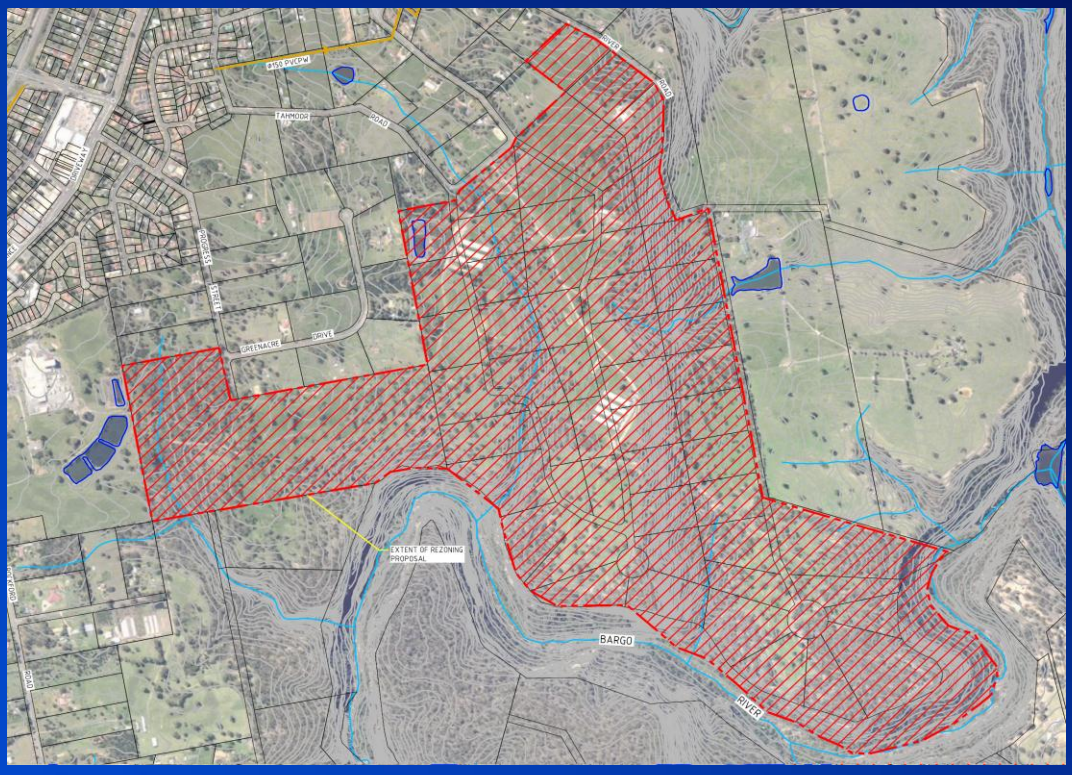
INGHAMS TAHMOOR

Utilities and Servicing



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URBIS

INGHAMS TAHMOOR

Rezoning

Preliminary Utilities and servicing strategy

Author	Chris McClelland	
Checker	Greg Ives	
Approver	Simon Kinsey	
Report No	DN00337	
Date	29/05/2013	

This report has been prepared for Urbis in accordance with the terms and conditions of appointment for Ingham Property Development Pty Ltd dated 15/06/2012. 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 have been commissioned by Urbis on behalf of Ingham Property Development Pty Ltd to provide preliminary servicing advice for the potential re-zoning of a parcel of land currently owned by Ingham Property Development Pty Ltd. The site is currently zoned rural small holdings (RU4) and the proposal is to re-zone to large lot residential (R5) with lot sizes ranging from approximately 1,500 m² to 4,000 m².

The site, located to the south of the East Tahmoor lands, comprises of approximately 166.45 hectares that is currently zoned RU4 *Rural Small Holding* under the Wollondilly Local Environmental Plan 2011. This site currently comprises a series of large contiguous rural lots, and occupies an existing duck farm operation. The remainder of the land is used for general grazing. Further, it is noted that the *Picton Tahmoor Thirlmere New Urban Lands Planning Proposal* seeks to rezone a portion of land in East Tahmoor (to the north of the Ingham's site) from RU4 Rural Small Holdings to R2 Low Density Residential. The Inghams Planning Proposal compliments the current proposed rezoning to the north of the site, albeit offering a unique and larger form of future residential subdivision on the periphery of the existing township of Tahmoor.

The key findings of this preliminary investigation include;

- **Potable Water** -There are a number of suitable connection points. Sydney Water has indicated that no upgrades are currently planned in the area.
- **Sewer** – A portion of the site can be gravity drained to an existing sewer pumping station. Sydney Water has indicated that no upgrades are currently planned in the area.
- **Gas** – There is gas in the general area. Jemena have indicated availability is subject to commercial viability.
- **Electrical** – There is a zone substation located near the development.
- **Telecommunications** – There are a number of suitable connection points. The site is outside of the current NBN Co. footprint. Therefore an application for reticulation (AFR) has been submitted to Telstra Smart Communities. The AFR number is 17313508.

Based on the investigations above the development is likely to be able to provide all essential services. However, capacity will require confirmation with the relevant service provider once further design details are understood.

2 PROJECT DESCRIPTION

The site is currently zoned rural small holdings (RU4) and the proposal is to re-zone to large lot residential with lot sizes ranging from 1,500 m² to 4,000m² with an approximate yield of 240 lots. The proposed rezoning includes approximately 166.45ha of land owned by Ingham Property Development Pty Ltd as indicated in Figure 1. The site is bordered by Bargo River along the southern boundary, and borders Cross Street to the north.

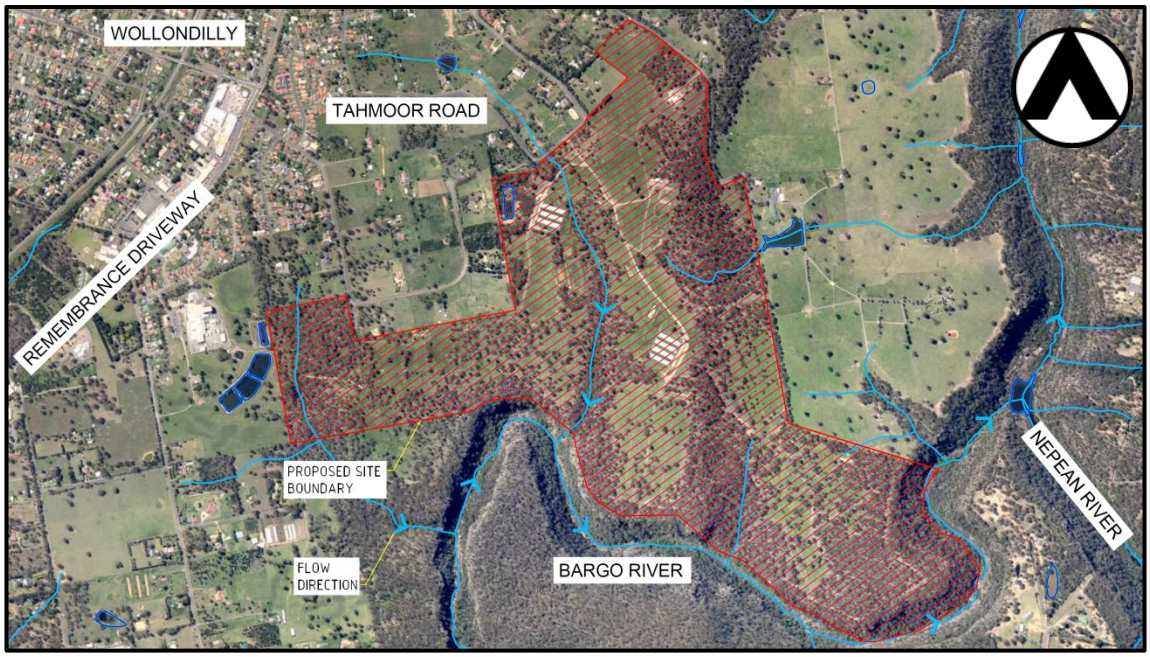


Figure 1 Site Location (Image source: NearMap)

3 SERVICE INFRASTRUCTURE

The site is not currently serviced by any major provider. This report outlines the existing services located in the vicinity of the site based on Dial-Before-You-Dig (DBYD) and correspondence with major utility providers. It also includes some potential servicing options that should be considered in developing the site.

3.1 POTABLE WATER

3.1.1 EXISTING

The site is not currently serviced by the Sydney Water network. Refer to drawing UT001 for the consolidated findings based on the Dial-before-you-dig enquiry. There is a trunk reticulation located in Remembrance Driveway approximately 1500 metres from the proposed development. There is a Ø450mm CICL located on the southern side of the road reserve and is reduced to a Ø300mm DICL at the intersection of Emmett Street. This continues approximately until York Street where it again reduces to a Ø200mm.

Hyder met with David Demer and Milroy Jayaveerasingam at Sydney Water (dated 27/06/12) to discuss the proposed development.

3.1.2 PROPOSED

It will need to be confirmed with Sydney Water if it is possible to provide potable water for the site. The capacity in the existing infrastructure will have to be confirmed by Sydney Water at a later stage.

3.2 SEWER

3.2.1 EXISTING

The site is not currently serviced by the Sydney Water network. Two sewer pumping stations are nearby the site. Refer to drawing UT002 for the consolidated findings based on the Dial-before-you-dig enquiry.

SP0919 – This sewer pumping station is located to the south-west of Bronzewig Street. This connects to a Ø250mm PVC rising main.

SP0920 – This sewer pumping station connects to a Ø375mm rising main that heads north east through Koorana Road towards a treatment facility located approximately 5km north-east of the site.

3.2.2 PROPOSED

There are approximately 40 lots located between River Road and Myrtle Creek Avenue that can subject to final confirmation with Sydney Water, be feasible to drain via conventional gravity sewer. A new line would be required along River Road to connect these lots to the existing sewer line to the north this line gravity drains to SPS0920.

For the remaining lots there are a number of options;

1. Gravity sewer network with sewer pump stations – Due to the hilly nature of the site and distances from the proposed lots and existing sewer infrastructure a series of pump

stations and rising mains would be required to enable a traditional gravity sewer network.

2. On-site sewage systems – with the isolated nature and large lot sizes, particularly the south eastern lots where areas are around 4,00m^2, individual on-site sewage systems such as septic tanks could be used.

3. Pressure sewer system - Pressure sewer is a centralised sewer system that utilises small, low powered, grinder pumps in each property which are then connected to a centralised discharge network. The pressure created at each property connection allows the sewage to be transported to a treatment plant or another connecting sewer system. The network is constructed from small diameter poly pipe which is installed in narrow and shallow trenches.

   Pressure sewer systems are especially popular in rocky and hilly areas where the infrastructure cost of gravity sewers would be prohibitive.

It will be possible to provide sewage for the site subject to confirmation by Sydney Water. The capacity in the existing infrastructure (SP0920) and Picton Sewage Treatment Plant with any required upgrades is subject to formal confirmation by Sydney Water.

3.3 GAS

3.3.1 EXISTING

There is a Ø160mm polyethylene gas main located on the eastern side of Remembrance Driveway. There are a number of Ø32m nylon mains that branch out from the Ø160mm main. Refer to drawing UT003 for the consolidated findings based on the Dial-before-you-dig enquiry.

3.3.2 PROPOSED

The closest available connection point is along Tahmoor Road.

Preliminary discussions with Jemena indicate that there is gas available in the area subject to commercial viability. Correspondence from Jemena is included in Appendix B.

3.4 ELECTRICITY

3.4.1 EXISTING

There are two zone substations that serve Tahmoor. The first is located at the Tahmoor Colliery approximately 2.5km to the south of the site. The second is located near the left side of the intersection of Remembrance Driveway and Rockford Road. Refer to drawing UT004 for the consolidated findings based on the Dial-before-you-dig enquiry.

Tahmoor Zone Substation – Is currently operated by Endeavour Energy. Based on the '*2011 Electricity System Development Review by Endeavour Energy*' (June 2011) the Tahmoor zone substation consists of 2 x 25 MVA Transformers. It has 50MVA capacity (27 MVA Emergency/Cyclic rating) and used 15.6MVA (summer demand) and 13.3MVA (winter demand) in 2010. This is currently forecast to increase to 16.1/15.8MVA (summer/winter) by 2020. Based on this report, it has approximately 11.3MVA spare capacity.

Figure 2 Tahmoor Zone Substation (Image source: NearMap)

3.4.2 PROPOSED

It is likely that the Tahmoor zone substation would have the required capacity to service the development. Discussions with Greg Saunders (Connect Electrical dated 15 June 2012) indicate that the development would likely require the installation of some high voltage feeders to be installed to service the development. This would be a cost to the developer.

To determine the capacity of the system an application to Endeavour Energy is required. Preliminary discussions have indicated there is capacity available (Refer Appendix B for correspondence) however formal confirmation of the capacity of the existing zone substation would be required if the rezoning proposal is approved.

3.5 TELECOMMUNICATIONS

3.5.1 EXISTING

Telstra currently services the Tahmoor region. There are a number of existing services in the area.

Refer to drawing UT005 for the consolidated findings based on the Dial-before-you-dig enquiry.

3.5.2 PROPOSED

At the time of writing, the development sits outside of the NBN Co. footprint (Refer Appendix B for email correspondence). Therefore the development cannot guarantee connection to NBN. An application has been lodged with Telstra Smart Communities, the AFR number is 17313508.

4 CONCLUSION

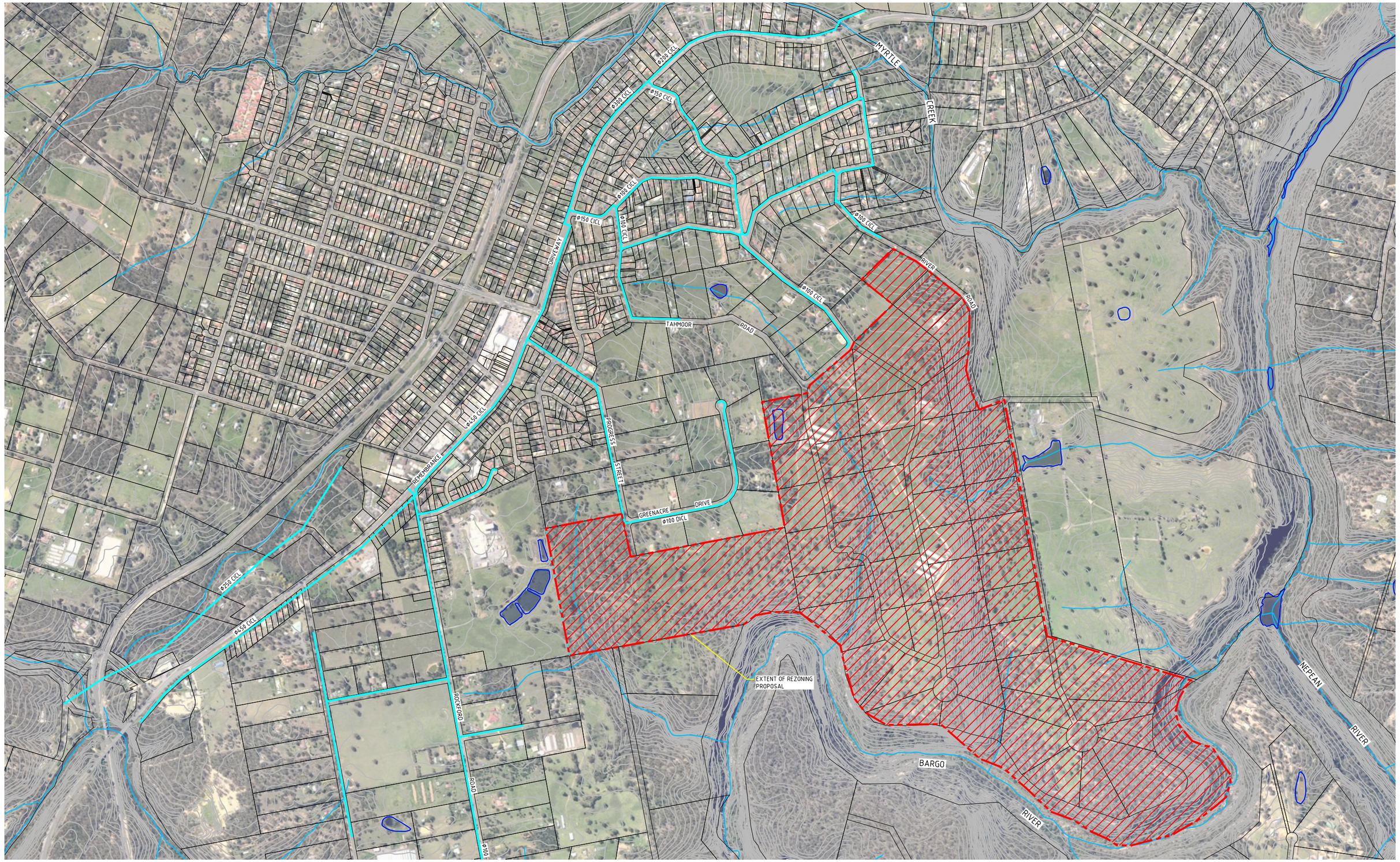
The key findings of this preliminary investigation for existing utilities in this area;

- **Potable Water** -There are a number of suitable connection points. Sydney Water has indicated that no upgrades are currently planned in the area.
- **Sewer** – A portion of the site can be gravity drained to an existing sewer pumping station. Sydney Water has indicated that no upgrades are currently planned in the area.
- **Gas** – There is gas in the general area. Jemena have indicated availability is subject to commercial viability.
- **Electrical** – There is a zone substation located near the development.
- **Telecommunications** – There are a number of suitable connection points. The site is outside of the current NBN Co. footprint. Therefore an application for reticulation (AFR) has been submitted to Telstra Smart Communities. The AFR number is 17313508.

Based on these preliminary investigations the development is likely to be able to provide all essential services. This is subject to future augmentation and extension of existing utilities and confirmation of capacity from relevant utility providers.

APPENDIX A

DRAWINGS



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P1	ISSUE FOR INFORMATION	20.02.2013

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Client

INGHAM PROPERTY DEVELOPMENT PTY. LTD.

Status

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

		Current Issue Signatures	
Scales	1 : 6000	Drawn	B.CHISWELL
Original Size	A1	Designed	C.McCLELLAND
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	S.KINSEY

Filename:

Project

INGHAMS, TAHMOOR

Title

EXISTING WATER

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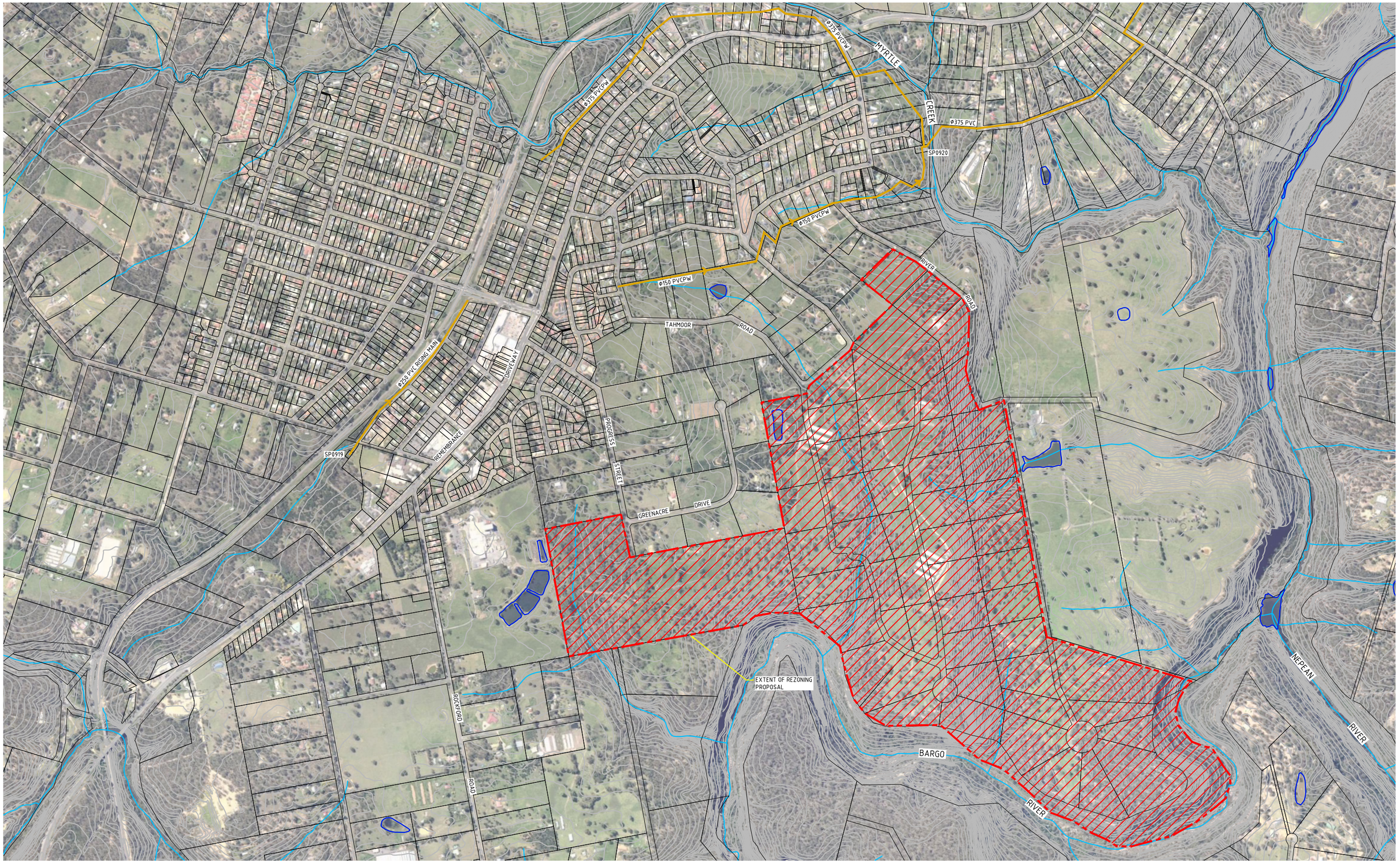
Drawing No.	Project No.	Issue
UT001	AA005014	P2



Issue	Description	Date
P2	ISSUE FOR INFORMATION	29.05.2013
P1	ISSUE FOR INFORMATION	20.02.2013

100mm on Original

0 150 300 450 600m

1 : 6000

Client

INGHAM PROPERTY DEVELOPMENT PTY. LTD.

Status

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

Scales	1 : 6000	Current Issue Signatures	
		Drawn	B.CHISWELL
Original Size	A1	Designed	C.McCLELLAND
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	S.KINSEY

Filename:

Project

INGHAMS, TAHMOOR

Title

EXISTING SEWER

HYDER CONSULTING PTY LTD

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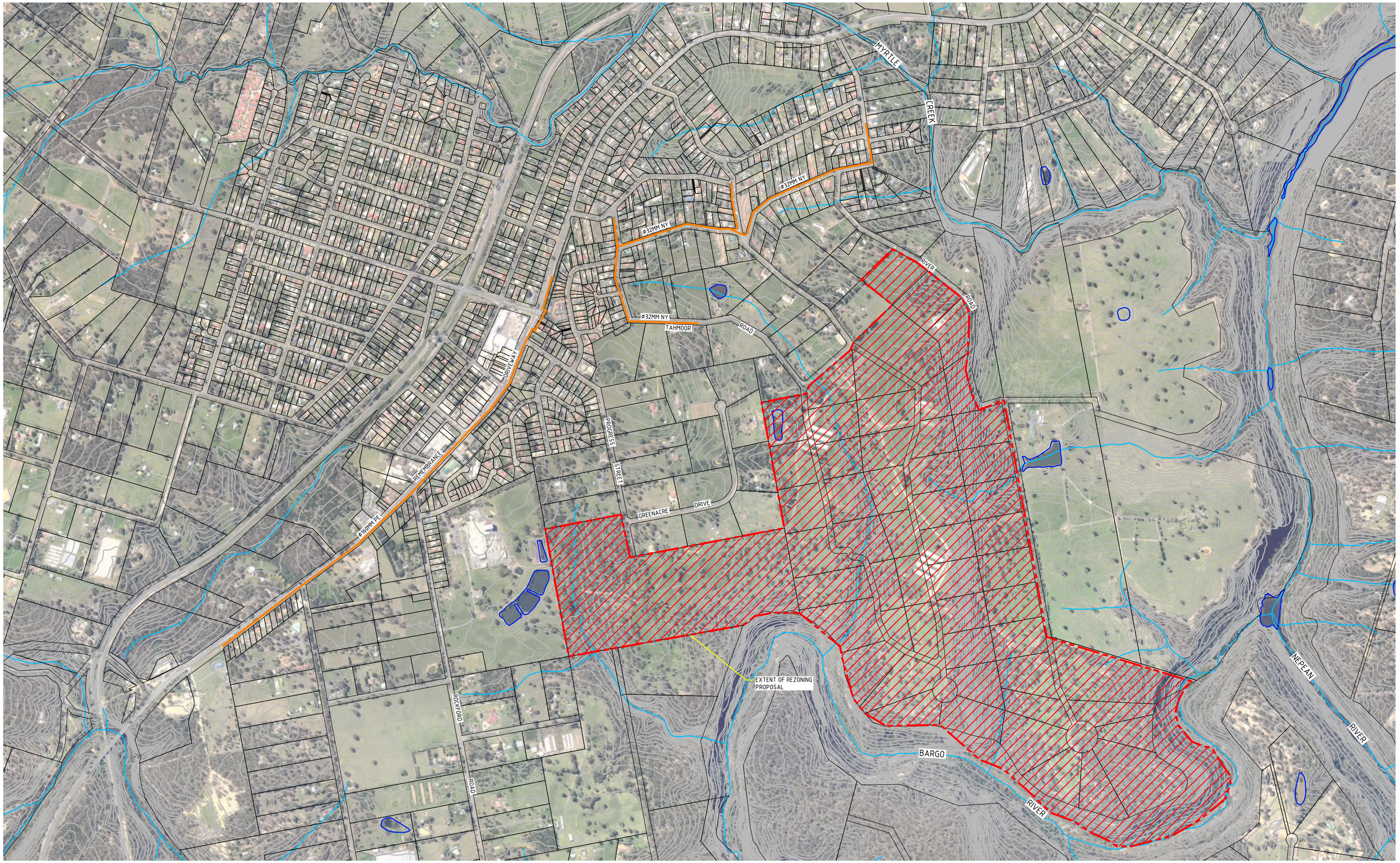
Drawing No.	Project No.	Issue
UT002	AA005014	P1

Date Plotted: 29 May 2013 - 09:20AM File Name: \\HC-AUS-NS-FS-01\jobs\AA005014\E-CAD\C-Civil\B-Sketches\UT002-Existing_Sewer.dwg V1



Issue	Description	Date
P2	ISSUE FOR INFORMATION	29.05.2013
P1	ISSUE FOR INFORMATION	20.02.2013

100mm on Original

0 150 300 450 600m

1 : 6000

Client

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Status

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

Scales	1 : 6000	Current Issue Signatures	
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Original Size	A1	Designed	C.McCLELLAND
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	S.KINSEY

Filename:

Project

INGHAMS, TAHMOOR

Title

EXISTING GAS

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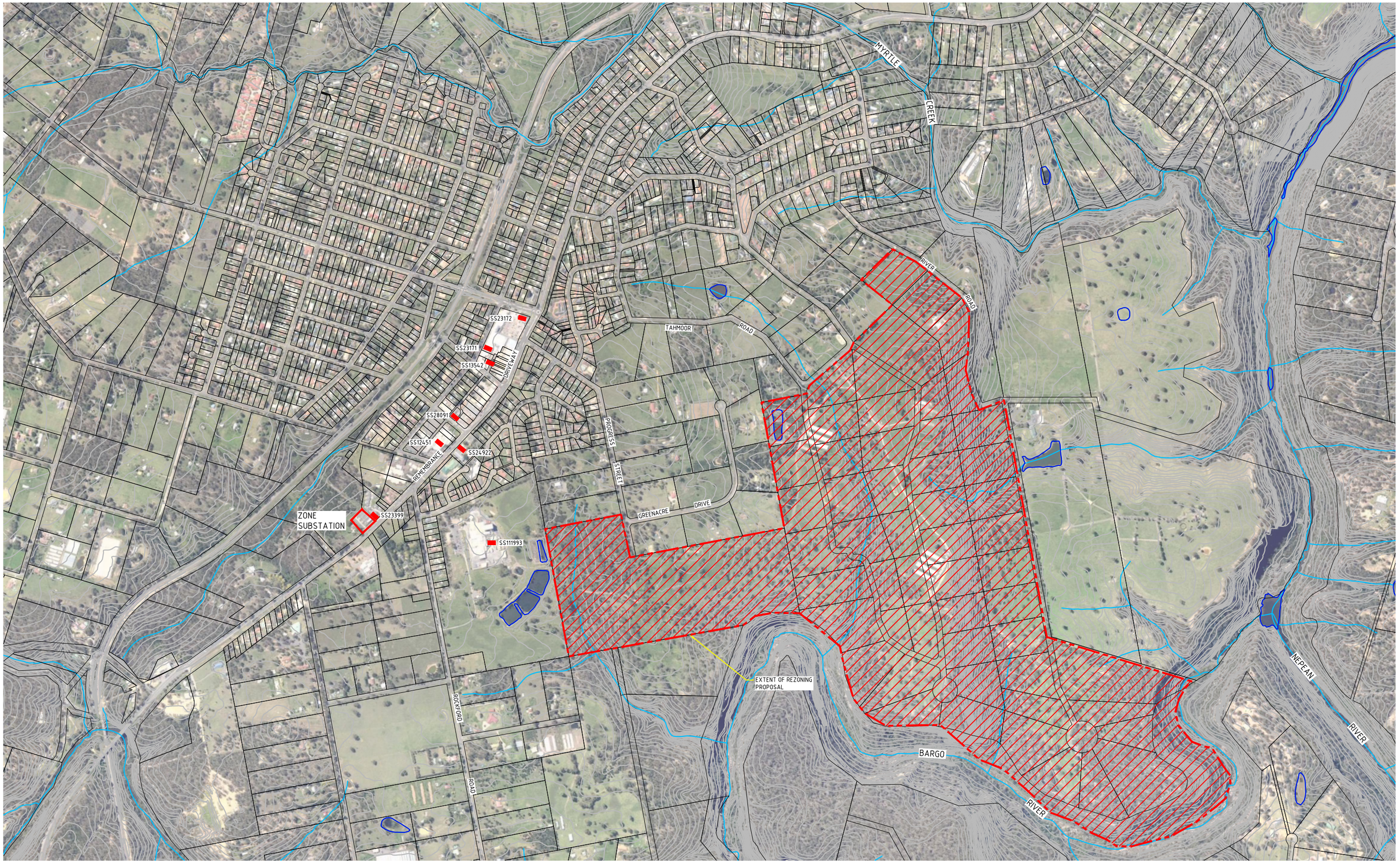
Drawing No.	Project No.	Issue
UT003	AA005014	P1

Date Plotted: 29 May 2013 - 09:19AM File Name: \\HC-AUS-NS-FS-01\jobs\AA005014\E-CAD\C-Civil\B-Sketches\UT003-Existing_Gas.dwg V1



Issue	Description	Date
P2	ISSUE FOR INFORMATION	29.05.2013
P1	ISSUE FOR INFORMATION	20.02.2013

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Client

INGHAM PROPERTY DEVELOPMENT PTY. LTD.

Status

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

Scales	1 : 6000	Current Issue Signatures	
		Drawn	B.CHISWELL
Original Size	A1	Designed	C.McCLELLAND
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	S.KINSEY

Filename:

Project

INGHAMS, TAHMOOR

Title

EXISTING ELECTRICAL

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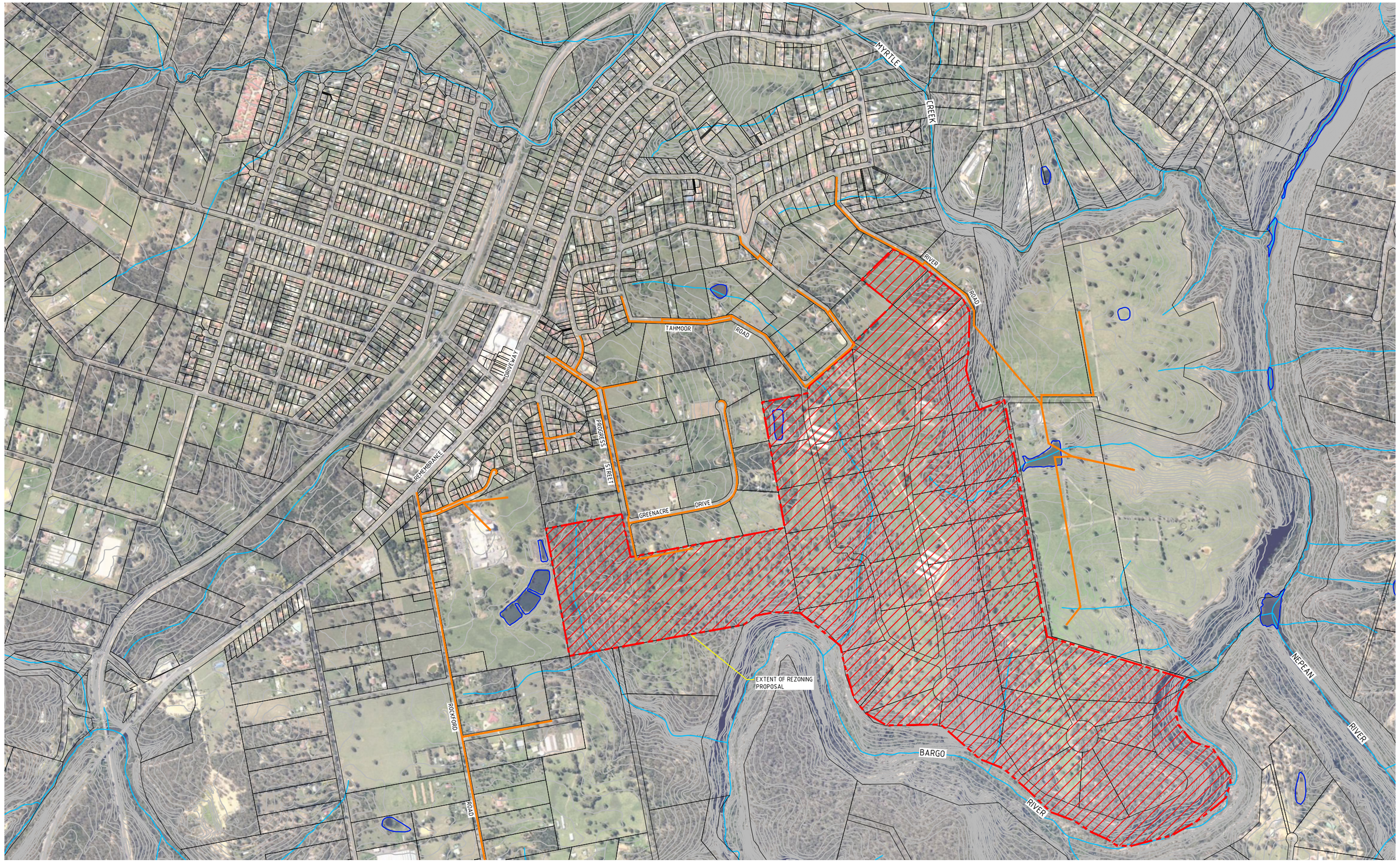
Drawing No.	Project No.	Issue
UT004	AA005014	P2

Date Plotted: 29 May 2013 - 01:31PM File Name: \\HC-AUS-NS-FS-01\jobs\AA005014\E-CAD\C-Civil\B-Sketches\UT004-Existing_Electrical.dwg V1



Issue	Description	Date
P2	ISSUE FOR INFORMATION	29.05.2013
P1	ISSUE FOR INFORMATION	20.02.2013

100mm on Original

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1 : 6000

Client

INGHAM PROPERTY DEVELOPMENT PTY. LTD.

Status

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

Scales	1 : 6000	Current Issue Signatures	
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Original Size	A1	Designed	C.McCLELLAND
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	S.KINSEY

Filename:

Project

INGHAMS, TAHMOOR

Title

EXISTING TELSTRA

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Drawing No.	Project No.	Issue
UT005	AA005014	P2

Date Plotted: 29 May 2013 - 09:18AM File Name: \\HC-AUS-NS-FS-01\jobs\AA005014\E-CAD\C-Civil\B-Sketches\UT005-Existing_Telstra.dwg V1

APPENDIX B

CORRESPONDENCE LETTERS

Christopher McClelland

From: Josh Caruana <jcaruana@connecteng.com.au>
Sent: 7 October 2012 8:38 PM
To: Christopher McClelland
Subject: RE: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Categories: Copied

Hi Chris,

We have an answer. From EE:

"This development is for 240 non urban residential lots.
This development could be supplied by the Emmett St 11kV fdr ex Tahmoor ZS & the Tahmoor 11kV fdr ex Maldon ZS. This will depend on the load on the 11kV feeders when applicatons for subdivisions are submitted.
The connection points and network requirements will be determined at the time when applications are submitted."

Basically there's existing 11kV in the area which can be used. I will need to have a look at the network and see exactly where these are in relation to your site (if Carlos hasn't already provided this).

Regards,
Josh Caruana **– Design Consultant – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| **d: 02 9733 3328** | t: 02 9733 3333 | f: 02 9733 3330 | e: jcaruana@connecteng.com.au | a: PO Box 484, Casula Mall 2170

connect INFRASTRUCTURE
Electrical Infrastructure Consultancy, Design & Construction

From: Christopher McClelland [mailto:Christopher.McClelland@hyderconsulting.com]
Sent: Wednesday, 3 October 2012 9:55 AM
To: Josh Caruana
Cc: AA005014
Subject: RE: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Josh,

Any word from Endeavour? Could you please try chasing this up again.

Thanks,

Chris McClelland
Civil 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 9197 | Fax: +61 2 8907 9001
Web: www.hyderconsulting.com

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From: Josh Caruana [mailto:jcaruana@connecteng.com.au]
Sent: 25 September 2012 5:09 PM
To: Christopher McClelland
Subject: RE: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Chris,

I've tried to get hold of Len Blair Hickman today with no luck, will let you know once I hear something.

Regards,
Josh Caruana* – Design Consultant – Connect Infrastructure Pty Ltd – *"Work Right – Home Tonight"
| **d: 02 9733 3328** | m: 0413 627 807 | f: 02 9733 3330 | e: jcaruana@connecteng.com.au | a: PO Box 484, Casula Mall 2170

connect INFRASTRUCTURE
Electrical Infrastructure Consultancy, Design & Construction

From: Christopher McClelland [mailto:Christopher.McClelland@hyderconsulting.com]
Sent: Tuesday, 25 September 2012 4:02 PM
To: Josh Caruana; Carlos Seghabi
Cc: AA005014
Subject: FW: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Josh/Carlos,

How is the application going with Endeavour? Do I need to provide any other information?

Regards,

Chris McClelland
Civil 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 9197 | Fax: +61 2 8907 9001
Web: www.hyderconsulting.com

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From: Christopher McClelland
Sent: 11 September 2012 4:45 PM
To: Josh Caruana
Cc: AA005014
Subject: RE: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Josh,
Please see attached PDFs to assist I have summarised answers below. Can you please review and advise if it sufficient?

The size of the development area. – Approx. 150ha
The proposed number of lots – 240
The size of the lots –approx. range 750 – 4,000m2
Proposed road patterns if they have any. – Refer attached plan – indicative only.

Thanks,

Chris McClelland
Civil Engineer
Hyder Consulting Pty Ltd
Locked Bag 6503 North Sydney NSW 2060 Australia
Level 5, 141 Walker Street North Sydney NSW 2060 Australia
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Web: www.hyderconsulting.com

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

From: Josh Caruana [mailto:jcaruana@connecteng.com.au]
Sent: 11 September 2012 4:24 PM
To: Christopher McClelland
Subject: FW: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Chris,

Sorry about the delays on this. Can you provide any more of the information below for this project?

Regards,
Josh Caruana **– Design Consultant – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| **d: 02 9733 3328** | t: 02 9733 3333 | f: 02 9733 3330 | e: jcaruana@connecteng.com.au | a: PO Box 484, Casula Mall 2170

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Electrical Infrastructure Consultancy, Design & Construction

From: Carlos Seghabi
Sent: Friday, 7 September 2012 6:30 PM
To: Josh Caruana
Subject: FW: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

---
From: Len Blair-Hickman[SMTP:LEN.BLAIR-HICKMAN@ENDEAVOURENERGY.COM.AU]
Sent: Friday, September 07, 2012 6:29:26 PM
To: Carlos Seghabi
Subject: FW: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry
Auto forwarded by a Rule

Carlos,

I have received the following comments from our Planners:-

"More information will be required it should include:
The size of the development area.
The proposed number of lots
The size of the lots
Proposed road patterns if they have any.
This will assist to give an answer to the enquiry."

For a master subdivision enquiry it is normal for a road and lot layout to be provided so our Planners can assess the possible HV route within the substation and the possible location of substations as this leads to ducting requirements for road crossings and through the subdivision.

Len Blair-Hickman
Major Projects and Customer Manager
Network Connections, Endeavour Energy
PO Box 6366, Blacktown, NSW, 2148
Ph: 9853 7928 Mob: 0403 343 172 Fax: 9853 7903
Len.blair-hickman@endeavourenergy.com.au

From: Len Blair-Hickman
Sent: Thursday, 30 August 2012 4:29 PM
To: 'Carlos Seghabi'
Subject: RE: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hello Carlos,

I have looked at this enquiry and there are 2 HV feeders supplying the area of the subdivision. Both are lightly loaded however any decisions about connections of load must be made by the Planners as there could be other applications, network constraints, regulation issues etc to consider.

There is no road and proposed lot layout which is what is usually provided with the master subdivision enquiry so I am not sure if there is sufficient information for the Planners to provide any constructive advice as usually provided with master planning.

When the planners provide a response I will forward it to you.

Regards

Len Blair-Hickman
Major Projects and Customer Manager
Network Connections, Endeavour Energy
PO Box 6366, Blacktown, NSW, 2148
Ph: 9853 7928 Mob: 0403 343 172 Fax: 9853 7903
Len.blair-hickman@endeavourenergy.com.au

From: Carlos Seghabi [mailto:cseghabi@connecteng.com.au]
Sent: Wednesday, 29 August 2012 1:05 PM
To: Len Blair-Hickman
Subject: FW: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Len,

Just a reminder about the request below if you can advise.

Regards,

Carlos Seghabi **– Design Consultant – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| d: 02 9733 3357 | t: 02 9733 3333 | f: 02 9733 3330 | e: cseghabi@connecteng.com.au | a: PO Box 484, Casula Mall 2170

Electrical Infrastructure Consultancy, Design & Construction

From: Carlos Seghabi
Sent: Monday, 20 August 2012 3:24 PM
To: 'Len.Blair-Hickman@endeavourenergy.com.au'
Subject: ENL1814 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Hi Len,

With regards to the above mentioned project, can you please give advice on the HV connection point.

Regards,
Carlos Seghabi **– Design Consultant – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| d: 02 9733 3357 | t: 02 9733 3333 | f: 02 9733 3330 | e: cseghabi@connecteng.com.au | a: PO Box 484, Casula Mall 2170

Electrical Infrastructure Consultancy, Design & Construction

From: Alyssa Redhouse
Sent: Friday, 29 June 2012 12:53 PM
To: Carlos Seghabi
Subject: DP835-(Tahmoor, Remembrance Drive,,,) DP835 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Regards,
Alyssa Redhouse **– Business Support Unit – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| t: 02 9733 3333 | f: 02 9733 3330 | e: aredhouse@connecteng.com.au | a: PO Box 484, Casula Mall 2170

Electrical Infrastructure Consultancy, Design & Construction

From: Jaclyn Burton [mailto:Jaclyn.Burton@endeavourenergy.com.au] **On Behalf Of** CWAdmin
Sent: Friday, 29 June 2012 12:42 PM
To: Alyssa Redhouse
Subject: RE: DP835-(Tahmoor, Remembrance Drive,,,) DP835 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry
Alyssa

Please find the attached copy of the acknowledge letter.

Regards

Jaclyn Burton
Contestable Works Administrator
D: 61 2 9853 7913
F: 61 2 9853 7925
E: jaclyn.burton@endeavourenergy.com.au

PO Box 6366 BLACKTOWN NSW 2148
www.endeavourenergy.com.au

From: Alyssa Redhouse [mailto:aredhouse@connecteng.com.au]
Sent: Thursday, 28 June 2012 3:14 PM
To: CWAdmin
Cc: Carlos Seghabi
Subject: DP835-(Tahmoor, Remembrance Drive,,,) DP835 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry
Importance: High

Hello Gillian,

Please find attached amended application to reflect lot and DP as requested.

Regards,
Alyssa Redhouse **– Business Support Unit – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| t: 02 9733 3333 | f: 02 9733 3330 | e: aredhouse@connecteng.com.au | a: PO Box 484, Casula Mall 2170

Electrical Infrastructure Consultancy, Design & Construction

From: Gillian Rajam [mailto:Gillian.Rajam@endeavourenergy.com.au] **On Behalf Of** CWAdmin
Sent: Wednesday, 27 June 2012 10:29 AM
To: Alyssa Redhouse
Subject: RE: DP835-(Tahmoor, Remembrance Drive,,,) DP835 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry

Alyssa,

Please resubmit the enquiry application with the Lot and DP number which you are proposing to subdivide.

Kind regards,

Gillian Rajam
Contestable Works Administrator
D: 61 2 9853 7912
F: 61 2 9853 7925
T: 131 081
E: gillian.rajam@endeavourenergy.com.au

PO BOX 6366 BLACKTOWN NSW 2148
www.endeavourenergy.com.au

From: Alyssa Redhouse [mailto:aredhouse@connecteng.com.au]
Sent: Tuesday, 26 June 2012 3:43 PM
To: CWAdmin
Cc: Carlos Seghabi
Subject: DP835-(Tahmoor, Remembrance Drive,,,) DP835 - Tahmoor, Remembrance Driveway - Request for Network Connection Enquiry
Importance: High

Please find attached Request for Network Connection Enquiry Application for the project at Tahmoor, Remembrance Driveway

To support this application please find attached:

- Site plans
- HV GIS plot

Please process and advise CAP at your earliest convenience

Regards,

Alyssa Redhouse **– Business Support Unit – Connect Infrastructure Pty Ltd –** ***"Work Right – Home Tonight"***
| t: 02 9733 3333 | f: 02 9733 3330 | e: aredhouse@connecteng.com.au | a: PO Box 484, Casula Mall 2170

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Christopher McClelland

From: Esra Kandan <EsraKandan@nbnco.com.au>
Sent: 29 August 2012 3:44 PM
To: Christopher McClelland
Subject: RE: New development application

Categories: Copied

Hi Chris,

Unfortunately the letter can't be provided because the proposed development is currently outside the fibre footprint.

Please do not hesitate to contact me if you would like to discuss this further.

Kind Regards,

Esra Kandan

Developer Liaison Advisor

NSW/ACT

P +61 2 8918 8483 | **M** 0407 695 476 | **E** esrakandan@nbnco.com.au

Level 11, 100 Arthur Street, North Sydney NSW 2060

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PLEASE CONSIDER OUR ENVIRONMENT BEFORE PRINTING

From: Christopher McClelland [mailto:Christopher.McClelland@hyderconsulting.com]
Sent: Wednesday, August 29, 2012 8:40 AM
To: Esra Kandan
Subject: RE: New development application

Hi Esra,

Thanks for the update, do you have any idea of how long it will take to get confirmation?

Thanks,

Chris McClelland
Civil 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 9197 | Fax: +61 2 8907 9001
Web: www.hyderconsulting.com

International advisory and design consultancy

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From: Esra Kandan [mailto:EsraKandan@nbnco.com.au]
Sent: 13 August 2012 11:09 AM
To: Christopher McClelland
Subject: RE: New development application

Hi Chris,

Apologies for the delay. The proposed development sits outside the current NBN CO footprint. I am waiting for confirmation on whether we can issue a certificate or not.

Kind Regards,

Esra Kandan

Developer Liaison Advisor

NSW/ACT

P +61 2 8918 8483 | **M** 0407 695 476 | **E** esrakandan@nbnco.com.au

Level 11, 100 Arthur Street, North Sydney NSW 2060

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PLEASE CONSIDER OUR ENVIRONMENT BEFORE PRINTING

From: Christopher McClelland [mailto:Christopher.McClelland@hyderconsulting.com]
Sent: Thursday, August 09, 2012 10:22 AM
To: developerliaison
Cc: AA005014
Subject: RE: New development application

Esra,

I am just following up on this enquiry (please see emails below). Are you able to send me the early certificate?

Please let me know if you require any additional information.

Thanks,

Chris McClelland
Civil 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 9197 | Fax: +61 2 8907 9001
Web: www.hyderconsulting.com

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From: Christopher McClelland
Sent: 21 June 2012 2:19 PM
To: developerliaison
Cc: AA005014
Subject: RE: New development application

Esra,

Thanks for your help, please see reply below.

- Address details (of the proposed development) Development bordered by Cross St, Tahmoor, 2573.
- Total number of premises with indicative staging information Approximately 240, staging to be decided as part of future planning and design.
- The details of the recipient of the letter, including name, company & postal address. Chris McClelland, Hyder Consulting, 141 Walker St, North Sydney, 2060, NSW

Thanks,

Chris McClelland
Civil 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 9197 | Fax: +61 2 8907 9001
Web: www.hyderconsulting.com

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

From: developerliaison [mailto:developerliaison@nbnco.com.au]
Sent: 21 June 2012 1:59 PM
To: Christopher McClelland
Subject: RE: New development application

Hi Chris,

Thank you for your e-mail. At this point, I can organise an Early Certificate to be issued to you. In order to do this, I need the following information via e-mail please:

- Address details (of the proposed development)
- Total number of premises with indicative staging information
- The details of the recipient of the letter, including name, company & postal address.

If you have any questions, please don't hesitate to contact me.

Esra Kandan

Developer Liaison Advisor

NSW/ACT

P +61 2 8918 8483 | **M** 0407 695 476 | **E** esrakandan@nbnco.com.au

Level 11, 100 Arthur Street, North Sydney NSW 2060

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PLEASE CONSIDER OUR ENVIRONMENT BEFORE PRINTING

From: newdevelopments
Sent: Monday, June 18, 2012 2:39 PM
To: developerliaison
Subject: New development application

Good afternoon Team,

Please find attached the two attachements to this New development application.

Hi,

The website was not accepting the form online and I have been advised to email through the application.

Other Providers

no

About You

Authorised Developer Consultant

Chris McClelland

Christopher.mcclelland@hyderconsulting.com

Engineer

141 Walker Street, North Sydney, 2060, NSW

0289079197

Developer Details

76104485289

Greg Ives

Greg.ives@hyderconsulting.com

141 Walker Street, North Sydney, 2060, NSW

0289079082

Overall Development Details

Single stage

Tahmoor
Wollondilly Shire Council

Development Location

Refer attached.

Current Stage details

subdivision

Subdivision Structure

240

240

Single dwelling units only

Subdivisions Timings

01/06/2014

01/08/2014

01/10/2014

Attachments – refer attached.

Additional information

The owner of this site is investigating the possibility of re-zoning this portion of land for residential housing. We are aiming to determine the services available to the site to assist the on-going planning process.

Thanks,

Chris McClelland

Civil 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 9197 | Fax: +61 2 8907 9001

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Thanks and regards,

Kostas
New Developments Team, NBN Co.

Email | newdevelopments@nbnco.com.au
Phone | 1800 881 816
Website | www.nbnco.com.au
Youtube | www.youtube.com.au/nbnco

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Natural Gas. The Natural Choice.

1 August 2012

Hyder Consulting Pty Ltd
Attn: Christopher McClelland
Locked Bag 6503
North Sydney NSW 2060

Dear Chris,

RE: Proposed Subdivision – Ingham's, Tahmoor

Natural Gas infrastructure exists in the vicinity and can be extended to supply any proposed development at this site depending upon its commercial viability.

Caution should be exercised when carrying out any road works that may expose the Natural Gas mains existing in this location. Contact Dial B4 You Dig, phone 1100 to confirm their location.

We appreciate the opportunity to be involved in the forward planning of this development and would like to pursue the potential for the connection to the natural gas network. An offer for supply could be made available once Staging and construction is imminent. Please provide the preliminary electrical reticulation (PDF) and a CAD file of the Lot layout (DWG) when available to assist Jemena prior to construction taking place. Shared trenching is encouraged for services to minimise coordination and maximise benefits.

Thank you for your inquiry. If further information or assistance is required, please do not hesitate to contact me on 0402 060 559

Yours faithfully,

Elle Peters

Elle Peters
Network Development Manager