

PLANS AND DOCUMENTS
referred to in the ULDA
APPROVAL dated 19 / 3 / 12



TranscityJV – Tunnel Control Centre (TCC)

Development Application Engineering Report

for

TranscityJV

project no. 6188

Level 3, The Icon Centre

15 Malt Street

Fortitude Valley Q 4006

Brisbane, Australia

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Revision History

Rev	Date	Purpose/Status	Comments
A	15/11/11	Information	Preliminary issue for comment
B	18/11/11	Information	Incorporating obtrusive lighting statement
C	21/11/11	Information	Incorporating QUU development assessment

Prepared by:

Patrick Hendry

Senior Engineer

INTRODUCTION

This engineering statement been produced to support the Development Application for the Tunnel Control Centre commercial building which is proposed to be constructed at:

O'Connell Terrace
Bowen Hills
QLD 4006

The proposed building shall be built on the following real property:

- LOT 2 SP229958
- LOT 13 RP9954
- LOT 2 RP166978

This engineering statement encompasses covers the following elements:

- Utility connections
- Quality criteria
- Energy efficiency criteria
- Water efficiency criteria
- External lighting design criteria

UTILITY SERVICES CONNECTIONS

WATER

Two new 100dia water connections shall be derived from the existing Queensland Urban Utilities (QUU) towns main network located in O'Connell Terrace:

- 100dia metered domestic-fire connection capable of a minimum flow rate of 20.82 litres per second, to meet the fire hydrant and fire hose reel flow requirements.
- 100dia unmetered sprinkler connection capable of a minimum flow rate of 16.67 litres per second to meet the automatic sprinkler system flow requirements.

QUU have provided a 'development assessment' based on the above requirements. The development assessment confirms there is sufficient capacity in their local network and no upgrade works are required to accommodate the proposed development. Refer to Appendix A.

Refer to Appendix B for details of the existing QUU water network.

SEWER

There is an existing 100dia sewer connection to LOT 13 RP9954. This connection size is insufficient to meet the fixture unit sanitary drainage requirements of the proposed development.

A new 150dia sewer connection shall be provided from the existing QUU sewer line in O'Connell Terrace. We have contacted QUU and requested they provide a 'development assessment' based on the above requirement. They have indicated we can expect a response by 18th November 2011.

There is an existing sewer line which runs beneath LOT 2 SP229958. The current sub-structure design requires this sewer to be diverted to avoid a proposed structural column foundation. Additional accessible sewer manholes should be provided to accommodate the sewer diversion. A BCC 'build over sewer' application will be submitted to cover the sewer network will be built upon.

Trade waste treatment will be provided for the retail drainage and for garage/carwash drainage.

QUU have provided a 'development assessment' based on the above requirement. The development assessment confirms there is sufficient capacity in their local network and no upgrade works are required to accommodate the proposed development. There are stormwater surcharge issue which affect the trunk sewer downstream from the proposed development. QUU are going to address these as a separate project and do not require sewer upgrade/augmentation works to be performed as a condition of the proposed our development. Refer to Appendix A.

Refer to Appendix C for details of the existing QUU sewer network.

STORMWATER

Rainwater from the proposed building roof will be collected and stored on site for non-potable reuse on site. Over flow from the rainwater tanks will be directed the local BCC stormwater drainage network.

Stormwater drainage shall be provided at all building entrance points, terrace areas and planters. This drainage will be directed the local BCC stormwater drainage network.

The site has been previously built developed. As such it is not anticipated that duration, intensity or quality of the stormwater from this site will be adversely affected by the proposed development.

Refer to Appendix D for details of the existing BCC stormwater network.

ELECTRICAL POWER

As a minimum a single new Energex electrical supply will be provided. An additional standby/redundant connection may be made to ensure supply resilience for the Tunnel Control Centre facility.

The Energex 11kV supply will enter the building via underground conduits and terminate in indoor substation(s).

Refer to Appendix E for details of the existing Energy power network.

TELECOMMUNICATION

A connection will be made to the existing telecommunications carrier network. The installation will be capable of supporting copper or fibre infrastructure. If fibre is not currently available the infrastructure will be ready for handover to the NBN Co. when fibre optic connections become available.

Refer to Appendix F for details of the existing telecommunications networks.

DESIGN PRINCIPLES

QUALITY CRITERIA

The project will be designed and constructed to encompass the requirements of the Property Council of Australia's (PCA) 'Guide to Office Building Quality (2006) - Design specification for new office buildings'

The building will meet the requirements of a 'Grade A' office. The PCA guidance suggests:

"The assessment tools provide a guide to the typical features of different categories of office space – it is not necessary to achieve every performance criteria nominated in the guidelines. However, to qualify for a particular quality category, it is anticipated a building will overwhelmingly meet the stated criteria." (PCA Guide to Office Building Quality, 2006)

ENVIRONMENTAL CRITERIA

The project will be designed and constructed to meet the Green Building Council Australia's 'Green Star: Environmental rating system for buildings' criteria. As set out in the Green building Council Australia's "Office Design V2 Technical Manual"

The building will be designed to meet the requirements of a '5 star' office.

The projects will be evaluated against eight environmental impact categories including Energy and Water efficiency. The building will be designed and constructed to meet the overall objectives of the tool and the specific criteria of the relevant rating tool credits.

ENERGY EFFICIENCY CRITERIA

The National Australian Built Environment Rating System (NABERS) performance-based rating system will be used to rate the building's energy consumption. NABERS rates a building on the basis of its measured operational impacts on the environment.

The proposed building will be designed and constructed to allow the building (under appropriate operational use) to achieve a NABERS OFFICE base building '5.0 Star' energy rating.

Building owners and managers will report on those aspects of the environmental performance of the building that are in their control, for example landlord energy use (lifts, air conditioning etc), water consumption etc. Building occupants will report on the environmental performance of the aspects of the building that they control (light and power in their tenancy, transport to and from the building etc).

The Australian Building Greenhouse Rating (ABGR) scheme operates as the energy rating tool within NABERS OFFICE. The Australian building greenhouse rating (ABGR) scheme allows the understanding of

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the operational greenhouse impact of commercial office buildings. The scheme uses benchmarks to compare the actual greenhouse performance of buildings.

The ABGR scheme provides market recognition and a competitive advantage for low greenhouse emitters and energy efficient buildings. In addition, it encourages best practice in the design operation and maintenance of commercial buildings to minimise greenhouse emissions.

The actual building rating will be based on operation characteristics:

- The targets are based on normalised greenhouse emissions as calculated using the ABGR rating calculator from www.abgr.com.au. These emissions are based on actual energy use in the premises over the previous 12 months, adjusted for hours the premises is occupied, local climate, equipment density and area.
- It rates a building according to its actual performance, using 12 month's energy data.

The proposed building shall incorporate the following energy efficiency techniques:

- Energy sub-metering of each tenancy and major items of plant including lifts, air-conditioning and HVAC systems
- The building will achieve a Green Building Council '5 star' Green Star rating which incorporates energy efficient measures.

WATER EFFICIENCY CRITERIA

The National Australian Built Environment Rating System (NABERS) performance-based rating system will be used to rate the building's water consumption. NABERS rates a building on the basis of its measured operational impacts on the environment.

The building will be designed and constructed to allow the building (under appropriate operational use) to achieve a NABERS OFFICE base building '5.0 Star' water rating.

The actual building rating will be based on operation characteristics:

- Only applies to base or whole buildings – recognising that tenant water consumption in buildings is largely through their use of facilities managed by the landlord;
- It rates a building according to its actual performance, using 12 months' water data (metered potable sources);
- Water use is adjusted for climate and hours of occupancy of the premises;
- Accounts for building vacancies

The proposed building shall incorporate the following water management techniques:

- Rainwater shall be recovered from the roof and stored on site for non-potable reuse including WC/Urinal flushing, irrigation and to supply hose taps used for cleaning purposes.
- Water used for testing of fire systems including Fire Hydrants and Automatic Sprinklers shall be recovered and stored in the rainwater tanks for re-used as described above

Revision: C

- The use of potable water for domestic 'occupant' purposes shall be minimised through the use of high efficiency water fitting from which are accredited by the (WELS) Water Efficiency Labelling and Standard scheme.
- The building will achieve a Green Building Council '5 star' Green Star rating which incorporates water efficient measures.

EXTERNAL LIGHTING DESIGN CRITERIA

The external lighting will be designed to be un-obtrusive with respect to limiting light pollution in the night sky and onto/into surrounding properties.

The outdoor lighting will be design to ensure it does not have an adverse impact on any person, activity or fauna because of light emissions, either directly or by reflection.

The external lighting shall be designed to meet the requirements of AS/NZS 4282 'Control of the obtrusive effects of outdoor lighting'.

APPENDIX A – QUU DEVELOPMENT ASSESSMENT

To: Patrick Henry Greenleaf Engineers	Date: 18/11/2011
CC: Philip Eastgate	
From: Sajid Syed	
Re: 41-45 45 O'Connell Terrace, Bowen Hills	
File: GREEN N 11-08 S1-CITY 11-03	

Level 7, Brisbane Transit Centre 171 Roma Street Brisbane Qld 4000 GPO Box 2765 Brisbane Qld 4001	
T	07 3403 3264
F	07 3403 3436
E	Sajid.syed@urbanutilities.com.au
W	www.urbanutilities.com.au

Patrick,

I refer to your e-mail of 28 October 2011 requesting advice for water supply and sewerage infrastructure required to service a proposed development at 41-45 O'Connell Terrace, Bowen Hills.

The development has been assessed as commercial. The proposed peak water demand for the development is 16.7 L/s flow for sprinkler connection and 20.82 L/s flow for domestic fire connection.

Water

An assessment of the water supply available at the site including computer hydraulic modelling of the network under peak demand and fire flow conditions based on the above demands has been completed. The assessment indicates the existing infrastructure has the capacity to service the proposed development in accordance with Queensland Urban Utilities Standards of Service. It is recommended that the testing of any internal fire fighting system should be performed offline from the QUU network to ensure large pressure variance issues for surrounding customers are avoided.

Sewer

The expected PWWF discharge from the proposed development is 2.02 L/s. An assessment of the sewerage network servicing the site has been completed. The assessment indicates the existing sewerage infrastructure generally has the capacity to accept the expected discharge from the development however the downstream 675mm diameter breakfast creek trunk sewer is subject to surcharge during peak wet weather flow due to inadequate capacity.

The 675mm diameter breakfast creek sewer is programmed for augmentation in QUU's Capital Improvement Program for 2015-2016.

It is therefore considered unreasonable to impose augmentation of the sewerage network as a condition of development of the site as the additional discharge expected from the proposed development is relatively minor and will not have significant impact on sewer levels during wet weather events

Please contact me on 34033281 if you require any further advice regarding this matter.

Regards,



David Morrow
Senior Engineer
Development Assessment & Land Use Planning
Queensland Urban Utilities

APPENDIX B – QUU WATER NETWORK DETAILS

Date : Sep 6, 2011
User : qutebm0502#476770

Scale = 1:1,000
Metres 20 40

Location :
6,964,084
502,916
N
503,360
6,963,864

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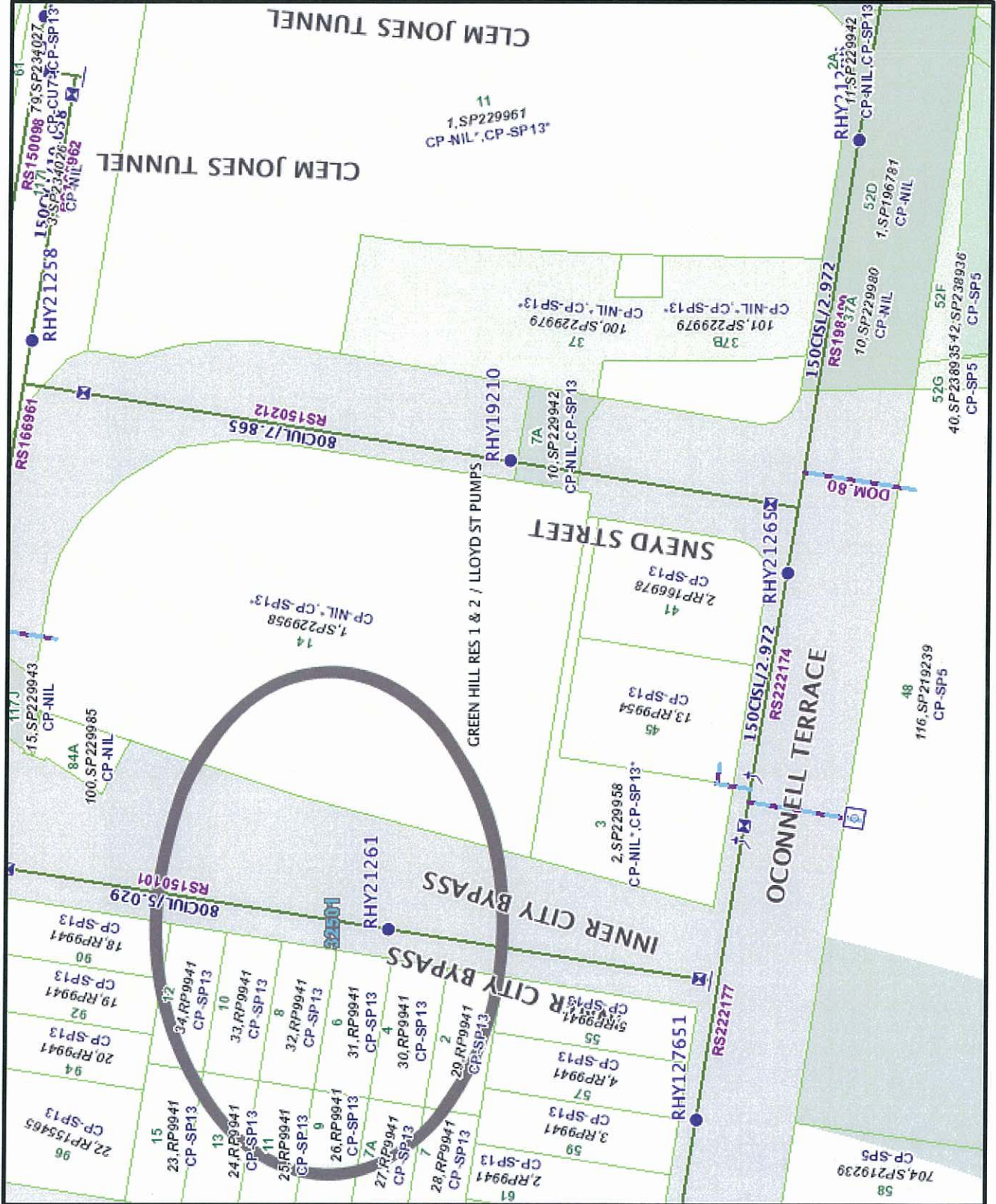
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LEGEND

Water Defect

- Off Line Main Multiple Water Service
- Off Line Main Single Water Service
- Water Booster Installed
- Water Booster Required
- Water Pressure Limiting Device

Water Device Label

Water Device Trans

Booster Pump

Branch Filling

Device

End Filling

Hydrant

Maintenance Hole

Reducer

Valve

Pressure Reducing Valve

Shut Valve

Pressure Gauge

Water Device

Booster Pump

Branch Filling

Device

End Filling

Hydrant

Maintenance Hole

Reducer

Valve

Pressure Reducing Valve

Shut Valve

Pressure Gauge

Water Proposed Work

Water Reservoir Trans

Water Reservoir

Water AC Label

Water Main Trans Label

Water Main Label

Water Service Trans

Water Service Asbuilt

Water Reticulation Main Trans

Reservoir Booster Zone

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Water Trunk Main Label

Water Trunk Main

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Reservoir Booster Zone

Water Supply Zone

Parcel Outside Brisbane

Street Name 500

Parcel Sealed

Parcel Rail

Parcel

City Boundary

Road Connector

Parcel Road

Parcel Creek

(cont)

Fitting ID	Fitting Number	Equipment Number	Asset Status	SegmentID ID	Fitting Type	Date Constructed	Date Relined	Drawing Number	Amended Drawing	Project Number	Asset Type	Description	Facet Number	Remarks
VMSF7381	0	As Constructed VMSZ-200	VS FLOW METER	17/00/2008	0	744874				SITZJACET	BCC	DEVELOPER WATER SERVICE FITTING K15	K15	
RSC106751	0	As Constructed RQ222178	SCOUR TEE RIGHT	08/05/2001	0	32616					UNKNOWN	FITTING K15	K15	
RCE106750	0	As Constructed 0	EXTERNAL DEAD END 0		0						UNKNOWN	FITTING K15	K15	
RCS14501	0	As Constructed RQ222174	SCOUR TEE LEFT	31/07/1941	0						BCC	FITTING K15	K15	
LAIKAT Water District Report - Eneops														
Hydrant ID	Asset Status	SegmentID ID	Hydrant Type	Date Constructed	Date Relined	Drawing Number	Amended Drawing	Citeage Installed	Site Location	Remarks	Facet Number	Description	Facet Number	
RHY171581	As Constructed RS150101	0	HYDRANT IN LINE 01/01/1987	0		2004/0201 UNKNOWN			HYDRAINT K15		K15			
RHY171208	As Constructed RS222174	0	HYDRANT IN LINE 31/07/1941	0		2004/0201 UNKNOWN			HYDRAINT K15		K15			
RH117210	As Constructed RS150212	0	HYDRANT IN LINE 01/01/1989	0		2004/0201 UNKNOWN			HYDRAINT K15		K15			
LAIKAT Water District Report - Main														
Valve ID	Value Number	Asset Status	SegmentID ID	Valve Type	Valve Status	Date Constructed	Date Relined	Drawing Number	Amended Drawing	Remarks	Facet Number	Description	Facet Number	
RV16592	0	As Constructed RS25182	RETIC VALVE OPEN	01/01/1987	0	32616			K15 VALVE		K15			
RV108329	0	As Constructed RS222179	RETIC VALVE OPEN	08/05/2001	0				K15 VALVE		K15			
RV18389	0	As Constructed RS28754	RETIC VALVE OPEN	01/01/1989	0				K16 VALVE		K16			
LAIKAT Water District Report - Main Reservoir Expansion Map														
Segment ID	Asset Status	Alignment	Diameter	Material	Graphical Length	Date Constructed	Date Relined	Drawing Number	Amended Drawing	Pole Number	External Coating	Job Classification	Reservoir Booster Zone	Water Region
RS222177	As Constructed 3.972	150	MILD STEEL CEMENT LINED	34.259 08/05/2001	0	NA			32616	SHTAKOTE	UNKNOWN	ALTERATION ROAD WORKS	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS198490	As Constructed 3.972	80	CAST IRON SPRAWL LINED	97.573 31/07/1941	0	NA			129	UNKNOWN	IMPROVEMENT SUBSTITUTE PROBLEM EXTENSION	ALTERATION ROAD WORKS	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS222182	As Constructed 3.029	80	CAST IRON UNLINED BLACK IRON	2.028 1987	0	NA			? 32616	UNKNOWN	POLYTHESE SLEEVED ALTERATION ROAD WORKS	EXTENSION	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS199101	As Constructed 3.029	80	DUCTILE IRON CEMENT LINED	17.527 08/05/2001	0	NA			? 32616	UNKNOWN	IMPROVEMENT SUBSTITUTE PROBLEM EXTENSION	ALTERATION ROAD WORKS	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS222179	As Constructed 3.029	80	CAST IRON UNLINED BLACK IRON	17.529 08/05/2001	0	NA			? 32616	UNKNOWN	POLYTHESE SLEEVED ALTERATION ROAD WORKS	EXTENSION	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS222174	As Constructed 3.972	150	DUCTILE IRON CEMENT LINED	55.293 08/05/2001	0	NA			129	UNKNOWN	IMPROVEMENT SUBSTITUTE PROBLEM EXTENSION	ALTERATION ROAD WORKS	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS222174	As Constructed 3.972	150	CAST IRON SPRAWL LINED	55.293 31/07/1941	0	NA			129	UNKNOWN	IMPROVEMENT SUBSTITUTE PROBLEM EXTENSION	ALTERATION ROAD WORKS	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS150212	As Constructed 1.865	80	CAST IRON UNLINED BLACK IRON	124.489 1989	0	NA			? 32616	UNKNOWN	POLYTHESE SLEEVED ALTERATION ROAD WORKS	EXTENSION	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
RS28754	As Constructed 1.865	80	CAST IRON UNLINED BLACK IRON	4.820 1989	0	NA			? 32616	UNKNOWN	POLYTHESE SLEEVED ALTERATION ROAD WORKS	EXTENSION	GREEN HILL RES 1 & 2 / LLOYD ST PUMPS VR	VR
LAIKAT Water District Report - Suburb Service As Built														
Service ID	Asset Status	SegmentID ID	Service Type	Diameter	Material	Date Constructed	Date Relined	Amended Drawing	Folio Number	Integrity Rating	Water Region			
VMSZ0077	As Constructed RS222174	PREDOMINANT WITH DETECTOR CHECK VALVE 150	DUCTILE IRON CEMENT LINED	150	1687	0			131197	Manual placement	VR			
VMSZ4001	As Constructed RS222174	FIRE	CAST IRON SPRAWL LINED	180	0				154	Manual placement	VR			

APPENDIX C – QUU SEWER NETWORK DETAILS

User: qutebm0502#476770

Scale = 1:1,000

Metres	20	40
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Location :

6,964,084

502,916	▲	503,360
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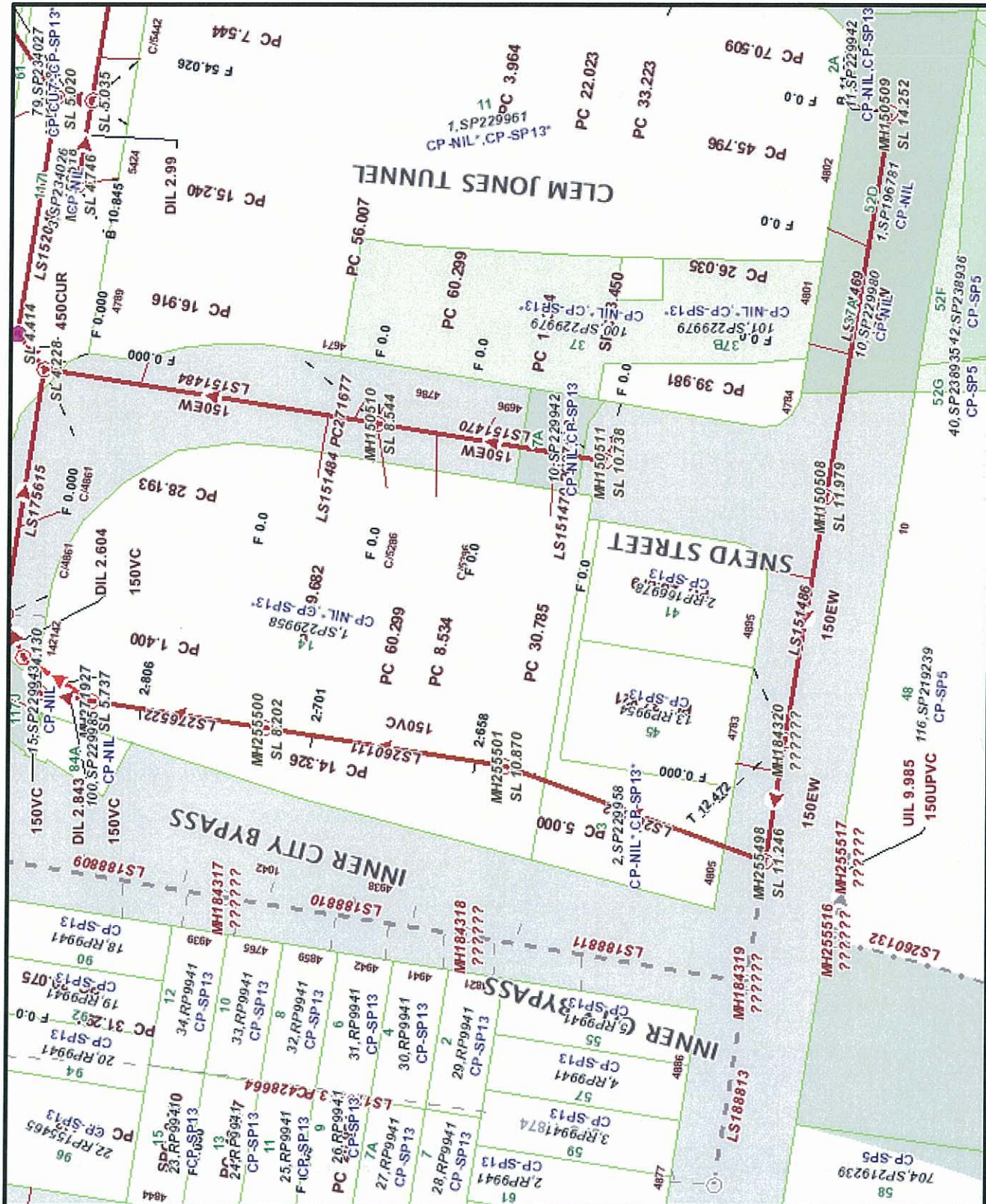
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LEGEND

	Sewer Door		Sewer Pipe Label
	Sewer Device Rehab		Sewer Leader
	Reline		Sewer Pipe
	Patch		Gravity (Existing)
	Spray Coating		Pressure Main (Existing)
	Sewer Pipe Rehab		Property Connection (Existing)
	Reline		MH Stub (Existing)
	Patch		Gravity (Other)
	Spray Coating		Pressure Main (Other)
	Sewer Main Flow Arrow		Property Connection (Other)
	Sewer Main Flow Arrow (Existing)		MH Stub (Other)
	Sewer Main Flow Arrow (Other)		Gravity (Future)
	Sewer Main Flow Arrow (Future)		Pressure Main (Future)
	Sewer Device Surface Level		Property Connection (Future)
	Sewer Device Asset Label		MH Stub (Future)
	Sewer Device Number		Sewer Drainage Plan
	Septic Tank		Sewer Offset
	Sewer Device		Offset
	End Joint (Existing)		Sewer Fence Chainage
	Outlet (Existing)		Sewer Tie
	Maintenance Hole (Existing)		Tie Line
	Pump Station (Existing)		Parcel Outside Brisbane
	Treatment Plant (Existing)		Street Name 500
	Overflow (Existing)		Parcel Sealed
	End Joint (Other)		Parcel Rail
	Outlet (Other)		Parcel
	Maintenance Hole (Other)		City Boundary
	Pump Station (Other)		Road Connector
	Treatment Plant (Other)		Parcel Road
	Overflow (Other)		Parcel Creek
	End Joint (Future)		
	Outlet (Future)		
	Maintenance Hole (Future)		
	Pump Station (Future)		
	Treatment Plant (Future)		
	Overflow (Future)		
	Sewer AC Label		
	Sewer PC Label		
	Sewer Pipe Asset Label		

Drilldown Report

LAWR: Sewer Pipe Report: Sewer Gravity Main Report

Segment ID	Asset Status	Segment Type	Diameter	Material	Length (Actual)	Date Constructed	Date Refined	Downstream IL	Upstream IL	Downstream MH ID	Upstream MH ID	Drawing Number	Amended Drawing Number	Bidding Type	Cathodic Protection	External Coating	Grade Joint Type	Existing 1	Northling 1	Sewer Line Name	Remarks	Rock Excavated	Soil Type	Facet		
LS151470	As Constructed	RETIC MAIN	150	EARTHENWARE	39.981	1926	0	7.004	9.205	MH150510	MH150511			SAND, INCL. GRANULAR MATERIAL AND PEA GRAVEL	NO	UNKNOWN	0.055	UNKNOWN	503164.161	6953955.238	NOT APPLICABLE	NA	UNKNOWN	UNKNOWN	K15	
LS260133	Private	RETIC MAIN	150	UPVC-SEH	15	20010613	0	9.75	9.985	MH255517	MH255518	W1848-12405		UNKNOWN	NO	UNKNOWN	0.016	UNKNOWN	503076.584	6953913.855	NOT APPLICABLE	NA	NO	UNKNOWN	K15	
LS260111	As Constructed	RETIC MAIN	150	WTRIFIED CLAY	43.498	20010905	0	6.862	8.578	MH255500	MH255501	W1848-13134	W1848-13135	UNKNOWN	NO	UNKNOWN	0.039	UNKNOWN	503116.337	6954015.968	NOT APPLICABLE	NA	NO	UNKNOWN	K15	
LS188812	As Constructed	RETIC MAIN	150	EARTHENWARE	21.98	1926	0	9.197	9.354	MH255488	MH184320			W1848-13134	NO	UNKNOWN	0.007	UNKNOWN	503114.31	6953922.795	NOT APPLICABLE	NA	UNKNOWN	UNKNOWN	K15	
LS151486	As Constructed	RETIC MAIN	150	EARTHENWARE	43.714	1926	0	9.367	9.851	MH184320	MH255058			SAND, INCL. GRANULAR MATERIAL AND PEA GRAVEL	NO	UNKNOWN	0.011	UNKNOWN	503157.994	6953915.738	NOT APPLICABLE	NA	UNKNOWN	UNKNOWN	K15	
LS260108	Not In Use	RETIC MAIN	150	EARTHENWARE	21.883	1926	20010905	0	8.992	9.197	MH184319	MH255498			SAND, INCL. GRANULAR MATERIAL AND PEA GRAVEL	NO	UNKNOWN	0.009	UNKNOWN	503114.31	6953922.795	NOT APPLICABLE	NA	UNKNOWN	UNKNOWN	K15
LS260112	As Constructed	RETIC MAIN	150	UPVC-SEH	49.298	20010905	0	8.608	9.097	MH255501	MH255498	W1848-13134	W1848-13135	SD1056558	NO	UNKNOWN	0.01	UNKNOWN	503109.553	6953973.002	NOT APPLICABLE	NA	NO	UNKNOWN	K15	
LS151469	As Constructed	RETIC MAIN	150	EARTHENWARE	70.509	1926	0	10.089	12.39	MH150508	MH150509			SAND, INCL. GRANULAR MATERIAL AND PEA GRAVEL	NO	UNKNOWN	0.033	UNKNOWN	503226.663	6953904.644	NOT APPLICABLE	NA	UNKNOWN	UNKNOWN	K16	

LAWR: Sewer Pipe Report: Sewer Property Connection Report

LAVIC Sewer Pipe Report - Sewer Property Connection Report																						
Property Connection ID	Asset Status	Segment ID	Connection Status	Chainage	Invert Level	Surface Level	Depth	Diameter	Tie Length	Length (Actual)	Date Constructed	Date Retired	Drainage Plan Number	Amended Drawing Number	Jump Up	Jump Up Type	Eastling 1	Northling 1	Eastling 2	Northling 2	Remarks	Facet
PC271621	As Constructed	LS151470	1	39.981	9.854	11.073	0	100.0351	4.648	19260101	0	4784				0	NOT APPLICABLE	503168.551	6953953.51	503164.161	6953955.238	K15
PC271619	As Constructed	LS151486	1	28.879	9.99	10.87	0	100.17779	9.68	19260101	0	4895				0	NOT APPLICABLE	503145.152	6953927.608	503143.169	6953918.133	K15
PC42385	As Constructed	LS260112	1	5	8.707	10.87	0	150.0	0.5	20070307	0	4668				9.37	JUL	503107.823	6953968.246	503107.823	6953968.246	K15
PC271625	As Constructed	LS15170	1	30.785	9.302	10.522	0	100.8.864	11.201	19260101	0	4783				0	NOT APPLICABLE	503154.528	6953965.087	503165.691	6953964.274	K15
PC340188	As Constructed	LS188812	1	37.821	9.879	11.098	0	100.4.395	7.772	19260101	0	4783				0	NOT APPLICABLE	503110.093	6953931.336	503108.599	6953923.677	K15
PC271622	As Constructed	LS151470	2	3.45	9.793	11.012	0	100.0.305	1.219	19260101	0	4670				0	NOT APPLICABLE	503168.57	6953954.487	503167.409	6953953.96	K15

LAWR: Sewer Device Report: Sewer Maintenance Hole Report

Layer: Sewer Device Report: Sewer Maintenance Hole Report																		
Device ID	Asset Status	Device Number	Sewer Line Number	Relocation Number	Sewer Line Name	Device Type	Device Use	Lid Type	Chainage	Surface Level	Date Constructed	Date Retired	Drawing Number	Amended Drawing Number	Easting	Northing	Facet	
MH150508	As Constructed	5	10	32/25	NA	UNKNOWN	MAINTENANCE HOLE UNKNOWN		43.714	11.979	1926				ROAD CORRIDOR 503157.994	6953915.738	K15	
MH255498	As Constructed	3A	10	32/25	NA	G 900 DIA	MAINTENANCE HOLE CLASS D		48.298	11.246	20010905				ROAD CORRIDOR 503092.5	6953926.111	K15	
MH184320	As Constructed	4	10	32/25	NA	UNKNOWN	MAINTENANCE HOLE CLASS B		21.98	9.99	1926			W1848-1134	0	50314.31	6953922.795	K15
MH255501	As Constructed	3	10	32/25	NA	G 900 DIA	MAINTENANCE HOLE CLASS B		43.498	10.87	20010905				IN PARCEL 503108.553	6953973.002	K15	
MH255517	Private	END	PRV-R/NA		NA	NOT APPLICABLE	END OF LINE	NOT APPLICABLE	0	9.99	20010613				IN PARCEL 503093.388	6953911.504	K15	
MH150511	As Constructed	2	9	32/25	NA	UNKNOWN	MAINTENANCE HOLE UNKNOWN		39.981	10.738	1926			0	ROAD CORRIDOR 503164.161	6953955.238	K15	

LAWR: Sewer Drainage Plan Report: Drainage Plan EV

Drainage Plan ID	Drainage Plan Number	Asset Status	Combine Drain	Fast Group	Title Block	Multiple Blocks	Relocation Number
DP114946	4784	As Constructed	NO	K15	0	0	32/25
DP114949	4670	As Constructed	NO	K15	0	0	32/25
DP116893	4688	As Constructed	NO	K15	0	0	32/25
DP116894	4895	As Constructed	NO	K15	0	0	32/25
DP116895	4783	As Constructed	NO	K15	0	0	32/25
DP424676	10	As Constructed	NO	K15	0	0	13/24
DP403988	4805	As Constructed	NO	K15	0	0	32/25
CO18432	5286	As Constructed	YES	K15	0	0	32/25

LAWR: Parcel Report: Parcel Details

Unit No	House No	Suburb	Street Name	Suburb	Postcode	Lot No	Plan No	Title Area	Parcel Report
37 B	O'CONNELL	TCE BOWEN HILLS	4006	101 SP229979	1673	Link			
41	O'CONNELL	TCE BOWEN HILLS	4006	2 RP166978	693	Link			
37	O'CONNELL	TCE BOWEN HILLS	4006	100 SP229979	2067	Link			
45	O'CONNELL	TCE BOWEN HILLS	4006	13 RP9954	698	Link			
7 A	EVANS	ST BOWEN HILLS	4006	10 SP229942	205	Link			
3	EVANS	ST BOWEN HILLS	4006	2 SP229958	796	Link			
48	O'CONNELL	TCE BOWEN HILLS	4006	116 SP219239	7494	Link			
14	SNEYD	ST BOWEN HILLS	4006	1 SP229958	5167	Link			

LAWR: Parcel Road Report: Parcel Road Details

Street	Street	Street Suffix	Suburb	Parcel Type	Postcode
O'CONNELL TERRACE SNEYD STREET	SNEYD STREET		BOWEN HILLS R		
O'CONNELL TERRACE SNEYD STREET	O'CONNELL TERRACE		BOWEN HILLS I		
EVANS STREET O'CONNELL TERRACE	EVANS STREET		BOWEN HILLS R		
O'CONNELL TERRACE	O'CONNELL TERRACE		BOWEN HILLS I		

LAWR: Suburb Boundary Report: Suburb Boundary Report

Suburb Name	Suburb
BOWEN HILLS	BOWEN HILLS

APPENDIX D – BCC STORMWATER NETWORK DETAILS

User: qutebm0502#476770

Metres 20 40

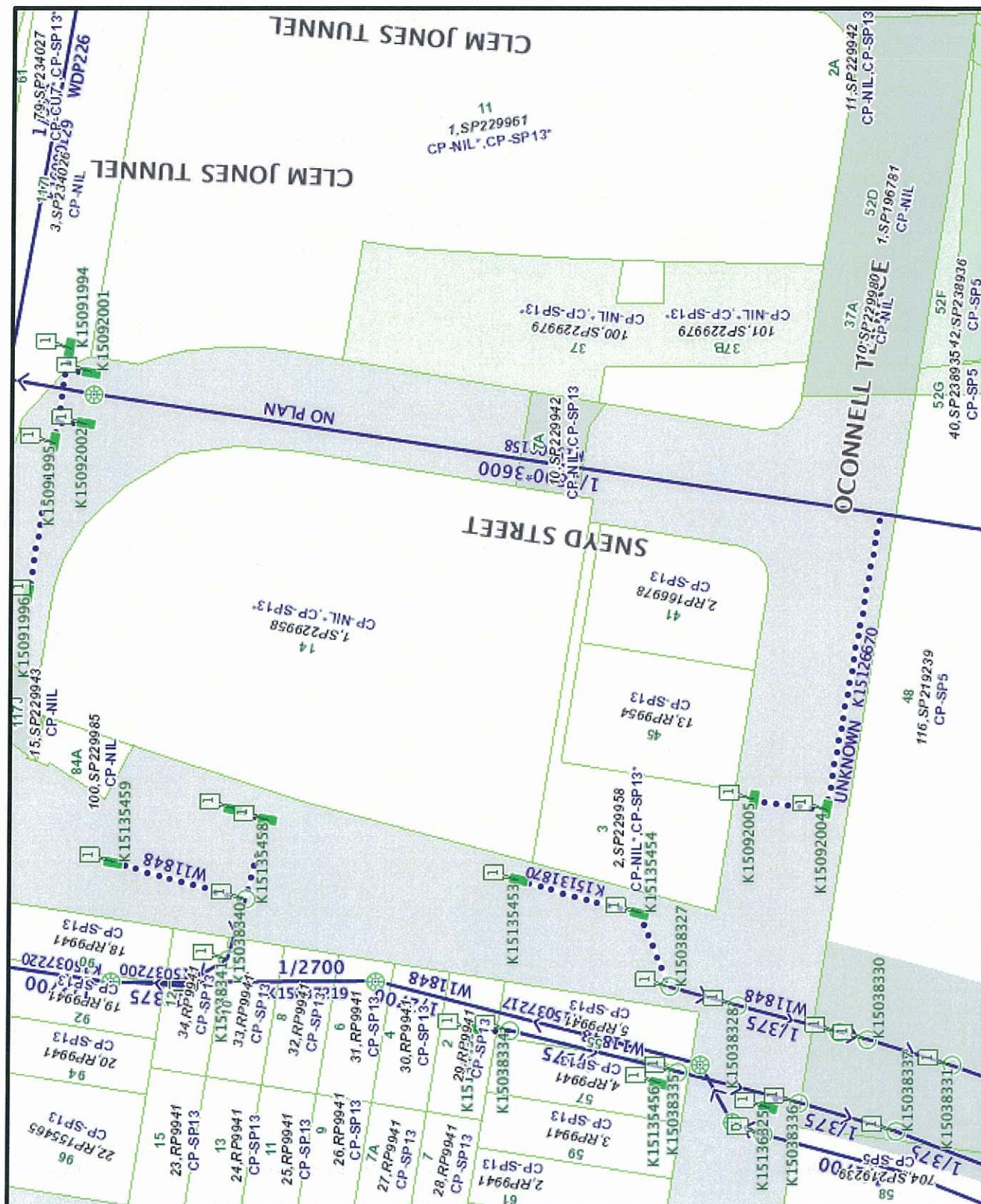
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Caution: This map may contain the locations of abandoned underground asbestos pipes. Council gives no warranty to the completeness or accuracy of these records. Appropriate care needs to be taken in all cases.



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LEGEND

	Stormwater SOD (Existing)		Drainage Area
	Stormwater SOD (As Constructed)		SOD Area
	Stormwater SOD (Other)		Parcel Outside Brisbane
	Stormwater Culvert (Existing)		Street Name 500
	Stormwater Culvert (As Constructed)		Parcel Sealed
	Stormwater Culvert (Other)		Parcel Rall
	Stormwater Device (Existing)		Parcel
			City Boundary
			Road Connector
			Parcel Road
			Parcel Creek
	Gully Inlet (As Constructed)		
	Inlet/Outlet (As Constructed)		
	Maintenance Hole (As Constructed)		
	Recess (As Constructed)		
	Gully MH (As Constructed)		
	Change Point (As Constructed)		
	Gully Inlet (Other)		
	Inlet/Outlet (Other)		
	Maintenance Hole (Other)		
	Recess (Other)		
	Gully MH (Other)		
	Change Point (Other)		
	Stormwater Device Plant (Existing)		
	Stormwater Flow Arrow (Existing)		
	Stormwater Pipe (Existing)		
	Drain (As Constructed)		
	Roadwater (As Constructed)		
	Gully Connection (As Constructed)		
	Open Drain (As Constructed)		
	Drain (Other)		
	Roadwater (Other)		
	Gully Connection (Other)		
	Open Drain (Other)		
	Stormwater Pipe Plant (Existing)		
	Stormwater Pipe Plan (Existing)		
	SW Area (Existing)		
	(cont)		

LAWT - Stormwater Pipe (Existing) Report: Stormwater Drain (Existing) Report

Plant Number	Facet Pk	Asset Status	Class	Date Source	Diameter	Width	Upstream Depth	Invert	Upstream	Depth	Invert	Downstream L	Upstream L	Downstream MH ID	Upstream MH ID	Equipment Number	Eastings	Northings	Length	Material	Month Constructed	Year Constructed	Plan Number	Slope	Total	Wayway Planning Unit	SW Unique ID	Pipe Survey Pk	Seg	Wayway Planning Unit	
K15021184	K15	37184	As Constructed UNKNOWN	375	0	999	999	0	3.71	0	0	1 W11848	0	0	2001	1 PRE	0 W11848	1.22 HO	B020	0 W11848	1.22 HO	B020	0 W11848	1.22 HO	B020	0 W11848	1.22 HO	B020	0 W11848	1.22 HO	B020
K15037185	K15	37185	As Constructed UNKNOWN UNKNOWN	375	0	999	999	0	0	0	0	1 W11848	0	0	2001	1 PRE	0 W11848	1.15 HO	B020	0 W11848	1.15 HO	B020	0 W11848	1.15 HO	B020	0 W11848	1.15 HO	B020	0 W11848	1.15 HO	B020

LAWT - Stormwater Pipe (Existing) Report: Stormwater Gully Connection (Existing) Report

Plant Number	Facet Pk	Equipment Number	Asset Status	Class	Width	Upstream L	Upstream L	Length	Class	Number Of Barrels	Plan Number	Wayway Planning Unit	SW Unique ID
K15118120	K15	131870	As Constructed	0	0	0	0	22.019	CLASS S	0	1 W11848	B020	GC_K15131870
K15126699	K15	126699	As Constructed	0	0	0	0	53.395	CLASS S	0	1 W11848	B020	GC_K15126699
K1512670	K15	12670	As Constructed	0	0	0	0	53.395	CLASS S	0	1 W11848	B020	GC_K1512670
K15131871	K15	131871	As Constructed	400	0	0	0	14.368	CLASS S	0	1 W11848	B020	GC_K15131871

LAWT - Stormwater Device (Existing) Report: Stormwater Gully Head (Existing) Report

Plant Number	Facet Pk	Equipment Number	Asset Status	Depth	Invert	Month Constructed	Year Constructed	Plan Number	Gully Inlet Orientation	Gully Inlet Size	Gully Inlet Type	Outlet Type	Number Of Chambers	Backsight Condition	Backsight Type	Eastings	Northings	GPS Eastings	GPS Northings	Grate	Grate Condition 1	Grate Condition 2	Grate Condition 3	Grate Condition 4	Location	Park Code	Pipe Survey Pk	Seg	Wayway Planning Unit	SW Unique ID	
K15135454	K15	135454	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135455	K15	135455	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135456	K15	135456	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135457	K15	135457	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135458	K15	135458	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135459	K15	135459	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135460	K15	135460	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135461	K15	135461	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135462	K15	135462	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135463	K15	135463	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135464	K15	135464	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135465	K15	135465	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135466	K15	135466	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135467	K15	135467	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135468	K15	135468	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135469	K15	135469	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135470	K15	135470	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135471	K15	135471	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135472	K15	135472	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135473	K15	135473	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135474	K15	135474	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135475	K15	135475	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135476	K15	135476	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135477	K15	135477	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135478	K15	135478	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135479	K15	135479	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135480	K15	135480	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135481	K15	135481	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135482	K15	135482	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135483	K15	135483	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135484	K15	135484	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135485	K15	135485	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135486	K15	135486	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135487	K15	135487	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135488	K15	135488	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135489	K15	135489	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135490	K15	135490	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135491	K15	135491	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135492	K15	135492	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701	500303.455	690348.701	UNKNOWN	NA	NA	NA	NA	ON BIKEWAY-NO	0	UNKNOWN	0	UNKNOWN	0	UNKNOWN
K15135493	K15	135493	As Constructed	0	0	0	999 99	W11848	NA	UNKNOWN	UNKNOWN	DRY	1 NA	1 NA	NOT APPLICABLE	500303.455	690348.701														

APPENDIX E – ENERGEX POWER NETWORK DETAILS

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX EnerGISE DBYD map, then ENERGEX shall be contacted immediately.

PAPER SIZE A3

For Emergency Situations
Please call 13 19 62



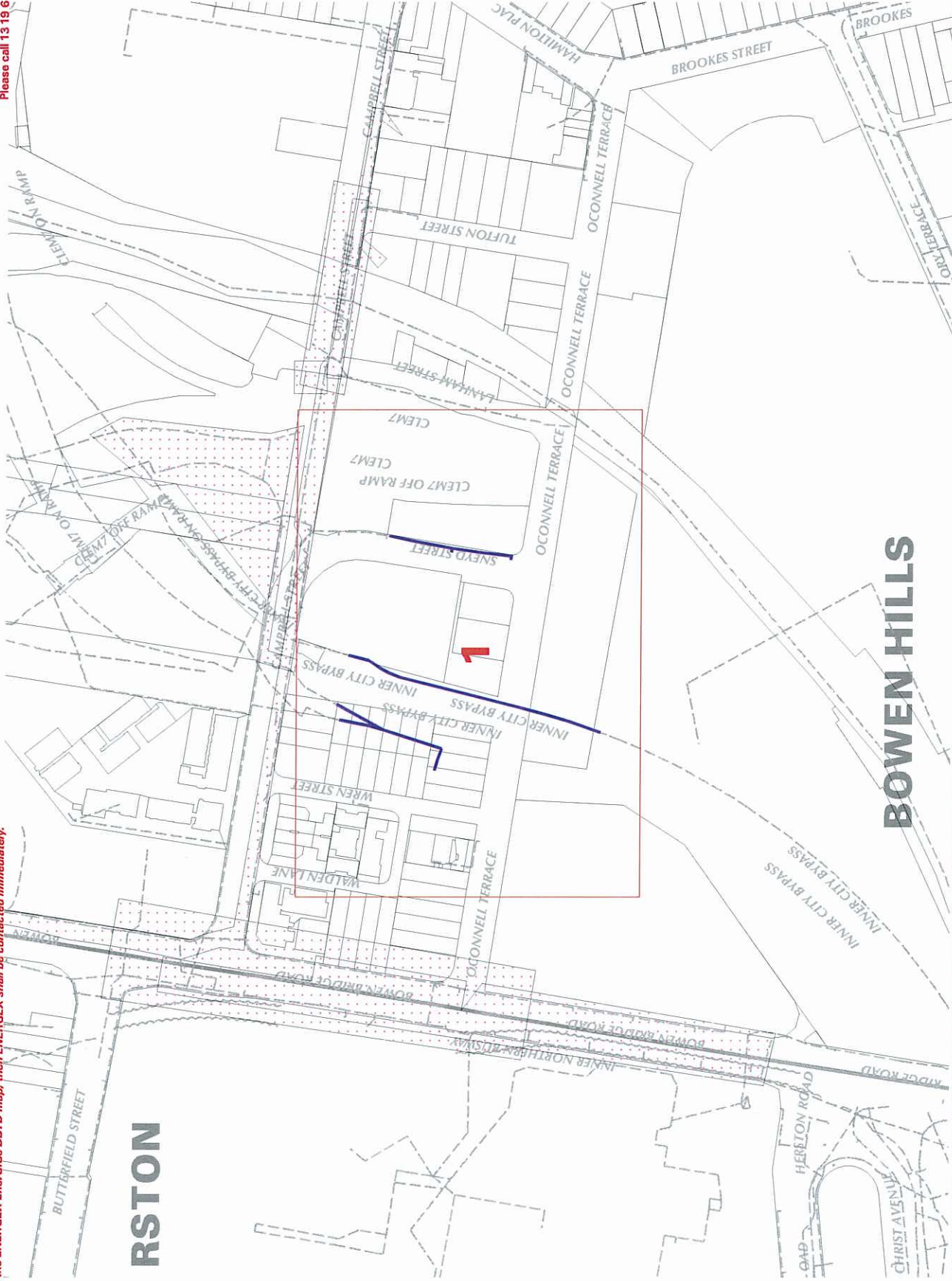
EnerGISE
DBYD

Date: 19 Aug 11 Time: 11:30.38
Requested By: DBYD
NOT TO SCALE
0 50m

Enquiry No: 22421155
KEY MAP

RSTON

BOWEN HILLS

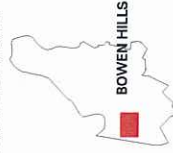


This output provides details of the ENERGEX electrical network. As variations may arise no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

PAPER SIZE A3

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LOCALITY DIAGRAM



All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX Energise DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
Please call 13 19 62



energise
DBYD

Date: 19 Aug 11 Time: 11:30:54
Requested By: DBYD

SCALE 1:1000

Enquiry No: 22421155
STRIP No: 1

CAUTION 33kV/110kV/132kV

Ground Transformer
Cubicle Transformer
Ring Main Unit
Metering Unit
Link Pillar
Service Pillar
Junction Pillar
PH
Cable Joint
Cable Termination
Cable Marker
Street Light Pole
Earth
Works Order
Polygon

Cable Voltage Less Than 33kV
Cable Voltage 33kV or Higher
Direct-Lay Cable
Conduit
Multi-Section Duct
Trench
Cable Tray
Tunnel



INDEX TO SHEETS

1

LOCALITY DIAGRAM



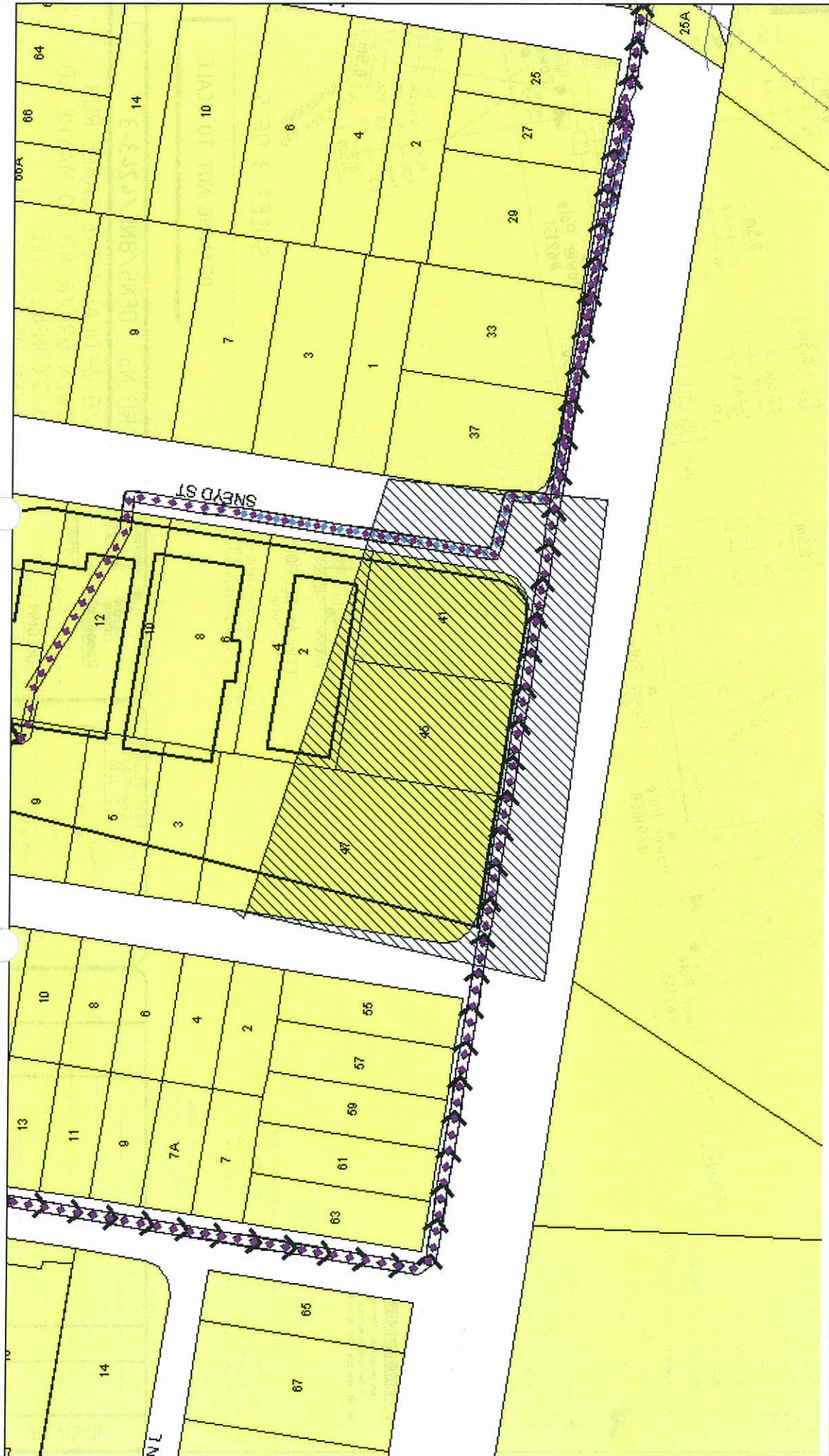
BOWEN HILLS



This output provides details of the ENERGEX electrical network. As variations may exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

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APPENDIX F – TELECOMMUNICATIONS NETWORK DETAILS



Optus

Cable Optus Underground Overview Map

Scale: 1 : 1000 Printed On: 19/08/2011

Sequence Number: 22421156

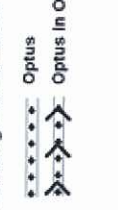
Location: 41-47 Oconnell Tce

'yes'
OPTUS

Job Location



Underground Asset



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