



Shri Singh & Associates Limited
Consulting Building, Civil & Structural Engineers

CYCLONE WINSTON PRELIMINARY ASSESSMENT SCHOOLS, HEALTH FACILITIES & PUBLIC BUILDINGS

FOR

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



NAME OF FACILITY:	Levuka Special School (Norah Frazer School for Special Education)
TYPE:	Special School
LOCATION:	LevukaOvalau
DATE OF ASSESSMENT:	19 th March 2016
DATE OF REPORT:	01 st April 2016
JOB NO:	9213.1
GOVERNMENT FACILITY NO:	173

DISCLAIMER: THIS REPORT HAS BEEN PREPARED FOR THE BENEFIT OF FIJI INSTITUTION OF ENGINEERS & MINISTRY OF FINANCE TO ESTABLISH THE EXTENT OF DAMAGES BASED ON A HIGH LEVEL PRELIMINARY ASSESSMENT. IN NO CIRCUMSTANCES IS THE REPORT TO BE USED FOR SCOPING OR ESTABLISHMENT OF DETAILED COSTS FOR DAMAGES. NO RESPONSIBILITY SHALL BE TAKEN FOR ANY INCORRECT OR INCOMPLETE INFORMATION DUE TO THE SHORT TIME IN CARRYING OUT THE INITIAL ASSESSMENT AS PART OF VOLUNTARY PRO-BONO SERVICE OFFERED BY SHRI SINGH & ASSOCIATES LIMITED. DETAILED ASSESSMENT SHOULD BE CARRIED OUT FOR DETAILED COST AND SCOPE FOR REPAIR AND REINSTATEMENT WORKS.

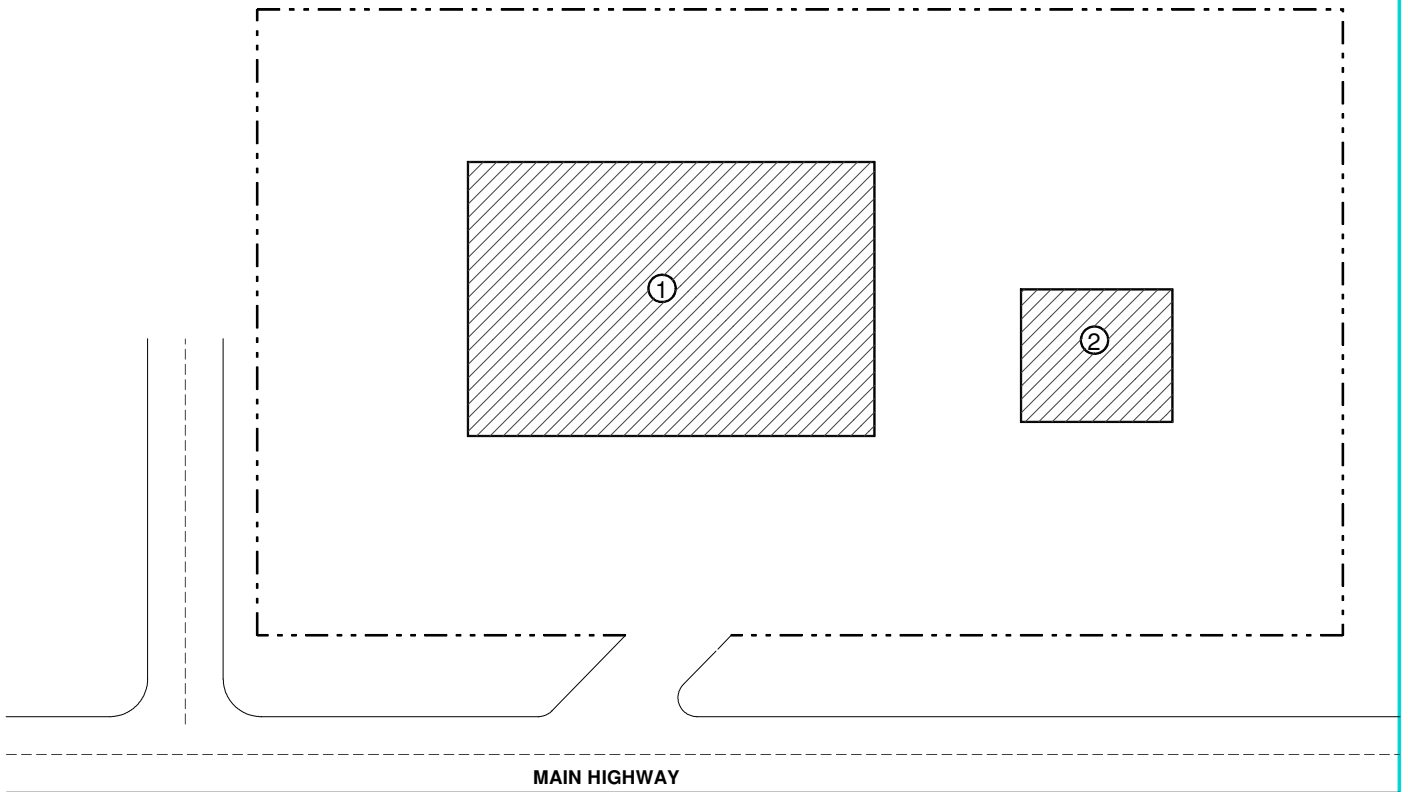
GENERAL DAMAGE
SCHOOLS, PUBLIC BUILDINGS & HEALTH FACILITIES

GENERAL INFORMATION

Building Name: Norah Frazer School For Special Education (Levuka Special School)
 Location: Levuka, Ovalau
 No. of Buildings: 2
 Ariel Plan Available: NO
 Government facility no.: 173

1 FENCING / GATES / DRIVEWAY / RETAINING WALLS ETC (INCLUDE TYPE / LENGTH ETC)
1. Typical chinlink fence on 100 diameter pin e post (400m perimeter of 1.8m height). Approximately 20m noted to be damaged. Front steel framed swinging gate damaged. Estimated cost for fence and gate fixing:.....
2 WATER TANKS/METERS/PLUMBING
No tanks noted on site
3 POWER LINES / METERS / WIRING
Power supply was normal on school premises
4 OTHER ITEMS
Not noted

TOTAL COST ESTIMATE:	INTERMEDIATE	LONG TERM
<u>DESCRIPTION</u>	<u>FEE</u>	<u>FEE</u>
Building 1	10,000	50,000
Building 2	10,000	30,000
TOTAL:	<u>\$ 20,000</u>	<u>\$ 80,000</u>
TOTAL COST AFTER LOCATION MULTIPLIER (1.25):	<u>\$ 25,000</u>	<u>\$ 100,000</u>



BUILDING NAME : NORAH FRAZER SCHOOL FOR SPECIAL EDUCATION
LOCATION : LEVUKA, OVALAU
NO. OF BUILDING : 2

KEY :
 1 - SCHOOL BUILDING
 2 - STAFF QUARTERS

1 EXISTING SITE PLAN
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 NTS

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 Consulting Building & Civil Engineers

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

GENERAL INFORMATION

Building Name: Norah Frazer School For Special Education
 Type: School Building
 Location: Levuka, Ovalau
 No. of Buildings: 2
 Ariel Plan Available: NO

REPORT

Page No. : 1
 Building No. : 1
 Building Approx Age: Approx. 20 years
 No. of Storeys: 1
 Dimension(m): 21L x 14.5W x 3.2H
 Usability: Safe to occupy subject to minor repair as per intermediate solution

Extent of Damage Rating Description

0	No Damage
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	Photo No.
Floor	Timber flooring	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Foundations	Concrete	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Walls	Timber walls	1 Good 2 Average 3 Poor	No visible damage	0	1,2,3,4
Rafters	Timber rafters	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Purlins	Timber purlins	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Roof	CGI roof cladding nail fixed	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Electrical	Typically standard switches & fluorescent tube lights	1 Good 2 Average 3 Poor	Detailed review required	N/A	N/A
Hydraulics	Typical piping system	1 Good 2 Average 3 Poor	Detailed review required	N/A	N/A
Windows/Doors	Timber doors and louvered windows	1 Good 2 Average 3 Poor	1 timber door noted to be damaged	0	1,2,3,4
Shutters	2 x 2 mesh shutters only on 20% of window openings	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Ceilings	Masonite board ceiling typically throughout	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Terraces/Verandah	Timber flooring, CGI roof Cladding on timber framing supported by 100 x 100 timber posts	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Tiles/Floor Covering	N/A	1 Good 2 Average 3 Poor	N/A	N/A	N/A
Gutters	PVC guttering	1 Good 2 Average 3 Poor	Minor damages noted 20% blown out	4	1,2,3,4
Downpipes	PVC downpipes	1 Good 2 Average 3 Poor	Minor damages noted 20% blown out	4	1,2,3,4
Fascia Boards	Timber fascia boards	1 Good 2 Average 3 Poor	Minor damages noted 20% blown out	4	1,2,3,4
Furniture/Desks etc.	N/A	1 Good 2 Average 3 Poor	N/A	N/A	N/A
Possible Intermediate Solution	All roof framing member are to be fixed in accordance with the Fiji Building Code Standard. Roofing iron to be fixed with roofing screws throughout the entire roof on every 2nd crest. All electrical & hydraulics works to be reviewed in detail. New guttering, downpipes, fascia boards, shutters and door are to be installed. Estimated damage to repair back to pre cyclone condition: \$10,000				
Possible Long Term Solution	Detailed investigations recommended for the whole structure for more tolerance towards category 4 cyclones. Estimated cost for long term solution would be around \$50,000				

Damage Assessment (\$) _____
 Basis of Calculation _____

FEES ESTIMATE:
 Design/Documentation: _____
 Tender/Approval: _____
 Inspection/End Construction: _____

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

GENERAL INFORMATION

Building Name: Norah Frazer School For Special Education
 Type: Staff Quarters
 Location: Levuka, Ovalau
 No. of Buildings: 2
 Ariel Plan Available: NO

REPORT

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Rafters	Timber rafters	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Purlins	Timber purlins	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Roof	CGI roof cladding nail fixed	1 Good 2 Average 3 Poor	No visible damage	0	N/A
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 Basis of Calculation _____

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

Cyclone Winston Damage Assessment – Norah Frazer School for Special Education

School Building

Photos – Building 1



Photo 1: View of Building 1 Frontage



Photo 2: Side View of building 1- Showing Missing Flashing, Guttering & Deteriorated Fascia

Cyclone Winston Damage Assessment – Norah Frazer School for Special Education



Photo 3: Side & Roof View of Building 1- Showing Missing Guttering



Photo 4: Rear View of Building 1- Showing Missing Guttering & Downpipes

Cyclone Winston Damage Assessment – Norah Frazer School for Special Education

Staff Quarters

Photos – Building 2



Photo 5: Front View of building 2 – Showing Damaged Guttering



Photo 6: Side& Rear View of building 2

Cyclone Winston Damage Assessment – Norah Frazer School for Special Education



Photo 7: Side View of Building 2

Cyclone Winston Damage Assessment – Norah Frazer School for Special Education

Photos – General Site



Photo 8: Showing Typical Chain link & Picket Fence