インドネシア共和国

稲病害虫発生予察防除計画

第三期

基本設計調査報告書

（分冊・現地建設事情）

昭和62年 5月

国際協力事業団

インドネシア共和国

稲病害虫発生予察防除計画

第三期

基本設計調査報告書

（分冊・現地建設事情）

昭和62年 5 月

国際協力事業団

目　　次

Ⅰ．インドネシア共和国概要

１．地理的条件

インドネシア共和国は、１３，６６７の島々から成る群島国家である。島々は、東経９４°４５′から１４１°０５′，北緯6°０８′，南緯１１°１５′の間に、赤道にそって広がる。
総面積は、約１９２万Km² あり、２７州に分割されている。

今回の調査対象地域は、以下の外領６州である。

スマトラ島	アチェ州
	北部スマトラ州
	南部スマトラ州
	ランプン州
カリマンタン島	南部カリマンタン州
スラウェン島	南部スラウェシ州

以下にその概況を示す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

	南部スラウェシ州	北部スラウェシ州	アチェ州	南部スマトラ州	ランプン州	南部カリマンタン州
人口（万人）	665.1	951.8	360.4	545.3	603.3	224.2
年増加率(83-84)（%）	1.55	2.4	2.73	3.13	6.57	1.97
面積（Km²）	72,781	70,787	55,392	103,688	23,307	37,660
人口密度（人/Km/²）	91	134	54	53	181	61
大河川	クルエングアチェ河（セウレウメウ） クルエングベウサンガン河（ベラサンガン） クルエングジャンボアジェ河（シンパンウリン） ラウェアラス河（クダチャネ） クルエングトリバ河（ダル・マクマル）	パタンパルン河（パルムテンガ） ワンプ河（スタバト） ウラル河（ガランプ） アエクシラウ河（マエクバツ） トバ湖	ムシ河（ムシバニュマシン）		バリト河（バリトクアラ） リアムキリ河（バンジャル）	

PEMBAGIAN DAERAH ADMINISTRASI INDONESIA
ADMINISTRATIVE AREAS OF INDONESIA
1983

DAERAH TINGKAT I *PROVINCE*	Banyaknya Kabupaten *Number of Regencies*	Banyaknya Kotamadya *Number of Municipalities*	Banyaknya Kecamatan *Number of Sub Districts*	Banyaknya Desa *Number of Villages*
(1)	(2)	(3)	(4)	(5)
01. Daerah Istimewa Aceh	8	2	133	5 567
02. Sumatera Utara	11	6	201	5 643
03. Sumatera Barat	8	6	100	3 552
04. Riau	5	2	76	1 103
05. Jambi	5	1	40	1 220
06. Sumatera Selatan	8	2	94	2 432
07. Bengkulu	3	1	24	1 226
08. Lampung	3	1	76	1 509
SUMATERA	51	21	744	22 252
09. D.K.I.Jakarta	-	5	30	236
10. Jawa Barat	20	4	439	6 557
11. Jawa Tengah	29	6	497	8 455
12. D.I.Yogyakarta	4	1	73	556
13. Jawa Timur	29	8	578	8 357
JAWA	82	24	1 617	24 161
14. Bali	8	-	51	599
15. Nusa Tenggara Barat	6	-	59	565
16. Nusa Tenggara Timur	12	-	109	1 725
17. Timor Timur	13	-	64	1 753
NUSA TENGGARA	39	-	283	4 642
18. Kalimantan Barat	6	1	108	4 690
19. Kalimantan Tengah	9	1	82	1 133
20. Kalimantan Selatan	9	1	100	2 364
21. Kalimantan Timur	4	2	72	1 081
KALIMANTAN	28	5	362	9 268
22. Sulawesi Utara	4	2	83	1 273
23. Sulawesi Tengah	4	-	62	1 305
24. Sulawesi Selatan	21	2	170	1 209
25. Sulawesi Tenggara	4	-	45	694
SULAWESI	33	4	360	4 481
26. Maluku	4	1	56	1 833
27. Irian Jaya	9	-	117	897
MALUKU & IRIAN JAYA	13	1	173	2 730
INDONESIA	246	55	3 539	67 534

Catatan/*Note* : Angka sementara/*Preliminary figures*

2．気象条件

インドネシアは、熱帯性気候に属し、半年を単位として雨期と乾期に大別される。

●気温，湿度

年間平均気温は、沿岸部２７℃，内陸部２５℃，高地２２℃となっている。
湿度は、赤道直下に位置し、しかも、無数の島々より成り立っているため高く、年間を通じ７０～８０％である。

●雨量，風

雨期には、西又は北西の風がふき、乾期にはオーストラリア大陸より東風がふく。
また、雨期，乾期の以降時期（４月～５月，１０月～１１月）には、風向きは不規則となる。
雨量は、地域別，月別により一定しない。

以下にインドネシア共和国主要２７都市の気象条件を示す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

SUHU UDARA RATA - RATA MAKSIMUM/MINIMUM
AVERAGE MAXIMUM / MINIMUM TEMPERATURE
1984 (^{0}C)

STATSIUN *STATION*	Tinggi *Height* (M)	Januari *January*	Pebruari *February*	Maret *March*	April *April*	Mei *May*	Juni *June*	Juli *July*	Agustus - *August*	September *September*	Oktober *October*	Nopember *November*	Desember *December*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Banda Aceh/Blang Bintang	22	...	...	...	...	...	...	...	32.8/21.6	32.4/21.6	...	31.1/22.3	30.0/24.4
2. Medan/Polonia	27	30.3/21.1	31.0/21.3	31.8/21.6	...	32.2/22.1	31.4/22.1	31.8/21.4	33.3/21.6	32.2/21.6	32.1/21.9	...	...
3. Padang/Tabing	3	30.1/21.8	30.2/22.0	30.2/22.5	30.7/22.5	30.9/22.8	30.6/22.2	31.1/21.8	30.3/21.7	...	30.0/21.0	29.9/22.1	29.8/22.3
4. Pekan Baru/Simpang Tiga	34	30.5/21.6	30.7/22.1	31.6/22.2	32.2/22.7	32.3/22.4	32.4/22.4	31.8/22.0	32.5/21.9	32.4/21.6	32.6/22.4	32.1/22.3	31.5/22.0
5. Jambi/Sultan Thaha	26	...	...	...	...	...	...	31.0/22.4	...	31.1/22.2	31.7/22.6	31.7/21.8	30.9/23.1
6. Palembang/Talang Betutu	12	...	...	...	...	...	...	...	...	...	...	...	...
7. Bengkulu/Padang Kemiling	17	31.1/22.0	...	...	31.4/22.4	31.9/22.6	31.6/22.1	31.1/21.3	31.6/21.7	...	31.1/21.9	...	30.7/21.8
8. Tanjung Karang/Branti	...	29.1/22.3	30.3/22.3	31.1/22.3	31.6/21.9	31.0/22.5	31.0/22.0	30.6/21.5	33.0/22.3	31.3/21.9	31.9/22.2	31.5/22.2	30.0/22.4
9. Jakarta/O.B.S.	7	30.1/23.5	30.3/23.6	31.2/23.7	32.2/24.1	32.2/23.7	32.9/23.8	32.2/23.6	32.5/23.6	31.4/23.3	32.3/24.3	32.2/24.1	31.2/23.6
10. Bandung/Husen Sastranegara	802	26.7/18.3	27.5/18.9	28.7/19.2	29.1/19.3	28.5/18.5	27.6/17.0	28.3/17.3	28.7/17.8	27.7/17.7	28.8/18.2	28.8/18.2	27.7/18.5
11. Semarang/A. Yani	3	...	...	...	...	...	...	...	...	...	...	...	...
12. Yogyakarta/Adi Sucipto	116	29.9/22.1	30.3/23.0	...	31.7/23.8	...	30.9/21.4	30.8/21.4	30.8/23.1	30.3/23.1	31.5/23.5	31.8/23.7	...
13. Surabaya/Perak I	3	30.7/23.8	30.2/23.9	31.3/24.3	31.2/23.7	31.6/24.6	31.5/22.9	31.3/23.1	32.2/22.8	32.1/23.8	33.7/24.2	34.0/24.3	31.4/24.1
14. Denpasar	3	30.2/24.4	29.8/24.3	29.6/24.0	30.5/24.5	29.9/23.8	29.1/23.6	28.4/23.2	28.9/23.1	29.5/23.7	30.8/22.4	31.1/24.4	...
15. Mataram/Ampenan	16	30.0/23.4	30.0/23.5	...	31.0/23.1	29.8/22.4	30.3/21.2	30.2/21.1	30.2/21.1	30.3/22.5	31.3/22.8	31.0/23.4	30.1/23.4
16. Kupang/Eltari	112	29.8/23.1	...	30.6/23.2	32.5/23.6	32.1/23.5	30.8/22.8	30.7/21.3	32.2/21.6	94.8/86.8	33.9/22.4	33.7/23.7	31.0/23.7
17. Timor-Timur/Dilli	...	30.3/24.2	30.7/24.2	30.6/24.0	30.2/23.7	30.4/22.8	30.6/21.6	29.3/20.2	29.4/20.3	30.3/21.8	31.3/21.8	32.0/23.7	31.4/24.2
18. Pontianak/Supadio	3	30.6/21.9	29.8/29.3	31.8/28.6	31.9/22.6	...	32.4/22.2	31.3/22.0	33.0/22.1	31.4/22.1	31.9/22.4	31.8/22.5	30.3/24.3
19. Palangkaraya	22	31.0/22.9	30.1/22.9	32.0/23.4	32.6/23.7	32.0/23.8	31.6/23.2	31.5/22.7	32.2/22.6	32.6/22.9	32.8/23.3	32.6/23.5	32.8/22.4
20. Banjarmasin/Syamsudin Noor	3	...	...	30.5/23.4	32.1/23.9	32.0/23.4	...	31.0/22.5	32.6/21.9	31.4/22.5	33.1/22.7	32.2/22.9	30.9/22.9
21. Balik Papan/Sepinggan	88	...	...	...	...	...	...	31.2/23.2	29.1/23.3	...	30.4/23.9	...	...
22. Manado/Kayuwatu	86	...	29.0/21.8	29.8/21.8	30.0/22.5	30.5/22.3	31.0/22.3	30.5/22.2	31.4/22.1	30.6/21.4	31.1/21.6	30.9/21.2	29.5/21.7
23. Palu/Mutiara	86	32.0/21.6	29.3/21.9	32.5/22.3	31.9/22.5	31.5/22.3	30.1/21.7	29.8/21.0	31.3/20.8	30.0/20.2	32.8/20.9	33.4/21.3	...
24. Ujung Pandang/Hasanuddin	14	...	29.2/23.0	30.2/23.1	31.0/23.2	31.1/23.3	31.1/22.7	31.6/21.4	31.1/20.8	32.1/22.1	33.4/21.2	31.9/23.0	29.1/22.8
25. Ambon/Patimura	10	30.8/23.6	30.9/23.7	30.7/23.6	...	28.6/23.4	27.3/23.3	...	27.6/22.9	...	29.4/23.2	30.9/23.6	30.9/23.9
26. Kendari/Mongunsidi	50	31.5/23.0	31.2/22.4	31.7/...	30.4/...	29.3/...	28.2/21.2	29.4/20.2	...	30.9/20.4	32.5/21.8	32.7/23.2	...
27. Irian Jaya/Jayapura	3	31.9/24.7	31.1/24.5	30.6/24.2	31.7/24.6	30.9/34.5	21.4/24.6	30.4/24.0	30.7/24.0	32.9/24.4	28.9/24.6	32.0/24.6	30.9/24.6

Sumber : Badan Meteorologi dan Geofisika
Source Meteorology and Geophysics Board

KELEMBABAN UDARA RATA-RATA
AVERAGE RELATIVE HUMIDITY
1984 (%)

STASIUN *STATION*	Tinggi *Height* (M)	Januari *January*	Pebruari *February*	Maret *March*	April *April*	Mei *May*	Juni *June*	Juli *July*	Agustus *August*	September *September*	Oktober *October*	Nopember *November*	Desember *December*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Banda Aceh/Blang Bintang	22	...	...	...	...	...	...	...	64	77	...	82	83
2. Medan/Polonia	27	85	84	83	...	84	83	83	82	82	83	...	...
3. Padang/Tabing	3	79	80	85	84	83	82	84	81	...	83	87	84
4. Pekan Baru/Simpang Tiga	34	85	86	86	85	85	84	82	81	83	82	83	77
5. Jambi/Sultan Thaha	26	...	...	...	...	...	...	85	...	86	86	87	86
6. Palembang/Talang Betutu	12	...	...	...	...	...	...	...	...	...	...	...	...
7. Bengkulu/Padang Kemiling	17	87	...	...	88	91	87	87	85	...	86	...	87
8. Tanjung Karang/Branti	...	87	98	87	87	88	86	86	83	85	84	88	89
9. Jakarta/O.B.S.	7	82	87	86	83	83	73	76	73	78	73	77	77
10. Bandung/Husen Sastranegara	802	85	83	83	84	84	75	78	78	82	77	82	80
11. Semarang/A. Yani	3	...	...	...	...	...	...	...	...	...	...	...	...
12. Yogyakarta/Adi Sucipto	116	88	87	...	85	...	80	81	78	84	81	82	...
13. Surabaya/Perak I	3	84	86	85	85	80	75	77	73	78	71	74	81
14. Denpasar	3	84	83	85	84	82	79	80	84	83	81	84	84
15. Mataram/Ampenan	16	87	85	...	85	83	79	78	79	84	81	84	84
16. Kupang/Eltari	112	83	...	82	70	65	63	67	68	70	61	71	84
17. Timor Timur/Dilli	...	79	77	78	77	77	68	71	72	71	66	65	72
18. Pontianak/Supadio	3	86	86	87	87	...	84	86	81	85	86	86	...
19. Palangkaraya	...	86	88	85	85	86	85	88	83	84	83	85	85
20. Banjarmasin/Syamsudin Noor	22	...	...	86	85	86	...	83	80	82	...	...	86
21. Balikpapan/Sepinggan	3	...	...	...	...	...	...	90	88	...	84	...	...
22. Manado/Kayuwatu	88	...	91	90	92	89	85	82	76	85	84	87	89
23. Palu/Mutiara	86	73	80	7	77	79	82	81	75	77	72	69	...
24. Ujung Pandang/Hasanuddin	14	...	90	89	88	87	83	79	74	82	76	84	88
25. Ambon/Patimura	10	81	80	83	...	89	89	...	87	...	84	83	83
26. Kendari/Munginsidi	50	83	87	86	90	90	91	89	86	86	77	82	...
27. Irian Jaya/Jayapura	3	78	80	83	81	82	82	82	82	81	82	80	81

Sumber : Badan Meteorologi dan Geofisika
Source Meteorology and Geophysics Board

BANYAKNYA HUJAN DARI TEMPAT TERPILIH
NUMBER OF RAINFALLS IN SELECTED PLACES
1984
(MM)

STASIUN *STATION*	Tinggi *Height* (m)	Januari *January*	Pebruari *February*	Maret *March*	April *April*	Mei *May*	Juni *June*	Juli *July*	Agustus *August*	September *September*	Oktober *October*	Nopember *November*	Desember *December*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Banda Aceh/Blang Bintang	22	...	...	...	...	...	...	...	19.4	...	...	302.5	211.1
2. Medan/Polonia	27	155.3	293.3	143.0	...	383.3	94.2	391.6	48.6	112.5	339.7	...	...
3. Padang/Tabing	3	475	184	295	538	220.7	247	694	210	...	523	720	580
4. Pakan Baru/Simpang Tiga	34	183.3	395.8	338.2	194.0	323.0	95.5	248.3	128.8	232.3	201.9	181	274.2
5. Jambi/Sultan Thaha	26	...	...	...	...	...	...	48	...	132	282	257	91
6. Palembang/Talang Betutu	12	...	..	...	...	...	...	...	...	...	...	...	...
7. Bengkulu/Padang Kemiling	17	378	...	...	409	271	87	317	152	...	287	...	281
8. Tanjung Karang/Branti	...	372.8	370.9	357.6	365.1	142.3	82.7	134.3	39.5	117.8	176.8	392.2	278.8
9. Jakarta/O.B.S	7	293.9	292.4	304.4	36.5	79.9	53.9	40.0	84.3	107.2	73.5	115.5	185.0
10. Bandung/Husen Sastranegara	802	235.7	232.8	231.3	269.7	133.1	42.3	61.8	60.6	264.7	159.4	194.4	99.2
11. Semarang/A. Yani	3	...	...	...	...	...	...	...	...	...	...	...	...
12. Yogyakarta/Adi Sucipto	116	441.0	463.2	...	294.4	...	51.6	7.3	25.9	175.7	104.2	115.2	...
13. Surabaya/Perak I	3	478.2	283.2	178.0	215.9	32.8	70.6	7.1	10.4	160.3	65.4	76.6	132.9
14. Denpasar	3	461.3	430	706.4	84.2	169.3	18.7	51.5	61.1	165.2	77.8	114.9	362.2
15. Mataram/Ampenan	16	205	209	...	163	130	65	5	37	158	229	244	229
16. Kupang/Eltari	112	602.3	...	258.4	20.4	12.4	1.3	3.0	0	29.1	34.0	49.7	415.0
17. Timor-Timur/Dilli	...	133.3	119.9	86.2	248.6	261.7	33.6	0	10.2	89.2	8.5	50.5	117.2
18. Pontianak/Supadio	3	304.9	239.4	257.6	240.0	...	190.2	499.8	5.1	299.4	299.8	485.0	...
19. Palangkaraya	...	280.4	324.4	257.9	442.7	514.4	132.8	157.1	119.2	441.4	98.5	359.2	260.9
20. Banjarmasin/Syamsudin Noor	22	...	...	404	397	482.0	...	414.9	79	115.6	132	306	444.0
21. Balik Papan/Sepinggan	3	...	...	...	...	...	...	317	254	...	91	...	...
22. Manado/Kayuwatu	88	...	381	288	374	280	175	156	245	310	162	85	516
23. Palu/Mutiara	86	33	59	34	80	93	184	176	75	72	8	15	...
24. Ujung Pandang/Hasanuddin	14	...	673.8	519.3	246.3	192.0	53.0	55.1	3.5	176.5	28	308	686.5
25. Ambon/Pattimura	10	106.3	90.7	215.3	...	669.0	1 751.4	...	534.7	...	91.8	82.8	104.8
26. Kendari/Munginsidi	50	136.1	264.9	270.2	240.2	425.6	343	159.3	...	134	31	88	...
27. Irian Jaya/Jayapura	3	105	207	224	207	267	202	103	165	192	109	127	530

Sumber : Badan Meteorologi dan Geofisika.
Source Meteorology and Geophysics Board.

KECEPATAN ANGIN RATA-RATA
AVERAGE WIND VELOCITY
1984 (KNOT)

STASIUN *STATION*	Tinggi *Height* (M)	Januari *January*	Pebruari *February*	Maret *March*	April *April*	Mei *May*	Juni *June*	Juli *July*	Agustus *August*	September *September*	Oktober *October*	Nopember *November*	Desember *December*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Banda Aceh/Blang Bintang	22	...	...	...	...	...	...	...	6.9	6.3	...	6.0	5.3
2. Medan/Polonia	27	3	3	3	...	...	4	4	4	3	3	...	...
3. Padang/Tabing	3	1.8	1.9	1.9	1.9	1.7	1.8	1.8	2	...	1.9	1.2	2
4. Pakan Baru/Simpang Tiga	34	7.6	7	7	8	8.1	5.4	6	6.5	7	6.7	7	7
5. Jambi/Sultan Thaha	26	...	...	...	...	...	...	1.5	...	1.0	0.8	0.8	1.0
6. Palembang/Talang Betutu	12	...	...	...	...	...	...	...	...	...	...	...	...
7. Bengkulu/Padang Kemiling	17	4.4	...	...	3.9	4.0	5.2	4.2	5.0	...	5	...	5
8. Tanjung Karang/Branti	...	2	2	2	1	1	2	5.8	2.5	2	2	2	2
9. Jakarta/O.B.S	7	0.7	0.7	0.6	0.7	1	1.6	1.9	1.7	1.3	1.4	1.4	1.6
10. Bandung/Husen Sastranegara	802	7	7	6	5	6	6	5	6	5	6	6	7
11. Semarang/A. Yani	3	...	...	...	...	...	...	...	...	...	...	...	...
12. Yogyakarta/Adi Sucipto	116	8	9	...	7	...	6	7	8	8	7	9	...
13. Surabaya/Perak I	3	4.8	5.0	3.7	3.9	4.3	4.4	4.0	4.3	3.9	3.8	4.6	4.1
14. Denpasar	3	4.9	4.4	4	4.4	5	9.6	7	6	4.8	3.5	2.8	4
15. Mataram/Ampenan	16	6	6	...	4	3	5	4	4	4	4	4	4
16. Kupang/Eltari	112	5	...	4	8	10	12	11	9	8	7	5	5
17. Timor Timur/Dilli	...	6	6	5	5	5	5	5	5	5	4	5	7
18. Pontianak/Supadio	3	5	5	5	5	5	5	5	5	4	5	5	...
19. Palangkaraya	...	4	5	4	4	5	4	4	5	5	5	5	5
20. Banjarmasin/Syamsudin Noor	22	...	...	4	5.3	5	...	6	5.8	5.8	5.9	6	...
21. Balikpapan/Sepinggan	3	...	...	...	...	...	...	5	6.3	...	5	...	...
22. Manado/Kayuwatu	88	...	1.8	1.8	1.5	1.8	3.0	4.2	4.9	2.7	2.8	2.4	2.8
23. Palu/Mutiara	86	6	5	6	6	5	5	4	4	5	6	...	...
24. Ujung Pandang/Hasanuddin	14	...	2	2	1	1	1	2	2	2	2	1	2
25. Ambon/Patimura	10	2	3	2	...	2	2	...	2	...	2	2	2
26. Kendari/Hunginsidi	50	4.8	4	5	3	3	4	4.8	...	6.1	4.9	4.8	...
27. Irian Jaya/Jayapura	3	4	3.6	3.6	3.6	3.5	3.8	3.3	3.8	3.7	3.7	3.6	3.2

Sumber : Badan Meteorologi dan Geofisika
Source Meteorology and Geophysics Board

3．交通事情

(1) 道　路

インドネシア国において陸上輸送は、海運とともに、経済活動上、最も重要な要素の一つである。
道路総延長は、１９８４年の時点で１９万４，９００Kmであり、前年より５．５%延長されている。しかし、この内、舗装道路は３９．９２%にすぎない。
１９８５年には、２０万３，０００Kmに達するが、舗装率は、３９．６５%であり、むしろ前年より低下している。
インドネシアの道路は、毎年延長されているものの、道路状態はあまり改良されていない。

今回の調査対象の外領６州の舗装率は、

アチェ州	２２%
北部スマトラ州	４１．５%
南部スマトラ州	３８%
ランプン州	４６．５%
南部カリマタン州	３０%
南部スラウェシ州	２６%

で、西部ジャワの６６%，東部ジャワの７１%に比し、良好とはいえない。
外領にあっては、道路の排水，路肩の弱さ，メンテナンスの立遅れ等により、主要幹線道路のみが、車が通行可能な程度に、良好な状態である。

以下に道路事情関連資料を記す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

PANJANG JALAN MENURUT JENIS PERMUKAAN
LENGTH OF ROADS BY TYPE OF SURFACE
1970-1985
(KM)

AKHIR TAHUN *YEAR END*	Diaspal *Asphalted*	Tidak Diaspal *Non Asphalted*	Lainnya *Others*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)
1970	20 444	43 320	20 533	84 297
1971	23 347	39 497	26 534	89 378
1972	26 712	43 037	25 714	95 463
1973	29 089	42 912	25 995	97 996
1974	29 583	43 937	27 738	101 258
1975	33 051	44 856	26 774	104 681
1976	48 369	65 619	7 811	121 799
1977	49 319	65 017	8 458	122 794
1978	59 029	62 086	7 600	128 715
1979	57 746	62 889	8 427	129 062
1980	56 519	74 153	11 642	142 314
1981	62 741	79 860	11 580	154 181
1982	66 319	88 272	10 547	165 138
1983	72 646	98 279	13 814	184 739
1984r)	77 825	103 062	14 057	194 944
1985e)	80 819	108 006	14 994	203 819

Sumber/*Source* :
Direktorat Jenderal Bina Marga
Directorate General for Road Construction
Dinas Pekerjaan Umum Tk.I dan Tk.II
Provincial and Regency Public Work Offices

PANJANG JALAN MENURUT DAERAH UTAMA PADA AKHIR TAHUN
LENGTH OF ROADS BY PRINCIPAL REGION AT END OF YEAR
1981-1985
(KM)

DAERAH/*REGION*	1981	1982	1983	1984 r)	1985 e)
(1)	(2)	(3)	(4)	(5)	(6)
Jawa dan Madura	41 667	42 919 r)	47 137	49 192	52 383
Sumatera	49 052	52 405	58 450	61 924	65 554
Kalimantan	11 260	12 632	14 810	17 270	18 241
Sulawesi	28 081	30 044	31 870	33 740	34 697
Daerah Lainnya *Other Regions*	24 121	27 138	32 472	32 818	32 944
JUMLAH / *TOTAL*	154 181	165 138r)	184 739	194 944	203 819

Sumber/*Source* : Direktorat Jenderal Bina Marga
Directorate General for Road Construction
Dinas Pekerjaan Umum Daerah Tk.I dan Tk.II
Provincial and Regency Public Work Offices

PANJANG JALAN NEGARA, PROVINSI, KABUPATEN
DAN KOTAMADYA MENURUT PROVINSI
DAN JENIS PERMUKAAN PADA AKHIR TAHUN
LENGTH OF ROADS UNDER STATE, PROVINCIAL, REGENCY AND MUNICIPALITY RESPONSIBILITIES BY PROVINCE AND TYPE OF SURFACE AT END OF YEAR
1985 e)
(KM)

PROVINSI *PROVINCE*	Dibawah Wewenang *Under Responsibility*	Aspal *Asphalted*	Kerikil *Gravel*	Tanah *Earth*	Lainnya *Others*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Daerah Istimewa Aceh	Negara/*State*	495	-	-	-	495
	Prov / *Prov*	869	857	185	148	2 059
	Kab/*Regency*	578	2 896	2 084	1 206	6 764
	Kodya/*Mun*	218	44	58	-	320
	Sub Jumlah/*Sub Total*	2 160	3 797	2 327	1 354	9 638
2. Sumatera Utara	Negara/*State*	798	-	-	-	798
	Prov / *Prov*	2 099	273	235	-	2 607
	Kab/*Regency*	2 933	2 284	5 281	543	11 041
	Kodya/*Mun*	932	103	44	801	1 880
	Sub Jumlah/*Sub Total*	6 762	2 660	5 560	1 344	16 326
3. Sumatera Barat	Negara/*State*	634	60	-	-	694
	Prov / *Prov*	917	271	-	-	1 188
	Kab/*Regency*	1 948	1 510	1 969	252	5 679
	Kodya/*Mun*	533	248	150	8	939
	Sub Jumlah/*Sub Total*	4 032	2 089	2 119	260	8 500
4. Riau	Negara/*State*	109	-	-	-	109
	Prov / *Prov*	746	566	722	-	2 034
	Kab/*Regency*	342	1 321	2 241	1 093	4 997
	Kodya/*Mun*	143	2	35	38	218
	Sub Jumlah/*Sub Total*	1 340	1 889	2 998	1 131	7 358
5. Jambi	Negara/*State*	92	368	38	-	498
	Prov / *Prov*	203	908	195	-	1 306
	Kab/*Regency*	151	484	1 472	298	2 405
	Kodya/*Mun*	130	39	63	17	249
	Sub Jumlah/*Sub Total*	576	1 799	1 768	315	4 458
6. Sumatera Selatan	Negara/*State*	629	5	-	-	634
	Prov / *Prov*	1 667	262	840	57	2 826
	Kab/*Regency*	1 444	1 670	3 238	183	6 535
	Kodya/*Mun*	256	106	60	-	422
	Sub Jumlah/*Sub Total*	3 996	2 043	4 138	240	10 417
7. Bengkulu	Negara/*State*	135	-	-	-	135
	Prov / *Prov*	485	299	36	-	820
	Kab/*Regency*	363	656	724	204	1 947
	Kodya/*Mun*	102	20	48	11	181
	Sub Jumlah/*Sub Total*	1 085	975	808	215	3 083

Lanjutan/*Continued*

PROVINSI *PROVINCE*	Dibawah Wewenang *Under Responsibility*	Aspal *Asphalted*	Kerikil *Gravel*	Tanah *Earth*	Lainnya *Others*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
8. Lampung	Negara/*State*	328	-	-	-	328
	Prov / *Prov*	1 476	144	73	-	1 693
	Kab/*Regency*	747	1 659	977	163	3 546
	Kodya/*Mun*	138	18	51	-	207
	Sub Jumlah/*Sub Total*	2 689	1 821	1 101	163	5 774
9. DKI Jakarta	Negara/*State*	-	-	-	-	-
	Prov / *Prov*	-	-	-	-	-
	Kab/*Regency*	-	-	-	-	-
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	-	-	-	-	-
10. Jawa Barat	Negara/*State*	658	10	-	-	668
	Prov / *Prov*	1 775	107	14	32	1 928
	Kab/*Regency*	6 761	2 808	2 041	85	11 695
	Kodya/*Mun*	894	5	21	27	947
	Sub Jumlah/*Sub Total*	10 088	2 930	2 076	144	15 238
11. Jawa Tengah	Negara/*State*	418	-	-	-	418
	Prov / *Prov*	1 847	-	-	-	1 847
	Kab/*Regency*	8 022	1 886	1 722	383	12 013
	Kodya/*Mun*	967	307	169	297	1 740
	Sub Jumlah/*Sub Total*	1 254	2 193	1 891	680	16 018
12. D.I. Yogyakarta	Negara/*State*	32	-	-	-	32
	Prov / *Prov*	332	18	-	-	350
	Kab/*Regency*	1 038	331	664	114	2 147
	Kodya/*Mun*	174	13	6	-	193
	Sub Jumlah/*Sub Total*	1 576	362	670	114	2 722
13. Jawa Timur	Negara/*State*	569	-	-	-	569
	Prov / *Prov*	2 718	9	3	-	2 730
	Kab/*Regency*	8 623	3 029	1 662	41	13 355
	Kodya/*Mun*	1 229	161	357	4	1 751
	Sub Jumlah/*Sub Total*	13 139	3 199	2 022	45	18 405
14. Bali	Negara/*State*	420	-	-	-	420
	Prov / *Prov*	348	-	-	-	348
	Kab/*Regency*	2 030	815	1 453	1 427	5 725
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	2 798	815	1 453	1 427	6 493
15. Nusa Tenggara Barat	Negara/*State*	489	-	-	-	489
	Prov / *Prov*	331	107	2	-	440
	Kab/*Regency*	1 124	955	1 356	-	3 435
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	1 944	1 062	1 358	-	4 364
16. Nusa Tenggara Timur	Negara/*State*	660	402	63	-	1 125
	Prov / *Prov*	16	81	17	-	114
	Kab/*Regency*	418	2 893	4 913	1 632	9 856
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	1 094	3 376	4 993	1 632	11 095

Lanjutan/*Continued*

PROVINSI *PROVINCE*	Dibawah Wewenang *Under Responsibility*	Aspal *Asphalted*	Kerikil *Gravel*	Tanah *Earth*	Lainnya *Others*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17. Timor Timur	Negara/*State*	118	534	-	-	652
	Prov / *Prov*	214	794	-	-	1 008
	Kab/*Regency*	-	-	-	-	-
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	332	1 328	-	-	1 660
18. Kalimantan Barat	Negara/*State*	270	13	172	-	455
	Prov / *Prov*	489	276	544	-	1 309
	Kab/*Regency*	880	570	1 793	89	3 332
	Kodya/*Mun*	86	1	39	-	126
	Sub Jumlah/*Sub Total*	1 725	860	2 548	89	5 222
19. Kalimantan Tengah	Negara/*State*	120	23	-	-	143
	Prov / *Prov*	52	473	107	-	632
	Kab/*Regency*	236	231	3 034	247	3 748
	Kodya/*Mun*	141	25	76	-	242
	Sub Jumlah/*Sub Total*	549	752	3 217	247	4 765
20. Kalimantan Selatan	Negara/*State*	238	62	-	-	300
	Prov / *Prov*	453	247	121	-	821
	Kab/*Regency*	598	1 500	1 303	32	3 433
	Kodya/*Mun*	138	2	2	-	142
	Sub Jumlah/*Sub Total*	1 427	1 811	1 426	32	4 696
21. Kalimantan Timur	Negara/*State*	267	46	25	-	338
	Prov / *Prov*	204	110	1 577	-	1 891
	Kab/*Regency*	325	225	460	-	1 010
	Kodya/*Mun*	226	85	8	-	319
	Sub Jumlah/*Sub Total*	1 022	466	2 070	-	3 558
22. Sulawesi Utara	Negara/*State*	497	333	-	-	830
	Prov / *Prov*	388	47	73	-	508
	Kab/*Regency*	913	683	1 958	320	3 874
	Kodya/*Mun*	226	11	87	17	341
	Sub Jumlah/*Sub Total*	2 024	1 074	2 118	337	5 553

Lanjutan/*Continued*

PROVINSI *PROVINCE*	Dibawah Wewenang *Under Responsibility*	Aspal *Asphalted*	Kerikil *Gravel*	Tanah *Earth*	Lainnya *Others*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
23. Sulawesi Tengah	Negara/*State*	373	468	-	-	841
	Prov / *Prov*	360	454	13	-	827
	Kab/*Regency*	372	872	811	1 819	3 874
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	1 105	1 794	824	1 819	5 542
24. Sulawesi Selatan	Negara/*State*	522	65	-	-	587
	Prov / *Prov*	1 746	135	14	-	1 895
	Kab/*Regency*	1 968	4 272	7 603	1 313	15 156
	Kodya/*Mun*	650	72	179	61	962
	Sub Jumlah/*Sub Total*	4 886	4 544	7 796	1 374	18 600
25. Sulawesi Tenggara	Negara/*State*	198	-	-	-	198
	Prov / *Prov*	315	756	47	-	1 118
	Kab/*Regency*	577	1 431	1 294	384	3 686
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	1 090	2 187	1 341	384	5 002
26. Maluku	Negara/*State*	257	3	-	-	260
	Prov / *Prov*	324	154	233	610	1 321
	Kab/*Regency*	630	848	249	634	2 361
	Kodya/*Mun*	118	74	52	-	244
	Sub Jumlah/*Sub Total*	1 329	1 079	534	1 244	4 186
27. Irian Jaya	Negara/*State*	-	-	-	-	-
	Prov / *Prov*	299	178	181	-	658
	Kab/*Regency*	498	560	3 026	404	4 488
	Kodya/*Mun*	-	-	-	-	-
	Sub Jumlah/*Sub Total*	797	738	3 207	404	5 146
INDONESIA	Negara/*State*	9 326	2 392	298	-	12 016
	Prov / *Prov*	20 673	7 526	5 232	847	34 278
	Kab/*Regency*	43 519	36 389	53 328	12 866	146 102
	Kodya/*Mun*	7 301	1 336	1 505	1 281	11 423
	Sub Jumlah/*Sub Total*	80 819	47 643	60 363	14 994	203 819

Sumber/*Source* : Direktorat Jenderal Bina Marga
Directorate General for Road Construction
Dinas Pekerjaan Umum Tingkat I dan Tingkat II
Provincial and Regency Public Work Offices

(2) 陸上交通

●自動車

１９８４年時点での自動車（バイクを含む）の保有台数は、６４５万台で、前年より、９．７８%増加している。しかし、この内、７０．５%はバイクであり、四輪車の台数は、依然として少ない。

また、自動車の大部分（約７割）はジャワ島に集中しており、今回調査の外領六州の自動車保有台数、特に四輪車の保有台数は非常に少ない。

●鉄　道

鉄道があるのは、スマトラ島，ジャワ島そして、ジャワ島の北東部に隣接する、マドゥーラ島だけである。総延長は、６，０００Km弱。このうち、４，０００Kmがジャワ，マドゥーラ島にある。

スマトラの鉄道は、北部のメダン，中部のパダン，南部のタンジュン・カランが中心となり、全島をひとつに縦貫する鉄道はない。

１９８４年の旅客数は、ジャワ ― マドゥーラ間で、４，４００万人で前年の２．３３%増、北スマトラは１５２．５万人で９．５５%増、西部，南部スマトラでは、２．２万人，１１９．５万人で、それぞれ７４．４２%，１．９７%減となっている。

貨物は、毎年増加はしているものの、１９８４年の時点で６４２．４万トンであり、海運の３，０００万トンに較べ非常に少ない。

以下に陸上交通関連資料を記す。

（資料は、Statistik Indonesia　１９８５年度版より抜粋）

BANYAKNYA KENDARAAN BERMOTOR RAKITAN DALAM NEGERI
NUMBER OF MOTORIZED VEHICLES DOMESTICALLY ASSEMBLED
1981 - 1984
(UNIT)

JENIS KENDARAAN *KIND OF MOTOR VEHICLES*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)
1. Jeep/*Jeeps*	24 947	25 186	11 085	9 138
2. Sedan/*Passenger cars*	27 157	30 963	24 722	24 047
3. Pick Up	103 225	93 493	89 776	94 411
4. Bis/*Buses*	2 830	3 241	2 163	1 703
5. Truk/*Trucks*	49 116	36 439	27 936	24 437
6. Kendaraan lainnya/*Other Vehicles*	-	-	-	-
7. Sepeda Motor/*Motor Cycles*	503 273r)	577 439	379 335	290 000
JUMLAH/*TOTAL*	710 548r)	766 761	535 017	443 736

Sumber/*Source* : Departemen Perindustrian/*Department of Industry.*

BANYAKNYA IMPOR KENDARAAN BERMOTOR
NUMBER OF IMPORTED MOTOR VEHICLES
1981 - 1984
(UNIT)

JENIS KENDARAAN *KIND OF MOTOR VEHICLES*	1981r)	1982	1983r)	1984
(1)	(2)	(3)	(4)	(5)
Mobil Penumpang/*Passenger Cars*	53 986	55 264	31 985	33 061
- Terpasang/*Built-up*	910	294	173	192
- Terurai/*CKD*	53 076	54 970	31 812	32 869
Kendaraan Niaga/*Commercial Vehicles*	173 927	127 120	112 547	135 515
- Terpasang/*Built-up*	3 708	2 062	1 858	910
- Terurai/*CKD*	170 219	125 058	110 689	134 605
Sepeda Motor/*Motor Cycles*	753	695	2 017	135
- Terpasang/*Built-up*	727	670	32	135
- Terurai/*CKD*	26	25	1 985	-
Semua Jenis/*All Vehicles*	228 666	183 079	144 897	168 711
- Terpasang/*Built-up*	5 345	3 026	865	1 237
- Terurai/*CKD*	223 321	180 053	144 032	167 474

Sumber/*Source* : Dokumen Bea & Cukai PPUD/*Customs Document (Import Declaration)*

BANYAKNYA KENDARAAN BERMOTOR
MENURUT PROVINSI DAN JENIS
TYPE AND NUMBER OF REGISTERED MOTOR VEHICLES BY PROVINCE
1982-1984
(UNIT)

PROVINSI *PROVINCE*	Akhir Tahun *Year End*	Mobil Penumpang *Passenger Cars*	Bis *Buses*	Mobil GEROBAK *Trucks*	Sepeda Motor *Motor Cycles*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Daerah Istimewa Aceh	1982	5 784	2 973	10 830	82 710	102 297
	1983	6 863	3 144	11 455	91 801	113 263
	1984	6 477	3 514	11 847	97 360	119 198
2. Sumatera Utara	1982	32 563	13 589	51 861	342 960	440 973
	1983	41 108	16 267	55 936	332 089	445 400
	1984	43 959	20 305	59 442	362 944	486 650
3. Sumatera Barat	1982	10 703	4 812	15 181	78 487	109 183
	1983	12 030	5 320	16 966	89 672	123 988
	1984	13 083	5 735	18 727	95 997	133 542
4. Riau	1982	6 042	1 152	9 595	62 058	78 847
	1983	7 874	1 380	11 556	79 689	100 499
	1984	9 545	1 665	13 904	97 208	122 322
5. Jambi	1982	3 861	1 239	5 625	36 397	47 122
	1983	4 080	1 419	6 333	43 134	54 966
	1984	4 265	1 521	6 851	47 187	59 824
6. Sumatera Selatan	1982	25 069	5 998	28 635	149 640	209 342
	1983	26 491	6 867	32 238	177 337	242 933
	1984	27 693	7 359	34 874	194 000	263 926
7. Bengkulu	1982	1 359	541	6 054	15 275	23 229
	1983	1 436	619	6 816	18 102	26 973
	1984	1 501	664	7 373	19 803	29 341
8. Lampung	1982	10 020	1 113	15 346	52 812	79 291
	1983	10 589	1 274	17 277	62 587	91 727
	1984	11 070	1 365	18 689	68 468	99 592
9. D.K.I. Jakarta	1982	275 139	49 827	112 494	570 972	1 008 432
	1983	299 164	62 515	126 859	628 414	1 116 952
	1984	321 837	81 047	140 562	669 906	1 213 352
10. Jawa Barat	1982	142 497	16 983	116 113	430 498	706 091
	1983	152 496	19 775	117 087	462 380	751 738
	1984	152 443	22 904	128 703	501 756	805 806
11. Jawa Tengah	1982	71 189	8 371	81 917	516 866	678 343
	1983	72 665	10 686	84 746	555 221	723 318
	1984	72 337	11 553	83 425	575 983	743 298

Lanjutan/*Continued*

PROVINSI *PROVINCE*	Akhir Tahun *Year End*	Mobil Penumpang *Passenger Cars*	Bis *Buses*	Mobil Gerobak *Trucks*	Sepeda Motor *Motor Cycles*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12. D.I. Yogyakarta	1982	12 037	1 041	9 283	108 545	130 906
	1983	12 287	1 329	9 604	116 600	139 820
	1984	12 231	1 437	9 454	120 960	144 082
13. Jawa Timur	1982	115 367	6 243	93 188	719 488	934 286
	1983	131 758	6 590	106 689	817 883	1 062 920
	1984	154 636	7 211	130 351	969 362	1 261 560
14. Bali	1982	8 312	1 636	14 317	107 480	131 745
	1983	10 145	1 663	16 990	112 645	141 443
	1984	11 394	1 688	17 923	132 932	163 937
15. Nusa Tenggara Barat	1982	2 564	887	5 676	25 970	35 097
	1983	3 129	903	6 736	27 218	37 986
	1984	3 514	917	7 106	32 120	43 657
16. Nusa Tenggara Timur	1982	2 514	2 295	2 848	14 916	22 573
	1983	3 069	2 333	3 380	15 633	24 415
	1984	3 447	2 368	3 566	18 448	27 829
17. Timor Timur	1982	1 334	765	760	8 710	11 569
	1983	1 628	801	902	9 129	12 460
	1984	1 828	813	951	10 773	14 365
18. Kalimantan Barat	1982	3 655	1 435	4 065	44 680	53 835
	1983	3 925	1 698	4 526	52 469	62 618
	1984	4 170	1 920	5 298	55 342	66 730
19. Kalimantan Tengah	1982	1 001	49	1 919	15 696	18 665
	1983	1 089	49	2 214	17 554	20 906
	1984	1 160	52	2 380	19 179	22 771
20. Kalimantan Selatan	1982	8 051	604	4 675	67 884	81 214
	1983	8 762	636	5 395	75 920	90 713
	1984	9 336	678	5 798	82 946	98 758

Lanjutan/*Continued*

PROVINSI *PROVINCE*	Akhir Tahun *Year End*	Mobil Penumpang *Passenger Cars*	Bis *Buses*	Mobil Gerobak *Trucks*	Sepeda Motor *Motor Cycles*	Jumlah *Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
21. Kalimantan Timur	1982	10 202	4 196	12 641	55 624	82 663
	1983	10 921	4 589	14 046	67 285	96 841
	1984	11 649	4 795	14 844	73 146	104 434
22. Sulawesi Utara	1982	9 886	3 415	8 570	27 968	49 839
	1983	10 309	3 544	8 850	29 009	51 712
	1984	11 422	3 367	9 871	32 703	57 363
23. Sulawesi Tengah	1982	2 144	668	3 937	28 925	35 674
	1983	2 236	693	4 168	30 002	37 099
	1984	2 478	658	4 649	33 822	41 607
24. Sulawesi Selatan	1982	18 499	3 630	31 241	157 164	210 534
	1983	19 712	4 254	35 300	175 823	235 089
	1984	22 438	5 199	38 825	189 094	255 556
25. Sulawesi Tenggara	1982	1 214	278	2 803	13 390	17 685
	1983	1 188	290	3 167	14 980	19 625
	1984	1 352	354	3 483	16 111	21 300
26. Maluku	1982	3 232	335	4 121	10 937	18 625
	1983	4 451	387	4 806	11 635	21 279
	1984	3 629	133	863	10 177	14 802
27. Irian Jaya	1982	6 781	1 076	3 409	18 390	29 656
	1983	6 535	1 235	3 831	21 466	33 067
	1984	6 441	1 586	7 918	23 015	38 960
INDONESIA	1982	791 019	135 151	657 104	3 764 442	5 347 716
	1983	685 940	160 260	717 873	4 135 677	5 879 750
	1984	925 335	190 808	787 677	4 550 742	6 454 562

Sumber/*Source* : Kepolisian Republik Indonesia/*State Police of Indonesia*

TABEL : 8.2.6. LALU LINTAS ANGKUTAN PENUMPANG KERETA API
TABLE *RAILWAY PASSENGER TRAFFIC*
1981-1984

PERINCIAN *DESCRIPTION*	Satuan *Unit*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)	(6)
JAWA DAN MADURA/*JAVA & MADURA*					
1. Penumpang berangkat/ *Passenger embarked*	000 000	40	41	43	44
2. Kilometer penumpang/ *Pax-Km*	000 000	5 537	5 705	5 573	5 855
3. Rata-rata jarak perjalanan penumpang/*Average journey per passenger*	km	138	139	130	132
SUMATERA UTARA/*NORTH SUMATERA*					
1. Penumpang berangkat/ *Passenger embarked*	000	1 566	1 604	1 392	1 525
2. Kilometer penumpang/ *Pax-km*	000 000	212	226	193	195
3. Rata-rata jarak perjalanan penumpang/*Average journey per passenger*	km	135	141	138	128
SUMATERA BARAT/*WEST SUMATERA*					
1. Penumpang berangkat/ *Passenger embarked*	000	150	147	86	22
2. Kilometer penumpang/ *Pax-km*	000 000	4	5	3	1
3. Rata-rata jarak perjalanan penumpang/*Average journey per passenger*	km	27	34	37	37
SUMATERA SELATAN/*SOUTH SUMATERA*					
1. Penumpang berangkat/ *Passenger embarked*	000	1 721	1 375	1 219	1 195
2. Kilometer penumpang/ *Pax-km*	000 000	413	357	336	329
3. Rata-rata jarak perjalanan penumpang/*Average journey per passenger*	km	240	260	276	275

Sumber/*Source* : Perusahaan Jawatan Kereta Api/*Indonesian State Railways.*

ANGKUTAN BARANG KERETA API
RAILWAY FREIGHT TRANSPORTATION
1981-1984

PERINCIAN *DESCRIPTION*	Satuan *Unit*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)	(6)
JAWA & MADURA					
- Banyaknya ton dimuat/ *Ton loaded*	000	2 837	2 516	2 676	3 315
- Kilometer ton/ *Ton - km*	000 000	643	540	553	738
- Rata-rata jarak angkutan tiap Ton/*Average haul*	km	227	215	207	223
SUMATERA					
- Banyaknya ton dimuat/ *Ton loaded*	000	2 134	2 184	2 390	3 109
- Kilometer ton/ *Ton - km*	000 000	327	345	363	436
- Rata-rata jarak angkutan tiap Ton/*Average haul*	km	153	158	152	140
JUMLAH/*TOTAL*					
- Banyaknya ton dimuat/ *Ton loaded*	000	4 971	4 700	5 066	6 424
- Kilometer ton/ *Ton - km*	000 000	970	885	916	1 173
- Rata-rata jarak angkutan tiap *Ton/Average haul*	km	195	188	181	183

Sumber/*Source* : Perusahaan Jawatan Kereta Api/*Indonesian State Railways*

(3) 海上交通

群島国家であるインドネシアにおいて、海上輸送は内・外航共に重要な役割を持ち、この整備・拡充は、重要課題の一つである。

保有船舶数は１９８４年の時点で、以下のとおりとなっている。

外航海運	５８隻	（１３．７３%増）
群島海運	３９８隻	（２．８４%増）
特殊船海運	２，６９９隻	（１．３７%増）
地方海運	１，２２０隻	（４．４５%増）

内航海運は、１９８３年に、２，８８０万トンとなり、１９８４年には３，０００万トンに達している。この内、石油タンカーが４５．８６%と最も高い比重をしめている。
外航海運は、、１９８３年に、６，２４０万トンに達し、この内、５２．４%はＲＩＡＵ州で、２３．７３%はアチェ州で運航されている。

以下に海上交通関連資料を記す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

BANYAKNYA KAPAL MENURUT JENIS PELAYARAN DAN PEMILIKAN
NUMBER OF SHIPS BY LINE AND OWNERSHIPS
1980 - 1984

PEMILIK *Owner*	Tahun *Year*	Jenis Pelayaran / *Kind of Line*									
		Samudra / *Ocean*		Nusantara	/*Interinsular*	Khusus / *Special*		Lokal / *Local*		Rakyat / *Sailing Craft*	
		Unit	DWT	Unit	DWT	Unit	DWT	Unit	BRT	Unit	M3
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Milik sendiri	1980	53	568 860	225	299 582	1 547	1 649 070	625	108 744	2 563	190 476
Private Ownership	1981	55	707 597	285	351 702	1 690	1 947 358	688	117 990	3 346	280 529
	1982	58	739 741	297	379 741	1 906	2 196 911	736	129 602	3 486	282 746
	1983	47	674 636	290	367 334	1 932	2 227 365	740	130 271	3 657	306 270
	1984 e)	54	775 114	303	381 156	1 960	2 259 646	773	136 080	3 807	318 832
Sewa beli	1980	3	59 046	66	58 203	131	1 096 668	-	-	-	-
Hire purchase	1981	3	52 053	62	63 098	124	1 065 565	-	-	-	-
	1982	4	87 486	82	87 536	140	1 202 116	-	-	-	-
	1983	4	57 416	80	85 401	142	1 218 780	-	-	-	-
	1984 e)	4	57 416	77	83 411	140	1 222 401	-	-	-	-
Sewa	1980	2	39 364	51	35 127	361	2 119 795	271	29 542	-	-
Charter	1981	3	36 969	14	10 756	488	2 325 650	399	43 312	-	-
	1982	-	-	18	36 094	551	2 623 681	426	47 575	-	-
	1983	-	-	17	34 089	559	2 660 051	426	47 821	-	-
	1984 e)	-	-	18	36 094	569	2 707 637	447	49 941	-	-
JUMLAH	1980	58	667 270	342	392 912	2 039	4 865 533	896	138 286	2 563	190 476
TOTAL	1981	61	796 619	361	425 556	2 302	5 338 573	1 087	161 302	3 346	280 529
	1982	62	827 227	397	503 371	2 597	6 022 708	1 162	177 177	3 486	282 746
	1983	51	732 052	387	486 82-	2 633	6 106 196	1 168	178 092	3 657	306 270
	1984 e)	58	832 530	398	500 661	2 669	6 189 684	1 220	186 021	3 807	318 832

Sumber : Direktorat Jenderal Perhubungan Laut
Source : Directorate General of Sea Communication

BONGKAR MUAT BARANG ANGKUTAN ANTAR PULAU
DAN LUAR NEGERI MENURUT PROVINSI
CARGO LOADING AND UNLOADING OF INTERISLAND
AND INTERNATIONAL SEA BORNE BY PROVINCE
1983
(TON)

PROVINSI *PROVINCE*	Muat /*Loading*		Bongkar/*Unloading*		Jumlah/*Total*	
	Antar Pulau *Inter Insular*	Antar Negara *Foreign*	Antar Pulau *Inter Insular*	Antar Negara *Foreign*	Antar Pulau *Inter Insular*	Antar Negara *Foreign*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
D.I. Aceh	930 381	14 806.247	829 201	266 917	1 759 582	15 073 164
Sumatera Utara	1 147 643	2 117 291	2 927 426	1 297 377	4 075 069	3 414 668
Sumatera Barat	518 800	308 834	530 423	151 826	1 049 223	460 660
Riau	3 889 166	32 472 937	2 361 606	804 707	6 250 772	33 277 644
Jambi	111 415	191 933	306 585	36 697	418 000	228 630
Sumatera Selatan	3 587 216	1 010 036	1 707 887	221 075	5 295 103	1 231 111
Bengkulu	38 282	44 116	89 170	193	127 452	44 309
Lampung	38 901	315 309	517 535	120 708	556 436	436 017
SUMATERA	10 261 804	51 266 703	9 269 833	2 899 500	19 531 637	54 166 203
D.K.I. Jakarta	1 662 553	743 741	7 221 642	6 249 453	8 884 195	6 993 194
Jawa Barat	846 109	187 905	373 563	538 545	1 219 672	726 450
Jawa Tengah	2 596 791	522 794	7 191 910	1 645 044	9 788 701	2 167 838
D.I. Yogyakarta	-	-	-	-	-	-
Jawa Timur	2 510 830	1 248 436	6 191 074	3 314 412	8 701 904	4 562 848
JAWA & MADURA	7 616 283	2 702 876	20 978 189	11 747 454	28 594 472	14 450 330
Bali	122 433	2 207	749 560	223 086	871 993	225 293
N.T.B.	134 219	10 300	346 279	-	480 498	10 300
N.T.T.	61 155	7 126	376 680	2 994	437 835	10 120
BALI & NUSA TENGGARA	317 807	19 633	1 472 519	226 080	1 790 326	245 713
Kalimantan Barat	393 251	925 433	865 165	85 443	1 258 416	1 010 876
Kalimantan Tengah	416 684	755 625	135 891	1 251	552 575	756 876
Kalimantan Selatan	609 844	809 992	780 273	43 142	1 390 117	853 134
Kalimantan Timur	4 076 791	2 601 539	2 989 187	624 534	7 065 978	3 226 073
KALIMANTAN	5 496 570	5 092 589	4 770 516	754 370	10 267 086	5 846 959
Sulawesi Utara	532 121	55 980	958 770	154 692	1 490 891	210 672
Sulawesi Tengah	458 150	89 958	289 693	30 372	747 843	120 330
Sulawesi Selatan	689 015	158 042	1 042 690	897 278	1 731 705	1 055 320
Sulawesi Tenggara	460 139	354 775	344 330	20 649	804 469	375 424
SULAWESI	2 139 425	658 755	2 635 483	1 102 991	4 774 908	1 761 746
Maluku	337 128	469 428	378 177	51 934	715 305	521 362
Irian Jaya	99 133	2 192 174	456 088	82 048	555 221	2 274 222
MALUKU & IRIAN JAYA	436 261	2 661 602	834 265	133 982	1 270 526	2 795 584
Timor Timur	16 637	-	114 658	3 773	131 295	3 773
INDONESIA	26 284 787	62 402 158	40 075 463	16 868 150	66 360 250	79 270 308

BONGKAR MUAT BARANG ANGKUTAN ANTAR PULAU DAN LUAR NEGERI MENURUT PROVINSI

CARGO LOADING AND UNLOADING OF INTERISLAND AND INTERNATIONAL SEA BORNE BY PROVINCE

1984 e)

(TON)

PROVINSI *PROVINCE*	Muat /*Loading*		Bongkar/*Unloading*		Jumlah/*Total*	
	Antar Pulau *Inter Insular*	Antar Negara *Foreign*	Antar Pulau *Inter Insular*	Antar Negara *Foreign*	Antar Pulau *Inter Insular*	Antar Negara *Foreign*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
D.I. Aceh	1 002 836	14 299 314	911 125	295 369	1 913 961	14 594 683
Sumatera Utara	1 237 017	2 044 800	3 216 652	1 435 671	4 453 669	3 480 471
Sumatera Barat	559 202	298 260	582 828	168 010	1 142 030	466 270
Riau	4 192 040	31 361 136	2 594 930	890 485	6 786 970	32 251 621
Jambi	120 092	185 362	336 875	40 609	456 967	225 971
Sumatera Selatan	3 866 575	975 455	1 876 624	244 640	5 743 199	1 220 095
Bengkulu	41 263	42 606	97 980	214	139 243	42 820
Lampung	41 931	304 513	568 667	133 575	610 598	438 088
SUMATERA	11 060 956	49 511 446	10 185 681	3 208 573	21 246 637	52 720 019
D.K.I. Jakarta	1 792 027	718 277	7 935 131	6 915 615	9 727 158	7 633 892
Jawa Barat	912 001	181 472	410 471	595 951	1 322 472	777 423
Jawa Tengah	2 799 019	504 894	7 902 462	1 820 398	10 701 481	2 325 292
D.I. Yogyakarta	-	-	-	-	-	-
Jawa Timur	2 706 364	1 205 692	6 802 745	3 667 712	9 509 109	4 873 404
JAWA & MADURA	8 209 411	2 610 335	23 050 809	12 999 676	31 260 220	15 610 011
Bali	131 968	2 132	823 616	246 866	955 584	248 998
N.T.B.	144 671	9 947	380 491	-	525 162	9 947
N.T.T.	65 918	6 882	413 896	3 313	479 814	10 195
BALI & NUSA TENGGARA	342 557	18 961	1 618 003	250 179	1 960 560	269 140
Kalimantan Barat	423 876	893 748	950 642	94 551	1 374 518	988 299
Kalimantan Tengah	449 134	729 754	149 317	1 384	598 451	731 138
Kalimantan Selatan	657 337	782 260	857 363	47 741	1 514 700	830 001
Kalimantan Timur	4 394 276	2 512 468	3 284 515	691 106	7 678 791	3 203 574
KALIMANTAN	5 924 623	4 918 230	5 241 837	834 782	11 166 460	5 753 012
Sulawesi Utara	573 561	54 064	1 053 495	171 181	1 627 056	225 245
Sulawesi Tengah	493 829	86 878	318 314	33 610	812 143	120 488
Sulawesi Selatan	742 673	152 631	1 145 707	992 923	1 888 380	1 145 554
Sulawesi Tenggara	495 973	342 628	378 349	22 850	874 322	365 478
SULAWESI	2 306 036	636 201	2 895 865	1 220 564	5 201 901	1 856 765
Maluku	363 382	453 356	415 540	57 470	778 922	510 826
Irian Jaya	106 852	2 117 119	501 149	90 794	608 001	2 207 913
MALUKU & IRIAN JAYA	470 234	2 570 475	916 689	148 264	1 386 923	2 718 739
Timor Timur	17 933	-	125 986	4 175	143 919	4 175
INDONESIA	28 331 750	60 265 648	44 034 870	18 666 213	72 366 620	78 931 861

ANGKUTAN BARANG ANTAR PULAU MENURUT KELOMPOK BARANG

INTERISLAND CARGO CARRIED BY COMMODITY GROUP

1981-1984

(TON)

KELOMPOK BARANG *COMMODITY GROUP*	1981	1982	1983	1984[e)]
(1)	(2)	(3)	(4)	(5)
Binatang hidup/*Livestock*	35 085	42 009	44 113	43 074
Daging/*Meat*	363	488	705	360
Ikan/*Fish*	49 202	47 525	48 220	39 348
Beras/*Rice*	972 343	1 156 710	1 013 950	1 258 755
Tepung terigu/*Wheat four*	297 314	298 527	289 512	293 923
Gula pasir/*Sugar*	406 614	387 685	549 932	456 569
Jagung/*Maize*	103 644	82 413	107 964	111 566
Kopi, teh & rempah-rempah/*Coffee, tea & spices*	51 781	110 940	52 985	98 606
Tembakau/*Tobacco*	86 387	77 095	78 063	75 846
Makanan ternak/*Animal feeds*	175 060	190 582	216 807	297 737
Kopra/*Copra*	297 335	276 162	301 638	281 922
Minyak kelapa sawit & minyak kelapa/*Palm oil & cooking oil*	793 614	781 272	840 381	1 019 152
Pupuk/*Fertilizers*	1 903 748	1 628 458	1 697 932	1 869 359
Karet & barang-barang karet/*Rubber & rubber manufactures*	90 840	91 710	97 188	96 799
Kayu, gabus & barang-barang dari kayu & gabus/*Wood, cork & manufactures thereof*	2 219 260	2 981 578	3 560 615	3 907 395
Bahan kertas, kertas & barang dari kertas/*Paperpulp, paper & paperware*	68 448	67 525	110 637	106 321
Tekstil, pakaian & tekstil konpeksi/*Textil, clothing and made up textiles*	86 970	83 065	60 438	63 483
Garam / *Salt*	81 893	127 204	189 295	189 200
Semen / *Cement*	1 608 510	1 654 508	1 498 096	1 786 220
Besi & baja / *Iron & steel*	555 555	283 438	259 777	334 705
Aspal / *Aspalt*	130 132	214 072	568 084	552 827
Minyak bumi mentah/*Crude oil*	1 222 684	1 791 395	2 770 746	1 649 296
Bensin / *Benzine*	2 094 880	1 405 127	1 337 490	1 314 680
Minyak tanah/*Kerosene*	2 970 725	2 471 669	2 551 809	2 274 631
Produksi minyak lainnya/*Other petroleum products*	6 744 180	8 094 401	7 666 386	8 411 617
Lainnya / *Others*	2 967 236	3 352 787	2 902 162	3 408 444
JUMLAH / *TOTAL*	26 013 803	27 698 345	28 814 925	29 941 835

Sumber : Dokumen Bea & Cukai Model I Pemberitahuan Muat Barang

Source *Custom Document Model I Pemberitahuan Muat Barang*

ANGKUTAN BARANG ANTAR PULAU MENURUT JENIS PELAYARAN

INTERISLAND CARGO CARRIED BY SHIP SECTORS

1981-1984

(TON)

JENIS PELAYARAN *SHIP SECTORS*	1981	1982	1983	1984e)
(1)	(2)	(3)	(4)	(5)
Tanker minyak bumi/*Petroleum Tanker*	10 755 488	12 285 599	13 215 216	13 666 444
Tanker minyak nabati/*Vege - table oil tanker*	39 334	43 190	52 984	47 014
Samudera / *Ocean liner*	229 302	178 667	408 838	288 304
Nusantara / *Nusantara liner*	3 345 780	2 999 270	3 262 609	3 634 551
Lokal / *Local liner*	2 744 832	2 408 579	2 118 879	2 778 503
Tongkang / *Barge*	3 054 334	3 276 235	3 459 167	3 048 959
Khusus / *Special liner*	3 413 194	3 881 035	3 569 815	3 730 149
Pelayaran rakyat / *Rakyat liner*	2 177 688	2 069 056	2 345 105	2 292 929
Pelayaran Asing/*Foreign liner*	253 304	556 513	382 181	450 536
Lainnya / *Others*	547	201	131	4 446
JUMLAH / *TOTAL*	26 013 803	27 698 345	28 814 925	29 941 835

Sumber / *Source* : Dokumen Bea & Cukai Model I Pemberitahuan Muat Barang

Custom Document Model I Pemberitahuan Muat Barang

(4) 航　空

１９８４年時点での国営，民営を含めた航空機保有台数は、７８８機となっている。この内訳は、飛行機５８２機，ヘリコプターが２０６機である。
前年比の伸び率は、わずか１％であり、１９７０年代の大幅な航空機の増加に較べれば、８０年代の伸び率は、停滞しているといえる。しかし、７０年代の急成長が、それまでの保有台数が少なすぎたことに起因することを考えれば、現在の停滞は、量から質の時代への以降を示すものであろう。

１９８４年の航空貨物輸送量は、国営，民営合わせて９億８，５５０万トン－Kmに達し、前年比の８．３７％増となっている。

１９８４年の国内線出発便数は、２６万６，４００で１．１５％増、到着便は、２６万５，６００で１．１８％増となっている。
旅客数は、出発６４５万人で０．１７％増、到着が６２３万人で１．７６％増である。
１９８４年の国際線の出発，到着便の数は、１１万４，０００，　１１万７，０００で、それぞれ前年より１２．９３％，１１．４７％減少している。
また、出発，到着旅客数は、１０６万人，１０７万人であり、２．３８％，１．６７％増加している。
出発，到着便数の減少は、航空機の大型化によるものである。

以下に航空関連資料を記す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

PRODUKSI PELAYANAN ANGKUTAN BARANG PERUSAHAAN PENERBANGAN NASIONAL UNTUK PENERBANGAN DALAM DAN LUAR NEGERI

PRODUCTION OF NATIONAL AIRLINES SERVICES FOR DOMESTIC AND INTERNATIONAL FLIGHTS 1)

1981-1984

(000 TON-KM *PERFORMED*)

URAIAN/*DESCRIPTION*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)
1. Pemerintah/*Government*	854 547	878 563	860 400	922 658
Pax + baggage	706 701	689 526	692 061	749 763
Freight	140 185	179 899	161 494	164 826
Mail	7 661	9 138	6 845	8 069
2. Swasta/*Private*	41 065	40 694	49 004	62 836
Pax + baggage	33 979	35 804	42 399	56 824
Freight	6 485	4 436	5 693	4 986
Mail	601	454	912	1 026
3. Pemerintah & Swasta / *Government & Private*	895 612	919 257r)	909 404	985 494
Pax + baggage	740 680	725 330	734 460	806 587
Freight	146 670	184 335	167 187	169 812
Mail	8 262	9 592	7 757	9 095

Catatan/*Note* : 1) Hanya penerbangan berjadwal/*Scheduled flights only*

Sumber : Direktorat Jenderal Perhubungan Udara

Source *Directorate General of Air Communication*

LALU LINTAS ANGKUTAN UDARA PENERBANGAN DALAM NEGERI

DOMESTIC AIR TRAFFIC

1981-1984

URAIAN/ *DESCRIPTION*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)
1. Pesawat terbang/*Aircraft*				
Berangkat/*Departure*	246 218	246 410	263 379	266 411
Datang/*Arrival*	245 863	245 954	262 502	265 600
2. Penumpang/*Passenger*				
Berangkat/*Departure*	6 512 902	6 438 010	6 440 837	6 451 793
Datang/*Arrival*	6 261 973	6 174 368	6 126 769	6 234 672
Transit	749 399	744 953	788 415	852 226
3. Barang/*Cargo* (Kg)				
Dimuat/*Loaded*	69 536 544	71 033 732	66 763 839	65 366 188
Dibongkar/*Unloaded*	60 143 488	59 715 247	58 034 475 r)	51 686 694
4. Bagasi/*Baggage* (Kg)				
Dimuat/*Loaded*	59 339 203	57 488 392	62 113 304	60 254 240
Dibongkar/*Unloaded*	57 828 544	54 997 019	53 481 245	51 781 630
5. Pospaket/*Mail* (Kg)				
Dimuat/*Loaded*	6 679 946	7 090 891	7 123 735	6 642 568
Dibongkar/*Unloaded*	6 023 371	6 242 633	6 837 910	5 811 323

Sumber : Laporan dari pelabuhan udara

Source *Report from airport authority*

LALU LINTAS ANGKUTAN UDARA
PENERBANGAN LUAR NEGERI
INTERNATIONAL AIR TRAFFIC
1981-1984

URAIAN *DESCRIPTION*	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)
1. Pesawat terbang/*Aircraft*				
Berangkat/*Departure*	15 085	14 287	13 056 r)	11 368
Datang/*Arrival*	15 171	14 391	13 270	11 699
2. Penumpang/*Passenger*				
Berangkat/*Departure*	1 143 090	1 191 527	1 042 412	1 067 247
Datang/*Arrival*	1 135 186	1 188 082	1 055 440	1 073 114
Transit	184 866	257 250	218 007	172 073
3. Barang/*Cargo* (Kg)				
Dimuat/*Loaded*	15 959 524	19 076 470	23 260 692	22 734 741
Dibongkar/*Unloaded*	25 396 936	27 766 265	24 245 045	23 226 477
4. Bagasi/*Baggage* (Kg)				
Dimuat/*Loaded*	20 563 349	23 795 476	19 733 356 r)	20 663 430
Dibongkar/*Unloaded*	20 191 084	22 041 295	18 581 741	17 635 516
5. Pospaket/*Mail* (Kg)				
Dimuat/*Loaded*	580 276	538 680	533 692	598 320
Dibongkar/*Unloaded*	1 940 534	2 573 369	2 546 199	3 034 107

Sumber : Laporan dari pelabuhan udara
Source *Report from airport authority*

4．通信事情

(1) 郵　便

増加する需要に従い、郵便局は年々増設され、１９８５年には３，７０９局に達している。
しかし、この内約３５％はジャワ島にあり、今回調査対象の６州を含め外領地域での郵便の集配には、依然、かなりの時間を要するものと思われる。

(2) 電信・電話

電話機設置台数は、１９８４年に７８．８万台で、前年より９．９％増加し、１９８５年には８２．９万台に達している。
しかし、設置台数の７３．５％は、ジャワ島に集中し、残りの２６．５％が外領地域に分散しており、今回調査の６州を含め、外領地域の電話機設置の現状は、州都を除けば、ほとんど設置されていないといえる。加えて、不通故障も多く、電話は、通信手段としての役割を十分発揮しているとはいい難い。

電報・テレックスは、電話を補足する重要な通信手段である。
１９８５年、国内電報は、８９５．７万通で、前年より６．４％増加し、これに対し、国際電報は、９７．６５％減少している。これは、国際間の通信には、テレックスが多用されるためである。
テレックスの回線数は、１９８５年、６％増加している。
しかし、電報・テレックスに関しても、外領にあっては、州都以外は、ほとんど無縁の通信手段である。

以下に通信事情関連資料を記す。
（資料は、Statistik Indonesia　１９８５年度版より抜粋）

BANYAKNYA KANTOR POS
NUMBER OF POST OFFICES

TAHUN *YEAR*	Jumlah *Total*	Kantor Pos *General Post Office*	Kantor Pos Tambahan *Supplementary Post Office*	Kantor Pos Pembantu *Auxiliary Post Office*	Rumah Pos *Mailling House*
(1)	(2)	(3)	(4)	(5)	(6)
1975	2 579	174	147	873	1 385
1976	2 622	177	155	890	1 400
1977	2 667	184	169	922	1 392
1978	2 723	192	180	977	1 374
1979	2 796	194	197	1 023	1 382
1980	2 838	198	208	1 041	1 391
1981	2 928	198	231	1 085	1 414
1982	3 007	200	253	1 163	1 391
1983	3 170	211	284	1 218	1 457
1984[r)]	3 479	234	328	1 351	1 566
1985[e)]	3 709	249	350	1 440	1 670

Sumber/*Source* : Kantor Pusat Pos & Giro - Bandung/
Head Office of State Enterprise of Post and Clearing Bandung

BANYAKNYA PEMEGANG SURAT IZIN PENERIMA
PESAWAT TELEPON MENURUT PROVINSI
NUMBER OF LICENSES ISSUED FOR
TELEPHONE SETS BY PROVINCE
1981-1985

PROVINSI/*PROVINCE*	1981	1982	1983	1984r)	1985e)
(1)	(2)	(3)	(4)	(5)	(6)
Daerah Istimewa Aceh	7 224	9 221	10 331	12 129	12 760
Sumatera Utara	41 347	47 807	51 582	54 555	57 392
Sumatera Barat	9 745	9 508	9 892	11 620	12 224
Riau	7 742	8 775	9 820	10 169	10 698
Jambi	3 342	3 933	4 064	4 339	4 565
Sumatera Selatan	15 653	18 193	19 130	19 119	20 113
Bengkulu	1 662	1 714	1 816	1 863	1 960
Lampung	6 228	6 448	7 141	7 422	7 808
SUMATERA	92 943	105 599	113 776	121 216	127 520
D.K.I. Jakarta	213 260	258 204	280 431	329 271	346 396
Jawa Barat	57 995	63 767	76 771	76 402	80 376
Jawa Tengah	48 426	51 627	48 873	52 755	55 499
D.I. Yogyakarta	6 081	7 378	7 581	8 838	9 298
Jawa Timur	90 625	99 867	106 855	112 178	118 012
JAWA & MADURA	416 387	480 843	520 511	579 444	609 581
Kalimantan Barat	3 613	3 737	3 615	4 429	4 659
Kalimantan Tengah	1 466	1 594	1 661	1 728	1 817
Kalimantan Selatan	4 710	5 309	5 405	5 936	6 245
Kalimantan Timur	10 341	10 988	11 211	11 734	12 344
KALIMANTAN	20 130	21 628	21 892	23 827	25 065
Sulawesi Utara	7 096	7 613	7 092	7 332	7 713
Sulawesi Tengah	1 943	2 027	2 847	3 097	3 258
Sulawesi Selatan	16 227	19 018	19 933	19 881	20 915
Sulawesi Tenggara	925	1 102	1 225	1 423	1 497
SULAWESI	26 191	29 760	31 097	31 733	33 383
B a l i	11 895	12 336	10 308	10 162	10 691
Nusa Tenggara Barat	5 403	5 973	5 814	6 427	6 761
Nusa Tenggara Timur	2 704	3 083	3 331	3 501	3 683
Timor Timur	345	385	358	447	470
BALI & NUSA TENGGARA	20 347	21 777	19 811	20 537	21 605
Maluku	3 251	4 001	4 467	5 059	5 322
Irian Jaya	4 932	5 693	6 106	6 549	6 890
MALUKU & IRIAN JAYA	8 183	9 694	10 573	116 08	12 212
INDONESIA	584 181	669 301	717 660	788 365	829 366

Sumber/*Source* : Lalu-lintas Operasi Telekomonikasi/*Telecomunication Operation-Traffic*

PROVINSI *PROVINCE*	Dalam Negeri / *Domestic*				Luar Negeri / *International*			
	Telegram / *Telegrams* (000)		Kata / *Words* (000)		Telegram / *Telegrams*		Kata / *Words*	
	1984 r)	1985 e)	1984 r)	1985 e)	1984 r)	1985 e)	1984 r)	1985 e)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Daerah Istimewa Aceh	135.4	144.1	4 862.7	5 034.6	642	9	26 177	1 376
Sumatera Utara	218.8	232.8	6 339.4	6 563.5	2 907	68	70 419	3 701
Sumatera Barat	187.9	199.9	5 498.0	5 692.4	1 205	28	29 989	1 576
Riau	325.9	346.8	10 892.4	11 277.5	1 741	41	48 310	2 539
Jambi	90.1	95.9	2 759.9	2 857.4	436	10	12 458	655
Sumatera Selatan	235.2	250.3	8 401.1	8 698.1	1 062	26	31 263	1 644
Bengkulu	77.1	82.1	2 458.6	2 545.5	101	2	3 903	205
Lampung	107.5	114.4	3 207.1	3 320.5	446	10	12 969	682
Jawa Barat	547.0	582.0	16 254.2	16 828.8	4 962	117	147 558	7 754
D.K.I. Jakarta	1 005.6	1 069.9	40 410.9	41 839.5	39 075	918	1 393 569	73 232
Jawa Tengah	887.7	944.5	25 793.7	26 705.5	3 969	93	91 039	4 784
D.I. Yogyakarta	331.5	352.7	8 393.6	8 690.3	1 460	34	33 269	1 784
Jawa Timur	1 398.8	1 488.3	38 234.1	39 585.7	7 777	183	194 737	10 233
Kalimantan Barat	75.6	80.4	1 934.5	2 002.9	1 052	25	31 404	1 650
Kalimantan Tengah	58.1	61.8	2 094.1	2 168.2	308	7	9 650	507
Kalimantan Selatan	174.0	185.1	6 035.0	6 248.3	951	23	26 010	1 367
Kalimantan Timur	243.0	258.6	9 247.6	9 574.5	1 260	31	46 079	2 421
Sulawesi Utara	225.2	239.6	6 915.2	7 159.7	577	14	14 000	736
Sulawesi Tengah	215.8	229.6	6 912.6	7 157.0	325	8	9 464	497
Sulawesi Selatan	401.0	426.6	12 093.5	12 521.0	2 327	55	60 425	3 175
Sulawesi Tenggara	118.1	125.6	3 812.9	3 947.6	72	2	1 959	103
Bali	179.0	190.4	5 641.8	5 841.3	6 199	146	135 982	7 146
Nusa Tenggara Barat	175.2	186.5	5 138.9	5 320.5	289	7	7 254	381
Nusa Tenggara Timur	264.4	281.3	8 965.8	9 282.8	395	9	14 040	738
Maluku	353.3	375.9	9 727.6	10 071.5	595	14	15 167	797
Irian Jaya	387.5	412.3	13 657.4	14 140.2	1 131	27	36 531	1 920
Timor Timur	-	-		-	-	-	-	
INDONESIA	8 418.7	8 957.4	265 682.6	275 074.8	81 264	1 907	2 503 645	131 567

BANYAKNYA PEMAKAIAN TELEKS / INTELEKS MENURUT PROVINSI
NUMBER OF TELEX / INTELEX USED BY PROVINCE
1984-1985
(000)

PROVINSI *PROVINCE*	Pulsa Dalam Negeri *Domestic Pulsa*		Keluar Negeri / *Abroad*			
			Call		Lama Percakapan *Duration of Conversation* (Menit/*Minute*)	
	1984 r)	1985 e)	1984 r)	1985 e)	1984 r)	1985 e)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Daerah Istimewa Aceh	3 074.8	2 888.9	3.5	3.8	10.9	11.8
Sumatera Utara	33 260.9	31 250.4	189.8	203.0	456.1	493.9
Sumatera Barat	7 163.3	6 730.3	32.8	35.1	73.5	79.6
Riau	10 524.6	9 888.4	51.2	54.8	158.5	171.6
Jambi	-	-	-	-	-	-
Sumatera Selatan	16 151.4	15 175.1	67.1	71.8	176.5	191.1
Bengkulu	-	-	-	-	-	-
Lampung	-	-	-	-	-	-
D.K.I. Jakarta	157 224.9	147 721.2	3 286.6	3 514.8	9 914.9	10 736.3
Jawa Barat	11 196.8	10 520.0	98.3	105.1	248.9	269.5
Jawa Tengah	16 539.4	15 539.6	54.6	58.4	146.1	158.3
D.I. Yogyakarta	2 885.0	2 710.6	201.4	215.3	531.1	575.1
Jawa Timur	36 576.9	34 366.0	13.4	14.3	30.8	33.4
Bali	9 917.7	9 317.3	66.6	71.2	132.3	143.2
Nusa Tenggara Barat	-	-	-	-	-	-
Nusa Tenggara Timur	-	-	-	-	-	-
Kalimantan Barat	2 809.4	2 639.5	13.4	14.3	30.8	33.4
Kalimantan Tengah	-	-	-	-	-	-
Kalimantan Selatan	6 703.9	6 298.6	14.4	15.4	32.5	35.2
Kalimantan Timur	26 067.2	24 491.5	123.2	131.8	433.2	469.1
Sulawesi Utara	7 451.8	7 001.4	3.4	3.7	7.7	8.4
Sulawesi Tengah	2 789.1	2 620.5	2.2	2.4	5.3	5.8
Sulawesi Selatan	14 664.4	13 778.0	23.0	24.6	51.4	55.6
Sulawesi Tenggara	-	-	-	-	-	-
Maluku	5 824.9	5 472.8	4.4	4.7	9.2	10.0
Irian Jaya	8 617.1	8 096.2	6.4	6.8	16.0	17.3
Timor Timur	-	-	-	-	-	-
INDONESIA	379 443.5	356 506.3	4 255.7	4 551.3	12 465.7	13 498.6

Ⅱ．建築資材及び労務単位

今回の調査対象であるアチェ州，北部スマトラ州，南部スマトラ州，ランプン州，南部カリマンタン州，南部スラウェシ州の各州についての建築資材及び労務単位についての資料を記す。

(1) アチェ州

アチェ州は、スマトラ島の北部に位置するインドネシアで最北端の州である。
マラッカ海峡に面するこの州は、古来より、海上交通の拠点であり、現在でも外航海運量では、インドネシア全体の２３．７％を占めている。
州都であるバンダーアチェは、州のさらに北端にあり、ジャカルタより、空路で２時間半を要する。

バンダーアチェ市内及び他の主要都市には、電力の供給設備があるが、市外地ではほとんど電力を利用することはできない。よって、工事用電力は、発電機によってまかなわねばならない。
水道の供給設備も、主要都市内でも一部にしかなく、市外地ではほとんど全てが井戸水を使用している。
道路状態は、幹線以外のほとんどが悪路であり、地方での建築資材運搬には、かなりの困難を要するものと思われる。

DATA SURVEY PROJECT: ACEH SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			7,200
	2. Ditto Manual digging to make excavation bottom	m3			2,500
	3. Backfilling (Excavated material)	m3			3,500
	4. Filling up	m3			1,600
	5. Disposal soil	m3			3,500
	6. Hard core (Gravel or crushed stone)	m3			17,400
	7. Shoring wall	ls			794,900
	8. Draining-off water	ls			1,000
	9. Test of bearing capacity of soil	no.			1,456,600
	10. Soil stabilization	m3			
	11. Termite control	m2			24,100
2	PILING WORK				
	1 PC pile	m			96,300
	2 Loading test	ls			13,291,700
	3 RC Pile	m			57,780

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			60,000
	2. Ground slab concrete	m3			75,200
	3. Reinforced concrete of foundation	m3			75,200
	4. Ordinary form	m2			22,900
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			751,700
	6. Fabrication and placing (incl. binding wire)	t			151,300
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			78,400
	2. Ordinary form	m2			22,900
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			800
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			751,700
	6. Fabrication and placing including binding wire and transport	t			151,300
	7. Transport of reinforcement	ls			62,200
	8. Laying brick of partitions (including lintel concrete)	m2			15,600
	9. Wooden structure for gangnail system	ls			51,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,600
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			44,000
	2. Ditto for window sills w=500 including mortar	m			39,900
	3. Ditto for window sills w=100 including mortar	m			12,700
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			34,800
	2. Laying 110 square tiles on wall including mortar	m2			39,600
	3. Laying quarry tiles on floor 100x200 including mortar	m2			23,200
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			89,800
	2. Platform	m			
	3. Counter	m			564,000

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
6	PLASTERING		Rp.	Rp.	Rp.
	1. Troweling mortar on floor	m2			14,400
	2. Troweling mortar on wall	m2			11,000
	3. Filling up frame surrounding with mortar	m2			1,500
7	DOORS WORK				
	WD-1	pcs			391,400
	WD-2	pcs			198,000
	WD-3	pcs			192,500
	WD-4	pcs			192,500
	WD-5	pcs			127,400
	WD-6	pcs			1,523,500
	WG-1	pcs			319,900
	WW-1	pcs			158,600
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			120,500
	2. Figured glass 4 m/m	m2			25,100
	3. Transparent glass 5 m/m	m2			24,800

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
9	PAINTING WORK		Rp.	Rp.	Rp.
	1. EP over mortarfaces	m2			2,900
	2. EP over boards	m2			2,900
	3. OP over wooden fittings	m2			3,500
	4. OS over wooden fittings	m2			4,500
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			39,900
	2. Cement board for ceiling w/light weight steel frame	m2			20,600
	3. Carpet on floor w/wooden frame & plywood H=150	m2			39,000
	4. Curtain box 200x200	m2			11,600
	5. Access hole in ceiling	pcs			94,900
	6. Molding around ceiling	m			2,500
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			6,900
	10. Reception counter	pc			392,300
	11. Partition for urinal	pc			216,200
	12. Stainless sink L=1800 H=750	pc			902,900
	13. Gas oven	pc			2,016,700
	14. Floor sink	no			66,900

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 156,800
	16. Sign & information board	ls			11,458,300
	17. Laboratory counter W=700 H=850 L=10.650	ls			5,958,300
	18. Room Plate 38 Nos	ls			458,330
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			25,200
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			44,900
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			29,300
	2. Ditto Batter 25x25 Almi foil	m2			25,700
	3. Ditto Ridge W=400	m			8,100
	4. Facia board w/weathering Type-1	m			48,600
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			23,800
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			26,600
	8. Ditto Valley gutter	m			15,600
	9. Ditto Weathering paint on galv. steel sheet	m			26,600
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			24,800
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			110,000
	2. Floor drain	nos			89,700
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			91,700
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			37,600
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			33,900
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,402,500
	2. AD-1	pcs			2,701,800
	3. AJW-1	pcs			192,500
	4. AJW-2	pcs			143,000
	5. AJW-3	pcs			170,500
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			130,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
11	EXTERIOR FINISH WORK		Rp.	Rp.	Rp.
	1. Spraying resin paint w/cement plastering	m2			28,100
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			40,800
	7. Cement sand screed finishing on floor	m2			5,900
	8. Up over eaves ceiling w/cement board T=6	m2			26,000
	9. Up over eaves ceiling w/OS timber panel	m2			42,100
	10. E.P.A. finish for exterior stair W=1.600 H=600	pc			201,700
	11. Ditto W=6.000 H=600	pcs			485,800
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			361,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	EXTERIOR WORKS		Rp.	Rp.	Rp.
	1. Ditch W=300 H=200 w/gravel & curb	m			69,700
	2. Ditch W=200 H=200 w/gravel & curb	m			54,500
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			103,600
	5. Asphalt concrete paving	m2			23,400
	6. Gutter	m			52,400
	7. Catch basin w/cover 400x400x700	pcs			200,300
	8. Asphalt paving	m2			40,800
	9. Curb	m			8,500
	10. Ditto curved	pcs			11,600
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			3,226,700
	13. Bridge for access w/foundation	pc			9,166,700
	14. Crating w/cover W=0.6	m			361,200
	15. Lawn	m2			3,400
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			34,283,300
	18. Drying field W=12.0 L=10.0	ls			2,227,500
	19. Machinery garage W= L= H=	house			7,241,700
	20. Working space W= L= H=	house			6,829,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
21.	Storage W=5.0 L=10.0 H=4.4 house	house			19,690,00
22.	Rural extention bldg. W= L= H=	house			4,271,700
23.	Generator house W= L= H=	house			9,533,300
24.	Water tank foundation	ls			2,933,300
25.	Septic tank	ls			49,500
26.	Fence	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			4,000
	2. Skilled labour	day			4,800
	3. Foreman	day			15,400
	4. Form carpenter	day			7,900
	5. Re-bar worker	day			7,900
	6. Finishing carpenter	day			14,100
	7. Brick layer	day			9,500
	8. Masonry worker	day			7,100
	9. Plastering worker	day			9,700
	10. Roofing worker	day			8,500
	11. Painter	day			10,400
	12. Interior finishing worker	day			11,200
	13. Welder	day			13,300
	14. Door & windor fixture	day			15,800
	15. Surveyer	month			470,000
	16. High level Engineer	month			900,000
	17. Middle level Engineer	month			480,000
	18. Secretary	month			140,000
	19. Clerk	month			160,000
	20. Driver for truck	month			140,000
	21. Driver for Sedan	month			130,000
	22. Electrical & Mechanical Worker	day			7,800

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door & Window FCPC TYPE				
	1 WD1	PCS			664,600
	2 WD2	pcs			198,000
	3 WD3	pcs			192,500
	4 WD4	pcs			192,500
	5 WD5	pcs			127,400
	6 WG1	pcs			319,900

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	MATERIAL				
	Cement	ton			3,700
	Sand	m3			8,000
	Gravel	m3			8,300

(2) 北部スマトラ州

北部スマトラ州は、スマトラ島で最も産業人口が高く、資源にも恵まれた州であり、州都メダンは、スマトラ島内最大の都市である。
メダンの、人口は１３７万人であり、国際空港を有し、近郊にはインドネシア最大のベラワン港がひかえている。１８７０年、メダンはオランダにより大規模なタバコプランテーションが導入され発展し、以後、周辺の豊かな資源（石油，ゴム，パーム油，お茶，コーヒー）が集散される商業都市として、さらに発展した。
また、マレー半島に近いこともあり、豊かな資源を求めて、オランダ，アラビア，マレー，中国系などさまざまな人々が移り住む、混然とした大都会である。
市内は、整然とした緑の並木や、オランダ統治時代の白い欧風調の建物が並び、彫りの深い、エキゾチックな町並みである。

北スマトラ州の人々のくらしは全般的に裕福であるが、電力の供給設備は、他の外領同様主要都市以外はほとんど整っていないため、工事用電力は発電機を利用しなければならない。また、市外地では大部分の地域に水道設備はなく、人々は井戸水を使用している。

DATA SURVEY PROJECT: NORTH SUMATERA SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			7,200
	2. Ditto Manual digging to make excavation bottom	m3			2,500
	3. Backfilling (Excavated material)	m3			3,100
	4. Filling up	m3			1,200
	5. Disposal soil	m3			3,500
	6. Hard core (Gravel or crushed stone)	m3			13,380
	7. Shoring wall	ls			732,790
	8. Draining-off water	ls			930
	9. Test of bearing capacity of soil	no.			1,342,810
	10. Soil stabilization	m3			
	11. Termite control	m2			22,220
2	PILING WORK				
	1 PC pile	m			90,020
	2 Loading test	ls			11,479,200
	3 RC Pile	m			54,010

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			51,430
	2. Ground slab concrete	m3			68,610
	3. Reinforced concrete of foundation	m3			68,610
	4. Ordinary form	m2			21,330
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			669,700
	6. Fabrication and placing (incl. binding wire)	t			112,070
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			71,520
	2. Ordinary form	m2			21,330
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			740
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			669,700
	6. Fabrication and placing including binding wire and transport	t			112,070
	7. Transport of reinforcement	ls			57,340
	8. Laying brick of partitions (including lintel concrete)	m2			12,860
	9. Wooden structure for gangnail system	ls			46,460

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,600
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			37,680
	2. Ditto for window sills w=500 including mortar	m			34,240
	3. Ditto for window sills w=100 including mortar	m			11,480
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			25,420
	2. Laying 110 square tiles on wall including mortar	m2			30,100
	3. Laying quarry tiles on floor 100x200 including mortar	m2			23,200
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			89,800
	2. Platform	m			
	3. Counter	m			519,870

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
6	PLASTERING				
	1. Troweling mortar on floor	m2			13,020
	2. Troweling mortar on wall	m2			9,130
	3. Filling up frame surrounding with mortar	m2			1,500
7	DOORS WORK				
	WD-1	pcs			360,790
	WD-2	pcs			182,560
	WD-3	pcs			177,490
	WD-4	pcs			177,490
	WD-5	pcs			117,510
	WD-6	pcs			1,404,500
	WG-1	pcs			294,910
	WW-1	pcs			146,210
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			120,500
	2. Figured glass 4 m/m	m2			21,610
	3. Transparent glass 5 m/m	m2			21,420

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
9	PAINTING WORK		Rp.	Rp.	Rp.
	1. EP over mortarfaces	m2			2,180
	2. EP over boards	m2			2,180
	3. OP over wooden fittings	m2			2,760
	4. OS over wooden fittings	m2			3,560
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			35,270
	2. Cement board for ceiling w/light weight steel frame	m2			20,600
	3. Carpet on floor w/wooden frame & plywood H=150	m2			40,300
	4. Curtain box 200x200	m2			10,780
	5. Access hole in ceiling	pcs			87,480
	6. Molding around ceiling	m			2,280
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			6,260
	10. Reception counter	pc			361,640
	11. Partition for urinal	pc			216,200
	12. Stainless sink L=1800 H=750	pc			902,900
	13. Gas oven	pc			1,859,240
	14. Floor sink	no			61,740

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 144,540
	16. Sign & information board	ls			10,563,170
	17. Laboratory counter W=700 H=850 L=10.650	ls			5,492,770
	18. Room Plate 38 Nos	ls			422,440
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			22,500
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			38,400
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			32,200
	2. Ditto Batter 25x25 Almi foil	m2			27,100
	3. Ditto Ridge W=400	m			9,700
	4. Facia board w/weathering Type-1	m			44,800
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			21,900
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			29,100
	8. Ditto Valley gutter	m			16,100
	9. Ditto Weathering paint on galv. steel sheet	m			25,100
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			22,800
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			101,400
	2. Floor drain	nos			82,700
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			84,500
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			34,600
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			29,900
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,293,000
	2. AD-1	pcs			2,490,600
	3. AJW-1	pcs			177,500
	4. AJW-2	pcs			131,800
	5. AJW-3	pcs			157,200
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			150,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
11	EXTERIOR FINISH WORK		Rp.	Rp.	Rp.
	1. Spraying resin paint w/cement plastering	m2			29,300
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			37,600
	7. Cement sand screed finishing on floor	m2			5,500
	8. Up over eaves ceiling w/cement board T=6	m2			24,000
	9. Up over eaves ceiling w/OS timber panel	m2			38,800
	10. E.P.A. finish for exterior stair W=1.600 H=600	pc			186,000
	11. Ditto W=6.000 H=600	pcs			447,900
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			333,100

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	EXTERIOR WORKS				
	1. Ditch W=300 H=200 w/gravel & curb	m			64,300
	2. Ditch W=200 H=200 w/gravel & curb	m			49,300
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			95,500
	5. Asphalt concrete paving	m2			21,600
	6. Gutter	m			48,300
	7. Catch basin w/cover 400x400x700	pcs			184,700
	8. Asphalt paving	m2			37,700
	9. Curb	m			7,800
	10. Ditto curved	pcs			10,600
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			2,974,600
	13. Bridge for access w/foundation	pc			8,450,600
	14. Crating w/cover W=0.6	m			333,000
	15. Lawn	m2			3,200
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			31,604,900
	18. Drying field W=12.0 L=10.0	ls			2,053,500
	19. Machinery garage W= L= H=	house			6,675,900
	20. Working space W= L= H=	house			6,295,700

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	21. Storage W=5.0 L=10.0 H=4.4	house			18,151,700
	22. Rural extention bldg. W= L= H=	house			
	23. Generator house W= L= H=	house			3,938,000
	24. Water tank foundation	ls			8,788,500
	25. Septic tank	ls			2,704,100
	26. Fence	m			45,600
	Door & Window FCPC-TYPE				
	1 AW-1	pcs			1,580,300
	2 AW-2	pcs			1,495,700
	3 AW-3	pcs			1,529,600
	4 AW-4	pcs			135,200
	5 AJW-1	pcs			153,800
	6 AJW-2	pcs			154,700
	7 AJW-3	pcs			161,400
	8 AD-1	pcs			3,380,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			4,310
	2. Skilled labour	day			4,220
	3. Foreman	day			10,270
	4. Form carpenter	day			5,480
	5. Re - bar worker	day			5,640
	6. Carpenter (for finishing)	day			8,680
	7. Brick layer	day			6,590
	8. Masonry worker	day			4,610
	9. Plastering worker	day			6,720
	10. Roofing worker	day			5,890
	11. Painter	day			6,930
	12. Interior finishing worker	day			7,840
	13. Welder	day			7,720
	14. Doors & Windows fixture	day			8,430
	15. Surveyer	month			417,800
	16. High level Engineer	month			805,300
	17. Middle level Engineer	month			449,000
	18. Secretary	month			122,500
	19. Clerk	month			144,000
	20. Driver for truck	month			140,000
	21. Driver for Sedan	month			121,300
	22 Electrical & Mechanical Worker	day			7,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door & Window FCPC TYPE				
	1 WD1	pcs			612,680
	2 WD2	pcs			182,560
	3 WD3	pcs			177,490
	4 WD4	pcs			177,490
	5 WD5	pcs			117,510
	6 WG1	pcs			294,910

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	MATERIAL		Rp.	Rp.	Rp.
	Cement	ton			3,900
	Sand	m3			4,200
	Gravel	m3			7,500

(3) 南部スマトラ州

南部スマトラ州の州都パレンバン市は、市内に大河の流れる南部スマトラ州最大の都市である。市内にはかなりの規模の建築物もあり、資材の調達は容易である。大河を利用した水上輸送としては、５，０００ｔ以上の貨物船もかなり行き来しており、人々は河を小型のエンヂンボートで往復し、交通手段として利用している。

鉄道は通っているが、交通手段として利用できる本数はなく、車が主な陸上交通である。

パレンバン市内には水道供給の公社があるが水量が十分ではなく、飲料用として使用できる程度である。近郊主要都市，他の市外地には、水道供給設備はなく給水は全て井戸利用である。電気については、パレンバン市内は供給されているが、近郊都市でも一部供給されていない地域がある。

工事用の電力は、発電機を利用しなければならない。

DATA SURVEY PROJECT: SOUTH SUMATERA SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			5,890
	2. Ditto Manual digging to make excavation bottom	m3			2,040
	3. Backfilling (Excavated material)	m3			4,120
	4. Filling up	m3			4,400
	5. Disposal soil	m3			2,100
	6. Hard core (Gravel or crushed stone)	m3			36,140
	7. Shoring wall	ls			782,480
	8. Draining-off water	ls			990
	9. Test of bearing capacity of soil	no.			1,433,850
	10. Soil stabilization	m3			
	11. Termite control	m2			23,730
2	PILING WORK				
	1 PC pile	m			122,940
	2 Loading test	ls			15,104,200
	3 RC Pile	m			73,770

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			82,040
	2. Ground slab concrete	m3			94,050
	3. Reinforced concrete of foundation	m3			94,050
	4. Ordinary form	m2			21,690
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			1,018,210
	6. Fabrication and placing (incl. binding wire)	t			98,060
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			98,040
	2. Ordinary form	m2			21,690
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			790
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			1,018,210
	6. Fabrication and placing including binding wire and transport	t			98,060
	7. Transport of reinforcement	ls			61,230
	8. Laying brick of partitions (including lintel concrete)	m2			9,200
	9. Wooden structure for gangnail system	ls			38,720

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,350
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			28,390
	2. Ditto for window sills w=500 including mortar	m			27,340
	3. Ditto for window sills w=100 including mortar	m			5,270
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			40,800
	2. Laying 110 square tiles on wall including mortar	m2			24,800
	3. Laying quarry tiles on floor 100x200 including mortar	m2			22,500
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			88,300
	2. Platform	m			
	3. Counter	m			555,130

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
6	PLASTERING		Rp.	Rp.	Rp.
	1. Troweling mortar on floor	m2			8,190
	2. Troweling mortar on wall	m2			6,480
	3. Filling up frame surrounding with mortar	m2			1,400
7	DOORS WORK				
	WD-1	pcs			385,210
	WD-2	pcs			194,820
	WD-3	pcs			189,410
	WD-4	pcs			189,410
	WD-5	pcs			125,450
	WD-6	pcs			1,499,800
	WG-1	pcs			314,880
	WW-1	pcs			156,120
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			119,760
	2. Figured glass 4 m/m	m2			22,770
	3. Transparent glass 5 m/m	m2			23,470

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
9	PAINTING WORK				
	1. EP over mortarfaces	m2			3,420
	2. EP over boards	m2			3,420
	3. OP over wooden fittings	m2			3,180
	4. OS over wooden fittings	m2			4,080
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			35,270
	2. Cement board for ceiling w/light weight steel frame	m2			19,880
	3. Carpet on floor w/wooden frame & plywood H=150	m2			39,000
	4. Curtain box 200x200	m2			11,480
	5. Access hole in ceiling	pcs			93,420
	6. Molding around ceiling	m			2,500
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			6,770
	10. Reception counter	pc			386,140
	11. Partition for urinal	pc			205,680
	12. Stainless sink L=1800 H=750	pc			871,280
	13. Gas oven	pc			1,985,290
	14. Floor sink	no			65,840

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 154,460
	16. Sign & information board	ls			11,279,270
	17. Laboratory counter W=700 H=850 L=10.650	ls			5,865,180
	18. Room Plate 38 Nos	ls			451,090
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			26,500
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			29,000
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			27,800
	2. Ditto Batter 25x25 Almi foil	m2			25,100
	3. Ditto Ridge W=400	m			8,200
	4. Facia board w/weathering Type-1	m			47,800
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			23,500
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			29,100
	8. Ditto Valley gutter	m			14,400
	9. Ditto Weathering paint on galv. steel sheet	m			28,100
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			24,400
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			108,300
	2. Floor drain	nos			88,200
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			90,300
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			37,000
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			36,200
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,380,500
	2. AD-1	pcs			2,659,500
	3. AJW-1	pcs			189,500
	4. AJW-2	pcs			140,900
	5. AJW-3	pcs			167,800
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			133,500

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
11	EXTERIOR FINISH WORK		Rp.	Rp.	Rp.
	1. Spraying resin paint w/cement plastering	m2			27,800
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			40,100
	7. Cement sand screed finishing on floor	m2			5,800
	8. Up over eaves ceiling w/cement board T=6	m2			25,700
	9. Up over eaves ceiling w/OS timber panel	m2			41,400
	10. E.P.A. finish for exterior stair ✓ W=1.600 H=600	pc			198,500
	11. Ditto W=6.000 H=600	pcs			478,200
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			355,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	EXTERIOR WORKS		Rp.	Rp.	Rp.
	1. Ditch W=300 H=200 w/gravel & curb	m			68,600
	2. Ditch W=200 H=200 w/gravel & curb	m			52,700
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			102,100
	5. Asphalt concrete paving	m2			23,100
	6. Gutter	m			51,600
	7. Catch basin w/cover 400x400x700	pcs			197,200
	8. Asphalt paving	m2			40,200
	9. Curb	m			8,400
	10. Ditto curved	pcs			11,400
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			3,176,300
	13. Bridge for access w/foundation	pc			9,023,500
	14. Crating w/cover W=0.6	m			355,600
	15. Lawn	m2			3,300
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			33,747,600
	18. Drying field W=12.0 L=10.0	ls			2,192,700
	19. Machinery garage W= L= H=	house			7,128,500
	20. Working space W= L= H=	house			6,722,500

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
21.	Storage W=5.0 L=10.0 H=4.4 house	house			19,382,300
22.	Rural extention bldg. W= L= H=	house			
23.	Generator house W= L= H=	house			4,205,000
24.	Water tank foundation	ls			9,384,300
25.	Septic tank	ls			2,887,500
26.	Fence	m			48,700
	Door & Window FCPC-TYPE				
1	AW-1	pcs			1,687,300
2	AW-2	pcs			1,597,100
3	AW-3	pcs			1,633,300
4	AW-4	pcs			144,400
5	AJW-1	pcs			164,100
6	AJW-2	pcs			165,200
7	AJW-3	pcs			172,400
8	AD-1	pcs			3,609,400

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door & Window FCPC TYPE				
	1 WD1	pcs			654,240
	2 WD2	pcs			194,820
	3 WD3	pcs			189,410
	4 WD4	pcs			189,410
	5 WD5	pcs			125,450
	6 WG1	pcs			314,880

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			5,640
	2. Skilled labour	day			6,340
	3. Foreman	day			7,750
	4. Form carpenter	day			6,460
	5. Re-bar worker	day			8,520
	6. Carpenter (for finishing)	day			10,850
	7. Brick layer	day			7,130
	8. Masonry worker	day			7,650
	9. Plastering worker	day			9,150
	10. Roofing worker	day			8,020
	11. Painter	day			9,240
	12. Interior finishing worker	day			11,200
	13. Welder	day			7,720
	14. Doors & Windows fixture	day			7,950
	15. Surveyer	month			396,900
	16. High level Engineer	month			757,900
	17. Middle level Engineer	month			387,100
	18. Secretary	month			122,500
	19. Clerk	month			144,000
	20. Driver for truck	month			131,800
	21. Driver for Sedan	month			121,300
	22. Electrical & Mechanical Worker	day			6,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	MATERIAL				
	Cement	ton			3,900
	Sand	m3			6,900
	Gravel	m3			29,900

(4) ランプン州

ランプン州は、スマトラ島の最南部に位置し、州都タンジュンカランまでは、ジャカルタより、空路３０分の行程である。
６０３万人の人口は、スマトラ島内では、北部スマトラ州に次いで多く、人口密度は１８１人／㎢で、最も高い。
また、大豆，キャサバ，トウモロコシの収穫量は、スマトラ島内で最大であり、産業人口も５６．１％と北部スマトラ州と同様高く、比較的裕福な州である。

電気，水道設備，道路状況は、他の外領諸州同様、あまり良好とはいえない。

DATA SURVEY PROJECT: LAMPUNG SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			6,550
	2. Ditto Manual digging to make excavation bottom	m3			2,260
	3. Backfilling (Excavated material)	m3			3,500
	4. Filling up	m3			1,200
	5. Disposal soil	m3			2,460
	6. Hard core (Gravel or crushed stone)	m3			10,040
	7. Shoring wall	ls			676,910
	8. Draining-off water	ls			860
	9. Test of bearing capacity of soil	no.			1,240,390
	10. Soil stabilization	m3			
	11. Termite control	m2			20,530
2	PILING WORK				
	1 PC pile	m			97,160
	2 Loading test	ls			12,083,360
	3 RC Pile	m			58,290

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			49,020
	2. Ground slab concrete	m3			65,180
	3. Reinforced concrete of foundation	m3			65,180
	4. Ordinary form	m2			19,740
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			700,450
	6. Fabrication and placing (incl. binding wire)	t			89,660
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			67,930
	2. Ordinary form	m2			19,740
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			680
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			700,450
	6. Fabrication and placing including binding wire and transport	t			89,660
	7. Transport of reinforcement	ls			52,970
	8. Laying brick of partitions (including lintel concrete)	m2			7,470
	9. Wooden structure for gangnail system	ls			41,140

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,350
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			24,650
	2. Ditto for window sills w=500 including mortar	m			22,090
	3. Ditto for window sills w=100 including mortar	m			5,270
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			34,250
	2. Laying 110 square tiles on wall including mortar	m2			29,200
	3. Laying quarry tiles on floor 100x200 including mortar	m2			22,300
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			87,870
	2. Platform	m			
	3. Counter	m			480,290

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
6	PLASTERING				
	1. Troweling mortar on floor	m2			3,850
	2. Troweling mortar on wall	m2			3,440
	3. Filling up frame surrounding with mortar	m2			1,400
7	DOORS WORK				
	WD-1	pcs			333,220
	WD-2	pcs			168,540
	WD-3	pcs			163,850
	WD-4	pcs			163,850
	WD-5	pcs			108,470
	WD-6	pcs			1,297,360
	WG-1	pcs			272,420
	WW-1	pcs			135,000
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			119,540
	2. Figured glass 4 m/m	m2			19,280
	3. Transparent glass 5 m/m	m2			14,140

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
9	PAINTING WORK		Rp.	Rp.	Rp.
	1. EP over mortarfaces	m2			1,860
	2. EP over boards	m2			1,860
	3. OP over wooden fittings	m2			2,650
	4. OS over wooden fittings	m2			3,350
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			32,660
	2. Cement board for ceiling w/light weight steel frame	m2			19,640
	3. Carpet on floor w/wooden frame & plywood H=150	m2			43,370
	4. Curtain box 200x200	m2			9,960
	5. Access hole in ceiling	pcs			80,790
	6. Molding around ceiling	m			2,170
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			5,880
	10. Reception counter	pc			334,060
	11. Partition for urinal	pc			202,130
	12. Stainless sink L=1800 H=750	pc			860,610
	13. Gas oven	pc			1,717,430
	14. Floor sink	no			57,040

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 133,590
	16. Sign & information board	ls			9,757,450
	17. Laboratory counter W=700 H=850 L=10.650	ls			5,073,850
	18. Room Plate 38 Nos	ls			390,230
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			29,900
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			25,100
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			33,700
	2. Ditto Batter 25x25 Almi foil	m2			28,600
	3. Ditto Ridge W=400	m			8,700
	4. Facia board w/weathering Type-1	m			41,400
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			20,200
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			26,000
	8. Ditto Valley gutter	m			16,800
	9. Ditto Weathering paint on galv. steel sheet	m			26,600
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			21,100
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			93,700
	2. Floor drain	nos			76,400
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			78,100
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			32,000
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			31,200
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,194,300
	2. AD-1	pcs			2,300,700
	3. AJW-1	pcs			163,900
	4. AJW-2	pcs			121,800
	5. AJW-3	pcs			145,100
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			111,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
11	EXTERIOR FINISH WORK		Rp.	Rp.	Rp.
	1. Spraying resin paint w/cement plastering	m2			27,800
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			34,800
	7. Cement sand screed finishing on floor	m2			5,000
	8. Up over eaves ceiling w/cement board T=6	m2			22,200
	9. Up over eaves ceiling w/OS timber panel	m2			35,900
	10. E.P.A. finish for exterior stair W=1.600 H=600	pc			171,800
	11. Ditto W=6.000 H=600	pcs			413,700
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			307,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	EXTERIOR WORKS				
	1. Ditch W=300 H=200 w/gravel & curb	m			59,400
	2. Ditch W=200 H=200 w/gravel & curb	m			44,200
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			88,200
	5. Asphalt concrete paving	m2			19,900
	6. Gutter	m			44,600
	7. Catch basin w/cover 400x400x700	pcs			170,600
	8. Asphalt paving	m2			34,800
	9. Curb	m			7,200
	10. Ditto curved	pcs			9,900
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			2,747,700
	13. Bridge for access w/foundation	pc			7,806,100
	14. Crating w/cover W=0.6	m			307,600
	15. Lawn	m2			2,900
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			29,194,400
	18. Drying field W=12.0 L=10.0	ls			1,896,800
	19. Machinery garage W= L= H=	house			6,166,800
	20. Working space W= L= H=	house			5,815,500

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
21.	Storage W=5.0 L=10.0 H=4.4	house			16,767,300
22.	Rural extention bldg. W= L= H=	house			
23.	Generator house W= L= H=	house			3,637,600
24.	Water tank foundation	ls			8,118,300
25.	Septic tank	ls			2,497,900
26.	Fence	m			42,100
	Door & Window FCPC-TYPE				
1.	AW-1	pcs			1,459,700
2.	AW-2	pcs			1,381,600
3.	AW-3	pcs			1,412,900
4.	AW-4	pcs			124,900
5.	AJW-1	pcs			142,000
6.	AJW-2	pcs			142,900
7.	AJW-3	pcs			149,100
8.	AD-1	pcs			3,122,400

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			3,380
	2. Skilled labour	day			5,280
	3. Foreman	day			7,190
	4. Form carpenter	day			4,940
	5. Re - bar worker	day			5,130
	6. Carpenter (for finishing)	day			6,510
	7. Brick layer	day			5,940
	8. Masonry worker	day			4,610
	9. Plastering worker	day			5,510
	10. Roofing worker	day			4,830
	11. Painter	day			4,100
	12. Interior finishing worker	day			6,720
	13. Welder	day			5,120
	14. Doors & Windows fixture	day			5,270
	15. Surveyer	month			365,600
	16. High level Engineer	month			663,200
	17. Middle level Engineer	month			371,600
	18. Secretary	month			105,000
	19. Clerk	month			120,000
	20. Driver for truck	month			123,500
	21. Driver for Sedan	month			130,000
	22. Electrical & Mechanical Worker	day			5,800

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door Window FCPC TYPE				
	1 WD1	pcs			566,000
	2 WD2	pcs			168,540
	3 WD3	pcs			163,850
	4 WD4	pcs			163,850
	5 WD5	pcs			108,470
	6 WG1	pcs			272,420

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	MATERIAL				
	Cement	ton			3,700
	Sand	m3			6,300
	Gravel	m3			8,300

(5) 南部カリマンタン州

南部カリマンタン州は、カリマンタン島（ボルネオ）の南に位置し、世界で３番目に大きい島である。

インドネシアをはじめ、マレーシア，ブルネイの３カ国が共存し、総面積は７３万９，４６０Km² 。うちインドネシア領（４州）の面積は５３万９，４６０Km² と約７０％を占めている。

日本の面積と比べると、この島だけで１．５倍近くもあるが、人口はわずかに６７２万人で、人口密度は１Km² あたり１２人と少ない。

バンジャルマシン市は、南部カリマンタン州の州都で、市内にはかなり大規模な建築物もあり、建築資材等の供給は問題ない。

水道は近郊主要都市を含めて無く、給水は全て井戸である。電力は近郊都市にも供給されているが、工事用電力は発電機を使用する必要がある。

陸路はカリマンタン島を南北に結ぶ良好なアスファルト道路があり、資材の輸送は容易である。

人々は川を主要交通路としているが、陸路と比較するとかなり時間を要する。

DATA SURVEY PROJECT: SOUTH KALIMANTAN SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			4,580
	2. Ditto Manual digging to make excavation bottom	m3			1,580
	3. Backfilling (Excavated material)	m3			2,720
	4. Filling up	m3			4,000
	5. Disposal soil	m3			17,860
	6. Hard core (Gravel or crushed stone)	m3			18,740
	7. Shoring wall	ls			732,790
	8. Draining-off water	ls			930
	9. Test of bearing capacity of soil	no.			1,342,810
	10. Soil stabilization	m3			
	11. Termite control	m2			22,220
2	PILING WORK				
	1 PC pile	m			120,570
	2 Loading test	ls			9,666,690
	3 RC Pile	m			72,340

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			54,180
	2. Ground slab concrete	m3			71,980
	3. Reinforced concrete of foundation	m3			71,980
	4. Ordinary form	m2			20,350
	5. Deformed reinforcing bar	t			871,290
	SD30 D-10 - D13 SD35 D-16 - D22				
	6. Fabrication and placing	t			72,850
	(incl. binding wire)				
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			75,030
	2. Ordinary form	m2			20,350
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			740
	5. Deformed reinforcing bar	t			871,290
	SD30 D-10 - D13 SD35 D-16 - D22				
	6. Fabrication and placing	t			72,850
	including binding wire and transport				
	7. Transport of reinforcement	ls			57,340
	8. Laying brick of partitions	m2			7,020
	(including lintel concrete)				
	9. Wooden structure for gangnail system	ls			36,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,480
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			17,680
	2. Ditto for window sills w=500 including mortar	m			16,150
	3. Ditto for window sills w=100 including mortar	m			3,510
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			26,840
	2. Laying 110 square tiles on wall including mortar	m2			15,600
	3. Laying quarry tiles on floor 100x200 including mortar	m2			23,000
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			89,260
	2. Platform	m			
	3. Counter	m			519,870

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
6	PLASTERING		Rp.	Rp.	Rp.
	1. Troweling mortar on floor	m2			4,930
	2. Troweling mortar on wall	m2			4,220
	3. Filling up frame surrounding with mortar	m2			1,500
7	DOORS WORK				
	WD-1	pcs			360,790
	WD-2	pcs			182,560
	WD-3	pcs			177,490
	WD-4	pcs			177,490
	WD-5	pcs			117,510
	WD-6	pcs			1,404,500
	WG-1	pcs			294,910
	WW-1	pcs			146,210
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			120,300
	2. Figured glass 4 m/m	m2			23,300
	3. Transparent glass 5 m/m	m2			20,500

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
9	PAINTING WORK				
	1. EP over mortarfaces	m2			2,200
	2. EP over boards	m2			2,200
	3. OP over wooden fittings	m2			3,200
	4. OS over wooden fittings	m2			4,100
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			52,300
	2. Cement board for ceiling w/light weight steel frame	m2			20,400
	3. Carpet on floor w/wooden frame & plywood H=150	m2			42,300
	4. Curtain box 200x200	m2			10,800
	5. Access hole in ceiling	pcs			87,500
	6. Molding around ceiling	m			2,300
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			6,300
	10. Reception counter	pc			361,600
	11. Partition for urinal	pc			212,700
	12. Stainless sink L=1800 H=750	pc			892,200
	13. Gas oven	pc			1,859,200
	14. Floor sink	no			61,700

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 144,500
	16. Sign & information board	ls			10,563,200
	17. Laboratory counter W=700 H=850 L=10.650	ls			5,492,800
	18. Room Plate 38 Nos	ls			422,400
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			42,400
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			18,000
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			28,600
	2. Ditto Batter 25x25 Almi foil	m2			25,700
	3. Ditto Ridge W=400	m			9,700
	4. Facia board w/weathering Type-1	m			44,800
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			21,900
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			29,500
	8. Ditto Valley gutter	m			16,400
	9. Ditto Weathering paint on galv. steel sheet	m			28,100
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			22,800
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			101,400
	2. Floor drain	nos			82,700
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			84,500
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			34,600
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			33,700
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,293,000
	2. AD-1	pcs			2,490,600
	3. AJW-1	pcs			177,500
	4. AJW-2	pcs			131,800
	5. AJW-3	pcs			157,200
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			128,000

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	EXTERIOR FINISH WORK				
	1. Spraying resin paint w/cement plastering	m2			24,900
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			37,600
	7. Cement sand screed finishing on floor	m2			5,500
	8. Up over eaves ceiling w/cement board T=6	m2			24,000
	9. Up over eaves ceiling w/OS timber panel	m2			38,800
	10. E.P.A. finish for exterior stair W=1.600 H=600	pc			186,000
	11. Ditto W=6.000 H=600	pcs			447,900
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			333,100

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	EXTERIOR WORKS		Rp.	Rp.	Rp.
	1. Ditch W=300 H=200 w/gravel & curb	m			64,300
	2. Ditch W=200 H=200 w/gravel & curb	m			48,800
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			95,500
	5. Asphalt concrete paving	m2			21,600
	6. Gutter	m			48,300
	7. Catch basin w/cover 400x400x700	pcs			184,700
	8. Asphalt paving	m2			37,700
	9. Curb	m			7,800
	10. Ditto curved	pcs			10,600
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			2,974,600
	13. Bridge for access w/foundation	pc			8,450,600
	14. Crating w/cover W=0.6	m			333,000
	15. Lawn	m2			3,200
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			31,604,900
	18. Drying field W=12.0 L=10.0	ls			2,053,500
	19. Machinery garage W= L= H=	house			6,675,900
	20. Working space W= L= H=	house			6,295,700

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
21.	Storage W=5.0 L=10.0 H=4.4	house			18,151,700
22.	Rural extention bldg. W= L= H=	house			
23.	Generator house W= L= H=	house			3,938,000
24.	Water tank foundation	ls			8,788,500
25.	Septic tank	ls			2,704,100
26.	Fence	m			45,600
	Door & window FCPC-TYPE				
1.	AW-1	pcs			1,580,300
2.	AW-2	pcs			1,495,700
3.	AW-3	pcs			1,529,600
4.	AW-4	pcs			135,200
5.	AJW-1	pcs			153,800
6.	AJW-2	pcs			154,700
7.	AJW-3	pcs			161,400
8.	AD-1	pcs			3,380,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door & Window FCPC TYPE				
	1 WD1	pcs			612,700
	2 WD2	pcs			182,600
	3 WD3	pcs			177,500
	4 WD4	pcs			177,500
	5 WD5	pcs			117,500
	6 WG1	pcs			294,900

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			2,870
	2. Skilled labour	day			5,280
	3. Foreman	day			4,110
	4. Form carpenter	day			3,500
	5. Re - bar worker	day			4,510
	6. Carpenter (for finishing)	day			3,850
	7. Brick layer	day			4,210
	8. Masonry worker	day			3,600
	9. Plastering worker	day			4,300
	10. Roofing worker	day			3,770
	11. Painter	day			4,100
	12. Interior finishing worker	day			5,090
	13. Welder	day			7,720
	14. Doors & Windows fixture	day			5,270
	15. Surveyer	month			365,600
	16. High level Engineer	month			663,200
	17. Middle level Engineer	month			371,600
	18. Secretary	month			105,000
	19. Clerk	month			120,000
	20. Driver for truck	month			123,500
	21. Driver for Sedan	month			130,000
	22. Electrical & Mechanical Worker	day			4,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	MATERIAL				
	Cement	ton			4,200
	Sand	m3			8,000
	Gravel	m3			11,200

(6) 南部スラウェシ州

南部スラウェシ州最大のウジュンパンダン市は、南部スラウェシ（セレベス）の中心都市で海に面した風光明媚な州都である。
人口は６０万人を超え、市内には４～５階建の建築物もかなりある。
古くから香料の集積港として栄えた町で、１３世紀～１７世紀にかけてマカッサル族のゴア王国が栄えた。
オランダ占領から日本軍政時代を通じ、マカッサルと呼ばれていたが、この地方にはパンダン（ヤシの一種）の樹が多いところから、１９７１年ウジュン（岬）パンダンと市名が改められた。第２次大戦中は海軍政地区の中心地であったところで、１９７７年には日本領事館が開設された。東部インドネシア海上交通の要衝であり、大型帆船が出入りし、南国の風物詩となっている。
ウジェパンダン市及び他の主要都市には、電力の供給設備があるが、水道はウジェパンダン市の一部に布設されてはいるが、衛生上期待出来る施設ではない。
工事用電力については、発電機を利用しなければならない。
また、南部スラウェシの東岸には、建築資材等の陸揚げができる港がいくつかある。

DATA SURVEY PROJECT: SOUTH SULAWESI SITE

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNTI COST
	FOUNDATION WORK		Rp.	Rp.	Rp.
1	EARTH WORK				
	1. Excavation	m3			5,240
	2. Ditto Manual digging to make excavation bottom	m3			1,820
	3. Backfilling (Excavated material)	m3			2,330
	4. Filling up	m3			1,800
	5. Disposal soil	m3			700
	6. Hard core (Gravel or crushed stone)	m3			11,380
	7. Shoring wall	ls			621,020
	8. Draining-off water	ls			790
	9. Test of bearing capacity of soil	no.			1,137,970
	10. Soil stabilization	m3			
	11. Termite control	m2			18,830
2	PILING WORK				
	1 PC pile	m			144,510
	2 Loading test	ls			13,291,700
	3 RC Pile	m			86,710

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
3	CONCRETE WORK & REINFORCEMENT WORK				
	1. Leveling concrete	m3			49,690
	2. Ground slab concrete	m3			64,820
	3. Reinforced concrete of foundation	m3			64,820
	4. Ordinary form	m2			20,720
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			724,370
	6. Fabrication and placing (incl. binding wire)	t			112,070
	STRUCTURAL WORK				
	1. Reinforced concrete of structural body	m3			67,580
	2. Ordinary form	m2			20,720
	3. Form-supporting stage	ls			
	4. Transport for form work	ls			630
	5. Deformed reinforcing bar SD30 D-10 - D13 SD35 D-16 - D22	t			724,370
	6. Fabrication and placing including binding wire and transport	t			112,070
	7. Transport of reinforcement	ls			48,600
	8. Laying brick of partitions (including lintel concrete)	m2			8,420
	9. Wooden structure for gangnail system	ls			36,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	INTERIOR FINISHING WORK		Rp.	Rp.	Rp.
1	WATERPROOFING WORK				
	1. Resin waterproofing w/mortar	m2			34,720
2	STONE WORK				
	1. Laying of terrazzo blocks on floor incluing mortar	m2			27,740
	2. Ditto for window sills w=500 including mortar	m			26,650
	3. Ditto for window sills w=100 including mortar	m			9,860
3	TILE WORK				
	1. Laying of mosaic tiles on floor including mortar	m2			24,000
	2. Laying 110 square tiles on wall including mortar	m2			18,700
	3. Laying quarry tiles on floor 100x200 including mortar	m2			23,600
4	CARPENTRY WORK				
	1. Partitioning frame work with plywood	m			90,760
	2. Platform	m			
	3. Counter	m			440,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
6	PLASTERING				
	1. Troweling mortar on floor	m2			4,930
	2. Troweling mortar on wall	m2			3,830
	3. Filling up frame surrounding with mortar	m2			1,500
7	DOORS WORK				
	WD-1	pcs			305,760
	WD-2	pcs			154,630
	WD-3	pcs			150,330
	WD-4	pcs			150,330
	WD-5	pcs			99,550
	WD-6	pcs			1,190,340
	WG-1	pcs			249,940
	WW-1	pcs			123,910
8	GLASS AND GLAZING WORK				
	1. Wired figured glass 6.8 m/m	m2			120,900
	2. Figured glass 4 m/m	m2			25,600
	3. Transparent glass 5 m/m	m2			18,700

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
9	PAINTING WORK				
	1. EP over mortarfaces	m2			1,900
	2. EP over boards	m2			1,900
	3. OP over wooden fittings	m2			3,400
	4. OS over wooden fittings	m2			4,300
10	INTERIOR FINISH WORK				
	1. Acoustic board for ceiling w/light weight steel frame	m2			33,100
	2. Cement board for ceiling w/light weight steel frame	m2			21,200
	3. Carpet on floor w/wooden frame & plywood H=150	m2			37,700
	4. Curtain box 200x200	m2			9,100
	5. Access hole in ceiling	pcs			74,200
	6. Molding around ceiling	m			2,000
	7. Blackboard 4m x 1.7	no			
	8. Screen 4m x 1.7	no			
	9. Baseboard	m			5,400
	10. Reception counter	pc			306,500
	11. Partition for urinal	pc			223,200
	12. Stainless sink L=1800 H=750	pc			924,100
	13. Gas oven	pc			1,575,600
	14. Floor sink	no			52,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	15. Sink for water-closet	pcs	Rp.	Rp.	Rp. 122,500
	16. Sign & information board	ls			8,951,800
	17. Laboratory counter W=700 H=850 L=10.650	ls			4,654,900
	18. Room Plate 38 Nos	ls			358,000
	EXTERIOR FINISHING WORK				
1	WATER PROOFING WORK				
	1. Liquid membrane water-proofing for entrance roof	m2			42,400
	2. Calking of frame surroundings	m			5,400
2	STONE WORK				
	1. Laying of terrazzo blocks on floor (including mortar)	m2			28,300
	2. Laying of terrazzo blocks border on floor	m2			
	3. Ditto for stair tread T=30 260x1200 w/No slip	nos			
	4. Ditto for stair risin T=30 180x1200	nos			
	5. Ditto for stair step	nos			
4	CARPENTRY WORK				
	1. Hand rail for corridor H=1.10 W=1.50	m			
	2. Hand rail for staircase H=1.10 sloped	m			
	3. Ditto H=1.10 horizontal	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	ROOFING WORK		Rp.	Rp.	Rp.
	1. Laying concrete roof tile Batter 50x50	m2			31,800
	2. Ditto Batter 25x25 Almi foil	m2			29,300
	3. Ditto Ridge W=400	m			9,100
	4. Facia board w/weathering Type-1	m			37,900
	5. Ditto Type-2	m			
	6. Ditto Type-3	m			18,600
	7. Verge roof tile Indonesia single roofing w/asphalt felt T=18	m2			30,400
	8. Ditto Valley gutter	m			17,100
	9. Ditto Weathering paint on galv. steel sheet	m			22,200
	10. Ditto Indonesia single roofing on wall w/Asphalt felt T=12	m2			19,300
6	MISCELLANEOUS METAL WORK				
	1. Roof drain	pcs			86,000
	2. Floor drain	nos			70,100
	3. Valley gutter	m			
	4. Eaves gutter (Paint on galv. steel sheet T=1.6)(cf. Detail)	m			71,700
	5. Leader and chain: Steel pipe painting on galv. Chain dia. 50: steel (Three composite type)	pcs			29,300
	6. Overflow pipe dia. 50 stainless	m			

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	7. Handrail for balcony steel pipe w/op	m			36,200
	8. Steel structure for entrance curtainwall SGP dia. 100	ls			
7	PLASTERING WORK				
	1. Waterproofing mortar troweling on balcony floor	m2			
	2. Ditto for gutter (Total wide=220)	m			
8	WINDOWS WORK				
	1. AW-1	pcs			1,095,700
	2. AD-1	pcs			2,110,800
	3. AJW-1	pcs			150,400
	4. AJW-2	pcs			111,700
	5. AJW-3	pcs			133,200
9	GLASS AND GLAZING WORK				
	1. Glass blocks	m2			139,100

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
11	EXTERIOR FINISH WORK		Rp.	Rp.	Rp.
	1. Spraying resin paint w/cement plastering	m2			32,200
	2. Ditto w/skim coart on backside of stair slab w/thin mortar	m2			
	3. Spraying stipple paint w/thin morter	m2			
	4. Spraying resin paint on coping w/ cement sand screed	m2			
	5. Ditto coping of handrail w/cement sand screed	m2			
	6. E.P.A. finishing on floor	m2			31,900
	7. Cement sand screed finishing on floor	m2			4,600
	8. Up over eaves ceiling w/cement board T=6	m2			20,400
	9. Up over eaves ceiling w/OS timber panel	m2			32,900
	10. E.P.A. finish for exterior stair	pc			157,500
	✓ W=1.600 H=600				
	11. Ditto W=6.000 H=600	pcs			379,500
	12. Ditto W=7.000 H=600	pcs			
	13. Local sand stone relief on wall	ls			282,200

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	EXTERIOR WORKS		Rp.	Rp.	Rp.
	1. Ditch W=300 H=200 w/gravel & curb	m			54,500
	2. Ditch W=200 H=200 w/gravel & curb	m			41,900
	3. Ditch W= H= w/gravel & curb	m			
	4. Berm W=1500 H=200 w/gravel & curb grating	m			81,000
	5. Asphalt concrete paving	m2			18,300
	6. Gutter	m			40,900
	7. Catch basin w/cover 400x400x700	pcs			156,500
	8. Asphalt paving	m2			31,900
	9. Curb	m			6,600
	10. Ditto curved	pcs			9,000
	11. P.C. panel cover	m			
	12. Flag pole H=9M w/foundation	pcs			2,520,800
	13. Bridge for access w/foundation	pc			7,161,500
	14. Crating w/cover W=0.6	m			282,200
	15. Lawn	m2			2,600
	16. Landscaping	m2			
	17. Green house Estimated by the design drawings W=5m L=10m H=4.7m	house			26,783,800
	18. Drying field W=12.0 L=10.0	ls			1,740,200
	19. Machinery garage W= L= H=	house			5,657,600
	20. Working space W= L= H=	house			5,335,300

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
	21. Storage W=5.0 L=10.0 H=4.4	house			15,382,800
	22. Rural extention bldg. W= L= H=	house			
	23. Generator house W= L= H=	house			3,337,200
	24. Water tank foundation	ls			7,447,900
	25. Septic tank	ls			2,291,600
	26. Fence	m			38,700
	Door & Window FCPC-TYPE				
	1. AW-1	pcs			1,339,200
	2. AW-2	pcs			1,267,500
	3. AW-3	pcs			1,296,300
	4. AW-4	pcs			114,600
	5. AJW-1	pcs			130,400
	6. AJW-2	pcs			131,100
	7. AJW-2	pcs			136,800
	8. AD-1	pcs			2,864,600

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	LABOUR COST		Rp.	Rp.	Rp.
	1. Common labour	day			1,740
	2. Skilled labour	day			3,740
	3. Foreman	day			3,640
	4. Form carpenter	day			3,500
	5. Re - bar worker	day			4,000
	6. Carpenter (for finishing)	day			4,340
	7. Brick layer	day			4,210
	8. Masonry worker	day			3,600
	9. Plastering worker	day			4,300
	10. Roofing worker	day			3,770
	11. Painter	day			4,100
	12. Interior finishing worker	day			5,600
	13. Welder	day			5,120
	14. Doors & Windows fixture	day			5,270
	15. Surveyer	month			396,900
	16. High level Engineer	month			663,200
	17. Middle level Engineer	month			348,400
	18. Secretary	month			96,300
	19. Clerk	month			104,000
	20. Driver for truck	month			115,300
	21. Driver for Sedan	month			104,000
	22. Electrical & Mechanical Worker	day			4,400

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
			Rp.	Rp.	Rp.
11	Door & Window FCPC TYPE				
	1. WD1	pcs			519,200
	2. WD2	pcs			154,600
	3. WD3	pcs			150,300
	4. WD4	pcs			150,300
	5. WD5	pcs			99,600
	6. WG1	pcs			249,900

	DESCRIPTION	UNIT	MATERIAL COST	LABOUR COST	UNIT COST
	MATERIAL		Rp.	Rp.	Rp.
	Cement	ton			3,600
	Sand	m3			6,300
	Gravel	m3			10,000

Ⅲ. ボーリングテスト資料

各敷地のボーリング調査は、インドネシア共和国政府負担により行われた。
調査結果は以下のとおりである。

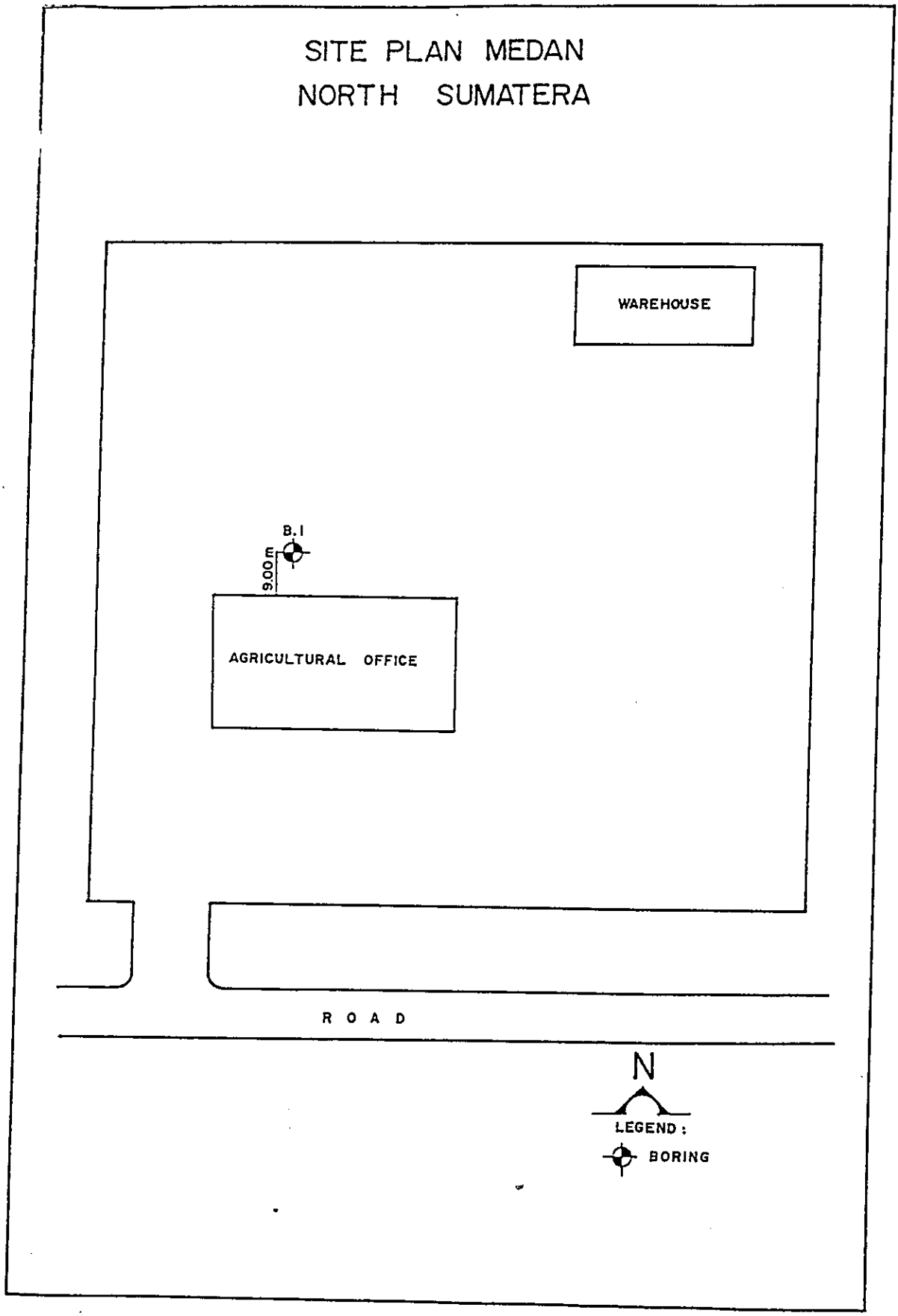
REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : NORTH SUMATERA

SOILTEST & FOUNDATIONS

M E D A N

SITE PLAN MEDAN
NORTH SUMATERA

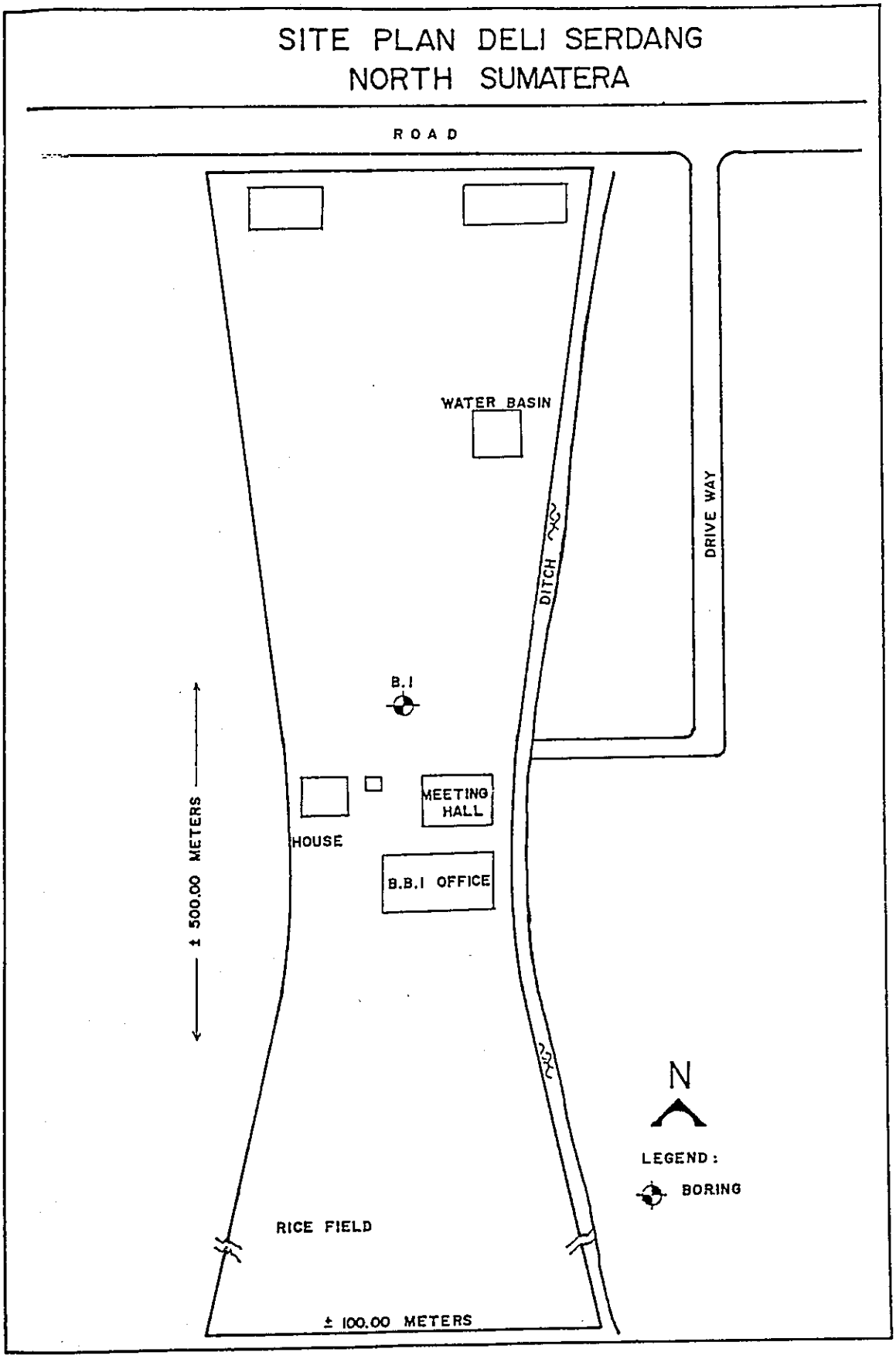


BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), MEDAN - NORTH SUMATERA
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 2.55 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		MH	Medium stiff, dark brown clayey silt.				
		0.80					
		SM	Loose, greyish brown silty very fine sand.		1.50 / 1.95	5	
		3.00			3.00 / 3.45	4	
		CH	Soft, yellowish brown silty clay.				
			Ditto, with some very fine sand very soft.		4.50 / 4.95	2	
5			Colouring light grey, some very fine sand grades out, soft.		6.00 / 6.45	3	
		6.60					
		SW	Medium dense, yellowish brown gravelly sand.		7.50 / 7.96	11	
		8.10					
		MH	Medium stiff, light grey clayey silt.		9.00 / 9.45	5	
10		10.50			10.50 / 10.95	22	
		ML	Very stiff, dark grey fine sandy silt with some gravel.		11.50 / 11.95	23	
			Colouring brownish light grey.		12.50 / 12.95	23	
		13.00					
		SM	Medium dense, dark grey silty sand.		13.50 / 13.95	23	
		14.95	Colouring bluish grey.		14.50 / 14.95	26	
15			Boring terminated at a depth of 14.95 M, on October 28, 1986.				
20							
25							

D E L I S E R D A N G

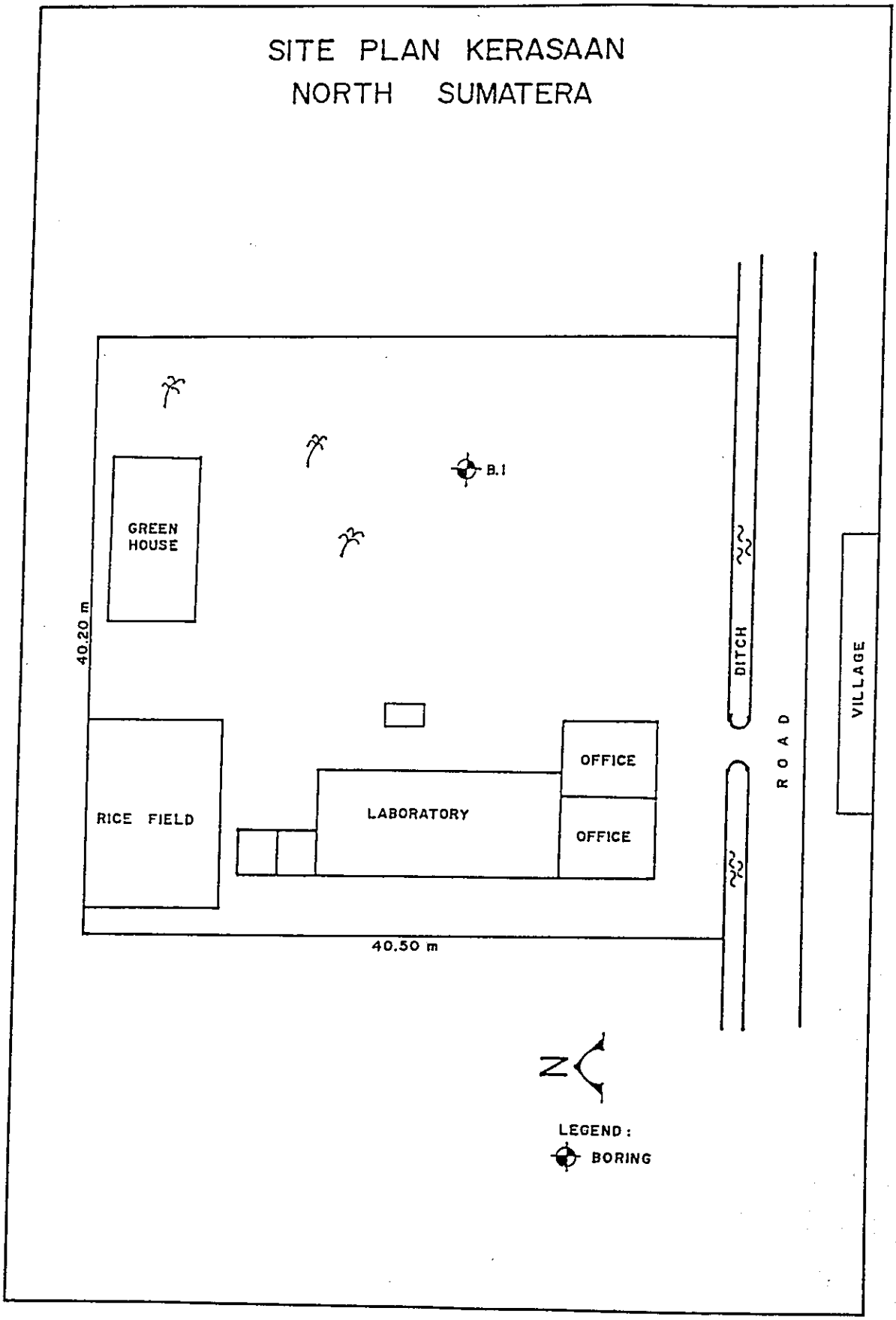

SITE PLAN DELI SERDANG
NORTH SUMATERA
ROAD
WATER BASIN
DRIVE WAY
DITCH
B.I
MEETING HALL
HOUSE
B.B.I OFFICE
± 500.00 METERS
N
LEGEND :
BORING
RICE FIELD
± 100.00 METERS

BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), DELI SERDANG - NORTH SUMATERA
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.60 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
		0.00					
0		MH	Stiff, brownish grey clayey silt.				
		1.50			1.50 / 1.95	4	
		SM	Loose, yellowish light grey silty fine sand.				
		3.00			3.00 / 3.45	4	
		CH	Soft, yellowish brown and light grey silty clay.				
		4.80			4.50 / 4.95	4	
5		MH	Soft, yellow and light grey clayey silt.				
			Ditto, very soft.		6.00 / 6.45	2	
					7.50 / 7.95	2	
			Ditto.		9.00 / 9.45	2	
10		10.00					
		SM	Medium dense, grey silty sand.		10.50 / 10.95	22	
			Ditto, dense to very dense.		11.50 / 11.80	42 / 30	
					12.50 / 12.75	55 / 30	
			Ditto.		13.50 / 13.80	42 / 30	
		14.80			14.50 / 14.80	44 / 30	
15			Boring terminated at a depth of 14.80 M, on October 29, 1986.				
20							
25							

K E R A S A A N


SITE PLAN KERASAAN
NORTH SUMATERA
B.1
GREEN HOUSE
40.20 m
RICE FIELD
LABORATORY
OFFICE
OFFICE
40.50 m
DITCH
ROAD
VILLAGE
N
LEGEND :
BORING

BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), KERASAAN - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 3.20 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST DEPTH	N	CURVE (10 30 50)
		0.00					
0		MH	Medium stiff, dark brown clayey silt with some sand.		1.50 / 1.95	5	
		2.10					
		SM/ML	Loose, brown silty sand / sandy silt.		3.00 / 3.45	6	
			Ditto, colouring yellowish brown.		4.50 / 4.95	7	
5		6.50			6.00 / 6.45	5	
		MH	Medium stiff, yellowish white clayey silt with some fine sand.		7.50 / 7.95	8	
			Ditto, stiff.		9.00 / 9.45	10	
10		10.50		CORING 10.50 / 14.80	10.50 / 10.52	50 / 2	
			Very hard, brownish grey silty sandstone.		11.50 / 11.75	43 / 25	
					12.50 / 12.80	52 / 30	
			Ditto.		13.50 / 13.80	43 / 30	
		14.80			14.50 / 14.80	42 / 30	
15			Boring terminated at a depth of 14.80 M on October 31, 1986.				
20							
25							

REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : SOUTH SULAWESI

DEPARTEMEN PERTANIAN
DIREKTORAT JENDERAL PERLINDUNGAN TANAMAN PANGAN

Mengetahui / menyetujui
Pemimpin Proyek,

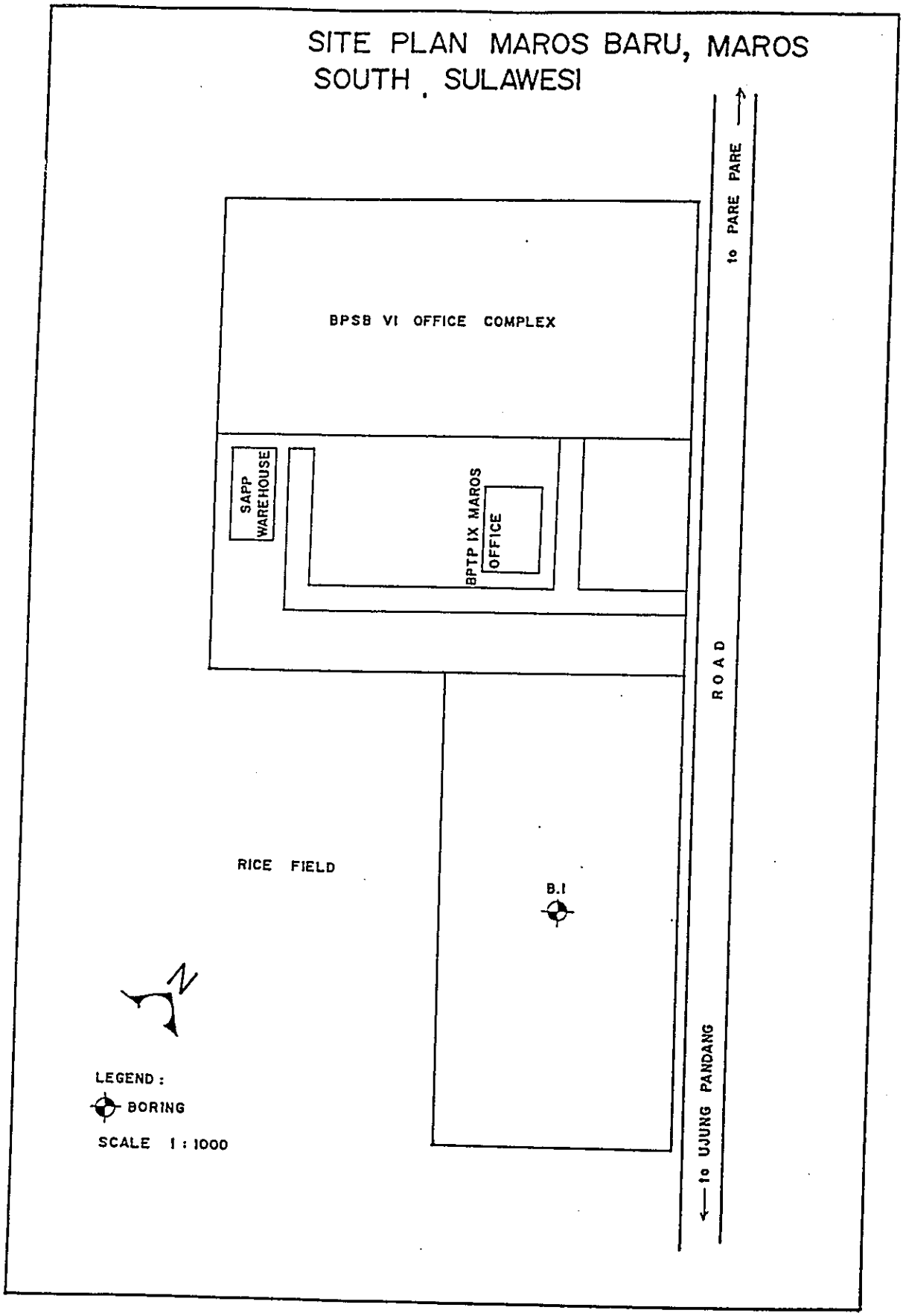
(Ir. Warsono)
NIP 080019487

Mengetahui / menyetujui
Isi lengkap laporan ini

(Ir. Kasmo)
NIP 080006156
Penanggung jawab kegiatan
ATA 389

SOILTEST & FOUNDATIONS

MAROS BARU - MAROS

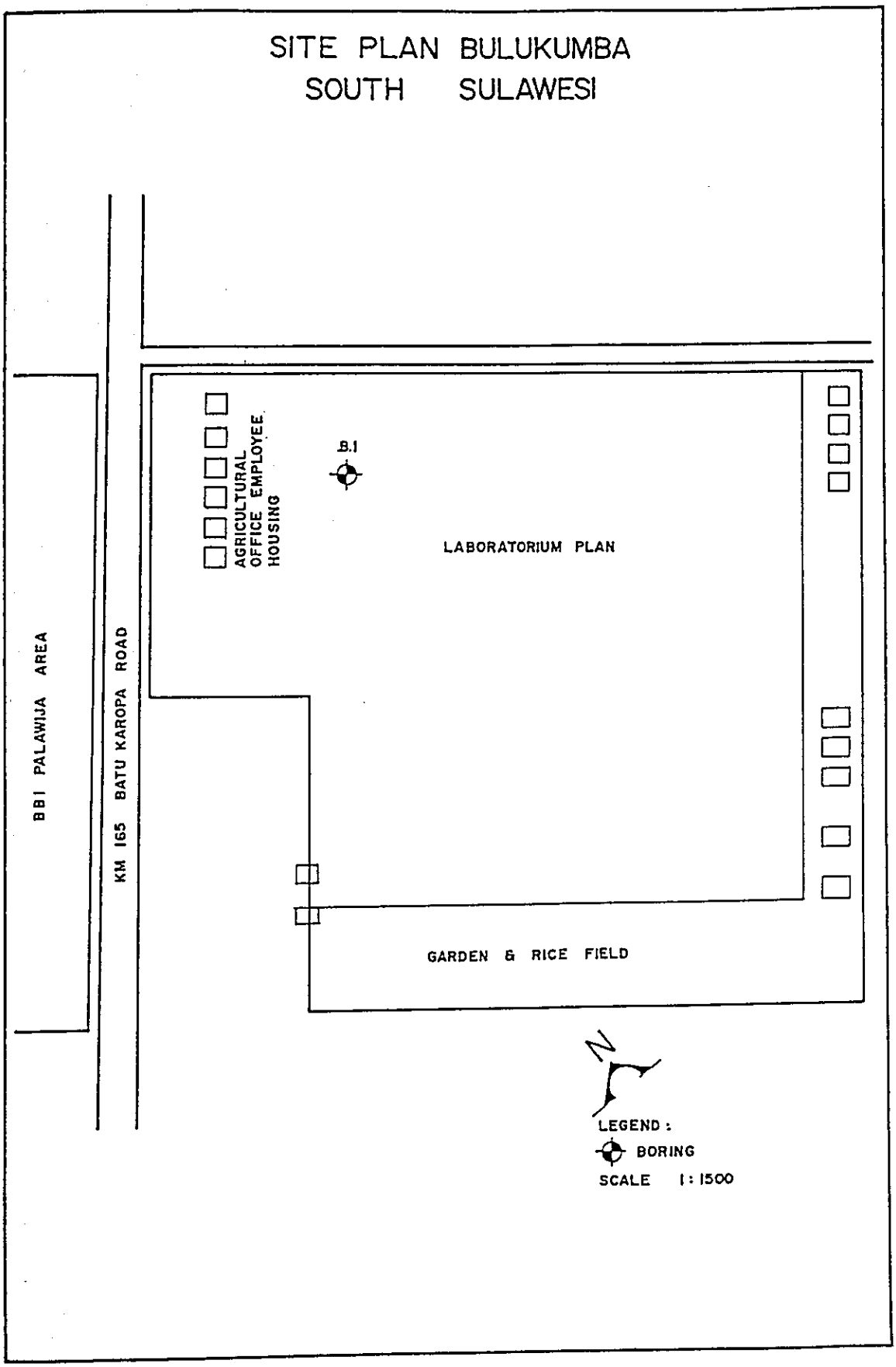

SITE PLAN MAROS BARU, MAROS
SOUTH . SULAWESI
to PARE PARE
BPSB VI OFFICE COMPLEX
SAPP WAREHOUSE
BPTP IX MAROS OFFICE
ROAD
RICE FIELD
B.I
N
LEGEND :
BORING
SCALE 1 : 1000
to UJUNG PANDANG

BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), MAROS BARU, MAROS.- SOUTH SULAWESI
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.90 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Very soft, dark grey silty clay.				
			Colouring dark grey with some decayed wood.		3.00 / 3.45	1	
5			Colouring brown, some decayed wood grades out soft.		4.50 / 4.95	3	
			Colouring reddish brown with some gravel, stiff.		6.00 / 6.45	13	
			Colouring yellowish brown, some gravel grades out medium stiff.		7.50 / 7.95	7	
			Ditto, soft.		9.00 / 9.45	3	
10			Colouring greyish brown with occasionally limestone, stiff.		10.50 / 10.95	16	
		11.40	Very dense, white and yellowish brown limestone.		11.50 / 11.55	25 / 5	
					12.50 / 12.55	30 / 5	
			Ditto.		13.50 / 13.55	28 / 5	
		14.55			14.50 / 14.55	26 / 5	
15			Boring terminated at a depth of 14.55 M, on October 5, 1986.				
20							
25							

B U L U K U M B A


SITE PLAN BULUKUMBA
SOUTH SULAWESI
BBI PALAWIJA AREA
KM 165 BATU KAROPA ROAD
AGRICULTURAL OFFICE EMPLOYEE HOUSING
B.1
LABORATORIUM PLAN
GARDEN & RICE FIELD
N
LEGEND :
BORING
SCALE 1 : 1500

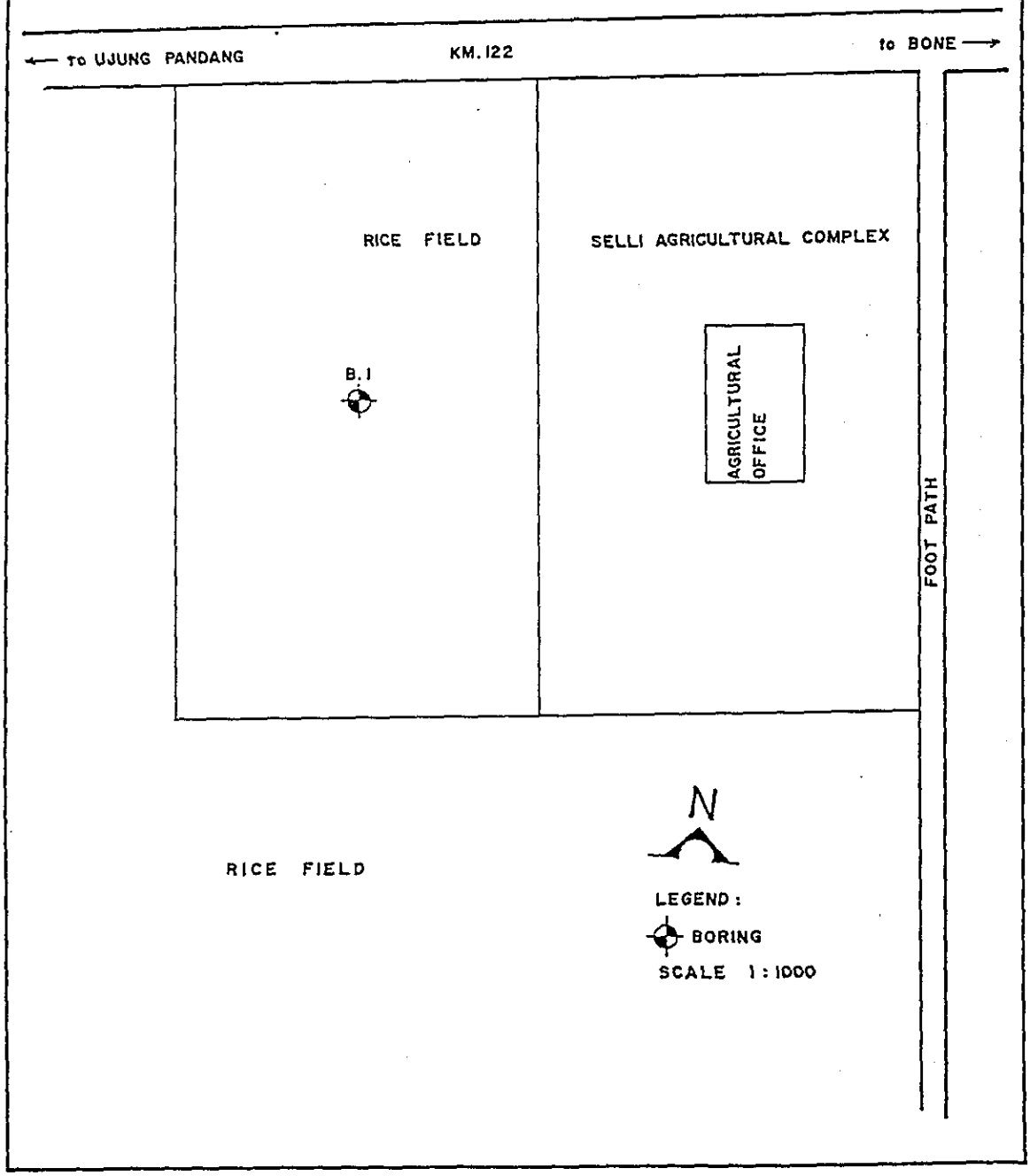
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), BULUKUMBA - SOUTH SULAWESI
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 1.20 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
0		0.00					
		0.20	Brownish grey silt and gravel.	CORING 0.20 / 1.35	1.50 / 1.65	20 / 15	
		1.35	Very dense, dark grey and brown volcanic rock.				
		MH	Very stiff, greyish brown clayey silt with some gravel.				
		2.45	Very dense, dark grey volcanic rock.	CORING 2.45 / 5.00			
5		5.00	Boring terminated at a depth of 5.00 M, on October 12, 1986.				
10							
15							
20							
25							

LAPPARIAYA - BONE

SITE PLAN LAPPARIAYA, BONE
SOUTH SULAWESI



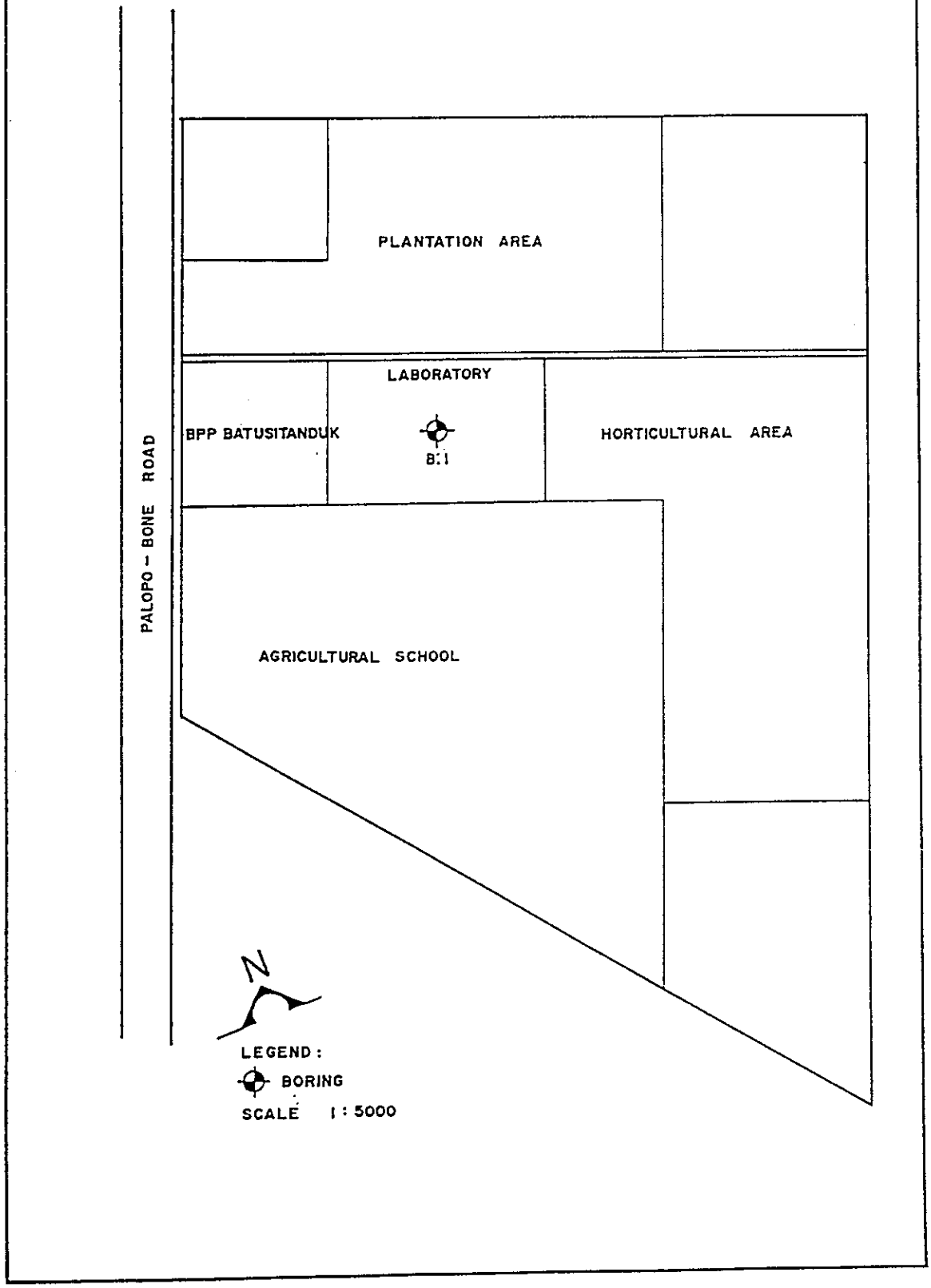
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), LAPPARIAYA, BONE - SOUTH SULAWESI
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 3.90 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Medium stiff, dark grey silty clay.				
		1.20					
		ML	Very stiff, yellowish brown fine sandy silt.		1.50 / 1.95	25	
					2.50 / 2.95	30	
		3.50			3.50 / 3.80	35 / 30	
		SM	Dense, greyish brown silty sand.				
			Ditto, colouring dark brown.		4.50 / 4.65	20 / 15	
5		5.65	Ditto, colouring yellowish brown.		5.50 / 5.65	20 / 15	
			Boring terminated at a depth of 5.65 M, on October 14, 1986.				
10							
15							
20							
25							

WALEURANG - LUWU

SITE PLAN WALEURANG, LUWU SOUTH SULAWESI



BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), WALEURANG, LUWU - SOUTH SULAWESI
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.60 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST DEPTH	N	CURVE (10 30 50)
0		0.00					
		CH	Very stiff, greyish brown silty clay.				
		1.20			1.50 / 1.95	25	
		GM	Medium dense, brown silty gravel..	CORING 2.10 / 3.50			
		2.10	Very dense, brown sandstone.				
		3.50					
		SW	Dense, greyish brown gravelly sand.		4.50 / 4.65	20 / 15	
5		5.00					
			Boring terminated at a depth of 5.00 M, on October 16, 1986.				
10							
15							
20							
25							

REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : SOUTH KALIMANTAN

Mengetahui / menyetujui
Pemimpin Proyek,

(Ir. Warsono)
NIP. 080019487

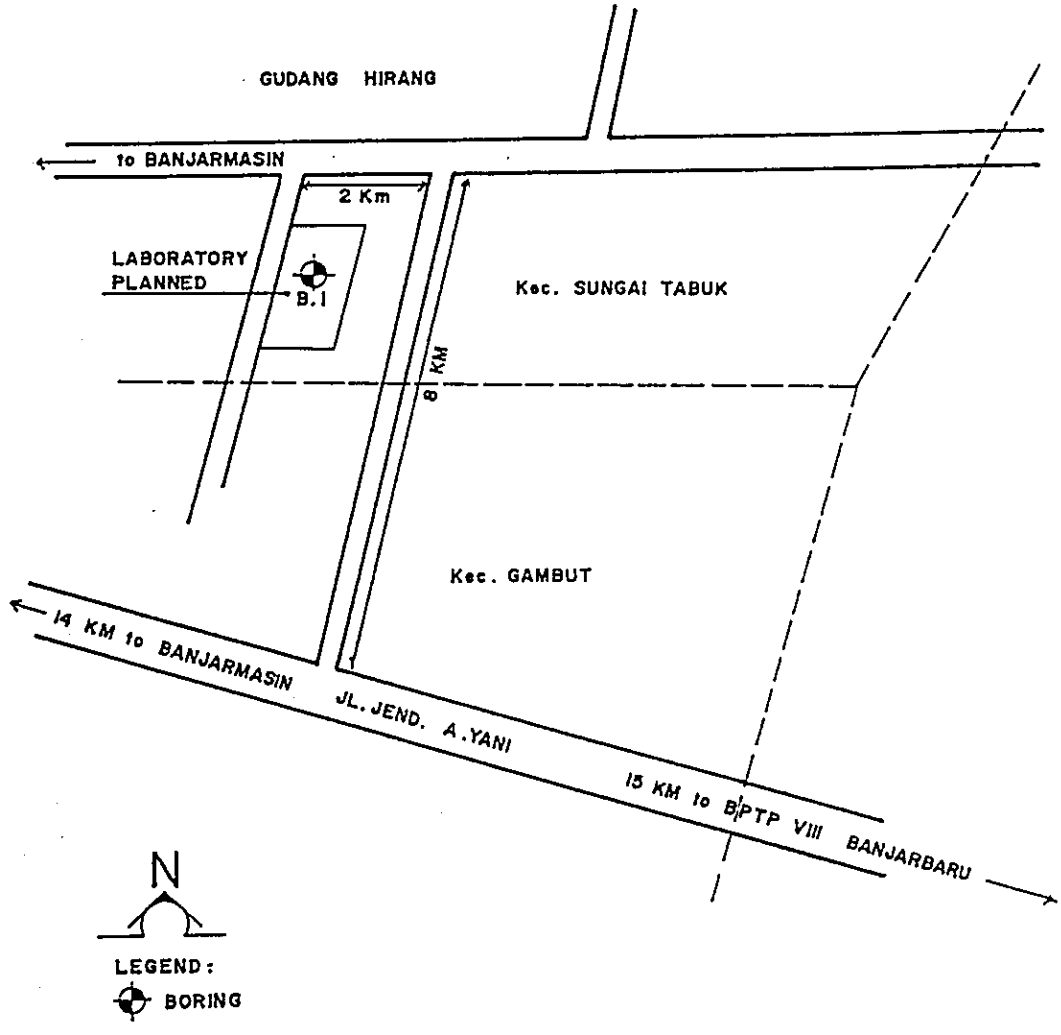
Mengetahui / menyetujui
Isi lengkap laporan ini

(Ir. Kasmo)
NIP. 080006156
Penanggung jawab kegiatan
ATA 389

SOILTEST & FOUNDATIONS

SUNGAI TABUK - BANJAR

SITE PLAN SUNGAI TABUK, BANJAR SOUTH KALIMANTAN



BORING PROFILE

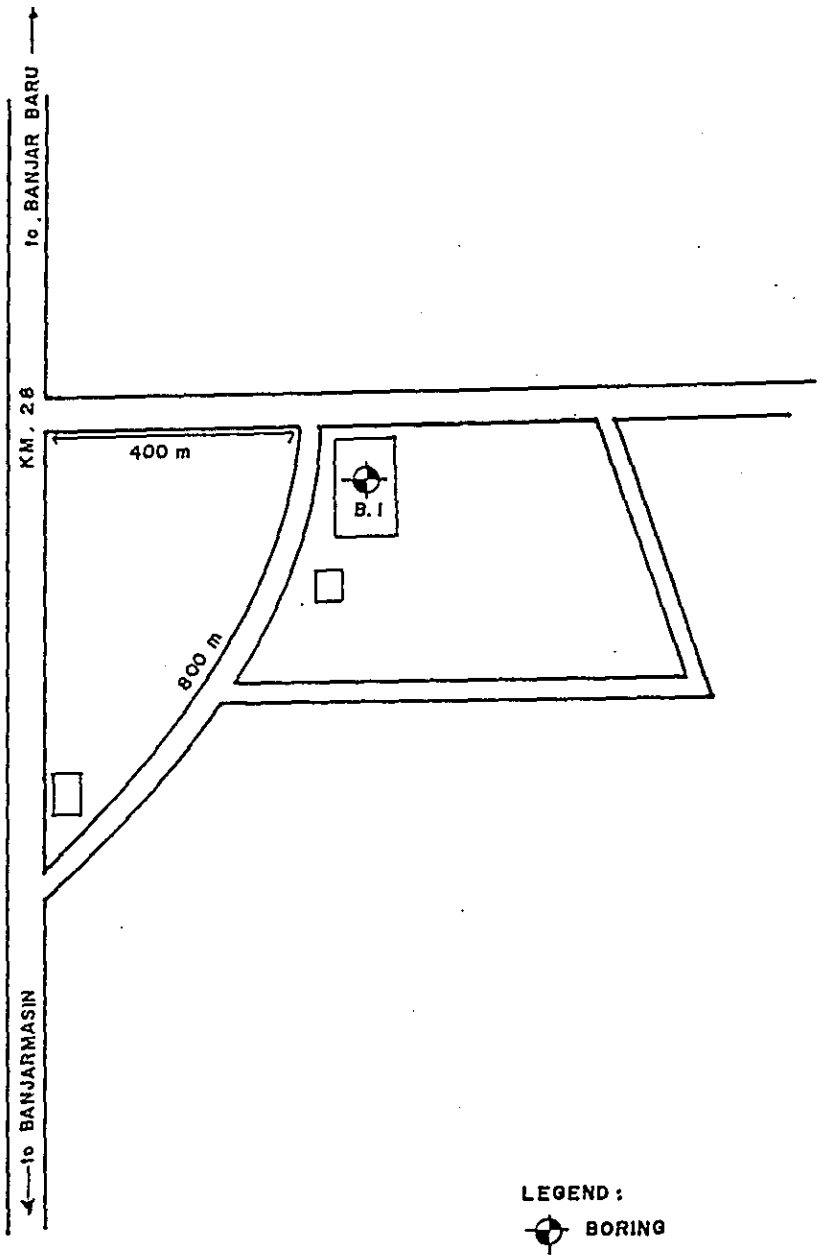
PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), SUNGAI TABUK, BANJAR - SOUTH KALIMANTAN
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.75 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST DEPTH	N	CURVE (10 30 50)
0		0.00					
		CH	Very soft, grey and brown silty clay.		1.50 / 1.95	1	
			Ditto, colouring dark grey with some very fine sand.		3.00 / 3.45	1	
					4.50 / 4.95	1	
5			Ditto.		6.00 / 6.45	1	
			Ditto, colouring whitish light grey, yellow and red.		7.50 / 7.95	2	
			Colouring red and light grey, some very fine sand grades out with trace of cementation, medium stiff.		9.00 / 9.45	7	
10			Ditto, stiff.		10.50 / 10.95	9	
			Ditto, colouring dar- grey trace of cementation grades out. medium stiff.		12.00 / 12.45	5	
					13.50 / 13.95	6	
		15.00					
15		SW	Medium dense, greyish white and red gravelly sand.		15.00 / 15.45	20	
			Colouring yellowish brown.		16.00 / 16.45	20	
			Colouring greyish white.		17.00 / 17.45	18	
			Ditto, colouring dark grey and white.		18.00 / 18.45	16	
		19.00			19.00 / 19.30	21 / 30	
		CH/CL	Very stiff, brownish dark grey very fine sandy silty clay.		20.00 / 20.30	22 / 30	
20		20.30					
			Boring terminated at a depth of 20.30 M, on October 25, 1986.				
25							

EKS. KOMPLEKS MEKATANI

BANJAR BARU

SITE PLAN EKS. KOMPLEK MEKATANI
BANJAR BARU, SOUTH KALIMANTAN



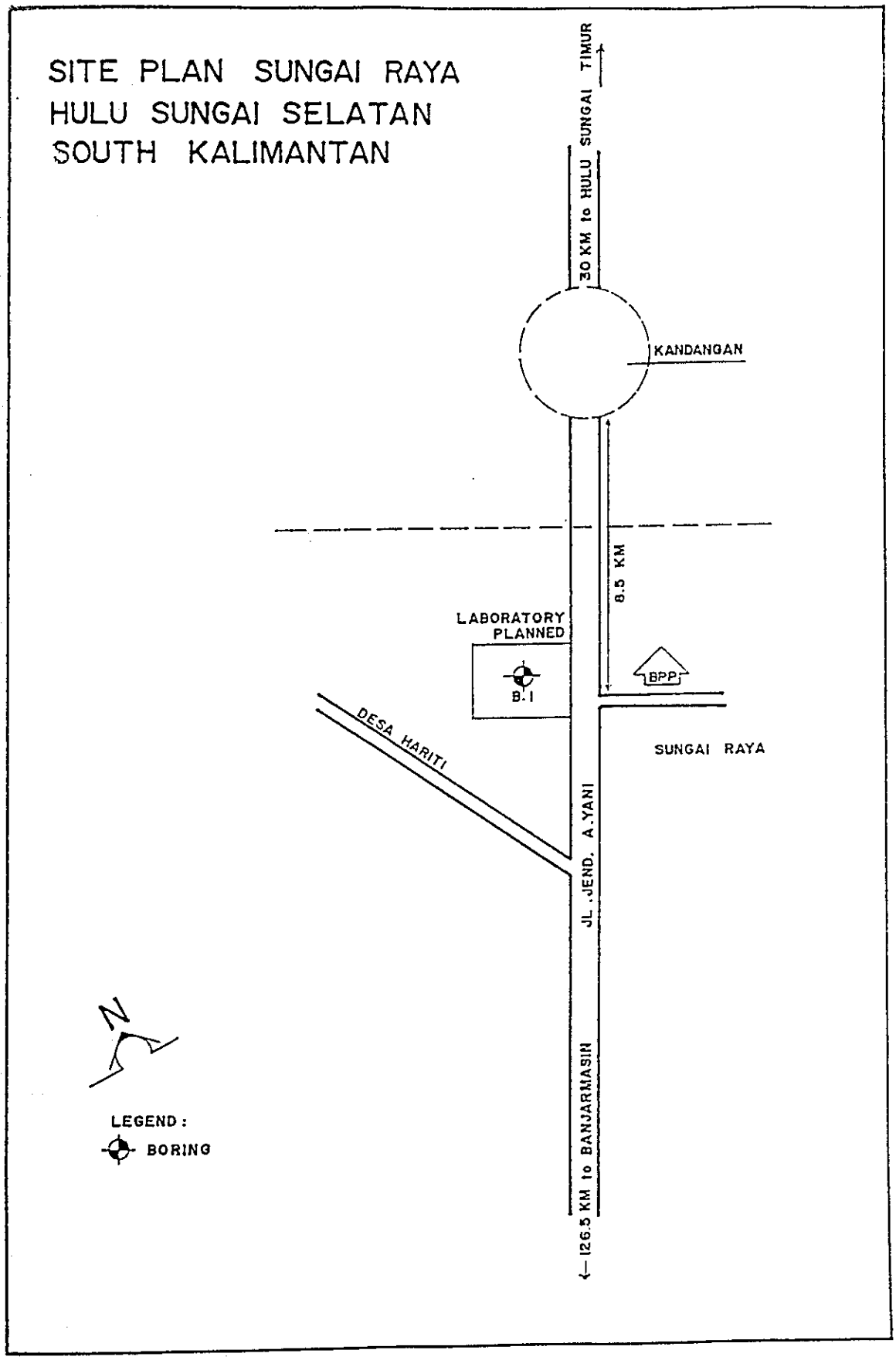
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), EKS. KOMP. MEKATANI, BANJAR BARU - SOUTH KALIMANTAN
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 6.25 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		SW	Loose, reddish brown gravelly sand.		1.50 / 1.95	10	
		2.80			3.00 / 3.45	8	
		MH	Medium stiff, white, yellow and reddish brown clayey silt with some gravel.		4.50 / 4.95	5	
5		6.00			6.00 / 6.45	4	
		CH	Soft, yellowish light grey and reddish brown silty clay.		7.50 / 7.95	4	
			Ditto, colouring dark grey with some gravel.		9.00 / 9.45	8	
			Some gravel grades out, medium stiff.		10.50 / 10.95	15	
10			Ditto, colouring grey with a trace of black decayed wood stiff.		11.50 / 11.95	16	
					12.50 / 12.80	24 / 30	
			Ditto, very stiff.		13.50 / 13.80	25 / 30	
					14.50 / 14.80	25 / 30	
15		15.80	Ditto, trace of decayed wood grades out.		15.50 / 15.80	26 / 30	
			Boring terminated at a depth of 15.80 M, on October 17, 1986.				
20							
25							

SUNGAI RAYA

HULU SUNGAI SELATAN


SITE PLAN SUNGAI RAYA
HULU SUNGAI SELATAN
SOUTH KALIMANTAN
30 KM to HULU SUNGAI TIMUR
KANDANGAN
8.5 KM
LABORATORY
PLANNED
B.1
BPP
SUNGAI RAYA
DESA HARITI
JL. JEND. A.YANI
126.5 KM to BANJARMASIN
N
LEGEND :
BORING

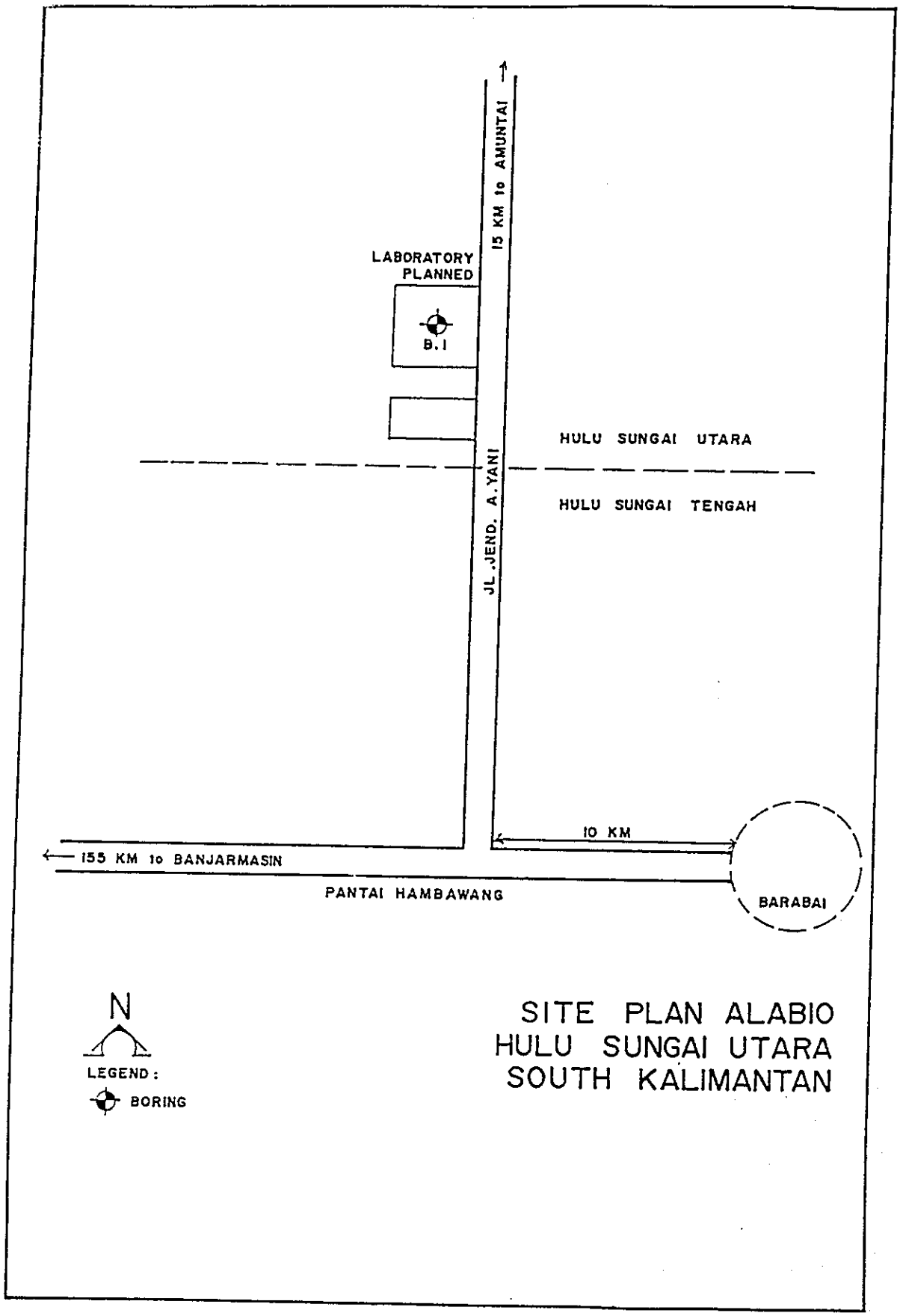
BORING PROFILE

PROJECT : PEST AND DISEASE FOERCASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), SUNGAI RAYA, HULU SUNGAI SELATAN - SOUTH KALIMANTAN
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL :

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
		0.00					
0		CH	Stiff, light grey and yellowish brown silty clay.		1.50 / 1.95	12	
			Ditto, with some sand.		3.00 / 3.45	9	
			Ditto, colouring light grey, yellowish brown and red.		4.50 / 4.95	8	
5			Ditto, sand grades out stiff.		6.00 / 6.45	12	
					7.50 / 7.95	16	
			Ditto, colouring light grey and red.		8.50 / 8.80	23 / 30	
					9.50 / 9.80	23 / 30	
10			Ditto, with a trace of cementation.		10.50 / 10.80	24 / 30	
					11.50 / 11.80	24 / 30	
		12.80	Ditto.		12.50 / 12.80	25 / 30	
			Boring terminated at a depth of 12.80 M, on October 28, 1986.				
15							
20							
25							

ALABIO

HULU SUNGAI UTARA



SITE PLAN ALABIO
HULU SUNGAI UTARA
SOUTH KALIMANTAN

BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), ALABIO, HULU SUNGAI UTARA - SOUTH KALIMANTAN
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL :

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 60)
0		0.00					
		CH	Very soft, dark grey and light grey silty clay.		1.50 / 1.95	2	
			Ditto, colouring dark grey.		3.00 / 3.45	1	
					4.50 / 4.95	1	
5					6.00 / 6.45	1	
			Ditto, with some decayed wood, medium stiff.		7.50 / 7.95	6	
			Ditto, colouring grey soft.		9.00 / 9.45	3	
10			Ditto, colouring bluish light grey and yellowish brown, some decayed wood grades out stiff.		10.50 / 10.95	13	
			Ditto, colouring yellowish brown and light grey.		12.00 / 12.45	16	
					13.00 / 13.45	15	
					14.00 / 14.38	15 / 23	
		15.00					
15		SM	Medium dense, bluish grey silty sand.		15.00 / 15.35	23 / 20	
		16.00			16.00 / 16.40	16 / 25	
		CL	Stiff to very stiff, grey fine sandy silty clay with a trace of decayed wood.		17.00 / 17.45	18	
		17.45					
			Boring terminated at a depth of 17.45 M, on November 1 , 1986.				
20							
25							

REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : DAERAH ISTIMEWA ACEH

DEPARTEMEN PERTANIAN
DIREKTORAT JENDERAL PERLINDUNGAN TANAMAN PANGAN

Mengetahui / menyetujui
Pemimpin Proyek,

(Ir. Warsono)
NIP 080019487

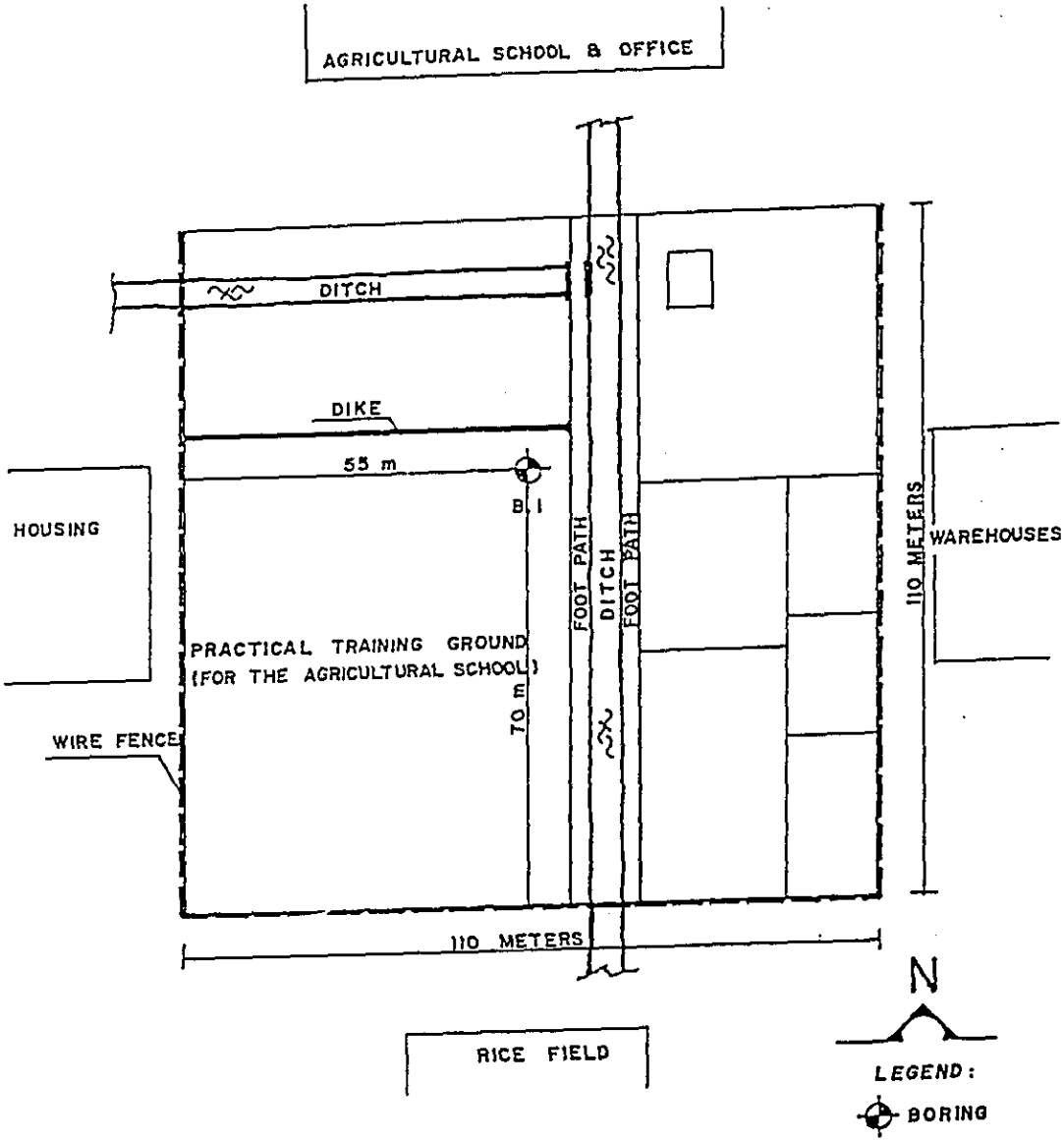
Mengetahui / menyetujui
Isi lengkap laporan ini

(Ir. Kasmo)
NIP 080006156

SOILTEST & FOUNDATIONS

KUTA ALAM - BANDA ACEH

SITE PLAN KUTA ALAM
BANDA ACEH, ACEH



BORING PROFILE

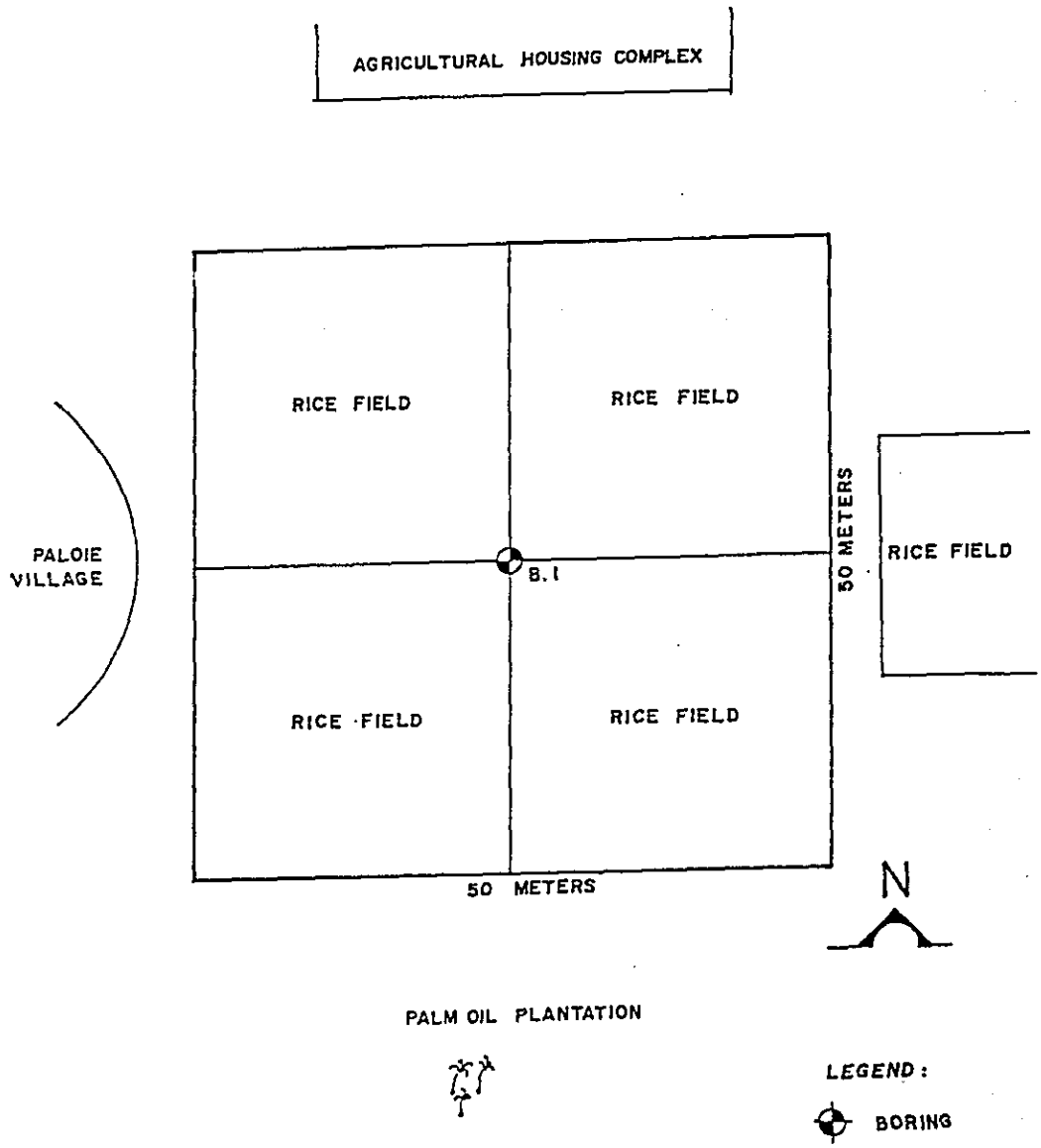
PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), KUTA ALAM, BANDA ACEH - D.I. ACEH
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.16 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
		0.00					
0		CH	Medium stiff, bluish grey silty clay with some very fine sand.		1.50 / 1.95	7	
			Colouring dark grey, soft.		3.00 / 3.45	3	
		3.80					
5		SM	Loose, dark grey silty very fine sand.		4.50 / 4.95	7	
			Ditto.		6.00 / 6.45	9	
		6.80					
		MH	Medium stiff, dark grey clayey silt.		7.50 / 7.95	5	
			Ditto, soft.		9.00 / 9.45	2	
10					10.50 / 10.95	4	
			Ditto.		12.00 / 12.45	4	
			Ditto, with trace of shell debris.		13.50 / 13.95	4	
		14.70					
15		SM	Medium dense, dark grey silty fine sand with trace of shell debris.		15.00 / 15.45	16	
		17.00			16.50 / 16.95	11	
		CH	Medium stiff, dark grey silty clay with trace of shell debris.		18.00 / 18.45	7	
			Ditto, trace of shell debris grades out.		19.50 / 19.95	6	
20		20.00					
		MH	Medium stiff, dark grey clayey silt with some very fine sand.		21.00 / 21.45	7	
			Ditto.		22.50 / 22.95	7	
			Ditto.		24.00 / 24.45	14	
25							

SCALE (M)	DIAGRAM	SYMBOL & DEPTH	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 60)
		25.00					
25		SM	Dense, dark grey silty sand.		25.50 / 25.95	41	
			Ditto.		26.50 / 26.90	36 / 25	
					27.50 / 27.95	22	
		27.90					
		MH	Medium stiff, dark grey clayey silt with some decayed wood.		28.50 / 28.95	6	
					29.50 / 29.95	7	
30		29.95	Boring terminated at a depth of 29.95 M, on October 4, 1986.				
35							
40							
45							
50							
55							

KUALA - ACEH BARAT

SITE PLAN KUALA
ACEH BARAT, ACEH



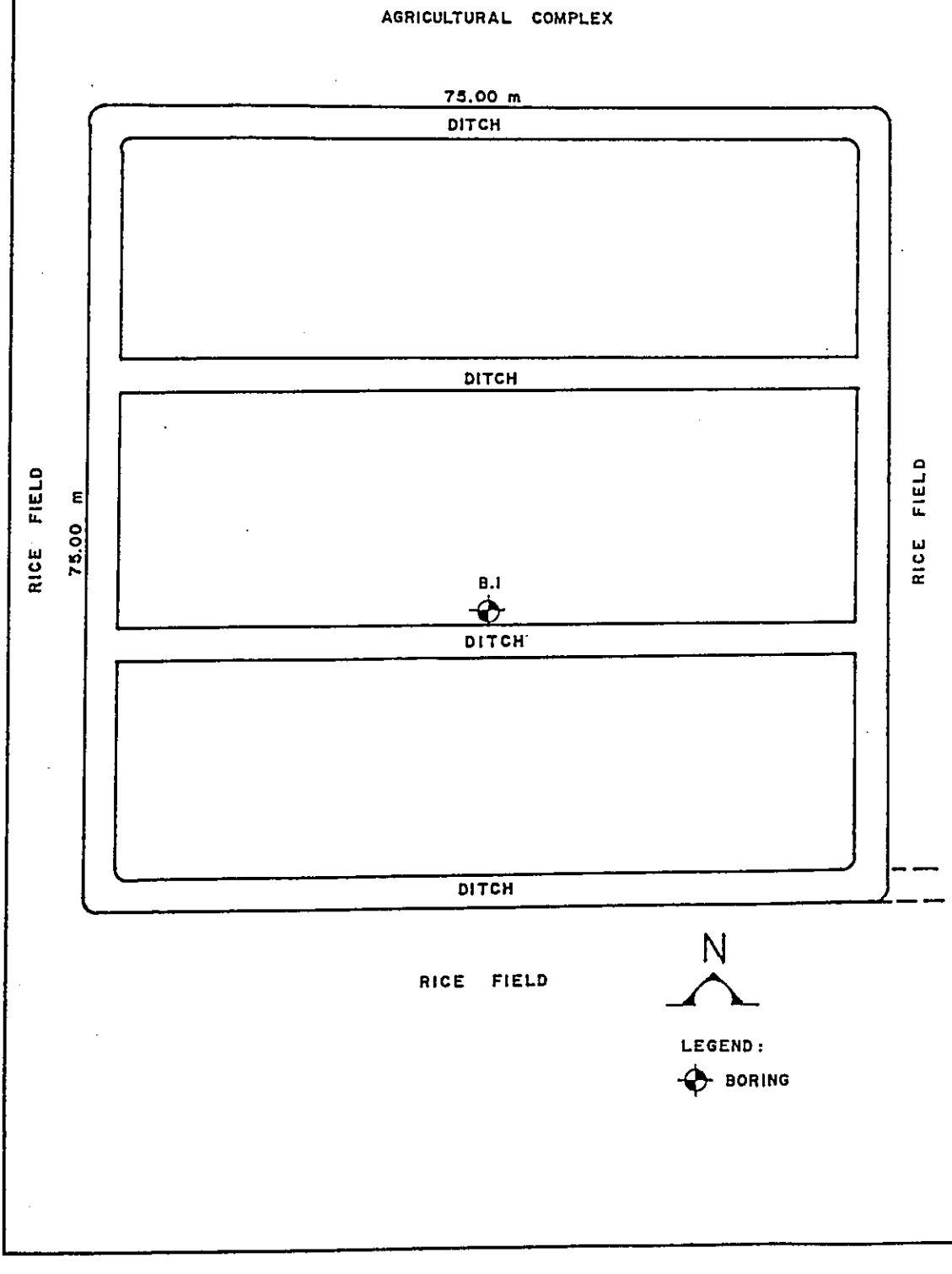
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING CONTROL PROJECT
LOCATION : (ATA-389), KUALA, ACEH BARAT - D.I. ACEH
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 0.07 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST DEPTH	N	CURVE
		0.00					10 30 60
0		CH	Soft, brownish grey silty clay with some decayed wood.		1.50 / 1.95	2	
			Ditto, colouring grey.		3.00 / 3.45	2	
			Ditto.		4.50 / 4.95	2	
5		6.00 MH/OH	Soft, dark grey organic clayey silt.		6.00 / 6.45	3	
		7.50 CH	Soft, dark grey silty clay.		7.50 / 7.95	2	
		8.80 CH/CL	Medium stiff, dark grey very fine sandy silty clay.		9.00 / 9.45	5	
10			Ditto, stiff.		10.50 / 10.95	9	
			Ditto.		12.00 / 12.45	11	
		12.80 SM	Dense, dark grey silty fine sand.		13.50 / 13.90	36 / 25	
					14.50 / 14.95	38	
15			Ditto, medium dense.		15.50 / 15.95	24	
			Ditto, dense.		16.50 / 16.95	32	
		17.00 CH	Medium stiff, dark grey silty clay with some decayed wood.		17.50 / 17.95	7	
			Boring terminated at a depth of 17.95 M, on October 8, 1986.				
20							
25							

KEUMALA - PIDIE

SITE PLAN KEUMALA
PIDIE, ACEH



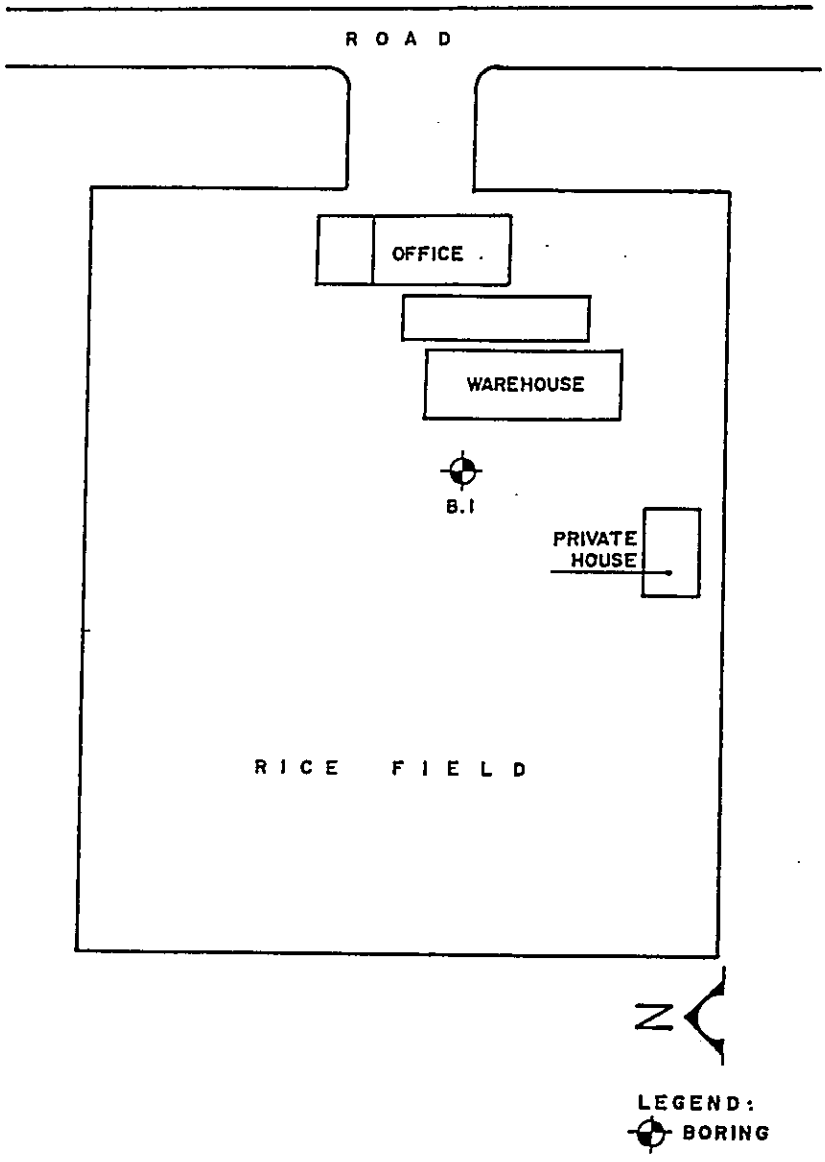
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), KEUMALA, PIDIE - D.I. ACEH
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : 0.00

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
0		0.00					10 30 50
		0.50	Soft, dark grey silty clay.				
		SM	Very dense, dark grey silty sand.		1.50 / 1.95	26	
		2.40					
			Very hard, dark grey volcanic rock.	CORING 2.40 / 4.00	3.00 / 3.30	56 / 30	
		4.00					
5			Boring terminated at a depth of 4.00 M on October 11, 1986.				
10							
15							
20							
25							

PEUREULAK - ACEH TIMUR

SITE PLAN PEUREULAK
ACEH TIMUR, ACEH



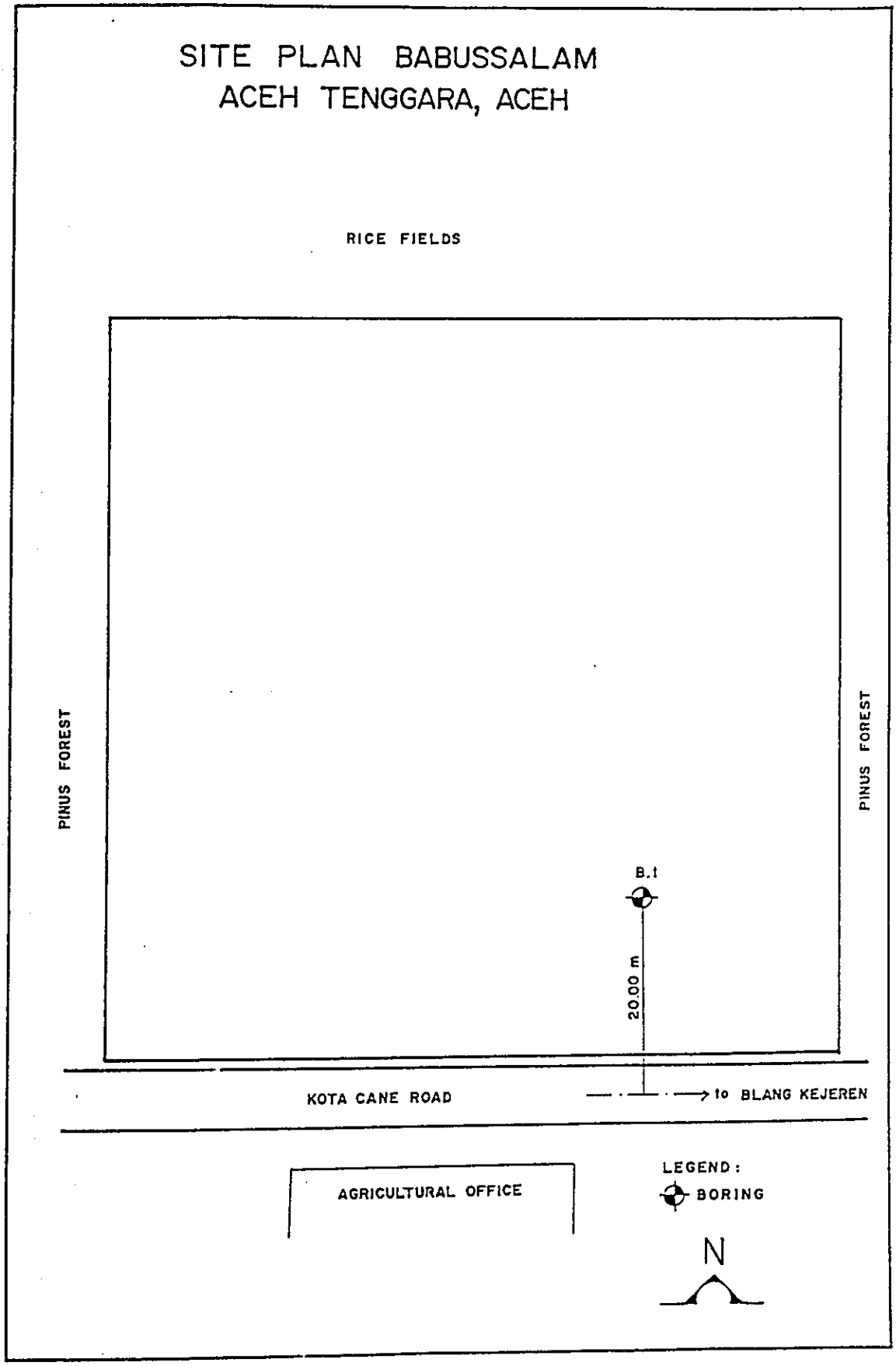
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), PEUREULAK, ACEH TIMUR - D.I. ACEH
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 1.35 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
0		0.00					
		CH	Medium stiff, yellowish grey silty clay.				
					1.50 / 1.95	5	
			Colouring dark grey, very soft.		3.00 / 3.45	2	
					4.50 / 4.95	2	
5			Ditto.		6.00 / 6.45	2	
		7.10					
		SM	Medium dense, dark grey silty fine sand.		7.50 / 7.95	12	
					9.00 / 9.45	11	
10			Ditto, loose.		10.50 / 10.95	9	
			Ditto, medium dense.		12.00 / 12.45	21	
			Ditto, with trace of decayed wood, dense.		13.00 / 13.45	37	
			Ditto, medium dense, trace of decayed wood grades out.		14.00 / 14.45	16	
15					15.00 / 15.45	15	
			Ditto.		16.00 / 16.45	22	
		16.45					
			Boring terminated at a depth of 16.45 M, on October 18, 1986.				
20							
25							

BABUSSALAM - ACEH TENGGARA

SITE PLAN BABUSSALAM
ACEH TENGGARA, ACEH



BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), BABUSSALAM, ACEH TENGGARA - D.I. ACEH
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 2.80 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
0		0.00					10 30 50
		MH	Stiff, brown clayey silt.				
		1.20					
		ML	Hard, brown cemented silt with some gravel.		1.50 / 1.60	50 / 10	
		3.00			2.50 / 2.80	45 / 30	
		MH	Very stiff, dark brown clayey silt.		3.50 / 3.95	29	
5			Colouring brown and yellow with some gravel, hard.		4.50 / 4.62	50 / 12	
			Ditto, some gravel grades out very stiff.		5.50 / 5.95	22	
		6.95	Ditto.		6.50 / 6.95	21	
			Boring terminated at a depth of 6.95 M, on October 22, 1986.				
10							
15							
20							
25							

REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : LAMPUNG

Mengetahui / menyetujui
Pemimpin Proyek

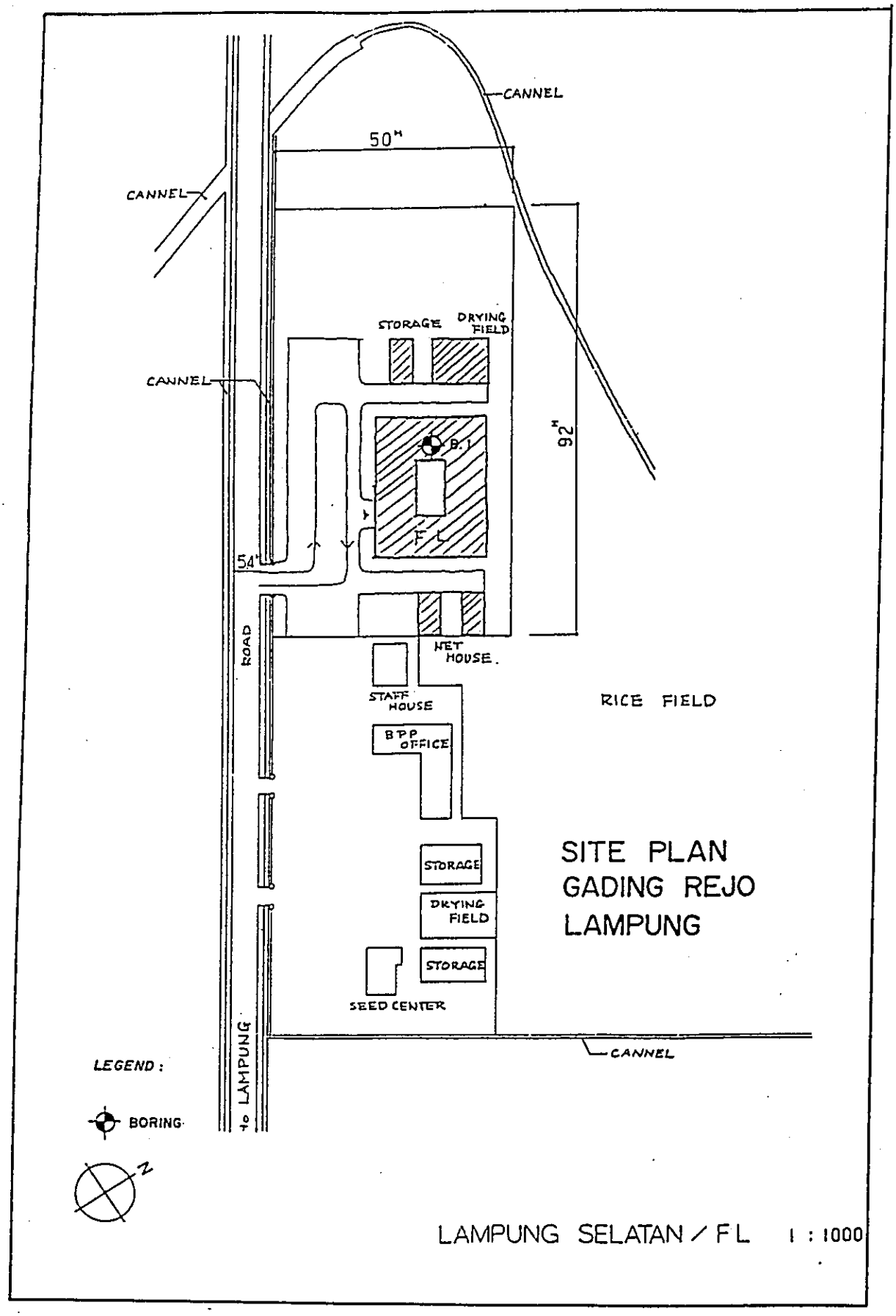
DEPARTEMEN PERTANIAN
DIREKTORAT JENDERAL PERTANIAN TANAMAN PANGAN

(Ir. Warsono)
NIP 080019487

Mengetahui / menyetujui
Isi lengkap laporan ini

(Ir. Kasmo)
NIP 080006156
Penanggung jawab kegiatan
ATA 389

SOILTEST & FOUNDATIONS


CANNEL
50M
CANNEL
STORAGE
DRYING FIELD
CANNEL
92M
B. 1
54M
ROAD
NET HOUSE
STAFF HOUSE
RICE FIELD
BPP OFFICE
STORAGE
DRYING FIELD
STORAGE
SEED CENTER
CANNEL
LEGEND :
BORING
to LAMPUNG
N
SITE PLAN
GADING REJO
LAMPUNG
LAMPUNG SELATAN / F L
1 : 1000

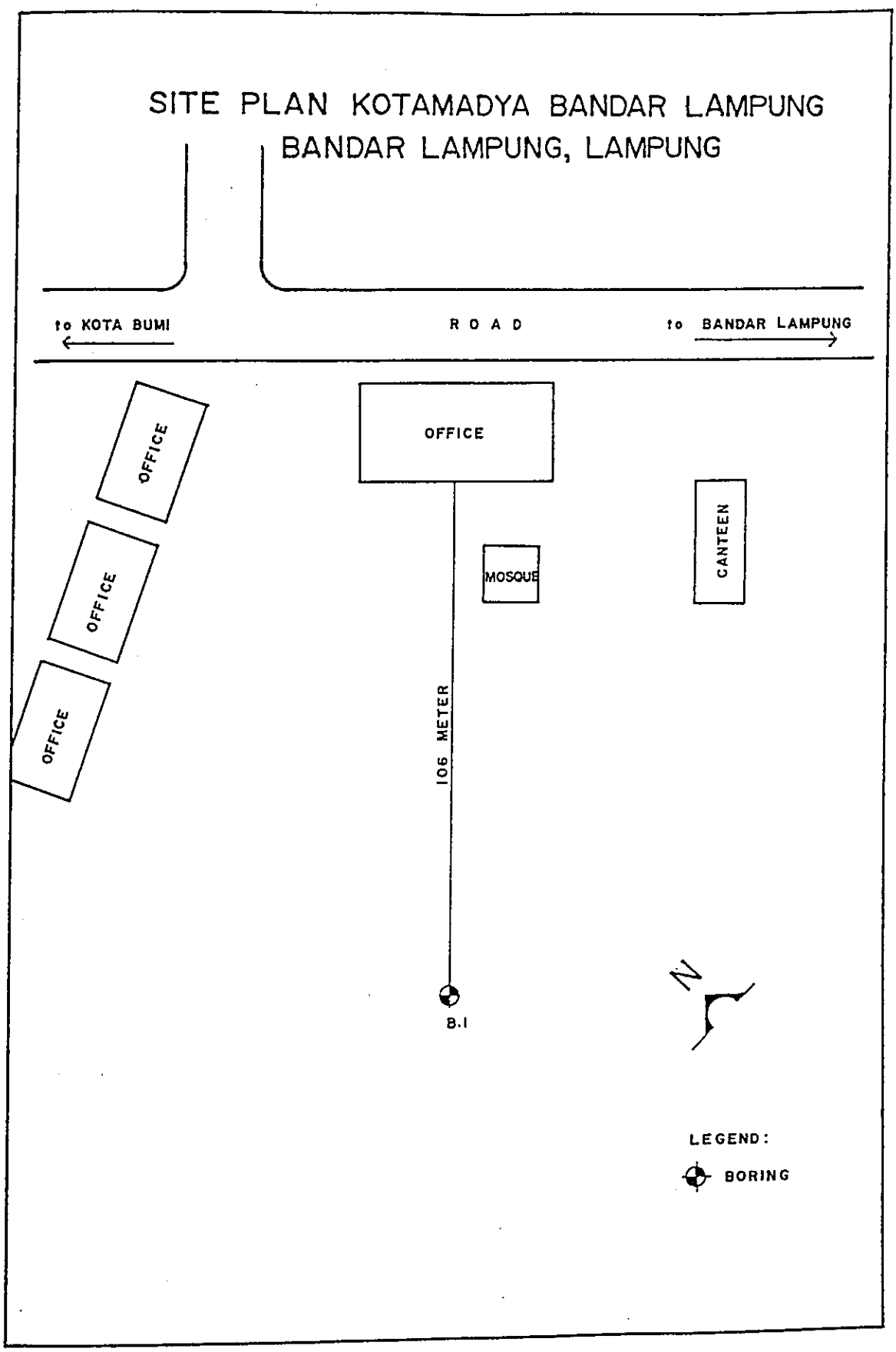
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA 389), GADING REJO - LAMPUNG
BORING NO. : B.1
ELEVATION : - 0.70 M FROM THE EXISTING ROAD.
GROUND WATER LEVEL : 0.00 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 60
0		0.40	Rice field.				
		CH	Stiff, grey and brown silty clay.		1.50 / 1.95	9	
			Ditto.		3.00 / 3.45	13	
			Ditto.		4.50 / 4.95	14	
5		5.40					
		SM	Medium dense, dark grey silty fine sand.		6.00 / 6.45	22	
		6.75					
		CH	Very stiff, dark grey silty clay.		7.00 / 7.45	27	
					8.00 / 8.45	22	
		8.80					
		SM	Dense, dark grey silty sand with some gravel.		9.00 / 9.15	30 / 15	
10					10.00 / 10.12	35 / 12	
		11.05	Ditto.		11.00 / 11.05	40 / 5	
			Boring terminated at a depth of 11.05 M, on March 7, 1987.				
15							
20							
25							

KOTAMADYA BANDAR LAMPUNG

BANDAR LAMPUNG


SITE PLAN KOTAMADYA BANDAR LAMPUNG
BANDAR LAMPUNG, LAMPUNG
to KOTA BUMI
R O A D
to BANDAR LAMPUNG
OFFICE
OFFICE
OFFICE
OFFICE
MOSQUE
CANTEEN
106 METER
B.1
N
LEGEND:
BORING

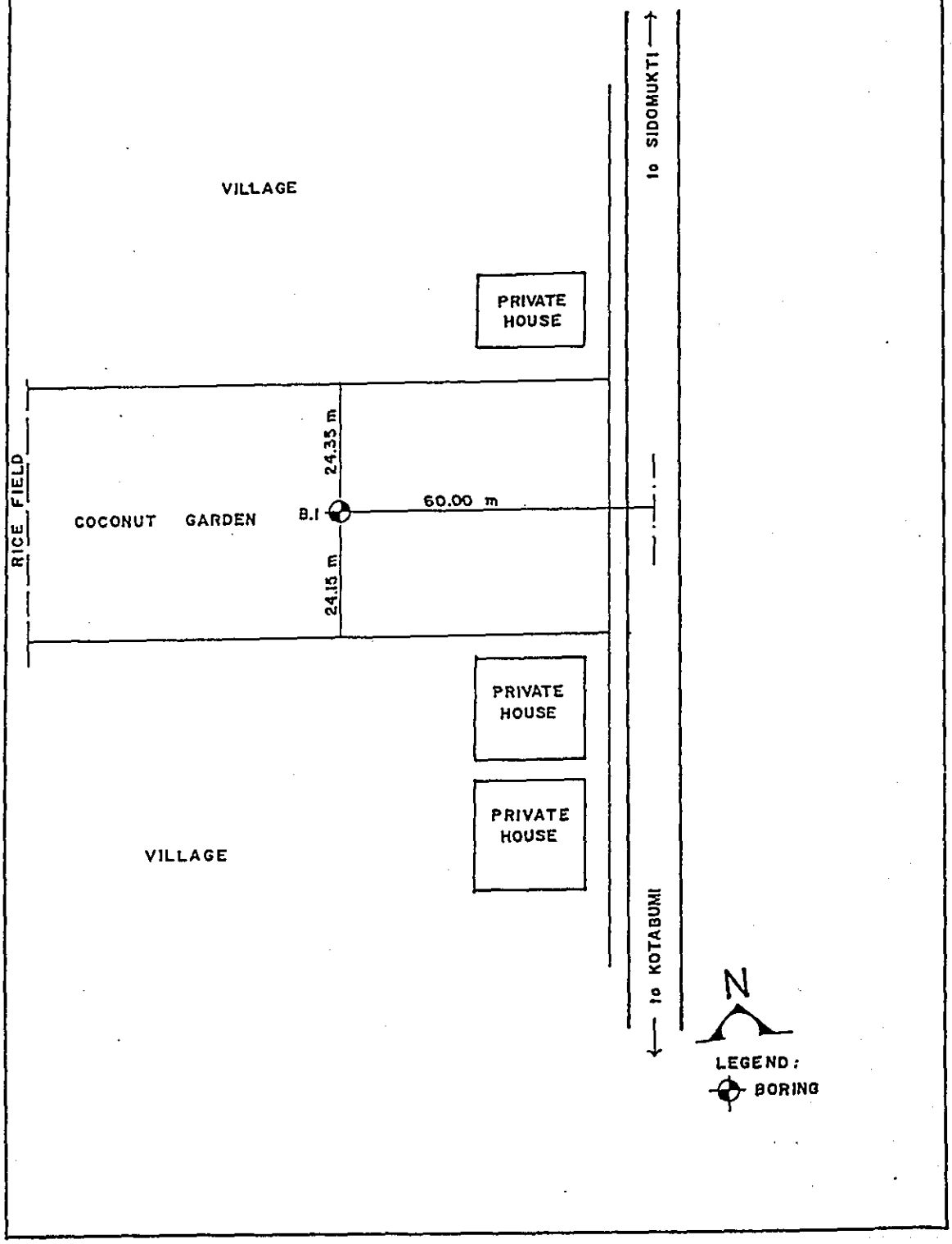
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING CONTROL PROJECT
LOCATION : (ATA - 389), KOTAMADYA BANDAR LAMPUNG - LAMPUNG
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 9.15 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Stiff, reddish brown silty clay.		1.50 / 1.95	11	
					3.00 / 3.45	8	
		3.50					
		MH	Medium stiff, dark brown clayey silt.		4.50 / 4.95	5	
5					6.00 / 6.45	4	
			Ditto, colpuring greyish brown.				
		7.00					
		ML	Medium stiff, greyish brown and light grey silt with trace of cementation.		7.50 / 7.95	6	
			Ditto.		9.00 / 9.45	7	
10			Ditto, stiff.		10.50 / 10.95	9	
					12.00 / 12.45	14	
			Very stiff, brownish grey sandy silt.		13.50 / 13.95	17	
			Ditto, hard.		14.50 / 14.95	34	
15					15.50 / 15.80	36 / 30	
			Ditto, very hard.		16.00 / 16.30	69 / 30	
					17.50 / 17.75	55 / 25	
		17.75	Ditto.				
			Boring terminated at a depth of 17.75 M, on October 8, 1986.				
20							
25							

ABUNG SELATAN - LAMPUNG UTARA

SITE PLAN ABUNG SELATAN
LAMPUNG UTARA
LAMPUNG



BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA - 389), ABUNG SELATAN, LAMPUNG UTARA - LAMPUNG
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 1.80 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
0		0.00					10 30 50
		CH	Very stiff, brownish red and whitish light grey silty clay.				
					1.50 / 1.95	20	
			Ditto.		2.50 / 2.95	19	
			Ditto, stiff.		3.50 / 3.95	16	
					4.50 / 4.95	12	
5		5.95	Ditto.		5.50 / 5.95	13	
			Boring terminated at a depth of 5.95 M, on October 11, 1986.				
10							
15							
20							
25							

REPORT OF SOIL INVESTIGATION FOR THE PEST AND DISEASE FORECASTING AND CONTROL PROJECT (ATA 389)

INVESTIGATION SITE : SOUTH SUMATERA

Mengetahui / menyetujui
Pemimpin Proyek,

DEPARTEMEN PERTANIAN
DIREKTORAT JENDERAL PERTANIAN TANAMAN PANGAN

Ir. Warsono

NIP 080019487

Mengetahui / menyetujui
Isi lengkap laporan ini

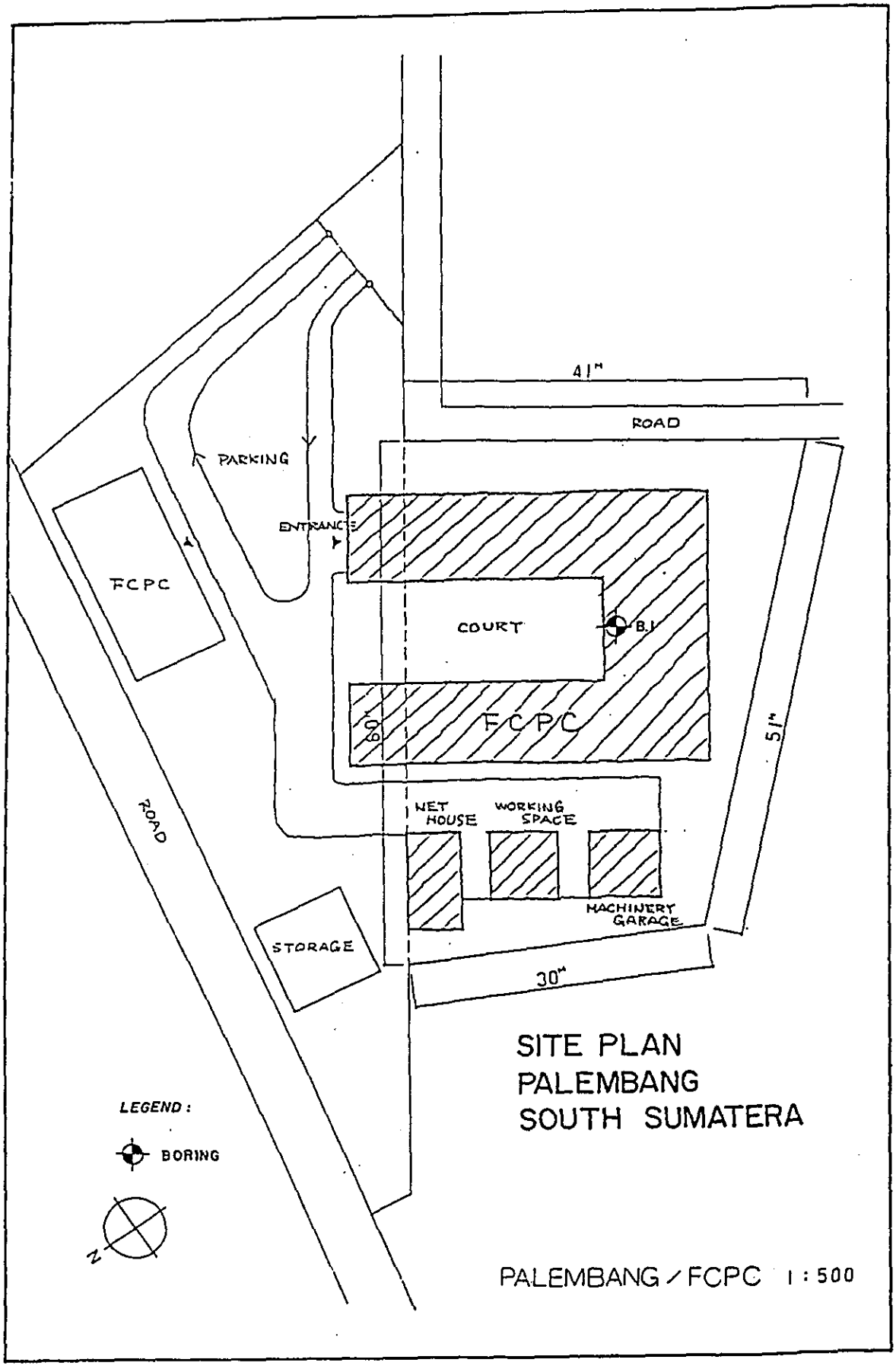
Ir. Kasmo

NIP 080006156

Penanggung jawab kegiatan
ATA 389

SOILTEST & FOUNDATIONS

P A L E M B A N G


41m
ROAD
PARKING
ENTRANCE
FCPC
COURT
B.1
FCPC
60
51m
ROAD
WET HOUSE
WORKING SPACE
MACHINERY GARAGE
STORAGE
30m
SITE PLAN
PALEMBANG
SOUTH SUMATERA
LEGEND :
BORING
N
PALEMBANG / FCPC 1 : 500

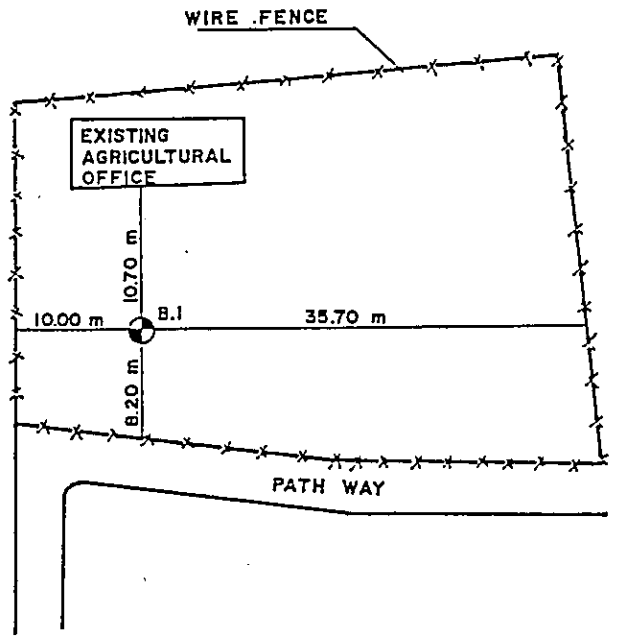
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA 389), PALEMBANG - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION : - 1.70 M FROM THE EXISTING OFFICE BUILDING
GROUND WATER LEVEL : - 1.50 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Stiff, reddish brown and light grey silty clay.				
					1.50 / 1.95	17	
			Colouring grey and yellowish brown.		2.50 / 2.95	15	
			Colouring dark grey, very stiff.		3.50 / 3.95	23	
5			Ditto.		4.50 / 4.95	25	
					5.50 / 5.95	25	
			Ditto.		6.50 / 6.95	26	
		6.95					
			Boring terminated at a depth of 6.95 M, on March 10, 1987.				
10							
15							
20							
25							

KOTAMADYA PALEMBANG - PALEMBANG

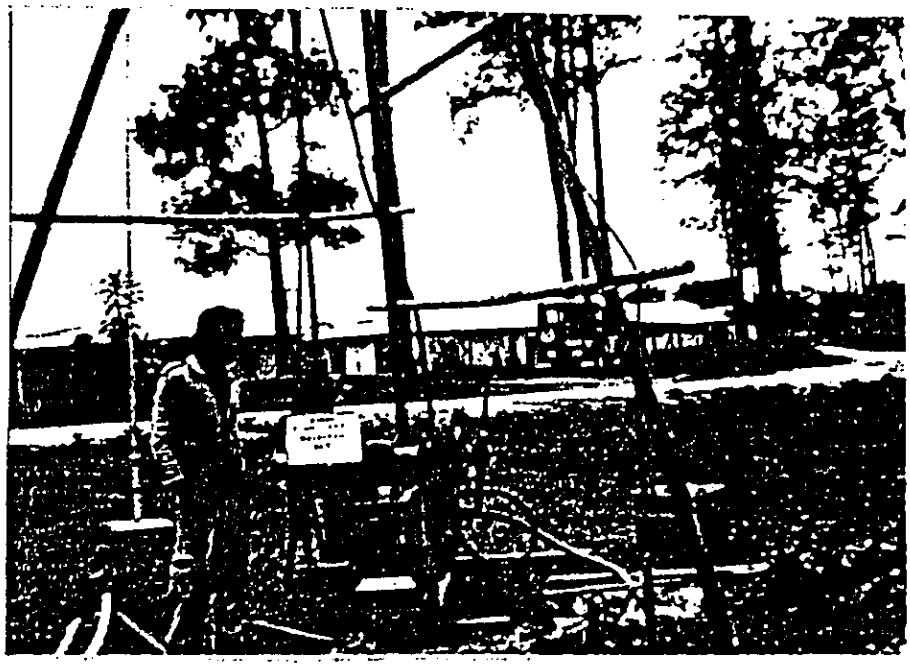
SITE PLAN KOTAMADYA PALEMBANG
PALEMBANG, SOUTH SUMATERA

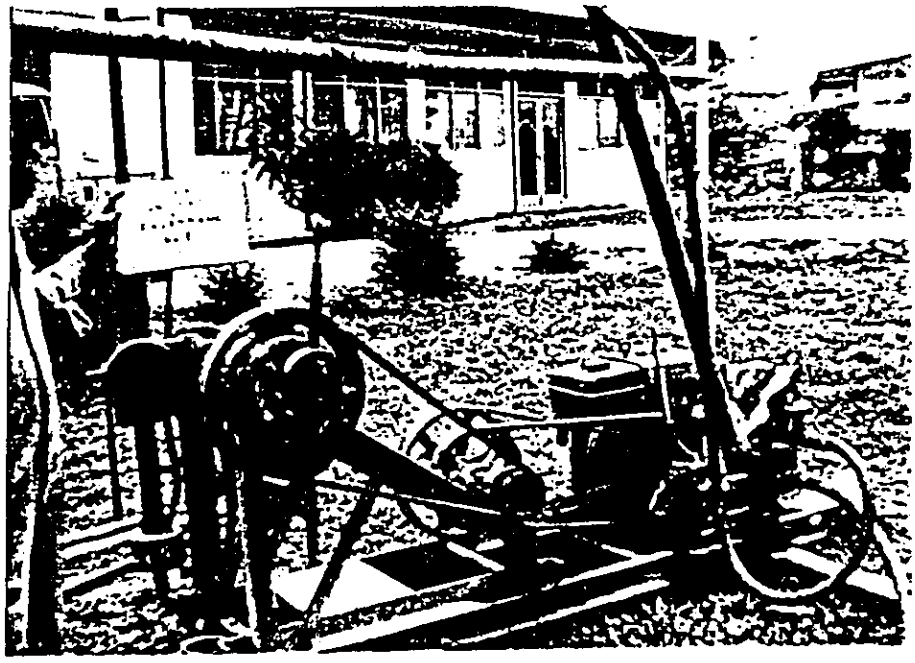


BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), KOTAMADYA PALEMBANG, PALEMBANG - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : - 1.50 M

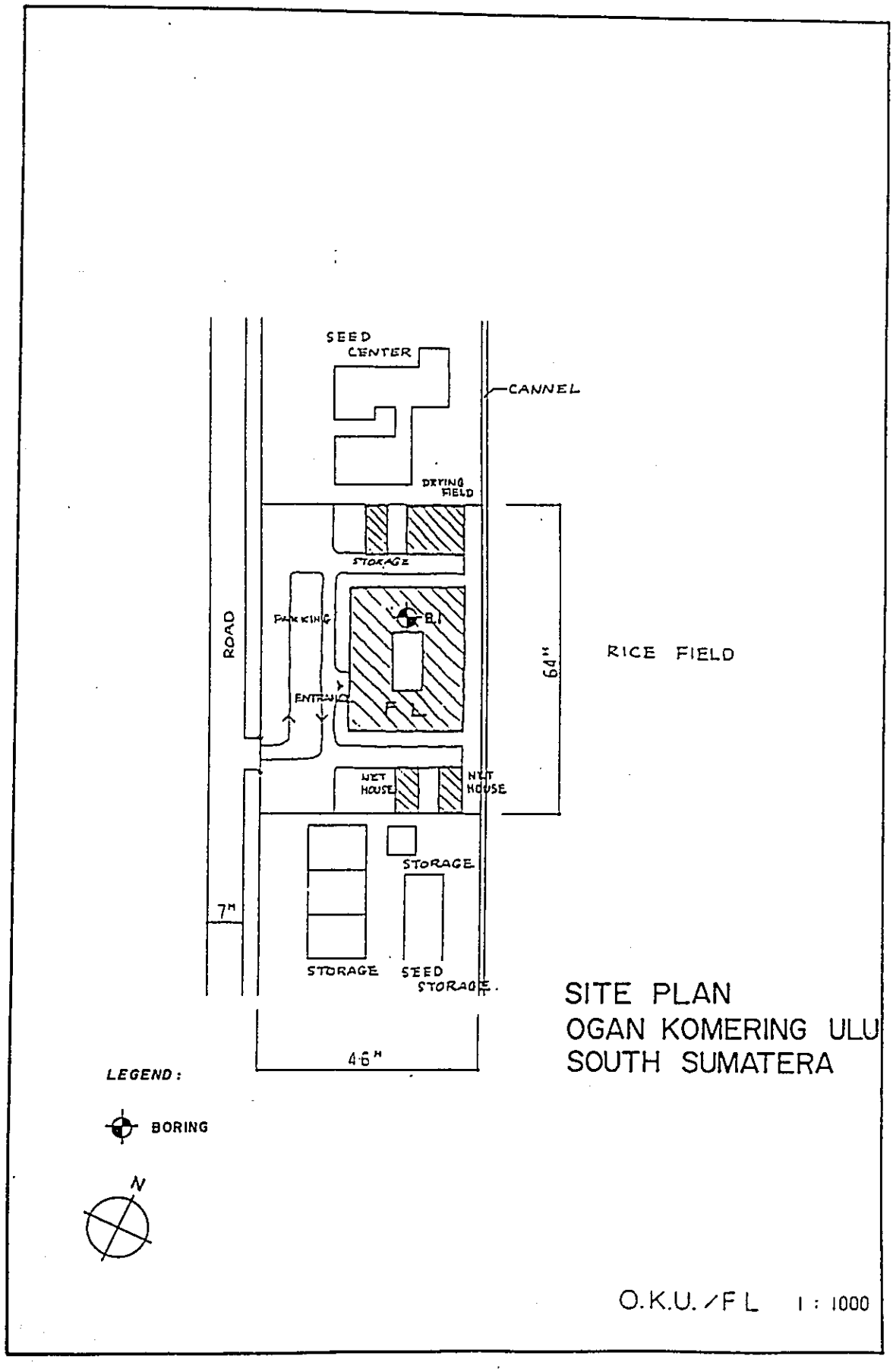
SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Stiff, whitish light grey and reddish brown silty clay.		1.50 / 1.95	9	
			Ditto, colouring dark grey.		3.00 / 3.45	13	
5					4.50 / 4.95	13	
			Ditto, very stiff.		6.00 / 6.45	18	
					7.00 / 7.45	17	
					8.00 / 8.45	24	
			Ditto.		9.00 / 9.45	19	
10		10.45			10.00 / 10.45	28	
			Boring terminated at a depth of 10.45 M, on October 17, 1986.				
15							
20							
25							





Kotamadya Palembang
Palembang

OGAN KOMERING ULU


SEED
CENTER
CANNEL
DRYING
FIELD
STORAGE
ROAD
PARKING
B.1
ENTRANCE
64 M
RICE FIELD
WET
HOUSE
NET
HOUSE
STORAGE
7M
STORAGE
SEED
STORAGE
4·6 M
LEGEND :
BORING
N
SITE PLAN
OGAN KOMERING ULU
SOUTH SUMATERA
O.K.U. / F L
1 : 1000

BORING PROFILE

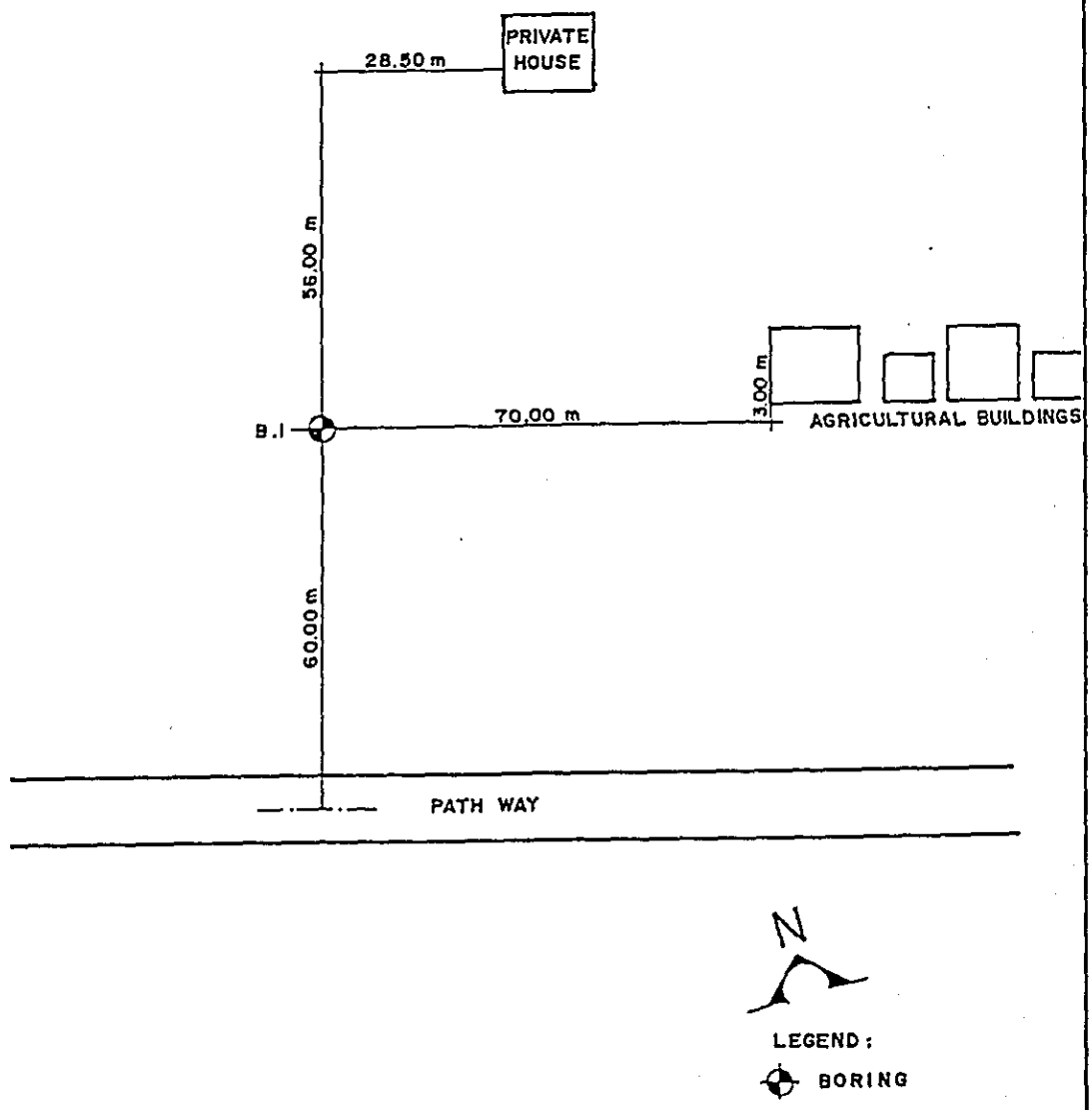
PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA 389), OGAN KOMERING ULU - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION : - 0.30 M FROM THE EXISTING OFFICE BUILDING
GROUND WATER LEVEL : - 1.00 M

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		MH 0.90	Medium stiff, light brown clayey silt.				
		SP	Loose, greyish white fine sand.		1.50 / 1.95	8	
			Colouring grey and brown, grades fine to medium sand medium dense.		3.00 / 3.45	11	
		4.10					
		CH	Very stiff, dark grey silty clay.		4.50 / 4.95	22	
5			Colouring grey and yellowish brown, stiff.		5.50 / 5.95	10	
					6.50 / 6.95	10	
		7.25					
		ML 8.20	Hard, bluish grey cemented silt.		7.50 / 7.70	27 / 20	
		MH	Very stiff, light grey and yellowish brown clayey silt.		8.50 / 8.95	25	
		9.95			9.50 / 9.95	23	
10			Boring terminated at a depth of 9.95 M, on March 9, 1987.				
15							
20							
25							

PERWAKILAN MAKARTI JAYA

MUSI BANYUASIN

SITE PLAN PERWAKILAN MAKARTIJAYA
MUSI BANYUASIN, SOUTH SUMATERA



BORING PROFILE

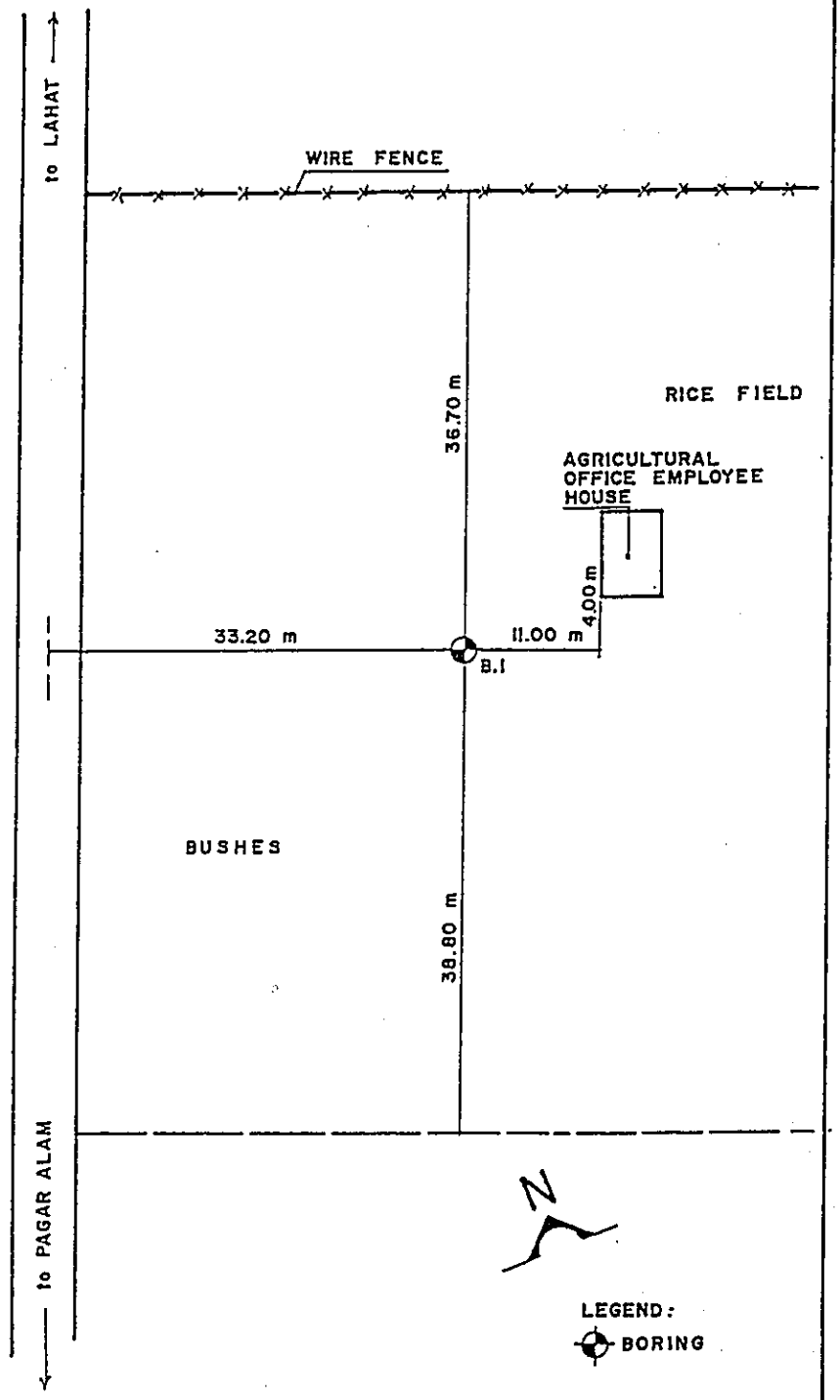
PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), PERWAKILAN MAKARTI JAYA, MUSI BANYUASIN - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION :
GROUND WATER LEVEL : 0.00

SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
0		0.00					
		CH	Very soft, dark grey silty clay.		1.50 / 1.95	1	
			Ditto.		3.00 / 3.45	1	
					4.50 / 4.95	1	
5			Ditto, with some very fine sand.		6.00 / 6.45	1	
		7.80			7.50 / 7.95	2	
		SM	Very loose, dark grey silty fine sand mixture with shell debris.				
			Ditto, loose.		9.00 / 9.45	6	
		9.90					
10		CH	Very soft, dark grey silty clay.		10.50 / 10.95	1	
					12.00 / 12.45	1	
			Ditto.		13.50 / 13.95	2	
15					15.00 / 15.45	2	
			Ditto.		16.50 / 16.95	2	
					18.00 / 18.45	2	
			Ditto, soft.		19.50 / 19.95	4	
20			Ditto, medium stiff.		21.00 / 21.45	6	
			Ditto, very soft.		22.50 / 22.95	2	
			Ditto, with some very fine sand, soft.		24.00 / 24.45	3	
25							

SCALE (M)	DIAGRAM	SYMBOL & DEPTH	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE (10 30 50)
		25.00					
25		SM	Medium dense, dark grey silty sand.		25.50 / 25.95	16	
					26.50 / 26.95	12	
			Ditto.		27.50 / 27.95	20	
					28.50 / 28.95	19	
		29.95	Ditto.		29.50 / 29.95	12	
30			Boring terminated at a depth of 29.95 M, on October 21, 1986.				
35							
40							
45							
50							
55							

PULAU PINANG - LAHAT

SITE PLAN PULAU PINANG
LAHAT, SOUTH SUMATERA



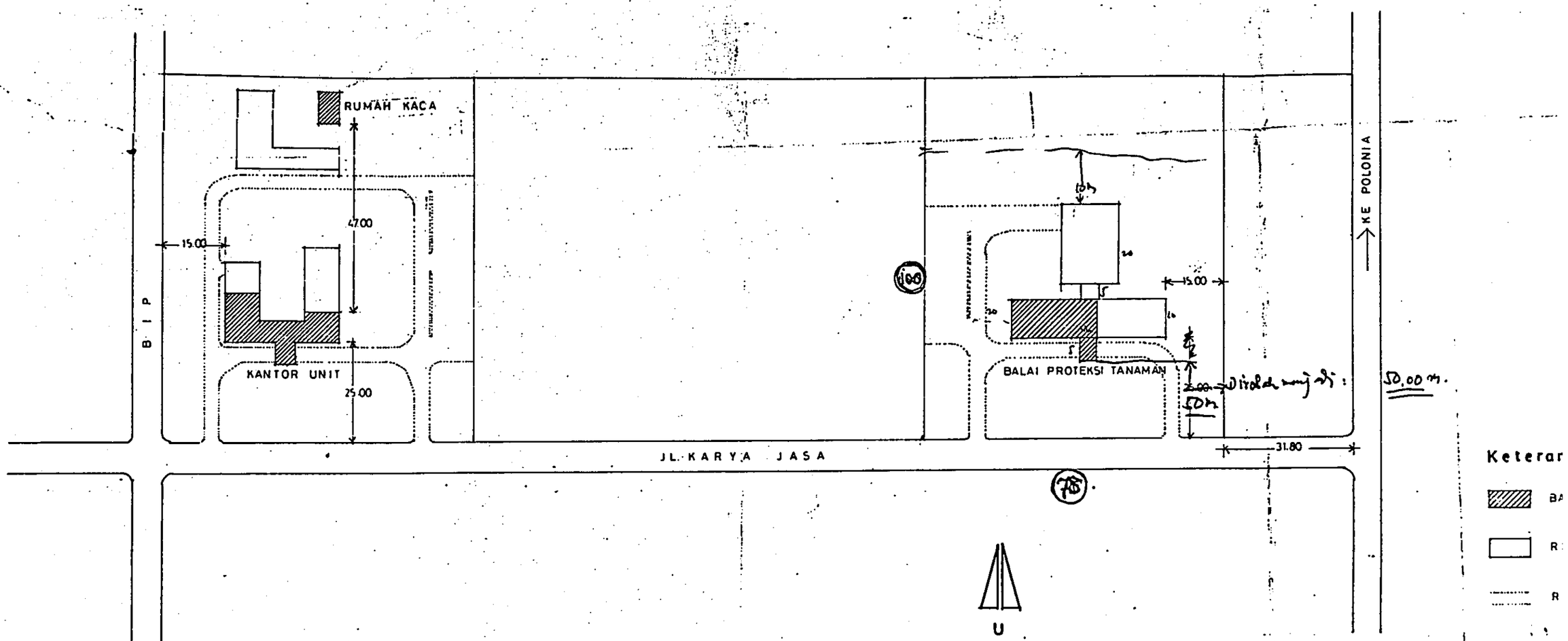
BORING PROFILE

PROJECT : PEST AND DISEASE FORECASTING AND CONTROL PROJECT
LOCATION : (ATA-389), PULAU PINANG, LAHAT - SOUTH SUMATERA
BORING NO. : B.1
ELEVATION : FLAT WITH THE EXISTING BUILDING
GROUND WATER LEVEL : - 4.50 M

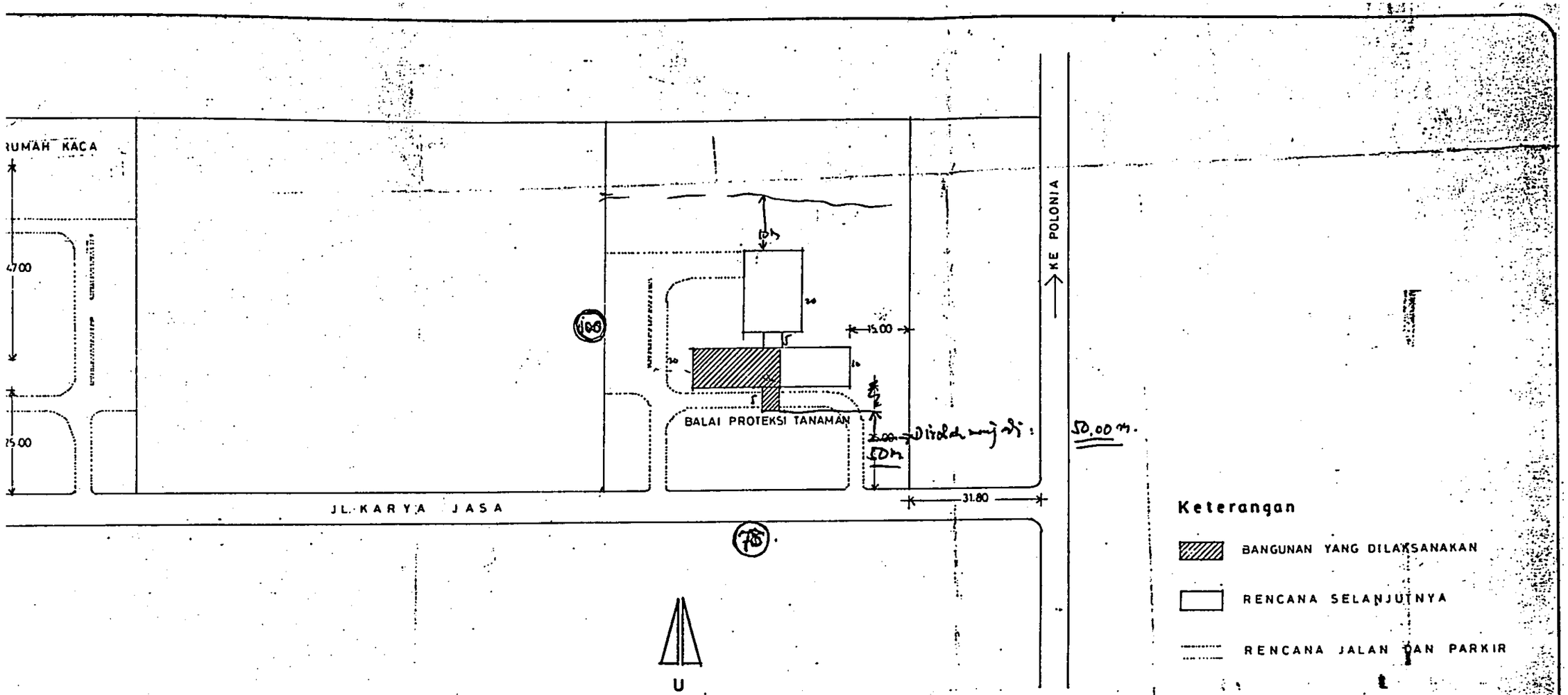
SCALE (M)	DIAGRAM	SYMBOL	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST		
					DEPTH	N	CURVE
		0.00					10 30 50
0		CH	Stiff, greyish brown silty clay.				
					1.50 / 1.95	13	
			Ditto.		3.00 / 3.45	14	
					4.50 / 4.95	10	
5			Ditto, soft.		6.00 / 6.45	3	
			Colouring light brown and reddish brown medium stiff.		7.50 / 7.95	5	
					9.00 / 9.45	5	
10		10.50			10.50 / 10.95	4	
		MH	Soft, light brown and reddish brown clayey silt.		12.00 / 12.45	2	
			Ditto, very soft.		13.50 / 13.95	4	
			Ditto, soft.		15.00 / 15.45	4	
15			Ditto.		16.50 / 16.95	4	
					18.00 / 18.45	5	
			Colouring light brown, medium stiff.		19.50 / 19.95	5	
20			Ditto.		21.00 / 21.45	7	
					22.50 / 22.95	7	
			Ditto, stiff.		24.00 / 24.45	15	
25							

SCALE (M)	DIAGRAM	SYMBOL & DEPTH	SOIL DESCRIPTION	SAMPLING DEPTH	STANDARD PENETRATION TEST DEPTH	N	CURVE (10 30 50)
		25.00					
25		MH	Very stiff, light brown clayey silt with trace of cementation.		26.00 / 26.45	20	
					27.00 / 27.45	24	
		28.00			28.00 / 28.30	40 / 30	
		ML	Hard, greyish brown silt with trace of cementation.		29.00 / 29.15	25 / 15	
			Ditto, with some fine sand.				
30		30.05	Ditto, very hard.		30.00 / 30.05	25 / 5	
			Boring terminated at a depth of 30.05 M on October 26, 1986.				
35							
40							
45							
50							
55							

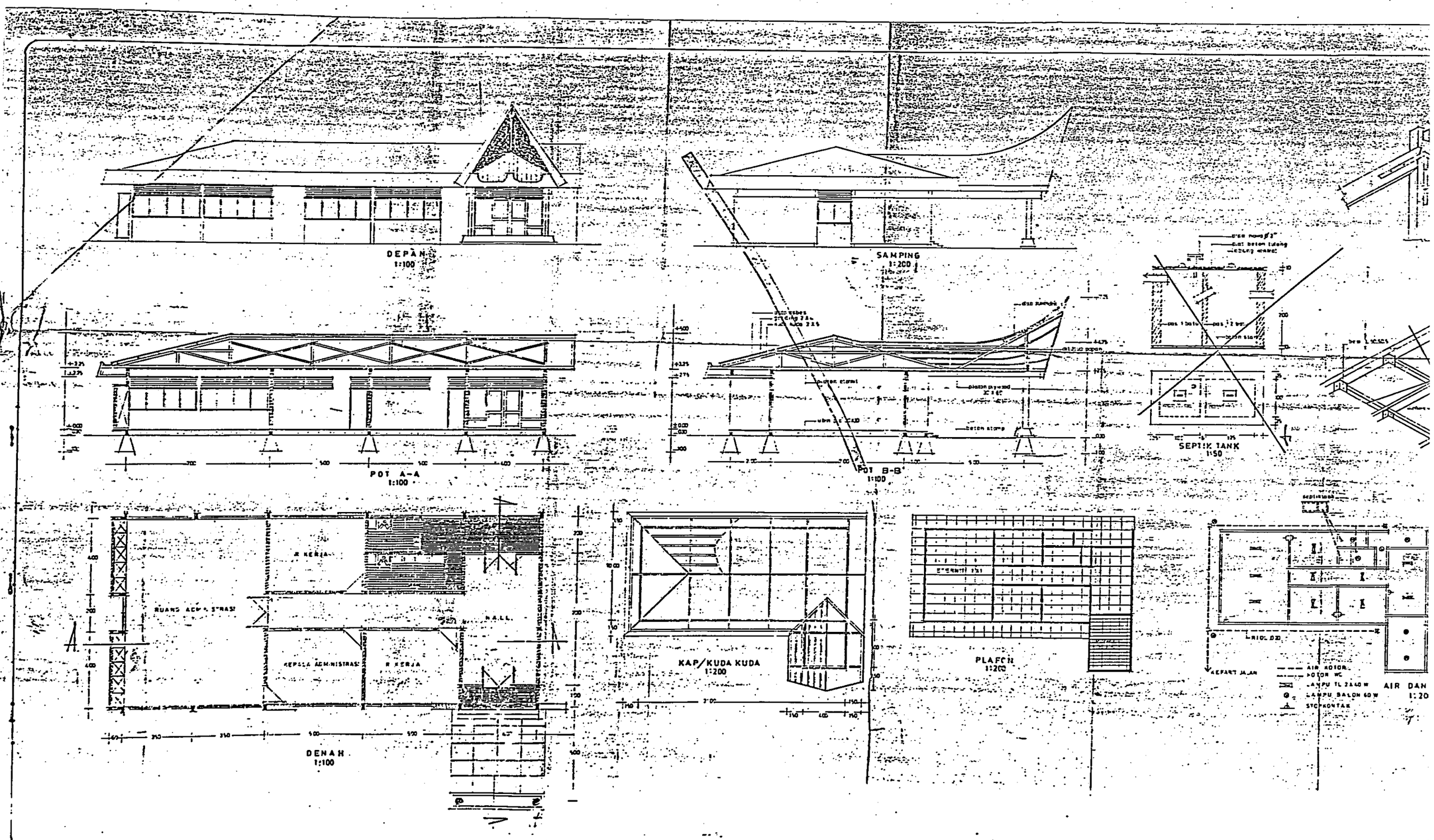
Ⅳ. 現地既存施設図面

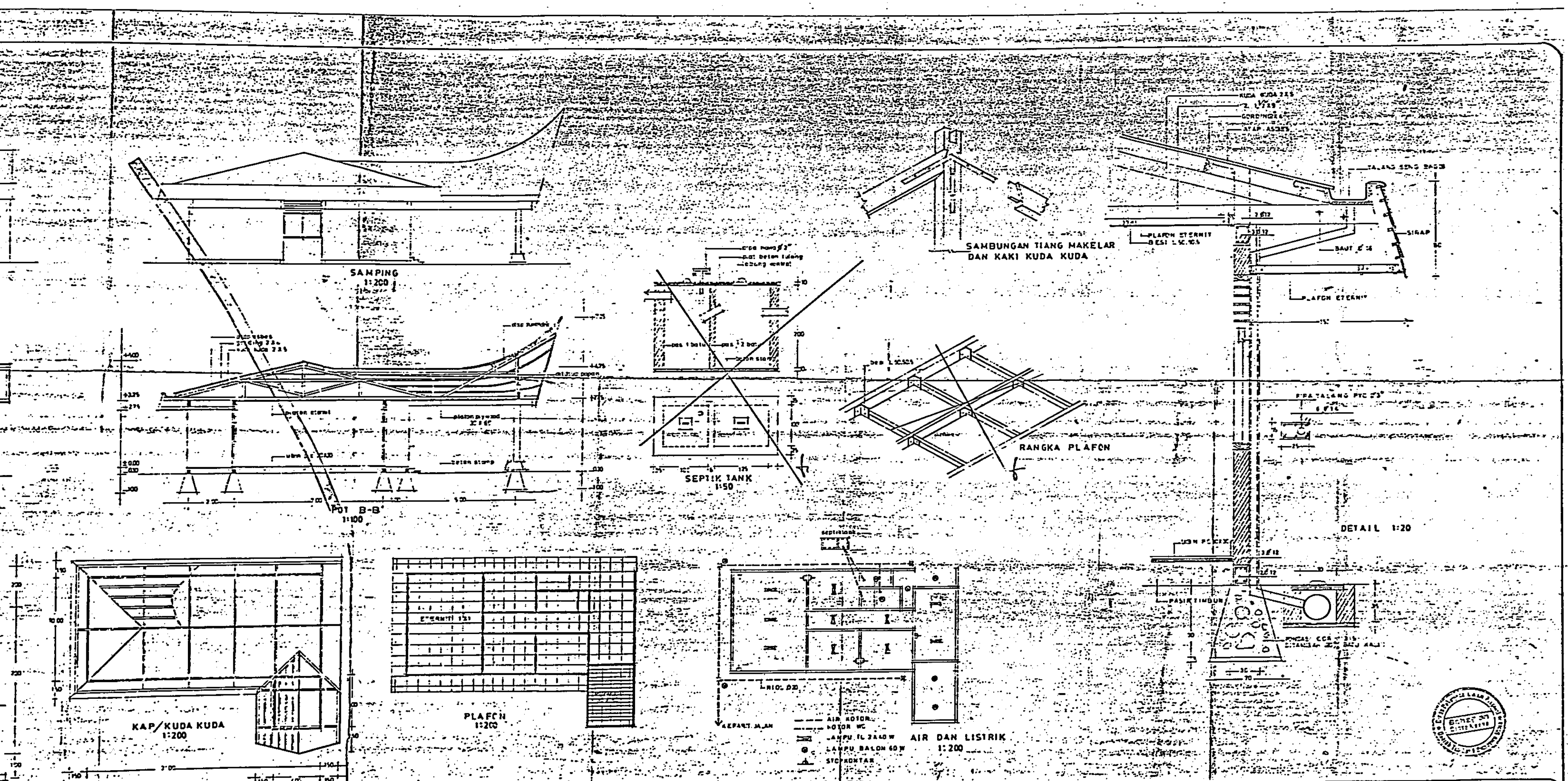


DINAS PERTANIAN PROPINSI DAERAH TK.I SUM. UTARA	bangunan: KANTOR UNIT dan BALAI PROTEKSI TANAMAN	perenco
	SITUASI	
proyek: PENINGKATAN PRODUKSI TANAMAN PANGAN SUMATERA UTARA	skala: 1:1000	ARSITEK
	TANGGAL: AGUSTUS '80	DIGAMBAR
	NOMOR: 11/07	PIM.PROYE

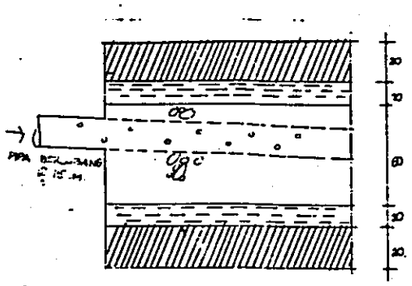


DINAS PERTANIAN PROPINSI DAERAH TK.I SUM.UTARA	bangunan: KANTOR UNIT dan BALAI PROTEKSI TANAMAN		perencana: WIRA BAKTI CONSULTANTS, Jln. R. Saleh 5, Phone : 326290, Medan	
	SITUASI			
proyek: PENINGKATAN PRODUKSI TANAMAN PANGAN SUMATERA UTARA	skala: 1:1000		ARSITEK	IR.ARCH. J.RUSLANI
			KONSTRUKSI	IR.A.HAFIZ
	TANGGAL	AGUSTUS '80	DIGAMBAR	M.PILIANG
	NOMOR	II/07	PIM.PROYEK	IR.A DAUD RUSYDI

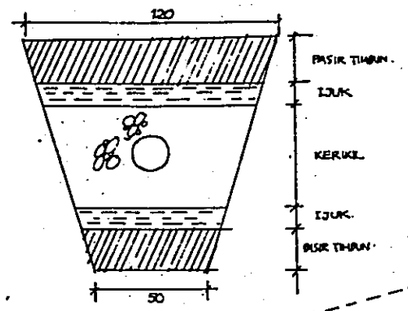

DEPAN
1:100
SAMPING
1:200
POT A-A
1:100
POT B-B
1:100
SEPTIK TANK
1:50
DENAH
1:100
KAP/KUDA KUDA
1:200
PLAFON
1:200
AIR DAN
1:20

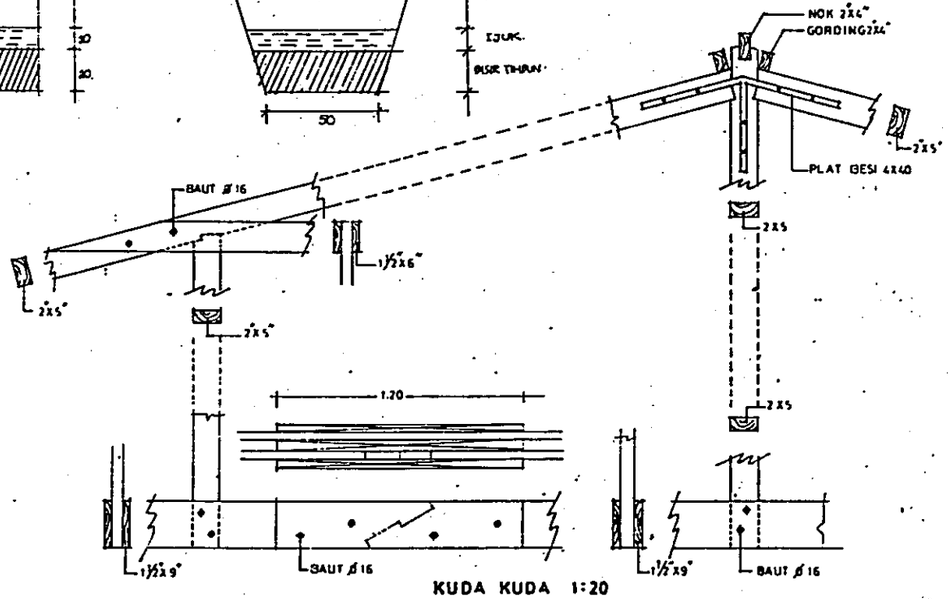


DINAS PERTANIAN PROPINSI DAERAH TK I SUM.UTARA	bangunan: BALAI PROTEKSI TANAMAN	perencana: WIRA BAKTI CONSULTANTS, Medan
proyek: PENINGKATAN PRODUKSI TANAMAN PANGAN SUMATERA UTARA	skala: 1:100–1:50–1:20–1:200	11/05

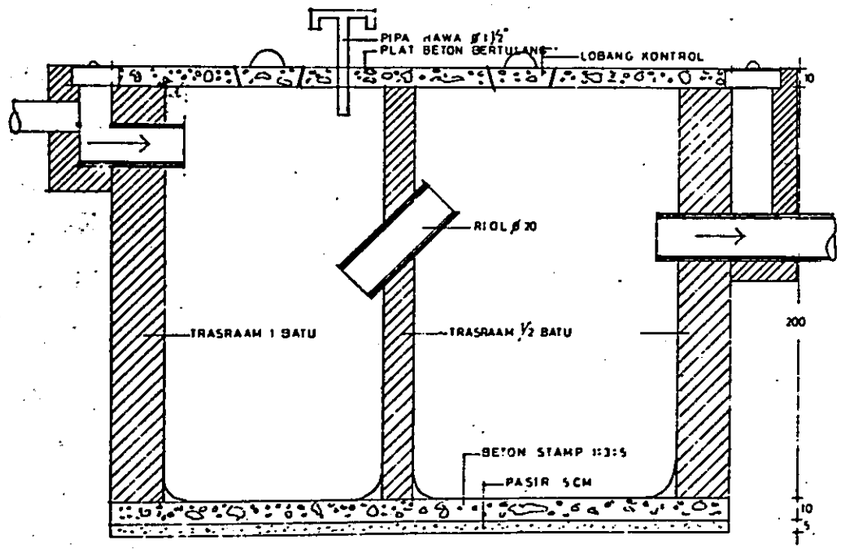


PERESAPAN
panjang 3m

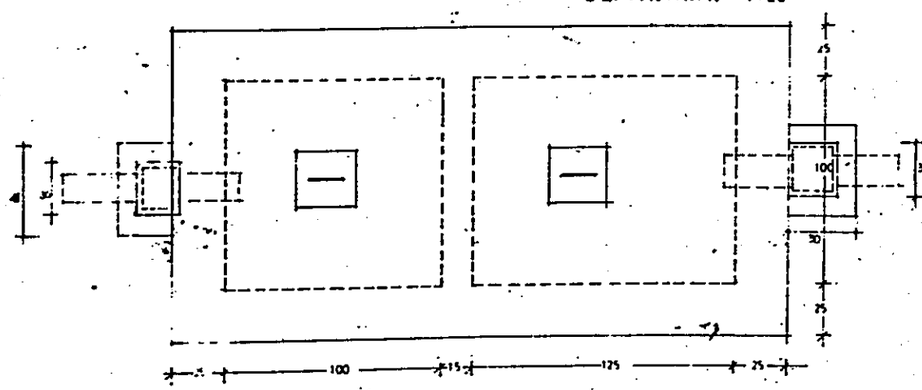


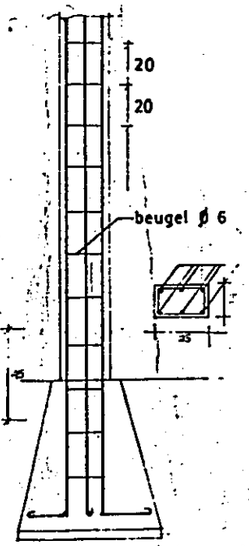


KUDA KUDA 1:20

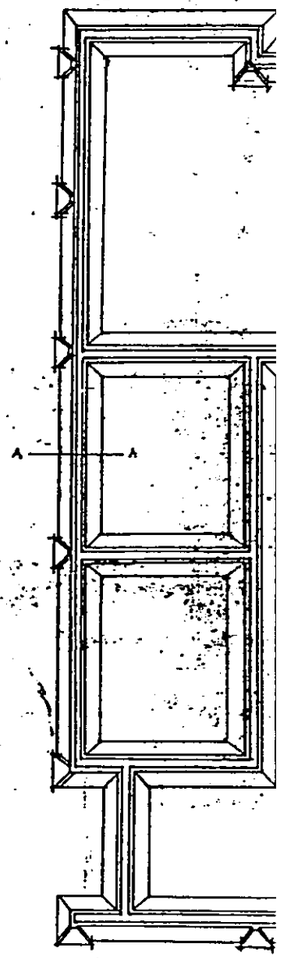


SEPTIKTANK 1:20



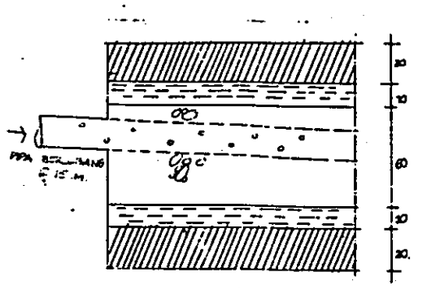


KOLOM 1:20

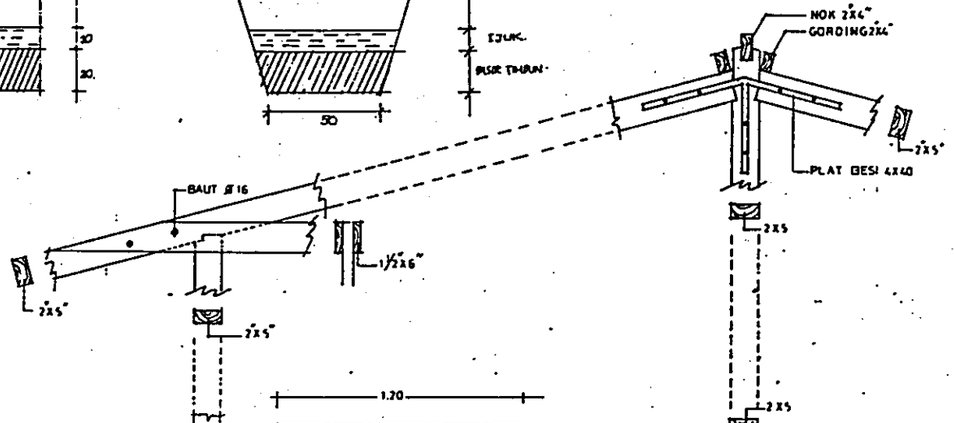


RE

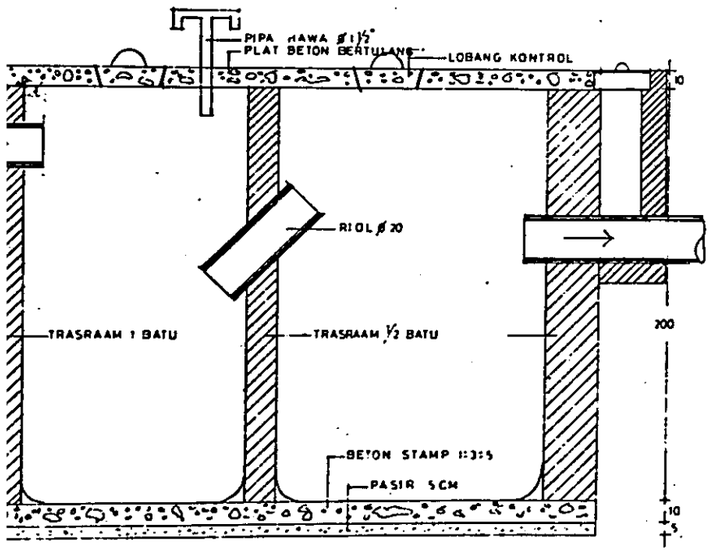
DINAS PERTANIAN PROPINSI DAERAH TK I SUM. UTARA	DETAIL	
proyek PENINGKATAN PRODUKSI TANAMAN PANGAN SUMATERA UTARA	skala 1:20 1:10	A K
	TANGGAL AGUSTUS '80	D
	NOMOR	P



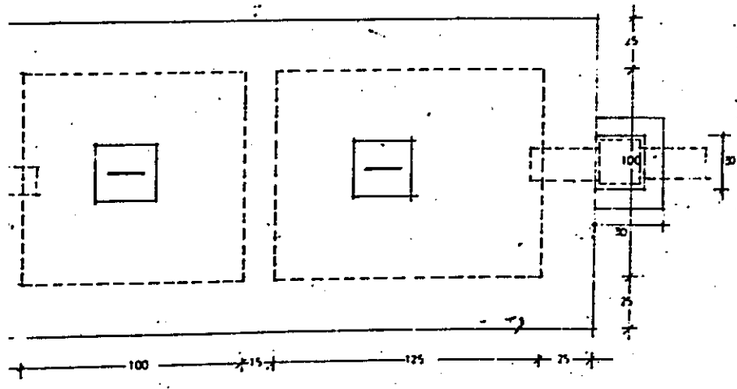
PERESAPAN
panjang 3m

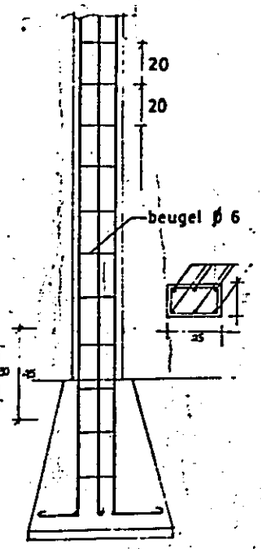


KUDA KUDA 1:20

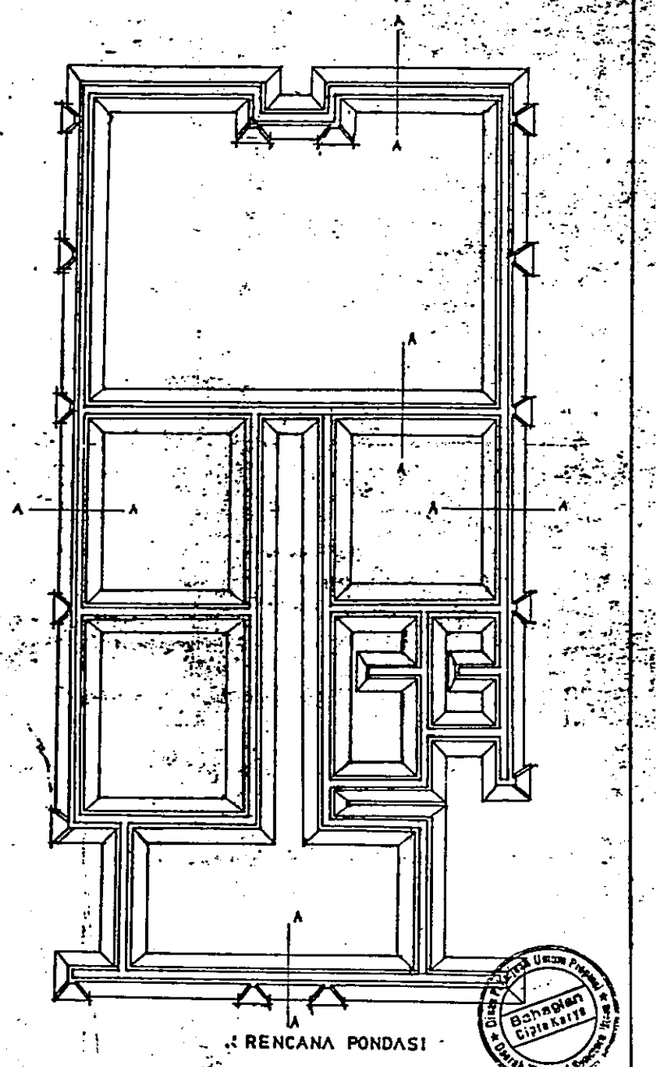


SEPTIKTANK 1:20





KOLOM 1:20

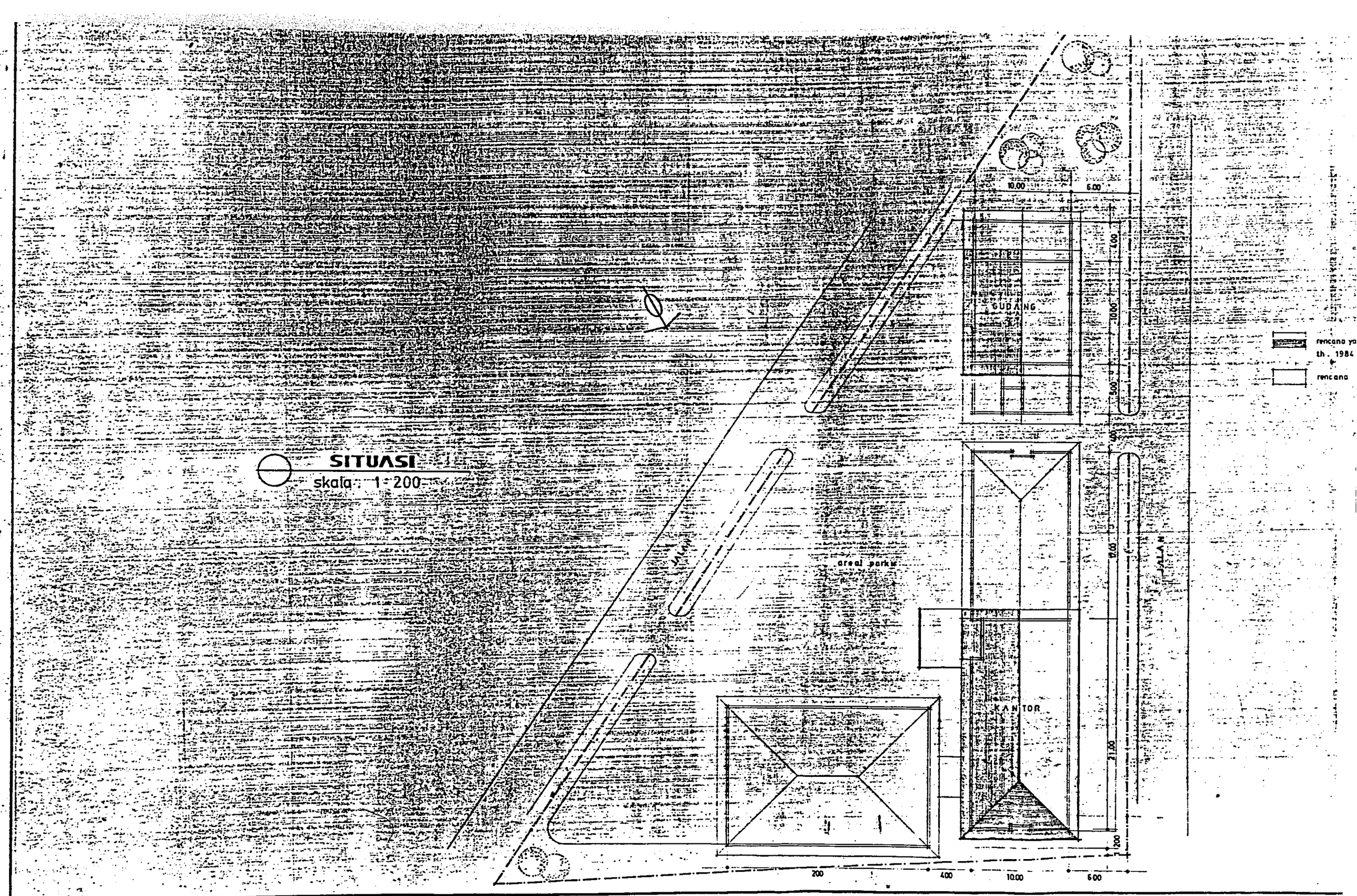


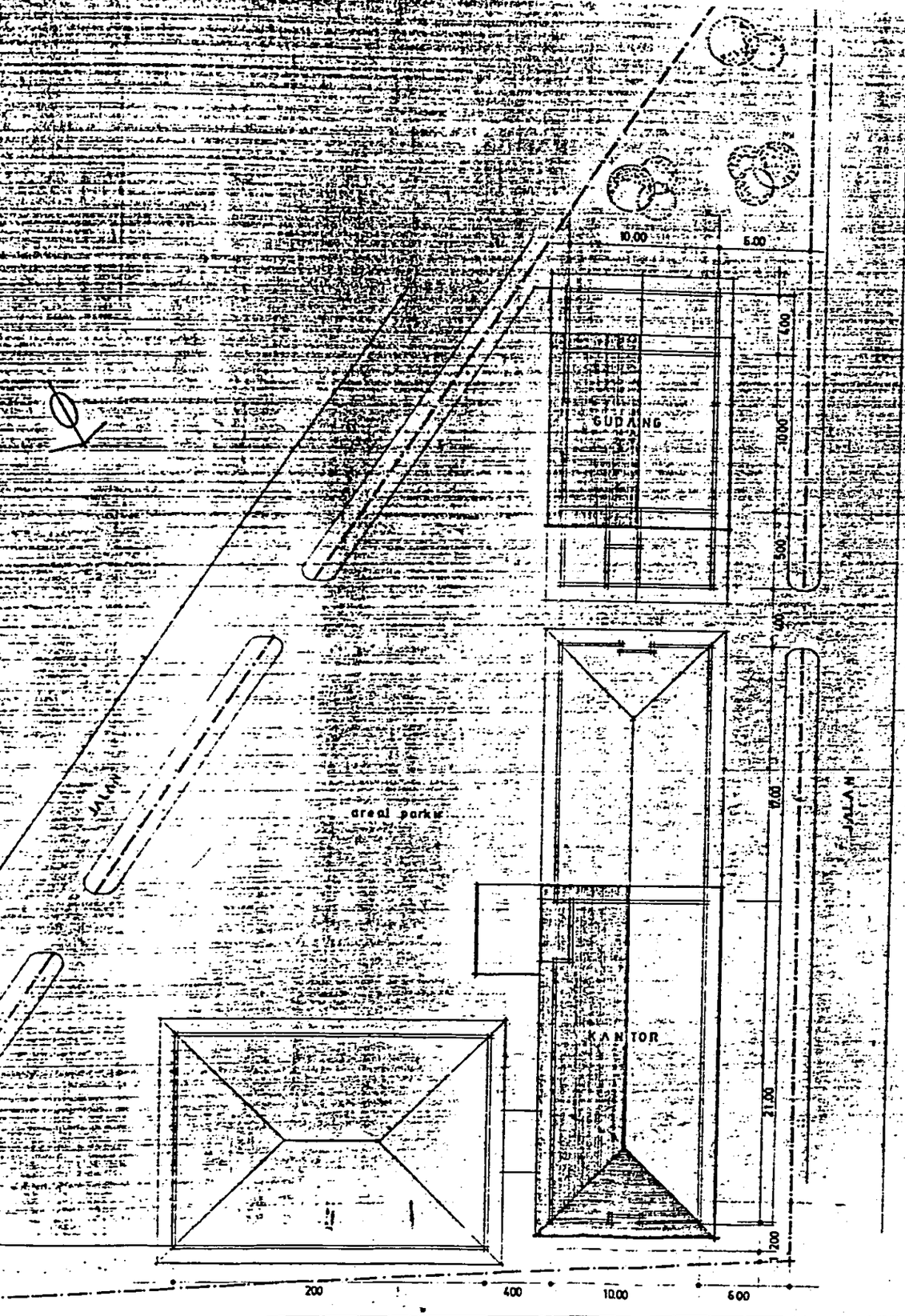
RENCANA PONDASI

Bahasalan Cipta Karya

DINAS PERTANIAN PROPINSI DAERAH TK I SUM.UTARA	DETAIL	WIRA BAKTI CONSULTANTS Jln. R. Saleh 5 Phone : 326290 Medan	
proyek PENINGKATAN PRODUKSI TANAMAN PANGAN SUMATERA UTARA	skala 1:20 , 1:10	ARSITEK	IR.ARCH J.RUSLANI
		KONSTRUKSI	IR.A.HAFIZ
	TANGGAL AGUSTUS '80	DIGAMBAR	M.PILIANG
	NOMOR	PIM.PROYEK	IR.A.DAUD RUSYDI

パレンバンFCPC（南部スマトラ州）既存施設図面


SITUASI
skala : 1 : 200
JALAN
areal parkir
GUDANG
KANTOR
10.00
5.00
6.00
3.00
21.00
2.00
200
400
10.00
6.00
rencana yang
th . 1984
rencana



rencana yang akan dibangun th. 1984/85

rencana perluasan

REVISI

no.	tgl.	paraf	keterangan

PROYEK

BANGUNAN

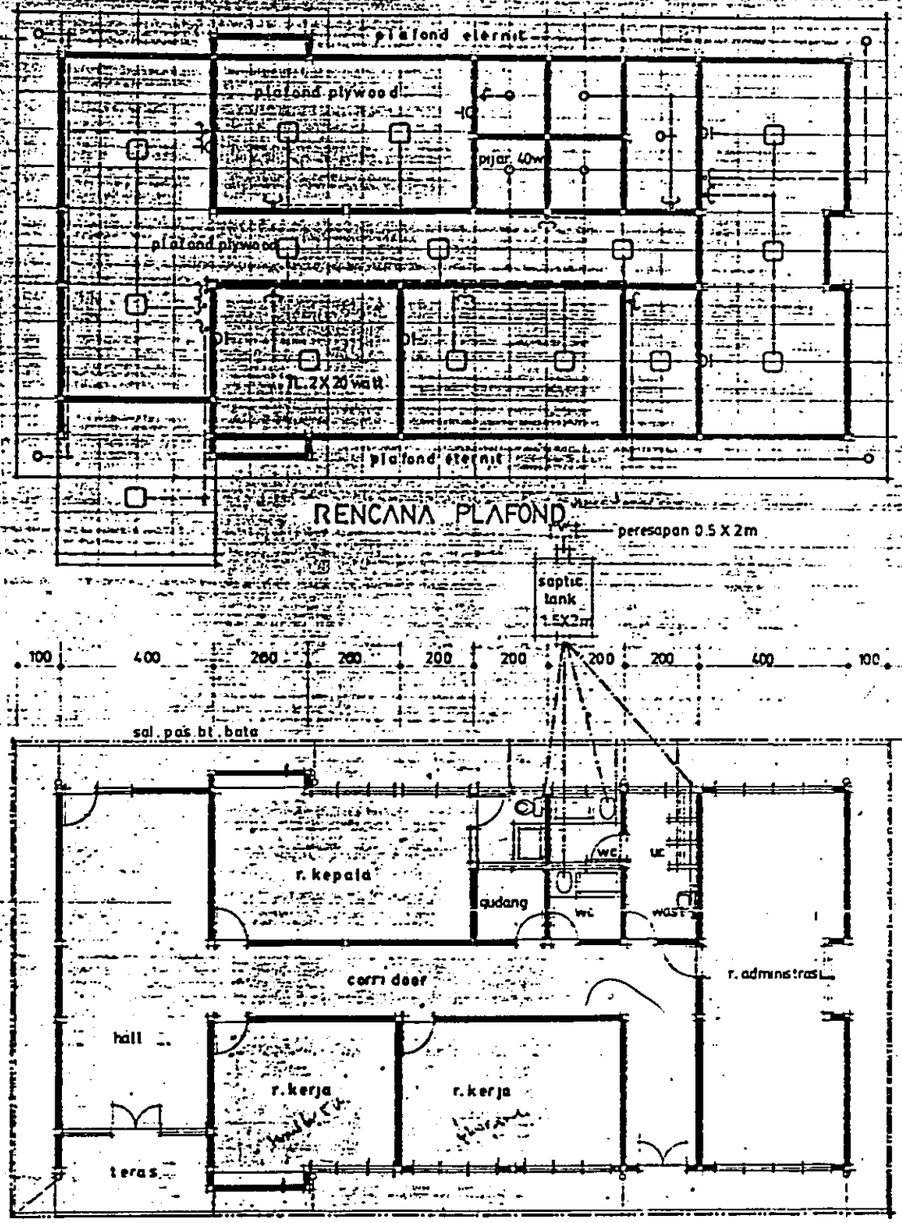
GUDANG + KANTOR

GAMBAR

SITUASI

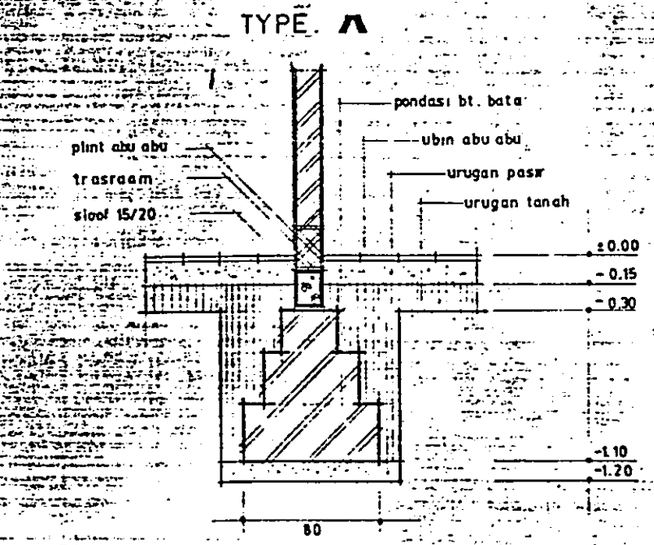
PERENCANA
PRIMA CIPTA
biro arsitek dan insinyur

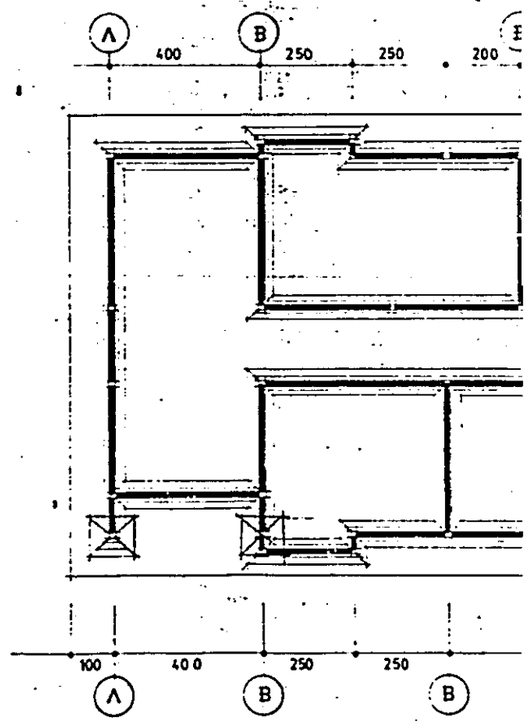
direncana	
digambar	
diperiksa	
disetujui	
disahkan	
skala gambar	ukuran dalam gambar
kode	nomor lembar



RENCANA PLAFOND

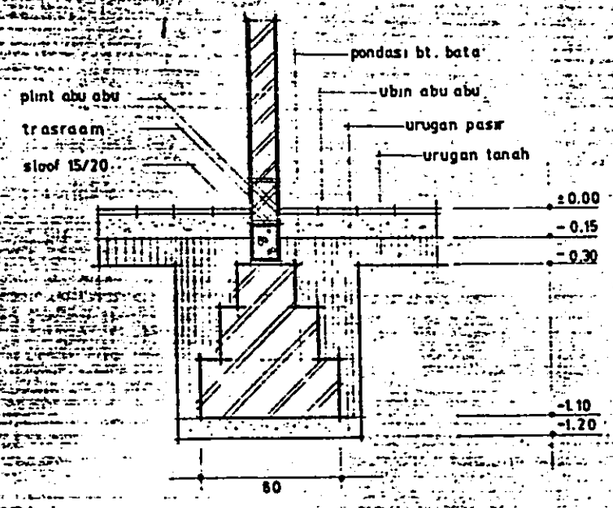
RENCANA SANITASI



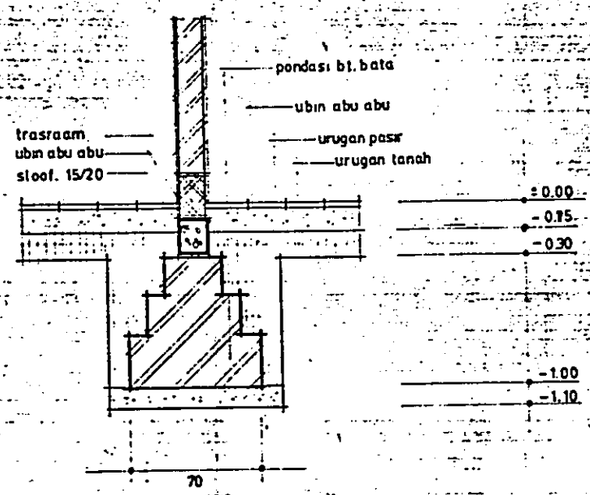


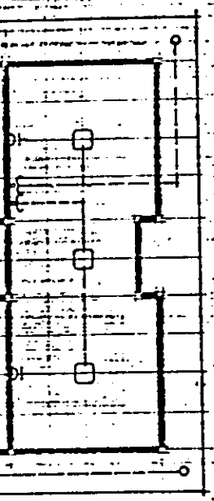
RENCANA

TYPE A

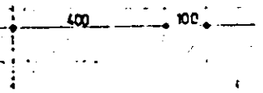


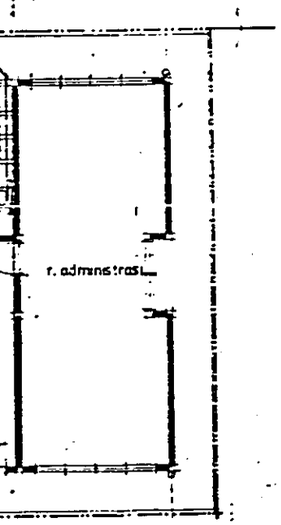
TYPE B

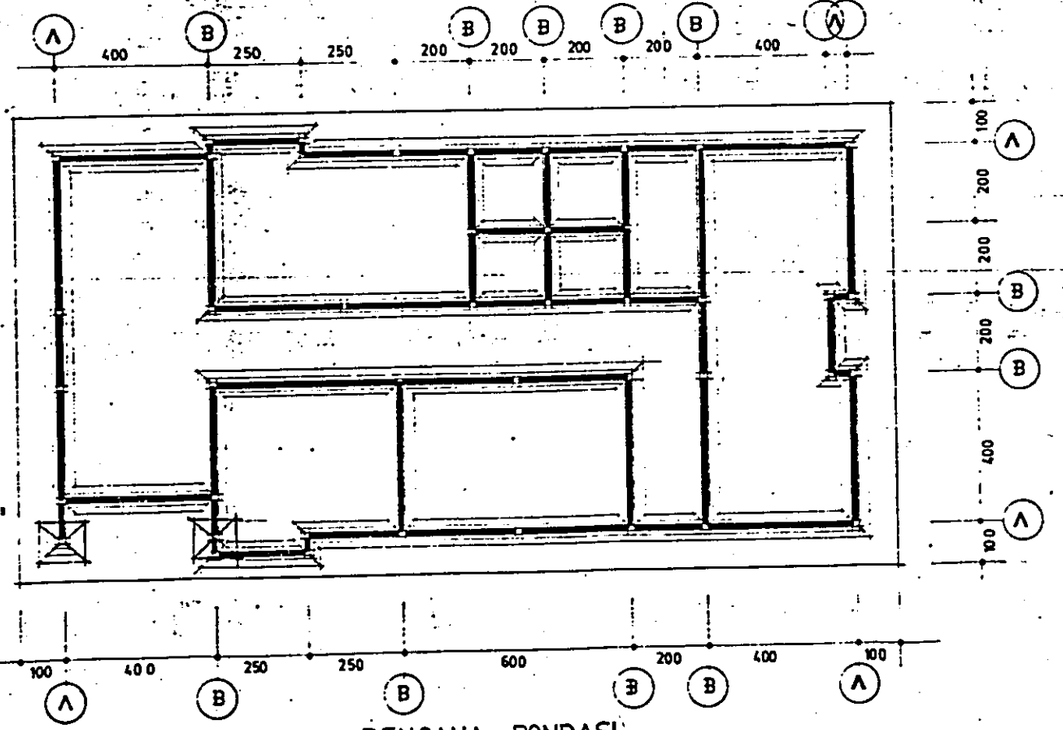




0.5 X 2m







RENCANA PONDASI

CATATAN

REVISI

no.	tgl.	paraf	keterangan

PROYEK

BANGUNAN

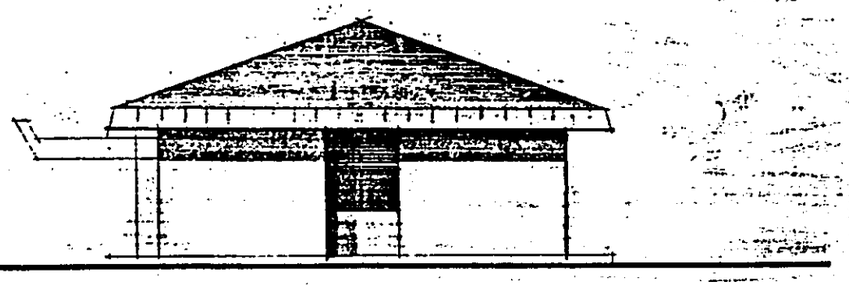
KANTOR

GAMBAR

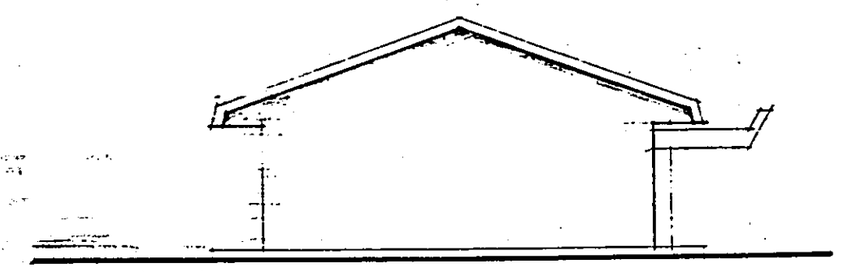
DETAIL

PERENCANA
PRIMA CIPTA
biro arsitek dan insinyur

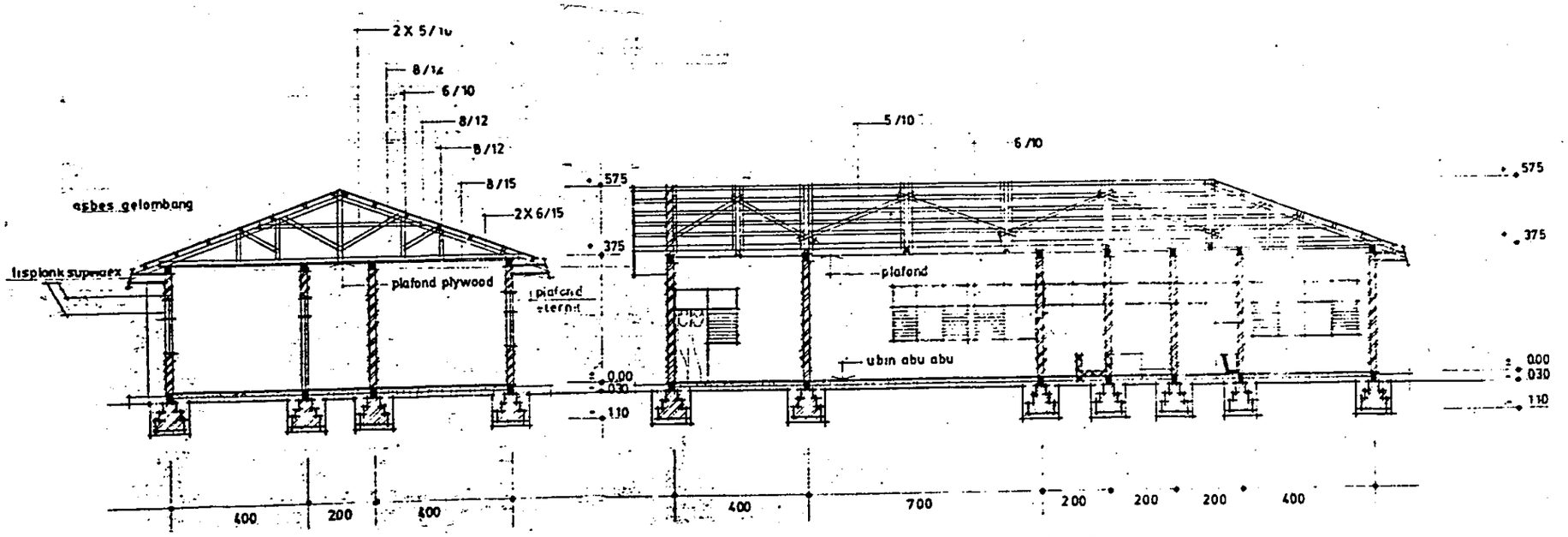
direncana	
digambar	roesly
diperiksa	
disetujui	
disahkan	
skala gambar	ukuran dalam gambar
1:100. 1:20	
kode	nomor lembar



TAMPAK SISI
kanan



TAMPAK SISI
kiri



POTONGAN. A-A

POTONGAN. B-B

REVISI

no	tgl	paraf	keterangan

PROYEK

BANGUNAN

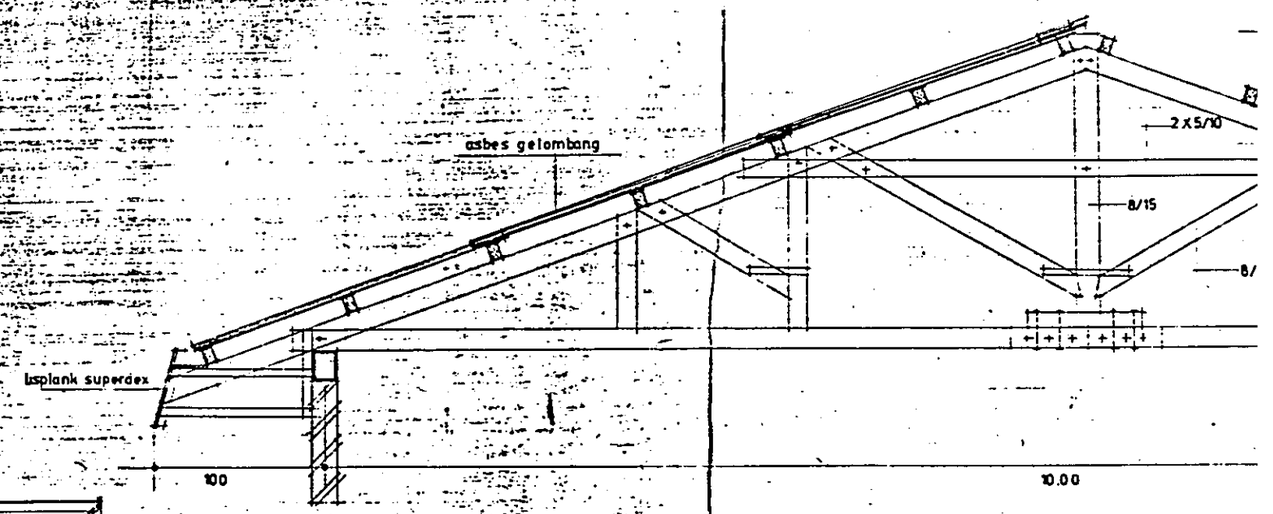
KANTOR

GAMBAR

denah. tampak dan pot.

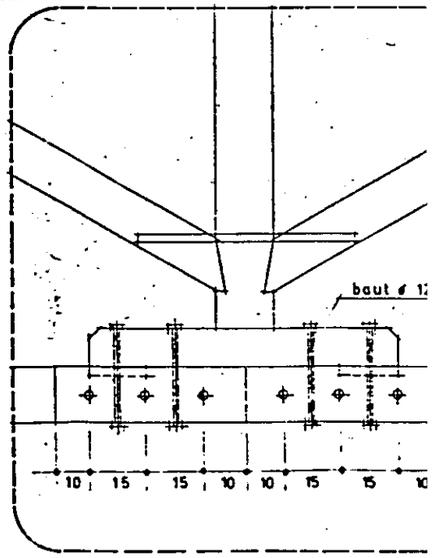
PERENCANA
PRIMA CIPTA
biro arsitek dan insinyur

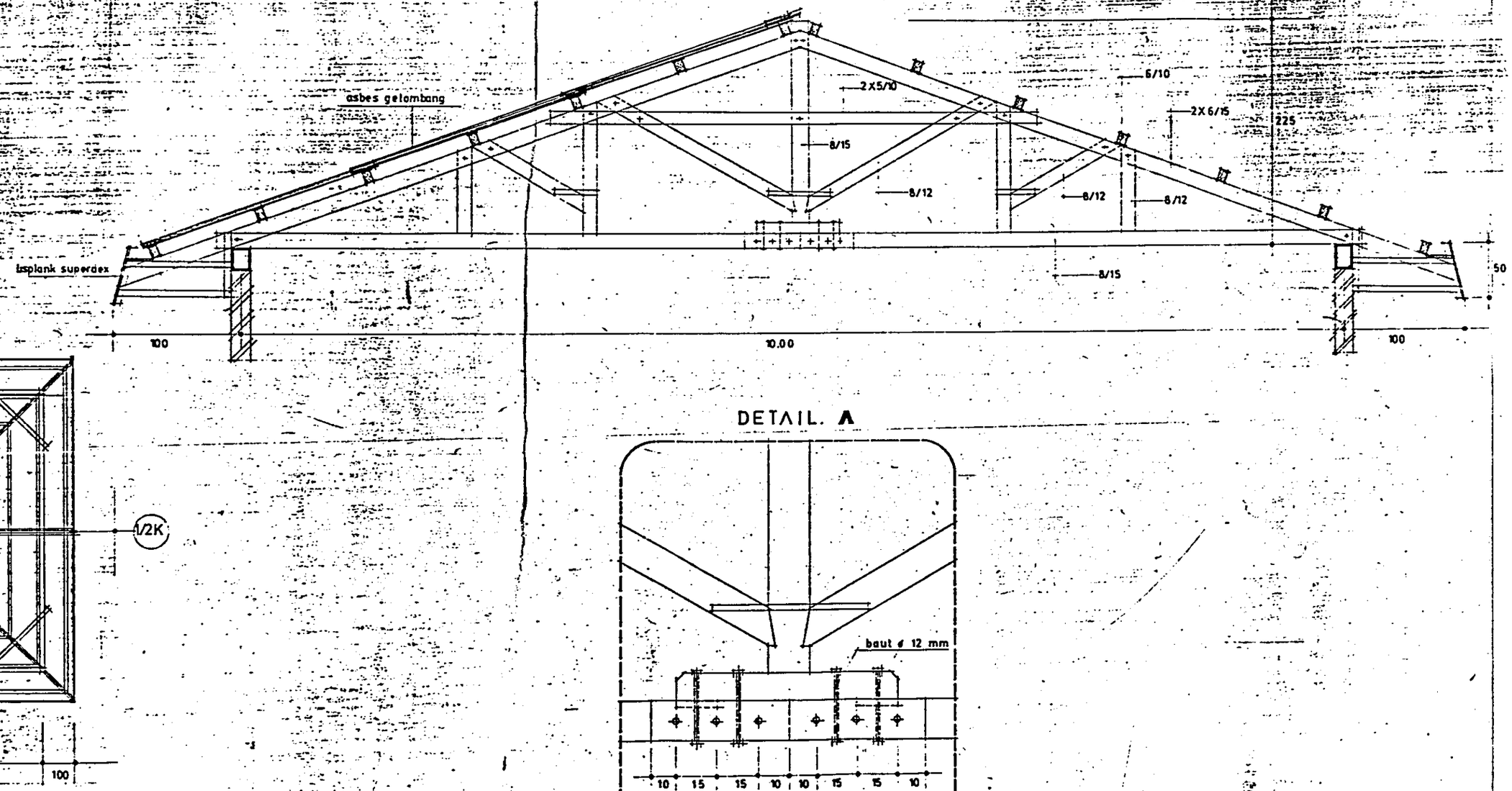
direncana	
digambar	roesly
diperiksa	
disetujui	
disahkan	
skala gambar	ukuran dalam gambar
1:100	
kode	nomor lembar



RENCANA KAP

DETAIL. A





DETAIL. A

REVISI

no	tgl	paraf	keterangan

PROYEK

BANGUNAN

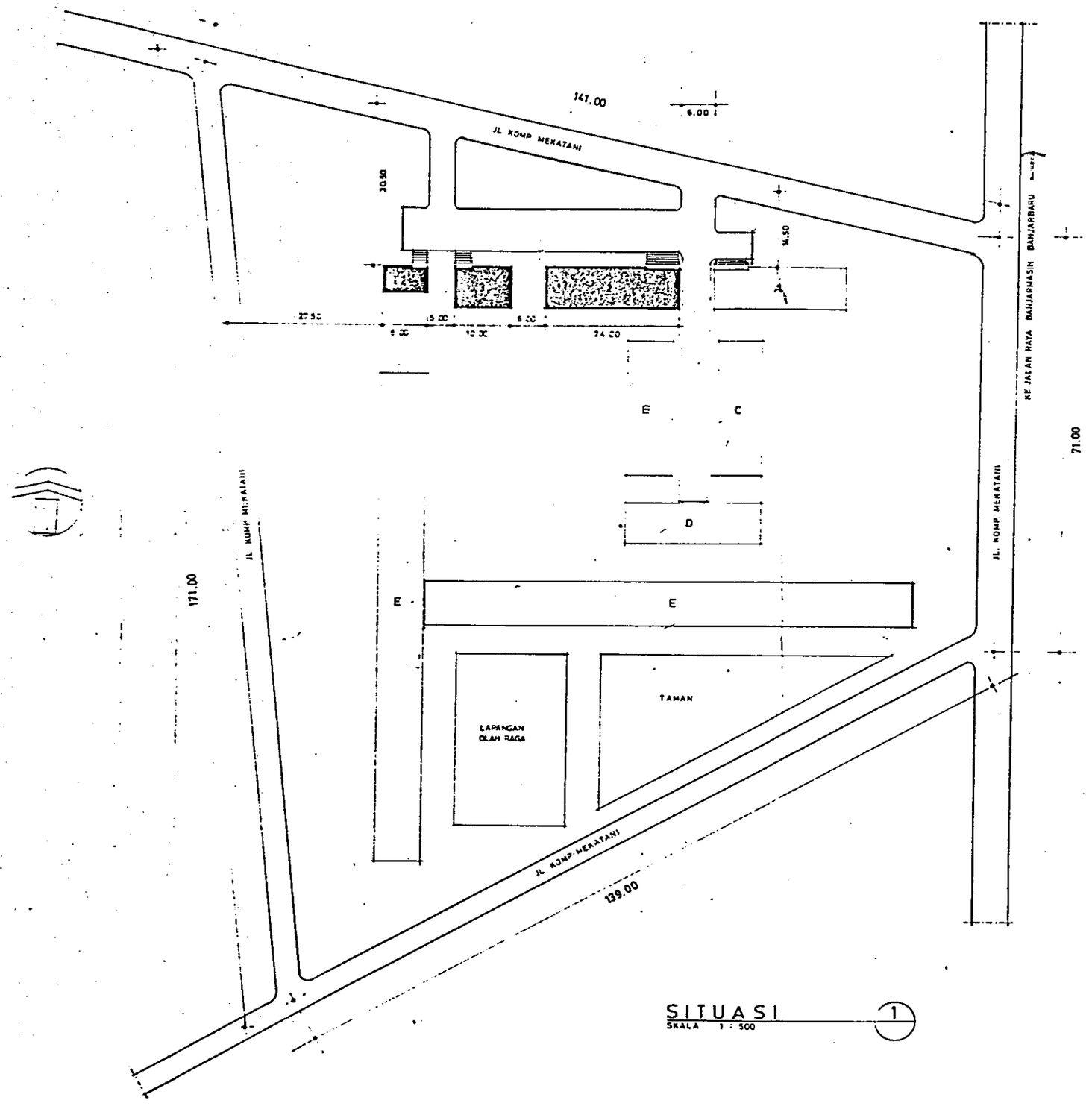
KANTOR

GAMBAR

PERENCANA
PRIMA CIPTA
biro arsitek dan insinyur

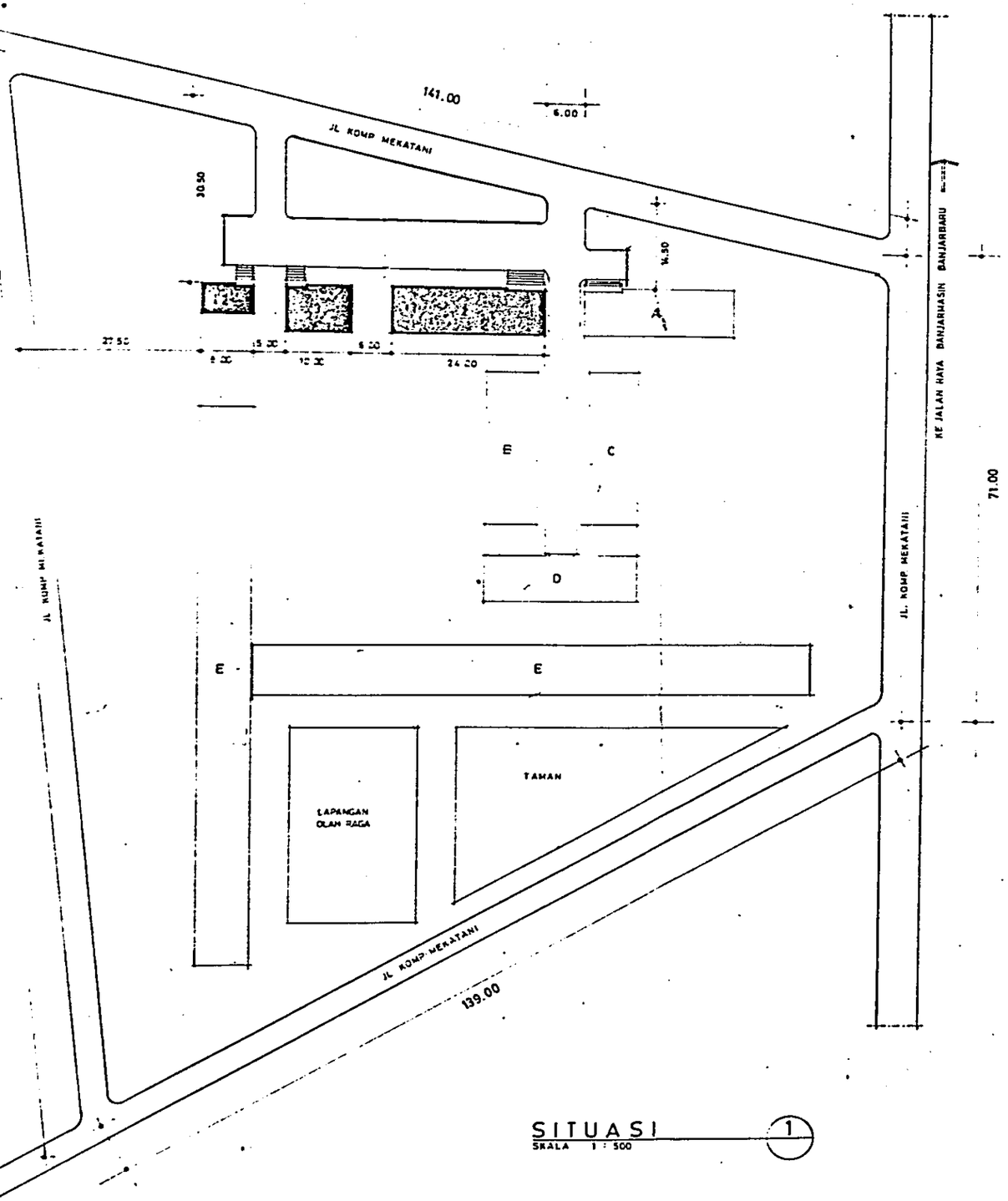
direncana	
digambar	roesly
diperiksa	
disetujui	
disahkan	
skala gambar	ukuran dalam gambar
kode	nomor lembar

バンジャルバルーFCPC（南部カリマンタン州）既存施設図面



SITUASI 1

SKALA 1 : 500



SITUASI 1

SKALA 1 : 500

KETERANGAN :

BANGUNAN YANG DI RENCANAKAN
1. KANTOR / LABORATORIUM = 200 M2
2. GUDANG = 40 M2
3. GUDANG = 80 M2

RENCANA PENGEMBANGAN
A. KANTOR
B. AULA
C. PERPUSTAKAAN
D. BENGKEL GARASI
E. PERUMAHAN

NAMA PROYEK

PENGEMBANGAN SISTIM PENGAMATAN PERAMALAN JASAD PENGGANGGU DAN PENGAWASAN PESTISIDA

LOKASI PROYEK

BANJAR BARU
KAB. BANJAR PROP KAL-SEL

PERENCANA / KONSULTAN

PT PEDICINAL
PLANNING DESIGNING & CONSULTANTS
JL. ... NO 3 TELP 73832 BANDUNG
JL. BATUPUTIH NO 1 TELP 8053 BANJARMASIN

PEKERJAAN

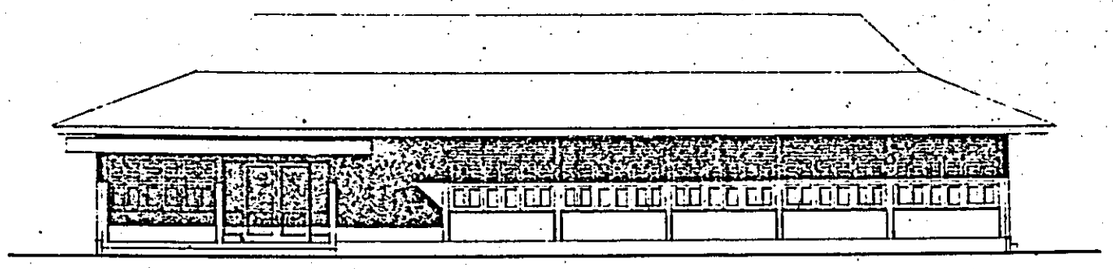
MEMBANGUN

1 (SATU) BH KANTOR/LAB
SELUAS 200 M2

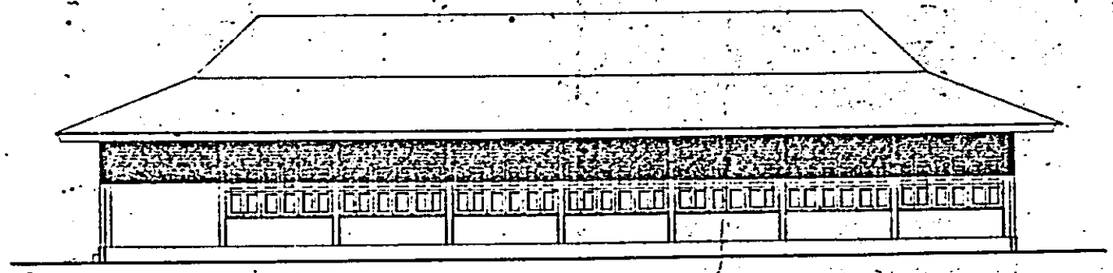
DIGAMBAR		JOB CAPTAIN
AMANUDDIN MURAD		HADI S.
PENANGGUNG JAWAB	TGL	TANDA TANGAN
MUZIKHIN IS BE		
DISETUJUI PIMBAGPRO	TGL	TANDA TANGAN
IR DJHARMADI S NIP 080062320		
DIKETAHUI	TGL	TANDA TANGAN
KASI PENYUSUNAN PERENCANAAN SUB DINAS CIPTA KARYA IR SUMANG YUHANA NIP 110 015 441		

KEL GAMBAR	JUDUL GAMBAR	SKALA
	SITUASI	1 : 500

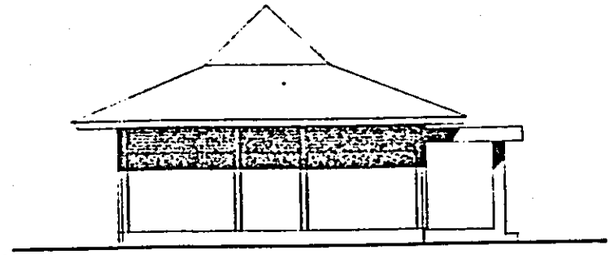
KODE GAMBAR	NO. LEMBAR	JUMLAH
L	01	6



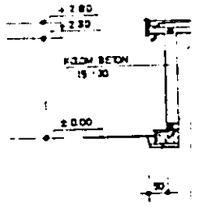
TAMPAK 1
SKALA 1 : 100

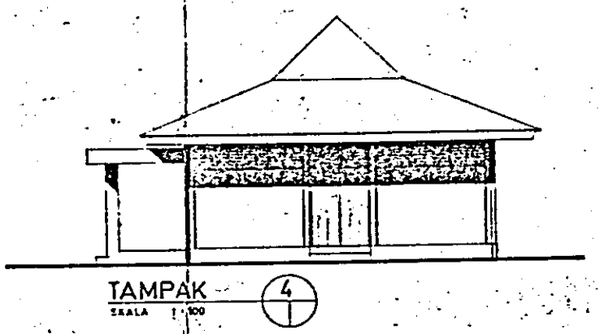


TAMPAK 2
SKALA 1 : 100

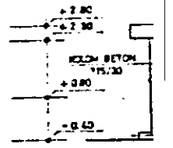


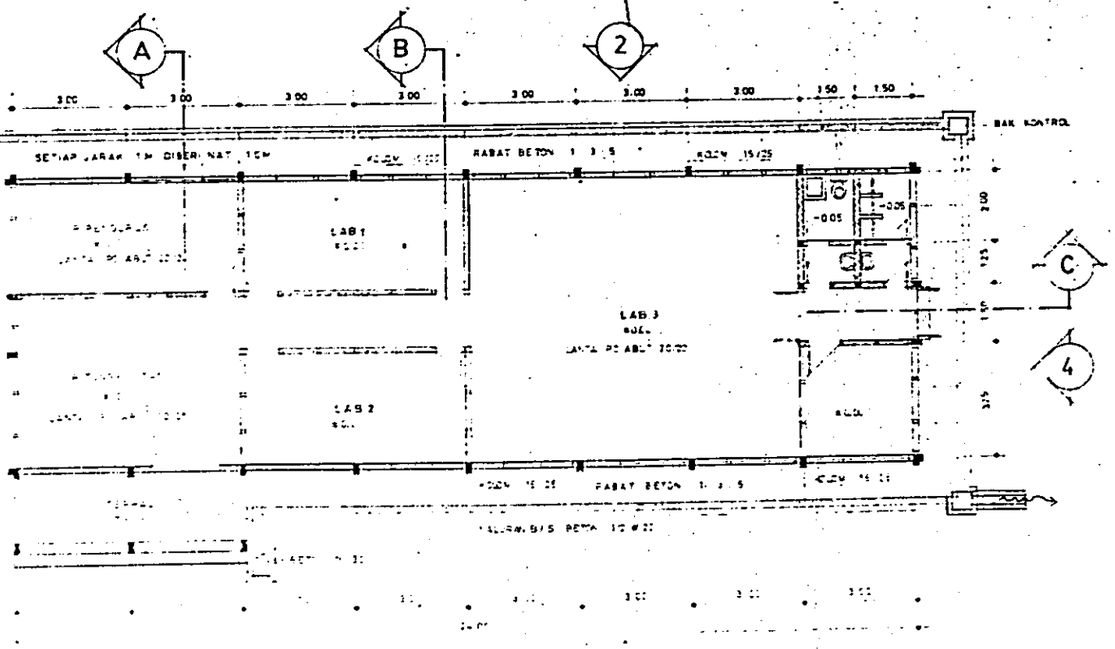
TAMPAK 3
SKALA 1 : 100



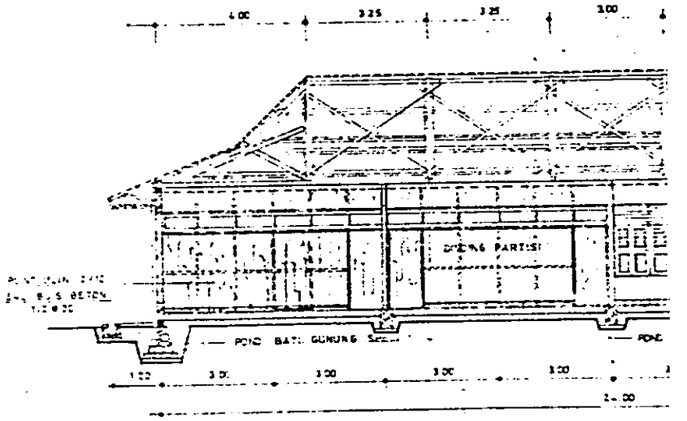


TAMPAK 4
SKALA 1 : 100

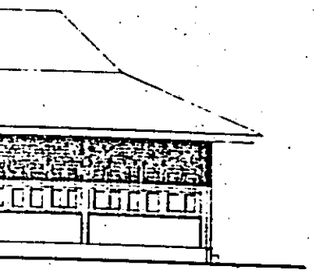


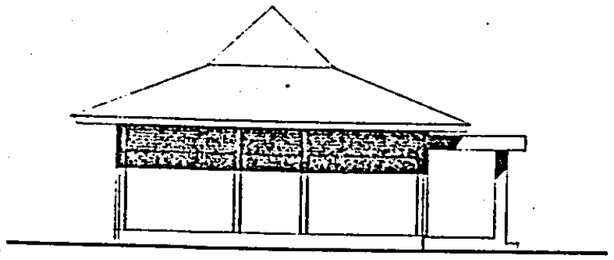


DENAH

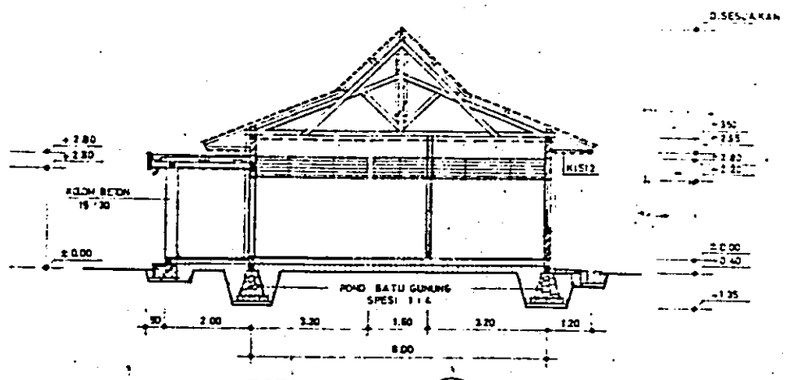


POTONGAN C
SKALA 1 : 100

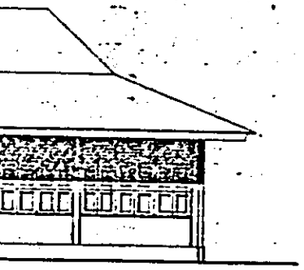


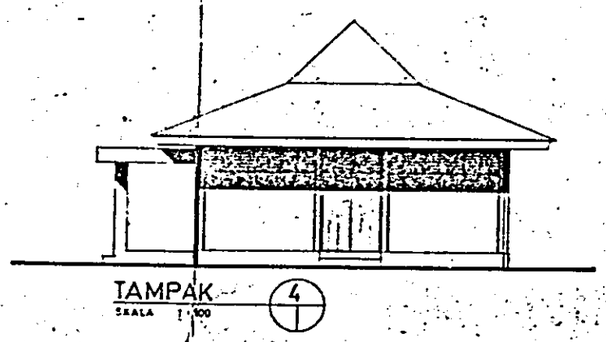


TAMPAK 3
SKALA 1 : 100

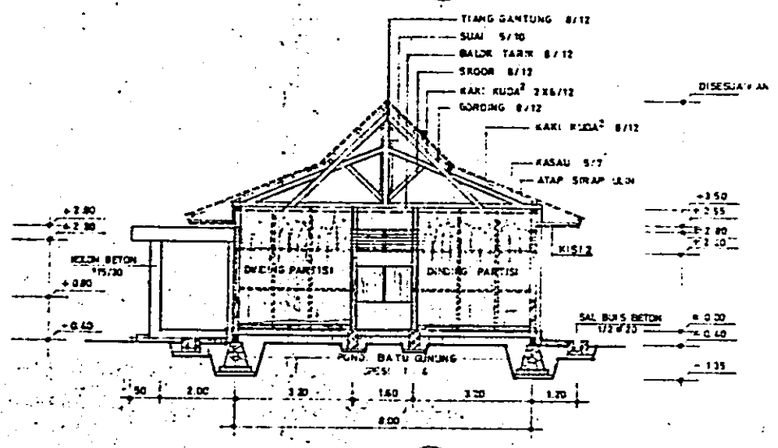


POTONGAN A
SKALA 1 : 100

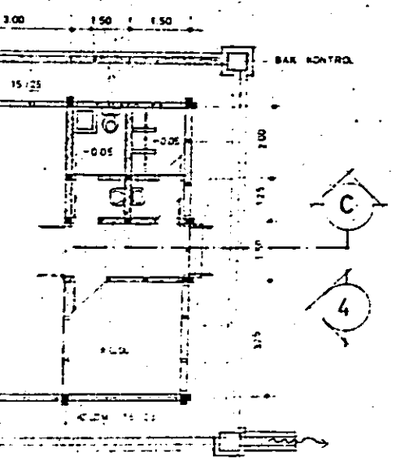


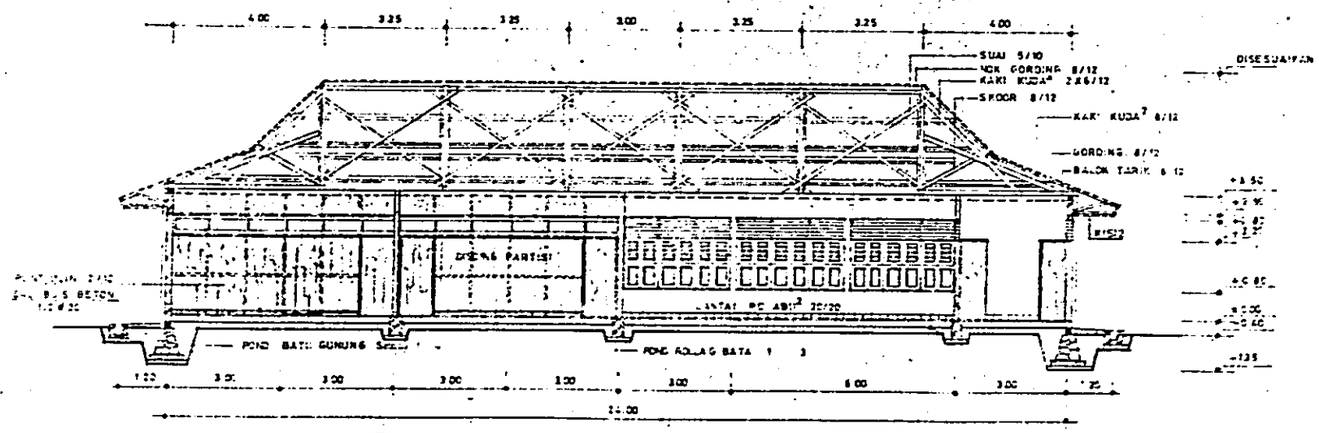


TAMPAK 4
SKALA 1 : 100



POTONGAN B
SKALA 1 : 100





POTONGAN C
SKALA 1 : 100

NAMA PROYEK

PENGEMBANGAN SISTIM PENGAMATAN PERAMALAN JASAD PENGGANGGU DAN PENGAWASAN PESTISIDA

LOKASI PROYEK

BANJARBARU
KAB. BANJAR PROP. KAL-SEL

PERENCANA KONSULTAN

PT PEDICINAL
PLANNING DESIGNING & CONSULTANTS
JL JOHAR NO.3 TILP 73822 BANDUNG
JL BATUPUTIH NO.1 TILP 8083 BANJARMASIN

PEKERJAAN

MEMBANGUN :
1 (SATU) BH. LABORATORIUM 200 M²

DIGAMBAR	JOB CAPTAIN
JUHENA	MADI S

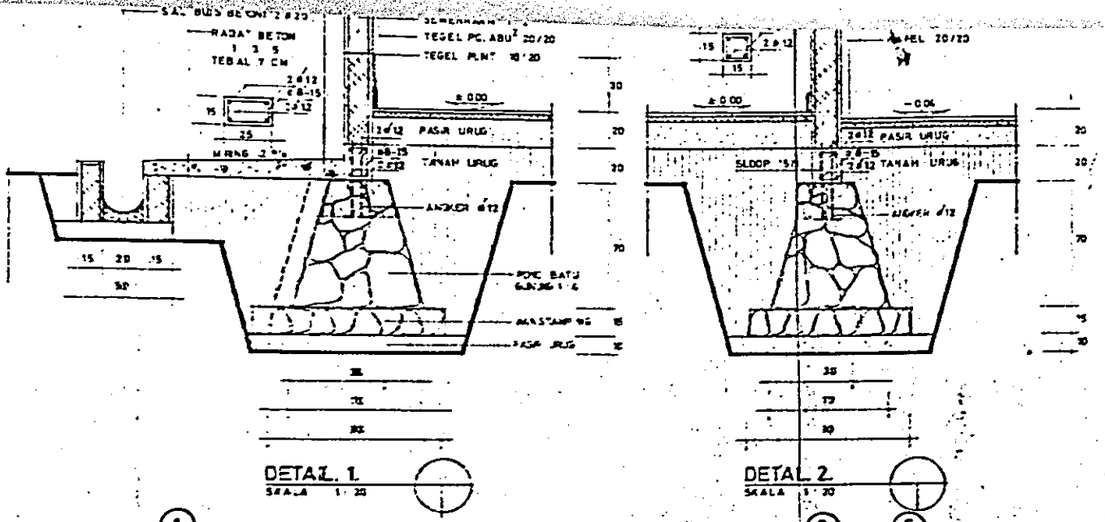
PENGESAHAN JABATAN	TGL	TANDA TANGAN
MUZIPHIN IS BE		

DISETUJUI PIMPRO	TGL	TANDA TANGAN
M. SYARMAS NIP 080163351		

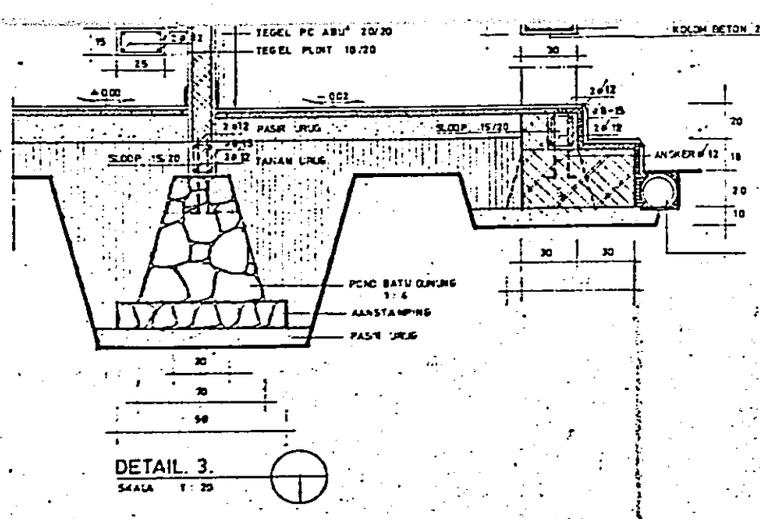
DIKETAHUI	TGL	TANDA TANGAN
KASI PENYUSUNAN PROGRAM & PROYEK SUB DINAS CIPTA KARYA PENGAIRAN DAN TATA KOTA		

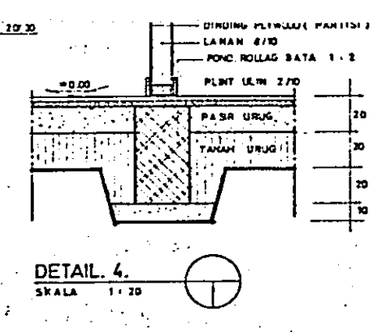
JUDUL GAMBAR	SKALA
DENAH TAMPAK POTONGAN	1 : 100

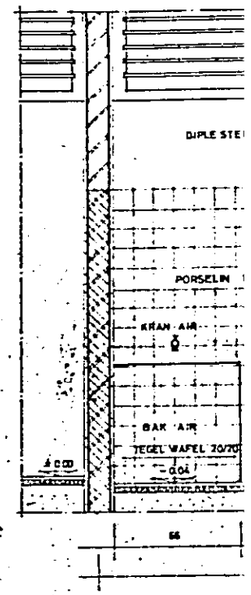
KODE GAMBAR	NO. LEMBAR	
L	02	

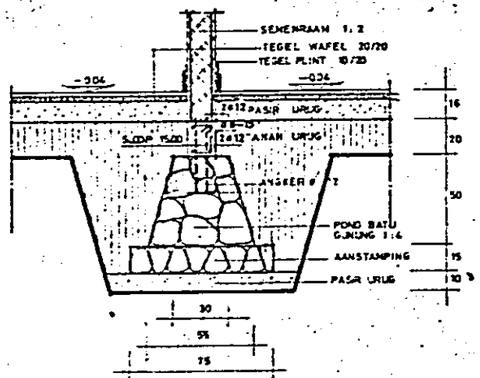

DETAIL. 1.
SKALA 1 : 20

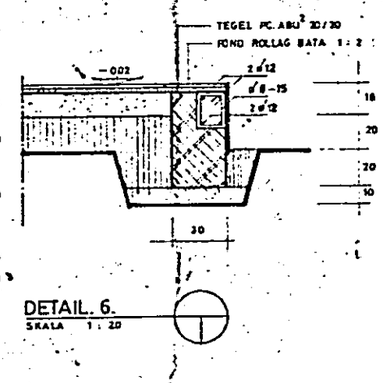
DETAIL. 2.
SKALA 1 : 20

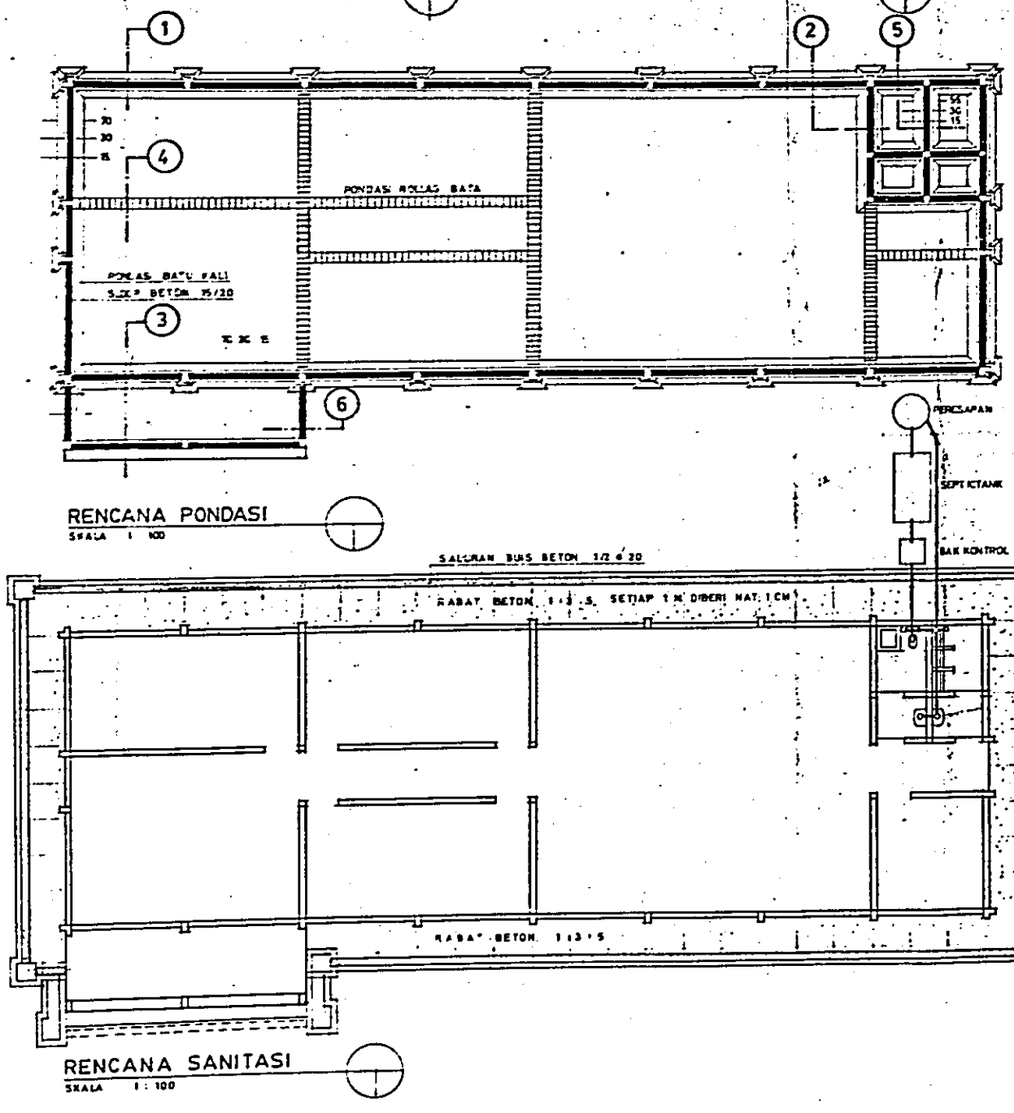

DETAIL. 3.
SKALA 1 : 20

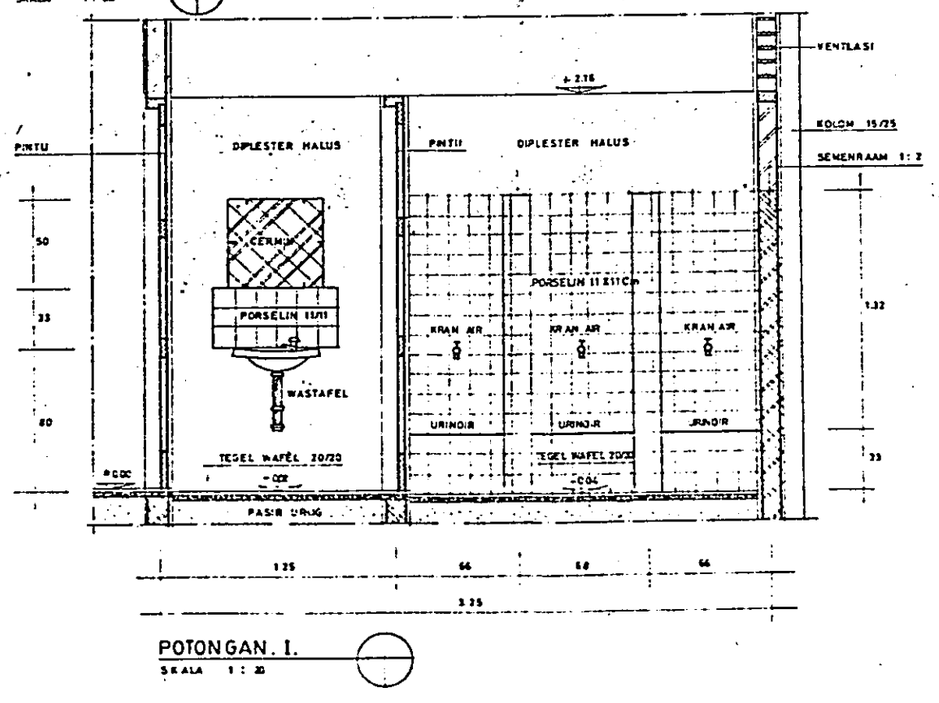

DETAIL. 4.
SKALA 1 : 20

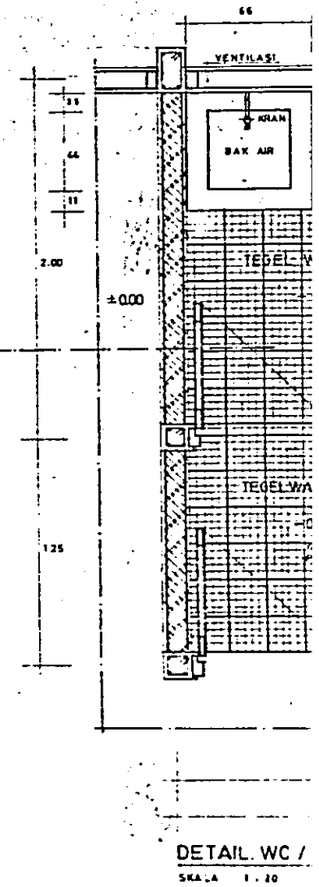

POTONGAN. II.
SKALA 1 : 20

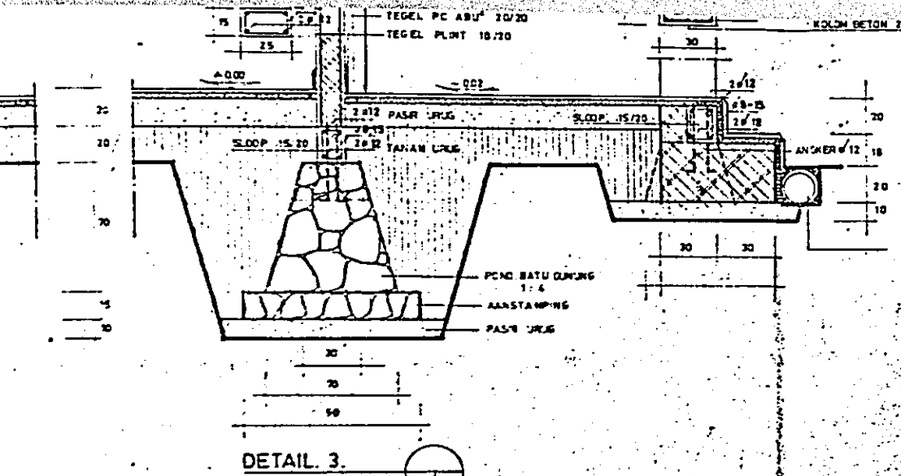

DETAIL. 5.
SKALA 1 : 20


DETAIL. 6.
SKALA 1 : 20

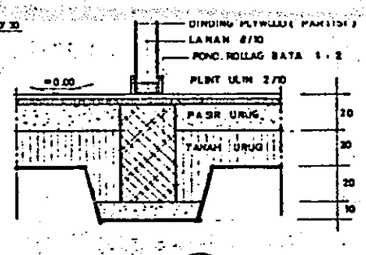

RENCANA PONDASI
SKALA 1 : 100
RENCANA SANITASI
SKALA 1 : 100


POTONGAN. I.
SKALA 1 : 20

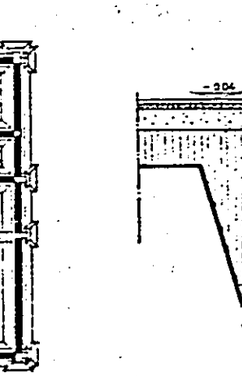

DETAIL. WC /
SKALA 1 : 20

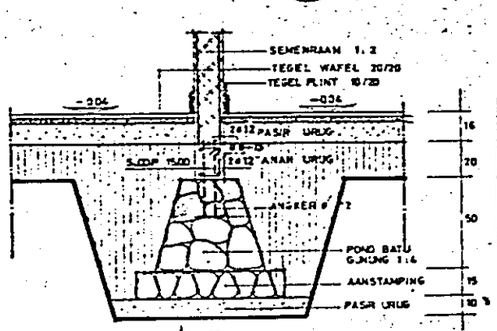


DETAIL. 3.
SKALA 1 : 20

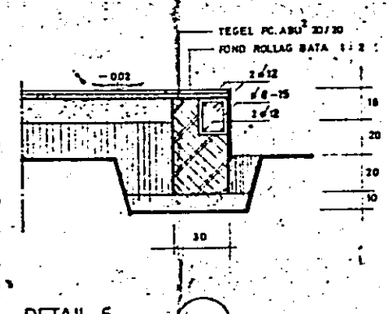


DETAIL. 4.
SKALA 1 : 20

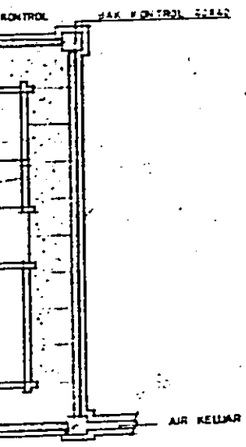


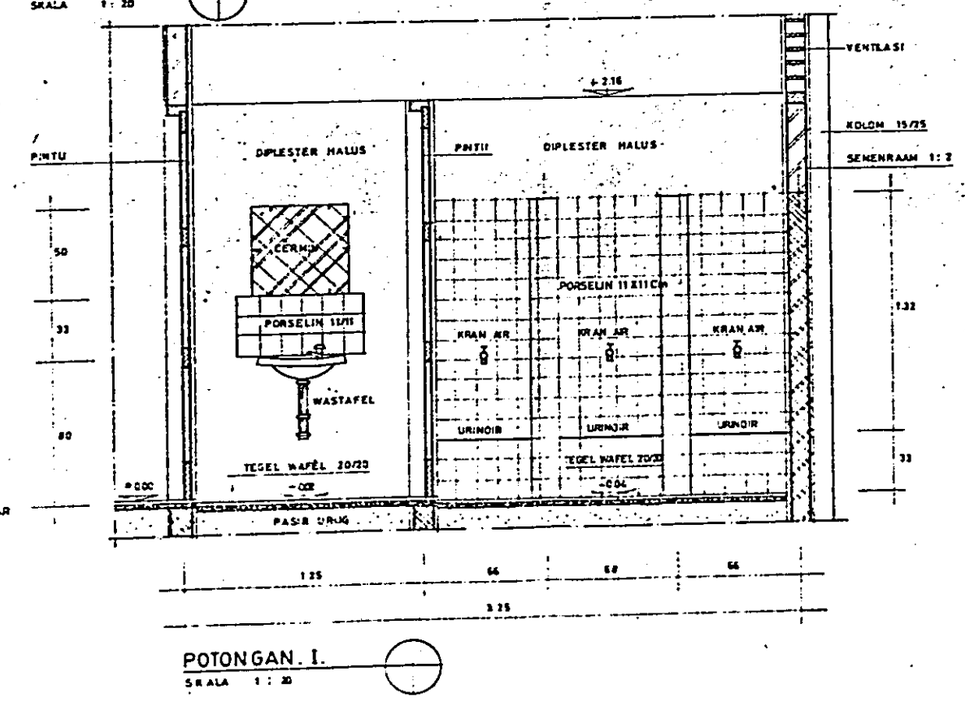


DETAIL. 5.
SKALA 1 : 20

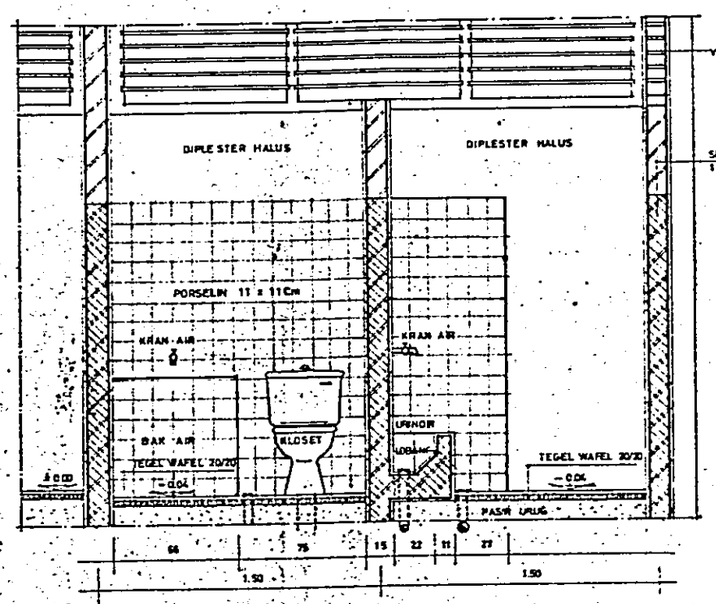


DETAIL. 6.
SKALA 1 : 20

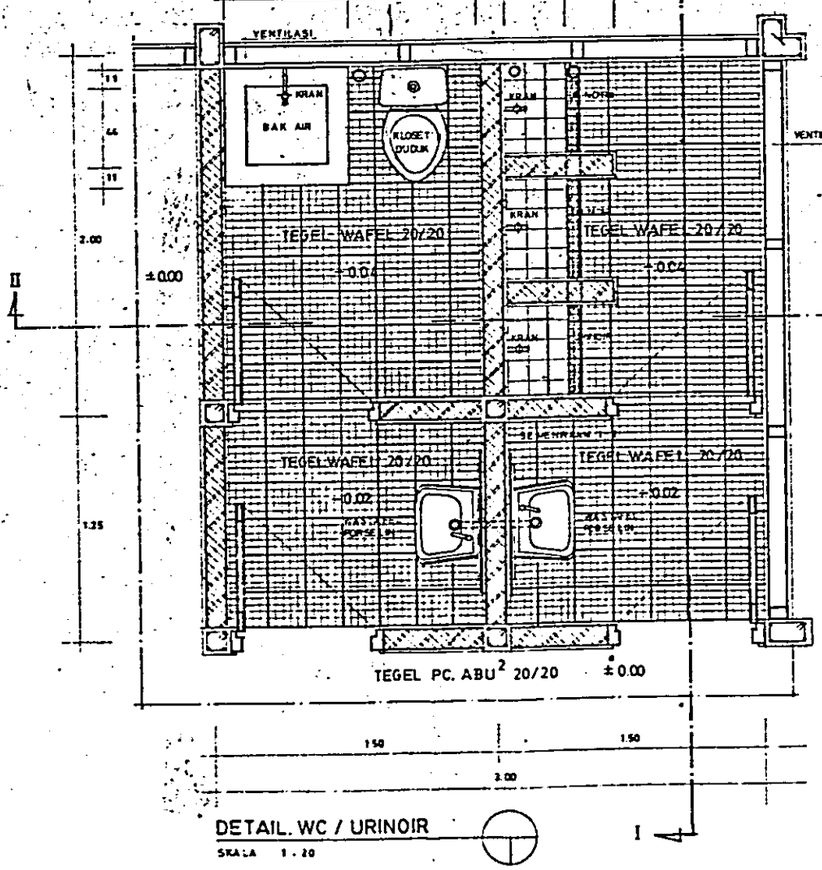




POTONGAN. I.
SKALA 1 : 20



POTONGAN. II.
SKALA 1 : 20



DETAIL. WC / URINOIR
SKALA 1 : 20

NAMA PROYEK

PENGEMBANGAN SISTIM PENGAMA-
PERAMALAN JASAD PENGGANGG
DAN PENGAWASAN PESTISIDA

LOKASI PROYEK

BANJARBARU
KAB. BANJAR PROP. KAL-

PERENCANA / KONSULTAN

PT PED
PLANNING & DESIGNING & CO
J. JENAR NO 3 T.P. TM
J. BATU PUTIH NO 1 TLP

PEKERJAAN

MEMBANGUN :
1 (SATU) BH. LABORATORIUM

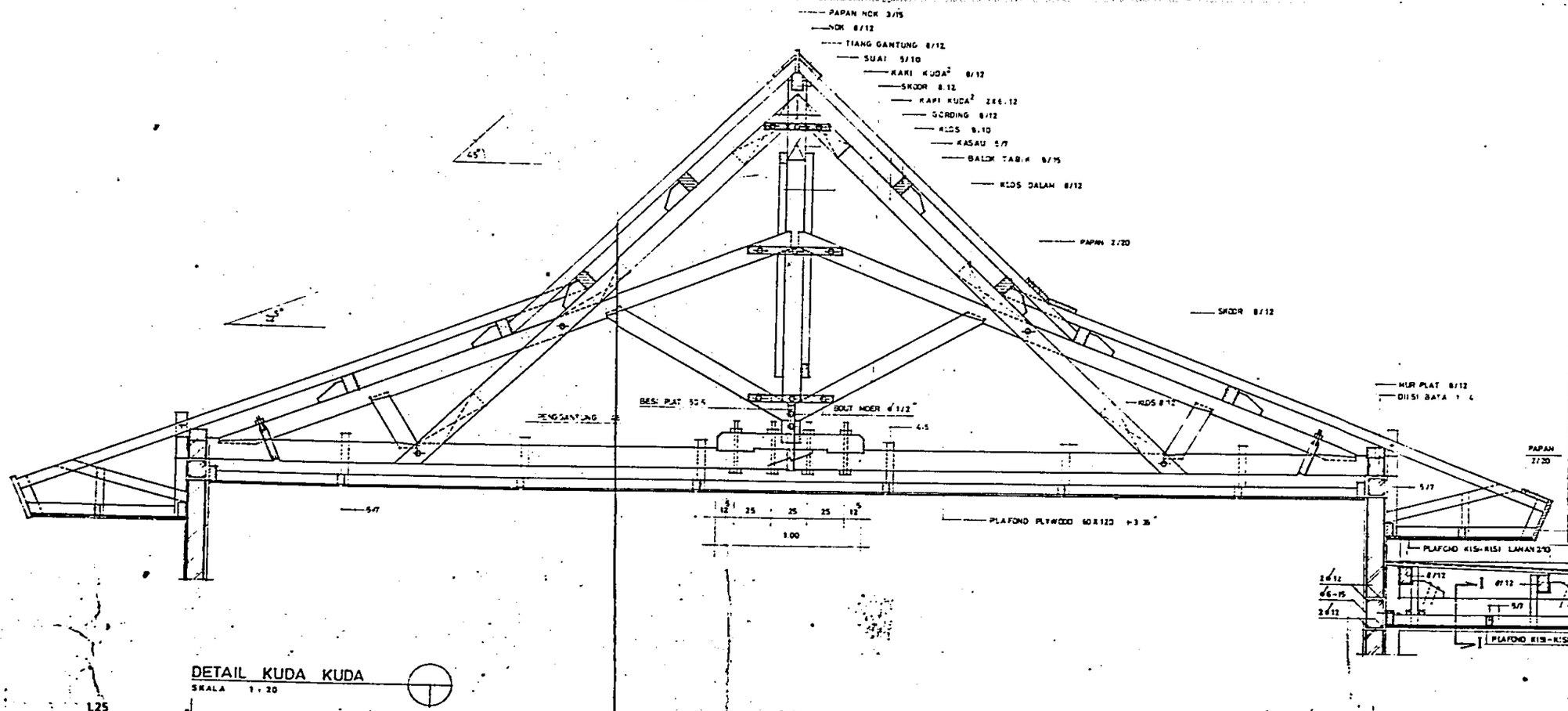
DIGAMBAR	
JUMIRMIN	
PENANGGUNG JAWAB	TGL
MUZIRMIN, IS. BE.	
DISETUJUI PIMPRO	TGL
Ir. DJARMADI S. NIP 04000 2320	
DIKETAHUI	TGL
KASI PENYUSUNAN PERENC & PROGR. SUB DINAS CIPTA KARYA Ir. NUNUNG TJHANA NIP 130151	

JUDUL GAMBAR

RENCANA PON
RENCANA SA
DETAIL PONDA
DETAIL WC

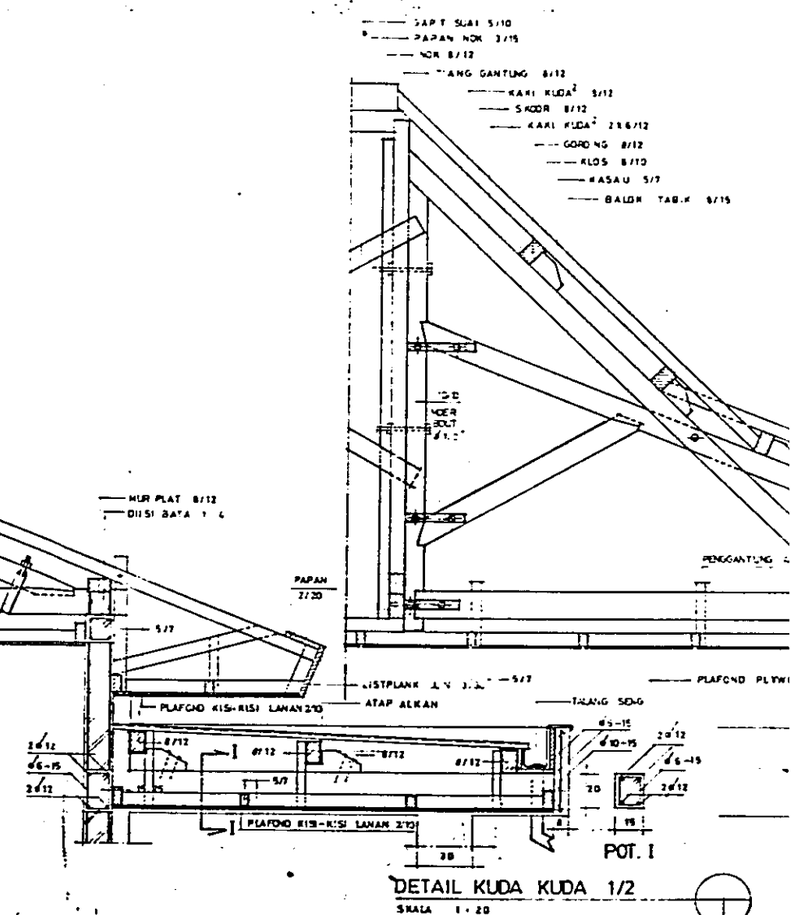
NO. GAMBAR

L



DETAIL KUDA KUDA

SKALA 1 : 20

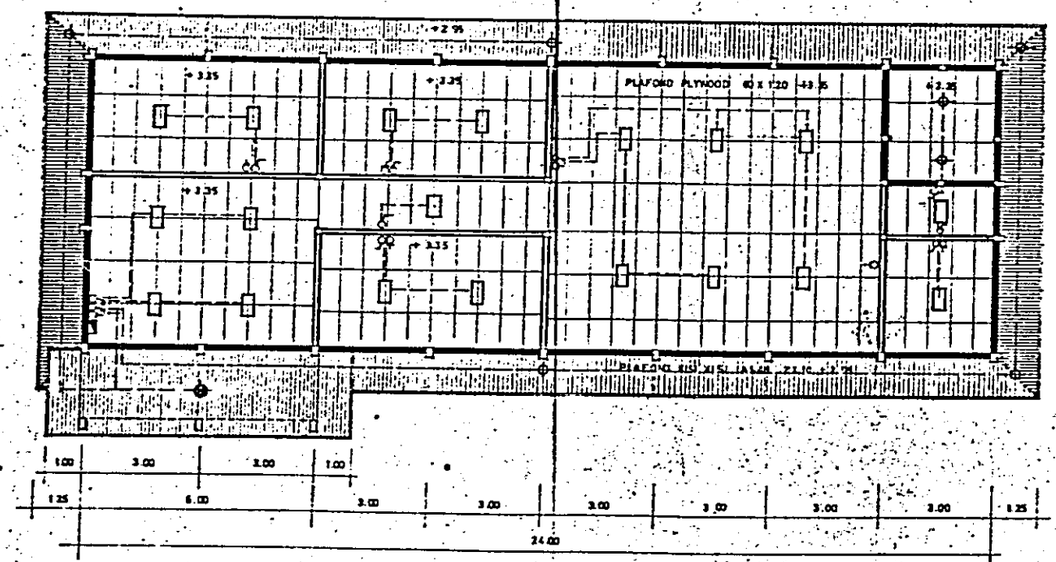


DETAIL KUDA KUDA 1/2

SKALA 1 : 20

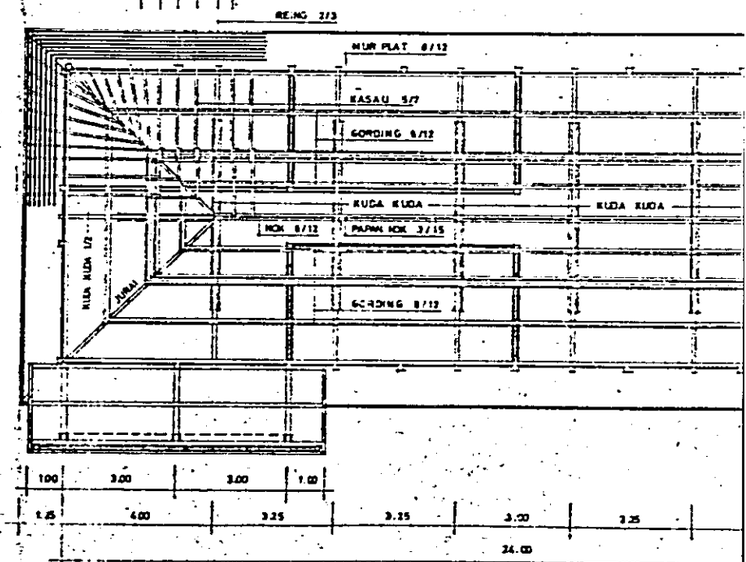
KETERANGAN :

- SEKERING KAST
- LAMPU TL 2 X 10 WATT
- LAMPU PIJAR 40 WATT
- SAKELAR GANDA
- SAKELAR TUNGGAL
- STOP KONTAK
- KABEL LISTRIK
- LAMPU BARET



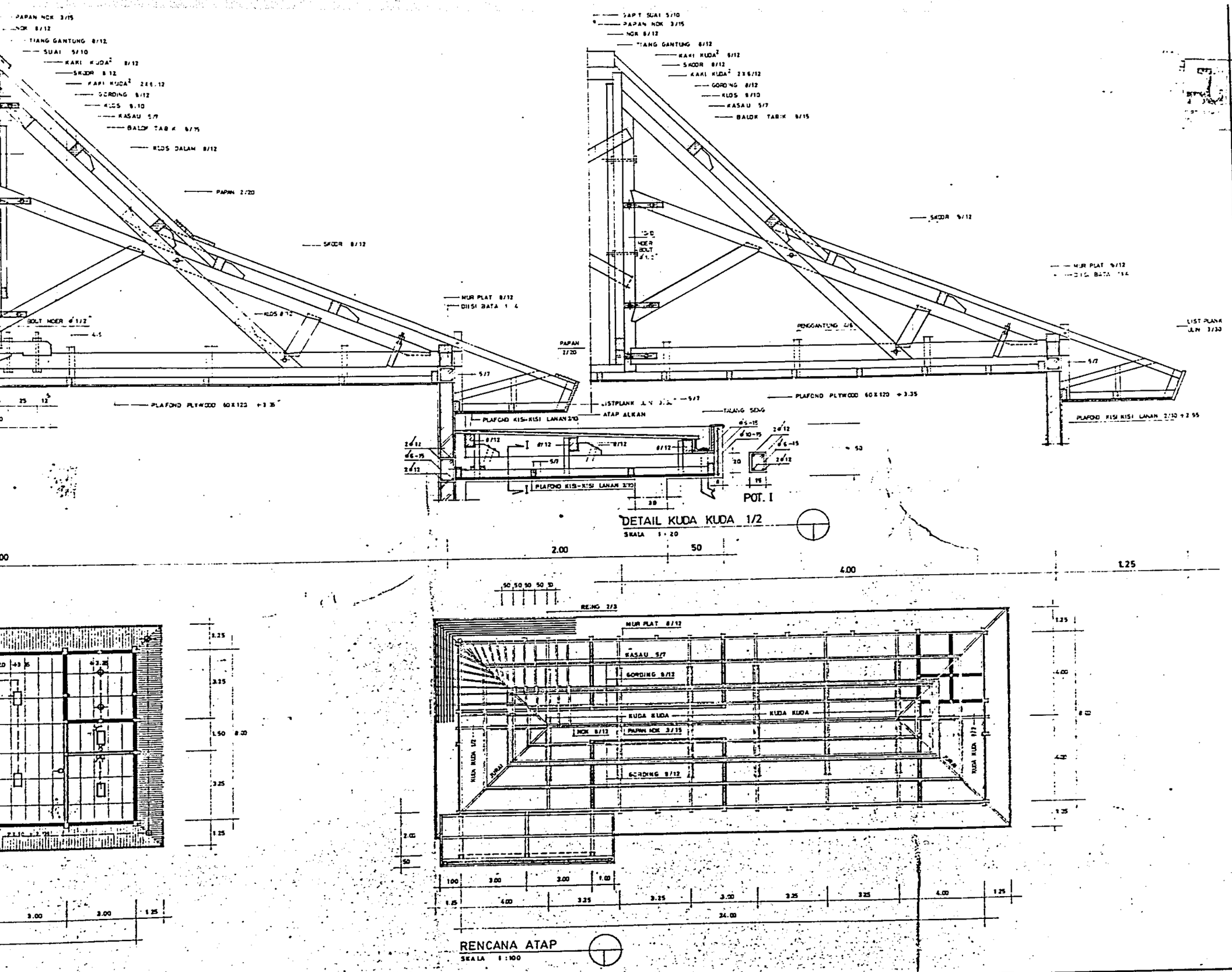
RENCANA PLAFON / LAMPU

SKALA 1 : 100



RENCANA ATAP

SKALA 1 : 100



NAMA PROYEK

PENGEMBANGAN SISTIM PENGAMATAN PERAMALAN JASAD PENGGANGGU DAN PENGAWASAN PESTISIDA

LOKASI PROYEK

BANJARBARU
KAB. BANJAR PROP. KAL-SEL.

PERENCANA / KONSULTAN

PT PEDICINAL
PLANNING DESIGNING & CONSULTANTS
JL. JOHAR NO 3 TLP. 73822 BANDUNG
JL. BATURING NO 1 TLP. 4253 B. MASIN

PEKERJAAN

MEMBANGUN
1 (SATU) BH. LABORATORIUM 200 M²

DIGAMBAR	JOB CAPTAIN
JUMIYANTO	HADI S

PENANGGUNG JAWAB	TGL.	TANDA TANGAN
MUZAMMIL IS BE		

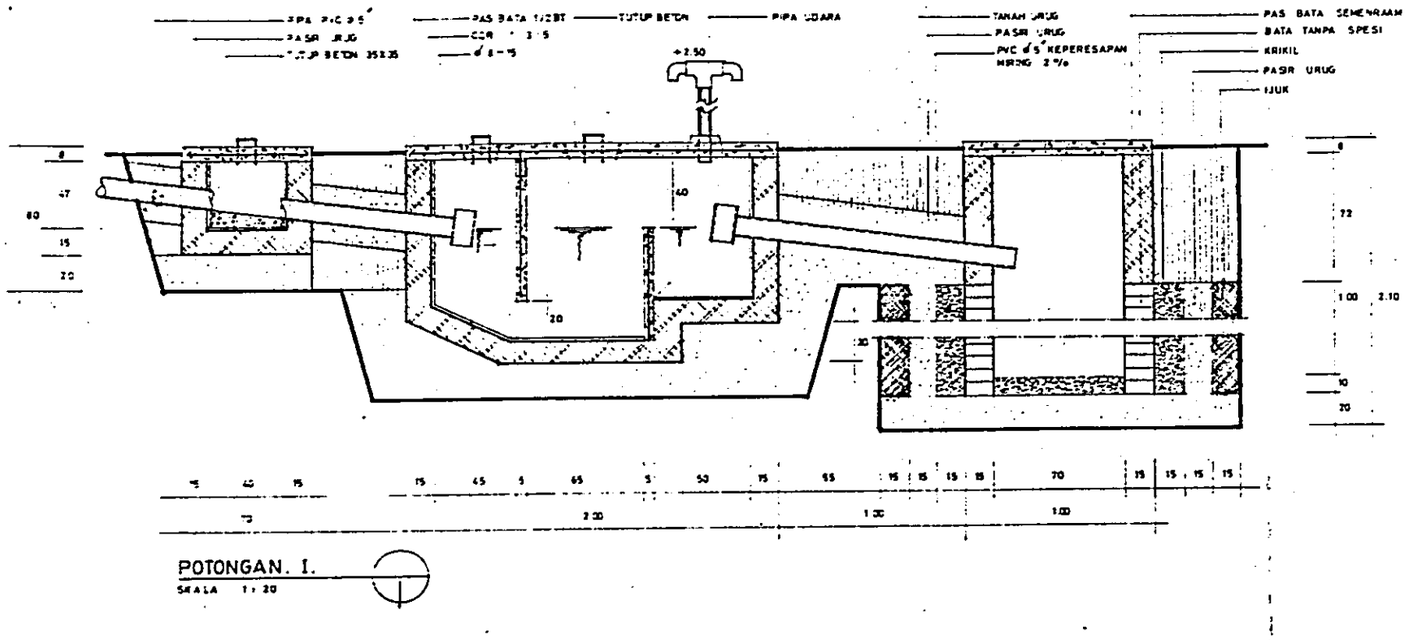
DISETUJUI PIMPRO	TGL.	TANDA TANGAN
Ir. DJAMHUD S		

DISETUJUI TGL. TANDA TANGAN

KASI PENGAWASAN PESTISIDA PROPINSI DATI I KALSEL

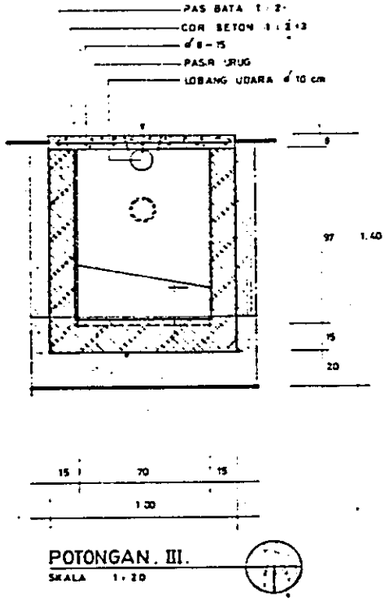
JUDUL GAMBAR	SKALA
RENCANA PLAFOND / LAMPU	1 : 100
RENCANA ATAP	1 : 100
DETAIL KUDA KUDA	1 : 20

KODE GAMBAR	NO LEMBAR	JUMLAH
L	04	6



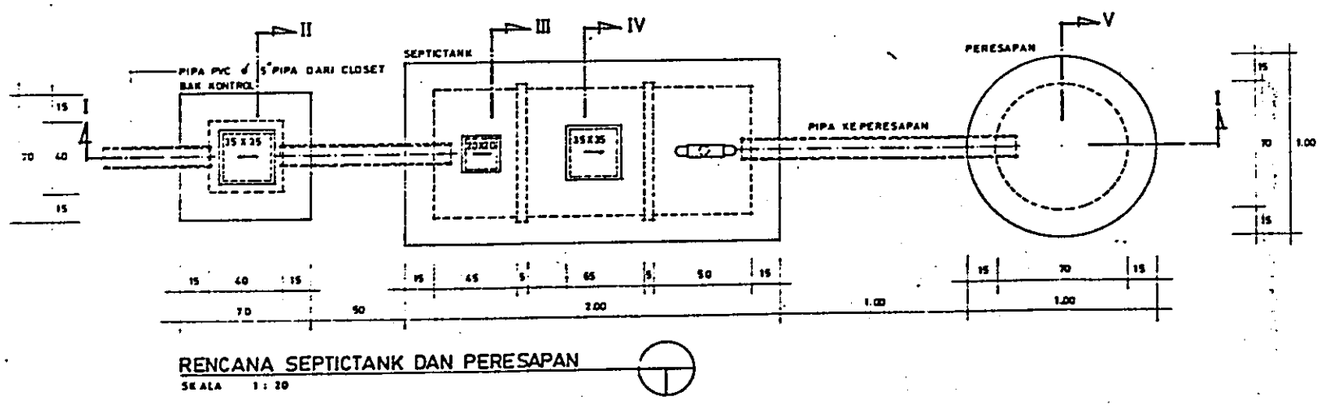
POTONGAN. I.

SKALA 1 : 20



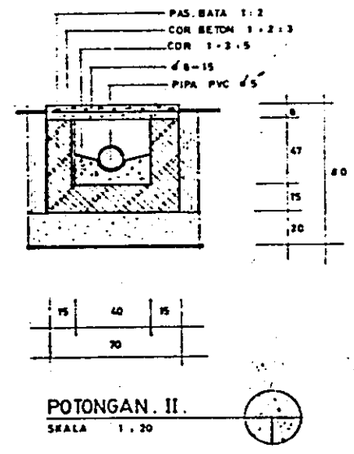
POTONGAN. III.

SKALA 1 : 20



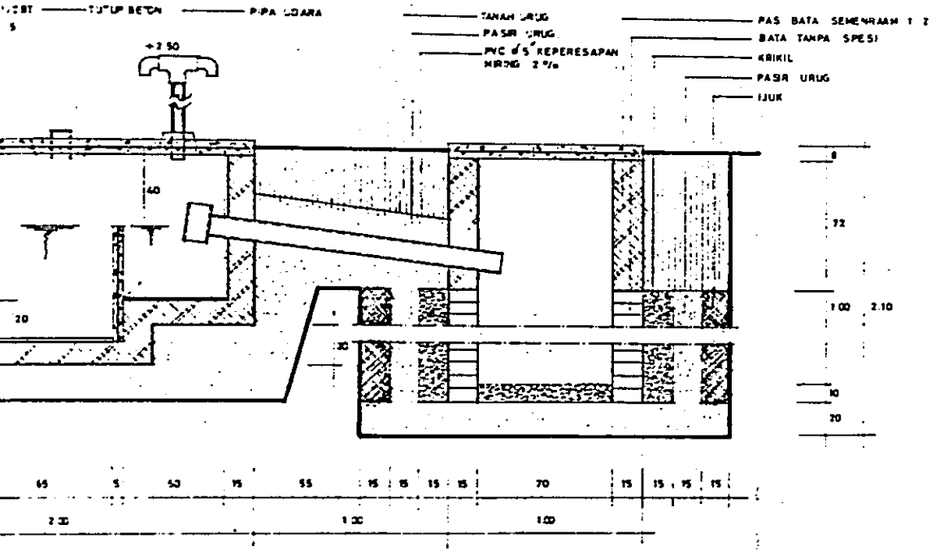
RENCANA SEPTICTANK DAN PERESAPAN

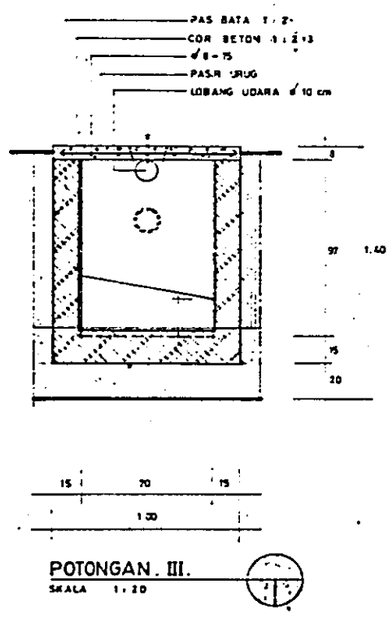
SKALA 1 : 20



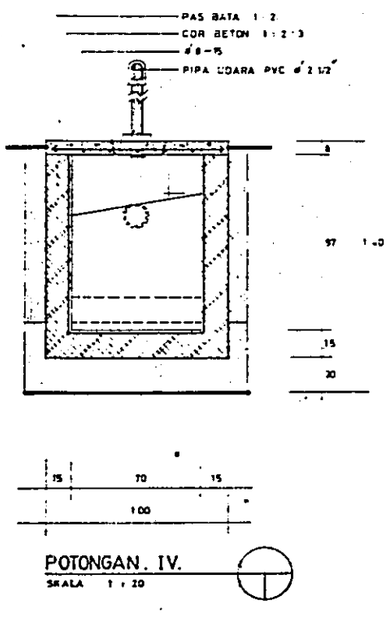
POTONGAN. II.

SKALA 1 : 20

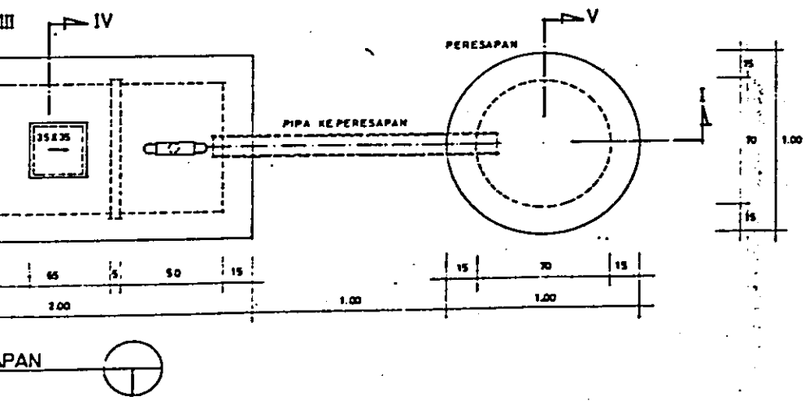


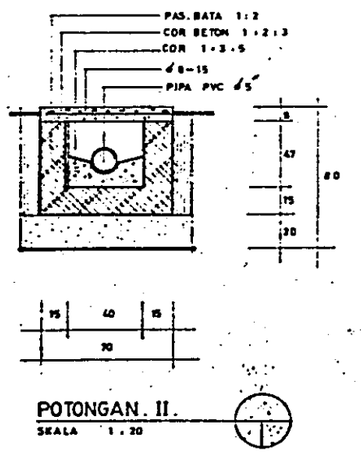


POTONGAN . III.
SKALA 1 : 20

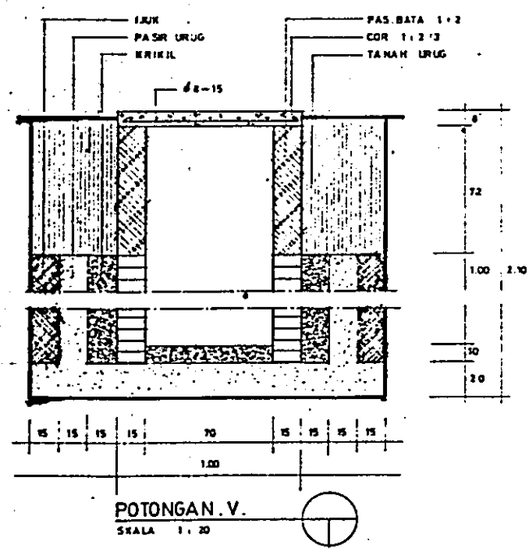


POTONGAN . IV.
SKALA 1 : 20





POTONGAN . II.
SKALA 1 : 20



POTONGAN . V.
SKALA 1 : 20

NAMA PROYEK

PENGEMBANGAN S STEM P
PERAMALAN JABAT PD
DAN PENGAWASAN PEK

LOKASI PROYEK

BANJAREJ
KAB. BANJAR PROP

PERENCANA / KONSULTAN

P T
PLANNING CONSULTANTS
JL. CIHAMPELAS NO.
JL. BANDUNG

PEKERJAAN

MEMBANGUN
1 (SATU) BH LABORATORIUM

DIGAMBAR

JUKIMAN

PENANGGUNG JAWAB

MUZIKHIN, IS BE

DISETUJUI PIMPRO

IR. DIHARMADI S
NIP 080062 32?

DIKETAHUI

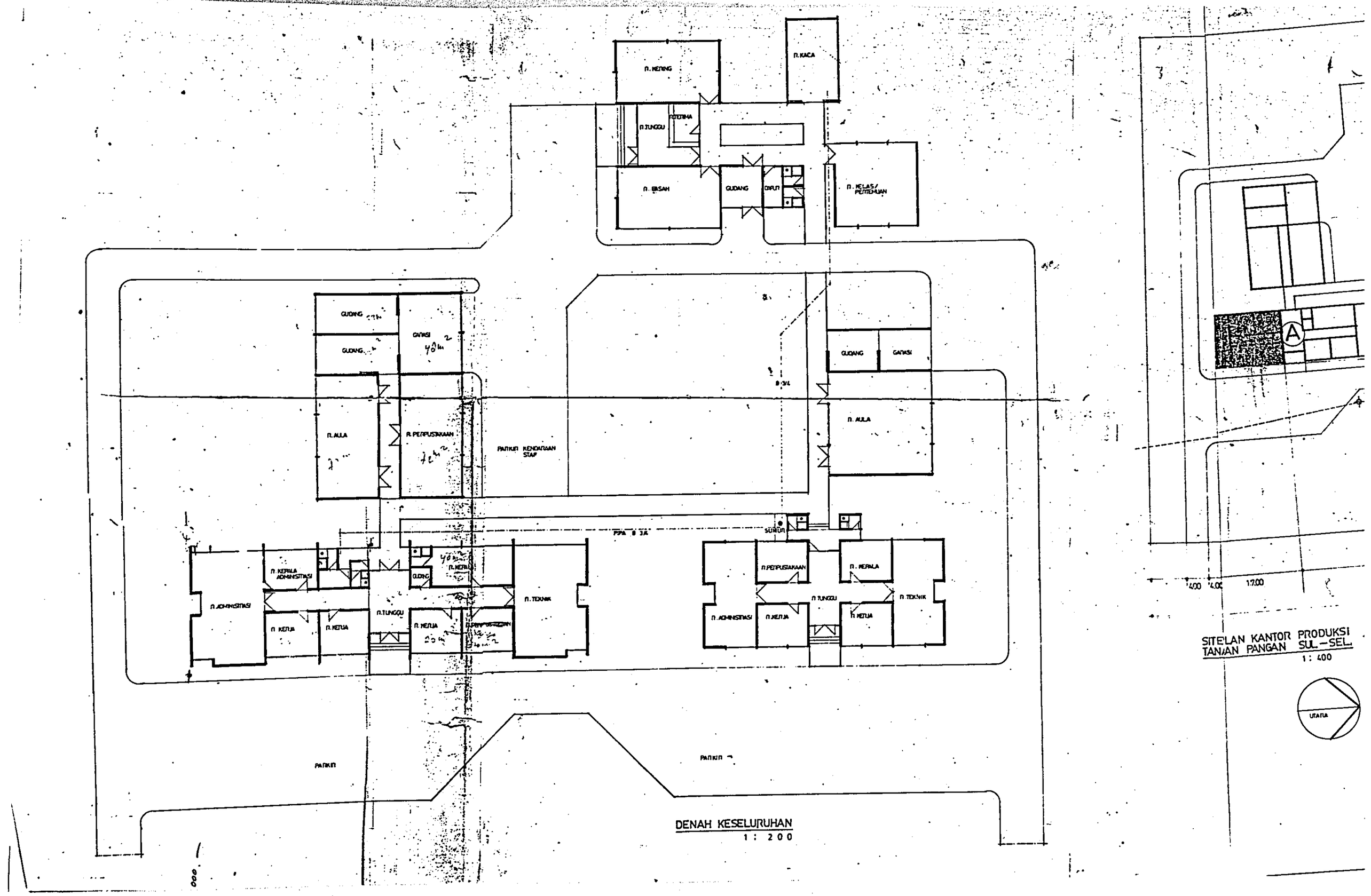
KASI PENYUSUNAN PERENC. & PROG SUBDINAS CIPTA P
IR. NUNUNG YUSANA
NIP 11CC15 ?A1

RENC. SEPTIKTANK DAN PERESAPAN
POTONGAN

KODE GAMBAR

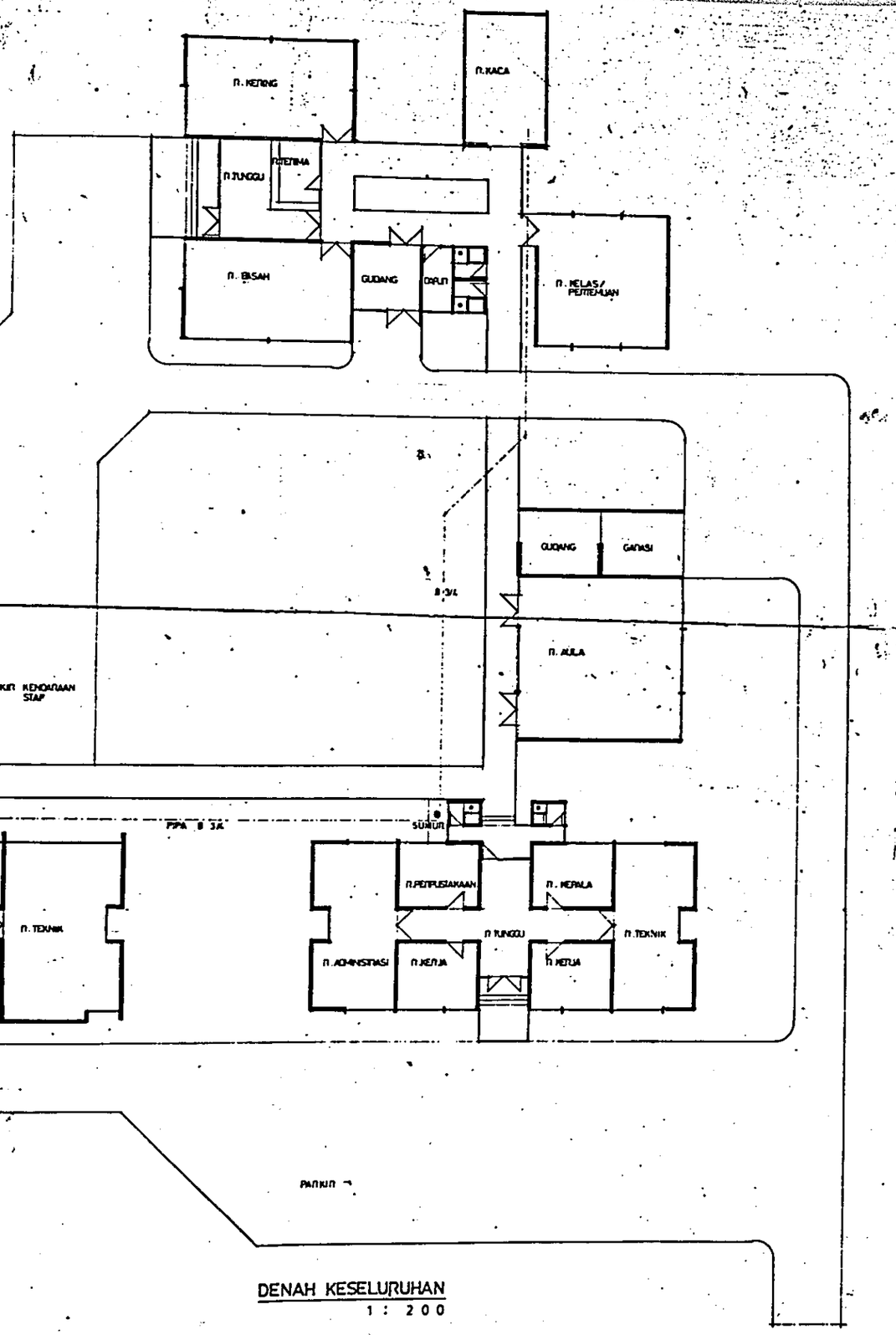
L

マロスFCPC（南部スラウェシ州）既存施設図面

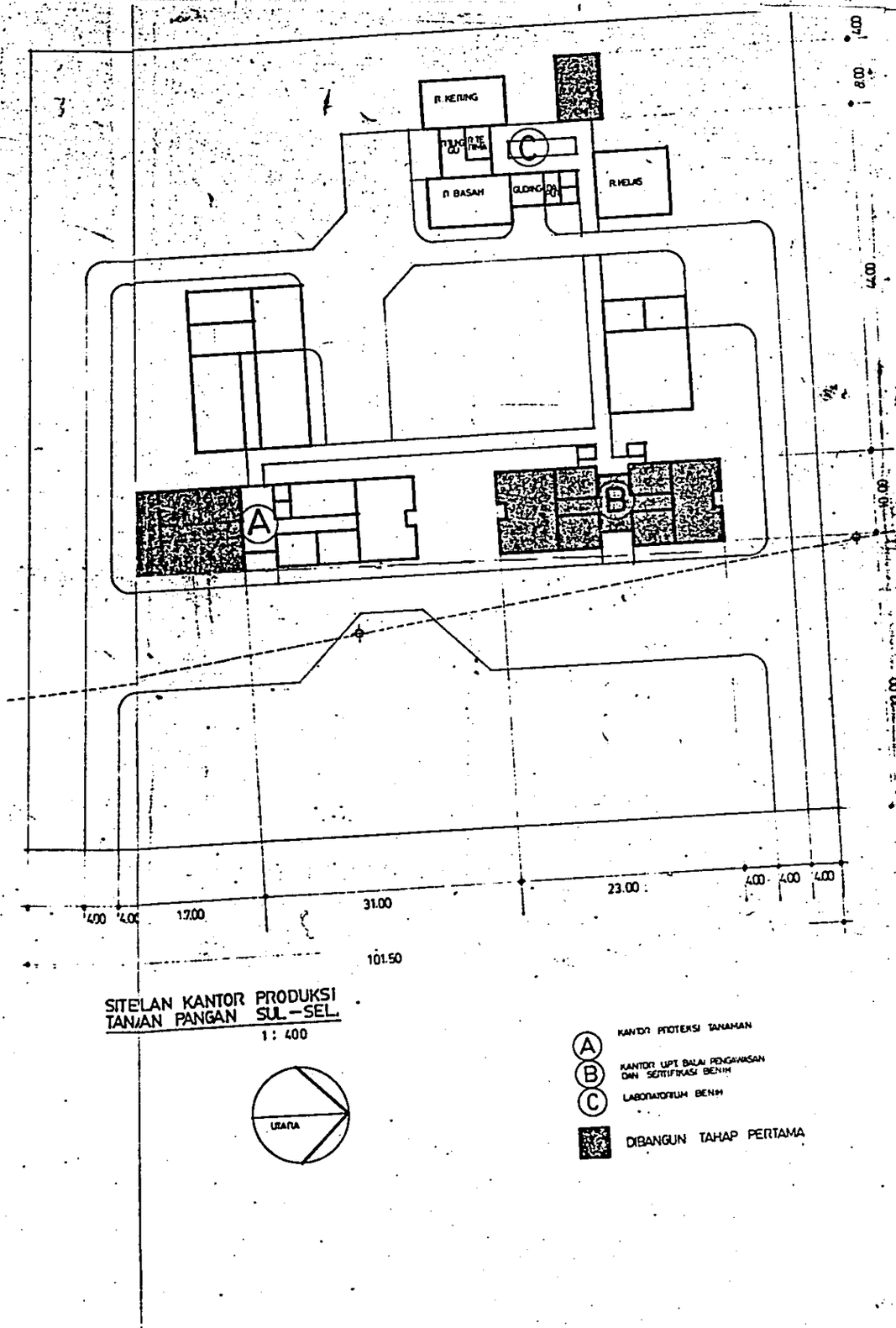


DENAH KESELURUHAN
1 : 200

SITELAN KANTOR PRODUKSI
TANJAN PANGAN SUL-SEL
1 : 400



DENAH KESELURUHAN
1 : 200



SITELAN KANTOR PRODUKSI TANAMAN PANGAN SUL.-SEL.
1 : 400

UTARA

A KANTOR PROTEKSI TANAMAN
B KANTOR UPT BALAI PENGAWASAN DAN SERTIFIKASI BENIH
C LABORATORIUM BENIH

DIBANGUN TAHAP PERTAMA

PROYEK PENINGKA
TANAMAN PA
SULAWESI SE

MASTER PLA

KONSULTAN TEKNIK
CV. MEDIA I

ASISTEN

ARSITEK
IR. ANANTO YUD

MENYETUJUI

PIMPINAN PROYEK PEN
TANAMAN PANGAN SI

IR. ABD HALIM

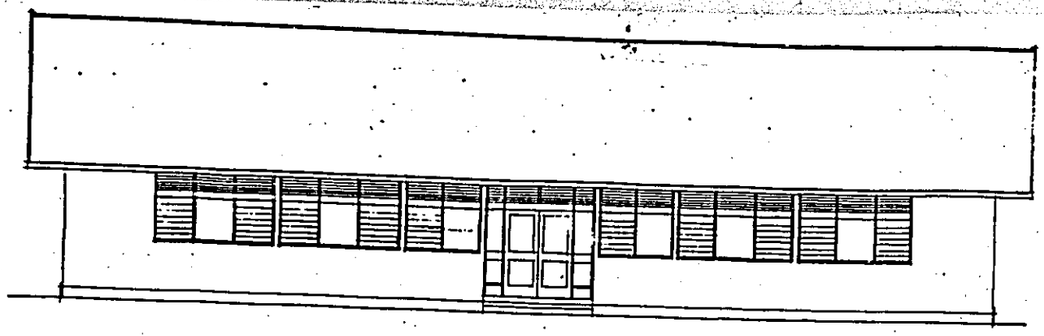
MEMERIKSA

BIDANG CIPTA KAR
PROPINSI SULAWI

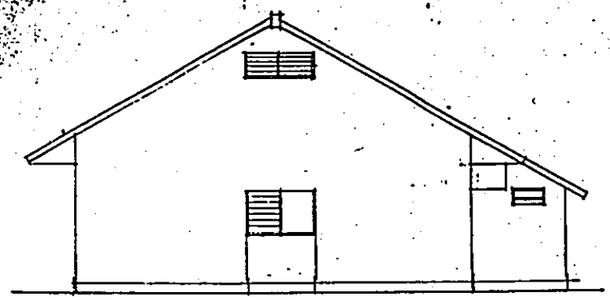
GAMBAR

SITE PLA
DENAH KE
SELURUHA

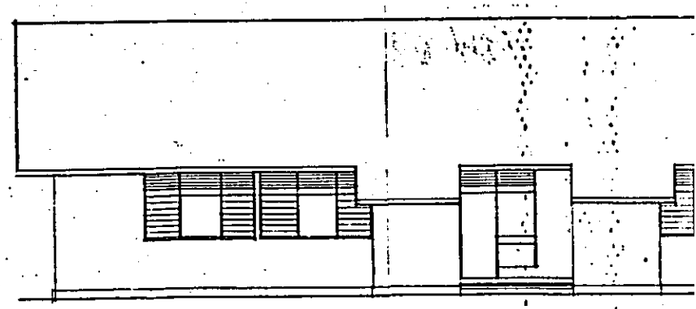
NON CR PROY



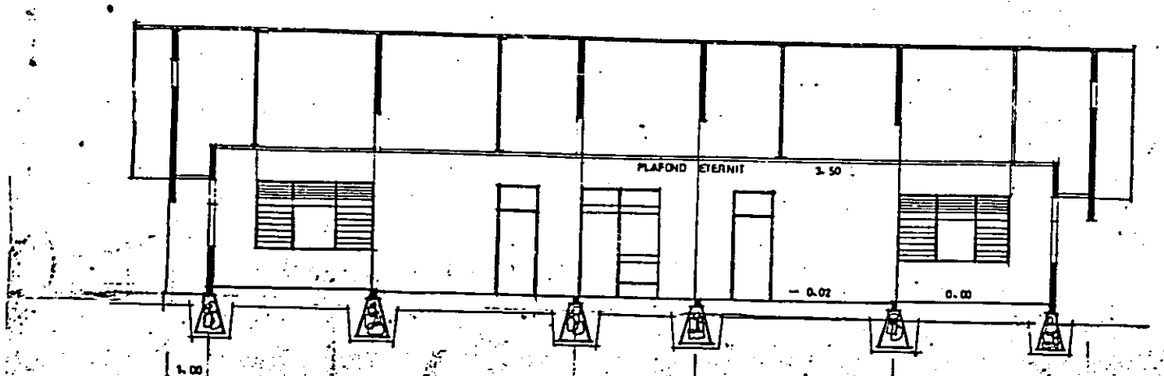
TAMPAK DEPAN
1 : 100



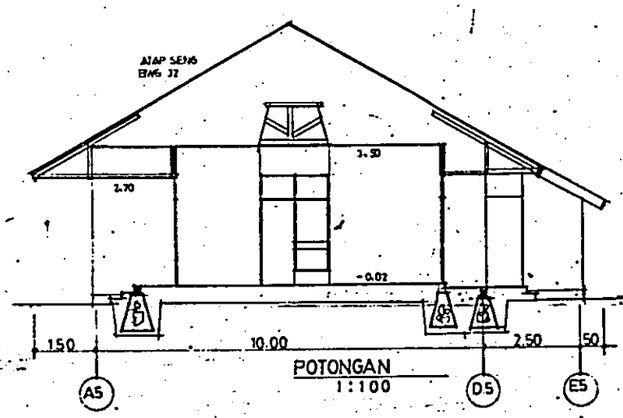
TAMPAK SAMPING
1 : 1.00



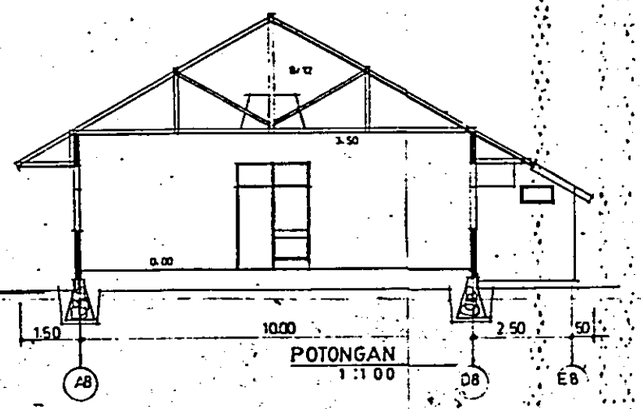
TAMPAK BELAKANG
1 : 100



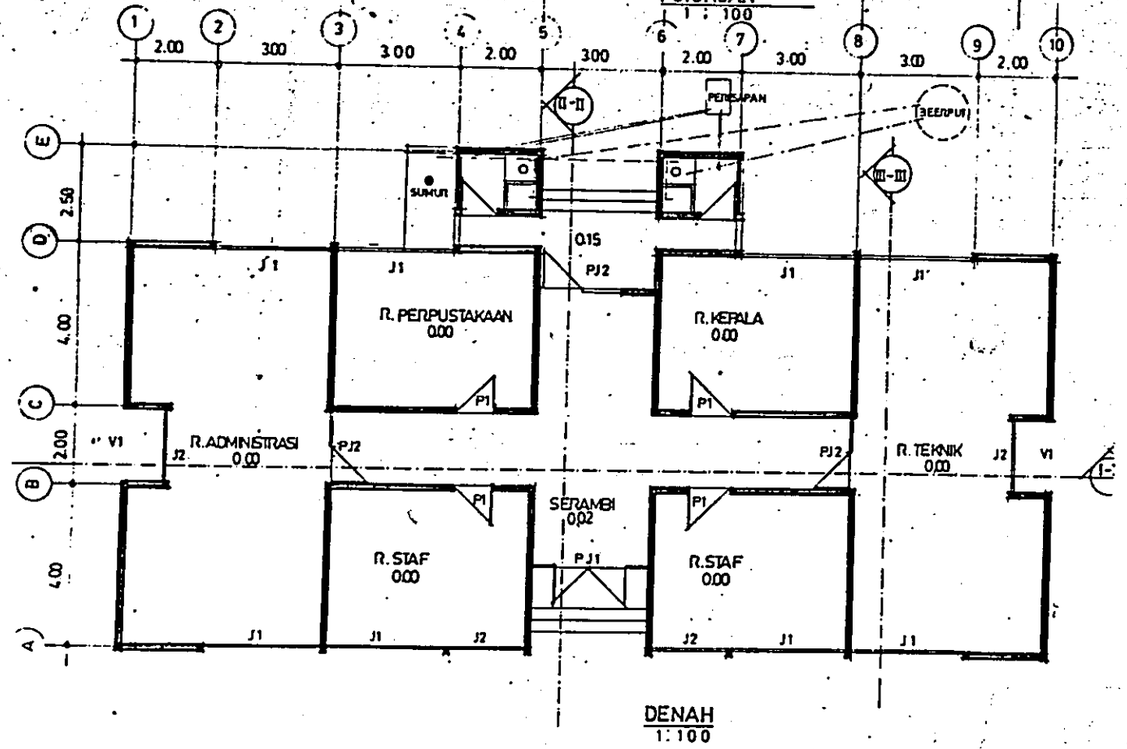
POTONGAN
1 : 100



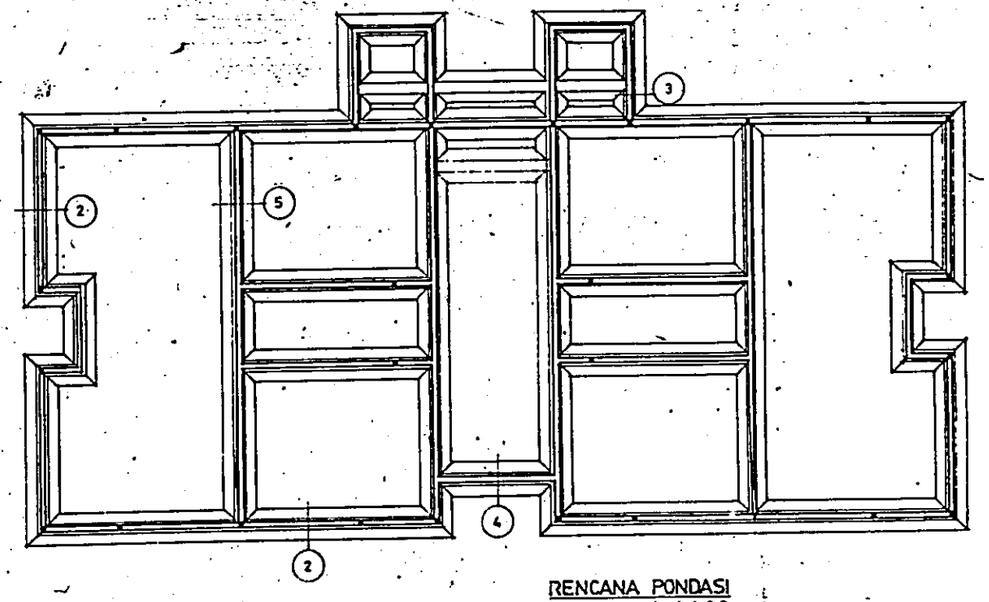
POTONGAN
1:100



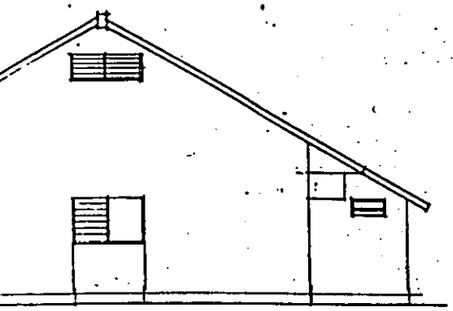
POTONGAN
1:100



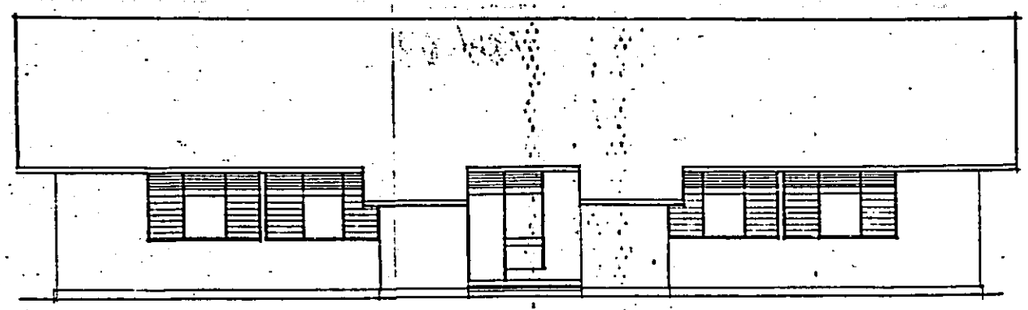
DENAH
1:100



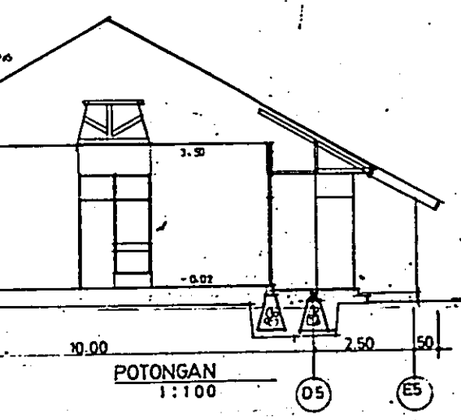
RENCANA PONDASI
1 : 100



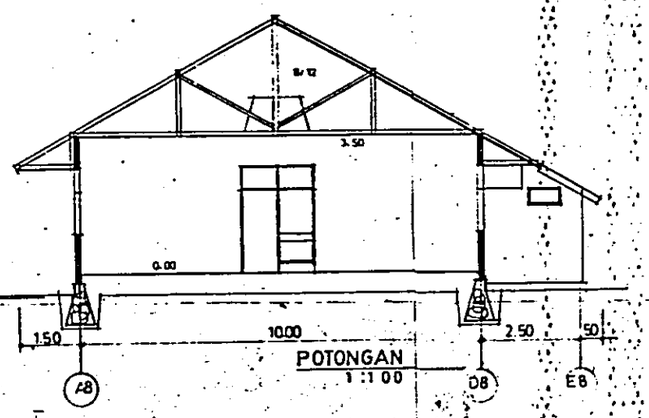
TAMPAK SAMPING
1 : 100



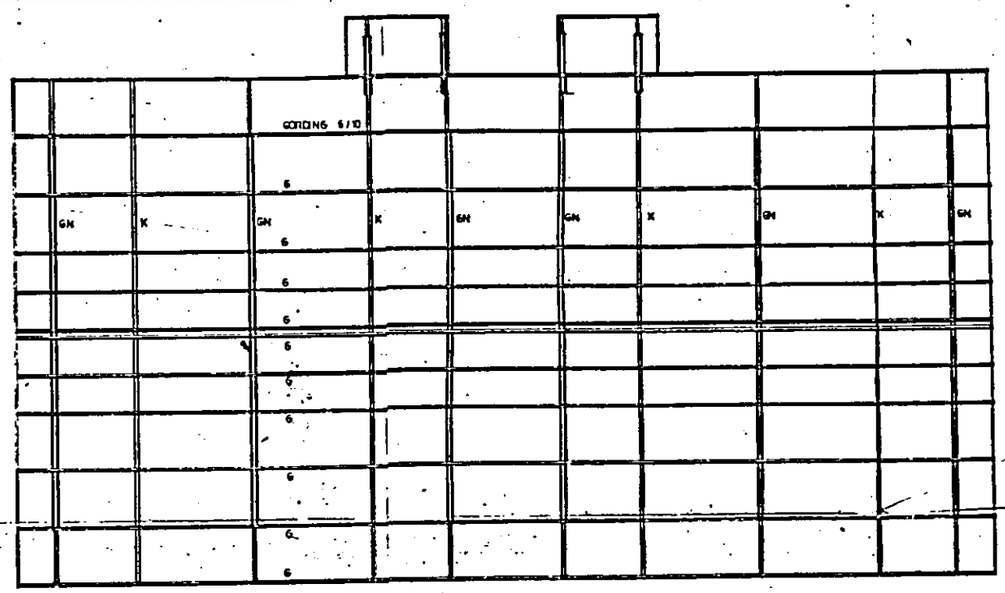
TAMPAK BELAKANG
1 : 100



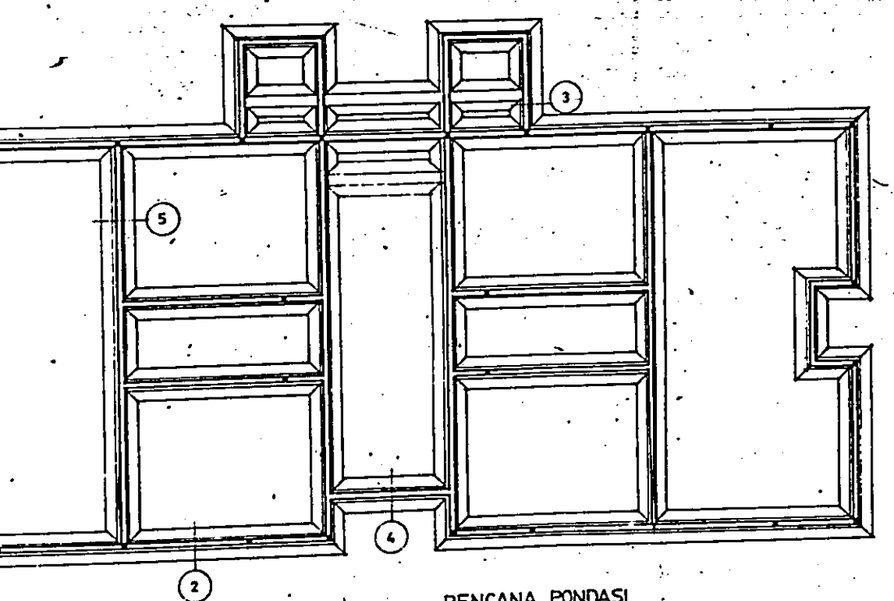
POTONGAN
1 : 100



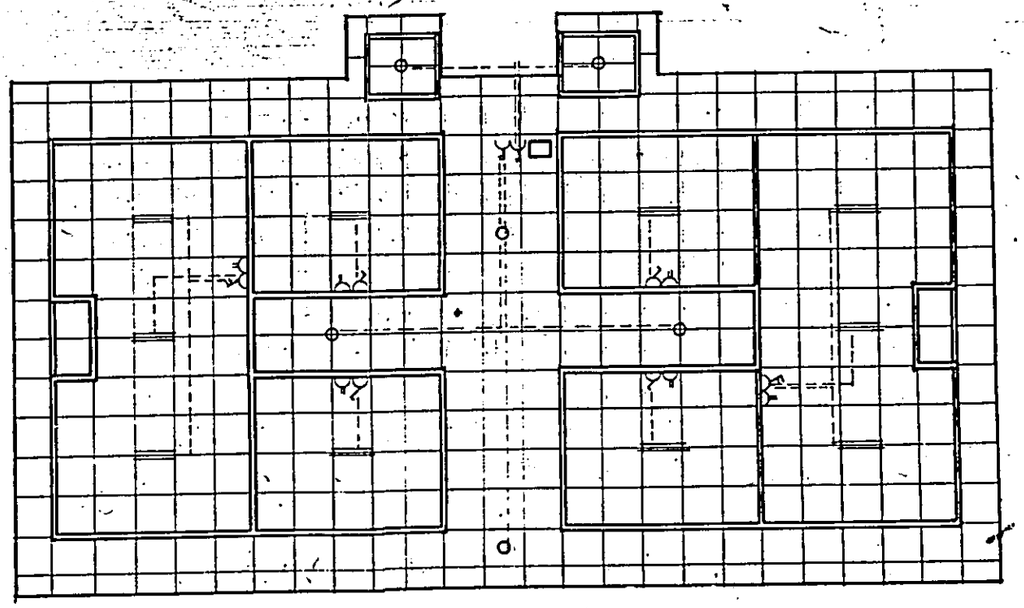
POTONGAN
1 : 100



RENCANA KAP
1 : 100



RENCANA PONDASI
1 : 100



RENCANA PLAFON
1 : 100

TL 2X20W
SENKELAR MOBEL
TUNGGAL
STOP KONTAK
SEKERING GROP
TITIK LAMPU

PROYEK PENINGKATAN
TANAMAN PANGA
SULAWESI SELA

KANTOR U.P
BALAI PENGAWAS
& SERTIFIKASI BE

KONSULTAN TEKNIK
CV. MEDIA PEMI

ASISTEN

ARSITEK :
IR. ANANTO YUDONO

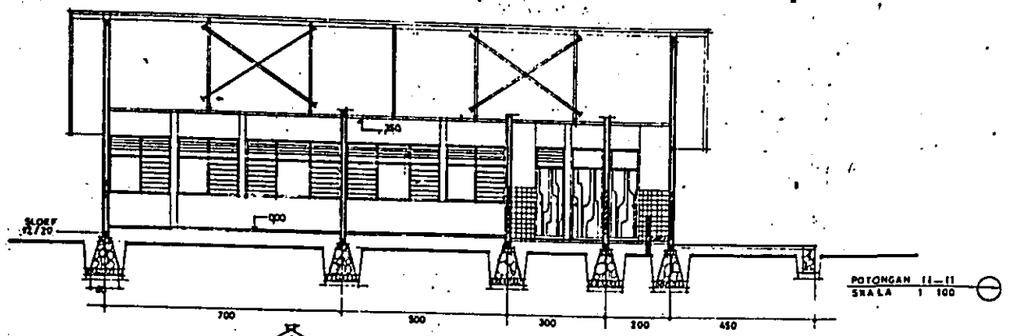
MENYETUJUI
PIMPINAN PROYEK PENINGKATAN
TANAMAN PANGAN SULAWESI S

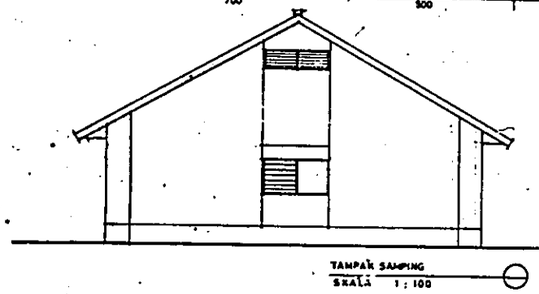
IR. ABD HALIM PALL

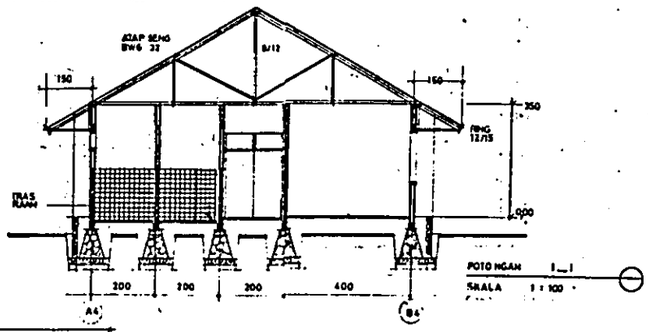
MEMERIKSA
BIDANG CIPTA KARYA DINA
PROPINSI SULAWESI SELAT

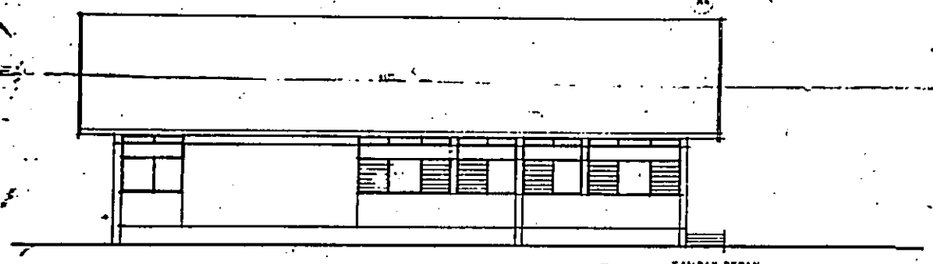
GAMBAR
DENAH , TAMPAK
POTONGAN,
RENC. PONDASI
KAP
PLAFON

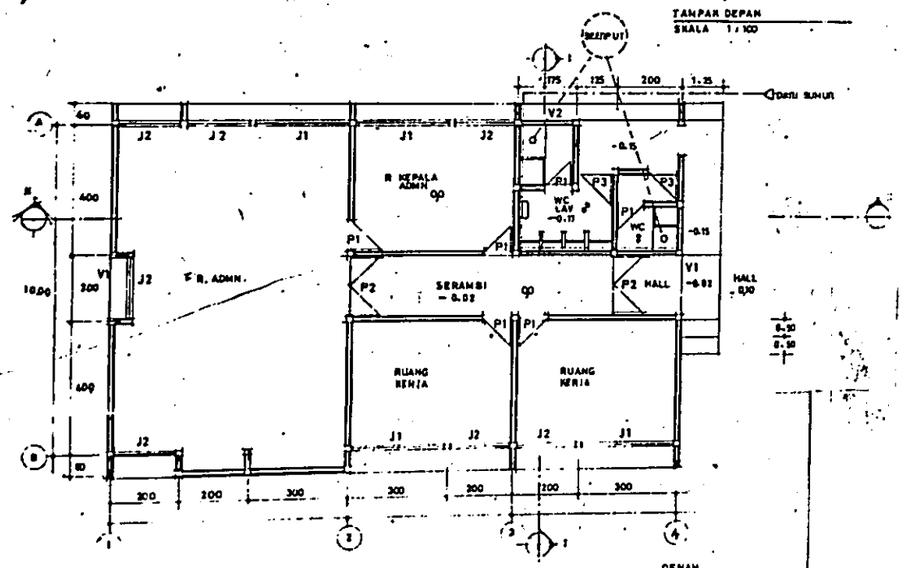
NOMOR PROY	LEMBAR
	02

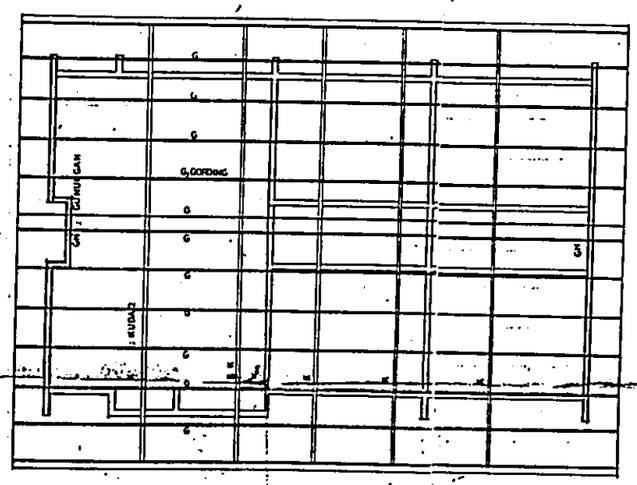

POTONGAN II—II
SKALA 1 : 100

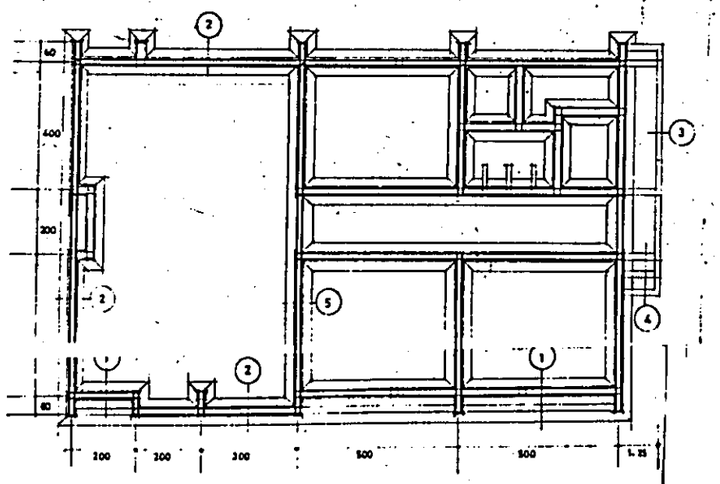

TAMPAK SAMPING
SKALA 1 : 100

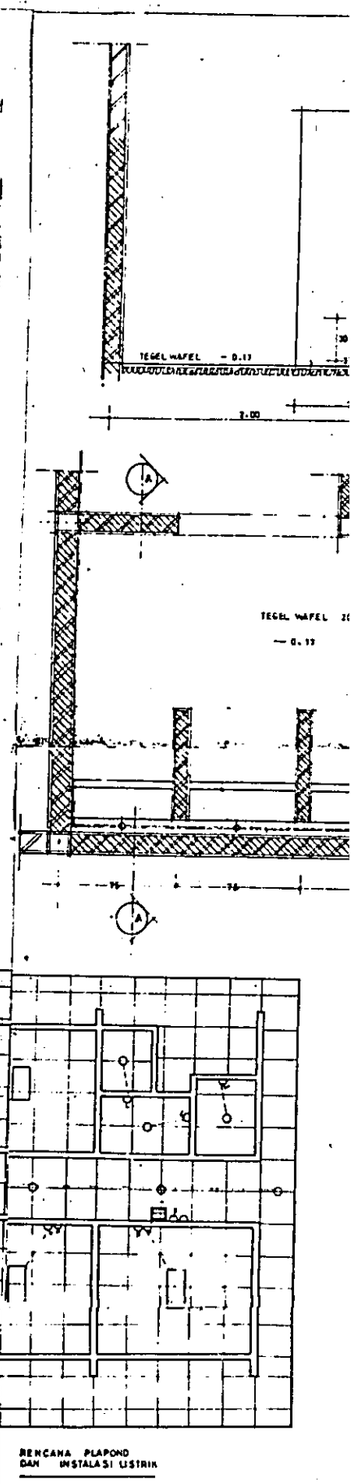

ATAP SENG BWG 32
RING 12/15
POTONGAN I—I
SKALA 1 : 100

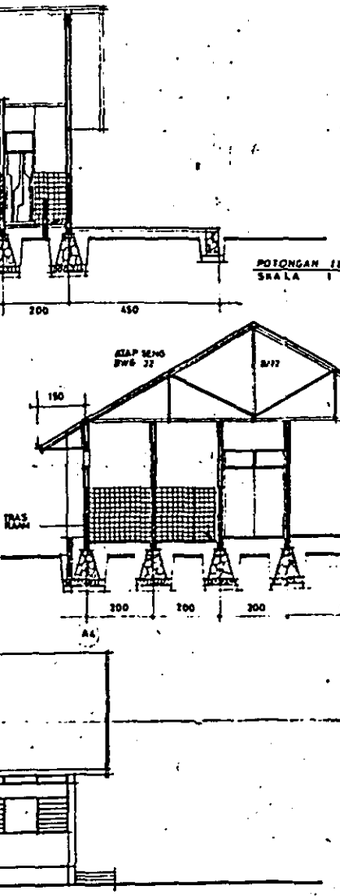

TAMPAK DEPAN
SKALA 1 : 100


R. KEPALA ADMN.
R. ADMN.
SERAMBI
RUANG KERJA
RUANG KERJA
HALL
WC
DENAH
SKALA 1 : 100


GORDING
RENCANA KONSTRUKSI KAP


RENCANA PONDASI DAN SLOOF


TEGEL WAFEL
RENCANA PLAFOND DAN INSTALASI LISTRIK

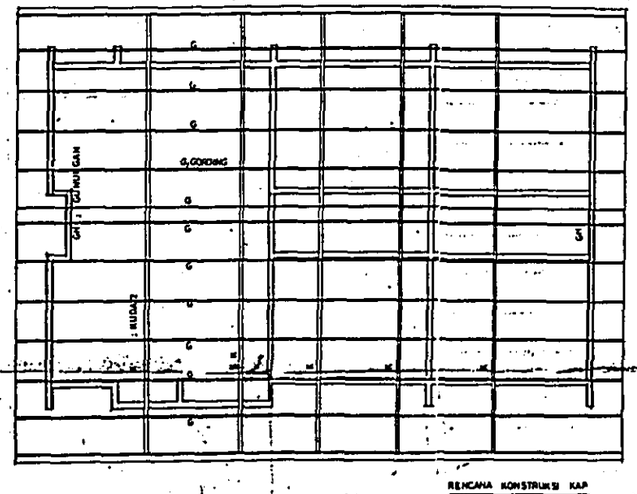


TAMPAK DEPAN
SKALA 1 : 100

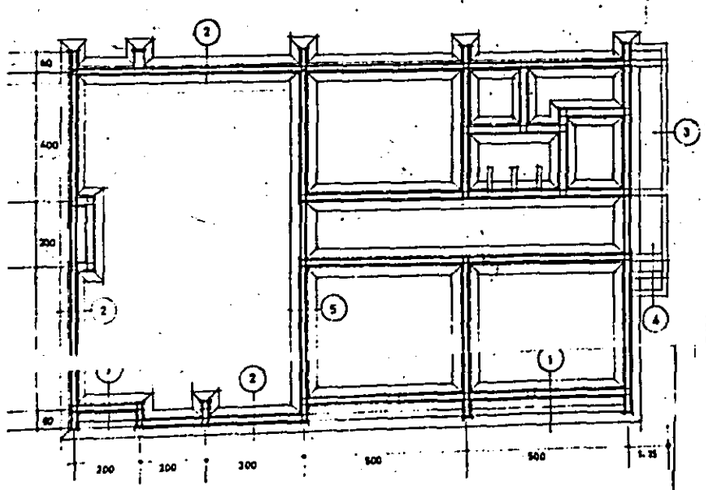
DENAH
SKALA 1 : 100

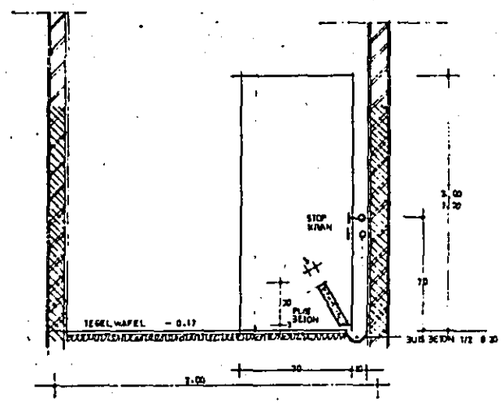
POTONGAN I—I
SKALA 1 : 100

POTONGAN II—II
SKALA 1 : 100

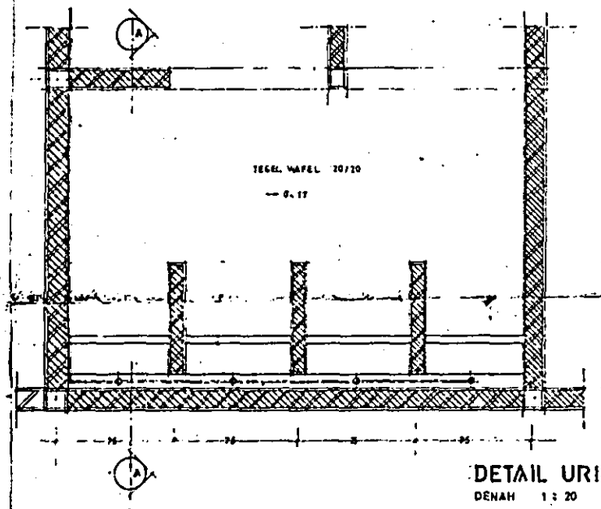


RENCANA KONSTRUKSI KAP

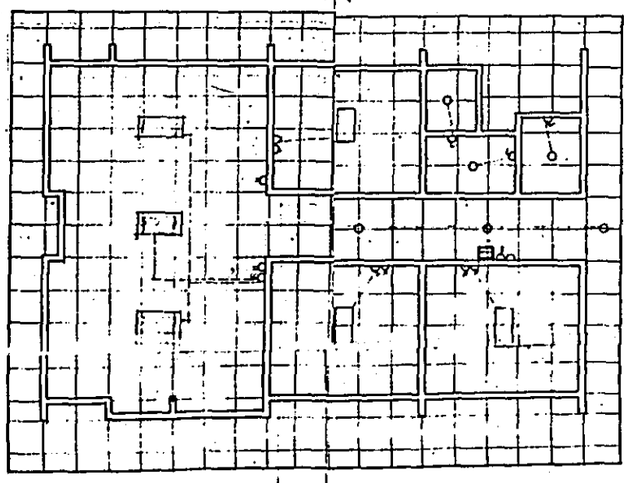




POTONGAN A A
1 : 20



DETAIL URINE
DENAH 1 : 20



RENCANA PLAFOND
DAN INSTALASI LISTRIK

TL 2 X 20 W
TITIK LAMPU
SEKAKELA DOBLE
TUNGGAL
STOP KONTAK
SEKERING GROP

PROYEK PENINGKATAN P
TANAMAN PANGAN
SULAWESI SELATAN

KANTOR PROTEKSI
TANAMAN PANGAN

KONSULTAN TEKNIK
CV MEDIA PEMBANGI

ASISTEN

ARSITEK
IR. ANANTO YUDONO

DISETUJUI

PIMPINAN PROYEK PENINGKATAN
TANAMAN PANGAN SULAWESI SE

IR. ABD. HALIM PALLO

DIPERIKSA

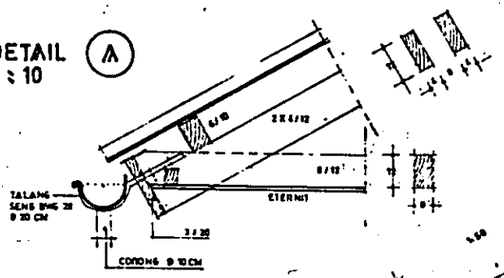
BIDANG CIPTA KARYA DINAS
PROPINSI SULAWESI SELATAN

SANGAT SE

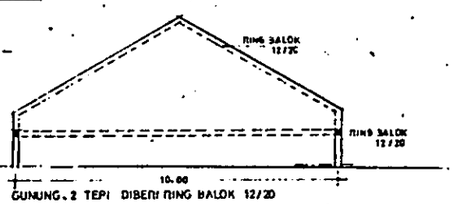
DENAH TAMPAK 1
POTONGAN
RENCANA PONDASI
KAP
PLAFOND 1
DETAIL URINE 1

NO. PROYEK	NOMER	JML
	03	

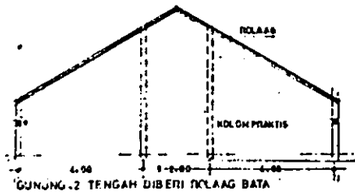
DETAIL (A)
1 : 10



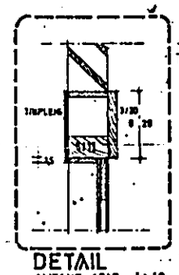
KUDA-2 & KONSOL (K)
1 : 25



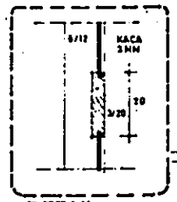
GUNUNG-2 TEPI DIBERI RING BALOK 12/20



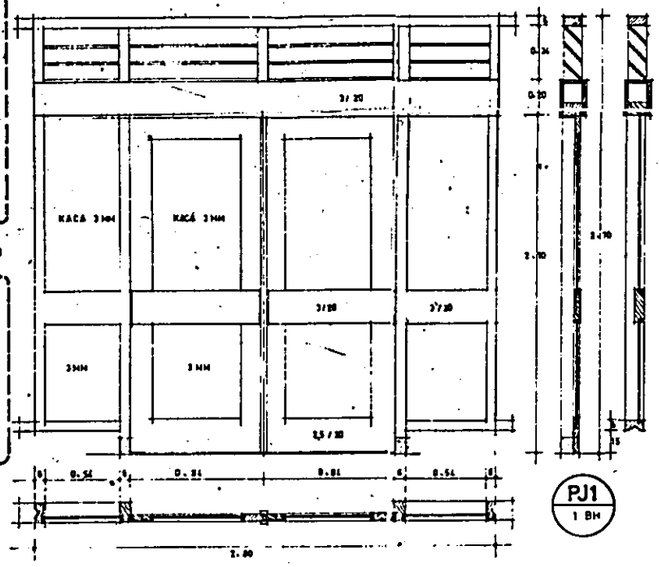
GUNUNG-2 TENGAH DIBERI ROLAAG BATA



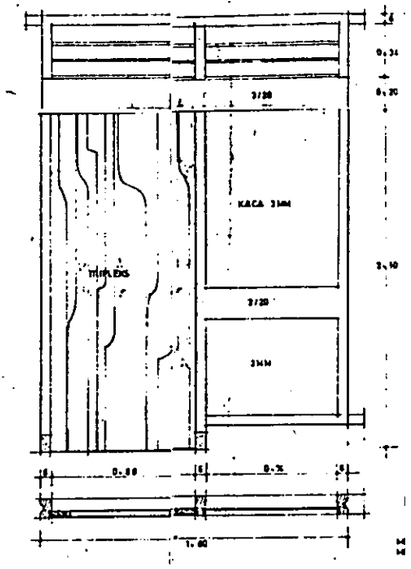
DETAIL
AMBANG ATAS 1 : 10

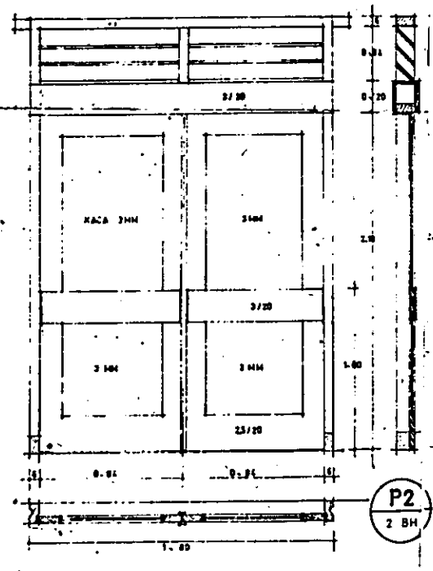


DETAIL
LIS BAN BAWAH
1 : 10

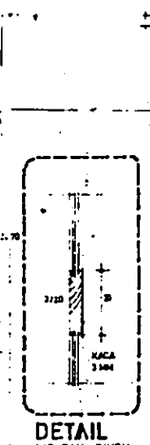


PJ1
1 BH

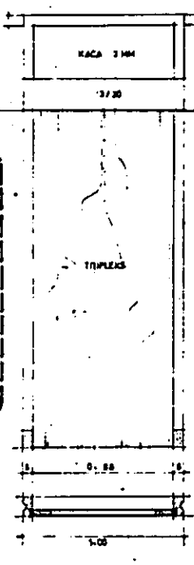




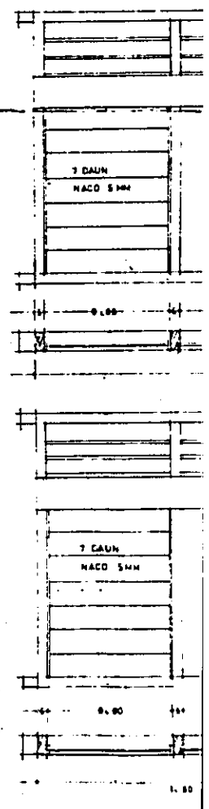
P2
2 BH

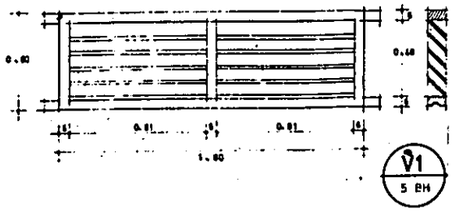


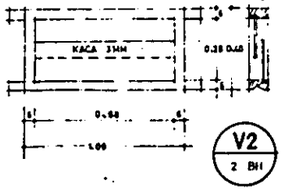
DETAIL
LIS BAN PINTU
1 : 10

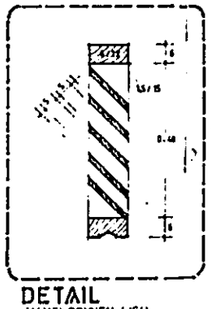


P3
2 BH



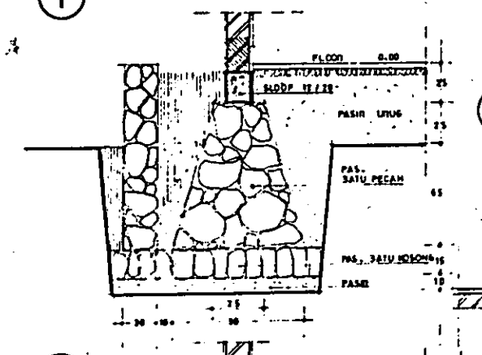




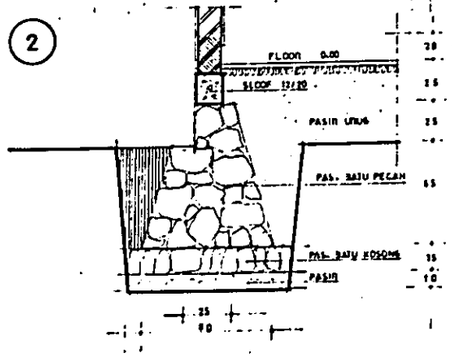


DETAIL
JALUSI BOUVEN LIGH
1 : 10

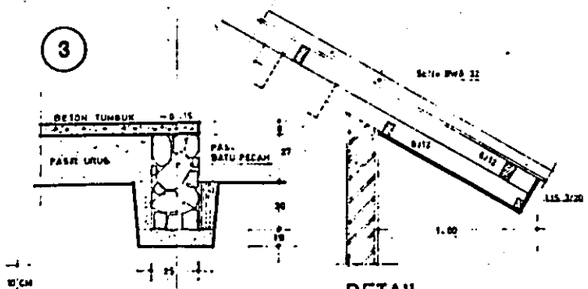
(1)



(2)

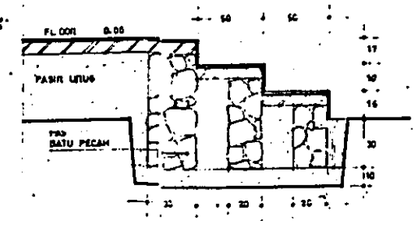


(3)

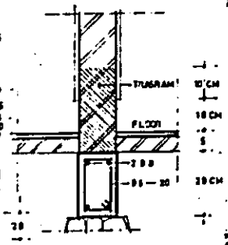


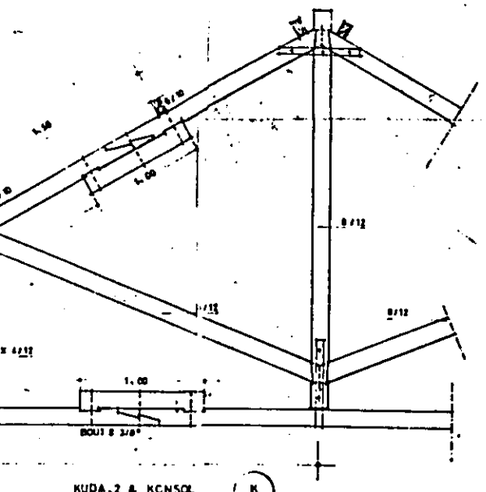
DETAIL
KONSTL KM/WC KANTOR UPT
1 : 20

(4)

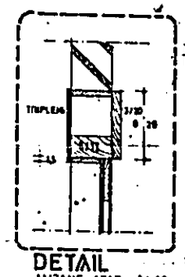


(5)

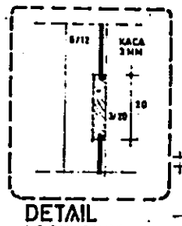




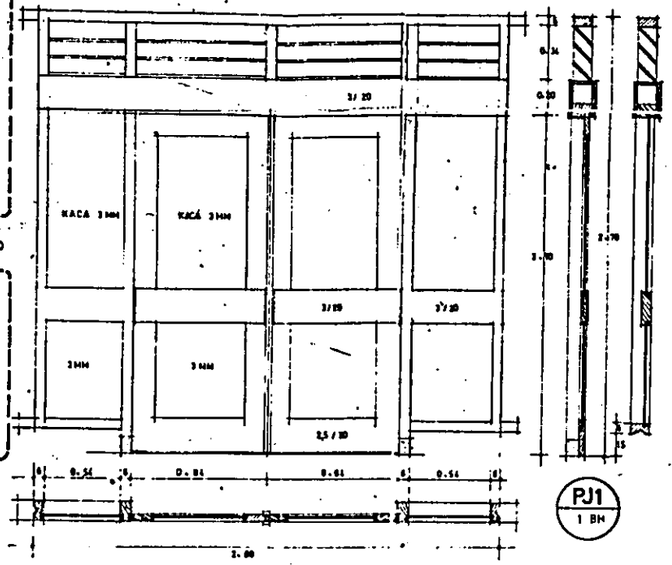
KUDA..2 & KONSOL (K)
1 : 25



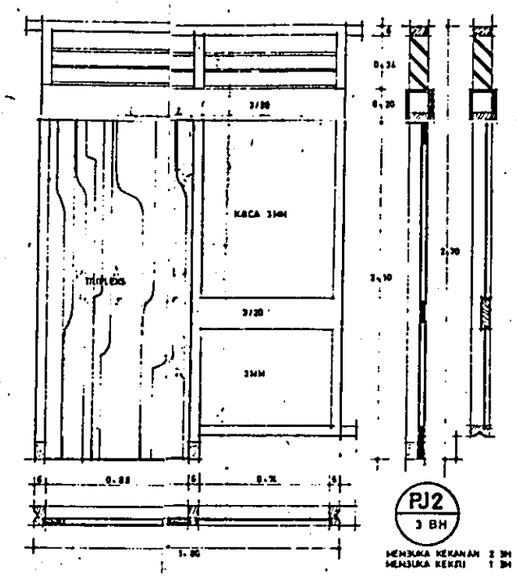
DETAIL
AMBANG ATAS 1:10



DETAIL
LIS BAN BAWAH
1 : 10

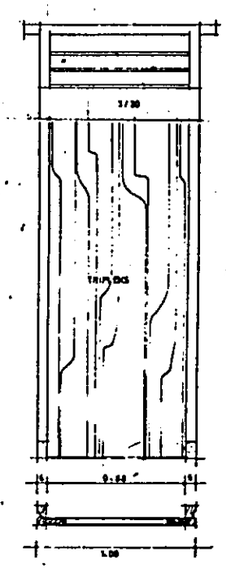


PJ1
1 BH



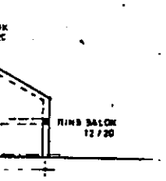
PJ2
3 BH

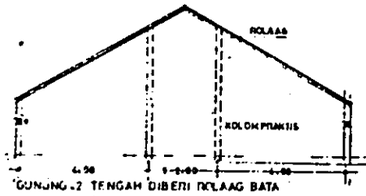
MENGUKA KEKANAN 2 BH
MENGUKA KEKIRI 1 BH



P1
12 BH

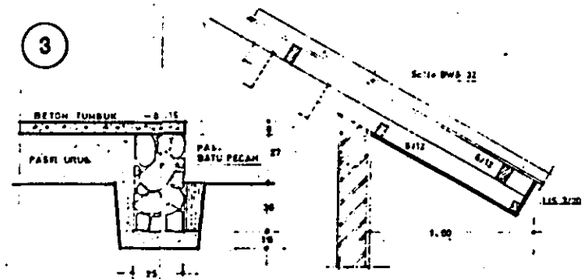
- SAGUAN DALAM DILAPIS MENG-KILAP
- BUKA KEKN- 3 BH
- BUKA KEKR. 1 BH
- MASA - 8 BH
- BUKA KEKN. 5 BH
- BUKA KEKR. 3 BH





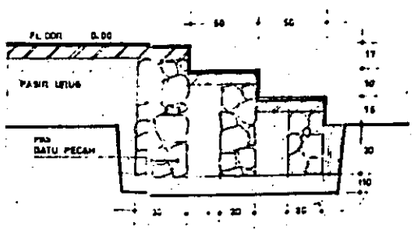
GUNUNG..2 TENGAH DIBERI ROLAAG BATA

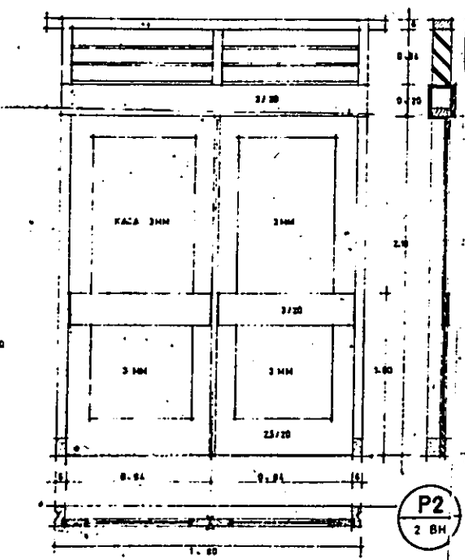
3



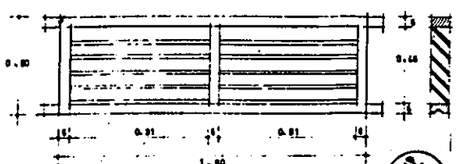
DETAIL
KONSOL KM/WC KANTOR UPT
1 : 20

4

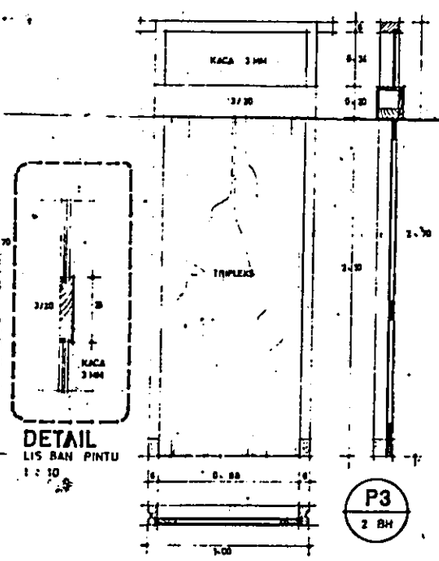




P2
2 BH

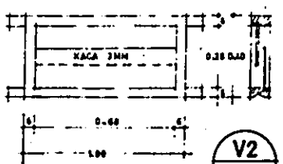


V1
5 BH

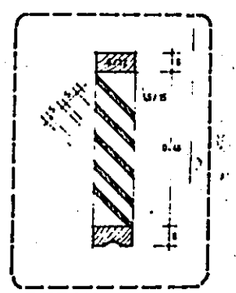


P3
2 BH

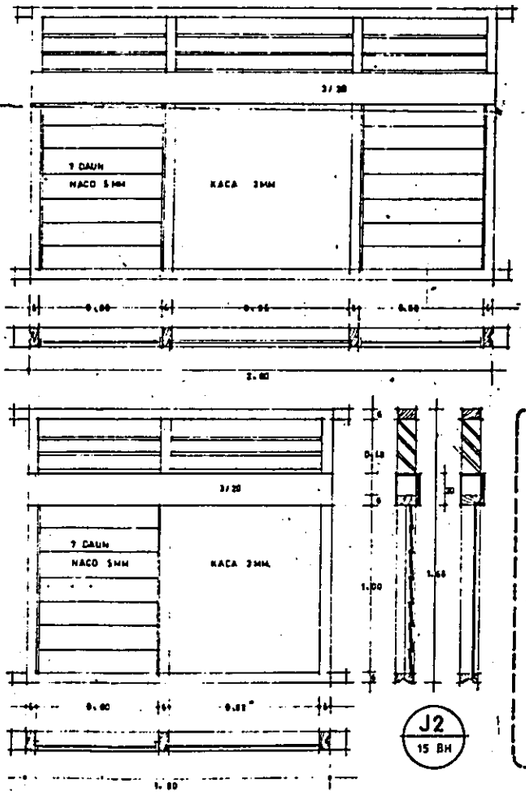
DETAIL
LIS BAN PINTU
1 : 10



V2
2 BH

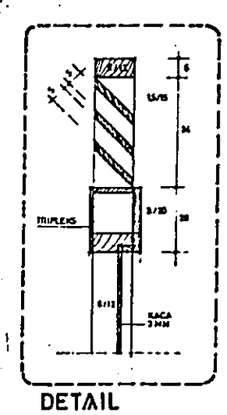


DETAIL
JALUSI BOUVEN LIGH
1 : 10



J1
8 BH

J2
15 BH



DETAIL
JALUSI DAN LIS BAN ATAS
1 : 10

PROYEK PENINGKATAN PPZ TANAMAN PANGAN SULAWESI SELATAN

KONSULTAN TEKNIK
CV. MEDIA PEMBANGU

ARSITEK

ARSITEK
IR. ANANTO YUDONO

DISETUJUI
PIMPINAN PROYEK PENINGKATAN TANAMAN PANGAN SULAWESI SEL

IR. ABD. HALIM PALLOGE

DIPERIKSA
BIDANG CIPTA KARYA DINAS PE- PROPINSI SULAWESI SELATAN

GAMBAR
DETAIL ..2

NO PROYEK	NOMER	
	04