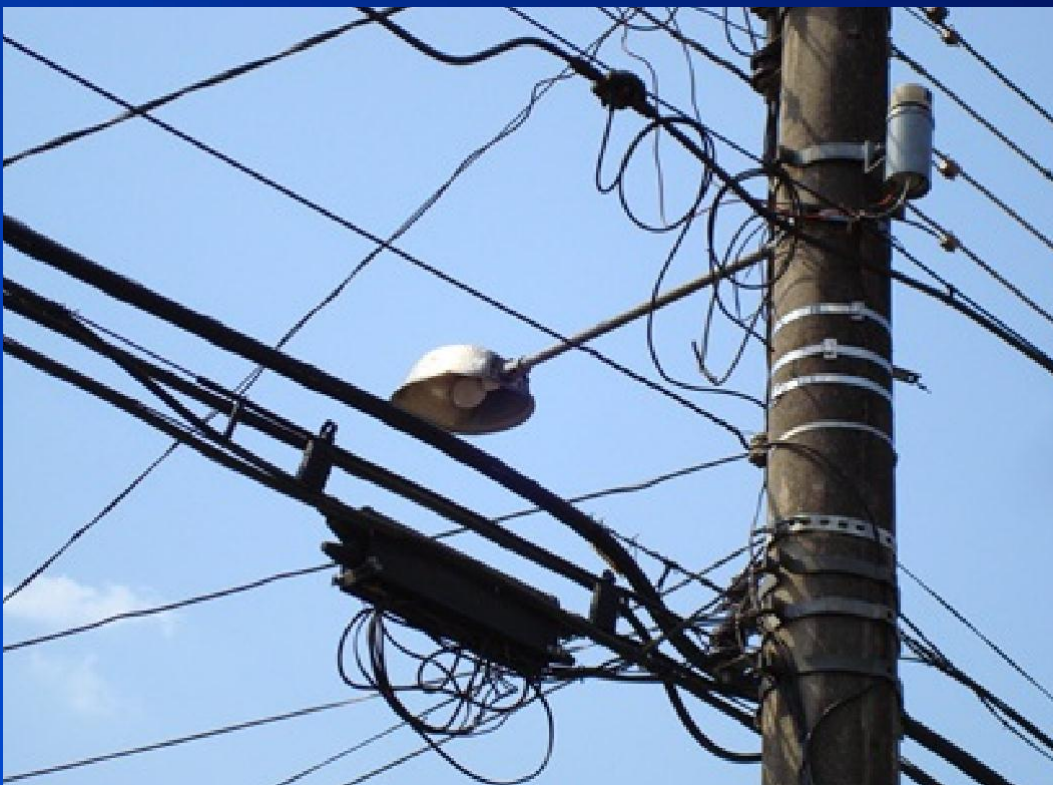


TOWNSON ROAD PRECINCT



TOWNSON ROAD PRECINCT LAND OWNER GROUP

TOWNSON ROAD PRECINCT

Townson Road Precinct Rezoning Application

Proposed Utilities Investigation

Author JPH

Checker SK

Approver GI

Report No AA005435-01

Date 12/12/123

Three handwritten signatures in blue ink are shown, each on a horizontal line. The first signature is at the top, the second is in the middle, and the third is at the bottom. The signatures are stylized and difficult to read.

This report has been prepared for Townson Road Precinct Land Owner Group in accordance with the terms and conditions of appointment for Townson Road Precinct dated 09/10/12. Hyder Consulting Pty Ltd (ABN 76 104 485 289) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

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1 EXECUTIVE SUMMARY

Hyder Consulting have been engaged by The Townson Road Precinct Land Owner Group, to provide civil infrastructure advice, with regard to the future utility provision, to support the land rezoning application of the Townson Road Precinct, for residential purposes.

Following a desk top study of the existing services in the vicinity of the site, undertaken during a Dial Before You Dig exercise, Hyder Consulting contacted the local utility providers for sewer, water, gas, electricity and communications. It is apparent from the findings of this consultation exercise that these utility providers can cater for the needs of the proposed development.

2 INTRODUCTION

The site currently has a General Rural zoning classification, within the Blacktown Local Government Area.

The proposed Application Site is located within the Bankstown Council administration district, and it is situated to the south east of the junction of Townson Road with Richmond Road. The primary frontage to the proposed site is located north of the site, from Townson Road. The site is bounded on the western site by the Bells Creek watercourse.

The Application Site is approximately 30 Ha in size, and is currently a Greenfield site, with some low intensity rural development. Please refer to Figure 1.0 of this Report for a location plan of the proposed Application Site.

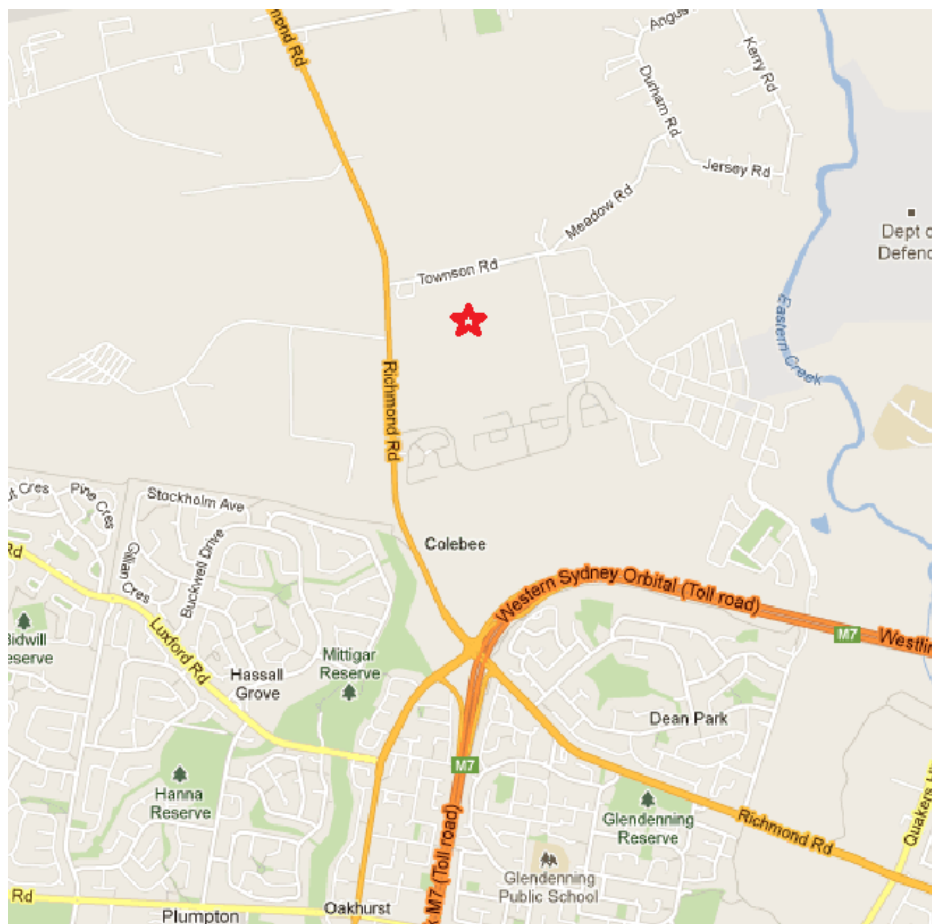


Figure 1 – Proposed Application Site Location Plan (Source: Google Maps)

Land directly to the south of the development site, has recently been granted approval at the Development Application (DA) stage, to construct approximately 300 residential lots. Other recent residential developments adjacent to the development site include the Stonecutters Ridge development, located to the south east of the site. Directly south of the Application Site, lies the Hassall Grove residential development in Colebee.

It is anticipated that the development site could eventually cater for approximately 420 residential units. Please refer to Figure 2.0 for an indicative layout of the proposed development master plan.



Figure 2 – Indicative Proposed Development Master Plan

This report details the investigation of existing utilities in the vicinity of the development site, the likely points of future connection to the utilities and associated potential utility infrastructure reinforcement.

The basis for the investigation of the existing utilities in the vicinity of the site was a 'Dial Before You Dig' (DBYD) enquiry that was undertaken on the 3rd of November 2012. Figure 3.0 depicts the area subject to the DBYD enquiry.

The following utility service providers were identified as having an interest in the DBYD enquiry area:

- Endeavour Energy (Formerly Integral);
- Jemena Gas West;
- Optus and / or Ucomm;

- Road & Maritime Services (RMS);
- Sydney Water,
- Telstra NSW, Central; and
- Westlink Motorway Ltd
- Savcor Art Ltd,
- Savcor Caltex

Please refer to Appendix A of this Report for a copy of the existing utility plans obtained during the DBYD process.

It is understood that future improvements will be undertaken to the Roads and Maritime Services, as part of the proposed reconstruction and intersection works to Richmond Road. These works will include the provision of new utility infrastructure. Design drawings outlining the public utility coordination have been undertaken by J. Wyndham Prince Consultants.

Please refer to Appendix B of this Report for a copy of these design drawings, which outline the proposed, existing and realigned services, proposed as part of the Richmond Road reconstruction works.

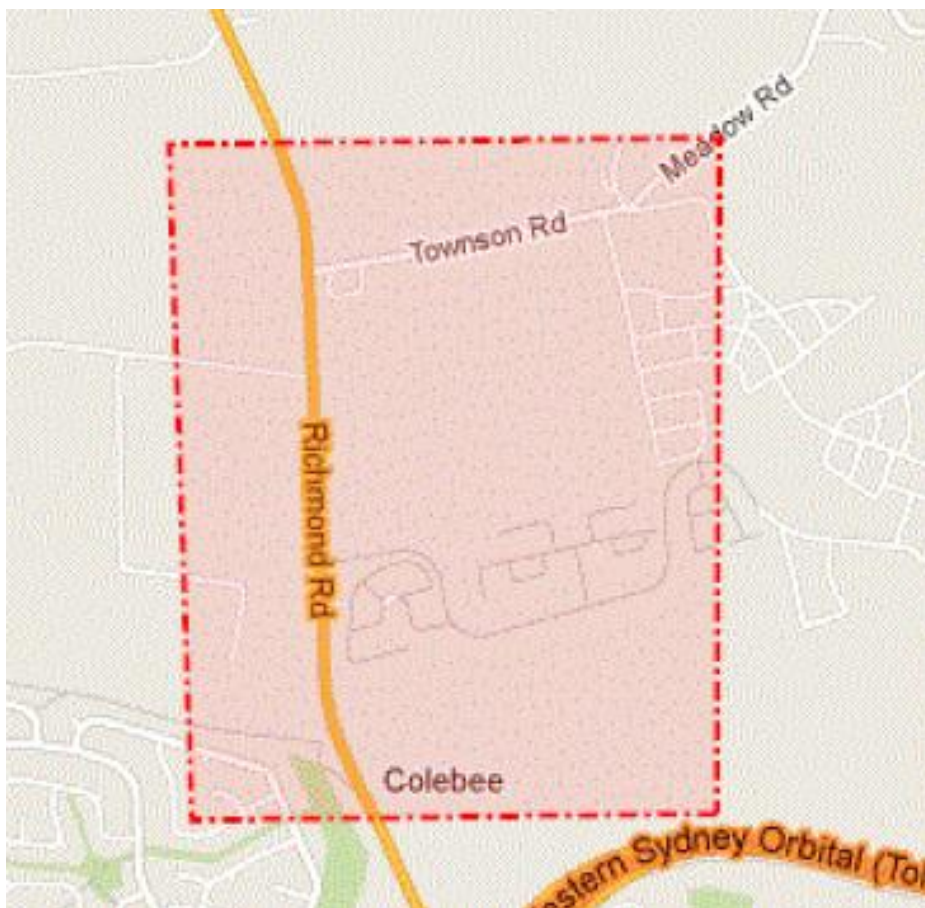


Figure 3 - Dial Before You Dig Search Area Plan

A second search was undertaken on the 6th of November 2012, to gather information on existing infrastructure, likely to provide utility connections to service the Application Site. Please refer to Figure 4.0, for a plan of this second search area.

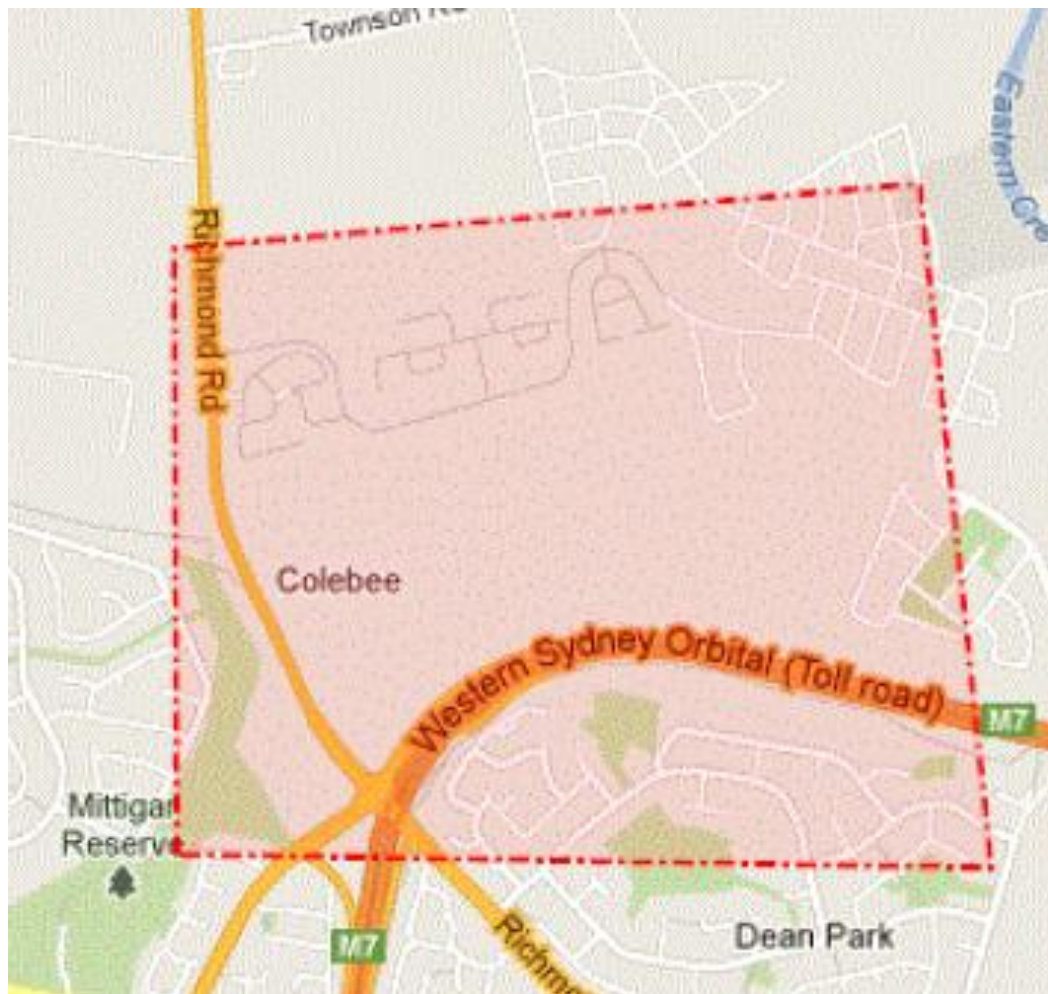


Figure 4 – Dial Before You Dig Search Area Plan B

The service providers for water, sewer, gas, electricity and telecommunications identified within the DBYD search, were contacted by Hyder Consulting, for the purpose of confirming future capacity to facilitate the development site, by the respective utility provider.

Please refer to Appendix C of this Report for a copy of correspondence undertaken, during the investigative process.

Only certain utilities listed during the DBYD search were deemed to be affected by the proposed works. These utilities relate to sewer, water, gas, electricity and communications. Only utility providers of these services were contacted by Hyder Consulting.

3 EXISTING UTILITY INFRASTRUCTURE

3.1 SEWER

Public sanitary drainage infrastructure in the vicinity of the development site is owned and operated by Sydney Water.

A review of the DBYD information suggests that there is no existing public sanitary drainage located within the Application Site boundary. The nearest infrastructure is located to the south and to the south east of the Application Site.

A 900mm gravity sewer is located approximately 510m, directly south of the Application Site that serves the residential developments in Colebee. This sewer drains to an existing pump station (Ref: SP 0391), whereby, it is pumped via a 450mm rising main, located in Richmond Road.

Sanitary drainage from this pump station is conveyed to the sewerage treatment plant (STP) in Quakers Hill, for treatment.

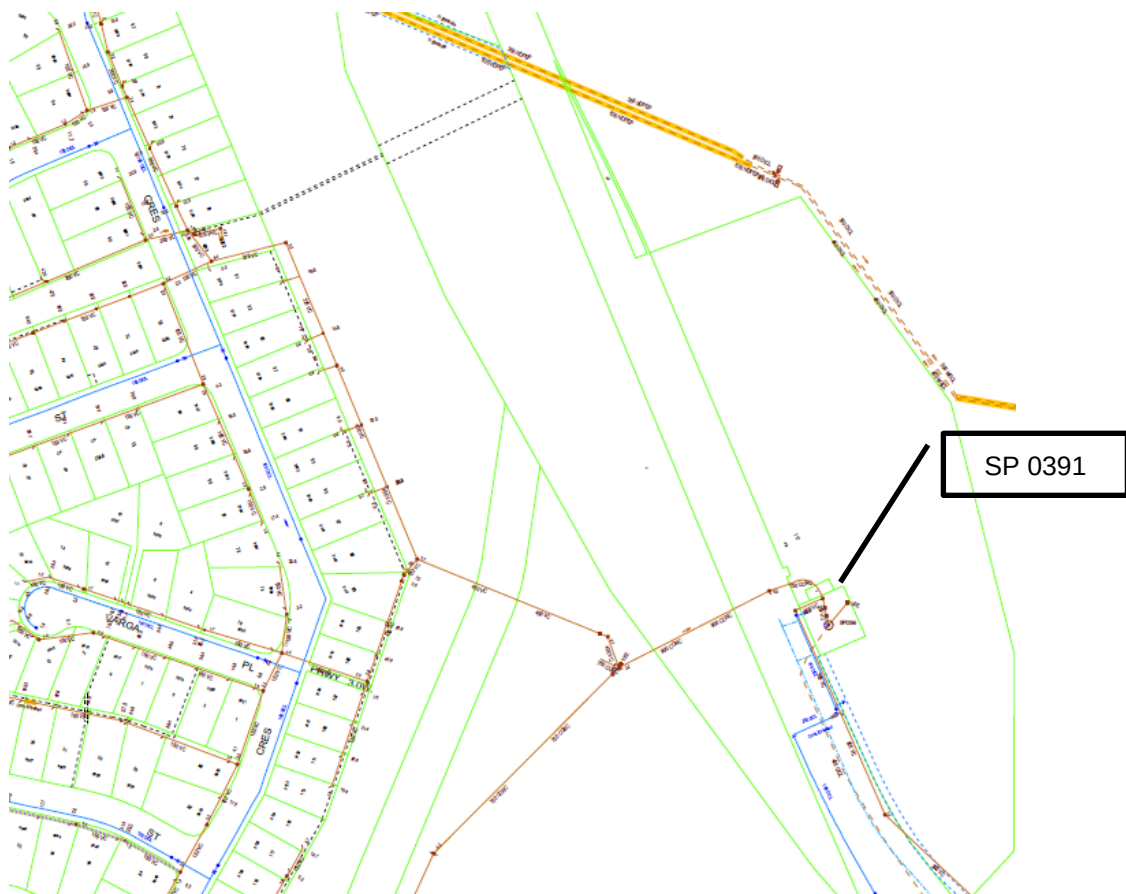


Figure 5 – Location of Pump Station SP 0391

The additional sanitary infrastructure is located within the Stonecutters Ridge residential development, which is located approximately 230m, to the south east of the Application Site. Sanitary drainage flows from this development are conveyed via a 375mm gravity sewer to an existing pump station (Ref: SP1152). A 150mm rising main conveys flows to the Quakers Hill STP.

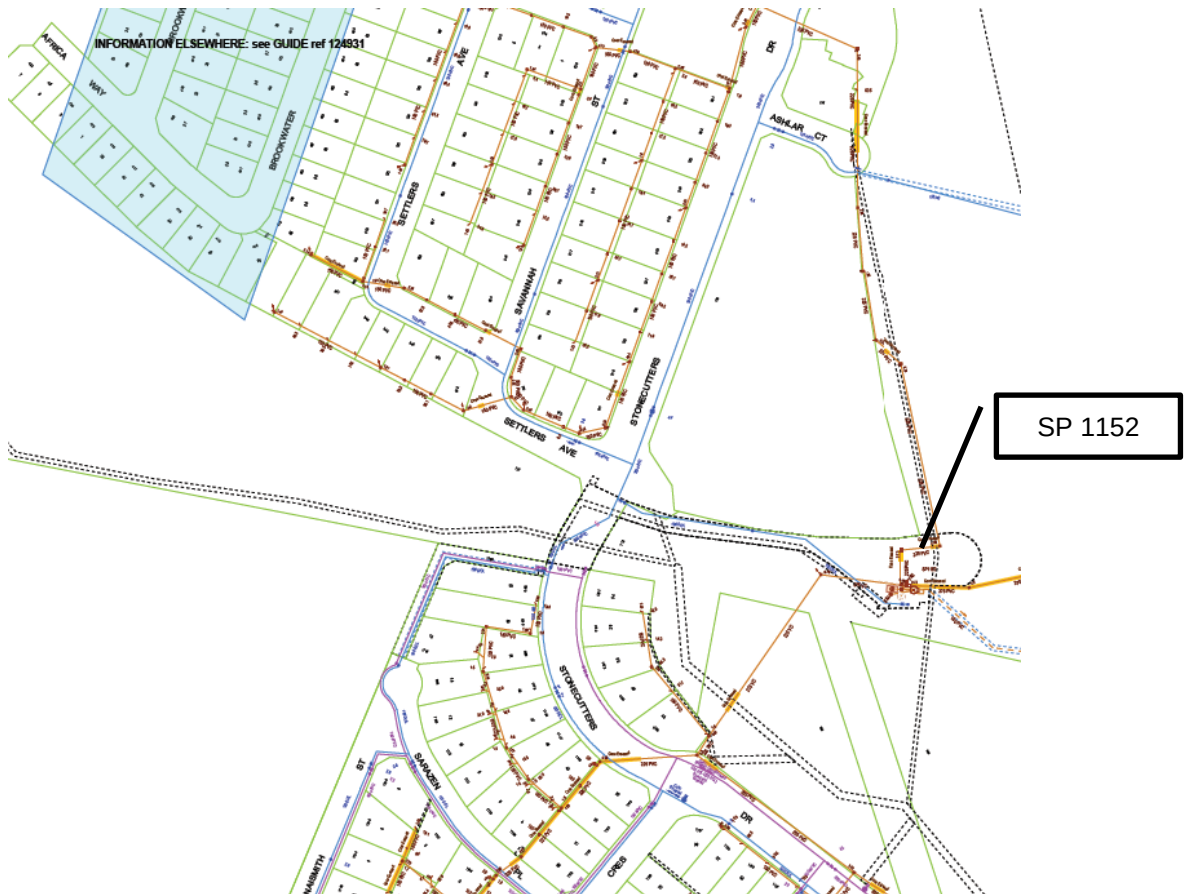


Figure 6 – Location of Pump Station SP 1152

The current concept sewer proposal for the redevelopment of the Application Site, is to service lots through gravity systems, draining to a low point within the Application Site. From here, sanitary drainage would be pumped via a newly constructed pump station and rising main.

Any future sewer pump station will be subject to approval and requirements of Sydney Water.

The concept design envisages the proposed rising main, connecting into a newly constructed pit, located to the south-east of the site, within a newly constructed subdivision roadway. From this pit, sanitary drainage would flow by gravity to the existing network, to the existing sewer pump station (SP1152), within the Stonecutters Ridge development.

Following written consultation between Hyder Consulting and Sydney Water, a formal written response was received from Sydney Water. Please refer to Appendix C for a copy of this response.

Sydney Water confirmed that their engineers have previously reviewed a preliminary assessment carried out by GHD, for providing wastewater services to the Application Site, and the site located directly to the south of the Application Site. This assessment was undertaken for a combined total of 816 lots.

Sydney Water confirmed that it is their understanding that it is technically possible to utilise capacity within the existing pump station at Stonecutters Ridge (SP1153), to service both sites. This will need future confirmation by MOUSE modelling, during any development application stage.

A copy of the correspondence undertaken between GHD and Legacy Property with Sydney Water can also be found in Appendix D. This correspondence confirms the response provided

to Hyder Consulting by Sydney Water, stating that there is sufficient capacity at the existing Stonecutters Ridge pump station, which has a spare capacity of approximately 32 L/s.

Sydney Water also confirmed that they will fund fair and reasonable costs, associated with the installation of major infrastructure and trunk assets that are built by developers. Where Sydney Water agrees to fund infrastructure, the developer must follow Sydney Water's procurement guidelines to deliver the infrastructure.

Therefore, the concept sewer design for the Application Site outlined above, should be in principle technically possible.

3.2 POTABLE WATER

Potable water infrastructure in the vicinity of the Application Site is owned and operated by Sydney Water.

A review of the DBYD information suggests that there is no existing public potable water infrastructure located within the Application Site boundary. The nearest infrastructure is located to the south and to the south east of the Application Site.

There is an existing 150mm diameter main located in Richmond Road, approximately 520m to the south of the Application Site. The recently developed Stonecutters Ridge residential development also contains a water mains system, containing a 375mm diameter water main. There is also an existing recycled water system located within the Stonecutters Ridge development.

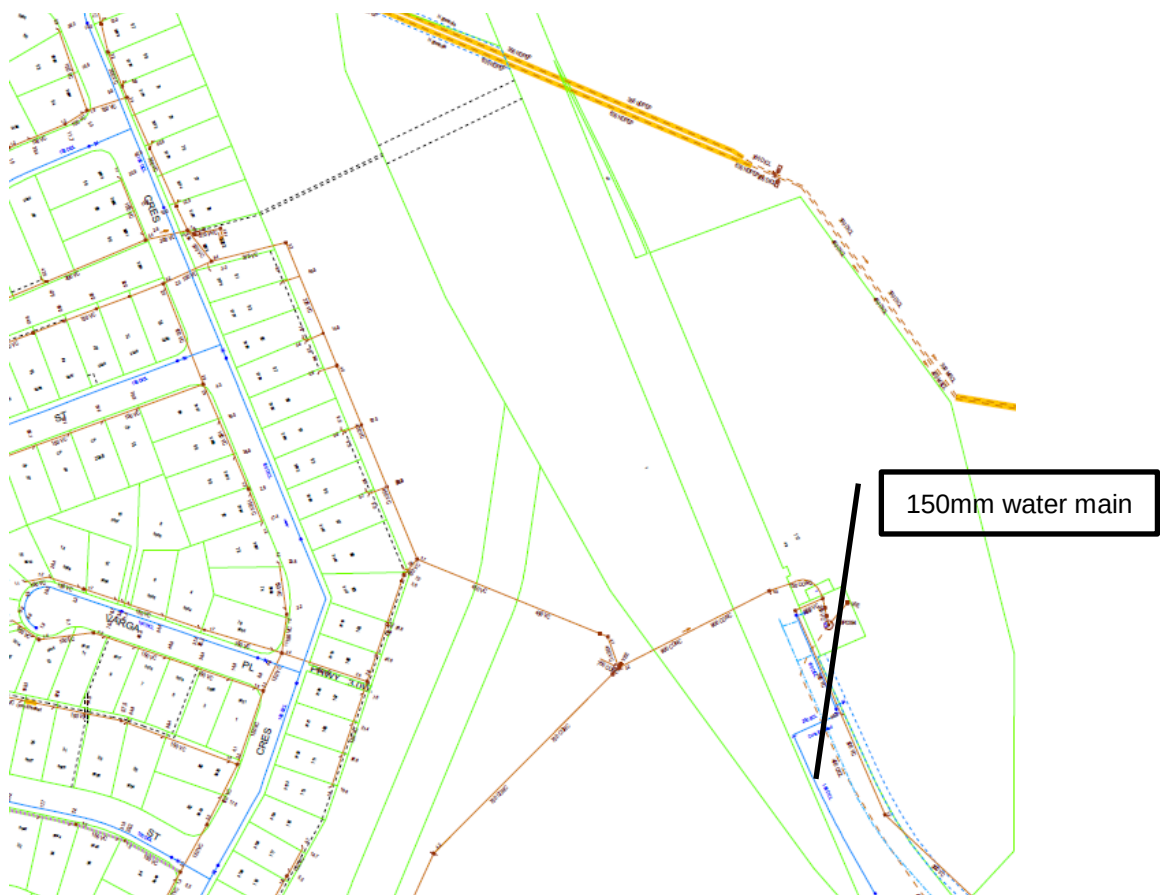


Figure 7 – Existing 150mm Water main located in Richmond Road

Hyder Consulting also understand that as part of the future Richmond Road reconstruction and intersection works, a new 450mm diameter water main will be constructed. These works are expected to be finished by early 2013. Please refer to Appendix B, for a copy of the public utility coordination design drawings, undertaken by J. Wyndham Prince Consultants, on behalf of the Roads & Maritime Services.

Please refer to Appendix D for a copy of the correspondence from GHD Consultants, which outlines the potential for water supply to be taken from the proposed 450mm diameter water main in Richmond Road. This water main is discussed as being an extension of the Minchinbury system.



Figure 8 – 375mm diameter water main located in Stonecutters Ridge development

Following written consultation between Hyder Consulting and Sydney Water, a formal written response was received from Sydney Water. Appendix C contains a copy of this response.

Sydney Water confirmed that their understanding is that there is sufficient capacity within the existing potable water network, to service both the Application Site and the site located to the south.

Sydney Water would not confirm where the likely point of future connection will be made and advised, that any connection point for potable water can only be investigated upon receipt of a feasibility application.

Sydney Water also stated that:

"It should be noted that if this site were to be developed separately from the one adjoining it below then you may need to negotiate a commercial agreement with Sydney Water. Under this agreement, the developer will be responsible for constructing the trunk infrastructure required to service the site to Sydney Water requirements."

Furthermore, Sydney Water confirmed that they did know if there was any future potential for a connection to the proposed 450mm diameter main, proposed as part of the Richmond Road works.

It was also confirmed that Sydney Water are not currently intending to expand their recycled water system in the area of the Application Site.

3.3 GAS

Gas infrastructure in the vicinity of the Application Site is owned and operated by Jemena.

A review of the DBYD information indicates that the presence of a 150mm diameter 1,050 kPa secondary gas main located along Richmond road and Townson Road. There does not appear to be any high pressure or transmission gas infrastructure located within the Application Site boundary.

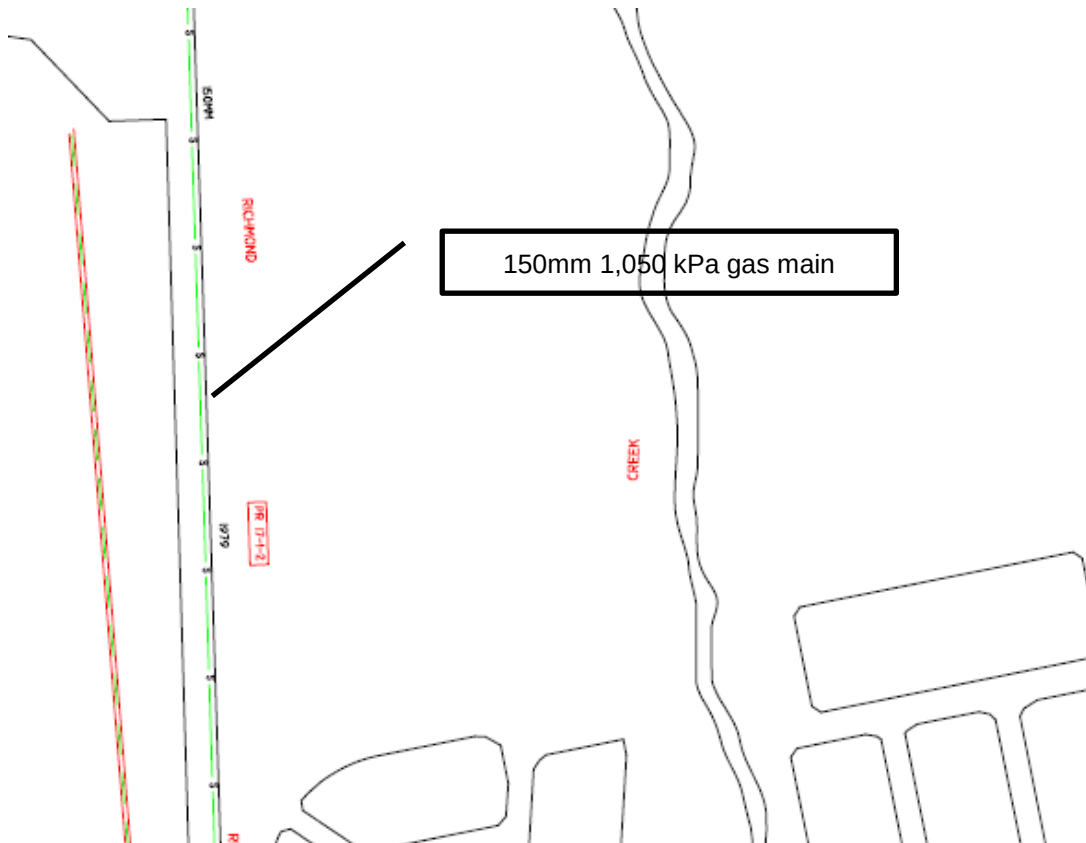


Figure 9 – Existing 150mm 1,050 kPa gas main in Richmond Road

Following written consultation between Hyder Consulting and Jemena, a formal written response was received. Please refer to Appendix C for a copy of this Jemena response.

Jemena has confirmed the presence of the 1,050 kPa gas main located within Richmond Road, and that there is sufficient capacity to service the proposed development. However, this network is not suitable for reticulation throughout a residential development, for individual house connections.

A Zone Pressure Reduction station will be required to allow a new low pressure public network to be reticulated, via a shared trench arrangement throughout the development.

Although capacity is currently available, Jemena does not reserve capacity for any individual development. A more detailed assessment will be required to assist Jemena, when the final lot layout is known.

Jemena are currently laying a new low pressure network within the Stonecutters Ridge development, which will terminate in Townson Road. Initial supply may be available from this site, which may prove advantageous.

New gas infrastructure is also proposed during the Richmond Road upgrade works. Please refer to Appendix B for a copy of these plans.

3.4 ELECTRICAL

Electrical infrastructure in the vicinity of the Application Site is owned and operated by Endeavour Energy.

A review of the DBYD information suggests that there is no existing public Endeavour Energy infrastructure located within the Application Site boundary.

Following written consultation between Hyder Consulting and Endeavour Energy, a formal written response was received. Please refer to Appendix C for a copy of this Endeavour Energy response.

Endeavour Energy has assessed the anticipated load required for the development of 420 lots to be in the order of 2.9MVA.

To cater for the total load of the entire development, a new feeder is required to be installed from the new Schofields zone sub (ZS) to suitable location between ABS 84024 and Pole Sub 79 along Carnarvon Road, which is located to the north-east of the Application Site. This infrastructure is identified on Figure 10 below.

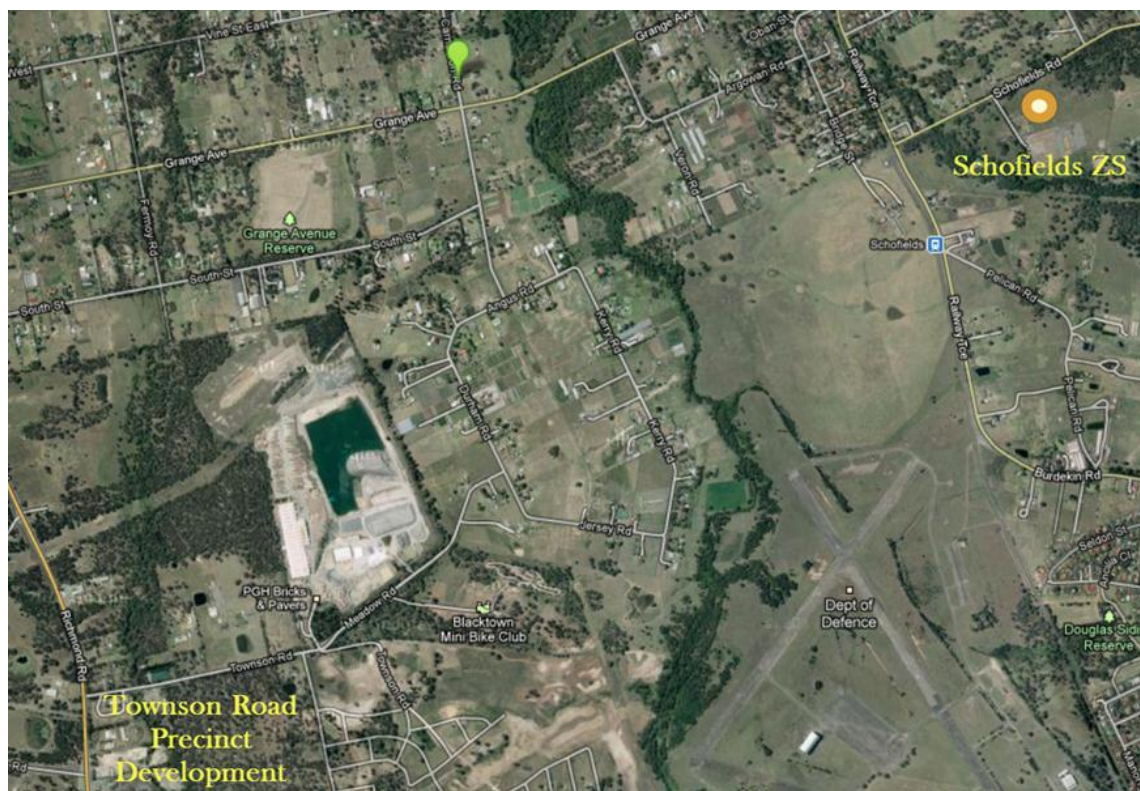


Figure 10 – Endeavour Energy Supply Plan

A copy of the correspondence undertaken between GHD Consultants and Legacy Property with Endeavour Energy can also be found in Appendix C.

This correspondence states that there is currently limited capacity, as the existing 11kV network would only be capable of supplying approximately 10 lots of the proposed development, without further feeder development from the Schofields ZS.

An alternative to supply from Schofields is supply from Quakers Hill, at the time of finalising this report there have been ongoing discussions that will likely result in Quakers Hill being the preferred power source.

3.5 COMMUNICATIONS

Communication infrastructure in the vicinity of the Application Site is owned and operated by Telstra and Optus and / or Ucomm.

Telstra infrastructure is located within the road reserve of Townson road and Richmond Road.

Telstra owned above ground and below ground infrastructure is located along Richmond Road and Townson Road, with optical fibre infrastructure located within a buried trench along Townson Road.

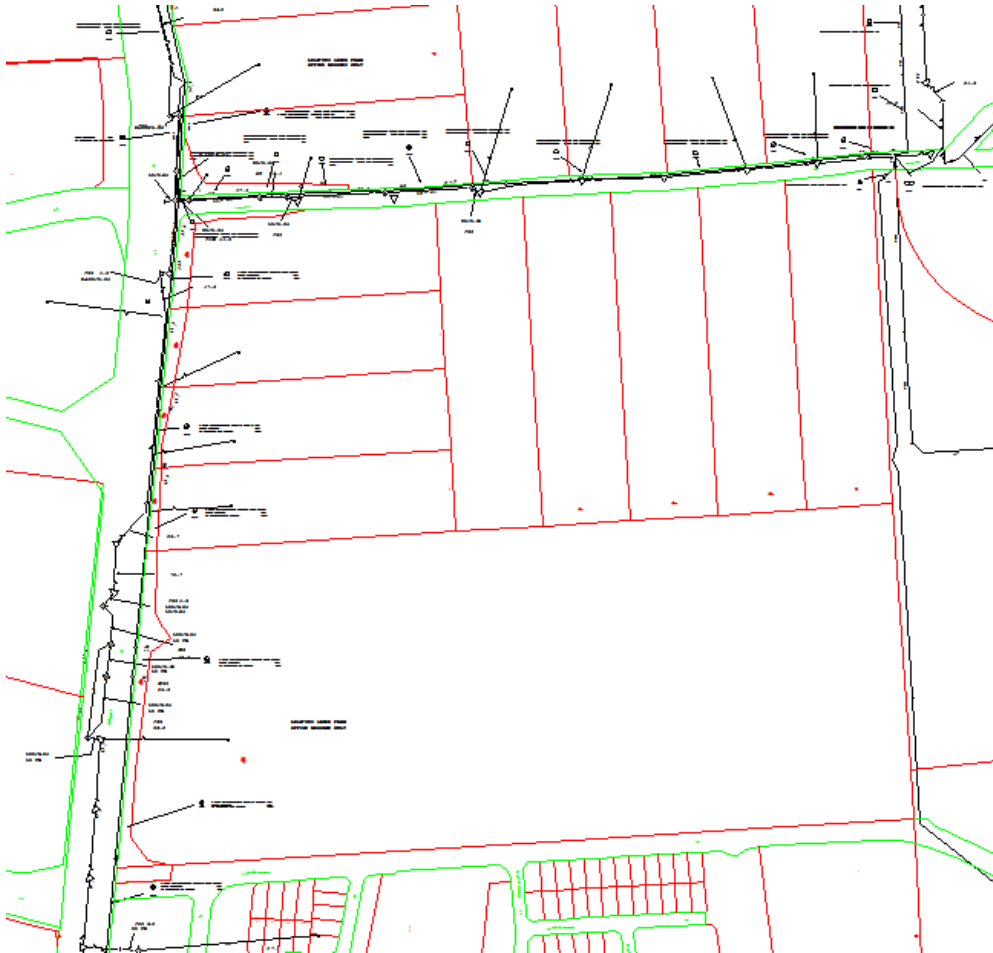


Figure 11 – Existing Telstra Infrastructure along Richmond Road & Townson Road

Optus also own fibre optic below ground communication infrastructure, along Richmond Road.

The public utility coordination drawings contained in Appendix B, also outline proposals for new Telstra and Optus above ground, below ground and fibre optic services, within Richmond Road, along with diversions to existing plant.

The presence of optical fibre infrastructure in the vicinity of the Application Site, would suggest that broadband infrastructure is available in the area. Telstra are likely to require a detailed assessment prior to determining any service strategy, to the Application Site. Other providers are also likely to be capable of providing this service.

The National Broadband Network Company was consulted with regard to future service to the site. At this point, no response has been received.

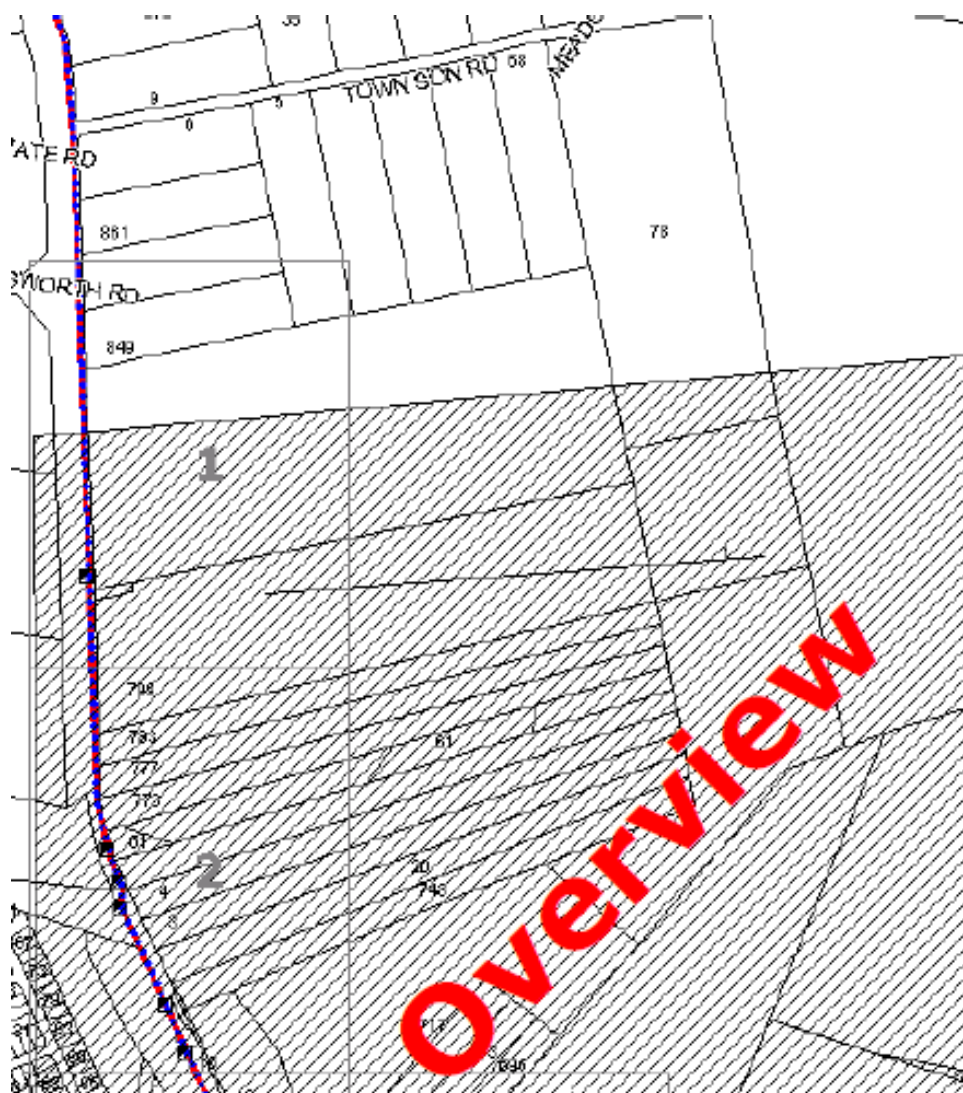


Figure 12 – Existing Optus infrastructure along Richmond Road

APPENDIX A – DIAL BEFORE YOU DIG CORRESPONDANCE

APPENDIX A1 – SYDNEY WATER

Guide to reading Sydney Water DBYD Plans

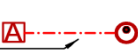


Legend

Sewer

Sewer Main (with flow arrow & size type text)	
Disused Main	
Rising Main	
Maintenance Hole (with upstream depth to invert)	
Maintenance Hole with Overflow	
Ventshaft EDUCT	
Ventshaft INDUCT	
Property Connection Point (with chainage to downstream MH)	
Concrete Encased Section	
Terminal Maintenance Shaft	
Maintenance Shaft	
Rodding Point	
Lamphole	
Vertical	
Pumping Station	

Pressure Sewer

Pressure Sewer Main	
Pump Unit (Alarm, Electrical Cable, Pump Unit)	
Property Valve Boundary Assembly	
Stop Valve	
Reducer / Taper	
Flushing Point	

Vacuum Sewer

Pressure Sewer Main	
Division Valve	
Vacuum Chamber	
Clean Out Point	

Stormwater

Stormwater Pipe	
Stormwater Channel	
Stormwater Gully	
Stormwater Maintenance Hole	

Property Details

Boundary Line	
Easement Line	
House Number	
Lot Number	
Information elsewhere see Guide ref 12345 (Work-As-Executed plan available via website)	
Proposed Land	
Sydney Water Heritage Site (please call 132 092 and ask for the Heritage Unit)	

Water

WaterMain - Potable (with size type text)	
Disconnected Main - Potable	
Proposed Main - Potable	
Water Main - Recycled	
Special Supply Conditions - Potable	
Special Supply Conditions - Recycled	
Restrained Joints - Potable	
Restrained Joints - Recycled	
Hydrant	
Maintenance Hole	
Stop Valve	
Stop Valve with By-pass	
Stop Valve with Tapers	
Closed Stop Valve	
Air Valve	
Valve	
Scour	
Reducer / Taper	
Vertical Bends	
Reservoir	
Recycled Water is shown as per Potable above. Colour as indicated	

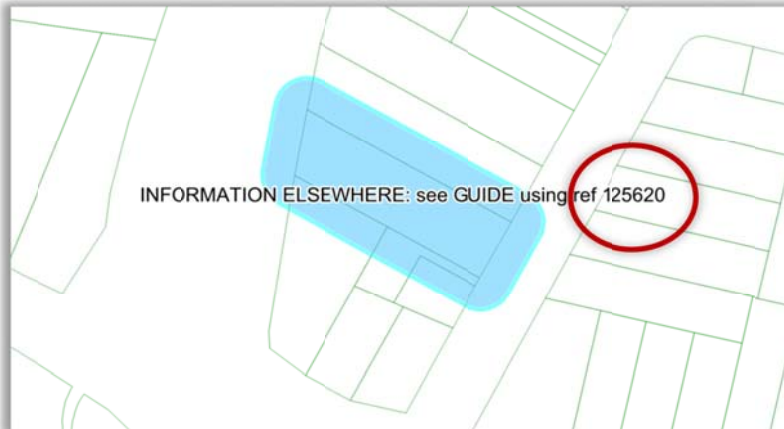
Private Mains

Potable Water Main	
Recycled Water Main	
Sewer Main	
Symbols for Private Mains shown grey	

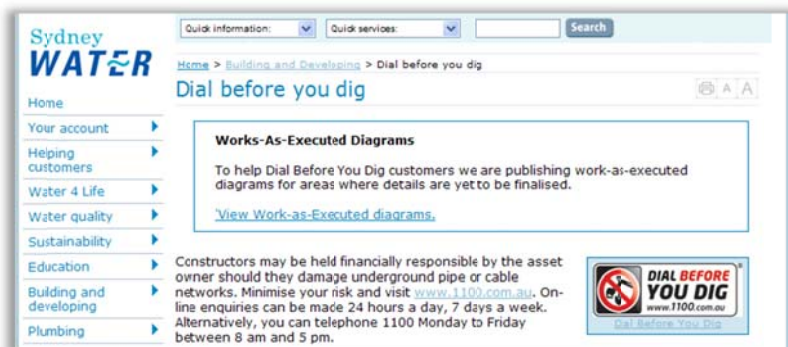
Work-As-Executed Diagrams

There may be areas where underground assets have been constructed although details are not yet displayed on our plans. To assist our customers, Sydney Water is publishing Work-As-Executed diagrams for these areas on our website.

If a blue shaded area is displayed on your plan from Sydney Water please follow the below steps to obtain a diagram

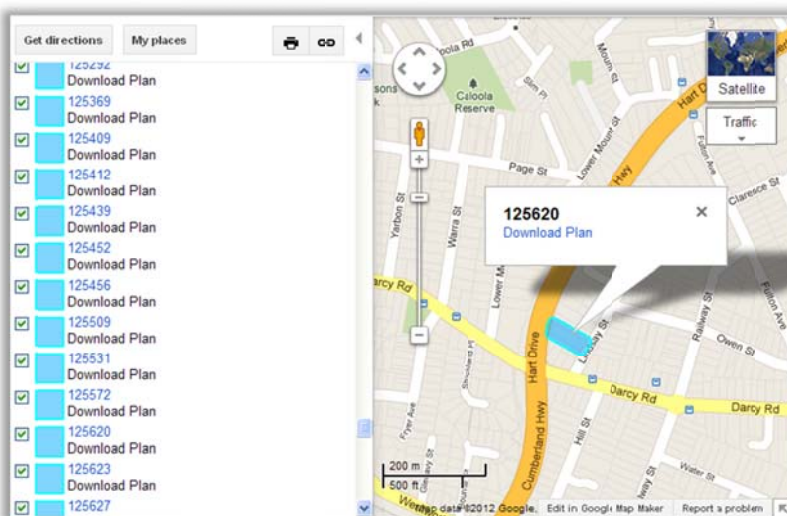


1 Find the reference number quoted on your plan



2 Go to the DBYD page on the Sydney Water website at
www.sydneywater.com.au/BuildingDeveloping/DialBeforeYouDig/

Click on the **View Works as Executed diagrams** link.



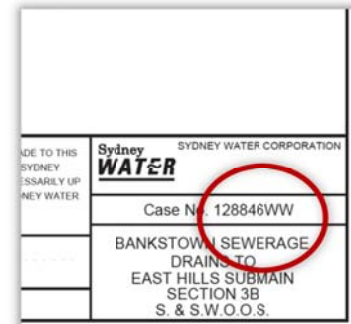
3 Use Google Maps to find the area you requested and click to download the plan.

The term Work-As-Executed is used for convenience only and does not constitute a representation regarding the information contained in the diagram. Please refer to the Sydney Water DBYD disclaimer document.

Understanding the Works-As-Executed Diagrams

To find out if the information in the Works-as-Executed Diagram refers to Potable Water, Waste Water or Recycled Water assets, look at the lower right corner of the diagram. The diagram number will have a suffix that describes the asset type.

WW	Waste Water
PW	Potable Water
RW	Recycled Water



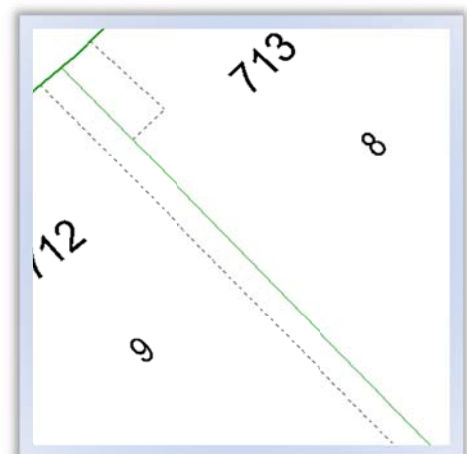
Proposed Land

In some cases proposed property boundaries (proposed land) are shown for indicative purposes and to provide additional context in Sydney Water DBYD plans.



Easements

Easements are defined as a legal right to use land that is owned by another person. Easements are shown as a broken black line. They are generally shown within land boundaries.



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

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	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 Sydney Water website (www.sydneywater.com.au/buildingdeveloping/dailbeforeyoudig/) for detailed information regarding:

- Guidelines for building over mains and assets
- Damaging mains and assets
- Building clearance between other utilities assets
- Main depths
- Pipe locator information

For all other enquiries please call the Customer Contact Centre on 132 092

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)

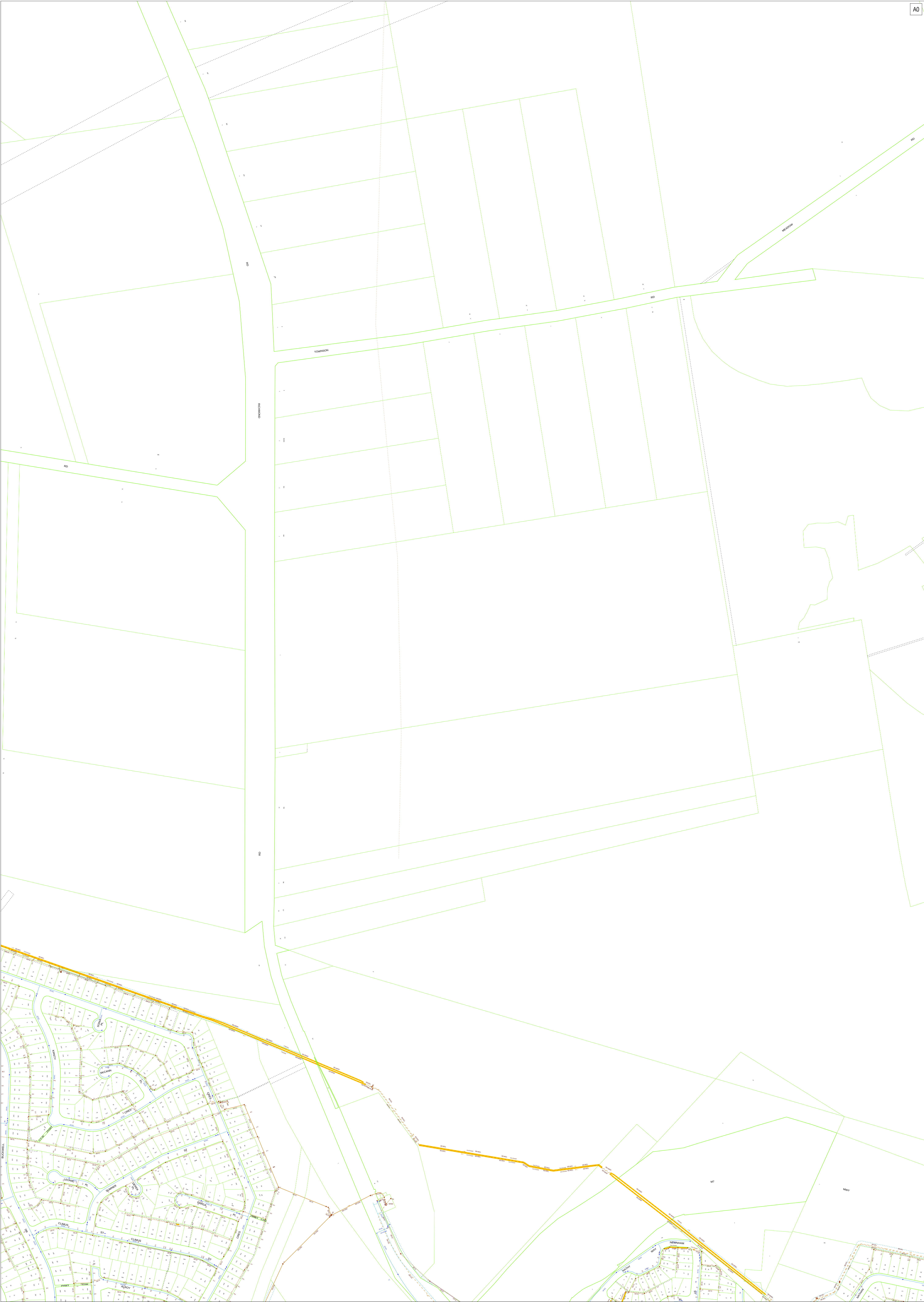
Further information and guidance is available in the Building Development and Plumbing section of Sydney Water's website at www.sydneywater.com.au, where you will find the following documents under 'Dial Before You Dig':

- 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

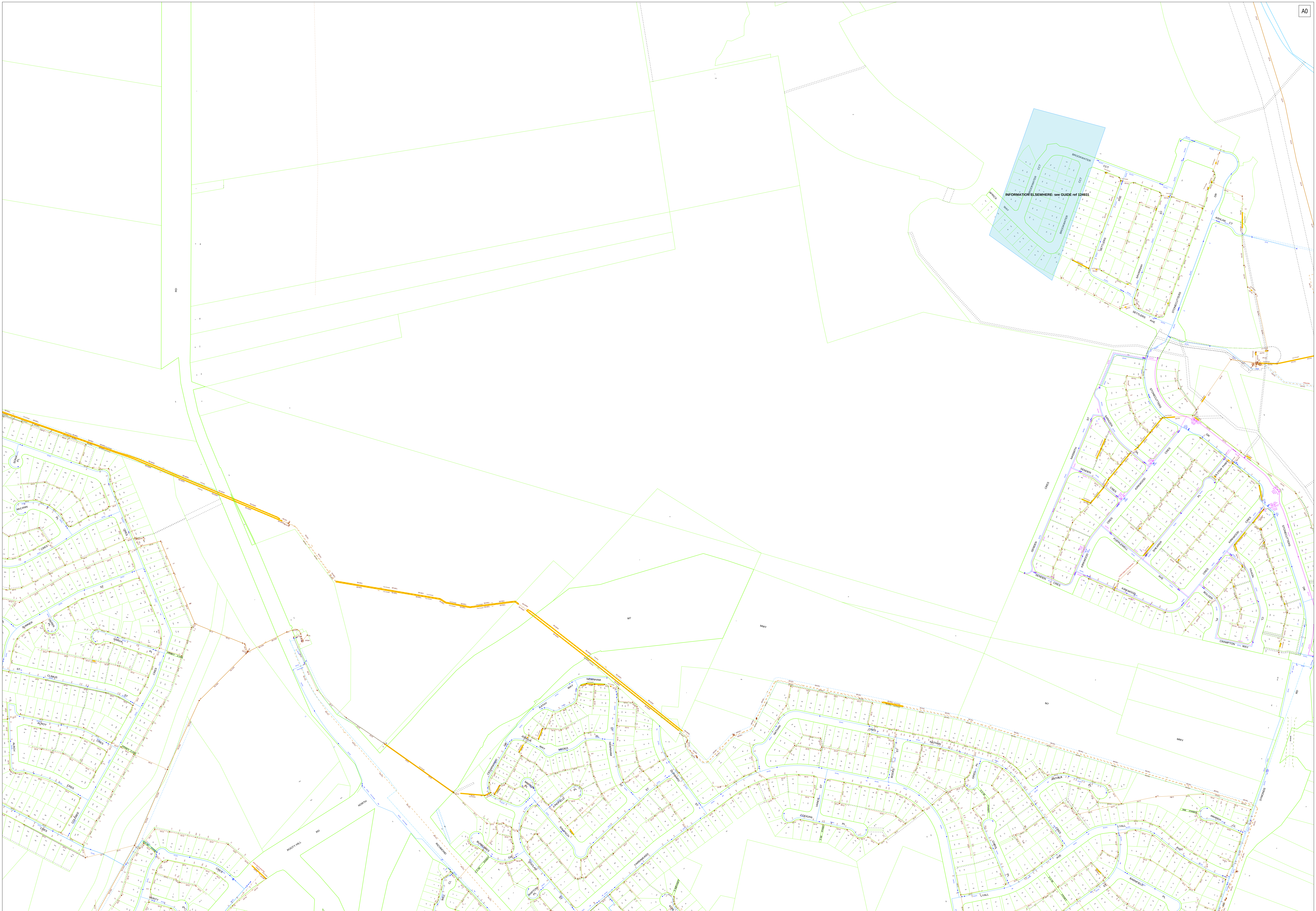
Or call **13 20 92** for Customer Enquires.

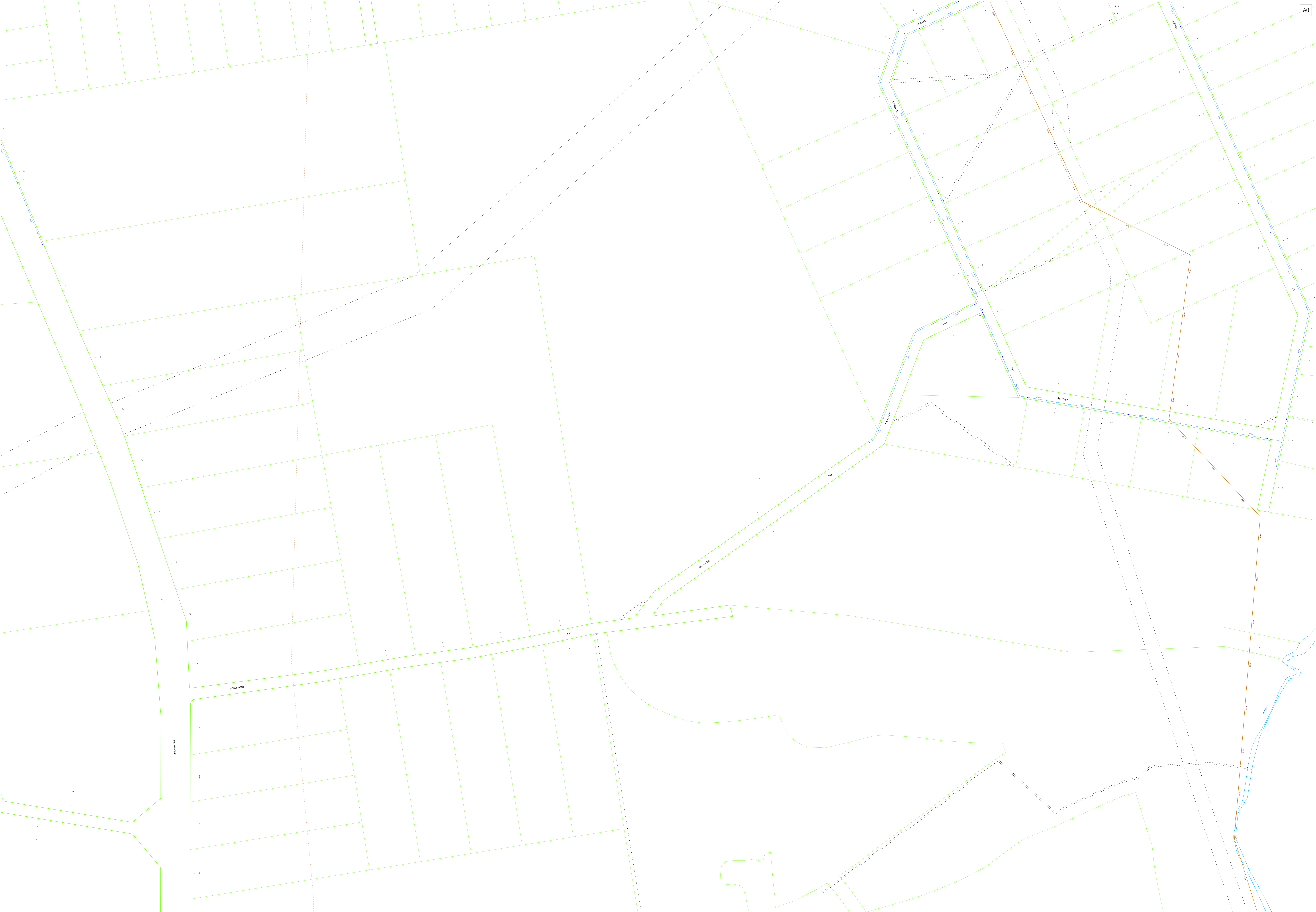
Note: The lodging of enquiries via www.1100.com.au will enable you to receive colour plans in PDF format 24 hours a day, 7 days a week via email.

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.









APPENDIX A2 – ENDEAVOUR ENERGY

Head Office: 51 Huntingwood Drive Huntingwood NSW 2148

ENDEAVOUR ENERGY

DBYD Underground Search Report

Date: 02/11/2012

DBYD Sequence No: 26908895

DBYD Job No: 5872274

To:	Mr Joe Heydon	Company:	Hyder Consulting
Address:	Level 5 141 Walker Street, North Sydney, NSW 2060		
Cust. ID:	1147925	Email:	joe.heydon@hyderconsulting.com
Phone:	0289079149	Mobile:	0468745425
		Fax:	Not Supplied
Enquiry Location: 799 Richmond Rd, Colebee, NSW 2761			

Our Search has shown that:

UNDERGROUND CABLES ARE PRESENT on our plans within the nominated enquiry location. This search is based on the graphical position of the excavation site as denoted in the DBYD customer confirmation sheet.

In conjunction with the disclaimer as shown on our plan, persons are expected to exercise all due care especially in the vicinity of Padmount and Pole Substation, Transmission Poles and Towers as Underground Earth Grids may exist but are not shown on our plans.

WARNING:

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.

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'S ASSETS IMMEDIATELY BY CALLING 131003.

NOTE:

For the safety of our customers, plans are provided as a free service and if further clarification of information is required, call 02 9853 4161.

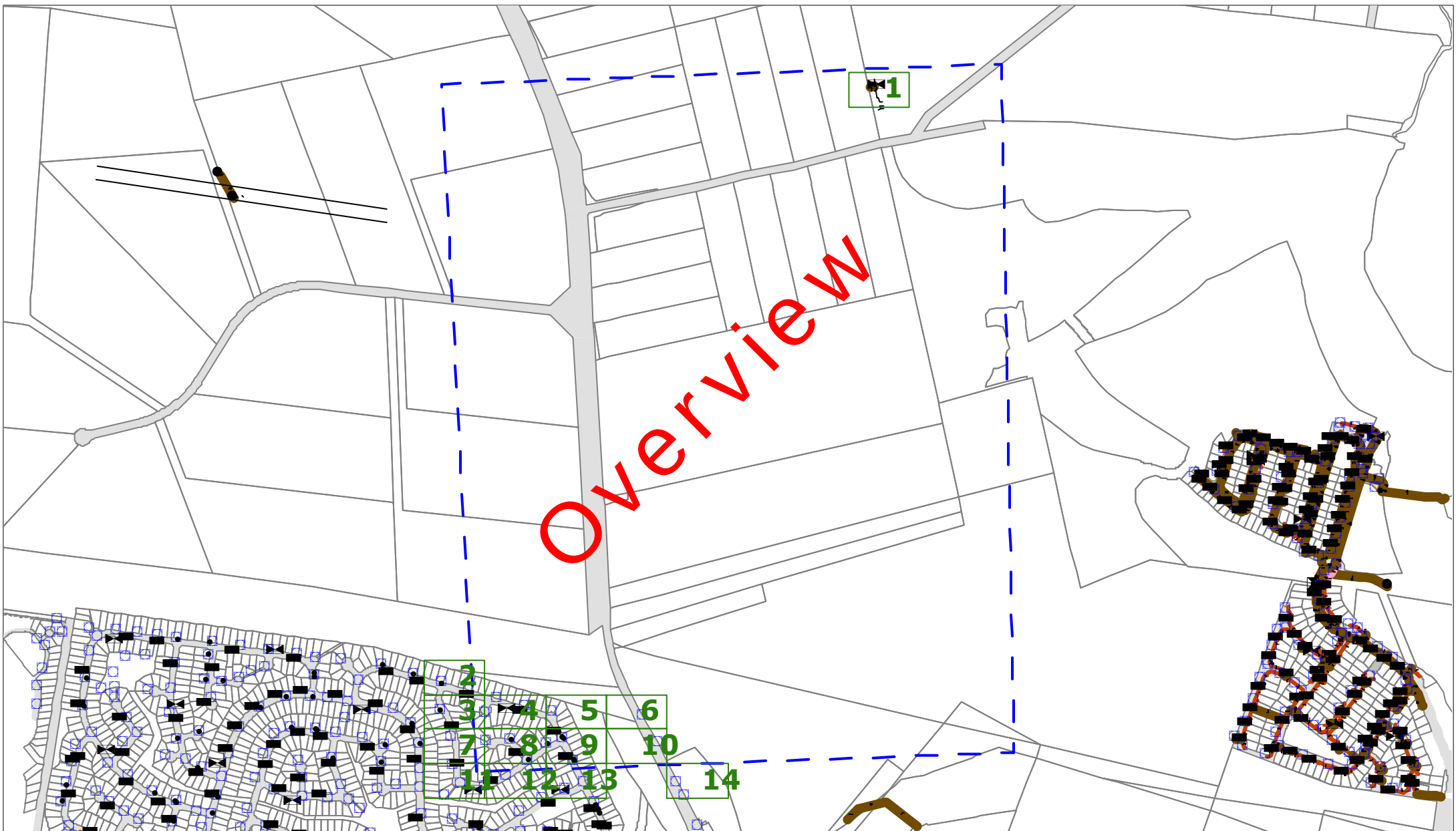
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All plans must be printed and made available at the worksite where excavation is to be undertaken. These plans must be reviewed and understood by the crew on site prior to excavation commencing.

The excavator must carry out work in accordance with the WorkCover Authority's 'Work Near Underground Asset Guideline'. This guideline can be downloading at http://www.workcover.nsw.gov.au/formspublications/publications/Pages/WC01419_WorkNearUndergroundAssets.aspx

If you are unable to print the plans, call 02 9853 4161 for assistance and arrange for plans to be collected from Head Office. Endeavour Energy does not mail the hard copy of plans.

Endeavour Energy thanks you for your assistance in the protection of Critical Infrastructure and your DBYD enquiry



ENDEAVOUR ENERGY WARNING

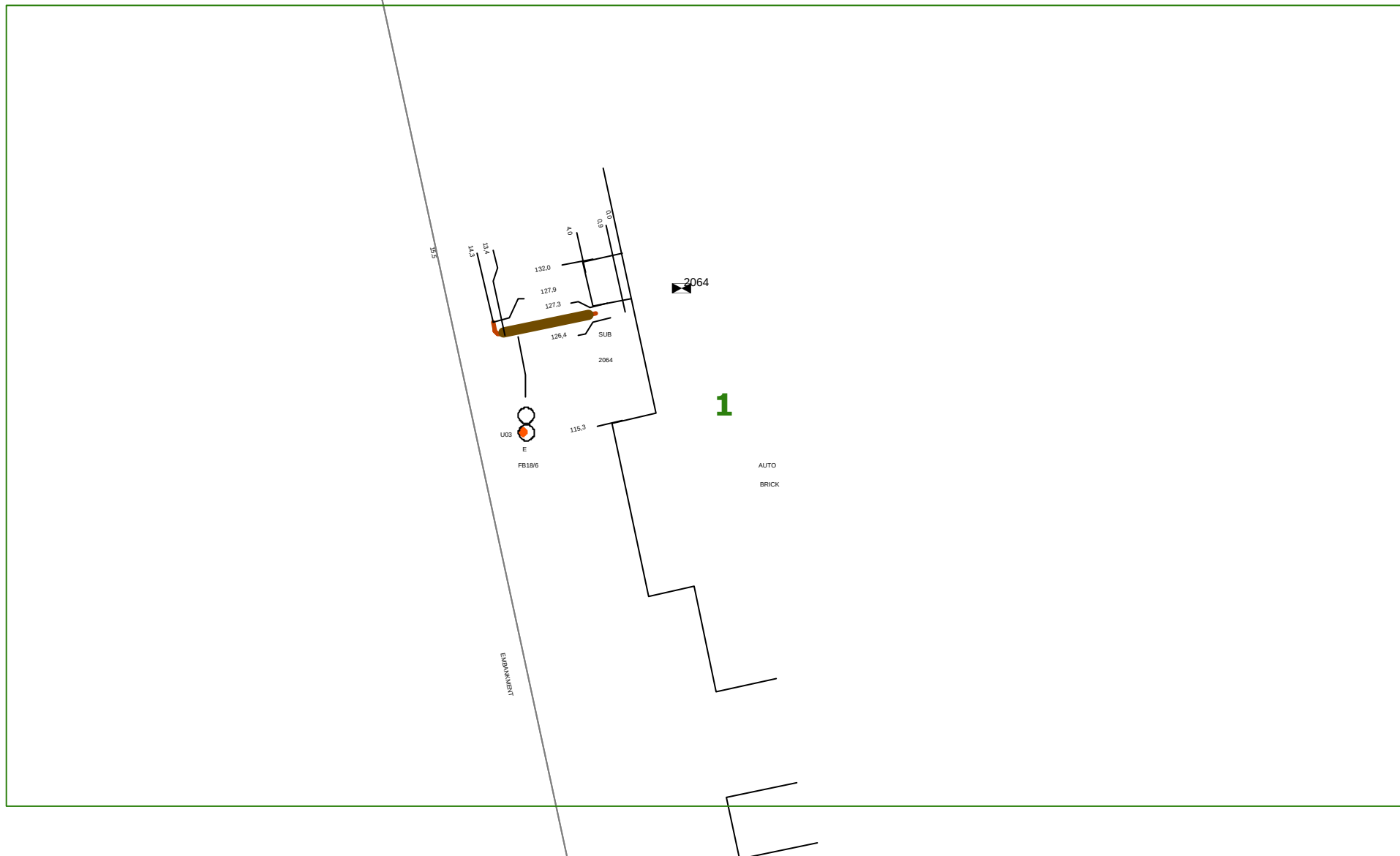
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DO NOT SCALE

DBYD Sequence Number:	26908895
Issued Date:	02/11/2012



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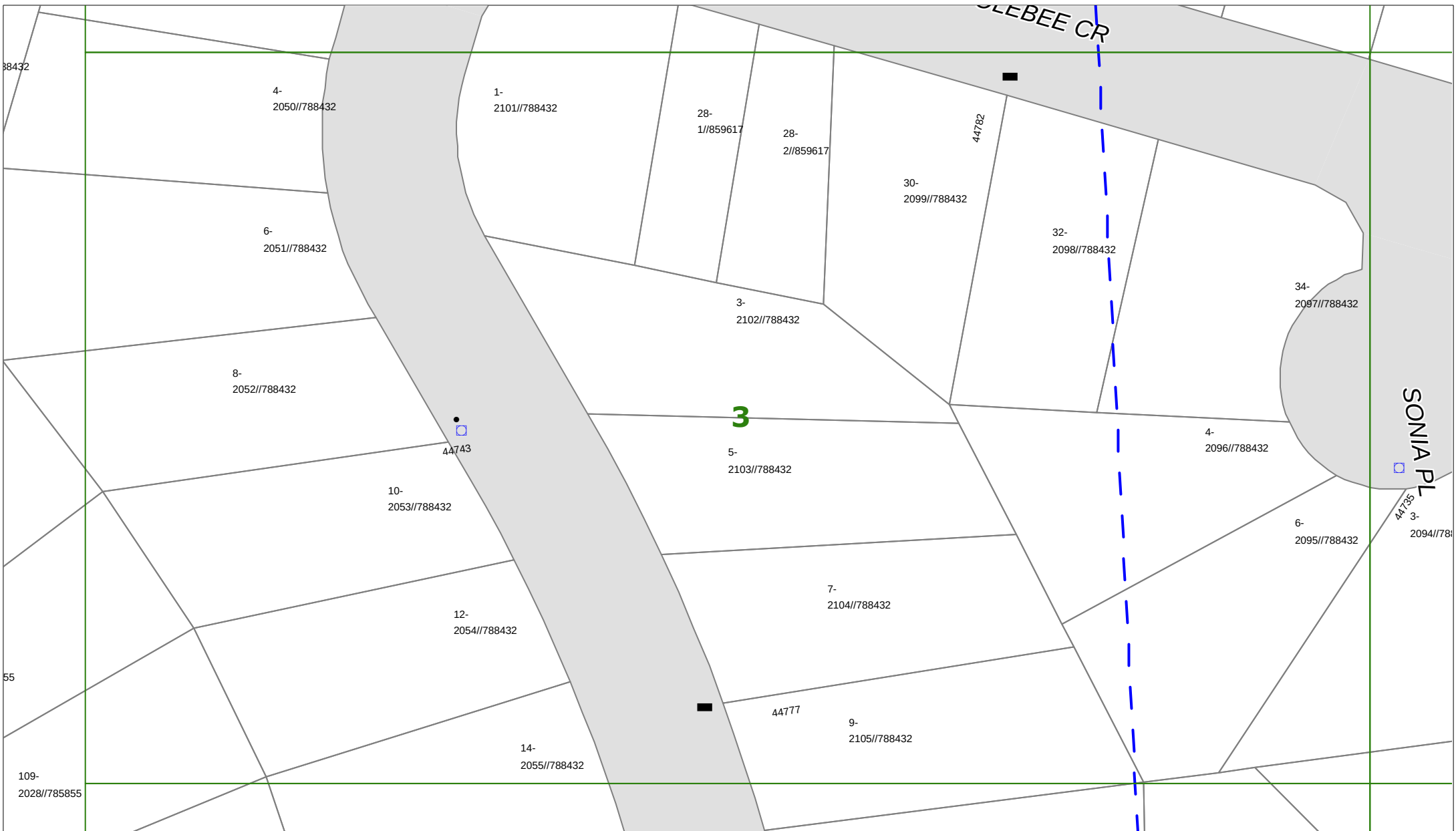
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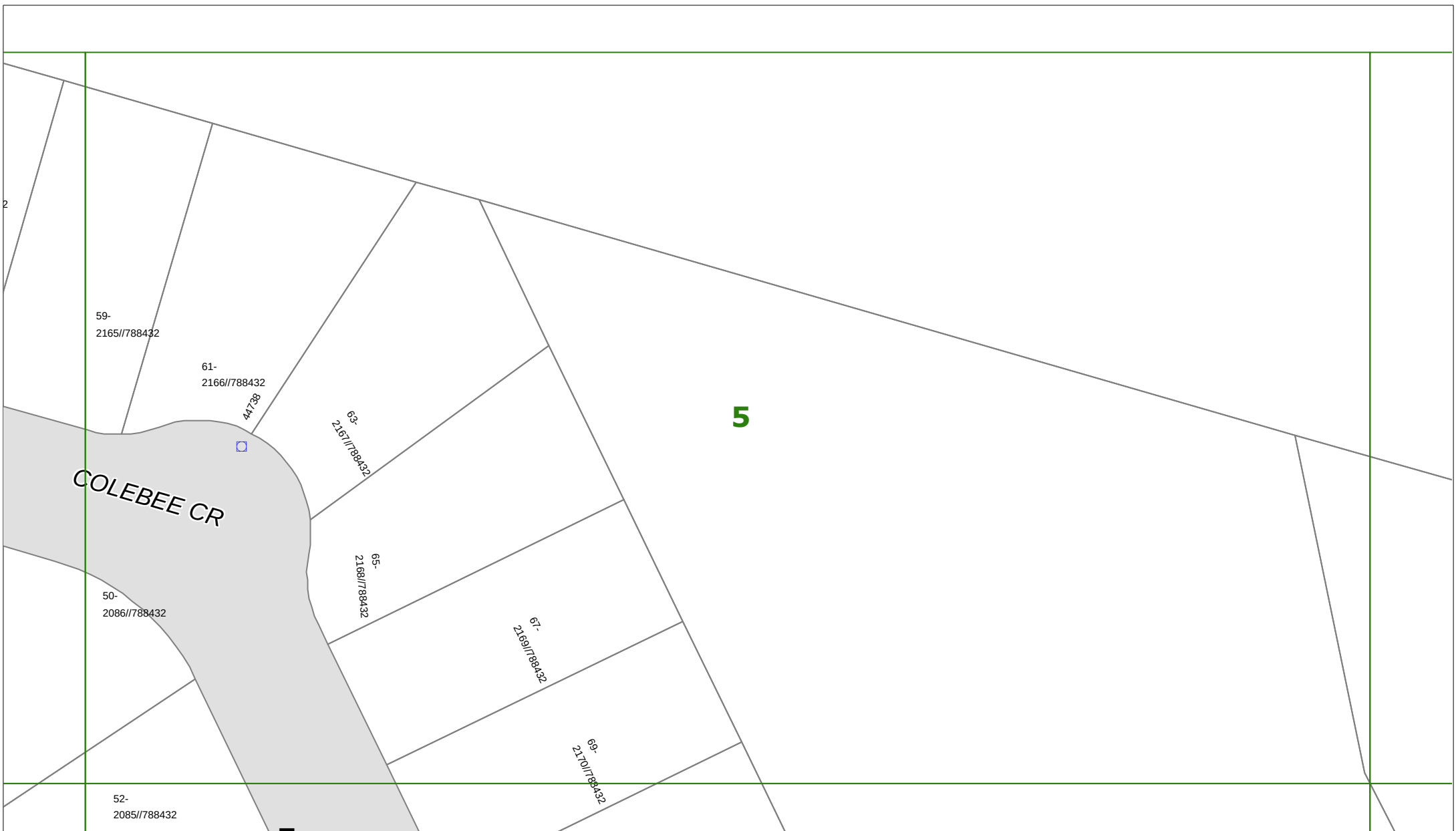
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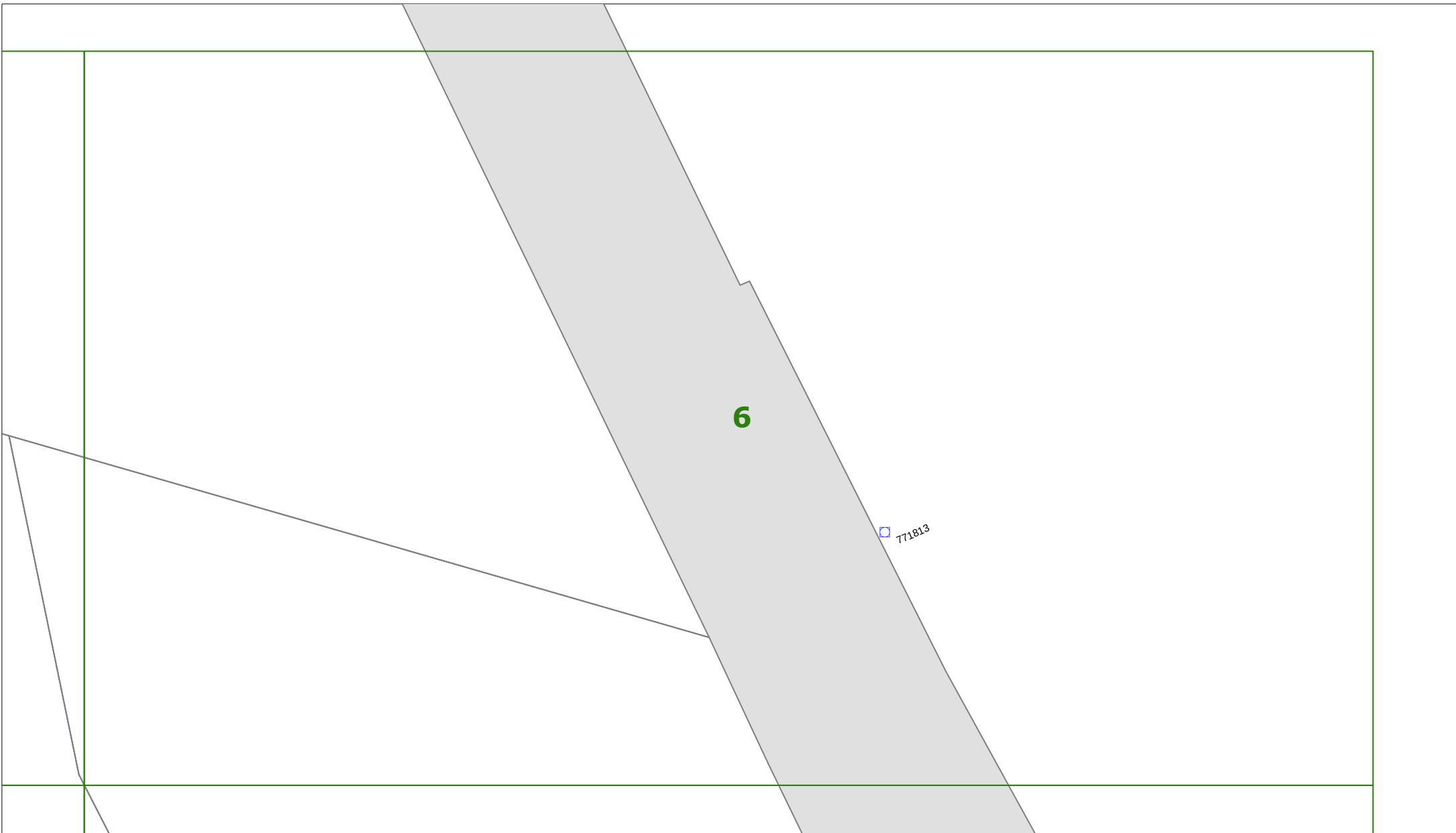
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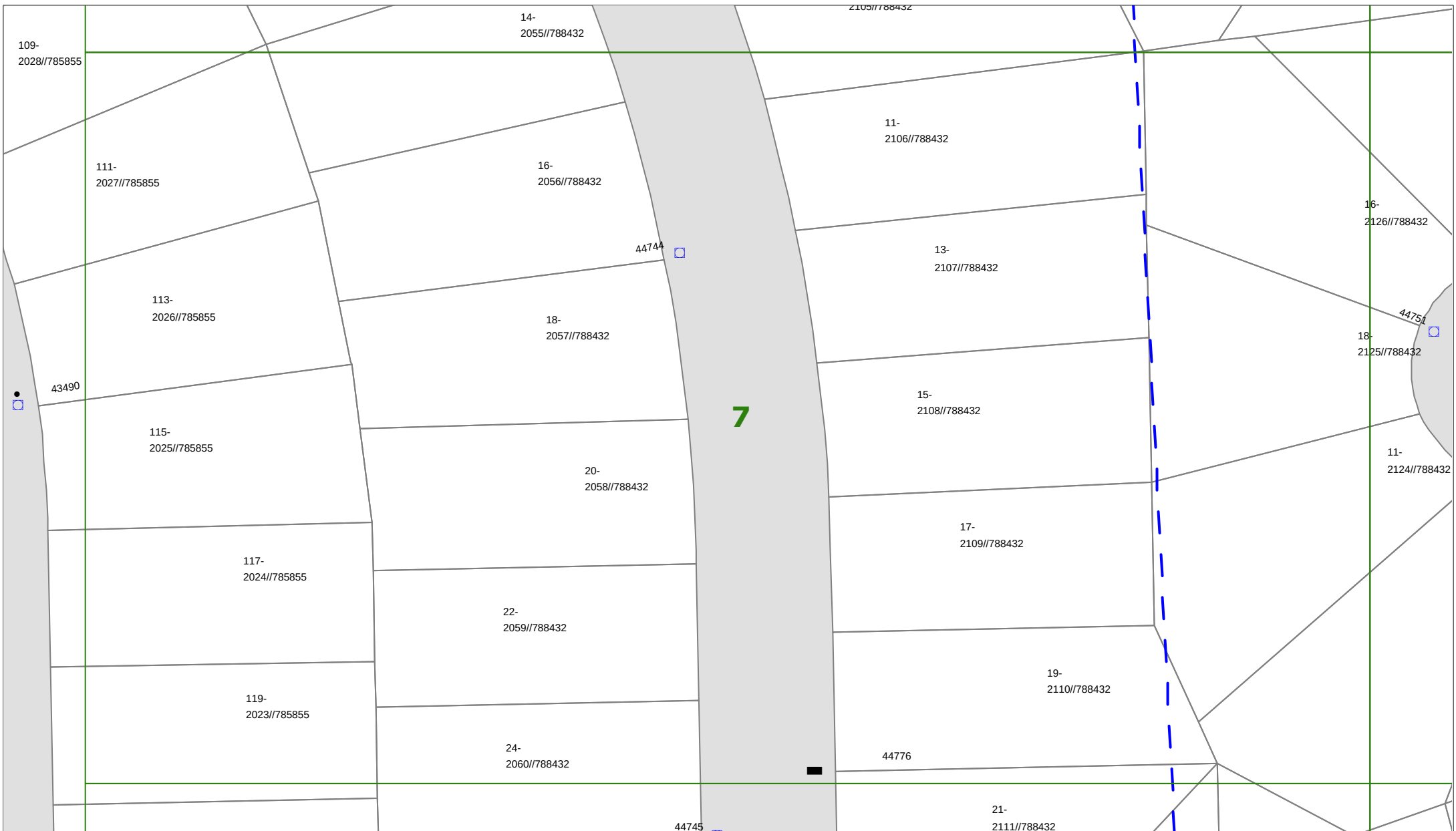
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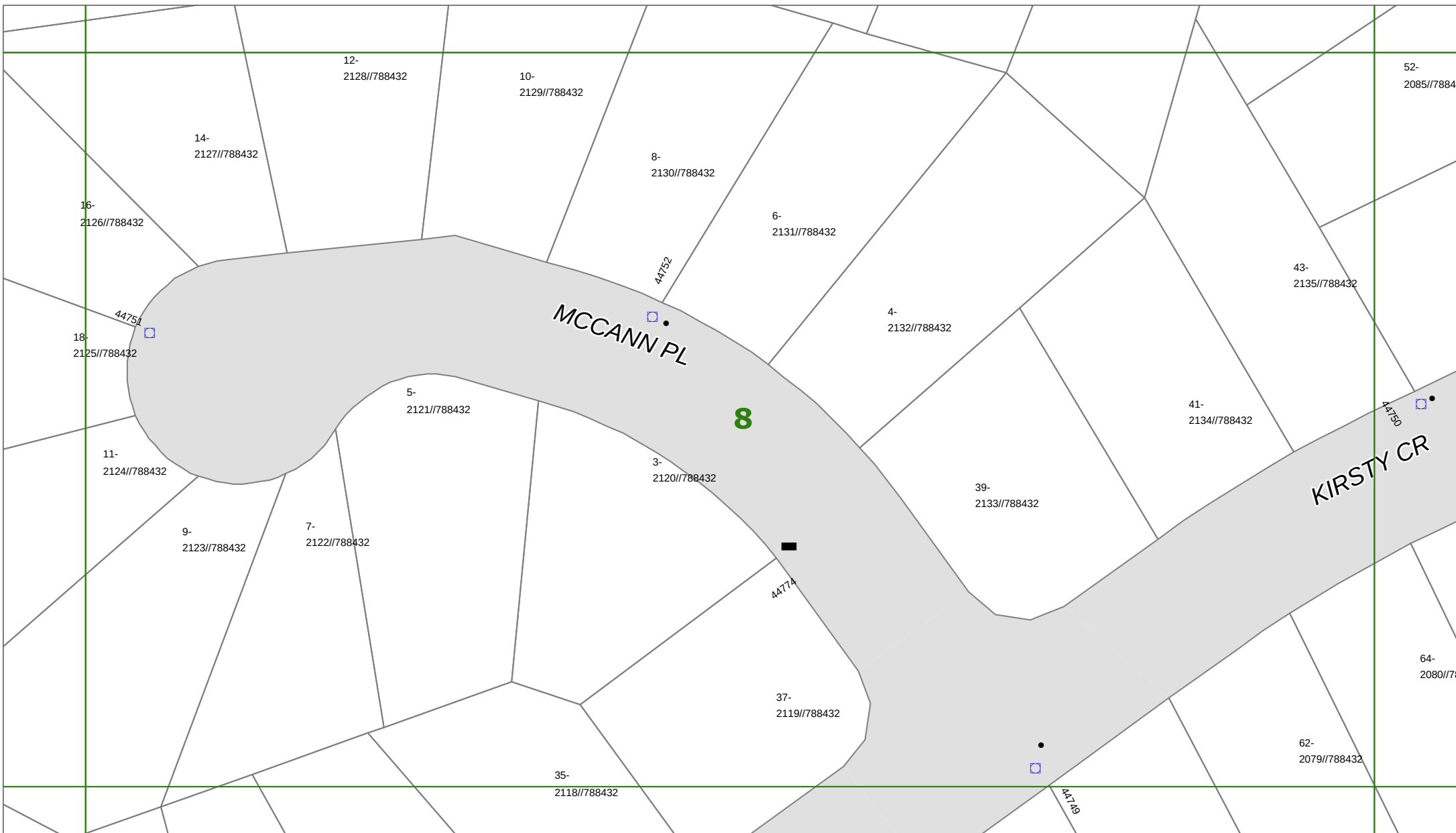
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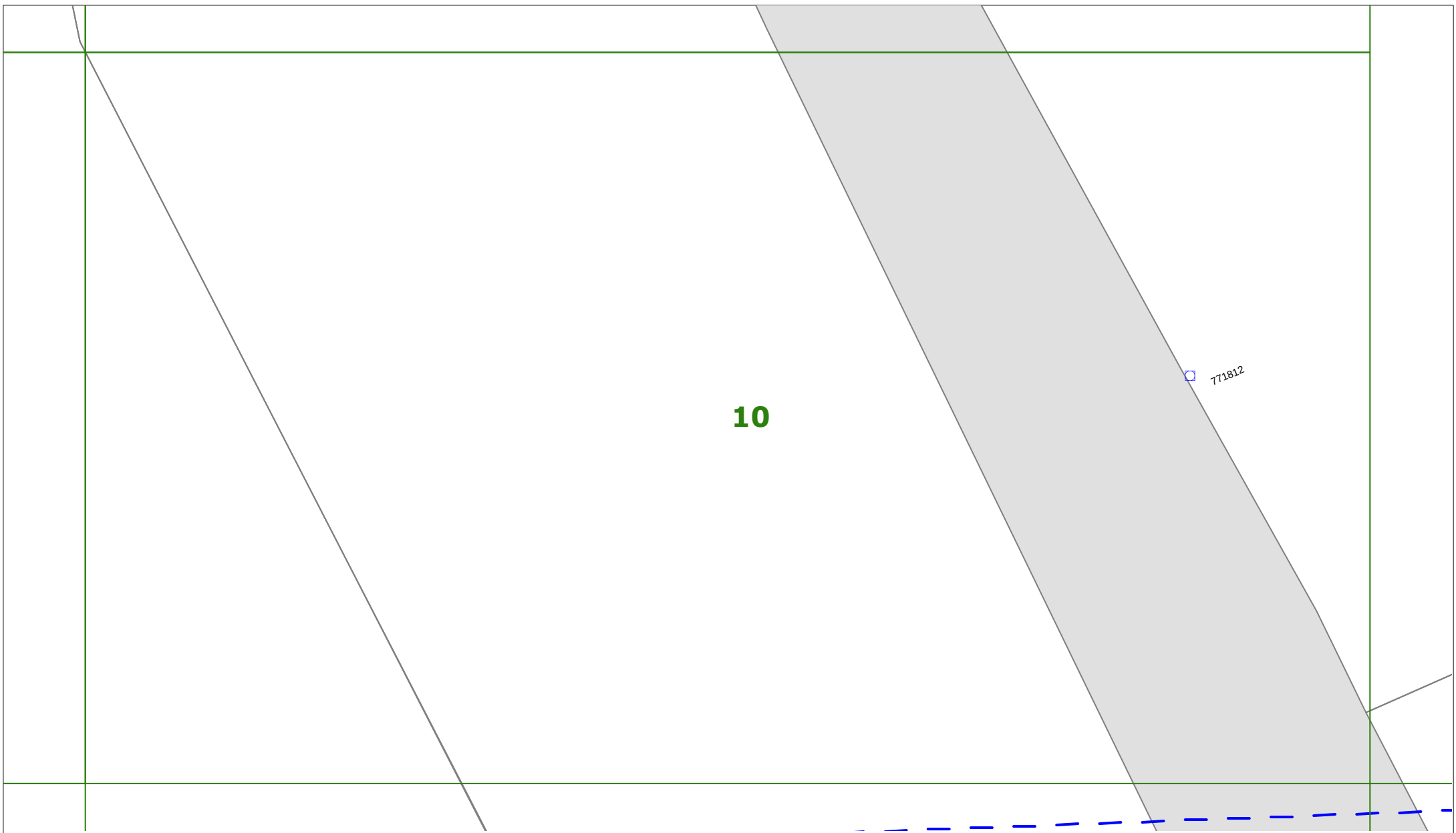
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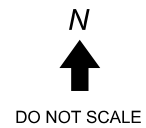
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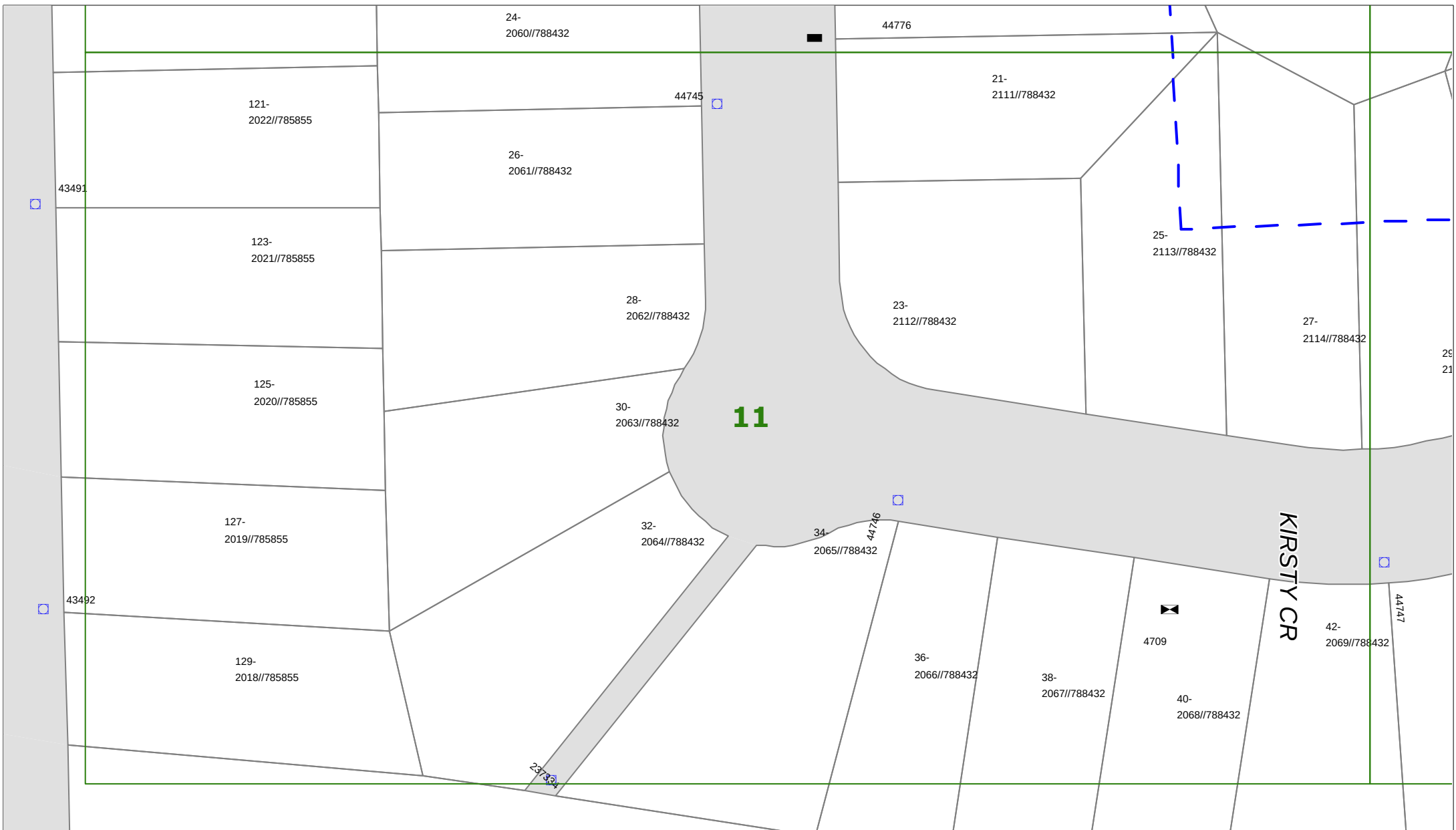
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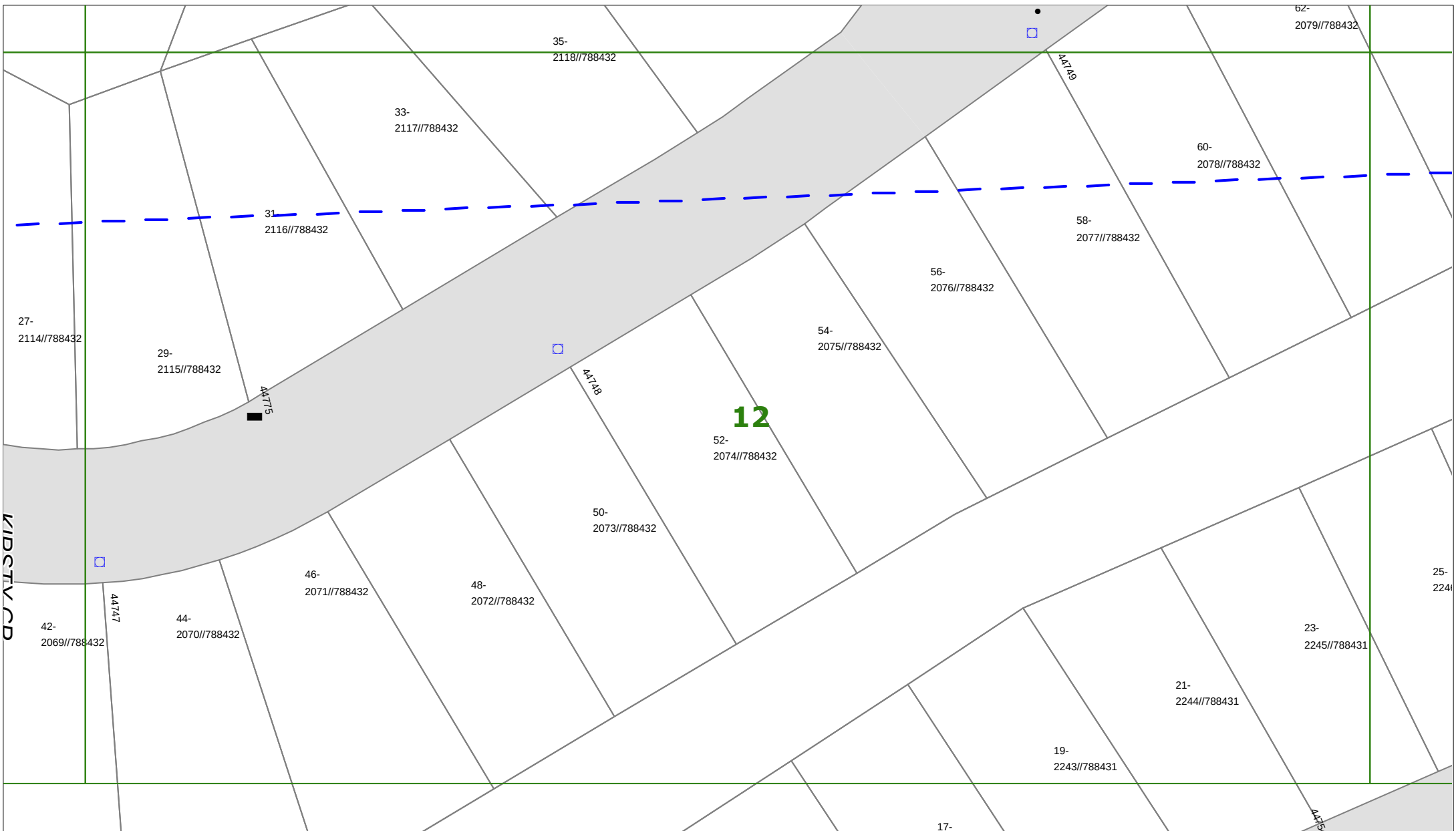
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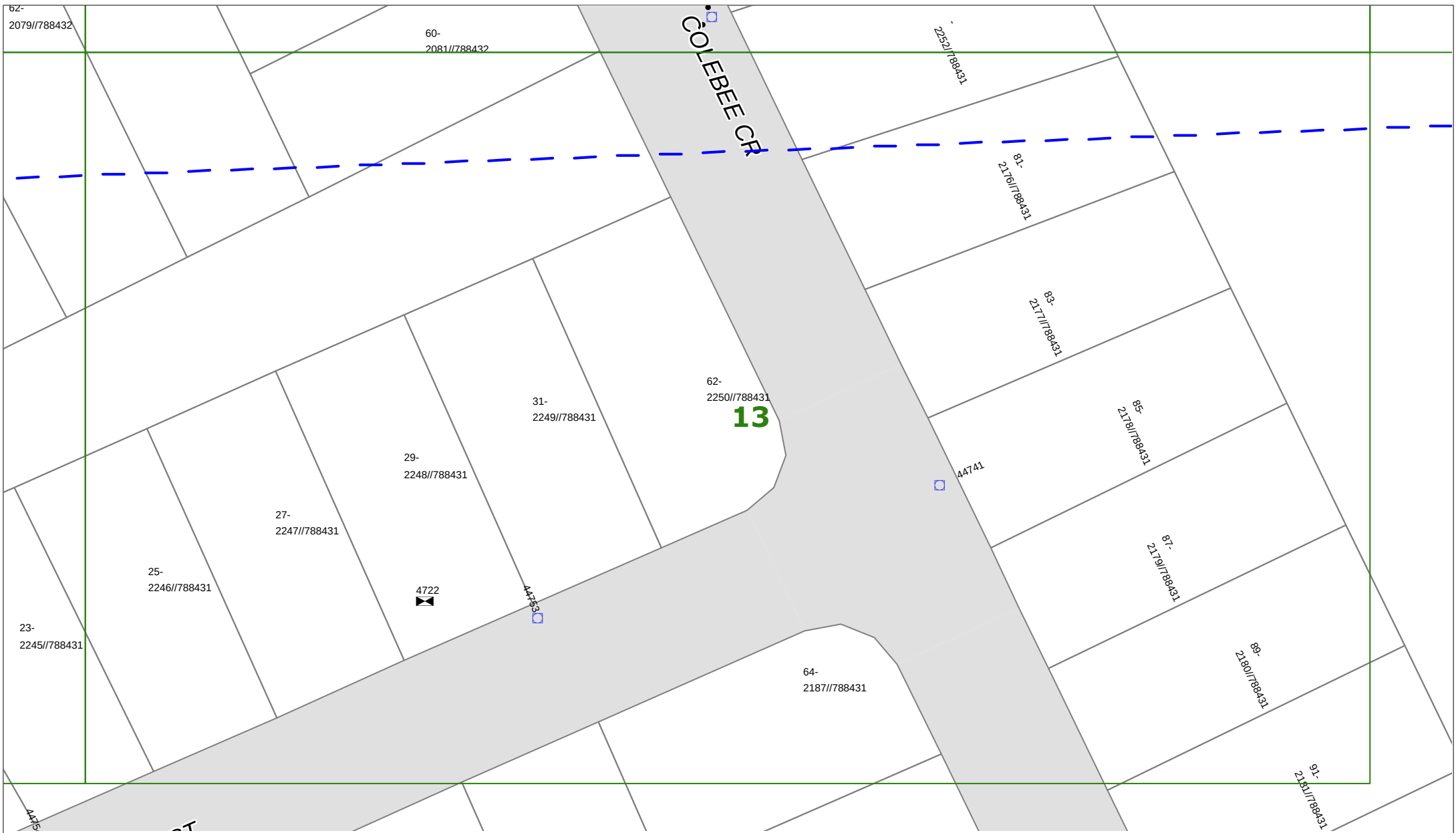
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RICHMOND RD

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771810

771809



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DBYD Sequence Number:	26908895
Issued Date:	02/11/2012

Head Office: 51 Huntingwood Drive Huntingwood NSW 2148

ENDEAVOUR ENERGY

DBYD Underground Search Report

Date: 06/11/2012

DBYD Sequence No: 26953155

DBYD Job No: 5882082

To:	Mr Joe Heydon	Company:	Hyder Consulting
Address:	Level 5 141 Walker Street, North Sydney, NSW 2060		
Cust. ID:	1147925	Email:	joe.heydon@hyderconsulting.com
Phone:	0289079149	Mobile:	0468745425
		Fax:	Not Supplied
Enquiry Location: 799 Richmond Rd, Colebee, NSW 2761			

Our Search has shown that:

UNDERGROUND CABLES ARE PRESENT on our plans within the nominated enquiry location. This search is based on the graphical position of the excavation site as denoted in the DBYD customer confirmation sheet.

In conjunction with the disclaimer as shown on our plan, persons are expected to exercise all due care especially in the vicinity of Padmount and Pole Substation, Transmission Poles and Towers as Underground Earth Grids may exist but are not shown on our plans.

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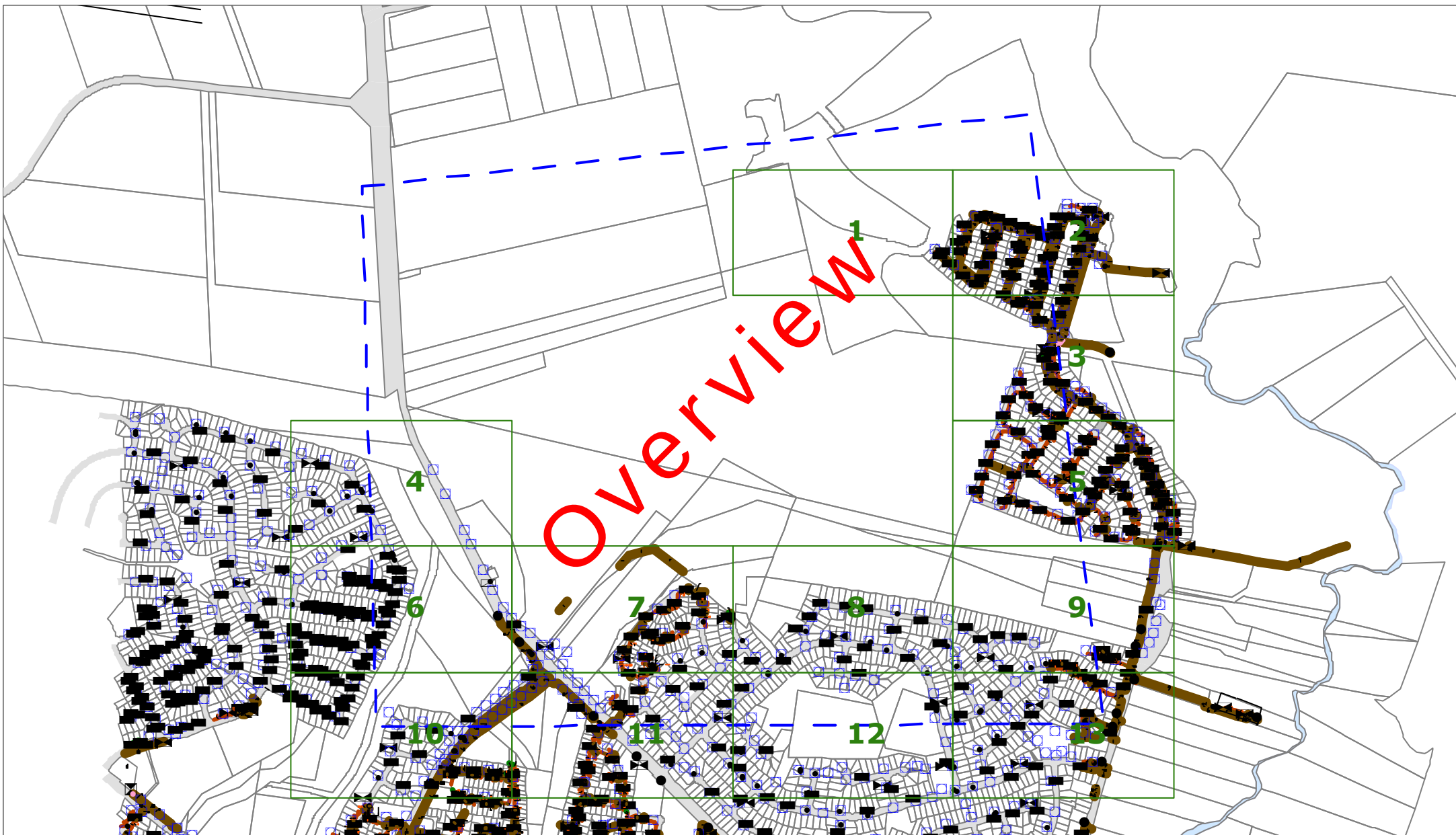
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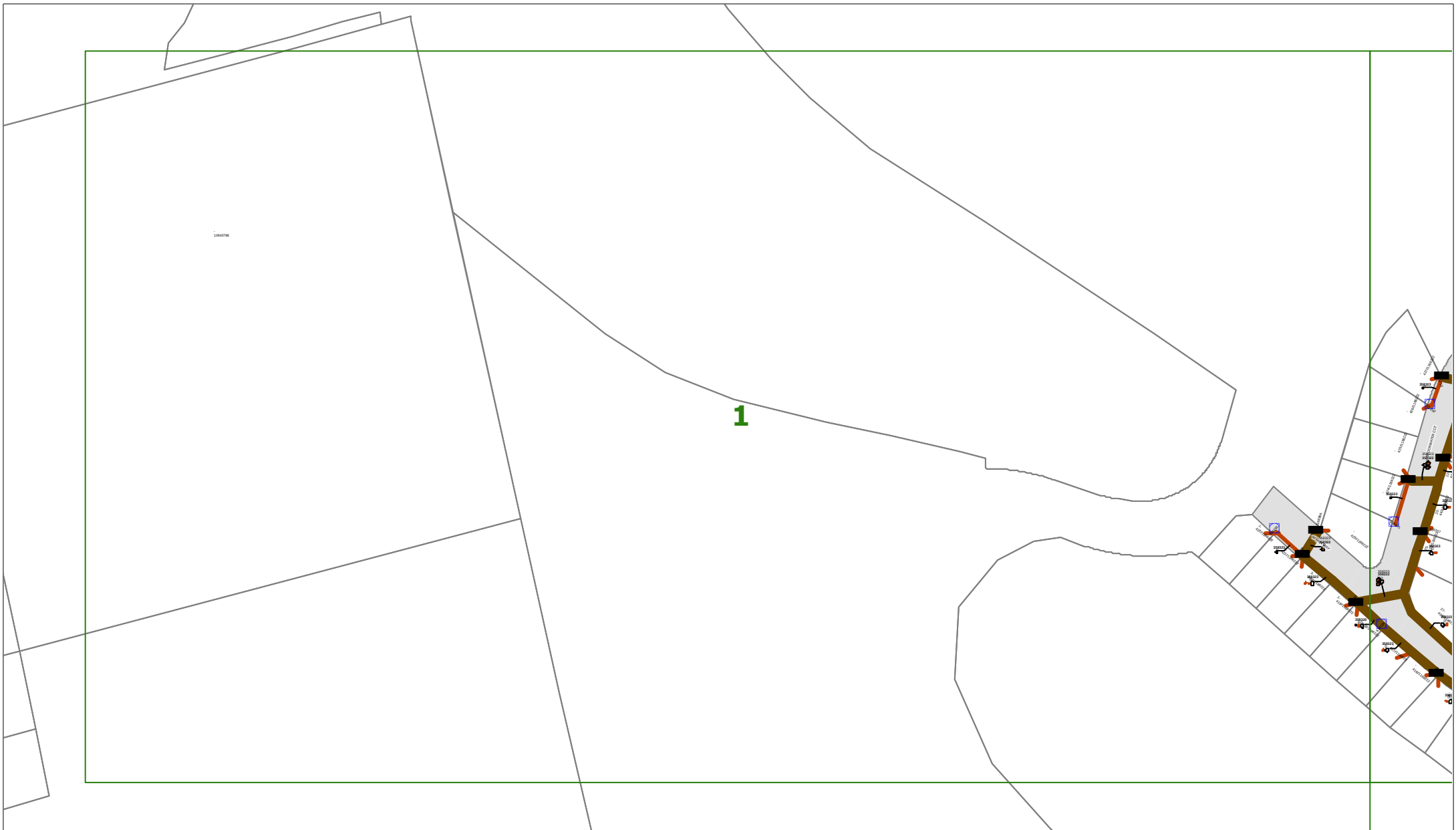


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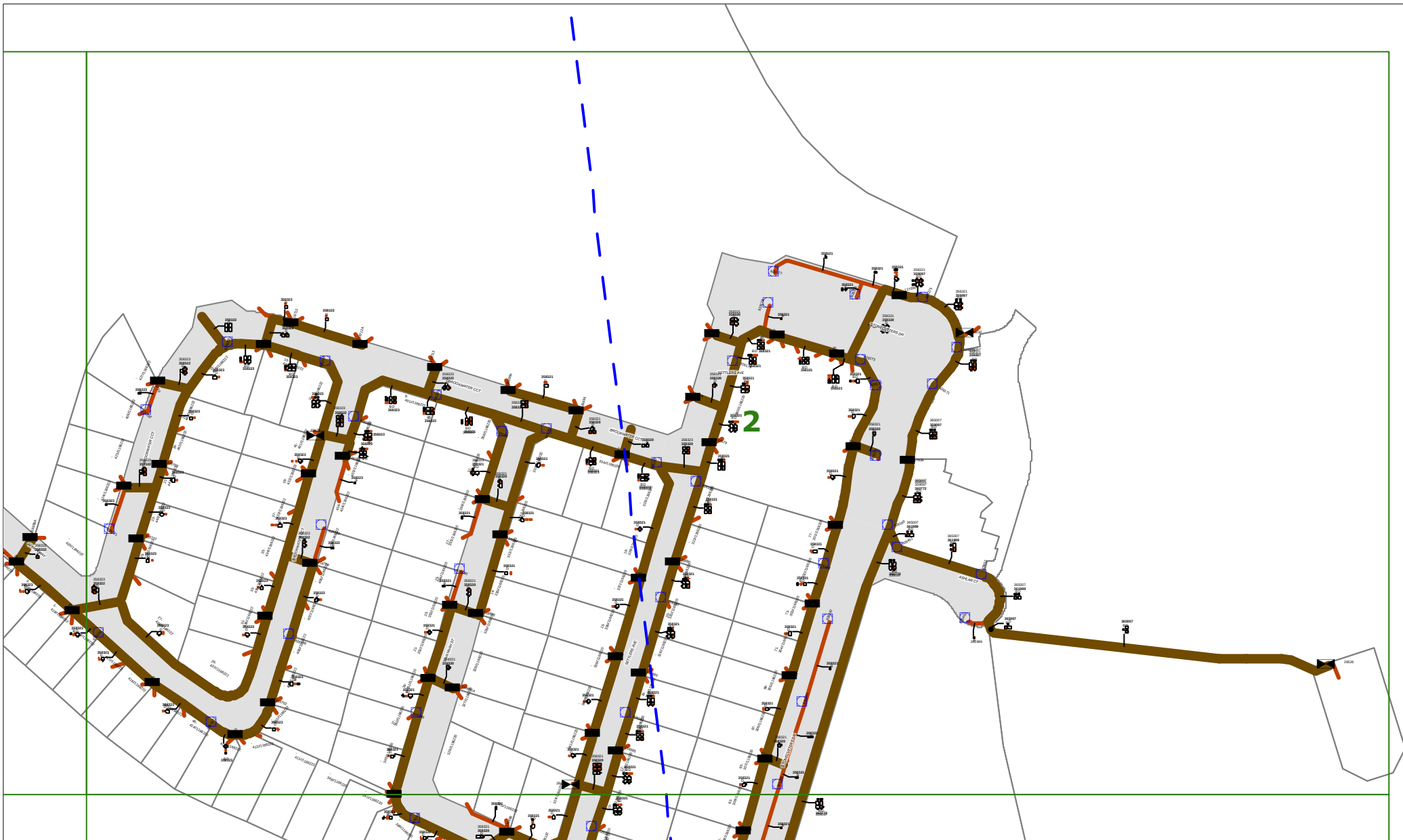
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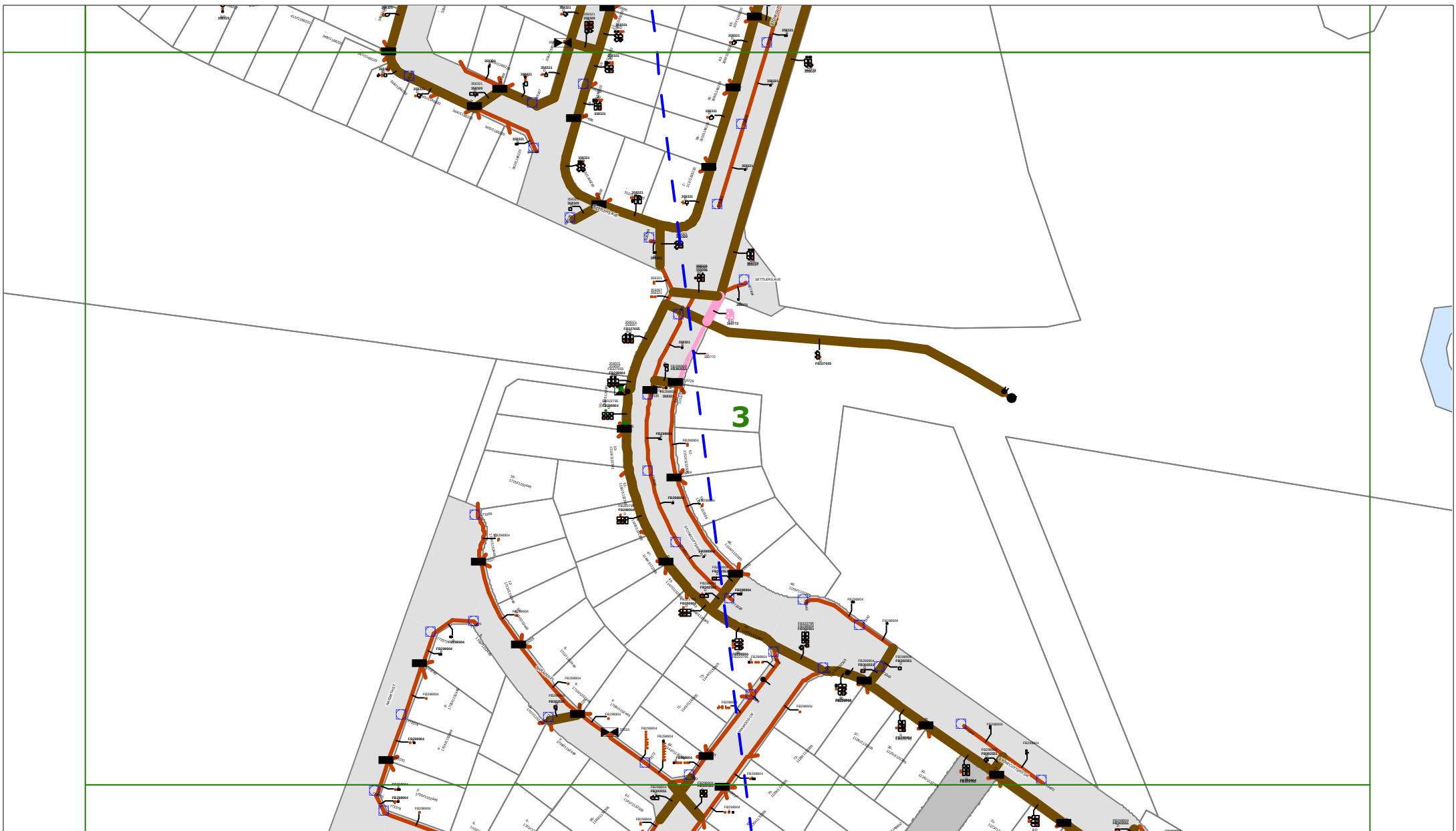
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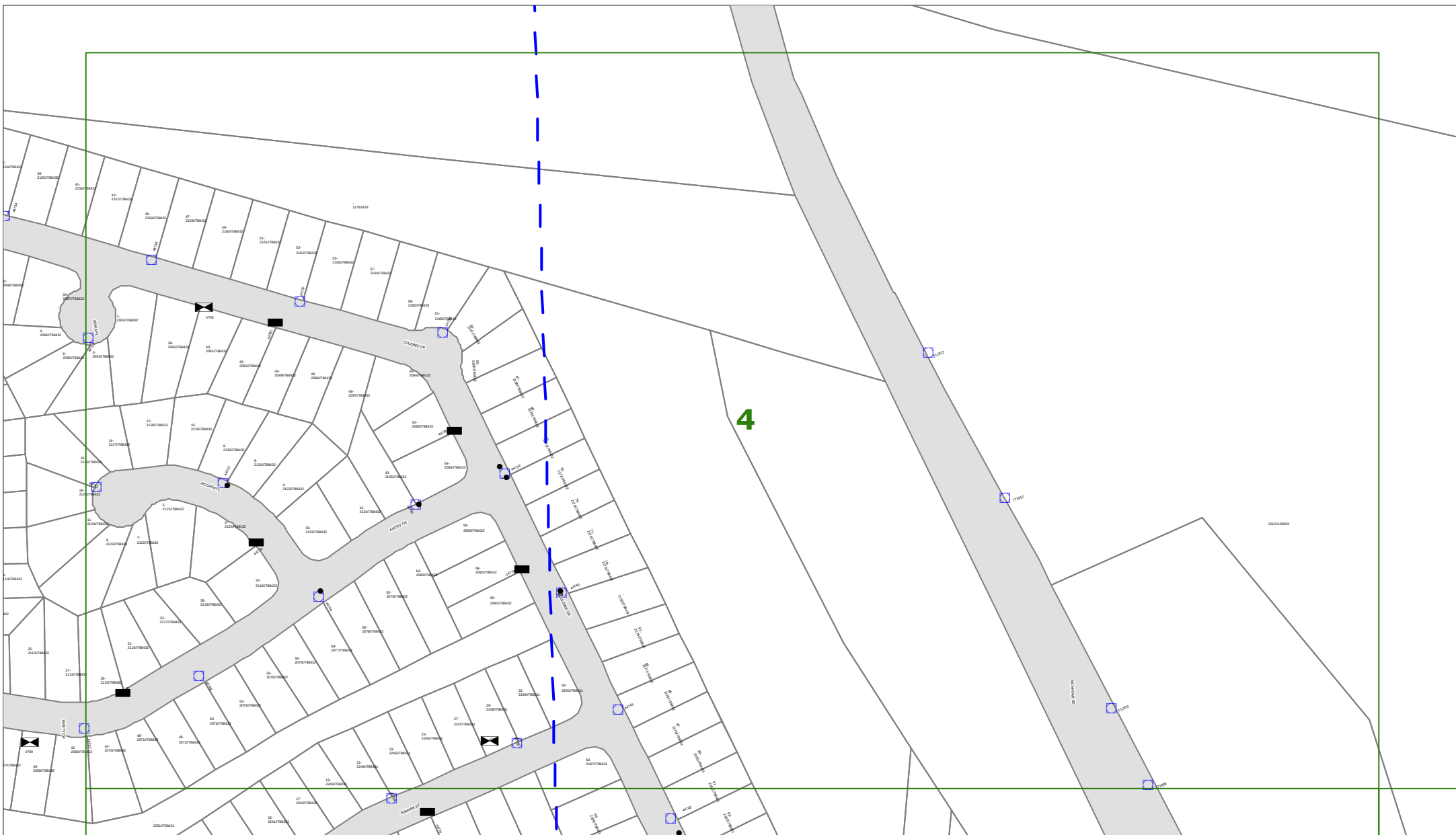
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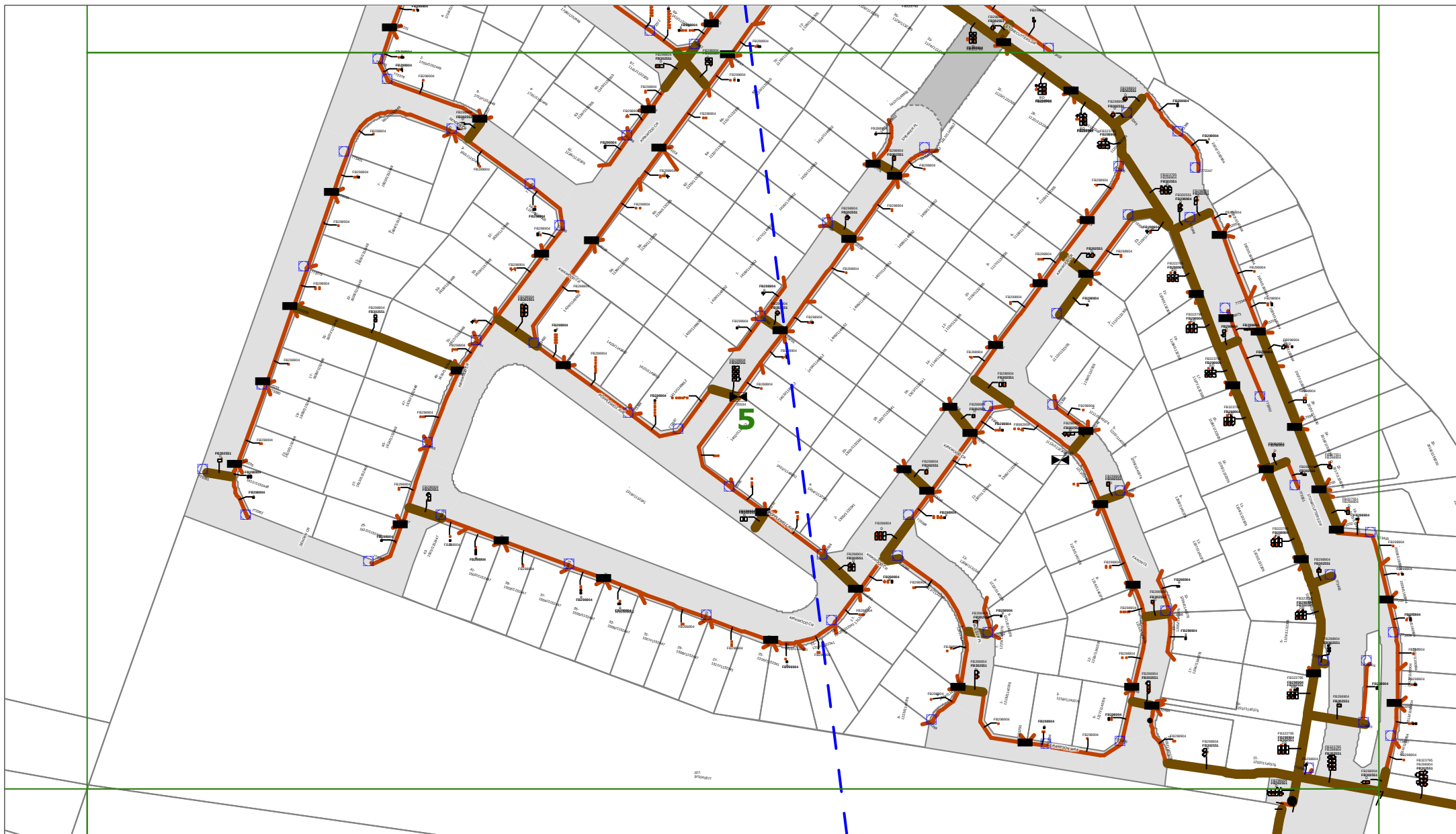
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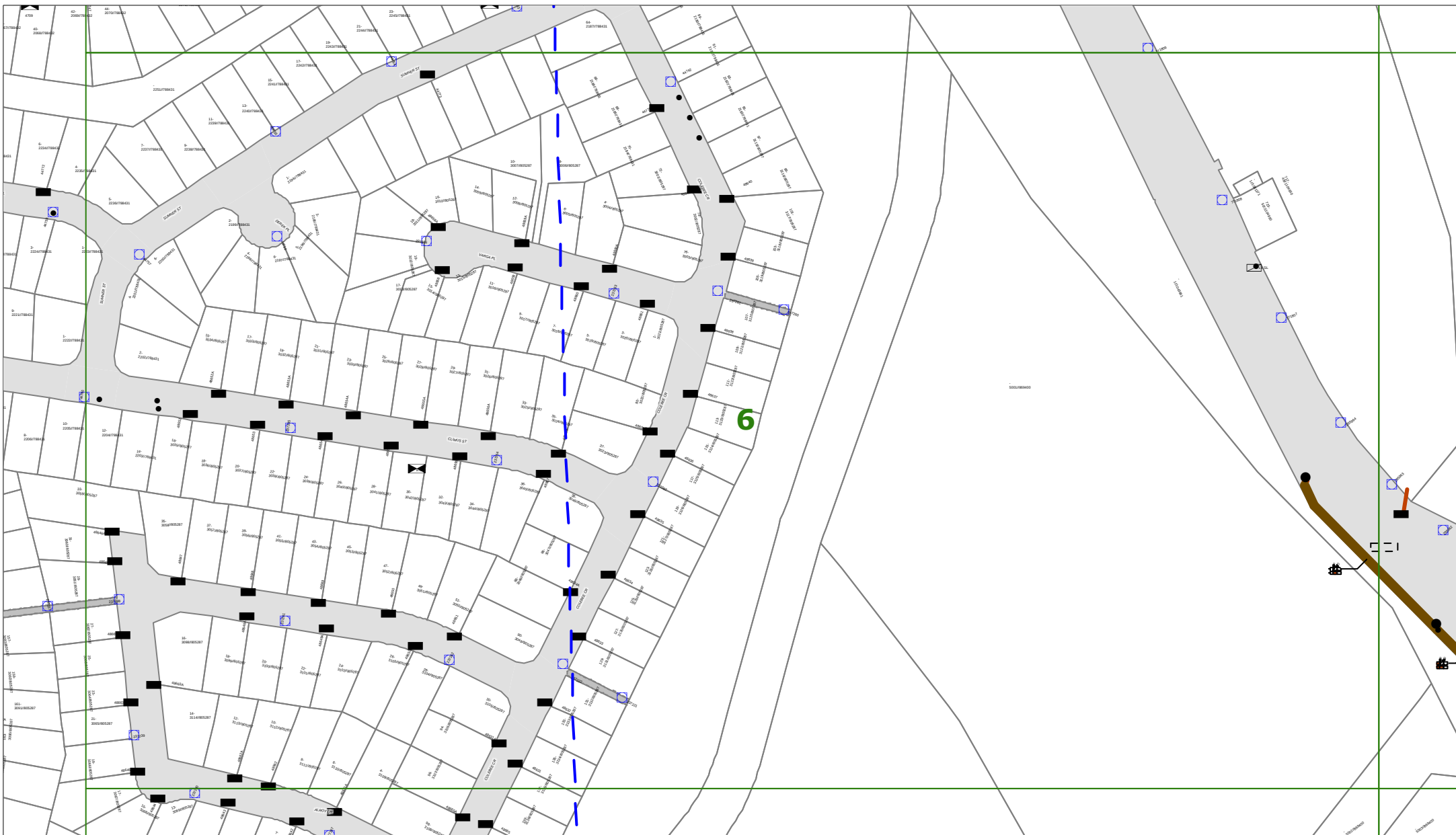
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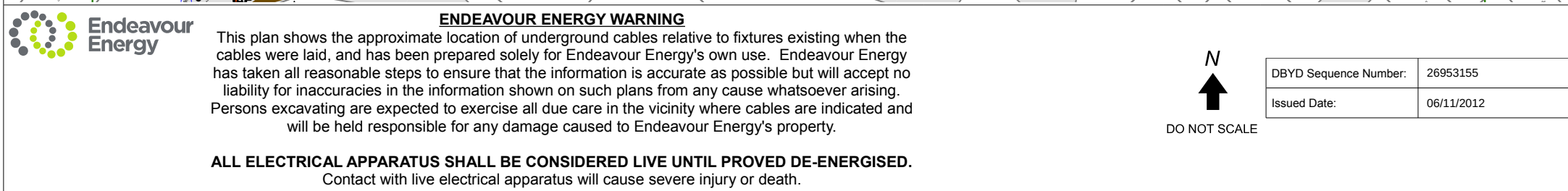
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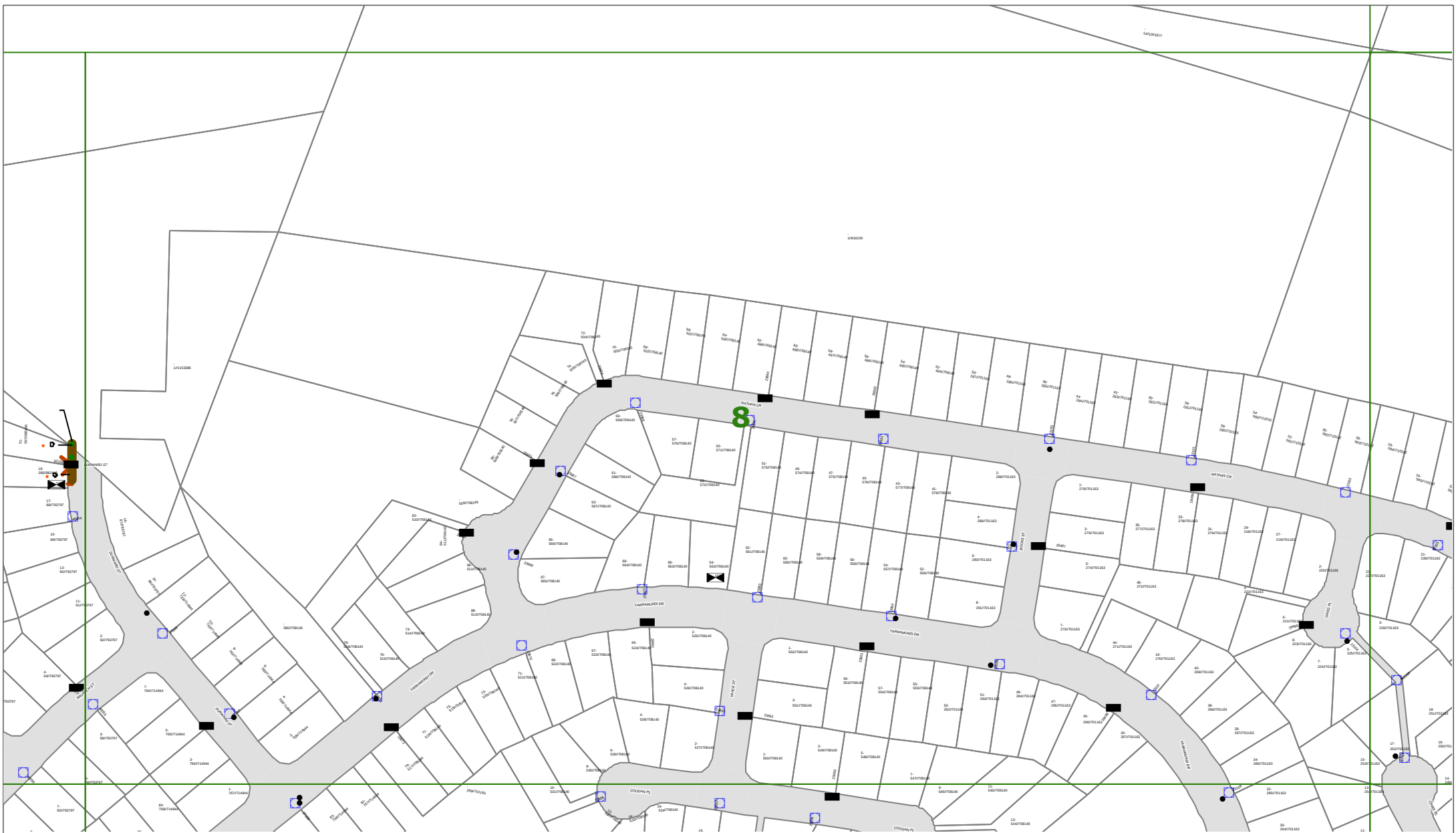
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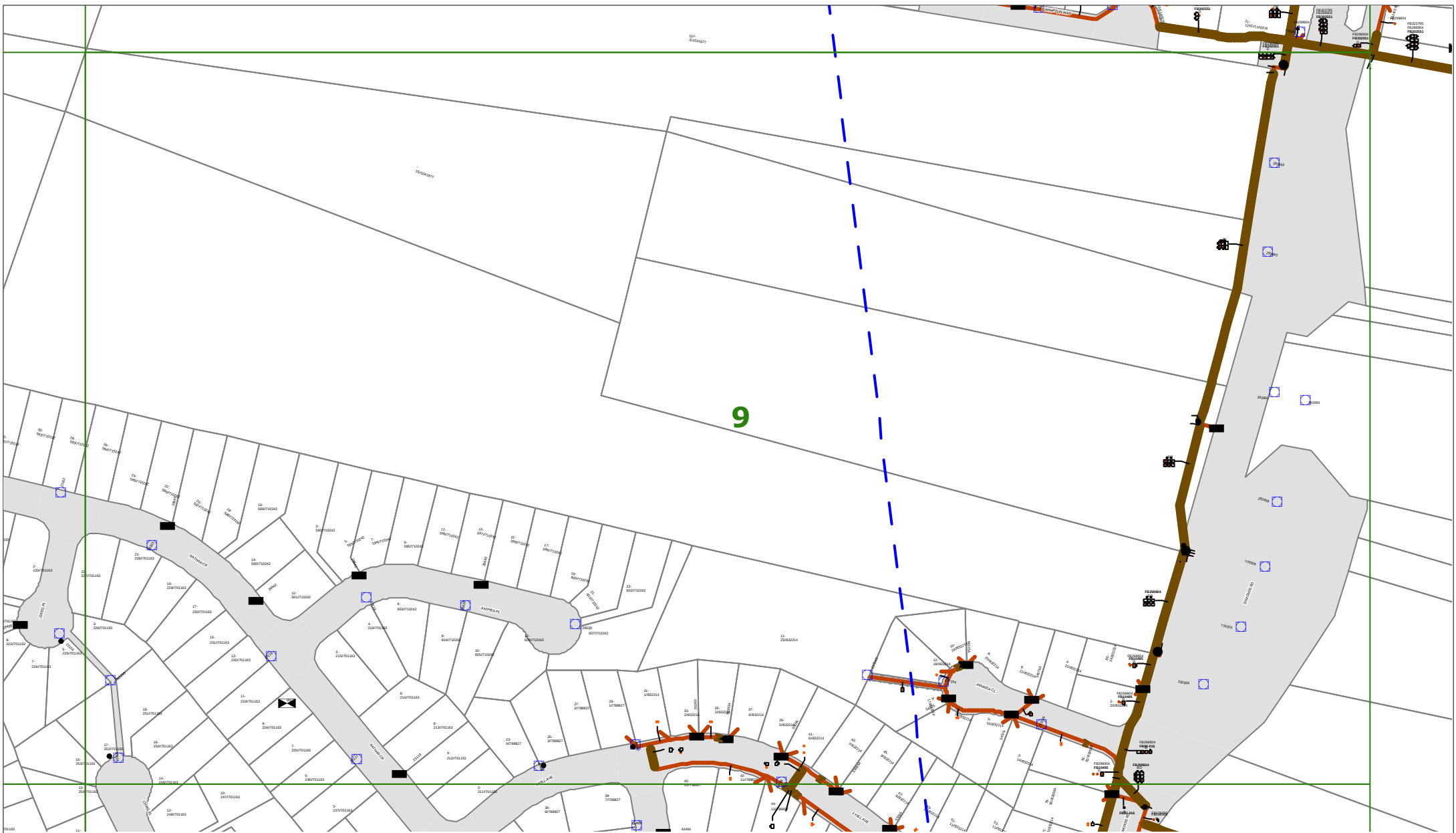
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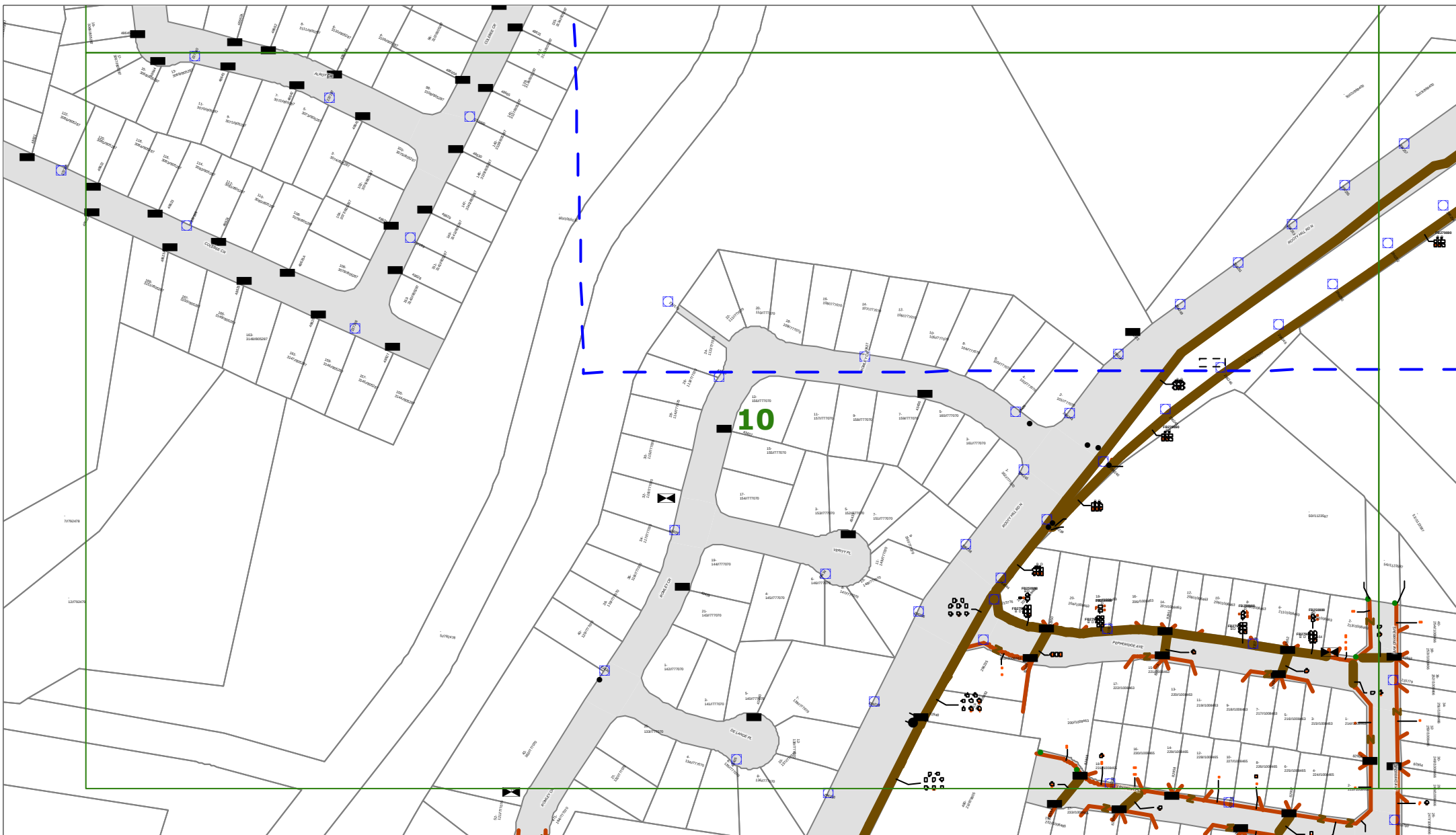
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ENDEAVOUR ENERGY WARNING

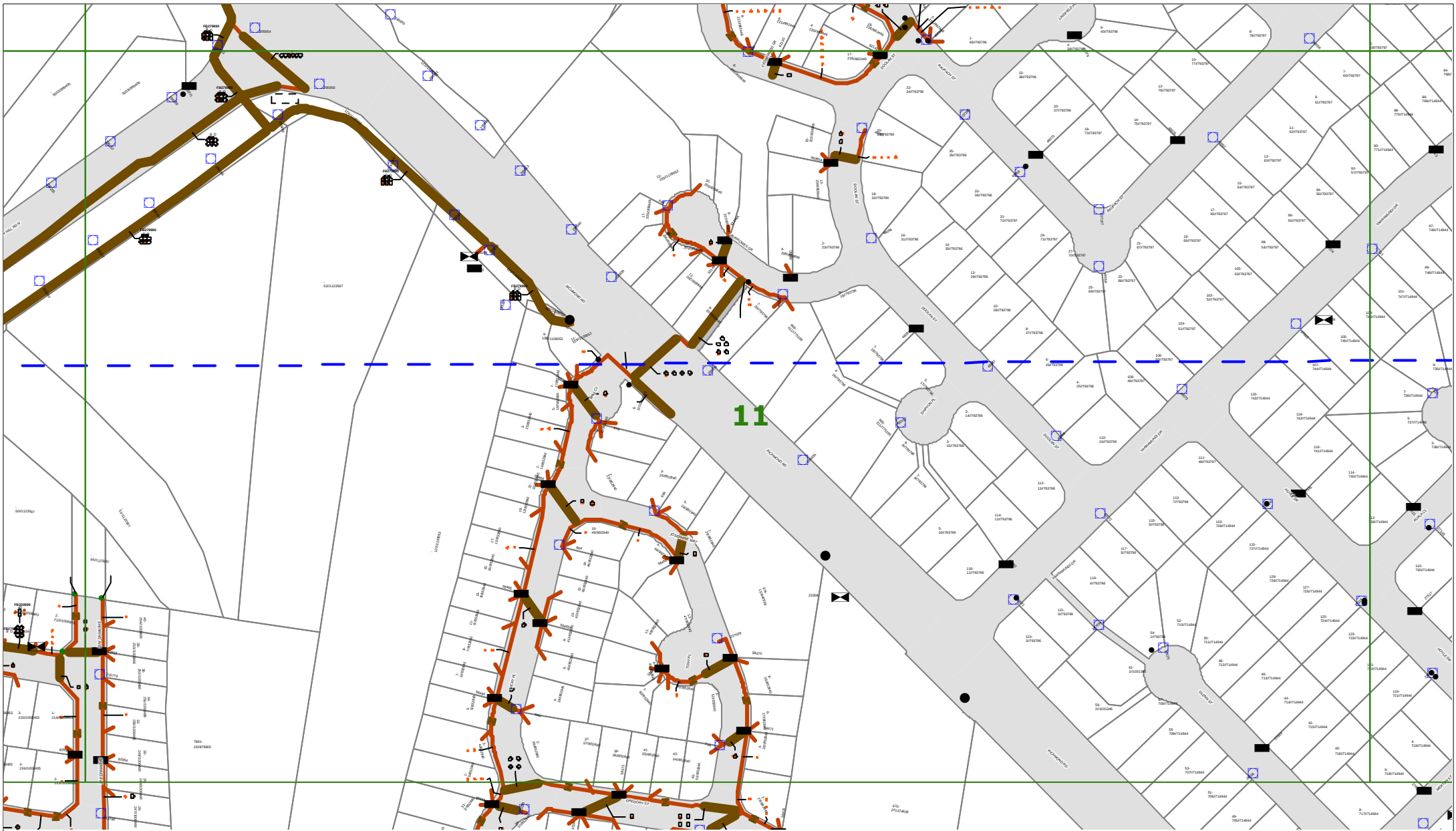
This plan shows the approximate location of underground cables relative to fixtures existing when the cables were laid, and has been prepared solely for Endeavour Energy's own use. Endeavour Energy has taken all reasonable steps to ensure that the information is accurate as possible but will accept no liability for inaccuracies in the information shown on such plans from any cause whatsoever arising. Persons excavating are expected to exercise all due care in the vicinity where cables are indicated and will be held responsible for any damage caused to Endeavour Energy's property.

ALL ELECTRICAL APPARATUS SHALL BE CONSIDERED LIVE UNTIL PROVED DE-ENERGISED.
Contact with live electrical apparatus will cause severe injury or death.



DO NOT SCALE

DBYD Sequence Number:	26953155
Issued Date:	06/11/2012



ENDEAVOUR ENERGY WARNING

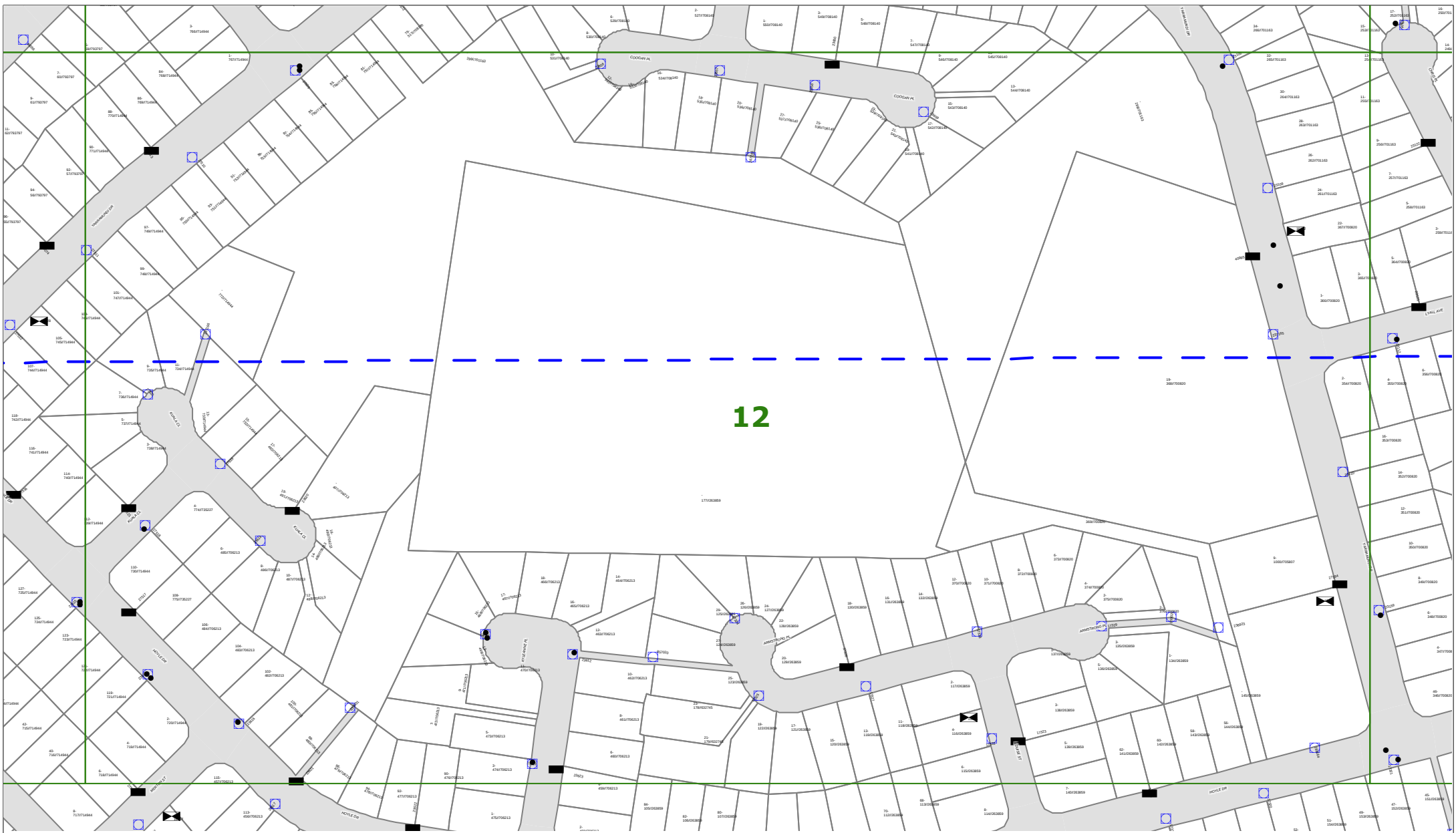
This plan shows the approximate location of underground cables relative to fixtures existing when the cables were laid, and has been prepared solely for Endeavour Energy's own use. Endeavour Energy has taken all reasonable steps to ensure that the information is accurate as possible but will accept no liability for inaccuracies in the information shown on such plans from any cause whatsoever arising. Persons excavating are expected to exercise all due care in the vicinity where cables are indicated and will be held responsible for any damage caused to Endeavour Energy's property.

ALL ELECTRICAL APPARATUS SHALL BE CONSIDERED LIVE UNTIL PROVED DE-ENERGISED.
Contact with live electrical apparatus will cause severe injury or death.



DO NOT SCALE

DBYD Sequence Number:	26953155
Issued Date:	06/11/2012





ENDEAVOUR ENERGY WARNING

This plan shows the approximate location of underground cables relative to fixtures existing when the cables were laid, and has been prepared solely for Endeavour Energy's own use. Endeavour Energy has taken all reasonable steps to ensure that the information is accurate as possible but will accept no liability for inaccuracies in the information shown on such plans from any cause whatsoever arising. Persons excavating are expected to exercise all due care in the vicinity where cables are indicated and will be held responsible for any damage caused to Endeavour Energy's property.

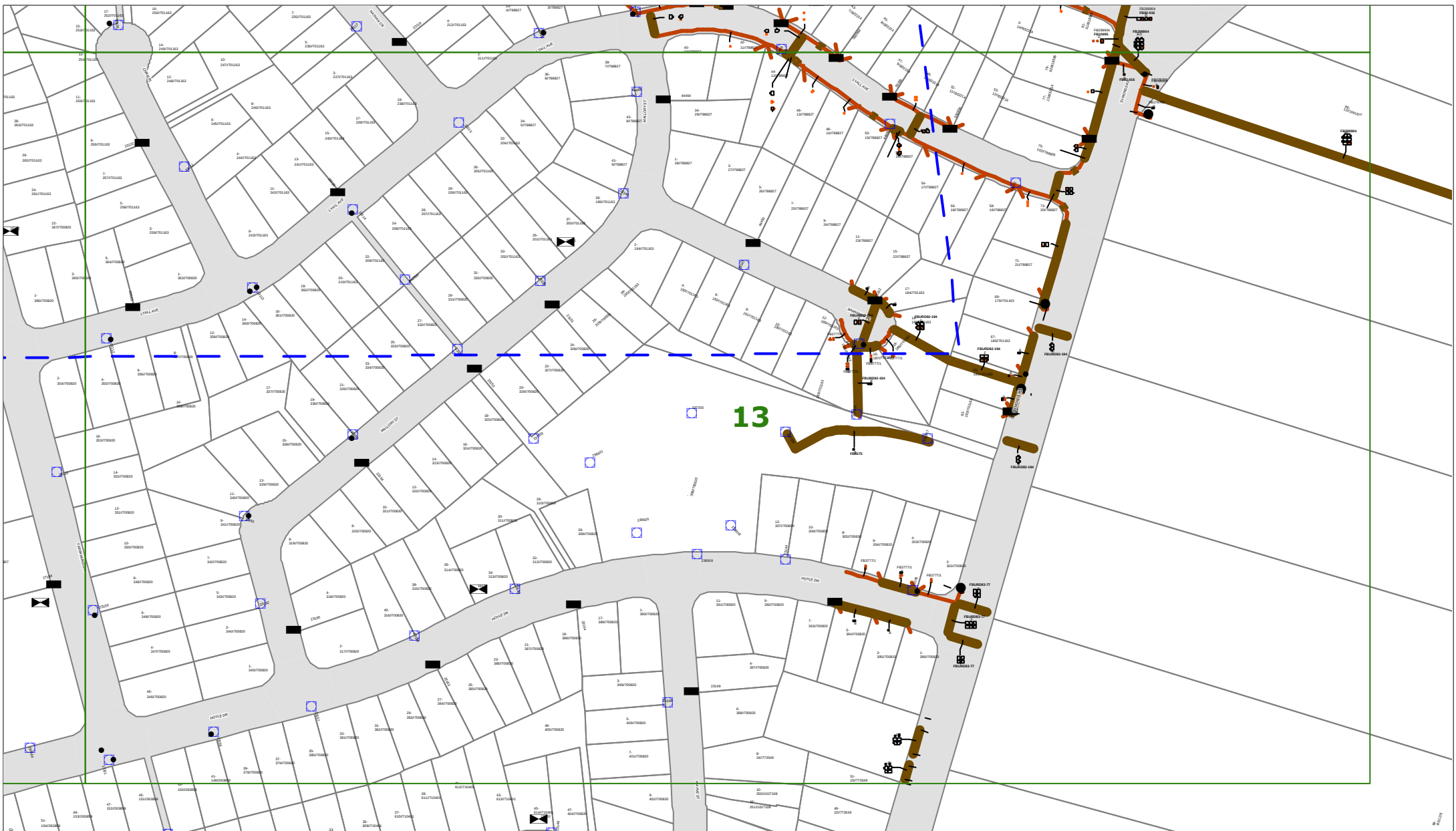
ALL ELECTRICAL APPARATUS SHALL BE CONSIDERED LIVE UNTIL PROVED DE-ENERGISED.
Contact with live electrical apparatus will cause severe injury or death.

N



DO NOT SCALE

DBYD Sequence Number:	26953155
Issued Date:	06/11/2012



ENDEAVOUR ENERGY WARNING

This plan shows the approximate location of underground cables relative to fixtures existing when the cables were laid, and has been prepared solely for Endeavour Energy's own use. Endeavour Energy has taken all reasonable steps to ensure that the information is accurate as possible but will accept no liability for inaccuracies in the information shown on such plans from any cause whatsoever arising. Persons excavating are expected to exercise all due care in the vicinity where cables are indicated and will be held responsible for any damage caused to Endeavour Energy's property.



DO NOT SCALE

DBYD Sequence Number:	26953155
Issued Date:	06/11/2012

ALL ELECTRICAL APPARATUS SHALL BE CONSIDERED LIVE UNTIL PROVED DE-ENERGISED.
Contact with live electrical apparatus will cause severe injury or death.

IMPORTANT INFORMATION READ BEFORE EXCAVATING

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.

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.

Any plans provided to you are made available subject to the provisions set out below.

It is very important that you read and understand all the information and disclaimers provided below before making a request for plans.

Information Provided by Endeavour Energy

- Any plans provided pursuant to this service are intended to show the approximate location of underground cables relative to fixtures when cables were laid.
- 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:

- If you intend to undertake any excavation work in Endeavour Energy's distribution area, it is your responsibility to contact **1100 – Dial Before You Dig or www.1100.com.au** and request plans, at least three working days prior to the proposed excavation date.
- Endeavour Energy expects to be able to provide relevant plans within 48 hours after a request is made.
- Endeavour Energy plans are frequently updated to record changes to underground assets. All plans are valid for **20** working days only from the date of issue therefore excavation should take place as soon as possible after the plans have been received. All plans provided by Endeavour Energy are subject to the warning set out below.
- Endeavour Energy retains copyright over all plans and details provided in response with customer's request.
- Persons excavating are expected to exercise all due care in the vicinity where cables 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 hand digging (pot holing).

- **Any damage to Endeavour Energy's assets must be reported to it on 131003 immediately.**

Further Information:

- Individual customer service cables are not shown on Endeavour Energy's plans.
- For further clarification on cable locations or the correct interpretation of the plan or for assistance with printing plans, please contact **02 98534161** between 8.00am – 4.30pm, Monday to Friday.
- For information concerning proposed works affecting your property contact Endeavour Energy's Contestable Works Administrators nearest Service Centre.

WARNING:

Endeavour Energy's plans show only the presence of cables and their position relative to road boundaries, property fences and other structures at the time of installation. Endeavour Energy does not warrant or hold that such plans are accurate.

A person who undertakes excavation work is subject to duties and responsibilities under the *Occupational Health and Safety Act 2000*. The WorkCover Authority has prepared the *Work Near Underground Assets Guideline*, which contains practical advice for working near underground utility services and guidance as to how to meet the requirements of the *Occupational Health and Safety Act 2000* when carrying out excavation work.

DO NOT ASSUME DEPTH OR ALIGNMENT of cables as these vary significantly as a result of changes to road widths, road levels, fences or buildings subsequent to installation.

Persons excavating have a DUTY OF CARE when excavating near Endeavour Energy's cables. Before using machine excavators, Endeavour Energy's cables MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG (pot holing) to identify its location.

Those excavating near Endeavour Energy's cables should be aware that asbestos or asbestos-containing material may be present in Endeavour Energy's underground assets and that Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.

ALL ELECTRICAL APPARATUS SHALL BE REGARDED AS LIVE UNTIL PROVED DE-ENERGISED. Contact with live electrical apparatus will cause severe injury or death.

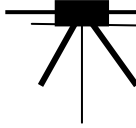
In all cases of electric shock or suspected electric shock the victim shall immediately be transported to hospital or medical centre for treatment.

Duct/cable cross section points to the duct/cable route that it refers to.
Field book reference and duct codes are shown above duct cross section.
Cable codes are shown next to the cable cross sections.



STANDARD UNDERGROUND SYMBOLS / LABELS

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

 or 	Street light column
	Padmount substation
 or 	Overground pillar (O.G.Box)
	Underground pit
	Duct run
	Cable run
	Typical duct section
	Typical underbore section
	Blocked duct
	Cable section
	STJ, PBJ
STJ	Straight through joint
PBJ	Parallel branch joint
	Underground to overhead pole
SL	Streetlight conductor
SC	Service cable
SE	Cable sealed end
SF	Service Feeder
OS	Out of Service
O.A.M.	Over awning main
U.A.M.	Under awning main
N.I.S.	Not in service
	Shared trenching
	Service point of attachment

DUCT CODE LABELS

B = 50 mm PVC

D = 125mm PVC

DEPTH & LOCATION LABELS

0.5- 0.7 COV = 500mm – 700mm
Standard Depth (Not Shown on Plans)

0.9 COV = 900mm Depth

UNK COV = Depth Unknown

LOC UNK = Location Unknown

0.6 PL = Standard Location 600mm from
Property Line (Not Shown on Plans)

0.9 PL = Located 900mm from Property Line

APPENDIX A3 – JEMENA

In reply to your enquiry, there are **High Pressure Gas Mains** in the vicinity of your intended work, as generally illustrated on the attached map. There may also be other mains or services at the location, as discussed in the warning below. For an explanation of the map, please see the key below.

The following excavations guidelines apply:

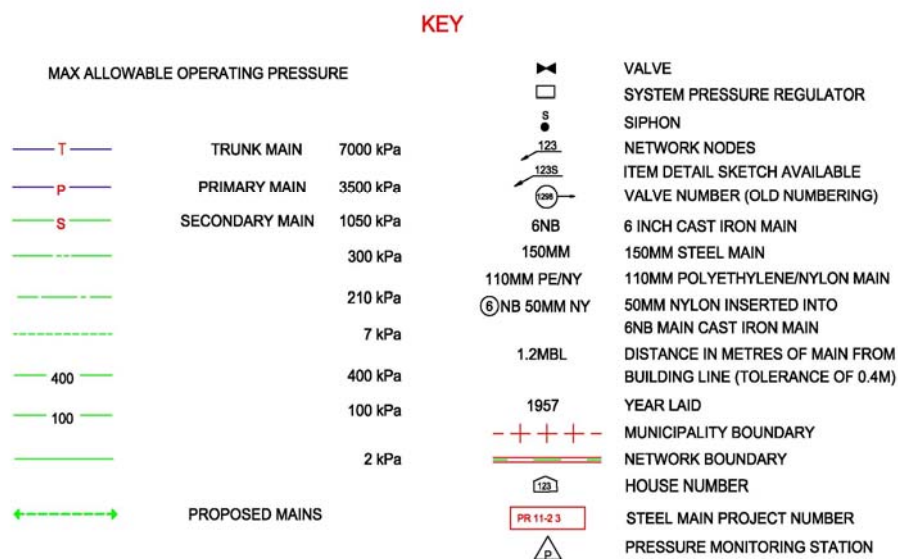
Excavation Guidelines:

Prior to **any** excavations in this area, you **must** contact the High Pressure Response Coordinator on **1300 665 380**. **(Please note that a minimum two working days notice is required)** to arrange a survey.

For all works in the vicinity of High Pressure Gas Mains you must arrange for a Pipeline Technician to attend and supervise all excavations. Charges apply for attendance of any works outside the hours of 7am to 4pm, Monday to Friday (**Standard Business Hours**) and for any attendance during Standard Business Hours that is longer than 2 hours.

In accordance with clause 34D(1) of the Gas Supply (Safety and Network Management) Regulation 2008 (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



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. Jemena advises that you may be required to carry out potholing by hand if required by a Pipeline Technician to confirm the location of Jemena's main and installations. This must also be performed by you under the supervision of a Pipeline Technician and be carried out in accordance with the Working Near Underground Assets Guideline published in 2007 by Work Cover Authority

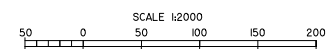
In case of Emergency Phone 131 909 (24 hours)

Gemma
02 9397 9401

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



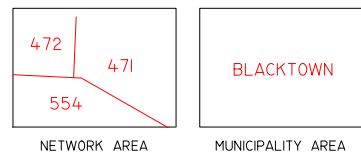
ROOTY HILL 2A



THIS MAP UPDATED ON 11/07/05
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES
SCALED FROM THIS PLAN MAY NOT BE ACCURATE.
DATE ALTERED:..... BY:.....

R17D	R18C	R18D
RH1B	RH2A	RH2B
RH1D	RH2C	RH2D

ADJOINING MAPS



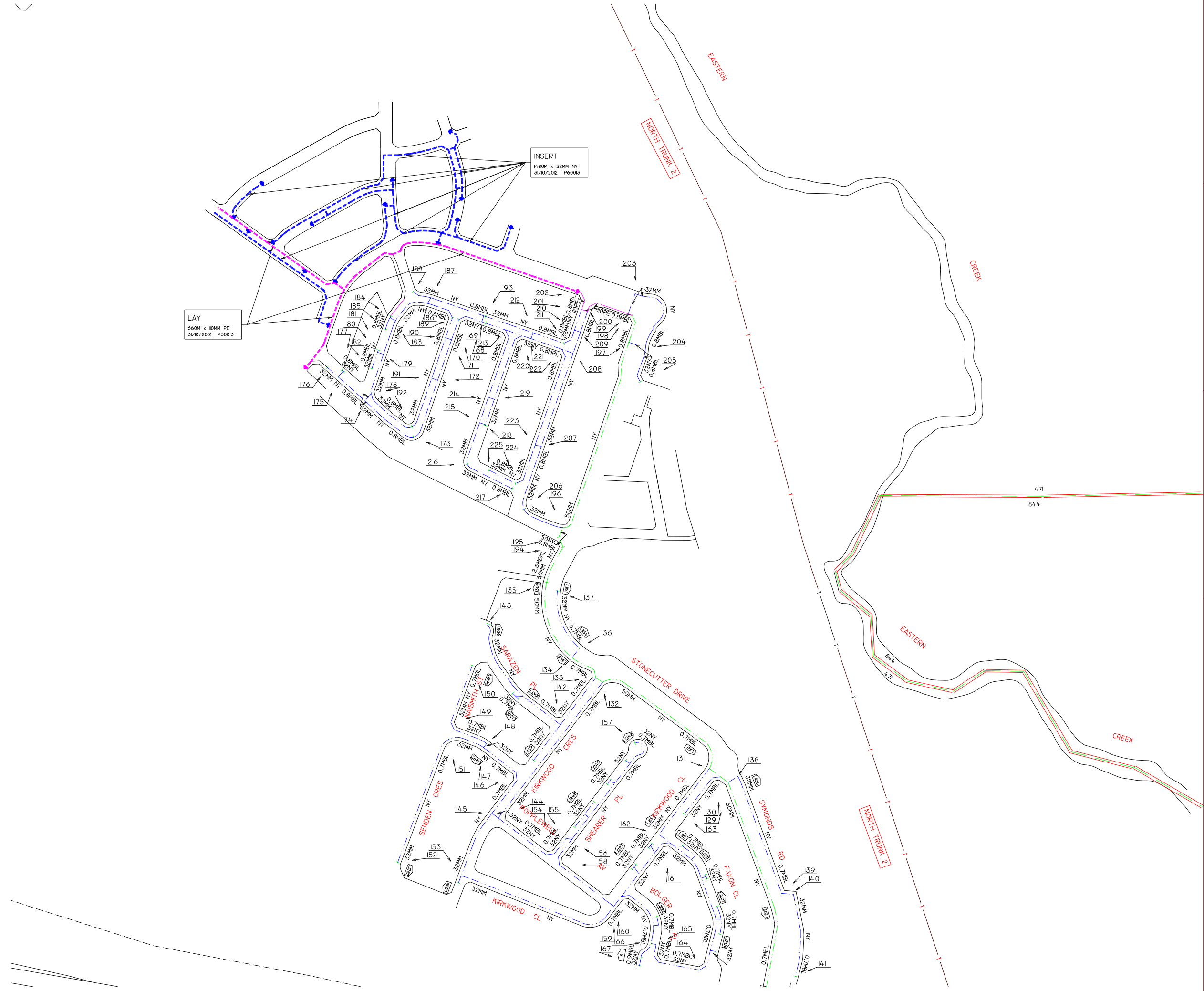
KEY

MAX ALLOWABLE OPERATING PRESSURE

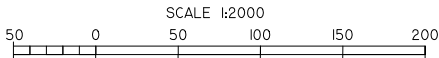
T	TRUNK MAIN	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
		300 kPa
		210 kPa
		7 kPa
400		400 kPa
100		100 kPa
		2 kPa
PROPOSED MAINS		

PR 1-2 3	STEEL MAIN PROJECT NUMBER
	PRESSURE MONITORING STATION
	VALVE
	SYSTEM PRESSURE REGULATOR
	SIPHON
	NETWORK NODES
	ITEM DETAIL SKETCH AVAILABLE
	VALVE NUMBER (OLD NUMBERING)
6NB	6 INCH CAST IRON MAIN
150MM	150MM STEEL MAIN
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN
6NB 50MM NY	6NB MAIN CAST IRON MAIN
12MBL	DISTANCE IN METRES OF MAIN FROM BUILDING LINE (TOLERANCE OF 0.4M)
1957	YEAR LAID
---	MUNICIPALITY BOUNDARY
---	NETWORK BOUNDARY
162	HOUSE NUMBER

ROOTY HILL 2A



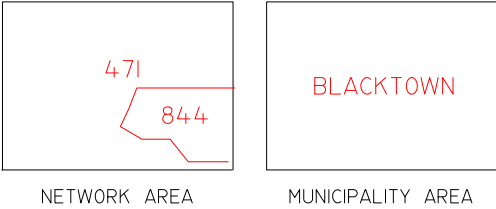
ROOTY HILL
2B



THIS MAP UPDATED ON 31/10/12
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES
SCALED FROM THIS PLAN MAY NOT BE ACCURATE.
DATE ALTERED:..... BY:.....

R18C	R18D	R19C
RH2A	RH2B	RH3A
RH2C	RH2D	RH3C

ADJOINING MAPS



Jemena

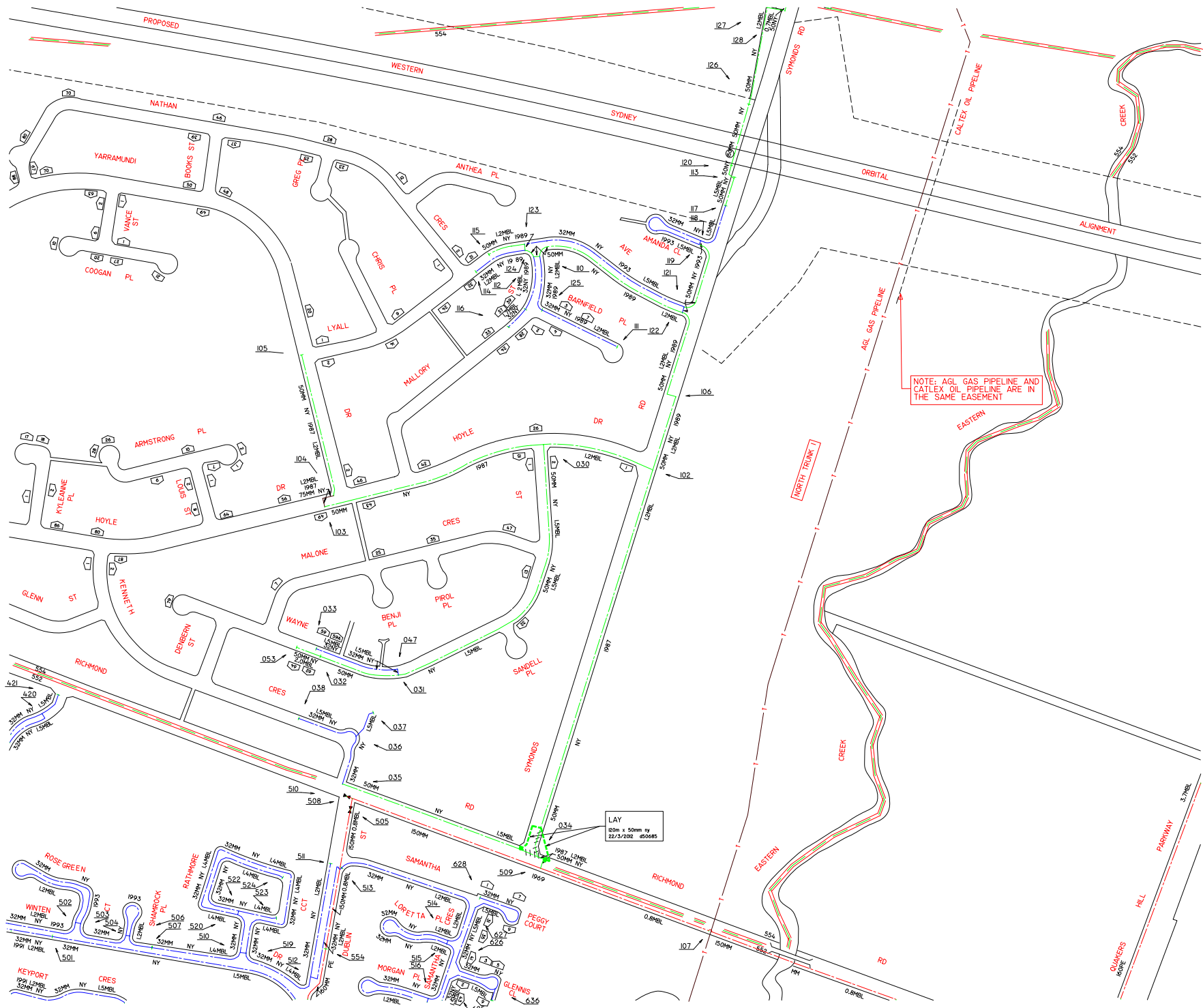
KEY

MAX ALLOWABLE OPERATING PRESSURE

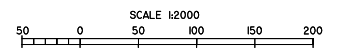
T	TRUNK MAIN	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
		300 kPa
		210 kPa
		7 kPa
400		400 kPa
100		100 kPa
		2 kPa

PR II-2 3	STEEL MAIN PROJECT NUMBER
P	PRESSURE MONITORING STATION
V	VALVE
SR	SYSTEM PRESSURE REGULATOR
S	SIPHON
N23	NETWORK NODES
N23S	ITEM DETAIL SKETCH AVAILABLE
N23	VALVE NUMBER (OLD NUMBERING)
6NB	6 INCH CAST IRON MAIN
150MM	150MM STEEL MAIN
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN
6NB 50MM NY	50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN
1.2MBL	DISTANCE IN METRES OF MAIN FROM BUILDING LINE (TOLERANCE OF 0.4M)
1957	YEAR LAID
++ ++	MUNICIPALITY BOUNDARY
== ==	NETWORK BOUNDARY
123	HOUSE NUMBER

ROOTY HILL 2B



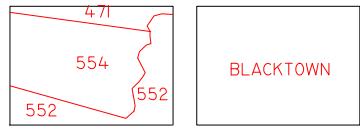
ROOTY HILL 2D



THIS MAP UPDATED ON 22/03/12
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES
SCALED FROM THIS PLAN MAY NOT BE ACCURATE.
DATE ALTERED:..... BY:.....

RH2A	RH2B	RH3A
RH2C	RH2D	RH3C
RH5A	RH5B	RH6A

ADJOINING MAPS



NETWORK AREA MUNICIPALITY AREA

Jemena

KEY

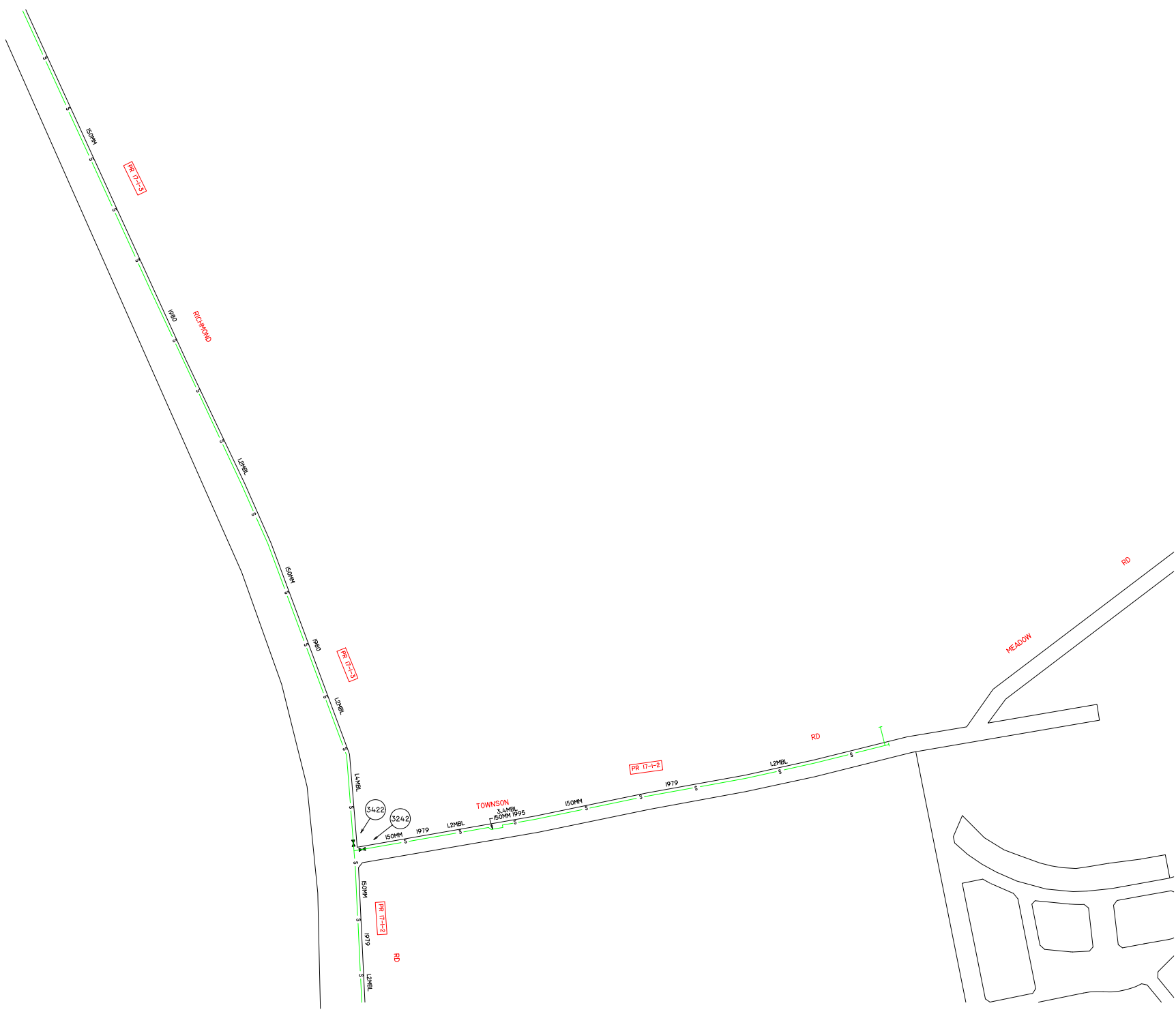
MAX ALLOWABLE OPERATING PRESSURE

T	TRUNK MAIN	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
		300 kPa
		210 kPa
		7 kPa
400		400 kPa
100		100 kPa
		2 kPa

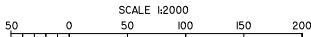
PROPOSED MAINS

- PR 1-2-3 STEEL MAIN PROJECT NUMBER
- Pressure Monitoring Station
- Valve
- System Pressure Regulator
- Siphon
- Network Nodes
- Item Detail Sketch Available
- Valve Number (Old Numbering)
- 6NB 6 INCH CAST IRON MAIN
- 150MM 150MM STEEL MAIN
- 110MM PE/NY 110MM POLYETHYLENE/NYLON MAIN
- 6NB 50MM NY 50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN
- 1.2MBL DISTANCE IN METRES OF MAIN FROM BUILDING LINE (TOLERANCE OF 0.4M)
- 1957 YEAR LAID
- +---+--- MUNICIPALITY BOUNDARY
- +---+--- NETWORK BOUNDARY
- [Box] HOUSE NUMBER

ROOTY HILL 2D



RIVERSTONE
8C



THIS MAP UPDATED ON 03/06/05
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES
SCALED FROM THIS PLAN MAY NOT BE ACCURATE.
DATE ALTERED:..... BY:.....

RI7B	RI8A	RI8B
RI7D	RI8C	RI8D
RHIB	RH2A	RH2B

ADJOINING MAPS

471	BLACKTOWN
NETWORK AREA	MUNICIPALITY AREA

Jemena

KEY

MAX ALLOWABLE OPERATING PRESSURE

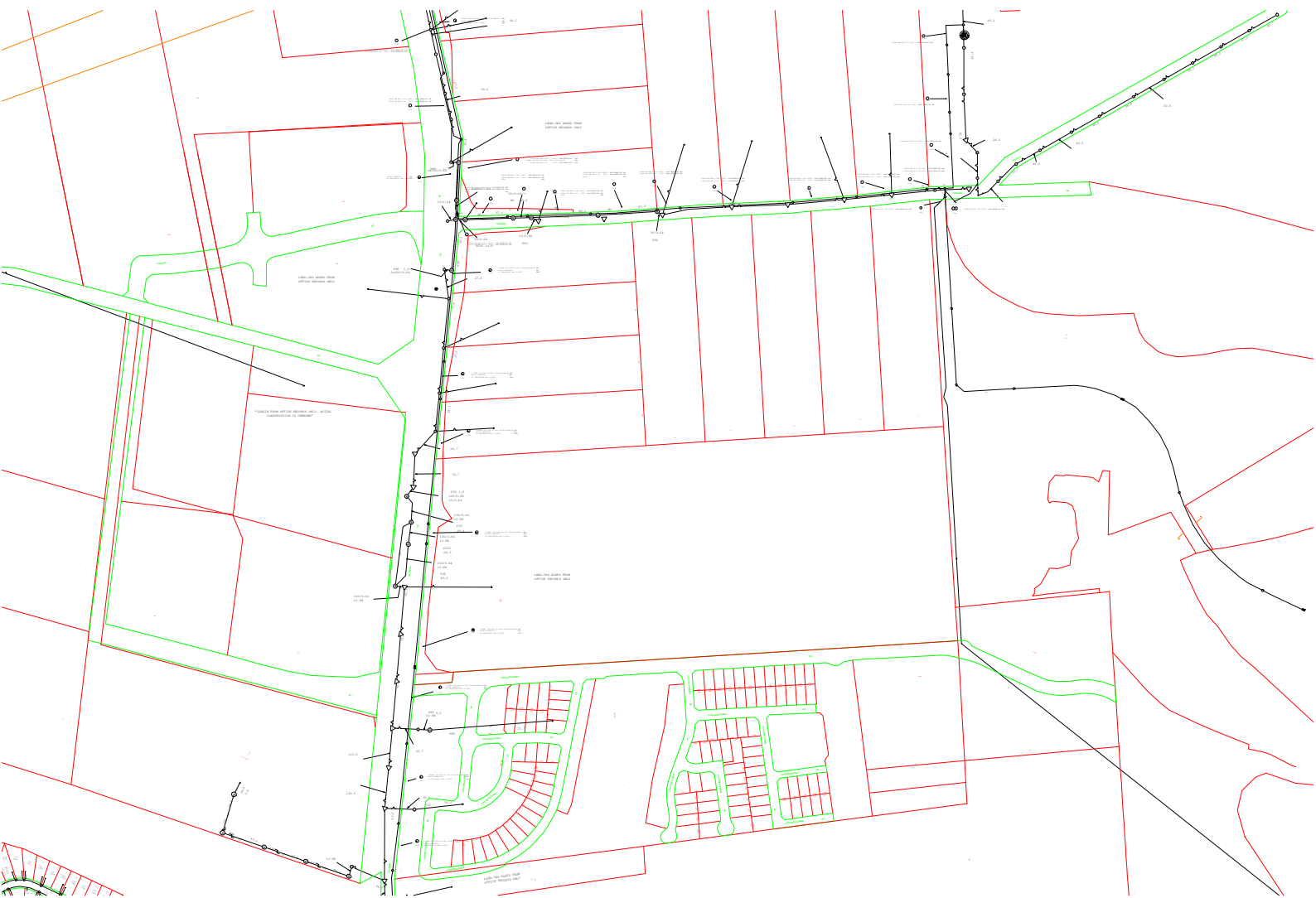
T	TRUNK MAIN	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
		300 kPa
		210 kPa
		7 kPa
400		400 kPa
100		100 kPa
		2 kPa

PROPOSED MAINS

PR 17-1-2 3	STEEL MAIN PROJECT NUMBER
PA	PRESSURE MONITORING STATION
VB	VALVE
SPR	SYSTEM PRESSURE REGULATOR
S	SIPHON
23	NETWORK NODES
235	ITEM DETAIL SKETCH AVAILABLE
235	VALVE NUMBER (OLD NUMBERING)
6NB	6 INCH CAST IRON MAIN
150MM	150MM STEEL MAIN
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN
6NB 50MM NY	50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN
1.2MBL	DISTANCE IN METRES OF MAIN FROM BUILDING LINE (TOLERANCE OF 0.4M)
1957	YEAR LAID
---+---+---	MUNICIPALITY BOUNDARY
---+---+---	NETWORK BOUNDARY
162	HOUSE NUMBER

RIVERSTONE 8C

APPENDIX A4 – COMMUNICATIONS





Telstra Corporation Limited

DUTY OF CARE

IMPORTANT:

Please read and understand all the information and disclaimers provided below.

Sketches and Plans provided by Telstra are circuit diagrams only and indicate the presence of telecommunications plant in the general vicinity of the geographical area shown; exact ground cover and alignments cannot be given with any certainty and cover may alter over time. Telecommunications plant seldom follow straight lines and careful on site investigation is essential to uncover and reveal its exact position.

Due to the nature of Telstra plant and the age of some cables and records, it is impossible to ascertain the location of all Telstra plant. The accuracy and/or completeness of the information can not be guaranteed and, accordingly Telstra plans are intended to be indicative only.

"DUTY OF CARE"

When working in the vicinity of telecommunications plant you have a legal "Duty of Care" that must be observed.

It is the responsibility of the owner and any consultant engaged by the owner, including an architect, consulting engineer, developer, and head contractor to design for minimal impact and protection of Telstra plant. Telstra will provide plans and sketches showing the presence of its network to assist at this design stage.

It is the owner's (or constructor's) responsibility to:-

- a) request plans of Telstra plant for a particular location at a reasonable time before construction begins. If you have any doubts as to the exact location of Telstra Plant, we strongly recommend that you engage an Accredited plant Locator in your area;
- b) visually locate Telstra plant by hand digging or using non destructive water jet method (pot holing) where construction activities may damage or interfere with Telstra plant (see "Essential Precautions and Approach Distances" section for more information); and
- c) contact Telstra's **Plan Services** (see below for details) if Telstra plant is wholly or partly located near planned construction activities.

DAMAGE:

ANY DAMAGE TO TELSTRA'S NETWORK MUST BE REPORTED TO 132203 IMMEDIATELY.

The owner is responsible for all plant damage when works commence prior to obtaining Telstra plans, or failure to follow agreed instructions.

Telstra reserves all rights to recover compensation for loss or damage to its cable network or other property including consequential losses.

EMERGENCY SITUATIONS

Emergency situations are unplanned and include (amongst other things):

- damaged or faulty underground or aerial power cables / poles
- burst/leaking water mains
- burst/leaking sewer mains.
- burst/leaking gas pipes
- any other emergency situation that may impact Telstra network.

NOTE: failure to lodge requests in time for normal maintenance work is not deemed as an emergency.

During working hours - in emergency situations, urgent requests for plans or information relating to the location of Telstra network are to be made direct to the Dial Before You Dig Service.
Note that a fast response can be provided if a request is made on line with a supplied return email address between 5am-10pm AEST 7days a week.

Outside Normal Business hours or outside hours of automated responses - in emergency situations , urgent requests for plans or information relating to the location of Telstra network are to be made direct to Telstra on phone **1800 801 801**

NATURAL DISASTERS

Natural Disasters include (amongst other things):

- Earthquakes
- Cyclones
- Floods; and
- Tsunami

In the case of such events, urgent requests for plans or information relating to the location of Telstra network can be made directly to Telstra Network Integrity Team Managers as follows:

NSW - Joe Palucci 0419 496 015

QLD - Glenn Swift 0419 660 147

VIC/TAS - David Povazan 0417 300 947

SA/NT/WA - Dave Ballard 0419 807 901

PLAN SERVICES

For all Telstra DBYD (Dial Before You Dig) map enquiries please contact Telstra Plan Services

email - **Telstra.Plans@team.telstra.com**

fax - **(02) 4961 3714**

phone - **1800 653 935** (for urgent, onsite or optic fibre enquiries)

Please note - to make an enquiry the plans must be current (within 60 days of issue). If your plans have expired you will need to submit a new request via DBYD.

ASSET RELOCATIONS

You are not permitted to relocate or alter any Telstra assets or network under any circumstance.

For all enquiries relating to the relocation of Telstra assets please phone **1800 810 443** or email **F1102490@team.telstra.com**

CONCERNING TELSTRA PLANS:

Please note the following:

- For plans of Telstra locations contact **Dial Before You Dig** at least 2 business days prior to digging. (**www.1100.com.au** or phone **1100**)
- Fast response can be provided by Telstra if an email address is supplied. (if posted, this may take up to one week or longer to receive plans)
- Telstra plans and information provided are **valid for 60 days** from the date of issue.
- Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose. The plans and details should be disposed of by shredding or any other secure disposal method after use.
- Telstra plans or other details are provided only for the use of the applicant, its servants, or agents. **The applicant may not give the plans or details to other parties, and may not generate profit from commercialising the plans or details.**
- Please contact Telstra **Plan Services** (see above for details) immediately should you locate Telstra assets not indicated on these plans.
- Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.
- Please ensure Telstra plans and information provided remains on-site at all times throughout your construction phase.

ESSENTIAL PRECAUTIONS and APPROACH DISTANCES:

NOTE: If the following clearances cannot be maintained, please contact Telstra Plan Services (see above for details) for advice on how best to resolve this situation.

1. On receipt of plans and sketches and before commencing excavation work or similar activities near Telstra's plant, **carefully locate this plant first** to avoid damage. Undertake prior manual exposure such as potholing when intending to excavate or work **closer** to Telstra plant than the following approach distances.

Where Telstra's plant is in an area where road and footpaths are well defined by kerbs or other features a minimum clear distance of 600mm must be maintained from where it could be reasonably presumed that plant would reside.

In non established or unformed reserves and terrain, this approach distance must be at least 1.5 metres.

In country/rural areas which may have wider variations in reasonably presumed plant presence, the following minimum approach distances apply:

- a) Parallel to major plant: 10 metres (for IEN, optic fibre and copper cable over 300 pairs)
- b) Parallel to other plant: 5 metres

NOTE: Even manual pot-holing needs to be undertaken with extreme care, commonsense and employing techniques least likely to damage cables. For example, orientate shovel blades and trowels parallel to the cable rather than digging across the cable.

If construction work is parallel to Telstra plant, then careful hand digging or using non destructive water jet method (pot-holing) at least every 5m is required to establish the location of all plant, hence confirming nominal locations before work can commence.

2. Maintain the following minimum clearance between construction activity and **actual location** of Telstra Plant.

Jackhammers/Pneumatic Breakers	<i>Not within 1.0m of actual location.</i>
Vibrating Plate or Wacker Packer Compactor	<i>Not within 0.5m of Telstra ducts. 300mm compact clearance cover before compactor can be used across Telstra ducts.</i>
Boring Equipment (in-line, horizontal and vertical)	<i>Not within 2.0m of actual location. Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.</i>
Heavy Vehicle Traffic (over 3 tonnes)	<i>Not to be driven across Telstra ducts (or plant) with less than 600mm cover. Constructor to check depth via hand digging.</i>
Mechanical Excavators, Farm ploughing and Tree Removal	<i>Not within 1.0m of actual location. Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.</i>

All Telstra pits and manholes should be a minimum of 1.2m in from the back of kerb after the completion of your work.

All Telstra conduit should have the following minimum depth of cover **after the completion of your work:-**

- **Footway 450mm**
- **Roadway 450mm at drain invert and 600mm at road centre crown**

For clearance distances relating to Telstra pillars, cabinets and RIMs/RCMs please contact Telstra Plan Services (see above for details).

FURTHER ASSISTANCE:

Assistance can be obtained by contacting Telstra **Plan Services**

Where on-site location is provided, the owner is responsible for all hand digging or use non-destructive water jet method (pot-holing) to visually locate and expose Telstra plant.

If plant location plans or visual location of Telstra plant by digging reveals that the location of Telstra plant is situated wholly or partly where the owner plans to work, then **Telstra's Network Integrity Group** must be contacted through Telstra **Plan Services** to discuss possible engineering solutions.

NOTE:

If Telstra relocation or protection works are part of the agreed solution, then payment to Telstra for the cost of this work shall be the responsibility of the principal developer or constructor. The principal developer or constructor will be required to provide Telstra with the details of their proposed work showing how Telstra's plant is to be accommodated and these details must be approved by the Regional Network Integrity Manager prior to the commencement of site works.

RURAL LANDOWNERS - IMPORTANT INFORMATION

Where Telstra owned cable crosses agricultural land, Telstra may provide a once off free on-site electronic cable location. The Telstra Plan Services operator will provide assistance in determining whether a free on-site location is required.

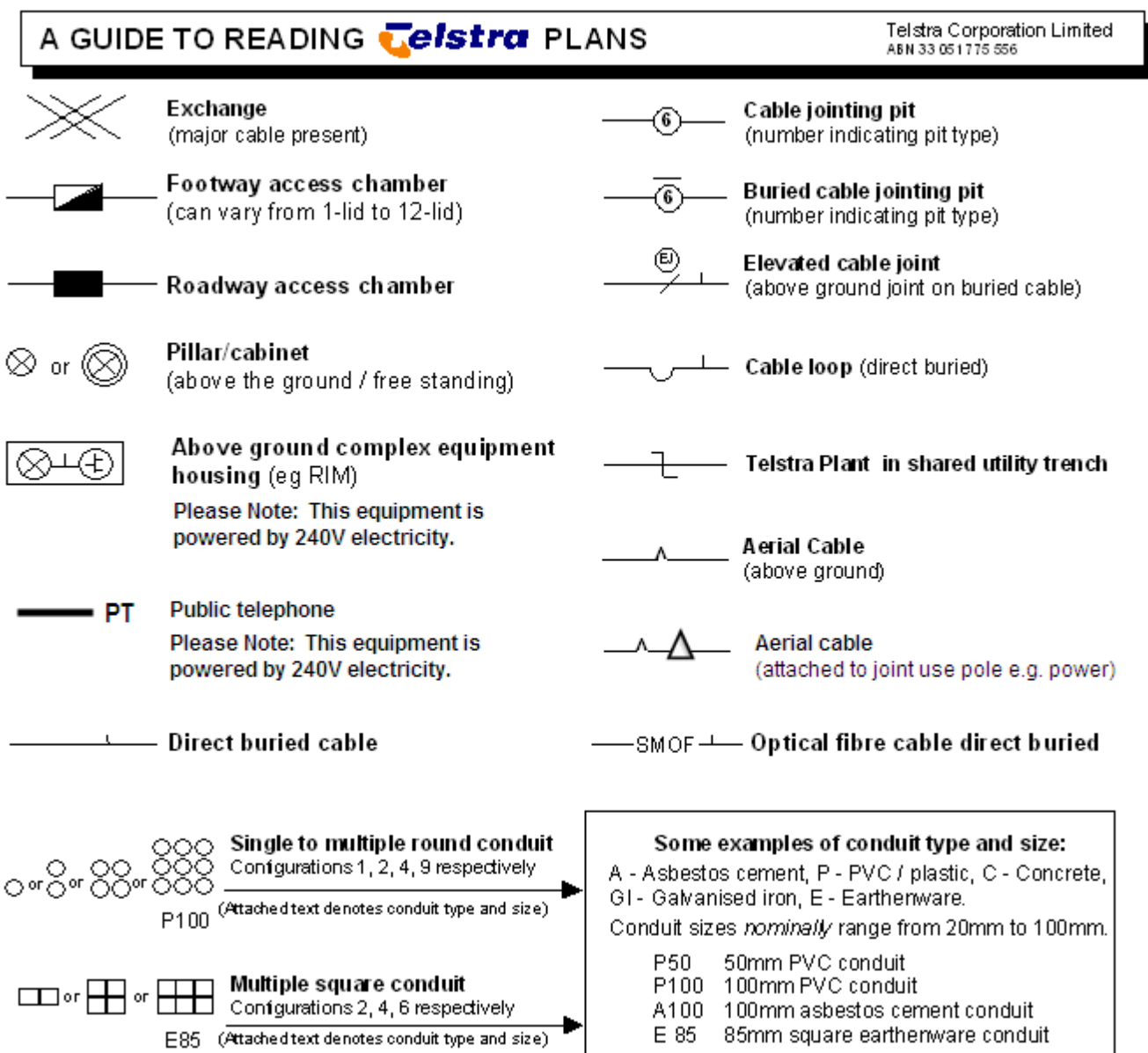
Please note:

- The exact location, including depth of cables can only be verified by pot holing, which is not covered by this service.
- This service is only available to assist private rural land owners.
- This service covers one hour on-site only. Additional time can be purchased directly from the Accredited Plant Locator.

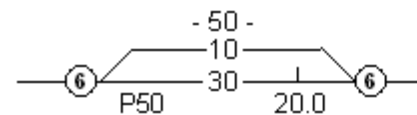
For further information including terms and conditions, please contact Telstra Plan Services on phone **1800 653 935**.

PRIVACY NOTE

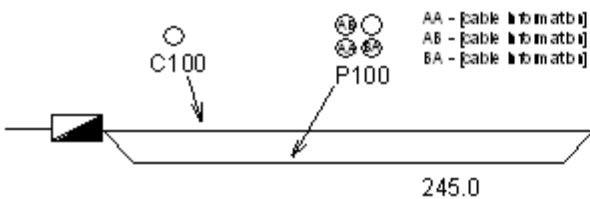
Your information has been provided to Telstra by DBYD to enable Telstra to respond to your DBYD request. Telstra keeps your information in accordance with its privacy statement entitled "Protecting Your Privacy" which can be obtained from Telstra either by calling 1800 039 059 or visiting our website at www.telstra.com.au/privacy



Some examples of how to read Telstra plans:



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits, 20.0m apart, with a direct buried 30-pair cable along the same route.



Two separate conduit runs between two footway access chambers (manholes) 245m apart. A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along the same route.

WARNING: Telstra's plans show only the presence of cables and plant. They only show their position relative to road boundaries, property fences etc. at the time of installation and Telstra does not warrant or hold out that such plans are accurate thereafter due to changes that may occur over time.

DO NOT ASSUME DEPTH OR ALIGNMENT of cables or plant as these vary significantly.

The customer has a DUTY OF CARE when excavating near Telstra cables and plant. Before using machine excavators TELSTRA PLANT MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG (potholing) to identify its location.

Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Electronic plans - PDF and DWF maps

If you have received Telstra maps via email you will have received the maps as either a PDF file (for smaller areas) or DWF file (for larger area requests). If you are unable to launch any one of the softcopy files for viewing and printing, you may need to download and install one or more of the free viewing and printing products such as Adobe Acrobat Reader (for PDF files) or Autodesk Design Review 2010 (for DWF files) available from the internet.

PDF files

PDF is the default softcopy format for all requests that range in size from 0 metres (eg point requests) to requests up to approx *500m in length. (*depends on geographic location of request). The PDF file is formatted to A3 portrait sheet however it can be printed on any size sheet including from A4 to AO, either as the full sheet or selected areas to suit needs and legibility. (to print a selected area zoom up and print "current view"). If there are multiple layers of Telstra network you may receive up to 2 sheets in the single PDF file attachment supplied. There are three types or layers of network normally recorded - local network, mains cables or a combined layer of local and mains (usually displayed in rural or semi rural areas). If mains cable network is present in addition to local cables (ie as separate layer in a particular area), the mains will be shown on a separate sheet. The mains cable information should be read in conjunction with the local cable information.

DWF files

This is the default softcopy format for all requests that are over 500m in length. Maximum length for a DWF automated response is approx 2500m - depending on geographic location of request (non automated longer). The DWF files differ from PDF in that DWF are vector files made up of layers that can be turned on or off and are not formatted to a specific sheet size. This makes them ideal for larger areas and for transmitting over email etc.

How to view Telstra DWF files -

Telstra DWF files come with all layers turned on. You may need to turn individual layers on or off for viewing and printing clarity. Individual layer names are CC (main cable/conduit), DA (distribution or local area network) and sometimes a combined layer - CAC. Layer details can be viewed by either picking off the side menu or by selecting 'window' then 'layers' off the top menu bar. Use 'layers' to turn individual layers off or on. (double click or right click on layer icon.)

How to print Telstra DWF files -

DWF files can be printed on any size sheet. They can be printed in their entirety or by selected areas of interest. Some DWF coverage areas are large and are not suited to printing legibly on a single A4 sheet - you may need several prints if you only have an A4 printer. Alternately an A3, A1 or larger printer should be used. To print, zoom in or out and then by changing the 'print range' settings you can print what is displayed on your screen to suit your paper size. If you only have a small printer eg A4 you may need to zoom until the text legible on your screen for it to be legible on the print. (which is why you may need several prints). To print what is displayed on your screen the 'view' setting should be changed from 'full page' to 'current view'. The 'current sheet' setting should also be selected. You may need to print layers separately for clarity and legibility. (details above on how to turn layers on or off)

How to change the background colour from white to black (when viewing) Telstra DWF files -

If using Autodesk Design Review the background colour can be changed by selecting "Tools" then "options" then "sheet". Tick the box "override published paper colors" and select the colour required using the tab provided.

Further information

If you require further assistance with supplied PDF or DWF plans eg with legibility or you believe there maybe missing information please contact Telstra Plan Services. (contact details above - you will need to supply the Telstra sequence number of the plan request.)

Telstra automated plan service

Telstra provides an automated plan response for the majority of DBYD requests received (currently around 80%). Requestors must supply a current email address on their request to DBYD and must also be able to accept a standard format ie PDF or DWF. An automated response can be provided a lot faster than the alternative which is a mailed hardcopy. This can avoid unnecessary

delays in waiting for plans to arrive. Being softcopy it can easily be sent directly to a worksite and can be available 7 days a week. The automated system can be configured for individual requestors to receive either PDF/DWF (where small requests are PDF and larger requests are DWF) or alternately all in DWF (both small and large requests). Please contact Plan Services for further details or to be configured. Please note all requests over *500m (approx) in size can only be supplied in DWF format and there are size limits on what can be provided. (* actual size depends on geographic location of requested area)

Data Extraction Fees

In some instances a data extraction fee may be applicable for the supply of Telstra information. Typically a data extraction fee may apply to - large projects, requests to be supplied in non standard formats, excessive hardcopy printing or requests for non digging purposes. Further details can be obtained by contacting Telstra Plan Services.

ACCREDITED PLANT LOCATORS (For your area)

On-site assistance should be sought from an **Accredited Plant Locator** if the telecommunications plant cannot be located within 2.5 metres of the locations indicated on the drawings provided.

On-site advice should be obtained from a Telstra accredited Asset Plant Locator who is highly skilled in locating Telstra plant. In the case where Telstra plant is outside a recognised road reserve Telstra recommends that Telstra Plan Services are contacted for assistance prior to engaging an accredited Asset Plant Locator.

Telstra does not permit external parties (non-Telstra) to conduct work on our network. Only Telstra staff or Telstra contractors are allowed to enter our manholes, open our pits, ducts, etc.

Please note it is a criminal offence under the *Criminal Code Act 1995*(Cth) to tamper or interfere with communication facilities owned by a carrier. Heavy penalties may apply for breach of this prohibition, and any damages suffered, or costs incurred by Telstra as a result of any such unauthorised works may be claimed against you.

Should your projects require cable location, you **MUST** engage an accredited Asset Plant Locator (a list of which is provided with the Dial Before You Dig plans). Alternatively you may seek your own accreditation through our registered training partner Coates Hire Training which is the only approved training provider for Asset Plant Location accreditation for Telstra's network. You may contact Coates Hire Training on

1300 657 867 or visit **www.coateshire.com.au**

For the assistance of customers an accredited Asset Plant Locator can perform any of the following activities if requested to do so by the owner:

- review Telstra's plans to assess the approximate location of Telstra plant;
- advise owners of the approximate location of Telstra plant according to the plans;
- advise owners of the best method for locating Telstra plant;
- advise owners of the hazards of unqualified persons attempting to find the exact location of Telstra plant and working in the vicinity of Telstra plant without first locating its exact position; and
- perform trial hole explorations by hand digging (pot-holing) to expose Telstra plant with a high degree of skill, competence and efficiency and utilising all necessary safety equipment.

A list of Accredited Plant Locators operating in your area is attached. Accredited Plant Locators are certified by Telstra to perform the tasks listed above. Owners may engage Accredited Plant Locators to perform these services, however Telstra does not give any warranty in relation to these services that Accredited Plant Locators are competent or experienced to perform any other services.

The attached list provides the names and contact details for Accredited Plant Locators who service your area and can provide you with assistance in locating Telstra plant on site. These organisations have been able to satisfy Telstra that they have a sound knowledge of telecommunications plant and its sensitivity to disturbance; appropriate equipment for locating telecommunications plant and competent personnel who are able to interpret telecommunications plans and sketches and understand safety issues relevant to working around telecommunications plant. They are also able to advise you on the actions which should be taken if the work you propose will/could result in a relocation of the telecommunications plant and/or its means of support.

We recommend that you engage the assistance of one of these Accredited Plant Locators as a step towards discharging your Duty of Care obligations when seeking the location of Telstra's telecommunications plant.

Please Note:

- Each Accredited Plant Locator is NOT permitted to provide depth of communications plant unless physically exposed by hand digging.
- The details of any contract, agreement or retainer for site assistance to locate telecommunications plant shall be for you to decide and agree with the organisation engaged. Telstra is not a party to any contract entered into between an owner and an Accredited Plant Locator. The Accredited Plant Locators are able to provide guidance concerning the extent of site investigations required.
- Payment for the site assistance will be your responsibility and payment details should be agreed before the engagement is confirmed.
- Telstra does not accept any liability or responsibility for the performance of or advice given by an Accredited Plant Locator. Accreditation is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.
- Each Accredited Plant Locator has been issued with a certificate which confirms the Accreditation. Every 2 years Telstra will reassess the accreditation and where appropriate will issue a letter confirming the accreditation for the next 2 years. You

have the right to request the organisation you engage to show evidence of their ID card.

- Neither the Accredited Plant Locator nor any of its employees are an employee or agent for Telstra and Telstra is not liable for any damage or loss caused by the Accredited Plant Locator or its employees.
- The attached list contains the current names and contact details of Accredited Plant Locators who service your area, however, these details are subject to change.

IDEA FOR CONSIDERATION:

Telstra offer free Cable Awareness Presentations & Advanced Cable Reading Presentations, if you believe you or your company would benefit from this offer please contact Network Integrity on 1800 810 443 or **F1102490@team.telstra.com**



Network Operations – Asset Analysis
Unit 9, 677 Springvale Road
Mulgrave, Victoria, 3178

Date: 01/11/2012
To: Mr Joe Heydon
Company:
Address: Level 5 141 Walker Street
North Sydney, NSW 2060

ENQUIRY DETAILS

Location: 799 Richmond Rd, Colebee, NSW 2761
Sequence No.: 26908897
DBYD Reference: 5872274

In relation to your enquiry of the above address, Optus advises as follows:

The records of Optus disclose that there ARE underground FIBRE OPTIC TELECOMMUNICATIONS cables in the vicinity of the above enquiry as per the attached plan(s). This reply is valid for a period of 30 days from the date above.

IMPORTANT INFORMATION

Drawings and Plans provided by Optus are reference diagrams which were correct at the time the asset was built. Exact ground cover and alignments cannot be provided with any certainty as these may alter over time. Depths of Telecommunications plant vary considerably as do alignments. It is essential to uncover the asset and positively identify the assets exact location.

Optus plans are provided as a guide only and the completeness of the information cannot be guaranteed.

“DUTY OF CARE”

When working in the vicinity of Telecommunications plant you have a legal “Duty of Care” that must be observed.

It is the responsibility of the owner and any consultant engaged by the owner, including an architect, consulting engineer, developer and head contractor to design for minimal impact to Optus plant. Optus will provide assistance at this design stage through the provision of plans and sketches or consultation.

It is the owner’s (or constructor’s) responsibility to:-

- a) Request plans of Optus plant for a particular location at a reasonable time before construction begins. If you have doubts about the presence of Optus assets we strongly recommend that you engage an Optus Accredited plant locator.
- b) Visually locate Optus plant by hand digging or using non-destructive water jet method where construction activities may damage or interfere with Optus plant
- c) Contact Optus Network Operations – Asset Analyst (details below) if Optus plant is wholly or partly located near construction activities

CRIMINAL CODE ACT 1995

The following is an extract from the Criminal Code Act 1995 and is applicable to Optus plant

Chapter 10 National infrastructure

Part 10.6 Telecommunications Services

Division 474 Telecommunications offences

Sect 474.6 Interference with facilities

- 1) A person is guilty of an offence if the person tampers with, or interferes with, a facility owned or operated by:
 - (a) a carrier; or
 - (b) a carriage service provider; or
 - (c) a nominated carrier.

Penalty: Imprisonment for 1 year.

- 2) For the purposes of an offence against subsection (1), absolute liability applies to the physical element of circumstance of the offence, that the facility is owned or operated by a carrier, a carriage service provider or a nominated carrier.
- 3) A person is guilty of an offence if:
 - (a) the person tampers with, or interferes with, a facility owned or operated by:
 - i.a carrier; or
 - ii.a carriage service provider; or
 - iii.a nominated carrier; and
 - (b) this conduct results in hindering the normal operation of a carriage service supplied by a carriage service provider.

Penalty: Imprisonment for 2 years.

- 4) For the purposes of an offence against subsection (3), absolute liability applies to the following physical elements of circumstance of the offence:
 - (a) that the facility is owned or operated by a carrier, a carriage service provider or a nominated carrier;
 - (b) that the carriage service is supplied by a carriage service provider.
- 5) A person is guilty of an offence if:
 - (a) the person uses or operates any apparatus or device (whether or not it is comprised in, connected to or used in connection with a telecommunications network); and
 - (b) this conduct results in hindering the normal operation of a carriage service supplied by a carriage service provider.

Penalty: Imprisonment for 2 years.

DAMAGE

ANY DAMAGE TO OPTUS NETWORK MUST BE REPORTED TO 1800 500 253 IMMEDIATELY

The owner is responsible for all plant damage when works commence prior to obtaining Optus Drawings, or failure to follow instructions.

Optus reserves the right to recover compensation for loss or damage to its cable network and other property including consequential loss

ASSET RELOCATIONS

You are not permitted to relocate or alter any Optus assets or network under any circumstance.

For all enquiries relating to the relocation of Optus assets please email Fibre.Locations@optus.net.au

ESSENTIAL PRECAUTIONS AND APPROACH DISTANCES

Note: If the following clearances cannot be maintained, please contact Optus Network Operations Asset Analysis Team for advice on how to resolve the situation.

1. On receipt of plans and before commencing excavation work or similar activities near Optus plant, carefully locate the plant first to avoid damage. Engage an Optus accredited locator to undertake exposure of the Optus plant when working within the following approach distances.

Where Optus plant is in an area where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1.0m must be maintained from where it could be reasonably presumed that plant would reside.

In non established or unformed reserves this distance must be at least 3 metres.

In country or rural areas which may have wider variations in reasonably presumed plant presence, the following minimum approach distance applies:

- a) Parallel to plant: 5 metres

Note: Indicated depths may vary significantly and pot-holing needs to be undertaken within extreme care, commonsense and using techniques least likely to damage cables. Potholing is only to be undertaken by an Optus accredited plant location contractor.

If construction work is parallel to Optus plant, then careful hand digging or using non destructive water jet method (pot holing) at least every 5m is required to establish the location of the plant, confirming the location of the plant prior to work commencing.

Under no circumstances is crossing of Optus plant to be performed without first exposing the Optus plant and having an Optus representative present onsite.

2. Maintain the following minimum clearance between construction activity and the actual location of Optus plant.

Jackhammers / Pneumatic Breakers	Not within 1.0m of actual location
Vibrating Plate or Wacker Packer Compactor	Not within 0.5m of actual location 300mm compact clearance before compactor can be used across Optus ducts 750mm compact clearance cover before compactor can be used across Optus <i>Direct Buried</i> cable
Boring Equipment (in-line, horizontal and vertical)	Not within 5.0m of actual location without Optus representative onsite Constructor to hand dig or non-destructive water jet method (pot holing) and expose the Optus plant Not to cross the Optus plant without first exposing the plant at the crossing point and without Optus representative onsite
Heavy vehicle Traffic (over 3 tonnes)	Not to be driven across Optus ducts or plant with less than 600mm of cover Depth to be verified via hand digging
Mechanical Excavators, Farm ploughing, Boring, Tree removal, fencing	Not within 1.0m of actual location Constructor to hand dig or use non-destructive water jet method (pot holing) and expose plant

All Optus pits and manholes should be a minimum of 1.0m in from the back of kerb or within 15m of street intersection after the completion of your work.

All Optus conduit should have the following minimum depth of cover **after the completion of your work:-**

- **Footway 600mm**
- **Roadway 1000mm at drain invert and at road centre crown**

In cases where it is considered that these clearances cannot be maintained at the completion of works advice is to be sought from the Optus Damages and Relocations Team

FURTHER ASSISTANCE

Assistance can be obtained by contacting Optus Network Operations Asset Analysis on **1800 505 777**

Where an on-site location is provided, the owner is responsible for all costs associated with hand digging or use of non-destructive water jet method (pot holing) to visually locate and expose Optus plant.

If plant location drawings or visual location of Optus plant by digging reveals that the location of Optus plant is situated wholly or partly where the owner plans to work, then Optus Damages and Relocates Team must be contacted through Optus Network Operations Asset Locations to discuss possible engineering solutions.

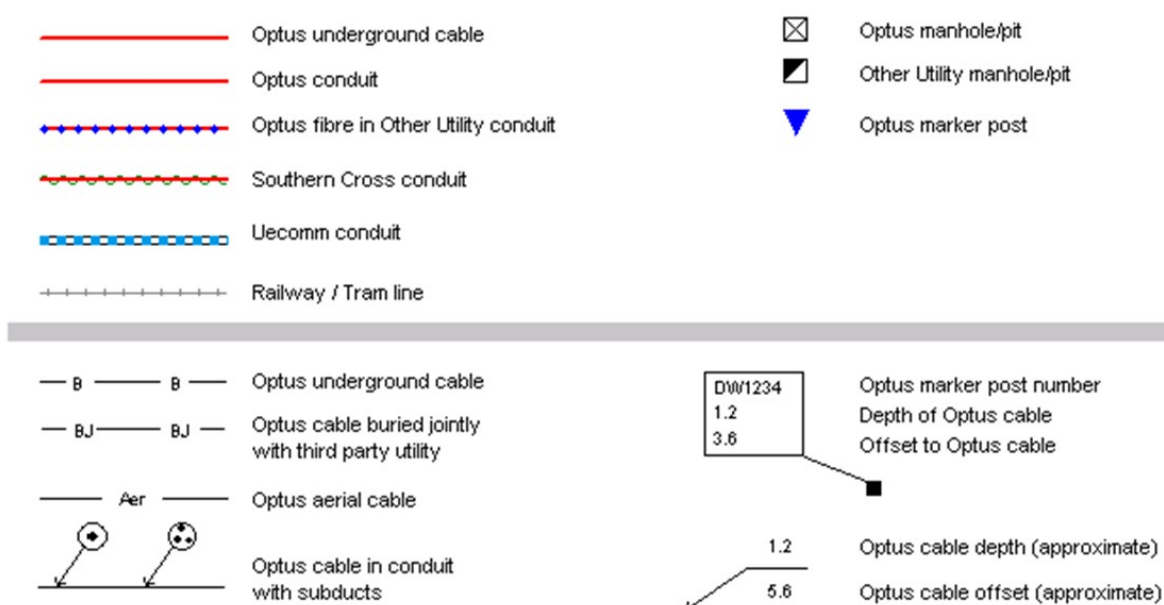
PRIVATE RESIDENTIAL LANDOWNERS and RURAL LANDOWNERS

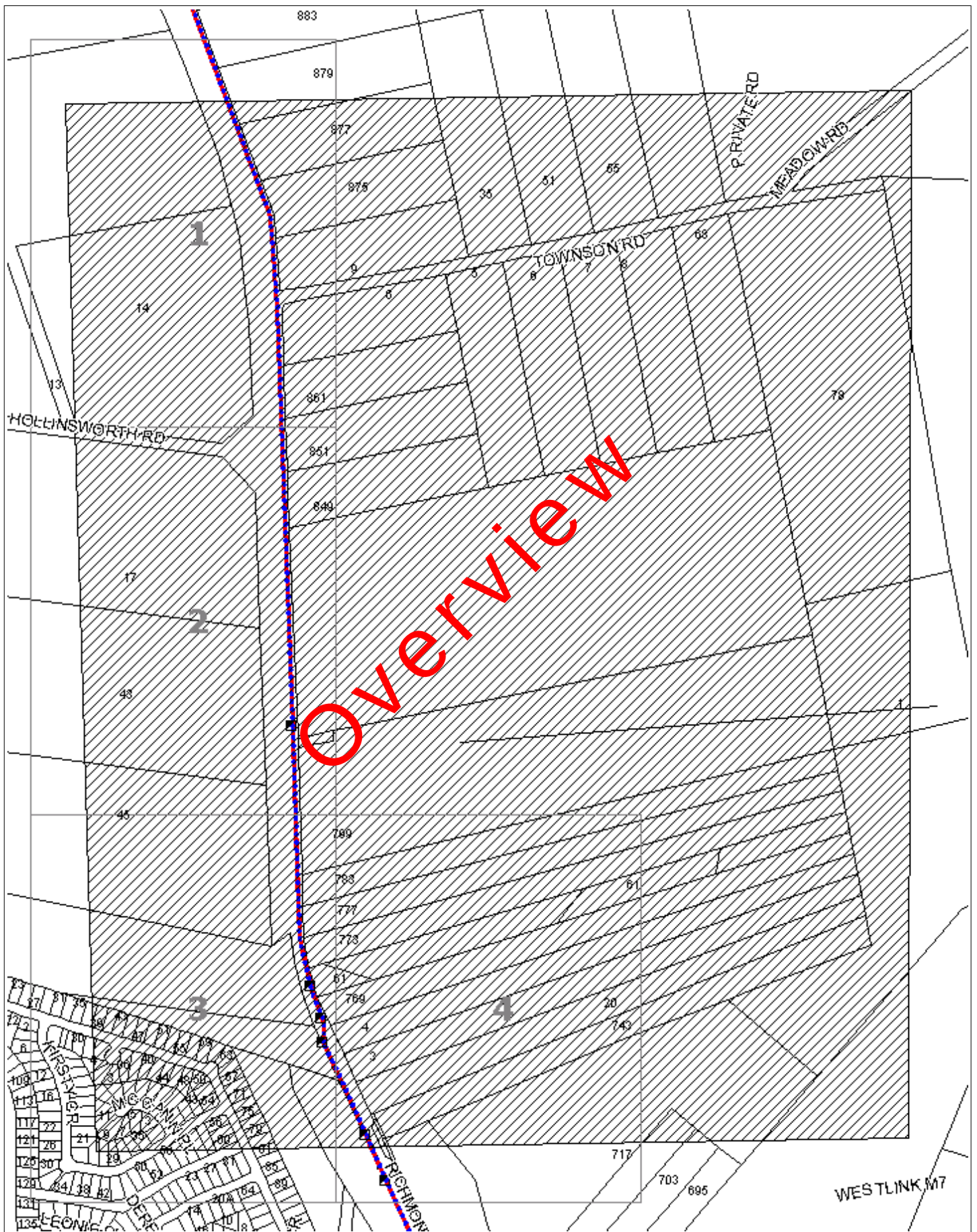
Where Optus owned cable crosses private residential property or agricultural land, Optus may provide a once off free onsite electronic cable location. Optus Network Operations Asset Analyst will provide assistance in determining whether a free on-site location is required.

Please note:

- The exact location, including depth of cables can only be verified by pot holing which is not covered under this service
- This service is only available to assist private residential land owners and rural land owners
- The service covers one hour onsite only. Additional time will be charged at the current nominal rate.

OPTUS ENGINEERING DRAWING SYMBOLS





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Sequence Number: 26908897

Date Generated: 01/11/2012



For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208





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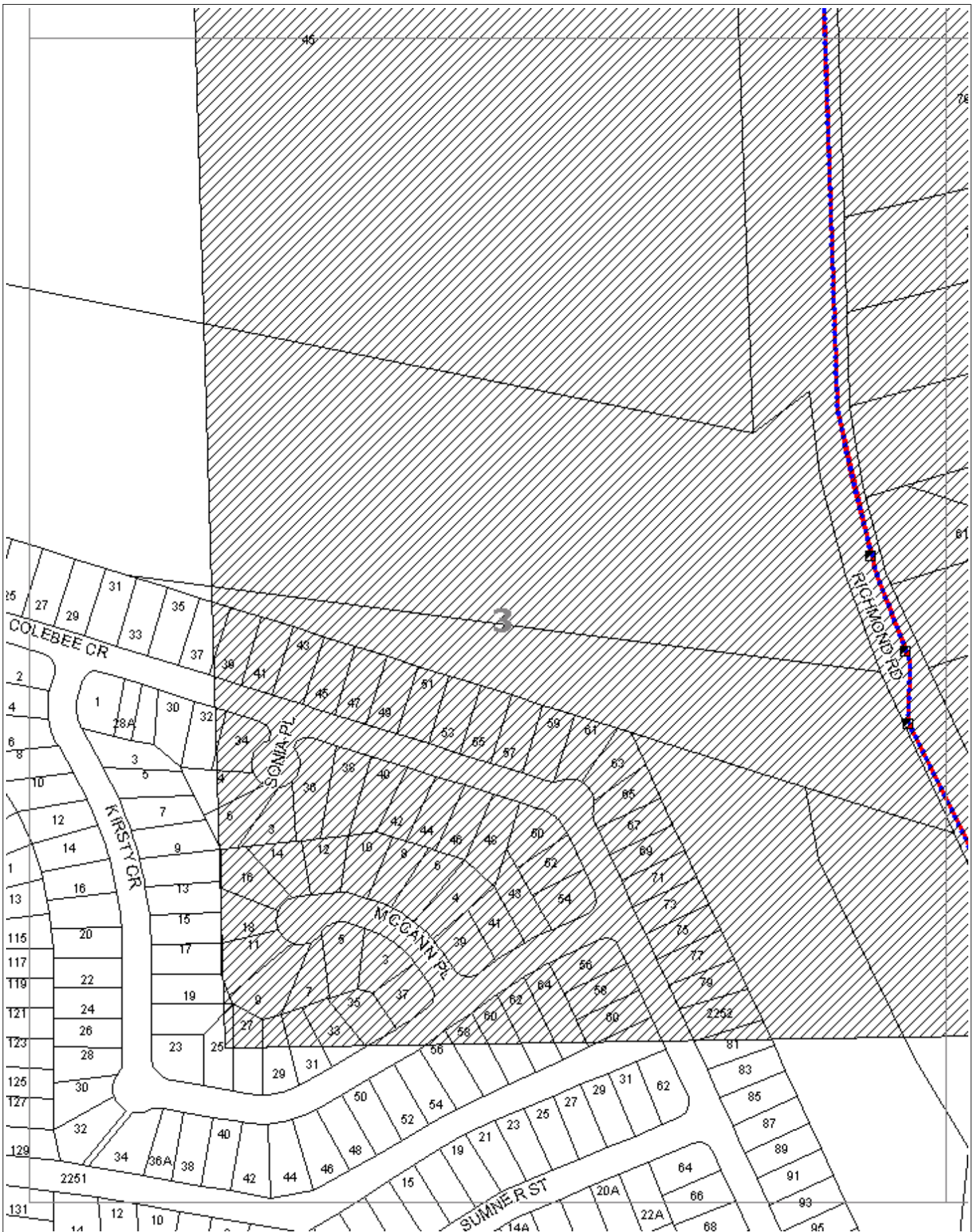
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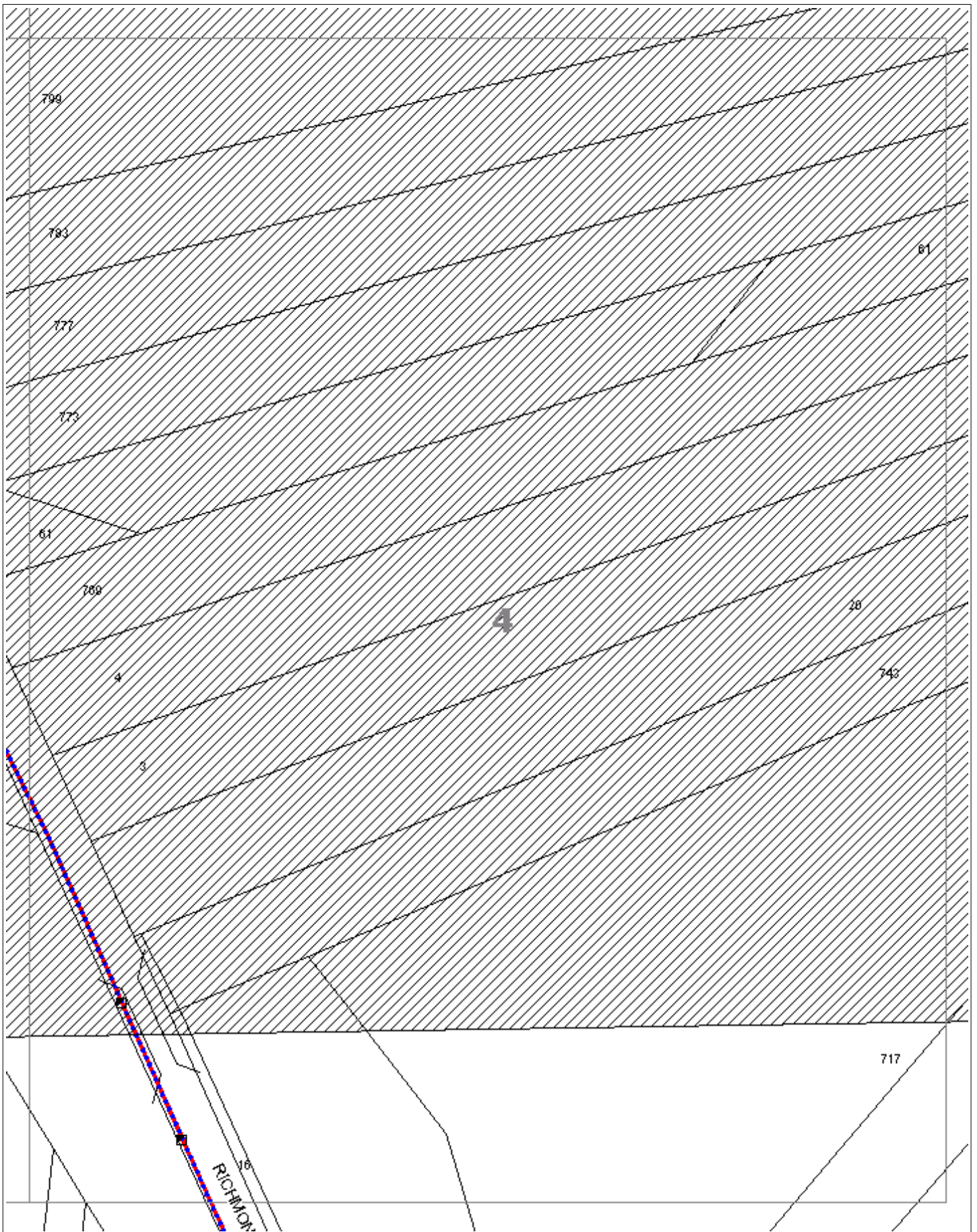
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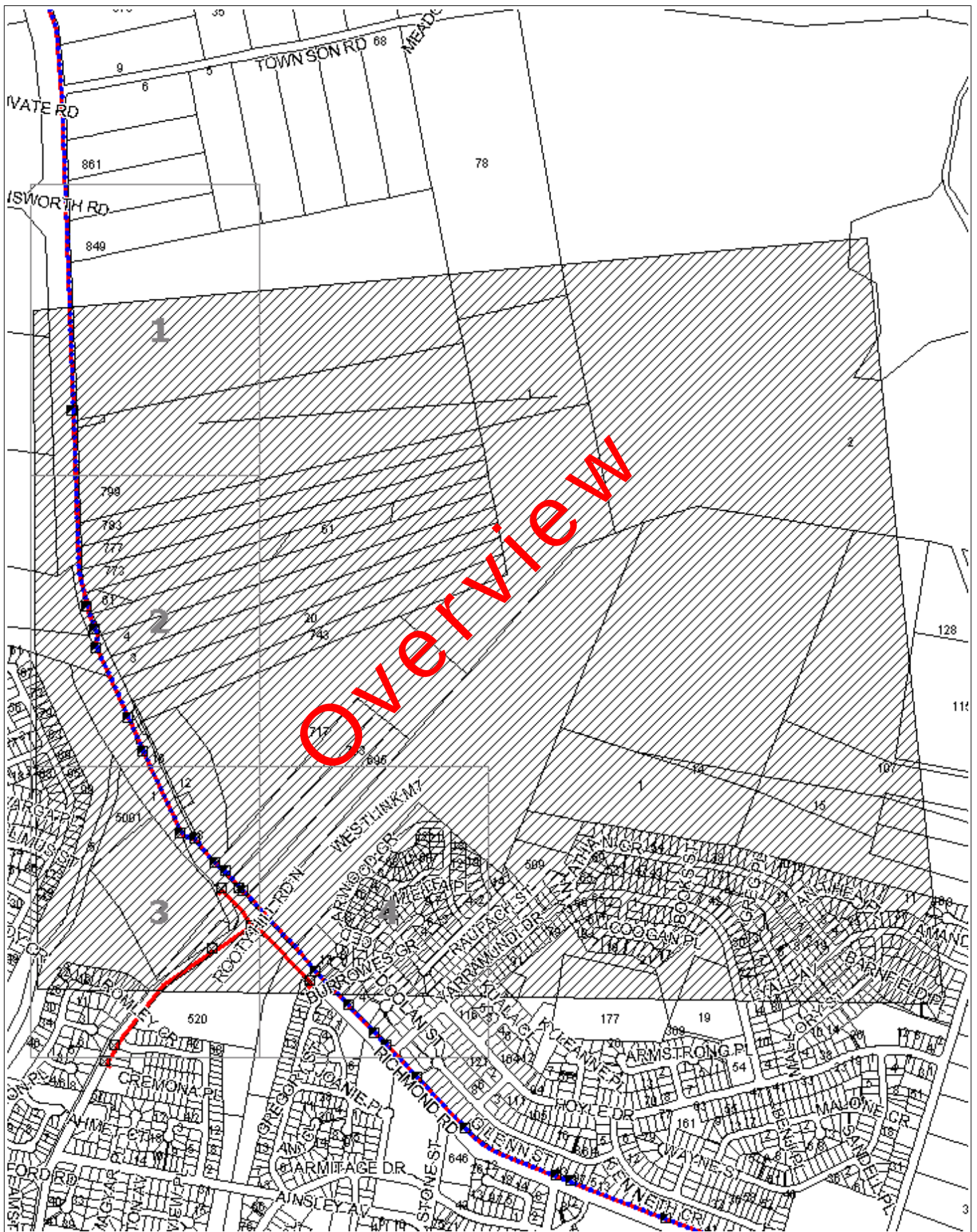
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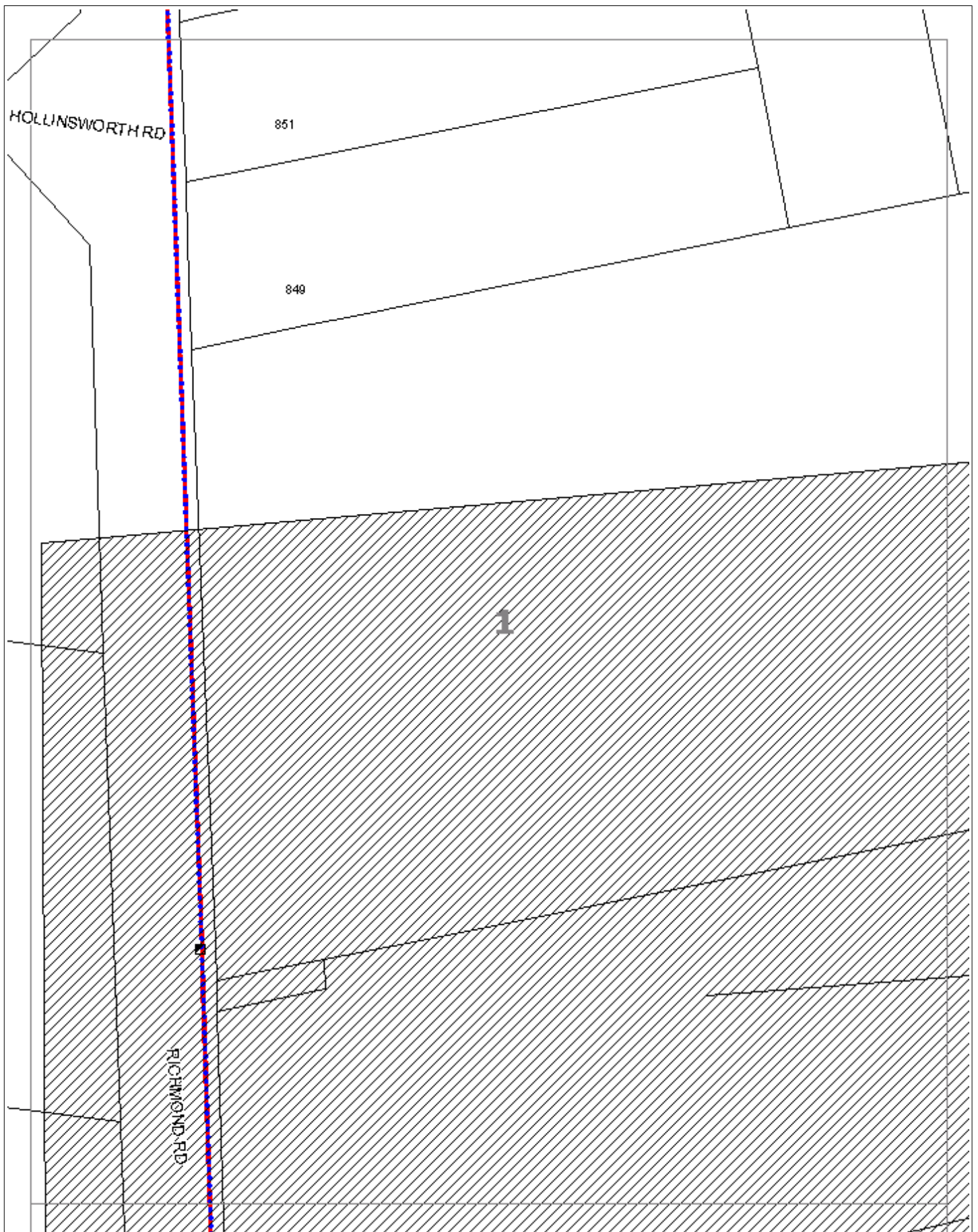
Sequence Number: 26953157

Date Generated: 06/11/2012



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Sequence Number: 26953157

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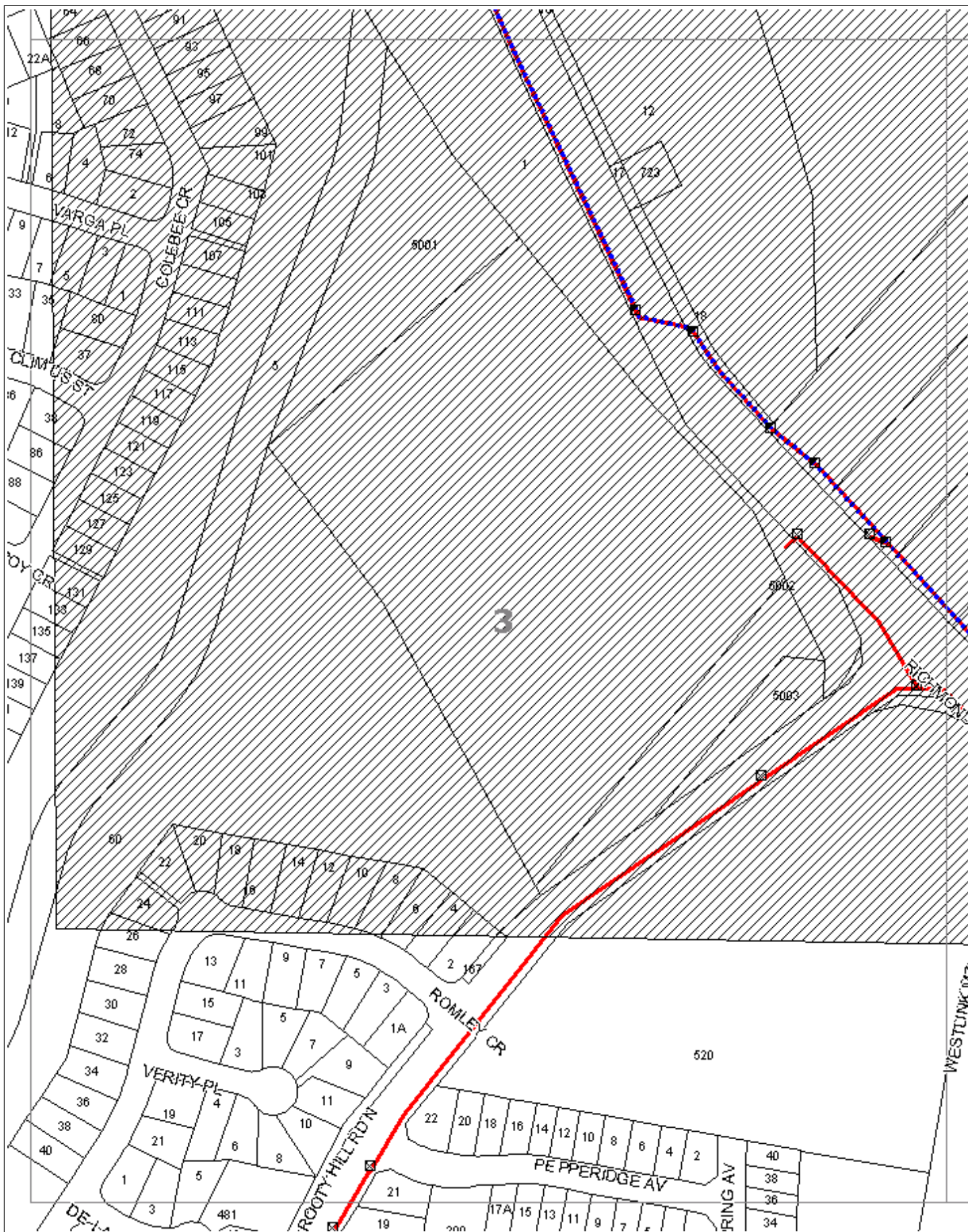
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Date Generated: 06/11/2012



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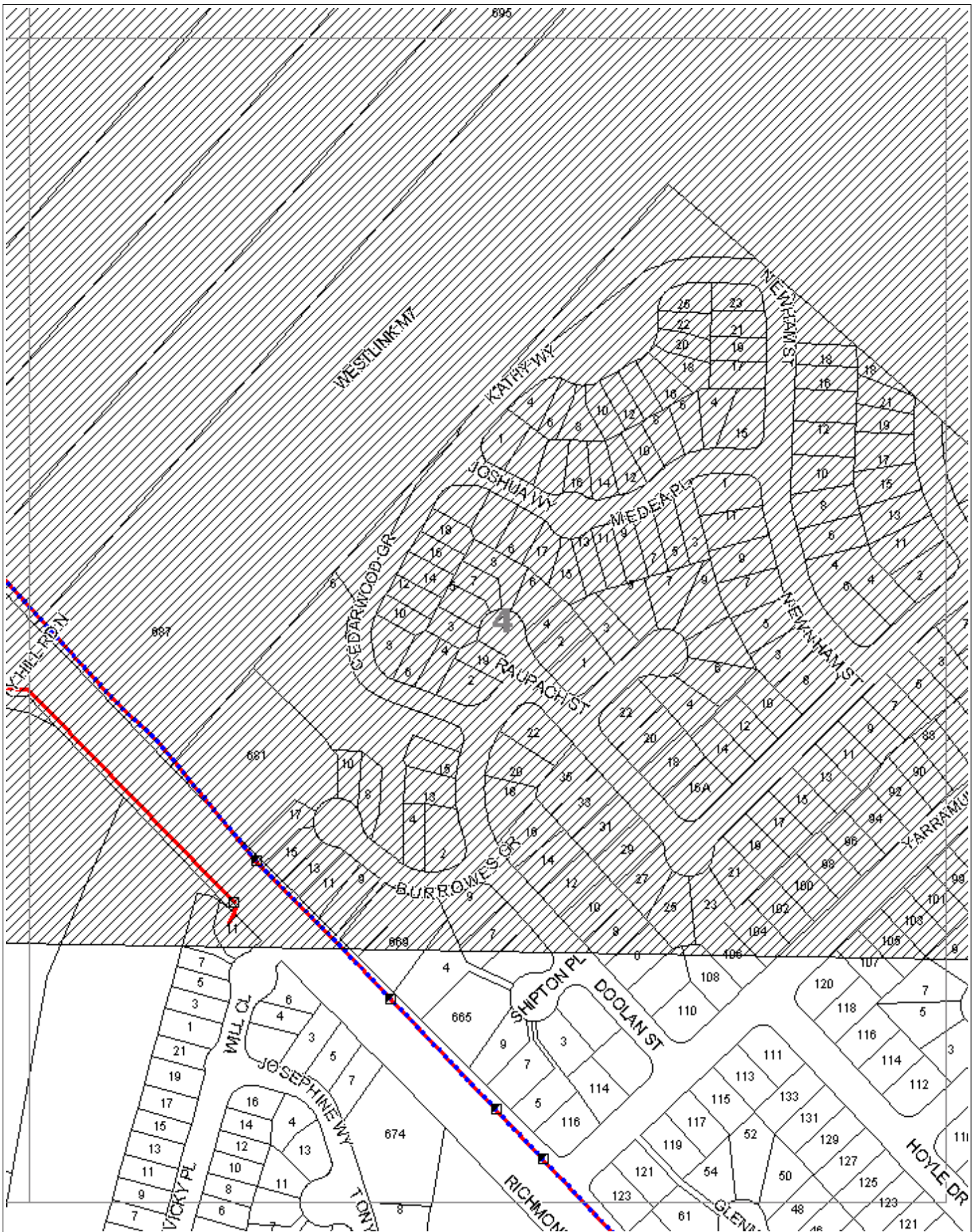
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Date Generated: 06/11/2012



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Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208



APPENDIX B – RICHMOND ROAD PUBLIC UTILITY COORDINATION DESIGN DRAWINGS

PUBLIC UTILITY CO-ORDINATION DETAILS

GENERAL NOTES & SUPPLEMENTARY DRAWINGS

(Sheets 038 - 049)

NOTES

- All work to be carried out in accordance with current Roads & Maritime Services QA Specifications & Australian Standards unless otherwise stated.
- The locations of services at the site depicted on this plan have been partially surveyed and are shown on RMS Drawing DS2012/000530. To determine the nature and extent of this survey work, reference must be made to this Drawing prior to the commencement of roadworks, and the relevant utility plans obtained by dialling Ph. 1100 or Fax. 1300 652 077 (DIAL BEFORE YOU DIG). Caution should be exercised when working in the vicinity of all utility services.
- For adjustment / protection details to U/G services see separate approved drawings by Utility Authorities. Utilities should be protected as directed by the respective authorities or Roads & Maritime Services Project Manager.
- The contractor must follow all Utility Authority "Duty of Care Requirements" when working in the vicinity of utilities.
- Indicative Telecom pits have been interpolated from the Telstra Adjustment plans (refer to Supplementary Drawings). The exact location of these pits is to be confirmed on site with Telstra representatives and the Principal.
- All service conduits to be laid prior to pavement formation construction at road crossings as directed by the Principal.
- All new Electrical Switching Stations/Substations/Pillars are to be constructed outside the 'clear zone', 7.0m from the edge of Richmond Road through lane. For details refer to drawings by Connect Infrastructure.
- The location and level of all New Public Utilities shown on this plan is indicative only. Final locations to be confirmed on site by the Contractor.

SUPPLEMENTARY DRAWINGS

Sydney Water Water Main Extension -	21-19069-W061 to W064
Sydney Water Sewer Pressure Main -	21-19069-W071 to W076
Sydney Water Sewer Pressure Main -	21-19069-W077 to W078
Street Lighting & Endeavor Energy Adjustments	
Connect Infrastructure -	W407 E1-03
Jemena Gas Adjustments -	Ref # D54870
Telstra Adjustments -	Ref dated: 22/08/12
Underground Surveyed Utilities (RMS)	DS2012-000530

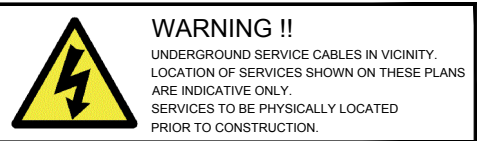
FINAL LOCATION OF NEW PUBLIC UTILITIES TO BE CONFIRMED
(SUBJECT TO APPROVAL BY UTILITY AUTHORITIES)

EXISTING PUBLIC UTILITIES

POLE - POWER	○	ELECTRICAL CABLE JUNCTION BOX	□ ^{EJB}
POLE - LIGHT	☀	WATER TAP	⊕
POLE - POWER & LIGHT	♂	STOP VALVE	△
POLE - POWER & TRANSFORMER	♂	WATER HYDRANT	□ ^{WH}
TELEPHONE SINGLE CONCRETE PIT	▢	GAS PIPELINE MARKER	⊕ ^{GP}
TELEPHONE TWIN CONCRETE PIT	▢▢	GAS VALVE BOX	⊕
INDICATIVE TELECOM PIT	*□	GAS TEST POINT	△
GAS	— eG — eG —	SEWER	— eS — eS —
TELECOM	— eT — eT —	WATER	— eW — eW —
O/H TELECOM	— eT — eT —	U/G ELECTRICITY	— eE — eE —
OPTIC FIBRE (TELSTRA)	— eOF — eOF —	MINOR TRANSMISSION	— * — *
OPTIC FIBRE (OPTUS)	— eOOF — eOOF —		

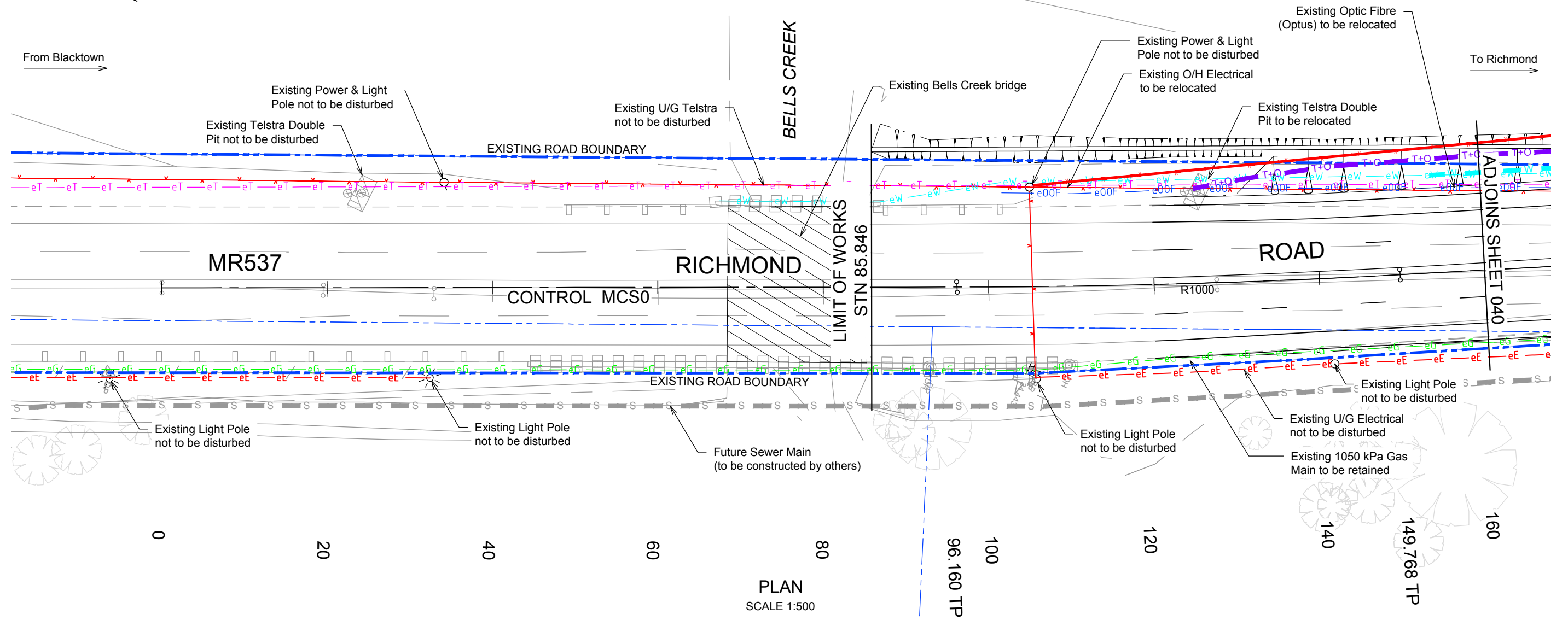
NEW PUBLIC UTILITIES

NEW LANTERN	☀
POLE TO BE REMOVED	✱
SUBSTATION / PILLAR / SWITCHING STATION	⊗
SEWER AIR VALVE CHAMBER	△
GAS	— G — G —
TELECOM	— T — T —
O/H TELECOM	— T — T —
TELSTRA FIBRE & COMMS, OPTUS FIBRE ONLY	— T+O — T+O —
TELSTRA FIBRE & COMMS	— T-OF/C —
OPTUS FIBRE ONLY	— OOF — OOF —
SEWER	— S — S —
WATER	— W — W —
OVERHEAD ELECTRICITY	— — —
U/G ELECTRICITY (LOW VOLTAGE)	— LV — LV —
U/G ELECTRICITY (HIGH VOLTAGE)	— HV — HV —



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JWP PROJECT NUMBER : 9391													
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1	ISSUE FOR TENDER	BBB	23/08/12										
No.	Amendment Description		Initials	Date									
A3 original	This sheet may be prepared using colour and may be incomplete if copied			Co-ordinate System: MGA Zone 56		Height Datum: A.H.D.							

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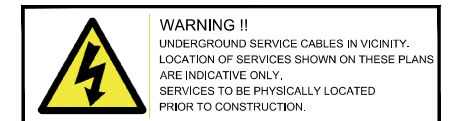


EXISTING PUBLIC UTILITIES			
POLE - POWER	○	ELECTRICAL CABLE JUNCTION BOX	□ ^{EJB}
POLE - LIGHT	☀	WATER TAP	⊙
POLE - POWER & LIGHT	♂	STOP VALVE	△
POLE - POWER & TRANSFORMER	♂	WATER HYDRANT	□ ^{WH}
TELEPHONE SINGLE CONCRETE PIT	▧	GAS PIPELINE MARKER	⊕ ^{GP}
TELEPHONE TWIN CONCRETE PIT	▨	GAS VALVE BOX	⦶
INDICATIVE TELECOM PIT	✱□	GAS TEST POINT	⚠
GAS	—eG—eG—	SEWER	—eS—eS—
TELECOM	—eT—eT—	WATER	—eW—eW—
O/H TELECOM	—eT—eT—	U/G ELECTRICITY	—eE—eE—
OPTIC FIBRE (TELSTRA)	—eOF—eOF—	MINOR TRANSMISSION	—x—x—
OPTIC FIBRE (OPTUS)	—eOOF—		

NEW PUBLIC UTILITIES	
NEW LANTERN	☀
POLE TO BE REMOVED	✱
SUBSTATION / PILLAR / SWITCHING STATION	⊠
SEWER AIR VALVE CHAMBER	⚠
GAS	—G—G—
TELECOM	—T—T—
O/H TELECOM	—T—T—
TELSTRA FIBRE & COMMS, OPTUS FIBRE ONLY	—T+O—T+O—
TELSTRA FIBRE & COMMS	—T-OF/C—
OPTUS FIBRE ONLY	—OOF—OOF—
SEWER	—S—S—
WATER	—W—W—
OVERHEAD ELECTRICITY	—x—x—
U/G ELECTRICITY (LOW VOLTAGE)	—LV—LV—
U/G ELECTRICITY (HIGH VOLTAGE)	—HV—HV—

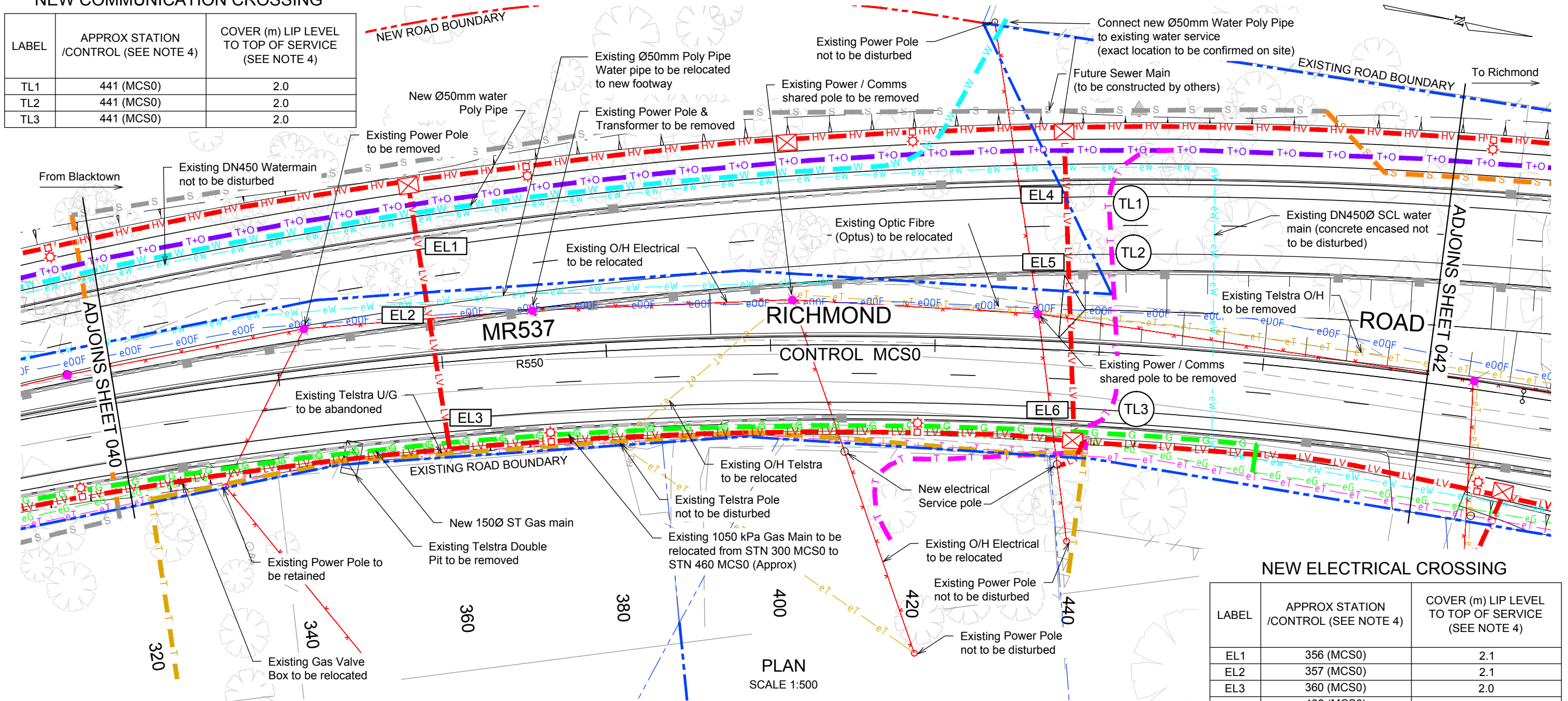
NOTES

- Refer to Sheet 038 for Public Utilities General Notes
- Refer to Sheet 038 for Public Utilities Supplementary Drawings
- The locations of services at the site depicted on this plan have been partially surveyed and are shown on RMS Drawing DS-2012-000530. To determine the nature and extent of this survey work, reference must be made to this Drawing prior to the commencement of roadworks, and the relevant utility plans obtained by dialling Ph. 1100 or Fax. 1300 652 077 (DIAL BEFORE YOU DIG). Caution should be exercised when working in the vicinity of all utility services.
- The location and level of all New Public Utilities shown on this plan is indicative only. Final locations to be confirmed on site by the Respective Authorities and the Principal.



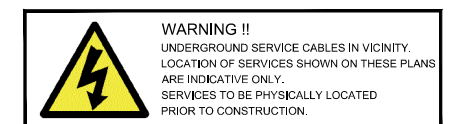
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2		ADDENDUM 1 ISSUE								JSK		14/09/12		JWP PROJECT NUMBER : 9391			
1		ISSUE FOR TENDER								BBB		23/08/12					
No.		Amendment Description		Initials		Date		0 5 10 15 20 25 SCALE 1:500m		DESIGNED J.K. DRAWN J.T. REVIEWED B.B.		REGISTRATION NUMBER DS2012/000227					
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BLACKTOWN CITY COUNCIL AREA MR537 RICHMOND ROAD RECONSTRUCTION & INTERSECTION WORKS BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE PUBLIC UTILITY CO-ORDINATION DETAILS																	

LABEL	APPROX STATION /CONTROL (SEE NOTE 4)	COVER (m) LIP LEVEL TO TOP OF SERVICE (SEE NOTE 4)
TL1	441 (MCS0)	2.0
TL2	441 (MCS0)	2.0
TL3	441 (MCS0)	2.0



LABEL	APPROX STATION /CONTROL (SEE NOTE 4)	COVER (m) LIP LEVEL TO TOP OF SERVICE (SEE NOTE 4)
EL1	356 (MCS0)	2.1
EL2	357 (MCS0)	2.1
EL3	360 (MCS0)	2.0
EL4	436 (MCS0)	2.0
EL5	436 (MCS0)	2.0
EL6	436 (MCS0)	2.0

1. Refer to Sheet 038 for Public Utilities General Notes
2. Refer to Sheet 038 for Public Utilities Supplementary Drawings
3. The locations of services at the site depicted on this plan have been partially surveyed and are shown on RMS Drawing DS-2012-000530. To determine the nature and extent of this survey work, reference must be made to this Drawing prior to the commencement of roadworks, and the relevant utility plans obtained by dialling Ph. 1100 or Fax. 1300 652 077 (DIAL BEFORE YOU DIG). Caution should be exercised when working in the vicinity of all utility services.
4. The location and level of all New Public Utilities shown on this plan is indicative only. Final locations to be confirmed on site by the Respective Authorities and the Principal.



EXISTING PUBLIC UTILITIES			
POLE - POWER		ELECTRICAL CABLE JUNCTION BOX	
POLE - LIGHT		WATER TAP	
POLE - POWER & LIGHT		STOP VALVE	
POLE - POWER & TRANSFORMER		WATER HYDRANT	
TELEPHONE SINGLE CONCRETE PIT		GAS PIPELINE MARKER	
TELEPHONE TWIN CONCRETE PIT		GAS VALVE BOX	
INDICATIVE TELECOM PIT		GAS TEST POINT	
GAS		SEWER	
TELECOM		WATER	
O/H TELECOM		U/G ELECTRICITY	
OPTIC FIBRE (TELSTRA)		MINOR TRANSMISSION	
OPTIC FIBRE (OPTUS)			

NEW PUBLIC UTILITIES	
NEW LANTERN	
POLE TO BE REMOVED	
SUBSTATION / PILLAR / SWITCHING STATION	
SEWER AIR VALVE CHAMBER	
GAS	
TELECOM	
O/H TELECOM	
TELSTRA FIBRE & COMMS, OPTUS FIBRE ONLY	
TELSTRA FIBRE & COMMS	
OPTUS FIBRE ONLY	
SEWER	
WATER	
OVERHEAD ELECTRICITY	
U/G ELECTRICITY (LOW VOLTAGE)	
U/G ELECTRICITY (HIGH VOLTAGE)	

MX Design Model Reference: 9391_DES_MX_STG2_H.txt				
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1	ISSUE FOR TENDER		BBB	23/08/12
No.	Amendment Description		Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied			

SCALES  SCALE 1:500m	
Co-ordinate System: MGA Zone 56	Height Datum: A.H.D.

U/G ELECTRIC

PREPARED BY
J. WYNDHAM PRINCE
 CONSULTING CIVIL INFRASTRUCTURE ENGINEERS
 & PROJECT MANAGERS

DESIGNED J.K.
 DRAWN J.T.
 REVIEWED B.B.

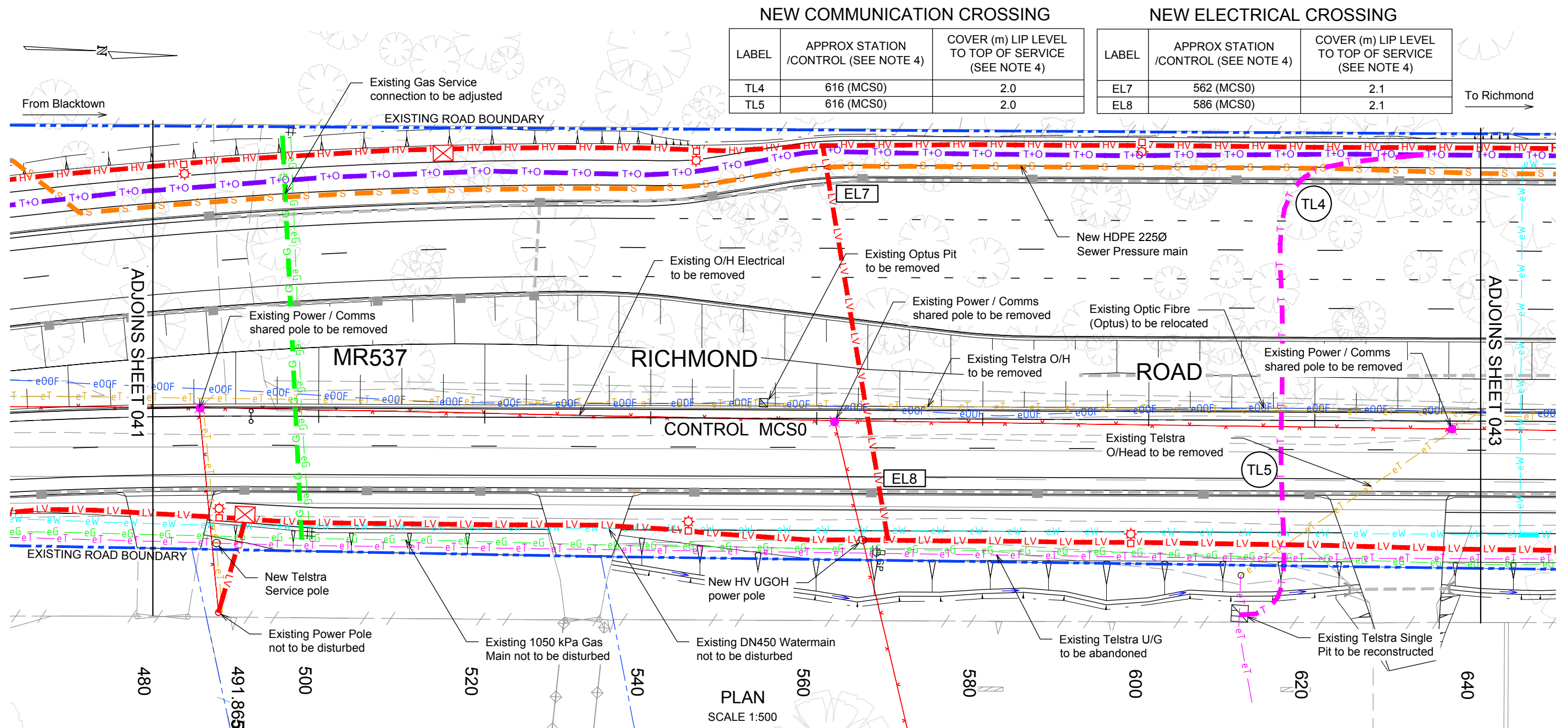
ITY (HIGH VOLTAGE) HV HV

ROADS AND MARITIME SERVICES OF NSW

BLACKTOWN CITY COUNCIL AREA
MR537 RICHMOND ROAD
RECONSTRUCTION & INTERSECTION WORKS
BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE
PUBLIC UTILITY CO-ORDINATION DETAILS

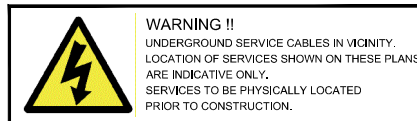
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NOTES

- Refer to Sheet 038 for Public Utilities General Notes
- Refer to Sheet 038 for Public Utilities Supplementary Drawings
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EXISTING PUBLIC UTILITIES

POLE - POWER	○	ELECTRICAL CABLE JUNCTION BOX	□ _{EJB}
POLE - LIGHT	⊙	WATER TAP	⊗
POLE - POWER & LIGHT	⊕	STOP VALVE	△
POLE - POWER & TRANSFORMER	⊕	WATER HYDRANT	□ _{WH}
TELEPHONE SINGLE CONCRETE PIT	▢	GAS PIPELINE MARKER	▢ _{GP}
TELEPHONE TWIN CONCRETE PIT	▢▢	GAS VALVE BOX	▢
INDICATIVE TELECOM PIT	* □	GAS TEST POINT	△
GAS	— eG — eG —	SEWER	— eS — eS —
TELECOM	— eT — eT —	WATER	— eW — eW —
O/H TELECOM	— eT — eT —	U/G ELECTRICITY	— eE — eE —
OPTIC FIBRE (TELSTRA)	— eOF — eOF —	MINOR TRANSMISSION	— — —
OPTIC FIBRE (OPTUS)	— eOOF — eOOF —		

NEW PUBLIC UTILITIES

NEW LANTERN	⊙
POLE TO BE REMOVED	⊗
SUBSTATION / PILLAR / SWITCHING STATION	⊕
SEWER AIR VALVE CHAMBER	△
GAS	— G — G —
TELECOM	— T — T —
O/H TELECOM	— T — T —
TELSTRA FIBRE & COMMS, OPTUS FIBRE ONLY	— T+O — T+O —
TELSTRA FIBRE & COMMS	— T-OF/C — T-OF/C —
OPTUS FIBRE ONLY	— OOF — OOF —
SEWER	— S — S —
WATER	— W — W —
OVERHEAD ELECTRICITY	— — —
U/G ELECTRICITY (LOW VOLTAGE)	— LV — LV —
U/G ELECTRICITY (HIGH VOLTAGE)	— HV — HV —

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1	ISSUE FOR TENDER	BBB	23/08/12
No.	Amendment Description	Initials	Date
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Co-ordinate System:	MGA Zone 56
Height Datum:	A.H.D.

PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS	
DESIGNED	J.K.
DRAWN	J.T.
REVIEWED	B.B.

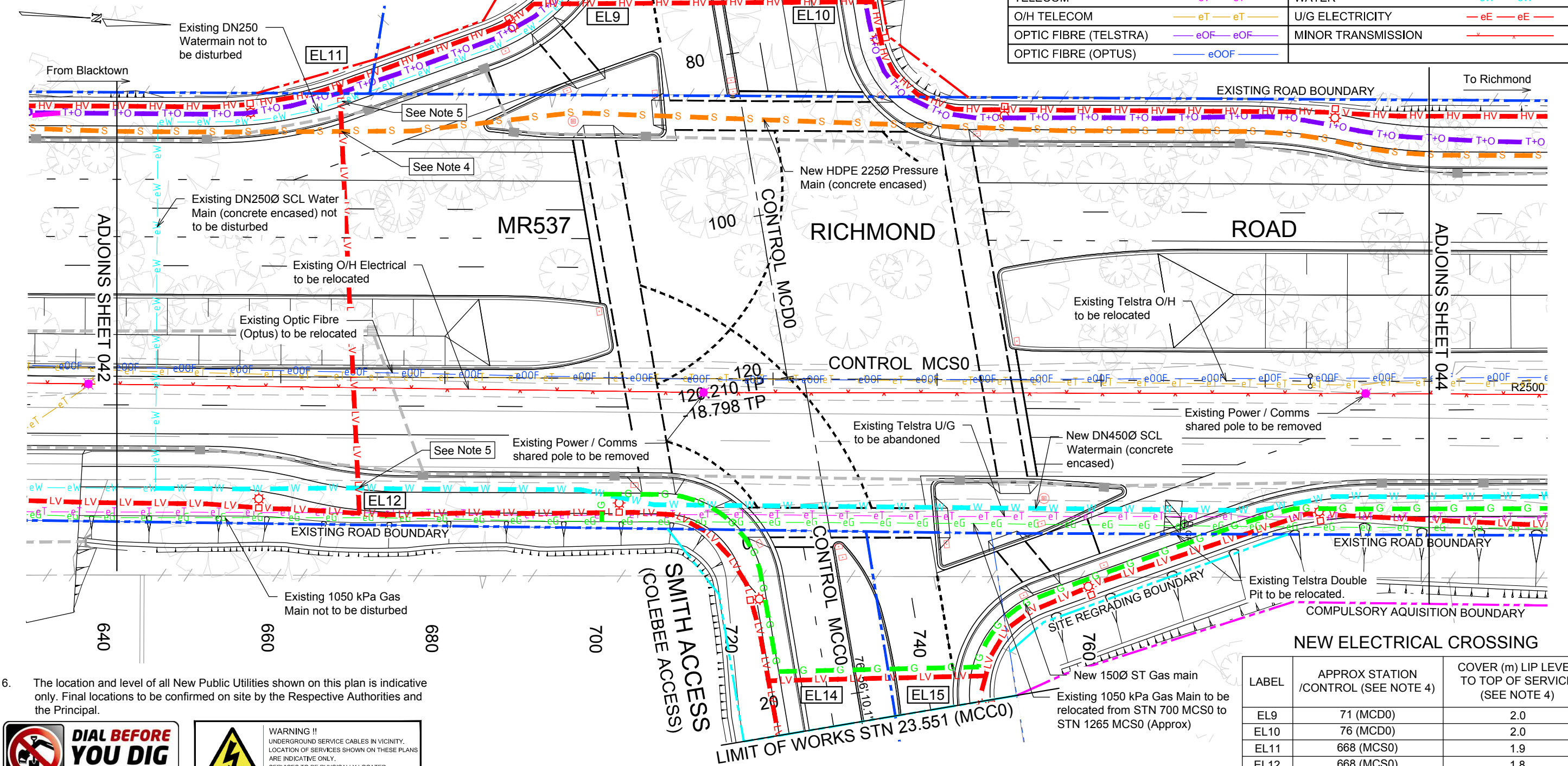
ROADS AND MARITIME SERVICES OF NSW

BLACKTOWN CITY COUNCIL AREA
MR537 RICHMOND ROAD
RECONSTRUCTION & INTERSECTION WORKS
BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE
PUBLIC UTILITY CO-ORDINATION DETAILS

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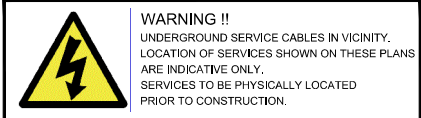
NOTES

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4. Provide 225mm minimum vertical clearance between Pressure Main & New LV Electrical conduit.
5. Provide 225mm minimum vertical clearance between Water Mains & New LV Electrical conduits.



EXISTING PUBLIC UTILITIES			
POLE - POWER	○	ELECTRICAL CABLE JUNCTION BOX	□ EJB
POLE - LIGHT	⊙	WATER TAP	⊗
POLE - POWER & LIGHT	⊙	STOP VALVE	△
POLE - POWER & TRANSFORMER	⊙	WATER HYDRANT	□ WH
TELEPHONE SINGLE CONCRETE PIT	⊠	GAS PIPELINE MARKER	⊠ GP
TELEPHONE TWIN CONCRETE PIT	⊠	GAS VALVE BOX	⊠
INDICATIVE TELECOM PIT	★	GAS TEST POINT	⊠
GAS	eG	SEWER	eS
TELECOM	eT	WATER	eW
O/H TELECOM	eT	U/G ELECTRICITY	eE
OPTIC FIBRE (TELSTRA)	eOF	MINOR TRANSMISSION	x
OPTIC FIBRE (OPTUS)	eOOF		

6. The location and level of all New Public Utilities shown on this plan is indicative only. Final locations to be confirmed on site by the Respective Authorities and the Principal.



PLAN
SCALE 1:500

NEW ELECTRICAL CROSSING

LABEL	APPROX STATION /CONTROL (SEE NOTE 4)	COVER (m) LIP LEVEL TO TOP OF SERVICE (SEE NOTE 4)
EL9	71 (MCD0)	2.0
EL10	76 (MCD0)	2.0
EL11	668 (MCS0)	1.9
EL12	668 (MCS0)	1.8
EL14	20 (MCC0)	1.3
EL15	20 (MCC0)	1.3

MX Design Model Reference: 9391_DES_MX_STG2_H.txt

No.	Amendment Description	Initials	Date
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1	ISSUE FOR TENDER	BBB	23/08/12
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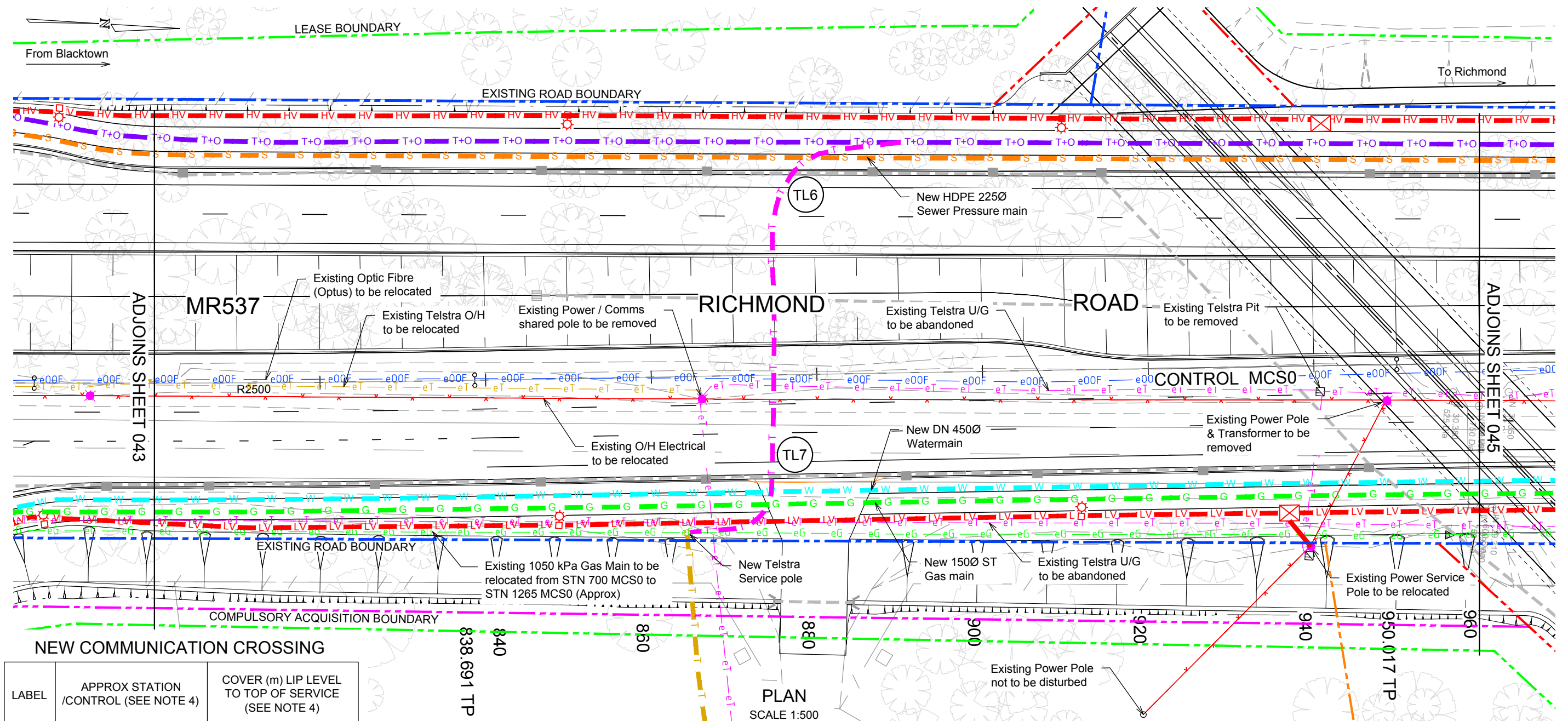
PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS	
DESIGNED	J.K.
DRAWN	J.T.
REVIEWED	B.B.

ROADS AND MARITIME SERVICES OF NSW

BLACKTOWN CITY COUNCIL AREA
MR537 RICHMOND ROAD
RECONSTRUCTION & INTERSECTION WORKS
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PUBLIC UTILITY CO-ORDINATION DETAILS

FILE No. D/00396	DRAWING sheet_043.dwg JWP PROJECT NUMBER : REGISTRATION NUMBER DS2012/000227	PRINTED DATE 18/09/2012 9391	SHEET No. 043
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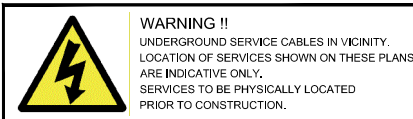
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LABEL	APPROX STATION /CONTROL (SEE NOTE 4)	COVER (m) LIP LEVEL TO TOP OF SERVICE (SEE NOTE 4)
TL6	875 (MCS0)	2.0
TL7	875 (MCS0)	2.1

NOTES

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EXISTING PUBLIC UTILITIES			
POLE - POWER	○	ELECTRICAL CABLE JUNCTION BOX	□ ^{EJB}
POLE - LIGHT	☼	WATER TAP	⊗
POLE - POWER & LIGHT	⊕	STOP VALVE	△
POLE - POWER & TRANSFORMER	⊙	WATER HYDRANT	□ ^{WH}
TELEPHONE SINGLE CONCRETE PIT	▧	GAS PIPELINE MARKER	⊗ ^{GP}
TELEPHONE TWIN CONCRETE PIT	▨	GAS VALVE BOX	⊞
INDICATIVE TELECOM PIT	*□	GAS TEST POINT	△
GAS	—eG—eG—	SEWER	—eS—eS—
TELECOM	—eT—eT—	WATER	—eW—eW—
O/H TELECOM	—eT—eT—	U/G ELECTRICITY	—eE—eE—
OPTIC FIBRE (TELSTRA)	—eOF—eOF—	MINOR TRANSMISSION	—x—x—
OPTIC FIBRE (OPTUS)	—eOOF—		

NEW PUBLIC UTILITIES	
NEW LANTERN	☼
POLE TO BE REMOVED	⊗
SUBSTATION / PILLAR / SWITCHING STATION	⊞
SEWER AIR VALVE CHAMBER	△
GAS	—G—G—
TELECOM	—T—T—
O/H TELECOM	—T—T—
TELSTRA FIBRE & COMMS, OPTUS FIBRE ONLY	—T+O—T+O—
TELSTRA FIBRE & COMMS	—T-OF/C—
OPTUS FIBRE ONLY	—OOF—OOF—
SEWER	—S—S—
WATER	—W—W—
OVERHEAD ELECTRICITY	—x—x—
U/G ELECTRICITY (LOW VOLTAGE)	—LV—LV—
U/G ELECTRICITY (HIGH VOLTAGE)	—HV—HV—

MX Design Model Reference: 9391_DES_MX_STG2_H.txt

No.	Amendment Description	Initials	Date
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1	ISSUE FOR TENDER	BBB	23/08/12

A3 original This sheet may be prepared using colour and may be incomplete if copied

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Co-ordinate System: MGA Zone 56	Height Datum: A.H.D.

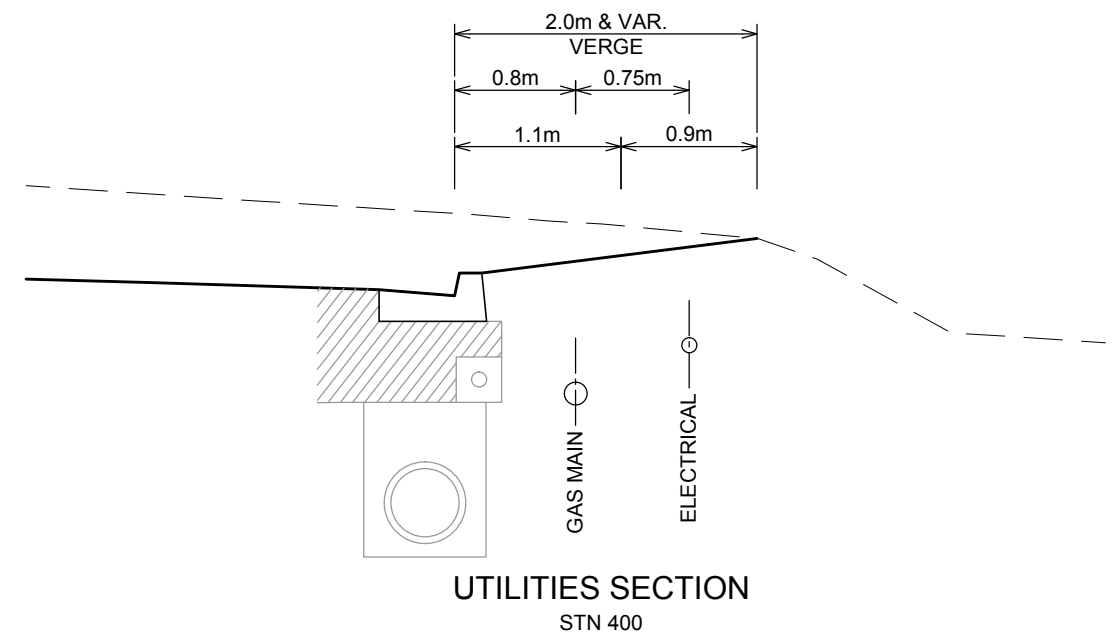
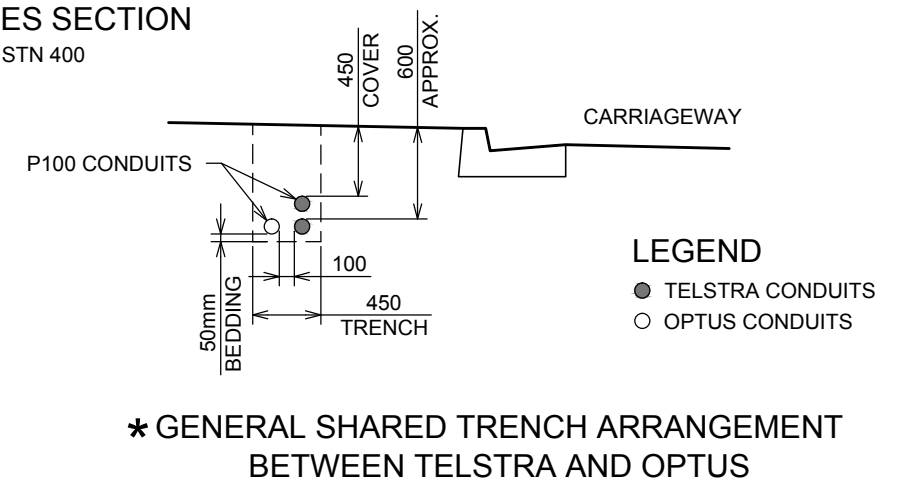
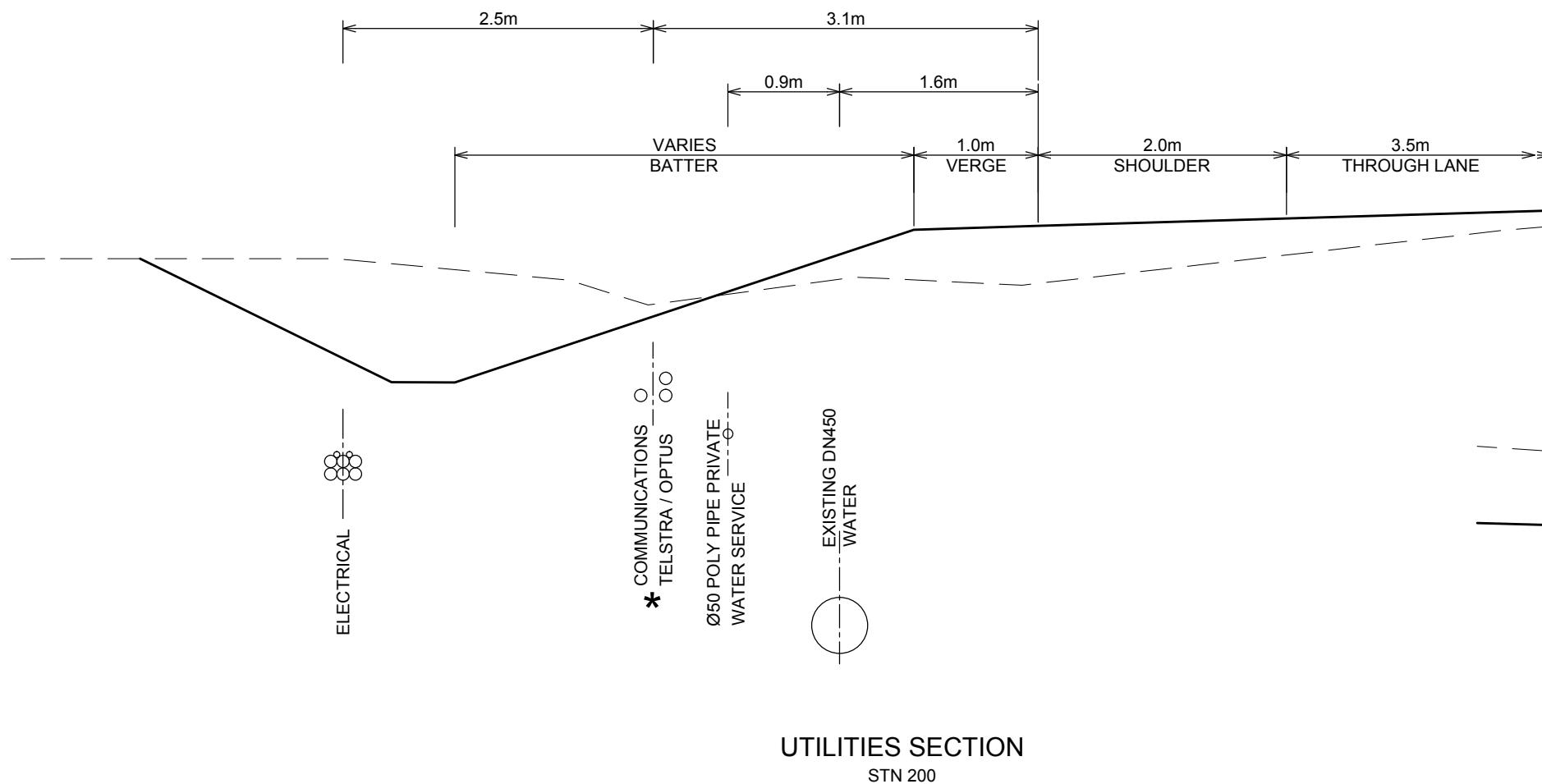
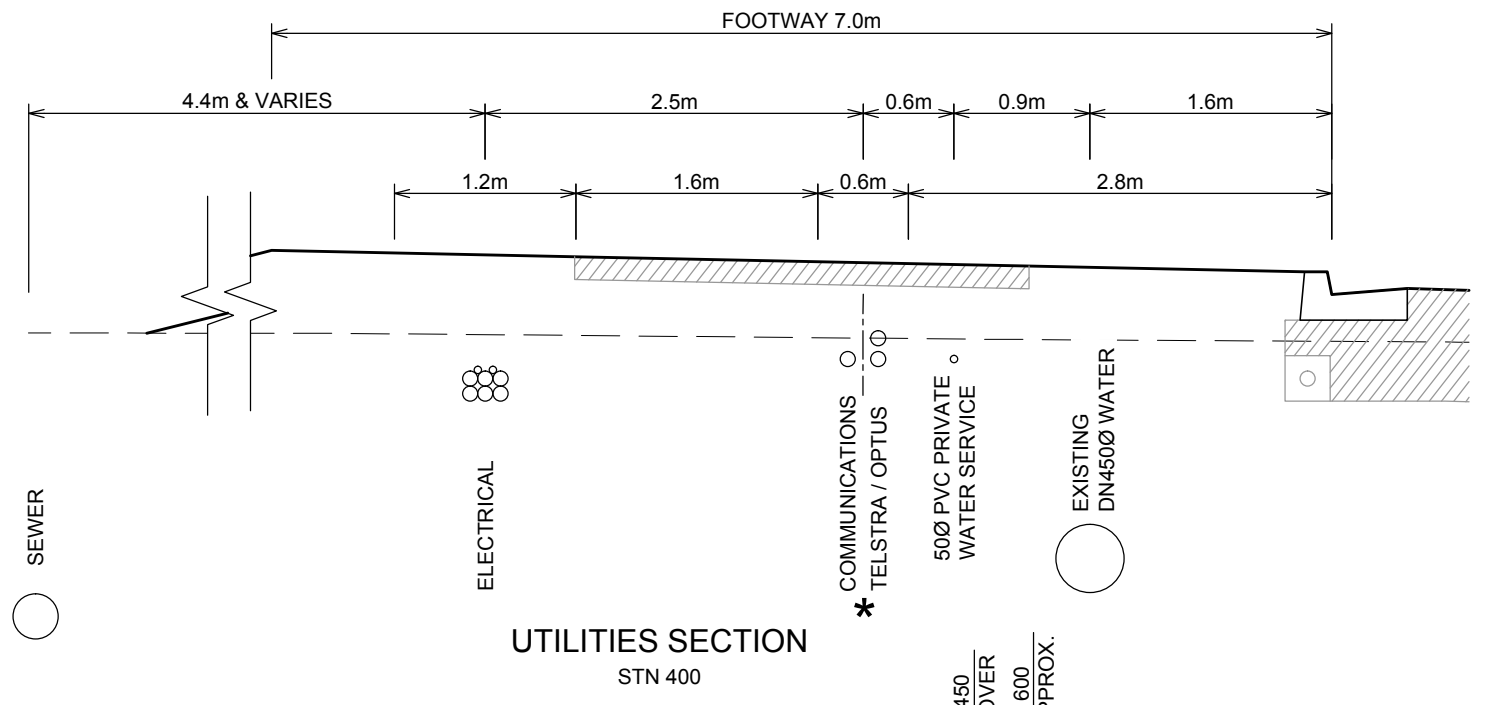
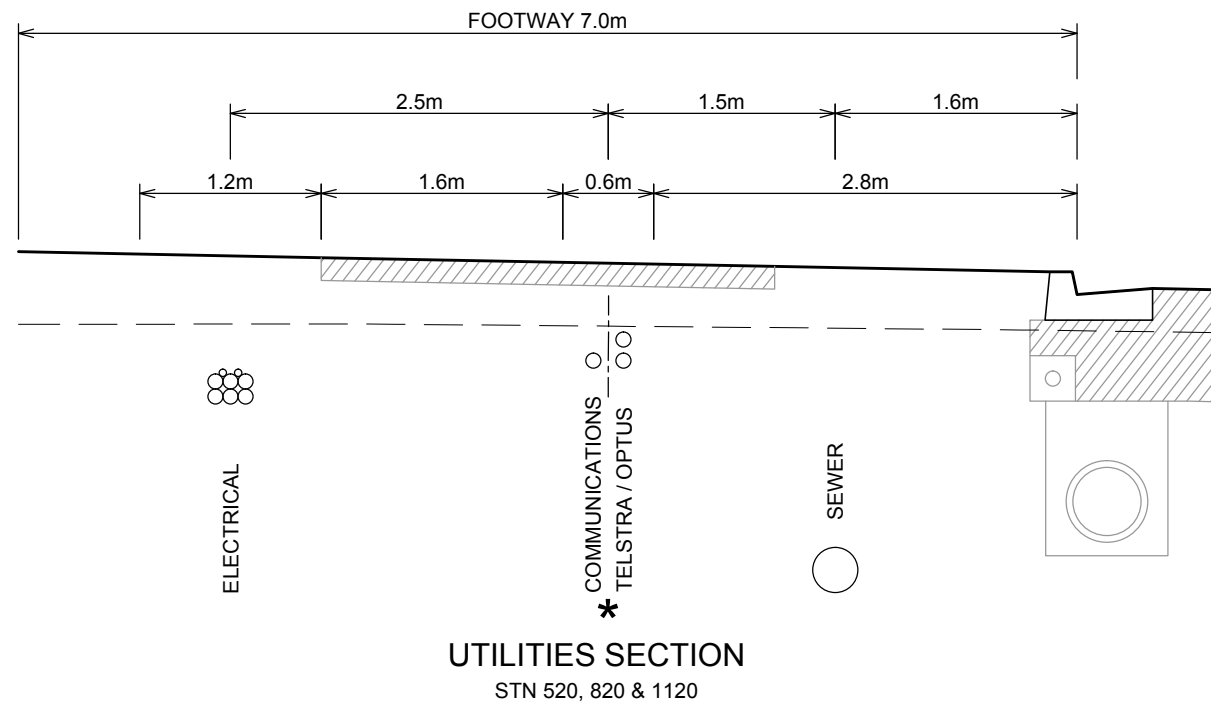
PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS	
DESIGNED	J.K.
DRAWN	J.T.
REVIEWED	B.B.

ROADS AND MARITIME SERVICES OF NSW

BLACKTOWN CITY COUNCIL AREA
MR537 RICHMOND ROAD
RECONSTRUCTION & INTERSECTION WORKS
BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE
PUBLIC UTILITY CO-ORDINATION DETAILS

FILE No. D/00396	DRAWING sheet_044.dwg JWP PROJECT NUMBER : REGISTRATION NUMBER	PRINTED DATE 18/09/2012 9391	SHEET No. 044
DS2012/000227			

Plotted: 18 Sep 2012 8:40:40 AM File Name: i:\9391R\03_CCR - Engineering Construction Plans\Stage 2\Sheet_047.dwg



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2	ADDENDUM 1 ISSUE	JSK	14/09/12
1	ISSUE FOR TENDER	BBB	23/08/12
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

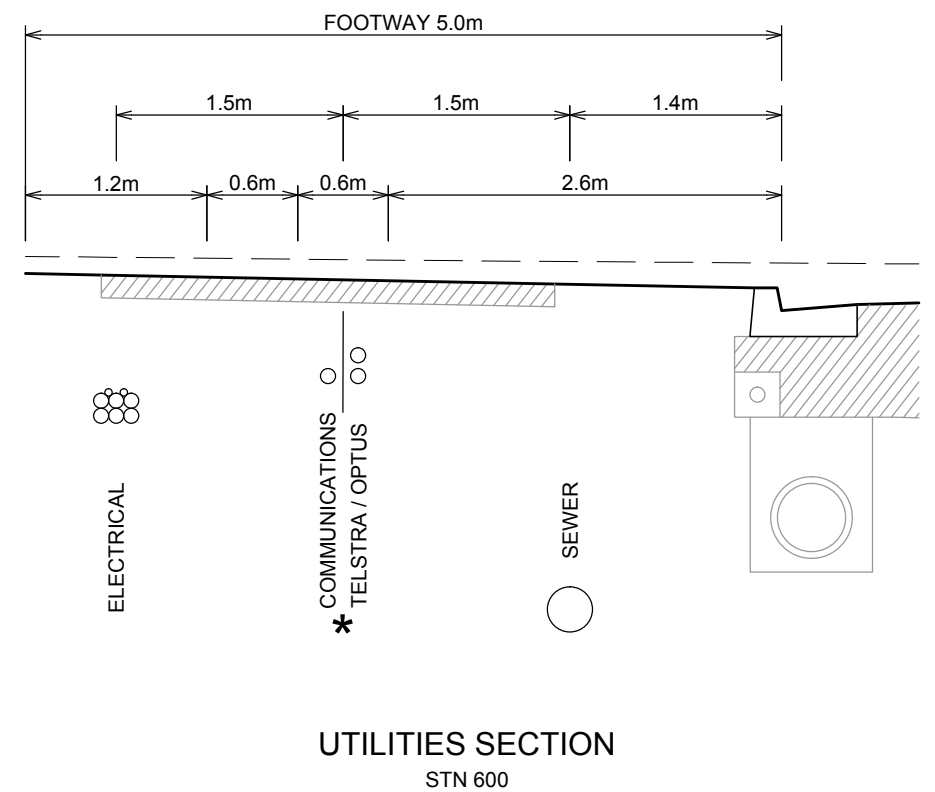
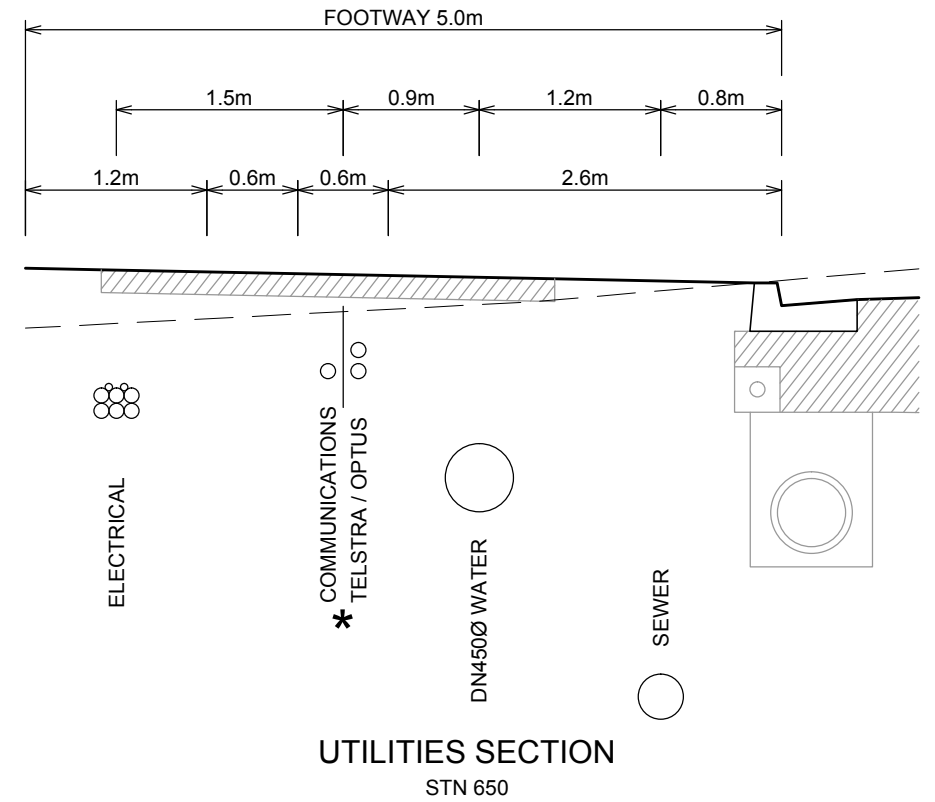
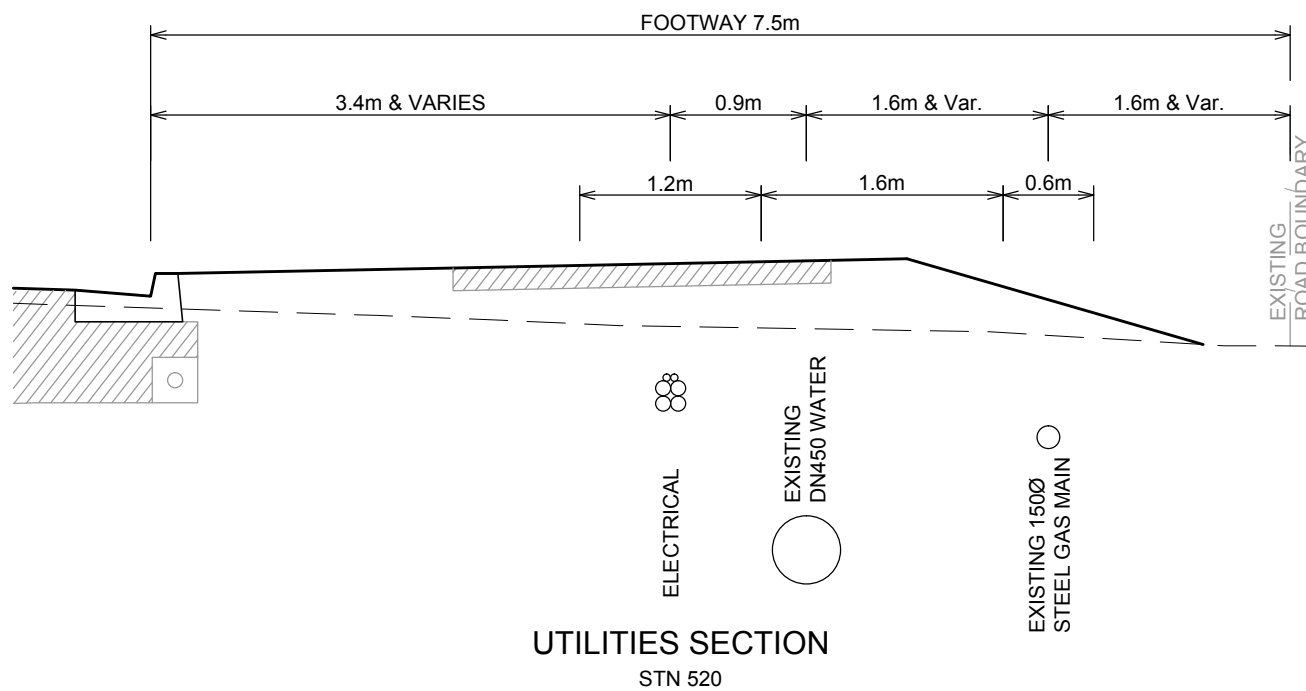
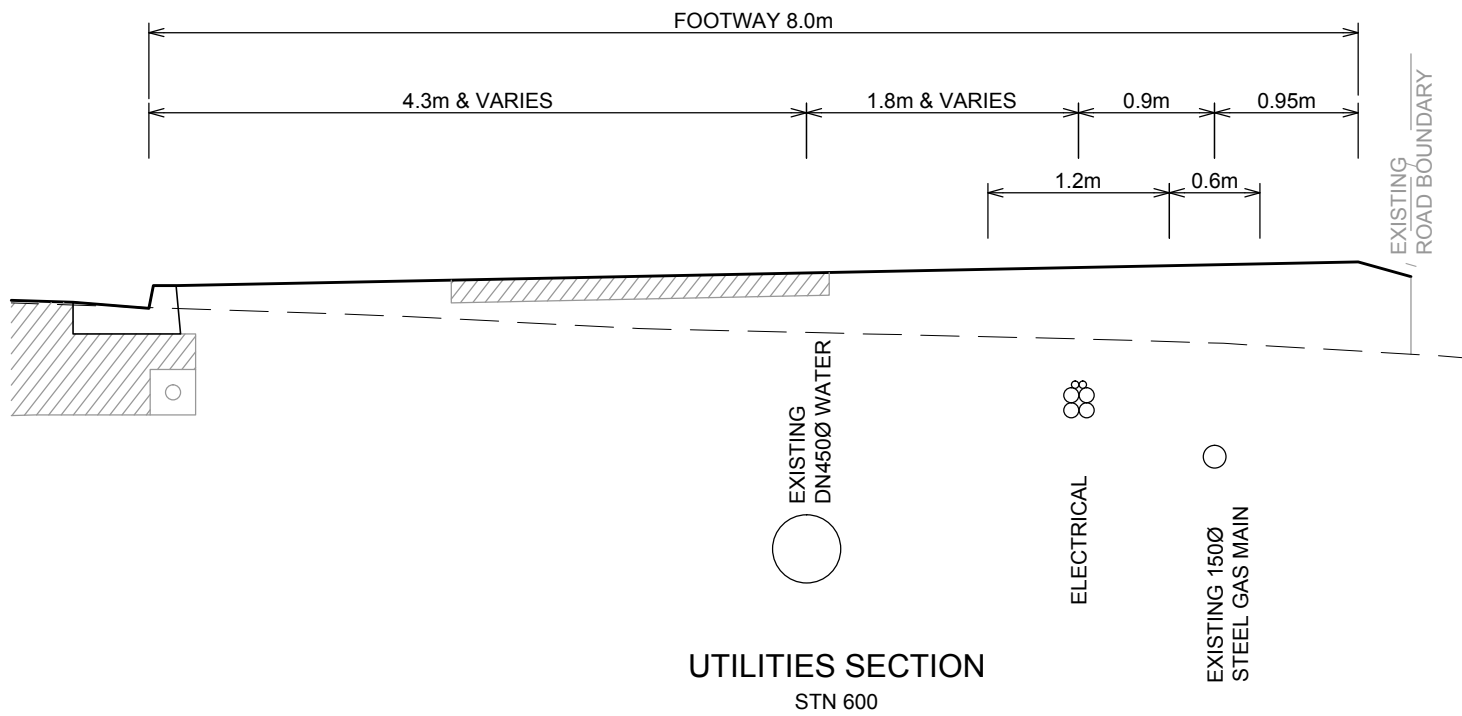
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SCALE 1:50mm	
Co-ordinate System: MGA Zone 56	Height Datum: A.H.D.

PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS	
DESIGNED	J.K.
DRAWN	J.T.
REVIEWED	B.B.

ROADS AND MARITIME SERVICES OF NSW	
BLACKTOWN CITY COUNCIL AREA MR537 RICHMOND ROAD RECONSTRUCTION & INTERSECTION WORKS BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE PUBLIC UTILITY CO-ORDINATION DETAILS	

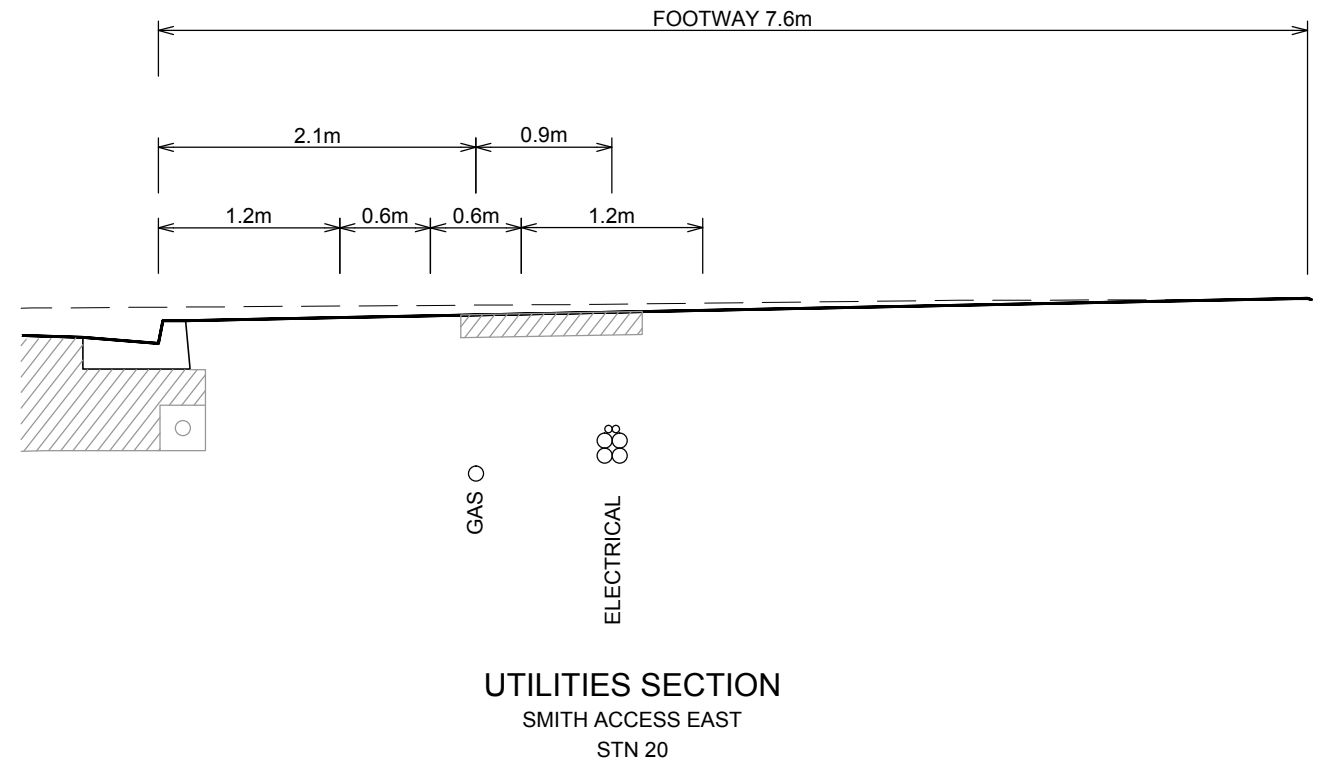
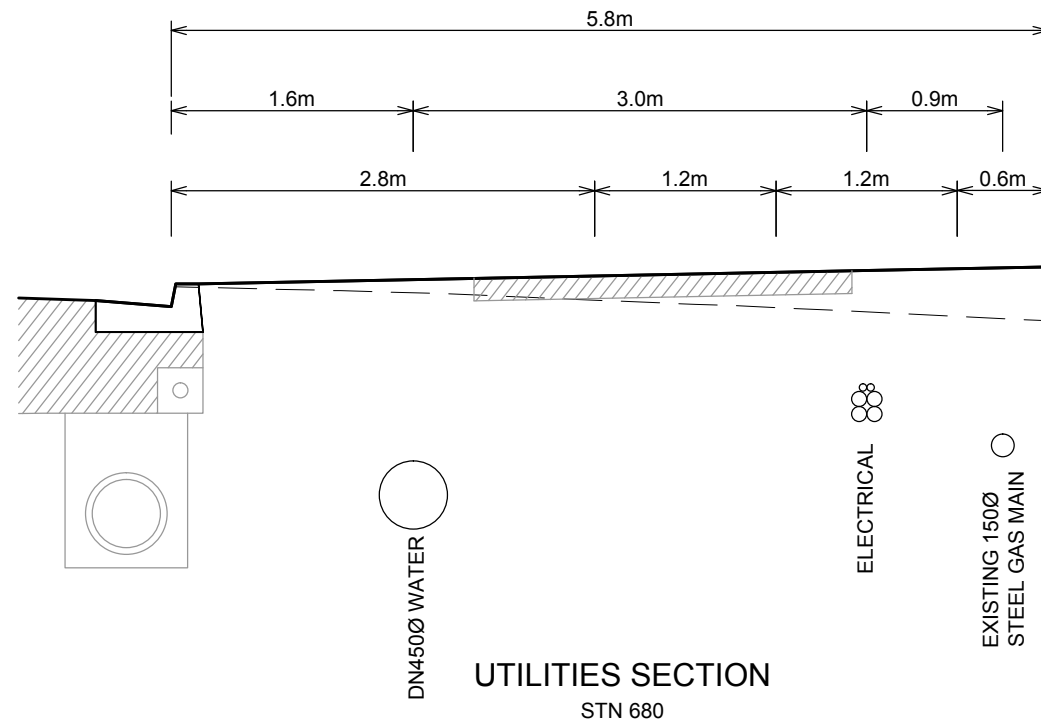
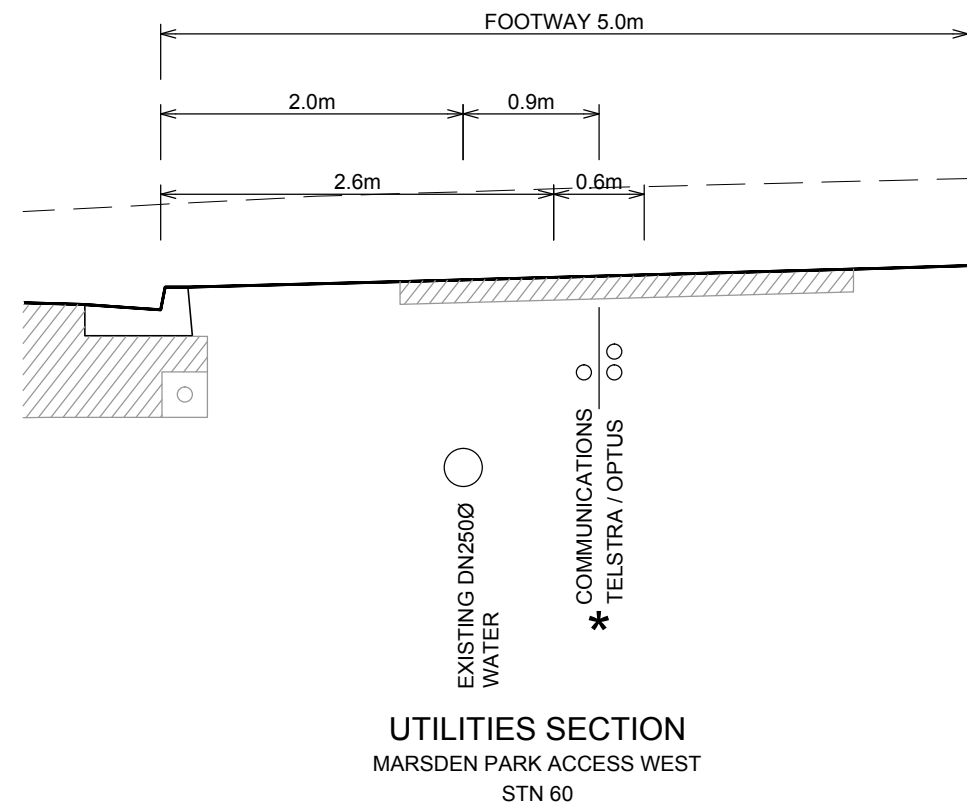
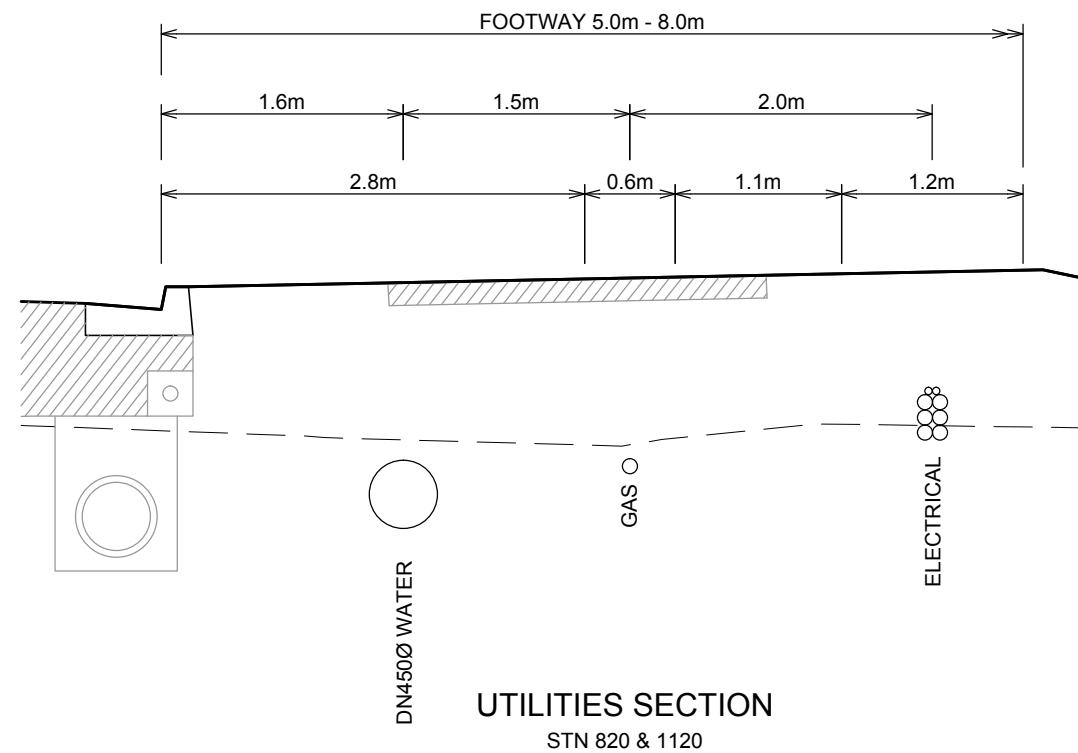
FILE No. D/00396	DRAWING sheet_047.dwg JWP PROJECT NUMBER : 9391	PRINTED DATE 18/09/2012	SHEET No. 047
REGISTRATION NUMBER DS2012/000227			

Plotted: 18 Sep 2012 8:40:43 AM File Name: U:\9391R\03_CCR - Engineering Construction Plans\Stage 2\Sheet_048.dwg



MX Design Model Reference: 9391_DES_MX_STG2_H.txt				SCALES		PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS	ROADS AND MARITIME SERVICES OF NSW	FILE No. D/00396	DRAWING sheet_048.dwg	PRINTED DATE 18/09/2012	SHEET No. 048
2	ADDENDUM 1 ISSUE	JSK	14/09/12								
1	ISSUE FOR TENDER	BBB	23/08/12								
No.	Amendment Description	Initials	Date			DESIGNED J.K.	BLACKTOWN CITY COUNCIL AREA MR537 RICHMOND ROAD RECONSTRUCTION & INTERSECTION WORKS BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE PUBLIC UTILITY CO-ORDINATION DETAILS	JWP PROJECT NUMBER : 9391		REGISTRATION NUMBER DS2012/000227	
A3 original		This sheet may be prepared using colour and may be incomplete if copied		Co-ordinate System: MGA Zone 56		Height Datum: A.H.D.		DRAWN J.T.			
						REVIEWED B.B.					

Plotted: 18 Sep 2012 8:40:46 AM File Name: U:\9391R\03_CCR - Engineering Construction Plans\Stage 2\Sheet_049.dwg



MX Design Model Reference: 9391_DES_MX_STG2_H.txt				SCALES		PREPARED BY J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS		ROADS AND MARITIME SERVICES OF NSW		FILE No. D/00396	DRAWING sheet_049.dwg	PRINTED DATE 18/09/2012	SHEET No. 049
2	ADDENDUM 1 ISSUE	JSK	14/09/12	0 500 1000 1500 2000 2500 SCALE 1:50mm	DESIGNED J.K. DRAWN J.T. REVIEWED B.B.	BLACKTOWN CITY COUNCIL AREA MR537 RICHMOND ROAD RECONSTRUCTION & INTERSECTION WORKS BELLS CREEK TO HOLLINSWORTH ROAD - COLEBEE PUBLIC UTILITY CO-ORDINATION DETAILS	JWP PROJECT NUMBER : 9391		REGISTRATION NUMBER DS2012/000227				
1	ISSUE FOR TENDER	BBB	23/08/12										
No.	Amendment Description	Initials	Date										
A3 original	This sheet may be prepared using colour and may be incomplete if copied			Co-ordinate System: MGA Zone 56		Height Datum: A.H.D.							

APPENDIX C – UTILITY CORRESPONDANCE

2 November 2012

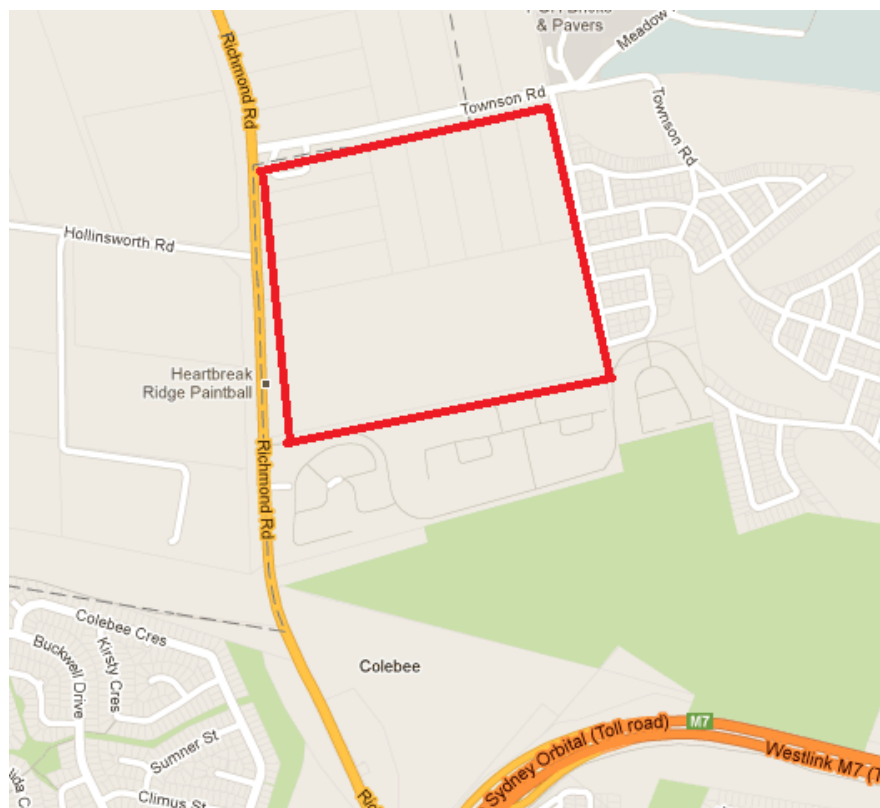
Adrian Miller
Sydney Water

Our Ref: AA5435/JPH/121102/01

Townson Road Precinct, Colebee, NSW

Dear Mr Miller

I have been provided your name as a contact, who I hope may be able to assist in my enquiries. Hyder Consulting has been engaged by our Client to undertake a high level services infrastructure investigation for the Townson Road Precinct. Please see a location plan below showing the indicative location of the proposed subdivision development.



Hyder understands that the purpose of the investigation is to support a rezoning application for the Townson Road Precinct to Blacktown Council. The proposed rezoning site has potential to provide approximately 500 dwellings, with a further potential for approximately 200 dwellings, located directly to the south, which has already been through the Blacktown Council DA process.

The current concept sewer proposal for the rezoning application site is to service the lots through gravity systems, draining to a low point within the site, from which the sewerage will be pumped via a newly constructed pump station and rising main. This rising main will connect into a new pit, located to

the south-east of the site, and flow by gravity to the existing network, into the sewer pump station (SP1152), within the Stonecutters Ridge development. I believe from here sewerage is pumped to the Quakers Hill STP.

I understand that a formal feasibility application will be submitted to Sydney Water at the DA stage, and that formal advice on strategy and existing capacity will be provided at that time. However, as we are currently only assessing the rezoning application at this time, I would much appreciate if you could confirm any information that would help us in our services infrastructure investigation, with regard to a future sewer connection to this site.

Hyder also understand from our dealings with Qalchek, that as part of the Richmond Road reconstruction and intersection works, a new 450mm diameter water main is to be constructed, and that this service will be installed prior to the development of the subdivision (potentially at the end of this year or by early 2013).

Can you please provide any information on the design intent of this water main, with regard to the assumed developments connections to this main. Was the Townson Road Precinct development considered during the design development of this water main. In the event that it was not, can you please provide any advice on the potential for a connection to the mains, located within the Stonecutters Ridge development. Any information you can provide on the above matters would be very much appreciated.

Should you wish to discuss any of the above please contact me on 02 8907 9149. Thanking you in advance for your time.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joe Heydon".

Joe Heydon
Principle Engineer
02 8907 9149

Joe Heydon

From: DOWNEND, Luke <Luke.DOWNEND@sydneywater.com.au>
Sent: 7 November 2012 8:41 AM
To: Joe Heydon
Cc: MILLER, ADRIAN; RAMLIE, WILLY
Subject: RE: Townson Road Precinct, Colebee, NSW
Attachments: 121102 JPH to Sydney Water.pdf.pdf

Dear Joe,

Our understanding is that the site to which you refer is being developed in conjunction with the site adjoining directly to the south.

Our engineers have previously reviewed a preliminary assessment carried out by GHD for providing wastewater services to the site you have outlined in red in your letter AND the site adjoining directly to the south for a total of 816 lots and have found that in principle it is technically acceptable to utilise capacity within SPS 1153 located in Stonecutters Ridge to service both sites. This needs to be confirmed by MOUSE modelling.

My understanding is that there is capacity within the existing drinking water system to service both the site you have outlined and the one to the south, however I don't know how the water main you refer to fits into this scenario.

I have copied Willy Ramile into this email who is dealing with the wastewater servicing to these sites. He may have the information you require or you may need to make a Feasibility Application to get the detailed information you are after.

Regards,

Luke Downend | Senior Growth Planner

Urban Growth Strategy | Sydney Water
Level 6, 1 Smith Street Parramatta 2150
PO Box 399 Parramatta NSW 2124
T 8849 4125

luke.downend@sydneywater.com.au | sydneywater.com.au

From: Joe Heydon [<mailto:Joe.Heydon@hyderconsulting.com>]
Sent: Friday, November 02, 2012 05:26 PM
To: MILLER, ADRIAN
Subject: Townson Road Precinct, Colebee, NSW

Dear Mr Miller,

Please see a letter attached with regard to high level services infrastructure investigation at the above address, that I am hoping you may be able to assist me with.

I will follow up with a phone call next week to discuss. Thank you for your time.

Kind Regards,

Joe Heydon

Joe Heydon

Principal Engineer

Hyder Consulting Pty Ltd

Locked Bag 6503 North Sydney NSW 2060 Australia

Level 5, 141 Walker Street North Sydney NSW 2060 Australia

Direct: +61 2 8907 9149

Web: www.hyderconsulting.com

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2 November 2012

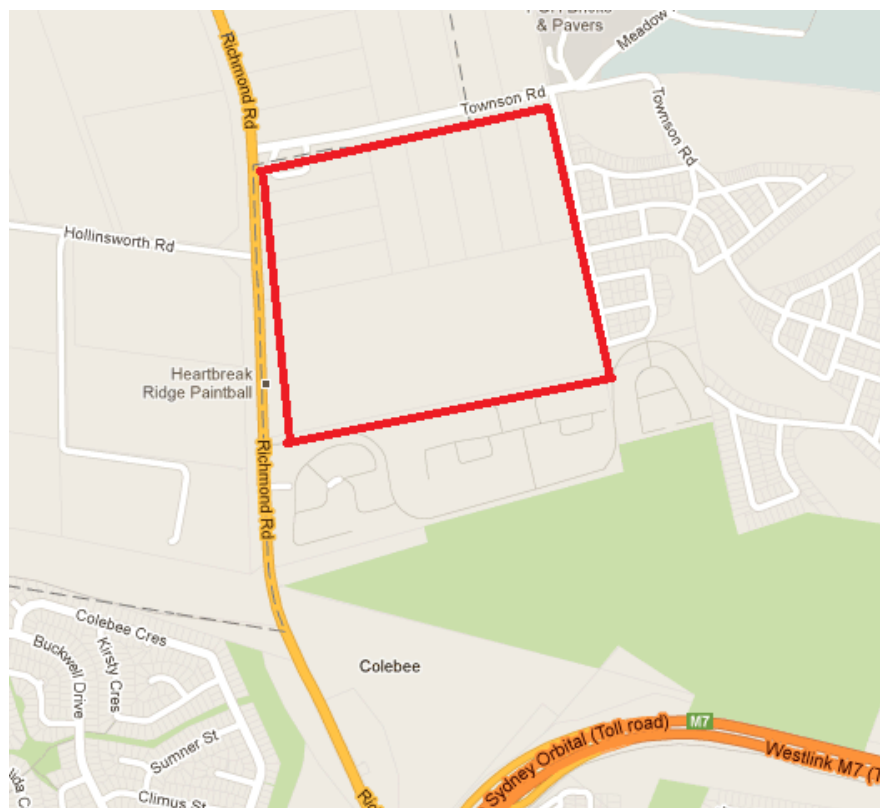
Adrian Miller
Sydney Water

Our Ref: AA5435/JPH/121102/01

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Should you wish to discuss any of the above please contact me on 02 8907 9149. Thanking you in advance for your time.

Yours sincerely

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Joe Heydon
Principle Engineer
02 8907 9149

Joe Heydon

From: DOWNEND, Luke <Luke.DOWNEND@sydneywater.com.au>
Sent: 7 November 2012 8:41 AM
To: Joe Heydon
Cc: MILLER, ADRIAN; RAMLIE, WILLY
Subject: RE: Townson Road Precinct, Colebee, NSW
Attachments: 121102 JPH to Sydney Water.pdf.pdf

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Regards,

Luke Downend | Senior Growth Planner

Urban Growth Strategy | Sydney Water
Level 6, 1 Smith Street Parramatta 2150
PO Box 399 Parramatta NSW 2124
T 8849 4125

luke.downend@sydneywater.com.au | sydneywater.com.au

From: Joe Heydon [<mailto:Joe.Heydon@hyderconsulting.com>]
Sent: Friday, November 02, 2012 05:26 PM
To: MILLER, ADRIAN
Subject: Townson Road Precinct, Colebee, NSW

Dear Mr Miller,

Please see a letter attached with regard to high level services infrastructure investigation at the above address, that I am hoping you may be able to assist me with.

I will follow up with a phone call next week to discuss. Thank you for your time.

Kind Regards,

Joe Heydon

Joe Heydon

Principal Engineer

Hyder Consulting Pty Ltd

Locked Bag 6503 North Sydney NSW 2060 Australia

Level 5, 141 Walker Street North Sydney NSW 2060 Australia

Direct: +61 2 8907 9149

Web: www.hyderconsulting.com

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Joe Heydon

From: DOWNEND, Luke <Luke.DOWNEND@sydneywater.com.au>
Sent: 9 November 2012 12:15 PM
To: Joe Heydon
Cc: MILLER, ADRIAN; RAMLIE, WILLY
Subject: RE: Townson Road Precinct, Colebee, NSW

Hi Jo,

Sydney Water is not expanding its recycled water system in this area. The information regarding a connection point for potable water can only be investigated upon receipt of a feasibility application. If your land is not yet rezoned then this question is premature.

It should be noted that if this site were to be developed separately from the one adjoining it below then you may need to negotiate a commercial agreement with Sydney Water. Under this agreement, the developer will be responsible for constructing the trunk infrastructure required to service the site to Sydney Water requirements. Please refer to the below.

<http://www.sydneywater.com.au/Publications/Policies/FundingGrowthWorksPolicy.pdf>

Regards,

Luke.

Luke Downend | Senior Growth Planner

Urban Growth Strategy | Sydney Water
Level 6, 1 Smith Street Parramatta 2150
PO Box 399 Parramatta NSW 2124
T 8849 4125
luke.downend@sydneywater.com.au | sydneywater.com.au

From: Joe Heydon [mailto:Joe.Heydon@hyderconsulting.com]
Sent: Friday, 9 November 2012 11:58 AM
To: DOWNEND, Luke
Cc: MILLER, ADRIAN; RAMLIE, WILLY
Subject: RE: Townson Road Precinct, Colebee, NSW

Hi Luke,

Would it be possible to confirm the likely connection point for potable water? Is it more likely to be from within Stonecutters Ridge, or from the existing system in Richmond Road?

The Stonecutters Ridge development also has a recycled water system. Can you comment on any future recycling water system potential for our site?

Kind Regards,

Joe

Joe Heydon

Principal Engineer
Hyder Consulting Pty Ltd
Locked Bag 6503 North Sydney NSW 2060 Australia
Level 5, 141 Walker Street North Sydney NSW 2060 Australia
Direct: +61 2 8907 9149
Web: www.hyderconsulting.com

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Please consider the environment - do you really need to print this email?

From: DOWNEND, Luke [<mailto:Luke.DOWNEND@sydneywater.com.au>]

Sent: 7 November 2012 8:41 AM

To: Joe Heydon

Cc: MILLER, ADRIAN; RAMLIE, WILLY

Subject: RE: Townson Road Precinct, Colebee, NSW

Dear Joe,

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Regards,

Luke Downend | Senior Growth Planner

Urban Growth Strategy | Sydney Water
Level 6, 1 Smith Street Parramatta 2150
PO Box 399 Parramatta NSW 2124
T 8849 4125
luke.downend@sydneywater.com.au | sydneywater.com.au

From: Joe Heydon [<mailto:Joe.Heydon@hyderconsulting.com>]
Sent: Friday, November 02, 2012 05:26 PM
To: MILLER, ADRIAN
Subject: Townson Road Precinct, Colebee, NSW

Dear Mr Miller,

Please see a letter attached with regard to high level services infrastructure investigation at the above address, that I am hoping you may be able to assist me with.

I will follow up with a phone call next week to discuss. Thank you for your time.

Kind Regards,

Joe Heydon

Joe Heydon
Principal Engineer
Hyder Consulting Pty Ltd
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Please consider the environment - do you really need to print this email?

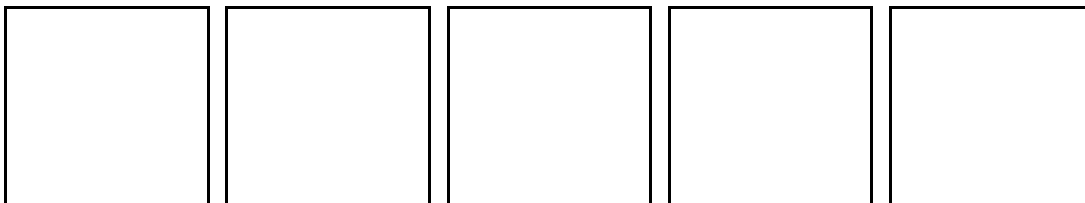
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2 November 20122

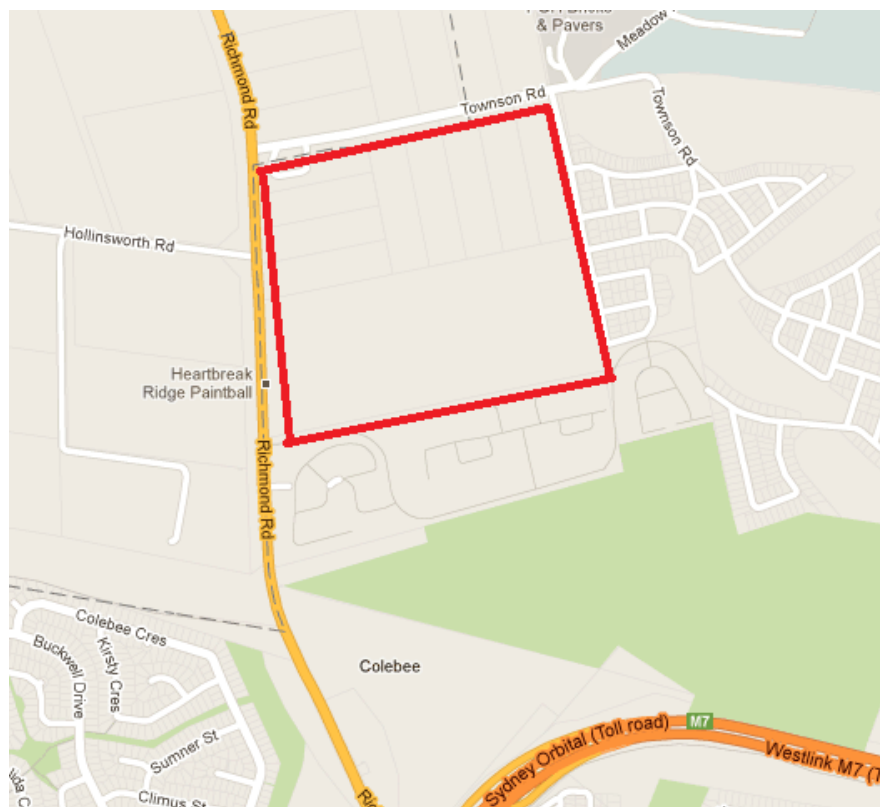
Eugene Lorenzo
Network Connections, Endeavour Energy

Our Ref: AA5435/JPH/121102/02

Townson Road Precinct, Colebee, NSW

Dear Mr Lorenzo,

I have been provided your name as a contact, who I hope may be able to assist in my enquiries. Hyder Consulting has been engaged by our Client to undertake a high level services infrastructure investigation for the Townson Road Precinct. Please see a location plan below showing the indicative location of the proposed subdivision development.



Hyder understands that the purpose of the investigation is to support a rezoning application for the Townson Road Precinct to Blacktown Council. The proposed rezoning site has potential to provide approximately 500 dwellings, with a further potential for approximately 200 dwellings, located directly to the south, which has already been through the Blacktown Council DA process.

Following a Dial Before You Dig investigation, we have ascertained that this site falls within the Endeavour Energy service area. These plans indicate the presence of a substation (Ref: 2064), located to the north east of the site and Townson Road, with further substations located in the residential area, to the south west of the site.

As we are currently only assessing the rezoning application at this time, I would much appreciate if you could confirm any information that would help us in our services infrastructure investigation, with regard to any future feeder connections to this site, such as existing supply locations, future capacity and extensions to infrastructure.

Hyder also understand that as part of the Richmond Road reconstruction and intersection works, HV infrastructure is to be constructed, and that this service may be installed prior to the development of the subdivision.

Can you please provide any information on the potential for future feeder connections to our site from any new HV infrastructure in the Richmond Road works Any information you can provide on the above matters would be very much appreciated

Should you wish to discuss any of the above please contact me on 02 8907 9149. Thanking you in advance for your time.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joe Heydon".

Joe Heydon
Principle Engineer
02 8907 9149



6 November 2012

Endeavour Energy Ref: ENL1887 – 2012/08645/001

HYDER CONSULTING
PO BOX 6503
North Sydney NSW 2060

Attention: Joe Heydon

Dear Sir/Madam

**ENL1887 – CONNECTION OF LOAD APPLICATION LOT 48, DP 1175138, Richmond Road,
MARSDEN PARK**

Endeavour Energy acknowledges your application and it is filed under the Customer Application Number shown above. Please quote this number on any further correspondence.

Endeavour Energy will assess your application and you will receive further advice about your requirements for your connection after an initial investigation has been carried out which should take approximately two weeks.

This letter does not allow release of plans from the Constituent Council or from your Private Certifier.

Should you have any enquiries regarding your application please do not hesitate to contact the undersigned.

Yours faithfully

Louise Fabrello

Louise Fabrello
Contestable Works Administrator
Ph: 02 9853 7933
Fax: 02 9853 7925
Email: cwadmin@endeavourenergy.com.au
NETWORK CONNECTIONS - HOXTON PARK DEPOT

Joe Heydon

From: David Ho <David.Ho@endeavourenergy.com.au>
Sent: 28 November 2012 4:40 PM
To: Joe Heydon
Subject: ENL1887 - Townson Road Precinct | Lot 48 DP 1175138 Richmond Road Marsden Park

Dear Joe ,

Thank you for your enquiry regarding electricity supply to above residential development . This enquiry has been registered under Customer Application Process (CAP) Number ENL1887; please quote this number on all future correspondence.

Townson Road Precinct is proposed to be rezoned as residential areas that has potential to create approximately 420 lots, with a further 300 lots been proposed at the south of the site.

Endeavour Energy has assessed the anticipated load required for the development of 420 lots to be in the order of 2.9MVA. To cater for the total load of the entire development, a new feeder is required to be installed from new Schofields ZS to suitable location between ABS 84024 and Pole Sub 79 along Carnarvon Road.

I trust this preliminary advice provides the information that was requested. Please note that the advice provided is in response to an enquiry only and does not constitute a formal method of supply.

If you have any questions regarding this matter, please contact me.

Regards,

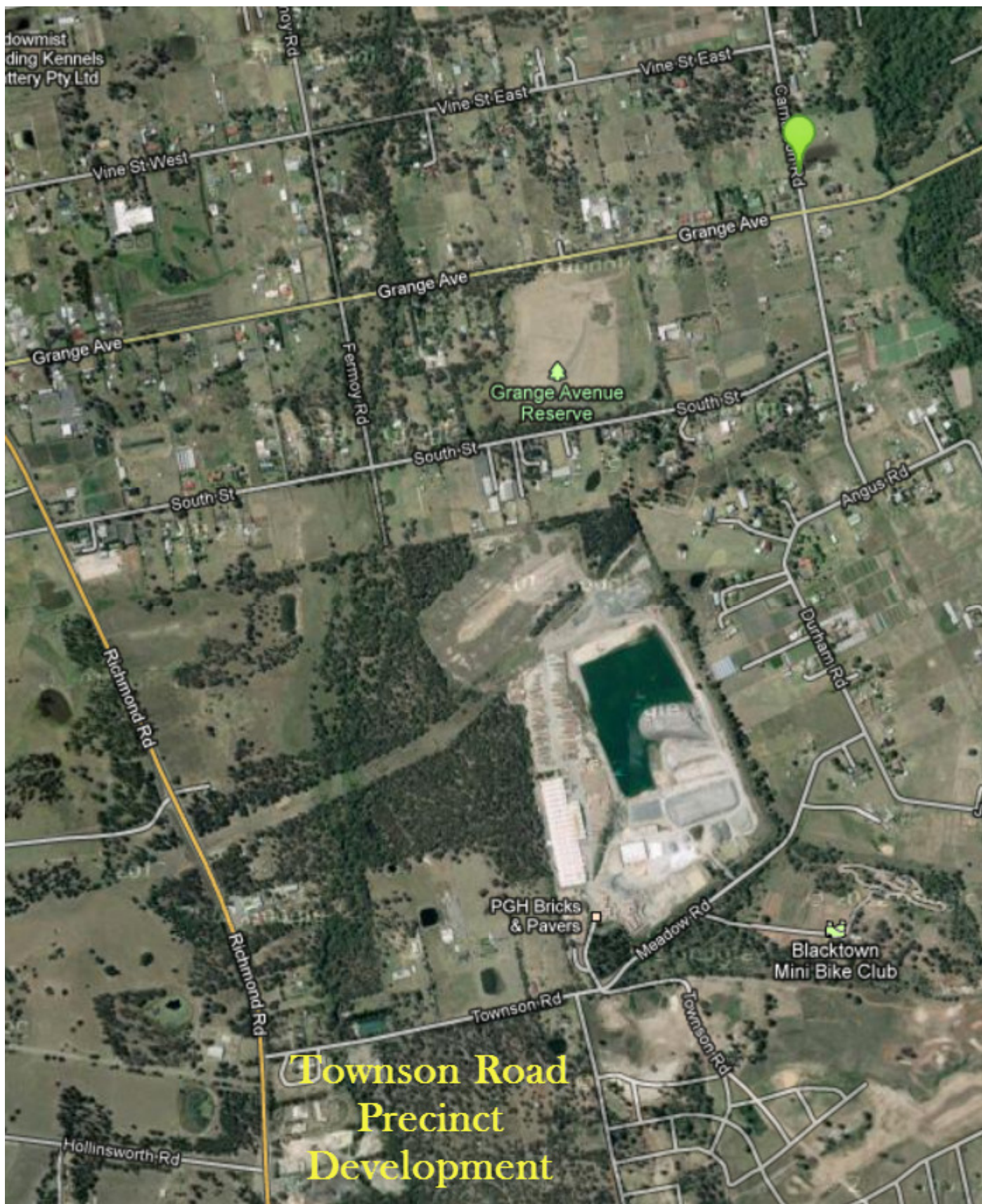
David Ho
Contestable Projects Manager – North | **Network Connections**

☎ Direct: (02) 9853 7901 | 📠 Fax: (02) 9853 7903

✉ Email: david.ho@endeavourenergy.com.au

490 Hoxton Park Road, Hoxton Park NSW 2171





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.....

2 November 2012 22 November 2012

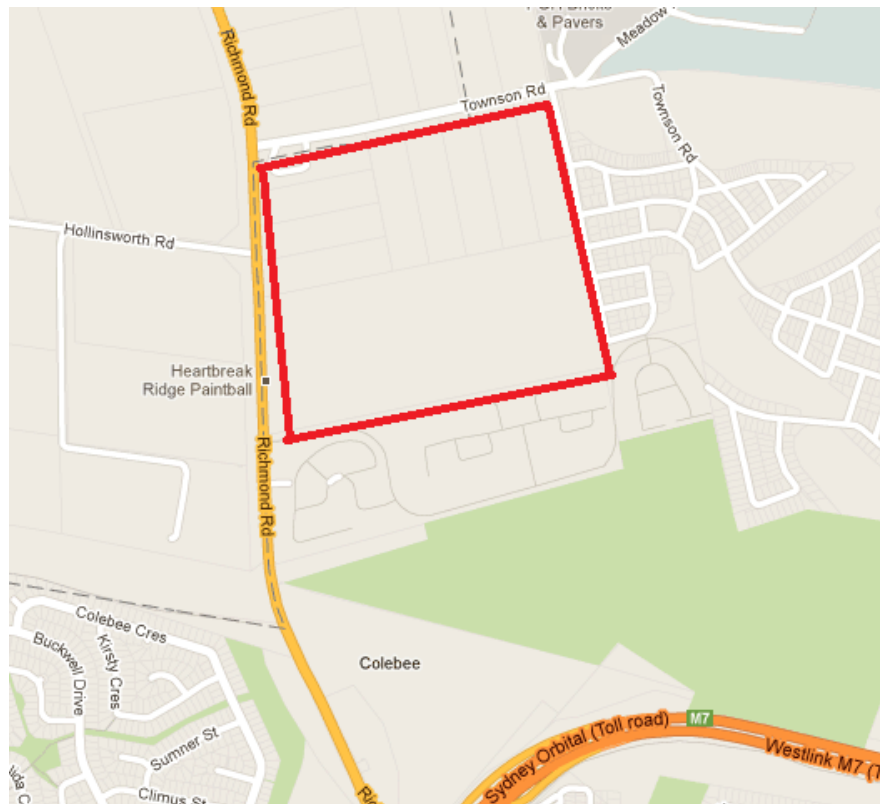
Neale Hilton,
Network Development Manager, Jemena

Our Ref: AA5435/JPH/121102/03

Townson Road Precinct, Colebee, NSW

Dear Mr Hilton,

I have been provided your name as a contact, who I hope may be able to assist in my enquiries. Hyder Consulting has been engaged by our Client to undertake a high level services infrastructure investigation for the Townson Road Precinct. Please see a location plan below showing the indicative location of the proposed subdivision development.



Hyder understands that the purpose of the investigation is to support a rezoning application for the Townson Road Precinct to Blacktown Council. The proposed rezoning site has potential to provide approximately 500 dwellings, with a further potential for approximately 200 dwellings, located directly to the south, which has already been through the Blacktown Council DA process.

Following a Dial Before You Dig investigation, we have ascertained that this site falls within the Jemena service area. These plans indicate the presence of a 150mm, 1,050kPa secondary gas main along Richmond Road

As we are currently only assessing the rezoning application at this time, I would much appreciate if you could confirm any information that would help us in our services infrastructure investigation, with regard to any future connections to this site, such as existing supply locations, future capacity and extensions to infrastructure.

Should you wish to discuss any of the above please contact me on 02 8907 9149. Thanking you in advance for your time.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joe Heydon".

Joe Heydon
Principle Engineer
02 8907 9149

Joe Heydon

From: Neale Hilton <Neale.Hilton@jemena.com.au>
Sent: 7 November 2012 12:34 PM
To: Joe Heydon
Subject: RE: Townson Road Precinct, Colebee, NSW

Joe
Jemena appreciates the early notification of this proposal and is aware of the future potential of Marsden Park. As you have identified, a High Pressure 1050kPa gas main exists in Richmond Rd however this network is not suitable for reticulation throughout a residential estate for individual house connections. A Zone Pressure Reduction station will be required to allow a new low pressure plastic network to be reticulated via a Shared Trench arrangement throughout the proposed estate.
Capacity is currently available however Jemena does not reserve capacity for any individual project. When available, please provide the approved Lot yield, Staging plan and road layout to assist Jemena compile a more detailed assessment. Jemena is currently laying new low pressure residential network within the Stonecutters Ridge development and will terminate in Townson Rd. It may be advantageous if initial supply could be made available from this site. Please forward further plans and detailed information to myself. Regards.

Neale Hilton
Network Development Manager
Sydney

Jemena Gas Networks (NSW) Limited
Address Level 20, 111 Pacific Highway North Sydney NSW 2060
Postal Address Locked Box 2/159 Ridgecrop Drive Castle Hill 2154
Mobile 0402 060 151 Fax (02) 9899 3571 Email neale.hilton@jemena.com.au
thenaturalchoice.com.au



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From: Joe Heydon [<mailto:Joe.Heydon@hyderconsulting.com>]
Sent: Friday, 2 November 2012 5:29 PM
To: Neale Hilton
Subject: Townson Road Precinct, Colebee, NSW

Dear Mr Hilton,

Please see a letter attached with regard to high level services infrastructure investigation at the above address, that I am hoping you may be able to assist me with.

I will follow up with a phone call next week to discuss. Thank you for your time.

Kind Regards,

Joe Heydon

Joe Heydon
Principal Engineer
Hyder Consulting Pty Ltd
Locked Bag 6503 North Sydney NSW 2060 Australia
Level 5, 141 Walker Street North Sydney NSW 2060 Australia
Direct: +61 2 8907 9149
Web: www.hyderconsulting.com

International advisory and design consultancy

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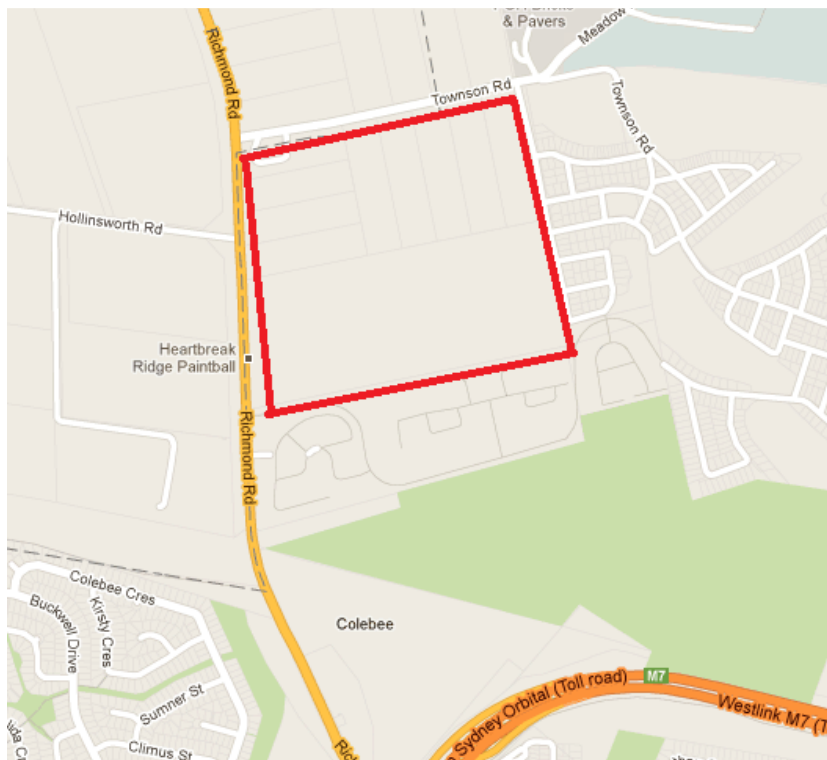
4 December 2012

Our Ref: AA5435/JPH/121204/05

Townson Road Precinct, Colebee, NSW

Dear Mr Sckwabrow,

I have been provided your name as a contact, who I hope may be able to assist in my enquiries. Hyder Consulting has been engaged by our Client to undertake a high level services infrastructure investigation for the Townson Road Precinct. Please see a location plan below showing the indicative location of the proposed subdivision development.



Hyder understands that the purpose of the investigation is to support a rezoning application for the Townson Road Precinct to Blacktown Council. The proposed rezoning site has potential to provide approximately 420 dwellings, with a further potential for approximately 300 dwellings, located directly to the south, which has already been through the Blacktown Council DA process.

Following a Dial Before You Dig investigation, we have ascertained that this site falls within the Telstra infrastructure service area, with existing Telstra infrastructure in place within Richmond Road, and ducts feeding into our Client's development site.

As we are currently only assessing the rezoning application at this time, I would much appreciate if you could confirm any information that would help us in our services infrastructure investigation, with regard to any future telecommunications supply to this site, such as existing supply locations, future capacity, extensions to infrastructure and broadband services.

Should you wish to discuss any of the above please contact me on 02 8907 9149. Thanking you in advance for your time.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joe Heydon".

Joe Heydon
Principle Engineer
02 8907 9149

APPENDIX D – GHD CONSULTANT CORRESPONDANCE

01 AUG 2012

27 July 2012

Matthew Hyder
Legacy Property
Level 8, 9-13 Young Street
Circular Quay
Sydney 2000

799 & 829 Richmond Road - Wastewater Servicing

Dear Matthew,

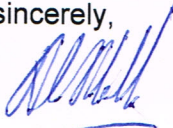
I refer to GHD's updated technical document of 14/6/12 '799 Richmond Road Interim Wastewater System to Service Additional Areas'.

Our engineering and environmental services team have assessed the document and stated that as the proposed estimated pumping rate is less than that originally specified by Sydney Water (at 32 L/s), it is in-principle technically acceptable. This will have to be confirmed by MOUSE modelling that will be carried out during the planning stage.

In regards to funding, generally Sydney Water will pay for the fair and reasonable costs of major infrastructure and trunk assets that are built by developers. Where Sydney Water agrees to fund infrastructure, the developer must follow Sydney Water's procurement guidelines to deliver that infrastructure. For your reference please find attached our 'Funding Infrastructure to Service Growth' policy and a copy of our procurement guidelines.

If you require further information regarding the above then please contact Luke Downend on 8849 4125.

Yours sincerely,



Adrian Miller
Manager of Urban Growth Strategy & Planning



14 June 2012

Legacy Property
Level 8, 9 – 13 Young Street
Circular Quay
Sydney 2000

Our ref: 21/21233/181300
Your ref:

Attention: Mr Matthew Hyder

Dear Matthew

**799 Richmond Road
Interim Wastewater System to Service Additional Areas**

Further to our meeting with Legacy Property and Sydney Water of 8 June 2012, we outline below a comparison of the impact on the interim wastewater pumping system resulting from the proposal to service additional land. The original area to be serviced is marked as "A" on Figure 1. The additional land proposed to be serviced by the pumping system is marked as "B" on Figure 1.

Description	Original (Area "A")	New Proposed Area (Areas "A" & "B")
Total number of lots	390	798
Total number of EP	1409	2874
Estimated ADWF based on 150L/EP/day	2.45 L/s	4.99 L/s
Estimated PDWF	8.4 L/s	14 L/s
Proposed pumping rate	13 L/s (determined by hydraulic modelling)	27 L/s (to be confirmed by hydraulic modelling)
Pressure main size	DN140 PE	DN180 PE
Length of pressure main (assuming gravity sewer to service Stonecutters Ridge will be available for connection)	750 m	1,130 m
Emergency storage required	58.5 kL	120 kL (to be confirmed by hydraulic modelling)
Approximate wet well diameter	3.8m	4.2m ¹
Approximate wet well depth	9m	9m ²



1. The minor increase in wet well diameter is to accommodate additional emergency storage volume
2. Change in the depth of the station is negligible based on an assessment of the topography of the catchment area.

The changes to the station footprint and other ancillary items such as electrical kiosk, Inlet Manhole and fencing would be negligible based on the above.

Although the pump motor/impeller size would increase, it would not be a significant cost increase based on overall pump station costs.

Please note also that the following services will need to be extended to service the new proposed pump station location if the development and construction of the subdivision roads and services are not advanced enough when the pumping station is commissioned:

- Access road to the pump station (380m long approx.).
- Water supply (380m long approx.). This can potentially be designed to form part of the reticulation water main for the subdivision.
- Power supply (380m long approx.).
- Communication (380m long approx.)

We trust the above provides a summary of the changes that would result in relocating the proposed station to service a larger development area. Please do not hesitate to contact us should you need clarification on any aspect.

Yours sincerely
GHD Pty Ltd

A handwritten signature in blue ink, appearing to read 'Liong Khoo', with a long, sweeping horizontal line extending to the right.

Liong Khoo
Project Director
+61-2 9239 7454



Stewart Nettleton

From: Matthew Hyder
Sent: Friday, 29 June 2012 4:57 PM
To: Stewart Nettleton
Cc: 'Neil Smith (neil.btn@bigpond.com)'
Subject: FW: ENL1799 - Townson Road Release | Richmond Road COLEBEE

See below for electricity servicing capacity. EE are notorious for not giving clear advice. I think what this shows is exactly what we already knew and that is that there is capacity but cost to access is unknown.

Sewer and water to come.

From: Bryan Stringer [mailto:bstringer@connecteng.com.au]
Sent: Friday, 29 June 2012 4:16 PM
To: Matthew Hyder
Cc: Ali Siddiqui; Greg Saunders
Subject: RE: ENL1799 - Townson Road Release | Richmond Road COLEBEE

Hi Matthew,

I had a discussion with Greg over the phone and he requested that I forward the email below.

Please contact me if you wish to discuss further.

Regards,

Bryan Stringer

Design Consultant / Team Leader – Connect Infrastructure Pty Ltd – “Work Right – Home Tonight”
 | t: 02 9733 3333 | f: 02 9733 3330 | e: bstringer@connecteng.com.au | a: PO Box 484, Casula Mall 2170



Electrical Infrastructure Consultancy, Design & Construction

From: Greg Saunders [mailto:GSaunders@connecteng.com.au]
Sent: Friday, 29 June 2012 4:02 PM
To: Matthew Hyder
Subject: RE: ENL1799 - Townson Road Release | Richmond Road COLEBEE

Matthew

Endeavours response is in the email below.

What this means is that there is limited supply in the electrical network in the area however supply can be made available to the development after either the existing network is augmented or as a worst case scenario the installation of a new feeder cable back to a zone sub. All this work will be at the developers cost.

EE are unable to finalise the point of connection until a formal application is submitted. EE may require that a DA has been submitted before processing any application.

Regards,

Greg Saunders – Connect Infrastructure Pty Ltd – “Work Right – Home Tonight”

| t: 02 9733 3333 | m: 0412 597 620 | f: 02 9733 3330 | e: gsaunders@connecteng.com.au | a: PO Box 484, Casula Mall 2170

From: David Ho [<mailto:David.Ho@endeavourenergy.com.au>]
Sent: Friday, 29 June 2012 11:59 AM
To: Ali Siddiqui
Cc: Greg Saunders
Subject: ENL1799 - Townson Road Release | Richmond Road COLEBEE

Dear Ali,

Thank you for your enquiry regarding electricity supply to above residential development . This enquiry has been registered under Customer Application Process (CAP) Number ENL1799; please quote this number for all future correspondence.

Proposed Development

Townson Road Release Development is proposing to yield 426 residential lots in 7 stages and Stage 1 with 60 lots will require supply in September 2014.

	No # Lots	Start Date
Stage 1	60	1/9/14
Stage 2	60	1/2/15
Stage 3	60	1/6/15
Stage 4	60	1/11/15
Stage 5	60	1/4/16
Stage 6	60	1/9/16
Stage 7	66	1/2/17

Existing Supply Network

At present, existing 11kV network has only a very limited capacity to support this development. It would be possible to connect up to 10 lots without further feeder development from Schofields ZS.

Possible Supply Arrangements

Ultimately these residential lots will be serviced from Marsden Park Industrial ZS (yet to be approved), However, greater lot numbers will require feeder development. This will require either a new feeder to service all 430 lots or a shared new feeder to service part of the development.

Due to the number of enquires and load applications in the area. The servicing requirement may change in the future and would have to be re-assessed upon receipt of a load application at the time.

I trust this preliminary advice provides the information that was requested. Please note that the advice provided is in response to an enquiry only and does not constitute a formal method of supply.

If you have any questions regarding this matter, please contact me.

Regards,

David Ho
Contestable Projects Manager – North | Network Connections

☎ Direct: (02) 9853 7901 | 📠 Fax: (02) 9853 7903

✉ Email: david.ho@endeavourenergy.com.au



From: Ali Siddiqui [<mailto:asiddiqui@connecteng.com.au>]

Sent: Wednesday, 27 June 2012 3:47 PM

To: David Ho

Cc: Stewart Nettleton; Matthew Hyder

Subject: ENL1799 - 829 Richmond Road COLEBEE

Hi David,

As discussed over phone,

The Network enquiry application is for the 426 Lots – Townson Road release, which is proposed to be completed in seven stages.

Please refer attached mark up, the area highlighted in red is the area in question.

If you have any further questions please do not hesitate to contact me.

Regards,

Ali Siddiqui – Design Consultant – Connect Infrastructure Pty Ltd – “Work Right – Home Tonight”

| d: 02 9733 3353 | t: 02 9733 3333 | f: 02 9733 3330 | e: asiddiqui@connecteng.com.au | a: PO Box 484, Casula Mall 2170



Electrical Infrastructure Consultancy, Design & Construction

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