

Tentative Schedule of Implementation (TSI)

Calendar Year	2000				2001				2002				2003				2004				2005				2006		Remarks
Quarter	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	I	II			
1. Duration of the project																											
2. Dispatch of Mission Team to Indonesia																											
1) Preliminary study	=																										
2) Supplementary study		=																									
3) Implementation study (R/D: Record of Document)			=																								
4) Management consultation team					-				-				-				-										
3. Japanese side																											
3.1 Long term experts																											
(1) Chief Adviser																											
(2) Coordinator																											
(3) Mining Technology																											
(4) Mine Safety Technology																											
(5) Mining Machinery Technology																											
(6) Mining Electricity Technology																											
(7) Mine Environment Technology																											
3.2 Short term experts																											
(1) Mining Technology																											
(2) Mine Safety Technology																											
(3) Machinery-Electricity Technology																											
(4) Environment Technology																											
(5) Machine installation/operation /maintenance																											
(6) Others																											
3.3 Provision of machinery and equipment								▼				▼					▼										
3.4 Counterpart training in Japan								-				-					-										
4. Indonesia side																											
4.1 Budget allocation																											
4.2 Buildings and facilities for project																										
4.3 Machinery, equipment and materials																										
4.4 Assignment of Full-time counterpart																										
4.5 Privileges, exemptions and benefits to the Japanese experts																										
4.6 Qualification system																										
4.7 Measures for sustainability for the project																										

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List of Necessary Machinery and Equipment for the Project

Field	Classification
1. Underground Coal Mining Technology	(1)U/G Dummy Gallery System (2)Mapping System (3)Strata analysis System (4)U/G Boring System (5)U/G Surveying System (6)Blasting System (7)Coal Mining System (8)Development Syetem (9)Strata Control System
2. Underground Coal Mining Safety Technology	(1)Gas Detect / Analysis System (2)Gas / Coal Dust Explosion System (3)Mine Dust Measurement System (4)Ventilation System (5)Spontaneous Combustion System (6)Extinction System (7)Fire Extension-proof System (8)Rescure Team System (9)Centralized Monitoring System
3. Underground Coal Mining Machinery Technology	(1)Conveyor System (2)Transportation System (3)Hydraulic System (4)Compressed Air System (5)Water Drainage System (6)Piping System (7)Face / Development Mechanized System
4. Underground Coal Mining Electricity Technology	(1)Explosion Proof System (2)Cable Device System (3)Communication System (4)Lighting System
5. Coal Mining Environment Technology	(1)Water Quality Control System (2)Coal Preparation System (3)Coal Analysis System
6. Office Supplies	(1)Audiovisual Education System (2)Data Analysis, Desk Work Processing (3)Material Preparation
7. Vehicle	(1)Vehicle

1.Underground Coal Mining Technology

Classification	Items	Specification	Unit or set	Priority	
(1) U/G Dummy Gallery System	Road	Level road 110m	1	A	
		Inclined road 90m	1	A	
	Support	Wooden support	3*2.5, 4.2*3.0(m)	30	B
		Iron support	3*2.5, 4.2*3.0(m)	30	A
		Three pieces support	3*2.5, 4.2*3.0(m)	10	A
		Arch support	152, 148	80	A
		Support for junction	Branching	5	A
	Rail Transportation	Mine car	1m ³	3	C
		Rail	15, 20, 30(kg/m ²)	50	A
		Branch	15, 20, 30(degree)	2	A
Point Sleeper		Manual, Electrical Rail width 0.6m	1 100	A B	
Mechanical Device(Pump, Pipe, Hoist, etc.): Included in Mechanical technology					
Electrical Device(Lighting, Communication, etc.): Included in Electrical technology					
Safety equipment (Air fan, Sensor, etc.) : Included in Safety technology					
(2) Mapping System	Clinometer		10	A	
	Hand level		10	A	
	Compass		10	A	
	Sketching board, Paper, etc.		20	A	
	Hammer		10	A	
	GPS		2	A	
(3) Strata Analysis System	Strata analysis softwear		1	A	
	Area surveying Device(Coal deposit)		1	A	
	Personal computer	Fujitsu	1	C	
	Printer	Epson	1	C	
(4) U/G Boring System	U/G Boring machine	Pre-BG	1	A	
(5) U/G Surveying System	Water level (level measurement)		2	A	
	Measurement devices (Transit, etc.)		1	A	
	Light distance measure		1	A	
	Laser (U/G Road center line)		1	B	
	Computer aided design system(CAD)		1	A	
(6) Blasting System	Auger	Air or electrical	5	A	
	Hammer	Air	5	A	
	Rod, Bit		1	A	
	Explosives model		20	A	
	Percussion cap model		20	A	
	Blasting tester (Ω meter)		20	A	
	Blasting machine		3	B	
	Drilling training pit	5m*3m*3m Cement	1	A	
(7) Coal Mining System	Single prop	2.0m, 2.4m, 2.8m	20	A	
	Iron Bar	1.2m	20	A	
	Coal pick		5	A	
	Air block		3	A	
	Lever block		3	A	
	Chain block		3	A	
	Power roof support		1	A	
	Coal mining model(Long wall mechanized)		1	A	
(8) Development System	Gethering loader	25kW	1	C	
	Side dump loader	45kW	1	A	
	U/G structure(Model) Vertical, level, inclined	Included development (CM/SC)	1	A	
	Road header(Model)	60 type	1	A	
(9) Strata Control System	Strata pressure calculation software	Limited element method	1	A	
	Strata pressure model		1	A	
	Rock bolt, resin	1.8m, 2.4m, 2.8m	100	A	
	Displacement measure device(Wombat)		1	A	
	Personal computer	Fujitsu	1	C	
	Printer	Epson	1	C	

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2.Underground Coal Mining Safety Technology

Classification	Items	Specification	Unit or set	Priority
(1)Gas Detect / Analysis System	CH ₄ /CO ₂ detector(Portable type)	Gastec	3	A
	CO detector (Portable type)	Gastec	3	A
	Oxygen detector(Portable type)	Shibata.CO.	3	A
	Thermometer (Portable type)	Shibata.CO.	5	A
	Gas alarm detector	Shimazu Co.	3	A
	Gas chromatography	Shimazu Co.	1	A
	Standard gas	Shimazu Co.	1	A
	Kitagawa type gas detector	Shigematsu Co.	10	A
	CO mask	Shigematsu Co.	20	A
(2)Gas/Coal Dust Explosion System	Gas explosion experiment devices		1	A
(3)Mine Dust Measurement System	Dust sampler(Concentration)	Shibata LV-5E	1	A
	Dust detector(raser)	Shibata LD-1E	1	A
	Auto balance		1	A
	Dust mask	Standardized	10	A
(4)Ventilation System	Axial fan (15,25,37.5kw)	Mitsui Miike Co.	1	A
	Air velocity detector (Handy)	Shibata CO.	1	C
	Biram velocity detector(Handy)		10	A
	Atmospheric pressure detector	Shibata CO.	1	A
	Ventilation analysis software		1	A
	Personal computer	TOSHIBA	1	C
	Printer	CANON	1	C
	Plotter	CANON	1	B
(5)Spontaneous Combustion System	Injection device		1	A
	Hose etc.		1	A
(6)Fire Fighting System	Fire fighting pump (Mobil)	SHIBAURA pump	1	A
	Hose, nozzle etc.		1	A
	Fireplug equipment		1	A
(7)Fire Extension-proof System	Trekret(Cement spray)		1	B
	Auto-spray facility		1	A
	Explosion spread prevention	Water bag, Stone dust	1	A
(8)Rescure Team System	Emergency camber	life saver	1	A
	Oxygen breathing apparatus	KAWAJU-BOSAI Co.	10	A
	Check devise for Oxygen breathing apparatus	KAWAJU-BOSAI Co.	1	A
	Resasiater(Dummy for first aid)		1	A
(9)Centralized Monitoring System	Monitoring System	TOSHIBA	1	A
	Screen			
	Wide screen television			
	Sensors (gas, BC etc.)			
	Transmission device			
	Signal transformation device			
	Personal computer			
Printer				

Fig

3.Underground Coal Mining Machinery Technology

Classification	Items	Specification	Unit or set	Priority
(1)Conveyor System	Chain conveyor	1.2 * 30m	1	B
	Belt conveyor (only Belt)	0.6 * 40m	1	A
	Emergency stop		1	A
	Monitoring devices	Operation, Temperature,Snake	1	A
(2)Transportation System	Hoist(included Wire+rope)	22kW	1	A
	Roller(Vertical,horizontal)		1	A
	Wire rope connector		1	A
	Fixation device	Cement, Anchor bolt	1	A
	Signal equipment		1	A
	Sled transport (Motor)		1	A
	Rope, the guide roller, sheave		1	A
	Fixation device	Cement, Anchor bolt	1	A
	Electric locomotive(model)	Battery locomotive	1	A
(3)Hydraulic System	Hydraulic system (for teaching)		1	A
	Oil pump			
	Regulation valve			
	Hose joints			
(4)Compressed Air System	Compressor (from OMTC)	5kg/cm ²	1	
	Valve	Safety valve, adjustment valve	1	A
	Hose	Rubber,Pressure-resistance	1	A
(5)Water Drainage System	Water pump	1.5、7.5、22.5(kW)	1	A
	Air pump	5kW	1	A
	Check valve		1	A
	Fine coal processing facility	pump with cutter	1	C
(6)Piping System	Pipe	2、3、4、8(inch)	1	A
	Bending	45、90(degree)	1	A
	Joint	2、3、4、8(inch)	1	A
(7)Face/Development Mechanized System	Plunger pump (from OMTC)	120kg/cm ²	1	
	Valve	Safety valve, adjustment valve	1	A
	Hose	300kg/cm ² pressure-proof	1	A

4.Underground Coal Mining Electricity Technology

Classification	Items	Specification	Unit	Priority
(1)Explosion Proof system	Intrinsically safety Circuit	low hight voltage	1	A
	Electromagnetic switch		1	A
	Safety protection device	Overload,overcurrent	1	A
	Breaker in gas		1	A
	Electromagnet switch (U-50FL)		1	A
	Signal transformer		1	A
(2)Cable divice system	Establishment switch		1	A
	Cables	Explosion-proof cable	1	A
	Cable joint	Explosive-proof joint	1	A
	Inter-lock circuit device	Safety circuit	1	A
(3)Communication system	High voltage equipment	6600v	1	A
	Induction type communication	induction wire	1	A
	U/G Telephone		5	A
	800MHz radio communication	radio type	1	B
(4)Lighting system	Speaker		5	C
	Explosive-proof electric lamp	Fluorescent, heat	10	A
	Caplamp	Northern light	10	A
	Charging unit	20 unit charge	1	A

Fig.

5. Coal Mining Environment Technology

Classification	Items	Specification	Unit or set	Priority
(1)Water Quality Control System	BOD measurement device	Central BOD-2100	1	C
	COD measurement device	central HC-507	1	C
	PH measurement device	Shibata 691	1	A
	Measurement of dirty water (SS)	Central UD-1	1	A
	DO measurement device	Central UD-1	1	B
	TOC measurement device	Shimazu TOC-5000A	1	C
	Water treatment model	3*10*2.5(m)	1	A
(2)Coal Preparation System	Mini preparation plant	2*2*2.5(m)	1	A
	Sinking and floating facility	3*7*2.5(m)	1	B
(3)Coal Analysis System	Coal industry analysis device	LECO TGA-601CLPI	1	A
	Atomic absorption spectrography	PerkinELmer	1	C
	Calorie meter	LECO	1	A
	Sulfur determinator	LECO SC-432DRI	1	B

6. Office Supplies

(1)Audiovisual Education System	Copy machine	CANON	2	A
	OHP	Plus CH-900	1	A
	Video projector	EDP-1000	1	A
	Screen	3070M	1	A
	Visual presenter	EV-45AF	1	A
	Copy white board	BBB-VR136W	1	A
	Video deck	AIWA HV-MXY	1	A
	Video camera	MATSUSHITA NV-DSS	1	A
	Screen, monitor	NECVL-PS60	1	A
	Television set	MATSUSHITA NV-DSS	2	A
	Sound system		1	A
(2)Data Analysis, Desk work Processing	Computer (Desk model)	FUJITSU	10	A
	Printer		5	A
	Computer (Notebook type)	TOSHIBA	5	A
	Printer	CANON	2	A
	Software set	WINDOWS2000, Office	1	A
(3)Training Material Preparation	Video tapes for training		1	A

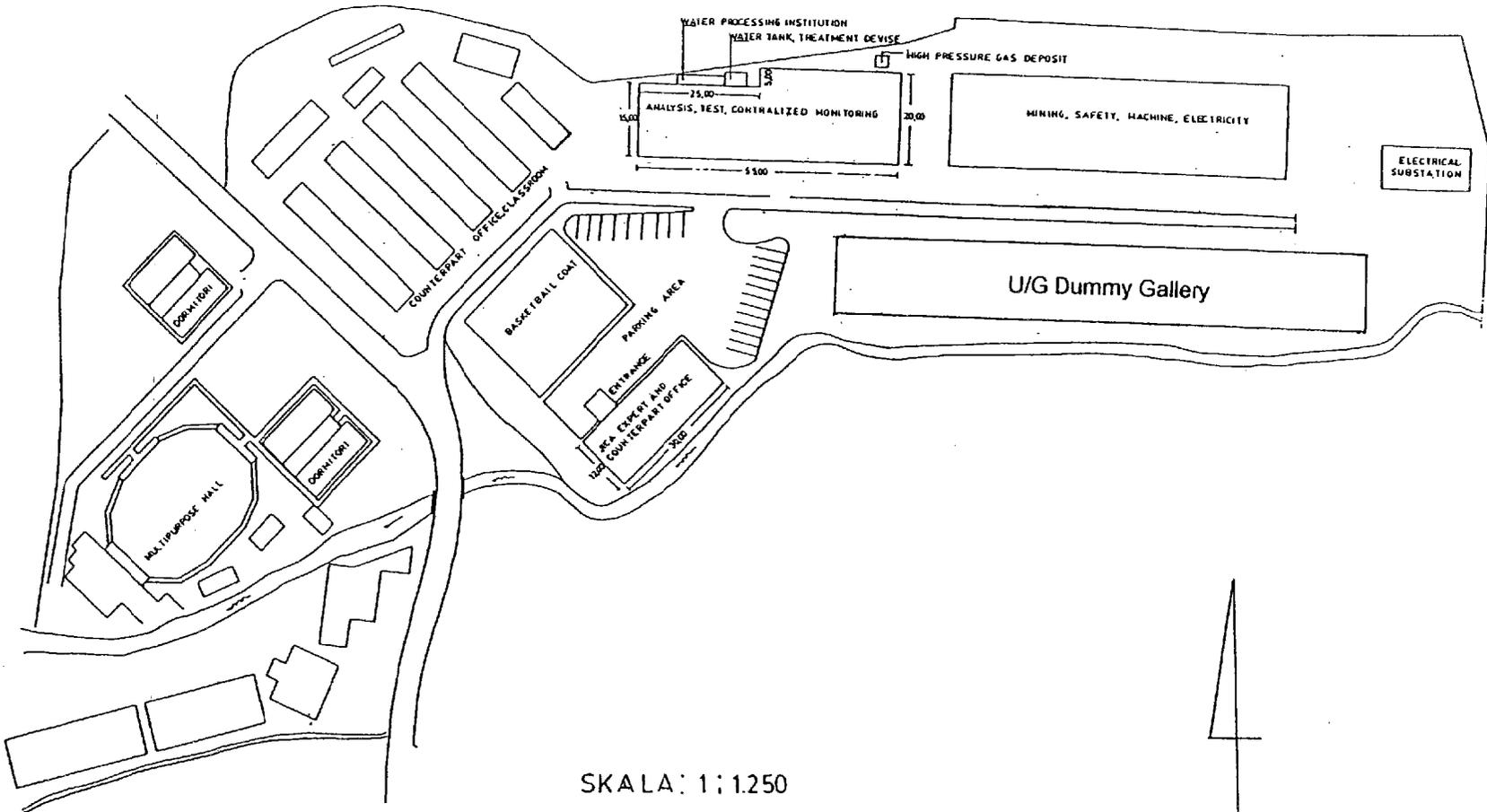
7. Vehicle

(1)Vehicle	Land cruiser		1	A
	MINI-Bus		1	A

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Fig

Tentative Allocation Plan of Machinery and Equipment



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ANNEX 10-2

List of Existing Machinery and Equipment at OMTG

NUMBER	TYPE	QUANTITY
1	2	3
1	UMUM (GENERAL ITEMS) :	
1.	Kursi Lipat	60 Pcs
2.	Meja Rapat Doble MT 503	14 Pcs
3.	Kursi Rapat Warna Coklat	20 Pcs
4.	Meja Tulis	13 Pcs
5.	Filling Cabinet	1 Pc
6.	Lemari Besi Kas Steel 2	1 Pc
7.	Lemari Kantor	3 Pcs
8.	Lemari Pintu Dorong	3 Pcs
9.	Rambu Aluminium SHN	10 Pcs
10.	Lemari Kartu ISI 60 T	3 Pcs
11.	Bak Air Feber Glass	1 Pc
12.	Stand Fan uk. 40 cm 220 V	2 Pcs
13.	Gerobak Dorong Roda Satu	2 Pcs
14.	Column Speaker	4 Pcs
15.	Mega Phone Pakai Serine & Mic	1 Pc
16.	Kamera Nikon NF 90+Case	1 Pc
17.	Nikon Sped Light SB25	1 Pc
18.	AF 200 M Nikor 35-70 mm	1 Pc
19.	AC Window 1PK	1 Set
20.	AC Window 1PK 900 BTU	1 Unit
21.	Tang Jepit Sepatu Kabel	2 Pcs
22.	Variable AC (Variac)	5 Pcs
23.	Fentilasi Fan uk. 25cm	2 Pcs
24.	Pompa Air Aqua 175A	1 Pc
25.	Pompa Air Non Otomatis	1 Pc
26.	Mesin Potong Rumput	1 Pc
27.	Tool Box (Perkakas)	4 Pcs
28.	Cutting Torq	1 Pc
29.	Pesawat Handy Talky HT	2 Pcs
30.	AC Window 3/4 PK 7000 BTU	4 Unit
31.	Standar Mic LN	4 Pcs
32.	Mic WM	4 Pcs
33.	Gitar Melody Elektrik	1 Pc
34.	Keyboard Synthesisizgr	1 Pc
35.	Drum + 2 bh Kursi	1 Set
36.	Simbal Drum	2 Pcs
37.	Hi-Hat	1 Pc
38.	Monitor	2 Pcs
39.	Speaker + Box + Woofer/Tower	6 Pcs
40.	Standar Keyboard	1 Pc
41.	Microphone	6 Pcs
42.	Standar Microphone u/ Pentas	6 Pcs
43.	Kabel Speaker	500 Meter
44.	Kabel Microphone Standar	100 Meter
45.	Soket & Jack Microphone	50 Meter
46.	AC Split 2 PK	2 Unit
47.	AC Siap-Pasang 2 PK	2 Unit
48.	Rak Perpustakaan + Rak	1 Pc
49.	Pelubang Kertas	1 Pc
50.	Radio Caset Recorder	2 Pcs
51.	Pesawat Telepon	12 Pcs
52.	Power Suply	1 Pc

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1	2	3
53.	Terminal Box	12 Pcs
54.	Racun Api Powder	4 Pcs
55.	Racun Api Powder Chub	2 Pcs
56.	Gitar Bass Elektrik	1 Pc
57.	Mixer	1 Pc
58.	Amplifier Kav. 800 W	1 Pc
59.	Wireless Sound System	1 Set
60.	Lernari Kopi*	1 Pc
61.	Kas Box	1 Pc
62.	Tempat Telepon	2 Pcs
63.	Printer	3 Unit
64.	Note Book	3 Unit
65.	Jan Dinding	1 Unit
66.	Timbangan Kecil	1 Unit
67.	Karpet	16 Meter
68.	Mesin Faximile	1 Unit
69.	Krey Alumunium	28 Pcs
70.	Cangkir Keramik	1 Set
72.	Heater Pemanas	1 Unit
73.	Stampel OMTC	1 Pc
74.	Dispencer	1 Pc
75.	Kendaraan	1 Unit
76.	Komputer	4 Unit
77.	Kursi Rapat	20 Pcs
78.	Meja Rapat	12 Pcs
79.	Filling Cabinet	3 Pcs
80.	Kursi Putar	2 Pc
81.	Meja Komputer	1 Pc
82.	Meja Kantor	2 Pcs
83.	Rak Bagasi	1 Pcs
84.	Stabilizer	2 Set
85.	Mesin Fotocopy	1 Pc
86.	Kursi Kantor	9 Pcs
87.	Mouse	2 Unit
88.	Key board	2 Unit
89.	Stapler	1 Pc
90.	Cetak Huruf/Angka	1 Unit
91.	Stored Air Pressure	1 Pc
92.	CO2 Extingusher	1 Pc
93.	Dry Chemical	1 Pc
94.	Foam Extingusher	1 Pc
95.	Scanman Color 2000	1 Unit
96.	Sarung Jok	1 Set
97.	Kalkulator	1 Unit
98.	Competency Based Curriculum	1 Pc
99.	Skill	1 Pc
100.	Train The Trainer	1 Pc
101.	English - Indonesia	1 Pc
102.	Indonesia - English	1 Pc
103.	Dictionery	2 Pcs
104.	Management	3 Pcs
105.	Kamus Istilah	1 Pc
106.	Kamus Visual	1 Pc
107.	Kamus Bahasa Indonesia	1 Pc
108.	Buku Panduan Aplikasi Foxpro	3 Pcs
109.	Microsof Windows 95	1 Pc

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110.	Microsof Office 97	1 Pc
111.	Dasar Microsof	1 Pc
112.	Buku Tentang Windows 95	1 Pc
113.	Kamus English Indonesia	6 Pcs
114.	Buku Computer	4 Pcs
115.	Panduan Perpajakan	1 Pc
116.	Pajak Penghasilan	1 Pc
II	PERLENGKAPAN KELAS (CLASSROOM FACILITIES) :	
1.	Kursi Kuliah	124 Pcs
2.	Kursi Belajar	20 Pcs
3.	TV Berwarna	2 Pcs
4.	Video Caset Recorder VHS	1 Pc
5.	Standar Mic Meja Pleksibel	1 Pc
6.	Amplifier	1 Pc
7.	Video Beta	1 Pc
8.	Video Camera +Video Spotlight	1 Set
9.	Layar OHP	2 Pcs
III	PERLENGKAPAN ASRAMA (DORMITORY) :	
1.	Tempat Tidur	64 Pcs
2.	Lemari Pakaian	48 Pcs
3.	Tempat Handuk	26 Pcs
4.	Lemari Makan	4 Pcs
5.	Kursi Makan	128 Pcs
6.	Meja Makan	32 Pcs
7.	Karpet	42 Meter
8.	Kapstock	8 Pcs
9.	Hanger Pakaian	4 Lusin
10.	Kelly Water Bottle	4 Set
11.	Sprei & Sarung Bantal	32 Set
12.	Keset Kaki	16 Pcs
13.	Tempat Sampah	8 Pcs
14.	Spring Bed dan bantal	16 Pcs
15.	Tempat Sabun	5 Pcs
16.	Tutup Gelas	24 Pcs
17.	Gelas	17 Pcs
18.	Gelas Tempat Permen	12 Pcs
19.	Selinux	16 Pcs
20.	Sendok The	12 Pcs
21.	Keranjang Pakaian	15 Pcs
22.	Sendok Kue	1 Pc
23.	Sendok Sayur	1 Pc
24.	Piring Ceper	3 Pcs
25.	Cangkir Tadah	18 Pcs
26.	Piring TTY	24 Pcs
27.	Handuk	6 Pcs
28.	Sajadah	6 Pcs
29.	Sandal Jepit	6 Pcs
30.	Asbak	15 Pcs

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31.	Gayung Air	20 Pcs
32.	Gelas Kecil	12 Pcs
33.	Plastik Tray	12 Pcs
34.	Cermin Bingkai	6 Pcs
35.	Mesin Cuci	1 Unit
36.	Gelas Lilin	6 Pcs
37.	Gelas Minum	12 Pcs
38.	Teko	15 Pcs
39.	Sendok Kecil	6 Pcs
40.	Keranjang Sampah	4 Pcs
41.	Selimut Alakadarnya	16 Pcs
42.	Bola Volly	1 Pc
43.	Net Bola Volly	1 Pc
44.	Gelas Tangkai	12 Pcs
IV	PERALATAN TEKNIK (TECHNICAL EQUIPMENT) :	
1.	Micro Proshesor LSZ-80	5 Unit
2.	FV 4 AFU	2 Pcs
3.	Frekwensi Meter	3 Pcs
4.	Stop Wacth	8 Pcs
5.	Frekwensi Counter	2 Pcs
6.	Digital Multimeter	4 Pcs
7.	Kapasitor u/Elektro Motor	2 Pcs
8.	Gunting Plat (Flaur Sherer)	1 Set
9.	Mesin Las Listri AC	2 Set
10.	Regulator Tek Gas Asetelin	2 Set
11.	Regulator Tek Gas Oksigen	2 Set
12.	Stang Lampu Las Asetelin	2 Set
13.	Kacamata Kerja Las Asetelin	6 Pcs
14.	Snei Pipa Made In Cina	1 Pc
15.	Sray Cun Model Pro	1 Pc
16.	Kompas Geologi	1 Pc
17.	Manual O-Bac Planimeter	4 Unit
18.	Bench Drilling (Mesin Boting)	1 Set
19.	Hydrolik Tols Tife	1 Set
20.	Cutting Torq LPG Lengkap	1 Set
21.	Komputer + Perlengkapan	2 Unit
22.	Peralatan Komputer Lengkap	1 Unit
23.	Komputer PC/AT Komplit	1 Unit
24.	Komputer (Procom) Koreksi	1 Unit
25.	CPU	1 Unit
26.	Komputer	1 Unit
27.	Megger	1 Pc
28.	Portable Stand AC Ampere Meter	2 Set
29.	Portable Stand AC Volt Meter	2 Set
30.	Motor Listrik Rotor Sangkar 3 Phas	4 Pcs
31.	Motor Listrik Rotor Sangkar 1 Phas	2 Pcs
32.	Portable Stand DC Ampere Meter	4 Set
33.	Portable Stand Single Phase	2 Set
34.	Cos Phimeter	2 Pcs
35.	Serine 220-V	3 Pcs
36.	Portable Power Factor Meter	1 Set
37.	Portable Equancy Meter	1 Set

19

1	2	3
38.	Dial Indicator	2 Set
39.	Hinget Magnetic	2 Set
40.	A precession Surfase Plate	1 Set
41.	Micrometer	1 Set
42.	Univeral Caliver With Naspro	1 Set
43.	Deapth Gauge To	1 Set
44.	Puble Jet Printer	2 Pcs
45.	Replacable Color	8 Pcs
46.	Balance, spring, tubular plastik case with zero adjuster 100 x 1g	4 Pcs
47.	Balance, spring, tubular plastik case with zero adjuster 200 x 2g	4 Pcs
48.	Balance, spring, tubular plastik case with zero adjuster 1kg x 10g	4 Pcs
49.	Balance, spring, tubular plastik case with zero adjuster 5kg x 100g	4 Pcs
50.	Balance, spring, tubular plastik case with zero adjuster 10kg x 100g	4 Pcs
51.	Balance Single Pan Chau 1650 Dial-O-Gram 1600 G Sensitivity 0,1g	2 Pcs
52.	Pulley Plastics Single 50mm diameter With One Hook XBD-480-V	8 Pcs
53.	Pulley Plastics Single 50mm diameter With One Hook XBD-510-Q	8 Pcs
54.	Pulley Plastics Single 50mm diameter With One Hook XBD-540-S	8 Pcs
55.	Simple Wheel And Axle Hard Wood XBE-720-G	1 Pc
56.	Universal Stand	5 Pcs
57.	Polygon of Forces Set	5 Pcs
58.	Forces On Abeam Set	5 Pcs
59.	Gear Wheel Set	1 Pc
60.	Glass Tube. Spare For Boyle's Law Aparatus	1 Pc
61.	Foot Pump Adapter For Use With Abofe XCR-480-030W	1 Pc
62.	Temperature Coefficient of Resistance Coil	5 Pcs
63.	Caharle's Law Apparatus	2 Pcs
64.	Calorimeter Copper 100 x 65mm	5 Pcs
65.	Calorimeter Alluminium 100 x 65mm	5 Pcs
66.	Calorimeter Cover, Wood For Calorimeter Diameter 65mm	10 Pcs
67.	Pack Of 4 Sets Mass Hangers 10G With 9 Slotted Masses 10G	24 Pcs
68.	Hidrolics Training Rig	1 Pc
69.	Tensile Test Machine With Out Specimens	1 Pc
70.	Pair of Turned Specimen Holders For Use With Tensile Tes Machine	1 Pc
71.	Set of 50 Turned Tensile Specimens For Tensile Tes Machine	2 Pcs
72.	Weigh Hing Scale Up To 250 Kg	1 Pc
73.	Pneumartic Kit Base	8 Pcs
74.	Pneumartic Ectention Kit	8 Pcs
75.	Nneedle Valve 55m-175-010B	3 Pcs
76.	Round Pin Plugs + Plush Mounted Sockets	10 Pcs
77.	Large Vanhicles	2 Pcs
78.	Small Vacuclues	1 Pc
79.	Batery Charger, 240v	2 Pcs
80.	Rotary Dill, Kango Wolf, 2 Sped Model No.2156 set Straight Shank HSS Drills 1.0-10mm x 0.5 in Metal Case	1 Pc
81.	Masondy Drills 5,5,5,6,6,5,7,8 dan 10mm Dia	1 Pc
82.	Adjustable Torque Wrench No. EVTR 1200/12"	1 Pc
83.	General Purpose Goggles Having Moulded	20 Pcs
84.	Sykes Pickavant Valve Sring Compressor	1 Pc
85.	Cast Iron Surface Plate Workshop	1 Pc
86.	Tap and Die Set, One Each Side From 5-12mm	1 Pc
87.	Drill Set HSS Straight Shank Drills 1-10mm	2 Pc
88.	Retractable Blade Knives	5 Pcs
89.	Packs of 5 Spare Parts Blades to Suit	10 Pcs
90.	Hacksaw Frame with Die Cast Pistol	15 Pcs
91.	Hacksaw Blades HSS Bimetal	100 Pcs
92.	Engineers Screwdriver	3 Pcs

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93.	Phillips Point Screwdriver	6 Pcs
94.	Combination Pliers	3 Pcs
95.	Snipe Nose Piler	3 Pcs
96.	Wire Stripping Plier	5 Pcs
97.	Cable Stripper for Flate and Oval	1 Pc
98.	Dial Indicator Plunger Type	1 Pc
99.	Magnetic Base Indicator	1 Pc
100.	Spare Cross Bar Knuckel	1 Pc
101.	Engineers Double Ended Scriber	10 Pcs
102.	Dividers	3 Pcs
103.	Inside Calipers	3 Pcs
104.	Out side Calipers	3 Pcs
105.	Vernier Caliper	2 Pcs
106.	Internal Micrometer 25-55 mm	1 Pc
107.	Internal Micrometer 50-210 mm	1 Pc
108.	Micrometer Outside Type 0-25 mm	2 Pcs
109.	Micrometer Outside Type 2-3"	1 Pc
110.	Stel Rules & Imperila & Metric	12 Pcs
111.	Bearing Puller 2 Twin Leg & 2 Triple	1 Pc
112.	Piston Ring Compressor 3. 5-7. 00"	1 Pc
113.	Circlip Pliers External Straight 180 mm	4 Pcs
114.	Centre Punch Knurled Grip 3.2 mm Point	2 Pcs
115.	Universal Tin Snips G 950	3 Pcs
116.	Files Flat Bastard 12"	10 Pcs
117.	Files Flat 2 nd Cut 12"	10 Pcs
118.	Files Flat Smooth 12"	6 Pcs
119.	Files Round 2nd Cut 12"	6 Pcs
120.	Files Square 2nd Cut 12"	6 Pcs
121.	Files Handles 5"	100 Pcs
122.	Cold Chisel Flat 200 mm x 16 mm	10 Pcs
123.	Cold Chisel 250 mm x 23 mm	10 Pcs
124.	Cold Chisel Cross Cut 150 x 6 mm	10 Pcs
125.	Allen Key sets 1.5-10mm long arm	2 Pcs
126.	10 HP Engart Fan	1 Pc
127.	Compressor	1 Pc
128.	Over Head Projector & Space Bulbs	3 Pcs
129.	Belt Jointing Machine, Half Couplers Type A	1 Pc
130.	Pastener & Belt Pins	1 Pc
131.	Firs Aid Instructor Book	2 Pcs
132.	Breaker Borosilicate Glass Squat From Spouted 100ml	10 Pcs
133.	Breaker Borosilicate Glass Squat From Spouted 25ml	10 Pcs
134.	Bell Jar Knop top 300x200mm	2 Pcs
135.	Burner Bunsen Butane/Propane Burner Tube 13mm OD inlet 9mm OD Height 125mm	10 Pcs
136.	Cylinder Graduated Poly Propylene with Spout 500x5ml	5 Pcs
137.	Cylinder Graduated Poly Propylene with Spout 1000x10ml	5 Pcs
138.	Retort Stand & Base Pressed Steel Matt, Black Firish 200x125mm	20 Pcs
139.	Retort Stand Rod Zinc Plated Mild Steel 600x12mm dia	20 Pcs
140.	Retore Stand Clamp Holds Articles from 2 to 90mm	20 Pcs
141.	Bosshead Offset Jaws For Rods Up To 16 mm	20 Pcs
142.	Pack Of 100 Test Tubes Soda-lime Glass Normal Wall With Rim 125 x 12mm (G001/77)	4 Pcs
143.	Pack to 100 Test Tubes Borosilicate Glass Medium Wall With Rim 150x18mm (G032-08)	2 Pcs
144.	Test Tube rack Hardwood ten 22mm holes and two 32mm holes with 12 Peg Pattern D	8 Pcs

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145.	Thermometer Mercury-in-Glass 300mm immersion 75mm-10 to 110x1C	10 Pcs
146.	Thermometer Mercury-in-Glass 300mm immersion 75mm-10 to 110x2C	10 Pcs
147.	Tongs Crucible Brass with Bow 200mm	5 Pcs
148.	Pack of 10 Funnels Polypropylene Diameter 115 mm	1 Pc
149.	Gas Preparation Kit Quickfit 1GS CHJ-590-R	2 Pcs
150.	Director Reading Barometer, Cat No RA 1587	1 Pc
151.	Airflow Testing Set, Type 5, Portable	1 Pc
152.	Industrial Manometer, Slim Jim, 0-24, C/n 71519504	2 Pc
153.	Low Speed Anemometer, Type LS2, Metrik Velocity	1 Pc
154.	Medium Speed Anemometer Type P4 Metrik Velocity	2 Pcs
155.	MSA D6D Methanometer, Range 0-5% Vol. C/N 0510002	2 Pcs
156.	Training Equipment Multigas Tester & Sample Tubes	1 Set
157.	Self Resquer Cold Trainers	40 Pcs
158.	CVO & Methane Drainage Calculators	4 Pcs
159.	Flame Safety Lamp Spirit	3 Pcs
160.	Ammeter Moving Iron AC/DC With Stand 0-1A	10 Pcs
161.	Ammeter Moving Iron AC/DC With Stand 0-5A	10 Pcs
162.	Voltmeter EHB-360S	10 Pcs
163.	MilliAmmeter Moving Coil DC With Stand 0-500	10 Pcs
164.	MilliAmmeter EHA 610-110	10 Pcs
165.	High Sensitivity Microammeter EHA- 860L	1 Pc
166.	Shunts for the above 0-1mA EHA-870-540W	1 Pc
167.	Shunts for the above 0-10mA EHA-870-515R	1 Pc
168.	Shunts for the above 0-100mA EHA-870-526M	1 Pc
169.	Shunts for the above 0-1A EHA-870-537H	1 Pc
170.	Shunts for the above 0-10A EHA-870-548C	1 Pc
171.	Multiples DC, For The Above : 0-1V EHA -880-503R	1 Pc
172.	Multiples DC, For The Above : 0-10V EHA -880-517G	1 Pc
173.	Multiples DC, For The Above : 0-100V EHA -880-523K	1 Pc
174.	Signal Generator And Amplifier 220-240 V AC	1 Pc
175.	Galvanometer, Centre Zero, 35-0-35MV	8 Pcs
176.	Multimeter Student EHL-181-G	5 Pcs
177.	Resistance Unit 0,1 Ohm 800 MA	27 Pcs
178.	Resistance Unit 0,5 Ohm 600 MA	27 Pcs
179.	Resistance Unit 1 Ohm 500 MA	27 Pcs
180.	Resistance Unit 2 Ohms 400 MA	27 Pcs
181.	Resistance Unit 5 Ohms 260 MA	27 Pcs
182.	Resistance Unit 10 Ohms 160 MA	27 Pcs
183.	Resistance Unit 20 Ohms 120 MA	27 Pcs
184.	Resistance Unit 50 Ohms 60 MA	27 Pcs
185.	Resistor Sliding Contact 150 x 40mm 1,70 OHMS 10 A	2 Pcs
186.	Resistor Sliding Contact 150 x 40mm 7,1 OHMS 5 A	2 Pcs
187.	Resistor Sliding Contact 150 x 40mm 8,1 OHMS 4 A	2 Pcs
189.	Resistor Sliding Contact 150 x 40mm 33 OHMS 1 A	2 Pcs
190.	150 x 40 mm 180 OHMS 1 Amp	2 Pcs
191.	Half metre Bridge Scala 0-50cm x 1 mm and 50-0CM x 1 mm	3 Pcs
192.	Westminster Electromagnetic Kit	1 Pc
193.	Pack of 4 magnets 32 x 6mm square spare for electromagnetic Kit	1 Pc
194.	Pack of 100 carbon Resistors spare for Electromagnetic kit 100 Ohm	1 Pc
195.	Pack of 10 Reels of 100m cotton spare for Electromagnetic Kit	1 Pc
196.	Pack of 10 Pepper pots spare for Electromagnetic Kit	1 Pc
197.	Pack of 36 wood rods (cool formers) spare for electromagnetic kit	1 Pc
198.	Pack of 4 double c-cores spare for electromagnetic kit	1 Pc
199.	Pack of 12 clips for c-cores spare for elektromagnetic kit	1 Pc
200.	Pack of 12 armatures spare for elektromagnetic kit	1 Pc
201.	Pack of 12 Yokes for Magnets spare for elektromagnetic kit	1 Pc

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1	2	3
202.	Pack of 24 Support Bases spare for elektromagnetic kit	1 Pc
203.	Pack of 144 split Plns spare for elektromagnetic kit	1 Pc
204.	Pack of 250 Rivets Aluminium spare for elektromagnetic kit	1 Pc
205.	Pack of 16 Ahafis Aluminium spare for elektromagnetic kit	1 Pc
206.	Reel of 10m Celiulosa tape spare for elektromagnetic kit	1 Pc
207.	Pack of 12 Metal Rings Plain spare for elektromagnetic kit	1 Pc
208.	Pack of 12 Metal Rings Split spare for elektromagnetic kit	1 Pc
209.	Pack of 4 neon Bulbs Mes spare for elektromagnetic kit	1 Pc
210.	Reel of 80M tinned cover Wire spare for elektromagnetic kit	1 Pc
211.	Pack of 50 Compas Holders spare for elektromagnetic kit	1 Pc
212.	1 kg N.H Iron Metal Fling Fine	1 Pc
213.	Block Magnet 50 x 19 x 4mm Anisotropic cramic parite	1 Pc
214.	Pack of 12 Plotting Compassis One Glass Face Diameter 15mm	1 Pc
215.	Pack of 10 Spotlight Bulbsmes cap 2.5V 0.2A	1 Pc
216.	Pack of 12 Bulbholders mes Batten 50V AC-75 V DC	1 Pc
217.	Pack of 6 valve Rubber Tubling spare for elestic materials kit	1 Pc
218.	Transformer Stand and core	1 Pc
219.	Coil Low Voltage 300 Turns	1 Pc
220.	Coil Low Voltage 600 Turns	1 Pc
221.	Tapped Coil	1 Pc
222.	Oscilloscope Dual Trace 110-125/220-240V AC	2 Pcs
223.	Modular Microprocessor Kit Set of 13 Modules	1 Pc
224.	Teachers manual for modular microprocessor	1 Pc
225.	Regulated Power Supply 5,6,9,10,12,15,18,24 & 30 V DC 800 MA Out put, 220-240 VAC	1 Pc
226.	Avo Meter, P/N M2006, Stock No. 048281 B Megger	1 Pc
227.	Machine Test Bed, Model FH2 MK2 + 3 Phase Transpormer Box	1 Pc
228.	DC Compount Machine, Model FH 50	1 Pc
229.	3 Phase Ceg Rotor Induction Motor FH 90	1 Pc
230.	Electronic System Starter Kit Model LK 75 A	8 Pcs
231.	LK7 5 B Electronic System (add on) kit	8 Pcs
232.	Electricians Tool Kit Complissing Knife	2 Pcs
233.	Soldering Iron , Pencil Type 240 V 25 W	5 Pcs
234.	Soldering Iron, with Oval Bit 240 V 150 W	5 Pcs
235.	Wallacetown P 70 Gat and Box	1 Pc
236.	Low Voltage Supply Unit	1 Pc
237.	Electricians Srewdriver	6 Pcs
238.	Transmisi*	6 Pcs
239.	Final Drive	1 Pc
240.	Caliper Assy	1 Pc
241.	Engine & Radial	1 Pc
242.	Mesin Yanmar	1 Pc
243.	Air Cleaner	5 pcs
244.	Air Filter	1 Pc
245.	Housing	1 Pc
246.	Filter	8 Pcs
247.	Element	16 Pcs
248.	Full Filter	1 Pc
249.	Seal Kitt	2 Pcs
250.	Sovece Kitt	1 Pc
251.	Ball Joints	1 Pc
252.	Gasket	6 Pcs
253.	Clemp	1 Pc
254.	Ban	4 Pcs
255.	PT. Pump	1 Pc
256.	Gear Pump	3 Pcs

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257.	Piston Pump	1 Pc
258.	Traction Motor	2 Pcs
259.	Equipment Control Valve	1 Pc
260.	Automatic Shift Vontrol	1 Pc
261.	Switch Control Valve HD. 325	1 Pc
262.	Swing Motor PC. 220	1 Pc
263.	Hydraulic Equipement C Valve	1 Pc
264.	Steering Pump D 85	1 Pc
265.	Hyraulic Control Valve D 8L	1 Pc
266.	Air Master	2 Pcs
267.	Hydarulic Pump	1 Pc
268.	Compressor	1 Pc
269.	Hydro Master	1 Pc
270.	Turbo Charger	2 Pcs
271.	Injection Pump	2 Pcs
272.	G.E.B	11 Pcs
273.	Signaling Transformer & Lighting Transformer unit	1 Pc
274.	Transformer Unit	3 Pcs
275.	F.P Relay Control Unit	2 Pcs
276.	Signaling Key	19 Pcs
277.	Blue Beel (David Derby)	3 Pcs
278.	F.P Relay Signalling Unit	1 Pc
279.	Lampu TL FLP Calstar	4 Pcs
280.	Amplifier Unit	4 Pcs
281.	Switch Stop Start	2 Pcs
282.	Brush Transformer	3 Pcs
283.	Belt Compeyor Unit	1 Pc
284.	Plug Cable Victor	3 Pcs
285.	Couple Cable	11 Pcs
286.	Prestart Type 26080	1 Pc
287.	STVAD (Coal Fase Signal Control) & Communication Unit	1 Pc
288.	AFC Unit	1 Pc
289.	Shearer Serni Mekanis	1 Pc
290.	Power Pack Unit	1 Pc
291.	Centrifugal pump	3 Pcs
292.	Submersible Pump	1 Pc
293.	Disford Chock + Push Ram	4 Pcs
294.	Hydraulic Proof (HP)	5 Pcs
295.	PRS	1 Pc
296.	Compressor Air Drilling machine	1 Pc
297.	Kendaraan Taft Hi - Line	1 Pc
298.	Kendaraan Taft daihatsu	1 Pc
299.	Motor Honda Win	1 Pc
300.	Mesin Frais	1 Pc
301.	Milling Machine Universal	1 Pc
302.	Drilling Machine, Sienissen Co.	1 Pc
303.	Drilling Machine	1 Pc
304.	Grinding Machine, Rema	1 Pc
305.	Mobiling Crane	1 Pc
306.	Archis set	10 Pcs
307.	H- Bearn	8 Pcs
308.	Rail Track	10 Pcs
309.	Ruzrusznik	1 Pc
310.	Dynamo Loko slinik	1 Pc
311.	Spanduk Utamakan Keselamatan	1 Pc
312.	Jig Saw	1 Set

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313.	Drill	1 Pc
314.	Circular Saw	1 Set
315.	Power Planner	1 Set
316.	Center Line Punches 1/2 x 4,5"	5 Pcs
317.	Center Line Punches 1/2 x 6"	5 Pcs
318.	Center Line Punches 3/8 x 5 "	5 Pcs
319.	Drill Set	3 Pcs
320.	Feeler Gauges Imperial	10 Pcs
321.	Feeler Gauges Metri	10 Pcs
322.	Flare Nut Spanner	6 Pcs
323.	Gasket Scraper	5 Pcs
324.	Lock Grip Plier - Curve Jaw 7"	3 Pcs
325.	Lock Grip Plier - Staright Jaw 7"	5 Pcs
326.	Offset Blade Srewdriver	5 Pcs
327.	Offset Pillhups Srewdriver	5 Pcs
328.	Pin Punch Set	6 Pcs
329.	Pin Punch & Chisel	3 Pcs
330.	Plastic Hammer	15 Pcs
331.	Stud Extrator Set	5 Pcs
332.	Tap end Die A/F 11/4 - 1"	3 Pcs
333.	Tap end Die Metric 6 - 24 mm	3 Pcs
334.	Tread Gauges A/F	5 Pcs
335.	Tread Gauges Metric	5 Pcs
336.	Wire Brush	30 Pcs
337.	Bearing 1204	1 Pc
338.	Bearing NF 205	1 Pc
339.	Bearing 5204	1 Pc
340.	Bearing NU 205	1 Pc
341.	Bearing 22208C	1 Pc
342.	Bearing 51106	1 Pc
343.	Bearing HK2820	1 Pc
344.	Needle Bearing 16 x 17	1 Pc
345.	Mechanical Seal Kostum 18 mm	1 Pc
346.	Mechanical Seal Kato 2-3"	1 Pc
347.	Bearing 7205 BW	1 Pc
348.	Engine Stand	4 Set
349.	Disspencer	1 Unit
350.	Copper or Brass Hammer	15 Pcs
351.	Raw Hide Hammer	15 Pcs
352.	Rubber Mallet	15 Pcs
353.	T Tap Handle	3 Pcs
354.	Valve Spring Compressor Tool	3 Pcs
355.	Whel Brase/F Metric	5 Pcs
356.	Single Hex Impact Socket, Inc	3 Pcs
357.	Single Hex Impact Socket, mm	3 Pcs
358.	Single Flaring Tools	3 Pcs
359.	Polycarbonet Safety Caps/Helmet	1 Pc
360.	Fibre Helmet 2" x 4,5"	2 Pcs
361.	Hand And Welding Shied 2" x 4,5"	5 Pcs
362.	Fit All Face Shied	2 Pcs
363.	Shied/Adjustable Helmet	2 Pcs
364.	Nylon Hair Nets	2 Pcs
365.	Earmuff (ear Protections)	3 Pcs
366.	Side Heald Visitor Goggles	2 Pcs
367.	Economy Solf Side Goggles	2 Pcs
368.	Flips Lens Goggles	3 Pcs

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369.	Economy Dust Respirator	5 Pcs
370.	Dual Catrige Type Respirator	2 Set
371.	Pait Pray Mist & Org V Respirator	2 Set
372.	Heat Resistant Gloves	3 Pcs
373.	Chemoccal Resintant Gloves	5 Pcs
374.	Welder Gloves	1 Pc
375.	Rubber Boot (Normal)	1 Pc
376.	Approm Leather	5 Pcs
377.	Approm Rubber	2 Pcs
378.	Safety Belt (Multypurpose)	2 Pcs
379.	Cable Reel Trouble Light	3 Pcs
380.	StepLedder	1 Pc
381.	Single Redder	1 Pc
382.	Garpu Pembuka Ban	2 Set
383.	Kunci Inggris	1 Pc
384.	Jangka Geser	1 Pc
385.	Methane Gas Tester	2 Set
386.	Busur Tambang	1 Pc
387.	Shackle Traight	2 Pcs
388.	Eye Bolt Treaded With Nut	1 Pc
389.	Eye Bolt Treaded	1 Pc
390.	Lifting Eyes	1 Pc
391.	Clevis & Swivel Hooks	1 Pc
392.	Swivel Shacle & Straight Shackle	1 Pc
393.	Pon (Punch) 5/8"	1 Pc
394.	Pon (Punch) 9/6"	1 Pc
395.	Pon (Punch) 1/2"	1 Pc
396.	Pon (Punch) 7/6"	1 Pc
397.	Pon (Punch) 5/16"	1 Pc
398.	Pon (Punch) 1/4"	1 Pc
399.	Pon (Punch) 3/16"	1 Pc
400.	Pon (Punch) 5/32"	1 Pc

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**PROVISIONAL PLAN OF LOCAL COST TO BE REQUESTED
FISCAL YEAR 2001 -2005**

BUILDING • JICA Expert Office and Counterpart • Laboratory of Analysis, Test and Centralized Monitoring	Rp. 1,552,000,000.-
TRAINING PROGRAMME • Accomodation and travel trainees • Accomodation and travel trainers • Training Consumable • Field Trip • Marketing Promotion	Rp. 5,000,000,000.-
TRAINING AIDS	Rp. 350,000,000.-
OFFICE EQUIPMENT	Rp. 1,150,000,000.-
DORMITORY EQUIPMENT	Rp. 232,000,000.-
PERSONAL PROTECTIVE EQUIPMENT	Rp. 100,000,000.-
LABORATORY COMPUTER	Rp. 530,000,000.-
VECHICLE (2 unit)	Rp. 360,000,000.-
OPERATIONAL COST : • Salary • Personal (Local Staf) • Counterpart (Indonesian) • Telephone, Power, and Water Service • Cleaning Service • Stationary • Car Maintenance • Training Equipment Maintenance • Building Maintenance • Handling of Machinery and Equipment • Photo Copy	Rp. 4,900,000,000.-
Total	Rp. 13,544,000,000.-

ASSET : • Two Blocks of Dormitory • Workshop • Multipurpose Room • Kitchen • Class Room and Office • Equipment	Rp. 3,500,000,000.-
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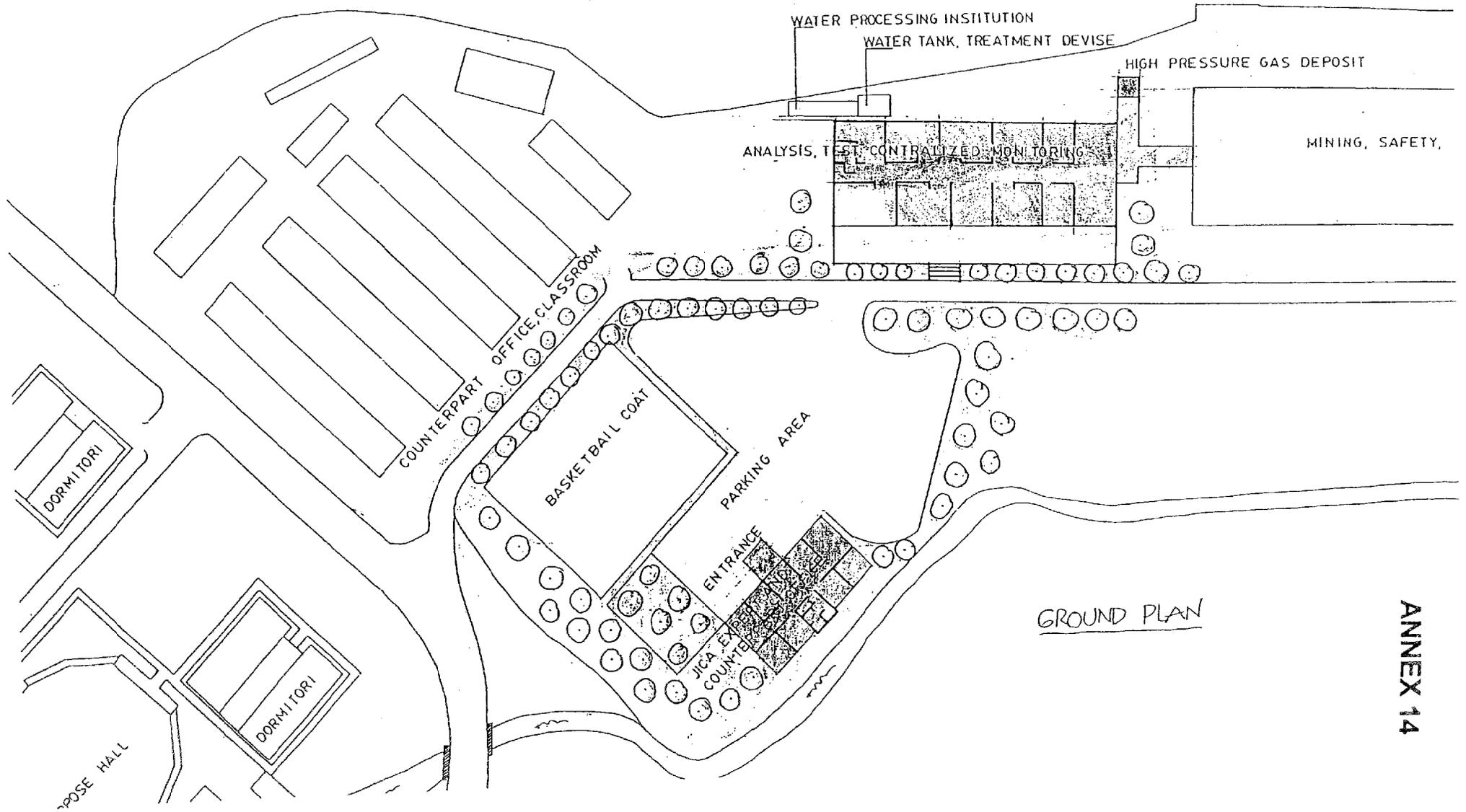
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ANNUAL BUDGET OF OMTC FROM 1997 TO 2000

Year	Budget	Total
1997 * Operational Cost	Rp. 29,750,000.00	Rp. 29,750,000.00
1998 * Operational Cost * Cooperation between DGM and John Batman in the Framework at OMTC Development	Rp. 34,000,000.00 Rp. 2,000,000,000.00	Rp. 2,034,000,000.00
1999 * Operational Cost	Rp. 34,984,000.00	Rp. 34,984,000.00
2000 * JICA Study Preparation * Building Renovation for JICA Expert Office and Dormitory	Rp. 360,000,000.00 Rp. 1,500,000,000.00	Rp. 1,860,000,000.00
TOTAL		Rp. 3,958,734,000.00

Fig.

Tentative Floor Plan of Building



GROUND PLAN

Fig

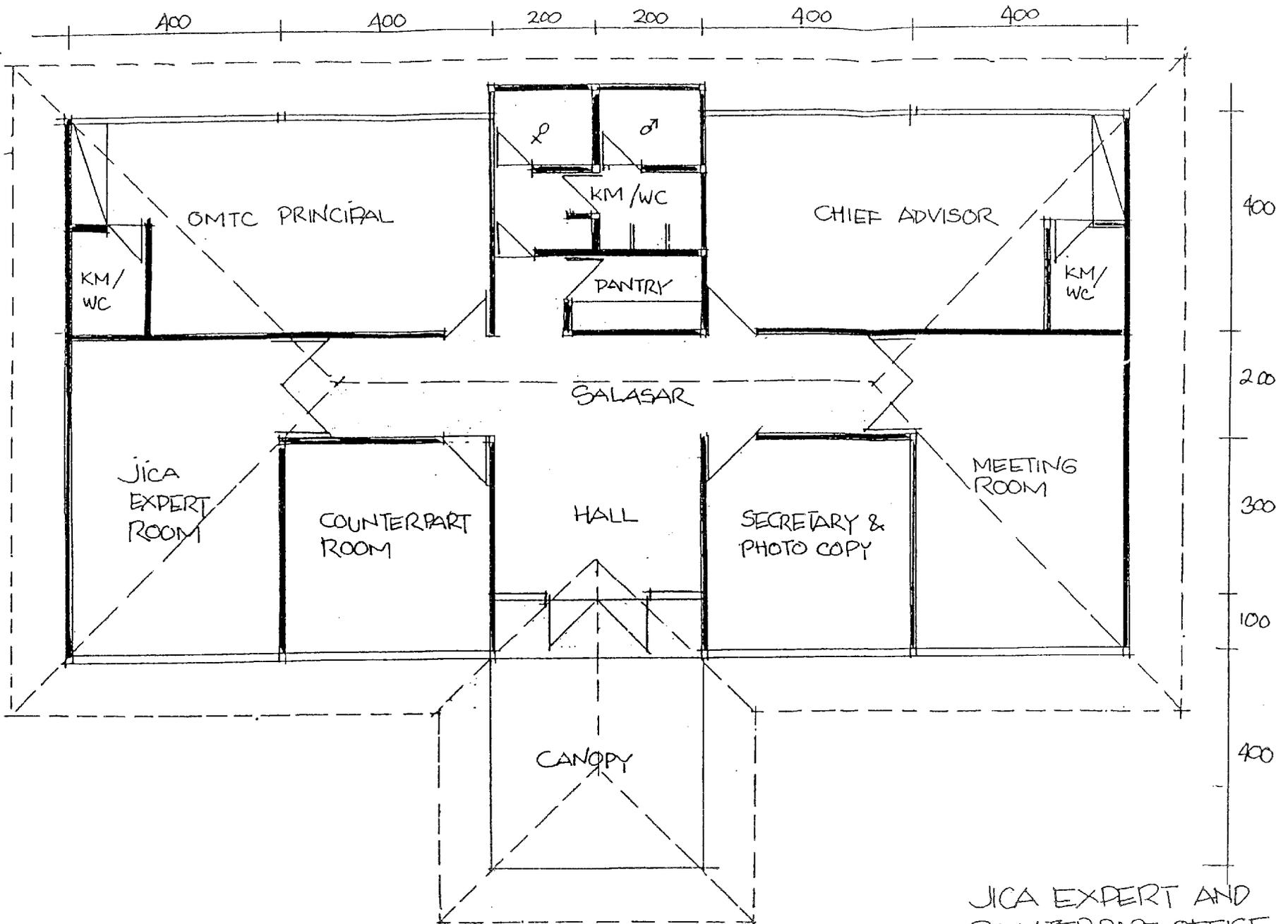
JICA Expert and Counterpart office
(New Office)

- 270 -



JICA EXPERT AND
COUNTERPART OFFICE

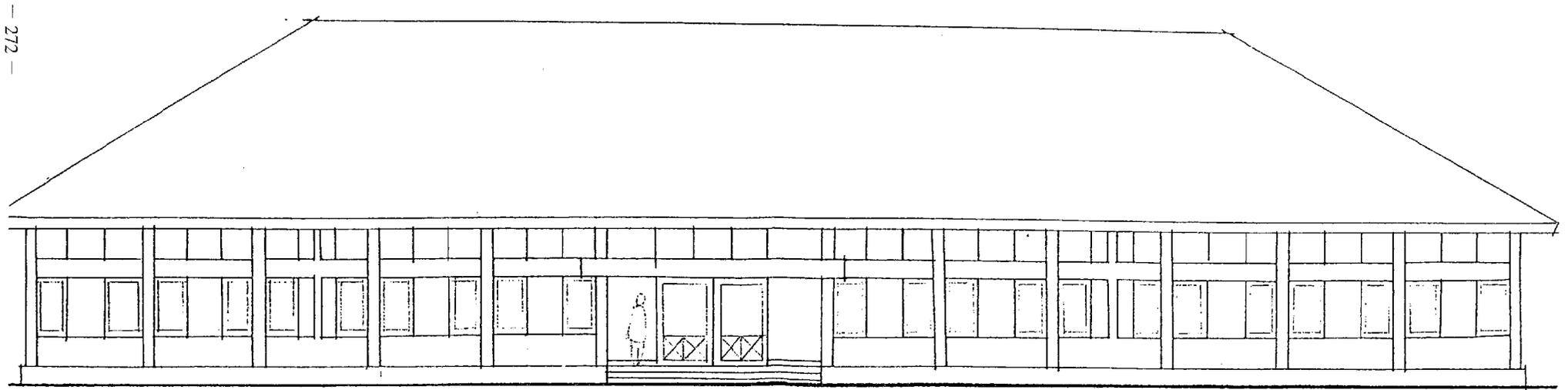
Fig 19



JICA EXPERT AND
COUNTERPART OFFICE

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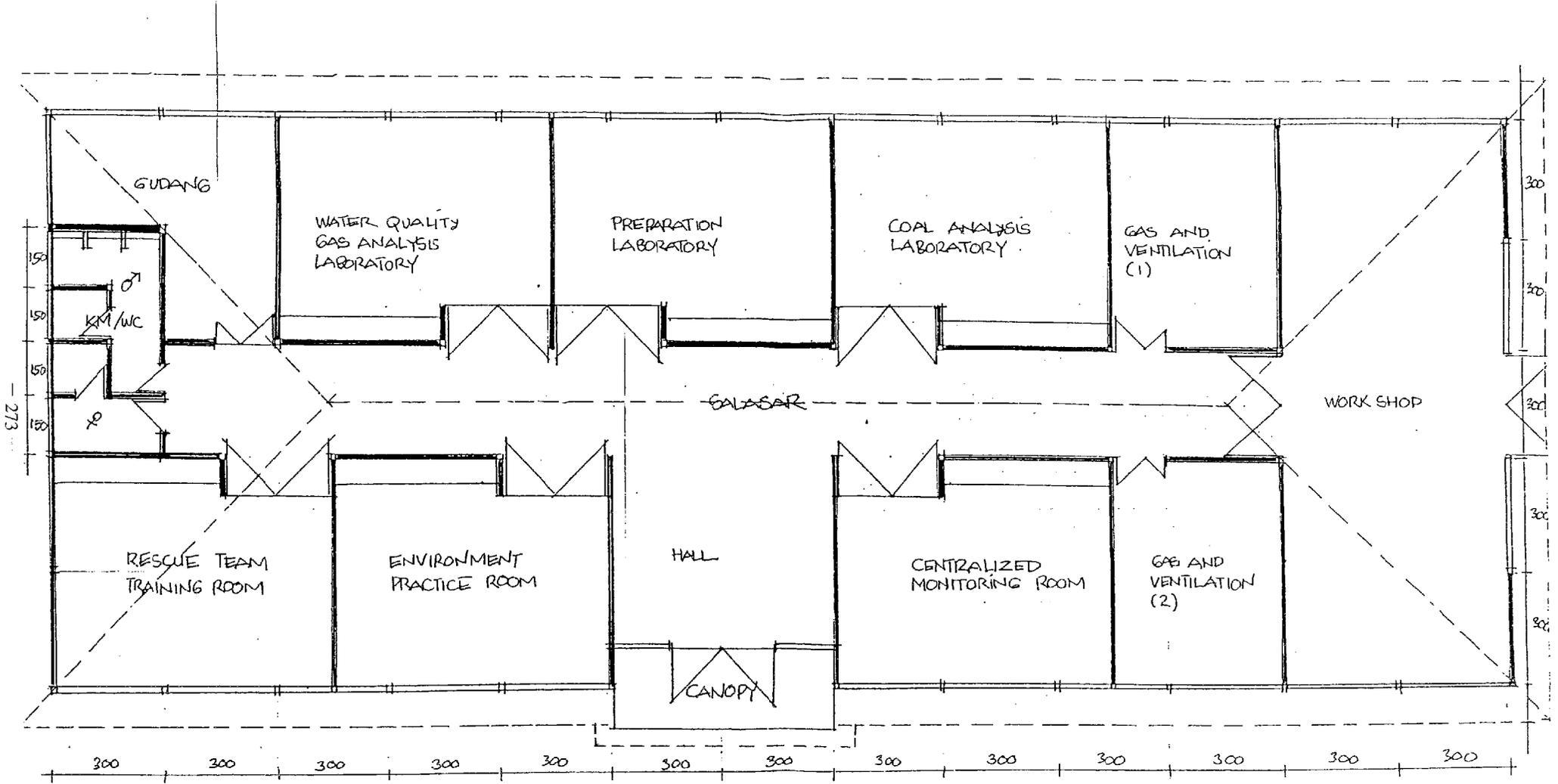
Analysis, Test, Centralized monitoring
(New House)



— 272 —

ANALYSIS, TEST, CENTRALIZED MONITORING

Fig



ANALYSIS, TEST, CENTRALIZED MONITORING

List of Counterparts Personnel

OMTC

1. Drs. Asmara Karma	Mechanical Engineering
2. Drs. Iskandar	Mechanical Engineering
3. Drs. Basuki W.	Mechanical Engineering
4. Drs. Ali Taman	Mechanical Engineering
5. Yones Simanjuntak	Mechanical
6. Alexander Tomaso	Mechanical
7. Drs. Daryaningrat	Electrical Engineering
8. Drs. Muryanto	Electrical Engineering
9. Gusti A.W.	Electrical
10. Hamdan Fridan	Mining

PT BA - UPO

11. Ir. Arifin Thaib	Mining Safety/Engineering
12. Ir. Dadzui Ismail	Mining Engineering
13. Ir. Zulfahmi	Mining Engineering
14. Heri Santoso, BE.	Mining Electrical Engineering
15. Marsudi, BE.	Mining Electrical Engineering
16. Yulias	Mechanical
17. M. Diaz	Mechanical

MDCM

18. Sudarmadji	Mining Engineering
19. Apud Djadjulie	Mining Engineering
20. Zul Ichwan	Mining Engineering
21. Bambang Priyatna Wijaya	Mining Engineering
22. Ade Hidayat	Mining Engineering
23. Asep Suryana	Mining Engineering
24. Anda Sjaepudin	Mining Engineering
25. Mulyono Hadiprayitno	Mining Engineering
26. Kusna Permana	Mining Engineering
27. Djumara	Mining Engineering
28. Eppy Wahyu Parma	Mining Safety
29. Kean Santang	Mining Safety
30. Dadang S. Hidayat	Mining Safety
31. Sugiharto	Mining Engineering
32. Agus Herdana	Mining Engineering
33. Mahfudin Afip	Mining Engineering
34. Pudjo Asmoro	Mining Engineering
35. M. Ridha Sanusi	Mining Engineering
36. Wawan Supriyatna	
37. Jajat Ruchijat	
38. Bambang Suprayitno	Mining Safety
39. Zahirdin	Mining Engineering
40. Johan Budi Winarto	Mining Engineering

Tentative Allocation Plan of Counterparts Personnel

Year	2001	2002	2003	2004	2005
Counterpart	15	15	15	15	15
Transfer Technology					
1)U/G Coal Mining Technology	3	3	3	3	3
2)U/G Coal Mining Safety Technology	3	3	3	3	3
3)U/G Coal Mining Machinery Technology	3	3	3	3	3
4)U/G Coal Mining Electricity Technology	3	3	3	3	3
5)Coal Mining Environment Technology	3	3	3	3	3

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The approved nomenclature of the coal mining sector

NO.	NOMENCLATURE
1.	Technical Mine Manager
2.	Under Ground Mine Manager
3.	Underground Mine Shift Boss
4.	Health and Safety Supervisor
5.	Mine Surveyor
6.	Second Class Blaster
7.	First Class Blaster
8.	Geotechnician
9.	Mine Environmental Supervisor
10.	Mine Waste Technician
11.	Erosion Control Technician
12.	Mine Reclamation Technician
13.	Mine Environmental Monitoring Technician
14.	Mine Waste Monitoring Technician
15.	Mine Environmental Erosion Monitoring Technician
16.	Mine Reclamation Progress Monitoring Technician

Joint Coordinating Committee

1. Functions

1. To set the Annual Plan of Operations (APO) of the Project in line with the Tentative Schedule of Implementation (TSI) formulated under the framework of the Record of Discussions.
2. To coordinate necessary actions to be taken by both sides.
3. To review the overall progress of the TSI as well as the achievement of APO.
4. To exchange views on major issues arising from or in connection with the Project.

2. Compositions

1. Chairperson (Project Director)
Director General , DGM

2. Members

(The Indonesian side)

- 1) Representatives of Ministry of Mines and Energy
- 2) Representatives of BAPPENAS
- 3) Head of MDCM (Project Manager)
- 4) Coordinator
- 5) Project Members of MDCM
- 6) Other Personnel nominated by the Chairperson

(The Japanese side)

- 1) Chief Advisor
- 2) Coordinator
- 3) Experts nominated by the Chief Advisor
- 4) Representatives of JICA Indonesia Office
- 5) Personnel concerned with the project to be dispatched by JICA

3. Observers

- 1) Officials of the Embassy of Japan in the Republic of Indonesia
- 2) Other personnel accepted by JICA

3. Opening of the Committee Meeting

The Joint Coordinating Committee will be held at least twice a year in the first year, and once a year thereafter and whenever a necessity arises.

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Five (5) Basic Evaluation Components

1. The Five Basic Components

The five basic components defined by JICA as mentioned below are in line with those used for evaluation work by DAC (Development Assistance Committee, OECD) and other international assistance organizations. Introduction of these components has enabled a consistent, well-balanced evaluation, which minimizes evaluator biases. Further, it allows us to share results, knowledge and lessons with other aid organizations, since we are using common components and discussing issues with them from the same viewpoints.

(1) Efficiency

Evaluate the method, producers, term, and cost of the project with a view to productivity.

(2) Effectiveness

Evaluate the result in comparison with the goals (or revised goals) defined at the initial or intermediate stage, and evaluate the attributes (factors and conditions) of the result.

(3) Impact

Evaluate the positive and negative effects of the project, extent of the effect and beneficiaries.

(4) Relevance

Perform a preliminary evaluation as to whether the needs in the country have been correctly identified, and whether the design is consistent with the national and/or master plan.

(5) Sustainability

Evaluate the autonomy and sustainability of the project after the termination of cooperation, from the perspectives of preparation, management, economy, finance and technology.

2. Relation between the Five Basic Components and the PDM

The five components are used for the evaluation and the selection of a project. These components are directly connected to the elements of the PDM.

(1) Efficiency

The component "efficiency" is a measure to qualitatively and quantitatively compares all

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resources (input) to the results (output) of the project in order to evaluate the economic efficiency of conversion from input to output.

(2) Effectiveness

The component “effectiveness” is a measure to evaluate whether the project purpose has been achieved or not, to evaluate how much the output contributed to the achievement of the project purpose, or to evaluate whether or not the characteristics of the output were as expected.

(3) Impact

The component “impact” refers to evaluation of foreseeable or unforeseeable as well as favorable or adverse effects that a project has on society. To evaluate impact, both the overall goal and the project purpose should be referred to in the beginning of the evaluation. Evaluation with this component can lead to confirmation as to whether or not the overall goal has been obtained. Evaluation with this component requires comprehensive survey in many cases.

(4) Relevance

The components “relevance” is comprehensive evaluation of whether or not the project meets the overall goal, the politics of both the donor and recipient, local needs and given priority levels. This is used to decide whether the project should be continued, reformulated or terminated.

(5) Sustainability

The component “sustainability” is comprehensive evaluation of how long the favorable effects of the project can continue after the project has been terminated. Evaluation with this component is required for decisions on how long local resources should continue to be used for the project, and to evaluate the importance the country receiving the assistance attaches to the project. According to the OECD (1989), “sustainability” is a component to be used as the final test of the success of a development project.

All five components are essential for all projects or programs. The five components give necessary information to the decision-maker so that he/she can decide how to approach the next step. Since each of the five components build on the intervention strategy, they also lay the foundation for standardization in monitoring and information handling within and among organizations and agencies.

In practice, each of the five components should also contain project-specific information.

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE
IMPLEMENTATION SURVEY TEAM AND THE
AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF INDONESIA
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE COAL MINING TECHNOLOGY ENHANCEMENT PROJECT AT
OMBILIN MINES TRAINING COLLEGE

The Japanese Implementation Survey Team (hereinafter referred to as “the Team”) organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) and headed by Mr. _____, visited the Republic of Indonesia from October 15, 2000 to October 21, 2000 for the purpose of working out the details of the technical cooperation program concerning the Coal Mining Technology Enhancement Project at Ombilin Mines Training College in the Republic of Indonesia.

During its stay in the Republic of Indonesia, the Team exchanged views and had a series of discussions with the Indonesian authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, the Team and the Indonesian authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Jakarta, October 20, 2000

(Japanese Side)

(Indonesian Side)

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THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of the Republic of Indonesia will implement the Coal Mining Technology Enhancement Project at Ombilin Mines Training College in the Republic of Indonesia (hereinafter referred to as "the Project") in cooperation with the Government of Japan.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

In accordance with the laws and regulations in force in Japan, the Government of Japan will take, at its own expense, the following measures through JICA according to the normal procedures under the Colombo Plan Technical Cooperation Scheme.

1. DISPATCH OF JAPANESE EXPERTS

The Government of Japan will provide the services of the Japanese experts as listed in Annex II.

2. PROVISION OF MACHINERY AND EQUIPMENT

The Government of Japan will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in Annex III. The Equipment will become the property of the Government of the Republic of Indonesia upon being delivered C.I.F. to the Indonesian authorities concerned at the ports and/or airports of disembarkation.

3. TRAINING OF INDONESIAN PERSONNEL IN JAPAN

The Government of Japan will receive the Indonesian personnel connected with the Project for technical training in Japan.

III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. The Government of the Republic of Indonesia will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical cooperation, through the full and active involvement in the Project by all related authorities, beneficiary groups and institutions.
2. The Government of the Republic of Indonesia will ensure that the technologies and knowledge acquired by the Indonesian nationals as a result of the Japanese technical cooperation will contribute to the economic and social development of the Republic of Indonesia.
3. The Government of the Republic of Indonesia will grant in the Republic of Indonesia privileges, exemptions and benefits to the Japanese experts referred to in II-1 above and their families no less favorable than those accorded to experts of third countries working in the Republic of Indonesia under the Colombo Plan Technical Cooperation Scheme.
4. The Government of the Republic of Indonesia will ensure that the Equipment referred to in II-2 above will be utilized effectively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.
5. The Government of the Republic of Indonesia will take necessary measures to ensure that the knowledge and experience acquired by the Indonesian personnel from technical training in Japan will be utilized effectively in the implementation of the Project.
6. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to provide at its own expense:
 - (1) Services of the Indonesian counterpart personnel and administrative personnel as listed in Annex IV;

- (2) Land, buildings and facilities as listed in Annex V;
 - (3) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the Equipment provided through JICA under II-2 above;
 - (4) Means of transport and travel allowances for the Japanese experts for official travel within the Republic of Indonesia;
 - (5) Suitably furnished accommodation for the Japanese experts and their families.
7. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to meet
- (1) Expenses necessary for the transportation within the Republic of Indonesia of the Equipment referred to in II-2 above as well as for the installation, operation and maintenance thereof ;
 - (2) Customs duties, internal taxes and any other charges, imposed in the Republic of Indonesia on the Equipment referred to in II-2 above ;
 - (3) Running expenses necessary for the implementation of the Project.

IV. ADMINISTRATION OF THE PROJECT

1. Director General of Directorate General of Mines, Ministry of Mines and Energy, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
2. Head of Manpower Development Center for Mines, Directorate General of Mines, Ministry of Mines and Energy, as the Project Manager, will be responsible for the managerial and technical matters of the Project.

3. The Japanese Team Leader (Chief Advisor) will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.
4. The Japanese experts will give necessary technical guidance and advice to the Indonesian counterpart personnel on technical matters pertaining to the implementation of the Project.
5. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordinating Committee will be established whose functions and composition are described in Annex VI.

V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by the two Governments through JICA and the Indonesian authorities concerned, (at the middle and) during the last six months of the cooperation term in order to examine the level of achievement.

VI. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of Indonesia undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Indonesia except for those arising from the willful misconduct or gross negligence of the Japanese experts.

VII. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments on any major issues arising from, or in connection with this Attached Document.

VIII. MEASURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PROJECT

For the purpose of promoting support for the Project among the people of the Republic of Indonesia, the Government of the Republic of Indonesia will take appropriate measures to make the Project widely known to the people of the Republic of Indonesia.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be Five (5) years from May 1, 2001.

ANNEX I	MASTER PLAN
ANNEX II	LIST OF JAPANESE EXPERTS
ANNEX III	LIST OF MACHINERY AND EQUIPMENT
ANNEX IV	LIST OF INDONESIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL
ANNEX V	LIST OF LAND, BUILDINGS AND FACILITIES
ANNEX VI	JOINT COORDINATING COMMITTEE

List of Attendance in the Discussions

1. The Japanese Side

(1) Supplementary Study Team

Mr. Masaaki KATO	Leader
Mr. Koichiro INAMI	Training Policy Planning
Mr. Hiroaki TATSUNO	Underground Coal Mining Electricity and Environment Technology
Mr. Tsuyoshi KAKITA	Underground Coal Mining Safety Technology
Mr. Iwao DOUMAE	Underground Coal Mining Machinery Technology
Mr. Katsuhiko SEO	Underground Coal Mining Technology
Mr. Hideo KODAMA	Underground Coal Mining Development Needs Study
Mr. Koji NISHIMIYA	Project Cooperation Planning

(2) JICA Expert to Directorate of Coal (DOC)

Mr. Masafumi UEHARA

2. The Indonesian Side

(1) National Development Planning Agency (BAPPENAS)

Mr. Halim Ishak Head of Mining Division

(2) Directorate General of Mines (DGM)

Mr. Surna T. Djajadiningrat Director General of Mines
 Mr. Nasri Yunus Anis, SH Secretary of Directorate General of Mines

(3) Directorate of Coal (DOC)

Mr. Ir. Suyartono, M.Sc. Director
 Mr. Ir. Bungun Usman Harahap Head of Manpower Development

(4) Directorate of Mining Enterprise Development (DMED)

Dr. Ir. Simon F. Sembiring Director

- (5) Mineral Technology Research and Development Centre (MTRDC)
Mr. Nursaleh Adiwinata, M. Sc. Director
- (6) Directorate Mining Technic (DMT)
Mr. Soelendro As. Director
- (7) Manpower Development Center for Mines (MDCM)
Mr. Ahmad Thabri Akma, M.E. Head
Dr. Ir. Irwan Bahar Coordinator
Mr. Mulyono Hadiprayitmo, M. Sc. Head, Mining Engineering
Manpower Division
Mr. M. Ridha Sanusi, ME Head, Administration and
Management Manpower Division
Mrs. Uce Resmiati Head of General Affaire Division
Mr. Tumpal Situmorang Head of Regular Programme
Division
Mr. Zul Ichwan, M.E. Head, Mineral Processing
Sub Division
Mr. Drs. Eppy Wahyu Parma, B.E. Head, Safety and
Environment Section
Mr. Drs. Wawan Supriatna Chief, Programming and Reporting
Sub Division
Mr. Marsudi Sudarisman Functional/Instructor
Mr. Nasrul Siregar, S.H. Functional/Instructor
Drs. Dedih Budiman Head, Data Information and
Library Management Manpower
Section
Mr. Machfuddin Arif Chief of Mine Electricity and
Machinery Sub Division
M. Yayat Ruchiyat Internal Affair Sub Division
- (8) Ombilin Mines Training College (OMTC)
Drs. Asmara Karma Deputy Principal
- (9) PT Bukit Asam (PTBA) Unit Pertambangan Ombilin (UPO)
Ir. Arifin Thaib Deputy General Manager
Mr. Muztav Sjab Manager of Social Affair

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資料2 鉱山総局への書簡

June 28, 2000
Director General of Mines
The Ministry of Mines and Energy
The Republic of Indonesia
Jl. Jend. Gatot Subroto Kav. 49
Jakarta, Republic of Indonesia

RE: Technical Cooperation for Coal Mining Technology Enhancement Project at OMTC

Dear Director General,

Refer to the Minutes of Meeting between Japanese Supplementary Study Team and the authorities concerned of the Government of the Republic of Indonesia on the Japanese project-type technical cooperation for Coal Mining Technology Enhancement Project at Ombilin Mines Training College (OMTC) in the Republic of Indonesia dated on June 28, 2000 point 9, article 2, we would, herewith, like to request the Indonesian side to initiate the realization of establishing necessary buildings and other related project facilities (site plan necessary building shown as enclosed), comprisingly:

- 1 (one) unit building for JICA expert and counterpart office with appropriate accessibility and its parking area;
- 1 (one) unit of building for analytical, test and centralized monitoring laboratory to be completed with building for water processing institution, water tank, water treatment device and high-pressure gas deposit;

as soon as the Record of discussions is signed between the Japanese Implementation Study Team and the Authorities Concerned of the Government of the Republic of Indonesia.

The preparation of such required facilities will be indispensable in the commencement of the Project in line with the schedule as started on the agreement of the Minutes of Meeting between Japanese Supplementary Study Team and the authorities concerned of the Government of the Republic of Indonesia on the Japanese project-type technical cooperation for Coal Mining Technology Enhancement Project at Ombilin Mines Training College (OMTC) in the Republic of Indonesia dated on June 28, 2000 point 7, article 6.

We would be really grateful for your kind attention and cooperation.
Best wishes.

Sincerely yours,



Masaaki KATO
Leader
Japanese Supplementary Study Team

CC. Head of Manpower Development Centre for Mines