

STORMWATER DRAINAGE PLAN

12 BOWER STREET, MANLY, NSW 2095

LIST OF DRAWINGS

SHEET No.	SHEET NAME	REV	DATE
H01	CONSTRUCTION NOTES	B	15/05/2024
H02	SITE DRAINAGE PLAN	B	15/05/2024

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 ϕ 100 SEWER GRADE AND FULLY SEALED U.N.O. ALL STORMWATER PIPES TO BE ϕ 100 SEWER GRADE 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 ϕ 100 ROUND (OR 100X75 RECTANGULAR) AND FULLY SEALED; ALL STORMWATER PIPES TO BE ϕ 100 SEWER GRADE. 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 INVERT 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

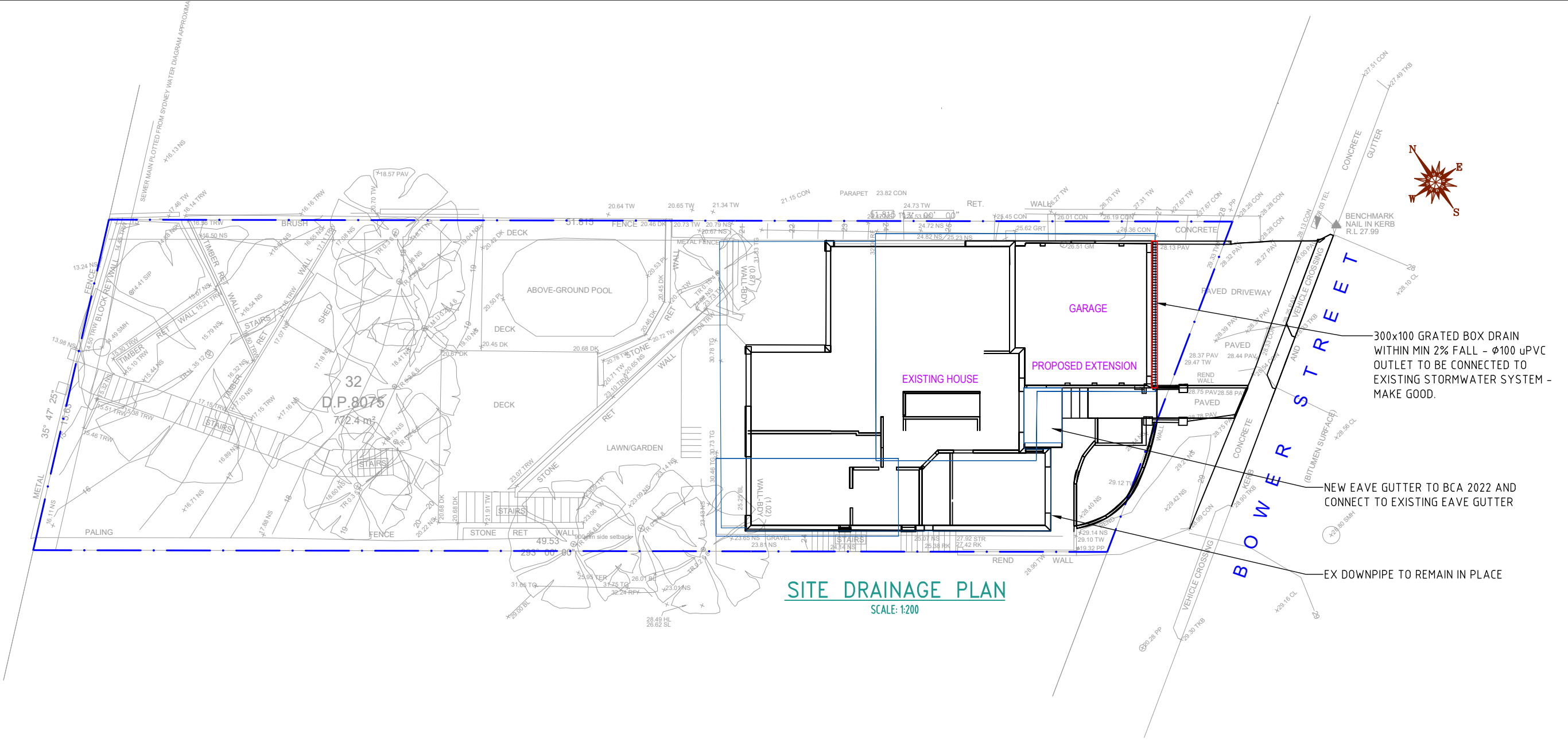
- ALL PITS IN ROADWAY SHALL BE FITTED WITH HEAVY DUTY GRATES WITH LOCKING BOLTS AND CONTINUOUS HINGES.
- SUB-SOIL DRAINS FOR RETAINING WALL AND EMBANKMENTS SHALL BE INSTALLED BY THE BUILDER AND CONNECTED TO STORMWATER LINES. ALL AGG. LINES SHALL BE 100MM DIA., UNLESS NOTED OTHERWISE.

REV	DESCRIPTION	DATE	DRAWN	CHECKED
A	ISSUED FOR CLIENT REVIEW	02/05/2024	LT	ET
B	ISSUED FOR DA SUBMISSION	15/05/2024	LT	ET

DRAWINGS / DESIGN PREPARED BY		DRAWING NUMBER
 5S PROJECTS CONSULTING ENGINEERS STRUCTURAL CIVIL HYDRAULIC A.B.N 38 634 702 113 A: PO Box 445 Edgecliff, NSW 2027 M: 0426 476 868 E: info@5sprojects.com.au W: 5sprojects.com.au		FSP-DWG-242982-H01
		REVISION
DRAWING TITLE:		B
CONSTRUCTION NOTES		TOTAL SHEET
LGA: NORTHERN BEACHES COUNCIL		02
CLIENT: ----		
PROJECT ADDRESS: 12 BOWER STREET, MANLY, NSW 2095		

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

150mm ON A3 SIZE ORIGINAL



SITE DRAINAGE PLAN
SCALE: 1:200

300x100 GRATED BOX DRAIN WITHIN MIN 2% FALL - Ø100 uPVC OUTLET TO BE CONNECTED TO EXISTING STORMWATER SYSTEM - MAKE GOOD.

NEW EAVE GUTTER TO BCA 2022 AND CONNECT TO EXISTING EAVE GUTTER

EX DOWNPIPE TO REMAIN IN PLACE

LEGEND:

- DP Ø100 DOWNPIPE
- EX.DP EXISTING DOWNPIPE
- BG1 BOX GUTTER
- ROOF RUNOFF PIPE
- SURFACE RUNOFF PIPE
- EXISTING STORMWATER PIPE
- ▬ 300x100 GRATED BOX DRAIN
- LAND FALL DIRECTION
- >>> EARTH-MOUND SWALE OR DISH DRAIN
- SL FINISHED SURFACE LEVEL
- FFL FINISHED FLOOR LEVEL
- INV INVERT LEVEL (PIPE / PIT)

HOLD POINT:

PRIOR TO CONSTRUCTION, BUILDER/PLUMBER TO UNDERTAKE A CCTV CAMERA INSPECTION AND PROVIDE REPORT OF EXISTING STORMWATER SYSTEM TO THE ENGINEER AND THE CERTIFIER TO REVIEW AND CONFIRM ON THE DESIGN. FAIL IN DOING THIS, BUILDER/PLUMBER TAKE FULL RESPONSIBILITY FOR ANY DISPUTE AND DAMAGE CAUSED BY STORMWATER RUNOFF LATER ON.

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DRAWING NUMBER: FSP-DWG-242982-H02
REVISION: B
TOTAL SHEET: 02

DRAWING TITLE: **SITE DRAINAGE PLAN**

LGA: NORTHERN BEACHES COUNCIL | CLIENT: ----

PROJECT ADDRESS: 12 BOWER STREET, MANLY, NSW 2095

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50mm ON A3 SIZE ORIGINAL