

フィリピン共和国
フィリピンノーマル・カレッジ付属図書館建設計画
基本設計調査報告書
資料編

フィリピン共和国の建設事情

昭和58年5月

国際協力事業団

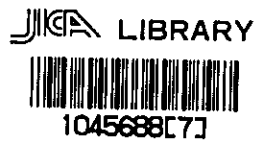
フィリピン共和国の建設事情 資料編 第1巻 図書館建設計画基本設計調査報告書資料編

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第1巻

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昭和58年5月

国際協力事業団

国際協力事業団	
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1. 自然条件

1-1 地理

(1) 一般的な地勢

フィリピン国は、西部太平洋と南シナ海との間に位置し、南北約1,850km、東西約1,100kmに広がっており、7,107の島々により成り立つ島嶼国家である。全島のうち、名の付いた島は2,773で、そのほかは、ほとんどが小サンゴ礁である。主な島は、ルソン(LUZON)島をはじめ、ミンダナオ(MINDANAO)、サマル(SAMAR)、ネグロス(NEGROS)、パナイ(PANAY)、レイテ(LEYTE)、セブ(CEBU)、ボホール(BOHOL)、マスバテ(MASBATE)、ミンドロ(MINDORO)、パラワン(PALAWAN)の11島で、総面積の96%を占めている。東は太平洋を隔てて、カロリン諸島、北はバーク海峡をはさんで台湾、南はセレベス海を間にボルネオ及びインドネシア共和国のスラウェシ島に接している。また、東部に横たわるフィリピン海溝は、最も深いところで1万mを超える。

フィリピン国には、環太平洋構造線が通っているため、火山が多く50を数え、そのほとんどが活火山である。海岸は入り組んだ複雑な地形を示している。最高峰はミンダナオ島のアポ山(2,965m)、最大の川はミンダナオ川(531km)、最大の湖はルソン島のラグナ湖(922km²)である。

(2) 面積

フィリピン国の国土面積は、約299,404 km²で日本から北海道を除いたより幾分大きい。平地は少なく、山地が全国土の65%を占めている。

(3) 緯度、経度

フィリピン国の国土は、北緯約4°30'から北緯約21°30'、東経約117°15'から東経約120°30'に位置する。計画用地のマニラ市は北緯14°35'、東経120°59'に位置する。

(4) 高低差

マニラ市の位置するルソン島南部には平野もあるが、中部から北部にかけては山岳地帯となっている。各々の島によって高低差等の形状は異なる。

1-2 気 象

(1) 気候圏、気候区

フィリピンは、熱帯モンスーン気候に属する。

フィリピンを降雨の年間分布によって4つの気候帯に分類できる。

- 1) 乾季(11~4月)、雨季(5~11月)がはっきりした地域
ーバギオ、マニラ、イロイロ
- 2) はっきりした乾季はないが、11~1月に雨季がある地域
ーレガスビ、タクロバン
- 3) 1~4月に乾季があるが、明確な最大降雨季のない地域
ーツゲガラオ、セブ、ザンボアンガ
- 4) 乾季や雨季が明確でない地域
ーダバオ

(2) 温 度

フィリピンの年平均気温は27℃(東京の7月における平均気温は26℃)である。12月から1月にかけてが一番涼しく平均気温25.9℃、4月から5月までが最も暑く平均気温29.3℃であり、季節的変化はあまりないが、1日の気温差は10℃以上になることもある。

表1-1 フィリピン各地の年間平均気温

月 地名	1	2	3	4	5	6	7	8	9	10	11	12	年間
マニラ	26.0	26.4	27.7	29.1	29.6	28.7	28.0	27.5	27.5	27.8	27.2	26.3	27.6
レガスビ	25.5	25.6	26.3	27.3	28.1	28.1	27.7	27.7	27.5	27.1	26.6	26.0	27.0
ツゲガラオ	24.5	25.3	27.5	29.3	30.5	29.7	29.3	29.0	28.5	27.5	26.0	25.0	27.7
バギオ	17.8	18.5	19.5	20.1	20.3	19.7	19.3	19.0	19.1	19.3	19.0	18.3	19.2
タクロバン	26.0	26.0	26.6	27.5	28.0	28.0	27.7	28.0	28.0	27.7	27.1	26.5	27.3
セブ	26.3	26.5	27.3	28.3	28.7	28.0	27.5	27.5	27.5	27.5	27.2	26.7	27.4
イロイロ	25.6	25.8	26.7	28.0	28.3	27.7	27.3	27.1	27.1	27.1	26.7	26.1	27.0
ザンボアンガ	26.5	26.6	27.1	27.5	27.5	27.0	26.7	26.7	27.0	26.8	27.0	26.6	26.8

表1-2 マニラにおける月別、平均日最高、最低気温

月	1月		2月		3月		4月		5月		6月	
	最高	最低	最高	最低	最高	最低	最高	最低	最高	最低	最高	最低
最高 最低 気温 温度℃	29.7	22.2	30.3	22.4	31.9	23.5	33.2	24.9	33.5	25.6	32.1	25.2

7月		8月		9月		10月		11月		12月		年平均	
最高	最低	最高	最低	最高	最低	最高	最低	最高	最低	最高	最低	最高	最低
31.2	24.7	30.5	24.5	30.6	24.4	31.1	24.3	30.6	23.7	29.8	22.9	31.2	24.0

(3) 湿度

マニラ市の湿度は、雨季の8・9月が80%を超えて最も高く、乾季の3・4月が65%前後で最も低い状況で、一般的に湿度は高い。

表1-3 マニラ市の湿度の月平均湿度

月	1	2	3	4	5	6	7	8	9	10	11	12
湿度の月平均	72	68	65	64	69	76	79	82	82	77	76	75

(4) 雨量

フィリピンは、南北約1,850 Km、東西約1,100 Kmの地域に散在する島々からなっているため、各地によって気候帯が異なり一概にいけないが、マニラ市の雨量は、雨季の8月に最も多く480 mm、乾季の2月が最も少なく6 mmである。雨季といっても日本の梅雨のように小雨が降り続くというのではなく、日に1~2回大雨が降り、しばらくしてやむといった日が続く。

表1-4 フィリピン各地の年間雨量, 雨天日数

地名	月	1	2	3	4	5	6	7	8	9	10	11	12	年間
マニラ	雨量 mm	133	63	101	213	1229	2869	3543	4799	4010	1819	1142	581	20502
	雨天日数	4	3	4	4	9	16	22	22	22	17	12	9	132
レガスピ	雨量 mm	3015	1761	2075	1726	1821	2053	2298	2828	2472	3072	4782	4662	32564
	雨天日数	22	17	17	17	14	16	19	20	20	20	21	23	226
ツゲガラオ	雨量 mm	215	207	373	542	1035	1727	2115	2486	2203	2262	2806	1053	17023
	雨天日数	6	5	5	9	10	13	14	15	15	14	15	11	120
バギオ	雨量 mm	121	150	386	1847	2883	4762	5767	8175	6708	2573	1425	295	54291
	雨天日数	4	3	5	10	19	23	26	27	25	17	9	5	173
タクロバン	雨量 mm	2465	2011	1310	1155	1493	1375	1515	1288	1357	1723	2430	2880	21001
	雨天日数	20	18	17	16	15	16	18	15	16	18	20	22	211
セブ	雨量 mm	1002	702	533	581	1147	1701	2086	1895	1780	1910	1618	1332	16287
	雨天日数	13	11	11	8	12	16	18	17	17	20	15	16	158
イロイロ	雨量 mm	420	210	336	385	1376	2586	2800	3320	2425	2128	1840	953	18779
	雨天日数	8	7	6	5	12	18	19	20	18	17	15	13	158
ザンボアンガ	雨量 mm	48.7	290	435	586	946	1433	1326	1472	1440	1776	1188	845	12224
	雨天日数	7	6	7	9	14	15	15	15	13	14	14	10	110

(5) 風向、風速

フィリピンにおいて強風が吹くのは台風時であり、現在までの最大風速記録は55.56m/秒(1970年11月)である。マニラ市における風向としては、10~11月が北東、2~5月が南東、6~9月が南西の風である。

表1-5 マニラ市における月別風向と風速

月	1	2	3	4	5	6	7	8	9	10	11	12
風向	北東	南 東				南 西				北 東		
風速	5	5	6	5	6	8	8	9	8	5	5	5

(m/秒)

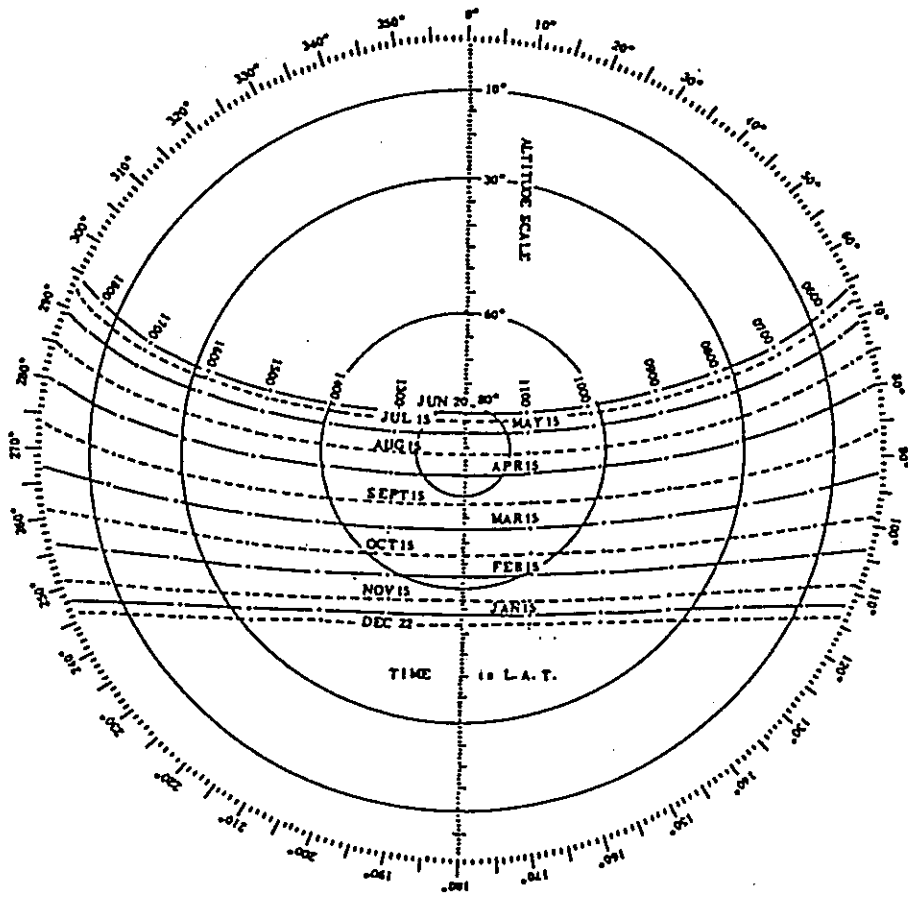


図1-1 太陽高度位置図 (マニラ)

1-3 災 害

(1) 地 震

フィリピンは環太平洋地震帯に属し、日本同様世界有数の地震国である。毎年M6以上の地震が発生し、1918年にはセレベス (SELEBES) 海を震源とするM8.5の大地震が記録された。ケソン市を含むメトロマニラの地震による被害記録をみると、1968年8月にカシグラン (CASIGURAN) 東部を震源とするM7.3の地震があり、多くのRC造建物が被害を受け、また400名もの人名が失われた。1970年4月にはバレル (BALER) を震源とするM6.4の地震があり、P. GUEVARA 学校が崩壊するなど多くの建物が被害にあった。小さな地震は年2～3回の割合で起っている。

次頁にM5以上の記録されている地震の震源位置とその規模を示す。

(2) 風 水 害

台風は7～10月に多く発生し、年間約20回程襲来するが、発生地域に近いため充分発達しきっていないものもあり、必ずしも日本で想像されるような毎回激しい暴風雨を伴うものではない。しかし台風の移動速度は非常に遅く、何日にもわたって停滞し多くの雨を降らせる雨台風が多いが、強風を伴うものは少ない。

メトロマニラにおいて、雨季の6～9月の降雨量は286mm～480mmと多く、排水設備がまだ完備されていないこともあり、道路が川のような状態となってしまう、道路舗装が完全でないことと重なり、交通運行状況が極めて悪くなるなど洪水による被害が各地で発生する。

(3) 雷

メトロマニラにおける雷を伴った風雨の日数は、5～10月が年間53日のうち49日とほとんどを占めるが、稲妻の発生した日数は6月が圧倒的に多い。落雷による被害の例は少ない。

表1-7 月別雷雨の日数(1865～1972)

月	1	2	3	4	5	6	7	8	9	10	11	12	計
日 数	0	0	0	2	7	9	10	7	9	7	2	0	53

表1-8 月別稲妻の日数(1865～1972)

月	1	2	3	4	5	6	7	8	9	10	11	12	計
日 数	0	0	0	4	6	13	6	4	5	4	1	0	0

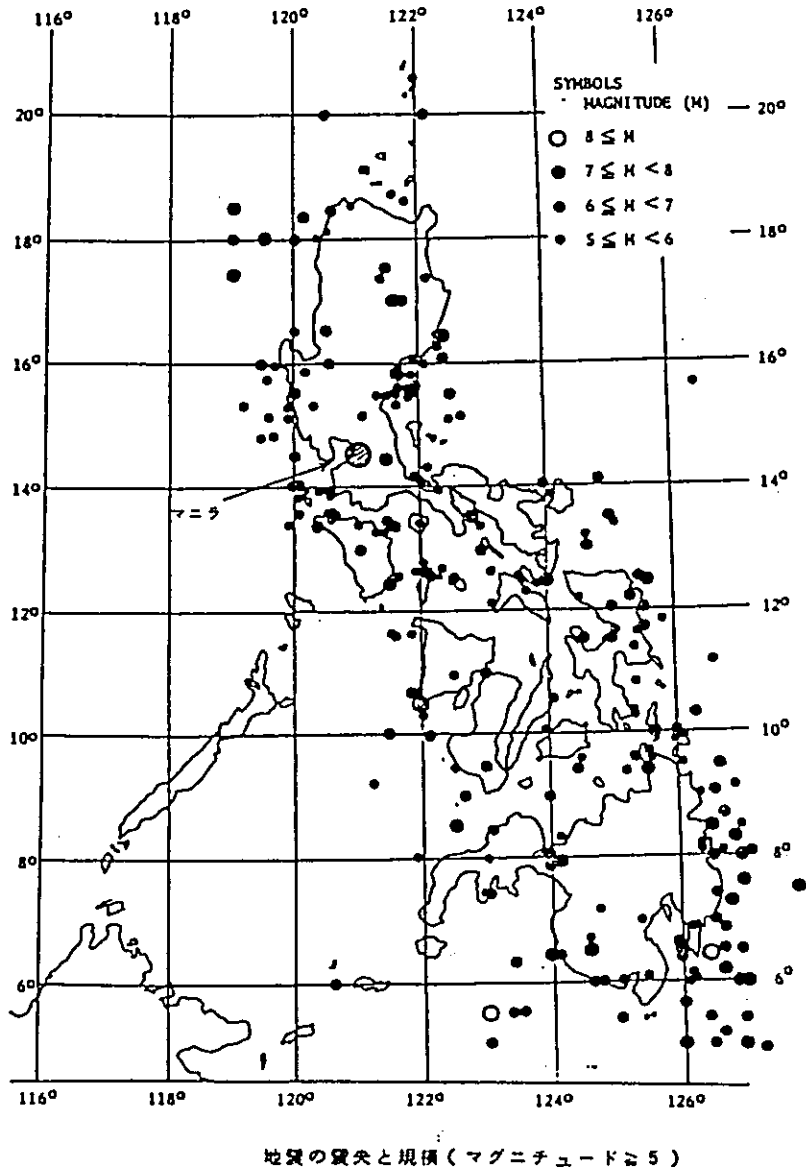


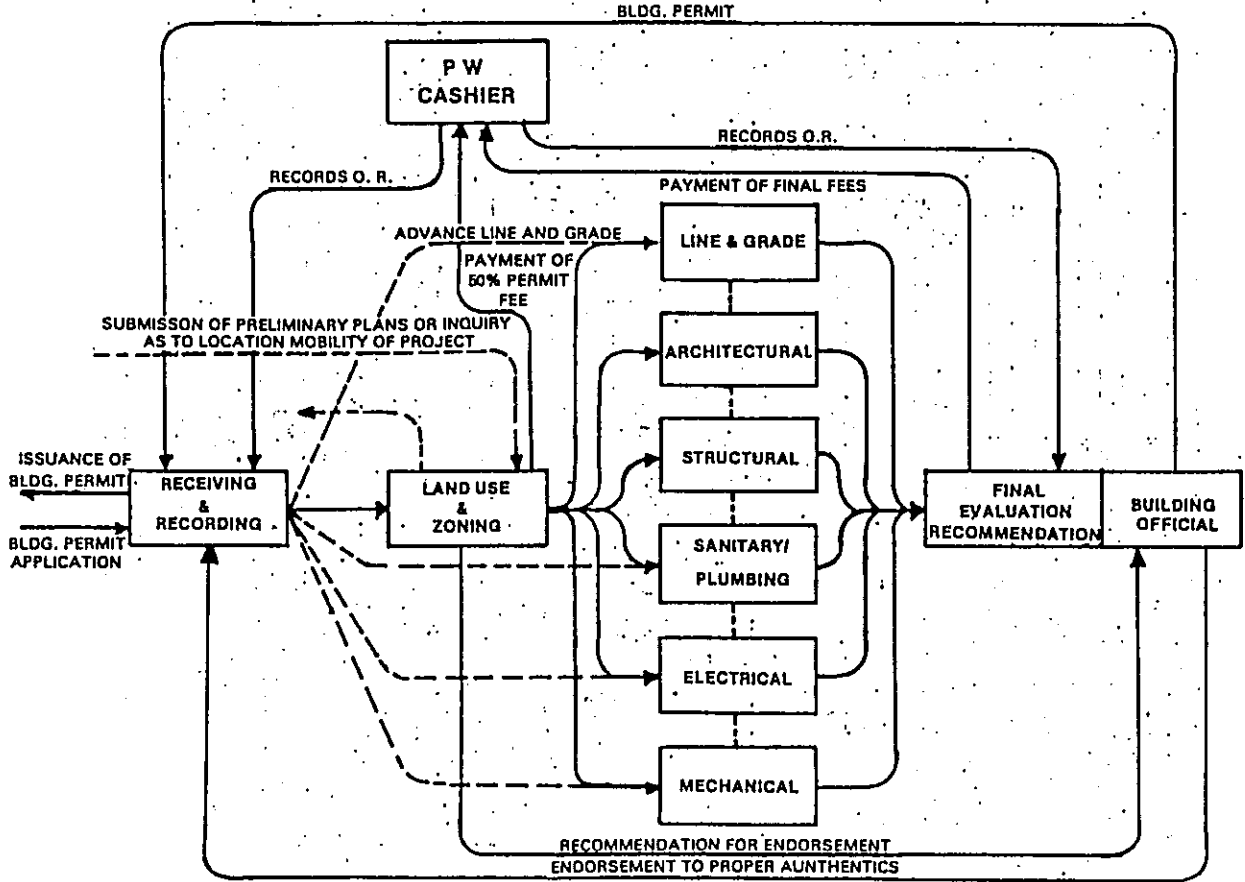
図1-2 地震の震央と規模 (マグニチュード ≥ 5)

2. 建築に関する行政

2-1 建築関連法規

1. Building - National Building Code of the Philippines
- Architecture Law
2. Fire Protection - Fire Code of the Philippines
3. Vessel - Mechanical Engineering Law of the Philippines
4. Boiler - "
5. Electricity - Electrical Engineering Law of the Philippines
- Philippine Electrical Code
6. Water - National Plumbing Code of the Philippines
- Plumbing Law of the Philippines
- Water Code of the Philippines
7. Sanitary - Code on Sanitation of the Philippines
- Sanitary Engineering Law of the Philippines
8. Septic Tank - National Plumbing Code of the Philippines
9. Water Drainage - "
10. Air-Conditioning - Mechanical Engineering Law of the Philippines
- Law on Specialization in Air Conditioning and Refrigeration
11. Telephone - National Radio Control Board
12. Communications - Electronics and Communications Engineering Law
13. Civil Engineering - Civil Engineering Law of the Philippines

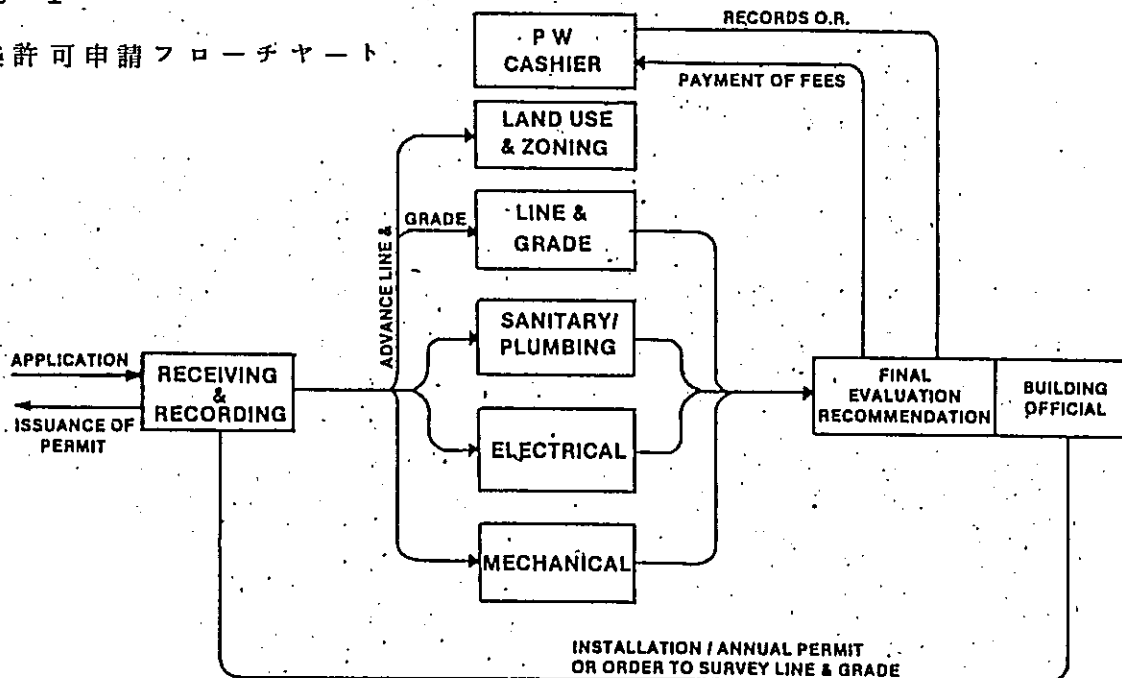
PROCESSING OF BUILDING PERMIT APPLICATION
FLOW CHART



SECTIONAL PERMIT FLOW
(FOR SANITARY, ELECTRICAL & MECHANICAL INSTALLATIONS)

図 2-1

建築許可申請フローチャート



C .90 Mts.

Building Permit No. _____
Date Issued _____

Owned by _____
Use or Type of Occupancy _____

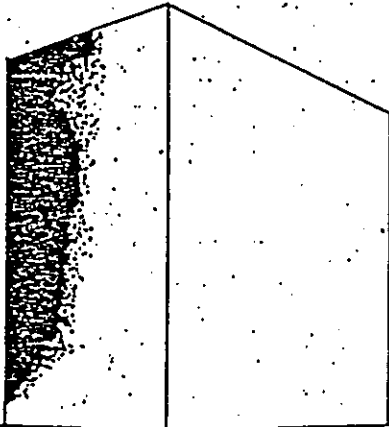
Designing Architect / Civil Engineer _____
Supervising Architect / Civil Engineer _____
Contractor _____
Structural Engineer _____
Sanitary Engineer _____
Prof. Electrical Engineer _____
Prof. Mechanical Engineer _____

Others _____

0.60 Mts.

INDEPENDENT REQUIRED STANDARD SIGN

VARIABLE




PERSPECTIVE
(when desired).

NAME OF PROJECT
(when desired)

OWNER
(when desired) /

ARCHITECT/CIVIL ENGINEER
(with own logo when desired)



REQUIRED STANDARD SIGN

VARIABLE

**REQUIRED STANDARD SIGN AS PART OF A LARGER SIGNBOARD
(OPTIONAL)**

図 2 - 2 申請用図

以下に工事完了証書をつける。

REPUBLIC OF THE PHILIPPINES
 MINISTRY OF PUBLIC WORKS
 METROPOLITAN MANILA COMMISSION
 OFFICE OF THE BUILDING OFFICIAL

No 0001001-Q

APPLICATION NO.
 []

DISTRICT/CITY/MUNICIPALITY
 AREA CODE
BUILDING PERMIT
 ORIGINAL RENEWAL

PERMIT
 []

DATE OF APPLICATION _____ DATE ISSUED _____

BOX 1 (TO BE ACCOMPLISHED BY DESIGNING ARCHITECT/CIVIL ENGINEER IN PRINT)

NAME OF OWNER/APPLICANT LAST NAME, FIRST NAME, M.I.		TAX ACCT. NO.
FOR CONSTRUCTION OWNED BY AN ENTERPRISE	FORM OF OWNERSHIP	MAIN ECONOMIC ACTIVITY, KIND OF BUSINESS
ADDRESS NO., STREET, BARANGAY, CITY/MUNICIPALITY		TELEPHONE NO.
LOCATION OF CONSTRUCTION NO., STREET, BARANGAY, CITY/MUNICIPALITY		
SCOPE OF WORK	2 <input type="checkbox"/> ADDITION OF _____ 3 <input type="checkbox"/> REPAIR OF _____ 4 <input type="checkbox"/> RENOVATION OF _____ 5 <input type="checkbox"/> DEMOLITION OF _____	OTHERS (SPECIFY) 6 <input type="checkbox"/> _____ OF _____ 7 <input type="checkbox"/> _____ OF _____
1 <input type="checkbox"/> NEW CONSTRUCTION		

USE OF TYPE OF OCCUPANCY

RESIDENTIAL	INDUSTRIAL	30 <input type="checkbox"/> OTHERS (SPECIFY) _____
11 <input type="checkbox"/> SINGLE	31 <input type="checkbox"/> FACTORY/PLANT	
12 <input type="checkbox"/> DUPLEX	32 <input type="checkbox"/> REPAIR SHOP, MACHINE SHOP	
13 <input type="checkbox"/> ROWHOUSE/ACCESSORIA	33 <input type="checkbox"/> REFINERY	
14 <input type="checkbox"/> OTHERS (SPECIFY) _____	34 <input type="checkbox"/> PRINTING PRESS	
COMMERCIAL	35 <input type="checkbox"/> WAREHOUSE	
21 <input type="checkbox"/> BANK	INSTITUTIONAL	
22 <input type="checkbox"/> STORE	41 <input type="checkbox"/> SCHOOL	
23 <input type="checkbox"/> HOTEL/MOTEL, ETC.	42 <input type="checkbox"/> CHURCH AND OTHER RELIGIOUS STRUCTURES	
24 <input type="checkbox"/> OFFICE CONDOMINIUM/BUSINESS OFFICE BUILDING	43 <input type="checkbox"/> HOSPITAL OR SIMILAR STRUCTURES	
25 <input type="checkbox"/> RESTAURANT, ETC.	44 <input type="checkbox"/> WELFARE AND CHARITABLE STRUCTURES	
26 <input type="checkbox"/> SHOP (e.g. DRESS SHOP, TAILORING SHOP, BARBER SHOP, ETC.)	45 <input type="checkbox"/> THEATER, AUDITORIUM, GYMNASIUM, COURT	
27 <input type="checkbox"/> GASOLINE STATION	46 <input type="checkbox"/> OTHERS (SPECIFY) _____	
28 <input type="checkbox"/> MARKET	AGRICULTURAL	
29 <input type="checkbox"/> DORMITORY OR OTHER LIVING HOUSE	51 <input type="checkbox"/> BARN(S), POULTRY HOUSE(S), ETC.	
30 <input type="checkbox"/> OTHERS (SPECIFY) _____	52 <input type="checkbox"/> GRAIN MILL	
OTHER CONSTRUCTION	53 <input type="checkbox"/> OTHERS (SPECIFY) _____	
60 <input type="checkbox"/> (SPECIFY) _____		

STREET FURNITURE, LANDSCAPING & SIGNBOARDS

71 PARKS, PLAZAS, MONUMENTS, POOLS, PLANT BOXES, ETC.
 72 SIDEWALKS, PROMENADES, TERRACES, LAWNS, ELECTRIC POLES, TELEPHONE POLES, ETC.
 73 OUTDOOR AND SIGNBOARDS, ETC.
 74 FENCE ENCLOSURE

BOX 2 (TO BE ACCOMPLISHED BY THE PERMITTING & RECORDING SECTION)

BUILDING DOCUMENTS (FIVE SETS EACH)

<input type="checkbox"/> SITE DEVELOPMENT AND LOCATION PLAN	<input type="checkbox"/> MECHANICAL PLANS & SPECIFICATIONS
<input type="checkbox"/> ARCHITECTURAL PLAN & SPECIFICATIONS	<input type="checkbox"/> LCCBOOK (1 COPY)
<input type="checkbox"/> STRUCTURAL DESIGNS & COMPUTATIONS	<input type="checkbox"/> OTHERS (SPECIFY) _____
<input type="checkbox"/> SANITARY/PLUMBING PLANS & SPECIFICATIONS	
<input type="checkbox"/> ELECTRICAL PLANS & SPECIFICATIONS	

BOX 3 (TO BE ACCOMPLISHED BY THE BUILDING OFFICIAL)

ACTION TAKEN:

PERMIT IS HEREBY GRANTED SUBJECT TO THE FOLLOWING CONDITIONS:

1. THAT THE PROPOSED CONSTRUCTION/ADDITION/REPAIR/RENOVATION/DEMOLITION/INSTALLATION, ETC., SHALL BE IN CONFORMANCE WITH THE "NATIONAL BUILDING CODE" (P.D. 1096) AND ITS CORRESPONDING IMPLEMENTING RULES AND REGULATIONS
2. THAT A DULY LICENSED ARCHITECT/CIVIL ENGINEER HAS BEEN ENGAGED TO PREPARE PLANS & SPECIFICATIONS AND TO UNDERTAKE THE SUPERVISION/INSPECTION OF THE CONSTRUCTION OF THE PROJECT.
3. THAT A CERTIFICATE OF COMPLETION DULY SIGNED AND SEALED BY THE DESIGNING ARCHITECT/CIVIL ENGINEER AND THE ARCHITECT/CIVIL ENGINEER IN CHARGE OF CONSTRUCTION SHALL BE SUBMITTED NOT LATER THAN SEVEN (7) DAYS AFTER COMPLETION OF THE CONSTRUCTION OF THE PROJECT.
4. THAT A "CERTIFICATE" OF OCCUPANCY SHALL BE SECURED PRIOR TO ACTUAL OCCUPANCY OF THE BUILDING.

 BUILDER (SIGNATURE)

 DATE

NOTE:
 THIS PERMIT MAY BE CANCELLED OR REVOKED PURSUANT TO SECTIONS 305 & 306 OF THE "NATIONAL BUILDING CODE"

BOX 3 (TO BE ACCOMPLISHED BY DESIGNING ARCHITECT/CIVIL ENGINEER IN PRINT)

TOTAL ESTIMATED COST		COST OF EQUIPMENT INSTALLED	NUMBER OF STOREYS: _____
BUILDING	_____		TOTAL FLOOR AREA: _____
ELECTRICAL	_____	_____	PROPOSED DATE OF CONSTRUCTION: _____
MECHANICAL	_____	_____	EXPECTED DATE OF COMPLETION: _____
PLUMBING	_____	_____	MATERIAL OF CONSTRUCTION: _____ (WOODEN, CONCRETE, STEEL, MIXED)
OTHERS	_____		
TOTAL CONSTRUCTION COST		_____	

BOX 4 (TO BE ACCOMPLISHED BY THE DIVISION/SECTION CONCERNED)

ASSESSED FEES				
	AMOUNT DUE	ASSESSED BY	O.R. NUMBER	DATE PAID
<input type="checkbox"/> LAND USE/ZONING				
<input type="checkbox"/> LINE and GRADE				
<input type="checkbox"/> BUILDING				
<input type="checkbox"/> PLUMBING				
<input type="checkbox"/> ELECTRICAL				
<input type="checkbox"/> MECHANICAL				
OTHERS:				
TOTAL				

REVIEWED: _____
CHIEF, PROCESSING DIVISION/SECTION

BOX 5 (TO BE ACCOMPLISHED BY THE DIVISION/SECTION CONCERNED)

PROGRESS FLOW						
NOTED: CHIEF, PROCESSING DIVISION/SECTION RECEIVING AND RECORDING	IN		OUT		ACTION/ REMARKS	PROCESSED BY
	TIME	DATE	TIME	DATE		
LAND USE and ZONING						
GEODETIC (LINE and GRADE)						
ARCHITECTURAL						
STRUCTURAL						
SANITARY						
ELECTRICAL						
MECHANICAL						

WE HEREBY AFFIX OUR HANDS SIGNIFYING OUR CONFORMITY TO THE INFORMATION HEREIN ABOVE SET FORTH

BOX 6

ARCHITECT/CIVIL ENGINEER SIGNED AND SEALED PLANS & SPECIFICATIONS		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

BOX 8

SIGNATURE		
APPLICANT		
RES. CERT. NO.	DATE ISSUED	PLACE ISSUED

BOX 7

ARCHITECT/CIVIL ENGINEER IN CHARGE OF CONSTRUCTION		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

WITH MY CONSENT:

BOX 9 (TO BE ACCOMPLISHED BY LOT OWNERS)		
TCT/CCT NO.	TAX DECLARATION NO.	
PRINT NAME OF LOT OWNER		
ADDRESS		
RES. CERT. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

REPUBLIC OF THE PHILIPPINES
 MINISTRY OF PUBLIC WORKS
 OFFICE OF THE BUILDING OFFICIAL

APPLICATION NO.

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DISTRICT/CITY/MUNICIPALITY
 AREA CODE

PERMIT NO.

--	--	--	--	--	--	--	--	--	--

DATE OF APPLICATION

APPLICATION FOR
 ELECTRICAL PERMIT

DATE ISSUED

BOX 1 (TO BE ACCOMPLISHED BY PROFESSIONAL ELECTRICAL ENGINEER/MASTER ELECTRICIAN, IN PRINT)

NAME OF OWNER/APPLICANT		LAST NAME, FIRST NAME, M.I.	TAX ACCT. NO.
ADDRESS		NO., STREET, BARANGAY, CITY/MUNICIPALITY	TELEPHONE NO.
LOCATION OF INSTALLATION		NO., STREET, BARANGAY, CITY/MUNICIPALITY	
SCOPE OF WORK			
<input type="checkbox"/> NEW INSTALLATION	<input type="checkbox"/> ADDITION OF _____	<input type="checkbox"/> OTHERS (SPECIFY) _____	
<input type="checkbox"/> ANNUAL INSPECTION	<input type="checkbox"/> REPAIR OF _____	<input type="checkbox"/> _____ OF _____	
<input type="checkbox"/> REMOVAL OF _____			
USE OR TYPE OF OCCUPANCY			
<input type="checkbox"/> RESIDENTIAL _____	<input type="checkbox"/> AGRICULTURAL _____		
<input type="checkbox"/> COMMERCIAL _____	<input type="checkbox"/> STREET FURNITURE, LANDSCAPING _____		
<input type="checkbox"/> INDUSTRIAL _____	<input type="checkbox"/> SIGNBOARDS _____		
<input type="checkbox"/> INSTITUTIONAL _____	<input type="checkbox"/> OTHERS (SPECIFY) _____		
NUMBER OF OUTLETS AND EQUIPMENT TO BE INSTALLED			
<input type="checkbox"/> LIGHTS _____	<input type="checkbox"/> SWITCHES _____	<input type="checkbox"/> CONV. OUTLETS _____	
<input type="checkbox"/> BELL SYSTEM _____	<input type="checkbox"/> ELECTRIC RANGE: _____ K.W. _____	<input type="checkbox"/> WATER HEATER _____ K.W. _____	
<input type="checkbox"/> AIRCONDITIONING SYSTEM _____	<input type="checkbox"/> TELEPHONE _____	<input type="checkbox"/> MOTORS _____	
<input type="checkbox"/> OTHERS (SPECIFY) _____			
DATE OF PROPOSED START OF CONSTRUCTION _____		ESTIMATED COST OF ELECTRICAL INSTALLATION _____	
EXPECTED DATE OF COMPLETION _____		PREPARED BY _____	

BOX 2 (TO BE ACCOMPLISHED BY RECEIVING & RECORDING SECTION)

ELECTRICAL DOCUMENTS (FIVE (5) SETS EACH)	
<input type="checkbox"/> ELECTRICAL PLAN & SPECIFICATIONS	<input type="checkbox"/> BILL OF MATERIALS
<input type="checkbox"/> COST ESTIMATES	<input type="checkbox"/> OTHERS (SPECIFY) _____

WE HEREBY AFFIX OUR HANDS SIGNIFYING OUR CONFORMITY TO THE INFORMATION HEREIN ABOVE SET FORTH

BOX 3 (PERSON WHO SIGNED AND SEALED PLANS & SPECIFICATIONS)

ELECTRICAL ENGINEER/ MASTER ELECTRICIAN		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

BOX 4 (PERSON IN-CHARGE OF THE INSTALLATIONS)

ELECTRICAL ENGINEER/ MASTER ELECTRICIAN		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

BOX 4

SIGNATURE (OWNER)	TAN	RES. CERT. NO.	DATE ISSUED	PLACE ISSUED

BOX 5 (TO BE ACCOMPLISHED BY PROFESSIONAL ELECTRICAL ENGINEER/MASTER ELECTRICIAN IN PRINT)

NAME OF OWNER/APPLICANT	LAST NAME, FIRST NAME, M.I	TAX ACCT NO
ADDRESS	NO., STREET, BARANGAY, CITY/MUN.	TELEPHONE NO.
LOCATION OF INSTALLATION	NO., STREET, BARANGAY, CITY/MUNICIPALITY	

BOX 6 (TO BE ACCOMPLISHED BY DIVISION/SECTION CONCERNED)

PROGRESS FLOW						
NOTED: CHIEF, PROCESSING DIVISION/SECTION	IN		OUT		ACTION/REMARK	PROCESS BY
	TIME	DATE	TIME	DATE		
RECEIVING AND RECORDING						
ELECTRICAL						

BOX 7 (TO BE ACCOMPLISHED BY DIVISION/SECTION CONCERNED)

ASSESSED FEES			
AMOUNT DUE	ASSESSED BY	O.R. NUMBER	DATE PAID
			REVIEWED
			CHIEF, PROCESSING DIV /SEC.

BOX 8 (TO BE ACCOMPLISHED BY THE BUILDING OFFICIAL)

<p>ACTION TAKEN</p> <p>PERMIT IS HEREBY GRANTED TO INSTALL THE ELECTRICAL WIRING AND EQUIPMENT ENUNERATED HEREIN SUBJECT TO THE FOLLOWING CONDITIONS</p> <ol style="list-style-type: none"> 1. THAT THE PROPOSED INSTALLATION SHALL BE IN ACCORDANCE WITH APPROVED PLANS FILED WITH THIS OFFICE AND IN CONFORMITY WITH THE NATIONAL BUILDING CODE. 2. THAT A DULY LICENSED ELECTRICAL ENGINEER/MASTER ELECTRICIAN BE ENGAGED TO UNDERTAKE THE INSTALLATION/CONSTRUCTION 3. THAT A CERTIFICATE OF COMPLETION DULY SIGNED BY AN ELECTRICAL ENGINEER/MASTER ELECTRICIAN IN CHARGE OF INSTALLATION SHALL BE SUBMITTED NOT LATER THAN SEVEN (7) DAYS AFTER COMPLETION OF THE INSTALLATION 4. THAT A CERTIFICATE OF FINAL INSPECTION AND A CERTIFICATE OF OCCUPANCY BE SECURED PRIOR TO THE ACTUAL OCCUPANCY OF THE BUILDING. <p>NOTE: THIS PERMIT MAY BE CANCELLED OR REVOKED PURSUANT TO SECTIONS 305 & 306 OF THE "NATIONAL BUILDING CODE"</p>	<p>_____</p> <p>BUILDING OFFICIAL</p> <p>_____</p> <p>DATE</p>
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REPUBLIC OF THE PHILIPPINES
 MINISTRY OF PUBLIC WORKS
 OFFICE OF THE BUILDING OFFICIAL

APPLICATION NO.

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DISTRICT/CITY/MUNICIPALITY _____
 AREA CODE _____

PERMIT NO.

--	--	--	--	--	--	--	--	--	--

MECHANICAL PERMIT

DATE OF APPLICATION _____

DATE ISSUED _____

BOX 1 (TO BE ACCOMPLISHED BY PROFESSIONAL MECHANICAL ENGINEER IN PRINT)

NAME OF OWNER/APPLICANT		LAST NAME, FIRST NAME, M.I.		TAX ACCOUNT NO.
ADDRESS		NO., STREET, BARANGAY, CITY/MUNICIPALITY		TELEPHONE NO.
LOCATION OF INSTALLATION		NO., STREET, BARANGAY, CITY/MUNICIPALITY		
SCOPE OF WORK <input type="checkbox"/> NEW INSTALLATION		<input type="checkbox"/> ADDITION OF _____ <input type="checkbox"/> REMOVAL OF _____ <input type="checkbox"/> OTHERS (SPECIFY) _____		BUILDING PERMIT NO. _____ CERTIFICATE OF OCCUPANCY NO. _____
USE OR TYPE OF OCCUPANCY				
<input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> INSTITUTIONAL		<input type="checkbox"/> AGRICULTURAL <input type="checkbox"/> LANDSCAPING <input type="checkbox"/> OTHERS (SPECIFY) _____		
INSTALLATION AND OPERATION OF				
<input type="checkbox"/> BOILER <input type="checkbox"/> PRESSURE VESSELS <input type="checkbox"/> INTERNAL COMBUSTION ENGINE <input type="checkbox"/> REFRIGERATION & ICE-MAKING <input type="checkbox"/> WINDOW TYPE AIR-CONDITIONING <input type="checkbox"/> PACKAGE AIR-CONDITIONING UNIT		<input type="checkbox"/> CENTRAL AIR-CONDITIONING <input type="checkbox"/> MECHANICAL VENTILATION <input type="checkbox"/> ESCALATOR <input type="checkbox"/> MOVING SIDEWALK <input type="checkbox"/> FREIGHT ELEVATOR <input type="checkbox"/> PASSENGER ELEVATOR		<input type="checkbox"/> DUMBWAITER <input type="checkbox"/> PUMPS <input type="checkbox"/> COMPRESSED AIR, VACUUM, INSTITUTIONAL and/or INDUSTRIAL GAS <input type="checkbox"/> PNEUMATIC TUBES, CONVEYORS and/or MONORAILS
<input type="checkbox"/> OTHERS (SPECIFY) _____				
PROPOSED DATE OF INSTALLATION _____		EXPECTED DATE OF COMPLETION _____		
TOTAL INSTALLATION COST _____		PREPARED BY _____		

BOX 2 (TO BE ACCOMPLISHED BY THE BUILDING OFFICIAL)

ACTION TAKEN:

PERMIT IS HEREBY GRANTED TO INSTALL THE MECHANICAL EQUIPMENT ENUMERATED HEREIN SUBJECT TO THE FOLLOWING CONDITIONS.

1. THAT THE PROPOSED INSTALLATION SHALL BE IN ACCORDANCE WITH APPROVED PLANS FILED WITH THIS OFFICE AND IN CONFORMITY WITH THE "NATIONAL BUILDING CODE".
2. THAT A DULY LICENSED PROFESSIONAL MECHANICAL ENGINEER BE ENGAGED TO UNDERTAKE THE INSTALLATION CONSTRUCTION.
3. THAT A CERTIFICATE OF COMPLETION DULY SIGNED BY A PROFESSIONAL MECHANICAL ENGINEER IN CHARGE OF INSTALLATION SHALL BE SUBMITTED NOT LATER THAN SEVEN (7) DAYS AFTER COMPLETION OF THE INSTALLATION.
4. THAT A CERTIFICATE OF FINAL INSPECTION AND A CERTIFICATE OF OCCUPANCY BE SECURED PRIOR TO THE ACTUAL OCCUPANCY OF THE BUILDING.
5. THAT AN ANNUAL CERTIFICATE OF INSPECTION SHALL BE SECURED FOR THE CONTINUOUS OPERATION OF THE MECHANICAL EQUIPMENT INSTALLED.

BUILDING OFFICIAL

DATE

NOTE:
 THIS PERMIT MAY BE CANCELLED OR REVOKED PURSUANT TO SECTIONS 305 & 308 OF THE "NATIONAL BUILDING CODE"

BOX 3 (TO BE ACCOMPLISHED BY THE RECEIVING AND RECORDING SECTION)

BUILDING DOCUMENTS (FIVE (5) SETS EACH)	
<input type="checkbox"/> MECHANICAL PLANS & SPECIFICATIONS	<input type="checkbox"/> BILL OF MATERIALS
<input type="checkbox"/> COST ESTIMATES	<input type="checkbox"/> OTHERS (SPECIFY)

BOX 4 (TO BE ACCOMPLISHED BY THE DIVISION/SECTION CONCERNED)

ASSESSED FEE				
	AMOUNT DUE	ASSESSED BY	O. R. NUMBER	DATE PAID
MECHANICAL				
			REVIEWED CHIEF, PROCESSING DIV./SEC.	

BOX 5 (TO BE ACCOMPLISHED BY THE DIVISION/SECTION CONCERNED)

PROGRESS FLOW						
NOTED: CHIEF, PROCESSING DIVISION/SECTION	IN		OUT		ACTION / REMARKS	PROCESSED BY
	DATE	TIME	DATE	TIME		
RECEIVING AND RECORDING						
MECHANICAL						

WE HEREBY AFFIX OUR HANDS SIGNIFYING OUR CONFORMITY TO THE INFORMATION HEREIN ABOVE SET FORTH

BOX 6

PROF. MECH. ENGINEER SIGNED AND SEALED PLANS & SPECIFICATIONS		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

BOX 8

SIGNATURE		
APPLICANT		
RES CERT. NO.	DATE ISSUED	PLACE ISSUED

BOX 7

PROF. MECH. ENGINEER IN-CHARGE OF INSTALLATION		PRC REG. NO.
PRINT NAME		
ADDRESS		
P.T.R. NO.	DATE ISSUED	PLACE ISSUED
SIGNATURE		TAN.

REPUBLIC OF THE PHILIPPINES
MINISTRY OF PUBLIC WORKS
METROPOLITAN MANILA COMMISSION
OFFICE OF THE BUILDING OFFICIAL

APPLICATION NO.
[] [] [] [] [] [] [] [] [] [] [] []

DISTRICT/CITY/MUNICIPALITY
AREA CODE [] [] [] [] [] []

PERMIT NO.
[] [] [] [] [] [] [] [] [] [] [] []

DATE OF APPLICATION _____ DATE ISSUED _____
BOX 1 (TO BE ACCOMPLISHED BY SANITARY ENGINEER/MASTER PLUMBER IN PRINT)

SANITARY/PLUMBING PERMIT

NAME OF OWNER/APPLICANT _____ LAST NAME, FIRST NAME, M.I. _____ TAX ACCT. NO. _____
ADDRESS _____ NO., STREET, BARANGAY, CITY/MUNICIPALITY _____ TELEPHONE NO. _____

LOCATION OF INSTALLATION _____ NO., STREET, BARANGAY, CITY/MUNICIPALITY _____

SCOPE OF WORK -
 NEW INSTALLATION
 ADDITION OF _____
 REPAIR OF _____
 REMOVAL OF _____
OTHERS (SPECIFY) _____
_____ OF _____
_____ OF _____

USE OR TYPE OF OCCUPANCY
 RESIDENTIAL _____
 COMMERCIAL _____
 INDUSTRIAL _____
 INSTITUTIONAL _____
 AGRICULTURAL _____
 PARKS, PLAZAS, MONUMENTS _____
 RECREATIONAL _____
 OTHERS (SPECIFY) _____

FIXTURES TO BE INSTALLED:			KIND OF FIXTURES			NEW EXISTING			KIND OF FIXTURES		
QTY.	NEW FIXTURES	EXISTING FIXTURES				QTY.	NEW FIXTURES	EXISTING FIXTURES			
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WATER CLOSET		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BIDETTE	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FLOOR DRAIN		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAUNDRY TRAYS	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAVATORIES		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DENTAL CUSPIDOR	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	KITCHEN SINK		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GAS HEATER	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FAUCET		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ELECTRIC HEATER	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SHOWER HEAD		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WATER BOILER	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WATER METER		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DRINKING FOUNTAIN	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GREASE TRAP		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BAR SINK	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BATH TUBS		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SODA FOUNTAIN SINK	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SLOP SINK		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LABORATORY SINK	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	URINAL		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	STERILIZER	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AIR CONDITIONING UNIT		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SWIMMING POOL	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WATER TANK/RESERVOIR		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OTHERS (SPECIFY) _____	
_____ TOTAL			_____ TOTAL			_____ TOTAL			_____ TOTAL		

WATER DISTRIBUTION SYSTEM SANITARY SEWER SYSTEM STORM DRAINAGE SYSTEM

WATER SUPPLY: SHALLOW WELL DEEP WELL & PUMP SET CITY/MUNICIPAL WATER SYSTEM OTHERS _____
SYSTEM OF DISPOSAL: WASTE WATER TREATMENT PLANT SEPTIC VAULT/IMHOFF TANK SANITARY SEWER CONNECTION SUB-SURFACE SAND FILTER SURFACE DRAINAGE STREET CANAL WATER COURSE

NUMBER OF STOREYS OF BUILDING _____ TOTAL AREA OF BUILDING/SUBDIVISION _____ SQ.M.
PROPOSED DATE START OF INSTALLATION _____ TOTAL COST OF INSTALLATION ₱ _____
EXPECTED DATE OF COMPLETION _____ PREPARED BY _____

BOX 2 (TO BE ACCOMPLISHED BY THE BUILDING OFFICIAL)

ACTION TAKEN:
PERMIT IS HEREBY GRANTED TO INSTALL THE SANITARY/PLUMBING FIXTURE ENUMERATED HEREIN SUBJECT TO THE FOLLOWING CONDITIONS:
1. THAT THE PROPOSED INSTALLATION SHALL BE IN ACCORDANCE WITH APPROVED PLANS FILED WITH THIS OFFICE AND IN CONFORMITY WITH THE NATIONAL BUILDING CODE.
2. THAT A DULY LICENSED SANITARY ENGINEER/MASTER PLUMBER BE ENGAGED TO UNDERTAKE THE INSTALLATION/CONSTRUCTION.
3. THAT A CERTIFICATE OF COMPLETION DULY SIGNED BY AN SANITARY ENGINEER/MASTER PLUMBER IN-CHARGE OF INSTALLATION SHALL BE SUBMITTED NOT LATER THAN SEVEN (7) DAYS AFTER COMPLETION OF THE INSTALLATION.
4. THAT A CERTIFICATE OF FINAL INSPECTION AND A CERTIFICATE OF OCCUPANCY BE SECURED PRIOR TO THE ACTUAL OCCUPANCY OF THE BUILDING.
BUILDING OFFICIAL _____
DATE _____

NOTE:
THIS PERMIT MAY BE CANCELLED OR REVOKED PURSUANT TO SECTIONS 305 & 306 OF THE "NATIONAL BUILDING CODE"

BOX 3 (TO BE ACCOMPLISHED BY THE RECEIVING & RECORDING SECTION)

BUILDING DOCUMENTS

- SANITARY PLUMBING PLANS & SPECIFICATIONS
 BILL OF MATERIALS

- COST ESTIMATES
 OTHERS (SPECIFY) _____

BOX 4 (TO BE ACCOMPLISHED BY THE DIVISION/SECTION CONCERNED)

ASSESSED FEES

	AMOUNT DUE	ASSESSED BY	O. R. NUMBER	DATE PAID

BOX 5 (TO BE ACCOMPLISHED BY DIVISION/SECTION CONCERNED)

PROGRESS FLOW

NOTED: CHIEF, PROCESSING DIVISION/SECTION	IN		OUT		ACTION/ REMARKS	PROCESSED BY
	TIME	DATE	TIME	DATE		
RECEIVING AND RECORDING						
GEODETIC (LINE and GRADE)						
SANITARY						

WE HEREBY AFFIX OUR HANDS SIGNIFYING OUR CONFORMITY TO THE INFORMATION HEREIN ABOVE SET FORTH

BOX 6

SANITARY ENGINEER/MASTER PLUMBER			P.R.C. REG. NO.
SIGNED AND SEALED PLANS & SPECIFICATIONS			
PRINT NAME			
ADDRESS			
P.T.R. NO.	DATE ISSUED	PLACE ISSUED	
SIGNATURE		TAX	

BOX 6

SIGNATURE		
APPLICANT		
RES. CERT. NO.	DATE ISSUED	PLACE ISSUED

BOX 7

SANITARY ENGINEER/MASTER PLUMBER			P.R.C. REG. NO.
IN CHARGE OF INSTALLATION			
PRINT NAME			
ADDRESS			
P.T.R. NO.	DATE ISSUED	PLACE ISSUED	
SIGNATURE		TAX	

MPW FORM NO. 77-005-B

CERTIFICATE OF FINAL INSPECTION

Cost of Construction
Number

Date Submitted _____ Date Issued _____

OWNER/APPLICANT _____

BLDG. PERMIT NO. _____ DATE ISSUED _____

LOCATION OF CONSTRUCTION _____

USE OR TYPE OF OCCUPANCY _____

DATE OF COMPLETION _____ COST AS BUILT _____
Submitted the following documents as required:

LOGBOOK AS-BUILT PLANS/SPEC'S.
Inspected as to the following requirements:

LAND USE & ARCH'L _____ LINE & GRADE _____

STRUCTURAL _____ SANITARY _____

ELECTRICAL _____ MECHANICAL _____

The construction of the above-described building has been found to be in order and therefore the "Certificate of Occupancy" is hereby recommended for approval.

Chief, Enforcement Division

Building Official

MPW FORM NO. 77-007-B

REPUBLIC OF THE PHILIPPINES
MINISTRY OF PUBLIC WORKS
OFFICE OF THE BUILDING OFFICIAL

DISTRICT/CITY/MUNICIPALITY _____
AREA CODE _____



Number

Date Issued _____

This certifies that the building/structure which has been designed and constructed as _____ under Bldg. Permit No. _____ dated _____ issued under the name of _____ has been inspected and found to be in conformity with the approved plans and specifications on file in this office and the provisions of the National Building Code (P.D. 1096) and its implementing rules and regulations and therefore the building/structure may now be occupied or used.

The owner shall properly maintain this building to enhance its architectural well-being, structural stability, sanitation and fire-protective properties and shall not be occupied or used for purposes other than its intended use as stated above.

This Certificate is issued in accordance with Section 309, Chapter 3 of P.D. 1096.

NOTE: _____ Building Official

A certified copy hereof shall be posted within the premises of the building and shall not be removed without authority from the Building Official. The official number(s) assigned to the building(s) is/are _____.

METROPOLITAN MANILA COMMISSION
OFFICE OF THE GOVERNOR
PLAN ENFORCEMENT and REGULATION CENTER
CERTIFICATE OF COMPLETION

THE BUILDING OFFICIAL

AREA CODE NO _____

THIS IS TO CERTIFY THAT THE CONSTRUCTION OF THE BUILDING COVERED BY BUILDING PERMIT NO. _____ ISSUED ON _____ HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS ON FILE WITH THE OFFICE OF THE BUILDING OFFICIAL AND THE "NATIONAL BUILDING CODE" (P.D. 1096).

THAT THE SAID BUILDING AND/OR STRUCTURE IS READY FOR FINAL INSPECTION FOR THE ISSUANCE OF THE "CERTIFICATE OF OCCUPANCY"

NAME OF OWNER _____
(LAST NAME) (GIVEN) (MIDDLE)

ADDRESS OF OWNER _____

LOCATION OF CONSTRUCTION _____

USE OR TYPE OF OCCUPANCY _____

DATE OF START OF CONSTRUCTION: PROPOSED _____ ACTUAL _____

DATE OF COMPLETION: EXPECTED _____ ACTUAL _____

TOTAL FLOOR AREA (sq. meters) ESTIMATED _____ ACTUAL _____

NO. OF STOREYS _____ ACTUAL HEIGHT _____

ESTIMATED COST P _____

ACTUAL COST P _____ (FOR STATISTICAL PURPOSES ONLY)

- a) MATERIALS (TOTAL COST) P _____
 - 1. CEMENT (BAGS) _____
 - 2. LUMBER (cubic meter) _____
 - 3. REINFORCING BARS (kg.) _____
 - 4. NO. OF G.I. SHEETS _____
 - 5. PRE-FAB STRUCTURAL STEEL (kg.) _____

b) DIRECT LABOR (TOTAL COST) P _____
THIS INCLUDES COMPENSATION WHETHER BY SALARY OR CONTRACT FOR PROJECT ARCHITECT/ENGINEER DOWN TO LABORERS.

c) RENTAL OF EQUIPMENT (IF ANY) _____

d) OTHER COSTS (P) _____
THIS INCLUDES PROFESSIONAL SERVICE FEES, PERMITS AND OTHER FEES.
IF CONSTRUCTION IS UNDERTAKEN BY CONTRACTOR

CONFORME:

ARCHITECT/CIVIL ENGINEER
(IN-CHARGE OF CONSTRUCTION)

OWNER/APPLICANT

CONTRACTOR
PRC REG. NO. _____ CLASS _____
TAX _____ RES. CERT _____
ADDRESS _____

HCSO COPY

**Republic of the Philippines
Ministry of Public Works
OFFICE OF THE BUILDING OFFICIAL**

District/City/Municipality _____
Area Code _____

**CERTIFICATE OF COMPLETION
ELECTRICAL WORKS**

This is to certify that the electrical installations/works of the building covered by Building Permit No. _____ issued on _____ has been completed in accordance with the approved plans and specifications on file with the Office of the Building Official and the National Building Code (P.D. 1096): That the said installations/works is ready for final inspection.

NAME OF OWNER: _____
LAST NAME
GIVEN NAME
MIDDLE INITIAL

ADDRESS OF OWNER: _____

LOCATION OF CONSTRUCTION: _____

USE OR TYPE OF OCCUPANCY: _____

DATE OF START OF CONSTRUCTION: _____

DATE OF COMPLETION: _____

TOTAL NUMBER OF OUTLETS AND EQUIPMENT INSTALLED

LIGHTS _____ SWITCHES _____ CONVENIENCE OUTLETS _____
 BELL SYSTEM _____ ELECTRIC RANGE: _____ KW _____ WATER HEATER _____ KW _____
 AIR CONDITIONING SYSTEM _____ HP _____ TELEPHONE: _____ MOTORS _____ HP _____
 OTHERS (specify) _____

In-charge of construction

If construction is undertaken by contract

ELECTRICAL ENGINEER/MASTER ELECTRICIAN

P.R.C. Reg. No. _____ Date _____
 TAN _____ Res. Cert. _____ Date _____
 Address _____

CONTRACTOR

P.R.C. Reg. No. _____ Class _____
 TAN _____ Res. Cert. _____ Date _____
 Address _____

Conforme

OWNER/APPLICANT

MPW FORM NO. 77-005-M

Date of Issued _____

Cert. No. _____

Date Issued _____

CERTIFICATE OF INSPECTION: MACHINERY

Name of Owner: _____

Location of Installation: _____

No. of Units: _____

Description: _____

Total H.P.: _____

Date of Inspection: _____, 19____

Date of Expiration: _____, 19____

Inspection Fee Paid: ₱ _____

O.R. No.: _____

Date Paid: _____, 19____

Republic of the Philippines
Ministry of Public Works
OFFICE OF THE BUILDING OFFICIAL

District/City/Municipality _____

CERTIFICATE OF OPERATION: MACHINERY

THIS CERTIFIES that on this _____ day of _____
19____ the machinery in the premises of No. _____
has been thoroughly inspected and found to be in safe working condition.

The machinery inspected are the following:

Chief, Mechanical Inspection
Division/Section _____

This CERTIFICATE is granted to _____ to operate
the aforementioned machinery for a period of one year from the date of inspection.

Total H.P. _____ No. of Units _____
Fee Paid ₱ _____ O.R. No. _____
Date Paid _____

BUILDING OFFICIAL

NOTE:

(TO BE POSTED CONSPICUOUSLY UNDER GLASS NEAR THE ENGINE CONCERNED)

MPW FORM NO. 77-007-M

Cert. No. _____
Date Issued _____

Cert. No. _____
Date Issued _____

DUMBWAITER CERTIFICATES

Name of Owner: _____
Location of Installation: _____

Rated Load: _____
Speed: _____
Size: _____
Travel: _____
Floors Served: _____
Date of Inspection: _____, 19____
Date of Expiration: _____, 19____
Fees: P _____
O.R. No.: _____

Republic of the Philippines
Ministry of Public Works
OFFICE OF THE BUILDING OFFICIAL

_____ District/City/Municipality

CERTIFICATE OF OPERATION: DUMBWAITER

THIS CERTIFIES that the herein-described DUMBWAITER owned by _____
has been inspected on _____, 19____ and may be operated subject following
specifications:

Rated Load _____ Kilos Speed _____ Size _____
Travel _____ Floors Served _____

This Dumbwaiter may be operated for a period of one year from the date of inspection.

Issued On _____, 19____
Fec _____
O.R. No. _____
Date _____, 19____

Chief, Mechanical Inspection
Division/Section

Building Official

NOTE: (TO BE POSTED CONSPICUOUSLY UNDER GLASS NEAR THE DUMBWAITER.)

2 - 11

Cert. No. _____
Date Issued _____

**CERTIFICATE OF OPERATION
AIRCONDITIONING/REFRIGERATION**

Name of Owner: _____

Location of Installation: _____

Units, Refrigeration: _____ Tons
Units, Ice Plant: _____ Tons
Units, Central A.C.: _____ Tons
Units, Package A.C.: _____ Tons
Units, W.T. A.C.: _____ H.P.
Units, Mech. Ventilation: _____ H.P.

Date of Insp.: _____, 19____
Date of Exp.: _____, 19____
Fee Paid: _____
O.R. No.: _____

CHIEF, MECHANICAL INSPECTION
Division/Section

Certificate Received by: _____
Date: _____, 19____

Republic of the Philippines
Ministry of Public Works
OFFICE OF THE BUILDING OFFICIAL

District/City/Municipality _____
Area Code _____

CERTIFICATE OF OPERATION: AIRCONDITIONING/REFRIGERATION

THIS CERTIFIES that on this _____ day of _____
19____ the airconditioning/refrigeration/ice plant machinery in the premises at _____
_____ has been thoroughly inspected and found to
be in safe working condition.

The machinery inspected are the following:

Units, Refrigeration: _____ Tons
Units, Ice Plant: _____ Tons
Units, Central Air Cond.: _____ Tons
Units, Package Air Cond.: _____ Tons
Units, Window Type A.C.: _____ H.P.
Units, Mech. Ventilation: _____ H.P.

This CERTIFICATE is issued to _____
to operate the aforementioned _____ for a period of one year
from the date of inspection.

Fee Paid: _____
O.R. No.: _____
Date: _____, 19____

BUILDING OFFICIAL

NOTE:
(To be posted conspicuously under glass near the air-conditioning/refrigeration concerned).

MPW FORM NO. 77-012-M

Cert. No. _____
Date Issued _____

Cert. No. _____
Date Issued _____

CERTIFICATE OF OPERATION: ELEVATOR

Name: _____
Location: _____

Classification Pass/Freight Elev.

Working load _____

No. of Passengers _____

Inspected on _____

Issued on _____

Expires on _____

Inspection fee paid _____

O.R. No. _____

Date _____, 19____

Recommended by: _____

CHIEF, MECHANICAL INSPECTION
Division/Section _____

Received by: _____

Date: _____

Republic of the Philippines
Ministry of Public Works
OFFICE OF THE BUILDING OFFICIAL

District/City/Municipality _____

CERTIFICATE OF OPERATION: ELEVATOR

THIS IS TO CERTIFY that on this _____ day of _____, 19____, the _____ owned by _____ and installed in the premises at _____ has been thoroughly inspected. The said elevator was found in good and safe condition for a working load of _____ kilos (_____ lbs.) or _____ passengers including operator and may be operated for the period for which this certificate is issued.

THIS ELEVATOR MAY NOW BE OPERATED FOR A PERIOD OF ONE YEAR FROM DATE OF INSPECTION.

Issued on _____, 19____
Inspection fee paid _____
Official Receipt No. _____
Date Paid _____, 19____

BUILDING OFFICIAL

POST INSIDE ELEVATOR

20
 1
 1
 3

以下にガス工事申込書をつける。

GAS SERVICE CONTRACT

This Contract entered into by and between

(Name of CUSTOMER)	(Date of Application)
(Number and Street) hereinafter referred to as CUSTOMER, and	(City or Municipality)

THE MANILA GAS CORPORATION

a government-controlled corporation with a franchise to operate city Gas service, hereinafter referred to as CORPORATION,
WITNESSETH THAT:

WHEREAS, CUSTOMER has applied with and CORPORATION has approved the application for the installation of a gas service at CUSTOMER's aforesaid address, subject to the conditions hereunder stipulated;

NOW, THEREFORE, CUSTOMER and CORPORATION hereby agree:
1. CORPORATION shall use reasonable diligence to furnish CUSTOMER a regular and continuous supply of gas; provided, however, that CORPORATION shall not be held liable for damages or losses in case such supply is interrupted for any reason not attributable to CORPORATION;

2. CUSTOMER shall provide space for and protect from damage/injury gas installation/s in his premises, install the gas meter outside the building near the door or outside the wall or fence near the gate accessible to CORPORATION meter readers in the absence of CUSTOMER, allow CORPORATION personnel entry to and exist from his premises during reasonable hours for the purpose of checking on the gas installation/s and doing any act necessary or proper in connection with the gas service of this CONTRACT, other than gas meter reading.

3. Gas service/consumption shall be charged for in accordance with the prevailing rate schedule, of which CUSTOMER shall be regularly informed, and which rate schedule may be changed from time to time as may be authorized by CORPORATION and/or proper government authorities;

4. CUSTOMER agrees to pay a monthly minimum rate of PESOS SEVENTEEN (P17.00), which shall entitle him to five (5) cubic meters of gas, subject to adjustment in the event of oil price increases;

5. CUSTOMER binds himself to pay the monthly gas bills to CORPORATION authorized collectors or at the CORPORATION's main office within five (5) days, as printed on the gas bill, from the date said bills are presented for payment and should the CUSTOMER fail to pay any of the bills under this agreement or any other agreements, whether prior or present, with the CORPORATION when due, or should the CUSTOMER fail to comply with any of the terms and conditions of this agreement or any other agreements, the CORPORATION shall have the right to discontinue the gas supply or gas service by disconnecting the gas service at the expiration of five (5) days from and after delivery to the CUSTOMER of a written notice to this effect.

6. CORPORATION may require deposit/s from CUSTOMER to guarantee payment of service bills in accordance with the following schedule:

From Domestic Customers: -
An amount of not less than PESOS TWO HUNDRED (P200.00) for new customers;
An amount not exceeding the sum equivalent to 2-month consumption for old customers, subject to adjustment every 6 months thereafter;

From Commercial Customers: -
An amount (based on appliances installed/to be installed) not exceeding the sum equivalent to 2-month consumption, provided, however, that the minimum deposit shall not be less than PESOS FIVE HUNDRED (P500.00);
An amount not exceeding the sum of three months consumption from old customers, subject to adjustment every 6 months thereafter.

Upon final discontinuance of the service and after full settlement of all bills due, this deposit shall be refunded to CUSTOMER with interest at 6% per annum counted from the time of receipt thereof by CORPORATION;

7. If the gas meter, by any reason whatsoever, registers less than the volume of gas actually used, CUSTOMER agrees to pay his bill for the corresponding period based on the average consumption of the three months immediately preceding, without prejudice to CORPORATION repairing the meter on the latter's account. CORPORATION guarantees the performance of the installed gas meter and the pipe installation for one (1) year, and any defect within the period will be repaired for free, unless it is shown that the defect or malfunction is caused by an outside force other than the normal wear and tear process, in which case CUSTOMER is held liable and shall pay for the repair. Gas leaks from the meter to the appliance or leaks in the appliance itself shall be for the account of the CUSTOMER. All gas leaks either within or outside CUSTOMER'S premises should be reported immediately for the safety of CUSTOMER in particular and for the public in general.

8. CORPORATION shall have the right, without need of judicial action/approval, but after 72 hours notice in writing, to discontinue service to CUSTOMER for any of the following reasons: (a) violation by CUSTOMER of any of the terms and conditions herein; (b) non-payment of bills overdue; (c) urgent repairs; and (d) fraudulent use of the gas service resulting in economic loss or disadvantage to CORPORATION; provided, however, that whenever considerations of safety to life or property make it necessary, CORPORATION may discontinue the gas service even without prior notice to CUSTOMER. In any of the aforesaid instances, CUSTOMER hereby absolves CORPORATION from any and all damages/losses that may be suffered as a consequence thereof;

9. CUSTOMER hereby grants CORPORATION and/or its agents/employees, during the term of this contract and at all reasonable hours and intervals, the right of ingress and egress to and from the above-described premises for any and all purposes necessary or proper in connection with this contract, including but not limited to inspection, testing, maintenance, repairs, replacement or removal of installations, reading meters, collecting payment, and disconnection of service;

10. CUSTOMER shall give at least seven (7) calendar days notice in writing to CORPORATION before permanently vacating the premises, and hereby allows CORPORATION another three (3) days from departure within which to deduct from CUSTOMER'S deposit the equivalent of whatever meter readings are registered up to the time CUSTOMER vacates the premises. Any balance of CUSTOMER'S account should be paid by him before leaving the premises.

11. CORPORATION shall not be liable to CUSTOMER for any damage or loss occasioned by force majeure or fortuitous event, including but not limited to inundation causing flooding of the plant or distribution system, typhoon, earthquake, war, insurrection, civil commotion, strikes, riots, sabotage, fires, accidents, breakdowns, damage to plant machinery or distribution system, as well as by improper use or defect in CUSTOMER'S appliances, extraordinary repairs, legal processes, State or municipal orders or regulations beyond the control of CORPORATION, or other similar events or causes;

12. This Contract shall become effective and binding as soon as the gas service is established;

13. All terms, provisions, conditions, and obligations of this Contract shall extend to and bind, and inure to the benefit of, the successors and assigns of the parties.

IN WITNESS WHEREOF, the parties have signed this Contract this _____ day of _____, 198____ at Manila, Philippines.

MANILA GAS CORPORATION
Corporation

By: _____ Customer

WITNESSES: _____

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES } S.S.
CITY OF MANILA }

BEFORE ME, personally appeared the following: _____ with Res. Certificate No. A/B _____ issued on _____ at _____; and _____ with Res. Certificate No. A/B _____ issued at _____ on _____; representing Manila Gas Corporation, both known to me to be the same persons who executed the foregoing contract and acknowledged that the same is executed of their own free and voluntary act and deed and the free and voluntary act and deed of the principals they represent.

WITNESS MY HAND AND SEAL at Manila, this _____ day of _____, 198____

Doc. No. _____
Page No. _____
Book No. _____
Series of 198 _____

Notary Public
Until December 31, 198____
PTR No. _____
Date _____
Place _____

GAS SERVICE CONTRACT

This Contract entered into by and between

..... (Name of CUSTOMER) (Date of Application)
..... (Number and Street) (City of Municipality)

hereinafter referred to as CUSTOMER, and

THE MANILA GAS CORPORATION

a government-controlled corporation with a franchise to operate city Gas service, hereinafter referred to as CORPORATION,

WITNESSETH THAT:

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from the date said bills are presented for payment and should the CUSTOMER fail to pay any of the bills under this agreement or any other agreements, whether prior or present, with the CORPORATION when due, or should the CUSTOMER fail to comply with any of the terms and conditions of this agreement or any other agreements the CORPORATION shall have the right to discontinue the gas supply or gas service by disconnecting the gas service at the expiration of five (5) days from and after delivery to the CUSTOMER of a written notice to this effect.

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From Domestic Customers —

An amount of not less than PESOS TWO HUNDRED (P200.00) for new customers;

An amount not exceeding the sum equivalent to 2-month consumption for old customers, subject to adjustment every 6 months thereafter;

From Commercial Customers —

An amount (based on appliances installed/to be installed) not exceeding the sum equivalent to 2-month consumption, provided, however, that the minimum deposit shall not be less than PESOS FIVE HUNDRED (P500.00);

An amount not exceeding the sum of three months consumption from old customers, subject to adjustment every 6 months thereafter.

Upon final discontinuance of the service and after full settlement of all bills due, this deposit shall be refunded to CUSTOMER with interest at 6% per annum counted from the time of receipt thereof by CORPORATION;

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8. CORPORATION shall have the right, without need of judicial action/approval, but after 72 hours notice in writing, to discontinue service to CUSTOMER for any of the following reasons: (a) violation by CUSTOMER of any of the terms and conditions herein; (b) non-

payment of bills overdue; (c) urgent repairs; and (d) fraudulent use of the gas service resulting in economic loss or disadvantage to CORPORATION; provided, however, that whenever considerations of safety to life or property make it necessary, CORPORATION may discontinue the gas service even without prior notice to CUSTOMER. In any of the aforesaid instances, CUSTOMER hereby absolves CORPORATION from any and all damages/losses that may be suffered as a consequence thereof;

9. CUSTOMER hereby grants CORPORATION and/or its agents/employees, during the term of this contract and at all reasonable hours and intervals, the right of ingress and egress to and from the above-described premises for any and all purposes necessary or proper in connection with this contract, including but not limited to inspection, testing, maintenance, repairs, replacement or removal of installations, reading meters, collecting payment, and disconnection of service;

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11. CORPORATION shall not be liable to CUSTOMER for any damage or loss occasioned by force majeure or fortuitous event, including but not limited to inundation causing flooding of the plant or distribution system, typhoon, earthquake, war, insurrection, civil commotion, strikes, riots, sabotage, fires, accidents, breakdowns, damage to plant machinery or distribution system, as well as by improper use or defect in CUSTOMER's appliances, extraordinary repairs, legal processes, State or municipal orders or regulations beyond the control of CORPORATION, or other similar events or causes;

12. This Contract shall become effective and binding as soon as the gas service is established;

13. All terms, provisions, conditions, and obligations of this Contract shall extend to and bind, and inure to the benefit of, the successors and assigns of the parties.

IN WITNESS WHEREOF, the parties have signed this Contract this _____ day of _____, 198 _____, at Manila, Philippines.

MANILA GAS CORPORATION
Corporation

By: _____

Customer

WITNESSES By:

3. 建設に関する資料

3-1 建設産業の現状と動向

1980年の国内総生産に占める建設業の比率は7.3%であるが、前年比でみると5.7%増（修正値では9.7%）で、その伸び率は79年（7.0%増）に比べると鈍化した。依然として他産業よりも高い伸びを示している。しかし数年来のホテル・ブームが一段落したことによって、建設業の異常な伸びは収束化の兆しもみせているが、新5カ年計画の下で引き続きインフラ建設が重点施策となっているため、ペースメーカーとして建設業にかけられた期待は依然として大きいといえるであろう。

しかしインフラ投資の相当比率がマニラないし中部ルソンに集中しているため、所得の地域格差を是正するのに必ずしも役立っていない。また建設業者の大半は中小規模であるが、政府のインフラ計画に際して近年国内業者の受注も増えており、また国内業者の海外進出も初めて現われている。このような建設部門の拡大による雇用増加はインフラ建設を中心とした公共部門で1975～85年で3.5倍を見込んでいる。

一方、近年、進んでいる建設業の海外進出は同年に14億4,470万ドル（契約額）に相当するといわれる。進出先はサウジアラビア（8億160万ドル）やイラク（3億8,900万ドル）を中心にインドネシア、マレーシア、香港、ブルネイ、カタール、北イエメン、ネパール、クエート、バハマスなどに及んでいる。プロジェクト別にみると、道路建設（5億5,371万ドル）を筆頭に、住宅、ビル、工場設備、土地造成、発電・送電線など多方面にわたっている。

中東諸国における建設ブームは潤沢なオイルダラーに支えられて当分続くものと予想される。そのため海外の建設事業は今後さらに拡大するものと思われるが、かねてから韓国を始めインド、パキスタン、中東、タイ、インドネシアなどが参入し競争が激化しているため、政府は建設業の海外進出に優遇策を講じている。加えて最近、政府は重点施策の11大工業プロジェクトに建設業の育成をつけ加える意向を示唆している。一方、国内の建設事業は政府の意欲的なインフラ整備計画によって、前途が約束されている。つまり電力（755万ベソ）を中心に総額2,036万ベソによる10カ年インフラ投資計画によって、建設需要は公共部門から誘発されるであろう。

PCA（Philippine Contractors Association）とCRC（Center for Research and Communication）の予測によると、1981～85年の建設活動は年率7%の伸びが見込まれている。

表 3-1

GROSS NATIONAL PRODUCT BY EXPENDITURE SHARES:
1950, 1955, 1960, 1965, 1970 TO 1981
(In million pesos at current prices)

Type of expenditure	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
1. Personal consumption expenditures	5,384	7,879	10,702	17,949	29,552	35,565	39,922	48,241	67,202	76,165	87,120	102,626	118,846	144,143	177,991	209,763
2. General government consumption expenditures	517	728	1,094	2,120	3,514	4,273	5,260	6,231	8,996	10,945	14,050	14,489	16,564	18,259	21,424	24,785
a. Compensation of employees	242	388	781	1,540	2,475	3,004	3,357	3,773	4,548	5,443	6,995	7,159	8,465	9,508	11,210	12,915
b. Other expenditures	275	340	313	580	1,039	1,269	1,903	2,458	4,448	5,502	7,055	7,336	8,099	8,651	10,214	11,870
3. Gross domestic capital formation	1,051	1,295	2,247	4,883	8,992	10,454	11,573	15,444	26,832	35,705	41,053	44,251	51,706	65,313	80,625	94,246
A. Fixed capital formation	904	1,109	1,892	4,134	6,701	8,154	8,831	11,049	18,645	27,800	32,753	36,322	42,528	53,932	67,460	79,166
1. Construction	720	714	1,088	2,284	2,599	2,869	3,565	4,414	7,575	11,714	16,463	19,643	22,363	28,674	36,387	43,241
a. Government	142	148	215	322	417	585	1,034	1,398	2,854	4,368	6,428	8,125	10,260	12,578	15,345	18,337
b. Private	578	566	873	1,962	2,182	2,284	2,531	3,016	4,721	7,346	10,035	11,518	12,103	16,096	21,042	24,904
2. Durable equipment	184	395	804	1,850	4,102	5,285	5,266	6,635	11,070	16,086	16,290	16,679	20,165	25,258	31,073	35,925
B. Increase in stocks	147	186	355	749	2,291	2,300	2,742	4,395	8,187	7,905	8,300	7,929	9,178	11,381	13,165	15,080
4. Exports of goods and non-factor services	969	1,222	1,489	4,046	8,095	9,260	9,877	15,932	22,266	21,272	23,248	29,306	31,557	41,461	54,181	59,091
5. Less: Imports of goods and non-factor services	870	1,249	1,460	4,040	8,236	9,548	10,334	13,392	25,400	29,057	31,841	34,675	41,321	53,120	68,924	75,979
6. Statistical discrepancy	(65)	(405)	(43)	(1,462)	531	216	(223)	(670)	(258)	(427)	298	(366)	1,251	3,070	1,247	4,345
EXPENDITURE ON GROSS DOMESTIC PRODUCT	<u>6,986</u>	<u>9,470</u>	<u>14,024</u>	<u>23,496</u>	<u>42,448</u>	<u>50,120</u>	<u>56,075</u>	<u>71,786</u>	<u>99,638</u>	<u>114,603</u>	<u>133,928</u>	<u>155,631</u>	<u>178,603</u>	<u>219,125</u>	<u>266,544</u>	<u>316,271</u>
7. Net factor income from the rest of the world	(38)	(166)	(196)	(114)	(697)	(621)	(549)	(170)	310	(338)	(1,216)	(1,351)	(636)	(863)	(2,279)	(2,708)
EXPENDITURES ON GROSS NATIONAL PRODUCT	<u>6,948</u>	<u>9,304</u>	<u>13,833</u>	<u>23,382</u>	<u>41,751</u>	<u>49,599</u>	<u>55,526</u>	<u>71,616</u>	<u>99,948</u>	<u>114,265</u>	<u>132,712</u>	<u>154,280</u>	<u>178,067</u>	<u>218,263</u>	<u>264,265</u>	<u>313,563</u>

Preliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-2

GROSS NATIONAL PRODUCT BY EXPENDITURE SHARES: 1950, 1955, 1960, 1965 AND 1970 TO 1981
(In million pesos) at constant prices of 1972)

Type of expenditure	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976 ¹	1977	1978 ¹	1979 ¹	1980 ¹	1981P
1. Personal consumption expenditures	12,631	19,423	23,631	30,300	37,088	38,499	39,922	42,317	44,385	46,160	47,868	51,416	54,098	56,555	59,270	62,066
2. General government consumption expenditures	1,613	2,037	2,495	3,168	4,228	4,554	5,260	5,835	6,659	7,031	7,570	7,456	7,788	7,989	8,374	8,768
A. Consumption of employees	1,159	1,481	1,970	2,431	3,051	3,235	3,357	3,633	3,664	3,819	4,015	3,909	4,112	4,309	4,557	4,785
B. Other expenditures	454	556	525	737	1,177	1,319	1,903	2,202	2,995	3,212	3,555	3,547	3,676	3,680	3,817	3,983
3. Gross domestic capital formation	2,632	3,838	5,173	8,336	10,835	11,226	11,573	12,540	15,551	18,984	20,225	20,828	23,089	25,115	26,626	27,252
A. Fixed capital formation	2,264	3,075	4,368	7,022	7,919	8,690	8,831	9,085	11,382	15,037	16,310	17,108	19,138	20,892	22,754	23,574
1. Construction	1,490	1,587	2,093	3,704	3,089	3,073	3,565	3,693	4,002	6,152	8,011	8,864	9,281	9,884	10,831	11,321
a. Government	322	332	417	526	496	628	1,034	1,183	1,508	2,294	3,128	3,666	4,252	4,350	4,568	4,803
b. Private	1,168	1,255	1,676	3,178	2,593	2,445	2,531	2,510	2,494	3,858	4,883	5,198	5,029	5,534	6,263	6,518
2. Durable equipment	774	1,488	2,275	3,318	4,830	5,617	5,266	5,392	7,380	8,885	8,299	8,244	9,857	11,008	11,923	12,253
B. Increase in stocks	630	1,221	805	1,314	2,916	2,536	2,742	3,455	4,269	3,947	3,915	3,720	3,951	4,223	3,872	3,678
4. Exports of goods and non-factor services	3,470	5,319	5,110	8,773	8,744	8,997	9,877	11,312	9,980	9,951	11,931	14,168	13,980	15,359	17,740	17,136
5. Less: Imports of goods and non factor services	4,354	6,494	6,253	7,818	9,990	10,015	10,334	10,800	12,883	13,505	13,679	14,099	16,365	18,929	19,968	18,753
6. Statistical discrepancy	521	341	718	(2,967)	109	265	(223)	(273)	347	(260)	(953)	(1,779)	198	1,655	750	787
EXPENDITURES ON GROSS DOMESTIC PRODUCT	16,513	24,464	30,874	39,792	51,014	53,526	56,076	60,931	64,139	68,361	72,962	77,990	82,797	87,744	92,792	97,256
7. Net factor income from the rest of the world	(172)	(755)	(723)	(272)	(979)	(605)	(549)	(50)	600	169	(244)	(201)	273	384	138	190
EXPENDITURE ON GROSS NATIONAL PRODUCT	16,341	23,709	30,151	39,520	50,035	52,921	55,526	60,881	64,739	68,530	72,718	77,789	83,070	88,128	92,930	97,446

¹Preliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-3

IMPLICIT PRICE INDEX NUMBERS FOR GROSS NATIONAL PRODUCT BY EXPENDITURE
SHARES: 1950, 1955, 1960, 1965 AND 1970 TO 1981
(Base Year: 1972 = 100)

Type of expenditure	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976 ¹	1977	1978 ¹	1979 ¹	1980 ¹	1981 ¹
1. Personal consumption expenditures	42.6	40.6	45.3	59.2	79.7	92.4	100.0	114.0	151.4	165.0	180.1	199.6	219.7	254.9	300.3	338.0
2. General government consumption expenditures	32.1	35.7	43.8	66.9	83.1	93.8	100.0	106.8	135.1	155.7	185.6	194.3	212.7	228.6	255.8	282.7
A. Compensation of employees	20.9	26.2	39.6	63.3	81.1	92.9	100.0	103.9	124.1	142.5	174.2	183.0	205.9	223.0	246.0	269.9
B. Other expenditures	60.6	61.2	59.6	78.7	88.3	96.2	100.0	111.6	148.5	171.3	198.5	205.8	220.3	235.1	267.6	298.0
3. Gross domestic capital formation	39.9	36.3	43.4	58.6	83.0	93.1	100.0	123.2	171.4	188.1	203.0	212.5	223.9	260.1	302.8	345.8
A. Fixed capital formation	39.9	36.1	43.3	58.9	84.6	93.8	100.0	121.6	163.8	184.9	200.8	212.3	222.2	258.1	296.5	335.8
1. Construction	48.3	45.0	52.0	61.7	84.1	93.4	100.0	119.5	189.3	190.4	205.5	221.6	241.0	290.1	336.0	382.0
a. Government	44.1	44.6	51.6	61.2	84.1	93.2	100.0	118.2	189.3	190.4	205.5	21.6	241.3	289.1	335.9	381.8
b. Private	49.5	45.1	52.1	61.7	84.2	93.4	100.0	120.2	189.3	190.4	205.5	221.6	240.7	290.9	336.0	382.1
2. Durable equipment	23.8	26.5	35.3	55.8	84.9	94.1	100.0	123.1	150.0	181.0	196.3	202.3	204.6	229.5	260.6	293.2
B. Increase in stocks and non-factor services	23.3	23.4	44.1	57.0	78.6	90.7	100.0	127.2	191.8	200.3	212.0	213.1	232.3	269.5	340.0	—
4. Exports of goods and non-factor services	27.9	23.0	29.1	46.1	92.6	102.9	100.0	140.8	223.1	213.8	194.9	206.8	225.7	269.9	305.4	344.8
5. Less: Imports of goods and non-factor services	20.0	19.2	23.3	51.7	82.4	96.3	100.0	124.0	197.2	215.2	232.8	245.9	252.6	280.6	345.2	405.2
EXPENDITURES ON GROSS DOMESTIC PRODUCT	42.3	39.1	45.4	59.0	83.2	93.6	100.0	117.8	155.3	167.6	183.6	199.6	215.7	249.7	287.2	325.2
EXPENDITURES ON GROSS NATIONAL PRODUCT	42.6	39.7	45.9	59.2	83.4	93.7	100.0	117.6	154.4	166.7	182.5	198.3	214.4	247.7	284.4	321.8

¹Preliminary estimates as of January 1982.
Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-4

GROSS NATIONAL PRODUCT, NATIONAL INCOME AND GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN: 1970 TO 1981
(In million pesos at current prices)

Industry	1970	1971	1972	1973	1975	1975	1976'	1977	1976'	1979'	1980'	1981 ^P
1. AGRICULTURE, FISHERY AND FORESTRY	11,782	14,780	16,040	21,074	29,386	32,996	37,341	41,668	47,334	55,516	61,598	-71,267
2. INDUSTRIAL SECTOR	12,581	14,760	17,442	23,441	33,350	38,692	45,686	54,577	61,961	78,445	99,790	121,084
a. Mining and quarrying	1,181	1,187	1,346	2,407	3,097	2,000	2,128	2,488	3,333	5,810	8,095	9,698
b. Manufacturing	9,574	11,417	13,388	17,715	24,608	28,544	32,545	39,318	44,404	54,689	68,181	83,416
c. Construction	1,515	1,781	2,240	2,755	4,709	7,060	9,784	11,356	12,525	15,822	20,751	24,661
d. Electricity, gas and water	311	375	468	564	936	1,088	1,231	1,415	1,699	2,124	2,763	3,309
3. SERVICE SECTOR	18,085	20,580	22,593	27,271	36,902	42,915	50,899	59,386	69,308	85,155	105,156	123,920
a. Transport, communication and storage	1,783	2,172	2,418	2,913	3,664	4,771	6,072	8,583	9,894	12,377	16,444	19,595
b. Commerce	10,517	11,631	12,688	15,783	22,459	25,310	29,423	33,984	40,013	50,123	61,623	72,732
c. Services	5,785	6,777	7,487	8,575	10,779	12,834	16,404	16,819	19,491	22,665	27,089	31,593
GROSS DOMESTIC PRODUCT at market price	42,448	50,120	56,075	71,786	99,538	114,603	133,928	155,631	178,603	219,126	266,544	316,271
Net factor income from the rest of the world	(697)	(521)	(549)	(170)	310	(338)	(1,216)	(1,351)	(536)	(863)	(2,279)	(2,708)
GROSS NATIONAL PRODUCT at market prices	41,751	49,599	55,526	71,616	99,948	114,265	132,712	154,280	178,067	218,263	264,265	313,563
Indirect taxes net of subsidies	3,189	3,988	4,382	6,418	10,360	11,989	12,253	14,008	17,662	23,331	27,833	31,310
Capital consumption allowance	3,714	4,651	5,353	6,466	8,550	11,304	12,873	15,637	16,759	20,538	26,291	32,810
NET NATIONAL PRODUCT OR NATIONAL INCOME	34,848	40,960	45,791	58,732	81,038	90,972	107,586	124,635	143,646	174,394	210,141	249,443

Preliminary estimates as of January 1982.
Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-5

GROSS NATIONAL PRODUCT, NATIONAL INCOME AND GROSS DOMESTIC PRODUCT
BY INDUSTRIAL ORIGIN: 1970 TO 1981
(In million pesos at constant prices of 1972)

Industry	1970	1971	1972	1973	1974	1975	1976 ^a	1977	1978 ^a	1979 ^a	1980 ^a	1981 ^b
1. AGRICULTURE, FISHERY AND FORESTRY	14,734	15,457	16,040	17,026	17,465	18,218	19,671	20,646	21,620	22,595	23,695	24,722
2. INDUSTRIAL SECTOR	15,048	16,222	17,442	19,586	20,710	22,690	24,904	27,554	29,598	31,741	33,848	35,579
a. Mining & quarrying	1,093	1,282	1,346	1,400	1,403	1,445	1,491	1,742	1,809	2,134	2,236	2,275
b. Manufacturing	11,823	12,611	13,388	15,252	15,981	16,537	17,481	19,532	21,108	22,420	23,739	24,958
c. Construction	1,738	1,889	2,240	2,433	2,745	4,101	5,254	5,568	5,913	6,338	6,332	7,353
d. Electricity, gas and water	394	440	468	501	581	607	678	712	768	849	921	993
3. SERVICE SECTOR	21,232	21,847	22,593	24,319	25,964	27,453	28,387	29,790	31,579	33,408	35,249	36,955
a. Transport, communication and storage	2,056	2,184	2,418	2,657	2,933	3,277	3,875	4,235	4,501	4,613	4,827	5,025
b. Commerce	12,295	12,484	12,688	13,589	14,351	15,056	14,999	15,838	16,861	18,085	19,086	20,040
c. Services	6,881	7,179	7,487	8,073	8,680	9,120	9,513	9,717	10,217	10,710	11,386	11,890
GROSS DOMESTIC PRODUCT at market prices	51,014	53,526	56,075	60,931	64,139	68,361	72,962	77,990	82,797	87,744	92,792	97,256
Net factor income from the rest of the world	(979)	(605)	(549)	(50)	600	169	(244)	(201)	273	384	138	190
GROSS NATIONAL PRODUCT	50,035	52,921	55,526	60,881	64,739	68,530	72,718	77,789	83,070	88,128	92,930	97,446
Indirect taxes net of subsidies	3,666	4,225	4,382	5,482	6,627	7,143	6,674	7,018	8,188	9,342	9,688	9,628
Capital consumption allowance	4,712	5,019	5,353	5,535	5,849	6,324	6,910	7,534	7,981	8,447	9,130	9,798
NET NATIONAL PRODUCT OR NATIONAL INCOME	41,657	43,677	45,791	49,864	52,263	55,063	59,134	63,237	66,901	70,339	74,112	78,020

Preliminary estimates as of January 1982.
Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-6

IMPLICIT PRICE INDEX NUMBERS FOR GROSS NATIONAL PRODUCT, NATIONAL
INCOME AND GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN: 1970 TO 1981
(Base year: 1972 = 100)

Industry	1970	1971	1972	1973	1975	1975	1976'	1977	1976'	1979'	1980'	1981P
1. AGRICULTURE, FISHERY AND FORESTRY	80.0	95.6	100.0	123.8	168.3	181.1	189.8	201.8	218.9	245.7	260.0	288.3
2. INDUSTRIAL SECTOR	83.6	91.0	100.0	119.7	161.0	170.5	183.5	198.1	209.3	247.1	294.8	340.3
a. Mining and quarrying	108.1	92.6	100.0	171.9	220.7	138.4	142.7	142.8	184.2	272.3	362.0	426.3
b. Manufacturing	81.0	90.5	100.0	116.1	154.0	172.6	186.2	201.3	210.4	243.9	287.2	334.2
c. Construction	87.2	94.3	100.0	113.1	171.5	172.2	186.2	204.0	211.8	249.6	298.5	335.4
d. Electricity, gas and water	78.9	85.2	100.0	112.6	161.1	179.2	181.6	198.7	221.2	250.2	300.0	333.2
2. SERVICE SECTOR	85.2	94.2	100.0	112.1	142.1	156.3	179.3	199.3	219.5	254.9	298.3	335.3
a. Transport, communi- cation and storage	86.7	99.5	100.0	109.6	124.9	145.6	156.7	202.7	219.8	268.3	340.7	390.0
b. Commerce	85.5	93.2	100.0	116.1	156.5	168.1	196.2	214.6	237.3	277.2	322.9	362.9
c. Services	84.1	94.4	100.0	106.2	124.2	140.7	161.9	173.1	189.9	211.6	239.0	265.7
GROSS DOMESTIC PRO- DUCT	83.2	93.6	100.0	117.8	155.3	167.6	183.6	199.6	215.7	249.7	287.2	325.2
GROSS NATIONAL PRO- DUCT	83.4	93.7	100.0	117.6	154.4	166.7	182.5	198.3	214.4	247.7	284.4	321.8
Indirect taxes net of subsidies	87.0	94.4	100.0	117.1	156.3	167.8	183.6	199.6	215.7	249.7	287.3	325.2
Capital consumption allowance	78.8	92.7	100.0	116.8	146.2	178.7	183.3	207.6	210.0	243.1	288.0	334.9
NET NATIONAL PRO- DUCT OR NATIONAL INCOME	83.7	93.8	100.0	117.8	155.1	165.2	181.9	197.1	214.7	247.9	283.5	319.7

Preliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and
Development Authority.

表 3-7

GROSS VALUE OF CONSTRUCTION AND GROSS VALUE ADDED BY TYPE OF CONSTRUCTION: 1970 TO 1981
(In million pesos at current prices)

Type of construction	1970	1971	1972	1973	1974	1975	1976	1977	1978'	1979'	1980'	1981 ^P
GROSS VALUE	<u>2,599</u>	<u>2,869</u>	<u>3,565</u>	<u>4,414</u>	<u>7,575</u>	<u>11,714</u>	<u>16,453</u>	<u>19,643</u>	<u>22,363</u>	<u>28,674</u>	<u>36,387</u>	<u>43,241</u>
1. Government	417	585	1,034	1,398	2,854	4,368	6,428	8,125	10,260	12,578	15,345	18,337
2. Private	<u>2,182</u>	<u>2,284</u>	<u>2,531</u>	<u>3,016</u>	<u>4,721</u>	<u>7,346</u>	<u>10,035</u>	<u>11,518</u>	<u>12,103</u>	<u>16,096</u>	<u>21,042</u>	<u>24,904</u>
a. Residential	1,278	1,420	1,569	1,910	2,976	4,033	5,327	6,307	6,748	8,854	11,389	13,697
b. Non-residential	904	864	962	1,106	1,745	3,313	4,708	5,211	5,355	7,242	9,653	11,207
GROSS VALUE ADDED	<u>1,515</u>	<u>1,781</u>	<u>2,240</u>	<u>2,755</u>	<u>4,709</u>	<u>7,060</u>	<u>9,784</u>	<u>11,356</u>	<u>12,525</u>	<u>15,822</u>	<u>20,751</u>	<u>24,661</u>
1. Government	219	333	646	808	1,650	2,625	3,715	4,697	5,682	6,940	8,751	10,458
2. Private	<u>1,296</u>	<u>1,448</u>	<u>1,594</u>	<u>1,947</u>	<u>3,059</u>	<u>4,435</u>	<u>6,069</u>	<u>6,659</u>	<u>6,843</u>	<u>8,882</u>	<u>12,000</u>	<u>14,203</u>

^PPreliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-8

GROSS VALUE OF CONSTRUCTION AND GROSS VALUE ADDED BY TYPE OF CONSTRUCTION: 1970 TO 1981
(In million pesos at constant prices of 1972)

Type of construction	1970	1971	1972	1973	1974	1975	1976	1977	1978'	1979'	1980'	1981 ^P
GROSS VALUE	<u>3,089</u>	<u>3,073</u>	<u>3,565</u>	<u>3,693</u>	<u>4,002</u>	<u>6,152</u>	<u>8,011</u>	<u>8,864</u>	<u>9,281</u>	<u>9,884</u>	<u>10,831</u>	<u>11,321</u>
1. Government	496	628	1,034	1,183	1,508	2,294	3,128	3,666	4,252	4,350	4,568	4,803
2. Private	<u>2,593</u>	<u>2,445</u>	<u>2,531</u>	<u>2,510</u>	<u>2,494</u>	<u>3,858</u>	<u>4,883</u>	<u>5,198</u>	<u>5,029</u>	<u>5,534</u>	<u>6,263</u>	<u>6,518</u>
a. Residential	1,519	1,520	1,569	1,590	1,572	2,118	2,592	2,846	2,804	3,044	3,390	3,585
b. Non-residential	1,074	925	962	920	922	1,740	2,291	2,352	2,225	2,490	2,873	2,933
GROSS VALUE ADDED	<u>1,738</u>	<u>1,889</u>	<u>2,240</u>	<u>2,433</u>	<u>2,745</u>	<u>4,101</u>	<u>5,254</u>	<u>5,568</u>	<u>5,913</u>	<u>6,338</u>	<u>6,952</u>	<u>7,353</u>
1. Government	250	353	646	776	980	1,482	2,022	2,301	2,686	2,788	2,932	3,121
2. Private	<u>1,488</u>	<u>1,536</u>	<u>1,594</u>	<u>1,657</u>	<u>1,765</u>	<u>2,619</u>	<u>3,232</u>	<u>3,267</u>	<u>3,227</u>	<u>3,550</u>	<u>4,020</u>	<u>4,232</u>

^PPreliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-9

IMPLICIT PRICE INDEX NUMBERS OF GROSS VALUE OF CONSTRUCTION
AND GROSS VALUE ADDED BY TYPE OF CONSTRUCTION: 1970 TO 1981
(Base year: 1972 = 100)

Type of construction	1970	1971	1972	1973	1974	1975	1976	1977	1978'	1979'	1980'	1981P
GROSS VALUE	84.1	93.4	100.0	119.5	189.3	190.4	205.5	221.6	241.0	290.1	336.0	382.0
1. Government	84.1	93.2	100.0	118.2	189.3	190.4	205.5	221.6	241.3	289.1	335.9	381.8
2. Private	84.2	93.4	100.0	120.2	189.3	190.4	205.5	221.6	240.7	290.9	336.0	382.1
a. Residential	84.1	93.4	100.0	120.1	189.3	190.4	205.5	221.6	240.7	290.9	336.0	382.1
b. Non-residential	84.2	93.4	100.0	120.2	189.3	190.4	205.5	221.6	240.7	290.8	336.0	382.1
GROSS VALUE ADDED	87.2	94.3	100.0	113.2	171.5	172.2	186.2	204.0	211.8	249.6	298.5	335.4
1. Government	87.6	94.3	100.0	104.1	168.4	170.4	183.7	204.1	211.5	248.9	298.5	335.1
2. Private	87.1	94.3	100.0	117.5	173.3	173.2	187.8	203.8	212.1	250.2	298.5	335.5

Preliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-10

GROSS VALUE ADDED IN ELECTRICITY, GAS AND WATER BY INDUSTRY GROUP: 1970 TO 1981
(In million pesos at current prices)

Industry group	1970	1971	1972	1973	1974	1975	1976	1977	1978'	1979'	1980'	1981P
1. Electricity and gas	275	343	436	528	870	957	1,091	1,265	1,519	1,877	2,428	2,849
2. Water	36	32	32	35	66	131	139	150	180	247	335	460
ELECTRICITY, GAS AND WATER	311	375	468	564	936	1,088	1,230	1,415	1,699	2,124	2,763	3,309

Preliminary estimates as of January 1982.

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

表 3-1-1

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION BY TYPE OF BUILDING
AND BY REGION: 1977-1980
(Value in thousand pesos; area in thousand square metres)

Region	Residential				Non-residential				Additions/Alterations and/or Repairs		
	Number ¹	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value
1977 Philippines	36,723	2,286,935	23,216	2,053	939,276	4,817	1,571	857,259	8,690	415	490,310
National Capital Region	7,047	1,392,228	4,295	856	538,067	835	589	448,772	1,917	117	405,389
(Metro Manila)											
Region 1	3,278	56,627	2,060	96	31,526	276	54	20,083	942	19	5,018
Region 2	1,373	34,906	949	40	9,919	181	53	22,795	243	8	2,192
Region 3	2,367	87,060	1,569	126	46,084	347	111	33,817	451	22	7,159
Region 4	6,064	269,860	3,772	266	104,635	832	270	145,010	1,460	57	20,215
Region 5	1,444	37,357	788	52	15,797	255	39	13,371	401	77	8,189
Region 6	1,975	58,268	1,243	94	32,753	290	46	19,824	442	12	5,691
Region 7	3,169	119,924	1,922	137	55,709	415	117	52,944	832	24	11,271
Region 8	1,520	13,699	1,105	49	8,890	95	14	3,078	320	6	1,731
Region 9	1,519	21,339	1,006	50	11,855	185	23	6,048	328	12	3,436
Region 10	3,212	84,937	2,296	149	38,451	397	97	39,553	519	21	6,933
Region 11	2,583	81,127	1,534	99	34,093	470	123	37,774	579	17	9,250
Region 12	1,172	29,513	677	40	11,497	239	35	14,190	256	10	3,826
1978 Philippines	26,828	2,963,098	14,909	1,930	1,153,963	3,981	1,920	1,419,724	7,938	394	388,422
National Capital Region	7,950	1,768,418	4,868	917	701,971	921	982	857,121	2,161	193	209,327
(Metro Manila)											
Region 1	1,193	26,823	683	36	15,971	86	12	7,660	424	8	3,192
Region 2	511	36,042	305	25	12,280	119	45	21,620	87	2	1,142
Region 3	1,701	156,256	1,123	121	67,990	358	116	80,301	220	12	7,965
Region 4	3,006	219,930	1,713	154	81,308	475	194	123,841	818	31	14,781
Region 5	975	61,204	406	134	14,256	244	63	38,913	325	10	7,035
Region 6	2,144	124,110	1,174	106	53,132	393	83	53,671	577	21	17,307
Region 7	1,764	116,233	865	101	50,478	251	90	52,148	648	27	13,607
Region 8	693	33,262	493	32	15,455	89	26	16,747	111	3	1,060
Region 9	1,251	66,689	746	66	32,740	204	47	27,170	301	10	6,779
Region 10	1,659	74,473	885	83	36,341	263	68	36,341	511	14	5,935
Region 11	2,894	224,530	1,231	116	60,622	409	143	69,555	1,254	49	94,353
Region 12	1,087	66,128	417	39	16,553	169	51	34,636	501	14	5,939

表 3-1.1

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION BY TYPE OF BUILDING
AND BY REGION: 1977-1980 (continued)
(Value in thousand pesos; area in thousand square meters)

Region	Total				Residential				Non-residential				Additions/Alterations and/or Repairs			
	Number ¹	Floor ² area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	
1979 Philippines	41,717	5,509	5,234,919	21,753	2,689	2,107,189	5,342	2,820	2,581,992	14,622	695	545,738	3,369	352	309,956	
National Capital Region	11,758	2,453	2,906,933	7,197	1,219	1,165,661	1,192	1,233	1,431,316	3,369	352	309,956				
(Metro Manila)																
Region 1	2,321	218	196,896	1,092	119	77,047	238	99	97,801	991	29	22,050				
Region 2	1,336	128	95,884	480	48	29,519	261	80	59,272	595	9	7,095				
Region 3	3,116	413	321,993	2,058	202	135,462	590	211	132,389	468	20	54,143				
Region 4	4,001	606	452,282	2,384	227	165,178	498	380	262,863	1,119	31	24,238				
Region 5	1,183	158	134,133	545	61	37,262	287	97	85,049	412	15	11,822				
Region 6	2,379	234	173,081	1,249	121	74,672	426	113	84,670	643	20	13,739				
Region 7	3,246	268	187,479	1,468	173	104,936	222	84	62,194	1,556	44	20,347				
Region 8	1,347	128	85,731	741	71	39,653	200	57	38,232	406	11	7,845				
Region 9	1,937	176	130,334	807	86	54,310	259	90	59,859	871	35	16,167				
Region 10	2,659	261	171,872	1,195	127	65,426	398	134	86,552	1,066	40	19,793				
Region 11	4,869	347	277,218	1,781	167	115,088	591	180	132,672	2,497	66	29,458				
Region 12	1,665	130	101,083	756	68	42,975	180	62	49,023	629	23	9,085				
1980 Philippines	39,104	5,358	5,734,238	21,966	2,552	2,339,109	5,453	2,806	2,802,780	11,685	521	592,349	3,290	266	361,963	
National Capital Region	11,962	2,448	3,007,149	7,565	1,173	1,250,151	1,107	1,275	1,395,035	3,290	266	361,963				
(Metro Manila)																
Region 1	2,189	182	183,574	945	92	77,399	238	90	82,405	1,006	22	23,770				
Region 2	1,260	142	106,897	700	63	47,832	356	79	54,664	204	6	4,401				
Region 3	2,503	407	466,298	1,808	169	145,950	443	238	303,193	252	22	17,155				
Region 4	4,659	552	538,108	2,988	266	225,151	562	286	263,312	1,109	42	49,645				
Region 5	1,120	153	142,563	632	72	52,736	256	81	78,702	232	8	11,125				
Region 6	1,988	226	213,732	1,148	112	87,763	391	114	93,118	449	36	32,851				
Region 7	1,997	210	184,152	1,057	121	84,629	197	89	80,566	743	22	18,957				
Region 8	1,299	140	114,424	826	79	55,065	230	61	50,773	243	8	7,586				
Region 9	1,457	167	152,339	740	69	51,392	251	98	90,032	466	13	10,915				
Region 10	2,459	222	180,110	1,108	108	74,539	434	114	90,423	917	20	15,148				
Region 11	4,471	336	303,727	1,670	162	126,572	556	184	147,831	2,245	43	29,324				
Region 12	1,740	173	141,165	779	76	58,930	432	97	72,726	529	14	9,509				

¹ Refers to the number of building construction permits issued.
² Excludes floor area of alterations and repair.
Note: Details do not always add to the total due to rounding.
Source: National Census and Statistics Office.

表 3-12

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS BY TYPE OF BUILDING AND
 BY YEAR: CY 1965, 1970 TO JUNE 1976
 (Value in thousand pesos; floor area in thousand square metres)

Type of building Year	All selected areas						Manila and Suburbs						Other (32) Chartered cities		
	Manila			Suburbs ¹			Manila			Suburbs ¹					
	Number ²	Floor area ³	Value	Number ²	Floor area	Value	Number ²	Floor area	Value	Number ²	Floor area ³	Value	Number ²	Floor area ³	Value
All types															
1965	18,786	...	479,212	10,392	...	372,905	3,650	...	121,190	6,742	...	251,715	8,394	...	106,307
1970	15,485	2,899	420,148	7,485	1,945	284,967	2,314	333	78,812	5,171	1,611	206,153	8,486	954	135,180
1971	14,712	2,476	442,086	7,252	1,611	322,196	2,177	320	67,306	5,075	1,291	254,890	7,460	865	118,890
1972	19,589	2,746	529,811	7,453	1,650	364,091	2,124	315	72,893	5,329	1,334	291,770	12,136	1,095	165,148
1973	20,668	2,656	589,430	8,338	1,584	395,318	2,677	262	64,131	5,661	1,322	331,187	12,330	1,073	194,112
1974	16,645	2,477	996,968	6,667	1,371	690,370	1,914	217	127,047	4,753	1,154	563,323	9,978	1,108	306,598
1975	19,133	3,711	2,174,873	7,017	2,294	1,759,658	1,308	281	357,683	5,709	2,009	1,401,977	12,116	1,422	415,217
1976															
1st Semester	8,219	1,422	844,186	3,645	805	696,443	1,248	87	134,939	2,397	718	561,505	4,574	616	187,744
January	1,110	219	142,988	441	118	110,346	148	12	28,339	293	106	82,007	669	101	32,642
February	1,336	219	104,315	526	89	67,538	201	6	13,829	325	83	53,709	810	129	36,778
March	1,509	309	252,115	592	190	224,423	227	8	20,865	365	182	203,559	917	118	27,691
April	1,566	236	107,148	755	131	74,043	219	15	12,470	536	116	61,573	811	105	33,106
May	1,347	233	156,407	602	152	128,825	205	20	24,677	397	132	104,148	745	81	27,582
June	1,351	207	121,213	729	125	91,268	248	26	34,759	481	99	56,509	622	82	29,945

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS BY TYPE OF BUILDING AND
BY YEAR: CY 1966, 1970 TO JUNE 1976 (continued)

(Value in thousand pesos; floor area in thousand square metres)

Type of building/ Year	All selected areas										Manila			and Suburbs			Other (32) chartered cities		
	Total					Manila					Manila			Suburbs ¹			Other (32) chartered cities		
	Number ²	Floor area ³	Value	Number ²	Floor area	Value	Number ²	Floor area	Value	Number ²	Floor area	Value	Number ²	Floor area ³	Value	Number ²	Floor area ³	Value	
Residential Buildings																			
1965	9,539	...	202,235	4,941	...	153,148	1,160	...	43,311	3,781	...	109,837	...	...	4,598	...	...	49,087
1970	9,040	1,716	197,745	3,982	1,225	135,065	606	126	22,026	3,376	1,098	113,039	1,098	...	5,058	491	...	62,679	
1971	9,058	1,355	230,248	4,173	892	164,380	715	147	27,316	3,458	743	138,736	743	...	4,885	462	...	64,196	
1972	12,519	1,474	263,505	4,123	827	164,380	583	119	23,314	3,540	709	141,067	709	...	8,396	645	...	99,123	
1973	10,596	1,328	296,737	3,622	764	186,503	583	92	21,044	3,039	672	165,559	672	...	7,334	561	...	110,133	
1974	8,723	1,048	354,130	2,694	514	208,716	341	76	35,553	2,353	439	173,163	439	...	6,029	534	...	145,414	
1975	10,717	1,667	723,164	3,049	1,051	545,401	385	108	131,475	2,662	945	413,928	945	...	7,670	614	...	177,762	
1976																			
1st Semester	4,845	620	297,450	2,004	322	216,174	623	28	27,489	1,381	296	188,685	296	...	2,841	299	...	81,548	
January	727	122	56,303	322	72	43,730	103	4	6,065	219	69	37,666	69	...	405	50	...	12,573	
February	910	118	50,521	381	55	36,284	136	4	7,143	245	51	29,121	51	...	529	64	...	14,527	
March	980	124	54,701	390	56	39,307	126	4	6,364	264	53	32,943	53	...	590	68	...	15,395	
April	845	94	47,297	341	52	33,646	97	5	2,041	244	47	31,605	47	...	504	42	...	13,651	
May	701	72	41,347	257	31	26,779	68	5	3,136	189	26	23,642	26	...	444	40	...	14,569	
June	682	90	47,281	313	56	36,448	93	6	2,740	220	50	33,708	50	...	369	35	...	10,833	

表 3 - 1.2

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS BY TYPE OF BUILDING AND BY YEAR: CY 1965, 1970 TO JUNE 1976 (continued)
(Value in thousand pesos; floor area in thousand square metres)

Type of building/ Year	All selected areas														
	Manila					and Suburbs									
	Total					Suburbs ¹									
	Number ²	Floor area ³	Value	Number ²	Floor area	Value	Number ²	Floor area	Value	Number ²	Floor area ³	Value	Number ²	Floor area ³	Value
Non-residential Buildings															
1965	4,631	...	232,264	2,231	...	180,401	690	...	61,572	1,541	...	118,829	2,400	...	51,862
1970	1,854	904	179,173	574	516	115,316	165	160	42,554	409	356	72,763	1,280	388	63,857
1971	1,849	905	175,218	671	557	125,737	154	143	31,974	503	414	93,763	1,178	347	49,482
1972	2,419	1,057	224,183	845	679	165,940	154	154	36,978	691	524	128,963	1,574	377	58,242
1973	3,079	1,005	228,730	1,064	686	157,530	186	88	23,903	878	498	133,627	2,015	420	71,200
1974	2,976	1,240	543,556	966	750	407,038	177	107	65,853	789	642	341,186	2,010	491	136,518
1975	3,395	1,714	1,316,066	1,041	997	1,109,049	186	143	194,410	855	854	914,638	2,354	715	207,017
1976															
1st Semester	1,785	656	527,181	886	396	437,217	573	53	102,856	313	341	334,361	899	216	89,962
January	217	76	80,031	83	40	64,718	42	8	22,274	41	31	42,444	134	36	15,313
February	273	90	50,478	115	33	30,137	65	2	6,686	50	30	23,451	168	57	20,341
March	320	165	190,681	157	125	180,524	101	5	14,501	56	120	166,023	163	41	10,157
April	344	114	48,128	187	57	30,360	109	8	9,925	78	49	20,435	157	57	17,767
May	306	122	94,213	149	92	84,882	111	12	18,265	38	80	66,617	157	30	9,330
June	325	89	63,650	195	49	46,596	145	18	31,205	50	31	15,391	130	40	17,054

NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION FOR SELECTED AREAS BY TYPE OF BUILDING AND
 BY YEAR: CY 1965, 1970 TO JUNE 1976 (continued)
 (Value in thousand pesos; floor area in thousand square metres)

Type of building/ Year	All selected areas														
	Manila						and Suburbs						Other (32) Chartered Cities		
	Total		Manila		Suburbs ¹		Manila		Suburbs ¹		Other (32) Chartered Cities				
Number ²	Floor area ³	Value	Number ²	Floor area	Value	Number ²	Floor area	Value	Number ²	Floor area ³	Value	Number ²	Floor area ³	Value	
Additions, alterations and repairs															
1965	4,616	...	44,713	3,220	...	39,355	1,800	...	16,307	1,420	23,049	1,396	...	5,358	
1970	4,591	279	43,230	2,929	204	34,586	1,543	47	14,232	1,386	20,353	1,662	75	8,644	
1971	3,805	217	36,620	2,408	162	30,407	1,294	27	8,016	1,114	22,391	1,397	55	6,212	
1972	4,651	215	42,123	2,485	141	33,737	1,387	42	12,601	1,098	21,136	2,166	73	7,782	
1973	6,633	323	63,963	3,652	233	51,185	1,908	82	19,184	1,744	31,001	2,981	90	12,778	
1974	4,946	191	99,282	3,007	107	74,616	1,396	35	25,640	1,611	48,975	1,939	83	24,666	
1975	5,021	331	135,645	2,929	240	105,207	737	30	31,797	2,192	73,411	2,992	90	30,438	
1976															
1st Semester	1,589	144	56,554	755	88	43,050	52	7	4,595	703	38,456	834	55	16,503	
January	166	21	6,654	36	6	1,898	3	...	1	33	1,897	130	15	4,756	
February	153	10	3,316	30	2	1,136	...	...	...	30	1,136	123	8	2,180
March	209	19	6,732	45	9	4,592	...	2	504	214	4,592	164	9	2,140	
April	377	28	11,723	227	22	10,036	13	3	3,276	170	9,532	150	6	1,687	
May	340	39	20,848	196	29	17,164	26	2	814	211	13,889	144	10	3,683	
June	344	27	10,281	221	20	8,224	10	2	...	...	7,410	123	7	2,057

¹Includes Caloocan City, Quezon City, Pasay City, Makati, Mandaluyong, Parolaque, Navotas and San Juan.

²Refer to the number of building construction permits issued.

³Excludes floor area of alterations and repair.

Details do not always add to the totals due to rounding.

Sources: National Census and Statistics Office.

表 3-1-3

CASH RELEASES ON INFRASTRUCTURE PROGRAM FROM
DOMESTIC SOURCES: 1975 TO 1980
(In million pesos)

Program and projects	1975	1976	1977	1978	1979	1980
Cash releases from domestic sources	5,718.6	5,733.8	5,636.8	9,045.6	7,010.9	9,518.5
Highways	1,933.7	2,347.9	1,995.3 ¹	2,300.6 ¹¹	2,285.7 ¹⁸	2,080.0
Airports and air navigations	136.8	99.0	96.8 ²	0	179.7	539.5
Railways	123.0	60.2	78.2 ³	83.8	110.7	130.0
Port works and shore protection	290.0	127.4	48.3	79.4	387.4	351.9
Irrigation	845.2	452.1	641.1	775.6	1,507.5 ¹⁹	1,444.1
Waterworks, wells and springs (BPW)	58.1	35.5	52.7	25.6	50.9	113.5
Water supply and sewerage (MWSS)	53.4	35.7	115.6	120.4	270.9	388.7
Waterworks (LWUA)	107.4	119.5	102.0 ⁴	78.7 ¹²	182.5	158.5
Flood control, drainage and forecasting	531.8	635.3	419.9	309.8	375.2	463.4
Power generation and transmission	601.1	577.8	1,020.1	1,112.5 ¹³	2,150.4	2,475.7
Rural electrification	224.1	165.9	217.3	268.6 ¹⁴	277.7	351.8
Telecommunication	28.4	32.1	46.5	27.9	29.8	22.0
School buildings	252.4	278.3	153.9	229.3	221.9	392.9
National buildings/Hospital and sanitarium	171.6	104.0	255.4 ⁵	229.4 ¹⁵	115.9	177.6
Rural health units	0	9.0	72.0	43.2	27.0	27.0
Education Dev't, Project (EDPITAF)	45.4	47.1	64.7 ⁶	84.1	40.6	34.1
Miscellaneous public works	86.5	93.0	126.4 ⁷	121.5 ¹⁶	22.6	28.7
Export Processing Zone (EPZA)	244.1	221.0	125.0 ⁸	133.1 ¹⁷	—	0
Preliminary engineering and studies	19.7	23.9	38.8	21.2	8.7	4.2
Miscellaneous projects (LLDA)	5.1	2.8	6.6	7.0	—	1.5
Tondo Foreshore Dev't (TFDA-NHA)	0	133.7	0	85.6	16.2	43.7
Public work contract price adjustment	8.7	99.1	121.2	0	126.9	138.6
Philippine-Australian Dev't. Assistance Program (PADAP)	15.1	33.5	29.8	1.3	—	10.0
Farm System Development Corporation	0	0	30.0 ⁹	7.0	—	0
PCARR	0	0	27.0 ¹⁰	37.9	33.2	28.9
MUDP-NHA	0	0	52.4	0	3.5	25.0
Vertical structure	0	0	0	182.2	—	0
Postal communications	0	0	0	2,676.9	10.0	0
BPI Infra Component	0	0	0	0	9.8	4.9
MAR Infra Component	0	0	0	0	25.1	3.9
MLGCD Infra Component	0	0	0	0	75.3	72.0
Lighthouses	0	0	0	0	1.0	2.4

Source: Project Monitoring Staff, NEDA.

表 3-1-4

CASH RELEASES ON INFRASTRUCTURE PROGRAM
FROM FOREIGN SOURCES: 1975 TO 1980
(In million U.S. dollars)

Programs and projects	1975	1976	1977	1978	1979	1980
Cash releases from foreign sources	148.5	233.1	542.3	531.3	602.7	758.5
Highways	38.3	22.4	85.2	26.5 ¹	17.6 ⁴	35.2
Airports and air navigations	4.7	.5	3.0	0	7.4	3.4
Railways	6.7	9.8	10.2	11.2	25.1	27.5
Port works and shore protection	7.0	1.9	5.4	6.8 ²	4.5	4.7
Irrigation	24.1	8.6	38.8	125.0	82.1	45.2
Waterworks, wells and springs (BPW)	0	0	0	0	1.0	3.7
Water supply and sewerage (MWSS)	1.2	1.8	16.2	16.8	0	68.4
Waterworks (LWUA)	5.5	4.4	5.4	11.5 ³	0	0
Flood control and drainage	3.6	9.4	10.4	0	6.5	1.3
Power generation and transmission	32.5	136.9	315.6	252.6	406.4	519.1
Rural electrification	21.5	30.7	31.1	14.7	19.4	40.2
Telecommunication	0	0	0	0	0.9	0
School buildings	0	0	0	0	0	0
National buildings/Hospitals and sanitarium	0	0	0	0	0	0
Rural health units	0	.9	0	0	0	0.1
Education dev't, project (EDPITAF)	1.6	0	0	2.3	10.8	0
Miscellaneous public works	0	0	0	0	0	0.0
Export Processing Zone (EPZA)	1.8	.1	10.0	0	13.0	0
Preliminary engineering and studies	0	0	0	0	0	0
Miscellaneous projects (LLDA)	0	0	0	0	0	0
Tondo Foreshore Dev't (TFDA-NHA)	0	0	0	5.2	0.4	0
Warehousing project	0	0	0	0	0	0
Public work contract price adjustments	0	0	0	0	0	0
Philippine-Australian Dev't. Assistance Program (PADAP)	0	5.7	5.3	0	0	0
Farm System Development (FSD)	0	0	.7	0	0	0
PW contract adjustment	0	0	0	7.1	0	0
MUDP-NHA	0	0	5.0	51.6	0	0.1
BPI Infra Component	0	0	0	0	4.1	5.4
MAR Infra Component	0	0	0	0	3.5	2.3
Flood Forecasting (FAGASA)	0	0	0	0	0	1.3
Nutrofinds	0	0	0	0	0	0.1
Minute	0	0	0	0	0	0.5

1 Includes the amount of \$12,087 M (1 US\$ = .003758).

2 Includes the amount of DM 3,178 M converted to US\$1,659 M (US\$1 = DM 1.9157).

3 Includes the amount of \$4,156 M not included in the Infrastructure Program.

4 Includes road component of the MRDP, Bicol River Basin and PADAP.

Source: Project Monitoring Staff, NEDA.

メトロマニラでは、材料費、労務費の連続的高騰にかかわらず、建設工事はかなり活発に行われておりその殆んどは、国内の建設業者によって行われている。空調設備、給排水衛生設備、電気設備等に関しては、多数の業者があり、規模がかなり大きなものもある。

建築労務者の習熟度は高く、残業もいとわないが、資材の供給状況によって工程がくるいやすい。また職人は、現場内や近辺に住むため出勤率が極めて高い反面、現場内の管理が困難であることが多い。

又、鉄骨材が非常に高価であることと、地震荷重が小さいことから、中・高層建物の多くがポストテンション方式のプレストレストコンクリート造を採用している。低層の住宅等はコンクリートブロック造（日本の場合は芋目地積みであるのに対して、フィリピンの場合は破れ目地積みである）又は木造であり、鉄骨造は極めて少い。

最近、高層建物を含めて外壁にプレキャストコンクリート板を採用する例が多く、その技術は高いが、アルミや鋼材が非常に高価であるため、これらを用いたカーテンウォール工法は稀である。

建設工事現場では、型枠支保工には2"×4"の木材が使用されている。型枠は12 mm厚の合板を使用し、Little Giantという金物で壁と柱の型枠を組んでいる。

3-2 建築家・建設業者

3-2-1 建築家

PHILIPPINE ARCHITECTS (For the Year 1983)

1. Leandro LOCSIN & Associates
2. Gabriel FORMOSO & Partners Co.
3. C. D. ARGUELIES & Associates
4. Cesar H. CONCIO & Associates
5. Felipe M. MENDOZA & Associates

6. Mel V. CALDERON & Associates
7. R.C. SIANGHIO AND ASSOCIATES
8. NAKPIL, Nakpil & Nakpil
9. Jorge RAMOS & Associates
10. Antonio S. SINDIONG & Associates
11. R. G. VILLAROSA & Associates
12. Manuel MANOSA & Partners
13. F. B. FAJARDO & Associates
14. C. C. DE CASTRO & Associates
15. R. C. GAITE & Associates
16. Luis M. ARANETA
17. ARCENAS, PAYUMO, DEE, ANDREWS
18. Otilio A. ARELIANO
19. William V. COSCULLUELA
20. Antonio S. MERCADO
21. Pablo R. ANTONIO, Jr.
22. E. L. MARIANO & Associates

3-2-2 建設業者

主な建設業者は全国で約3,900社にいたるが、主力は上位5社で、業界第1位のCDCP (Construction and Developmet Corp. of the Philippines) が圧倒的な力を誇っている。1979年のCDCPの受注高は、円換算で約371億円で、全産業中第15位である。第2位はAG&P (Atlantic Gulf and Pacific Co., of Manila)で1979年約184億円を受注したが、CDCPの半分の受注である。業界10位以下は、年間受注20億円以下である。

一昨年は、各社とも増収減益の決算を計上した。大手の増収はひとえに中近東を中心とする海外受注によるところが大きく、減益は資材高騰によるものである。

日本の建設業者に比べて、フィリピンのそれは、関連下請業者との結びつきが弱いことが特徴の一つである。このため、工程管理、技術管理の面での工事監督者の十分な監理が必要である。両国建設業者の経費率（一般管理費及び利益）が高いことも特徴の一つとして掲げられる。日本においては、経費率が10～18%程度であるのに対して、フィリピンでは25～30%となっている。これは、銀行の貸出金利が高いことが原因の一つと考えられる。

フィリピンの経済事情により官庁工事の支払条件は特に悪く、前渡金は皆無である。従って、立替の運転資金が乏しく、支払条件によって工事の進行が左右されるのが現状である。

主な建設業者10社の年間売上高、純益、完成工事高等を次表に示す。

表3-15 年間売上高—トップ10

	(単位：千ペソ)		
	1979	1978	1977
1. CDCP	1,238,965	1,012,898	629,583
2. AG & P	615,629	534,821	272,186
3. EEI	551,624	472,750	342,299
4. Hydro Resources Corp	478,880	215,556	43,106
5. Erectors Inc.	370,286	221,469	48,988
6. D. M. Consunji Inc.	174,513	89,602	65,514
7. F. F. Cruz & Co., Inc.	112,304	113,359	60,496
8. Makati Development Corp.	101,640	39,358	17,272
9. Jose Rodriguez Const., Inc.	97,414	84,308	60,418
10. Phesco	86,078	67,366	62,492

表3-16 年間純益 - トップ10

(単位:千ペソ)

	1979	1978	1977
1. CDCP	92,399	79,952	57,147
2. AG & P	51,087	79,968	11,343
3. EEI	66,492	95,269	65,819
4. Hydro Resources Corp.	-	2,142	4,567
5. Erectors Inc.	30,352	12,049	5,043
6. D. M. Consunji Inc.	4,890	14,857	10,417
7. F. F. Cruz & Co., Inc.	4,865	2,959	4,330
8. Makati Development Corp.	2,275	273	1,579
9. Jose Rodriguez Const., Inc.	12,057	10,718	7,084
10. Phesco	9,168	6,676	842

3-3 労 務 事 情

フィリピンでは高い人口増加率と若年層が多いことから労働人口は概して豊富であるといえる。

1978年の統計によると労働人口は17,363千人、就業率は全国で96%、都市部で94.1%であるが、一説によると都市部の失業率は47~50%（パウイス財団リサーチ・1979年8月）であるといわれる。建設就業人口は48万人（1978年第4期）で全体の3%であり、近年減少傾向を示している。

また、海外で働く労働者数は1980年15.6千人で3年間に4倍に急増している。これは全般に教育水準が高いこと、ほとんどが英語を解すること等による。

建設業の海外進出に伴ってフィリピンから流出する建設労働者数は中東を中心に2万5千人を上回るといわれる。その結果国内の失業救済に役立ってはいるものの、他方、熟練労働力の流出を招いていることも否定出来ない。

表 3-17 建設部門の雇用計画

(1,000人)	1975	1980	1985
公共建設活動(インフラ)	100	180	350
住 宅	100	150	250
その他民間建設活動	200	300	400
合 計	400	630	1,000

出所：The Philippines-Priorities and Prospects for Development,
World Bank

表 3-18 建設業の雇用目標

(1,000人)	1979	1980	1981	1982	1987
雇用目標(A)	16,521	17,134	17,720	18,330	21,595
工業部門(B)	2,389	2,497	2,619	2,771	3,774
建 設(C)	568	598	640	680	1,026
(C)/(A)	3.4	3.5	3.6	3.7	4.8
(C)/(B)	23.8	24.0	24.5	24.5	27.2

出所：Fookien Tims, Philippine Yearbook, 1979

EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP, BY SEX: OCTOBER 1956, 1961, 1965, 1968, 1970 CENSUS, NOVEMBER 1971-1974, AUGUST 1975-1976¹
(In thousands)

Major industry group and sex	October 1956	October 1961	October 1965	October 1968	Census 1970	November 1971	November 1972	November 1973	November 1974	August 1975	August 1976
Both sexes	7,702	9,095	10,101	10,471	11,775	12,543	12,582	13,865	13,824	14,517	15,427
Agriculture, forestry, hunting and fishing	4,548	5,514	5,725	5,631	6,334	6,321	6,863	7,766	7,684	7,768	8,126
Mining and quarrying	31	31	24	43	53	59	36	51	47	54	56
Construction	198	230	295	342	461	420	432	350	403	456	491
Manufacturing	962	1,026	1,101	1,234	1,398	1,439	1,323	1,396	1,423	1,651	1,680
Electricity, gas, water and sanitary services	26	19	22	36	34	49	44	37	36	46	46
Commerce	803	873	1,114	1,130	862	1,559	1,478	1,537	1,549	1,623	1,864
Transport, storage and communication	228	278	339	363	513	529	467	504	491	492	550
Government, community, business and recreational services	392	538	708	903	1,158	1,196	1,071	1,198	1,225	1,335	1,501
Domestic services other than domestic	332	368	500	503	b	666	617	725	685	782	793
Personal services other than domestic	135	179	227	262	768	278	246	271	255	272	276
Industry not reported	47	39	47	33	194	27	4	30	28	39	44
Male	4,946	5,932	6,805	7,061	...	8,463	8,600	9,282	9,386	9,612	10,022
Agriculture, forestry, hunting and fishing	3,395	4,131	4,493	4,469	...	6,030	5,489	6,000	6,053	6,080	6,188
Mining and quarrying	30	31	23	41	...	58	33	50	44	51	54
Construction	197	227	294	338	...	417	428	343	395	450	482
Manufacturing	344	412	535	644	...	805	728	801	802	879	888
Electricity, gas, water and sanitary services	25	19	20	34	...	46	42	34	33	41	42
Commerce	333	358	460	445	...	676	624	689	697	692	782
Transport, storage and communication	222	275	330	345	...	508	449	484	478	469	531
Government, community, business and recreational services	259	324	448	541	...	676	602	640	644	702	792
Domestic services other than domestic	62	53	69	76	...	96	87	99	96	97	107
Personal services other than domestic	60	82	109	109	...	138	117	124	128	128	135
Industry not reported	23	21	24	18	...	14	2	18	16	24	22

表 3-19

EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP, BY SEX: OCTOBER 1956, 1961, 1965, 1968, 1970 CENSUS, NOVEMBER 1971-1974,
AUGUST 1975-1976¹ (continued)
(in thousands)

Major industry group and sex	October 1956	October 1961	October 1965	October 1968	Census 1970	November 1971	November 1972	November 1973	November 1974	August 1975	August 1976
Female	2,756	3,163	3,296	3,410	...	4,080	3,982	4,582	4,438	4,905	5,405
Agriculture, forestry, hunting and fishing	1,153	1,383	1,232	1,162	...	1,292	1,374	1,765	1,631	1,688	1,938
Mining and quarrying	3	a	a	a	...	1	4	1	3	2	2
Construction	1	a	a	a	...	3	3	7	8	6	9
Manufacturing	618	614	566	590	...	634	595	595	621	772	792
Electricity, gas, water and sanitary services	3	a	a	a	...	2	3	3	2	5	4
Commerce	469	515	654	686	...	883	855	849	852	931	1,082
Transport, storage and communication	6	a	a	18	...	20	18	20	13	23	19
Government, community, business and recreational services	133	214	260	352	...	620	469	558	581	632	709
Domestic services	270	315	431	426	...	570	530	626	589	686	686
Personal services other than domestic	75	97	118	143	...	141	128	147	127	144	141
Industry not reported	24	17	24	15	...	13	2	12	12	15	22

Note: Details may not add up to totals due to rounding.

¹Based on household population 10 years and over with the week as reference period.

²Less than 9,500.

³Included in personal services other than domestic.

Source: National Census and Statistics Office.

表 3-20

EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP BY SEX: THIRD
 QUARTER 1976, FIRST, THIRD AND FOURTH QUARTER 1977,
 FIRST, SECOND, THIRD AND FOURTH QUARTERS 1978¹
 (In thousands)

Major industry group and sex	Third quarter 1976	First quarter 1977	Third quarter 1977	Fourth quarter 1977	First quarter 1978	Second quarter 1978	Third quarter 1978	Fourth quarter 1978
Both sexes	14,238	14,985	14,334	14,323	14,588	15,699	16,118	16,668
Agriculture, fishery and forestry	7,659	7,046	7,474	7,308	7,315	8,054	8,422	8,702
Mining and quarrying	81	91	52	72	72	80	61	67
Manufacturing	1,598	1,837	1,515	1,561	1,665	1,756	1,743	1,916
Electricity, gas and water	51	72	42	56	53	51	49	55
Construction	429	593	484	492	519	506	519	480
Wholesale and retail trade	1,397	1,851	1,355	1,384	1,458	1,660	1,626	1,745
Transportation, storage and communication	600	704	681	654	692	658	699	681
Financing, insurance, real estate, and business services	1,388	1,406	338	287	303	285	361	303
Community, social and personal services	987	1,261	2,298	2,385	2,382	2,600	2,625	2,660
Industry not adequately defined or not reported	47	124	96	125	130	50	15	54
Male	9,630	9,939	9,890	10,010	9,973	10,472	10,467	10,677
Agriculture, fishery and forestry	5,949	5,606	5,978	5,954	5,852	6,231	6,254	6,393
Mining and quarrying	78	85	50	69	68	74	56	62
Manufacturing	919	950	830	876	893	972	892	1,002
Electricity, gas and water	47	65	39	47	46	38	45	49
Construction	424	590	477	482	510	497	509	470
Wholesale and retail trade	583	736	534	532	538	611	581	601
Transportation, storage and communication	570	674	647	622	659	629	670	662
Financing, insurance, real estate and business services	715	715	220	209	203	204	241	205
Community, social and personal services	309	438	1,051	1,124	1,124	1,180	1,208	1,210
Industry not adequately defined or not reported	36	81	63	94	79	35	11	33
Female	4,608	5,046	4,444	4,313	4,615	5,227	5,651	5,991
Agriculture, fishery and forestry	1,710	1,439	1,495	1,354	1,463	1,822	2,168	2,309
Mining and quarrying	3	6	2	4	4	5	4	5
Manufacturing	679	887	685	685	772	784	850	914
Electricity, gas and water	4	7	3	9	7	14	4	5
Construction	4	3	7	9	9	9	10	10
Wholesale and retail trade	815	1,115	821	852	920	1,049	1,045	1,144
Transportation, storage and communication	30	30	34	32	33	29	28	29
Financing, insurance, real estate and business services	673	691	119	77	99	81	120	103
Community, social and personal services	677	824	1,247	1,260	1,258	1,420	1,418	1,450
Industry not adequately defined or not reported	12	43	33	31	50	15	4	21

Note: Details may not add up to totals due to rounding.

¹Based on household population 15 years old and over with the quarter as reference period.

Source: National Census and Statistics Office.

表 3-21

EMPLOYED PERSONS BY MAJOR INDUSTRY GROUP BY REGION:
FOURTH QUARTER 1978
(In thousands)

Major industry group	Total	National Capital Region	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12
Total	16,668	2,014	1,240	798	1,554	2,213	1,205	1,729	1,419	1,099	654	908	1,112	723
Agriculture, fishery and forestry	8,702	20	749	588	619	1,126	734	1,066	826	777	448	614	687	447
Mining and quarrying	67	4	11	1	7	9	2	4	19	1	1	6	—	1
Manufacturing	1,916	567	100	37	202	312	120	142	135	59	28	58	74	83
Electricity, gas and water	55	19	7	2	3	9	4	1	5	2	1	1	—	1
Construction	480	102	43	16	76	74	28	25	37	15	6	17	25	15
Wholesale and retail trade	1,745	280	92	42	203	256	115	154	148	129	60	83	116	68
Transportation, storage and communication	681	179	55	18	87	100	23	56	47	18	10	30	39	17
Financing, insurance, real estate and business services	308	153	13	8	31	29	9	25	10	3	4	3	9	12
Community, social and personal services	2,660	680	164	85	316	292	164	253	191	94	93	94	166	79
Activities not adequately defined	54	9	6	—	9	6	6	3	2	2	4	1	5	1

Note: Details may not add up to totals due to rounding.
Source: National Census and Statistics Office.

表 3-22

HOUSEHOLD POPULATION 15 YEARS OLD AND OVER BY
EMPLOYMENT STATUS, BY SEX, URBAN AND RURAL:
FOURTH QUARTER 1978

Employment status and area	Number (thousands)			Percent of persons 15 years old and over			Percent of the labor force		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Philippines									
Total population 15 years and over	27,169	13,445	13,724	100.0	100.0	100.0	0.0	0.0	0.0
In the labor force	17,363	10,939	6,423	63.9	81.4	46.8	100.0	100.0	100.0
Employed	16,668	10,677	5,991	61.4	79.4	43.7	96.0	97.6	93.3
Unemployed	694	262	432	2.6	2.0	3.1	4.0	2.4	6.7
Not in the labor force	9,806	2,505	7,301	36.1	18.6	53.2	0.0	0.0	0.0
Urban									
Total population 15 years and over	9,518	4,510	5,007	100.0	100.0	100.0	0.0	0.0	0.0
In the labor force	5,609	3,217	2,292	57.9	71.3	45.8	100.0	100.0	100.0
Employed	5,185	3,065	2,121	54.5	68.0	42.3	94.1	95.3	92.5
Unemployed	324	152	172	3.4	3.4	3.4	5.9	4.7	7.5
Not in the labor force	4,008	1,293	2,715	42.1	28.7	54.2	0.0	0.0	0.0
Rural									
Total population 15 years and over	17,651	8,934	8,717	100.0	100.0	100.0	0.0	0.0	0.0
In the labor force	11,853	7,722	4,131	67.2	86.4	47.4	100.0	100.0	100.0
Employed	11,483	7,612	3,871	65.1	85.2	44.4	96.9	98.6	93.7
Unemployed	370	110	260	2.1	1.2	3.0	3.1	1.4	6.3
Not in the labor force	5,798	1,212	4,586	32.8	13.6	52.6	0.0	0.0	0.0

Note: Details may not add up to totals due to rounding.
Source: National Census and Statistics Office.

表 3-23

LABOR FORCE PARTICIPATION RATE, EMPLOYMENT STATUS,
URBAN AND RURAL: 1965-1978
(Number of persons in the labor force in thousands)

Year/area	Labor force participation rate (Percent)	Total labor force	Labor force by employment status			
			Employed		Unemployed	
			Number	Percent	Number	Percent
Philippines						
1965	53.1	10,764	10,101	93.8	663	6.2
1966	55.1	11,757	10,936	93.0	821	7.0
1967	54.7	11,776	10,867	92.3	909	7.7
1968	49.6	11,371	10,471	92.1	900	7.9
1969	52.0	12,046	11,235	93.3	812	6.7
1970 Census	...	...	11,358	...	942	...
1971	50.2	13,241	12,543	94.7	699	5.3
1972	48.4	13,294	12,582	94.6	712	5.4
1973	50.4	14,559	13,865	95.2	695	4.8
1974	49.7	14,283	13,824	96.8	458	3.2
1975	51.0	15,161	14,517	95.8	643	4.2
1976	60.5	15,018	14,238	94.8	780	5.2
1977	57.6	14,994	14,323	95.5	671	4.5
1978	63.9	17,363	16,668	96.0	694	4.0
Urban						
1965	51.0	3,313	2,958	89.3	355	10.7
1966	50.5	3,579	3,223	90.0	357	10.0
1967	48.4	3,483	3,124	89.7	359	10.3
1968	46.5	3,679	3,347	91.0	333	9.0
1969	45.1	3,596	3,267	90.8	329	9.2
1970 Census	...	...	...	...	...	...
1971	47.9	4,157	3,797	91.3	360	8.7
1972	45.5	4,166	3,759	90.2	407	9.8
1973	47.6	4,635	4,265	92.0	370	8.0
1974	46.5	4,500	4,242	94.3	258	5.7
1975	47.4	4,822	4,444	92.2	377	7.8
1976	58.1	4,972	4,548	91.5	424	8.5
1977	53.8	4,862	4,567	93.9	295	6.1
1978	57.9	5,509	5,185	94.1	324	5.9
Rural						
1965	54.1	7,451	7,143	95.9	308	4.1
1966	57.4	8,178	7,714	94.3	464	5.7
1967	57.9	8,293	7,742	93.4	551	6.6
1968	51.2	7,692	7,124	92.6	568	7.4
1969	55.6	8,450	7,968	94.3	483	5.7
1970 Census	...	...	...	...	...	...
1971	51.3	9,084	8,745	96.3	339	3.7
1972	49.8	9,127	8,823	96.7	305	3.3
1973	51.9	9,925	9,600	96.7	325	3.3
1974	51.3	9,783	9,583	98.0	200	2.0
1975	52.8	10,339	10,073	97.4	266	2.6
1976	61.7	10,045	9,690	96.5	355	3.5
1977	59.6	10,131	9,755	96.3	376	3.7
1978	67.2	11,853	11,483	96.9	370	3.1

Note: Annual figures obtained from the results of the October rounds of the NCSO (formerly BCS) Survey of Households except for 1969 (May), 1971-74 (November), 1975 (August), 1976 (third quarter), 1977 (fourth quarter) and 1978 (fourth quarter).

¹Urban and rural classification of households started in 1965.
Source: National Census and Statistics Office.

表 3-2 4

**NUMBER OF FILIPINO WORKERS OVERSEAS BY
MAJOR OCCUPATIONAL GROUP: 1975-1981**
(Refers to contract workers processed through the Overseas
Employment Development Board and the Bureau of Employment Service)

Major occupational group	1975	1976	1977	1978	1979	1980	1981 ¹
Total	<u>12,501</u>	<u>19,221</u>	<u>36,676</u>	<u>50,961</u>	<u>92,519</u>	<u>156,018</u>	<u>102,094</u>
Professional, technical and related workers	4,760	3,292	2,743	5,392	9,698	12,183	7,589
Managerial, executive administrative workers	71	81	4,048	331	1,436	1,410	909
Clerical workers	225	371	939	1,502	2,895	5,223	3,842
Sales workers	14	15	31	83	266	534	226
Service workers	4,689	7,690	4,777	13,852	22,376	41,952	21,821
Agricultural, animal husbandry, forestry workers and fishermen	118	74	123	49	180	1,581	681
Production process workers transport equipment operators and laborers	2,624	7,698	24,015	29,758	55,662	93,135	67,026

¹Includes January to September 1981 data from OEDB; January to June 1981 data from BES.
Sources: Overseas Employment Development Board (OEDB) and Bureau of Employment Service (BES).

表 3-2 5

**NUMBER OF FILIPINO WORKERS OVERSEAS BY MAJOR
WORLD GROUPINGS: 1975-1981**
(Refers to contract workers processed through the Overseas Employment
Development Board and the Bureau of Employment Services)

Major world grouping	1975	1976	1977	1978	1979	1980	1981 ¹
Total	<u>12,501</u>	<u>19,221</u>	<u>36,676</u>	<u>50,961</u>	<u>92,519</u>	<u>156,018</u>	<u>102,094</u>
Africa	342	473	515	1,305	1,134	1,607	1,574
Asia	4,217	5,399	5,291	9,994	12,604	16,253	9,271
Europe	3,160	2,902	2,482	1,268	673	840	515
Middle East	1,552	7,813	25,721	34,441	73,210	131,977	88,825
Oceania	551	133	139	107	312	180	188
The Americas	1,778	1,385	1,214	2,493	3,395	3,628	1,110
Trust Territories	901	1,116	1,314	1,353	1,191	1,533	611

¹Includes January to September 1981 data from OEDB; January to June 1981 data from BES.
Sources: Overseas Employment Development Board (OEDB) and Bureau of Employment Service (BES).

フィリピンの建設工事体系は米国で、現場の組織はプロジェクトマネージャーのもとに複数のエンジニア、1人のゼネラルフォーマン、各職種ごとに労務者をコントロールするフォーマンで構成されている。

労務者の職種別は、土工、大工、鉄筋工、コンクリート工、左官工、溶接工、塗装工、電気工、配管、運転手、人夫などに区分され、それらが技術ランクにより1～8クラスにまで分類され、賃金体系に結びつけられている。作業指示と段取り、工具や重機の調達さえ十分であれば比較的よく働き、日本人の6割ぐらいの作業水準まで達することもあるという。文盲率は16.6%と低いが、大学卒でも日本の高校卒以下の技能のようで、むしろ賃金の割に働くのは下位労働者の方である。一般にのんびりしていて離職率が高い。求人は、マネージャー・クラスから未熟練労働者まで新聞で募るのが普通となっている。ただし、直接雇わずに、仲介者を通して雇う方が、労働問題のトラブルから逃げることができる。

3-4 建設職種労賃

フィリピンでは、農業従事者、非農業従事者、官吏、地方自治体勤務者等に大別して最低賃金制が施行されている。これらの改定は政府、経営者および労働者側の三者代表で構成される「三者会議」が毎年招集され、低所得者層の賃金、給与所得のインフレによる目ペリを調整、カバーされている。

賃金は、B. R. (Basic Rate) E L A (Employee Living Allowance) と F B (Fringe Benefit) より構成されており、B. R. は職種と技能レベルでランク分けされている。

最近では、1980年8月18日付大統領政令(PD1713号)により、最低賃金および月収1,500ペソ以下の者を対象に支払われている生活手当(Living Allowance)が次表に示すとおりに改正(増額)された。

表3-26 最低賃金および生活手当

	最 低 賃 金		生 活 手 当
	メトロマニラ	メトロマニラ以外	
非農業従事者	14 (ペソ/日)	13 (ペソ/日)	60 (ペソ/月)
農業従事者	11	10	30※
手工業者	13	12	60
通常10人以下の 従業員のサービス業	12	12	60

※ ただし、プランテーション労働者は45ペソ/月

建設労働者の最低賃金はB. R. 2.25ペソ/時、E.L.A.1.375ペソ/時
計3.625ペソ/時×8時間=29ペソとなっている。

以上の他に、主な賃金等に関する留意点を次にあげる。

(1) 大統領令（PD851号）によって規定されている13カ月給与制度というのがあり、一年間同一職場で働いた者で基本給が1,000ペソ以下の者は職種に関係なく、1カ月分のボーナスが支給されることになっており、この制度は現在一般的に適用されている。

(2) 退職、解雇について

採用に当っては、6カ月間の試用期間が認められており、この間の解雇（正式採用の取り止め）は自由であるが、6カ月を過ぎて解雇する場合は1カ月前の事前通告が必要であり、その際には1年～1年半までの勤続の者には1月分の、1年半を超える場合は1年半を超える1年毎に1月分の解雇手当を支払う。ただし、建設工事等でサブコン契約の場合はこの限りでない。

(3) 時間外手当等

時間外手当、割増給与として、

- | | |
|--|-------|
| i) ウィークデーで8時間を超える場合 | 25%増 |
| ii) 休日勤務の場合（8時間以内は） | 30%# |
| iii) ※有給祝日の場合（8時間以内は） | 100%# |
| iv) 休息日および法定祝日で8時間を超える場合、ii)、iii)それぞれの30%増 | |
| v) 深夜（22時）から早朝（4時）までにシフトして勤務させる場合 | 10%増 |
- 等が定められている。

※ 有給祝日に勤務を命ずれば平日の2倍の給与を支払わなければならない。

フィリピンでは、防水工、板金工、設備技術者が少い。建設労働者の職種は、土工、大工、コンクリート工、鉄筋工、左官工（タイル工、ブロック工、レンガ工、テラゾー工を兼ねる）塗装工、溶接工、配管工、電気工、重機オペレーター、人夫等に分類され、上述の通りそれぞれ、技術レベルによってランク分けされて賃金が決定される。

ある現場の実績では、型枠大工は1.5～3㎡/日、鉄筋工は80～100kg/日であるという。彼らは、適切な指示と作業の段取りをしっかりとやられば、良く働く。又、彼らは、自分の職務は良く作業できるが、他の作業とのとり合いが悪いので、その調整を上手にしてやる必要がある。超過勤務、休日勤務もするし、突貫工事にも対応できる素地がある。

仕事の内容、緩急によって価格が異なるのは当然であるが、1983年2月現在の標準的な労賃は次の通りである。

	<u>Labor Cost</u>	<u>Per Day</u>	<u>Per Hour</u>
1.	Common Laborer	18.36	2.295
2.	Carpenter (foreman)	28.00	3.50
3.	Common Carpenter	24.00	3.00
4.	Fixing Carpenter	24.00	3.00
5.	Assistant Carpenter	20.00	2.50
6.	Reinforcing-bar Placer	24.00	3.00
7.	Assistant Placer	18.36	2.295
8.	Scaffolding Man	24.00	3.00
9.	Block Worker (foreman)	28.00	3.50
10.	"	24.00	3.00
11.	" (assistant)	20.00	2.50
12.	Plaster Worker (foreman)	28.00	3.50
13.	"	24.00	3.00
14.	" (assistant)	20.00	2.50
15.	Painter (foreman)	28.00	3.50
16.	"	24.00	3.00
17.	" (assistant)	20.00	2.50
18.	Welder	24.00	3.00
19.	Black Smith	24.00	3.00
20.	" (assistant)	20.00	2.50
21.	Mason	24.00	3.00
22.	Assistant Mason	20.00	2.50
23.	Tinsmith	24.00	3.00
24.	Assistant Tinsmith	20.00	2.50
25.	Terrazzo Worker	24.00	3.00
26.	Glazier	24.00	3.00

	<u>Labor Cost</u>	<u>Per Day</u>	<u>Per Hour</u>
27.	Bricklayer	24.00	3.00
28.	Assistant Bricklayer	20.00	2.50
29.	Tiling Worker	24.00	3.00
30.	Assistant Tiling Worker	20.00	2.50
31.	Waterproofing Worker	24.00	3.00
32.	" (assistant)	18.36	2.295
33.	Sashing Worker	24.00	3.00
34.	Roofing-tile Layer	24.00	3.00
35.	" (assistant)	18.36	2.295
36.	Machine Operator	24.00	3.00
37.	Plumber (foreman)	32.00	4.00
38.	"	24.00	3.00
39.	" (assistant)	20.00	2.50
40.	Machine Installation Worker	24.00	3.00
41.	Duct Placer	24.00	3.00
42.	Heat Insulation Worker	24.00	3.00
43.	" (assistant)	20.00	2.50
44.	Electrician (foreman)	28.00	3.50
45.	"	24.00	3.00
46.	" (assistant)	20.00	2.50

3-5 主要建設資材

3-5-1 資材

フィリピンでは、建設工事に必要な資材はほとんど国内で生産されているが、鉄骨・鉄筋関係、内装仕上材、配管材、照明器具関係は生産能力不足および品質が悪いものが多いので、輸入品に依存しているものが多い。特に鉄骨材は生産不足のため、輸入によっているのが現状で、かなり高価になるため、SRC造の建物は少なく、PS工法により、鋼材を節約し、また大架構を得る構造計画が多い。ここではPS工法がかなり発達しているが、工法そのものは、日本で開発されたものが多く使用されている。

建具についても鋼製は精度に多少の難はあるが、一般化されている。アルミ製は、わずかに生産されてはいるものの、輸入に頼っているので、かなり高価なものになっている。

仕上材関係については、塩ビ系タイルおよびシート類、天井用吸音板類、メラミン系化粧板類があるが色・形について種類が限定され、品質も高くない。外壁あるいは床には洗出しが多用され、その技術はいいものをもっている。テラゾーおよび国産大理石もよく使用されているが、タイル関係は品質的にあまり良くないので輸入品がほとんどである。下地材であるP.B、F.Bは日本からもって行くより安いのが、軽量鉄骨下地材は高価なので、木造下地が多く使用されている。

木材はフィリピンの輸出品の一つであり、良質なものが生産されており、住宅や小規模な建物は木造のものが多い。主な用途としては床のフローリング、寄木、壁・天井の縁甲板、扉・枠等に多く使用され、材種はナラ・ラワン・アビトン・イビル・ヤカル・タンギール等があげられる。

フィリピンの建設資材の単価は、人件費に比べて極めて高く、特に鉄、セメント、塩ビタイル、煉瓦等が目立つ。

メトロ、マニラ地区における最近の主要建設資材の物価指数は、表3-27のとおりであり、セメント、アスファルト類、木材の値上がりが大きい。

PRICE INDEX OF SELECTED MATERIALS USED IN CONSTRUCTION ACTIVITIES FOR NATIONAL CAPITAL REGION (METRO MANILA)
1976 TO SEPTEMBER 1981

Period	Automotive diesel fuel ¹	Portland cement ²	Reinforcing steel	Asphaltic material	Metal products	Lumber products	Electrical machines and fixtures	Structural Steel
1976	91.6	95.0	100.2	95.4	88.6	77.6	82.0	78.6
1977	97.6	98.1	90.8	100.0	91.6	94.9	92.3	83.8
1978	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	131.9	132.2	122.0	125.1	120.6	140.3	108.5	119.6
January	100.0	108.5	103.8	100.0	109.2	109.1	102.4	117.3
February	110.2	108.5	103.8	100.0	109.8	109.1	102.4	117.3
March	121.5	134.4	119.4	117.9	116.1	126.0	103.5	117.3
April	121.5	134.4	121.5	117.9	118.3	126.0	105.3	120.4
May	121.5	134.4	121.5	117.9	121.9	130.6	105.3	120.4
June	121.5	134.4	121.5	117.9	122.5	130.6	107.7	120.4
July	121.5	134.4	123.9	117.9	123.1	143.9	108.1	120.4
August	153.1	134.4	129.8	142.3	124.6	175.9	111.8	120.4
September	153.1	134.4	129.8	142.3	125.0	176.9	111.8	120.4
October	153.1	134.4	129.8	142.3	125.0	152.1	114.7	120.4
November	153.1	147.1	129.8	142.3	125.2	152.1	114.7	120.4
December	153.1	147.1	129.8	142.3	125.4	152.1	114.7	120.4
1980	228.1	186.9	133.3	213.6	135.9	191.0	129.0	129.8
January	153.1	147.1	129.8	142.3	131.6	152.1	117.2	120.4
February	221.7	183.8	129.8	205.9	132.6	152.1	120.6	120.4
March	221.7	191.2	129.8	205.9	134.4	198.8	120.6	120.4
April	221.7	191.2	129.8	205.9	135.5	198.8	123.7	120.4
May	221.7	191.2	129.8	205.9	135.1	198.8	128.2	120.4
June	221.7	191.2	129.8	205.9	135.6	198.8	132.1	120.4
July	221.7	191.2	129.8	205.9	135.6	196.8	132.1	120.4
August	250.9	191.2	129.8	237.2	135.8	198.8	132.1	123.1
September	250.9	191.2	135.8	237.2	135.7	198.8	132.1	145.3
October	250.9	191.2	141.7	237.2	139.0	198.8	136.5	145.3
November	250.9	191.2	141.7	237.2	139.1	198.8	136.5	150.4
December	250.9	191.2	141.7	237.2	139.9	188.8	136.5	150.4
1981								
January	250.9	191.2	141.3	237.2	145.3	204.8	125.0	136.7
February	250.9	191.2	141.3	237.2	145.1	204.8	125.0	136.7
March	250.9	191.2	141.1	237.2	145.1	204.8	125.0	136.7
April	264.2	191.2	141.1	262.4	145.4	204.8	126.9	136.7
May	264.5	191.2	141.1	262.4	157.8	204.8	131.0	151.5
June	264.5	191.2	141.1	262.4	156.0	204.8	131.0	151.5
July	223.9	223.9	141.1	262.4	153.0	204.8	131.0	135.0
August	264.5	223.9	141.1	262.4	153.4	204.8	131.0	135.0
September	264.5	223.9	141.1	262.4	153.4	204.8	131.0	133.3

¹Includes other petroleum products, refined.
²Includes white cement.
Source: National Census and Statistics Office, Bureau of Agricultural Economics and Trade Assistance Center, Coordinated by the NEDA-IACS.

建設資材の規格は、スペイン統治後、米国との同胞国として今日に至っているため、法律、制度、慣習等多くの面で強く米国の影響を受けて、建設に関係する規格もアメリカ規格が多く用いられており、工業品規格としてASTM(American Society for Testing and Materials)、コンクリート規格としてACI(American Concrete Institute)、設備関係の規格としてASHRAE(American Society of Heating, Refrigerating and Air Conditioning Engineers)等が用いられている。

鉄筋は異形筋が多く、仕上材については、日本とほとんど同じ規格によるものが多い。現地調達可能な資材の規格は次のとおりである。

鉄筋	6 mmφ・9φ・13φ・19φ・22φ・25φ・29φ・32φ	
塩ビ系タイル	12"×12"	
合板	4フィート×8フィート	⊙6 mm・12 mm・19 mm
コンクリートブロック	200 mm×400 mm	⊙100 mm・150 mm・200 mm
白ガス管	1/2"・3/4"・1"・1 1/2"・2"	
黒ガス管	1/2"・1"・1 1/2"・2"	

1983年2月現在の主要建設資材の単価及び電気・水の料金は次の通りである。

CONSTRUCTION COST AND MATERIALS

Note: (i) in Pesos
(ii) * Labor Only

- EARTHWORK -

Excavation	73.7/cu m
Soil Disposal	12.1/cu m
Backfill	737.0/cu m
Soil Banking	64.5/cu m
Crushed Stone Laying (under the Foundation)	201.8/cu m
Crushed Stone Laying (under the Slab)	201.8/cu m
Levelling Concrete (under the Foundation)	762.4/cu m
Levelling Concrete (under the Ground Slab)	762.4/cu m

- REINFORCING WORK BAR -

Bar Arrangement with Fabrication	520.9/ton
Binding Wire	94.4/ton
Bar Support	20.5/ton

- STEEL BARS

25 mm	3,500/ton
20	3,500/ton
16	3,500/ton
12	3,600/ton
10	3,700/ton

- FORMWORK -

Foundation,	Install and Removal	63.65/sq. m
Grade Girder,	ditto	68.0 /sq. m
Column,	ditto	80.85/sq. m
Girder and Beam,	ditto	91.55/sq. m
Slab,	ditto	70.55/sq. m
Wall,	ditto	76.35/sq. m
Staircase and Miscellaneous,	ditto	80.85/sq. m

- CONCRETE WORK -

Foundation and Grade Girder,		
	Slump 15, 3,000 psi	850.0/cu m
Column,	Slump 18, 3,000 psi	850.0/cu m
Girder and Beam,	" , "	850.0/cu m
Slab,	" , "	850.0/cu m
Wall,	" , "	850.0/cu m
Staircase and Miscellaneous,	"	850.0/cu m
Ground Floor Concrete,	2,500 psi	782.4/cu m
Topping Concrete		822.6/cu m

- WATERPROOFING, SEALING AND THERMAL
INSULATION WORK

Bituminous Membrane Waterproofing (Interior Use)	103.1/sq. m
Bituminous Membrane Waterproofing (Exterior Use)	103.1/sq. m
Polyurethane Sandwich Insulation (40 mm thick)	279.0/sq. m
Synthetic Resin Coating (Polyurethane Coating)	181.9/sq. m
Expansion Joint Foam Polystyrene Blown Asphalt Fill	5.4/sq. m
Sealing for End Risers of Waterproofing	13.4/lin. m
Sealing for Exterior Joints (Polyurethane)	13.4/lin. m
Sealing for Doors and Windows (Polyurethane)	13.4/lin. m

- MASONRY -

Hollow Concrete Block, 150 mm thick, 1,000 psi	100.0/sq. m
Hollow Concrete Block, 100 mm thick, 1,000 psi	83.9/sq. m
Concrete Lintel	67.8/lin. m
Concrete Stud Column	133.2/lin. m

- CERAMIC TILE WORK -

Floor Vitreous Tile Unglazed, 25 mm x 25 mm	233.8/sq. m
Base Vitreous Tile Baseboard Type, 100 mm x 100 mm	40.9/sq. m
Wall Vitreous Tile, 100 mm x 100 mm	128.9/sq. m

- ROOF TILE WORK -

Clay Spanish Tile w/ Copper Nails	321.1/sq. m
Clay Spanish Tile for Ridge Top w/ Mortar	183.7/lin. m
Clay Spanish Tile for Roof Ends	214.2/lin. m

- CARPENTRY -

Hardwood Baseboard	39.9/lin.m
Ceiling Furring w/ Suspension Bar	69.1/sq. m
Curtain Box	117.4/lin.m
Lighting Box	78.5/lin.m
Ceiling Joiner	61.9/lin.m
Wood Stud Partition	77.2/sq. m
Roof Rafter and Batten for Roof Tile	108.0/sq. m
Eaves Facia Board (30 mm x 450 mm) w/ Wood Rafters	149.6/lin.m
Eaves Ceiling Wood Furring	69.1/sq. m
Ceiling Wood (Tanguile), 12 x 100	138.4/sq. m
Ceiling Furring w/ Suspension Bar	69.1/sq. m

- MISCELLANEOUS METAL WORK -

Floor Access Panel, 600mm x 600mm	961.8/ea.
Ceiling Access Panel, 600mm x 600mm	508.5/ea.
ditto , 450mm x 450mm	316.9/ea.
Grating w/ Frame, 600mm x 600mm	666.9/ea.
Eaves Ceiling Insect Screen (S.S.T. Mesh)	678.4/ea.
Down Spout G.I. Pipe, 150mmØ	150.7/lin.m
ditto , 100mmØ	161.4/lin.m
Roof Drain, Vertical Type, 100mmØ	316.9/Nos.
ditto , ditto , 150mmØ	637.4/Nos.
ditto , Relay Type, 100mmØ	316.9/Nos.
ditto , ditto , 150mmØ	445.8/Nos.
Non-slip Stair Nosing (Brass w/ Anchor w = 45 mm)	66.9/lin. m
Steel Ladder	2,425.5/ea.

- PLASTERING WORK -

(Interior)

Floor	Waterproofing Cement Mortar	31.7/sq. m
"	Cement Mortar	30.2/sq. m
"	Pebble Washout Finish	113.3/sq. m
"	Leveling Cement Mortar (for Waterproof)	27.6/sq. m
Baseboard	Cement Mortar Baseboard, H = 100	9.2/lin.m
"	Cement Mortar	66.2/sq. m
Wall	Synthetic Adobe Finish by Surface Chipping	117.7/sq. m
"	Cement Mortar (Tile Base)	32.8/sq. m
"	Cement Mortar	35.3/sq. m
"	Coping Cement Mortar	11.2/lin.m
Ceiling	Cement Sandblasting	69.7/sq. m
Beam	Synthetic Adobe Finish by Surface Chipping	138.9/sq. m
"	Cement Mortar	45.6/sq. m

- PLASTERING WORK -

(Exterior)

Floor	Cement Mortar	30.2/sq. m
T & R	ditto	45.6/sq. m
Floor	Pebble Washout Finish	107.2/sq. m
T & R	ditto	143.6/sq. m
Floor	Cement Mortar Coating (Roof)	27.6/sq. m
"	Cement Mortar w/ Joint (")	30.7/sq. m
"	Cement Topping Finish	5.2/sq. m *
Baseboard	Waterproof Cement Mortar H = 100	9.4/lin.m
Drain Gutter	Waterproof Cement Mortar W = 200	8.5/lin.m
Drain Gutter	Waterproof Cement Mortar W = 300	12.6/lin.m
Wall	Waterproof Cement Mortar	39.4/sq. m
Grouting	Cement Mortar (Around Doors and Windows)	13.2/lin.m

- STEEL WINDOWS -

SW Casement Type	3450 x 1400	3,174.2/ea.
SW "	3000 x 1400	1,676.9/ea.
SW " w/ Door	5450 x $\frac{1400}{2300}$	3,700.2/ea.
SW "	2625 x 1400	1,347.7/ea.
SW "	2450 x 1400	1,242.5/ea.
SW "	1400 x 1400	810.8/ea.
SW "	4800 x 1900	3,203.6/ea.
SW "	5800 x 1900	4,167.6/ea.
SW "	7450 x 1900	4,463.0/ea.
SW "	7400 x 1900	4,463.0/ea.
SW "	9530 x 1900	6,885.3/ea.
SW Awning Type	5340 x 500	2,041.8/ea.
SW "	4450 x 500	1,701.5/ea.
SW "	3560 x 500	1,361.2/ea.
SW "	2670 x 500	1,020.9/ea.
SW "	1440 x 500	680.6/ea.

- STEEL DOORS -

SD Grill Door	1500 x 2400	2,121.7/ea.
SD Louver Door	1800 x 2400	2,754.2/ea.
SD Grill Door	900 x 2400	1,427.7/ea.
SD Louver Door	900 x 2400	1,584.5/ea.
SD Flush Door	1200 x 2100	1,452.3/ea.
SD "	250 x 2100	1,301.5/ea.
SD "	900 x 2100	1,435.6/ea.

- WOOD DOOR -

WD Grill Door (Tanguile)	1500x2400	1,375.5/ea.
WD Flush Door (Narra)	1800x2400	1,795.5/ea.
WD " (Tanguile)	1800x2400	1,202.3/ea.
WD " (Narra)	900x2400	895.7/ea.
WD " (Tanguile)	900x2400	501.9/ea.
WD " (Narra)	900x2100	784.4/ea.
WD " (Tanguile)	900x2100	438.9/ea.
WD Louver Door(")	750x2100	538.7/ea.
WD Hollow Core Plywood Door	600x1900	391.7/ea.
WD " "	900x2100	1,425.9/ea.
WD Screen (Stainless)	900x2100	1,448.0/ea.
Door Frames		112.1/lin.m

STEEL LOUVER

SG Fixed Louver	2450x2300	2,942.2/ea.
SG " "	1000x2300	1,446.2/ea.
SG " "	400x 400	121.5/ea.

- GLASS -

Clear Sheet Glass, 5mm thick	326.3/ea.
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- PAINTING WORK -

(Interior)

A.E.P.	44.2/sq. m
O.S.C.L.	94.6/sq. m
E.P.	44.2/sq. m

(Exterior)

A.E.P.	44.2/sq. m
V.P.	44.2/sq. m
O.P.	47.3/sq. m

- INTERIOR FINISHING

Floor	Marble Block	196.7/sq. m
"	Vinyl Asbestos Tile	43.6/sq. m *
"	Mosaic Parquet Flooring (Narra)	223.3/sq. m
"	Waterproof Plywood (Base for Above Work)	65.9/sq. m
Baseboard	Vinyl Cove Baseboard, H = 100	3.4/lin.m *
"	Marble Block Baseboard, H = 100	121.3/lin.m
Wall	Plywood (Narra) w/ Furring String	77.4/sq. m
"	Plywood (Tanguile) w/ Furring String	63.2/sq. m
"	Marble Block 100 x 100	121.3/lin.m
Ceiling	Wood (Tanguile) 12 x 100 T & G	138.4/sq. m
"	Asbestos Cement Board 4 mm	59.7/sq. m
"	Acoustic Mineral Board 12 mm	14.6/sq. m *
"	Gypsum Board 9 mm thick (Base for Above Work)	42.2/sq. m *
"	Gypsum Board 9 mm thick	53.9/sq. m *
Toilet Booth	Terrazzo Block	998.2/sq. m
Floor	Terrazzo Block (External)	192.4/sq. m
Terrazzo Block	Top Board	208.4/lin.m
"	"	161.1/lin.m
"	"	229.3/lin.m
Terrazzo Block	Bench	674.5/lin.m

- MISCELLANEOUS WORK -

Wall Glasswool 25mm thick	32 kg/sq. m	674.5/sq. m
" Perforated Plywood w/ Furring String		66.0/ea.
Movable Partition Plywood Faced Wood Door Panel w/ Aluminum Frame W = 8500, H = 2900		41,852.0/ea.
Movable Partition Plywood Faced Wood Door Panel w/ Aluminum Frame W = 5600, H = 2600		24,728.0/ea.
Wooden Fixed Window, W = 1000, H = 1400		1,005.5/ea.
" , W = 5600, H = 2700		6,363.0/ea.
Wooden Open Shelf, W = 1800, H = 2600		1,888.0/ea.
Wooden Counter, W = 4000, H = 1100		4,399.9/ea.
Kitchen Service Counter, W = 3500, H = 600		5,688.1/ea.
Pantry Sink, l. = 1200		4,937.5/ea.
Pantry Mounted Cupboard w/ Stainless Shelves, l. = 1800		3,417.7/ea.
Mirror, 450 x 600		284.1/ea.
Key Box		320.6/ea.
Room Name Plate		29.7/ea.
Open Patio Gravel Fill		201.8/cu. m
Plants, H = 600		121.3/sq. m

PLUMBING EQUIPMENT COST

- Steel Pipe

Sizes	GIP	SIP
10"	2,450.00	2,352.00
8"	1,826.00	1,620.00
6"	1,172.00	1,126.80
4"	820.60	610.80
3"	594.00	448.80
2"	283.20	214.80
1"	130.80	100.80

All Sizes by x 20"

- Copper Tube

6"	8,400.00
4"	2,808.00
3"	1,536.00
2"	900.00
1"	386.60

All Sizes by x 20"

- Valve

Sizes	Gate Valve	Glove Valve	C-Valve
10"	4,500.00	4,776.00	4,500.00
8"	3,180.00	3,432.00	3,300.00
6"	2,748.00	2,760.00	2,820.00
4"	2,168.40	2,352.00	2,229.60
3"	867.60	1,116.00	1,272.00
2"	345.60	482.40	408.00
1"	123.60	160.80	124.80

- Pump

Booster Pump for Hydro Tank	25,929.00
"PACO" Model No. 1250/5 (PIP 114) 2-HP 220 Volts 3450 RPM	
3-Phase, 60 Hetrts, 30 GPM VS, 100 FT, TDH	
Pacomonitor Constant Pressure System Series	299,668.00
System Capacity : 250 GPM VS, ORP FT, TDH	
Lead Pump 1	: 50 GPM VS, 140 FTM, TDH 5-HP
Main Pupety Rozas PH	
Main Pump	: 2N 3 100 GPM VS, 140 FT TDH 7 1/2 HP

- Sanitary Equipment

Water Closet	1 ea. 1,836.00
With Low Tank And Seat Cover (White)	
(Philippine Standard Model)	
Urinal	1 ea. 2,167.00
With Flush Valve (Philippine Standard Model)	
Lavatory	1 ea. 952.00
Complete with Faucet (Philippine Standard Model)	

- Cast Iron Pipe

Sizes (mm)	DH	SH
150	416.00	380.00
100	220.00	205.00
50	126.00	115.00

- Cast Iron Fitting

Sizes (mm)	Elbow	Tee
150	151.20	165.60
100	91.20	165.20
50	40.80	115.20

- Septic Tank		
200 Occupants	- 3.00 x 1.55 x 1.30	5,775.00
100 "	- 2.70 x 1.10 x 1.00	3,412.00
60 "	- 2.00 x 1.00 x 0.90	2,467.00
20 "	- 1.50 x 0.80 x 0.50	2,100.00
- Refrigerator		3,600.00
8 CF (Hitachi or Equal)		
- Gas Table		1,080.00
2 Burners		
- Kitchen Cabinet		300.00
for Gas Table		
- Air Condition		
Carrier Cent. Chiller 500 TR CNF MLA		1,117,344.00
" 300 "		654,316.00
Carrier Package Air Cooled Chiller 100 TR		
Model 30 GA 105 CNG MAL		497,568.00
Carrier Package Air Cooled Chiller 50 TR		
Model 30 GS 055 CNG MLA		265,555.00
Cooling Tower Liang CHI LBC 700		220,500.00
" 400		141,750.00
" 150		50,400.00
" 70		27,300.00
Alenaire AHU Chilled Water with Moter		
50 4R/T		54,600.00
40 "		46,200.00
30 "		36,960.00
20 "		25,410.00
10 "		21,120.00
5 "		14,520.00

- Sinko Fan Coil	600 CFM	7,800.00
	400 "	6,036.00
	300 "	5,880.00
- Carrier Unitary	15 R/T	91,657.00
	10 "	66,550.00
	7.5 "	55,781.00
	5 "	37,510.00
- Fedders Rotary	2 HP	9,504.00
	1 1/2 "	7,720.00
	1 "	7,240.00
	0.8 "	6,600.00
- Filgen Vaneaxial Duct Paix		
10,000 CFM x 2" SP		13,800.00
5,000 "		9,600.00
2,000 "		7,300.00
1,000 "		7,300.00
- Fiberglass with Alum Foil		
2" Thick 2 LBS x 1 SM		110.40
1" Thick x 1.5 LBS x 1 SM		62.40
- Fiberglass Pipe Insulation with Alum Foil		
6" 4 x 2" Thick x 3 LBS Density x LM		296.40
4" " "		217.20
2" " "		138.00
1" " "		118.80

ELECTRICAL MATERIALS COST

- Hard Copper Wire - No. 4/0	50.00/m
- Soft Copper Wire - No. 4/0	50.00/m
- Hard Copper Strand for Overhead Transmission - No. 4/0	45.00/m
- Copper Wire	

Wether Polyethylene Line Wire

Size	Packing Length	Per Meter	Per Roll
12-1	300 Meters	2.20	660.00
10-1	"	3.30	990.00
8-1	"	4.28	1,446.00
6-1	"	7.47	2,241.00
4-1	"	11.64	3,492.00
2-1	"	18.69	5,607.00

Wether Polyethylene Line Wire

Size	Packing Length	Per Meter	Per Roll
8/7	"	5.22	1,566.00
6/7	"	8.02	2,406.00
4/7	"	12.40	3,720.00
2/7	"	19.87	5,961.00
1/7	"	24.85	7,455.00
1/0-7	"	33.86	10,158.00
2/0-7	"	42.26	12,678.00
3/0-7	"	52.68	15,804.00
4/0-19	"	65.60	19,680.00
250 MCM	"	78.51	23,553.00
300 MCM	"	93.88	28,164.00
350 MCM	"	108.22	32,466.00
400 MCM	"	124.46	37,338.00
500 MCM	"	152.84	45,852.00
750 MCM	"	226.18	67,852.00
1000 MCM	"	334.74	100,422.00

- Vinyl Cable	600V - No. 12 THW	1.60/m
- Vinyl Cable	600V (heat endurance) - No.12 THW	2.25/m
- Vinyl Cable for Outdoor	- No. 4/0	56.00/m
- Polyvinyl Chloride Insulated and Sheathed Control Cable	[PVC, Shealth] No. 4/0	80.00/m
- Coaxial Cable	- RG 59	70.00/m

- Conduit Tube

10 ft Long (Matsushita or Equal)

Size

1/2"	37.20
3/4"	60.00
1"	88.80
1-1/4"	112.80
1-1/2"	130.00
2"	175.20
2-1/2"	278.00
3"	345.60
3-1/2"	652.80
4"	729.60

- Fitting for Conduit Tube Local Products

Size	Bushing & Locknut	Coupling
1/2"	1.40	1.27
3/4"	1.77	1.53
1"	2.66	2.54
1-1/4"	5.08	3.18
1-1/2"	5.08	4.06
2"	8.10	5.71
2-1/2"	8.39	9.14
3"	13.41	12.70
3-1/2"	-	-
4"	21.92	28.80

- Floor Duct - 2" x 4" x 10'-0"	195.00/length
- Busduct - 2,000 Amp, 600 v, 4-Wire	16,000.00/10ft length
- Race-way - 8' -0"	240.00/length
- Cable Rack - 8"-0"	240.00/length

- Veto Switch		
One Gang W/Plate		11.80
Two "		18.00
Three "		25.80
Duplex Outlet W/Plate		18.00
Eagle Single Outlet W/Plate		22.20
Eagle Weather Proof Outlet		38.00
- Plug and Socket (outlet)		24.00
- Connector - No. 4/0		120.00
- Incandescent Bulb		
50 Watts 230 Volt		8.00
100 "		8.00
200 "		15.00
- Flourent Tube		
20 Watts		19.80
40 "		22.20
- Lighting Fixture		
Exit Light Fixture - 100 W		240.00
Explosion Proof Lighting Fixture Grove Winds		2,952.00
Emergency Lighting Equipment - Lamps only		300.00
Exterior Light - 400-Watt		1,500.00
- Heated Wooden Pole		
25		1,110.00
30		1,317.00
35		1,605.00
40		2,130.00
45		2,665.00
60		5,364.00

- Concrete Pole		
30		3,168.00
35		3,880.00
40		6,283.00
45		7,590.00
50		9,409.00
- Oil Immersed Transformer		
100 KVA 3 DIA	24,000/6250	22,034.00
500 KVA	24,000/6240	77,274.00
500 KVA	7,620/13.8	85,128.00
50 KVA Primary	24,000/6250	
Secondary	240/480/240/120	11,660.00
50 KVA Primary	7,620/13.8	
Secondary	240/480/240/120	12,380.00
100 KVA 1 DIA		
Primary	24,000/6240	
Secondary	240/480/240/120	17,199.00
100 KVA Primary	7,620/13.8	
Secondary	240/480/240/120	18,490.00
500 KVA Primary	24,000/6240	
Secondary	240/480/240/120	59,409.00
500 KVA Primary	7,620/13.8	
Secondary	240/480/240/120	65,620.00
- Dry Type Transformer		
100 KVA 3 DIA		18,674.00
500 KVA 3 DIA		62,910.00
50 KVA 3 DIA		12,526.00
100 KVA 1 DIA		16,812.00
500 KVA 1 DIA		55,188.00

- Telephone Apparatus		
GTE		228.00
Simens		300.00
Master		480.00
Sub. Station		108.00
- Interphone Unit Table Type		
	10 Local	108.00
	1 Master	576.00
- Fire Alarm-Panel Only		11,000.00/set
- Master Antenna TV System - Panel only		14,000.00/set

GENERAL POWER

AVAILABILITY:

Available in the territory served by the Company.

APPLICABLE:

To customers who guarantee a billing demand of not less than 40 kilowatts for general power, heating and/or lighting.

CHARACTER OF SERVICE:

Alternating current, 60 cycles, phase and voltage as available and appropriate.

RATE: (per month)

DEMAND CHARGE:

For each kilowatt of billing demand P12.60 per KW

PLUS ENERGY CHARGE:

First 200 hours of use of billing demand at P0.27 per KWH
 Next 200 hours of use of billing demand at 0.26 per KWH
 Next 100 hours of use of billing demand at 0.25 per KWH
 Next 100 hours of use of billing demand at 0.24 per KWH
 Excess KWH at 0.23 per KWH

MINIMUM CHARGE:

Net bill excluding currency exchange rate and purchased power adjustments shall not be less than P900 per month or the demand charge whichever is higher. (Demand Charge refers to amount prior to application of special discount when applicable.)

BILLING DEMAND:

The billing demand shall be determined by measurement and considered as the highest average rate at which energy is consumed during any 15 consecutive minutes of the monthly period for which bill is rendered, and shall not be less than 40 kilowatts. For customers with not less than 500 kilowatts contracted capacity, the billing demand shall in no case be considered as less than 70% of the contracted kilowatt capacity.

POWER FACTOR ADJUSTMENT:

The rates set forth above are based upon an average monthly power factor of 85% which the customer agrees to maintain. Should the customer's average monthly power factor be less or more than 85%, the kilowatthours metered during the monthly period shall, for billing purposes, be multiplied by the following constants:

Average Monthly Power Factor	Constant
1.00	0.951
.95	0.965
.90	0.981
.85	1.000
.80	1.023
.75	1.050
.70	1.0835
.65	1.1255
.60	1.1785
.55	1.2455
.50	1.3335

For average monthly power factor between any two steps shown above, use the constant corresponding to the higher power factor.

PRIMARY METERING DISCOUNT:

A 2.75% discount on the combined demand and energy charges will be allowed provided the customer owns the substation and energy is measured at or equivalently measured by compensation to the voltage level of the supply side of the substation.

BULK SALES DISCOUNT:

For each full hour in excess of 200 hours per month use of billing demand, the following discount on the combined demand and energy charges will be allowed when the billing demand exceeds 200 KW per month:

(a) For number of hours exceeding 200 but not over 400 -

$$\text{Discount (\%)} = (.055\%) \times (\text{Hours} - 200) \times \left(1 - \frac{200}{\text{Demand}}\right)$$

(b) For number of hours exceeding 400 -

$$\text{Discount (\%)} = [11\% + (.02\%) (\text{Hours} - 400)] \times \left(1 - \frac{200}{\text{Demand}}\right)$$

Where hours = metered monthly KWH ÷ billing demand

(OVER)

SPECIAL DISCOUNT:

A 50% discount on the combined demand and energy charges will be allowed to Government-owned metered Streetlighting Service for public streets.

A 20% discount on the combined demand and energy charges will be allowed to Educational Institutions duly registered and certified by the Ministry of Education and Culture and to Private Hospitals duly registered and certified by the Bureau of Medical Services, provided the metered service serves solely the energy requirements of the educational institution and/or private hospital.

A 12% discount on the combined demand and energy charges will be allowed Sales for Resale customers distributing energy outside the Company's franchise area.

CURRENCY EXCHANGE RATE ADJUSTMENT CLAUSE:

When the average of the daily U.S. dollar selling rate of the Philippine National Bank during a calendar quarter is less or more than 6.80 pesos to one (1) U.S. dollar, a corresponding adjustment shall be made on all billings for the succeeding calendar quarter as computed under this rate schedule. Such adjustment shall be a reduction or an increase at the rate of 0.2 percent of the basic demand and energy charges for each full 0.10 pesos decrease below or increase above 6.80 pesos to one (1) U.S. dollar of the above-mentioned average of the daily selling rate of the U.S. dollar.

All Government-owned Hospitals duly registered and certified by the Bureau of Medical Services and all metered Streetlighting Services for public streets shall receive the benefit of a downward adjustment in their rate should the exchange rate go down below P6.80 as specified above but shall, however, be exempted from any upward adjustment should the exchange rate go above P6.80 to U.S. \$1.00.

PURCHASED POWER ADJUSTMENT CLAUSE:

When the cost of the electric power purchased by the Manila Electric Company from the National Power Corporation (NPC) during a month (supply month) increases above or decreases below a base price of P0.1433 per kilowatthour, the charge per kilowatthour of electric power sold by the Company during the second succeeding month (billing month) shall be correspondingly increased or decreased by the following adjustment, rounded off to the nearest P0.0001.

$$\text{Adjustment per KWII} = \frac{A - P0.1433 \times B}{C \times D}$$

Where: A .. Billing of NPC to the Company during the supply month.

B .. Total kilowatthour of electric power purchased by the Company from NPC during the supply month.

C .. (1 - franchise tax rate)

D .. Kilowatthour sales affected by the purchased power adjustment during the supply month.

KWII sales and KWII to which purchased power adjustment shall apply refer to billing KWH.

Whenever NPC adjusts retroactively the prices of past delivered electric power, the amount of the adjustment shall be reflected on customer's billings affected by this clause during the subsequent one to three-month billing periods depending on the magnitude of the adjustment.

To recover the adjustment as computed above, the charge per affected KWH of electric power sold by the Company - (i) during the month succeeding the supply month shall be increased by that portion of the adjustment up to the basic energy charge of NPC including any demand charge, when applicable, and (ii) during the second succeeding month (billing month), shall be increased by the remaining portion of the adjustment representing the fuel cost adjustment charges of NPC pertaining to the supply month.

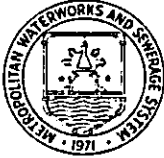
This clause shall not apply to all Government-owned Hospitals duly registered and certified by the Bureau of Medical Services and to metered Streetlighting Service for public streets.

TERM OF CONTRACT:

Not less than one year, automatically renewing.

MANILA ELECTRIC COMPANY

Approved Provisionally By The Board of Energy
on December 4, 1981
HOE Case No. 81-073



REPUBLIC OF THE PHILIPPINES
METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM
Katipunan Road, Balara, Quezon City

June 22, 1981

TO OUR VALUED CONCESSIONERS:

MWSS wishes to announce that the last phase of the water and sewer rate adjustment package approved by the President in October 1978 will now be implemented, effective July 1, 1981.

It may be recalled that after the last MWSS rate increase, 5 years ago, the prices of oil, power, chemicals and other inputs to MWSS operations, continuously increased. Thus, in spite of the President's desire to avoid or delay the inevitable, he was finally constrained to allow a re-structuring of MWSS water and sewer rates in a package, spread over a 3-year period from 1978 to 1980, preceded by two (2) days of public hearings.

This phase of the package should have been effective October 1980 but we had voluntarily postponed its implementation several times in order to allow as much time lag as possible between the phases. However, because of the rapid erosion of the financial capability of MWSS to carry out its improvement programs, further delays would only exacerbate its ability to deliver to you the services Metro-Manilans badly need.

The MWSS rates have a built-in social pricing scheme whereby families in the low-income brackets would be affected only minimally, and even those in the higher income brackets who could reduce their consumption to about one cubic meter or less a day. For those in this consumption range, the increase would only be from ₱0.02 to ₱0.08 per cu.m. (equal to 50 kerosene tins of 20 liters). For consumption over one cubic meter a day, only ₱0.02 to ₱0.03 per cu.m. would be added for every multiple of 20 cu.m. and a further ₱0.06 from 91-100 cu.m. consumption a month.

The new schedule of adjusted rates and fees for water and sewerage services, effective July 1, 1981, is as follows:

<u>Range of Consumption</u>	<u>Present Rate</u>	<u>Adjusted Rate</u>
A. <u>Domestic Users</u>		
1-15 cu.m.	₱ 4.50 (₱0.38/cu.m.)	₱ 4.80 (₱0.40/cu.m.)
16-20 cu.m.	7.40 (0.41/cu.m.)	8.10 (0.45/cu.m.)
21-25 cu.m.	10.50 (0.46/cu.m.)	12.00 (0.52/cu.m.)
26-30 cu.m.	15.00 (0.54/cu.m.)	17.40 (0.62/cu.m.)
31-50 cu.m.	0.60/cu.m.	0.70/cu.m.
51-70 cu.m.	0.80/cu.m.	0.93/cu.m.
71-90 cu.m.	0.95/cu.m.	1.11/cu.m.
91-100 cu.m.	1.10/cu.m.	1.30/cu.m.
Over 100 cu.m.	1.25/cu.m.	1.51/cu.m.
Average Domestic	0.87/cu.m.	1.03/cu.m.
B. <u>Commercial Users</u>		
1-1000 cu.m.	₱ 1.25/cu.m.	₱ 1.53/cu.m.
Over 1000 cu.m.	1.40/cu.m.	1.76/cu.m.
Average Commercial	1.35/cu.m.	1.68/cu.m.
C. <u>Industrial Users</u>		
1-1000 cu.m.	₱ 1.85/cu.m.	₱ 2.24/cu.m.
Over 1000 cu.m.	2.00/cu.m.	2.49/cu.m.
Average Industrial	1.97/cu.m.	2.45/cu.m.
D. <u>Water Sold to Ships and Other Sea Transport</u>		
<u>Consumption regardless of quantity</u>		
	₱3.25/cu.m.	₱4.00/cu.m.
Raw Water	₱0.37/cu.m.	₱0.45/cu.m.
OVERALL AVERAGE	<u>₱ 1.14/cu.m.</u>	<u>₱ 1.39/cu.m.</u>

Provided that ₱37.00 shall be the minimum charge per month for a minimum consumption of not more than 25 cubic meters.

Provided that ₱55.00 shall be the minimum charge per month for a minimum consumption of not more than 25 cubic meters.

Sewered Services

A. **Applicability** – applicable to all premises connected to the sewer system.

B. **Rates** – the monthly bill for sewered services shall be equal to 60% of the corresponding water bill of the customer.

All unsewered services shall be charged 10% corresponding water bill as environmental charge.

The usual service charges and special service charges (S.C. & S.S.), depending on the size of the water meter, shall as usual be added to the basic adjusted rate.

In addition to this, principally because of the required improvements in infrastructure for sewerage and environmental sanitation facilities, sewer rates have been adjusted from 50% to 60% of the water charge, while premises not served by the present sewerage system would have to pay an additional ten percent of the water charge as an environmental charge, to defray the costs of low-cost and interim sanitation programs being undertaken by MWSS to benefit the entire community, but particularly to households not directly connected to MWSS sewer system.

We thank you for your understanding and support to bring about adequate water supply and a cleaner environment for our communities and our families.


OSCAR I. ILUSTRE
 General Manager

3-6 輸送・関税

3-6-1 輸送費

日本から建設現場までの資機材の輸送に必要な諸掛りは、1982年2月現在で下記の様であるが、実際に着工して、必要な時期までに、海上輸送費は1～2回の値上げを見込まねばならず、その他の経費も値上りするものと思われる。

1. 梱包費		¥9,000～12,000/m ³
2. シッピングチャージ		¥3,000/FT
3. 海上輸送費		\$ 53.00/m ³
	BAF	34.3% \$ 18.18/m ³
	CAF	12.3% \$ 6.52/m ³
	計	\$ 77.70/m ³
4. マニラ港荷降しと敷地までの陸上輸送		¥6,300～13,000/FT
5. 監督及び取扱い手数料		¥2,000～4,000/FT
6. 保険料 (Insurance: I)		

$$I = (A + I) \times 1.1 \times r$$

A: C & F

C: Cost

F: Freight

保険料率 r: abt. 0.38%

FOB価格の0.3%程度

3-6-2 関 税

通常、Consular Invoice、Commercial Invoice に表示してある価格プラス10%に対して、商品により10~100%の範囲で課税される。しかしながら、フィリピンでは円クレ（有償/無償）に限らず、すべてのNational Project にかかわる購入品については Import Duty は免税されている。

主要建設資材および建設機械の関税率は次のとおりである。

	%	
	(現 行)	(低 減 予 定)
1) Portland Cement	50	
2) National River and Sea Sands	10	
3) Pitch obtained from Coaltar	10	
4) Paints and Enamels	100	(1981-90%、'82-80%、'83-70%)
5) Cast, Rolled or Sheet Glass	70	('81-60%、'82-50%、'83-40%)
6) Hot Rolled Concrete or Reinforcing Steel Bars	50	('81-40%、'82-30%、'83-20%)
7) Common Wire Finishing Nails	70	('81-60%、'82-50%、'83-40%)
8) Bolts & Nuts	50	('81-40%、'82-30%、'83-20%)
9) Centrifugal Water Pumps	30	
10) Household Type Electrical Equipments (many items are broken down as flow 3 rates		
A)	100	('81-80%、'82-70%、'83-60%)
B)	70	('81-60%、'82-50%、'82-50%)
C)	50	(No modified rate)
11) Passenger Motor Cars (New or Used)	100	
12) Motor Vehicles for Transport (New or Used)	30	

3-7 入札・契約制度

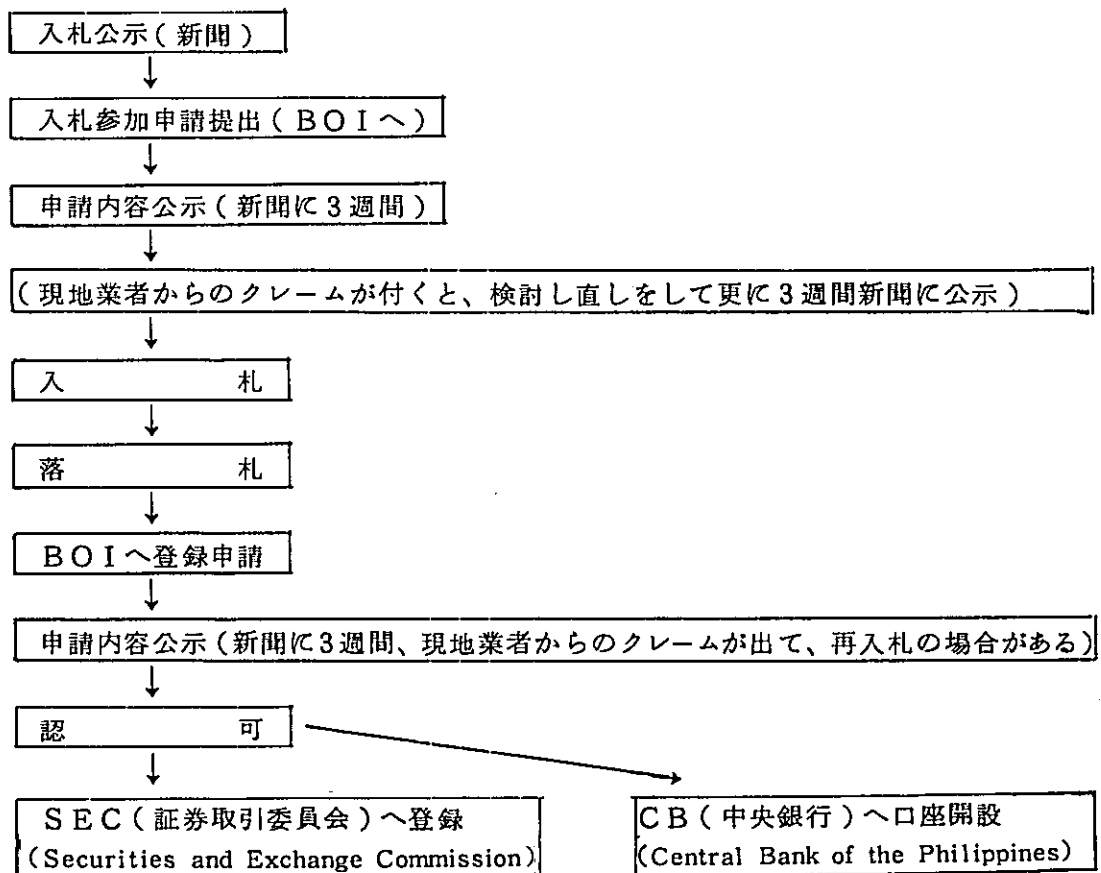
3-7-1 入札制度

一般にフィリピンにおける公共事業省、政府機関が発注する工事の入札案内は新聞に公示され、この公示に応札は現地業者に限る旨が示されていないならば、外国業者であっても参加可能であり、原則として現地業者のように事前登録の必要はない。しかし、為替管理により現地通貨から外貨への転換が非常に厳しく、ペソから外貨への交換は、口座開設の際に事前認可を中央銀行から受けておかなければならず、総利益の30%までとなっているため、現在日本の建設業者が外国企業として応札可能な工事は、外貨ポジションの大きい（即ち、現地通貨ポジションを全てあるいは殆んど現地で消化し得る）世銀、アジア、OECDからの融資案件または日本からの無償援助のプロジェクトに絞られるのが実情である。

(1) Local Fund の場合

外国業者がLocal Tenderに参加しようとする場合は、各案件ごとに入札以前にBOI (Board of Investment) に入札申請しなければならず、BOIはこれを受けて申請内容を3週間新聞に公示し、現地業者からのクレームがなければ応札許可となるが、クレームが付くと検討し直しをしたうえ、更に3週間の新聞公示をする。

以上および落札後の手続きは次のとおりである。



ただし、外国業者がLocal Fund のプロジェクトに参加が認められた場合でも、入札価額については15%のハンディキャップが課せられている。

入札の審査に当っては、AGE方式(The Allowable Government Estimate)に基づいて審査がおこなわれる。AGE方式とは全入札価格の平均値に発注者予定価格を加えてそれを2で除した数値をAGEとし、個々の入札金額がAGEを超えるものあるいはAGEの70%を下廻るものは審査の対象から除外するものである。

(2) 世銀、アジ銀プロジェクトの場合

外国業者も単独で参加可能であり、通常の資格審査が実施される。ただし、ローカル業者とのJoint Operationが要求される。

(3) 日本からの無償援助、円借款案件の場合

無償援助案件の場合は日本業者に限られ、円借款案件については、現在、一般にLDCアンタイトであるので、日本業者、現地業者、韓国・台湾等の第3国業者の参加が可能である。いずれの場合も資格審査を経て入札が実施されるので、現地での事前の登録は不要である。

3-7-2 契 約

契約条件は一般にFIDICに準じており、建築工事においては、Philippines Institute of Architectsが発行しているGeneral Condition が用いられるケースもある。

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