Stormwater Drainage Design Guidelines For Commercial/ Industrial/Grouped and Multiple Dwellings Developments

Town of Port Hedland

(Development Applications will be assessed on a case by case basis).

Property owners have a statutory obligation under common law and the Local Government Act 1995 to prevent water from dripping or running from a property onto any other land and are not permitted to allow overflow onto neighbouring properties.

All stormwater drainage designs and calculations shall be carried out and certified by a qualified person experienced in hydrologic and hydraulic design. It is a requirement that storm water is retained on site to accommodate a minimum of a 1 in 5 year rainfall event (6 minute duration). Overflow storm water (excess of the 1:5 ARI event) must be directed towards the Town's drainage system.

All stormwater drainage related plans submitted to the Town of Port Hedland, must include a site plan indicating the following drainage details:

- Existing ground levels or contours of the subject property and adjoining land.
- Proposed levels of paved or concrete impervious areas.
- Details of proposed roof and pavement drainage disposal systems.
- Size (depth & diameter) and locations of all soak-wells, retention basins, or landscape garden areas.
- Locations and details of excess water discharge methods towards the Town's drainage system.

Factors such as soil conditions, water table depth and capacity for storm events need to be taken into account by the appointed professional engineer.

The designer shall ensure

- Appropriate methods for discharging of excess stormwater away from habitat areas.
- Floor level of all buildings shall be 500 mm above the 100 year flood level and all non-habitable areas shall be minimum of 300mm above the 100 year flood level to ensure adequate flood protection.

Owner shall install sufficient infrastructure to direct overflow stormwater to the Town's drainage system during a major rainfall event.

Soakwell capacity: The calculations provided are a guide only based on rainfall conditions.

SIZE	CAPACITY	Area in Square m per Soakwell For	
		1 in 5 Year Storm Intensity 152 mm/hr	1 in 10 Year Storm Intensity 182 mm/hr
1.2m dia x 0.9m deep	1.00 m3	Inadequate	Inadequate
1.2m dia x1.2m deep	1.36 m3	1 per 100 m2	Inadequate

1.8m dia x0.9m deep	2.29 m3	1 per 175 m2	1 per 140 m2
1.8m dia x1.2m deep	3.05 m3	1 per 230 m2	1 per 180 m2
1.8m dia x1.8m deep	4.58 m3	1 per 350 m2	1 per 290 m2

Soakwells are generally not suitable for sites with silty sand and clay content as such sites do not allow water to be effectively dispersed. Effective stormwater disposal in these areas will generally require interconnected sumps directing flow to the Town's drainage swales.

Stormwater treatment facilities, in the form of petrol oil traps or sediment traps, shall be provided where appropriate. Any areas where piped drainage is used to discharge stormwater to the Town's drainage system shall have a gross pollutant trap installed.

Refer Drawing No TOPH -1.0
Refer Drawing No TOPH- 2.0 for stormwater connection details via open channel.