

# タイ国造林研究訓練計画

(第2フェーズ)

## パイロットインフラ整備事業

### 実施設計調査

# 報告書

(別添)

JICA LIBRARY



1078979[0]

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国際協力事業団

20400

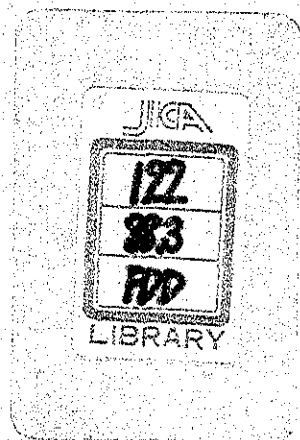
平成元年11月

## 国際協力事業団

林開発

89-29

LIBRARY

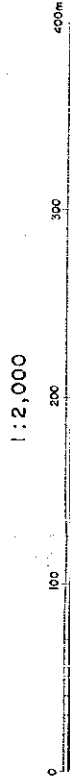
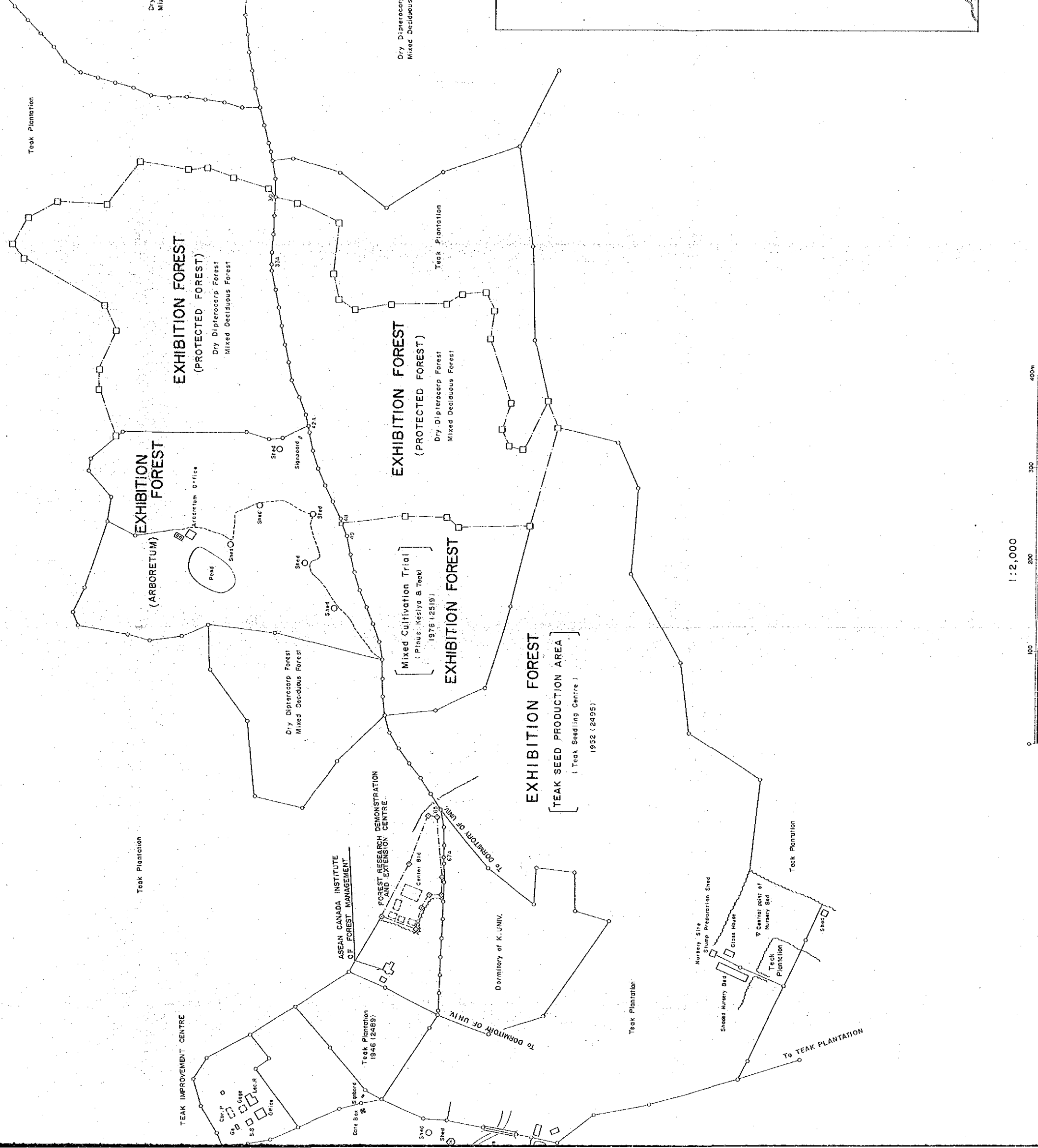




# LOCATION MAP OF FOREST RESEARCH DEMONSTRATION AND EXTENSION CENTRE (FRDEC)

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II)

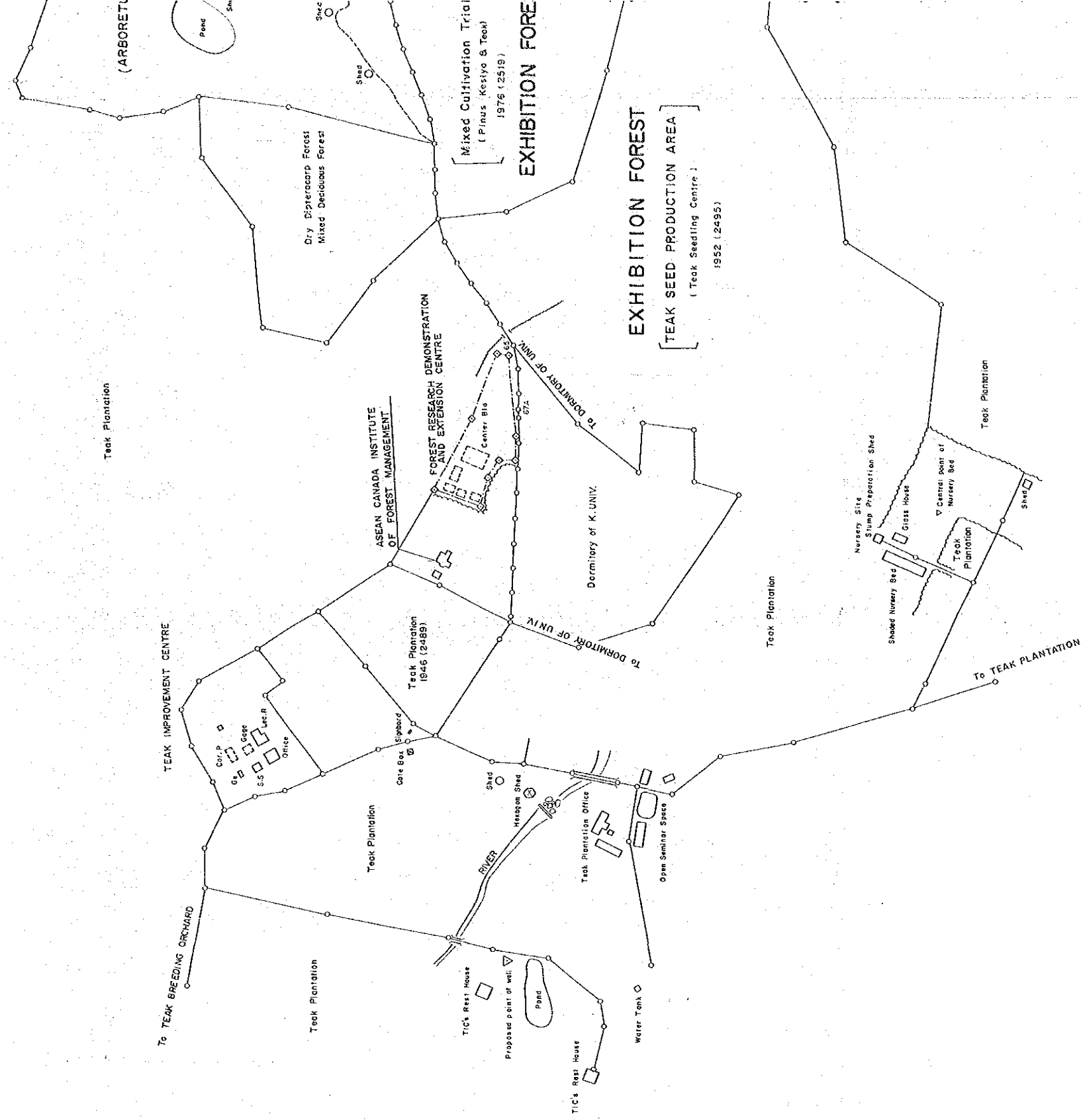
Sep. 1989



LOC

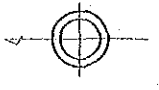
# FOREST RESEARCH DEMONSTRATION

THE PILOT INFRASTRUCTURE  
IN RE-AFFOR-ESTATION

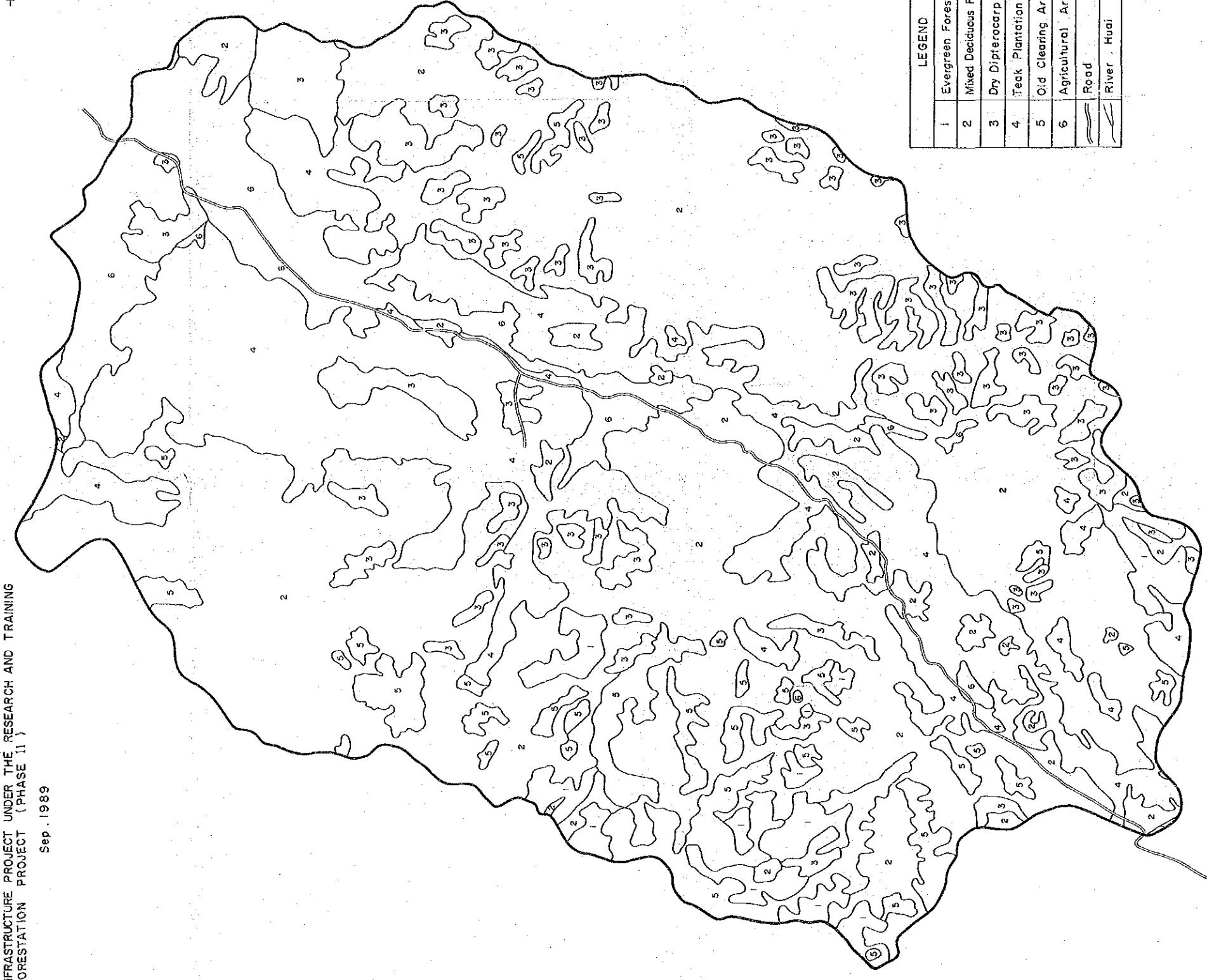


# FOREST TYPE MAP

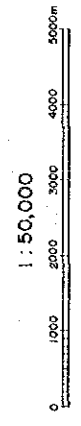
No.2



THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II)  
Sep. 1989



LEGEND	
1	Evergreen Forest
2	Mixed Deciduous Forest
3	Dry Dipterocarp Forest
4	Teak Plantation
5	Old Clearing Area
6	Agricultural Area
	Road
	River / Huai

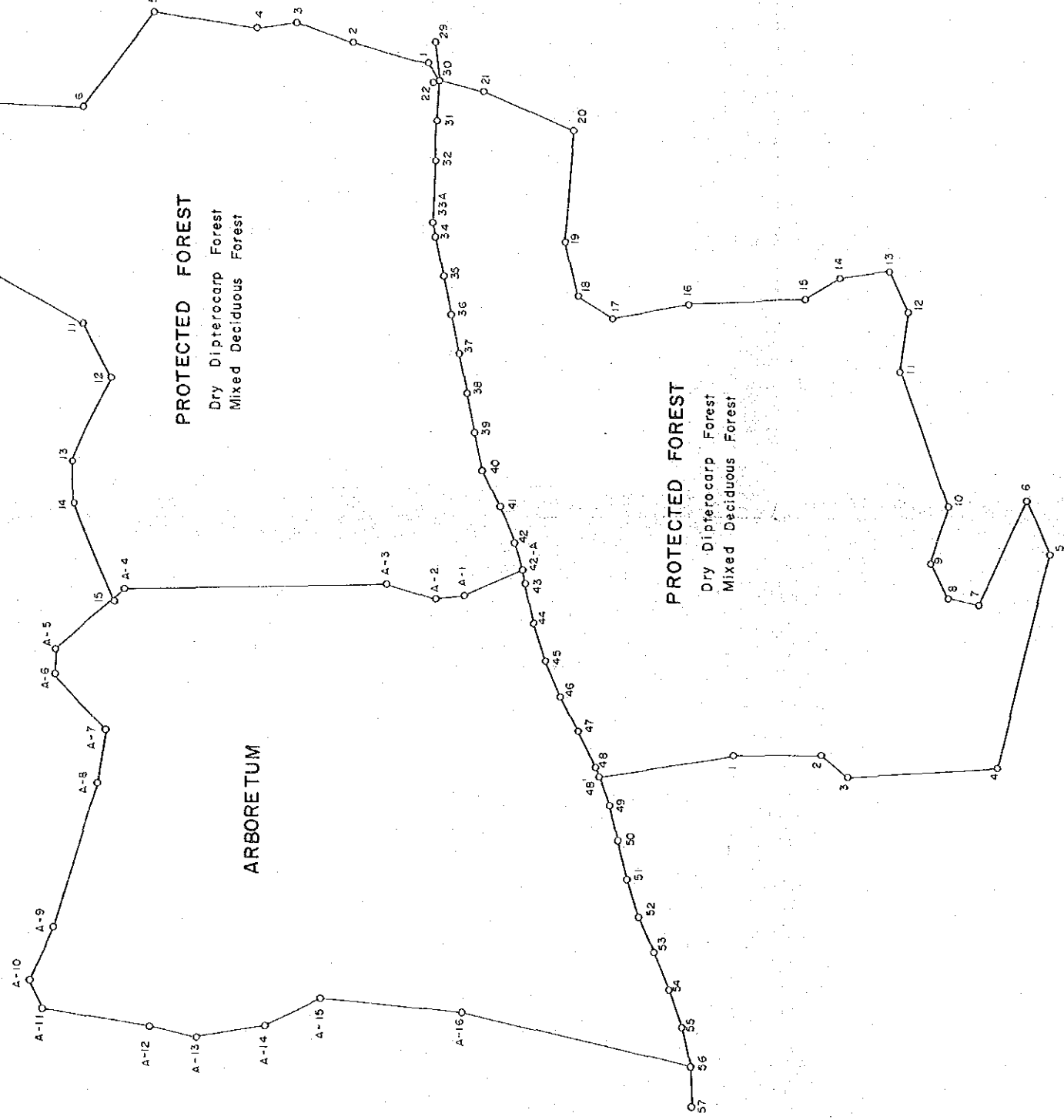
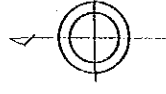


# EXHIBITION FOREST

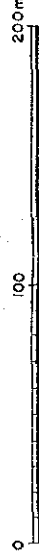
No.3

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH  
AND TRAINING IN RE-AFFORESTATION ( PHASE II )

Sep. 1989



1 : 2,000

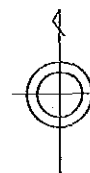


# EXHIBITION FOREST

No.4

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH  
AND TRAINING IN RE-AFFORESTATION ( PHASE II )

Sep. 1989

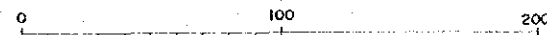


Teak Plantation  
1946 (2489)

Mixed Cultivation Trial  
( Pinus Kesiya & Teak )  
1976 (2915 )

TEAK SEED PRODUCTION AREA  
( Teak Seedling Centre )  
1952 (2495)

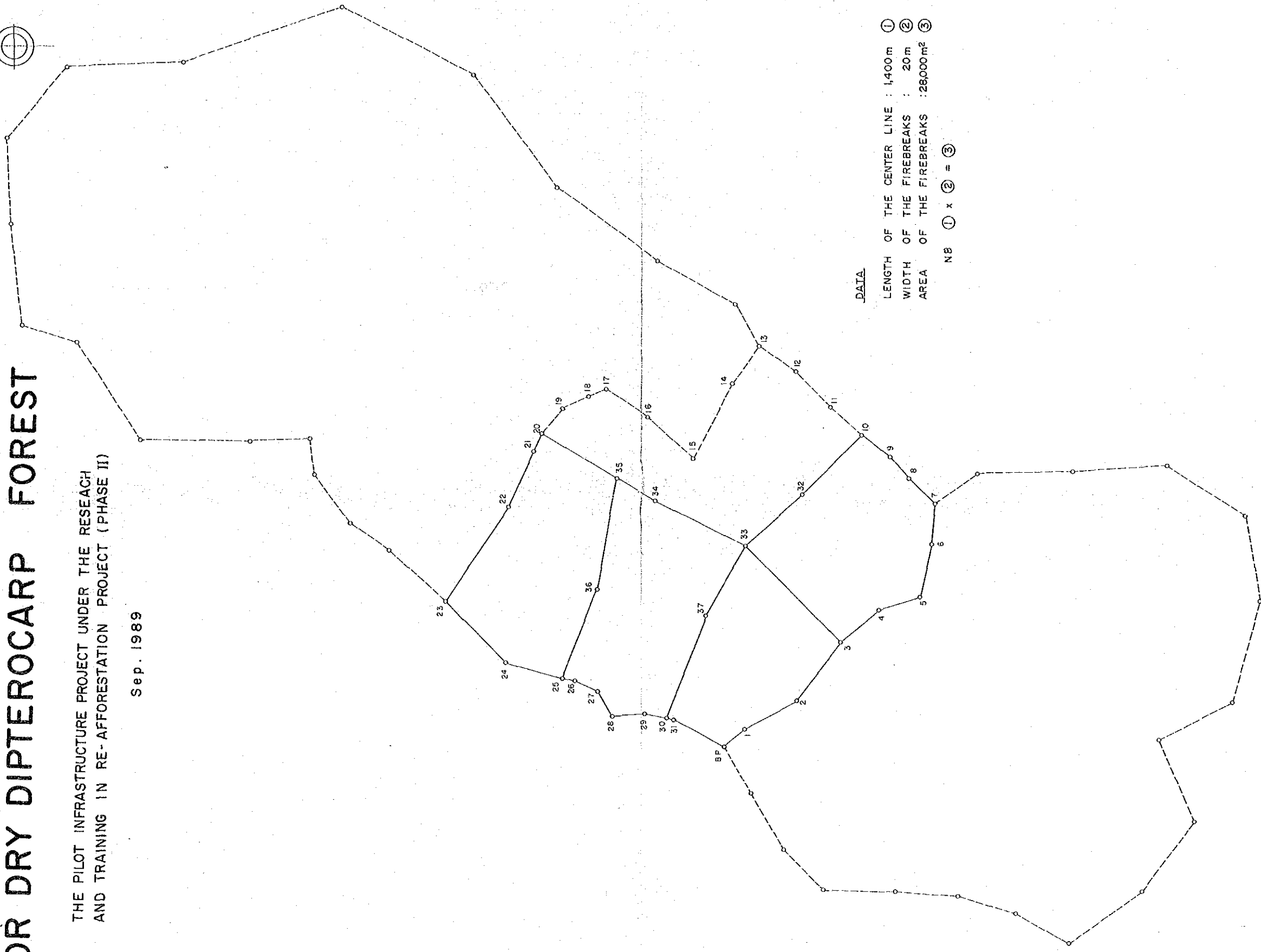
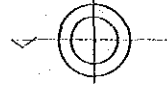
1 : 2,000



# EXPERIMENTATION FOREST FOR DRY DIPTEROCARP FOREST

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH  
AND TRAINING IN RE-AFFORESTATION PROJECT (PHASE II)

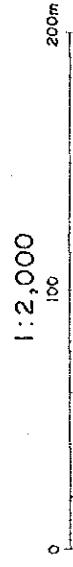
Sep. 1989



DATA

LENGTH OF THE CENTER LINE : 1,400 m ①  
WIDTH OF THE FIREBREAKS : 20m ②  
AREA OF THE FIREBREAKS : 28000m<sup>2</sup> ③

NB ① x ② = ③

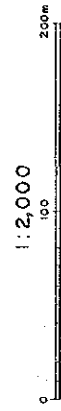
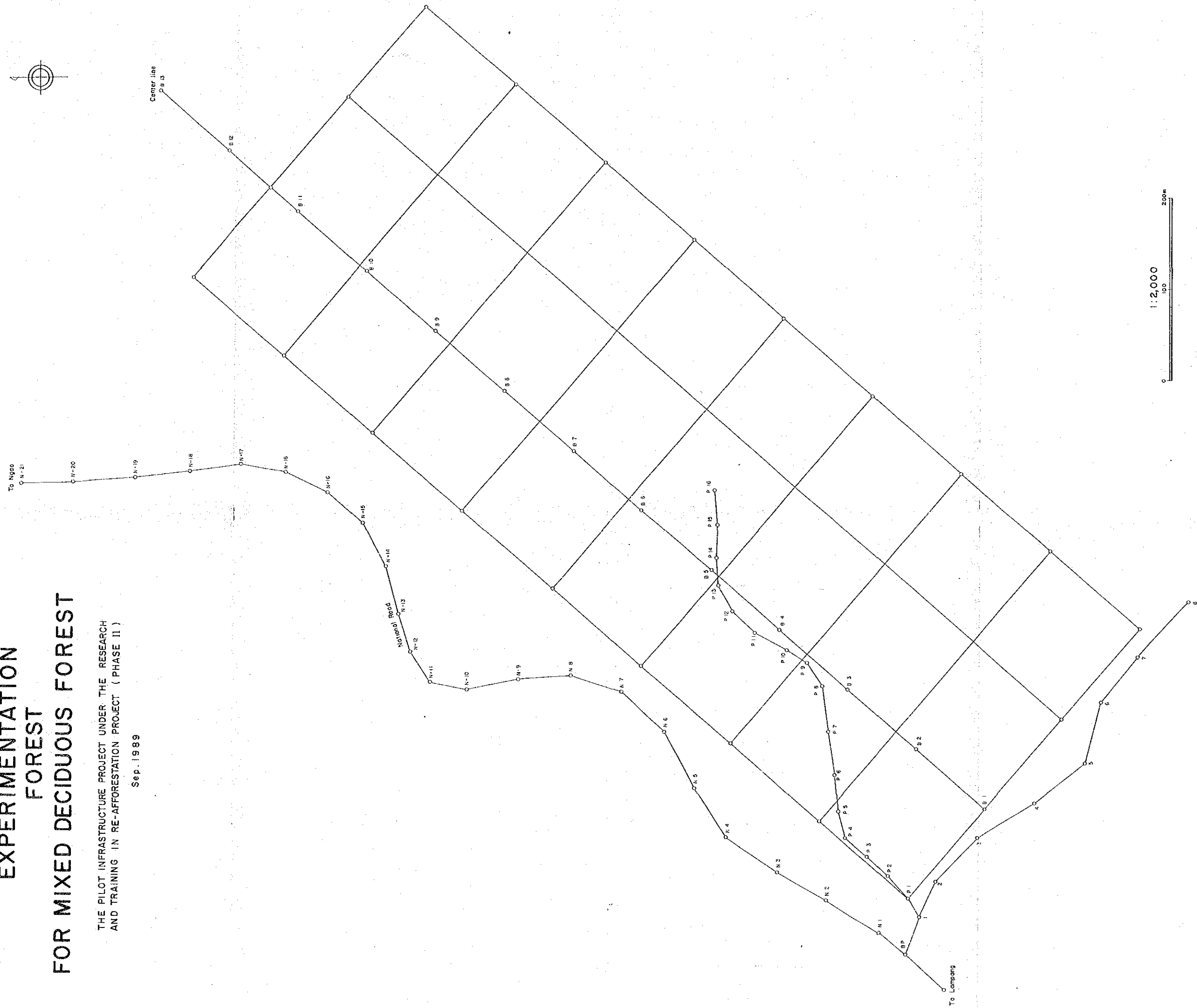
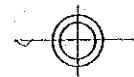




# EXPERIMENTATION FOREST FOR MIXED DECIDUOUS FOREST

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH  
AND TRAINING IN RE-AFFORESTATION PROJECT ( PHASE II )

Sep. 1989

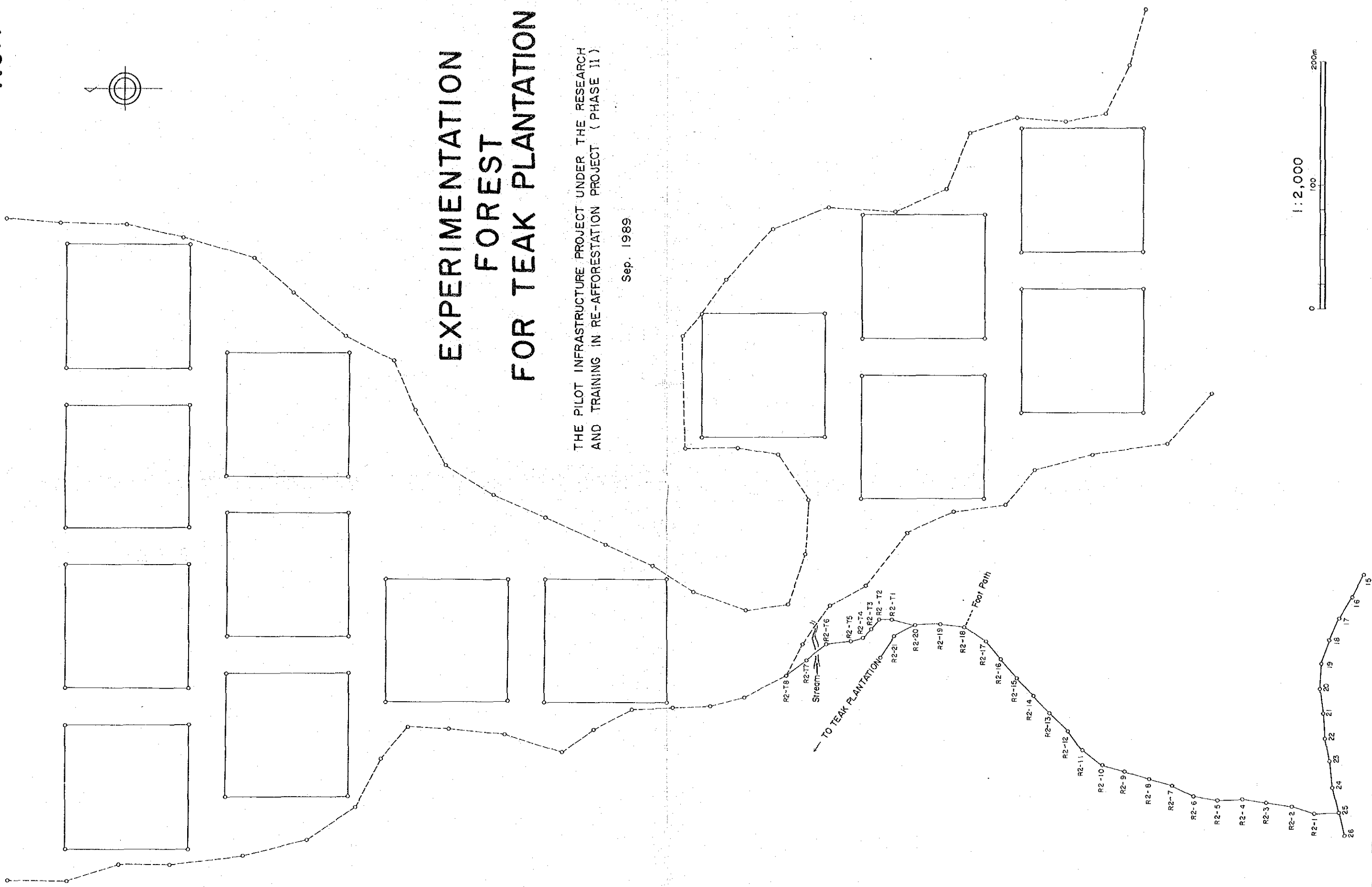




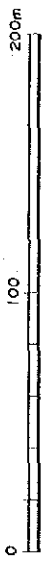
# EXPERIMENTATION FOREST FOR TEAK PLANTATION

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH  
AND TRAINING IN RE-AFForestation PROJECT ( PHASE II )

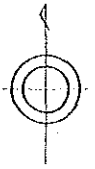
Sep. 1989



1 : 2,000

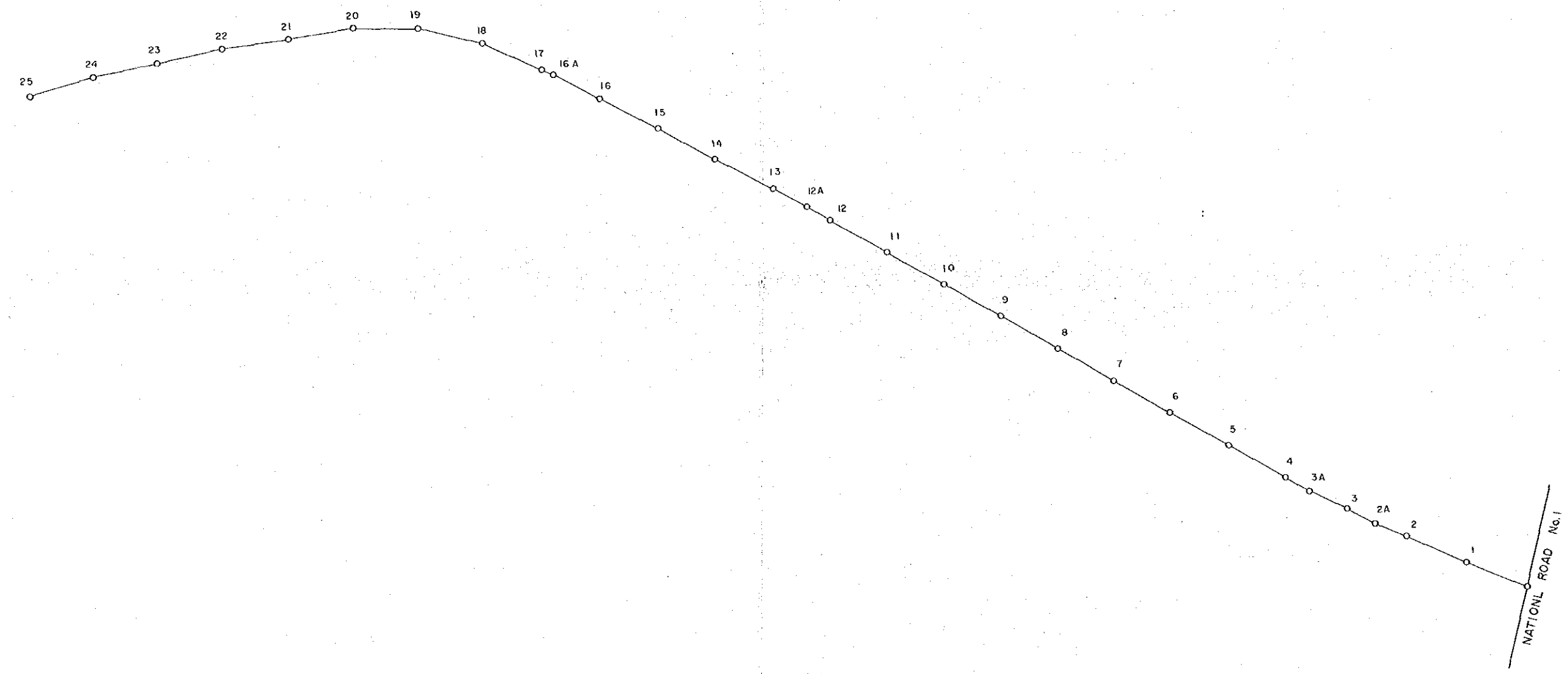


# HORIZONTAL ALIGNMENT OF ACCESS ROAD (AR-BP-76A) 3-1

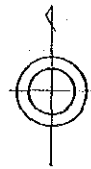


THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II)

Sep. 1989

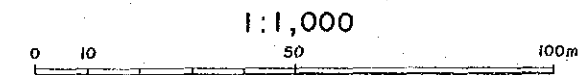
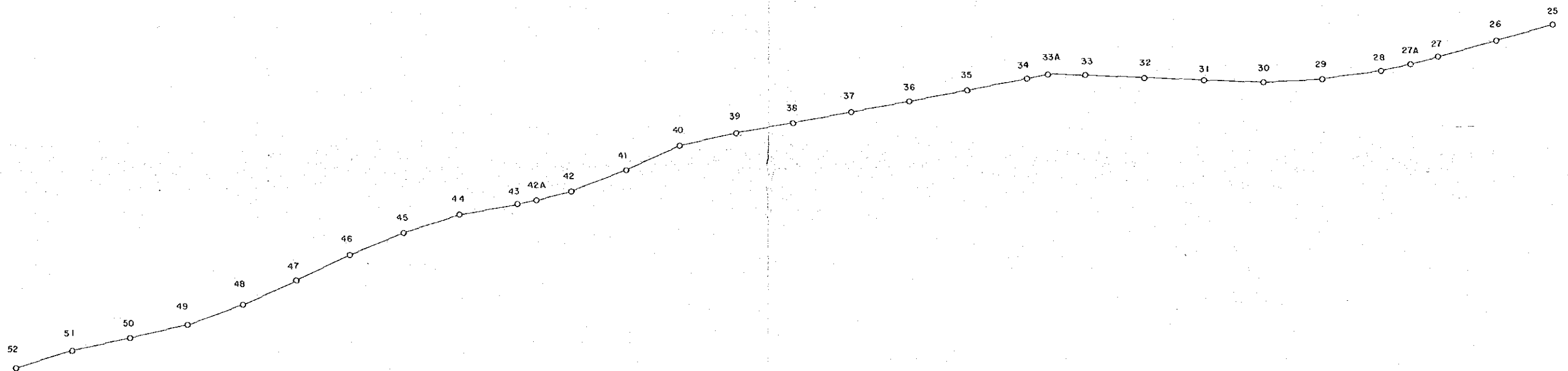


# HORIZONTAL ALIGNMENT OF ACCESS ROAD (AR-BP-76A) 3 - 2

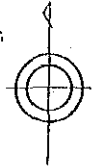


THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT ( PHASE II )

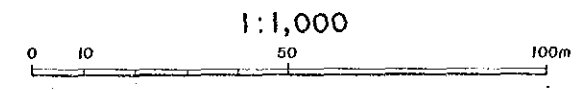
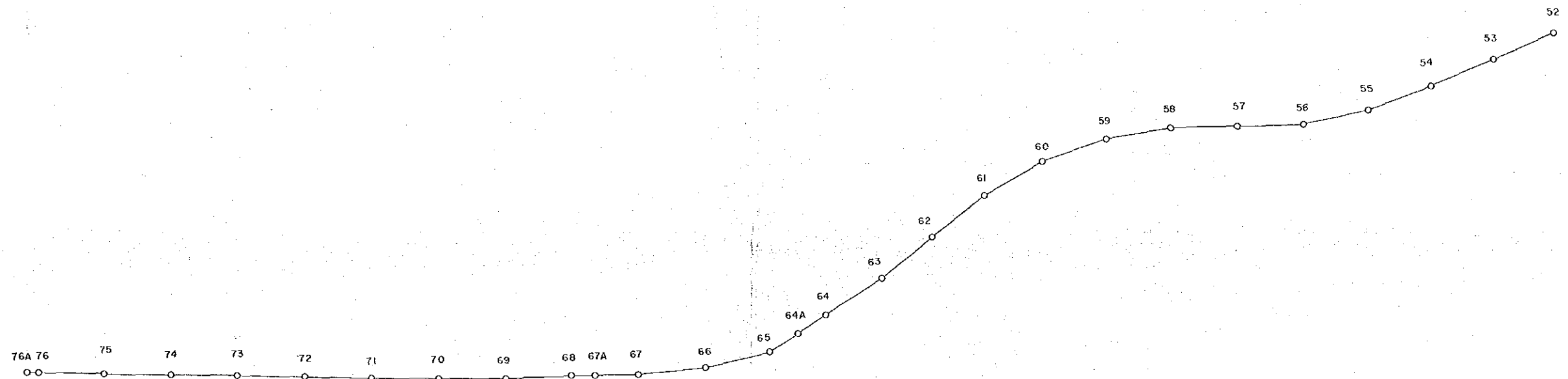
Sep. 1989

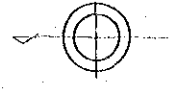


# HORIZONTAL ALIGNMENT OF ACCESS ROAD (AR·BP-76A) 3 - 3



THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II)  
Sep . 1989

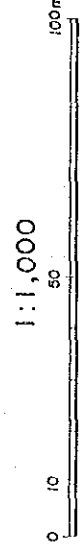
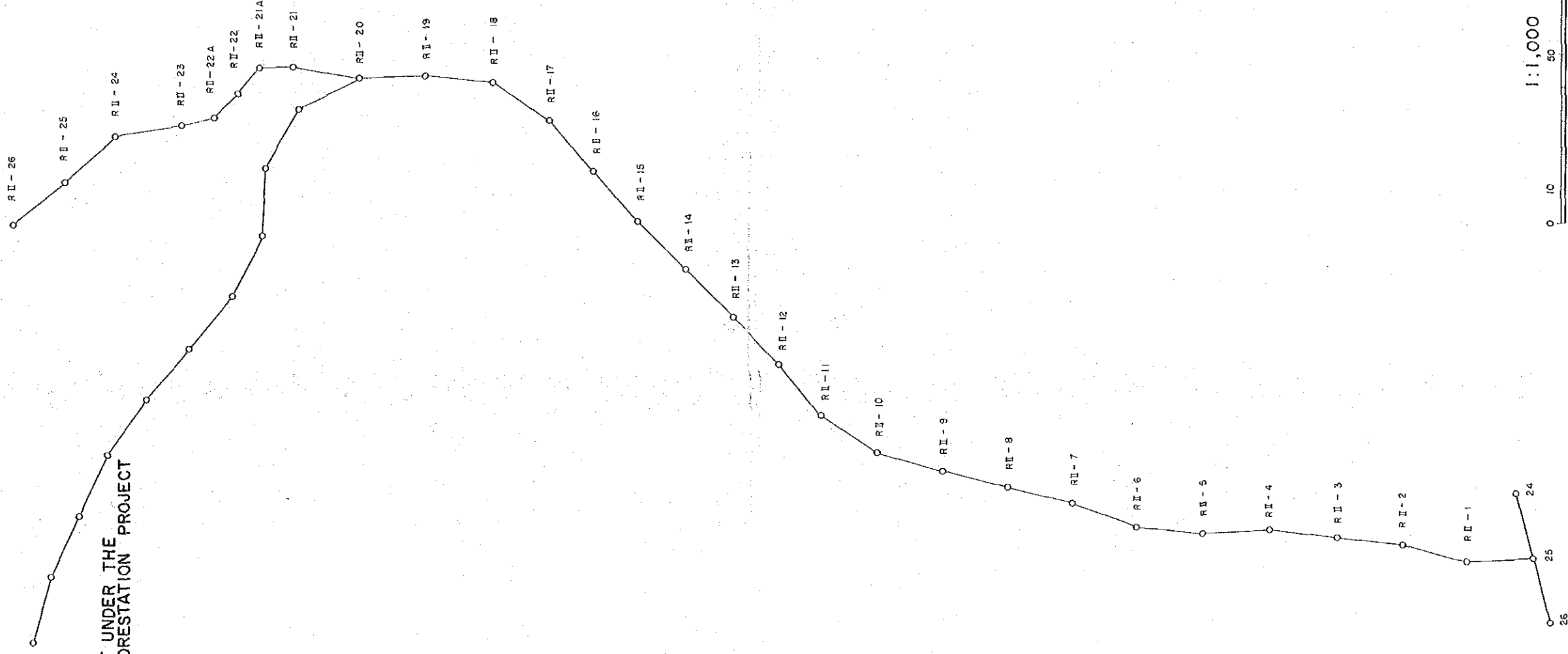




# HORIZONTAL ALIGNMENT OF ACCESS ROAD (RI-AR-25 - RI-26)

THE PILOT INFRASTRUCTURE PROJECT UNDER THE  
RESEARCH AND TRAINING IN RE-AFFORESTATION PROJECT  
( PHASE II )

Sep. 1989



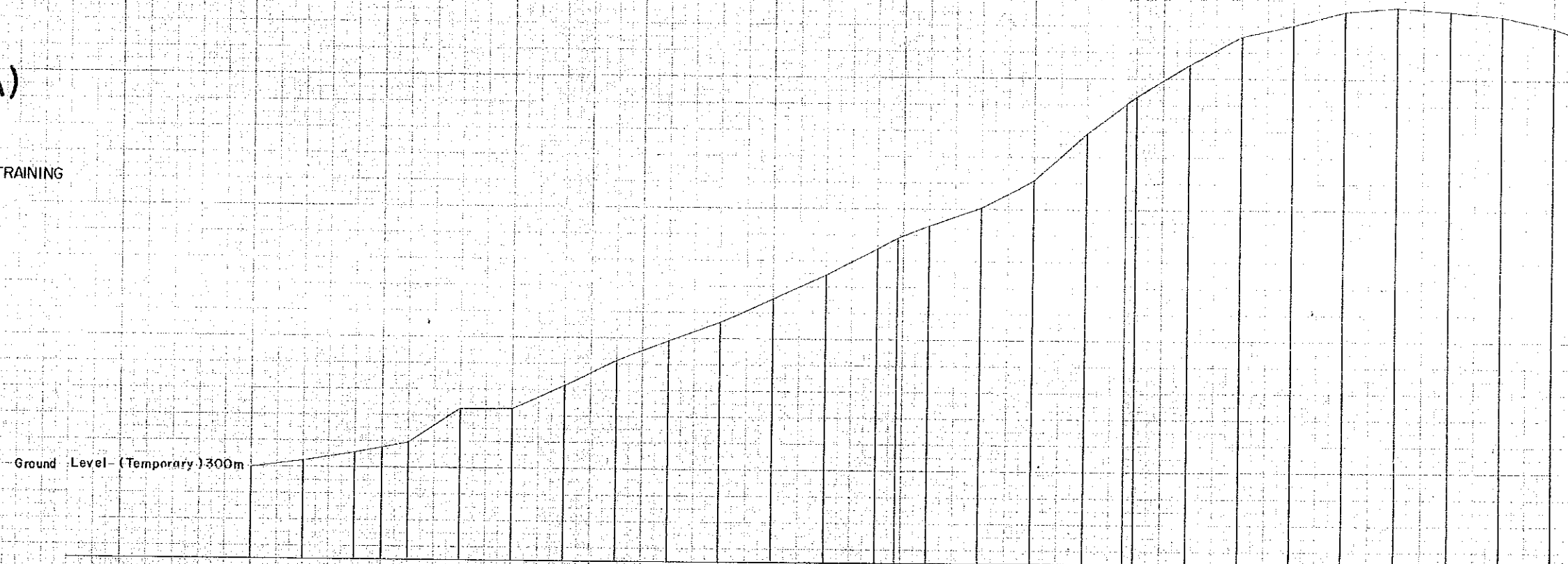
# VERTICAL ALIGNMENT OF ACCESS ROAD (AR-BP-76A)

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II.)

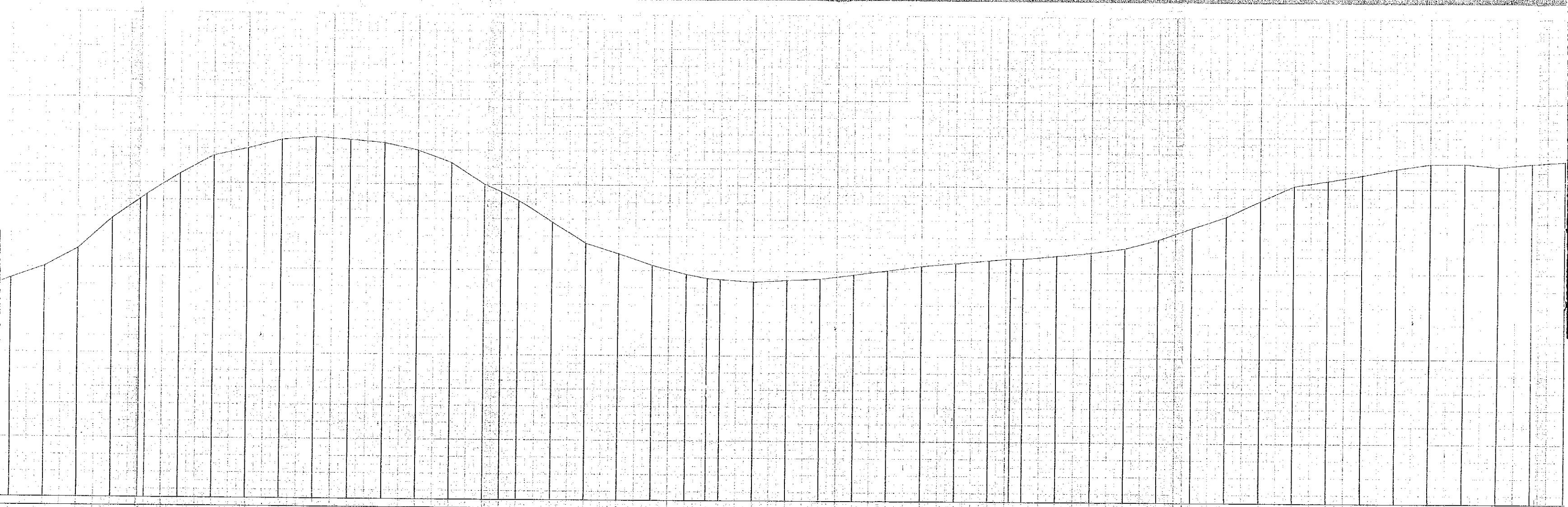
Sep. 1989

Horizontal Scale =  $\frac{1}{1,000}$

Vertical Scale =  $\frac{1}{100}$



GRADE (%)	BANKING HEIGHT (m)	CUTTING HEIGHT (m)	FORMATION HEIGHT (m)	GROUND HEIGHT (Temporary) (m)	TOTAL DISTANCE (m)	DISTANCE BETWEEN POINT (m)	SURVEY POINTS	CURVE
0.0				300.0	0.0	0.0	BP	
1.0				300.2	20.0	20.0	NO. 1	
2.0				300.5	40.0	40.0	2	
3.0				300.7	60.0	60.0	2-A	
4.0				300.9	80.0	80.0	3	
5.0				301.0	100.0	100.0	4	
6.0				301.1	120.0	120.0	5	
7.0				301.1	140.0	140.0	6	
8.0				301.2	160.0	160.0	7	
9.0				301.3	180.0	180.0	8	
10.0				301.4	200.0	200.0	9	
11.0				301.5	220.0	220.0	10	
12.0				301.5	240.0	240.0	11	
13.0				301.6	260.0	260.0	12	
14.0				301.6	280.0	280.0	13	
15.0				301.7	300.0	300.0	14	
16.0				301.7	320.0	320.0	15	
17.0				301.7	340.0	340.0	16	
18.0				301.7	360.0	360.0	17	
19.0				301.7	380.0	380.0	18	
20.0				301.7	400.0	400.0	19	
21.0				301.7	420.0	420.0	20	
22.0				301.7	440.0	440.0	21	
23.0				301.7	460.0	460.0	22	
24.0				301.7	480.0	480.0	23	
25.0				301.7	500.0	500.0	24	
26.0				301.7	520.0	520.0	25	
27.0				301.7	540.0	540.0	26	
28.0				301.7	560.0	560.0	27	
29.0				301.7	580.0	580.0	28	
30.0				301.7	600.0	600.0	29	
31.0				301.7	620.0	620.0	30	
32.0				301.7	640.0	640.0	31	
33.0				301.7	660.0	660.0	32	
34.0				301.7	680.0	680.0	33	
35.0				301.7	700.0	700.0	34	
36.0				301.7	720.0	720.0	35	
37.0				301.7	740.0	740.0	36	
38.0				301.7	760.0	760.0	37	
39.0				301.7	780.0	780.0	38	
40.0				301.7	800.0	800.0	39	
41.0				301.7	820.0	820.0	40	
42.0				301.7	840.0	840.0	41	
43.0				301.7	860.0	860.0	42	
44.0				301.7	880.0	880.0	43	
45.0				301.7	900.0	900.0	44	
46.0				301.7	920.0	920.0	45	
47.0				301.7	940.0	940.0	46	
48.0				301.7	960.0	960.0	47	
49.0				301.7	980.0	980.0	48	
50.0				301.7	1000.0	1000.0	49	

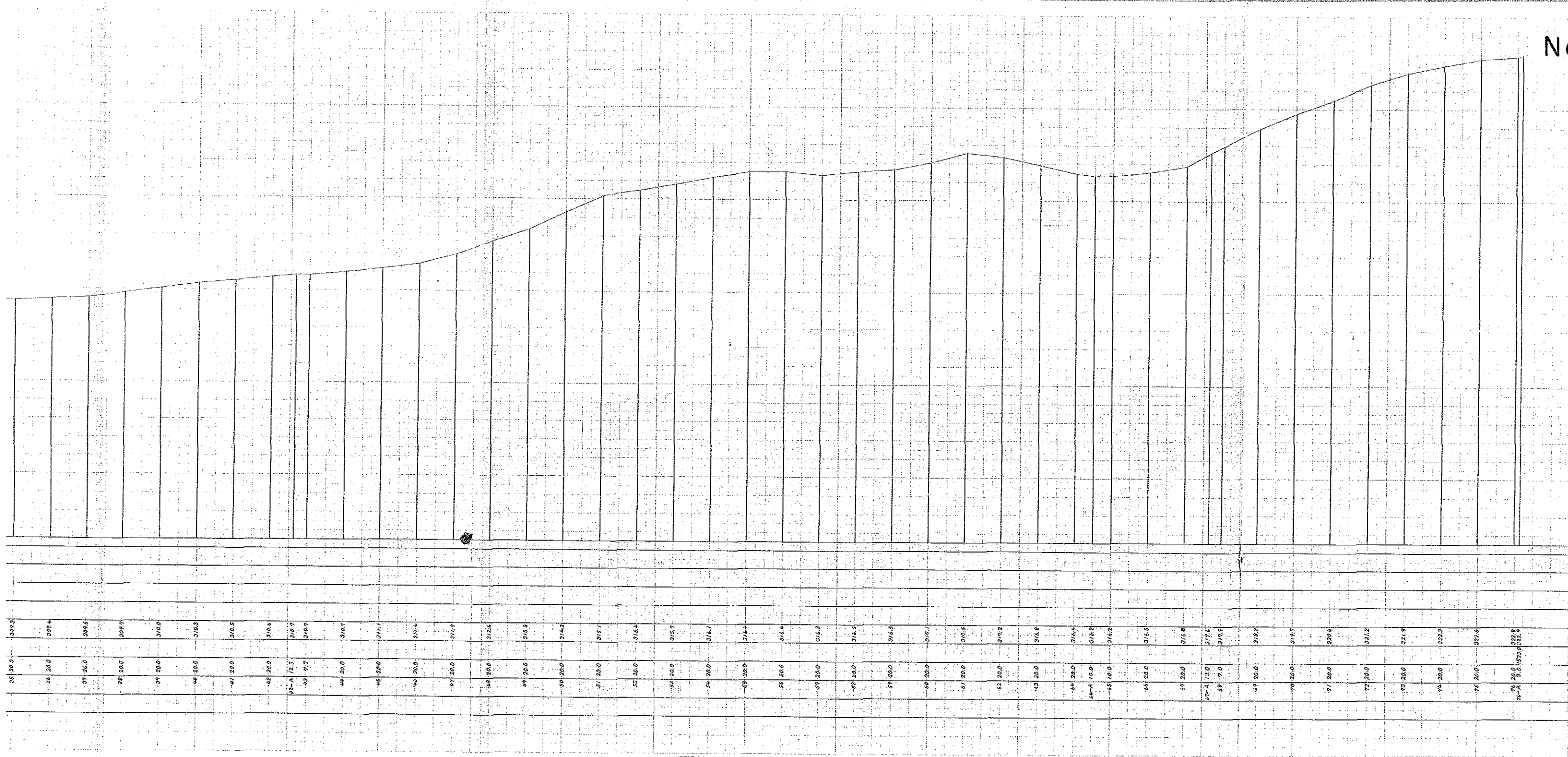


13	11.3	309.2
14	20.0	310.2
15	30.0	311.0
16	40.0	312.9
17	50.0	314.0
18	60.0	314.5
19	70.0	315.5
20	80.0	316.5
21	90.0	317.6
22	100.0	317.7
23	110.0	317.5
24	120.0	317.0
25	130.0	316.5
26	140.0	316.2
27	150.0	316.0
28	160.0	314.8
29	170.0	314.0
30	180.0	313.7
31	190.0	311.8
32	200.0	310.8
33	210.0	310.2
34	220.0	309.9
35	230.0	309.3
36	240.0	308.4
37	250.0	308.5
38	260.0	309.7
39	270.0	310.0
40	280.0	310.3
41	290.0	310.5
42	300.0	310.6
43	310.0	310.7
44	320.0	310.9
45	330.0	310.9
46	340.0	311.1
47	350.0	311.4
48	360.0	311.9
49	370.0	312.4
50	380.0	313.3
51	390.0	314.2
52	400.0	315.1
53	410.0	315.4
54	420.0	315.7
55	430.0	315.7
56	440.0	316.4
57	450.0	316.3
58	460.0	316.5
59	470.0	316.5
60	480.0	316.5

(4.5m)

(4.5m)





Estm

Asm

# VERTICAL ALIGNMENT OF ACCESS ROAD (R11-AR-25-R11-26)

THE PILOT INFRASTRUCTURE PROJECT UNDER THE RESEARCH AND TRAINING  
IN RE-AFFORESTATION PROJECT (PHASE II.)  
Sep. 1989

Horizontal Scale =  $\frac{1}{1,000}$   
Vertical Scale =  $\frac{1}{100}$

Ground Level (Temporary) 300m

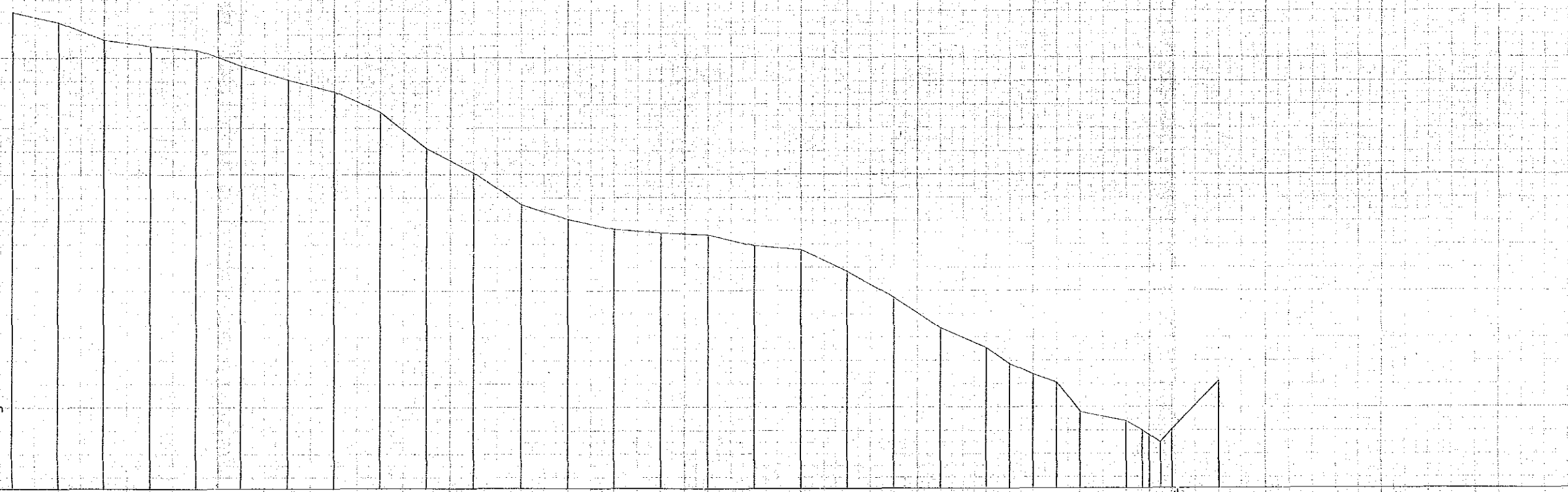
GRADE (%)	BANKING HEIGHT (m)	CUTTING HEIGHT (m)	FORMATION HEIGHT (m)	GROUND HEIGHT (Temporary) (m)	TOTAL DISTANCE (m)	DISTANCE BETWEEN POINT (m)	SURVEY POINTS	CURVE
				315.9	0.0	0.0	AR-25	
				315.5	30.0	30.0	1	
				315.0	60.0	30.0	2	
				315.0	90.0	30.0	3	
				315.3	120.0	30.0	4	
				314.6	150.0	30.0	5	
				314.0	180.0	30.0	6	
				313.5	210.0	30.0	7	
				312.4	240.0	30.0	8	
				311.7	270.0	30.0	9	
				310.0	300.0	30.0	10	
				308.5	330.0	30.0	11	
				308.0	360.0	30.0	12	
				307.4	390.0	30.0	13	
				307.4	420.0	30.0	14	
				307.3	450.0	30.0	15	
				306.7	480.0	30.0	16	
				306.7	510.0	30.0	17	
				306.3	540.0	30.0	18	
				306.3	570.0	30.0	19	
				306.3	600.0	30.0	20	
				305.8	630.0	30.0	21	
				305.8	660.0	30.0	22-A	
				305.0	690.0	30.0	22-B	
				305.0	720.0	30.0	22-C	
				304.9	750.0	30.0	23	
				304.4	780.0	30.0	24	
				303.9	810.0	30.0	25	
				303.0	840.0	30.0	26	
				301.7	870.0	30.0	27	
				301.0	900.0	30.0	28	
				300.0	930.0	30.0	29	
				299.9	960.0	30.0	30	
				299.4	990.0	30.0	31	
				298.5	1020.0	30.0	32	
				297.9	1050.0	30.0	33	
				300.0	1080.0	30.0	34	

ENT

R-25 - RII-26)

RESEARCH AND TRAINING  
E. II.)

Ground Level (Temporary) 300m



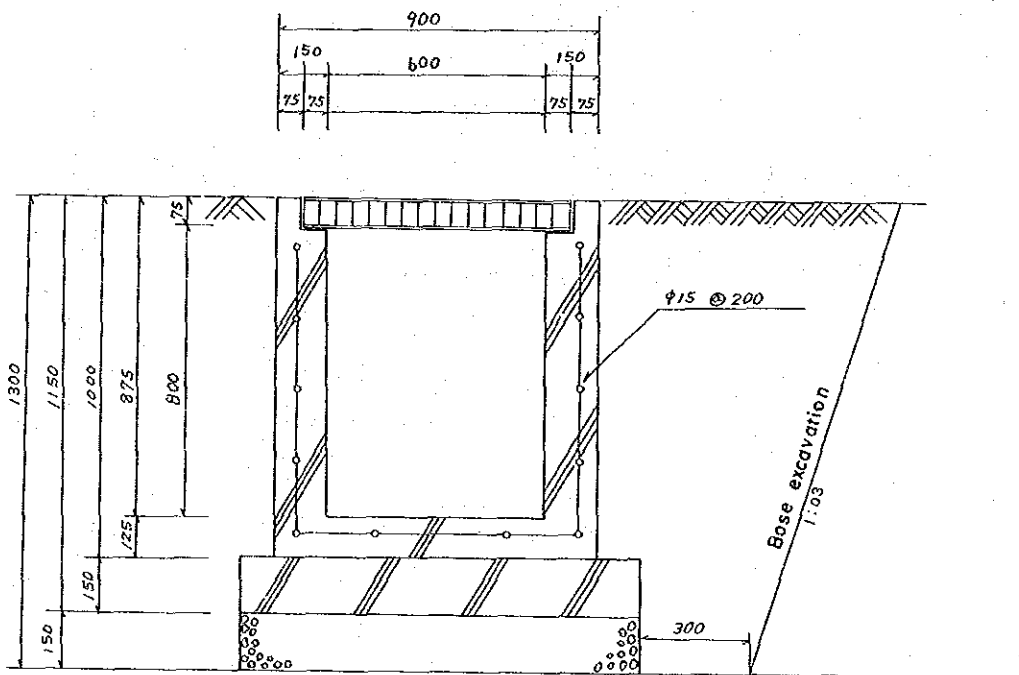
GRADE (%)	BANKING HEIGHT (m)	CUTTING HEIGHT (m)	FORMATION HEIGHT (m)	GROUND HEIGHT (Temporary) (m)	TOTAL DISTANCE (m)	DISTANCE BETWEEN POINT (m)	SURVEY POINTS	CURVE
				316.9		0.0	AP-25	
				316.5		20.0	RC-1	
				316.7		20.0		
				315.9		20.0		
				315.3		20.0		
				314.8		20.0		
				314.0		20.0		
				313.5		20.0		
				312.8		20.0		
				311.7		20.0		
				310.0		20.0		
				308.8		20.0		
				308.0		20.0		
				307.3		20.0		
				306.9		20.0		
				305.5		20.0		
				304.4		20.0		
				303.9		20.0		
				303.4		20.0		
				302.0		20.0		
				302.5		20.0		
				301.8		10.0	21-A	
				301.4		10.0	22	
				301.0		10.0	22-A	
				299.7		10.0	23	
				298.4		20.0	24	
				297.0		7.0	24-A	
				296.0		3.0	24-B	
				295.5		5.0	24-C	
				294.2		5.0	24-D	
				290.7		230.0	24	

CS-11

CS-11

# CROSS OPEN CULVERT

SCALE 1:200

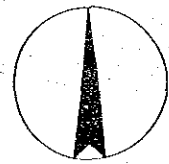
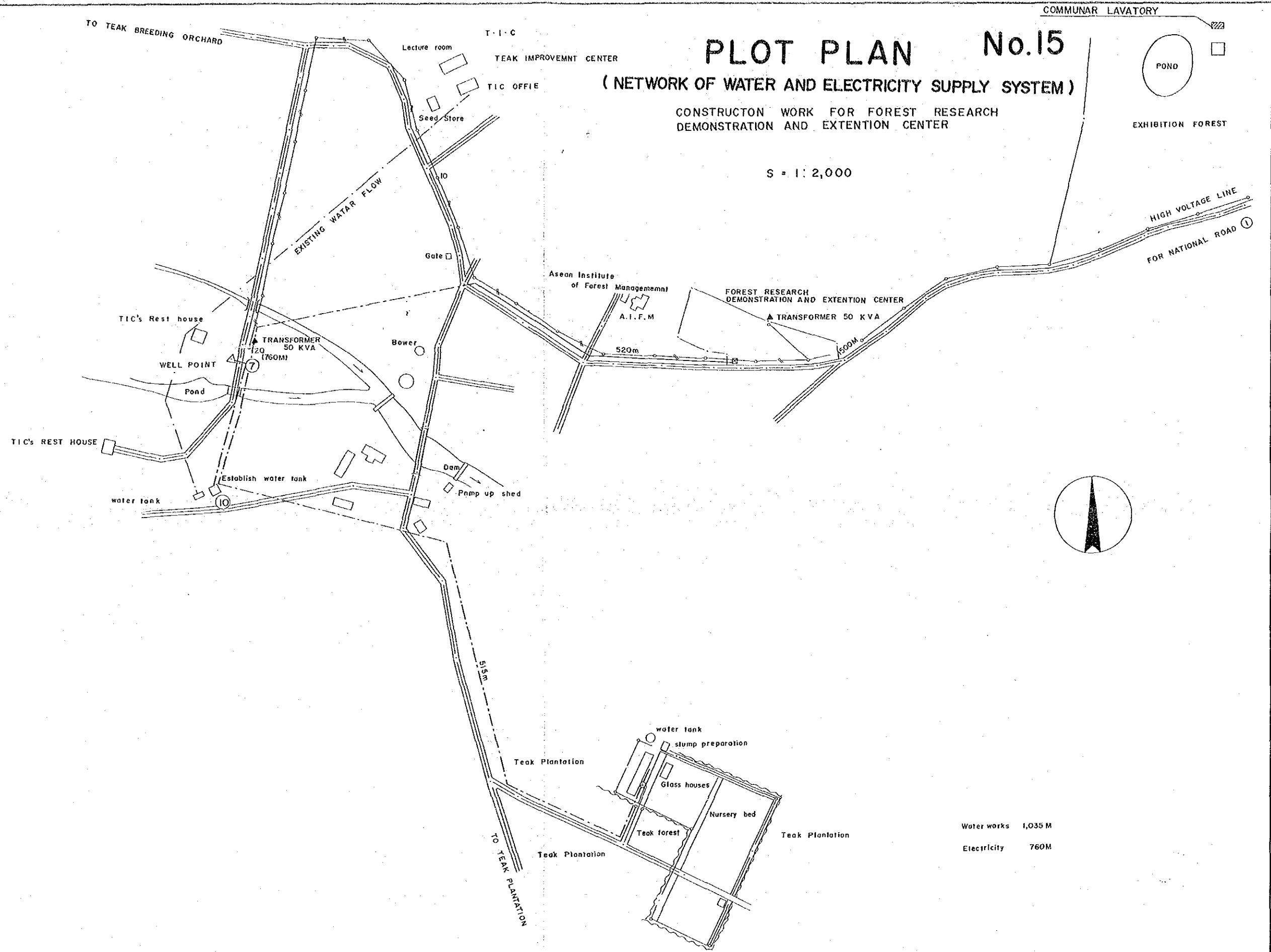


# PLOT PLAN No.15

## ( NETWORK OF WATER AND ELECTRICITY SUPPLY SYSTEM )

### CONSTRUCTION WORK FOR FOREST RESEARCH DEMONSTRATION AND EXTENTION CENTER

S = 1:2,000

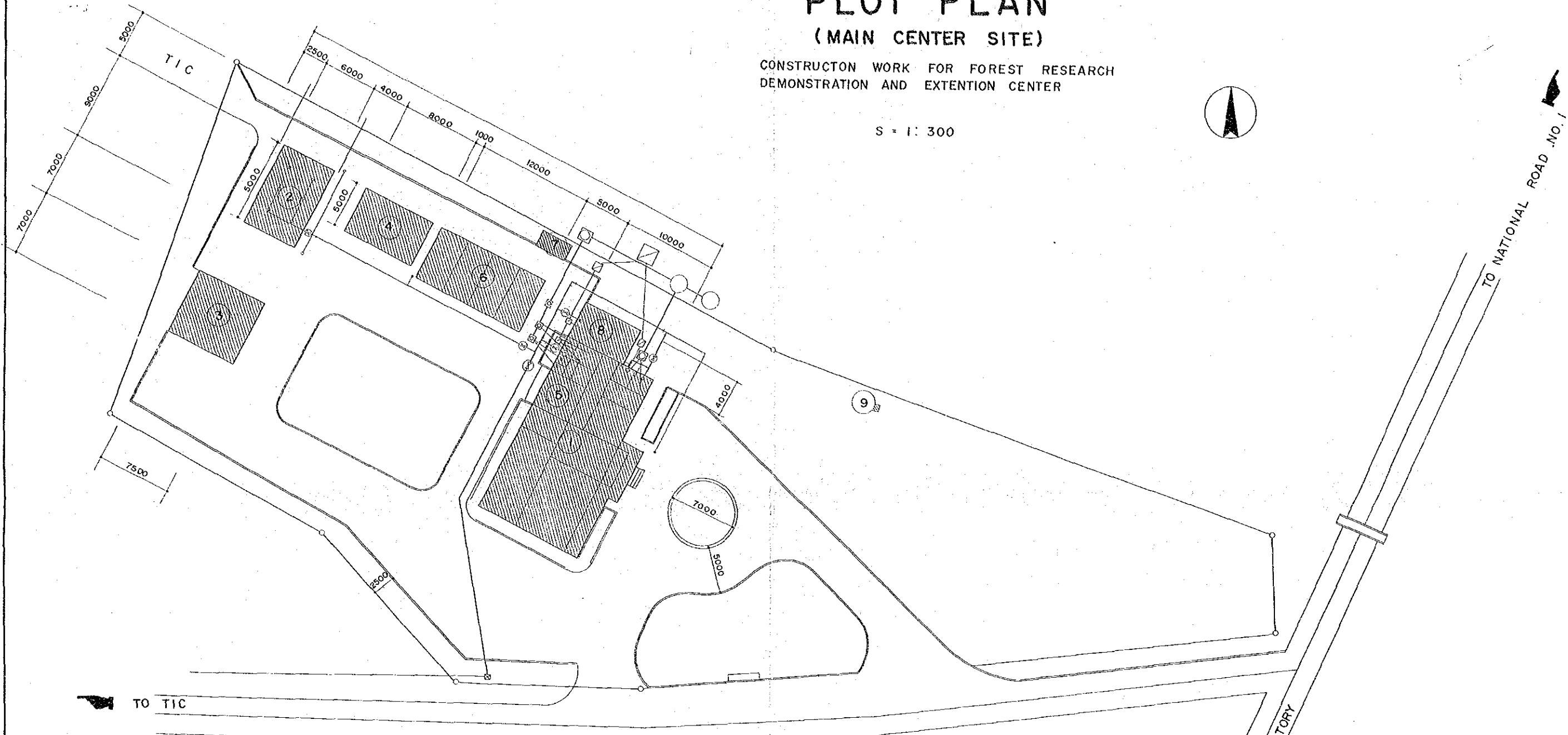
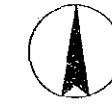


Water works 1,035 M  
 Electricity 760M

# PLOT PLAN (MAIN CENTER SITE)

CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

S = 1 : 300



LIST OF CONSTRUCTION WORKS	AREA	REMARKS
TRAINING CENTER	340.00m <sup>2</sup>	1F 220m <sup>2</sup> 2F 120m <sup>2</sup>
GLASS HOUSE	54.00	
STUMP STORAGE	52.50	
STUMP PREPARATION	40.00	
SEED STORAGE	116.00	CENTER BUILDING
CARPORT	72.00	
GENERATOR BOWER	20.00	WATER PUMP USE 1
HOT-WATER SUPPLY	26.00	
CLIMATIC STATON	1BOX	
WATER TANK	1 PLACE	

TO KASETSART UNIV'S DORMITORY

TO NATIONAL ROAD NO. 1

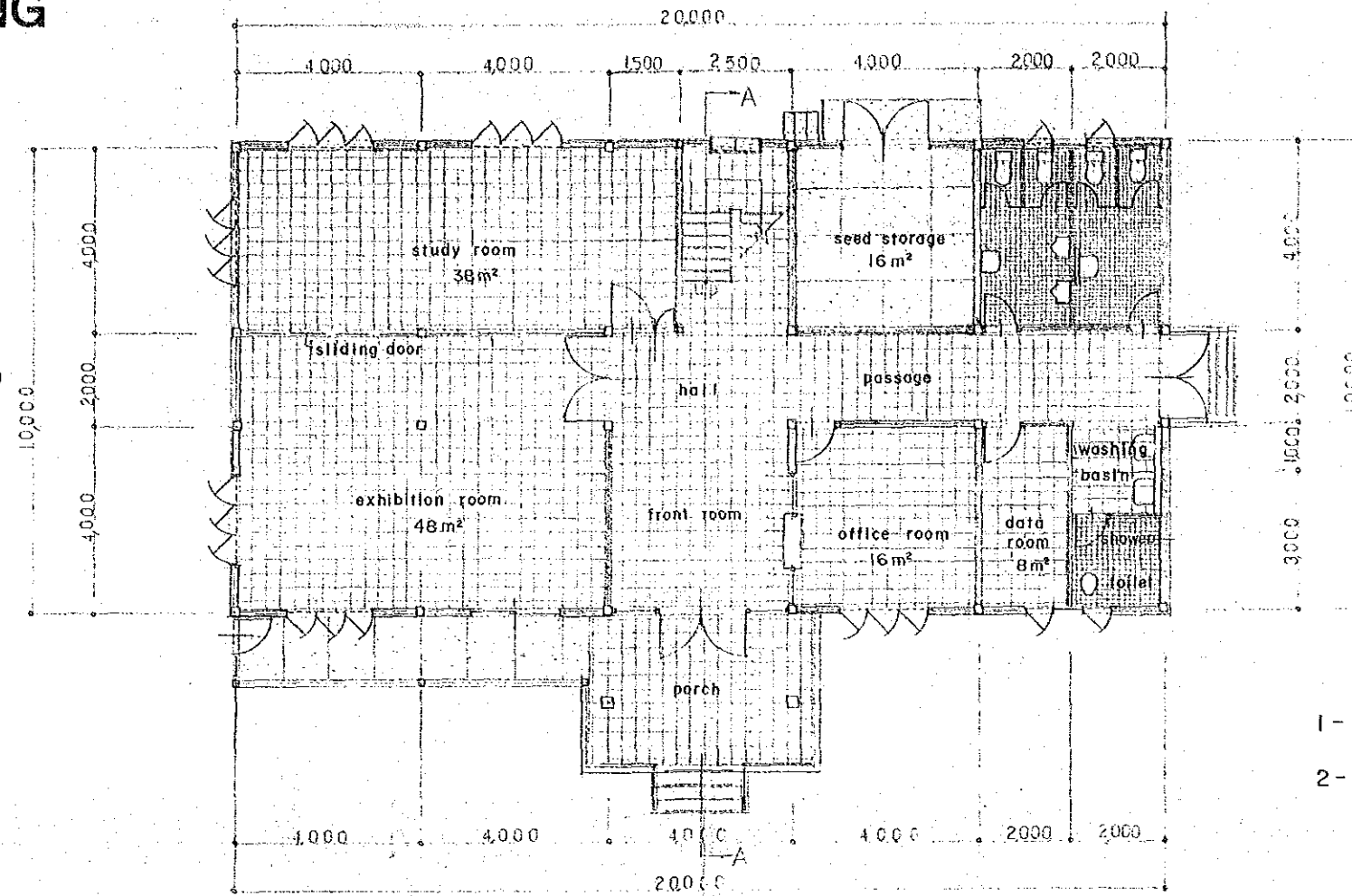
TO TIC

TIC



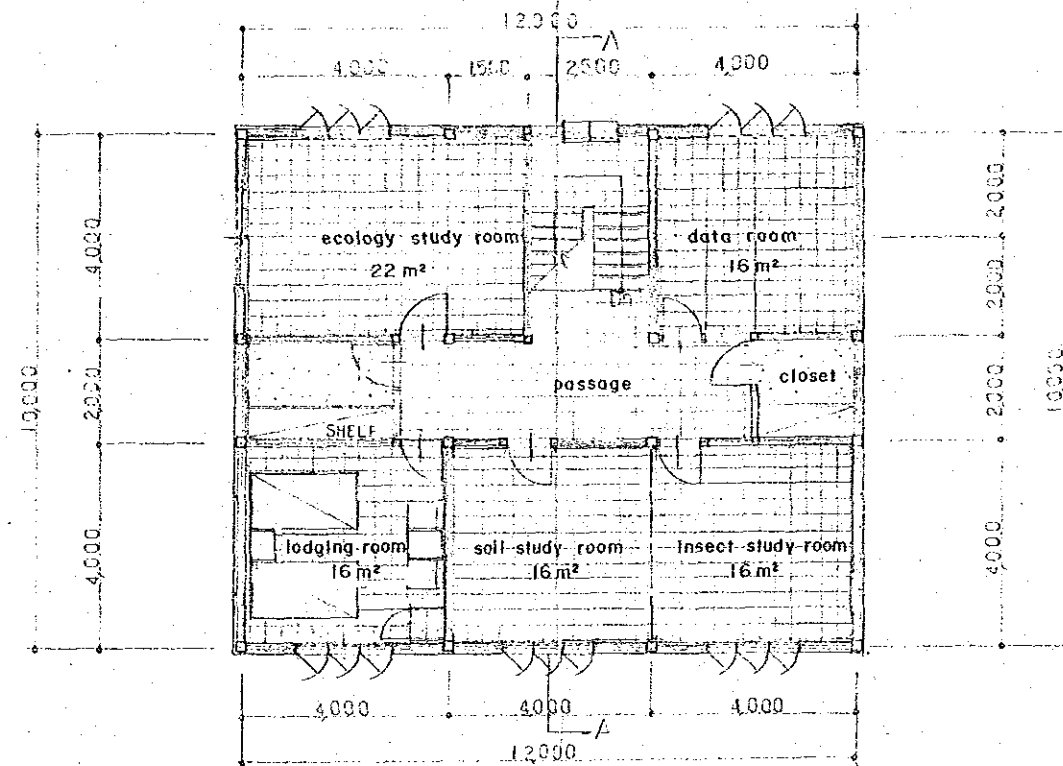
# CENTER BUILDING

GROUND FLOOR PLAN S = 1/100



1-ST-TH FLOOR SPACE	220.00m <sup>2</sup>
2-ST-TH FLOOR SPACE	120.00m <sup>2</sup>
<b>TOTAL</b>	<b>340.00m<sup>2</sup></b>

2-ND-TH FLOOR PLAN S = 1/100

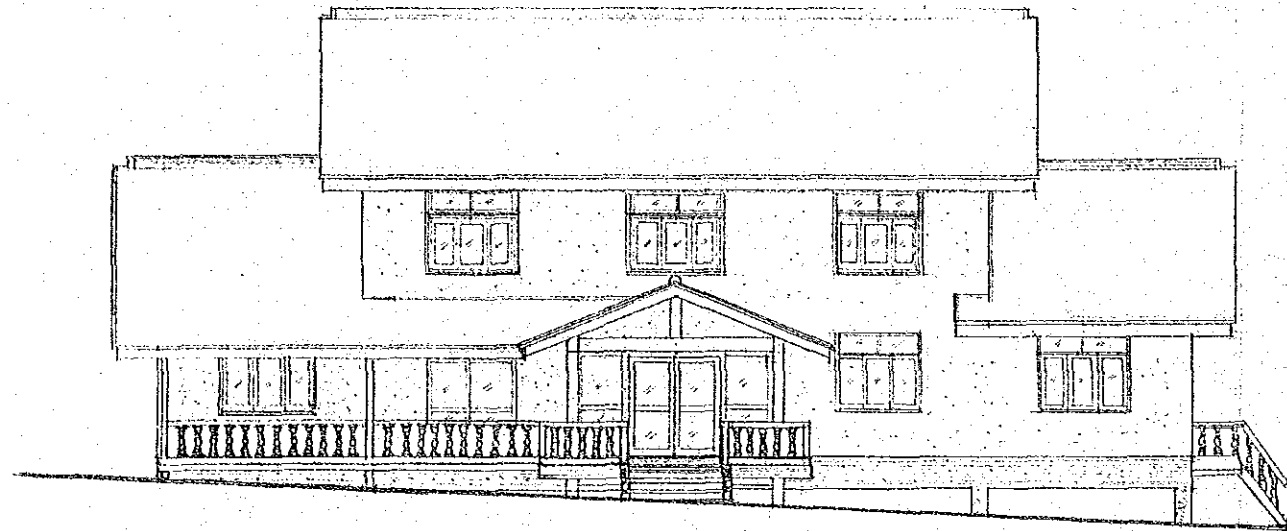


CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

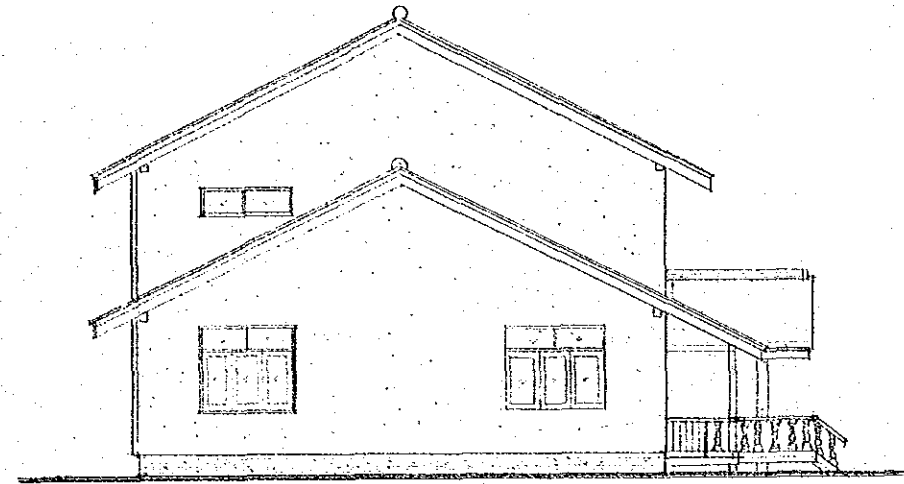
承認	設計	担当	縮尺	1/100	工事名称	図面番号
			設計年月日		図面名称	No. 3/15

# CENTER BUILDING (ELEVATION)

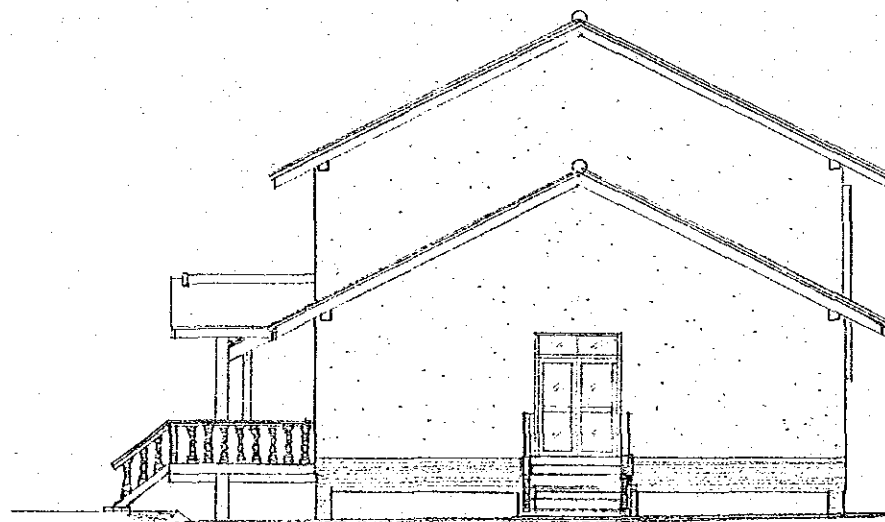
S = 1/100



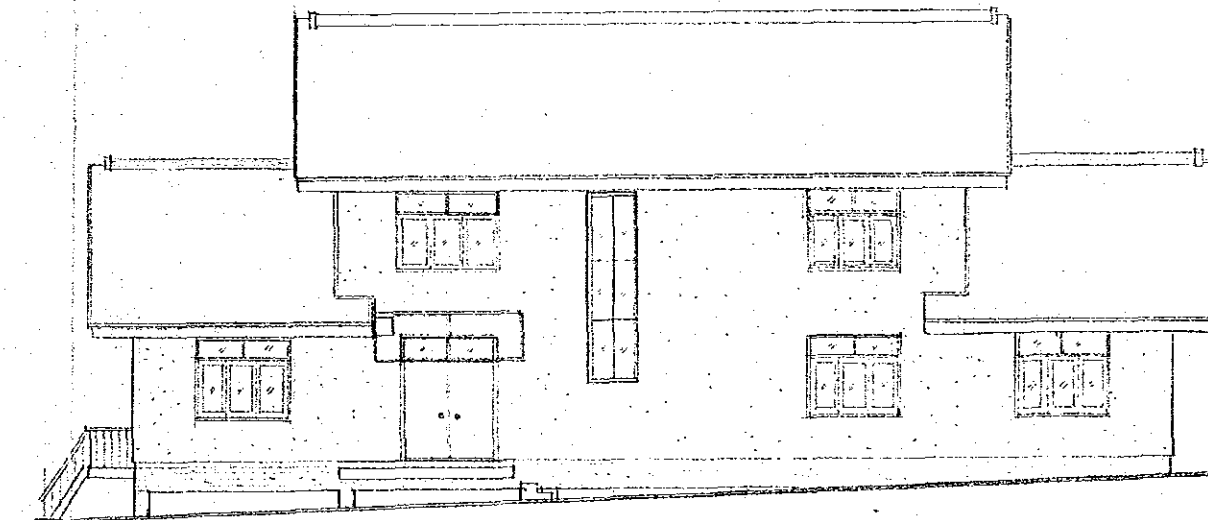
East



South



North



West

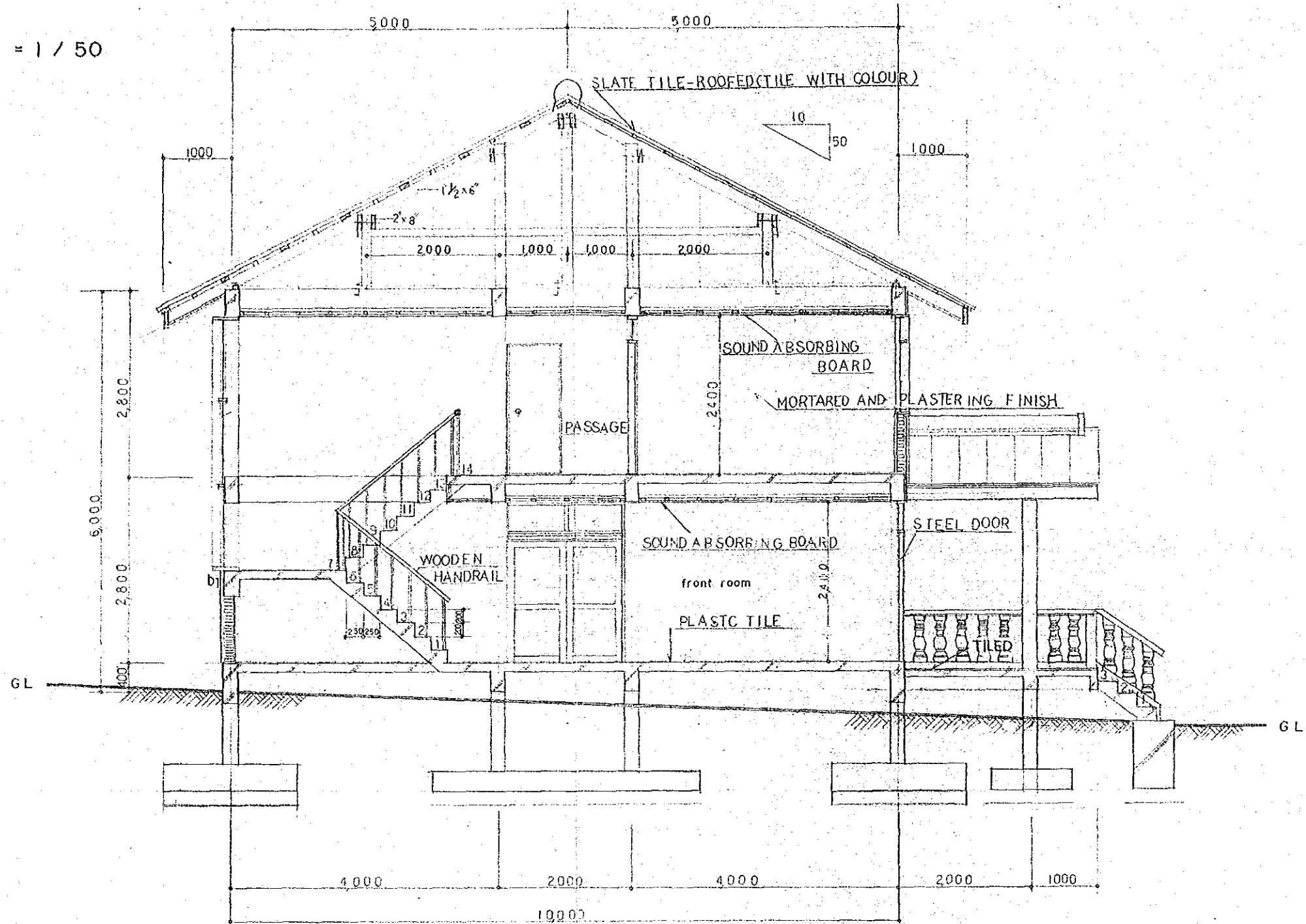
CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 4/15



# CENTER BUILDING

A-A SECTION S = 1/50

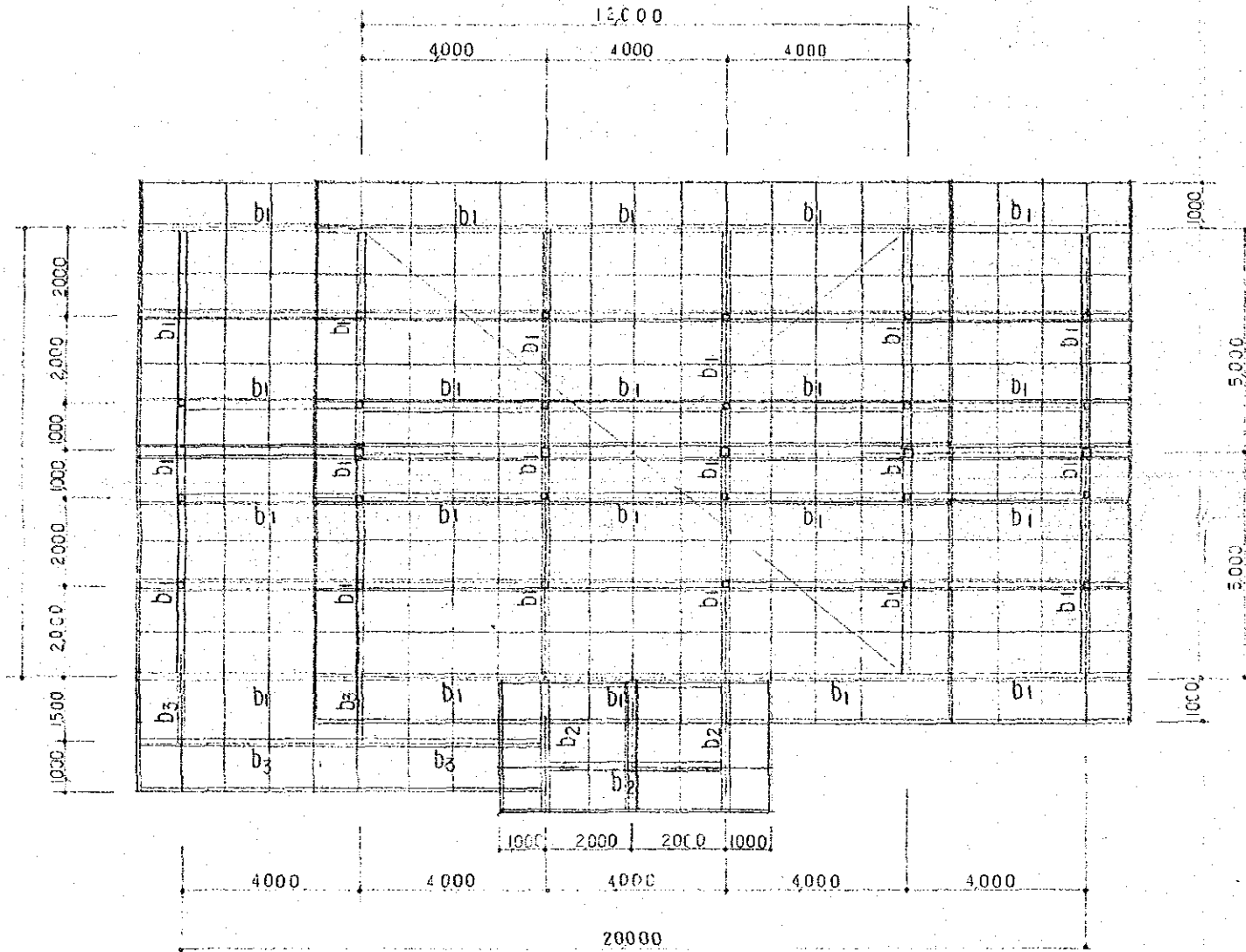


CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

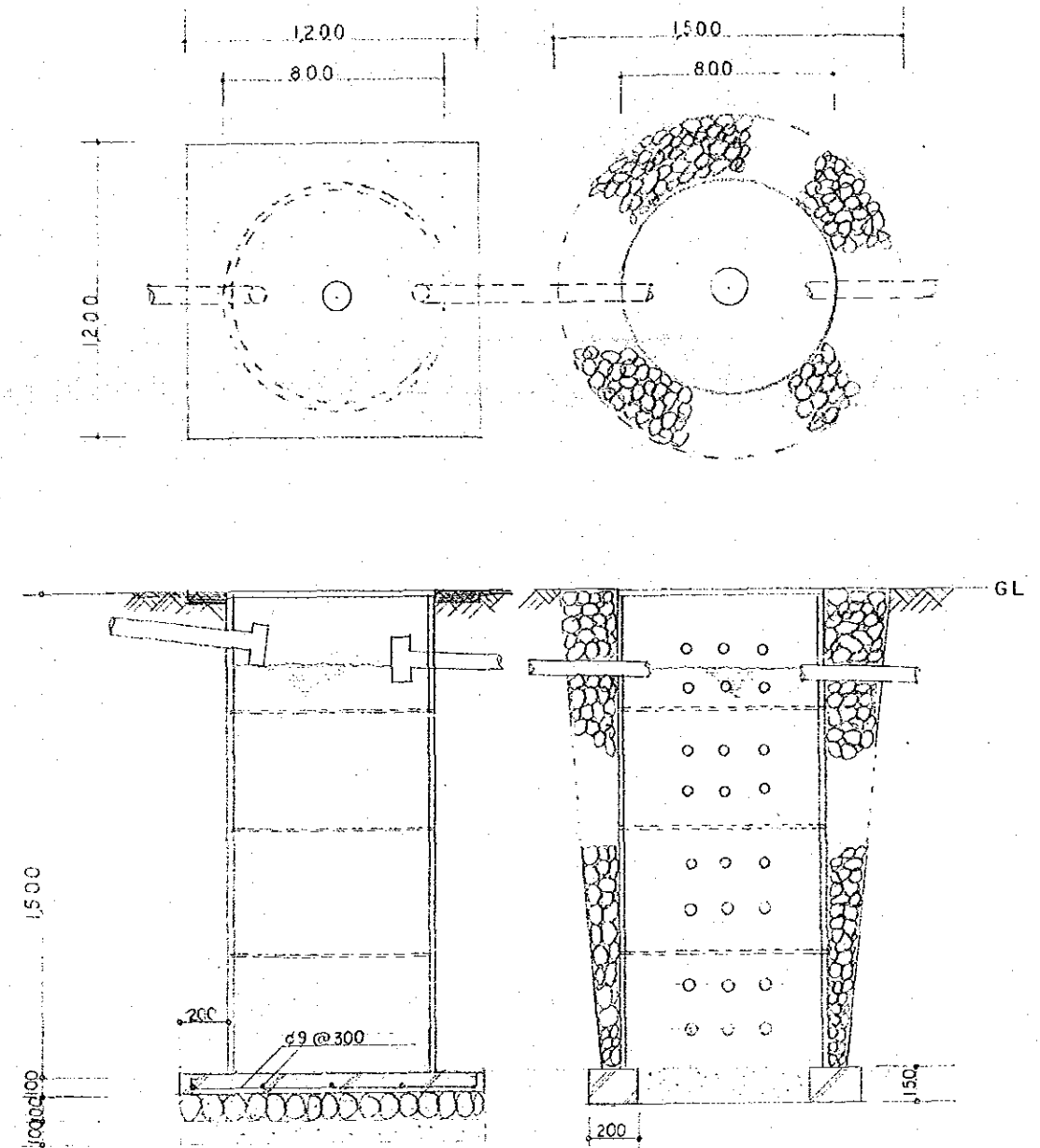
承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 15

# CENTER BUILDING

ROOF SKELETON PLAN S=1/100



DETAILS OF WATER PURIFICATION TUB S=1/20



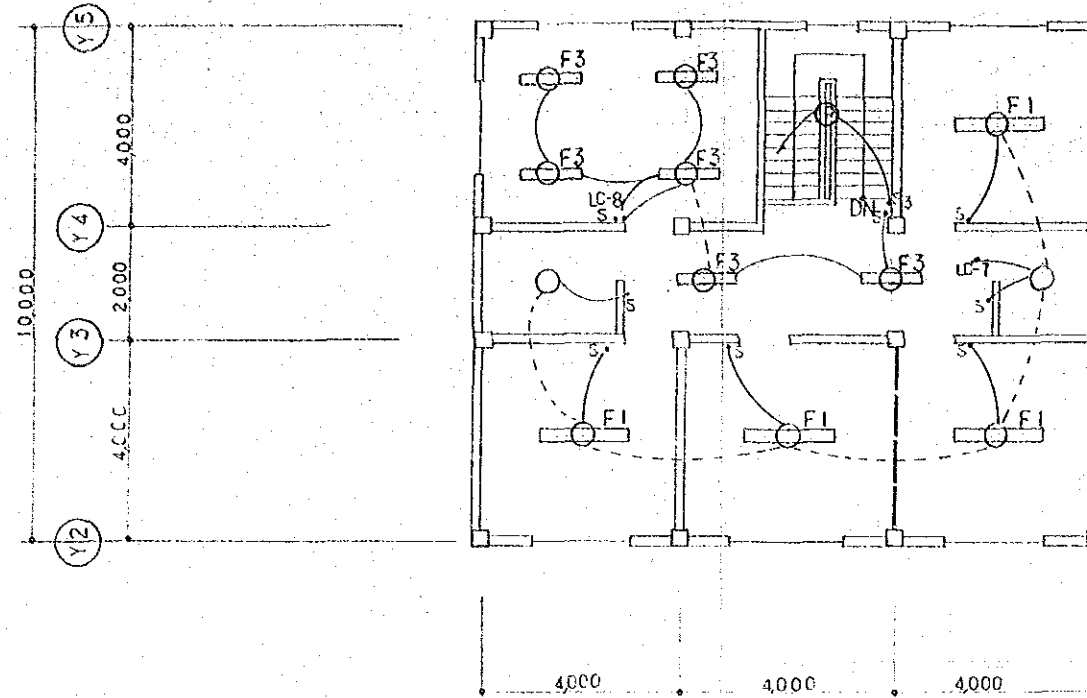
CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 6/15

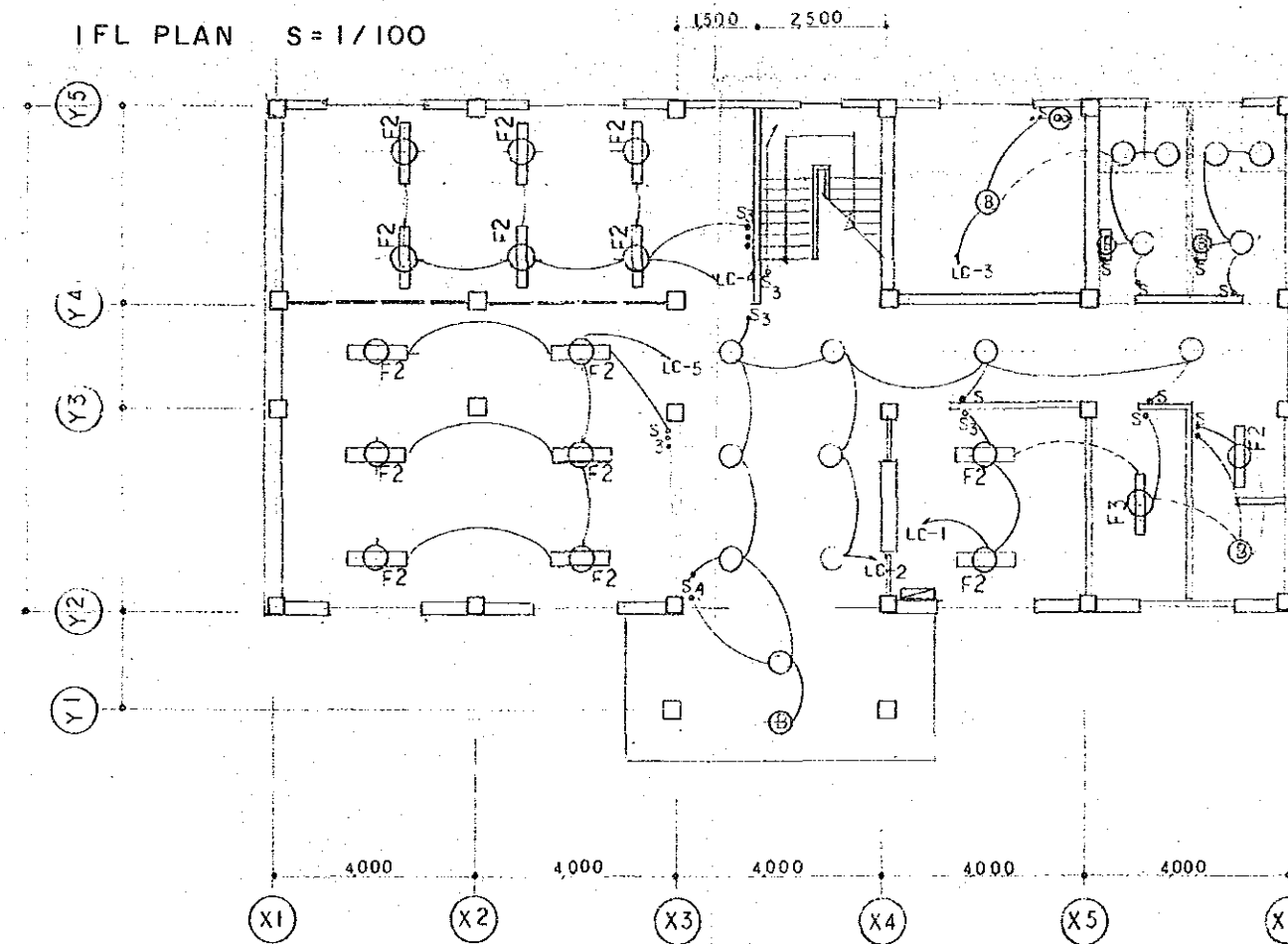


# CENTER BUILDING (LIGHTING)

2FL PLAN S=1/100



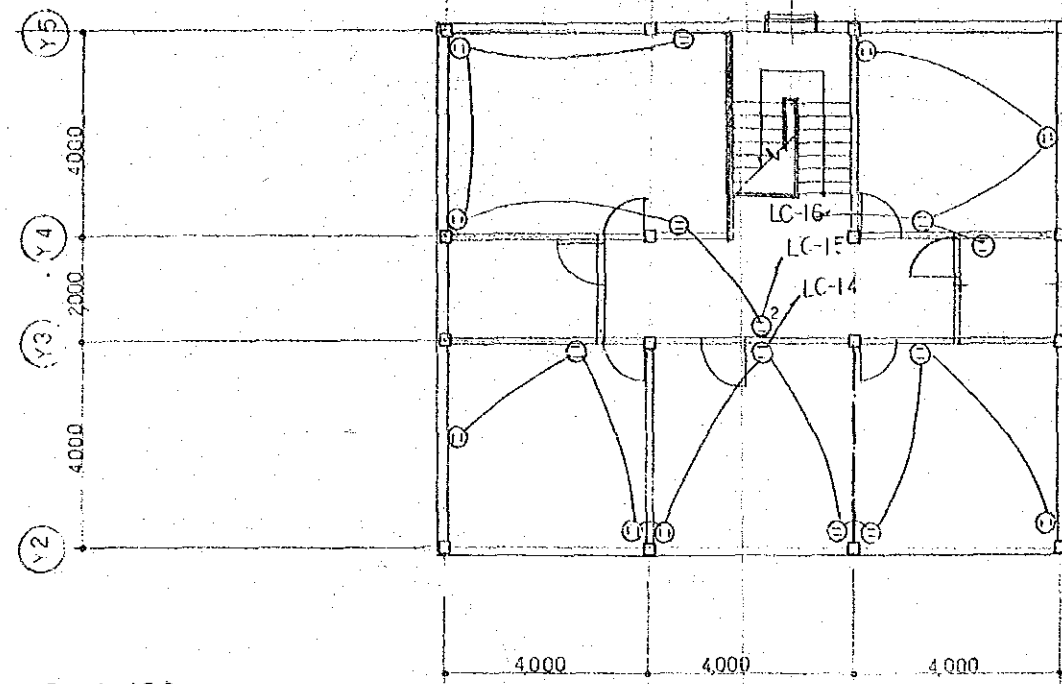
1FL PLAN S=1/100



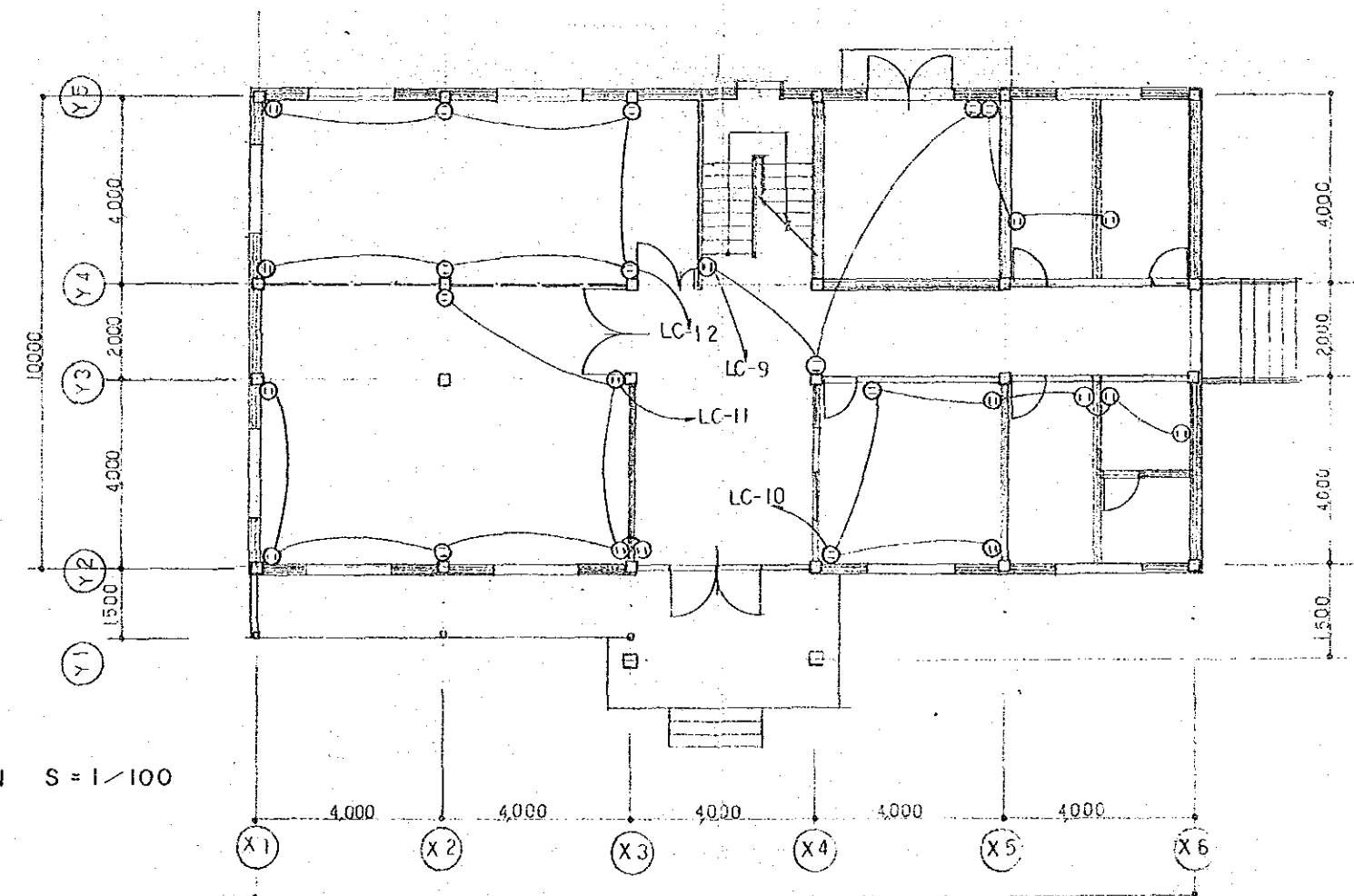
CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 8/15

# CENTER BUILDING (LOCATION OF WALL SOCKETS)



2 FL PLAN S = 1/100



1 FL PLAN S = 1/100

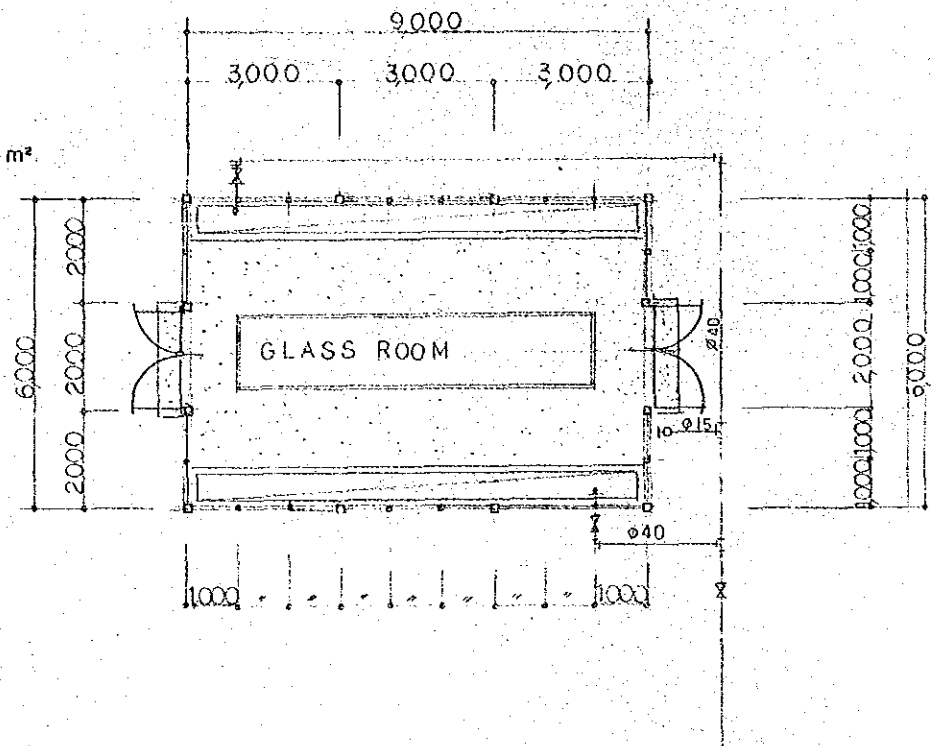
CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 9/15

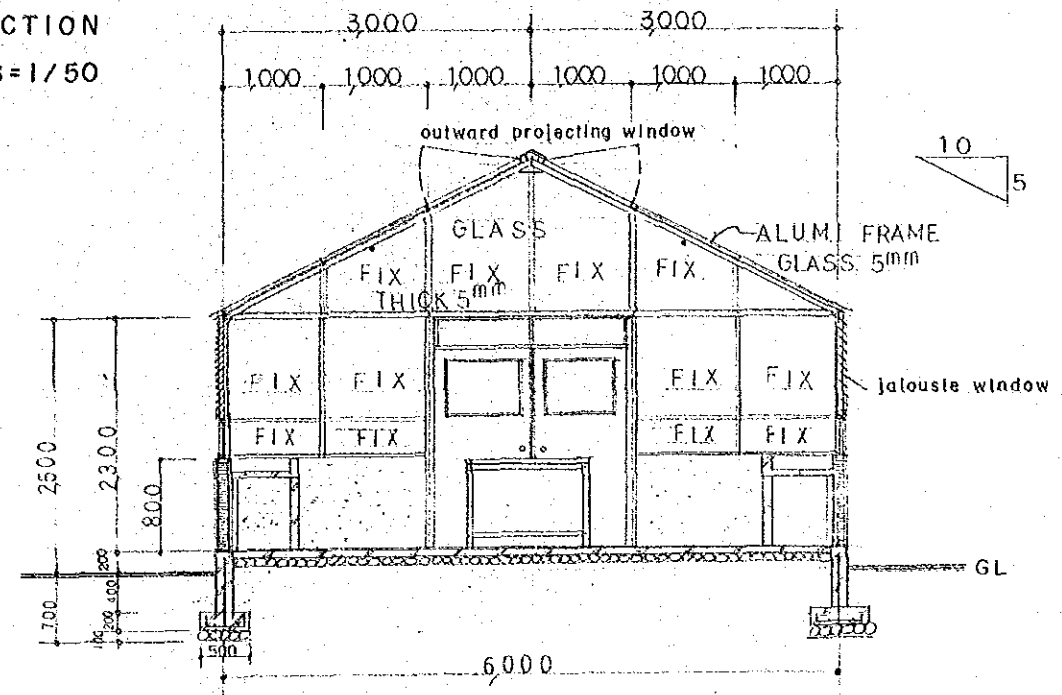
# GLASS HOUSE

GLASS HOUSE  
S=1/100

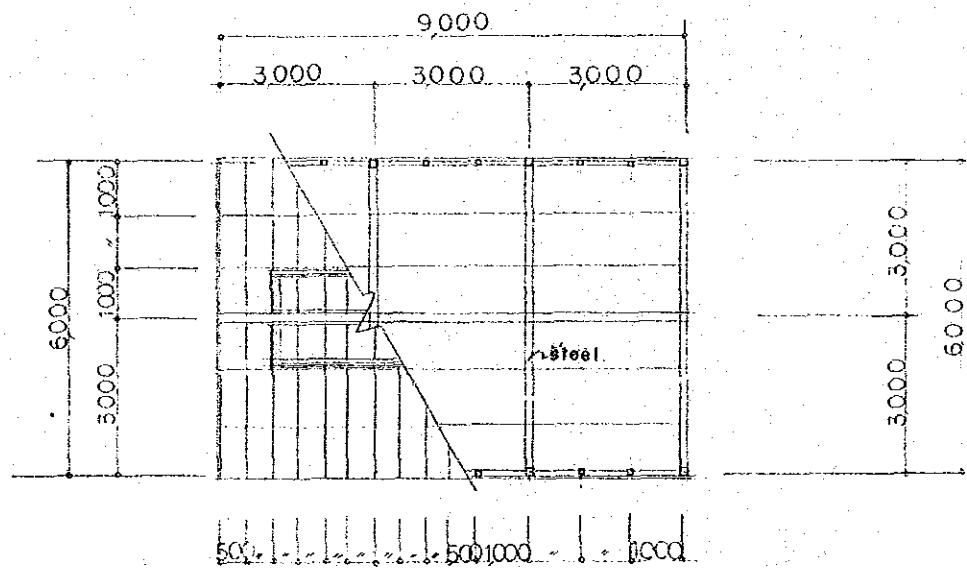
FLOOR SPACE 54m<sup>2</sup>



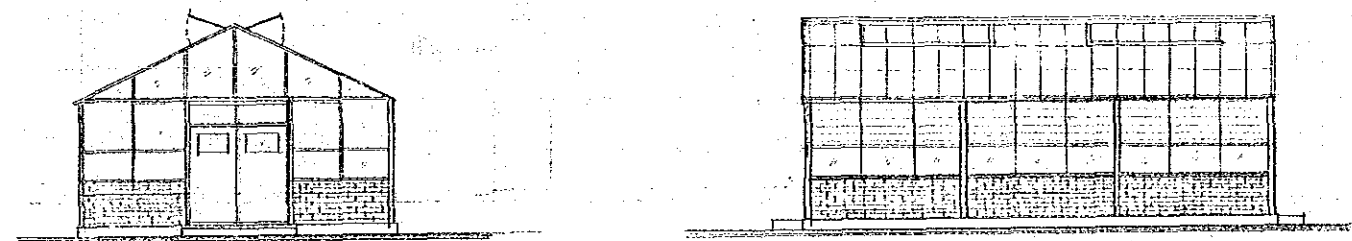
SECTION  
S=1/50



ROOF PLAN  
S=1/100



ELEVATION  
S=1/100



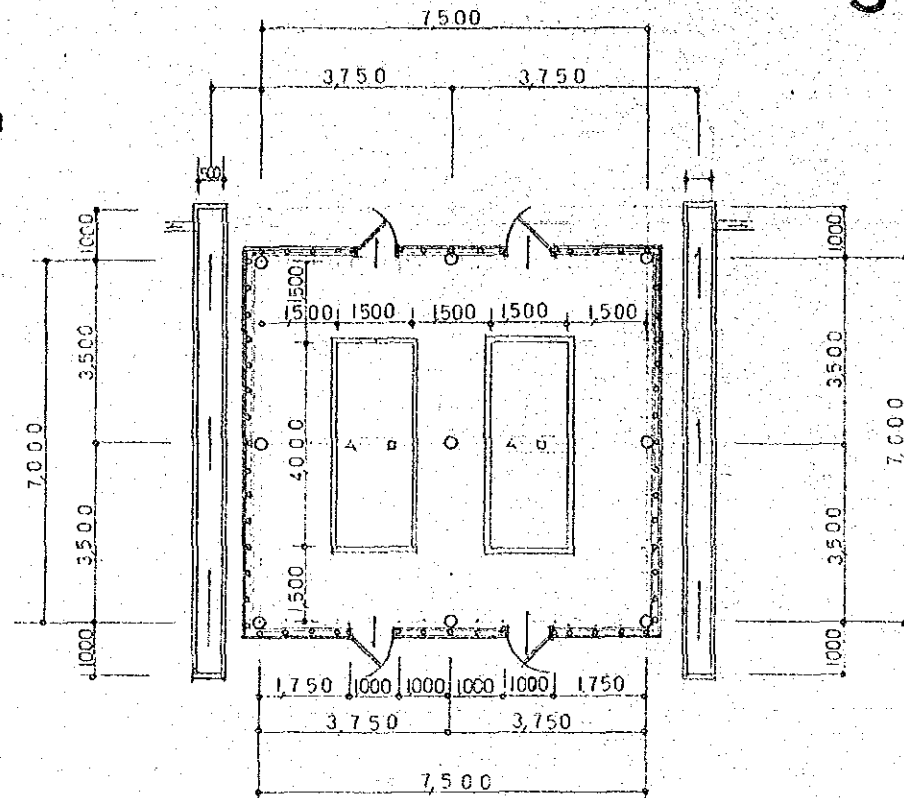
CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 10/15

# STUMP STORAGE

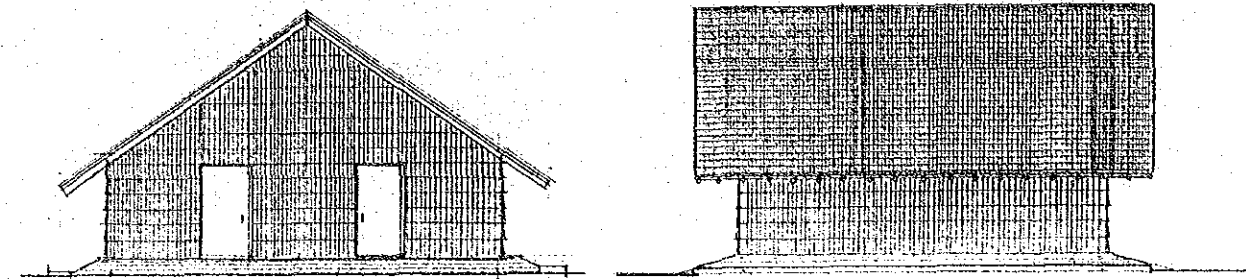
FLOOR PLAN

S = 1/100



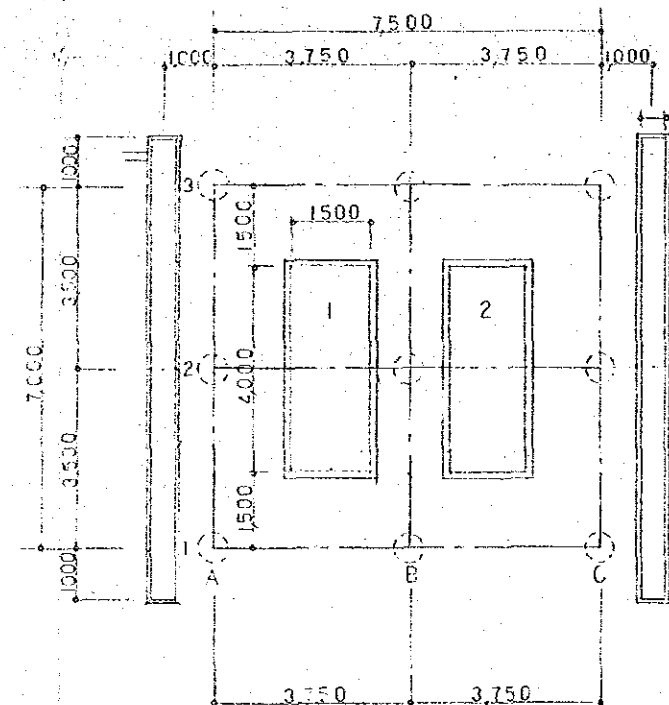
ELEVATION

S = 1/100



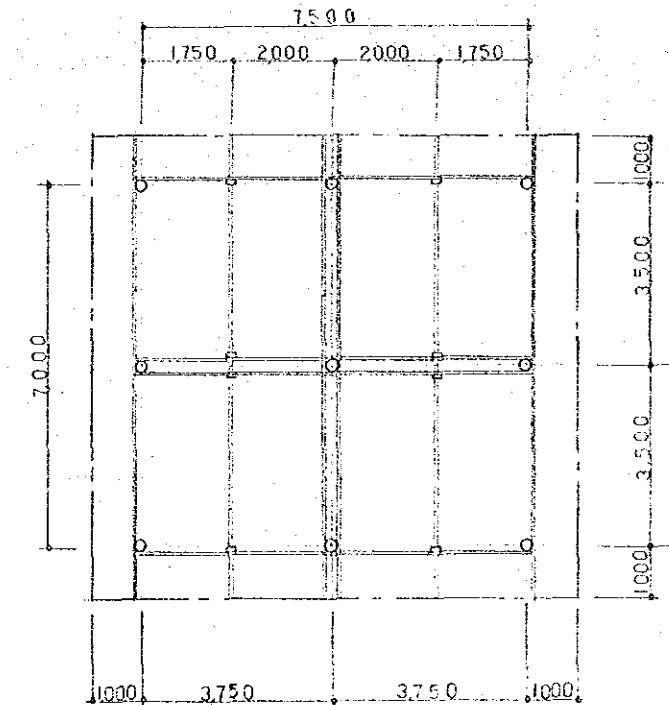
FOUNDATION CEILING PLAN

S = 1/100



SHED CEILING PLAN

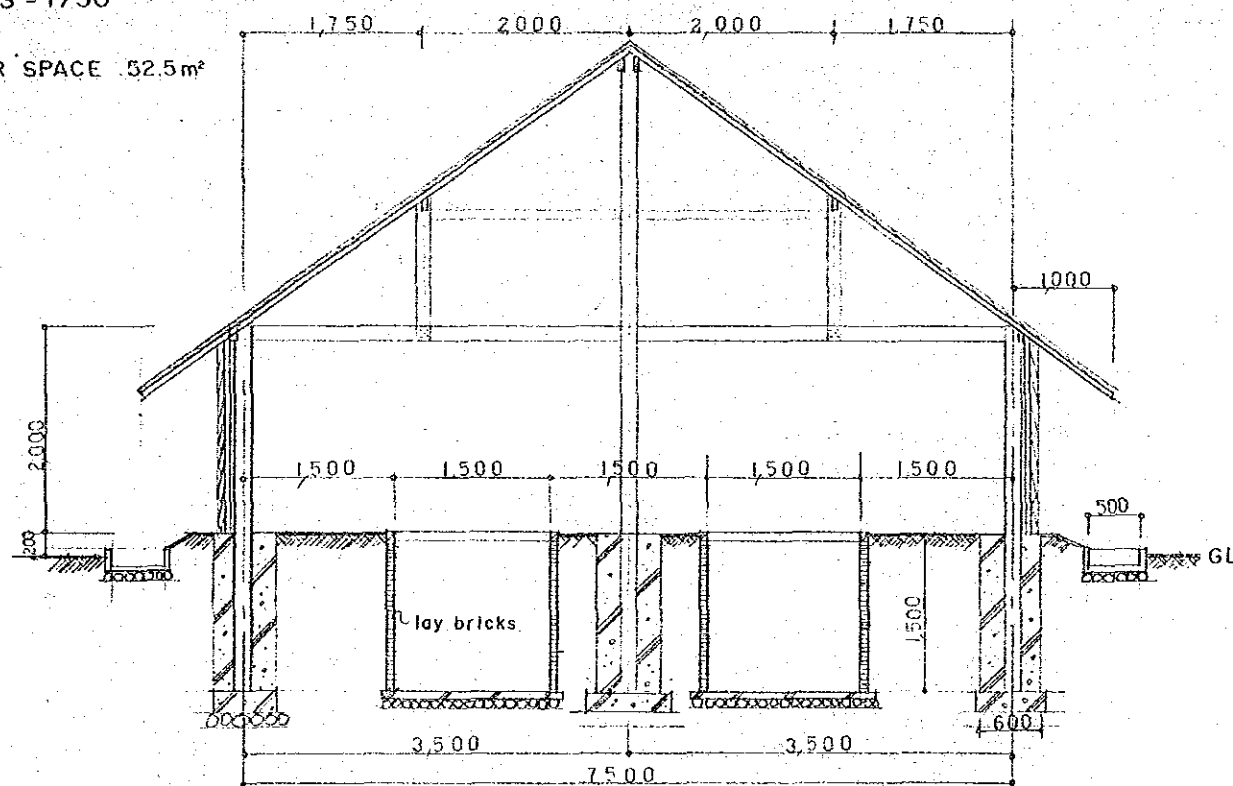
S = 1/100



SECTION

S = 1/50

FLOOR SPACE 52.5 m<sup>2</sup>

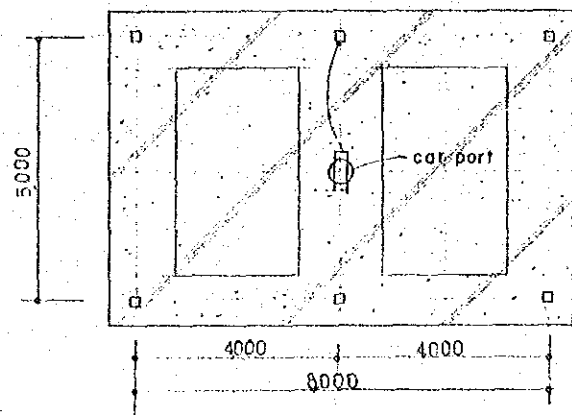


CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 11/15

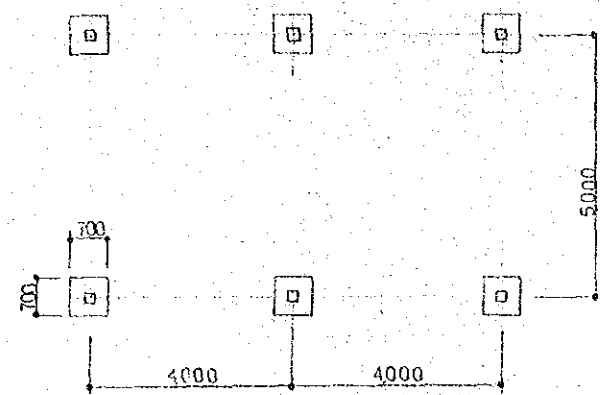
# STUMP PREPARATION HOUSE

FLOOR PLAN S=1/100

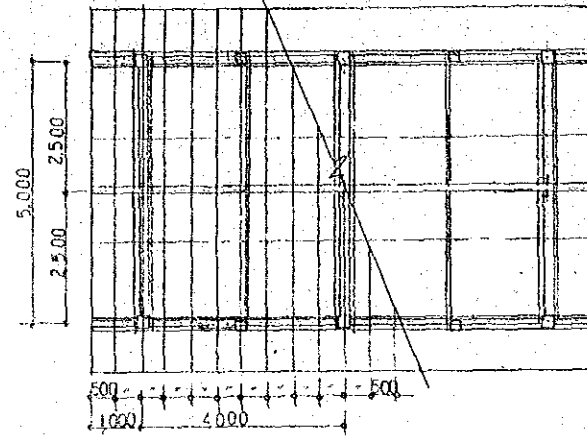


FLOOR SPACE 40m<sup>2</sup>

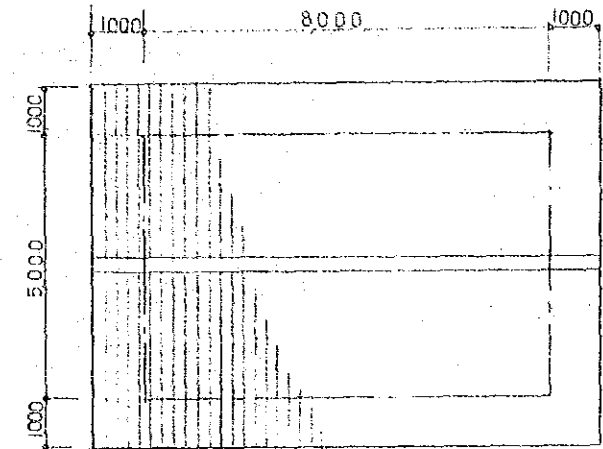
FOUNDATION CEILING PLAN S=1/100



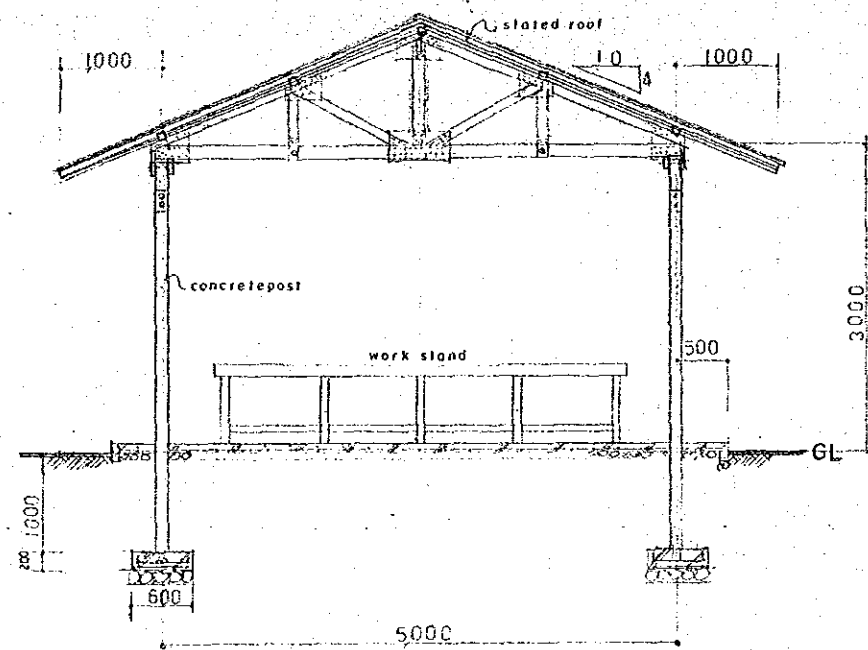
SHED CEILING S=1/100



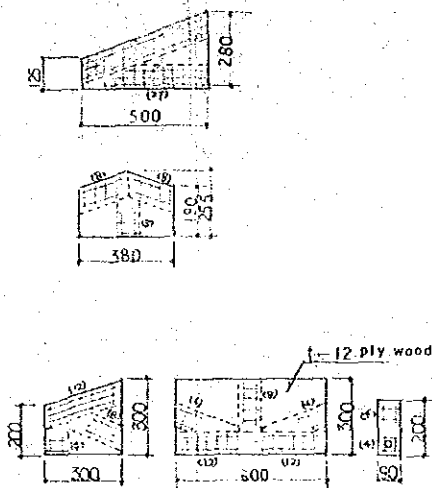
ROOF PLAN S=1/100



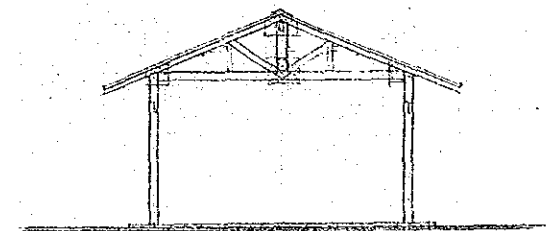
SECTION S=1/50



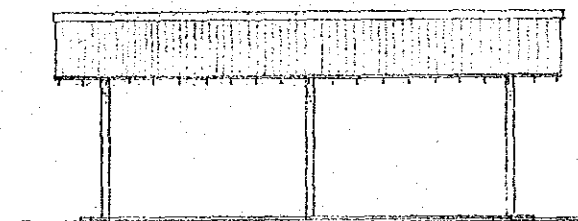
DETAILS OF GUSSET PLATE



ELEVATION S=1/100



ELEVATION S=1/100



CONSTRUCTION WORK FOR FOREST RESEARCH  
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承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	12/15

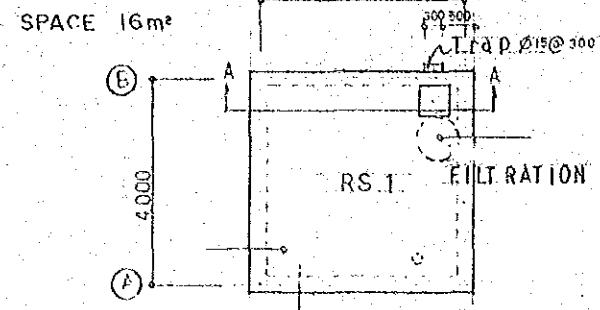




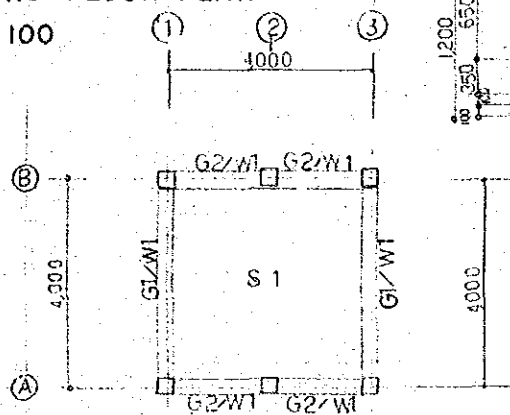
# WATER TANK

No.28

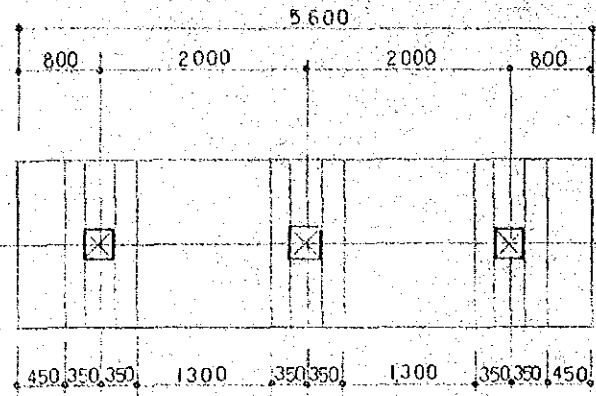
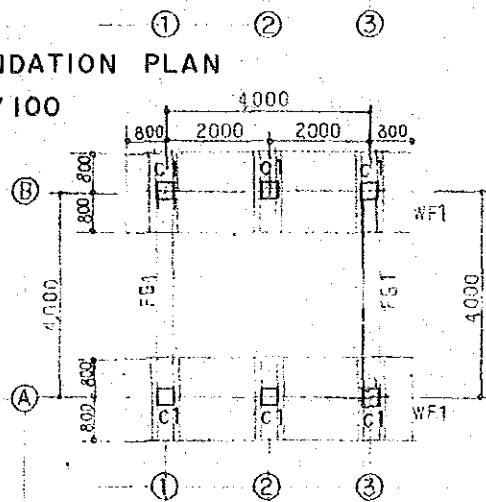
**ROOF FLOOR PLAN**  
S = 1/100



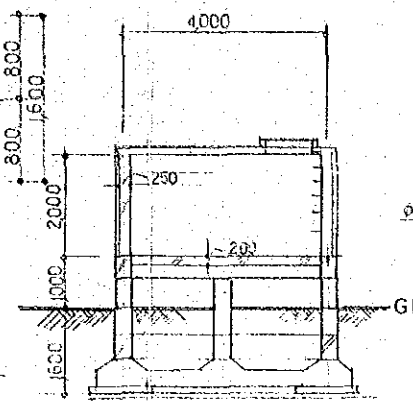
**GROUND FLOOR PLAN**  
S = 1/100



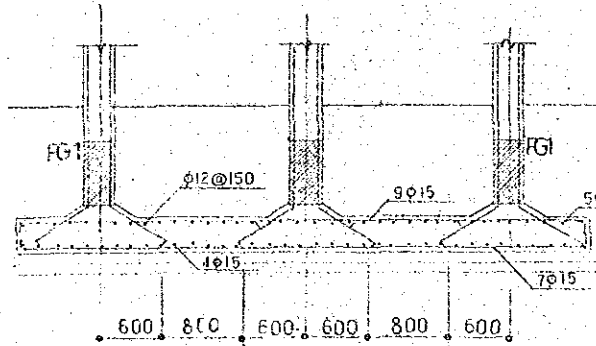
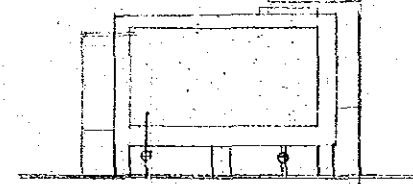
**FOUNDATION PLAN**  
S = 1/100



**A-A CROSS SECTION**  
S = 1/100



**ELEVATION**  
S = 1/100



**FOOTING**

**FOUNDATION DETAIL PLAN** S = 1/30

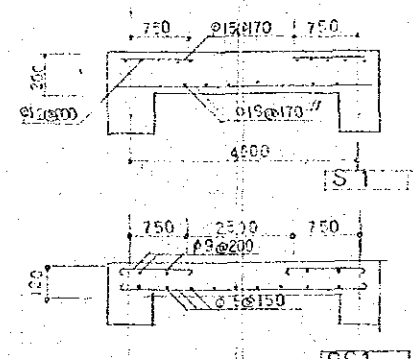
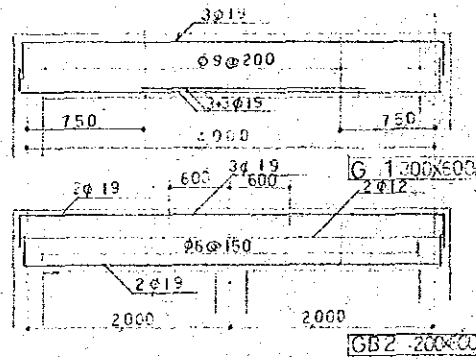
MARK	FG1	MARK	C1
Location	A II		
Section			
Upper part	3-φ19	Main	8-φ15
Lower part	3-φ19	Hoop	6φ@100
Stirrup	2-9φ@200	D.Hoop	5φ@500

**UNDERGROUND BEAM LIST      POST LIST**

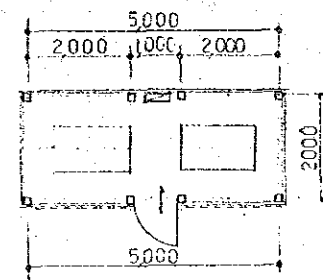
Exterior Waterproofed cement.

Interior Metallic type waterproofing.

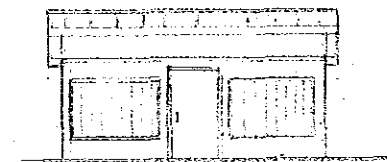
**FINISH**



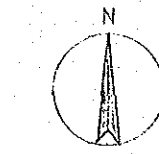
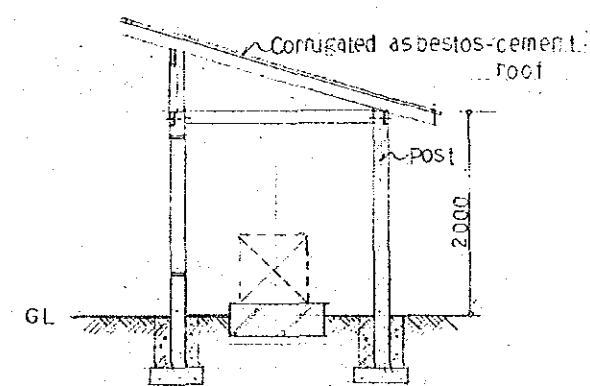
**FLOOR PLAN** S = 1/50



**ELEVATION** S = 1/50



**SECTION** S = 1/50



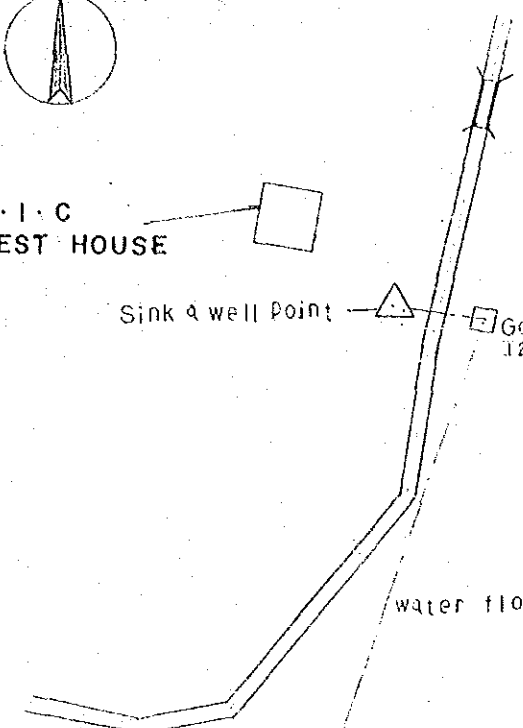
**PLOT PLAN**  
S = 1/1000

**T.I.C REST HOUSE**

**Sink & well Point**

**Generator power**  
12.5KVA-2

**Establish water tank**  
H 13M 80cm

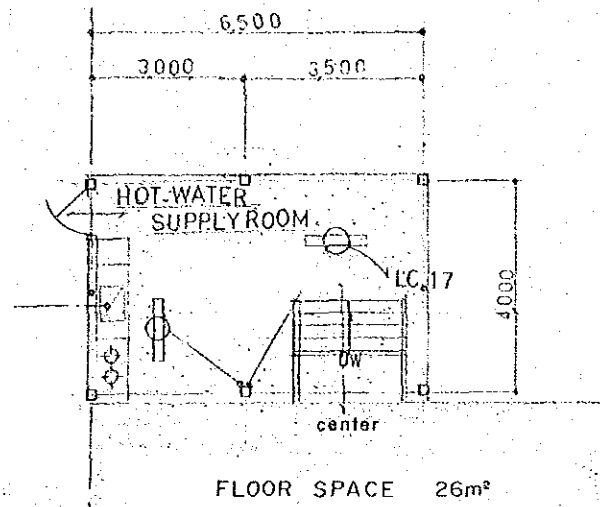


**CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER**

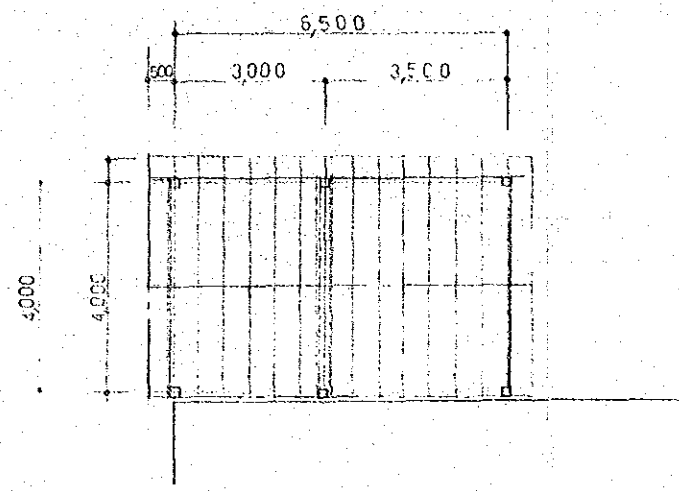
承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	14/15

# HOT-WATER SUPPLY ROOM

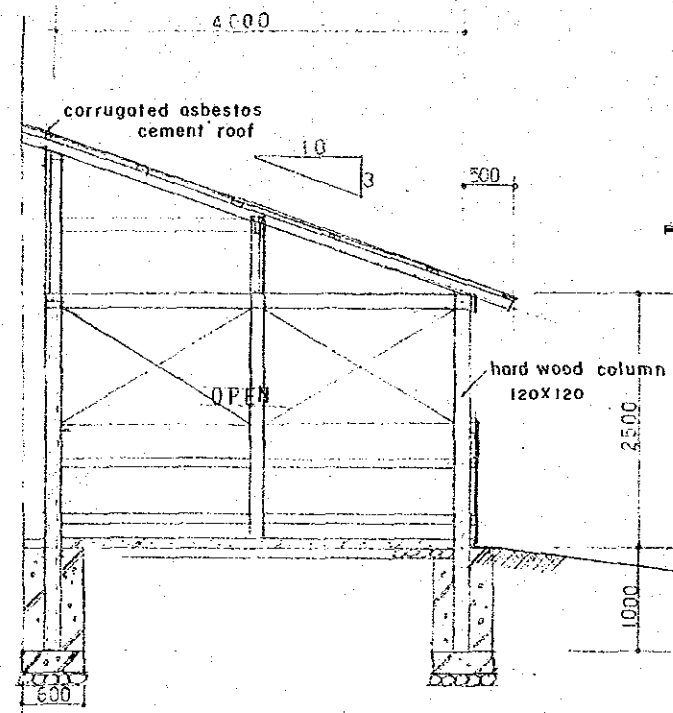
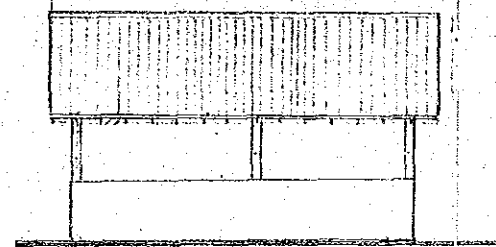
FLOOR PLAN S=1/100



SHED CEILING S=1/100



ELEVATION S=1/100



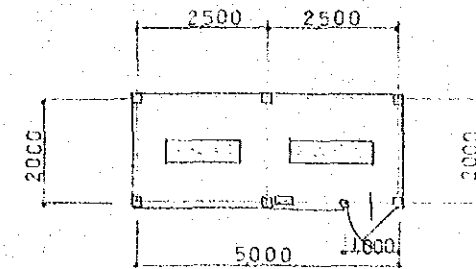
SECTION S=1/50

# GENERATOR BOWER

FLOOR PLAN

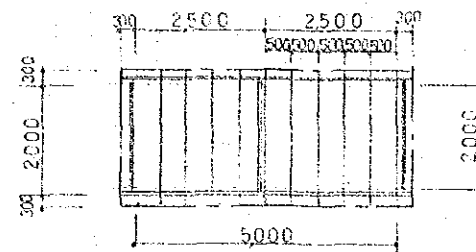
S=1/100

FLOOR SPACE 10m²

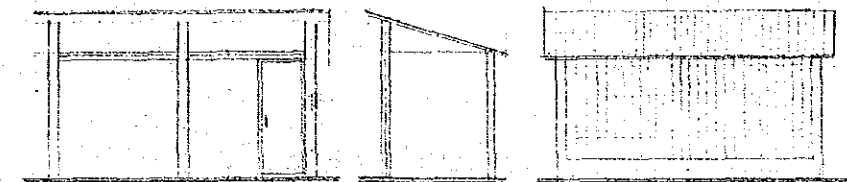


SHED CEILING

S=1/100

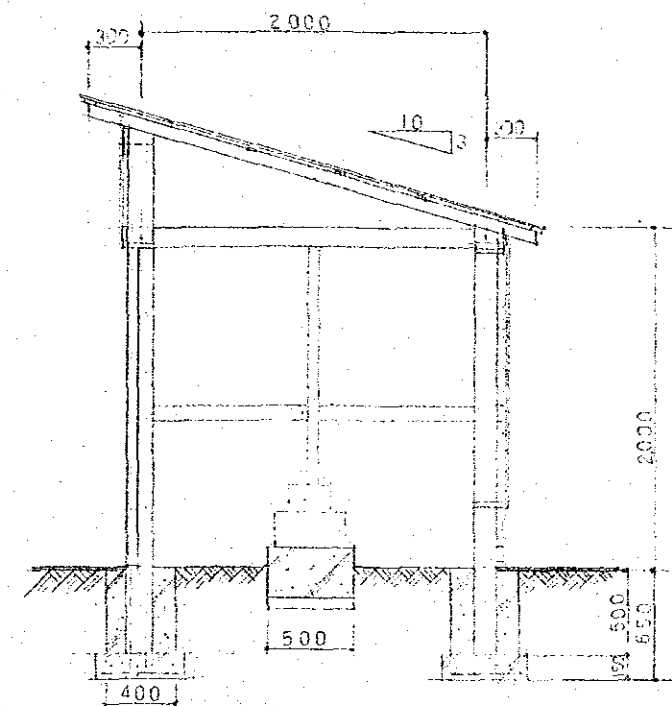


ELEVATION S=1/100



SECTION

S=1/30



CONSTRUCTION WORK FOR FOREST RESEARCH  
DEMONSTRATION AND EXTENTION CENTER

承認	設計	担当	縮尺	工事名称	図面番号
			設計年月日	図面名称	No. 15/15

