

PLANNING ASSESSMENT REPORT

Development Application for a Telecommunications

Facility at Lot 6 Badgebup North Road, Badgebup WA 6317

(Lot 6 on D23380)

Prepared by **Visionstream Pty Ltd**

On behalf of **Telstra Corporation Ltd**

Project No: WA08702.01-Badgebup

September 2016





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Document Quality Control

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EXECUTIVE SUMMARY

Site Address	Lot 6 Badgebup North Road, Badgebup WA 6317
Real Property Description	Lot 6 on D23380
Coordinates	Latitude -33.630867 Longitude 117.898483
Registered Owner	Telstra Corporation Ltd
Proposal	<p>Visionstream, on behalf of Telstra Corporation Ltd, seeks to establish a telecommunications facility for a mobile phone base station at the above site. The proposed works include:</p> <ul style="list-style-type: none">• Establishing a 60m lattice tower on the site (note: antennas will protrude to approximately 63m above ground level);• Installing four (4) new omni antennas mounted on top of the 60m lattice tower (note: antennas will protrude to approximately 63m above ground level);• Installing two (2) new twin tower mounted amplifier (TMA) on the tower;• Installing one (1) new equipment shelter at the base of the tower; and• Installing associated ancillary equipment mounted on the lattice tower, including diplexers, combiners, feeders, cables and other ancillary equipment as required.
Coverage Objectives	A demonstrated need has been identified for a new telecommunications facility in the area to improve customer voice and data services to the Badgebup locality.
Site Selection	The site has been identified as the most appropriate location for the new facility given the site specific coverage objectives of the facility.
Planning Scheme	Shire of Katanning
Use Definition	Telecommunications Facility
Zone	Rural Zone
Application Seeking	Development Permit
Applicant	Telstra Corporation Ltd c/- Visionstream Pty Ltd Contact: James Duncan Phone: (07) 3827 5877 Email: james.duncan@visionstream.com.au
Reference No.	Badgebup - WA08702.01



1.0 INTRODUCTION

This development application has been prepared by Visionstream Pty Ltd, on behalf of Telstra Corporation Ltd (Telstra), and seeks planning consent for the installation of a new telecommunications facility at Lot 6 Wolyaming Road, Badgebup WA 6317.

To provide mobile service to the surrounding area, the proposed telecommunication installation requires the following works:

- Establishing a 60m lattice tower on the site (note: antennas will protrude to approximately 63m above ground level);
- Installing four (4) new omni antennas mounted on top of the 60m lattice tower (note: antennas will protrude to approximately 63m above ground level);
- Installing two (2) new twin tower mounted amplifier (TMA) on the tower;
- Installing one (1) new equipment shelter at the base of the tower; and
- Installing associated ancillary equipment mounted on the lattice tower, including diplexers, combiners, feeders, cables and other ancillary equipment as required.

All mobile phone network operators are bound by the operational provisions of the Federal *Telecommunications Act 1997* (the "Act") and the *Telecommunications Code of Practice 1997*.

The proposed telecommunications facility installation **is not defined as a low-impact facility** and is therefore subject to relevant State and local planning provisions.



2.0 PURPOSE OF THE PROPOSAL

The three primary drivers for proposing a new telecommunications facility at Lot 6 Badgebup North Road, Badgebup WA 6317 are as follows:

Federal Government's Mobile Black Spot Programme

Telstra will participate in one of the largest ever expansions of mobile coverage in regional and remote Australia, through the Federal Government's Mobile Black Spot Programme, which includes the provision of necessary mobile phone coverage to the Badgebup area and the surrounding regional community.

Telstra will be building 429 new 3G/4G towers over the next three years, plus a further 250 4G data only small cells, representing a combined investment of more than \$340 million in regional and remote Australia by Telstra, the Federal Government and several State and Local Governments as well.

Mobile connectivity has grown in importance as the combination of smart phones and tablets with increased mobile broadband speeds and capacity are changing the way people live and the availability of these services is often taken for granted in metropolitan locations.

Telstra has a heritage of nearly 35 years in providing mobile telephony to Australians, having brought every generation from 1G (that's right there was one before Cellular started in 1987) through to the 4G networks of today. Along that journey Telstra have been intimately involved with extending coverage through the rollout of new towers as well as creating new and innovative ways to stretch and improve mobile coverage into the far corners of the nation.

With this heritage Telstra are acutely aware of the challenges facing communities living with limited access to a mobile network and that is why Telstra is excited to play an important role in delivering mobile coverage for the first time to a large number of regional communities as part of the Federal Government's Mobile Black Spot Programme.

Over 400 communities who currently have no coverage in or around their towns will benefit from a new 3G/4G service. This means places like Leeuwin in Western Australia, Cape Otway in Victoria, Coffee Camp in New South Wales, Widgee in Queensland, Lulworth in Tasmania, Imanpa in Northern Territory and Fregon in South Australia will be receiving coverage from a new Telstra tower, as well as hundreds more. This has been made possible by the support of not just the Federal Government, but very significant contributions by State and Local Governments as well.

In addition to the new mobile towers, Telstra will be installing 250 Small Cells to deliver high speed 4G data services in some small country towns where suitable Telstra infrastructure is available. There will be 200 nationally and another 50 specifically for Queensland as part of our arrangements with the Queensland Government and we are now working with Government on how to allocate these small cells. At this stage, the Small Cell technology can only provide data services, however, Telstra are working on implementing Voice over LTE technology which will allow customers to make voice calls using 4G.

Telstra has been investing in the expansion and upgrade of the wireless networks for the long term and in the past five years alone we have invested around \$5 billion in our mobile network. Since



Telstra launched our Next G[®] network almost a decade ago, more than 99% of the network has been funded by investing Telstra's own capital.

With this Government partnership Telstra are committing \$165 million of its own funds in return for the \$94.8 million allocated to Telstra by the Federal Government and have worked with Victorian, NSW, Queensland, Tasmanian and Western Australian State Governments as well as multiple Local Governments to attract tens of millions of dollars in targeted additional funding. This means Telstra is able to deliver an investment of over \$340 million in regional telecommunications. Coupled with Telstra's unparalleled experience in building networks, this investment will bring new and improved coverage to hundreds of communities across the country.

The Telstra mobile network currently reaches over 99.3% of the population and is by far the largest network in the country, covering 2.4 million square kilometres of the Australian land mass, thanks to Telstra's long term commitment to network investment.

As the first carrier to bring 4G mobile services to regional Australia, we know how important high-speed mobile can be to supporting local businesses, tourism and education, so we are also continuing the expansion of our 4G and 4GX services.

Telstra will be offering other carriers the opportunity to use space on our towers to install their own equipment and offer services to their customers from these towers, in accordance with existing industry practices. Our competitors are well-resourced and free to invest in extending their networks into previously unserved regional areas. So this is not just good news for Telstra customers but an opportunity for all carriers to invest in expanding their coverage in regional Australia.

Telstra are proud to have put forward a strong bid for regional Australia as part of a competitive tender process, and we look forward to rolling out the new towers and expanding coverage for hundreds of communities over the next three years.

Increasing coverage across Australia

In addition to extending mobile coverage through the rollout of new towers, we have worked on new and innovate ways to stretch and improve mobile coverage in remote areas. Some of the ways we have done this include:

- High powered Boomer Cells with extended range features that provide more coverage from towers located on high ground;
- Low cost signal repeaters such as our Telstra Mobile Smart Antenna which boost signal into homes and buildings;
- New 4G Small Cells that provide localised 4G coverage in selected small townships;
- "Blue tick" phones designed for improved reception in rural areas;
- Next generation solar power mobile sites that allow installations where power is not available; and
- Our Satellite backhauled micro-cell that can be broken down into a few carry-bags for helicopter transport to the most remote of locations during emergencies.
- Additional information on how to maximize your coverage is available here:<https://www.telstra.com.au/coverage-networks/our-coverage#maximisecoverage>



Reliable NextG Telstra services

Providing the depth of coverage required to enable reliable NextG Telstra cellular services for local residents, businesses and other mobile users.



3.0 SITE SELECTION

3.1 Need for the proposed telecommunications facility

Mobile phones work by sending and receiving low power radio signals, much like a two (2) way radio system. The signals are sent to 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 into those networks.

Mobile networks are like roads. When traffic increases, upgrades are needed to relieve congestion and remove roadblocks. Congestion is relieved by making changes to existing base stations or adding additional base stations in areas where Telstra may already have existing coverage.

Operators of telecommunications networks must constantly respond to changes in technology and increased demand for call and data services. As part of the Federal Government's Mobile Black Spot Programme, a need has been identified for a new telecommunications facility at Badgebup.

Improved service at this locality will provide benefits to existing and future residents, business and industry located in the Badgebup area. Furthermore, improved telecommunications services in this locality will improve road user safety and will be an important "first response tool" for emergency services.

A new telecommunications facility at this location is consistent with the current and future strategic land use intent in this locality, and will not compromise the strategic intent of the Shire of Katanning Local Planning Scheme.

3.2 Candidates Sites

A number of candidate sites were examined within the search area, with regard to each site's ability to meet the coverage objectives and site considerations listed below. In this instance, a total of three (3) candidates were selected for in-depth investigation, as per Figure 1.

The Candidate Search Area centred around the Katanning-Nyabing Road and Badgebup North Road intersection, which is typified by rural and agricultural land uses.

Wherever possible Telstra selects land other than residential areas and other potentially sensitive land use areas, although this must be weighed against Telstra's network coverage requirements.

Telstra have a preference to site new facilities near or on existing telecommunications infrastructure wherever possible, but sometimes this is not possible due to the lack of existing telecommunication infrastructure in the Candidate Search Area. To this end, no existing facilities are located within the Badgebup locality or on the fringe. Thus, a greenfield candidate was required to meet the coverage objectives.



Figure 1 –Telstra Candidate Sites (Source: Google Earth)

A summary of the proposed candidates is located below, including a description of the opportunities and constraints that each site afforded.

CANDIDATE	ADDRESS & LOT NUMBER	DEVELOPMENT TYPE	DESCRIPTION
A	Lot 6 Badgebup North Road, Badgebup WA 6317 (Lot 6 on D23380)	60m Lattice Tower	A 60m lattice tower was investigated over the subject site. This is the nominated candidate and is discussed further throughout this report.
B	Lot 5 Wolyaming Rd, Badgebup WA 6317 (Lot 5 on D5123)	60m Lattice Tower	A 60m lattice tower was investigated over the subject site. This candidate is located adjacent to candidate A and would result in similar coverage improvements to the area. However, this property does not currently contain any telecommunications infrastructure and would be a new use on the



			land. Given the land at candidate A currently includes the Telstra Exchange, it is preferred over candidate B. As such, candidate B was discounted.
C	Lot 7610 Tee Road, Badgebup WA 6317 (Lot 7610 on P145960)	60m Lattice Tower	A 60m lattice tower was investigated over the subject site. This candidate is located approximately 2.5km north of the Katanning-Nyabing Road and Badgebup North Road intersection. However, this property is currently used for agricultural purposes and does not currently contain any telecommunications infrastructure. Given the land at candidate A currently includes the Telstra Exchange, it is preferred over candidate C. As such, candidate C was discounted.

3.3 Nominated Candidate

The nominated candidate was selected for the proposed facility, based on the radiofrequency coverage objectives, planning and environmental issues, potential community sensitive uses and engineering criteria, as noted above. In this case, **Candidate A** (a new 60m lattice tower located at Lot 6 on D23380) was considered the best option. This was based on the following:

- The site is appropriately located and sited so as to minimise visual and environmental impact on the immediate and surrounding area;
- The site is setback from residential dwellings;
- The site will achieve the required coverage objectives for the area;
- The site will meet design and construction considerations;
- The site is located within close proximity to the existing Telstra fibre; and
- The proposal operates within the regulatory framework of Commonwealth, State and Local Government.

The subject site is located at Lot 6 Badgebup North Road, Badgebup WA 6317 more formally described as Lot 6 on D23380. A copy of the Certificate of Title has been attached for information purposes (**Appendix 2 – Certificate of Title**). The subject site is owned by Telstra Corporation Ltd.

The aforementioned land is zoned 'Rural' under the provisions of the Shire of Katanning Town Planning Scheme No. 4 – refer to **Section 5.4** for additional information on planning schemes and map images. It is noted, that the proposal would require a minimal footprint and is collocated on the same lot as the existing Telstra exchange.

Furthermore, all the surrounding land is zoned 'Rural' aside from the Badgebup railway line and station. The closest residential dwelling is located approximately 240m south of the proposed site location on the other side of the rail corridor.



Figure 2 –Proposed Compound area



Figure 3 –View from Badgebup North Road



4.0 PROPOSAL

The following proposal is necessary to provide improved telecommunications services within the Badgebup locality.

4.1 Facility and Equipment Overview

The proposed telecommunications installation requires the following works:

- Establishing a 60m lattice tower on the site (note: antennas will protrude to approximately 63m above ground level);
- Installing four (4) new omni antennas mounted on top of the 60m lattice tower (note: antennas will protrude to approximately 63m above ground level);
- Installing two (2) new twin tower mounted amplifier (TMA) on the tower;
- Installing one (1) new equipment shelter at the base of the tower; and
- Installing associated ancillary equipment mounted on the lattice tower, including duplexers, combiners, feeders, cables and other ancillary equipment as required.

The proposed installation will be factory grey which will integrate with other infrastructure located on the subject property and the neutral sky backdrop.

The proposal is demonstrated through the proposal plans, attached in **Appendix A**.

4.2 Transport, access and parking

Construction access to the facility will be obtained via a new access crossover off Badgebup North Road. The proposed new access track will provide vehicular access to the proposed tower location on Lot 6 on D23380. The access track is considered sufficient for the use based on the low traffic volumes generated by the use.

It is highlighted that mobile phone base stations require only infrequent maintenance visits (i.e. only two (2) to four (4) times per year) and the site will operate on a continually unmanned basis. As such, the proposal will not be a significant generator of vehicular and/or pedestrian traffic.

Dedicated parking spaces are not considered necessary for the site given the very low traffic generation of the use and the unmanned nature of the site. There is sufficient space adjacent to the facility to allow for off-street parking when necessary.

During the construction of the facility, a truck will be required to deliver necessary equipment to the site and a crane will be used to establish the facility. Traffic associated with the construction phase will be temporary in nature and will not affect existing traffic flows of the surrounding area.

4.3 Utilities

The proposal will connect to the existing power supply on the subject property. This will require an extension to the power network of approximately 20m from the existing power pole on the property.



The unmanned nature of the proposed mobile base station removes the need for connection to water or sewer services.

Furthermore, the proposal incorporates very minimal hard surfaces and therefore will generate insignificant stormwater runoff from the site. As such, the proposal does not require connection to the stormwater network.

4.4 Construction schedule

The construction of the proposed mobile phone base station primarily consists of the following processes:

- Installation of new equipment – reflective of the scope of works outlined within this Development Application; and
- Network Integration – Ensuring that the mobile phone base station can connect with both end users and other sites within the Telstra network.

No road closures will be required for the erection and installation of equipment, as all construction equipment can be set-up on the subject property.

4.5 Acoustic

An air conditioner will be installed within the outdoor equipment shelter located within the base station, which enable the equipment to stay within normal operating temperatures. The air conditioning units will emit a small amount of noise commensurate to that of domestic air conditioning units. The operation of air conditioning units from the site will not result in any adverse impact to neighbouring properties, given the low noise levels generated by the air conditioners, the remote location of the proposed facility and the separation of the facility to surrounding land uses.



5.0 FEDERAL REGULATORY FRAMEWORK

The following information provides a summary of the Federal legislation relevant to telecommunications development proposals.

5.1 Telecommunications Act 1997

The Telecommunications Act 1997 has been operative since 1 July 1997. This legislation establishes the criteria for ‘low impact’ telecommunication facilities. Under the federal Telecommunications Act 1997, mobile phone if network operators (carriers) satisfy the requirements of a ‘low impact’ facility, the development is exempt from the planning approval process.

Further clarification of the term ‘low impact’ is provided in the Telecommunications Act 1997 and the Telecommunications (Low Impact Facilities) Determination 1997, which was gazetted subsequent to the Act. The Telecommunications (Low Impact Facilities) Determination 1997 establishes certain facilities, which cannot be considered low impact facilities.

The proposed facility is not low impact under the definitions contained in the Telecommunications (Low Impact Facilities) Determination 1997. Planning approval is therefore required for the proposed facility.

5.2 Planning and Development Act 2005

The Minister of Planning and Infrastructure has ultimate authority for town planning in Western Australia. Development within Western Australia is controlled by the *Planning and Development Act 2005* through the application of environmental planning instruments. Under the Planning and Development Act 2005, the Western Australian Planning Commission (WAPC) is the responsible authority for land use planning and development matters and this report seeks to demonstrate compliance with the WAPC and other items of relevant legislation which pertain to the subject application.

5.3 Statement of Planning Policy No. 5.2 – Telecommunications Infrastructures (WAPC)

The WAPC *Statement of Planning Policy No. 5.2 – Telecommunications Infrastructure* (SPP 5.2) provides a framework for the preparation, assessment and determination of applications for planning approval of telecommunications facilities within the context of the planning system of Western Australia. Planning Policy 5.2 states that ‘telecommunications infrastructure should be located, sited and designed in accordance with the following Guiding Principles’.

Principles	Comments	Complies
There should be a co-ordinated approach to the planning and development of telecommunications infrastructure, although changes in the location and demand for services require a flexible approach.	Telstra undertakes a carefully co-ordinated and planned approach to the development of their network.	✓



Telecommunications infrastructure should be strategically planned and co-ordinated, similar to planning for other essential infrastructure such as networks and energy supply.	The proposed facility is strategically planned and co-ordinated to ensure that the facility will provide high level coverage to the area of Badgebup.	✓
Telecommunications facilities should be located and designed to meet the communication needs of the community.	The proposed facility seeks to provide mobile coverage to the Badgebup area.	✓
Telecommunications facilities should be designed and sited to minimise any potential adverse visual impact on the character and amenity of the local environment, in particular, impacts on prominent landscape features, general views in the locality and individual significant views.	The proposed structure is situated within an isolated area with minimal surrounding uses. As such, the proposed facility will have minimal visual impacts on the locality.	✓
Telecommunications facilities should be designed and sited to minimise impacts on areas of natural conservation value and places of heritage significance or where declared rare flora are located.	A desktop study of the proposed site indicated that it is not affected by any Heritage listings and no heritage items are located within close proximity of the site. Furthermore, a desktop study of the relevant environmental searches did not identify any known items of Flora and Fauna significance located in the vicinity of the proposed site.	✓
Telecommunications facilities should be designed and sited with specific consideration of water catchment protection requirements and the need to minimise land degradation.	Prior to the commencement of work Telstra will undertake such measures as deemed necessary by Council to effectively protect water catchments within the immediate area.	✓
Telecommunications facilities should be designed and sited to minimise adverse impacts on the visual character and amenity of residential area.	The proposed locality is rural in nature with very little residential amenity. As such, the proposed facility will have minimal impact on the visual character and amenity of the area.	✓



<p>Telecommunications cables should be placed underground, unless it is impractical to do so and there would be no significant effect on visual amenity or, in the case of regional areas, it can be demonstrated that there are long-term benefits to the community that outweigh the visual impact.</p>	<p>Overhead cabling is not proposed for this site.</p>	<p>✓</p>
<p>Telecommunications cables that are installed overhead with other infrastructure such as electricity cables should be removed and placed underground when it can be demonstrated and agreed by the carrier that it is technically feasible and practical to do so.</p>	<p>This principle does not apply to the subject of this application.</p>	<p>✓</p>
<p>Unless it is impractical to do so telecommunications towers should be located within commercial, business, industrial and rural areas and areas outside identified conservation areas.</p>	<p>The proposed site is zoned 'Rural' as identified by the Shire of Katanning Local Planning Scheme No. 4. As such, the proposed facility will be located in the desired zoning.</p>	<p>✓</p>
<p>The design and siting of telecommunications towers and ancillary facilities should be integrated with existing buildings and structures, unless it is impractical to do so, in which case they should be sited and designed so as to minimise any adverse impact on the amenity of the surrounding area.</p>	<p>No opportunities for co-location were identified in the area and as such it has been identified that the proposed Telstra site location is seen as the preferred site location.</p>	<p>✓</p>
<p>Co-location of telecommunications facilities should generally be sought, unless such an arrangement would detract from local amenities or where operation of the facilities would be</p>	<p>No opportunities for co-location were identified in the area and as such it has been identified that the proposed Telstra site location is seen as the preferred site location.</p>	<p>✓</p>



significantly compromised as a result.		
Measures such as surface mounting, concealment, colour co-ordination, camouflage and landscaping to screen at least the base of towers and ancillary structures, and to draw attention away from the tower, should be used, where appropriate, to minimise the visual impact of telecommunications facilities.	Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area. The facility will remain unpainted (dull grey in colour) which blends in with the sky. Furthermore, the proposed subject site maintains suitable separation distance to surrounding residential areas.	✓
Design and operation of a telecommunications facility should accord with the licensing requirements of the Australian Communications Authority, with physical isolation and control of public access to emission hazard zones and use of minimum power levels consistent with quality services.	Telecommunications facilities include radio transmitters that radiate electromagnetic energy (EME) into the surrounding area. The levels of these electromagnetic fields must comply with safety limits imposed by the Australian Communications and Media Authority (ACMA, previously ACA). All Telstra installations are designed to operate within these limits	✓
Construction of a telecommunications facility (including access to a facility) should be undertaken so as to minimise adverse effects on the natural environment and the amenity of users or occupiers of adjacent property, and ensure compliance with relevant health and safety standards.	During construction, Telstra contractors will endeavour to minimise the impact of their works on the amenity of nearby residents and on the surrounding environment. As the proposed site is located in an open space and away from any nearby residential properties, adverse effects on neighbouring properties will be minimal. Following construction, maintenance (excluding emergency repair work) activities should not interfere with the amenity of users. All Health and Safety standards will be adhered to.	✓



Under section 5.1.1 of the State Planning Policy 5.2: Telecommunications Infrastructure Policy the West Australian Planning Commission provides a set of measures in assessing the visual impact of a proposed telecommunications facility.

An assessment of these guidelines below has found that the proposed Telstra Mobile Phone Base Station is compliant with the intent and requirements of the State Planning Policy 5.2: Telecommunication Infrastructure Policy.

Measures	Comments	Complies
Be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;	Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area. The subject site is within a rural setting and is isolated from any surrounding residential areas. As such, the proposed facility will have minimal visual impact on the area.	✓
Be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;	Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area. The subject site is within a rural setting and is isolated from any surrounding residential areas. As such, the proposed facility will have minimal visual impact on the area.	✓
Not be located on sites where environmental, cultural heritage, social and visual landscape values may be compromised;	There are no known items of Environmental, Cultural or social significance located in the vicinity of the proposed site. Any visual impact has been mitigated through a variety of design elements.	✓
Display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;	The proposed facility will sited in a rural setting that is isolated from residential areas or any significant view corridors. As such, the proposal is sympathetic to the setting.	✓
Be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community;	Telstra wish to establish a new mobile telecommunication base station facility in the area to provide the community with a far greater choice of mobile carrier services, as part of the Mobile Black Spot Programme. As such, the facility will provide improved coverage to the surrounding area.	✓
Telecommunications infrastructure should be co-located and whenever possible: Cables and lines should be	No opportunities for co-location were identified in the area and as such it has been identified that the proposed Telstra site location is seen as the preferred site location.	✓



<p>located within an existing underground conduit or duct; and</p> <p>Overhead lines and towers should be co-located with existing infrastructure and/or within an existing infrastructure corridor and/or mounted on existing or proposed buildings.</p>	<p>As this is a greenfield site there is no option to utilise existing underground conduit or ducts.</p> <p>Overhead lines are not applicable to this application.</p>	
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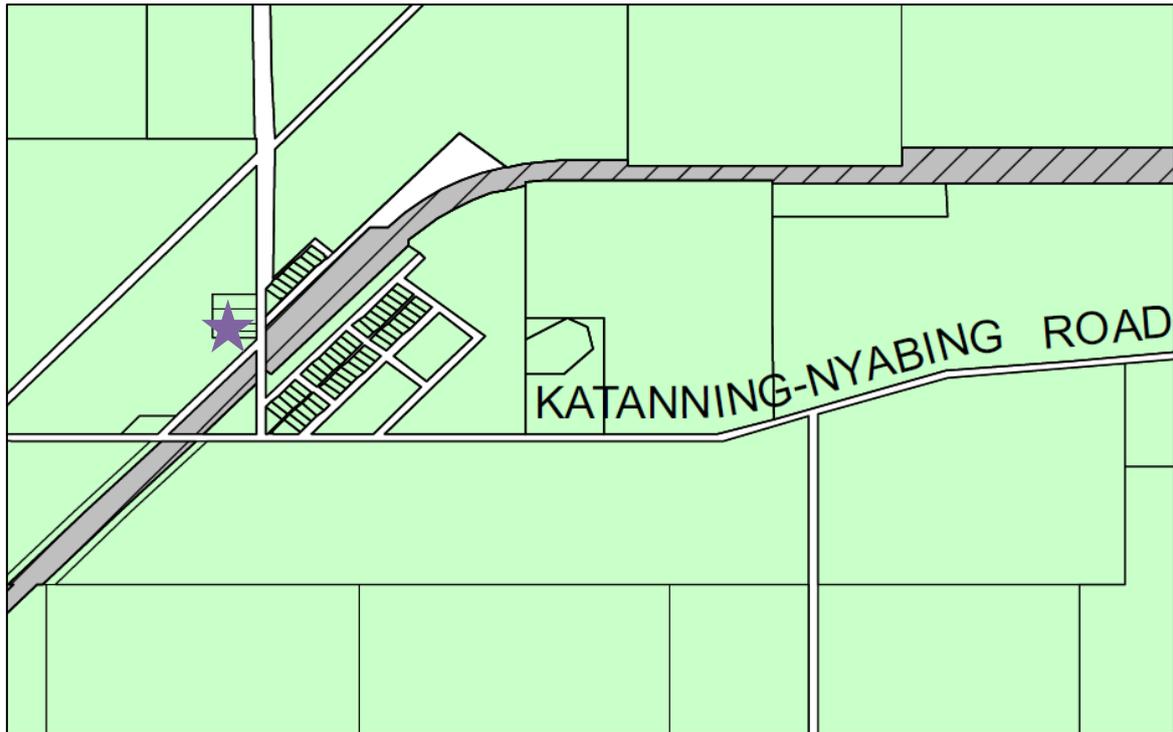
5.4 Local Government Regulatory Framework

5.4.1 Shire of Katanning Local Planning Scheme No. 4

The *Shire of Katanning Local Planning Scheme No. 4* provides the legal basis for planning in the Shire of Katanning, which includes the Badgebup locality. The proposed site and surrounding area is zoned *Rural* as shown in **Figure 4** below.

The Shire of Katanning Local Planning Scheme defines 'Telecommunications Infrastructure' as; "*land used to accommodate any part of the infrastructure of a telecommunications network and includes any line, equipment, apparatus, tower, antenna, tunnel, duct, hole, pit or other structure used, or for use in or in connection with, a telecommunications network*".

Telecommunications infrastructure is not a listed use in the zoning table, however the Shire's town planner has confirmed that public notification is likely to be required for the proposal.



★ Location of Proposed Facility

LOCAL SCHEME ZONES

(see scheme text for additional information)

	Commercial		Rural
	General industrial		Special residential
	Light industrial		Special rural
	Residential		Special use
			Town centre

Figure 4: Zoning Map (Shire of Katanning Local Planning Scheme No 4)

The proposed mobile base station facility will benefit the community of Badgebup and the surrounding area. It will provide mobile phone services to surrounding rural/residential land uses and will improve services along Katanning-Nyabing Road.

Overall the proposed development application is consistent with the intent and requirements of Western Australian Planning Commission SSP 5.2 and the Shire of Katanning Local Planning Scheme No. 4.



6.0 ENVIRONMENTAL IMPACT ASSESSMENT AND MITIGATION MEASURES

This proposal is for the establishment of a Telstra Mobile Base Station Facility within the Badgebup locality.

It is noted, that the proposal is appropriate for the locality, given the rural zoning of the proposed site and the nature of existing and anticipated uses of surrounding land. There will be no impact towards the natural and built environment(s) within the direct vicinity of the proposed site.

Environmental considerations such as visual impact, heritage, flora and fauna, traffic, flooding, bushfire, social and economic aspects, health and safety have been discussed within the below sub sections.

6.1 Visual Impacts

The proposed facility has been located, so as to collocate the facility with the existing telecommunications use of the land. The lattice tower is proposed to be located behind the existing Telstra equipment shelter amongst a small cluster of trees. Given the rural nature of the area, it is unlikely that there will be any significant impacts on the visual amenity of the prevailing rural landscape. The lattice tower is designed to be visually permeable and to blend in with the sky backdrop.

The facility is set-back approximately 300m from Katanning-Nyabing Road and is unlikely to be visually prominent from this road corridor.

6.2 Heritage

In order to determine any possible natural or cultural values of state or national significance associated with the site, a search was conducted through the relevant Heritage Registers. There is one (1) heritage item located within a 500m radius of the proposed site identified as the St Peter's Church. The church is identified as a State Registered Place and is located approximately 350m from the proposed site. Given the separation distance from the church, no impacts to the heritage values of the church are anticipated.



(Image Source: Heritage Council)

★ Location of Proposed Facility

Figure 5: Heritage Mapping within Badgebup

No sites of Aboriginal Heritage significance were identified within the subject land holding or surrounding area. Furthermore, the subject site is not identified as being subject to any protection under the State heritage list. To this end, the proposed facility will not impact on any items of heritage significance.

6.3 Flora and Fauna

The proposed facility will be located on land which is mostly cleared. However, there are three (3) individual trees which will require removal to facilitate construction of the proposed lattice tower. The three (3) trees which require removal have been identified below and on the site plans in **Attachment A**. The trees are located within a previously modified landscape and are unlikely to be of significant ecological value. Any understory/ regrowth vegetation has been previously removed and the trees do not form part of a significant tract of vegetation. As such, the removal of these three (3) trees is considered unlikely to have a significant impact on the ecological value of the area.



Figure 6: Site photo – Trees to be removed

6.4 Traffic

As previously discussed within **Section 4.2** of this report, mobile phone base stations are not a significant generator of pedestrian or vehicular traffic.

The proposed Telstra Mobile Base Station Facility site will achieve access via a new crossover off Badgebup North Road.

During the construction phase various vehicles will be used to deliver equipment and construct the Telstra Mobile Base Station Facility. Any traffic impacts associated with construction and establishment will be of a short-term duration (i.e. approximately five weeks over non-consecutive periods) and are not anticipated to adversely impact on the surrounding road network.

Adequate parking will be available on site for these vehicles and these movements would not impact the local traffic.

6.5 Bushfire

It is strongly highlighted that the subject site contains very little vegetation, which significantly reduces the risks of bushfire hazard to the facility. To this end, it is not anticipated, that the proposed facility will be at future risk of bushfires.

6.6 Social and economic impacts

Since 2007, the amount of mobile phone subscriptions has exceeded the overall population of Australia. The wider community has seen a general reliance on mobile phone networks for other uses than that of traditional voice calls.

Australia has one of the highest levels of “smartphone” usage in the world. A sample study by the Digital Industry Association of Australia has estimated the usage of smartphones at rate of 76% of all mobile phone users. This has seen an ongoing impact and influence on how we conduct business “on the move” – inclusive of checking emails, social networking, e-commerce and browsing the internet. Consumers have an increasing expectation that a reliable, fast and cost effective mobile phone network can support these activities.



The proposed development will provide significantly enhanced coverage and capacity of the Telstra mobile network to the locality of Badgebup. This will be of particular benefit to visitors, Community Groups and Emergency Services.

Furthermore, there is a general expectation in the wider community for a dependable and reliable mobile phone network. Telstra has 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.

6.7 Health and Safety

Telstra is committed to ensuring the health and safety of the wider community. Often, there is a misconception regarding the perceived health risks surrounding mobile phone base stations and Electromagnetic Energy (EME).

EME is non-ionising radiation, meaning that it has insufficient energy to break chemical bonds or remove electrons (ionisation). In contrast, ionising radiation (such as X-rays) can remove electrons from atoms and molecules thus leading to damage in biological tissue (Source: ARPANSA).

The frequencies and energy levels in which mobile phone technologies operate are heavily regulated by Australian Communication and Media Authority (ACMA) and Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). These organisations set limits as to how much power and EME emissions a mobile phone base station can produce before resulting in harmful impacts to the community. Mobile phone base station emissions are hundreds of times below the general public exposure limit of around 4.5-10 watts per square metre (frequency dependent) as set out in the ARPANSA standard (Source: ARPANSA).

Telstra will ensure that any new sites are absolutely compliant with Australian safety standards. Telstra has adopted stringent processes to ensure that we can demonstrate full compliance with Australia’s safety standards (ARPANSA).

7.0 CONCLUSION

The proposed Telstra Mobile Base Station Facility will provide the community with a far greater choice of mobile carrier services and meet increasing network demands for coverage, voice and data services. In addition, the proposed Telstra Mobile Base Station Facility will provide the local community with much need emergency service and communications coverage.

The proposal satisfies the requirements of State Planning Policy 5.2 Telecommunications Infrastructure and the provisions of the Shire of Katanning Local Planning Scheme No. 4.

We respectfully request that Council looks favourably at this application.

Should Council have any further queries regarding the subject application, please do not hesitate to contact the nominated representative outlined within this document.



Appendix A

Proposal Plans



Appendix B

Copy of Title



PROPOSED TELSTRA LTE700 / WCDMA850 & LTE700 OMNI ANTENNAS (4 OFF, A1, A2, A3 & A4) TO BE INSTALLED ON PROPOSED MOUNTS ON PROPOSED HEADFRAME.

PROPOSED SIGNS TO BE UV STABLE STICKERS AND FIXED TO BASE OF ALL TELSTRA OMNI ANTENNAS (4 OFF) #2

PROPOSED TELSTRA RRUS-12 (B28) (2 OFF) AND TMAS (2 OFF) TO BE INSTALLED ON THE PROPOSED TOWER LEG IN THE PROCESS TO MAINTAIN EQUAL LENGTH OF TAILS TO PROPOSED TELSTRA OMNI ANTENNAS (A1, A2, A3 & A4)

PROPOSED TELSTRA 60.0m HIGH LATTICE TOWER

PROPOSED TELSTRA HYBRIFLEX CABLE (1 OFF) TO RUN ON PROPOSED PATH USING PROPOSED CABLE BRACKET

PROPOSED TELSTRA WCDMA850 FEEDERS (2 OFF) TO RUN ON PROPOSED PATH USING PROPOSED CABLE BRACKET.

NOTES :

- 1. ALL EXTERNAL FEEDERS AND TAILS MUST BE BIRD PROOFED AS PER EXTERNAL PLANT POLICY 003615.
- 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- 3. FOR EME SIGNS NOTED AS #X REFER TO 005486 DOCUMENTS FOR DETAILS.

PROPOSED TELSTRA 450W CABLE LADDER WITH SUPPORT POSTS TO ACCOMMODATE PROPOSED TELSTRA SCF12-50J FEEDERS (2 OFF).

PROPOSED TELSTRA LTE700 GPS ANTENNA (1 OFF) ON STANDARD PROPOSED MOUNT.

PROPOSED TELSTRA BS TYPE 1 EQUIPMENT SHELTER

PROPOSED TELSTRA 3.0m WIDE DOUBLE ACCESS GATES

PROPOSED SIGN TO BE SECURED TO ACCESS GATE USING STAINLESS STEEL STRAPS #13

PROPOSED TELSTRA ELECTRICAL PIT P5

PROPOSED TELSTRA FIBRE PIT P5 (BEHIND)

EXISTING POWER POLE

EXISTING TELSTRA O/H POWER LINE

EXISTING METER BOX

EXISTING CAX

EXISTING FENCE WITH GATE

PROPOSED TELSTRA U/G POWER ROUTE

PROPOSED TELSTRA U/G FIBRE ROUTE

E.L. 62.7m (±100mm) RL 374.0m A.H.D. OVERALL HEIGHT

E.L. 60.0m (±100mm) RL 372.0m A.H.D. C/L PROPOSED TELSTRA OMNI ANTENNAS (4 OFF, A1, A2, A3 & A4) TOP OF PROPOSED LATTICE TOWER

E.L. 59.0m (±100mm) RL 371.0m A.H.D. C/L PROPOSED TELSTRA RRUS 12 (2 OFF)

E.L. 39.7m (±100mm) RL 351.7m A.H.D. REST PLATFORM

E.L. 20.2m (±100mm) RL 332.2m A.H.D. REST PLATFORM

E.L. 00.0m (±100mm) 312.0m A.H.D. GROUND LEVEL

PROPOSED TELSTRA TOWER FOUNDATION (INDICATIVE ONLY).

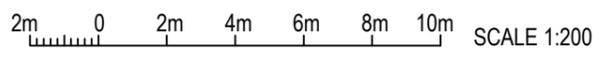
UNAPPROVED DRAWING

PROPOSED SIGN TO BE SECURED 1.5m AGL TO LEG OF LATTICE TOWER #6

PROPOSED TELSTRA FENCE

NORTH ELEVATION

SCALE 1:200



PRELIMINARY

COMPLIANCE BOX
 COMPLETED AS PER DESIGN
 ALTERATIONS IN RED
 NAME (PRINT) _____
 SIGNATURE _____ DATE _____

TO BE READ IN CONJUNCTION WITH SHEETS S1.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
WA08702.01	MU	SZ	PRELIMINARY - 30053775W0048 VPL - LTE700	SR	RO	25.08.16	1



MOBILE NETWORK SITE 12709
 BADGEBUP
 NORTH ELEVATION
 LOT 6 WOLYAMING RD, BADGEBUP, WA 6317



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DWG NO. **W108071** SHT NO. **S3**

WESTERN



AUSTRALIA

REGISTER NUMBER 6/D23380	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
1217

FOLIO
703

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 6 ON DIAGRAM 23380

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

AUSTRALIAN TELECOMMUNICATIONS COMMISSION OF TELECOM CENTRE, 80 STIRLING STREET, PERTH
(T C643012) REGISTERED 26 OCTOBER 1983

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1217-703 (6/D23380).
 PREVIOUS TITLE: 858-121.
 PROPERTY STREET ADDRESS: LOT 6 WOLYAMING RD, BADGEBUP.
 LOCAL GOVERNMENT AREA: SHIRE OF KATANNING.
 RESPONSIBLE AGENCY: TELSTRA CORPORATION LIMITED.

Superseded - Copy for Sketch Only

1879/59

Transfer 13324/1958 (10344)

Volume 858 Folio 121



WESTERN AUSTRALIA.

REGISTER BOOK.

Vol. 1217 Fol. No. 703

INDEXED, M. S.

Certificate of Title

CT 1217 0703 F

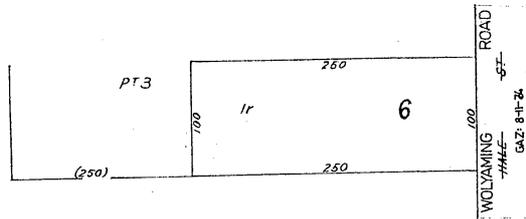


under "The Transfer of Land Act, 1893" (56 Vic., 14, Sch. 5).

The Commonwealth of Australia, is now the proprietor of an estate in fee simple subject to the easements and encumbrances notified hereunder in the natural surface and therefrom to a depth of two hundred feet of all that piece of land delineated and coloured green on the map hereon containing one rood or thereabouts, being portion of Kojonup Location 5949 and being Lot 6 the subject of Diagram 23380.



Scale: 1 chain to an inch
D.C. *AK*



Dated the first day of September One thousand nine hundred and fifty-eight.

Acte Jabott
Registrar of Titles.

Transfer C643012 to Australian Telecommunications Commission of Telecom Centre, 80 Stirling Street, Perth. Registered 26th October, 1983 at 10.40 o'clock.



3339/3/97-24,492-1/1c.

For encumbrances and other matters affecting the land see back.

Superseded - Copy for Sketch Only

CT 1217 0703 B



CERTIFICATE OF TITLE

Vol. 1217

Fol.