

Suite 2.01, Level 2

ERINA NSW 2250

4 Ilya Avenue

UTILITIES AND INFRASTRUCTURE REPORT FOR THE WINTER SPORTS WORLD

Client:	WSW Winter Sports World	PO Box 3772 Fountain Plaza ERINA NSW 2250
		T 02 4324 3499
Property:	Nos. 2 - 4 Tench Ave, Jamisontown	www.acor.com.au
		ENGINEERS
Date:	29 June 2018	MANAGERS
		INFRASTRUCTURE PLANNERS
Document Identificati	on	DEVELOPMENT
Our Reference:	GO170662	CONSULTANTS

For and on behalf of ACOR Consultants (CC) Pty Ltd

Quality Information

Version	Description	Date	Author	Signature	Reviewer	Signature
1.0	Report for	29/06/2018	Stephone	Dp	Bruce	Bruck,
	comment		Johnstone	A	Kenny	prine 1.

Distribution

No. of Copies	Format	Distributed to	Date
1 (v 1.0)	pdf	Environa Sudio	29/06/2018

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1.0 Introduction

ACOR Consultants (CC) Pty Ltd (ACOR) has been commissioned to prepare a Services Investigation Report on behalf of Environa Studio. In preparation of this report, ACOR has performed a desktop assessment to determine relevant data and information from the following service providers:

- Sydney Water (Water and Sewer)
- Jemena (Gas).
- Endeavour Energy (Electricity)
- NBN (Internet)
- Telstra (Telecommunication)

2.0 Site Location

The subject site is known as Lot 1 in DP 38950 (2-4) Tench Ave, Jamisontown. The site is located on the corner of Tench Ave and Jamison Road. we refer to Figure 1 following which depicts the location of the site and surrounding development.



3.0 Investigation Results

• Sydney Water

A 200 Diameter Water Main is located along the site frontage to both Tench Avenue and Jamison Road.

A 225 Diamter Sewer Main is located at the Eastern end of the site along Jamison Road.

Refer to Appendix A for Acquired Data



• Jemena (Gas).

A 75mm line is located along the site frontage to both Tench Avenue and Jamison Road. Refer to Appendix B for Acquired Data

• Endeavour Energy (Electricity)

No underground power cables were located in both Tench Avenue and Jamison Road.

Above ground power supply was viewed in both Tench Avenue and Jamison Road (refer Images 1 & 2 below)

Refer to Appendix C for Acquired Data



Image 1 – Looking East along Jamison Road



Image 2 – Looking South along Tench Avenue



NBN (Internet)

In-Service Cables and Manholes are available along both Tench Avenue and Jamison Road.

Refer to Appendix D for Acquired Data

• Telstra (Telecommunication)

No underground data was provided by Telstra.

Above ground aerial line was observed at the corner of Tench Avenue and Jamison Road (refer Image 3 below)

Refer to Appendix E for response.



Image 3 - Corner of Tench Avenue & Jamison Road

4.0 Conclusions

The Winter Sports World building will be carbon-neutral in operation. The winter use areas are essentially a giant "esky", with multilayered massive levels of insulation, with few, if any, windows and a high efficiency mechanical plant making both chilled air and snow or ice.

The entire operation, including the hotel, is run from a 1 MW power supply of photo-voltaic solar cells on the roof (the equivalent of 200 houses with PV panels). Run through an on-site battery storage facility.

The desktop analysis provided preliminary information indicating all services are currently available to the site. Further investigation prior to final design will be required to determine if existing available services have sufficient capacity for the proposed development.



ANNEXURE A

Sydney Water Data Response

Stephen Johnstone - ACOR

From:	dbydgis@sydneywater.com.au
Sent:	Wednesday, 27 June 2018 2:54 PM
То:	Stephen Johnstone - ACOR
Subject:	DBYD Job/Seq 72890913 : JobID 14472303 - Tench Ave Jamisontown
Attachments:	Important_information_SW_DBYD_Plans.pdf; MAP_7289091314472303.pdf;
	Guide_to_Sydney_Water_DBYD_Plans.pdf

Asset Name: 80210

Date of enquiry: 27/06/2018 2:51:00 PM Notification No: 14472303 (Job No) Sequence No: 72890913

Customers Name: Mr Steve Johnstone Customers Phone No: 02 4324 3499, 0414 627 510

Address supplied for dig site location Tench Ave, Jamisontown, NSW

Notice: Please DO NOT REPLY TO THIS EMAIL as it has been automatically generated and replies are not monitored. Should you wish to advise Dial Before You Dig of any issues with this enquiry, please Call 13 20 92.

NOTICE: This email is confidential. If you are not the nominated recipient, please immediately delete this email, destroy all copies and inform the sender. Sydney Water Corporation (Sydney Water) prohibits the unauthorised copying or distribution of this email. This email does not necessarily express the views of Sydney Water. Sydney Water does not warrant nor guarantee that this email communication is free from errors, virus, interception or interference.

[[]Facebook]<<u>http://www.facebook.com/SydneyWater</u>> [Twitter] <<u>http://twitter.com/sydneywaternews</u>> [YouTube] <<u>http://www.youtube.com/user/sydneywatertv</u>> [Instagram] <<u>http://www.instagram.com/explore/tags/sydneywater/</u>>

DBYD Address: n/a Tench Ave Jamisontown NSW 2750	DBYD Job No: 14472303 DBYD Sequence No: 72890913	Copyright Reserved Sydney Water 2018 No warranty is given that the information shown is complete or accurate. SYDNEY WATER CORPORATION	Scale: 1:1500 Date of Production: 27/06
		Copyright Reserved Sydney Water 2018	
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	N/E soft		ХС 225 VС в
		45 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	





# Guide to reading Sydney Water DBYD Plans





### **Asset Information**



### Legend

Sewer		
Sewer Main (with flow arrow & size type text)	225 PVC	
Disused Main	223 FVG	
Rising Main		
Maintenance Hole (with upstream depth to invert)	1.7	
Sub-surface chamber	<u> </u>	
Maintenance Hole with Overflow chamber	-	
Ventshalft EDUCT		
Ventshaft INDUCT	<b>*</b>	
Property Connection Point (with chainage to downstream MH)	10.6	
Concrete Encased Section	Concrete Encosed	
Terminal Maintenance Shaft	тиs ————————————————————————————————————	
Maintenance Shaft	O	
Rodding Point	•**	
Lamphole		
Vertical		
Pumping Station	<b>O</b> SP0882	
Sewer Rehabilitation	3-0002	
Pressure Sewer		
Pressure Sewer Main		
Pump Unit (Alarm, Electrical Cable, Pump Unit) ————————————————————————————————————	₫•	
Property Valve Boundary Assembly		

Property Valve Boundary Assembly	
Stop Valve	— ×
Reducer / Taper	
Flushing Point	• ^R

#### Vacuum Sewer

Pressure Sewer Main	
Division Valve	
Vacuum Chamber	—Ф
Clean Out Point	<u> </u>

#### Stormwater

Stormwater Pipe	
Stormwater Channel	
Stormwater Gully	
Stormwater Maintenance Hole	

#### **Property Details**



#### Water

WaterMain - Potable (with size type text)	200 PVC		
Disconnected Main - Potable			
Proposed Main - Potable			
Water Main - Recycled			
Special Supply Conditions - Potable			
Special Supply Conditions - Recycled			
Restrained Joints - Potable			
Restrained Joints - Recycled			
Hydrant	<b>—</b>		
Maintenance Hole			
Stop Valve	<del>×</del>		
Stop Vale with By-pass	<u>t</u>		
Stop Valve with Tapers	<del></del>		
Closed Stop Valve	<b></b> &		
Air Valve	<b>—</b>		
Valve	<b>—</b>		
Scour	<b>8</b>		
Reducer / Taper			
Vertical Bends	→←		
Reservoir			
Recycled Water is shown as per Potable above. Colour as indicated	- <b>X</b> -•-		
Private Mains			
Potable Water Main	<u> </u>		

Potable Water Main	<u> </u>
Recycled Water Main	
Sewer Main	
Symbols for Private Mains shown grey	



### **Asset Information**



### **Pipe Types**

ABS	Acrylonitrile Butadiene Styrene	AC	Asbestos Cement
BRICK	Brick	CI	Cast Iron
CICL	Cast Iron Cement Lined	CONC	Concrete
COPPER	Copper	DI	Ductile Iron
DICL	Ductile Iron Cement (mortar) Lined	DIPL	Ductile Iron Polymeric Lined
EW	Earthenware	FIBG	Fibreglass
FL BAR	Forged Locking Bar	GI	Galvanised Iron
GRP	Glass Reinforced Plastics	HDPE	High Density Polyethylene
MS	Mild Steel	MSCL	Mild Steel Cement Lined
PE	Polyethylene	PC	Polymer Concrete
PP	Polypropylene	PVC	Polyvinylchloride
PVC - M	Polyvinylchloride, Modified	PVC - O	Polyvinylchloride, Oriented
PVC - U	Polyvinylchloride, Unplasticised	RC	Reinforced Concrete
RC-PL	Reinforced Concrete Plastics Lined	S	Steel
SCL	Steel Cement (mortar) Lined	SCL IBL	Steel Cement Lined Internal Bitumen Lined
SGW	Salt Glazed Ware	SPL	Steel Polymeric Lined
SS	Stainless Steel	STONE	Stone
vc	Vitrified Clay	WI	Wrought Iron
WS	Woodstave		

### **Further Information**

Please consult the Dial Before You Dig enquiries page on the Sydney Water website

For general enquiries please call the Customer Contact Centre on 132 092

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 90 (24 hours, 7 days)





#### **IMPORTANT INFORMATION - DIAL BEFORE YOU DIG**

#### Attention: You must read the information below

The material provided or made available to you by Sydney Water (including on the Sydney Water website) in relation to your Dial Before You Dig enquiry (**Information**) is provided on each of the following conditions, which you are taken to have accepted by using the Information:

- 1 The Information has been generated by an automated system based on the area highlighted in the "Locality Indication Only" window on your Caller Confirmation. It is your responsibility to ensure that the dig site is properly defined when submitting your Dial Before You Dig enquiry and, if the Information does not match the dig site, to resubmit your enquiry for the correct dig site.
- 2 Neither Sydney Water nor Dial Before You Dig make any representation or give any guarantee, warranty or undertaking (express or implied) as to the currency, accuracy, completeness, effectiveness or reliability of the Information. The Information, including Sydney Water plans and work-as-executed diagrams, amongst other things:
  - (a) may not show all existing structures, including Sydney Water's pipelines, particularly in relation to newer developments and in relation to structures owned by parties who do not participate in the Dial Before You Dig service;
  - (b) may be out of date and not show changes to surface levels, road alignments, fences, buildings and the like;
  - (c) is approximate only and is therefore not suitable for scaling purposes; and
  - (d) does not show locations of property services (often called house service lines) belonging to or servicing individual customers, which are usually connected to Sydney Water's structures.
- 3 You are responsible for, amongst other things:
  - (a) exposing underground structures, including Sydney Water's pipelines, by pot-holing using hand-held tools or vacuum techniques so as to determine the precise location and extent of structures before any mechanical means of excavation are used;
  - (b) the safe and proper excavation of and for underground works and structures, including having regard to the fact that asbestos cement pipelines, which can pose a risk to health, may form part of Sydney Water's water and sewerage reticulation systems;
  - (c) protecting underground structures, including Sydney Water's pipelines, from damage and interference;
  - (d) maintaining minimum clearances between Sydney Water's structures and structures belonging to others;
  - (e) ensuring that backfilling of excavation work in the vicinity of Sydney Water's structures complies with Sydney Water's standards contained on its website or otherwise communicated to you;
  - (f) notifying Sydney Water immediately of any damage caused or threat of damage to Sydney Water's structures;
  - (g) ensuring that plans are approved by Sydney Water (usually signified by stamping) prior to landscaping or building over or in the vicinity of any Sydney Water structure; and
  - (h) ensuring that the Information is used only for the purposes for which Sydney Water and Dial Before You Dig intended.

- 4 You acknowledge that you use the Information at your own risk. In consideration for the provision of the Dial Before You Dig service and the Information by Sydney Water and Dial Before You Dig, to the fullest extent permitted by law:
  - (a) all conditions and guarantees concerning the Information (whether as to quality, outcome, fitness, care, skill or otherwise) expressed or implied by statute, common law, equity, trade, custom or usage or otherwise are expressly excluded and to the extent that those statutory guarantees cannot be excluded, the liability of Sydney Water and Dial Before You Dig to you is limited to either of the following as nominated by Sydney Water in its discretion, which you agree is your only remedy:
    - (i) the supplying of the Information again; or
    - (ii) payment of the cost of having the Information supplied again;
  - (b) in no event will Sydney Water or Dial Before You Dig be liable for, and you release Sydney Water and Dial Before You Dig from, any Loss arising from or in connection with the Information, including the use of or inability to use the Information and delay in the provision of the Information:
    - (i) whether arising under statute or in contract, tort or any other legal doctrine, including any negligent act, omission or default (including wilful default) by Sydney Water or Dial Before You Dig; and
    - (ii) regardless of whether Sydney Water or Dial Before You Dig are or ought to have been aware of, or advised of, the possibility of such loss, costs or damages;
  - (c) you will indemnify Sydney Water and Dial Before You Dig against any Loss arising from or in connection with Sydney Water providing incorrect or incomplete information to you in connection with the Dial Before You Dig service; and
  - (d) you assume all risks associated with the use of the Dial Before You Dig and Sydney Water websites, including risk to your computer, software or data being damaged by any virus, and you release and discharge Sydney Water and Dial Before You Dig from all Loss which might arise in respect of your use of the websites.
- 5 **"Sydney Water**" means Sydney Water Corporation and its employees, agents, representatives and contractors. "**Dial Before You Dig**" means Dial Before You Dig Incorporated and its employees, agents, representatives and contractors. References to "**you**" include references to your employees, agents, representatives, contractors and anyone else using the Information. References to "**Loss**" include any loss, cost, expense, claim, liability or damage (including arising in connection with personal injury, death or any damage to or loss of property and economic or consequential loss, lost profits, loss of revenue, loss of management time, opportunity costs or special damages). To the extent of any inconsistency, the conditions in this document will prevail over any other information provided to you by Sydney Water and Dial Before You Dig.

## In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 90 (24 hours, 7 days)

Further information and guidance is available in the Building Development and Plumbing section of Sydney Water's website at www.sydneywater.com.au, where you will find the following documents under 'Dial Before You Dig':

- Avoid Damaging Water and Sewer Pipelines
- Water Main Symbols
- Depths of Mains
- Guidelines for Building Over/Adjacent to Sydney Water Assets
- Clearances Between Underground Services

Or call 13 20 92 for Customer Enquires.

Note: The lodging of enquiries via **www.1100.com.au** will enable you to receive colour plans in PDF format 24 hours a day, 7 days a week via email.

This communication is confidential. If you are not the intended recipient, please destroy all copies immediately. Sydney Water Corporation prohibits unauthorised copying or distribution of this communication.



### ANNEXURE B

Jemena Data Response

#### **Stephen Johnstone - ACOR**

From:	dbyd.gasreply@jemena.com.au
Sent:	Wednesday, 27 June 2018 3:01 PM
То:	Stephen Johnstone - ACOR
Subject:	Jemena DBYD Response DBYD JOB:14472303 SEQ:72890912 - Tench Ave
	Jamisontown NSW 2750
Attachments:	ATT00001.png; PE5D.pdf; Standard_Gas_Coversheet_Jemena.pdf

Dear Mr Steve Johnstone

#### REF: DBYD JOB:14472303 SEQ:72890912 - Tench Ave Jamisontown NSW 2750

With regards to your DBYD inquiry, please refer to the attached document(s).

Please follow the excavation guidelines attached.

#### This information is valid for 28 days from the date of enquiry.

Regards

#### DBYD Admin Jemena Level 14, 99 Walker Street North Sydney, NSW 2060 PO Box 1220, North Sydney, NSW 2059 1300 880 906 www.jemena.com.au | www.gonaturalgas.com.au



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This is a confidential message intended for the named recipient(s) only. The contents herein are privileged to the sender and the use thereof is restricted to the intended purpose. If you have received this e-mail in error, please do not use, disclose, distribute, copy, print or relay on this email. If receipt is in error, please advise the sender by reply email. Thank you.





### Network Protection

#### **Assets Affected**

In reply to your enquiry, there are gas mains at the location of your intended work as per the attached map. For an explanation of the map, please see the key below. The following excavation guidelines apply.

#### **Excavation Guidelines:**

It is essential the location of gas pipe/s are confirmed by carefully pot-holing by hand excavation prior to proceeding with mechanical excavation in the vicinity of gas pipes. If you cannot locate the gas main, contact the local depot.

In accordance with clause 34(5) of the Gas Supply (Safety and Network Management) Regulation 2013 (NSW), you should be informed that all excavation, (including pot-holing by hand to confirm the location of pipes) should be performed in accordance with "*Work Near Underground Assets Guideline*" *published in 2007 by the Work Cover Authority.* 

A copy of this Guideline is available at: www.workcover.nsw.gov.au

#### KEY VALVE MAX ALLOWABLE OPERATING PRESSURE M SYSTEM PRESSURE REGULATOR 5 SIPHON 123 NETWORK NODES TRUNK MAIN 7000 kPa 1235 ITEM DETAIL SKETCH AVAILABLE PRIMARY MAIN 3500 kPa -1 VALVE NUMBER (OLD NUMBERING) S SECONDARY MAIN 1050 kPa 6NB 6 INCH CAST IRON MAIN 150MM 150MM STEEL MAIN 300 kPa 110MM PE/NY 110MM POLYETHYLENE/NYLON MAIN 210 kPa **50MM NYLON INSERTED INTO** (6)NB 50MM NY 6NB MAIN CAST IRON MAIN 7 kPa DISTANCE IN METRES OF MAIN FROM 1.2MBL BUILDING LINE (TOLERANCE OF 0.4M) 400 400 kPa 1957 YEAR LAID 100 kPa 100 +++- MUNICIPALITY BOUNDARY 2 kPa NETWORK BOUNDARY 123 HOUSE NUMBER PROPOSED MAINS STEEL MAIN PROJECT NUMBER PR 11-2 3 PRESSURE MONITORING STATION A

#### DBYD Administration 1300 880 906

Warning: The enclosed plans show the position of Jemena Gas Networks (NSW) Ltd's underground gas mains and installations in public gazetted roads only. Individual customers' services and services belonging to other third parties are not included on these plans. These plans have been prepared solely for the use of Jemena Gas Networks (NSW) Ltd and Jemena Asset Management Pty Ltd (together "Jemena") and any reliance placed on these plans by you is entirely at your own risk. The plans may show the position of underground mains and installations relative to fences, buildings etc., as they existed at the time the mains etc were installed. The plans may not have been updated to take account of any subsequent change in the location or style of those features since the time at which the plans were initially prepared. Jemena makes no warranty as to the accuracy or completeness of the enclosed plans and does not assume any duty of care to you nor any responsibility for the accuracy, adequacy, suitability or completeness of the plans or for any error, omission, lack of detail, transmission failure or corruption in the information provided. Jemena does not accept any responsibility for any loss that you or anyone else may suffer in connection with the provision of these plans, however that loss may arise (including whether or not arising from the negligence of Jemena, its employees, agents, officers or contractors). The recipient of these plans must use their own care and diligence in carrying out their works and must carry out further surveys to locate services at their work site. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to Jemena's underground mains and equipment. In accordance with the Work Near Underground Assets Guideline published in 2007 by Work Cover Authority, Jemena recommends that you carry out potholing by hand to accurately confirm the location of gas mains and installation prior to commencing excavations.

In case of Emergency Phone 131 909 (24 hours)

#### Admin 1300 880 906

Jemena Asset Management Pty Ltd ABN 53 086 013 461 for and on behalf of Jemena Gas Networks ( NSW) Ltd ABN 87 003 004 322



### ANNEXURE C

Endeavour Energy Data Response

#### **Stephen Johnstone - ACOR**

From:	dbyd@endeavourenergy.com.au
Sent:	Wednesday, 27 June 2018 2:56 PM
То:	Stephen Johnstone - ACOR
Subject:	DBYD Referral - Job No: 14472303 Seq NO: 72890910
Attachments:	72890910_NOASSETAFFECTED.pdf; 72890910_CoverLetter - Not Affected.pdf; DBYD Excavation Disclaimer.pdf

#### DIGSAFE PRO Dial Before You Dig - REFERRAL NOTIFICATION

This referral has been successfully processed and the results are contained in the attached files.

If you have any queries please contact.

Ph: 02 9853 4161 Fax: 02 9853 4026 Email: <u>mocs@endeavourenergy.com.au</u>





#### WARNING

All electrical apparatus shall be regarded as live until proved de-energised. Contact with live electrical apparatus will cause severe injury or death.

In accordance with the Electricity Supply Act 1995, you are obliged to report any damage to Endeavour Energy Assets immediately by calling 131 003.

The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan

The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.

Endeavour Energy underground earth grids may exist and their location may not be shown on plans. Persons excavating are expected to exercise all due care,

especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.

Endeavour Energy plans do not show any underground customer service mains or information relating to service mains within private property.

Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.

Organo-Chloride Pesticides (OCP) may be present in some sub-transmission

All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

#### **INFORMATION PROVIDED BY ENDEAVOUR ENERGY**

• Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.

Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to

Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.

All enquiry details and results are kept in a register.

#### DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.





te: 27/06/2018	uence No.:	72890910
21/00/2010	):	27/06/2018

Cadastre: © Land and Property Information 2015, 2016



#### BEFORE COMMENCING EXCAVATION YOU MUST READ AND UNDERSTAND ALL INFORMATION PROVIDED IN THE DBYD RESPONSE AND LISTED BELOW

#### BACKGROUND

Endeavour Energy is able to make available plans of its underground assets to persons who intend to undertake excavation works in Endeavour Energy's distribution area. Any plans provided to you are made available subject to the provisions set out below, in the provided plans, and in the Endeavour Energy DBYD response Cover Letter.

We have set out below important information regarding the recommended procedures that should be followed when using this service and also the extent of our responsibility in respect of any plans provided. It is very important that you read and understand all the information and disclaimers provided below before excavating.

Information Provided by Endeavour Energy:

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

#### DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

#### CUSTOMER REQUESTS AND RESPONSIBILITIES

- Endeavour Energy expects to be able to provide relevant plans within 48 hours after a request is made.
- If the enquiry falls within the Transmission Mains area, additional notification requirements shall be complied with as per the instructions in the response Cover Letter.
- Endeavour Energy retains copyright over all plans and details provided in response to a customer's request.
- Persons excavating are expected to exercise all due care in the vicinity where underground assets are indicated and will be held responsible for any damage to any underground assets (including any Endeavour Energy property) or any other loss caused (including consequential losses) as a result of such excavations.
- All underground assets should be visually located by soft digging (pot holing) or hand digging.
- A person who undertakes excavation work is subject to duties and responsibilities under the <u>Work</u> <u>Health and Safety Act 2011</u> and <u>Work Health and Safety Regulation 2011</u>. Please refer to the Work Cover NSW "Work near underground assets: Guide" and "Excavation work: Code of practice" which contain practical advice for working near underground utility services.
- Any damage to Endeavour Energy's assets must be immediately reported on 131 003.
- In all cases of electric shock or suspected electric shock the victim shall immediately be transported to hospital or medical centre for treatment.
- If conduit material cannot be identified, it should be assumed to contain asbestos material.
- Endeavour Energy plans are frequently updated to record changes to underground assets. All plans are valid for **20** working days from the date of issue.

If further clarification is required, please contact: Endeavour Energy Phone: (02) 9853 4161 (8:00am-4:30pm Mon-Fri) Emergency Phone Number: 131 003



#### F8751395 F8257581 B D 919773 Q @R90 T84 T84 U72 FB751393 Duct/cable cross section points to the 3751393 duct/cable route that it refers to. Pillar and pillar number Field book reference and duct codes are shown T24 with LV service cable above duct cross setion. Cable codes are shown next to the cable cross FB257581 B D FB291436 sections. T84 Q @R90 **T**84 FB291436 **T**84 X U72 FB291436 0.8 av **Direct laid cable** Proposed undergroud T84 FB291436 shown in pink with 0.8m cover **T**84 0.8 00 98296 --- 15 Fenceline 663 0.8:00 1.465 15600E -0.0 PL 335 FB257581 350mm STEEL UNDERBORE 71 a 11 UNK COV 11 Distances from a reference point 4NK CON and a reference point 00 PC 3 U72 LINK COV OU72 Symbol that indicates Streetlight column and 21365 268 shared trenching column number 000072 **U72** O T84 T84 0.800 Duct route with 319 unknown cover FB257581 Asbestos 784 U72 Warning Road crossing duct with FB11867 FB257581 BD FB257581 location unknown T84 R90 R90 BD FB257581 T84 R90 Substation and substation BD FB11867 FB257581 number T84 R90 BD FB250600 Electricity pole B D FB250600 FB257581 with UG to OH FB257581 connection

#### EXAMPLE OF HOW TO READ ENDEAVOUR ENERGY PLANS



#### IDENTIFYING ASBESTOS DUCTS

1. Duct codes E, F and G identify Fibro Conduits



If underground details have not been captured and drawings are used, the method for identifying asbestos ducts and standards are different for the different utilities that amalgamated with Endeavour Energy. Using Reticulation Drawings, there are numerous ways to determine if a duct route has asbestos ducts, refer to following examples:

#### 3. AC (Asbestos Cement) acronym





 The duct codes G,H,J,K,L,M Q,R,S,T,U,V,W & X under each configuration are used on old Blue Mountains drawings to identify Asbestos



4. Fibrolite (asbestos) ducts



5. Yellow triangle identifies Fibro Conduits





#### STANDARD UNDERGROUND SYMBOLS / LABELS

NOTE: If symbology has not been provided on the plan use symbols as shown below.

SYMBOLS & A	CRONYMS	DUCT CODE LABLES
🗋 or 📕	Street light column	<b>B</b> = 50 mm PVC
	Padmount substation	<b>D</b> = 125mm PVC
or 🗖	Overground pillar (O.G.Box)	E = 100mm Fibro Conduit (Asbestos)
	Underground pit	<b>F</b> = 140mm Fibro Conduit (Asbestos)
	Duct run	G = 150mm Fibro Conduit (Asbestos)
	Cable run	
Ŕ	Typical duct section	DEPTH & LOCATION LABELS
		<b>0.5- 0.7 COV =</b> $0.5m - 0.7m$
	Typical underbore section	0.9  COV = 0.9 m Depth
$\bigotimes$	Blocked duct	UNK COV = Depth Unknown LOC UNK = Location Unknown
•	Cable section	0.9 PL = Located 0.9m from Property Line
Δ	Achestes worping	
<u> </u>	Asbestos warning	
STJ	STJ, PBJ, TTJ	
PBJ	Straight through joint Parallel branch joint	
ттj	Transition through joint	
-		
	Underground to overhead pole	
SL	Streetlight conductor	
SC SE	Service cable Cable sealed end	
SE	Service Feeder	
os		
0.A.M.	- · ·	
U.A.M.	Under awning main	
N.I.S.		
	Fence/dimensioning	
7	Shared trenching	
	Service point of attachment	



#### **DBYD Underground Search Report**

Date: 27/06/2018

#### DBYD Sequence No: 72890910

#### **DBYD Job No:** 14472303

#### ENDEAVOUR ENERGY ASSETS NOT AFFECTED

To:	Mr Steve Johnstone		Company:	Acor Consultants		
Address: No.58-62 Hills Street, North Gosford, NSW 2250						
Cust. ID: 1440308 Email: sjohnstone@acor.com.au						
Phone: 02 4324 3499 Mobile: 0414 627 510 Fax: 02 4324 2951						
Enquiry Location: Tench Ave, Jamisontown, NSW 2750						

Our Search has shown that **NO UNDERGROUND ASSETS ARE PRESENT** on our plans within the nominated enquiry location. However all persons planning excavation shall read and understand the warnings below. This search is based on the graphical position of the excavation site as denoted in the DBYD customer confirmation sheet.

#### WARNING

- All electrical apparatus shall be regarded as live until proved de-energised. Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

#### SUPPLEMENTARY MATERIAL

Material	Purpose	Location
DBYD Cover Letter	Endeavour Energy DBYD response Cover Letter	Attached
DBYD Important Information & Disclaimer	Endeavour Energy disclaimer, responsibilities and information on understanding plans	Attached
DBYD Response Plans	Endeavour Energy DBYD plans	Attached
Work Cover NSW "Work near underground assets: Guide"	Guideline for anyone involved in construction work near underground assets	Contact Work Cover NSW for a copy
Work Cover NSW "Excavation work: Code of practice"	Practical guidance on managing health and safety risks associated with excavation	URL [Click Here]
Safe Work Australia <i>"Working</i> in the vicinity of overhead and underground electric lines guidance material"	Provides information on how to manage risks when working in the vicinity of overhead and underground electric lines at a workplace	URL [Click Here]
Endeavour Energy Safety Brochures & Guides	To raise awareness of dangers of working on or near Endeavour Energy's assets	URL [Click Here]



### ANNEXURE D

**NBN Data Response** 

#### **Stephen Johnstone - ACOR**

From: Sent:	DONOTREPLY@nbnco.com.au Wednesday, 27 June 2018 3:28 PM
To:	Stephen Johnstone - ACOR
Cc:	noreplydbyd@nbnco.com.au
Subject:	DBYD JOB:14472303 SEQ:72890914 - Tench Ave,Jamisontown,NSW-2750 email(1/1)
Attachments:	Disclaimer_20180627_15275509.pdf; 4678_NBN_Dial_Before_You_Dig_Poster_ 20170517.pdf; 20180627_15275509_1.pdf

Hi Mr Steve Johnstone,

Please find attached the response to your DBYD referral for the address mentioned in the subject line. The location shown in our DBYD response is assumed based off the information you have provided. If the location shown is different to the location of the excavation then this response will consequently be rendered invalid. Take the time to read the response carefully and note that this information is only valid for 28 days after the date of issue.

If you have any further enquiries, please do not hesitate to contact us.

Regards, Network Services and Operations NBN Co Limited P: 1800626329 E: <u>dbyd@nbnco.com.au</u> www.nbnco.com.au

Confidentiality and Privilege Notice

This e-mail is intended only to be read or used by the addressee. It is confidential and may contain legally privileged information. If you are not the addressee indicated in this message (or responsible for delivery of the message to such person), you may not copy or deliver this message to anyone, and you should destroy this message and kindly notify the sender by reply e-mail. Confidentiality and legal privilege are not waived or lost by reason of mistaken delivery to you. Any views expressed in this message are those of the individual sender, except where the sender specifically states them to be the views of NBN Co Limited

Please Do Not Reply To This Mail



### **Indicative Plans**

Issue Date:	27/06/2018	DIAL BEFORE	ſ
Location:	Tench Ave,Jamisontown,NSW-2750	YOU DIG www.1100.com.au	



















### **Emergency Contacts**

You must immediately report any damage to **nbn**[™] network that you are/become aware of. Notification may be by telephone - 1800 626 329.



То:	Mr Steve Johnstone	
Phone:	02 4324 3499	
Fax:	02 4324 2951	
Email:	sjohnstone@acor.com.au	

Dial before you dig Job #:	14472303	
Sequence #	72890914	www.1100.com.au
Issue Date:	27/06/2018	www.rroo.com.dd
Location:	Tench Ave,Jamisontown,NSW-2750	Some impact. No onsite action required.

### Information

The area of interest requested by you contains one or more assets.

nbn Assets	Search Results
Communications	Asset identified
Electricity	No assets

In this notice **NBN Facilities** means underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by **nbn** 

### Location of Underground Power Facilities

We thank you for your enquiry. In relation to your enquiry at the above address:

- nbn's records indicate that there <u>ARE</u> nbn Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").



- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators at your cost to locate **nbn** Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. If you are planning to excavate and require further information, please contact **nbn** on 1800 626 329. For any enquiries related to moving assets or Planning and Design activities, please visit the **nbn** <u>Commercial Works</u> website to complete the online application form.

#### Notes:

- 1. You are now aware that there are **nbn** Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
- 2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
- 3. Any information provided is valid only for **28 days** from the date of issue set out above.

### **Referral Conditions**

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans, you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own



investigations (including engaging appropriately qualified plant locators at your expense to locate **nbn** Facilities during any activities you carry out on site).

- 2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
- 3. You should not assume that **nbn** Facilities follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
- 4. In carrying out any works in the vicinity of **nbn** Facilities, you must maintain the following minimum clearances:
  - 300mm when laying assets inline, horizontally or vertically.
  - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
  - 1000mm when operating mechanical excavators.
  - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
- 5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn** fibre optic,copper and coaxial cables,and power cable feed to **nbn** assets).Damage to underground electric cables may result in:
  - Injury from electric shock or severe burns, with the possibility of death.
  - Interruption of the electricity supply to wide areas of the city.
  - Damage to your excavating plant.
  - Responsibility for the cost of repairs.
- 6. You must take all reasonable precautions to avoid damaging **nbn** Facilities. These precautions may include but not limited to the following:
  - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
  - If any undisclosed underground cables are located, notify **nbn** immediately.
  - All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
  - The safety of the public and other workers must be ensured.
  - All excavations must be undertaken in accordance with all relevant legislation and regulations.
- 7. You will be responsible for all damage to **nbn** Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
- 8. You must immediately report any damage to **nbn™** network that you are/become aware of. Notification may be by telephone 1800 626 329.



9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and
	Underground Electric Lines (Draft)
	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

#### **Network Operations Centre - Assurance**

Date: 27/06/2018



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Australia's broadband network

# Working near **nbn**™ cables

**nbn** has partnered with Dial Before You Dig to give you a single point of contact to get information about **nbn** underground services owned by **nbn** and other utility/service provider in your area including communications, electricity, gas and other services. Contact with underground power cables and gas services can result in serious injury to the worker, and damage and costly repairs. You must familiarise yourself with all of the Referral Conditions (meaning the referral conditions referred to in the DBYD Notice provided by **nbn**).

# Practice safe work habits

Once the DBYD plans are reviewed, the Four P's of Excavation should be adopted in conjunction with your safe work practices (which must be compliant with the relevant state Electrical Safety Act and Safe Work Australia "Excavation Work Code of Practice", as a minimum) to ensure the risk of any contact with underground **nbn** assets are minimised.



**Plan:** Plan your job ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.



**Pothole:** Non-destructive potholing (i.e. hand digging or hydro excavation) should be used to positively locate **nbn** underground assets with minimal risk of contact and service damage.



**Protect:** Protecting and supporting the exposed **nbn** underground asset is the responsibility of the worker. Exclusion zones for **nbn** assets are clearly stated in the plan and appropriate controls must be implemented to ensure that encroachment into the exclusion zone by machinery or activities with the potential to damage the asset is prevented.



**Proceed:** Proceed only when the appropriate planning, potholing and protective measures are in place.

# Working near **nbn**[™] cables



Australia's broadband network



Identify all electrical hazards, assess the risks and establish control measures.



When using excavators and other machinery, also check the location of overhead power lines.

Workers and equipment must maintain safety exclusion zones around power lines.

Once all work is completed, the excavation should be re-instated with the same type of excavated material unless specified by **nbn**. Please note:

- Construction Partners of **nbn** may require additional controls to be in place when performing excavation activities.
- The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

### Contact

In the event of the **nbn**™ network facility damage please call 1800 626 329

#### Disclaimer

This brochure is a guide only. It does not address all the matters you need to consider when working near our cables. You must familiarise yourself with other material provided (including the Referral Conditions) and make your own inquiries as appropriate. **nbn** will not be liable or responsible for any loss, damage or costs incurred as a result of reliance on this brochure.

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### ANNEXURE E

Telstra Data Response

#### Stephen Johnstone - ACOR

From:	TAMS@dominoapp.in.telstra.com.au
Sent:	Wednesday, 27 June 2018 5:34 PM
То:	Stephen Johnstone - ACOR
Subject:	DBYD JOB: 14472303 SEQ: 72890911 - Tench Ave, Jamisontown NSW 2750

Attention: Steve Johnstone

Site Location: Tench Ave, Jamisontown, NSW 2750

Your Job Reference: GO170662

Activity Type: Planning & Design

You have requested Telstra network information via Dial-Before-You-Dig (as detailed in the email subject line) in relation to a *non*-ground-breaking activity, for which data extraction fees apply. DBYD activity descriptions that incur a Telstra fee currently include *Planning & Design, Conveyancing, Tendering* and *Subdivision*.

If you wish to receive the information, please contact Telstra to have an account set up (if you do not already have one) and an invoice issued. The network information will be despatched to you upon receipt of payment.

For enquiries or to seek clarification please contact -

(please quote the DBYD job number or the DBYD Telstra sequence number)

Email - NI.Planservice@team.telstra.com

Phone - Plant Locations on 1800 653 935

Postal – Telstra Plan Services Locked Bag 3820 Brisbane Qld 4001