

DRAFT

Appendix H

EPA Publication 1671

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Publication 1671
February 2018



Buckingham Reserve, Brooklyn VIC



Environment
Protection
Authority Victoria



Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Overview

Closed landfills can pose a wide range of risks to the environment and human health, and should be considered during any land use planning decisions. The Victorian Auditor General's 2014 report on landfill management in Victoria, recommendation number 5, states that "Councils work with the Environment Protection Authority and the regional waste and resource recovery groups to identify closed landfills, assess their risks and prioritise actions at a regional scale to address these". This self-assessment tool has been developed for Councils to use to identify and understand the risks associated with closed landfills in their municipalities.

Landfill details

Closed landfill name:	Wantirna Reserve
Address:	61 Mountain Highway, Wantirna, Victoria
Previous licence number (if available):	N/A
GIS location (decimal degrees):	
Approximate year of commencement:	1967
Approximate year of closure:	1975
Date of assessment:	25/07/2019
Assessor (name and council):	AECOM - on behalf of Knox City Council
Overall assessment score (from page 11):	

Assessors are encouraged to take photos of the site during risk assessments so they are available should further assessment be required.

Relevant document links to support assessment are available in the glossary section on page 13.

Risk matrix and actions required

A score of 37 or more:

Based on assessment, potentially low risk. Consider when future re-assessment should be undertaken.

A score of 31 to 36:

Contact your local EPA office to discuss the future management of the site for the risks identified.

A score of 30 or less:

Contact your local EPA office, as an EPA Site Inspection may be recommended.

Please note: If you provide this document to EPA, EPA will use some of the data provided to inform other landfill programs, and the location data may be published in public data sets. Please contact EPA if this raises any concerns for you.

Further information

For further information about this self-assessment tool or any required actions please visit www.epa.vic.gov.au, call EPA on 1300 372 842 (1300 EPA VIC), email contact@epa.vic.gov.au or contact your regional EPA office:

EPA North West, Bendigo Office

northwest.mailbox@epa.vic.gov.au

EPA South West, Geelong Office

southwestoffice@epa.vic.gov.au

EPA North East, Wangaratta Office

epa.northeast@epa.vic.gov.au

EPA Gippsland, Traralgon Office

epa.gippsland@epa.vic.gov.au

EPA Southern Metro, Dandenong Office

southmetro.planning@epa.vic.gov.au

EPA Metropolitan Office

contact@epa.vic.gov.au

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Section 1: LOCATION ATTRIBUTES		
1.1 Distance to nearest sensitive receptors Environmental <ul style="list-style-type: none"> • rivers • creeks • storages • groundwater bore i.e. stock/domestic /irrigation Human <ul style="list-style-type: none"> • residential • hospitals • child care centres • gathering or meeting places • any other structures (schools, shopping centres, medical centres etc.) 	Score (circle number)	
	>1km	3
	500m – 999m	2
	250m – 499m	1
	<250m	0
1.2 Geological sensitivity to landfill activities	Score (circle number)	
	Low sensitivity e.g. thick laterally contiguous clay/less fractured hard rocks	3
	Medium sensitivity e.g. clay overlying fractured basalt	2
	High sensitivity e.g. sand, sandstone, fractured basalt or other high permeability strata	1
1.3 Engineered cells	Score (circle number)	
	Fully engineered to current BPEM standards	3
	Engineered to some level but not to current BPEM standards	2
	Combination of lined and unlined cells	1
	No engineered/lined cells	0

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

1.4 Groundwater quality (SEPP) Refer to Table 1 on page 13	Score (circle number)	
	D	5
	C	4
	B	3
	A2	2
	A1	1
LOCATION ATTRIBUTES Add circled scores in 1.1 to 1.4 and enter total here		TOTAL SCORE – SECTION 1

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Section 2: MANAGEMENT ATTRIBUTES		
2.1 Volume of waste filled (tonnes per annum) Note: if you are not sure of volumes, consider number of cells, dimensions, estimate volumes/cubic metres		Score (circle number)
	1000 – 5000	5
	5001 – 10000	4
	10001 – 20000	3
	20001 – 50000	2
	50000+	1
Approximate total waste tonnage at the landfill (tonnes)		---
2.2 Waste types accepted/licensed		Score (circle number)
	Clean fill only	5
	Solid inert and clean fill	4
	Putrescible, solid inert and clean fill	3
	Industrial, PASS/ASS, putrescible, solid inert and clean fill	2
	PIW, industrial, PASS/ASS, putrescible, solid inert and clean fill	1

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

		Score (circle number)
2.3 Gas control Provide additional comments on page 12	Landfill gas control not required – this MUST have been demonstrated by an APPROPRIATE landfill gas risk assessment	6
	Gas extraction and combustion in engines or flares on all cells from which it is required	5
	Gas extraction and combustion from some cells, some require extraction systems installing	4
	Biocover/biofilter cap used for oxidation of landfill gas – this MUST have been used due a landfill gas risk assessment proving low gas production at the site	3
	Installed venting systems i.e. venting towers or trenches	2
	Landfill is partially or fully capped but no landfill gas control, but it is required	1
	Landfill is not capped (so no landfill gas control at all)	0
		Score (circle number)
2.4 Leachate control	Leachate extracted from dedicated sumps in each cell with appropriate treatment/disposal/evaporation	5
	Leachate extracted from dedicated sumps in each cell but questionable disposal methods (i.e. irrigation to land or waste mass with no treatment)	4
	Leachate extracted but no dedicated sumps in each cell, but with appropriate treatment/disposal/evaporation	3
	Leachate extracted but no dedicated sumps in each cell and with questionable disposal methods (see above)	2
	No leachate extraction and disposal	1

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		Score (circle number)
2.5 Stormwater/ surface water control	Evapotranspiration capping, surface water diversion from toe drains and storage dam in use.	4
	Conventional capping, surface water diversion from active areas, toe drains and storage dam in use.	3
	Some surface water diversion/control from active and restored/finished areas, storage dam in use	2
	No surface water control on active area, some control on finished areas	1
	No surface water control	0
MANAGEMENT ATTRIBUTES Add circled scores in 2.1 to 2.5 and enter here		TOTAL SCORE – SECTION 2

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Section 3: MONITORING		
3.1 Groundwater monitoring Think about monitoring infrastructure/equipment design, type, location, frequency of monitoring and training of monitoring staff	Score (circle number)	
	Sufficient	3
	Some, but not sufficient	2
	None	1
3.2 Gas monitoring Think about monitoring infrastructure/equipment design, type, location, frequency of monitoring and training of monitoring staff	Score (circle number)	
	Sufficient	3
	Some, but not sufficient	2
	None	1
3.3 Leachate monitoring Think about monitoring infrastructure/equipment design, type, location, frequency of monitoring and training of monitoring staff	Score (circle number)	
	Sufficient	3
	Some, but not sufficient	2
	None	1
3.4 Surface water monitoring Think about monitoring infrastructure/equipment design, type, location, frequency of monitoring and training of monitoring staff	Score (circle number)	
	Not required	3
	Sufficient	2
	Some, but not sufficient	1
	None	0
3.5 Cap maintenance program	Score (circle number)	
	Not required	3
	Sufficient	2
	Some, but not sufficient	1
	None	0
MONITORING Add circled scores in 3.1 to 3.5 and enter here		TOTAL SCORE – SECTION 3

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Section 4: GAS, GROUNDWATER AND SURFACE WATER RISKS		
Based on findings/scores from location, management and monitoring sections of this tool		
4.1 Groundwater risk Think about hydrogeology, groundwater quality, engineering, topography, waste types, leachate control, leachate and groundwater monitoring	Score (circle number)	
	Insignificant	5
	Minor	4
	Moderate	3
	Serious	2
	Major	1
4.2 Gas risk Think about geology, engineering, waste types and their potential for gas generation, waste age, leachate control and gas monitoring	Score (circle number)	
	Insignificant	5
	Minor	4
	Moderate	3
	Serious	2
	Major	1
4.3 Surface water risk Think about the need for surface water control, erosion of the capping material, pollution of surrounding land and water features by run-off/discharges	Score (circle number)	
	Insignificant	5
	Minor	4
	Moderate	3
	Serious	2
	Major	1
GAS, GROUNDWATER AND SURFACE WATER RISKS Add circled scores in 4.1 to 4.3 and enter here	TOTAL SCORE – SECTION 4	

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Section 5: OFF-SITE ISSUES AND MANAGEMENT		
Are there community complaints regarding this site?	Yes <input type="radio"/> No <input checked="" type="radio"/>	If yes, is there a register and where is it kept?
Are there signs of litter beyond the boundaries?	Yes <input type="radio"/> No <input checked="" type="radio"/>	If yes, does council have a program to pick it up?

Section 6: CELLS, REHABILITATION AND MONITORING		
6.1 Does Council know how many cells have been created at this site?	Yes <input type="radio"/> No <input checked="" type="radio"/>	If yes, how many and what type of construction are they (lined, dug hole, cut and fill trench, etc.)?
6.2 Have there been any rehabilitation works undertaken?	Score (circle number)	
	Complete (BPEM)	5
	Well covered (soil/grass)	<input checked="" type="radio"/> 4
	Partially covered	3
	No cover	2
	Unknown	1
CELLS, REHABILITATION AND MONITORING Enter circled score from 6.2 here		TOTAL SCORE – SECTION 6

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

OVERALL SITE RISKS		
<p>Add the total scores from each section of the completed risk assessment.</p> <p>Compare the total assessment score with the risk matrix on page 2.</p>	Score (insert number)	
	Section 1	6
	Section 2	10
	Section 3	5
	Section 4	13
	Section 6	4
	OVERALL ASSESSMENT SCORE	39

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Glossary

ASS – Acid sulfate soils

BPEM – Best practice environmental management

PASS – Potential acid sulfate soils

PIW – Prescribed industrial waste

SEPP – State environment protection policy

TDS – Total dissolved solids

Groundwater segments

Table 1 – Segments

Segment	A1	A2	B	C	D
TDS range (mg/L)	0-500	501-1000	1001-3500	3501-13000	Greater than 13000

Table 2 – Protected beneficial uses of the segments (taken from page 8, SEPP Groundwaters of Victoria)

Beneficial uses	Segments (mg/L Total dissolved solids)				
	A1 (0-500)	A2 (501-1000)	B (1001-3500)	C (3501-13000)	D (Greater than 13000)
1. Maintenance of ecosystems	✓	✓	✓	✓	✓
2. Potable water supply					
Desirable	✓				
Acceptable		✓			
3. Potable mineral water supply	✓	✓	✓		
4. Agriculture, parks and gardens	✓	✓	✓		
5. Stock watering	✓	✓	✓	✓	
6. Industrial water use	✓	✓	✓	✓	✓
7. Primary contact recreation (e.g. bathing, swimming)	✓	✓	✓	✓	
8. Building and structures	✓	✓	✓	✓	✓

<http://www.epa.vic.gov.au/our-work/publications/publication/1997/december/s160>

Local Council Self-Assessment Tool for Closed Landfill Environmental Risk

Useful references

- Local council self-assessment tool for closed landfill environmental risk
www.epa.vic.gov.au/business-and-industry/guidelines/landfills-guidance/local-council-self-assessment-tool-for-closed-landfill-environmental-risk
- Closed landfill self-assessment tool background information
www.epa.vic.gov.au/business-and-industry/guidelines/landfills-guidance/local-council-self-assessment-tool-for-closed-landfill-environmental-risk/closed-landfill-self-assessment-tool-background-information
- How to use the closed landfill self-assessment tool
www.epa.vic.gov.au/business-and-industry/guidelines/landfills-guidance/local-council-self-assessment-tool-for-closed-landfill-environmental-risk/how-to-use-the-closed-landfill-self-assessment-tool
- *Landfills exempt from licensing* guideline (EPA publication 1563)
www.epa.vic.gov.au/our-work/publications/publication/2017/october/1563-1
- *Closed landfill guidelines* (EPA publication 1490)
www.epa.vic.gov.au/our-work/publications/publication/2018/january/1490-1
- *BPEM Siting, design, operation and rehabilitation of landfills* (EPA publication 788)
www.epa.vic.gov.au/our-work/publications/publication/2015/august/788-3
- State environment protection policies (SEPPs)
www.epa.vic.gov.au/about-us/legislation/state-environment-protection-policies
- Acid sulfate soils and potential acid sulfate soils:
ASS should not be deposited below the water table and should be covered immediately upon deposit.
PASS should be deposited below the water table to remain away from atmospheric O₂ and therefore not oxidised to ASS.
www.qld.gov.au/environment/land/soil/acid-sulfate/explained/
- Prescribed industrial waste
www.epa.vic.gov.au/business-and-industry/guidelines/waste-guidance/prescribed-industrial-waste-classifications
- Aerial imagery
unimelb.libguides.com/c.php?g=402933&p=2741720
maps-collection.library.unimelb.edu.au/historical/1945melb/
www.ga.gov.au/flight-diagrams/index.jsp
- Google Maps and Google Earth
goo.gl/NDV7Lq
- Geological and soil maps
earthresources.efirst.com.au/Default.asp?c=275924
www.data.vic.gov.au/data/dataset/victorian-soil-type-mapping
- Groundwater bores
maps.cerdi.com.au/wg.php

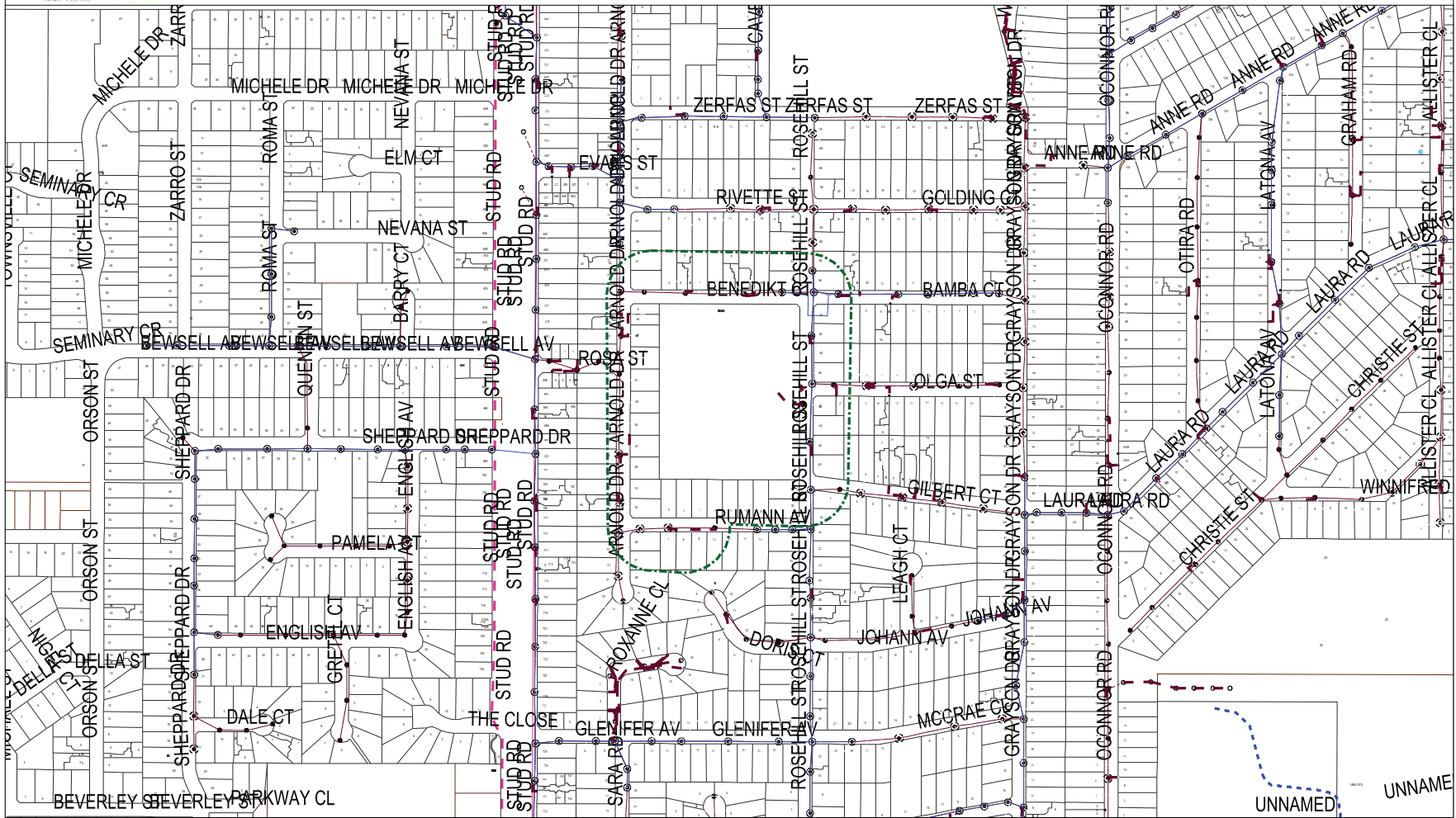
Knox Hockey Facility Feasibility Study

16/12/2019

Appendix E - DBYD Asset Plans



OVERVIEW ONLY - NOT FOR EXCAVATION PURPOSES



0m 90m 180m 270m 360m



Plot Date: 24/10/2019

Warning!

Please be advised this is a high level representation only and may not indicate all AusNet Services assets in the area or the exact location of identified assets. This plan must not be used for the purpose of ascertaining asset locations for excavation. Please read all conditions and information on the attached information sheets.

Note: The information contained on this plan is only valid for 28 days from the date of issue.

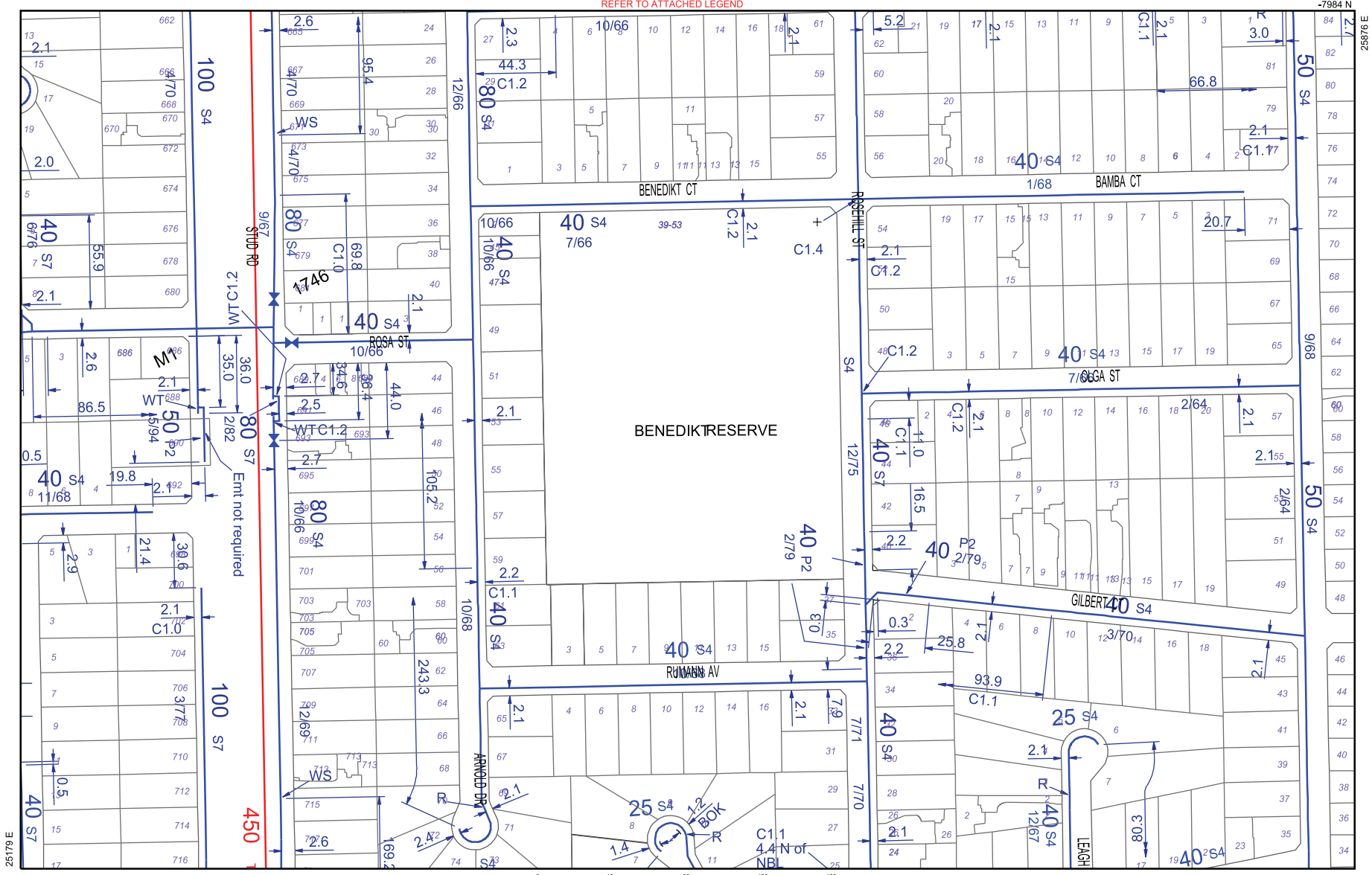
Directory Reference

- Melway 7216
- Vic Roads 438 F 13
- ESMAP 709 E11
- Yarra 2,500/19.4

AMG Extents

SW: 343936 E 5803925 N
 NE: 345558 E 5804859 N

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MULTINET GAS
ABN 53 634 214 009




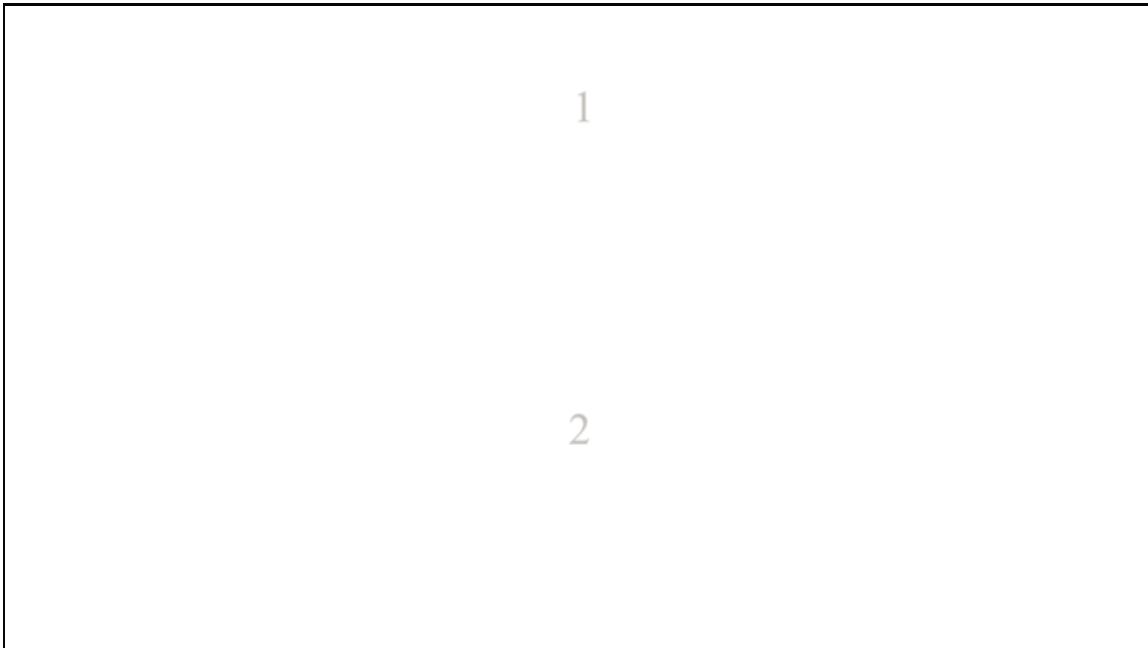
E 61152

-7984 N
E 91832








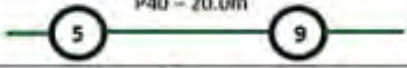
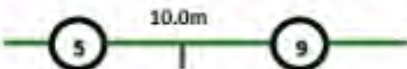







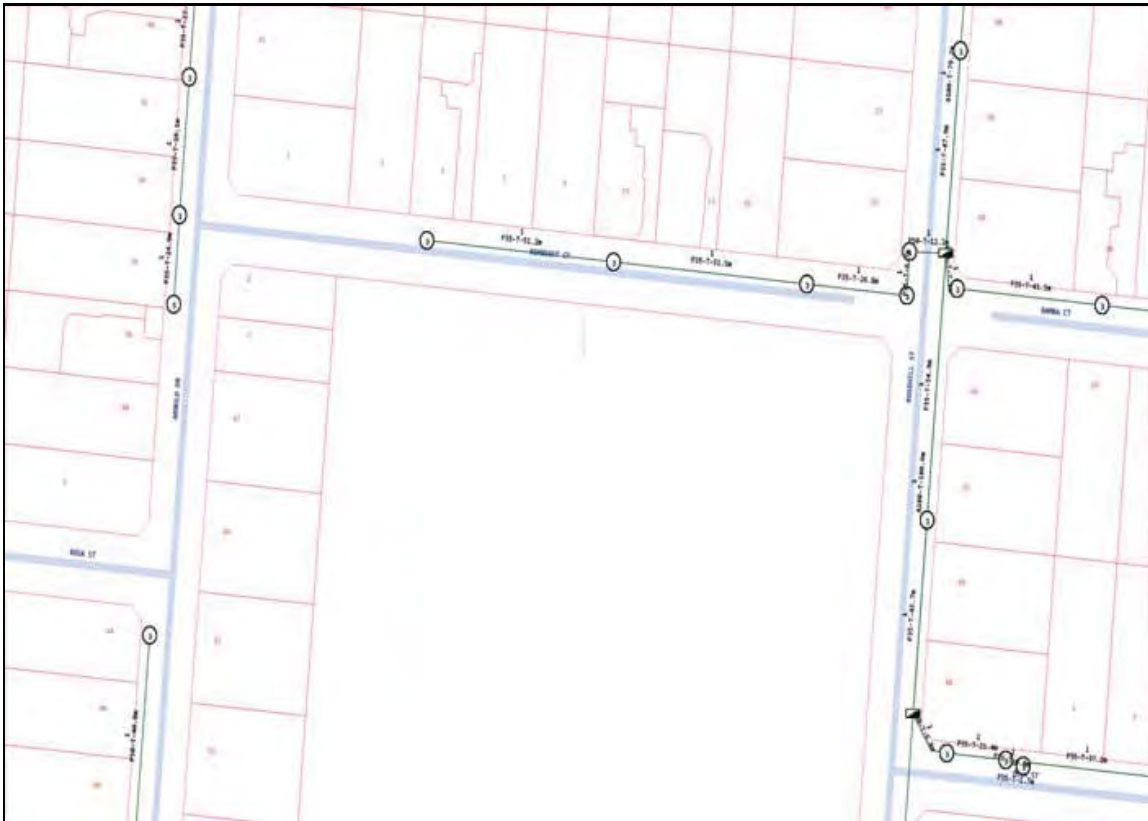
Indicative Plans

Issue Date:	22/10/2019	 The logo features a red circle with a diagonal slash over a black silhouette of a person digging. To the right, the text 'DIAL BEFORE YOU DIG' is written in bold, with 'DIAL BEFORE' in red and 'YOU DIG' in black. Below this, the website 'www.1100.com.au' is printed in a smaller font.
Location:	39-53 Rosehill Street , Scoresby , VIC , 3179	





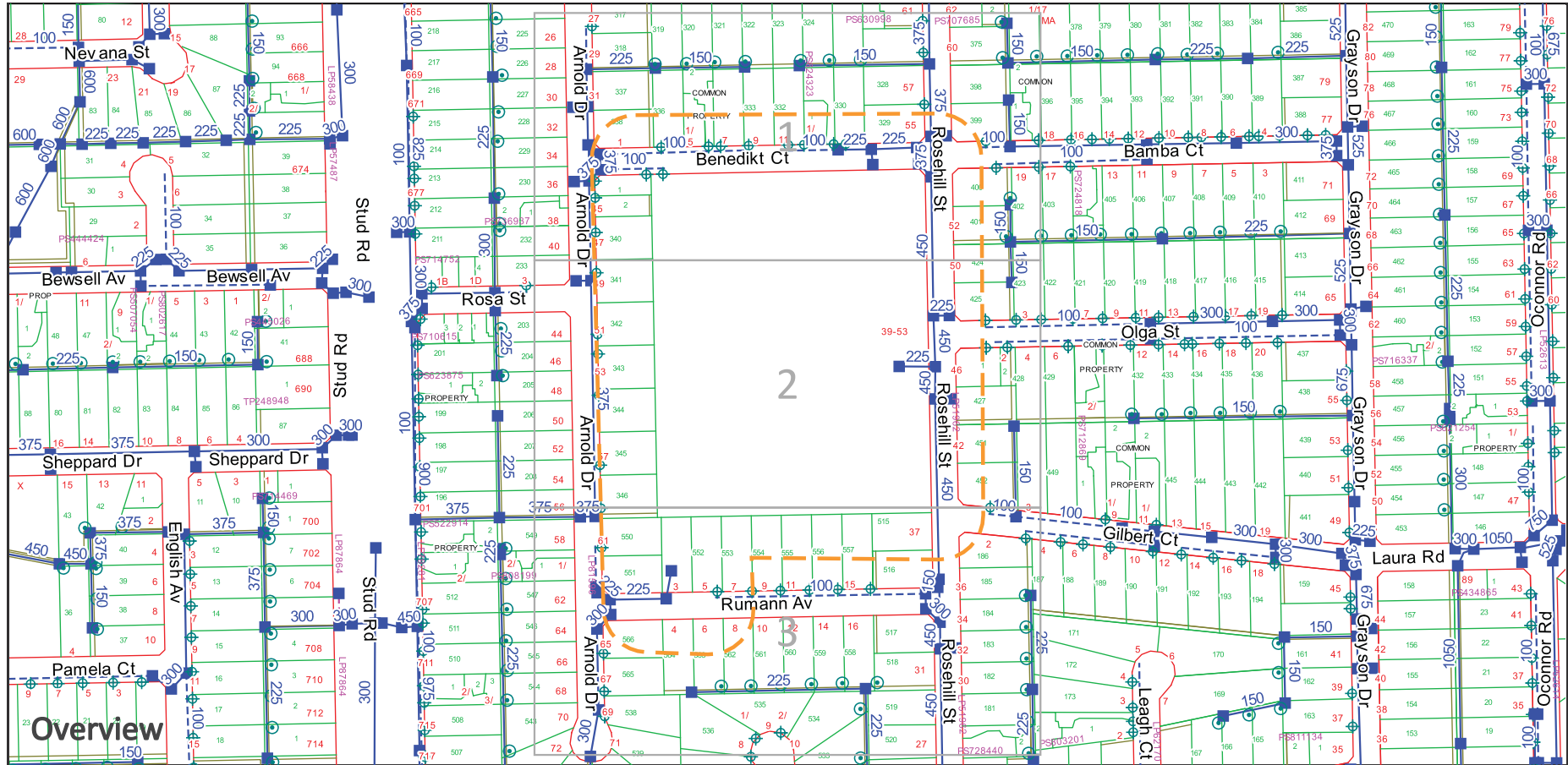
 LEGEND 	
	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
<p>2 PO - T- 25.0m P40 - 20.0m</p> 	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
<p>2 10.0m</p> 	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	<p>0 20 40 60 Meters</p> <p>1:2000 1 cm equals 20 m</p> 





Council's Dial Before You Dig Officer
 KNOX CITY COUNCIL
 Phone: 03 9298 8846
dial.dig@knox.vic.gov.au

Sequence No: 91345505
 Job No: 18436448
 Location: 39-53 Rosehill Street, Scoresby, VIC 3179



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Legend | Scale: 1:3075

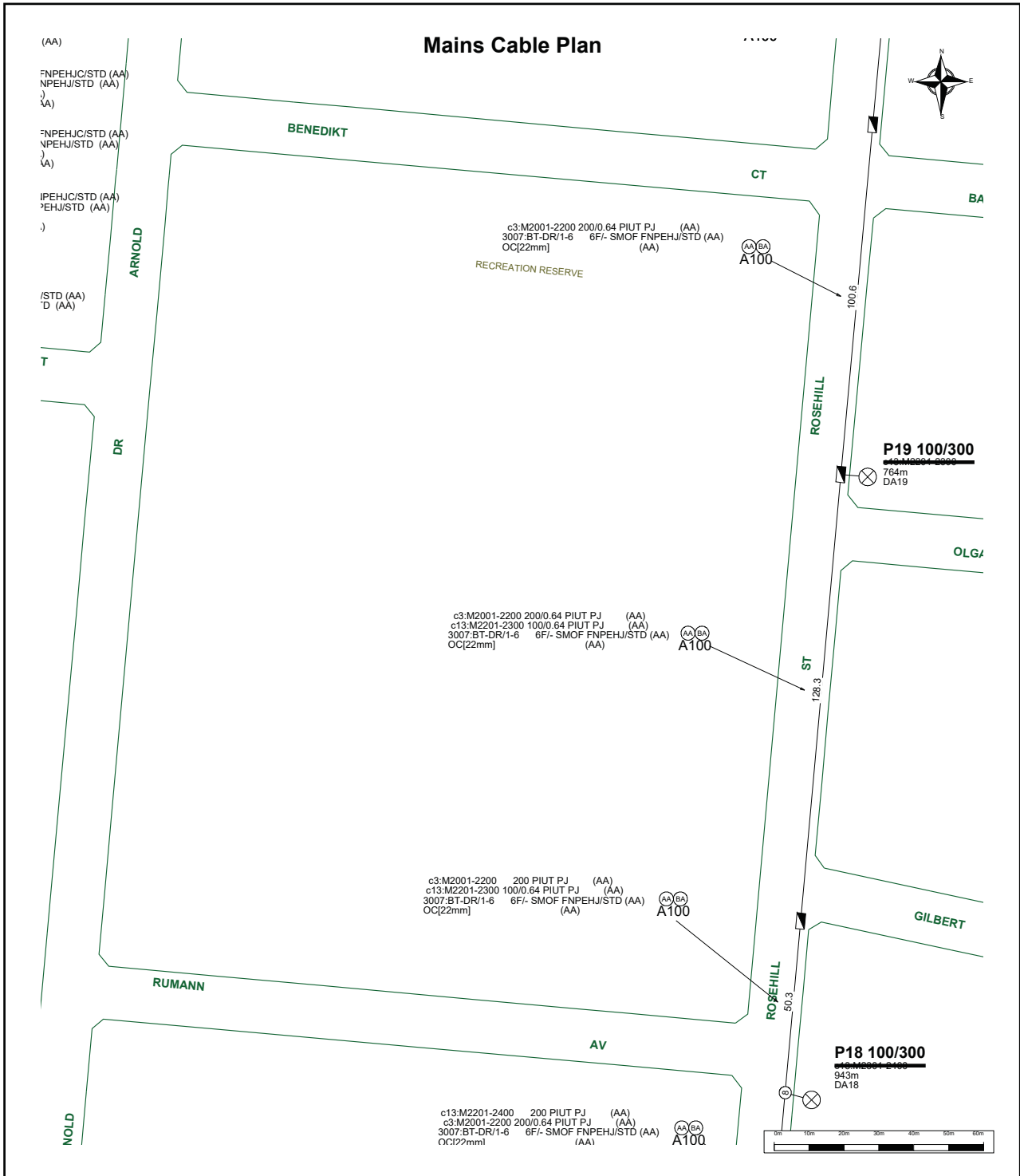
Please note the response is valid for 28 days from the issue date


Knox Drainage Symbols	Water Sensitive Urban Design (WSUD)	Knox Drainage Lines	Other Features Shown
Pipe Inlet	WSUD Drainage Point	300 mm Drainage Line	Road Boundary
End Wall	WSUD Drainage Line	100 mm Drainage Line	Property Boundary
Rear Drainage Point	WSUD Drainage Area	Unknown Drainage Line, size to be confirmed on site	Easement Boundary
Kerb Drainage Point	Knox Significant Vegetation	100 & 150 mm Drainage Lines:	Municipal Boundary
Drain Pit	Bushland Area	No further development connections permitted. Contact Council's Stormwater department for further information.	Enquiry Boundary

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Knox City Council or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

Note: If the works fall in an area that contains significant vegetation, a pre- inspection is required prior to commencement of works. Contact Council's Bushland Crew to arrange an inspection time. James Rose 0419 378 311 or John Erwin 0438 566 906. **NO WORKS TO COMMENCE PRIOR TO INSPECTION.**

Boundaries: Information supplied only applies within the Knox Municipality. Please contact the adjoining municipality if works are close to or over boundaries.



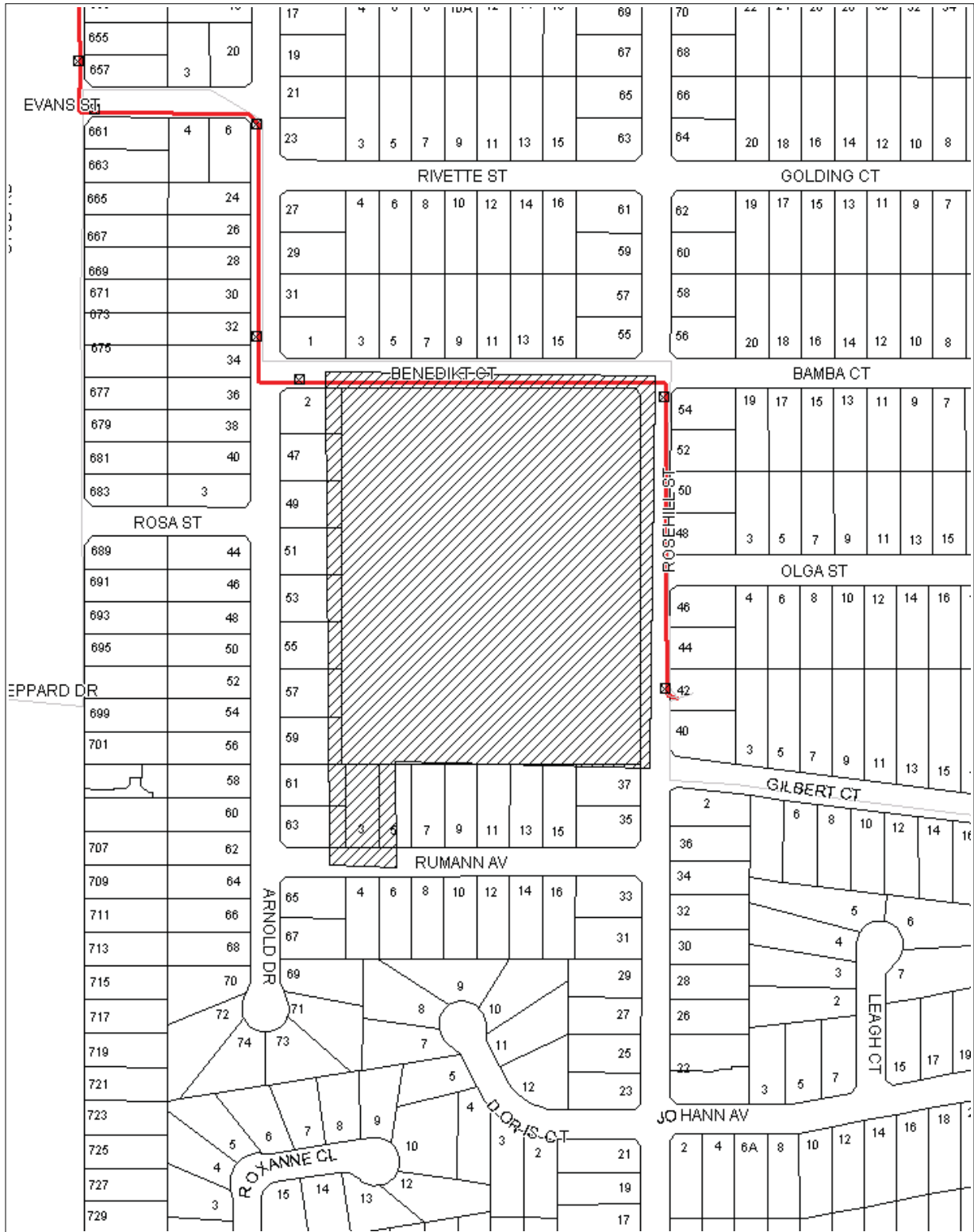
	For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)	Sequence Number: 91345507
	TELSTRA CORPORATION LIMITED A.C.N. 051 775 556	<p style="color: red;">CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.</p>
Generated On 23/10/2019 09:25:24		

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.



WARNING: This document is confidential and may also be privileged. Confidentiality nor privilege is not waived or destroyed by virtue of it being transmitted to an incorrect addressee. Unauthorised use of the contents is therefore strictly prohibited. Any information contained in this document that has been extracted from our records is believed to be accurate, but no responsibility is assumed for any error or omission. Optus Plans and information supplied are valid for 30 days from the date of issue. If this timeline has elapsed please raise a new enquiry.

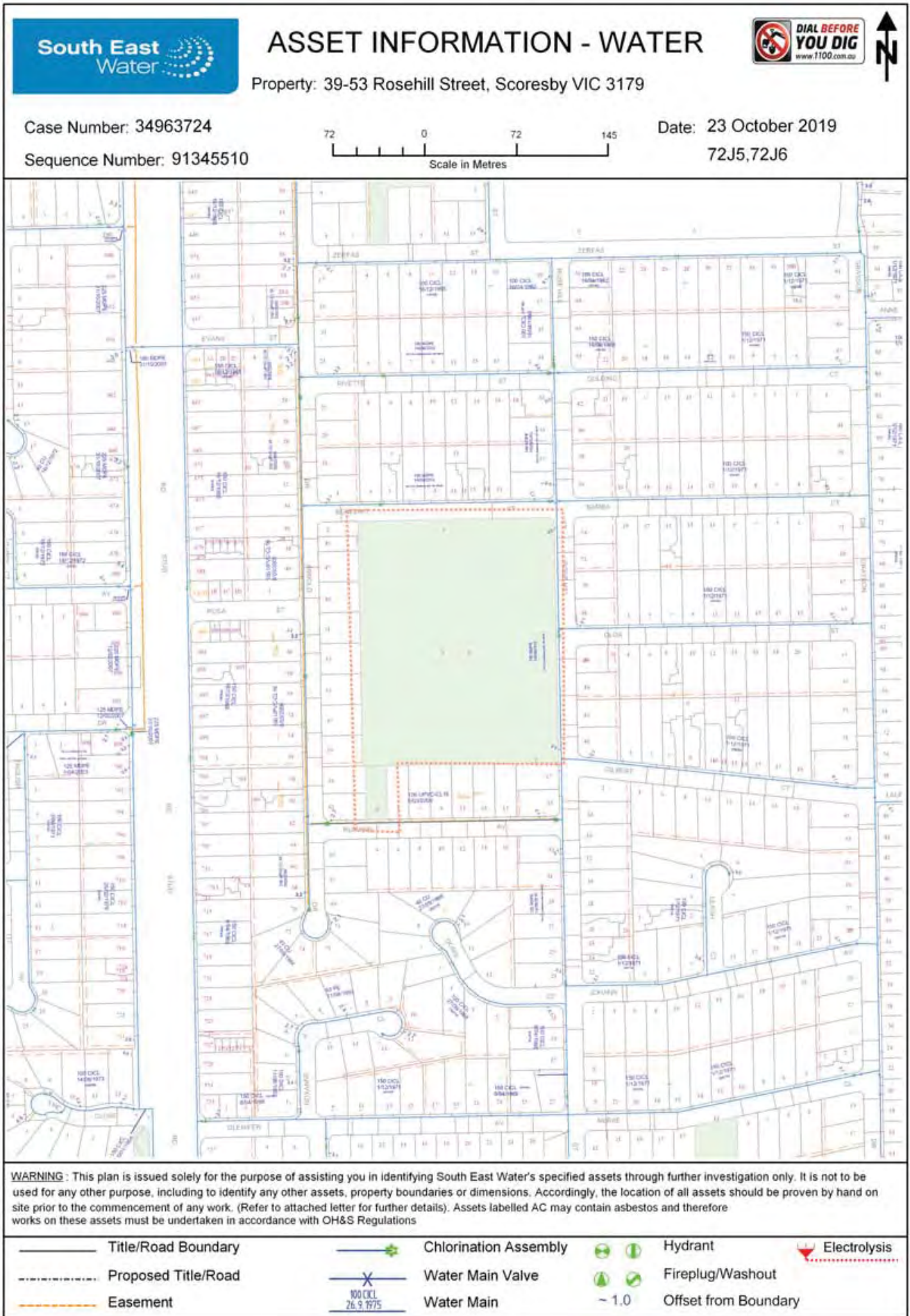
Sequence Number: 91345508

Date Generated: 23/10/2019



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







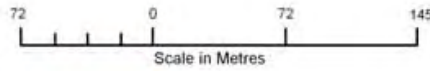
ASSET INFORMATION - SEWER



Property: 39-53 Rosehill Street, Scoresby VIC 3179

Case Number: 34963724

Sequence Number: 91345510



Date: 23 October 2019

72J5,72J6

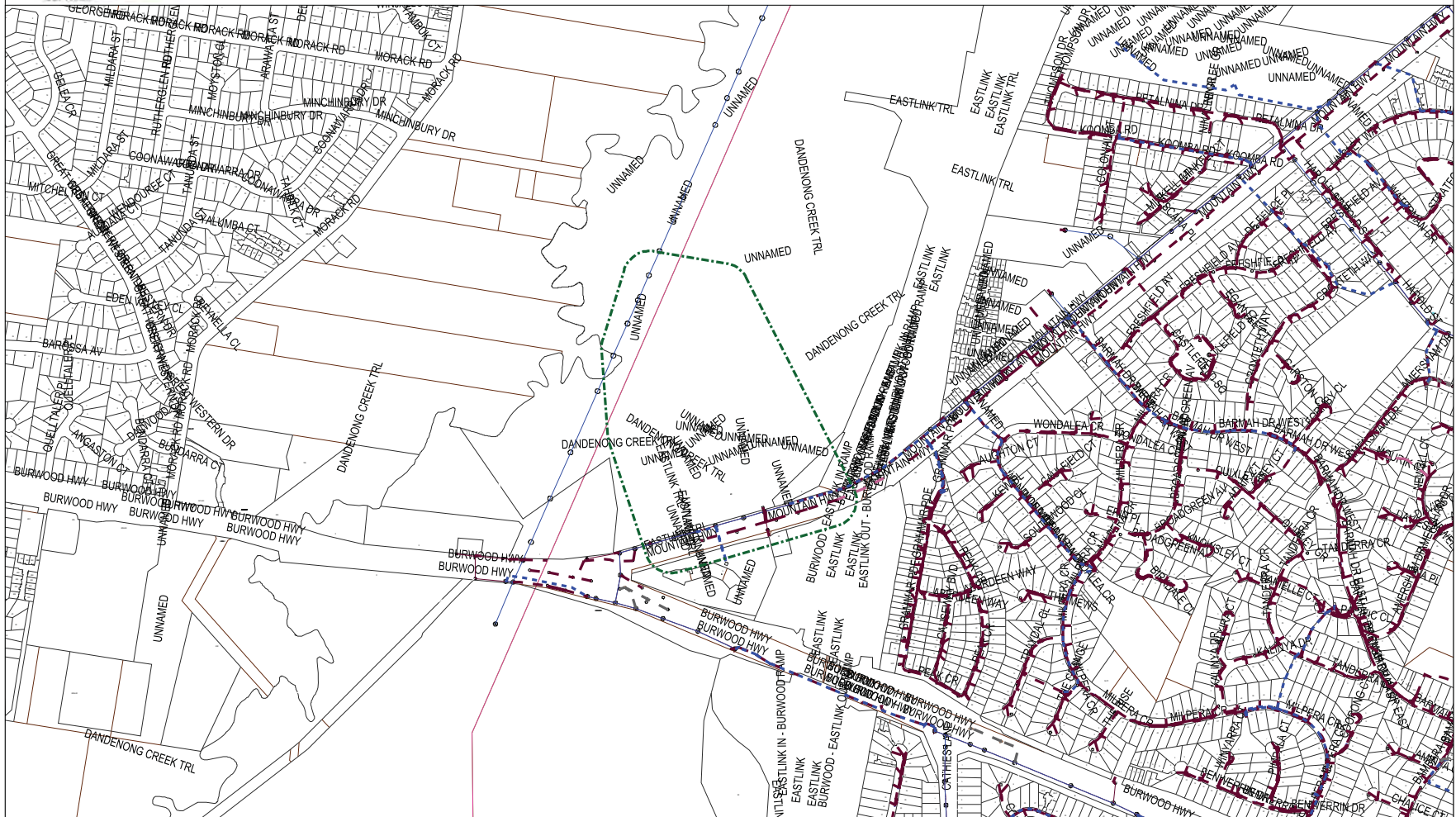


WARNING: This plan is issued solely for the purpose of assisting you in identifying South East Water's specified assets through further investigation only. It is not to be used for any other purpose, including to identify any other assets, property boundaries or dimensions. Accordingly, the location of all assets should be proven by hand on site prior to the commencement of any work. (Refer to attached letter for further details). Assets labelled AC may contain asbestos and therefore works on these assets must be undertaken in accordance with OH&S Regulations

	Title/Road Boundary		End of Pipe		Maintenance Hole
	Proposed Title/Road		Sewer Main		Inspection Shaft
	Easement		Direction of Flow		Offset from Boundary



OVERVIEW ONLY - NOT FOR EXCAVATION PURPOSES



0m 200m 400m 600m



Plot Date: 24/10/2019

Warning!

Please be advised this is a high level representation only and may not indicate all AusNet Services assets in the area or the exact location of identified assets. This plan must not be used for the purpose of ascertaining asset locations for excavation. Please read all conditions and information on the attached information sheets.

Note: The information contained on this plan is only valid for 28 days from the date of issue.

Directory Reference


- Melway 63C8
- Vic Roads 438 E 11
- ESMAP 709 C7
- Yarra 2,500/18.7

AMG Extents

SW: 341032 E 5807578 N
NE: 343769 E 5809153 N



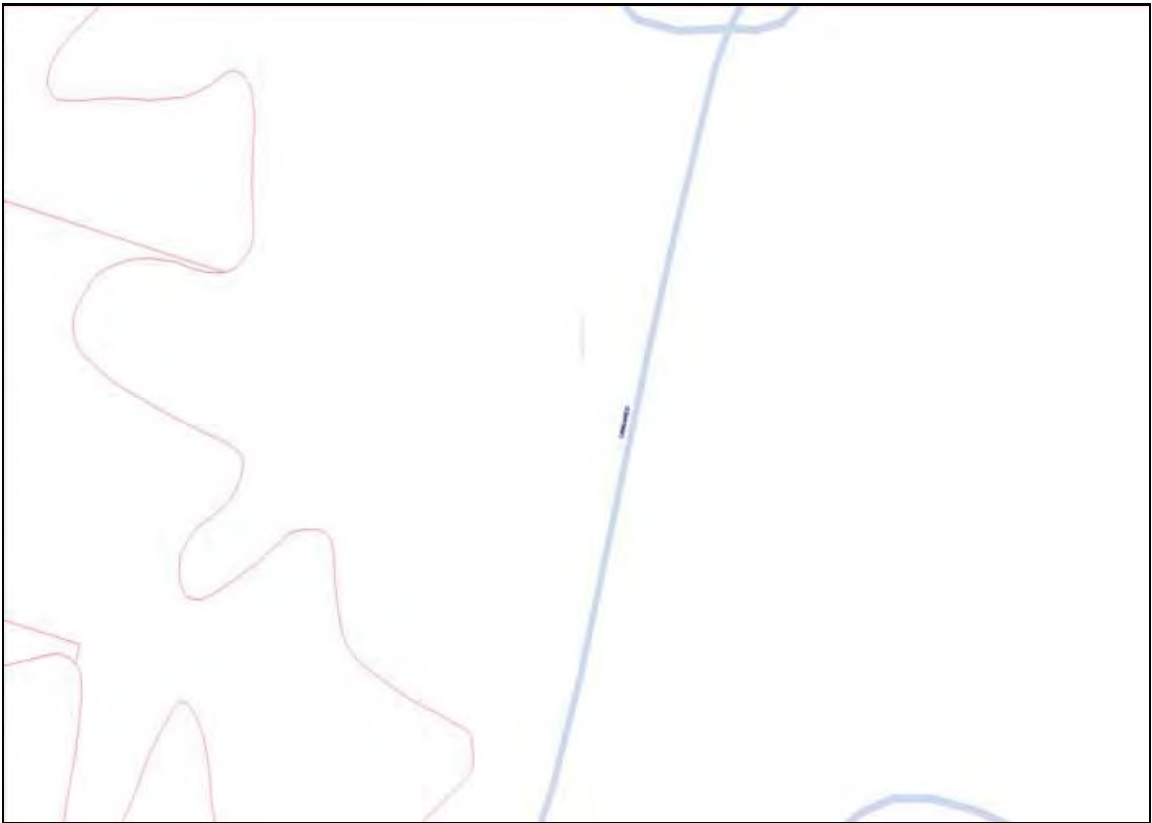
Indicative Plans

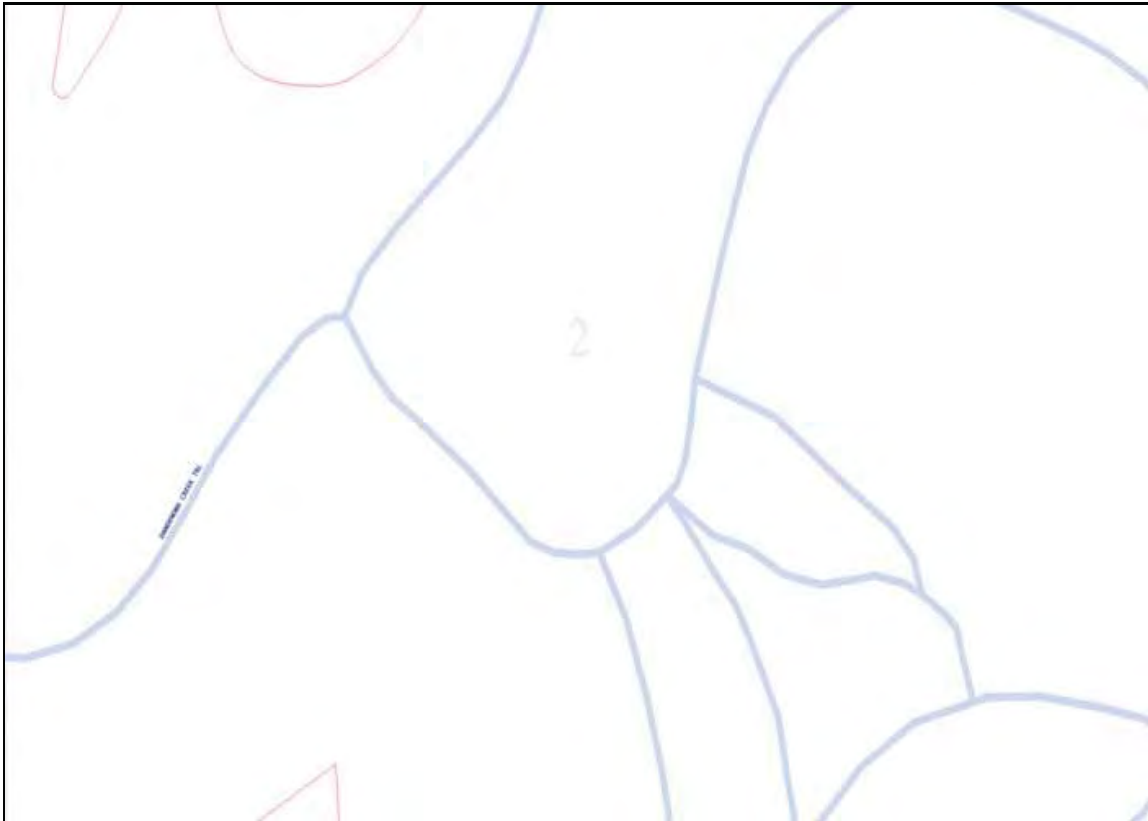
Issue Date:	22/10/2019	 The logo features a red circle with a black border containing a white shovel icon with a red slash through it. To the right, the text 'DIAL BEFORE YOU DIG' is written in bold, with 'DIAL BEFORE' in red and 'YOU DIG' in black. Below this, the website 'www.1100.com.au' is written in a smaller font.
Location:	15 Mountain Highway , Wantirna , VIC , 3152	

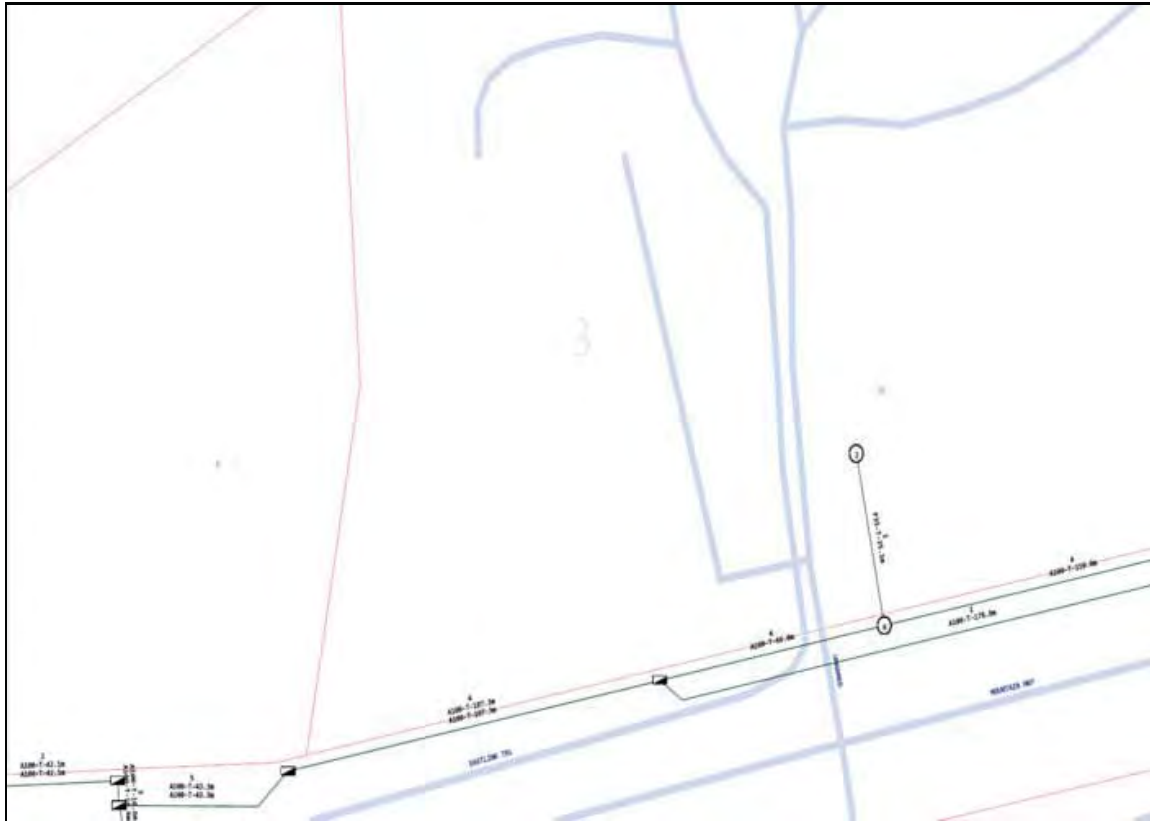
1	4
2	5
3	6

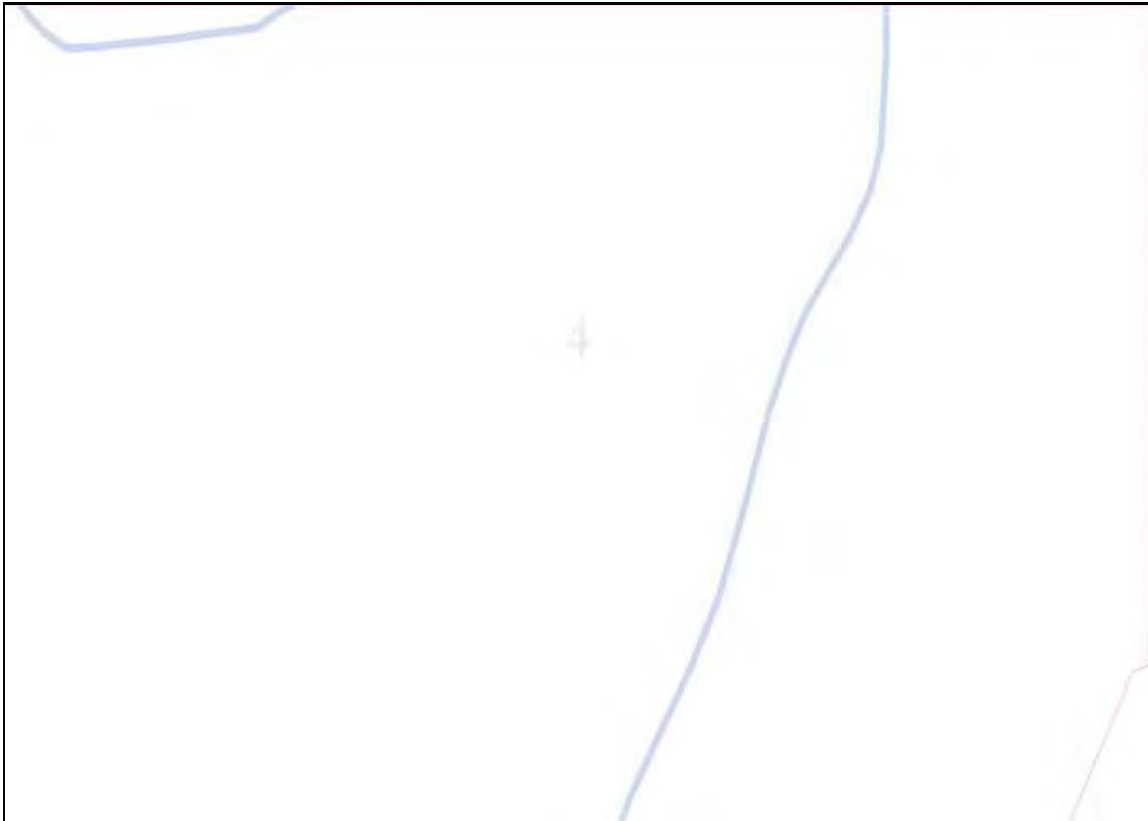


LEGEND	
	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
<p>2 PO - T- 25.0m P40 - 20.0m</p>	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
<p>2 10.0m</p>	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	<p>0 20 40 60 Meters</p> <p>1:2000</p> <p>1 cm equals 20 m</p>

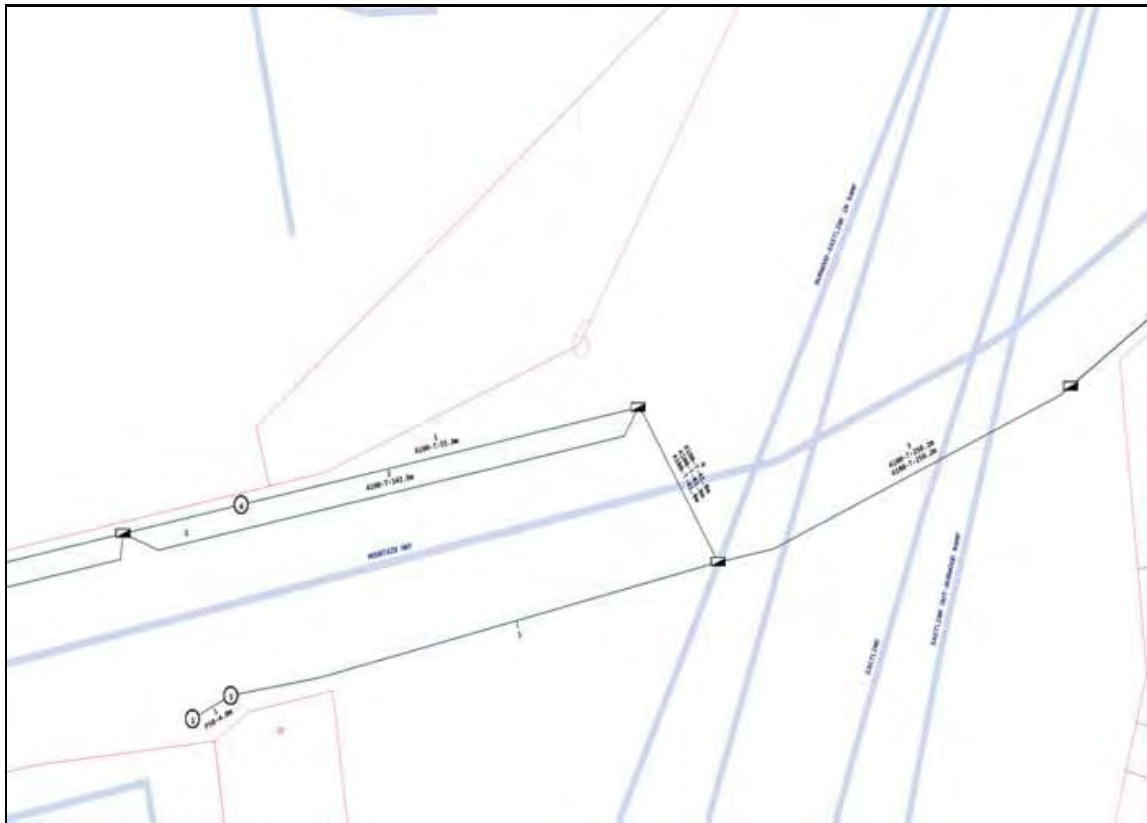












Emergency Contacts

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

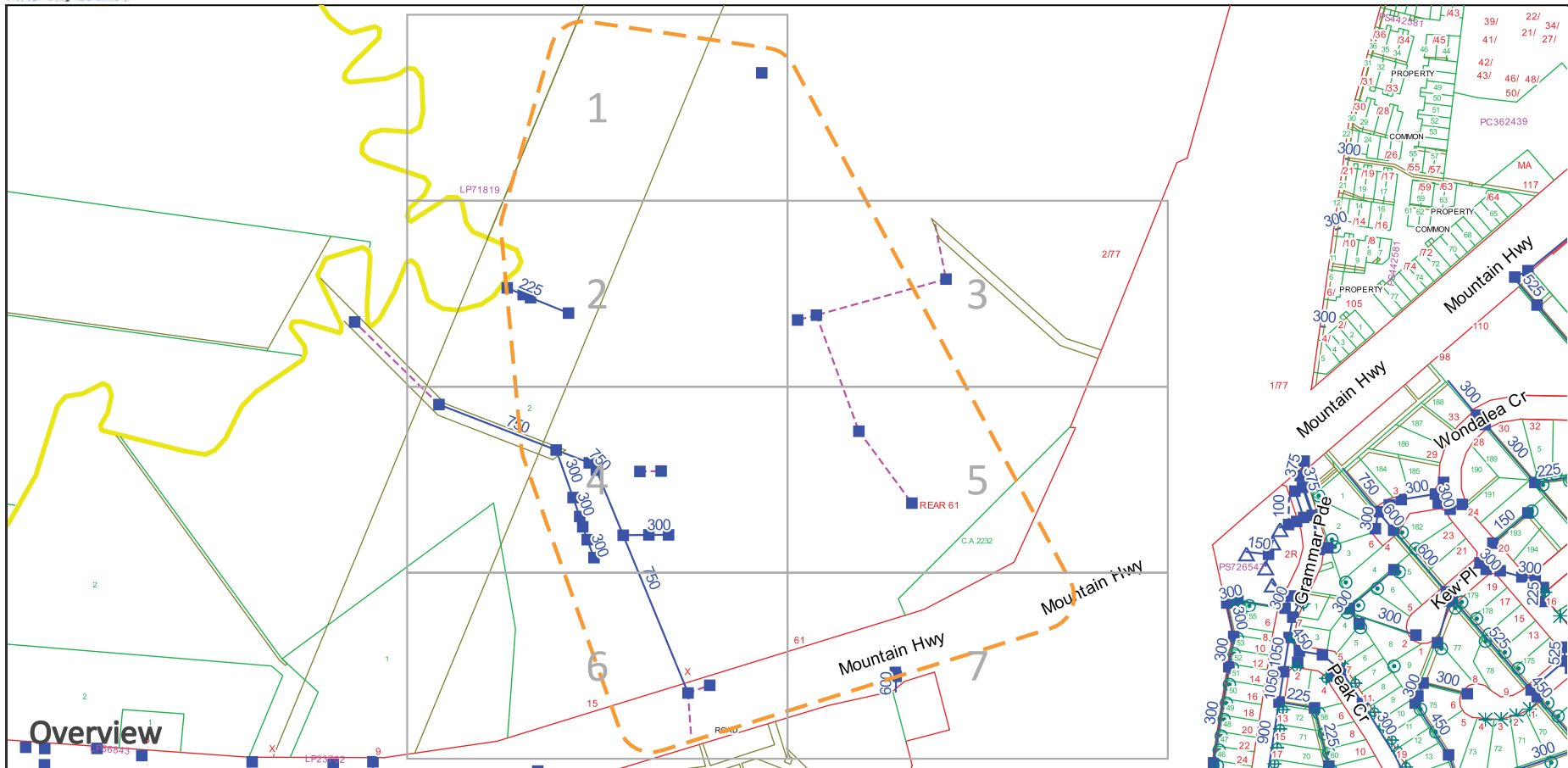


Council's Dial Before You Dig Officer
 KNOX CITY COUNCIL
 Phone: 03 9298 8846
dial.dig@knox.vic.gov.au

Sequence No: 91349497
 Job No: 18437128
 Location: 15 Mountain Highway, Wantirna, VIC 3152



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Overview

Legend | Scale: 1:4100 Please note the response is valid for 28 days from the issue date

Knox Drainage Symbols	Water Sensitive Urban Design (WSUD)	Knox Drainage Lines	Other Features Shown
Pipe Inlet	WSUD Drainage Point	300 mm Drainage Line	Road Boundary
End Well	WSUD Drainage Line	100 mm Drainage Line	Property Boundary
Rear Drainage Point	WSUD Drainage Area	Unknown Drainage Line, size to be confirmed on site	Easement Boundary
Kerb Drainage Point	Knox Significant Vegetation	100 & 150 mm Drainage Lines: No further development connections permitted. Contact Council's Stormwater department for further information.	Municipal Boundary
Drain Pit	Bushland Area		Enquiry Boundary

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Knox City Council or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

Note: If the works fall in an area that contains significant vegetation, a pre- inspection is required prior to commencement of works. Contact Council's Bushland Crew to arrange an inspection time. James Rose 0419 378 311 or John Erwin 0438 566 906. NO WORKS TO COMMENCE PRIOR TO INSPECTION.

Boundaries: Information supplied only applies within the Knox Municipality. Please contact the adjoining municipality if works are close to or over boundaries.



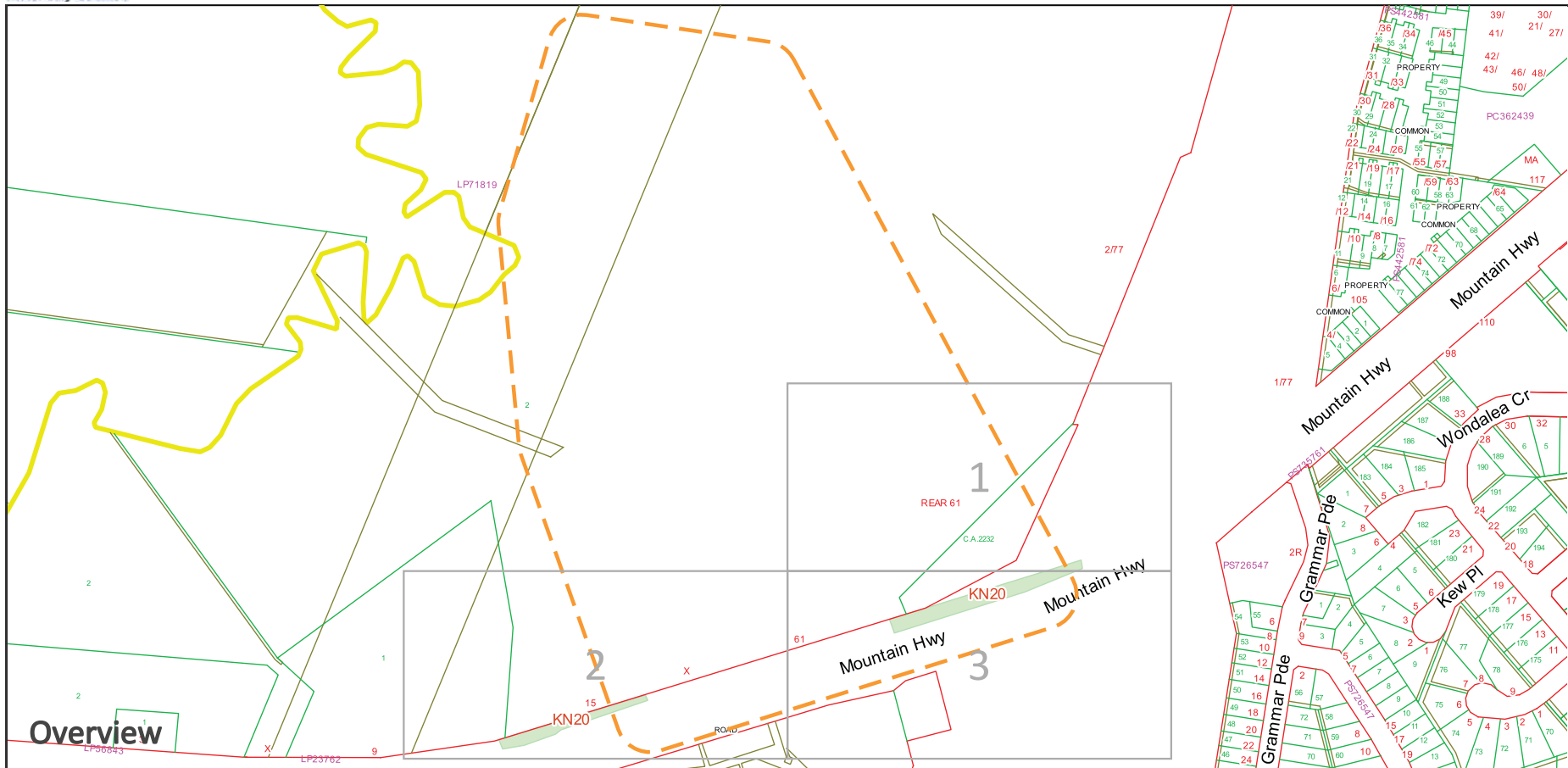
Council's Dial Before You Dig Officer
 KNOX CITY COUNCIL
 Phone: 03 9298 8846
dial.dig@knox.vic.gov.au

Sequence No: 91349497
 Job No: 18437128
 Location: 15 Mountain Highway, Wantirna, VIC 3152

Warning:
Significant Vegetation



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Legend | Scale: 1:4063

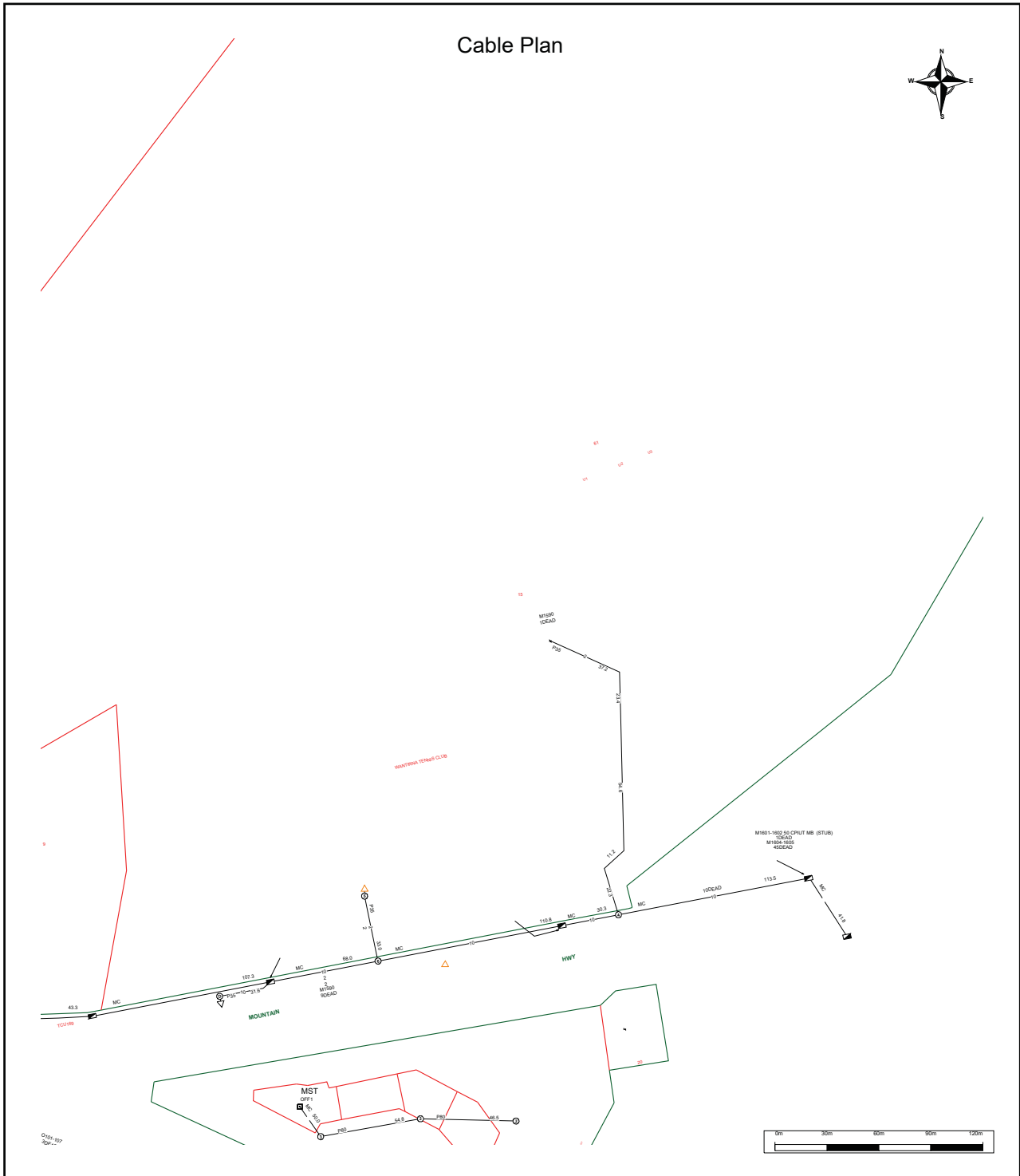
Please note the response is valid for 28 days from the issue date

Knox Drainage Symbols	Water Sensitive Urban Design (WSUD)	Knox Drainage Lines	Other Features Shown
Pipe Inlet	WSUD Drainage Point	300mm Drainage Line	Road Boundary
End Wall	WSUD Drainage Line	100mm Drainage Line	Property Boundary
Rear Drainage Point	WSUD Drainage Area	Unknown Drainage Line, size to be confirmed on site	Easement Boundary
Kerb Drainage Point	Knox Significant Vegetation	100 & 150 mm Drainage Lines: No further development connections permitted. Contact Council's Stormwater department for further information.	Municipal Boundary
Drain Pit	Bushland Area		Enquiry Boundary

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Knox City Council or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

Note: If the works fall in an area that contains significant vegetation, a pre- inspection is required prior to commencement of works. Contact Council's Bushland Crew to arrange an inspection time. James Rose 0419 378 311 or John Erwin 0438 566 906. **NO WORKS TO COMMENCE PRIOR TO INSPECTION.**

Boundaries: Information supplied only applies within the Knox Municipality. Please contact the adjoining municipality if works are close to or over boundaries.



	<p>For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)</p>	<p>Sequence Number: 91349501</p>
<p>TELSTRA CORPORATION LIMITED A.C.N. 051 775 556</p>		<p>CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.</p>
<p>Generated On 23/10/2019 09:54:56</p>		

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

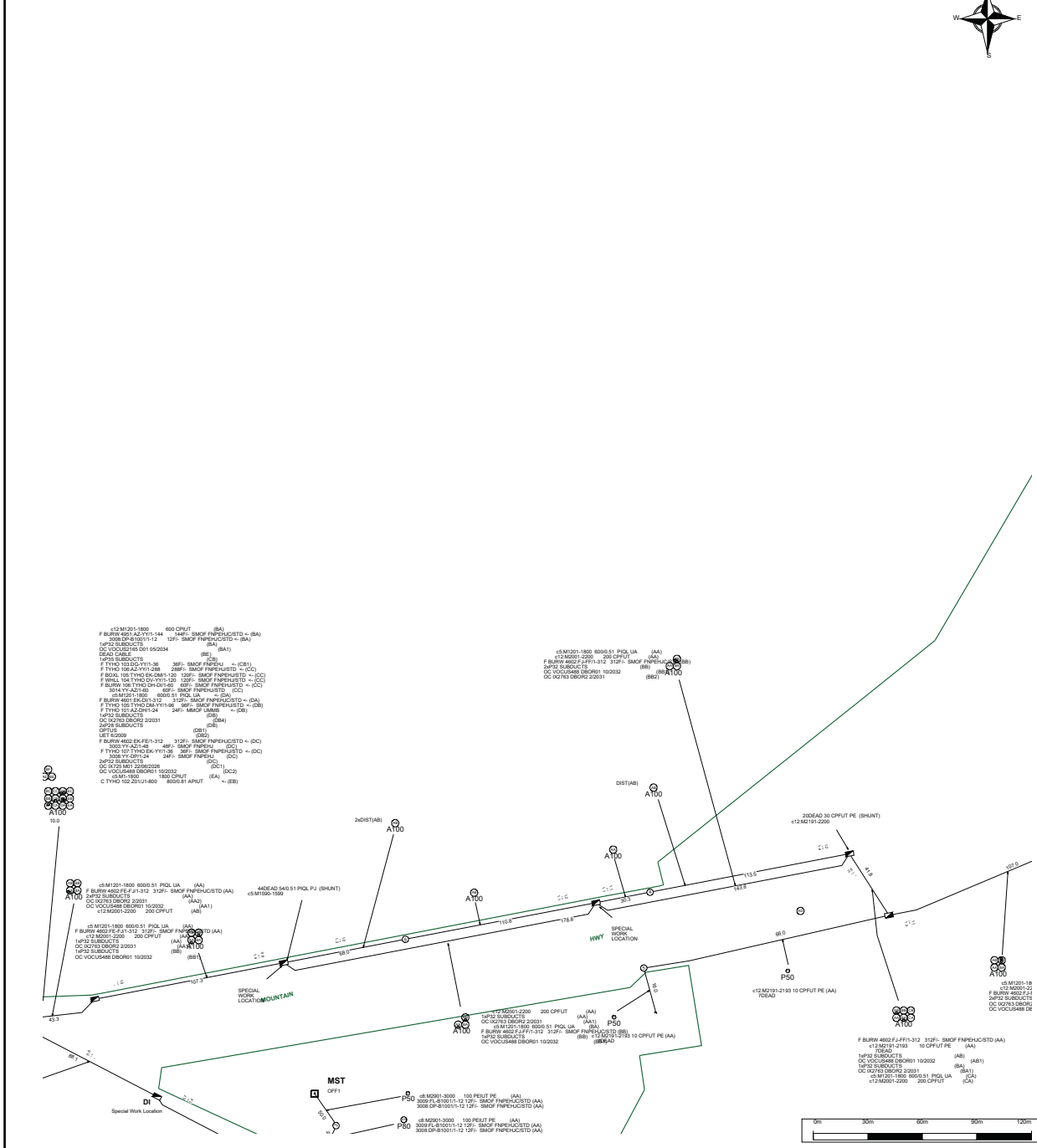
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

Mains Cable Plan




For all Telstra DBYD plan enquiries -
 email - Telstra.Plans@team.telstra.com
 For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 23/10/2019 09:54:58

Sequence Number: 91349501

CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.



WARNING: This document is confidential and may also be privileged. Confidentiality nor privilege is not waived or destroyed by virtue of it being transmitted to an incorrect addressee. Unauthorised use of the contents is therefore strictly prohibited. Any information contained in this document that has been extracted from our records is believed to be accurate, but no responsibility is assumed for any error or omission. Optus Plans and information supplied are valid for 30 days from the date of issue. If this timeline has elapsed please raise a new enquiry.

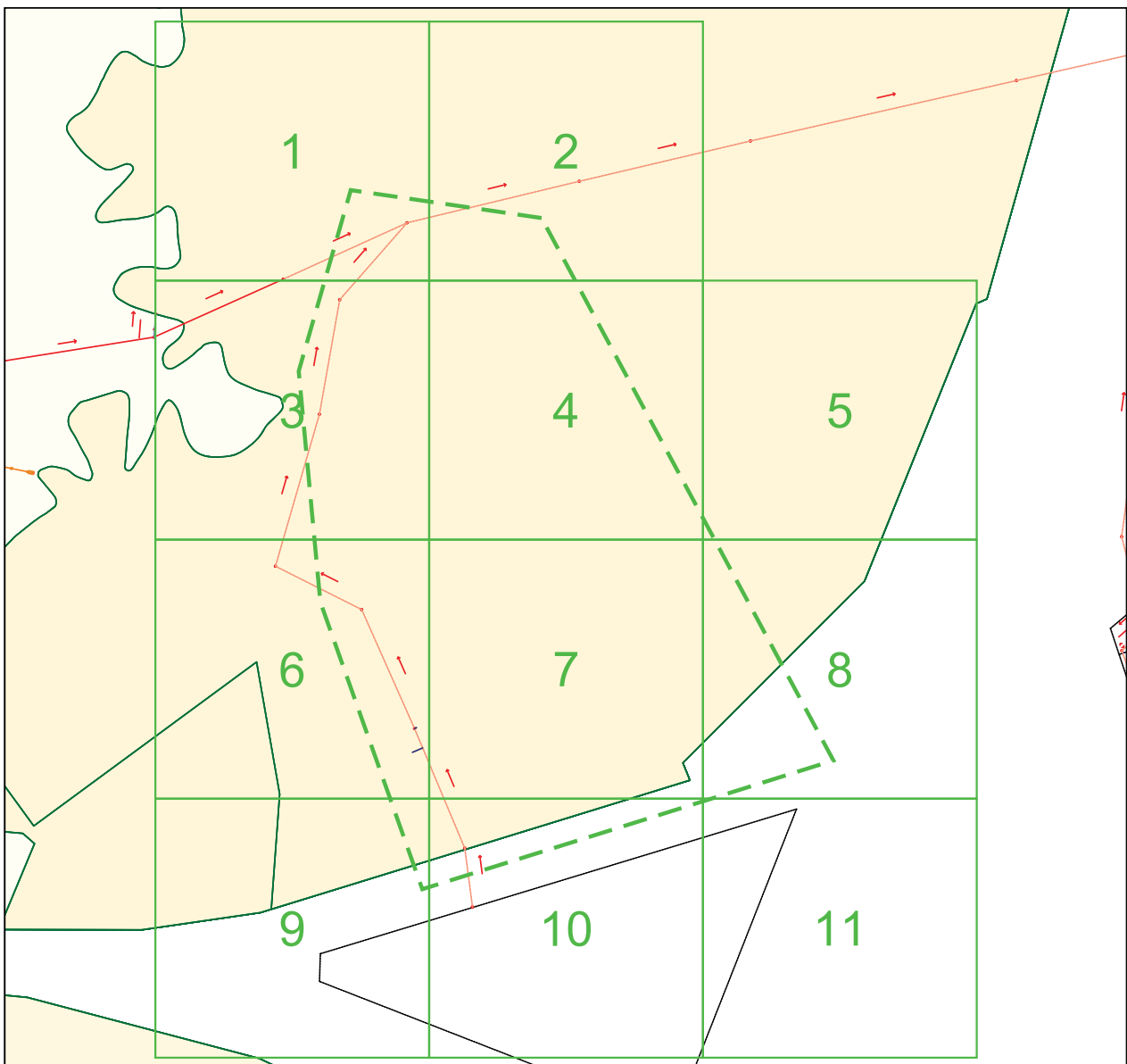
Sequence Number: 91349502


















Date Generated: 23/10/2019

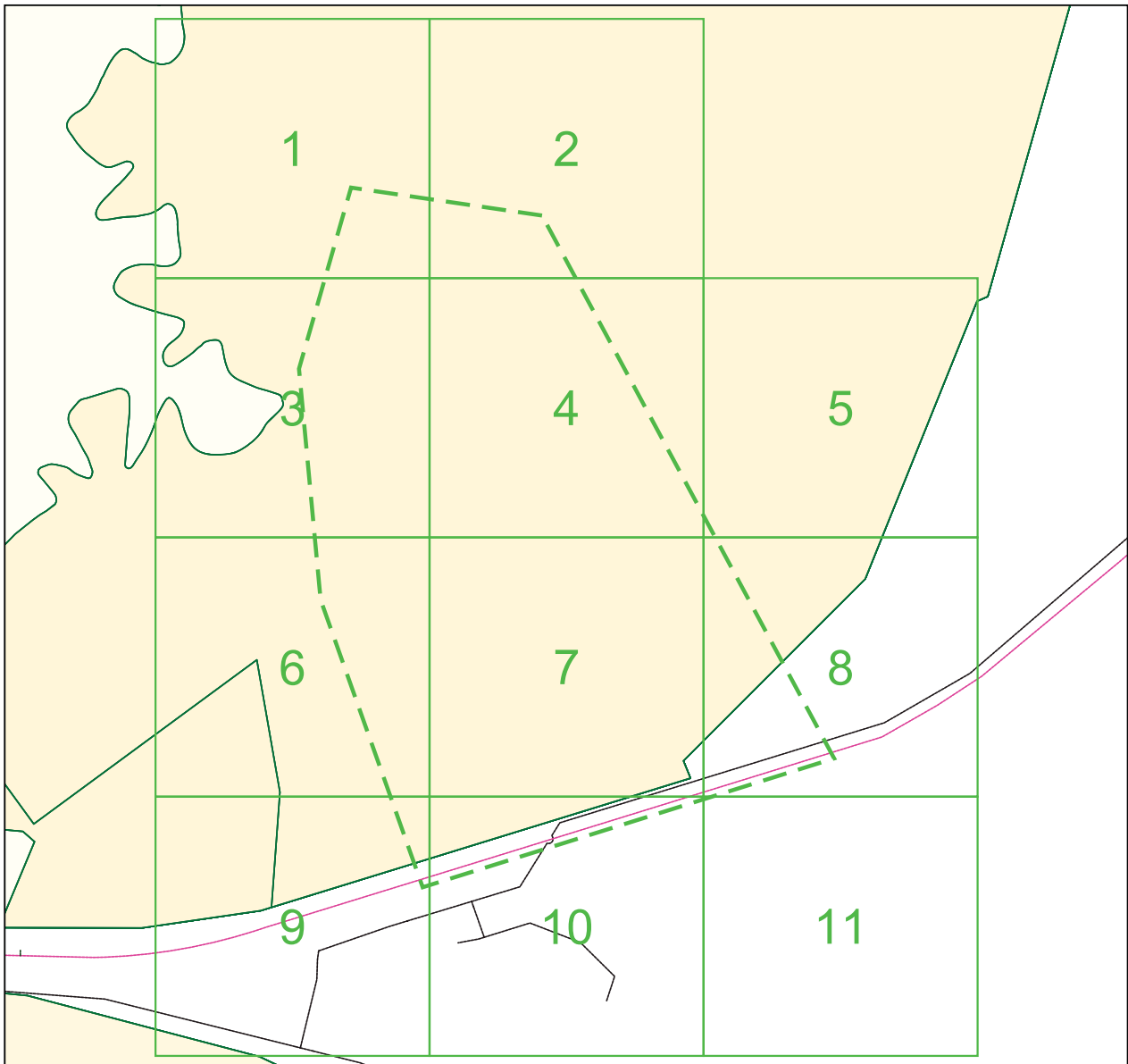















For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208





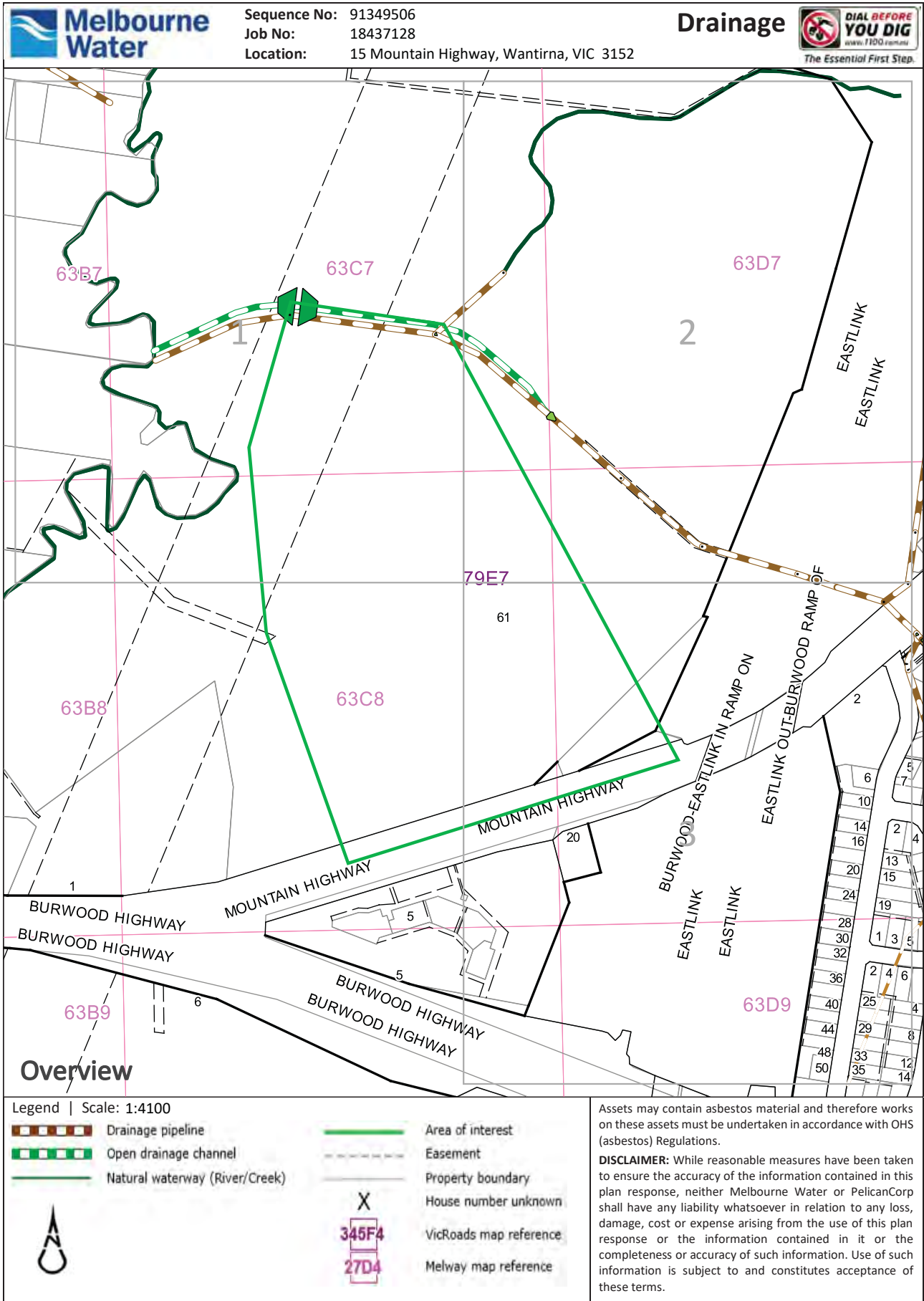
Sewer Asset Information		Address	15 Mountain Highway, Wantirna VIC 3152		
		Melway Ref.	63C7,63C8,63D8		
Sequence No.	91349504	Date	22/10/2019	 	
Job No.	18437128	Scale	Not To Scale		
Existing Title		Circular Access Point		Inspection Shaft	
Proposed Title		Junction		End of Pipe	
Existing Sewer		Gas Check Manhole		Maintenance Shaft	
Asbestos Sewer		Square Manhole		Ventilation	
Offset Distance		Change of Grade		Chambered Manhole	
<p>Warning – This plan is issued solely for the purpose of assisting you in identifying Yarra Valley Water’s specified assets through further investigation only. It’s not to be used for any other purpose, including to identify any other assets, property boundaries or dimensions. Accordingly, the location of all assets should be proven by hand on site prior to the commencement of any work. Please refer to the attached letter for further details.</p> <p>Yarra Valley Water ABN: 93 066 902 501 WEB: www.yvw.com.au</p>					

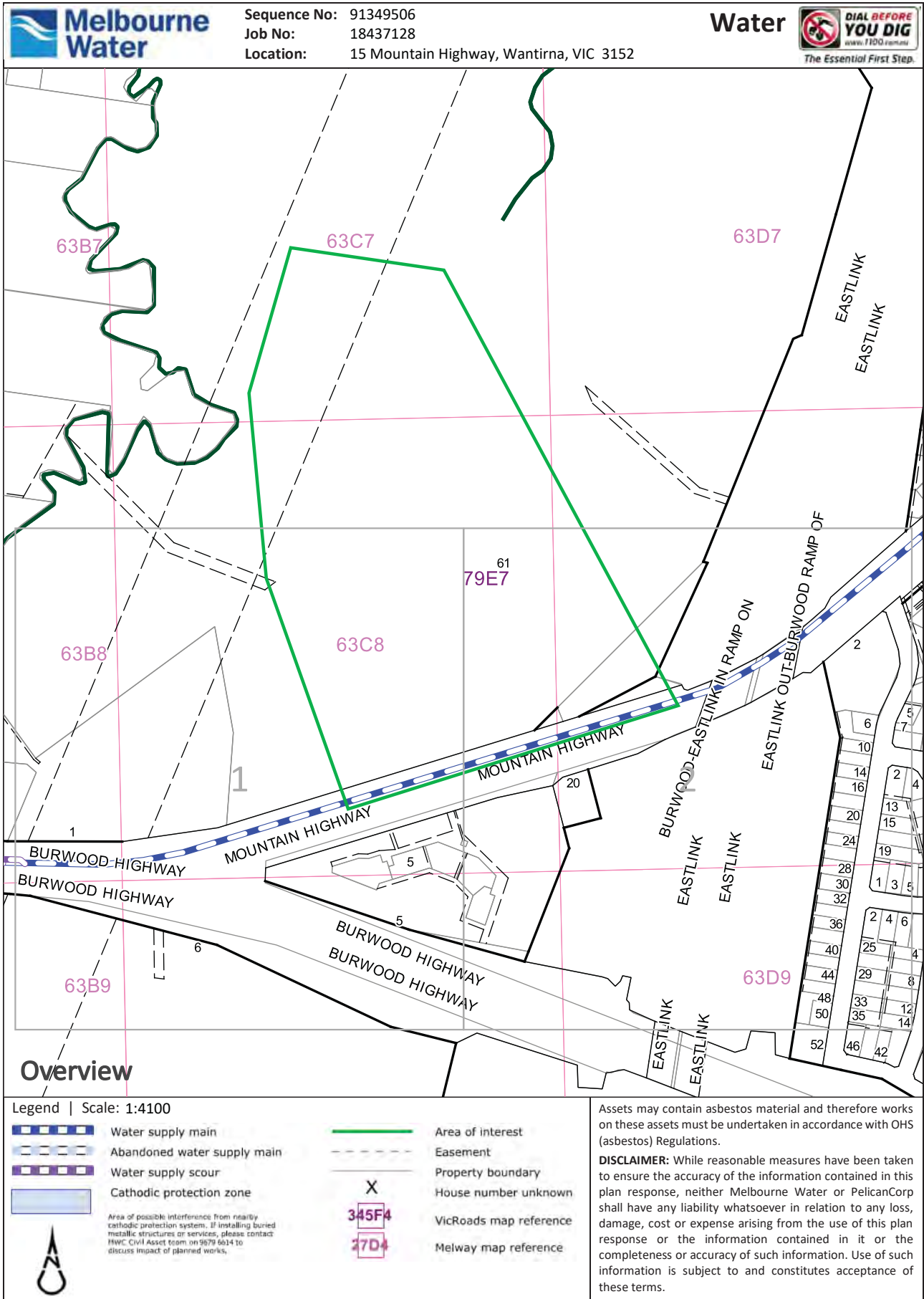


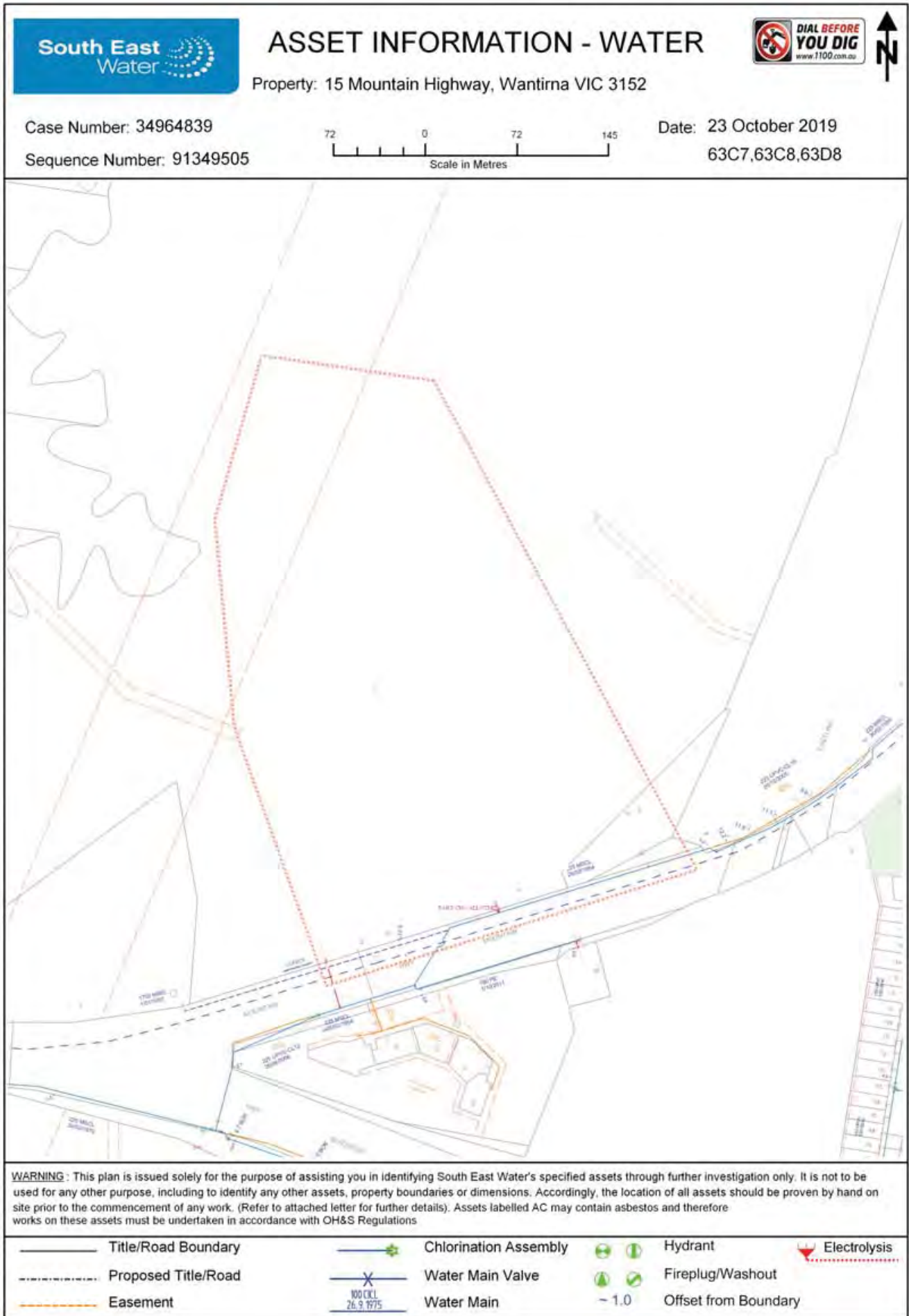
Water Asset Information	Address	15 Mountain Highway, Wantirna VIC 3152	
	Melway Ref.	63C7,63C8,63D8	
	Sequence No.	Date	22/10/2019
	Job No.	Scale	Not To Scale
		 	
Existing Title	 Asbestos Water Main	 Hydrant Below Ground -Council/YVW	
Proposed Title	 Fire Plug / Blank End	 Hydrant Above Ground -Council/YVW	
Offset Water Main	 Water Valve	 Dialysis Patient	
Water Main	 Hydrant Below – YVW/Council		

Warning – This plan is issued solely for the purpose of assisting you in identifying Yarra Valley Water’s specified assets through further investigation only. It’s not to be used for any other purpose, including to identify any other assets, property boundaries or dimensions. Accordingly, the location of all assets should be proven by hand on site prior to the commencement of any work. Please refer to the attached letter for further details.

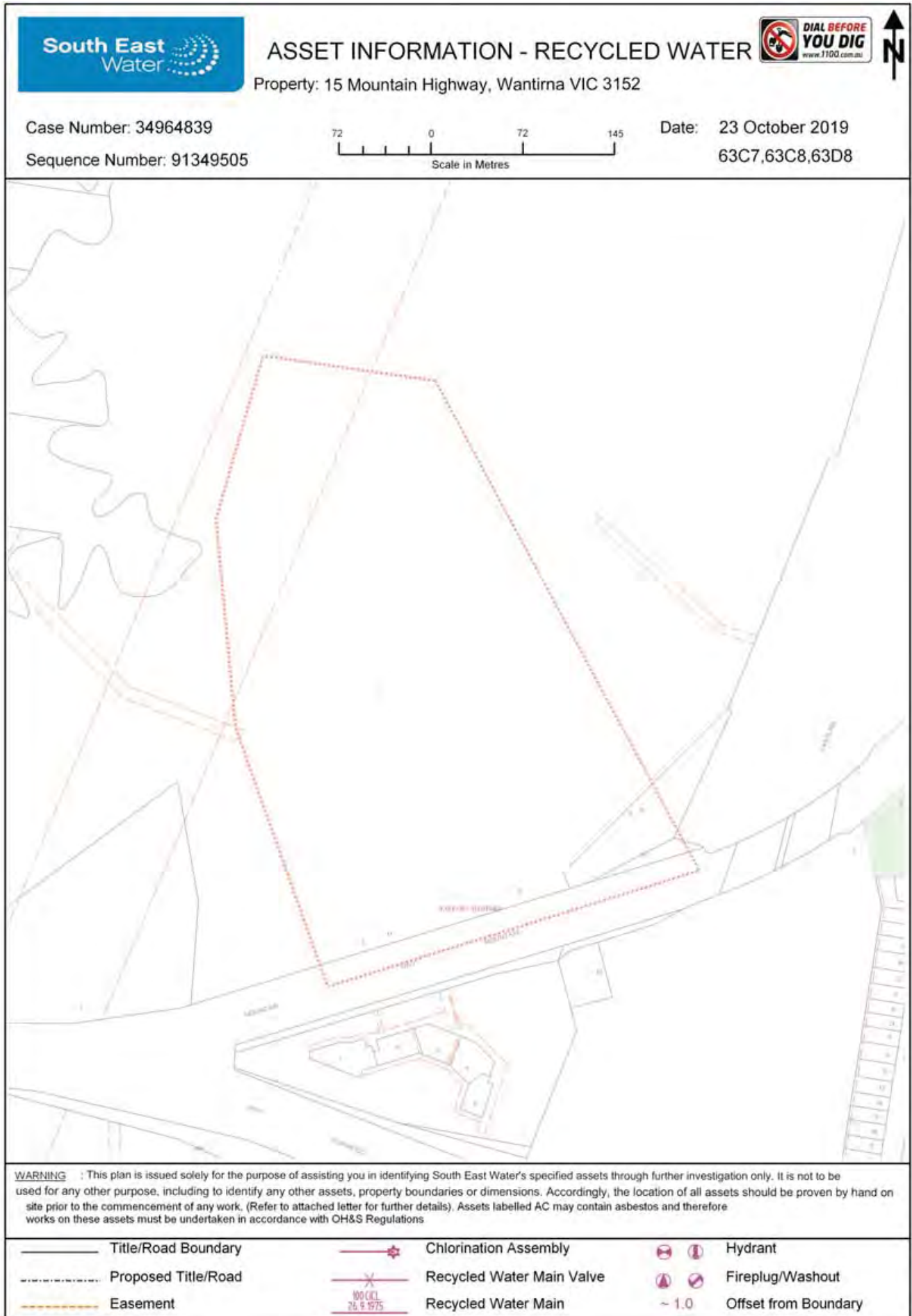
Yarra Valley Water ABN: 93 066 902 501 **WEB:** www.yvw.com.au











Knox Hockey Facility Feasibility Study

16/12/2019

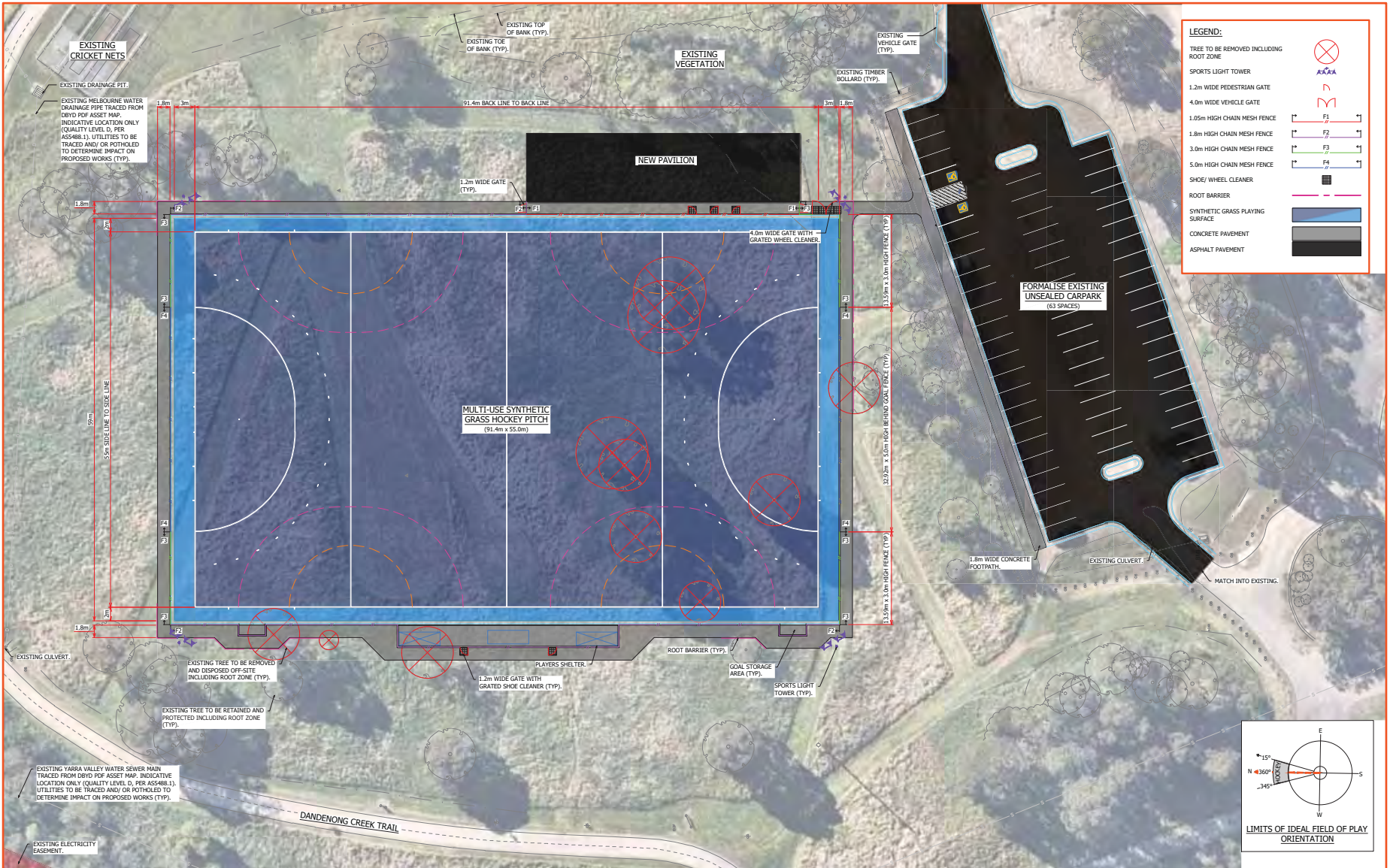
Appendix F - Development Sketches



SPORTENG™ PROJECT: KNOX REGIONAL HOCKEY FEASIBILITY STUDY



PROJECT NO: 10498-00	SKETCH TITLE: BENEDIKT RESERVE - FUNCTIONAL LAYOUT PLAN	SKETCH NO: SKT-001_BENEDIKTRESERVE	REV: R2	DATE: 16/12/19	DRAWN BY: JS	SCALE: 1:400 @ A1
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SPORTENG™ PROJECT: KNOX REGIONAL HOCKEY FEASIBILITY STUDY



PROJECT NO: 10498-00 | SKETCH TITLE: WANTIRNA RESERVE - FUNCTIONAL LAYOUT PLAN

SKETCH NO: SKT-002_WANTIRNARESERVE

REV: R2 | DATE: 04/12/19 | DRAWN BY: JS | SCALE: 1:250 @ A1

© SPORTENG

Knox Hockey Facility Feasibility Study

16/12/2019

Appendix G - Cost Estimates

KNOX REGIONAL HOCKEY FACILITY
FEASIBILITY STUDY
BENEDIKT RESERVE - FIELD OF PLAY



COST ESTIMATE
ISSUE: 001
REVISION: B
DATE: 16/12/2019

Item	Description	Amount (\$)
1.0	CONSTRUCTION PRELIMINARIES	\$ 130,530
2.0	DEMOLITION and EXCAVATION	\$ 135,980
3.0	IN-GROUND SERVICES	\$ 587,950
4.0	PAVEMENTS & ANCILLARIES	\$ 1,252,560
5.0	MISCELLANEOUS WORKS	\$ 193,330
	Total (excl. GST)	\$ 2,300,350
	Contingencies (20%)	\$ 460,070
	Design Consultancy (7%)	\$ 161,025
	Total Cost including contingencies (excl. GST)	\$ 2,921,445

QUALIFICATIONS AND ASSUMPTIONS

- These cost estimates are based on:
 - Standard civil rates supplied by *Rawlinsons Australian Construction Handbook*, 37th Ed. 2019
 - Cost estimates from proprietary product suppliers (e.g. synthetic surface, etc.)
 - Previous related projects
- The development cost estimates are based on quantities derived from the above and generally accepted industry rates for civil engineering works and in some cases proprietary pricing information for specific item.
- All costs exclude GST
- The cost estimate excludes:
 - Escalation to completion
 - Interest costs
 - Holding fees
 - Legal fees
 - Soil contamination
 - Flora/fauna or heritage conservation
- Rates will be subject to variation depending on a range of factors including timing, competition in the local market place, labour and material costs.
- No stormwater retention is required.
- No detailed design has been undertaken.
- Pavement composition is based on geotechnical advice provided by GroundScience in report G4091.1 AA dated 2 December 2019.
- None of the existing in-ground services have asbestos
- No upgrades or diversions to existing in-ground services (i.e. electricity, water, etc.)
- Areas and volumes have been taken from preliminary development designs completed date.



Item	Description	Unit	Quantity	Rate	Amount (\$)
1.0	<u>CONSTRUCTION PRELIMINARIES</u>				
1.1	Site Establishment including construction of site access	Item	1	\$ 16,250.00	\$ 16,250
1.2	Provision for Traffic	Item	1	\$ 8,125.00	\$ 8,125
1.3	Survey, set out and monitoring of the works by a licensed surveyor	Item	1	\$ 9,750.00	\$ 9,750
1.4	Provision of Quality Plan, OH&S Plan and Environmental Management Plan	Item	1	\$ 1,625.00	\$ 1,625
1.5	Provision of "Work-as-Executed" drawings	Item	1	\$ 6,500.00	\$ 6,500
1.6	Project Sign	Item	1	\$ 1,500.00	\$ 1,500
1.7	Establishment and maintenance of temporary erosion and water quality protection measures, including rer	Item	1	\$ 6,500.00	\$ 6,500
1.8	Temporary fencing	Item	1	\$ 8,775.00	\$ 8,775
1.9	Other preliminaries including supervision, insurances, dis-establishment, etc	Item	1	\$ 71,500.00	\$ 71,500
				Subtotal	\$ 130,525



Item	Description	Unit	Quantity	Rate	Amount (\$)
2.0	<u>DEMOLITION and EXCAVATION</u>				
2.1	<u>Demolition</u>				
2.1.1	Break out existing AFL goal/ point posts and dispose off-site	Item	4	\$ 449.00	\$ 1,796
2.1.2	Break out existing concrete kerb and channel and dispose off-site	m	18	\$ 75.00	\$ 1,350
2.1.3	Break out existing sports light towers and associated footings and dispose off-site	Item	4	\$ 600.00	\$ 2,400
2.1.4	Break out redundant in-ground electrical services and associated pits and dispose off-site	m	236	\$ 25.00	\$ 5,900
2.1.5	Break out existing synthetic cricket wicket including associated concrete slab	m ²	60	\$ 52.00	\$ 3,120
2.1.6	Break out existing asphalt surface and dispose off-site	m ²	60	\$ 7.00	\$ 420
2.2	<u>Excavation</u>				
2.2.1	Strip existing organic top layer and stockpile on-site (300mm)	m ³	18	\$ 3.00	\$ 54
2.2.2	Strip existing organic top layer and dispose off-site (300mm)	m ³	2,603	\$ 15.00	\$ 39,042
2.2.3	Cut to subgrade levels (additional 150mm)	m ³	1,343	\$ 11.00	\$ 14,768
2.2.4	Dispose excess cut material off-site	m ³	1,343	\$ 30.00	\$ 40,275
2.2.5	Prepare subgrade (final trim) +/- 20mm	m ²	8,950	\$ 3.00	\$ 26,850
				Subtotal	\$ 135,975



Item	Description	Unit	Quantity	Rate	Amount (\$)
3.0	<u>IN-GROUND SERVICES</u>				
3.1	<u>Stormwater Drainage</u>				
3.1.1	Stormwater drainage network (including pits, pipes, excavation, bedding and backfill)				
i)	Synthetic hockey field stormwater drainage network	Item	1	\$ 60,000.00	\$ 60,000
ii)	Carpark stormwater drainage network	Item	1	\$ 15,000.00	\$ 15,000
3.1.2	Connect to existing drainage pit	Item	2	\$ 1,223.00	\$ 2,446
3.2	<u>Electrical Services</u>				
3.2.1	Site Supply				
i)	Main switchboard and group metering for site power supply installed in cabinet including excavation and concrete footing	Item	1	\$ 5,000.00	\$ 5,000
ii)	Zone distribution board installed in cabinet including excavation and concrete footing	Item	1	\$ 2,000.00	\$ 2,000
iii)	Electrical conduit installation (including excavation, bedding and backfill)	Item	1	\$ 3,500.00	\$ 3,500
3.2.2	Sports Lighting				
i)	Sports lighting and associated elements (350lux)	Item	1	\$ 500,000.00	\$ 500,000
				Subtotal	\$ 587,946



Item	Description	Unit	Quantity	Rate	Amount
4.0	<u>PAVEMENTS & ANCILLARIES</u>				
4.1	<u>Synthetic Hockey Field</u>				
4.1.1	200mm thick Type A capping layer compacted to 98% S.M.D.D.	m ²	7,010	\$ 21.00	\$ 147,210
4.1.2	Geo-composite membrane - installation, delivery and travel expenses	m ²	7,010	\$ 11.00	\$ 77,110
4.1.3	175mm thick Class 2 crushed rock 20mm nominal size compact to 98% M.M.D.D.	m ²	5,747	\$ 25.00	\$ 143,675
4.1.4	Prime Coat	m ²	5,747	\$ 3.00	\$ 17,241
4.1.5	30mm thick 7mm nominal size Type N dense graded asphalt	m ²	5,747	\$ 22.00	\$ 126,434
4.1.6	FIH approved synthetic turf system including shockpad, infill and linemarking	m ²	5,747	\$ 70.00	\$ 402,290
4.3	<u>Natural Turf Reinstatement</u>				
4.3.1	Place and compact reclaimed topsoil	m ²	60	\$ 10.00	\$ 600
4.3.2	Hydroseed and establish turf as required	m ²	60	\$ 13.00	\$ 780
4.4	<u>Asphalt Carpark and Access Road</u>				
4.4.1	Geo-composite membrane - installation, delivery and travel expenses	m ²	1,950	\$ 11.00	\$ 21,450
4.4.2	200mm thick Type A capping layer compacted to 98% S.M.D.D.	m ²	1,950	\$ 21.00	\$ 40,950
4.4.3	200mm thick Class 2 crushed rock 20mm nominal size compacted to 98% M.M.D.D.	m ²	1,396	\$ 28.00	\$ 39,088
4.4.4	Prime Coat	m ²	1,396	\$ 3.00	\$ 4,188
4.4.5	30mm thick 10mm nominal size Type N dense graded asphalt	m ²	1,396	\$ 25.00	\$ 34,900
4.4.6	Linemarking	Item	1	\$ 2,500.00	\$ 2,500
4.5	<u>Concrete Works</u>				
4.5.1	Concrete Pavement				
i)	1.8m wide concrete path (including compactive bedding)	m	227	\$ 91.00	\$ 20,657
ii)	Concrete hard stand	m ²	831	\$ 92.00	\$ 76,452
4.5.2	Concrete Edge Strips and Kerbs				
i)	Cast insitu 200mm wide concrete edge strip (including compactive bedding)	m	264	\$ 82.00	\$ 21,648
ii)	Cast insitu 300mm wide concrete edge strip (including compactive bedding)	m	122	\$ 90.00	\$ 10,980
iii)	Modified 450mm wide concrete kerb (including compactive bedding)	m	255	\$ 120.00	\$ 30,600
iv)	600mm wide concrete kerb and channel (including compactive bedding)	m	260	\$ 130.00	\$ 33,800
				Subtotal	\$ 1,252,553



Item	Description	Unit	Quantity	Rate	Amount
5.0	<u>MISCELLANEOUS WORKS</u>				
5.1	<u>Fencing</u>				
5.1.1	1.05m high fence	m	53	\$ 110.00	\$ 5,830
5.1.2	1.8m high fence	m	176	\$ 200.00	\$ 35,200
5.1.3	3m high fence	m	54	\$ 167.00	\$ 9,018
5.1.4	5m high fence	m	66	\$ 650.00	\$ 42,900
5.1.5	1.2m wide pedestrian access gate	Item	6	\$ 580.00	\$ 3,480
5.1.6	4m wide vehicle access gate	Item	1	\$ 1,793.00	\$ 1,793
5.2	<u>Sports Equipment</u>				
5.2.1	Hockey goals	Item	4	\$ 5,000.00	\$ 20,000
5.2.2	Hockey corner flags	Item	4	\$ 300.00	\$ 1,200
5.2.3	Player shelters including bench seats	Item	2	\$ 5,100.00	\$ 10,200
5.2.4	Officials shelters	Item	1	\$ 3,600.00	\$ 3,600
5.3	<u>Miscellaneous</u>				
5.3.1	FIH Certification by Independent Test Institute	Item	1	\$ 10,000.00	\$ 10,000
5.3.2	1m x 1m cleaning grate with 100 dia. outlet	Item	9	\$ 4,000.00	\$ 36,000
5.3.3	Rootzone barrier	m	100	\$ 91.00	\$ 9,100
5.3.4	General landscaping allowance (provisional sum)	Item	1	\$ 5,000.00	\$ 5,000
				Subtotal	\$ 193,321



KNOX REGIONAL HOCKEY FACILITY
FEASIBILITY STUDY
BENEDIKT RESERVE - PAVILION



COST ESTIMATE
ISSUE: 001
REVISION: B
DATE: 16/12/2019

Item	Description	Amount (\$)
1.0	CONSTRUCTION PRELIMINARIES	\$ 76,440
2.0	DEMOLITION and EXCAVATION	\$ 2,800
3.0	IN-GROUND SERVICES	\$ 20,000
4.0	PAVILION WORKS	\$ 1,250,000
	Total (excl. GST)	\$ 1,349,240
	Contingencies (20%)	\$ 269,848
	Design Consultancy (7%)	\$ 94,447
	Total Cost including contingencies (excl. GST)	\$ 1,713,535

QUALIFICATIONS AND ASSUMPTIONS

- These cost estimates are based on:
 - Standard civil rates supplied by *Rawlinsons Australian Construction Handbook*, 37th Ed. 2019
 - Cost estimates from proprietary product suppliers (e.g. synthetic surface, etc.)
 - Previous related projects
- The development cost estimates are based on quantities derived from the above and generally accepted industry rates for civil engineering works and in some cases proprietary pricing information for specific item.
- All costs exclude GST
- The cost estimate excludes:
 - Escalation to completion
 - Interest costs
 - Holding fees
 - Legal fees
 - Soil contamination
 - Flora/fauna or heritage conservation
- Rates will be subject to variation depending on a range of factors including timing, competition in the local market place, labour and material costs.
- No stormwater retention is required.
- No detailed design has been undertaken.
- Pavement composition is based on geotechnical advice provided by GroundScience in report G4091.1 AA dated 2 December 2019.
- None of the existing in-ground services have asbestos
- No upgrades or diversions to existing in-ground services (i.e. electricity, water, etc.)
- Areas and volumes have been taken from preliminary development designs completed date.



Item	Description	Unit	Quantity	Rate	Amount (\$)
1.0	<u>CONSTRUCTION PRELIMINARIES</u>				
1.1	Site Establishment including construction of site access	Item	1	\$ 9,437.50	\$ 9,438
1.2	Provision for Traffic	Item	1	\$ 4,718.75	\$ 4,719
1.3	Survey, set out and monitoring of the works by a licensed surveyor	Item	1	\$ 5,662.50	\$ 5,663
1.4	Provision of Quality Plan, OH&S Plan and Environmental Management Plan	Item	1	\$ 943.75	\$ 944
1.5	Provision of "Work-as-Executed" drawings	Item	1	\$ 3,775.00	\$ 3,775
1.6	Project Sign	Item	1	\$ 1,500.00	\$ 1,500
1.7	Establishment and maintenance of temporary erosion and water quality protection measures, including rer	Item	1	\$ 3,775.00	\$ 3,775
1.8	Temporary fencing	Item	1	\$ 5,096.25	\$ 5,096
1.9	Other preliminaries including supervision, insurances, dis-establishment, etc	Item	1	\$ 41,525.00	\$ 41,525
				Subtotal	\$ 76,434



Item	Description	Unit	Quantity	Rate	Amount (\$)
2.0	<u>DEMOLITION and EXCAVATION</u>				
2.1	<u>Demolition</u>				
2.1.2	Break out bench seat and associated concrete slab. Return to bench seat to Council. Dispose off-site concrete slab	Item	1	\$ 600.00	\$ 600
2.2	<u>Excavation</u>				
2.2.1	Strip existing gravel path and dispose off-site (150mm)	m³	43	\$ 22.00	\$ 946
2.2.2	Strip existing organic top layer and dispose off-site (300mm)	m³	44	\$ 15.00	\$ 666
2.2.3	Prepare subgrade (final trim) +/- 20mm	m²	195	\$ 3.00	\$ 585
				Subtotal	\$ 2,797



Item	Description	Unit	Quantity	Rate	Amount (\$)
3.0	<u>IN-GROUND SERVICES</u>				
3.1	<u>Electrical Services</u>				
3.1.1	Pavilion pit and pipe	Item	1	\$ 2,500.00	\$ 2,500
3.2	<u>Gas</u>				
3.2.1	Gas connection to pavilion (including excavation, bedding and backfill)	Item	1	\$ 2,500.00	\$ 2,500
3.3	<u>Communications</u>				
3.3.1	Comms connection to pavilion and authority service (including pits and conduits, trenching, backfill and fittings)	Item	1	\$ 5,000.00	\$ 5,000
3.4	<u>Sewer</u>				
3.4.1	Sewer connection to pavilion (including excavation, bedding and backfill)	Item	1	\$ 5,000.00	\$ 5,000
3.5	<u>Hydraulics</u>				
3.5.1	Potable water connection to pavilion (including excavation bedding and backfill)	Item	1	\$ 2,500.00	\$ 2,500
3.5.2	100mm Fire service	Item	1	\$ 2,500.00	\$ 2,500
				Subtotal	\$ 20,000



Item	Description	Unit	Quantity	Rate	Amount
4.0	PAVILION WORKS				
4.1	Pavillon extension	Item	1	\$ 1,250,000.00	\$ 1,250,000
				Subtotal	\$ 1,250,000



KNOX REGIONAL HOCKEY FACILITY
FEASIBILITY STUDY
WANTIRNA RESERVE - FIELD OF PLAY



COST ESTIMATE
ISSUE: 001
REVISION: B
DATE: 16/12/2019

Item	Description	Amount (\$)
1.0	CONSTRUCTION PRELIMINARIES	\$ 210,030
2.0	DEMOLITION and EXCAVATION	\$ 129,250
3.0	IN-GROUND SERVICES	\$ 682,450
4.0	PAVEMENTS & ANCILLARIES	\$ 2,504,740
5.0	MISCELLANEOUS WORKS	\$ 190,000
	Total (excl. GST)	\$ 3,716,470
	Contingencies (20%)	\$ 743,294
	Design Consultancy (7%)	\$ 260,153
Total Cost including contingencies (excl. GST)		\$ 4,719,917

QUALIFICATIONS AND ASSUMPTIONS

- These cost estimates are based on:
 - Standard civil rates supplied by *Rawlinsons Australian Construction Handbook*, 37th Ed. 2019
 - Cost estimates from proprietary product suppliers (e.g. synthetic surface, etc.)
 - Previous related projects
- The development cost estimates are based on quantities derived from the above and generally accepted industry rates for civil engineering works and in some cases proprietary pricing information for specific item.
- All costs exclude GST
- The cost estimate excludes:
 - Escalation to completion
 - Interest costs
 - Holding fees
 - Legal fees
 - Soil contamination
 - Flora/fauna or heritage conservation
- Rates will be subject to variation depending on a range of factors including timing, competition in the local market place, labour and material costs.
- No stormwater retention is required.
- No detailed design has been undertaken.
- Pavement composition is based on geotechnical advice provided by A.S. James Pty. Limited in report 115709 dated 24 March 2014.
- None of the existing in-ground services have asbestos
- Substructure composition, 450dia. X 12m bored piles to slab (assumed 8m x 8m grid)
- Areas and volumes have been taken from preliminary development designs completed date.



Item	Description	Unit	Quantity	Rate	Amount (\$)
1.0	<u>CONSTRUCTION PRELIMINARIES</u>				
1.1	Site Establishment including construction of site access	Item	1	\$ 26,262.50	\$ 26,263
1.2	Provision for Traffic	Item	1	\$ 13,131.25	\$ 13,131
1.3	Survey, set out and monitoring of the works by a licensed surveyor	Item	1	\$ 15,757.50	\$ 15,758
1.4	Provision of Quality Plan, OH&S Plan and Environmental Management Plan	Item	1	\$ 2,626.25	\$ 2,626
1.5	Provision of "Work-as-Executed" drawings	Item	1	\$ 10,505.00	\$ 10,505
1.6	Project Sign	Item	1	\$ 1,500.00	\$ 1,500
1.7	Establishment and maintenance of temporary erosion and water quality protection measures, including rer	Item	1	\$ 10,505.00	\$ 10,505
1.8	Temporary fencing	Item	1	\$ 14,181.75	\$ 14,182
1.9	Other preliminaries including supervision, insurances, dis-establishment, etc	Item	1	\$ 115,555.00	\$ 115,555
				Subtotal	\$ 210,024



Item	Description	Unit	Quantity	Rate	Amount (\$)
2.0	<u>DEMOLITION and EXCAVATION</u>				
2.1	<u>Demolition</u>				
2.1.1	Break out existing trees including root system and dispose off-site	Item	11	\$ 658.00	\$ 7,238
2.1.2	Break out existing existing unsealed carpark and dispose off-site (assumed 200mm)	m ²	1,900	\$ 26.00	\$ 49,400
2.2	<u>Excavation</u>				
2.2.2	Strip existing organic top layer and dispose off-site (assumed 150mm)	m ³	1,021	\$ 15.00	\$ 15,320
2.2.3	Cut to subgrade levels (additional 400 mm)	m ³	760	\$ 11.00	\$ 8,360
2.2.4	Dispose excess cut material off-site	m ³	760	\$ 30.00	\$ 22,800
2.2.5	Prepare subgrade (final trim) +/- 20mm	m ²	8,709	\$ 3.00	\$ 26,127
				Subtotal	\$ 129,245



Item	Description	Unit	Quantity	Rate	Amount (\$)
3.0	<u>IN-GROUND SERVICES</u>				
3.1	<u>Stormwater Drainage</u>				
3.1.1	Stormwater drainage network (including pits, pipes, excavation, bedding and backfill)				
i)	Synthetic hockey field stormwater drainage network	Item	1	\$ 60,000.00	\$ 60,000
ii)	Carpark stormwater drainage network	Item	1	\$ 15,000.00	\$ 15,000
3.1.2	Connect to existing drainage pit	Item	2	\$ 1,223.00	\$ 2,446
3.2	<u>Electrical Services</u>				
3.2.1	Site Supply				
	Main switchboard and group metering for site power supply installed in cabinet including excavation and concrete footing	Item	1	\$ 50,000.00	\$ 50,000
	Zone distribution board installed in cabinet including excavation and concrete footing	Item	1	\$ 20,000.00	\$ 20,000
	Electrical conduit installation (including excavation, bedding and backfill)	Item	1	\$ 35,000.00	\$ 35,000
3.2.2	Sports Lighting				
i)	Light towers and associated elements (350lux)	Item	1	\$ 500,000.00	\$ 500,000
				Subtotal	\$ 682,446



Item	Description	Unit	Quantity	Rate	Amount
4.0	<u>PAVEMENTS & ANCILLARIES</u>				
4.1	<u>Synthetic Hockey Field</u>				
4.1.1	Bored piles to slabs	m	1,248	\$ 230.00	\$ 287,040
4.1.2	125mm thick concrete slab	m ²	5,747	\$ 120.00	\$ 689,640
4.1.3	Variable thickness topping slab	m ²	5,747	\$ 120.00	\$ 689,640
4.1.4	FIH approved synthetic turf system including shockpad, infill and linemarking	m ²	5,747	\$ 70.00	\$ 402,290
4.2	<u>Asphalt Carpark and Access Road</u>				
4.2.1	Geo-composite membrane - installation, delivery and travel expenses	m ²	1,950	\$ 11.00	\$ 21,450
4.2.2	200mm thick Type A capping layer compacted to 98% S.M.D.D.	m ²	1,950	\$ 21.00	\$ 40,950
4.2.3	Tensar grid Tx160/Tx170	m ²	7,010	\$ 8.00	\$ 56,080
4.2.4	200mm thick Type A capping layer compacted to 98% S.M.D.D.	m ²	1,950	\$ 21.00	\$ 40,950
4.2.5	200mm thick Class 2 crushed rock 20mm nominal size compacted to 98% M.M.D.D.	m ²	1,823	\$ 28.00	\$ 51,044
4.2.6	Prime Coat	m ²	1,823	\$ 3.00	\$ 5,469
4.2.7	30mm thick 10mm nominal size Type N dense graded asphalt	m ²	1,823	\$ 25.00	\$ 45,575
4.2.8	Linemarking	Item	1	\$ 2,500.00	\$ 2,500
4.3	<u>Concrete Works</u>				
4.3.1	Concrete Pavement				
i)	1.8m wide concrete path (including compactive bedding)	m	763	\$ 91.00	\$ 69,433
ii)	Concrete hard stand	m ²	112	\$ 92.00	\$ 10,304
4.3.1	Concrete Edge Strips and Kerbs				
i)	Cast insitu 200mm wide concrete edge strip (including compactive bedding)	m	249	\$ 82.00	\$ 20,418
ii)	Cast insitu 300mm wide concrete edge strip (including compactive bedding)	m	120	\$ 90.00	\$ 10,800
iii)	Modified 450mm wide concrete kerb (including compactive bedding)	m	255	\$ 120.00	\$ 30,600
iv)	600mm wide concrete kerb and channel (including compactive bedding)	m	235	\$ 130.00	\$ 30,550
				Subtotal	\$ 2,504,733



Item	Description	Unit	Quantity	Rate	Amount
5.0	<u>MISCELLANEOUS WORKS</u>				
5.1	<u>Fencing</u>				
5.1.1	1.05m high fence	m	40	\$ 110.00	\$ 4,400
5.1.2	1.8m high fence	m	163	\$ 200.00	\$ 32,600
5.1.3	3m high fence	m	58	\$ 167.00	\$ 9,686
5.1.4	5m high fence	m	66	\$ 650.00	\$ 42,900
5.1.5	1.2m wide pedestrian access gate	Item	7	\$ 580.00	\$ 4,060
5.1.6	4m wide vehicle access gate	Item	1	\$ 1,793.00	\$ 1,793
5.2	<u>Sports Equipment</u>				
5.2.1	Hockey goals	Item	4	\$ 5,000.00	\$ 20,000
5.2.2	Hockey corner flags	Item	4	\$ 300.00	\$ 1,200
5.2.3	Player shelters including bench seats	Item	2	\$ 5,100.00	\$ 10,200
5.2.4	Officials shelters	Item	1	\$ 3,600.00	\$ 3,600
5.3	<u>Miscellaneous</u>				
5.3.1	FIH Certification by Independent Test Institute	Item	1	\$ 10,000.00	\$ 10,000
5.3.2	1m x 1m cleaning grate with 100 dia. outlet	Item	9	\$ 4,000.00	\$ 36,000
5.3.3	Rootzone barrier	m	94	\$ 91.00	\$ 8,554
5.3.4	General landscaping allowance (provisional sum)	Item	1	\$ 5,000.00	\$ 5,000
				Subtotal	\$ 189,993



KNOX REGIONAL HOCKEY FACILITY
FEASIBILITY STUDY
WANTIRNA RESERVE - PAVILION



COST ESTIMATE
ISSUE: 001
REVISION: B
DATE: 16/12/2019

Item	Description	Amount (\$)
1.0	CONSTRUCTION PRELIMINARIES	\$ 214,150
2.0	EXCAVATION	\$ 2,100
3.0	IN-GROUND SERVICES	\$ 65,600
4.0	PAVILION WORKS	\$ 3,500,000
	Total (excl. GST)	\$ 3,781,850
	Contingencies (20%)	\$ 756,370
	Design Consultancy (7%)	\$ 264,730
	Total Cost including contingencies (excl. GST)	\$ 4,802,950

QUALIFICATIONS AND ASSUMPTIONS

- These cost estimates are based on:
 - Standard civil rates supplied by *Rawlinsons Australian Construction Handbook*, 37th Ed. 2019
 - Cost estimates from proprietary product suppliers (e.g. synthetic surface, etc.)
 - Previous related projects
- The development cost estimates are based on quantities derived from the above and generally accepted industry rates for civil engineering works and in some cases proprietary pricing information for specific item.
- All costs exclude GST
- The cost estimate excludes:
 - Escalation to completion
 - Interest costs
 - Holding fees
 - Legal fees
 - Soil contamination
 - Flora/fauna or heritage conservation
- Rates will be subject to variation depending on a range of factors including timing, competition in the local market place, labour and material costs.
- No stormwater retention is required.
- No detailed design has been undertaken.
- Pavement composition is based on geotechnical advice provided by A.S. James Pty. Limited in report 115709 dated 24 March 2014.
- None of the existing in-ground services have asbestos
- Substructure composition, 450dia. X 12m bored piles to slab (assumed 8m x 8m grid)
- Areas and volumes have been taken from preliminary development designs completed date.



Item	Description	Unit	Quantity	Rate	Amount (\$)
1.0	<u>CONSTRUCTION PRELIMINARIES</u>				
1.1	Site Establishment including construction of site access	Item	1	\$ 26,781.25	\$ 26,781
1.2	Provision for Traffic	Item	1	\$ 13,390.63	\$ 13,391
1.3	Survey, set out and monitoring of the works by a licensed surveyor	Item	1	\$ 16,068.75	\$ 16,069
1.4	Provision of Quality Plan, OH&S Plan and Environmental Management Plan	Item	1	\$ 2,678.13	\$ 2,678
1.5	Provision of "Work-as-Executed" drawings	Item	1	\$ 10,712.50	\$ 10,713
1.6	Project Sign	Item	1	\$ 1,500.00	\$ 1,500
1.7	Establishment and maintenance of temporary erosion and water quality protection measures, including rer	Item	1	\$ 10,712.50	\$ 10,713
1.8	Temporary fencing	Item	1	\$ 14,461.88	\$ 14,462
1.9	Other preliminaries including supervision, insurances, dis-establishment, etc	Item	1	\$ 117,837.50	\$ 117,838
				Subtotal	\$ 214,143



Item	Description	Unit	Quantity	Rate	Amount (\$)
2.0	<u>EXCAVATION</u>				
2.1	Strip existing organic top layer and dispose off-site (assumed 150mm)	m ³	60	\$ 15.00	\$ 900
2.2	Prepare subgrade (final trim) +/- 20mm	m ²	400	\$ 3.00	\$ 1,200
				Subtotal	\$ 2,100



Item	Description	Unit	Quantity	Rate	Amount (\$)
3.0	<u>IN-GROUND SERVICES</u>				
3.1	<u>Electrical Services</u>				
3.1.1	Pavilion pit and pipe	Item	1	\$ 5,600.00	\$ 5,600
3.2	<u>Communications</u>				
3.2.1	Comms connection to pavilion and authority service (including pits and conduits, trenching, backfill and fittings)	Item	1	\$ 8,000.00	\$ 8,000
3.3	<u>Sewer</u>				
3.3.1	Sewer manholes and pipes (including excavation, bedding and backfill)	Item	1	\$ 10,000.00	\$ 10,000
3.3.2	Connection to authority sewer main	Item	1	\$ 20,000.00	\$ 20,000
3.4	<u>Hydraulics</u>				
3.4.1	Potable water connection to pavilion (including excavation bedding and backfill)	Item	1	\$ 10,000.00	\$ 10,000
3.4.2	100mm Fire service	Item	1	\$ 12,000.00	\$ 12,000
				Subtotal	\$ 65,600



Item	Description	Unit	Quantity	Rate	Amount
4.0	PAVILION WORKS				
4.1	New pavilion (including 6 x change and amenities (4 x players, 2 x officials)) - piled	Item	1	\$ 3,500,000.00	\$ 3,500,000
				Subtotal	\$ 3,500,000





- Emergency access** - retain current emergency and maintenance access point with chained bollards
- Existing pedestrian access** concrete footpath as entrance into reserve from Rose Hill St
- Proposed garden beds** with proposed native & indigenous feature planting
- Proposed pedestrian path** concrete path (2m wide) to connect to roadside footpath (1.5m) and entrance into reserve from Rose Hill St
- Proposed seating** - viewing for courts & playground
- Proposed play space** - nature play space including dry creek bed, timber logs and play equipment with fall zones to Australian playground standards.
- Proposed new bin** 240L pedestal (on concrete set in grass)
- Proposed shelter & drinking fountain (with dog bowl)** - proposed shelter for shade and weather protection with two picnic table & benches
- Proposed half court** - with seat and basketball ring
- Proposed sculptures** - retain stumps of radiata pine to use as sculptural elements in play space
- Remove existing pines** (5) to open up visibility into play area and ball courts
- Existing bins** at Bus Stop and next to Toilets
- Proposed rebound wall** - small rebound walls for ball sports
- Proposed tennis fencing** - chain wire mesh fence with soccer goals for multiple use of ball court
- Remove existing trees** due to poor habit & growth (refer arborist report). Replace with native and indigenous tree species
- Proposed boundary rocks** amongst mulch and plantings in garden beds to replace bollards
- Retain row of radiata pines** for shade and cultural value
- Pedestrian access** from proposed car parking area, connecting to concrete & granitic sand paths
- Proposed accessible carparking** closest to access paths, pavilion and ball court areas
- Demolish gravel driveway** and mounds reseed lawn area
- Potential for Water Sensitive Urban Design (WSUD)** biofiltration system between carparks to capture and filter water runoff
- Proposed car parks** - 27 space 90 degree carpark with 2 accessible car parks
- Existing toilet block** - possible future upgrade, including disabled access as per council upgrade schedule
- Existing light towers** - possible future upgrade as per council upgrade schedule
- Proposed pedestrian path** - granitic sand path (1.5m wide min)
- Existing drain** - potential for bioswale filtered drainage
- Demolish tennis courts** (2) & reseed with grass. 1 tennis court will be relocated with proposed half court for multiple sporting opportunities
- Proposed tree planting** - native & indigenous plantings for increase existing native habitat and to provide passive recreation
- Remove existing pine trees** (3) at southern end of tree row to open up corner of reserve for pedestrian paths and native & indigenous plantings
- Proposed pedestrian access** - concrete path (2m) meets existing concrete footpath (1.5m) as entrance into reserve
- Proposed seating** - for watching sport or a resting place along pathway, adhering to council standard aluminium & durablast park seating with arm rests and bench seating
- Proposed pedestrian access** - concrete path through from Rumann street connecting to proposed concrete all weather circuit path (2m)



GENERAL NOTES

- Signage** - implement signage at four main pedestrian entrances for wayfinding, directions to major activity areas & warning of cricket and other balls in use on ovals & for cleaning up after dogs
- Pruning radiata pines** - qualified & experienced arborist to prune large dead branches and carry out crown and weight reduction to improve health and longevity of tree row
- Mulching around row of pine trees** - mulch and decompact soil around retained row of pine trees to improve tree and soil health
- Waste bins, bike racks & drinking fountain** - recycle and rubbish bin, bike racks and all access water fountain located north of shelter near play space
- Drainage** - possible future upgrade to site drainage under sports ovals - in line with Council Standards and funding
- Possible future pavilion upgrade** - according to council facility standards and funding
- Possible future toilet replacement** - according to council toilet replacement program and funding
- Runoff areas** - runoff distance of 3m from lacrosse and cricket ovals to pedestrian paths
- Possible future light tower upgrade** - according to council facility standards and funding

1:1000(A3) 0 25m

LEGEND

- | | | | | | |
|--|------------------------------|--|-----------------------------------|--|----------------------------|
| | Existing tree to be retained | | Proposed shelter | | Proposed timber logs |
| | Proposed trees | | Proposed council standard seating | | Proposed rubbish bin |
| | Existing tree to be removed | | Proposed bench seating | | Proposed drinking fountain |
| | Existing light poles | | Proposed concrete path (2m wide) | | Proposed stepping logs |
| | Proposed 90° car parking | | Proposed granitic sand path | | Proposed rebound wall |
| | Proposed garden beds | | Proposed play equipment | | Proposed tennis fencing |
| | Proposed & existing lawn | | Proposed dry creek bed | | Proposed multi-use court |
| | Proposed drainage line | | Proposed play bridge | | Proposed tennis court |
| | Proposed playground mulch | | Proposed ESD swales | | Proposed boundary boulders |



Nature play
Large rocks form stepping stones throughout the playground along a dry creek bed. Bushes, grasses and small trees amongst rocks and logs enhance sensory play and provide micro habitats, interesting textures and colours to complement modular play equipment of see-saw, cubby with climbing frame and slide, and an equal access basket swing.

Knox Hockey Facility – Community Engagement Summary

Purpose

The purpose of the initial consultation was to seek feedback from adjoining residents on a proposal to develop a synthetic hockey pitch on the existing active open space area of Benedikt Reserve, Scoresby.

A letter was distributed along with a high level site plan indicating possible siting of the pitch and associated infrastructure including lighting, pavilion redevelopment options and car parking options.

The purpose of the discussion with the community was to make them aware of the proposal, get their initial impressions and determine the level of interest and support the community may have for the proposal.

Process

The initial consultation approach was to be undertaken early in 2020 but was postponed due to COVID 19 restrictions and was not able to be undertaken again until early 2021. Consultation activities were structured to ensure that social distancing and COVID Safe conditions could be maintained.

Letters were sent to 400 residences surrounding the reserve via Australia Post in mid-January 2021, inviting residents to a COVID Safe drop-in discussion about the initial proposal. Posters were also installed on the doors of the Pavilion and the external wall of the Public toilets.

No online channels were used to promote the consultation to ensure that the reach was primarily local and controlled to ensure that the numbers of people in attendance were able to be managed in a COVID Safe manner. The letters to residents also asked people to nominate a preferred date and time via email or telephone to ensure that officers could safely manage the number of attendees.

The discussions with the community were undertaken on the evening of Wednesday 27 January and on Saturday morning 30 January 2021. These sessions were attended by 15 people each.

The drop in sessions provided an opportunity for those in attendance to be informed about the proposal, ask questions and provide their feedback. Information was also provided about next steps and further opportunities for community input into the design of facilities to manage impacts of the amenity of the local community.

Following the drop in sessions at the Reserve some residents formed a group opposing the proposal and developed a petition to Council. This raised further awareness of the proposal and resulted in more feedback to Council. This feedback has been taken into consideration.

Subsequently a project page has been created on Council's Have Your Say platform to provide information about the proposal for interested residents beyond the initial consultation area. Residents can subscribe here to receive updates on the proposal.

Background

Benedikt Reserve has historically been an active recreation reserve, previously accommodating Tennis, Lacrosse, Cricket and Australian Rules football and continues to accommodate training for football and junior and lower grade cricket competition and training. In more recent years, the former disused tennis courts have been removed and replaced with a casual tennis/ multipurpose

Attachment 5

area adjoining the upgraded playground in line with the Council endorsed masterplan. The Lacrosse Club folded due to diminishing membership and no competitive sport is played on the northern field. However the sports lights remain operational and are utilised by clubs for pre-season training purposes.

The sporting pavilion and public toilets, whilst old are still functional. They may require replacement or upgrade if the hockey facility were to progress.

The masterplan (completed in 2013) for the reserve has generally focused on the non-structured area and the improvements to the reserve have successfully encouraged much greater passive use of the reserve.

Community feedback

The COVID-19 pandemic and restrictions on movement of people has renewed community interest in and importance placed on neighbourhood open space. This has resulted in significant community interest in the future of Benedikt Reserve and open space more generally.

749 emails have been received by officers; 371 outlining concerns for the development and the impact it may have on the community and 378 supporting the need for the Hockey Club to have a new home.

A petition was received on 22 March 2021 with 537 signatures requesting that: "Knox City Council forgo the development at Benedikt Reserve; which Council has been considering developing to accommodate the re-location of the Knox Hockey Club."

Key issues

A summary of the key issues that have been highlighted by this feedback are outlined below:

- Hockey Club - general support for Council to continue working with the Hockey Club in its endeavours to find a new home
- Loss of open space – many people perceived that the addition of a fenced but publicly accessible synthetic hockey field equates to a loss of open space.

It is acknowledged that there is a perception of the loss of open space – the proposed facility would not reduce the open space although a level of fencing is required to ensure that the facility isn't damaged by vehicles and motorbikes and to ensure that the safety of other park users is protected. It is proposed that the facility would be gated and that the general public could use the surface in much the same way that the existing grassed area is currently used.

- Loss of amenity – concerns that the development would limit use of the reserve, particularly for passive recreation and play on the open areas of the Reserve.

The facility would be available for general public use although it would be limited to times that the club or other booked users, such as the local schools, are not using the facility. This is similar to the way the reserve is currently managed when the cricket, football or formerly the lacrosse club used the reserve.

Attachment 5

- Increased noise – the Reserve does not currently have a resident sporting club; it is used for overflow training and as a secondary cricket ground. Residents are concerned that the addition of a hockey club to the site, weekday evenings and weekends, will result in much more noise for greater periods of the week particularly from whistles.

The reserve has traditionally been used for competitive sport and the noise emitting from the hockey pitch will be similar. The increased use of the reserve for sporting uses will increase the level of noise. The use of the reserve during the week would be predominantly for training with some midweek competition and the majority of competition undertaken on the weekend. Hockey is predominantly a winter sport as such the facility whilst still being used during the summer months the use would be much more limited, providing much greater access to the general community.

Should the facility be approved Council would work closely with the Knox Hockey Club to develop a management approach to minimise noise and community impact from their activities. Council would also consider a landscaping response to limit the impact of noise from the site.

Increased activity can also have the benefit of natural surveillance to reduce any anti-social behavior or vandalism.

- Car parking – residents were concerned that there would not be sufficient parking at the reserve and not supportive of the proposal to increase parking at the reserve.

If a facility were to proceed, increased car parking will be required at the reserve. The draft plan identifies the site of the former tennis courts as a possible site for increased parking capacity. However, car parking at the site would need further investigation and more appropriate options may be developed. Council and the Club would also consider alternative offsite parking options for competition days when larger numbers of cars would be expected.

- Increased traffic – significant concern was expressed regarding any additional traffic to the area. Many perceived that traffic was already an issue that Council has not effectively addressed previously at this site.

Traffic volumes would increase marginally at peak use times. If the facility is approved during the detailed design process a more in depth traffic management plan would be developed which would identify options for managing this impact.

- Impact on wildlife – several residents highlighted the birdlife and the impact that any new development would have on them.

It is not envisaged that there will not be any loss of trees as a result of the proposed development and whilst there will be less natural turf the impact on birdlife will be minimal to the existing uses of the reserve such as cricket, dogs (off lead) and football training.

- Impact of sports lights – there was concern that any upgraded sports lights would have a spill impact on the immediately surrounding residences.

The existing sports lights at the reserve are not up to standard and would be replaced with vastly improved lighting that is efficient and highly focused. Spill from the new generation LED lighting is minimal and should have little to no impact on adjoining residents. A detailed

Attachment 5

lighting plan would be developed during the detailed design phase to ensure that this was the outcome.

- Fencing and development of the site – comments suggested that the proposal was not in keeping with a community reserve and that the fencing and overall development of the site would be detrimental to the amenity of the area.

The development of a facility on the site would change the look and feel of the site. Intelligent design (usually black to blend in) of the fencing and related sporting infrastructure would minimise the aesthetic impact and maximise accessibility for the sporting and community use of the site.

- Public toilets – the condition and lack of opening hours of the public toilets at the Reserve was also raised.

The initial proposal does not include the development of a new pavilion on the site. The existing pavilion would be utilised and redevelopment would be a future consideration. However as the pavilion does not have adequate toilet facilities the existing public toilets condition and access would be reviewed to ensure that they meet appropriate community and club needs

Council will continue to update the community on the progress of the project on the **'Have Your Say'** platform.



- Emergency access** - retain current emergency and maintenance access point with chained bollards
- Existing pedestrian access** concrete footpath as entrance into reserve from Rose Hill St
- Proposed garden beds** with proposed native & indigenous feature planting
- Proposed pedestrian path** concrete path (2m wide) to connect to roadside footpath (1.5m) and entrance into reserve from Rose Hill St
- Proposed seating** - viewing for courts & playground
- Proposed play space** - nature play space including dry creek bed, timber logs and play equipment with fall zones to Australian playground standards.
- Proposed new bin** 240L pedestal (on concrete set in grass)
- Proposed shelter & drinking fountain (with dog bowl)** - proposed shelter for shade and weather protection with two picnic table & benches
- Proposed half court** - with seal and basketball ring
- Proposed sculptures** - retain stumps of radiata pine to use as sculptural elements in play space
- Remove existing pines** (5) to open up visibility into play area and ball courts
- Existing bins** at Bus Stop and next to Toilets
- Proposed rebound wall** - small rebound walls for ball sports
- Proposed tennis fencing** - chain wire mesh fence with soccer goals for multiple use of ball court
- Remove existing trees** due to poor habit & growth (refer arborist report). Replace with native and indigenous tree species
- Proposed boundary rocks** amongst mulch and plantings in garden beds to replace bollards
- Retain row of radiata pines** for shade and cultural value
- Pedestrian access** from proposed car parking area, connecting to concrete & granitic sand paths
- Proposed accessible carparking** closest to access paths, pavilion and ball court areas
- Demolish gravel driveway** and mounds reseed lawn area
- Potential for Water Sensitive Urban Design (WSUD)** biofiltration system between carparks to capture and filter water runoff
- Proposed car parks** - 27 space 90 degree carpark with 2 accessible car parks
- Existing toilet block** - possible future upgrade, including disabled access as per council upgrade schedule
- Existing light towers** - possible future upgrade as per council upgrade schedule
- Proposed pedestrian path** - granitic sand path (1.5m wide min)
- Existing drain** - potential for bioswale filtered drainage
- Demolish tennis courts** (2) & reseed with grass. 1 tennis court will be relocated with proposed half court for multiple sporting opportunities
- Proposed tree planting** - native & indigenous plantings for increase existing native habitat and to provide passive recreation
- Remove existing pine trees** (3) at southern end of tree row to open up corner of reserve for pedestrian paths and native & indigenous plantings
- Proposed pedestrian access** - concrete path (2m) meets existing concrete footpath (1.5m) as entrance into reserve
- Proposed seating** - for watching sport or a resting place along pathway, adhering to council standard aluminium & durablast park seating with arm rests and bench seating
- Proposed pedestrian access** - concrete path through from Rumann Street connecting to proposed concrete all weather circuit path (2m)



GENERAL NOTES

- Signage** - implement signage at four main pedestrian entrances for wayfinding, directions to major activity areas & warning of cricket and other balls in use on ovals & for cleaning up after dogs
- Pruning radiata pines** - qualified & experienced arborist to prune large dead branches and carry out crown and weight reduction to improve health and longevity of tree row
- Mulching around row of pine trees** - mulch and decompact soil around retained row of pine trees to improve tree and soil health
- Waste bins, bike racks & drinking fountain** - recycle and rubbish bin, bike racks and all access water fountain located north of shelter near play space
- Drainage** - possible future upgrade to site drainage under sports ovals - in line with Council Standards and funding
- Possible future pavilion upgrade** - according to council facility standards and funding
- Runoff areas** - runoff distance of 3m from lacrosse and cricket ovals to pedestrian paths
- Possible future toilet replacement** - according to council toilet replacement program and funding
- Possible future light tower upgrade** - according to council facility standards and funding

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LEGEND

	Existing tree to be retained		Proposed shelter		Proposed timber logs
	Proposed trees		Proposed council standard seating		Proposed rubbish bin
	Existing tree to be removed		Proposed bench seating		Proposed drinking fountain
	Existing light poles		Proposed concrete path (2m wide)		Proposed stepping logs
	Proposed 90° car parking		Proposed granitic sand path		Proposed rebound wall
	Proposed garden beds		Proposed play equipment		Proposed tennis fencing
	Proposed & existing lawn		Proposed dry creek bed		Proposed multi-use court
	Proposed drainage line		Proposed play bridge		Proposed tennis court
	Proposed playground mulch		Proposed ESD swales		Proposed boundary boulders



Nature play
Large rocks form stepping stones throughout the playground along a dry creek bed. Bushes, grasses and small trees amongst rocks and logs enhance sensory play and provide micro habitats, interesting textures and colours to complement modular play equipment of see-saw, cubby with climbing frame and slide, and an equal access basket swing.

Knox Hockey Facility – Community Engagement Summary

Purpose

The purpose of the initial consultation was to seek feedback from adjoining residents on a proposal to develop a synthetic hockey pitch on the existing active open space area of Benedikt Reserve, Scoresby.

A letter was distributed along with a high level site plan indicating possible siting of the pitch and associated infrastructure including lighting, pavilion redevelopment options and car parking options.

The purpose of the discussion with the community was to make them aware of the proposal, get their initial impressions and determine the level of interest and support the community may have for the proposal.

Process

The initial consultation approach was to be undertaken early in 2020 but was postponed due to COVID 19 restrictions and was not able to be undertaken again until early 2021. Consultation activities were structured to ensure that social distancing and COVID Safe conditions could be maintained.

Letters were sent to 400 residences surrounding the reserve via Australia Post in mid-January 2021, inviting residents to a COVID Safe drop-in discussion about the initial proposal. Posters were also installed on the doors of the Pavilion and the external wall of the Public toilets.

No online channels were used to promote the consultation to ensure that the reach was primarily local and controlled to ensure that the numbers of people in attendance were able to be managed in a COVID Safe manner. The letters to residents also asked people to nominate a preferred date and time via email or telephone to ensure that officers could safely manage the number of attendees.

The discussions with the community were undertaken on the evening of Wednesday 27 January and on Saturday morning 30 January 2021. These sessions were attended by 15 people each.

The drop in sessions provided an opportunity for those in attendance to be informed about the proposal, ask questions and provide their feedback. Information was also provided about next steps and further opportunities for community input into the design of facilities to manage impacts of the amenity of the local community.

Following the drop in sessions at the Reserve some residents formed a group opposing the proposal and developed a petition to Council. This raised further awareness of the proposal and resulted in more feedback to Council. This feedback has been taken into consideration.

Subsequently a project page has been created on Council's Have Your Say platform to provide information about the proposal for interested residents beyond the initial consultation area. Residents can subscribe here to receive updates on the proposal.

Background

Benedikt Reserve has historically been an active recreation reserve, previously accommodating Tennis, Lacrosse, Cricket and Australian Rules football and continues to accommodate training for football and junior and lower grade cricket competition and training. In more recent years, the former disused tennis courts have been removed and replaced with a casual tennis/ multipurpose

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area adjoining the upgraded playground in line with the Council endorsed masterplan. The Lacrosse Club folded due to diminishing membership and no competitive sport is played on the northern field. However the sports lights remain operational and are utilised by clubs for pre-season training purposes.

The sporting pavilion and public toilets, whilst old are still functional. They may require replacement or upgrade if the hockey facility were to progress.

The masterplan (completed in 2013) for the reserve has generally focused on the non-structured area and the improvements to the reserve have successfully encouraged much greater passive use of the reserve.

Community feedback

The COVID-19 pandemic and restrictions on movement of people has renewed community interest in and importance placed on neighbourhood open space. This has resulted in significant community interest in the future of Benedikt Reserve and open space more generally.

749 emails have been received by officers; 371 outlining concerns for the development and the impact it may have on the community and 378 supporting the need for the Hockey Club to have a new home.

A petition was received on 22 March 2021 with 537 signatures requesting that: "Knox City Council forgo the development at Benedikt Reserve; which Council has been considering developing to accommodate the re-location of the Knox Hockey Club."

Key issues

A summary of the key issues that have been highlighted by this feedback are outlined below:

- Hockey Club - general support for Council to continue working with the Hockey Club in its endeavours to find a new home
- Loss of open space – many people perceived that the addition of a fenced but publicly accessible synthetic hockey field equates to a loss of open space.

It is acknowledged that there is a perception of the loss of open space – the proposed facility would not reduce the open space although a level of fencing is required to ensure that the facility isn't damaged by vehicles and motorbikes and to ensure that the safety of other park users is protected. It is proposed that the facility would be gated and that the general public could use the surface in much the same way that the existing grassed area is currently used.

- Loss of amenity – concerns that the development would limit use of the reserve, particularly for passive recreation and play on the open areas of the Reserve.

The facility would be available for general public use although it would be limited to times that the club or other booked users, such as the local schools, are not using the facility. This is similar to the way the reserve is currently managed when the cricket, football or formerly the lacrosse club used the reserve.

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- Increased noise – the Reserve does not currently have a resident sporting club; it is used for overflow training and as a secondary cricket ground. Residents are concerned that the addition of a hockey club to the site, weekday evenings and weekends, will result in much more noise for greater periods of the week particularly from whistles.

The reserve has traditionally been used for competitive sport and the noise emitting from the hockey pitch will be similar. The increased use of the reserve for sporting uses will increase the level of noise. The use of the reserve during the week would be predominantly for training with some midweek competition and the majority of competition undertaken on the weekend. Hockey is predominantly a winter sport as such the facility whilst still being used during the summer months the use would be much more limited, providing much greater access to the general community.

Should the facility be approved Council would work closely with the Knox Hockey Club to develop a management approach to minimise noise and community impact from their activities. Council would also consider a landscaping response to limit the impact of noise from the site.

Increased activity can also have the benefit of natural surveillance to reduce any anti-social behavior or vandalism.

- Car parking – residents were concerned that there would not be sufficient parking at the reserve and not supportive of the proposal to increase parking at the reserve.

If a facility were to proceed, increased car parking will be required at the reserve. The draft plan identifies the site of the former tennis courts as a possible site for increased parking capacity. However, car parking at the site would need further investigation and more appropriate options may be developed. Council and the Club would also consider alternative offsite parking options for competition days when larger numbers of cars would be expected.

- Increased traffic – significant concern was expressed regarding any additional traffic to the area. Many perceived that traffic was already an issue that Council has not effectively addressed previously at this site.

Traffic volumes would increase marginally at peak use times. If the facility is approved during the detailed design process a more in depth traffic management plan would be developed which would identify options for managing this impact.

- Impact on wildlife – several residents highlighted the birdlife and the impact that any new development would have on them.

It is not envisaged that there will not be any loss of trees as a result of the proposed development and whilst there will be less natural turf the impact on birdlife will be minimal to the existing uses of the reserve such as cricket, dogs (off lead) and football training.

- Impact of sports lights – there was concern that any upgraded sports lights would have a spill impact on the immediately surrounding residences.

The existing sports lights at the reserve are not up to standard and would be replaced with vastly improved lighting that is efficient and highly focused. Spill from the new generation LED lighting is minimal and should have little to no impact on adjoining residents. A detailed

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lighting plan would be developed during the detailed design phase to ensure that this was the outcome.

- Fencing and development of the site – comments suggested that the proposal was not in keeping with a community reserve and that the fencing and overall development of the site would be detrimental to the amenity of the area.

The development of a facility on the site would change the look and feel of the site. Intelligent design (usually black to blend in) of the fencing and related sporting infrastructure would minimise the aesthetic impact and maximise accessibility for the sporting and community use of the site.

- Public toilets – the condition and lack of opening hours of the public toilets at the Reserve was also raised.

The initial proposal does not include the development of a new pavilion on the site. The existing pavilion would be utilised and redevelopment would be a future consideration. However as the pavilion does not have adequate toilet facilities the existing public toilets condition and access would be reviewed to ensure that they meet appropriate community and club needs

Council will continue to update the community on the progress of the project on the 'Have Your Say' platform.