



02.3.2 - The adopted range of runoff coefficients for the City of Perth are as shown below:

Paved Surfaces	1.0
Intensely developed commercial & industrial areas	0.9
Suburban commercial & industrial areas	0.3
Residential development	0.5

02.3.3 - The stormwater runoff from residential properties are required to be retained on site. If due to special circumstances such as multi-unit developments the water cannot be suitably retained on site, a connection to the Council's drainage system may be considered.

02.4 - Rainfall Intensity-Frequency-Duration

02.4.1 - The rainfall intensity-frequency-duration relationships are to be as set out in "*Australian Rainfall and Runoff, A Guide to Flood Estimation*".
See Design & Construction Note 201.06 for the Rainfall Intensity Chart for Perth.

02.5 - Time of Concentration

02.5.1 - Travel times may be calculated from charts for overland flow and gutter flows contained in the Australian Rainfall and Runoff publication, together with pipe and channel flow charts.

02.5.2 - The minimum time of concentration shall be taken as 5.0 minutes.

02.6 - Flooding Hazards

02.6.1 - Tailwater Level Assumption

An allowance of 1200mm change to the sea level due to climate change must be assumed for the design of minor drainage systems, where the stormwater drainage discharges into tidal waterways such as the Swan River.

If tailwater is critical for managing major flows and setting flood immunity, a sensitive check must be undertaken to examine impacts of higher sea level in accordance with best climate change predictions at the time.

02.6.2 - Hazard Estimation

For pedestrian safety the following criteria apply:

The velocity x depth product in a roadway in the designed major storm event is not to exceed 0.6m²/s in the channel, kerb and footpath.

02.7 - Stormwater Pipes

02.7.1 - Each section of pipe or conduit shall be designed to flow full and operate under pressure.