

INFORMATION SHEET - STORMWATER DRAINAGE

GENERAL REQUIREMENTS

All developments within the City are required to provide stormwater drainage within their lot boundaries. Stormwater management needs to be designed such that each lot manages and disposes of stormwater without impacting neighbouring lots. A stormwater drainage plan must be approved by the City for all developments.

The stormwater disposal method will vary depending on the site conditions, and various stormwater disposal systems can be implemented, which include the following:

- On-site disposal via soakwells
- On-site disposal via soakwells with an overflow connection to the City's drainage system
- Detention on site (via Drainage Pits) and discharged into the City's drainage system.

STORMWATER DISPOSAL METHOD

On-site disposal

Within the City of Canning, most developments are suitable for on-site disposal of stormwater via soakwells. The capacity of the soakwells can be determined using the calculations below.

Off-site disposal (Connect to the City's Drainage System)

Where a development is not suitable for on-site disposal of stormwater via soakwells, connection to the City's stormwater drainage network will be required.

Drainage Pits, also referred to as 'Sumps' or 'Tanks', will detain stormwater on-site and discharge into the City's stormwater drainage system, via a Lot Connection Pit, at a maximum rate of 4 L/S. On-site detention capacity can be determined using calculations below.

All connections to the City's drainage infrastructure must be approved by the City of Canning prior to construction.

CALCULATING DRAINAGE CAPACITY

All developments are required to provide drainage infrastructure within their lot boundary, whether they are suitable for on-site disposal, or connecting to the City's drainage system. The required stormwater drainage capacity can be calculated using the following:

- Where an Overland Flow Path is provided, the development shall manage stormwater for a 1 in 20 year Average Recurrence Interval (ARI).

For a 1 in 20 year storm event, a drainage coefficient of 0.0150 can be multiplied by the impervious area of the lot. Where lots are less than 300m² in area, the entire lot area shall be used to calculate the required capacity.

- Where **NO** Overland Flow Path is provided, the development shall manage stormwater for a 1 in 100 year Average Recurrence Interval (ARI)

Where a development is required to provide for a 1 in 100 year storm event, a certified stormwater management plan will be required that has been designed by a suitably qualified engineer.

An Overland Flow Path is considered as the provision of a 300mm clearance from the Road Level to the Lot Level, as per the Stormwater Management Manual for Western Australia.

CONNECTING TO THE CITY'S DRAINAGE SYSTEM

Prior to connecting to the City's Stormwater Drainage System, all stormwater connections must be approved by the City of Canning.

The Stormwater Management Plan is to be submitted to the City of Canning, demonstrating the proposed stormwater connection that aligns with the City's Standard Drawings and Specifications. The plan can be submitted electronically to customer@canning.wa.gov.au or in person at the administration building, and marked for the attention of Development Engineering.

Inspection Requirements

Once approval is granted, the City will be required to inspect the infrastructure prior to any works commencing, and again upon completion of the works. It is the responsibility of the applicant to notify the City when the works are proposed to commence, so that inspections can be carried out accordingly.

Standard Drawing 03 – Stormwater Connection Details

Standard Drawing 05 – Manhole Standard Details

Standard Drawing 06 – Side Entry Pit Standard Details

SOAKWELL SIZES AND CAPACITIES			Enter No of soakwells	Volume (m ³)
Diameter (mm)	Depth (mm)	Capacity (m ³)		
600	600	0.17		0
600	900	0.25		0
760	600	0.27		0
900	600	0.38		0
900	900	0.57		0
900	1200	0.76		0
1070	600	0.54		0
1070	1200	1.08		0
1200	600	0.68		0
1200	900	1.02		0
1200	1200	1.36		0
1200	100	1.7		0
1200	1800	2.04		0
1500	600	1.06		0
1500	1200	2.12		0
1500	1500	2.65		0
1500	1800	3.18		0
1800	600	1.53		0
1800	900	2.29		0
1800	1200	3.05		0
1800	1500	3.82		0
1800	1800	4.58		0
1800	2400	6.11		0
1800	4800	12.21		0
Total volume proposed				0

Figure.1 - Soakwell Sizes and Capacities Calculation Table

HPRM: D19/154367
Last updated: October 2020