



CHAND ENGINEERING CONSULTANTS LTD.

CONSULTING ENGINEERS & PROJECT MANAGERS

**CYCLONE WINSTON PRELIMINARY ASSESSMENT
SCHOOLS, HEALTH FACILITIES AND PUBLIC BUILDINGS
FOR
FIJI INSTITUTION OF ENGINEERS &
DEPARTMENT OF NATIONAL PLANNING
(MINISTRY OF FINANCE)**



NAME OF FACILITY: Vatuvonu Adventist Secondary School
TYPE: Secondary School
LOCATION: Vatuvonu, Vanua Levu
DATE OF ASSESSMENT: 21 March 2016

JOB NO: 16-125
GOVERNMENT FACILITY NUMBER: GFN-203

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**RAPID ASSESSMENT TEMPLATE: CYCLONE WINSTON DAMAGED BUILDINGS
SCHOOLS, PUBLIC BUILDINGS & HEALTH FACILITIES**

INSPECTOR: AAC/ SRS/ SP
FIRM/COMPANY: CHAND ENGINEERING CONSULTANTS LIMITED

Extent of Damage Rating Description

| | |
|---|--------------------------|
| 1 | Minor/Cosmetic/Water |
| 2 | Some Damage |
| 3 | Extensive but Repairable |
| 4 | Irreparable |

GENERAL INFORMATION

Building Name: Vatuvonu Adventist College
Type: School Block
Location: Vatuvonu
No. of Buildings: 1
Ariel Plan Available: YES / NO

Types of Buildings

- School Block
- Staff Quarters
- Toilet Block
- Utility Building (FEA, Services, etc)
- Divisional Hospital
- Sub-Divisional Hospital
- Health Centre
- Nursing Station
- Public Building or Facility

REPORT

Page No. : 1
Building No. : 1
Building Approx Age: _____
No. of Storeys: 1

EVALUATION

| Type of Construction | Description | Build Quality | Damage | Extent of Damage Rating | Photo No. |
|---------------------------------------|---|-------------------------------|--------------------------------------|-------------------------|-----------|
| Floor | reinforced concrete slab on ground | 1 Good 2 Average 3 Poor | No visible damage | 0 | 1 |
| Foundations | Not Visible | 1 Good 2 Average 3 Poor | No visible damage- concealed | 0 | N/A |
| Walls | timber cladding | 1 Good 2 Average 3 Poor | 100% damage | 0 | 1,2 |
| Rafters | 150x50mm rafters | 1 Good 2 Average 3 Poor | 30% damage | 0 | N/A |
| Purlins | 75x50mm purlins | 1 Good 2 Average 3 Poor | 30% damage | 0 | N/A |
| Roof | corrugated roof cladding | 1 Good 2 Average 3 Poor | 30% blown out | 0 | 1 |
| Electrical | typical standard switches, GPO's and fluorescent tubelights and bulbs. | 1 Good 2 Average 3 Poor | No damage known | 0 | N/A |
| Hydraulics | None | 1 Good 2 Average 3 Poor | N/A | N/A | |
| Windows/Doors | louver windows on standard carriers typically for all windows and timber doors. | 1 Good 2 Average 3 Poor | Louvers are missing | 2 | 1,2 |
| Shutters | none | 1 Good 2 Average 3 Poor | No shutters | 0 | N/A |
| Ceilings | Ply board ceiling typically throughout- water damaged | 1 Good 2 Average 3 Poor | 40% Water Damaged | 3 | N/A |
| Terraces/Verandah | N/A | 1 Good 2 Average 3 Poor | N/A | 0 | N/A |
| Tiles/Floor Covering | concrete floor | 1 Good 2 Average 3 Poor | water damage | 1 | N/A |
| Gutters | none | 1 Good 2 Average 3 Poor | N/A | 0 | N/A |
| Downpipes | none | 1 Good 2 Average 3 Poor | N/A | 0 | N/A |
| Fascia Boards | 250x30mm timber fascia board. | 1 Good 2 Average 3 Poor | at least 40% fascia board are damage | 3 | 1 |
| Furniture/Desks etc. | | 1 Good 2 Average 3 Poor | | | |
| Possible Intermediate Solution | Re-construct the whole walls and the roof with new guttering, downpipes, flashing,fascia board and new roofing iron in accordance with NBCF. | | | | |
| Possible Long Term Solution | Detailed investigation for roof framing recommended along with checks on wall capacity for uplift/lateral loads for more tolerance towards Cat.4. Much dependent upon detailed investigation by an Engineer. Considering the building age and with walls damaged, possibly demolish and re-built the whole building to comply with NBCF. Option also exist to retrofit cost permitting,Estimated cost currently around \$150,000.00 to \$300,000.00 (new construction) for long term solution. | | | | |

Damage Assessment (\$) \$100,000.00 Intermediate
Basis of Calculation Engineers Estimate-TBC (note can be QS assisted)

FEES ESTIMATE:

Design/Documentation: TBC
Tender/Approval: TBC
Inspection/End Construction: TBC

PHOTOS- BUILDING 1



Photo 1:Rear View of Main School Block



Photo 2: View of Main School Block