TAYLOR

NORTHERN SYDNEY
Seascape
Suite 7 22-27 Fisher Rd
Dee Why NSW 2099

BLUE MOUNTAINS
Shop 1
274 Macquarie Rd
Springwood NSW 2777

TAYLORCONSULTING.NET.AU

CONSULTING ENGINEERS
Civil
Structural
Stormwater & Flood

3 April 2025

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

Address of the Project: **45 Allambie Road, Allambie Heights**

Description of Project: **Stormwater Management Plan**

With reference to the development application for the above property please find enclosed a copy of the site Stormwater Management Plan & Details, STORM-1/D & STORM-2/D, for your perusal.

The plan shows collected flows from the proposed dwelling and surrounding paved and landscaped areas discharging via a level spreader. The rate of discharge for the developed area has been restricted to the 5 year state-of-nature level, in accordance with Council's Water Management for Development Policy for low level properties. The level spreader discharges collected runoff as uniform sheet flow across the rear boundary observing the natural fall of the land.

The attached design has a 10,968 litre on-site detention tank within the levelled lawn area in accordance with Council's Water Management for Development Policy.

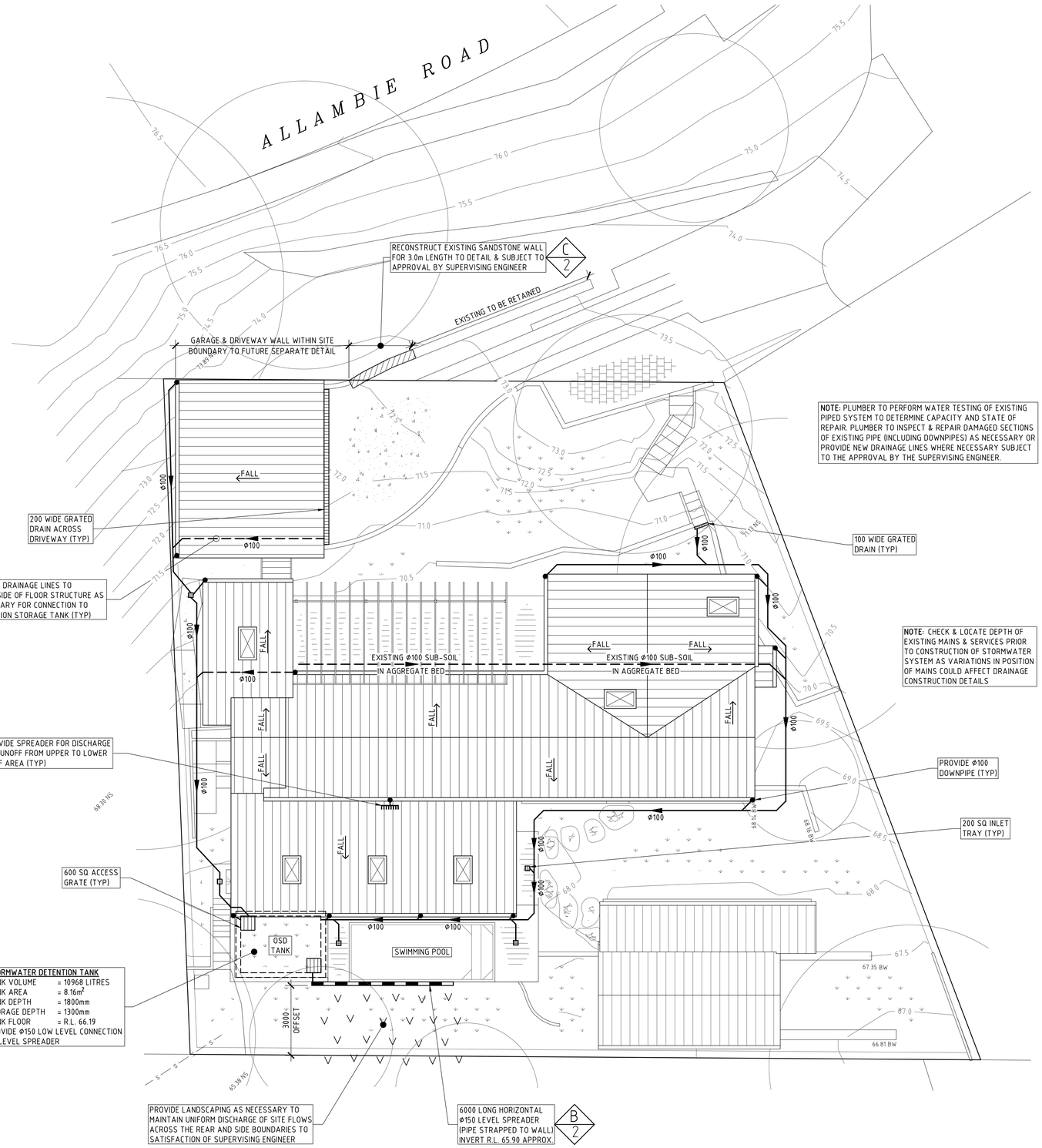
The owners have approached their neighbours and they have been unsuccessful in acquiring an easement, and the nature of the site and general area did not warrant absorption to be a viable stormwater disposal solution. The only viable option for disposal is via a level spreader at the rear of the property.

Should you require any further information, please contact the undersigned.

Yours faithfully
TAYLORCONSULTING.NET.AU

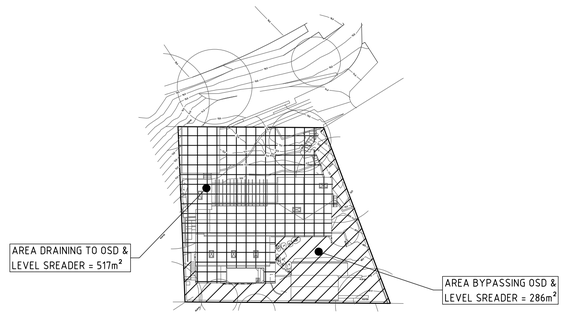
D.M.Schaefer - Director
B.E Civil (Hons) M.I.E. Aust. N.E.R.

REGISTERED NER Engineers Australia



SITE DRAINAGE PLAN

SCALE 1:100



SITE CATCHMENT PLAN

SCALE 1:500

DRAINAGE NOTES

1. + 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 STORMWATER PIPES 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.
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. CONFIRM 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 CONTRACTOR 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 ENABLE FOR ISSUE TO PLUMBER/BUILDER FOR CONSTRUCTION. CONTACT TAYLOR CONSULTING FOR MORE INFORMATION.

RAINWATER RE-USE NOTES AND SPECIFICATIONS

1. ROOF WATER ONLY TO BE DRAINED TO THE RAINWATER STORAGE TANK.
2. THE RAINWATER STORAGE TANK NEEDS TO BE CONNECTED FOR RE-USE AS REQUIRED BY THE OWNER.
3. RAINWATER STORAGE TANK TO BE CONFIGURED IN ACCORDANCE WITH SYDNEY WATER SPECIFICATIONS 'GUIDELINES FOR RAINWATER TANK ON RESIDENTIAL PROPERTIES'.
4. 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.
5. 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.
6. INLETS TO RAINWATER TANK MUST BE SCREENED TO PREVENT THE ENTRY OF FOREIGN MATTER, ANIMALS OR INSECTS.
7. 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.
8. RAINWATER TANK TO BE PLACED ON A STRUCTURALLY ADEQUATE BASE IN ACCORDANCE WITH THE MANUFACTURER'S OR STRUCTURAL ENGINEER'S DETAILS.
9. THE TANK MUST NOT BE INSTALLED OVER ANY MAINTENANCE STRUCTURE OR FITTINGS USED BY A PUBLIC AUTHORITY.
10. 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 = 819m² (100%)
PROPOSED IMPERVIOUS AREA = 438m² (53%)
PROPOSED LANDSCAPED AREA = 381m² (47%)

NORTHERN BEACHES COUNCIL - REGION 2; CENTRAL CATCHMENTS

TOTAL EXISTING & PROPOSED IMPERVIOUS AREA > 40% OF TOTAL SITE AREA AND FALLS TO THE REAR OF THE SITE, LEVEL SPREADER SYSTEM & OSD REQUIRED

PARTIAL SITE ANALYSIS

AREA DRAINING TO OSD & LEVEL SPREADER = 517m²

OSD SYSTEM DESIGN DATA

PERMISSIBLE SITE DISCHARGE (STATE OF NATURE FOR CATCHMENT = 517m²)

5 YR ARI = 16 l/s

DEVELOPED SITE FLOWS (FOR CATCHMENT = 517m²)

100 YR ARI = 16 l/s

THEREFORE IN SUMMARY, THE 100 YR ARI DEVELOPED SITE FLOWS WITH OSD IS LESS THAN OR EQUAL TO THE 5 YR ARI STATE OF NATURE FLOWS

DETENTION SYSTEM DATA

AREA DRAINING TO THE DETENTION TANK = 517m²
ORIFICE DIAM = 85 mm
SSR = 10.6m³

STORMWATER SYSTEM DESIGN DATA

SITE DATA

SITE AREA = 819.3 m² (100%)
PROPOSED IMPERVIOUS AREA = 438.5 m² (53%)
PROPOSED LANDSCAPED AREA = 380.8 m² (47%)
EXISTING IMPERVIOUS AREA = 355.7 m² (43%)
EXISTING LANDSCAPED AREA = 463.6 m² (57%)

ISSUE	DATE	REVISION
A	31 OCT 2024	UPDATED PLAN TO SUIT LATEST ARCHITECTURAL DRAWINGS
B	20 NOV 2024	RETAINING WALL DETAIL ADDED
C	13 DEC 2024	UPDATES PER COUNCIL COMMENTS
D	3 APR 2025	PLANS UPDATED TO SUIT S4.55 ARCHITECTURAL PLAN SET

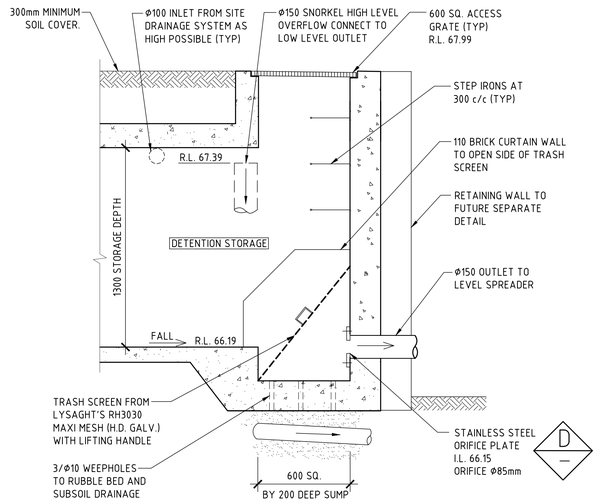
TITLE
STORMWATER MANAGEMENT PLAN
45 ALLAMBIE ROAD, ALLAMBIE HEIGHTS

DRAWN	DATE	CHECKED	SCALE @ A1
LI	6 AUGUST 2024	BE Civil (Hons) MIE Aust.	1:100 1:500
ENGINEER CJM			

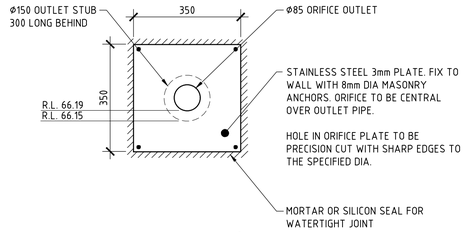
TAYLOR CONSULTING
CIVIL & STRUCTURAL ENGINEERS

DRAWING NO. STORM-1/D

"Seascape" Suite 7 22-26 Fisher Rd Dee Why NSW 2099 | T 02 9982 7092 | F 02 9982 5898 | enquire@taylorconsulting.net.au | www.taylorconsulting.net.au

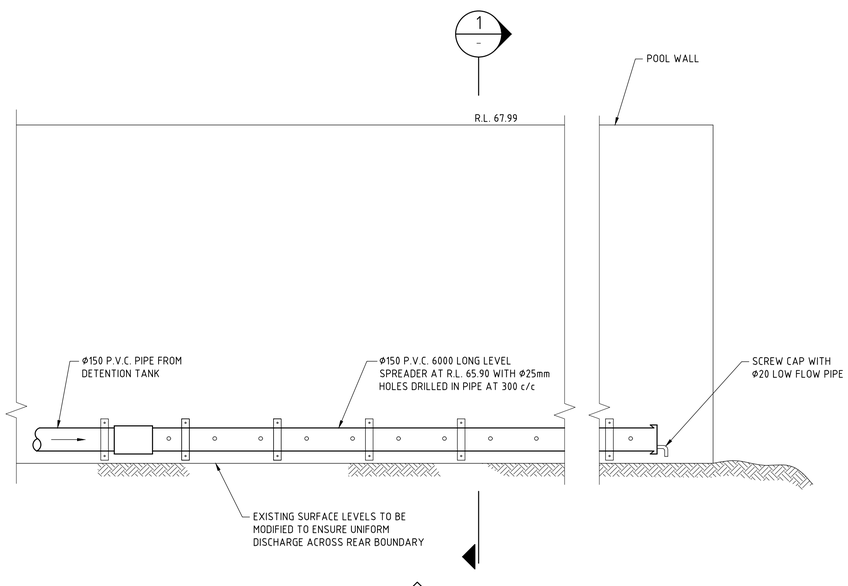


DETAIL A/1
SCALE 1:20



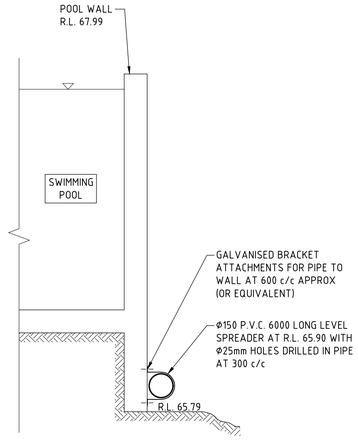
DETAIL D/–
SCALE 1:10

ORIFICE PLATE DETAIL

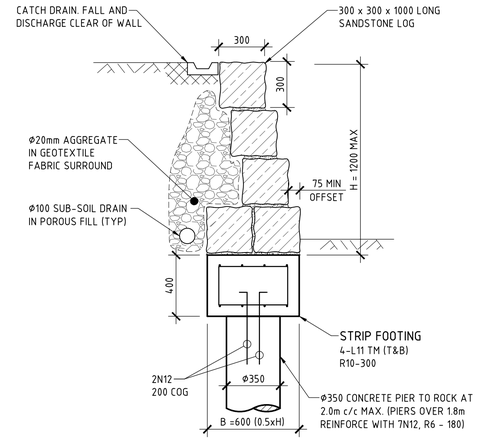


DETAIL B/1
SCALE 1:20

SHOWING HORIZONTAL DISPERSION SYSTEM



SECTION 1/–
SCALE 1:20



DETAIL C/1
SCALE 1:20

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DRAWING NO. STORM-2/D

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