

INFRASTRUCTURE ASSESSMENT AUDIT FOR SUVA – NAUSORI URBAN SCHOOLS

DR. RAM LARKHAN MEMORIAL PRIMARY SCHOOL (REG 2384)

SUMMARY REPORT



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1) INSPECTION SUMMARY

School Inspection Summary	
School name:	DR. RAM LARKHAN MEMORIAL PRIMARY SCHOOL
Overall condition state:	FAIR
Key recommendations:	
<ul style="list-style-type: none"> - Overcrowding – 10 new classrooms required based on FNBC standards - Overcrowding – 6 new classrooms required based on recommended sizing (1.5m²) - 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:	
<p>Major defects were noted as follows:</p> <ul style="list-style-type: none"> • Damaged ceiling with water leakage stain • Cracks on walls • Missing ramps • Toilet cubicles in poor condition. • Dented and dislodged handrails. • Rusted roof cladding, gutter and roofing nails 	
Aerial view of school	General view of school
	   

School type:	Primary	✓	Secondary		Year levels	1,2,3,4,5,6,7,8
School address:	TOMANU RD, NADERA, NASINU					
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)	
	217	222	0	3	9	
School building arrangement	TOTAL NUMBER OF BUILDINGS: 4 B1/B3 – 1 STOREYS B4 – 2 STOREYS					
Local government area:						
Date of inspection:	05 TH AUGUST, 2024					
Inspection team:	KUNAAL NAND (KN) HENDRY TABULAWAKI (HT) CLIFFTON RAITAVOWAI (CR) MARIA LUTUA (ML)					
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 m² per student.

The results of the assessment are based on the recommended sizing (1.5m²), according to 2024 data, an additional 6 classrooms are required for Dr. Ram Larkhan Primary School.

Year	Stream	Number of students	Current number of classrooms	Number of extra classrooms required based on FNBC on 2024 data
1	101	37	2	1
	102	33		
2	201	50	1	1
3	301	52	1	1
4	401	42	1	1
5	501	45	1	1
6	601	40	2	0
	602	39		
7	701	32	1	1
8	801	33	2	0
	802	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	11.30	8.50	2.90	1	Single concrete structure with cladding on timber framed roof structure and masonry external walls	1 x classroom / 2 x toilets
B2	53.0	10.50	2.80	1	Concrete structure with cladding on timber framed roof structure	1 x 5 classroom
B3	17.80	5.80	2.50	1	Concrete structure with cladding on timber framed roof structure.	1 x 16 toilets male & female
B4	27.30	9.50	6.70	2	Double Storey concrete structure with cladding on timber framed roof structure and masonry external walls	- Ground Floor – 3 classrooms - First Floor – 2 classroom/1 library

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,	Fair
Disability	Accessibility	Poor
Ventilation and lighting	Ventilations, Natural Lighting, Artificial Lighting.	Fair

Observations on Structural Elements

- **Walls and Ceiling** – Cracks on concrete observed. There was water leak marks in the ceiling. There were no signs of wear and tear on walls. The walls and ceiling were well painted.
- **Floors and Foundation** – the floor and foundation for the entire school is found to be stable. There were no visible or sign of cracks or uneven surface. However, the floor is mostly covered with tiles.
- **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
- **Earthquake** – The three-storey main concrete building indicates resistance to earthquake based on suitable column, beam and slab size and design.
- **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 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 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 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, the 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

Ram Larkhan Memorial Primary School has 1 block with toilet facilities. The facility have some minor defects such as:

- The cubicle doors were damaged.
- 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.

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?
B3	All Years	8	8	25	27	1	0

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?
B3	All Years	4	4	50	44	4	5

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			
B2	1,2,3&4	4	53	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. However, replacement with new roof cladding and roofing screws is needed.
- Location: The school is location allows 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.
- 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.
- Laboratories are not able to accommodate students with various disabilities with 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) 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 Dr. Ram Larkhan Memorial Primary School:

Categories of Assessment	Existing Condition / State	Required as per Standards	Gaps Observed
Existing Infrastructure Condition	<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - The classrooms are accommodating an average of 635 roll/16 classrooms of 36 students. 	<ul style="list-style-type: none"> - FNBC 1990 requires classroom occupancy to have 2m² per person. Based on that, the required roll per classroom was calculated. 	<ul style="list-style-type: none"> - 6/11 classrooms were accommodating more roll than required. - Given the recommended sizing (1.5m²), about 6 extra classrooms are required to address overcrowding in school.
Water Sanitation Hygiene (WASH) facilities	<p>Toilets (students: Cubicle)</p> <ul style="list-style-type: none"> - Boys – 30:1 - Girls – 23:1 <p>Taps (students: tap)</p> <ul style="list-style-type: none"> - Students – 20:1 <ul style="list-style-type: none"> - Menstrual Hygiene was present in every female washroom block 	<p>Toilets Ratio (students: Cubicle)</p> <ul style="list-style-type: none"> - Boys – 30:1 - Girls – 20:1 <p>Taps Ratio (students: tap)</p> <ul style="list-style-type: none"> - Students – 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 	<ul style="list-style-type: none"> - Boys toilet ratio was in par with the FNBC 1990 ratio. This may hinder later on with growing population. - The girls toilet ratio was in par with the FNBC 1990 ratio. This may hinder later on with growing population. - The tap ratio was in par with the FNBC indicating extra taps are not required in the school. - school require maintenance of rusting pipes and algae buildup in WASH facilities.
Disaster Resilience Assessment	<ul style="list-style-type: none"> - columns, beams, slabs had hairline cracks. - All roof had truss roof frames. - The windows only have burglar shutters at some sections. - Roof cladding is rusted at B2 toilet block and partially at patches across B2 and B1A - roofing nails show rusting. 	<p>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.</p>	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> -Handrails partially damaged in corridors. - Classrooms and labs have typical door size of 0.8 – 0.9m width. - Stairway – average 0.9m width. 	<p>The following are requirements from Fiji Disabled People's Federation Access Audit Tool</p> <ul style="list-style-type: none"> - 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. - Clearance required of 1.2m and tread width of minimum 310mm. (National Building Code Table D2.1) 	<p>The following facilities are missing.</p> <ul style="list-style-type: none"> - 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

8) RECOMMENDATIONS

- In order to comply with the FNBC, the school will require the following:
 - Classrooms: An additional 8 new classrooms for students in years 1-8. This expansion aims to accommodate the growing number of students and provide them with an enhanced learning environment.
- WASH Facilities: No additional cubicles for the current number of students is required but will require additional cubicles for the growing number of students in the future. The toilet blocks need to be equipped with up-to-date WASH facilities (handbasins), catering particularly to the needs of female students. These new facilities are essential to ensure hygiene and comfort.

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.
- Plumbing fixes due to algae buildup.
- 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 Ram Larkhan Memorial Primary 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 – Dr. Ram Larkhan Memorial Primary 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

DR. RAM LAKHAN MEMORIAL PRIMARY SCHOOL (REG 2384)

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
FNBC	Fiji's National Building Code 1990
NDMO	National Disaster Management Office
EFL	Energy Fiji Limited

1) SCHOOL BACKGROUND

Dr. Ram Lakhan Memorial Primary School, located in Nadera, Nasinu, was established in 1975. Initially named Nadera Arya Samaj Primary School, it was later renamed to honor Dr Ram Lakhan, who served as the General Secretary of the Arya Samaj for 17 years. The school was founded as part of the Arya Samaj's efforts to expand educational opportunities in the Suva-Nasinu corridor.

The first head teacher of the school was Mr. Shiu Karan Mishra. Today, it is a medium-sized, multiracial urban school that continues to serve the local community by providing quality education and fostering a diverse and inclusive environment.

TABLE 1: SCHOOL DETAILS

NAME OF SCHOOL	DR RAM LAKHAN MEMORIAL PRIMARY SCHOOL
SCHOOL REGISTRATION NUMBER	2384
SCHOOL LOCATION	TOMANU RD, NADERA, NASINU
SCHOOL TYPE	PRIMARY SCHOOL
FEEDER SCHOOL	N/A
DATE OF INSPECTION	31 st JULY, 2024
MILESTONE	(49 / 86 SCHOOLS)
INSPECTED BY (TEAM 2)	KUNAL NAND (KN)
	HENDRY TABULAWAKI (HT)
	CLIFFTON RAITAVOWAI (CR)
	MARIA LUTUA (ML)

TABLE 2: SCHOOL ENROLMENT FIGURES

Year of Enrolment	Number of Students			Students with Disability	Number of Teachers		Total	Comments
	Male	Female	Total		Male	Female		
2024	217	222	439	N/A	3	9	12	<ul style="list-style-type: none"> Classrooms are overcrowded. Student to stream average ratio is 40 :1 for 2024 school calendar. WASH Facility Ratio: 50:1
2023			389	N/A	3	9	12	
2022			375	N/A	3	9	12	
2021	181	180	361	N/A	3	9	12	
2020			355	N/A	3	9	12	
2019			376	N/A	2	7	9	

TABLE 3: 2024 CLASSROOM ENROLLMENT DETAILS									
Classroom ID	Section	Teacher	Enrollment Data				Performance Metrics		
			Enrolled	Waitlist	Dropouts	Avg Score	Completion Rate	Feedback Score	
C101	Math	Mr. Smith	25	5	2	85	92%	4.5	
	Science	Ms. Jones	20	3	1	78	88%	4.2	
	History	Mr. Brown	18	2	0	82	90%	4.3	
C202	Art	Ms. Davis	15	1	0	75	85%	4.0	
	Music	Mr. Green	12	0	0	70	80%	3.8	
C303	Physical Ed	Mr. White	30	0	0	65	75%	3.5	
	Language	Ms. Black	22	4	1	80	85%	4.1	
C404	Computer	Mr. Gray	10	0	0	90	95%	4.7	
	Foreign	Ms. Gold	14	2	0	72	82%	3.9	
C505	Health	Mr. Silver	16	1	0	68	78%	3.6	
	Business	Ms. Copper	11	0	0	75	80%	3.7	
C606	Reading	Mr. Iron	28	3	1	88	90%	4.4	
	Writing	Ms. Zinc	24	2	0	84	88%	4.3	
C707	Math	Mr. Lead	26	4	2	86	89%	4.4	
	Science	Ms. Tin	21	3	1	79	87%	4.2	
C808	History	Mr. Nickel	19	2	0	81	89%	4.3	
	Art	Ms. Cobalt	17	1	0	76	84%	4.0	
C909	Music	Mr. Platinum	13	0	0	71	79%	3.8	
	Physical Ed	Ms. Gold	29	0	0	66	76%	3.5	
C010	Language	Mr. Silver	23	3	1	83	86%	4.2	
	Foreign	Ms. Copper	15	2	0	73	81%	3.9	
C1011	Health	Mr. Iron	17	1	0	69	79%	3.6	
	Business	Ms. Zinc	12	0	0	74	79%	3.7	
C2012	Reading	Mr. Lead	27	3	1	87	89%	4.4	
	Writing	Ms. Tin	22	2	0	83	87%	4.3	
C3013	Math	Mr. Nickel	25	4	2	85	88%	4.4	
	Science	Ms. Cobalt	20	3	1	78	86%	4.2	
C4014	History	Mr. Platinum	18	2	0	80	88%	4.3	
	Art	Ms. Gold	16	1	0	75	83%	4.0	
C5015	Music	Mr. Silver	14	0	0	70	78%	3.8	
	Physical Ed	Ms. Copper	31	0	0	64	74%	3.4	
C6016	Language	Mr. Iron	24	3	1	82	85%	4.2	
	Foreign	Ms. Zinc	16	2	0	72	80%	3.9	
C7017	Health	Mr. Lead	18	1	0	67	77%	3.5	
	Business	Ms. Tin	13	0	0	76	80%	3.7	
C8018	Reading	Mr. Nickel	29	3	1	89	91%	4.5	
	Writing	Ms. Cobalt	24	2	0	85	89%	4.4	
C9019	Math	Mr. Platinum	26	4	2	86	89%	4.4	
	Science	Ms. Gold	21	3	1	79	87%	4.2	
C0200	History	Mr. Silver	19	2	0	81	89%	4.3	
	Art	Ms. Copper	17	1	0	76	84%	4.0	
C10201	Music	Mr. Iron	14	0	0	71	79%	3.8	
	Physical Ed	Ms. Zinc	32	0	0	63	73%	3.3	
C20202	Language	Mr. Lead	25	3	1	83	86%	4.2	
	Foreign	Ms. Tin	17	2	0	73	81%	3.9	
C30203	Health	Mr. Nickel	19	1	0	68	78%	3.6	
	Business	Ms. Cobalt	14	0	0	77	80%	3.7	
C40204	Reading	Mr. Platinum	30	3	1	90	92%	4.6	
	Writing	Ms. Gold	25	2	0	86	90%	4.5	
C50205	Math	Mr. Silver	27	4	2	87	90%	4.5	
	Science	Ms. Copper	22	3	1	80	88%	4.3	

[illegible]

2) SCHOOL SITE PLAN (DRONE IMAGERY OF SCHOOL)



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

a) EXISTING BUILDING INFORMATION

TABLE 4: EXISTING BUILDING INFORMATION

Building Index		B1: KINDERGARDEN BUILDING				Year built: 1995 (Age: 29 years old)	
Type:	Single Storey Concrete Structure that consists timber framed roof structure. ➤ Classrooms / Toilet Facility					No. of Levels: 1	
Dimensions		Length (m): 11.3	Width (m): 8.50			Height (m): 2.9(up to apex)	
Existing State of Building							
REF. No.	Building Component	Good ¹	Fair ²	Poor ³	Structure Type ⁴	Comments	
1	Roof Lining		✓		Corrugated Roofing Iron	Surface Rusting	
2	Roof Structure		✓		Timber Truss	Multigrips /Bolts Truss Connection	
3	Walls		✓		Masonry	Plastered painted finish	
4	Columns		✓		Steel Pipe	75mm dia. CHS Walkway Post	
5	Beams		✓		Concrete	Painted Plastered finish	
6	Floor		✓		Concrete	Tiles / Rug Finish	
7	Handrails		N/A		N/A	N/A	
8	Walkway(s)		✓		Concrete	2.20m Walkway Width	
9	Services – water supply		✓			WAF	
10	Available taps for general use		✓			2- Taps	Student – tap ratio = 35: 1
11	Services – electricity			✓		EFL	
12	Services – communication (internet)		✓			None	
13	Drainage		✓			Open 'V' drains for Stormwater Discharge	
<u>Comments</u>							
Visual defects							
➤ Surface cracks are visible along the walk-way floor slabs							
➤ Guttering & Downpipe not fixed properly on brackets							

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

TABLE 5: EXISTING BUILDING INFORMATION

Building Index		B2: CLASSROOM / ADMINISTRATION				Year built: 1994 (Age: 30yrs)	
Type:	Single Storey Concrete Structure that consists timber framed roof structure. ➤ Classrooms / Administration					No. of Levels: 1	
Dimensions		Length (m): 53.00		Width (m): 10.50		Height (m): 2.8(up to eaves)	
Existing State of Building							
REF. No.	Building Component	Good ⁵	Fair ₆	Poor ⁷	Structure Type ⁸	Comments	
1	Roof Lining		✓		Corrugated Roofing Iron	Surface Rusting	
2	Roof Structure		✓		Not Visible	Ceiling was concealed with no ceiling access	
3	Walls		✓		Masonry / Timber	Plastered painted finish	
4	Columns		✓		Steel Pipe	75mm dia. CHS Walkway Post	
5	Beams		✓		Concrete	Painted Plastered finish	
6	Floor		✓		Concrete	Tiles Finish	
7	Handrails		✓		Timber	Timber handrails fixed on steel post	
8	Walkway(s)		✓		Concrete	1.80m Walkway Width	
9	Services – water supply		✓			WAF and Tank back-up Storage for toilet use.	
10	Available taps for general use		✓			4- Taps	Student – tap ratio = 40: 1
11	Services – electricity			✓		EFL	
12	Services – communication (internet)		✓			Wireless and LAN connection	
13	Drainage		✓			Open drains for Stormwater Discharge/ Sump for Hand Basin Water to discharge	
Comments							
Visual defects							
➤ Surface cracks are visible along the walk-way floor slabs							
➤ Guttering & Downpipe not fixed properly on brackets							
➤ Rotten Fascia Board							
➤ Bi-Folding Timber Partition on Classroom has loose fitting and causing falling off from its fittings.							

⁵ Good - No additional works / intervention required⁶ Fair - Remedial works required – min CAT 3 standard⁷ Poor - Demolition and replace with new - min CAT 4 standard⁸ Type of structure - Timber/concrete/steel

TABLE 6: TOILET BLOCKS (BOYS & GIRLS)

Building Index	B3 - Toilet Facility						
Type:	Single Storey Concrete Structure with timber framed roof structure. ➤ Male and female Toilet Facility					No. of Levels: 1	
Dimensions	Length (m): 17.8		Width (m): 5.8		Height (m): 2.5		
Existing State of Building							
REF. No.	Building Component	Good ⁹	Fair ¹⁰	Poor ¹¹	Structure Type ¹²	Count ¹³	Comments
1	Toilet Bays – male		✓			8	No Disable Toilet
2	Toilet Bays – female		✓			8	No Disable Toilet
3	Toilet Partition between boys and girls.	✓					
4	Shower bay		✓			1	One in girl’s toilet and boy’s toilet.
5	Toilet Bays – accessible	✓					
6	Entry to toilet building		✓			1	
7	Exit to toilet building		✓			2	
8	Menstrual Hygiene facilities			✓		1	Only 1 sanitary bin provided.
9	Students to WASH ratio	Toilet taps: 8 taps		Male	35:1		Female 37:1

Comments**Visual defects**

- The toilets are required to be maintained and clean on a regular basis.
- The shower area is required to be maintained and clean on a regular basis.
- There was only 1 small menstrual sanitary bin provided in the girls' toilet.

⁹ Good - No additional works / intervention required¹⁰ Fair - Remedial works required – min CAT 3 standard¹¹ Poor - Demolition and replace with new - min CAT 4 standard¹² Type of structure - Timber/concrete/steel¹³ Count - Used for identifying number of toilet bays and menstrual hygiene facilities

TABLE 7: EXISTING BUILDING INFORMATION

Building Index		B4: Classrooms / Library				Year built: 2019 (Age: 5 years old)	
Type:	Two Storey 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): 27.30		Width (m): 9.50			Height (m): 6.70 up to eaves	
Existing State of Building							
REF. No.	Building Component	Good ¹⁴	Fair ¹⁵	Poor ¹⁶	Structure Type ¹⁷	Comments	
1	Roof Lining		✓		Corrugated Roofing Iron	Std. Zincalume Corrugated Roof Cladding	
2	Roof Structure		✓		Not Visible	Roof not Accessible	
3	Walls		✓		Masonry Wall	Plastered and Painted Finish	
4	Columns		✓		Concrete		
5	Beams		✓		Concrete		
6	Floor		✓		Concrete		
7	Handrails		✓		Steel	900mm high safety hand rails	
8	Walkway(s)		✓		Concrete	1.80m Walkway Width	
9	Services – water supply		✓			WAF	
10	Available taps for general use		✓			12 taps	Student – tap ratio = 20: 1
11	Services – electricity			✓		EFL	
12	Services – communication (internet)		✓			Wireless and LAN connection	
13	Drainage		✓			Open drains for Stormwater Discharge/ Sump for Hand Basin Water to discharge	
<u>Comments</u>							
Visual defects							
➤ Surface cracks are visible along the walk-way floor slabs							
➤ Guttering & Downpipe not fixed properly on brackets							
➤ Rotten Fascia Board							
➤ Handrails installed along the stairs display signs of corrosion.							

¹⁴ Good - No additional works / intervention required¹⁵ Fair - Remedial works required – min CAT 3 standard¹⁶ Poor - Demolition and replace with new - min CAT 4 standard¹⁷ Type of structure - Timber/concrete/steel

4) PHOTOGRAPHIC REPORT

Client:	TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD	School Name:	DR RAM LAKHAN MEMORIAL PRIMARY SCHOOL
Project:	INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.	Building Index:	B1



PHOTOGRAPH No. 1: FRONT



PHOTOGRAPH No. 2: LEFT SIDE



PHOTOGRAPH No. 3: BACK



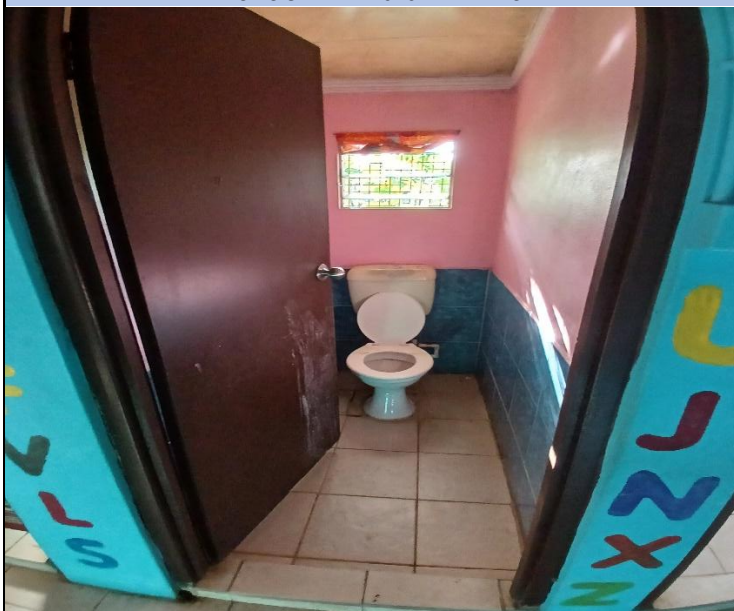
PHOTOGRAPH No. 4: RIGHT SIDE



PHOTOGRAPH No. 5: INTERIOR



PHOTOGRAPH No. 6: ROOF SPACE



PHOTOGRAPH NO 7 - TOILETS



PHOTOGRAPH NO 8 - TAPS

Client:	TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD	School Name:	DR RAM LAKHAN MEMORIAL PRIMARY SCHOOL
Project:	INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.	Building Index:	B2



PHOTOGRAPH No. 1: FRONT



PHOTOGRAPH No. 2: LEFT SIDE



PHOTOGRAPH No. 3: BACK



PHOTOGRAPH No. 4: RIGHT SIDE



PHOTOGRAPH No. 5: INTERIOR

No pictures were taken due to the lack of roof access.

PHOTOGRAPH No. 6: ROOF SPACE

There were no toilet bays in the building.

PHOTOGRAPH NO 7 - TOILETS



PHOTOGRAPH NO 8 - TAPS

Client:	TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD	School Name:	DR RAM LAKHAN MEMORIAL PRIMARY SCHOOL
Project:	INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.	Building Index:	B3



PHOTOGRAPH No. 1: FRONT



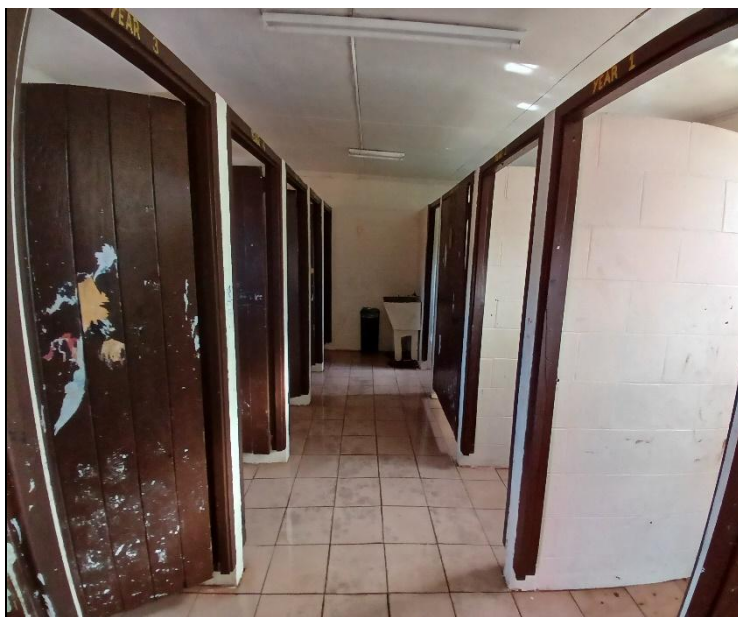
PHOTOGRAPH No. 2: LEFT SIDE



PHOTOGRAPH No. 3: BACK



PHOTOGRAPH No. 4: RIGHT SIDE



PHOTOGRAPH No. 5: INTERIOR

No pictures taken due to the lack of roof access.

PHOTOGRAPH No. 6: ROOF SPACE



PHOTOGRAPH NO 7 - TOILETS



PHOTOGRAPH NO 8 - TAPS

Client:	TETRA TECH INTERNATIONAL DEVELOPMENT (PTY) LTD	School Name:	DR RAM LAKHAN MEMORIAL PRIMARY SCHOOL
Project:	INFRASTRUCTURE PLAN FOR SUVA – NAUSORI URBAN SCHOOL.	Building Index:	B4



PHOTOGRAPH No. 1: FRONT



PHOTOGRAPH No. 2: LEFT SIDE



PHOTOGRAPH No. 3: BACK



PHOTOGRAPH No. 4: RIGHT SIDE



PHOTOGRAPH No. 5: INTERIOR

No pictures were taken due to the lack of roof access.

PHOTOGRAPH No. 6: ROOF SPACE

There were no toilet bays in the building.

PHOTOGRAPH NO 7 - TOILETS



PHOTOGRAPH NO 8 - TAPS

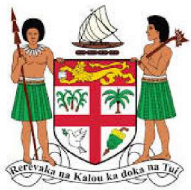
Appendix B – Excel Scoring Sheet

WEIGHTED CRITERIA		
PART A - CLASSROOM OVERCROWDING (40%)		
1	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
	Criteria Item Score	40
PART B - WASH FACILITIES (20%)		
2	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
2.1	Quality of facilities and current condition such as functionality and maintenance (10%)	
	Good - generally school toilet facilities are maintained well with minimal disturbances from the physical infrastructure to the end users.	0 to 5.9
	Criteria Item Score	10.0
PART C - CONDITION OF INFRASTRUCTURE (20%)		
3	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
3.1	Maintenance and assessment of the upkeep of facilities including painting and repairs (10%)	
	Good - generally school facilities are maintained well with minimal disturbances from the physical infrastructure to the end users.	0 to 5.9
	Criteria Item Score	10.0
PART D - DISABILITY ACCESSIBILITY (10%)		
4	Accessibility features such as the presence of existing ramps, handrails, accessible toilets etc	
	Fair - most facilities are not currently accessible, however there are some accessibility features present such as accessible toilets etc.	6 to 7.9
	Criteria Item Score	6.0
PART E - DISASTER RESILIENCE (10%)		
5	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
	Criteria Item Score	9.0
TOTAL CRITERIA SCORE		75.0

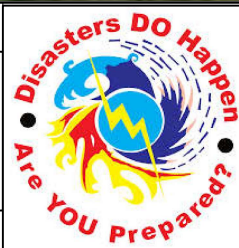
Appendix C – Land Available for Expansion



NEW STRUCTURE LOCATION



Australian Government
Department of
Foreign Affairs and Trade



**NRW MACALLAN (FIJI) LTD
CONSULTING ENGINEERS**
CIVIL, STRUCTURAL ENGINEER, PROJECT MANAGEMENT
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SCHOOL NAME:
**DR. RAM LARKHAN
PRIMARY SCHOOL**