



HAMEN LODHIA ENGINEERS LIMITED

PROJECT MANAGERS, CIVIL & STRUCTURAL ENGINEERS

P.O. Box 10057, Nadi Airport, Fiji Islands

HAMEN LODHIA

Office Mobile: 9924870 Office Email: info@hlengineers.net

B.E. (CIVIL), M.F.I.E.,

Phone: (679) 672 8203 Fax: (679) 672 8204

M.I.E. (AUST).

Email: hamen@hlengineers.net

CYCLONE WINSTON PRELIMINARY ASSESSMENT

SCHOOLS, HEALTH FACILITIES & PUBLIC BUILDINGS

FOR

THE FIJI INSTITUTE OF ENGINEERS & DEPARTMENT OF NATIONAL PLANNING (MINISTRY OF FINANCE)



Name: Navatusila District School and Thomas Baker Memorial School
(Shared Facilities)

Government Facility No. GFN-144 (for TBMS)

Type: Secondary School

Location: Nanoko

Date of Assessment: 30th March, 2016

Date of Report: 8th April, 2016

Disclaimer: This report has been prepared for the benefit of the Fiji Institute of Engineers & Ministry of Finance to establish the extent of damages based on a rapid preliminary assessment. Under no circumstances is this report to be used for establishment of detailed costs for damages. No responsibility shall be taken for any incorrect or incomplete information due to time constraints of the initial assessment. An extensive assessment should be carried out to determine a detailed cost and scope of repair works.

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

INSPECTOR: KM, CK, SM & RB
FIRM/COMPANY: Hamen Lodhia

GENERAL INFORMATION

Building Name: Thomas Baker Memorial School
Type: School Block - Building 2
Location: Nanoko
No. of Buildings: 1
Ariel Plan Available: YES / **NO**

REPORT

Page No. : 5
Building No. : School Building
Building Approx Age: N/A
No. of Storeys: 1
Building Dimensions: Building - 9m x 6.8m x 3m High (Eaves)
Verandah - 9m x 2.8m x 3m High (Eaves)

Extent of Damage Rating Description

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

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

EVALUATION

Type of Construction	Description	Build Quality	Damage	Extent of Damage Rating	Photo No.
Floor	RC Slab-on-Grade	1 Good 2 Average 3 Poor			
Foundations	Not visible	1 Good 2 Average 3 Poor			
Walls	150 mm masonry blocks	1 Good 2 Average 3 Poor			
Rafters	Not visible	1 Good 2 Average 3 Poor			
Purlins	Not visible	1 Good 2 Average 3 Poor			
Roof	Corrugated Iron	1 Good 2 Average 3 Poor			
Electrical	N/A	1 Good 2 Average 3 Poor			
Hydraulics	N/A	1 Good 2 Average 3 Poor			
Windows/Doors	Louver Windows with timber doors	1 Good 2 Average 3 Poor			
Shutters	Nil	1 Good 2 Average 3 Poor			
Ceilings	Masonite board	1 Good 2 Average 3 Poor			
Terraces/Verandah	RC Slab-on-Grade with steel frame support and timber roof with corrugated roofing iron	1 Good 2 Average 3 Poor			
Tiles/Floor Covering	Carpet and vinyl	1 Good 2 Average 3 Poor			
Gutters	PVC	1 Good 2 Average 3 Poor			
Downpipes	PVC	1 Good 2 Average 3 Poor			
Fascia Boards	200 mm by 25 mm thick Timber Fascia	1 Good 2 Average 3 Poor			
Furniture/Desks etc.	OK	1 Good 2 Average 3 Poor			
Possible Intermediate Solution					
Possible Long Term Solution	Building is not made to resist direct impact by a stronger cyclone (TC 4). Suggest demolishing and rebuilding for cyclone resistance.				

Damage Assessment (FJD\$ VEP) _____ No damage / Intermediate
Damage Assessment (FJD\$ VEP) _____ 104,247.00 Long Term
Basis of Calculation _____ QS-provided Schedule of Rates + Estimate

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

INSPECTOR: KM, CK, SM & RB
FIRM/COMPANY: Hamen Lodhia

GENERAL INFORMATION

Building Name: Thomas Baker Memorial School
Type: School Block - Building 1
Location: Nanoko
No. of Buildings: 1
Ariel Plan Available: YES / **NO**

REPORT

Page No. : 4
Building No. : School Building
Building Approx Age: N/A
No. of Storeys: 1
Building Dimensions: Building - 8m x 80m x 3m High (Eaves)
Verandah - 2.8m x 80m x 3m High (Eaves)

Extent of Damage Rating Description

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

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

EVALUATION

Type of Construction	Description	Build Quality	Damage	Extent of Damage Rating	Photo No.
Floor	RC Slab-on-Grade	1 Good 2 Average 3 Poor			
Foundations	Not visible	1 Good 2 Average 3 Poor			
Walls	150 mm masonry blocks	1 Good 2 Average 3 Poor			
Rafters	Not visible	1 Good 2 Average 3 Poor			
Purlins	Not visible	1 Good 2 Average 3 Poor			
Roof	Corrugated Iron	1 Good 2 Average 3 Poor			
Electrical	N/A	1 Good 2 Average 3 Poor			
Hydraulics	N/A	1 Good 2 Average 3 Poor			
Windows/Doors	Louver Windows with timber doors	1 Good 2 Average 3 Poor			
Shutters	Nil	1 Good 2 Average 3 Poor			
Ceilings	Masonite board	1 Good 2 Average 3 Poor			
Terraces/Verandah	RC Slab-on-Grade with steel frame support and timber roof with corrugated roofing iron	1 Good 2 Average 3 Poor			
Tiles/Floor Covering	Carpet and vinyl	1 Good 2 Average 3 Poor			
Gutters	PVC	1 Good 2 Average 3 Poor			
Downpipes	PVC	1 Good 2 Average 3 Poor			
Fascia Boards	200 mm by 25 mm thick Timber Fascia	1 Good 2 Average 3 Poor			
Furniture/Desks etc.	OK	1 Good 2 Average 3 Poor			
Possible Intermediate Solution					
Possible Long Term Solution	Building is not made to resist direct impact by a stronger cyclone (TC 4). Suggest demolishing and rebuilding for cyclone resistance.				

Damage Assessment (FJD\$ VEP) _____ No damage / Intermediate
 Damage Assessment (FJD\$ VEP) _____ 1,077,120.00 Long Term
 Basis of Calculation _____ QS-provided Schedule of Rates + Estimate

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

INSPECTOR: KM, CK, SM & RB
FIRM/COMPANY: Hamen Lodhia

GENERAL INFORMATION

Building Name: Navatusila District School + Thomas Baker Memorial School
Type: Staff Quarters
Location: Nanoko
No. of Buildings: 8
Ariel Plan Available: YES / **NO**

Extent of Damage Rating Description

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

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. : 8
Building Approx Age: N/A
No. of Storeys: 1
Building Dimensions
Building 2,5,6,7,8 - 8.5m x 9m x 2.6m High (Eaves)
Building 1,4 - 8.5m x 7.5m x 2.6m High (Eaves)
Building 3 - 13.5m x 9m x 2.8m High (Eaves)

EVALUATION

Type of Construction	Description	Build Quality		Damage	Extent of Damage Rating	Photo No.
Foundations	Not visible	1 2 3	Good Average Poor			
Floor	RC Slab-on-Grade	1 2 3	Good Average Poor			
Walls	150 mm masonry blocks	1 2 3	Good Average Poor			
Rafters	Not visible	1 2 3	Good Average Poor			
Purlins	Not visible	1 2 3	Good Average Poor			
Roof	Corrugated Iron with roofing nail	1 2 3	Good Average Poor	Parts of cladding have been removed by wind [around 5-20% for each staff quarter]	2	6
Electrical	Difficult to tell	1 2 3	Good Average Poor	Wiring in the roof cavity may have been damaged by water. As there was no power supply it is difficult to determine the extent of damage.	2 to 3	
Hydraulics	OK	1 2 3	Good Average Poor			
Windows/Doors	Louvre blade windows and timber doors	1 2 3	Good Average Poor	Few louvres were missing from various quarters	1	
Shutters	None	1 2 3	Good Average Poor			
Ceilings	Masonite panel ceiling	1 2 3	Good Average Poor	Water damage: 25% for SQ 3, 10% for SQ 4, 25% for SQ 7 and 25% for SQ 8	1	
Terraces/Verandah	RC Slab-on-Grade with steel frame support and timber roof [Standard 2.4m x 3.7m for all]	1 2 3	Good Average Poor	Water damage to the ceiling of verandah (100% to all)	2	
Tiles/Floor Covering	Vinyl and tiles	1 2 3	Good Average Poor			
Gutters	None	1 2 3	Good Average Poor			
Downpipes	None	1 2 3	Good Average Poor			
Fascia Boards	200 mm by 25 mm thick Timber Fascia	1 2 3	Good Average Poor	Variable damage. Cumulative extent of dmg is approx 70 linear meters	2	6
Possible Intermediate Solution	Replace missing louvre blades (to protect building contents from rain), replace all damaged fascia boards and replace the damaged gutters					
Possible Long Term Solution	Building is not made to resist direct impact by a stronger cyclone (TC 4). Suggest demolishing and rebuilding for cyclone resistance.					

Damage Assessment (FJD\$ VEP) _____ 67,121.65 Intermediate
Damage Assessment (FJD\$ VEP) _____ 1,013,319.45 Long Term
Basis of Calculation QS-provided Schedule of Rates + Estimate