

4-3 PLAN OF THE FACILITY

4-3-1 Layout Plan

(1) Buildings of the New Fiji School of Nursing

The main buildings in this plan are as listed in the following table.

Table 4-3 BUILDINGS

Area	Block	Story	Number	Area (m ²)
School	Administration block	2	1	516.0
	Lecture block	2	1	2,080.0
	Common facility block	1	1	372.0
Dormitory	Dormitory block (female)	2	6	3,828.0
	(male)	1	1	
	(post basic)	2	1	
Others	Others	-	-	240.0
	Total	-	-	7,036.0m ²

(2) Site zoning plan

- 1) The building arrangement is planned to adapt to the topography of the site and to utilize the natural environment.
- 2) In principle, the buildings are arranged along an east/west axis where heat and sunlight will be the lowest. Furthermore, the buildings are arranged to avoid the setting sunlight and to utilize natural ventilation.

- 3) The open public space of the school and the open living space of the dormitories are clearly separated to provide independence of each facility.
- 4) The open public space of the school is arranged on a relatively flat land facing the front road and located in the western corner of the site.
- 5) The dormitories are arranged on the northeastern and southwestern sides of the site in a quiet natural environment with a good view. The female dormitories are located on the hilltop in the northeastern side while the male dormitories are located on the hilltop in the southwestern side. The hills are separated by a valley.
- 6) Athletic field and open space for recreation and extra-curricular activities are arranged in the center valley enclosed by the school area and 2 dormitory areas.
- 7) The open public space of the school is clearly divided for each function such as; general classrooms, special classrooms, administration, lecture hall, and common use facilities (lounge, cafeteria and kitchen) and is arranged around a center garden. The open space is designed to give a separate appearance and individuality by utilizing the difference in ground elevation.
- 8) Two approach roads are arranged from the front road. One is to the open public space and the other is for service and to the open living space of the dormitories. Both approaches are arranged so that entry and exit from the school can be easily watched. Sufficient space will be provided for roads connecting each block to the central garden and for insulating traffic noise from the Princess Road.

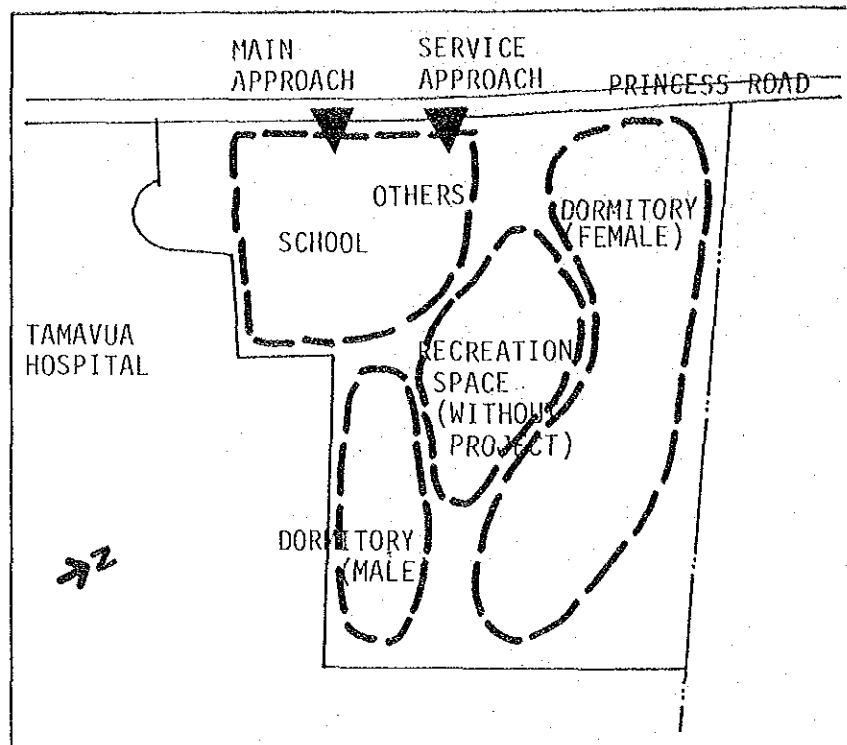


Fig. 4-6 SITE ZONING PLAN

4-3-2 Building Plan

(1) Composition of the facility

The facility is composed from the following five blocks.

1) Administration block:

Foyer, reception, general office, principal's room, deputy principal's room, midwife tutor's room, public health tutor's room, tutors' rooms, secretary's room.

2) Lecture block:

Classrooms (30 & 60 students), tiered classroom (120 students), library, auditorium, cooking laboratory, laboratory, demonstration room, linen room, store.

3) Common facilities block:

Lounge, cafeteria and kitchen.

4) Dormitory block:

Male dormitory, female dormitory, post basic student dormitory.

5) Others:

Garage, installations, etc.

(2) Building installation plan

Building installation is based on the following items.

- 1) Cooling equipment is not provided for the building except for special parts, and ventilation is provided by natural draft. The corridor is located only on one side to facilitate natural draft.
- 2) Eaves and louvers are installed widely throughout the building to provide protection from direct sunlight and heavy rain.
- 3) Entrances, corridors, etc. are open type without walls to give the school an open, unrestricted atmosphere.
- 4) The plan provides for adequate fire prevention and safety measures.

(3) Number of classrooms appropriate

Based on the two intake system, the number of classrooms is 12 as shown in Table 4-4. When the two classrooms for post basic course is added, the total number would be 14 classrooms.

Table 4-4 TWO INTAKE SYSTEM

	First Grade			Second Grade			Third Grade		
First intake	1	2		5	6		9	10	
Second intake			3	4		7	8		11 12

The education in the school will be divided into four units of (1) 30-student class, (2) 60-student class, (3) 120-student class and (4) entire students.

The standard class will be 30-student class in view of the training capacity at the training hospital. The 60 students enrolled together in one year will be divided into two classes with one class studying in the classroom while the other class is training at the hospital.

The regulation of the Ministry of Health and Welfare of Japan requires all class to have its own classroom, but in this school, eight classrooms (basic course 6 + post basic class 2) are provided for the 30-student class. One class (30 students) is reserved for other educational course while the education of the entire students will be conducted in the auditorium. One class (30 students) will be reserved for special classrooms (demonstration room, cooking laboratory, laboratory) of a minimum of 30 students.

Table 4-5 NUMBER OF CLASSROOMS

30-student class (general classroom)	8 rooms
60-student class (seminar classroom)	1
120-student class (tiered classroom)	1
Auditorium	1
Demonstration room	1
Cooking laboratory	1
Laboratory	1

Under the assumption that there would be times when the entire students will be at school, sufficient number of desks is provided to assure that all students will have a desk.

$$\begin{array}{l} \text{Total students 400} \\ \text{(basic course 360 +} \\ \text{post basic course 40)} \end{array} < 420 \begin{array}{l} \text{(30-student classroom x 8 +} \\ \text{60-student classroom x 1 +} \\ \text{120-student classroom x 1)} \end{array}$$

(4) Administration block

Principal, deputy principal, midwife tutor and public health tutor are provided with private offices, while the 16 ordinary tutors are placed in four rooms. These office rooms are provided with sufficient working space for four persons.

(5) Lecture block

The essential points of the main rooms are described in the following paragraphs.

1) Classrooms, and tiered classroom

Three types of classroom are provided namely; 30-student classroom, 60-student classroom (seminar room) and 120-student classroom (tiered classroom). The number of each type was determined after studying the percentage of utilization.

Table 4-6 NUMBER OF CLASSROOM AND UTILIZATION PERCENTAGE

Type	Number	Utilization Percentage(%)
30-student room	8	62.0
60-student room	1	93.9
120-student room	1	33.9

This percentage of utilization does not provide for factors such as curriculum and moving time of the students, therefore about 80% is considered to be the highest percentage of utilization. The above table indicates that the percentage of utilization is quite high for 60-student classroom, but it is judged that problems would not arise by also using the 120-student classroom. The size of each room was determined after considering the number of students, dimension and arrangement of the desks.

2) Library

The size of the library is designed to accommodate 60 persons based on the estimated collection of 2,200 books.

3) Auditorium

The auditorium is designed to accommodate 400 persons and to provide for stage, projection room and storage.

4) Cooking laboratory

The cooking laboratory is designed to accommodate 30 persons and the dresser is an island type dresser.

5) Laboratory

The laboratory is designed to accommodate 30 persons with sufficient space for experiment observation, experiment performance and passage. Room for chemicals and balances are not provided for and are included in the preparation room.

6) Demonstration room

The demonstration room is designed to accommodate 30 persons with sufficient space around the beds for training. Space to store training equipment is provided for and linen storage is located next to the demonstration room.

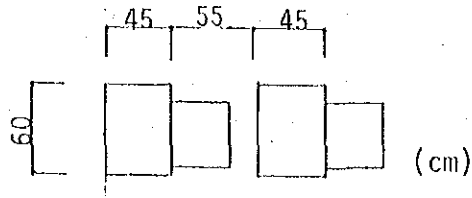
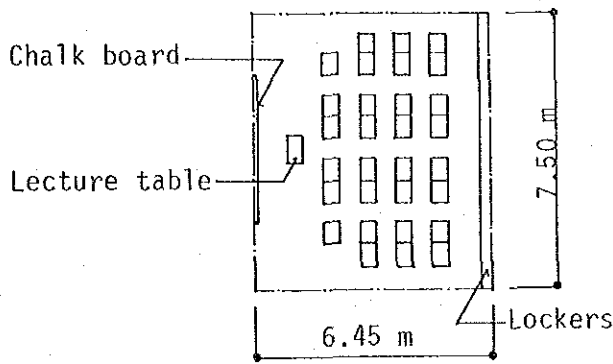


Fig. 4-7 SIZE AND INTERVALS OF THE STUDENT DESKS



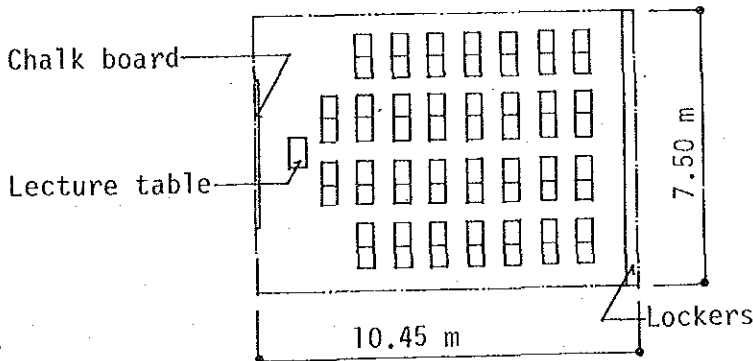
Floor area:

$$7.50 \text{ m} \times 6.45 \text{ m} = 48.375 \text{ m}^2$$

Floor area a head:

$$\frac{48.375 \text{ m}^2}{30 \text{ students}} = 1.61 \text{ m}^2/\text{a student}$$

Fig. 4-8 A MODEL PLAN OF THE CLASSROOM FOR 30 STUDENTS



Floor area:

$$10.45 \text{ m} \times 7.50 \text{ m} = 78.375 \text{ m}^2$$

Floor area a head:

$$\frac{78.375 \text{ m}^2}{60 \text{ students}} = 1.31 \text{ m}^2/\text{a student}$$

Fig. 4-9 A MODEL PLAN OF THE SEMINAR ROOM FOR 60 STUDENTS

(6) Common facilities block

1) Lounge

Lounge is designed to accommodate 60 persons.

2) Cafeteria and kitchen

Cafeteria is designed to accommodate 80 persons which is based on the assumption of three turnovers for each meal also of persons training outside the school. Kitchen area is designed as 30% of cafeteria.

(7) Dormitory block

The dormitory is designed to suit the condition in Fiji and to provide one room for two basic nurse students and a private room for post basic students. The male basic nurse students and male post basic students are placed in one building while female basic nurse students for each grade are separated into different buildings. Each building is provided with rooms for shower, toilet and washing.

(8) Others

1) Garage

A garage is provided for buses to provide transportation to the training hospitals.

2) Installations

The design provides for installations such as pumping station, power station, water tank, and elevated water tank.

(9) The layout, plan, elevation and sectional drawings of the aforementioned blocks are bound together in the attached "4-3-6 Drawings". The area of the individual rooms is shown in the following table.

Table 4-7 THE AREA OF INDIVIDUAL ROOMS

Block	Room	Number	Floor Area (m ²)	Total Floor Area (m ²)
Administration	Foyer	1	72.0	516.0
	Reception	1	12.0	
	General office	1	24.0	
	Principal's room	1	24.0	
	Deputy principal's room	1	12.0	
	Midwifery and Public health tutor's rooms	2	12.0 x 2	
	Tutor's rooms	5	96.0	
	Secretary office	1	12.0	
	Conference room	1	24.0	
	Quiet room	1	48.0	
	First aid	1	24.0	
	Corridor, toilet, etc.	-	144.0	
Lecture	General classroom 30 students	8	48.0 x 8	2,080.0
	60 students	1	96.0	
	Tiered classroom 120 students	1	180.0	
	Library	1	204.0	
	Auditorium	1	468.0	
	Cooking laboratory	1	72.0	
	Laboratory	1	96.0	
	Demonstration room	1	168.0	
	Linen room	1	24.0	
	Preparation room	1	24.0	
	Store room	1	24.0	
	Corridor, toilet, etc.	-	340.0	
Common facilities	Lounge		102.0	372.0
	Cafeteria and kitchen		270.0	
Dormitory	Basic nurse students {(female) {(male)	180 {(168) {(12)	10.8 x 180	3,828.0
	Post basic students	40	7.2 x 40	
	Corridor, toilet, etc.	-	1,596.0	
Others	Garage Installations		240.0	240.0
Total floor area	-	-	-	7,036.0

(9) Construction method and materials

Structure and finishing materials were selected based on building materials and construction methods which were found to be available or practiced in Fiji during the field survey. A description of materials and construction methods is outlined in the following paragraphs.

1) Structure

The structure is reinforced concrete structure. The roof design is a wood truss structure which is widely practiced in Fiji, and for auditorium with long span, a steel truss is adopted. The interior wall is a combination of CB structure and wooden structure.

2) Exterior finishing material

- a. Exterior wall: Basically a mortar wall with vinyl paint finish.
- b. Roof: Long galvanized steel sheet with sufficient heat insulation.
- c. Fittings: Windows; basically locally made jalousie type windows.
Doors; basically imported steel doors.

3) Interior finishing material

- a. Floor: Basically polyvinyl tile, but to be changed according to usage of the room.
- b. Skirting: Basically plastic.
- c. Wall: Basically vinyl paint finish, but changed according to usage of the room.
- d. Ceiling: Basically an open ceiling.

4-3-3 Structure Design

In Fiji, there are no regulations nor codes for building structure or building methods. Most buildings are designed according to the New Zealand Standard (NZS) which is based on the British Standard (BS). The New Zealand Standard provides specification for earthquake which is not specified in the British Standard.

This project is based on the New Zealand Standard modified to accommodate the condition existing in Fiji. Furthermore, where necessary, the Japanese Building Standard and Code and the Standard of the Architecture Institute of Japan were used as reference.

(1) Structure plan

1) Structure

The structure design is based on reinforced concrete rigid frame structure and concrete block structure generally practiced in Fiji. The floor slab is of reinforced concrete while the roof is wooden or steel frame truss structure.

- 2) As a result of the soil survey within the site, a direct footing (independent footing or continuous footing) is to stand on a bearing strata which is 1 m below the ground surface.

(2) Structure design standard

1) Structure analysis

Structure analysis is based on elastic design.

2) Design of cross-section

Reinforced concrete structure is designed by the ultimate strength method while the steel structure for part of the roof is designed by the allowable stress method.

3) Load condition

Live load

Table 4-8 LOAD

Block	Room	Load (KN/m ²)
Administration	Office, conference room	2.5
Education	Classroom, laboratory, etc.	3.0
	Library	4.0
Common use	Lounge, cafeteria	3.0
	Kitchen	4.0
Dormitory	Dormitory room	1.5

4) Seismic force

The structure will be designed by referring to the New Zealand Standard and the horizontal seismic force (Cd) will be calculated by the following formula.

$$C_d = C \cdot I \cdot S \cdot M \cdot R = 0.026$$

where C: Seismic zone factor = 0.125
I: Important factor = 0.13
S: Structural type factor = 1.0
M: Structural material factor = 1.0
R: Risk factor = 1.6

(3) Structural material and material strength

1) Concrete

Ordinary concrete will be used.

The standard designed strength will be $F_c = 210 \text{ kg/m}^2$ (compressive strength at 28 days).

2) Steel bars

Table 4-9 STEEL BARS

Steel Bars	Standard	Yield Strength (kg/cm ²)
Round bar	SR-24	2,400
Deformed bar	SR-30	3,000
	SR-35	3,500

3) Steel frame

Table 4-10 STEEL FRAME

Steel Frame	Standard	Strength (kg/cm ²)	
		Late Age	Early Age
Steel	SS 41	1,600	2,400

4) Load bearing power

Long age strength is assumed to be 10 t/m².

4-3-4 Mechanical Equipment Installation

(1) Water supply installation

Water supply line up to the site is to be installed by the Fiji Government at its own account. This line is to be branched from the 225 mm pipeline running under the road in front of the site and is to be laid up to the water tank within the site after passing through a water meter.

The water received in the water tank is pumped up into the elevated water tank from where the water is distributed by gravity to necessary places such as sanitary equipment, and washing machines of the school and the dormitory.

The daily water usage is planned as follows:

Table 4-11 DAILY WATER USAGE

Area	Place	Calculation
School	Tutors	24 persons x 100ℓ = 2,400ℓ
	Students (max.)	400 persons x 80ℓ = 32,000ℓ
	Other staff	18 persons x 70ℓ = 1,260ℓ
	Kitchen	260 meals x 3 times x 15ℓ = 11,700ℓ
		Sub-total = 47,360ℓ
Dormitory	Students (max.)	400 persons x 120ℓ = 48,000ℓ
		Sub-total = 48,000ℓ
Total		Grand total = 47,360ℓ + 48,000ℓ = 95,360ℓ = 95 m ³ /day

(2) Hot water installation

At all dormitories, hot water is only supplied for showers, and water is heated by a solar panel. The heated water is supplied to the water tank at each dormitory and from this tank, the hot water is supplied to the showers. Auxiliary heat sources such as electricity and boiler are not provided for in order to reduce energy cost. Butane gas water heater are provided for special places such as kitchen.

(3) Sewage and drainage installation

Sewage from toilet and other places is collected through separate pipelines within the buildings and collected in the No. 1 sewage tank located outside the building. The sewage from this tank is piped to a treatment tank located at the lower part of the site, and after treatment, the treated sewage is discharged into a creek for the present time. This sewage drainage pipeline is to be connected to the public sewage system when it is completed. Rain water is collected and discharged through rain troughs and drain ditches into the creek.

(4) Sanitary equipment

Sanitary equipment such as urinals, toilet stools, washing basin, cleaning basin and showers, is provided at necessary places. The sanitary equipment is equipped with water saving type flush valve.

(5) Ventilation installation

Air conditioning equipment is not provided in this installation plan, and natural draft and protection from sunlight is secured through arrangement of buildings, eaves and jalousie windows. Mechanical ventilation equipment such as overhead fans and ventilation fans is provided for rooms accommodating many persons such as lecture room, cafeteria and library, etc. Ventilation fans are provided for rooms where smell and moisture evolves such as toilet, shower room and laboratory.

(6) Gas installation

Butane gas is supplied to the kitchen equipment through an underground pipeline from a 50 kg high pressure cylinder located outside the kitchen. Gas equipment in the experiment room is provided with 10 kg or 5 kg cylinder for each equipment.

(7) Kitchen installation

Kitchen installation is provided to prepare meals for dormitory students and for lunch. The meal preparation capacity is planned for 260 persons since there are persons who are training away from the school. Furthermore, each meal is assumed to be taken in three shifts. The main pieces of kitchen equipment are preparation table, washing basin, rice cooker, boiling utensile, broiler and sterilizer.

(8) Fire fighting installation

Fire extinguisher and interior fire hydrant are provided in accordance with the Japan Fire Prevention Code with reference to the New Zealand Fire Prevention Code. One fire hydrant is provided in each 25 m range within the building and a fire pump is located in the pump room together with the water pump. Power is received directly from the power station.

(9) Garbage incinerating installation

An incinerator is provided to burn daily garbage (kitchen, cleaning) and waste paper from the school. The incinerator is an ordinary type which does not use oil nor electricity and its daily capacity is 100 kg.

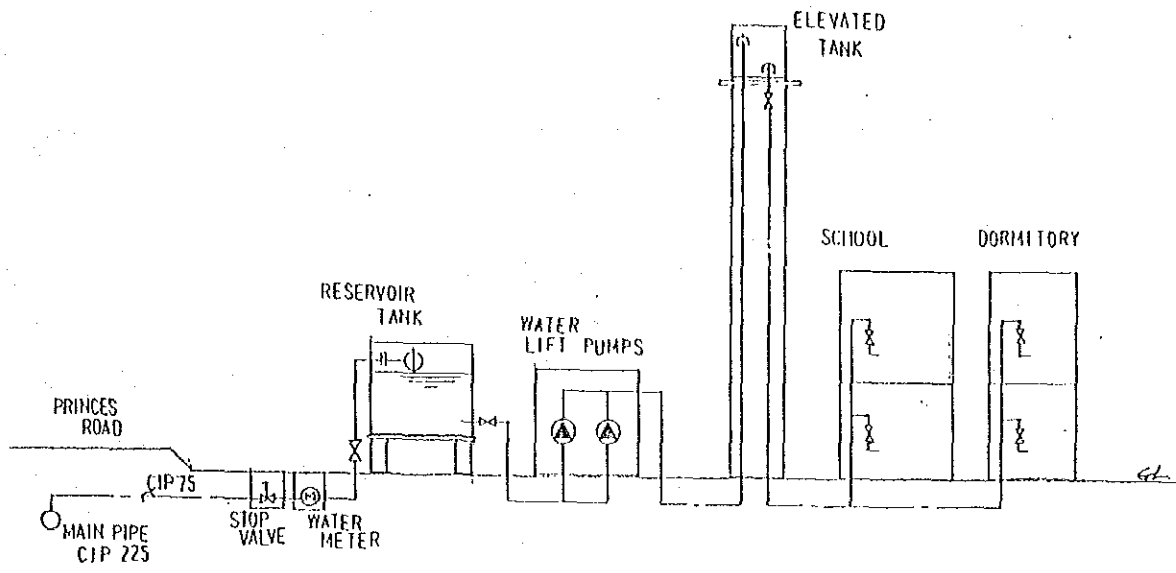


Fig. 4-10 WATER SUPPLY SYSTEM

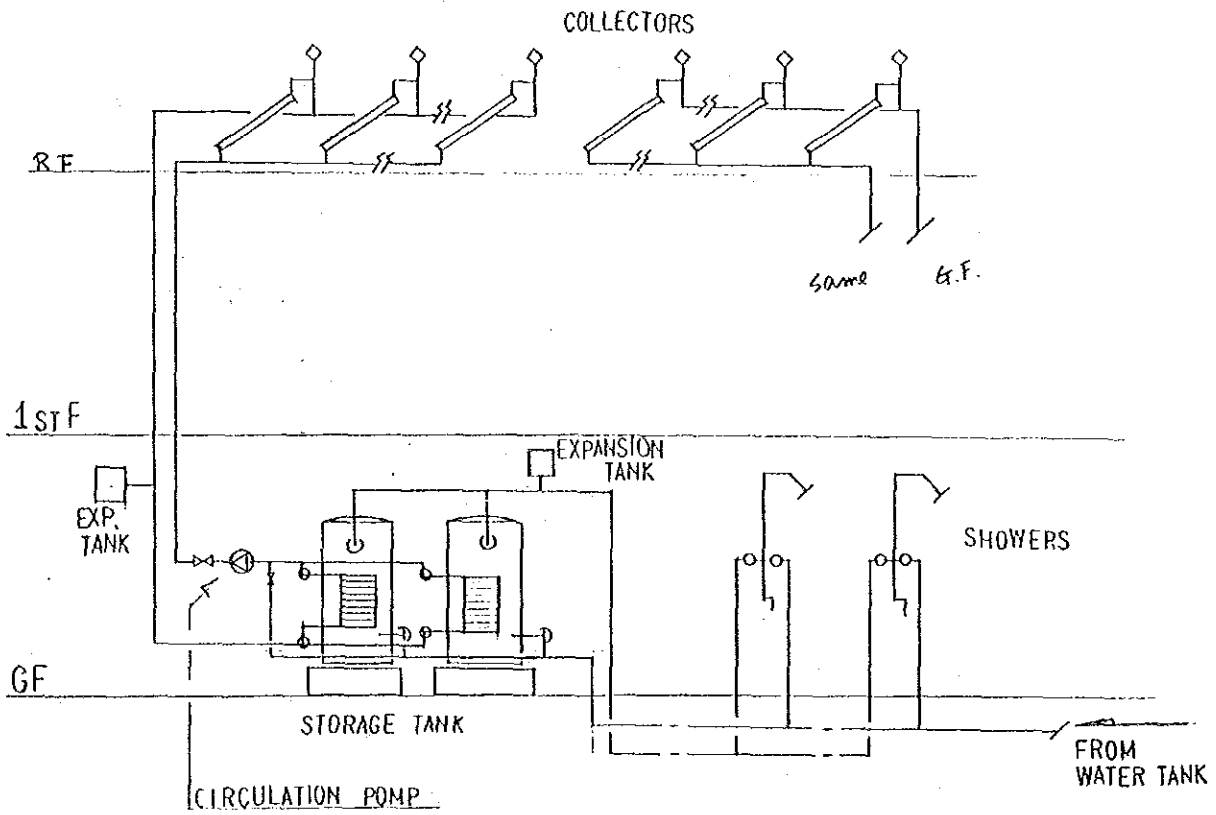
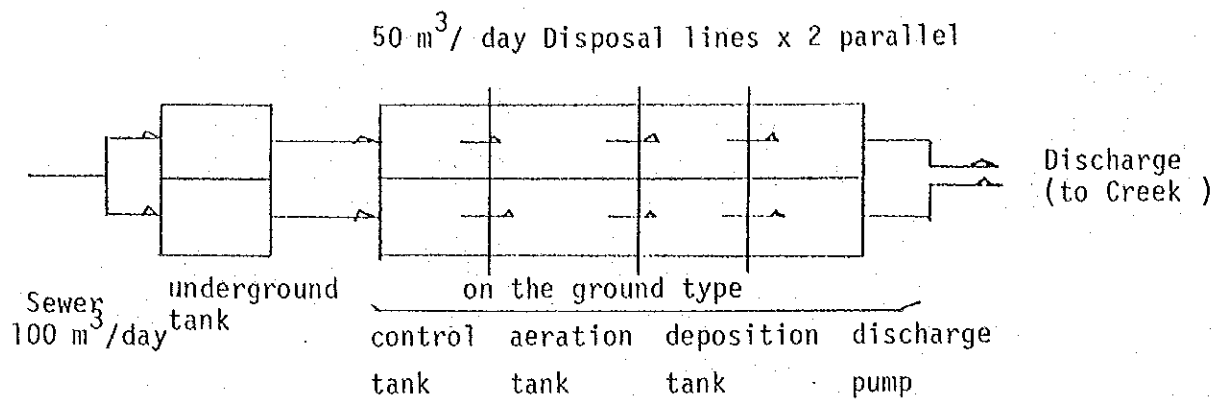


Fig. 4-11 DORMITORY, SOLAR HOT WATER SUPPLY SYSTEM



Sewage treatment.

Treatable sewer capacity	100 m ³ /day
Discharged water	BOD 20 to 30 ppm
Disposal system	Contact-aeration system

Fig. 4-12 SEWAGE TREATMENT SYSTEM

4-3-5 Electrical Installation

(1) Power take-in installation

Power take-in installations up to the site is to be provided by the Fiji Government at its account. The power is to be taken in from the 11 kV overhead powerline, of the Fiji Electric Authority, running alongside the road in front of the site to the sub-station within the site through an underground cable. The power within the site is based on one circuit of 3-phase 3-line 50 hertz.

(2) Sub-station

The power is transformed in the sub-station within the site. A door, with lock, facing the public road is provided since the sub-station is under the supervision of the Fiji Electric Authority. An open standing type switchboard is installed in the sub-station.

Power distribution within the site is supplied through the low voltage switchboard. (Refer to Fig. 4-13, Main Power Distribution Diagram.)

Rated power capacity	200 kVA
Voltage	11 kV/415 to 240 V
Wiring system	3-phase 3-line 50 Hz
Voltage drop	Less than 5%

(3) Main line and motors

The main line supplies power through a cable to the school and to each building. A vinyl pipe is used for outer conduit to protect from saltwater and corrosion. The motor for the pumps are automatic start/stop type with a power factor upgrading condensor. Overhead fan and ventilation fan are started and stopped manually.

(4) Lights and electric sockets

- 1) Wiring is made according to the standard for electric installation and the Australian Wiring Standard. The voltage is 240 V single line, and all fixtures and equipment are provided with an earth terminal. The wires are vinyl insulated wires or cables.
- 2) Vinyl conduits normally used in Fiji are used for conduits.
- 3) The lighting for each room of the school is designed considering utilization of natural light and frequency of turning on/off lights.
- 4) The lighting fixtures are mainly fluorescent lights which consume little energy. Depending on the objective of the rooms, incandescent lamps and high brilliant lamps are used.
- 5) Sockets are provided with switches.
- 6) The illumination standards for main parts of the buildings are as follows:

Table 4-12 ILLUMINATION STANDARDS

Place	illumination Standards
Classrooms	300 1x
Tutor's rooms & laboratory	400 1x
Library	500 1x
Lounge	100 to 200 1x
Conference room	300 to 400 1x
Dormitory rooms	50 to 100 1x
Corridors & stores	20 to 50 1x
Cafeteria	100 to 200 1x

(5) Telephone installation

Telephone switchboard, telephone and wiring are to be leased from the Post & Telecommunication Department.

The main conduit route connects the main and intermediate-distribution frames (MDF) to the outlet boxes provided at each tutor's room and lounge of the school and common space of the dormitory. The size of the conduit is to be more than 28 mm which can provide for ordinary key telephone.

(6) Interphone installation

Bothway interphones are provided for communication between the classrooms, tutor's rooms, and administration offices. .

(7) Public speaking installation

An amplifier is provided in the administration office for calling persons within the school area, broadcasting chime, and sounding emergency siren. A separate amplifier is provided respectively for large classroom and auditorium for giving lectures and speeches.

(8) Electric clocks

Independent type electric clocks are provided for places which accommodate many persons such as lounge, cafeteria and large classroom.

(9) Lightning rods

A lightning rod is installed at the top of the elevated water tank.

(10) Automatic fire alarm

Fire sensors of either heat sensing type or smoke sensing type are provided for school and dormitories. The receiver for the sensor is installed in the administration office. The push-button for fire alarm is for both sounding the bell and instructing the start of the fire extinguishing pump.

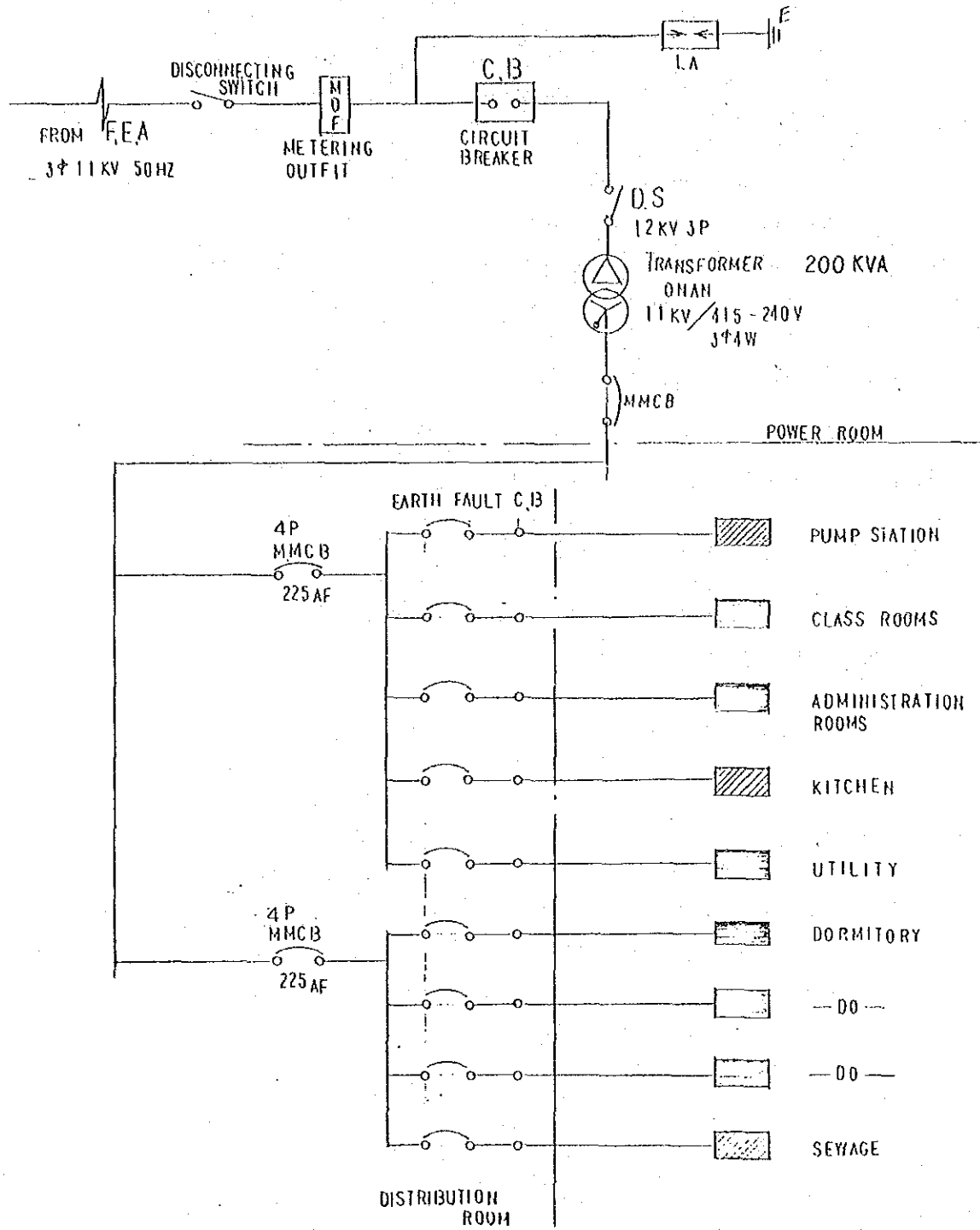


Fig. 4-13 MAIN POWER DISTRIBUTION DIAGRAM

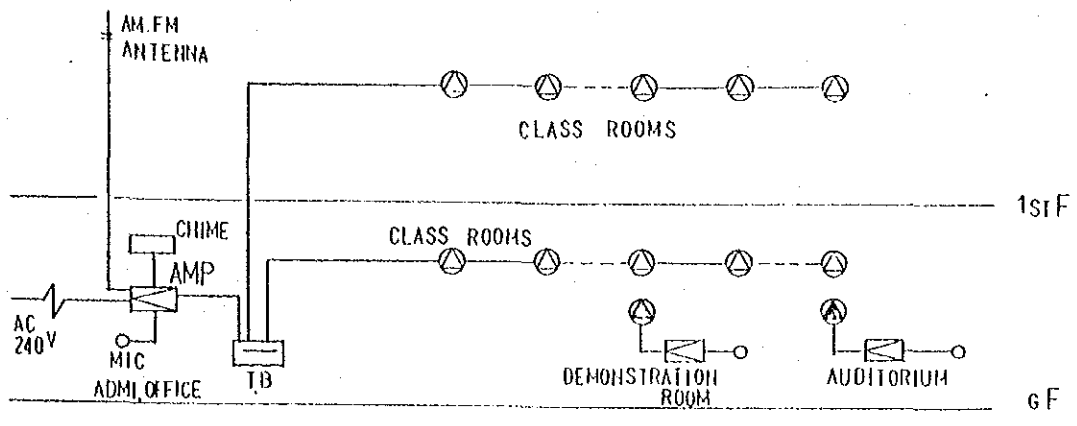


Fig. 4-14 PUBLIC ADDRESS SYSTEM

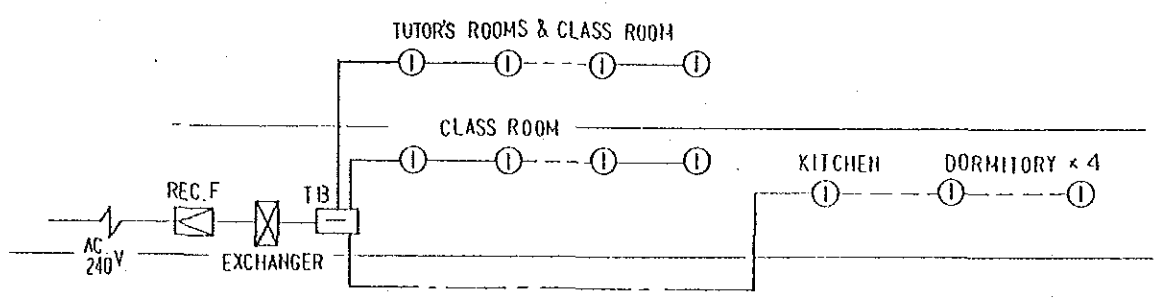


Fig. 4-15 INTERCOM SYSTEM

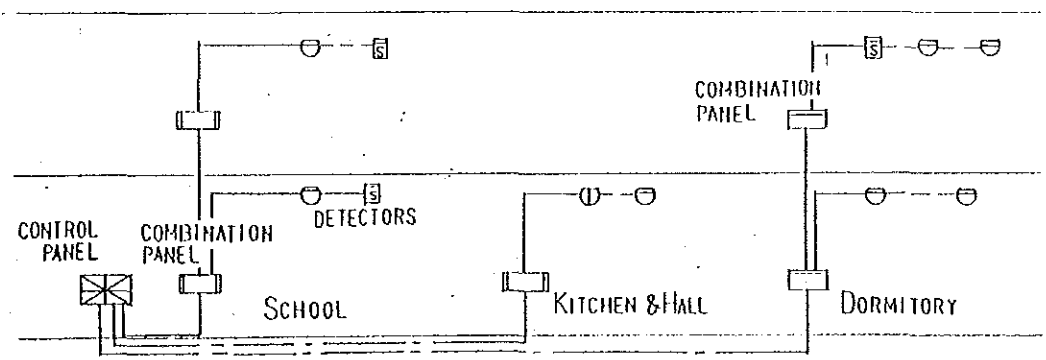


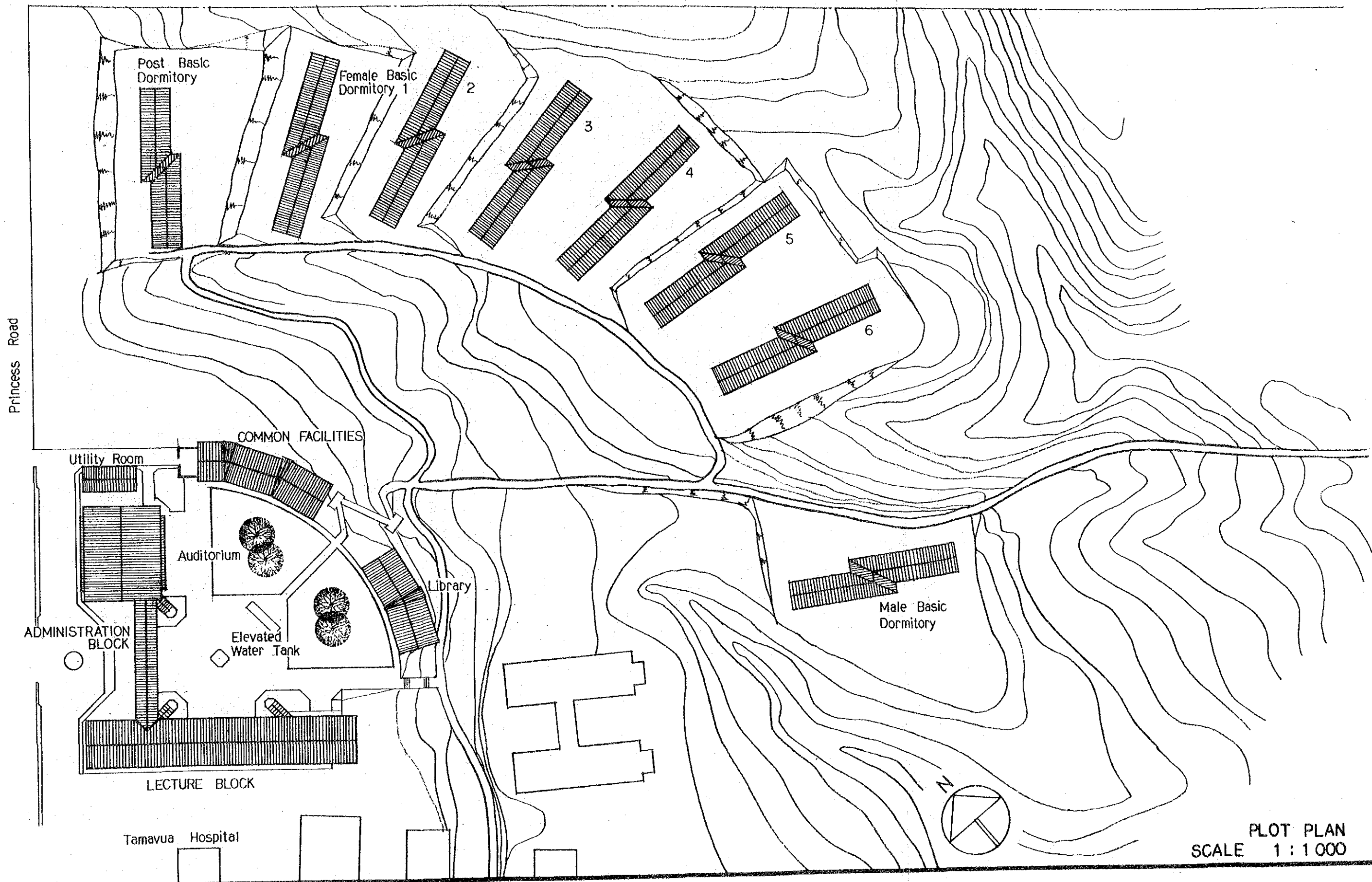
Fig. 4-16 AUTOMATIC FIRE ALARM SYSTEM

4-3-6 Drawings

PLOT PLAN : 1/1,000
 SCHOOL, GROUND FLOOR PLAN : 1/500
 FIRST FLOOR PLAN : 1/500
 ELEVATIONS & SECTION : 1/300
 ISOMETRIC DRAWING
 DORMITORY, FLOOR PLANS,
 ELEVATIONS & SECTIONS: 1/300

Table 4-13

AREA	BLOCK	AREA (m ²)
SCHOOL	ADMINISTRATION BLOCK	516.0
	LECTURE BLOCK	1,584.0
	AUDITORIUM	496.0
	COMMON FACILITIES	372.0
	SUB-TOTAL	2,968.0
DORMITORY	BASIC NURSE, Female	3,081.6
	Male	252.0
	POST BASIC	494.4
	SUB-TOTAL	3,828.0
OTHERS	OTHERS	240.0
TOTAL FLOOR AREA		7,036.0



PLOT PLAN
SCALE 1:1000

THE NEW FIJI SCHOOL OF NURSING
4-41

BUILDING

A - ADMINISTRATION BLOCK

- A-01 FOYER
- A-02 RECEPTION
- A-03 GENERAL OFFICE
- A-04 PRINCIPAL'S ROOM
- A-05 DEPUTY PRINCIPAL'S ROOM
- A-06 MIDWIFERY TUTOR'S ROOM
- A-07 PUBLIC HEALTH TUTOR'S ROOM
- A-08 TUTOR'S ROOMS
- A-09 SECRETARY ROOM
- A-10 CONFERENCE ROOM
- A-11 TOILET
- A-12 FIRST AID
- A-13 QUIET ROOM

B - LECTURE BLOCK

- B-01 CLASS ROOMS
- B-02 LARGE LECTURE ROOM
- B-03 LIBRARY
- B-04 AUDITORIUM
- B-05 SEMINAR ROOM
- B-06 COOKING LABORATORY
- B-07 LABORATORY
- B-08 DEMONSTRATION ROOM
- B-09 LINEN STORE
- B-10 STORE
- B-11 TOILET
- B-12 PREPARATION ROOM

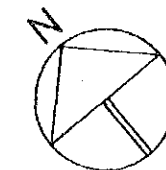
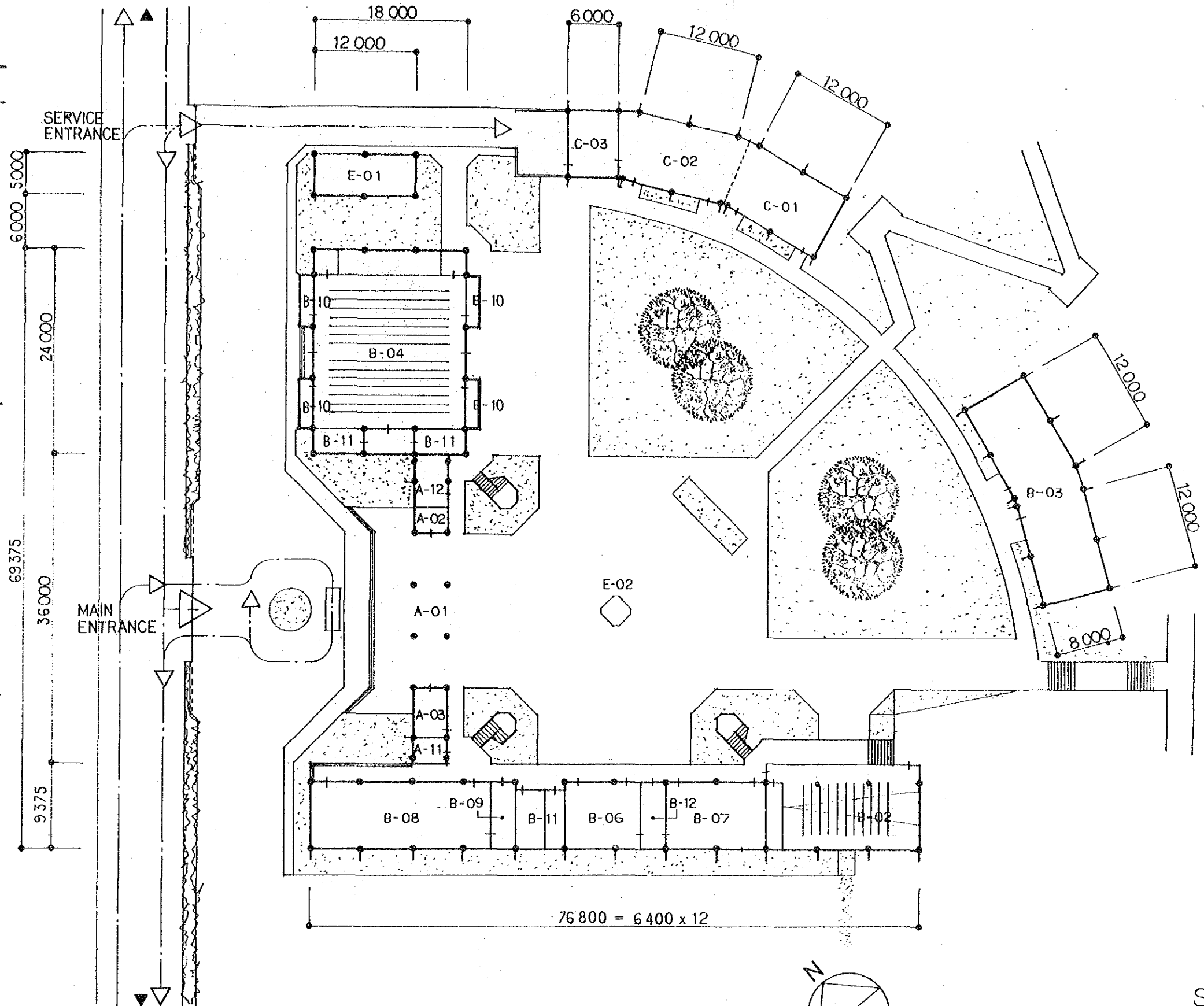
C - COMMON FACILITIES

- C-01 LOUNGE
- C-02 CAFETERIA
- C-03 KITCHEN

D - DORMITORY BLOCK

E - OTHERS

- E-01 UTILITY ROOM
- E-02 ELEVATED WATER TANK



SCHOOL
GROUND FLOOR PLAN
SCALE 1:500

THE NEW FIJI SCHOOL OF NURSING

BUILDING

A - ADMINISTRATION BLOCK

- A-01 FOYER
- A-02 RECEPTION
- A-03 GENERAL OFFICE
- A-04 PRINCIPAL'S ROOM
- A-05 DEPUTY PRINCIPAL'S ROOM
- A-06 MIDWIFERY TUTOR'S ROOM
- A-07 PUBLIC HEALTH TUTOR'S ROOM
- A-08 TUTOR'S ROOMS
- A-09 SECRETARY ROOM
- A-10 CONFERENCE ROOM
- A-11 TOILET
- A-12 FIRST AID
- A-13 QUIET ROOM

B - LECTURE BLOCK

- B-01 CLASS ROOMS
- B-02 LARGE LECTURE ROOM
- B-03 LIBRARY
- B-04 AUDITORIUM
- B-05 SEMINAR ROOM
- B-06 COOKING LABORATORY
- B-07 LABORATORY
- B-08 DEMONSTRATION ROOM
- B-09 LINEN STORE
- B-10 STORE
- B-11 TOILET
- B-12 PREPARATION ROOM

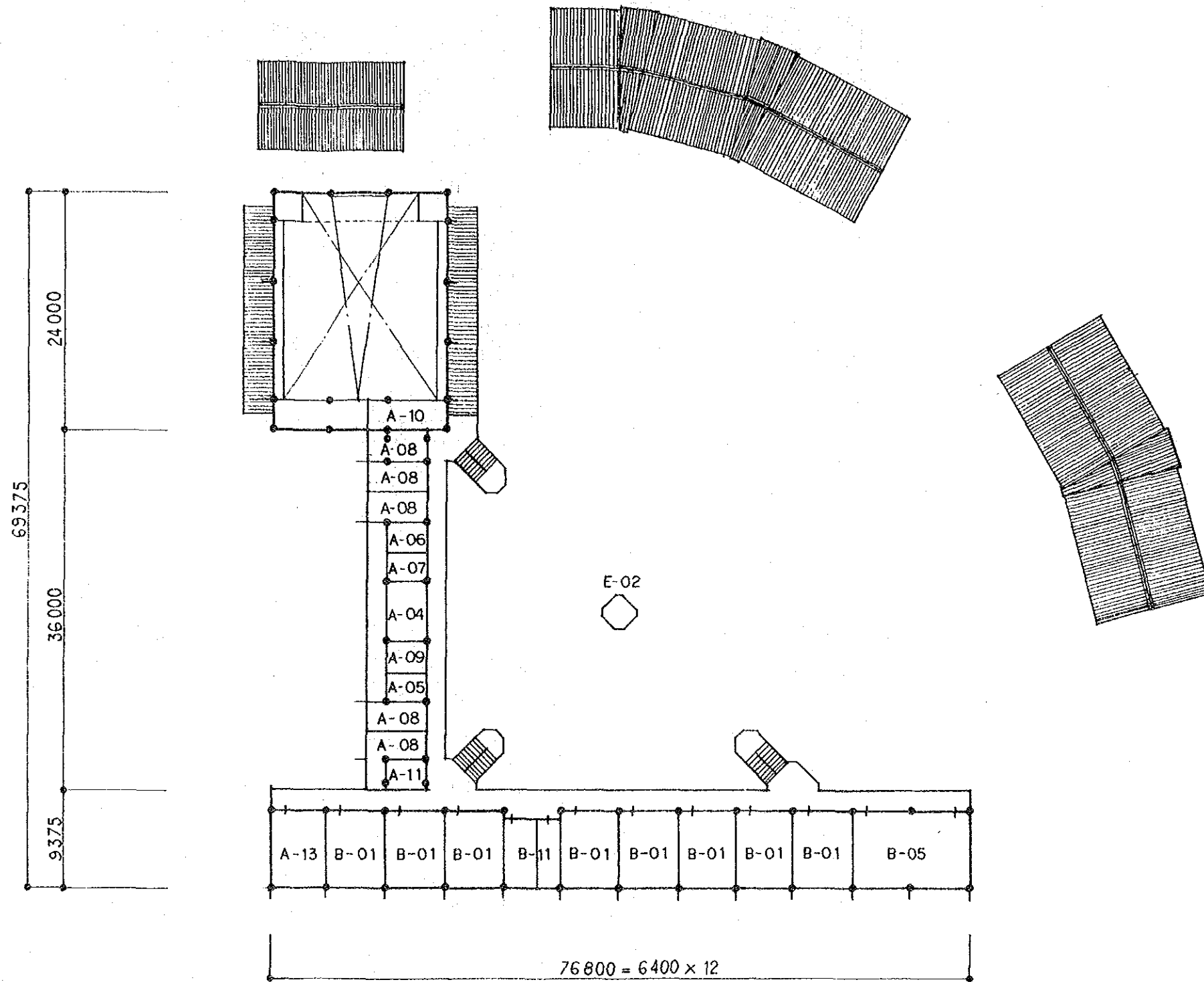
C - COMMON FACILITIES

- C-01 LOUNGE
- C-02 CAFETERIA
- C-03 KITCHEN

D - DORMITORY BLOCK

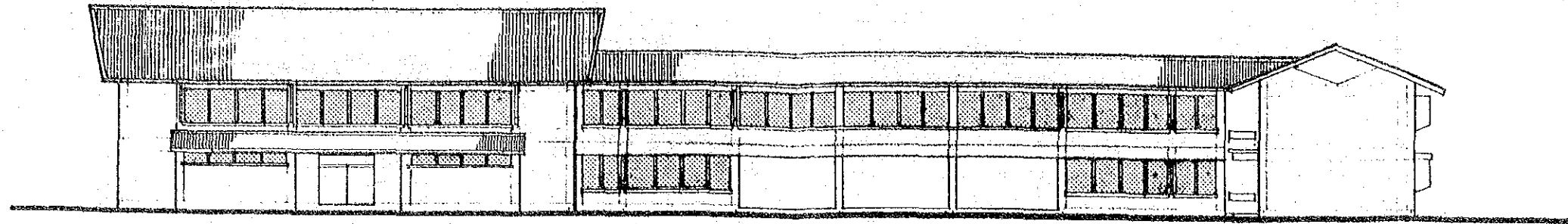
E - OTHERS

- E-01 UTILITY ROOM
- E-02 ELEVATED WATER TANK

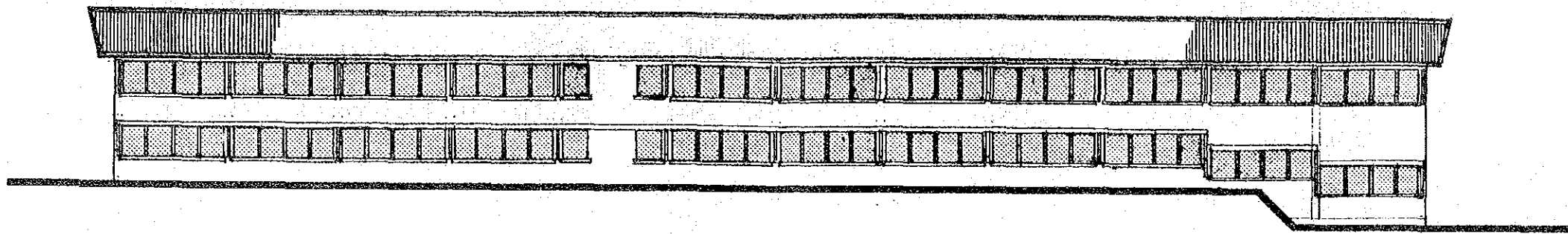


SCHOOL
FIRST FLOOR PLAN
SCALE 1 : 500

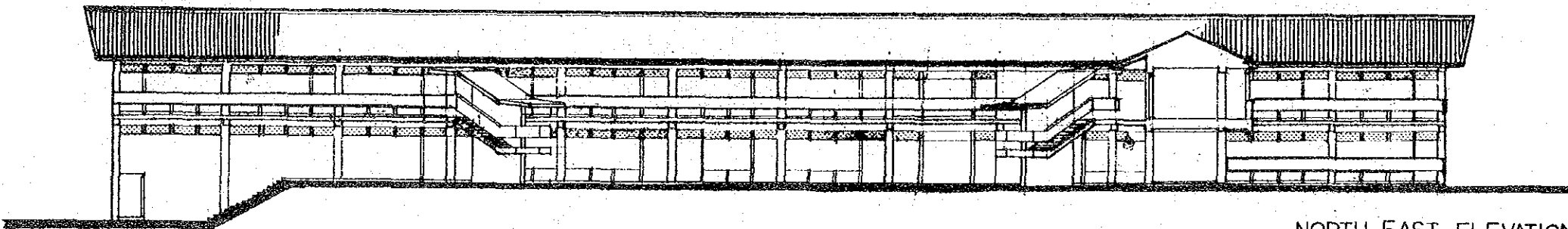
THE NEW FIJI SCHOOL OF NURSING



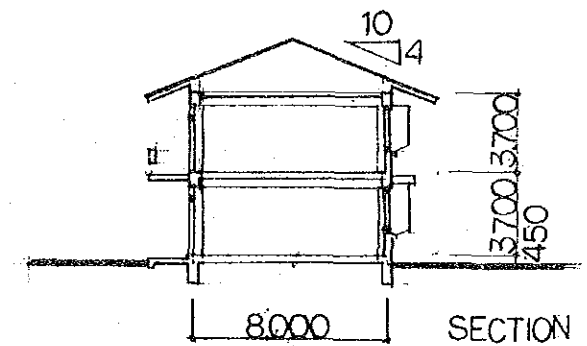
NORTH-WEST ELEVATION



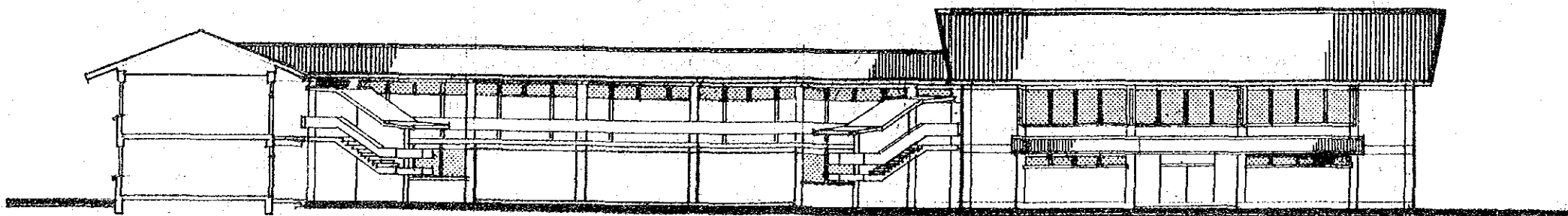
SOUTH-WEST ELEVATION



NORTH-EAST ELEVATION



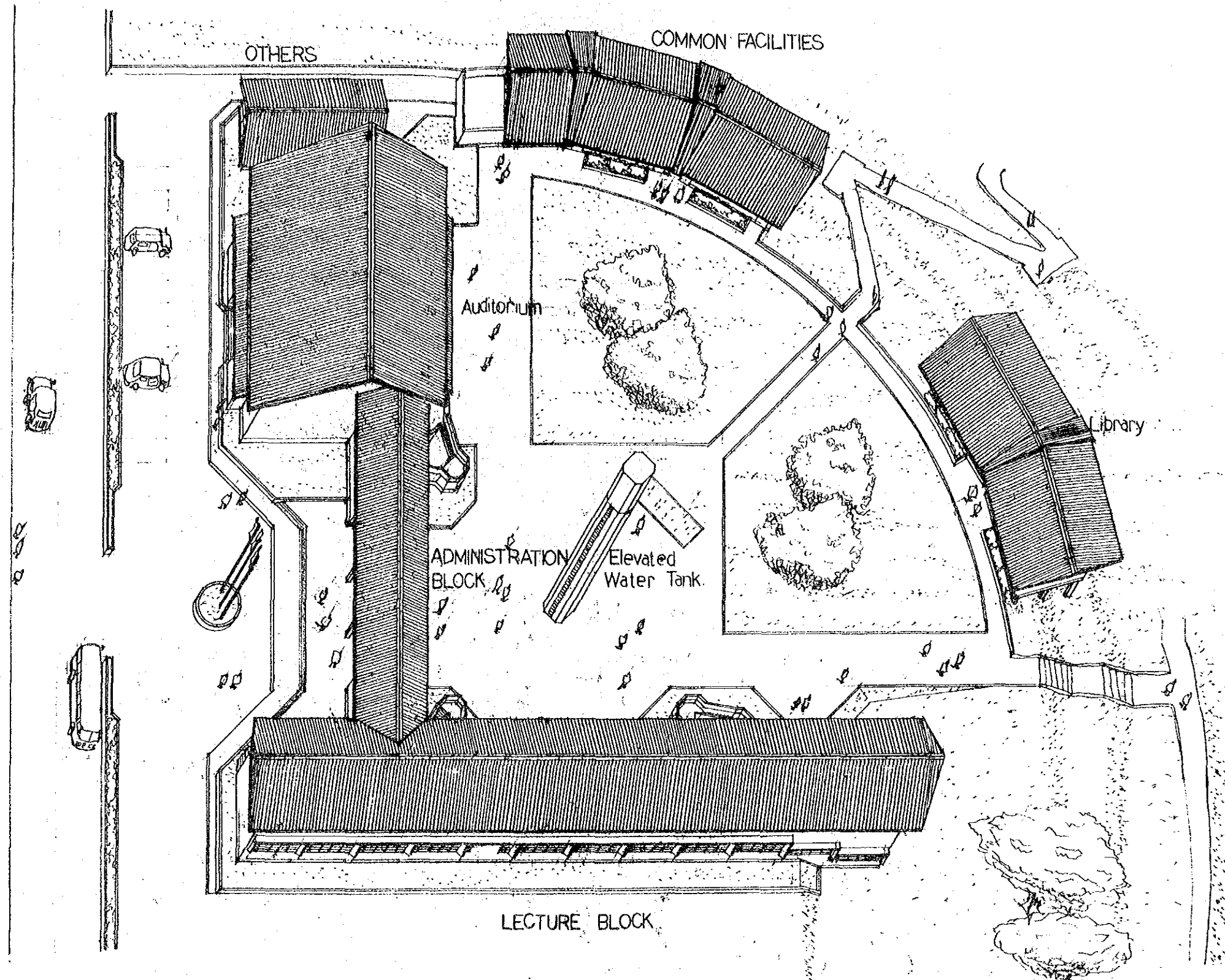
SECTION



SOUTH-EAST ELEVATION

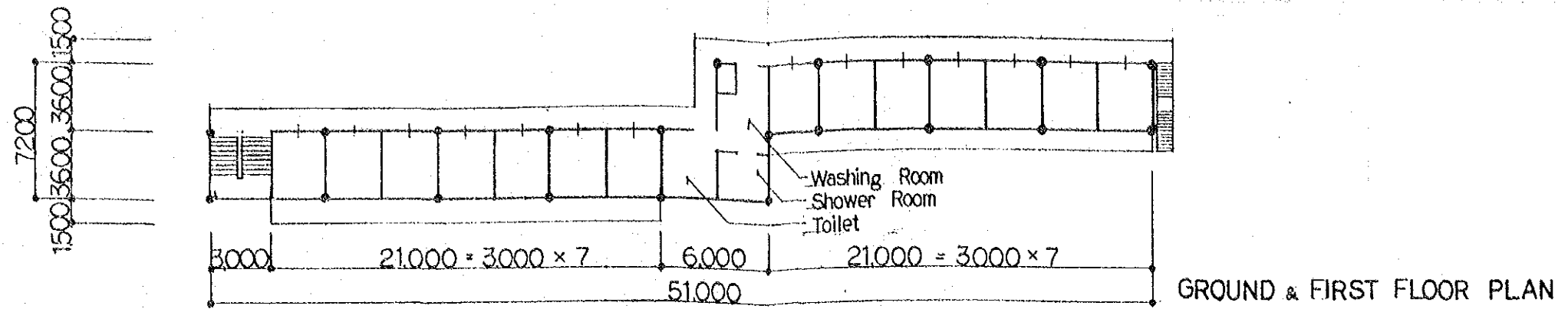
SCHOOL
ELEVATIONS & SECTION
SCALE 1:300

THE NEW FIJI SCHOOL OF NURSING

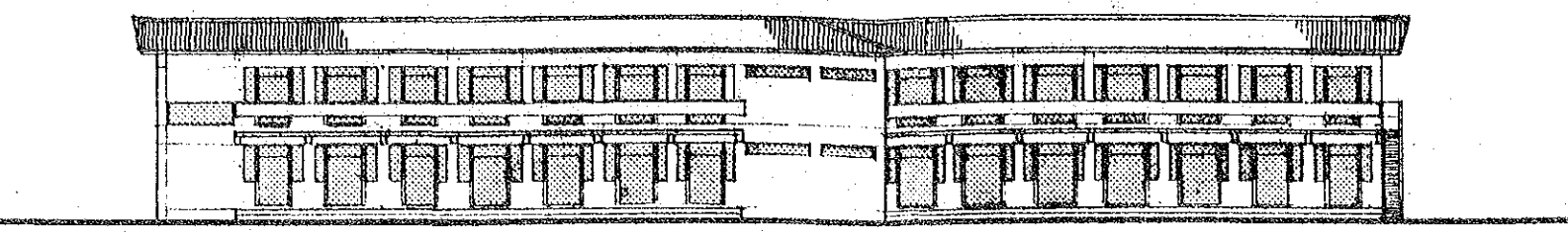


SCHOOL
ISOMETRIC DRAWING

THE NEW FIJI SCHOOL OF NURSING
4-49

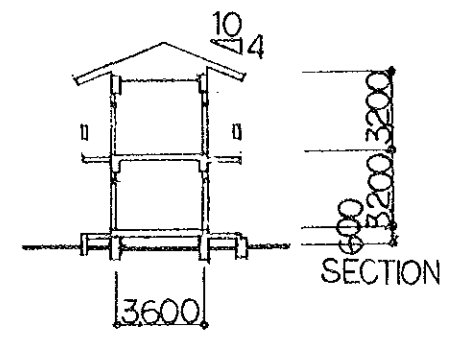


GROUND & FIRST FLOOR PLAN

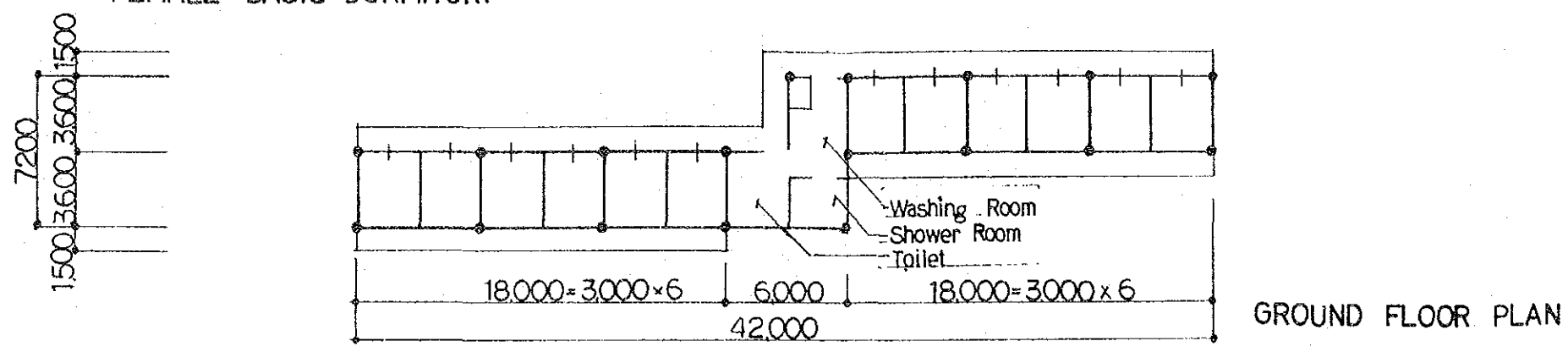


FEMALE BASIC DORMITORY

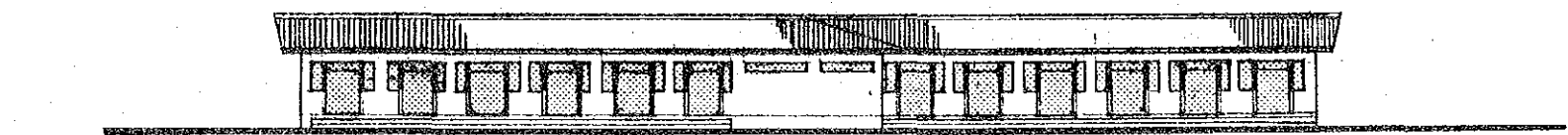
ELEVATION



SECTION

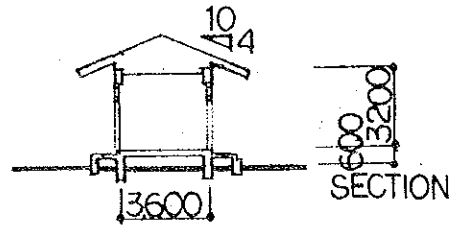


GROUND FLOOR PLAN

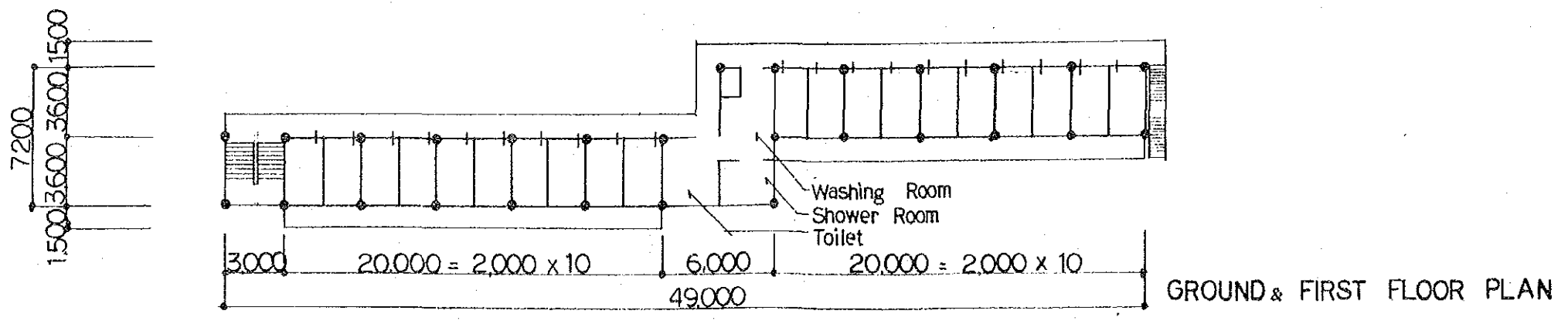


MALE BASIC DORMITORY

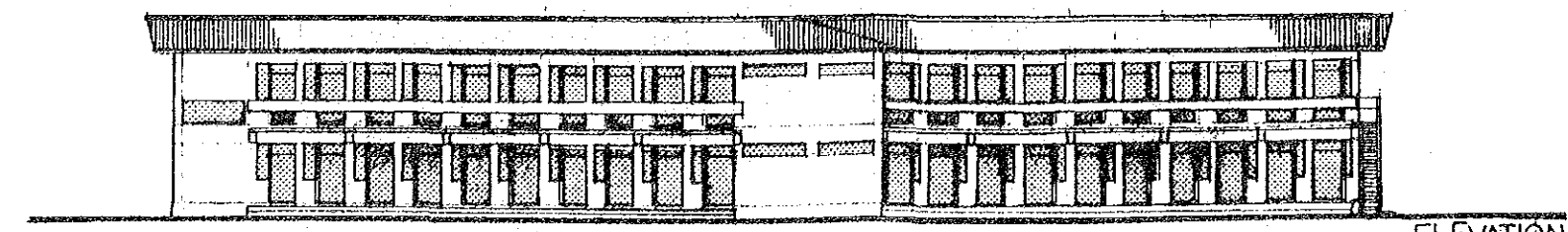
ELEVATION



SECTION



GROUND & FIRST FLOOR PLAN



POST BASIC DORMITORY

ELEVATION

DORMITORY
PLANS,
ELEVATIONS &
SECTIONS
SCALE 1:300

4-4 EDUCATIONAL EQUIPMENT

4-4-1 Basic Concept

The following principles are carefully considered when formulating the educational equipment plan.

- (1) The survey of existing nursing schools indicated that types of equipment and material are limited, furthermore most of them are quite old.

Educational equipment and material were selected from the educational equipment standard specified in the Japan Nurse Training School Standard Specification after fully considering the medical condition and medical personnel training condition in Fiji.

- (2) International standard high quality equipment, which fulfills the school's objective to improve the quality and quantity of nurses, will be installed.
- (3) After this school is completed and delivered, the Ministry of Health of Fiji shall be responsible for maintenance and repair of the educational equipment and material.
- (4) A private commuting bus is considered since the school is about 6 km from the training hospital, CWM Hospital.

4-4-2 List of Educational Equipment

The educational equipment and material were selected based on the discussion conducted with the Fiji counterpart regarding objective, location, specification and number.

The educational equipment may be divided into the following categories.

- (1) General educational equipment
- (2) Basic nursing technique equipment
- (3) Maternal health equipment
- (4) Child health equipment
- (5) Community health equipment
- (6) Geriatrics equipment
- (7) Other equipment

Table 4-14 LIST OF EDUCATIONAL EQUIPMENT

(1) General Equipment	
Item	
1)	Copying machine
2)	Mimeograph
3)	Rotary printer
4)	Overhead projector
5)	Electronic calculator
6)	Projector for 16 mm movie film
7)	Camera for movie
8)	Type writer
9)	Projection screen
10)	TV & video system
11)	Cabinet for TV
12)	Teacher's center table in laboratory
13)	Student's table in laboratory
14)	Teacher's cooking table
15)	Student's cooking table
16)	Side table with sink - I
17)	Side table with sink - II
18)	Side table with sink - III
19)	Chalk board - I
20)	Chalk board - II
21)	Chalk board with screen
22)	Tack board

Category Item	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
1) Anatomical chart for all body system	o				
2) Slide film of anatomical system	o				
3) Anatomical chart for human phyecology	o				
4) Model for system at circulation organ	o				
5) Model for system of digestive organ	o				
6) Model for lung segment	o				
7) Model for brain organs	o				
8) Anatomical model for brain	o				
9) Skin model (microscopical structure)	o				
10) Eyeball model	o				
11) Ear model	o				
12) Structural model of tooth	o				
13) Anatomical model of nasal cavity	o				
14) Larynx organs model	o				
15) Stomach model	o				
16) Kidney with suprarenal body	o				
17) Intestinal and digestive system organs model	o				
18) Uterus model	o	o			
19) Female pelvis model	o	o			
20) Pregnant uterus model	o	o			
21) Discharge model after delivery	o	o			
22) Child fecal model	o	o	o	o	
23) Birth control instruction model	o	o		o	
24) Model for conception theory	o	o		o	

o: Usage for category

Item	Category	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
25)	Development stage foetus model	o	o		o	
26)	Instruction chart for birth control	o	o		o	
27)	Chart for demonstration to mother's class	o	o		o	
28)	Pregnancy calendar		o			
29)	Infection bacterium model	o				
30)	Human parasitic mode	o				
31)	Pathogenic preparation	o				
32)	Diet model for treatment	o			o	
33)	Menu model for baby food	o	o			
34)	Arms model for venous injection	o				
35)	Standard gatch bed with spring mattress, bedside table, chair, pillow and blanket	o				
36)	Overhead table	o				
37)	Standard bed for adult with mattress	o				
38)	Pediatric bed with mattress	o				
39)	Bassinet cart for new born baby with mattress	o				
40)	Doll for practice - I	o	o	o	o	o
41)	Doll for practice - II	o	o	o	o	o
42)	Baby doll's bathing model	o	o			
43)	Model doll for delivery	o	o			
44)	Infant baby training doll for cardio-pulmonary resuscitate	o	o	o		
45)	Infant bath	o	o			
46)	Measuring rod for adult	o				
47)	Measuring rod for small size	o				

Item	Category	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
48)	Weighting scale for adult	o				
49)	Infant scale for feeding volume	o				
50)	Treatment carriage	o				o
51)	Hair washing cart	o				o
52)	Cradle for bed	o				o
53)	Folding wheel chair	o			o	o
54)	Wheel chair	o			o	o
55)	Stretcher	o			o	
56)	Crutch	o			o	
57)	Walking aid	o			o	o
58)	Wagon table	o				
59)	Treatment table	o				
60)	Examination table	o				
61)	White board with flannel board (removal)	o				
62)	Two-panel screen frame	o				
63)	Infant incubator (oxygen cylinder with pressure control bulb)	o				
64)	Rolling bandage	o				
65)	Gauze cutter	o				
66)	Bandage changer cart	o				
67)	Phantom for obstetrics (rotation)	o	o		o	
68)	Phantom for obstetrics (on desk)	o	o		o	
69)	Training model for breast massage	o	o		o	
70)	Rotary spirometer	o				
71)	Sphygmomanometer (mercurial)	o				
72)	Sphygmomanometer (aneroid)	o				
73)	Martin's pelvimeter	o	o		o	

Item	Category	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
74)	Stethoscope	o			o	
75)	Higuchi's style obstetrical stethoscope	o	o		o	
76)	Milking instruments	o	o		o	
77)	Oxygen flow meter	o				
78)	Oxygen density meter	o				
79)	Oxygen tent with gas cylinder	o				
80)	Oxygen mask (face)	o	o	o	o	
81)	Minuteman resuscitator & bird's respirator with stand	o		o	o	
82)	Electro cardiograph (portable type)	o			o	o
83)	PH-meter	o				
84)	Chemical laboratory equipment set	o				
85)	Pipette washer	o				
86)	Blood examination equipment set	o				
87)	Binocular microscope	o				
88)	Sterilizer (dry heat hot air type)	o				
89)	Boiling instrument sterilizer	o				
90)	Centrifuge	o				
91)	Clinical thermometer for adult for anal for oral cavity	o	o	o	o	
92)	Electronic clinical thermometer	o				
93)	Head mirror	o				
94)	Tongue depressor	o				
95)	Delivery equipment set	o	o			
96)	Conception theory & birth control instruction set	o	o		o	

Item	Category	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
97)	Movie slide for nursing techniques	o				
98)	Slide projector	o				
99)	Video tape, body structure series	o				
100)	Video tape, disease series	o			o	
101)	Video tape, emergency treatment series	o		o	o	
102)	Video tape, aseptic treatment series	o				
103)	Video tape, nursing technique series	o				
104)	Guide book for nursing tutor	o				
105)	Instrument set for enema gastric irrigation	o	o	o	o	
106)	Instrument set for intravenous injection	o				
107)	Injection tray	o				
108)	Drug administration tray	o				
109)	Instrument set for gastrolavage	o		o	o	
110)	Instrument set for tracheotomy	o				
111)	Instrument set for blood transfusion	o				
112)	Aspirator with stand (suction unit)	o	o			o
113)	Irrigator	o	o			o
114)	Irrigator stand	o	o			
115)	Pitcher	o				o
116)	Brush for hand washing	o				
117)	Stool for adult	o				o
118)	Urinal for adult (male and female)	o				o
119)	Rack for stool and urinal	o				

Item \ Category	(2) Basic Nursing Technique	(3) Maternal Health	(4) Child Health	(5) Community Health	(6) Geriatrics
120) Washing machine	o				
121) Refrigerator	o				
122) Incubator	o				
123) Draft chamber	o				
124) Sterilizer	o				
125) Forceps	o				
126) Scissors	o				
127) Film illuminator	o				

(7) Other Equipment
Item
1) School bus for 60 students

4-5 PROJECT EXECUTION PLAN

4-5-1 Organization

The Nursing Services, Ministry of Health together with the Public Work Department, Ministry of Communication and Works is the government authorities in Fiji responsible for executing this project. The Nursing Services will undertake matters relating to consultant contract, construction contract, formalities and school plan, while the Public Work Department will undertake matters relating to construction.

A diagram of the organization is shown below.

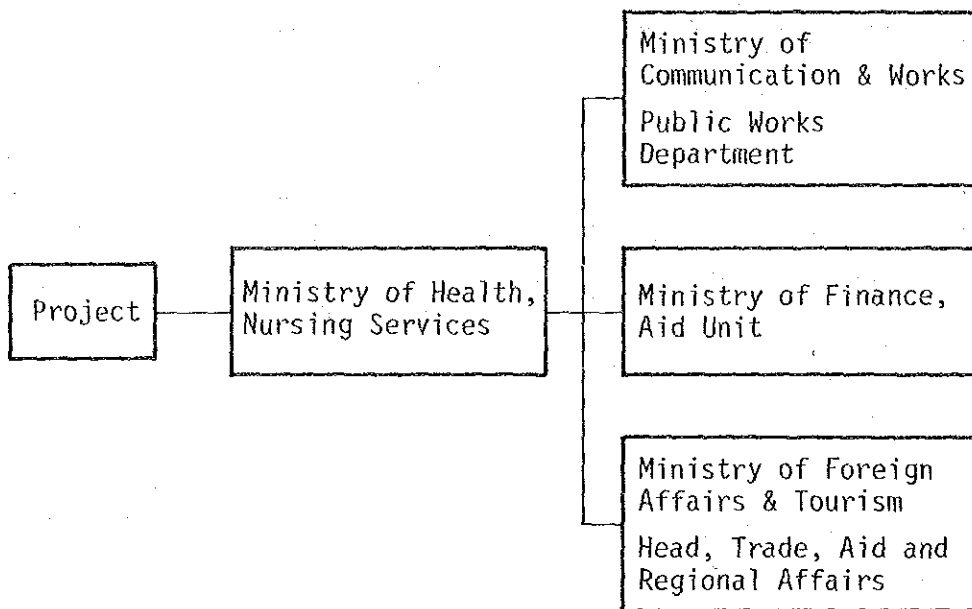


Fig. 4-17 ORGANIZATION

4-5-2 Implementation Schedule

The project implementation schedule may be divided into the (1) basic design study period under technical assistance and (2) detailed design, construction and supervision period.

The scale of this project is for a total floor area of about 7,000 m² and when the construction condition in Fiji is considered, it is believed that about 18 months would be necessary for the construction.

The implementation schedule I is shown in Fig. 4-18.

The alternative implementation schedule II is provided for the case when construction is divided into two periods and the order is spread over two years due to the construction budget. (Refer to Fig. 4-19.)

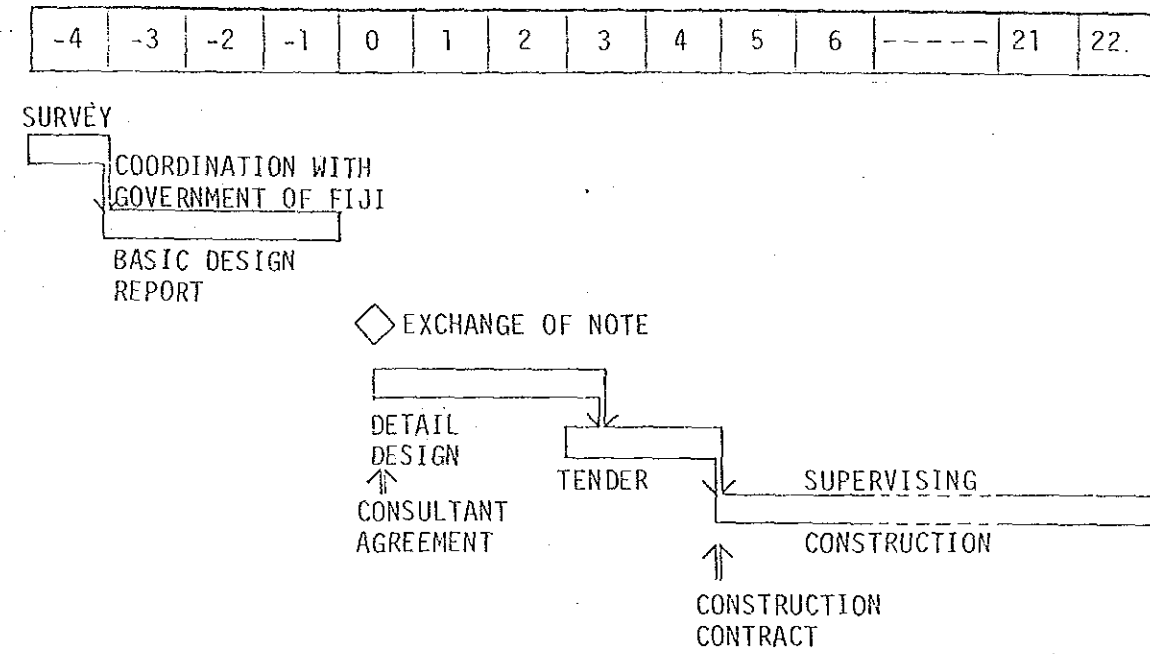


Fig. 4-18 IMPLEMENTATION SCHEDULE - I

-4	-2	0	2	4	6	8	10	12	14	16	18	24	26
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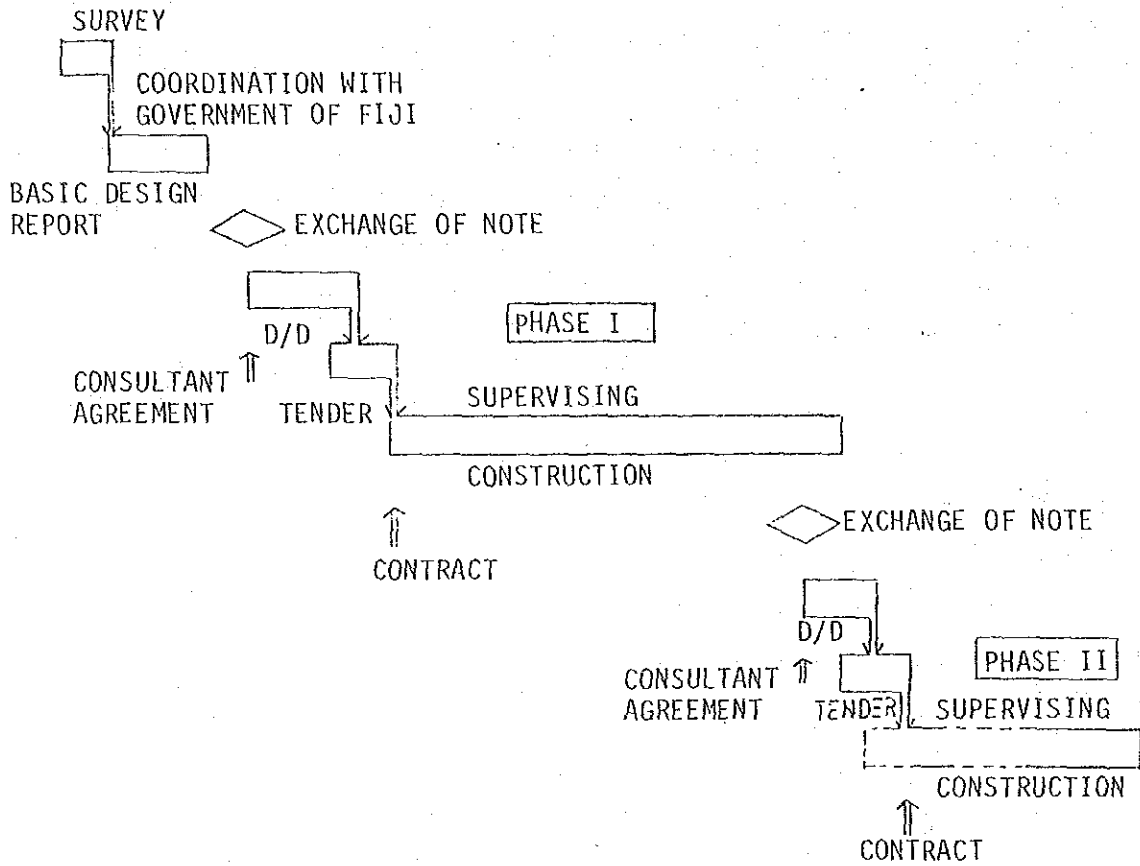


Fig. 4-19 IMPLEMENTATION SCHEDULE - II

4-5-3 Construction Plan

(1) Procedure being start of construction

The construction site is under the jurisdiction of the Ministry of Health so no proprietary right problem exists, but since the site is a slope which is not flat, site preparation work is necessary. Also since buildings used as wards for the Tamavua Hospital exists, they must be removed. The Fiji Government will be requested to complete the land preparation work and building removal work before starting construction.

(2) Construction plan

When preparing the construction schedule, a study of construction equipment and materials, possibility of overseas procurement, custom clearance procedure and transportation method must be studied. Furthermore, since Suva has high precipitation, construction during dry season and wet season should be carefully considered. Therefore a construction schedule, which provides foundation work, structural work and roof work during the dry season and interior work such as interior finishing during the wet season, is planned.

Works, such as electric power, water supply, telephone and sewage connection with outside installations will be executed at a suitable time by conducting full consultation with the relevant authorities.

During construction, it is necessary to maintain good consultation with the respective persons in charge on matters regarding construction schedule and construction technique as the project progresses to make adjustment as they become necessary. It is very important to maintain an adequate back-up organization in Japan.

4-5-4 Supervision Plan

The consultant shall supervise the construction of the successful tender in accordance with the consultant agreement and shall be fair and neutral while providing good judgment and adequate instruction. The work to be performed by the construction supervisor consists of the following items.

(1) Assistance in concluding construction contract

Conduct the evaluation of the tender and select the contractor on behalf of the Fiji Government. Also examine the contents of construction details and attend the signing of the construction contract.

(2) Approval of payment for construction work

Examine and approve the contents of the request for payment of construction work during the construction period.

(3) Supervision of construction

Conduct periodical site meetings, verify construction progress and provide necessary instruction to the contractor. Also periodically submit necessary reports to the Fiji Government authorities.

(4) Inspection and approval of work drawings

Perform inspection and approval of work drawings, material samples submitted by the contractor.

(5) Inspection at site

Perform inspection during construction and on completion also issue approval. The supervisors work will be completed after inspection on completion is finished and a certificate of work completion is received from the Fiji Government.

An adequate back-up organization must be maintained in Japan to perform inspection of materials procured in Japan and of materials for export, also to submit periodical reports to the Japanese authorities.

4-5-5 Procurement Plan for Construction Materials

Fiji is a member of the British Commonwealth, therefore, the main construction materials are imported from New Zealand and Australia. For the implementation of this project, it is assumed that the construction materials will be procured in Fiji, Japan, New Zealand and Australia.

The laborers in Fiji are of higher standard than those of other developing countries, but necessities will still arise where supervisors must be sent to provide technical instruction.

The expected sources of material procurement are outlined below.

(1) Materials expected to be procured in Fiji

1) Basic construction materials

Cement, sand, gravel, ready-mixed concrete, concrete block

2) Fittings

Wood fittings, some steel fittings, glass

3) Woodwork

Ordinary wood and lumber

4) Furniture

Furniture for schooling, training, experiment, household

5) Others

Equipment and materials for temporary work

(2) Materials expected to be procured from Japan and other overseas countries

1) Basic construction materials

Steel bars, steel frames, roofing materials

2) Basic installation materials

PVC pipes (electric conduit, water and sewage pipes) metal electric conduits, cables, mechanical fixtures, lighting equipment, panels, etc.

3) Fittings

Steel fittings

4) Interior finishing materials

Flooring materials, paints, ceiling materials, etc.

4-5-6 Division of Undertaking

The undertaking of construction work for this project was discussed between the Ministry of Health, Fiji and the basic design study team, also the confirmation study team.

The undertaking and responsibility of the respective Government shall be as outlined below:

(1) Undertaking by the Japanese side

1) Consultant work

Design of the facility and supervision of the construction work

2) Construction of school facilities and provision of educational equipment and materials

Construction of school and dormitory (Refer to 4-3
PLAN OF THE FACILITY)

Provision of educational equipment and materials (Refer to
4-4 EDUCATIONAL EQUIPMENT)

(2) Undertaking by the Fiji side

- 1) Land preparation of project site (removal of buildings, some trees, land preparation, etc.)
- 2) Secure temporary power and water
- 3) Load bearing test
- 4) Provide necessary information for construction execution
- 5) Installations, guardhouse
- 6) Outdoor work
Storm water drainage work, fence and planting, water pond for fire fighting and approach road to site
- 7) Utility work
Water supply (water piping into site)

Drainage (drainage piping up to prescribed location both inside and outside the site)

Power intake (power line up to prescribed location from outside the site)

Telephone (connect line up to MDF)
- 8) Furnitures and fixtures
Office furnitures and parts, bedding and kitchen utensiles
- 9) Custom clearance for construction materials

- 10) Exemption from duties, taxes and other charges which would be levied by the Fiji Government for Japanese personnels participating in this project.
- 11) Provision of facilities to Japanese engineers participating in this project by the Fiji Government to enter and to leave Fiji.

4-5-7 Cost Estimate

Project costs consist mainly of construction costs, equipment costs, contingency, and consultant fee. Project costs at present are roughly estimated as follows:

Table 4-15 COST ESTIMATE FOR ONE PERIOD

Item	Amount (Japanese Yen)
Construction cost	¥ 1,456,000,000
Equipment cost	¥ 87,000,000
Contingency	¥ 116,000,000
Consultant fee	¥ 148,000,000
Total	¥ 1,807,000,000

Condition: F\$1 = ¥240 (March, 1984)

Table 4-16 COST ESTIMATE FOR TWO PERIODS

Item	Amount (Japanese Yen)	
	Phase - I	Phase - II
Construction cost	¥ 665,000,000	¥ 838,000,000
Equipment cost	¥ 87,000,000	—
Contingency	¥ 80,000,000	¥ 101,000,000
Consultant fee	¥ 113,000,000	¥ 74,000,000
Total	¥ 945,000,000	¥ 1,013,000,000

Condition: F\$1 = ¥240 (March, 1984)

4-5-8 Cost Estimate for the Fiji side

Cost undertaking by the Fiji side consists mainly of land preparation, outdoor works, utility cost, furniture and fixtures. These costs at present are estimated as follows:

Table 4-17 COST ESTIMATE FOR THE FIJI SIDE

Item	Amount (Japanese Yen)
Land preparation cost	¥ 31,900,000.-
Outdoor works cost	¥ 69,300,000.-
Utility cost	¥ 4,000,000.-
Furniture and fixtures cost	¥ 24,800,000.-
Total	¥ 130,000,000.-

Condition: F\$1 = ¥240 (March, 1984)

Cost estimated in Japan

CHAPTER 5 MAINTENANCE AND OPERATION PLAN

5-1 MAINTENANCE AND OPERATION PLAN

5-1-1 Operation Plan

5-1-2 Maintenance and Administration Plan

5-2 ESTIMATION OF MAINTENANCE AND ADMINISTRATION EXPENSE

CHAPTER 5 MAINTENANCE AND OPERATION PLAN

In order to assure a smooth operation of this Fiji School of Nursing, it is necessary for the Ministry of Health to secure adequate budget and to establish a system for maintenance and operation.

5-1 MAINTENANCE AND OPERATION PLAN

5-1-1 Operation Plan

The present Fiji School of Nursing is under the Education Division, Nursing Section of the Ministry of Health, and education and operation are conducted by the principal and tutors provided for this purpose.

The New Fiji School of Nursing, presently planned, will be operated by a similar organization under the allocated budget. The operation and maintenance will be executed by the education division and the administration division while the maintenance of building installation will be executed by the administration division.

The education and the operation will be executed by the nursing school itself based on the overall curriculum, school regulation, various regulation and instruction of the Nursing Section. The maintenance and supervision of the building installation will be administered under the cooperation of the Public Works Department, Ministry of Communications and Works.

5-1-2 Maintenance and Administration Plan

The objectives of the maintenance and administration of buildings and installations are as listed below.

- (1) Maintenance of functions (education efficiency, operation efficiency, living environment)
- (2) Reduction of economical expense (reduce repair expense)

- (3) Measures for accident prevention and emergencies
- (4) Sustenance of financial value

Suitable building installation and proper maintenance and administration will prevent decrease of efficiency due to natural deterioration and will prolong the life of the building installation. In view of such fact, the building installation is planned to provide energy conservation and easy maintenance.

It is important to provide education for maintenance and administration together with training for operation during the construction period before commissioning.

After commissioning, the person in charge of the respective departments should be selected, and together with the responsible person at the Public Works Department, a maintenance programme and schedule should be set up. Also items for daily and periodical checking and maintenance should be determined and a maintenance cycle of *checking-studying-repairing* should be performed. The diagram for maintenance and administration would be as shown below:

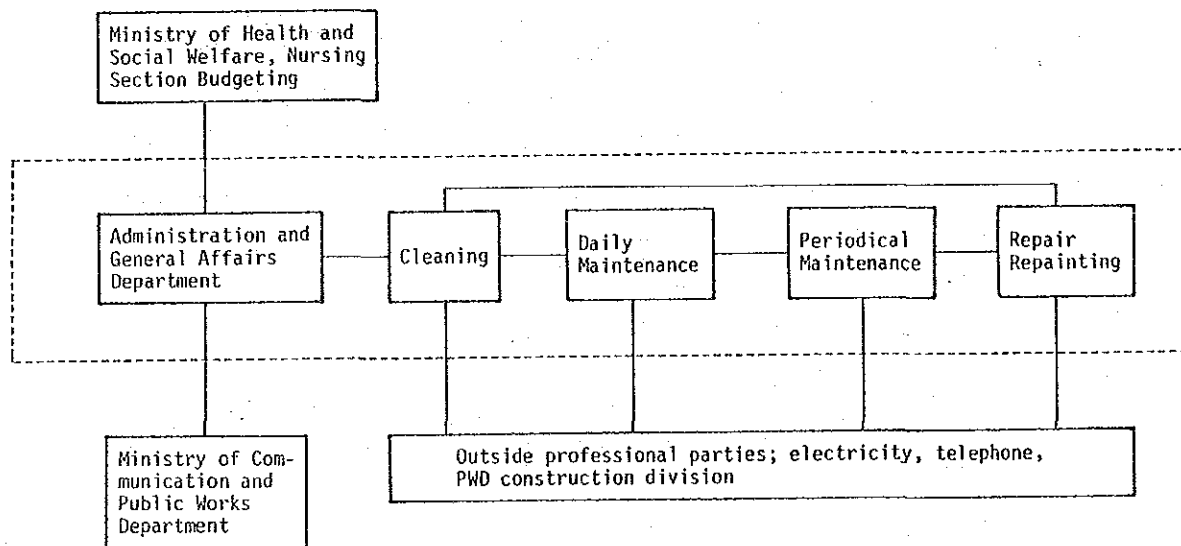


Fig. 5-1 DIAGRAM FOR MAINTENANCE AND ADMINISTRATION

5-2 ESTIMATION OF MAINTENANCE AND ADMINISTRATION EXPENSE

Personnel expenses and utility (electricity, fuel, water) expenses are the main components of the maintenance and administration expense. The annual maintenance and administration expense of the school of nursing was estimated as shown below from the data provided by the Ministry of Health and data obtained during the survey.

Established criteria

Personnel expenses are based on the wage and salary table provided by the Ministry of Health.

Annual rate of increase for wage and salary is estimated at 5%.

Annual rate of increase for consumer price is estimated at 7%.

The expense for the opening year 1986 (2 years later) is estimated.

The number of tutors and students is that at the time of the basic design study.

Personnel expenses	F\$ 707,982
Administration expenses	F\$ 358,090
Utility expenses	F\$ 62,560
Total	<u>F\$1,128,632</u>

Table 5-1 PRESENT AND FORECAST BUDGET UNDER PRESENT CONDITION

(Unit: 1,000F\$)

	1982 Result	1983 Budget	1984 Budget	1985 Forecast	1986 Forecast
1. Regular employees	429.3	508.4	410.9	427.3	444.4
2. Temporary employees	109.9	127.4	117.4	117.4	117.4
3. Travelling and communication expense	1.9	3.5	3.5	3.5	3.5
4. Repair and maintenance expense	0.1	0.5	0.5	0.5	0.5
5. Supplies and miscellaneous expense	73.6	57.5	57.5	57.5	57.7
TOTAL	614.8	697.3	589.8	606.2	623.3

CHAPTER 6 PROJECT EVALUATION

CHAPTER 6 PROJECT EVALUATION

The Government of Fiji after its independence from Great Britain in 1970, conducted the training of medical and health personnels under the guidance of W.H.O. and the cooperation of countries such as New Zealand and Australia.

The training of nursing personnels to man the hospitals, health centers and nurse stations is being conducted to meet the needs, but Fiji is suffering from shortage of nursing personnels both in quality and quantity.

Especially, the shortage of nurses at area hospitals and nurse stations are acute. The senior matrons at three hospitals reported that the shortage of nurses in 1982 was 621 nurses.

Fiji's Eighth Economic Development Plan also sets out the solution of nurse shortage at divisional hospitals and primary health care nurses in regional area as a priority programme within its personnel training programme.

Furthermore, Fiji provides the post basic nurse education for South Pacific countries who do not have their own nursing school and are relying largely on the role of Fiji in nursing education. However, the existing schools have no satisfactory facilities, adequate equipment nor material, also the administrative building and dormitory are wooden structures much past their long life. The school is 6 km away at borrowed classrooms of the Teachers College operated by the Ministry of Education. The present condition is such that increase of nurses and good quality education are not possible.

Owing to such condition, the necessity of this project was acknowledged to provide good nursing education by constructing the New Fiji School of Nursing equipped with adequate educational equipment.

In order to alleviate the nurse shortage, the student capacity for basic nurse course was studied and decided as described below. A total of 15 seats for the three grades are reserved for overseas students from South Pacific countries are excluded from this study.

- (1) The number of people which will be served by one nurse was estimated by forecasting the yearly increase of population up to the year 2000 and by estimating the increase of nurses based on the expectation that 120 students will graduate each year from 1986. This estimate was compared with the past record of Japan. This comparison is plotted in Fig. 6-1.

- (2) The total shortage of nurses in Fiji in 1983 was estimated from the number of nurse shortage at the three main hospitals investigated by the Select Committee of Inquiry in 1978, the number of nurse shortage at other hospitals in 1981 estimated from the number of beds and number of out-patients and the number of nurse shortage at the nurse stations. A calculation was performed to estimate the number of years necessary to cover the total nurse shortage in 1983 from the estimated number of nurse supply from the year the increased 120 students graduate. The result was 7.6 years (refer to Table 6-1).

The installation plan and educational equipment and materials plan were set up after studying the contents of education, lesson and experiment methods, etc. for this student capacity. The operation maintenance and management of the installations, equipment and materials were also considered when setting up the plan. It is judged that these plans can be fully implemented and utilized under the implementation and operation organization of the Government of Fiji.

Table 6-1: ESTIMATE OF NURSE SHORTAGE AND NURSE SUPPLY

Estimate of Nurse Shortage in 1983		
1. Main 3 hospitals	300	625
2. Other hospitals	Approx. 175	
3. Nursing stations	Approx. 150	
Estimate of Nurse Supply in 1988		
1. New graduates (enrollment of 1986 class, who would graduate in 1988)	85 to 100	82
2. Immigrant	8	
3. Retirement	-20	
4. Long term absence, etc.	-6	
Number of years to cover shortage $625 \div 82 \div 7.6$ years (Estimate 8 years)		

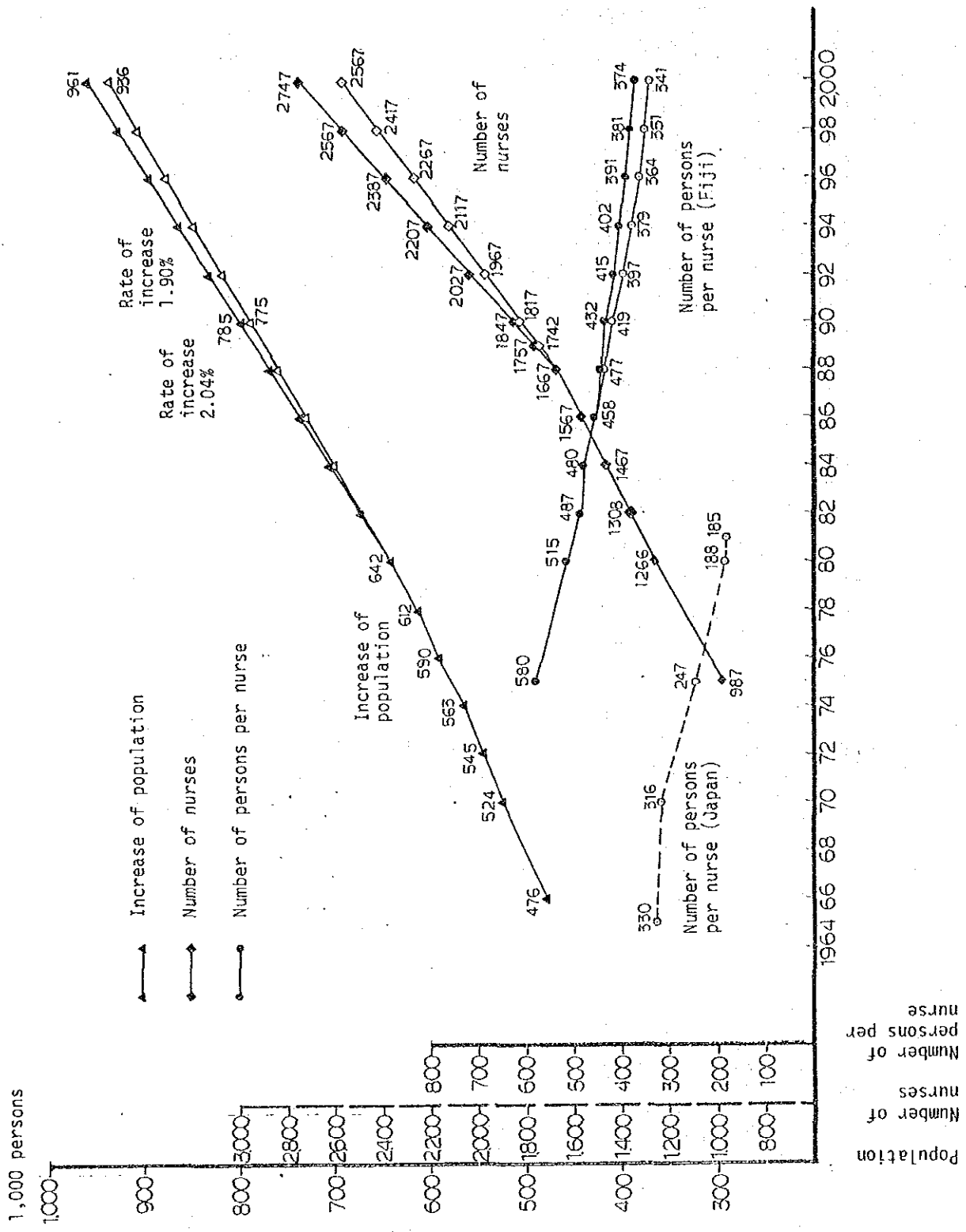


Fig. 6-1 ESTIMATE OF NUMBER OF NURSES

CHAPTER 7 CONCLUSION AND RECOMMENDATION

7-1 CONCLUSION

7-2 RECOMMENDATION

CHAPTER 7 CONCLUSION AND RECOMMENDATION

7-1 CONCLUSION

The Ministry of Health has set up and is implementing five programmes to achieve the four objectives (1. promote social welfare; 2. improve health care service quality; 3. provide equal distribution of health care service to regional districts; 4. build health care service installations) set out in DP-8. This project was planned as a project under these five programmes.

The purpose of this project is to resolve the shortage of nurses at the divisional and area hospitals and the shortage of nurses forming the front line of primary health care by extending nurse training facilities and increasing educational function to provide training for nurses to acquire adequate professional knowledge and capability.

If this project, which will accommodate a total of 400 students; basic nurse course, 360 students (1 grade 120 students) and post basic course, 40 students (16 public health nurse students, 24 midwife students), is implemented under the grant aid cooperation of the Government of Japan, it will upgrade the quality and quantity of nurses who are the mainstay of medical health care service and it will greatly contribute to the improvement and extension of the people's medical health care service.

This project will also accommodate, in the basic nurse course, nurse students from South Pacific countries as before, furthermore the post basic course will be extended to respond to the needs of South Pacific countries who do not have post basic education facilities.

The New Fiji School of Nursing Project is highly necessary as described in the preceding paragraphs and is judged to be appropriate in its scale, facilities, operation, etc.

Therefore it is recommended that grant aid from the Government of Japan will be extended as early as possible.

7-2 RECOMMENDATION

In order to implement this project smoothly and effectively, it is considered necessary that the Ministry of Health take appropriate measures on the following items both at preparation stage of construction and after opening of the school. This also includes appropriation of necessary budget.

- (1) Execute the action required by the Fiji side for implementing grant aid cooperation (items which will be listed in Exchange of Note).
- (2) Budget appropriation and staffing of necessary tutors and employees required for operation and management after the school is opened.
- (3) Provide reeducation for tutors to correspond with the upgrading of educational level by the new curriculum (it would be considered to provide course for educating tutors by using the new facilities of this project).

It is believed that the facilities of this project may be utilized to upgrade quality and quantity of nursing tutors also to open a short term training course for a new category of nursing personnel as a mean to resolve Fiji's nurse shortage within a short time. For this purpose it is suggested that the Ministry of Health will be requested to study the most effective utilization programme for the facilities provided by this project.

APPENDIX

- 1 THE PERSONS CONCERNED IN FIJI
- 2 BASIC DESIGN STUDY
- 3 CONFIRMATION STUDY

1. THE PERSONS CONCERNED IN FIJI

(1) MINISTRY OF HEALTH

Dr. A. KURISAQILA	Minister
Dr. T. M. BUIMAIWAI	Permanent Secretary
Miss Monica SCHNEIDER	Director, Nursing Services
Miss Trudy McIVER	Principal, Fiji School of Nursing
Mrs. Alisi DOBUI	Special Project Officer, Nursing Services
Mrs. Kalesi BAKANI	Special Project Officer, Nursing Services
Mr. Ted WILSON	Principal Accountant

(2) C.W.M. HOSPITAL

Dr. K. LAL	Medical Superintendent & Director
Miss C. K. Mani RAM	Senior Matron
Mrs. Viniana L. TUISOWAGA	Matron Administration

(3) TAMAVUA HOSPITAL

Dr. Inoke BUADROMO	Medical Superintendent
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(4) LAUTOKA HOSPITAL

Mrs. Halima DEAN	Acting Senior Matron
Mrs. Mata ILOILO	Matron

(5) AID UNIT, MINISTRY OF FINANCE

Mr. Atendra SINGH	Senior Assistant Secretary
Mrs. MAWI	Acting Assistant Secretary

(6) MINISTRY OF FOREIGN AFFAIRS AND TOURISM

Mr. Jiogi KOTOBALAVU	Permanent Secretary
Major J. B. TAKALA	Permanent Secretary
Mr. Asim KHAN	Head, Trade, Aid & Regional Affairs

(7) P.W.D. (PUBLIC WORKS DEPARTMENT)

Mr. Bob CARROLL	Director, Architectural Division
Mr. Alesteir WARD	Architectural Division
Mr. Prahacad SINGH	Architectural Division
Mr. Alan HEPBURN	Principal Structural Engineer
Mr. Gul ZAMAN	Principal Quantity Surveyor
Mr. Peter TAYLOR	Principal Water Engineer

(8) FIJI ELECTRIC AUTHORITY

Mr. Veerendra AHIM	Principal Distribution Engineer
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(9) W.H.O. (WORLD HEALTH ORGANIZATION)

Mr. Merlowe J. ANDERSON	Programme Management Officer
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(10) NASINU TIMBER RESEARCH STATION, DEPARTMENT OF FORESTRY

Mr. A. S. ALSTON	Director
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(11) OTHERS

Mr. A. NABATI	Minister Without Portfolio at Prime Minister's Office
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2. BASIC DESIGN STUDY

(1) MEMBERS OF JAPANESE BASIC DESIGN STUDY TEAM

ASSIGNMENT	NAME	POSITION
Team Leader	Sada NAGANO	Director, The International Nursing Foundation of Japan
Nursing Specialist	Ritsu YAMADA	Director of Education, Mitsui Memorial Hospital Nursing College
Project Coordinator	Senichi KIMURA	Basic Design Division, Grant Aid Department, Japan International Cooperation Agency (JICA)
Planner (Chief Architect)	Shinichi INOUE	Senior Architect, Azusa Sekkei Co., Ltd.
Architect	Hozumi OGAWA	Architect, Azusa Sekkei Co., Ltd.
Elec., Mech. and Training Equip. Engineer	Hideaki YASHIRO	Electrical Engineer, Azusa Sekkei Co., Ltd.
Surveyor	Yoshio KAWAI	Architect, Azusa Sekkei Co., Ltd.

(2) ITINERARY OF JAPANESE BASIC DESIGN TEAM

DATE	GROUP		LODGING	ACTIVITIES
	A	B		
12 NOV. (Sat)	TYO	TYO		
13 (Sun)	NAN SUV	NAN SUV	SUVA	
14 (Mon)			DO	
15 (Tue)			DO	{ Meetings of Japanese Embassy, Ministry of Health and Social Welfare (MHW) and Ministry of Finance (Aid Unit)
16 (Wed)			DO	- Observation of Nursing Schools and CWM Hospital, Field Survey
17 (Thu)			DO	- Meetings of Ministry of Foreign Affairs and MHW
18 (Fri)	NAN	NAN	LAUTOKA	- Observation of Lautoka Nursing School and Lautoka Hospital
19 (Sat)			DO	- Meetings of Lautoka Nursing School and Lautoka Hospital
20 (Sun)	SUV	SUV	SUVA	
21 (Mon)			DO	- Meeting of MHW and Observation of Nasinu Teachers Training College
22 (Tue)			DO	- Meetings of MHW and PWD, Field Survey
23 (Wed)			DO	- Meetings of MHW and Japanese Embassy, Observation of TTC
24 (Thu)			DO	- Exchange of Minutes
25 (Fri)			DO	- Report to Japanese Embassy and meeting of PWD
26 (Sat)	SUV NAN TYO		DO	- Mrs. Nagano, Mrs. Yamada and Mr. Kimura leave Suva
27 (Sun)			DO	- Data collection
28 (Mon)			DO	- Meeting of PWD, Field Survey
29 (Tue)			DO	{ Meetings of MHW and PWD, observation of cement factory, Wailoku Nursing Station and Samavula Health Center
30 (Wed)			DO	- Meeting of PWD, Data Collection
1 DEC. (Thu)			DO	- Meetings of WHO and Meteorological observatory, Data Collection
2 (Fri)			DO	- Meetings of MHW and PWD, Report to Japanese Embassy, observation of
3 (Sat)		SUV NAN TYO		Medical School

(3) MINUTES

MINUTES OF DISCUSSIONS

ON

THE PROJECT FOR THE NEW FIJI SCHOOL OF NURSING

In response to the request made by the Government of Fiji, the Government of Japan has sent, through the Japan International Co-operation Agency (hereinafter referred to as "JICA"), a team headed by Ms. Sada NAGANO (Director, the International Nursing Foundation of Japan) to conduct a Basic Design Study on the project for New Fiji School of Nursing (hereinafter referred to as "the Project") from 12th to 25th November, 1983.

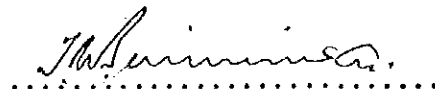
The team has conducted the field survey and held a series of discussions and exchanged views with the official concerned of the Government of Fiji.

Both parties have agreed to recommend their respective Government and authorities concerned to examine the results of the study attached herewith toward the realization of the Project.

24th November, 1983.


Ms. Sada NAGANO

Team Leader, Japanese Study Team
JICA.


.....
Dr. T.M. BIUMAIWAI

Permanent Secretary,
Ministry of Health and Social
Welfare.

ATTACHMENTS

The New Fiji School of Nursing is hereinafter referred to as "the School".

1. The Objective of the Project:

The Objective of the Project is to prepare competent and compassionate Nurse who will effectively promote and maintain optimal health and provide total Nursing Care in any work setting in response to the changing needs of Fiji.

2. The Executing and Co-ordinating Body of the Project:

The Executing and Co-ordinating Body of the Project is the Ministry of Health and Social Welfare, Fiji.

3. The Organization of the Project:

The Organization Chart of the Project is shown in Appendices I and II.

4. The Activities of the School:

(1) Total Number of Students	Basic	360		
	Post Basic	80)	Midwifery 48
)	Public Health 32
(2) Number of Students in each Class	Basic	120		
	Post Basic	48		
	Public Health	32.		

2/...

S.N.

AS

Principal's Room

Deputy Principal's Room

Midwifery Tutor's Room

Public Health Tutor's Room

Tutors' Rooms

(b) Lecture Block -

Class Rooms

Large Lecture Room

Library

Auditorium

Seminar Rooms

Cooking Laboratory

Laboratory

Demonstration Room

Linen Store

Store

(c) Common Facilities -

Lounge

Kitchen and Cafeteria

(d) Dormitory Block

(e) Others.

(2) Equipment:

(a) General Education

(b) Basic Nursing Technique

(c) Maternal Health

(d) Child Health

(e) Community Health

(f) Geriatrics.

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7. The Undertaking of the Japanese Study Team:

- (1) The study team will carry out further examination for the Project. And above results will be incorporated in the Draft of the Basic Design Study Report which will be submitted to the Government of Fiji.

After the explanation and mutual discussion on that Report, the study team will make the Final Report on the Project.

- (2) The study team will convey the desires of the Government of Fiji to the Government of Japan that the latter will co-operate to the Project within the scope of Japanese economic co-operation in grant form.

8. The Major Undertakings to be taken by both Governments:

The Government of Fiji and the Government of Japan will take necessary measures as listed in Appendix IV on condition that the grant assistance by the Government of Japan is extended to the Project.

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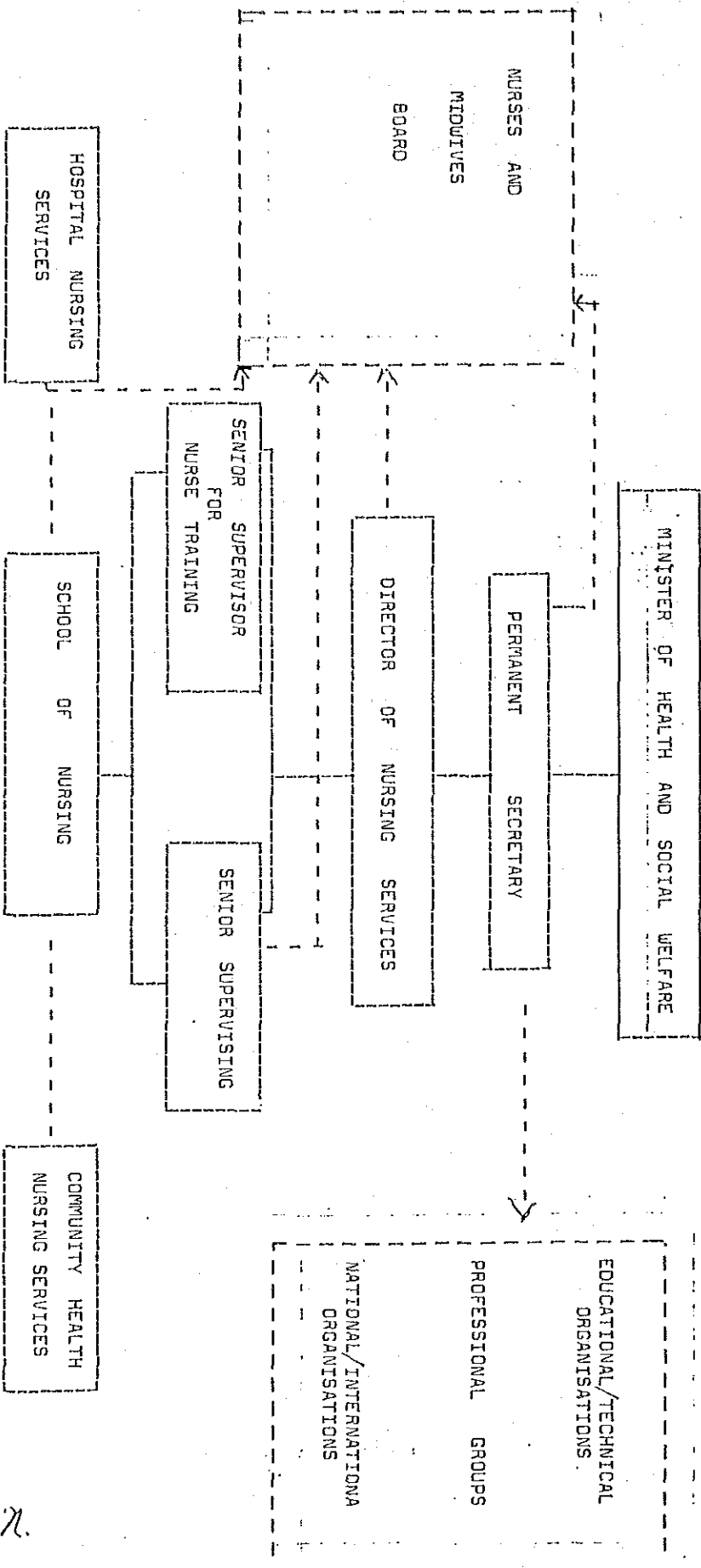
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THE FIJI SCHOOL OF NURSING

In the

MINISTRY OF HEALTH AND SOCIAL WELFARE,

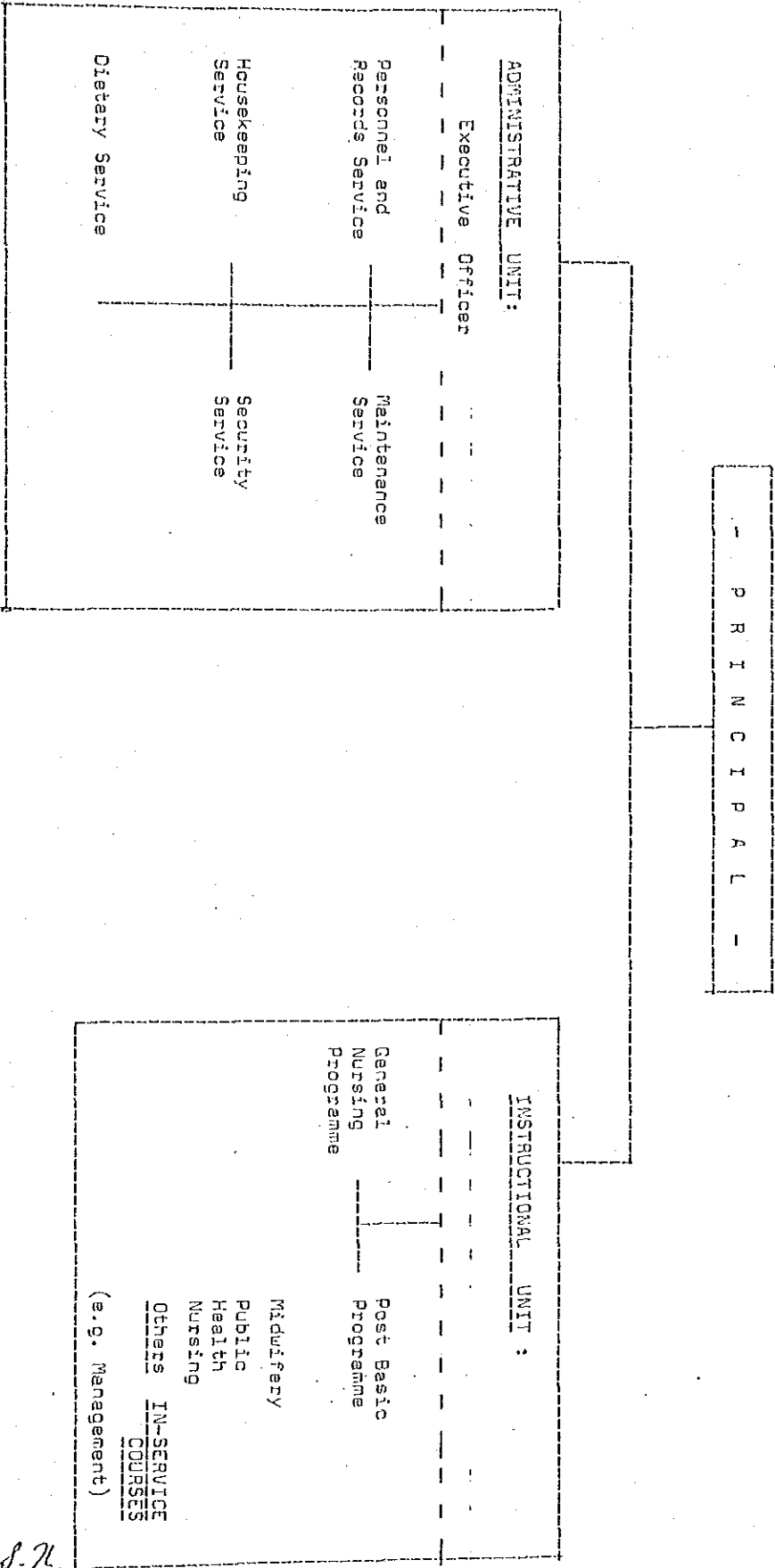
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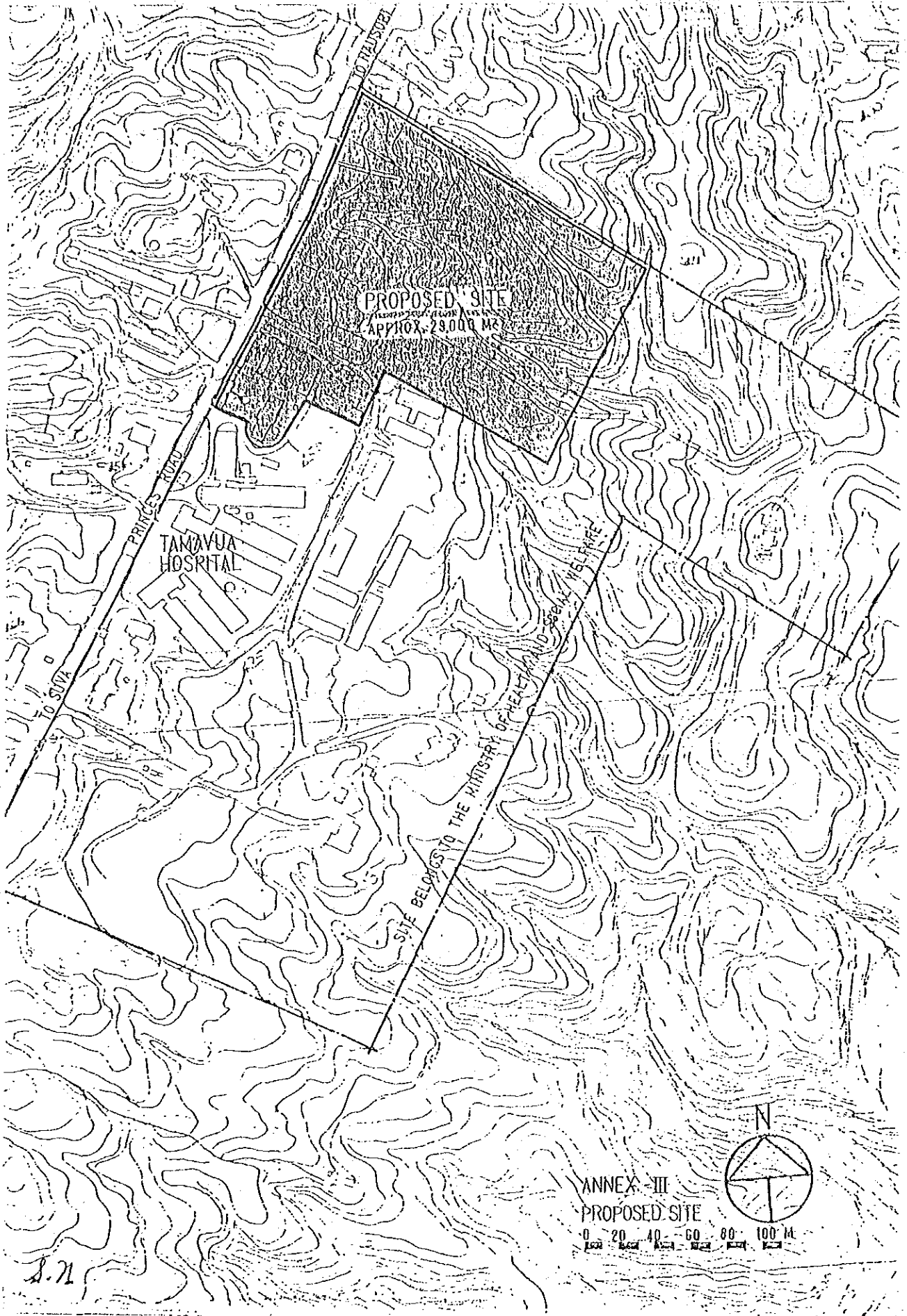
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ORGANISATIONAL CHART

NEW FICJ SCHOOL OF NURSING (PROPOSED).



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APPENDIX IV

MAJOR UNDERTAKINGS TO BE TAKEN BY BOTH GOVERNMENTS

No.	Items	Japanese Side	Fijian Side
1	To secure a lot of land		o
2	To clear, level and reclaim the site when needed		o
3	To construct the gate and fence in and around the site		o
4	To construct the parking lot	o	
5	To construct the road		
	1) Within the site	o	
	2) Outside the site		o
6	To construct the building	o	
7	To provide facilities for distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		o
	b. The drop wiring and internal wiring within the site	o	
	c. The main circuit breaker and transformer	o	
	2) Water Supply		
	a. The city water distribution main to the site		o
	b. The supply system within the site (receiving and elevated tanks)	o	
	3) Drainage		
	a. The drainage city main (for storm, sewer and others) to the site		o
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	o	
	4) Gas Supply		
	a. The city gas main to the site		o
	b. The gas supply system within the site	o	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		o
	b. The MDF and the extension after the frame/panel	o	
	6) Furnitures and Equipment		
	a. General furnitures (carpet, curtain, table, chair and others)		o
	b. Project equipment	o	

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No.	Item	Japanese Side	Fijian Side
8	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A.		
	1) Advising commission of A/P.		o
	2) Payment commission		o
9	To ensure unloading and customs clearance at port of disembarkation in recipient country.		
	1) Marine (Air) transportation of the products from Japan to the recipient country.	o	
	2) Tax exemption and customs clearance of the products at the port of disembarkation.		o
	3) Internal transportation from the port of disembarkation to the project site	o	
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into recipient country and stay therein for the performance of their work.		o
11	To maintain and use properly and effectively that the facilities constructed and equipment purchased under the Grant.		o
12	To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.		o

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3. CONFIRMATION STUDY

(1) MEMBERS OF JAPANESE CONFIRMATION STUDY TEAM

ASSIGNMENT	NAME	POSITION
Team Leader	Sada NAGANO	Director, The International Nursing Foundation of Japan
Project Coordinator	Senichi KIMURA	Basic Design Division, Grant Aid Department, Japan International Cooperation Agency (JICA)
Planner (Chief Architect)	Shinichi INOUE	Senior Architect, Azusa Sekkei Co., Ltd.
Architect	Hozumi OGAWA	Architect, Azusa Sekkei Co., Ltd.

(2) ITINERARY OF JAPANESE CONFIRMATION TEAM

DATE	LODGING	ACTIVITIES
1984		
25 FEB. (Sat)	TYO	
26 (Sun)	NAN SUV	SUVA
27 (Mon)		DO — Meeting of Japanese Embassy, Ministry of Health (MHW), Ministry of Foreign Affairs, and Aid Unit, Explanation of the Report to MHW
28 (Tue)		DO — Supplementary survey, Observation of Valelevu Health Center, Nausori Materning Unit, Wanibokasi Hospital and Navaka Nursing Station
29 (Wed)		DO — Meeting of MHW, Supplementary Survey
1 MAR. (Thu)		DO — Meetings of MHW and PWD
2 (Fri)	SUV SGT	SINGATOKA — Exchange of Minutes, Report to Japanese Embassy and Aid Unit
3 (Sat)		— Supplementary Survey of Navua Health Center & District Hospital, Caloa Nursing Station and Kolovicilou Health Center
4 (Sun)	SGT NAN NAN TYO	

(3) MINUTES

MINUTES OF DISCUSSIONS

ON

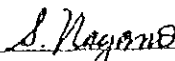
THE DRAFT REPORT OF THE BASIC DESIGN STUDY ON
THE PROJECT FOR THE NEW FIJI SCHOOL OF NURSING

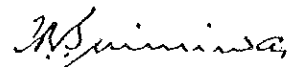
The Government of Japan has sent, through Japan International Cooperation Agency (JICA), a Basic Design Study Team headed by Ms. Sada NAGANO (Director, the International Nursing Foundation of Japan) to Fiji from 26th February to 3rd March, 1984 for the purpose of submitting and explaining of the Basic Design Study Report (the Report) on the Project for New Fiji School of Nursing (the Project).

The Team held meetings with the authorities concerned of the Government of Fiji to explain and discuss on the Report. As a result of the discussions, both parties have agreed as follows;

1. The Report principally satisfied the Fiji side, and appropriate amendments, supplements and Plan A in the Report agreed during the discussions will be incorporated in the Final Report.
2. The Final Report (10 copies in English) on the Project will be submitted to the Government of Fiji by the end of May, 1984.

2nd March, 1984


Ms. Sada NAGANO
Team Leader,
Japanese Study Team
JICA


Dr. T.M. BIUMAIWAI
Permanent Secretary,
Ministry of Health and Social
Welfare

JICA