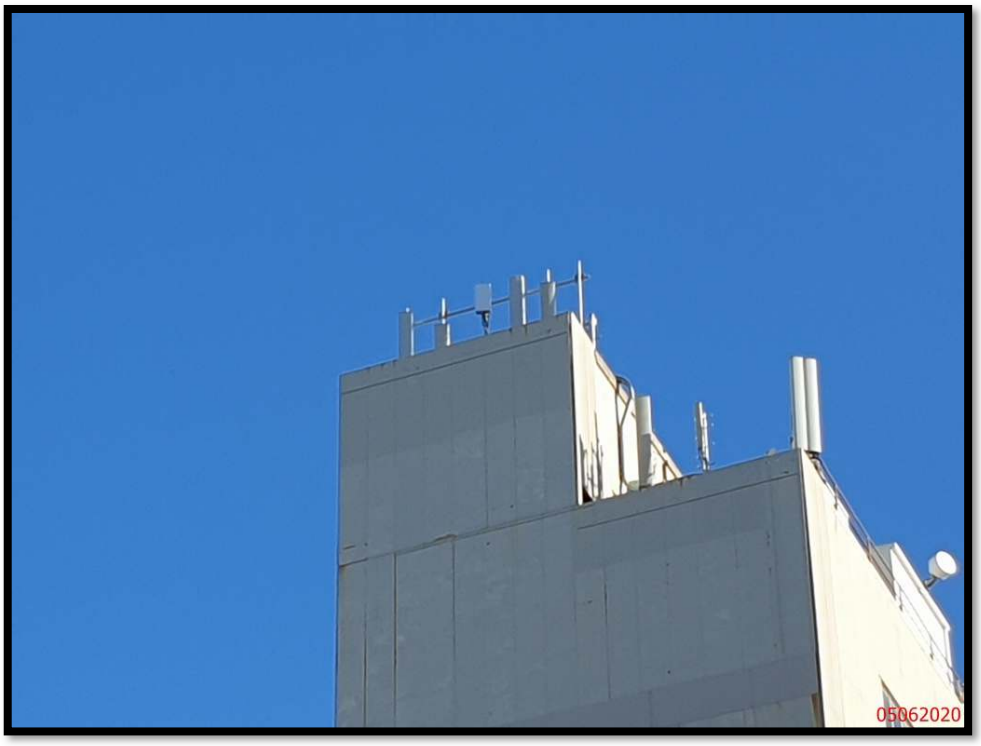
ServiceStream

Planning Report to Department of Planning and Environment

Upgrade to Existing Telecommunications Facility



Accompanying Report to support a
Development Application at
Lot 13 on DP1170710
Glebe Island Silos
1 Sommerville Road ROZELLE NSW 2039

April 2022

Project Reference: S0314 Glebe Island

Document prepared by:

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On behalf of Optus Mobiles Pty Ltd
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EXECUTIVE SUMMARY

Proposal:	Service Stream acts as Project Manager to facilitate the deployment of Optus Mobile Proprietary Limited (Optus) wireless network including the provision of town planning, design, site acquisition and construction services. Optus proposes to upgrade the existing telecommunication equipment on the rooftop of Glebe Island Silos, 1 Sommerville Road, Rozelle NSW 2039 (Lot 13 DP1170710). The proposal is part of a nationwide network upgrade to improve mobile coverage and access to enhanced services via the Optus mobile network in metropolitan, regional and rural areas across Australia. This application seeks planning consent for: • The installation of new mounting poles on the existing Optus mounts for proposed new antennas • The installation of new mounting poles for new Remote Radio Units (RRUs) • The removal of nine (9) existing antennas • The installation of nine (9) new panel antennas • The installation of twelve (12) new RRUs • The installation, relocation and removal of ancillary equipment including RRUs, feeders, cabling, combiners, and • Other associated equipment and works within the existing equipment shelter. Please refer to the attached drawings in **Appendix 1** for further information.
urposes:	The primary objective of the site is to improve network capacity, including improved in-building coverage to parts of Rozelle. This upgrade will also include provisioning the facility with frequencies associated with 5G
Property Details:	Lot and Plan: Lot 13 on DP1170710 Address: 1 Sommerville Road, Rozelle NSW 2039 Registered Owner: Port Authority LGA: Inner West City Council
Local Planning Scheme:	**State Environmental Planning Policy (Eastern Harbour City 2021)** Zone: Port and Employment Zone Use Definition: Telecommunications Facility
Application	Planning consent for the use and development of the land for the purposes of construction and operation of a telecommunications mobile phone base station facility.
Applicant	Optus Mobile Pty Ltd C/- Service Stream Limited **Contact Person:** Wannan Bao **Email:** Wannan.bao@servicestream.com.au **Contact Number:** 0428 684 927 **Address:** Zenith Tower B, Level 3 821 Pacific Hwy, Chatswood NSW 2067 **Project Ref:** S0314 Glebe Island

1.0 INTRODUCTION

Optus Mobile Proprietary Limited (Optus) is a licensed carrier under the *Telecommunications Act 1997 (Commonwealth)* (the Act). Optus is currently expanding and improving its mobile phone networks throughout New South Wales (NSW) to meet growing demand for mobile telecommunications services. As part of this project, Optus are proposing to upgrade the existing telecommunications facility in Glebe Island to improve the coverage within the Rozelle Area.

Service Stream on behalf of Optus proposes to apply for planning consent from the Minister for the Department of Planning and Environment for the upgrade of an existing mobile phone base station at Glebe Island Silos, 1 Sommerville Road, Rozelle NSW 2039 (Lot 13 on DP1170710).

As part of this deployment process, Optus regularly undertakes detailed assessments of the performance and coverage of their mobile networks to ensure the system is meeting customers' expectations by being reliable and providing adequate network coverage. Optus has identified a need to improve network coverage and capacity to this existing telecommunications site that services the ANZAC Bridge and White Bay port facilities as well as parts of the suburbs of Rozelle, Glebe and Pyrmont.

This application seeks planning consent for:

- The installation of new mounting poles on the existing Optus mounts for proposed new antennas
- The installation of new mounting poles for new Remote Radio Units (RRUs)
- The removal of nine (9) existing antennas
- The installation of nine (9) new panel antennas
- The installation of twelve (12) new RRUs
- The installation, relocation and removal of ancillary equipment including RRUs, feeders, cabling, combiners, and
- Other associated equipment and works within the existing equipment shelter.

2.0 BACKGROUND

2.1 Reason for Upgrade and Development Application

The proposed upgrade is required to improve Optus mobile capacity within the area. This improvement includes services to the ANZAC Bridge and White Bay port facilities as well as parts of the suburbs of Rozelle, Glebe and Pyrmont. The upgrade will also include frequencies associated with 5G, which is considered to be the latest industry standard technology.

The proposal would traditionally be considered Low Impact in accordance with the *Telecommunications (Low Impact facilities) Determination 2021 (*The determination) and would therefore be exempt from requiring development consent. The equipment being installed complies with the installation sizes stipulated within the Determination. However, the facility is located within State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 (Schedule 4, Part 3 – Items in the Bays Precinct) as a regional heritage item. The subject site is therefor classified as an Area of Environmental Significance, as defined within the Determination, and development consent is required.

2.2 What is a mobile phone base station and how do they work?

A mobile phone base station is a facility that provides mobile telephone services to a geographical area. A mobile phone network is made up of base stations which operate together to provide service to users moving from place to place within the coverage area. A mobile base station typically consists of the following components: antennas, support structure, base station and transmission equipment. The antennas are connected by cable to radio equipment usually housed in a room, shelter or outdoor unit. Base stations are connected to the core network by a microwave dish or fibre. Mobile phones work by sending and receiving low power radio signals, much like 2-way radio systems. The signals are sent and received from antennas that are attached to radio transmitters and receivers, commonly referred to as mobile phone base stations. The base stations are linked to the rest of the mobile and fixed phone network and pass the signal/call on into those other parts of the network.

2.3 Benefits of Mobile Technologies

Mobile telecommunications play a central role in society and is becoming more deeply integrated into our day-to-day lives. Mobile systems shape how and when people communicate and how we access information daily. Today, improved connectivity means that mobile devices are used for everything from commerce and research to location-based services and social media. Individuals, families, businesses and society are all benefiting from the improved connectivity facilitated by mobile technologies.

In addition to its personal and social value, the evolution of mobile technologies has delivered significant benefits to the Australian economy by improving productivity, business management and customer engagement. Since its introduction, mobile technology has played a key role in stimulating labour productivity growth by allowing employees to be more efficient, with more productive use of time. The economic benefits of mobile telecommunications services have been acknowledged by Deloitte Access Economics – according to Deloitte's Mobile Nation: Driving Workforce Participation and Productivity (2019) report (as referenced in the 2019 AMTA Annual Report), the mobile industry contributed $23 billion in value added in 2017-18 and supports the employment of 116,000 people. Outside of the industry itself, the report finds that by 2023, mobile will be worth $65 billion to the

Australian economy - equivalent to $2,500 for every Australian and that it would otherwise be due to the long-term productivity of mobile technologies.

Mobile technology's economic contribution is not limited to improving productivity. It improves connectivity and participation in the workforce. Mobile technology also provides employees with the flexibility to work from home, promoting sustainable commuting and reducing traffic congestion. According to the Australian Mobile Telecommunications Association (AMTA), two decades ago only 4% of Australians owned a mobile device. According to the Australia Bureau of Statistics, there are now over 27 million subscribers with internet access connections via a mobile handset in Australia, demonstrating a 6 million increase since 2015 (ABS, 2018). Mobile technology's continual development has allowed it to become the preferred channel to access the internet for most people in Australia and the rest of the world.

Society's reliance on mobile technologies cannot be understated – and mobile technology's continual development has allowed it to become the preferred channel to access the internet for most people in Australia and the rest of the world. This reliance has never been clearer than with the events of 2020. Covid-19 has highlighted just how reliant society is on digital technology and the infrastructure that supports it. During periods of confinement telecommunication networks have provided social, educational and economic lifelines, giving people the opportunities to keep working, learning and socialising from home. This mass transition of forcing people into their homes for longer periods of time have caused additional congestion on telecommunication networks.

The events surrounding Covid-19 have demonstrated that working and learning remotely isn't likely to stop and that a number of recent changes will outlast the pandemic. This emphasises the importance on strong and reliable telecommunication networks particularly in more regional areas like Rozelle.

3.0 SITE CONTEXT

4.1 Subject Site and Surroundings

The site is located on Sydney Harbour within the Inner West Council area. It is located on the south-eastern side of the Balmain Peninsula to the west of the Sydney CBD. It is surrounded by White Bay to the North, Jones Bay to the east, and Blackwattle Bay and Rozelle Bay to the south. Anzac Bridge is located on the southern side of the island, while the former Glebe Island Bridge is located on the eastern end of the island.

The site is owned and managed by the Port Authority of NSW and is utilised as a major port facility. The Glebe Island Silos are an item of heritage significance listed on the State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 (Schedule 4, Part 3 – Items in the Bays Precinct) and and on Port Authority's Section 170 Heritage and Conservation Register. Figures 1, 2 and 3 below demonstrate the location of the Silos and Telecommunications equipment within the property.

Figure 1: Site Context (Source: Google Earth)

Figure 2: Wider Site Context (Source: Google Earth)

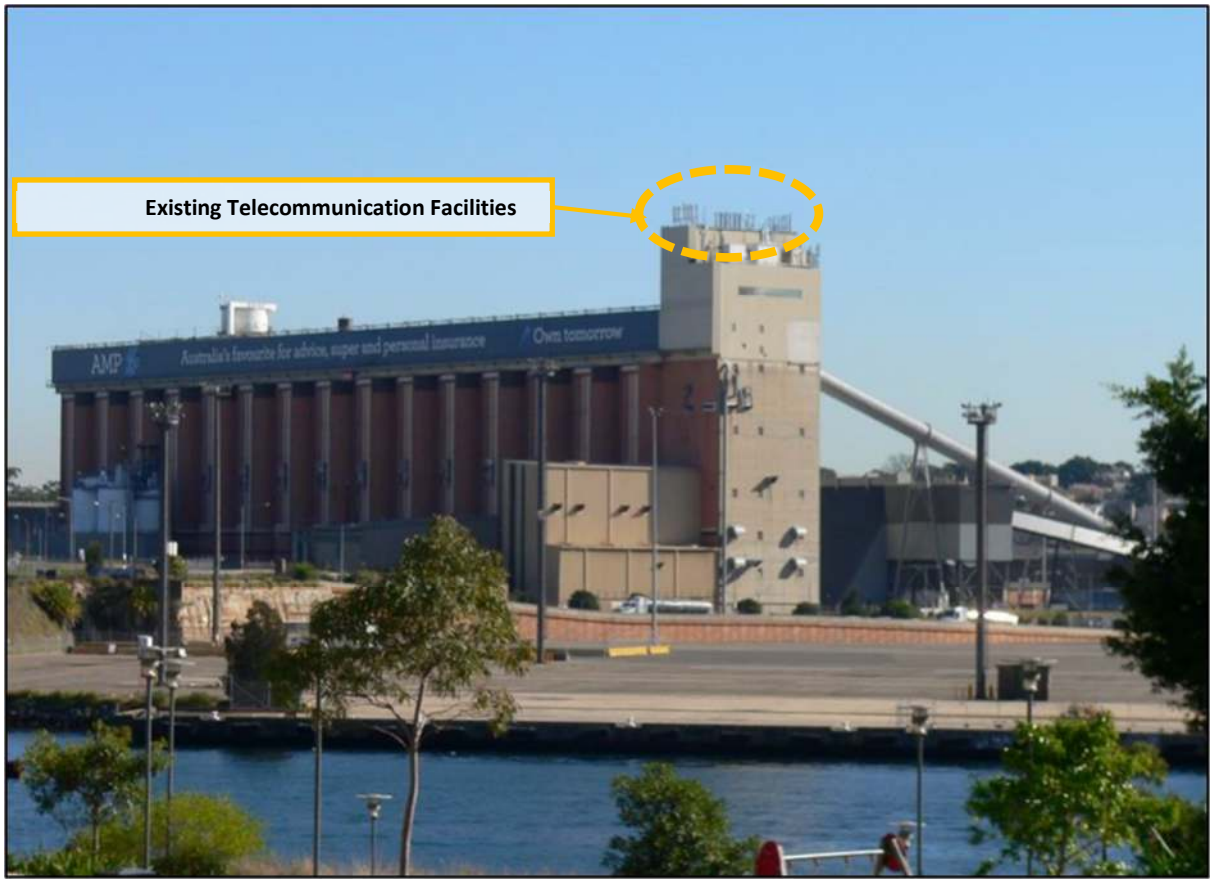

Figure 3 – Photograph of Glebe Island Silos with Telecommunication Facilities on the top

THE PROPOSAL

5.1 Installation details

The proposed facility installation consists of the following elements:

- The installation of new mounting poles on the existing Optus mounts for proposed new antennas
- The installation of new mounting poles for new Remote Radio Units (RRUs)
- The removal of nine (9) existing antennas
- The installation of nine (9) new panel antennas
- The installation of twelve (12) new RRUs
- The installation, relocation and removal of ancillary equipment including RRUs, feeders, cabling, combiners, and
- Other associated equipment and works within the existing equipment shelter.

Please refer to the attached drawings in **Appendix 1** for further information.

Figure 4 - Enhanced image of the existing facility with proposal. (Using Section 3 as an example) (Source: Stream Service)

5.2 EME – Health and Safety

Service Stream acknowledges that some people are genuinely concerned about the possible health effects of electromagnetic energy (EME) from mobile phone base stations and is committed to addressing these concerns responsibly.

Telecommunications carriers including Optus must operate within the operational standards set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and administered by the

Australian Communication and Media Authority (ACMA). ARPANSA is a Federal Government agency charged with the responsibility for protecting the health and safety of both people and the environment from the harmful effects of radiation (ionising and non-ionising). The operational standards known as the *Radiation Protection Series S-1 (Rev. 1) - Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021) knowns as RPS-1.*, prepared by ARPANSA are based on international standards set by the International Commission for Non-Ionizing Radiation protection (ICNRP) – an agency associated with the World Health Organisation (WHO).

To demonstrate compliance with the standards, ARPANSA created a prediction report (EME Report) using methodology to analyse the maximum potential impact of any new telecommunications facility. The report demonstrates the maximum signal strength of a proposed facility, assuming that it's handling the maximum number of users 24-hours a day. Carriers are obliged to undertake this analysis for each new facility and make it publicly available.

Mobile phone base stations are designed to operate at the lowest possible power level to accommodate only the number of customers using the facility at any one time. This design function is called "adaptive power control" and ensures that the base station operates at minimum, not maximum, power levels at all times.

The EME Report associated with this site is attached in **Appendix 3**. The report shows that the maximum predicted EME levels will equate to 1.67% of the maximum exposure limit under the Australian Standard. Noting that 100% of the ARPANSA standard is considered safe.

Carriers rely on the expert advice of national and international health authorities such as ARPANSA and the World Health Organisation (WHO) for overall assessments of health and safety impacts. The WHO advises that all expert reviews on the health effects of exposure to radiofrequency fields have concluded that no adverse health effects have been established from exposure to radiofrequency fields at levels below the international safety guidelines that have been adopted in Australia.

Carriers have strict procedures in place to ensure its mobile phones and base stations comply with these guidelines. Compliance with all applicable EME standards is part of the Carrier's responsible approach to EME and mobile phone technology.

6.0 FEDERAL AND STATE LEGISLATIVE CONTEXT

6.1 Commonwealth Legislation

As a licensed telecommunications carrier, Optus must operate under the provisions of the *Telecommunications Act 1997* (the Act) and the following supporting legislation:

- The Telecommunications Code of Practice 2021;
- The Telecommunications (Low-impact Facilities) Determination 1997 (as amended); and
- The Environment Protection and Biodiversity Conservation (EPBC) Act 1999.

6.1.1 Telecommunications Act 1997

The *Telecommunications Act 1997* (the Act) is the principal Act that governs the activities of telecommunications carriers. The aim of the *Telecommunications Act 1997* is to provide a regulatory framework that promotes:

- The long-term interests of end users of carrier services or of services provided by means of carrier services; and
- The efficiency and international competitiveness of the Australian Telecommunications Industry.

The proposal is required to comply with the requirements of the *Telecommunications Act 1997*.

6.1.2 Telecommunications Code of Practice 2021

The *Telecommunications Code of Practice 2021* (the Code) emphasises "best practice" for the installation of facilities, compliance with industry standards and minimisation of adverse impacts, particularly in terms of degradation of the environment and visual impact.
The proposal is considered to comply with "best practice" since the proposal will:

- Be separated from sensitive land uses such as schools and childcares and be moderately separated from residential areas.
- Be located adjacent to other essential utility services.
- Be an upgrade to an existing site.
- Provide improved telecommunications and wireless internet coverage in the locality.
- Comprise the smallest configuration possible for the site, in order to reduce visual impact of the proposal, while providing a high quality of service to the locality.

6.1.3 The Telecommunications (Low-impact Facilities) Determination 2018

The Telecommunications (Low-impact Facilities) Determination 2018 identifies both the type of facilities that can be "Low-impact", and the areas in which these facilities can be installed.

The existing site is located on the top of a heritage building. Therefore, the facilities **cannot** be considered to be a Low-Impact facility**.** Accordingly, the proposal is not exempt from State and local planning laws and therefore it requires the approval under the State Planning Legislation.

6.1.4 Mobile Phone Base Station Deployment Code

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

Media Authority. All licensed telecommunications carriers must abide by the Deployment Code provisions.

The code does not change any existing regulations at a federal or State level but supplements these regulations applying to telecommunications carriers, including Optus. The code sets guidelines for site selection, community consultation, design, installation and operation of telecommunication facilities.

Sections 4.1, 4.2 and 4.3 of the Deployment Code are specifically relevant for the new installation. These sections require completion of precautionary approach checklists for site selection, infrastructure design and site operation. Furthermore, it is a requirement for an Electromagnetic Energy (EME) Report to be prepared for all new sites.

In accordance with the Deployment Code requirements, the precautionary approach checklists have been duly completed and an EME report has been prepared for the site. The EME report included within Appendix 3 of this report. Further information on EME is within Section 3 of this report.

6.1.5 Commonwealth Environment Protection and 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.

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; and
- The environment of Commonwealth Marine area.

6.2 New South Wales State Planning Legislation

As identified in Section 6.1.3 of this report, the proposed facility does not fall within the definition of low impact within the *Telecommunications (Low-impact Facilities) Determination 2018*. It is therefore subject to State planning instruments and regulation in addition to the Commonwealth regulatory framework.

There are a number of State Government provisions which apply to the proposed facility. These include -

- Environmental Planning and Assessment Act 1979
- State Environmental Planning Policy (Transport and Infrastructure) 2021
- State Environmental Planning Policy ((Precincts—Eastern Harbour City) 2021
- NSW Telecommunications Facilities Guideline Including Broadband

6.2.1 Environmental Planning and Assessment Act 1979

The proposal is subject to the provisions of the *Environment Planning and Assessment Act 1979* (EP&A Act). This Act controls development within New South Wales through the application of State Environmental Planning Policies. It is those policies that document whether or not development is permissible, either with or without development consent, or prohibited.

Section 79C of the EP&A Act outlines specific assessment criteria which must be addressed within the submissions of a development application and the likely impacts of the development on the surrounding built and natural environments. A consent authority is required to consider the full range of matters listed under Section 79C of the *Environmental Planning and Assessment Act 1979* in its assessment of a development application. Each of the relevant matters is addressed below:

Section 79C (1) (a) – Statutory Planning Considerations

Section 79C (1) (a) requires the consent authority to take into consideration:

'(a) the provisions of:

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and

(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates.

This report seeks to demonstrate compliance with relevant legislation which pertains to the subject application and matters of consideration within the planning process to minimise adverse negative impacts on the development.

Section 79C (1) (b) – Environmental, Social and Economic Impacts

Section 79C (1) (b) requires the consent authority to consider:

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

The relevant matters mentioned in the above clause are addressed below:

- *Impacts on the Natural Environment:*

The site location is on the top of the Silos and does not require any additional ground level structures. Therefore, it does not involve pruning or removing existing vegetation. As such, the surrounding area

will experience no detrimental impacts on the existing natural environment. The subject land parcel has no environmental protection overlays.

- *Impacts on the Built Environment:*

The site is an existing site on the top of the Silos. The zoning is a Port and Employment Zone on. The proposed works will not impact on the existing use of the subject site, or any intended future uses at the subject site of surrounding land parcels.

- *Social and Economic Impacts:*

As discussed in Section 2.3 of this report, mobile technologies have a strong social and economic benefit in Australia. It is expected that any negative impacts of the proposal will be outweighed by the benefits of improved mobile coverage in the area. Negative impacts of the proposal have been limited, based on the site's separation from community sensitive areas.

Section 79C (1) (c) - The Suitability of the Site

Section 79c (1) (c) requires the consent authority to consider:

'(c) the suitability of the site for the development'

The suitability of the site for the proposed development is addressed in Sections 3.2 of this SEE. The subject site is considered highly suitable for the location of a telecommunications facility.

Section 79C (1) (d) – Submissions

Section 79C (1) (d) requires the consent authority to consider:

'(d) any submissions made in accordance with this Act or the regulations'

Any relevant representations will need to be considered by the consent authority in the determination of the development application.

Section 79C (1) (e) – Public Interest

Section 79C (1) (e) requires the consent authority to consider:

'(e) the public interest'

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls. The telecommunications facility is a permissible form of development and is therefore considered to be in the public's best interest.

6.2.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

The State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI-SEPP) was introduced to facilitate the delivery of infrastructure across the State under the EP&A Act 1979. The SEPP has provisions for the development of infrastructure by the NSW government, other public authorities and privately owned infrastructure.

Certain provisions are afforded within the TI-SEPP in relation to telecommunications infrastructure which can be classed as either "Exempt of Complying" development. The proposal does not comply with the exempt and complying development requirements outlined within the TI-SEPP. Reference is made to clause 2.142 of the TI-SEPP as outlined below:

"Development for the purposes of telecommunications facilities, other than development in section 2.140 or development that is exempt development under section 2.20 or 2.143, may be carried out by any person with consent on any land."

Therefore, the proposed telecommunication facility at Glebe Island Silos is consistent with the TI-SEPP definition and would be considered as a development permitted with consent. In accordance with the development controls of this SEPP, it is necessary to submit a development application to the Department of Planning and Environment for an assessment of the proposed telecommunications facility.

6.2.3 State Environmental Planning Policy (Eastern Harbour City 2021)

The site was identified as being subject to the Sydney Regional Environmental Plan (SERP) No 26 – City West. On 1 March 2022, the NSW Department of Planning and Environment (DPE) has consolidated 45 State Environmental Planning Policies (SEPPs and deemed SEPPs to align with the focus are under the Minister's new Planning Principles (Planning Principles). The new SEPP (Precincts – Eastern Harbour City 2021) has repealed SERP No. 26 – City West. However, the new SEPP has remained some legislation from SERP (e.g., maps).

Therefore, the site has been identified as being subject to the SEPP (Eastern Harbour City 2021) provisions. This plan facilitates the development, redevelopment and protection of important urban, coastal and regional sites of economic, environmental or social significance to the State, thus facilitating the orderly use, development or conservation of those State significant precincts for the benefit of the State. The plan also aims to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes.

The proposed works are located within the Sydney Harbour, identified under Part 2, Chapter 2 of SEPP (Eastern Harbour City 2021). Clause 2.8, Part 2.2 Chapter 2 also states that the Minister is consent authority if the development –

(a) has a capital investment value of not more than $10 million, and
(b) is carried out by a person other than a public authority.

The proposed works do not have a capital investment value of more than $10 million. Optus is not a public authority. Based on the above, the consent authority is the NSW Department of Planning and Environment.

The subject site is zoned Port and Employment Zone. Below is an assessment of the zone objectives that this proposal complies with.

Table 1 – Objectives for the Port and Employment Zone	
Objective	**Comment**
• to facilitate the continuation of commercial port uses, and	Complies – The facilities will have significant benefit for users of the port and the surrounding area will generally improve in ability to access the Optus network.

• to allow a range of commercial port facilities (such as buildings, structures, activities or operations and uses ancillary to these, associated with carrying goods from one port to another and associated with storage and handling and access to the port), and	Not applicable - The proposed work is to upgrade the existing telecommunication facilities on the rooftop of the Glebe Island Silos.
• to encourage development on Glebe Island and land adjoining White Bay which requires close proximity to the port, and • to encourage a mix of land uses which generate employment opportunities, particularly in relation to port and maritime uses, and • to allow a mix of uses which generate employment opportunities in the White Bay Power Station site, and	Complies – The proposed works will provide enhanced telecommunications to the Glebe Island area which will compliment and benefit the users not only of the surrounding ports, but local businesses, the tourism industry and users of the surrounding open space. This enhancement of existing communications in the area encourages development and is vital to the daily workings of the port and associated infrastructure.
• provide for the ongoing rail access to the port and related activities, and • provide pedestrian and cyclist links with surrounding public access networks, and • encourage port-related uses which optimise use of existing rail facilities, and • to provide road and rail access to port activities.	Not applicable - The proposed work is to upgrade the existing telecommunication facilities on the rooftop of the Glebe Island Silos. It does not include any construction on public access to the site including railway, pedestrian or cyclist links.

Broadly speaking, the proposal will improve existing 4G and 5G services to the area, resulting in improved coverage and capacity for the areas surrounding the site. The Optus proposal will not interfere with the land's status and current use. The proposed works will provide enhanced telecommunications to the area which will compliment and benefit the users not only of the surrounding ports, but local businesses, the tourism industry and users of the surrounding open space. This enhancement of existing communications in the area encourages development and is vital to the daily workings of the port and associated facilities.

The upgrade will also provide additional network support to emergency services in the surrounding area.

6.2.4 NSW Telecommunications Facilities Guideline Including Broadband

Further regulation for the development, upgrade and/or maintenance of telecommunication facilities is provided within *NSW Telecommunications Facilities Guideline including Broadband (July 2010).* The role of the "Guideline" is located within clause 2.142 of the TISEPP as outlined below:

"Before determining a development application for development to which this section applies, the consent authority must take into consideration any guidelines concerning site selection, design, construction or operating principles for telecommunications facilities that are issued by the Secretary for the purposes of this section and published in the Gazette.

The proposal's consistency with the *NSW Telecommunications Facilities Guideline including Broadband (July 2010)* has been outlined within **Table 2** below:

Table 2 – Compliance with NSW Telecommunications Facilities Guidelines	
Principle 1 – A Telecommunications Facility should be sited in order to minimise visual impact:	
Principle, as outlined:	**Response:**
(a) As far as practical, a telecommunications facility that is to be mounted on an existing building or structure should be integrated with the design and appearance of the building or structure.	Complies – refers to Section 7.1 Visual Impact
(b) The visual impact of telecommunications facilities should be minimised, visual clutter is to be reduced particularly on tops of buildings, and their physical dimensions (including support mounts) should be sympathetic to the scale and height of the building to which it is to be attached, and sympathetic to adjacent buildings.	
(c) Where telecommunications facilities protrude from a building or structure and are predominantly backgrounded against the sky, the facility and their support mounts should be either the same as the prevailing colour of the host building or structure, or a neutral colour such as grey.	
(d) Ancillary facilities associated with the telecommunications facility should be screened or housed, using the same colour as the prevailing background to reduce its visibility, including the use of existing vegetation where available, or new landscaping where possible and practical.	Ancillary equipment associated with the facility will be colour matched to the structure. As the site is located on the rooftop of the Silos and separated from public roads, no landscaping is proposed.
(e) A telecommunications facility should be located and designed to respond appropriately to its rural landscape setting.	Complies – refer to Section 7.1 visual impacts.
(f) A telecommunications facility located on, or adjacent to, a State or local heritage item or within a heritage conservation area, should be sited and designed with external colours,	Complies – the existing site is on the rooftop of a heritage item. The proposed work will not negatively impact the heritage significance of

finishes and scale sympathetic to those of the heritage item or conservation area.	the item. Since the work is within the existing telecommunication facilities compound area.
(g) A telecommunications facility should be located so as to minimise or avoid the obstruction of a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land.	Complies – refer to Section 7.1 Visual Impact.
(h) The relevant local government authority must be consulted where the pruning, lopping, or removal of any tree or other vegetation would contravene a Tree Preservation Order applying to the land or where a permit or development consent is required.	No vegetation is required to be removed from the site as part of the proposed development since it is located on the rooftop of the building.
(i) A telecommunications facility that is no longer required is to be removed and the site restored, to a condition that is similar to its condition before the facility was constructed.	Optus is satisfied with this condition and can comply. The proposed facility will be removed once no longer required and the site restored to a condition similar to its condition before the facility was constructed.
(j) The siting and design of telecommunications facilities should be in accordance with any relevant Industry Design Guides.	The siting and design of the proposed telecommunications facility is entirely compliant with the New South Wales Telecommunications Facility Guideline, as released by the NSW Department of Planning and Infrastructure.
Principle 2: Telecommunications facilities should be co-located wherever practical.	
Principle, as outlined:	**Response:**
(a) Telecommunications lines are to be located, as far as practical, underground or within an existing underground conduit or duct.	The proposal utilises will be radiocommunications antennas to connect to the wider network and will not require above ground communications lines. Existing power supply is also proposed.
(b) Overhead lines, antennas and ancillary telecommunications facilities should, where practical, be co-located or attached to existing structures such as buildings, public utility structures, poles, towers or other radiocommunications equipment to minimise the proliferation of telecommunication facilities and unnecessary clutter.	The current proposal is a co-location on the existing telecommunications facility rooftop which hosts Telstra, Vodafone and Optus antenna. The proposal has been designed to retain the smallest, slimmest and neatest visual profile possible to minimise any visual amenity impacts on the surrounding area.
(c) Towers may be extended for the purposes of co-location.	Not applicable.
(d) The extension of an existing tower must be considered as a practical co-location solution prior to building new towers.	Not applicable.

(e) If a facility is proposed not to be co-located the proponent must demonstrate that co-location is not practicable.	Not applicable.
(f) If the development is for a co-location purpose, then any new telecommunications facility must be designed, installed and operated so that the resultant cumulative levels of radio frequency emissions of the co-located telecommunications facilities are within the maximum human exposure levels set out in the Radiation Protection Standard.	An ARPANSA EME report has been prepared to accompany this development application and is within Appendix 3. This EME report demonstrates the cumulative EME levels of all the carriers at the subject site and demonstrates the sites compliance with Australian Standards. The maximum **cumulative** EME level at 1.5m above ground level is estimated to be 1.67 % of the ARPANSA Public Exposure Limits.1
Note: Co-location is 'not practicable' where there is no existing tower or other suitable telecommunications facility that can provide equivalent site technical specifications including meeting requirements for coverage objectives, radio traffic capacity demands and sufficient call quality.	Noted.
Principle 3: Health standards for exposure to radio emissions will be met.	
Principle, as outlined:	**Response:**
(a) A telecommunications facility must be designed, installed and operated so that the maximum human exposure levels to radiofrequency emissions comply with Radiation Protection Standard. Refer also to Appendix D.	It is the legal obligation for any carrier to ensure that any telecommunications equipment is operated within the human exposure limits within the Radio Protection Standard. The maximum human exposure levels have been calculated to be 1.67 % of the public exposure limit. Refer to Appendix 3 for the complete EME Environmental Report
(b) An EME Environmental Report shall be produced by the proponent of the development to which the Mobile Phone Network Code applies in terms of design, siting of facilities and notifications. The Report is to be in the format required by the Australian Radiation Protection Nuclear Safety Agency. It is to show the predicted levels of electromagnetic energy surrounding the development comply with the safety limits imposed by the Australian Communications and Media Authority and the Electromagnetic Radiation Standard and demonstrate compliance with the Mobile Phone Networks Code.	An EME Environmental Report has been included within Appendix 3 of this document. Additional fact sheets have also been provided within Appendix 3 of this report. Additionally, the EME Report is a publicly accessible document which can be located on www.rfnsa.com.au/2039003

Principle 4: Minimise disturbance and risk, and maximise compliance	
Principle, as outlined:	**Response:**
(a) The siting and height of any telecommunications facility must comply with any relevant site and height requirements specified by the Civil Aviation Regulations 1988 and the Airports (Protection of Airspace) Regulations 1996 of the Commonwealth. It must not penetrate any obstacle limitation surface shown on any relevant Obstacle Limitation Surface Plan that has been prepared by the operator of an aerodrome or airport operating within 30 kilometres of the proposed development and reported to the Civil Aviation Safety Authority Australia.	The proposal does not penetrate any identified Obstacle Limitation Surfaces.
(b) The telecommunications facility is not to cause adverse radio frequency interference with any airport, port or Commonwealth Defence navigational or communications equipment, including the Morundah Communication Facility, Riverina.	The proposed equipment at the subject site is licensed as per ACMA regulations. As a result, there is to be no interference with other civil and military communications facilities.
(c) The telecommunications facility and ancillary facilities are to be carried out in accordance with the applicable specifications (if any) of the manufacturers for the installation of such equipment.	The proposed equipment is to be installed as per the manufacturer's specifications.
(d) The telecommunications facility is not to affect the structural integrity of any building on which it is erected.	The proposed equipment will not affect the structural integrity of the building.
(e) The telecommunications facility is to be erected wholly within the boundaries of a property where the landowner has agreed to the facility being located on the land.	The proposed telecommunications facility is to be wholly erected within the established licence area at a location agreed to by the landowner.
(f) The carrying out of construction of the telecommunications facilities must be in accordance with all relevant regulations of the Blue Book – 'Managing Urban Stormwater: Soils and Construction' (Landcom 2004), or its replacement.	The proposed telecommunications facility is designed and is to be installed in accordance with any relevant manufacturer specifications and requirements of all relevant Australian Standards. Additionally, these matters can be appropriately addressed through the imposition of conditions of development consent where relevant.
(g) Obstruction or risks to pedestrians or vehicles caused by the location of the facility, construction activity or materials used in construction are to be mitigated.	
(h) Where practical, work is to be carried out during times that cause minimum disruption to	

adjoining properties and public access. Hours of work are to be restricted to between 7.00am and 5.00pm, Mondays to Saturdays, with no work on Sundays and public holidays.	
(i) Traffic control measures are to be taken during construction in accordance with Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Traffic control devices on roads.	
(j) Open trenching should be guarded in accordance with Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps.	
(k) Disturbance to flora and fauna should be minimised and the land is to be restored to a condition that is similar to its condition before the work was carried out.	Noted - No vegetation removal is currently proposed. All works will be conducted in a manner which will ensure the appropriate restoration of the site.
(l) The likelihood of impacting on threatened species and communities should be identified in consultation with relevant state or local government authorities and disturbance to identified species and communities avoided wherever possible.	There are no threatened species located within the subject land holding that will be impacted by the proposal.
(m) The likelihood of harming an Aboriginal Place and / or Aboriginal object should be identified. Approvals from the Department of Environment, Climate Change and Water (DECCW) must be obtained where impact is likely, or Aboriginal objects are found.	A search of the AHIMS data base has been completed and it indicates that there are no items of Aboriginal archaeological heritage known to be located on, or in the vicinity of, the site. The AHIMS search result is provided within Appendix 4.
(n) Street furniture, paving or other existing facilities removed or damaged during construction should be reinstated (at the telecommunications carrier's expense) to at least the same condition as that which existed prior to the telecommunications facility being installed.	Not applicable as the work is on the rooftop of the building.

It is considered that the proposal is compliant with all relevant principles of the *NSW Telecommunications Facilities Guideline including Broadband (July 2010)*.

7.0 OTHER ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES

7.1 Visual Impact Assessment

Mobile base stations are relatively commonplace in today's landscape – thousands of mobile telecommunications facilities are in operation across Australia, over a variety of land uses and environments.

Whilst the facility is on a heritage item, the surrounding area is predominantly Port Authority facility uses. Therefor the surrounding area is industrial and commercial in nature. It is considered that the addition of the new Optus upgrade will not change the visual outlook toward the silos or surrounding area. The presence of telecommunication infrastructure is not considered to detract from the vista looking toward the subject site.

The profile of the proposed facility is depicted within **Figure 5** below. Further detail is available within the Proposal Plans submitted within **Appendix 1** to accompany this Development Application.

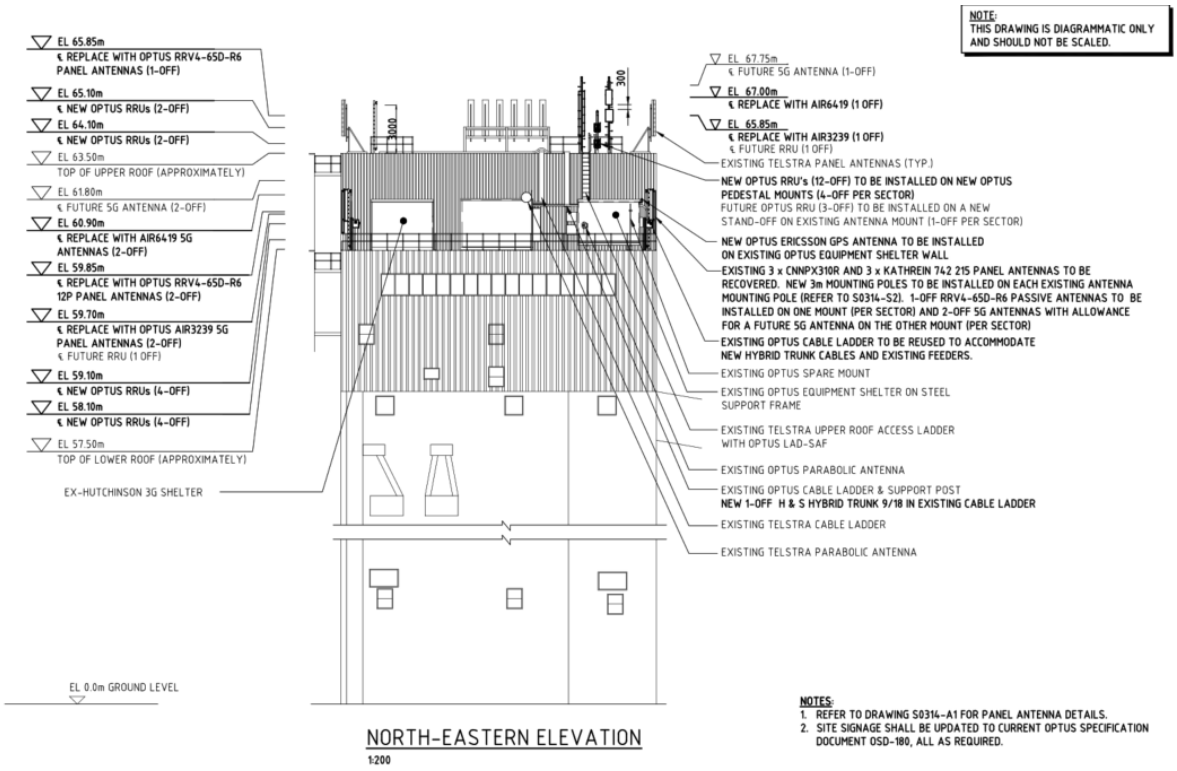

Figure 5: Northeast Elevation of Proposal

The proposal is not expected to increase the visual impact of the existing rooftop telecommunications facility significantly.

While the facilities are visible from ground level, it is discrete and not considered to be out of place or visually prominent. The upgrade will hardly be perceptible to the casual observer and will therefore not have a detrimental visual impact on the area.

Due to the nature of telecommunication facilities the site will be visible from certain viewpoints in the area. The proposed upgrade has been designed to be as visually unobtrusive as possible. The design of the proposed installation will be minor towards the character of the streetscape based on its size and height. The proposed antenna will integrate well into the existing facility on the top of the Silos.

Because of the size and location, it is not expected that the proposed upgrade will infringe on the character of the conservation area or the subject building. The visual impact of the facility will be minimal, and once installed it is likely to be unnoticeable to passers-by on the street.

The below images provide a demonstration of the minor impact the existing facility has in the context of the urban area.

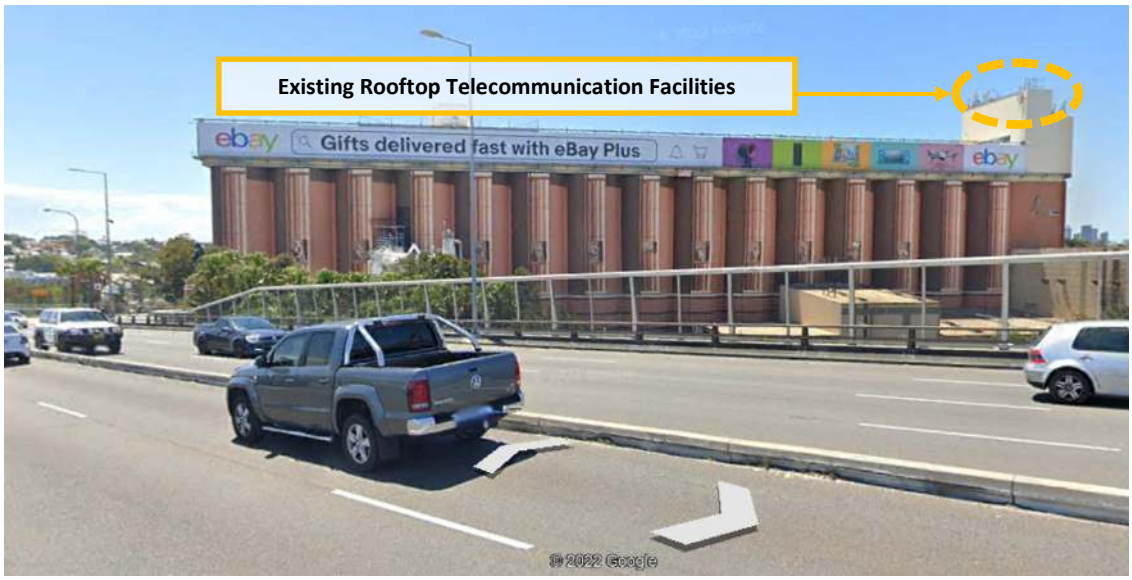

Figure 6 - Street View from Anzac Bridge (Source: Stream Service)

Figure 7 - Street View from Robert Street (Source: Stream Service)

Telecommunications facilities are by nature taller than the buildings in the area they are designed to service. This is because their antennas must be above physical obstructions such as built forms and vegetation.

It is acknowledged that the existing rooftop facility is visible from certain viewpoints. Optus has carefully designed the proposed 5G upgrade to have a minimal impact on the existing site. Optus has scaled back the design to the minimum possible antenna configuration to achieve feasible 5G coverage while respecting the values of the subject property and area.

The proposed design will be sympathetic towards the character of the surrounding area by utilising an existing rooftop site. As the proposal is limited to the existing rooftop, significant views to and from the surrounding area will not be reduced or obstructed. As a result, the proposal will not impact on views or the heritage significance of the Glebe Island Silos.

7.2 Heritage Impact Assessment

The existing site is located on the top of a heritage building. Any new development should not impact upon and should respect the heritage character of the area through appropriate siting and design.

The proposed 5G upgrade will not adversely impact the heritage significance of the heritage site, as the works are minor in nature and would utilise an existing telecommunication rooftop site. The upgrade will not significantly increase the scale of the existing site.

The subject site includes the following heritage listing -

- Glebe Island Silos, glebe island, Port Authority of NSW, S. 170 NSW State agency heritage register. Listing No. 4560016.

It is stated that the site is -

- Not located within a Heritage Conservation Area.
- Not listed on the State Heritage Register under the auspices of the NSW Heritage Act 1977.

The Statement of the heritage significance for the Glebe Island Silos has been sourced from the NSW State Heritage Inventory.

> *Glebe Island Grain Terminal is a seminal site in the development of the bulk wheat storage and export industry in Australia. As such it has a pre-eminent position in the historical development of one of Australia's most important primary industries. It was the first and most important of the port terminals and encompassed technologies that were specific to the industry and influential in the development of that industry throughout the country. The first construction phase is particularly noteworthy because of the circumstances of its wholly imported design and technological expertise.*
>
> *The carefully planned and integrated system, by the 1930's , was considered to be one of the largest, most efficient and well planned installations of its type. The fabric contained within the site, although compromised by alterations and missing elements is capable of demonstrating and recording the evolution of the industrial processes that evolved over several decades. The silos, in particular are the most visible and easily interpreted elements of that former use and form a powerful and well known landmark. The site also has significance for its associations with, and demonstration of, Commonwealth and State government initiatives (McPhee, Thorpe, Stuart 1994).*

In 1975 the then Governor of NSW, Sir Roden Cutler opened a $4 million extension to the system. This included 30 cylindrical concrete silos 38.4 m high, each having a capacity of 2,400 tonnes.

The existing Silos date from the mid-1970s and all previous silos have been demolished.

Optus has attempted to minimise the visual impact of the proposed installation on the Glebe Island Silos. The site is considered suitable due to the zoning of the subject site, the site being an existing telecommunications facility, and the minor nature of the works (being a replacement of existing antennas). Due to the nature of the works and industrial nature of the site and surrounding land, the upgrade of telecommunications equipment onto the existing facility will have no detrimental impact on the heritage significance of the site.

CONCLUSION

Optus proposes to upgrade an existing mobile phone base station at Glebe Island Silos, 1 Sommerville Road, Rozelle NSW 2039 (Lot 13 on DP1170710). The facility has been designed to minimise visibility within the surrounding environment as much as practicable. The visual impact of the development on the surrounding area has been assessed and given the siting and design, the proposal is considered unlikely to cause any significant harm to heritage significance and the visual amenity or scenic value of the area. Although the proposal may be visible at varying degrees depending on the line of site of the viewer, negative impacts on visual amenity are not deemed to be significant.

The proposed facility is considered appropriate on the site given:

- The site is technically feasible and can achieve Optus coverage and capacity objectives by installing the new pole facility.
- The site achieves good separation surrounding sensitive land uses.
- The site is co-located on the existing telecommunication site which keeps infrastructure clustered together instead of being proliferated through the area.
- The site avoids the need for vegetation removal.
- The landowner is supportive of the Optus proposal.
- The site is appropriately serviced and has a readily available access to the electricity supply network and existing transport network.
- Predicted maximum EME levels are less than 1.67 % of the maximum 100% level specified under the relevant mandatory Australian safety standard for such facilities set by the ARPANSA and regulated by ACMA; and
- The proposed facility will not prejudice the existing or anticipated future use of the site.

Mobile telecommunications services are considered increasingly important to the economic and social fabric of the community. It is expected this proposal will have social and economic benefits for the local community.

For these reasons, it is respectfully requested that the Minister of the Department of Planning and Environment considers this application for Development Consent for the proposed facility.

APPENDIX 1 – Proposal Plans

APPENDIX 2 – Certificate of Title and Owners Consent

APPENDIX 3 – ARPANSA EME Report

APPENDIX 4 – EPBC Act (1999) Protected Matters Report