

1 June 2020

General Manager
Northern Beaches Council
PO Box 82
MANLY NSW 1655

Dear Sir/Madam,

Re: Stormwater Management Plan – 12 Arthur Street, Fairlight

With reference to the Development Application for the above property, please find enclosed copies of the site revised Stormwater Management Plan, Sheet 1, for your perusal.

The plan shows the hard surface areas of the site draining to the existing council easement situated within the neighbouring property & adjacent to the eastern site boundary.

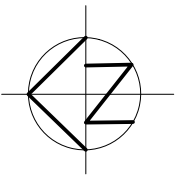
Note also that it proposed to provide a rainwater tank for non-potable domestic re-use as preferred by the owner.

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





NOTE: PLUMBER TO PERFORM WATER TESTING OF EXISTING PIPED SYSTEM TO DETERMINE CAPACITY AND STATE OF REPAIR. PLUMBER TO INSPECT & REPAIR DAMAGED SECTIONS OF EXISTING PIPE (INCLUDING DOWNPIPES) AS NECESSARY OR PROVIDE NEW DRAINAGE LINES WHERE NECESSARY SUBJECT TO THE APPROVAL BY THE SUPERVISING ENGINEER.

Ø150 P.V.C. CONNECTION TO EXISTING COUNCIL R.C.P.

PROVIDE 2000 LITRE MIN RAINWATER TANK WITH HIGH LEVEL OVERFLOW TO STORMWATER SYSTEM

EXISTING EASEMENT 1.2m WIDE APPROX

EXISTING COUNCIL R.C.P. IN DRAINAGE EASEMENT

EXISTING COUNCIL DRAINAGE PIT

300 WIDE BY 200 DEEP BOX GUTTER TO RAINHEAD

BENCH MARK NAIL IN KERB R.L. 33.62 AHD

PROVIDE 450 SQ BY 450 DEEP JUNCTION PIT GRATE R.L. - 29.70

EXISTING SEWER MAIN

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

EXISTING SEWER MANHOLE

PROVIDE 100 WIDE GRATED DRAIN TO SIDE PATHS AS SHOWN

PROVIDE NEW Ø90 DOWNPIPE AS NECESSARY (TYP)

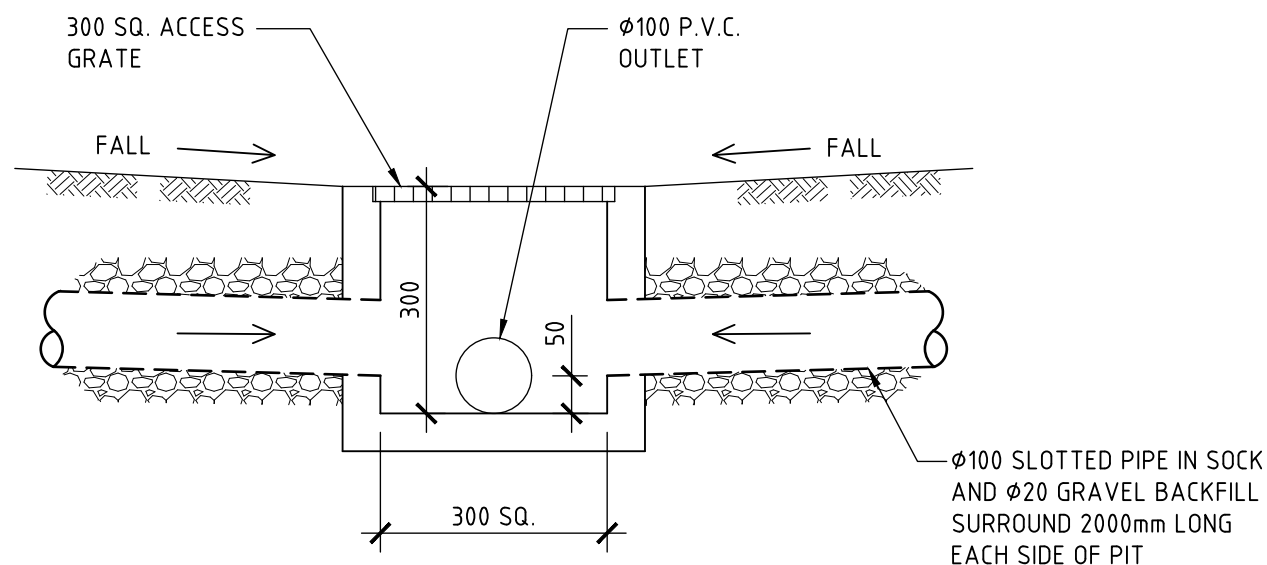
300 SQ. BY 300 DEEP INLET PIT (TYP)

150 WIDE GRATED DRAINS

STORMWATER MANAGEMENT PLAN

SCALE 1:100

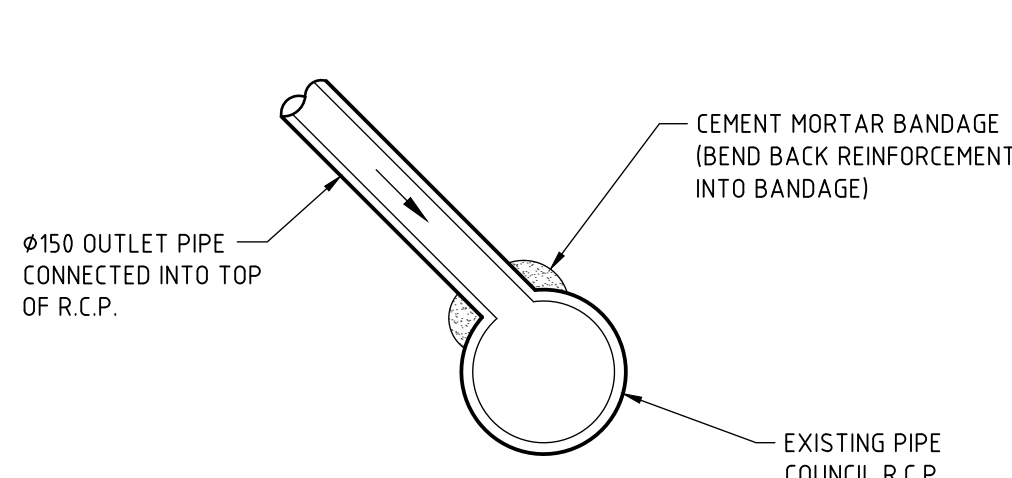
NOTE: SUB-SOIL AND FOUNDATION SPACE DRAINAGE TO CONNECT TO PROPOSED STORMWATER SYSTEM AS NECESSARY AND SUBJECT TO APPROVAL BY SUPERVISING ENGINEER



DETAIL A

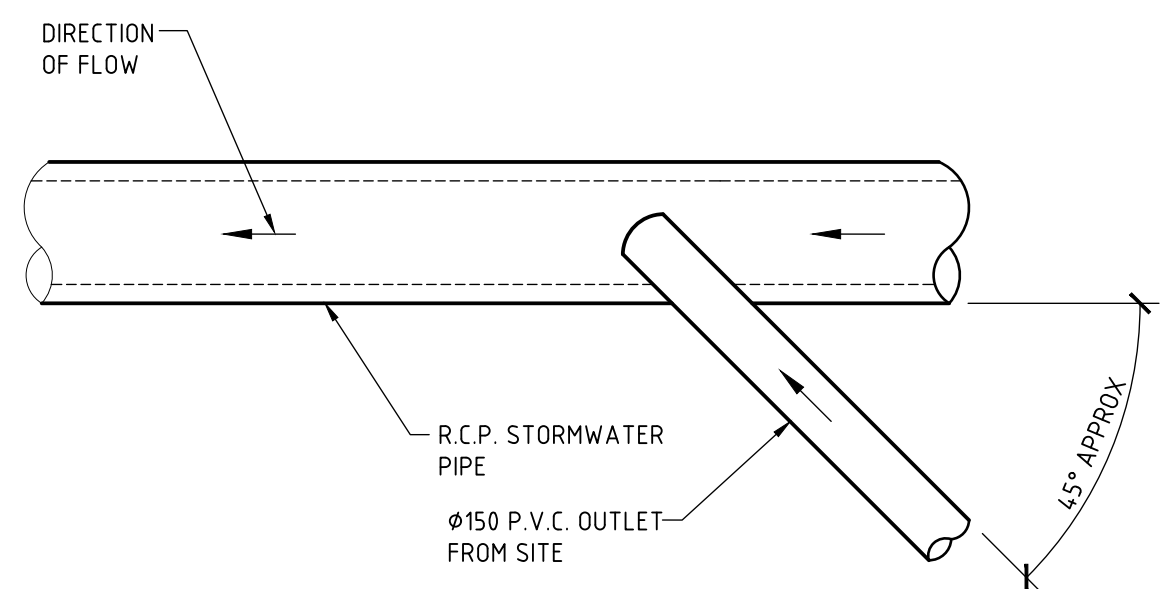
SCALE 1:10

TYPICAL SURFACE INLET PIT DETAIL



DETAIL B

SCALE 1:20



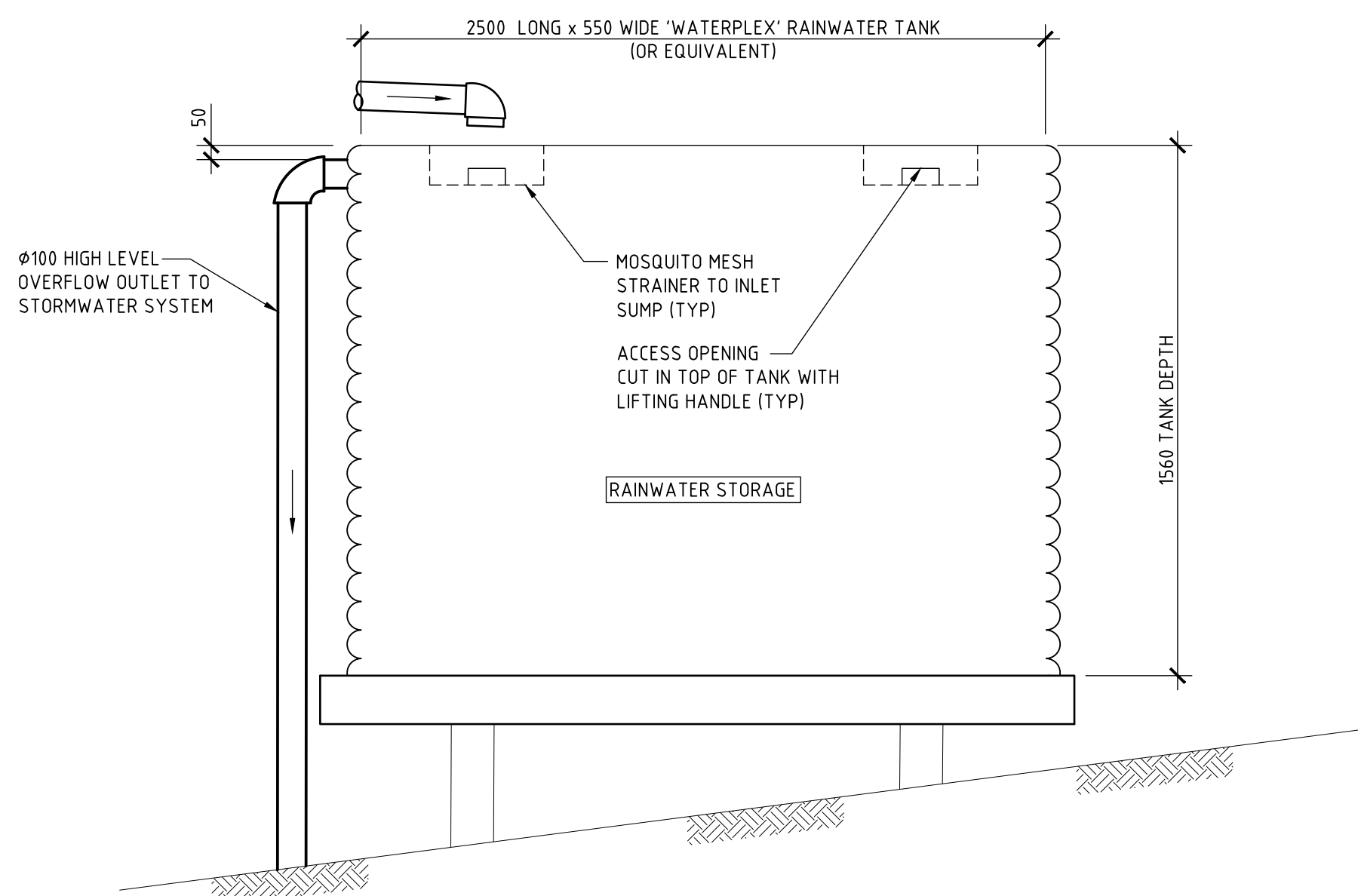
PLAN VIEW

SCALE 1:20

TYPICAL OUTLET PIPE CONNECTION TO EXISTING R.C.P.

SCALE 1:20

NOTE: CONTRACTOR TO ALSO REPAIR AND MAKE GOOD EXISTING SURFACE AND LANDSCAPED ELEMENTS AS NECESSARY AND TO SATISFACTION OF SUPERVISING ENGINEER



NOTE: RAINWATER STORAGE TANK TO BE INSTALLED AND CONFIGURED TO SYDNEY WATER, COUNCIL AND MANUFACTURER'S REQUIREMENTS.

DETAIL C

SCALE 1:20

TYPICAL RAINWATER STORAGE TANK

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 D.A. SUBMISSION TO COUNCIL 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

SITE DATA

SITE AREA = 278.7m² (100%)
PROPOSED IMPERVIOUS AREA = 226.7m² (81%)
PROPOSED LANDSCAPED AREA = 52m² (19%)
EXISTING IMPERVIOUS AREA = 212.2m² (76%)
EXISTING LANDSCAPED AREA = 66.5m² (24%)

ISSUE	DATE	REVISION

TITLE STORMWATER MANAGEMENT PLAN 12 ARTHUR STREET, FAIRLIGHT

DRAWN

JBP

DATE

1 JUNE 2020

CHECKED

BE Civil (Hons) MIE Aust.

SCALE

1:100
1:20
1:10

TAYLOR
CONSULTING
CIVIL & STRUCTURAL ENGINEERS

REVISION
SHEET -1