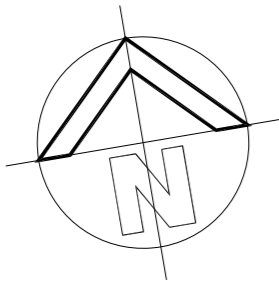


GENERAL DRAINAGE NOTES:

- 1. THIS DRAINAGE PLAN SHOULD BE READ STRICTLY IN ACCORDANCE WITH THE COUNCIL APPROVED ARCHITECTURAL PLANS.
- 2. LOCATION OF DOWN PIPES TO BE CONFIRMED BY ARCHITECT.
- 3. DEPTH AND LOCATIO OF SERVICES TO BE ESTABLISHED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.
- 4. ALL GUTTERS TO BE 150mm SEMI ROUND MIN. OR EQUIVALENT.
- 5. ALL BALCONIES TO HAVE FLOOR WASTE CONNECTED TO DOWNPIPE.
- 6. ALL DRAINAGE PIPES ARE TO BE UPVC GRADE, U.N.O.
- 7. THE MINIMUM COVER OVER ALL DRAINAGE PIPES IS TO BE 150mm.
- 8. ALL DRAINAGE PIPES ARE TO HAVE A MINIMUM PIPE GRADIENT OF 1%.
- 9. ALL DRAINAGE PITS ARE TO BE INSTALLED WITH A CHILD PROOF SAFETY LATCH ON THE ACCESS PLATE.
- 10. ALL DOWNPIPES ARE TO BE 150x100 RHS
- 11. ALL PITS TO BE CONSTRUCTED ARE SHOWN IN REINFORCED CONCRETE, HOWEVER PRECAST OR BRICK PITS OF SIMILAR SIZE AND CONSTRUCTION AND TO THE SAME LEVELS ARE ACCEPTABLE.
- 12. ALL EXTERNAL IMPERVIOUS AREAS TO HAVE A COLLECTION OUTLET TO THE SILT ARRESTOR PIT.
- 13. THE DOWNHILL BOUNDARY OF THE SITE IS TO BE PROTECTED BY HAY BALES OR A FILTER FABRIC FENCE DURING THE CONSTRUCTION PERIOD. REFER TO DETAIL.
- 14. THE DOWNSTREAM STREET DRAINAGE PIT NEAREST TO THE SITE SHALL BE PROTECTED FROM SEDIMENTS WITH HAY BALES.
- 15. A SINGLE CONSTRUCTION ENTRANCE MUST BE PROVIDED DURING THE WORKS.
- 16. SEDIMENT CONTROL DEVICES MUST BE PLACED PRIOR TO ANY SITE SURFACE DISTURBANCES AND MUST REMAIN IN PLACE UNTIL THE SITE IS PAVED AND/OR TURFED.



STORMWATER DRAINAGE PLAN

SCALE 1:200

DENOTES ROOF AREA
DISCHARGING TO 3000L R.W.T.

DANGER

WHEN EXCAVATING WITHIN ANY SITE,
FOOTPATH AND ROADWAY,
ALL SERVICES TO BE LOCATED PRIOR TO
COMMENCEMENT OF EXCAVATION WORKS.
CONTACT DIAL BEFORE YOU DIG'
ON PHONE No. 1100 OR TO TO THE WEBSITE
www.1100.com.au

SIGNAGE FOR EXCAVATION
N.T.S.

HYDRAULIC NOTES

SITE AREA 502.8 m²

NEW DWELLING AND POOL
IMPERVIOUS AREA 200 m²
PERVIOUS AREA 303 m²

LAND SLOPE TO THE REAR AT 1%
SUB-STRATA GRAVEL / ROCK INFILTRATION RATE 0.16 l/sec/m²

REFER TO GEOTECHNICAL REPORT BY
CROZIER GEOTECHNICAL CONSULTANTS - PROJECT 2020-076

PROVIDE 2 x 3000L RWT

FROM DRAINS OSD REQUIRED IS 13.2m³ ABSORPTION TRENCH, OFF SET
6000 L RWT AT 30% = 1.8m³

HENCE, PROVIDE 11.4m³ ABSORPTION TRENCH (JUMBO TRENCH)

6.5m x 3.5m x 0.50m = 11.4m³ THEREFORE OK

LEGEND

○ DP 100x50 RHS DOWN PIPE

SPREADER PIPE

— — — — — Ø90 UPVC STORMWATER PIPE @ 1% SLOPE MIN.

— — — — — Ø150 UPVC STORMWATER PIPE @ 1% SLOPE

→ DENOTES DIRECTION OF PIPE FLOW

→ DENOTES ROOF FALL

DRAWINGS FOR CC
APPLICATION NOT
FOR CONSTRUCTION

07	REVISEED FOR CONSTRUCTION CERTIFICATE	28.04.20
06	REVISEED FOR CONSTRUCTION CERTIFICATE	24.04.20
05	REVISEED FOR CONSTRUCTION CERTIFICATE	20.11.19
04	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	04.07.19
03	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	28.11.18
02	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	05.09.18
01	ISSUED FOR CONSTRUCTION CERTIFICATE	28.08.18

N. KOLOFF & ASSOCIATES

CIVIL & STRUCTURAL ENGINEERS

A.B.N. 15 657 583 235

POSTAL ADDRESS:
P.O. BOX 99, ANNANDALE
NSW 2038, AUSTRALIA

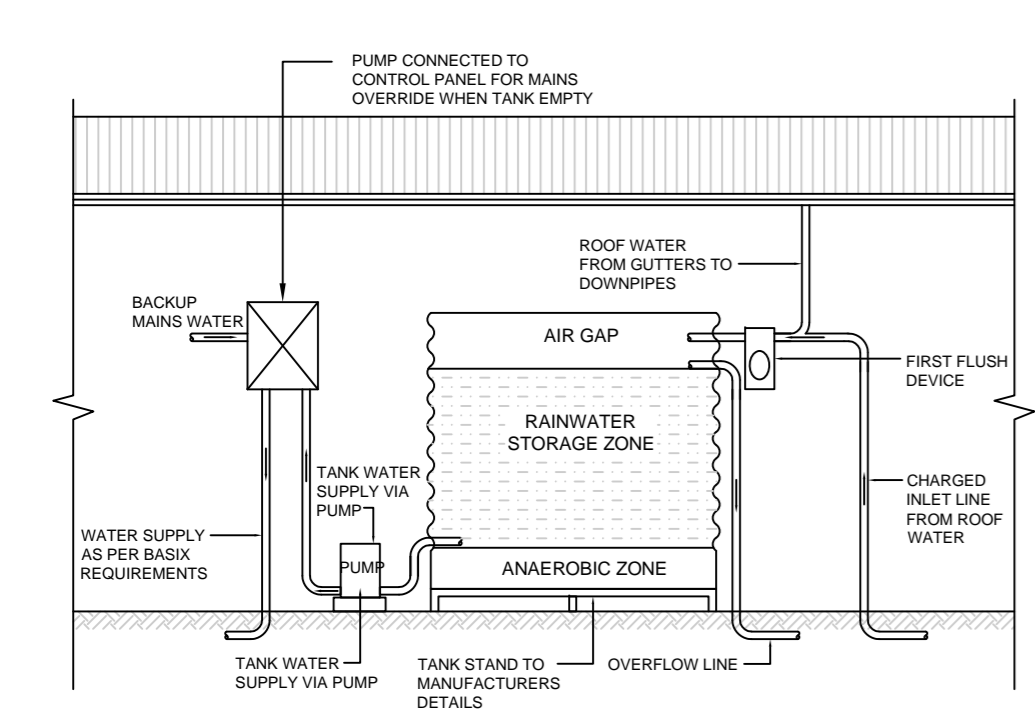
PHONE: (02) 9560 0064
FAX: (02) 9560 0065
MOBILE: 0417 485 481

DESCRIPTION OF WORKS AT :
STORMWATER DRAINAGE PLAN
FOR PROPOSED RESIDENTIAL
DEVELOPMENT No.8 COOKSEY AVE
FRESHWATER NSW 2096

INDEX 1018 / 2018
SHEET C1.00 07

APPROVED BY: *Nikolai Koloff*
N. Koloff - Structural Engineer
B.E. (Hon.), L.G.E. M.I.E. AUST., M.Eng. C.P. Eng
Registration No.616868

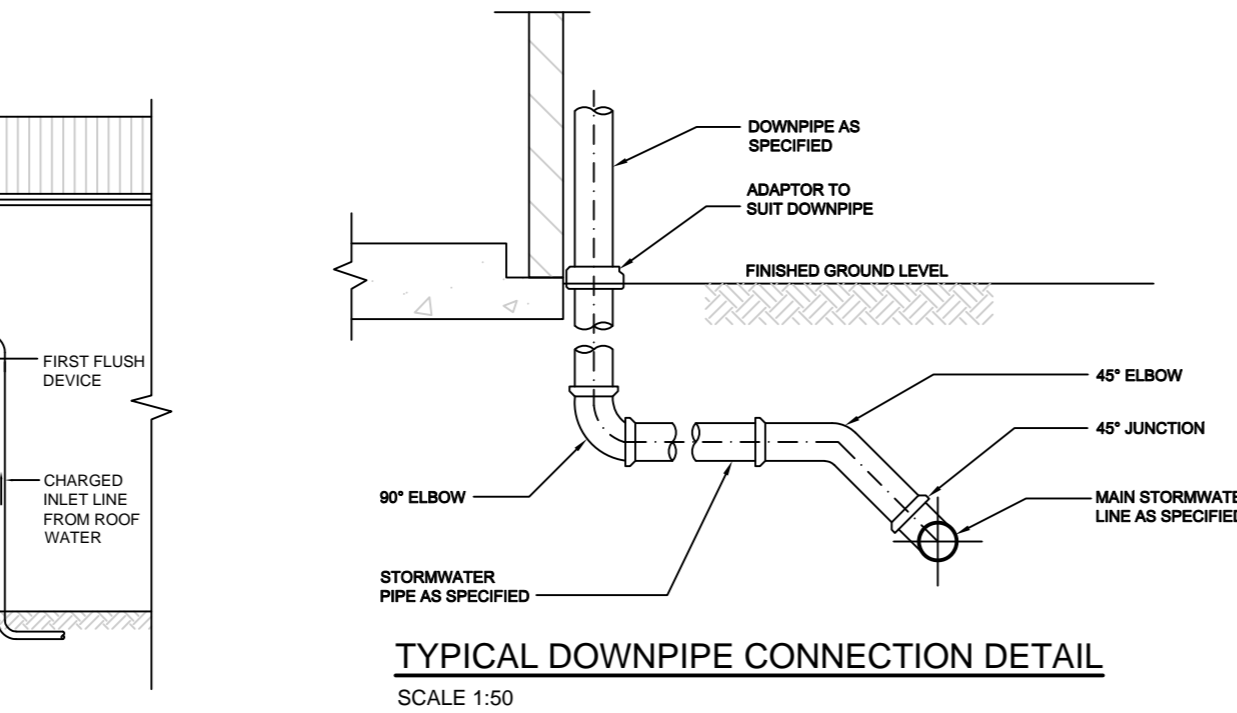
DATE : AUG. 18'



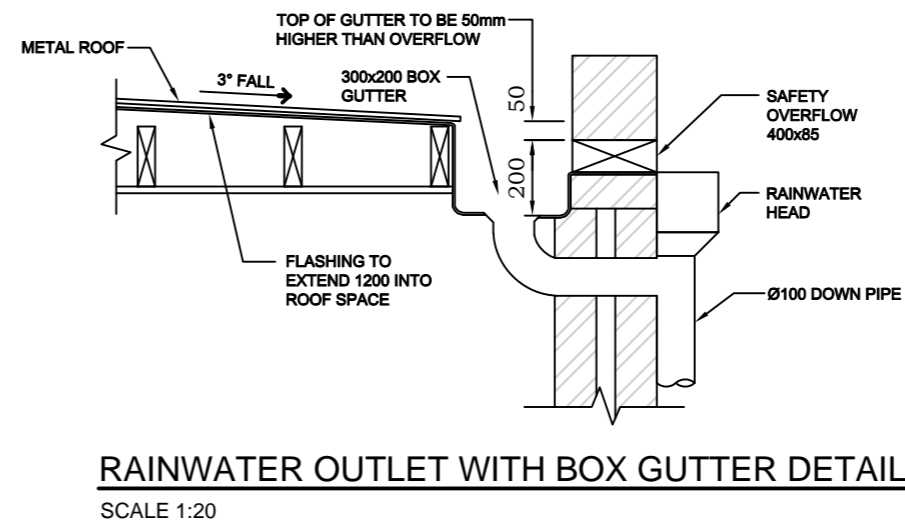
RAINWATER TANK DIAGRAM
N.T.S.

RAINWATER TANK

1. LABELS TO BE FIXED ADJACENT TO ALL OUTDOOR WATERING TAPS STATING THAT THE WATER IS NOT TO BE CONSUMED.
2. PROVIDE EMERGENCY MAINS TAP ADJACENT TO WATER METER AND CONNECTED TO THE MAINS SUPPLY.
3. R.W.T. SUPPLY MUST NOT BE CONNECTED TO DRINKING AND BATHING WATER TAP OUTLETS.
4. FIRST FLUSH DEVICES TO BE FITTED TO ALL DOWNPIPES CONNECTED TO R.W.T.
5. ALL DOWNPIPES TO BE ENTIRELY P.V.C. ALL PIPES TO BE SEALED UP TO UNDERSIDE OF ROOF GUTTERS.
6. ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEMS ARE SOLVENT WELDED.
7. TANK TO BE CONNECTED TO SYDNEY WATER APPROVED CONTROL PANEL TO ENSURE MAINS WATER SUPPLY IS PROVIDED WHEN TANK EMPTIES.
8. ALL PLUMBING WORKS TO BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER GUIDELINES AND 'NSW CODE OF PRACTICE: PLUMBING AND DRAINAGE'



TYPICAL DOWNPIPE CONNECTION DETAIL
SCALE 1:50



RAINWATER OUTLET WITH BOX GUTTER DETAIL
SCALE 1:20

BOX GUTTER CALCULATION

BOX GUTTER (SUMP, SIDE OVERFLOW RAINHEAD)

RAINFALL INTENSITY : 271 mm/h (5 MINS, 1 IN 100 YEAR ARI STORM EVENT)

THE LARGEST DOWNPIPE CATCHMENT AREA 24m

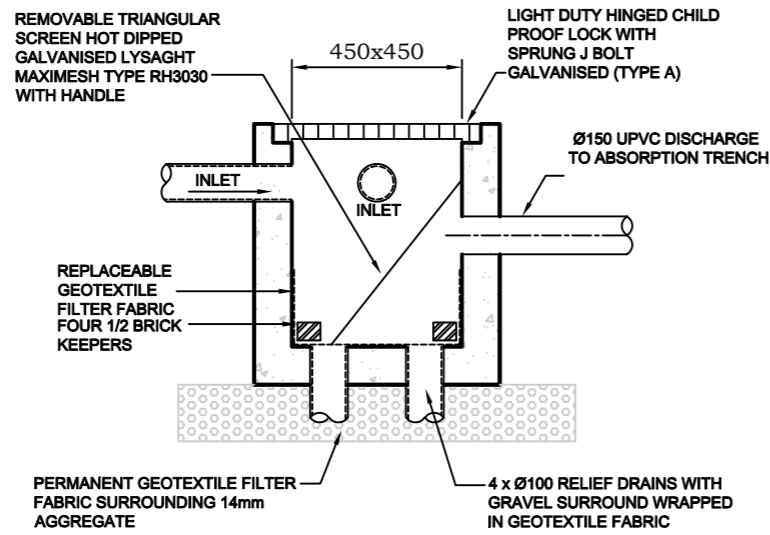
DOWNPIPE SIZE = Ø 90 mm

BOX GUTTER : 150mm WIDE x 120mm DEEP MIN.

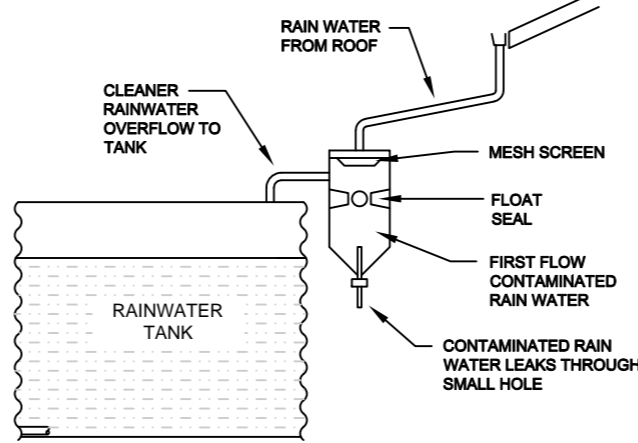
RAINHEAD DEPTH : 100mm MIN.

RAINHEAD LENGTH : 120mm MIN.

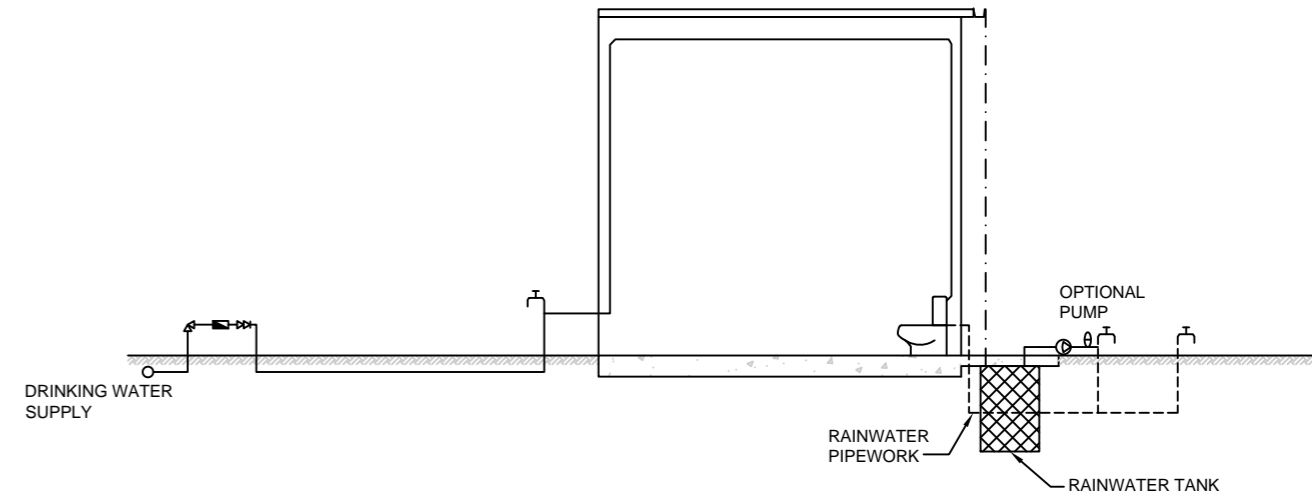
SUMP : 250mm LENGTH x 100mm DEEP MIN.












SILT ARRESTOR PIT P3, P4 DETAIL
NTS

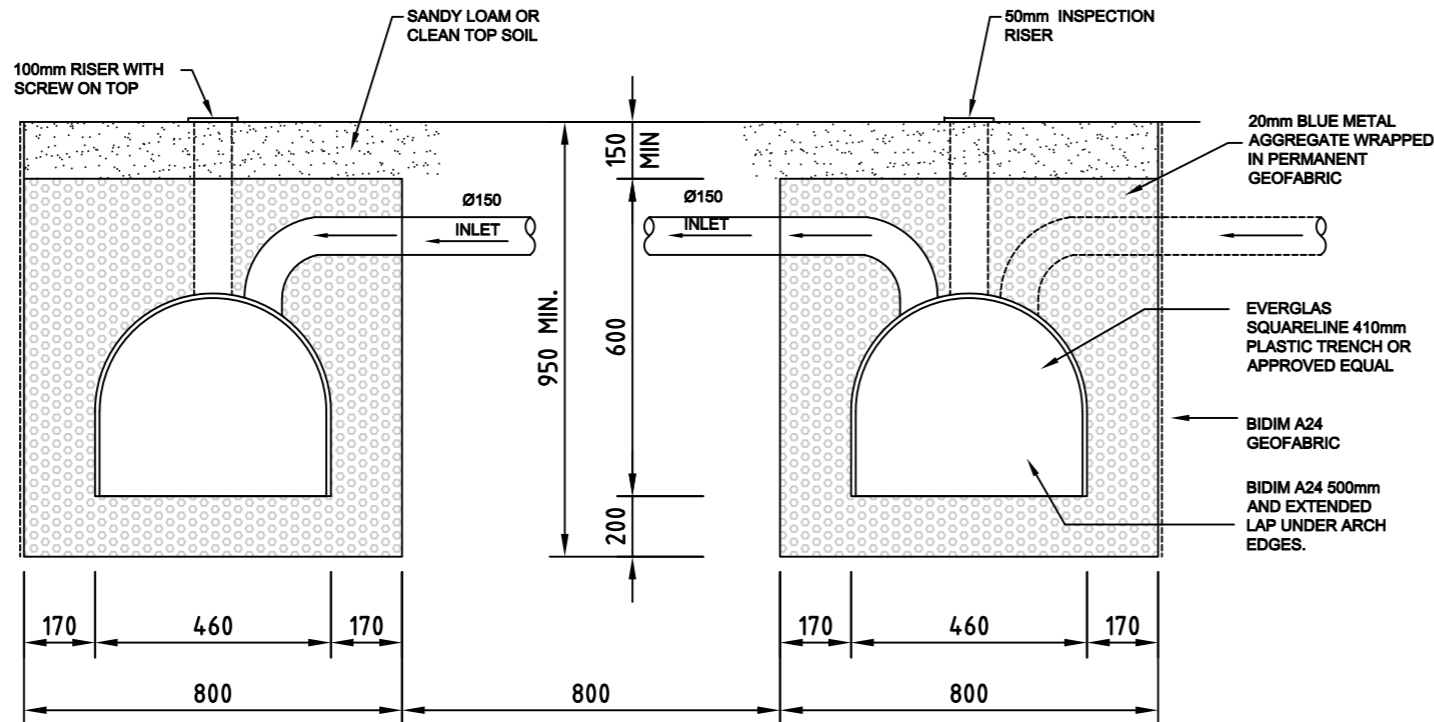


FIRST FLUSH DEVICE
NTS

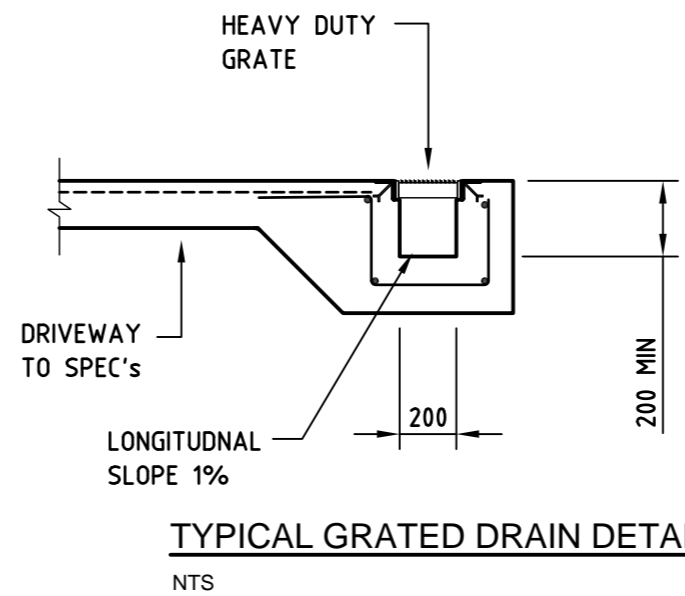


DUAL DRINKING WATER AND RAINWATER SUPPLIES TO TOILETS
N.T.S.

R.W.T. LOCATION	METER SIZE (mm)	TYPE OF TAP	TYPE OF BACKFLOW PREVENTION	<p><u>DIAGRAM NOTES:</u></p> <p>DRAWING TO BE READ IN CONJUNCTION WITH SYDNEY WATER PLUMBING REQUIREMENTS</p> <ol style="list-style-type: none">FOR TANKS 10,000 LITRES OR LESS, COUNCIL DEVELOPMENT CONSENT IS NOT REQUIRED, IF THEIR CONDITIONS FOR INSTALLATION ARE FOLLOWED.FOR TANKS GREATER THAN 10,000 LITRES COUNCIL DEVELOPMENT CONSENT IS GENERALLY REQUIRED.FOR TANKS GREATER THAN 10,000 LITRES APPROVAL IS REQUIRED FOR BUILDING OVER SEWERS.SYDNEY WATER'S APPROVAL IS REQUIRED FOR ANY TOP UP FROM DRINKING WATER SUPPLY, REGARDLESS OF TANK SIZE.NO DIRECT CONNECTION IS ALLOWED BETWEEN THE DRINKING WATER SUPPLY AND THE RAINWATER TANK SUPPLY.RAINWATER PIPEWORK IS SHOWN ON THE DIAGRAM AS SUPPLYING INTERNAL & EXTERNAL RAINWATER USES. CUSTOMERS MAY WANT ONLY ONE OR THE OTHER.
ABOVE GROUND	20	BALL VALVE	DUAL CHECK VALVE (COMBINED WITH METER)	
	25	BALL VALVE	DUAL CHECK VALVE	
	32	BALL VALVE	DUAL CHECK VALVE	
BELOW GROUND	20	BALL VALVE	TESTABLE DOUBLE CHECK VALVE	
	25	BALL VALVE	TESTABLE DOUBLE CHECK VALVE	
	32	BALL VALVE	TESTABLE DOUBLE CHECK VALVE	
<p>LEGEND:</p> <p> BALL VALVE RIGHT ANGLE TYPE</p> <p> DUAL CHECK VALVE</p> <p> PUMP</p> <p> GARDEN TAP</p> <p> DRINKING WATER SUPPLY</p> <p> RAINWATER SUPPLY PIPES</p> <p> DOWN PIPES</p> <p> METER</p> <p> PRESSURE VALVE</p>				



TYPICAL DETAIL OF PROPOSED ABSORPTION TRENCH
5 EVERGRASS UNITS (TOTAL VOLUME 2.5m³)
NTS



TYPICAL GRATED DRAIN DETAIL
NTS

03	REVISED FOR CONSTRUCTION CERTIFICATE	24.04.20
02	REVISED FOR CONSTRUCTION CERTIFICATE	20.11.19
01	ISSUED FOR CONSTRUCTION CERTIFICATE	28.08.18
<p>N. KOLOFF & ASSOCIATES</p> <p>CIVIL & STRUCTURAL ENGINEERS</p> <p>A.B.N. 15 657 583 235</p> <p>POSTAL ADDRESS: P.O. BOX 99, ANNANDALE NSW 2038, AUSTRALIA</p> <p>PHONE: (02) 9560 0064 FAX: (02) 9560 0065 nkoloff@bigpond.net.au MOBILE: 0417 485 481</p> <p>DESCRIPTION OF WORKS AT : STORMWATER DRAINAGE PLAN FOR PROPOSED RESIDENTIAL DEVELOPMENT No.8 COOKSEY AVE FRESHWATER NSW 2096</p> <p>INDEX 1018 / 2018 SHEET C1.01 03</p> <p>APPROVED BY: <i>Nikolai Koloff</i> N. Koloff - Structural Engineer B.E. (Hon.), L.G.E. M.I.E. AUST., M.Eng. C.P. Eng Registration No.616868</p> <p>STORMWATER DRAINAGE DETAILS</p> <p>DATE : AUG. 18'</p>		