

NOTE: CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS

NOTE: PROVIDE 2/3000 LITRE RAINWATER STORAGE TANKS TO GARAGE LEVEL & WITH Ø100 OVERFLOW OUTLETS (TYP)

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PROVIDE STRAMIT 200 HALF ROUND EAVES GUTTERS OR APPROVED EQUIVALENT 13500mm² (MIN) EAVES GUTTER (TYP)

PROVIDE 150 WIDE GRATED DRAIN ACROSS DRIVEWAY WITH 1% MIN FALL TO BOUNDARY PIT (TYP)

NOTE: SECURE DRAINAGE LINES TO UNDERSIDE OF FLOOR STRUCTURE AS NECESSARY FOR CONNECTION TO RAINWATER STORAGE TANK (TYP)

300 SQ. BY 300 DEEP INLET PIT (TYP)
NOTE: ALL PITS TO HAVE 2.0m LONG SUB-SOIL TAIL INLET NOT ALL SHOWN FOR CLARITY

PIT 3 - 450 SQ
BOUNDARY PIT
GRATE R.L. - 28.35
INVERT R.L. -27.75

PIT 2 - 450 SQ INLET PIT
GRATE R.L. - 24.61
INVERT R.L. -24.01

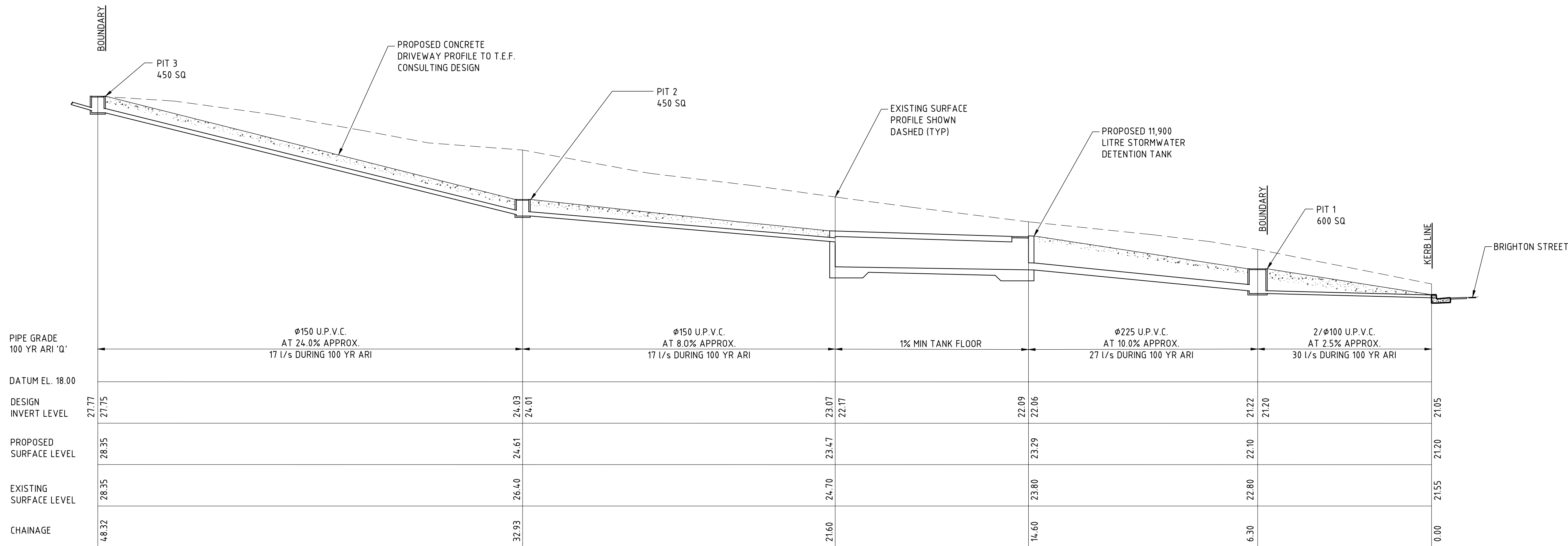
STORMWATER DETENTION TANK
STORAGE VOLUME = 11,900 LITRES
STORAGE LENGTH = 7,000mm
STORAGE WIDTH = 1,700mm
STORAGE DEPTH = 1,000mm
TANK FLOOR = R.L. 22.09
PROVIDE Ø225 LOW LEVEL CONNECTION TO BOUNDARY PIT

PIT 1 - 600 SQ BY 900 DEEP BOUNDARY PIT
GRATE R.L. - 22.10
INVERT R.L. -2120

PROVIDE 2/Ø100 P.V.C. OUTLETS TO KERB AT 1% MIN. AND 150mm APART

SITE DRAINAGE PLAN

SCALE 1:200



DRAINAGE LONG-SECTION

SCALE 1:100 NATURAL

DRAINAGE NOTES

- DENOTES EXISTING GROUND LEVEL
- FALL STORMWATER PIPES AT 1% MIN UNLESS OTHERWISE NOTED.
- SUB-SOIL DRAINAGE TO BE CONNECTED TO THE SITE DRAINAGE SYSTEM AS NECESSARY.
- SURFACE GRATES 300 SQ. UNLESS OTHERWISE NOTED.
- ALL STORMWATER PIPES TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
- CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS.
- INSPECTIONS MUST BE UNDERTAKEN BY THIS OFFICE (BY PRIOR ARRANGEMENT WITH ENGINEER) DURING CONSTRUCTION TO ENABLE FULL CERTIFICATION UPON COMPLETION OF WORKS.
- ALL CONSTRUCTION OF COUNCIL DRAINAGE WORKS TO COMPLY WITH COUNCIL STANDARD.
- REMOVE REDUNDANT DRAINAGE PITS AND SEAL PIPES.
- PIT BENCHING TO BE HALF THE OUTGOING PIPE DIAMETER. CONCRETE FOR BENCHING TO BE 20 MPa MASS CONCRETE.
- APPROVED PRE-CAST PITS MAY BE USED.
- ALL PIPES TO BE LAID ON COMPACTED FINE CRUSHED ROCK OR SAND BEDDING 75mm THICK & PIPES BACKFILLED WITH COMPACTED SAND TO 300mm ABOVE TOP OF PIPE, ELSE ATTACHED TO UNDERSIDE OF STRUCTURE AT 600mm c/c AS NECESSARY.
- PIPE ROUTES SHOWN ARE INDICATIVE ONLY AND SHOULD BE AS NECESSARY ACCORDING TO SITE CONDITIONS, TREE POSITIONS ETC. CONFIRM SIGNIFICANT CHANGES IN PIPES SYSTEM DETAILS WITH SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF DRAINAGE CONSTRUCTION WORKS.
- CONTRACTOR SHALL ENSURE THAT SERVICES TO BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS WHERE REQUIRED. ONCE WORKS ARE COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SERVICES AND MAKE GOOD ALL DISTURBED AREAS.
- STORMWATER SYSTEM REQUIRES SIGNIFICANT MAINTENANCE DUE TO POTENTIAL HIGH POLLUTANT LOAD. FILTERS AND POLLUTANT TRAPS SHOULD BE CHECKED AFTER LARGE STORM EVENTS AND CLEANED EVERY 6 MONTHS.
- PLUMBING AND DRAINAGE WORKS TO COMPLY WITH AS-3500, THE NATIONAL DRAINAGE & PLUMBING CODE.
- WHERE POSSIBLE DRAINAGE LINES SHALL BE LAID IN AREAS PREVIOUSLY DISTURBED BY OTHER SITE WORKS AND FOLLOW TOPOGRAPHICAL FEATURES TO REDUCE IMPACT AND AVOID TREE ROOTS.
- THIS STORMWATER MANAGEMENT PLAN HAS BEEN PREPARED FOR SUBMISSION TO COUNCIL/CERTIFIER AND DOES NOT NECESSARILY CONTAIN ALL APPROPRIATE INFORMATION TO ENABLE FOR ISSUE TO PLUMBER/BUILDER FOR CONSTRUCTION. CONTACT TAYLOR CONSULTING FOR MORE INFORMATION.

RAINWATER RE-USE NOTES AND SPECIFICATIONS

- ROOF WATER ONLY TO BE DRAINED TO THE RAINWATER STORAGE TANK.
- THE RAINWATER STORAGE TANK NEEDS TO BE CONNECTED FOR RE-USE AS REQUIRED BY THE OWNER.
- RAINWATER STORAGE TANK TO BE CONFIGURED IN ACCORDANCE WITH SYDNEY WATER SPECIFICATIONS 'GUIDELINES FOR RAINWATER TANK ON RESIDENTIAL PROPERTIES'.
- PROVIDE MAINS 'TOP-UP' SUPPLY TO RAINWATER TANK. MAINS 'TOP-UP' ZONE TO BE BASED ON THE DAILY NON-POTABLE USAGE THAT MAY BE EXPECTED FROM THE TANK.
- PROVIDE A MECHANICAL PUMPING ARRANGEMENT (IN SOUND-PROOF HOUSING) TO PUMP SUPPLIERS SPECIFICATION TO SUIT INTENDED USAGE OF RAINWATER STORAGE. PUMPING ARRANGEMENTS MUST COMPLY WITH EPA GUIDELINES.
- INLETS TO RAINWATER TANK MUST BE SCREENED TO PREVENT THE ENTRY OF FOREIGN MATTER, ANIMALS OR INSECTS.
- A SIGN MUST BE AFFIXED TO THE RAINWATER TANK CLEARLY STATING THAT THE WATER IN THE TANK IS RAINWATER AND IS NOT TO BE USED FOR HUMAN CONSUMPTION.
- RAINWATER TANK TO BE PLACED ON A STRUCTURALLY ADEQUATE BASE IN ACCORDANCE WITH THE MANUFACTURER'S OR STRUCTURAL ENGINEER'S DETAILS.
- THE TANK MUST NOT BE INSTALLED OVER ANY MAINTENANCE STRUCTURE OR FITTINGS USED BY A PUBLIC AUTHORITY.
- RAINWATER TANK AND ASSOCIATED PLUMBING WORKS TO BE INSTALLED AND CONFIGURED BY A LICENSED PLUMBER. PUMP TO BE INSTALLED BY A LICENSED ELECTRICIAN.

STORMWATER SYSTEM DESIGN DATA

NORTHERN BEACHES COUNCIL - REGION 2, CENTRAL CATCHMENTS

DETENTION TANK DESIGN CRITERIA PER WATER MANAGEMENT DEVELOPMENT POLICY CLAUSE #3.2

OSD SYSTEM DESIGN DATA

EXISTING SITE FLOWS

5 YR ARI = 21 l/s
100 YR ARI = 48 l/s

DEVELOPED SITE FLOWS

5 YR ARI = 18 l/s
100 YR ARI = 30 l/s

DETENTION SYSTEM DATA

AREA DRAINING TO THE TANK = 889 m²
MAX. 100YR 1WL = RL 22.83
ORIFICE DIAM = 119 mm
SSR = 15.96 m³

NOTE: DETENTION STORAGE VOLUME HAS BEEN OFFSET BY VIA THE PROVISION OF 6000 LITRES OF RAINWATER STORAGE.

STORMWATER SYSTEM DESIGN DATA

SITE DATA

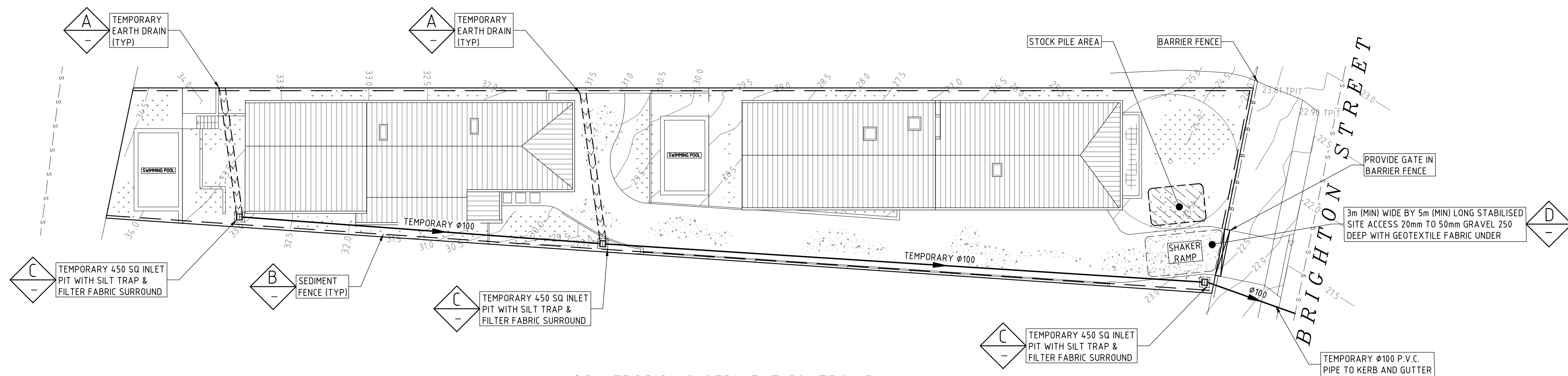
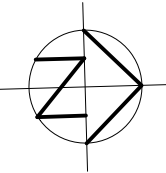
SITE AREA = 1,034 m² (100%)
PROPOSED IMPERVIOUS AREA = 689.7 m² (67%)
PROPOSED LANDSCAPED AREA = 344.3 m² (33%)
EXISTING IMPERVIOUS AREA = 204.2 m² (20%)
EXISTING LANDSCAPED AREA = 829.8 m² (80%)

ISSUE DATE	REVISION
10 FEB 2025	UPDATES TO SUIT NEW ARCH PLANS

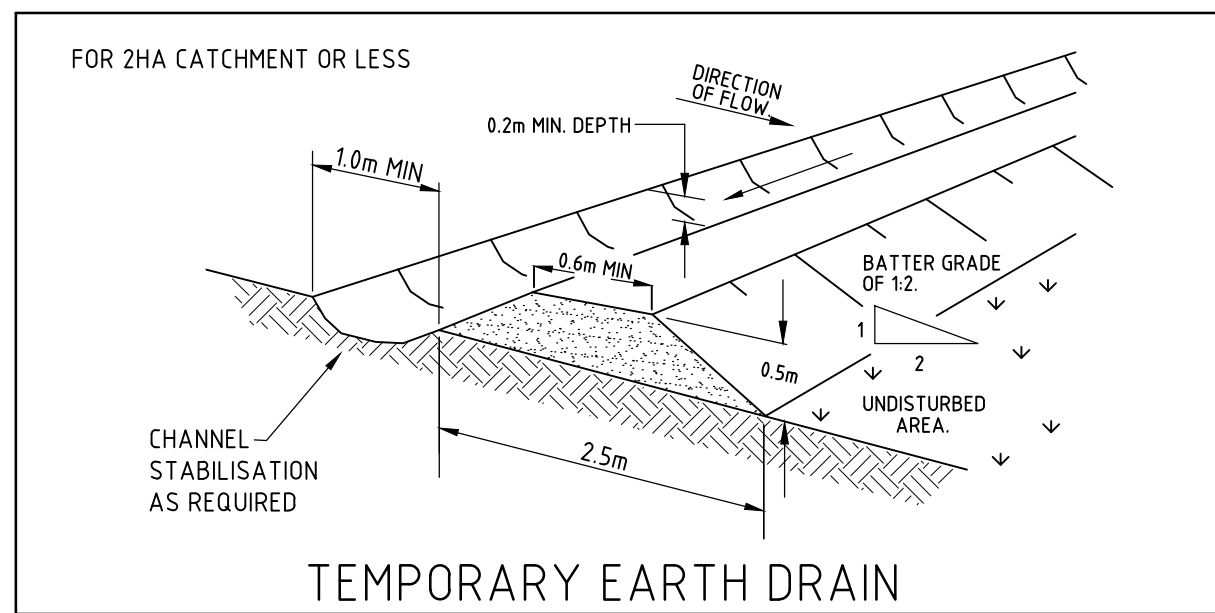
TITLE STORMWATER MANAGEMENT PLAN 90 BRIGHTON STREET, FRESHWATER			
DRAWN RR	DATE 14 FEBRUARY 2025	CHECKED 	SCALE A1 1:200 1:100
ENGINEER DMS	BE Civil (Hons) MIE Aust.		

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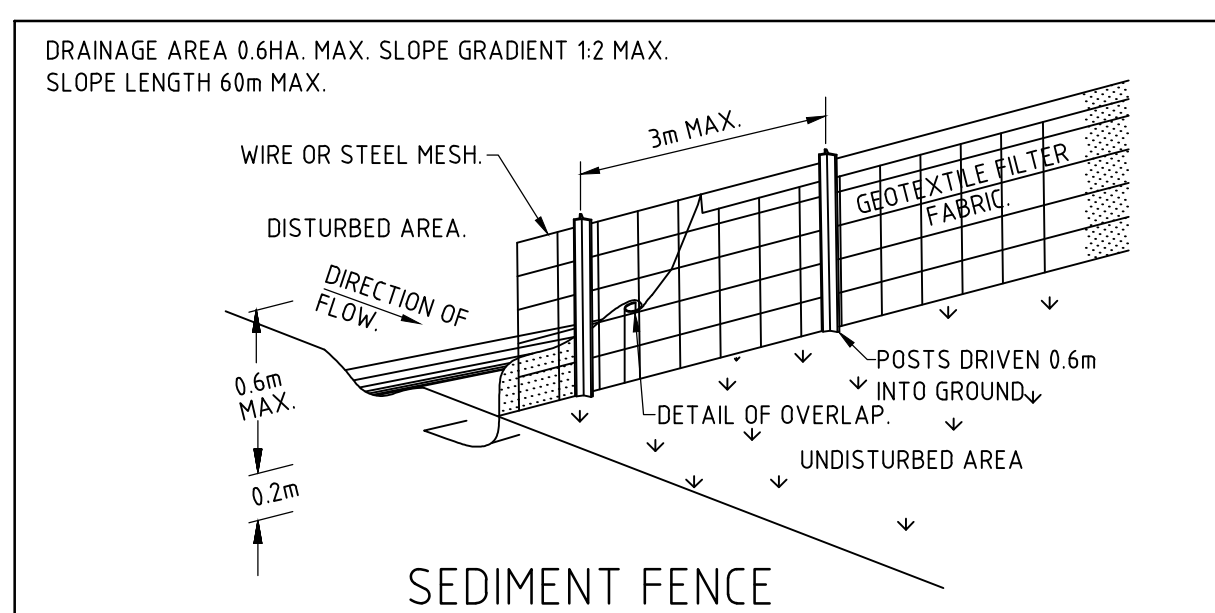
DRAWING NO
STORM-1/A



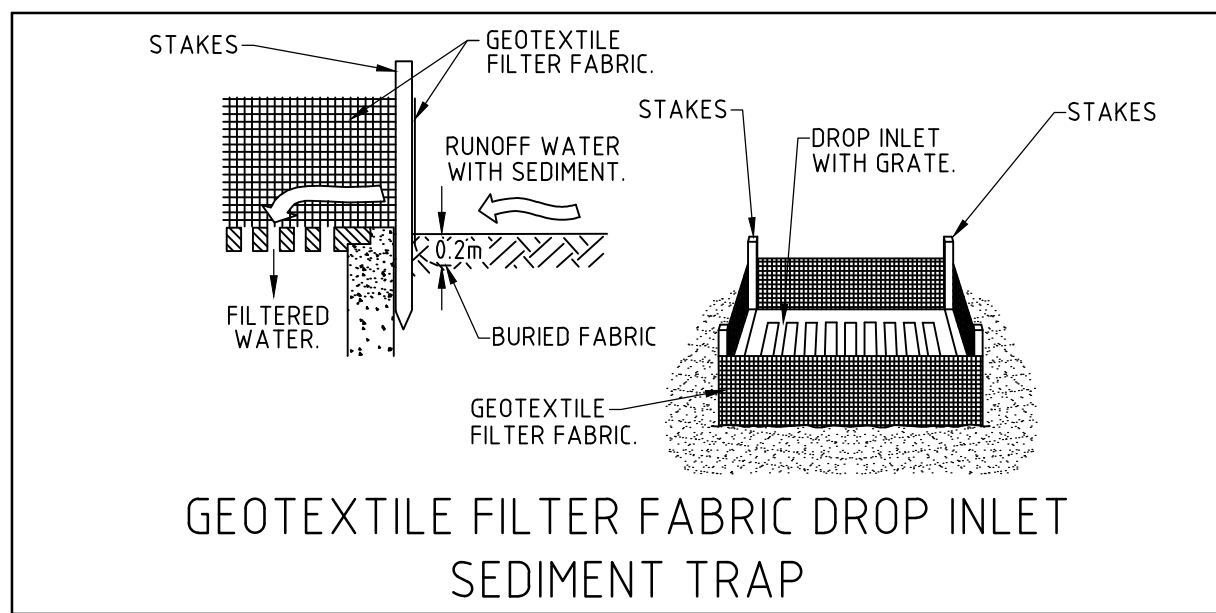
SOIL EROSION & SEDIMENT CONTROL PLAN
SCALE 1:200



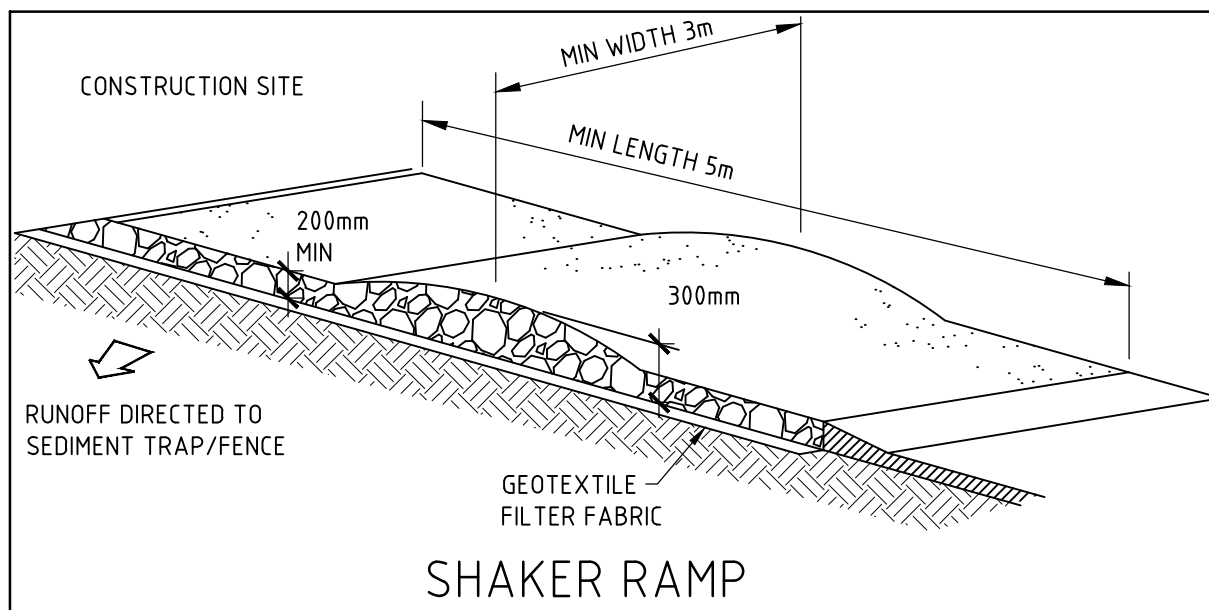
DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE



DETAIL D
NOT TO SCALE

SCHEDULE OF WORKS

PLAN TO BE READ IN CONJUNCTION WITH DWG STORM-1 SITE STORMWATER MANAGEMENT PLAN

DESCRIPTION

THE PROJECT IS THE PROVISION OF A NEW RESIDENTIAL DWELLING. THE TOTAL DISTURBED AREA IS APPROXIMATELY 0.1 Ha.

EROSION

NO AREA IS TO BE DISTURBED OTHER THAN THAT DIRECTLY AFFECTED BY ACCESS, SITE REGRADING, SERVICING, ROAD WORKS AND DRAINAGE WORKS. FOR ALL OTHER AREAS ENTRY IS PROHIBITED AND IS TO BE CLEARLY DEFINED WITH THE INSTALLATION OF BARRIER FENCING. UPSTREAM WATER IS TO BE DIRECTED AROUND THE SITE WITHOUT CONTAMINATION.

SEDIMENT CONTROL

CONTROL WILL BE VIA THE INSTALLATION OF SILT FENCES AS SHOWN ON PLAN. STOCK PILES ARE TO BE LOCATED IN AREAS SHOWN ON THE PLAN (CLEAR OF SERVICING, WATERCOURSES, ROAD AND DRAINAGE WORKS) AND PROVIDED WITH SILT FENCES ON THEIR DOWNSTREAM SIDE.

PHASING OF WORKS

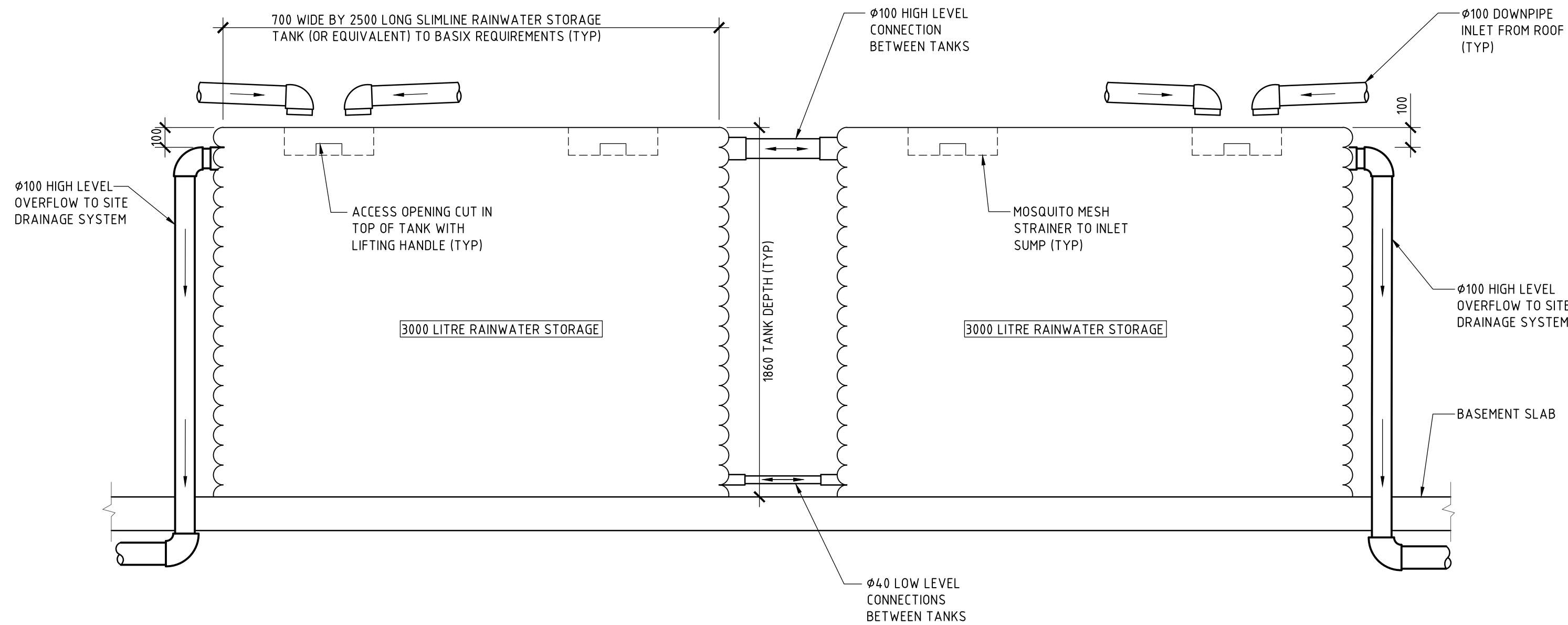
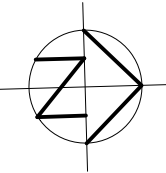
1. INSTALL ALL BARRIER AND SILT FENCING. BARRIER FENCING MAY BE ERECTED AND REMOVED AS NECESSARY TO SUIT STAGING OF WORKS.
2. INSTALL ALL TEMPORARY DRAINAGE STRUCTURES AS NECESSARY.
3. STRIP & STOCKPILE TOPSOIL.
4. UNDERTAKE SITE DEVELOPMENT.
5. AS EARTHWORKS ARE COMPLETED THESE AREAS ARE TO BE TOPSOILED, SEEDED AND MULCHED OR PAVED WITHIN 20 WORKING DAYS.
6. ONLY AT THE COMPLETION OF WORKS AND STABILIZATION OF AREAS UPSTREAM ANY CONTROL DEVICES TO BE REMOVED.

ISSUE DATE	REVISION
10 FEB 2025	UPDATES TO SUIT NEW ARCH PLANS

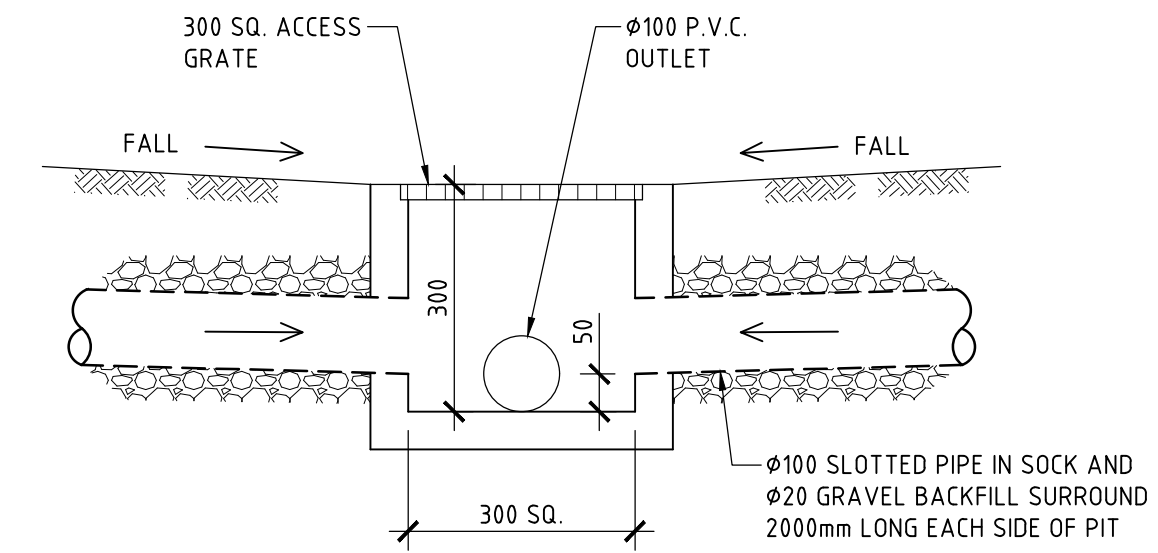
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DRAWN RR	DATE 14 FEBRUARY 2025	CHECKED 	SCALE @ A1 1:200
ENGINEER DMS	BE Civil (Hons) MIE Aust.		

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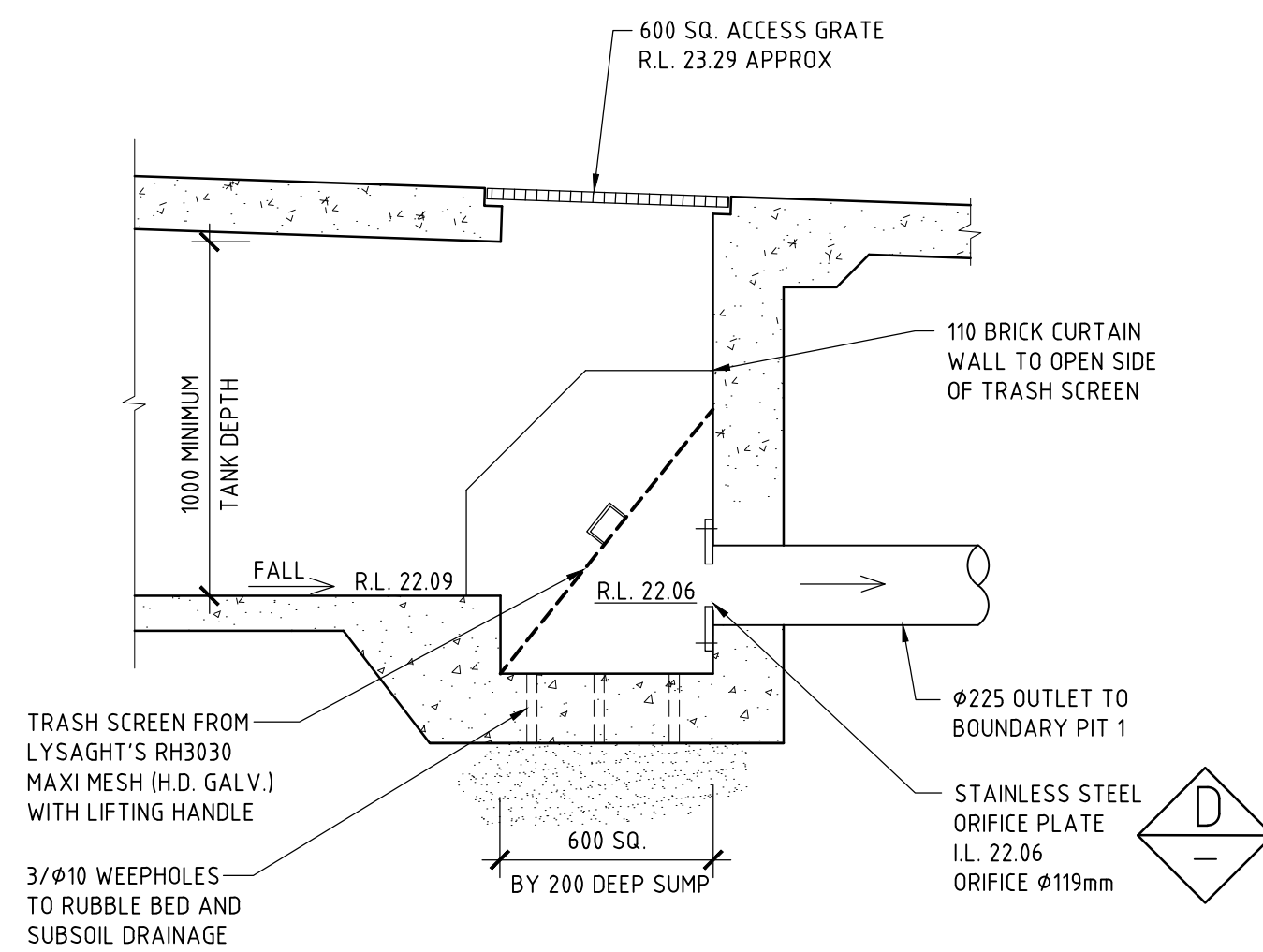
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STORM-2/A



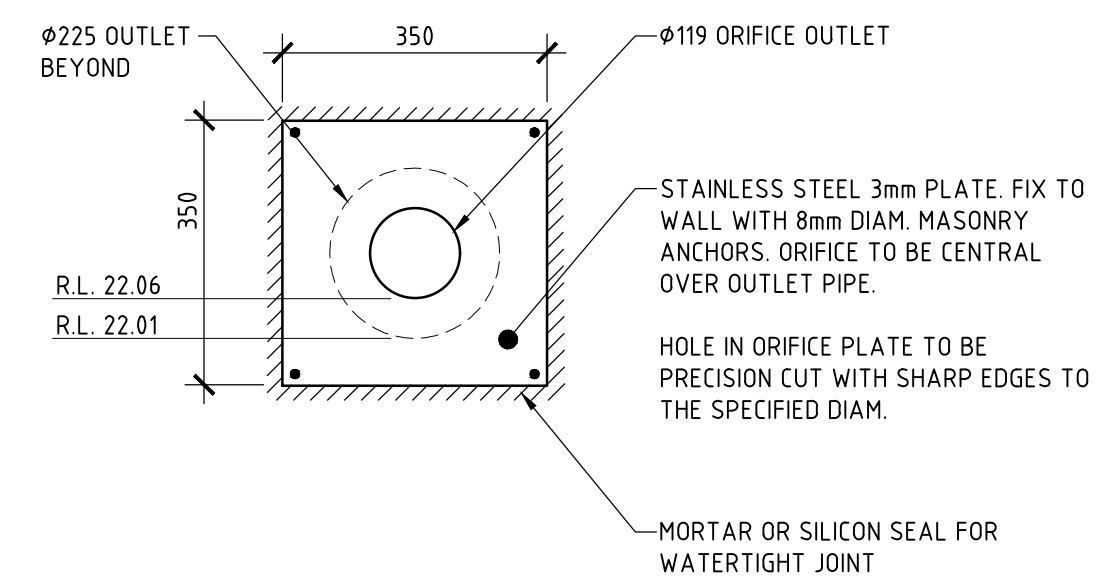
DETAIL **A**
SCALE 1:20
SHOWING RAINWATER TANK CONFIGURATION
SIMILAR FOR LOT 1 AND LOT 2



DETAIL **B**
SCALE 1:10
TYPICAL SURFACE INLET PIT DETAIL



DETAIL **C**
SCALE 1:20



DETAIL **D**
SCALE 1:10
ORIFICE PLATE DETAIL

ISSUE DATE	REVISION
20 FEB 2025	UPDATES TO SUIT NEW ARCH PLANS

TITLE			
STORMWATER MANAGEMENT DETAILS 90 BRIGHTON STREET, FRESHWATER			
DRAWN	DATE	CHECKED	SCALE
RR	14 FEBRUARY 2025		1:20 1:10
ENGINEER	DMS	BE Civil (Hons) MIE Aust.	

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STORM-3/A
DRAWING NO