STORMWATER DRAINAGE NOTES

- ALL PIPES TO BE 100mm Ø uPVC, LAID AT 1% MINIMUM GRADE TO AS1254.2002 U.N.O.

- ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D BELOW PAVEMENTS. (NO COMPACTION IS REQUIRED BELOW LANDSCAPING).

- COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM. BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.

- DOWNPIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT OF WORK.

- PROVIDE CLEANING EYES AND LEAF CATCHERS TO ALL DOWNPIPES.

- ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.

- ALL LEVELS SHOWN ARE TO AHD.

- ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.

- ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.

- ALL WORKS TO BE IN ACCORDANCE WITH AS3500.3-2003 NATIONAL PLUMBING AND DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

- SUBSOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.

- EXISTING ROOF DRAINAGE AND SITE DRAINAGE SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED. BUILDER TO INSPECT AND UPGRADE DRAINAGE IN ACCORDANCE WITH AS3500.3 IF REQUIRED.

RAINWATER STORAGE/REUSE NOTES

- THE RAINWATER TANK IS TO BE INSTALLED AND USED AS PER BASIX REQUIREMENTS AND SYDNEY WATER AND NSW HEALTH REQUIREMENTS FOR NON DRINKING USE ONLY.

- ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS IS TO BE IN ACCORDANCE WITH SYDNEY WATERS 'GUIDE TO INSTALLING A RAINWATER TANK' AVAILABLE AT: WWW.SYDNEYWATER.COM.AU.

- PROVIDE DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX - DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.

- IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100 m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF
LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.

- SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.

- FIRST FLUSH DEVISED, OR APPROVED ALTERNATIVE TO BE INSTALLED WITH AND AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.

- BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.

- BUILDER/PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK - HB 230-2008. IF IN DOUBT CONTACT ENGINEER.

- RAINWATER TANK TO BE WATERPROOFED IN ACCORDANCE WITH HB-230-2008.

- ORIFICE PLATE (IF APPLICABLE) TO BE INSTALLED PRIOR TO THE INSTALLATION OF THE ROOF DRAINAGE SYSTEM AND CONNECTION OF THE STORMWATER SYSTEM TO THE OSD TANK.

WATER MANAGEMENT REPORT

B5.8 Stormwater Management - Water Quality – Low Density Residential
The controls seek to achieve the outcomes:
No increase in pollutants discharged with stormwater into the environment. (En) Development is compatible with Water Sensitive Urban Design principles. (En)

Roofwater from the new roof areas will be connected to the existing system and as there is no substantial change to the runoff characteristics of the site, the retention of the existing arrangements is reasonable in this instance.

B5.10 Stormwater Discharge into Public Drainage System
The controls seek to achieve the outcomes:
All new development to have no adverse environmental impact at the discharge location (En, S)

The stormwater from the roof areas will be connected to the existing system which disperses stormwater within the rear yard and ultimately to Avalon Beach.
As such, there will not be any substantial change to the existing stormwater discharge arrangements.

B5.11 Stormwater Discharge into Waterways and Coastal Areas
The controls seek to achieve the outcomes:
All new development to have no adverse environmental impact at the discharge location (En, S)

The stormwater from the roof areas will be connected to the existing system which disperses stormwater within the rear yard and is naturally directed to Avalon Beach.
As such, there will not be any substantial change to the existing stormwater discharge arrangements.

B5.13 Development on Waterfront Land
The controls seek to achieve the outcomes:
Protection of waterways and improved riparian health (En)
Stormwater and creek flows are safely managed. (S)
Appropriate setback between waterways and development (En)

The proposed alterations and additions will maintain the stability and stormwater flows of the site. The proposal will therefore comply with this control.

B5.15 Stormwater
The controls seek to achieve the outcomes:
Improve the quality of water discharged to our natural areas to protect and improve the ecological and recreational condition of our beaches, waterways, riparian areas and bushland;
Minimise the risk to public health and safety;
Reduce the risk to life and property from any flooding and groundwater damage;
Integrate Water Sensitive Urban Design measures in new developments to address stormwater and floodplain management issues, maximise liveability and reduce the impacts of climate change.

Mimic natural stormwater flows by minimising impervious areas, reusing rainwater and stormwater and providing treatment measures that replicate the natural water cycle
Reduce the consumption of potable water by encouraging water efficiency, the reuse of water and use of alternative water sources Protect Council's stormwater drainage assets during development works and to ensure Council's drainage rights are not compromised by development activities.

Roofwater from the new roof areas will be connected to the existing system and as there is no substantial change to the runoff characteristics of the site, the retention of the existing arrangements is reasonable in this instance.

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Revisions:

Issue:	Date:	Amendment:
A	26.06.25	DA issue

Drawing:
STORMWATER MANAGEMENT PLAN - GENERAL NOTES

Job Number:	Lot No. 18 DP 12979	Drawing Number:
204		**DA - 20**
	Scale: **N/A**	Issue: **A**

Project:
ALTERATIONS + ADDITIONS inc. SECONDARY DWELLING
5 Marine Parade Avalon Beach NSW 2107

Client:
Joe + Margaret Grech

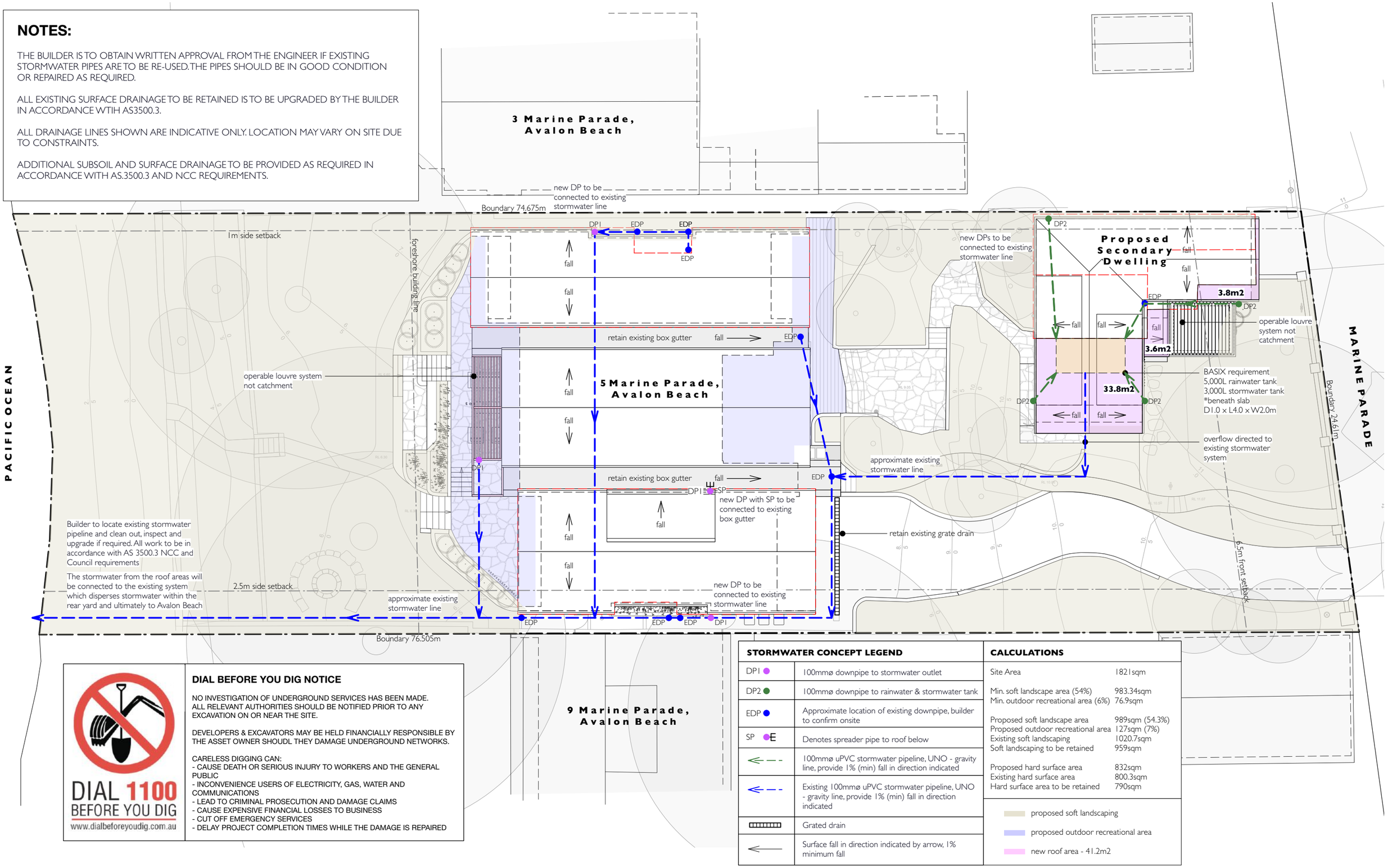
NOTES:

THE BUILDER IS TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER IF EXISTING STORMWATER PIPES ARE TO BE RE-USED. THE PIPES SHOULD BE IN GOOD CONDITION OR REPAIRED AS REQUIRED.

ALL EXISTING SURFACE DRAINAGE TO BE RETAINED IS TO BE UPGRADED BY THE BUILDER IN ACCORDANCE WTIH AS3500.3.

ALL DRAINAGE LINES SHOWN ARE INDICATIVE ONLY. LOCATION MAY VARY ON SITE DUE TO CONSTRAINTS.

ADDITIONAL SUBSOIL AND SURFACE DRAINAGE TO BE PROVIDED AS REQUIRED IN ACCORDANCE WITH AS.3500.3 AND NCC REQUIREMENTS.



DIAL BEFORE YOU DIG NOTICE

NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE.

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOUDL THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN:
- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGE CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

DIAL 1100 BEFORE YOU DIG
www.dialbeforeyoudig.com.au

STORMWATER CONCEPT LEGEND

DP1	100mmø downpipe to stormwater outlet
DP2	100mmø downpipe to rainwater & stormwater tank
EDP	Approximate location of existing downpipe, builder to confirm onsite
SP	Denotes spreader pipe to roof below
	100mmø uPVC stormwater pipeline, UNO - gravity line, provide 1% (min) fall in direction indicated
	Existing 100mmø uPVC stormwater pipeline, UNO - gravity line, provide 1% (min) fall in direction indicated
	Grated drain
	Surface fall in direction indicated by arrow, 1% minimum fall

CALCULATIONS

Site Area	1821sqm
Min. soft landscape area (54%)	983.34sqm
Min. outdoor recreational area (6%)	76.9sqm
Proposed soft landscape area	989sqm (54.3%)
Proposed outdoor recreational area	127sqm (7%)
Existing soft landscaping	1020.7sqm
Soft landscaping to be retained	959sqm
Proposed hard surface area	832sqm
Existing hard surface area	800.3sqm
Hard surface area to be retained	790sqm

proposed soft landscaping
proposed outdoor recreational area
new roof area - 41.2m2

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Revisions:

Issue:	Date:	Amendment:
A	26.06.25	DA issue

Drawing:
STORMWATER MANAGEMENT PLAN - SITE DRAINAGE PLAN

Job Number:	Lot No. 18 DP 12979	Drawing Number:
204		**DA - 21**
	Scale: **1:200 @ A3**	Issue: **A**

Project:
ALTERATIONS + ADDITIONS inc. SECONDARY DWELLING
5 Marine Parade Avalon Beach NSW 2107

Client:
Joe + Margaret Grech

BASIX COMMITMENTS - RWT + SWT

RAINWATER TANK (RWT)

The applicant must install a rainwater tank of at least 5000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.

The applicant must configure the rainwater tank to collect rain runoff from at least 62 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).

The applicant must configure the rainwater tank so that overflow is diverted to a stormwater tank.

STORMWATER TANK (SWT)

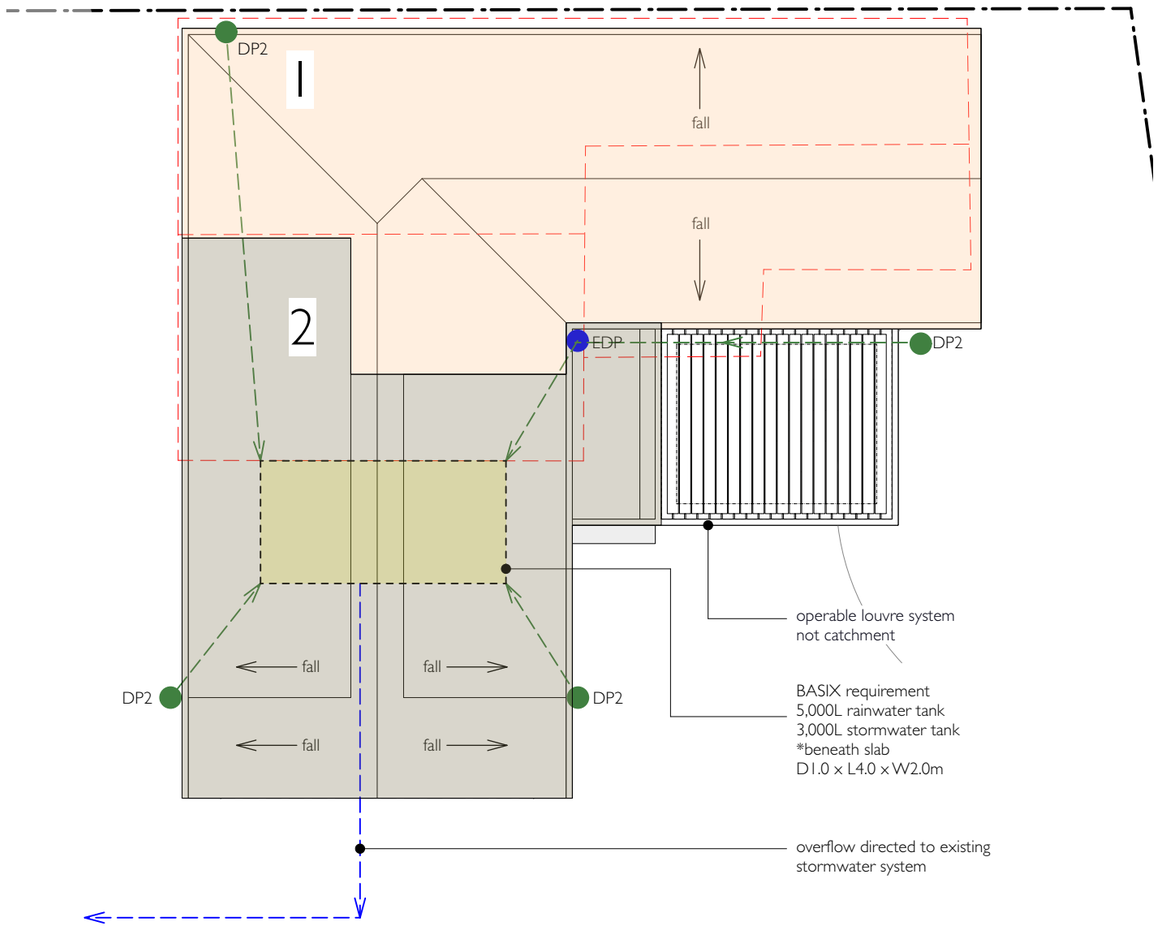
The applicant must install a stormwater tank with a capacity of at least 3000 litres on the site.

This stormwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.

The applicant must configure the stormwater tank to collect overflow from the rainwater tank.

The applicant must configure the stormwater tank to collect runoff from:
• at least 54 square metres of roof area of the development (excluding the area of the roof which drains to any rainwater tank or private dam)

STORMWATER CONCEPT LEGEND		ROOF CATCHMENT TABLE		
DP1	100mmø downpipe to stormwater outlet	KEY	CATCHMENT AREA	AREA TO DOWNPIPE
DP2	100mmø downpipe to rainwater & stormwater tank		1	62m2
EDP	Approximate location of existing downpipe, builder to confirm onsite			
SP	Denotes spreader pipe to roof below			
	100mmø uPVC stormwater pipeline, UNO - gravity line, provide 1% (min) fall in direction indicated			
	Existing 100mmø uPVC stormwater pipeline, UNO - gravity line, provide 1% (min) fall in direction indicated		2	54m2
	Grated drain			
	Surface fall in direction indicated by arrow, 1% minimum fall			



SECONDARY DWELLING ROOF PLAN

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Revisions:

Issue:	Date:	Amendment:
A	26.06.25	DA issue

Drawing:
STORMWATER MANAGEMENT PLAN - ROOF DRAINAGE PLAN

Job Number:	Lot No. 18 DP 12979	Drawing Number:
204		**DA - 22**
	Scale: **1:100 @ A3**	Issue: **A**

Project:
ALTERATIONS + ADDITIONS inc. SECONDARY DWELLING
5 Marine Parade Avalon Beach NSW 2107

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