

# PROPOSED SECONDARY DWELLING AT 59 MCINTOSH RD, DEE WHY NSW 2099

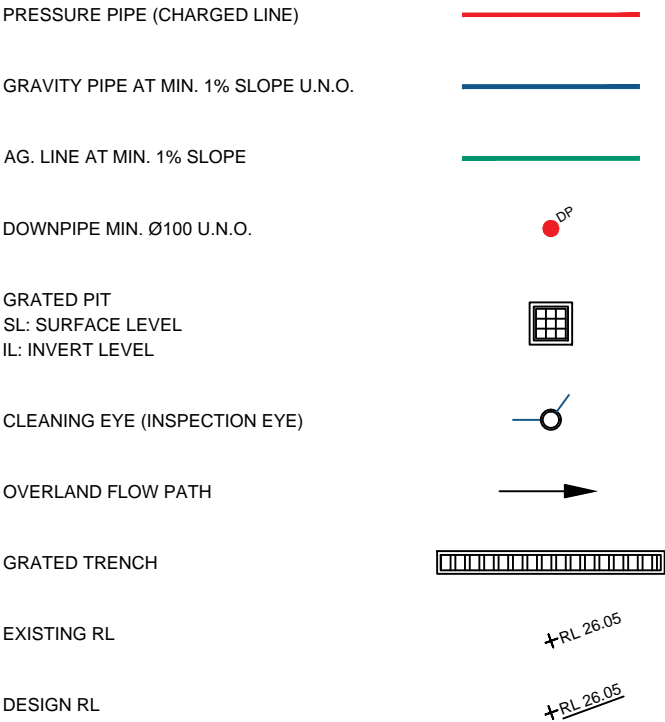
## GENERAL NOTES

- G1 ALL WORKS SHALL BE IN ACCORDANCE WITH B.C.A AND AS3500.3.
- G2 ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- G3 THE BUILDER SHALL ENSURE THAT THE STORMWATER ENGINEERS DRAWINGS CORRESPOND TO THE ARCHITECTURAL, STRUCTURAL, AND LANDSCAPING DRAWINGS. IF THERE EXISTS ANY DISCREPANCIES BETWEEN THE DRAWINGS, THE BUILDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS.
- G4 PRIOR TO COMMENCING ANY WORKS, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTS INTO THE COUNCILS KERB/DRAINAGE SYSTEM MATCHED THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER.
- G5 THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.
- G6 ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN HEIGHT DATUM (AHD).
- G7 ALL DOWNPIPES TO BE 100MM DIAMETER UNLESS NOTED OTHERWISE.
- G8 ALL DOWN PIPES TO HAVE LEAF GUARDS.
- G9 ALL LINES ARE TO BE 100MM DIAMETER uPVC AT A MINIMUM 1.0% SLOPE UNLESS NOTED OTHERWISE. LINES ARE TO BE SEWER-GRADE AND SEALED.
- G10 ALL PIPES TO HAVE MINIMUM 150MM COVER IF LOCATED WITHIN PROPERTY.
- G11 ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES.
- G12 ALL SUB-SOIL DRAINAGE SHALL BE OF A MINIMUM 100MM DIAMETER AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE ARCHITECT OR STORMWATER ENGINEER.
- G13 ALL RETAINING WALLS SHALL BE CONSTRUCTED COMPLETELY WITHIN THE PROPERTY BOUNDARY LIMITS TO DETAILS PREPARED BY THE STRUCTURAL ENGINEER. WALLS FORMING THE ON-SITE DETENTION SYSTEM SHALL BE OF MASONARY/BRICK/CONCRETE CONSTRUCTION AND WATER TIGHT.
- G14 ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON-SITE DETENTION STORAGE SHALL BE OF A NON-FLOTABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. PINE PARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.
- G15 ALL DRAINAGE WORKS ARE TO AVOID TREE ROOTS. ROOT BARRIER TO BE INSTALLED ADJACENT TO TREE ZONES WHERE DRAINAGE MAY BE AT RISK.
- G16 ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
- G17 COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.

## RAINWATER TANKS

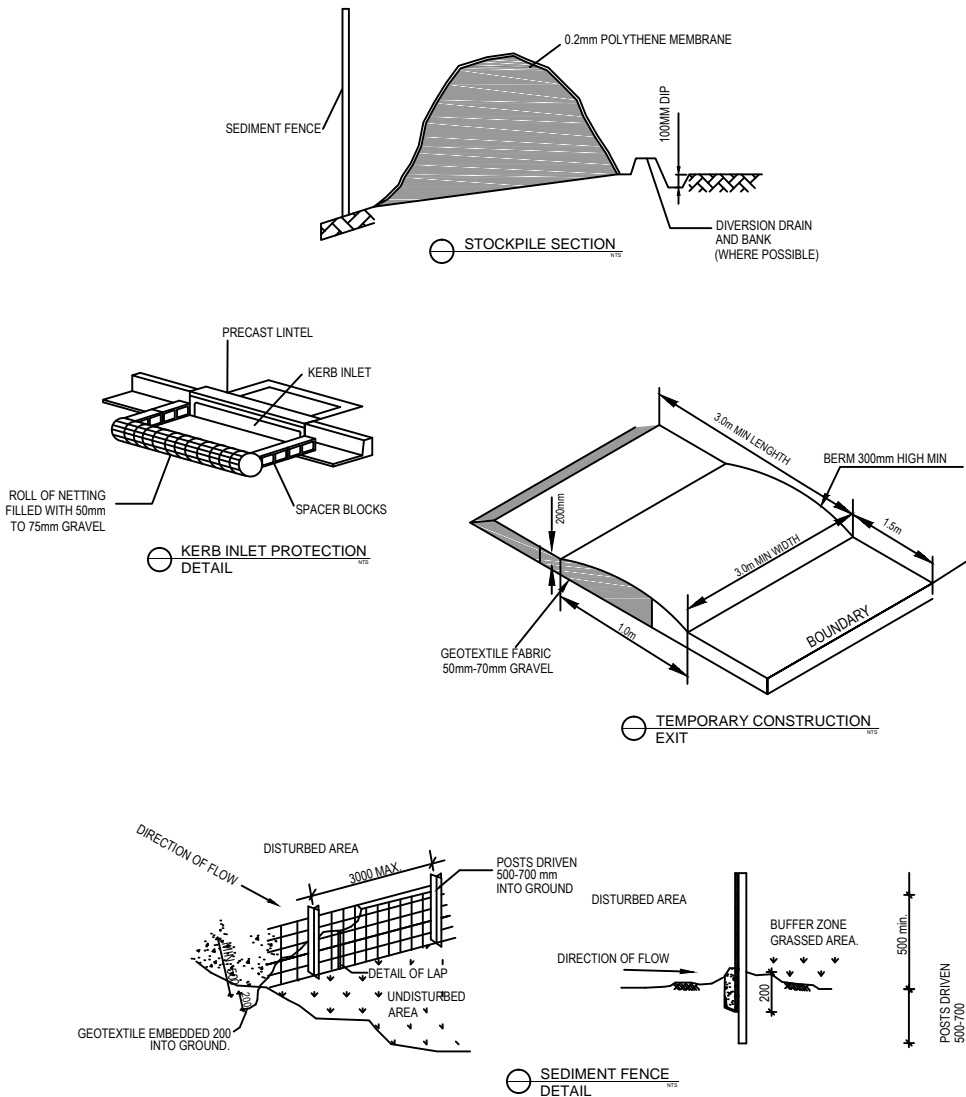
- R1 RAINWATER TANK, DRAINED ROOF AREAS AND REUSE PLUMBING TO COMPLY WITH BASIX REQUIREMENTS AND CERTIFICATE.
- R2 ADEQUATE SCREENING TO PREVENT MOSQUITO BREEDING AND ENTRY OF ANIMAL OR FLOATING MATTER.
- R3 A 'FIRST FLUSH' DIVERSION TO REMOVE ROOF CONTAMINANTS MUST BE PROVIDED.
- R4 TANKS TO BE PUMPED TO TOP-UP FROM THE POTABLE WATER SUPPLY DURING DRY PERIOD WHEN THE TANK IS 80% EMPTY.
- R5 PUMP TO BE SUITABLY SOUNDPROOFED.
- R6 A SIGN IS TO BE INSTALLED NEAR THE RAINWATER TANK HIGHLIGHTING "NOT FOR HUMAN CONSUMPTION".

## LEGEND



## SEDIMENT & EROSION CONTROL

- S1 PLANS ARE MINIMUM REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTORS WORKS.
- S2 IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURE TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
- S3 IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE, THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
- S4 PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
- S5 PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
- S6 ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
- S7 ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
- S8 WASH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICKED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
- S9 NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
- S10 APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGHOUT CONSTRUCTION.
- S11 IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
- S12 TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON SITE BY THE SUPERINTENDENT.



## SEDIMENT FENCE

- F1 FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
- F2 WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150MM AND FOLDED.
- F3 POSTS SHALL NOT BE SPACED MORE THAN 3.0 METRES APART.
- F4 FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14MM GAUGE, 150MM MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES
- F5 INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, SPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE  
SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 40M ON FLAT TERRAIN DECREASING TO 20M SPACINGS ON STEEP TERRAIN

### NOTE

DO NOT SCALE OF DRAWINGS. REFER TO ARCHITECTURAL PLANS FOR LEVELS, STEPS, DIMENSIONS AND SETOUT. VERIFY DIMENSIONS ON SITE. THE ENGINEER SHALL BE NOTIFIED OF ANY VARIATIONS TO THAT SHOWN ON STRUCTURAL PLANS BEFORE COMMENCEMENT OF WORKS

REV	DATE	DESCRIPTION	BY
B	12.12.2019	LEVEL SPREADER RELOCATED	M.Y
A	10.12.2019	ISSUED FOR DA	M.Y

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**PROPOSED SECONDARY DWELLING**  
AT 59 MCINTOSH RD, DEE WHY NSW 2099  
FOR GRANNY FLAT SOLUTIONS

**GENERAL NOTES**

JOB NUMBER:  
19666

DESIGNED BY:  
M.Y

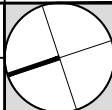
DRAWN BY:  
M.Y

DWG NUMBER:  
C000

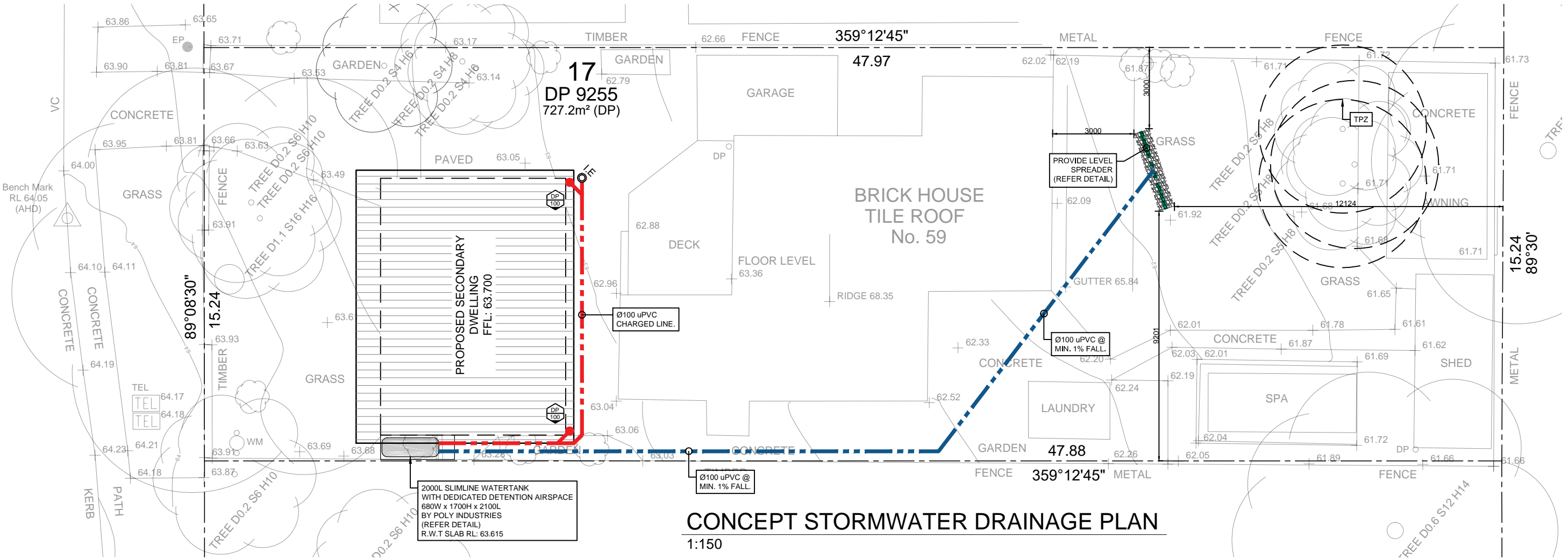
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10/12/2019

SCALE:  
AS SHOWN

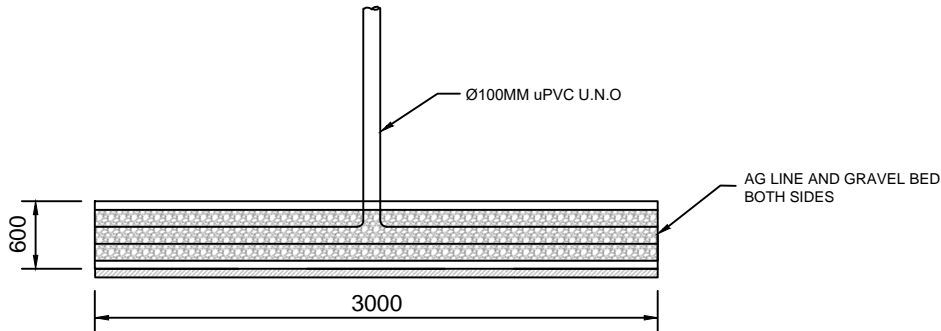
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A3



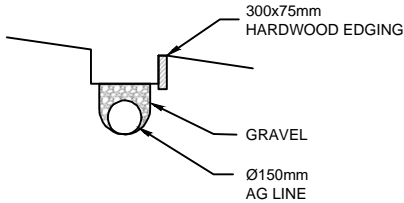
MCINTOSH RD



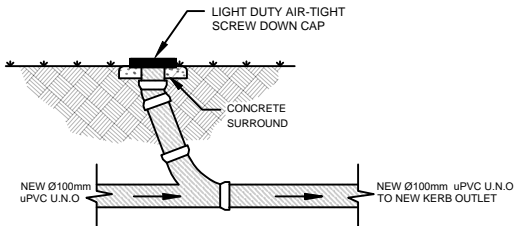
CONCEPT STORMWATER DRAINAGE PLAN  
1:150



LEVEL SPREADER  
PLAN  
NTS



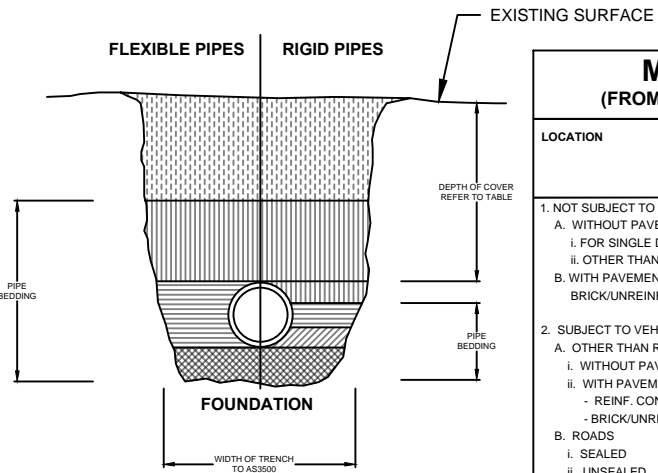
LEVEL SPREADER  
SECTION  
NTS



TYPICAL INSPECTION  
RISER DETAIL  
NTS

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

TYPICAL PIPE LAYING  
DETAIL  
NTS



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

MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)		
LOCATION	MINIMUM COVER (mm)	
	CAST/DUCTILE IRON GAL STEEL	OTHER 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



NOT FOR CONSTRUCTION

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B	12.12.2019	LEVEL SPREADER RELOCATED	M.Y
A	10.12.2019	ISSUED FOR DA	M.Y

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<b>PROPOSED SECONDARY DWELLING</b> AT 59 MCINTOSH RD, DEE WHY NSW 2099 FOR GRANNY FLAT SOLUTIONS
<b>CONCEPT STORMWATER DRAINAGE PLAN/ DETAILS</b>

JOB NUMBER: 19666	DWG NUMBER: C001	ORIGINAL SIZE: A3
DESIGNED BY: M.Y	DATE: 10/12/2019	
DRAWN BY: M.Y	SCALE: AS SHOWN	

EAVES GUTTER AND DOWN PIPE DESIGN TO AS/NZS 3500.3: 2018

59 McIntosh Rd, Dee Why NSW 2099

Proposed secondary dwelling

Horizontal catchment area	Ah	=	81	sq.m
Roof Average slope	S	=	6	degrees
Intensity	I	=	200	mm/hr
Is Gutter slope steeper than 1:500 ?			Yes	
Down pipe size selected	dia	=	100	mm
Cross referencing From Table 3.5.2 and Fig 3.5.2				
Theoretical number of DPs required	Tnum	=	1.97	
Selected Number of Down pipes	n	=	2	
from AS3500 Table 3.4.5.2, C'ment Area Multiplier	f	=	1.05	
Roof Area allowing for slope	Ac	=	Ah*f	
			= 85.1	sq.m
Catchment Area per DP	A	=	Ac/n	sq.m
			= 42.5	sq.m
Flow/DP	q	=	I*A/3600	litres/sec
			= 2.36	litres/sec
from AS/NZS 3500 fig 3.5.2(B), Gutter Area			= 8101	sq.mm
Gutter Area rounded to nearest 100sq.mm			= 8100	sq.mm
From AS/NZS 3500 Table 3.5.2,, Down Pipe size			= 100	mm
Down Pipe size selected			= 100	mm
Summary			= 2	
This catchment requires :- number of DPs			= 100	mm
Downpipe size			= 8101	sq.mm
minimum eaves gutter cross sectional Area				

Notes:

Notes:

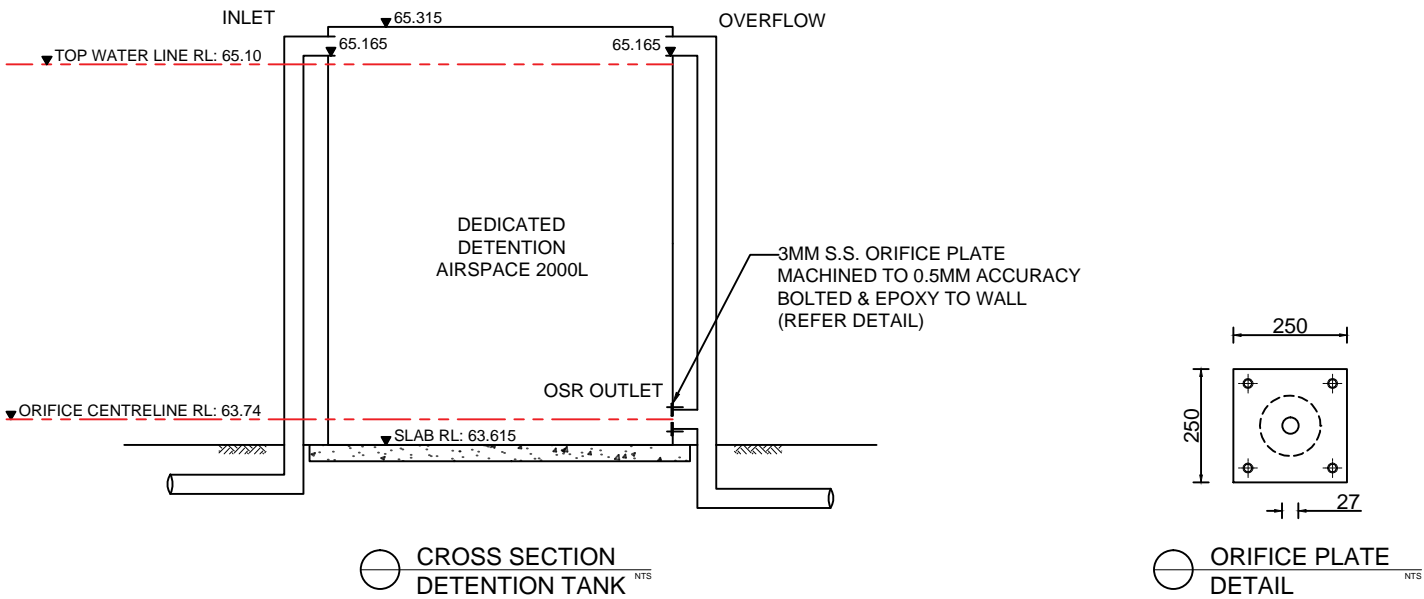
Catchment area of each DP to be roughly similar size.  
Length of any gutter draining to a downpipe to be not longer than 12m.(NCC vol2).

POSSIBLE OPTIONS

	Number Req'd	Number Used	Gutter Area	Gutter Width	Gutter Depth
90 Dia:	2.6	3	5886	110	55
100 Dia:	1.97	2	8101	125	65
150 Dia:	0.73	1	14232	170	85
225 Dia:	0.26	1	14232	170	85
300 Dia:	0.13	1	14232	170	85

DOWNPIPE CAPACITY In terms of Plan area of roof.

	90 Dia	100 Dia	150 Dia	225 Dia	300 Dia
Max Catchment Area (sq.m)	31	41	111	322	660
Gutter Area (sq.mm)	6600	8200	18400	42310	76563



DISCHARGE CALCULATIONS:

VOLUME CALCULATED USING DRAINS SOFTWARE

DURATION	PRE-DEVELOPED STATE	POST-DEVELOPED STATE
5 YEAR ARI - 60 MIN. STORM	2L/S	1L/S
10 YEAR ARI - 60 MIN. STORM	2L/S	1L/S
20 YEAR ARI - 60 MIN. STORM	3L/S	2L/S
50 YEAR ARI - 60 MIN. STORM	3L/S	2L/S
100 YEAR ARI - 60 MIN. STORM	4L/S	2L/S

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PROPOSED SECONDARY DWELLING  
AT 59 MCINTOSH RD, DEE WHY NSW 2099  
FOR GRANNY FLAT SOLUTIONS

STORMWATER DRAINAGE DETAILS

JOB NUMBER: 19666	DWG NUMBER: C002	ORIGINAL SIZE: A3
DESIGNED BY: M.Y	DATE: 10/12/2019	
DRAWN BY: M.Y	SCALE: AS SHOWN	