

4-3-2 Site Plan

(1) Facilities Composition

Functions of the Center, as mentioned before, are composed of the Administration Division rooms, Research and Development Division rooms, Educational and Training Division rooms and Common Utility rooms (multipurpose hall and lounge). These facilities can be considered in an integrated form to be a single building, but since this solution does not fit such given conditions as the campus master plan and the topography of the site, the facilities are planned to be laid out separately, so the complex of such facilities can operate functionally as the Center for Japanese Language.

As a result, considering functions of the Center, facilities organization for the easiest management and operation will be the facilities as listed hereunder:

- o Administration/Research Building
- o Educational/Library Building
- o Training Building
- o Multipurpose Hall

1) Administration/Research Building

Functions of Administration Division and those of Research and Development Division are arranged into a single building, and a converged type of management and operation could be carried out.

2) Educational/Library Building

General classrooms of the Educational and Training Division and library-related rooms of the Planning and Public Relations Division are arranged into a single building, for the convenience of the students.

3) Training Building

The language laboratory (L.L.) training and the large size classroom (seminar room) and the Japanese-style room of the Educational and Training Division are separated from general classrooms to provide a quiet space. Also, the lounge of the Common Utility will be installed in combination, to be used easily from the buildings.

4) Multipurpose Hall

The Multipurpose Hall is to contain so many people (300) at a time, and since the application purpose differs from other facilities, the Hall should be an independent building.

(2) Dynamic Line Plan

If we sketch the dynamic linear relation between the Center and the Faculty of Letters and other university facilities, it will be as follows:

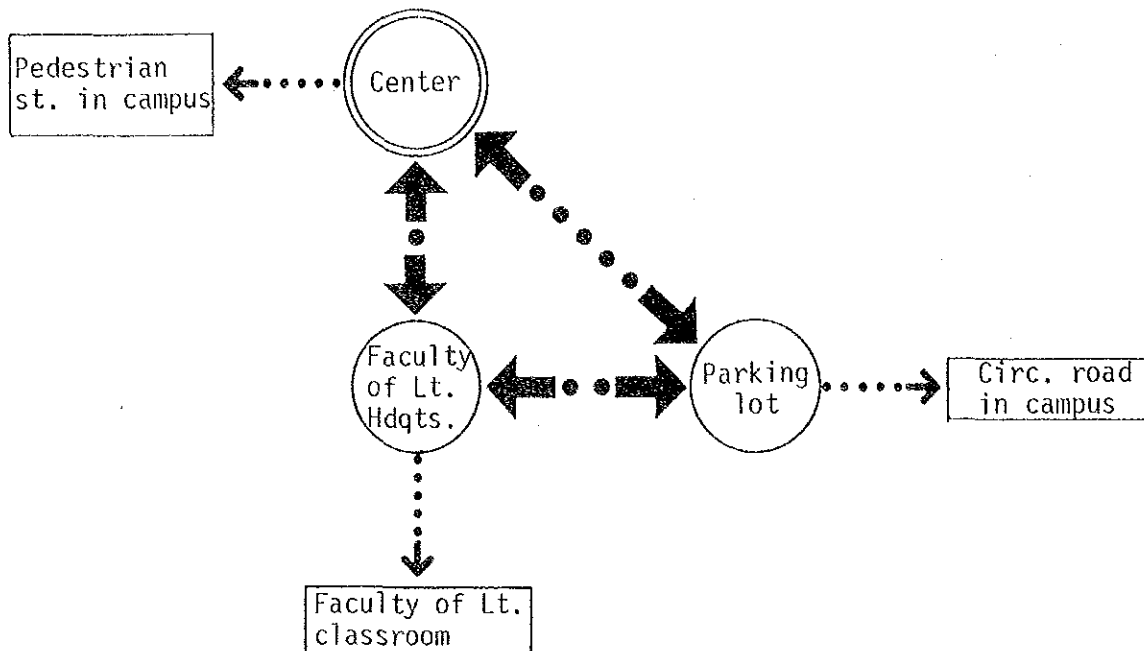


Fig. 4-1 Dynamic Line

Approach from outside to the Center will be either from the pedestrian street within campus, or from the circular road outside the campus, or from the adjoining Faculty of Letters, totaling three types of approach. That is to say, the approach from the pedestrian street is used for the students in campus and general visitors on foot, and the approach from the circular road is used for general visitors by car and service-related visitors, while the approach from the Faculty of Letters classrooms building is used for the faculty staff and students.

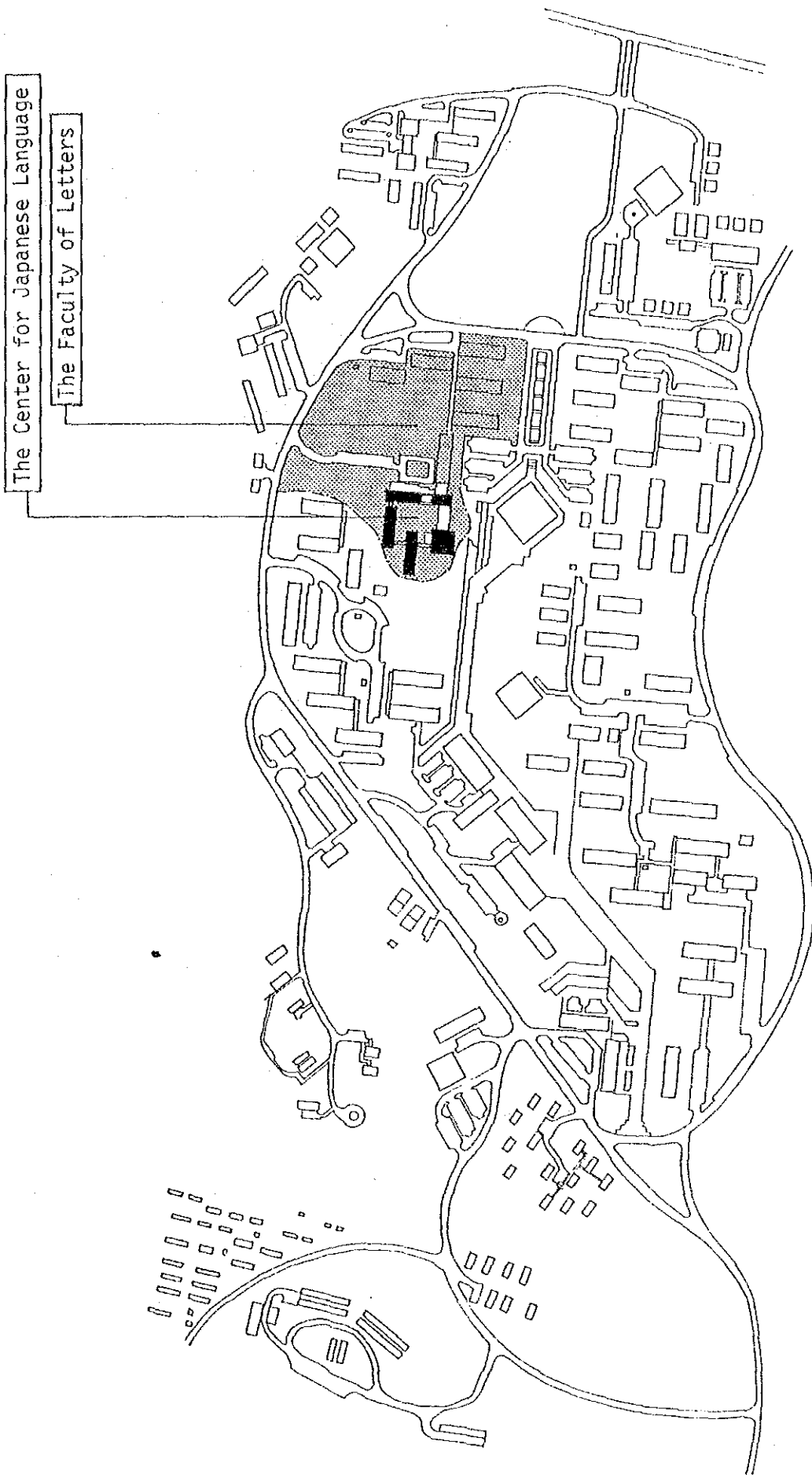


Fig. 4-2 Padjadjaran Univ. Campus at Jatimangor Site Plan

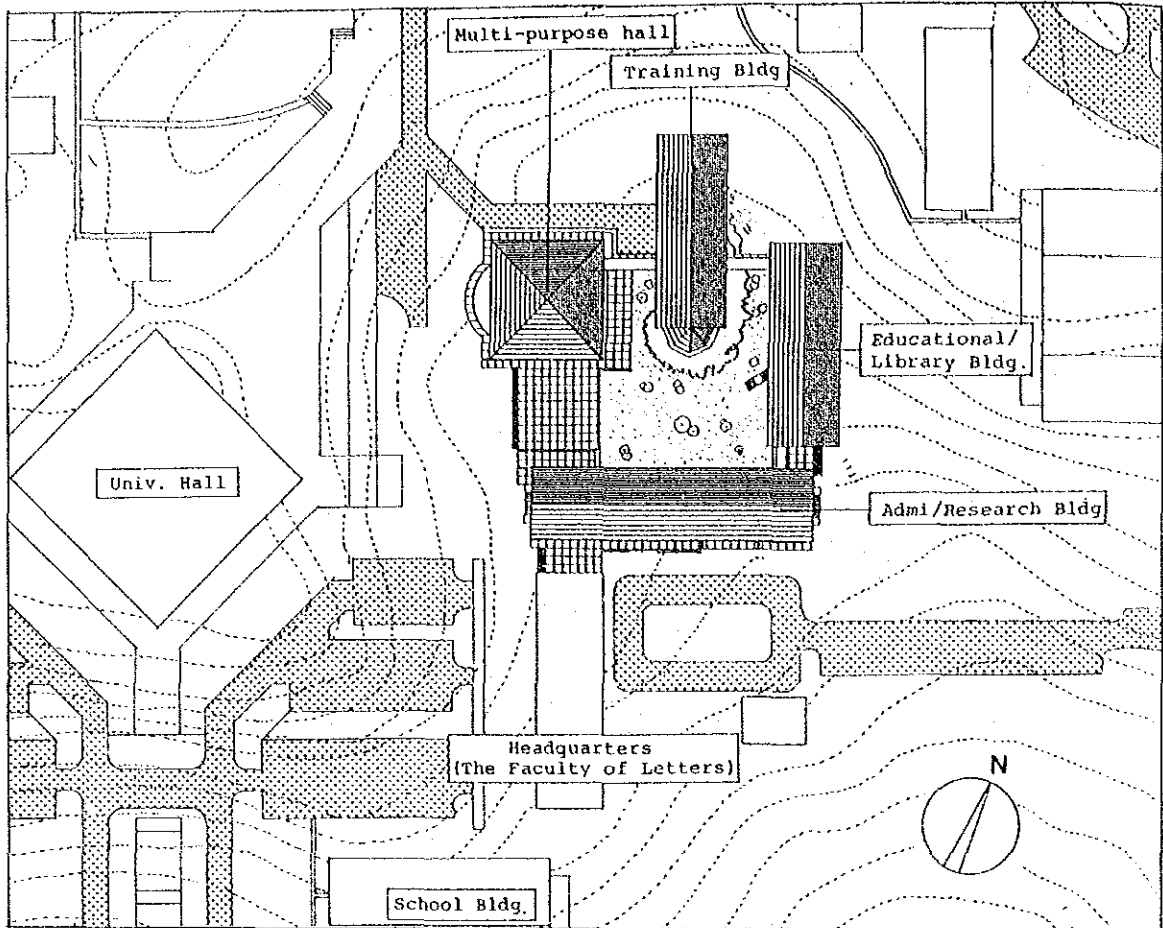


Fig. 4-3 Site Plan of the Center for Japanese Language

(3) Facilities Layout Plan

1) Administration/Research Building

The Administration/Research Building is located halfway between the Faculty of Letters Headquarters and other facilities (Educational/Library, Training Buildings and Multipurpose Hall) of the Center, to serve as a liaison spot linking the Center with the Faculty of Letters. The building is also laid out to be approached from three directions of the pedestrian street, circular road and the Faculty of Letters, to be the main gate to the Center.

2) Educational/Library Building

As the Educational/Library Building is composed of general classrooms and the library, it is located beside the outer circular road of the Campus, with easy access for outside students and visitors. Also, by location between the Administration/Research Building and the Training Building, it will be easily accessible for instructors to get to classrooms and the library, and for students to get L.L., lounge, etc.

3) Training Building

Since the Training Building is composed of L.L., the seminar room and the Japanese-style room, which require tranquility to some extent, it should be located separate from other facilities.

4) Multipurpose Hall

The visitors to the Multipurpose Hall are not only those who are related to the Center, but also visitors from inside/ outside the University. Therefore, the Hall should be located near the pedestrian street crossing south-to-north through the center of the campus, in teams of movement of people, to collect many visitors for meetings.

Also, the Multipurpose Hall is the biggest in floor area and volume among the Center facilities, so it is located on the northern slope of the mountain, to avoid being a visual nuisance to other facilities of the Center.

As abovementioned, by locating the four facilities in a square form surrounding the center court, the facilities are independent, to help closer contact with each other, and to realize a peaceful space composition as a whole.

Moreover, the center court will be an outer space for various outdoor events like meetings, exhibitions, etc., which free access is available for the four facilities.

4-3-3 Building Design

(1) Floor Plan

In promoting the floor plan of the buildings, the following items will be the basic policies:

- o Floor plans for buildings will be made not to separate buildings and to enable an integrated management and operation of the Center.
- o Floor plans will be designed to obtain natural lighting and natural ventilation for all the rooms by avoiding internal closed corridors and adopting by all means external open corridors.

1) Administration/Research Building

This building consists of administration office rooms, lecturer's rooms and a conference room.

The administration office rooms face to the central entrance, and, considering easy operation and management, they are located at a position nearest to the Faculty of Letters Headquarters Building. The place is also close to the main pedestrian street running through the campus south-to-north, and is an intersection for three approaches, including the central entrance, and the Faculty of Letters Headquarters Building.

Instructors' research rooms should be located close to the Faculty of Letters Headquarters and to administration office rooms, and adjoining the Educational/Library Building. This is convenient for inter-instruction communications belonging to the Japanese Language and Literature Course, and the Faculty of Letters, and is appropriate for education, training and studies at the Center.

2) Educational/Library Building

This building is composed of six common classrooms and library related rooms, and is located close to the classrooms and lecturer's rooms, and in a relatively quiet position with a new passing disturbances within the Center.

The library consists of an open-shelf style reading room, reference room, librarian office too, stack room, printing and data room. It is located by adjoining classrooms and at a

comparatively quiet place considering convenience for the use of students.

3) Training Building

The Training Building is composed of a large size classroom (seminar room), a Japanese-style room, audiovisual rooms and the lounge.

The large classroom is located next to the Japanese-style room at a quiet place avoiding thoroughfare of general students, etc. The large classroom accommodates 40 people, but it is dividable by means of a partition into two common classrooms accommodating 20 people each.

The audiovisual rooms consist of the L.L. (language laboratory), studio, lecturer's and teaching materials room, which are located next to the classrooms. The L.L. is for 40 students, but is also dividable into two rooms by using a partition, each accommodating 20 students, and then one could be used for a lecture, while the other for L.L. easily accessible for students.

The lounge is a place for visitors to the Center, who could take snacks they brought in and talk friendly, being a place most comfortable where they could enjoy the open feeling at their disposal among the Center facilities. Accordingly, it is located between the multipurpose hall and classrooms, facing the court at the center of the Center. Also, around the lounge, a pond surrounding the lounge is to be formed, which will at the same time be a regulation pond for rainwater falling on the Center site to compose an exterior space with aquatic outlook, trying to unify the inner and outer spaces, which is one of the features of Japanese space composition.

4) Multipurpose Hall

The Multipurpose Hall is to accommodate many visitors (300), and priority was laid in the emergency evacuation in floor planning, to enable the evacuation to three directions simultaneously. Also, in order to cope with the application purposes of the Hall, the audience seats will be mobile chairs and the stage will have functions for lecture, motion picture, music concert, dance, etc.

(2) Section Plan

Based upon the abovementioned floor plans, cross section plans are made in consideration of the site conditions and the functions of each facility.

Being on a slope and as a result of geological surveys, buildings should be of low elevation, and according to the campus master plan, these should be less than three-story buildings. The Center facilities should be of two stories, in order to satisfy the facilities scale, site area, and to make a facilities design which represents the traditional Japanese sense. Rooms accompanying busy dynamic lines and those closely related with out-of-the-Center facilities should be located on the ground floor, with other rooms requiring quiet environment located on the second floor. In other words, in the Administration/Research Building, general office rooms, the conference room and assistant instructors' rooms are located on the first floor, while the director's room, secretary's room and senior instructors' rooms are located on the second floor. In the Educational/Library Building, classrooms are on the first floor, library on the second floor, while in the Training Building, lounge and big classroom (seminar room) are on the first floor, audiovisual rooms are on the second floor. In the Multipurpose Hall, audience space and stage are on the ground floor, projection room and technical control room are on the second floor.

Regarding cross section forms of respective buildings, the rooms should have ceilings as high as possible, and ventilation should be perfect. The roofs should be of steep descents with deep eaves, in order to deal with downpours and to avoid penetration of direct sunbeams into buildings at the same time.

(3) Structure Plan

1) Policies of Structural Design

The policies of the structural design are defined as follows in conformity with the policies of the building design.

- (a) The structure shall be highly safe, rigid, and simple.
- (b) The construction method shall be as popular in Indonesia.

2) Principles of Structural Design

(a) Design Load

The calculation of dead load and live load conforms to (PERATURAN PEMBEANAN INDONESIA UNTUK GEDUNG 1981 (NI-18)) and (PERATURAN PERENCANAAN TAHAN GEMPA INDONESIA UNTUK GEDUNG 1981).

Table 4-2 Live Load

P.P.I. (NI-18)

Location	Slab and Beam (kg/m ²)	Column, Girder, Foundation		Seismic Load	
		Reduction Coefficient	Load (kg/m ²)	Reduction Coefficient	Load (kg/m ²)
Roof	100	0.6	60	0.3	30
Classroom	250	0.9	225	0.5	125
Storage	500	0.8	400	0.5	250
Library	500	0.8	400	0.5	250
Conference room	250	0.9	225	0.5	125
Office room	300	0.6	180	0.3	90
Stack room	500	0.8	400	0.5	250
Toilet	250	0.6	150	0.3	75
Lounge	400	0.9	360	0.5	200
Multipurpose hall	400	0.9	360	0.5	200
Corridor, staircase	300	0.75	225	0.5	150

(b) Materials and Allowable Stress Intensity

Main structural materials shall be those utilized popularly in Indonesia with reliable quality. And the allowable stress intensity shall be defined in conformity with (PERATURAN BETON BERTULANG INDONESIA 1971 (NI-2)).

Table 4-3 Allowable Stress Intensity for Concrete

Classification	Symbol	Allowable Stress Intensity (kg/cm ²)									
		Long Term Load					Temporary Load				
Strength of Concrete against Pressure	σ'_{bk}	B ₁ 100	K125 125	K175 175	K225 225	Umum σ'_{bk}	B ₁ 100	K125 125	K175 175	K225 225	Umum σ'_{bk}
Bending (with & without axial force)											
Pressure	$\bar{\sigma}'_b$	35	40	60	75	$0.33\sigma'_{bk}$	55	70	100	125	$0.56\sigma'_{bk}$
Tension	$\bar{\sigma}'_b$	-5	5.5	6.5	7	$0.48\sigma'_{bk}$	7	7.5	9	10	$0.63\sigma'_{bk}$
Axial Force											
Pressure	$\bar{\sigma}'_{bs}$	35	40	60	75	$0.33\sigma'_{bk}$	55	70	100	125	$0.56\sigma'_{bk}$
Tension	$\bar{\sigma}'_{bs}$	4	4	5	5.5	$0.36\sigma'_{bk}$	5	5.5	6.5	7.5	$0.51\sigma'_{bk}$
Shearing by Bending or Torsion											
With Shear Re-Bar	$\bar{\tau}'_b$	4.5	5	5.5	6.5	$0.43\sigma'_{bk}$	7	7.5	9	10	$0.68\sigma'_{bk}$
Without Shear Re-Bar	$\bar{\tau}'_{bm}$	11	12	14	16	$1.08\sigma'_{bk}$	17	19	22	25	$1.70\sigma'_{bk}$
Shearing by Bending with Torsion											
With Shear Re-Bar	$\bar{\tau}'_b$	5.5	6	7	8	$0.54\sigma'_{bk}$	8.5	9.5	11	13	$0.85\sigma'_{bk}$
Without Shear Re-Bar	$\bar{\tau}'_{bm}$	14	15	18	20	$1.35\sigma'_{bk}$	21	24	28	32	$2.12\sigma'_{bk}$
Punching Shear at Critical (Fragile) Surface											
With Shear Re-Bar	$\bar{\tau}'_{bp}$	6.5	7.5	8.5	10	$0.65\sigma'_{bk}$	10	11	13	15	$1.02\sigma'_{bk}$
Without Shear Re-Bar	$\bar{\tau}'_{bpm}$	13	15	17	20	$1.30\sigma'_{bk}$	20	22	26	30	$2.04\sigma'_{bk}$

Table 4-4 Stress Intensity for Steel

Classification	Allowable Tensile/Compressive Stress Intensity	
	$\bar{\sigma}_3 = \bar{\sigma}'_3$ (kg/cm ²)	
	Long Term Load	Temporary Load
U ₂₂	1.250	1.800
U ₂₄	1.400	2.000
U ₃₂	1.850	2.650
*U ₃₉	2.250	3.200
U ₄₈	2.750	4.000
U _{general}	$0.58 \sigma_{au}$	$0.83 \sigma_{au}$
	$0.58 \sigma_{0.2}$	$0.83 \sigma_{0.2}$

(c) Foundation

The geology of the site, according to data from two borings is as follows. (Refer to Annex 5)

- 0.0 - 5.0 Clay, Medium stiff
- 5.0 - 7.0 Tuffaceous, Clay silt
- 7.0 - 10.0 Tuffaceous, Silty sand
- 10.0 - 20.0 Tuff breccia

As the building is 2-story reinforced concrete, the bearing capacity of soil of $F_e=5.0 \text{ t/m}^2$ can be secured if around G.L.-1.0m is gravelled. Therefore, continuous footing is applied for the Center buildings.

3) Policies of Structural Calculation

The structural calculation shall be carried out based on the Indonesian standard of structural calculation. If necessary, the Japanese standard by the Architectural Institute of Japan might be referred to assure the safety of design.

As for the calculation of stress, the moment distribution method and a summarized calculation method by Kiyoshi Mutoh, which is also popular in Indonesia, are respectively applied for the calculation of vertical load stress and horizontal load stress.

(4) Mechanical Equipment Plan

1) Water Supply

Water is supplied by a gravity supply system from the water supply facilities in the campus to each destination through branch pipes of 65 mm from the main pipe of 150 mm which is looped within the site.

The amount of necessary water supply for the Center is about 30 m^3 per day.

2) Waste Water Drainage

The drainage system of the Center consists of toilet waste water, miscellaneous waste water, and rainwater drainage systems. After treatment at a separated septic tank (90 ppm), waste water is discharged to the infiltration basin dispersed on the site. Miscellaneous waste water, through catch basins around the Center, is discharged to U-shaped overflows in the site.

3) Rain Water Drainage

The geography of the site is not flat but is sloped down to the south with an altitude difference of 4 meters. The yearly average amount of precipitation is about 2,500 mm in the rainy season. Taking these into account, U-shaped gutters for draining are planned to be installed around the site of the Center as a countermeasure.

4) Air Conditioning and Ventilation

The temperature of the Bandung City is relatively high throughout the year with the yearly average temperature 23°C and humidity 80%. The hottest season is around October, the coolest around January. The proposed construction site of Padjadjaran University is located on a highland of Jatinangor where the climate is relatively moderate. For this reason, air conditioning throughout the year by a central system is unnecessary and separated air conditioners are installed only in limited rooms. The other rooms are furnished with ceiling fans. The ventilation system is principally a natural one. Only such rooms as the kitchenet, toilets, storage rooms, electric room, kitchnet, etc., where it is necessary, are mechanically ventilated. A simple ventilation method like ceiling fans or ventilating fans is applied.

Main rooms air conditioned will be;

Language laboratory, Control room, Studio, Conference room.

5) Fire Extinguishing Equipment

The buildings are furnished with fire hydrant boxes and extinguishers in conformity with administrative guidance from authorities.

6) Sanitary Equipment

Sanitary wares and faucets are fixed in their respective places. Stools are mainly those of local style and partly western style.

(5) Electric Equipment Plan

1) Power Receiving

Cut-out switch boards inside the Center receives power provided by the switch boards in sub-station G-XII (refer to Fig. 3-6). Voltage, distribution system, and frequency are 380 V/220

V, 3 phases/4 wires system, and 50 Hz respectively. The power load of the Center is presumed to be about 125 KVA.

2) Trunk Lines

Cable for trunk lines to cut-out switches, power controlling boards, lighting switch boards are, in principle, metal conduit pipes. Distribution systems are 3 phases/4 wires for lighting, receptables, and trunk lines and 3 phases/3 wires for power trunk lines.

3) Power Equipment

Pipes and wires are arranged to supply power to ventilating fans, air conditioners, and pumps. Voltage for small capacity fans is single phase/220V and for other power equipment is 3 phases/380V in principle. Low pressure condensers are built into each equipment for improvement of power factor.

4) Lighting Fixtures and Receptacles

Flourescent lamps are mainly used for lighting, and incandescent lamps and mercury vapour lamps are applied where they are necessary. The average illuminance of each room is as follows.

Office	300 - 350 Lux
Classroom	250 - 300
Conference room	150 - 200
Multipurpose hall	100 - 300
Seminar room, L.L.	200 - 350
Corridor, staircase, toilet	50 - 100
Storage room	30 - 100

Multipurpose hall, control room, and studio are furnished with dimmers. The lighting of the language laboratory can be regulated by switches. Receptacles of equipment in the above rooms are those with earth plugs.

5) Telephone System

The Center receives 2 telephone lines from branch office TP5-150/117 at the completion of new campus. These lines are running to devices and telephone sets from terminal boards of the 1st floor through terminals. The capacity of switchboards is 1 - 2 circuits for outside lines and 30 for extensions.

However, the circuits for outside lines will not be completed by the completion of the Center. Therefore, the Center will receive 2 outside lines through the Faculty of Letters Headquarters which will receive outside lines from micro-wave receiver located on the north western part of campus.

6) Announcement System

Amplifiers and mikes are installed in the office rooms of the 1st floor, and speakers at corridors of each floor. They are used for internal transmission of information.

7) Special Sound Equipment

Sound amplifiers, speakers, mikes, tapedecks, etc. are installed at the multipurpose hall for music concerts and movies.

8) Intercom System

Interphones are provided for private communication at the following rooms.

1F Entrance-Office rooms

2F Control room-Studio

Multipurpose Hall (stages, etc.)

9) Fire Alarm System

Fire detectors are provided to perceive fire at the multipurpose hall, lounge, seminar room, language laboratory, studio, etc. in conformity with administrative guidance of the Government of Indonesia. Transmitters and electric bells of each floor are monitored by the receiver of the 1st floor office rooms.

10) Lightning Arresters

To protect the buildings from lightning, lightning rods and conductors are installed on the roof, and earth plates are buried in the ground.

NOTE: --- INDICATES WATER SUPPLY ROUTE (Scope of Japan)
 - - - - - " (Scope of Indonesia)

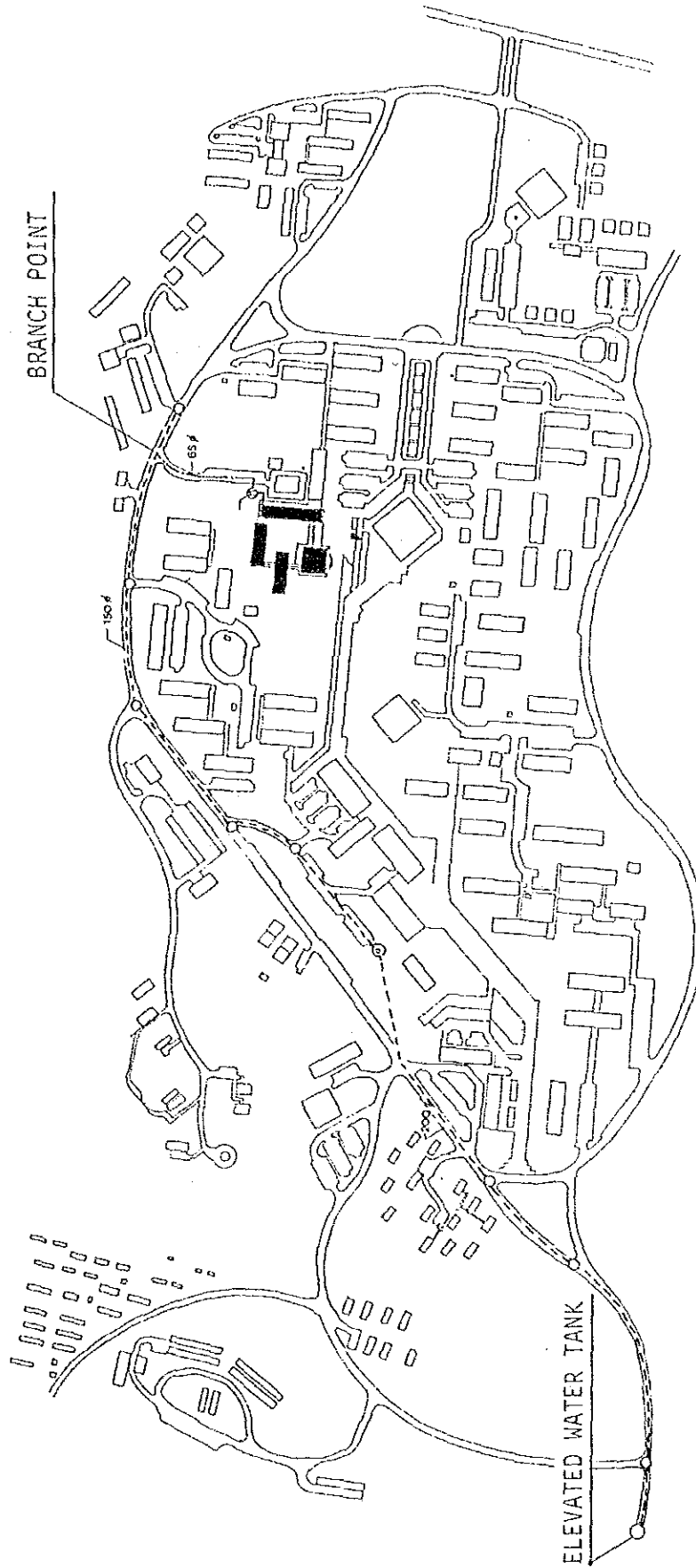


Fig. 4-4 Water Supply Pipeline Plan

NOTE: ——— INDICATES DRAINAGE ROUTE
(Scope of Japan)

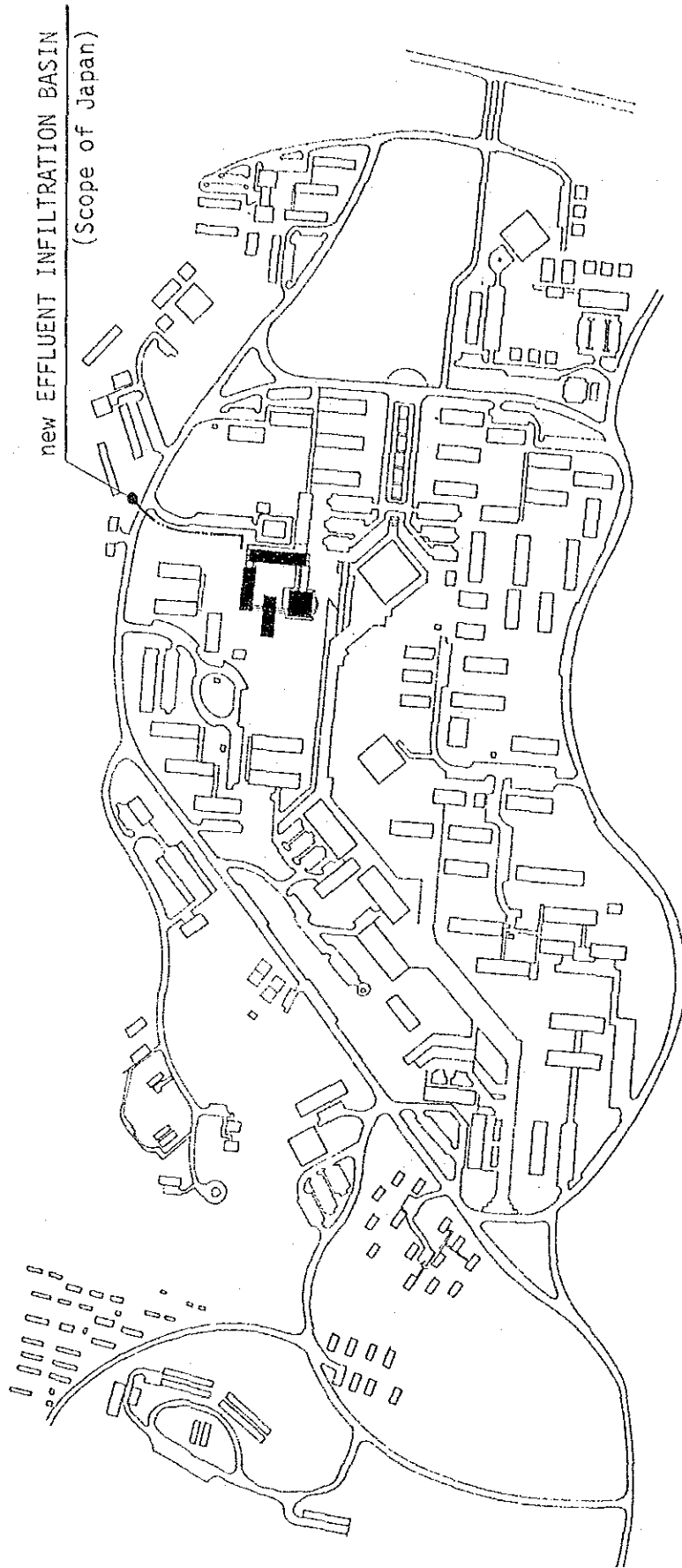


Fig. 4-5 Waste Water Drainage Plan

NOTE: ——— INDICATES POWER SUPPLY ROUTE (Scope of Japan)
 - - - - - INDICATES TEMPO. POWER DISTRIBUTION ROUTE
 (Scope of Indonesia)

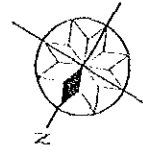
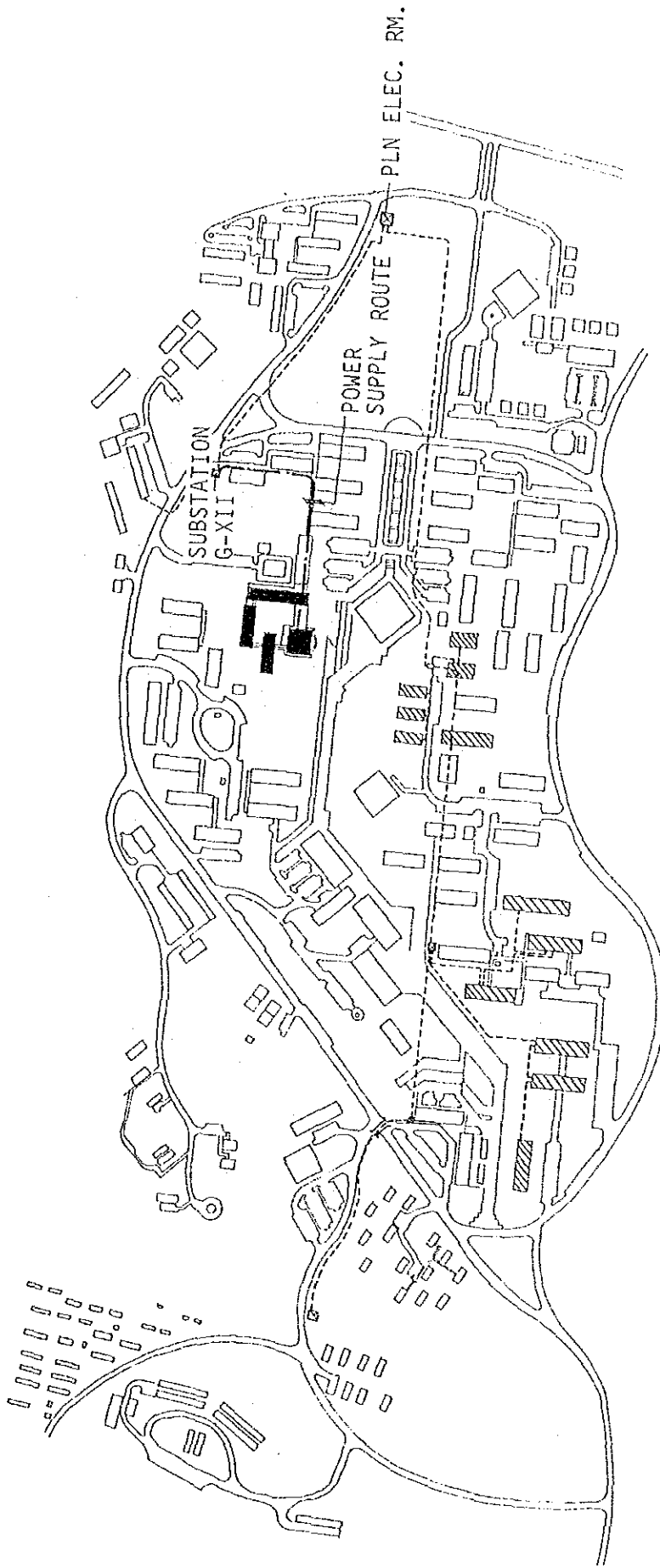


Fig. 4-6 Electric Supply Plan

NOTE: - - - - - INDICATES TELEPHONE CABLE ROUTE
(Scope of Indonesia)

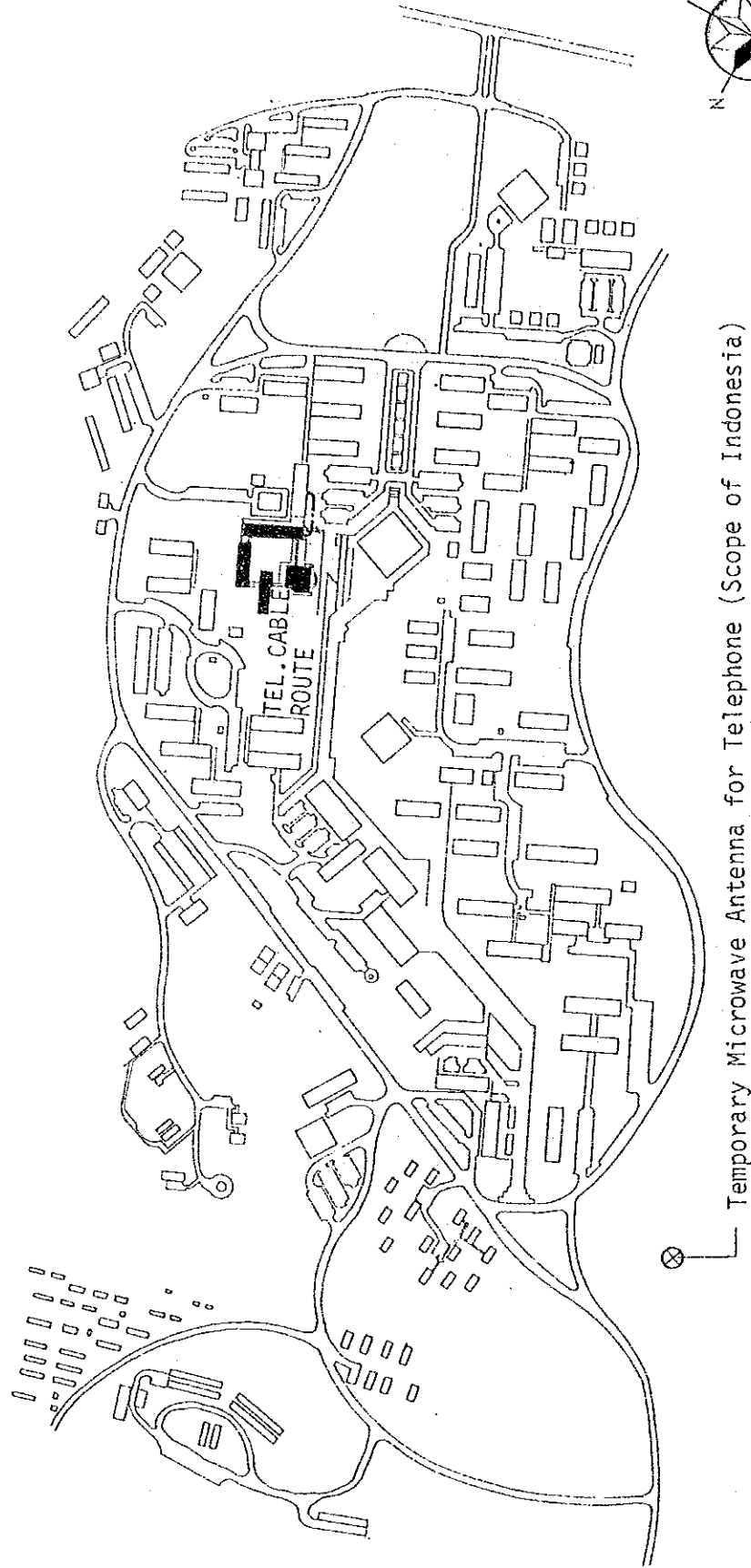


Fig. 4-7 Telephone Line Plan

(6) Building Material Plan

Though in the tropics, Bandung is located at a relatively high altitude in Indonesia so that its temperature is not so high. Sunbeams in the day time, however, are exactly typical tropics. Being in a mountainous area, Bandung has more rainfall than Jakarta. The Center for Japanese Language consists of classrooms, library, multipurpose hall, lecturer's rooms, office rooms, etc.. There are non special rooms except the audio-visual class room and multipurpose hall. As the Center is an annex of an Indonesia's national university and functions to introduce Japan, the grade of materials shall have the same quality as of the whole campus facilities or higher.

Taking the above climate conditions and the character of the Center, comfortable indoor environment shall be created by appropriately selecting and arranging materials.

1) Roofs

The materials of roofs shall be effectively against the strong tropical sunbeams. Appropriate measures shall be established to control the rainwater of torrential downpour. Slanting roofs covered with tiles have already been applied to the master plan of the new campus. These slanting roofs not only control torrential rainwater but also represent the traditional style of Japan.

2) External Walls

External walls should be carefully designed to prevent direct sunbeams and materials should be of high heat transfer resistance like concrete blocks, etc..

Acrylic spray paint is applied to finish materials to secure durability against weather, easy construction, and beauty.

3) Interior Finish

The following materials are selected from the view points of the facilities' function, construction method, procurement and economical aspects.

FLOOR	Terrazzo	Multipurpose hall, Lounge, Storage room, and General rooms except following rooms
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	Vinyl asbestos tile	L.L., Control room, Studio
	Tatami	Japanese-style room
	Mosaic tile	Toilet
WALL	Paint on plaster	General rooms other than below
	Acoustic board	L.L., Control room, Studio
	Plywood veneered with natural stuff	Director's room, Reception room, Multipurpose Hall
	Acrylic spray paint on plaster	Japanese-style room
CEILING	Rock wool acoustic tile	L.L., Control room, Studio,
	Decorated Acoustic Board	Classroom, Seminar room, Office room, Library, etc.
	Paint on board	Storage room, Stack room, Toilet
	Natural wood	Lounge
	Expand metal	Multipurpose Hall

4-3-4 Equipment Plan

(1) Scale

In selection of essential equipment for the Center, priority is put on easy domestic maintenance. To avoid the overlap with equipment provided by Cultural Grant Aid, selection of such equipment as for language laboratory system, studio system, and editing system shall be carried out with due consideration.

The quantity of equipment shall conform to the activities of the Center.

(2) List of Equipment

Equipment installed in the Center is as follows.

1) Equipment for the Administration Division

Compying machine	1
English typewriter	2
Japanese wordprocessor	1

2) Equipment for the Research and Development Division

VTR	1
Tape recorder	1
Slide projector 35 mm	2

3) Equipment for the Educational and Training Division

 (Large Classroom)

Slide projector 35 mm	1
Screen	2
Overhead projector	2
VTR, TV set	1
Blackboard	1

 (General Classroom)

Overhead projector	6
Desk and chair	120 sets
Black board	6

4) Equipment for the Planning and Public Relations Division

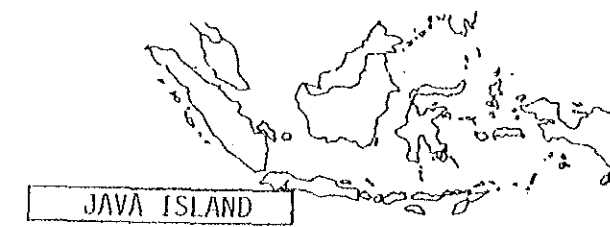
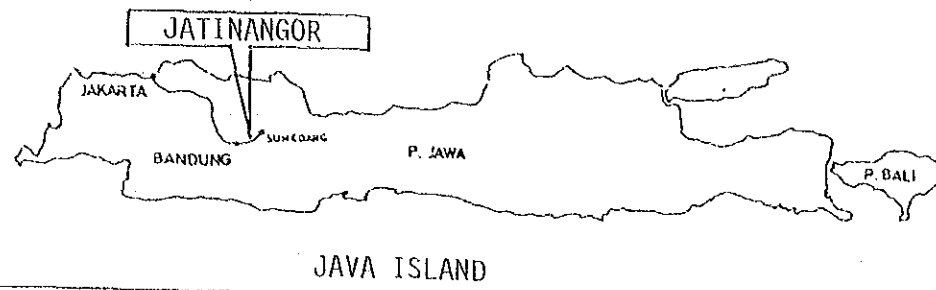
 (Library)

Bookshelf	10
Reading tables (for 6 persons)	4
Chairs for reading tables	24
Magazine racks	2
Exhibition shelf for new publications	1
Newspaper racks	1
New library edition shelf	1
Two step counter	1
Unit case	1
Stool for counter	2
Information board	1

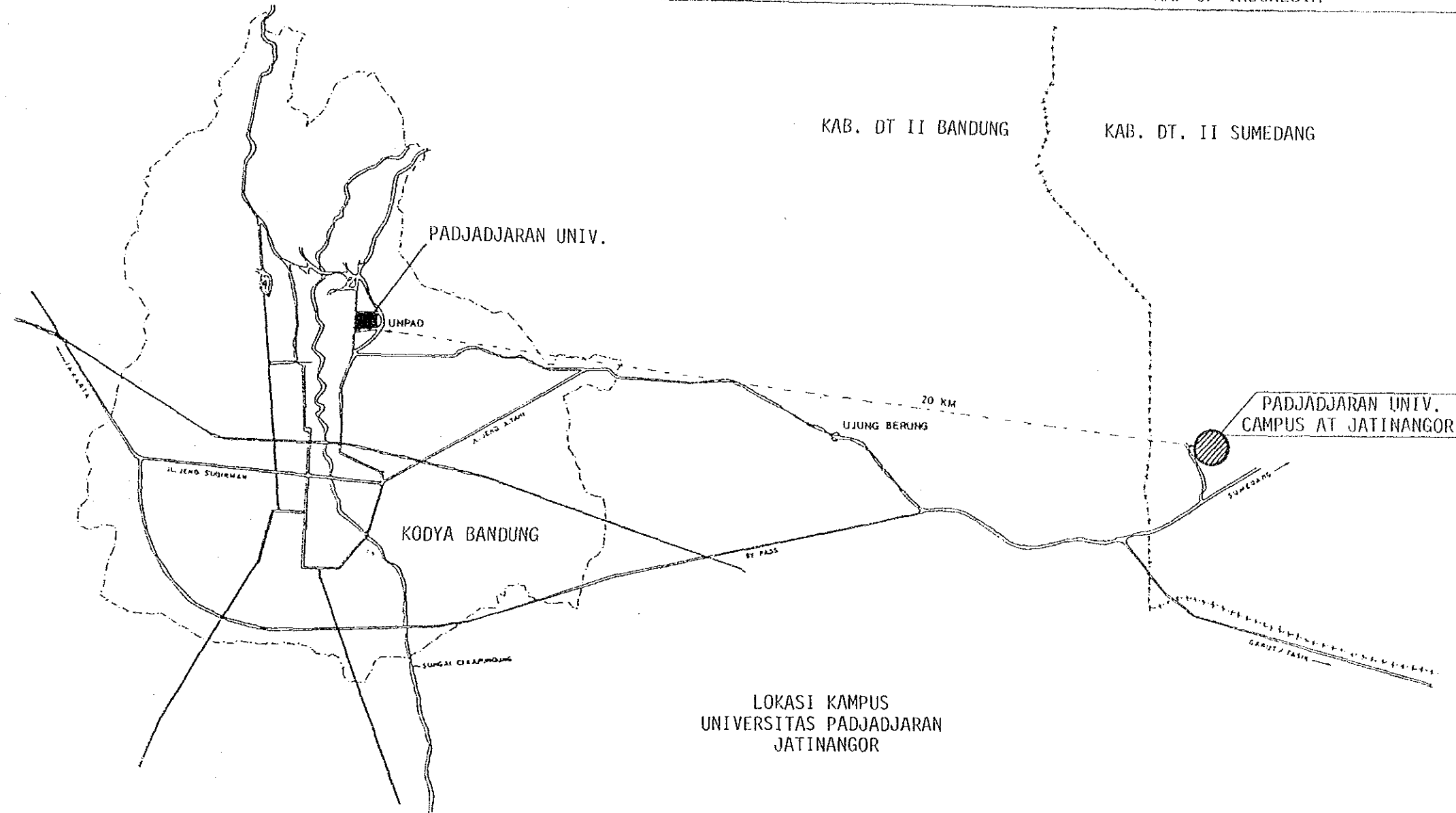
Card case	1
Book box	1
(Reference Room)	
Shelves for reference books	3
Carrel	4
Chairs for carrel	4
Shelf for librarian office	2
Work table	1
Cabinet for librarian office	1
Desk and chair	2 sets
(Stack Room)	
Stack shelf	1
(Printing and Data Room)	
Dry electronic copying machine	1
Offset printing machine	1
Plate making machine	1
Paper cutter	1
Paper holding machine	1
Binding machine	1
Lettering machine	1
5) Equipment for Common Utility	
(Multipurpose Hall)	
35 mm projector	1
16 mm projector	1
Slide projector	1
Screen	1

4-3-5 Basic Design Drawings

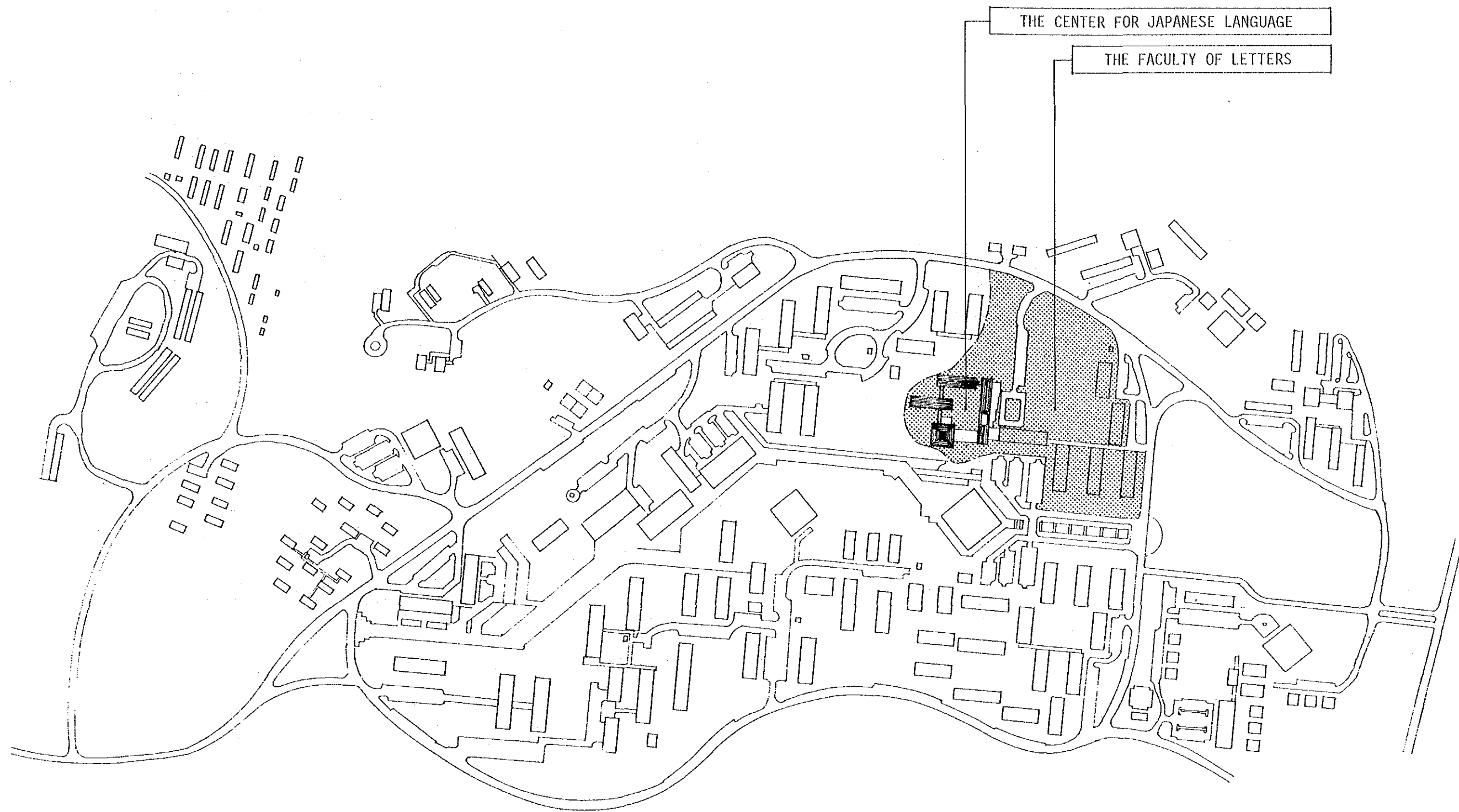
LOCATION OF PROPOSED SITE



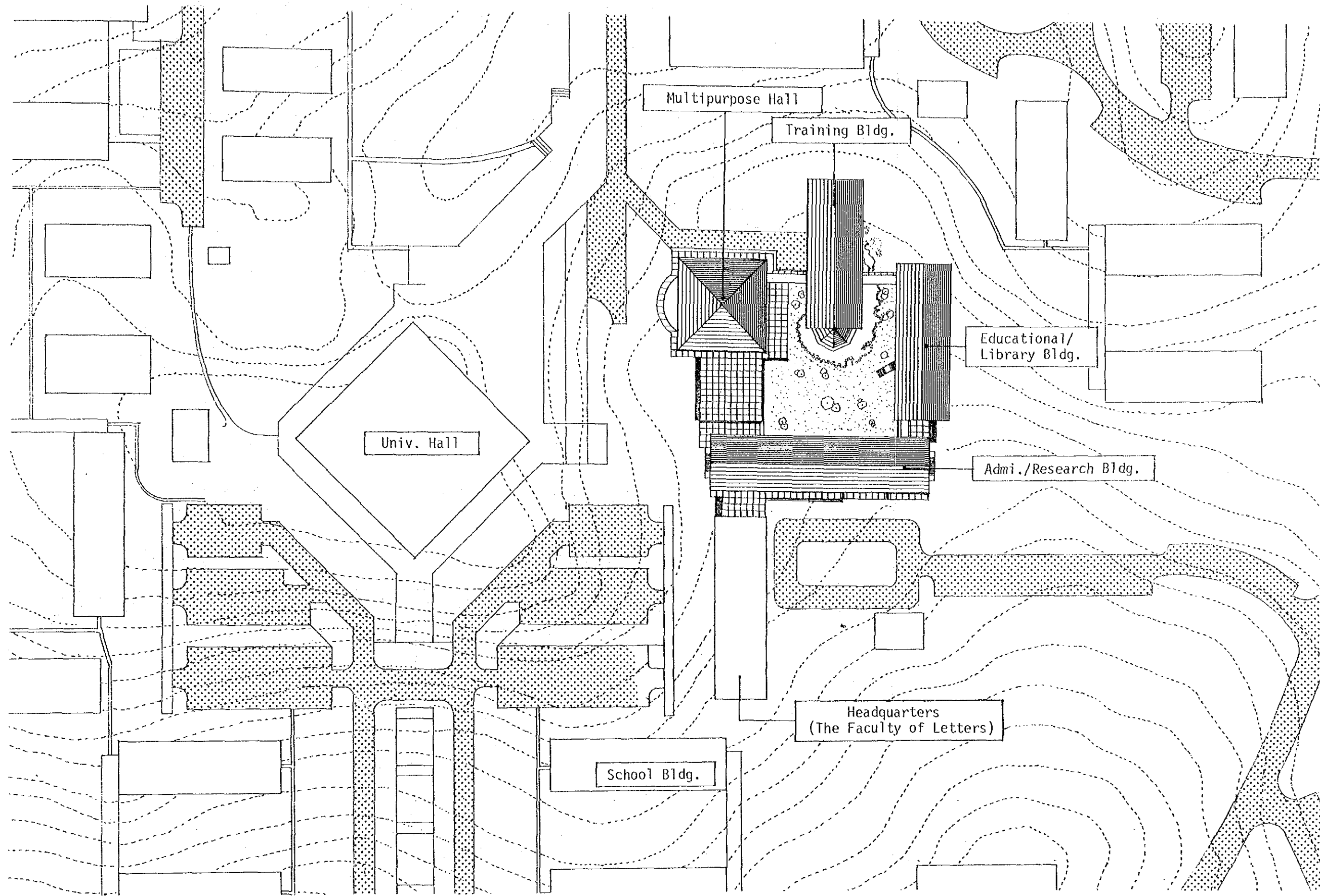
MAP OF INDONESIA




LOKASI KAMPUS
UNIVERSITAS PADJADJARAN
JATINANGOR

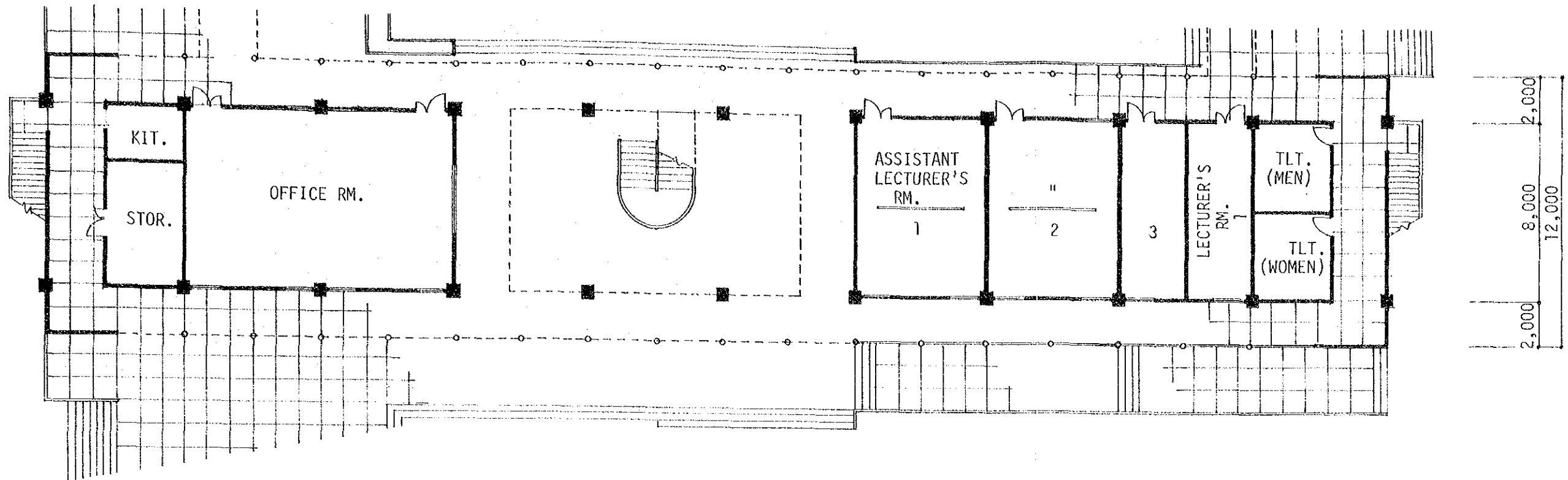


MASTER PLAN OF PADJADJARAN UNIV.  **2**
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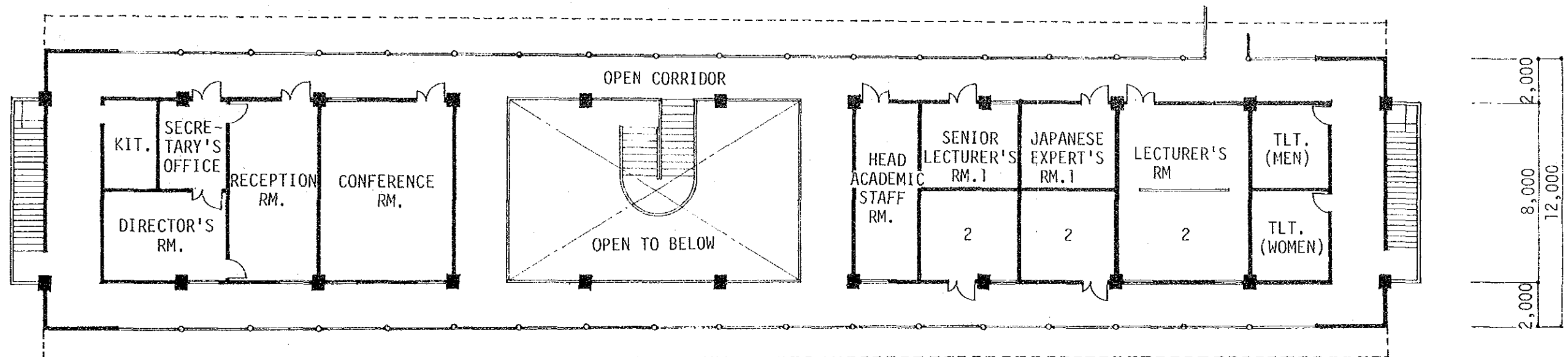


S, 1:1000 **SITE PLAN**  **3**

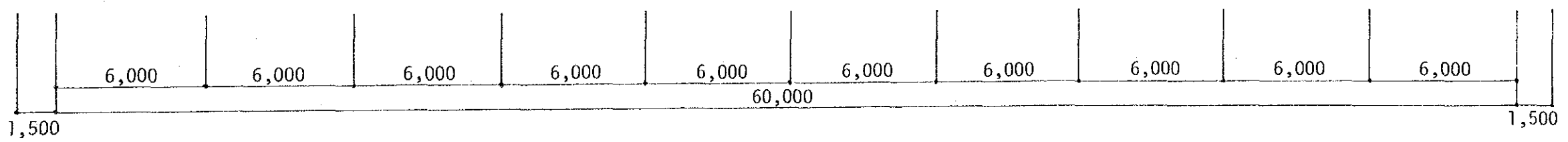
0 10 20 50M



1st FLR. PLAN



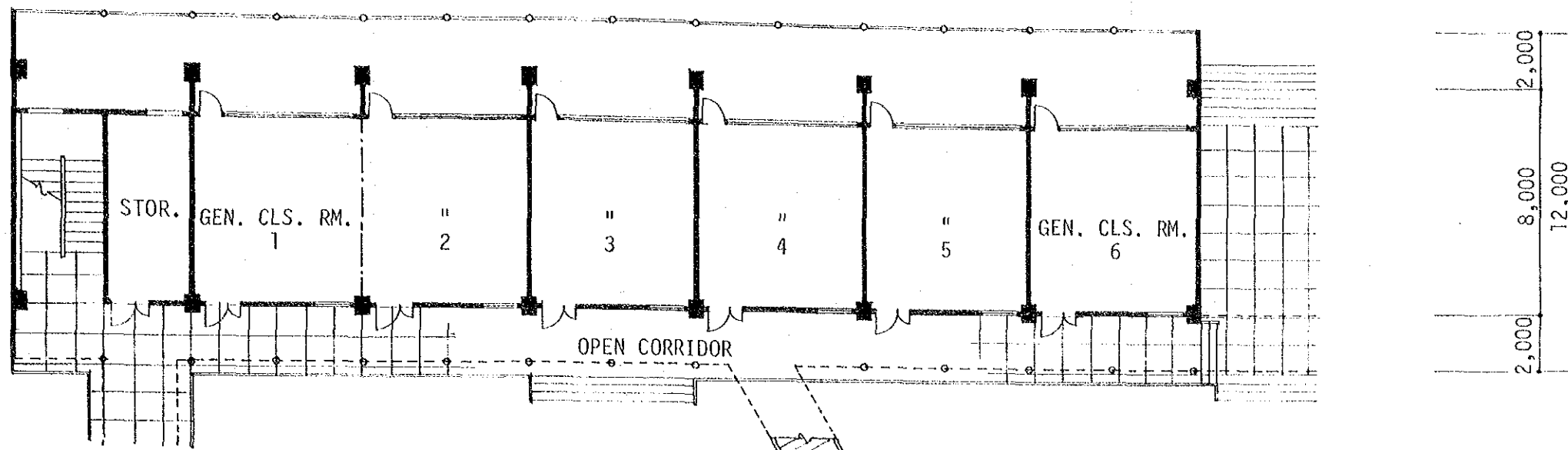
2nd FLR. PLAN



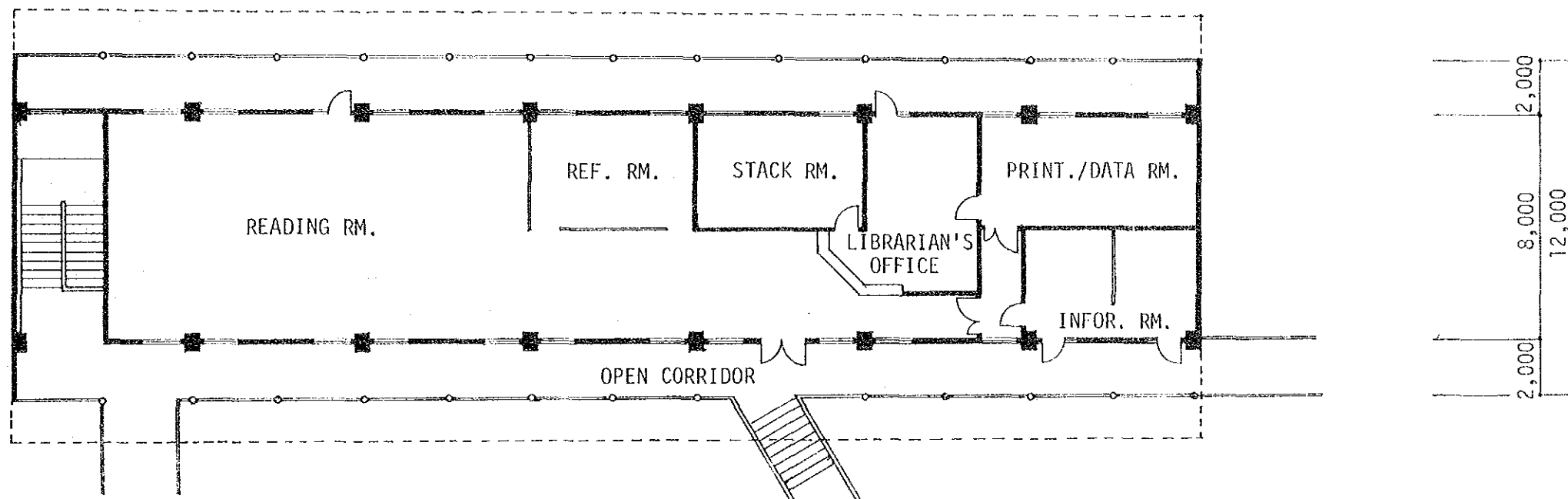
PLANS OF ADMIN./RESEARCH BLDG.
 S, 1:200



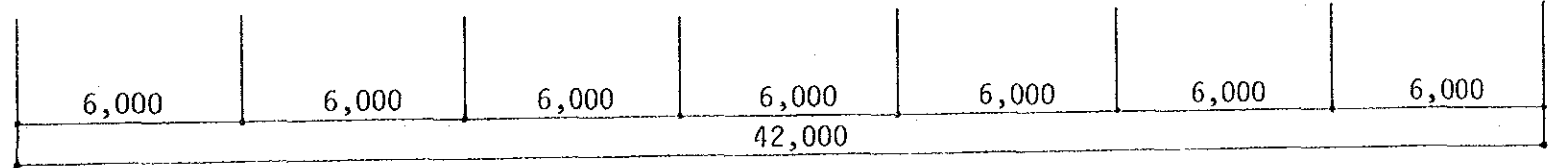
4



1st FLR. PLAN

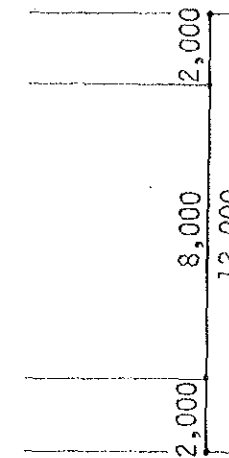
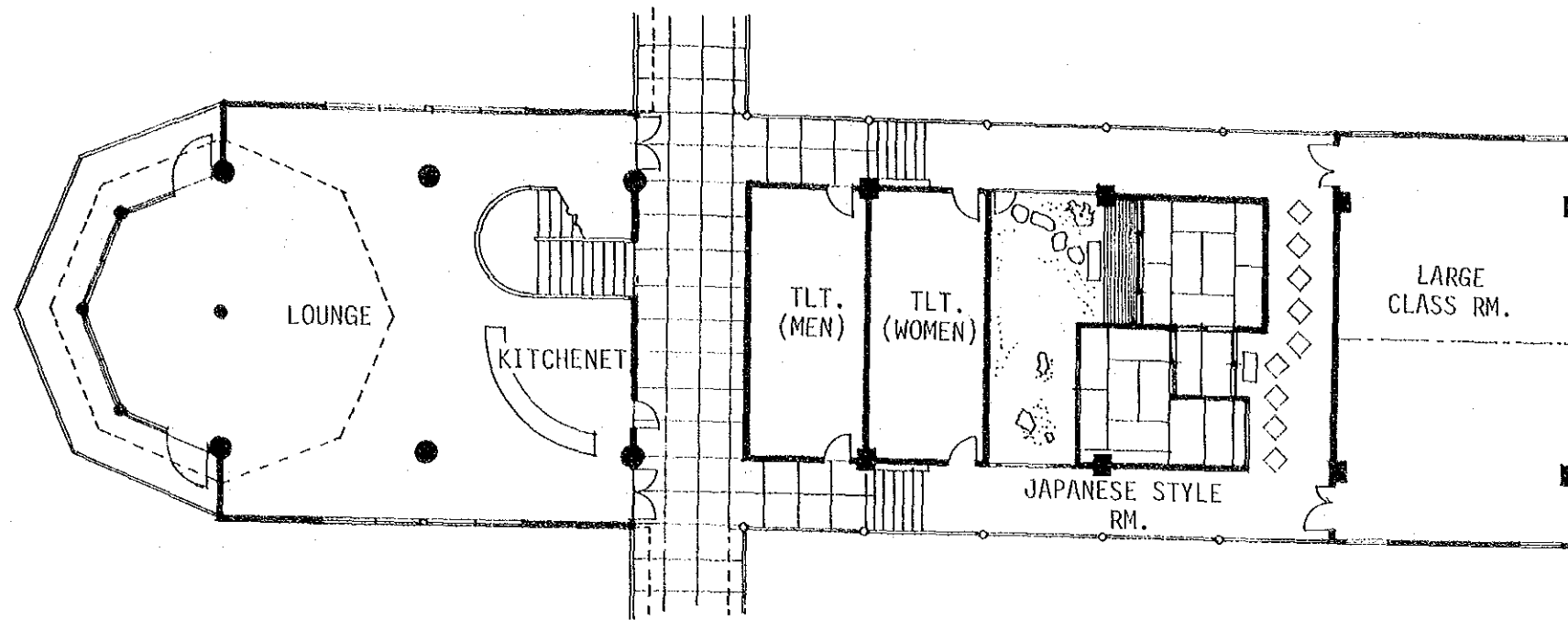


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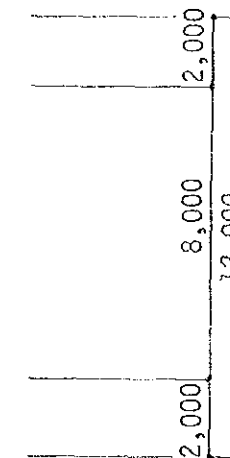
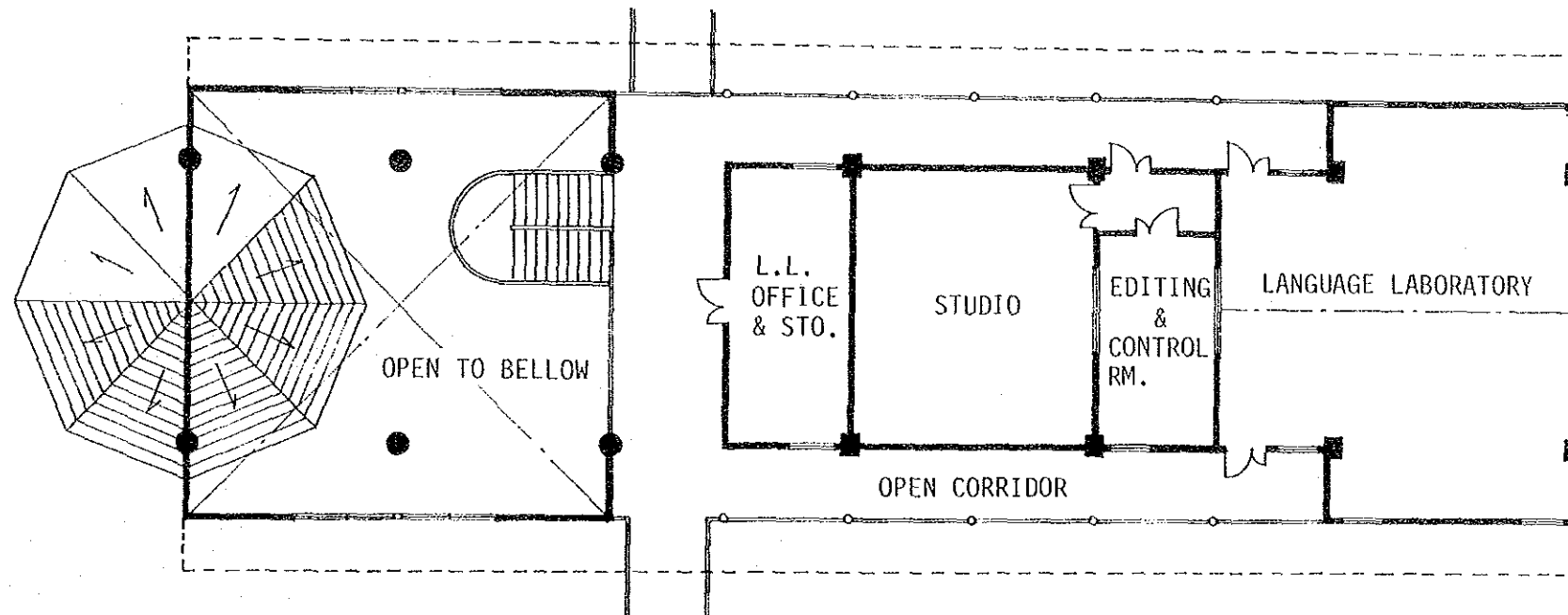


PLANS OF EDUCATIONAL / LIBRARY BLDG. S, 1:200

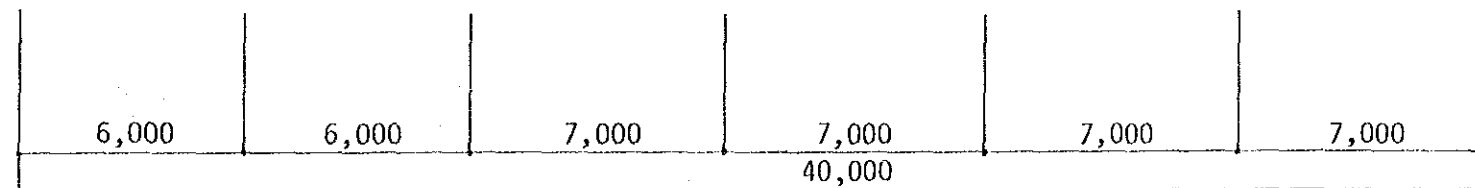




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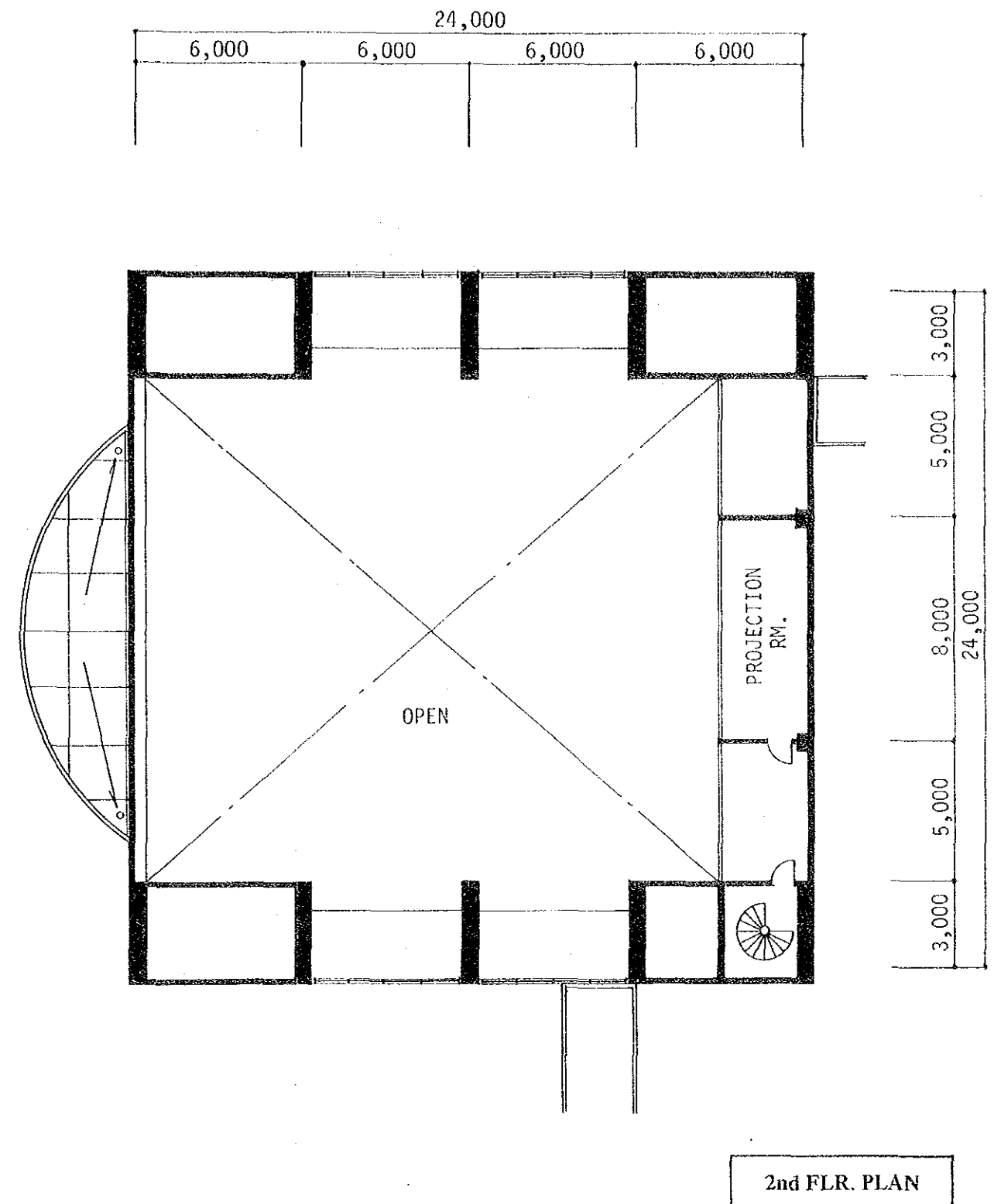
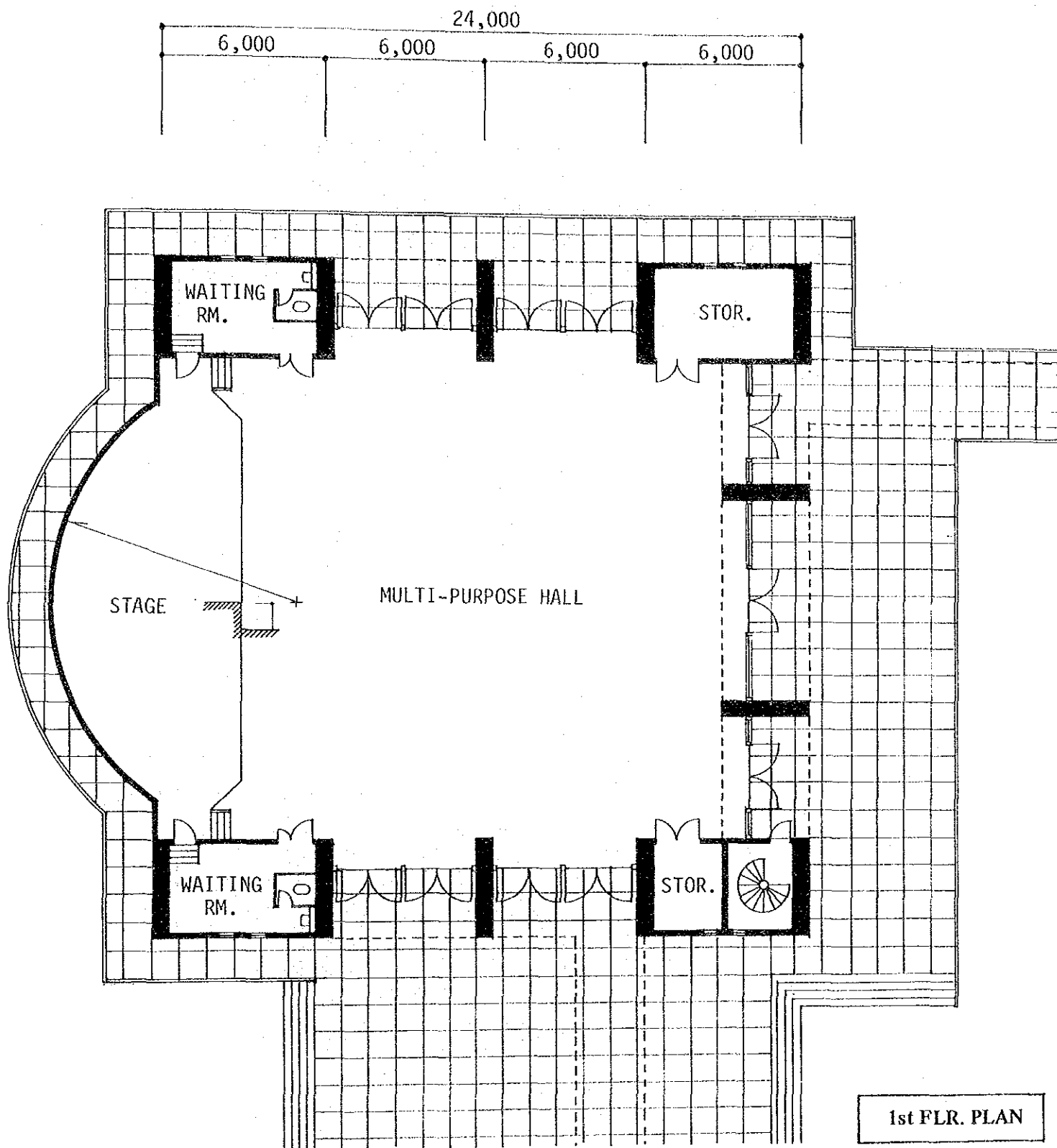


2nd FLR. PLAN



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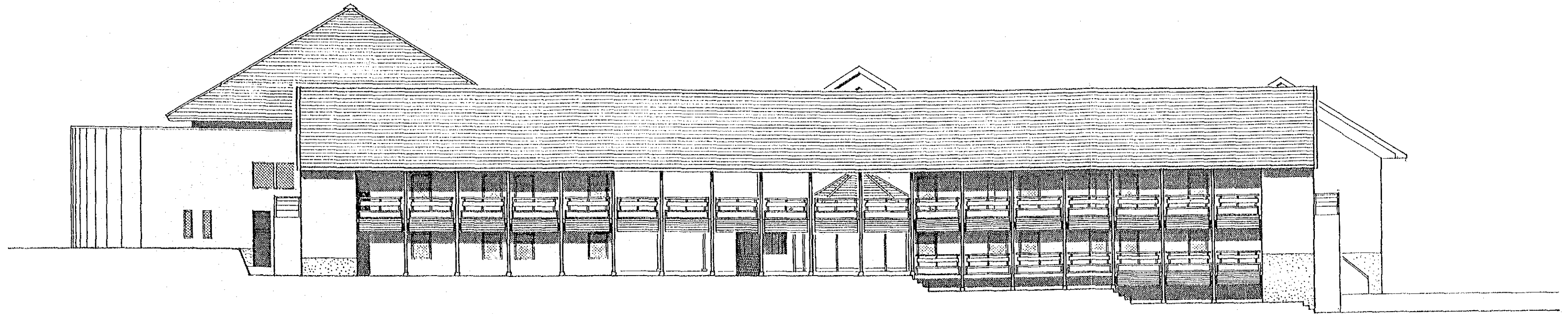


PLANS OF MULTI-PURPOSE HALL

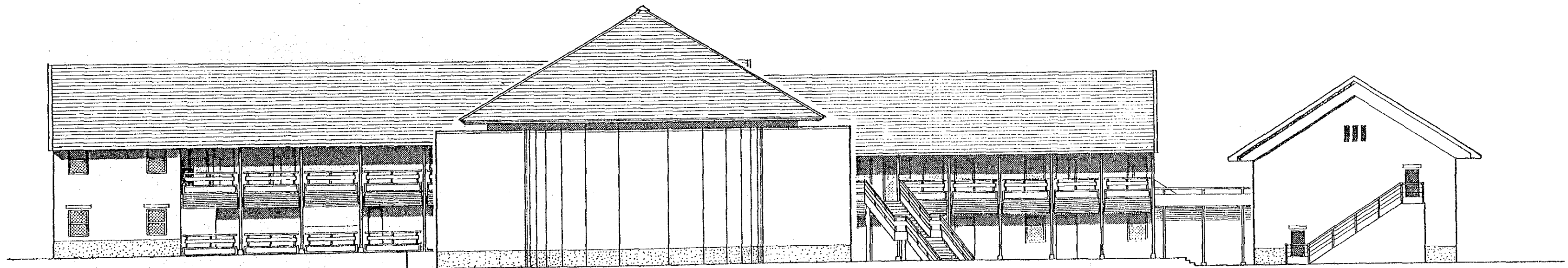
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7



SOUTH ELEVATION

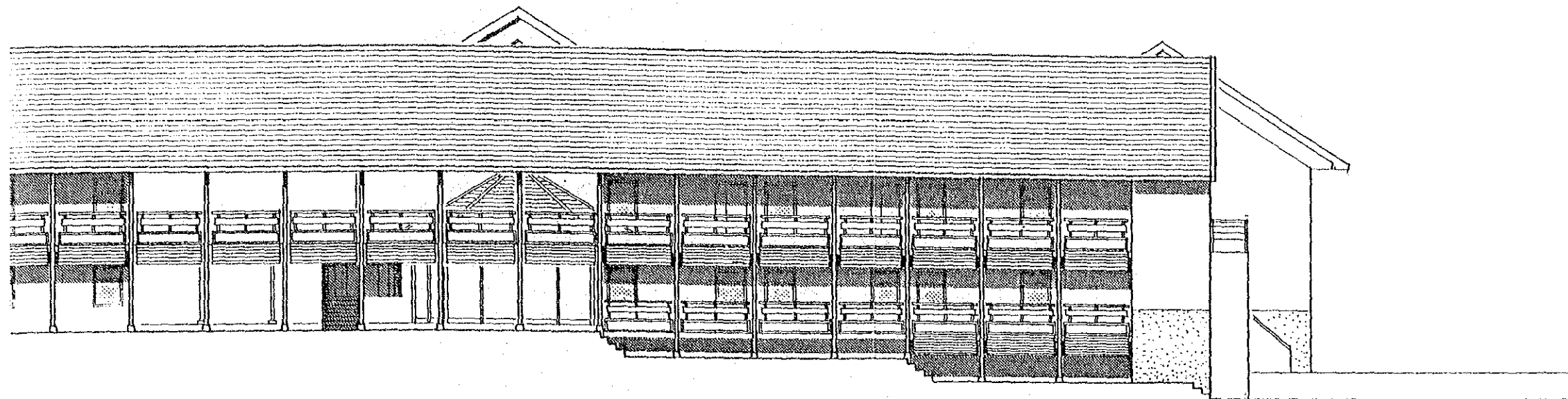


WEST ELEVATION

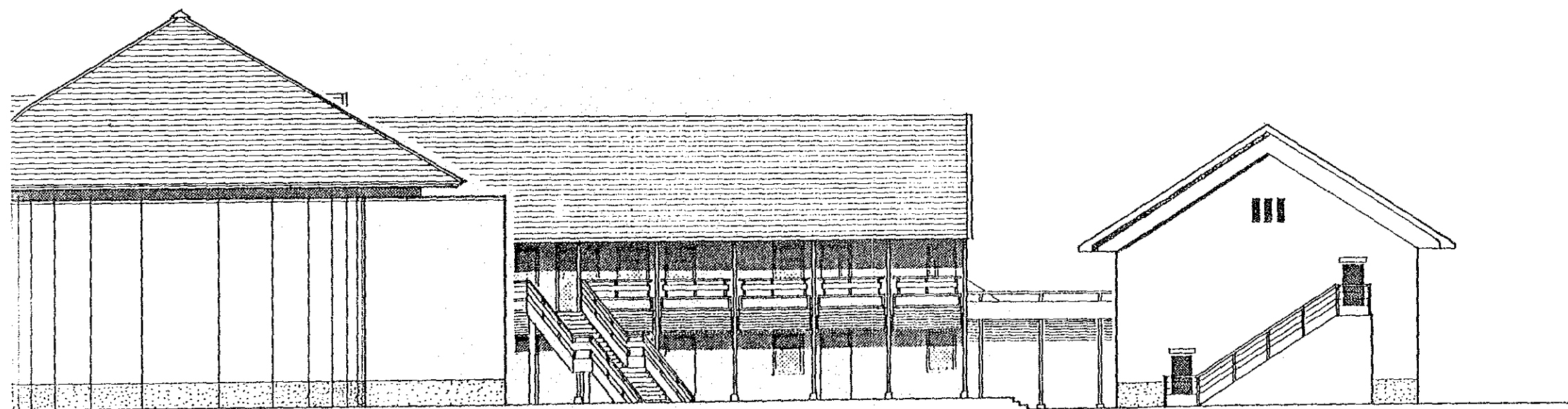
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ELEVATIONS

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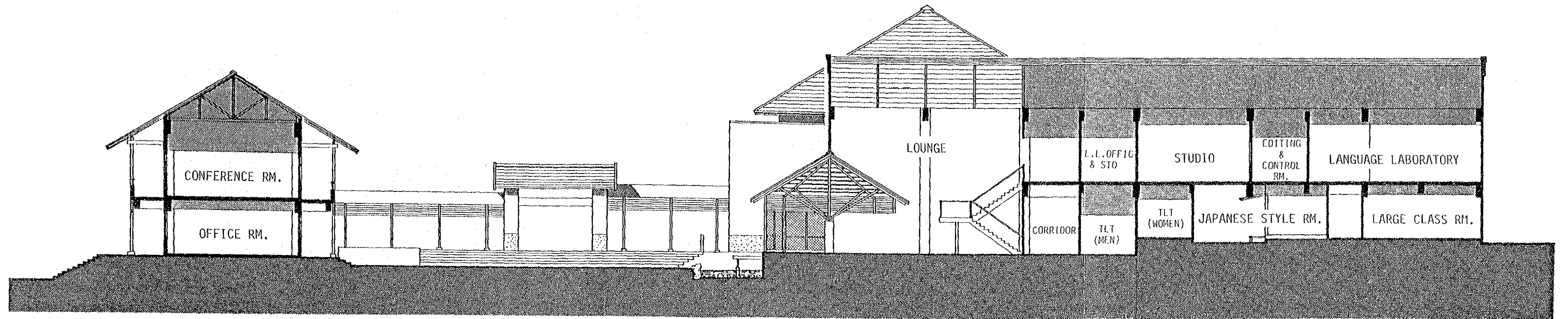


SOUTH ELEVATION



WEST ELEVATION

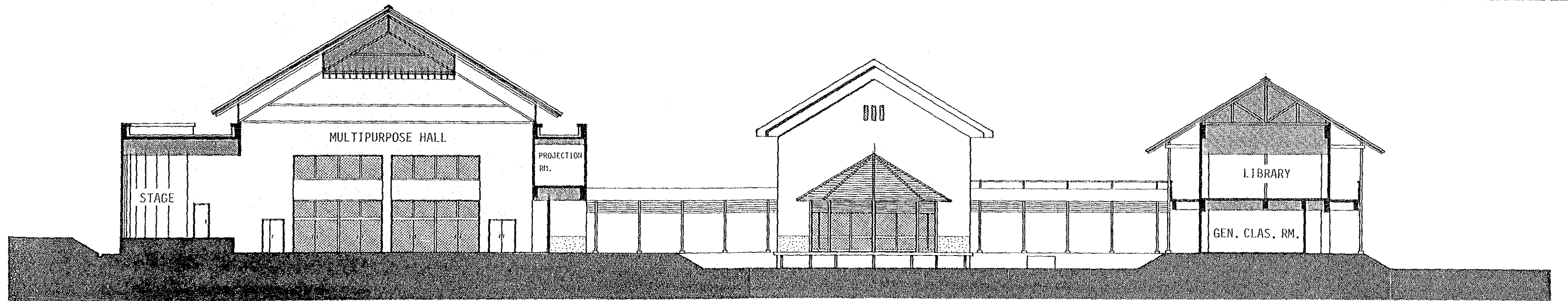
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ADMI/RESEARCH BLDG.

TRAINING BLDG.

SECTION



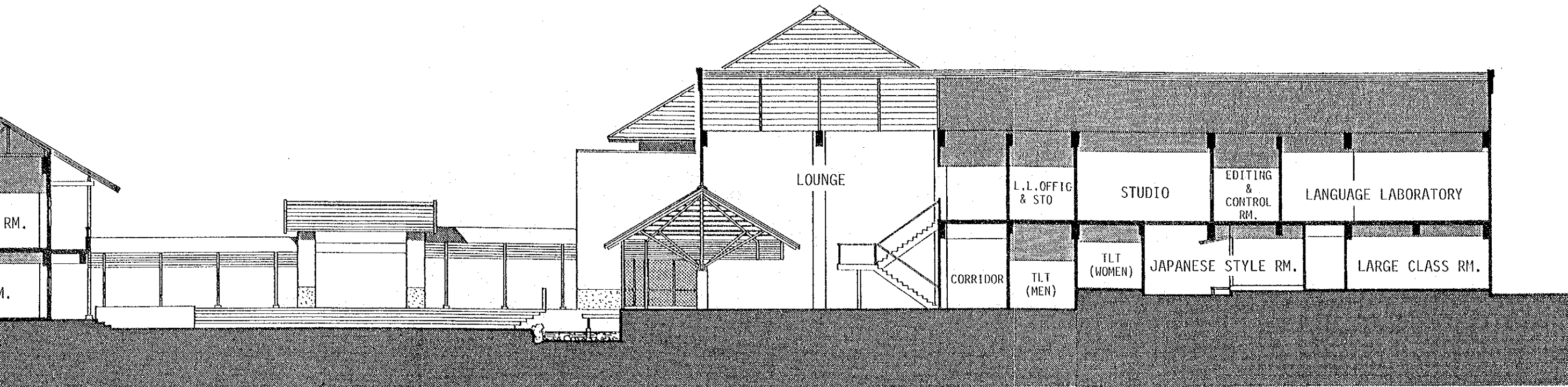
MULTIPURPOSE HALL

EDUCATIONAL/LIBRARY BLDG.

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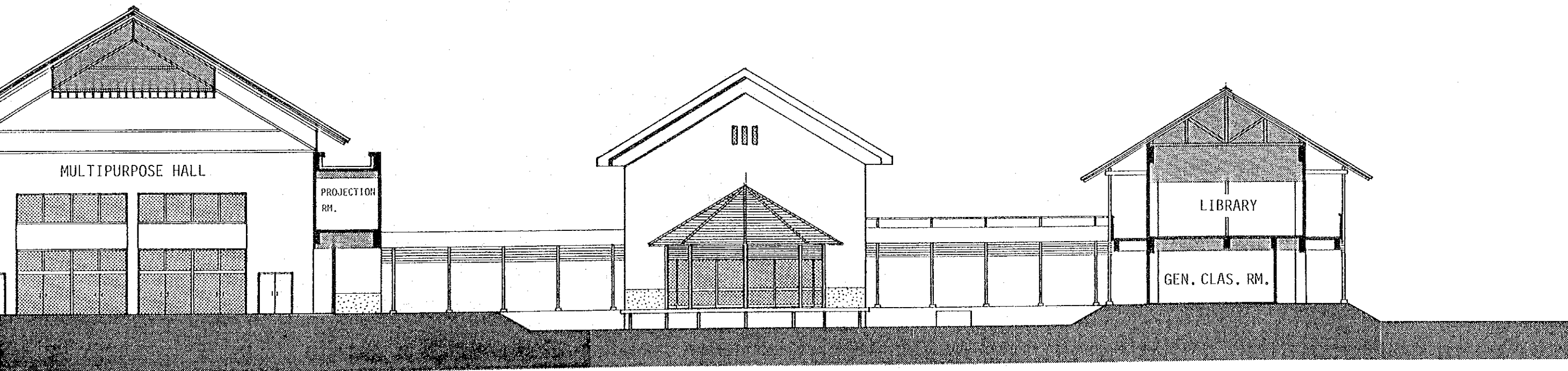
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BLDG.

TRAINING BLDG.

SECTION



MULTIPURPOSE HALL

EDUCATIONAL/LIBRARY BLDG.

SECTION

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4-4 Construction Plan

4-4-1 Construction Conditions and Construction Policy

(1) Outline

The site of the Center is in a block of the new campus of Padjadjaran University as a suburb of Bandung, Jatinangor, which has been developed as a research and educational city. It is located at the skirts of north mountains, which forms gently sloping hills. Though some facilities have already been completed, the construction of infrastructure is still in the primary stage. A circular road on campus will be completed by March 1986 and an approach road from the Bandung-Smedan road outside the campus by the end of 1986. Therefore, there is no problem for construction vehicles, especially for heavy vehicles, to access to the site. Materials and equipment for construction, after being disloaded at Jakarta, are transported for a long distance so that a transportation plan shall be careful enough to avoid damages to them or the delay of works.

The facilities of the Faculty of Letters are scheduled to be constructed from 1986 in parallel with the construction of the Center based on the Campus Removal Plan. The routes, construction terms, and construction method of such infrastructure as electricity, water supply drainage, telephone, roads, etc. for the Faculty of Letters and for the Center are closely related. Therefore, thorough discussions and close cooperation will be required for their relations. As the facilities are not built on flat ground, it is also required to have meetings with Indonesian contractors about the connection with other facilities. Rainwater drainage is not completed yet so that temporary drainage shall be required when the geographical conditions of sloping ground and the meteorological conditions of much rainfall are taken into account. Furthermore, security measures shall be considered because the outskirts of the site is under way for an urban development plan.

(2) Term of Works

The Center consists of 1-story and 2-story buildings. The term of construction works for the main buildings, including preparation

and inspection, is to be 11 months considering the fact that the site is slanting, facilities consist of four buildings and work will be inefficient in the rainy season.

(3) Construction Method

The main implementation body of the Project is Padjadjaran University, under the jurisdiction of the Directorate General of higher Education, the Ministry of Education and Culture. Construction works and equipment procurement are put out to contract in lump sum from the main implementation body to a Japanese contractor. A contractor is selected at an open tender. The contract becomes effective upon the verification by the Japanese Government. The procedures to the verification are as follows:

- 1) Preparation for tender documents
- 2) Establishment of prequalification conditions for tenderers
- 3) Investigation of prequalified tenderers
- 4) Selection of qualified tenderers
- 5) Site explanation
- 6) Tender
- 7) Evaluation of tender and selection of contractor
- 8) Affairs related to construction contract

4-4-2 Scope of Work

The Project is implemented by the mutual cooperation of Japan and Indonesia. The scopes of work to be covered by the Japanese Grand Aid and to be executed on the responsibility of the Government of Indonesia are as shown below.

- (1) Scope of Work to be Covered by the Grant Aid of the Government of Japan
 - 1) Design, supervision, and assistance of tendering and contracting
 - 2) Construction works of the facilities (including the installation of septic tank)
 - 3) Procurement of equipment included in the Project

- (2) Scope of Work to be Executed by the Government of Indonesia
- 1) Securing of the construction site
 - 2) Removal of the obstacles on the site and grading
 - 3) Construction of roads and gates outside and inside of the site
 - 4) Acquisition of permission and approval concerning construction
 - 5) Construction of infrastructure; provision and connection of roads, water drain, electricity, telephone line, etc.

4-4-3 Supervision of Construction

As the Project is one of the Japanese Grant Aid Projects, a contractor is selected through a tender among the qualified Japanese candidates with rich experience and stable management. To progress in construction works and maintain the quality of construction, the works shall be superintended by a chief engineer of much experience.

As for the supervision of construction, a resident engineer, selected among engineers who have been engaged in detail design, is placed in this position. As acting leader, architectural designer, structural engineer, plumbing and mechanical engineer, electrical engineer, equipment expert are dispatched to the site for necessary periods, when they are required.

4-4-4 Procurement of Building Materials

Most of the main building materials are now produced in Indonesia and their quantity is also enough. The following items, however, shall be imported; steels for structural use, steel sashes, thick glass, special glass, hardwares, all pipes (but those of small diameters), mechanical equipment, all electric equipment for buildings (except lighting fixtures and wires). It is evident that using domestic materials reduces the building cost and transportation cost and facilitates maintenance after the completion of the Center. Building materials necessary for the Center, judging from the function of the Center, will be procured in Japan, and those of tax free imported products, even available for procurement in Indonesia, shall be also procured in Japan for reasonable building cost.

Main building materials procured in each country are as shown in Table 4-5.

Table 4-5 Procurement of Materials

Kind	Japanese Material	Indonesian Material
Building Material	Waterproof material	Concrete aggregate
	Steel sash	Cement
	Metal work material	Reinforcing steel
	Hardware	Aluminum sash
	Acoustic insulation	Glass
	Acoustic board	Paint
		Terrazzo tile
		Wood, plywood
		Wooden door panel
Electric Equipment	Boards	Wire
	Conduit tube	Lamps
	Intercom	Wiring instrument
	Lighting fixtures	Lighting fixtures
	Automatic fire alarm	
Air Conditioning and sanitary Equipment	Separated type	Ventilation fan
	air- conditioning	Sanitary fixtures
	fixtures	Concrete pipe
	Outlet, Inlet	Fire extinguishers
	Pump	Western-style stool
	Pipe coupling, valves	
	PVC lined steel pipe	
	Fire hydrant cabinet	
	Inner apparatus of septic tank	
	Metal fittings for water supply/drainage	

4-5 Execution Schedule

The execution schedule of the Project after conclusion of E/N, when it is implemented by Japan's Grand Aid, is expected to be as follows. The works executed by the Government of Indonesia shall be performed in accordance with the following schedule.

Table 4-6 Tentative Implementation Schedule

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exchange of Notes (E/N)	□															
Design & Supervision Contract	□															
Detail Design		□	□													
Tender & Contract			□	□	□											
Supervision					□	□	□	□	□	□	□	□	□	□	□	□
Building Construction					□	□	□	□	□	□	□	□	□	□	□	□
Site Preparation				□	□											
Intake of Water, Elec. Work												□	□	□		

The facilities of the Faculty of Letters shall be completed by April, 1987, and the same shall be removed to the new campus by August, 1987.

4-6 Operation and Maintenance Cost

The operation and maintenance of the Center, after the delivery of the facilities, are carried out by Padjadjaran University. Considerable budget is required for the facilities of the Center function well. Operation and maintenance cost is roughly estimated as follows.

1) Operation expenses	
Personnel expenses	25,200,000 Rp
Office expenses	7,560,000 Rp
Running expenses	18,325,000 Rp
Subtotal	51,085,000 Rp
2) Maintenance expenses	30,291,000 Rp
3) Miscellaneous expenses (1) + (2)x 2%	1,627,000 Rp
Total	83,003,000 Rp

4-6-1 Estimate of Operation Expenses

(1) Personnel Expenses

The number of personnel at the beginning of the Center as shown on Table 3-2 of chapter 3-3-2 is expected to be 11 for administration staff and 10 for academic staff. The personnel of the Center, however consists of full-time and part-time personnel, and furthermore, the working hours of the Center tend to concentrate in the afternoon and evening and the working system is not regularly established. For these reasons it is difficult to estimate personnel expenses. Granting that monthly average personnel expenses are 100 thousand rupiahs per person, yearly personnel expenses are totaled to be 21 persons x 100 thousand Rp = 2,100,000 Rp/month x 12 = 25,200,000 Rp/month.

(2) Office Expenses

Expenses for daily office work, such as stationery and communication, is expected to 30% of the personnel expenses

$$25,200,000 \text{ Rp} \times 30\% = 7,560,000 \text{ Rp/year}$$

(3) Running Expenses

1) Electricity Rate

- a) Initial cost : 1,500 Rp/kw/month, Expected contract power
: 110 kw

$$110 \text{ kw} \times 1,500 \text{ Rp/kw} \times 12 \text{ month} = 1,980,000 \text{ Rp/year}$$

- b) Power Rate : 9.6 Rp/kwh

$$96 \text{ Rp} \times (110 \text{ kw} \times 0.6 \times 25 \text{ days} \times 8 \text{ hours} \times 12 \text{ months}) \\ = 15,206,400 \text{ Rp/year}$$

$$\text{Total 1) + 2) = 17,186,400 Rp/year}$$

2) Propane Gas Rate : 130 Rp/m³

$$3,150 \text{ m}^2 \times 0.0015 \text{ m}^3/\text{h.m}^2 \times 5 \text{ h} \times 365 \text{ days} = 8,760 \text{ m}^3/\text{year} \\ \times 130 \text{ Rp/m}^3 = 1,138,800 \text{ Rp/year}$$

Accordingly, the total running expenses are 1) + 2) = 18,325,200 Rp.

4-6-2 Maintenance Methods

(1) Building

The maintenance of the building includes daily cleaning and repairs of worn and deteriorated parts. The buildings of the Center will require exterior and interior finish repairs and small structural repairs. It is important to use the building with care and with frequent cleaning. It is recommended to repair simple damages at the time of each occurrence.

The buildings of the Center also require to be maintained in the same way. The following indicates the recommendable frequency of the building maintenance activities.

- | | |
|------------------------------|----------------|
| 1) General cleaning | 1 per day |
| 2) Window and floor cleaning | 1 per week |
| 3) General inspection | 1 per month |
| 4) Painting | |
| Outside steel | 1 per 2 years |
| Wooden parts | 1 per 3 years |
| Interior walls | 1 per 10 years |
| 5) Repair of exterior walls | 1 per 15 years |
| 6) Roof tile | 1 per 20 years |

(2) Mechanical and Electric Equipment for Building

Maintenance of mechanical and electric equipment is very important because their durabilities are generally shorter than the building itself. The maintenance includes daily inspection cleaning and repairs. It is also very important for perpetuating the life of all building facilities to record inspection results and repair all damages on each occasion.

For reference, the expected durabilities of the main mechanical and electrical equipment are shown as follows.

1) Distribution board	15 years
2) Fluorescent lamp	5,000 - 10,000 hours
3) Incandescent lamp	1,000 - 2,000 hours
4) Intercom	15 years
5) Pump	15 years
6) Air conditioner	13 years
7) Water supply pipe	15 years
8) Drainage pipe	10 years

The frequency of the maintenance activities for building installations is as follows.

1) Change of fluorescent lamps	5 tubes/month
2) Septic tank maintenance	1/month

(3) Equipment

Daily examination and care are important to maintain equipment in good condition. They are not to be repaired after they are damaged, but to be examined every time after use. It is also essential to keep equipment in order for easy confirmation of location, condition, number, etc. For this purpose, it is required to have complete equipment control. It is also recommended to establish a responsible organization and a recording system for equipment.

4-6-3 Rough Estimate of Maintenance Expenses

The maintenance expenses of the Center are estimated on the annual expenses which could be covered by the budget of each fiscal year. It

does not conform to the budgetary system of Padjadjaran University to reserve funds every year for the maintenance needed only once in a decade. For such maintenance, each budget should be individually prepared according to the necessity. The estimated maintenance expenses per year are shown in the following.

Cleaning	13,330,000 Rp
Painting	3,500,000 Rp
Mechanical and electric equipment	7,061,000 Rp
Equipment	6,400,000 Rp
<hr/>	
Total	30,291,000 Rp

(1) General Cleaning (Total floor area: about 3,150 m²)

1) Five people will be enough for daily cleaning. The estimate includes personnel expenses and miscellaneous expenses which correspond to 100% of the personnel.

$$5 \times 23 \text{ days} \times 2,000 \text{ Rp} \times 2.0$$

$$= 5,000,000 \text{ Rp./month} \times 12 \text{ months} = 6,000,000 \text{ Rp./year}$$

2) Twenty people will be necessary for weekly window cleaning (window area: about 800 m²)

$$20 \times (365 \div 7) \text{ week/year} \times 2,000 \text{ Rp} \times 2.0 = 4,200,000 \text{ Rp./year}$$

3) Fifteen people will be necessary for weekly floor cleaning (terrazzo floor/tiled floor area: about 3,820 m²)

$$15 \times (365 \div 7) \text{ week/year} \times 2,000 \text{ Rp} \times 2.0 = 3,130,000 \text{ Rp./year}$$

Accordingly, the total cleaning expenses are 1) + 2) + 3) = 13,330,000 Rp.

(2) General Inspection

For monthly inspection of the building, two people are enough to complete it in half a day. Therefore, it can be included as a part of the routine work of the maintenance staff.

(3) Painting

Painting cost is calculated based on the present construction cost. Although outside and inside parts require to be repainted at

different frequencies, frequency is assumed to be once in three years on an average. The covered area is estimated to be 30% of the whole building. At present, the painting work costs about 3,500,000 Rp. $35,000,000 \text{ Rp} \div 3 \text{ years} \div 30\% = 3,500,000 \text{ Rp/year}$.

(4) Maintenance Expenses for Mechanical and Electric Equipment

1) Septic Tank

(a) Hypochlorous acid soda

$$0.2 \text{ kg/day} \times 30 \text{ days} = 6 \text{ kg/month} \times 2,600 \text{ Rp} \\ = 15,600 \text{ Rp/month} \times 12 \text{ months} = 187,200 \text{ Rp/year}$$

(b) Examination of water, equipment inspection (monthly)

$$30 \text{ m}^3 \times 4,000 \text{ Rp/each times} = 120,000 \text{ Rp/month} \\ \times 12 \text{ months} = 1,440,000 \text{ Rp/year}$$

(c) Cleaning (monthly)

$$30 \text{ m}^3 \times 400 \text{ Rp} = 12,000 \text{ Rp/month} \times 12 \text{ months} \\ = 144,000 \text{ Rp/year}$$

(d) Slime disposal (1/6 months)

$$30 \text{ m}^3 \times 20,000 \text{ Rp} = 600,000 \text{ Rp} \times 2 = 1,200,000 \text{ Rp/year}$$

$$(a) + (b) + (c) + (d) = 2,971,200 \text{ Rp/year}$$

2) Telephone Switchboard (1/6 months)

$$800,000 \text{ Rp} \times 2 = 1,600,000 \text{ Rp/year}$$

3) Automatic Fire Alarm (1/6 months)

$$400,000 \text{ Rp} \times 2 = 800,000 \text{ Rp/year}$$

4) Sound Equipment (1/6 months)

$$800,000 \text{ Rp} \times 2 = 1,600,000 \text{ Rp/year}$$

5) Fluorescent Lamps

Granting that the average life span, the average working hours, and unit price of each lamp are 7,500 hours, 6 hours, and 650 Rp respectively, the cost of replacing fluorescent lamps amounts to the following amount when four hundred eighty 40 w lamps are required for the building.

$$480 \text{ lamps} \times 650 \text{ Rp} \div (6,500 \div 6 \div 30 \text{ days}) \text{ months} \\ = 7,489 \text{ Rp/month} \times 12 = 90,000 \text{ Rp/year}$$

Accordingly, the total equipment maintenance expenses are 1) + 2) + 3) + 4) + 5) = 7,061,200 Rp/year.

(5) Maintenance Expenses for Equipment

Though it differs depending on frequency of use, the yearly maintenance expenses of the equipment of the Center is expected to be 2% of the equipment cost.

$$320,000,000 \text{ Rp} \times 2\% = 6,400,000 \text{ Rp/year}$$

4-7 Rough Cost Estimate of the Project

The rough cost estimate of the Center, included in the scope of Indonesian portion, is as shown below.

Site clearing	15,000,000 Rp
Intake of electricity	0 Rp
Intake of telephone line 30 m	500,000 Rp
Intake of water supply 550 m	2,000,000 Rp
Intake of drainage pipe 140 m	920,000 Rp
Planting	10,000,000 Rp
Furniture/fixtures	22,000,000 Rp
<hr/>	
Total	50,420,000 Rp

Calculation of the above estimate are based on the following conditions.

Terms of construction work	11 months (for buildings)
Exchange rate	US\$ 1 = ¥240.0 = 1.117Rp
Date of estimate	As of July 1985

CHAPTER 5 PROJECT EVALUATION

CHAPTER 5 . PROJECT EVALUATION

The Project aims at propagating Japanese language as a means of mutual understanding between the Republic of Indonesia and Japan.

Recently the interrelations between Indonesia and Japan have been deepened, and in Indonesia, those who want to learn Japanese to obtain information and documents concerning Japan have rapidly been increasing. The actual state, however, of Japanese language education in Indonesia is falling short of responding to such needs, facing various problems by the shortages of Japanese language instructors, and teaching materials, as well as by unestablished teaching methods, etc. As a result, a weighty hindrance is laid on propagation and promotion of Japanese language in Indonesia.

Judging from these circumstances, to establish a Center for Japanese Language at Padjadjaran University, a leader and top runner in Japanese language education in Indonesia, and to enrich Japanese language education in Indonesia centering at the University, are required for fulfilling the above goal and are believed to be very effective.

The effects to be brought by the establishment of the Center are as follows:

- 1) Activities regarding Japanese language education and study now being conducted at the Japanese Language and Literature Course, Faculty of Letters, Padjadjaran University, will be expanded, and various activities concerning Japanese language in Indonesia will be made easier centering at the Center.
- 2) By effectively utilizing various kinds of equipment and facilities of the Center, the teaching methods, studies and development, as well as the propagation of Japanese language will be accelerated, contributing to training and upgrading of instructors.
- 3) By opening various Japanese language courses for general citizens at the Center, more Indonesian people will have the chance to acquire Japanese language, which would lay the ground stone for better understanding of Japan.

- 4) Focused at the Center, information and documents about Japan will be accumulated, and by offering them to general citizens, the fundamental knowledge concerning Japan will be propagated.
- 5) Establishment of the Center as annexed facilities of Padjadjaran University will be a trigger to promote organization and systematization of Japanese language education in Indonesia hereafter.

As mentioned above, the establishment of the Center not only contributes to the solution of various present problems concerning Japanese language education in Indonesia, but also would bring sufficient contribution to the propagation of Japanese language in Indonesia.

As for the design details of the Center, the scale and grade of the facilities are fixed with consideration of sufficient functional achievement, by providing rooms necessary for fulfilling the purposes of the Center. For designing the facilities, the site conditions, natural conditions, construction conditions and other local actualities were sufficiently reflected. Especially, natural lighting, natural ventilation and air conditioning are sufficiently taken into account. Materials produced locally are selected as much as possible, and construction techniques are also these commonly applied in Indonesia. By doing so, reduction of construction cost are tried. For maintenance and operation after completion, cares are also taken to make them easy and low cost. Also for equipment, the scale was reduced to the necessary minimum, but the functions of the facilities are to sufficiently be fulfilled.

Judging from the above considerations, facilities details of the Project retain necessary functions for fulfilment of the expected goal, contributing sufficiently to propagation and promotion of Japanese language in Indonesia. Accordingly, the effect of executing the Project could sufficiently be expected.

The burden of Indonesia for the construction of the Center for Japanese Language as well as for operation, maintenance and control after completion could not be said to be too big as compared with effects of the Center. Effectiveness and appropriateness of the Project could be sufficiently recognized.

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

Conclusion

The Study Team, at the time of studies for the basic design, confirmed requirements from the Indonesian Government first and re-researched and analyzed various problems as well as the background of the Project, as mentioned in Chapter 2 through Chapter 5. As a result, as mentioned in Chapter 4, the Study Team have prepared the basic design for the Center for Japanese Language most fit to the actual Indonesian environment.

These facilities based on the basic design study will contribute to solution of problems concerning Japanese language education and studies faced by Indonesia, and also contribute to propagation of Japanese language as means of mutual understanding between Indonesia and Japan. Efforts taken for mutual understanding between Indonesia and Japan are the indispensable themes for promoting and maintaining friendly exchange of the two countries. From the standpoint of such recognition, realization of the Center dedicated to propagation of Japanese language in Indonesia will be greatly significant.

Furthermore, if the present project would be promoted according to the following recommendations, and would be done the same for maintenance and operation after completion, the Project would bring out further effects for the purpose. This could assure sufficient appropriateness and effectiveness as a grant aid project conducted by Japanese Government.

Accordingly, the two Governments are requested to take necessary measures as soon as possible for realization of the Project.

Recommendations

In order to carry out this project smoothly and to achieve the expected goal, the following items should additionally be carried out for sure. Therefore, the Study Team strongly recommends to the Indonesian Government and related organs to take necessary measures at the proper time.

- 1) In order to effectively manage the Center, a liaison system centering at the Center should be consolidated with other related organizations.
- 2) Efforts should be taken to achieve the expected goal of the Center and, in the future, based on the results obtained at the Center, activities should be developed from the Japanese language up to Japanese studies by their own capabilities.
- 3) The activities of the Center should be developed enough to operate the Center without the dispatch of Japanese experts.
- 4) The Indonesian Government should take necessary measures for supplying manpower and for securing a permanent budget for management of the Center.
- 5) The removal operation for the Faculty of Letters, Padjadjaran University, should be completed by the time the Center will be completed, in order that the Center could be managed smoothly.

APPENDIX

- 1. Basic Design Study**
- 2. Basic Design Study (Explanation of Draft Final Report)**
- 3. List of Officials Concerned**
- 4. Data related to Padjadjaran University**
- 5. Soil Investigation Data**

APPENDIX

1. Basic Design Study (June 26, 1985 – July 18, 1985)

1-1 Team Members

Team Leader	Mr. Kaoru Hata Second Southeast Asia Division, Asian Affairs Bureau, Ministry of Foreign Affairs
Project Coordinator	Mr. Minami Nagai Second Basic Design Study Division, Grant Aid Planning & Survey Department, Japan International Cooperation Agency
Architect (Archi. Planner)	Mr. Kazuaki Ito Kisaburo Ito Architects & Engineers
Engineer (Equipment Planner)	Mr. Masafumi Kurihara Kisaburo Ito Architects & Engineers
Engineer (Facilities Planner)	Mr. Hideo Matsuda Kisaburo Ito Architects & Engineers
Designer (Archi. Designer)	Mr. Kenji Miyazaki Kisaburo Ito Architects & Engineers
Observer	Mr. Fumitomo Horiuchi Deputy Head, Japanese Studies Division, Japanese Studies Department, The Japan Foundation

1-2 Diary

Date	Travel and Place to Visit	Principal Activities
JUNE 26 Wed. Pm	Arrival of Messrs. Hata, Nagai, Ito, Kurihara at Jakarta	
27 Thu. Am	Embassy of Japan	Courtesy call and discussion on itinerary
	JICA Office	Discussion on schedule
	Pm Grant Aid Facilities	Inspection of NQCL and Emergency Medical Center
		Meeting
28 Fri. Am	Ministry of Education and Culture	Courtesy call and discussion on itinerary
		Explanation on Inception Report
		Confirmation of contents of request
		Confirmation of national level supportive systems
		Confirmation of relations with Grant Aid for Cultural activities
	Pm JICA Office	Meeting
	Arrival of Messrs. Matsuda and Miyazaki at Jakarta	
29 Sat. Am	Departure from Jakarta	
	Pm Arrival at Bandung	
		Discussion with Mr. Utomo of Padjadjaran Univ. on contents of Request
		Team meeting
30 Sun.		Team meeting

Date	Travel and Place to Visit	Principal Activities
July 1 Mon. Am	Padjadjaran Univ.	Courtesy call to President and counterpart
		Explanation on Inception Report
		Submission of Questionnaires
		Inspection of Campus
	Pm Jantinagor	ditto
		Team meeting
2 Tue. Am	Padjadjaran Univ.	Explanation on Grant Aid system and scope of works
		Hearing about personnel plan of Center
		Hearing about budgetary system
	Pm	Hearing about city plans of Bandung and Jantinagor
		Hearing about removal plan of Padjadjaran Univ.
		Discussion on site selection
		Team meeting
3 Wed. Am	Padjadjaran Univ.	Discussion on activities and curriculum of Center
		Hearing about master plan of Jantinagor Campus
		Hearing about budgetary plan accompanying Campus removal plan
	Pm	Hearing about relations between activities of Center and Padjadjaran Univ.
		Hearing about infrastructure of Jantinagor Campus

Date	Travel and Place to Visit	Principal Activities		
July 4	Thu. Am	Padjadjaran Univ.	Discussion on description of facilities	
	Pm		Hearing about infrastructure of Jantinagor Campus	
			Preparation for draft of Minutes of Discussions	
5	Fri. Am	Padjadjaran Univ.	Discussion on consensus of the Minutes of Discussions	
	Pm		Confirmation of the above	
6	Sat. Am	Padjadjaran Univ.	Signing of the Minutes of Discussions	
7	Sun. Pm	Departure of Messrs. Hata, Nagai, Ito, Kurihara from Bandung for Jakarta	Team meeting	
8	Mon. Am	Embassy of Japan	Progress reporting	
		JICA Office	ditto	
		BAPPEDA	Hearing by Messrs. Matsuda and Miyazaki about city plan of Bandung	
	Pm	JICA Office	Progress reporting and team meeting	
		Return of Mr. Hata to Tokyo		
9	Tue. Am	Padjadjaran Univ.	Team meeting and data assortment	
			Collection of infrastructural data	
	Pm	Departure of Messrs. Ito, Kurihara for Bandung	Padjadjaran Univ.	ditto
			Return of Mr. Nagai to Tokyo	

Date	Travel and Place to Visit	Principal Activities
July 10 Wed. Am	Smedan Prefectural Office	Coutesy call to Governor
		Hearing about relation of the prefecture with Jatinangor Academic City
	Pm Jantinangor	Investigation of proposed project site
	Japanese School	Collection of data on joint venture enterprises
	Japan Club	ditto
11 Thu. Am	Bandung Education Univ.	Inspection of and hearing about Japanese language training facilities
	College of Foreign Languages	ditto
	Japanese Language Institute	ditto
	Pm Padjadjaran Univ.	Inspection of library, language laboratory, classrooms
12 Fri. Am	Padjadjaran Univ.	Meeting with Director of Faculty of Literature
		Confirmation of Questionnaires
	Pm Departure of Messrs. Matsuda, Miyazaki for Jakarta	Data assortment
13 Sat. Am	Padjadjaran Univ.	Request for boring investigation and data collection
	Pm Jakarta City	Collection by Messrs. Matsuda and Miyazaki of construction data
		Data assortment

Date	Travel and Place to Visit	Principal Activities
July 14 Sun. Am	Return of Messrs. Matsuda and Miyazaki to Tokyo	Team meeting
15 Mon. Am	Padjadjaran Univ.	Hearing about national plan of removal
Pm	Departure of Messrs. Ito and Kurihara for Jakarta	Team meeting
16 Tue. Am	Japan Foundation	Hearing about Japanese language training
	Japanese Culture Center	Inspection
	JETRO	Collection of data on Joint venture enterprises
Pm	Indonesian Univ.	Inspection of American Culture Center
	Jakarta City	Collection of construction data
17 Wed. Am	JICA Office	Progress reporting
Pm	Jakarta City	Collection of construction data
		Data assortment
18 Thu. Am	Return of Messrs. Ito and Kurihara to Tokyo	


MINUTES OF DISCUSSIONS
ON
THE ESTABLISHMENT PROJECT
OF
THE CENTER FOR JAPANESE LANGUAGE
AT
PADJADJARAN UNIVERSITY

In response to the request made by the Government of the Republic of Indonesia, the Government of Japan has sent, through the Japan Internasional Cooperation Agency (hereinafter referred to as "JICA"), the Basic Design Study Team, headed by. Mr. Kaoru HATA, official, 2nd Southeast Asia Division, Asian Bureau, Ministry of Foreign Affairs. The team conducts a basic design study on the establishment project of the Center for Japanese Language at Padjadjaran University (hereinafter referred to as "the Project"), for 23 days, from 26th June to 18th July 1985.

The team has carried out field survey, had a series of discussions and exchanged views with authorities concerned of the Government of the Republic of Indonesia.

As the result of the study and discussions, both parties have agreed to recommend to their respective Governments to examine the results of the survey attached herewith towards the realization of the Project.

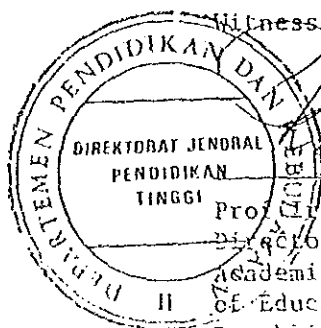
Bandung, 6th July 1985



Mr. Kaoru HATA
Team Leader
Japanese Basic Design
Study Team
JICA



Mr. Yuyun Wirasasmita, M.Sc
Rector
Padjadjaran University
Bandung
Indonesia



Witnessed by :
Prof. Dr. Sidharta Pramutadi
Director of Development of
Academic Facilities, Department
of Education and Culture, the
Republic of Indonesia

ATTACHMENTS

1. Objectives of the Project is to establish the Center for Japanese Language at Padjadjaran University, with a view to contributing to the improvement of the Japanese language education in Indonesia.
2. The Site of the project is located in the new campus of Padjadjaran University at Jatinangor in a suburb of Bandung. (hereinafter referred to as "the Project site"). The Faculty of Letters is to move to the new campus by July 1987.
The project site has been acquired by Padjadjaran University, as attached in ANNEX-1.

* Under the construction program of a new academic town in Jatinangor, major institutes of higher education in Bandung remove to the town. Among the institutes which constitutes the town, Padjadjaran University plays an integral role in overall development plant of Bandung.
3. The Japanese Study Team will convey to the Government of Japan the desire of the Government of Indonesia that the former takes necessary measures to cooperate in implementing the Project and provides necessary facilities and other items as listed in ANNEX-2 within the scope of Japanese economic cooperation in grant form.
4. The equipment for language laboratory, studio and VTR editing^m which will be extended to the Government of Indonesia under the Japanese cultural grant aid for 1985, will be utilized at the Center for Japanese Language.
5. The Government of Indonesia has understood Japan's Grant Aid system explained by the Team which includes a principle of use of a Japanese consultant firm and Japanese general contractor for the implementation of the Project.
6. The Government of Indonesia will take necessary measures as listed in ANNEX-3, on condition that Grant Assistance by the Government of Japan is extended to the Project.

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ANNEX - 2

Items requested by the Government of Indonesia, whose cost will be borne by the Government of Japan:

1. Construction of facilities
 - a. Administration section
 - b. Lecturer section
 - c. Lecture section
 - d. Library section
 - e. Seminar section
 - f. Language laboratory section
 - g. Multi-purpose room section
 - h. Lounge section
 - i. Others

2. Equipment
 - a. Language laboratory equipment (40 units are to be provided by Cultural Grant Aid as mentioned in ATTACHMENTS 4.)
 - b. Printing and book binding equipment
 - c. Equipment for activities in multi-purpose room section
 - d. Others

H

J. R. S.

ANNEX-3

Following arrangements will be required to be taken by the Government of Indonesia.

1. To secure the site for the Project
2. To clear, level and reclaim the site prior to commencement of the construction
3. To construct fence and gate in and around the site
4. To prepare the access road to the site construction
5. To obtain the building permit before construction
6. To connect distributing line of electricity to the site
7. To connect city water main to the site and/or to construct a well for water supply
8. To connect the drainage city main to the site
9. To connect the telephone trunk line to the MDF to be equipped inside the building
10. To provide general furniture and materials for daily activities
11. To bear commissions to the Japanese foreign exchange bank for the Banking Arrangement
12. To exempt taxes and to take necessary measures for customs clearance of the products at the port of disembarkation
13. To accord Japanese national, 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 Indonesia and stay therein for the performance of their work.
14. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant
15. To bear all 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.

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2. Basic Design Study (Explanation of Draft Final Report)
(September 24, 1985 – October 5, 1985)

2-1 Team Members

Team Leader Mr. Hideo Yasuki
Special Assistant to Director of
Department (Grant Aid Project Management
Department, JICA)

Architect Mr. Kazuaki Ito
(Archi. Planner) Kisaburo Ito Architects & Engineers

Designer Mr. Kenji Miyazaki
(Archi. Designer) Kisaburo Ito Architects & Engineers

Engineer Mr. Masafumi Kurihara
(Equipment Planner) Kisaburo Ito Architects & Engineers

2-2 Diary

Date	Travel and Place to Visit	Principal Activities
Sep. 24 Tue. Pm	Arrival of Messrs. Ito, Miyazaki, Kurihara at Jakarta	Joining with Mr. Yasuki and schedule arrangement
25 Wed. Am	JICA Office	Discussion on schedule
	BAPPENAS	Courtesy call
		Explanation of Project outline
		Confirmation of budgetary system
	Pm	Team meeting
26 Thu. Am	Ministry of Education and Culture	Discussion on schedule
		Explanation of Project details
	Pm	Arrival at Bandung
27 Fri. Am	Padjadjaran Univ.	Explanation of schedule and details of Draft Final Report
	Pm	Jantinangor
		Inspection of project site
		Inspection of IKOPIN
Sep. 28 Sat.		Team meeting
29 Sun.		Team meeting
30 Mon. Am	Padjadjaran Univ.	Explanation on Draft Final Report
	Pm	ditto
		Questions and answers about Draft Final Report
Oct. 1 Tue. Am	ditto	ditto
		Courtesy call to Rector

Date	Travel and Place to Visit	Principal Activities
Oct. 1 Tue. Pm	Padjadjaran Univ.	Luncheon held by Rector Party held by Japanese side
2 Wed.		Team meeting about the Minutes of Discussions
3 Thu. Am	Padjadjaran Univ.	Discussion and confirmation on consensus of the Minutes of Discussions Courtesy call to new Rector
	Pm ditto	Signing of the Minutes of Discussion
	Arrival at Jakarta	
Oct. 4 Fri. Am	Embassy of Japan	Progress reporting
	JICA Office	ditto
	Pm Departure from Jakarta	
5 Sat. Am	Arrival at Tokyo	

MINUTES OF DISCUSSIONS

The Draft Final Report of the Basic Design Study on
the Establishment Project of the Centre for Japanese Language
at Padjadjaran University

At the request of the Government of the Republic of Indonesia for grant aid for the Establishment Project of the Centre for Japanese Language at Padjadjaran University, the Government of Japan decided to conduct a Basic Design Study on the Establishment Project of the Centre for Japanese Language at Padjadjaran University (hereinafter referred to as "the Project"). The Japan International Cooperation Agency (JICA) has sent the Basic Design Study Team headed by Mr. Kaoru HATA from June 8th to July 18th, 1985.

The Mission carried out a field survey and had a series of discussions with the authorities concerned of the Government of the Republic of Indonesia.

As a result of these survey and discussions, JICA prepared and submitted a Draft Final Report on the Study and dispatched a Mission to explain and discuss this Report starting from September 24th to October 5th, 1985.

Both parties had a series of discussions on the Report and have agreed to recommend to their respective Governments that the major points of understanding reached between them, attached herewith, should be proceeded toward the realization of the Project.

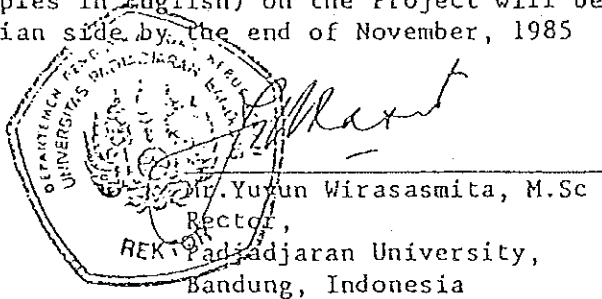
Bandung, October 3rd, 1985

Major Points of Understanding:

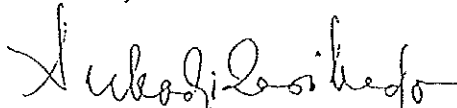
1. The Indonesian side principally has agreed to the basic design proposed in the Draft Final Report.
2. The Final Reports (10 copies in English) on the Project will be submitted to the Indonesian side by the end of November, 1985



Mr. Hideo YASUKI
Team Leader,
Japanese Study Team,
JICA


Mr. Yuxun Wirasasmita, M.Sc
Rector,
REK Padjadjaran University,
Bandung, Indonesia

Witnessed by:



Prof. Dr. Sukadji Ranuwihardjo
Director General of Higher Education,
Department of Education and Culture,
the Republic of Indonesia.

3. List of Officials Concerned

3-1 Ministry of Education and Culture

Prof. Dr. Sukadji Ronwihardjo Director General of Higher Education,
Ministry of Education and Culture

Prof. Ir. Sidharta Pramoetadi Director of Development of Academic Affairs,
Ministry of Education and Culture

Mr. Purwadi Harto Prawirosudarmo
Head of Sub-directorate of Higher Education inter Institutional Cooperation

3-2 Padjadjaran University

M.Sc. Yuyun Wirasamita Rector of Padjadjaran University

Prof. Drs. Hindersah Wiratmadja Seminar lecturer of Faculty of Economics

Prof. Dr. H. Soedjatmo Soemowerdojo
Seminar lecturer of Faculty of Medicine

Dr. Sh. R. Sri Soemantri Dean of Faculty of Law

Drs. Purwadi H.P.
Head of Sub-directorate of Inter University Cooperative,
Directorate General of Higher Education

Dra. Endah Sugiarti Satari Head of Department of Japanese Language and Literature

Drs. Adji Soemarna Lecturer of Department of Japanese Language and Literature

Prof. Dr. H. Sambas Wiradisuria
Vice Reactor of Academic and Students Affairs

Prof. Dr. M. Sc. Soeharsono Vice Rector of Administration and Finance

Drs. Abdullah Priojo Utomo	Head of Language Laboratory
Dr. Ir. M.I. Hasansulama	Senior Lecturer of Faculty of Agriculture
Dr. M. Sc. Koeswadji	Chief of University Planning and Budgetting
Ir. M. S. Hidayat Salim	Chief of University Development Project
Drs. E. Kosim	Dean of Faculty of Letters
Dr. Emuch Hermansoemantri	Deputy Dean of Faculty of Letters
Drs. Livian Lubis	New Dean of Faculty of Letters

3-3 BAPPENAS

Drs. Ketut Wiratass S.E.	Chief of Bureau for Education and Culture
Dra. Rozaifah Ilyas	Staff of Bureau for Education and Culture

3-4 Others

Ir. Sukanda M.	BAPPEDA
Drs. Soetardja	Bupati Sumedung
Drs. Itang Koernaedi Munajat	Director of Foreign Language Academy Bandung
Mr. Anggiat Sinaga	CAE Architect
Mrs. Ingkan Harahap	CAE Architect
Miss Reny Sr.	CAE Architect
Mr. Aswito As	Archi. Team
Mr. Rachman	Ditto
Mr. Mohajit	Ditto
Mr. Sukisno	Ditto
Ir. Maman Darmansyah	Soilens Engineer

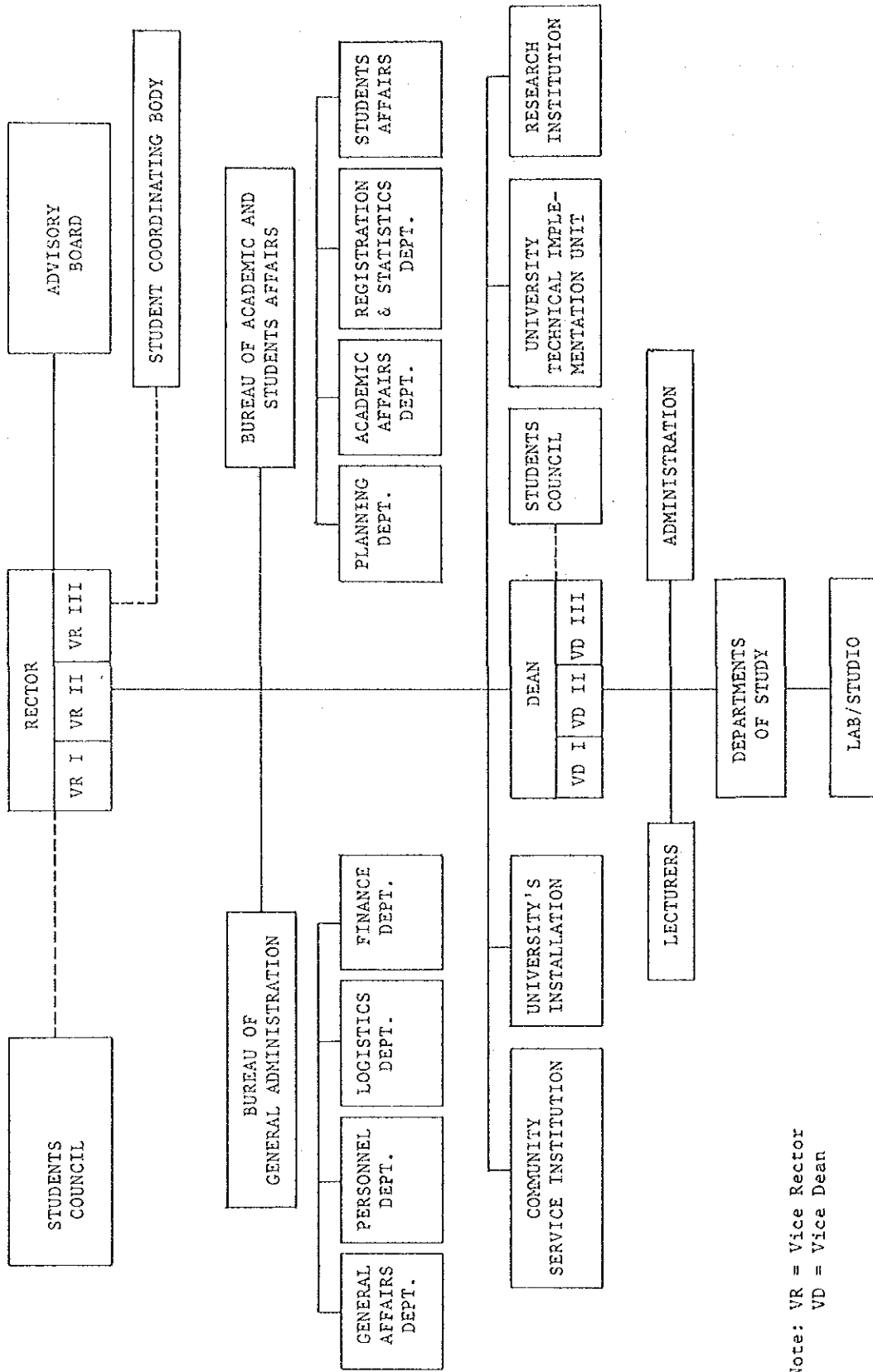
3-5 List of Local Japanese Concerned

Mr. Shigenobu Nagai	Minister, Embassy of Japan
Mr. Eiji Hiranaka	First Secretary, Embassy of Japan

Mr. Yutaka Yamamura	Representative, JICA Jakarta Office
Mr. Masayoshi Kajimoto	Deputy Representative, JICA Jakarta Office
Mr. Hiroyo Sasaki	JICA Jakarta Office
Mr. Masahiko Noro	Representative, Japan Foundation in Indonesia
Mr. Hiyoshi Ohshima	Representative, JETRO Jakarta
Mr. Tomio Yamada	Director, Japanese School
Mr. Tsuneo Ide	Japanese Language Expert, Padjadjaran University
Miss Atsuko Kakinuma	Ditto

4. Date Related to Padjadjaran University

4-1 Organization Chart



Note: VR = Vice Rector
VD = Vice Dean

4-2 Numbers of Undergraduate and Graduate Students

Table Jumlah Mahasiswa dan Lulusan pada Tahun 1979/1980 sample dengan 1983/1984 Program S1 di Universitas Padjadjaran

Fakultas	1979/1980		1980/1981		1981/1982		1982/1983		1983/1984	
	Jml. Maha- siswa	Lulusan	Jml. Maha- siswa	Lulusan	Jml. Maha- siswa	Lulusan	Jml. Maha- siswa	Lulusan	Jml. Maha- siswa	Lulusan
1 HUKUM	1430	69	1502	79	1520	103	1607	102	1670	172
2 ISIP	1577	140	1648	198	1596	181	1607	114	1666	100
3 EKONOMI	2178	175	2189	140	2129	171	2119	206	2038	285
4 SASTRA	1146	61	1271	48	1274	57	1331	53	1373	158
5 ILMU KOMUNIKASI	753	40	772	63	752	107	716	92	686	67
6 PSIKOLOGI	388	31	385	15	383	33	398	41	380	40
7 KEDOKTERAN	195	68	946	89	913	99	945	99	949	71
8 KEDOKTERAN GIGI	306	19	308	22	361	36	384	30	416	42
9 PERTANIAN	810	75	885	177	770	60	748	164	699	95
10 PETERNAKAN	364	36	407	41	401	43	427	49	440	60
11 MIPA	1661	122	1576	128	1690	205	1652	229	1530	290
JUMLAH	11528	386	11889	1000	10515	1095	11887	1179	11847	1380

4-3 Number of Matriculates

Table Jumlah Permintaan Masuk dan yang Diterima pada Tahun 1979/1980 sampai dengan 1983/1984 Program SI di Universitas Padjadjaran

Fakultas	1979/1980		1980/1981		1981/1982		1982/1983		1983/1984	
	Permin- taan	Diteri- ma	Permin- taan	Diteri- ma	Permin- taan	Diteri- ma	Permin- taan	Diteri- ma	Permin- taan	Diteri- ma
1 HUKUM	1706	202	2717	210	3344	214	6303	215	6612	200
2 ISIP	1201	233	1920	227	2668	260	6927	248	7095	248
3 EKONOMI	3227	211	4543	227	5507	250	8954	237	8664	241
4 SASTRA	919	268	1314	271	1586	271	6946	221	8053	229
5 ILMU KOMUNIKASI	731	101	922	93	1169	96	3880	91	4105	82
6 PSIKOLOGI	219	57	232	45	541	45	2086	58	1783	52
7 KEDOKTERAN	807	109	1062	117	1166	121	2313	128	2150	131
8 KEDOKTERAN GIGI	303	55	258	56	400	59	853	60	821	70
9 PERTANIAN	1280	106	1717	114	1848	126	4574	127	3948	125
10 PETERNAKAN	365	62	555	67	524	67	2150	69	2035	76
11 MIPA	817	196	1018	189	1167	187	4838	192	4423	208
JUMLAH	11573	1600	16258	1616	19918	1695	49824	1646	49689	1662

4-4 Research Activities

Scientific Activities of Teaching Staff of Department of Japanese Language and Literature

Scientific Papers

No.	Titles	Author	Year
1.	Basic Japanese I	Group	1974
2.	Basic Japanese II	Group	1974
3.	Setsuzokusi	Group	1978
4.	A Brief Note on Kanji	Itang K	1976
5.	Introduction to Classical Chinese Literature in Japanese	Itang K	1980
6.	Simple Classical Chinese Literature	Itang K	1981
7.	The Role of Kata Kana Characters in the Writing of Loan Words Viewed from Japanese Sound	Itang K	1981
8.	Characteristics of Japanese Characters	Itang K	1982
9.	Pronouns of KO-SO-A-DO	Itang K	1982
10.	Nihongo Bunpo	Wivi I	1975
11.	Outline of Japanese History	Adji S	1977
12.	Japanese Grammar	Adji S	1977
13.	Outline History of Japanese Literature	Endah S	1978
14.	Introduction to Japanese Literature History	Endah S Tini R	1983
15.	Nihonjijo	Niniek S	1979
16.	Nihongo Nichijo Kaiwa	Imas S	1983
17.	Nihongo so ii mawashi	Elly S	1980
18.	Principles of Translation	Wivi S Erlina	1983

4-5 Researches

No.	Titles	Personnel	Year
1.	Preparation for the Publication of a book on Basic Japanese Language	I. Kondo	1980
2.	Nihongo Setuzokushi	Y. Morita	1978
3.	The Meanings of Kanji	E. Tajiri	1981
4.	The Role of Japanese Housewives	Kimi Hara	1981
5.	Comparative Study on Indonesian and Japanese Transitive and Intransitive Verbs	Okumora	1983
6.	Preparation for Kyokusho	A. Kakinuma	1984
7.	Modern Japanese Literature	Takamatsu	1984
8.	Modern Japanese Literature	T. Ide	1985

In doing the researches, all the members of the members of the teaching staff were actively involved.

Seminars and Ungradings

No.	Titles	Speakers	Year
1.	On Japanese Language	K. Shiina	1970
2.	Junkaishido	S. Suzuki Tamura Otsubo	1977
3.	Junkaishido	Sabata Himono kobori	1978
4.	High-school Japanese Teaching in West Java	Group	1978
5.	Junkaishido	Kubota Arima Kitoyo	1980

4-6 Scholarship for the Teaching Staff

All the members of the teaching staff have taken certain study programmes in Japan

Nos.	Names	Institution	Year	Sponsor
1.	Drs. I.R. Koernaedi	Waseda Uni. Waseda Uni., Daito Bunka Uni.	1969-1971 1980	Mombusho Ass. of Inter- national Ed. Japan
2.	Dra. Wiwi Ishak	Waseda Uni.	1979-1980	Jap. Foundation
3.	Drs. A. Sumarna	Waseda Uni.	1969-1980	Mombusho
4.	Drs. Endah S.	Tokyo Uni.	1966-1972	Mombusho
5.	A. Surachmat, M.A	Tokyo Uni. Osaka Uni.	1968-1972 1977-1980	Tenri Uni. Mombusho
6.	Dra. Niniek S.	Tenri Uni. Tokyo Uni.	1970-1971 1973-1975	Tenri Uni. Mombusho
7.	Dra. Yuliasih	Waseda Uni.	1973-1975	Mombusho
8.	Dra. Yetty S	Waseda Uni.	1978-1979	Jap. Foundation
9.	Dra. ETTY K.H.	Tokyo Uni.	1975-1977	Mombusho
10.	Dra. Imas S.U.	Tokyo Uni. Waseda Uni.	1976-1978 1982-1983	Mombusho Jan. Foundation
11.	Dra. Erlina Dj.	Chikushi Uni.	1973-1974	Mombusho
12.	Dra. Elly S.	Waseda Uni.	1979-1980	Mombusho
13.	Dra. Tini R.	Asia-Africa Uni.	1978	
14.	Drs. Adung D.	Tokyo Jap. Centre	1981-1982	Jap. Foundation
15.	Drs. Nandang	Waseda Uni.	1984-1985	Mombusho

4-7 Standard Room Areas

RUANG	A.J. METRIC	UNESCO (UNAIR) Konsultan WORLD BANK	JAPAN	DIPILIH
Ruang Kuliah besar (Hall)	1,7 m ² /mhs.		1,0 - 2,0 m ² /mhs.	1,0 m ² /mhs.
Ruang Seminar	1,8 m ² /mhs.			2,8 m ² /mhs.
Ruang kuliah 20 td		2,0 m ² /mhs.	2,0 - 2,4	2,0 m ² /mhs.
40 td		1,7 - 2,0 m ² /mhs.	1,8 - 2,4	1,7 - 2,0 m ² /mhs.
60 td		1,7 m ² /mhs.	1,6 - 2,0	1,7 m ² /mhs.
80 td		1,0 - 1,5 m ² /mhs.		1,2 - 1,5 m ² /mhs.
100 td		1,0 - 1,2 - 1,5 m ² /mhs.		1,0 - 1,2 m ² /mhs.
150 td		0,8 m ² /mhs.		0,8 m ² /mhs.
Psychology Lab. Laboratorium Psikologi.	9,8 m ² /mhs.			9,8 m ² /mhs.
Sos. pol				1,2 - 3 m ² /mhs.
Bangunan Agro				3,5 - 5 m ² /mhs.
Kompleks Teknik Kedokteran				5 - 6 m ² /mhs.
Ruang Rektor				0 - 10 m ² /mhs.
Ruang Pembantu Rektor				35 - 50 m ²
Head Off - Ruang Dekan	20 m ² /orang.			25 - 30 m ² /orang.
Profesor	15 m ² /orang.		18	20 m ² /orang.
Lektor	7,5 m ² /orang.		18	18 - 21 m ² /orang.
Asisten Dosen	5 m ² /orang.		10	9 - 11 m ² /orang.
Asisten mahasiswa	2,7 m ² /orang.		8,5	6 - 7 m ² /orang.
Ruang rapat	2,5 m ² /orang.		2,0 - 2,5	3 - 4 m ² /orang.
Kantor Sekretariat	33,8 m ² /orang.			1,9 - 2,5 m ² /orang.
Office	4,5 m ² /orang.		4,5 - 7,0	20 m ² /orang.
Perpustakaan	1,6 m ² /orang. Pemakai perpustakaan diperhitungkan 25% jumlah mahasiswa		0,8 - 2,0	4,5 m ² /orang.
Ruang buku	1 m ² /150 vol.			1,6 m ² /orang.
Gudang	0,45 m ² /mhs.			1 m ² /160 - 272 vol.
Hal dan selasar, diperhitungkan				1 m ² /160 - 272 vol.
				25 - 35% luas ruang efektif.

5. Soil Investigation (1)

PROJECT : Centre for Japanese Language 2 floors building		<h2 style="margin: 0;">BORING LOG</h2>			
JOB NO. : 1143 CLIENT : K. ITO ARCHITECTS & ENGINEER LOCATION : KATHANGOR, NEAR BANANGOR BORE HOLE NO. : 1 ELEVATION COORDINATES : DEPTH : 20.07 M. GROUND WATER LEVEL : -4.70 M. IN DEPTH		DATE STARTED : July 17, 1985 DATE COMPLETED : July 18, 1985 BORING METHOD : Coring, Sampling SAMPLING METHOD : Thin Wall (Shelby) Tube STANDARD PENETRATION TEST TYPE : Automatic Hammer (A.P.T.)			
FORMAN : RACHMAN DRILL MASTER : RACHMAN		LOGGED BY : SUDHYA REVIEWED BY : MINU WIDOWA		DRAWN BY : ODDY S. CHECKED BY : WISUTJUNI	
APPROVED BY : RUMIDIONG					

SCALE	SAMPLE	ELEVATION IN METERS	DEPTH IN METERS	USCS SYMBOL	GRAPHIC SYMBOL	ROCK / SOIL DESCRIPTION	POCKET PENETRATION TEST		STANDARD PENETRATION TEST					RECOVERY	
							DEPTH IN METERS	POCKET PENETRATION TEST VALUE	DEPTH IN METERS	NUMBER OF BLOWS (60 CM)	GRAPH OF N / FOOT				
		1.00		CH	[Hatched]	SILTY CLAY, dark reddish brown coloured, high plastic, trace organic matter at the upper part, medium stiff.	1.00	2.20							
		1.50					1.80	1.50	1.95	7					
		3.00		CH	[Hatched]	CLAY, light reddish brown coloured, high plastic, stiff.	3.00	3.00							
		4.00					4.00	3.75	4.25	11					
		5.00					4.45	4.00		30					
		6.00		ML	[Dotted]	TUFFACEOUS CLAYEY SILT, light yellowish brown coloured, trace fine grained sand, stiff.	6.00	3.25							
		7.00					6.40	3.00	6.80	10					
		8.00					6.30	3.00		30					
		9.00		SM	[Cross-hatched]	TUFFACEOUS SILTY SAND, dark grayish brown coloured, fine grained sand, medium cemented, medium dense.	9.00	3.75							
		9.30					8.00	3.00	8.15	30					
		9.40					8.45	2.75							
		10.00					9.30	3.75							
		10.25					9.30	4.00	9.95	38					
							10.25	4.5		30					
					[+]	TUFF BRECCIA, light yellowish gray & brown coloured, slightly to moderately weathered, fine to medium grained, angular fragments 2-5 cm, maximum sized 15 cm, subrounded, moderately hard.	11.00	4.5							
							12.00	4.5	12.15	50					
							12.25	4.5		5					
							12.00	4.5							
							14.00	4.5	14.00	50					
							15.00	4.5		5					
							15.00	4.5							
							16.00	4.5	16.00	50					
							17.00	4.5		4					
							17.00	4.5							
							18.00	4.5							
				SP	[Dotted]	SAND, few fossils, dark gray coloured, fine to medium grained sand, angular gravel 0.2-5 cm, subrounded, medium, dense (completely weathered tuff breccia).	19.00	4.5							
							20.00	4.5	20.00	50					
							20.07	4.5							
							20.07	4.5							
						END OF THIS BORING, CASING DOWN TO -17.10 METERS DEPTH.									

WEATHERING		HARDNESS OF ROCK		HARDNESS OF SOIL		Proportions Used	
F	rock fresh, crystals bright, few joints may show slight staining.	very soft	can be scratched easily with finger nail.	140lb. Wt x 30" Fall on 2" O.D. Sampler			
VI	rock generally fresh, joint stained, some staining may show clay if open.	soft	can be scratched with finger nail.	Cohesive/less Cohesive			
SW	rock generally fresh, joint stained and discolored, staining extends into rock up to 1 in. Open joints may stain clay.	moderately hard	can be scratched easily with knife, can't be scratched with finger nail.	0 to 10	loose	0 to 4	soft
MW	significant portions of rock show discoloration and moderate staining, cracks develop.	hard	difficult to scratched with knife.	10 to 30	medium dense	4 to 6	medium stiff
W	all rock except quartz discolored or stained, some fragments of strong rock may still left.	very hard	can't be scratched with knife.	30 to 50	dense	6 to 15	stiff
CW	mass extensively reduced to "Soil" with only fragments of strong rock remaining, rock required for "Soil".			50+	very dense	10+	hard

FORM SF 010

LEMBAR A.I.I.

Soil Investigation (2)

PROJECT		BORING LOG		P.T. SOILENS	
Centre for Japanese Language 2 floors building					
JOB NO.	1113	DATE STARTED	July 30, 1983		
CLIENT	KI ITO ARCHITECTS & ENGINEERS	DATE COMPLETED	July 21, 1983		
LOCATION	JATINANGOR, NEAR BANDUNG	BORING METHOD	Coring, Sampling		
BORE HOLE NO.	2	SAMPLING METHOD	Thin Wall (Shallow) Tube		
ELEVATION		STANDARD PENETRATION TEST TYPE	Automatic Penetration (A.P.)		
COORDINATES					
DEPTH	13.95 M.				
GROUND WATER LEVEL	-3.75 M. IN DEPTH.				
LOGGED BY	Suryadi	DRAWN BY	Dedy S. Wiratunim		
REVIEWED BY	Wenyu Wibowo	CHECKED BY	Wiratunim		
APPROVED BY	Allmentolo				

SCALE	SAMPLE NO.	ELEVATION in meter	DEPTH in meter	USGS SYMBOL	GRAPHIC SYMBOL	ROCK / SOIL DESCRIPTION	DEPTH in meter	POCKET PENETRATION TEST 4" x 1/2" x 1/2"	STANDARD PENETRATION TEST		RECOVERY %
									DEPTH in meter	NUMBER OF BLOWS (Blows/cm)	
		1.00	1.00	CH	[Symbol]	SILTY CLAY, light reddish brown coloured, high plastic, medium stiff.	1.00	2.50			
		1.50	1.50	CH	[Symbol]	CLAY, light reddish brown coloured, high plastic, medium stiff to very stiff.	1.50	1.50	1.58		
			3.00				3.00	4.00			
		5.00	5.00				4.00	> 4.5	4.33		
		5.25	5.00	ML	[Symbol]	TUFFACEOUS CLAYEY SILT, light yellowish brown coloured, trace fine grained sand, very stiff.	4.45	2.30			
			7.00				5.00	4.00			
			7.00	SM	[Symbol]	TUFFACEOUS SILTY SAND, dark grayish brown coloured, fine grained sand, medium cemented, medium dense.	5.25	4.00	3.40		
			8.00				5.70	4.2			
			7.00				8.80	> 4.5			
			7.00				7.45	> 4.5	7.15		
			8.00				8.00	> 4.5			
			8.00				8.00	> 4.5	8.15		
			10.00				8.45	> 4.5			
			10.00				10.00	> 4.5			
							11.00	> 4.5	11.00		
							11.00	> 4.5			
							12.00	> 4.5			
							12.50	> 4.5			
							13.00	> 4.5	13.00		
							13.11	> 4.5			
							14.00	> 4.5			
							15.00	> 4.5	15.00		
							15.12	> 4.5			
							16.00	> 4.5			
							17.00	> 4.5			
							18.00	> 4.5			
							19.00	> 4.5			
			20.00			END OF THIS BORING CASING DOWN TO -13.00 METERS DEPTH.	20.00	> 4.5			

WEATHERING	HARDNESS OF ROCK	HARDNESS OF SOIL	Procedures Used
* rock fresh, crystals bright, few joints may show slight staining. * rock generally fresh, joints stained, some joints may show clay if open. * rock generally fresh, joint stained and discoloration extends into rock up to 1 in. Open joints contain clay. * significant portions of rock show discoloration and weathering effects, except quartz. * all rock except quartz discolored or stained some fragments of all strong rock usually left. * mass effectively reduced to "Soft" with only fragments of strong rock remaining. * rock reduced to "Soft".	very soft soft moderately hard hard very hard	can be scratched easily with finger nail. can be scratched with finger nail. can be scratched easily with knife, can't be scratched with finger nail. difficult to be scratched with nails. can't be scratched with nails.	1 to 2" O.D. Sampler Cohesive Density Cohesive Consistency 3 to 10 loose 10 to 20 medium dense 20 to 30 dense very dense 3 to 4 soft 4 to 6 medium stiff 8 to 15 stiff hard

FORM SF 918

LEMBAR A.1.2

JICA