

4-7 SERVICE SYSTEM PLAN

4-7-1 Food Service System

(1) Food Service to the Private Wards

The number of meals prepared per day in the Main Kitchen on the 1st floor will be increased by about 42% to 1517 from the current 1070 after expansion of the Hospital facilities. The meals served to patients in Private Wards will account for 20% of these meals. Discussions were held on whether or not to adopt for the Private Wards the same method of serving meals as is practiced in private hospitals in Cairo, specifically, to (1) serve warm food warm and cold food cold, and (2) use ceramic dishes to serve the meals.

Private hospitals are using food wagons with heating functions to serve food at suitable temperatures. However, a large number of such wagons will be necessary since each wagon will be able to hold only a small number of trays and there is not enough space in the Main Kitchen of the CUPH to store them. Moreover, additional electrical installation work will be required for this, and the wagons themselves are quite expensive. For the above reasons, devices for heating and cooling the meals will be provided in the Pantries in the Private Wards on the 5th floor as a counter-plan for using heatable food wagons.

As to the use of ceramic dishes, all tableware is currently being washed manually, but an automatic dish washer will be newly installed to cope with the increased number of ceramic dishes for the Private Wards.

Table 4-7-1 Number of Meals Prepared

	Present				After Expansion			
	Break-fast	Lunch	Dinner	Total	Break-fast	Lunch	Dinner	Total
For Patients	204	204	204	612	<u>+46</u>	<u>+46</u>	<u>+46</u>	<u>+138</u>
					+40	+40	+40	+120
					290	290	290	870
For Attendants, Visitors	102	102	102	306	<u>+23</u>	<u>+23</u>	<u>+23</u>	<u>+69</u>
					+20	+20	+20	+60
					145	145	145	435
For Staff*	30	83	39	152	+20	+20	+20	+60
					50	103	59	212
Total	336	389	345	1,070	485	538	494	1,517

The underlined shows the increased number of meals for Private Wards

* Not including Administration staff

(2) Food Service for Staff

Meals served to hospital staffers will be prepared in the Main Kitchen as before, while beverages will be served in the Kitchenette attached to the Living/Dining Room for Doctors and Nurse's Rest Room to be newly prepared on the 6th floor. Similar refreshment services will be available in the Visitor's Lounge of the Private Wards on the 5th floor although meals will not be prepared in these areas.

(3) Addition and Improvement of Kitchen Equipment

The Milk Kitchen will be removed, the dish-washing area will be expanded, and the following equipment will be provided in the existing Main Kitchen.

- a) A dish-washer with accompanying clean table and cart
- b) A drying/sterilizing cabinet for dishes
- c) An electric cooker
- d) A medium-sized soup kettle to replace the current large one
- e) A compact juicer
- f) 2 serving wagons for Private Wards and 3 carts (1 for hospital staffers)
- g) 6 serving wagons to replace the existing ones

(4) Equipment provided in Pantries for the Private Wards

- a) An electric cooker
- b) A refrigerator
- c) An ice maker
- d) A sink and a table

(5) Purchasing of Material

Materials are purchased through an annual contract between the Cairo University Hospital (Manial Hospital) and a food cooperative of the government. Dry foods etc. are supplied from the central storage of the Manial Hospital, but fresh foods are supplied by the food cooperative (fresh vegetables are delivered daily, and meat, eggs, cheese and rice etc. once every two weeks). By adopting this system, it will not be necessary to expand the food storages and refrigerators to cope with the increased number of meals.

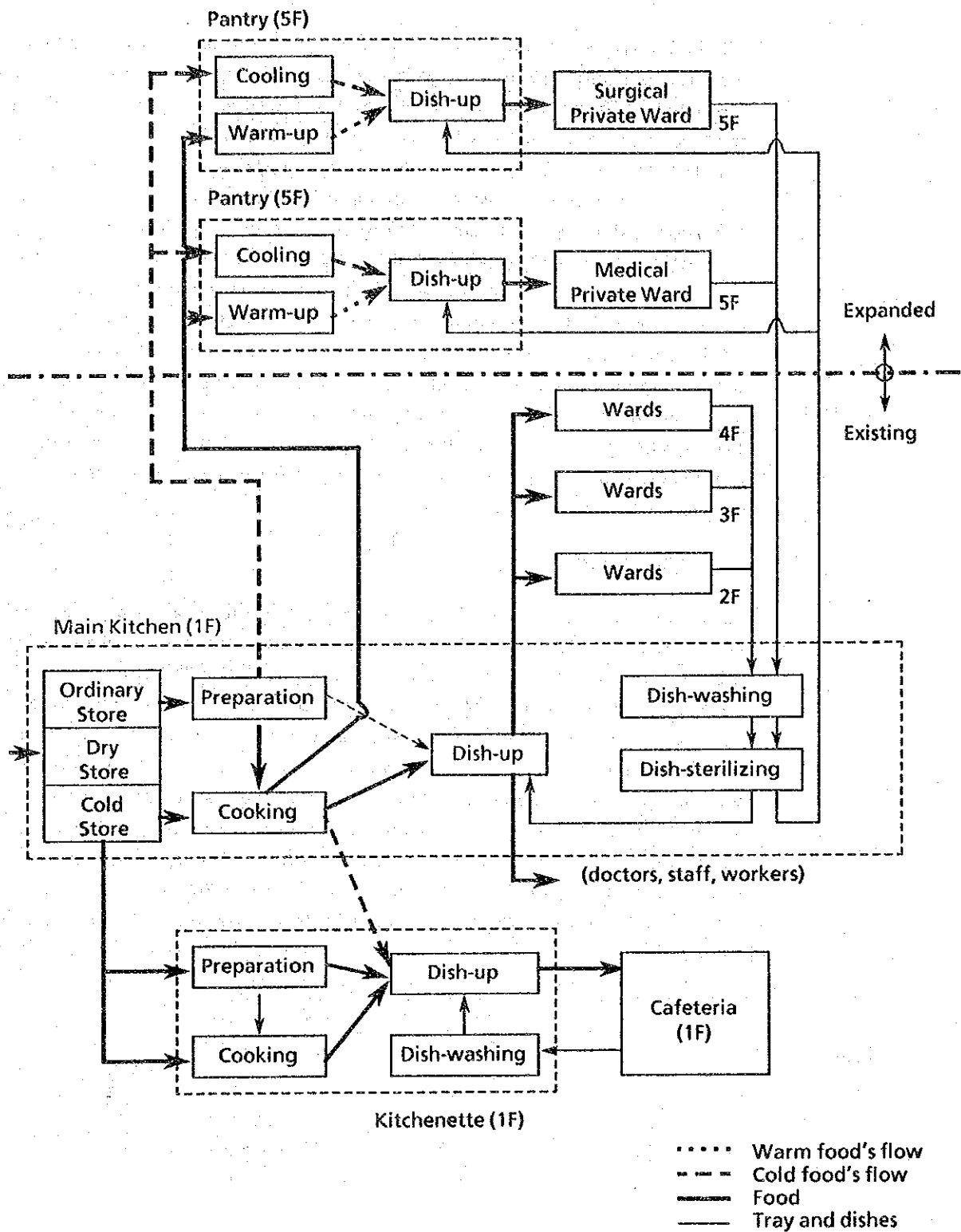


Fig. 4-7-1 Food Service Flow

4-7-2 Laundry and Sterilization Systems

(1) Laundry System

All sheets, white overalls, Garabeiya (roomwear for patients and attending mothers, uniforms for female workers), constraint bands, cover cloths and operation uniforms used in the Hospital are gathered in the Laundry for washing. The total volume of laundry per day is equivalent to approximately 1,300 sheets (780 kg). The current laundry equipment consists of 2 sets of washer-dryers, 3 drying machines and 1 sheet-rolling machine. The capacity of the washer-dryer is rather small (30 kg for washer and 25 kg for dryer per washing), so the machines are kept in full operation from 7:30 a.m. to 5:00 p.m. seven days a week with no holidays. The total laundry volume is expected to increase about 40% after expansion of facilities. The current washer-dryers are not only insufficient in terms of capacity but are also approaching the end of their life span. For the above reasons, the washer-dryers will be replaced with new and larger models. The drying machines can be used as they are, since there are no problems with their capacity or function. The ventilation system of the Laundry should be adjusted and expanded to accommodate to the increased size of the machines.

(2) Sterilization System

Equipment and devices that require sterilization are most frequently used in the Operation Dept.. The current Operation Dept. on the 4th floor is furnished with a Sterilization Room, where equipment rinsed at the Soiled Utility Room are assembled and sterilized. Most equipment used in the Outpatient Clinics is cleaned with compact sterilization devices installed within the clinics. In areas like the patient wards that do not have sterilization devices, soiled instruments are washed and packed at each department and then delivered to the Central Sterilization Room on the 1st floor for sterilization. Linen supply that requires sterilization is also brought here from the Laundry. The operation area after expansion will also be furnished with a Sterilization Room, and instruments from the ICU, IMCU and Cardiac Diagnostic Unit will also be brought here for sterilization.

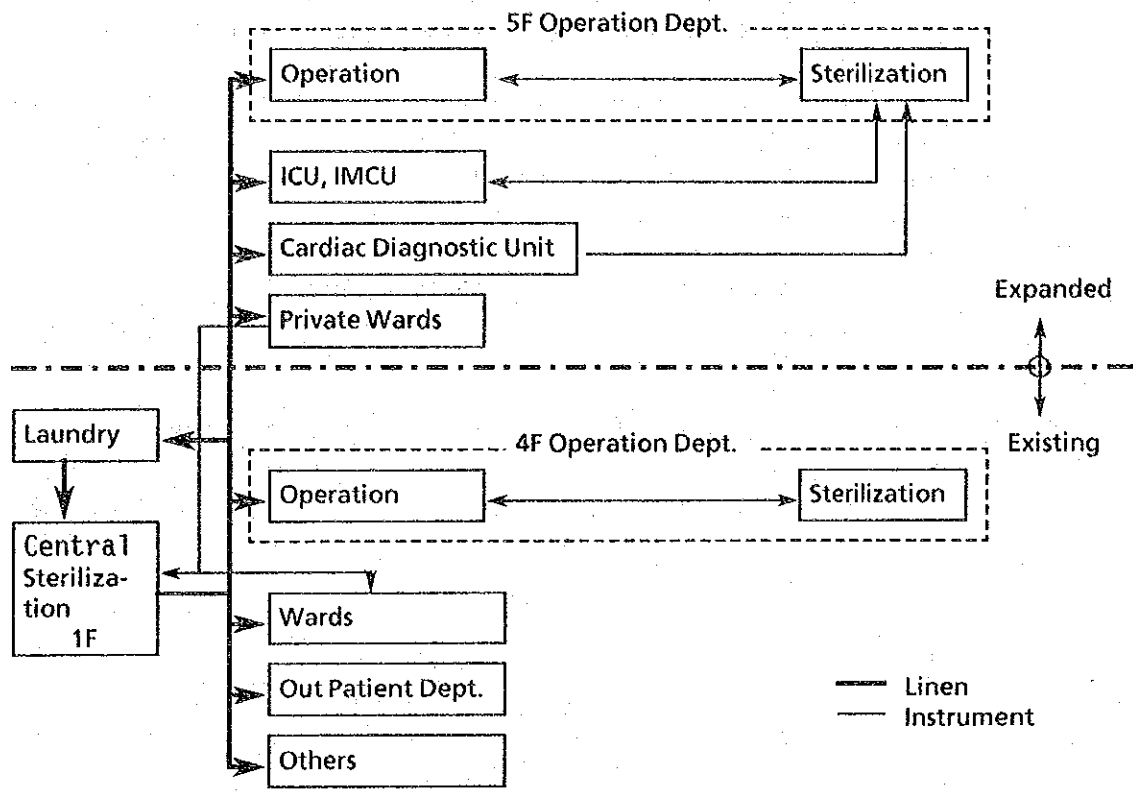


Fig. 4-7-2 Washing and Sterilizing Flow of Linen and Instrument

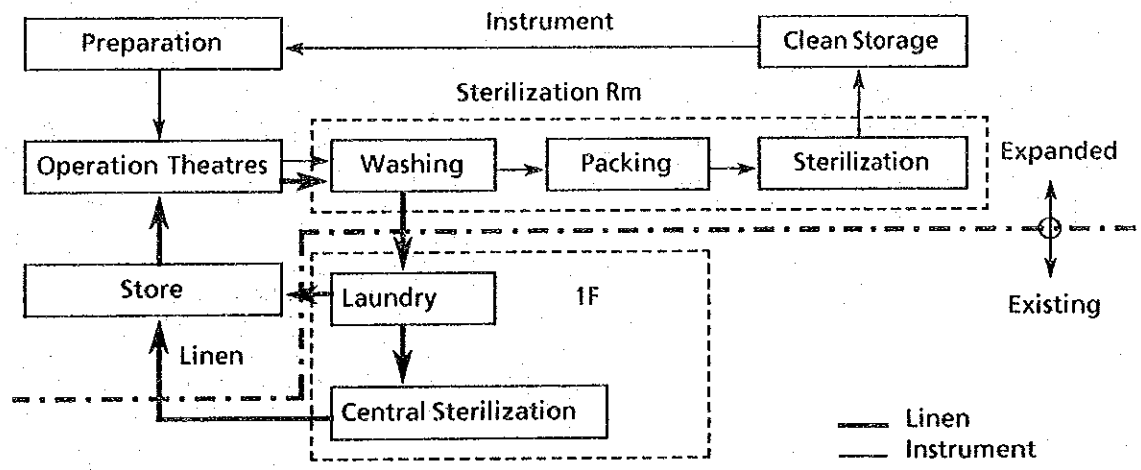


Fig. 4-7-3 Washing and Sterilizing Flow in the Operation Dept.

4-7-3 Drug Supply and Distribution System

- (1) All hospitals affiliated with the Cairo University present a list of required drugs once a year to the Cairo University Hospital (Manial Hospital). The Manial Hospital compiles the lists submitted from all the hospitals, purchases drugs through a tendering system, and stores the supply in the Central Storage.

Each hospital must go to the Central Storage of the Manial Hospital to receive the drug supply whenever necessary, but there are cases when each hospital must purchase its own because the Central Storage has run out of its supply of particular drugs.

- (2) In the CUPH, drugs supplied from the Central Storage of the Manial Hospital are stored in the Pharmacy on the 1st floor as before whereas drugs for the expanded areas will be stored in the new Pharmacy on the 6th floor.

- (3) A list of required drugs authorized by the signatures of doctors is compiled every two weeks or one month in each department and nurses visit the relevant Pharmacy to receive the drug supply.

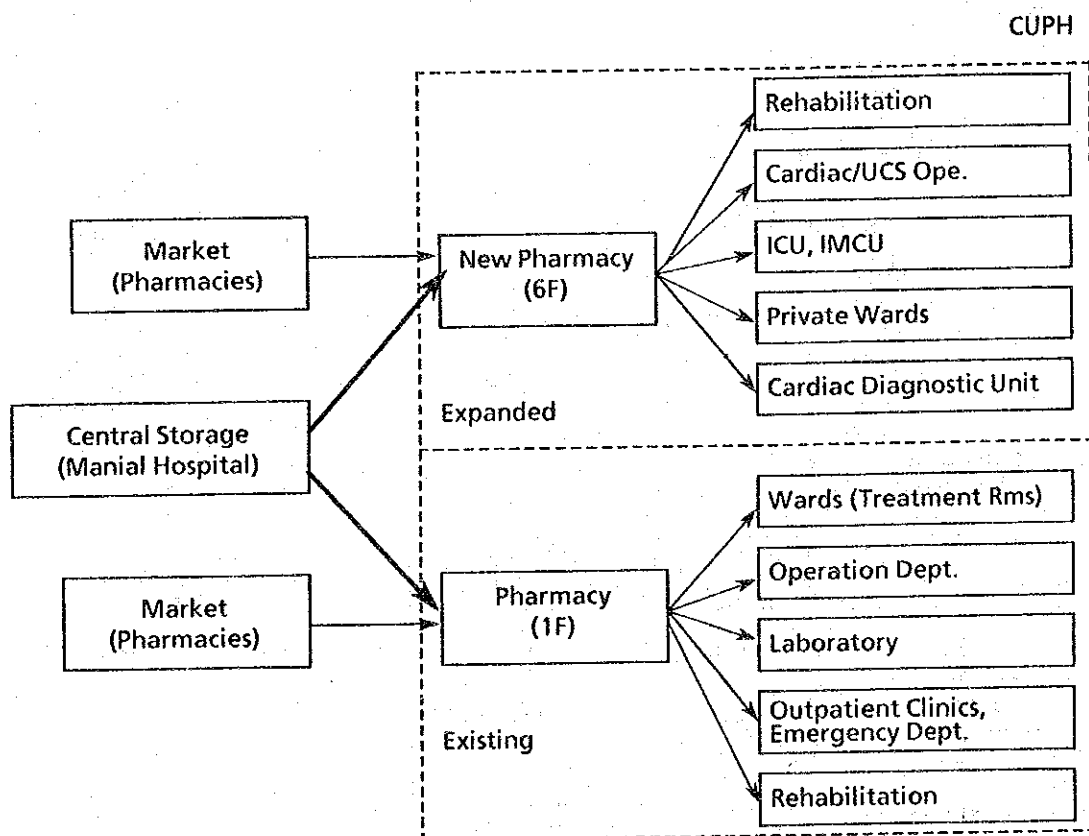


Fig. 4-7-4 Drug Supply and Distribution System

4-7-4 Blood Supply System

The CUPH is also entitled to use the blood stored in the Blood Bank of the Manial Hospital, but in the case of shortage of required blood, the CUPH buys the blood directly. As to the case of collecting fresh blood from donators, the Emergency Clinic will be used when emergency operations are necessary and the Lounge will be used for the Operation Dept. on the 5th floor.

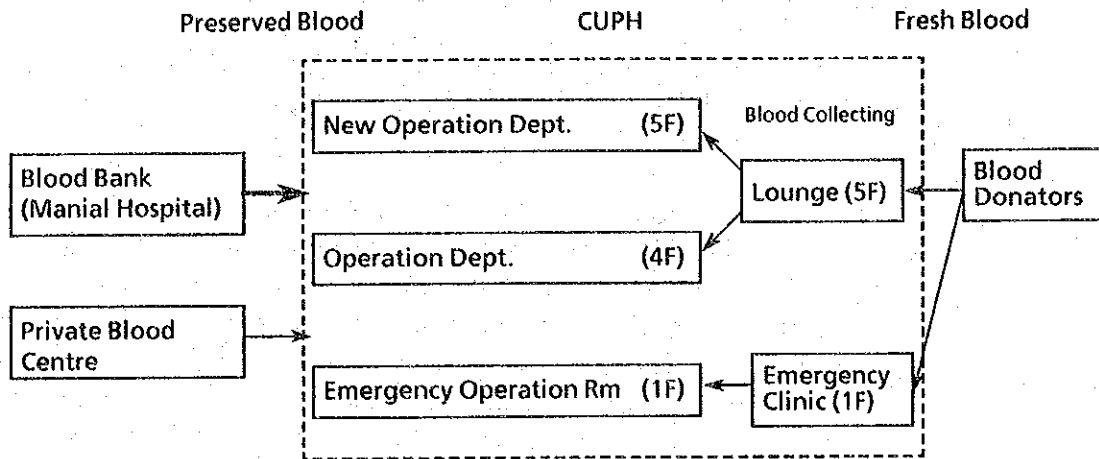


Fig. 4-7-5 Blood Supply System

4-7-5 Medical Gas Supply System

- (1) Oxygen gas for medical use is currently being supplied in cylinders by gas makers, and an average of 40 cylinders of gas (equivalent to about 280 litres of liquid oxygen) is consumed per day. The cylinders are stored in a manifold system in the Storage for gas cylinders for medical use, which can hold 32 cylinders in two rows simultaneously. However, only 16 cylinders in the front row are usually installed, because they are easier to place, so the mounting and dismounting operation is required three times a day.

As to nitrous oxide gas, only one cylinder is consumed per day on average and the manifold can hold 4 cylinders at the same time, so no improvement is required for the future.

- (2) The total outlet of oxygen will be increased by about 60% after the expansion of the facilities. Assuming that the volume of oxygen consumed will increase in direct proportion to the increased outlet, consumption of oxygen will amount to 450 litres per day (equivalent to about 64 cylinders). Since this volume is too large to be supplied by cylinders, and also because the CUPH has strongly requested the change, liquid oxygen will be used instead in the future. No problems in the liquid oxygen maker's capacity to produce and supply the requested volume was found during the inspection tour of its plant by the Study Team. Although the liquid oxygen plant insists they are ready to supply the liquid oxygen every day, a liquid oxygen tank with a capacity of 5,000 litres (10 day's supply) will be installed in the CUPH to be on the safe side, and spare cylinders will be used as a back-up. As previously mentioned, the system for nitrous oxide will not be expanded. The size of the equipment for the suction system and compressed air supply system will be upgraded.

4-8 MEDICAL EQUIPMENT PLAN

4-8-1 Basic Policies

Medical equipment will be provided on the 5th and 6th floor of the expansion area. Main components are as follows:

Cardiac Surgery Operation Theatre, Cardiac Diagnostic Unit, Ultra-clean Surgery Operation Theatre, New Rehabilitation Unit, ICU and IMCU.

The equipment is classified priority A, B or C according to necessity, and items classified priority A (including whole-body CT scanner) and B will be provided by the Japanese side. Especially, whole-body CT scanner (ranked A) was requested by the Egyptian side at the replacement of the existing cranial CT scanner which was provided in the X-ray Department of the existing CUPH in 1982 under the grant aid of the Government of Japan. The reason of replacement is explained as follows.

The cranial CT scanner is operating satisfactorily now, but in December 1988, when this Project will be completed, it will reach its life-period. For the total analysis and diagnosis of a congenital and acquired cardiovascular patient a whole-body CT scanner which finds the area of disease will be requested. Its range fixing and its property with combination of using of angio X-ray system with DSA which is providing following data such as catheterisation and angiography.

Following points are mentioned especially for the purpose of success of this Project.

(1) Selection of Medical Equipment

Sophisticated medical equipment (needed maintenance especially) faces the serious problem not only its treatment function but also all related medical services once it is stopped because of machine's malfunction. Therefore, to avoid this serious situation and to be able to provide maintenance service quickly, medical equipment of which manufacturer has branch office or local agent in Cairo will be selected.

Medical equipment needed above-mentioned condition is as follows.

- 1) Angio-X-ray system with DSA for cardiovascular diagnosis
- 2) Whole body CT scanner
- 3) Artificial heart lung unit
- 4) Patient monitoring system
- 5) Artificial ventilator
- 6) Blood analyzer

, etc.

(2) Supply fo Spare Parts

It is essential and very important to supply spare parts to run medical equipment properly. Spare parts will be supplied from the Japanese side for 1 year after the medical equipment is handed over by the Japanese side and provided by the Egyptian side thereafter.

4-8-2 Medical Equipment List

Major medical equipment to be provided by the Japanese side are listed below. Complete list of equipment is given in Annex VII (separate volume) of this Report.

(1) Medical Equipment for Cardiac Diagnostic

- 1) Angio X-Ray System with DSA for Cardiovascular Diagnosis
- 2) Cardiac Polygraph System : 8 channels
- 3) Echocardiograph with 3 & 5 MHz
- 4) Radiographic Material Set (including Operating Instrument of Catheterization)
- 5) Blood Gas Analyzer

(2) Medical Equipment for Cardiac Operation

- 1) Universal Operating Table
- 2) Artificial Heart Lung Machine with Heart Exchanger
- 3) Cardiac Polygraph System : 8 channels
- 4) Hypo/Hyperthermia Apparatus
- 5) Anesthesia Apparatus built in Ventilator
- 6) Operating Instrument Set for Cardiovascular Suergery

(3) Medical Equipment for Ultra Clean Surgery (Brain Surgery)

- 1) Fully Oilmatic Electromotive Operating Table
- 2) Patient Polygraph System : 8 channels
- 3) Operating Microscope for neurosurgery floor-standing type with T.V. Camera
- 4) Electroencephalograph (10 channels)
- 5) Operating Instrument Set for Neurosurgery with micro surgery set

(4) Medical Equipment for Sterilizing

- 1) High Pressure Steam Sterilizer
- 2) Ethylene Oxide Gas Sterilizer

- 3) Ultra-Sonic Cleaner
- (5) Medical Equipment for Preparation Hall
 - 1) Scrub Unit (Water Sterilizer, Ultra Violet)
- (6) Medical Equipment for I.C.U.
 - 1) Patient Central Monitoring System
 - 2) Artificial Ventilator for Children & Infant
 - 3) Infant Incubator
 - 4) Electroencephalograph (14 channels)
 - 5) Mobile Type Condenser Discharge X-Ray Apparatus
 - 6) Blood Gas Analyzer
 - 7) Blood Chemistry Analyzer
- (7) Medical Equipment for Intermediate Care
 - 1) Bedside Monitor with Recorder
- (8) Medical Equipment for Treatment Rooms in Private Wards
 - 1) Auto Infusion Pump
 - 2) Ultra-sonic Nebulizer
 - 3) Autoclave, desk top type
 - 4) Bed-pan Washing Sanitizer, chemical type
- (9) Medical Furniture for Wards
 - 1) Patient Bed
- (10) Medical Equipment for Rehabilitation (New unit)
 - 1) Bubbles Hydrobath Unit (Hubbard Tank System)
 - 2) (Microwave/Ultra-sonic/Shortwave/Low Frequency) Therapy Apparatus
 - 3) Low Limbs Extension & Flexion Exercise Chair
- (11) Whole-body CT Scanner (1 set)

4-9 FURNITURE PLAN

The Japanese side will provide the following furniture which is considered indispensable to medical services in the main departments and main rooms of the newly added 5th and 6th floors.

(1) Cardiac Diagnostic Unit

Preparation RM	: sink, shelf, locker, pinboard, whiteboard, instrument cabinet
Control RM	: locker, shoes box, chair, table, cupboard, pinboard, sink unit, cabinet
Dark RM	: sink unit, cabinet
Storage	: storage shelving
Doctor's RM	: desk, chair, chart cabinet, pinboard, whiteboard

(2) Operation Dept.

Anesthesia Prep. RM	: sink, cupboard, instrument cabinet
Anesthetist's RM	: desk, chair, chart cabinet, pinboard, whiteboard
Sterilizing RM	: cupboard, working table, foot stool, sink unit, linen receptacle
Heart Lung Unit Storage	: desk, sink unit, instrument cabinet
Storage	: light duty rack (wire net, bin case type), light duty rack (wire net, closed type), foot stool
Meeting RM	: white board, meeting table, folding chair, sink, cupboard, electrical hot plate
Ante RM	: shelf, pinboard
Changing RM (male & female)	: gown receptacle, locker, shoes box
Ante Hall	: light duty rack (wire net type), linen receptacle
Preparation Hall	: light duty rack (wire net type), linen receptacle
Clean Storage	: shelf

- Female Rest RM : sink, table, chair, electrical hot plate, cupboard, sofa, whiteboard, pinboard
- Control RM : table, chair, whiteboard, pinboard
- (3) ICU
- Treatment Rm : sink unit, instrument cabinet
- Laboratory : laboratory sink, bench, chair, instrument cabinet
- Changing RM (male & female) : locker, shoes box, gown receptacle
- Doctor's RM : table, chair, desk, sofa bed, sink, whiteboard, electrical hot plate, cupboard, chart cabinet, pinboard
- Nurse's RM : whiteboard, locker, tea table, sofa, sink, electrical hot plate, pinboard
- Ante RM : table for monitor TV, chair, shoes box, locker, gown receptacle
- Storage : light duty rack (wire net type)
- (4) IMCU
- Treatment Rm : sink unit, instrument cabinet
- Doctor's RM : table, chair, desk, sofa bed, sink, locker, white board, electrical hot plate, cupboard, chart cabinet, pinboard
- Nurse's RM : white board, locker, tea table, sofa, sink, electrical hot plate, cupboard
- Ante RM : table for monitor TV, shoes box, locker
- Storage : light duty rack (wire net type)

(5) Surgical and Medical Private Wards

Nurse Station	: nurse's table, chair, whiteboard, pinboard
Treatment RM	: desk, chair, examining chair, cupboard, filing cabinet, screen, work table, sink unit, instrument cabinet
Doctor's RM	: desk, chair, chart cabinet, book shelf, sofa, table, pinboard
Linen Storage	: light duty rack (wire net type)
Storage	: light duty rack (wire net type)

(6) New Rehabilitation Unit

Changing RM	: locker, dressing change basket, chair
Doctor's RM	: desk, chair, whiteboard, pinboard
Exercise RM	: desk, chair, whiteboard, pinboard

(7) Others

AV Production RM (6F)	: working table, chair, shelf, whiteboard, pinboard
Dark RM (6F)	: sink unit
Meeting RM (4F)	: white board, meeting table, folding chair
Nurse's Rest RM (4F)	: tea table, sink, electrical hot plate, cupboard, sofa, whiteboard, pinboard

CHAPTER 5 PROJECT IMPLEMENTATION

CHAPTER 5: PROJECT IMPLEMENTATION

5-1 SCOPE OF WORK

5-1-1 Major Tasks to be Undertaken by the Government of Japan

Of the facilities and equipment to be provided for this Project, the Government of Japan will undertake tasks ranked Priorities A and B in Table 5-1-1 that are indispensable to medical activities, tasks that are technically difficult to be separated from the work carried out by the Japanese side.

The specific tasks to be carried out are as follow:

- (1) Construction and installation work for all expansion areas excluding the 6th floor and Outpatient's Lavatory (outdoor). However, the tasks related to main structure, exteriors, new Rehabilitation Unit and Machine Rooms on the 6th floor will be provided by the Japanese side.
- (2) All works related to removal, renovation and repair of relevant existing facilities.
- (3) Supply and installation of major medical equipment (basic and auxiliary equipment) for the expanded area.
- (4) Supply and installation of non-medical equipment for main departments in the expanded area.
- (5) Partial renovation of the existing facilities (Refer to Clause 3-1-2).
- (6) Provision of detailed design for the works to be carried out by the governments of both countries, as well as supervisory service for the works to be carried out by the Japanese side.

5-1-2 Major Tasks to be carried out by the Government of Egypt

The Government of the Arab Republic of Egypt will take charge of the tasks ranked Priority C and non-ranked items in Table 5-1-1 which they consider they are technically capable of undertaking, using materials that can be locally procured in Egypt. The specific tasks to be carried out are as follow:

- (1) All interior and installation works for the Storage, Workshop, Meeting Rooms, Library, Medical Record Room, Doctors' Dormitories, Nurses' Rest Room, Lavatories, etc. on the 6th floor. However, the main wiring and piping work for these areas will be covered by the Japanese side.
- (2) Medical furniture (except patient beds in Private Wards.)

- (3) Non-medical equipment and furniture for the 5th and 6th floors. However, the non-medical equipment for main departments such as Operation Theatres, ICU, IMCU and Cardiac Diagnostic Unit will be provided by the Japanese side.
- (4) Construction of Outpatient's Lavatory (outdoor) including electrical and mechanical equipment installations.

Table 5-1-1 shows in detail the tasks to be undertaken by the Japanese and Egyptian sides.

Table 5-1-1 Major Undertakings by Each Government

Items	Priority	to be covered by Japanese Grant	to be covered by Egyptian side
1. Expansion Work (Building construction and provision of incidental electrical and mechanical equipment)			
(1) To construct the following outdoor facilities:			
a. Entrance deck for private sections	A	○	
b. Outpatient's lavatory	C		○
c. Liquid O ₂ tank yard	A	○	
(2) To construct vertical transportation shafts (incl. 3 elevators)	A	○	
(3) To construct 5th Floor facilities and penthouses	A	○	
(4) To construct 6th Floor facilities			
a. Major structure (reinforced concrete)	A	○	
b. Exterior wall finishing (incl. windows)	A	○	
c. Interior building construction and provision of Electrical and Mechanical Equipment for the following spaces:			
1) New Rehabilitation Unit	A	○	
2) Audio/Visual Production Rm, Dark Rm	A	○	
3) A/C and Electrical Machine Rooms	A	○	
4) Elevators, staircases and duct/pipe shafts	A	○	

Items	Priority	to be covered by Japanese Grant	to be covered by Egyptian side
5) Other rooms and spaces			
● Interior building construction:			
a) Minor structure i.e. brick walls, partitions, etc.			○
b) Interior finishing on floors, walls and ceilings including plastering and painting			○
c) All interior architectural furnishings i.e. doors, windows, counters, stages, venetian blinds, curtains, etc.			○
● Electrical equipment supply and installation:			
a) Power distribution	A	○	
b) Lighting fixtures and outlets			○
c) Telephone system			○
d) Public address system			○
e) TV system			○
f) Automatic fire alarm system			○
g) Audio-visual system in the Meeting Room			○
h) Personnel computer system in the Medical Record Room			○
i) Piping and wiring for the above [items b)~h)]			○
● Mechanical equipment supply and installation:			
a) Sanitary equipment			○
b) Air-conditioning system			○
c) Ventilators			○
d) Kitchen equipment in Kitchenettes			○
e) Piping for the above [items a)~d)]			○
f) Fire fighting system (incl. piping)	A	○	
g) Main piping for water supply and drainage	A	○	
(5) Pocket bell calling system	C		○

Items	Priority	to be covered by Japanese Grant	to be covered by Egyptian side
2. Renovation and Modification work			
(1) 1st Floor			
a. Relocation of Rehabilitation Unit	A	○	
b. Relocation of the Lecture Room and Public Relations Office	A	○	
c. Change in Entrance Hall partitions	A	○	
d. Renovation of Main Kitchen	A	○	
e. Renovation of Central Laundry	A	○	
(2) 4th Floor			
a. New construction of Nurse's Rest Room and Meeting Room in Operation Dept.	B	○	
b. Installation of glass partition in Clean Corridor and door in Soiled Corridor in Operation Dept.	B	○	
(3) Renovation of drainage pipes of Urine Sampling Rm (3rd Floor)	A	○	
(4) Improvement of air conditioning system	A	○	
(5) Improvement of electrical system			
a. Inspection/repair of AVR	A	○	
b. Overhauling of power generator	A	○	
c. Replacement of bulbs for indicator lamps	A	○	
3. All necessary demolition work for expansion, renovation and modification work for item 2 above	A	○	
4. Supply and installation of non-medical equipment and furniture in the following departments and rooms:			
(1) 1st~4th Floors			
a. Entrance Halls for private sections (1st, 2nd floors)	B	○	
b. Others (if any)			○
(2) 5th Floor			
a. Medical and Surgical Private Wards:			
- Treatment Rooms	B	○	
- Nurse Stations	B	○	
- Patient Rooms (including bedside cabinets, sofa beds, tables, video TV sets, lockers, etc.)			○

Items	Priority	to be covered by Japanese Grant	to be covered by Egyptian side
b. Operation Dept., ICU, IMCU, Cardiac Diagnostic Unit	B	<input type="radio"/>	
c. All other rooms and spaces			<input type="radio"/>
(3) 6th Floor			
a. New Rehabilitation Unit	B	<input type="radio"/>	
b. All other rooms and spaces			<input type="radio"/>
5. Supply and Installation of Medical Equipment			
a. Basic equipment	A	<input type="radio"/>	
b. Auxiliary equipment	B	<input type="radio"/>	
c. Medical furniture			
- patient beds in Private Wards	A	<input type="radio"/>	
- Others	C		<input type="radio"/>
6. Consulting Services			
(1) Detailed Design for whole project (the work to be undertaken by the both sides)		<input type="radio"/>	
(2) Supervisory Services (including tendering) for the work to be undertaken by the Japanese side		<input type="radio"/>	
(3) Supervisory Services (including tendering) for the work to be undertaken by the Egyptian side			<input type="radio"/>
7. The measures required regarding the implementation of the Project			
(1) To ensure prompt unloading, tax exemption, customs clearance at port of disembarkation in Egypt and prompt internal transportation therein of the products purchased under the Grant			<input type="radio"/>
(2) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Egypt with respect to the supply of the products and services under the verified contracts			<input type="radio"/>
(3) To accord Japanese nationals whose service may be required in connection with the supply of the products and the service under the verified contract such facilities as may be necessary for their entry into Egypt and stay therein for the performance of their work			<input type="radio"/>

Items	Priority	to be covered by Japanese Grant	to be covered by Egyptian side
(4) To bear advising commission for authorization to pay and payment commission to the Japanese foreign exchange bank for the banking services based upon the banking arrangement			○
(5) To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities and the installation of the equipment			○
(6) To secure the import of materials, equipment and products to be used in the Project in connection with the import ban			○
(7) To exempt Japanese contractors from social insurance fee imposed on the Project.			○
(8) To provide enough spaces for materials and equipment storage yards and concrete plant			○

5-2 TENTATIVE OVERALL SCHEDULE

Fig. 5-2-1 shows the tentative overall schedule for implementing this Project.

The tasks of the both governments will be implemented in the following manner:

- (1) The tasks of the Government of Japan will be carried out in three schemes for detailed design, construction work (including its supervisory service) and provision of medical equipment (including its supervisory service). The Exchange of Notes (E/N) will be concluded corresponding to each scheme.

- 1) Detailed Design

The detailed design will be implemented as a general grant aid for the Fiscal Year of 1986 which can be brought forward to the next fiscal year. Three months will be allotted for the detailed design covering both the building facilities and medical equipment after the E/N is ratified by the People's Assembly of the Government of the Arab Republic of Egypt. The consultancy agreement will be concluded prior to the commencement of the detailed design.

- 2) Construction Work

The construction work will be carried out as a two-term government-funded project for the Fiscal Years of 1987 and 1988, and will take a total of 16 months.

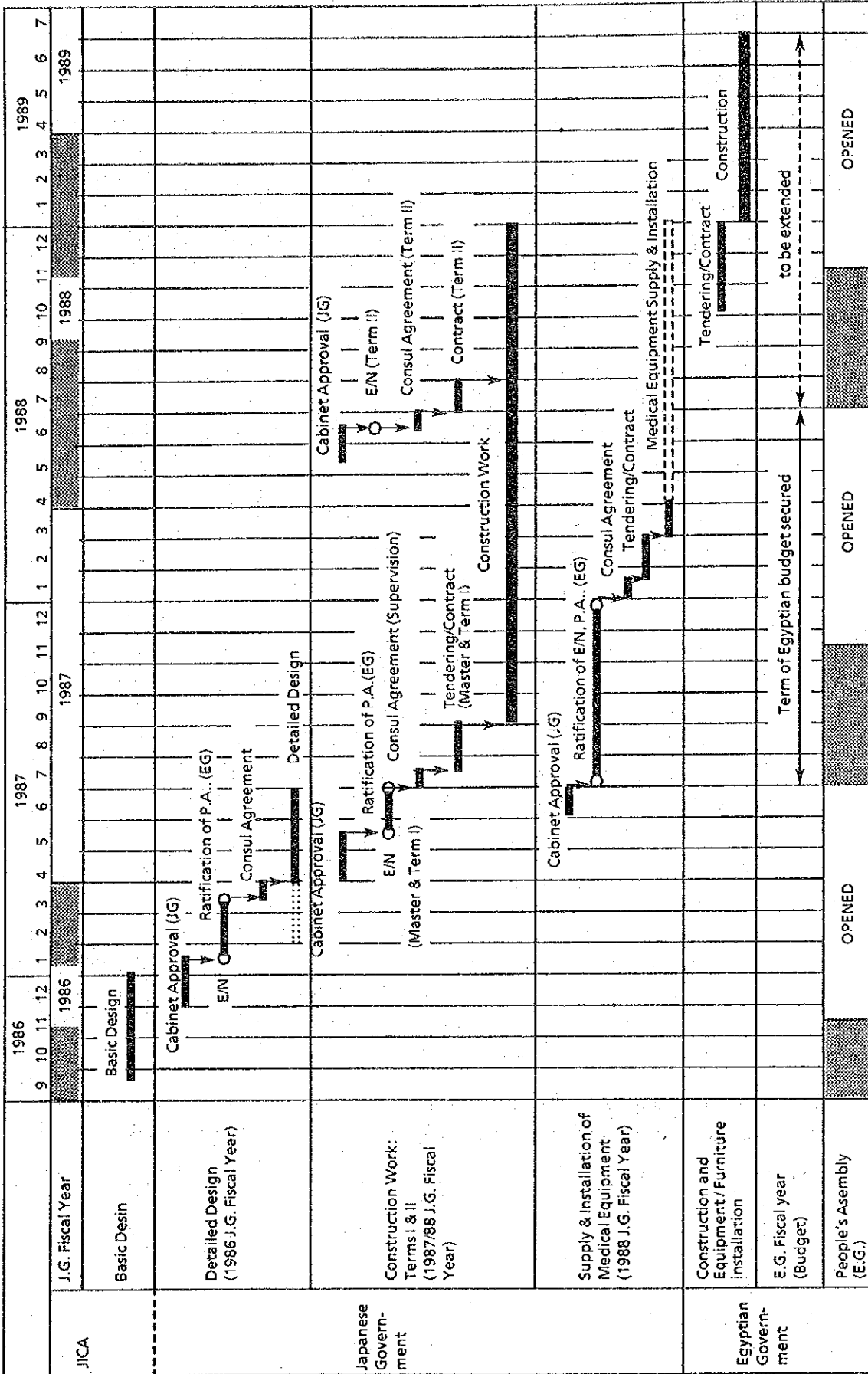
Prior to the construction work, two months will be allotted for conclusion of the supervisory service agreement and the tendering/contract procedure for construction work after the E/N is ratified by the People's Assembly.

- 3) Provision of Medical Equipment

The medical equipment will be provided as a general grant aid for the Fiscal Year of 1987 which can be brought forward to the next fiscal year.

Two and ten months are allotted for conclusion of the supervisory service and provision of medical equipment, respectively after the E/N is ratified by the People's Assembly.

- (2) The tasks assigned to the Government of the Arab Republic of Egypt will be commenced only after the works of the Japanese side have been completed.



E.G.: Egyptian Government, J.G.: Japanese Government, P.A.: People's Assembly, E/N: Exchange of Notes

Fig. 5-2-1 Tentative Overall Schedule

5-3 EXECUTING AGENCY

The executing agency in the Government of the Arab Republic of Egypt for this Project is the Cairo University presided over by President Helmy Nammer.

The Project will be implemented by a committee comprising the following members, officially organized in 1985 (Decree No. 317) to represent the President of this Project.

Moderator: Prof. Dr. Hussein Kamel Baha El Din
General Director of CUPH

- Members:
- (1) Prof. Dr. Ahmed Hanafy
General Director of Cairo Univ. Hospitals
 - (2) Prof. Dr. A.El Hefny
Head of Paediatric Dept., Cairo Univ.
 - (3) Prof. Dr. Salah Nassar
Prof. of Paediatrics, CUPH
 - (4) Mr. Mounir Hafez
Administrative Director of CUPH

5-4 OPERATION AND MAINTENANCE

5-4-1 Basic Policy

The purpose of this Project is to improve the quality and quantity of medical services of the CUPH by expanding the scale and upgrading the level of its facilities.

In order to achieve this goal, the Cairo University aims to:

- (1) Increase the number of its staff
- (2) Reinforce its organization
- (3) Improve its financial status

5-4-2 Personnel Plan

The CUPH plans to increase the number of its staffers to accommodate to the expansion of its facilities. Although the total number to be increased is still undecided, 34 staffers will be increased for the Cardiosurgery Section alone, since it is a crucial part of the Project. In particular, the Operation Dept. will be substantially reinforced so it will have a large staff of 118 including the 84 staffers in the existing Operation Dept. Incidentally, the Cardiosurgery Section will receive technological support from staffers dispatched from the Cardiosurgery Department of the Manial Hospital (Cairo University Hospital), and collaboration between the two organizations will be possible.

The Cairo University considers recruitment of excellent staff as vital to the successful implementation of the Project. They are particularly anxious to secure competent staffers for new Operation Dept., ICU, IMCU, Cardiac Diagnostic Unit and Private (paid) Wards, etc. so that the level and services of their medical treatment will be equal to those of high level private hospitals in Cairo. They will also draw up countermeasures to reinforce their maintenance system.

The introduction of Paying Section will be effective for this countermeasure.

5-4-3 Reinforcement of Organization

The current level of operation and maintenance of the CUPH is among the highest in Egypt. When considering the fact that the Project is basically an expansion project, it is reasonable to assume that the use of current systems should be continued as a rule after the completion of the expansion work.

Further reinforcement of the current systems however will be required to accommodate the expansion of the new Operation Dept. and Private Sections, etc., to expand the size of its organization and to provide excellent medical services.

A strict management system surpassing that of other departments will be drawn up for the new Operation Dept. and ICU, the countermeasures for which have been

included in the facility plans. The Government of the Arab Republic of Egypt also stipulates that the Private (paid) Wards should be clearly distinguished from the public (non-paid) wards, both in terms of facilities and operations. As a result, the Private Wards will be operated as an independent subsystem although it will still be a part of the CUPH.

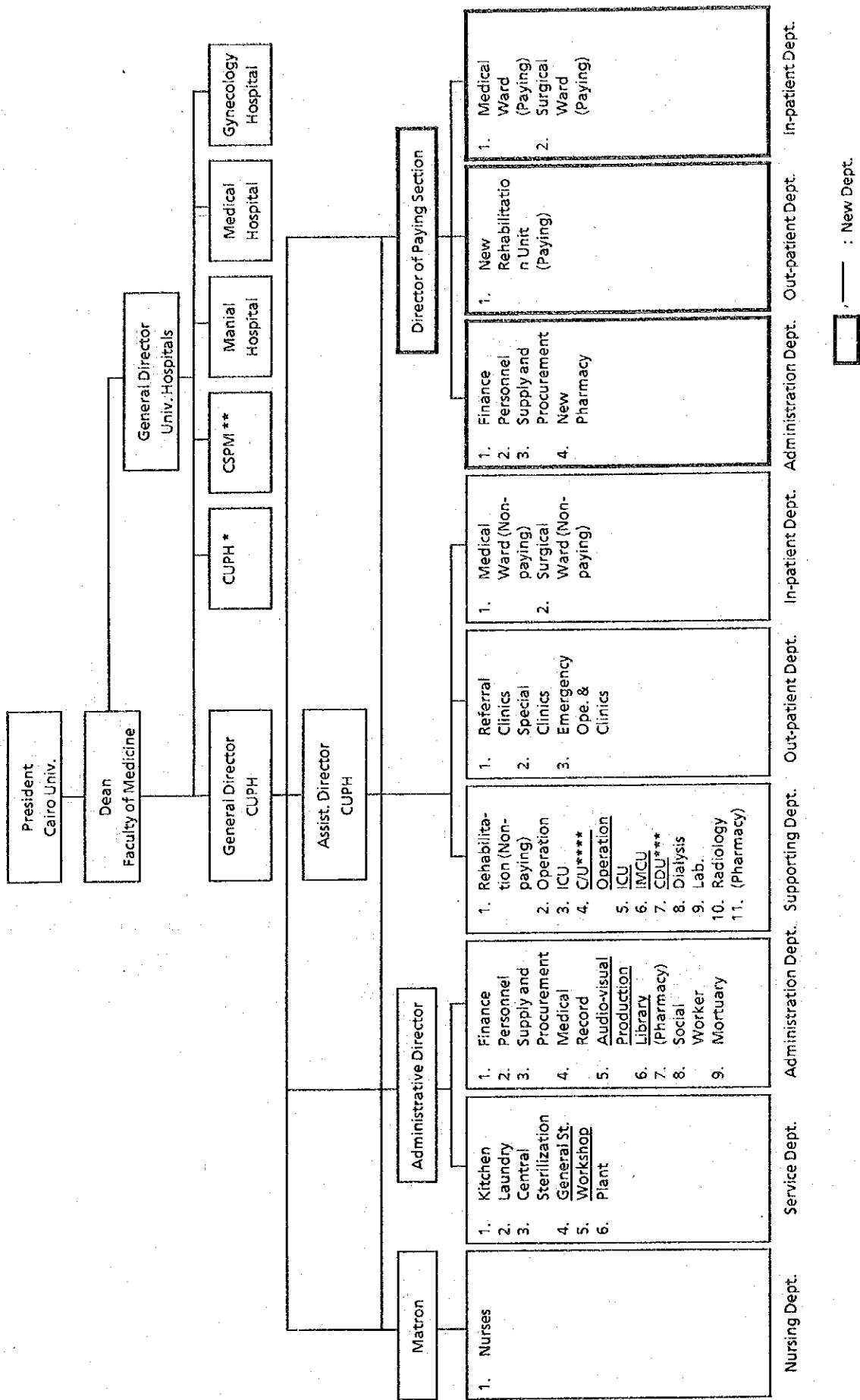
The expected administrative organization of the CUPH is shown in Fig. 5-4-1.

5-4-4 Operation Budget

Treatment of paediatric circulatory disorders, the principal function of the expansion program, is very costly. In particular, cardiosurgery is very expensive. It costs about 3,100 - 3,400 LE at present in the public hospitals in Cairo and it will be increased to about 4,000 LE in the CUPH after the completion of this Project due to the increase of payment and maintenance costs. If the CUPH is to actually carry out the projected number of operations (100 to 150 operations), an annual cost of 400,000 to 600,000 LE will be required.

Excellent doctors, nurses, paramedical staffers and experienced maintenance staffers are indispensable to smooth operations and maintenance of the above departments including the ICU and IMCU, and a substantial increase in the budget is required to carry out this scheme.

Although the introduction of the Paying Sections will be effective for supplementing the budget, the Government of the Arab Republic of Egypt is nevertheless obliged to bear the increased financial burdens.



* ABUEL-RICH
 ** Center for Social and Preventive Medicine
 *** Cardiac Diagnostic Unit
 **** Cardiac/Ultra-Clean Surgery

Fig. 5-4-1 Administrative Organization of CUPH

5-5 CONSTRUCTION PLANNING

5-5-1 Construction Planning

(1) Planning Strategies

The Project calls for the considerably difficult task of adding 2 floors above the existing 4-story building and conducting removal and renovation work incidental to the expansion of the existing facilities without interrupting the regular operations of the Hospital. The construction work should therefore be planned along the following lines, taking special care to "minimize interruption of the hospital functions".

1) Provision of traffic lines

The vertical traffic line will mainly depend on elevators. In carrying out the required task of installing 3 new elevators and extending 3 existing elevators, the 3 new elevators shall be installed first by using the existing 3 elevators, and those 3 existing elevators shall be extended only after the 3 new elevators are in operation. The elevators will not be used for construction work other than for the purpose of installing medical equipment.

2) Utilization of Hadji holidays

Renovation of the Kitchen, Laundry and Operation Dept. in the existing building shall be mainly conducted during the Hadji holidays, the vacation period from July to August when many of the patients take temporary leave to go home and only a small number of patients remain at the Hospital.

3) Transfer of functions

In relocating the existing Rehabilitation Unit to the 1st floor, the renovation work on the 1st floor should be completed, the medical equipment transferred, and medical services commenced before the existing facilities on the 5th floor are torn down. Also, the renovation work for the existing ICU shall be commenced only after its functions have been transferred to another room. As a result, relocation of the facilities will be conducted smoothly without interrupting the functions of these units.

4) Construction work outside the building

The planned sites for the Liquid Oxygen Tank Yard are valuable as a yard for temporary storage of materials and equipment and as passage for construction work. These outside facilities should therefore be constructed at the last stage of the Project.

5) Detailed discussions with the Hospital

The construction work shall be commenced only after the construction plan has been drawn up and approved, based on detailed discussions with relevant Hospital personnel on the contents, influence, period and safety measures for the work.

The schedule of the expansion and renovation works is planned as shown in Fig. 5-5-1 ~ 5-5-9.

(2) Temporary Construction

Temporary construction will be conducted according to the following policies:

- 1) Part of the scaffolding will be mounted on a temporary structural frame so that a point of access to the building can be secured.
- 2) The roof-top will be used as a tentative storage yard for building equipment.

The site of the existing CUPH building is used effectively so that there is no space around it for storing building materials. Those materials should therefore be lifted to the roof-top with a crane or a lift, to be temporarily stored until they are transferred to the relevant floors.

- 3) Temporary construction should be planned so that the traffic line of the people engaged in construction work will not cross with the traffic line of Hospital users including patients and hospital staffers.
- 4) Temporary partitions will be used for renovation work so that other areas will not be affected by the noise and dust, and also as a safety measure.
- 5) Special attention will be paid to the drainage of water required for cleaning and refreshment, etc. during the construction work. Removal of the waterproof system on the rooftop of the existing building will therefore be carried out after the above works have been completed.
- 6) Sufficient space will be secured for storage yards for building materials and for a concrete plant installation by the Egyptian side.
Three spaces: the southern road of the CUPH, the eastern site of the CSPM and the court of the old CUPH will be allocated for the above. In addition, a part of the site of the Faculty of Pharmacy will be allocated, if possible.
- 7) The currently unused area of the existing CUPH building (southern ward on the 4th floor) will be used as an on-site office for the consultant and the contractor.

(3) Contracting Method

The construction work for the Project will be undertaken by a general contractor of Japan according to the policy of the Japanese grant aid. As previously mentioned, the Project requires the difficult task of carrying out expansion and renovation works at the same time. This means that a large number of experienced engineers and technicians must be dispatched to the site for a considerably long period.

(4) Supervision Plan

According to the policy of the Japanese grant aid a Japanese consulting firm will conclude a supervision contract with Cairo University and will supervise the construction work and the provision of medical equipment within the scope of the grant aid of the government of Japan. The consulting firm will promote the conclusion of appropriate contracts for construction work and provision of medical equipment and shall supervise the following work on fair grounds so that the objectives of the design will be successfully implemented.

- 1) Help in concluding the contract concerning the construction work and provision of medical equipment.
- 2) Present and explain the contents of the design drawings and specifications to the contractors.
- 3) Review and give advice on the construction and installation plans, etc.
- 4) Review and give advice and approval on the drawings, as well as on the methods and materials of construction and installation.
- 5) Review, confirm and report on the status of construction and installation work.
- 6) Supervise the payment of the construction and installation work.
- 7) Inspect the work after completion and witness the handing over of the facilities and medical equipment.

Supervision of the construction work and medical equipment installation will be conducted mainly by the supervisor stationed on the site.

(5) Schedule of Construction Work

A period of 16 months will be allotted from commencement of construction work to handing over of the completed facilities, while 5 months are allotted for electrical and mechanical installations. An even more detailed schedule should be prepared, because the expansion work and renovation work will be conducted simultaneously and in accordance with each other. The construction work that is crucial to the hospital functions will be conducted in the 11th and

12th months after commencement. Since this is a tentative plan, intended to correspond with the Hadji holidays, it should be re-scheduled in case there are any changes in the timing of the commencement of construction works.

Renovation of the existing Operation Dept. corresponding with the expansion work will also be conducted during the Hadji holidays, but the Operation Dept. can not be closed for at least 2.5 months.

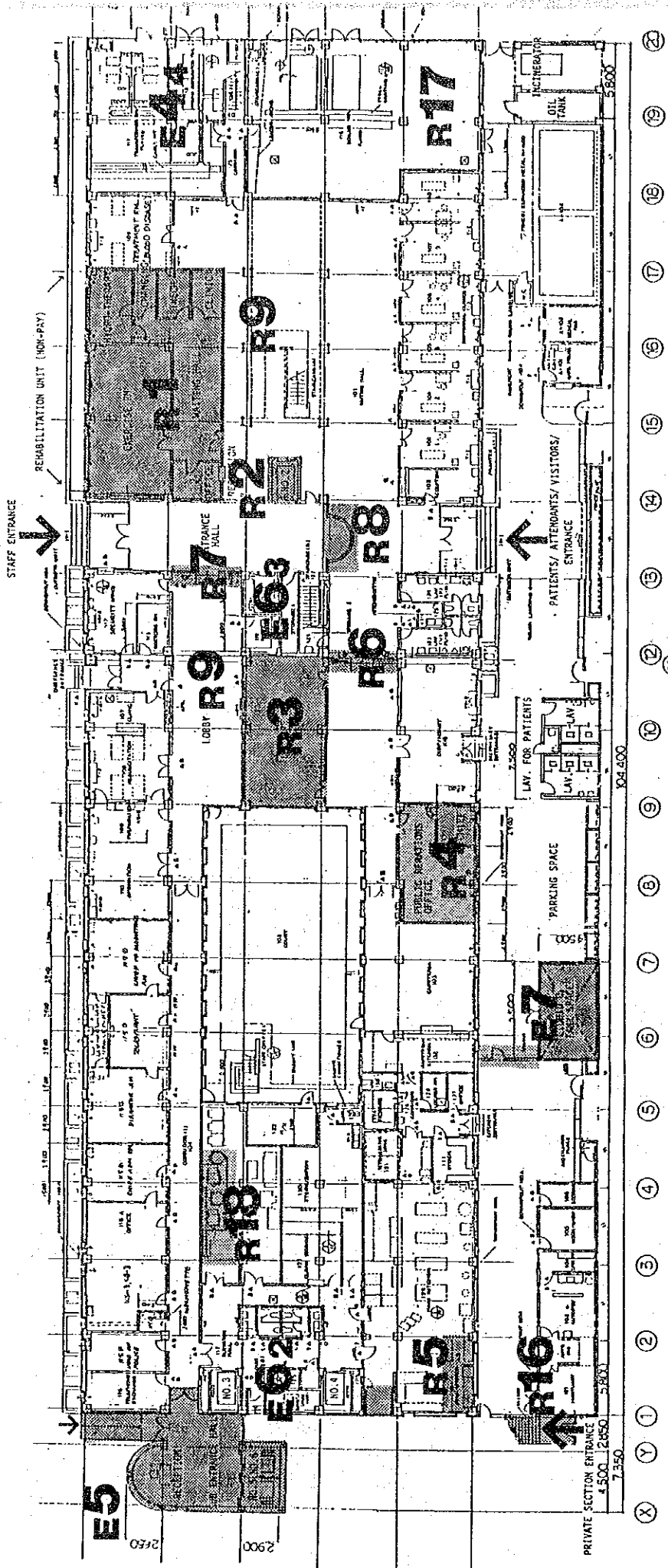
(6) Schedule of Provision of Medical Equipment

A period of 10 months will be allotted for supply and installation of the medical equipment after the contract comes into force.

Table 5-5-1 List of major works to be implemented by the Government of Japan

Work No.	Expansion Work (New Construction)
E - 1	5th Floor
E - 2	6th Floor
E - 3	Penthouse and roofs
E - 4	Elevator Machine Rooms, Storage, Air Conditioning Units, Elevated Water Tank, work at Electrical Room.
E - 5	Elevator Tower, Stairs and Deck for Private Section
E - 6	Elevator Tower inside the building
E - 7	Liquid Oxygen Tank Yard
Work No.	Renovation Work
R - 1	Relocation of the existing Rehabilitation Unit from the Penthouse
R - 2	Renovation of ceiling and walls caused by construction of No. 2 EV shaft
R - 3	Relocation of Lecture Room (Room No. 111)
R - 4	Alteration from Medical Records to Public Relations Office
R - 5	Renovation of Kitchen
R - 6	Addition of the partition and door (Southern Part of Waiting Hall)
R - 7	Addition of the partition and door (Northern Part of Waiting Hall)
R - 8	Addition of partition
R - 9	Removal of existing aluminum partitions
R - 10	Renovation work of drainage pipes for Urine Sampling Room
R - 11	Renovation of ceiling and wall (Rooms No. 411, 412, 413)
R - 12	Renovation of ceiling and wall (Rooms No. 424, 425, 426, 427, 434, 407, 435, corridor (3))

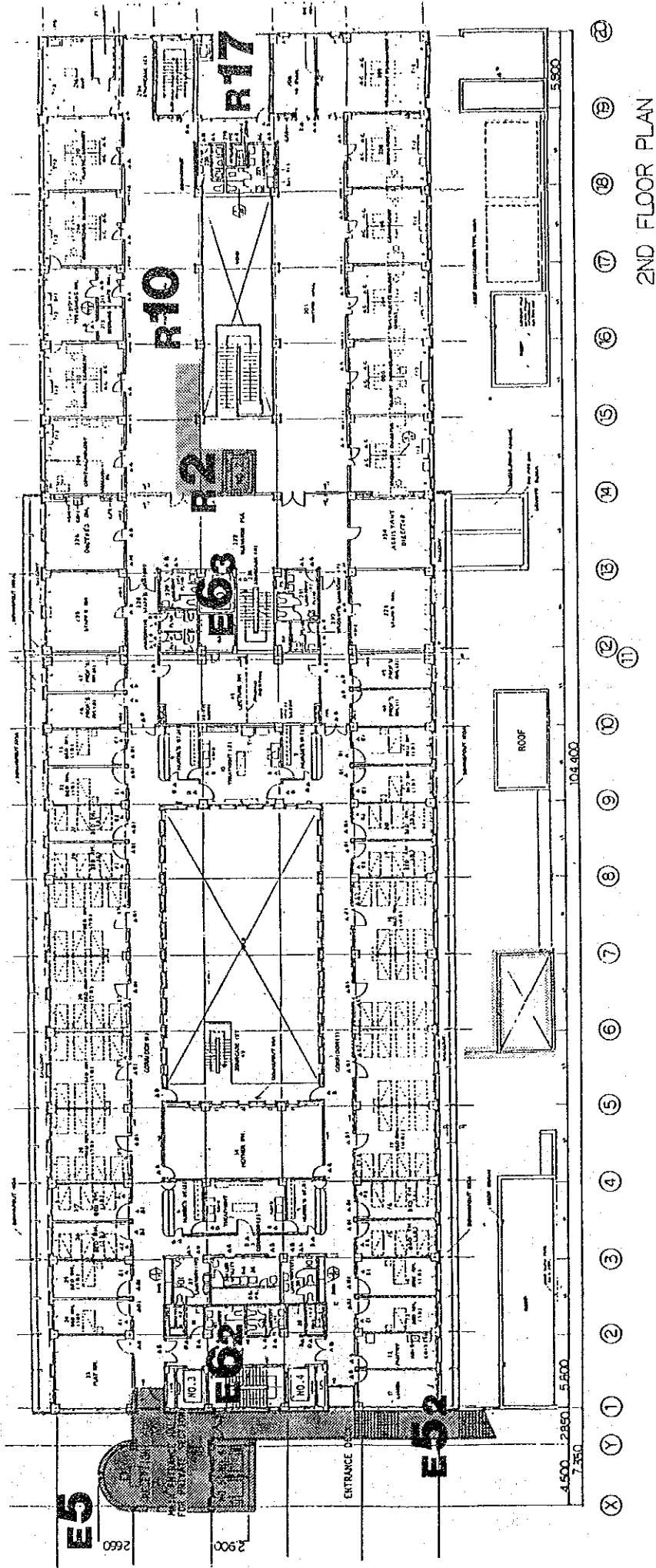
- R - 13 New Construction of Nurse's Room and Meeting Room for the Operation Department
- R - 14 Addition of the partition and door in the Operation Department
- R - 15 Renovation of ceiling and wall of ICU
- R - 16 Modification of steel doors to Mortuary
- R - 17 Renovation of the existing air-conditioning system
- R - 18 Modification of Laundry (Room No. 119)



: the Location of the Works to be implemented by the Government of Japan

1ST FLOOR PLAN

Fig. 5-5-1 Location of the Work (1)



2ND FLOOR PLAN

Fig. 5-5-2 Location of the Work (2)

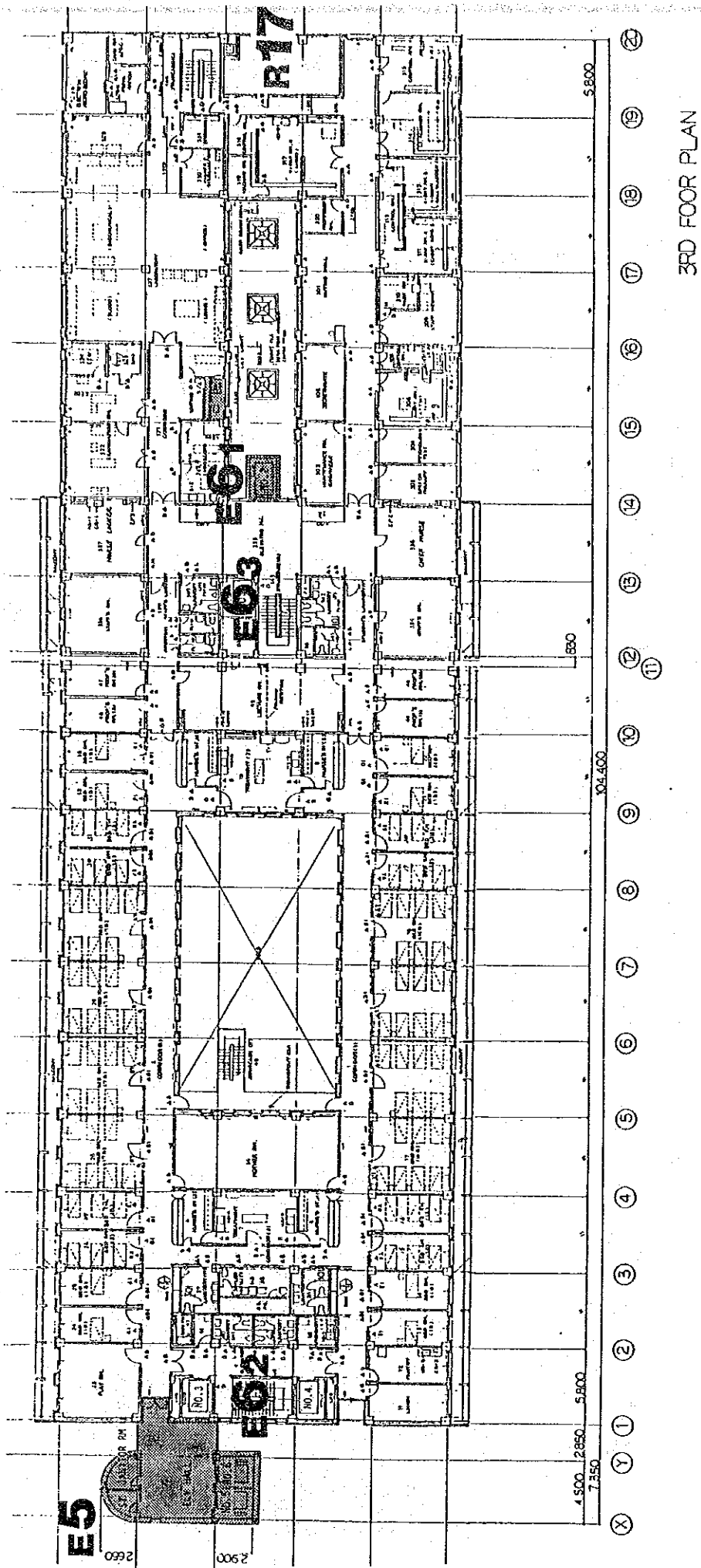
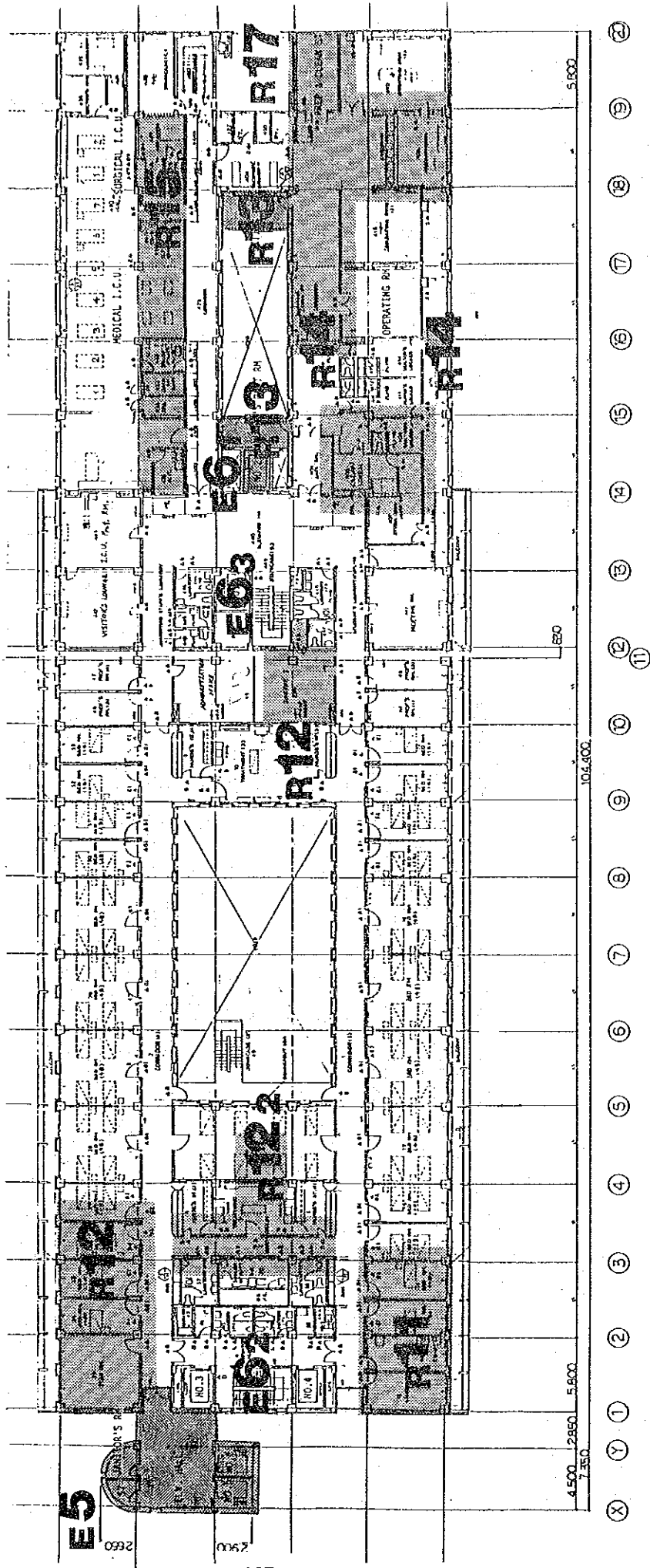


Fig. 5-5-3 Location of the Work (3)



4TH FLOOR PLAN

Fig. 5-5-4 Location of the Work (4)

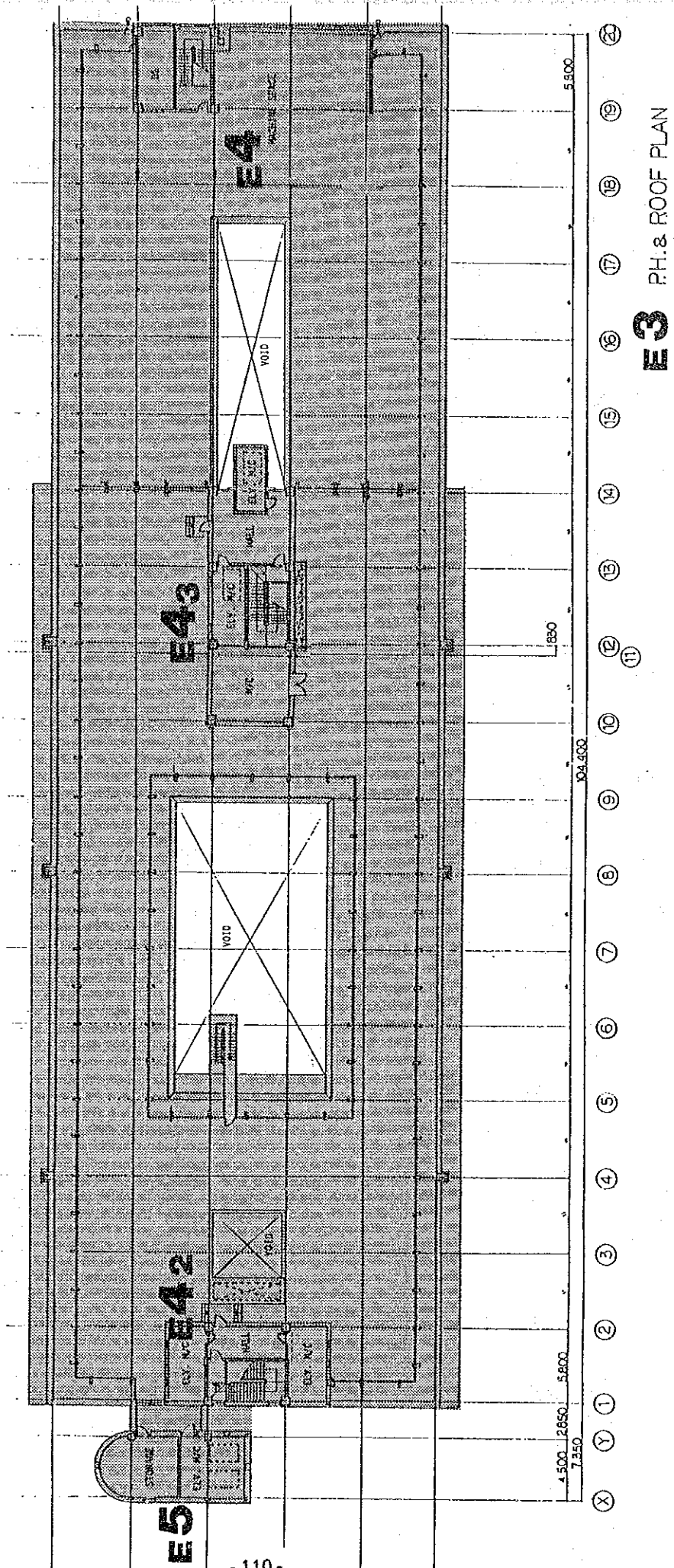


Fig. 5-5-7 Location of the Work (7)

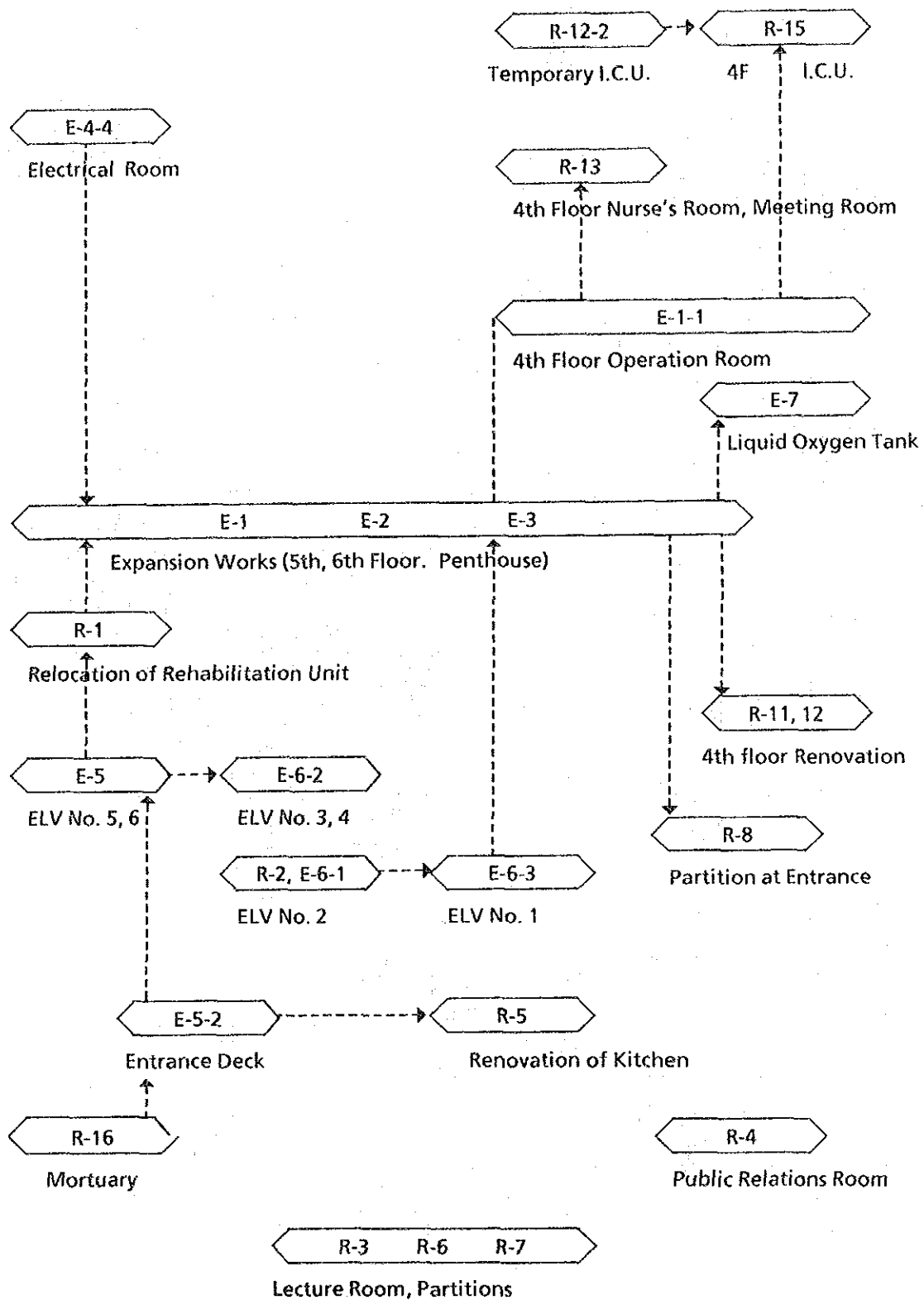


Fig. 5-5-8 Work Diagram of the Major Construction Works

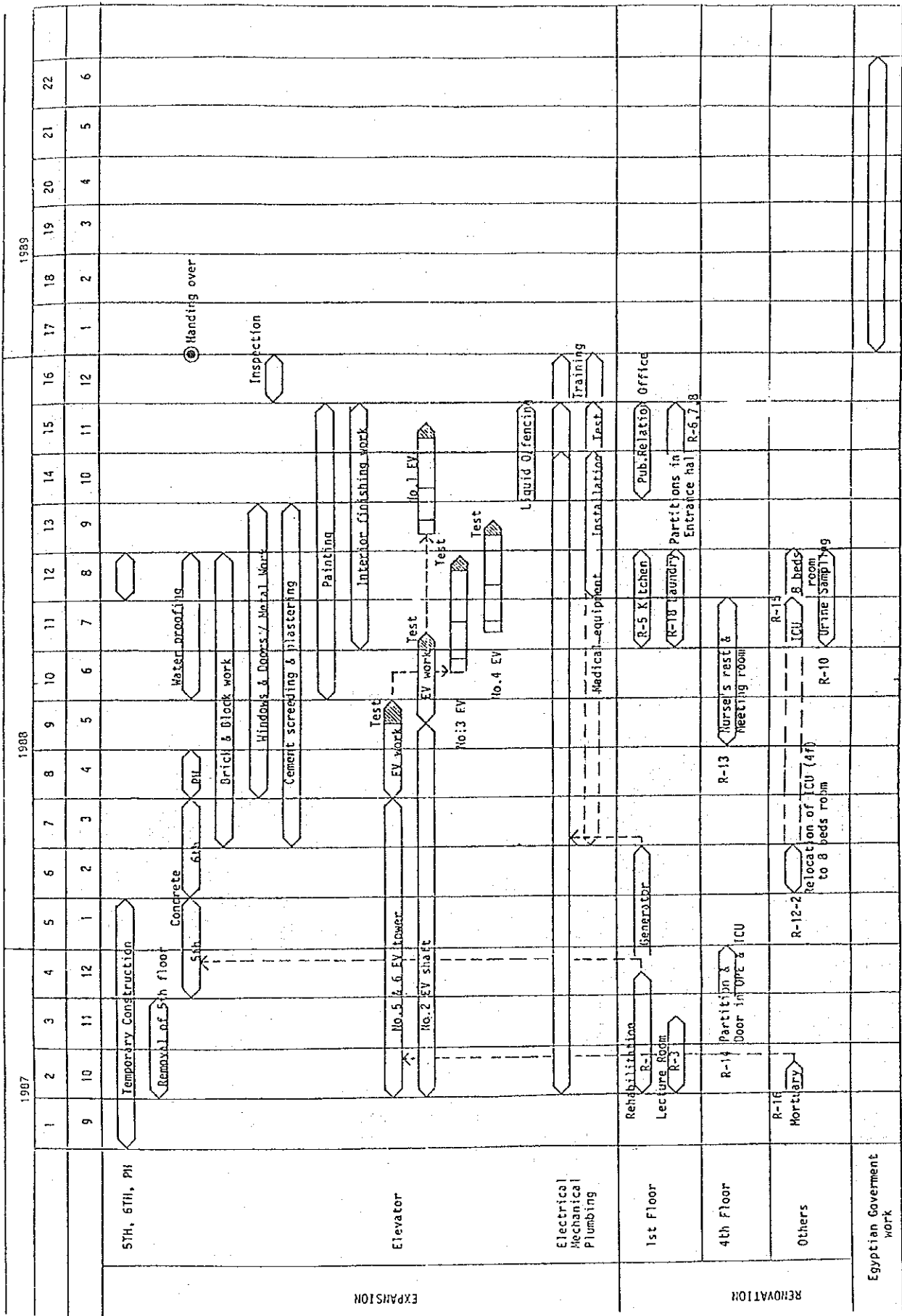


Fig 5-5-9 Tentative Construction Schedule

5-6 PROCUREMENT PLANNING FOR MATERIALS AND EQUIPMENT

The general rule for material procurement is to procure locally whatever material is available, as long as they satisfy the requirements in quality, quantity, delivery time and cost.

The Project is basically an expansion project, so it is essential to select materials and equipment that are compatible to those of the existing facilities. Manufacturers that have service bases in Egypt should be selected, to ensure a smooth maintenance and supply of spare parts in future.

Procurement plan for the materials and equipment is as follows:

Table 5-6-1 Procurement Schedule

Kinds of Work	Country of Procurement		
	Egypt	Japan	Others
Construction Work	steel frame, cement, round steel bars, asphalt water-proofing material, cement tile, terrazzo block, carpet, timber for temporary construction (thin type), bricks, spray paint for building exteriors, wooden furniture, steel bars for temporary construction (thin type)	steel furniture, metal fittings, finishing hardware, ceiling materials, paint, signboards, interior finish materials, inspection outlets, glass sheets	deformed steel bars, ceramic tile, stoneware, wood forms, wooden doors
Electrical Work	—	To be procured entirely in Japan	—
Air-conditioning & Ventilation Work	Split-type air conditioner	All other items to be procured in Japan	—
Plumbing Work	—	To be procured in Japan	—
Elevator Installation Works	—	To be procured entirely in Japan	—
Medical Equipment	—	To be procured entirely in Japan	—

CHAPTER 6 PROJECT APPRAISAL

CHAPTER 6: PROJECT APPRAISAL

6-1 ADEQUACY OF THE PROJECT

The Project can be considered to be sufficiently adequate for the following reasons:

- (1) The current CUPH building does not have adequate facilities for providing diagnosis and medical treatment for the large number of children suffering from circulatory diseases. The number of patients with cardiac disorders who visited the CUPH during the year 1985 amounted to 5,423 (approximately 7.2 % of the patients admitted at the CUPH). Although the Cairo University Hospital has a cardiosurgical department, they already have a large number of patients on their waiting list and the facilities themselves are not adequate since they are extremely superannuated. Furthermore, there are no hospitals in Egypt which have a paediatric cardiosurgery operation department at present. Considering the role of the CUPH as the central facility for paediatric medical services in Egypt, there is urgent need to provide new facility for diagnosis and treatment of paediatric circulatory diseases.
- (2) Paediatric cardiosurgery is quite common in Japan and there are no special concerns about conducting such operations in Egypt, particularly in view of the current high standard of medical services provided at Cairo University Hospital.
- (3) Construction and expansion of Patient Wards, Rehabilitation Unit, General Storage, Workshop, Meeting Room and Doctors' Dormitories should be started as soon as possible, in view of the current status of utilization of the existing facilities.
- (4) Plans to construct the top two floors of the building were put aside at the time of the basic design study of the Government of Japan at the initial stage of the project 7 years ago, despite strong requests from the Egyptian side. The reasons given at that time were the limited budget and priority considerations. The necessity of providing the two floors in the future, however, was recognized to be adequate and, as a result, a design that would allow the addition of the two top floors in the future was adopted. Incidentally, most of the items proposed in this program are subjects that were discussed but put off at the time of the above basic design study.
In view of the historical circumstances mentioned above, the adequacy of the Project has been reconfirmed.

6-2 ADEQUACY OF FACILITY AND EQUIPMENT PLAN

The programme for providing the facilities and equipment for the CUPH is considered to be sufficiently adequate for the following reasons.

- (1) The additional construction of two floors has been taken into consideration in the design and construction of the existing CUPH building so there are no structural problems.
- (2) Although additional construction of the 2 floors involves extremely difficult work, it can be accomplished through careful planning in construction of the facilities and provision of equipment as well as precautions countermeasures for temporary construction, safety and security.
- (3) Facilities and equipment of a considerably higher standard compared with that of existing ones are planned for the Project. This is because a higher standard is not only functionally required for the facilities to be mainly used for medical services for paediatric circulatory diseases, but also because it is indispensable for upgrading the level of the facilities of the existing CUPH building which is undergoing a relative decline due to the increase of prestigious private hospitals charging expensive medical fees and also for accomplishing its social role as the leading public hospital in Egypt.
- (4) To realize the above (3), it is essential to draw up careful measures for maintenance of facilities (particularly of various installations) and medical equipment. The accumulated experience with existing facilities and equipment will be reflected in the selection of facilities and equipment to be provided for the Project, and countermeasures have also been drawn up for recruiting excellent engineers to take charge of maintenance work. As a result, it is expected that maintenance of the newly provided facilities and equipment will be carried out smoothly.
- (5) Regarding provision of equipment, needless to say, the equipment to be provided in this Project which centers on equipment for paediatric cardiosurgery is much more specialized than those required for general hospitals in developing countries. In particular, the specific medical equipment that is essential for diagnosis and treatment of cardiosurgical medical services are of a much higher standard compared to the general level of technology in medical areas.

X-ray equipment which demands a high level of technology has been installed and is being operated satisfactorily in the CUPH. This is owing to the efforts of both the Japanese and the Egyptian parties; the Japanese party for promoting technical cooperation in medical areas and the Egyptian party for its excellent research and management. It also proves that the Egyptian side is sufficiently capable of utilizing this medical equipment that requires specialized and high level medical technology.

Among the medical equipment to be provided in this Project, those related to cardiovascular photographing diagnosis system (biplane method), CT system and heart-lung machines require a particularly high level of medical technology and are also essential for cardiosurgical medical treatment.

- 1) Angio X-ray system with DSA for cardiovascular diagnosis (bi-plane) enables serial angio-photography by one time contrast-medium injection with simultaneous bi-angle. This helps alleviate the danger of death of patients suffering from paediatric cardiovascular disorders during examination. The system is also highly evaluated as a definite diagnostic method to replace the current method adopted for diagnosis of tetralogy of fallot (T/F), atrial septal defect (ASD), ventricular septal defect (VSD), patent ductus arteriosus (PDA), Total anomalous pulmonary venous return (TAPVR) and other congenital cardiac disorders which occur in high frequency as well as cardiac malformations such as transposition. Although the single-plane angiography system currently installed in the X-ray Department is effective for ordinary angiography such as the abdomen and the brain which has lower blood velocities compared cardiovascular systems, it is not adequate for diagnosing cardiovascular systems.
- 2) For the comprehensive diagnosis of patients suffering from congenital or acquired cardiovascular diseases, the combined use of the whole-body CT scanner with the angio X-ray system is remarkably effective for determining the location and ranges of regional morbidity of heart disease and identifying the characteristics of the morbidity, and also provides vital information for adequate treatment in surgical operations.
- 3) Under the current technological level of cardiosurgical operations, external circulation by using a heart-lung machine must be conducted after interrupting the blood circulation of the heart to perform a direct-view open-heart surgery. This calls for extremely high grade of technology including adjustment of the volume of blood circulation and adjustment of total perfusion/partial perfusion, cooling/warming and keeping the balance of body fluids, etc., and the capacity to cope with emergencies such as cardiac arrest during operations is also demanded. However, it is impossible to perform open-heart surgeries without the help of these devices.

Although the medical equipment mentioned above requires higher levels of expertise compared with other equipment, they do have a systematic similarity to the equipment installed in the existing CUPH facilities. Since the current equipment is operated smoothly by the Egyptian side, we can conclude that the equipment to be newly provided for the Project can sufficiently serve their purposes as an extension of the current technological level of the CUPH. This will be further promoted if the technical cooperation in cardiosurgical areas will be extended by the Japanese side.

6-3 ADEQUACY OF ADMINISTRATION AND OPERATION PLANS

The administration and operation plans for the Project are considered to be adequate for the following reasons.

- (1) 4 years have passed since the completion of the existing CUPH, so the CUPH has already established its systems for operation and administration and is highly evaluated both internally and from outsiders for its excellent systems.
- (2) The programme will involve no basic alteration of existing systems. Reinforcement of organization and recruitment of capable staffers will be sufficient for coping with the current problems.
- (3) Charging fees for some of the medical services provided by the CUPH is an effective measure for alleviating the financial burden, maintaining and upgrading the level of medical services, etc. so its execution should be highly evaluated.

6-4 ADEQUACY OF IMPLEMENTATION SCHEDULE AND PLAN

The implementation schedule and plan are considered to be sufficiently adequate for the following reasons.

- (1) The proposal to cover the construction work within the two Japanese Fiscal Years of 1987 and 1988 (Apr-Mar) will avoid the complexities in governmental procedures and will prove effective for smooth implementation of the Project.
- (2) The adequacy of Cairo University as an executing agency has already been sufficiently proven by the construction of the existing CUPH. The administrative capacity of the committee for the Project resided over by Prof. Dr. Hussein Kamel Baha El Din, General Director of the CUPH which is actually responsible for the promotion of the Project is highly appreciated, and it is anticipated to play a major part in securing smooth and accurate implementation of the Project. For the reasons outlined above, the Egyptian side seems to have adequate resources for executing the Project.
- (3) The guideline established for the scope of works to be covered by each party seems to be an adequate one as it gives consideration to the priority of work and the budgetary scale of the Egyptian side and also because it clarifies the responsibilities of each party in terms of space and schedule.

CHAPTER 7 CONCLUSIONS AND SUGGESTIONS

CHAPTER 7: CONCLUSIONS AND SUGGESTIONS

7-1 CONCLUSIONS

The Cairo University Paediatric Hospital (CUPH) has been highly evaluated both internally and by outsiders since its completion in 1982 under the grant aid of the Government of Japan. The technical cooperation extended to the CUPH since 1983 is also bearing fruitful results and the CUPH is greatly relied upon by the people of Egypt as the "Japanese Hospital". It has also played a vital role in promoting friendship and goodwill between the peoples of Japan and Egypt and is regarded as a symbol of collaboration between the two countries.

However, seven years have elapsed since the CUPH was first conceived and there is no doubt that it currently faces various difficulties due to the rapid progress of technical standards and changes in the medical and social circumstances surrounding the CUPH of the last few years. This situation has been taken into account in the Project, and the necessity and urgency of implementing the Project has been reconfirmed as outlined in this Report.

7-2 SUGGESTIONS ON THE IMPLEMENTATION OF THE PROJECT

Technical cooperation extended by the Government of Japan to diagnose and treat circulatory disorders in the CUPH will be indispensable not only for further upgrading the medical activities but to enhance the effect of Japanese grant aid. Moreover, this should be commenced as soon as possible to enable coordination between the grant aid and technical cooperation.

Finally, the following matters are requested of the Government of the Arab Republic of Egypt to successfully proceed with this Project.

- (1) In order to carry out the Implementation Schedule for the Project, it is essential to expedite the necessary procedures in Egypt including that for obtaining the approval of the People's Assembly, and the special consideration by the Government of the Arab Republic of Egypt is earnestly required.
- (2) This Project will be carried out within the budgets of both governments, separately in terms of schedule. However, the works to be carried out by each party will constitute an integral part of the Hospital, so the Egyptian government is required to complete their work as planned in this Report.
- (3) Excellent medical staffers and the efficient maintenance of facilities and equipment are indispensable to effective operations of the facilities of this Project. Especially, in accordance with medical equipment, one of the most important points is to provide spare parts which are necessary to operate each

medical device properly.

Because this kind of medical equipment plays a critical role, its malfunction may cause serious situations leading to death of patients.

To avoid such accidents, spare parts will be supplied from the Japanese side for 1 year after completion of the facilities and provided by the Egyptian side thereafter.

In cardiac surgery, consumables relating to medical equipment supply are considered to be as important as medical equipment and cardiac operation cannot be carried out without consumables supply.

Efforts should be made for to realize these objectives. Sufficient budgetary measures are also essential for covering the high costs required for carrying out high grade medical treatment such as cardiosurgical operations.

- (4) For effective implementation of the Project, coordination with the technical cooperation currently being carried out, as well as technical cooperation projected in the future should be considered and appropriate measures by the Egyptian Government are essential.

The Government of the Arab Republic of Egypt is requested to give official permission to Japanese doctors for carrying out medical treatment and operations which should be limited to the purpose of the technical cooperation of the Japanese Government, in order to prevent the occurrence of any legal problems which may hinder the smooth implementation of the above technical cooperation. Urgent measures must be taken on this matter because it includes technical cooperation currently being executed.

- (5) An import ban on approximately 300 items was put into effect in Egypt from August 1986.

Because of the nature of the Project, it must depend on imported items for many of the materials and equipment for the Project. In view of the purpose of the grant aid, it is strongly requested to guarantee the import of the items to be used in the Project.

- (6) The Egyptian Government is also requested to take necessary measures so that the Project will be exempted from the insurance fee imposed on it, in view of the purpose of the grant aid.