

OSD CALCULATIONS

THE DRAINS MODEL HAS BEEN USED TO CALCULATE THE SITE STORAGE AND DISCHARGE REQUIREMENTS.

- $\begin{array}{ccc} \text{(1)} & \text{SITE AREA} = 721.30\,\text{m}^2 \end{array}$
- PRE DEVELOPMENT IMPERVIOUS AREA = 44%
- TWO OSD SYSTEMS HAVE BEEN DESIGNED FOR THIS DEVELOPMENT
- $ARFA BY-APASS OSD = 47m^2$
- (5) % IMPERVIOUS AREA BY-PASS OSD = 100
- THE FLOW RATES (L/S) FROM THE PRE DEVELOPMENT AND POST DEVELOPMENT STAGES ARE AS FOLLOWS:

PRE-DEVELOPMENT	Al	रा
STAGE	(YEA	RS)
	5	100
TOTAL	27	47

POST DEVELOPMENT STAGE	AF (YEA	
	5	100
(1) BY PASS (AREA = 47m²) (100% IMPERVIOUS (AREA)	2	3
(2) OSD (SYSTEM-1) (AREA - 250m²) (100% IMPERVIOUS (AREA) - RAINWATER (FANK OSD	6	9
(3) OSD (SYSTEM-2) (AREA – 434.30m²) (21% IMPERVIOUS (AREA) – ABOVE GROUND OSD	12	13
TOTAL DISCHARGE	20	25

- FROM THE CALCULATION THE REQUIRED OSD VOLUME REQUIRED FOR SYSTEM-1 IS 6.5m3 AND FOR SYSTEM-2 IS
- THE ORIFICE DIAMETERS ARE 65mm AND 85mm FOR SYSTEM-1 & SYSTEM-2 RESPECTIVELY.

RAINWATER TANK NOTES:

RAINWATER TANKS HAVE A CAPACITY AS MARKED IN THE PLAN.

RAINWATER CONNECTION: TANKS WATER WILL BE PLUMBED TO ALL OUTDOOR WATERING, TOILETS AND LAUNDRY AS PER BASIX REQUIREMENTS.

'FIRST FLUSH' DEVICE WILL BE FITTED TO REMOVE SURFACE CONTAMINATION. NON DRINKING.

TANKS WATER WILL NOT BE CONNECTED TO DRINKING OR BATHING WATER OUTLETS. FULLY ENCLOSED:

TANKS WILL BE FULLY ENCLOSED AND SEALED TO PREVENT ACCESS BY MOSQUITOES. NON REFLECTIVE FINISH: TANKS SURFACES WILL HAVE NON REFLECTIVE FINISH.

A LABEL WILL BE AFFIXED TO THE TANKS WARNING THAT WATER IS NOT TO BE CONSUMED AND RAINWATER SIGNAGE WILL BE PLACED ABOVE ALL TANK WATER OUTLETS.

THE ROOF SURFACE FROM WHICH RAINWATER IS BEING DRAWN WILL NOT CONTAIN LEAD, TAR, ASBESTOS OR PAINTS

TANKS WILL BE BUILT ON A SELF SUPPORTING BASE (ABOVE GROUND TANKS ONLY)

TANKS WILL BE FITTED WITH SMALL MOTORISED PUMP TO PROVIDE ACCEPTABLE WATER PRESSURE.

PUMP NOISE: PUMP WILL BE DESIGNED AND LOCATED NOT TO CAUSE A NOISE DISTURBANCE TO NEIGHBOURS (GENERALLY NOT 5 dBA ABOVE BACKGROUND NOISE)

INSTALLATION: WILL BE INSTALLED BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS AND THE" NSW CODE OF PRACTICE:PLUMBING AND DRAINAGE

A BACK FLOW PREVENTION DEVICE WILL BE PROVIDED AT THE MAINS WATER METER

A TRICKLE TOP-UP SYSTEM WILL BE PROVIDED AT THE MAINS WATER.

BACK UP SUPPLY:

A BACK UP SUPPLY OF MAINS WATER WILL BE PROVIDED IN EVENT OF FALIURE OR MAINTENANCE. ANAEROBIC ZONE:

WATER WILL BE DRAWN FROM ABOVE THE ANAEROBIC ZONE OF TANKS. TANKS CONSTRUCTION:

TANKS WILL BE STRUCTURALLY SOUND AND CONSTRUCTED IN ACCORDANCE WITH AS/NZ3500.1.2-1998:NATIONAL PLUMBING AND DRAINAGE-WATER SUPPLY-ACCEPTABLE SOLUTIONS.

TANKS WILL BE PROVIDED WITH AN AIR GAP IN ACCORDANCE WITH AS/NZ 3500.1.2 AND AS2845.2

ON GOING MAINTENANCE: TANKS WILL BE WELL KEPT AND MAINTAINED BY THE OWNER.

WATER PRESSURE

ALL WORKS TO BE CONSTRUCTED TO THE REQUIREMENTS AND SATISFACTION OF THE NORTHERN BEACHES

- PRIOR TO COMMENCEMENT OF ANY SITE WORKS, THE BUILDING CONTRACTOR/PLUMBER HAS TO EXPOSE ALL SERVICES IN THE FULL WIDTH OF THE FOOTPATH TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPE.
- 3. THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE. 4. THE BUILDER IS TO VERIFY ALL LEVELS ON THE SITE PRIOR TO COMMENCING CONSTRUCTION.
- 5. SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING THE TIME OF CONSTRUCTION.
- 6. W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFIATION OF DRAINAGE.
- 7. U.N.O. ALL DOWN PIPES ARE TO BE 100Ø. 8. U.N.O. ALL PIPES TO BE 100Ø CLASS 'SH' WITH 1% MIN SLOPE.
- 9. ALL THE RETAINING WALLS TO STRUCTURAL ENGINEERS DETAIL AND SHOULD BE WITHIN THE SITE BOUNDARY. 10. ALL THE DOWN PIPES FROM THE ROOF GUTTER TO RAINWATER TANK SHALL BE CHARGED LINES AND SOLVENT
- 11. PROVIDE OSD SIGN AS PER THE DETAILS GIVEN IN THE PLAN.
- 12. ALL THE RETAINING WALLS AROUND THE OSD BASIN SHALL BE BRICK OR BLOCK CONSTRUCTION.

LEGEND — a — a JUNCTION PIT DOWN PIPE EXISTING LEVEL X DESIGN LEVELX SPREADER PIPE I SP PLANTER GRATE 🗏 PG CLEANING EYE — (CE) (OR INSEPECTION EYE) FLOOR GRATE ## F0 SURFACE LEVEL SL 45.50 INVERT LEVEL IL 45.00 DROPPER

CAUTION:

REMOVED TREE

ALL THE LEVELS AND DIMENSIONS ARE CRITICAL. PLEASE FOLLOW THE SW PLAN FOR CONSTRUCTION TO AVOID FINAL CERTIFICATION DELAY. IF YOU SEE SOMETHING NOT CORRECT OR NOT SUITED FOR SITE PLEASE CONTACT THE STORMWATER ENGINEER FOR CLARIFICATION AND FURTHER DIRECTIONS.

FLUSHING POINT • FP

STEP IN THE

RETAINING WALL

NOTE:

THE SURFACE INLET PITS SHALL BE HEAVY DUTY PLASTIC PITS IF IT IS LESS THAN 400mm DEEP.

NOTE:

PRIOR TO CONSTRUCTION THE BUILDER IS TO COORDINATE ALL THE PLANS (ARCHITECTURE PLAN, LANDSCAPE PLAN, STRUCTURAL ENGINEER'S PLAN AND THE STORMWATER PLAN) TO MAKE SURE ALL THE DESIGN LEVELS, DOWNPIPE LOCATIONS AND THE FLOOR LEVELS ARE SAME IN ALL THE PLANS.

NOTE:

THE PIT SURFACE LEVELS AND THE TOP OF RETAINING WALLS SHALL BE RE-CONFIRMED AT SITE

NOTE:

CLEAN OUT LINES FROM THE CHARGED LINES TO BE CONNECTED TO THE NEAREST PITS WITH END CAP AT THE PIT END

NOTE:

PROVIDE FLOOR GRATES (100Ø) FOR THE FIRST FLOOR BALCONIES (DO NOT CONNECT TO THE RAINWATER TANK)

PROPOSED DWELLING
LOT B (No. 62) ELLERY PARADE
SEAFORTH NSW 2092

Ref No. 280322-01
Issue: B
SHEET 1 of 2

				DESIGN BY: VNK CONSULTING PTY LTD	Drawing Title:
				PO BOX 9118 Harris Park NSW 2150	
				Mobile: 0401 132 386	STORM
				Email: VNKCONSULTING@GMAIL.COM	
В	30.03.2022	RE-ISSUED FOR DA APPROVAL	AJ	PRINCIPAL ENGINEER: LOGAN N LOGESWARAN	LAYOU
А	28.03.2022	ISSUED FOR DA APPROVAL	AJ	AJ T	
Issue	Date	Description	BY	aualifications: BscEng, MEng, MEngStud, M.ASCE, MIEAust, CPEng, NER	

SCALE: - 1:100 @ A1

TRICKLE TOP-UP

OF MAINS WATER

IL 86.55

MIN 400

S AIR SPACE

2600 x (1150) (NTS)

MAINS TOP-UP ZONE

100∅ OVERFLOW

2600 x (1150) (NTS)

1610mm (TO BE

CONFIRMED)

RL 84.80

 $-100\emptyset$ CONNECTION RWT = 1500L

SECTION

SCALE

RAINWATER TANK DETAIL (SYSTEM-1)

RL 86.90 (TO BE

AIR SPACE

CONFIRMED AT SITE)

150Ø EMERGENCY

DIAMETER 44mm

____150Ø

____150Ø TO PIT-8

RL 84.65

IL 84.20

OVERFLOW

IL 86.65

OSD = 3500L

CONNECTION

ROOF WATER COLLECTED

FIRST FLUSH

DEVICE

OSD = 3500L

FLOAT CONTROL FOR -MAINS TOP-UP

RWT = 1500L

PUMP

CONCRETE PAD

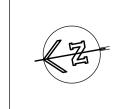
TANK WATER

SUPPLY VIA PUMP

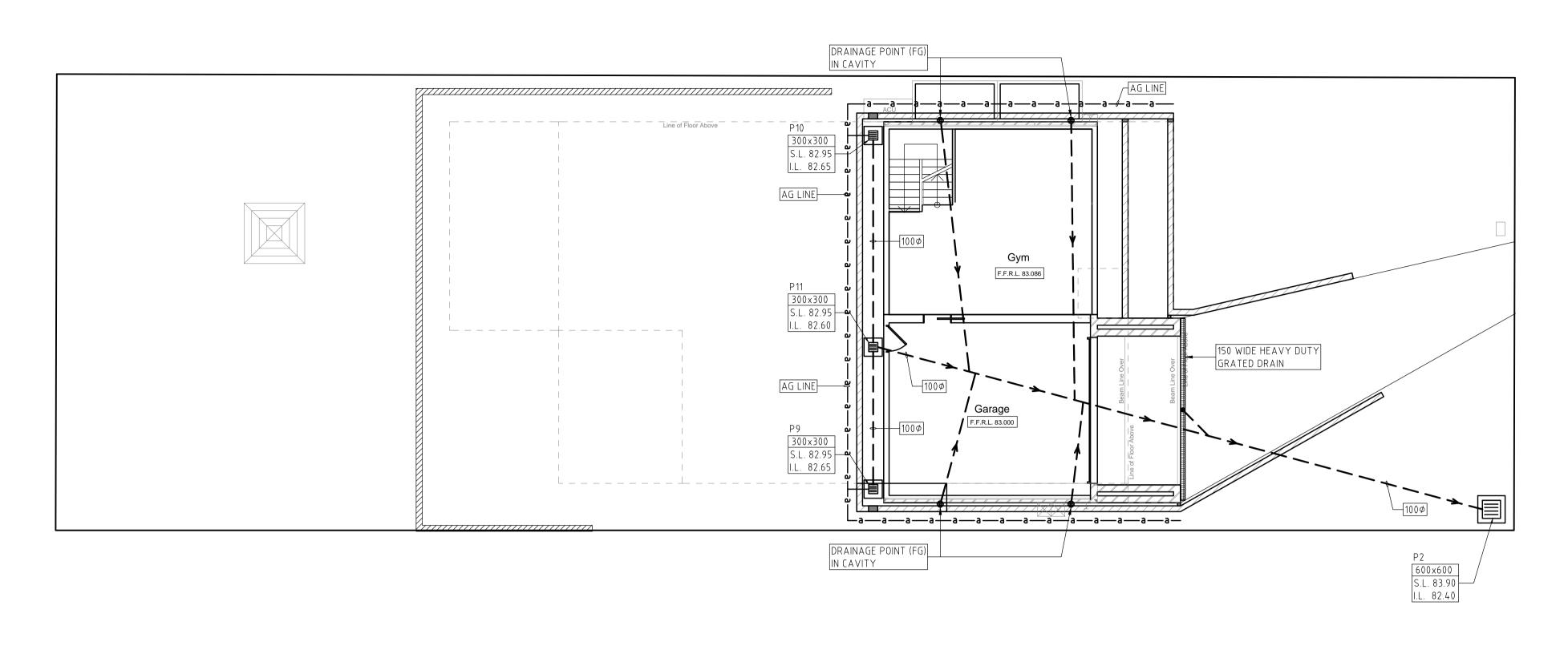
VIA GUTTERS & DOWN PIPES

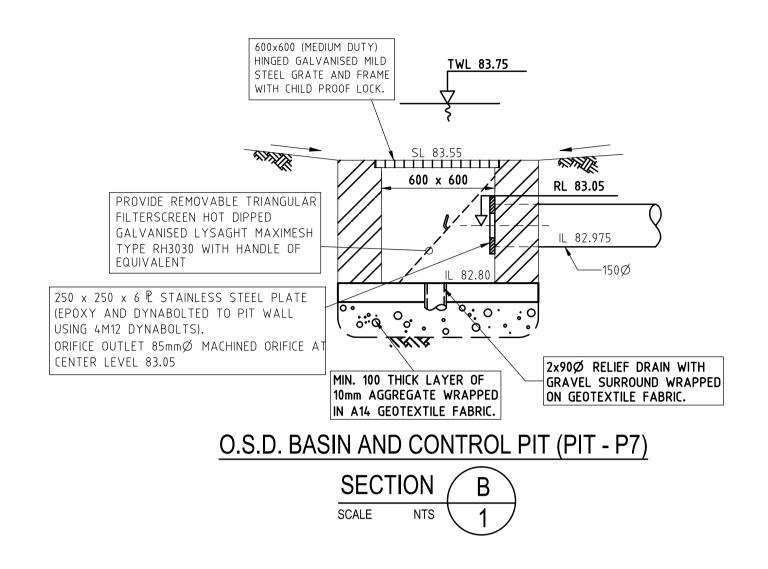
CONFIRMED AT SITE)

STORMWATER DRAINAGE LAYOUT PLAN - 1



DESIGNED	NL
DRAWN	AJ
DATUM	AHD
DATE	28.03.2022





DUTY GRATED DRAIN GRATED DRAIN DETAIL NOT TO SCALE





NOTE:-

1 - SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION

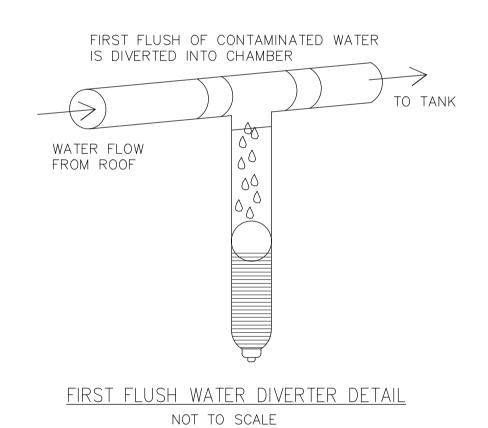
COLOURS:-

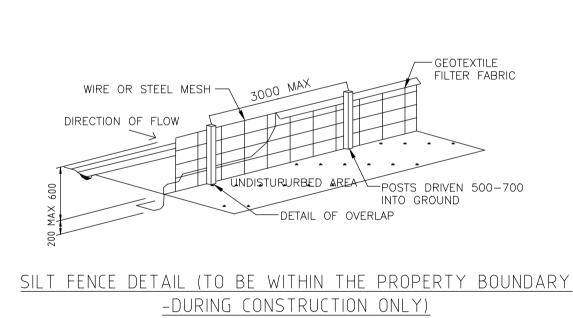
TRIANGLE AND "WARNING" - RED

WATER - BLUE

FIGURE AND OTHER LETTERING - BLACK

STORMWATER DRAINAGE LAYOUT PLAN SCALE: - 1:100 @ A1





NOT TO SCALE

THIS IS AN

ON-SITE STORMWATER
DETENTION SYSTEM

REQUIRED BY YOUR LOCAL COUNCIL

IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE
TANK OR BASIN OR TO INTERFERE WITH THE
ORIFICE PLATE THAT CONTROLS THE OUTFLOW

THE BASE OF THE OUTLET CONTROL PIT AND THE
DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND
SEDIMENT ON A REGULAR BASIS BY THE OWNER

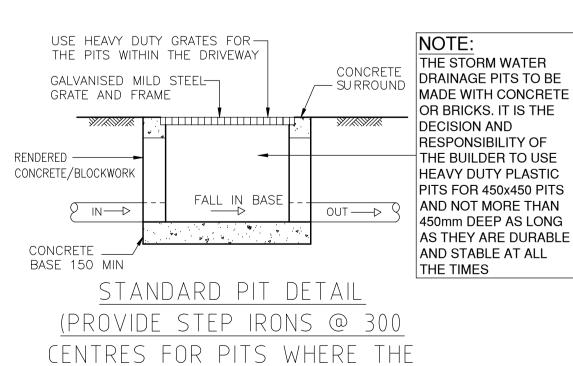
THIS PLATE MUST NOT BE REMOVED

NOT TO SCALE

SEDIMENT BARRIER AROUND
STORMWATER PIT (DURING

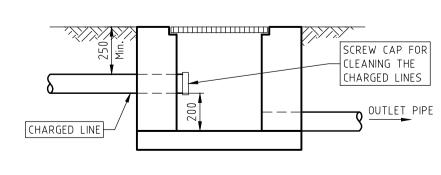
<u>CONSTRUCTION)</u>

NOT TO SCALE



DEPTH EXCEEDS 900mm)

NOT TO SCALE



TYPICAL CHARGED LINE

CLEAN OUT CONNECTION TO A PIT

NOT TO SCALE

Drawing Title:

- CDE NED	
, CPENY, NER	
· , (CPEng, NER

STORMWATER DRAINAGE	
LAYOUT PLAN - 2	

DESIGNED	NL			
DRAWN	АЈ			
DATUM	AHD			
DATE	28.03.2022			

Project:
PROPOSED DWELLING
LOT B (No. 62) ELLERY PARADE
SEAFORTH NSW 2092
OL/VI OIVIII NOVV 2002

Ref No.	280322-02
lssue:	В
 SHF	FT 2 of 2