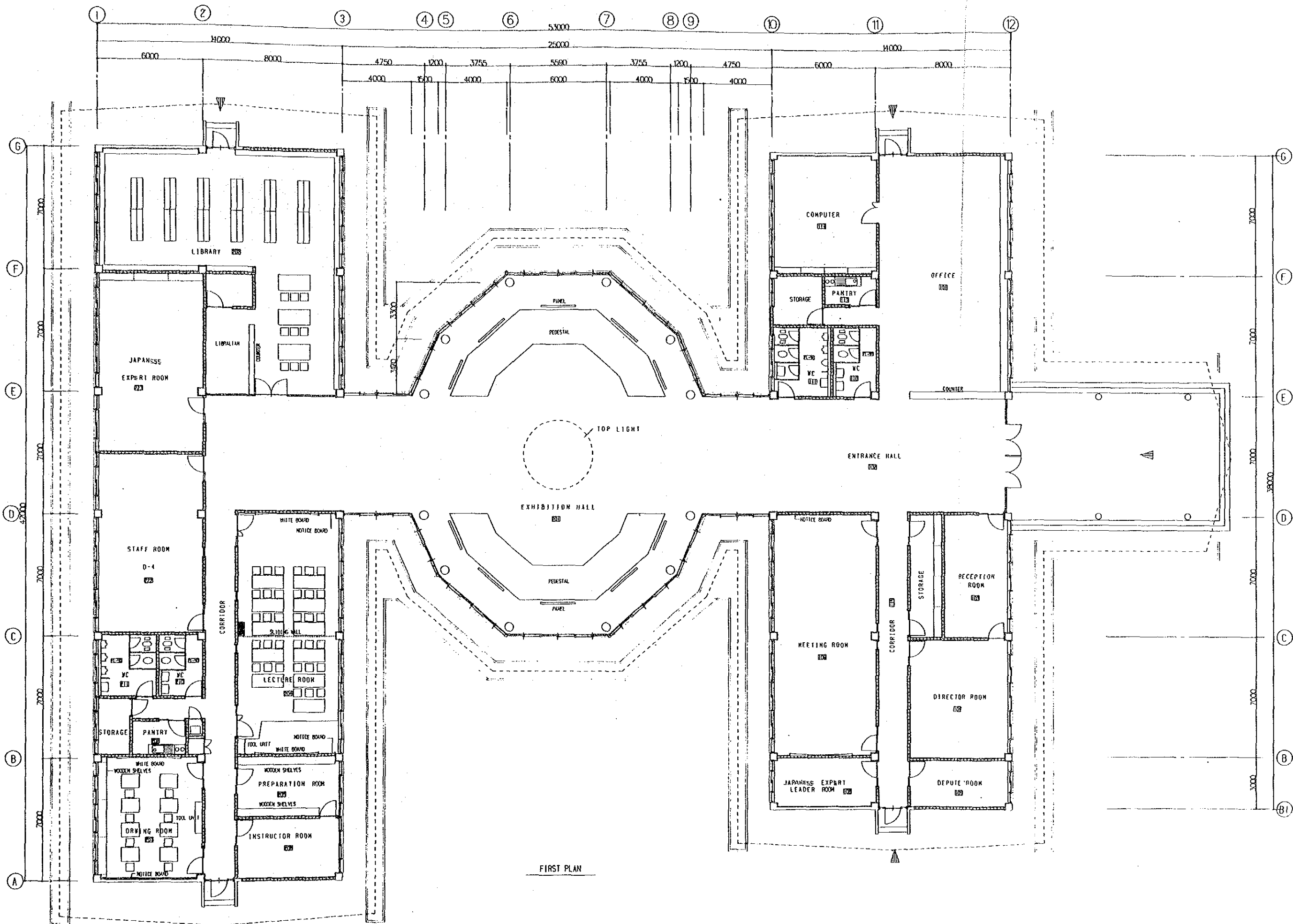


5-12 Basic Design Drawing



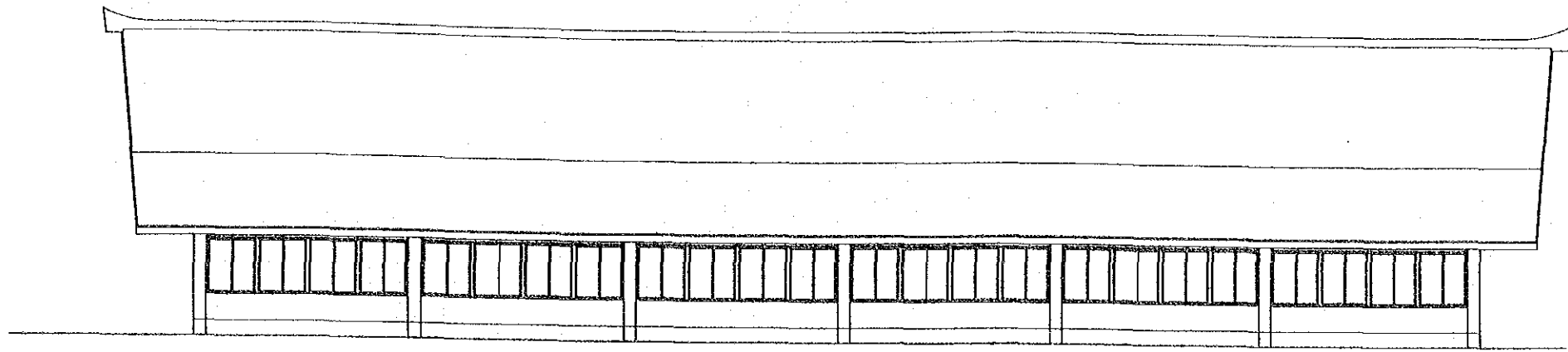
Layout Plan



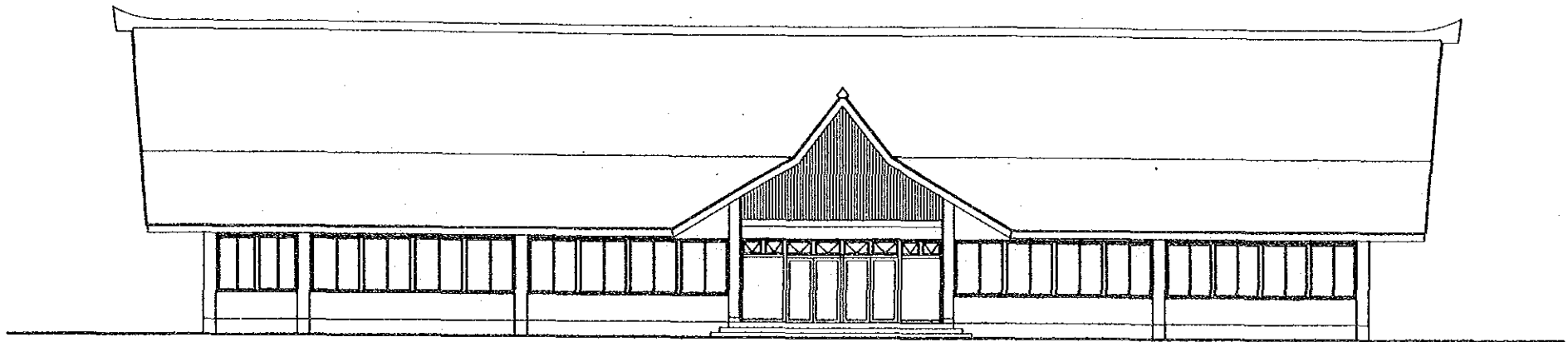
FIRST PLAN

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	SCALE	MAIN BUILDING 1ST FLOOR PLAN	2

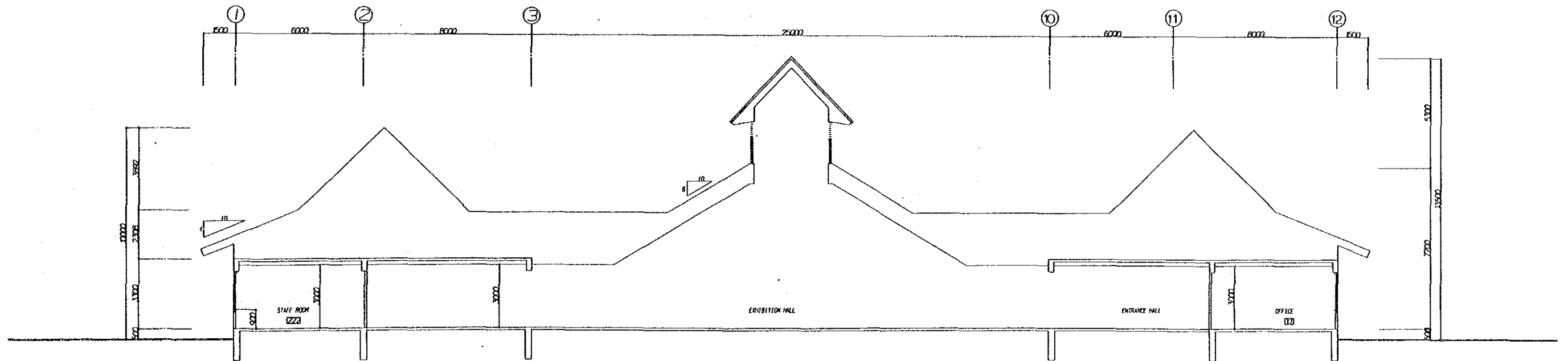
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SOUTH SIDE ELEVATION



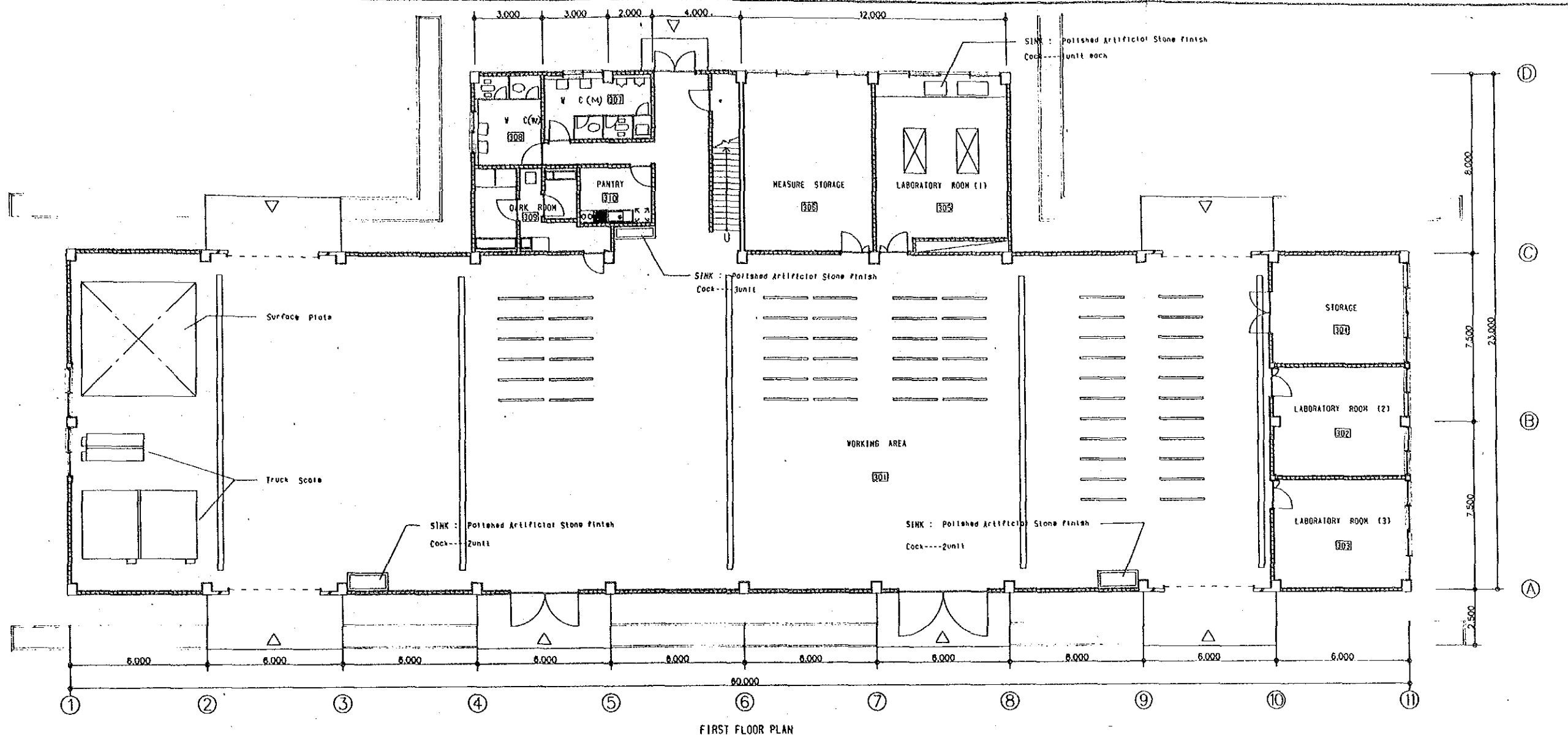
NORTH SIDE ELEVATION



SECTION

NOTE

WORK NO.	DATE	TITLE	DRAWN NO.
APPROVAL	SCALE	MAIN BUILDING	3
		SECTION ELEVATION	



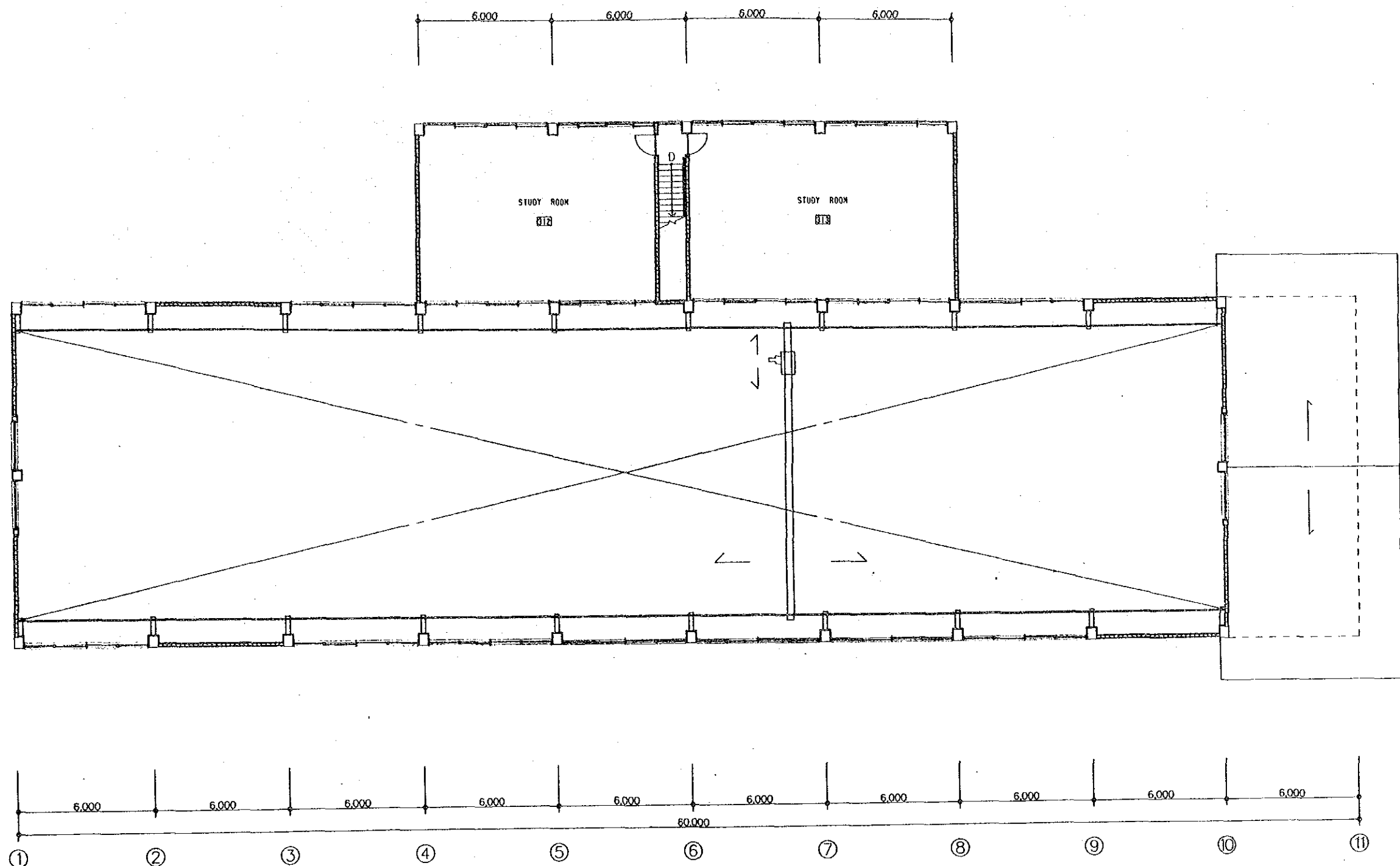
FIRST FLOOR PLAN

INTERIOR FINISH SCHEDULE

BUILDING NAME	RM NAME	RM NO	FLOOR	BASE BOARD	WANSKOT	WALL	CEILING	C.H.	COUNTER	REMARKS
LABORATORY & TESTING	WORKING AREA	301	CEM. MORTAR TROW.	CEM. MORTAR TROW.		CEM. MORTAR TROW. VE				
	LABORATORY ROOM (2)	302	DO.	DO.		DO.	ACOUSTIC BOARD PANELLING	3,000	MACHINE STAND	RAL N
	LABORATORY ROOM (3)	303	DO.	DO.		DO.	DO.	3,000	MACHINE STAND	RAL N
	STORAGE	304	DO.	DO.		DO.	ASBESTOS BOARD PANELLING 1+1 VE	2,700		
	LABORATORY ROOM (1)	305	DO.	DO.		DO.	ACOUSTIC BOARD PANELLING	3,000	MACHINE STAND	RAL N
	MEASURE STORAGE	306	DO.	DO.		DO.	DO.	2,700	A.C.	
	W.C. (M)	307	50x50 MOSAIC TL.	TRM TL.		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANELLING 1+1 VE	2,500	BOOTH WATER PROOF PLYWOOD (5/8") SOP., DRESSING TABLE, TERRAZZO BLK.	
	W.C. (W)	308	DO.	DO.		DO.	DO.	2,500	BOOTH WATER PROOF PLYWOOD (5/8") SOP., DRESSING TABLE, TERRAZZO BLK.	
	DARK ROOM	309	CEM. MORTAR TROW.	CEM. MORTAR TROW.		CEM. MORTAR TROW. VE	DO.	2,700	S/S SINK, SUSPENDED CUPBOARD	
	PANTRY	310	DO.	DO.		110x110 SEMI-PORCELAIN TL.	DO.	2,500		
	STUDY ROOM (1-1)	311	DO.	DO.		CEM. MORTAR TROW. VE	ACOUSTIC BOARD PANELLING	3,000		
	STUDY ROOM (1-2)	312	DO.	DO.		DO.	DO.	3,000		
	CORRIDOR		DO.	DO.		DO.	DO.		TRENCH STEEL COVER, HOIST CRANE	
	STAR CASE		DO.	DO.		DO.	DO.		NON-SLIP TILE, HANDRAIL, CEM. MORTAR TROW. VE	

EXTERIOR FINISH SCHEDULE

ROOF	ROOF DECK H-B7
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW. SPRAY TILE FINISH
SASH	EXTRUDED ALUMINUM
TOP SHED FRAMING	STRUCTURE

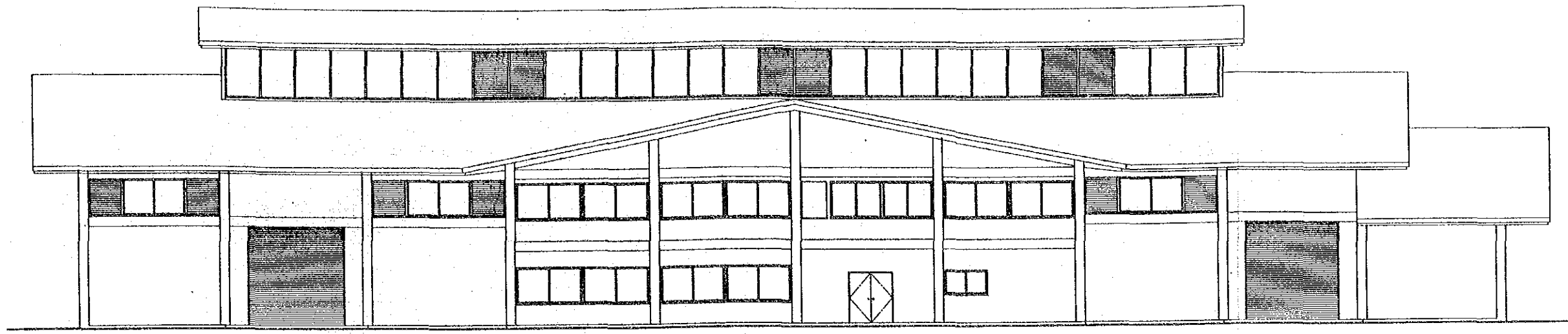


SECOND FLOOR PLAN

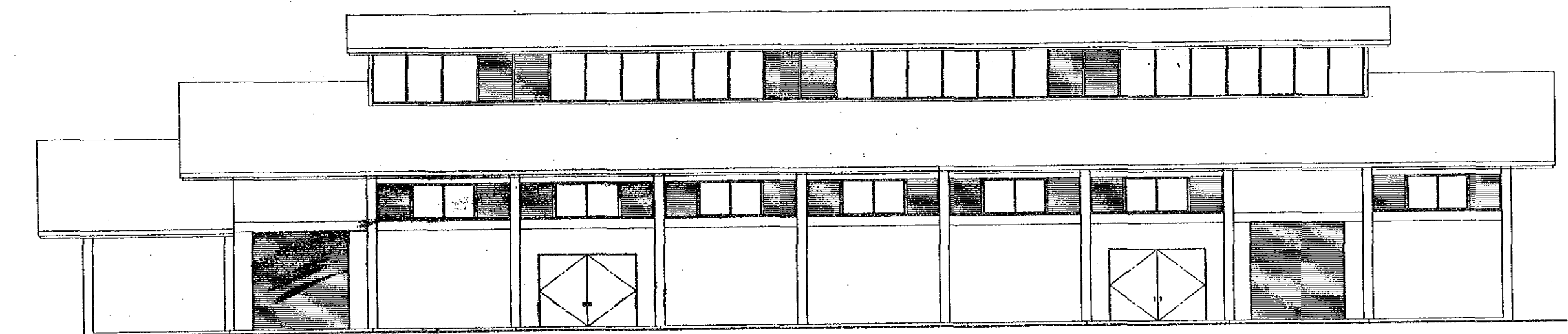
LABORATORY & TESTING FACILITY

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	SCALE	LABORATORY & TESTING 2ND FLOOR PLAN	5

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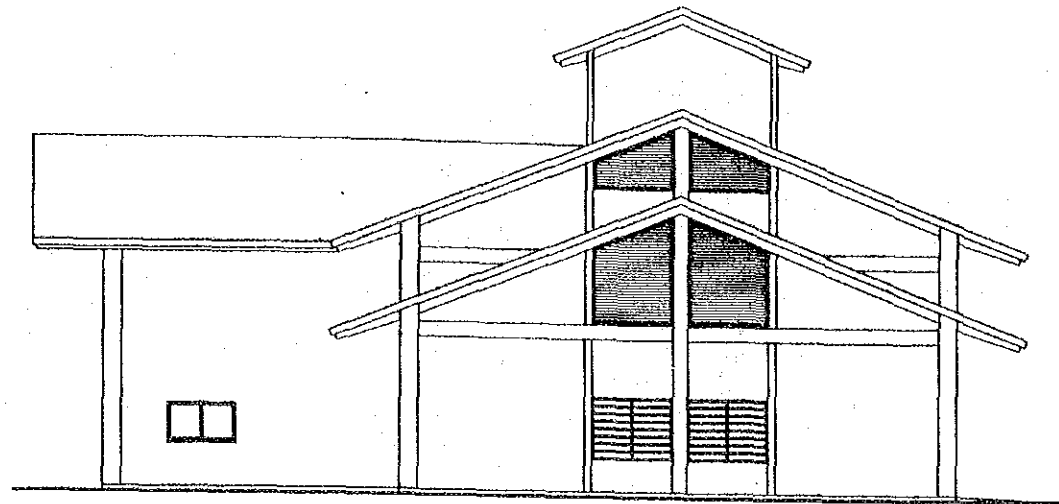
SOUTH SIDE ELEVATION



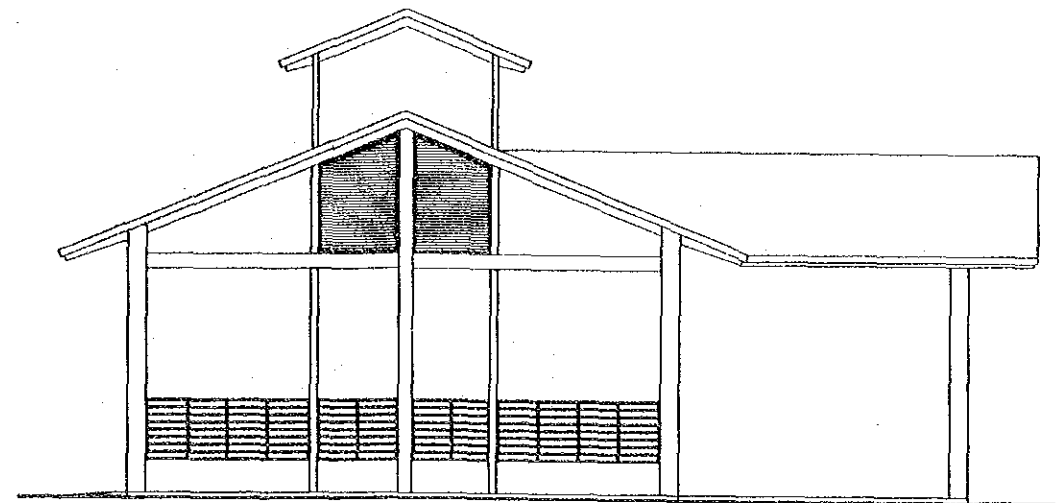
NORTH SIDE ELEVATION

LABORATORY & TESTING FACILITY

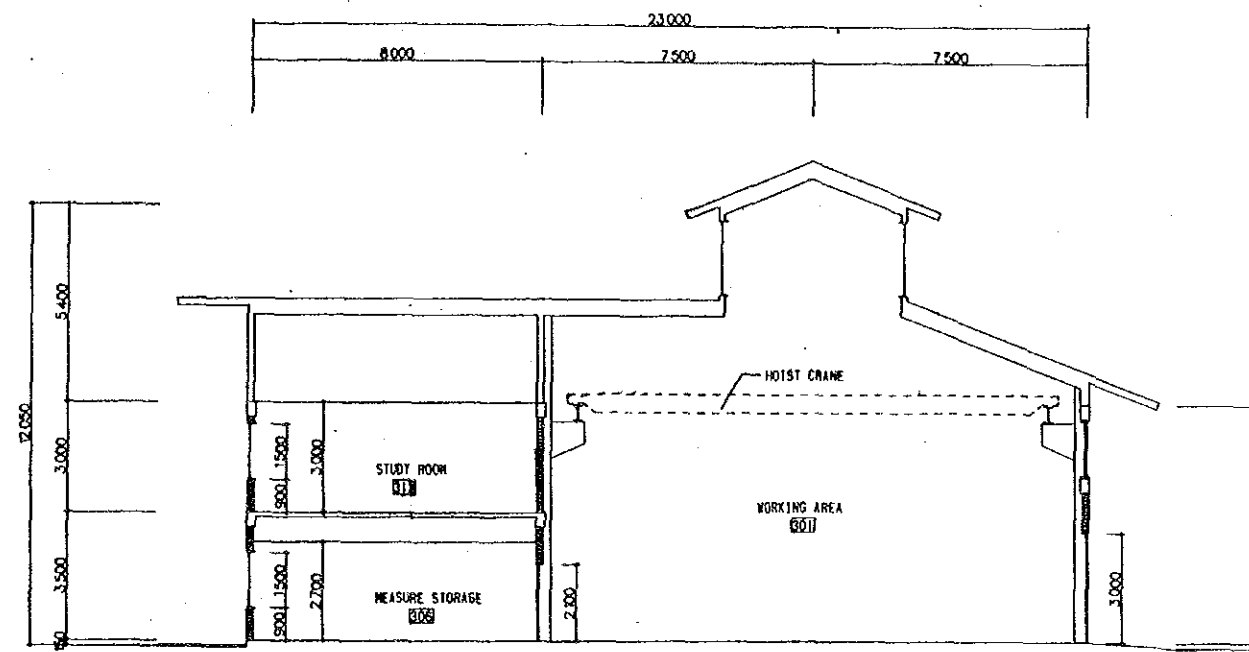
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	APPROVAL	SCALE	LABORATORY & TESTING ELEVATION	6
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EAST SIDE ELEVATION



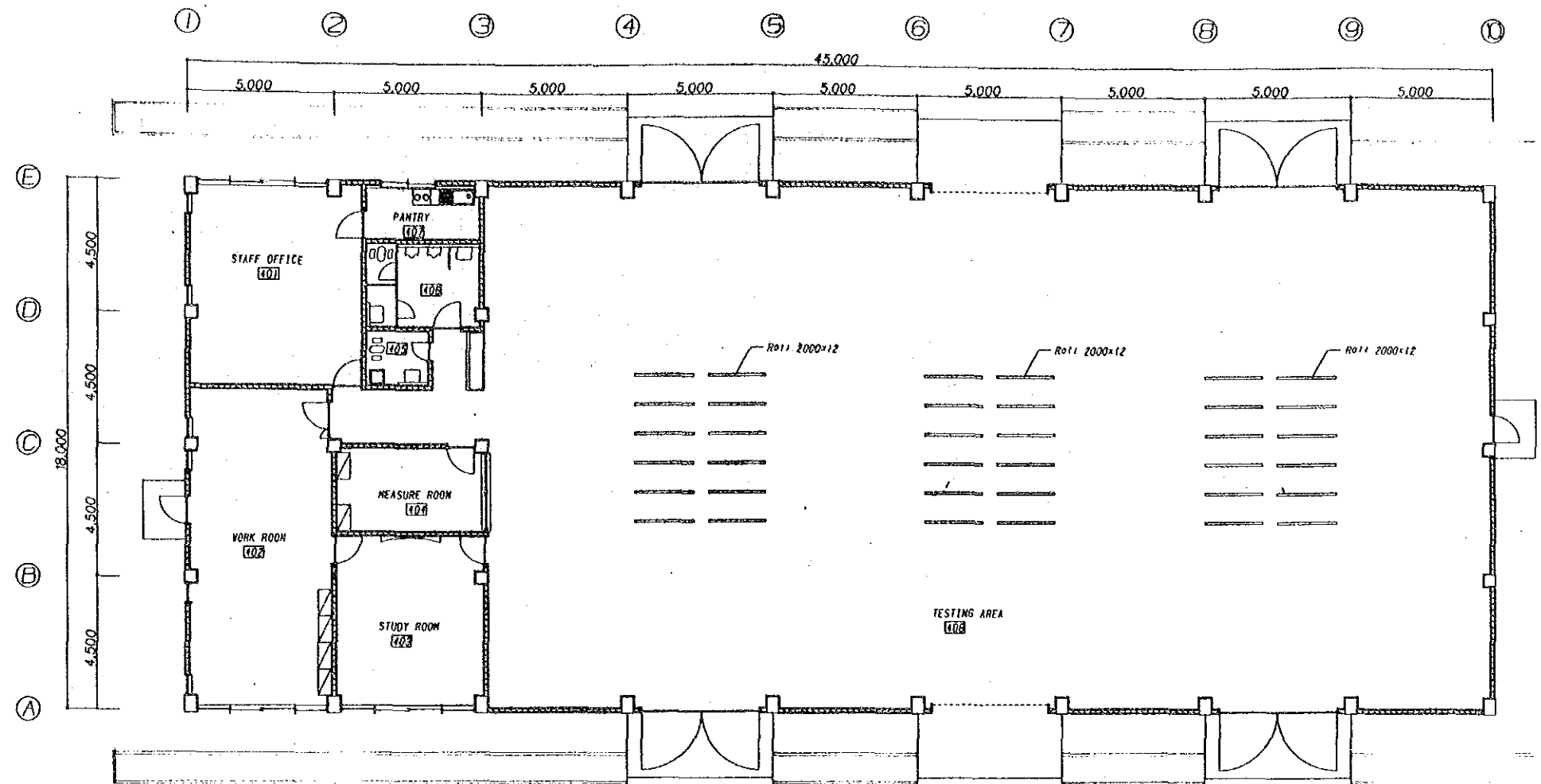
WEST SIDE ELEVATION



SECTION

LABORATORY & TESTING FACILITY

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	SCALE	LABORATORY & TESTING	7
		S=1:100	SECTION ELEVATION	



FIRST FLOOR PLAN

INTERIOR FINISH SCHEDULE

BUILDING NAME	RM. NAME	RM. NO.	FLOOR	BASE BOARD	WANSKOT	WALL	CEILING	C.H.	REMARKS
MACHINERY TRAINING CENTER	STAFF OFFICE	401		CEM. MORTAR TROW		CEM. MORTAR TROW. VE	ASEBESTOS BOARD PANELLING 1/4 VE.	3,000	
	WORK ROOM	402		DO.		DO.	DO.	3,000	NON-SLIP TILE, HANDRAL: CEM. MORTAR TROW. VE.
	STUDY ROOM	403		DO.		DO.	DO.	3,000	
	MEASURE ROOM	404		DO.		DO.	DO.	3,000	
	W C (W)	405			TRM TL.	110x110 SEM-PORCELAIN TL.	DO.	2,500	
	W C (B)	406			DO.	DO.	DO.	2,500	
	PANTRY	407		DO.		DO.	DO.	2,500	
	TESTING AREA	408		CEM. MORTAR TROW		CEM. MORTAR TROW. VE			MACHINE STAND, RAL N. SORTS OF PIT: STEEL COVER

EXTERIOR FINISH SCHEDULE

ROOF	ROOF DECK H-87
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW, SPRAY TILE FINISH
SASH	EXTRUDED ALUMINUM
TOP SFD FRAMING	S STRUCTURE

NOTE

WORK NO.

DATE

TITLE
MACHINERY TRAINING FACILITY

DRAWN NO.

APPROVAL

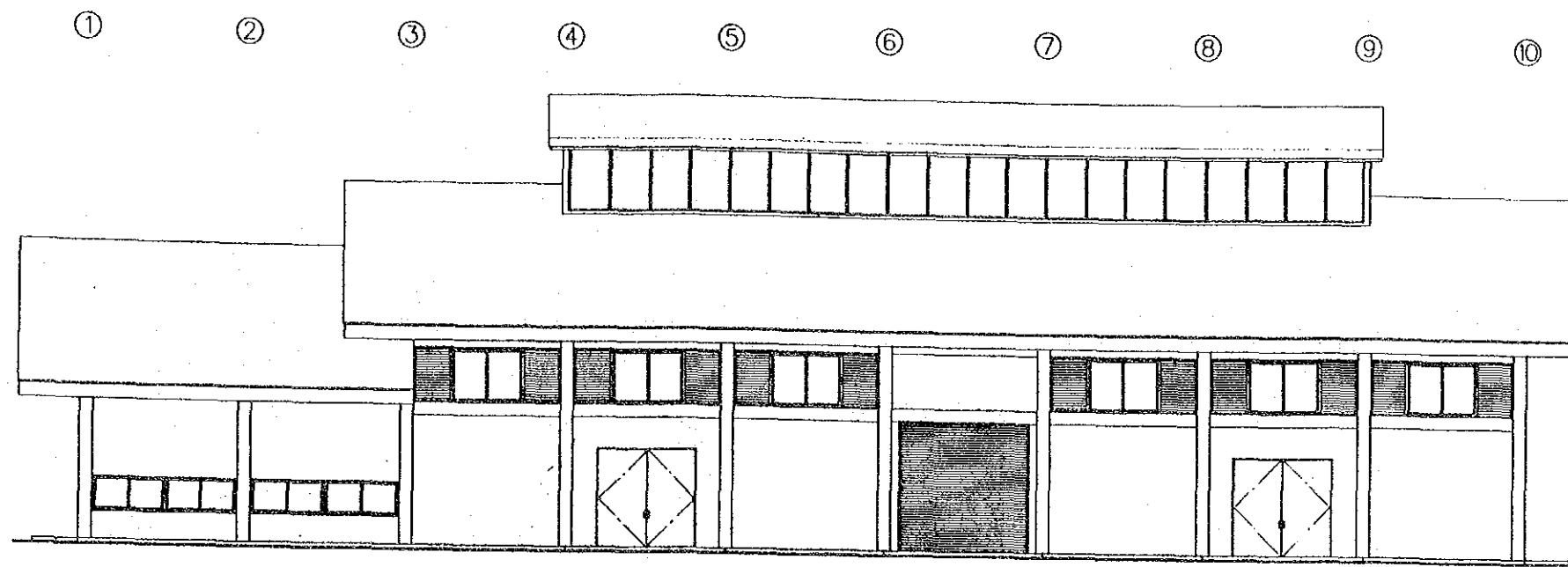
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SCALE

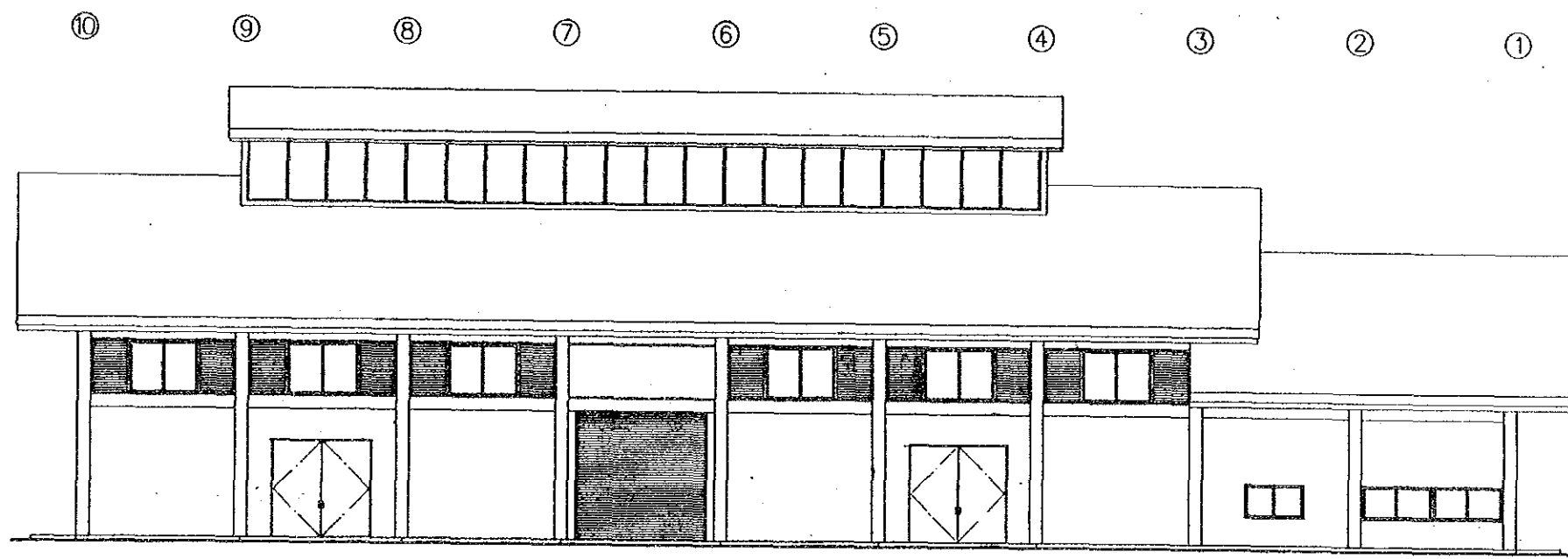
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1ST FLOOR PLAN

8

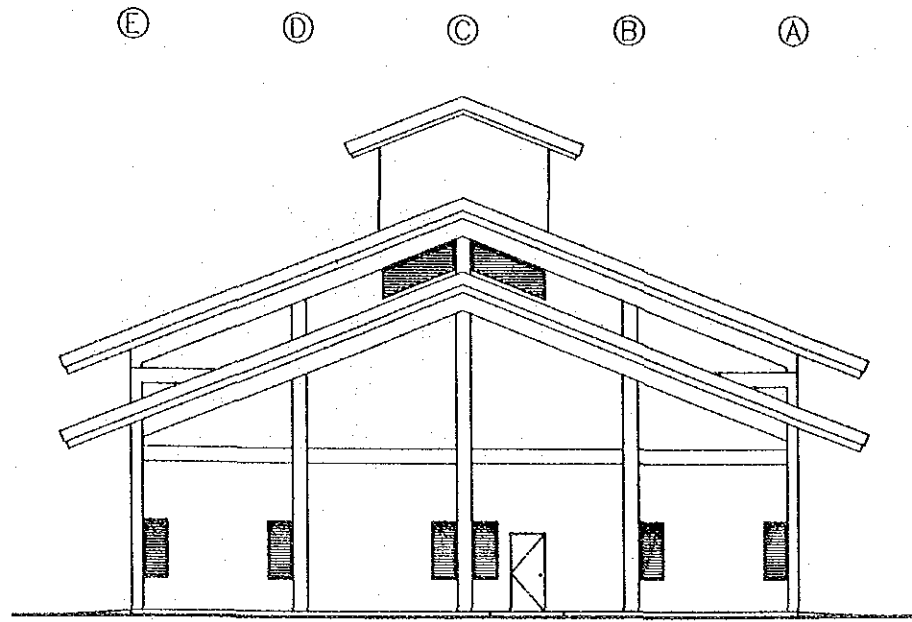


EAST SIDE ELEVATION

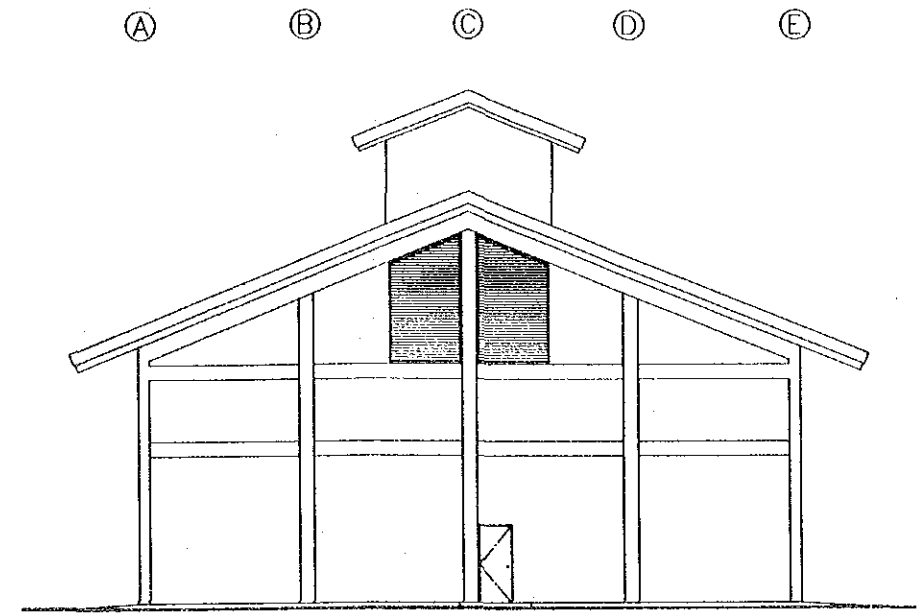


WEST SIDE ELEVATION

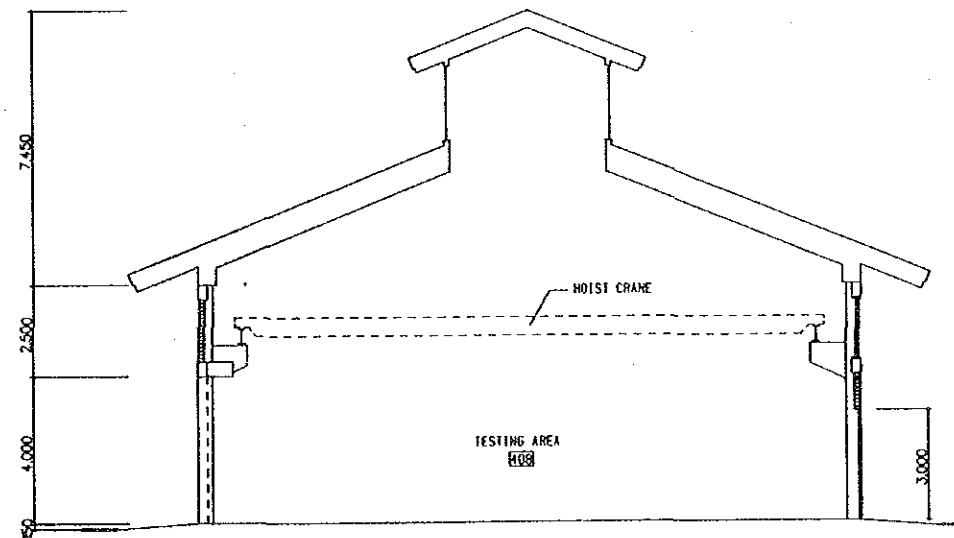
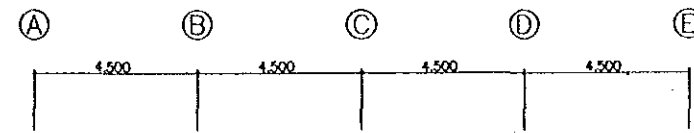
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	APPROVAL	DRAWN SCALE	MACHINERY TRAINING FACILITY	9
		S=1:100	ELEVATION	



NORTH SIDE ELEVATION



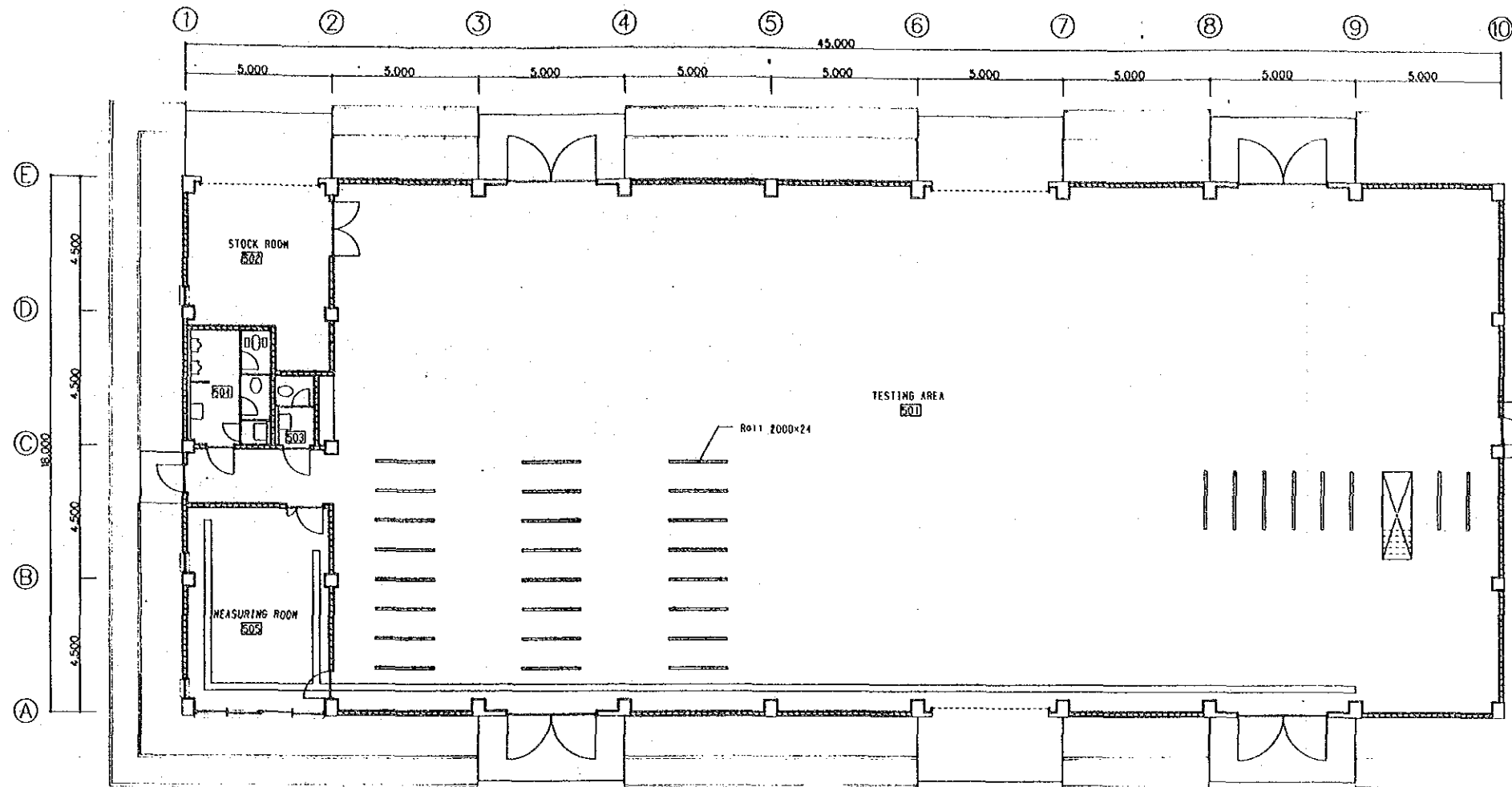
SOUTH SIDE ELEVATION



SECTION

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	SCALE	MACHINERY TRAINING FACILITY	10
			SECTION ELEVATION	

S=1:100



FIRST FLOOR PLAN

INTERIOR FINISH SCHEDULE

BUILDING NAME	RM NAME	RM NO	FLOOR	BASE BOARD	WANSLOT	WALL	CEILING	C.H.	REMARKS
MACHINERY TESTING FACILITY	TESTING AREA	501	CEM. MORTAR TROW	CEM. MORTAR TROW		CEM. MORTAR TROW . VE			MACHINE STAND, RAIL IN
	STOCK ROOM	502	DO.	DO.		DO.	ASBESTOS BOARD PANNELLING 1+1 VE.	3,000	
	W C (W)	503	50x50 MOSAIC TL.	TRM TL.		110x110 SEM-PORCELAIN TL.	DO.	2,500	BOOTH WATER PROOF PLYWOOD (SHINA) SOP, DRESSING TABLE, TERRAZOO BLK.
	W C (B)	504	DO.	DO.		DO.	DO.	2,500	BOOTH WATER PROOF PLYWOOD (SHINA) SOP, DRESSING TABLE, TERRAZOO BLK.
	MEASUR. ROOM	505	CEM. MORTAR TROW	CEM. MORTAR TROW		CEM. MORTAR TROW . VE	DO.	3,000	

EXTERIOR FINISH SCHEDULE

ROOF	ROOF DECK H-87
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW, SPRAYTILE FINISH
SASH	EXTRUDED ALLUMNUM
TOP SFD FRAMING	S STRUCTURE

NOTE

WORK NO.

DATE

TITLE

DRAWN NO

APPROVAL

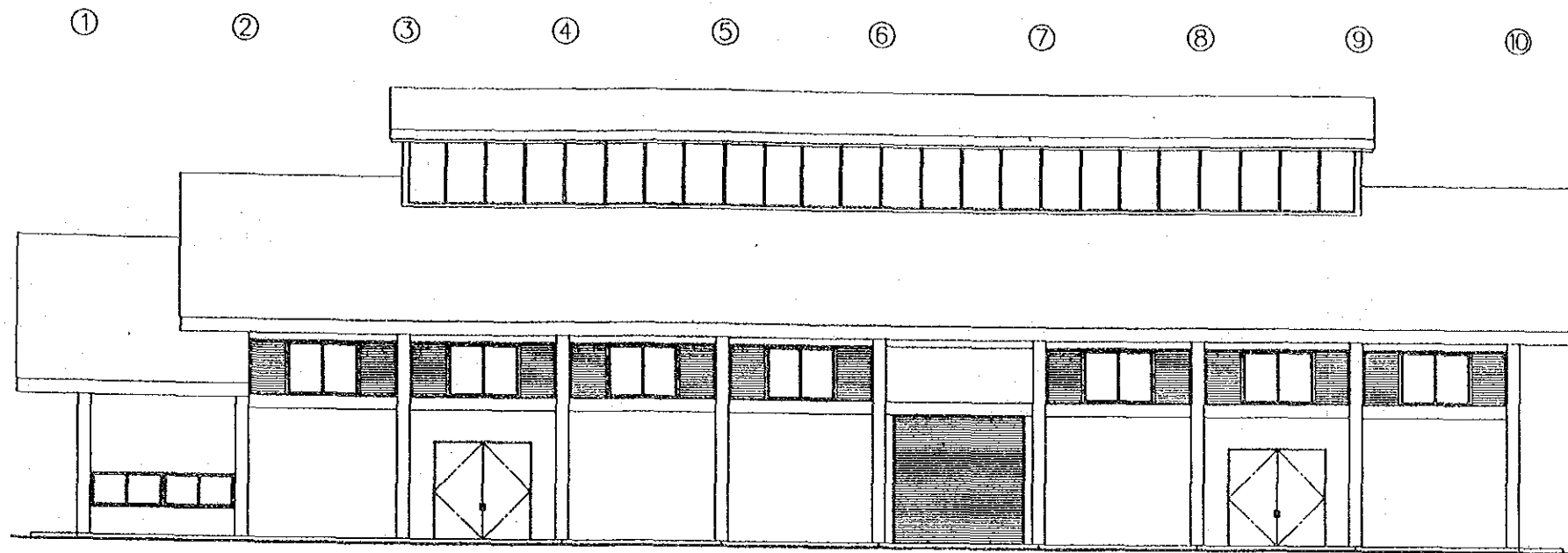
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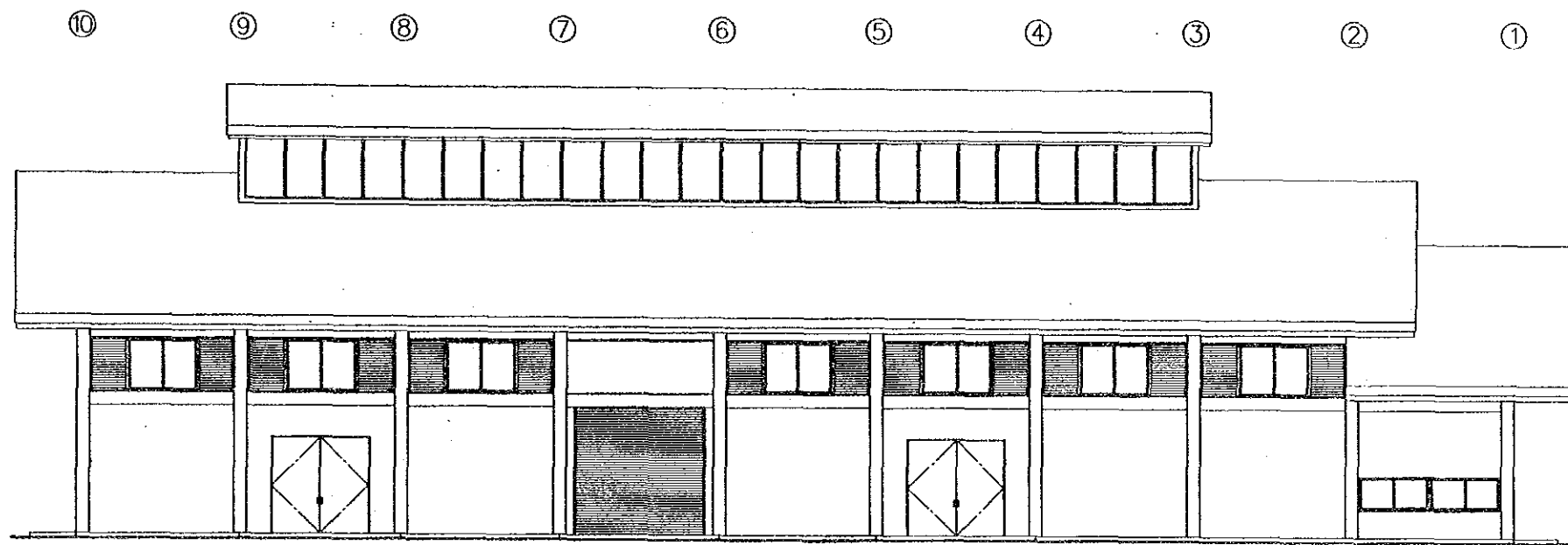
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MACHINERY TESTING FACILITY
1ST FLOOR PLAN
FINISH SCHEDULES

11



EAST SIDE ELEVATION



WEST SIDE ELEVATION

NOTE

WORK NO.

DATE

TITLE

DRAWN NO.

APPROVAL

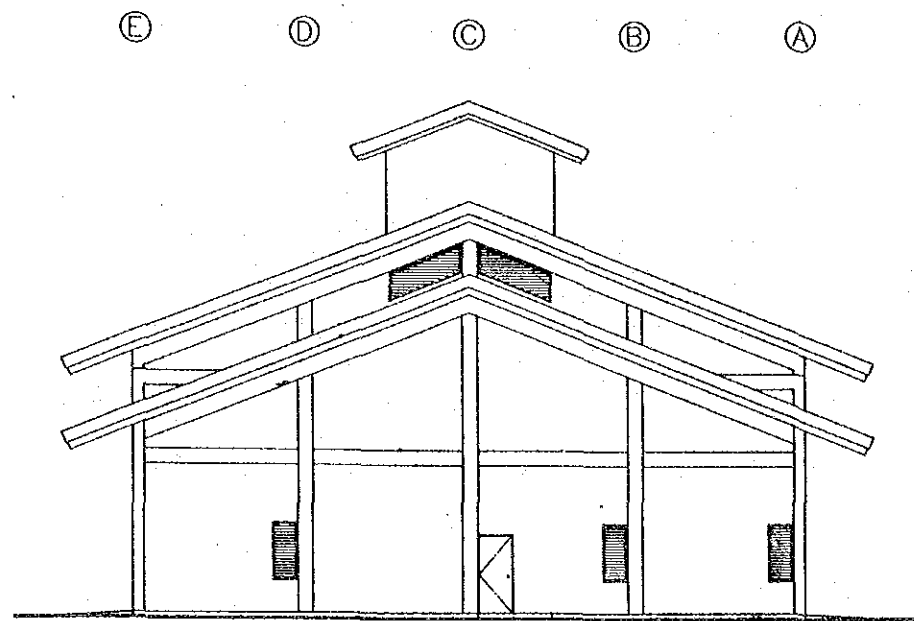
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SCALE

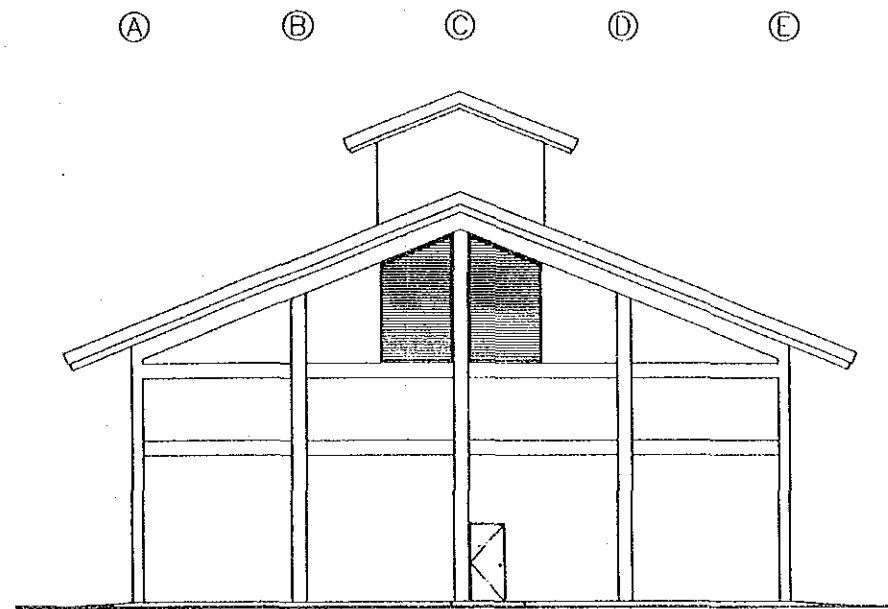
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MACHINERY TESTING FACILITY
ELEVATION

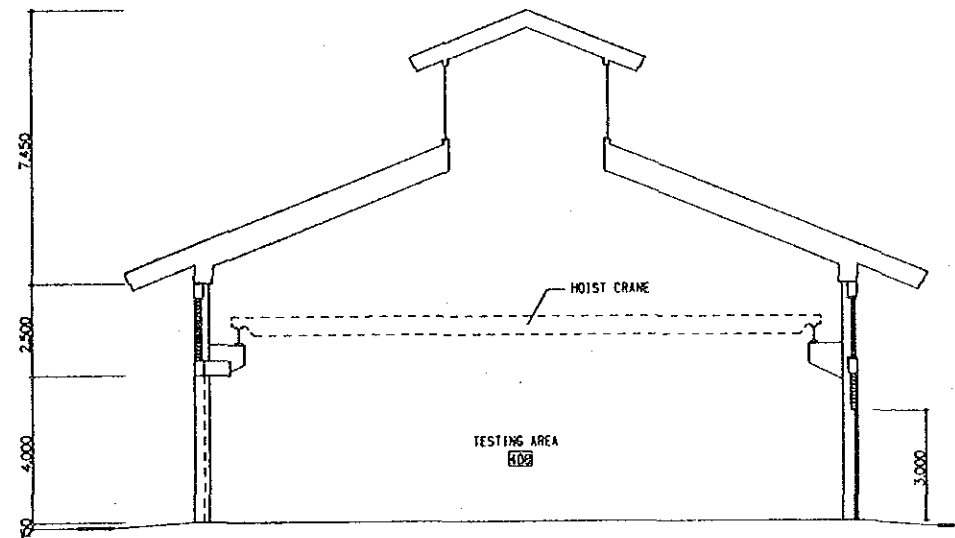
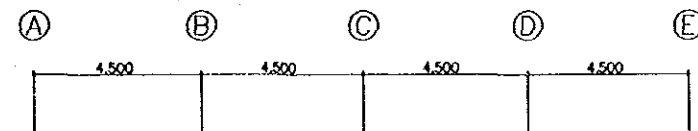
12



NORTH SIDE ELEVATION



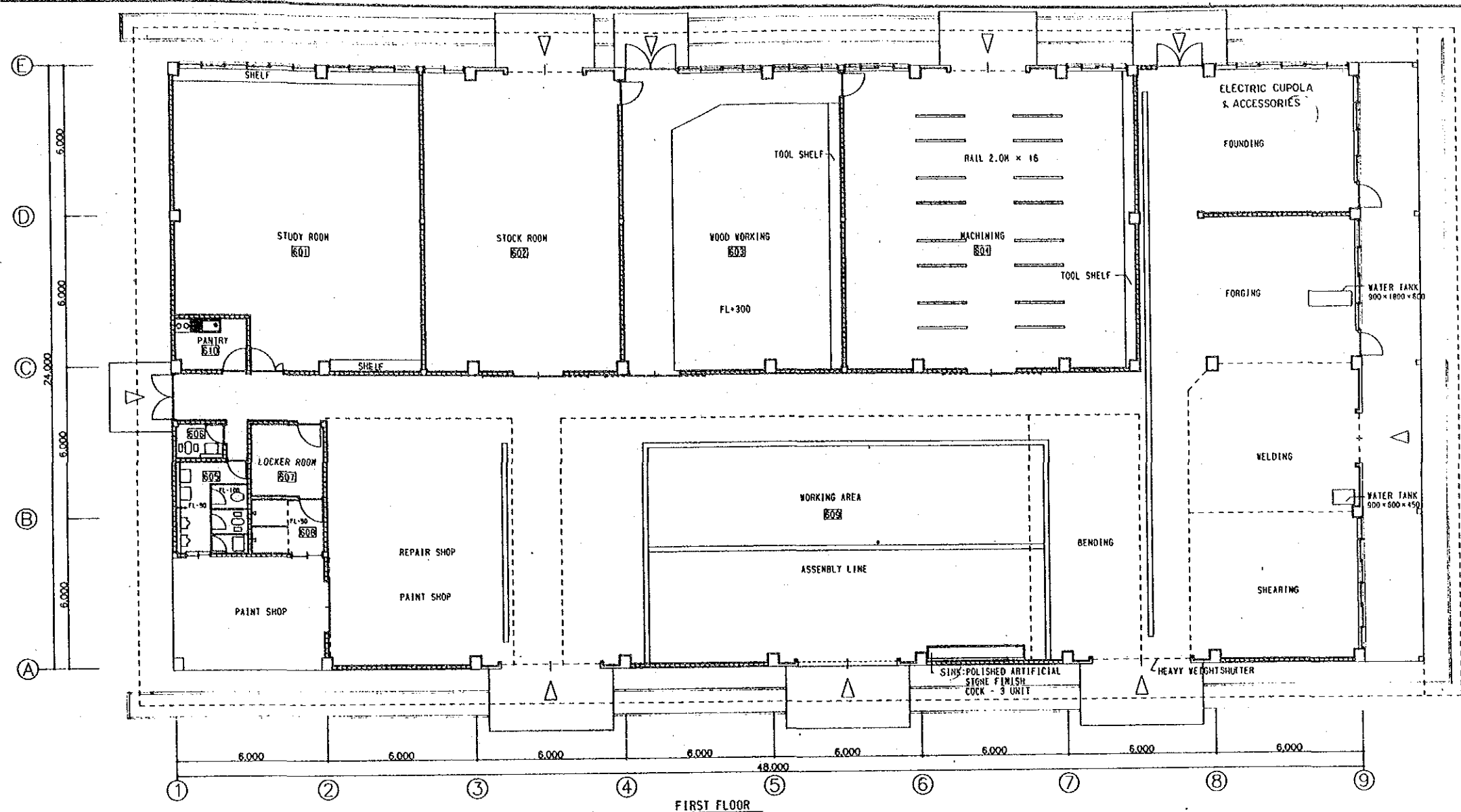
SOHTH SIDE ELEVATION



SECTION

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	DRAWN	SCALE	13
			MACHINERY TESTING FACILITY	
			SECTION ELEVATION	

S=1:100



FIRST FLOOR

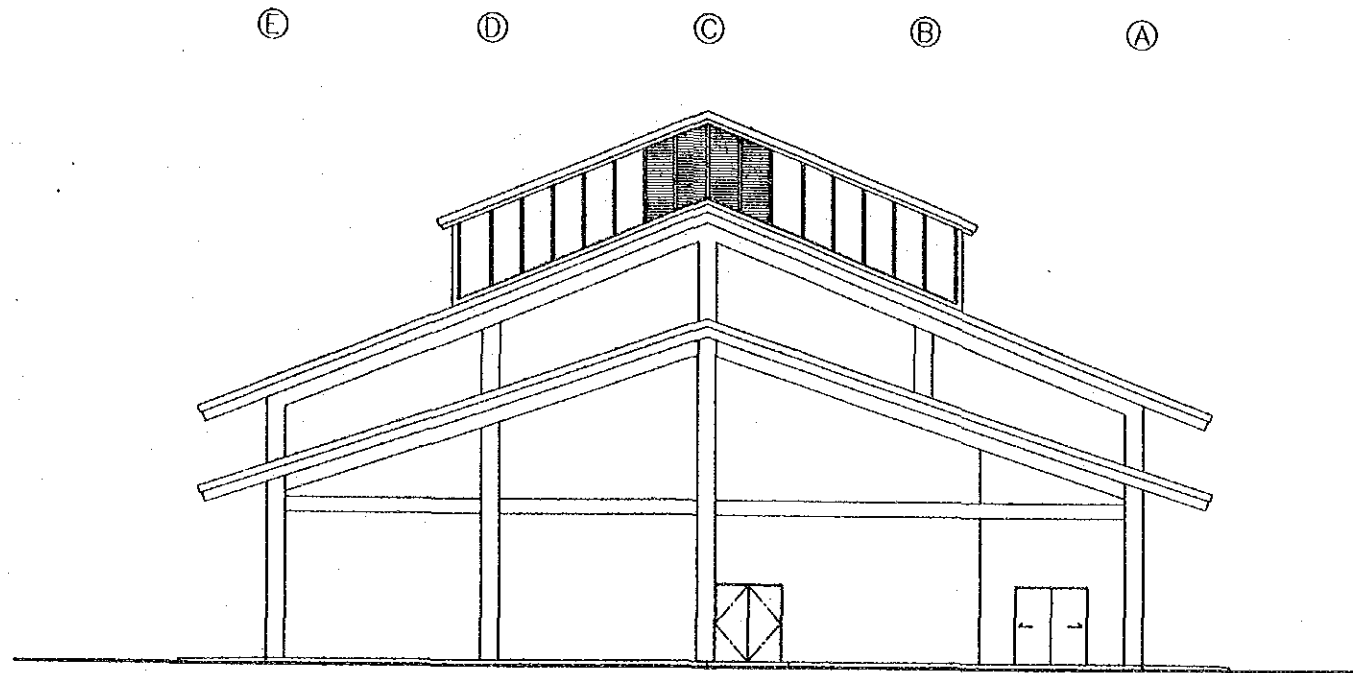
INTERIOR FINISH SCHEDULE

BUILDING NAME	RM NAME	RM NO	FLOOR	BASE BOARD	WANSOT	WALL	CEILING	C.H.	REMARKS
WORK SHOP	STUDY ROOM	601	TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM MORTAR TROW. EP	ACOUSTIC BOARD PANELLING	3,000	A.C.
	STOCK ROOM	602	CEM. MORTAR TROW.	CEM. MORTAR TROW.		DO.			
	WOOD WORKING	603	DO.	DO.		DO.			RAIL IN
	MACHINING	604	DO.	DO.		DO.			
	W C/W	605	50x50 MOSAIC TL.	MOSAIC		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANELLING 1/4 VP	2,500	BOOTH WATER PROOF PLYWOOD(SHINA) SOP, DRESSING TABLE, TERRAZZO BLK.
	W C/W	606	DO.	DO.		DO.	DO.	2,500	BOOTH WATER PROOF PLYWOOD(SHINA) SOP, DRESSING TABLE, TERRAZZO BLK.
	LOCKER ROOM	607	CEM. MORTAR TROW.	CEM. MORTAR TROW.		CEM. MORTAR TROW. EP	DO.	2,500	
	WASHING ROOM	608	50x50 MOSAIC TL.	TBM TL.		110x110 SEMI-PORCELAIN TL.	DO.	2,500	BOOTH WATER PROOF PLYWOOD(SHINA) SOP
	WORKING AREA	609	CEM. MORTAR TROW.	CEM. MORTAR TROW.		CEM. MORTAR TROW. EP			TRENCH : STEEL COVER.
	ASSEMBLY LINE		DO.	DO.		DO.			DO. HOST CRANE, RAIL IN
	BENDING AREA		DO.	DO.		DO.			DO.
	WELDING AREA		DO.	DO.		DO.			DO.
	SHEARING AREA		DO.	DO.		DO.			DO.
	FOUNDING AREA		DO.	DO.		DO.			DO. CHAN BLK, HOST CRANE
	FORGING AREA		DO.	DO.		DO.			DO. CHAN BLK
	REPAIR PAINT SHOP		DO.	DO.		DO.			TRENCH STEEL COVER.
	PAINT SHOP		DO.	DO.		DO.			
	PANTRY	610	50x50 MOSAIC TL.	TBM TL.		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANELLING 1/4 VP	2,500	S/S SINK, SUSPENDED CUPBOARD

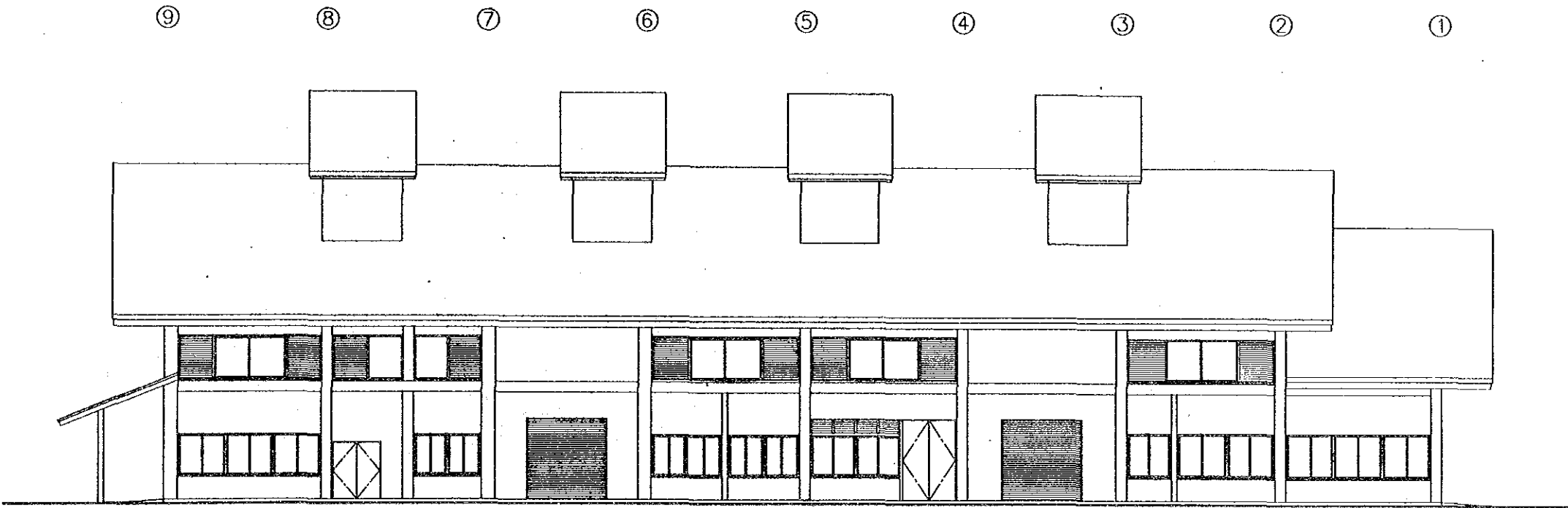
EXTERIOR FINISH SCHEDULE

ROOF	ROOF DECK H-87
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW, SPRAY TILE FINISH
SASH	EXTRUDED ALUMINIUM
TOP SHED FRAMING	STEEL STRUCTURE

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	DRAWN	SCALE	14
			S=1:100	WORK SHOP FINISH SCHEDULES 1ST FLOOR PLAN

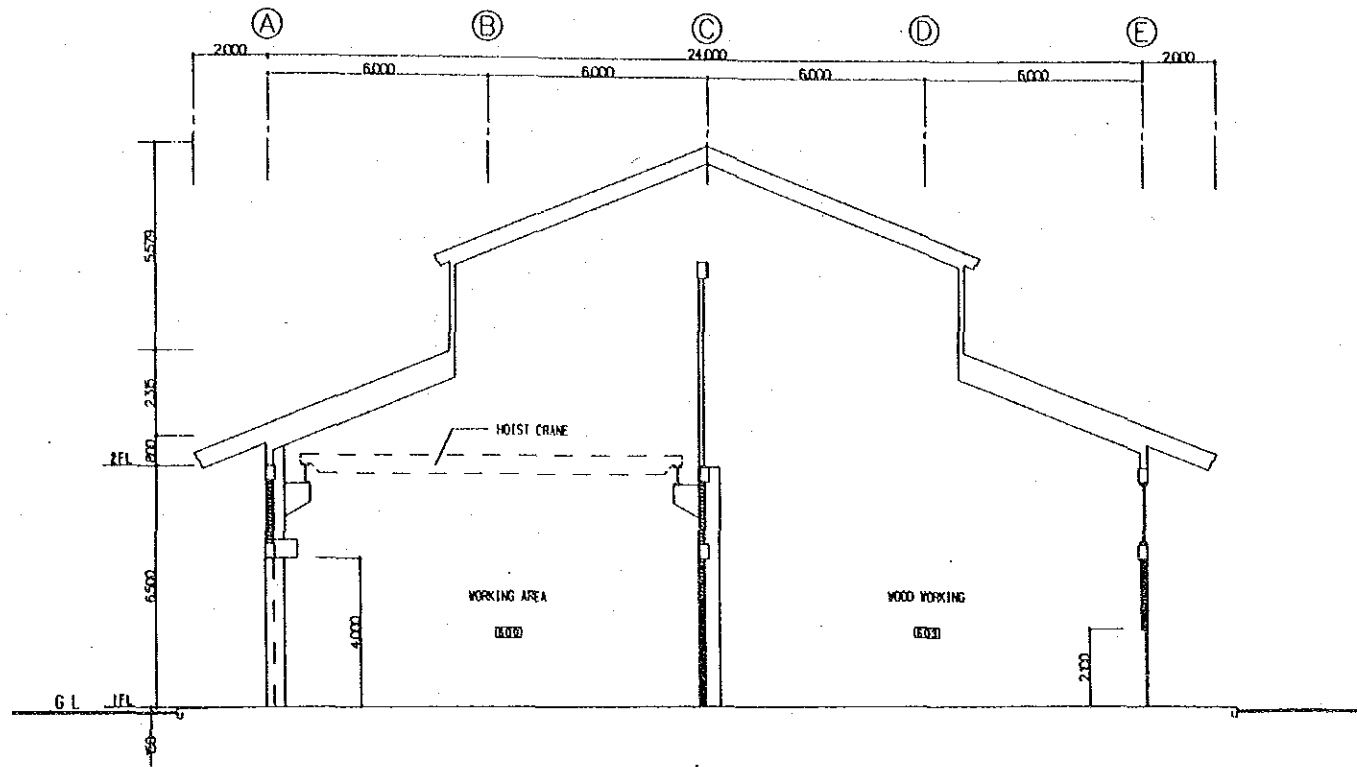


WEST SIDE ELEVATION

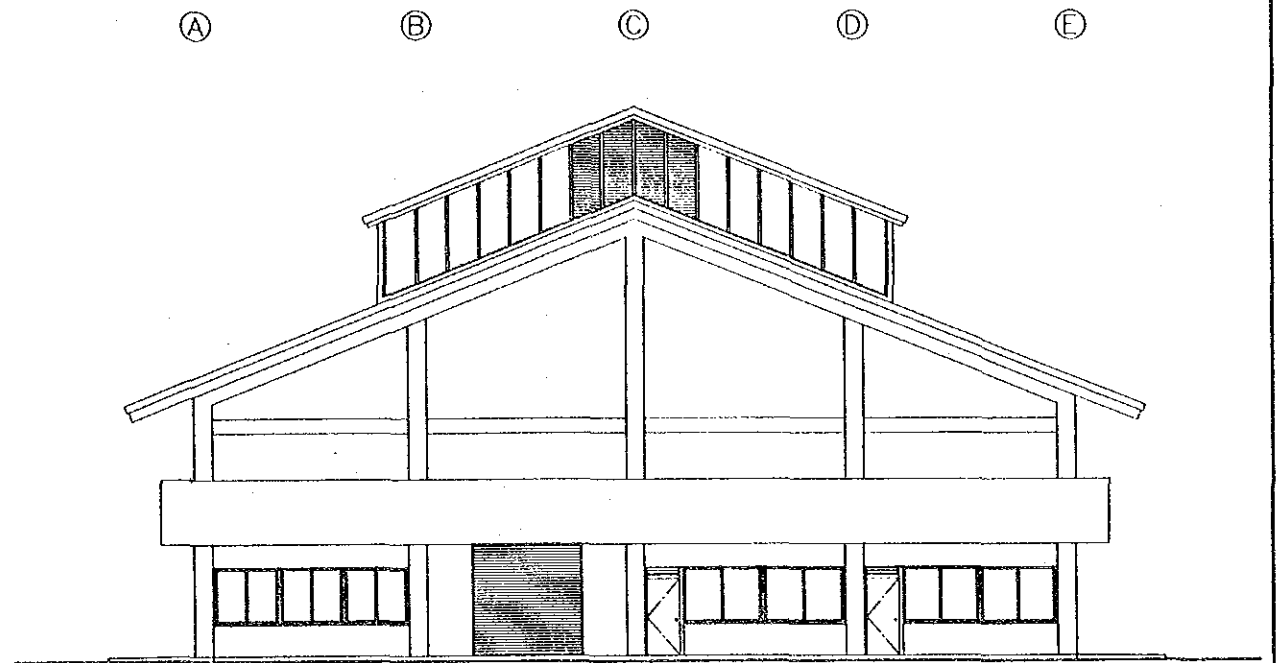


SOUTH SIDE ELEVATION

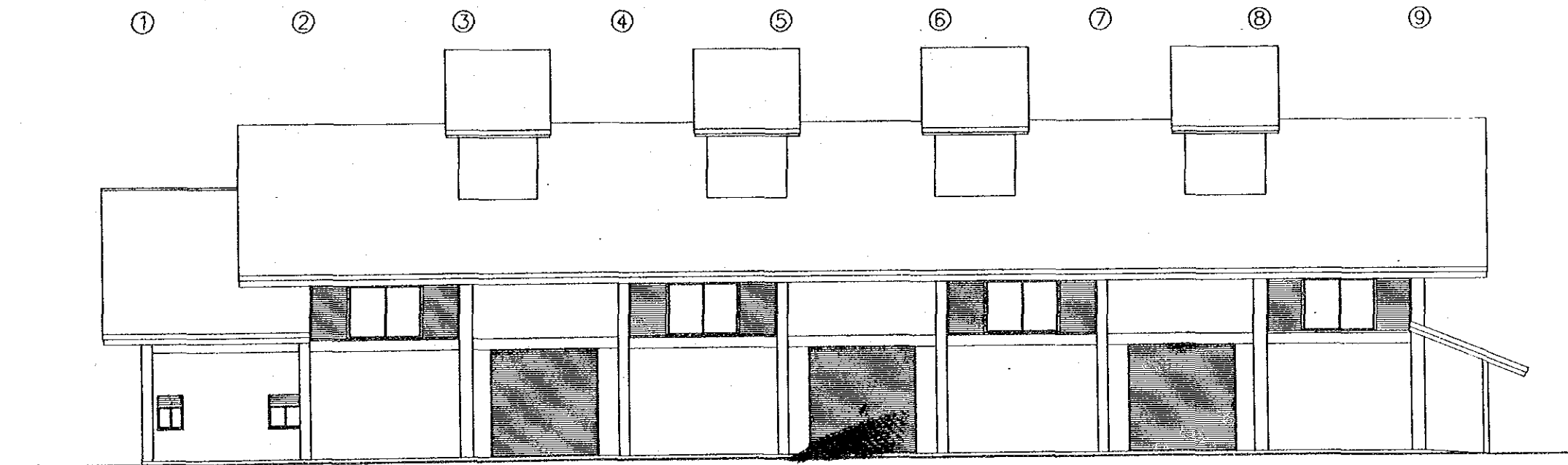
NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	SCALE	WORK SHOP ELEVATION	15
		S=1:100		



SECTION

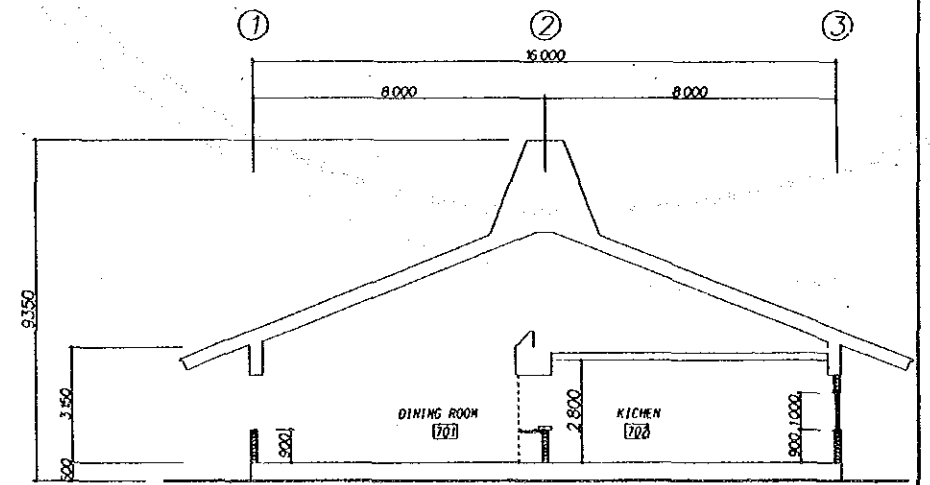
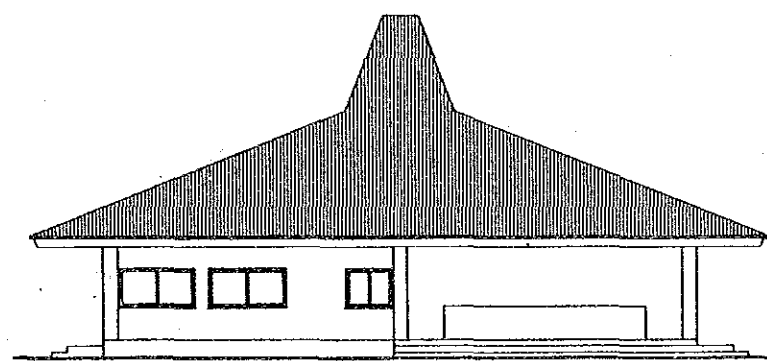
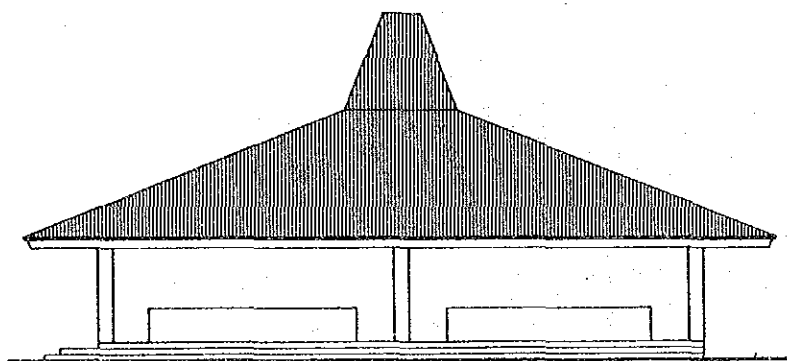
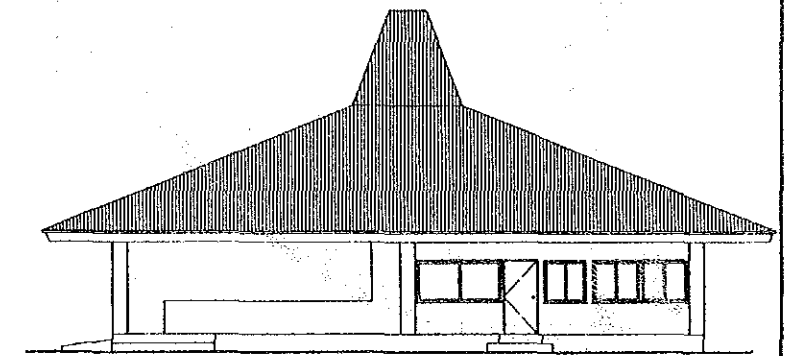
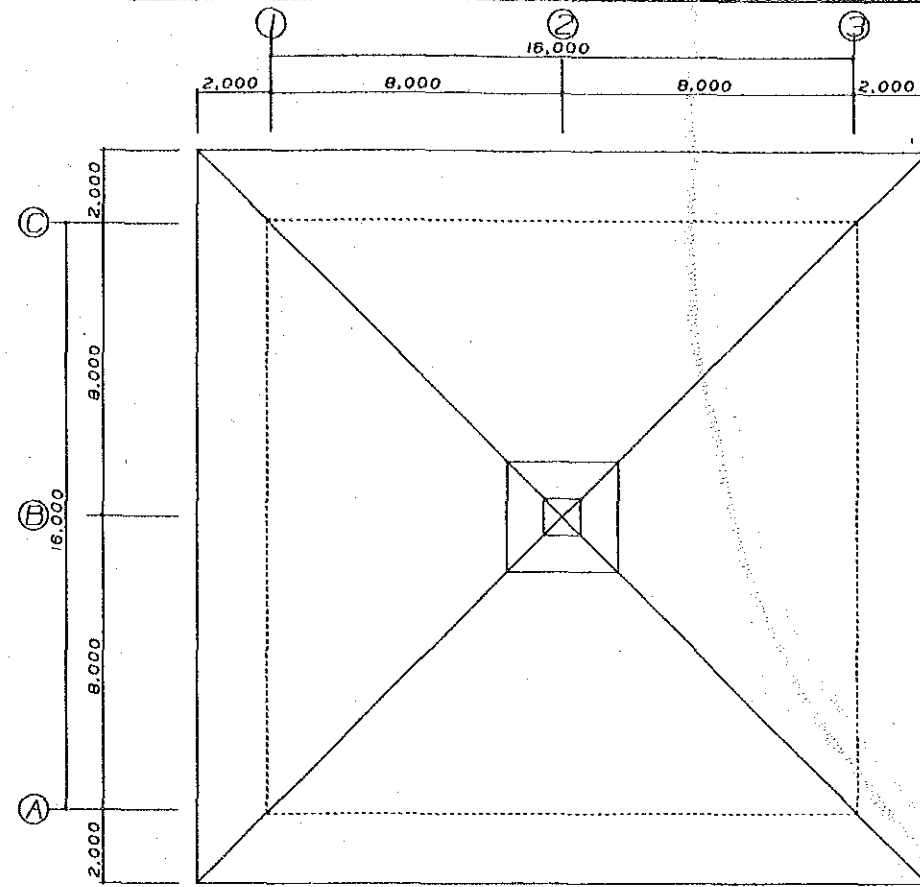
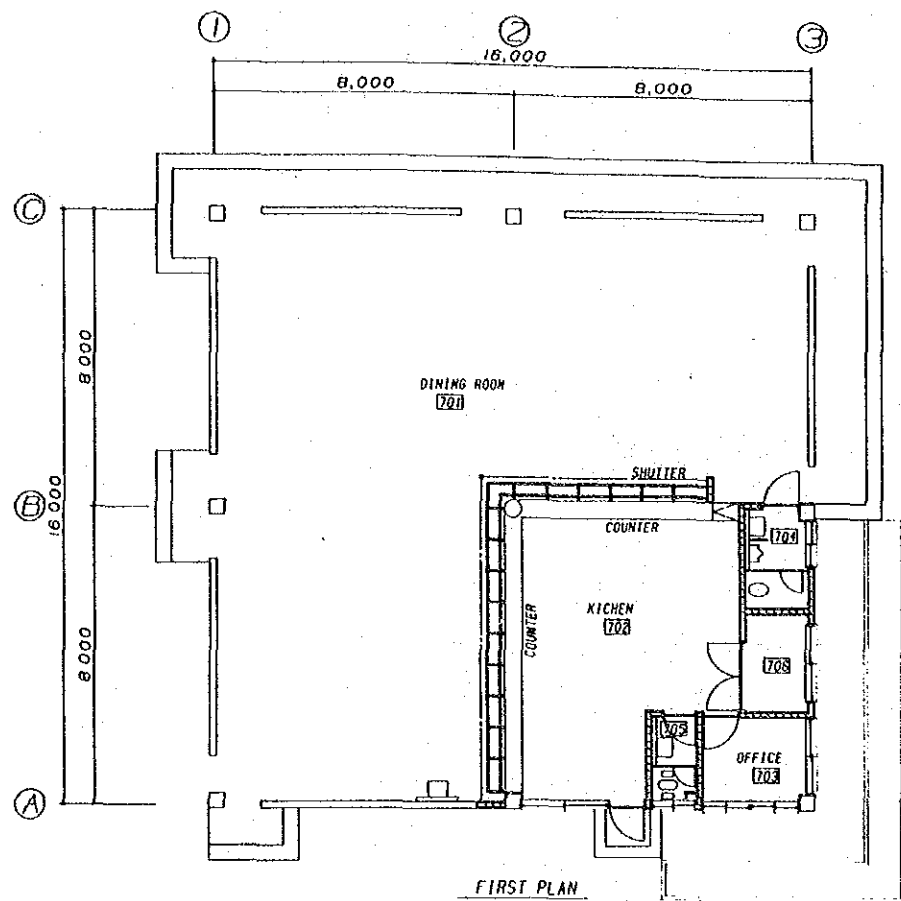


EAST SIDE ELEVATION



NORTH SIDE ELEVATION

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	DRAWN	SCALE	16
		S=1:100	SECTION ELEVATION	



WEST SIDE ELEVATION

NORTH SIDE ELEVATION

SECTION

INTERIOR FINISH SCHEDULE

BUILDING NAME	RM. NAME	RM. NO.	FLOOR	BASE BOARD	WANSOT	WALL	CEILING	C.H.	REMARKS
CANTEEN	DINING HALL	701	TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM. MORTAR TROW. EP	ACOUSTIC BOARD PANELLING	3,000	COUNTER HATCH
	KITCHEN	702	CLINKER TL.	TRM TL.		110x110 SEMI-PORCELAIN TL.	ASEBESTOS BOARD PANELLING 1+1 VP	3,000	
	KITCHEN OFFICE	703	TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM. MORTAR TROW. EP	ACOUSTIC BOARD PANELLING	2,700	
	W C	704, 705	50x50 MOSAIC TL.	TRM TL.		110x110 SEMI-PORCELAIN TL.	ASEBESTOS BOARD PANELLING 1+1 VP	2,500	BOOTHWATER PROOF PLYWOOD(SHINA) SOP. DRESSING TABLE-TERRAZZO BLK.
	TABLEWARE STORAGE	706	CEM. MORTAR TROW.	CEM. MORTAR. TROW.		CEM. MORTAR TROW. EP	DO.	2,500	

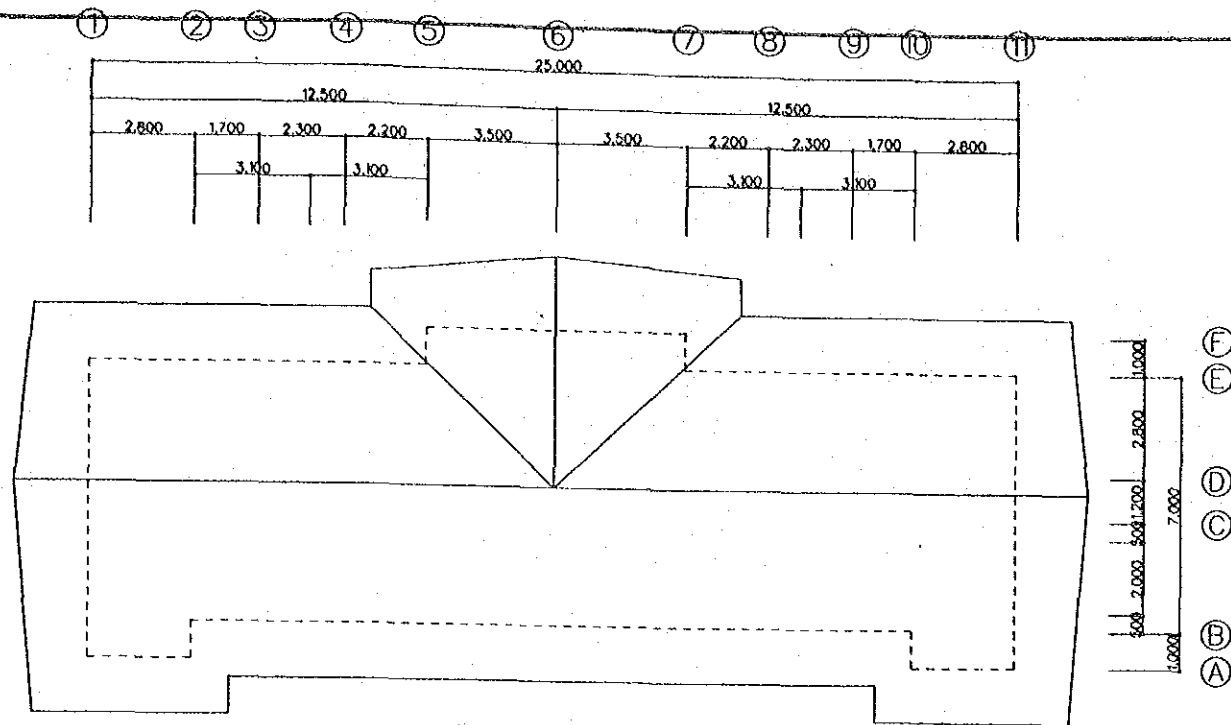
EXTERIOR FINISH SCHEDULE

ROOF	ASPHALT SINGLE ROOFING
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW, SPRAYTILE FINISH
SASH	EXTRUDED ALUMINIUM
TOP SHED FRAMING	STEEL STRUCTURE

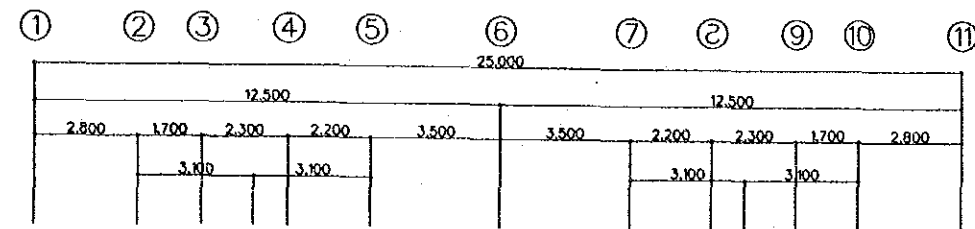
NOTE

WORK NO.	DATE	TITLE	DRAWN NO.
APPROVAL	DRAWN	SCALE	17
		FINISH SCHEDULES SECTION	CANTEEN ELEVATION PLAN

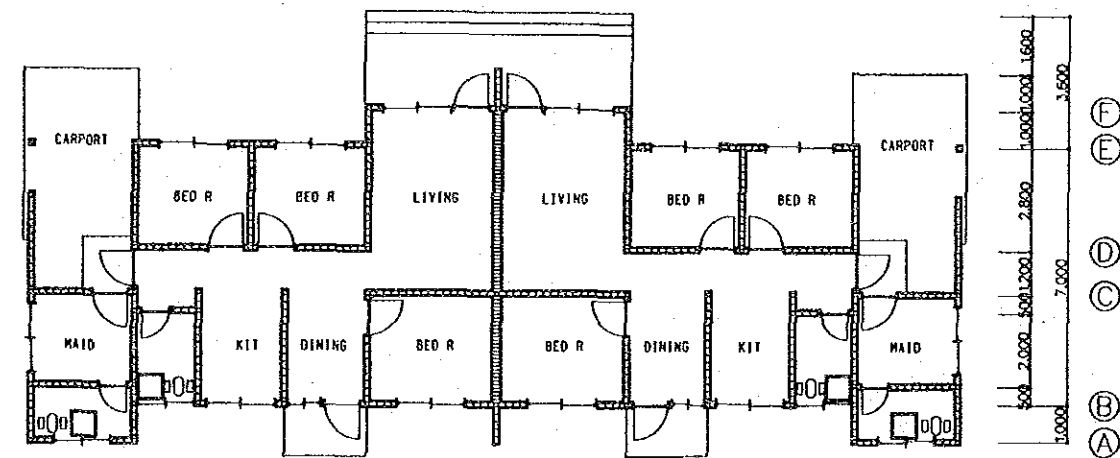
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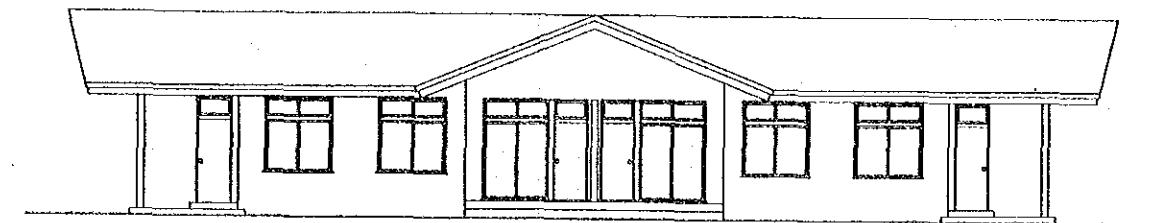
ROOF PLAN



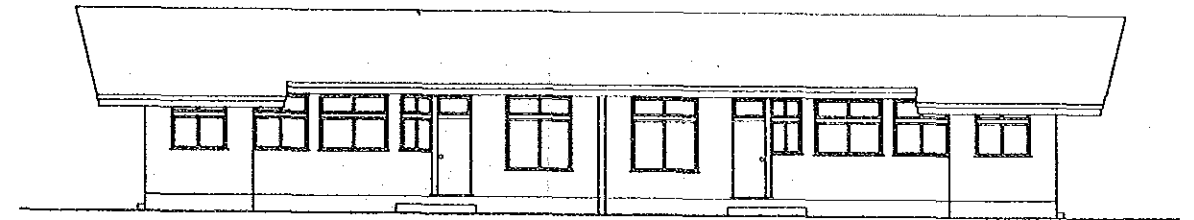
PLAN



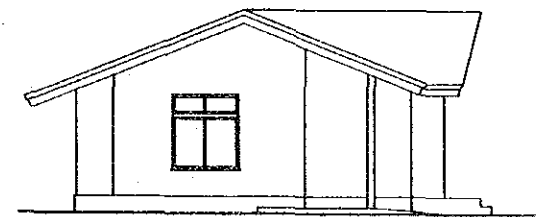
GUEST HOUSE (A)



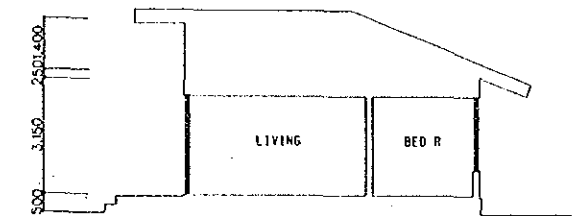
NORTH SIDE ELEVATION



SOUTH SIDE ELEVATION



EAST SIDE ELEVATION



SECTION

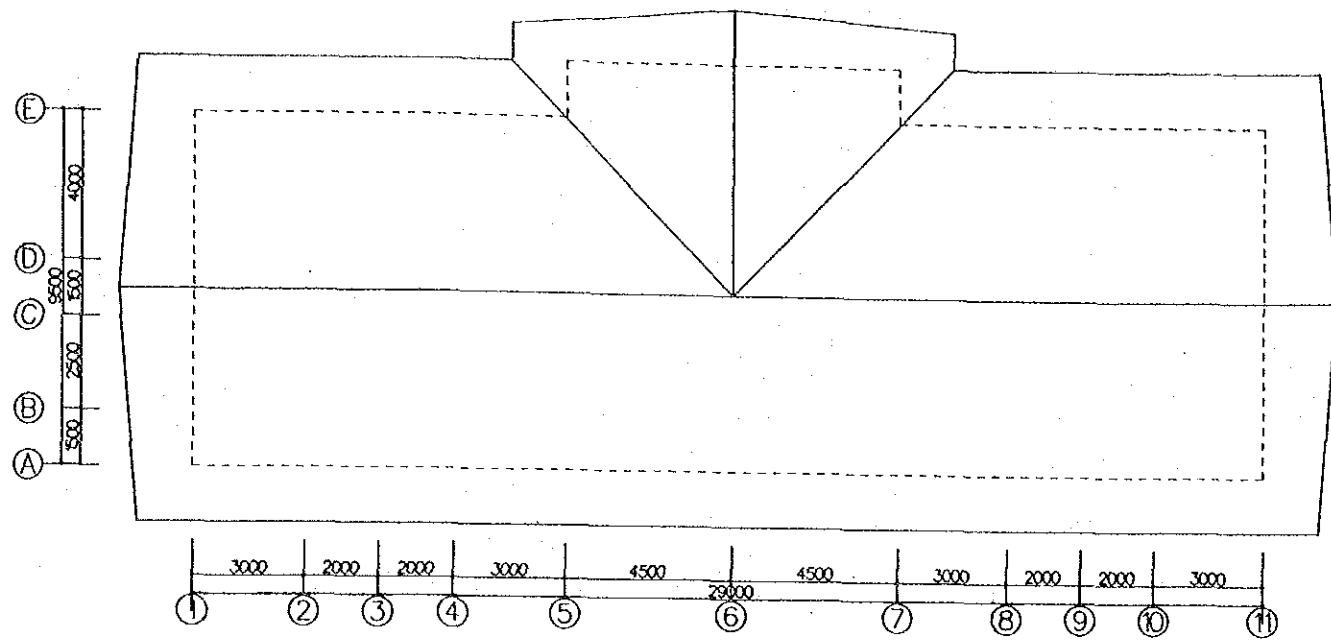
INTERIOR FINISH SCHEDULE

BUILDING NAME	RM NAME	RM NO	FLOOR	BASE BOARD	WAINSCOT	WALL	CEILING	C.H.	REMARKS
GUEST HOUSE A, B	LIVING RM		TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM MORTAR TROW. EP	ACOUSTIC BOARD PANELLING	2,700	
	DINING RM		DO.	DO.		DO.	DO.	2,700	
	BED RM		DO.	DO.		DO.	DO.	2,700	
	KITCHEN		DO.	DO.		DO.	DO.	2,700	
	BATH RM		50x50 MOSAIC TL.	TRM TL.		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANELLING 1+1 VE	2,700	
	MAID RM		TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM MORTAR TROW. EP	ACOUSTIC BOARD PANELLING	2,700	
	BATH RM(MAID)		50x50 MOSAIC TL.	TRM TL.		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANELLING 1+1 VE	2,700	

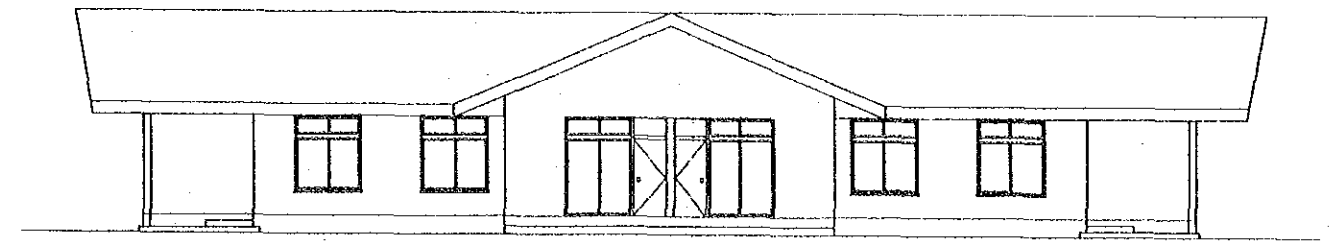
EXTERIOR FINISH SCHEDULE

ROOF	ROOF TL. ROOF PITCH 4/10	TOP SHED FRAMING	TIMBER STRUCTURE
EXTERIOR WALL	BRICK MASONRY, CEM. MORTAR TROW, SPRAYTILE FINISH	CANOPY	FLOOR : CEM. MORTAR TROW WALL : BRICK MASONRY CEM. MORTAR TROW, SPRAYTILE FINISH EAVES CEILING : ASBESTOS BOARD PANELLING 1+1 VE
SASH	EXTRUDED ALUMINIUM	CARPORT	DO.

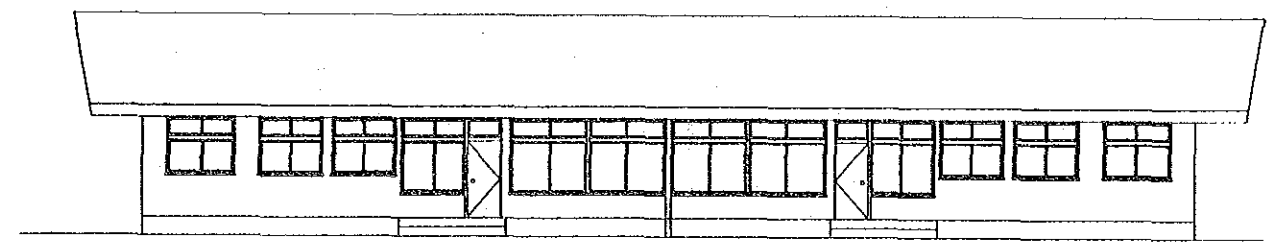
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		B=1:100	FINISH SCHEDULES SECTION ELEVATION PLAN	



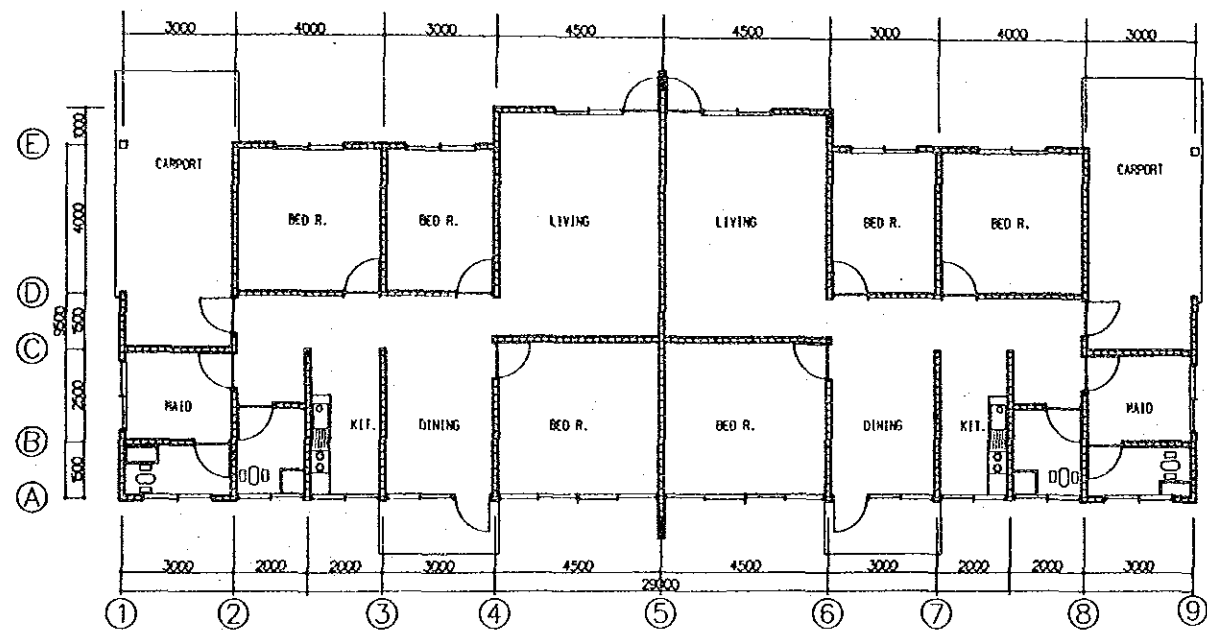
ROOF PLAN



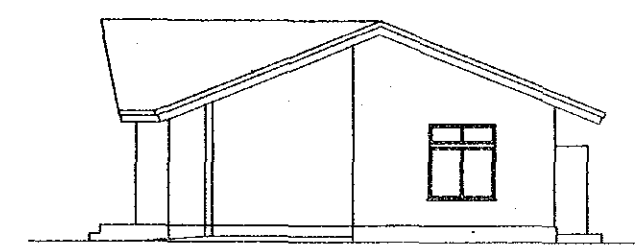
NORTH SIDE ELEVATION



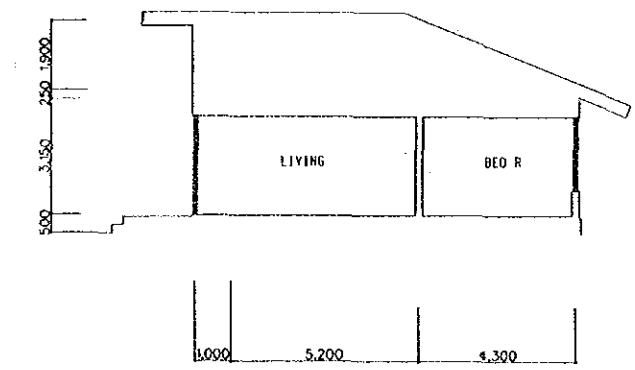
SOUTH SIDE ELEVATION



PLAN



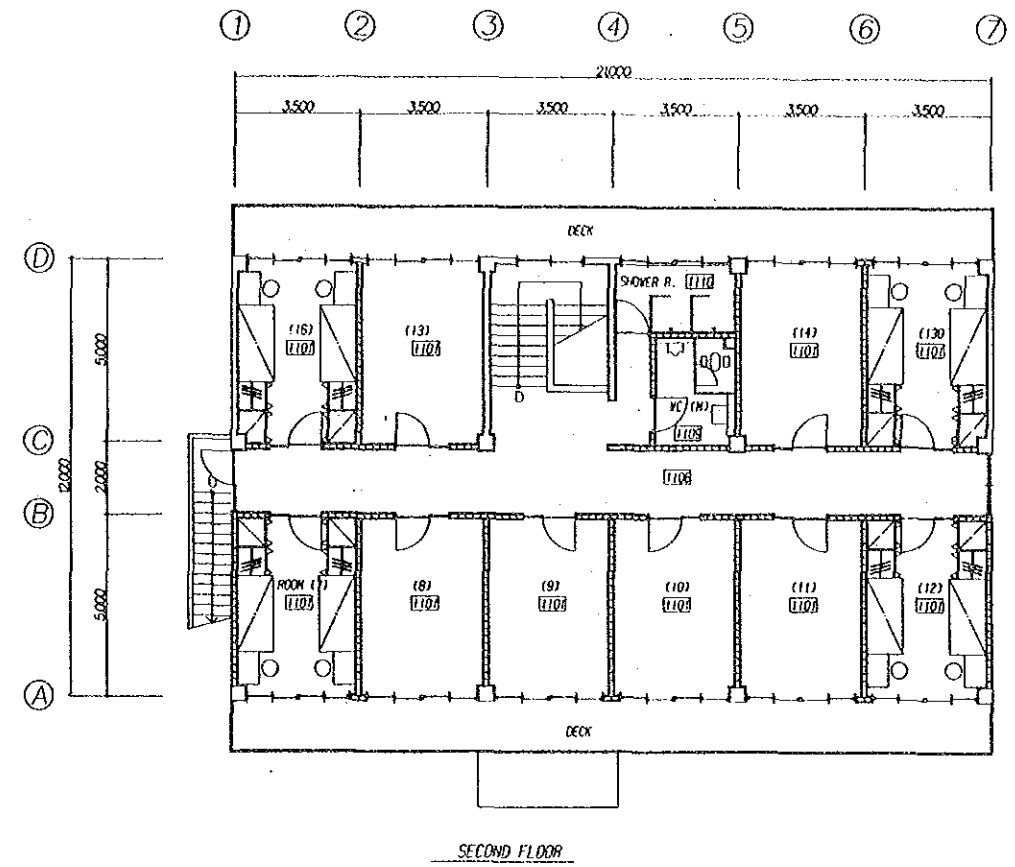
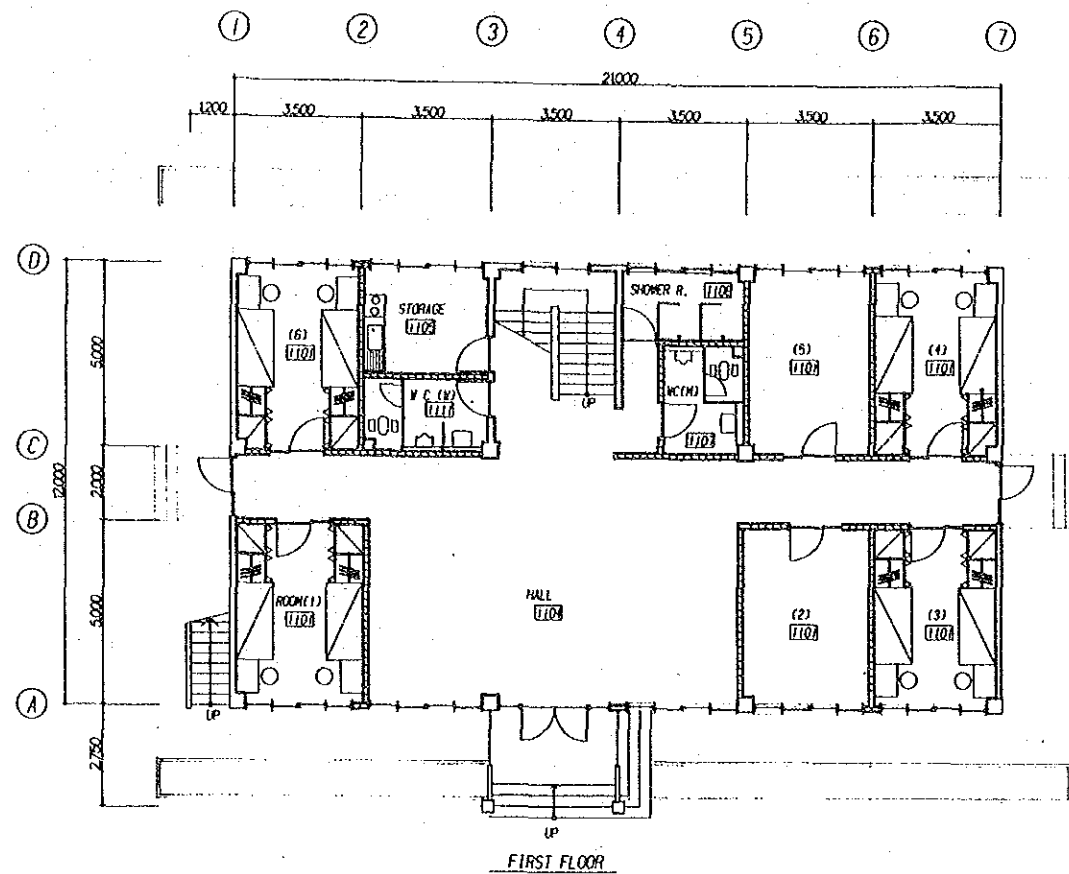
WEST SIDE ELEVATION



SECTION

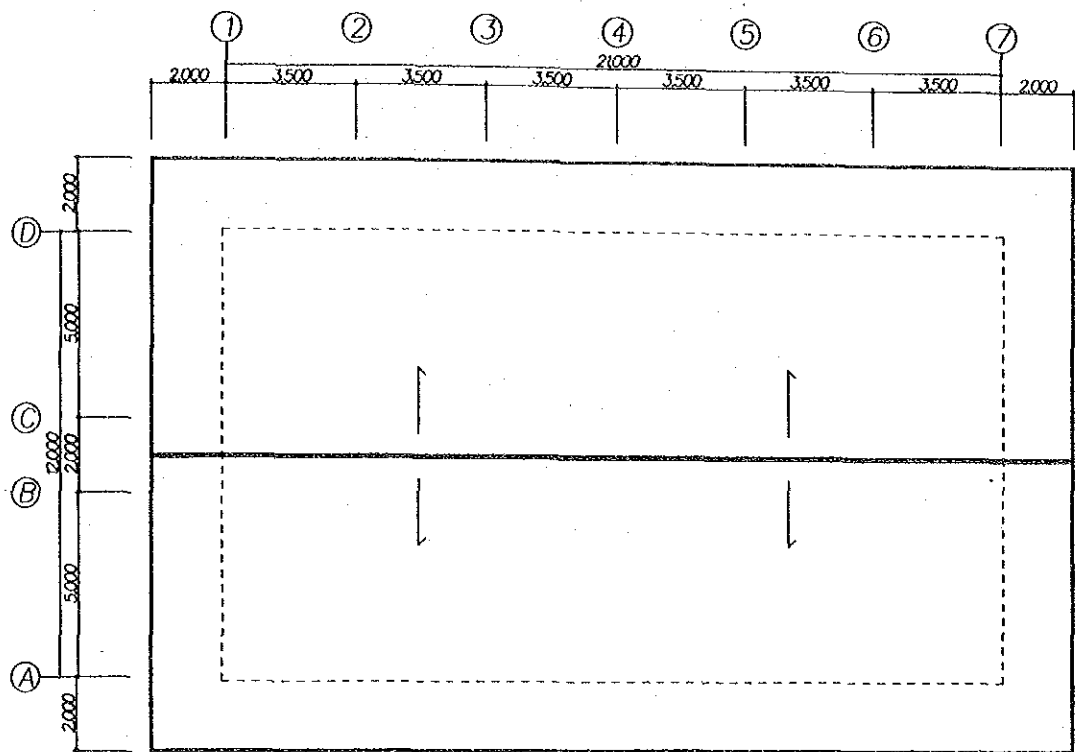
GUEST HOUSE (B)

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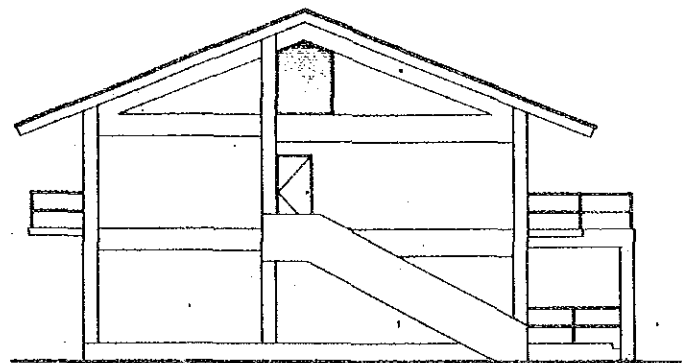


INTERIOR FINISH SCHEDULE									
BUILDING NAME	RM NAME	RM NO	FLOOR	BASE BOARD	WAINSCOT	WALL	CEILING	C.H.	REMARKS
DORMITORY	ROOM	101	TERRAZZO BLK.	WOODEN BASE BOARD SOP		CEM. MORTAR TROW. EP	ACOUSTIC BOARD PANNELLING	2,700	
	HALL	104	DO.	DO.		DO.	DO.	3,000	
	STORAGE	105	CEM. MORTAR TROW.	CEM. MORTAR. TROW.		CEM. MORTAR TROW. VP	DO.	2,700	
	CORRIDOR	106	TERRAZZO BLK.	WOODEN BASE BOARD SOP		DO.	DO.	2,700	
	W C (W)	107,109	50x50 MOSAIC TL.	TRIM TL.		110x110 SEMI-PORCELAIN TL.	ASBESTOS BOARD PANNELLING 1/4 VE.	2,500	BOOTHWATER PROOF PLYWOOD/SH/RAI SOP, DRESSING TABLE:TERRAZZO BLK.
	WASHING ROOM	108,110	DO.	DO.		DO.	DO.	2,500	BOOTHWATER PROOF PLYWOOD/SH/RAI SOP
	W C (R)	111	50x50 MOSAIC TL.	DO.		DO.	DO.	2,500	BOOTHWATER PROOF PLYWOOD/SH/RAI SOP, DRESSING TABLE:TERRAZZO BLK.

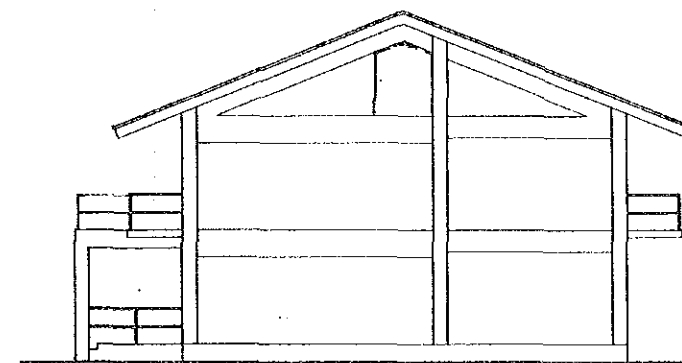
EXTERIOR FINISH SCHEDULE	
ROOF	ROOF TL. ROOF PITCH 4/10
EXTERIOR WALL	BRICK MASONRY,CEM. MORTAR TROW, SPRAYTILE FINISH
SASH	EXTRODED ALUMINIUM
DECK	CEM. MORTAR TROW.
ROOF DRAIN	(CAST IRON) INCLUDED IN PLUMBING WORK
TOP SHED FRAMING	TIMBER STRUCTURE



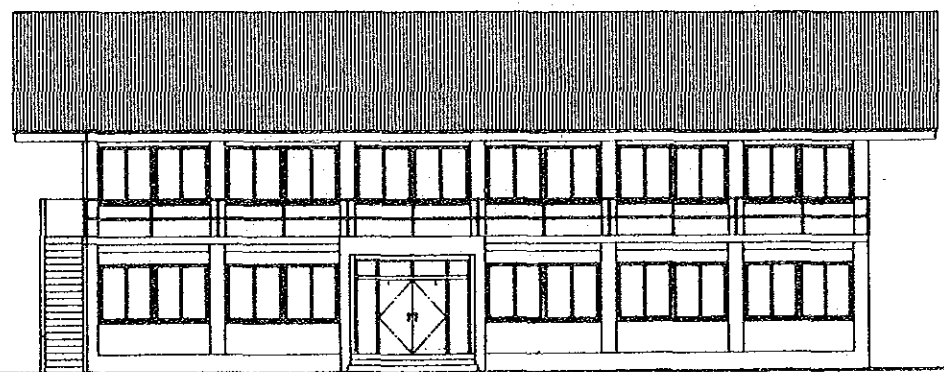
ROOF PLAN



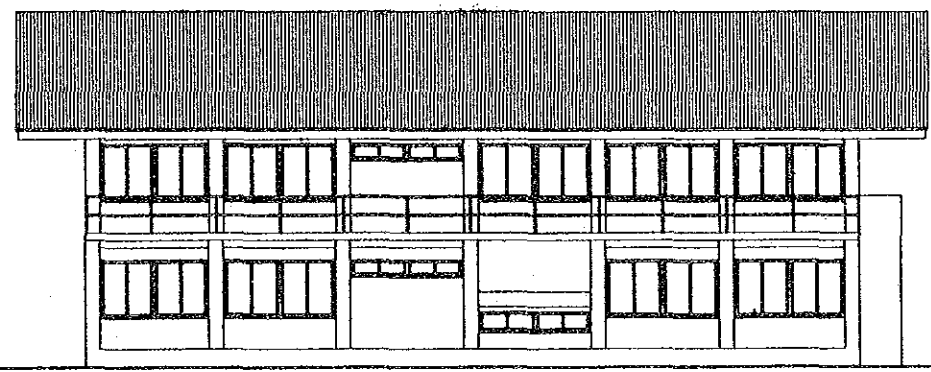
WEST SIDE ELEVATION



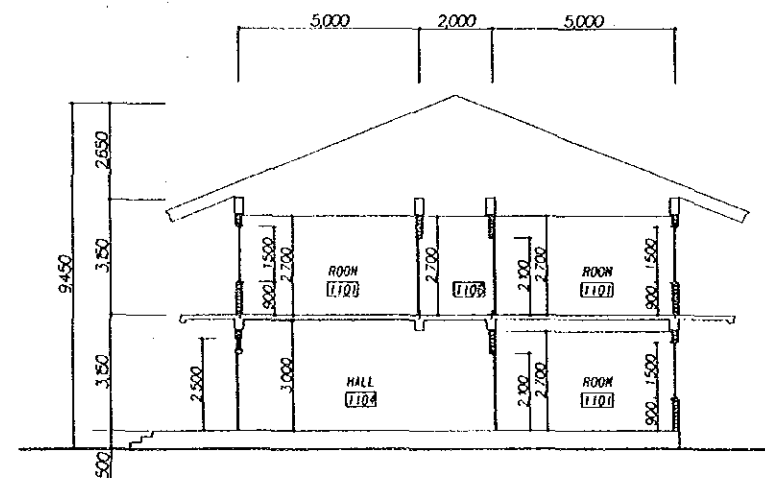
EAST SIDE ELEVATION



SOUTH SIDE ELEVATION

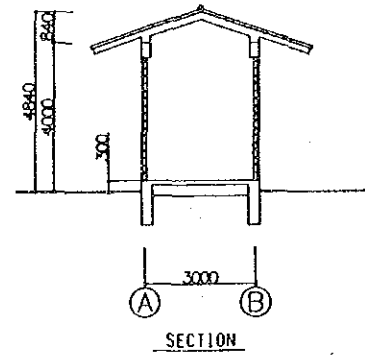
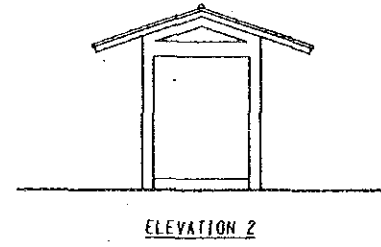
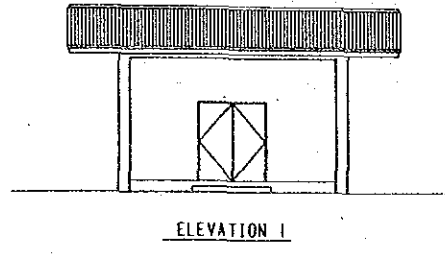
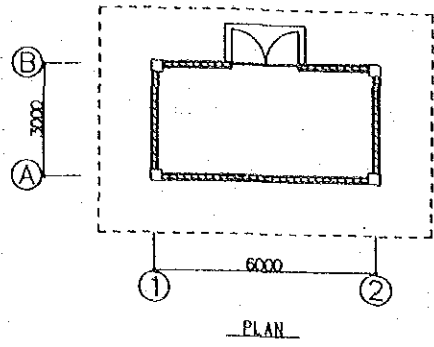


NORTH SIDE ELEVATION

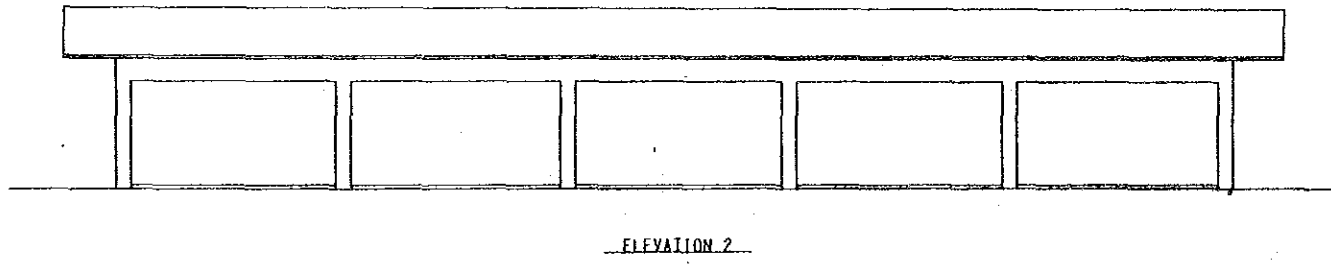
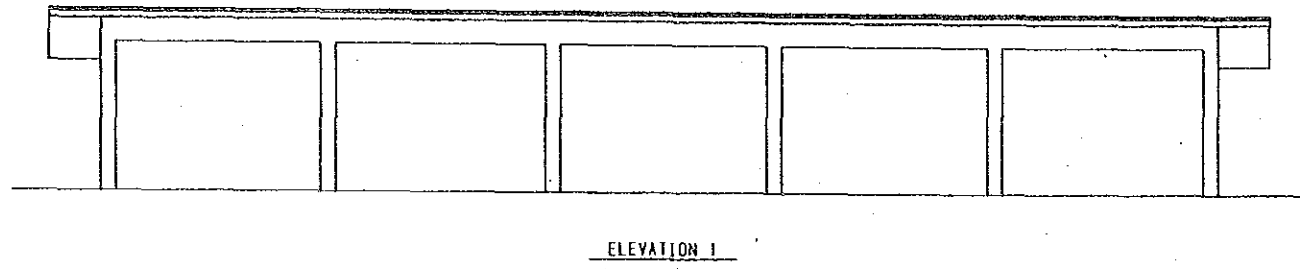
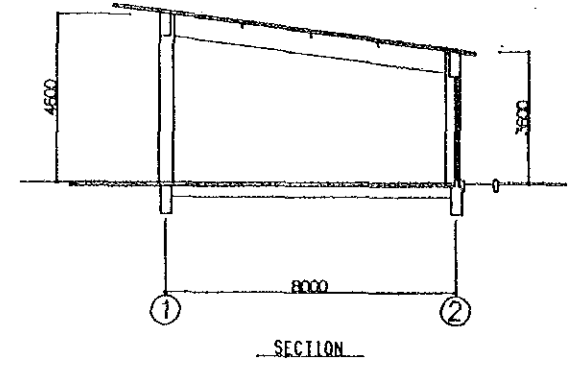
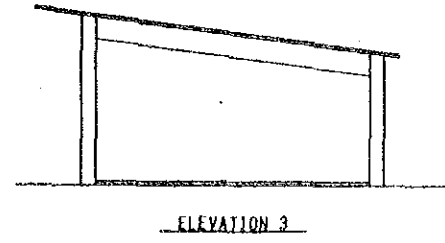
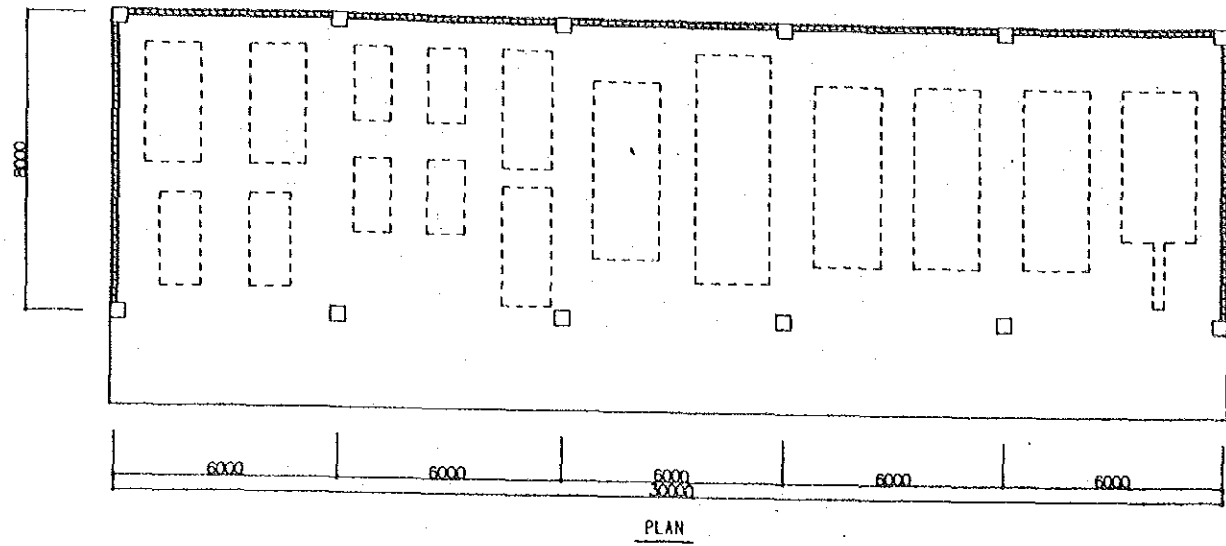


SECTION

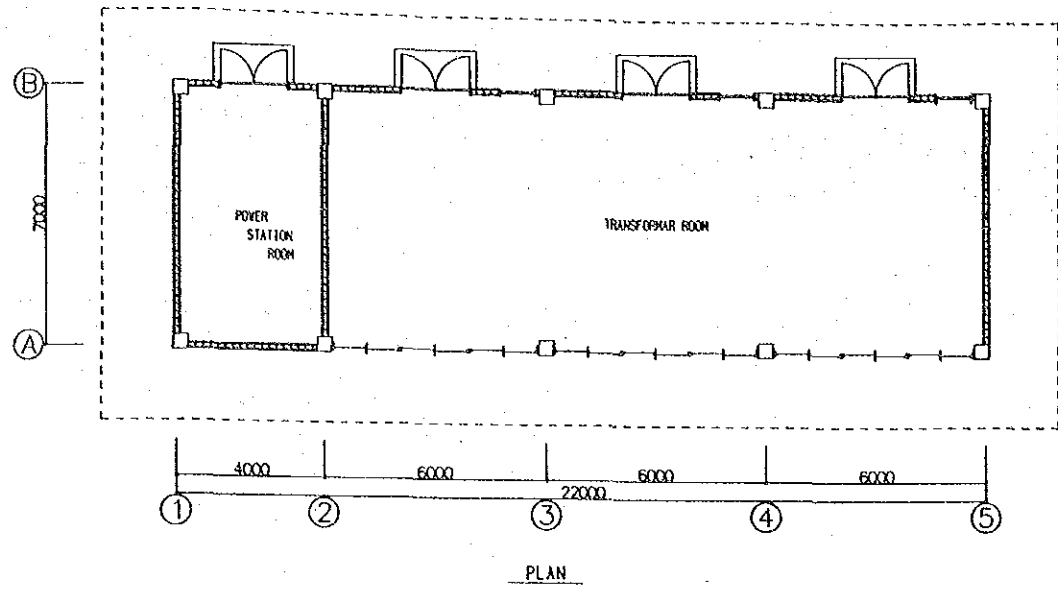
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	APPROVAL	SCALE	DORMITORY	
			ROOF PLAN	21
			SECTION ELEVATION	



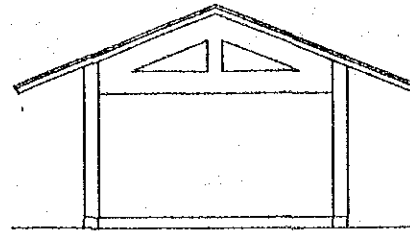
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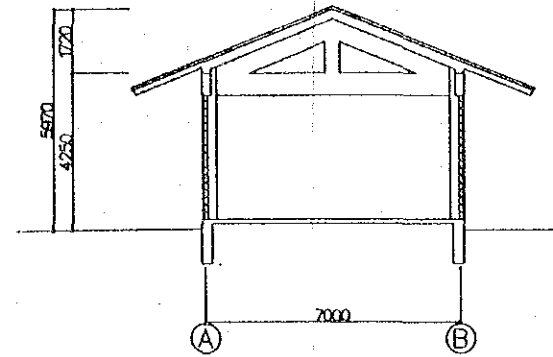
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	APPROVAL	SCALE	GARAGE	
		8=1:100	PLAN ELEVATION SECTION	23



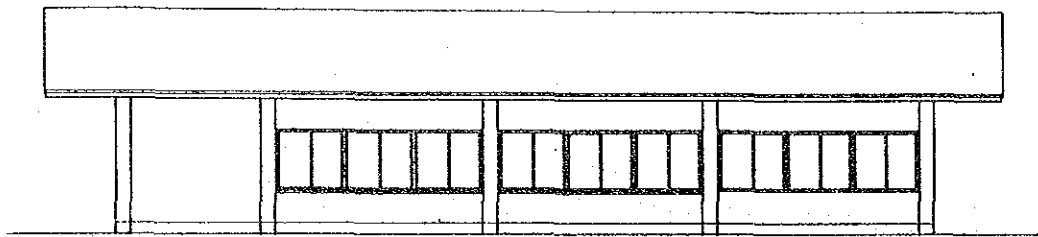
PLAN



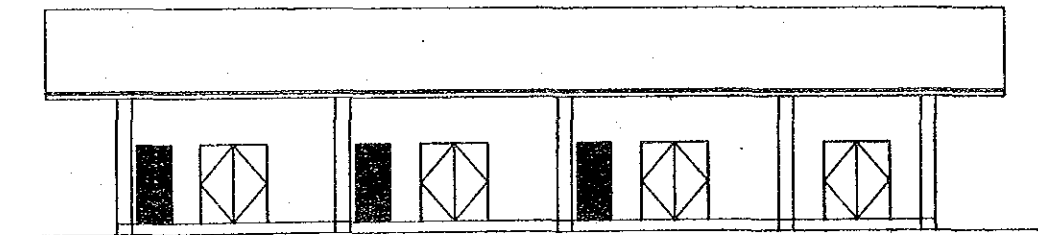
NORTH SIDE ELEVATION



SECTION



WEST SIDE ELEVATION



EAST SIDE ELEVATION

NOTE

WORK NO.

DATE

TITLE

TRANSFORMER STATION

DRAWN BY

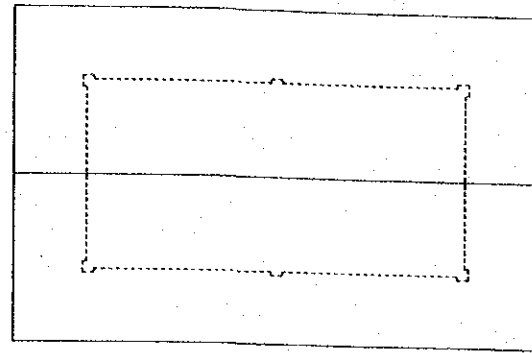
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SCALE

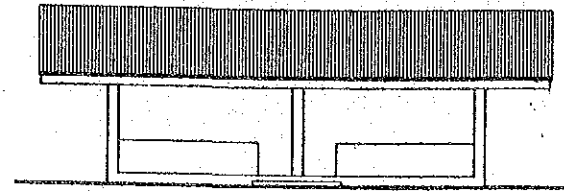
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PLAN ELEVATION SECTION

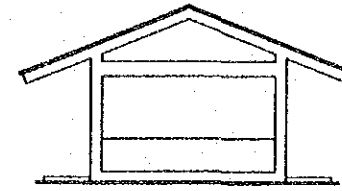
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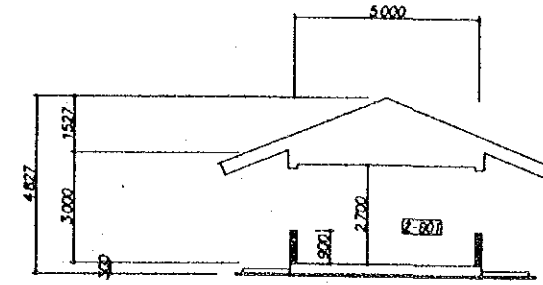
ROOF PLAN



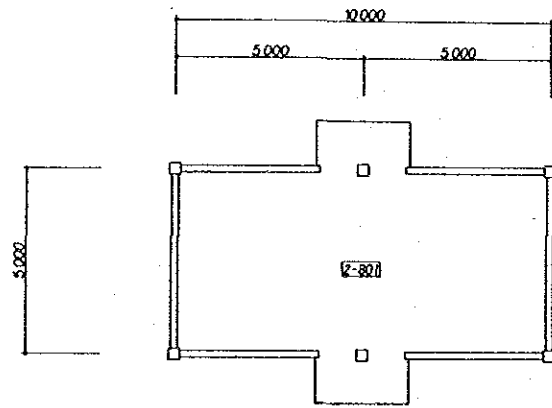
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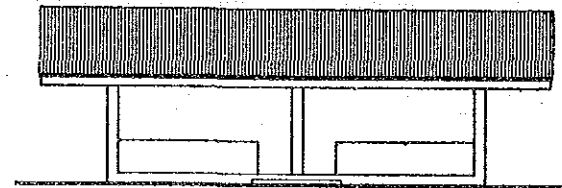
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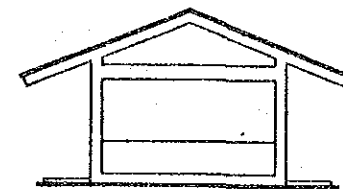
SECTION



PLAN

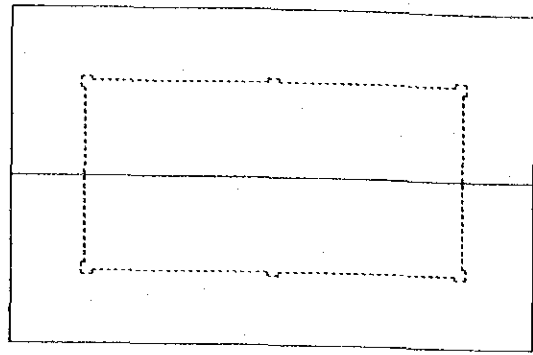


EAST SIDE ELEVATION

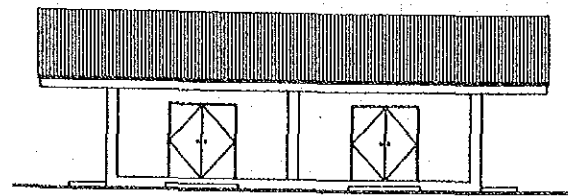


SOUTH SIDE ELEVATION

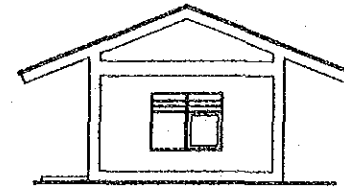
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	APPROVAL	SCALE	FARM HOUSE	25
		S=1:100	PLAN ELEVATION SECTION	



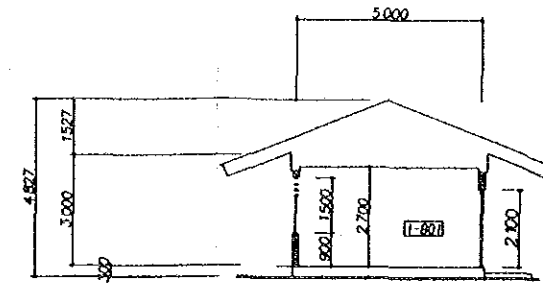
ROOF PLAN



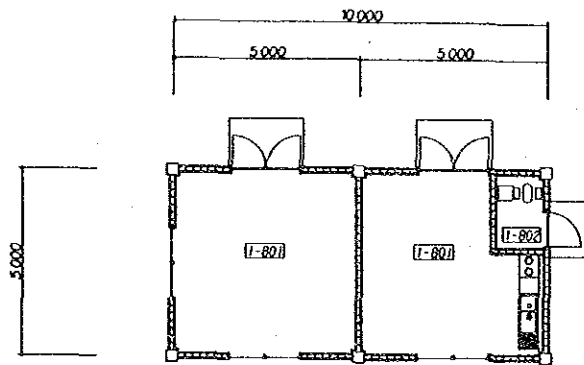
NORTH SIDE PLAN



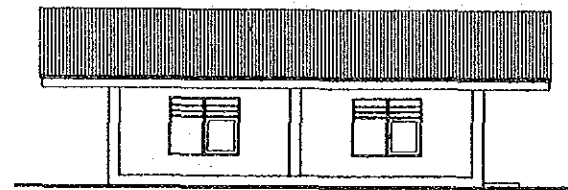
WEST SIDE ELEVATION



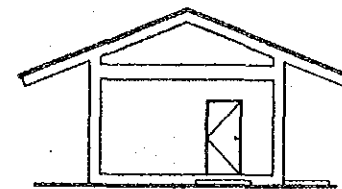
SECTION



PLAN



SOUTH SIDE ELEVATION



EAST SIDE ELEVATION

NOTE	WORK NO.	DATE	TITLE	DRAWN NO.
	APPROVAL	DRAWN	SCALE	26
		8=1:100	FARM HOUSE PLAN ELEVATION SECTION	

CHAPTER 6 EXECUTION ORGANIZATION FOR THE PROJECT

- 6-1 Executing Agency
- 6-2 Construction Policy
- 6-3 Scope of Work
- 6-4 Material Plan
- 6-5 Implementation Schedule
- 6-6 Maintenance Plan
- 6-7 Rough Estimate of Owner's Scope of Work

Chapter 6 Execution Organization for the Project

6-1 Executing Agency

Executing Agency is of Directorate General of Food Crops of Ministry of Agriculture.

6-2 Construction Policy

A formal Exchange Notes will be made by the Indonesian Government with the Japanese Government, upon going through the construction of the center as a formal procedure in gratuitous funding co-operation. With the completion of the Exchange of Notes, Japan will formally commit itself to co-operation and the actual work will commence. A design contract will be made between a consultant of Japanese nationality and the Indonesian Government.

The party concerned with this contract on the Indonesian side is the Directorate of Production and the Directorate General of Food Crops Agriculture. And also, the SEKNEG and the D.P.U. will associate themselves with the proceedings of this project.

After drawings, construction, testing-training equipment documents and others that will be needed in making a construction bid contract are prepared, confirmation from the Indonesian Government will be received. Then a selection of contactors will be made through qualification surveys and those who qualified will be called together and bidding will take place.

After the construction contract is signed between the successful bidder and the Indonesian Government, construction will commence with verification of the Japanese Government regarding the construction contract.

The Indonesian Government shall furnish all the necessary preparations, site preparation, construction of access roads, electrical supply and telephone cable to the boundary of this site prior to the construction contract.

Concerning the construction of this center will follow the general contract method, and the general contractor will be selected through bidding by Japanese contractors. The successful price will be examined and then if it is confirmed to be adequate, a construction contract will be signed by the client. Construction will be started after the construction contract is verified by the Japanese Government. As construction co-operation with appropriate local specializing firms is the key to success, an organization system that would assure smooth management must be worked out by contemplating the role of distribution between the original contractor and the local

subcontractor and personnel.

It is presumed that construction will begin two and half months after the conclusion of the formal Exchange of Notes regarding the Japanese Government's Grant Aid between the two countries.

Regarding management, the Japanese consultants will hold meeting with the Ministry of Agriculture and the concerned agencies.

An expert will be dispatched to hold meeting with the concerned agencies of the Ministry of Agriculture and make necessary adjustment etc. Furthermore, quality control and supervision of construction will be taken care of. Technicians will be dispatched periodically from Japan to provide sufficient support.

6-3 Scope of work

The allocation of construction between the Japanese and Indonesian contractors must be determined to make the overall construction work of this center go smoothly.

The liabilities of each party regarding each part of the construction are listed below.

Japanese funded construction work	Indonesian funded construction work
1. Building construction Framework construction, finishing standard laboratory furniture.	1. Building construction Mosuque, guard's house
2. Electrical facility construction Receiving and transforming facilities, motive and mainline facilities, lighting rode, fire alarm systems, indoor fire extinguishers and sprinklers.	2. Land readjustment Felling, rooting of existing trees, land readjustment
3. Water supply, drainage and sanitation facilities Water supply facilities, hot water supply facilities, drainage and	3. Exterior construction Landscape architecture, planting, gates, fences, paving of the access roads outside the site. Paving the by-pass inside the site.
	4. Servicing and connecting of infrastructures. Servicing of electricity and

venting facilities, sanitary equipment & facilities, fire extinguishing facilities, air-conditioning facilities, fire extinguishing facilities.

4. Special facilities

Sewage disposal facilities, emergency backup power supply, incinerator, light oil supply facilities.

5. Exterior construction work

Fire hydrants, paths on premises, lamp posts, roads inside the site.

6. Construction work

associated with the installation of laboratory and testing equipment.

Installation of testing, experimenting and training equipment.

telephone wires, installation of portable fire extinguishers, sewage facilities (drainage of the access roads outside the site)

5. Accessories and furniture

Curtains, blinds, furniture in general.

6. Others

Building permits, drilling and other surveys, customs clearance upon unloading.

6-4 Material Plan

The statements were on the assumption that these materials will be acquired in Jakarta city.

Import prohibited materials: Wide flange bars, High tension bolts
Glass, Ceramicware tiles
(Administrative measure in effect since 1982)

Building materials:

Framework: Gravel, cement, ready-mixed concrete, etc., although uneven in quality, should not give rise to problems upon usage. The quality of the reinforcing bars conforms to the JIS standards, but since the standard length is 12m, there probably will be considerable cut-off waste and hence steel bars (wide flange) are built-up products, it might take quite a while for them to be manufactured.

Finishing: Both the quality and standards of the brick are uneven but this should cause no problems as a

foundation for plastering. Since the aluminum doors and windows are manufactured by small firms, supervision from the drafting of shop drawings through installation is necessary. Furthermore, the production ability cannot be regarded as satisfactory. Therefore it is decided that these will be imported from Japan. The same can be said of steel hardware and shutters.

Electrical

facilities: There are some problems as to the quality of the electricity cables and the wiring equipment. Vinyl chloride tubes can be acquired locally but no conduit tubes can. The lighting fixtures are of bad quality and also expensive, so these will be obtained in Japan. Lamps will be acquired locally.

Mechanical

facilities: It is prohibited to import piping material. Air conditioners, etc, can be obtained locally but to reduce the costs these will be procured in Japan.

Agricultural Machinery for experiment, test and training shall be supplied from Japan as a rule in consideration of equipment accuracy and its maintenance.

6-5 Implementation Schedule

Although there are many buildings to be constructed there isn't any pile work to be done so the construction period of this center can be estimated at approximately 12 months.

One location at the access road does have a weak shoulder as and some old bridges do make the transit of large vehicles difficult, but there are no factors that will delay construction.

Wet construction methods such as brick laying, plastering, and tile work construction will be employed. Since a length interruption due to heavy rain in the rainy season can be expected, a sufficient drying period should be awaited prior to construction.

Implementation Schedule		E/N												months												
		-6	-5	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
The Government of the Republic of Indonesia	Draft Mission Report																									
The Government of Japan	Final E/N																									
	Approval by the Cabinet																									
	Approval by Recipient Government																									
	Approval by Recipient Government																									
Consultant	Basic Design Study																									
	Detailed Design																									
	Tender Document																									
	Contract																									
General Construction	Construction Work																									
Construction Work Owner's Responsibility	Construction of Access																									
	Felling, Rooting																									
	Land Reform																									
	Electrical Servicing																									
	Request of Approval																									

6-6 Maintenance Plan

An appropriate organization and management system, as well as servicing, is essential for the maintenance of the center's functions and the fulfillment of the initial objectives.

Personnel with expert knowledge of building, as well as the additional facilities and equipment will be employed to maintain the facilities without interfering with the center's functions.

Each building and each department will take care of the laboratory and testing equipment individually, but servicing and maintenance repairs thereof will be left to the specialists. A maintenance management budget is necessary to meet the maintenance expenses of the facilities. This budget will consist of facility and equipment maintenance expenses, as well as fuel and lighting expenses.

1) Maintenance Plan of the Facilities

The durability of the buildings depends heavily on the frequency of cleaning and daily maintenance. In other words, daily maintenance and cleaning will enable the employees to work in a favorable environment, enabling better treatment of the building facilities, more prompt detection of flaws and malfunctions, and who reduced maintenance expenses.

A daily cleaning staff of 8-10 people should be secured for these facilities. The life-span of these facilities regarding repairs is presumed to be 25-30 years. Within this life-span there should be no structural repairs, and most work will consist of repairs to the interior and the exterior finish and renovations.

Inspection and repairs of the buildings must be conducted periodically, in the following categories.

(Exterior)

- . Exterior finish repairs, re-painting and inspection of cracks in the concrete caused by neutralization.
(once every 5 years)
- . Repairing and re-painting of the roof and inspection
(inspections: once a year,
others every 5 years)
- . Inspection and partial repairs of roof waterproofing
(inspection: once a year,
repairs: as occasion demands)
- . Inspection and repairs of the sealing of exterior

- hardware
(once a year)
 - Coating of exterior hardware
(once/3 years)
 - Periodical inspection and cleaning of gutters,
manholes, etc.
(once a month)
 - Painting of exterior fences
(once a month)
 - Periodical gardening
(as occasion demands)
- (Interior)
- Change in interior decoration
(as occasion demands)
 - Repairing and repainting of interior wall surfaces
(as occasion demands)
 - Replacement of ceiling materials
(as occasion demands)
 - Adjustment and replacement of hardware
(as occasion demands)

Furthermore, judging from the present situations, a 24-hour a day patrol, inspection of goods carried in and taken out, and entrance and exit control of visitors, must be carried out in order to avoid possible theft of testing and experiment equipment.

2) Building facilities

As for the building facilities, the major issue is to understand the nature of the facilities and equipment and to achieve a full knowledge regarding its operation.

Proper maintenance measures such as daily operational management, periodical inspection and repairs must be carried out in order to operate the facilities properly and in order to avoid breakdowns and other sorts of trouble.

The technical engineering personnel called for in the equipment plan are one electrical engineer and one air-conditioning and water system engineer, a total of two.

The building equipment must be overhauled and its worn-

out parts replaced periodically. Therefore, a maintenance and inspection scheme must be set for each type of equipment.

The durability of the general building equipment is as follows (approximate figures):

(Electrical equipment)

Generator	15 - 20 years
Switch board	20 - 30 years
Fluorescent lamps	5000 - 10,000 hours
Light bulbs	1,000 - 1,500 hours
Telephone switchboard	20 - 30 years
Public address equipment	10 - 20 years

(Water supply and drainage facilities)

Pumps	10 - 15 years
Tanks	15 - 20 years
Pipes, Valves	10 - 15 years
Sanitary ware	25 years
Fire extinguishers	20 years (Chemical contents, 7 years)
Gas equipment	6 years
Sewage disposal machinery	7 years

(Air-conditioning facilities)

Pipes	10 - 15 years
Fans	10 - 15 years
Air-conditioners	10 - 15 years
Package air-conditioners	5 - 10 years

3) Experiment and testing analysis equipment

These can be divided into two categories, analysis equipment and agricultural machinery equipment.

a) Analysis equipment

Large number of the analysis equipment have electronic circuits, micro-computers and such build into them, and the major cause of breakdown with these machines is voltage spikes. Furthermore, the analysis equipment must be inspected and calibrated periodically according to the frequency of use.

b) Agricultural machinery equipment

Agricultural machinery equipment are large, but the mechanism of this equipment are relatively simple compared to those of the analysis equipment. General

inspection should be carried out periodically with basic repairing of equipment and parts should be provided in case of breakdowns.

4) Maintenance management costs

Upon completion and delivery of the center, the necessary annual maintenance management costs will be calculated under the following classifications, according to the present (September, 1985) prices.

Annual maintenance management costs

- . Facility operating costs
- . Cleaning costs
- . Facility maintenance, inspection and repairing costs

a) Facility operation costs

These will be calculated for each energy type. The operational load of the facilities will be an estimated figure.

- | | |
|----------------------|-------------------------------------|
| 1. Facility related | (1) Electricity |
| | (2) LPG |
| 2. Equipment related | (1) Electricity |
| | (2) Fuel (light oil) |
| | (3) Special gas
(oxygen welding) |

1-(1) Electricity

A. Lighting and outlets

Illumination	101.56 KW
Exterior illumination	7.5 KW
Outlets	85.35 KW

$$101.56KW \times 365D \times 6/7D \times 8h \times 0.4 \times 65RP/KWh \\ = 6,445.984 \text{ RP/year}$$

$$194.41KW \times 365D \times 6/7D \times 4h \times 0.05 \times 99RP/KWh \\ = 1,204,287 \text{ RP/year}$$

Total 7,650,271 RP/year

B. Electric motors

Pumps

$$2.2KW \times 1.6h/D \times 5.5 \text{ KW} \times 19.2h/D \times 0.2 + 2.2KW$$

$$\times 1.6\text{h/D} + 7\text{KW} \times 0.3 \times 24\text{h/D} = 68 \text{ KWh/D}$$

$$68 \times 365 \times 6/7 \times 8 \times 0.3 \times 65\text{RP/KWh} = 244,028 \text{ RP/year}$$

Ventilation fans

$$5\text{KW} \times 365 \times 6/7 \times 8 \times 0.3 \times 65\text{RP/KWh} = 2,450,046 \text{ RP/year}$$

$$\text{Total} \quad 6,012,862 \text{ RP/year}$$

$$A + B = 13,663,133 \text{ RP/year}$$

C. Basic facility costs

$$800\text{KVA} \times 1,970 \text{ RP/month} \times 12 \text{ months} = 18,812,000 \text{ RP/year}$$

1-(2) LPG

$$32.55\text{kg/D} \times 365\text{D} \times 6/7 \times 0.5 \times 365 \text{ RP/kg} = 1,868,672 \text{ RP/year}$$

2-(1) Electricity

$$180\text{KW} \times 0.2 \times 365 \times 6/7 \times 0.5 \times 65\text{RP/KWh} =$$

2-(2) Fuel (light oil)

$$51 \times 365 \times 6/7 \times 7 \times 0.5 \times 0.5 \times 220\text{RP/l} = 1,204,500 \text{ RP/year}$$

2-(3) Special gas

$$250,000 \text{ RP/year}$$

$$\text{Total} : 38,450,605 \text{ RP/year}$$

$$\approx 38,460,000 \text{ RP/year}$$

b) Cleaning costs, security costs

Cleaning costs and security costs will be calculated from personnel expenses.

A. Cleaning costs (10 persons)

$$3,500\text{RP/D.pers} \times 10\text{pers} \times 365\text{D} \times 5/7\text{D} = 9,125,000 \text{ RP/year}$$

B. Security costs(4persons, 24-hour surveillance/
two on guard at all times)

4,000 RP/D.pers x 4pers x 365D = 5,840,000 RP/year

Sub-total : 14,965,000 RP/year

c) Facility maintenance, inspection and repairing costs

Building

The repair costs of buildings vary according to their age. If we presume the life cycle to be 30 years, the average annual repair cost is 1,500RP/m². Hence, in this facility's case, it will be 1,500RP/m² x 8,500 m² = 12,750,000RP/year. The costs during the first 3 - 5 years will be 1/20 - 1/10 of this figure.

Facilities

The maintenance and repair costs of the building's facilities will be very low during the first 3 - 5 years, but after that period, replacement of parts, overhauling and replacement of the machines themselves will become necessary.

These costs are considered to amount to 3 - 2% of the mean facility construction costs (direct construction costs), during a 10 year span.

100,000,000 RP x 2% = 20,000,000 RP/year

The annual maintenance management cost of the facility alone, excluding personnel costs and sundries amounts to 3,425,000 RP/year.

6-7 Rough Estimate of Owner's Scope of work

Following is a rough estimate of Owner's scope of work.

(1) Conditions assumed in caluculations

- a. Time of calculation : December 1985
- b. Foreign currency exchange rate : US\$ 1 = ¥203
- c. Construction period : Approx. 12 months
- d. Contractor : a corporation of Japanese nationality
- e. Others : Including such matters as import tax reductions for materials and equipment purchased through Grant Aid and tax

reductions applying to Japanese contractor firms.

(2) The construction expenses to be provided by the Indonesian side:

Item	Amount (RP)	Remarks
Felling and rooting within the construction site	4,600,000	
Drilling tests	4,000,000	Well being 4 locations Ground boring RP 4,000,000
Land readjustment	37,000,000	
Bypass routes	5,545,000	
Access roads	221,824,000	Width 5.5m, asphalt paved, total length 1.8km
Drainage of access roads	27,728,000	
Landscape architecture	70,000,000	sodding
Fencing	22,182,000	Encircling the site will be of crimp nets
Gates	5,545,000	2 locations
Guard house	38,819,000	One each on the east and south sides
Mosque	73,202,000	Mosque of average size, approx. 92 m2
Servicing of electricity	22,182,000	Tapping of high-voltage wires Not include transformers
Servicing of telephones	22,182,000	Upto the NDF's in the buildings
Furniture, curtains, etc.	166,368,000	General house and office furniture, curtains, etc.
Building Permit fees	23,227,000	
Total	744,404,000	

CHAPTER 7 PROJECT EVALUATION

Chapter 7 Project Evaluation

For the republic of Indonesia to advance into sustained self-sufficiency of food and a higher income of the farming population, as well as a higher output of food crops, mechanization of the farming work is a matter of urgency. Many efforts have been expeted, including investigations and research into agricultural machines, development and improvement by I.R.R.I of agricultural machines. The foundation of the center is to engage in the development and improvement efforts of the agricultural machines geared to the regional circumstances and climate of the vast land of Indonesia.

The Appropriate Agricultural Machinery and Technology Development Center is an agency to analyze and judge if the mechanization of agriculture in the Republic of Indonesia is appropriate to do. There is only one such organization in the country. In other words, such important matters as testing, approval, design, development, improvement, manufacture of agricultural machines and training for utilization of such agricultural machines are all concentrated here. Preparation formalities and procedures for establishing test methods for agricultural machines are also accomplished. The center plays the leading role in making the relative investigations and research. Also, the Appropriate Agricultural Machines and Technology Development Center provides training and study for the personnel of its Technical Development Division. Instructors of regional training organizations and manufacturers of agricultural machines to improve their effectiveness. Thus the center itself is an important facility both in name and reality to achieve appropriate technical developments for the agricultural machiens of the country.

Direct effects of the establishment of this center are expected as follows:

- Increase in food crop production including rice
- Increase in the number of low-price farm machines which are easy to handle and meet the local needs
- Wide-spread use of farm machinery
- Increase in farmers' income
- Improvement of farm machinery technology

Indirect effects are as follows:

- Decrease in the number of the young generation deserting agriculture through freedom from heavy labor work

- Shift of the agricultural population into non-agricultural sectors through stabilization of farm village economy
- Full promotion of the industrial structure based on the development of manufacturing industry

As for the effectiveness of the project, the center may be regarded as being worthy at receiving gratuitous funding. This is due to the center's potential abilities regarding analysis of appropriate agricultural mechanization and technical improvement for testing, approval, design, development, trial manufacture and utilization for agricultural machines.

CHAPTER 8 CONCLUSION AND PROPOSITIONS

8-1 Conclusion

8-2 Propositions

Chapter 8 Conclusion and Proposition

8-1 Conclusion

The project in review can be grasped as one of the endeavours in the Republic of Indonesia to modernize agricultural production. Today, the country is exerting itself for the promotion of an increased food production. In this connection, the country in its year national development plan mentions as goals the development of agriculture for the sustained food self-sufficiency policy and the development of the machinery industry to support the nation's industry, among others. In achieving such goals, an increased production of food crops, and improved food products with continuous increased and enlarged stable exports are essential. In the solution cultural machines and improvement on the level of basic agricultural skills have an extremely important significance.

The project worked out in conference with the Republic of Indonesian authorities has, as seen from the aspects of function, scale, composition, operation and finance, undertakes successful competition.

Thus, as seen from the aspect of modernization of agricultural production, the Project in review, makes contributions to the enlarged production of food, the increased income of the farming population and finally to the improving eating habits of the nation. Also, the improvement on the development of appropriate agricultural machines is designed.

8-2 Propositions

1. For implementing the project in review, the technical co-operation of the Japanese side is indispensable for the operation of the Project and the countries should preferably collaborate with each. Particularly essential is the training of such capable staff who can carry out the design, development and improvement activities. It is also needed that they can further propose the approval and planning of agricultural machines through training in Japan of the technical personnel to be dispatched by the Republic of Indonesia. Project-based technical co-operation by experts will be dispatched by the Japanese Government after the completion of the facilities.
2. In the Republic of Indonesia today the inspection of the agricultural machinery is made by the Agricultural Machinery Development Section. The center will take over the activities of the previously mentioned section. This center will perform inspection activities and maintain an international standard of inspection in order to play the

part of a guest and authoritative figure for inspection.

3. The facilities are planned to function to the minimum necessary requirements based on given data and information. For effective utilization of such facilities contents of tests, those of experiments, and of trial manufacturers are to be taken into consideration. At the same time the training of the skills to use the agricultural machinery is to be closely planned.
4. Full operation of the center to achieve the original objectives requires the proper maintenance and control of the facilities. This further requires the security for personnel involved with the maintenance and control of the facilities. A control organization will do a periodical inspection and servicing of the facilities, machinery and materials.
5. For proper maintenance of the agricultural machinery in the operational stage, it is required to use appropriate methods.

APPENDIX

MEMBER LIST OF STUDY TEAM FOR
CENTER FOR DEVELOPMENT OF APPROPRIATE AGRICULTURAL
ENGINEERING TECHNOLOGY

<u>NAME</u>	<u>POSITION</u>
Team Leader	
Mr. Hideo Ishikawa	Director of Planning and Survey Department, Institute of Agricultural Machinery
Project Management	
Mr. Noriaki Niwa	First Basic Design Division, Grant Aid Planning and Survey Department, Japan International Cooperation Agency
Architectural Planning	
Mr. Hideyo Hachiya	Representative Director Sozosha Co., Ltd.
Architectural Design	
Mr. Eiji Kakizawa	Sozosha Co., Ltd.
Mechanical Planning	
Mr. Hajime Fukawara	Sozosha Co., Ltd.
Equipment Planning	
Mr. Hiroshi Yasuda	Sozosha Co., Ltd.

MEMBER LIST OF DRAFT MISSION TEAM FOR
CENTER FOR DEVELOPMENT OF APPROPRIATE AGRICULTURAL
ENGINEERING TECHNOLOGY

<u>NAME</u>	<u>POSITION</u>
Team Leader	
Mr. Masamichi Shinada	Executive Director, Institute of Agricultural Machinery
Project Management	
Mr. Toshio Namai	First Basic Design Division, Grant Aid Planning and Survey Department, Japan International Cooperation Agency
Architectural Planning	
Mr. Hideyo Hachiya	Representative Director Sozosha Co., Ltd.
Mechanical Planning	
Mr. Hiyoshi Yasuda	Sozosha Co., Ltd.

LIST OF ATTENDANTS AT THE MEETING

M. O. A.

DR. SOETATWO HADIWIGENO	Director General of Food Crops Agriculture
IR. SUHAEDI WIRAATMAJA	Director General of Food Crops Agriculture
IR. SULBIJAT SOEBFOTO	Director of Programming D.G.F.C.A.
DR. BUDIMAN	Directorate of Programming D.G.F.C.A.
IR. D.A. SIHONBING	Director of Food Crops Production Development D.G.F.C.A.
DR. SOEDJATMIKO	Sub-Director of Agricultural Engineering Development
IR. HANDAKA	Sub-Director of Agricultural Engineering Development
IR. GULTOM	Sub-Director of Agricultural Engineering Development
IR. DADANG TARMANA	Preharvest Section Head
IR. RAHMAN MADJIE	Preharvest Section Staff

LIST OF ATENDANTS AT THE MEETING

D. P. U.

IR. AGUS RACHMAT	CHIEF PUBLIC WORK DISTRICT TANGERANG
DRS. H. ENSANG SUWARNA	STAFF OF PUBLIC WORK DISTRICT TANGERANG
IR. ACHMAD SOWITO	ELECOMUENTION OFFICE NSTRICIT TANGERANG
IR. SARDJONO	SUB DIT AGRIC MECHAUJZATION, JUT
IR. RIVAI	BAPPEDA TANGERANG
IR. N.SUHANA ALSYAH	PUBLIC RELATIONS
IR. ACHMAD MASKUW	STUFF OF AGRICULTURE
IR. LENDMG. S	PLN. CAB
IR. A. SUGITIS	MANAGER TANGERANG BRANCH OFFICE

Schedule of Basic Design Study Team (1)

Date	Time	Description
Aug. 12, '85 (Mon)	17:35	Arrival at Jakarta airport
	19:00	Arrival at President Hotel
	20:00	Meeting among the study team at Hotel
13 (Tue)	9:30	Visit to greet Mr. Yamamura, chief of the office of Jakarta JICA
	10:00	Meeting on the schedule for Survey and hearing on the situation of the site at JICA office
	12:30	Meeting and lunch at Wisata Hotel (organized by Dit.of Production)
	16:00	Verification of MOA location
	18:00	Meeting among the study team at Hotel
14 (Wed)	9:00	Meeting on inspection and questionnaire at Dit. of Production
	13:00	Visit to greet Dr. Rukasah, Chief of BAPENAS
	13:00	Meeting on materials at Dit. of Production
	17:00	Meeting among the study team at Hotel
15 (Thu)	9:00	Serpong (Site) Survey
	14:00	Visit to the veterinary drug assay laboratory
	16:30	Serpong (Site) Survey
	19:00	Meeting among the study team at Hotel
16 (Fri)	9:00	Visit & Survey of MOA -> IRRI workshop
	12:00	Meeting at MOA
	16:00	Visit to Jakarta Expo.
	18:00	Meeting among the study team at Hotel

Date	Time	Description
17 (Sat)	10:00	Meeting among the study team at Hotel
	13:00	Visit to see the situation of Jakarta City
18 (Sun)	9:30	Departure of the study team to visit CIHEA Agricultural Technological Training Center (at 11:15)
		The rests make documents for survey at Hotel
19 (Mon)	8:00	Visit to MIDC
	10:00	Visit to P.T KERTA LAKSANA
	13:00	Visit to CIHEA Agricultural Technological Training Center
	9:00	Survey on the situation of construction in Jakarta City
	20:00	Meeting among the study team at Hotel
20 (Tue)	9:00	Visit to A.T. RUHAAK PHALA INDUSTRY (Tangeran)
	14:00	Meeting at MOA
	18:00	Meeting among the study team at Hotel
21 (Wed)	9:30	Visit to greet Director General of Secretariate and Planning, Ministry of Agriculture
	10:30	Meeting at MOA
	13:00	Discussion with Mr. V. R. Reddy and Hermann, K. M. Augsburgur at MOA
	9:30	Survey on situation of construction in Jakarta City
	19:00	Dinner party organized by JICA
22 (Thu)	9:00	Serpong (Site) Survey
	9:00	Hearing about declaration etc. in Tangerang Prefecture
	17:00	Meeting among the study team at Hotel
	19:00	Dinner party organized by MOA

Date	Time	Description
23 (Fri)	9:30	Signature of Minutes at Directorate General of Food Crops, Dit. of Planning
	14:00	Survey on the situation of construction in Jakarta City
	16:00	Departure of Mr. Ishikawa, Chief of the study team and Mr. Tanba for Japan by flight at 19:05.
	20:00	Meeting among the study team at Hotel
24 (Sat)	9:30	Survey on the situation of passage and road between Tanjungpriok Port and the Site.
	10:00	Survey on the situation of construction in Jakarta City
	17:00	Meeting among the study team at Hotel
25 (Sun)	10:00	Survey on the general situation in Jakarta City
26 (Mon)		HAJI HOLIDAY
27 (Tue)	8:30	Hearing about declaration etc. in Tangerang Prefecture. . Each ministry of public service . Electricity . Telephones
	15:00	Survey on the situation of construction in Jakarta City
	20:00	Meeting among the study team at Hotel
28 (Wed)	9:30	Meeting at MOA
	11:30	Meeting with Mr. Sasaki at JICA office
	14:00	Survey on the situation of construction in Jakarta City
	19:00	Meeting among the study team at Hotel
29 (Thu)	7:00	Consultation with Dr. Soejatmiko on soil bearing stress survey of the Site at MOA.
	10:00	Survey on the situation of construction in Jakarta City

Date	Time	Description
30 (Fri)	10:00	Survey on the situation of construction in Jakarta City
	10:00	Discussion with Mr. SIHOMBING, Director general on Soil bearing stress of the Site and its countermeasure.
31 (Sat)	10:00	Report on the latter half survey to Jakarta JICA office.
	19:05	Departure for Japan by JL722.

Schedule of Basic Design Study Team (2) <Draft Mission>

Date	Time	Description
Nov. 20 (Wed)	10:00	Departure from Narita by JL721
	18:05	Arrival at Jakarta
	19:30	Arrival at Hotel
	20:00 -	Meeting among the study team
21 (Thu)	8:00 - 9:00	Visit to greet Dr. Soetatwo, Director General of Secretariate and Planning
	9:30 - 10:00	Visit to greet Mr. D. Burhanudin, Committee of Technical Arrangement
	13:00 - 15:00	Meeting at MOA, Prearrangement with Dr. Soejatmiko
	14:30 -	Visit to greet Mr. Yamamura, Chief of JICA office
	15:30 - 18:00	Meeting on schedule and problems at JICA office
	19:00 -	Meeting among the study team
22 (Fri)	9:00 - 10:00	Visit to greet Ir. SUHAEDI, Director General (absent), meeting with Mr. Jafri, at Directorate General of Food Crops
	13:00 -	Survey in the City
	17:00 -	Meeting among the study team
23 (Sat)	8:00 -	Meeting and explanation about draft report and draft of Minutes
	17:00 -	Meeting among the study team
24 (Sun)		Holiday
25 (Mon)		Holiday
	13:00 -	Meeting among the study team

Date	Time	Description
26 (Tue)	7:30 -	MOA Signature of Minutes
	9:00 -	MOA Signature of Letter of Acceptance before beginning work
	10:00 -	Acceptance of Plans, explanation and meeting
	13:00 -	Visit to greet to embassy and JICA office
	17:00 -	Survey in City
		Meeting among the study team
27 (Wed)	8:15	Departure from Jakarta Airport
	19:35	Arrival at Narita Airport

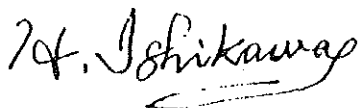
MINUTES OF DISCUSSIONS
ON
THE ESTABLISHMENT PROJECT
OF
THE CENTER FOR DEVELOPMENT OF APPROPRIATE AGRICULTURAL
ENGINEERING TECHNOLOGY
IN
THE REPUBLIC OF INDONESIA

In response to the request made by the Government of the Republic of Indonesia for the Establishment Project of the Center for Development of Appropriate Agricultural Engineering Technology (hereinafter referred to as "the Project", the Government of Japan decided to conduct a basic design study, as a follow up of the previous Minutes of Discussions signed on 27th June, 1985 between Mr. M. SHINADA and Mr. D.A. SIHOMBING and the Japan International Cooperation Agency (hereinafter referred to as "JICA") has dispatched the basic design study team headed by Mr. Hideo ISHIKAWA, Director of Planning and Survey Department, Institute of Agricultural Machinery from 12th to 31st August, 1985.

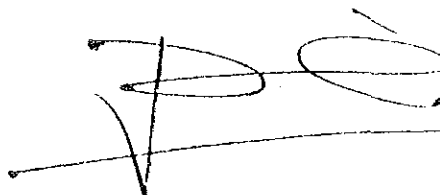
The basic design study team has carried out a field survey, held a series of discussions and exchanged views with the authorities concerned of the Government of the Republic of Indonesia.

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

Jakarta, 23rd August, 1985



Mr. Hideo ISHIKAWA
Team Leader
Basic Design Study Team
Japan International
Cooperation Agency

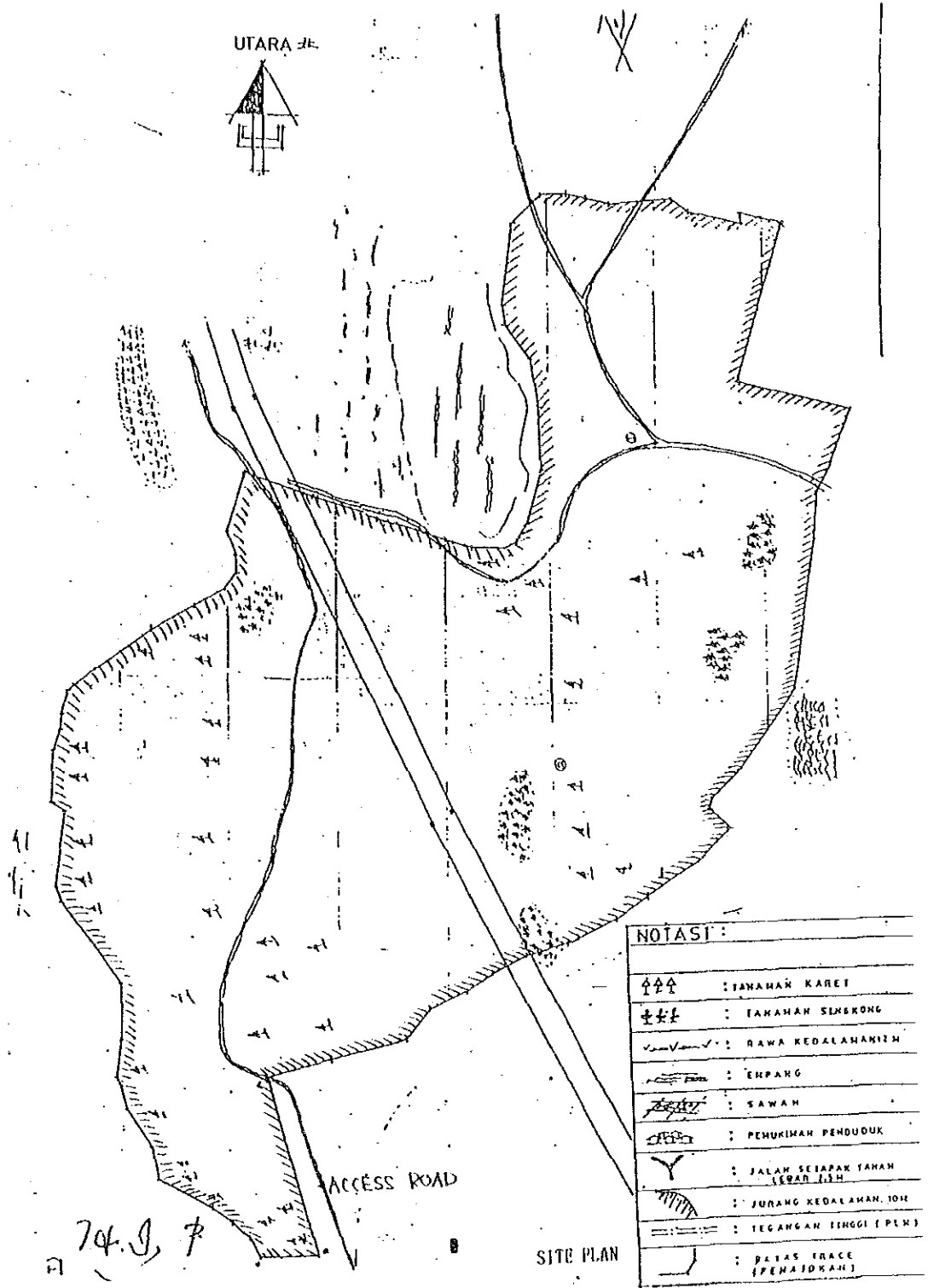


Mr. D.A. Sihombing
Director
Directorate of Food Crops
Production Development,
Directorate General of
Food Crops Agriculture,
Ministry of Agriculture

ATTACHMENT

1. The objective of the Project is to provide necessary buildings, facilities and equipment for the establishment of the Center for Development of Appropriate Agricultural Engineering Technology (hereinafter referred to as "the Center").
2. The Center will undertake following activities:
 - (1) Analysis on agricultural engineering system
 - (2) Design, Development and Improvement of Agricultural Machinery.
 - (3) Test and Evaluation of Agricultural Machinery
 - (4) Training
3. The site of the Center is located in Serpong, Tangerang, West Jawa Province as shown in Annex I.
4. The basic design study team will convey to the Government of Japan the desire of the Government of Republic of Indonesia that the former takes necessary measures to cooperate in implementing the Project and provides buildings and other items listed in Annex II within the scope of Japanese economic cooperation programme in grant form.
5. The Government of Republic of Indonesia will take necessary measures listed in Annex III on condition that the grant assistance by the Government of Japan is extended to the Project.
6. The Government of Republic of Indonesia has understood Japan's Grant Aid system explained by the basic design study team.

Annex I



Annex II

Items requested by the Government of Republic of Indonesia are as follows:

1. Buildings

- a. Administration section
- b. Training section
- c. Laboratory section
- d. Machinery shed
- e. Work shop
- f. Canteen
- g. Dormitory
- h. Guest house
- i. Farm house
- j. Others

2. Equipments

- a. Equipments for laboratory
- b. Equipments for testing
- c. Equipments for training
- d. Equipments for workshop
- e. Equipments for building
- f. Infrastructure model

Annex III

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

1. To secure land necessary for the construction of facilities and to clear, fill and level the site as needed before the start of construction.
2. To prepare the access road to the site before the start of construction.
3. To provide connections for electricity, telephone to the site.
4. To undertake incidental civil work such as planting and fencing, if needed.
5. To provide general furniture and materials for daily activities.
6. To obtain the building permit before construction.
7. To bear commissions to the Japanese foreign exchange bank for the banking arrangement.
8. To exempt taxes and to take necessary measures for customs clearance of the products at the port of disembarkation.
9. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Indonesia with respect to the supply of the products and the services under the verified contracts.
10. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract, such formalities as may be necessary for their entry into the Republic of Indonesia and stay therein for the performance of their work.
11. To bear all expenses, other than those to be borne by the grant aid, necessary for the construction of the facilities as well as for the transportation and installation of the machinery and equipment.

MINUTES OF DISCUSSION

THE DRAFT FINAL REPORT OF THE BASIC DESIGN STUDY
ON
PROJECT FOR CONSTRUCTION OF THE CENTER FOR DEVELOPMENT OF
APPROPRIATE AGRICULTURAL ENGINEERING TECHNOLOGY

The Government of Japan has sent, through Japan International Cooperation Agency (JICA), a Basic Design Study Team to the Republic of Indonesia from 20 to 27 November 1985 for the purpose of presenting and explaining the Draft Final Report of the Basic Design Study on Project for Construction of The Center for Development of Appropriate Agricultural Engineering Technology.

After a series of discussions between the Team and the Indonesian side, both parties confirmed the following results attached herewith (ATTACHMENT).

J a k a r t a

26th. November 1985

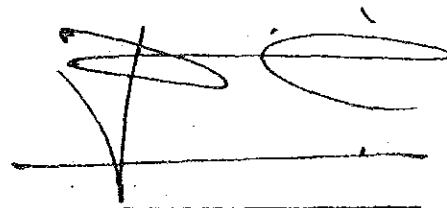


Mr Masamichi SHINADA

Leader

Japanese Study Team

JICA



Mr. D.A. Sihombing

Director

Directorate of Food Crops
Production Development,
Directorate General of
Food Crops Agriculture,
Ministry of Agriculture,

ATTACHMENT

1. Both parties agreed to reconfirm the Minutes of Discussion which was mutually signed on 23rd August, 1985.
2. The Indonesian side had agreed in principle to the basic design proposed in the Draft Final Report and appropriate alteration agreed by both parties during the discussion will be incorporated in the Final Report.
3. The Indonesian side had understood Japan's grant aid system and the arrangement to be taken by the Indonesian side for realization of the Project.
4. The Indonesian side had explained about the procedures and regulations concerning the project.
5. The Final Report (10 copies in English) will be submitted to the Indonesian side before the end of December, 1985.

Mr. J.

J



REPUBLIK INDONESIA

MENTERI KEUANGAN

JAKARTA, 9 April 1985,

No. S- 430 /MK, 011/1985,

KEPADA

Lampiran :

Yth. Sdr, Menteri Pertanian

Perihal : Areal tanah PT Perkebunan XI yang diminta untuk Centre for Development of Appropriate Agricultural Engineering Technology,

di -

J A K A R T A,

Menunjuk surat Saudara Nomor : TP.210/12/Mentan/I/1985 tanggal 22 Januari 1985 dan surat Direktur Jenderal Pertanian Tanaman Pangan Nomor : I,PD,110,119 tanggal 7 September 1984 perihal tersebut diatas, bersama ini kami sampaikan hal-hal sebagai berikut :

1. Kami telah menyetujui PTP XI melepaskan areal tanah seluas 35 Ha di Serpong yang akan dipergunakan oleh Direktorat Jenderal Pertanian Tanaman Pangan untuk Centre for Development of Appropriate Agricultural Engineering Technology,
2. Mengingat bahwa areal tanah tersebut merupakan asset PTP XI yang mana merupakan kekayaan negara yang dipisahkan (terpisah dari APBN), maka atas pelepasan areal tanah dimaksud agar ditempuh dengan cara pemberian ganti rugi yang wajar berdasarkan kesepakatan bersama Direksi PT Perkebunan XI dengan Direktorat Jenderal Pertanian Tanaman Pangan,
3. Untuk keperluan penyediaan dana ganti rugi tanah dimaksud kami harapkan agar Saudara dapat menuangkan/mengajukannya dalam Daftar Isian Proyek (DIP) Instansi Saudara,

Demikian agar Saudara maklum,

Tembusan Yth. :

1. Sdr. Menteri Sekretaris Negara;
2. Sdr. Direktur Jenderal Pertanian Tanaman Pangan;
3. Sdr. Direktur Jenderal Anggaran;
4. Sdr. Kepala ETU - BUMN, Departemen Pertanian;
5. Dewan Komisaris PT Perkebunan XI;
6. Direksi PT Perkebunan XI;
7. Sdr. Direktur Pembinaan Badan Usaha Negara,



KP. : MD.3/SJ, 981/3.

JICA