INFRASTRUCTURE ASSESSMENT AUDIT FOR SUVA – NAUSORI URBAN SCHOOLS

JOHN WESLEY SCHOOL (REG 2369)
SUMMARY REPORT

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1) INSPECTION SUMMARY

School Inspection summary	
School Name:	John Wesley Primary School
Overall condition state:	POOR
Key recommendations:	

- Overcrowding – 9 new classrooms are required based on the NBC standards,
- WASH – About 12 New toilet cubicles or 1 new ablution block is required, as well as maintenance of all existing blocks.
- Accessibility – All buildings require accessible ramps, accessible doorways, etc.
- Disaster resilience – Windows to include proper cyclone shutter and roof cladding with cyclone screws

Comments:

Major defects were noted as follows:

- Damaged ceiling boards, a sign of water leakage stain (building B-A, B-C)
- Wall paints peeling off. (Building B-A1, B-A, B-C & B-E)
- No floor tiles or damage missing tiles. (Building B-A)
- Inadequate boys & girl's toilets cubicles (Building B-D & B-B)
- Stairway width & landings inadequate (Building B-B)
- Roof gutter & downpipe missing for most buildings. (Building B-A1, B-A, B-C & B-E)
- The linkway between buildings B & C will be upgraded to cyclone standards. With new gutter & downpipe system.

Aerial view of School

General views of school

School Type:	**Primary**	✓	**Secondary**		**Year levels**	
School address:	Grantham Rd, Suva, Fiji					
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 (Male)	
	398	347	-	5	12	
School building arrangement	TOTAL NUMBER OF BUILDINGS: 6 B-A1, SINGLE TIMBER BUILDING B-A, SINGLE TIMBER BUILDING B-B, CANTEEN – SINGLE-STOREY, TIMBER BUILDING B-C, DOUBLE-STORY CONCRETE BUILDING B-D, SINGLE-STORY TIMBER BUILDING B-E, SINGLE-STORY TIMBER BUILDING (KINDERGARTEN)					
Local Government area:	Grantham Rd, Suva, Fiji					
Date of inspection:	11th June, 2024					
Inspection team:	ANASEINI LEDUA (AL) SHANEEL PRASAD (SP) RAHUL DIVESH PAL (RDP) DURGESH PAL (DP)					
Data collection methods	Visual inspection	✓	Onsite measurement	✓		
	Interviews with school staff	✓	Drone / Aerial imagery	✓		
	Survey form		Desktop research			
	Other:					
Assumptions						
Limitations:	Unavailability of all school documents, such as site boundary, detailed as build plans.					

2) ASSESSMENT OF OVERCROWING

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 interrogations of enrolment data and compares it against the FNBC standard student-to-classroom size ratio of 2 m2 per student.

The results of the assessment are based on the recommended sizing (1.5m^2), according to 2024 data, an additional 1 classrooms are required across each year levels Y1-Y8 for John Wesley Primary School.

Year	Stream	Number of students	Current number of classrooms	Number of extra classrooms required based on FNBC on 2024 data
1	101	48	2	1
	102	48		
2	201	45	2	1
	202	38		
3	301	48	2	1
	302	48		
4	401	45	2	1
	402	44		
5	501	49	2	1
	502	50		
6	601	52	2	1
	602	48		
7	701	58	2	2
	702	49		
8	801	50	2	1
	802	51		

3) EXISTING INFRASTRUCTURE CONDITIONS

Conducting an infrastructure condition assessment for classrooms involves evaluating various aspects of the physical environment to ensure they are safe, functional, and conducive to learning. Here's a comprehensive approach based on the items listed:

1. Visual Inspection: Walk through the school grounds and buildings to assess the general state of the infrastructure.
2. Interviews: Speak with school staff and key stakeholders to gather insights on the condition and functionality of the classrooms.
3. Documentation Review: Examine any existing reports, blueprints, or previous inspection documents for additional context.
4. Safety and Accessibility: Check for any safety hazards and ensure classrooms are accessible to all students.
5. Structural Integrity: Assess the structural condition of the buildings, including walls, roofs, and foundations.
6. Utilities and Services: Evaluate the condition of the electrical, plumbing, and HVAC systems.
7. Environmental Conditions: Consider lighting, ventilation, and acoustics.
8. Maintenance Records: Review maintenance records to identify any recurring issues or areas needing attention.

Given the outline procedure, the following observations were made:

Block Code	Length (m)	Width (m)	Height (m)	No, of Levels	Type	Room List
B-A	24.15	10.4	3.0	1	Single-story timber structure that consists of concrete stubs, timber bearer columns and beams with masonry external walls and timber framed roof structure	A – Classroom Blocks (x3)
B-A1	16.9	6.2	3.0	1	Single-story timber structure that consists of concrete stubs, timber bearer columns and beams with masonry external walls and timber framed roof structure	Administrator Office & sickbay room
B-B	12.2	6.8	3.1	1	Single-story building with concrete floor & timber walls	Canteen/staff room
B-C	47.4	11.2	6.310	2	Double-story, ground-level concrete structures with a masonry wall, column floor beams, and concrete floors. timber & steel posts up to roof level. Building.	Level 1 – classroom/Toilets/shower/sports room. 1 shower for both Boys & girls. Ground floor Level 2 – classroom /toilets 8 toilets for females. 6 toilets for males.
B-D	33.8	7.0	3.0	1	Single-story structure, timber framed flooring, wall & timber trusses. Concrete floor terrace walkway & timber post-timber beams	Classrooms & Toilets. 4 toilets for male & female.
B-E	34.8	9.05	3.0		Single-story structure, timber framed flooring, wall & timber trusses.	2 – Kindergarten 4- Classrooms

					Concrete floor terrace walkway & timber post-timber beams.	
B-D1	10.5	7.95	3.0	1	Single-story structure, concrete block wall structure with timber roof Framed trusses.	kindergarten

NOTE: The toilets mentioned refer 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 in good condition. The following criteria were used:

- Good - No additional work/intervention is required
- Fair - Remedial works required
- Poor - Demolition and replacement with new

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

Observations on Structural Elements

- **Walls and Ceiling** – Timber walls to be fixed and replaced & painted. The ceiling to be cleaned & repaired was possibly required. Generally, all the walls & ceilings are to be cleaned & repainted.
- **Floors and Foundation** – The floor and foundation for the entire school are to be found stable for the concrete structures. The timber structure flooring and some of the damaged floor stubs are to be replaced with similar footing. The exposed strip footing at the back of the building is to be covered, and filled with compacted hard-fill material.
- **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 require upgrading works.
- **Windows** – some missing window louver blades were recorded at various buildings
- **Earthquake –** the double-story concrete may not comply with earthquake design since it was built in the 1990s.
- **Cyclone** – minor roof upgrading works are required to increase the cyclone resilient capacity of the structures, such as adding purlins, purlin to rafter strapping, etc.

Existing Conditions of Building and Maintenance

- **Exterior –** the building is in fair condition as the wall, beam, column, window seal, doors, eaves, and fascia boards, are intact. The downpipe & pvc gutters have been damaged the school executes periodical maintenance.
- **Interior –** the building is in fair 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 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 an emergency exit plan and a designated assembly area.
- **Electrical Safety –** The school is connected to the 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, particularly in, offices and Computer Labs.
- **Natural Lighting –** an adequate number of windows installed in classrooms, that are regularly cleaned to allow natural light to enter the classrooms unobstructed.
- **Artificial Lighting –** it was found that all light fixtures are working and provide adequate illumination.

4) WATER SANITATION HYGIENE (WASH) FACILITIES

Condition of Toilets and Washrooms

John Wesley Primary School has 4 blocks with toilet facilities in building B-B & B-C. The facilities have some minor defects such as:

- The cubicle doors were damaged, no proper locking system.
- Old & rusted urinal system. To be replaced with the new stainless urinal & flushing.
- Some toilet seat pans were missing.
- Rust was found on the door hinges and steel connectors of the PVC pipe outlets in the toilet system.
- The floor and walls had damaged and missing tiles.

The WASH facilities were unclean and lacked maintenance while the girl's toilet cubicles do not comply with the FNBC for toilet numbers.

The school has designated specific toilet blocks for a few buildings. For instance, students in Building B-A & B-B are assigned to use toilets in Building B-C. The table below provides data on wash facilities. The Table below presents wash facilities data.

TOILET CUBICLE(S)		No. of Cubicles		Toilet Ratio (1 cubicle: students)		Compliance of Student to Toilet Cubicle Ratio (FNBC).	
Building Index	Used by Years	Female	Male	Female	Male	Female Requirement (1:20) Extra Toilets?	Male Requirement (1:30) Extra Toilets?
B-B	Y1-Y8	12		347		6	
B-B & B-C	Y1-Y8		7		396		6

HAND BASINS IN THE TOILET		No. of Hand Basins		Handbasin Ratio 1:		Compliance of Student to Hand Basin Ratio (FNBC).	
Building Index	Used by Years	Female	Male	Female	Male	Female Requirement (1:60) Extra Handbasins?	Male Requirement (1:60) Extra Handbasins?
B-B	Y1-Y8	4	0	347	0	1	N/A
B-B & B-C	Y1-Y8	4			396		0

GENERAL OUTDOOR TAPS		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?
Building Index	Used by Years			
B-B	Y1-Y8	10	12	2
B-B & B-C	Y1-Y8	10	12	2

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. However, replacement with new roof cladding and roofing screws is needed. Existing roof cladding is mostly corrugated roof sheeting with cyclone-type 14 screws.
- Central Location: The school is centrally located, allowing easy access to main streets and relief services.

Structural

- Material Quality: The school buildings are constructed using reinforced concrete and follow acceptable engineering design principles. Roof framing such as timber framed trusses, rafters & purlins.
- Structural Integrity: Buildings have demonstrated the capability to withstand and recover from natural disasters like earthquakes, category 3 cyclones, and floods.
- Some of the timber building structures are not designed for cyclones. (Cyclone upgrading is required)

Non-Structural

- Disaster Preparedness: Disaster evacuation plans, emergency exit routes, and safety protocols are implemented.
- Fire Safety: Equipped with a fire alarm system and strategically placed fire extinguishers to mitigate fire-related risks.
- The linkway connecting the buildings is a temporary structure and requires cyclone upgrading.

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.
   - Laboratories are not able to accommodate students with various disabilities because of the absence of adjustable lab benches, accessible sinks, and clear pathways.
   - Libraries require accessible shelving, reading stations, and assistive technology (such as screen readers) to enhance library usability.
   - Restrooms (WASH facilities) we're not wheelchair-accessible or have grab bars and sinks at an appropriate height.
   - Common Areas: the cafeterias and outdoor spaces are not designed inclusively. Benches, seating areas, and a few pathways can not 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 John Wesley Primary School:

Categories of Assessment	Existing Condition / State	Required as per Standards	Gaps Observed
Existing Infrastructure Condition	- Structural Integrity – Columns, slabs, walls. beams, rafters, and 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 check-up as per MOE policies with major defects requiring immediate intervention. - Safety compliance- handrails, extra doors, and signage where necessary. - Disability- to comply with the FDPF Disability audit tool - Ventilation and lighting – adequate windows and doors are 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 on suspended floors while ground floor rails beside the drain had missing rails (not fully safety compliant). FDPF requires signage which was absent from the school. - Disability- not fully compliant with the FDPF Disability audit tool - Ventilation and lighting – limitations in the count of windows and lighting compared to required FNBC.
Assessment of Overcrowding	- The classrooms are accommodating an average of 745 roll 18 classrooms of 37 students.	- FNBC 1990 requires classroom occupancy to be $2m^2$ per person. Based on that, the required roll per classroom was calculated.	- All classrooms were accommodating more roll than required. - Given the recommended sizing ($1.5m^2$), about 8 extra classrooms are required to address overcrowding in the school.
Water Sanitation Hygiene (WASH) facilities	Toilets (students: Cubicle) - Boys – 57:1 (7 cubicles) - Girls – 29:1 (12 cubicles) Taps (students: tap) - Students – 37:1 (20 taps) - Menstrual Hygiene was present in every female washroom block	Toilets Ratio (students: Cubicle) - Boys – 30:1 (6 cubicles) - Girls – 20:1 (6 cubicles) Taps Ratio (students: tap) - Students – 60:1 (4 taps) **Please note: The above number of cubicles and taps are respective of 2024 enrolment numbers. Due to the variation of ratio with the student population in FNBC, the initial ratio is referred to ONLY for reporting.** - Menstrual Hygiene to be present in every female washroom block	The boy's toilet ratio was on par with the FNBC 1990 ratio. This may hinder later on with the growing population. - The girl's toilet ratio exceeded the FNBC requirement, indicating insufficient toilet cubicles in the school. Given the roll of girls, a total of 6 extra cubicles is required - The tap ratio was below the FNBC requirement indicating extra taps are in the school. - Schools require maintenance of rusting pipes and algae build-up in WASH facilities.
Disaster Resilience Assessment	- Columns, beams, and slabs had hairline cracks. - All roofs had truss roof frames. - The windows only have burglar shutters in some sections.	Fiji Building Code 1990. The requirement is that roof cladding be free of rust and fastened securely with type 17 cyclonic screws with neoprene washers. Additionally, cyclone brackets are to be fixed on every window frame.	- Rusting of cladding contradicts the cyclone certification requirement requiring replacement. The absence of cyclone brackets is not acceptable as per the cyclone certification.
Accessibility Assessment	-Handrails partially damaged in corridors. - Classrooms and labs have typical door sizes of 0.8 – 0.9m in width.	**The following are requirements from the Fiji Disabled People's Federation Access Audit Tool** - Ramps – required wherever elevation with minimum 1:8 maximum 1:20 - Walkway clearance -	The following facilities are missing. - Ramps and elevators for vertical access - Wide doorways and clear pathways - Proper signage - Wheelchair-accessible restrooms - Grab bars

	- Stairway – average 0.9m width.	- Handrails to be 0.76m to 0.9m. - Doors and Door size – minimum 0.85m. - Clearance required of 1.2m and tread width of minimum 310mm. (National Building Code Table D2.1)	- Proper signage - Inclusive seating areas and pathways - Proper lighting - Contrasting floor materials

8) RECOMMENDATIONS

- To comply with the FNBC, the school will require the following:
  - Classrooms: An additional 3 new classrooms for students. This expansion aims to accommodate the growing number of students and provide them with an enhanced learning environment.
- WASH Facilities: An additional 6 cubicles for girls are required, equipped with up-to-date WASH facilities (handbasin), catering particularly to the needs of female students. These new facilities are essential to ensure hygiene and comfort. Additionally, 6 cubicles for boys' consideration could also be given to the boys' toilet cubicles as the ratio is on par with the FNBC ratio. The exact number could be discussed upon further analysis.

Weekly routine maintenance work and daily clean-up directives from MOE are also critical components of the plan which include:

- Roof repairs due to rusting of cladding, roofing nails, gutter, and gutter straps
- Cleaning up the drains & maintaining the walkways, and landscape (grounds) for the school.
- New paint application on rails and walls where required.
- Daily cleaning of classroom & toilets.
- Checking all electrical lights, switches & fans working properly.

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 John Wesley Primary School, the following conclusions were drawn:

- **MEHA Compliance:** Compliant
  - **WASH Facilities:** The student-to-tap ratio is 15:1 which is less than the maximum ratio of 50:1 according to MOE. 4 additional taps are required. An additional two ablution blocks with 6 bays male & female where the land space is available. comply with FNBC 1990.
- **Land Availability:** There is sufficient land for additional blocks behind building B-D & along the roadside, the front car parking area.
- **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. The storage water is only used for toilet facilities & doesn't have any water filters attached.
- **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 – John Wesley Primary School Site Inspection Report

Appendix A - Site Inspection Report

INFRASTRUCTURE ASSESSMENT AUDIT FOR SUVA – NAUSORI URBAN SCHOOLS

JOHN WESLEY SCHOOL (REG 2369)
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 Safety
NFA	National Fire Authority
WAF	Water Authority of Fiji
NBC	National Building Code
NDMO	National Disaster Management Office
EFL	Energy Fiji Limited

1) SCHOOL BACKGROUND

John Wesley Primary School was established in 1996 on Grantham Road, Raiwaqa, Suva, and serves a diverse student population.

The school, affiliated with the Methodist Church, welcomes students from various ethnic backgrounds. It values the active participation of parents and carers as essential partners in the educational process.

The school's contact information is 3383684 or 7733684 by phone, or email at johnwesley2369@gmail.com. The school also engages with local churches, other schools, and charities to emphasize its connection with the wider community.

Table 1: SCHOOL DETAILS

NAME OF SCHOOL	John Wesley Primary School
SCHOOL REGISTRATION NUMBER	2369
SCHOOL LOCATION	Grantham Rd, Suva, Fiji
SCHOOL TYPE	Primary School
FEEDER SCHOOL	Yes
DATE OF INSPECTION	11th June, 2024
MILESTONE	19/86 Schools
INSPECTED BY (TEAM 1)	SHANEEL PRASAD (SP)
	YASH MUDALIAR (YM)
	ANASEINI LEDUA. (AL)
	JOHN WESLEY PRIMARY SCHOOL

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	398	347	745	N/A	5	12	17	• 18 classrooms. • 745 students. • Student to stream is 745 / 18 classrooms = 745:16 for 2024. • Total taps count = 40 • WASH ratio (Taps) = 15:1 < 60:1 • Total boys' toilet cubicle count = 7 • WASH ratio (Toilets) - Male = 56.8:1 > 30:1 • Total girls' toilet cubicle count = 12 • WASH ratio (Toilets) - Female = 27:1 > 20:1 Evacuation Centre = No
2023	410	326	736	N/A	6	11	17	
2022	416	342	758	N/A	5	11	16	
2021	430	353	783	N/A	6	11	17	
2020	388	428	745	N/A	7	11	18	
2019	389	387	775	N/A	9	11	19	
2018	412	365	777	N/A	10	10	20	

Table 3: 2024 CLASSROOM ENROLMENT DETAILS

GRADE	CLASS NUMBER	TOTAL STUDENT ROLL	NUMBER OF TEACHERS	DIMENSIONS (m)		ACCESS WAY COUNT		OVERCROWDING
				LENGTH	WIDTH	NO. OF DOORS	NO. OF WINDOWS	
1	101	48	1	8.42	6.19	2	12	☒YES ☐NO
	102	48	1	8.45	6.19	2	12	☒YES ☐NO
2	201	45	1	8.25	6.01	1	16	☒YES ☐NO
	202	38	1	8.295	6.01	1	16	☒YES ☐NO
3	301	48	1	8.30	6.01	1	16	☒YES ☐NO
	302	48	1	8.25	6.01	1	16	☒YES ☐NO
4	401	45	1	7.40	7.27	1	12	☒YES ☐NO
	402	44	1	7.40	7.39	1	12	☒YES ☐NO
5	501	49	1	7.30	7.30	1	15	☒YES ☐NO
	502	50	1	7.43	7.275	1	12	☒YES ☐NO
6	601	52	1	7.94	7.70	1	15	☒YES ☐NO
	602	48	1	7.80	7.94	1	15	☒YES ☐NO
7	701	58	1	7.80	7.94	1	15	☒YES ☐NO
	702	49	1	7.43	7.275	1	15	☒YES ☐NO
8	801	50	1	7.39	7.275	1	12	☒YES ☐NO
	802	51	1	7.30	7.275	1	12	☒YES ☐NO
0	Kindergarten (2 streams)	72/2 (36)	1	8.40	6.19	2	12	☐YES ☒NO
	Kindergarten (2 streams)	72/2 (36)	1	8.40	6.19	2	12	☐YES ☒NO

2) SCHOOL SITE PLAN

AERIAL VIEW

LEGEND			
B#	BUILDINGS	DR#	PONDS/CREEKS/DRAINAGE
PG#	PLAYGROUND	H#	HOSTELS
WC#	TOILETS	ST#	STAFF QUARTERS
T#	TAP / WASH AREA	F#	DINING/FOOD AREA
WS#	WATER STORAGE FACILITY	EFL#	EFL POSTS/ JUNCTION BOX
SEP#	SEPTIC TANK	CP	CAR PARK
LA#	LAND AVAILABILITY	WW#	WALKWAY

3) VISUAL INSPECTION RESULTS

EXISTING BUILDING INFORMATION B-A

Building Index	**A – Classroom Blocks (x3)**		
Type:	**A single-story concrete structure that consists of reinforced concrete columns and beams with masonry external walls and timber framed roof structure.**		**No. of Levels: 2**
Dimensions	**Length (m): 24.15**	**Width (m): 10.4**	**Height (m): 3.0 (from eaves end)**

Existing State of Building

REF. No.	Building Component	Good[1]	Fair[2]	Poor[3]	Structure Type [4]	Comments
1	Roof Lining		✓		Steel	Corrugated iron roof sheeting.
2	Roof Structure		✓		Timber	Gable roof structure made up of timber framed trusses.
3	Walls		✓		Masonry	
4	Columns / Beams		✓		Concrete	Concrete roof beam for the main building, and Walkway- steel post & timber beam.
5	Floor		✓		Concrete	
6	Handrails				N/A	N/A
7	Walkway(s)		✓		Concrete	Concrete slab.
8	Services – water		✓			
9	Services – Electricity		✓			
10	Services – communication (internet)		✓			Wireless Connection

Comments –

- Building A front side to have gutter & downpipe installed with proper downpipe water discharge to chamber & drain.
- No sign of disabled ramp access to the classrooms.
- Steel post to steel brushed & painted.
- Extinguishers are present but are not serviced or maintained. The majority of the extinguishers are faulty and are required to be recharged.
- The main roof for class purlin holding down missing, and not properly strapped & nailed.
- Cyclone Mesh shutters are present at some locations only. Shutters are fixed using nails to the timber frames.
- The installed glazings do not have cyclone shutters and are not cyclone-rated glazings.
- Roof cladding is rusted at the apex in a few places.
- No proper discharge for the downpipe, have the chamber discharge water away from the building

[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

EXISTING BUILDING INFORMATION B-A1

Building Index	A1 – Administration Office / Sickbay		
Type:	Single-story timber structure that consists of concrete stubs, timber bearer columns and beams with masonry external walls and timber framed roof structure.		No. of Levels: 2
Dimensions	Length (m): 16.9	Width (m): 6.2	Height (m): 3.0 (from eaves end)

Existing State of Building						
REF. No.	Building Component	Good[5]	Fair[6]	Poor[7]	Structure Type [8]	Comments
1	Roof Lining		✓		Steel	Trimdek roof cladding (painted) rust to cladding along ridge cap. (to be painted from inside.)
2	Roof Structure		✓		Timber	Timber framed trusses at 900mm max. centres. 150x50 top & bottom chords with 100x50 timber webs. 100x50 purlins at 900 max. centres. (purlin/rafter strapping missing)
3	Walls		✓		Timber	100x50 timber stud wall, concealed from viewing. T&G timber wall lining outside.
4	Columns / Beams			✓	Timber	The timber column post base connection is rusted, to be replaced or Steel brushed & painted. Terrace roof beam to rafter to be strapped at every connection, also purlin rafter. Purlin splice to be bolts, 2-M12 on both ends.
5	Floor		✓		Timber	150x150 concrete stump, 150x50 bearers. 150x50 joists at 450 c/c. (note end corner damage stump to be repaired & replaced.
6	Windows		✓		Aluminium / Glass	Corridor - The window is hard to operate, near the sick bay.
7	Walkway(s)		✓		Concrete	All good (1.2m wide)
8	Services – water		✓			Hand basins & one toilet for both males & females. (Addition toilet required)
9	Services – Electricity		✓			All good
10	Services – Communication (internet)		✓			Wireless connection slow, option to get Fibre internet connection.
11	Doors		✓		Timber	Solid timber doors (2.0m x 0.90m)

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

Comments –

- The terrace ceiling fell, damage to be replaced & the terrace roof framing connections are not tied, and strapping is missing. The terrace beam is spliced not being bolted. The timber post to beam has only 1-M12 bolt., which requires two M12 bolts
- The eve timber batten missing a few places. Replaced
- Extinguishers are present but are not serviced or maintained. The majority of the extinguishers are faulty and are required to be recharged.
- No proper discharge for the downpipe, have the chamber discharge water away from the building.
- First Aid is only available in the office.
- Cyclone Mesh shutters are present at some locations only. Shutters are fixed using nails to the timber frames.
- The installed glazings do not have cyclone shutters and are not cyclone-rated glazings.
- The terrace ceiling falling damage is to be replaced.
- The toilet vent is not up to full height.

EXISTING BUILDING INFORMATION B-B

Building Index	Building - 2		
Type:	Canteen / Staff Room		No. of Levels: 1
Dimensions	Length (m): 12.2	Width (m): 6.8	Height (m): 3.1

Existing State of Building

REF. No.	Building Component	Good[9]	Fair[10]	Poor[11]	Structure Type [12]	Dimensions (m)	Comments
1	Roof lining		✓		steel	N/A	Corrugated roof sheeting.
2	Roof Structure		✓		Timber	-	Gable roof- concealed from view.
3	Walls		✓		Timber	-	T & G timber wall lining outside.
4	Column/beams		✓		Steel / Timber		Steel post/timber beam
5	Floor	✓			Concrete		
6	Walkway clearance space		✓		Concrete	1.4m wide	
7	Handrails		✓		Steel	1m Height	Only one section of the handrail is not complete.
8	Doors and Door Size (typical)		✓		Timber	1.0m Wide	No ramp leading into the classroom
9	Water/electricity.	✓			N/A	N/A	One sink/electricity is all good
10	Communication (internet)	✓					

Comments –

- No manhole in the ceiling concealed from viewing. No access to roof framing
- This school shall provide disability provisions if there is a demand to provide these provisions.
- Floor carpet is worn out, and requires replacement.
- Overall building needs cleaning & repainting.
- Gutter/ downpipes to realigned. & Fixed. An additional bracket is required for the gutter/downpipe supports.
- Fire extinguisher in the canteen.

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

EXISTING BUILDING INFORMATION B-C

Building Index	Building C – Classrooms/Toilets/Shower/Sports room		
Type:	Double-story, ground-level concrete structures with a masonry wall, column floor beams, and concrete floors. timber & steel posts up to roof level. There is a staircase on both ends of the building.		No. of Levels: 2
Dimensions	Length (m): 47.4	Width (m): 11.2 approx.	Height (m): 6.310 (approx..)

Existing State of Building

REF. No.	Building Component	Good [13]	Fair[14]	Poor[15]	Structure Type [16]	Count[17]	Comments
1	Toilet Bays – Male		✓		Concrete	6	Under renovation (incomplete)
2	Toilet Bays – Female		✓		Concrete	8	Upper levels
4	Shower bay - Male		✓		Concrete	1	One in the girl's toilet and boy's toilet, Ground floor.
5	Shower Bay - Female				Concrete	2	2 shower bays for females on the upper level.
6	Menstrual Hygiene facilities						
7	Entry to the toilet building		✓				
8	Exit to the toilet building		✓				
9	Roof lining		✓		Steel		(TBC)
10	Roof structure		✓		Timber		Timber framed Trusses (TBC)
11	Extended Terrace Roof		✓		Timber	3.2 m wide	150-diameter pine post. 150x50 timber beam. 100x50 rafter at 1.0m c/c, 75x50 purlins at 900 c/c.
12	Walls	✓			Concrete Block wall		Fair-face blocks
13	Column/beams	✓			Steel concrete		100x100 SHS post. Fixed to concrete beam Concrete beam
14	Floors	✓			Concrete		Ground floor & first floor concrete.
15	Handrails	✓			Steel	1.1	
16	Walkways		✓		Concrete floor	1.8 approx.	Roof cladding to be upgraded
17	Service - Water	✓			N/A		Normal pressure
18	Service – Electricity		✓		N/A		All good
19	Service-communication (internet)		✓		N/A		
20	Students to Wash Ratio					8 taps	Wash area roof to be upgraded.
21	Ramps				N/A		
22	Door & Door Size (typ.)				Timber	0.95m	Solid core doors (2.1x0.95)
23	Stairway				Concrete		

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

Comments –

- The toilets are required to be maintained and cleaned regularly (Under construction).
- The shower area is required to be maintained and cleaned regularly.
- A water tank is located at the rear of the building for cleaning and washing purposes. It is not recommended for drinking water due to no proper water filtration and water tank maintenance plan.
- Extended terrace to upgrade for cyclone (100x50 timber rafters spanning 3.2m & 1.0m centres). Cyclone upgrade work is required.
- The walkway from the school gate roof cladding required an upgrade, the rusted one is to be replaced & painted.
- No proper floor tiles, and uneven floor surface. Block walls to be plastered & tile finished. Missing Window louver blades & toilet cubies do not have doors (toilet area is renovation, work not complete)
- Some window mullions to be replaced due to heavy corrosion. No cyclone shuttles.
- The walkway slab about 500mm high from the ground level, might require handrails for safety. A few concrete steps or concrete ramp to access to walkway from the front.
- Stair landing seems very small 560mm wide, and does not meet Fiji building Code standards.

EXISTING BUILDING INFORMATION B-D

Building Index	Building B – Classrooms/Toilets		
Type:	Single-story structure, timber framed flooring, wall & timber trusses. Concrete floor terrace walkway & timber post-timber beams.		No. of Levels: 1
Dimensions	Length (m): 33.8 approx.	Width (m): 7.0 approx.	Height (m): 3.0 (approx..)

Existing State of Building

REF. No.	Building Component	Good [18]	Fair[19]	Poor[20]	Structure Type [21]	Count[22]	Comments
1	Toilet Bays – Male		✓		Timber	4	
2	Toilet Bays – Female		✓		Timber	4	
4	Shower bay - Male						
5	Shower Bay - Female						
6	Menstrual Hygiene facilities						
7	Entry to the toilet building		✓				
8	Exit to the toilet building		✓				
9	Roof lining		✓		Steel		Trimdek roof cladding.
10	Roof structure		✓		Timber		Timber framed Trusses (TBC)
11	Terrace Roof structure		✓		Timber	1.8 m wide	Roof structural concealed with Ceiling board.
12	Walls		✓		Timber		100x50 timber Stud wall with T&G lining from outside & plyboard inside.
13	Column/beams	✓			Timber		Double timber post bolted to timber rafter., 2-M12 bolts
14	Floors	✓			Timber		T&G timber flooring
15	Floor stubs (floor post)		✓		Concrete		All damaged concrete stubs (post) to be replaced or repaired where possible
17	Service - Water	✓			N/A		Normal pressure
18	Service – Electricity		✓		N/A		All good
19	Service-communication (internet)		✓		N/A		

Comments –

- The toilets are required to be maintained and cleaned regularly.
- Concrete stubs under the floor to be replaced with new concrete posts (similar) or repaired where possible.
- Concrete stubs to timber bearer fixed concealed, ensure all holding down bolts to rust free & painted.
- All rusted floor strapping to be replaced.
- Damage wall cladding & urinal system to the toilet area to be replaced with new ones.
- Cyclone Mesh shutters are present at some locations only. Shutters are fixed using nails to the timber frames.
- The linkway between buildings B & C is to be upgraded to cyclone standards. With new gutter & downpipe system.

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

EXISTING BUILDING INFORMATION B-E

Building Index	Building D – Classrooms Kindergarten		
Type:	Single-story structure, timber framed flooring, wall & timber trusses. Concrete floor terrace walkway & timber post-timber beams.		No. of Levels: 1
Dimensions	Length (m): 34.8 approx.	Width (m): 9.05	Height (m): 3.0 (approx..)

Existing State of Building

REF. No.	Building Component	Good [23]	Fair[24]	Poor[25]	Structure Type [26]	Count[27]	Comments
1	Roof lining		✓		Steel		Corrugated roof cladding.
2	Roof structure		✓		Timber		Gable roof, timber trusses
3	Terrace Roof structure		✓		Timber	2.9 wide	Roof structural concealed with ceiling board.
4	Walls		✓		Concrete		Requires recoating paint.
5	Column/beams	✓			Concrete		
6	Floors	✓			Timber		T&G timber flooring
7	Floor stubs (floor post)		✓		Concrete		All damaged concrete stubs (post) to be replaced or repaired where possible
8	Service - Water	✓			N/A		Normal pressure
9	Service – Electricity		✓		N/A		All good
10	Service-communication (internet)		✓		N/A		

Comments –

- The toilets are required to be maintained and cleaned regularly.
- Concrete stubs under the floor to be replaced with new concrete posts (similar) or repaired where possible.
- Concrete stubs to timber bearer fixed concealed, ensure all holding down bolts to rust free & painted.
- All rusted floor strapping to be replaced.
- Celling to be replaced.
- Cyclone Mesh shutters are present at some locations only. Shutters are fixed using nails to the timber frames.
- The linkway between buildings B & C is to be upgraded to cyclone standards, with a new gutter & downpipe system.
- The timber floors to be polished & clearer stain finished & same applies to desks.
- All interior Walls to be repainted.
- Roof purlins to strap to truss top chord & roof structural don't meet cyclone standards.

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

EXISTING BUILDING INFORMATION B-D1

Building Index	Building D1 – Classrooms Kindergarten		
Type:	Single-story structure, concrete block wall structure with timber roof Framed trusses.		No. of Levels: 1
Dimensions	Length (m): 10.5	Width (m): 7.95	Height (m): 3.0 (approx..)

Existing State of Building

REF. No.	Building Component	Good [28]	Fair[29]	Poor[30]	Structure Type [31]	Count[32]	Comments
1	Roof lining		✓		Steel		Corrugated roof cladding.
2	Roof structure		✓		Timber		Gable roof, timber trusses
3	Terrace Roof structure	✓			Timber	2.9 wide	Roof structural concealed with ceiling board.
4	Walls	✓			Timber		100x50 timber Stud wall with T&G lining from outside & plyboard inside.
5	Column/beams	✓			Timber		Double timber post bolted to timber rafter., 2-M12 bolts
6	Floors	✓			Timber		T&G timber flooring
7	Floor stubs (floor post)		✓		Concrete		All damaged concrete stubs (post) to be replaced or repaired where possible
8	Service - Water	✓			N/A		Normal pressure
9	Service – Electricity		✓		N/A		All good
10	Service-communication (internet)		✓		N/A		

Comments –

- Cyclone Mesh shutters are present at some locations only. Shutters are fixed using nails to the timber frames.
- All concrete walls to be cleaned & repainted.
- All damaged gutter/downpipes are to be replaced with new ones.
- The exposed strip footing at the back of the building is to be covered, and filled with compacted hard-fill material.
- Classroom ceiling to be replaced.
- Roof purlins to strap to truss top chord & roof structural don't meet cyclone standards.

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

4) PHOTOGRAPHIC REPORT

BUILDING INDEX – B-A

Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**A**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE

PHOTOGRAPH No. 5: INTERIOR

PHOTOGRAPH No. 6 CEILING SPACED

BUILDING INDEX – B-A1

Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**A1**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE

PHOTOGRAPH No. 5: INTERIOR

PHOTOGRAPH No. 6: ROOF SPACE

BUILDING INDEX – B-B

Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**2**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE

PHOTOGRAPH No. 5: INTERIOR

PHOTOGRAPH No. 6: CONCRETE CHAMBER

BUILDING INDEX –B-C

Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**bC**

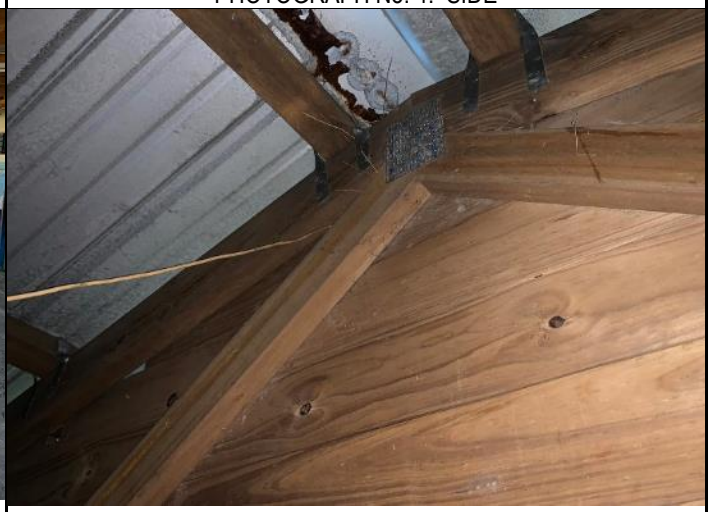
PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE

PHOTOGRAPH No. 5: TERRACE POST



PHOTOGRAPH No. 6: ROOF SPACE

BUILDING INDEX – B-D

Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**B**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE

PHOTOGRAPH No. 5: INTERIOR SPACE

PHOTOGRAPH No. 6: INTERIOR SPACE

BUILDING INDEX – B-D1

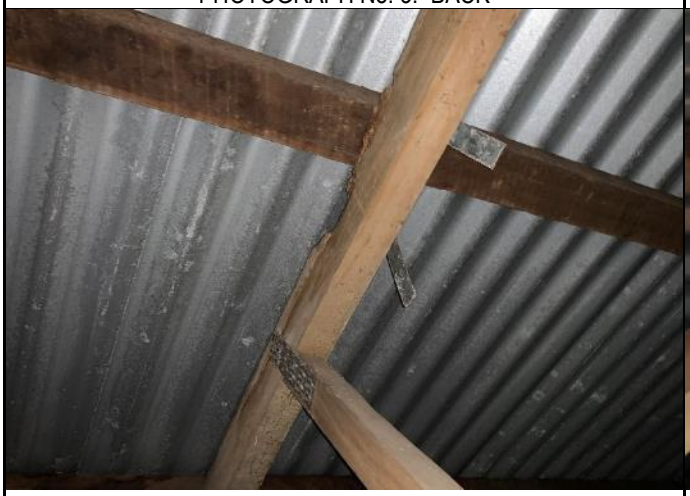
Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**D**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE



PHOTOGRAPH No. 5: INTERIOR

PHOTOGRAPH No. 6: ROOF SPACE

BUILDING INDEX – B-E

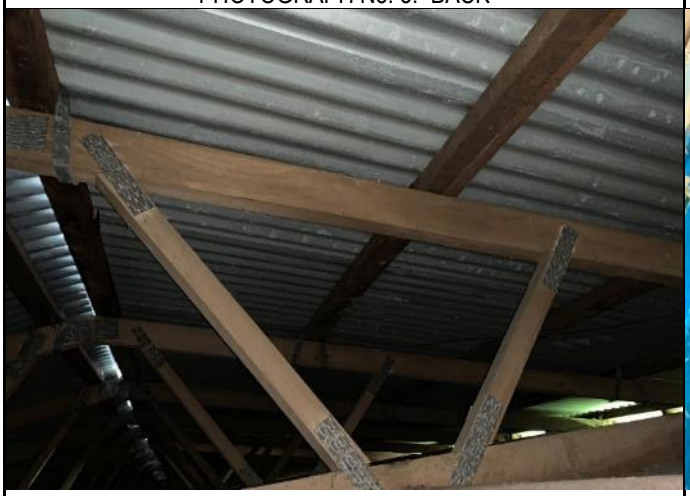
Client:	**TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD**	**School Name:**	**JOHN WESLEY PRIMARY SCHOOLS**
Project:	**INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.**	**Building Index:**	**D1**

PHOTOGRAPH No. 1: FRONT

PHOTOGRAPH No. 2: SIDE

PHOTOGRAPH No. 3: BACK

PHOTOGRAPH No. 4: SIDE



PHOTOGRAPH No. 5: ROOF SPACE

PHOTOGRAPH No. 6: INTERIOR

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**		
	Poor - most to all classrooms are accommodating students above capacity.	32 to 40	**40**
	Criteria Item Score		**40.0**
2	**PART B - WASH FACILITIES (20%)** **WASH- Student ratio based on the Fiji National Building Code (FNBC) Infrastructure Standards (10%)**		
	Good - WASH-Student ratio for school toilet blocks meets or exceeds the ratio in the standard specified by FNBC.	0 to 5.9	**5**
2.1	**Quality of facilities and current condition such as funtionality and maintenance (10%)**		
	Fair - school toilet facilities are not maintained well and the physical infrastructure may need repairs or remedial work due to causing moderate distrubances to the end users.	6 to 7.9	**7**
	Criteria Item Score		**12.0**
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	**5**
3.1	**Maintenance and assessment of the upkeep of facilities including painting and repairs (10%)**		
	Poor - school facilities are not maintained and the physical infrastructure cause major disturbances to end users.	8 to 10	**8**
	Criteria Item Score		**13.0**
4	**PART D - DISABILITY ACCESSIBILITY (10%)** **Accessibility features such as the presence of existing ramps, handrails, accessible toilets etc**		
	Poor - School buildings and facilities do not have accessibility features.	8 to 10	**8**
	Criteria Item Score		**8.0**
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**		
	Poor - most or all school building structures are not resilient to natural disasters and do not have safety systems in place.	8 to 10	**10**
	Criteria Item Score		**10.0**
	TOTAL CRITERIA SCORE		**83.0**

Appendix C – Land Available for Expansion

NEW STRUCTURES
LOCATION

Australian Government
Department of
Foreign Affairs and Trade

TETRA TECH

Disasters DO Happen
Are YOU Prepared?

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EMAIL: info@nrwmacallan.com.fj

SCHOOL NAME:

JOHN WESLEY PRIMARY SCHOOL

28/10/2024 9:57:27 am