







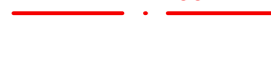





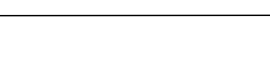


# PROPOSED CULTURAL COMMUNITY CENTRE 682 CASTLEREAGH ROAD, AGNES BANKS STORMWATER MANAGEMENT CONCEPT DESIGN

LEGEND	
	DENOTES ON-SITE DETENTION TANK
	DENOTES ON-SITE RAINWATER REUSE TANK
	DENOTES RAINGARDEN SYSTEM
	DENOTES 100mm DIA. STORMWATER/SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
	DENOTES 100mm DIA. FULLY SEALED CHARGED PIPE RAINWATER SYSTEM U.N.O.
	DENOTES CHARGED RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES RISING MAIN AND PIPE DIA. U.N.O.
	DENOTES SUBSOIL DRAINAGE LINE AND DIA. WRAPPED IN GEOFABRIC U.N.O.
	DENOTES DOWNPIPE
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL FOR SYSTEM FLUSHING PURPOSES
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN

GENERAL DRAINAGE NOTES
1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL'S RELEVANT SPECIFICATIONS AND/OR STORMWATER CODE. ANY DISCREPANCY VARIATION OR ADDITIONAL WORK SHALL BE APPROVED BY THE PRINCIPAL CERTIFIER.
2. ALL SERVICES SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. DIAL BEFORE YOU DIG SHALL BE CONTACTED PRIOR TO COMMENCEMENT.
4. ALL DRAINAGE PIPEWORK AND PLUMBING SHALL BE INSTALLED BY A CERTIFIED PLUMBER IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS3500 AND COUNCIL REQUIREMENTS.
5. ALL DRAINAGE PIPES ARE TO BE SEWER GRADE UNLESS NOTED OTHERWISE.
6. ALL COVERS, GRATES AND FRAMES ARE TO BE CLASS C HEAVY DUTY WHERE SUBJECT TO VEHICULAR TRAFFIC.
7. ALL COVERS, GRATES AND FRAMES ARE TO BE CLASS A MEDIUM DUTY WHERE SUBJECT TO PEDESTRIAN TRAFFIC OR IN LANDSCAPE AREAS.
8. COUNCIL PERMIT/APPROVAL SHALL BE OBTAINED PRIOR TO WORKS ON COUNCIL LAND AND CONNECTION TO COUNCIL SYSTEM.
9. ALL PIPE BENDS TO BE FITTED WITH AN INSPECTION OPENING.

RAINWATER TANK NOTES
1. THE TANK SHALL NOT BE LOCATED OVER A WATER OR SEWER MAIN UNLESS IT IS INSTALLED IN ACCORDANCE WITH THE REGULATORY AUTHORITY REQUIREMENTS
2. ABOVE GROUND TANKS SHALL BE LOCATED AT LEAST 100 MM FROM ANY POTABLE WATER SUPPLY PIPE AND AT LEAST 300 MM FOR BELOW GROUND TANKS.
3. ALL PLUMBING WORK SHALL BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS AND COUNCIL REGULATIONS.
4. ALL INLETS SHALL BE SCREENED OR FILTERED TO PREVENT THE ENTRY OF FOREIGN MATTER OR CREATURES.
5. REUSE PUMP TO BE INSTALLED BY A LICENSED PLUMBER AND ELECTRICIAN TO SYDNEY WATER REQUIREMENTS
6. A SIGN SHALL BE AFFIXED TO THE RAINWATER TANK AND ALL APERTURES CLEARLY STATING THAT THE WATER IN THE TANK IS RAINWATER
7. NOISE EMISSIONS FROM ANY PUMP SHALL MEET COUNCIL'S REQUIREMENTS.
8. WATER RETAINED FOR INDOOR HOUSEHOLD USE SHALL BE AUGMENTED BY MAINS WATER SUPPLY AND APPROVAL OBTAINED BY SYDNEY WATER.
9. WHERE RETAINED WATER IS AUGMENTED BY MAINS WATER SUPPLY A BACKFLOW PREVENTION DEVICE AND FLOW RESTRICTOR SHALL BE INSTALLED IN ACCORDANCE WITH AS 3500 AND SYDNEY WATER REQUIREMENTS.
10. ALL INLETS SHALL BE FITTED WITH A FIRST FLUSH DEVICE PRIOR TO DISCHARGING TO THE RAINWATER TANK.
11. THE INDIRECT CONNECTION TO MAINS WATER SUPPLY SHALL HAVE A VISIBLE AIR GAP IN ACCORDANCE WITH AS 3500.

EROSION & SEDIMENT CONTROL NOTES
1. ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH LOCAL REGULATORY AUTHORITY SPECIFICATION AND THE EROSION AND SEDIMENT CONTROL PLAN.
2. NO CONSTRUCTION IS TO COMMENCE UNTIL ALL EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE.
3. ALL PERIMETER AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO ANY EARTHWORKS AND CLEARING TAKES PLACE.
4. FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
5. ALL SEDIMENT TRAPPING DEVICES ARE TO BE INSPECTED AFTER ALL STORMS FOR STRUCTURAL DAMAGE OR CLOGGING TRAPPED MATERIAL TO BE REMOVED.
6. ALL TOP SOIL IS TO BE STOCKPILED ON SITE FOR REUSE. MEASURES ARE TO BE APPLIED TO PREVENT EROSION OF STOCKPILES.
7. NO DISTURBED AREAS SHALL REMAIN DENUDED LONGER THAN 14 DAYS.
8. NO MORE THAN 150 METRES OF TRENCH IS TO BE OPEN AT ANY TIME.
9. ALL FOOTPATHS BERMS AND BATTER, AD SITE REGRADING AREAS ARE TO BE TOPSOILED WITH MINIMUM 200MM OF SELECTED TOPSOIL.
10. DUST CONTROL MEASURES SHALL BE IMPLEMENTED CONTINUOUSLY DURING CONSTRUCTION WORKS.
11. ALL SITE ACCESS TO BE ACHIEVED FROM DESIGNATED SITE ACCESS PROTECTED BY THE INSTALLATION OF AN APPROVED CONSTRUCTION ENTRY / EXIT RAMP. THIS ENTRY / EXIT RAMP IS TO BE REGULARLY MAINTAINED TO ENSURE ITS EFFECTIVENESS.
12. STREET SWEEPING SHALL BE UNDERTAKEN AS REQUIRED ALONG THE STREET PROPERTY FRONTAGE DURING AND AFTER THE EXCAVATION AND CONSTRUCTION OF THE PROPOSED WORKS UNTIL THE SITE IS FULLY ESTABLISHED.
13. TO PREVENT POLLUTION OF ANY WATERCOURSE AND STREET DRAINAGE SYSTEM THE LOCAL REGULATORY AUTHORITY SHALL BE NOTIFIED AT LEAST 2 DAYS PRIOR TO THE INTENTION TO COMMENCE WORKS FOR COUNCIL TO INSPECT EROSION AND SEDIMENT CONTROL DEVICES WHERE NECESSARY.

MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)		
LOCATION	MINIMUM COVER (mm)	
	CAST / DUCTILE IRON OR GALV STEEL	AUTHORISED PRODUCTS (*)
1. NOT SUBJECT TO VEHICULAR LOADING:		
A. WITHOUT PAVEMENT:		
i. FOR SINGLE DWELLINGS -	0	100
ii. OTHER THAN SINGLE DWELLINGS -	0	300
B. WITH PAVEMENT OF BRICK/UNREINFORCED CONCRETE -	0 (**)	50 (**)
2. SUBJECT TO VEHICULAR LOADING:		
A. OTHER THAN ROADS:		
i. WITHOUT PAVEMENT -	300	450
ii. WITH PAVEMENT OF:		
- REINF. CONC. FOR HEAVY VEHICLES -	0 (** #)	100 (** #)
- BRICK/UNREINF. CONC LIGHT VEHICLES -	0 (** #)	75 (** #)
B. ROADS		
i. SEALED	300	500 (#)
ii. UNSEALED	300	500 (#)
3. SUBJECT TO CONSTRUCTION VEHICLES OR IN EMBANKMENT CONDITIONS	300	500 (#)






(\*) INCLUDES OVERLAY ABOVE THE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK  
(\*\*) BELOW THE UNDERSIDE OF THE PAVEMENT  
(#) SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS 2566.1, AS3725 OR AS 4060

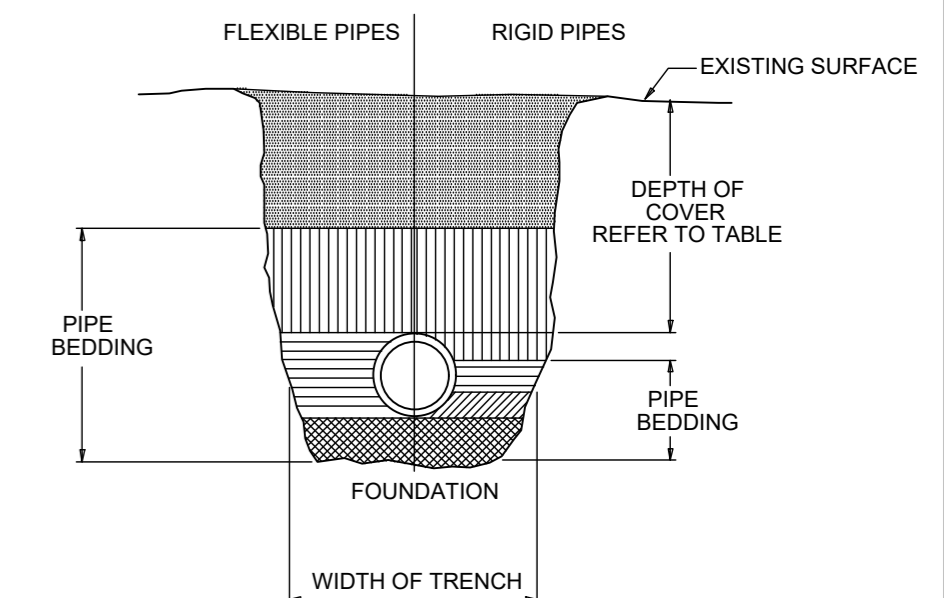
SHEET INDEX	
COVER SHEET AND NOTES .....	SHEET SW1
STORMWATER MANAGEMENT PLAN .....	SHEET SW2
BIO-RETENTION / RAINGARDEN DETAILS .....	SHEET SW3
RAINWATER REUSE TANK SYSTEM DETAILS .....	SHEET SW4

**DIAL BEFORE YOU DIG**



IMPORTANT: THE CONTRACTOR IS TO MAINTAIN A CURRENT SET OF "DIAL BEFORE YOU DIG" DRAWINGS ON SITE AT ALL TIMES.

LEGEND - TRENCH BACKFILL			
SYMBOL	FLEXIBLE PIPES	RIGID PIPES	
	BACKFILL		
	PIPE OVERLAY		
	PIPE SIDE SUPPORT	SIDE ZONE	
	-	HAUNCH ZONE	
	PIPE UNDERLAY	BED ZONE	



NOTE A  
STORMWATER DRAINS CONSTRUCTED OF OTHER THAN CAST IRON, DUCTILE IRON OR GALVANISED STEEL HAVING COVER LESS THAN THAT SPECIFIED IN TABLE SHALL BE COVERED WITH AT LEAST 50mm OVERLAY AND SHALL BE PAVED WITH AT LEAST 100mm THICKNESS OF REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICULAR LOADING

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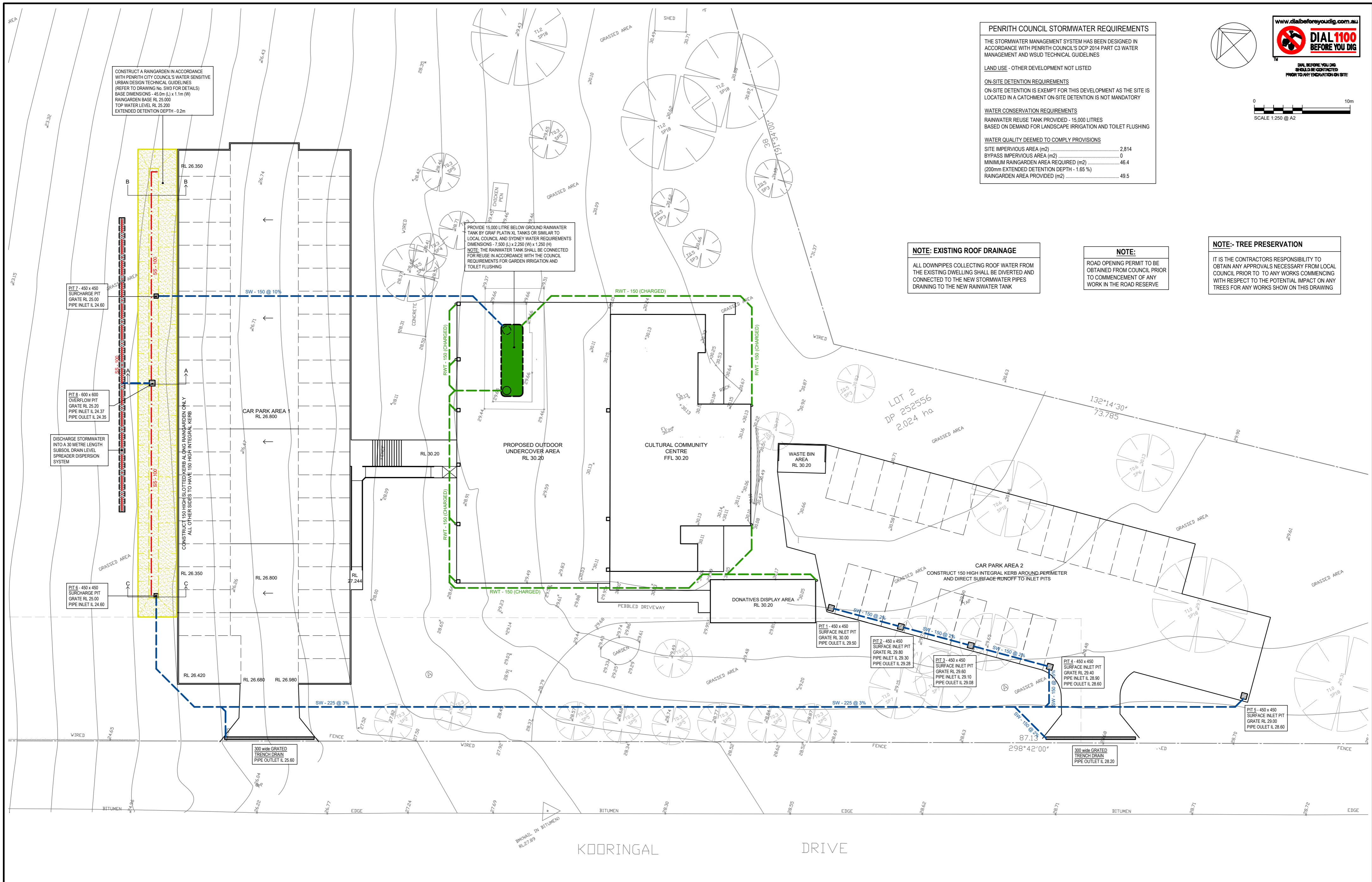
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CLIENT NAME:  
**VAISHNAV SANGH**

PROJECT TITLE:  
**CULTURAL COMMUNITY CENTRE  
682 CASTLEREAGH ROAD  
AGNES BANKS NSW**

DRAWING TITLE:  
**COVER SHEET AND NOTES**

DRAWN: A.L	APPROVED BY: Andrew Lam		
DATE: 22.06.2020	MIEAust 2338558 B.E. Civil (Hons)		
JOB No: 2020-032	DWG NO: SW1	no. IN SET: 4	
	No.	REVISION / ISSUE DESCRIPTION	DATE



PENRITH COUNCIL STORMWATER REQUIREMENTS	
THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH PENRITH COUNCIL'S DCP 2014 PART C3 WATER MANAGEMENT AND WSUD TECHNICAL GUIDELINES	
LAND USE - OTHER DEVELOPMENT NOT LISTED	
ON-SITE DETENTION REQUIREMENTS ON-SITE DETENTION IS EXEMPT FOR THIS DEVELOPMENT AS THE SITE IS LOCATED IN A CATCHMENT ON-SITE DETENTION IS NOT MANDATORY	
WATER CONSERVATION REQUIREMENTS RAINWATER REUSE TANK PROVIDED - 15,000 LITRES BASED ON DEMAND FOR LANDSCAPE IRRIGATION AND TOILET FLUSHING	
WATER QUALITY DEEMED TO COMPLY PROVISIONS	
SITE IMPERVIOUS AREA (m <sup>2</sup> )	2,814
BYPASS IMPERVIOUS AREA (m <sup>2</sup> )	0
MINIMUM RAINGARDEN AREA REQUIRED (m <sup>2</sup> )	46.4
(200mm EXTENDED DETENTION DEPTH - 1.65%)	
RAINGARDEN AREA PROVIDED (m <sup>2</sup> )	49.5

www.dialbeforeyoudig.com.au

**DIAL 1100**  
BEFORE YOU DIG

DIAL BEFORE YOU DIG  
SHOULD BE CONTACTED  
PRIOR TO ANY EXCAVATION ON SITE

0 10m  
SCALE 1:250 @ A2

**NOTE: EXISTING ROOF DRAINAGE**

ALL DOWNPIPES COLLECTING ROOF WATER FROM THE EXISTING DWELLING SHALL BE DIVERTED AND CONNECTED TO THE NEW STORMWATER PIPES DRAINING TO THE NEW RAINWATER TANK

**NOTE:**

ROAD OPENING PERMIT TO BE OBTAINED FROM COUNCIL PRIOR TO COMMENCEMENT OF ANY WORK IN THE ROAD RESERVE

**NOTE:- TREE PRESERVATION**

IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ANY APPROVALS NECESSARY FROM LOCAL COUNCIL PRIOR TO ANY WORKS COMMENCING WITH RESPECT TO THE POTENTIAL IMPACT ON ANY TREES FOR ANY WORKS SHOW ON THIS DRAWING

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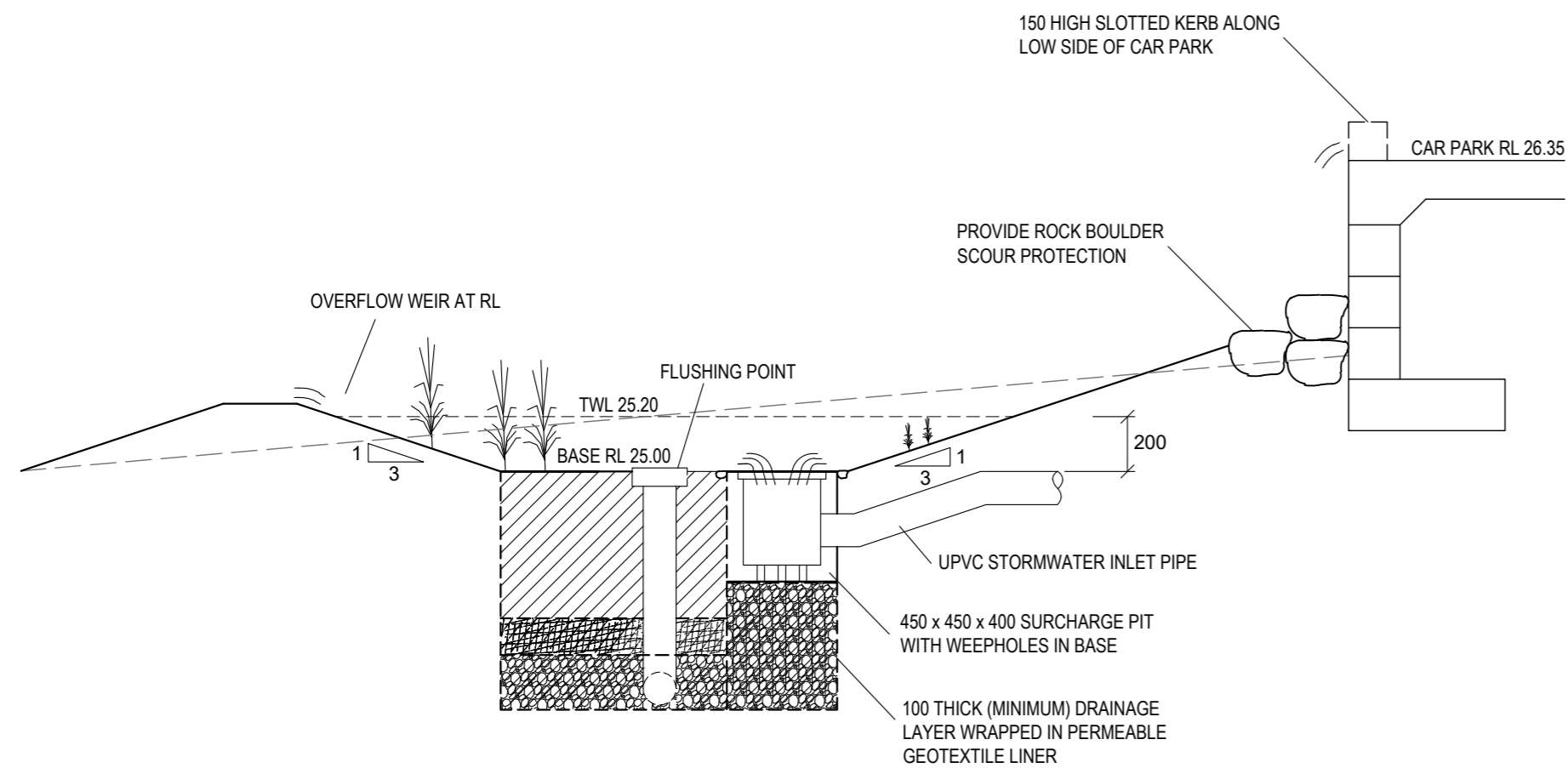
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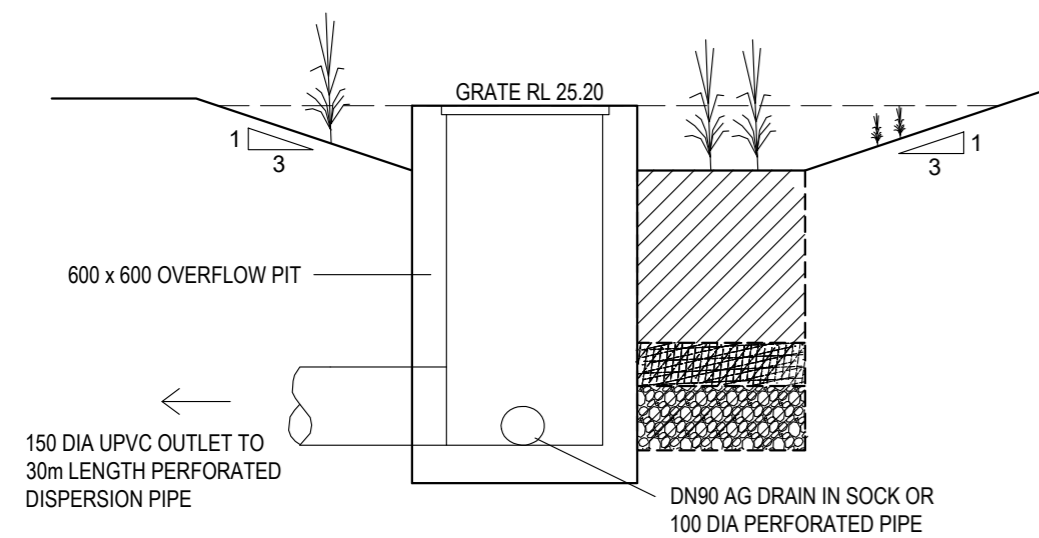
PROJECT TITLE:  
**CULTURAL COMMUNITY CENTRE  
682 CASTLEREAGH ROAD  
AGNES BANKS NSW**

DRAWING TITLE:  
**STORMWATER  
MANAGEMENT PLAN**

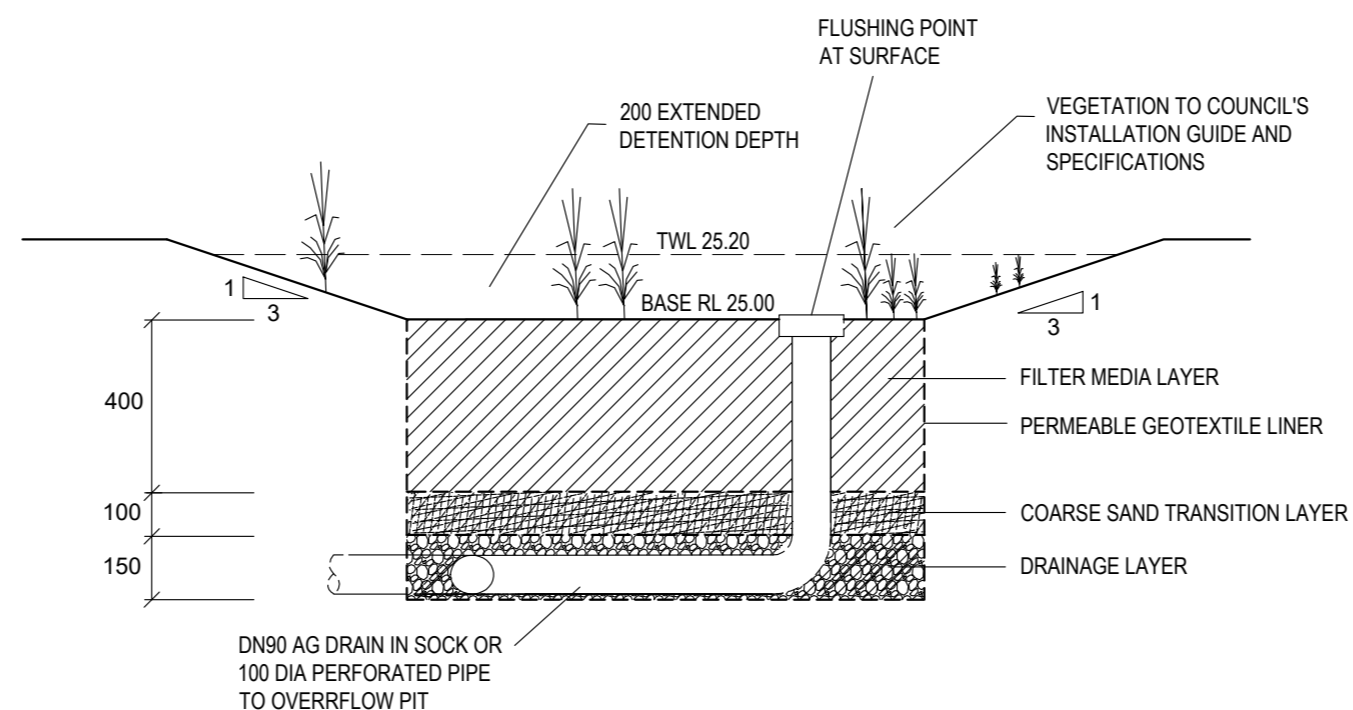
DRAWN:	A.L	APPROVED BY:	Andrew Lam
DATE:	22.06.2020	MIEAust 2338558	B.E. Civil (Hons)
JOB No:	2020-032	DWG NO:	SW2
		no. IN SET:	4
		No.	REVISION / ISSUE DESCRIPTION
			DATE



**RAINGARDEN SECTION C - C**  
NOT TO SCALE



**RAINGARDEN SECTION A - A**  
NOT TO SCALE



**RAINGARDEN SECTION B - B**  
NOT TO SCALE

**LANDSCAPE DEVELOPMENTS – MAINTENANCE CHECKLIST**

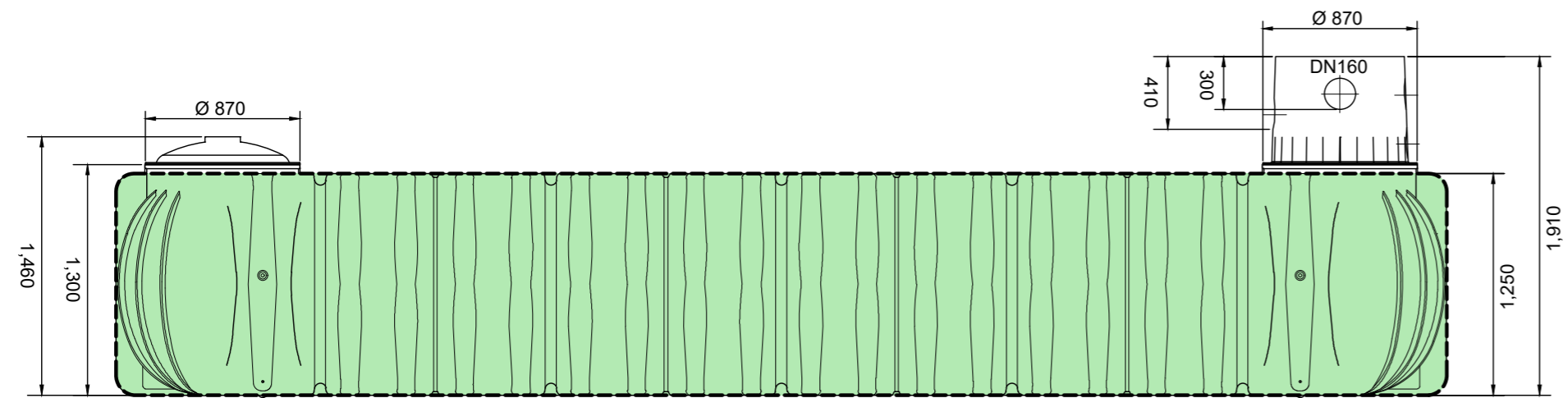
Landscaped areas in the site are to be inspected and maintained to ensure that any damaged vegetation is repaired / replaced, mulch is applied and reapplied as required, watering / irrigation is practiced appropriately and as needed and any surface erosion or scouring identified and repaired.

ITEM INSPECTED	CHECKED		MAINTENANCE NEEDED		INSPECTION FREQUENCY
	Y	N	Y	N	
<b>PLANT SURVIVAL</b>					
Dead plants identified and replaced					3M
Alternate species used if soil moisture unsuitable					3M
<b>IRRIGATION SYSTEM CHECK</b>					
Plants show no evidence of moisture stress					3M
Repair / replace any damaged components					
Adjust irrigation program if necessary					3M
<b>DRAINAGE PATTERN</b>					
Subsurface drainage required to prevent waterlogging					3M
Modification to surface drainage required to direct stormwater to planted areas					3M

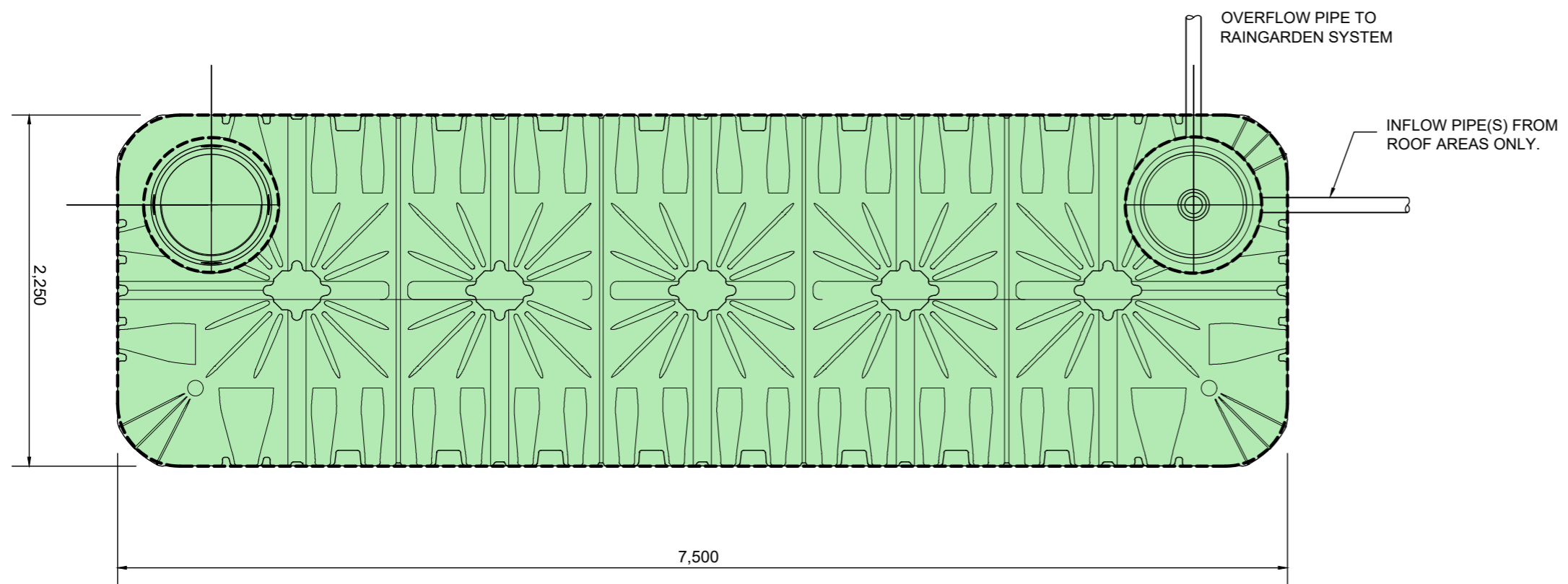
**Bioretention Systems – MAINTENANCE CHECKLIST**

Frequent maintenance and removal of fine clogging particles is essential to extend filter media life and reduce long-term replacement costs. Maintenance is to ensure flow to-and-through systems, maintenance of surface vegetation, prevent weed growth or vegetation overgrowth, remove accumulated sediment and debris.

ITEM INSPECTED	CHECKED		MAINTENANCE NEEDED		INSPECTION FREQUENCY
	Y	N	Y	N	
<b>DEBRIS CLEANOUT</b>					
Surface clear of debris					6M
Inlet area clear of debris					6M
Overflow clear of debris					6M
<b>SURFACE VEGETATION</b>					
Vegetation condition					6M
Vegetation trimming / maintenance					6M
Weed infestation					6M
Evidence of erosion					6M
<b>DEWATERING</b>					
Bioretention dewatering between storms					6M
Top soil layer require replacement?					6M
Entire filter media require replacement?					6M
<b>OUTLET / OVERFLOW CHANNEL OR PIT</b>					
Pit, grate, weir or outlet condition					A
Evidence of cracking or spalling of concrete structures					A
Evidence of erosion in downstream channel					A



**PLATIN GRAF XL BELOW GROUND RAINWATER TANK ELEVATION**  
NOT TO SCALE



**PLATIN GRAF XL BELOW GROUND RAINWATER TANK PLAN**  
NOT TO SCALE

**RAINWATER TANKS IN DETENTION/RETENTION SYSTEMS  
- MAINTENANCE CHECKLIST**

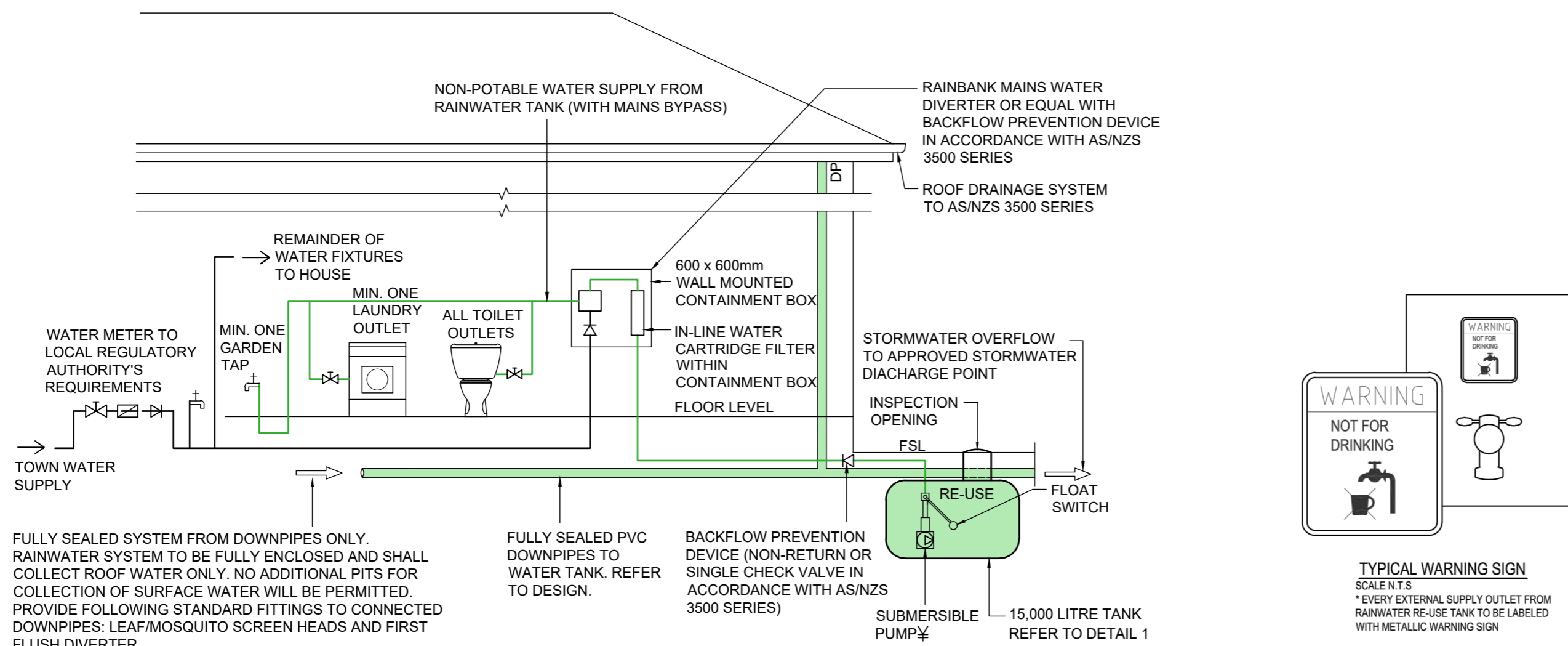
Regular maintenance shall include clean-out of First flush devices and control pits, removal of leaves and debris from inlet & outlet leaf guards and litter/orifice screens, and clean-out of downpipes and gutters. Rainwater tanks and detention systems are to be inspected and maintained to ensure no sediment and debris accumulates on the base/floor of impedes outlet orifices.

ITEM INSPECTED	CHECKED		MAINTENANCE NEEDED		INSPECTION FREQUENCY
	Y	N	Y	N	
FIRST FLUSH DEVICE / CONTROL PITS					
clear of debris and not blocked					2M
DEBRIS CLEANOUT					
Basin/tank surfaces clear of debris					6M
Inlet & outlets areas clear of debris					6M
Overflow pipe/weirs clear of debris					6M
INLET SCREENS					
Leaves and debris on surface					6M
ROOF GUTTERS & DOWNPIPES					
Leaves and debris in gutters					6M
SEDIMENT LEVEL IN TANK					
Sediment level					6M
Presence of debris					6M
TANK/DETENTION STRUCTURES					
Check for corrosion					2A
Check footings					2A
Check access grates					6M
OUTLET PIPES & ORIFICES					
Evidence of blockages					A
Pipe conditions					A
Orifice plate condition					A

**GROSS POLLUTANT TRAPS/SILT ARRESTORS- MAINTENANCE CHECKLIST**

To be inspected and maintained regularly, particularly after major storm events for accumulation of debris and sediment. Routine maintenance ensures trapping efficiency and prevents remobilisation of debris and sediment that can occur when GPTs/Silt Arrestors are over storage capacity. Smaller GPTs/Silt Arrestors may be serviced via manual handling and removal whilst larger systems may require vacuum clean-out or mechanically assisted basket/net removal. Clean-out & maintenance shall be conducted outside of rain predicted periods.

ITEM INSPECTED	CHECKED		MAINTENANCE NEEDED		INSPECTION FREQUENCY
	Y	N	Y	N	
FIRST FLUSH DEVICE / CONTROL PITS					
clear of debris and not blocked					2M
DEBRIS CLEANOUT					
Basin/tank surfaces clear of debris					6M
Inlet & outlets areas clear of debris					6M
Overflow pipe/weirs clear of debris					6M
INLET SCREENS					
Leaves and debris on surface					6M
ROOF GUTTERS & DOWNPIPES					
Leaves and debris in gutters					6M
SEDIMENT LEVEL IN TANK					
Sediment level					6M
Presence of debris					6M
TANK/DETENTION STRUCTURES					
Check for corrosion					2A
Check footings					2A
Check access grates					6M
OUTLET PIPES & ORIFICES					
Evidence of blockages					A
Pipe conditions					A
Orifice plate condition					A



**BELOW GROUND RAINWATER TANK SCHEMATIC LAYOUT**  
NOT TO SCALE

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**VAISHNAV SANGH**

PROJECT TITLE:  
**CULTURAL COMMUNITY CENTRE  
682 CASTLEREAGH ROAD  
AGNES BANKS NSW**

DRAWING TITLE:  
**RAINWATER REUSE TANK  
SYSTEM DETAILS**

DRAWN: A.L	APPROVED BY: Andrew Lam		
DATE: 22.06.2020	MIEAust 2338558 B.E. Civil (Hons)		
JOB No: 2020-032	DWG NO: SW4	no. IN SET: 4	
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