

APPENDIX K

Utility Services Infrastructure Report

Prepared by
ITC

Ettalong Beach
218-220 Memorial Avenue & 47-50 The Esplanade
Ettalong Beach Town Centre

Development Application

January 2010



**ETTALONG BEACH
MIXED USE DEVELOPMENT**

**CNR. MEMORIAL AVENUE AND THE ESPLANADE
ETTALONG BEACH**

Utility Services Infrastructure Report

Prepared For:



Prepared By:

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1 EXECUTIVE SUMMARY

This document is a utility services infrastructure due diligence for the proposed development at the Corner of Memorial Avenue and The Esplanade, Ettalong Beach.

The development will be fronting both Avenue and The Esplanade.

At this point in time we have assumed that the site will be serviced by extending the existing High Voltage network in The Esplanade, but this will be subject to advice from the relevant Authorities.

The existing site consists of an indoor and outdoor car parking area; there are no existing buildings on site.

The services that were investigated are as follows:

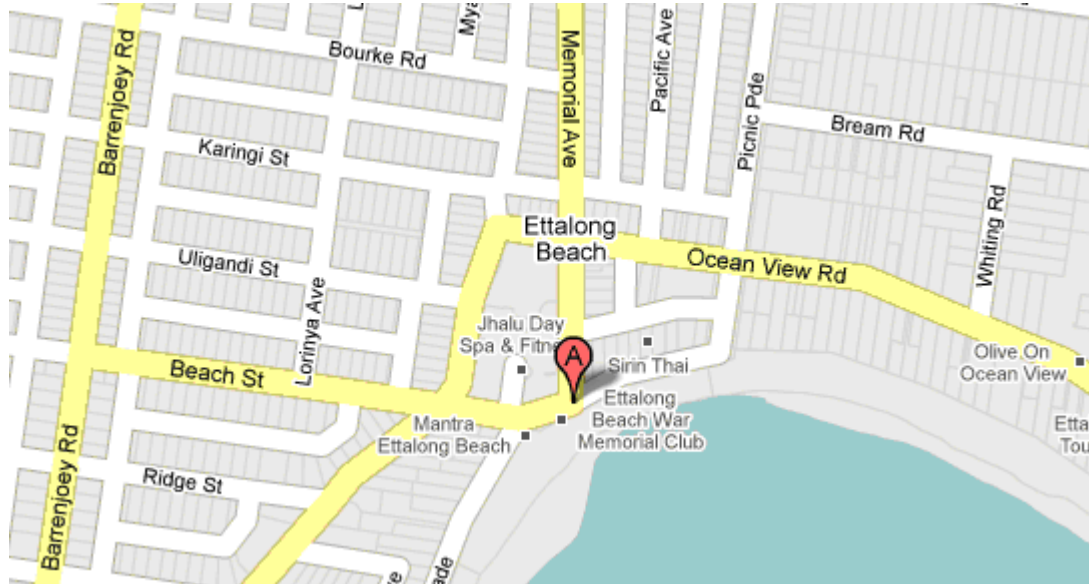
- Electricity;
- Telecommunications;

This report assesses the services requirements for the site.

The review is preliminary and will need to be confirmed in more detail further to the Supply Authority (Energy Australia) assessment.

Although our investigations have not incorporated detailed negotiations with the relevant authorities at this early stage, we have provided in our report all the correspondence we have had to date with the Authorities, especially with Energy Australia.

2 SITE LOCATION





3 RELEVANT AUTHORITIES

The relevant Authorities for this site are:

- Energy Australia for the power supply;
- Telstra for the Communications Services.

4 ELECTRICAL SERVICES

4.1 *Estimated Capacity Required*

It has been estimated that one (1) kiosk type substation with one (1) new 1000kVA transformers will be required to service the site.

This estimate is based on the following load calculations:

• Outdoor car park area		8A/phase (estimation only);
• Basement car park	725m ² @15VA/m ²	16A/phase;
• Ground floor Retail Areas	1250m ² @ 200VA/m ²	350A/phase;
• First Floor commercial	375m ² @ 120VA/ m ²	70A/phase;
• Part Level 1 and Levels 2 to 6 residential apartments (45 apartments in total)		340A/phase.
• Spare capacity 20 %		160A/phase
• TOTAL Electrical Load	is	944A/phase – 655kVA

4.2 *Infrastructure Connection Details*

It has been assumed that one (1) new kiosk type substation will be installed and connected to the Energy Australia High Voltage Feeder located on The Esplanade.

This is to be formally confirmed with Energy Australia once the project proceeds to detail design stage.

4.3 *Amplification Requirements*

The existing High voltage Infrastructure will have to be extended to the proposed location of the new kiosk type substation.

This is to be formally confirmed with Energy Australia once the project proceeds to detail design stage.

4.4 *Issues to Consider*

Lead times need to be considered in relation to negotiations, design, approvals and construction of a new substation on the site.

A space of 5300mm x 3300mm needs to be allocated on the site for the installation of an L type kiosk.



The kiosk will need to be separated by a distance of minimum 6.00 meters from building ventilation system air intake and exhaust duct openings.

The kiosk should be installed at a distance of minimum 3.00 meters from any opening in the building.

All portions of the building that are within 3.00 meters of the kiosk are required to be provided with a Fire Resistance Level of not less than 120/120/120.

5 COMMUNICATION SERVICES

5.1 *Estimated Capacity Required*

It is assumed that one hundred (100) pairs will be required to the site.

5.2 *Infrastructure Connection Details*

The existing site has a limited copper lead-in capacity provided by Telstra, this is consistent with what currently exists on the sites (ie. outdoor car park).

ITC has undertaken a carrier survey investigation and has identified that there are Telstra services available locally. It appears that there is no fibre optic infrastructure locally available.

ITC would suggest that co-ordination and negotiation would be required with the carrier(s) to obtain adequate telco services to the development, however from our experience there is limited risk associated with the provision of these services.

All the above is to be formally confirmed with Telstra/Optus once the project proceeds to detail design stage.

5.3 *Amplification Requirements*

The existing Telstra network will require amplification to accommodate the new building requirements.

This is to be formally confirmed with the relevant Telco's once the project proceeds to detail design stage.

5.4 *Issues to Consider*

Nil.



6 CORRESPONDENCE WITH UTILITIES



6.1 *Energy Australia*



ITC GROUP PTY LIMITED

LEVEL 7, 33 YORK STREET
SYDNEY NSW 2000
PHONE +61 2 9495 8100
FAX +61 2 9495 8111
WEB www.itcgroup.net.au
ABN: 75 084 093 050

04 December 2009

Energy Australia
Design Department
Tuggerah
NSW 2259

Attn.: Inez Sutton

Dear Madam,

RE: PROPOSED NEW MIXED DEVELOPMENT AT ETTALONG BEACH – CNR. MEMEORIAL AVE. & THE ESPLANADE - POWER SUPPLY

ITC have been nominated as the Consulting Engineers for the proposed mixed development located at the corner of Memorial Avenue and The Esplanade.

The new development will occupy the site of the existing outdoor car par area and will consist of the following:

- Out door car park area;
- Basement car park 725m²;
- Ground floor Retail Areas 1250m²;
- First Floor:
 - Commercial 375m²;
 - Residential apartments
- Levels 2 to 6 residential apartments.

The total number of apartments will be forty five (45).

The apartments will be provided with air conditioning.

At this stage the Client is enquiring whether there is gas in the area that could be used for the cooktops.

For the purpose of establishing the estimated maximum demand, we have allowed for electric cooktops and ovens. The bathrooms will be mechanically ventilated and the kitchen will be provided with recirculation hoods.

Our preliminary estimations indicate that the load will be in the order of 750A (AS 3000).

Can you please advise on the availability of power in the street and on fees the Client will have to cover. We attach to this letter a site plan for your information.

Yours sincerely

ITC GROUP Pty Limited

Raluca Grancea
Associate

Address all mail to:

Attn Pamela Henderson
Building 1, 25-27 Pomeroy St
Homebush NSW 2140

Phone: +61 2 9394 6604

Facsimile: +61 2 3994 6824

Email:

EA_Contestability@energy.com.au



30 December 2009

Raluca Grancea
Associate
ITC Group Pty Limited
Level 7, 33 York Sttreet
SYDNEY NSW 2000

Project Number: SC01380

Dear Raluca

Confirmation of Your Electricity Network Connection enquiry at: Cnr Memorial Ave & The Esplanade, Ettalong Beach

Thankyou for your enquiry dated 4 December 2009. We have assigned project reference number SC01380 for use in all future correspondence. Please retain this number for further reference.

EnergyAustralia is currently assessing your project to determine a suitable method of electrical connection to your installation. You may be required to contribute to any extension or addition to our distribution network that is needed to meet the required electrical connection. If a contribution is required you will be able to engage independent service providers to carry some aspects of the work. EnergyAustralia may also charge regulated fees for other aspects of the work. A more detailed explanation of this process, called *Contestability Information Sheet* is enclosed for your information.

When we have completed our assessment we will advise you of any necessary works required to be undertaken on our network to allow for the electrical connection. At the same time we will also advise you of any initial fees if applicable. We expect to provide this advice to you due course. If for Network reasons we require additional investigations we will advise you the relevant time frame accordingly.

Should you require any further information please contact EnergyAustralia on the above phone number and quote the project number.

Yours sincerely,

A handwritten signature in black ink, reading "Phil Callachor".

Phil Callachor
Contestability Officer
EnergyAustralia

Direct Telephone Number 02 4910 1412
Facsimile: 02 4910 1842
Email: pcallachor@energy.com.au

Enclosures: Contestability Information Sheet

CONTESTABLE WORKS INFORMATION SHEET



General

In accordance with policy based on Determinations issued by the Australian Energy Regulator (AER), EnergyAustralia may require customers to bear the cost of providing assets that are specifically needed to connect their electrical installations and/or developments to the electricity distribution network (Contestable Works). In addition there are Monopoly Services and Augmentation Works.

Contestable Works

Contestable Works are the design and construction of connection assets funded by customers. The customer has the choice of engaging any suitably Accredited Service Provider (ASP), to perform these works which are warranted by the customer for a period of three years after completion. The customer must inform EnergyAustralia of their choice of ASPs.

Upon satisfactory completion of the work EnergyAustralia will assume the responsibility for the ownership, operation and maintenance of these assets.

Monopoly Services

These are services, associated with the Contestable Works, which can only be provided by EnergyAustralia. They are necessary to ensure that appropriate levels of reliability, quality and safety are maintained in the provision of contestable works.

EnergyAustralia charges fees, prescribed by AER, for Monopoly Services. Customers are required to pay these fees regardless of which ASP carries out the Contestable Works. Customers should take the cost of monopoly fees into account when evaluating quotations for contestable design and construction services.

Not all ASPs that provide construction services are graded either A, B or C, which affects the level of monopoly fees associated with their work (refer to ES 5: *Charges for Network Miscellaneous and Monopoly Services*).

Augmentation Works

The design and construction of assets necessary to enable the connection but which have an immediate or foreseeable use as a shared asset supplying other customers are usually funded by EnergyAustralia but there are exceptions (refer to ES 8: *Capital Contributions Guidelines*). These works are usually not contestable.

Choosing ASPs

Contact details of ASPs can be obtained from the Office of Fair Trading via any of the following methods:

Website: www.fairtrading.nsw.gov.au

(Select *Consumers > Buying Services > Electricity network connections*, or search for ASP)

Email: aspscheme@ofc.commerce.nsw.gov.au

Telephone: (02) 9 95 0000

Facsimile: (02) 9 95 0099

Mail: Accreditation Scheme
Office of Fair Trading
PO Box 92
PARRAMATTA NSW 2124

Level 3 ASPs provide contestable design services. Level 1 and Level 2 ASPs provide contestable construction services. ASPs also require specific authorisation to work on or near EnergyAustralia's electricity distribution network.

Contractual Arrangements

The *Standard Form Customer Connection Contract* applies to the connection of installations to the EnergyAustralia network.

EnergyAustralia will require the customer and the Level 1 ASP to enter into a contractual agreement (ES 9: *Agreement for Connection of Developments*) prior to the commencement of contestable construction services. The agreement is primarily to ensure that the connection assets, that become part of EnergyAustralia's electricity distribution network, meet EnergyAustralia's construction, quality and safety standards and warranties and insurances are provided.

In addition, if tenure arrangements are needed, the developer and the property owner may be required to enter into separate deeds of agreement to create the required property rights (refer to clause 10 of ES 10: *Requirements for Electricity Connection to Developments*).

Additional Information

Further detailed information may be found on our website www.energy.com.au, by selecting *About Us > Our Network > Guidelines, Standards & Reports > Electrical Supply Standards*, or is available from your local Customer Operations office. The most relevant documents include:

ES 1 *Customer Connection Information*

ES 5 *Charges for Network Miscellaneous and Monopoly Services*

ES 8 *Capital Contributions Guidelines*

ES 9 *Agreement for Connection of Developments*

ES 10 *Requirements for Electricity Connection to Developments*.



6.2 *Telstra*

Raluca Grancea

From: registration@telstrasmartcommunity.com
Sent: Monday, 11 January 2010 10:21 AM
To: Raluca Grancea
Subject: Registration Details - Development name: Ettalong Beach Development Ettalong Beach
Attachments: 12033743.txt

Dear Raluca Grancea,

Thank you for Registering your Development and submitting your Intent to Develop with Telstra Smart Community.

The details you have provided are attached for your future reference.

We note that you haven't attached any files to your submission. You can revisit your application at any time to attach files electronically and to view the email and postal addresses if you wish to send hardcopy plans.

You can access your development at: <http://www.telstra.com.au/smartcommunity/developers.html>

Your Registration Number is: 12033743

The Registration Number above and the password that you provided during the registration process must be used for referencing all stages of this development when using the Telstra Smart Community website to view, edit or add further details to your development.

Following are the details of Telstra's Community Development Consultant for Ettalong Beach:

dev4nsw@team.telstra.com
Locked Bag 16 HAMILTON DC 2303

Raluca Grancea

From: registration@telstrasmartcommunity.com
Sent: Monday, 11 January 2010 11:42 AM
To: Raluca Grancea
Subject: Application for Reticulation update confirmation - Ettalong Beach Development, Stage 1 Ettalong Beach
Attachments: terms_buildings.html; 17124543.txt

Dear Raluca Grancea,

Thank you for updating your Application for Reticulation with Telstra Smart Community.

The details of the files attached with this development are as follows:

File Name, File Type, File Size

1: SKE-01 Rev 2.pdf, Adobe PDF files, 376.1Kb

The details you have provided are attached for your future reference.

Also attached are the terms and conditions accompanying this application.

Following are the details of Telstra's Community Development Consultant for Ettalong Beach:

dev4nsw@team.telstra.com
Locked Bag 16 HAMILTON DC 2303

Regards,

Telstra Smart Community Urban Development Team

9A.APP.AFR.MODIFICATION.Notification.NonSubdivisions

Building Developments - Terms and Conditions[Print this page](#)**TERMS AND CONDITIONS**

Subject to Telstra determining it will pre-provision telecommunications network infrastructure to the Proposed Development in response to your Application for Reticulation, the following terms and conditions will apply to Telstra's pre-provisioning of telecommunications network infrastructure to the Proposed Development. Some of the words used in this document have particular meanings that are set out in clause 5.

1. Network Infrastructure

1.1. The Developer acknowledges that Telstra will install and maintain the Network Infrastructure on the Land without charge to the developer. (applies to Group Title developments).

1.2. To the extent possible, Telstra will install and maintain the Network Infrastructure in reliance on its powers and immunities under Schedule 3 of the Act. In relation to any such activities which Telstra proposes to engage in under Schedule 3 of the Act, the Developer agrees to waive its right to be given all notices which Telstra would otherwise be required to give it under the Act and/or the Telecommunications Code of Practice 1997 (Cth).

1.3. If, in Telstra's opinion, it becomes necessary to remove or alter the position of any Network Infrastructure on, over or under the Land because of the Proposed Development, the Developer agrees to re-imburse Telstra for all of its costs incurred in connection with anything reasonably done by Telstra in connection with that removal or alteration.

1.4. The Developer agrees to provide Telstra with suitable trench/trenches (shared and/or exclusive trenches as required that meet Telstra's specifications, including ACIF Industry Code C524 2001 External Communication Cable Networks) for the Network Infrastructure to connect to the proposed building development including where required provisions for future developments.

1.5. The Developer acknowledges that after installation of the Network Infrastructure, additional works will still be required in order for telecommunications services to be provided to customers in the development and these works will be carried out at Telstra's sole discretion.

1.6. The Developer grants to Telstra a perpetual, irrevocable licence to use, modify and adapt all Developer Material for the sole purpose of Telstra installing and maintaining the Network Infrastructure, including the use of the Developer Material to update and maintain Telstra's recording systems.

2. Ownership of the Network Infrastructure

2.1. Telstra shall own the Network Infrastructure, and any other equipment or facilities installed by Telstra, none of which shall be considered a fixture, notwithstanding that elements of the Network Infrastructure may be fixed to the Land in some way.

2.2. The Developer must not use, or permit anyone else to use, the Network Infrastructure.

3. The Developer's Responsibilities

3.1 The Developer must:

a) provide Telstra with safe access to the Land/Building for the purposes of inspecting, installing and maintaining the Network Infrastructure;

b) comply with all reasonable directions of Telstra in relation to the Network Infrastructure;

c) ensure that no damage is done to the Network Infrastructure or that it is in anyway interfered with by any person.

d) meet the costs of replacement or repair necessitated by breach of paragraph (c) and agrees to indemnify Telstra if it carries out such replacement or repair, until the completion of all development construction within the particular subdivision or subdivision stage and/or upon satisfactory inspection of development, subdivision or stage by all utilities, civil contractor, development consultant, relevant authority for the specified State or Territory and the issue by Telstra of a compliance certificate.

3.2. The Developer represents that it is the owner of the Land/Building and is able to confer the rights on Telstra as provided in these terms and conditions.

3.3. The Developer represents and warrants that it has sufficient right, title and interest in the Developer Material to license that material to Telstra for the sole purpose of Telstra installing and maintaining the Network Infrastructure and updating and maintaining Telstra's recording systems.

4. Miscellaneous

4.1. Telstra is not liable (including in negligence) for any loss, damage or expense that the Developer or may suffer in connection with the provisioning of the Network Infrastructure by Telstra if Telstra is unable to provide Network Infrastructure due to circumstances beyond its control. To the full extent allowed by law, Telstra excludes all warranties, whether express or implied by law.

4.2. The Developer indemnifies Telstra in respect of any and all loss, damage or expense suffered by Telstra due to a claim concerning infringement of intellectual property rights

brought by a third party in relation to Telstra's use of Developer Material to install and maintain the Network Infrastructure and to update and maintain Telstra's recording system.

4.3. This agreement does not in any way limit Telstra's rights under the Act or any legislation made under it or in place of it.

5. Explanation of Certain Words

5.1. Act means the Telecommunications Act 1997 (Cth).

5.2. Developer means the person listed in section 1 of this Application or the developer agent whose signature appears in section 2 (Terms and Conditions) or that person who acknowledges and agrees to the Terms and Conditions.

5.3. Land means the land described in section 5 of this Application.

5.4. Network Infrastructure means the equipment and facilities (including, without limitation, conduits, cable, road crossings, pipe, pits, lead-in starter pipe and any provision for future development in shared or exclusive trench/trenches where required installed or to be installed by Telstra on the Land/Buildings).

5.5. Proposed Development means the development in respect of which the applicant has submitted this form as referred to in section 4 of this Application.

5.6. Telstra means Telstra Corporation Limited (ABN 33 051 775 556) and its employees, agents or sub-agents and employees of its agents and sub agents.

5.7. Trench/Trenches means all excavations and re-instatement without limitations necessary within the estate to accommodate the Telstra Network Infrastructure.

5.8. Future Development means where a development has been recognised and will be constructed at a later date and Network Infrastructure requires to be constructed through the proposed development.

5.9. Road Works means when construction of roads has begun and prior to road crossings being excavated.

5.10. Urban Development means identifying opportunities in new developments that provide points of differentiation for each Developer/development. The establishment of strong and mutually beneficial commercial relationships with property developers for their development communications product and service needs.

5.11. Developer Material means any and all material provided by the Developer to Telstra for the sole purpose of Telstra installing the Network Infrastructure, including all trench plans and surveyors' plans submitted as part of this application

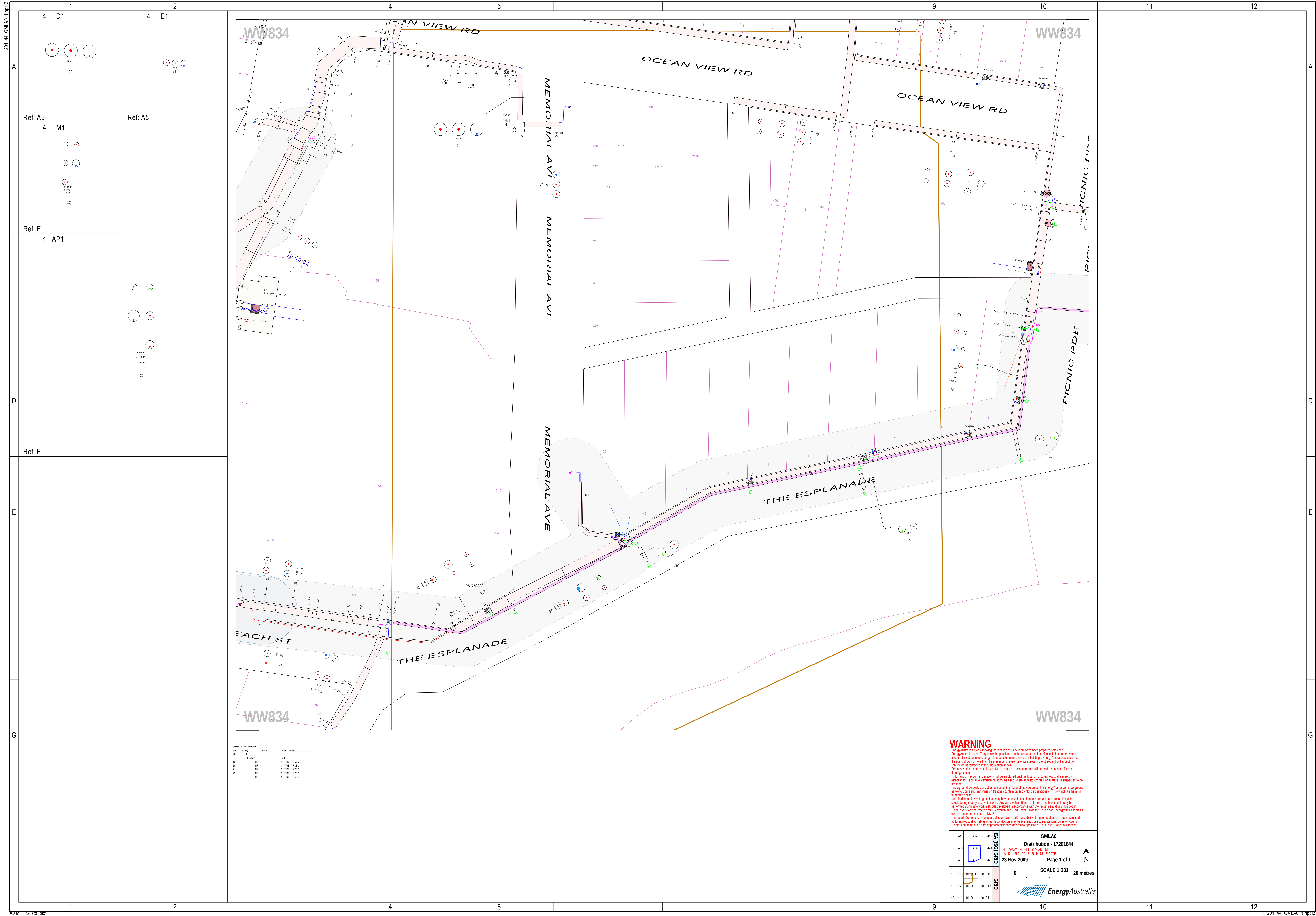
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7 UTILITY DRAWINGS



7.1 *Energy Australia*





7.2 *Telstra*

