INFRASTRUCTURE ASSESSMENT AUDIT FOR SUVA – NAUSORI URBAN SCHOOLS

SUVA MUSLIM HIGH SCHOOL – REG 2393

SUMMARY REPORT

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1) INSPECTION SUMMARY

School Inspection Summary	
School name:	SUVA MUSLIM HIGH SCHOOL
Overall condition state:	GOOD

Key recommendations:

- Overcrowding – 5 new classrooms required based on FNBC standards
- Overcrowding – 2 new classrooms required based on recommended sizing (1.5m^2)

- WASH – maintenance of ablution blocks required
- Accessibility – All buildings require accessibility ramps, accessible doorways
- Disaster resilience – Windows to include cyclone shutters and roof cladding fastened with Cyclone roofing screws.

Comments:

Major defects were noted as follows:

- Missing ramps (All buildings)
- Inadequate stairway width. (all buildings)

Aerial view of school

General view of school



School type:	**Primary**		**Secondary**	✓	**Year levels**	9,10,11,12,13
School address:	MEAD ROAD NABUA, SUVA.					
School enrolment and staff figures	**No. of Students (Male)**	**No. of Students (Female)**	**No. of Students with Disability**	**No. of Teachers (Male)**	**No. of Teachers (Female)**	

	280	293	0	10	25
School building arrangement	TOTAL NUMBER OF BUILDINGS: **5** **B1** – 2 STOREYS / **B2** – 2 STOREYS / **B3** – 2/3 STOREYS / **B4** – 3 STOREYS / **B4** – SINGLE STOREY				
Local government area:	SUVA				
Date of inspection:	3RD JULY, 2024				
Inspection team:	ANASEINI LEDUA (AL) SHANEEL PRASAD (SP) YASH VINEET MUDALIAR (YM) DURGESH PAL (DP) RAHUL PAL (RP)				
Data collection methods	Visual inspection	✓	Onsite measurement	✓	
	Interviews with school staff	✓	Drone / aerial imagery	✓	
	Survey form	✓	Desktop research	✓	
	Other:				
Assumptions:	NONE				
Limitations:	UNAVAILABILITY OF ALL SCHOOL DOCUMENTS SUCH AS BOUNDARY AREA.				

2) ASSESSMENT OF OVERCROWDING

An assessment for overcrowding was undertaken based on FNBC standards and 2024 enrolment data. The table below summarises the data collected through visual inspection and interrogation of enrolment data and compares this against the FNBC standard student to classroom size ratio of 2 m^2 per student.

The results of the assessment are based on the recommended sizing (1.5m^2), according to 2024 data, an additional 2 classrooms are required for Suva Muslim High School.

Year	Stream	Number of students	Current number of classrooms	Number of extra classrooms required based on FNBC on 2024 data
9	9A	38	4	1
	9B	37		
	9C	38		
	9D	39		
10	10A	30	4	0
	10B	30		
	10C	29		
	10D	32		
11	11A	34	4	1
	11B	26		
	11C	33		
	11D	35		
12	12A	30	4	0
	12B	22		
	12C	29		
	12D	21		
13	13A	35	2	0
	13B	35		

3) EXISTING INFRASTRUCTURE CONDITIONS

Given the outlined procedure, the following observations were made:

Block Code	Length (m)	Width (m)	Height (m)	No. of Levels	Type	Room List

B1	28.80	7.20	6.20	2	Double storey concrete structure that consists of concrete floor slab, concrete block wall and gable roof structure	**- Ground Floor** Classrooms (x1) Prayer room: male (x1) **- Top Floor** Library (x1)
B2	42.50	7.75	6.40	2	Double storeys split level concrete structure that consists of concrete floor slab, concrete block wall and gable roof structure	**- Ground Floor (Basement)** Washroom: female **- Ground Floor** Classrooms Office Admin **- Top Floor** Classrooms
B3	30.60	7.75	6.40	2	Double storeys split level concrete structure that consists of concrete floor slab, concrete block wall and gable roof structure	**- Ground Floor** (Base) Prayer room: female **- Ground Floor** Classrooms **- Top Floor** Classrooms
B4	20.30	7.50	9.40	3	Three storeys concrete structure that consists of concrete floor slab, concrete block wall and hip roof structure	**- Ground Floor** Classrooms Washrooms: male **- 2nd Floor** Classrooms **- Top Floor** Classrooms
B5	70.20	10.20	2.60	1	Single storey concrete structure that consists of concrete floor slab, concrete columns, concrete block and gable structure	**- Ground Floor** Classroom School canteen

NOTE: Toilets mentioned refers to a set of cubicles.

Summary Table for Classrooms

This table provides a quick overview of the assessment findings, helping to identify areas that need immediate attention and those that are in good condition. The following criteria was used:

- Good - No additional works / intervention required
- Fair - Remedial works required
- Poor - Demolition and replace with new

Assessment Area	Criteria	Conditions
Structural Integrity	Walls, ceiling, floor, foundation and roofs	Good
General upkeep	Exterior, interior, furniture and fixtures	Good
Safety compliance	Fire safety, electrical safety,	Good
Disability	Accessibility	Poor
Ventilation and lighting	Ventilations, Natural Lighting, Artificial Lighting.	Good

Observations on Structural Elements

- **Walls and Ceiling**. There were signs of wear and tear on walls.
- **Floors and Foundation** – the floor and foundation for the entire school is found to be stable. There were visible of cracks and uneven surface. However, the floor is mostly covered with titles.
- **Roofs** – the school reported that there are no leaks. It was found that roof materials are in good condition. However, some roof cladding and fastenings are partially rusted and requires upgrading works.
- **Windows** – some missing window louvre blades were recorded at various buildings
- **Cyclone** – minor roof upgrading works required to increase cyclone resilient capacity of the structures.

Existing Conditions of Building and Maintenance

- **Exterior –** the building is in fair/poor condition as the wall, beam, column, window seal, doors, eaves, fascia boards and gutters are intact and coated with paint. The school executes periodical maintenance.
- **Interior –** the building is in good condition as the walls, beams, columns windows, doors and ceiling are intact and coated with paint. The school executes periodical maintenance. The classrooms were found to be clean with proper waste disposal.
- **Furniture and Fixtures –** the classrooms and offices have adequate furniture and fixtures that do not impede on the function of the buildings.

Safety and compliance with standards

- **Fire Safety –** the school does not possess adequate fire safety mechanisms. Present fire Extinguishers need maintenance and commissioning. No fire hydrants and alarm systems were found. The school has Emergency exit plan and designated assembly area provisioned.
- **Electrical Safety –** The school is connected to EFL Grid. The school has surface wiring with no fault outlets. All electrical systems are measured to be safe.
- **Accessibility –** the school does not meet disability accessibility standards. The school does not have facilities such as ramps, handrails and accessible restrooms.

Lighting and Ventilation

- **Ventilation –** HVAC system (Heating, Ventilation, and Air Conditioning) is centrally located in the school, in particular, offices and Computer Labs.
- **Natural Lighting –** there are adequate number of windows installed in classrooms that are regularly cleaned to allow natural light to enter into classrooms unobstructed.
- **Artificial Lighting –** it was found that all light fixtures are working and provides adequate illumination.

4) WATER SANITATION HYGIENE (WASH) FACILITIES

Condition of Toilets and Washrooms

Suva Muslim High School has 2 blocks with toilet facilities. The WASH facilities were clean and well maintained. The girls toilet cubicles does not comply with the FNBC for toilet numbers.

TOILET CUBICLE(S)	No. of Cubicles		Toilet Ratio (1 cubicle: students)		Compliance of Student to Toilet Cubicle Ratio (FNBC).	
Building Index	Female	Male	Female	Male	Female Requirement (1:20) Extra Toilets?	Male Requirement (1:30) Extra Toilets?
B1 – B4	11	0	26	0	0	0
B1 – B4	0	11	0	27	0	0

HAND BASINS IN THE TOILET	No. of Hand Basins		Handbasin Ratio 1:		Compliance of Student to Hand Basin Ratio (FNBC).	
Building Index	Female	Male	Female	Male	Female Requirement (1:60) Extra Handbasins?	Male Requirement (1:60) Extra Handbasins?
WC	8	8	37	35	0	0

GENERAL OUTDOOR TAPS Building Index	No. of General Outdoor Taps	Outdoor Taps Ratio 1:	Compliance of Student to Outdoor Taps Ratio Requirement (1:60) (FNBC) Does it require additional hand basins?
B1 – B5	54	11	0

5) DISASTER RESILIENCE ASSESSMENT

This infrastructure condition assessment aims to evaluate the architectural, structural, and non-structural features of the school to ensure it is resilient to natural disasters and provides a safe learning environment for students. The assessment also identifies areas for improvement and highlights the measures already in place to enhance overall resilience. FNBC 1990 and basic loading, wind and seismic AS/NZS codes typical details were utilized during and after inspection.

Architectural

- Cyclonic Roof: The school has a cyclonic roof designed to withstand strong winds and seismic activity.
- Location: The school's location makes it simple to go to relief services and main roads.

Structural

- Material Quality: The school buildings are constructed using reinforced concrete and follow acceptable engineering design principles.
- Structural Integrity: Buildings have demonstrated the capability to withstand and recover from natural disasters like earthquakes, category 3 cyclones, and floods.

Non-Structural

- Disaster Preparedness: Implementation of disaster evacuation plans, emergency exit routes, and safety protocols.
- Fire Safety: Equipped with a fire alarm system and strategically placed fire extinguishers to mitigate fire-related risks.

6) ACCESSIBILITY ASSESSMENT

1. **Compliance with Accessibility Standards:**
   - Educational facilities did not meet accessibility standards, such as the Fiji Disable People Federation Access Audit Tool 1.0. This toolkit covers aspects like ramps, door widths, signage, and accessible routes, also the noncompliance extends beyond physical structures to digital accessibility.

2. **Facilities for Students with Disabilities:**
   - Classrooms did not have adjustable seating arrangements, clear sightlines, and adequate space for mobility aids also including accessible desks and adjustable podiums.
   - Libraries require accessible shelving, reading stations, and assistive technology (such as screen readers) to enhance library usability.
   - Restrooms (WASH facilities) were not wheelchair-accessible or have grab bars and sinks at an appropriate height.
   - Common Areas: the cafeterias and outdoor spaces were not designed inclusively. Benches, seating areas, and a few pathways are not able to accommodate everyone.

3. **Access to Classrooms, WASH Facilities, and Common Areas:**
   - Classrooms do not have wide doorways and ramps to ensure access to classrooms. Additionally, acoustics are not considered for students with hearing impairments.

- WASH Facilities do not have accessible restrooms with proper signage and a clear pathway to the wash facilities.
- Common Areas like corridors, courtyards, and gathering spaces are not barrier-free and are without proper lighting and contrasting floor materials to aid navigation.

7) SUMMARY OF FINDINGS

The following summarizes the individual characteristics assessed during the Suva-Nausori school audit for Marist Brothers Primary School:

Categories of Assessment	Existing Condition / State	Required as per Standards	Gaps Observed
Existing Infrastructure Condition	- Structural Integrity – Columns, slabs, beams, rafters, purlins of adequate size. - General upkeep – Minor irregular maintenance. - Safety compliance- handrails where necessary. - Disability- no consideration when constructed. - Ventilation and lighting – damaged and missing lights at some sections of buildings.	- Structural Integrity – Columns, slabs, beams, rafters, purlins sizes to follow FNBC 1990. - General upkeep –routine checkup as per MOE policies with major defects requiring immediate intervention. - Safety compliance- handrails, extra doors and signage where necessary. - Disability- to comply with FDPF Disability audit tool - Ventilation and lighting – adequate windows and doors required as per FNBC 1990.	- Structural Integrity – Columns, slabs, beams, rafters, purlins sizes to follow FNBC 1990. - General upkeep –requires immediate intervention to major defects. - Safety compliance- safety handrails were only present in suspended floors while ground floor rails beside drain had missing rails (not fully safety compliant). FDPF requires signage which was absent from the school. - Disability- not fully compliant with FDPF Disability audit tool - Ventilation and lighting – limitations in the count of windows and lightings compared to required FNBC.
Assessment of Overcrowding	- The classrooms are accommodating an average of 573 roll/18 classrooms of 37 students.	- FNBC 1990 requires classroom occupancy to have $2m^2$ per person. Based on that, the required roll per classroom was calculated.	- 4/18 classrooms were accommodating more roll than required. - Given the recommended sizing ($1.5m^2$), about 2 extra classrooms are required to address overcrowding in school.
Water Sanitation Hygiene (WASH) facilities	Toilets (students: Cubicle) - Boys – 27:1 (11 cubicles) - Girls – 26:1 (11 cubicles) Taps (students: tap) - Students – 11:1 (54 taps) - Menstrual Hygiene was present in female washroom block	Toilets Ratio (students: Cubicle) - Boys – 30:1 (9 cubicles) - Girls – 20:1 (31 cubicles) Taps Ratio (students: tap) - Students – 60:1 (15 taps) **Please note: Above number of cubicles and taps are respective of 2024 enrolment numbers. Due to variation of ratio with student population in FNBC, the initial ratio is referred ONLY for reporting.** - Menstrual Hygiene to be present in every female washroom block	- The girls toilet ratio meet the FNBC requirement indicating not enough toilet cubicles are in the school. - The handbasin ratio meet the FNBC requirement.
Disaster Resilience Assessment	- Columns, beams, slabs. - All roof had timber/steel roof frames. - The windows only have rusted wire mesh shutters at some sections.	Fiji Building Code 1990. Requirement is that roof cladding be free of rust and fastened securely with type 17 cyclonic screws with neoprene washers. Additionally, cyclone brackets to be fixed on every window frame.	- Rusting of cladding contradicts to the cyclone certification requirement requiring replacement. - Absence of cyclone brackets are not acceptable as per the cyclone certification.
Accessibility Assessment	-Handrails partially are secured and well maintained. - Stairway – average 2m width.	**The following are requirements from Fiji Disabled People's Federation Access Audit Tool** - Ramps – required wherever elevation with minimum 1:8 maximum 1:20 - Walkway clearance - - Handrails to be 0.76m to 0.9m. - Doors and Door size – minimum 0.9m.	The following facilities are missing. - Ramps and elevators for vertical access - Wide doorways and clear pathways - Proper signage - Wheelchair-accessible restrooms - Grab bars - Proper signage - Inclusive seating areas and pathways - Proper lighting - Contrasting floor materials

		- Clearance required of 1.2m and tread width of minimum 310mm. (National Building Code Table D2.1)	

8) RECOMMENDATIONS

- In order to comply with the FNBC, the school will require the following:
  - Classrooms: An additional 5 new classrooms. This expansion aims to accommodate the growing number of students and provide them with an enhanced learning environment.
- WASH Facilities: No additional cubicles required.

Weekly routine maintenance work and daily cleanup directive from MOE is also a critical component of the plan which includes:

- Roof repairs due to rusting of cladding, roofing nails, gutter and gutter straps.
- New paint application on rails and walls

These maintenance activities are designed to address existing wear and tear and to ensure that the school buildings remain in good condition. It is recommended that maintenance be carried out at regular intervals, ideally every 12 months, to prevent deterioration and to maintain a safe and functional environment.

- Accessibility: Prioritize building accessibility features, such as ramps and handrails, to ensure compliance with standards. These features are vital for providing all students, including those with disabilities, with equal access to the school's facilities.

9) COMPLIANCE

Upon inspecting Suva Muslim High School, the following conclusions were drawn:

- **MEHA Compliance:** Compliant
- **WASH Facilities:** The school has ample taps.
- **Land Availability:** There is sufficient land for additional blocks.
- **NFA Compliance:** Compliant with NFA basic guidelines but does not have NFA certification.
- **WAF Compliance:** Adequate water supply, but no backup system for water cuts.
- **FNBC Compliance:** The school is not fully compliant with the occupancy requirements as well as the category 5 cyclone standards based on the windows and roofing requirements.
- **NDMO Compliance**: Targeting NFA and NBC compliance for safety.
- **EFL Compliance:** Assumed to be compliant with EFL standards.
- **DISABILITY Accessibility:** non-compliant

10) APPENDIX

Appendix A – Suva Muslim High School Site Inspection Report

Appendix B – Excel Scoring Sheet

Appendix C – Land Available for Expansion

Appendix A - Site Inspection Report

INFRASTRUCTURE ASSESSMENT AUDIT FOR SUVA – NAUSORI URBAN SCHOOL

SUVA MUSLIM HIGH SCHOOL – REG 2393

SITE INSPECTION REPORT

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List of Abbreviations

NRWM	NRW Macallan (Fiji) Pte Ltd
MOE	Ministry of Education
TT	Tetra Tech International Development Pty Ltd
DFAT	Department of Foreign Affairs and Trade (Australia)
FEG	Free Education Grant
OHS	Occupational Health and
NFA	National Fire Authority
WAF	Water Authority of Fiji
NBC	National Building Code
NDMO	National Disaster Management Office
EFL	Energy Fiji Limited

1) INTRODUCTION

NRW Macallan (Fiji) Limited has been tasked by Tetra Tech International Development PTY LTD to conduct a comprehensive visual inspection of 86 primary and secondary schools along the Suva and Nausori Corridor. The scope of the inspection includes several key aspects:

1) Data Gathering: Gathering information related to school administration and organization, such as school history and enrolment figures.
2) Services Connectivity Verification: Checking the connectivity of essential services including electricity, water, sewerage, and internet.
3) Structural Adequacy: Assessing the structural integrity of the buildings within the school premises, i.e., classroom, toilet blocks, etc, configuration and space requirements.
4) Safety Inspections: Ensuring compliance with Occupational Health and Safety (OHS) standards and Fire Safety measures on-site.
5) Compliance Review: Reviewing gathered information to ensure compliance with various regulatory bodies and standards:

- Ministry of Education (MOE) Compliance
- National Fire Authority (NFA) Compliance
- Water Authority of Fiji (WAF) Compliance
- National Building Code (NBC) Compliance
- National Disaster Management Office (NDMO) Compliance
- Energy Fiji Limited (EFL) Compliance

This particular report documents findings from the inspection conducted at Suva Muslim High School, utilizing the specified number of buildings outlined in the contract as a reference point for the inspection.

The purpose of this comprehensive inspection is likely to ensure that these schools meet regulatory and safety standards and to provide recommendations for any necessary improvements to infrastructure and classroom overcrowding.

2) SCHOOL BACKGROUND

The Islamic Institute of the South Pacific is a tertiary institution owned and operated by the Fiji Muslim League (FML). The FML also owns and manages 17 primary and five secondary schools in Fiji.
Suva Muslim College was established in 1971, at Mead Road Nabua. Since opening, the school has expanded, and now have over 580 enrolments! Students of Suva Muslim College enjoy an array of subjects including the following:

- English
- Maths
- Accounting
- Computer
- Economics
- Basic Science
- Basic Technology
- Social Science
- Commercial Studies
- Biology
- Chemistry
- Physics
- History
- Industrial Arts
- Applied Technology
- Home Economics
- Vosa Vakaviti
- Urdu
- Office Technology
- Agriculture and Geography

For more information regarding the school, please contact Mr. Faruk Ali at contact number +679 338 4352 by e-mail: at smcollege2393@gmail.com

Table 1: SCHOOL DETAILS

NAME OF SCHOOL	MARIST BROTHERS PRIMARY SCHOOL
SCHOOL REGISTRATION NUMBER	2393
SCHOOL LOCATION	MEAD ROAD NABUA, SUVA
SCHOOL TYPE	SECONDARY SCHOOL
FEEDER SCHOOL	SUVA MUSLIM PRIMARY SCHOOL & ZONING
MILESTONE NO. 2	(40 / 86 SCHOOLS)
DATE OF INSPECTION	3RD JULY, 2024
INSPECTED BY (TEAM 1)	ANASEINI RAVULALA (AR)
	SHANEEL PRASAD (SP)
	DURGESH PAL (DP)

Table 2: SCHOOL ENROLMENT FIGURES

Year of Enrolment	Number of Students			Students with Disability	Number of Teachers			Comments
	Male	Female	Total		Male	Female	Total	
2024			573	0	11	25	36	• No. 18 classrooms • Student to stream average ratio is 40:1 for 2024 school calendar. • WASH ratio Male 26 : 1 Female 27: 1
2023			547	0	12	23	35	
2022			530	0	9	24	35	
2021			521	0	10	25	35	
2020			464	0	9	24	34	
2019			459	0	10	23	35	

Table 3: 2024 CLASSROOM ENROLLMENT DETAILS

GRADE	CLASS NUMBER	TOTAL STUDENT ROLL	NUMBER OF TEACHERS	DIMENSIONS (m)		ACCESS WAY COUNT		OVERCROWDING
				LENGTH	WIDTH	NO. OF DOORS	NO. OF WINDOWS	
9	9A	38	2	7.50	7.50	1	12	☒YES ☐NO
9	9B	37	2	7.50	7.50	1	12	☒YES ☐NO
9	9C	38	2	7.50	7.50	1	12	☒YES ☐NO
9	9D	39	2	7.50	7.50	1	12	☒YES ☐NO
10	10A	30	2	7.00	6.67	1	12	☒YES ☐NO
10	10B	30	2	7.00	6.67	1	12	☒YES ☐NO
10	10C	29	2	7.00	6.67	1	12	☒YES ☐NO
10	10D	32	2	7.00	6.67	1	16	☒YES ☐NO
11	11A	34	2	7.00	6.67	1	16	☒YES ☐NO
11	11B	26	2	7.00	6.67	1	16	☒YES ☐NO
11	11C	33	2	7.00	6.67	1	16	☒YES ☐NO
11	11D	35	2	7.00	6.67	1	16	☒YES ☐NO
12	12A	30	2	8.50	7.70	1	16	☐YES ☐NO
12	12B	22	2	8.50	7.20	1	16	☐YES ☐NO
12	12C	29	2	8.50	7.20	1	16	☐YES ☐NO
12	12D	21	2	8.50	7.20	1	16	☐YES ☐NO
13	13A	35	2	8.50	7.20	1	16	☒YES ☐NO
13	13B	35	2	8.50	7.20	1	16	☒YES ☐NO

3) SCHOOL SITE PLAN

AERIAL VIEW

LEGEND

B#	BUILDINGS	DR#	PONDS/CREEKS/DRAINAGE
PG#	PLAYGROUND	WW	WALKWAYS
WC#	TOILETS	CP	CAR PARK AREA
SEP	SEPTIC TANK	OA	OFFICE ADMINISTRATION
AA	ASSEMBLY AREA	WW	WALKWAY

4. VISUAL INSPECTION RESULTS

EXISTING BUILDING INFORMATION

BUILDING 1:

CLASSROOMS / LIBRARY / PRAYER ROOM:

Building Index	CLASSROOMS & LIBRARY		Year Built:	(Age: years old)
Type:	Concrete building – Doublele storey, concrete floor slab, concrete block walls, with gable roof structure and trim-dek iron roof sheets		No. of Levels: 2	
Dimensions	Length (m): 28.80	Width (m): 7.20		Height (m): 6.20

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type[4]	Comments
1	Roof Lining	✓			Steel	Good condition
2	Roof Structure		✓		Timber	Concealed
3	Walls		✓		Concrete	Good condition
4	Columns		✓		Steel/Concrete	Good condition
5	Beams		✓		Concrete/Timber	Good condition
6	Floor		✓		Concrete	Good condition
7	Handrails		✓		Steel	Good condition
8	Walkway(s)		✓		Concrete	Space Ok
9	Services – water supply	✓				OK
10	Available taps for general use	✓				# of taps: 2 Student – Tap ratio =
11	Services – electricity	✓				Not all lights and fans are working
12	Services – communication (internet)	✓				OK
13	Drainage	✓				Good condition

Comments

- Floor
  Surface cracks are visible along the floor slabs along the corridor and staircase of each levels.

- Missing gutters fastenings and damage downpipes
- Missing louvre blades
- Doors and windows functional
- Floor tiles non-slippery with minor damage/cracks
- No cyclone shutters provided for the building. However, steel grills, were present and permanently fixed to exterior window frames.

Good - No additional works / intervention required
[2] Fair - Remedial works required – min CAT 3 standard

[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel

BUILDING 2:

CLASSROOMS / OFFICE / ABLUTION (FEMALE):

Building Index	CLASSROOMS		Year Built:	(Age: years old)
Type:	Concrete building – Double storey split level, concrete floor slab, concrete block walls, with gable roof structure and corrugated iron roof sheets		No. of Levels: 2 / 3	
Dimensions	Length (m): 42.50	Width (m): 7.75	Height (m): 6.40	

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type[4]	Comments
1	Roof Lining	✓			Steel	Good condition
2	Roof Structure		✓		Timber	Concealed
3	Walls		✓		Concrete	Good condition
4	Columns		✓		Steel/Concrete	Good condition
5	Beams		✓		Concrete/Timber	Good condition
6	Floor		✓		Concrete	Good condition
7	Handrails		✓		Steel	Good condition
8	Walkway(s)		✓		Concrete	Space Ok
9	Services – water supply	✓				OK
10	Available taps for general use	✓				# of taps: 4 Student – Tap ratio =
11	Services – electricity	✓				Not all lights and fans are working
12	Services – communication (internet)	✓				OK
13	Drainage	✓				Good condition

Comments

- Floor
  Surface cracks are visible along the floor slabs along the corridor and staircase of each levels.

- Missing gutters fastenings and damage downpipes
- Missing louvre blades
- Doors and windows functional
- Floor tiles non-slippery minor damage/cracks
- No cyclone shutters provided for the building. However, steel grills, were present and permanently fixed to exterior window frames.

Good - No additional works / intervention required

[2] Fair - Remedial works required – min CAT 3 standard
[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel

BUILDING 3:

CLASSROOMS / OFFICE / PRAYER ROOM:

Building Index	CLASSROOMS		Year Built:	(Age: years old)
Type:	Concrete building – Double storey split level to the right side of the building to 3 storeys, concrete floor slab, concrete block walls, with gable roof structure and trim-dek iron roof sheets		No. of Levels: 2 / 3	
Dimensions	Length (m): 30.60	Width (m): 7.75		Height (m): 6.40 / 9.30

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type[4]	Comments
1	Roof Lining	✓			Steel	Good condition
2	Roof Structure		✓		Timber	Concealed
3	Walls		✓		Concrete	Good condition
4	Columns		✓		Steel/Concrete	Good condition
5	Beams		✓		Concrete/Timber	Good condition
6	Floor		✓		Concrete	Good condition
7	Handrails		✓		Steel	Good condition
8	Walkway(s)		✓		Concrete	Space Ok
9	Services – water supply	✓				OK
10	Available taps for general use	✓				# of taps: 2 Student – Tap ratio =
11	Services – electricity	✓				Not all lights and fans are working
12	Services – communication (internet)	✓				OK
13	Drainage	✓				Good condition

Comments

- Floor
  Surface cracks are visible along the floor slabs along the corridor and staircase of each levels.

- Missing gutters fastenings and damage downpipes
- Missing louvre blades
- Doors and windows functional
- Floor tiles non-slippery damage
- No cyclone shutters provided for the building.
- Present non-slippery tiles – minor cracks/damage

Good - No additional works / intervention required
[2] Fair - Remedial works required – min CAT 3 standard
[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel

BUILDING 4:

CLASSROOMS & ABLUTION (MALE)

Building Index	CLASSROOMS & ABLUTION (MALE)		Year Built:	(Age: years old)
Type:	Concrete building – Three storeys, concrete floor slab, concrete block walls, with hip roof structure and trim-dek iron roof sheets		No. of Levels: 3	
Dimensions	Length (m): 20.30	Width (m): 7.50		Height (m): 9.40

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type[4]	Comments
1	Roof Lining	✓			Steel	Good condition
2	Roof Structure		✓		Timber	Concealed
3	Walls		✓		Concrete	Good condition
4	Columns		✓		Steel/Concrete	Good condition
5	Beams		✓		Concrete/Timber	Good condition
6	Floor		✓		Concrete	Good condition
7	Handrails		✓		Steel	Good condition
8	Walkway(s)		✓		Concrete	Space Ok
9	Services – water supply	✓				OK
10	Available taps for general use	✓				# of taps: 5 Student – Tap ratio =
11	Services – electricity	✓				Not all lights and fans are working
12	Services – communication (internet)	✓				OK
13	Drainage	✓				Good condition

Comments

- Floor
  Surface cracks are visible along the floor slabs along the corridor and staircase of each levels.

- Missing gutters fastenings and damage downpipes
- Missing louvre blades
- Doors and windows functional
- Floor tiles non-slippery damage
- Gothic mesh cyclone shutter permanently fixed to certain area of the glazed areas. The rest of the glazed area are without cyclone shutters.
- Walls tear and wear paintings

Good - No additional works / intervention required
[2] Fair - Remedial works required – min CAT 3 standard
[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel

BUILDING 5:

CLASSROOMS / OFFICE / CANTEEN

Building Index	CLASSROOMS / OFFICE / CANTEEN		Year Built:	(Age: years old)
Type:	Concrete building – Single storey, concrete floor slab floor, concrete block walls, with gable roof structure and corrugated iron roof sheets		No. of Levels: 1	
Dimensions	Length (m): 70.20	Width (m): 10.20		Height (m): 2.60

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type[4]	Comments
1	Roof Lining	✓			Steel	Good condition
2	Roof Structure		✓		Timber	Concealed
3	Walls		✓		Concrete	Good condition
4	Columns		✓		Steel/Concrete	Good condition
5	Beams		✓		Concrete/Timber	Good condition
6	Floor		✓		Concrete	Good condition
7	Handrails		✓		Steel	Good condition
8	Walkway(s)		✓		Concrete	Space Ok
9	Services – water supply	✓				OK
10	Available taps for general use	✓				# of taps: 4 Student – Tap ratio =
11	Services – electricity	✓				Not all lights and fans are working
12	Services – communication (internet)	✓				OK
13	Drainage	✓				Good condition

Comments

- Floor
  Surface cracks are visible along the floor slabs along the corridor and staircase of each levels.

- Missing gutters fastenings and damage downpipes
- Missing louvre blades
- Doors and windows functional
- Floor tiles non-slippery damage
- Gothic mesh cyclone shutter permanently fixed to certain area of the glazed areas. The rest of the glazed area are without cyclone shutters.
- Walls tear and wear paintings

Good - No additional works / intervention required
[2] Fair - Remedial works required – min CAT 3 standard
[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel

TOILET BLOCKS (BOYS & GIRLS)

Building Index	B2 – FEMALE ABLUTION / B4 – MALE ABLUTION		
Type:	Concrete structure with concrete block wall at ground floor level		No. of Levels: 1
Dimensions	Length (m):	Width (m):	Height (m):
Existing State of Building			

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type [4]	Count[5]	Comments
1	Roof lining				N/A		
2	Roof structure		✓		N/A		
3	Wall		✓		Concrete		Fair conditions
4	Columns/beams (where required)				Concrete		Good condition
5	Floor		✓		Concrete		Fair conditions, all inside floor non-slip tiles.
6	Handrails				N/A		
7	Walkway				N/A		
8	Services - Water		✓				OK
9	Service - Electricity		✓				OK
10	Service – communication (internet)				N/A		
11	Toilet Bays – female					12	Washbasin sufficient
13	Toilet Bays – accessible		✓		Concrete	10	Washbasin sufficient
14	Entry to the toilet building		✓		Concrete		OK
15	Menstrual Hygiene facilities						OK, Provided to all bay

[1] Good - No additional works / intervention required
[2] Fair - Remedial works required – min CAT 3 standard
[3] Poor - Demolition and replace with new - min CAT 4 standard
[4] Type of structure - Timber/concrete/steel
[5] Count - Used for identifying number of toilet bays and menstrual hygiene facilities

Comments –

- **Others:**
  - Ventilation was good & lighting ok.
  - Some of the toilet wall requires new coat painting.
  - Doors functional
  - Toilet system in good condition and well maintained

5. PHOTOGRAPHIC REPORT

B1 – BUILDING 1

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

PHOTOGRAPH No. 1: FRONT VIEW

PHOTOGRAPH No. 2: SIDE VIEW

PHOTOGRAPH No. 3: WALKWAY	PHOTOGRAPH No. 4: WASH TAP

BUILDING INDEX – B2

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

PHOTOGRAPH No. 1: FRONT VIEW

PHOTOGRAPH No. 2: SIDE VIEW

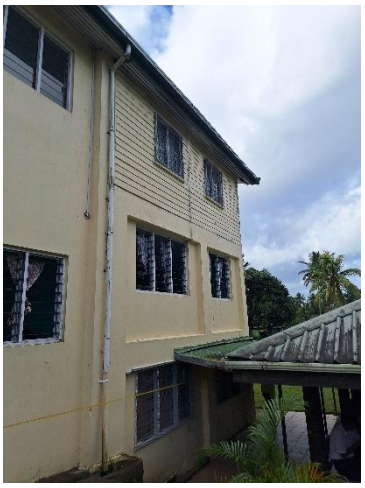
PHOTOGRAPH No.9: MISSING TREADS ON TIMBER STAIR

PHOTOGRAPH No. 10: DAMAGE DOORS AND UNSECURED CONNECTION

BUILDING INDEX – B3

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

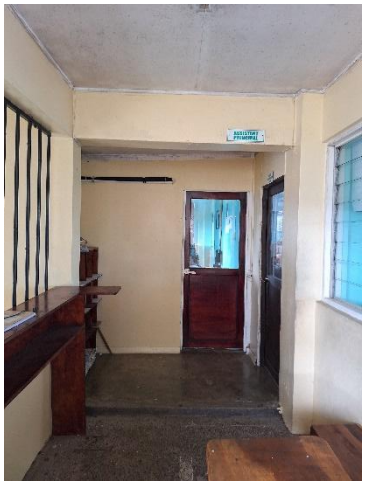
PHOTOGRAPH No. 1: FRONT VIEW CLASSROOM



PHOTOGRAPH No. 2: REAR VIEW CLASSROOM

PHOTOGRAPHS No. 3: WALKWAY

PHOTOGRAPH No. 4: GENERAL TAPS



PHOTOGRAPH No. 5: WALKWAY

PHOTOGRAPH No. 6: REAR VIEW

BUILDING INDEX – B4

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

PHOTOGRAPH No. 1: FRONT VIEW

PHOTOGRAPH No. 2: WALKWAY

PHOTOGRAPH No. 3: INTERIOR CLASSROOM

PHOTOGRAPH No. 4: GROUND WALKWAY

PHOTOGRAPH No. 5: WATER TAPS

PHOTOGRAPH No. 6: WINDOWS AND DOOR

BUILDING INDEX – B5

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

PHOTOGRAPH No. 1: FRONT VIEW

PHOTOGRAPH No. 2: WALKWAY

PHOTOGRAPH No. 3: WALKWAY

PHOTOGRAPH No. 4: GENERAL WATER TAPS

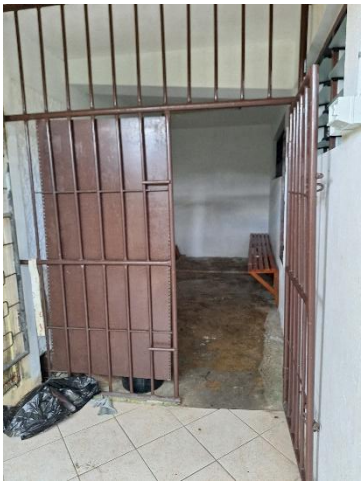
Building Index – B6 ABLUTION BLOCK

Client	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School name:**	**SUVA MUSLIM HIGH SCHOOL**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL**	**Site Location:**	**MEAD ROAD NABUA, SUVA.**

PHOTOGRAPH No. 1: TOILET BAYS

PHOTOGRAPHS No. 2: WASHBASIN

PHOTOGRAPH No. 3: WASHBASIN & TOILET BAYS



PHOTOGRAPH No. 4: CHANGING AREA

Appendix B – Excel Scoring Sheet

	WEIGHTED CRITERIA		
1	**PART A - CLASSROOM OVERCROWDING (40%)** **Classrooms facilitating students beyond room capacity, determined through number of students per classroom and classroom size**		
	Good - zero to afew classrooms are accommodating students above capacity.	0 to 23	**9**
	Criteria Item Score		**9.0**
2	**PART B - WASH FACILITIES (20%)** **WASH- Student ratio based on the Fiji National Building Code (FNBC) Infrastructure Standards (10%)**		
	Fair - WASH-Student ratio for school toilet blocks slightly falls below the ratio in the standard specified by FNBC.	6 to 7.9	**6**
2.1	**Quality of facilities and current condition such as funtionality and maintenance (10%)**		
	Good - generally school toilet facilities are maintanined well with minimal disturbances from the physical infrastructure to the end users.	0 to 5.9	**5**
	Criteria Item Score		**11.0**
3	**PART C - CONDITION OF INFRASTRUCTURE (20%)** **Building structure and condition of walls, floors, ceilings, overall structural integrity (10%)**		
	Good - most building structures are in good condition, however some may need repairs to improve structural integrity.	0 to 5.9	**0**
3.1	**Maintenance and assessment of the upkeep of facilities including painting and repairs (10%)**		
	Good - generally school facilities are maintanined well with minimal disturbances from the physical infrastructure to the end users.	0 to 5.9	**0**
	Criteria Item Score		**0.0**
4	**PART D - DISABILITY ACCESSIBILITY (10%)** **Accessibility features such as the presence of existing ramps, handrails, accessible toilets etc**		
	Good - most school buildings have accessible features, however some facilities are not currently accessible.	0 to 5.9	**5**
	Criteria Item Score		**5.0**
5	**PART E - DISASTER RESILIENCE (10%)** **Presence and quality of measures for disaster resilience of buildings including structural measures, cyclone shutters and fire safety systems**		
	Good - most or all school buildings structures are resilient to natural disasters and have partial safety systems in place. More systems or structural intervention would need to be implemented	0 to 5.9	**5**
	Criteria Item Score		**5.0**
	TOTAL CRITERIA SCORE		**30.0**

Appendix C – Land Available for Expansion

Australian Government
Department of Foreign Affairs and Trade

TETRA TECH

Disasters DO Happen
Are YOU Prepared?

NRW MACALLAN (FIJI) LTD
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CIVIL, STRUCTURAL, ELECTRICAL, MECHANICAL & PROJECT MAMAGEMENT
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P O BOX 1208, SUVA. PHONE: (679) 3313 388, FAX (679) 3302903
EMAIL: info@nrwmacallan.com.fj

SCHOOL NAME:

SUVA MUSLIM HIGH SCHOOL

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