indara
DIGITAL INFRASTRUCTURE

From:

Development Application for Planning Consent.

Proposed New Telecommunications Facility
Lot 13 BMX Track, Cook Street,
Muswellbrook NSW 2333
13/-/DP1080309

Statement of Environmental Effects

Project Reference: S4928 Muswellbrook North
RFNSA Reference: 2333032

April 2024

Document Control

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Contents

Executive Summary

Site Information	**Lot description:** 13/-/DP1080309 **Physical address:** Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333 **Coordinates:** -32.25519, 150.89745
Proposal	Indara is seeking development consent for a new Telecommunications Facility at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333. The proposed facility will be owned by the Indara Group and will host Optus telecommunications equipment. The purpose of the proposal is to provide Optus 4G and 5G services to the Muswellbrook North area. The proposal involves: • One (1) 40m Indara monopole with an overall height of 41.0m with antenna protrusions • One (1) antenna square headframe supporting the following equipment: • Four (4) panel antennas at 2.688m in length, at a height of 41m • One (1) outdoor equipment cabinet, 3.2m x 1.8m floor area, at ground level and contained within the proposed 11.6m (w) x 9.6m (l) compound fenced area. • Ancillary equipment associated with the operation and safety of the facility, including twelve (12) remote radio units, six (6) dual filters, cabling (internal), and antenna support mounts. The facility will be located within a fenced compound. The monopole and associated equipment will be finished in non-reflective pale grey.
Purpose	Indara Corporation Pty Ltd (part of the Indara group), with Optus, are proposing a new telecommunications facility at Muswellbrook North. The facility will also provide new and improved coverage and connectivity to the Muswellbrook North area providing much needed voice and data services for the area. This proposal will form a vital component for the Muswellbrook Shire Councils infrastructure. The facility has been designed as a neutral host facility, capable of supporting co-location by other carriers, government entities and wireless service providers.
Planning Considerations	**LGA:** Muswellbrook Shire Council **Local Planning Scheme:** Muswellbrook Local Environmental Plan 2009 **Zoning:** RE1 – Public Recreation
Applicant	Downer Group EDI for and on behalf of Indara Corporation Pty Ltd. Level 10 567 Collins Street Melbourne VIC 3000 Contact Person: Kaitlen Perkins Email: Kaitlen.perkins@downergroup.com Our Reference: S4991 / Muswellbrook North

1. Introduction

Downer Group EDI, on behalf of Indara Corporation Pty Ltd (Part of the Optus Group), are seeking development consent for the new telecommunications facility at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333.

The new facility will be comprised of a new 40m monopole with an overall height of 41.4m with antenna protrusions supporting Optus' telecommunications antennas and equipment. The purpose of the project is to significantly improve Optus mobile telecommunications services, including coverage and network capacity, in the Muswellbrook North area.

The new facility will also provide new and improved coverage, and connectivity, to the Muswellbrook North area providing much needed voice and data services and will form a vital component of the Muswellbrook Shire Council essential infrastructure.

Indara is seeking approval to install a new telecommunications facility at the above premises. The proposal involves:

- One (1) 40m Indara monopole with an overall height of 41.0m with antenna protrusions
- One (1) antenna square headframe supporting the following equipment:
- Four (4) panel antennas at 2.688m in length, at a height of 41m
- One (1) outdoor equipment cabinet, 3.2m x 1.8m floor area, at ground level and contained within the proposed 11.6m (w) x 9.6m (l) compound fenced area.
- Ancillary equipment associated with the operation and safety of the facility, including twelve (12) remote radio units, six (6) dual filters, cabling (internal), and antenna support mounts.

This Statement of Environmental Effects has been prepared for council's assessment under Part 4.15 of the *Environmental Planning and Assessment Act 1979 (As amended)* and has been tested again the relevant planning controls.

2. Background

2.1 Indara and Optus

This Statement of Environmental Effects has been prepared by Downer Group EDI for and on behalf of the Indara Group ("Indara"). Indara are Australia's leading independent owner and provider of shared wireless telecommunications infrastructure, with a portfolio of over 4300 telecommunications sites across Australia.

Indara are Australia's leading independent owner and operator of digital infrastructure. We provide critical communications and data solutions that help support the digital transformation of our society. We are passionate about investing long term in our nation, building, and designing digital infrastructure that creates long term value for our customers and for the broader Australian community.

Indara owns and manages over 4300 mobile telecommunications facilities across Australia. Indara operate as a neutral host – our facilities are specifically designed to accommodate co-location by Australia's mobile carriers, government agencies and other wireless services providers.

Indara have partnered with Optus Mobile Pty Ltd (Optus) to expand the Optus mobile network across Australia. This facility is being proposed to improve Optus mobile services in the Muswellbrook North area.

The proposed facility is comprised of a new monopole and associated passive infrastructure, which will be owned and managed by Indara, and active infrastructure (antennas and telecommunications equipment) which will be owned and managed by Optus.

Note for legal purposes, the applicant for this development application is Indara Corporation Pty Ltd.

2.2 Demand for Network Services

Access to high quality telecommunications services is vitally important to the community. Mobile usage continues to trend upward. We have also provided other important information and is listed below:

- 99% of Australians use a mobile phone; 76% of Australians do not have a landline and rely exclusively on a mobile phone[1].
- Mobile data usage continues to significantly increase as the network is used in different ways. Between 2021 and 2022, the amount of data downloaded by phone increased by over 29%[2]. In the first quarter of 2022, global mobile data usage grew by 40%[3]. Streaming and video calling are major drivers of this increased demand.
- Covid-19 significantly changed the way that Australians live and work – 61% of employed Australians worked online from home in 2021[4]. With many Australians continuing to adopt flexible or hybrid work arrangements, additional demand has been placed on the mobile network.
- Public safety is a significant driver behind improvements to mobile coverage. In 2021, around 78% of emergency calls were made from a mobile handset[5].

More than ever, mobile telecommunications services is an essential service. By extension, mobile phone base stations are essential infrastructure – it is important that mobile infrastructure keeps pace with this increasing demand.

[1] https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-how-we-communicate

[2] https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-how-we-use-internet

[3] https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-traffic-update

[4] https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-trends-and-developments-telecommunications-2020-21

[5] https://www.triplezero.gov.au/triple-zero/How-to-Call-000/advanced-mobile-location

2.3 Coverage Objectives

The facility will provide new improved coverage and connectivity to the Muswellbrook North area providing much needed voice and data services to the area and will form a vital component of the Muswellbrook Shire Councils infrastructure.

Optus regularly undertakes detailed assessments of the performance and coverage of its digital mobile telephone and broadband internet networks to ensure its systems are reliable and achieving the required objectives. Reference to customer demand also provides an indication of areas where coverage and capacity constraints exist. Investigations have found that mobile traffic in Muswellbrook North is greater than the service capacity; as a consequence, the existing base stations in the surrounding area are not able to meet the customer demand.

Located in regional New South Wales, Muswellbrook is a vibrant community, and is heavily dense in residential population. The proximity to community amenities and coastal towns, makes for a desirable suburb and is in high demand for mobile service coverage throughout the year. Optus are attempting to resolve a coverage gap in northern Muswellbrook. The proposal is specifically intended to improve network capacity and broaden the range for mobile service coverage within this area.

Operators of telecommunications networks must constantly respond to changes in technology or increased demand on their existing infrastructure assets due to urban growth. Recently, 5G has become the latest industry standard for mobile phone network operators within the Australian marketplace. With consumer demands reflecting an increase in demand for speed and data bandwidth, Optus are attempting to improve coverage in the wider Muswellbrook North area.

3. Candidate Selection

3.1 Site Selection

Before proposing a new base station, mobile carriers will attempt to resolve service issues by reconfiguring or upgrading existing base stations. If upgrades do not resolve service issues, the carrier will consider any opportunities to co-locate on an existing mobile facility, building or other structure.

If there are not any feasible co-location opportunities at the time of assessment, the carrier will proceed to deploy a new 'greenfield' base station.

This facility is proposed in partnership with Optus, who have confirmed a new telecommunications facility is needed in the Muswellbrook North area and we are working with Indara to deploy the new facility.

3.2 Upgrade and Co-Location Opportunities

Existing telecommunications facilities in the area of Muswellbrook North have been assessed to confirm if they are feasible for co-location.

Figure 1 illustrates locations of existing facilities that is located closest to the proposed site. This information has been obtained from the Radio Frequency National Site Archive database (www.rfnsa.com.au). Unfortunately, none of the existing sites in the area is suitable for co-location and is explained in the table below.

Figure 1: Radio Frequency National Site Archive (RFNSA) search of the existing facilties in the Muswellbrook area. (Source: Google Earth, 2024).

Figure 1 is used as reference to the details provided in the below Table.

Existing and Proposed Communications Facilities		
RFNSA Details	**Site Address**	**Comments**
2333021 Telstra	Victoria Park, Hill Street, Muswellbrook NSW 2333	The existing facility at this location provides Telstra coverage to Muswellbrook. Acquiring co-location at this site is not optional as it is out of our desired coverage range and will not service the intended area north of Muswellbrook.
2333022 Telstra	72-78 Brook Street, Muswellbrook NSW 2333	The existing facility rooftop at this location provides in building Telstra coverage to the local Muswellbrook shopping precinct. Adding additional equipment at this location will be 1km away from the area of Muswellbrook North and will not provide the desired coverage to the target area.
2333012 Vodafone	Lot 6 Industrial Close, Muswellbrook NSW 2333	The existing facility at this location provides Vodafone coverage to Muswellbrook. Adding additional equipment at this location will be 1.4km away from the area of Muswellbrook North and will not provide the desired coverage to the target area.
2333004 Optus Telstra	LOT 1 Plan DP445343 Coal Road, Muswellbrook NSW 2333	The existing facility at this location provides Optus and Telstra coverage to eastern Muswellbrook. Adding additional equipment at this site is not optional as it is already an Optus site and will not provide the desired coverage to the northern area of Muswellbrook.

3.3 Alternate Candidates

A robust investigation of potential candidates has been undertaken.

The preferred site candidate at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333 (the subject site), is selected as the preferred site for the following reasons:

- Town planning considerations (such as zoning, surrounding land uses, environmental significance, compliance with the planning scheme and visual impact);
- The location will offer a cost-effective site solution whilst maximising coverage and mobile phone service provisions within the identified locality;
- The proposed monopole will result in minimal adverse impacts as a result of construction. Construction will be undertaken during low traffic periods and be coordinated appropriately with road authorities, and council;
- The availability of viable connections to the power and transmission networks in the area;
- Visual impact – it is believed that the proposed site location will not significantly result in the loss of amenity or the obstruction of viewing corridors to and from the proposed site; and
- Tenure – obtaining an agreement with the landowner of the subject site provides surety in determining the location of a mobile phone base station.

In identifying a candidate, we have sought to maximise separation from residences and sensitive uses where possible. Whilst endeavouring to minimise visual impacts on the environment and scenic amenity as far as practicable.

A precautionary approach has been undertaken with site selection in accordance with sections 4.1 and 4.2 of the “C564:2020 Mobile Base Station Deployment Code”.

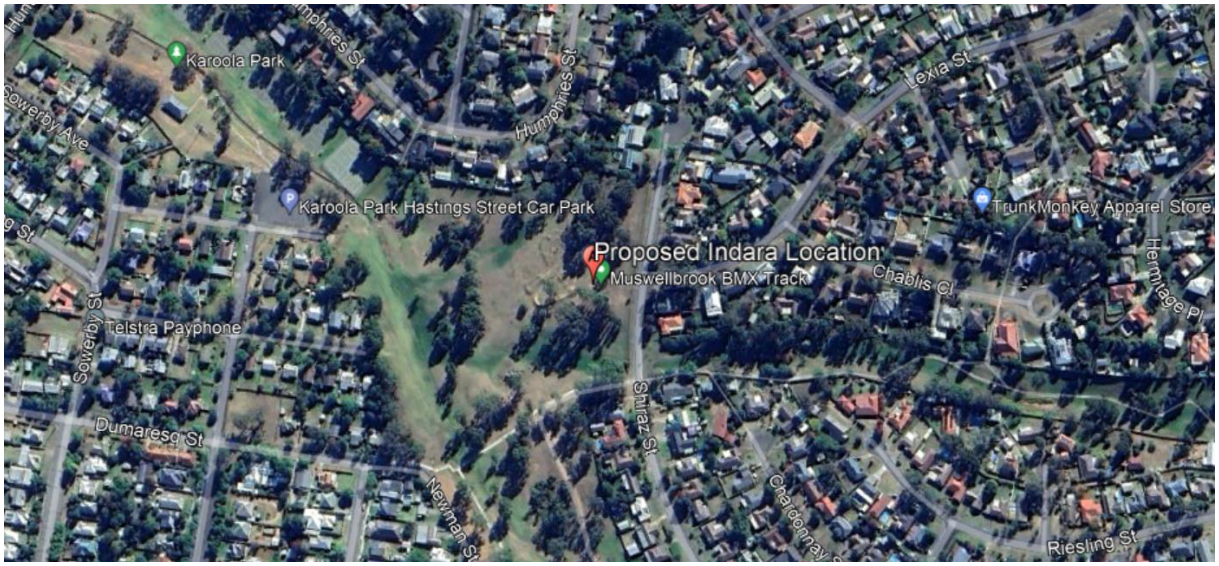


Figure 2: Preferred site location “Candidate A” at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333. (Source: Google Earth)

Prospective Candidates		
Candidate	**Site Address**	**Comments**
A (Prime)	Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333	This site has been determined as the ‘preferred’ as the best option for progressing with a development application and is discussed throughout this Statement.
B (Backup)	N/A	Other potential sites within the area were rejected as a candidate due to lacking coverage potential at an equivalent height when compared to Candidate A. Other reasons is based on significant tree clearing and distance away from Muswellbrook North. In which is not desirable from an environmental interpretation.

4. Site Context

The proposal involves the establishment of a new telecommunications facility at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333.

Overall, the Muswellbrook North region is recognised as an attractive place to live, work and visit. A heavily dense regional area such as Muswellbrook requires increased infrastructure capacity, especially so for telecommunications, as there is an exponential growth in the mobile data use on smartphones, requiring additional infrastructure to provide adequate service provision to the expanding area.

The subject location is located within the BMX Track, with tall, established existing vegetation boarding all boundaries that provides great visual coverage from users of the area. The surrounding nature consists of established residential dwellings. The subject site is set on relatively flat terrain. The subject site is set to the northeast of the property, adjacent to Shiraz Street.

Figures 3 - ***5*** show the proposed site and the surrounding area.

Figure 3: The subject site and the surronding area site context. (Source: Google Earth)

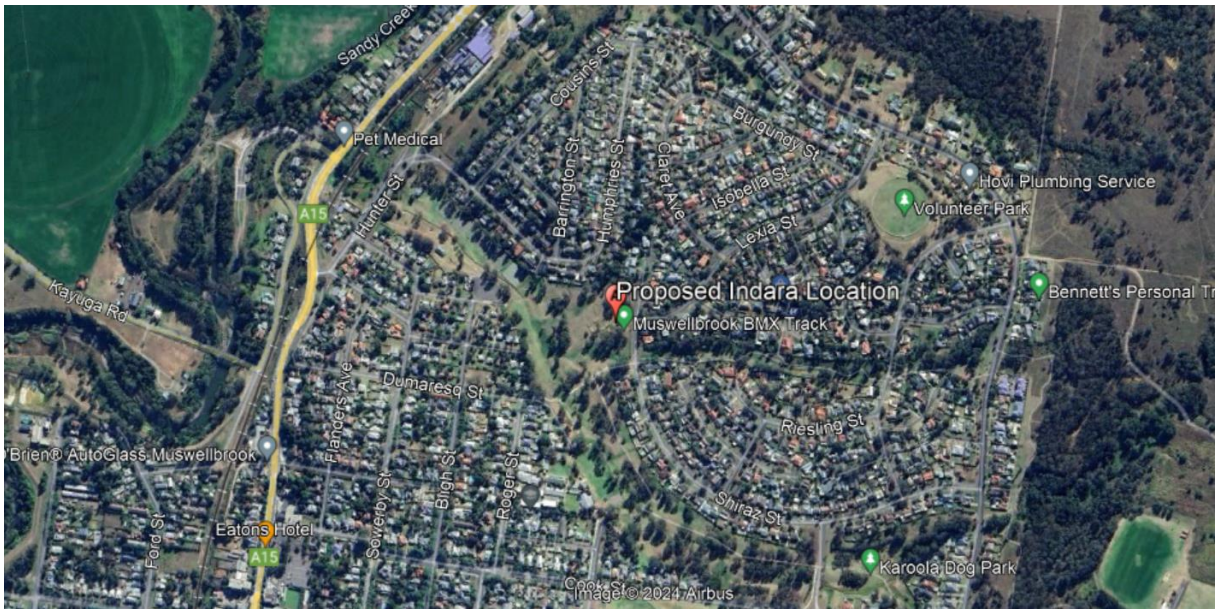


Figure 4: Aerial map of the subject site and the wider site context of Muswellbrook NSW. (Source: Google Earth)

Figure 5: View facing west towards the proposed facility location and is located at the east of the Deposited Plan. (Source: Downer)

5. Proposed Works

5.1 Equipment to be Installed

The proposed works involves the following:

- One (1) 40m Indara monopole with an overall height of 41.0m with antenna protrusions
- One (1) antenna square headframe supporting the following equipment:
- Four (4) panel antennas at 2.688m in length, at a height of 41m
- One (1) outdoor equipment cabinet, 3.2m x 1.8m floor area, at ground level and contained within the proposed 11.6m (w) x 9.6m (l) compound fenced area.
- Ancillary equipment associated with the operation and safety of the facility, including twelve (12) remote radio units, six (6) dual filters, cabling (internal), and antenna support mounts.

The facility will be located within a fenced compound. The monopole and associated equipment will be finished in non-reflective pale grey.

The overall height of the facility, including antennas and equipment, will be 41.4m above ground level.

Refer to ***Appendix 2*** for proposal plans.

5.2 Site Access and Parking

The land parcel consists of an urbanised area with vegetation in an RE1 – Public Recreation zone. Vehicular driveway access located off Shiraz Street is proposed, which leads directly adjacent to the subject site's proposed location. Three existing bollards are proposed to be removed and replaced with Indara compound gated access.

Once constructed, the facility will operate on an unmanned basis aside from periodic routine maintenance visits (generally 2-4 times a year).

Figure 6: View facing west towards proposed vehicular driveway access off Shiraz Street, Muswellbrook NSW. (Source: Google Earth)

5.3 Noise

The facility will not be a significant generator of noise. The only part of the facility that generates noise is the cooling fans in the equipment cabinet.

Cooling equipment will only operate when required and will not operate continuously. Cooling equipment will operate at levels generally comparable to those of a domestic air conditioner. The project is not expected to represent a noise nuisance. We note that the facility is in close proximity to residential dwellings.

5.4 Power and Utilities

The final power design including the capacity of the supply will be confirmed in the detailed design phase, however, a major upgrade is not anticipated. A standard power application will be submitted for approval and all new low voltage cable on the site will be installed underground. An application for power services will be applied at post issuance of the Determination of this development application.
No works associated with stormwater drainage, or connections to reticulated water and sewerage, are proposed, nor required.

5.5 Emissions

Operation of the facility will not result in emission of dust, heat, smoke, gaseous plumes, or particulates.

To provide mobile coverage, the facility will produce electromagnetic EME emissions. These will be within the levels prescribed by ARPANSA and regulated by ACMA. An ARPANSA EME Report, demonstrating compliance with the Australian safety standards, is provided in Appendix 3 of this Statement. Refer section 8 of this Statement for details.

5.6 Environmental Considerations

Comprehensive preliminary assessment of the nearby natural environment was undertaken within the planning, design, and procurement stages of the telecommunications proposal to ensure that there are no disturbances to the natural surrounds given that no ground clearance would be required.

Vegetation disturbance will be minimal, given existing vegetation onsite is limited to grass land, with an appropriate setback from the already existing trees onsite.

During the construction phase, the subject site area will be rigorously concealed by imposing barriers and fencing to repeal any impacts to the surrounding environment. This proposal will employ effective measures to mitigate any impacts to surrounding flora, fauna, and natural environment inhabitants. Additionally, once constructed the operation of the telecommunications facility will not result in any negative impacts on the natural environment or the ecology of the locality.

With reference to the above, it is not anticipated nor planned that any trees will be removed as part of this application.

5.6.1 Environment Protection & Biodiversity Conservation Act 1999.

The Environment Protection and Biodiversity Conservation Act commenced on 16th July 2000. It introduces a new role for the Commonwealth Government in the assessment and approval of development proposals where those proposals involve actions that have a significant impact on matters of National Environmental Significance, the environment of Commonwealth owned land and actions carried out by the Commonwealth Government.

A search of the EPBC protected Matters Report (conducted on 19/01/2024) indicated that the following may be present within a 1km radius of the proposed site;

- 37 x Listed Threatened Species
- 11 x Listed Migratory Species

Given the proposed site is located in an open grass area, there is minimal risk of impacting on potential threatened species or ecological communities that may occur within the broader area. It is expected that any future upgrades or maintenance will not impact endangered wildlife within the vicinity.

Therefore, the proposal is not of National Environmental Significance, as it will not impact on:

- World Heritage Areas;
- Wetlands protected by International Treaty (The RAMSAR Convention);
- Nationally listed threatened species and communities;
- Nationally listed migratory species;
- All nuclear actions: or
- The environment of Commonwealth Marine area.

Refer to EPBC Act Protected Matters Report at ***Appendix 5***.

5.7 Heritage

Indara takes its obligations under the *New South Wales National Park and Wildlife Act 1974* seriously and assesses each site against the relevant heritage registers and database including the NSW State Heritage Databases and local heritage schedules.

Cultural and Built Heritage searches were undertaken per the relevant heritage registers and database including the State Heritage Databases and local heritage schedules as per the Muswellbrook Local Environmental Plan 2009. A search on the Aboriginal Heritage Information Management System (AHIMS) concluded there are no items of heritage significance on the subject site or within close proximity of the site.

Refer to AHIMS Web Services report at ***Appendix 6.***

5.8 Aviation

Indara is aware that structures over 30m in height are required to be reported in accordance with the CASA publication AC139.08 “Reporting Tall Structures”, and accordingly will report on the proposed site in accordance with this policy.

In the case of the new telecommunications facility at Muswellbrook North, Indara have reviewed the CASA standards and the particular characteristics of the site, and have assessed that no further measures, including aircraft warning lighting is warranted due to the following:

- The proposed site at Muswellbrook is located approximately 109kms west to the nearest airport, Newcastle Airport.
- The Obstacle limitation surface (OLS) protects the air space around airports from the intrusion of built structures that would adversely affect aircraft operation or safety. The site is not within an OLS boundary, and therefore not subject to the conditions of CASA standards; Manual of Standards (MOS) part 139 – Aerodromes.

Indara has also considered other possibly relevant factors such as height and geographic features. The structure is a moderate height of 41.4m on mostly flat land.

Indara’s assessment is that the proposed facility is not affected by the CASA standard MOS Part 139 – Aerodromes. Indara also concludes that aircraft warning lights are not warranted in this location.

6. Legislative Context

6.1 Commonwealth Legislation

6.1.1 Telecommunications Act 1997 and Telecommunications (Low-Impact Facilities) Determination 2018

The *Telecommunications Act 1997* allows mobile carriers to perform certain maintenance and installation works without needing development consent. The *Telecommunications (Low-Impact Facilities) Determination 2018* also allows for certain kinds of 'Low Impact' equipment to be installed without development consent.

New towers do not fall within these federal planning exemptions. Accordingly, this proposal will require Council approval.

6.1.2 Telecommunications Code of Practice 2018

The *Telecommunications Code of Practice 2018* emphasizes "best practice" for the installation of facilities, compliance with industry standards and minimisation of adverse impacts on the environment.

This proposal has been designed with consideration for the Code of Practice. All steps will be taken to do as little damage as practicable; the facility will be constructed and operated in accordance with industry standards and good engineering practice; and the design of the facility will be in accordance with industry best practice.

6.1.3 C564:2020 Mobile Phone Base Station Deployment Code

The Communications Alliance Limited *C564:2020 Mobile Phone Base Station Deployment Code* (the Deployment Code) is an industry code of practice registered by the Australian Communications and Media Authority.

The Code applies to all licenced telecommunications carriers, and sets guidelines for site selection, community consultation, design, installation, and operation of telecommunications facilities.

Sections 4.1 and 4.2 of the Code are relevant to this proposal, and require a precautionary approach to site selection, infrastructure design and site operation. The proposed facility has been sited and designed in accordance with Sections 4.1 and 4.2. Checklists demonstrating compliance can be provided on request.

The Code also requires an ARPANSA EME report be prepared for all new mobile base stations, to demonstrate compliance with relevant safety standards. The report is enclosed in ***Appendix 2***.

6.2 State Legislation

6.2.1 NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979 (EP&A Act)* controls development across New South Wales. This application has been prepared with consideration made under section 4.15 of the *EP&A Act*.

6.2.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

The *SEPP (Transport and Infrastructure) 2021* governs telecommunications deployment in New South Wales. This development is defined as a 'Telecommunications Facility' under Clause 2.140 of the SEPP.

The proposed development does not fall within the parameters to be considered Exempt nor Complying Development under the SEPP based on its land use zone to erect a new tower. As such, the proposed works will require development consent.

The permissibility of the development is established under Clause 2.143(1) of the SEPP, which provides that telecommunications facilities can be deployed on any land. But is subject to development consent. As the works are not being done for and on behalf of a Public Authority (per Clause 2.141) and are not considered Exempt Development nor Complying Development, the proposed works will require this development application and is subject to council's consent.

Clause 2.143(2) requires that the consent authority must take into consideration any guidelines concerning site selection, design, construction, and operation of telecommunications facilities issued by the Planning Secretary. The current guidelines are the *NSW Telecommunications Facilities Guideline, Including Broadband* (October 2022). Compliance with the principles is outlined in section 6.2.3 of this document.

NSW Telecommunications Facilities Guideline, Including Broadband	
Principle 1: Design and site telecommunications facilities to minimise visual impact.	
Principle	**Response**
a. As far as practical, integrate a telecommunications facility that is mounted on an existing building or structure with the design and appearance of the building or structure.	The proposal will comprise of a new monopole tower that is consistent with the appearance of the already existing structures within the general vicinity, in line with council guidelines.
b. Minimise the visual impact of telecommunications facilities, reduce visual clutter (particularly on tops of buildings) and ensure physical dimensions (including support mounts) are sympathetic to the scale and height of the building to which it is to be attached and to adjacent buildings.	The proposal aims to minimise visual impact, being situated amongst established, tall vegetation to reduce visual impact on surrounding residents and users of the general area. The proposal will be built to appropriate scale and fitting to the nature of infrastructure within the area.
c. If a telecommunications facility protrudes from a building or structure and is predominantly seen against the sky, either match the prevailing colour of the host building or structure or use a neutral colour such as pale grey.	The proposal is coloured a factory grey, as to blend with the sky, which is more often cloudier than not. The design of the proposal aims to minimise visual features and to also match colours of structures within the immediate area.
D. Where possible and practical, screen or house ancillary facilities using the same colour as the prevailing background and consider using the existing vegetation or new landscaping.	The proposal will house ancillary facilities including an equipment cabinet at ground level consistent to the design and colour of surrounding infrastructure. The location of the site is not for public access and the existing vegetation aids in providing a context of screening for the proposed facility.
e. Locate and design a telecommunications facility in a way that responds to its setting (rural, residential, industrial or commercial).	The proposal is located within an RE1 – Public Recreation zone, situated to the northeast of the land parcel, amongst established vegetation.
f. Site and design a telecommunications facility located on or adjacent to a listed heritage item or within a heritage conservation area with external colours, finishes and scale sympathetic to the heritage item or conservation area.	The proposal is not located on or in the vicinity of a heritage place or items.
g. Locate telecommunications facilities to minimise or avoid obstructing significant views of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land.	The proposal is expected to be visual in the surrounding area by virtue of its height, however, blends well into the surrounding context amongst established tall vegetation. The proposal does not obstruct significant views of a heritage item or place, a landmark, a streetscape, vista, or a panorama
h. Consult with relevant council when proposing pruning, lopping or removing any tree or vegetation. Obtain a tree preservation order, permit or development consent if required.	No clearing of vegetation is proposed in order for the proposed facility to be installed.

i. Remove redundant telecommunications facilities and restore the site to the condition it was in prior to the facility's construction.	Not applicable. The proposal is a new facility with no prior existing telecommunication facilities present.
j. Remove redundant components of existing facilities after upgrades.	Not applicable. The proposal is a new site with no prior existing telecommunication facilities present.
k. Where possible, consolidate telecommunications facilities to reduce visual clutter and work with other users on co-location sites to minimise cumulative visual impact.	No locations were applicable and within RF objective range, thus no other locations were considered for co-location.
l. Accord with all relevant industry design guides when siting and designing telecommunications facilities.	Compliance with the NSW Telecommunications Code of Practice 2018 has been addressed, refer to section 6.1.2 of this report.
m. Assess potential visual impact in alternative site assessments.	Not applicable. No alternative site was considered due to no suitable location within RF objective.
Principle 2: Co-locate telecommunications facilities wherever practical	
a. As far as practical, locate telecommunications lines underground or within an existing underground conduit or duct.	The proposal will include installation of underground power and fibre infrastructure.
b. Where practical, co-locate or attach overhead lines, antennas and ancillary telecommunications facilities to existing buildings, public utility structures, poles, towers or other radiocommunications equipment to minimise clutter.	No overhead lines are proposed as a part of this development. The proposed antennas are to be installed on a new monopole, capable of co-locating multiple mobile carriers, reducing the likelihood that an additional tower will be needed in the area.
c. Consider extending an existing tower as a practical co-location solution to new towers.	Consideration for co-location was assessed, refer to section 3.2 of this report.
d. Demonstrate that co-location is not practicable if choosing not to co-locate a facility.	During our assessment co-location was impractical, refer to section 3.2 of this report.
e. If choosing to co-locate, design, install and operate a telecommunications facility so that resultant cumulative levels of radio frequency emissions are within the maximum human exposure levels set out in RPS S-1.	Not applicable. Co-location could not be achieved for this proposal.

NSW Telecommunications Facilities Guideline, Including Broadband	
Principle 3: Meet health standards for exposure to radio emissions	
Principle	**Response**
a. Design, install and operate a telecommunications facility so that maximum human exposure levels to radiofrequency emission comply with RPS S-1 (see Appendix 3).	The proposal is compliant with the maximum human exposure levels to radiofrequency emissions. Refer to section 8 of this report.

b. Using the format required by ARPANSA, report on predicted levels of EME surrounding any development covered by the Industry Code C564:2020 Mobile Phone Base Station Deployment, and how the development will comply with ACMA safety limits and RPS S-1.	An EME report has been produced and is attached as appendix 3 to this report.
Principle 4: Minimise disturbance and risk, and maximise compliance	
a. Ensure the siting and height of a telecommunications facility complies with the of the Commonwealth Civil Aviation Regulations 1998 and Airports (Protection of Airspace) Regulations 1996. Avoid penetrating any obstacle limitation surface (OLS) shown on a relevant OLS plan for an aerodrome or airport (as reported to the Civil Aviation Safety Authority) within 30 km of the proposed development.	A thorough assessment of the heigh restrictions as per the Commonwealth Civil Aviation Regulations 1998 and Airports (Protection of Airspace) Regulations 1996 was completed to ensure a safe distance between airspace and the proposed facility. The proposal is not within an OLS boundary. Refer to section 5.8 of this report.
b. Ensure no adverse radio frequency interference with any airport, port or Commonwealth defence navigational or communications equipment, including the Morundah Communication Facility, Riverina	The mobile carrier equipment on the proposed tower is designed and will be installed as to not interfere with other radio frequency services within the vicinity. Radio propagation analysis has been used to select the appropriate antennas to meet the requirements for coverage from the facility, while minimising interference to the existing network.
c. Carry out the telecommunications facility and ancillary facilities in accordance with any manufacturer's installation specifications.	The proposal will be constructed in accordance with relevant manufacturing specifications to optimise safety, during installation and once erected.
d. Protect the structural integrity of any building or structure on which a telecommunications facility is erected.	The proposal does not impede on any already existing structures within the land parcel, nor will it impact the integrity of said structures once erected.
e. Erect the telecommunications facility wholly within the boundaries of a property as approved by the relevant landowner.	The proposal is located wholly within the boundaries of the approved land parcel and does not protrude on to adjacent land.
f. Ensure all construction of a telecommunications facility accords with Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom 2004), or its replacement.	All construction of the proposed telecommunications facility, including maintenance and future upgrades, adheres by the Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom 2004) and will abide by any future changes within the construction legislation.

NSW Telecommunications Facilities Guideline, Including Broadband	
Principle 4: Minimise disturbance and risk, and maximise compliance	
Principle	**Response**
g. Mitigate obstruction or risks to pedestrians or vehicles caused by the location of the	The proposal will be housed by a compound security fence, inaccessible to the general public, away from pedestrian walkways and traffic.

facility, construction activity or materials used in construction	
h. Where practical, carry out work at times that minimise disruption to adjoining properties and public access and restrict hours of work to 7.00am and 5.00pm, Mondays to Saturdays, with no work on Sundays and public holidays.	The proposal will abide by government and council guidelines to minimise impact on the immediate community during the construction phase and once erect.
i. Employ traffic control measures during construction in accordance with Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Part 3: Traffic control devices for works on roads.	As a part of the construction phase, appropriate measures to ensure the safety of workers constructing the proposed facility and the general public will adhere by the Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Part 3: Traffic control devices for works on roads.
j. Guard open trenching in accordance with Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps.	As a part of the construction phase, open trenching will be conducted and managed appropriately in accordance with the Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps, to ensure works will be carried out safely and does not endanger workers constructing the proposed facility or the general public.
k. Minimise disturbance to flora and fauna and restore land to a condition similar to its condition before the work was carried out	The location of the proposal was selected in an effort to minimise disturbance to the local flora and fauna, reducing negative impact on the surrounding environment. The land will be restored to a condition similar to how it was before the work was undertaken.
l. Identify any potential impacts on threatened species and communities in consultation with relevant authorities and avoid disturbance to identified species and communities where possible.	Comprehensive preliminary assessment of the proposal's location was untaken in an attempt to identify and minimise impact on threatened species that inhabit the general area. A thorough assessment through the Environment Protection and Biodiversity Conservation Act 1999 was conducted and indicates no disturbance to threatened species. Refer to section 5.6.1 of this report and Appendix 5 for a detailed report.
m. Identify the likelihood of harming an Aboriginal place and/or Aboriginal object and obtain approval from the Department of Premier and Cabinet if the impact is likely, or Aboriginal objects are found.	A search on the Aboriginal Heritage Information Management Systems (AHIMS) has been conducted and no Aboriginal sites or places have been declared on or within the vicinity of the proposal. Should any Aboriginal objects be found, work will cease, and the appropriate authorities will be contacted to complete a thorough investigation on site.
n. Reinstate, at your expense, street furniture, paving or other facilities removed or damaged during construction to at least the same condition as that prior to installation.	Not applicable. The proposal will not remove any existing street furniture, paving or other facilities within the area.

NSW Telecommunications Facilities Guideline, Including Broadband	
Principle 5: Undertake an alternative site assessment for new mobile phone base stations	
Principle	**Response**
b. Include adequate numbers of alternative sites in the alternative site assessment as a demonstration of good faith.	Alternative sites were scoped; however, RF objective could not be met, thus no alternative site was considered. Refer to section 3.3 of this report.
c. In addition to the new site selection matters in Section 4 of the Industry Code C564:2020 Mobile Phone Base Station Deployment: • only include sites that meet coverage objectives, and that have been confirmed as available, with an owner agreeable to having the facility on their land • if the preferred site is a site owned by the Carrier, undertake a full assessment of the site • indicate the weight placed on selection criteria • undertake an assessment of each site before any site is dismissed.	A thorough assessment of all candidates was completed prior to selection of the proposed location. The selection criteria are designed to gain maximum potential out of the site and provide in depth knowledge to select the most appropriate candidate. Other candidates rejected during assessment as they did not meet RF objective. Refer to section 3 and 4 of this report.

6.3 Muswellbrook Local Environmental Plan 2009

6.3.1 Land Use Definition

In respect to the Muswellbrook *LEP 2009* the proposed use of the site is as follows:

- A telecommunications facility.

Under the *Muswellbrook LEP 2009* the proposed development is defined below:

- To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- To provide for a limited range of development that does not have an adverse effect on those values.
- To provide a buffer to land of high ecological value or land that has environmental constraints or hazards.

A telecommunications facility is a defined use under the *Muswellbrook Local Environmental Plan 2009*. As stated in Section 2.143, a telecommunications facility can be constructed on any land. Consequently, a telecommunications facility can be assessed subject to the consent of Council.

6.3.2 Zone Provisions

The proposed site retains an RE1 – Public Recreation zoning under the Muswellbrook Local Environmental Plan 2009.

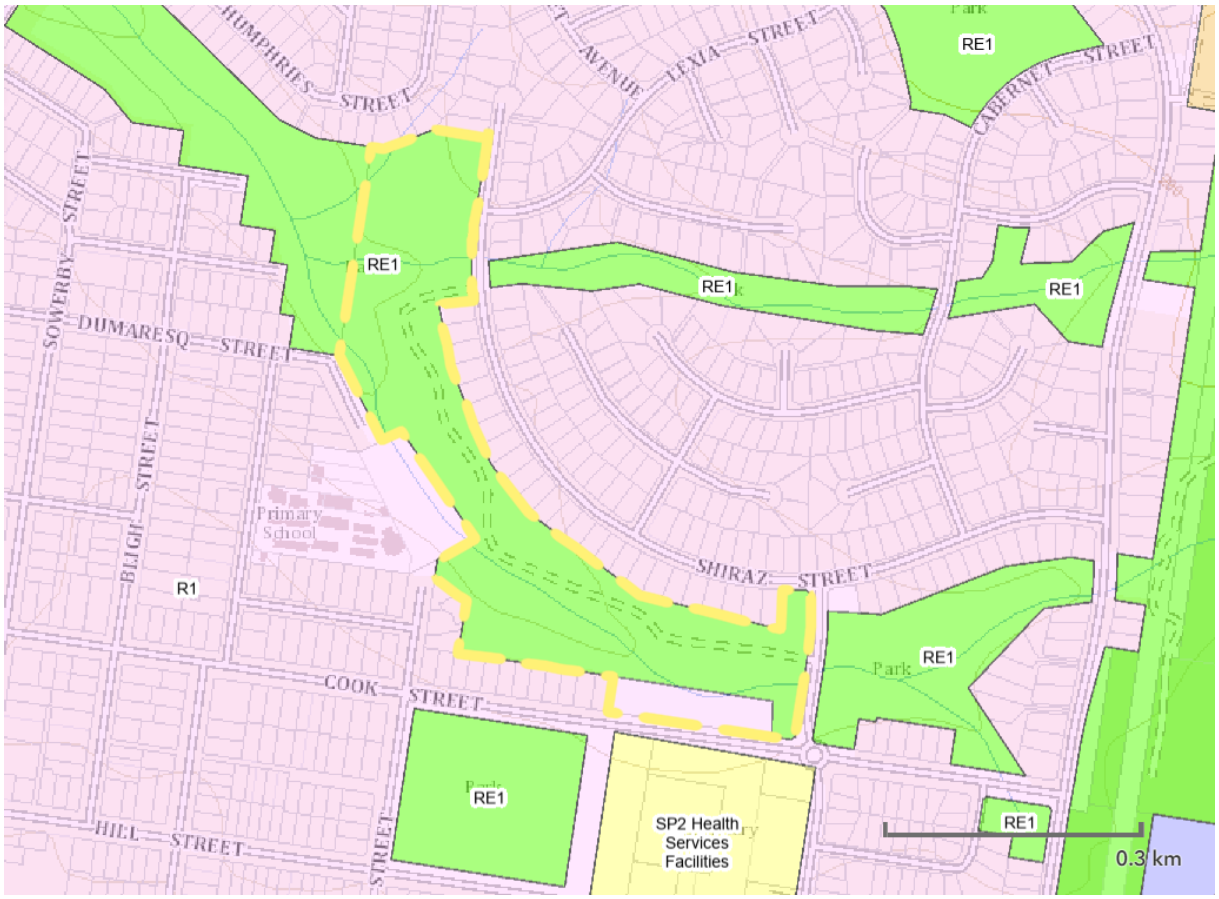


Figure 7: *The proposed Indara Telecommunication Facility at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333 is located in RE1 – Public Recreation Zoned Land under Councils Planning Scheme. (Source: NSW Planning Portal)*

Telecommunications facilities is technically a prohibited use under the RE1 – Public Recreation zone under Council's LEP. However, a telecommunications facility may be carried out by any person with consent on any land under clause 2.143(1) of the *SEPP (Transport and Infrastructure) 2021.*

The zone objectives are below. The project is consistent with these objectives.

Muswellbrook Local Environmental Plan 2009 Objectives – RE1 – Public Recreation	
Objective	**Response**
a). To enable land to be used for public open space or recreational purposes.	The proposal is consistent with objective a) as it doesn't take away land from being used for public open space or recreational purposes, thus objective a) is satisfied.
b). To provide a range of recreational settings and activities and compatible land uses.	The proposal is consistent with objective b), as it will provide a number of benefits to the community. Improved connectivity in the area will aid the communications services of patrons using the public recreational space, thus objective b) is satisfied.
c). To protect and enhance the natural environment for recreational purposes.	The proposal is consistent with objective c), as it does not take away from the natural environment for recreational purposes, thus objective c) is satisfied.
d). To encourage the development of public open spaces in a way that addresses the community's diverse recreation needs.	The proposal is consistent with objective d), rather it provides much needed mobile services to the meet the day to day needs of the residents of Muswellbrook, thus objective d) is satisfied.
e). To identify land that is suitable for future public recreation use and that can be brought into public ownership as a consequence of development contributions.	The proposal is consistent with objective e), as it does not take away land from being used for public recreational purposes, thus objective e) is satisfied.
f). To provide linked open space for ecosystem continuity, local community recreation, off-road transport and waterway protection.	The proposal is consistent with objective f). The proposed development is not expected to have adverse effects on the above values, thus objective f) is satisfied.
g). To provide space for integrated stormwater treatment devices for flow and water quality management, whilst enhancing urban and rural amenity.	The proposal is consistent with objective g). The proposed development is not expected to have adverse effects on the above values, thus objective g) is satisfied.

6.4 Overlay Provisions

The overlay objectives are below. Although the proposal is not a habitable structure, the overlays are considered. The project is consistent with the objective.

Height of Buildings	
Objective	**Response**
To ensure the height of buildings are appropriate for their location	The proposal is 41.0m in height, similar to other structures within the general vicinity.

To permit building heights that encourage high quality urban form	The proposal not a habitable dwelling and therefore does not take away from the urban form of the surrounding area.
The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.	The proposal exceeds 8.5m in height, however, is not a habitable dwelling.

7. Visual Impact

Whilst freestanding mobile base stations are a common feature within urban and rural landscapes, it is a technical requirement that they protrude above the surrounding environment to provide service. It is acknowledged that the facility will be visible from some perspectives close by.

However, in siting and designing the facility, Indara has deliberately sought to minimise its impact for established land uses and local landmarks:

- The facility is a slim monopole rather than a larger, bulkier lattice tower or mast. The colour of the facility is currently unfinished pale grey – grey facilities tend to blend best into the skyline in all weathers. However, Indara would be happy to consider an alternate colour scheme were deemed appropriate by Council.
- The overall height of the facility, including antennas, is 41.4m above ground level. This is the lowest height to which Optus can provide a suitable level of coverage Muswellbrook North.
- Ground equipment is to be contained within equipment cabinets adjacent to the facility. Equipment cabinets have been chosen because they are less bulky than prefabricated equipment shelters traditionally used by mobile carriers. Ground equipment will generally be shielded from view by established vegetation.
- The facility has been deliberately sited to minimise its visual impact on surrounding development. The proposed facility has been deliberately positioned to avoid interrupting potential viewsheds from residences in the immediate area.

Indara note that the facility, by virtue of its height, cannot be hidden and will have a visual presence in the environment from some perspectives. However, the site has been deliberately sited and designed to have as small as possible a visual impact on the surrounding area. The facility is not expected to interrupt views from established residences, nor will it be visually dominant.

Visual impact has been considered from all perspectives of the area, as follows.

Figure 8: Aerial view of proposed Indara facility. (Source: Google Earth)

Figure 9: View from the north looking south from the proposed site location, situated inside the land parcel. (Source: Downer, 2024)

Figure 10: View from the south looking north towards the proposed site location, situated within a dense area of vegetation. (Source: Google Earth, 2024)

Figure 11: View from the west looking east from the proposed site location, showing context, with residential dwellings beginning from approximately 60m east on Shiraz Street. (Source: Downer, 2024)

Figure 12: View from the east looking west from the proposed site location, showing context of land with tall vegetation surrounding. (Source: Downer, 2024)

7.1 Visual Impact Assessment

Indara acknowledge that the site cannot be totally hidden and will have a visual presence in the environment from some perspectives close by.

It is not possible to completely visually mitigate any telecommunications facility as, by their nature, they need a clear line of sight to the areas they will be servicing, and it is a technical requirement that they are taller than the surrounding environment. However, wherever possible, it is our aim to minimise visual impact through appropriate siting and design. The proposed facility is located approximately 40m to the west of Shiraz Street, inside the land parcel of the BMX Track. Users of said BMX Track and residential dwellings present on Shiraz Street will have partial views of the facility to the west of their properties.

In terms of siting, the proposed facility is located to the east of the land parcel, with the aim to maximise separation from residential dwellings, while not impeding on the shared used space of the BMX Track. There is tall, established existing vegetation surrounding all angles of the proposed facility, and tall power pole infrastructure, aiding in providing context of the facilities height and visual coverage of the proposal from users of the area. We consider that this location, in context, provides a more favourable visual impact than other locations within the Muswellbrook area that were initially scoped.

The proposed facilities location is elevated to approximately 171m above sea level, as shown in *figure 13*. North of the proposal's location shows a slight increase in elevation of land to 179m above sea level. The increase in topography aids in screening the facility from residential dwellings to the north, as the proposed facility will not appear at ground level. Residents south are separated from the proposed facility by tall, existing vegetation, creating a buffer and reducing visibility.

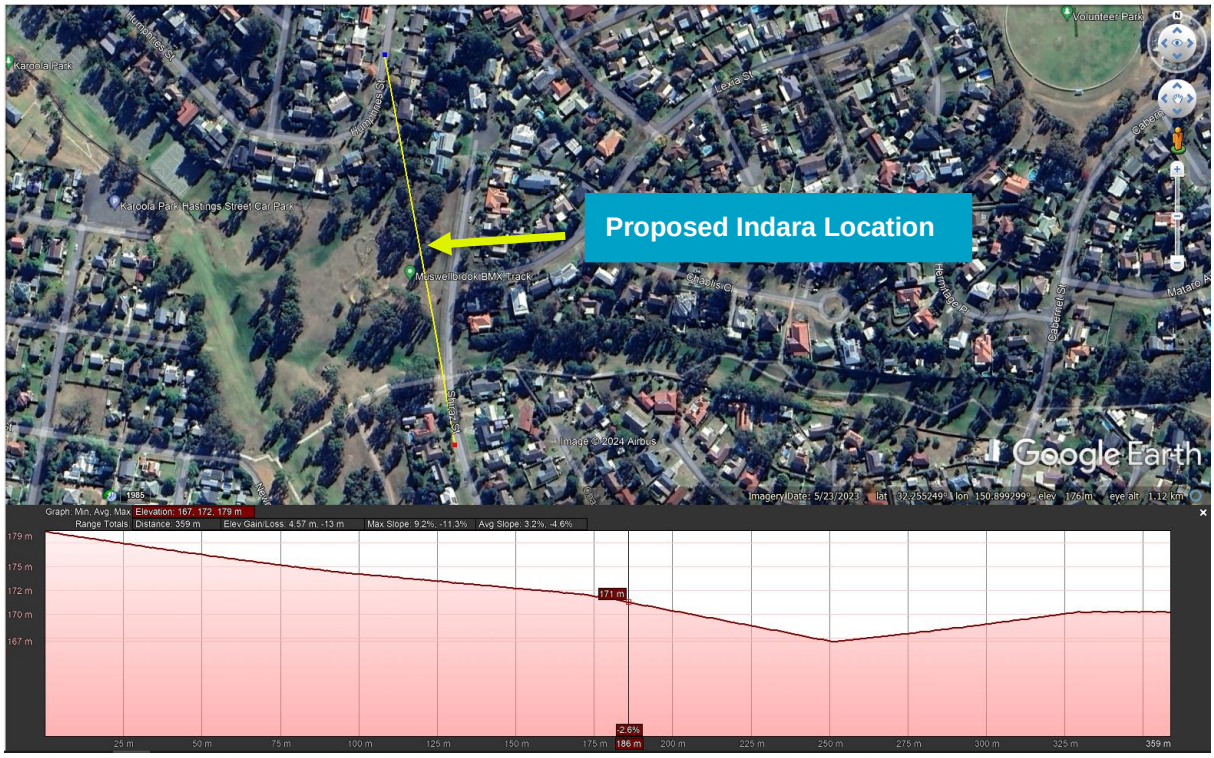


Figure 13: Left to Right: Topography of landscape from north to south. (source: Google Earth, 2024)

The design, and location of the proposal has been taken into consideration during the site selection process in order to ensure that the site does not result in any undue visual intrusion towards surrounding viewing corridors. The use of a slimline monopole, finished in grey, is the best solution for a new structure on the landscape. Grey facilities tend to blend well into the surrounding environment in all weathers.

We believe that a reasonable balance has been struck between the technical requirements for a new facility in this area, the need to deliver an optimum level of service based on the level of coverage and capacity delivered by a facility of this height, and the need to minimise visual and other environmental impacts.

In this case we do not consider that the proposal will adversely impact on scenic views from residential dwellings to the north, east and south of the proposal.

8. Radiofrequency Emissions and Safety

It is the position of the Australian government, and peak health bodies like the World Health Organization (WHO), that mobile base stations are safe.

Statement from Australia's Chief Medical Officer

I'd like to reassure the community that 5G technology is safe. There is no evidence that telecommunication technologies, such as 5G, cause adverse health impacts. This position is supported by health authorities in Australia – such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) – and around the world, such as the World Health Organization.

Mobile phone networks and other wireless telecommunications emit low-powered radio waves also known as radiofrequency (RF) electromagnetic energy (EME). This is different to ionising radiation associated with nuclear energy or use in medicine. The radio waves to which the general public is exposed from telecommunications are not hazardous to human health.

https://www.health.gov.au/news/safety-of-5g-technology

Australian Government Advice

What do we know about EME? Answer: extensive scientific research confirms that mobile technology has no long or short term health effects; and the Australian Government is focused on capturing the benefits of advanced telecommunications while ensuring strict protections and safety standards are met.

The EME standard set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) defines the maximum exposure limit for all wireless equipment and is strictly enforced by the Australian Communications and Media Authority (ACMA). Measurements undertaken by carriers and ACMA show that mobile telecommunication sites emit a tiny fraction of maximum EME exposure limits. The exposure limits are themselves very conservative. As such, sites which operate at 100% of the limit are still considered safe.

This standard is informed by decades of quality studies undertaken by expert Australian and international scientists which show the low levels of EME produced by telecommunications equipment have no adverse effects. This includes previous generations of mobile technology, like 3G and 4G, and the higher, more efficient, radio waves used for 5G.

https://www.infrastructure.gov.au/media-centre/5g-and-electromagnetic-energy

EME is one of the most heavily studied types of energy in the world. Decades of research shows there is no verifiable evidence that EME from telecommunications facilities pose a negative health risk, especially when emission levels are below the maximum exposure limits set out in the Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (the Standard).

https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme

All mobile base stations in Australia must comply with a strict safety standard called the *Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz (RPS S-1)*. The standard has been prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), based on the recommendations of ICNIRP (International Commission for Non-Ionising Radiation Protection).

The Australian Communications and Media Authority (ACMA) regulates compliance with the standard. The safety standard applies to all mobile frequencies currently used in Australia, including 3G, 4G and 5G.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that mobile carriers can transmit to and from any network base station. The environmental standard restricts the signal strength to a level low enough to protect all people at all times. It has a significant safety margin, or precautionary approach, built into it.

An ARPANSA EME report has been prepared to demonstrate compliance with the Australian standard. This report demonstrates the maximum signal strength that a proposed telecommunications facility is capable of producing, assuming it is operating at maximum capacity.

This facility will operate at maximum EME levels representing **0.81%** of the Australian standard. Refer Appendix 3.

Note that mobile base stations are designed to operate at minimum, not maximum, power levels at all times. The facility will only operate at a level necessary to accommodate the number of customers using the facility at any one time. Actual EME levels emitted by the facility will generally be much lower than those shown in the ARPANSA EME Report.

9. Conclusion

Downer Group EDI, for and on behalf of the Indara Group, is seeking development consent to install a new telecommunications facility at Lot 13 BMX Track, Cook Street, Muswellbrook NSW 2333. The new facility is proposed to improve mobile services in the Muswellbrook North area.

The facility will provide new improved coverage and connectivity to the Muswellbrook North area providing much needed voice and data services to the area and will form a vital component of the Muswellbrook Shire Council infrastructure.

There is strong State policy support for telecommunications facilities if, when balancing improved telecommunications services with environmental impacts; including for example, visual impact and flood or fire hazard, a particular proposal provides a net community benefit. The site has a number of characteristics that make it suitable for the construction of a new telecommunications facility in the manner proposed. The drawings respond to the principles of design, siting, construction, and operation of telecommunications facilities as specified in the Code of Practice whilst meeting state and local planning policy objectives.

The proposed works provide the community with reliable 4G and future 5G access which in turn supports the various commercial industries in the region and forms part of a wider plan to ensure reliable and accessible coverage during emergency situations.

Indara, together with Downer have undertaken an assessment of the relevant matters as required by the Telecommunications Act 1997 and the Muswellbrook Local Environmental Plan. The proposal is considered appropriate considering the relevant legislative, environmental, technical, radio coverage and public safety requirements.

The proposed facility is considered appropriate for the subject site for the following reasons:

- The facility is located specifically to provide reliable mobile phone service to Muswellbrook North and surroundings.
- Public views to the facility are adequately contained due to the siting of the new monopole structure and facility amongst established vegetation.
- The implementation of a monopole at medium scale height ensures that the facility will not impact on the vistas from these public viewpoints or the valued landscape qualities in the area.
- The facility will operate within the regulatory framework of Commonwealth, State and Local Governments.
- The proposal is consistent with the relevant provisions of the Muswellbrook Local Environmental Plan 2009.
- The facility will ensure the provision of significantly improved mobile phone coverage and competition in the Muswellbrook North area, including businesses and residents and along major transport routes.
- The proposal will maintain and improve Optus communications services to the area, including voice calls, video calling and Wireless Broadband - a high speed wireless internet service via the 4G and 5G phone network.
- The proposed facility is part of Optus' strategic plan to improve its mobile service in the Muswellbrook North area, thereby ensuring residents, businesses and visitors have

access to the best quality telecommunications service possible which will assist in the delivery of the Council's corporate vision.

- The site has been assessed as a viable option for the effective delivery of Optus coverage and radiofrequency objectives for the search area, in accordance with the 'Precautionary Principle', and will greatly improve access to mobile telecommunications for residents and businesses in the local area.
- The facility will operate within all current and relevant Australian Standards.
- The proposal will not prejudice the existing and future uses of the site; and
- The proposal will have a number of significant economic and social benefits to the area.

Based upon the above, we respectfully request that the Muswellbrook Shire Council approve the application and issue a development permit for a telecommunications facility at the site, subject to reasonable and relevant conditions, and in accordance with the plans attached in ***Appendix 2***.

Should Council have any further queries regarding the submitted application, please do not hesitate to contact Kaitlen Perkins at kaitlen.perkins@downergroup.com

Appendix 1: Certificate of Title

Form: 01TG
Release: 2.1
www.lpma.nsw.gov.au

TRANSFER GRANTING EASEMI

New South Wales
Real Property Act 1900

AI789862L

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **TORRENS TITLE**

Servient Tenement	Dominant Tenement
Folio Identifier 13/1080309	An easement in gross pursuant to s88A of the Conveyancing Act 1919

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODE
47 V	LLPN 123012 E H.M. Allen & Co. DX 437 Sydney Ph 9232 3652 Reference: SH ENE 894-00224	TG

(C) **TRANSFEROR**

THE COUNCIL OF THE SHIRE OF MUSWELLBROOK

(D) The transferor acknowledges receipt of the consideration of $ 550.00

and transfers and grants—

(E) **DESCRIPTION OF EASEMENT**

EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 5.3 WIDE SHOWN (E) ON DP1196789 ON THE TERMS SET OUT IN ANNEXURE A.

out of the servient tenement and appurtenant to the dominant tenement.

(F) Encumbrances (if applicable):

(G) **TRANSFEREE**

AUSGRID ABN 67 505 337 385

DATE 22 July 2014

(H) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness:
Address of witness: FOR EXECUTION SEE ANNEXURE A

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness: K. Rayner

Name of witness: KATHRYN ANN RAYNER
Address of witness: 570 George Street Sydney NSW 2000

Certified correct for the purposes of the Real Property Act 1900 by the person(s) named below who signed this instrument pursuant to the power of attorney specified.

Signature of attorney:

TREVOR MARK ARMSTRONG

Attorney's name:
Signing on behalf of: Ausgrid
Power of attorney-Book: 4641
-No.: 639

Annexure **A** to TRANSFER GRANTING EASEMENT

Parties:

THE COUNCIL OF THE SHIRE OF MUSWELLBROOK and AUSGRID ABN 67 505 337 385

Dated: 22 July 2014

An EASEMENT FOR ELECTRICITY AND OTHER PURPOSES affecting that part of the servient tenement shown as "EASEMENT FOR ELECTRICITY AND OTHER PURPOSES" on the terms and conditions set out in Memorandum registered number AG823691. In this easement, "easement for electricity and other purposes" is taken to have the same meaning as "easement for electricity works" in Memorandum AG823691

The Common Seal of Muswellbrook
Shire Council was affixed this
pursuant to a resolution of Council
passed on the 11th of June 2013

SHIRE COUNCIL MUSWELLBROOK THE COMMON SEAL

.....
Mayor
Martin Rush

.....
General Manager
Steve McDonald

PLAN FORM 2

Plan Drawing only to appear in this space

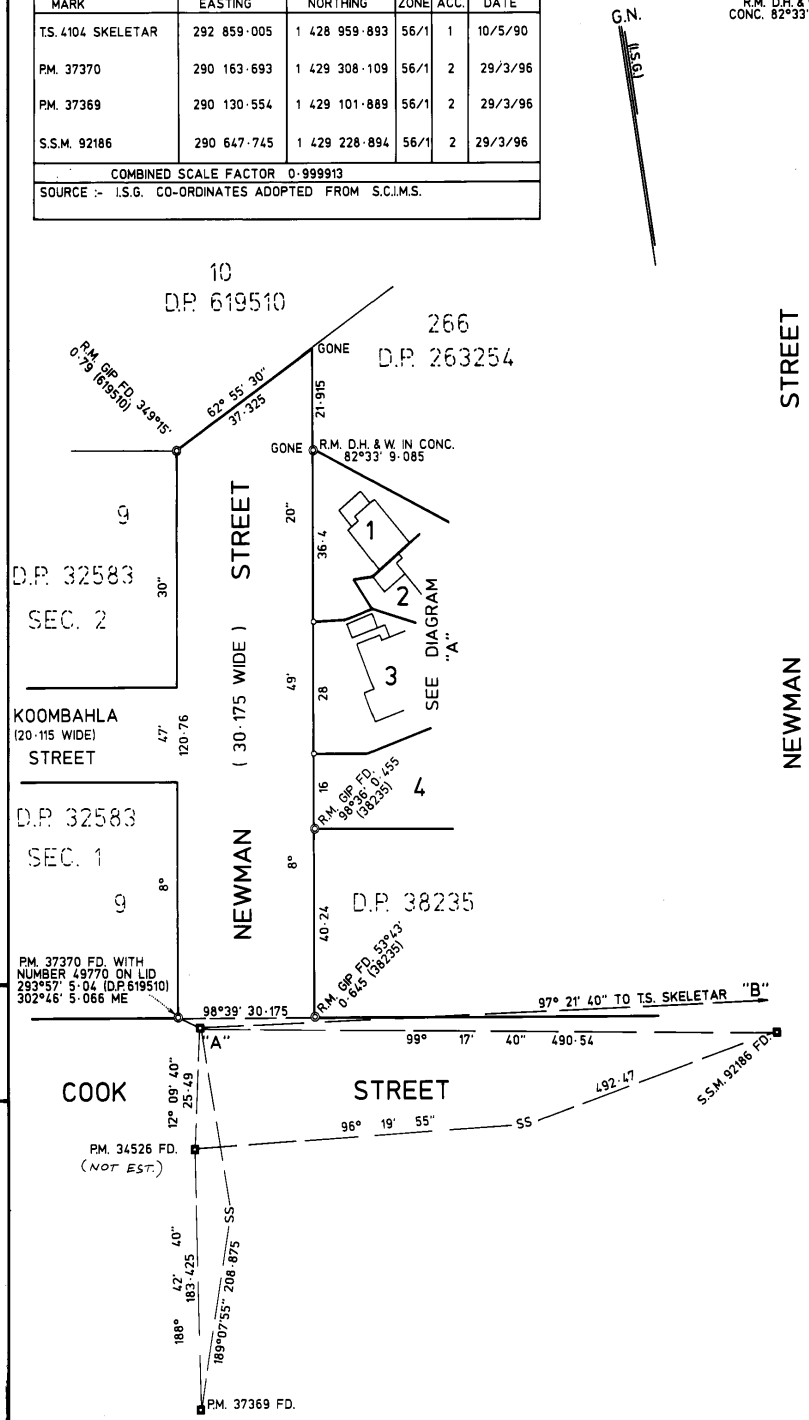
SIGNATURE AND SEALS ONLY.

THE COMMON SEAL OF THE COUNCIL OF THE SHIRE OF MUSWELLBROOK WAS HEREUNTO AFFIXED PURSUANT TO A RESOLUTION OF THE COUNCIL

MAYOR

GENERAL MANAGER

SURVEY PRACTICE REGULATIONS 1990 CLAUSE 32 (2)					
	I.S.G. CO-ORDINATES				
MARK	EASTING	NORTHING	ZONE	ACC.	DATE
T.S. 4104 SKELETAR	292 859·005	1 428 959·893	56/1	1	10/5/90
P.M. 37370	290 163·693	1 429 308·109	56/1	2	29/3/96
P.M. 37369	290 130·554	1 429 101·889	56/1	2	29/3/96
S.S.M. 92186	290 647·745	1 429 228·894	56/1	2	29/3/96
COMBINED SCALE FACTOR 0·999913					
SOURCE :- I.S.G. CO-ORDINATES ADOPTED FROM S.C.I.M.S.					



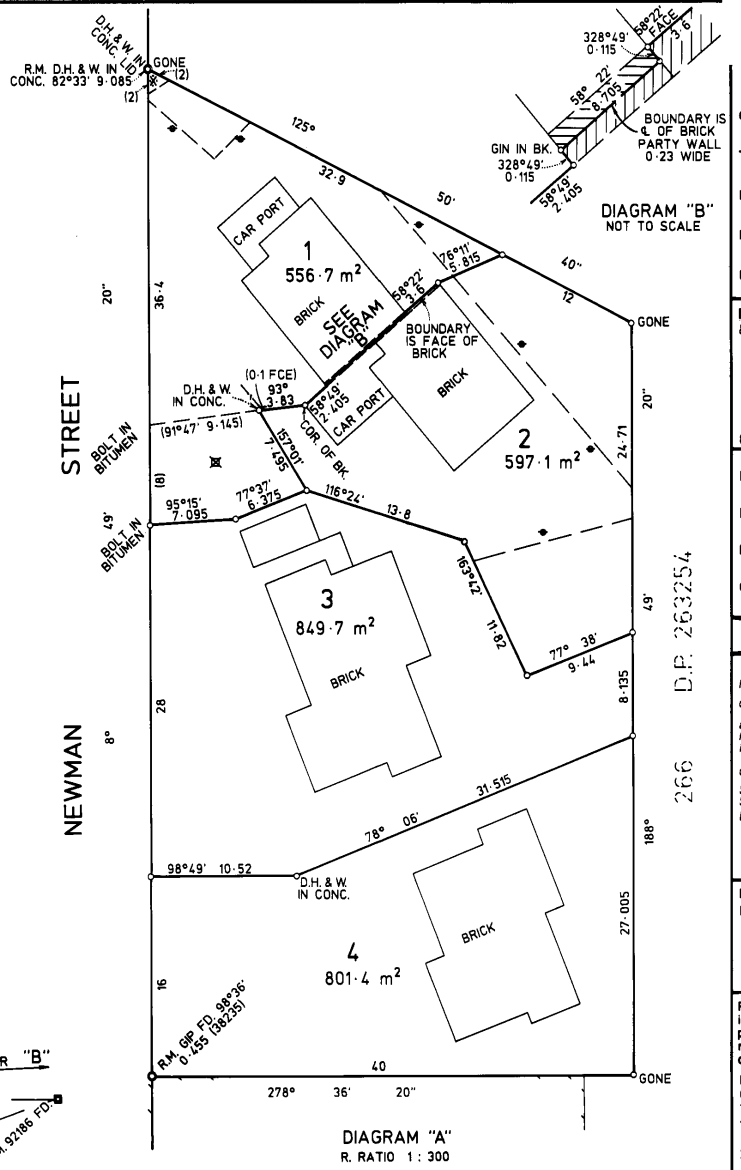


DIAGRAM "B"
NOT TO SCALE

DIAGRAM "A"
R. RATIO 1 : 300

- EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES (APPROX. POSITION SHOWN THUS——— —)
- EASEMENT FOR RIGHT OF CARRIAGEWAY & WATER SUPPLY VAR. WIDTH
- EASEMENT TO DRAIN WATER VARIABLE WIDTH

Crown Lands Office Approval

LAN APPROVED .....
Authorised Officer
Land District .....
Paper No. .....
Field Book ..... pages .....

Council's Certificate

hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of ~~s 74T 3 Division 2~~ of the Water Board Act 1987, or ~~s 74T 5 Division 7~~ of the Hunter Water Board (Corporatisation) Act 1991.

X have been complied with by the applicant in relation to the proposed Subdivision IV
insert "new road", "subdivision" or "consolidated lot") set out herein

subdivision No. 122
date 22nd July 1996
Signature .....
General Manager/Authorised Person
council File No. S 3/96

This part of certificate to be deleted where the application is only for consolidated lot or the opening of a new road or where the land to e subdivided is wholly outside the areas of operations of the Water oard and the Hunter Water Corporation Ltd.

Delete if inapplicable

SURVEYOR'S REFERENCE: 721 / 19

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1010226

Registered: 3-2-2000

C.A: SEE CERTIFICATE

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: ~~MUSWELLBROOK~~ U8225 - 62

Last Plan: DP 261531

PLAN OF SUBDIVISION OF LOTS 253, 254 & 255 OF D.P. 261531 .

Lengths are in metres. Reduction Ratio 1: 800

LGA: MUSWELLBROOK

Locality: MUSWELLBROOK

Parish: ROWAN

County: DURHAM

This is sheet 1 of my plan in ~~sheets.~~ (Delete if inapplicable)

I, COLIN RAY MURRAY
of M.M. Hyndes, Bailey & Co. Muswellbrook

a surveyor registered under the Surveyors Act 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Survey Practice Regulation 1990 and was completed on. 18/6/1996

Signature .....
Surveyor registered under Surveyors Act, 1929

Datum Line of Azimuth. A–B

Plans used in preparation of survey/compilation.
D.P. 261531, D.P. 619510 .

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919. IT IS INTENDED TO CREATE :-

1. EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES.
2. EASEMENT FOR RIGHT OF CARRIAGEWAY & WATER SUPPLY VARIABLE WIDTH.
3. EASEMENT TO DRAIN WATER VARIABLE WIDTH.
4. ~~CROSS EASEMENTS FOR SUPPORT OVER BRICK PARTY WALL 0·23 WIDE.~~

4 RESTRICTION AS TO USER

PLAN FORM 2

Plan Drawing only to appear in this space

SIGNATURE AND SEALS ONLY.

THE COMMON SEAL OF MUSWELLBROOK SHIRE COUNCIL WAS HEREUNTO AFFIXED PURSUANT TO A RESOLUTION OF COUNCIL IN THE PRESENCE OF:

Witness

Mayor

DP1080309

Registered: 29.3.2005

Title System: TORRENS

Purpose: SUBDIVISION

Ref Map : U8225-62

Last Plan : DP263254

PLAN OF SUBDIVISION OF LOT 266 OF DP 263254

lengths are in metres. Reduction Ratio 1: 4000

L.G.A. MUSWELLBROOK

Locality. MUSWELLBROOK

Parish. ~~BROUGHAM~~ ROWAN

County. DURHAM

This is sheet 1 of my plan in sheets. (Delete if inapplicable).

Surveying Regulation, 2001

I, GORDON VICTOR BOARDMAN

of BOARDMAN PEASLEY PTY LIMITED 44 MARKET STREET, MUSWELLBROOK 2333

a surveyor registered under the Surveying Act 2002, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveying Regulation 2001 and was completed on 24-12-2004.

The survey relates to LOT 12 ONLY

LOT B COMPILED FROM DP 263254

(where specify the land actually surveyed, or specify any land shown in the plan that is not the subject of the survey)

Datum Line: X - Y

Type: Urban (Signature)

Surveyor registered under the Surveying Act, 2002

Plans used in preparation of survey/compilation.

DP 38235
DP 242024
DP 260394
DP 261531
DP 263254
DP 619510

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage,reserves, easements, restrictions on the use of land or positive convenants

* OFFICE USE ONLY

Department of Lands Approval

..... in approving this plan certify (Authorised Officer)

that all necessary approvals in regard to the allocation of the land shown hereon have been given.

Signature .....

Date .....

File Number .....

Office .....

Subdivision Certificate

I hereby certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed Subdivision set out hereon

* (Insert "subdivision" or "new road")

..... A/ Colgrave

* Authorised Person/ General Manager/ Accredited Certifier

Consent Authority Muswellbrook Shire Council

Date of Endorsement 4 March 2005

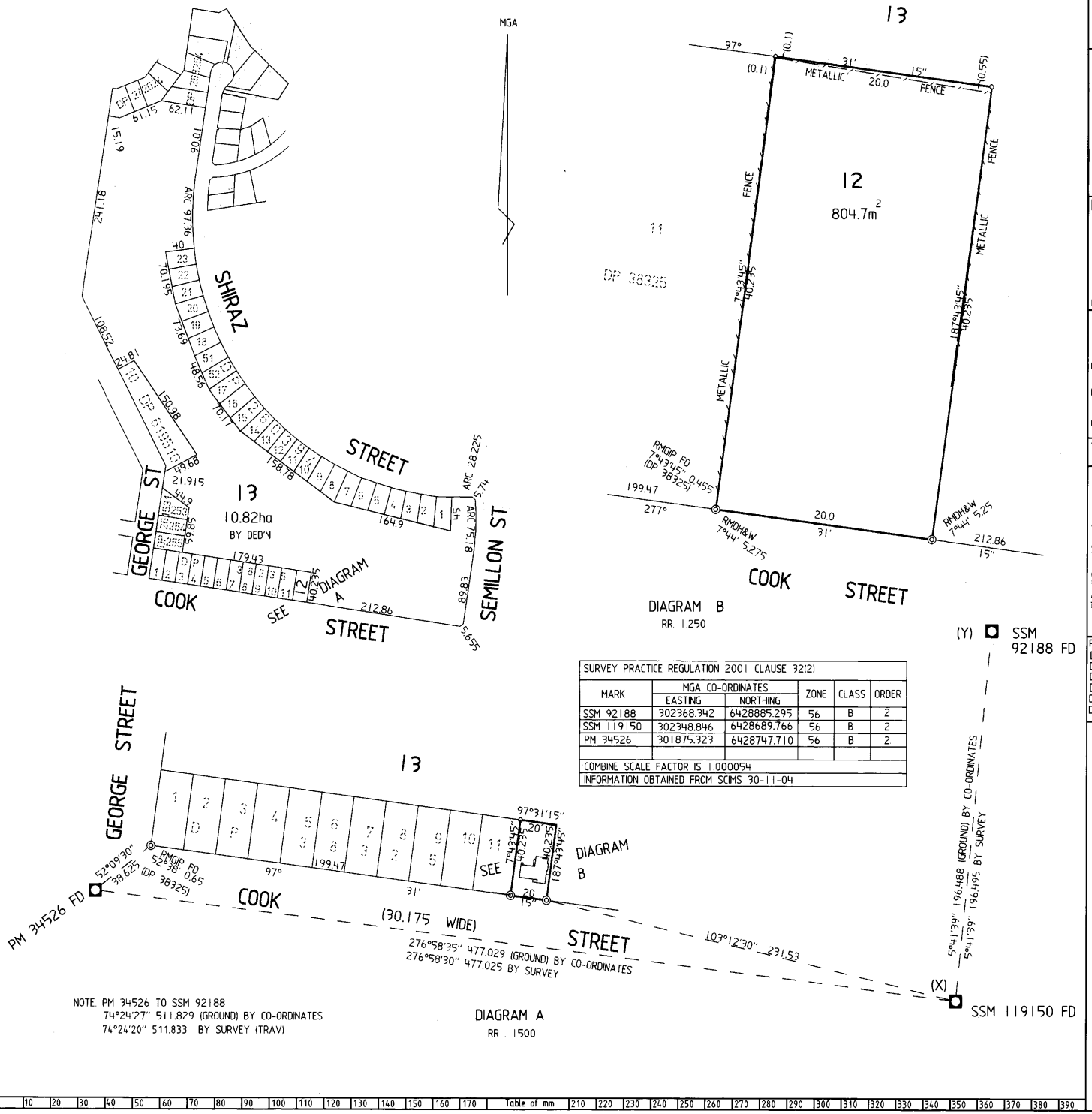
Accreditation no Not applicable

Subdivision Certificate no 1264

File no. DA 14/2005

*Delete whichever is inapplicable

SURVEYOR'S REFERENCE: s4380



SURVEY PRACTICE REGULATION 2001 CLAUSE 32(2)					
MARK	MGA CO-ORDINATES		ZONE	CLASS	ORDER
	EASTING	NORTHING			
SSM 92188	302368.342	6428885.295	56	B	2
SSM 119150	302348.846	6428689.766	56	B	2
PM 34526	301875.323	6428747.710	56	B	2
COMBINE SCALE FACTOR IS 1.000054					
INFORMATION OBTAINED FROM SCIMS 30-11-04					

NOTE: PM 34526 TO SSM 92188
74°24'27" 511.829 (GROUND) BY CO-ORDINATES
74°24'20" 511.833 BY SURVEY (TRAV)

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING. CREASING OR FOLDING WILL LEAD TO REJECTION

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 13/1080309

SEARCH DATE	TIME	EDITION NO	DATE
19/1/2024	10:00 AM	2	8/9/2014

LAND

LOT 13 IN DEPOSITED PLAN 1080309
AT MUSWELLBROOK
LOCAL GOVERNMENT AREA MUSWELLBROOK
PARISH OF ROWAN COUNTY OF DURHAM
TITLE DIAGRAM DP1080309

FIRST SCHEDULE

THE COUNCIL OF THE SHIRE OF MUSWELLBROOK

SECOND SCHEDULE (3 NOTIFICATIONS)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP1010226 EASEMENT TO DRAIN WATER VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED
3 AI789862 EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 5.3 WIDE AFFECTING THE PART DESIGNATED (E) IN DP1196789

NOTATIONS

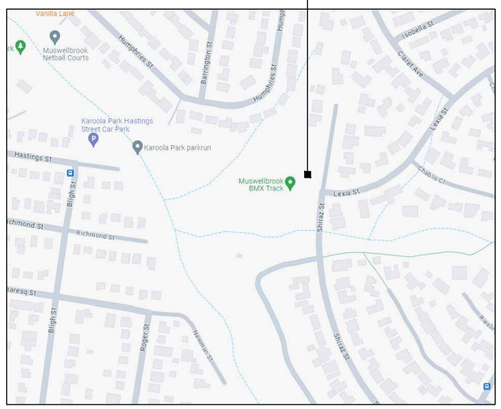
UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Appendix 2: Proposal Plans

MGA

PROPOSED INDARA SITE



LOCALITY MAP

COPYRIGHT © GOOGLE MAPS

NOTE:
THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED. DIMENSIONS, COORDINATES, AND LEVELS SHOWN ARE NOMINAL AND SUBJECT TO CONFIRMATION BY SURVEYOR.

13
DP 1080309

1
P2

SHIRAZ STREET

LEXIA STREET

PROPOSED INDARA INSTALLATION

PROPOSED ACCESS ROUTE

REMOVE EXISTING BOLLARDS (2-OFF)

PROPOSED EWP SETUP LOCATION

PROPOSED OPTUS U/G FIBRE LINE (INDICATIVE ONLY)

PROPOSED OPTUS U/G POWER LINE (INDICATIVE ONLY)

EXISTING BOLLARDS (TYP.)

EXISTING BUILDING (TYP.)

EXISTING POWER POLE

EXISTING BMX TRACK

EXISTING TREE (TYP.)

EXISTING O/H POWER LINE

EXISTING POWER POLE

LEGEND

- PROPERTY BOUNDARY
- INDARA LEASE LINE
- FENCE
- OPTUS FIBRE OPTIC
- OPTUS ELECTRICITY
- O/H POWER SUPPLY

OVERALL SITE PLAN

SCALE 1:1000

DRAFT

Rev	Date	Revision Details					
01	29.11.23	ISSUED FOR APPROVAL	INDARA Consultant	JM CAD	JMB Designer	GH Verifier	PM Approver

Client: indara DIGITAL INFRASTRUCTURE

Project: INDARA DIGITAL INFRASTRUCTURE BUN No:- 3503282 - X MUSWELLBROOK NORTH COOK STREET

Drawing Title: OVERALL SITE PLAN

Drawing Status: FOR APPROVAL

Drawing No. 3503282-P1

Revision 01

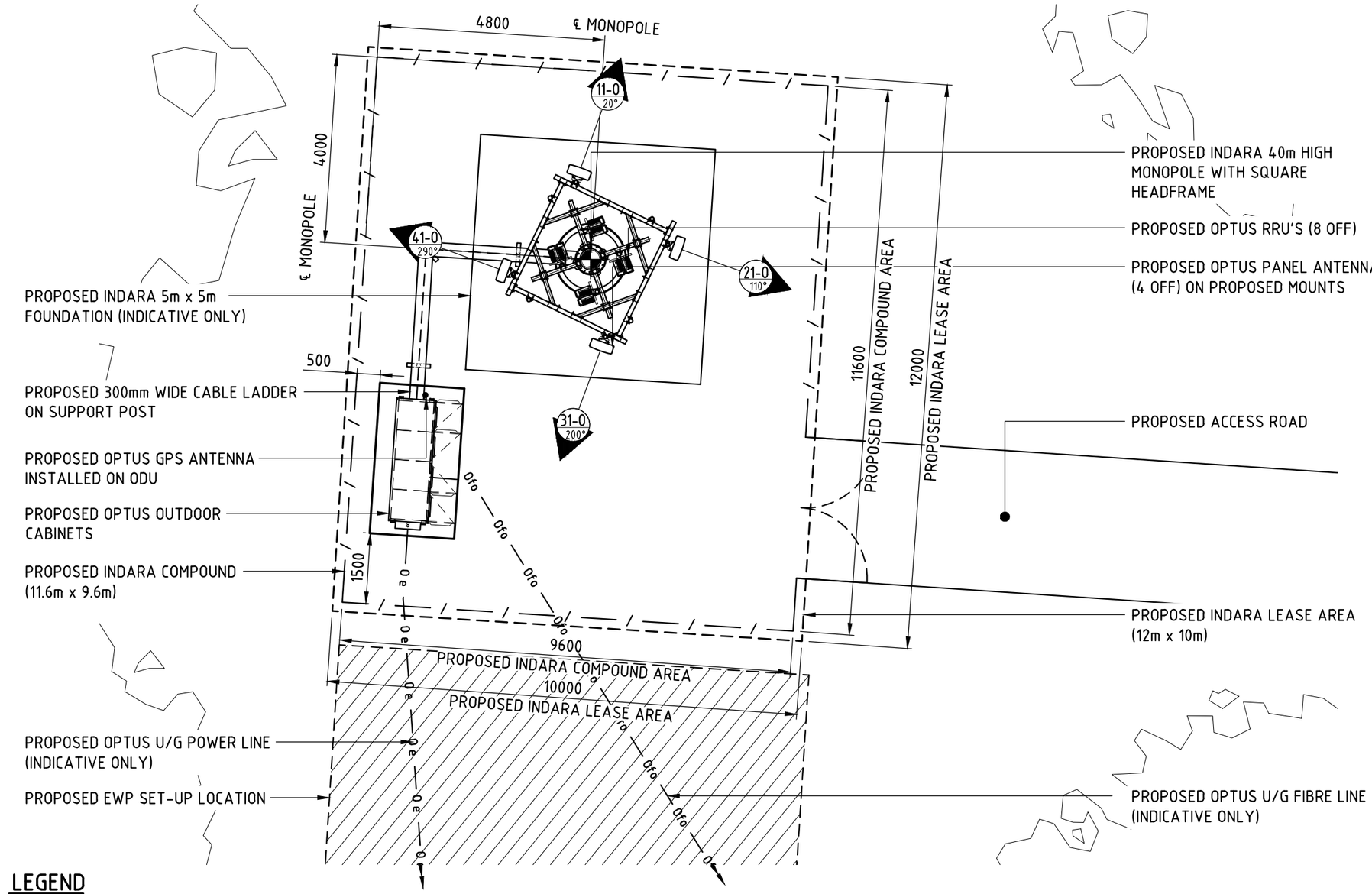
20 10 0 10 20 30 40 50mm

A3

ANTENNA LEGEND

ID 0° — PROPOSED OR REPLACE

DATUM POINT	GDA94 CO-ORDINATES		ZONE	GROUND LEVEL
⊕	LATITUDE	-32.255188°	56	A.H.D RL. 172.0m EL 0.0m
	LONGITUDE	150.897452°		



SITE ADDRESS:
LOT 13 DP1080309
COOK STREET
MUSWELLBROOK, NSW, 2333

BUN NO: 3503282
CARRIER SITE ID: S4928
RFNSA NO: 2333032
eJV NO: XXXXX

NOTES:

1. **SITE DESIGN VISIT** 09/11/2023
2. **BUSHFIRE PRONE AREA –** NO
3. **FLOOD PRONE AREA –** NO
4. **INDARA MONOPOLE**
   40m HIGH STEEL/CONCRETE MONOPOLE
5. **CARRIER EQUIPMENT SHELTER/OUTDOOR CABINET**
   OPTUS OUTDOOR CABINETS, 4-BAY, INSTALLED ON NEW CONCRETE SLAB
   CARRIER HEADFRAME
   CARRIER SQUARE HEADFRAME AT 41.60m,
   ANTENNA ℄ AT 41.60m
   SECTOR 1 – 20°, SECTOR 2 – 110°, SECTOR 3 – 200°, SECTOR 4 – 290°
6. **TRANSMISSION (CARRIER)**
   PROPOSED FIBRE
7. **SITE ACCESS AND SECURITY**
   SECURITY FENCE WITH BARBED WIRES WITH 3m ACCESS GATE.
8. **FEEDERS/HYBRID CABLES MANAGEMENT**
   9/18 MLEH (3-OFF) HYBRID CABLE, LENGTH 50m.
9. **ANTENNA ACCESS**
   EWP ONLY
10. **MAINS POWER**
    THREE PHASE SUPPLY IS TO BE CONFIRMED WITH POWER SUPPLIER. CABLE RUN IS EXPECTED TO BE 70m (TBC) UNDERGROUND .
11. **SERVICES**
    EXISTING UNDERGROUND ASSETS TO BE CONFIRMED
12. **SITE SPECIFIC REQUIREMENTS**
    TBC.

LEGEND

- INDARA LEASE LINE
- FENCE
- Ofo — Ofo — OPTUS FIBRE OPTIC
- O e — O e — OPTUS ELECTRICITY

DETAIL 1/P1
SCALE 1:100

DRAFT

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
01	29.11.23	ISSUED FOR APPROVAL	INDARA	JM	JMB	GH	PM

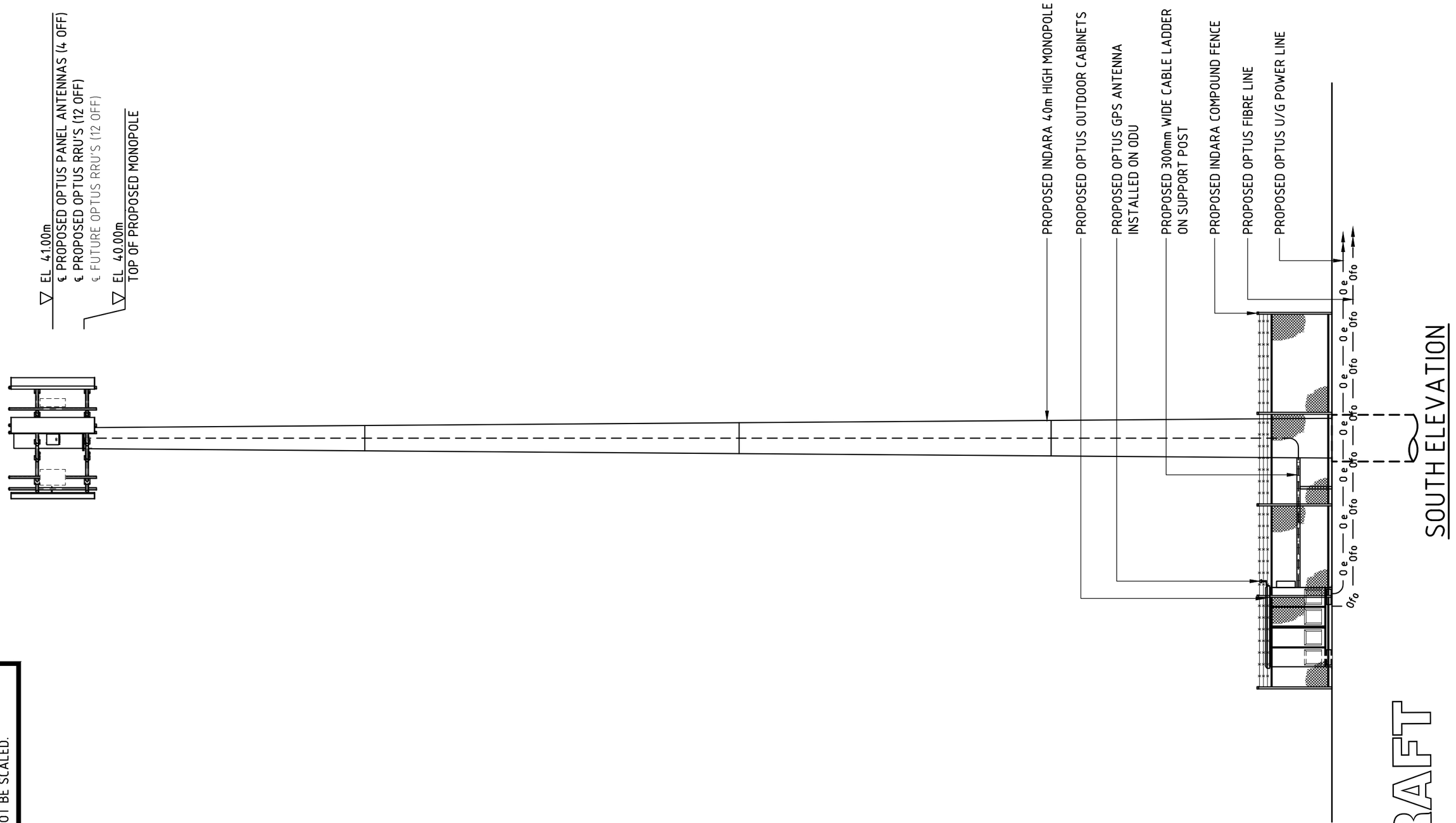
Client: indara DIGITAL INFRASTRUCTURE

Project: INDARA DIGITAL INFRASTRUCTURE
BUN No:- 3503282 - X
MUSWELLBROOK NORTH
COOK STREET

Drawing Title: DRAFT SITE LAYOUT

Drawing Status: FOR APPROVAL
Drawing No.: 3503282-P2
Revision: 01

20 10 0 10 20 30 40 50mm A3



SOUTH ELEVATION

SCALE 1:125

DRAFT

NOTE:
THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
01	29.11.23	ISSUED FOR APPROVAL	INDARA	JM	JMB	GH	PM

Client: indara DIGITAL INFRASTRUCTURE

Project:
INDARA
DIGITAL INFRASTRUCTURE
BUN No:- 3503282 - X
MUSWELLBROOK NORTH
COOK STREET

Drawing Title:
DRAFT SITE ELEVATION

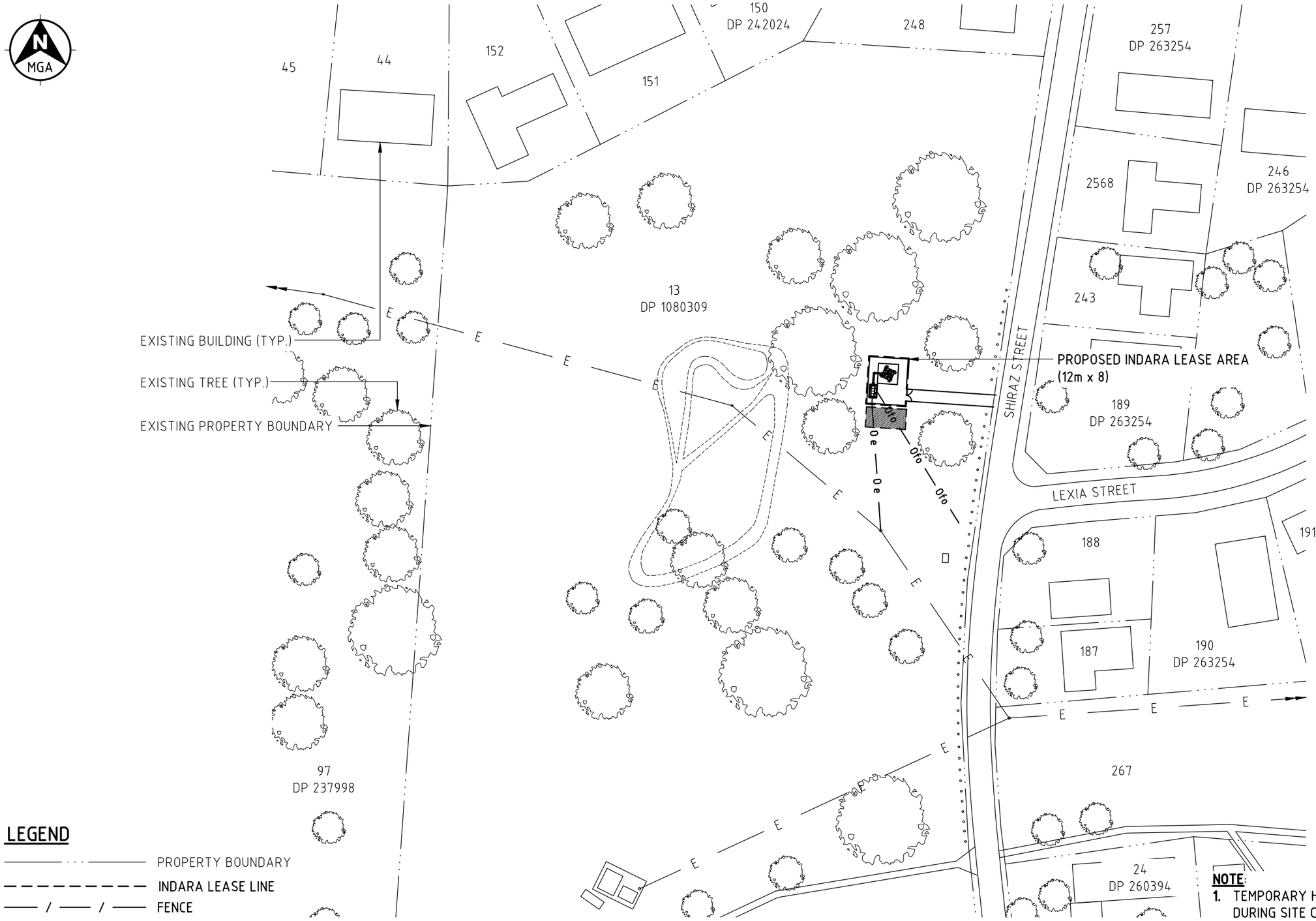
Drawing Status: FOR APPROVAL

Drawing No. 3503282-P3

Revision 01

20 10 0 10 20 30 40 50mm

A3



LEGEND

- PROPERTY BOUNDARY
- INDARA LEASE LINE
- FENCE
- OPTUS FIBRE OPTIC
- OPTUS ELECTRICITY

LEASE PLAN

SCALE 1:1000

DRAFT

NOTE:

1. TEMPORARY HARDSTAND AREA TO BE INSTALLED DURING SITE CONSTRUCTION AND WILL BE REMOVED AT THE END OF THE CONSTRUCTION WORK. THE LAND WILL BE RESTORED TO ITS PREVIOUS CONDITION INCLUDING RE-TURFING.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
01	29.11.23	ISSUED FOR APPROVAL	INDARA	JM	JMB	GH	PM

Client: indara DIGITAL INFRASTRUCTURE

Project:
INDARA
DIGITAL INFRASTRUCTURE
BUN No:- 3503282 - X
MUSWELLBROOK NORTH
COOK STREET

Drawing Title:
DRAFT LEASE PLAN

Drawing Status: FOR APPROVAL

Drawing No. 3503282-L1

Revision 01

20 10 0 10 20 30 40 50mm

A3

Appendix 3: ARPANSA EME Report

Environmental EME Report

Location	Lot 13 DP1080309, Cook Street, MUSWELLBROOK NSW 2333		
Date	29/11/2023	**RFNSA No.**	2333032

How does this report work?

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at Lot 13 DP1080309, Cook Street, MUSWELLBROOK NSW 2333. These levels have been calculated by Downer Group using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

A document describing how to interpret this report is available at ARPANSA's website:
A Guide to the Environmental Report.

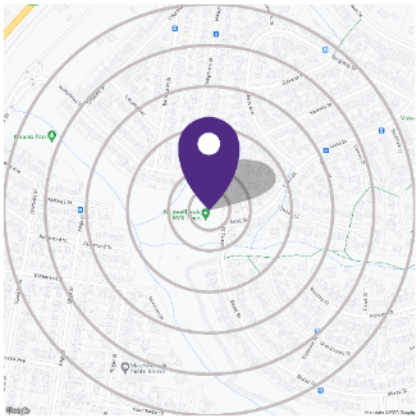
A snapshot of calculated EME levels at this site

There are currently no existing radio systems for this site.

The maximum EME level calculated for the **proposed** changes at this site is

0.81%

out of 100% of the public exposure limit, 283 m from the location.



EME levels with the proposed changes

Distance from the site	Percentage of the public exposure limit
0-50 m	0.35%
50-100 m	0.29%
100-200 m	0.39%
200-300 m	0.81%
300-400 m	0.78%
400-500 m	0.50%

For additional information please refer to the EME ARPANSA Report annexure for this site which can be found at *http://www.rfnsa.com.au/2333032*.

Radio systems at the site

This base station currently has equipment for transmitting the services listed under the existing configuration.
The proposal would modify the base station to include all the services listed under the proposed configuration.

	Existing		Proposed	
Carrier	**Systems**	**Configuration**	**Systems**	**Configuration**
Optus			4G, 5G	LTE1800 (proposed), LTE2600 (proposed), NR/LTE700 (proposed), NR/LTE2100 (proposed), NR/LTE900 (proposed), NR3500 (proposed)

An in-depth look at calculated EME levels at this site

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined. All EME levels are relative to 1.5 m above ground and all distances from the site are in 360° circular bands.

	Existing configuration			Proposed configuration		
Distance from the site	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit
0-50m				2.77	20.42	0.35%
50-100m				3.08	25.09	0.29%
100-200m				2.93	22.77	0.39%
200-300m				4.59	55.97	0.81%
300-400m				4.52	54.18	0.78%
400-500m				3.65	35.41	0.50%

Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest, identified through consultation requirements of the Communications Alliance Ltd Deployment Code C564:2020 or other means. Calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Maximum cumulative EME level for the proposed configuration

Location	Height range	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit
Muswellbrook Public School	0-5 m	3.68	35.91	0.51%

Appendix 4: Owners Consent

muswellbrook shire council

Muswellbrook Shire Council ABN 86 864 180 944
Ph **02 6549 3700** • Email [redacted]
PO Box 122 Muswellbrook NSW 2333
Campbell's Corner 60-82 Bridge Street, Muswellbrook
[redacted]

DECLARATION

Owners Consent

For use when lodging an application through the NSW Planning Portal

I/We the undersigned are the owner(s) of the property described in this application and consent to its lodgement. I/We hereby permit a duly authorised officer of Muswellbrook Shire Council to enter the land or premises to carry out inspections and undertake work as required for the administration of the Act(s), Regulations or Planning Instrument.

Owner(s) Details and Consent

Name _____ Phone _____ Mobile _____

Postal address _____

Email _____ Signature _____

Owner(s) Details and Consent

Name _____ Phone _____ Mobile _____

Postal address _____

Email _____ Signature _____

For Companies

Company Name Muswellbrook Shire Council Phone 0265493700

Name & Position Title Derek Finnigan, General Manager Mobile _____

Postal address PO Box 122, Muswellbrook NSW 2333

Email council@muswellbrook.nsw.gov.au Signature _____

Please indicate by 'X'

☐ **Private Landowner** ☐ **Sole Director** ☒ **Director, Secretary or Company Seal**

Site Details

Unit/shop/suite no _____ Street no 0 Street Name Cook Street - Karoola Park

Suburb Muswellbrook Assessment 100644

Lot/portion no 13 Section no _____ Deposit/strata plan no 1080309

Note: All owners of the land, the subject of this application, must sign this form. If you are not the owner of the land, you must have al the owners sign the application.

Note: If signing on the owner's behalf, please state your legal authority and provide documentary evidence (e.g: copy of power of attorney, trust deed etc.)

Note: In the case of land that is subject of a strata scheme under the Strata Schemes (Freehold Development) Act 1973 or the Strata Schemes (Leasehold Development) Act 1986, the owners corporation for that scheme must be constituted under the Strata Schemes Management Act 1996.A development application for a lot in a strata plan does not require the consent of the Body Corporate when that work does not affect any common property.

Note: In the case of land that is a community, precinct or neighbourhood parcel within the meaning of the Community Land Development Act 1989, the association for the parcel must provide consent.

Note: If signing on behalf of a corporate body or company, the application should be signed by an authorised person under Common Seal and the position of that person in the corporate body or company must be stated on the form. Alternatively, the Common Seal is not required if two Directors or authorised persons sign the application form, or if you are a sole Director.

Privacy Notification

The personal information that Council is collecting from you is personal information for the purposes of the Privacy and Personal Information Protection Act 1998. The intended recipients of the personal information may be:

- Officers within the Council
- Data service providers engaged by the Council from time to time
- Any other agent of the Council
- Financial institution involved in the process

The supply of the information by you is voluntary. However, if you cannot provide or do not wish to provide the information sought, the Council may be unable to process your application. Council is collecting this personal information from you in order to provide Council approved services.

You may make application for access or amendment to information held by Council. You may also make a request that Council suppress your personal information from a public register. Council will consider any such application in accordance with the Act.

Address enquires concerning privacy matters to the Public Officer by sending an email to council@muswellbrook.nsw.gov.au.

At 6:32 pm Cr D. Douglas returned to Council Chambers and resumed her chair at the meeting table.

10.3.3. Karoola Park - Optus Tower Proposed Location

Disclosure of Interest

Cr S. Reynolds declared an insignificant non-pecuniary interest in this Item. Cr Reynolds advised Council that his residence backs onto Karoola Park.

226 RESOLVED on the motion of Cr B. Woodruff and Cr R. Scholes that:

Council provides owner's consent for the proposal from Indara Corporation Pty Ltd to build a telecommunications facility in Karoola Park, Muswellbrook in the proposed location as specified in the report.

In Favour: Cr S. Reynolds, Cr J. Lecky, Cr A. Barry, Cr M. Bowditch, Cr D. Douglas, Cr J. Drayton, Cr L. Dunn, Cr G. McNeill, Cr R. Mahajan, Cr D. Marshall, Cr R. Scholes and Cr B. Woodruff.

Against: Nil.

Appendix 5: EPBC Protected Matters Report

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 19-Jan-2024

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	37
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	7
Commonwealth Heritage Places:	1
Listed Marine Species:	19
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	7
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	50 - 100km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community likely to occur within area	In feature area
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community may occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Melanodryas cucullata cucullata			
South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma			
Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata			
Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FROG			
Litoria booroolongensis			
Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri			
Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
Nyctophilus corbeni			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petaurus australis australis			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In feature area
Petrogale penicillata			
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat may occur within area	In buffer area only
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Eucalyptus glaucina Slaty Red Gum [5670]	Vulnerable	Species or species habitat known to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Picris evae Hawkweed [10839]	Vulnerable	Species or species habitat may occur within area	In feature area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aprasia parapulchella			
Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma impar			
Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat known to occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus			
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Monarcha melanopsis			
Black-faced Monarch [609]		Species or species habitat may occur within area	In feature area
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca			
Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Commonwealth Bank of Australia		
Commonwealth Land - Commonwealth Bank of Australia [12536]	NSW	In buffer area only
Commonwealth Trading Bank of Australia		
Commonwealth Land - Commonwealth Trading Bank of Australia [12533]	NSW	In feature area
Commonwealth Land - Commonwealth Trading Bank of Australia [12530]	NSW	In buffer area only
Communications, Information Technology and the Arts - Australian Postal Corporation		
Commonwealth Land - Australian Postal Commission [12532]	NSW	In buffer area only
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Australian Telecommunications Commission [12534]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Commission [12535]	NSW	In feature area
Defence - Defence Housing Authority		
Commonwealth Land - Defence Housing Authority [15955]	NSW	In buffer area only

Commonwealth Heritage Places [Resource Information]

Name	State	Status	Buffer Status
Historic			
Muswellbrook Post Office	NSW	Listed place	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Mount Pleasant Optimisation Project	2020/8735		Approval	In buffer area only
Not controlled action				
clearing of GWB Woodland for residential development	2004/1771	Not Controlled Action	Completed	In feature area
Construction of a new power line	2011/5930	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Kyoto Alternative Energy Farm	2008/3979	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
N40-Ulan line underbridge replacement, Muswellbrook, NSW	2019/8507	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Bioregional Assessments

SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney Basin	BA website	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Appendix 6: AHIMS (AWS) Report

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : Muswellbrook North

Client Service ID : 856389

Kaitlen Perkins

Level 10 567 Collins Street
Melbourne Victoria 3000

Attention: Kaitlen Perkins

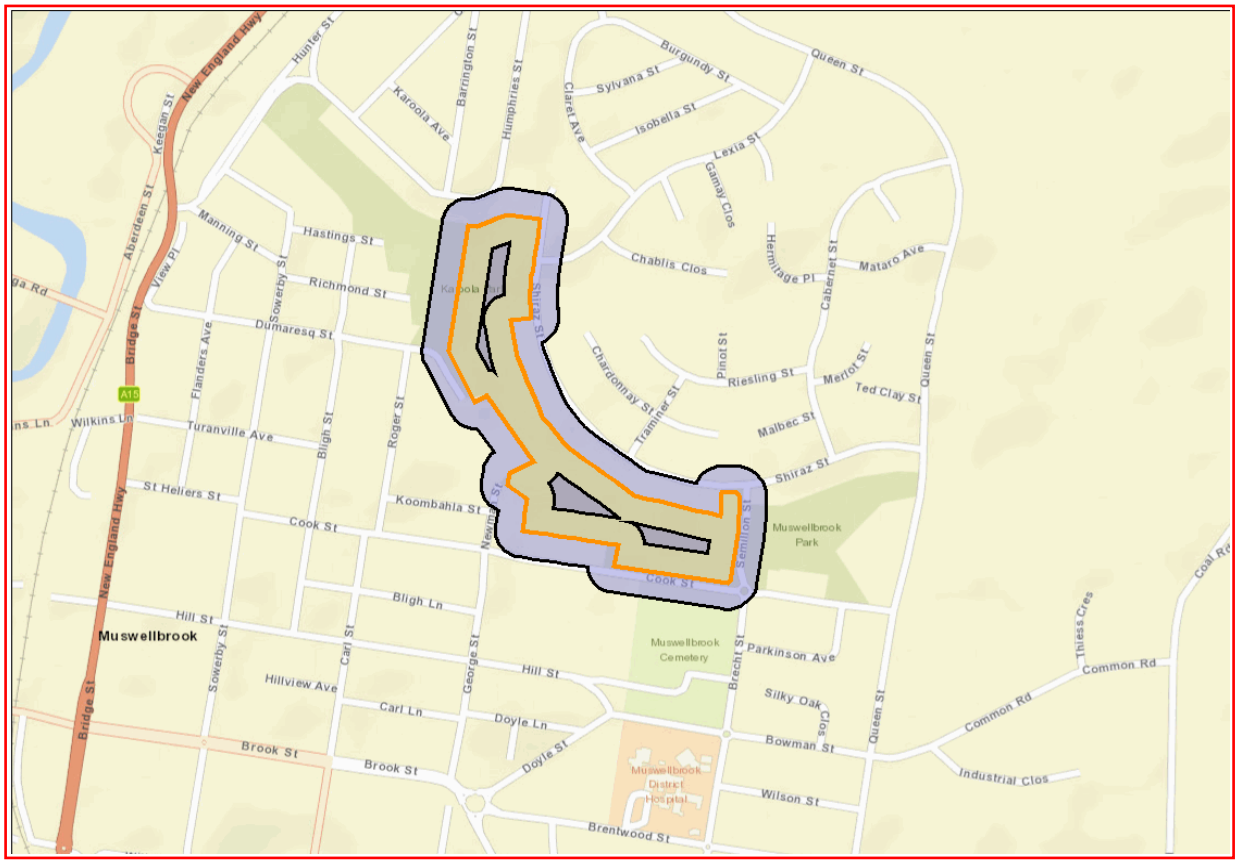
Email: kaitlen.perkins@downergroup.com

Date: 19 January 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 13, DP:DP1080309, Section : - with a Buffer of 50 meters, conducted by Kaitlen Perkins on 19 January 2024.

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



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

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

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

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

Important information about your AHIMS search

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

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