

STORMWATER DESIGN CERTIFICATE

PROJECT: PROPOSED CONSTRUCTION OF A GRANNY FLAT

ADDRESS: 38 TURIMETTA STREET, MONA VALE, NSW 2103

CLIENT: RK DESIGNS

DRAWINGS NUMBER: STW29-2022

We confirm that Modular Engineers reviewed the above-mentioned drawings and design for the above address by practice and qualified stormwater engineer and the review has been performed in accordance with the provisions of the Building Code of Australia Clause A2.2 and addresses the applicable requirements of the Building Code of Australia, Australian Standard AS/NZS 3500.3.

I, Ali Al-Obaidi from Modular Engineers Pty Ltd, I am a chartered professional engineer in both civil and structural colleges. I am a competent person in structural and civil design, being listed in the National Professional Engineering Register (NPER-5358554) and as such can certify that I am responsible for the stormwater design verification of the above elements described herein, and that the design was carried out in accordance with the provisions of the Building Code of Australia and the relevant Australian Standards.

Per: 

Ali Al-Obaidi | Director

PHD, MSc, BSc, MIEAust, CPEng,

NER (No: 5358554), NPER

STORMWATER MANAGEMENT PLAN

EROSION CONTROL

BEFORE EARTHWORKS CAN COMMENCE THE EROSION & SEDIMENT CONTROL MEASURES MUST BE IN PLACE.

DURING THE CONSTRUCTION PERIOD, THESE CONTROL MEASURES WILL NEED TO BE INSPECTED & MAINTAINED REGULARLY, ESPECIALLY AFTER STORM EVENTS, BY THE CONTRACTOR.

ALL WORK IS TO BE CARRIED OUT TO PREVENT EROSION, CONTAMINATION & SEDIMENTATION OF THE STORAGE SITE, SURROUNDING AREAS & DRAINAGE SYSTEMS.

MINIMIZE DISTURBED AREA COVERED WITH NATURAL VEGETATION. ONLY THOSE AREAS DIRECTLY REQUIRED FOR CONSTRUCTION ARE TO BE DISTURBED.

INSTALL EROSION/SEDIMENT CONTROL MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION OR EXCAVATION OPERATIONS.

PROVIDE SILT FENCE/STRAW BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS. THE SEDIMENT FENCING MATERIAL TO CYCLONE WIRE SECURITY FENCE. SEDIMENT CONTROL FABRIC SHALL BE AN APPROVED MATERIAL (EG. HUMES PROPEX SILT STOP) STANDING 300mm ABOVE GROUND & EXTENDING 150mm BELOW GROUND.

ISOLATE EXISTING STORMWATER PITS WITH STRAW BALES OR SILT TRAPS TO FILTER ALL INCOMING FLOWS.

DO NOT STOCKPILE EXCAVATED MATERIAL ON THE ROAD WAY.

DIVERT CLEAN WATER FROM UNDISTURBED AREAS AROUND THE WORKING AREAS.

CONSTRUCTION ENTRY/EXIT SHALL BE VIA THE LOCATION NOTED ON THE DRAWING. CONTRACTOR SHALL ENSURE ALL DROPPABLE SOIL & SEDIMENT IS REMOVED PRIOR TO CONSTRUCTION TRAFFIC EXITING SITE. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION TRAFFIC ENTERING AND LEAVING THE SITE DO SO IN A FORWARD DIRECTION.

TREAT THE STORMWATER RUNOFF WITH SUSPENDED SOLIDS SO THE DISCHARGE WATER QUALITY TO COUNCIL STORMWATER DRAINAGE SYSTEM HAS A MAXIMUM CONCENTRATION OF SUSPENDED SOLIDS THAT DOES NOT EXCEED 50 MILLIGRAMS PER LITRE IN ACCORDANCE WITH THE PROTECTION OF THE ENVIRONMENT OPERATION ACT (POEO 1997) AND SHALL BE APPROVED BY LOCAL COUNCIL

ADOPT TEMPORARY MEASURES AS MAY BE NECESSARY FOR EROSION & SEDIMENT CONTROL, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: –
– DRAINS: TEMPORARY DRAINS AND CATCH DRAINS.
– SPREADER BANKS OR OTHER STRUCTURES: TO DISPERSE CONCENTRATED RUNOFF.
– SILT TRAPS: CONSTRUCTION AND MAINTENANCE OF SILT TRAPS TO PREVENT DISCHARGE OF SCOURED MATERIAL TO DOWNSTREAM AREAS.

AFTER RAIN, INSPECT, CLEAN, AND REPAIR IF REQUIRED, TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.

REMOVE TEMPORARY EROSION & SEDIMENT CONTROL MEASURES WHEN THEY ARE NO LONGER REQUIRED.

COMPLY WITH THE REQUIREMENTS OF LANDCOM'S MANAGING URBAN STORMWATER – SOIL AND CONSTRUCTION 'THE BLUE BOOK' LATEST EDITION

THE EROSION & SEDIMENT CONTROL PLAN PROVIDED IS ONLY INDICATIVE. THE CONTRACTOR SHOULD PREPARE A DETAILED ESCP SUITABLE FOR THE SPECIFIC SITE CONDITIONS



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

TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE.

GENERAL NOTES

ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS, BUILDING CODE OF AUSTRALIA, NSW CODE OF PRACTICE AND THE TO THE RELEVANT SERVICE CODES.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE IN MILLIMETERS (U.N.O.). DIMENSIONS SHALL NOT BE OBTAINED BY SCALING OF THESE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

BENCHMARKS HAVE BEEN ESTABLISHED WHERE INDICATED ON THE DRAWINGS. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.). THE CONTRACTOR SHALL UNDERTAKE ALL NECESSARY SURVEY WORK TO ENSURE THAT THE WORKS ARE CONSTRUCTED TO DESIGN LINE AND LEVEL.

SETTING OUT DIMENSIONS AND LEVELS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR.

ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT SAA CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL SAFETY FENCES, WARNING SIGNS, TRAFFIC DIVERSIONS AND THE LIKE DURING CONSTRUCTION. ALL WORKS TO COMPLY WITH WORK HEALTH AND SAFETY REQUIREMENTS AND OTHER RELEVANT AUTHORITY SAFETY REQUIREMENTS.

NO TREES SHALL BE REMOVED, CUTBACK OR RELOCATED WITHOUT THE WRITTEN INSTRUCTION FROM THE SUPERINTENDENT.

WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.

ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND THESE SPECIFICATIONS.

DESIGN LEVELS GIVEN ARE TO FINISHED SURFACE LEVEL AND INCLUSIVE OF TOPSOIL. (TOPSOIL DEPTH VARIES)

THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A N.A.T.A. REGISTERED SURVEYOR.

CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THE DRAWING HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.

THE POSITION OF SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.

MODULAR ENGINEERS DOES NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THE DRAWING SHOWS MORE THAN THE PRESENCE OR ABSENCE OF SERVICES, AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FROM THE UTILITY SERVICES AUTHORITIES A CURRENT COPY OF UNDERGROUND SERVICES SEARCH FOR THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY. CLEARANCE SHALL BE OBTAINED FROM THE RELEVANT REGULATORY AUTHORITY. CONTRACTOR TO KEEP COPY OF UNDERGROUND SERVICES SEARCH ON SITE AT ALL TIMES. ANY DAMAGES TO SERVICES OR SERVICES ADJUSTMENTS SHALL BE CARRIED OUT BY THE CONTRACTOR OR RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE.

VISIT THE SITE BEFORE SUBMITTING THE FINAL TENDER PRICE TO ASSESS 'ON SITE' CONDITIONS. FAILURE TO DO SO WILL FORFEIT ANY CLAIM FOR NOT BEING AWARE OF CONDITIONS AFFECTING THE TENDER.

THE CONTRACTOR SHALL PREPARE ACCURATE WORK-AS-EXECUTED DRAWINGS FOLLOWING THE COMPLETION OF ALL WORKS.

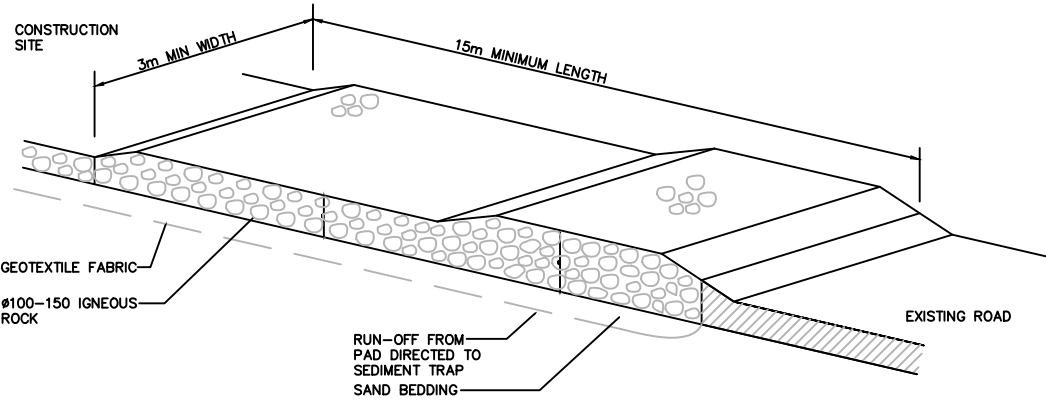
IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE IN PLACE & MAINTAIN TRAFFIC FACILITIES AT ALL TIMES DURING CONSTRUCTION.

LEGEND

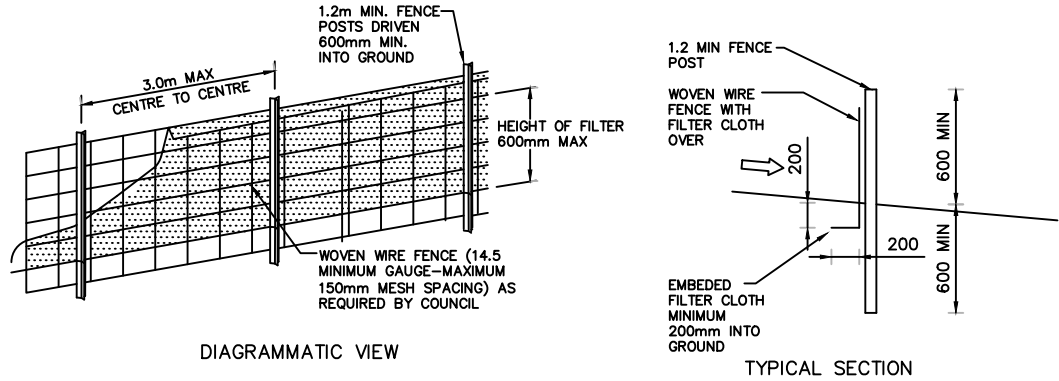
DP	DOWNPIPE
	STORMWATER GRAVITY LINE
	STORMWATER CHARGED LINE
	SUBSOIL LINE
	EXISTING STORMWATER LINE
	AUTHORITY SEWER LINE
	SEDIMENT FENCE
	GRATED SURFACE INLET PIT
	GRATED TRENCH DRAIN
	CLEANING EYE
x R.L. 51.83	PROPOSED SPOT LEVEL
	EXISTING GRATED SURFACE INLET PIT
	EXISTING JUNCTION PIT
	EXISTING KERB INLET PIT
	EXISTING TELSTRA PIT
	EXISTING HYDRANT
	EXISTING STOP VALVE
	EXISTING GAS VALVE
	EXISTING POWER POLE
	EXISTING SEWER MANHOLE
OFF	OVERLAND FLOW PATH

ABBREVIATIONS:

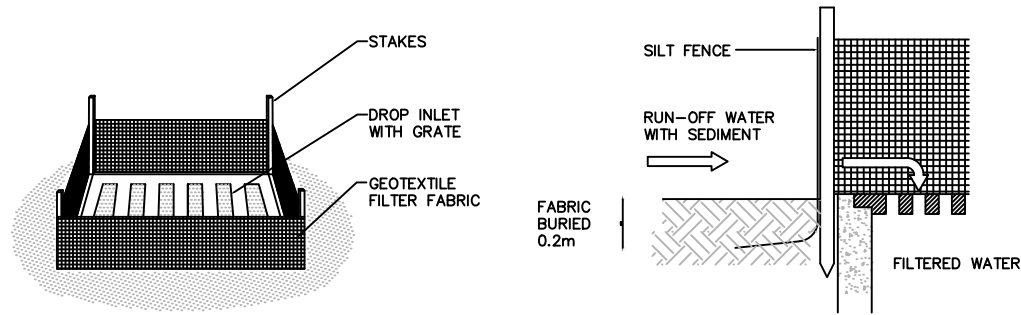
ø or DIA	DIAMETER	NGL	NATURAL GROUND LEVEL
CBR	CALIFORNIA BEARING		
RATIO		OFF	OVERLAND FLOW PATH
CH	CHAINAGE	OSD	ON-SITE DETENTION
CL	CENTER LINE	R	RADIUS
CO	CLEAR OUT	RCP	REINFORCED CONCRETE
DD	DISH DRAIN	PIPE	
DDO	DISH DRAIN OUTLET	RL	REDUCED LEVEL
DP	DOWNPIPE	RW	RETAINING WALL
e	EXISTING	RWT	RAINWATER TANK
FFL	FINISHED FLOOR LEVEL	SJ	SAWN CONTROL JOINT
GTD	GRATED TRENCH DRAIN	SMH	SEWER MAN HOLE
GSIP	GRATED SURFACE INLET	SW	STORMWATER
PIT		SWP	STORMWATER PIT
HYD	HYDRANT	SWRM	STORMWATER RISING MAIN
IJ	ISOLATING JOINT	SV	STOP VALVE
IL	INVERT LEVEL	TOK	TOP OF KERB
IP	INTERSECTION POINT	TOW	TOP OF WALL
KIP	KERB INLET PIT	TWL	TOP WATER LEVEL
KO	KERB OUTLET	TP	TANGENT POINT
K&G	KERB & GUTTER	UPVC	UNPLASTICISED POLYVINYL
KR	KERB RETURN	CHLORIDE	
LS	LONGITUDINAL SECTION	UNO	UNLESS NOTED
		OTHERWISE	
		FF	FIRST FLUSH DEVICE
		TYP	TYPICAL



TEMPORARY CONSTRUCTION EXIT (RUBBLE ALTERNATIVE)
NOT TO SCALE



SEDIMENT FENCE DETAIL
NOT TO SCALE



SUMP SEDIMENT TRAP
NOT TO SCALE

REVISIONS				
REV.	DATE	DESCRIPTION	ENG.	DFT.
A	08/03/2022	ISSUED FOR DA	A.A.	A.A.
B	16/03/2022	ISSUED FOR DA	A.A.	A.A.
C	18/03/2022	ISSUED FOR DA	A.A.	A.A.
D	04/04/2022	ISSUED FOR DA	A.A.	A.A.

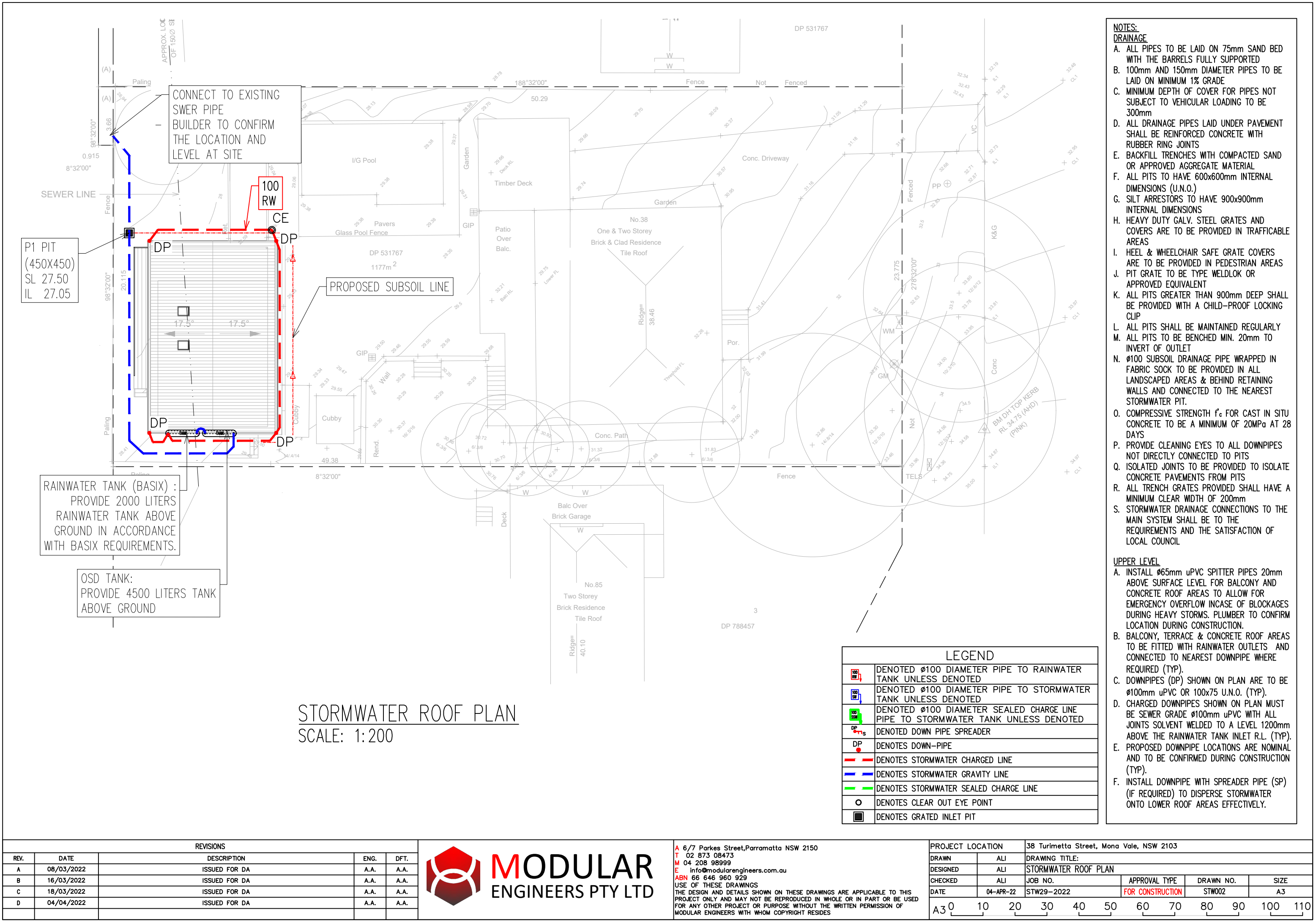


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PROJECT LOCATION		38 Turimetta Street, Mona Vale, NSW 2103			
DRAWN	ALI	DRAWING TITLE:			
DESIGNED	ALI	TITLE PAGE, NOTES & DETAILS			
CHECKED	ALI	JOB NO.	APPROVAL TYPE	DRAWN NO.	SIZE
DATE	04-APR-22	STW29-2022	FOR CONSTRUCTION	STW001	A3

A3	0	10	20	30	40	50	60	70	80	90	100	110
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- NOTES:**
DRAINAGE
- A. ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED
 - B. 100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE
 - C. MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm
 - D. ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS
 - E. BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL
 - F. ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)
 - G. SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS
 - H. HEAVY DUTY GALV. STEEL GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS
 - I. HEEL & WHEELCHAIR SAFE GRATE COVERS ARE TO BE PROVIDED IN PEDESTRIAN AREAS
 - J. PIT GRATE TO BE TYPE WELDLK OR APPROVED EQUIVALENT
 - K. ALL PITS GREATER THAN 900mm DEEP SHALL BE PROVIDED WITH A CHILD-PROOF LOCKING CLIP
 - L. ALL PITS SHALL BE MAINTAINED REGULARLY
 - M. ALL PITS TO BE BENCHED MIN. 20mm TO INVERT OF OUTLET
 - N. Ø100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK TO BE PROVIDED IN ALL LANDSCAPED AREAS & BEHIND RETAINING WALLS AND CONNECTED TO THE NEAREST STORMWATER PIT.
 - O. COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS
 - P. PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS
 - Q. ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS
 - R. ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm
 - S. STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

- UPPER LEVEL**
- A. INSTALL Ø65mm uPVC SPITTER PIPES 20mm ABOVE SURFACE LEVEL FOR BALCONY AND CONCRETE ROOF AREAS TO ALLOW FOR EMERGENCY OVERFLOW INCASE OF BLOCKAGES DURING HEAVY STORMS. PLUMBER TO CONFIRM LOCATION DURING CONSTRUCTION.
 - B. BALCONY, TERRACE & CONCRETE ROOF AREAS TO BE FITTED WITH RAINWATER OUTLETS AND CONNECTED TO NEAREST DOWNPIPE WHERE REQUIRED (TYP).
 - C. DOWNPIPES (DP) SHOWN ON PLAN ARE TO BE Ø100mm uPVC OR 100x75 U.N.O. (TYP).
 - D. CHARGED DOWNPIPES SHOWN ON PLAN MUST BE SEWER GRADE Ø100mm uPVC WITH ALL JOINTS SOLVENT WELDED TO A LEVEL 1200mm ABOVE THE RAINWATER TANK INLET R.L. (TYP).
 - E. PROPOSED DOWNPIPE LOCATIONS ARE NOMINAL AND TO BE CONFIRMED DURING CONSTRUCTION (TYP).
 - F. INSTALL DOWNPIPE WITH SPREADER PIPE (SP) (IF REQUIRED) TO DISPERSE STORMWATER ONTO LOWER ROOF AREAS EFFECTIVELY.

LEGEND	
	DENOTES Ø100 DIAMETER PIPE TO RAINWATER TANK UNLESS DENOTES
	DENOTES Ø100 DIAMETER PIPE TO STORMWATER TANK UNLESS DENOTES
	DENOTES Ø100 DIAMETER SEALED CHARGE LINE PIPE TO STORMWATER TANK UNLESS DENOTES
	DENOTES DOWN PIPE SPREADER
	DENOTES DOWN-PIPE
	DENOTES STORMWATER CHARGED LINE
	DENOTES STORMWATER GRAVITY LINE
	DENOTES STORMWATER SEALED CHARGE LINE
	DENOTES CLEAR OUT EYE POINT
	DENOTES GRATED INLET PIT

REVISIONS				
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DRAWN	ALI	DRAWING TITLE:			
DESIGNED	ALI	STORMWATER ROOF PLAN			
CHECKED	ALI	JOB NO.		APPROVAL TYPE	DRAWN NO.
DATE	04-APR-22	STW29-2022		FOR CONSTRUCTION	STW002
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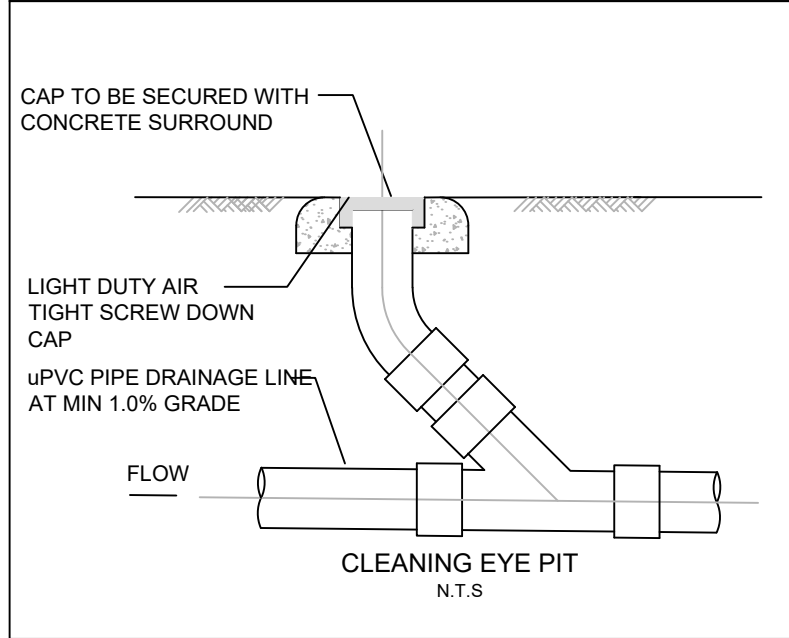
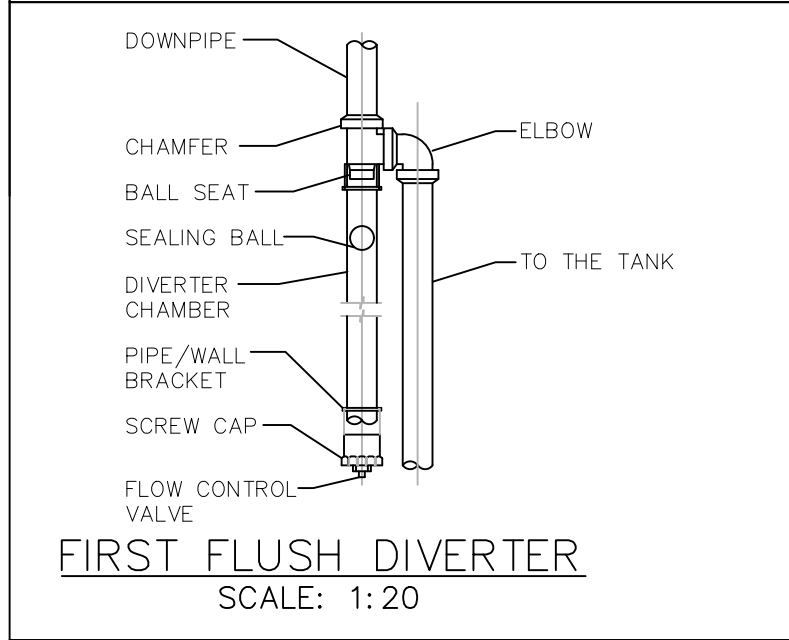
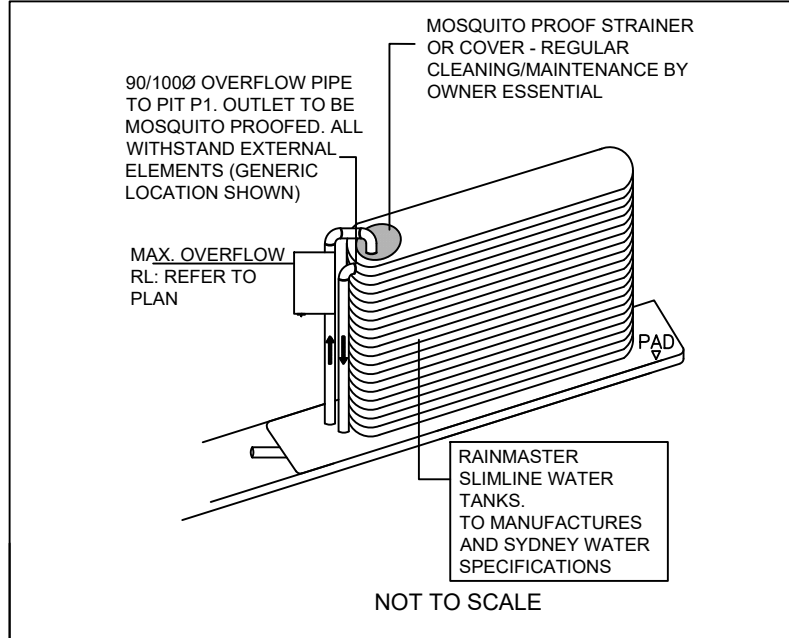
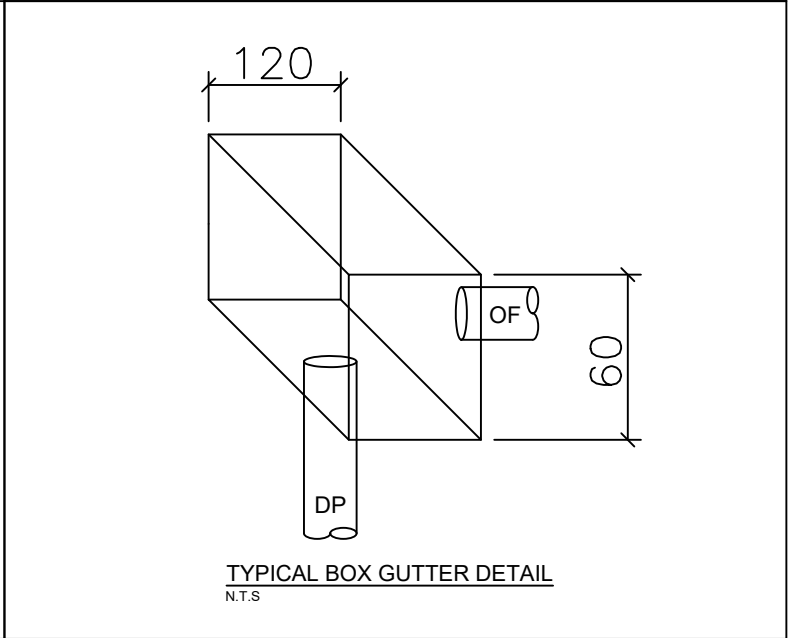
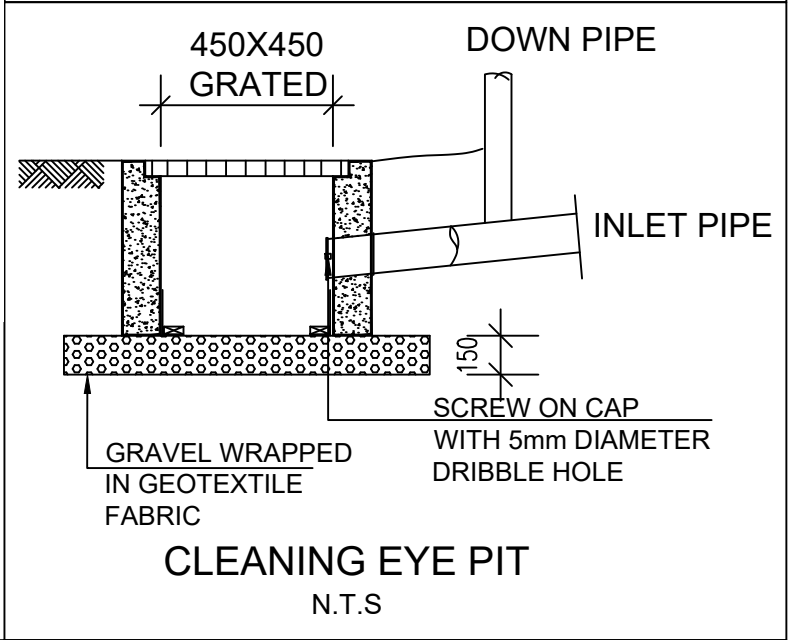
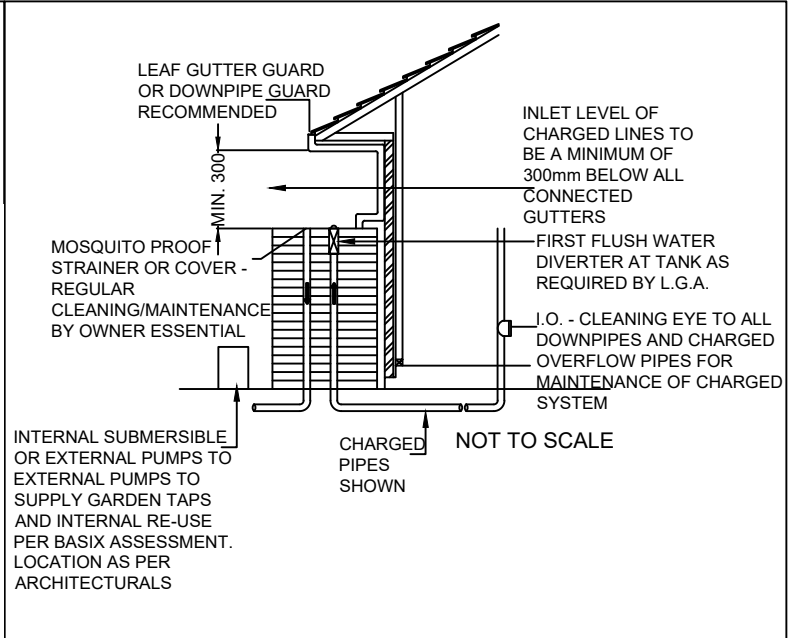
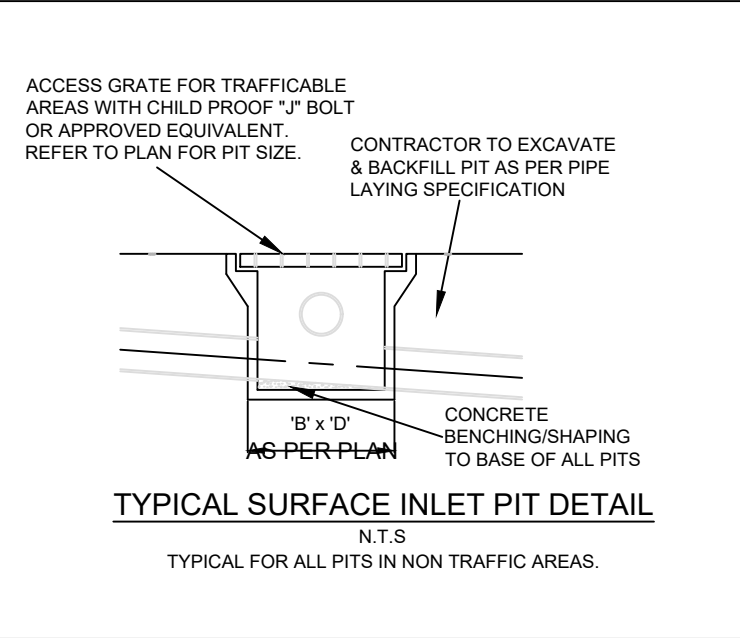


Table 7 Requirements for Size and Allowable Discharge from On-Site Detention Systems

Additional Hard (Impervious) Surface Area (square metres)	Minimum Capacity of On-Site Detention Tank (Litres)	Discharge Rate Litres/Sec
0 - 50	Nil	Nil
>50 - 75	4,500	2
>75 - 100	6,000	3
>100 - 150	9,000	4
>150 - 200	12,000	6
>200 - 250	15,000	7
>250 - 300	18,000	9
>300 - 400	24,000	12
>400 - 500	30,000	15
>500 - 600	36,000	18
>600 - 700	42,000	21
>700 - 800	48,000	24
>800 - 900	54,000	27
>900 - 1,000	60,000	30
>1,000*	A minimum storage capacity of 60 liters per m ² of additional hard/impervious surface area, and a discharge rate which replicates the discharge from the site were it to be undeveloped.	

*Developments exceeding 1,000 square metres of additional hard (impervious) surface area must also provide with the Water Management Plan, an Integrated Water Management Strategy prepared by a suitably qualified and experienced Water Engineer. The plan must demonstrate that stormwater flows discharged from the site is to be no greater than what would have occurred predevelopment, and that Water Sensitive Urban Design principles have been practically maximised within the proposed development.

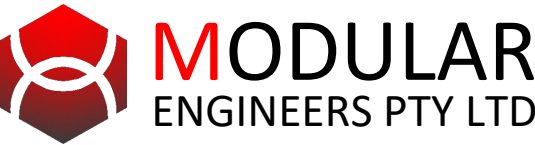


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 - COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS
 - PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS
 - ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS
 - ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm
 - STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

- UPPER LEVEL**
- INSTALL Ø65mm uPVC SPITTER PIPES 20mm ABOVE SURFACE LEVEL FOR BALCONY AND CONCRETE ROOF AREAS TO ALLOW FOR EMERGENCY OVERFLOW INCASE OF BLOCKAGES DURING HEAVY STORMS. PLUMBER TO CONFIRM LOCATION DURING CONSTRUCTION.
 - BALCONY, TERRACE & CONCRETE ROOF AREAS TO BE FITTED WITH RAINWATER OUTLETS AND CONNECTED TO NEAREST DOWNPIPE WHERE REQUIRED (TYP).
 - DOWNPIPES (DP) SHOWN ON PLAN ARE TO BE Ø100mm uPVC OR 100x75 U.N.O. (TYP).
 - CHARGED DOWNPIPES SHOWN ON PLAN MUST BE SEWER GRADE Ø100mm uPVC WITH ALL JOINTS SOLVENT WELDED TO A LEVEL 1200mm ABOVE THE RAINWATER TANK INLET R.L. (TYP).
 - PROPOSED DOWNPIPE LOCATIONS ARE NOMINAL AND TO BE CONFIRMED DURING CONSTRUCTION (TYP).
 - INSTALL DOWNPIPE WITH SPREADER PIPE (SP) (IF REQUIRED) TO DISPERSE STORMWATER ONTO LOWER ROOF AREAS EFFECTIVELY.

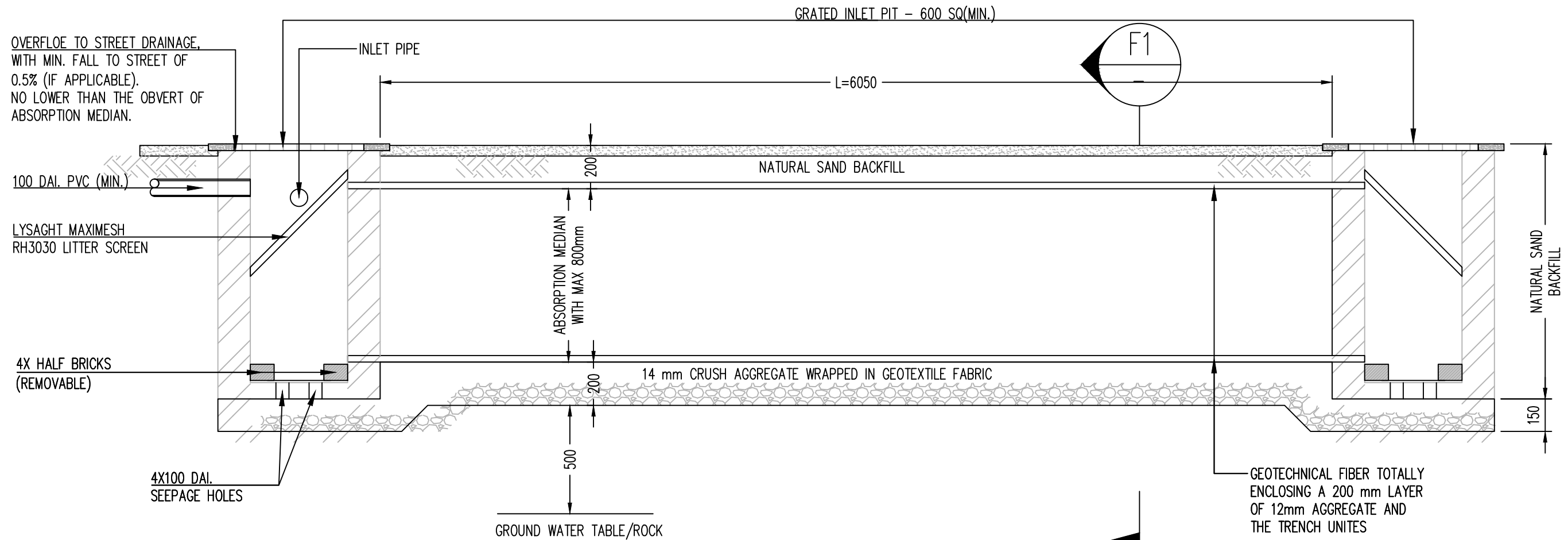
- RAINWATER RECYCLING TANKS**
- TANK SHAPE AND DEVICES ARE DIGRAMATIC ONLY
 - ANY MODIFICATIONS TO TANK VOLUME, INLET, OUTLET, OR OTHER DETAILS MUST BE APPROVED BY ENGINEER
 - STORMWATER LINES FROM DOWNPIPES FROM ROOF AREAS ONLY TO RAINWATER TANKS
 - TANK TO COMPLY WITH AS1546.1, AND INSTALLED IN ACCORDANCE WITH MANUFACTURES INSTALLATION
 - FIRST FLUSH WATER DIVERTER TO COMPLY WITH SYDNEY WATER & COUNCIL DCP'S.
 - AN APPROVED SWITCH SYSTEM SIMILAR TO "RAINBANK" TO BE USED VIA MAINS. PUMPS TO MANUFACTURES SPECIFICATIONS
 - ALL JOINTS TO BE SOLVANT WELDED
 - ALL EXPOSED PIPEWORK TO BE PAINTED TO WITHSTAND EXTERNAL ELEMENTS
 - CLIENT TO BE RESPONSIBLE FOR MAINTENANCE SYSTEM OF CHARGED PIPELINES
 - STRUCTURAL DETAILS FOR TANKS BASE BY QUALIFIED STRUCTURAL ENGINEER, AS REQUIRED BY MANUFACTURER
 - ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS

REVISIONS				
REV.	DATE	DESCRIPTION	ENG.	DFT.
A	08/03/2022	ISSUED FOR DA	A.A.	A.A.
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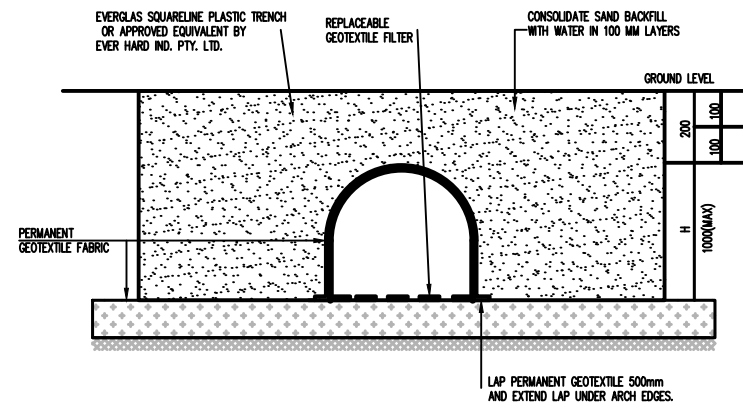
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PROJECT LOCATION		38 Turimetta Street, Mona Vale, NSW 2103			
DRAWN	ALI	DRAWING TITLE:			
DESIGNED	ALI	STORMWATER DETAILS AND NOTES-1			
CHECKED	ALI	JOB NO.	APPROVAL TYPE	DRAWN NO.	SIZE
DATE	04-APR-22	STW29-2022	FOR CONSTRUCTION	STW003	A3
A3 0 10 20 30 40 50 60 70 80 90 100 110					



ABSORPTION TRENCH SECTION

SCALE 1:20



SECTION F1
SCALE 1:20

NOTES:

- WHERE THERE IS A SINGLE ROW < 5 M, ONLY ONE GRATED PIT SHALL BE PROVIDED AT THE END OF THE ROW.
- THE INFILTRATION SYSTEM SHALL BE A MINIMUM OF 1 M FROM THE BOUNDARY FRONTING THE STREETS & 2 M FROM OTHER PROPERTY BOUNDARIES AND STRUCTURES FOOTINGS.
- WHERE PIT EXTENDS UNDER DRIVEWAYS, USE BOX CULVERTS INSTEAD OF PLASTIC TRENCH OR INCREASE COVER OR PROVIDE PIERS TO STRUCTURAL ENGINEER'S REQUIREMENTS.
- FOR TRENCH LENGTHS GREATER THAN 10 M, INTERMEDIATE PITS MUST BE PROVIDED, FOR DEPTHS > 900 mm, USE LARGER PITS.
- STORMTECH SC-310 864 (W) X 406(H) AT 190 L/M PERMITTED INSTEAD OF EVERGLAS, PROVIDING A 900 X 600 PIT USED FOR MAINTENANCE ACCESS AT EACH END.
- STANDARD DETAILS OF ON-SITE INFILTRATION SYSTEM ARE OBTAINED FROM STORMWATER MANAGEMENT TECHNICAL GUIDELINES, FIGURE 5.

ABSORPTION TRENCH CALCULATION

TOTAL SITE AREA	1177	m ²
ROOF AREA	97	m ²
DRIVEWAY AREAS	13	m ²
OTHER PAVED AREAS	0	m ²
AREA DRAINING TO AABSORPTION TRENCH	110	m ²
OTHER PAVEED AREA NOT CONNECT TO THE ABSORPTION TRENCH	488	m ²
PERVIOUS PAVING AREA	0	m ²
TOTAL IMPERVIOUS AREA	598	m ²
AREA PERCENTAGE	51%	
RAINFALL INTENSITY	47.7	mm
VOLUME OF TUNOFF	5.247	m ³
TOTAL VOLUME OF TRENCH	6.30	m ³
TRENCH LENGTH	6.05	m
TRENCH WIDTH	1.30	m
TRENCH DEPTH	0.8	m

REVISIONS

REV.	DATE	DESCRIPTION	ENG.	DFT.
A	07/03/2022	ISSUED FOR DA	A.A.	A.A.
B	16.03.2022	ISSUED FOR DA	A.A.	A.A.
C	18.03.2022	ISSUED FOR DA	A.A.	A.A.
D	04.04.2022	ISSUED FOR DA	A.A.	A.A.



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PROJECT LOCATION		38 TURIMETTA STREET, MONA VALE, NSW 2103			
DRAWN	ALI	DRAWING TITLE:			
DESIGNED	ALI	STORMWATER DETAILS AND NOTES-2			
CHECKED	ALI	JOB NO.	APPROVAL TYPE	DRAWN NO.	SIZE
DATE	07-MAR-22	STR22-2022	FOR CONSTRUCTION	STW004	A3
A3 0 10 20 30 40 50 60 70 80 90 100 110					