

PROJECT: PRESIDENT PRIVATE HOSPITAL DEVELOPMENT, KIRRAWEE

PLANSET: CONCEPT STORMWATER PLAN

CLIENT: MACQUARIE HEALTH CORPORATION

DRAWINGS LIST		
DWG NO.	REV	DWG TITLE
GENERAL		
PS01-A000	A	COVER SHEET
DRAINAGE WORK		
PS01-E100	A	DRAINAGE PLAN
PS01-E200	A	DRAINAGE DETAILS
PS01-E600	A	OSD CATCHMENT PLAN AND DETAILS
PS01-E700	A	WATER QUALITY CATCHMENT PLAN AND DETAILS




LOCALITY PLAN
NOT TO SCALE

LGA: SUTHERLAND SHIRE COUNCIL

369-381 PRESIDENT AVE, 61-65 HOTHAM ST &
2-4 BIDURGAL ST, KIRRAWEE, NSW

LOT 1 DP 841502

STAGE SIGNIFICANT DEVELOPMENT APPLICATION

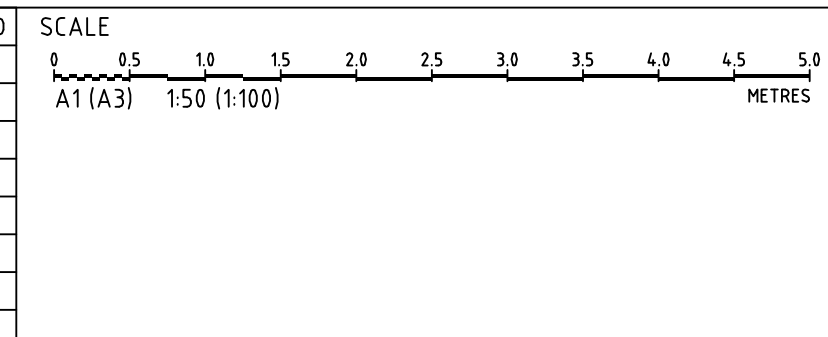
REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	<div><div>Consulting Engineers Environment Water Geotechnical Civil</div><div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div></div>	DRAWING TITLE				
A	INITIAL RELEASE	26/06/2020	GM	ZH	SL	TH		---	---	TH	MACQUARIE HEALTH CORPORATION		COVER SHEET				
								DISCLAIMER & COPYRIGHT					PROJECT NAME/PLANSET TITLE				
								This plan must not be used for construction unless signed as approved by principal certifying authority.					PRESIDENT PRIVATE HOSPITAL DEV.				
								All measurements in millimetres unless otherwise specified.					CONCEPT STORMWATER PLAN				
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A1 / A3 LANDSCAPE [A1,C_v02.0.01]														DRAWING ID: P1907286-PS01-R01-A000			

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A1 / A3 LANDSCAPE (A1L_C_v02.0.01)

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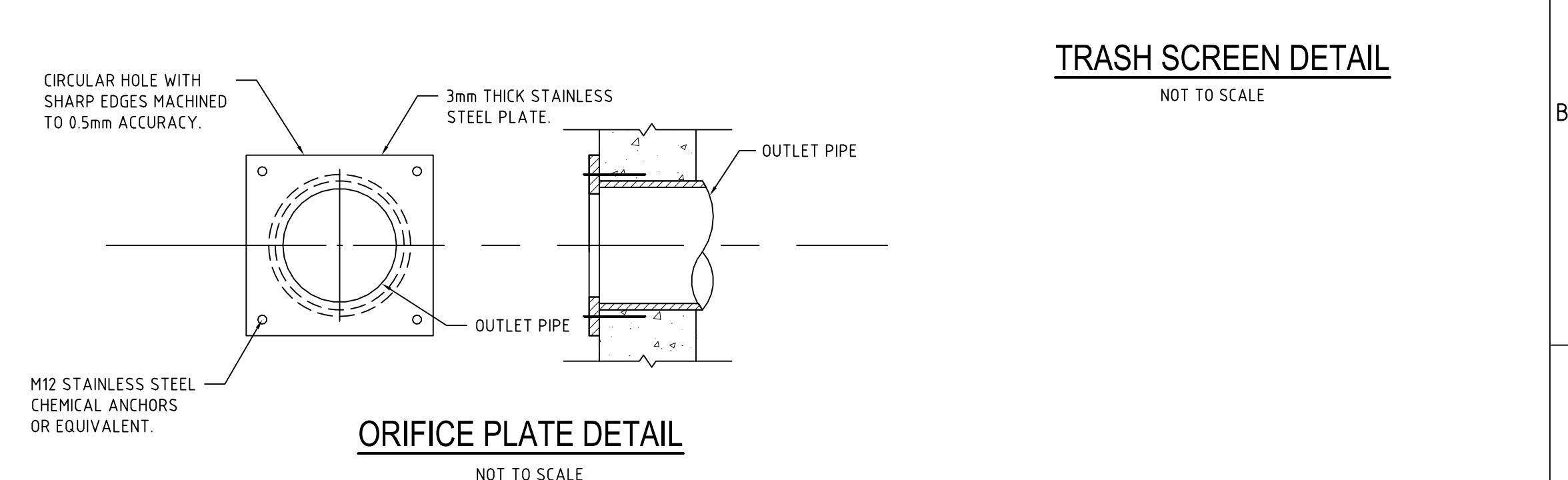
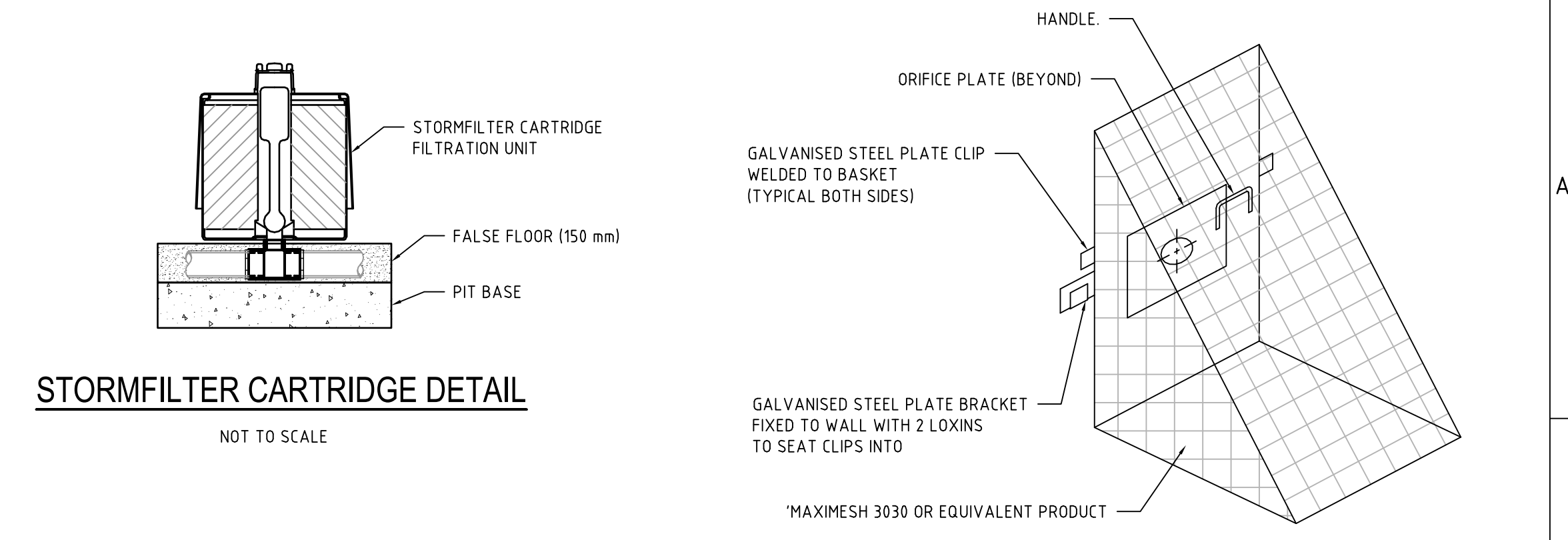
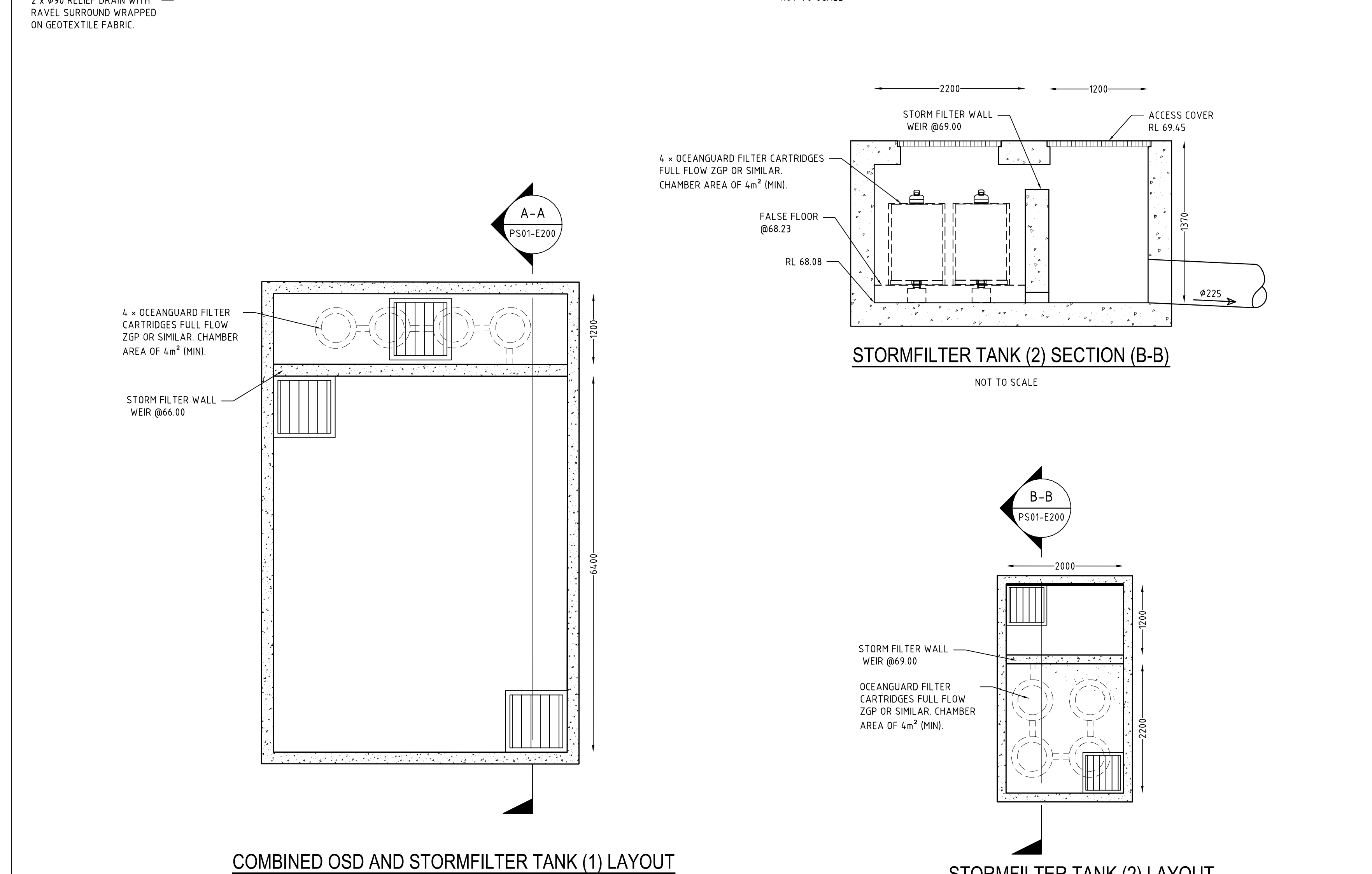
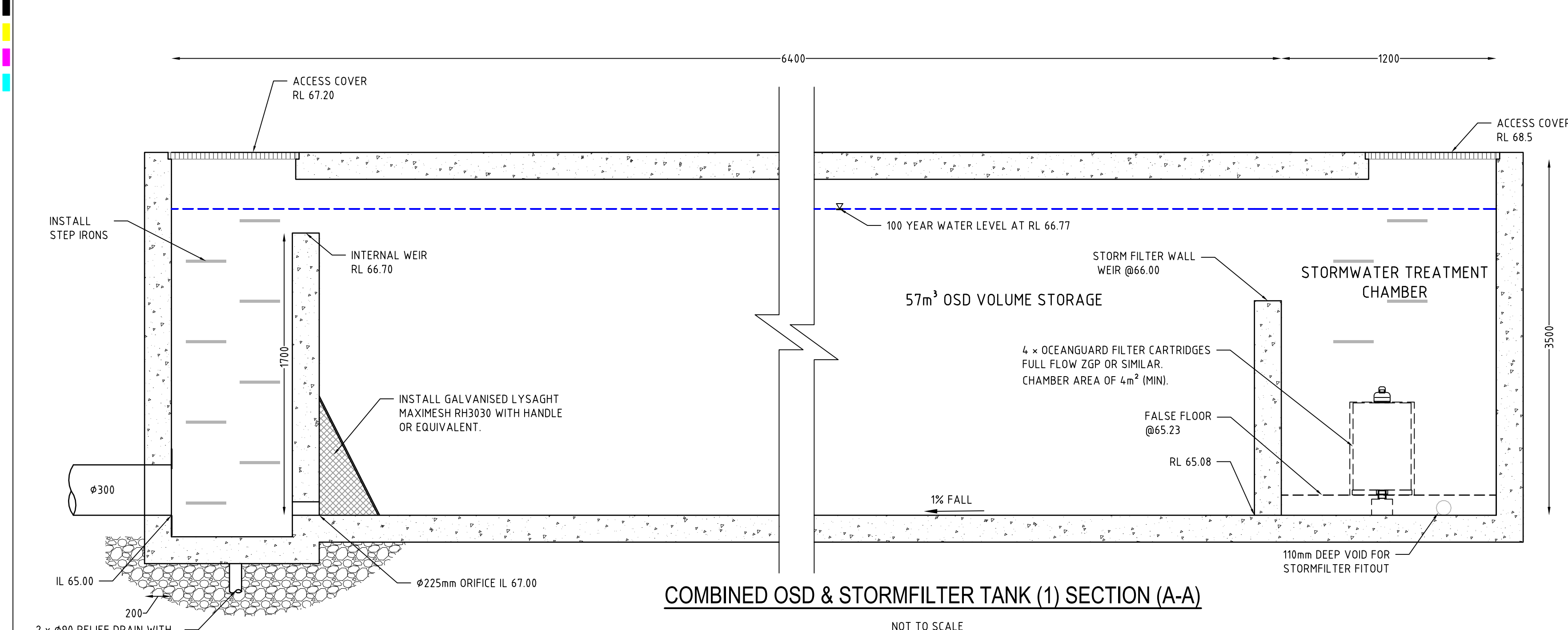


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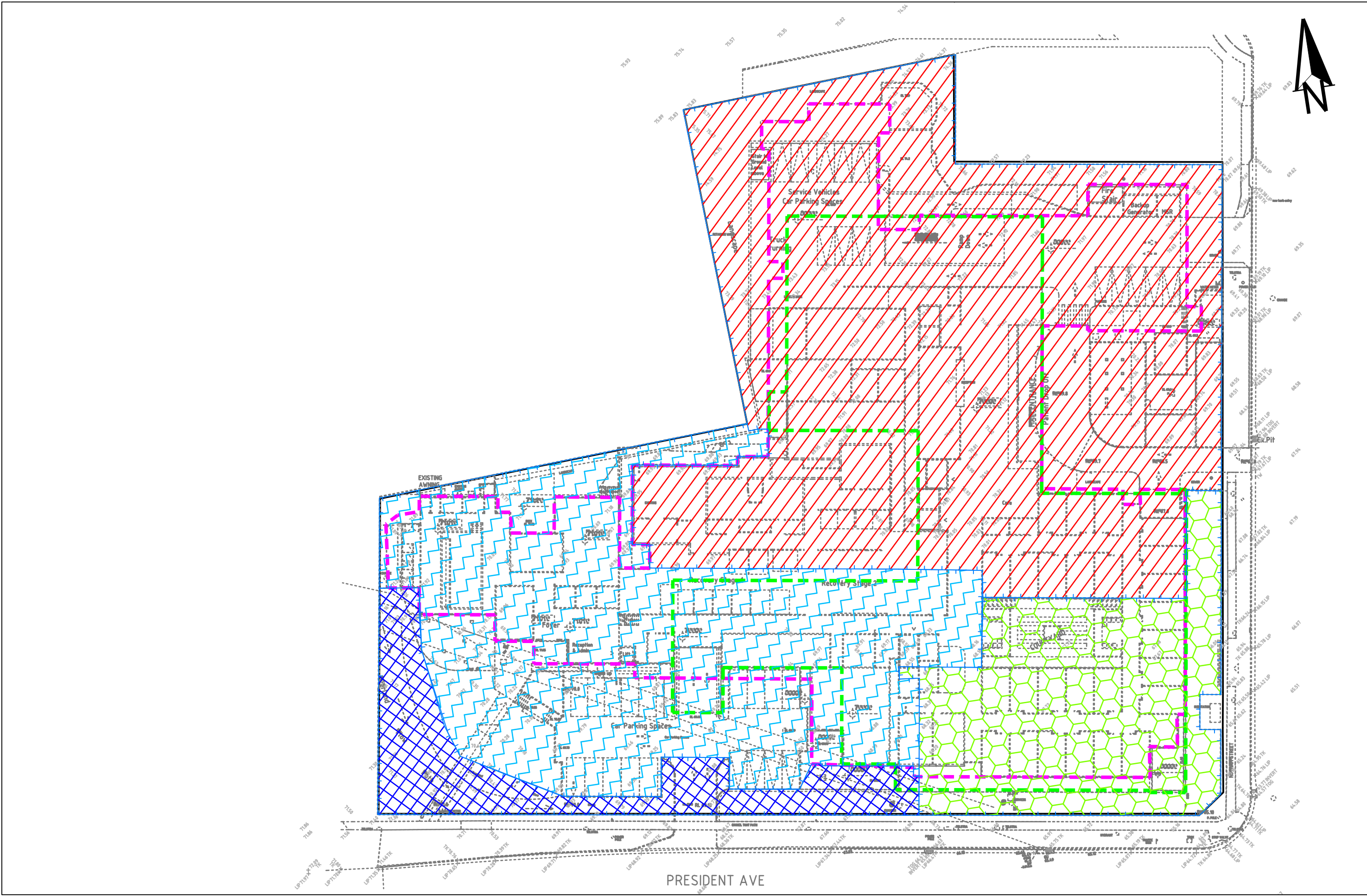
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DRAWING TITLE				
DRAINAGE DETAILS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907286	PS01	R01	PS01-E200	A

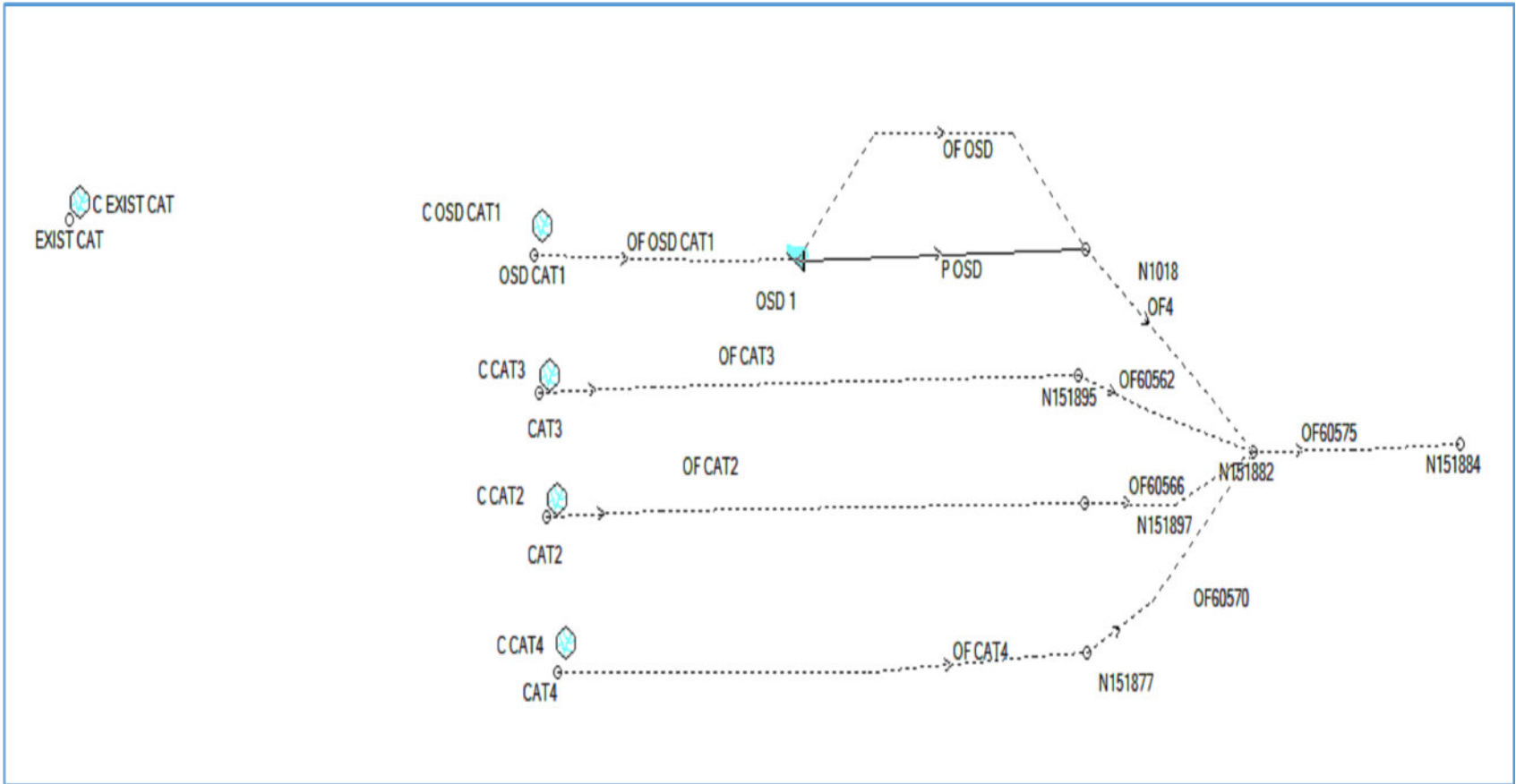
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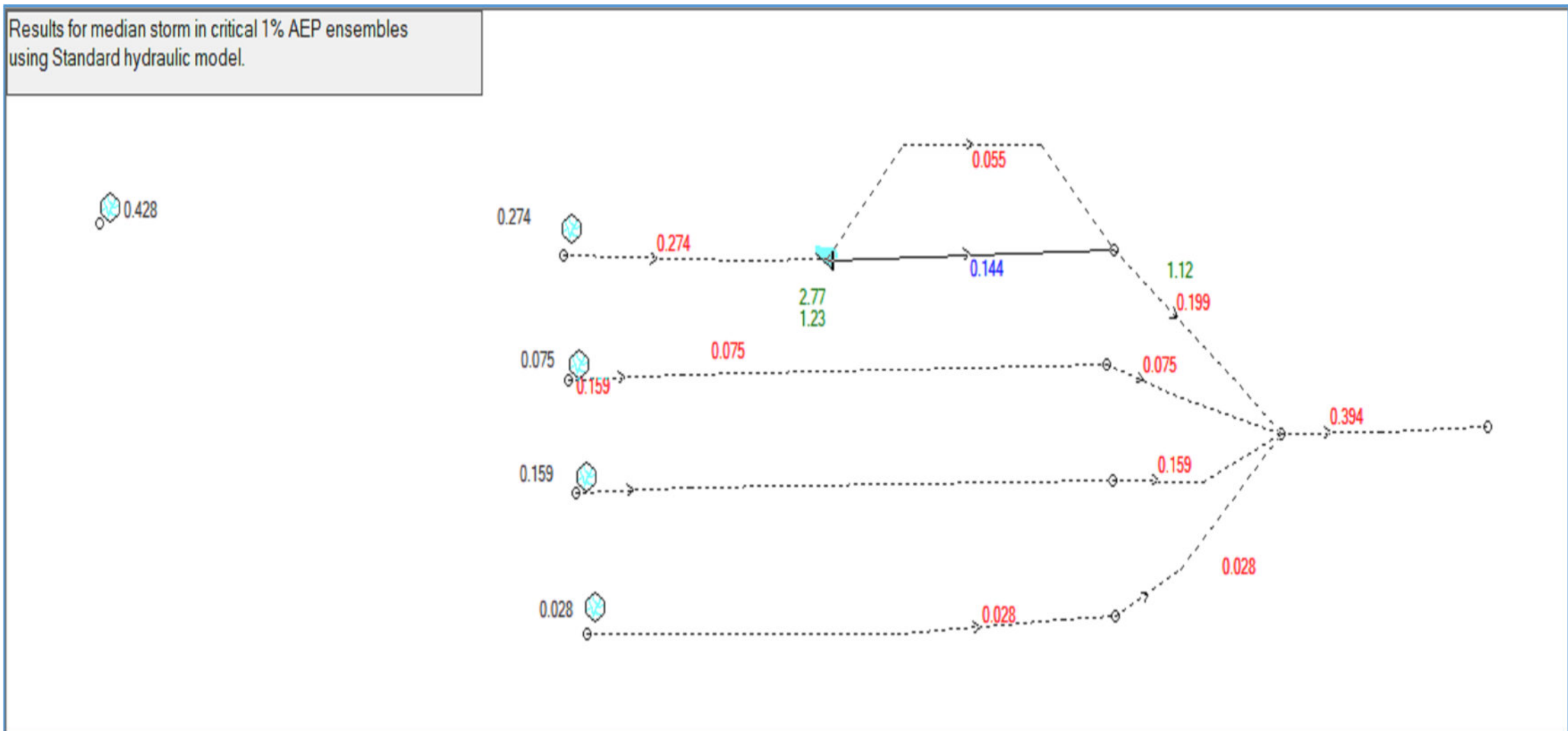
STAGE SIGNIFICANT DEVELOPMENT APPLICATION



POST-DEVELOPMENT OSD CATCHMENT PLAN



PRE VS POST-DEVELOPMENT LAYOUT PLAN (P1907286DRN01V01)



PRE VS POST-DEVELOPMENT RESULT 1%AEP (P1907286DRN01V01)

POST DEVELOPMENT (P1907286DRN01V01)			
	DRAINS CAT.	AREA (HA)	% PAVED 1
	C OSD CAT1	0.479	90
	C CAT 3	0.131	90
	C CAT 2	0.279	90
	C CAT 4	0.063	0
TOTAL AREA		0.952	
TOTAL IMPERVIOUS AREA		0.800	84.1 = % OF OVERALL AREA
TOTAL PERVIOUS AREA		0.152	15.9 = % OF OVERALL AREA
NOTE1: ADDITIONAL PAVED AERA APPLIED TO PROPOSED CATCHMENT FOR CONSERVATIVE DESIGN PURPOSE			

DRAIN'S MODEL RESULT COMPARISON (P1907286DRN01V01)			
%AEP	PRE-DEVELOPMENT PEAK FLOW RATE	POST DEVELOPMENTPEAK FLOW RATE	FLOW RATE REDUCTION
1EY	0.15	0.15	0
0.5EY	0.196	0.196	0
0.2EY	0.245	0.235	0.01
10%	0.286	0.272	0.014
5%	0.329	0.307	0.022
2%	0.385	0.34	0.045
1%	0.428	0.394	0.034

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SCALE
0 5 10 15 20 25 30 35 40 45 50
A1 (A3) 1:500 (1:1,000) METRES

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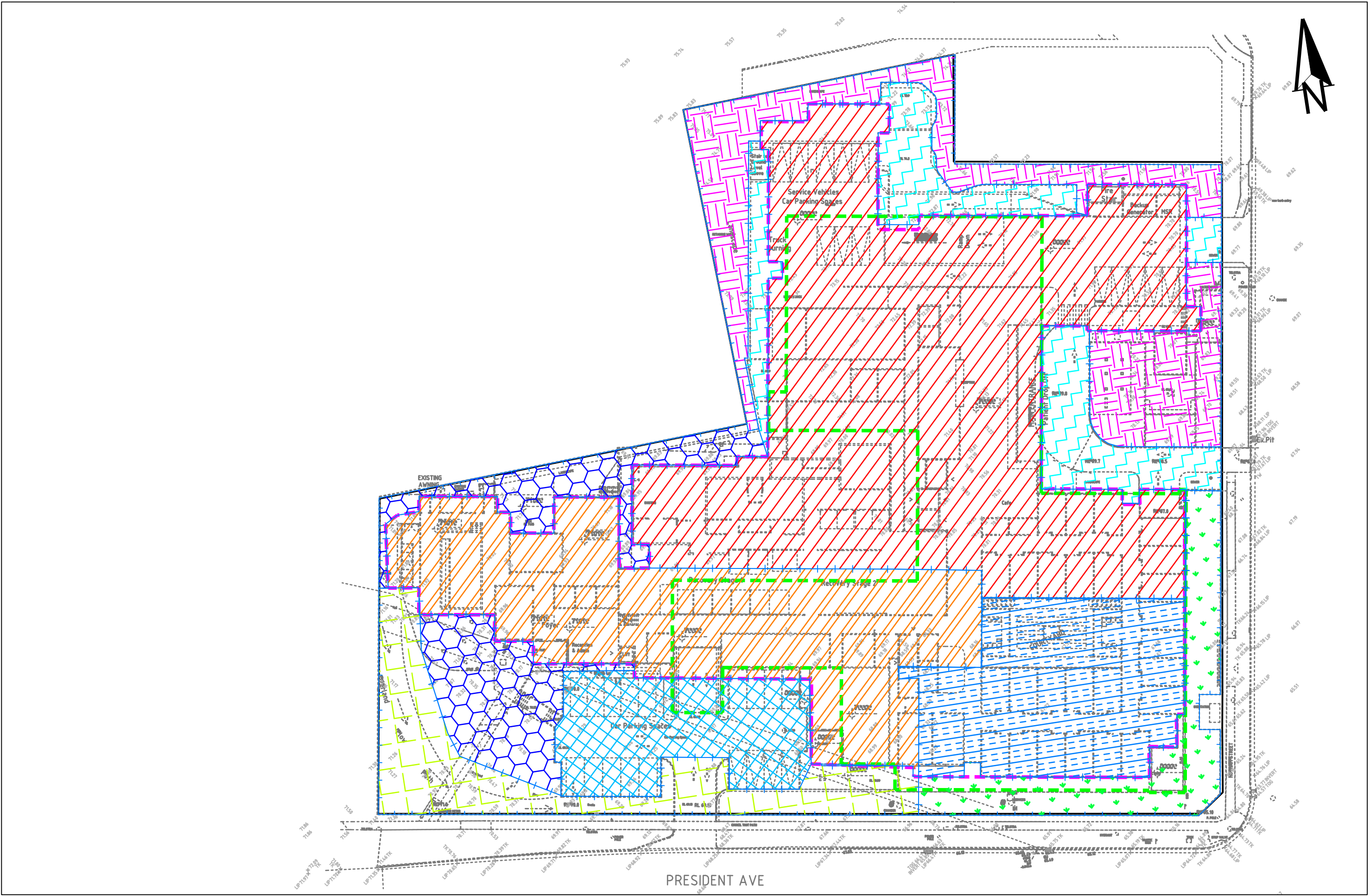
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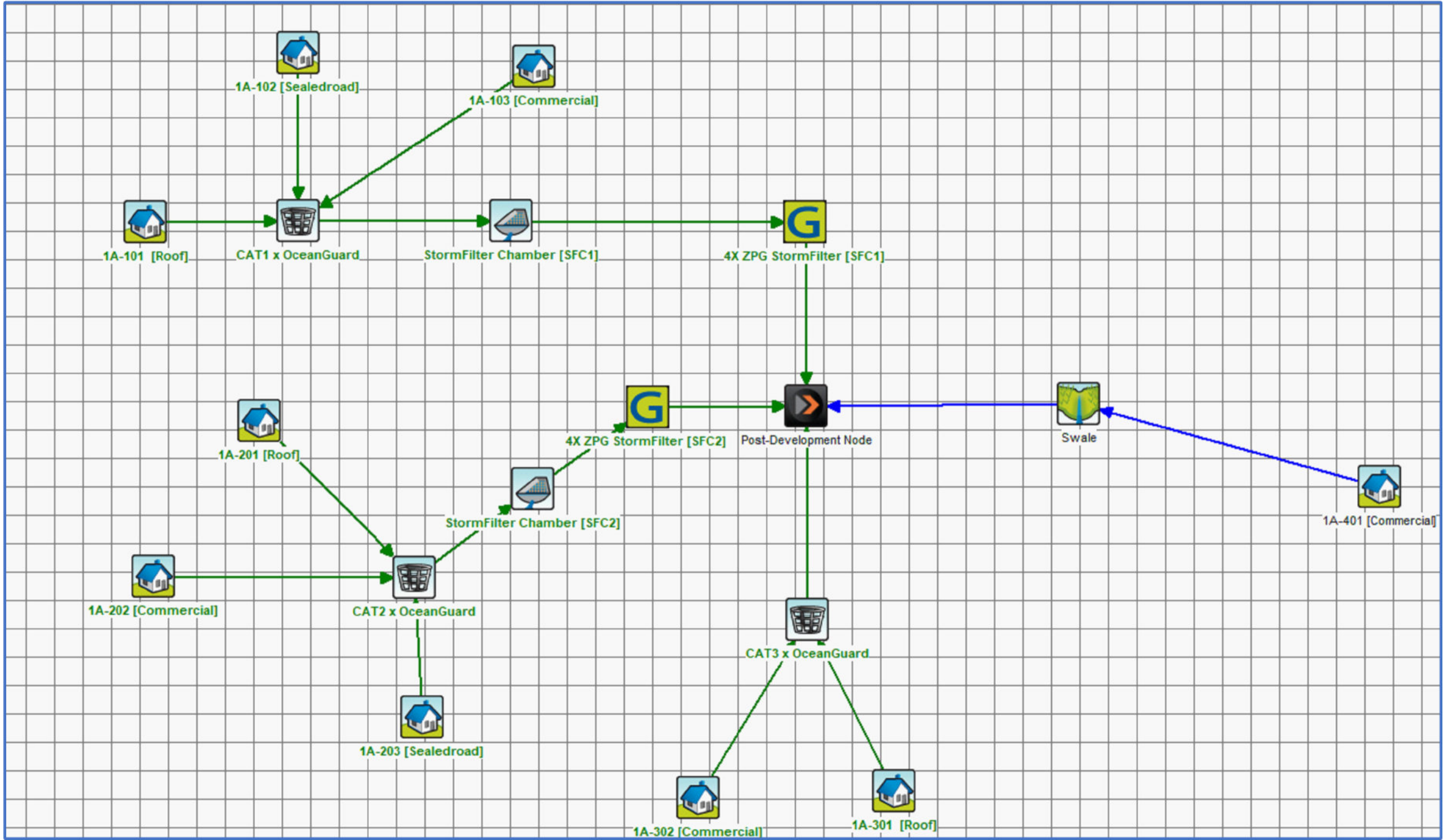
DRAWING TITLE				
OSD CATCHMENT PLAN AND DETAILS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907286	PS01	R01	PS01-E600	A

DRAWING ID: P1907286-PS01-R01-E600



POST-DEVELOPMENT MUSIC CATCHMENT PLAN

MUSIC CATCHMENTS (P1907286MUS01V01)					
KEY	DESCRIPTION	MUSIC NODE ID	AREA (ha)	IMPERVIOUS %	MUSIC NODE REFERENCE
	CAT 1 TO SFC1	1A-101 ROOF	0.324	100	
	CAT 1 TO SFC1	1A-102 ROAD	0.067	100	
	CAT 1 TO SFC1	1A-103 GRASS	0.088	20	
	CAT 2 TO SFC2	1A-201 ROOF	0.157	100	
	CAT 2 TO SFC2	1A-202 ROAD	0.054	100	
	CAT 2 TO SFC2	1A-203 GRASS	0.067	45.0	
	CAT 3 TO SFC3	1A-301 ROOF	0.085	100.0	
	CAT 3 TO SFC3	1A-302 GRASS	0.046	20.0	
	CAT 4	1A-401 GRASS	0.063	20.0	
TOTAL SITE					
TOTAL - OVERALL			0.952	0.9518	= 100 % OF OVERALL AREA
TOTAL - IMPERVIOUS			75.79880752	0.721	76 % OF OVERALL AREA
TOTAL - PERVIOUS			24.201	0.230	24 % OF OVERALL AREA



MUSIC LAYOUT (P1907286MUS01V01)

Treatment Train Effectiveness - Post-Development Node			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	14.7	11.9	19
Total Suspended Solids (kg/yr)	1540	302	80.4
Total Phosphorus (kg/yr)	3.58	1.43	60
Total Nitrogen (kg/yr)	31.4	17.9	43
Gross Pollutants (kg/yr)	330	0.0362	100

MUSIC RESULT (P1907286MUS01V01)

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DRAWING TITLE				
WATER QUALITY CATCHMENT PLAN AND DETAILS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907286	PS01	R01	PS01-E700	A

DRAWING ID: P1907286-PS01-R01-E700