AMKAD GROUP
CONSULTING - CONSTRUCTION - MANAGEMENT
ABN 34 640 227 158
81 Mornington Street
North Geelong, Vic. 3215
Phone (03) 5277 0769

PMDL Pty. Ltd.

Stormwater Management Plan for

Proposed Stage 1a Development Mackillop Family Services, Geelong Campus

Project No: 26012

January 2026

Document Name: 26012-DC01

AMKAD Group Pty Ltd
ABN 34 640 227 158
81 Mornington Street
North Geelong VIC 3215
Tel +61 3 5277 0769

1) **Design Criteria for Stormwater Management Plan**

a) Stormwater for the proposed Stage 1A development to be discharged into the existing internal stormwater drainage system, to be determined during the drainage design and documentation phase.

b) On-site detention (OSD) to limit discharge to predevelopment flows from existing site for a 1:5y ARI, and a post development 1:5y ARI (20% AEP) as per the IDM for residential areas (clause 16.6).

c) Water sensitive urban design (WSUD) requirements to satisfy Clause 53.18

2) Stormwater Drainage Design (Stage 1a site area only)

a) Existing Site Area: = 1,300m^2

b) Rainfall Intensity: 1 in 5 Year ARI, (20% AEP) I_5 = 71mm/hr

c) Run-off Co-efficient:

Roof	= 1.0
Pavement	= 0.9
Landscaping	= 0.3

d) Maximum Site Discharge

- Existing Site Area

Roof	= 300m^2
Pavement	= 100m^2
Landscaping	= 900m^2
Total	= 1,300m^2

$$Q_e = \frac{300 \times 71 \times 1.0}{3600} + \frac{100 \times 71 \times 0.9}{3600} + \frac{900 \times 71 \times 0.3}{3600}$$

Q_e = 5.90 l/s + 1.8 l/s + 5.3 l/s

Q_e = 13 l/s

A total permissible discharge rate of 13 l/s shall be allowed for the Stage 1A site development area to discharge to the existing internal stormwater system.

3) On Site Detention – Stage 1a Building 9 Roof Area

a) Storage Requirements - Roof OSD

- Adopted discharge limit for roof area = 6.00 L/S
- Roof catchment area = 600m^2 (Building 9)
- 1 in 5 Year ARI Event
- The proposed building shall have a rainwater tank collecting roof water to be used for OSD and limited to a discharge rate of 6.00 l/s. The rainwater tank will then discharge into the proposed site OSD system.

Building 9 Roof

				Proposed Area	C	%
Area A =	600	m^2		Roof	1.0	100%
				Paving	0.9	0%
C_{ave} =	1.00			Lanscape	0.35	0%
Q_5 =	C_{ave}IA/3600 =		0.17	xI_5		
Q_{limit} =	6.0	L/sec		limit discharge for tank		

On Site Detention Calculation

Duration of Storm (min)	Intensity I_5 (mm/hr)	Runoff Rate Q_5 (L/s)	Q_{limit} L/s	Storage Vol Requirement m^3
5	71	11.83	6.0	1.75
6		0.00	6.0	Nil
10	53	8.83	6.0	1.70
15	43	7.17	6.0	1.05
30	28	4.67	6.0	Nil
60	18	3.00	6.0	Nil
120	11	1.83	6.0	Nil

Example Calculation Vol = (11.8333333333333-6)x5x60/1000 = 1.75m3

ORIFICE PLATE CALCULATIONS

Ao = Q/K(2gH)	therefore	Orifice Area =	0.0029	m3
		Orifice Diameter=	0.061	m
Ao = area of orifice		Check Velocity	2.07	m/s
K =	0.66			
Q = required flow	0.006	m^3/s		
g = gravity	9.81	m/s^2		
H = Head	0.5	m		

Orifice size = **60mm diameter**

Table 3.1 – Building 9 Roof Area

- Minimum tank storage volume required = 1,750 litres
- Therefore adopt 1,800 litres min storage.
- Tank to have a 60mm diameter orifice pipe to restrict flow.

4) **On Site Detention – Stage 1A Site**

a) Storage Requirements –

- Discharge Limit = 13.00 l/s to nominated LPOD via existing internal drains.
- 1 in 5 Year ARI
- Building roof area to discharge 6.0 l/s from rainwater OSD tanks into underground s/w system.
- Refer Table 4.1 for site areas
- Site catchment area = 1,300m^2 – 600m^2 (roof areas) = 5000m^2

Stage 1A Site

(- roof areas into tanks)

				Proposed Area (m2)		C	%
Area A =	700	m^2		Roof	0	1.0	0%
				Paving	200	0.9	29%
C_{ave} =	0.47			Lanscape	500	0.30	71%
Q_5 =	C_{ave}IA/3600 =		0.09	xI_{10}			
Q_{limit} =	13.0	L/sec		From existing areas			

On Site Detention Calculation

Duration of Storm (min)	Intensity I_5 (mm/hr)	Runoff Rate Q_5 (L/s)	Q_{limit} L/s	From Roofs (l/s)	Storage Vol Requirement m^3
5	71	6.51	13.0	6.0	Nil
6		0.00	13.0	6.0	Nil
10	53	4.86	13.0	6.0	Nil
15	43	3.94	13.0	6.0	Nil
30	28	2.57	13.0	6.0	Nil
60	18	1.65	13.0	6.0	Nil
120	11	1.01	13.0	6.0	Nil

Example Calculation Vol = (6.50833333333333-13)x5x60/1000 = Nilm3

ORIFICE PLATE CALCULATIONS

Ao = Q/K(2gH)	therefore	Orifice Area =	0.0063	m3
		Orifice Diameter=	0.089	m
Ao = area of orifice		Check Velocity	2.07	m/s
K =	0.66			
Q = required flow	0.013	m^3/s		
g = gravity	9.81	m/s^2		
H = Head	0.5	m		

Orifice size = **n/a**

Table 4.1 – Stage 1A Site Area

- Therefore no additional underground onsite storage or detention is required for the development.

5) **Water Sensitive Urban Design**

All Building roof run-off shall be collected and discharged into a proposed rainwater tank for re-use in the development for toilet flushing and garden irrigation.
Refer to Blue Factor report below for further details.
To further improve the Blue Factor report and achieve all objectives, including the Total suspended solids target of greater than 80%, all rainwater tank overflow will be connected into the raingarden for further treatment before discharging from site via the existing internal drainage system.

Project # 58BF7B31 - MFS - stage 1a
25 Oxford St, Whittington VIC 3219, Australia
28 January 2026 10:32 a.m.

BLUE FACTOR

MFS - stage 1a

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

151% SCORE

Project details

Name	MFS - stage 1a
Street address	25 Oxford St, Whittington VIC 3219, Australia
Municipality	Greater Geelong
Site area	1300 m^2
Planning Number	

Flow and pollutant load reductions

Item	Result	Target
Mean annual runoff volume harvested or evapotranspired (%)	43%	>28%
Mean annual runoff volume infiltrated or filtered (%)	14%	>9%
Total suspended solids (%)	77%	>80%
Total phosphorus (%)	69%	>45%
Total nitrogen (%)	68%	>45%
Total gross pollutants (%)	95%	>70%

Water treatment

Catchments

Building 9 Roof 600m2

Paved play area 300m2

bluefactor.com.au

Page 1 of 3

landscaping Pervious (garden and lawn), 400m2

Treatments

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 7

Raingarden 1 Area: 3 m^2, Extended detention depth: 0.3 m, Submerged zone depth: 0.3 m, Site soil type: Sandy loam

Buildings & dwellings

Building 9 Non-Residential BCA Class 5 - Commercial/Office, 30 employee(s)

Configuration 2

Paved play area 300m2

Raingarden 1 Area: 3 m^2, Extended detention depth: 0.3 m, Submerged zone depth: 0.3 m, Site soil type: Sandy loam,

Configuration 2

Building 9 Roof 600m2

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 7,

Building 9 Non-Residential BCA Class 5 - Commercial/Office, 30 employee(s)

Australian Government
Bureau of Meteorology

Location

Label: Not provided

Latitude: -38.1475 [Nearest grid cell: 38.1375 (S)]

Longitude:144.3527 [Nearest grid cell: 144.3625 (E)]

IFD Design Rainfall Intensity (mm/h)

Issued: 28 January 2026

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
FAQ for New ARR probability terminology

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	65.9	76.5	112	137	164	201	232
2 min	54.0	62.6	91.0	111	131	156	177
3 min	49.0	56.7	82.2	100	118	142	161
4 min	45.2	52.3	75.8	92.6	110	133	151
5 min	42.1	48.7	70.6	86.4	103	125	143
10 min	31.4	36.5	53.2	65.6	78.4	96.8	112
15 min	25.4	29.5	43.2	53.3	63.9	79.1	91.6
20 min	21.5	24.9	36.6	45.2	54.2	67.1	77.6
25 min	18.7	21.8	32.0	39.5	47.2	58.4	67.4
30 min	16.7	19.4	28.5	35.1	42.0	51.8	59.8
45 min	12.9	14.9	21.8	26.8	31.9	39.1	44.9
1 hour	10.7	12.4	17.9	21.9	26.1	31.8	36.4
1.5 hour	8.25	9.49	13.6	16.5	19.5	23.6	26.9
2 hour	6.91	7.90	11.2	13.5	15.9	19.2	21.8
3 hour	5.42	6.14	8.52	10.2	12.0	14.4	16.3
4.5 hour	4.29	4.82	6.57	7.82	9.11	10.9	12.4
6 hour	3.64	4.07	5.49	6.51	7.56	9.06	10.3
9 hour	2.89	3.22	4.30	5.07	5.87	7.05	7.99
12 hour	2.45	2.72	3.62	4.27	4.94	5.94	6.74
18 hour	1.92	2.13	2.85	3.36	3.89	4.68	5.32

Note:
The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.
* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

This page was created at **08:36 on Wednesday 28 January 2026 (AEDT)**

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PMDL Pty. Ltd.

Stormwater Management Plan for

Proposed Stage 1b Development Mackillop Family Services, Geelong Campus

Project No: 26012

January 2026

Document Name: 26012-DC02

AMKAD Group Pty Ltd
ABN 34 640 227 158
81 Mornington Street
North Geelong VIC 3215
Tel +61 3 5277 0769

1) **Design Criteria for Stormwater Management Plan**

a) Stormwater for the proposed Stage 1b development to be discharged into the existing internal stormwater drainage system, to be determined during the drainage design and documentation phase.

b) On-site detention (OSD) to limit discharge to predevelopment flows from existing site for a 1:5y ARI, and a post development 1:5y ARI (20% AEP) as per the IDM for residential areas (clause 16.6).

c) Water sensitive urban design (WSUD) requirements to satisfy Clause 53.18

2) Stormwater Drainage Design (Stage 1b site area only)

a) Existing Site Area: = 700m^2

b) Rainfall Intensity: 1 in 5 Year ARI, (20% AEP) I_5 = 71mm/hr

c) Run-off Co-efficient:

Roof	= 1.0
Pavement	= 0.9
Landscaping	= 0.3

d) Maximum Site Discharge

- Existing Site Area

Roof	=	350m^2
Pavement	=	350m^2
Landscaping	=	0m^2
Total	=	700m^2

$$Q_e = \frac{350 \times 71 \times 1.0}{3600} + \frac{350 \times 71 \times 0.9}{3600}$$

Q_e = 6.90 l/s + 6.2 l/s

Q_e = 13 l/s

A total permissible discharge rate of 13 l/s shall be allowed for the Stage 1b site development area to discharge to the existing internal stormwater system.

3) On Site Detention – Stage 1b Building 10 Roof Area

a) Storage Requirements - Roof OSD

- Adopted discharge limit for roof area = 6.00 L/S
- Roof catchment area = 500m² (Building 10)
- 1 in 5 Year ARI Event
- The proposed building shall have a rainwater tank collecting roof water to be used for OSD and limited to a discharge rate of 6.00 l/s. The rainwater tank will then discharge into the proposed site OSD system.

Building 10 Roof

(remainder direct to site)

				Proposed Area	C	%
Area A =	500	m²		Roof	1.0	100%
				Paving	0.9	0%
C_{ave} =	1.00			Lanscape	0.35	0%
Q_5 =	$C_{ave}IA/3600$ =		0.14	xI_5		
Q_{limit} =	6.0	L/sec		limit discharge for tank		

On Site Detention Calculation

Duration of Storm (min)	Intensity I_5 (mm/hr)	Runoff Rate Q_5 (L/s)	Q_{limit} L/s	Storage Vol Requirement m³
5	71	9.86	6.0	1.16
6		0.00	6.0	Nil
10	54	7.50	6.0	0.90
15	43	5.97	6.0	Nil
30	29	4.03	6.0	Nil
60	18	2.50	6.0	Nil
120	11	1.53	6.0	Nil

Example Calculation Vol = (9.86111111111111-6)x5x60/1000 = 1.15833333333333m3

ORIFICE PLATE CALCULATIONS

Ao = Q/K(2gH)	therefore	Orifice Area =	0.0026	m3
		Orifice Diameter=	0.058	m
Ao = area of orifice		Check Velocity	2.26	m/s
K =	0.66			
Q = required flow	0.006	m³/s		
g = gravity	9.81	m/s²		
H = Head	0.6	m		

Orifice size = **60mm diameter**

Table 3.1 – Building 10 Roof Area

- Minimum tank storage volume required = 1,160 litres
- Therefore adopt 1,200 litres min storage.
- Tank to have a 60mm diameter orifice pipe to restrict flow.

4) **On Site Detention – Stage 1B Site**

a) Storage Requirements –

- Discharge Limit = 13.00 l/s to nominated LPOD via existing internal drains.
- 1 in 5 Year ARI
- Building roof area to discharge 6.0 l/s from rainwater OSD tanks into underground s/w system.
- Refer Table 4.1 for site areas
- Site catchment area = 700m^2 – 500m^2 (roof areas) = 200m^2

Stage 1B site

(- roof areas into tanks)

				Proposed Area (m2)		C	%
Area A =	200	m^2		Roof	0	1.0	0%
				Paving	200	0.9	100%
C_{ave} =	0.90			Lanscape	0	0.30	0%

Q_5 = $C_{ave}IA/3600$ = 0.05 xI_{10}

Q_{limit} = 13.0 L/sec From existing areas

On Site Detention Calculation

Duration of Storm (min)	Intensity I_5 (mm/hr)	Runoff Rate Q_5 (L/s)	Q_{limit} L/s	From Roofs (l/s)	Storage Vol Requirement m^3
5	71	3.55	13.0	6.0	Nil
6		0.00	13.0	6.0	Nil
10	54	2.70	13.0	6.0	Nil
15	43	2.15	13.0	6.0	Nil
30	29	1.45	13.0	6.0	Nil
60	18	0.90	13.0	6.0	Nil
120	11	0.55	13.0	6.0	Nil

Example Calculation Vol = (3.55-13)x5x60/1000 = Nilm3

ORIFICE PLATE CALCULATIONS

Ao = Q/K(2gH) therefore

Ao = area of orifice

Orifice Area =	0.0057			m3
Orifice Diameter=	0.085			m
Check Velocity	2.26			m/s

K = 0.66

Q = required flow 0.013 m^3/s

g = gravity 9.81 m/s^2

H = Head 0.6 m

Orifice size = **N/A**

Table 4.1 – Stage 1B Site Area

Therefore no additional underground onsite storage or detention is required for the development.

5) **Water Sensitive Urban Design**

All Building roof run-off shall be collected and discharged into a proposed rainwater tank for re-use in the development for toilet flushing and garden irrigation.
Refer to Blue Factor report below for further details.
To further improve the Blue Factor report and achieve all objectives, including the Total suspended solids target of greater than 80%, all rainwater tank overflow will be connected into the raingarden for further treatment before discharging from site via the existing internal drainage system.

Project # D0529498 - MFS - Stage 1B
25 Oxford St, Whittington VIC 3219, Australia
28 January 2026 10:38 a.m.

BLUE FACTOR

MFS - Stage 1B

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

125% SCORE

Project details

Name	MFS - Stage 1B
Street address	25 Oxford St, Whittington VIC 3219, Australia
Municipality	Greater Geelong
Site area	700 m^2
Planning Number	

Flow and pollutant load reductions

Item	Result	Target
Mean annual runoff volume harvested or evapotranspired (%)	54%	>28%
Mean annual runoff volume infiltrated or filtered (%)	0%	>9%
Total suspended solids (%)	68%	>80%
Total phosphorus (%)	64%	>45%
Total nitrogen (%)	56%	>45%
Total gross pollutants (%)	96%	>70%

Water treatment

Catchments

Building 10 Roof, 600m2

Catchment 2 Pervious (garden and lawn), 100m2

bluefactor.com.au Page 1 of 2

Treatments

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 7

Buildings & dwellings

Building 10 Non-Residential BCA Class 5 - Commercial/Office,
20 employee(s)

Configuration 1

Building 10 Roof, 600m2

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 7,

Building 10
Non-Residential BCA Class 5 - Commercial/Office,
20 employee(s)

Australian Government
Bureau of Meteorology

Location

Label: Not provided

Latitude: -38.1475 [Nearest grid cell: 38.1375 (S)]

Longitude: 144.3527 [Nearest grid cell: 144.3625 (E)]

IFD Design Rainfall Intensity (mm/h)

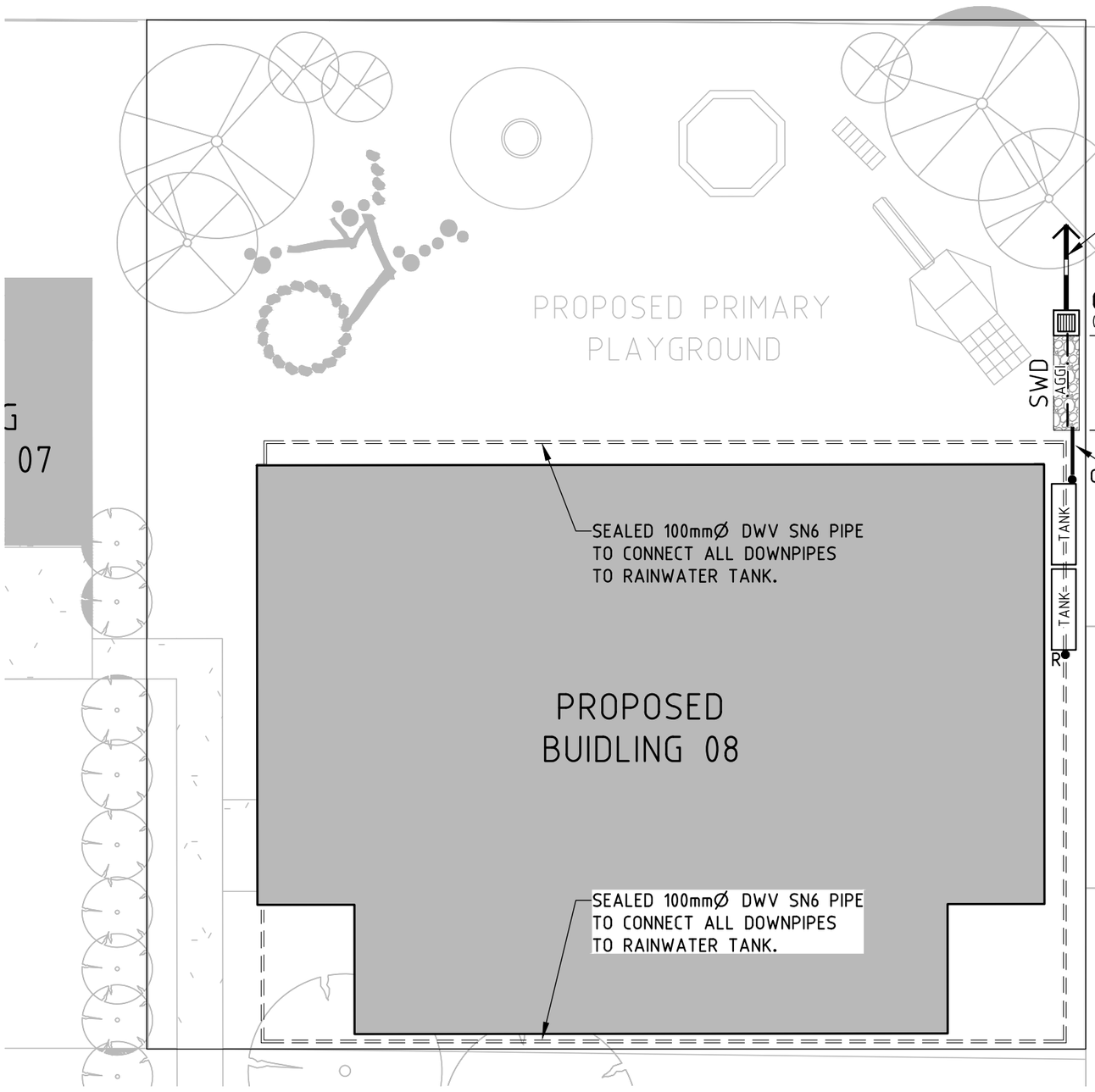
Issued: 28 January 2026

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
FAQ for New ARR probability terminology

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	65.9	76.5	112	137	164	201	232
2 min	54.0	62.6	91.0	111	131	156	177
3 min	49.0	56.7	82.2	100	118	142	161
4 min	45.2	52.3	75.8	92.6	110	133	151
5 min	42.1	48.7	70.6	86.4	103	125	143
10 min	31.4	36.5	53.2	65.6	78.4	96.8	112
15 min	25.4	29.5	43.2	53.3	63.9	79.1	91.6
20 min	21.5	24.9	36.6	45.2	54.2	67.1	77.6
25 min	18.7	21.8	32.0	39.5	47.2	58.4	67.4
30 min	16.7	19.4	28.5	35.1	42.0	51.8	59.8
45 min	12.9	14.9	21.8	26.8	31.9	39.1	44.9
1 hour	10.7	12.4	17.9	21.9	26.1	31.8	36.4
1.5 hour	8.25	9.49	13.6	16.5	19.5	23.6	26.9
2 hour	6.91	7.90	11.2	13.5	15.9	19.2	21.8
3 hour	5.42	6.14	8.52	10.2	12.0	14.4	16.3
4.5 hour	4.29	4.82	6.57	7.82	9.11	10.9	12.4
6 hour	3.64	4.07	5.49	6.51	7.56	9.06	10.3
9 hour	2.89	3.22	4.30	5.07	5.87	7.05	7.99
12 hour	2.45	2.72	3.62	4.27	4.94	5.94	6.74
18 hour	1.92	2.13	2.85	3.36	3.89	4.68	5.32

Note:
The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.
* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

This page was created at **08:36 on Wednesday 28 January 2026 (AEDT)**



ADVERTISED PLAN

STORMWATER DRAINAGE GENERAL NOTES

1. ▬▬▬ INDICATES UPVC DWV SN4 STORMWATER PIPES TO AS-1260 WITH SOLVENT WELDED JOINTS. MAIN LINE SIZES AND FALLS AS INDICATED ON PLANS.

   = = = = = = INDICATES SEALED 100mmØ DWV SN6 STORMWATER PIPE SYSTEM CONNECTING DOWNPIPES TO RAINWATER TANK INLETS. CONTRACTOR TO TEST SEALED LINES FOR ANY LEAKS.

2. TANK — INDICATES NEW 5,000 LITRE (MIN) RAINWATER TANK INSTALLED TO MANUFACTURER'S DETAILS. PROVIDE 100mmØ RISER INLET FROM DOWNPIPES, AND 100mmØ OVERFLOW OUTLET PIPE CONNECTED TO EXISTING STORMWATER SYSTEM.

   ● R — INDICATES 100mmØ RISER CONNECTED INTO TANK INLET. SEALED WATER TIGHT.

   ● OF — INDICATES 100mmØ OVERFLOW CONNECTED TO STORMWATER SYSTEM.

3. GP — INDICATES NEW PRECAST CONCRETE GRATED PIT. REFER TO TYPICAL DETAIL OR ADOPT TYPICAL PIT DETAILS AS SUPPLIED BY PIT MANUFACTURER. ALT: ADOPT PROPRIETARY GRATED PIT SYSTEM ON APPROVAL FROM PROJECT ARCHITECT (e.g. ACODRAIN TYPE 45 OR TYPE 66 PIT OR APPROVED EQUIVALENT). PROPRIETARY STORMWATER PITS TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND DETAILS.

   SWD — INDICATES NEW 900mm WIDE x 3500mm (MIN) LONG BIORETENTION SWALE DRAIN (RAINGARDEN). REFER STANDARD DETAIL. FINAL RAINGARDEN LOCATION TO BE DETERMINED WITH ARCHITECT AND LANDSCAPE ARCHITECT DURING DOCUMENTATION STAGE.

4. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION INCLUDING STRUCTURAL, SERVICES, SURVEYING & ARCHITECTURAL. ALL POTENTIAL CLASHES OF SERVICES, ETC. ARE TO BE REPORTED TO THE ENGINEERS/ARCHITECTS FOR RESOLUTION.

5. ALL STORMWATER DRAINAGE WORKS TO COMPLY WITH AS-3500 AND RELEVANT PLUMBING CODES OF PRACTICE.

STAGE 1a STORMWATER DRAINAGE LAYOUT PLAN

SCALE 1 : 200

EXISTING SERVICES

REFER TO ARCHITECT AND RELEVANT SURVEY PLANS FOR LOCATIONS OF ALL EXISTING UNDERGROUND AND ABOVE GROUND SERVICES. THE CONTRACTOR IS TO LOCATE AND VERIFY SERVICES ON SITE PRIOR TO EXCAVATION WORKS. ANY DAMAGE TO EXISTING SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CLIENT

PMDL Architects

-

Suite 8, 265 Pakington Street
Newtown, Vic. 3220

REV.	REMARKS	DATE
0	ISSUED FOR APPROVAL	29.1.26
P1	PRELIM ISSUE FOR REVIEW	29.1.26

REVISIONS

N

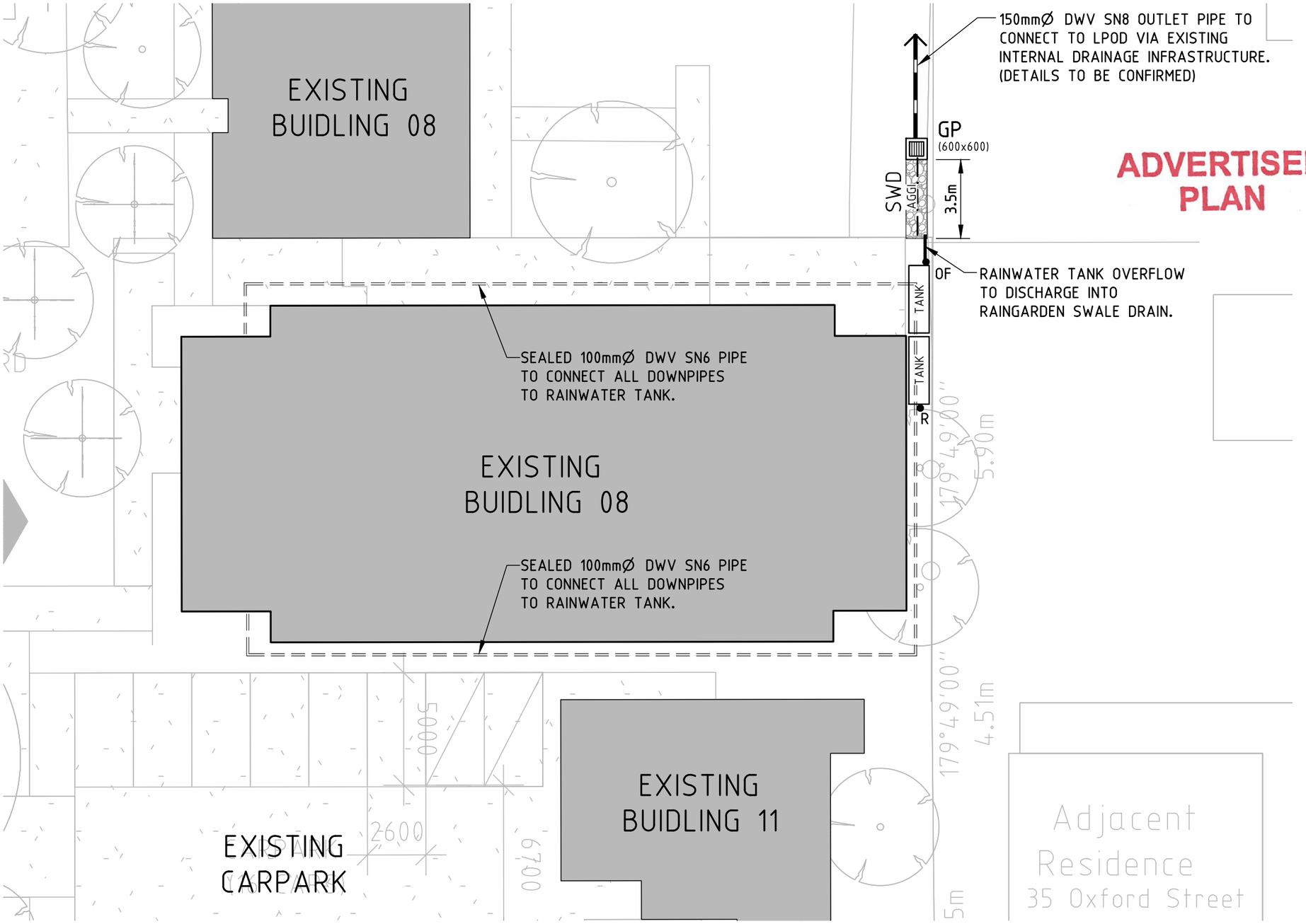
AMKAD GROUP
CONSULTING - CONSTRUCTION - MANAGEMENT
ABN 34 640 227 158
81 Mornington Street
North Geelong, Vic. 3215
Phone (03) 5277 0769

DESIGNED	DATE
K. Dawber	Jan 2026
DRAWN	SCALE AT A3 SIZE
K. Dawber	1:200

DRAWING DETAILS

Mackillop Family Services, Geelong
25 Oxford Street, Whittington
Stage1a Stomrwater Management Plan

DRAWING NUMBER	SHEET	OF	REV.	SHEET SIZE
26012	— C1 —	3	0	A3



ADVERTISED PLAN

STAGE 1b STORMWATER DRAINAGE LAYOUT PLAN

SCALE 1 : 200

REFER GENERAL NOTES ON SHEET C1

CLIENT

PMDL Architects

-

Suite 8, 265 Pakington Street
Newtown, Vic. 3220

REV.	REMARKS	DATE
0	ISSUED FOR APPROVAL	29.1.26
P1	PRELIM ISSUE FOR REVIEW	29.1.26

REVISIONS

N

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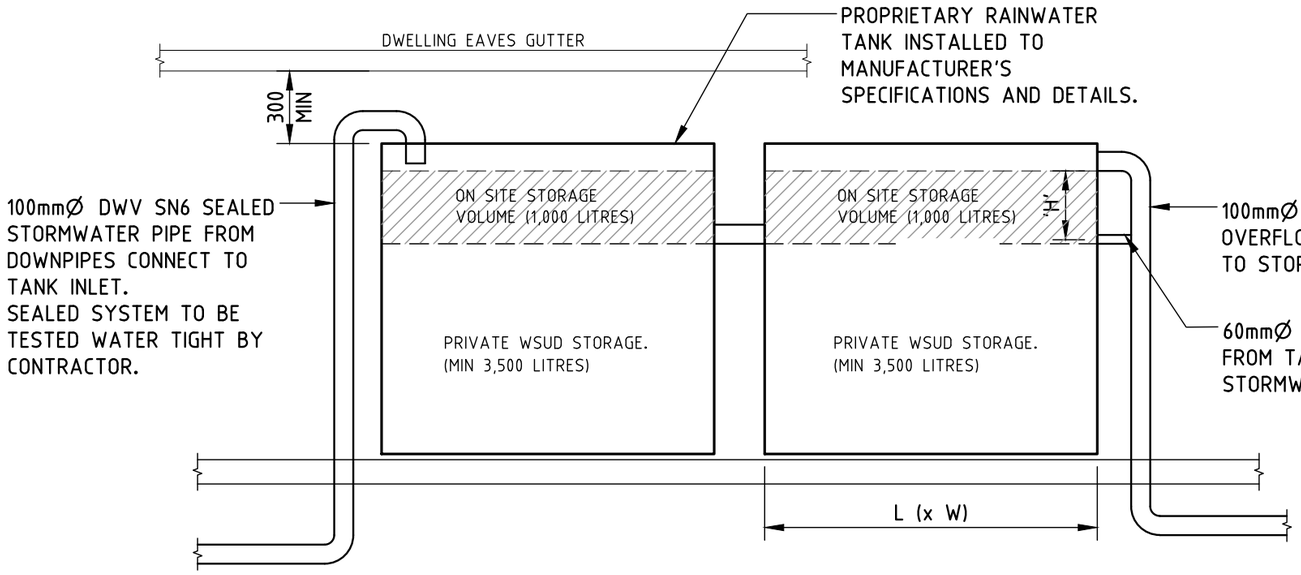
CONSULTING - CONSTRUCTION - MANAGEMENT
ABN 34 640 227 158
81 Mornington Street
North Geelong, Vic. 3215
Phone (03) 5277 0769

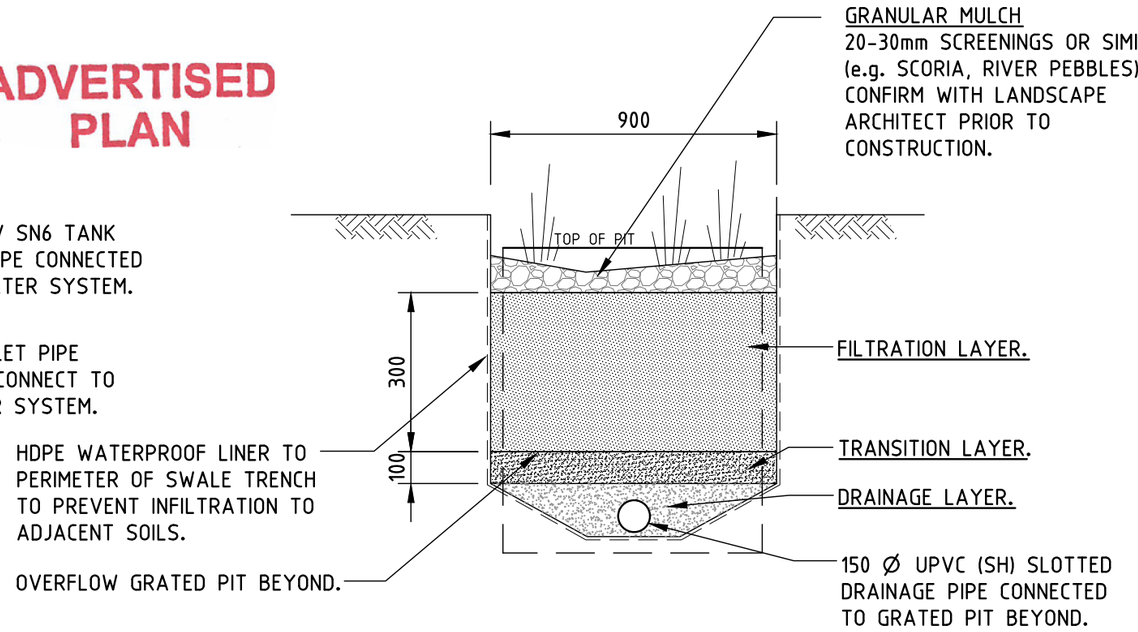
DESIGNED K. Dawber
DATE Jan 2026
DRAWN K. Dawber
SCALE AT A3 SIZE 1:200

DRAWING DETAILS

Mackillop Family Services, Geelong
25 Oxford Street, Whittington
Stage 1b Stomrwater Management Plan

DRAWING NUMBER	SHEET	OF	REV.	SHEET SIZE
26012	— C2 —	3	0	A3





UNIT WSUD & OSD RAINWATER TANK DETAIL

SCALE: NTS

NOTE: MINIMUM OSD STORAGE VOLUME TO BE 7,000 LITRES ($7.0m^3$) FOR ON SITE DETENTION REQUIREMENTS. HEIGHT 'H' OF 60mmØ OUTLET PIPE WILL DEPEND ON TANK DIMENSIONS.

PLUMBING CONTRACTOR TO CONFIRM HEIGHT OF ORIFICE OUTLET FROM TANK OVERFLOW WITH CONSULTING ENGINEER TO ENSURE CORRECT STORAGE VOLUME IS ACHIEVED.

TYPICAL BIORETENTION SWALE DETAIL

FILTER MATERIAL
CLEAN, WELL GRADED SAND/COARSE SAND MATERIAL CONTAINING LITTLE OR NO FINES AND MINIMAL CLAY CONTENT.

TRANSITION LAYER
CLEAN, WELL GRADED SAND/COARSE SAND MATERIAL CONTAINING LITTLE OR NO FINES.

DRAINAGE LAYER
CLEAN, FINE GRAVEL, SUCH AS 2-5mm WASHED SCREENINGS. PROVIDE 50mm MIN COVER TO TOP OF AGGI DRAIN.

REFER ALSO TO THE FACILITY FOR ADVANCING WATER BIOFILTRATION SPECIFICATION "GUIDELINES FOR SOIL MEDIA IN BIORETENTION SYSTEMS - MARCH 2008"

CLIENT

PMDL Architects

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REV.	REMARKS	DATE
0	ISSUED FOR APPROVAL	29.1.26
P1	PRELIM ISSUE FOR REVIEW	29.1.26

REVISIONS

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Phone (03) 5277 0769

DESIGNED	DATE
K. Dawber	Jan 2026
DRAWN	SCALE AT A3 SIZE
K. Dawber	NTS

DRAWING DETAILS

Mackillop Family Services, Geelong
75-83 St Albans Road, Thomson
Typcial Details

DRAWING NUMBER	SHEET	OF	REV.	SHEET SIZE
26012 — C3 —	3		0	A3