

PROPOSED NEW DWELLING AND GRANNY FLAT

11 HILLTOP ROAD, AVALON NSW 2107

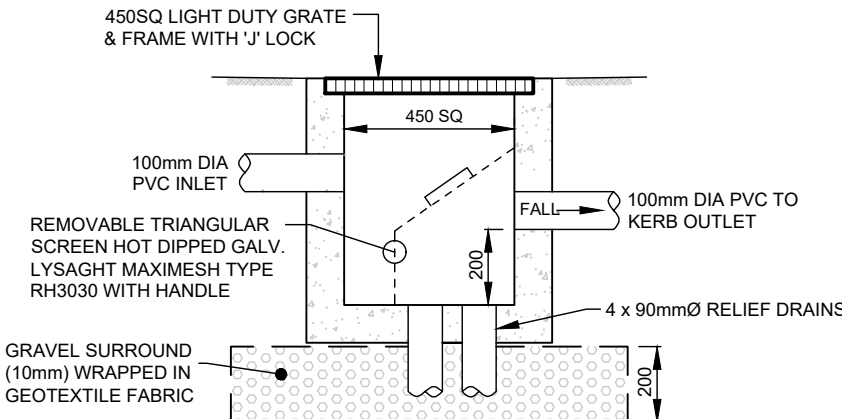
STORMWATER MANAGEMENT DESIGN

GENERAL DRAINAGE NOTES

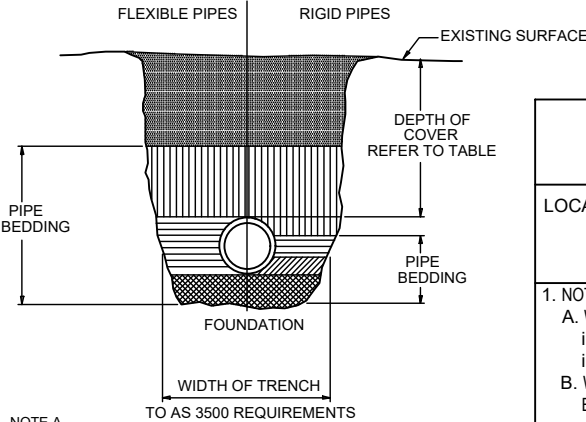
1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL'S RELEVANT SPECIFICATIONS AND/OR STORMWATER CODE. ANY DISCREPANCY VARIATION OR ADDITIONAL WORK SHALL BE APPROVED BY THE PRINCIPAL CERTIFIER.
2. ALL SERVICES SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. DIAL BEFORE YOU 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.



POLLUTION CONTROL PIT DETAIL
NOT TO SCALE



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

LEGEND - TRENCH BACKFILL

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

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 - ii. OTHER THAN SINGLE DWELLINGS - B. WITH PAVEMENT OF BRICK/UNREINFORCED CONCRETE -	0 0 0 (**)	100 300 50 (**)
2. SUBJECT TO VEHICULAR LOADING: A. OTHER THAN ROADS: i. WITHOUT PAVEMENT - ii. WITH PAVEMENT OF: - REINF. CONC. FOR HEAVY VEHICLES - - BRICK/UNREINF. CONC LIGHT VEHICLES - B. ROADS i. SEALED ii. UNSEALED	300 0 (** #) 0 (** #) 300 300	450 100 (** #) 75 (** #) 500 (#) 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

NORTHERN BEACHES COUNCIL REQUIREMENTS

THE STORMWATER DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY REGION 1 - NORTHERN CATCHMENT AND AUSTRALIAN STANDARDS AS3500.3

DESIGN PARAMETERS

SITE AREA (m2)	733.5
PRE-DEVELOPMENT TOTAL IMPERVIOUS AREA (m2)	333.86
POST-DEVELOPMENT IMPERVIOUS AREA (m2)	353.85
INCREASE IN IMPERVIOUS AREA (m2)	19.99

THEREFORE, ON-SITE DETENTION IS **NOT** REQUIRED AS THE INCREASE IS LESS THAN 50m2

BASIX CERTIFICATE REQUIREMENTS

MINIMUM STORAGE CAPACITY REQUIRED (L)	2,500
MINIMUM ROOF AREA TO BE COLLECTED (m2)	180

RAINWATER TANK TO BE CONNECTED FOR IRRIGATION PURPOSES, TOILET FLUSHING AND LAUNDRY USE

LEGEND

	DENOTES ON-SITE DETENTION / RAINWATER REUSE TANK
	DENOTES 100mm DIA. STORMWATER PIPE AT 1% MIN. GRADE U.N.O
	DENOTES 100mm DIA. CHARGED STORMWATER PIPE TO ON-SITE / DETENTION RAINWATER TANK
	DENOTES DOWNPIPE
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN

SHEET INDEX

COVER SHEET AND NOTES	SHEET SW1
STORMWATER MANAGEMENT PLAN	SHEET SW2
SECTIONS AND DETAILS	SHEET SW3

WATERDESIGN
CIVIL ENGINEERS

1 FLAME TREE PLACE
CHERRYBROOK NSW 2126
MOBILE: 0417 671646
EMAIL: waterdes@bigpond.net.au
ABN: 77 928 166 729

CLIENT NAME:

SHAWN TANTER

PROJECT TITLE:

**PROPOSED NEW DWELLING
11 HILLTOP ROAD
AVALON NSW 2107**

DRAWING TITLE:

COVER SHEET AND NOTES

DRAWN:

A.L

DATE:

30.12.2020

JOB No:

2020-071

APPROVED BY:

ANDREW LAM
MIEAust B.E. Civil (Hons)

DWG NO:

SW1

no. IN SET

3

A

No.

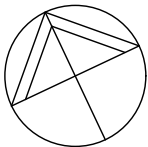
CLIENT REQUEST

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DATE

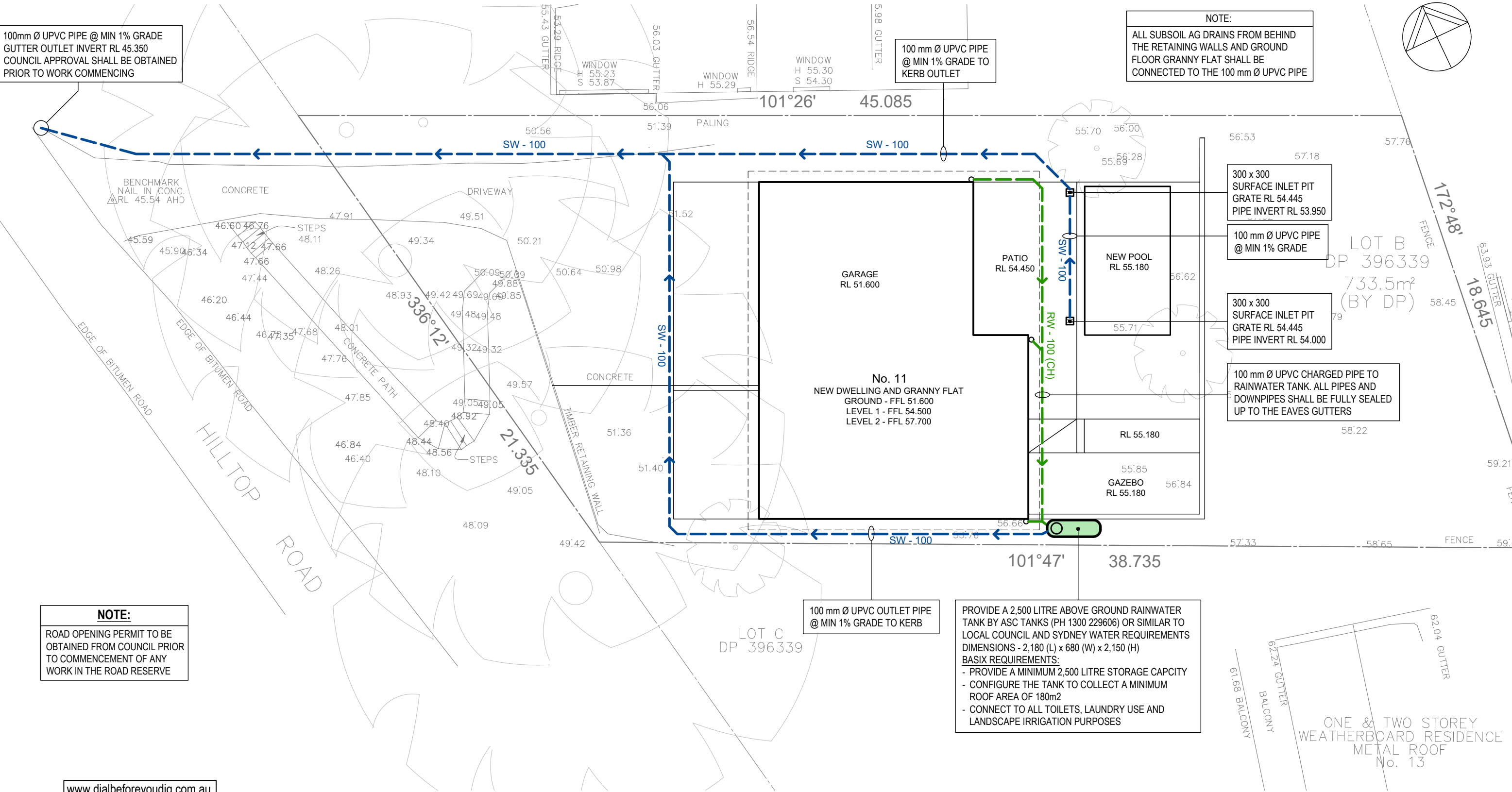
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100mm Ø UPVC PIPE @ MIN 1% GRADE
GUTTER OUTLET INVERT RL 45.350
COUNCIL APPROVAL SHALL BE OBTAINED
PRIOR TO WORK COMMENCING

100 mm Ø UPVC PIPE
@ MIN 1% GRADE TO
KERB OUTLET

NOTE:
ALL SUBSOIL AG DRAINS FROM BEHIND
THE RETAINING WALLS AND GROUND
FLOOR GRANNY FLAT SHALL BE
CONNECTED TO THE 100 mm Ø UPVC PIPE



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

100 mm Ø UPVC OUTLET PIPE
@ MIN 1% GRADE TO KERB

PROVIDE A 2,500 LITRE ABOVE GROUND RAINWATER
TANK BY ASC TANKS (PH 1300 229606) OR SIMILAR TO
LOCAL COUNCIL AND SYDNEY WATER REQUIREMENTS
DIMENSIONS - 2,180 (L) x 680 (W) x 2,150 (H)
BASIX REQUIREMENTS:
- PROVIDE A MINIMUM 2,500 LITRE STORAGE CAPCITY
- CONFIGURE THE TANK TO COLLECT A MINIMUM
ROOF AREA OF 180m2
- CONNECT TO ALL TOILETS, LAUNDRY USE AND
LANDSCAPE IRRIGATION PURPOSES

300 x 300
SURFACE INLET PIT
GRATE RL 54.445
PIPE INVERT RL 53.950

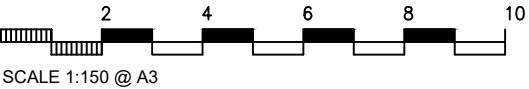
100 mm Ø UPVC PIPE
@ MIN 1% GRADE

300 x 300
SURFACE INLET PIT
GRATE RL 54.445
PIPE INVERT RL 54.000

100 mm Ø UPVC CHARGED PIPE TO
RAINWATER TANK. ALL PIPES AND
DOWNPIPES SHALL BE FULLY SEALED
UP TO THE EAVES GUTTERS

NOTE:
THIS DESIGN MANAGES STORMWATER RUNOFF FROM
ROOF WATER AND DRIVEWAY SURFACES ONLY AS
SHOWN ON THE ARCHITECTURAL DRAWINGS
ALL ROOF GUTTER TO HAVE OVERFLOW PROVISION IN
ACCORDANCE WITH AS 3500.3.

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 SHOWN ON THIS DRAWING




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CIVIL ENGINEERS**

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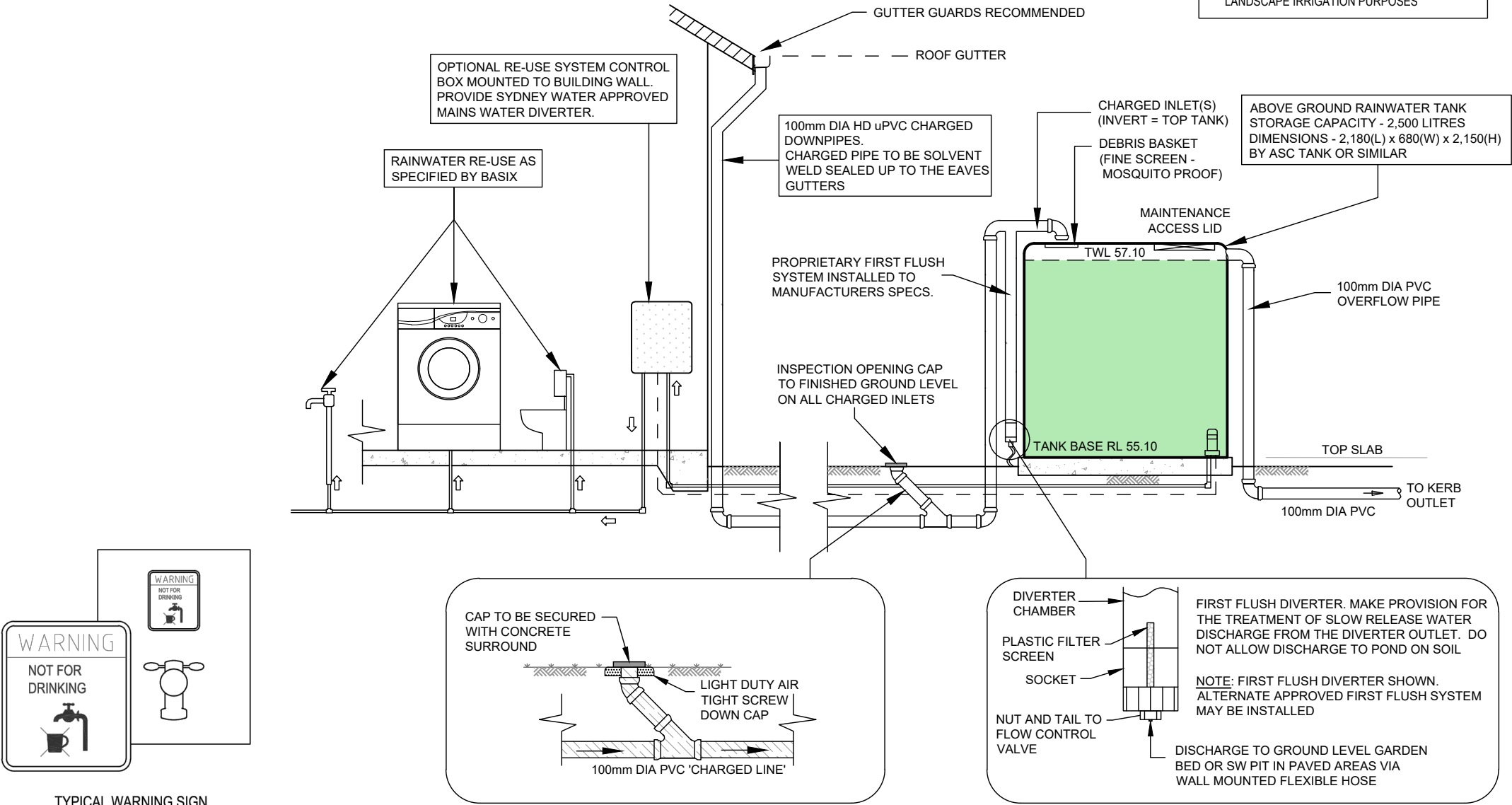
PROJECT TITLE:
**PROPOSED NEW DWELLING
11 HILLTOP ROAD
AVALON NSW 2107**

DRAWING TITLE:
**STORMWATER
MANAGEMENT PLAN**

DRAWN:	A.L.	APPROVED BY:			
DATE:	30.12.2020	 ANDREW LAM MIEAust B.E. Civil (Hons)			
JOB No:	2020-071	DWG NO:	SW2	no. IN SET	3
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- BASIX CERTIFICATE REQUIREMENTS:
- A MINIMUM 2,500 LITRE RAINWATER TANK
 - CONFIGURE RAINWATER TANK TO COLLECT A MINIMUM 180 m2 ROOF AREA
 - CONNECT TO ALL TOILETS, LAUNDRY USE AND LANDSCAPE IRRIGATION PURPOSES



ABOVE GROUND RAINWATER TANK SCHEMATIC DETAIL
NOT TO SCALE

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CIVIL ENGINEERS**

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DRAWING TITLE:
SECTIONS AND DETAILS

DRAWN: A.L.
DATE: 30.12.2020
JOB No: 2020-071

APPROVED BY:

ANDREW LAM
MIEAust B.E. Civil (Hons)

DWG NO: SW3
no. IN SET: 3

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No.

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