

Lindeman Great Barrier Reef Resort
Project

APPENDIX

I

CYCLONE SHELTER INFORMATION
(DBI DESIGN)

OPTION 2

1,040m²
Max Capacity - 1,000 people

Design Guidelines for QLD Public Cyclone Shelters

Cyclone Shelter Requirements

Shelter Location:

- Access to the shelter must be maintained prior to and after a cyclonic event and must be above maximum storm tide level for a cyclone
- The shelter floor should be above maximum storm tide level for a cyclone
- The shelter floor should be above river/creek flood levels (including backwater effect on flood levels during storm tides)
- Shelter must not be located near significant hazards (fuel, chemicals storage, potential heavy falling debris, high voltage overhead powerlines)
- Shelter should be located away from taller structures

Shelter Drainage:

- Stormwater drainage shall be provided (piped systems, overland flow, levees) to ensure floor level of a shelter is substantially dry during design rainfall intensity
- Provisions need to be made to ensure water level does not exceed 1m depth should the stormwater drainage system fail
- Hydraulic Assessment Required

Land Slip:

- Where the cyclone shelter site is prone to landslides the acceptable risk levels shall be "low" or "very low" for property and 1E-6pa for loss of life
- Geotechnical Assessment Required

Structure:

The building structure shall be capable of resisting the following loads:

- Wind loads - Assessment by others
- Debris loads - Assessment by others
- Earthquake loads - Assessment by others
- Permanent & Imposed loads - Assessment by others

Occupancy:

- The shelter design density is a minimum floor area of 1m² per person
- The design total occupancy duration period is 36hrs
- The design lock-down duration period is a maximum 18hrs

Lighting:

- Minimum desirable lighting level is 40 lux
- Supplementary task lighting to provide 400 lux in areas for first aid treatment
- Emergency lighting to comply with BCA Class 9b Building
- Emergency lighting to be battery powered with a minimum life of 24hrs
- Shelter management plan shall allow for provision of torchlights and batteries

Safe Movement and Access:

- BCA compliant access - including DDA access provisions
- Where probable that floors will be wet then slip resistant finishes shall be provided

Ventilation:

- Ventilation to comply with BCA performance requirements (ventilated with outside air to maintain air quality)

Amenities:

- At least 1 toilet per 40 people to be provided in the shelter - including DDA compliant facilities

Communications:

- Minimum provision - battery powered hand held megaphone and radio receiver / television

Emergency Power:

- It is desirable for shelter to be provided with emergency generators

Emergency Provisions:

- Provision of essential sustenance items including drinking water and food shall be part of the shelter operations plan
- Provision of first aid medical supplies shall be part of the shelter operations plan

Shelter Management:

- Authority for management / activation of designated shelter as delegated by respective local, District, State Disaster Management Groups
- Provide a Shelter Operation Plan
- Provide a Shelter Maintenance Plan

OPTION 3

1,095m²
Max Capacity - 1,000 people

OPTION 1

1,150m²
Max Capacity - 1,000 people

Resort

Emergency Action Plan - Including but not limited to:

- Plan prepared by a qualified 'Life Safety' Consultant
- Designated Safety Officers and Emergency Services Contacts
- Safety personnel training
- Warning systems
- Emergency procedures
- Evacuation procedures
- Maps with routes and safety shelter locations
- Marshalling procedures to designated safety shelters