

9 December 2021

General Manager  
Northern Beaches Council  
725 Pittwater Rd  
DEE WHY NSW 2099

Dear Sir/Madam

**Re: Stormwater Management Plan – 8 Grosvenor Place, Brookvale**

With reference to the Development Application for the above property, please find copies of the site Stormwater Management Plan & Details STORM-1, STORM-2 & STORM-3, for your perusal.

The plans show the proposed roofed and landscaped areas of the site being discharged via the existing Council pit and R.C.P. drainage line in Grosvenor Place

As the site is affected by the 1 in 100 year flood extents, there has been no provision for the on-site detention of stormwater.

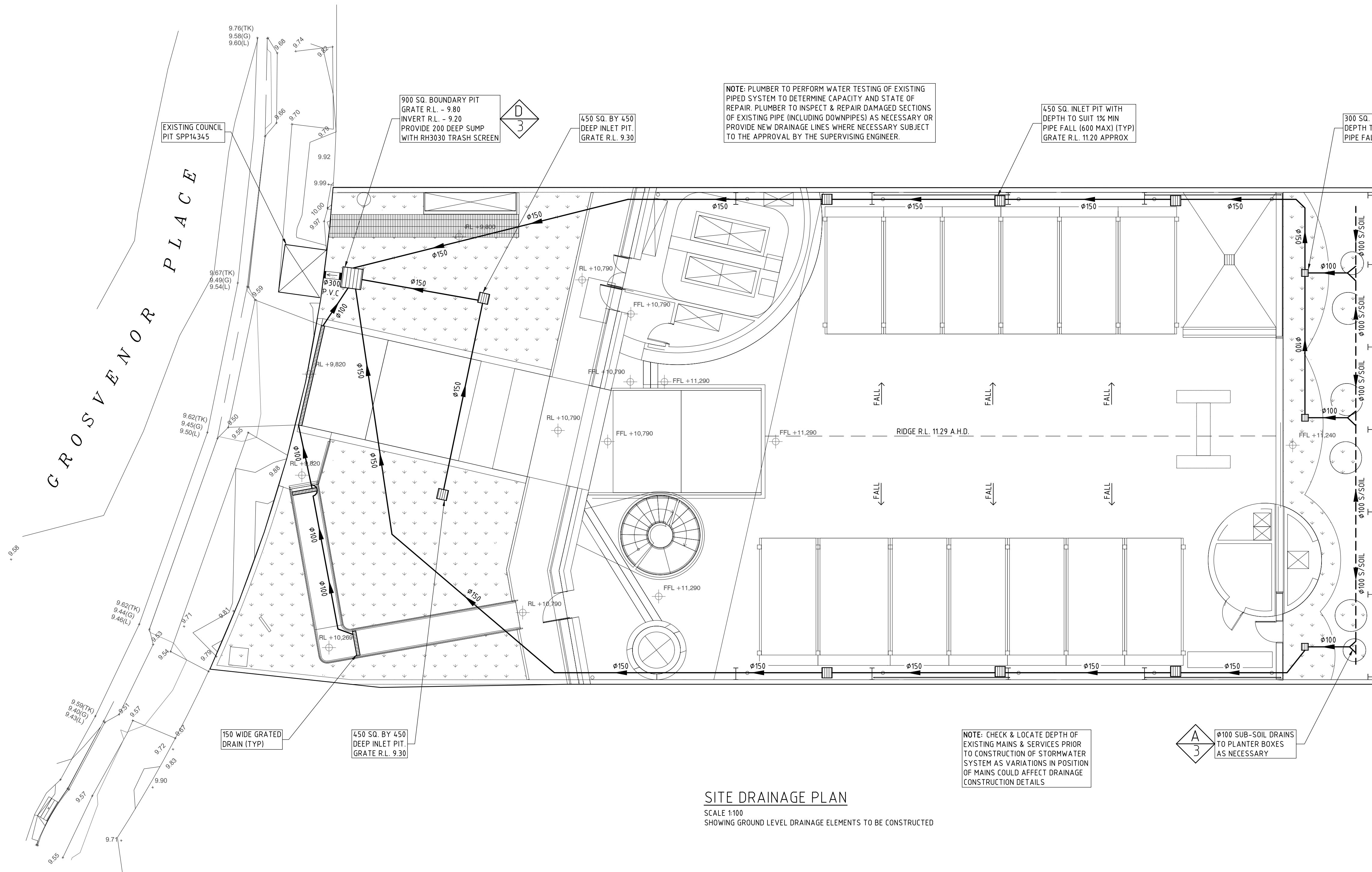
This is to certify that the Stormwater Management Plan layout as shown on Plan STORM-1, STORM-2 & STORM-3 by Taylor Consulting Civil & Structural Engineers has been designed in accordance with section 3.1.2, 'Drainage', of the Building Code of Australia Housing Provision, AS/NZS 3500.3.2 – Stormwater Drainage and Northern Beaches Council's Water Management for Development Policy - Version 1 - 26 August 2020.

Should you require any further information please contact the undersigned.

Yours faithfully  
TAYLOR CONSULTING

D M SCHAEFER - Director  
B.E. Civil – Hons. M.I.E. Aust. N.E.R.





1. + DENOTES EXISTING GROUND LEVEL
2. FILL STORMWATER PIPES AT 1% MIN UNLESS OTHERWISE NOTED
3. SUB-SOIL DRAINAGE TO BE CONNECTED TO THE SITE DRAINAGE SYSTEM AS NECESSARY.
4. SURFACE GRATES 450 SQ. UNLESS OTHERWISE NOTED
5. ALL STORMWATER PIPES TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
6. CHECK & LOCATE DEPTH OF EXISTING MANS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MANS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS
7. INSPECTIONS MUST BE UNDERTAKEN BY THIS OFFICE (BY PRIOR ARRANGEMENT WITH ENGINEER) DURING CONSTRUCTION TO ENABLE FULL CERTIFICATION UPON COMPLETION OF WORKS.
8. ALL CONSTRUCTION OF COUNCIL DRAINAGE WORKS TO COMPLY WITH COUNCIL STANDARD
9. REMOVE REDUNDANT DRAINAGE PITS AND SEAL PIPES.
10. PIT BENCHING TO BE HALF THE OUTGOING PIPE DIAMETER. CONCRETE FOR BENCHING TO BE 20 MPa MASS CONCRETE
11. APPROVED PRE-CAST PITS MAY BE USED.
12. 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
13. PIPE ROUTES SHOWN ARE INDICATIVE ONLY AND SHOULD BE AS NECESSARY ACCORDING TO SITE CONDITIONS, TREE POSITIONS ETC. CONFORM SIGNIFICANT CHANGES IN PIPES SYSTEM DETAILS WITH SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF DRAINAGE CONSTRUCTION WORKS.
14. 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 SUPERVISING ENGINEER SHALL REMOVE ALL TEMPORARY SERVICES AND MAKE GOOD ALL DISTURBED AREAS.
15. 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.
16. PLUMBING AND DRAINAGE WORKS TO COMPLY WITH AS-3500, THE NATIONAL DRAINAGE & PLUMBING CODE.
17. 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
18. THIS STORMWATER MANAGEMENT PLAN HAS BEEN PREPARED FOR D.A. SUBMISSION TO COUNCIL AND DOES NOT NECESSARILY CONTAIN ALL APPROPRIATE INFORMATION TO AVOID ANY ISSUE TO PLUMBER/BUILDER FOR CONSTRUCTION. CONTACT TAYLOR CONSULTING FOR MORE INFORMATION

SCALE 1:100  
SHOWING GROUND LEVEL DRAINAGE ELEMENTS TO BE CONSTRUCTED

**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**

 Ø100 SUB-SOIL DRAINS  
TO PLANTER BOXES  
AS NECESSARY

ISSUE DATE	REVISION
9 DEC 21	CHANGES TO SUIT REVISED ARCHITECTURAL PLANS

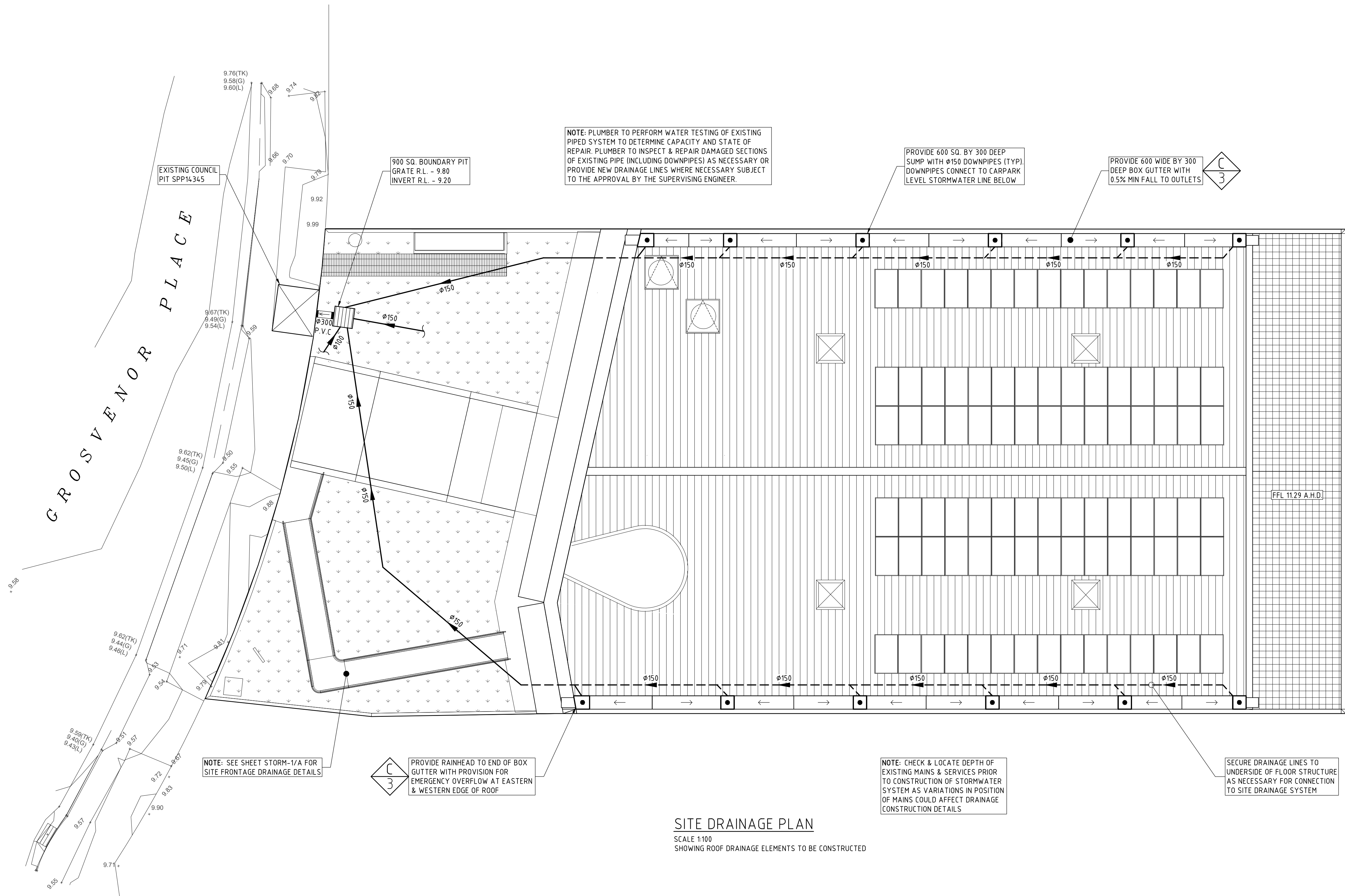
TITLE <b>STORMWATER MANAGEMENT PLAN – GROUND          8 GROSVENOR PLACE, BROOKVALE</b>			
DRAWN  CJM	DATE  29 OCTOBER 2021	CHECKED   BE Civil (Hons) MIE Aust.	SCALE @ A1  1:100



STORM-1/A

SITE AREA = 1051 m<sup>2</sup> (100%)  
 PROPOSED IMPERVIOUS AREA = 736 m<sup>2</sup> (70%)  
 PROPOSED LANDSCAPED AREA = 315 m<sup>2</sup> (30%)  
 EXISTING IMPERVIOUS AREA = 321 m<sup>2</sup> (31%)  
 EXISTING LANDSCAPED AREA = 730 m<sup>2</sup> (69%)





3. + DENOTES EXISTING GROUND LEVEL
2. FALL STORMWATER PIPES AT 1% MIN UNLESS OTHERWISE NOTED.
3. SUB-SOIL DRAINAGE TO BE CONNECTED TO THE SITE DRAINAGE SYSTEM AS NECESSARY.
4. SURFACE GRATES 300 SQ. UNLESS OTHERWISE NOTED.
5. ALL CHECKWATER DEPTHS TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
6. CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS.
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 EXISTING IMPERVIOUS AREA = 321 m<sup>2</sup> (69%)  
 EXISTING LANDSCAPED AREA = 730 m<sup>2</sup> (31%)

ISSUE DATE	REVISION
9 DEC 21	CHANGES TO SUIT REVISED ARCHITECTURAL PLANS

TITLE  
STORMWATER MANAGEMENT PLAN – ROOF  
8 GROSVENOR PLACE, BROOKVALE

DRAWN

DATE \_\_\_\_\_

CHECKED

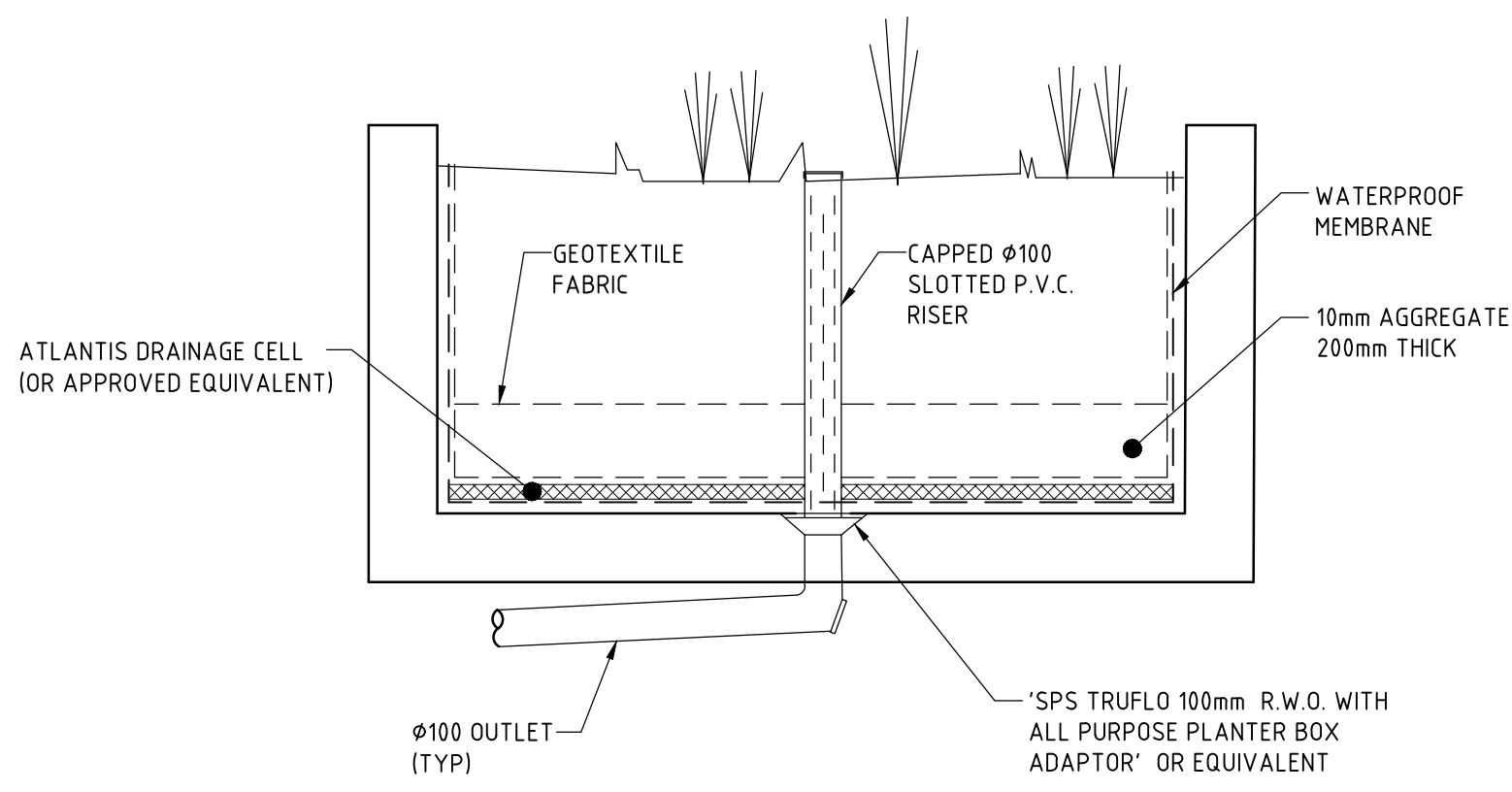
SCALE @ A1

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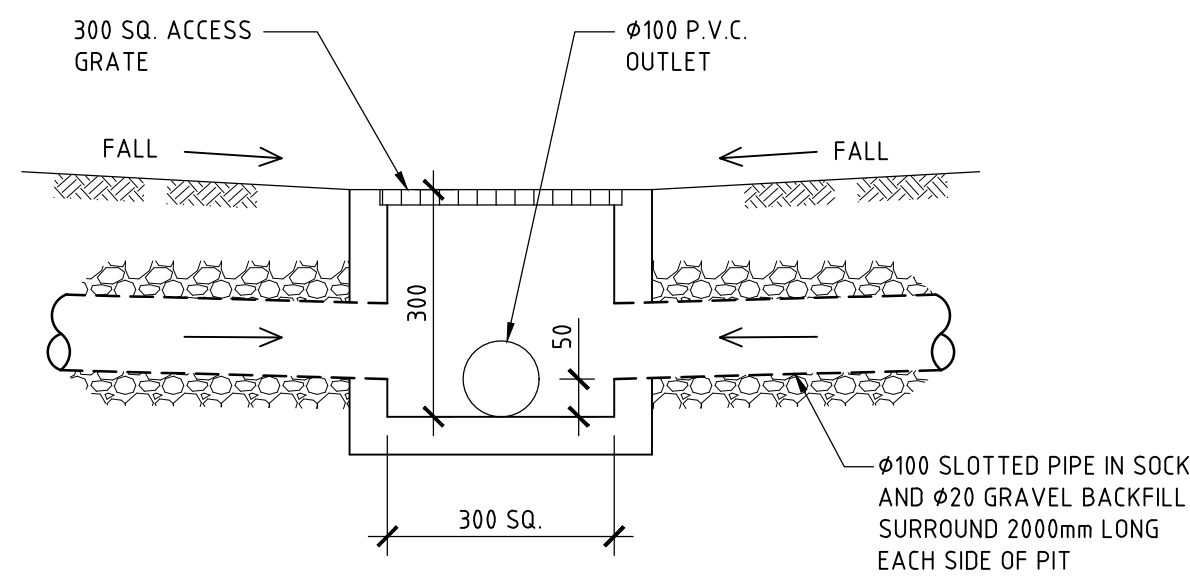
BE Civil (Hons) MIE Aust



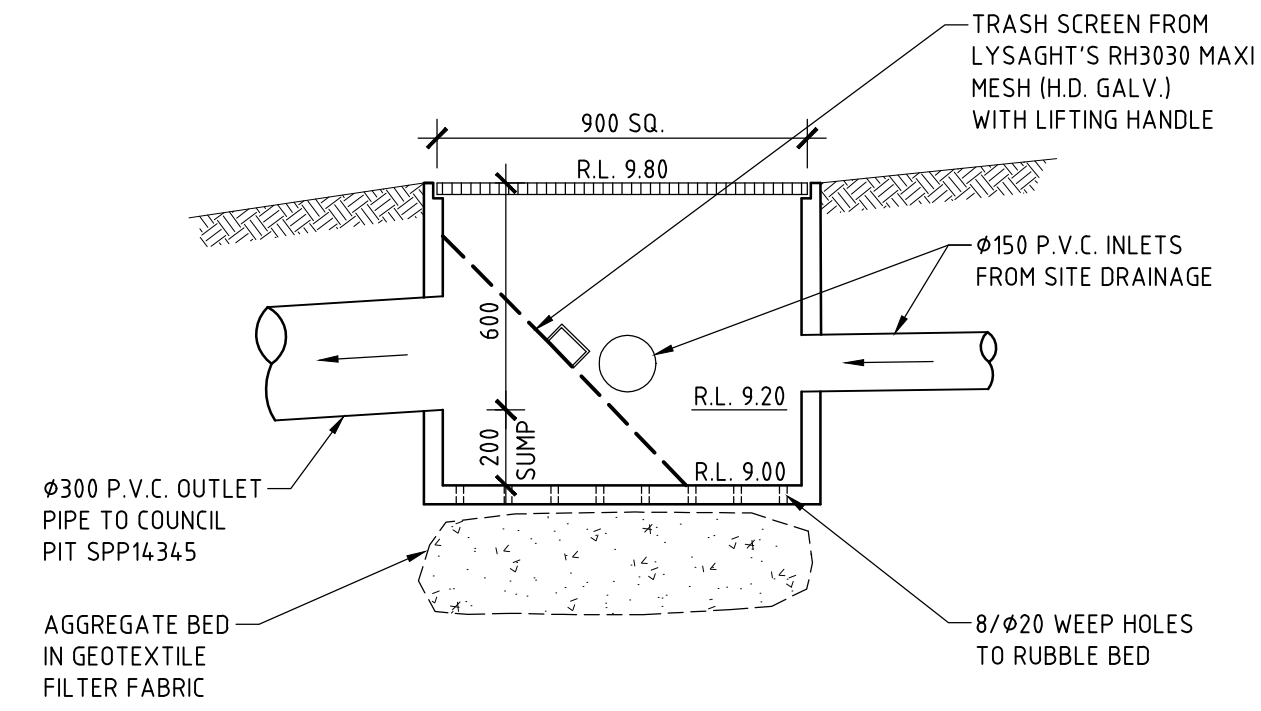
# STORM-2/A



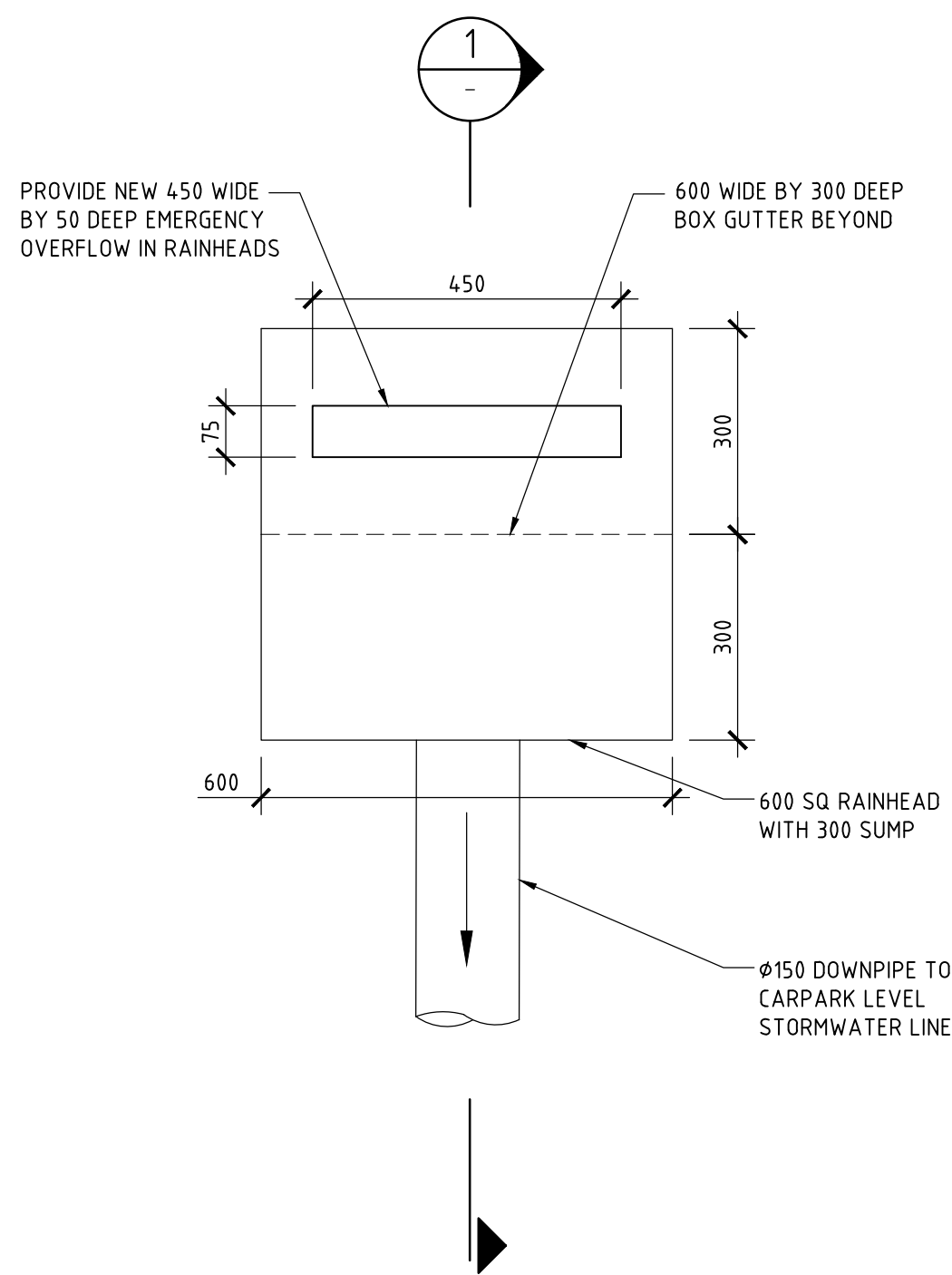
DETAIL A  
1  
SCALE 1:20  
SHOWING TYPICAL PLANTER BOX DETAIL



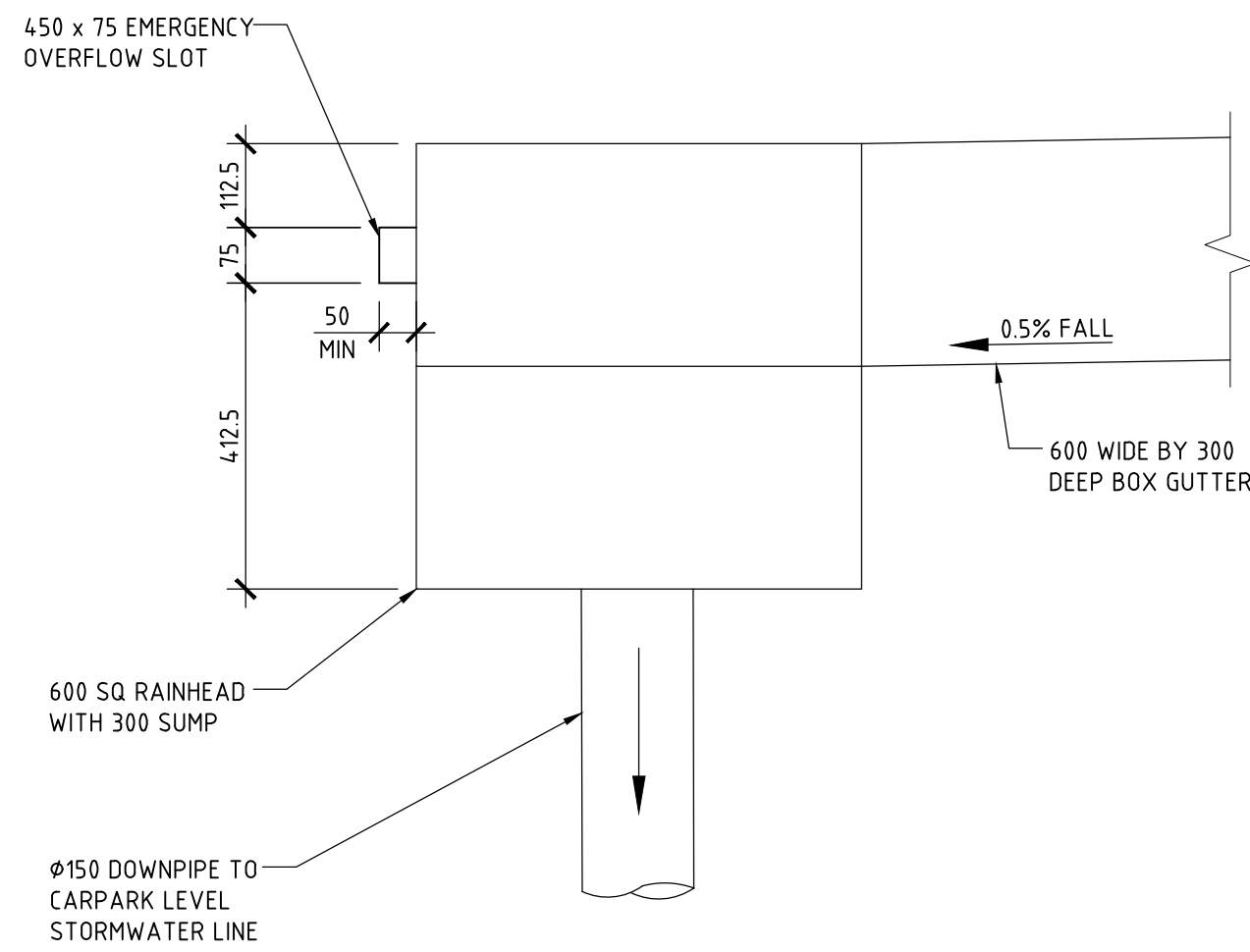
DETAIL B  
1  
SCALE 1:10  
TYPICAL SURFACE INLET PIT DETAIL



DETAIL D  
1  
SCALE 1:20  
TYPICAL BOUNDARY PIT AND SUMP DETAIL



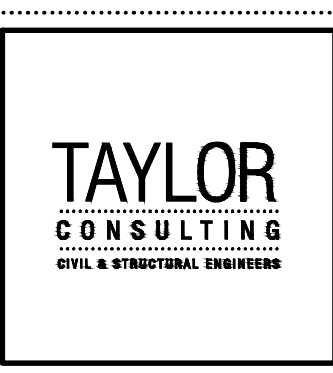
DETAIL C  
2  
SCALE 1:10  
TYPICAL RAINHEAD DETAIL (OR EQUIVALENT)  
SHOWING PROVISION FOR EMERGENCY OVERFLOW



SECTION 1  
-  
SCALE 1:10

ISSUE DATE	REVISION
9 DEC 21	CHANGES TO SUIT REVISED ARCHITECTURAL PLANS

TITLE STORMWATER MANAGEMENT PLAN DETAILS 8 GROSVENOR PLACE, BROOKVALE			
DRAWN	DATE	CHECKED	SCALE @ A1
CJM	29 OCTOBER 2021		1:20 1:10
BE Civil (Hons) MIE Aust.			



STORM-3/A