

# LORD HOWE ISLAND BOARD

## BUSINESS PAPER

### OPEN SESSION

#### Item

---

Mobile phone microcell – Owners Consent

#### Recommendations

---

1. **Confirm** that the Telstra Blackspot-funded microcell installation is consistent with the definition of exempt development as set out in Schedule 1 and Clause 9 of the Lord Howe Island LEP 2010.
2. **Grant** Application for Owner Consent to Telstra to install a Telecommunications Small Cell Facility on Lot 327 of DP824001
3. **Endorse** development of a funding application for a second microcell to enable mobile phone coverage for the remainder of the settlement area.

#### Current position

---

Lord Howe Island is not currently serviced by a mobile phone network due to its remoteness. In recognition, Telstra have identified a need to provide coverage to the Island, and granted funding as part of the [Federal Government's Mobile Blackspot](#) program round 5. This decision was made independent of the Lord Howe Island Board (LHIB).

Telstra have requested that the Board confirm that the development is exempt (Attachment A – Exemption Letter) and applied for Owners Consent (Attachment B). Construction plans (Attachment C) are provided for information. Advice from LHIB's planning consultant has confirmed that the development is exempt under Schedule 1, Clause 9 of the LHI LEP 2021, and recommend approval of Owners Consent (Attachment G)

It is recognised that a diverse range of views pertaining to mobile phone service on the island exist. Resources have not permitted broad consultation on the matter to date, however anecdotally they range from wholesale support and advocacy, to a strong preference for the service to remain unavailable.

Points in favour of a service include that:

- The existing copper landline service is ageing, unreliable, and will likely be unsupported by Telstra into the future. Mainland phone services are mostly only available now via NBN. Telstra is contracted under the Universal Service Obligation to provide a fixed service until 2032.

However, in 2017, “the Productivity Commission highlighted that 99% of premises [sic] have access to mobile phone networks or broadband, rendering fixed-line copper connections and pay-phones increasingly redundant.”

If Owners Consent is not granted, the proposal to install a mobile service at no cost to the community is unlikely to be offered again, with the very real potential that the Island will be without a phone service at all in the next 5-10 years.

- Increasingly, two-factor authentication is required to access banking, government and other essential services
- Mobile phone access is assumed in and enables the provision of some health services and products (eg. Pace-makers)
- The risk of isolation and to first responders in times of crisis and emergency (health, weather or otherwise) could be reduced if mobile phone service were available.
- Many people use mobile phones on island now, over wi-fi. The time of ‘no mobiles’ on LHI has actually passed already.

Those not in favour put forward that the current lack of mobile service:

- is one of the elements some tourists enjoy (see attachment F)
- encourages children to play outside and enjoy the environment
- is enjoyed and preferred by some residents, particularly in restaurants and public places
- is unnecessary, with radio technology adequate for emergency response and island wide communication

Others have expressed concerned about the health impacts of electro-magnetic radiation, particularly in close proximity to the site of transmission (see attachment D).

Concern has also been registered that the proposed microcell will not cover the entire settlement area, resulting in dissatisfaction for those who will not achieve access to the service. In that regard, enquiries to Telstra indicate that a second facility at the southern end of the island (likely the airport) should enable coverage for the majority of the settlement area, with the technology available at the end of 2023 at a cost of approximately \$250,000 (attachment E). It is recommended that along with with granting owners consent for the black-spot funded installation, that LHIB pursue funding for the second facility.

## Attachments

Attachment	Title
A	Letter – Request for Exemption – Telstra – Proposed Small Cell Facility
B	Application for Owners Consent – Telstra – Installation of a Telecommunications Small Cell Facility
C	Plans – Owner Consent – Telstra Small Cell Site
D	Report – Environmental EME – Telstra – Small Cell Site
E	Satellite Small Cell Proposal
F	Departure Survey Summary Results 2017 – 2018 - 2019
G	Assessment Report

## Approval and contact

---

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	Position
Suzie Christensen	Chief Executive Officer



2 September 2022

CEO Suzie Christensen  
Lord Howe Island Board  
PO Box 5  
Lord Howe Island NSW 2898

Via email: Suzie.Christensen@LHIB.nsw.gov.au

**Dear Suzie,**

**Exemption request for a proposed Telstra Telecommunications Small Cell Facility at 59 Anderson Road, Lord Howe Island 2898, formally described as Lot 327 on Plan no. DP824001.**

Downer EDI Limited (Downer) have been engaged by Telstra Corporation Ltd (Telstra) to design and construct a new Telstra Telecommunications Small Cell Facility at the above address. Telstra has identified a need to provide coverage to the Lord Howe Island as part of the Federal Government's Mobile Black Spot program round 5.

Under this program mobile coverage will be delivered to a large number of regional and remote communities who, for the first time, will be able to access fast mobile voice and data services. The improved coverage is increasing access to new technologies for key regional sectors like agriculture, transport, mining and tourism – technologies which rely on a fast, reliable and affordable mobile network.

This letter seeks confirmation from the Lord Howe Island Board that the microcell installation is consistent with the definition of exempt development as set out in *Schedule 1* and *Clause 9* of the *Lord Howe Island LEP 2010*. The microcell installation will consist of the following works:

- Install one (1) 20 metre monopole
- Install one (1) omni antenna to the top of the monopole
- Install one (1) 2.4 metre (diameter) ground mounted satellite dish
- Install one (1) GPS antenna on top of the existing exchange building
- Associated and ancillary equipment for the function of the facility within the existing exchange building and on the proposed monopole including cabling, feeders, cable tray and safety signage.

Telstra ensures that all of its facilities, including the proposed facility, will operate at a level several thousand times below the already strict ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) guidelines, even at maximum capacity. It should be noted that telecommunication facilities are designed to operate at the lowest possible power. The EME report showing the exposure limit is attached with this letter.





This location was chosen as it provides existing telecommunications infrastructure, removing the need to acquire new land retaining it for future development opportunities. Utilising the existing use compiles telco uses into one area which encourages good design with respect to the existing landscape character.

Significant views are considered as part of the site selection process. It is acknowledged that the site cannot be totally hidden and will have a visual presence in the environment from some perspectives close by. However, with existing infrastructure occupying the current land, a new pole is not likely to greatly impact the visual amenity of the area. The design will provide a non-reflective painted pole which will help minimise any distant views. The painted pole will replicate a green like colour to blend with the existing landscape character of the area.

There is a general expectation in the wider community for a dependable and reliable mobile phone network. Telstra have sought to ensure major improvements to their network through 24hr monitoring of network performance. Further to this, mobile phone networks form a vital “first response” tool to emergency situations – hence the importance of carriers to ensure that their infrastructure can be maintained to the highest standards.

Based upon the above, we respectfully request the Lord Howe Island Board confirm that the proposed development is consistent with the definition of Exempt Development as set out in the *Lord Howe Island Local Environment Plan 2010* and will not require a formal Development Approval under the *Environmental Planning and Assessment Act 1979*. Downer requests that Owners Consent be granted for the proposed Telecommunications Small Cell Facility, subject to reasonable and relevant conditions, and in accordance with the attached plans.

Yours sincerely

Liz Mansell  
Wireless Town Planner  
Downer  
T 0418 698 701  
E [Liz.Mansell@downergroup.com](mailto:Liz.Mansell@downergroup.com)

# Planning Assessment Report

## 1 Item

**OC2022.06** – Mobile Phone Small Cell Telecommunications Facility at Lot 327 DP 824001, No. 59 Anderson Road, Lord Howe Island.

## 2 Summary Assessment Report

<b>Assessment Officer</b>	Peter Chapman – Consultant Town Planner
<b>Address/Property Description</b>	Lot 327 DP 824001, No. 59 Anderson Road, Lord Howe Island
<b>Proposal</b>	Mobile Phone Small Cell Telecommunications Facility
<b>Owners Consent No</b>	OC2022.06
<b>Applicant</b>	Telstra Corporation Ltd c/o Downer EDI Engineering Pty Ltd
<b>Estimated Cost of Development</b>	\$100,000.00
<b>Site Inspections</b>	LHIB officers have inspected the subject site.
<b>Zone</b>	Zone 5 Special Uses - the proposed development is classified as exempt development under the LHI LEP 2010.
<b>Significant Native Vegetation Map</b>	Part of the lot contains mapped Significant Native Vegetation (SNV) however the proposed works are not located within this part of the site.
<b>Notification</b>	The OC application has not been publicly exhibited, in accordance with LHIB policy.
<b>Recommendation</b>	That the application for 'Owner Consent' OC2022.06 for a Mobile Phone Small Cell Telecommunications Facility at Lot 327 DP 824001, No. 59 Anderson Road, Lord Howe Island be approved.

## Consent Authority

The Minister has authorised the Lord Howe Island Board's (LHIB) CEO to grant owners consent to the lodgement of owners consent applications subject to the following conditions:

1. The value of the development must not exceed \$2,000,000.
2. The application must, in the opinion of the person granting owner's consent, comply with any Planning Instrument which is in force relating to the Island.
3. The owner's consent must not relate to a proposed development application for the subdivision of land.
4. The OC must not relate to the creation of new residential dwellings.

The subject OC with an estimated development cost of \$100,000.00, and its compliance with the key

provisions of the LHI LEP (as outlined in this report), is considered to meet the above delegations to the CEO and could ordinarily be appropriately determined under delegation. However, in light of the nature of the proposed development the LHIB admin has advised that the proposal will instead be referred to a full LHIB meeting.

### 3 Site Description

The site is identified as Lot 327 DP 824001, No. 59 Anderson Road, Lord Howe Island. Lot 327 is a rectangular shaped block zoned 5 Special Uses under the LHI LEP 2010 for the specific purposes of various existing telecommunications facilities and equipment including satellite dishes, phone exchange buildings, and radio antenna. There are private lease agreements in place for these facilities.

The above existing facilities are located within generally cleared areas within the centre of the subject site as can be seen in figure 1 following.

The proposed work is to be in the north eastern portion of the site (as highlighted in the aerial site photo below).

The total area of the subject Lot 327 is approximately 2,351m<sup>2</sup> and does not have a road frontage to Anderson Road.

The surrounding properties are 2 Settlement zoned cleared paddocks to the south east, east and north, Beachcomber tourist accommodation is to the north west, and Earls Anchorage tourist accommodation is on the south western side of Anderson Road.

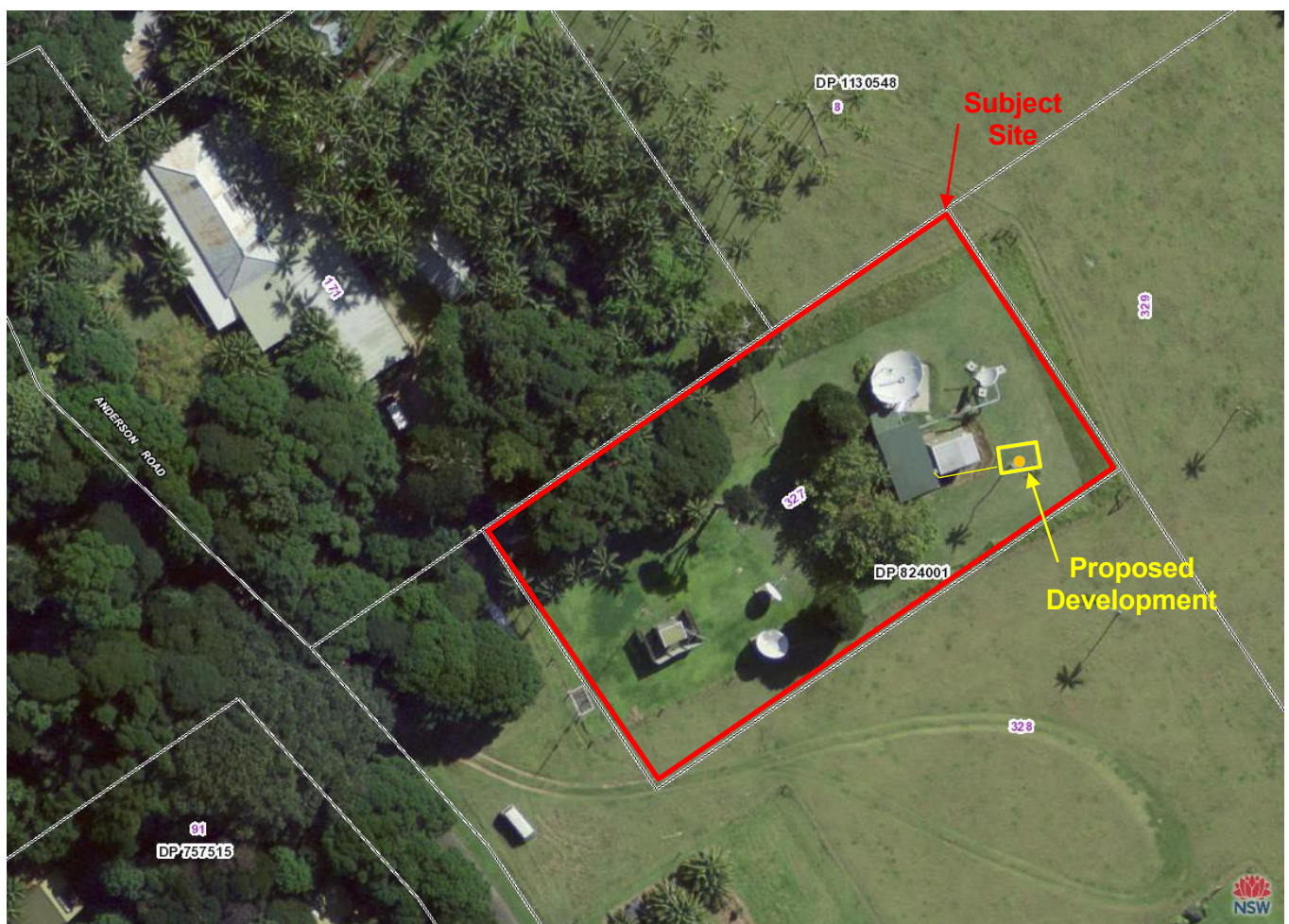


Figure 1: Existing site layout with subject proposed work highlighted

#### 4 Proposed Development

The proposed development is for the construction of a Mobile Phone Small Cell Telecommunications Facility by Telstra.

The applicants state they are seeking confirmation from the Lord Howe Island Board that the proposal is consistent with the definition of Exempt Development as set out in Schedule 1 and Clause 9 of the Lord Howe Island LEP 2010. If the subject application for owners consent is thus issued, the proposal can go ahead as Exempt Development without any development application being lodged and approved by the LHIB.

The application advises that *“Telstra has identified a need to provide coverage to the Lord Howe Island as part of the Federal Government’s Mobile Black Spot program round 5. Under this program mobile coverage will be delivered to a large number of regional and remote communities who, for the first time, will be able to access fast mobile voice and data services. The improved coverage is increasing access to new technologies for key regional sectors like agriculture, transport, mining and tourism – technologies which rely on a fast, reliable and affordable mobile network.”*

The Microcell installation will consist of the following works which are proposed in the north eastern portion of the site in the near vicinity (and partly within) the existing telecommunications facilities on the site:

- Install one (1) 20 metre monopole
- Install one (1) omni antenna to the top of the monopole
- Install one (1) 2.4 metre (diameter) ground mounted satellite dish
- Install one (1) GPS antenna on top of the existing exchange building
- Associated and ancillary equipment for the function of the facility within the existing exchange building and on the proposed monopole including cabling, feeders, cable tray and safety signage.

The documentation submitted with the subject owners consent application includes the plans reproduced on the following plans. In addition, to the following information provided:

*“In regard to radiofrequency electromagnetic energy Telstra ensures that all of its facilities, including the proposed facility, will operate at a level several thousand times below the already strict ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) guidelines, even at maximum capacity. It should be noted that telecommunication facilities are designed to operate at the lowest possible power.”*

The application included a radiofrequency electromagnetic energy (EME) assessment for the site which addressed both the existing and proposed site conditions for the development. This EME assessment states that the maximum EME level for the proposed development on the site will be 0.02% of the Public Exposure Limit for mobile phone base station deployment.

A point of clarification was initially sought from the applicants regarding a statement on the EME assessment that “there is currently no existing radio systems for this site” in view of the existing telecommunications facilities present. The applicants responded by clarifying that *“There is an existing Earth Station, these satellite installations are not part of the Industry Code C564:2020 Mobile Phone Base Station Deployment (the Code). It is a satellite installation with antenna pointing towards satellites in the sky; unlike mobile phone base station antennas serving the general population near ground level.”*

The submitted application documents also states *“This location was chosen as it provides existing telecommunications infrastructure, removing the need to acquire new land retaining it for future development opportunities. Utilising the existing use compiles telco uses into one area which encourages good design with respect to the existing landscape character.”*

*Significant views are considered as part of the site selection process. It is acknowledged that the site cannot be totally hidden and will have a visual presence in the environment from some perspectives close by. However, with existing infrastructure occupying the current land, a new pole is not likely to greatly impact the visual amenity of the area. The design will provide a non-reflective painted pole which will help minimise any distant views. The painted pole will replicate a green like colour to blend with the existing landscape character of the area.*

*There is a general expectation in the wider community for a dependable and reliable mobile phone network. Telstra have sought to ensure major improvements to their network through 24hr monitoring of network performance. Further to this, mobile phone networks form a vital “first response” tool to emergency situations – hence the importance of carriers to ensure that their infrastructure can be maintained to the highest standards.”*

From the preliminary assessment undertaken for this OC and the available aerial photography of the subject site, it appears that one unidentified palm is likely to need to be removed for the proposed development. This specimen is not located within the mapped significant native vegetation (SNV) area of the site.

As mentioned earlier, the documentation submitted with the subject owners consent application includes the plans reproduced on the following pages.



Page 5 of 11

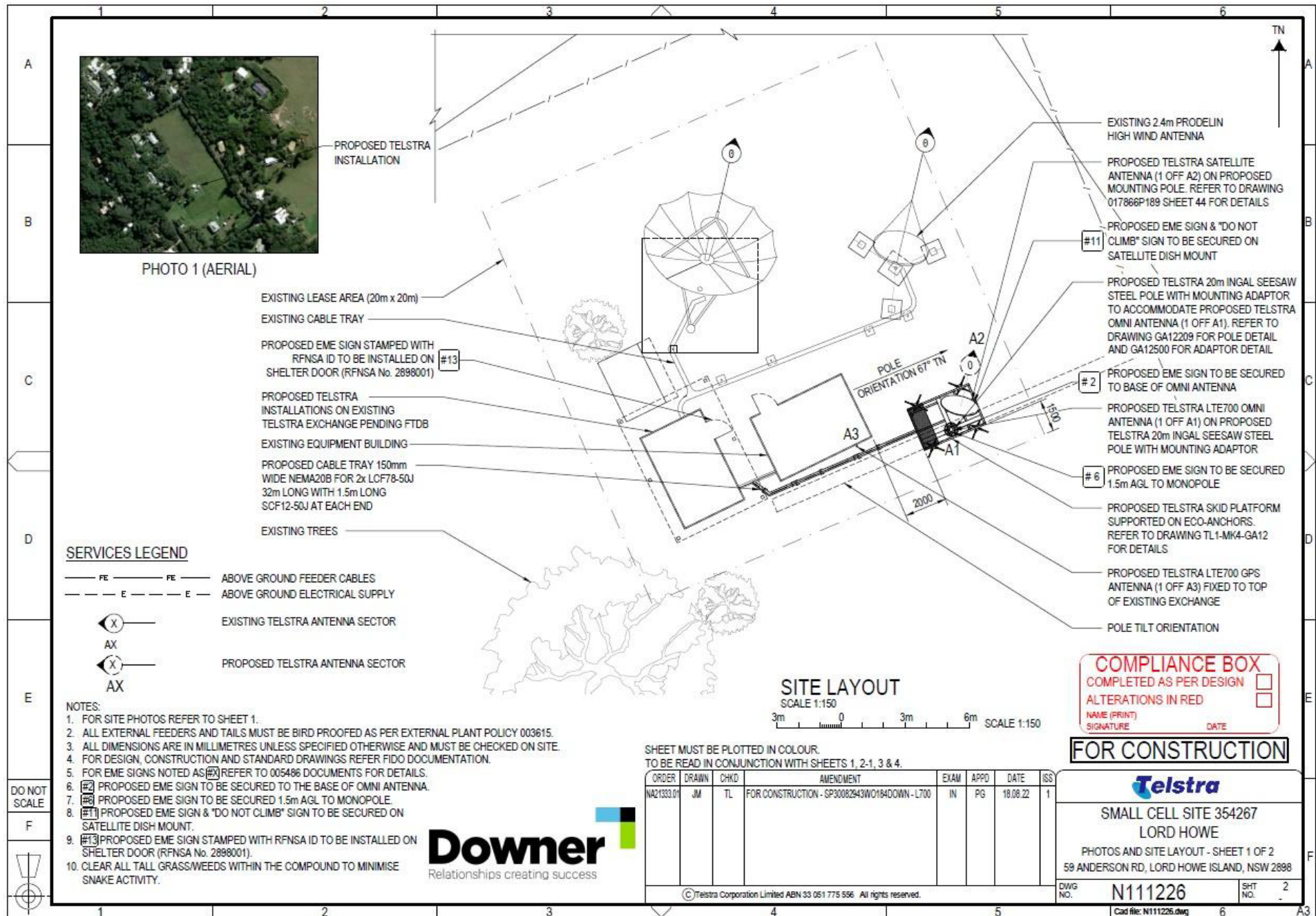


Figure 3: Submitted site plan



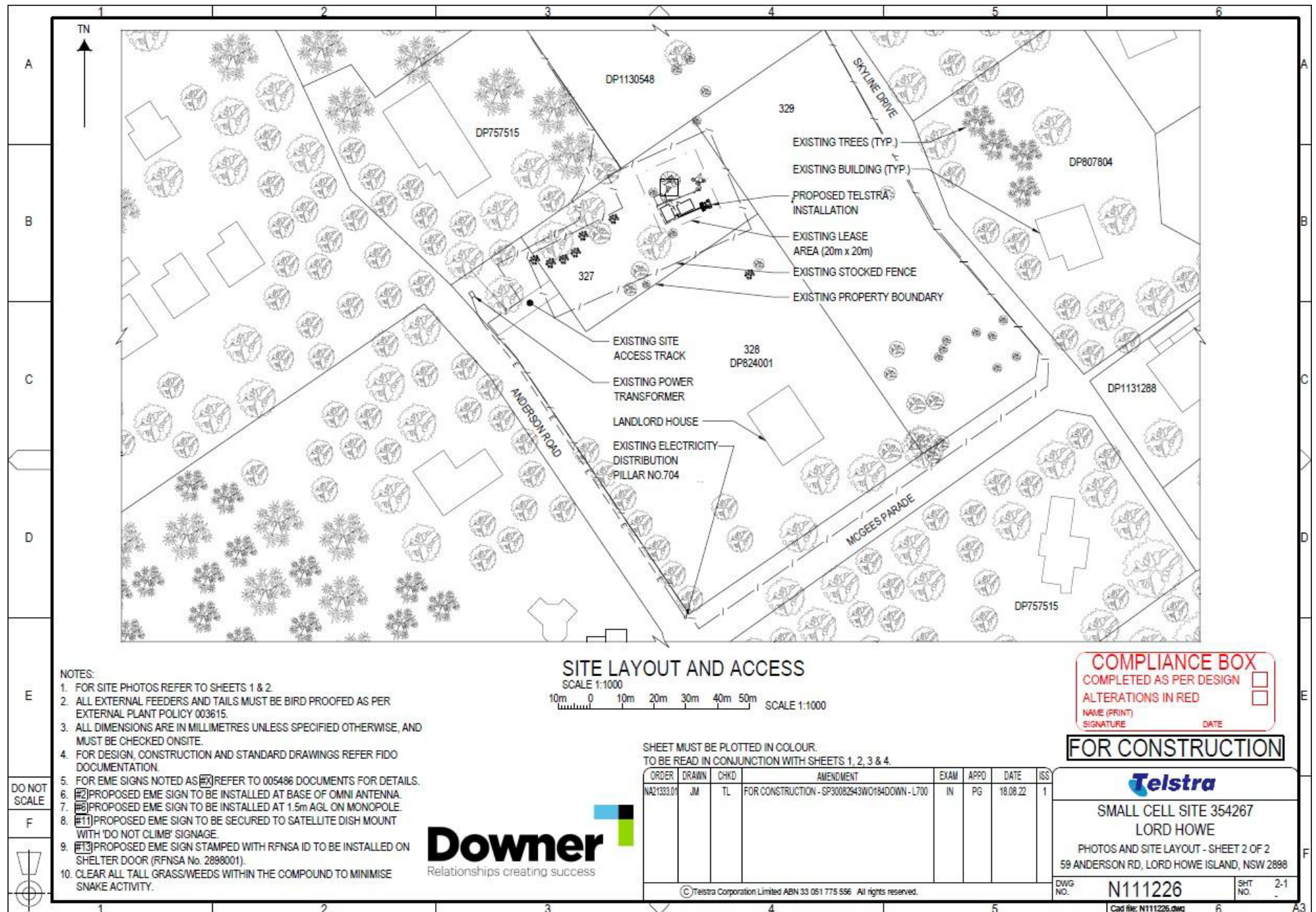


Figure 4: Submitted site layout & access plan



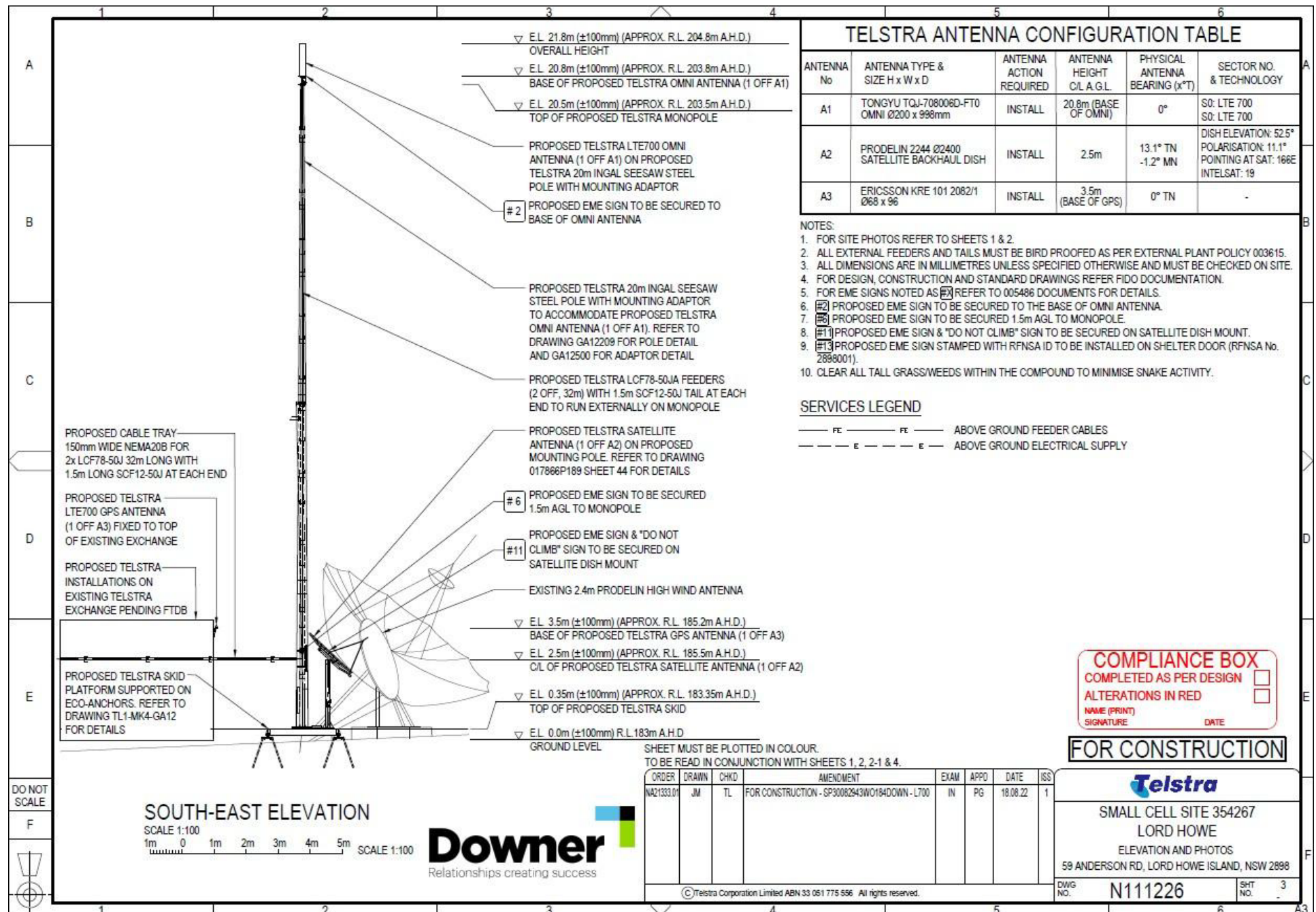


Figure 5: Submitted elevation plan

## 5 Preliminary Planning Assessment

The following preliminary planning assessment has been undertaken for the proposed OC taking into account the relevant statutory controls, and other relevant matters as detailed below.

As Figure 6 shows, Lot 327 is zoned 5 Special Uses under the LHI LEP 2010. All of the surrounding properties are zoned 2 Settlement.



Extract from the Lord Howe Island Local Environmental Plan 2010 (LEP 2010) Zoning Map detailing 2 Settlement zoning of site



Extract from the LEP 2010 SNV Map identifying extent of SNV on subject site.

Figure 6: LHI LEP Mapping Extracts

The land contains mapped Significant Native Vegetation under LEP 2010 (refer also to Figure 6). The proposal will not require the removal of any mapped SNV.

### Permissibility - Lord Howe Island Local Environmental Plan 2010

Clause 9 of the LHI LEP 2010 stipulates that the specified development that is of minimal environmental impact in Schedule 1 is Exempt Development (ie does not require development consent) if the following pre-requisites are satisfied:

- (a) it complies with any development standards, and any other requirements, that are specified opposite it in Column 2 of that Schedule, and**
- (b) it does not require the removal of any significant native vegetation, and**
- (c) it does not contravene a condition of development consent applying to the land, and**
- (d) it complies with any deemed-to-satisfy provisions of the Building Code of Australia that are of relevance to the development, and**
- (e) it does not restrict any vehicular access to or from the site of the development, and**
- (f) it is not carried out on land that is within Zone 8 Permanent Park Preserve or Zone 9 Marine Park, unless the carrying out of the development on such land is expressly provided for in Column 1 of Schedule 1, and**
- (g) it is not carried out on land that is critical habitat (within the meaning of the [Threatened Species Conservation Act 1995](#) or Part 7A of the [Fisheries Management Act 1994](#)), and**
- (h) it is not proposed to be carried out on the site of—**
  - (i) any heritage item within the meaning of Division 3 of Part 3, or**
  - (ii) any item subject to an interim heritage order under the [Heritage Act 1977](#), and**
  - (i) it is not carried out on land that is, or is part of, a wilderness area (within the meaning of the [Wilderness Act 1987](#)).**

Based on the preliminary assessment undertaken for this OC, the proposal complies with the above pre-requisites and will be of minimal environmental impact. Specific mention should be noted regarding sub-clauses (a), (b) and (h), as follows:

*(a) it complies with any development standards, and any other requirements, that are specified opposite it in Column 2 of that Schedule.*

*Comment:* Schedule 1 includes the following Exempt Development category of direct relevance to the subject proposal:

**Telecommunications facility** (comprising microcell installation, in-building coverage installation, pit, manhole, underground equipment shelter or housing, underground conduit or cable, public pay phone cabinet or booth, pillar, roadside cabinet, pedestal or external equipment shelter).

The only accompanying development standard is that the proposal “*must be carried out by or on behalf of a public authority*” – it is assumed for the purposes of this OC assessment that Telstra is considered as a public authority.

*(b) it does not require the removal of any significant native vegetation,*

*Comment:* As mentioned earlier in the description of the proposal, from the preliminary assessment undertaken for this OC and the available aerial photography of the subject site, one unidentified palm is likely to need to be removed for the proposed development. This specimen is not located within the mapped significant native vegetation (SNV) area of the site (as per the SNV mapping of the LHI LEP).

The LHI LEP 2010 includes the following definition of Significant Native Vegetation: “vegetation that is native to Lord Howe Island on land that is identified as having significant native vegetation on Sheet 3 of the map”. On the above basis the removal of this one Palm would comply with sub-clause (b).

*(h) it is not proposed to be carried out on the site of—*

*(i) any heritage item within the meaning of Division 3 of Part 3, or*

*(ii) any item subject to an interim heritage order under the [Heritage Act 1977](#)*

*Comment:* Sub-clause (h) states that Exempt Development cannot be carried out upon a site of “a place, building, tree or work” listed as a heritage item under Schedule 2 of the LHI LEP 2010, or the same to which an interim heritage order has been made. The site for the subject OC is not listed under Schedule 2 of the LEP and does not contain an item that is subject to an interim heritage order.

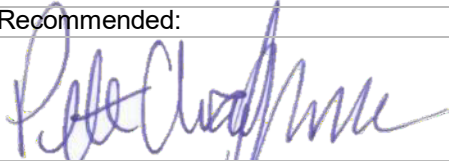

On the basis of the applicants’ intentions to carry out the subject works as Exempt Development which does not require development consent, no further provisions of the LHI LEP 2010 are relevant.

## 8 Conclusion

This report has undertaken the required preliminary assessment under the LHI LEP 2010 of the owners consent application for a proposed Mobile Phone Small Cell Telecommunications Facility at 59 Anderson Road, LHI. The applicants stated intention to undertake the proposal as Exempt Development is noted. On the above collective basis there is no technical reason to refuse the requested owners consent and the following recommendation for approval of this OC is made.

## 9 Recommendation (Conditional Approval)

That Owners Consent OC2022.06 for a Mobile Phone Small Cell Telecommunications Facility at Lot 327 DP 824001, No. 59 Anderson Road, Lord Howe Island be approved.

Recommended:	Endorsed By:
	
Peter Chapman Date: 7 <sup>th</sup> September 2022 LHI Consultant Town Planner & Director All About Planning Pty Ltd	Suzie Christensen Date: 7 <sup>th</sup> September 2022 Chief Executive Officer Lord Howe Island Board

- 97% Overall satisfaction

- 97% domestic
- 92% international



Not having mobile phone access is a PLUS for 56% of the visitors, in particular for younger ones, NSW residents and repeat visitors to the Island.

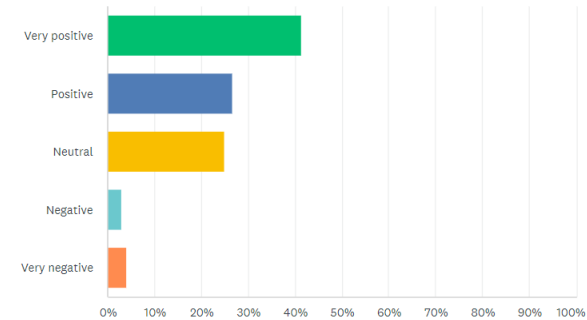
Post Q22: We would like to ask you questions about your visit to Lord Howe Island. How satisfied were you with your visit to Lord Howe Island? n=942  
 Post Q23: Was not having a mobile access a positive or negative experience for you? n=942  
 Post Q24: Overall, how satisfied were you with your visit to Lord Howe island? n=942

ASPECT  
 PERSONAL  
 FRIENDLY  
 THE QUALITY  
 THE RANGE  
 FOOD AND  
 QUALITY  
 GETTING  
 CUSTOMER  
 VALUE FOR  
 GUIDED  
 SHOPPING  
 ACCESS  
 WI-FI

100%

Was not having mobile phone access a positive or negative experience for you?

Answered: 304 Skipped: 7



ANSWER CHOICES	RESPONSES
Very positive	41.45% 126
Positive	26.64% 81
Neutral	25.00% 76
Negative	2.96% 9
Very negative	3.95% 12
TOTAL	304

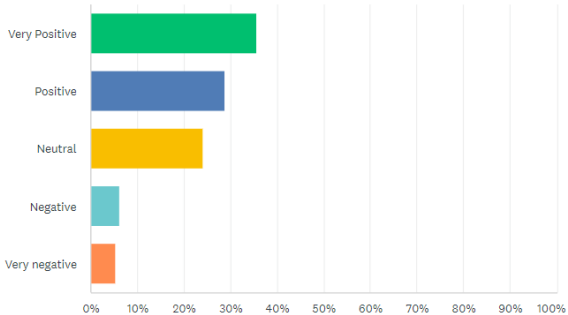
## 2017 Departure Survey Summary

## 2018 Departure Survey Summary

2019 Departure Survey Summary report

Was not having mobile phone access a positive or negative experience for you?

Answered: 129   Skipped: 6



ANSWER CHOICES	RESPONSES	
Very Positive	35.66%	46
Positive	28.68%	37
Neutral	24.03%	31
Negative	6.20%	8
Very negative	5.43%	7
TOTAL		129



# Environmental EME Report

Location	59 Anderson Road, LORD HOWE ISLAND NSW 2898		
Date	06/09/2022	RFNSA No.	2898001

## How does this report work?

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at 59 Anderson Road, LORD HOWE ISLAND NSW 2898. 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

**0.02%**

out of 100% of the public exposure limit, 24 m from the location.



### EME levels with the proposed changes

Distance from the site	Percentage of the public exposure limit
0-50 m	0.02%
50-100 m	0.02%
100-200 m	0.02%
200-300 m	Less than 0.01%
300-400 m	Less than 0.01%
400-500 m	Less than 0.01%

For additional information please refer to the EME ARPANSA Report annexure for this site which can be found at <http://www.rfnsa.com.au/2898001>.

## 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.

Carrier	Existing		Proposed	
	Systems	Configuration	Systems	Configuration
Telstra			4G	LTE700 (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.

Distance from the site	Existing configuration			Proposed configuration		
	Electric field (V/m)	Power density (mW/m <sup>2</sup> )	Percentage of the public exposure limit	Electric field (V/m)	Power density (mW/m <sup>2</sup> )	Percentage of the public exposure limit
0-50m				0.53	0.75	0.02%
50-100m				0.49	0.62	0.02%
100-200m				0.47	0.59	0.02%
200-300m				0.31	0.25	Less than 0.01%
300-400m				0.21	0.12	Less than 0.01%
400-500m				0.16	0.07	Less than 0.01%

## 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 <sup>2</sup> )	Percentage of the public exposure limit
No locations identified				