





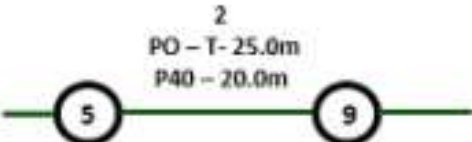









Appendix E DBYD

	<h2>LEGEND</h2>	
	Parcel and the location	
	Pit with size "5"	
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.	
	Manhole	
	Pillar	
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.	
	2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.	
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.	
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.	
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.	
	Road and the street name "Broadway ST"	
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m	
		

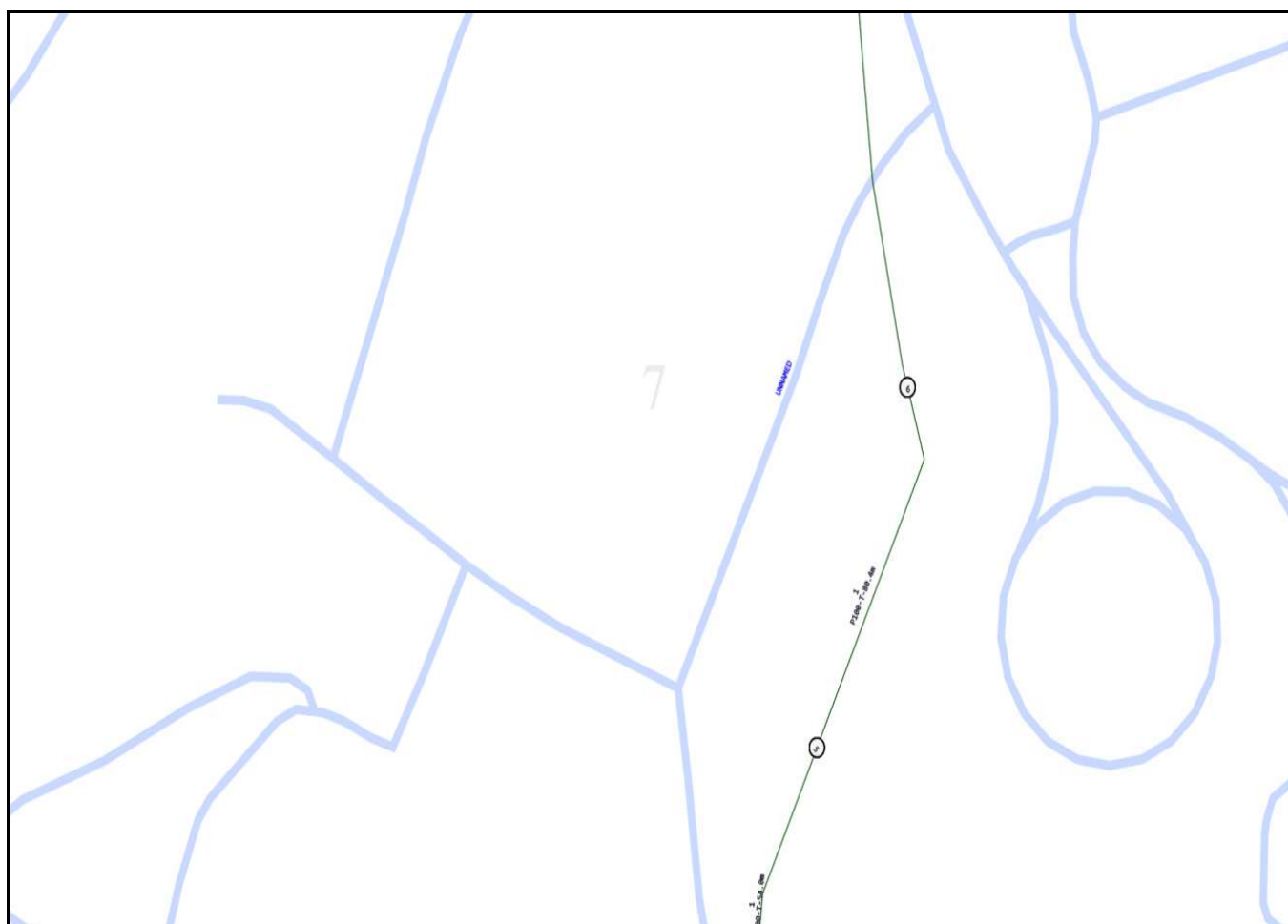


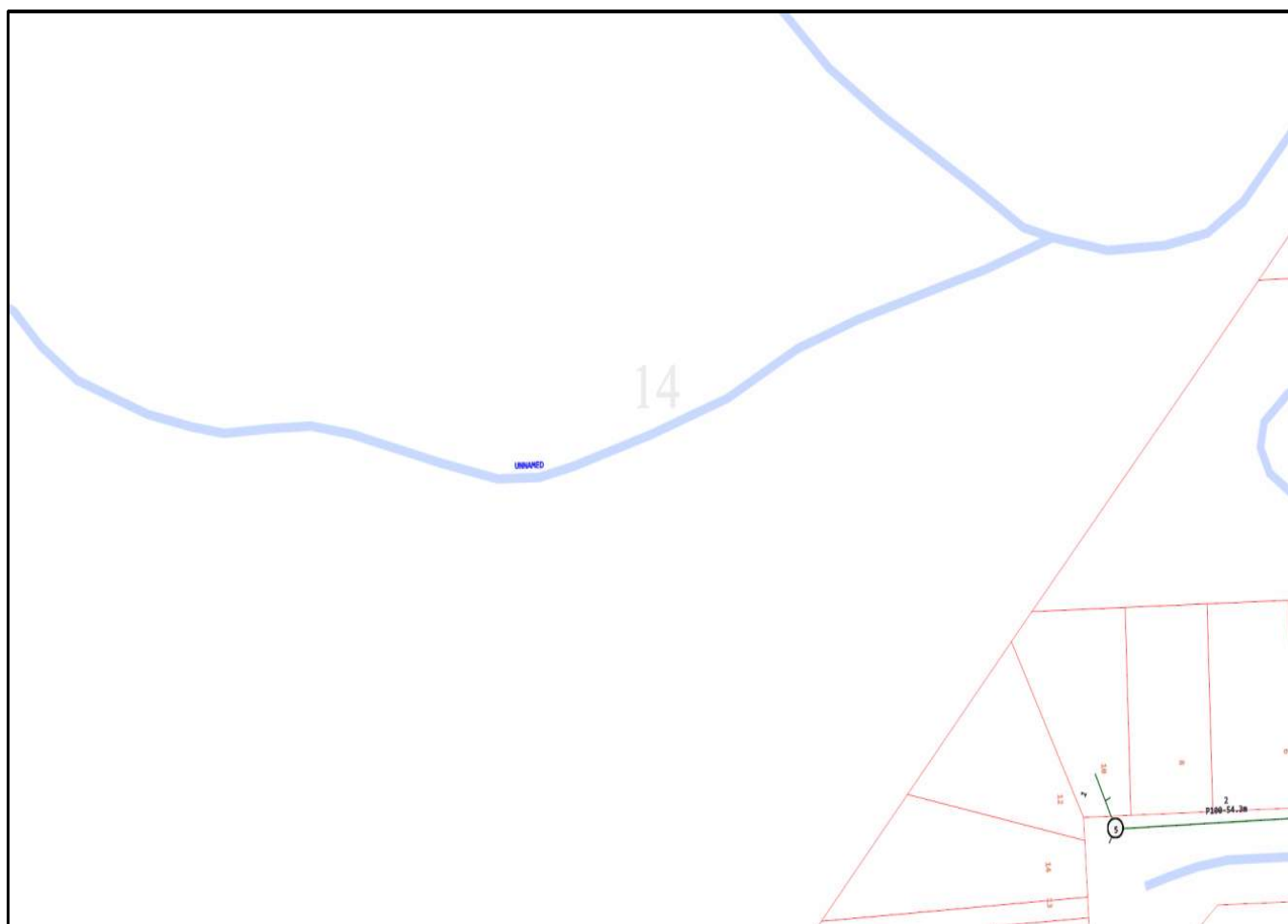
Indicative Plans

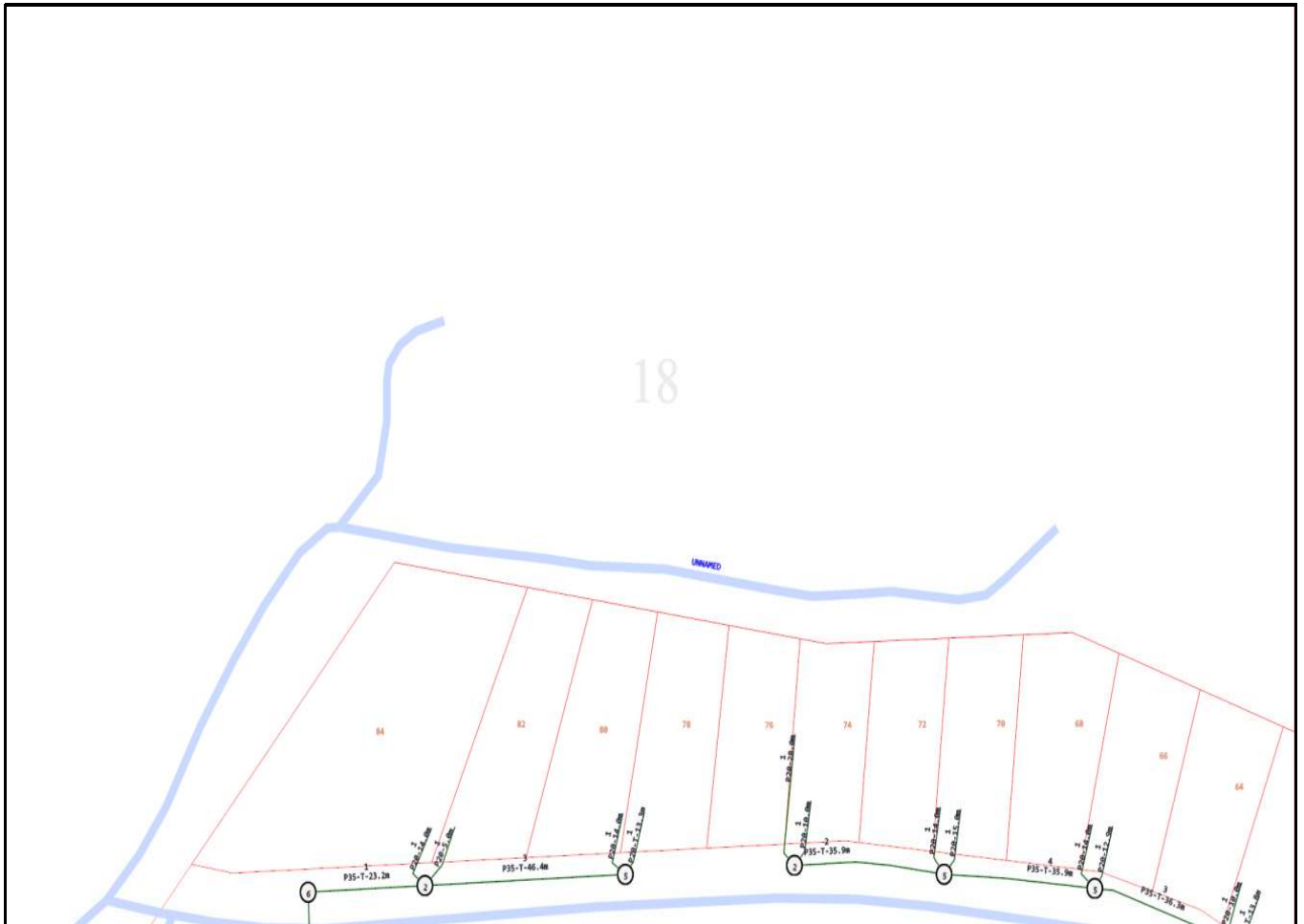
Issue Date:	25/09/2020	 DIAL BEFORE YOU DIG www.1100.com.au
Location:	Country Club Ave , Prospect Vale , TAS , 7250	

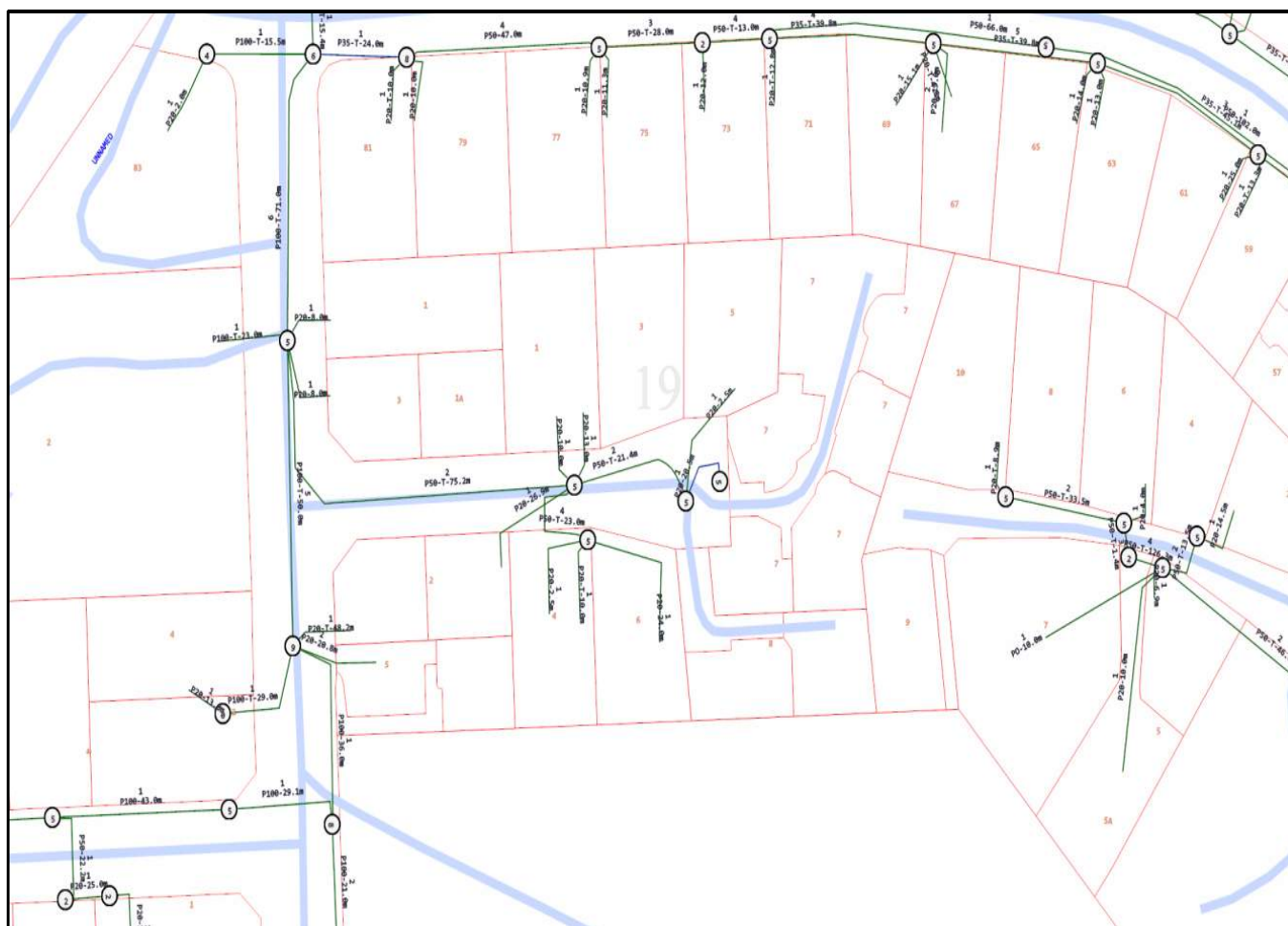
1	6	11	16
2	7	12	17
3	8	13	18
4	9	14	19
5	10	15	20













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Any third party features shown on this drawing are for "information only". The respective owners should be contacted to confirm location of those assets.
This map to be read in conjunction with Service As-Built and Steel As-Built (where required).
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Additional third party data © LGA's, by "Creative Commons Australia" or LGAs
Check issue date of this plan, data may have been changed since this plan was produced.

Offset Detail
V = Pipe in Verge
1.2 = Offset dist. in metres
K = Offset to back of kerb
650 = Depth of cover in mm
(V = Verge, R = Road, P = Property, Blank = Unknown, E = Easement)

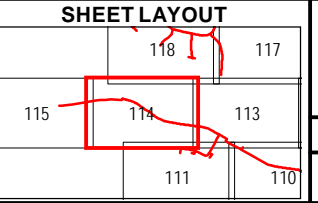
Offset Abbreviations
K = Back of kerb
B = Boundary line
b = Building
eb = Edge of bitumen
EM = End of main
F = Fence Line
PP = Power pole
rw = Railway Line
45/B = 45 Bend
v = Valve

Legend
Pipe Protection
Cadastral Parcel
Customer Property
Building (approx.)
High Risk Work Area
Risk Assessment Required

5,100kPa and 10,200kPa
STEEL
Valves
CSV-001 Steel
PEV-023 PE 1000kPa
PEV-024 PE 500kPa

SDR9 MAOP 1000kPa
63mm PE
90mm PE
125mm PE
160mm PE
200mm PE
250mm PE
1000kPa Present

SDR11 MAOP 500kPa
32mm PE
63mm PE
90mm PE
125mm PE
160mm PE
Abandoned Pipe
Service Pipe



TAS GAS NETWORKS
LOCATION PLAN
627 - LAUNCESTON

Issued Date: 1/03/2016 | Rev No. 0

TGN-627-NW-AL-114



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This map to be read in conjunction with Service As-Built and Steel As-Built (where required).
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Check issue date of this plan, data may have been changed since this plan was produced.

Offset Detail V1.2/B/650
V = Pipe in Verge
1.2 = Offset dist. in metres
K = Offset to back of kerb
650 = Depth of cover in mm
(V = Verge, R = Road, P =
Property, Blank = Unknown,
E = Easement)

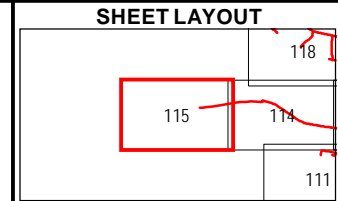
Offset Abbreviations
K = Back of kerb
B = Boundary line
b = Building
eb = Edge of bitumen
EM = End of main
F = Fence Line
PP = Power pole
rw = Railway Line
45/B = 45 Bend
v = Valve


Pipe Protection
 Cadastral Parcel
 Customer Property
 Building (approx.)
 High Risk Work Area
Risk Assessment Required

5,100kPa and 10,200kPa
 STEEL
Valves
 CSV-001 Steel
 PEV-023 PE 1000kPa
 PEV-024 PE 500kPa

SDR9 MAOP 1000kPa
 63mm PE
 90mm PE
 125mm PE
 160mm PE
 200mm PE
 250mm PE
 1000kPa Present

SDR11 MAOP 500kPa
 32mm PE
 63mm PE
 90mm PE
 125mm PE
 160mm PE
--- Abandoned Pipe
- - - Service Pipe

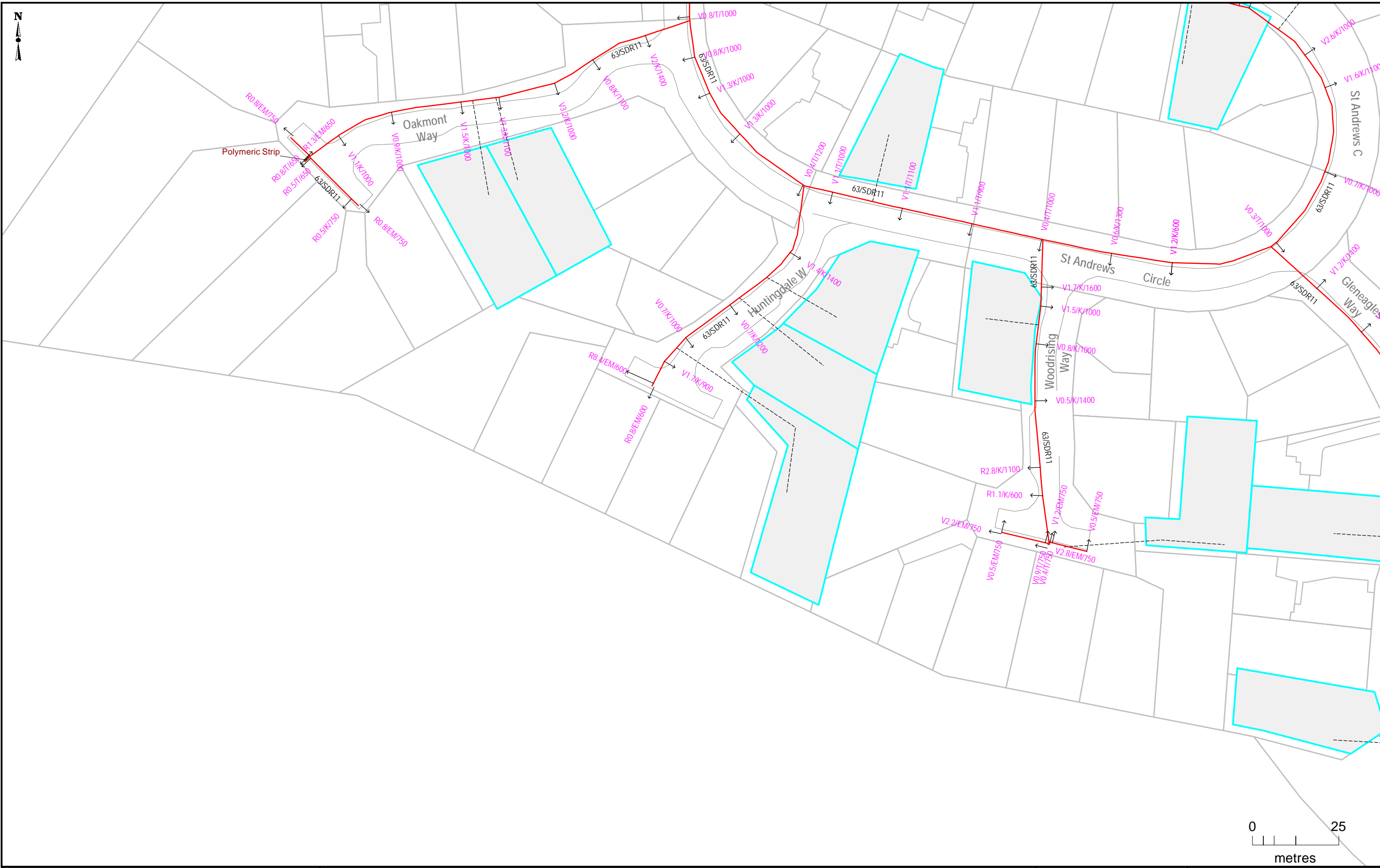




TAS GAS NETWORKS
LOCATION PLAN
627 - LAUNCESTON

Issued Date: 1/03/2016Rev No. 0

TGN-627-NW-AL-115



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Offset Detail

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1.2 = Offset dist. in metres
K = Offset to back of kerb
650 = Depth of cover in mm

(V = Verge, R = Road, P = Property, Blank = Unknown, E = Easement)

Offset Abbreviations

K = Back of kerb
B = Boundary line
b = Building
eb = Edge of bitumen
EM = End of main
F = Fence Line
PP = Power pole

rw = Railway Line
45/B = 45 Bend
v = Valve

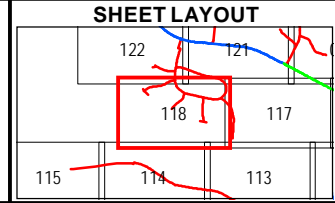
Pipe Protection
Cadastral Parcel
Customer Property
Building (approx.)
High Risk Work Area
Risk Assessment Required

5,100kPa and 10,200kPa
STEEL

Valves
CSV-001 Steel
PEV-023 PE 1000kPa
PEV-024 PE 500kPa

SDR9 MAOP 1000kPa
63mm PE
90mm PE
125mm PE
160mm PE
200mm PE
250mm PE
1000kPa Present

SDR11 MAOP 500kPa
32mm PE
63mm PE
90mm PE
125mm PE
160mm PE
Abandoned Pipe
Service Pipe



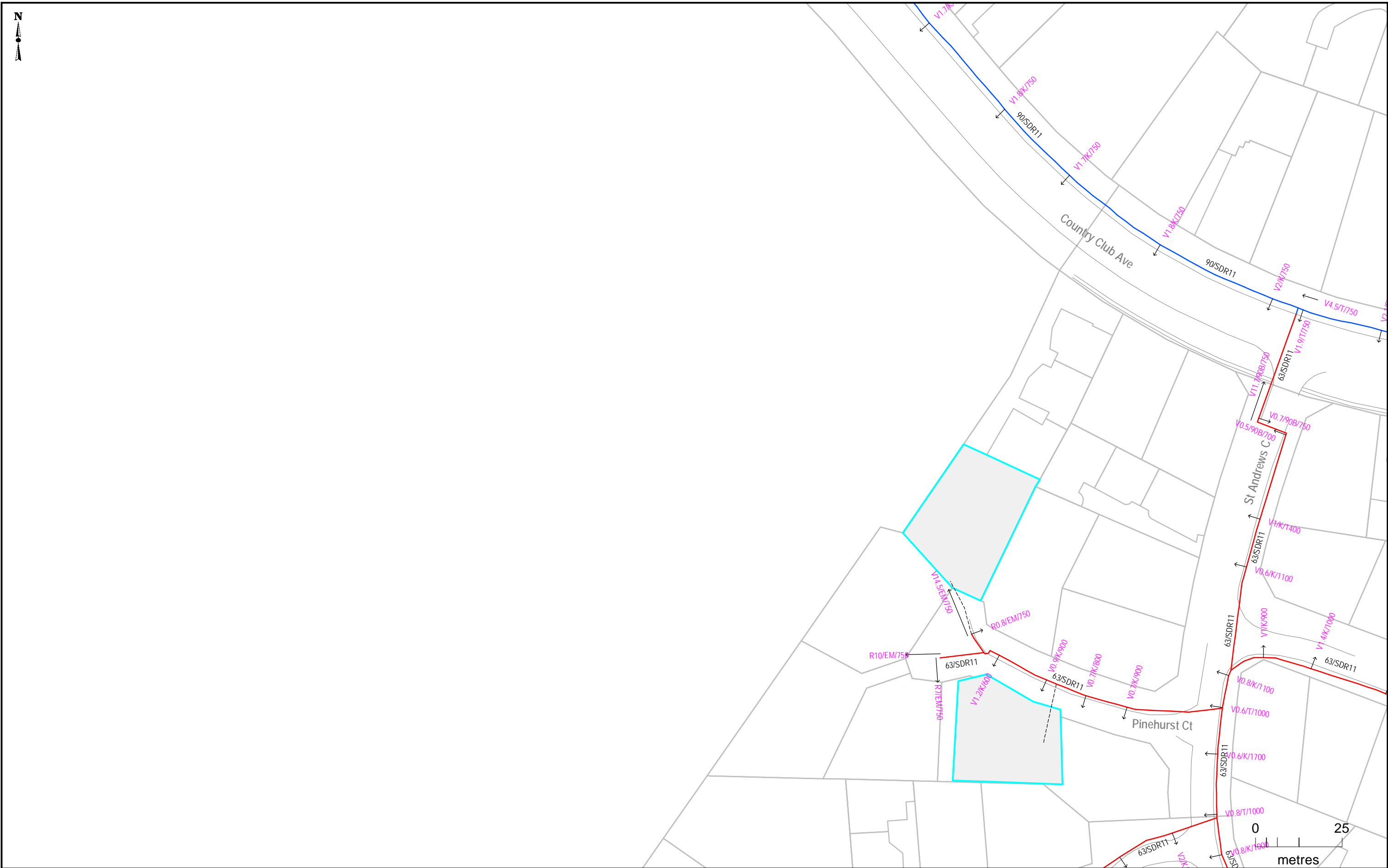
TAS GAS NETWORKS

LOCATION PLAN

627 - LAUNCESTON

Issued Date: 1/03/2016 Rev No. 0

TGN-627-NW-AL-118



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Offset Detail

V1.2/B/650

V = Pipe in Verge
1.2 = Offset dist. in metres
K = Offset to back of kerb
650 = Depth of cover in mm
(V = Verge, R = Road, P = Property, Blank = Unknown, E = Easement)

Offset Abbreviations

K = Back of kerb
B = Boundary line
b = Building
eb = Edge of bitumen
EM = End of main
F = Fence Line
PP = Power pole

rw = Railway Line
45/B = 45 Bend
v = Valve

Pipe Protection
Cadastral Parcel
Customer Property
Building (approx.)
High Risk Work Area
Risk Assessment Required

5,100kPa and 10,200kPa

STEEL

Valves

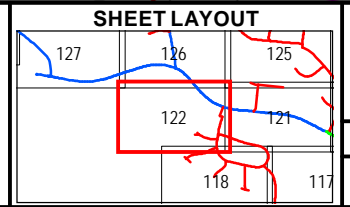
CSV-001 Steel
PEV-023 PE 1000kPa
PEV-024 PE 500kPa

SDR9 MAOP 1000kPa

63mm PE
90mm PE
125mm PE
160mm PE
200mm PE
250mm PE
1000kPa Present

SDR11 MAOP 500kPa

32mm PE
63mm PE
90mm PE
125mm PE
160mm PE
Abandoned Pipe
Service Pipe



TAS GAS NETWORKS

LOCATION PLAN

627 - LAUNCESTON

Issued Date: 1/03/2016 Rev No. 0

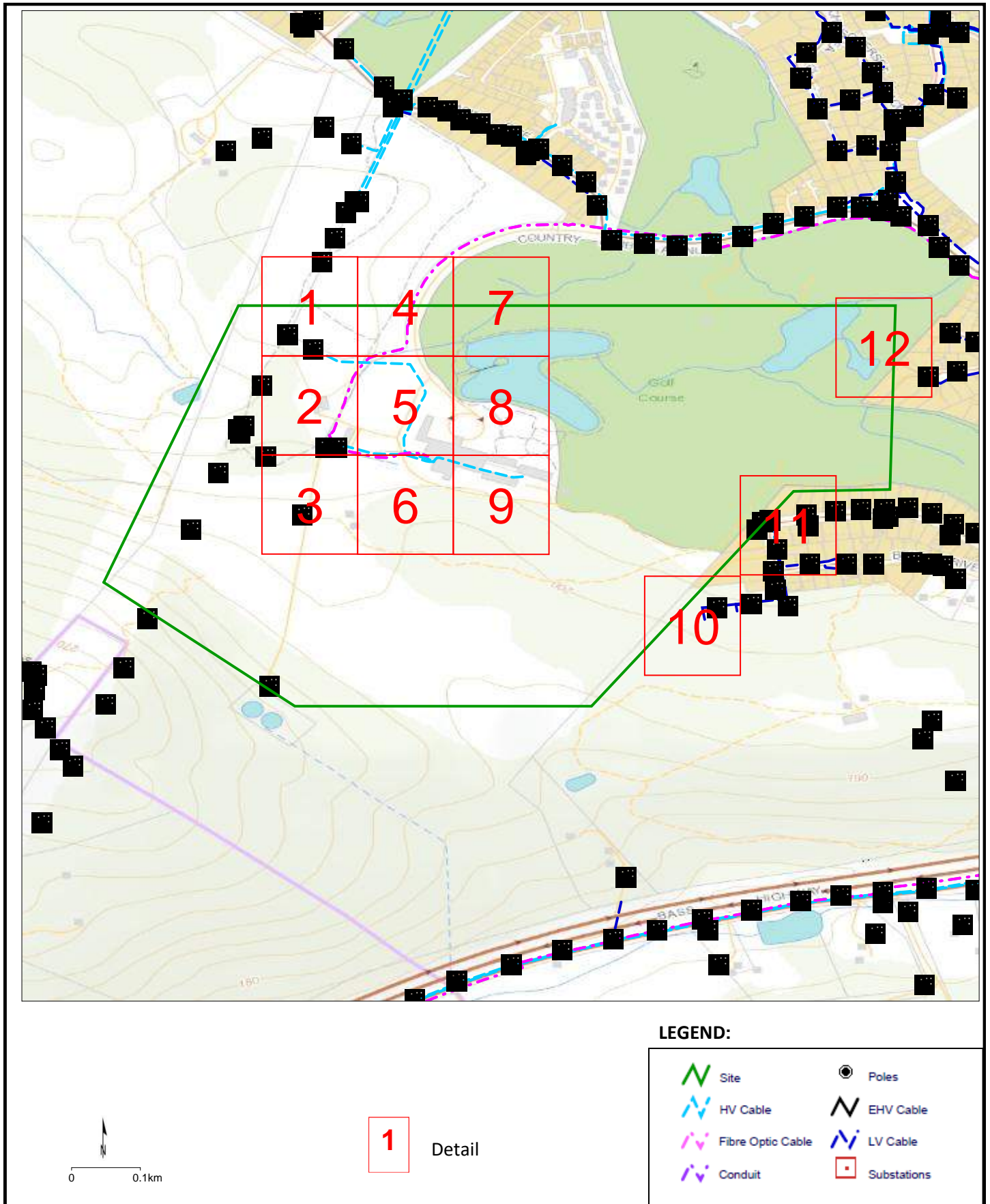
TGN-627-NW-AL-122

Overview Map Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

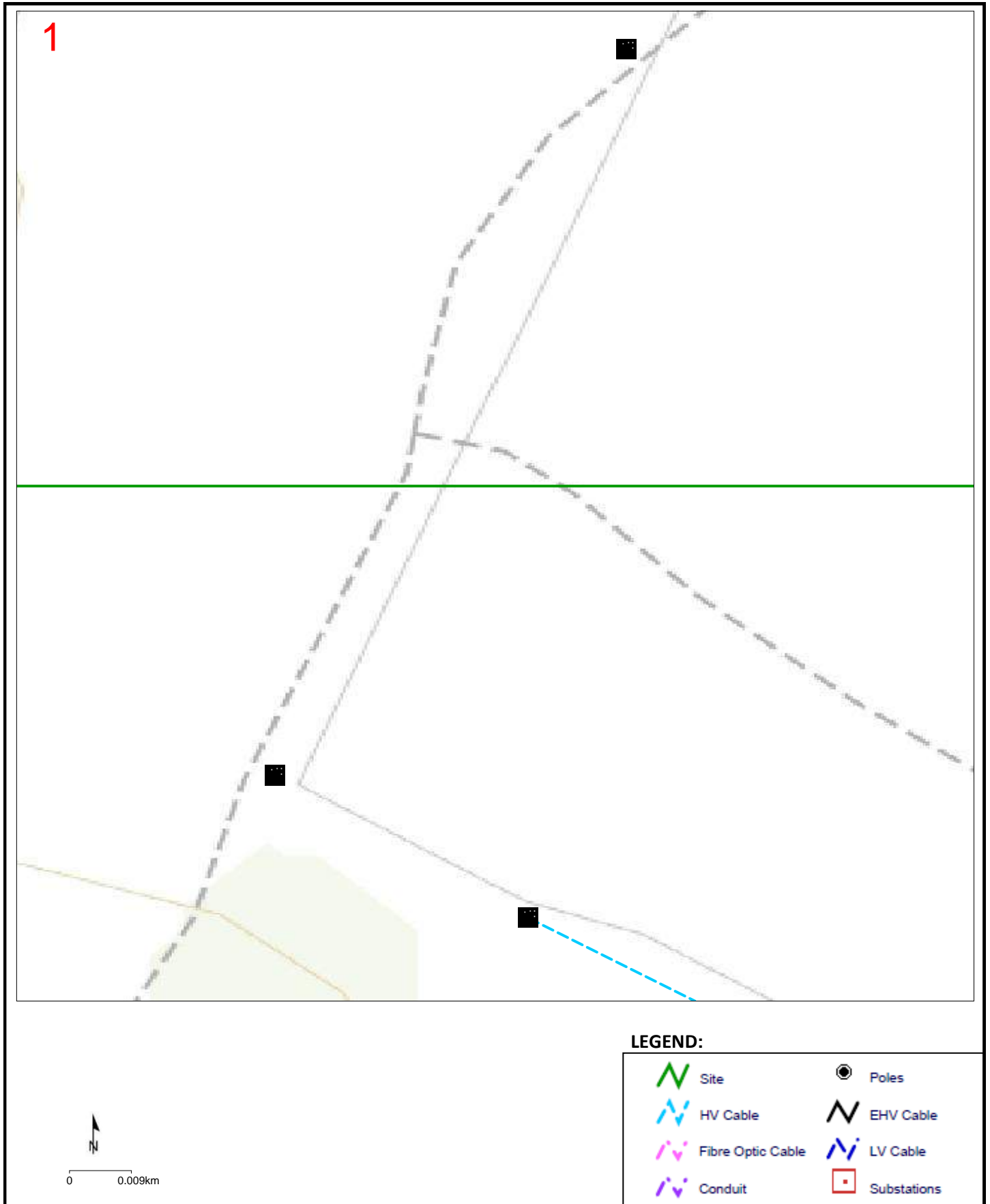


Detail Map 1 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

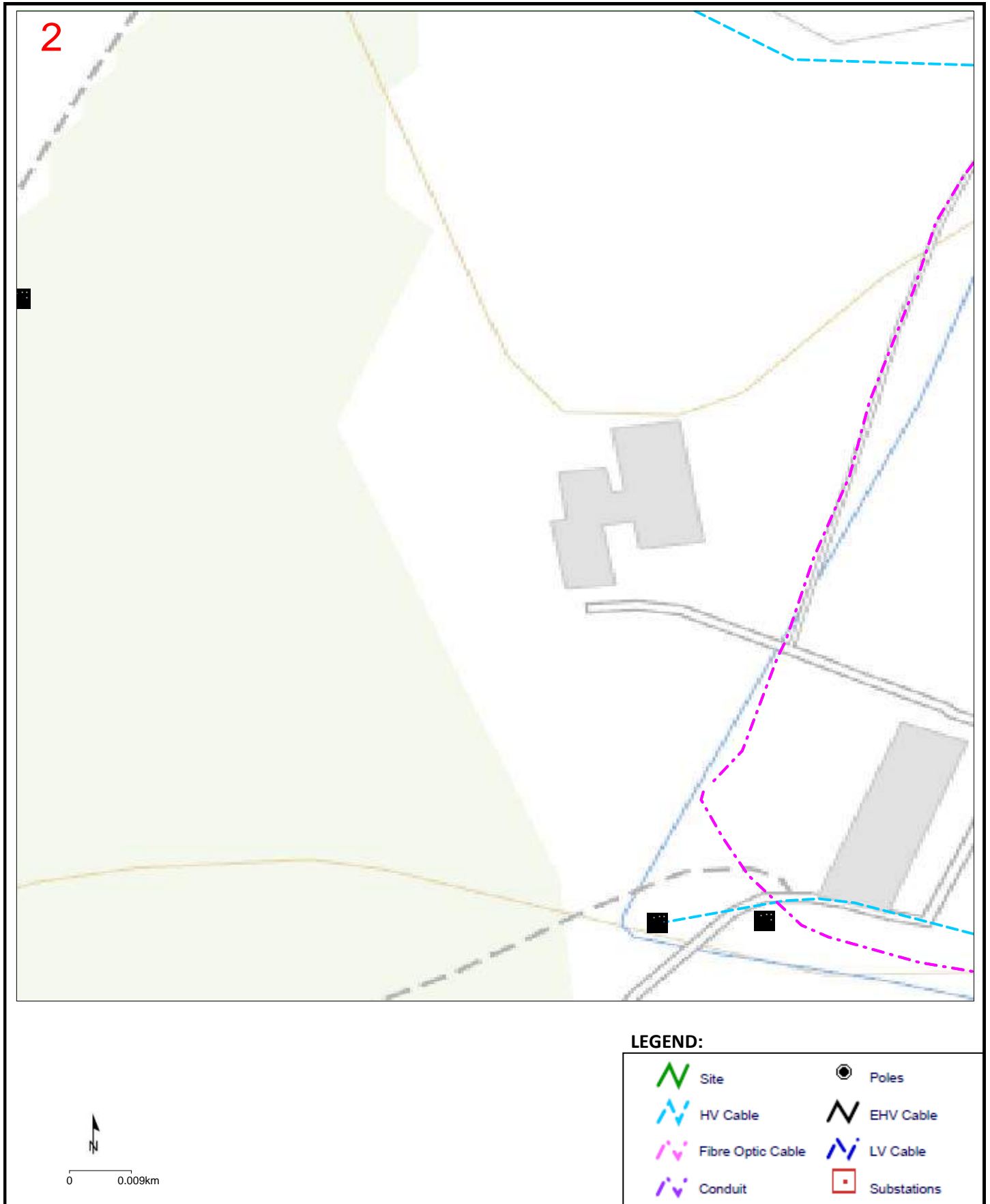


Detail Map 2 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

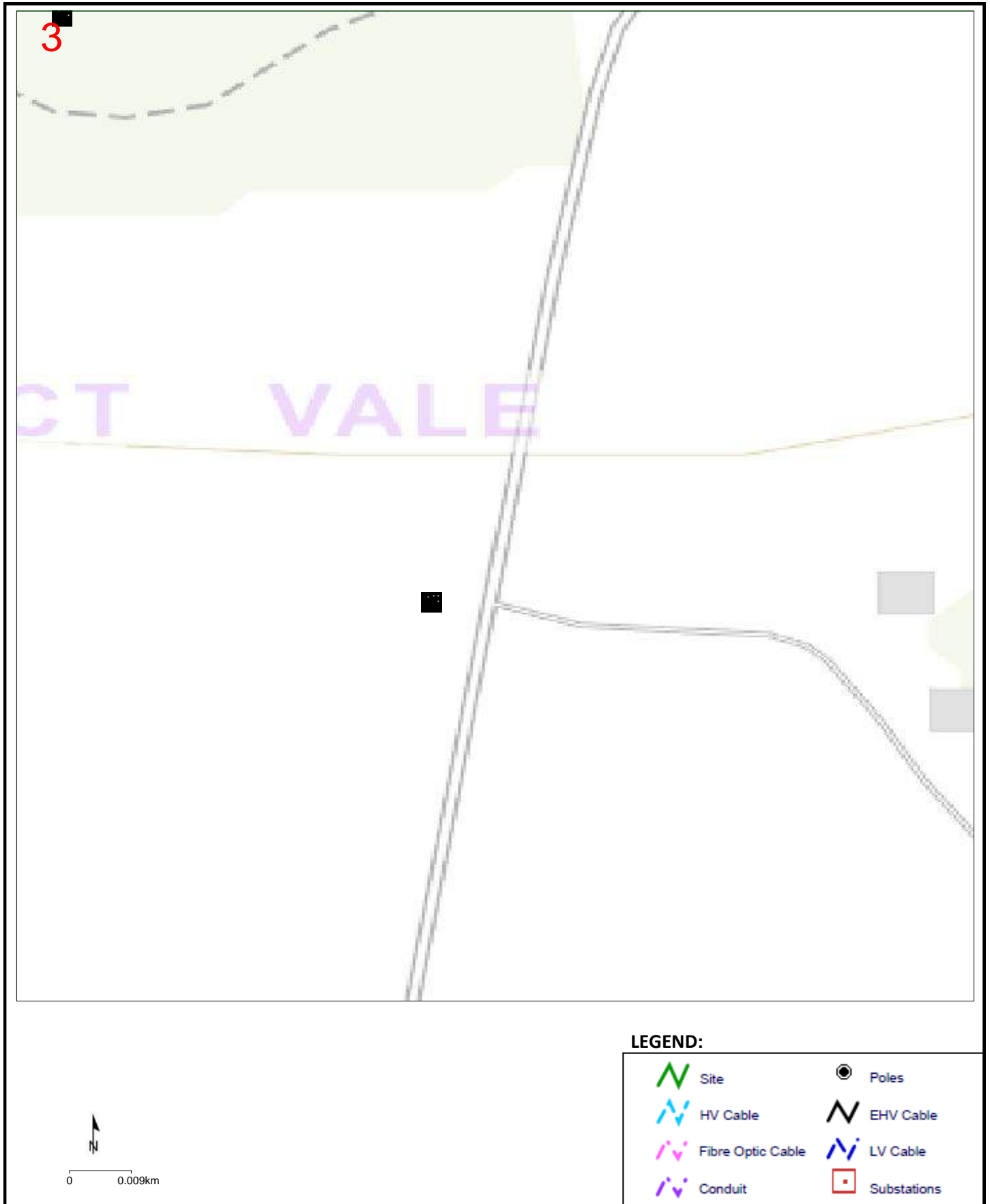


Detail Map 3 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

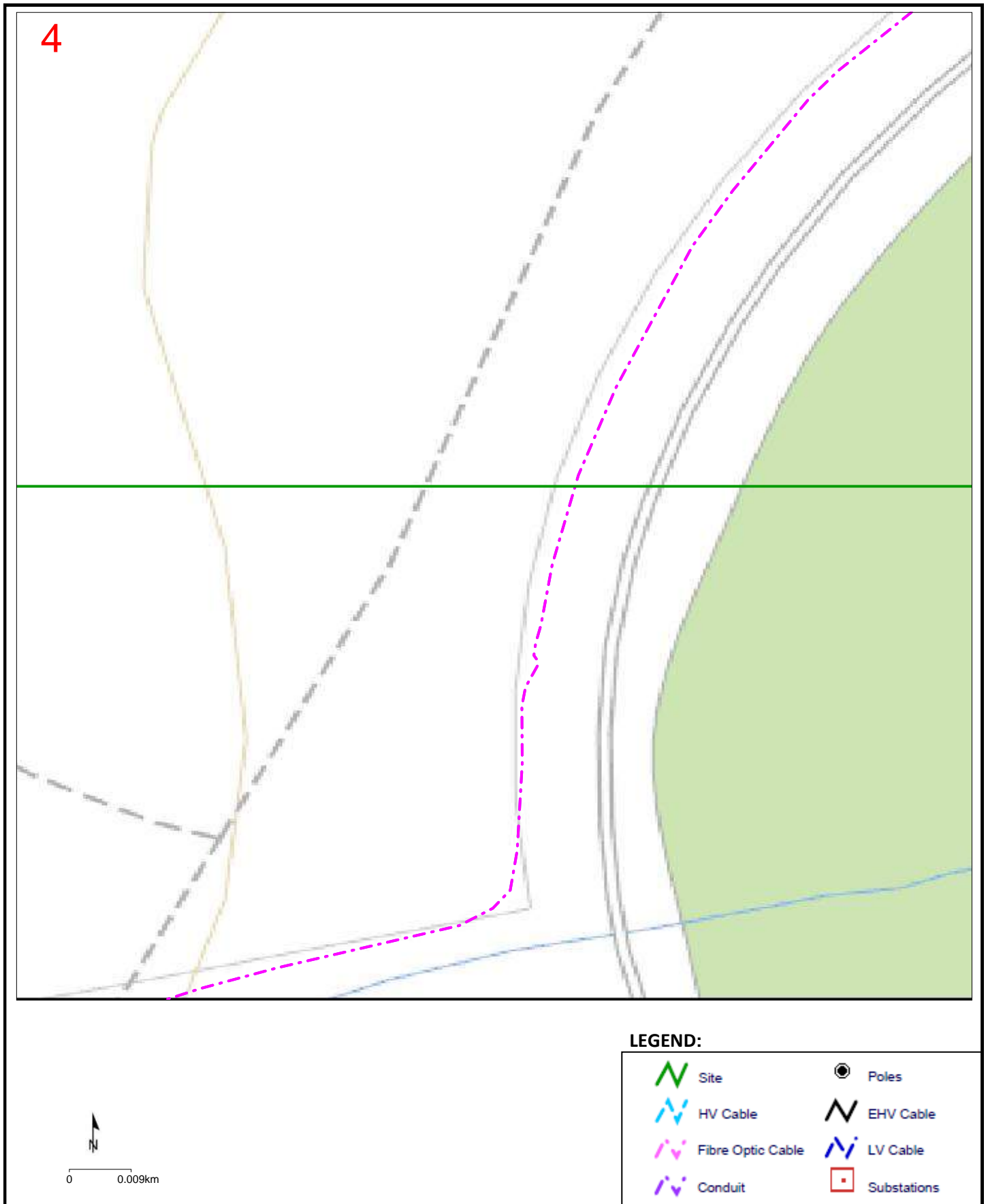


Detail Map 4 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

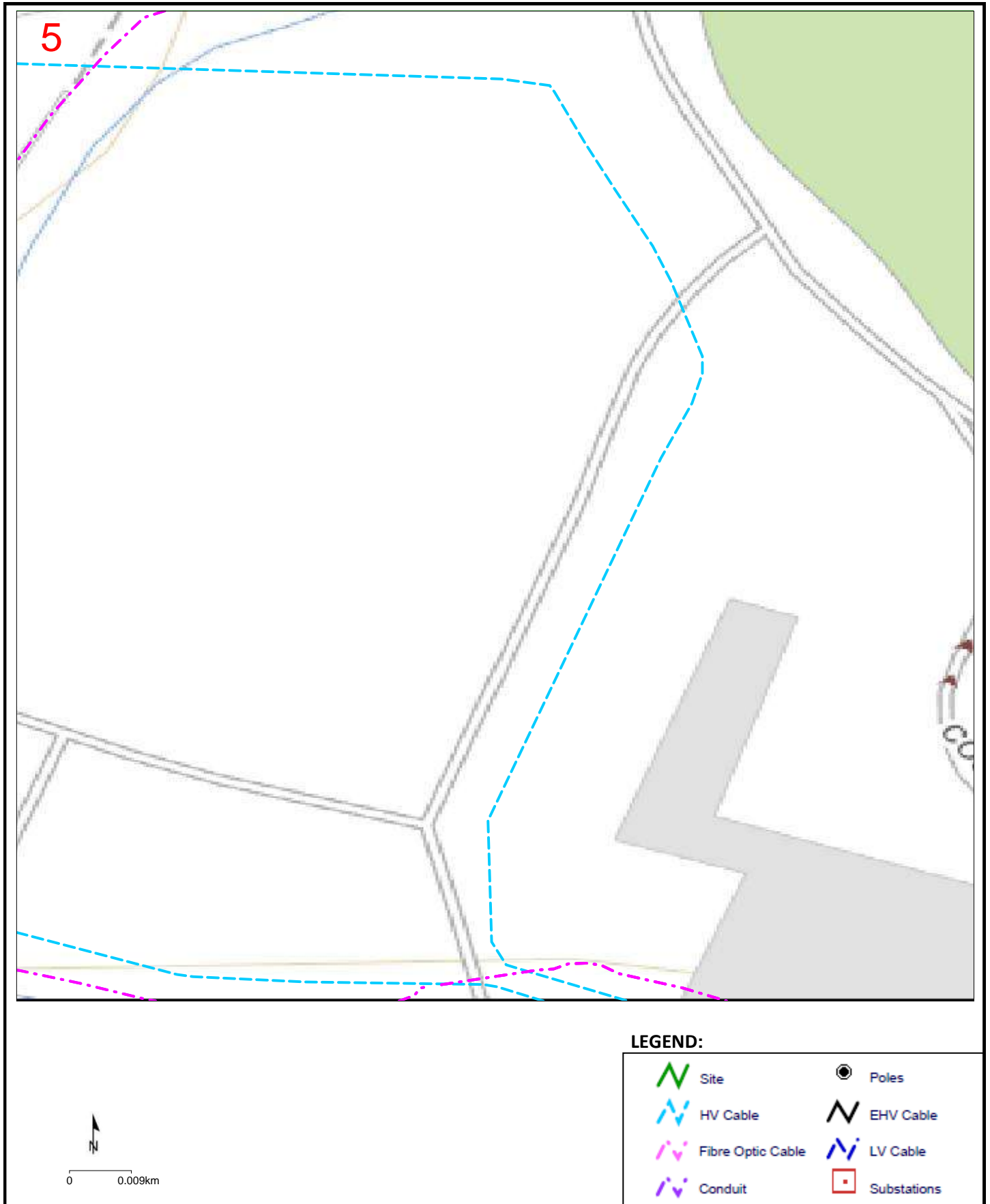


Detail Map 5 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

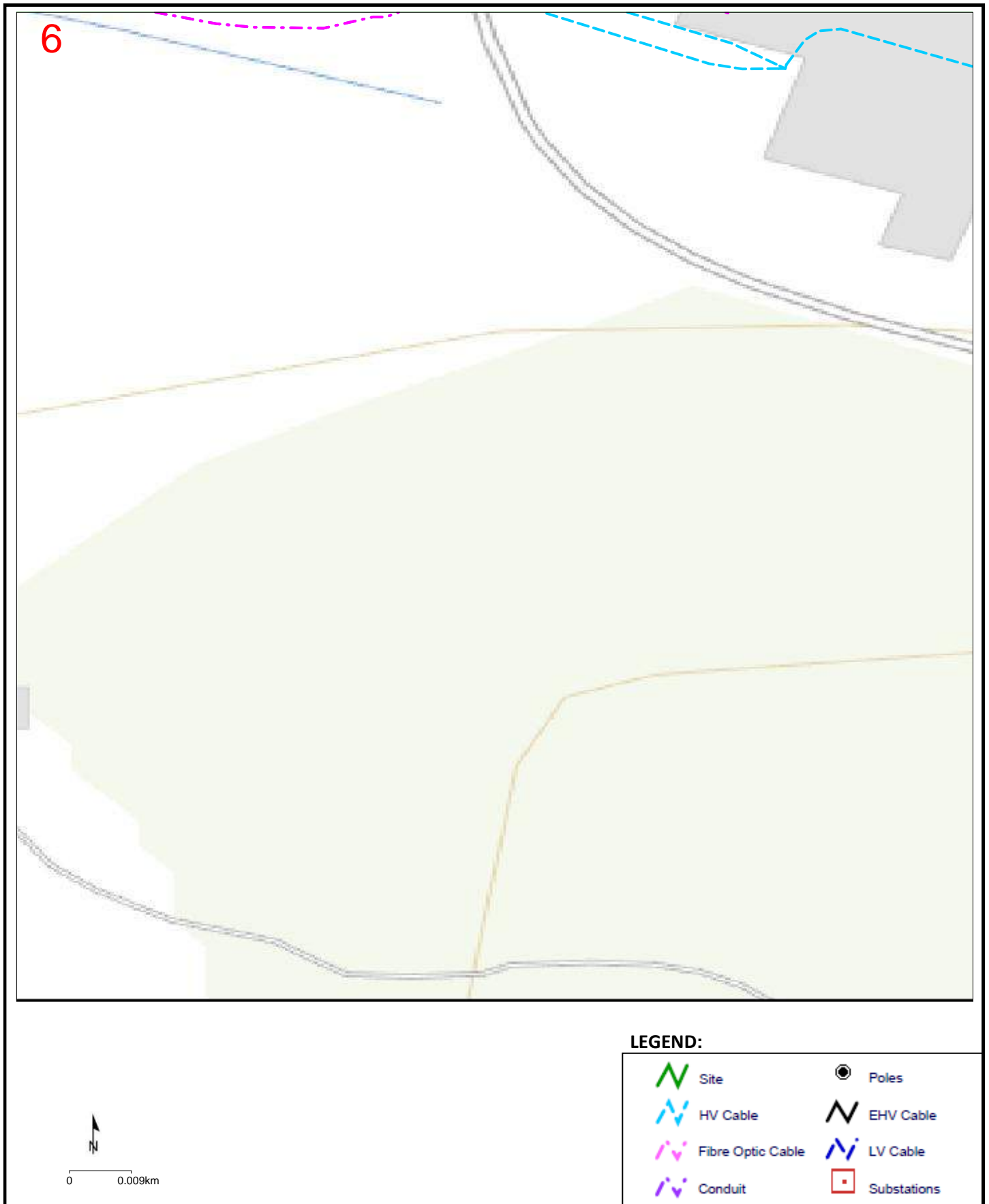


Detail Map 6 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

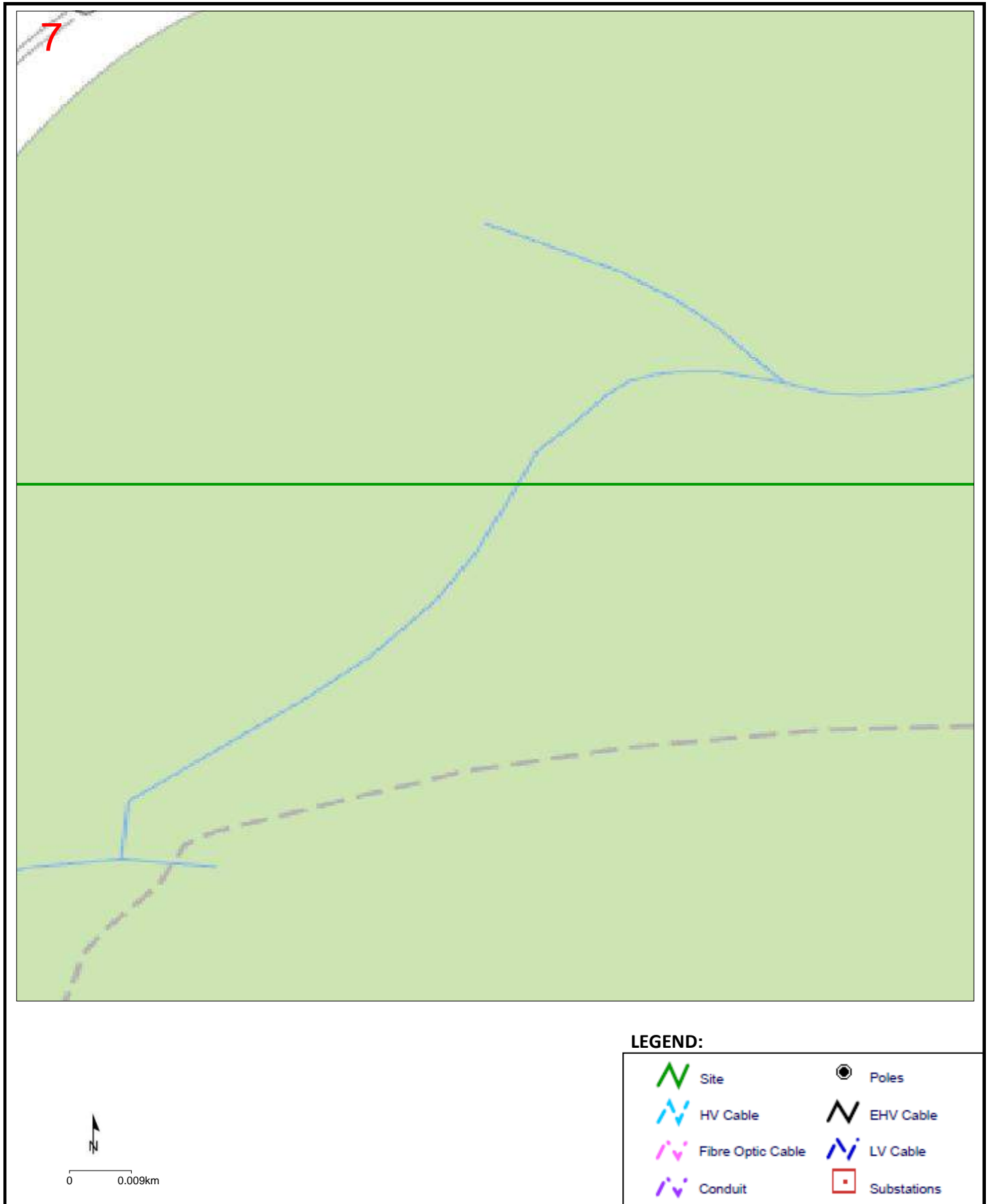


Detail Map 7 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

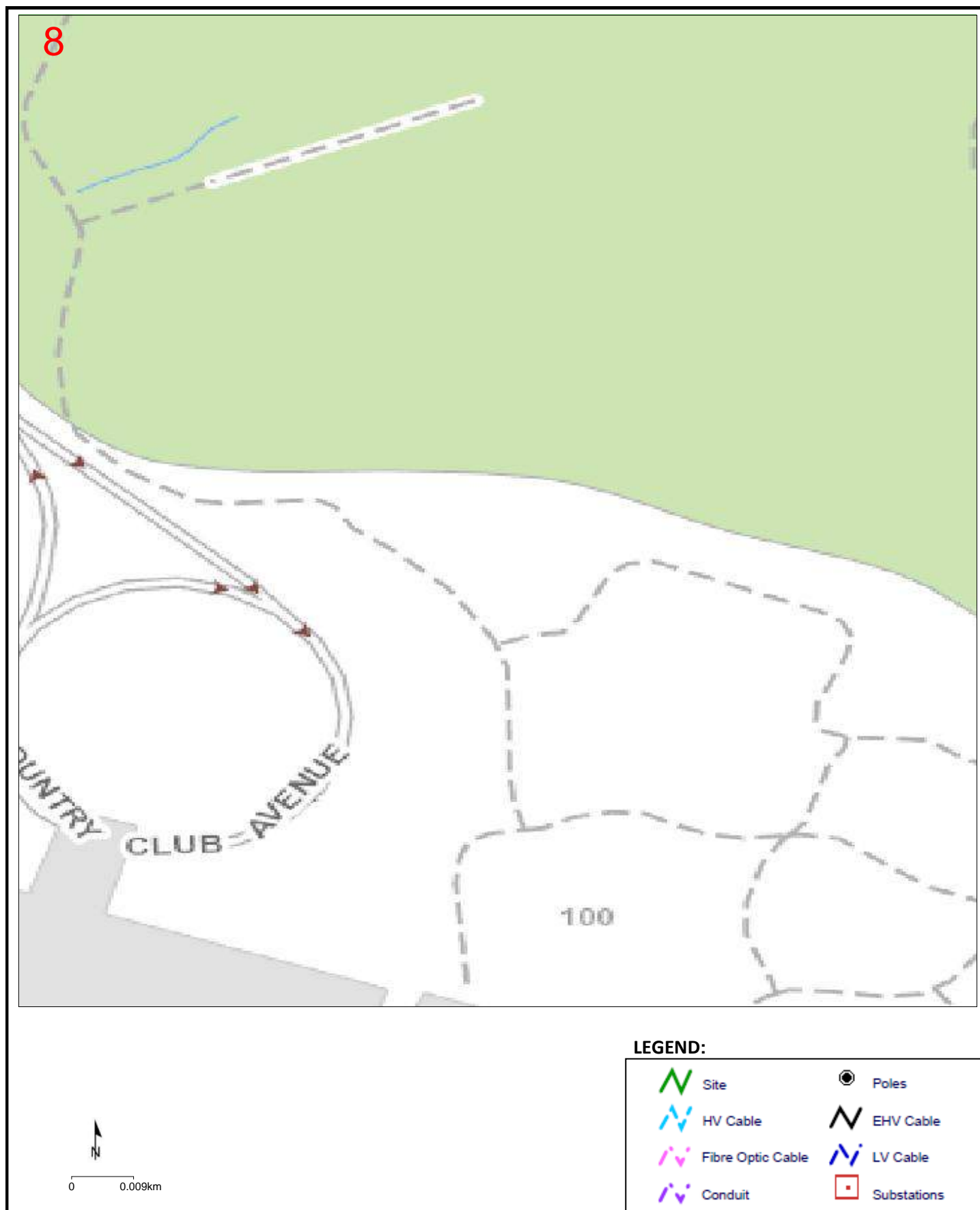


Detail Map 8 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

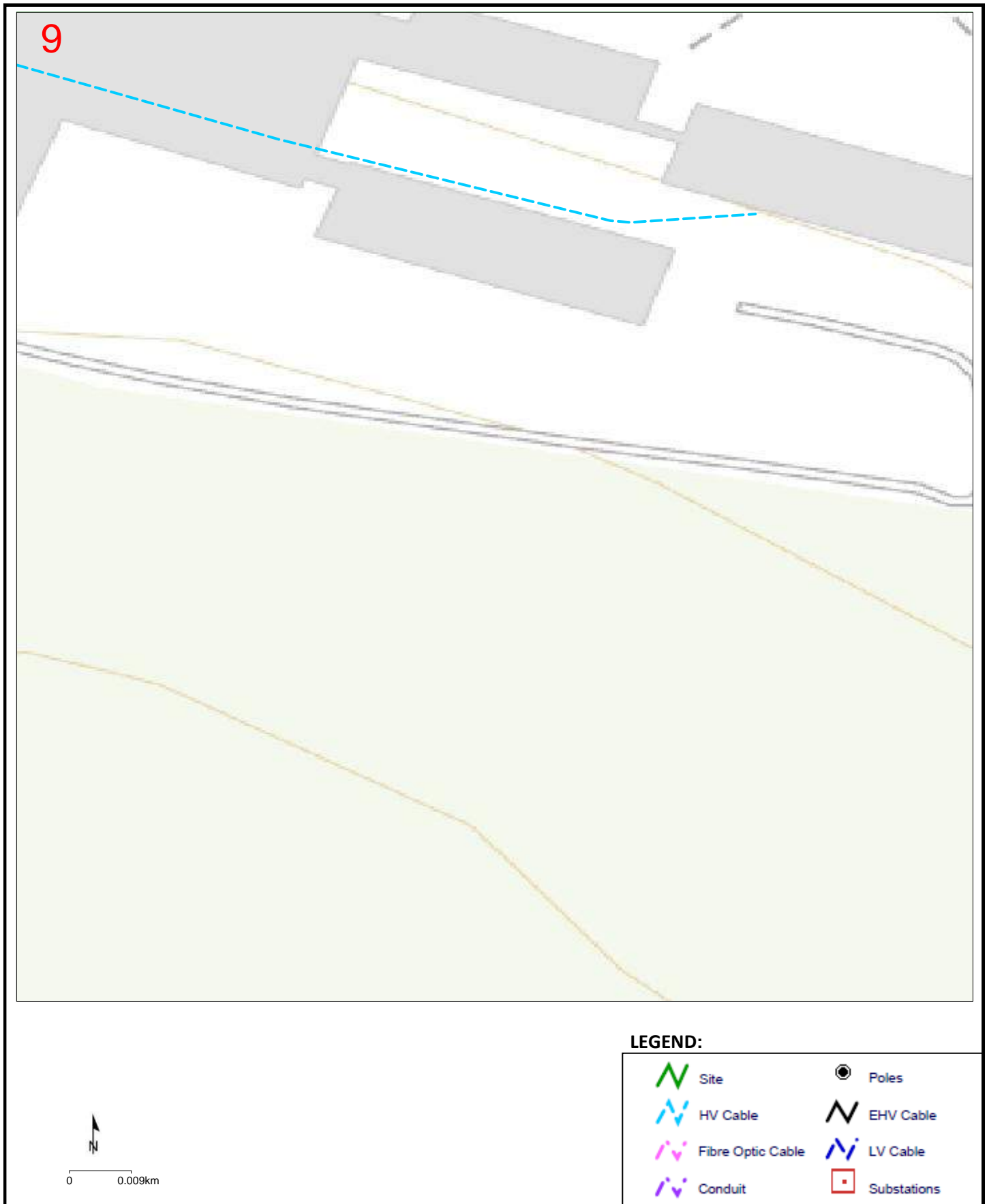


Detail Map 9 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au



Detail Map 10 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

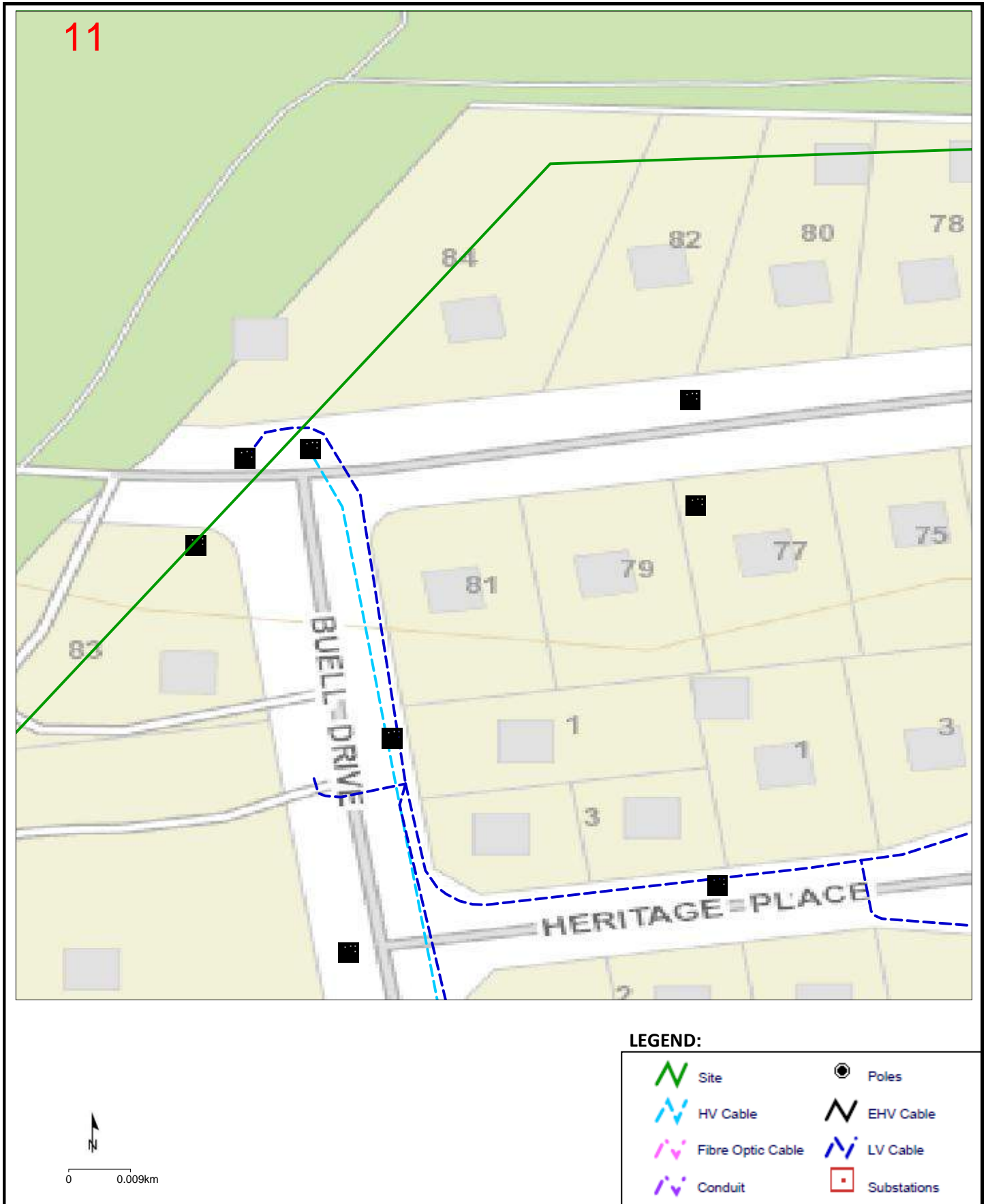


Detail Map 11 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au

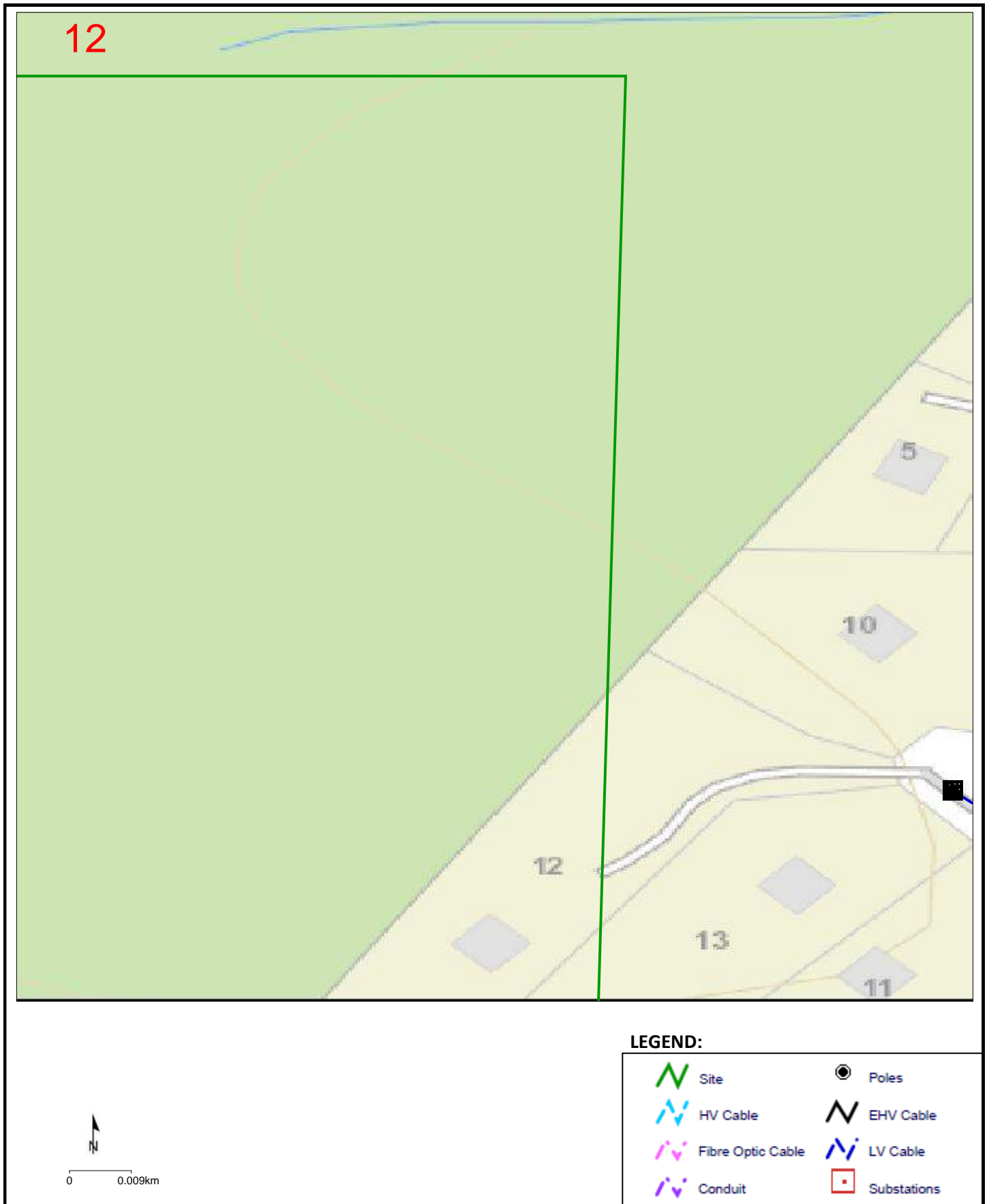


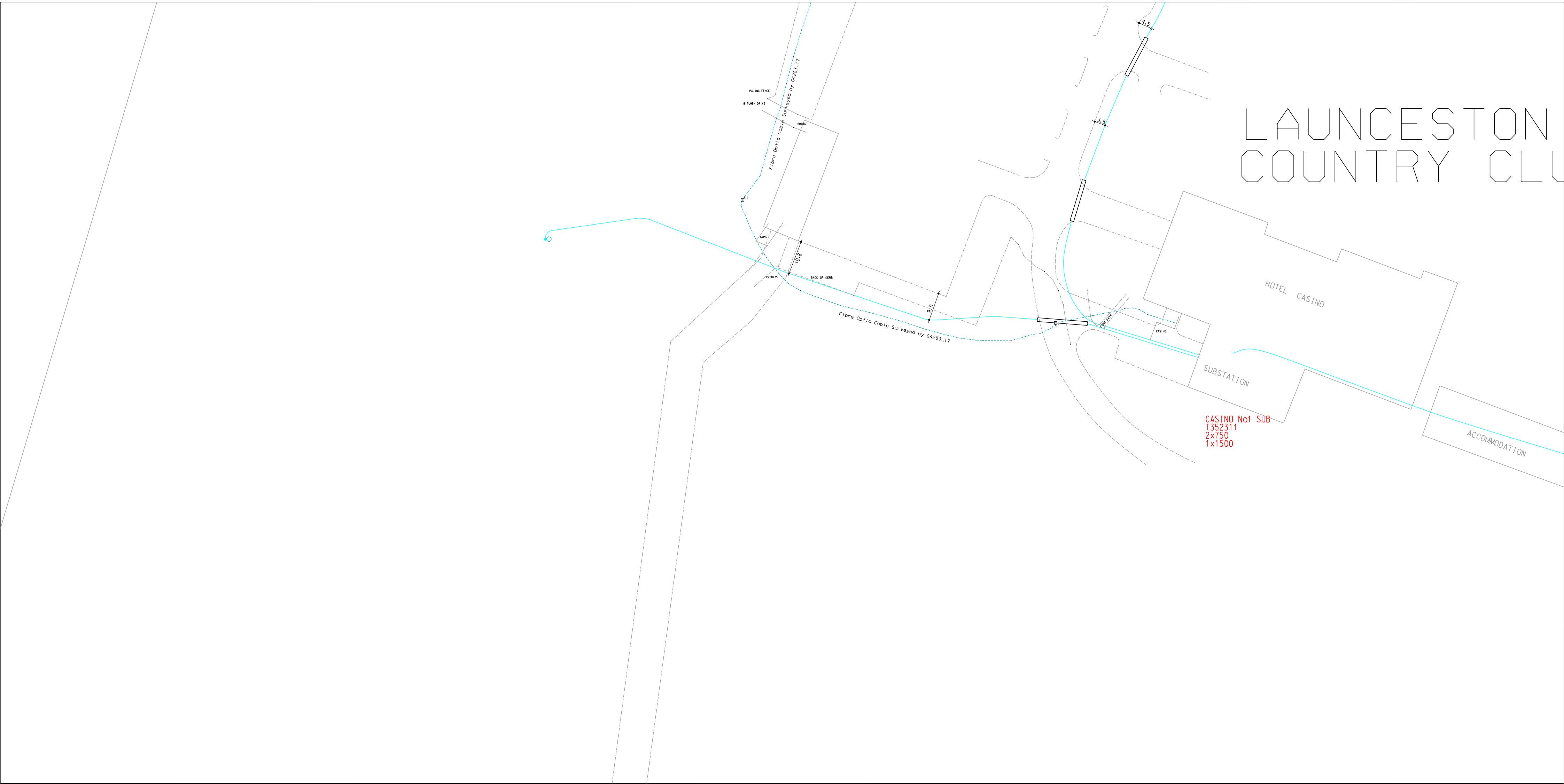
Detail Map 12 Job No: 20315405

Sequence No: 102191663

Country Club Ave Prospect Vale

TasNetworks contact details: 1300 137 008 (enquiries) or 132 004 (emergency only), email customer.enquiries@tasnetworks.com.au





010m20m30m

ORIGINAL SCALE 1:500

22kV UNDERGROUND CABLE

33kV UNDERGROUND CABLE

11kV UNDERGROUND CABLE

110kV UNDERGROUND CABLE

STREETLIGHT CABLE

SERVICE DUCT

6.6kV UNDERGROUND CABLE

SEALED END ON LV CABLE

POTEND/JOINT

CABINET

TURRET (WITH SWITCH)

FEEDER PILLAR

not shown

PILOT CABLE

MANHOLE

SERVICE PIT

SERVICE POST

TELEPHONE CABINET

HV POLE, LV POLE, HV/LV POLE

SC POLE

STD FUSE BASE (WITH LAMP)

ROAD CROSSING

ZONE SUBSTATION

SUBSTATION

TYPICAL SECTION

THROUGH CROSSING

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Network Records

Pulling Distribution on the Map

Aurora Energy Pty Ltd

ABN 65 162 464 622

Network 2013/2014

CPD Doc 701 - Network 160 7001

DISTRIBUTION DETAIL SHEET

LAUNCESTON

N

NOTE: ALL DIMENSIONS ARE IN METRES
UNLESS OTHERWISE INDICED

0800 0725	0850 0725	0900 0725
0800 0700		0900 0700
0800 0675	0850 0675	0900 0675

INDEX TO ADJOINING SHEETS

PLAN NUMBER:
D5 $\frac{5}{54}$ 0850 0700

GEOTIFF DATE: 18-03-2013

GDA



010m20m30m

ORIGINAL SCALE 1:500

22kV UNDERGROUND CABLE

33kV UNDERGROUND CABLE

11kV UNDERGROUND CABLE

110kV UNDERGROUND CABLE

STREETLIGHT CABLE

SERVICE DUCT

6.6kV UNDERGROUND CABLE

SEALED END ON LV CABLE

POTEND/JJOINT CABINET

TURRET (WITH SWITCH) FEEDER PILLAR

not shown PILOT CABLE

MANHOLE

SERVICE PIT

SERVICE POST

TELEPHONE CABINET

HV POLE, LV POLE, HV/LV POLE

SC POLE

STD FUSE BASE (WITH LAMP)

ROAD CROSSING

ZONE SUBSTATION

SUBSTATION

TYPICAL SECTION THROUGH CROSSING

27.5m

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Network Records

Putting Infrastructure on the Map

Aurora Energy Pty Ltd

ABN 65 621 641 622

Network Division

GPS Data File Number: 160 7001

DISTRIBUTION DETAIL SHEET

LAUNCESTON

N

NOTE: ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE INDICED

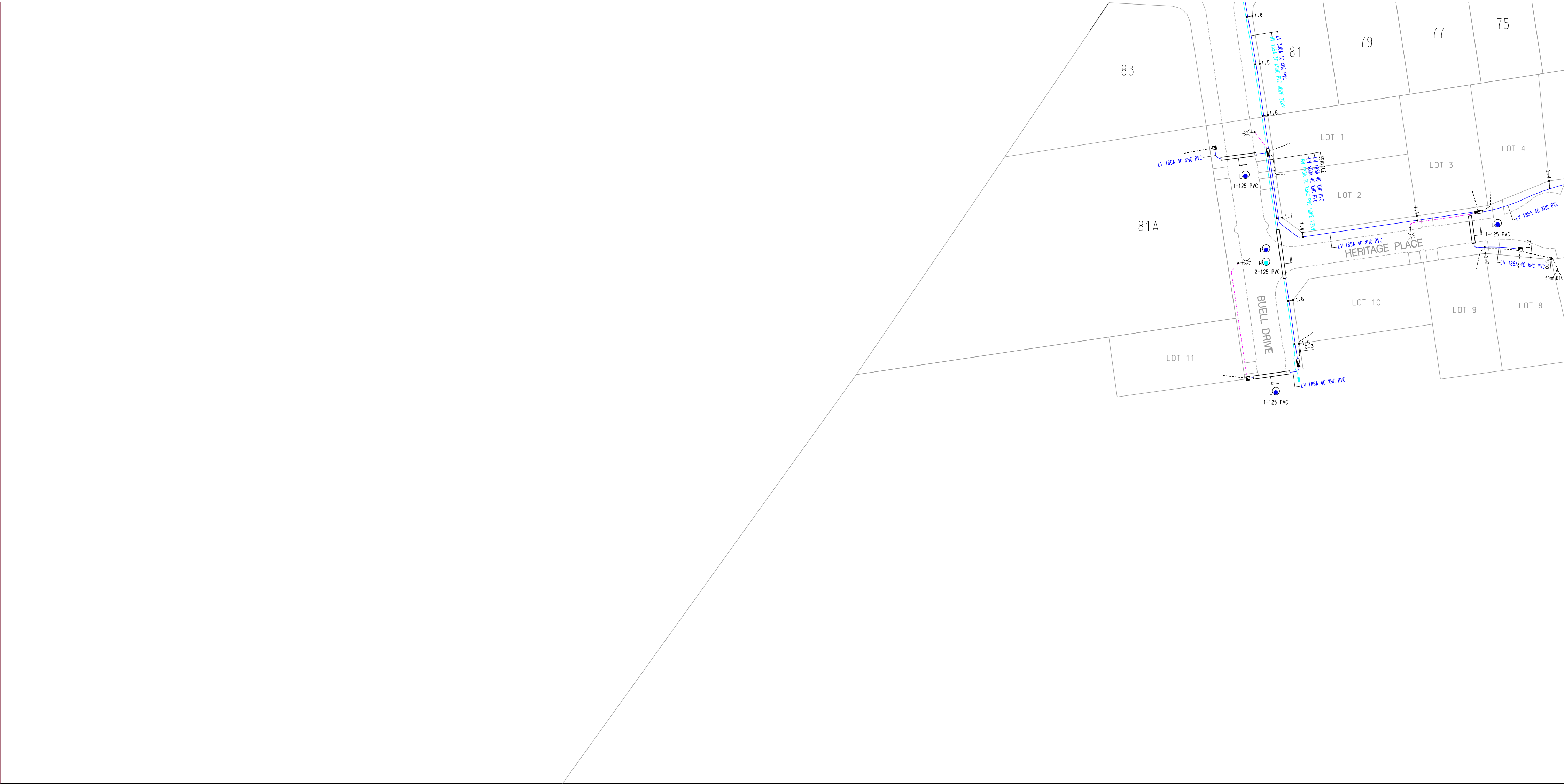
0800 0750	0850 0750	0900 0750
0800 0725		0900 0725
0800 0700	0850 0700	0900 0700

INDEX TO ADJOINING SHEETS

PLAN NUMBER:

D5 $\frac{5}{54}$ 0850 0725

GEOTIFF DATE: 01-02-2016



010m20m30m

ORIGINAL SCALE 1:500

22kV UNDERGROUND CABLE

33kV UNDERGROUND CABLE

11kV UNDERGROUND CABLE

110kV UNDERGROUND CABLE

STREETLIGHT CABLE

SERVICE DUCT

6.6kV UNDERGROUND CABLE

SEALED END ON LV CABLE

POTEND/JOINT

CABINET

TURRET (WITH SWITCH)

FEEDER PILLAR

not shown

PILOT CABLE

MANHOLE

SERVICE PIT

SERVICE POST

TELEPHONE CABINET

HV POLE, LV POLE, HV/LV POLE

SC POLE

STD FUSE BASE (WITH LAMP)

ROAD CROSSING

ZONE SUBSTATION

SUBSTATION

TYPICAL SECTION

THROUGH CROSSING

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Network Records

Putting Infrastructure on the Map

Aurora Energy Pty Ltd

ABN 65 662 664 622

Network 2014-2015

CPD Doc 701 - Network 160 7001

DISTRIBUTION DETAIL SHEET

PROSPECT

N

NOTE: ALL DIMENSIONS ARE IN METRES

UNLESS OTHERWISE INDICED

0850 0700	0900 0700	0950 0700
0850 0675		0950 0675

INDEX TO ADJOINING SHEETS

PLAN NUMBER: 1:5000 No. 504023

5-54-09000675

GEOTIFF DATE: 10-01-2014



010m20m30m

ORIGINAL SCALE 1:500

22kV UNDERGROUND CABLE

33kV UNDERGROUND CABLE

11kV UNDERGROUND CABLE

110kV UNDERGROUND CABLE

STREETLIGHT CABLE

SERVICE DUCT

6.6kV UNDERGROUND CABLE

SEALED END ON LV CABLE

POTEND/JOINT CABINET

TURRET (WITH SWITCH)

FEEDER PILLAR

not shown PILOT CABLE

MANHOLE

SERVICE PIT

SERVICE POST

TELEPHONE CABINET

HV POLE, LV POLE, HV/LV POLE

SC POLE

STD FUSE BASE (WITH LAMP)

ROAD CROSSING

ZONE SUBSTATION

SUBSTATION

TYPICAL SECTION

THROUGH CROSSING

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Network Records

Putting Infrastructure on the Map

Aurora Energy Pty Ltd

ABN 65 662 664 622

Networks Division

100 Box 791, Sydney NSW 1501

DISTRIBUTION DETAIL SHEET

LAUNCESTON

N

NOTE: ALL DIMENSIONS ARE IN METRES
UNLESS OTHERWISE INDICATED

0850 0725	0900 0725	0950 0725
0850 0700		0950 0700
0850 0675	0900 0675	0950 0675

INDEX TO ADJOINING SHEETS

PLAN NUMBER:

D5 $\frac{5}{54}$ 0900 0700

GEOTIFF DATE: 02-05-2013

GDA



010m20m30m

ORIGINAL SCALE 1:500

22kV UNDERGROUND CABLE

33kV UNDERGROUND CABLE

11kV UNDERGROUND CABLE

110kV UNDERGROUND CABLE

STREETLIGHT CABLE

SERVICE DUCT

6.6kV UNDERGROUND CABLE

SEALED END ON LV CABLE

POTEND/JOINT

CABINET

TURRET (WITH SWITCH)

FEEDER PILLAR

not shown

PILOT CABLE

MANHOLE

SERVICE PIT

SERVICE POST

TELEPHONE CABINET

HV POLE, LV POLE, HV/LV POLE

SC POLE

STD FUSE BASE (WITH LAMP)

ROAD CROSSING

ZONE SUBSTATION

SUBSTATION

TYPICAL SECTION THROUGH CROSSING

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Aurora Energy Pty Ltd

600 95 182 164 422

Network Division

GPS Data 100 10000 146 1000

Aurora ENERGY

DISTRIBUTION DETAIL SHEET

LAUNCESTON

N

↑

NOTE: ALL DIMENSIONS ARE IN METRES

UNLESS OTHERWISE INDICATED

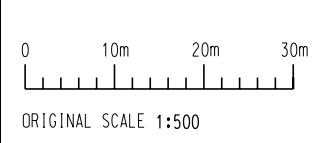
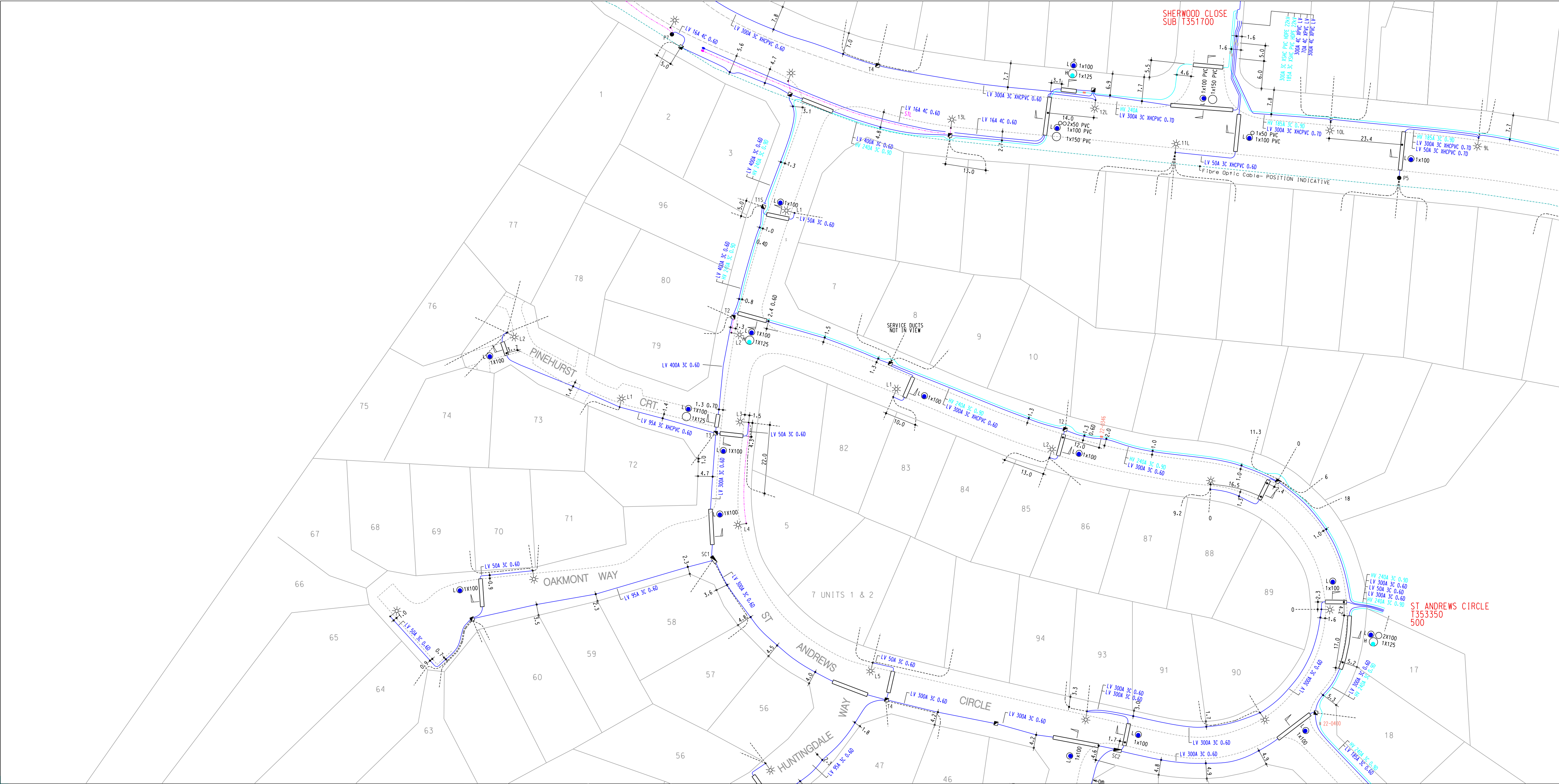
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0900 0700	0950 0700	1000 0700
0900 0675	0950 0675	1000 0675

INDEX TO ADJOINING SHEETS

PLAN NUMBER: 504023ASSET

D5 $\frac{5}{54}$ 0950 0700

GEOTIFF DATE: 01-02-2016



- | | |
|-------------------------|-------------------------|
| 22kV UNDERGROUND CABLE | STREETLIGHT CABLE |
| 33kV UNDERGROUND CABLE | SERVICE DUCT |
| 11kV UNDERGROUND CABLE | 6.6kV UNDERGROUND CABLE |
| 110kV UNDERGROUND CABLE | SEALED END ON LV CABLE |

- | | |
|----------------------|-------------------|
| POTEND/Joint | MANHOLE |
| CABINET | SERVICE PIT |
| TURRET (WITH SWITCH) | SERVICE POST |
| FEEDER PILLAR | TELEPHONE CABINET |
| not shown | |
| PILOT CABLE | |

- | |
|------------------------------|
| HV POLE, LV POLE, HV/LV POLE |
| STD FUSE BASE (WITH LAMP) |
| ROAD CROSSING |

- | |
|----------------------------------|
| ZONE SUBSTATION |
| SUBSTATION |
| TYPICAL SECTION THROUGH CROSSING |

This data is provided subject to the following conditions:
Aurora Energy does not warrant that this data is free from errors and acknowledges that the data may change at any time.
Who mechanical consent to be used within one metre of indication of any underground installation to show on site or in plan.
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Network Records
Putting Distribution on the Map
Aurora Energy Pty Ltd
ABN 95 625 466 422
Network Division
GPO Box 1911 Sydney NSW 156 1901

DISTRIBUTION DETAIL SHEET
LAUNCESTON



NOTE: ALL DIMENSIONS ARE IN METRES
UNLESS OTHERWISE INDICATED

0900 0750	0950 0750	1000 0750
0900 0725	0950 0725	1000 0725
0900 0700	0950 0700	1000 0700

INDEX TO ADJOINING SHEETS

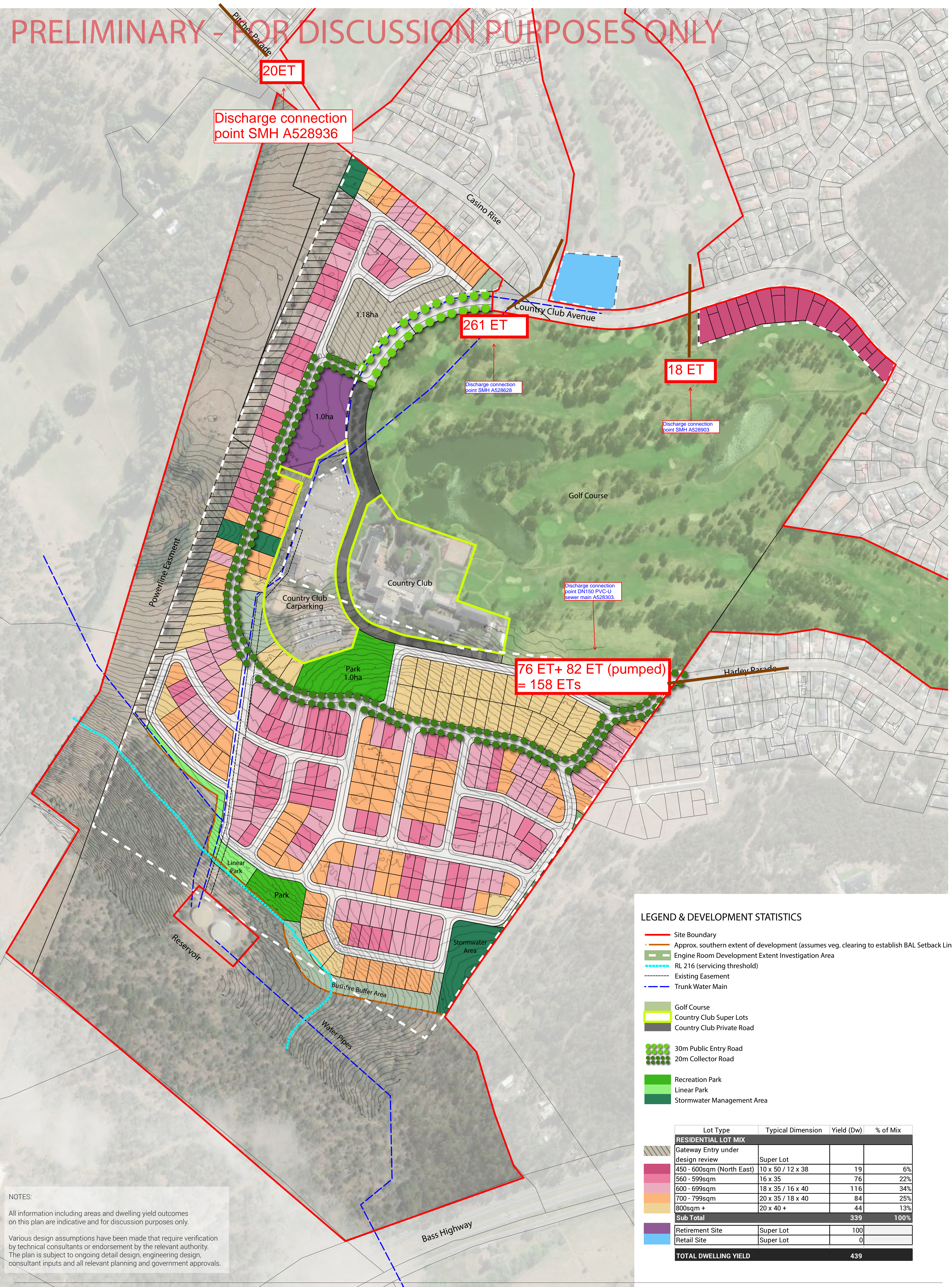
PLAN NUMBER:
D5 5 0950 0725
54
GEOITIFF DATE: 26-02-2013



Appendix F

TasWater Correspondence – Sewer

PRELIMINARY - FOR DISCUSSION PURPOSES ONLY



Amended Asset Management Referral

DEVELOPMENT INFORMATION					
DA Number	TWSI 2020/00683-MVC	Development Name	Country Club Estate	Status	<i>pre-lodgement</i>
Address of Development		100 COUNTRY CLUB AV, PROSPECT VALE 2852135			
Description of Development		Proposed subdivision			
Developer / Engineer		ADG Engineers (Aust.) Pty Ltd – Matthew Brown mbrown@adgce.com			
Lead Development Services Contact		Phil Papps 0474 931 272			
Lead Asset Contact		<i>Matt Jordan</i>			
Peer Reviewed (If works external is required)		By : Date :			
List any previously approved developments in the zone/catchment (where TasWater may have committed to a capacity allocation)		<i>Nil</i>			
List any previous or current permits on the site		<i>Nil</i>			
Relevant Background Information		<i>Refer attached plans for water connection points and sewer discharge points.</i>			
Ultimate Water demands (ET's or L/s)		<i>442 ETs</i>			
Ultimate Sewer demands (ET's or L/s)		<i>457 ETs</i>			
Is a fire demand required?		Yes			
Fire demand (L/s) (if required)		<i>As per Supplement for Residential developments</i>			
Proposed Staging		<i>Not available</i>			
SCOPE OF ASSESSMENT					
Item	Request Specifics			Referred To: (by Lead Asset Contact)	Date Required
1	Query	Water <i>Does the existing water network have sufficient spare capacity to service the water demands of the proposed development? If not, what works external upgrades must be undertaken? Can the developer to provide any necessary additional capacity required?</i> <i>Please provide the boundary conditions for both</i>		G. Lacey	28/10/2020

	<i>connection points (refer attached plan).</i>		
Response	<p><i>Modelling indicates that the existing water network has the capacity to take the additional loading from the proposed development.</i></p> <p><i>A standard residential fire flow of 10 L/s was used in this analysis.</i></p> <p><i>Hydraulic context and overview description of current capacity issues:</i> <i>The proposed development is located in the Prospect Supply Pressure Zone supplied from the Casino Reservoirs which have a TWL of 237 m AHD. The connection point for this development is at an elevation of 175 m AHD, giving a maximum static pressure of 62 m in a single direction although potentially looped network.</i></p> <p><i>The 375 mm main in Country Club Avenue is a direct link to the Casino Reservoirs. The link to Harley Parade will benefit the existing water network in this and nearby streets.</i></p> <p><i>These pressure heads are at the assumed connection point in Country Club Avenue and do not include losses through service connection or associated pipework</i></p> <p><i>The highest service connection point within proposed development is approximately R.L. . metres.</i></p> <p><i>The hydraulic and process capacity of the water treatment plant and sources upstream have not been assessed.</i></p> <p><i>Boundary Conditions</i> <i>Altitude at connection point to 375 mm main; R.L. 175 m.</i> <i>System Pressure Head at max flow on Peak day, (9:15 am), at connection point to 375 mm main; 230.12 metres.</i> <i>Max flow on Peak day, (9:15 am), to development; 19.64 L/s</i> <i>Flow into Harley Parade at max flow on Peak day, (9:15 am); 6.83 L/s</i></p>		

2	Query	<p><i>Sewer</i></p> <p><i>Does the existing sewer network have sufficient spare capacity to service the sewage discharge demands of the proposed development at the nominated discharge points (refer attached plan) and if not what works external upgrades must be undertaken by the developer to provide any necessary additional capacity required?</i></p>		28/10/2020
	Response	<p><i>Modelling analysis was conducted with:</i></p> <ul style="list-style-type: none"> ○ 261 ET draining to MH A528628 ○ 158 ET draining to main A528303 ○ 20 ET draining to MH A528936 ○ 18 ET draining to MH A528903 <p><i>Modelling analysis indicated that in the absence of the development, the 225mm main upstream of MH A528902 already had a number of capacity issues initially.</i></p> <p><i>The additional loading from the development (particularly the 158ET's connected to A528303) exacerbates these pre-existing capacity issues and causes a number of pipes around this area (and further downstream) to go from "has capacity" to "exceeds capacity". These assets were:</i></p> <ul style="list-style-type: none"> ○ A528039 ○ A528308 ○ A528035 ○ A528032 ○ A527999 ○ A528629 ○ A527771 ○ A528628 <p><i>These pipes will need to be upsized to accommodate the proposed development.</i></p> <p><i>The development also causes one MH A528822 to overflow.</i></p>	T.Ross	29/10/2020



Figure 1&2: Pipes exceeding capacity after the introduction of the proposed development, are circled in **BLUE**.
Overflowing MH after the introduction of the proposed development, is circled in **DARK BLUE**.

Ideally, as many ET's as possible from the 158 ET allocation should be directed to the north side of the development (where the 261 ET allocation connects) as this main still has spare capacity, even with the 261 ET from this development included.

Further analysis, was conducted with 82 ET of the 158 ET allocation, directed to this suggested point (leaving 76 ET connected to A528303). Diverting a portion of the ET's alleviates some of the stress on the system, however the same capacity and overflow issues still exist, just to a lesser degree.

		<p>SPS:</p> <p><i>The development gravitates directly to the Prospect Vale STP, hence no SPS assessment on storage or pumping capacity, needed to be conducted.</i></p> <p>STP:</p> <p><i>The hydraulic and process capacity of the downstream STP has not been assessed.</i></p>		
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

CAPACITY ASSESSMENT						
Item	Can the demands be met? Y No1 – TW to correct No2 – Developer pays/constructs No3 – Combination (define split)		If no, what capacity is available (ET's or L/s)	Does TW have capital works planned? If so describe including timing.	Additional works required to meet demands	Source of information (model/report etc) Include HPRM ref if available.
Sewer	STP	Hydraulic Biological				
	Pipework					
	SPS					
Water	Yield					
	WTP					
	Bulk Mains					
	Reservoir					
	Pumps					
	Retic:					

	<ul style="list-style-type: none"> • Peak Day • Peak Day + Fire 					
--	-----------------------------------------------------------------------------------------	--	--	--	--	--

Example requirements/conditions

Prior to the issue of a **Certificate of Occupancy by Council** TasWater's existing **DN225 sewer mains** (Asset No's **RDZ1SEG58022 – 58028 & 58031**) must be upgraded to **DN375** at the developer's cost.

The TasWater **DN200 water main** must be extended generally as shown on **Document D1** to the requirements and approval of TasWater at the developer's cost. The extension must be performed by a contractor approved by TasWater. The developer must apply to TasWater for reimbursement for costs for design and construction of eligible works. To be eligible for reimbursement, costs for which reimbursement is claimed must be determined from a competitive public tender process, with process and reimbursements determined prior to construction, and to the written approval of Southern Water. Applicable reimbursements for eligible works are; The marginal additional cost between sizes **DN150 and DN200 of constructing the water main between points 'H' and 'J' on Document D1**.

Appendix G

TasWater Correspondence - Water

100 Country Club Avenue V2a

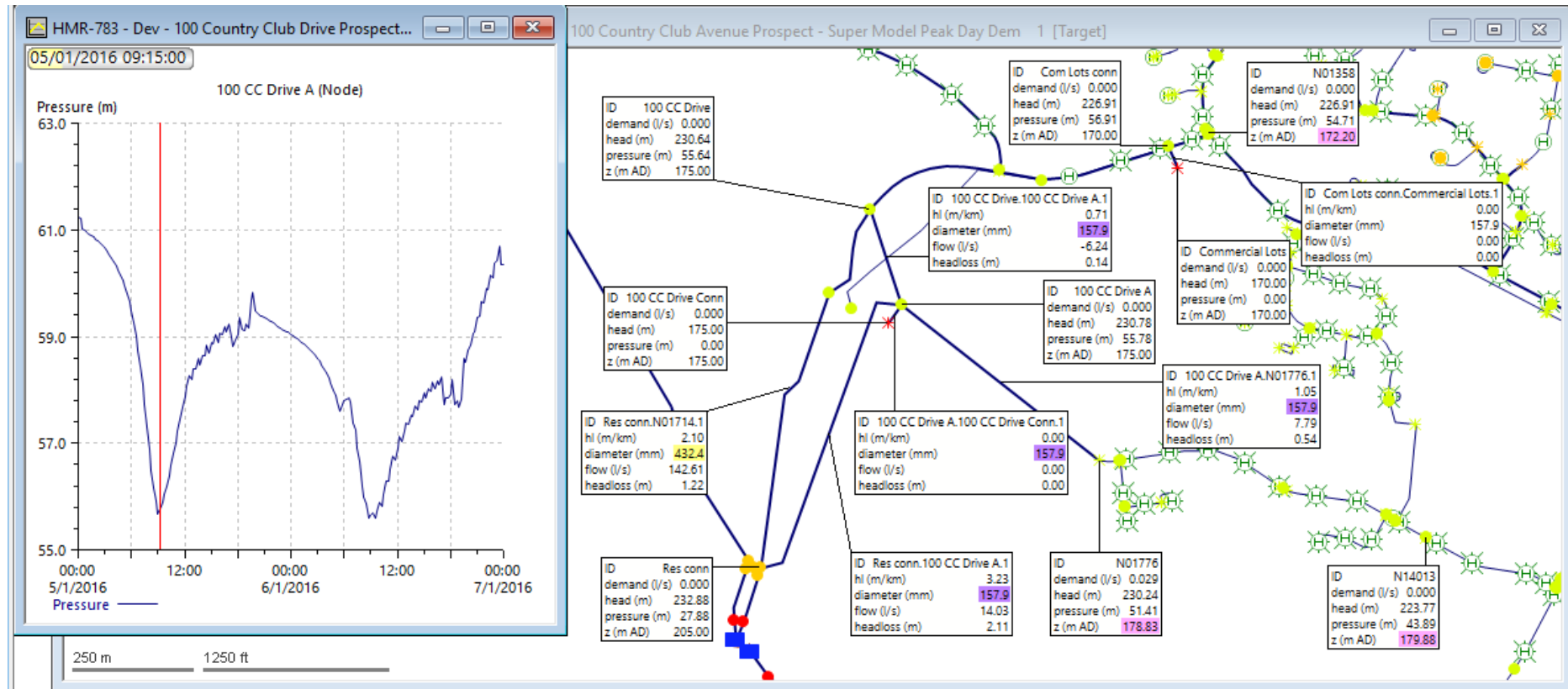
Calculated demand at Node '100 CC Drive Conn' = $422 \times 685 = 289\,070$ Litres/day

Calculated average flow rate at Node '100 CC Drive Conn' = $289\,070 / (24 \times 3600) = 3.346 \text{ L/s}$

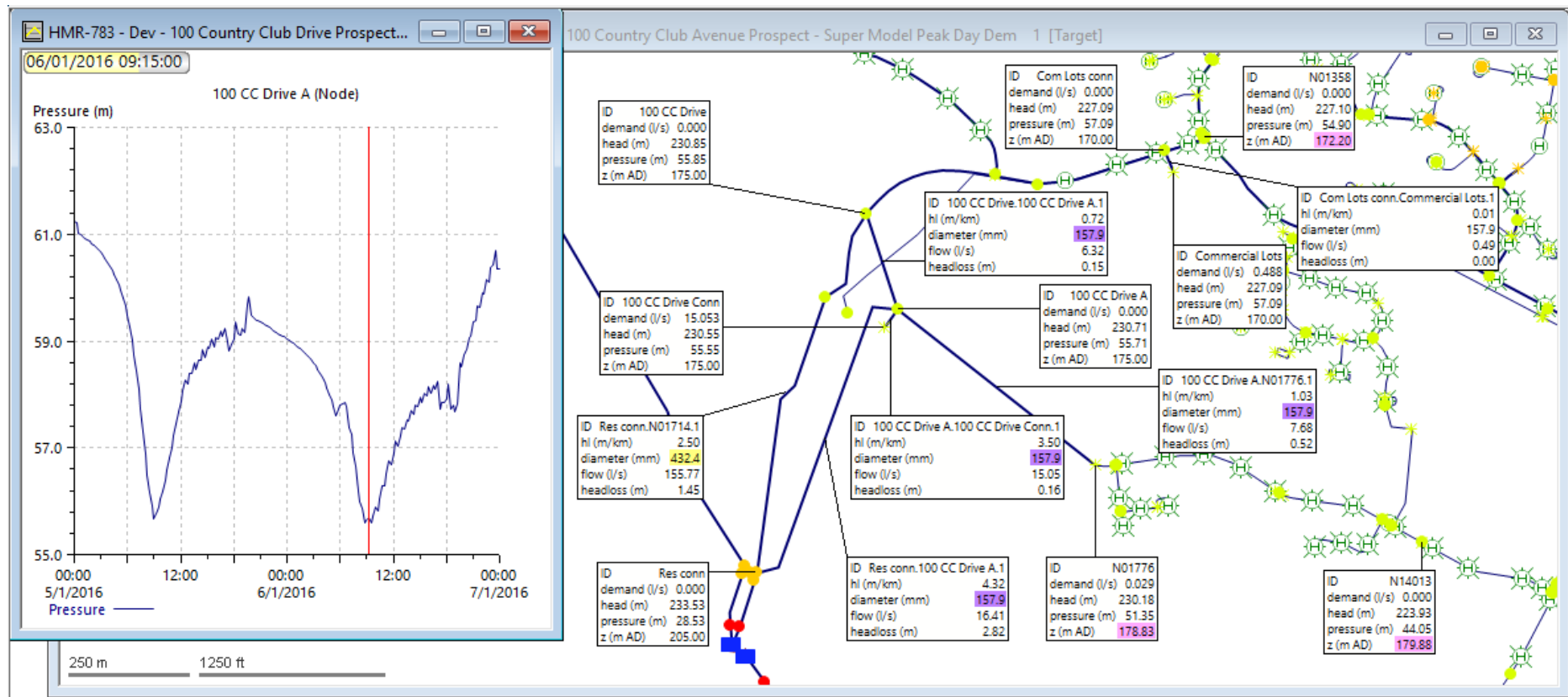
Peak day average flow = $2.25 \times 3.346 = 7.528 \text{ L/s}$.

Peak Hour flow = $7.528 \times 2 = 15.056 \text{ L/s}$

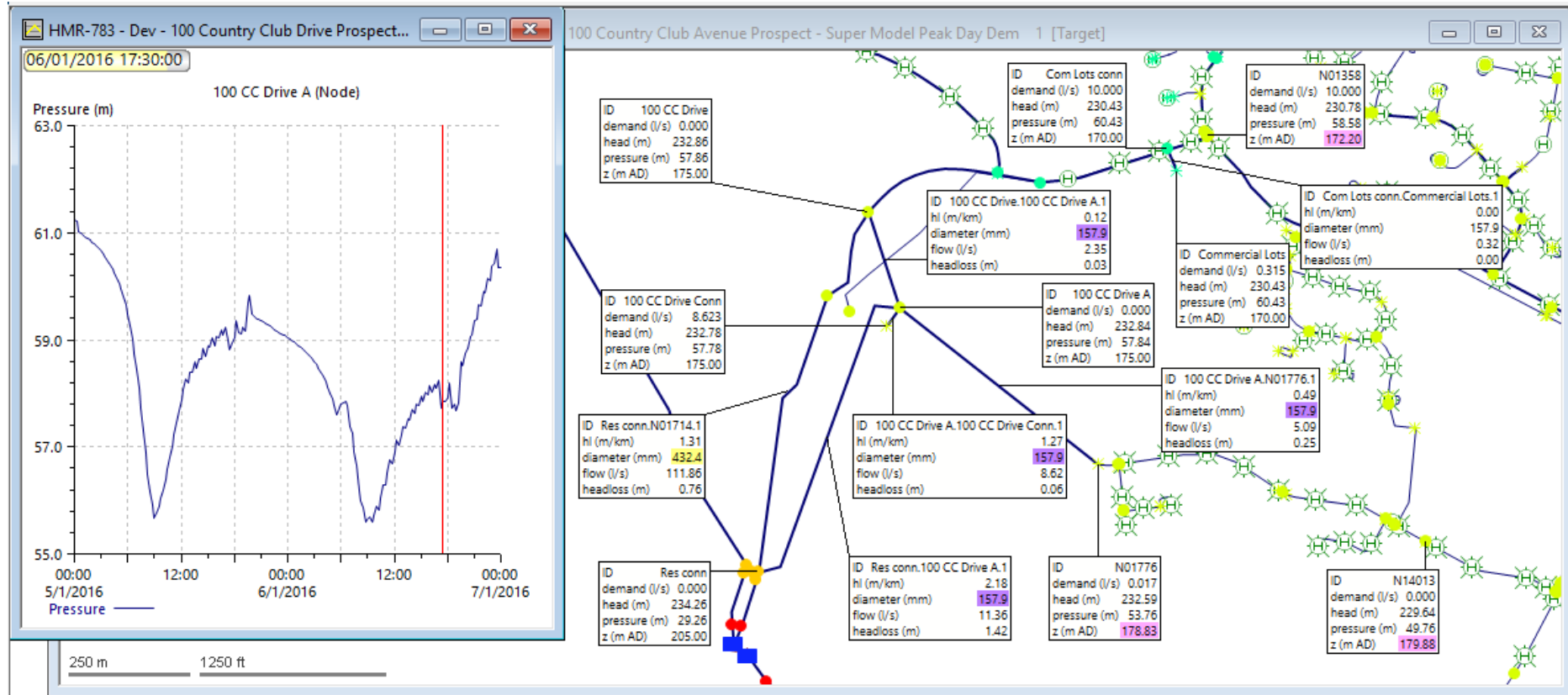
Flows and pressures on Peak Day at 9:15 am before development



Flows and pressures on Peak Day at 9:15 am after development



Flows and pressures on Peak Day at 5:30 pm, (17:30) after development with 2 x 10 L/s fire flows, (at nodes 'Comm Lots conn' and 'N01358'), top right of screen.



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Subiaco, WA 6904

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APPENDIX J2: CIVIL PLAN SET

PROVIDED BY: ADG

PROPOSED DEVELOPMENT

100 COUNTRY CLUB AVE, PROSPECT VALE, TASMANIA, 7250

CIVIL WORKS

NOTE:

- THE FOLLOWING INSPECTIONS MUST BE COMPLETED BY ADG ENGINEERS BEFORE ENGINEERING CERTIFICATION WILL BE ISSUED. THE CONTRACTOR IS TO PROVIDE A MINIMUM OF 72 HOURS NOTICE TO ADG FOR REQUIRED INSPECTIONS. SHOULD THE CONTRACTOR FAIL TO REQUEST AN INSPECTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS TO ALLOW FOR THE WORKS TO BE INSPECTED TO THE SATISFACTION OF ADG. ANY INSPECTIONS THAT FAIL ARE TO BE RE-INSPECTED WITH ALL REINSPECTION COSTS TO BE PAID BY THE CONTRACTOR.
- a) PRESTART
 - b) EARTHWORKS - FINAL STRIPPING OF TOPSOIL, INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
 - c) UNSUITABLE GROUND
 - d) SIDE AND CUT OFF DRAINS
 - e) STORMWATER PIPE LAID ON BEDDING PRIOR TO BACKFILL
 - f) STORMWATER TRENCH BACKFILLED PRIOR TO PAVEMENT PLACEMENT
 - g) STORMWATER STRUCTURE BASE SLABS
 - h) STORMWATER DETENTION TANKS

GENERAL NOTES:

- G1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE SHOWN.
- G2. ALL SETOUT ON SITE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO ALLOW FOR ALL MEANS NECESSARY TO ACCURATELY SETOUT THE WORKS.
- G3. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND WHERE FURTHER DETAILS ARE REQUIRED THE CONTRACTOR SHALL REFER TO MEANDER VALLEY COUNCIL (MVC) DEVELOPMENT GUIDELINES, LOCAL WATER AUTHORITY GUIDELINES, ASSOCIATED STANDARD DRAWINGS AND SPECIFICATIONS U.N.O.
- G4. SHOULD ANY OF THE CONSTRUCTED WORKS BE CONSTRUCTED OUTSIDE OF THE TOLERANCES SPECIFIED WITHIN THE PROJECT SPECIFICATION AND LOCAL AUTHORITY REQUIREMENTS, THE CONTRACTOR WILL RECTIFY AT THEIR COST INCLUSIVE OF ANY ADDITIONAL COSTS INCURRED BY ADG.
- G5. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. NO RESPONSIBILITY IS TAKEN BY ADG OR THE PRINCIPAL FOR THE ACCURACY AND COMPLETENESS OF THIS INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CONTRACTOR TO LOCATE AND PROTECT SERVICES AS REQUIRED DURING PROPOSED WORKS.
- G6. THE CONTRACTOR IS TO CHECK THROUGH LOCATING, POTHOLING AND SURVEY ALL CRITICAL CONNECTION POINTS FOR ALL CIVIL WORKS SHOWN ON THE DRAWINGS INCLUDING ANY POTENTIAL EXISTING SERVICES CLASHES PRIOR TO COMMENCEMENT OF CIVIL WORKS. CONTRACTOR TO IMMEDIATELY REPORT ANY DISCREPANCIES TO ADG AND AWAIT FORMAL DIRECTION PRIOR TO COMMENCING CIVIL WORKS.
- G7. ON COMPLETION OF SERVICES INSTALLATION, ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL LEVEL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS.
- G8. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO AUTHORITY/COUNCIL'S INFRASTRUCTURE. SUCH REPAIR OR REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF INFRASTRUCTURE OWNER/MANAGER / AUTHORITY/COUNCIL.
- G9. CONTRACTOR TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH ALL WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
- G10. WHERE ANY EXCAVATION OR CONSTRUCTION WORKS ARE TO BE IN CLOSE PROXIMITY TO NEIGHBOURING LOT BOUNDARIES OR INFRASTRUCTURE, CONTRACTOR TO ALLOW IN SCOPE OF WORKS TO PROVIDE ALL MEASURES NECESSARY TO ENSURE THE INTEGRITY OF EXISTING BOUNDARIES AND INFRASTRUCTURE. THIS MAY INCLUDE THE USE OF LOW VIBRATION EQUIPMENT, TRENCH SHORING ETC AS REQUIRED.
- G11. PRIOR TO THE CONTRACTOR COMMENCING ANY WORKS DETAILED ON THESE DRAWINGS, THE CONTRACTOR IS TO NOTIFY ADG ENGINEERS (AUST.) Pty. Ltd. AND RECEIVE WRITTEN CONFIRMATION THAT WORKS CAN COMMENCE
- G12. CONTRACTOR TO PROVIDE AS CONSTRUCTED DRAWINGS FOR ALL CONSTRUCTED WORKS IN ACCORDANCE WITH LOCAL GOVERNMENT REQUIREMENTS. UNLESS OTHERWISE ADVISED BY ADG ENGINEERS (AUST.) Pty. Ltd. CONTRACTOR TO NOTE COUNCILS ADAC REQUIREMENTS.
- G13. CONTRACTOR TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH RELEVANT APPROVALS.
- G14. CONTRACTOR TO ALLOW TO LIAISE/CO-ORDINATE WITH ELECTRICAL, LANDSCAPE AND OTHER SERVICE CONTRACTORS THROUGHOUT CIVIL CONSTRUCTION.

ADG CIVIL SERVICES

- i) BIO-RETENTION PRIOR TO INSTALLATION OF EACH LAYER
- j) SEWER RETICULATION
- k) WATER RETICULATION
- l) PAVEMENT SUBGRADE
- m) PAVEMENT REINFORCING
- n) PAVEMENT PRIOR TO SEALING (PRESEAL)
- o) RETAINING WALL FOOTING REINFORCING
- p) RETAINING WALL BLOCKWORK PRIOR TO CORE FILL
- q) STEEL REINFORCEMENT OF CONCRETE STRUCTURES
- r) PRACTICAL COMPLETION
- s) ON MAINTENANCE
- t) OFF MAINTENANCE
- u) ANY OTHER INSPECTION AS SPECIFIED BY LOCAL COUNCIL (REFER DEVELOPMENT APPROVAL)
- v) ANY OTHER INSPECTION AS REQUIRED BY THE WATER AUTHORITY AND WHERE RELEVANT TO THEIR CERTIFICATION SCHEME

LOCALITY PLAN

NOT TO SCALE



PROPERTY DESCRIPTION
LOT: C.T. 119422/1

DRAWING SCHEDULE

DRAWING No.	DRAWING TITLE
DA01	DRAWING SCHEDULE NOTES AND LOCALITY PLAN
DA02	PRELIMINARY FEATURES LAYOUT PLAN
DA03	PRELIMINARY OVERALL LAYOUT AND ROAD GRADING
DA04	PRELIMINARY EARTHWORKS LAYOUT PLAN
DA05	PRELIMINARY TYPICAL ROAD CROSS SECTIONS
DA06	PRELIMINARY PRE DEVELOPMENT CATCHMENT PLAN
DA07	PRELIMINARY POST DEVELOPMENT CATCHMENT PLAN
DA09	PRELIMINARY SEWER NETWORK LAYOUT
DA10	PRELIMINARY WATER RETICULATION PLAN

PRELIMINARY

NOT FOR CONSTRUCTION

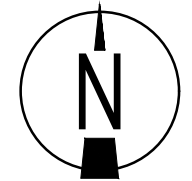
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						T 1300 657 402 F +617 3871 2266 E info@adgce.com W www.adgce.com BRISBANE / DARWIN / GOLD COAST / MELBOURNE / PERTH / SUNSHINE COAST / SYDNEY / TOOWOOMBA			Project No. 23337	Drawn By AGC	Scale at A1 NTS	
01 02.11.20 PRELIMINARY - ISSUED FOR INFORMATION				AGC	ST	The concepts and information contained in this document are the copyright of ADG Engineers (Aust) Pty Ltd. Use or copying of the document in whole or in part without the written permission of ADG Engineers (Aust) Pty Ltd constitutes an infringement of copyright. Do not scale drawings. If in doubt, ask!						Revision 01
Rev	Date	Description		By	Chk							

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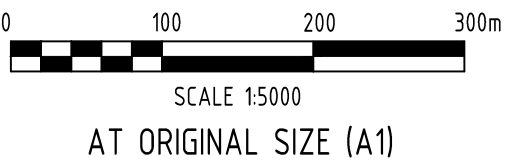
LEGEND

- SITE BOUNDARY
- EXISTING SURFACE CONTOURS
- LIMIT OF WORKS
- EXISTING SEWER
- EXISTING WATER
- EXISTING TELECOMMUNICATIONS
- EXISTING ELECTRICITY (RECORDS)



PRELIMINARY
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Rev	Date	Description	By	Chk
01	02.11.20	PRELIMINARY - ISSUED FOR INFORMATION	AGC	ST



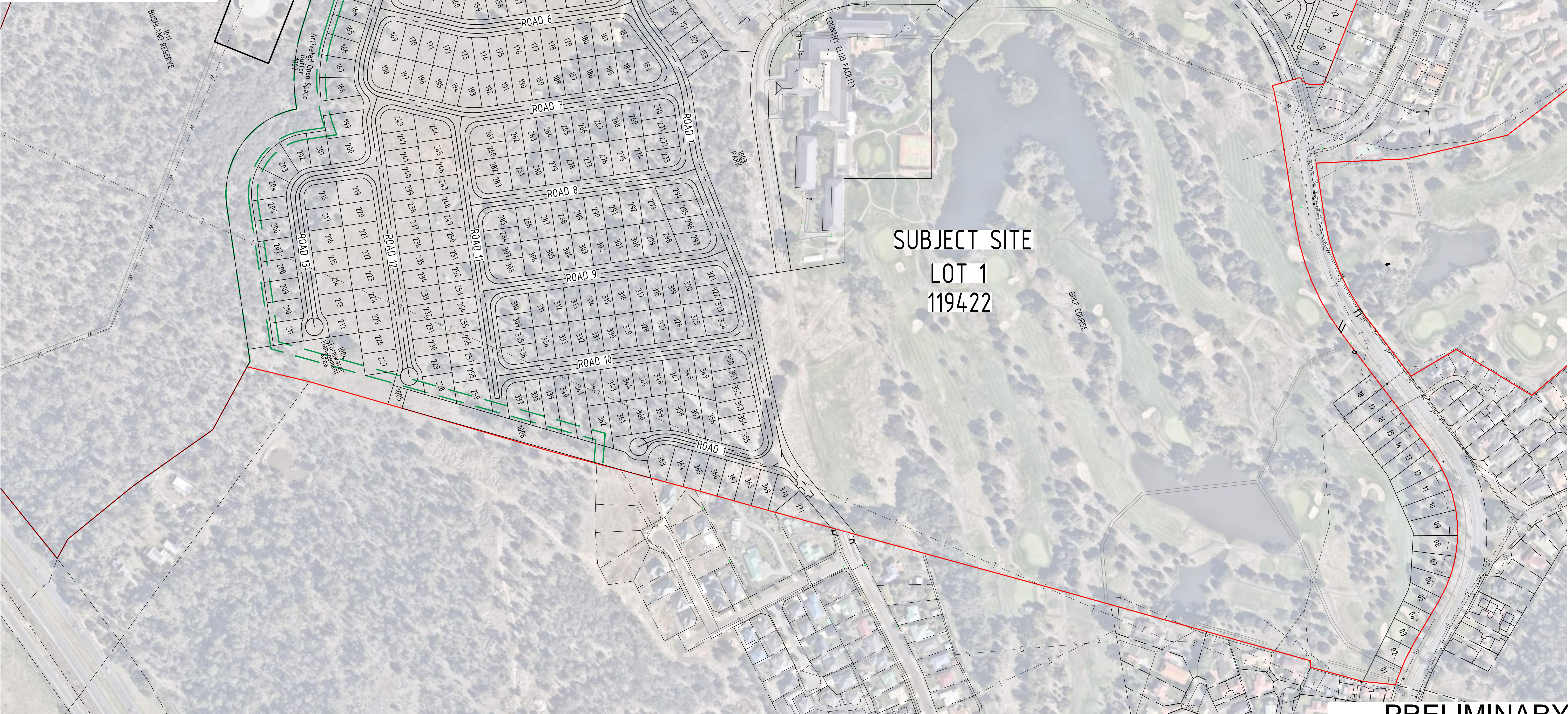
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Project Name: 100 COUNTRY CLUB AVE, PROSPECT VALE, TASMANIA, 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA

Discipline: CIVIL		Status: PRELIMINARY
Designed By: MRB	Checked By: ST	Approved By: JG
Project No: 23337	Drawn By: AGC	Scale at A1: 1:5000

Title: PRELIMINARY EXISTING FEATURES LAYOUT PLAN	
Drawing No: DA02	Revision: 01

LEGEND

-
- LIMIT OF WORKS
-
- SITE BOUNDARY
-
- EXISTING PROPERTY BOUNDARY
-
- EXISTING EASEMENT BOUNDARY
-
- EXISTING STORMWATER DRAINAGE
-
- EXISTING SEWER
-
- EXISTING WATER
-
- EXISTING TELECOMMUNICATION
-
- EXISTING ELECTRICITY (RECORDS)
-
- PROPOSED STORMWATER DRAINAGE
-
- PROPOSED SEWER
-
- PROPOSED WATER MAIN
-
- PROPOSED EASEMENTS
-
- INDICATIVE BUSH FIRE SET BACK



SUBJECT SITE
LOT 1
119422

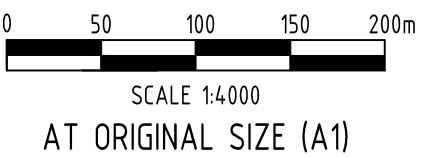
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Rev	Date	Description	By	Chk	

KINCAPITAL

Federal Group

ENGINE ROOMVM



ADG

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Client ENGINE ROOM VM (NSW) PTY LTD
Project Name 100 COUNTRY CLUB AVE PROSPECT VALE, TASMANIA, 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA

Discipline CIVIL	Status PRELIMINARY
Designed By MRB	Checked By ST
Project No. 23337	Drawn By AGC
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Title PRELIMINARY OVERALL LAYOUT AND ROAD GRADING	
Drawing No. DA03	Revision 02

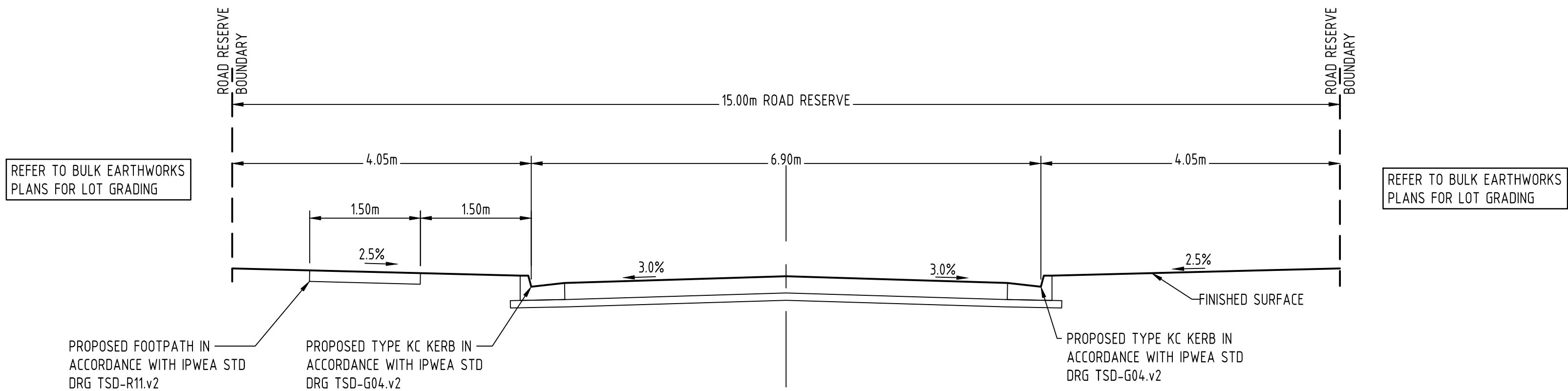


PRELIMINARY
NOT FOR CONSTRUCTION

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				Federal Group		Sydney Office Suite 1301, Level 13, 20 Berry Street North Sydney, New South Wales 2060, Australia		Project Name 100 COUNTRY CLUB AVE PROSPECT VALE, TASMANIA, 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA		Designed By MRB		Checked By ST		Approved By JG	
				ENGINE ROOMVM		T 1300 657 402 F +617 3871 2266 E info@adgce.com W www.adgce.com				Project No. 23337		Drawn By AGC		Scale at A1 1:2000	
						BRISBANE / DARWIN / GOLD COAST / MELBOURNE / PERTH / SUNSHINE COAST / SYDNEY / TOOWOOMBA				The concepts and information contained in this document are the copyright of ADG Engineers (Aust) Pty Ltd. Use or copying of the document in whole or in part without the written permission of ADG Engineers (Aust) Pty Ltd constitutes an infringement of copyright. Do not scale drawings. If in doubt, ask!				Drawing No. DA04	
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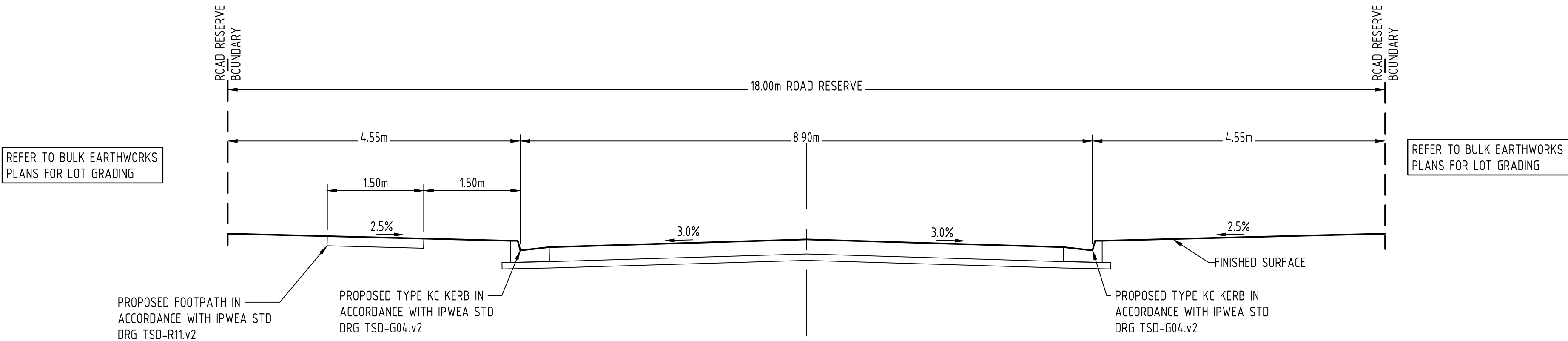
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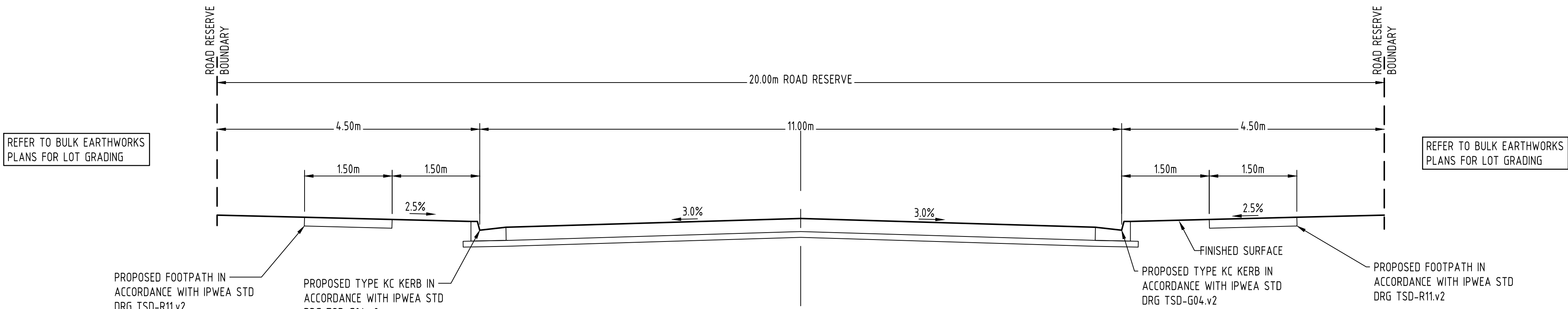
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6.9m PAVEMENT (15m ROAD RESERVE)
SCALE 1:50



18.00m ROAD RESERVE TYPICAL SECTION - ROADS 2-13

8.9m PAVEMENT (18m ROAD RESERVE)
SCALE 1:50

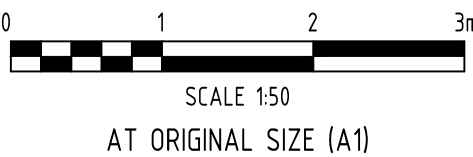


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SCALE 1:50

PRELIMINARY
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01	02.11.20	PRELIMINARY - ISSUED FOR INFORMATION			AGC ST
Rev	Date	Description			By Chk



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SUNSHINE COAST / SYDNEY / TOOWOOMBA

Client ENGINE ROOM VM (NSW) PTY LTD		Discipline CIVIL		Status PRELIMINARY	
Project Name 100 COUNTRY CLUB AVE PROSPECT VALE, TASMANIA, 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA		Designed By MRB	Checked By ST	Approved By JG	Title PRELIMINARY TYPICAL ROAD CROSS SECTIONS
		Project No. 23337	Drawn By AGC	Scale at A1 1:50	
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					Revision 01

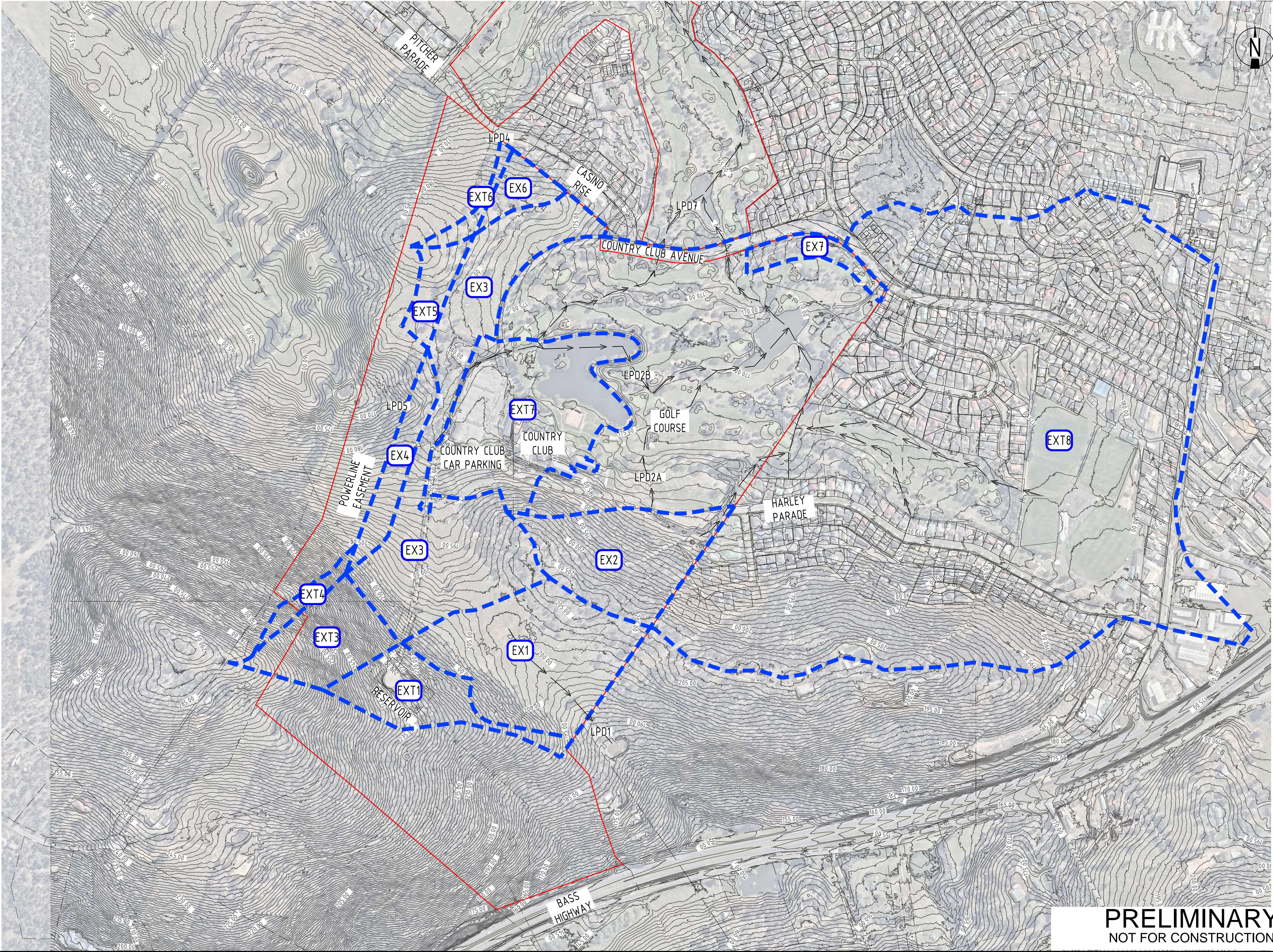
LEGEND

- PREDEVELOPMENT CATCHMENT BOUNDARY
- WATER COURSE
- C1

CATCHMENT LABEL
- FLOW DIRECTION

CATCHMENT TABLE (POST DEVELOPMENT)

CATCHMENT	AREA (ha)	FRACTION IMPERVIOUS
EX1	10.27	0.00
EX2	7.22	0.00
EX3	15.23	0.00
EX4	2.30	0.00
EX6	1.38	0.00
EX7	1.42	0.00
EXT1	4.22	0.09
EXT3	4.38	0.00
EXT4	0.79	0.00
EXT5	1.26	0.00
EXT6	1.06	0.00
EXT7	11.36	0.30



PRELIMINARY
NOT FOR CONSTRUCTION

02	13.11.20	PRELIMINARY - ISSUED FOR INFORMATION		DE	ST
01	02.11.20	PRELIMINARY - ISSUED FOR INFORMATION		AGC	ST
Rev	Date	Description		By	Chk

KINCAPITAL

Federal Group

ENGINE ROOMVM

0 50 100 150 200m
SCALE 1:4000
AT ORIGINAL SIZE (A1)

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Client: ENGINE ROOM VM (NSW) PTY LTD

Project Name
100 COUNTRY CLUB AVE
PROSPECT VALE, TASMANIA, 7250
BRYCE GORHAM GOLF CENTRE
AND COUNTRY CLUB TASMANIA

Discipline
CIVIL

Designed By
MRB

Project No.
23337

Checked By
ST

Drawn By
AGC

Status
PRELIMINARY

Approved By
JG

Scale at A1
1:4000

Title
PRELIMINARY PRE DEVELOPMENT
CATCHMENT PLAN

Drawing No.
DA06

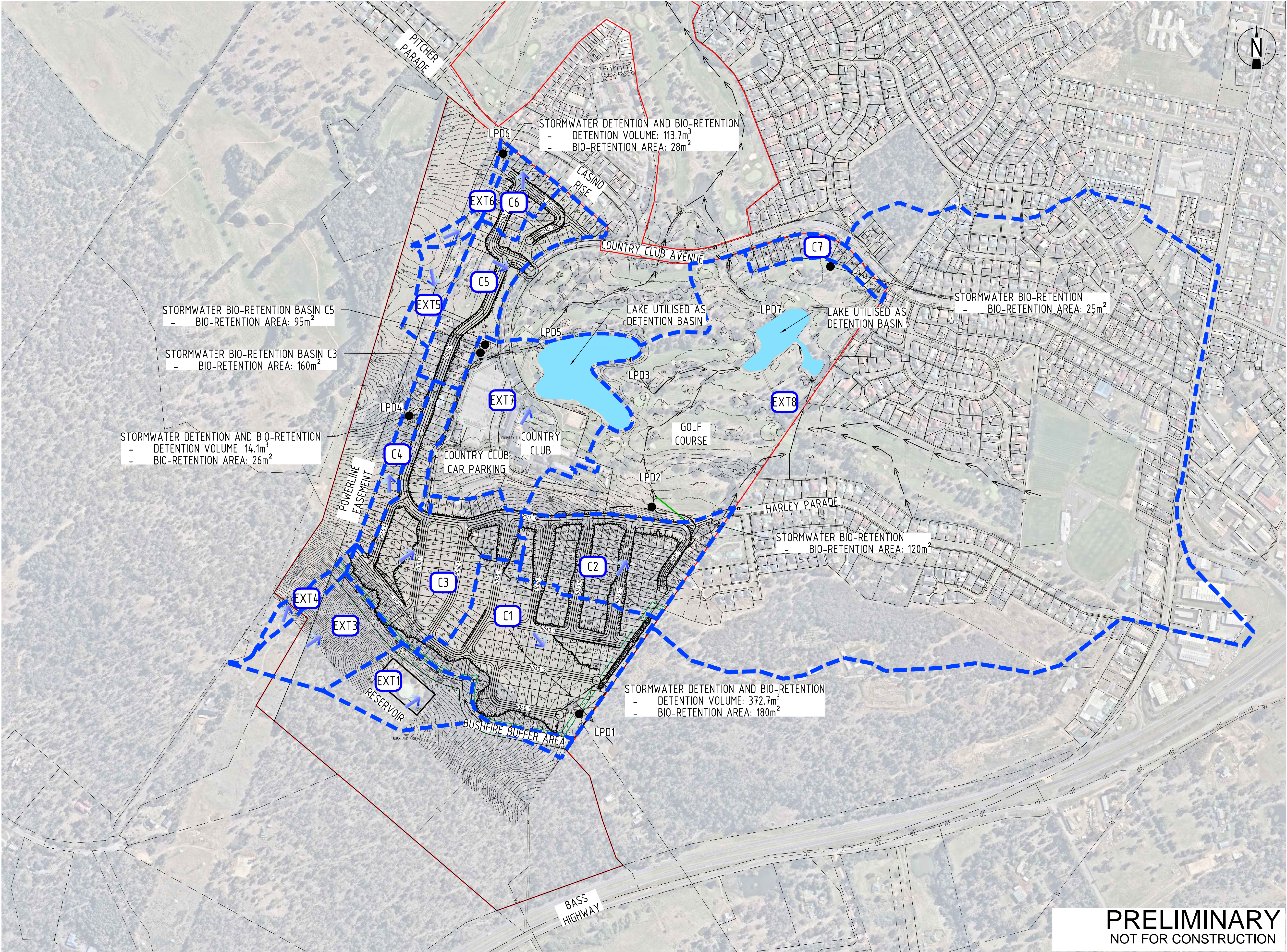
Revision
02

LEGEND

- PREDEVELOPMENT CATCHMENT BOUNDARY
- WATER COURSE
- C1

CATCHMENT LABEL
- FLOW DIRECTION
- SITE BOUNDARY

CATCHMENT TABLE (POST DEVELOPMENT)		
CATCHMENT	AREA (ha)	FRACTION IMPERVIOUS
C1	10.96	0.50
C2	6.92	0.50
C3	9.37	0.50
C4	1.46	0.50
C5	5.43	0.50
C6	1.67	0.50
C7	1.45	0.50
EXT1	4.22	0.09
EXT3	4.38	0.00
EXT4	0.79	0.00
EXT5	1.26	0.00
EXT6	1.06	0.00
EXT7	11.36	0.30
EXT8	110.21	0.27



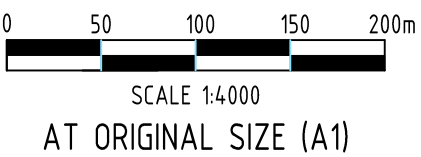
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ENGINE ROOMVM



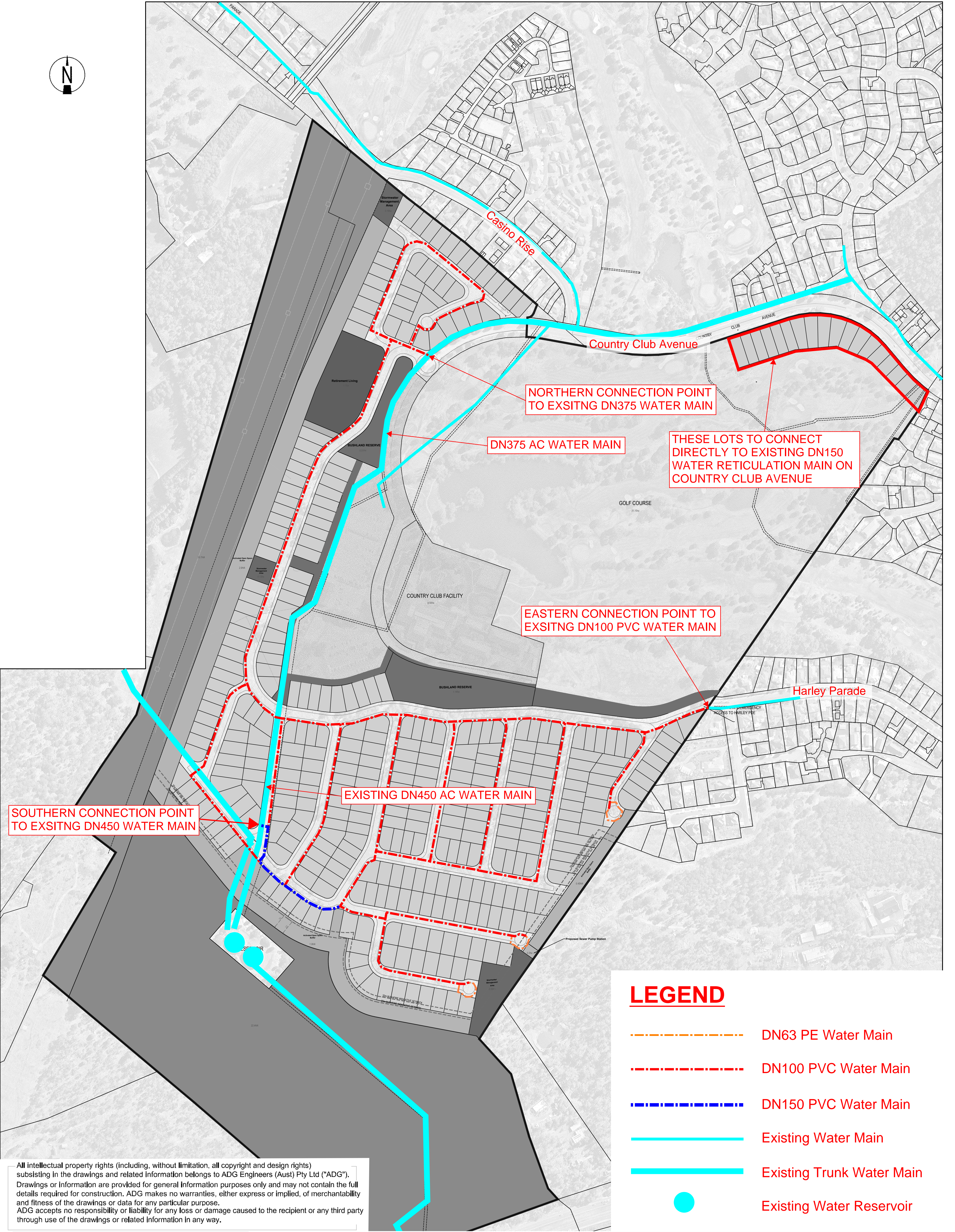
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Client ENGINE ROOM VM (NSW) PTY LTD
Project Name 100 COUNTRY CLUB AVE PROSPECT VALE, TASMANIA, 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA

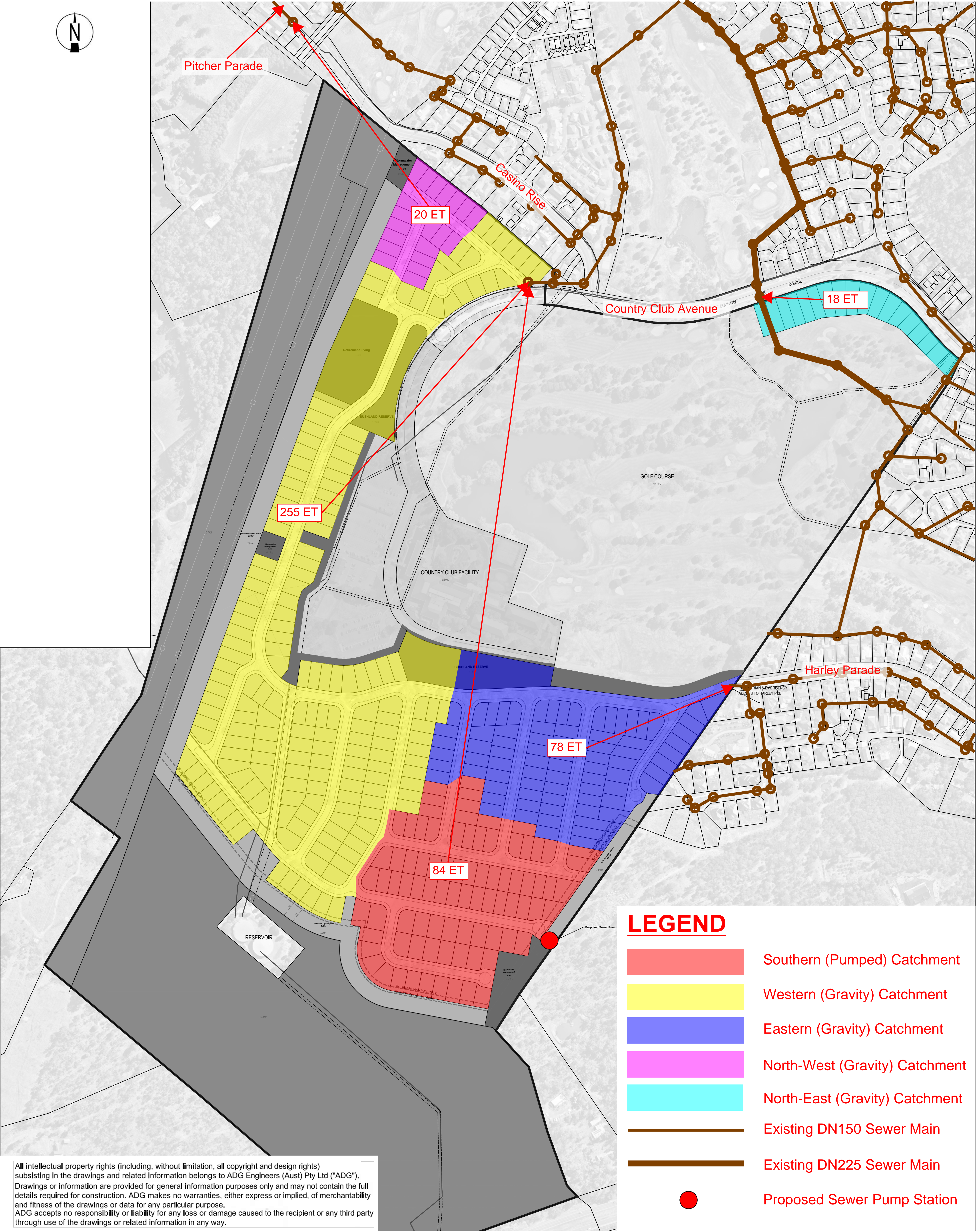
Discipline CIVIL	Status PRELIMINARY
Designed By MRB	Checked By ST
Project No. 23337	Drawn By AGC
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Title	
PRELIMINARY POST DEVELOPMENT CATCHMENT PLAN	
Drawing No.	Revision
DA07	02



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				Project Name 100 COUNTRY CLUB AVE PROSPECT VALE TASMANIA 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA	Designed By MRB	Checked By ST	Approved By JG	
					Project No. 23337	Drawn By MRB	Scale NTS (at A3)	
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LEGEND

- Southern (Pumped) Catchment
- Western (Gravity) Catchment
- Eastern (Gravity) Catchment
- North-West (Gravity) Catchment
- North-East (Gravity) Catchment
- Existing DN150 Sewer Main
- Existing DN225 Sewer Main
- Proposed Sewer Pump Station

				Client ENGINE ROOM VM (NSW) Pty Ltd	Discipline CIVIL		Status INFORMATION	Title PRELIMINARY PROPOSED SEWAGE CATCHMENT PLAN		
				Project Name 100 COUNTRY CLUB AVE PROSPECT VALE TASMANIA 7250 BRYCE GORHAM GOLF CENTRE AND COUNTRY CLUB TASMANIA	Designed By MRB	Checked By ST	Approved By JG			
					Project No. 23337	Drawn By MRB	Scale NTS (at A3)			
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Rev	Date	Description								