basins.

When external catchments are diverted around the area of soil disturbance, this must occur in a non-erosive manner. This may be achieved by, but not limited to, the use of geotextile fabric, erosion control matting, turf lining, and stabilised outlet protection. The outlet point of such diversions must not cause an increase in erosion downslope of the outlet point.

COMMENTS:

The ability to separate 'clean' external catchment stormwater run-off from 'polluted' site run-off can significantly affect the extent and cost of the temporary drainage and sediment control measures (especially sediment basins) required on the site. The greater the extent of external catchment, the greater the need to divert run-on flows past any soil disturbance.

Technical Note [5]

Land Disturbance Below 5 m AHD

REQUIREMENTS:

A site with land disturbance below 5 m AHD has a higher risk of exposure of Acid Sulphate Soils and is therefore classified as a 'medium' or 'high' risk site by the *Erosion Hazard Assessment*.

When preparing an *ESC Program and Plan*, the soil pH must be determined by testing in accordance with the requirements of *Section 7.11.3.3* of the *Infrastructure Design Planning Scheme Policy (City Plan 2014).*

WARNINGS:

Soil pH can have a significant effect on the success of vegetative stabilisation on-site. A soil pH less than 6 or greater than 8 will usually require treatment in order to achieve adequate revegetation and to effectively stabilise the site against erosion.

Soils with a pH of less than 5.5 (whether naturally acidic or in acid sulfate soil areas) may also limit the choice of chemical flocculants (eg. Alum) for use in the flocculation of sediment basins.

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APPENDIX D – PROPERTY FLOOD REPORT

Office: 28 Daintree Place, Riverhills QLD 4074 Ph: 04 517 998 27

brian@arkcg.com.au www.arkcg.com.au ABN: 14 688 605 183

FloodWise Property Report

19 BUSCALL CT, SINNAMON PARK 4073
Lot 1 on RP203172

Dedicated to a better Brisbane

THE PURPOSE OF THIS REPORT IS FOR BUILDING AND DEVELOPMENT

Brisbane City Council's FloodWise Property Report **provides technical flood planning information** including estimated flood levels, habitable floor level requirements and more. **This report uses the adopted flood planning information in Brisbane City Plan 2014**, that guides how land in Brisbane is used and developed for the future. Find out more about planning and building. To understand how to be **resilient and prepare for floods**, visit Council's Be Prepared webpage. Find more information about how to read a FloodWise Property Report.

This property has no flood levels

Brisbane City Council has not assigned flood level information for this property however it may be affected by one or more flood or property development flags. Please refer to the Flood Planning and Development Information below for details. The property may have 0.2% AEP flood level which will appear on the Flood Planning Information table if applicable. For professional advice or detailed assessment of a property contact a Registered Professional Engineer of Queensland.

Visit the Be Prepared page to find more information on how to prepare your home or business for potential flooding.

Combined 1% AEP for river, creek and storm tide flood extent (if applicable) from the adopted Brisbane City Plan 2014.
Read more about Brisbane City Plan 2014.

Brisbane City Council | Includes material © The State of Queensland, all rights reserved, 2019. | © Brisbane City C… Powered by Esri

Are you resilient and ready for flood?

- Sign up to the Brisbane Severe Weather Alert at **brisbane.qld.gov.au/beprepared**
- Visit bom.gov.au for the latest weather updates.
- Have an evacuation plan, emergency kit and important phone numbers ready.
- Observe where water flows from and to during heavy rain.
- Consider how flood-resilient building techniques will have you home faster and with less damage.

Life threatening emergencies **000** Police/fire/ambulance (mobiles **000** and **112**)	State Emergency Service (SES) **132 500** Energex **13 19 62** Brisbane City Council **3403 8888**

Technical Summary

This section of the FloodWise Property Report contains more detailed flood information for this property so **surveyors, builders, certifiers, architects, and engineers can plan and build** in accordance with Council's planning scheme.

Find more information about planning and building in Brisbane or talk to a Development Services Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

Flood Planning and Development Information

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

Flood overlay code

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the flood planning areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in **Council's planning scheme**.

Flood planning areas (FPA)		
River	**Creek / waterway**	**Overland flow**
		Not Applicable

To find more information about Council's flood planning areas (FPAs) for Brisbane River and Creek/waterway flooding to guide future building and development in flood prone areas, please review **Council's Flood Planning Provisions**.

Coastal hazard overlay code

The Coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new developments. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following Coastal hazard overlay sub-categories are explained in Council's **planning scheme**.

Coastal hazard overlay sub-categories
There are currently no Coastal hazard overlay sub-categories that apply to this property.

Note: Where land is identified within one for more flood planning areas on the Flood overlay or is identified within one of the Storm tide inundation area sub-categories on the Coastal hazard overlay, the assessment criteria that provides the highest level of protection from any source of flooding applies.

Property development flags
Large allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, please consult a Registered Professional Engineer of Queensland (RPEQ).

Useful Flood Information Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

- **0.2% AEP** - A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year.
- **1% AEP** - A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year.
- **2% AEP** - A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.
- **5% AEP** - A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year.
- **20% AEP** - A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.

Data quality

- **Data Quality Code A** - Level data based on recent surveyor report or approved as-constructed drawings.
- **Data Quality Code B** - Level data based on ground-based mobile survey or similar.
- **Data Quality Code C** - Level data derived from Airborne Laser Scanning or LiDAR information.

Defined Flood Level (DFL) - The DFL is used for commercial and industrial development. The Defined flood level (DFL) for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m/s. DFL is only applicable for non-residential uses affected by Brisbane River flooding.

Flood planning area (FPA) - Council has developed five Flood planning areas (FPAs) as part of Brisbane City Plan 2014 Flood overlay mapping for Brisbane River, Creek/waterway flooding and Overland flow to guide future building and development in flood prone areas. Storm tide flooding is mapped separately. The FPAs are designed to recognise the flood hazard for different flooding types. Flood hazard is a combination of frequency of flooding, the flood depth, and the speed at which the water is travelling. **Find more information here**.

Maximum and minimum ground level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum habitable floor level (dwelling house) - The minimum level in metres AHD at which habitable areas of development (generally induding bedrooms, living rooms, kitchen, study, family, and rumpus rooms) must be constructed as required by the Brisbane City Plan 2014.

Indicative existing floor level - The approximate level in metres AHD of the lowest habitable floor in the existing building (excluding apartments). The data is sourced from a range of sources with varying accuracy levels.

Property - A property will contain 1 or more lots. The multiple lot warning is shown if you have selected a property that contains multiple lots.

Residential flood level (RFL) - This flood level for the Brisbane River equates to the 1% annual exceedance probability (AEP) flood level.

To learn more, visit **Brisbane City Council's Flood Information Hub**

Brisbane City Council's Online Flood Tools

Council provides several online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Council's online flood tools for planning and development purposes indude:

- **FloodWise Property Report**
- **Flood Overlay Code**

For more information on Council's planning scheme and online flood tools for planning and development:

- phone (07) 3403 8888 and ask to talk to a Development Services Planning Information Officer

- visit brisbane.qld.gov.au/planning-building

Council's Planning Scheme - The Brisbane City Plan 2014 (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Disclaimer

1. Defined flood levels and residential flood levels, minimum habitable floor levels and indicative existing floor levels are determined from the best available information to Council at the date of issue. These levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating levels.
2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property Report. Council disdaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.

Planning to build or renovate?

For information, guidelines, tools and resources to help you track, plan or apply for your development visit brisbane.qld.gov.au/planning-building

You can also find the Brisbane City Plan 2014 and Neighbourhood Plans as well as other information and training videos to help, with your building and development plans.

APPENDIX E – CODE ASSESSMENTS

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9.4.11 Transport, access, parking and servicing code

9.4.11.1 Application

1. This code applies to assessing:
    a. operational work which is assessable development if this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for operational work (section 5.8); or
    b. a material change of use or reconfiguring a lot if:
        i. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for a material change of use (section 5.5) reconfiguring a lot (section 5.6), or an overlay (section 5.10); or
        ii. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code contains performance outcomes or acceptable outcomes that relate to:

- crime prevention through environmental design principles, guidance is included in the Crime prevention through environmental design planning scheme policy;
- design for the reduction of graffiti, guidance is provided and the Graffiti prevention planning scheme policy;
- infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy;
- refuse and recycling, guidance is provided in the Refuse planning scheme policy;
- transport, access, parking and servicing standards and guidelines are contained in the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy.

Note—If involving a standard format lot with common property such as requiring a community management scheme under the *Body Corporate and Community Management Act 1997*, the development contains a reconfiguring a lot aspect of development and the Subdivision code will apply.

9.4.11.2 Purpose

1. The purpose of the Transport, access, parking and servicing code is to assess the suitability of the transport, access, parking and servicing aspects of development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development provides for access, circulation, parking and vehicle-based services for all relevant transport modes, including walking, cycling and public transport relevant to the nature of the proposed development and its location in relation to the transport network and surrounding existing and future land uses.
    b. Development enhances the potential for trip making other than by private vehicle.
    c. Development provides safe access for all transport modes that does not impact adversely on the efficiency and safety of the transport network or diminish the amenity of nearby land uses.
    d. Development ensures that impacts on amenity caused by traffic generation is consistent with the community's reasonable expectations for the intended use.
    e. Development provides site access arrangements to ensure that any adverse impacts on other development, the transport network and those who use it, are

minimised to maintain amenity of the area and the safety and efficiency of the transport system.

f. Development ensures that access, parking and servicing arrangements and impacts such as noise, are consistent with the community's reasonable expectations and avoid risk of damage to people, property and vehicles.
g. Development maximises safety in the use of the transport network, particularly for the most vulnerable users (children, pedestrians, persons with disabilities and cyclists) so that all transport modes are safe and convenient.
h. Development provides for walking and cycling routes and end-of-trip facilities for pedestrians and cyclists, designed and located to make walking and cycling attractive and viable transport options.
i. Development envisaged by the planning scheme, which will potentially have an adverse impact on the operation of the transport network, is designed and of a scale that maintains the safety and efficiency of the transport network.
j. Development provides for on-site parking and manoeuvring areas for cars, motorcycles, bicycles and service vehicles which:
    i. are safe and convenient to use;
    ii. if outside the City core and the City frame identified in Figure a are adequate to meet the design peak-parking demands without significant overflow to adjacent premises or the generation of excessive on-street car parking demand, taking into account the requirements of other road users.
k. Development provides for on-site servicing that is safe, convenient to use, but discrete, and adequate to meet the reasonably expected demands generated by the development, without significant adverse impacts on the external road system or adjacent premises.
l. Development accommodates future road upgrades and widenings ensuring the ongoing capacity, efficiency and safety of the transport network.

9.4.11.3 Performance outcomes and acceptable outcomes

Table 9.4.11.3—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development is designed: a. to include a technically competent and accurate response to the transport and traffic elements of the development; b. in accordance with the standards in the Transport, access, parking and servicing planning scheme policy; c. to ensure the efficient operation and safety of the development and its surrounds. Note—The acceptable outcome and performance outcome can be	**AO1** Development complies with the standards in the Transport, access, parking and servicing planning scheme policy.	**Complies** A new shared access driveway is proposed. Refer to submitted engineering report.

demonstrated through a development application that: • is accompanied by sufficient information, including computer modelling input and output data, to allow the proposed development to be properly assessed against the requirements of this code and the standards and guidelines of the Transport, access, parking and servicing planning scheme policy; • is certified by a Registered Professional Engineer Queensland that all plans, documents and dimensioned drawings comply with the requirements of this code and the standards and guidelines of the Transport, access, parking and servicing planning scheme policy; • ensures that any computer modelling input and output data are accurate, reasonable and carried out in accordance with sound traffic engineering practices.		
PO2 Development of a major size incorporates on-site provision for integration with the public transport network and the management of vehicles, public transport, pedestrians and cyclists, including providing appropriate pedestrian and cyclist linkages to adjoining uses, public areas and the transport network consistent with the planning by the Queensland Government and Council.	**AO2** No acceptable outcome is prescribed.	**Not Applicable** Development is for reconfiguring a lot.
PO3 Development provides vehicle access that is located and designed so as to have no significant impact on the safety, efficiency, function, convenience of use or capacity of the road network.	**AO3.1** Development provides site access that is located and designed in compliance with the standards in the Transport, access, parking and servicing planning scheme policy. **AO3.2** Development provides an easement for a vehicular access benefiting all adjoining landowners and the Council if the vehicular access services more than an individual development or premises.	**Complies** A new shared access driveway is proposed. Refer to submitted engineering report.
PO4 Development provides walking and cycle routes through	**AO4.1** Development provides walking and cycle routes which are	**Not Applicable** Development is for reconfiguring a lot.

the site which: a. link to the external network and pedestrian and cyclist destinations such as schools, shopping centres, open space, public transport stations, shops and local activity centres along the safest, most direct and convenient routes; b. encourage walking and cycling; c. ensure pedestrian and cyclist safety; d. provide a direct and legible network. Note—The Infrastructure design planning scheme policy provides additional guidance on how to comply with this performance outcome.	constructed on the carriageway or through the site to: a. create a walking or cycle route along the full frontage of the site; b. connect to public transport and existing cycle and walking routes at the frontage or boundary of the site. **AO4.2** Development provides walking and cycle routes that are constructed in compliance with the standards in the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy.	
	AO4.3 Development provides walking and cycle routes which do not include a potential entrapment area, blind corner or sudden change in level that restrict sightlines.	
PO5 Development provides secure and convenient bicycle parking which: a. for visitors is obvious and located close to the building's main entrance; b. for employees is conveniently located to provide secure and convenient access between the bicycle storage area, end-of-trip facilities and the main area of the building; c. is easily and safely accessible from outside the site; d. does not impact adversely on visual amenity; e. does not impede the movement of pedestrians or other vehicles; f. is designed to comply with a recognised standard for the construction of bicycle facilities. Note—For a performance outcome relating to the number of bicycle	**AO5.1** Development provides on-site bicycle parking spaces in compliance with the standards in the Transport, access, parking and servicing planning scheme policy. **AO5.2** Development provides bicycle parking spaces for employees which are co-located with end-of-trip facilities (shower cubicles and lockers) in compliance with the Transport, access, parking and servicing planning scheme policy and AS 2890.3-1993 Bicycle parking facilities.	**Not Applicable** Development is for reconfiguring a lot.
	AO5.3 Development ensures that the location of visitor bicycle parking is discernible either by direct view or using signs from the street.	
	AO5.4	

parking spaces provided, the application must demonstrate how the needs of the intended users of the site differ from the standard rates in the Transport, access, parking and servicing planning scheme policy.	Development provides visitor bicycle parking which does not impede pedestrian movement. **AO5.5** Development provides bicycle parking which is constructed in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	
PO6 Development provides shower cubicles and lockers in sufficient numbers to meet the needs and volume of predicted pedestrian and cyclist users. Note—For a performance outcome the application must demonstrate how the needs of the intended users of the site differ from the standard rates in the Transport, access, parking and servicing planning scheme policy.	**AO6** Development provides shower cubicles and lockers for pedestrians and cyclists in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	**Not Applicable** Development is for reconfiguring a lot.
PO7 Development provides pedestrian and cyclist access to the site which is designed to provide safe movement and avoid unnecessary conflict between pedestrians, cyclists and motor vehicles.	**AO7** Development provides pedestrian and cycle access that is designed and constructed in compliance with the site access design guidelines, pedestrian facilities standards and cyclist facilities standards in the Transport, access, parking and servicing planning scheme policy.	**Not Applicable** Development is for reconfiguring a lot.
PO8 Development provides pedestrian and cyclist access to and from the site which is located to take advantage of safe crossing points of the adjacent road system, key destinations and public transport facilities.	**AO8** No acceptable outcome is prescribed.	**Not Applicable** Development is for reconfiguring a lot.
PO9 Development provides access driveways in the road area that are located, designed and controlled to: a. minimise adverse impacts on the safety and operation of the transport network, including the	**AO9.1** No acceptable outcome for access is prescribed, for a major development (as described in the Transport, access, parking and servicing planning scheme policy). **AO9.2**	**Complies** A new shared access driveway is proposed. Refer to submitted engineering report.

movement of pedestrians and cyclists; b. ensure the amenity of adjacent premises, from impacts such as noise and light.	Development which is not a major development (as described in the Transport, access, parking and servicing planning scheme policy) provides a single site access driveway in the road area to the lowest order road to which the site has frontage.	
	AO9.3 Development ensures that sight distances to and from all proposed access driveways in the road area and intersections are in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	
	AO9.4 Development provides access driveways in the road area which: a. are located, designed and controlled in compliance with the standards in the Transport, access, parking and servicing planning scheme policy; b. are not provided through a bus stop, taxi rank or pedestrian crossing or refuge.	
	AO9.5 Development makes provision for shared access arrangements particularly where it is necessary to limit access points to a major road.	
PO10 Redevelopment provides for: a. the closure of all access driveways in the road area that no longer comply with the standards in the Transport, access, parking and servicing planning scheme policy; b. the reinstatement of adjacent footpaths.	**AO10** No acceptable outcome is prescribed.	**Complies** A new shared access driveway is proposed. Refer to submitted engineering report.

PO11 Development provides that an internal approach to an access driveway in the road area is designed and located to provide for the safety of pedestrians and cyclists using paths adjacent to the frontage of the site, and motorists.	**AO11.1** Development provides sight distances to and from all proposed access driveways in the road area and intersections which are in compliance with the standards in the Transport, access, parking and servicing planning scheme policy. **AO11.2** Development ensures that convex mirrors are only used in a site: a. as a secondary support at access driveways; b. in addition to acceptable sight splays that comply with the sight distances standards in the Transport, access, parking and servicing planning scheme policy.	**Complies** A new shared access driveway is proposed. Refer to submitted engineering report.
PO12 Development in the City core and City frame as identified in Figure a provides car parking spaces at rates to discourage private car use and encourage walking, cycling and the use of public transport.	**AO12** Development in the City core and City frame as identified in Figure a provides maximum car-parking rates in compliance with the standards in the Transport, access, parking and servicing planning scheme policy. Note—For accepted development subject to compliance with identified requirements including an existing premises, no reduction to existing car parking is required to comply with a maximum car-parking rate in the Transport, access, parking and servicing planning scheme policy.	**Not Applicable**
PO13 Development outside of the City core and City frame as identified in Figure a provides on-site car parking spaces to accommodate the design peak parking demand without any overflow of car parking to an adjacent premises or adjacent street.	**AO13** Development outside of the City core and City frame as identified in Figure a: a. provides on-site car parking spaces in compliance with the standards in the Transport, access, parking and servicing planning scheme policy; or b. for accepted development subject to compliance with identified requirements, does not result in on-street car parking if no parking standard is identified in the Transport, access, parking and servicing planning scheme policy.	**Complies** Each proposed lot has sufficient area available for car parking.

	Note—For accepted development subject to compliance with identified requirements including an existing premises, no reduction to existing car parking is required to comply with a maximum car-parking rate in the Transport, access, parking and servicing planning scheme policy.	
PO14 Development ensures that the number of car parking spaces and design of the car parking area: a. meet the combined design peak parking demand for residential, visitor and business parking; b. allow for the temporal sharing of car-parking spaces for uses with different peak parking demands. Note—In order to demonstrate that adequate car parking is provided, a traffic impact assessment prepared in compliance with the Transport, access, parking and servicing planning scheme policy is to identify the appropriate number of car parking spaces to be provided.	**AO14.1** Development provides a number of car parking spaces on site equalling the sum of the maximum design peak parking demand for the individual uses at any point in time. **AO14.2** Development involving mixed use provides a non-residential car parking area with shared parking for all the businesses in the development.	**Complies** Each proposed lot has sufficient area available for car parking.
PO15 Development provides a car park layout which allows for on-site vehicle parking that: a. is clearly defined, safe and easily accessible; b. is designed to contain potential adverse impacts within the site; c. does not detract from the aesthetics or amenity of an area; d. discourages on-street parking if parking has an adverse traffic management safety or amenity impact; e. is consistent with safe and convenient pedestrian and cyclist movement.	**AO15** Development provides parking bays, queue areas and manoeuvring areas which are designed for the design service vehicle to the standards in the Transport, access, parking and servicing planning scheme policy.	**Not Applicable**
PO16 Development creates a safe environment by incorporating the key elements of crime prevention through environmental design.	**AO16** Development incorporates the key elements of crime prevention through environmental design in its layout, building and structure design and landscaping by:	**Complies** The proposed rear access driveway dimensions comply with requirements for provision of a rear access lot.

	a. facilitating casual surveillance opportunities and including good sightlines to publicly accessible areas such as car parks, pathways, public toilets and communal areas; b. defining different uses and ownerships through design and restricting access from non-residential uses into private residential dwellings; c. promoting safety and minimising opportunities for graffiti and vandalism through exterior building design and orientation of buildings and use of active frontages; d. ensuring publicly accessible areas such as car parks, pathways, public toilets and communal areas are well lit; e. including way-finding cues; f. minimising predictable routes and entrapment locations near public spaces such as car parks, public toilets, ATMs and communal areas. Note—For guidance in achieving the key elements of crime prevention through environmental design, refer to the Crime prevention through environmental design planning scheme policy.	
PO17 Development minimises the potential for graffiti and vandalism through access control, canvas reduction and easy maintenance selection.	**AO17** Development incorporates graffiti and vandalism prevention techniques in its layout, building and structure design and landscaping, by: a. denying access to potential canvases through access control techniques; b. reducing potential canvases through canvas reduction techniques; c. ensuring graffiti can be readily and quickly removed through easy maintenance selection techniques. Note—For guidance on graffiti and vandalism prevention techniques, refer to the Graffiti prevention planning scheme policy.	**Not Applicable**

PO18 Development is serviced by an adequate number and size of service vehicles.	**AO18** Development ensures that the number and size of design service vehicles selected for the site is in compliance with the standards in the Transport, access, parking and servicing planning scheme policy.	
PO19 Development layout provides for services which: a. are wholly within the site, other than service vehicle manoeuvring areas which may overhang the verge on a minor road where use of the footpath is not adversely affected; b. are clearly defined, safe and easily accessible; c. are designed to contain potential adverse impacts of servicing within the site; d. do not detract from the aesthetics or amenity of the surrounding area.	**AO19.1** Development ensures that a service bay provided on site: a. is provided and designed to comply with the design vehicle table and service area design standards in the Transport, access, parking and servicing planning scheme policy; b. is located away from street frontages and screened from adjoining premises. **AO19.2** Development provides on-site servicing facilities and associated on-site vehicle manoeuvring areas which are designed in compliance with the service area design standards in the Transport, access, parking and servicing planning scheme policy. **AO19.3** Development provides service areas for refuse collection in compliance with the standards in the Refuse planning scheme policy, Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy.	**Complies** Available area is provided at the street frontage for provision of x 4 wheelie bins to accommodate refuse collection for each proposed lot.
PO20 Development provides service vehicle access routes to and from the site which minimise the impact on: a. amenity and safety in residential areas; b. streets not constructed to a standard that accommodate increased heavy vehicle movements.	**AO20** Development ensures that service vehicles use the shortest and most direct route to the major road network in compliance with the heavy vehicle standards in the Transport, access, parking and servicing planning scheme policy.	**Not Applicable**

If for development which is required to be serviced by a b-double (Austroad class 10 vehicle), multi-combination vehicle, over-dimensioned vehicle or any other vehicle identified by the Queensland Government as requiring a permit to operate on the road (freight-dependent development)		
PO21 Development which is freight-dependent development ensures that the traffic generated by the development does not impact on: a. the operation of the transport network; b. the safety and amenity of a residential area; c. a road not constructed to accommodate a non-standard vehicle such as a road only constructed to accommodate a vehicle that has a legal right of access to all roads including Austroads vehicles classes 1—9.	**AO21.1** Development which is freight-dependent development is located on a site which: a. has frontage to or direct access to the freight network in the Road hierarchy overlay via roads in a zone in the Industry zones category; or b. can be serviced by a route that can act as a primary freight access route and connect to an existing primary freight route without impacting on the safe operation of the road network in compliance with the heavy vehicle standards in the Transport, access, parking and servicing planning scheme policy. **AO21.2** Development which is freight-dependent development provides any necessary upgrade to a road used as an access route in compliance with the Infrastructure design planning scheme policy.	**Not Applicable**

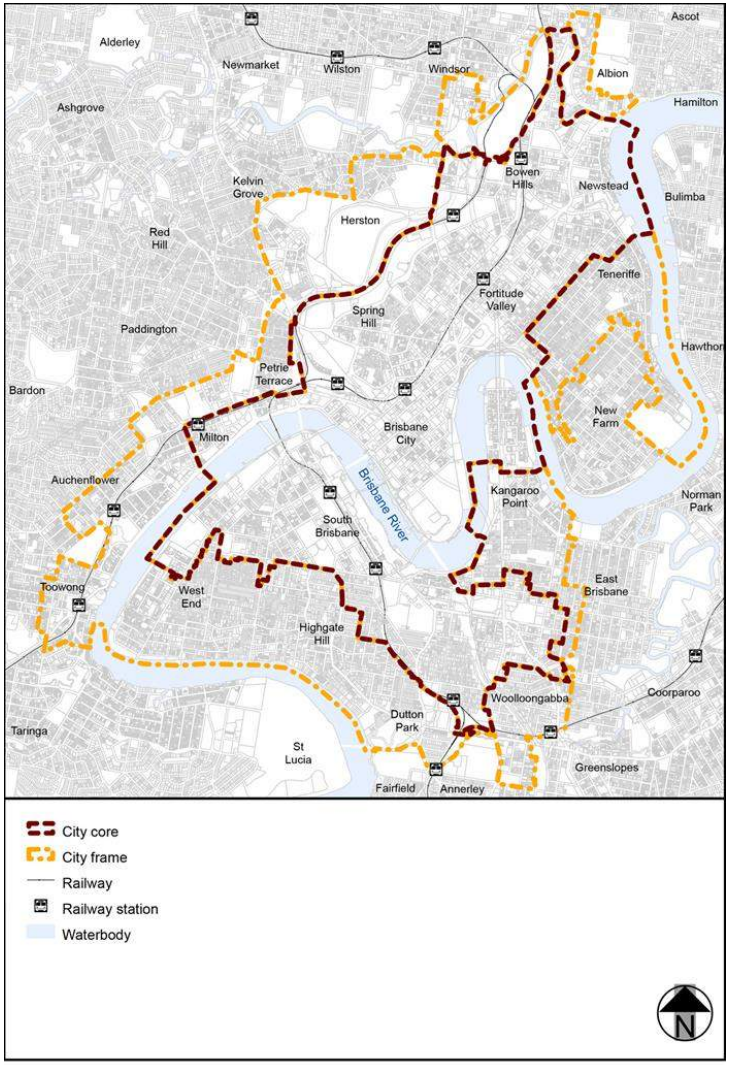


Figure a—City core and City frame

View the high resolution of Figure a-City core and City frame

9.4.3 Filling and excavation code

9.4.3.1 Application

1. This code applies to assessing:
    a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
    b. operational work for filling or excavation which is assessable development if this code is an applicable code identified in the assessment benchmarks column of a table of assessment for operational work (section 5.8) or an overlay (section 5.10); or
    c. a material change of use or reconfiguring a lot if:
        i. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for material change of use (section 5.5) or reconfiguring a lot (section 5.6); or
        ii. impact assessable development, to the extent relevant.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—This code does not apply to building work as defined in the Act.

Note—A development application involving a rock anchor within an adjoining site is submitted with proof of consent from an adjoining land and building owner.

Editor's note—Guidance on managing the spread of invasive species in filling or excavation activities is provided in Minimising Pest Spread Advisory Guidelines prepared for the Petroleum industry.

Editor's note—Where filling or excavation is conducted on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register, the relevant Queensland Government department should be contacted for advice and guidelines.

2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- air quality assessment, guidance is provided in the Air quality planning scheme policy;
- ecological assessment, koala habitat or development design, guidance is provided in the Biodiversity areas planning scheme policy;
- retaining wall construction, guidance is provided in the Infrastructure design planning scheme policy;
- landscape design, guidance is provided in the Landscape design planning scheme policy;
- noise and dust impacts during construction and/or demolition, guidance is provided in the Management plans planning scheme policy;
- noise impact assessment, guidance is provided in the Noise impact assessment planning scheme policy;
- the selection of planting species, guidance is provided in the Planting species planning scheme policy;
- significant vegetation, guidance is provided in the Vegetation planning scheme policy.

Editor's note—For a proposal to be accepted development, subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcome that the proposal fails to meet needs to be assessed against the corresponding acceptable outcome or performance outcome and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

9.4.3.2 Purpose

1. The purpose of the Filling and excavation code is to assess the suitability of development for filling or excavation.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. filling or excavation does not adversely affect the visual character and amenity of the site or the surrounding area and provides access for maintenance to any structure as a result of filling or excavation.
    b. filling or excavation does not adversely impact significant vegetation, water quality or drainage of upstream, downstream and adjoining land.
    c. filling or excavation effectively manages the impacts associated with the activity.
    d. filling or excavation and any retaining structure is designed and constructed to be fit for purpose and to protect services and utilities.

9.4.3.3 Performance outcomes and acceptable outcomes

Table 9.4.3.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development for filling or excavation minimises visual impacts from retaining walls and earthworks.	**AO1** Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: a. 2.5m in a zone in the Industry zones category; b. 1m in all other zones, or if adjoining a sensitive zone.	**AO1 Complies** A proposed retaining wall for access driveway does not exceed 1m
PO2 Development of a retaining wall proposed as a result of filling or excavation: a. is designed and constructed to be fit for purpose; b. does not impact adversely on significant vegetation; c. is capable of easy maintenance. Editor's note—A retaining wall also needs to comply with the Building Regulation and embankment gradients will need to comply with the Building Regulation.	**AO2.1** Development of a retaining structure, including footings, surface drainage and subsoil drainage: a. is wholly contained within the site; b. if the total height to be retained is greater than 1m, then: i. the retaining wall at the property boundary is no greater than 1m above the ground level; ii. all further terracing from the 1m high	**AO2 Complies** Refer to submitted engineering drawings.

Note—Guidance on the protection of native vegetation is included in the Biodiversity areas planning scheme policy.	boundary retaining wall is 1 vertical unit:1 horizontal unit; iii. the distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1m horizontally to incorporate planting areas. **AO2.2** Development of a retaining wall over 1m in height protects significant vegetation on the site and on adjoining land and is designed and constructed in accordance with the structures standards in the Infrastructure design planning scheme policy and certified by a Registered Professional Engineer Queensland.	
	AO2.3 Development provides a retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary.	
	AO2.4 Development for filling only uses clean fill that does not include any construction rubble, debris, weed seed or viable parts of plant species listed as an undesirable plant species in the Planting species planning scheme policy.	
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.	**AO3** Development ensures that a rock anchor: a. is constructed in accordance with the standards in the Infrastructure design planning scheme policy; b. where it extends beyond the property boundary, is supported by a letter of consent from the	**Not Applicable**

	adjoining land and building owners.	
PO4 Development protects all services and public utilities.	**AO4** Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	**AO4 Complies** Refer to submitted engineering report.
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	**AO5** Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	**AO5 Complies** Refer to submitted engineering report.
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system for major flows, by using a vegetated open channel or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	**AO6** Filling or excavation does not involve the construction of open drainage.	**AO5 Complies** Open drainage is not proposed.
PO7 Development for filling or excavation: a. does not degrade water quality or adversely affect environmental values in receiving waters; b. ensures site sediment and erosion control standards are best practice.	**AO7.1** Development for filling or excavation provides water quality treatment that complies with the stormwater drainage section of the Infrastructure design planning scheme policy. **AO7.2** Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning	**AO7 Complies** Refer to submitted engineering report.

	scheme policy.	
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO8.1** Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site. **AO8.2** Development for filling or excavation activity only occurs between the hours of 6:30am and 6:30pm Monday to Saturday, excluding public holidays.	**AO8 Complies** Council can impose reasonable and relevant development conditions to address construction work.
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.B, Table 9.4.3.3.C, Table 9.4.3.3.D and Table 9.4.3.3.E. Note—A noise management report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO9** Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	**AO9 Complies** Council can impose reasonable and relevant development conditions to address construction work.
PO10 Development ensures that heavy trucks hauling material to and from the site do not affect the amenity of established areas and limits environmental nuisance impact on adjacent land.	**AO10** Development ensures that heavy trucks hauling material to and from the site: a. occur for a maximum of 3 weeks; b. use a major road to access the site; c. only use a minor road for the shortest-most-direct route that has the least amount of environmental nuisance if there is no major road alternative.	**AO10 Complies** Council can impose reasonable and relevant development conditions to address construction work.
PO11 Development for filling or excavation protects the environment and community health and wellbeing from exposure to contaminated land and contaminated material.	**AO11** Development does not involve: a. excavation on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; b. filling with material containing a contaminant.	**AO11 Complies** Council can impose reasonable and relevant development conditions to address construction work.

PO12 Development provides for: a. landscaping for water conservation purposes; b. water sensitive urban design measures which are employed within the landscape design to maximise stormwater use; c. drainage and stormwater measures to reduce any adverse impacts on the landscape; d. stormwater harvesting to be maximised and any adverse impacts of stormwater minimised; e. reticulated irrigation to all artificial growing environments. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance with the performance outcome and acceptable outcomes.	**AO12.1** Development provides drainage for artificial growing environments which is connected to the stormwater drain. **AO12.2** Development ensures that the maximum site stormwater harvest capacity is utilised to meet the irrigation demand of the development before alternative irrigation sources are utilised and is in compliance with the standards in the Landscape design planning scheme policy. **AO12.3** Development provides areas of pavement, turf, landscaping and mulched garden beds which are drained. Note—This may be achieved through the provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater connections. **AO12.4** Development provides a reticulated irrigation system to all landscaping areas in accordance with the Landscape design planning scheme policy.	**AO12 Complies** Refer to submitted engineering report.
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	**AO13** Development does not involve the creation of canals or artificial waterways.	**AO13 Complies** Development does not involve the creation of canals or artificial waterways.

Table 9.4.3.3.B— Recommended intermittent vibration levels for cosmetic damage

Type of building	Peak particle velocity (mm/s)
Reinforced or framed structures; industrial and heavy commercial buildings	50mm/s at 4Hz and above

Unreinforced or light-framed structures; residential or light-commercial type buildings	Below 4Hz	4Hz to 15Hz	15Hz and above
	0.6mm/s	15mm/s at 4Hz increasing to 20mm/s at 15Hz	20mm/s at 15Hz increasing to 50mm/s at 40Hz and above

Table 9.4.3.3.C— Recommended blasting vibration levels for human comfort

Type of building	Type of blasting operations	Peak component particle velocity (mm/s)
Residences, educational establishments and places of worship	Operation blasting longer than 12 months or more than 20 blasts	5mm/s for 95% blasts per year 10mm/s maximum unless agreement is reached with the occupier that a higher limit may apply
Residences, educational establishments and places of worship	Operations lasting for less than 12 months or less than 20 blasts	10mm/s maximum unless agreement is reached with the occupier that a higher limit may apply
Industry or commercial premises	All blasting	25 mm/s maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications or levels that do not adversely affect the equipment operation.

Table 9.4.3.3.D— Recommended levels for continuous and impulsive vibration acceleration (m/s^2) 1—80Hz for human comfort

Location	Assessment period(1)	Preferred values(3)		Maximum values(3)	
Continuous vibration		z-axis	x and y axes	z-axis	x and y axes

Critical areas[2]	Day or night	0.005 m/s^2	0.0036 m/s^2	0.01 m/s^2	0.0072 m/s^2
Residences	Day	0.01 m/s^2	0.0071 m/s^2	0.02 m/s^2	0.014 m/s^2
-	Night	0.007 m/s^2	0.005 m/s^2	0.014 m/s^2	0.01 m/s^2
Offices, educational establishments and places of worship	Day or night	0.02 m/s^2	0.014 m/s^2	0.04 m/s^2	0.028 m/s^2
Workshops	Day or night	0.04 m/s^2	0.029 m/s^2	0.08 m/s^2	0.058 m/s^2
Impulsive vibration					
Critical areas	Day or night	0.005 m/s^2	0.0036 m/s^2	0.01 m/s^2	0.0072 m/s^2
Residences	Day	0.3 m/s^2	0.21 m/s^2	0.6 m/s^2	0.42 m/s^2
-	Night	0.1 m/s^2	0.071 m/s^2	0.2 m/s^2	0.14 m/s^2
Offices, educational establishments and places of worship	Day or night	0.64 m/s^2	0.46 m/s^2	1.28 m/s^2	0.92 m/s^2
Workshops	Day or night	0.64 m/s^2	0.46 m/s^2	1.28 m/s^2	0.92 m/s^2

Note—

(1) Day is 7am to 10pm and night is 10pm to 7am.

(2) Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring.

(3) Situations exist where vibration above the preferred values can be acceptable, particularly for temporary or short-term events. Further guidance is given in the Noise impact assessment planning scheme policy.

Table 9.4.3.3.E— Recommended vibration dose values for intermittent vibration ($m/s^{1.75}$) for human comfort

Location	**Daytime[1]**		**Night time[1]**	
	Preferred value	**Maximum value**	**Preferred value[3]**	**Maximum value[3]**

Critical areas(2)	0.1 $m/s^{1.75}$	0.2 $m/s^{1.75}$	0.1 $m/s^{1.75}$	0.2 $m/s^{1.75}$
Residences	0.2 $m/s^{1.75}$	0.4 $m/s^{1.75}$	0.13 $m/s^{1.75}$	0.26 $m/s^{1.75}$
Offices, educational establishments and places of worship	0.4 $m/s^{1.75}$	0.8 $m/s^{1.75}$	0.4 $m/s^{1.75}$	0.8 $m/s^{1.75}$
Workshops	0.8 $m/s^{1.75}$	1.6 $m/s^{1.75}$	0.8 $m/s^{1.75}$	1.6 $m/s^{1.75}$

Note—

(1) Day is 7am to 10pm and night is 10pm to 7am.

(2) Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring.

(3) Situations exist where vibration above the preferred values can be acceptable, particularly for temporary or short-term events. Further guidance is given in the Noise impact assessment planning scheme policy.

9.4.9 Stormwater code

9.4.9.1 Application

1. This code applies to assessing a material change of use, reconfiguring a lot or operational work if:
    a. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for a material change of use (section 5.5), reconfiguring a lot (section 5.6) operational work (section 5.8) or an overlay (section 5.10); or
    b. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy.

9.4.9.2 Purpose

1. The purpose of the Stormwater code is to assess the suitability of the stormwater aspects of development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development achieves acceptable levels of stormwater run-off quality and quantity by applying water sensitive urban design principles as part of an integrated stormwater management framework.
    b. Development protects public health and safety and protects against damage or nuisance caused by stormwater flows.
    c. Development has a stormwater management system which maintains, recreates or minimises impact to natural catchment hydrological processes.
    d. Development ensures that the environmental values of the city's waterways are protected or enhanced.
    e. Development minimises run-off, including peak flows.
    f. Development maintains or enhances the efficiency and integrity of the stormwater infrastructure network.
    g. Development minimises the whole of life cycle cost of stormwater infrastructure.

9.4.9.3 Performance outcomes and acceptable outcomes

Table 9.4.9.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for a material change of use, reconfiguring a lot, operational work or building work Note—Compliance with the performance outcomes and acceptable outcomes in this section should be demonstrated by the submission of a site-		sbSMP report is provided-complies

based stormwater management plan for high risk development only.		
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: a. minimise flooding; b. protect environmental values of receiving waters; c. maximise the use of water sensitive urban design; d. minimise safety risk to all persons; e. maximise the use of natural waterway corridors and natural channel design principles. Editor's note—The stormwater management system to be developed to address PO1 is not intended to require management of stormwater quality.	**AO1** Development provides a stormwater management system designed in compliance with the Infrastructure design planning scheme policy.	The proposed development is a small-scale residential subdivision (1 into 2 lots) on a site of approximately **1,538 m²**, which does not trigger the State Planning Policy (SPP) water quality thresholds. The development: • Does not exceed **2,500 m² site area** • Does not involve six or more dwellings or lots • Will implement standard **erosion and sediment control measures during construction** Given the scale of development and low risk to receiving waters, additional stormwater quality treatment is not required. **Compliance:** ✓ Complies
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	**AO2.1** Development does not result in an increase in flood level or flood hazard on up slope, down slope or adjacent premises. **AO2.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	A stormwater quantity assessment has been undertaken using the **Rational Method**. The results demonstrate: • A **minor increase in peak discharge (~2.7%)** across storm events • No material change in runoff behaviour • No adverse downstream impacts Stormwater is discharged to the **Buscall Court kerb and channel**, which forms part of the existing Council drainage network. In accordance with **BCC PSP Clause 7.5.2**, stormwater detention is not required as: • The increase in runoff is negligible • The site drains directly to Council infrastructure • No flooding or nuisance impacts are created **Compliance:** ✓ Complies
PO3 Development ensures that the stormwater management system does not direct stormwater run-off through	**AO3.1** Development ensures that the location of the stormwater drainage system is contained within a road reserve,	The lawful point of discharge is the **Buscall Court kerb and channel** along the southern frontage. Stormwater will be: • Collected via pits and roof drainage

existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	drainage reserve, public pathway, park or waterway corridor. **AO3.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	• Conveyed through a pipe network • Discharged via **kerb adaptors** This arrangement is compliant with Council requirements. **Compliance:** ✓ Complies
	AO3.3 Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure design planning scheme policy.	
	AO3.4 Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey run-off taking into account increased run-off from impervious surfaces and flooding in local catchments.	**AO4.1** Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the standards in the Infrastructure design planning scheme policy. **AO4.2** Development provides sufficient area to convey run-off which will comply with the standards in the Infrastructure design planning scheme policy.	The proposed underground drainage system will: • Capture runoff from roof and paved areas • Convey flows without surcharge during minor storm events (Q5–Q20) • Discharge to the street network The system will be designed in accordance with Council standards. **Compliance:** ✓ Complies
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	**AO5** Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	NA
PO6 Development ensures that location and design of stormwater detention and water quality treatment:	**AO6.1** Development locates stormwater detention and water quality treatment:	NA

a. minimises risk to people and property; b. provides for safe access and maintenance; c. minimises ecological impacts to creeks and waterways.	a. outside of a waterway corridor; b. offline to any catchment not contained within the development. **AO6.2** Development providing for stormwater detention and water quality treatment devices are designed in compliance with the standards in the Infrastructure design planning scheme policy.	
PO7 Development is designed, including any car parking areas and channel works to: a. reduce property damage; b. provide safe access to the site during the defined flood event.	**AO7.1** Development (including any ancillary structures and car parking areas) is located above minimum flood immunity levels in Table 9.4.9.3.B, Table 9.4.9.3.C, Table 9.4.9.3.D, Table 9.4.9.3.E and Table 9.4.9.3.F. Note—Compliance with this acceptable outcome can be demonstrated by the submission of a hydraulic and hydrology report identifying flood levels and development design levels (as part of a site-based stormwater management plan). **AO7.2** Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the Infrastructure design planning scheme policy.	Erosion and sediment control measures will be implemented during construction in accordance with best practice guidelines, including: • Sediment fencing • Stabilised construction access • Progressive site stabilisation These measures will minimise sediment export from the site. **Compliance:** ✓ Complies
PO8 Development designs stormwater channels, creek modification works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	**AO8.1** Development ensures natural waterway corridors and drainage paths are retained. **AO8.2** Development provides the required hydraulic conveyance of the drainage channel and floodway, while maximising its potential to maximise environmental benefits and minimise scour. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	NA

	AO8.3 Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure design planning scheme policy.	
	AO8.4 Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure design planning scheme policy.	
PO9 Development is designed to manage run-off and peak flows by minimising large areas of impervious material and maximising opportunities for capture and re-use.	**AO9** No acceptable outcome is prescribed.	**Compliance:** ✓ Complies
PO10 Development ensures that there is sufficient site area to accommodate an effective stormwater management system. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO10** No acceptable outcome is prescribed.	**Response:** The proposed drainage system: • Is fully underground (pipe network) • Discharges via kerb adaptors to the street • Does not introduce open channels or hazards No adverse impacts on safety or amenity are anticipated. **Compliance:** ✓ Complies
PO11 Development provides for the orderly development of stormwater infrastructure within a catchment, having regard to the: a. existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; b. safe management of stormwater discharge from existing and future up-slope development; c. implication for adjacent and down-slope	**AO11.1** Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge. **AO11.2** Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Infrastructure design planning	NA

development.	scheme policy.	
PO12 Development provides stormwater infrastructure which: a. remains fit for purpose for the life of the development and maintains full functionality in the design flood event; b. can be safely accessed and maintained cost effectively; c. ensures no structural damage to existing stormwater infrastructure.	**AO12.1** The stormwater management system is designed in compliance with the Infrastructure design planning scheme policy. **AO12.2** Development provides a clear area with a minimum of 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	The proposed development: • Maintains existing drainage patterns • Does not increase flow to adjoining properties • Directs runoff to the street network No adverse impacts on neighbouring properties are expected. **Compliance:** ✓ Complies
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: a. the environmental values and water quality objectives of waters; b. waterway hydrology; c. the maintenance and serviceability of stormwater infrastructure. Note—The Infrastructure design planning scheme policy outlines the appropriate measures to be taken into account to achieve the performance outcome.	**AO13** No acceptable outcome is prescribed.	**Compliance:** ✓ Complies
PO14 Development ensures that: a. unnecessary disturbance to soil, waterways or drainage channels is avoided; b. all soil surfaces remain effectively stabilised against erosion in the short and long term.	**AO14** No acceptable outcome is prescribed.	**Compliance:** ✓ Complies
PO15	**AO15**	**Compliance:** ✓ Complies

Development does not increase: a. the concentration of total suspended solids or other contaminants in stormwater flows during site construction; b. run-off which causes erosion either on site or off site.	No acceptable outcome is prescribed.	
Section B—Additional performance outcomes and acceptable outcomes which apply to high-risk development, being one or more of the following: a. a material change of use for an urban purpose which involves greater than 2,500m^2 of land that: i. will result in an impervious area greater than 25% of the net developable area; or ii. will result in 6 or more dwellings. b. reconfiguring a lot for an urban purpose that involves greater than 2,500m^2 of land and will result in 6 or more lots; c. operational work for an urban purpose which involves disturbing greater than 2,500m^2 of land.		
PO16 Development ensures that the entry and transport of contaminants into stormwater is avoided or minimised to protect receiving water environmental values. Note—Prescribed water contaminants are defined in the *Environmental Protection Act 1994*. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO16** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	NA
PO17 Development ensures that: a. the discharge of wastewater to a waterway or external to the site is avoided; or b. if the discharge cannot practicably be avoided, the development minimises wastewater discharge through re-use, recycling, recovery and treatment. Note—The preparation of a wastewater management plan can assist in demonstrating achievement of this performance outcome. Editor's note—This code does not deal with sewerage which is the subject of the Wastewater code.	**AO17** No acceptable outcome is prescribed.	NA

Section C—Additional performance outcomes and acceptable outcomes for assessable development for a material change of use or reconfiguring a lot		
PO18 Development protects stormwater infrastructure to ensure the following are not compromised: a. the long term infrastructure for the stormwater network in the Long term infrastructure plans; b. the existing and planned infrastructure for the stormwater network in the Local government infrastructure plan; c. the provision of long term, existing and planned infrastructure for the stormwater network which: i. is required to service the development or an existing and future urban development in the planning scheme area; or ii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	**AO18** Development protects stormwater infrastructure in compliance with the following: a. for long term infrastructure for the stormwater network, the Long term infrastructure plans; b. for existing and planned infrastructure for the stormwater network, the Local government infrastructure plan; c. the standards for stormwater drainage in the Infrastructure design planning scheme policy.	NA
PO19 Development provides for the payment of extra trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: i. trunk infrastructure that is to be provided earlier than planned in the Local	**AO19** No acceptable outcome is prescribed.	NA

government infrastructure plan; ii. long term infrastructure for the stormwater network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the stormwater network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the *Planning Act 2016*.		

Table 9.4.9.3.B—Categories of flood planning levels

Flooding type(1)	**Minimum design floor or pavement levels (m AHD)(2) (refer to Table 9.4.9.3.C for assignment of these categories)**				
	Category A	**Category B**	**Category C**	**Category D**	**Category E**
Waterway(A) or open channel	1% AEP flood level + 500mm	1% AEP flood level + 300mm	1% AEP flood level	1% AEP flood level	5% AEP flood level
Overland flow flooding(B)	2% AEP flood level +500mm	2% AEP flood level +300mm	2% AEP flood level	2% AEP flood level	5% AEP flood level

Notes—

(1) Where the site is subject to more than one type of flooding that is overland flow flooding, creek or waterway flooding or river flooding, the minimum flood immunity level is the highest level determined from these sources.

(2) Where flood levels are not available from Council's Floodwise Property Report such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note (A) A waterway, including any indicated on the planning scheme maps, is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks, typically with a catchment area

greater than 30ha.

Note [B] Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded and/or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 5% is the equivalent of a 20 year ARI flood event.

Note—The flood immunity level in some older inner-city areas is often controlled by local ponding.

Table 9.4.9.3.C—Flood planning level categories for development types

BCA building classification(1)	**Development types and design levels, assigned design floor or pavement levels**	**Category Refer to Table 8.2.11.3.L**
Class 1—4	Habitable room	Category A
	Non-habitable room including patio and courtyard	Category B
	Non-habitable part of a Class 2 or Class 3 building excluding the essential services(2) control room	Category B
	Parking located in the building undercroft of a multiple dwelling	Category C
	Carport(4), unroofed car park; vehicular manoeuvring area	Category D
	Essential electrical services(2) of a Class 2 or Class 3 building only	Category A(6)
	Basement parking entry(3)	Category C + 300mm
Class 5, Class 6, or Class 8	Building floor level	Category C
	Garage or car park located in the building undercroft(3)	Category C
	Carport(4) or unroofed car park	Category D

	Vehicular access and manoeuvring areas	Category D
	Basement parking entry(3)	Category C
	Essential electrical services(2)	Class 8 — Category C(6) Class 5 & 6 — Category A(6)
Class 7a	Refer to the relevant building class specified in this table	
Class 7b	Building floor level	Category C
	Vehicular access and manoeuvring area	Category D
	Essential electrical services(2)	Category C
Class 9	Building floor level	Category A
	Building floor level for habitable rooms in Class 9a or 9c where for a residential care facility	0.2% AEP flood
	Garage or car park located in the building undercroft(3)	Category C
	Carport(4) or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Essential electrical services(2)	Category A
Class 10a	Car parking facility	Refer to the relevant building class specified in this table
	Shed(5) or the like	Category D
Class 10b	Swimming pool	Category E
	Associated mechanical and electrical pool equipment	Category C
	Other structures	Flood immunity standard does not apply

Notes—

(1) Refer to the Building Code of Australia for definitions of building classifications.

(2) Essential services include any room used for fire control panel, telephone PABX, sensitive substation equipment including transformers, low voltage switch gear, high-voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high-voltage cables and lift controls.

(3) Basement car parks must be suitably waterproofed and all air vents, air-conditioning ducts, pedestrian access and entry and exit ramps at the car park entrance have flood immunity in accordance with this table.

(4) A shelter for a motor vehicle, which has a roof and one or more open sides, and which can be built against the side of a building.

(5) A slight or rough structure built for shelter and storage; or a large strongly built structure, often open at the sides or end.

(6) Where essential services are proposed in a basement below the specified flood planning level, the flood immunity of all air vents, air-conditioning ducts, pedestrian access, lift shafts and entry/exit ramps at the basement entrance and any other openings into that basement must conform to Category A for Residential development, and the relevant basement entry level of all other uses. This will require a waterproof basement design to prevent floodwaters entering the basement to ensure flood immunity.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.

Note—Where a building has a combination of uses that includes a component of class 2, 3 or 9, the essential services for that building shall comply with the requirements of the building class with the greatest flood immunity requirement.

Note—Use classes for residential development also include basement storage.

Table 9.4.9.3.D—Flood planning levels for a new road

Flooding type(1)	**Minimum design levels at the crown of the road (m AHD) (2)**	
	Residential development	**Industrial or commercial development**
Waterway(A) or open channel	1% AEP flood level	2% AEP flood level
Overland flow flooding(B)	2% AEP flood level	2% AEP flood level

Notes—

(1) Where the site is subject to more than 1 type of flooding, the minimum flood planning level is the highest level determined from these sources. It should be noted that the flooding planning level in some older areas is often controlled by local ponding.

(2) Where flood levels are not available from Council's Floodwise Property Report, such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note (A) A waterway including any indicated on the planning scheme maps is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks typically with a catchment area greater than 30ha.

Note (B) Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded and/or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 5% is the equivalent of a 20 year ARI flood event.

Table 9.4.9.3.E—Flood planning levels for essential community infrastructure

Type of essential community infrastructure	Minimum design levels
Emergency services	0.2% AEP flood
Emergency services, where for an emergency shelter	0.5% AEP flood
Emergency services, where for police facilities	0.5% AEP flood
Hospital and health care service, where associated with a hospital	0.2% AEP flood
Community facility where involving storage of valuable records or items of historic or cultural significance (e.g. galleries and libraries)	0.5% AEP flood
State-controlled roads Major or minor electricity infrastructure not otherwise listed in this table Utility installation where for rail transport services Air service Telecommunications facility	No specific recommended level but development proponents should ensure that the infrastructure is optimally located and designed to achieve suitable levels of service, having regard to the processes and policies of the administering government agency.
Power stations (as defined in the *Electricity Act 1994*) or renewable energy facility.	0.2% AEP flood
Major electricity infrastructure where a major switch yard	0.2% AEP flood
Substations	0.5% AEP flood
Utility installation where for a sewage treatment plant	DFE
Utility installation where for a water treatment plant	0.5% AEP flood

Note—A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.

Note—A flood event with an AEP of 0.5% is the equivalent of a 200 year ARI flood event.

Table 9.4.9.3.F—Flood planning levels for reconfiguring a lot

Flooding type[1]	**Minimum lot levels (m AHD)[2]**	
	Residential	**Other than residential**
Waterway[A] or open channel	1% AEP flood level + 300mm	1% AEP flood level
Overland flow flooding[B]	1% AEP flood level + 300mm	2% AEP flood level

Notes—

[1] Where the site is subject to more than one type of flooding, the minimum flood immunity level is the highest level determined from these sources.

[2] Where flood levels are not available from Council's Floodwise Property Report such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note [A] A waterway including any indicated on the planning scheme maps is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks typically with a catchment area greater than 30ha.

Note [B] Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

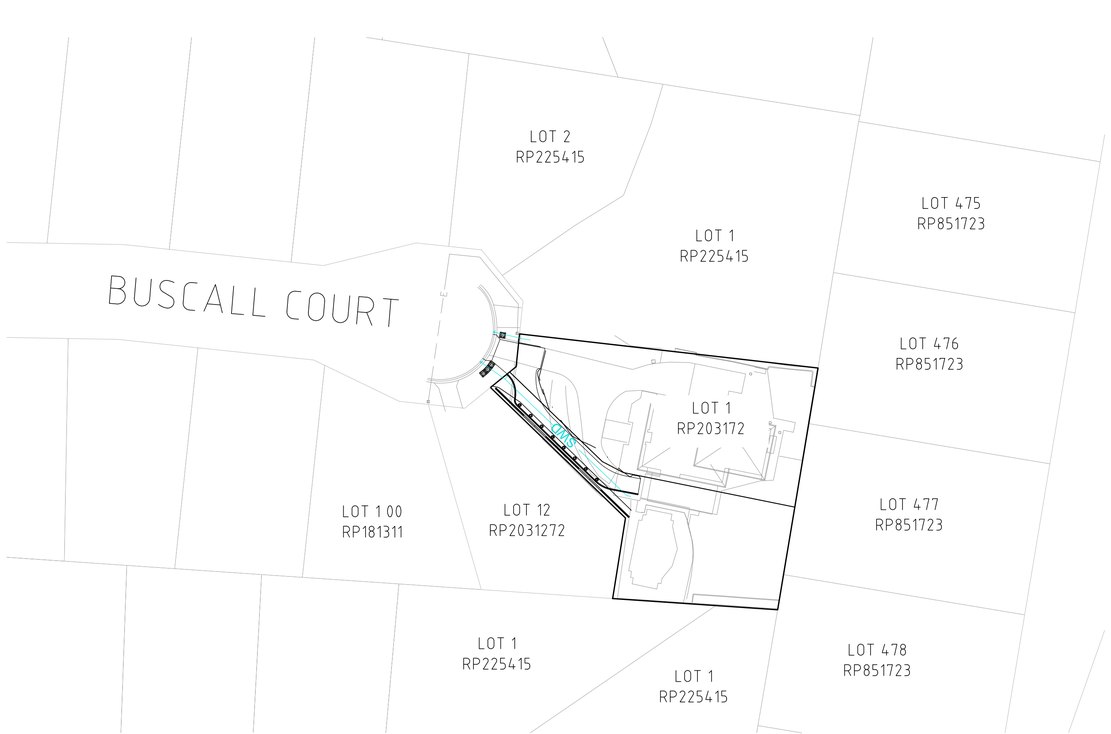
Appendix 8
Engineering Drawings - Ark Consulting Group Pty Ltd

RESIDENTIAL DEVELOPMENT

for **Mr. Allan Cadman& Ms. Louette Cadman**

DRAWING LIST

NO.	DRAWING NUMBER	TITLE	LATEST REVISION	DATE
1	ARK 26164-DA01	COVERSHEET	A	29.03.2026
2	ARK 26164-DA02	NOTES	A	29.03.2026
3	ARK 26164-DA03	ROAD AND DRAINAGE LAYOUT	A	29.03.2026
4	ARK 26164-DA04	EARTHWORKS LAYOUT	A	29.03.2026
5	ARK 26164-DA05	SITE CROSS SECTIONS	A	29.03.2026
6	ARK 26164-DA06	SERVICES LAYOUT	A	29.03.2026
7	ARK 26164-DA07	BORED PIERS AND DRIVEWAY DETAILS	A	29.03.2026



SITE LAYOUT PLAN
SCALE 1:750 @ A1

LOCALITY MAP
(GOOGLE MAP)
NTS

SURVEY INFORMATION

SURVEYOR: FOCUS ON SURVEYPARISH OF: REFER SURVEY
COUNTY OF: REFER SURVEY
LOCAL AUTHORITY: IPSWICH CITY COUNCIL

LEVEL DATUM: N/A PSMno: -

REFERENCE PLANS No. FOS-885
SURVEY DATE: 19.01.2026

WORKS BOUNDARY

0 10 20 30 40 50m
10 7.5 5 2.5
SCALE 1:500 (A1) 1:1000 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: COVER

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Job No.	Drawing No.	Revision
ARK-26-164	DA01	A

FOR APPROVAL

GENERAL NOTES

1. ALL ELEVATIONS REFER TO THE AUSTRALIAN HEIGHT DATUM (AHD).
2. ALL RELEVANT SERVICE AUTHORITIES MUST BE NOTIFIED IN WRITING A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE START OF WORKS.
3. IF SURVEY CONTROL MARKS (TBM'S) ARE MISSING AT THE START OF CONSTRUCTION, THEY MUST BE RE-ESTABLISHED BY A LICENSED SURVEYOR. THE CONTRACTOR WILL THEN BE RESPONSIBLE FOR THEIR ONGOING PROTECTION AND MAINTENANCE.
4. EXISTING SURFACE LEVELS DISPLAYED ON THESE DRAWINGS ARE BASED ON A 2D SURVEY COMBINED WITH LIDAR DATA. THESE LEVELS HAVE INFORMED THE ENGINEERING DESIGN AND QUANTITY ESTIMATES. THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION MATCHES THE DESIGN INTENT AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE SUPERINTENDENT.
5. THE CONTRACTOR MUST OBTAIN APPROVAL FOR THE TRAFFIC MANAGEMENT PLAN FROM THE LOCAL COUNCIL AT LEAST SEVEN (7) DAYS BEFORE WORK BEGINS—EARLIER IF REQUIRED. THE TRAFFIC MANAGEMENT AND CONTROL PLANS, INCLUDING ACCESS ARRANGEMENTS, MUST ALSO BE ENDORSED BY THE RESPONSIBLE ROAD AUTHORITY.
6. ALL CONSTRUCTION VEHICLES ARE TO REMAIN WITHIN THE DESIGNATED ROAD RESERVE AND CAR PARK. ANY DAMAGE TO EXISTING FOOTPATHS OR KERB & CHANNEL MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. BEFORE ANY WORK COMMENCES, INSTALL ALL NECESSARY VEGETATION PROTECTION, EROSION CONTROL, AND SITE-SPECIFIC SEDIMENT MANAGEMENT MEASURES.
8. ANY STRUCTURES SUCH AS BUILDINGS, TROUGHS, OR FENCES MARKED FOR REMOVAL SHALL BE DISMANTLED AS INSTRUCTED BY THE ENGINEER. REMOVAL COSTS ARE TO BE INCLUDED IN EARTHWORKS UNLESS OTHERWISE SPECIFIED IN THE SCHEDULE.
9. THE CONTRACTOR MUST LOCATE AND CONFIRM THE POSITION OF ALL EXISTING SERVICES BEFORE BEGINNING WORK. ANY EXISTING SERVICES OR STRUCTURES ARE TO BE PRESERVED IN GOOD CONDITION THROUGHOUT THE PROJECT. DAMAGE TO EXISTING SERVICES IS THE CONTRACTOR'S RESPONSIBILITY AND COST TO REPAIR.
10. THE WORKSITE MUST BE CLEARED OF ALL UNWANTED MATERIALS, INCLUDING DEAD WOOD, STONES, VEGETATION, OLD FOUNDATIONS, CONCRETE, DEBRIS, OR OTHER WASTE. VOIDS LEFT BY REMOVALS MUST BE FILLED WITH APPROVED COMPACTED FILL.
11. ALL SPOIL AND CLEARED MATERIAL MUST BE REMOVED FROM SITE. NO STOCKPILING OR FILLING SHALL OCCUR ON PUBLIC RESERVES OR COMMON PROPERTY UNLESS AUTHORISED BY THE SITE ENGINEER OR SUPERINTENDENT.
12. TOPSOIL MUST BE STRIPPED AND STOCKPILED BEFORE EARTHWORKS BEGIN. ONCE CIVIL WORKS ARE COMPLETE, TOPSOIL SHALL BE REPLACED IN LANDSCAPE AREAS. ANY EXCESS MUST BE DISPOSED OF OFF-SITE.
13. UNLESS OTHERWISE INDICATED, ALL EARTH BATTERS ARE TO BE FORMED AT A SLOPE OF 1 VERTICAL TO 4 HORIZONTAL (1:4).
14. ALL EXISTING SERVICES SHOWN ON THESE DRAWINGS MUST BE PHYSICALLY LOCATED ON SITE PRIOR TO ANY CONSTRUCTION WORK. COORDINATE WITH THE APPROPRIATE AUTHORITIES TO CONFIRM THEIR EXACT POSITION.

FLEXIBLE PAVEMENTS

1. ALL EXTERNAL WORK SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY. ALL NECESSARY TESTING SHALL BE CARRIED OUT AT THE CONTRACTOR'S EXPENSE WITH COPIES OF TEST CERTIFICATES SUPPLIED TO THE SUPERINTENDENT.
2. PROVISIONAL PAVEMENT DESIGN IS BASED ON A MINIMUM SUB-GRADE CBR OF 5 UNDER SERVICE CONDITIONS. THE STATED PAVEMENT DESIGN IS SUBJECT TO REVISION ON THE BASIS OF CONFIRMATORY SOAKED CBR TESTS AT THE TIME OF BOXING.
3. BASE AND SUB-BASE MATERIAL SHALL NOT BE INSTALLED UNTIL A SATISFACTORY PROOF ROLL HAS BEEN CONDUCTED ON THE SUB-GRADE.
4. SEALING SHALL NOT TAKE PLACE UNTIL A SATISFACTORY PROOF ROLL AND INSPECTION HAS BEEN CARRIED OUT ON THE FINISHED SURFACE.

EARTHWORKS NOTES

1. THE STANDARD FOR THE PROVISION OF EARTHWORKS ARE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", MODIFIED TO SUIT ALL LOCAL CONDITIONS, PRACTICES AND LOCAL AUTHORITY STANDARDS AS REQUIRED AND AS APPROVED IN WRITING BY THE SUPERINTENDENT.
2. SUPERVISION, INSPECTION AND TESTING IS TO BE CARRIED OUT IN ACCORDANCE WITH SECTION 8 AND APPENDIX B OF AS 3798. FOR ALL STRUCTURAL FILL THE SCOPE OF SERVICES TO BE PROVIDED BY THE GEOTECHNICAL TESTING AUTHORITY IS TO BE IN ACCORDANCE WITH LEVEL 1 AS DETAILED IN APPENDIX B AND IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS. LEVEL 3 SUPERVISION IS NOT PERMITTED FOR STRUCTURAL FILL, BUT IS ACCEPTABLE FOR NONSTRUCTURAL FILL.
3. CLEARED VEGETATION SHALL BE MULCH AND DISPOSED OF OFFSITE. BURNING OFF IS NOT CONSIDERED AN ACCEPTABLE MEANS OF DISPOSAL AND WILL NOT BE APPROVED.
4. EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVEL AND ARE TO INCLUDE TOPSOIL WHERE APPROPRIATE.
5. PRIOR TO WORKS, THE CONTRACTOR IS TO CHECK AND CONFIRM ANY STRUCTURES OR FENCING ENCROACHING THE WORKS AREA AND NOTIFY THE SUPERINTENDANT.
6. ALL SPOT HEIGHTS ARE GENERALLY FOR THE CORNER OF A LOT OR TOP/BOTTOM OF A BATTER, AND ARE FOR ASSISTANCE ONLY. IF A DISREPENCY OCCURS BETWEEN CONTOURS AND SPOT HEIGHTS, CONTACT SUPERINTENDANT FOR DIRECTION.
7. TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AS DIRECTED BY GEOTECHNICAL CONSULTANT AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
8. TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
9. THE ROAD PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE MINIMUM PAVEMENT THICKNESS FOR THE LOCAL AUTHORITY. THESE DEPTHS ARE PROVISIONAL ONLY AND ARE SUBJECT TO SOIL TESTING OF SUBGRADE MATERIALS AND LOCAL AUTHORITY APPROVAL.
10. ALL FOOTPATHS, BATTERS, ALLOTMENT FILL AREAS AND DISTURBED AREAS SHALL BE TOPSOILED FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING.
11. THE LOCATION OF RETAINING WALLS RELATIVE TO PROPERTY BOUNDARIES SHOULD BE AS SHOWN ON THE RETAINING WALL DETAILS (AS APPLICABLE), AND NOT SCALED FROM THE LAYOUT PLAN OR DIGITAL FILES. WHERE DISCREPANCY OCCURS, CONTACT SUPERINTENDING ENGINEER PRIOR TO WORKS.
12. AT COMPLETION OF RETAINING WALL CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SAFETY FENCING ON TOP OF ANY WALLS THAT ARE GREATER THAN 1.0m HIGH.
13. ALL ON-SITE VEHICLES AND MACHINERY TO REMAIN A MINIMUM DISTANCE FROM RETAINING WALL EQUIVALENT TO THE HEIGHT OF THE RETAINING WALL DURING THE FULL PERIOD OF CONSTRUCTION OF THE RETAINING WALL.
14. IF THERE ARE ANY OTHER WALLS WITHIN INFLUENCE OF THIS WALL, THE ENGINEER IS TO BE CONTACTED FOR RE-DESIGN.
15. EXTENT OF RETAINING WALL MAY DETERMINED ON SITE IN CONSULTATION WITH THE ENGINEER.

STORMWATER DRAINAGE

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HYDRAULICS CONSULTANT'S DRAWINGS.
2. ROOF WATER DRAINAGE IS TO BE CONNECTED TO PITS OR PIPES AS SHOWN ON DRAWINGS IN ACCORDANCE WITH THE HYDRAULICS CONSULTANT'S REQUIREMENTS.
3. UNDERGROUND STORMWATER LINES ARE TO BE CONSTRUCTED USING RCP STORMWATER DRAINAGE CLASS 2 PIPE TO AS 1254 OR APPROVED EQUIVALENT. ALL STORMWATER PIPES AND PITS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RELEVANT AUSTRALIAN AND LOCAL AUTHORITY STANDARDS.
4. STORMWATER PITS ARE TO BE CONSTRUCTED IN SITU IN ACCORDANCE WITH STD DRAWINGS OR VARIED AS NOTED ON THE DRAWINGS. PREFABRICATED STORMWATER PITS MAY BE USED SUBJECT TO WRITTEN APPROVAL FROM THE SUPERINTENDENT. CLASS D HEAVY DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN TRAFFIC AREAS, CLASS B LIGHT DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN LANDSCAPED OR PEDESTRIAN AREAS UNLESS NOTED OTHERWISE. ALL GRATES TO COMPLY WITH AS3996 FOR BICYCLE & WHEELCHAIRS AND TO BE NON SLIP.
5. ALL TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH CRUSHER DUST.
6. IF AN EXISTING SERVICE OR STRUCTURE CROSSES THE LINE OF A REQUIRED TRENCH, PROVIDE PERMANENT SUPPORT FOR THE EXISTING SERVICE.
7. WHERE A STORMWATER LINE CHANGE IN DIRECTION EXCEEDS MANUFACTURERS LIMITS, USE A MANHOLE OR SPECIALLY MANUFACTURED PRECAST BEND UNITS.
8. PROVIDE ANCHOR BLOCKS WHERE NEEDED TO RESTRAIN LATERAL MOVEMENT OF THE PIPELINES AT JUNCTIONS AND CHANGES IN DIRECTION.
9. WHERE ENCASEMENT IS SPECIFIED, USE 20MPa CONCRETE TO A DEPTH OF 150mm AROUND THE PIPE.
10. FOR DETAILS ON PIPE SURROUNDS AND BEDDING REFER TO IPWEA DS-030.
11. FOR INFORMATION ON PIPE LAYING, JOINTING AND DEFECT IDENTIFICATION REFER TO MORETON BAY REGIONAL COUNCIL 'AUS-SPEC C220'.
12. CAST INSITU GULLIES AND MANHOLES MAY BE CAST AGAINST THE GROUND, HOWEVER CONCRETE COVER SHALL BE INCREASED BY 50mm IN THIS CASE.
13. BENCH MANHOLES TO HALF HEIGHT OF CONNECTING PIPES USING SOLID CONCRETE AND RENDER WITH A SAND-CEMENT MORTAR TO A SMOOTH FINISH.
10. FOR DETAILS OF INLET STRUCTURES REFER TO IPWEA STD DS-050.

SETOUT NOTES:

1. SETOUT PAVEMENT MARKING FROM CONTROL LINES UNLESS DIMENSIONED OTHERWISE.
2. ALL LONGITUDINAL AND TRANSVERSE PAVEMENT MARKING TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURE 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2010) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. ALL INTERSECTION ARROWS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.10 AND 5.11 OF PART 2 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. ALL CHEVRONS TO COMPLY WITH THE DIMENSIONS SPECIFIED IN FIGURES 5.4,5.5 AND 5.6 OF THE THIRD ISSUE (2011) OF THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. ALL PAVEMENT MATERIALS TO COMPLY WITH AS4049.1-2005 AND ARE TO BE REFLECTORISED.

SIGNAGE NOTES:

1. ALL ROAD SIGNS ARE TO COMPLY WITH REQUIREMENTS SPECIFIED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. EXACT LOCATIONS OF TRAFFIC SIGNS TO BE AGREED ON-SITE WITH AUTHORITIES OFFICER.

RRPM NOTES:

1. PLACEMENT OF RRPMS TO BE AS PER 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

SEDIMENT & EROSION CONTROL NOTES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

1. AVOID STRIPPING & EXCAVATING UNTIL NECESSARY.
2. CONSTRUCTION OF AN ENTRY/EXIT POINT TO THE SITE SHOULD BE MANAGED SO THAT SEDIMENT IS NOT TRACKED OFF THE SITE.

BULK EARTHWORKS

3. TOPSOIL SHOULD BE STOCKPILED ON SITE FOR LATER USE.
4. WHERE PRACTICABLE MAINTAIN VEGETATION IN A HEALTHY STATE DURING THE CONSTRUCTION PROCESS.
5. WHEN UP SLOPE WATER IS DIVERTED AROUND A WORK SITE IT IDEALLY SHOULD BE DISCHARGED AS SHEET FLOW THROUGH AN UNDISTURBED AREA.

CONSTRUCTION OPERATIONS

6. THIS PLAN SUGGESTS MINIMUM SEDIMENT & EROSION PROTECTION. THE CONTRACTOR SHALL TAKE ANY OTHER MEASURES AS NECESSARY IN CONSULTATION WITH THE SUPERVISING ENGINEER.
7. ADHERE TO STORMWATER INLET PROTECTION DIAGRAM ON I.P.W.E.A.Q. STD. DWG. D-0041.
8. PLACE 12mm THICK PLATE OVER MANHOLES UNTIL CI FRAMES & LID ARRIVE. THIS IS TO KEEP SEDIMENT OUT OF DRAINAGE SYSTEM.
9. SAND BAGS ARE TO BE PLACED AT 45° TO THE ROAD AS SPECIFIED:
   (a) ROAD GRADE (0.5% TO 5%) - 25m MAX. CENTRES
   (b) ROAD GRADE (5% TO 10%) - 15m MAX. CENTRES
   (c) ROAD GRADE (10% TO 15%) - 10m MAX. CENTRES
   (d) ROAD GRADE (15% TO 20%) - 5m MAX. CENTRES
10. ERODABLE MATERIAL MISTAKENLY PLACED WITHIN THE ROAD RESERVE (INCLUDING ACCIDENTAL SPILLAGE & TRACKING OF SUCH MATERIALS ONTO THE ROAD) THAT CANNOT BE PREVENTED THROUGH REASONABLE MEANS, MUST BE:
    (a) REMOVED IMMEDIATELY IF RAINFALL IS IMMINENT OR OCCURRING.
    (b) REMOVED PRIOR TO THE END OF THE DAY'S WORK IF RAINFALL IS NOT EXPECTED.
11. MATERIALS SHOULD BE SWEPT FROM THE ROAD, NOT WASHED DOWN THE GUTTER.
12. ALL SOLID WASTE SHOULD BE STORED ON SITE IN SUCH A MANNER THAT IT IS PREVENTED FROM LEAVING THE SITE EITHER BY THE ACTION OF WIND OR WATER.
13. SMALLER MATERIALS, SUCH AS LITTER, SHOULD BE CONTAINED IN COVERED BINS.

STOCKPILES

14. STOCKPILES ARE NOT TO BE STORED ON THE FOOTPATH OR THE ROAD RESERVE, UNLESS APPROVED BY COUNCIL.
15. WHERE NECESSARY STOCKPILE LOSSES CAN BE MINIMIZED WITH THE USE OF COVERS.
16. ALL STOCKPILES & BUILDING MATERIAL SHOULD BE LOCATED WITHIN THE SEDIMENT CONTROL ZONE.
17. TO MINIMIZE EROSION & THE LOSS OF SAND & SOIL, STOCKPILES SHOULD NOT BE LOCATED WITHIN AN OVERLAND FLOW PATH. IF IT IS IMPRACTICAL TO AVOID STORMWATER RUNOFF BEING DIRECTED TO A STOCKPILE, THEN A PERIMETER BANK SHOULD BE CONSTRUCTED UP SLOPE OF THE STOCKPILE TO DIRECT RUNOFF IN A CONTROLLED MANNER AROUND THE STOCKPILE.

SEDIMENT BARRIERS

SEDIMENT FENCE

18. INSTALL SEDIMENT FENCE(S) ALONG THE LOW SIDE OF THE SITE & IDEALLY ALONG A LINE OF CONSTANT LAND LEVEL TO PREVENT THE CONCENTRATION OF STORMWATER RUNOFF. IN AREAS WHERE IT IS EITHER UNDESIRABLE OR IMPRACTICAL TO BURY THE LOWER EDGE OF THE SEDIMENT FENCE, THE LOWER 200mm (MIN) PORTION OF THE FABRIC SHOULD BE PLACED ON THE GROUND UP SLOPE OF THE FENCE & BURIED UNDER A 100mm (MIN) LAYER OF AGGREGATE REFER I.P.W.E.A.Q. STD. DWG. D-0040.

FIELD INLET GULLIES

19. SEDIMENT CONTROLS FOR STORMWATER INLETS LOCATED WITHIN THE PROPERTY BOUNDARIES MAY CONSIST OF GEOTEXTILE FABRIC PLACED EITHER DIRECTLY OVER THE GRATED INLET OR AROUND THE INLET SUPPORT BY A TIMBER FRAME. FIELD INLET PROTECTION IS NECESSARY WHERE INLETS DRAIN AREAS OF BARE & UNPROTECTED SOIL. DURING STORMS, PONDING SHOULD BE ALLOWED TO OCCUR AROUND THE STORMWATER INLET TO ASSIST IN THE SETTLING OUT OF SEDIMENTS. REFER I.P.W.E.A.Q. D-0041.

PAVEMENT INLET GULLY

20. A ROADSIDE INLET BARRIER IS TO BE INSTALLED, SO THAT IT SHOULD NOT BE ALLOWED TO FULLY BLOCK THE INLET STRUCTURE. ON A HILLSIDE, SEDIMENT BARRIERS MAY CONSIST OF A TEMPORARY DAM CONSTRUCTED FROM SAND & GRAVEL BAGS AT LEAST 4 METRES UP SLOPE FROM THE GULLY INLET.

GRASS SEEDING & TURFING

21. ALL DISTURBED AREAS ARE TO BE SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
22. AFTER FINAL TRIMMING OF FOOTPATHS PROVIDE ONE STRIP OF TURF 0.4m WIDE TO BACK OF KERB & CHANNEL AS SPECIFIED.

MAINTENANCE

23. SEDIMENT FENCES SHOULD BE REPLACED IF THE FABRIC IS RIPPED OR OTHERWISE DAMAGED. THE MAINTENANCE OF THE SEDIMENT FENCES INCLUDES THE REMOVAL OF SEDIMENT DEPOSITED UP SLOPE OF THE FENCE & RETRENCHING THE FABRIC WHEN THE FENCE IS 25% FULL.
24. FOLLOWING STORM EVENTS, THE ROAD RESERVE & ALL SEDIMENT BARRIERS SHOULD BE INSPECTED & ANY EXCESSIVE SEDIMENT RESIDUE SHOULD BE APPROPRIATELY REMOVED.
25. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES FOR THE FULL EXTENT OF THE DEFECTS LIABILITY PERIOD.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: NOTES

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Certified	BA
RPEQ No.	18146

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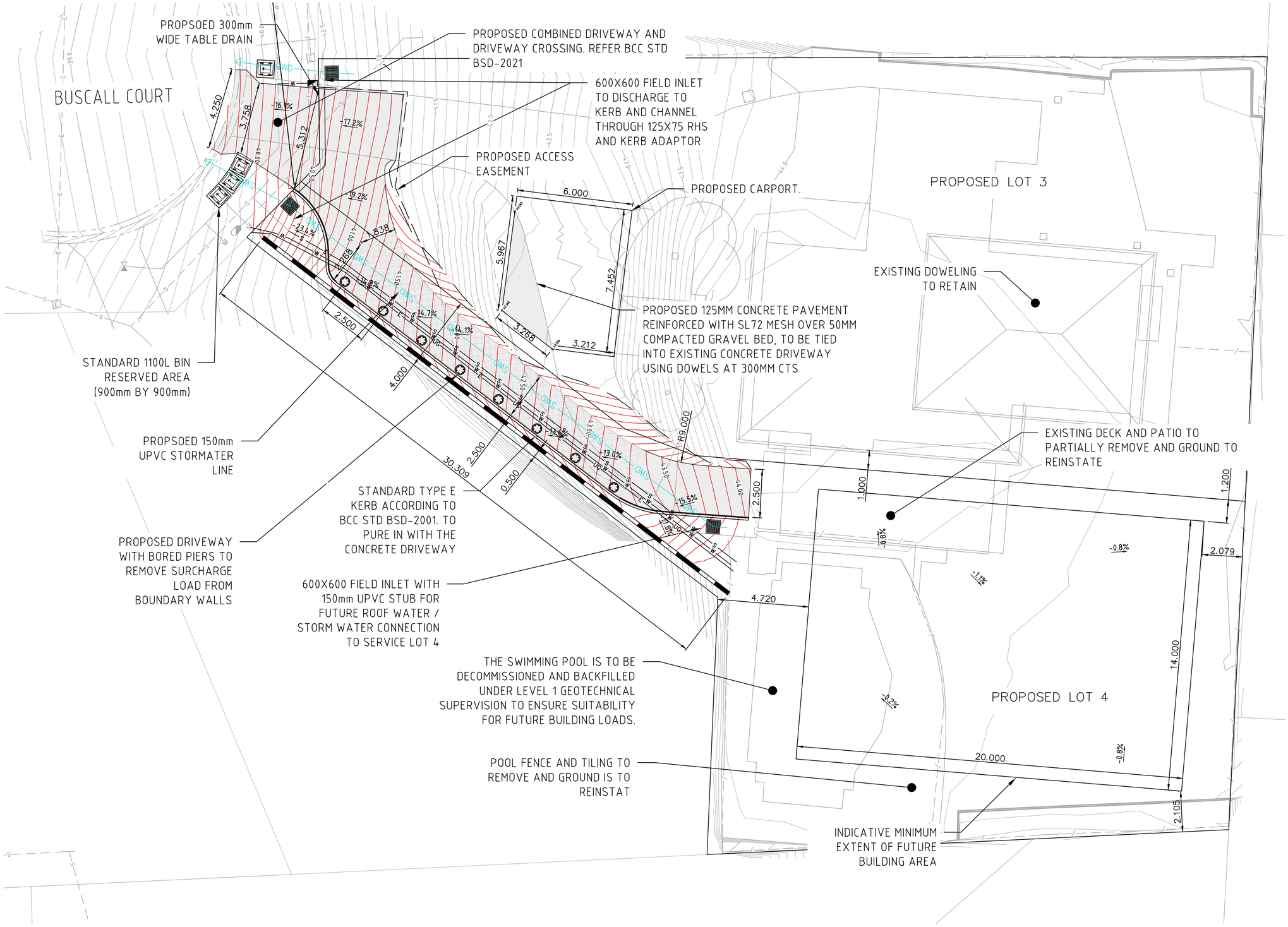
Job No.	Drawing No.	Revision
ARK-26-164	DA02	A

FOR APPROVAL



LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL- MAX HEIGHT 1.0m
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)
- TREES PROPOSED TO REMOVE

HATCHING LEGEND

- EXTENT OF PROPOSED CONCRETE DRIVEWAY AND CROSS OVER IN ACCORDANCE WITH BCC STD BSD-2021
- EXTENT OF PROPOSED CONCRETE DRIVEWAY OVER BORED PIERS. REFER BORED PIERS DETAILS DRAWING

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

LAYOUT

SCALE 1:100 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: ROAD AND DRAINAGE LAYOUT

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Checked	BA
Certified	BA
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Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA03	A

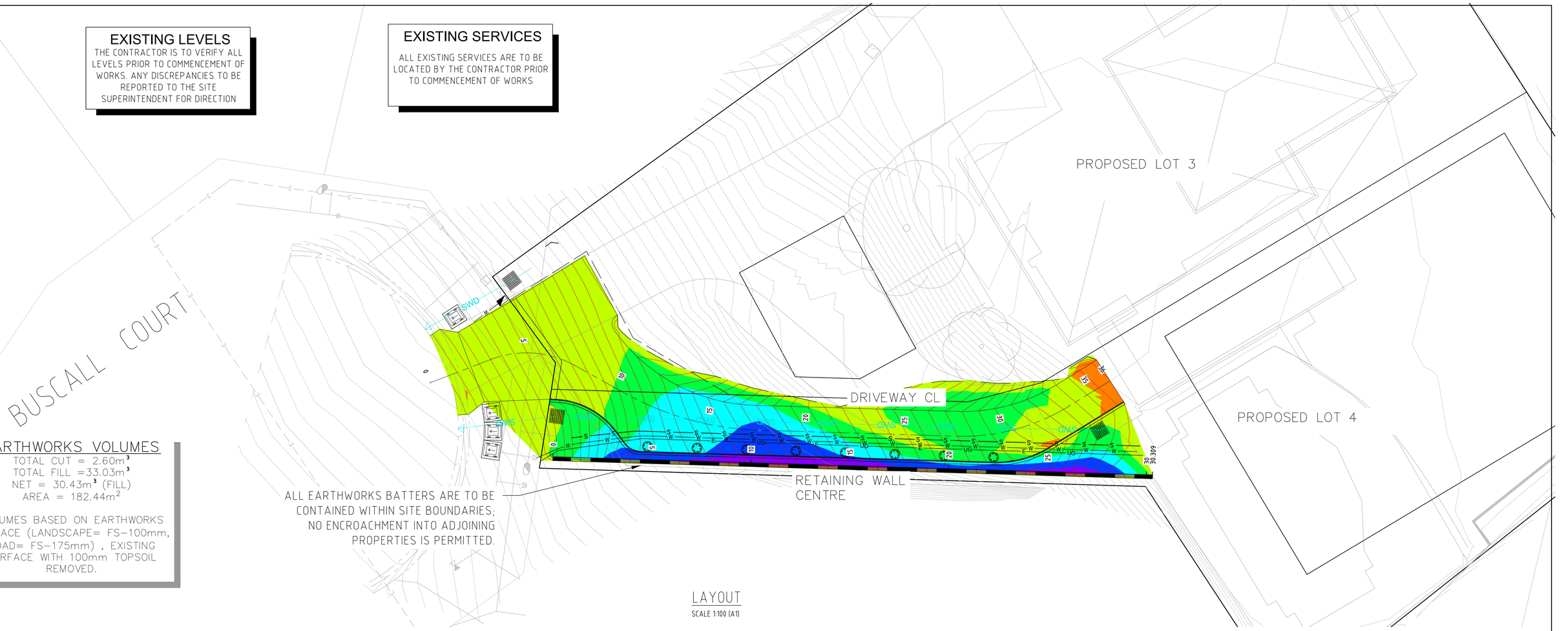
FOR APPROVAL

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS



EARTHWORKS VOLUMES

TOTAL CUT = 2.60m³
TOTAL FILL =33.03m³
NET = 30.43m³ (FILL)
AREA = 182.44m²

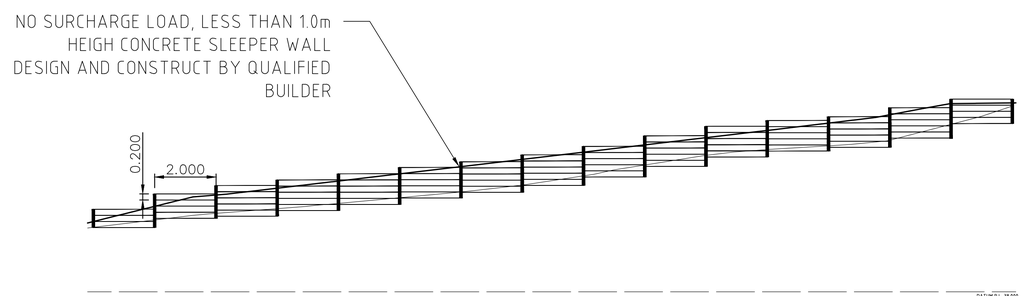
VOLUMES BASED ON EARTHWORKS SURFACE (LANDSCAPE= FS−100mm, ROAD= FS−175mm) , EXISTING SURFACE WITH 100mm TOPSOIL REMOVED.

LAYOUT

SCALE 1:100 (A1)

LEGEND:

- EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING BSW DRAINAGE MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL MAXIMUM 1.0m
- PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- PROPOSED SEWER CONNECTION
- PROPOSED WATER CONNECTION
- 18.845 FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) EXISTING SURFACE LEVEL (m AHD)



CHAINAGE	0.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000	23.000	24.000	25.000	26.000	27.000	28.000	29.000	30.000	30.309
DEPTH	0.163	0.291	0.418	0.545	0.597	0.619	0.659	0.700	0.726	0.751	0.775	0.799	0.823	0.833	0.836	0.853	0.780	0.715	0.665	0.625	0.584	0.576	0.615	0.671	0.732	0.786	0.827	0.773	0.695	0.474	0.166	-0.001

RETAINING WALL LONG SECTION

SCALE 1:100 (A1)

EARTHWORKS DEPTH

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	−0.50	−0.30	0.00	
2	−0.30	−0.10	3.46	
3	−0.10	0.10	84.74	
4	0.10	0.30	48.06	
5	0.30	0.50	28.10	
6	0.50	0.70	13.97	
7	0.70	0.90	4.11	

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: EARTHWORKS LAYOUT

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Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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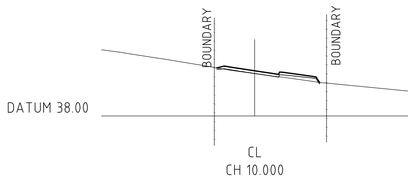
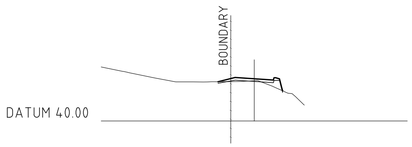
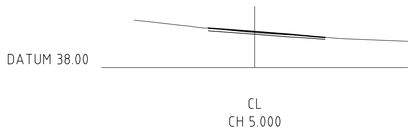
Certified

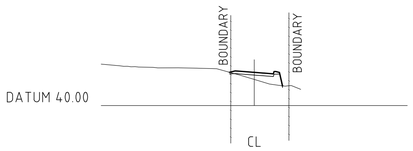
Job No.	Drawing No.	Revision
ARK-26-164	DA04	A

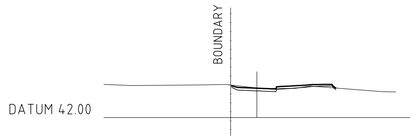
FOR APPROVAL

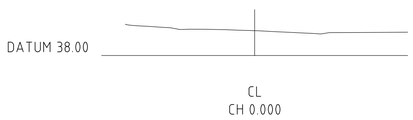


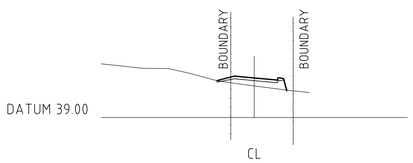


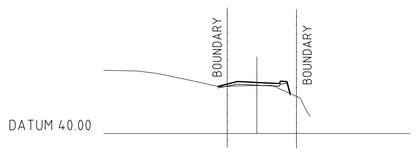












NOTE

ALL BATTERS TO BE MAXIMUM 1V IN 4H SLOPE AND VEGETATED

EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 4 8 12 16 20m

SCALE 1:200 (A1) 1:400 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SITE CROSS SECTION

ARK Consulting Group Pty Ltd
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Phone: (+61) 0451799827

Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
RPEQ No.	18146

Scale

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Certified

Job No.	Drawing No.	Revision
ARK-26-164	DA05	A

FOR APPROVAL

EXISTING SERVICES

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EXISTING LEVELS

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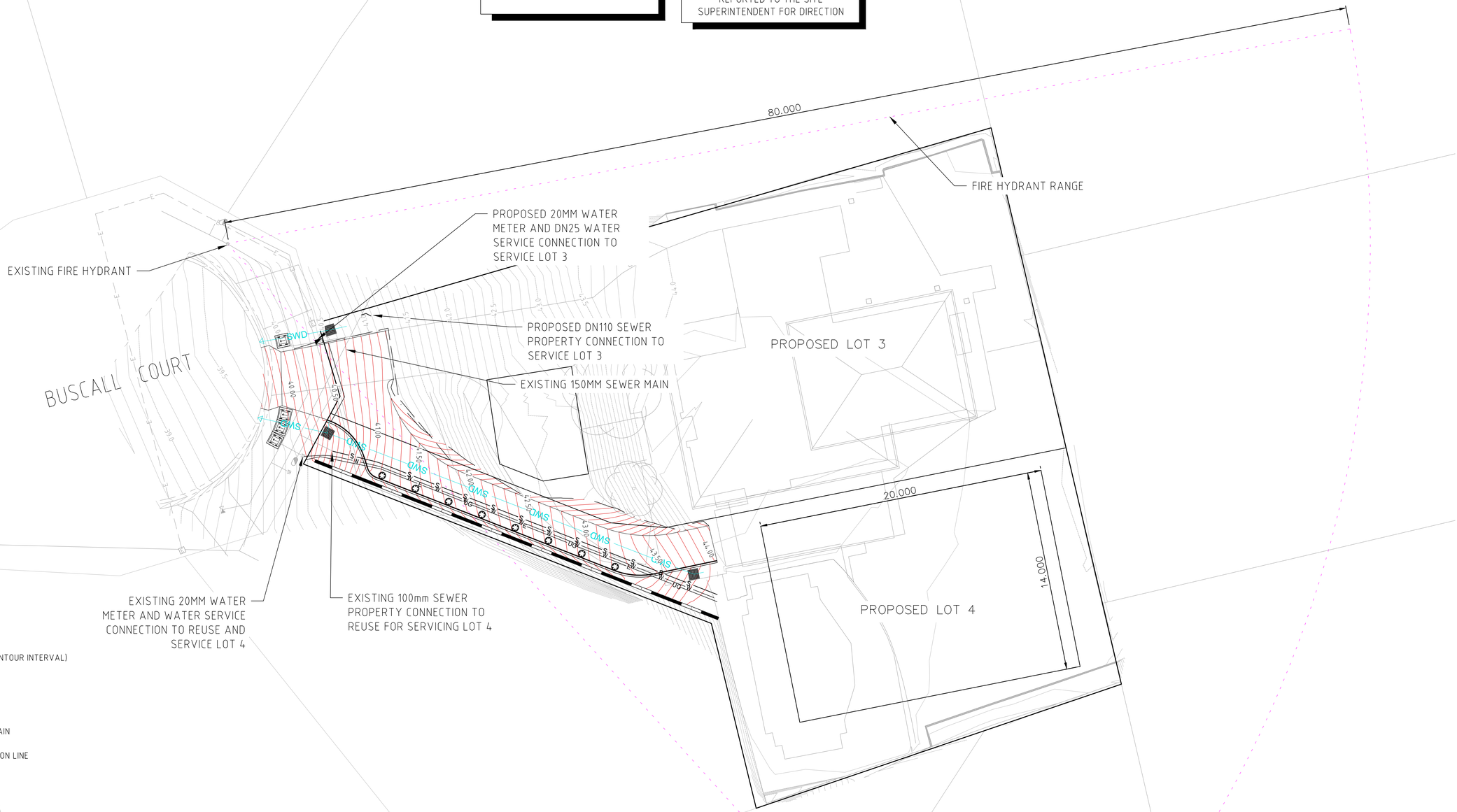

LEGEND:

- 13.0 — EXISTING CONTOUR (0.1m CONTOUR INTERVAL)
- S S S — EXISTING SEWER MAIN
- W W W — EXISTING WATER MAIN
- D D D — EXISTING BSW DRAINAGE MAIN
- T T T — EXISTING TELECOMMUNICATION LINE
- E E E — EXISTING ELECTRICITY LINE
- PROPOSED CONTOURS
- PROPOSED CONCRETE SLEEPER WALL
- SWD — PROPOSED STORMWATER DRAINAGE REFER STORM WATER LONGITUDINAL SECTION
- PROPOSED EASEMENT
- s s s — PROPOSED SEWER CONNECTION
- w w w — PROPOSED WATER CONNECTION
- 18.845 — FS DESIGN SURFACE LEVEL (m AHD)
- (18.888) — EXISTING SURFACE LEVEL (m AHD)

LAYOUT

SCALE 1:250 (A1)

0 2 4 6 8 10m
2.0 1.5 1.0 0.5

SCALE 1:100 (A1) 1:200 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman

Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD

Title: SERVICES LAYOUT

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Design	BA
Drawn	NK
Date	MAR26
Checked	BA
Certified	BA
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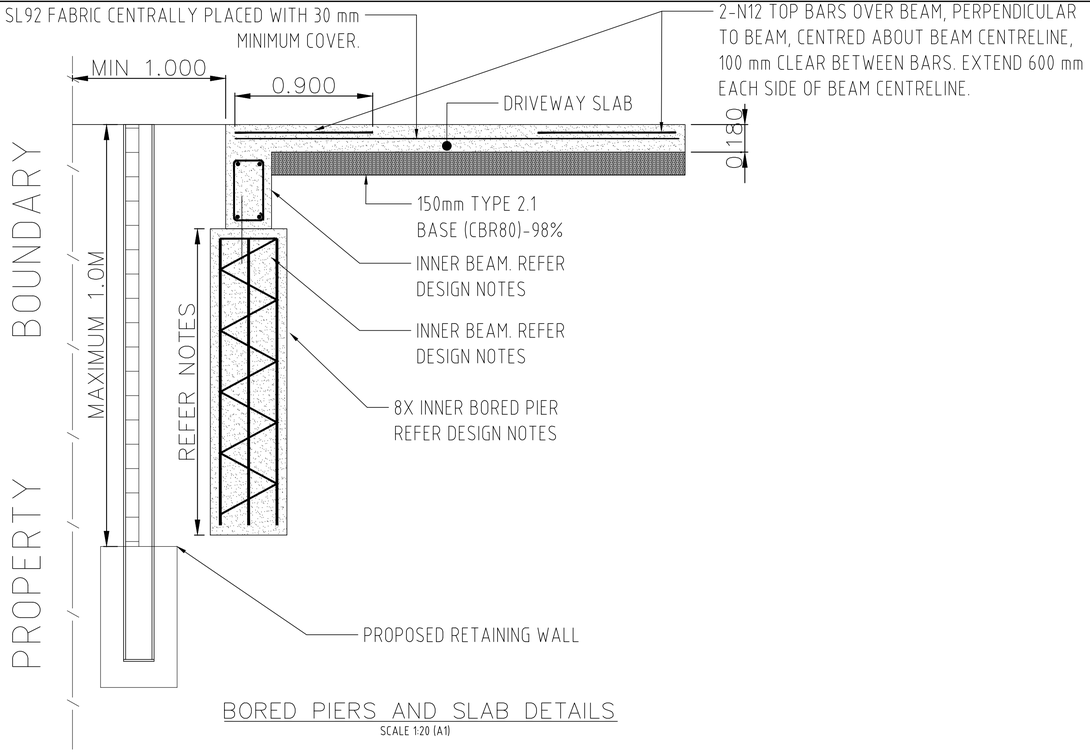
Job No.	Drawing No.	Revision
ARK-26-164	DA06	A

FOR APPROVAL



BORED PIERS AND SLAB DETAILS
SCALE 1:20 (A1)

NOTE:
BEAMS AND DRIVEWAY SLAB TO BE CAST MONOLITHICALLY. PIERS TO BE CONSTRUCTED PRIOR TO BEAM AND SLAB POUR WITH REINFORCEMENT PROJECTING INTO BEAM.

PILE TO BEAM CONNECTION:
500 DIA BORED PIER WITH 6-N16 VERTICAL BARS. CONTINUE 4-N16 BARS INTO BEAM. PROVIDE ADDITIONAL N16 STARTER / DOWEL BARS AS REQUIRED TO SUIT BEAM REINFORCEMENT LAYOUT. REMAINING PIER BARS TO TERMINATE WITH FULL DEVELOPMENT LENGTH WITHIN PILE HEAD. ROUGHEN AND CLEAN PILE HEAD PRIOR TO BEAM POUR.

EXISTING SERVICES

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EXISTING LEVELS

THE CONTRACTOR IS TO VERIFY ALL LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SITE SUPERINTENDENT FOR DIRECTION

0 0.4 0.8 1.2 1.6 2.0m
0.4 0.3 0.2 0.1
SCALE 1:20 (A1) 1:40 (A3)
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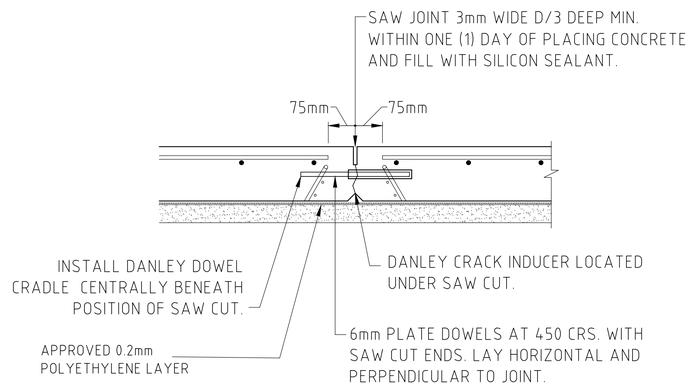

NOTE: GALVANISE DOWELS FOR EXTERNAL APPLICATIONS.

CJ – CONTRACTION JOINT
(DANLEY PLATE DOWELLED JOINT)
N.T.S.

STRUCTURAL DESIGN NOTES:

1. GENERAL

ALL STRUCTURAL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:
AS3600 – CONCRETE STRUCTURES
AS1170 – STRUCTURAL DESIGN ACTIONS
AS2159 – PILING DESIGN AND INSTALLATION
AS2870 – RESIDENTIAL SLABS AND FOOTINGS
DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE.
CONTRACTOR SHALL VERIFY ALL SITE LEVELS, SETOUT AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK.
ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

2. PILE FOUNDATIONS
ALL PIERS SHALL BE 500 DIA BORED CONCRETE PIERS UNLESS NOTED OTHERWISE.
REINFORCEMENT:
6-N16 VERTICAL BARS WITH R10 SPIRAL @200 PITCH, REDUCE TO R10 SPIRAL @100 PITCH IN TOP 600.
CLEAR COVER TO REINFORCEMENT: 65 mm.
PIERS SHALL BE FOUNDED MINIMUM 1.5 m BELOW EXISTING GROUND LEVEL AND EXTENDED DEEPER AS REQUIRED TO FOUND IN COMPETENT MATERIAL.
ALL FOUNDING LEVELS SHALL BE INSPECTED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
DO NOT FOUND PIERS IN FILL MATERIAL.
EXCAVATIONS SHALL BE CLEANED OF LOOSE MATERIAL AND WATER PRIOR TO POURING CONCRETE.
CONCRETE SHALL BE PLACED IMMEDIATELY AFTER EXCAVATION WHERE PRACTICABLE.

3. BEAMS
INNER BEAM:
300x500 RC BEAM WITH 2-N20 TOP, 2-N20 BOTTOM AND R10 CLOSED TIES @200 c/c (200x400).
PROVIDE 2-N16 TOP AND BOTTOM EXTRA BARS 1200 LONG CENTRED OVER EACH PILE.
CLEAR COVER TO REINFORCEMENT 40 mm.
OUTER BEAM (WHERE SHOWN):
300x450 RC BEAM WITH 2-N16 TOP, 2-N16 BOTTOM AND R10 CLOSED TIES @200 c/c (200x350).
PROVIDE 2-N12 TOP AND BOTTOM EXTRA BARS 1000 LONG CENTRED OVER EACH PILE.
CLEAR COVER 40 mm.

4. DRIVEWAY SLAB
DRIVEWAY SLAB SHALL BE 180 THICK 32 MPa REINFORCED CONCRETE.
PROVIDE SL92 MESH CENTRALLY PLACED WITH 30 mm COVER.
PROVIDE 2-N12 TOP BARS CONTINUOUS OVER INNER AND OUTER BEAMS, EXTENDING 600 mm EACH SIDE OF BEAM CENTRELINE.
CONTRACTION / DOWEL JOINTS:
PROVIDE SAWN CONTRACTION JOINTS AT MAXIMUM 3 m SPACING ALONG DRIVEWAY. REFER DETAILS
PROVIDE N12 EDGE BAR CONTINUOUS ALONG SLAB EDGE.
PROVIDE 20 mm COMPRESSIBLE ISOLATION JOINT BETWEEN DRIVEWAY AND ADJACENT RETAINING WALL OR STRUCTURES.

5. SUBGRADE AND BASE PREPARATION
ALL SLAB-ON-GROUND AREAS SHALL BE FOUNDED ON MINIMUM 150 mm COMPACTED ROAD BASE.
SUBGRADE SHALL BE PROOF-ROLLED AND COMPACTED TO MINIMUM 98% MODIFIED DRY DENSITY (MDD).
ANY SOFT OR UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.

6. CONCRETE MATERIAL AND CONSTRUCTION
ALL STRUCTURAL CONCRETE SHALL BE MINIMUM 32 MPa COMPRESSIVE STRENGTH.
CONCRETE SHALL BE PLACED, COMPACTED AND CURED IN ACCORDANCE WITH AS3600 AND AS1379.
CONCRETE SHALL BE ADEQUATELY VIBRATED TO ENSURE FULL COMPACTION.
CONCRETE SURFACES SHALL BE CURED FOR A MINIMUM OF 7 DAYS.
REINFORCEMENT SHALL BE CLEAN AND FREE OF OIL, LOOSE SCALE OR OTHER CONTAMINATION BEFORE PLACING CONCRETE.

7. REINFORCEMENT
ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS 4671.
REINFORCEMENT SHALL BE ACCURATELY POSITIONED AND SECURED PRIOR TO CONCRETE PLACEMENT.
MINIMUM LAPS, ANCHORAGE AND DEVELOPMENT LENGTHS SHALL COMPLY WITH AS3600.
REINFORCEMENT SHALL BE SUPPORTED ON APPROVED BAR CHAIRS TO MAINTAIN SPECIFIED COVER.

Rev	Description	By	Appd	Date
A	FOR APPROVAL	NK	BA	29.03.26

Amendments

IN ASSOCIATION WITH:

Client: Mr. Allan Cadman& Ms. Louette Cadman
Project: RESIDENTIAL DEVELOPMENT - 19 BUSCALL COURT, SINNAMON PARK QLD
Title: BORED PIERS AND DRIVEWAY DETAILS

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Phone: (+61) 0451799827

Design	BA
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Date	MAR26
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Job No.	Drawing No.	Revision
ARK-26-164	DA07	A

FOR APPROVAL

TACTICA
PLANNING & DEVELOPMENT

END OF REPORT

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