


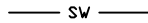

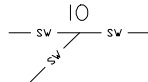
# 78 CHISHOLM AVE, AVALON BEACH

## STORMWATER MANAGEMENT PLAN

### DRAWING INDEX:

DR-000	LEGEND
DR-001	PIPE LAYOUT – LOWER GROUND FLOOR
DR-002	PIPE LAYOUT – GROUND FLOOR
DR-003	ROOF LAYOUT
DR-004	DETAILS
DR-005	SITE AREAS
DR-006	DRAINAGE CALCULATIONS


### LEGEND:

	DOWNPIPE
	STORMWATER PIPE
	DRAINAGE PIT
	INSPECTION OPENING

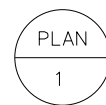
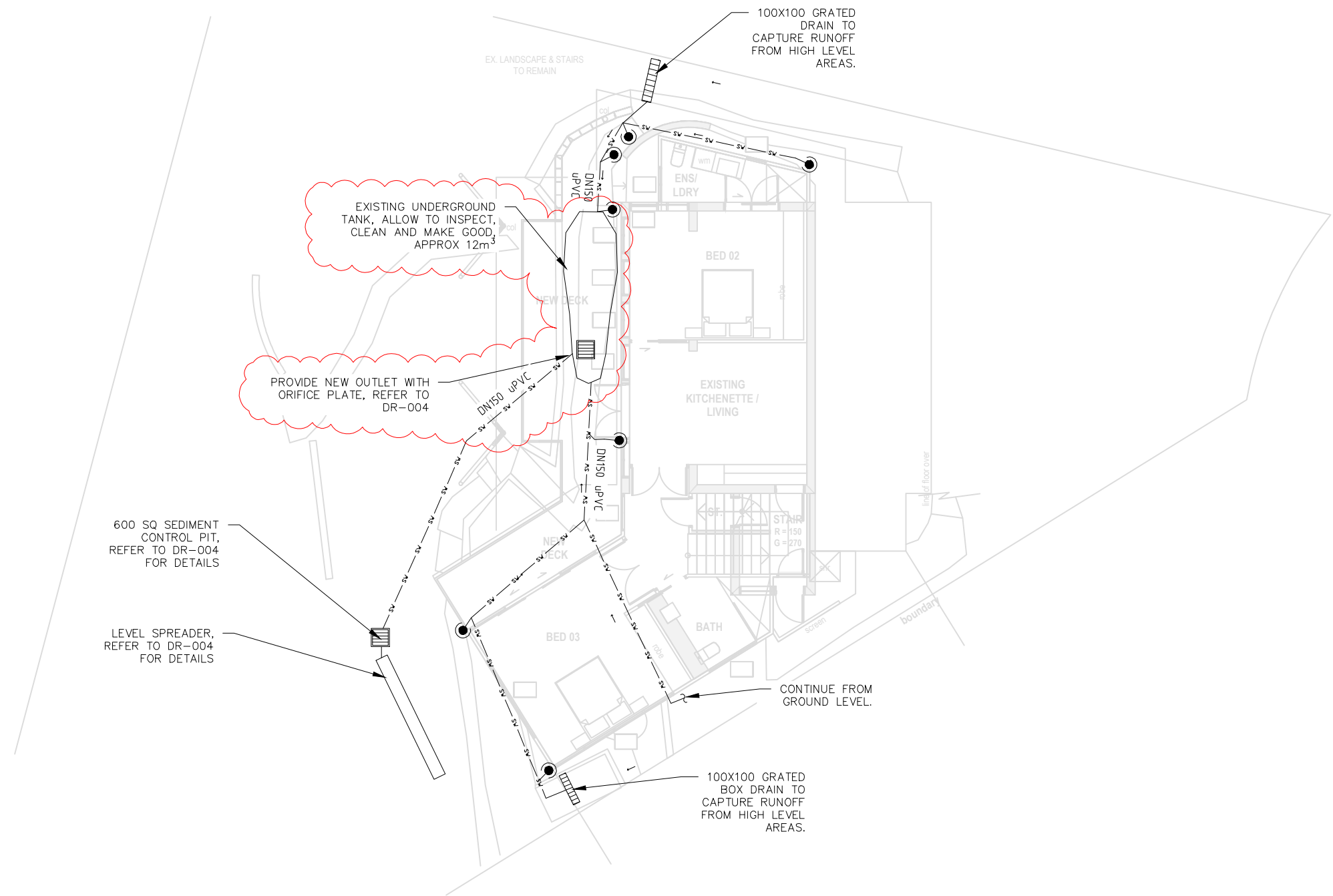
### NOTES:

- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
- SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY EJE ARCHITECTURE (NOVEMBER/2021)
- LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS, THE BUILDING CODE OF AUSTRALIA, MANUFACTURER'S RECOMMENDATIONS, SYDNEY CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND LOCAL COUNCIL, AS APPLICABLE.
- ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE LEVELS AND SYSTEM REQUIREMENTS.
- WHERE POSSIBLE, PIPEWORK SHALL BE LOCATED EXTERNAL TO THE BUILDING.
- DOWNPIPES AND STORMWATER LINES TO BE SEALED DN100 uPVC UNLESS OTHERWISE NOTED.
- STORMWATER PIPES TO BE GRADED AT A MINIMUM 1% UNLESS NOTED OTHERWISE.
- ALTERNATIVE GUTTER AND DOWNPIPE CONFIGURATION MAY BE INSTALLED PROVIDED IT COMPLIES WITH AS3500.
- ALL PIPE AND CONDUITS TO BE MARKED IN ACCORDANCE WITH AS1345 – 1995.
- TRENCHES AND SERVICE SEPARATIONS IN ACCORDANCE WITH AS/NZS 5601, AS/NZS 3500, AND AS/CA S009.

NOT FOR CONSTRUCTION


This drawing is confidential and shall only be used for the purposes of this project.					Scale  <b>NA</b>  DO NOT SCALE. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED	THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM				 Stellen Consulting ABN 61 149 095 189	This design complies with: AS3500.3:2021	78 CHISHOLM AVE, AVALON BEACH			
REVISIONS						DESIGNED	AM	CHECKED	YYA			LEGEND			
						DRAWN	AM	CHECKED	YYA			Size <b>A3</b>	Status <b>DA SUBMISSION</b>	Dwg No. <b>DR-000</b>	Rev. <b>1</b>
	1	AAB	15/08/2022	DA SUBMISSION	YYA	APPROVED	YYA	DATE	15/08/2022						
	0	AM	11/03/2022	DA SUBMISSION	YYA	No.	BY	DATE	DESCRIPTION	APPD					



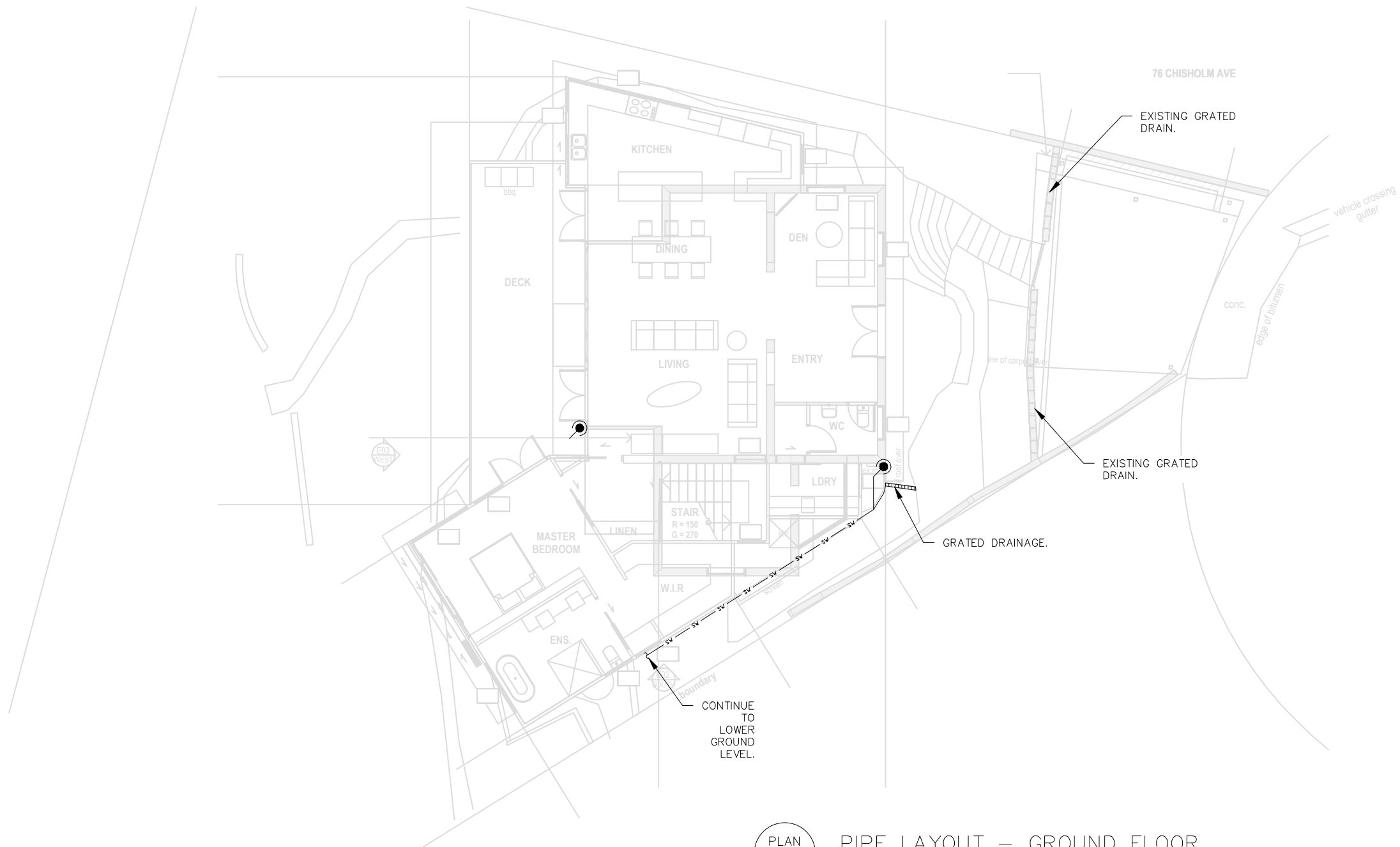


PIPE LAYOUT-LOWER GROUND FLOOR  
1:150

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1:150					DO NOT SCALE. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED				PIPE LAYOUT - LOWER GROUND FLOOR														
REVISIONS																							
	2	LES	13/10/2022	COUNCIL RFI																			
	1	AAB	08/09/2022	DA SUBMISSION																			
	0	AM	11/03/2022	DA SUBMISSION																			
	No.	BY	DATE	DESCRIPTION	APPD										Size	A3	Status	DA SUBMISSION	Dwg No.	DR-001	Rev.	2	





PLAN  
2

PIPE LAYOUT – GROUND FLOOR  
1: 150

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	No.	BY	DATE	DESCRIPTION	APPD

Scale  
**1:150**  
  
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APPROVED	YYA	DATE	11/03/2022



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AS3500.3:2021

78 CHISHOLM AVE, AVALON BEACH			
PIPE LAYOUT - GROUND FLOOR			
Size A3	Status DA SUBMISSION	Dwg No. DR-002	Rev. 0



NOMENCLATURE  
DP - DOWNPIPE  
EG - EAVES GUTTER  
  
Q100 - 100YR 5 MINUTE ARI FLOW RATE  
  
GUTTER SIZING  
EAVE GUTTER DESIGNED TO ARI (100YR:287mm/hr)  
EG1 - MIN CSA 10,000 mm<sup>2</sup>  
EG2 - MIN CSA 5,700 mm<sup>2</sup>

LEGEND

TYPE  
DIA

DOWNPIPE TYPE AND  
DIAMETER

➔

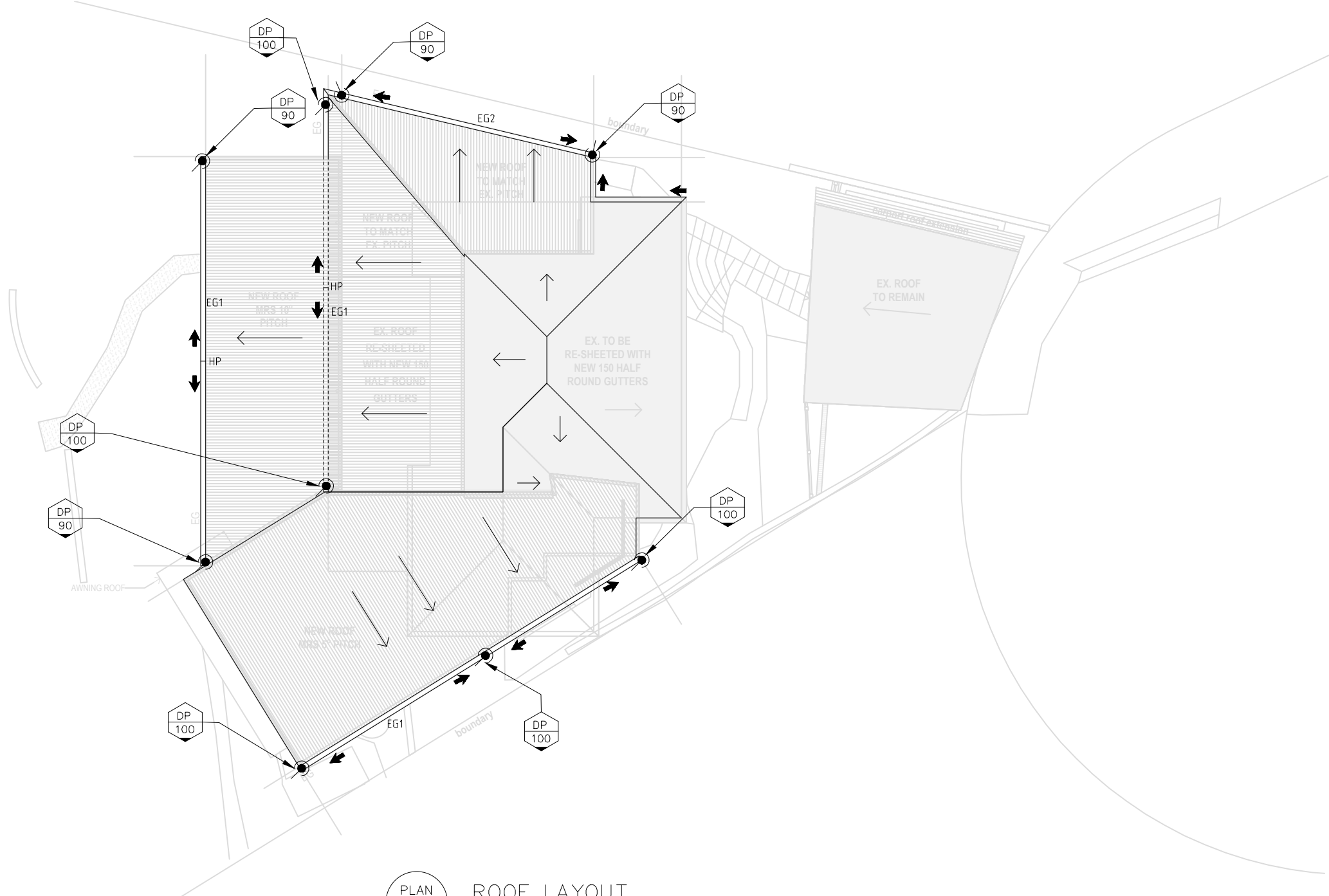
DIRECTION OF FALL

●

DOWNPIPE


●

LEVEL SPREADER

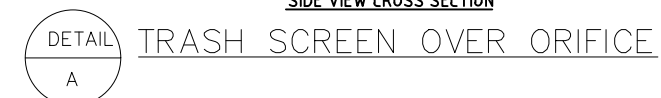


PLAN 3  
ROOF LAYOUT  
1:150

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REVISIONS						1:150	DESIGNED	AM	CHECKED	YYA	 Stellen Stellen Consulting ABN 61 149 095 189	ROOF LAYOUT				
							DRAWN	AM	CHECKED	YYA						
							APPROVED	YYA	DATE	11/03/2022						
0	AM	11/03/2022	DA SUBMISSION			YYA	DO NOT SCALE. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED									
No.	BY	DATE	DESCRIPTION			APPD										
Size		A3		Status		DA SUBMISSION		Drwg No.		DR-003		Rev.		0		





- DETAIL TYPICAL LEVEL SPREADER DETAIL PLAN VIEW  
4 NOT TO SCALE

Size <b>A3</b>	Status <b>DA SUBMISSION</b>	Drg No. <b>DR-004</b>	Re <b>Revised</b>
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PLAN  
5  
CATCHMENT PLAN – PROPOSED  
1: 200

**EXISTING**  
SITE AREA: 745.64 m<sup>2</sup>

**LEGEND**

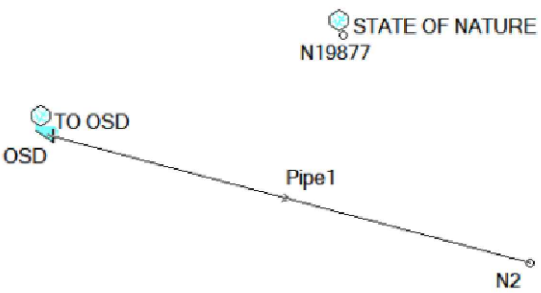
- PERVIOUS - TO OSD 68.5m<sup>2</sup>
- IMPERVIOUS TO OSD 311.5 m<sup>2</sup>
- UNDEVELOPED AREA (OUTSIDE OF CALCULATIONS)

TABLE 1				
PRE AND POST DEVELOPMENT FLOWS				
AEP	STATE OF NATURE, PSD (l/s)	POST DEVELOPED FLOWS (l/s)		
		OSD	BYPASS	TOTAL
0.2 EY	10	7	0(NOTE 4)	7
5%	17	8	0(NOTE 4)	8
1%	24	10	0(NOTE 4)	10

**NOTES:**

- PSD CALCULATED USING 0.2 EY EVENT STATE OF THE NATURE CASE
- REFER TO DR-006 FOR DRAINAGE CALCULATIONS SUMMARY.
- OSD DESIGNED USING HYDRAULIC MODELING SOFTWARE "DRAINS" BY WATERCOM
- EXISTING UNDEVELOPED AREAS NOT INCLUDED IN THE CALCULATIONS AS PER COUNCIL RECOMMENDATION.





DRAINS – DATA

Detention Basin

Data

Initial Water Level

Infiltration Data

Name

OSD

Low Level Outlet Type (connecting to a pipe)

☒ Office

☐ Pit/Sump

☐ Circular culvert

☐ Rectangular culvert

☐ Other or None

Dia. (mm)

30

Centre Elev. (m)

10.15

Office Sizing Wizard

Elev. (m)

Surf. Area (sq. m)

1

10.1

6.2

2

11.9

6.2

3

4

5

6

7

8

Paste Table

☐ High Early Discharge

Notes

Note: The prismatic formula is used to calculate volumes from surface areas. Click Help for more details.

OK

Cancel

Apply

Help

Time (mins)	Volume (cu.m)
0	0.0
10	3.5
20	9.5
25	10.5
30	9.0
40	4.5
50	1.0
60	0.0

DRAINS – STORAGE VOLUME (1% AEP)

DRAINS – RESULTS (1% AEP)

DRAINS – RESULTS (5% AEP)

DRAINS – RESULTS (0.2 EY)

NOTE:  
DRAINAGE CALCULATION WAS UNDERTAKEN  
USING DRAINS BY WATERCOM.

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REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
2	LES	13/10/2022	COUNCIL RFI	LES
1	AAB	08/09/2022	DA SUBMISSION	YYA
0	AAB	15/08/2022	DA SUBMISSION	YYA

Scale

1:200

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APPROVED	YYA	DATE	13/10/2022

Stellen Consulting ABN 61 149 095 189

This design complies with:  
AS3500.3:2021

78 CHISHOLM AVE, AVALON BEACH

DRAINAGE CALCULATION

Size	A3	Status	DA SUBMISSION	Dwg No.	DR-006	Rev.	2
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