

STORMWATER PLAN FOR CONSTRUCTION

FOR PROPOSED DEVELOPMENT AT

19 WATERVIEW STREET, MONA VALE

LIST OF DRAWINGS

SHEET No.	SHEET NAME	REV	DATE
D01	COVER PAGE	B	02/04/2025
D02	CATCHMENT PLAN	B	02/04/2025
D03	STORMWATER PLAN	B	02/04/2025
D04	RWT AND STORMWATER DETAILS	B	02/04/2025
D05	ABSORPTION TRENCH DETAILS	B	02/04/2025

GENERAL

- THE PLUMBER/ DRAINER SHALL INSPECT THE SITE AND CONFIRM THE EXISTING SITE STRUCTURES, SERVICES AND CONDITIONS PRIOR TO PROCEEDING. SHOULD ANY DISCREPANCIES BE FOUND, CONTACT THE ENGINEER FOR DISCUSSION PRIOR TO PROCEEDING THE WORKS.
- LOCATION OF STORMWATER SYSTEMS, INCLUDING DOWNPIPES, PIPES, PITS, ONSITE DETENTION AND RAINWATER TANK ARE INDICATIVE ONLY. EXACT LOCATION SHALL BE DETERMINED ON SITE BY THE PLUMBER/BUILDER TO SUIT SITE CONDITIONS.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION PRIOR TO PROCEEDING THE WORKS.
- ALL MATERIAL AND WORKMANSHIP TO BE CARRIED OUT IN ACCORDANCE WITH AS3500.3:2018 STORMWATER DRAINAGE, BCA AND LOCAL COUNCIL POLICY, CONSENT AND REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE PLUMBER/ DRAINER TO OBTAIN ANY APPROVALS/ PERMITS/ LICENSES ISSUED BY THE AUTHORITIES PRIOR TO PROCEEDING WITH STORMWATER WORKS.
- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED AND CONFIRMED ONSITE BY THE PLUMBER/BUILDER PRIOR TO COMMENCEMENT OF THE WORKS.
- THESE DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS NOR TO BE USED FOR SETOUT PURPOSES.
- THESE DRAWINGS DEPIC THE DESIGN OF SURFACE STORMWATER RUNOFF DRAINAGE SYSTEMS ONLY AND DO NOT DEPICT ROOF DRAINAGE OR SUBSOIL DRAINAGE SYSTEM. UNLESS NOTED OTHERWISE, THE DESIGN OF ROOF AND SUBSOIL DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF OTHERS.
- ALL DOWNPIPES TO BE Ø100 uPVC AND FULLY SEALED U.N.O. ALL STORMWATER PIPES TO BE Ø100 uPVC AT 1% MIN. FALL U.N.O. ALL MATERIALS USED IN THE WORK SHALL BE NEW AND CONFORM WITH RELEVANT AUSTRALIAN STANDARDS AND BEAR THE REQUIRED STANDARDS MARK.
- INSPECTION AND CERTIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO BACKFILLING. ALLOW 24 HOUR NOTICE FOR THE ENGINEER TO CARRY OUT INSPECTION.
- ANY DAMAGE TO SERVICES DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AT THE PLUMBER/ DRAINER'S OWN EXPENSE.

UTILITIES

- THE LOCATION OF UTILITIES SHOWN ON THESE DRAWINGS ARE INDICATIVE ONLY. THE CONTRACTOR SHALL, BEFORE COMMENCING ANY WORKS:
 - DETERMINE THE EXTENT OF EXISTING UTILITY SURVEY AND INFORMATION REFERENCED ON THESE DRAWINGS.
 - OBTAIN CURRENT DIAL BEFORE YOU DIG PLANS AND INFORMATION BY TELEPHONING 1100 OR FAX 1300 682 077 TO ASCERTAIN THE EXACT LOCATION OF UTILITIES.



- MAKE ANY OTHER ENQUIRIES AS THE CONTRACTOR CONSIDERS NECESSARY TO SATISFY ITSELF AS TO THE EXACT LOCATION OF UTILITY SERVICES; AND
 - ENSURE THAT THE ADOPTED WORK METHOD WILL AVOID DAMAGE TO ALL UTILITIES.
- THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF EXISTING UTILITY SERVICES.
 - THIS FIRM WILL NOT BE LIABLE FOR ANY COSTS ARISING FROM DAMAGE TO ANY UTILITY SERVICES CAUSED BY THE CONTRACTOR.

DRAINAGE NOTES

- UNLESS NOTED AS OTHERWISE, ALL DOWNPIPES TO BE Ø100 ROUND (OR 100X75 RECTANGULAR) AND FULLY SEALED; ALL STORMWATER PIPES TO BE Ø100 uPVC. ALL STORMWATER PIPES TO BE LAID AT 1% MIN. FALL. ALL MATERIALS USED IN THE WORK SHALL BE NEW AND CONFORM WITH RELEVANT AUSTRALIAN STANDARDS AND BEAR THE REQUIRED STANDARDS MARK.
- UNLESS NOTED AS OTHERWISE, THE PIPE COVER, MEASURED FROM THE TOP OF THE PIPE TO THE FINISHED SURFACE, SHALL BE AS PER THE TABLE BELOW:

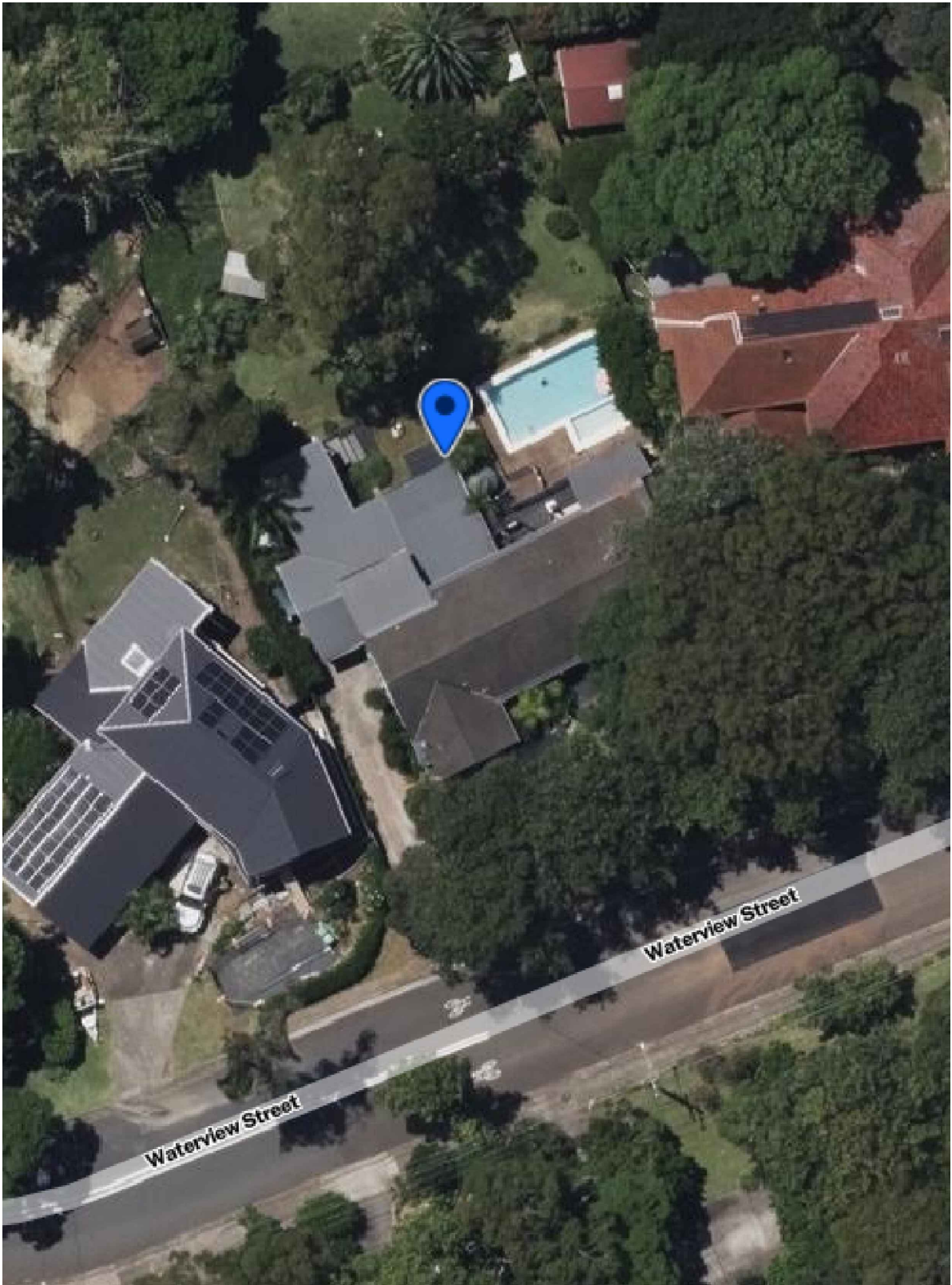
PIPE LOCATION	MINIMUM COVER
NOT SUBJECT TO VEHICULAR LOADING	100MM FOR SINGLE DWELLING 300MM FOR ALL OTHER DEVELOPMENTS
SUBJECT TO VEHICULAR LOADING	450MM WHERE NOT UNDER ROAD
UNDER SEALED ROAD	600MM
UNDER UNSEALED ROAD	750MM
UNDER FOOTPATHS	400MM
PARKS	400MM
PAVED DRIVEWAY	100MM BELOW UNDER SIDE OF PAVEMENT

- ANY PIPES BENEATH RELEVANT LOCAL AUTHORITY ROAD TO BE RUBBER RING JOINTED RCP, UNLESS NOTED AS OTHERWISE.
- ALL STORMWATER PIT WITHIN THE PROPERTY ARE TO BE FITTED WITH "WELDLCK" OR APPROVED EQUIVALENT GRATE OF:
 - LIGHT DUTY FOR LANDSCAPED AREAS
 - HEAVY DUTY WHERE SUBJECTED TO VEHICULAR TRAFFIC
- UNLESS NOTED AS OTHERWISE, MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS SHALL BE GIVEN IN TABLE BELOW:

DEPTH TO IVERT OF OUTLET	MINIMUM INTERNAL DIMENSION (mm)	
	WIDTH	LENGTH
UP TO 450mm	450	450
450mm TO 600mm	600	600
600mm TO 900mm	600	900
900mm TO 1500mm (x)	900	900
1500mm TO 2000mm (x)	1200	1200

(x) NOTE : STEP IRONS SHALL BE PROVIDED FOR PITS WITH DEPTHS EXCEEDING 1200 MM

- ALL PITS IN ROADWAY SHALL BE FITTED WITH HEAVY DUTY GRATES WITH LOCKING BOLTS AND CONTINUOUS HINGES.
- SUB-SOIL DRAINS FOR RETAINING WALL AND EMBANKMENTS SHALL BE INSTALLED BY THE BUILDER AND CONNECTED TO STORMWATER LINES. ALL AGG. LINES SHALL BE 100MM DIA., UNLESS NOTED OTHERWISE.



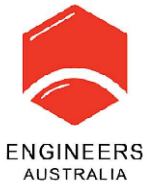
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LGA: NORTHERN BEACHES COUNCIL

DESCRIPTION:

SECONDARY DWELLING



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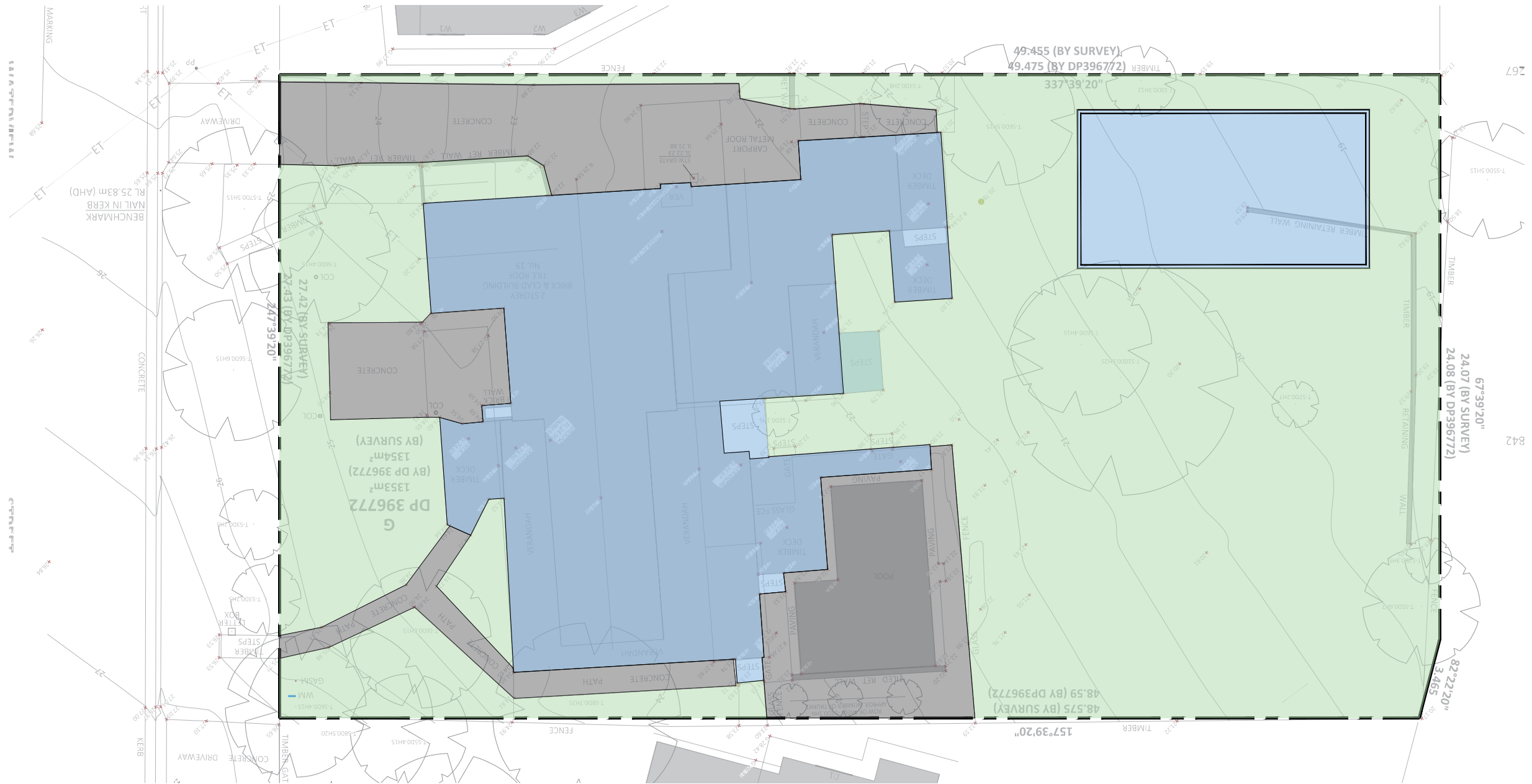
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BANKSTOWN, NSW, 2200

REV:	DESCRIPTION:	DATE:
A	FOR DA SUBMISSION	18/02/2025
B	REVISION	02/04/2025

SUBJECT SITE: 19 WATERVIEW STREET, MONA VALE

DRAWING TITLE: COVER PAGE

SCALE/
SHEET SIZE 1:100 A3 SHEET NO. D.01



LEGEND:



IMPERVIOUS ROOF AREA



IMPERVIOUS HARDSTAND AREA



PERVIOUS LANDSCAPE AREA

CALCULATIONS:

SITE AREA:	809.30 sq.m
Total Pervious Area	716.55 sq.m
Total Impervious area:	636.45 sq.m
Site impervious area percentage upon completion of development:	$\frac{636.45}{1353} * 100 = 47\%$

CATCHMENT CALCULATION PLAN

SCALE: 1:200 @ A3

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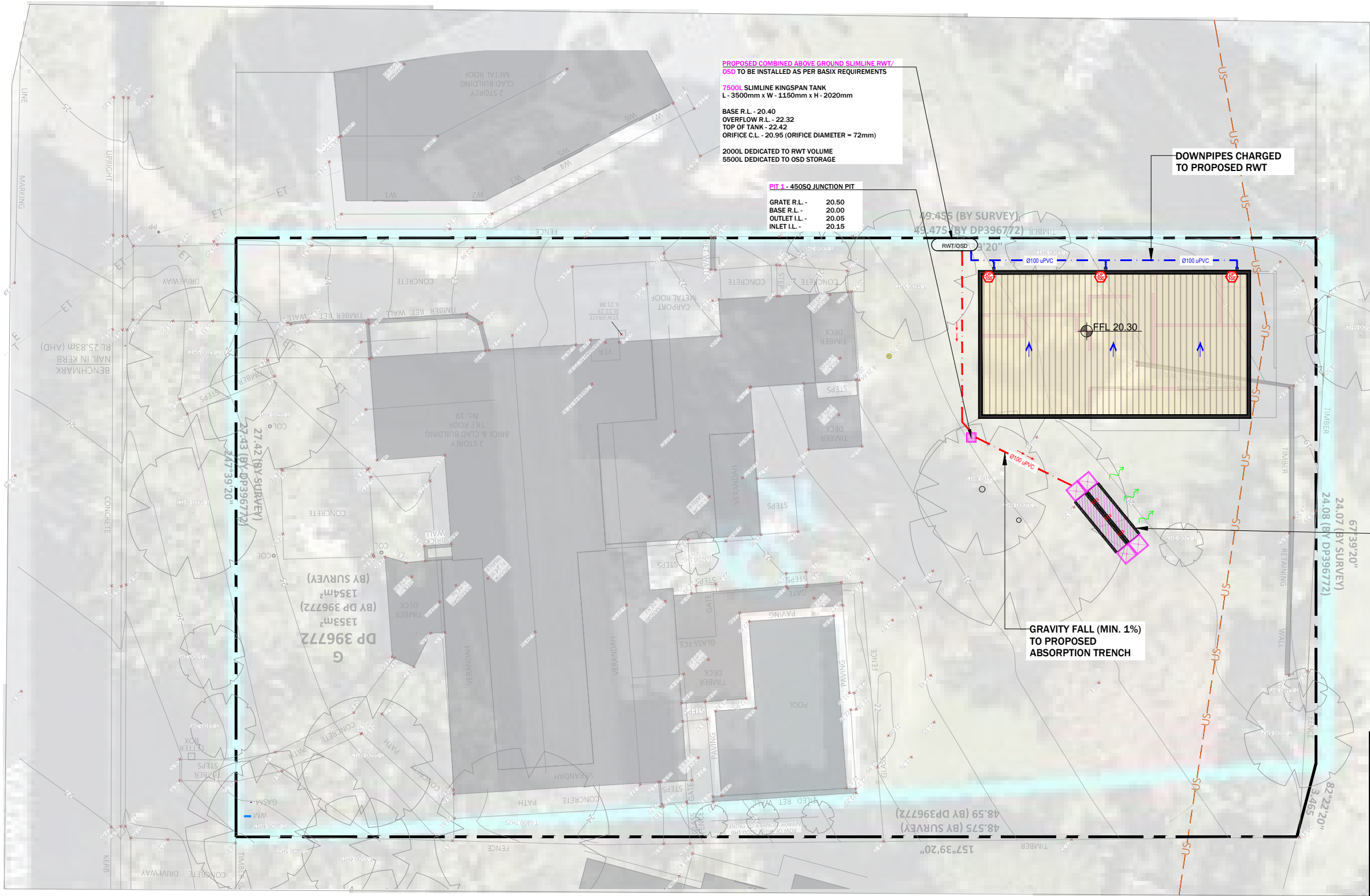
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SUBJECT SITE: 19 WATERVIEW STREET, MONA VALE

DRAWING TITLE: CATCHMENT PLAN

SCALE/ SHEET SIZE	1:100	A3	SHEET NO.	D.02
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LEGEND:

- PROPOSED DOWNPIPE
- OVERFLOW/ DISCHARGE S/W LINE
- CHARGED S/W LINE
- EXISTING S/W LINE
- GRATED BOX DRAINS & STORMWATER PITS
- LAND FALL DIRECTION
- EARTH-MOUND SWALE OR DISH DRAIN
- SL FINISHED SURFACE LEVEL
- FFL FINISHED FLOOR LEVEL
- INV INVERT LEVEL (PIPE / PIT)

DOWNPIPE NOTE:
ALL DOWNPIPE LOCATION IS INDICATIVE ONLY AND TO BE DETERMINED AND CONFIRMED ON SITE BY THE BUILDER/PLUMBER TO AVOID LOCATION OF WALL OPENINGS FOR WINDOWS AND DOORS.

FLOOR WASTES ARE TO BE PROVIDED FOR BALCONY AND EXPOSED DECK ABOVE GROUND

PROPOSED ONPINK ABSORPTION TRENCH

TRENCH DIMENSIONS: [2x] - 510W x 3000L x 410D

PIT DIMENSIONS: 600SQ x 700D (REQ. MIN. 6 Ø50mm WEEP HOLE RELIEF DRAINS @ BASE OF PIT)

GRATE R.L. - 20.15
PIT BASE R.L. - 19.45
TRENCH BASE R.L. - 19.55

ON-SITE STORMWATER DISPOSAL TRENCH TO SERVICE RWT OVERFLOW SERVICING SECONDARY DWELLING

total area of site	min. size of basin (SSR)	max. Q5 from existing site (PSD from basin)	max. Q100 from existing site	Max. overflow from basin
m ²	m ³	l/s	l/s	l/s
200	5.0	7	13	6
250	6.1	9	16	7
300	7.4	11	19	8
350	8.5	12	22	10
400	9.8	14	25	11
450	11.6	15	28	13
500	13.5	16	30	14
550	15.2	17	33	15
600	17.0	18	36	18
650	18.9	20	39	19
700	20.9	21	41	20
750	22.8	22	43	21
800	24.7	23	45	22
850	26.1	24	47	23
900	28.6	25	49	24
950	29.1	26	51	25
1000	30.5	27	53	26
1050	32.0	29	56	27
1100	33.5	30	58	28
1150	35.1	32	61	29
1200	36.6	33	63	30

WARNING:
EXISTING SERVICES HAVE BEEN PLOTTED FROM RECORDS SUPPLIED BY THE PUBLIC UTILITY AUTHORITIES. LOCATIONS HAVE BEEN INTERPRETED FROM THESE RECORDS AND ARE APPROXIMATE ONLY. EXTREME CAUTION SHOULD BE TAKEN WHEN EXCAVATING

!ATTENTION!
PLANS TO BE READ ON CONJUNCTION WITH ARCHITECTURAL PLANS

!ATTENTION!
IT'S THE BUILDERS RESPONSIBILITY TO LOCATE ALL SERVICES BEFORE EXCAVATION

!ATTENTION!
CATCHMENT AREA OF EACH DF TO BE ROUGHLY SIMILAR SIZE
LENGTH OF ANY GUTTER DRAINING TO A DOWNPIPE TO BE NO LONGER THAN 12M (NCC vol12).

www.dialbeforeyoudig.com.au

DIAL 1100
BEFORE YOU DIG

STORMWATER PLAN
SCALE: 1:200 @ A3

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DESCRIPTION: **SECONDARY DWELLING**



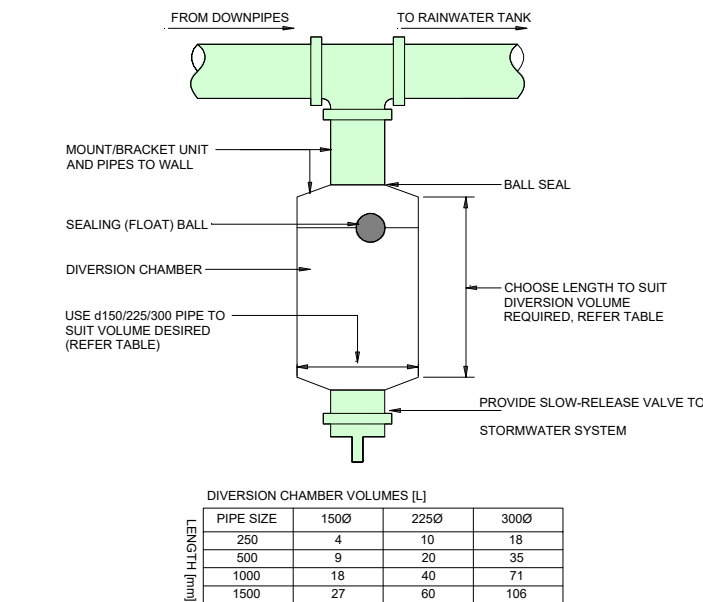
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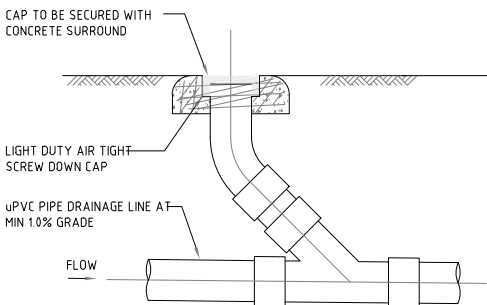
SUBJECT SITE: **19 WATERVIEW STREET, MONA VALE**

DRAWING TITLE: **STORMWATER PLAN**

SCALE/ SHEET SIZE	1:100	A3	SHEET NO.	D.03
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TYPICAL WALL MOUNTED FIRST-FLUSH DEVICE
SCALE: NTS

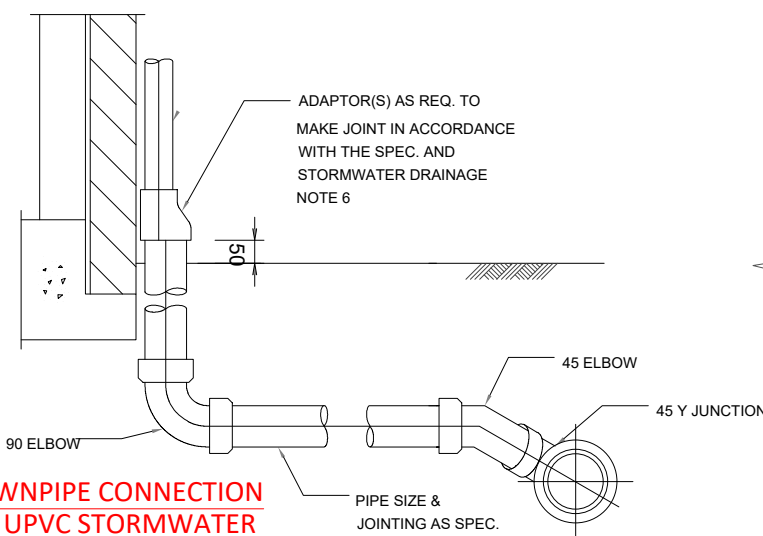


CLEANING EYE DETAIL



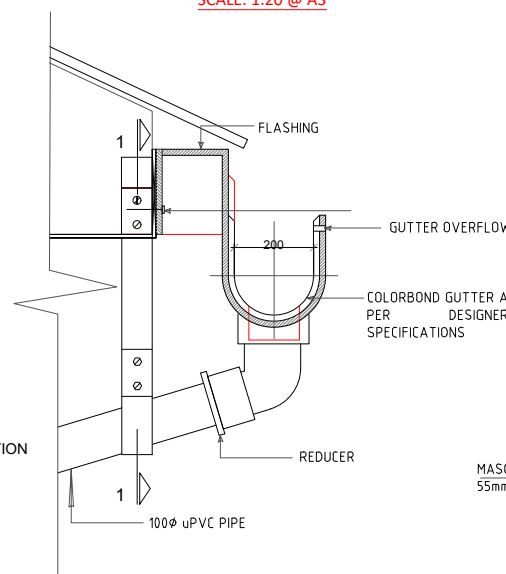
RAINWATER TANK SIGN

LEGEND:
BACKGROUND IS YELLOW
TEXT IS WHITE ON BLACK
BACKGROUND

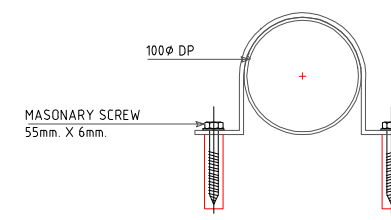


DOWNPIPE CONNECTION TO UPVC STORMWATER LINE DETAIL

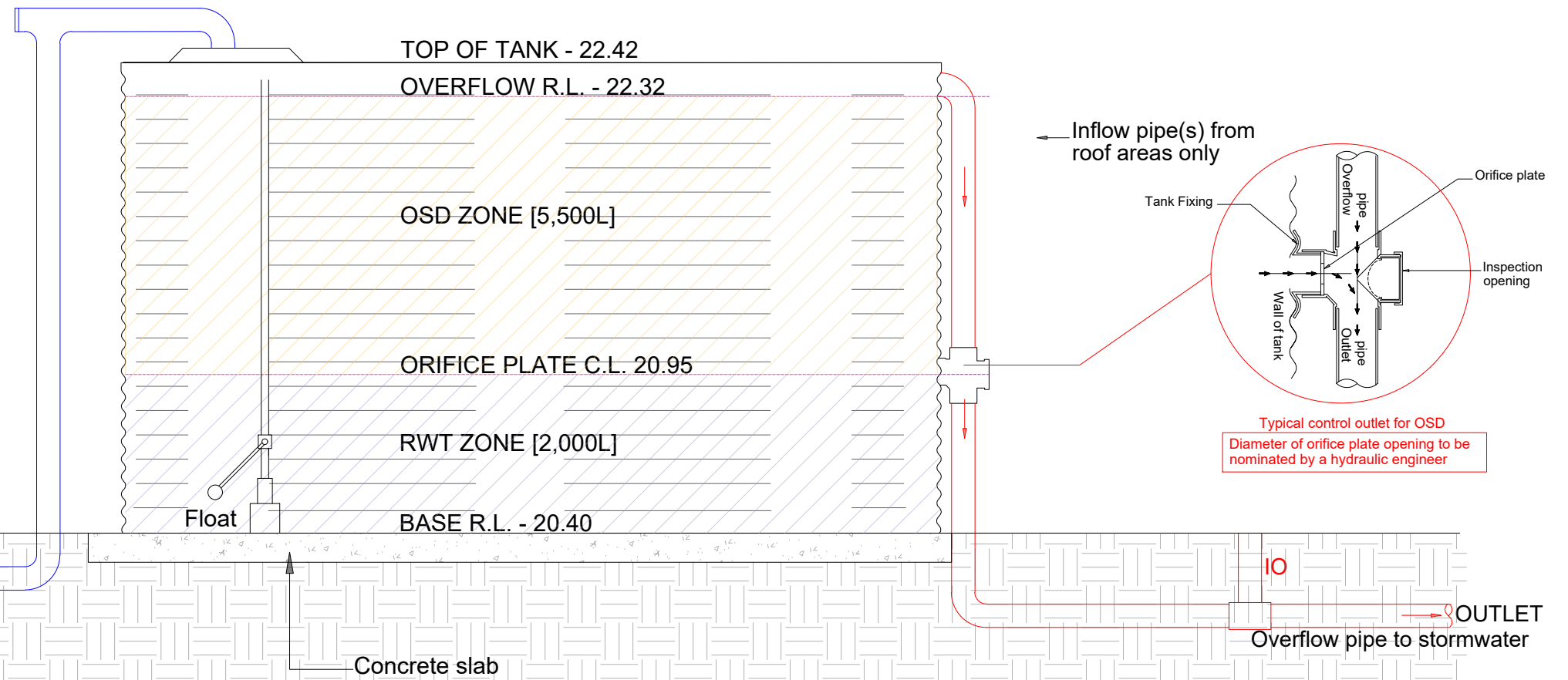
PROPOSED COMBINED RWT/ OSD SYSTEM
SCALE: 1:20 @ A3



GUTTER AND DOWNPIPE CONNECTION DETAIL



DOWNPIPE CONNECTION TO WALL DETAIL



OSD CALCULATIONS

REQUIREMENTS:
DESIGN PARAMETERS - OSD DESIGN PARAMETERS ARE AS FOLLOWS:

NOTE: IN ACCORDANCE WITH APPENDIX 8 AND 13 OF THE NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY - THE EXISTING DWELLING STRUCTURE'S STORMWATER SYSTEM DOES NOT FALL UNDER THIS APPROVAL. THEREFORE FROM TABLE A8-1, THE SITE OF AREA OF 200m² WAS UTILISED IN PROVIDING OSD STORAGE FOR THE PROPOSED SECONDARY DWELLING

OSD 1 SSR REQ. 5.50m³ PSD 13L/s (100YR ARI)

OSD 1 NOTE: A COMBINED OSD/RWT SYSTEM IS PROPOSED. REFER TO SHEET D.04 FOR FURTHER DETAILS

ORIFICE DIAMETER MUST BE DESIGNED TO PROVIDE REQUIRED PSD RATES ABOVE WHEN DETENTION STORAGE IS FULL

ORIFICE CALCULATIONS

REQUIREMENTS:
DESIGN PARAMETERS - OSD ORIFICE PARAMETERS ARE AS FOLLOWS:

$d = (0.464 * Q \sqrt{H})^{0.5} * 1000$
WHERE:
d = DIAMETER OF ORIFICE
Q = MAX. PERMISSIBLE DISCHARGE (M³/S)
H = HEAD DISCHARGE TO ORIFICE CENTRELINE CLEARANCE

OSD 1 SSR REQ. 5.50m³ PSD 13L/s (100YR ARI)

THEREFORE;

$d = (0.464 * 0.013 \sqrt{1.37})^{0.5} * 1000$
d = 72mm

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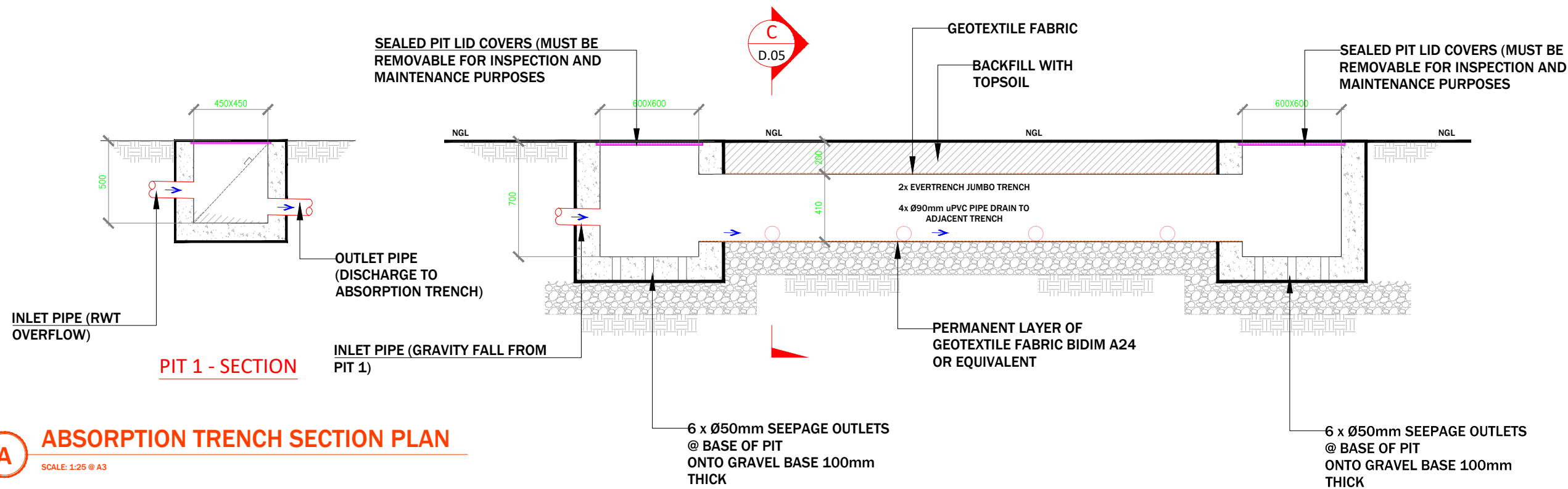
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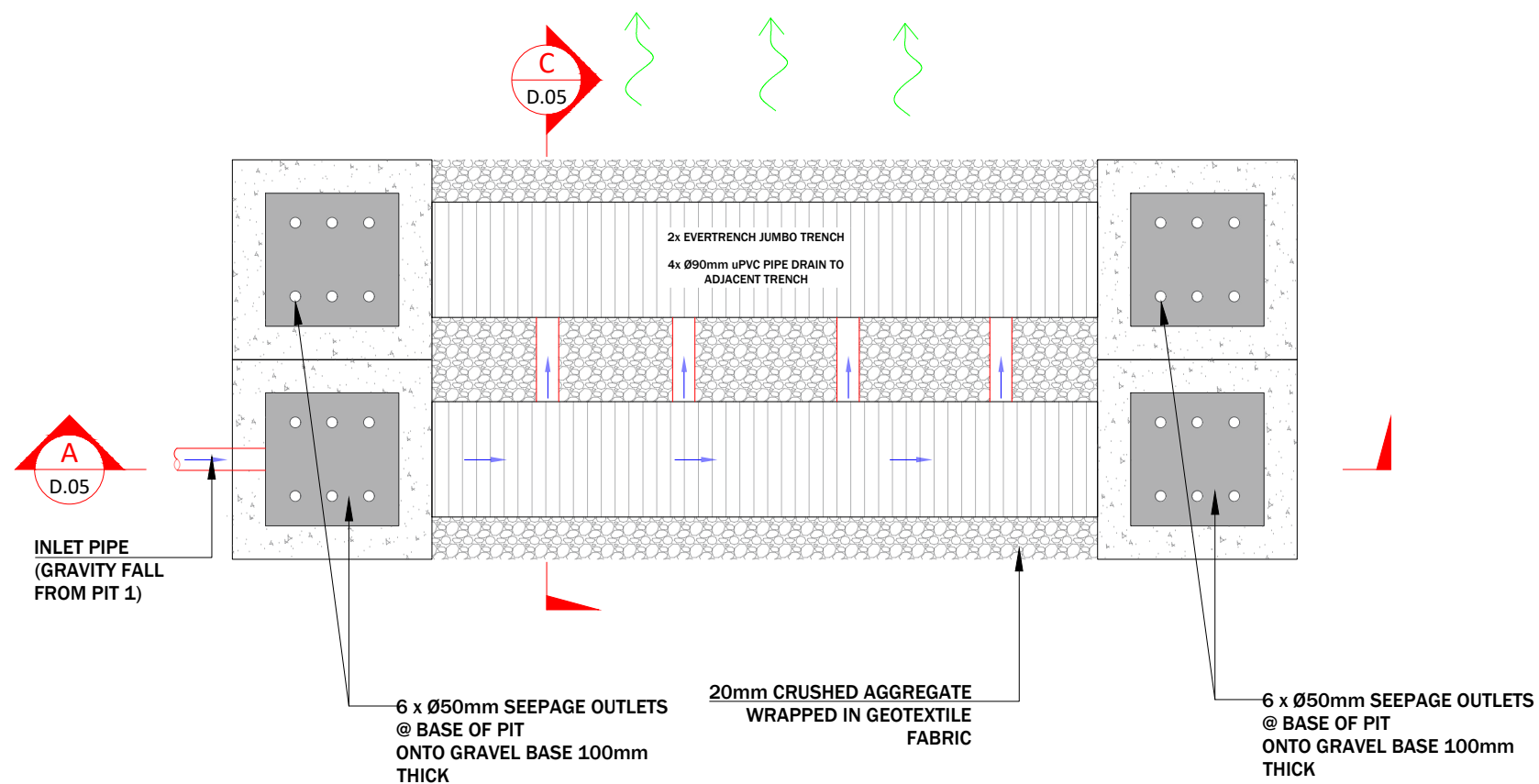
SUBJECT SITE: 19 WATERVIEW STREET, MONA VALE

DRAWING TITLE: RWT AND STORMWATER DETAILS

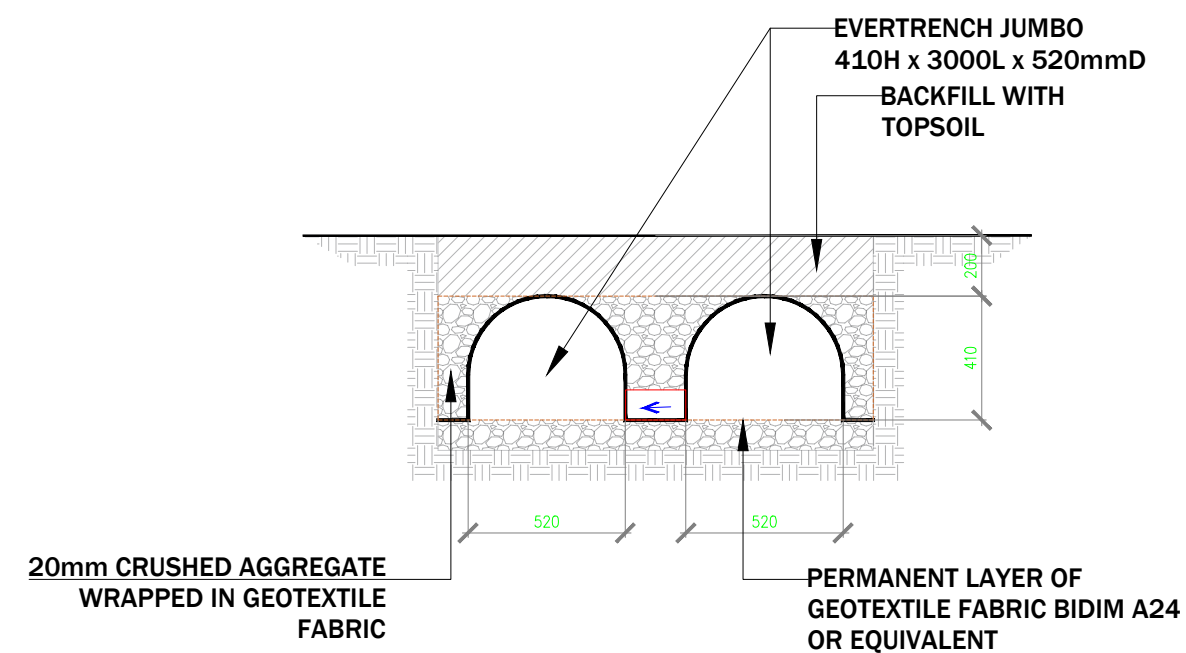
SCALE/
SHEET SIZE 1:100 A3 SHEET NO. D.04



A ABSORPTION TRENCH SECTION PLAN
SCALE: 1:25 @ A3



B ABSORPTION TRENCH PLAN VIEW
SCALE: 1:25 @ A3



C ABSORPTION TRENCH SECTION VIEW
SCALE: 1:25 @ A3

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SECONDARY DWELLING



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SUBJECT SITE: 19 WATERVIEW STREET, MONA VALE

DRAWING TITLE: ABSORPTION TRENCH PLANS

SCALE/
SHEET SIZE 1:100 A3 SHEET NO. D.05