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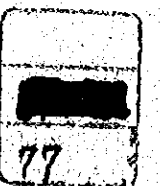
THE REPUBLIC OF THE PHILIPPINES

FEASIBILITY REPORT  
ON  
THE GRAIN TERMINAL CONSTRUCTION PROJECTS  
IN  
MANILA AND CEBU

DRAWINGS

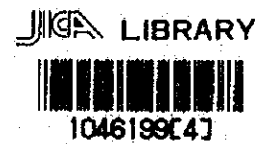
MAY 1977

JAPAN INTERNATIONAL COOPERATION AGENCY



THE REPUBLIC OF THE PHILIPPINES

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ON  
THE GRAIN TERMINAL CONSTRUCTION PROJECTS  
IN  
MANILA AND CEBU



DRAWINGS

国際協力事業団	
受付 月日	87.2.26
倉庫 No.	0837A
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MAY 1977

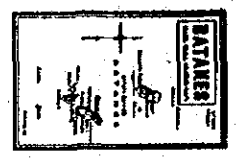
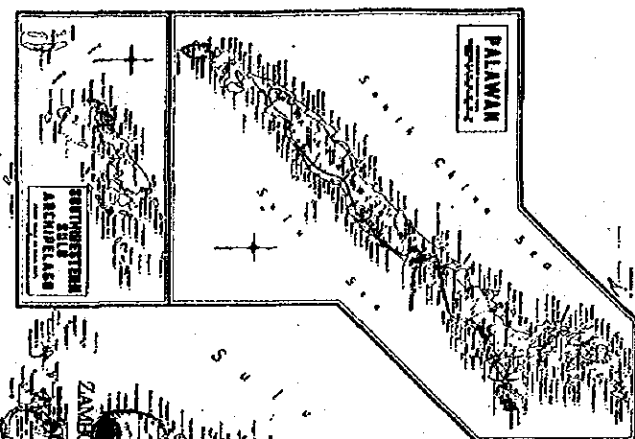
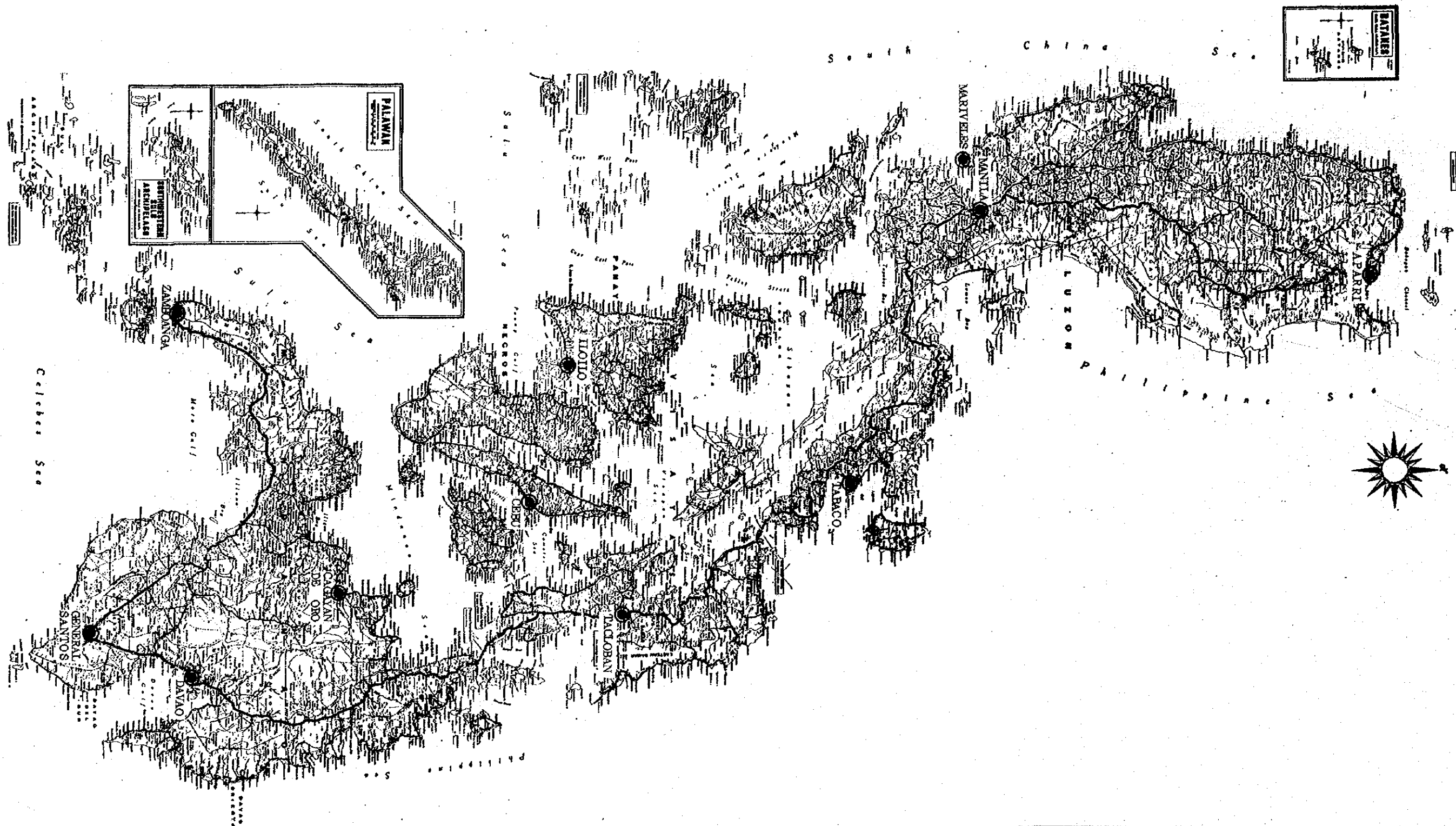
JAPAN INTERNATIONAL COOPERATION AGENCY

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES

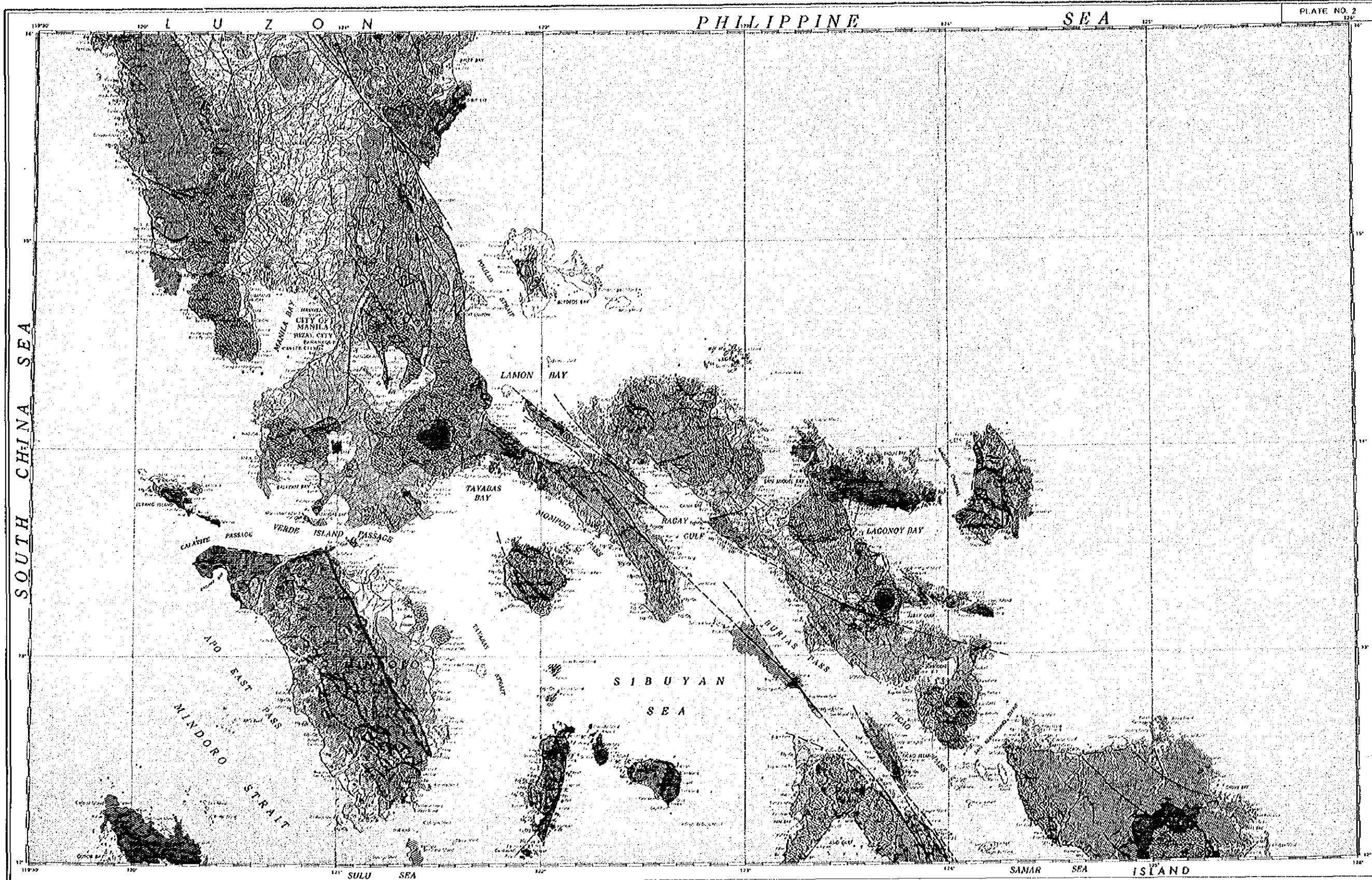
PLATE No.	DRAWING No.		PLATE No.	DRAWING No.	
1	SGP-M-001	MAP OF THE PHILIPPINES	20	SGM-E-003	MANILA SILO INTAKE CONTROL FLOW CHART
2	SGP-M-002	MANILA GEOLOGICAL MAP	21	SGM-E-004	MANILA SILO DISCHARGE CONTROL FLOW CHART
3	SGP-M-003	CEBU GEOLOGICAL MAP	22	SGM-E-005	MANILA SILO STANDARD SEQUENCE
4	SGP-M-004	LEGEND OF GEOLOGICAL MAP	23	SGM-B-001	MANILA EXPLANATORY DIAGRAM OF SOIL EXPLORATION
5	SGP-M-005	MAP OF MANILA AND VICINITY	24	SGM-B-002	MANILA SILO ELEVATION
6	SGM-G-001	MANILA INTERNATIONAL PORT DEVELOPMENT PLAN	25	SGM-B-003	MANILA SILO SECTION
7	SGM-G-002	MANILA BIRD'S EYE VIEW	26	SGM-B-004	MANILA SILO 1ST FL. PLAN
8	SGM-G-003	MANILA GENERAL LAYOUT PLAN "A,"	27	SGM-B-005	MANILA SILO 2ND, 3RD AND 4TH FL. PLAN
9	SGM-G-004	MANILA GENERAL LAYOUT PLAN "B,"	28	SGM-B-006	MANILA SILO 5TH, 6TH AND 7TH FL. PLAN
10	SGM-G-005	MANILA SILO FLOW SHEET	29	SGM-B-007	MANILA SILO 8TH FL. PLAN
11	SGM-M-001	MANILA SILO LAYOUT OF MECHANICAL EQUIPMENT SECTION	30	SGM-B-008	MANILA SILO 9TH FL. PLAN
12	SGM-M-002	MANILA SILO LAYOUT OF MECHANICAL EQUIPMENT 1ST FL. PLAN	31	SGM-B-009	MANILA WAREHOUSE ELEVATION
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15	SGM-M-005	MANILA SILO LAYOUT OF MECHANICAL EQUIPMENT 6TH AND 7TH FL. PLAN	34	SGM-B-012	MANILA ADMINISTRATION BUILDING
16	SGM-M-006	MANILA SILO LAYOUT OF MECHANICAL EQUIPMENT 8TH AND 9TH FL. PLAN	35	SGM-B-013	MANILA WORK SHOP AND GUARD HOUSE
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18	SGM-E-001	MANILA SILO SKELETON DIAGRAM	37	SGM-G-006	MANILA TIME SCHEDULE
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			42	SGC-G-004	CEBU SILO FLOW SHEET
			43	SGC-M-001	CEBU SILO LAYOUT OF MECHANICAL EQUIPMENT SECTION

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES

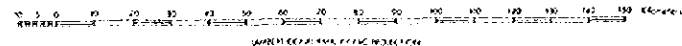
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44	SGC-M-002	CEBU SILO LAYOUT OF MECHANICAL EQUIPMENT 1ST FL. PLAN	63	SGC-B-007	CEBU CORN MILL AND WAREHOUSE ELEVATION
45	SGC-M-003	CEBU SILO LAYOUT OF MECHANICAL EQUIPMENT 2ND, 3RD AND 4TH FL. PLAN	64	SGC-B-008	CEBU CORN MILL AND WAREHOUSE SECTION
46	SGC-M-004	CEBU SILO LAYOUT OF MECHANICAL EQUIPMENT 5TH, 6TH, 7TH AND 8TH FL. PLAN	65	SGC-B-009	CEBU CORN MILL AND WAREHOUSE 1ST FL. PLAN
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60	SGC-B-004	CEBU SILO 1ST, 2ND, 3RD AND 4TH FL. PLAN			
61	SGC-B-005	CEBU SILO 5TH, 6TH, 7TH AND 8TH FL. PLAN			
62	SGC-B-006	CEBU SILO 9TH AND 10TH FL. PLAN			



<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>	
DATE 7 Mar. 1977	TITLE OF DRAWING MAP OF THE PHILIPPINES
DRAWING NO. SGP-M-001	
JAPAN INTERNATIONAL COOPERATION AGENCY	



SCALE 1:100,000 (MERCATOR)



MANILA GEOLOGICAL SURVEY  
 AS HEIGHTS REFERRED TO MEAN SEA LEVEL  
 ELEVATION IN METERS

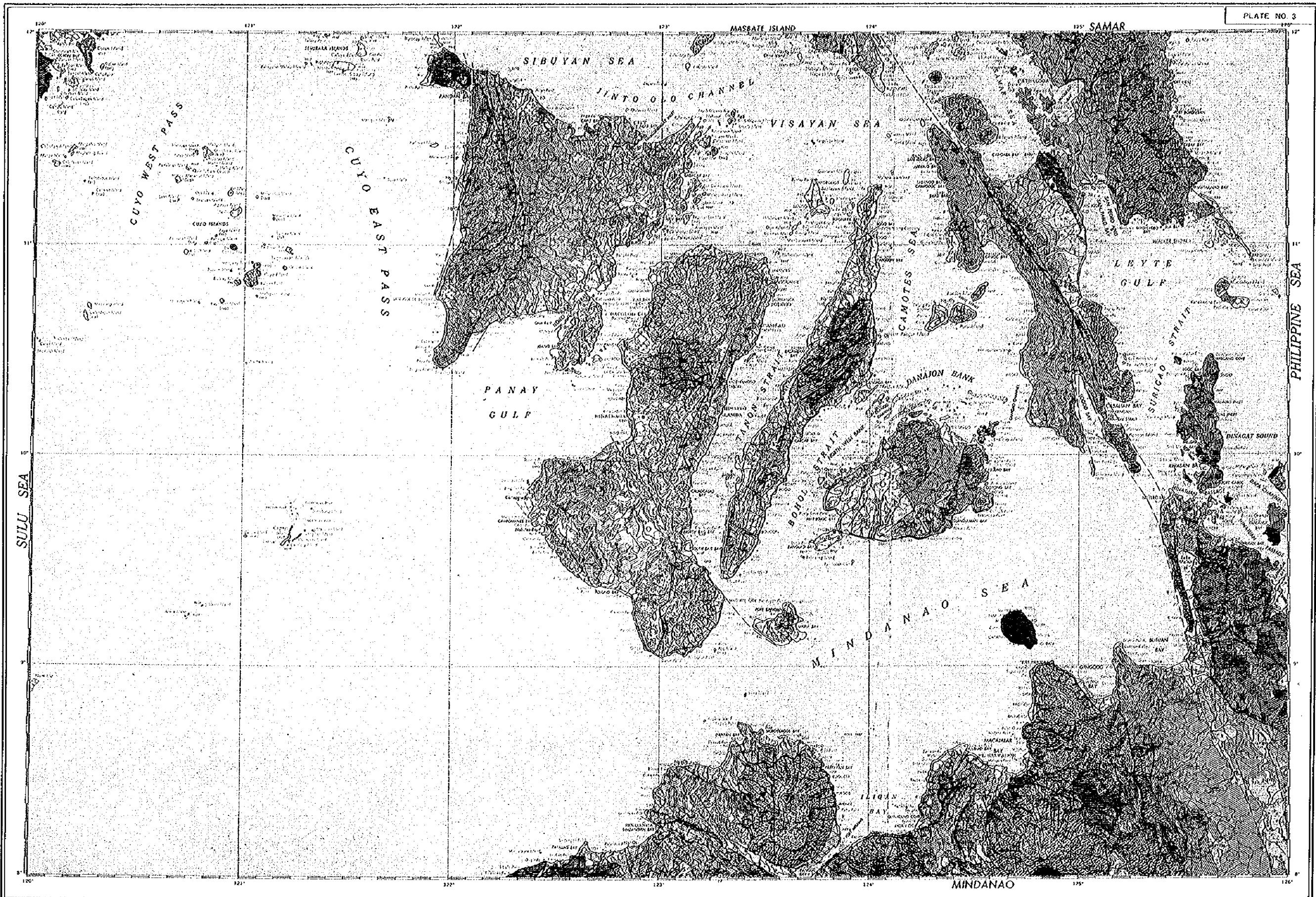
FOR SALE BY THE BUREAU OF MINES, MANILA

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES

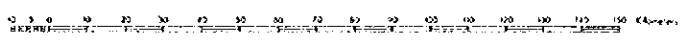
DATE		MANILA GEOLOGICAL MAP
7. Dec. 1977		
DRAWN BY		SCP-M-002

JAPAN INTERNATIONAL COOPERATION AGENCY





SCALE 1:100,000 (APPROXIMATE)



DATA COURTESY OF THE PHILIPPINE  
 GEOLOGICAL SURVEY  
 ALL HEIGHTS REFERRED TO MEAN SEA LEVEL  
 ELEVATIONS IN METERS  
 FOR SALE BY THE BUREAU OF MINES, MANILA

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES

DATE		TITLE OF DRAWING	
3 May 1977		CEBU GEOLOGICAL MAP	
DRAWN BY			
SGP-M-003			

JAPAN INTERNATIONAL COOPERATION AGENCY

LEGEND

SEDIMENTARY AND METAMORPHIC ROCKS

	R	RECENT	Alluvium, fluvialite, lacustrine, paludal, and beach deposits; raised coral reefs, atolls, and beachrock.
	N <sub>3</sub>   Q <sub>1</sub>	PLIOCENE- PLEISTOCENE (4, 5)	Marine and tectonital sediments (molasse). Associated with extensive reef limestone in Bisol region, Visayas, and Mindanao; with pyroclastics in western and southern Central Basin and in northern Bicol Lowland. Predominantly mud and siltstone with tuff in places. Sporadic terrace gravel deposits in some coastal and fluvial tracts. Plateau red earths and/or laterite in some elevated flat land surfaces. Deformation limited to gentle warping and vertical displacement.
	N <sub>2</sub>	UPPER MIOCENE- PLIOCENE (6, 7)	Largely marine clastics (molasse) overlain by extensive, locally transgressive pyroclastics (chiefly tuff, tuffites) and tuffaceous sedimentary rocks. Associated with calcarenite and/or silty limestone in some parts of Luzon, central Visayas, and Mindanao. Reef limestone lenses intercalated with dacite and andesite flows in Zamboanga (western Mindanao). Chiefly ashose and arenite in Palawan. Local bog iron; laterite deposits in some elevated near-plateaued surfaces.
	N <sub>1</sub>	OLIGOCENE- MIOCENE (8, 9, 1)	Thick, extensive, transgressive mixed shelf marine deposits, largely wackes, shales, and reef limestone. Underlain by conglomerate and/or associated with parallel coal measures in places. Sometimes associated with basic to intermediate flows and pyroclastics within Luzon, Visayas, and Mindanao. Largely arkosic and quartzitic clastics (miogeosynclinal type?) in southern Mindoro and Palawan. Generally well indurated. Folded and locally intruded by quartz diorite. The epidermal cover of many folded mountains. In some places probably includes Oligocene (c-d).
	P <sub>β2</sub>	OLIGOCENE (c-d)	Minor limestone and/or wackes and shales. Generally associated with keratophyre and andesite flows. Limestone remnants in Cebu.
	P <sub>β1</sub>	PALEOCENE- EOCENE (a-b)	Thick, extensive, transgressive mixed shelf and deeper water marine deposits, largely wackes and shales (flysch) associated with minor basal conglomerate, reef limestone, and calcarenite, sometimes with dacitic and/or andesitic flows and pyroclastics; with intertongues of parallel coal measures in Catanduanes. Largely arkosic and quartzitic clastics in southern Mindoro and Palawan. Generally moderately folded and intruded by quartz diorite.
	KP <sub>β</sub>	UNDIFFER- ENTIATED	Largely graywacke and metamorphosed shale interbedded and/or intercalated with spilite, basic and intermediate flows, and/or pyroclastics. Undifferentiated as to age. Probably Cretaceous and Paleogene.
	K	CRETACEOUS	Extensive, transgressive graywacke-shale sequence intercalated with spilite. Associated with tuffaceous clastics in Rizal, with limestone lenses in Caramoran Peninsula, Catanduanes, and Central Cebu. Metamorphism up to greenschist facies.
	J	JURASSIC	Akosic, subgraywacke, mudstone in Mindoro (Manalay fm.). Associated with chert in Busuanga and northern Palawan.
	BC	BASEMENT COMPLEX (PRE-JURASSIC)	Undifferentiated amphibolite, quartzofeldspathic and mica schist, and phyllite-slates frequently associated with marble and quartzite (?). Broadly folded; some narrow zones of close folding broken by upthrusts. Prevailing schistosity generally parallel, some oblique and/or perpendicular to bedding.

Absence of pattern on color assigned to various sedimentary rock units indicates major limestone bodies of the same age.

IGNEOUS ROCKS

	NI	NEOGENE	INTRUSIVE ROCKS Largely intra-Miocene quartz diorite. Mostly batholiths and stocks, some lacoliths; also sills, dikes, and other minor bodies. Include granodiorite and diorite porphyry facies and late Miocene dacite. Perovskite in Paleogene and Mesozoic, less widespread in early Miocene rock sequences.
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IGNEOUS ROCKS (cont.)

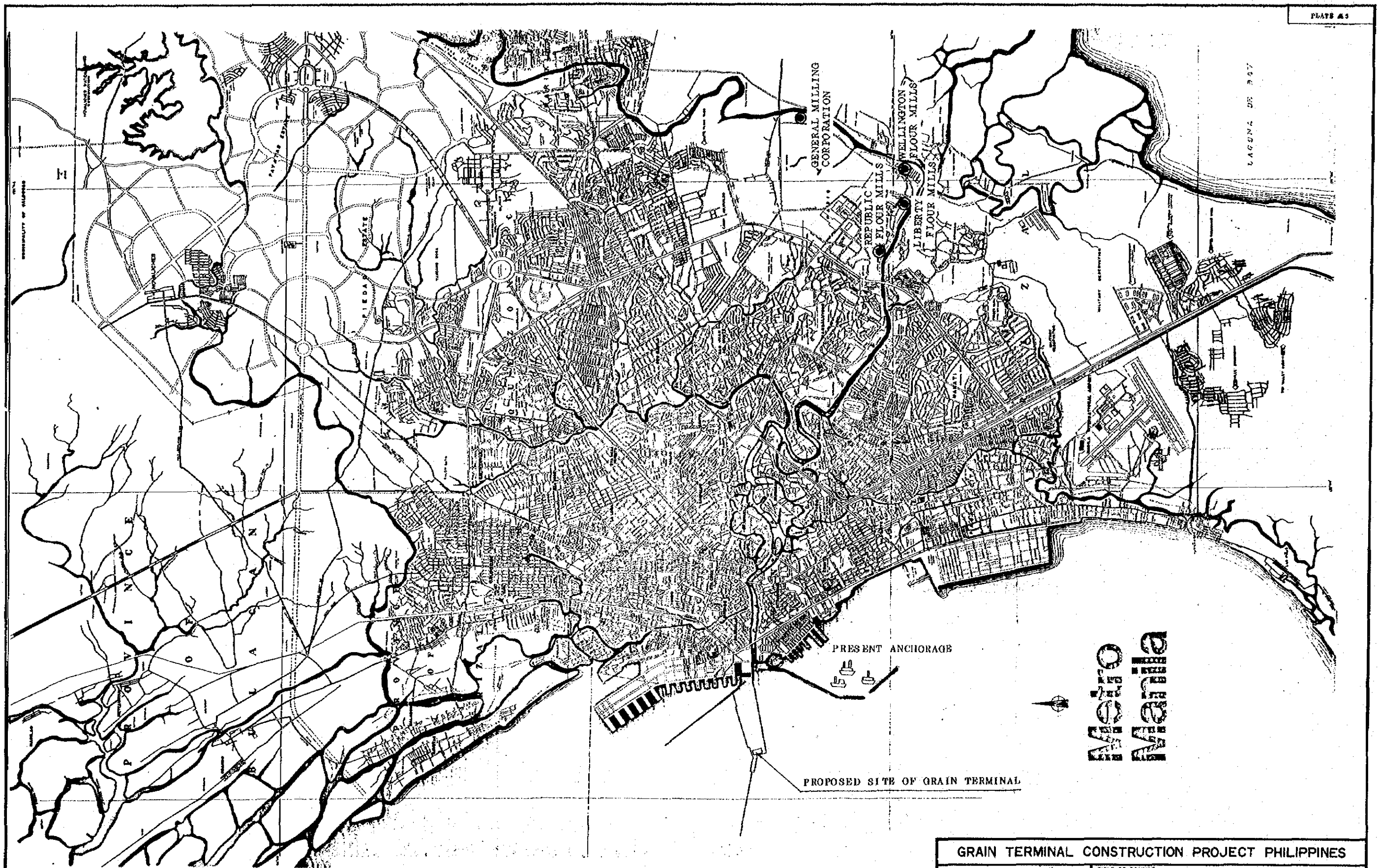
	Pg1	PALEOCENE	Mostly quartz diorite. Probably includes the granodiorite in Camarines Norte and quartz monzonite in Palawan.
	UC	CRETACEOUS- PALEOCENE	Undifferentiated ultramafic and mafic plutonic rocks. Predominantly peridotite associated with late gabbro and/or diabase dikes. Complex layered type in Zambales. Generally thrust or upfaulted into Tertiary and older rock formations. Most bodies probably late Mesozoic to early Tertiary.
	PJI	PRE-JURASSIC(?)	Granite in western Zamboanga. Granodiorite(?) in Batanga.
	QAV	QUATERNARY	Active volcanoes (with eruptions and/or activity since 1616) such as Didicas, Taal, Mayon, Bulusan, Canlon, Caniguan, Mabuharin, Ragang, and Calayo.
	QVP	PLIOCENE- QUATERNARY	Volcanic plain or volcanic piedmont deposits. Chiefly pyroclastics and/or volcanic debris at foot of volcanoes. Plateau basalt in Pagadian and Lanzo regions, Mindanao; associated with pyroclastics north and east of Laguna de Bay, Luzon.
	QV	PLIOCENE- QUATERNARY	Non-active cones (generally pyroclastic andesite); also dacitic and/or andesitic plugs. Basaltic dikes in Binga, Mt Province, Luzon, and in Misamis Oriental, Mindanao.
	N <sub>2</sub>	UPPER MIOCENE- PLIOCENE	Primarily dacite and/or andesite flows, generally with pyroclastics. Sporadic in north Luzon. Locally thick and associated with reef limestone lenses in southern Zamboanga.
	N <sub>1</sub>	OLIGOCENE- MIOCENE	Mostly submarine andesite and/or basalt flows. Intercalated with pyroclastics and clastic sedimentary rocks and/or reef limestone lenses. Largely confined within the axial zones of Luzon, Visayas, and Mindanao.
	P <sub>β2</sub>	OLIGOCENE	Essentially keratophyre and andesite flows. Often with pyroclastics and chert of volcanic origin. Undifferentiated from early Miocene sedimentary rocks in some areas.
	P <sub>β1</sub>	PALEOCENE (?) - EOCENE	Limited dacite and andesite flows and dikes, generally intercalated with and/or intrude Eocene clastics. Included with Eocene sedimentary rocks in this map.
	UV	UNDIFFER- ENTIATED	Metamorphosed submarine flows, largely spilite and basalts, some keratophyres and andesites. Confined to structural highs and/or principal mountain ranges. Often designated in early literature as "Metavolcanics". Most units probably Cretaceous and Paleogene.
	K	CRETACEOUS- PALEOCENE	Essentially spilite and basic flows. Usually intercalated with graywackes. Transgressive on "basement" rocks. Some are included with Cretaceous sedimentary rocks in this map.

GEOLOGICAL SYMBOLS

	Formational boundary
	Anticlinal axis with plunge
	Overturned anticline
	Synclinal axis with plunge
	Overturned syncline
	Close fold
	High angle fault
	Dashed where inferred; arrow indicates strike-slip movement
	Normal fault
	Dashed where inferred; hachures on downthrown side
	Thrust fault
	Dashed where inferred; saw-teeth on overriding side

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES	
DATE	TITLE OF DRAWING
JULY, 1977	LEGEND OF GEOLOGICAL MAP
DATE TO	
SGP-M-004	
JAPAN INTERNATIONAL COOPERATION AGENCY	





**Metro  
Manila**

PRESENT ANCHORAGE

PROPOSED SITE OF GRAIN TERMINAL

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES	
DATE 7-Mar. 1977	TITLE OF DRAWING MAP OF MANILA AND VICINITY
DRAWING NO. SGP-M-005	
JAPAN INTERNATIONAL COOPERATION AGENCY	



INTERNATIONAL PORT BASIN

NORTH HARBOR

NORTH PORT DISTRICT

PROPOSED SITE

GANTRY CRANE RAIL

EXISTING SEAWALL

SLIP ZERO AREA FILL BY MICTI

SAN NICOLAS

FILLING OF THIS AREA BY BPW, CHINA YEAR

CONTAINER WHARF

KEEPER

CONTAINER

POWER

C.P.S. BUILDING

EXISTING EARTH DUNE

ADDITIONAL FILL BY MICTI

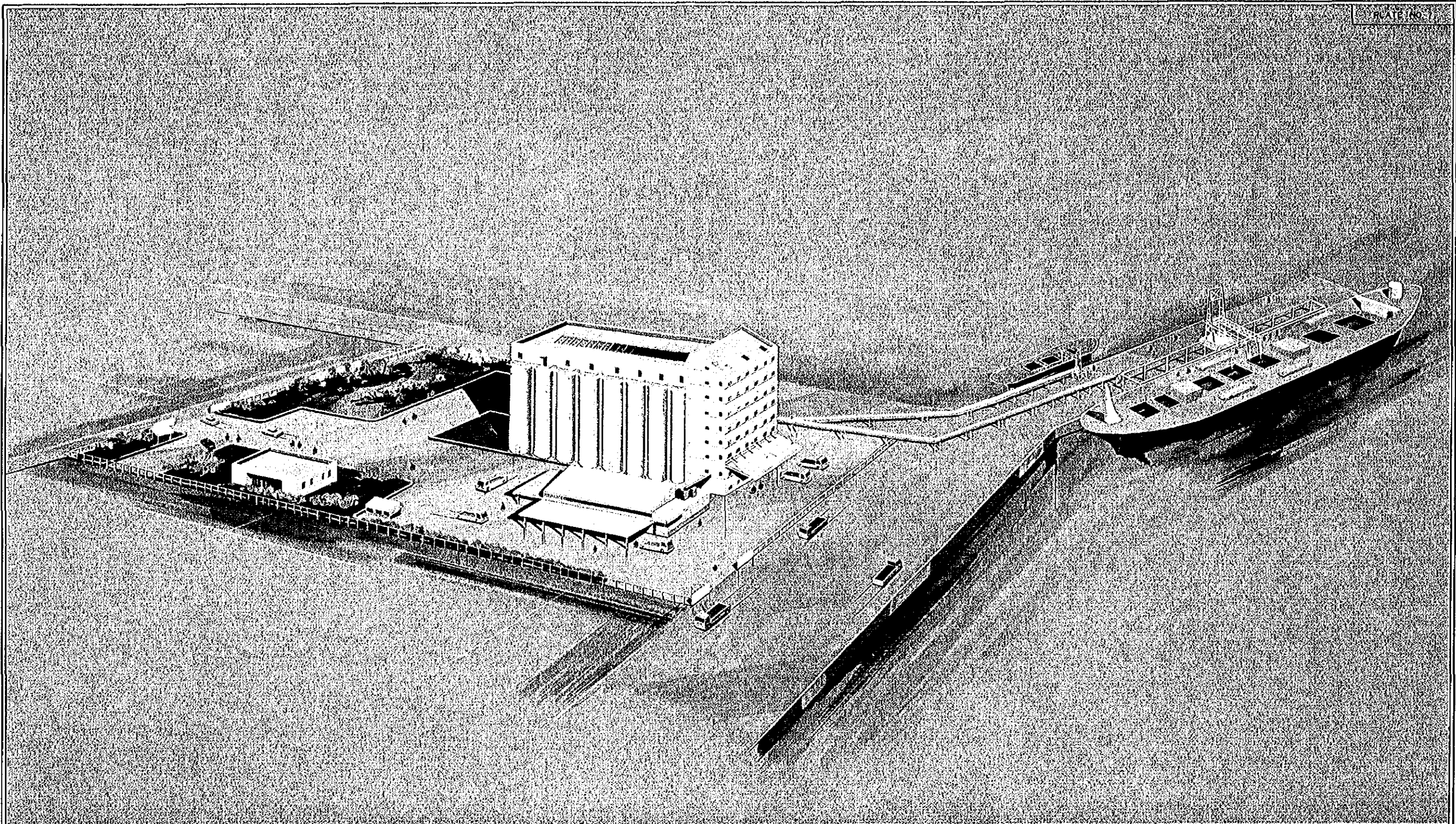
EXISTING BOULDER DUNE

PASIG RIVER

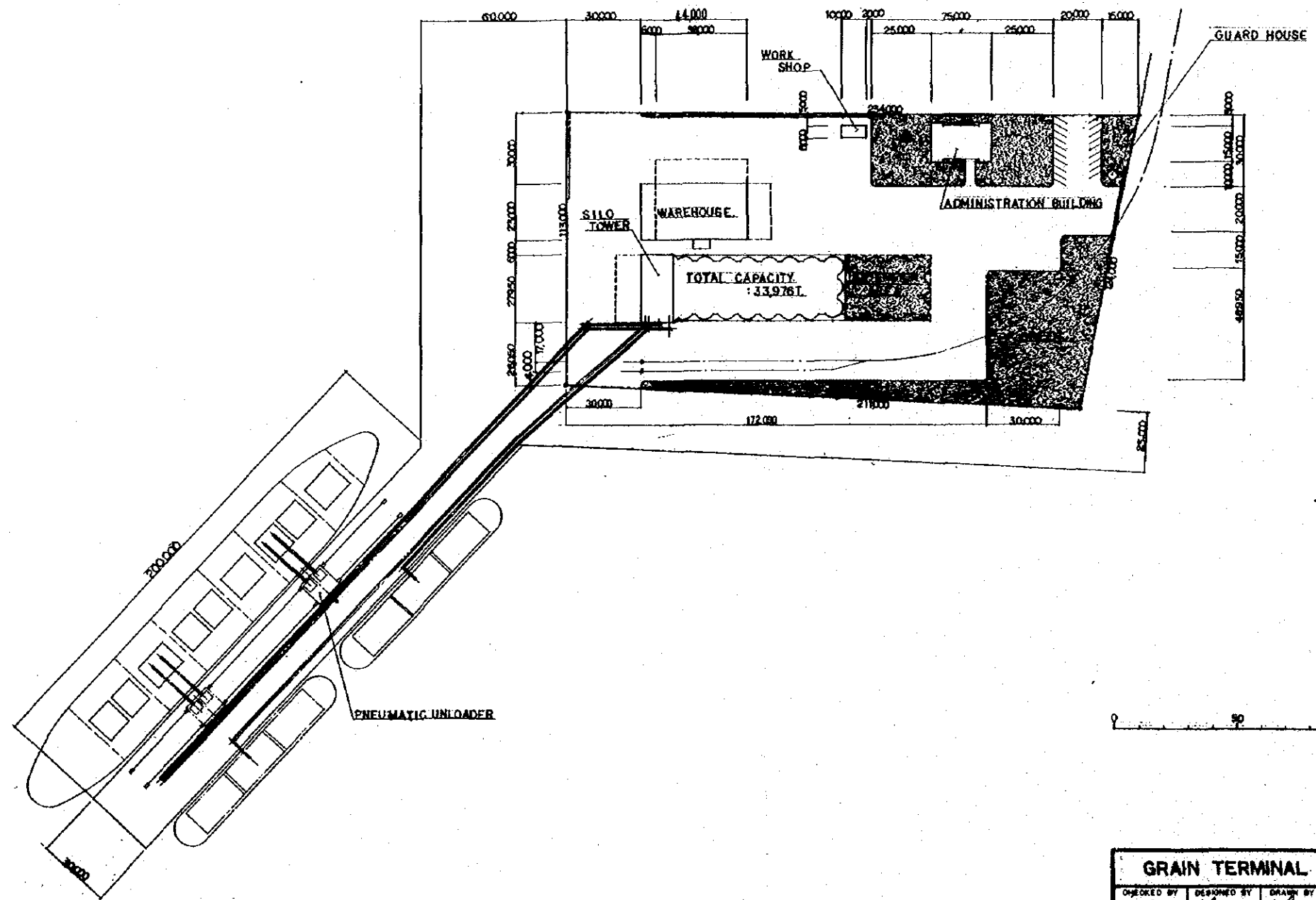
RECLAMATION PLAN

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES	
DATE	TITLE OF DRAWING
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DRAWING NO.	
SGM-G-001	
JAPAN INTERNATIONAL COOPERATION AGENCY	

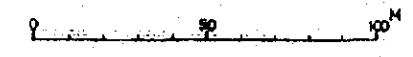




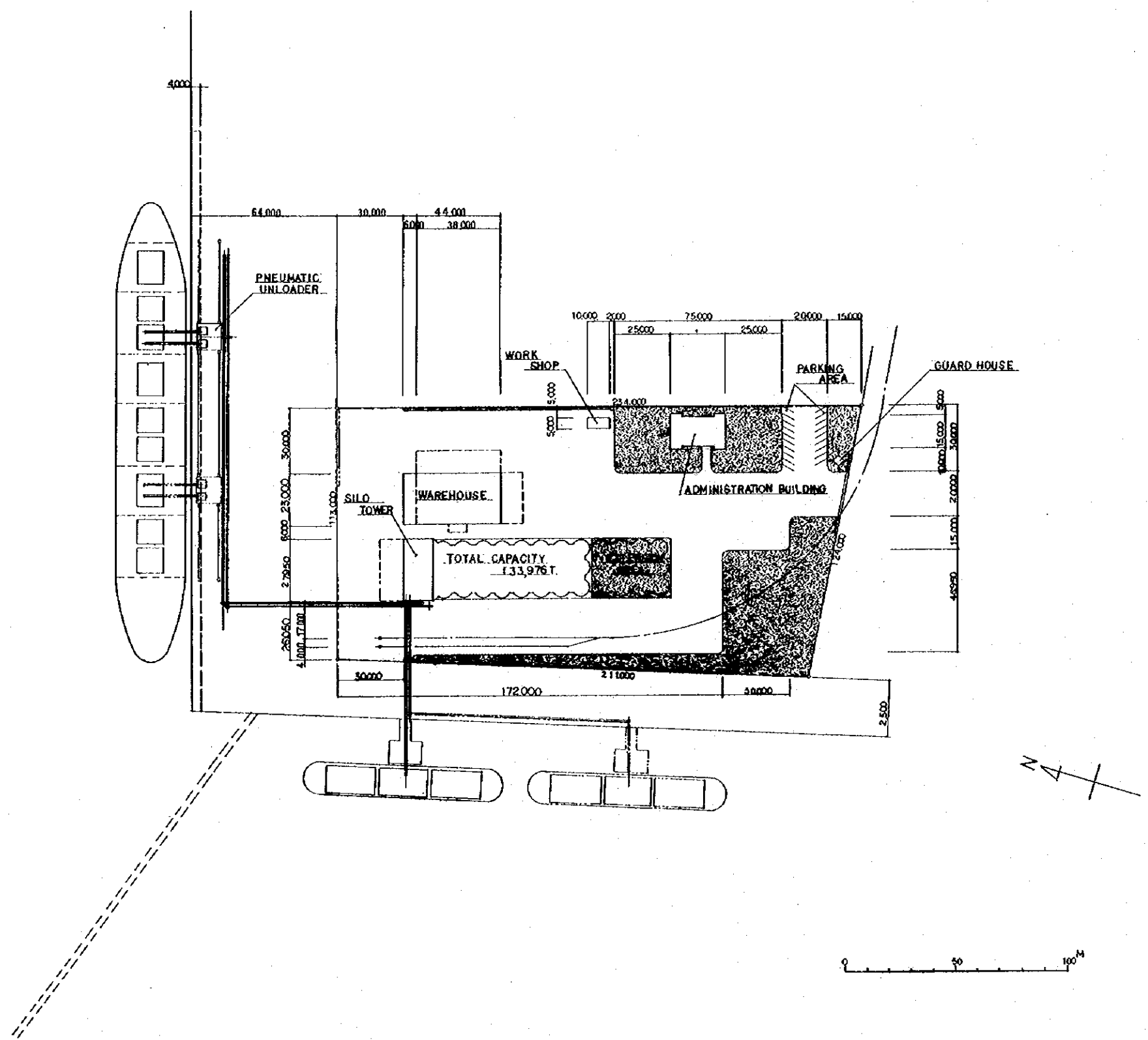
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			MANILA
DATE			BIRD'S EYE VIEW
3.12.1977			
DRAWING NO. SGM-G-002			
JAPAN INTERNATIONAL COOPERATION AGENCY			



REMARKS  
 [Hatched Area] STEP I CONSTRUCTION.  
 [Dotted Area] STEP II CONSTRUCTION.



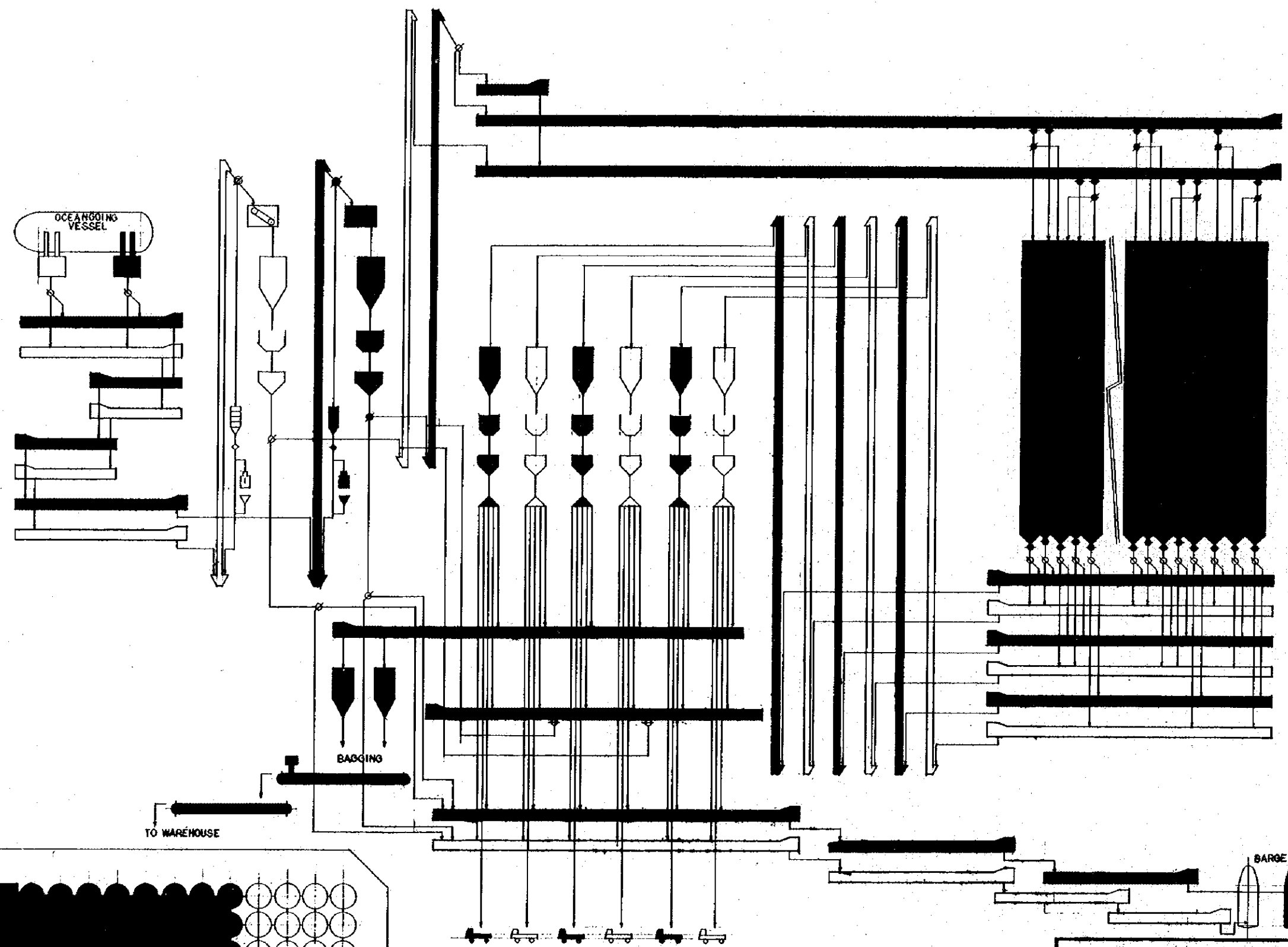
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DATE	GENERAL LAYOUT PLAN 'A'		
7, Mar, 1977			
DRAWING NO.	SQM - G - 003.		
JAPAN INTERNATIONAL COOPERATION AGENCY			



REMARKS:  
 [Solid Line] STEP I CONSTRUCTION.  
 [Dashed Line] STEP II CONSTRUCTION.

<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7 MAR 1977	DRAWING NO. SGM-G-004		MANILA GENERAL LAYOUT PLAN "B"
JAPAN INTERNATIONAL COOPERATION AGENCY			





	BELT CONVEYOR
	BUCKET ELEVATOR
	CHAIN CONVEYOR
	DOUBLE TROUGH CHAIN CONVEYOR
	TWO-WAY CHUTE VALVE
	RUBBLE SEPARATOR
	HOPPER SCALE
	DISTRIBUTOR
	SURGE BIN
	RECEIVING HOPPER
	SAMPLE DIVIDER
	AUTOMATIC SAMPLER
	SEWING MACHINE
	SLIDE GATE

TO WAREHOUSE

BAGGING

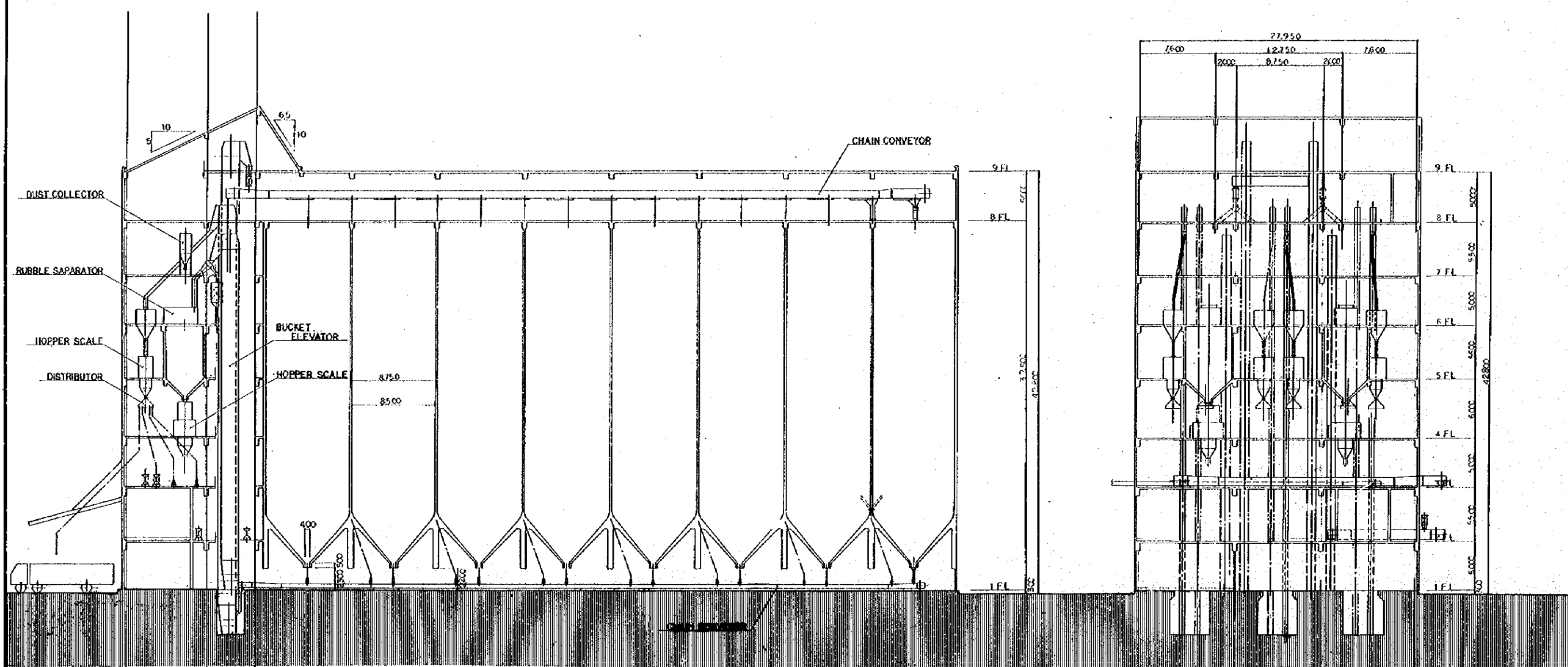
BARGE



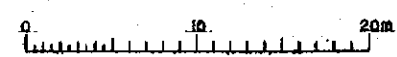
REMARKS  
 STEP I CONSTRUCTION  
 STEP II CONSTRUCTION

<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE			FLOW SHEET
7, Nov 1977			
DRAWING NO.	SGM-G-005		
JAPAN INTERNATIONAL COOPERATION AGENCY			

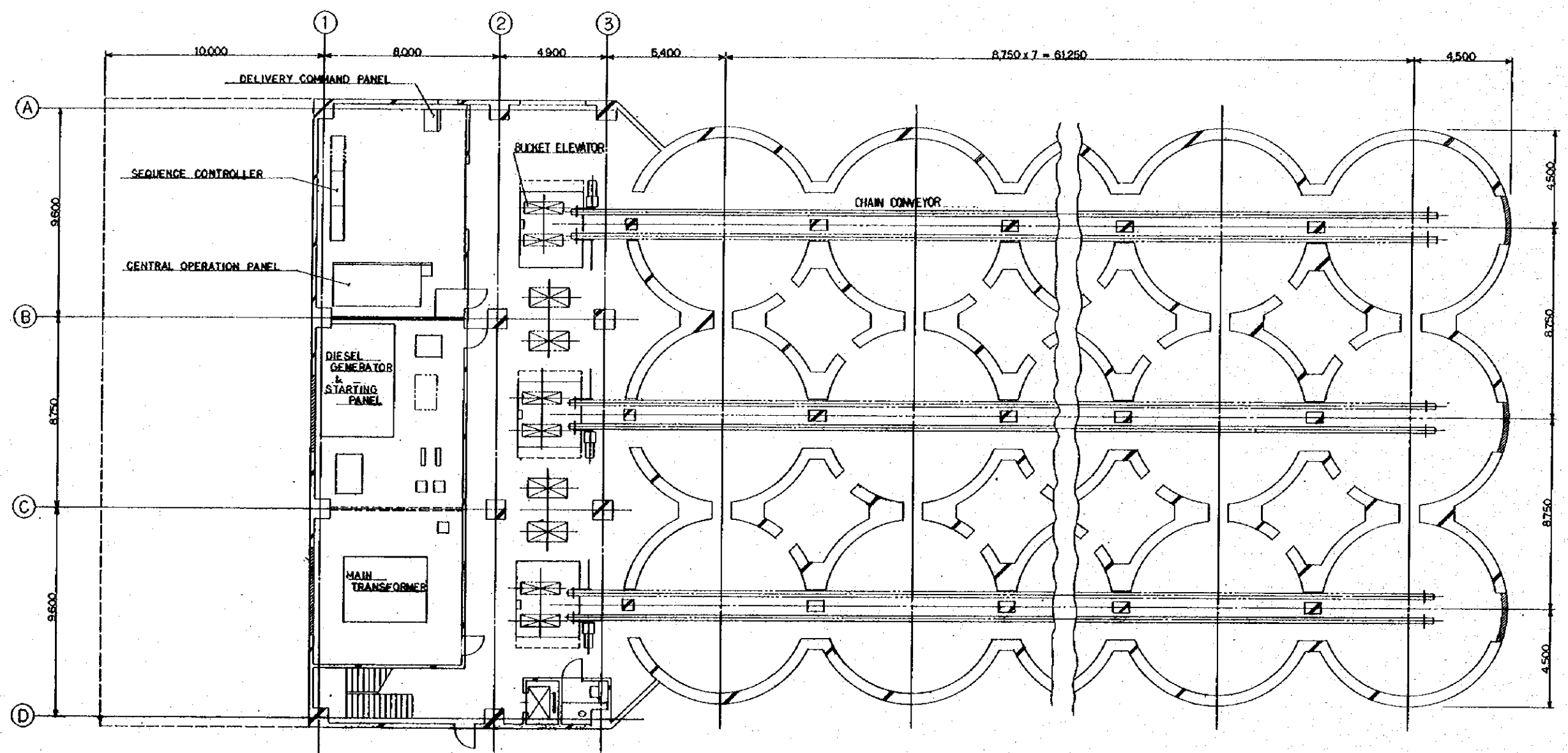




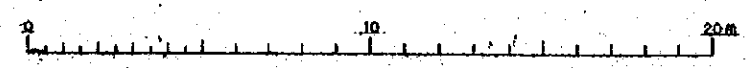
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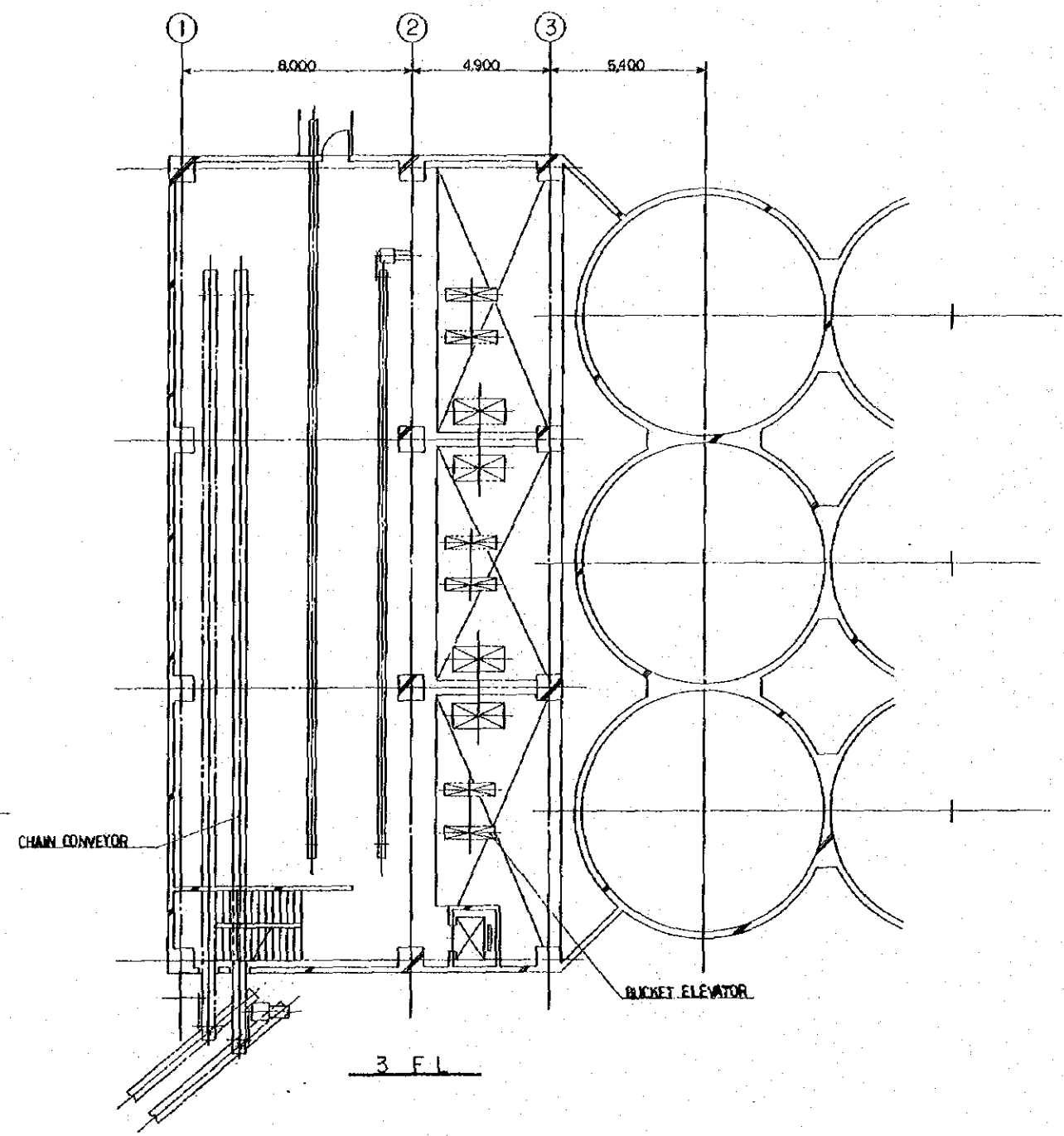
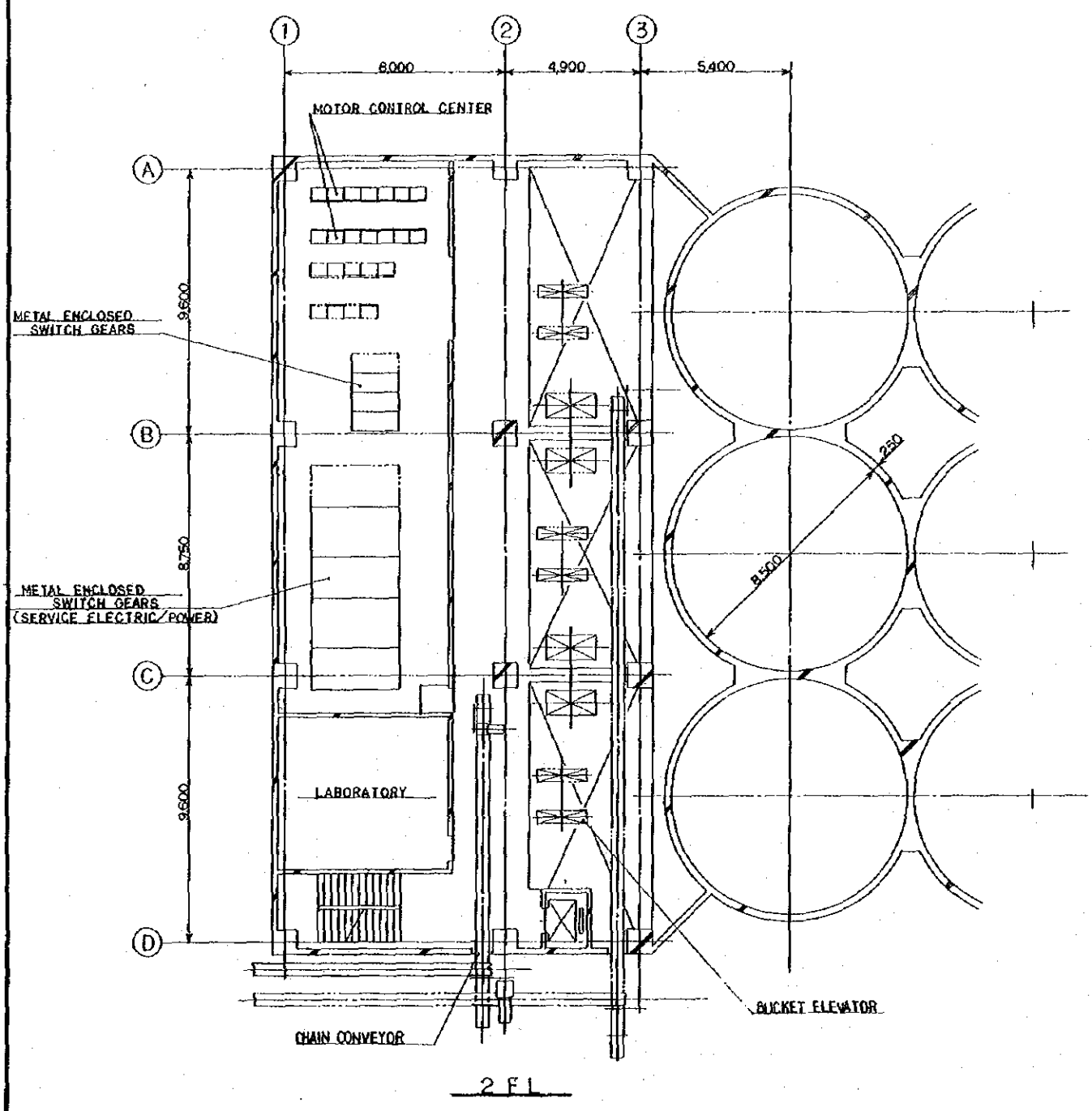
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DATE 7 May 1977			MANILA SILO
DRAWING NO. SGM-M-001			LAYOUT OF MECHANICAL EQUIPMENT
SECTION			
JAPAN INTERNATIONAL COOPERATION AGENCY			



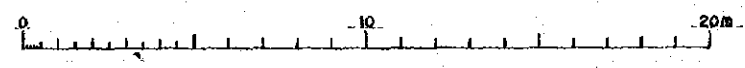
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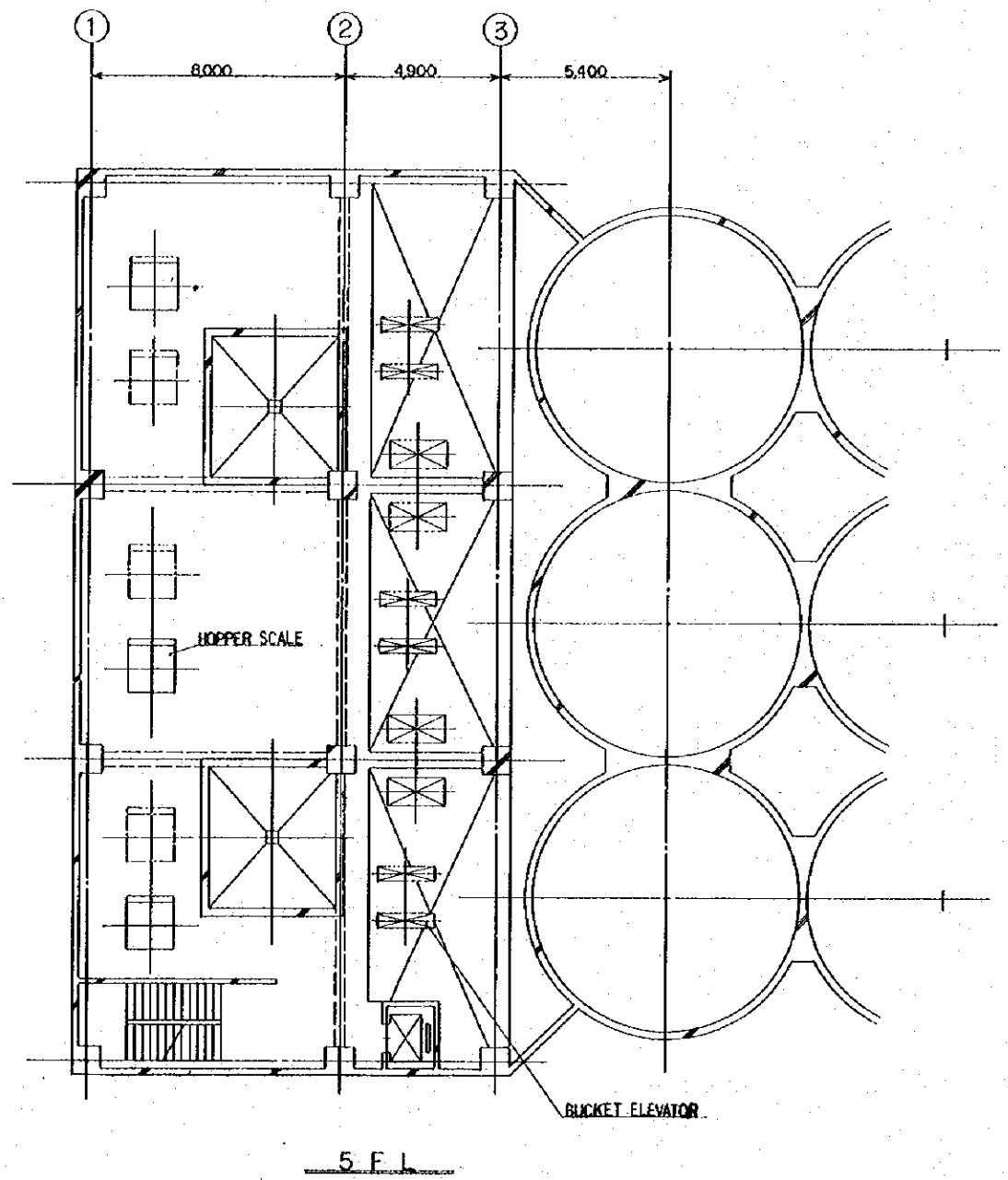
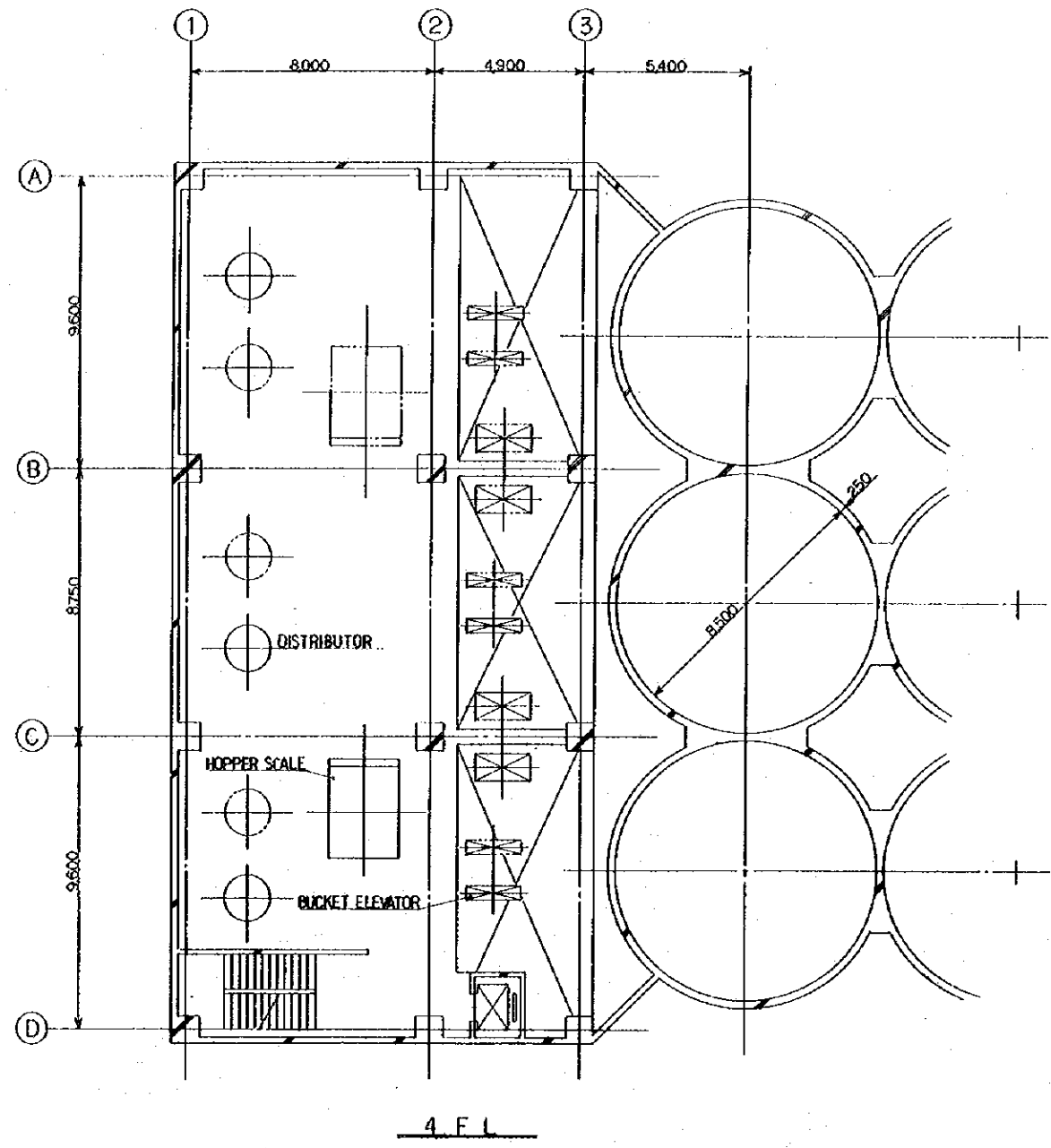
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DATE	7.14.1977		MANILA SILO
DRAWING NO.	SGM - M - 002		LAYOUT OF MECHANICAL EQUIPMENT
			1ST FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



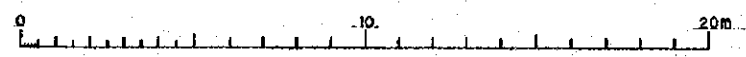
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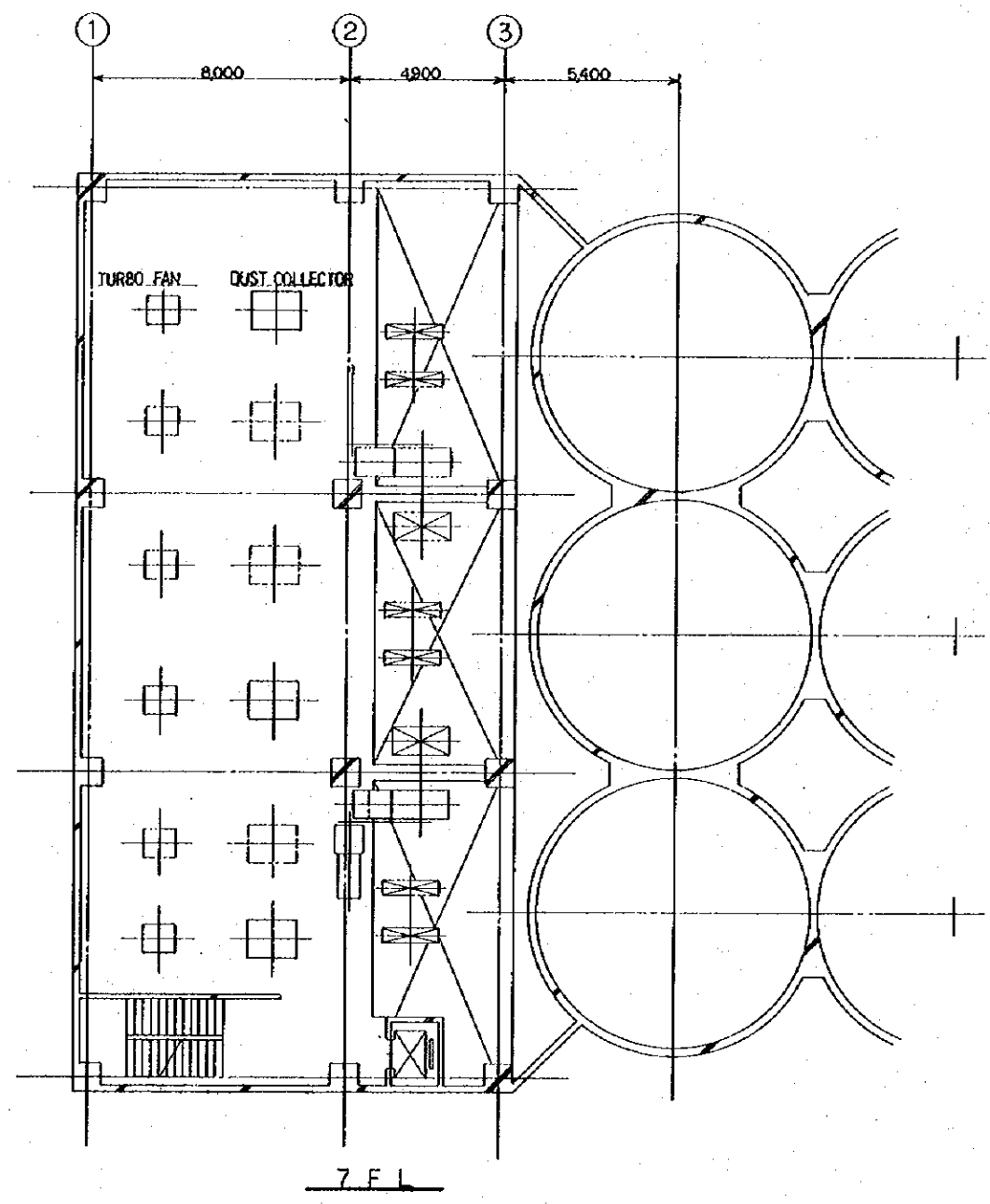
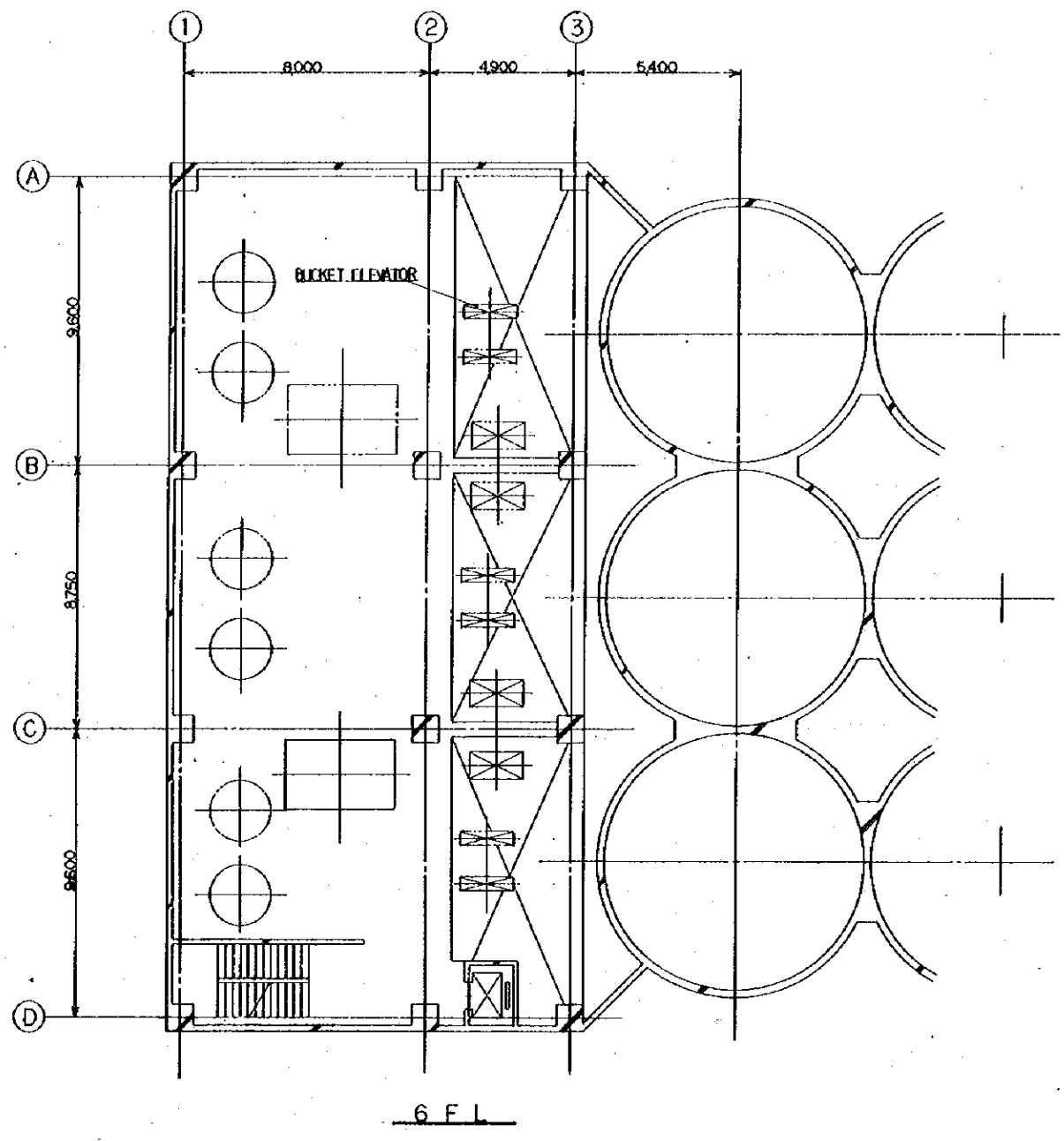
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE	DRAWING NO.		LAYOUT OF MECHANICAL EQUIPMENT
7-JAN-1977	SGM-M-003		2ND AND 3RD FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



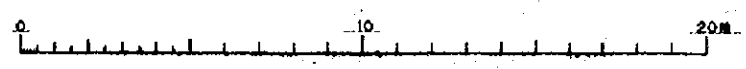
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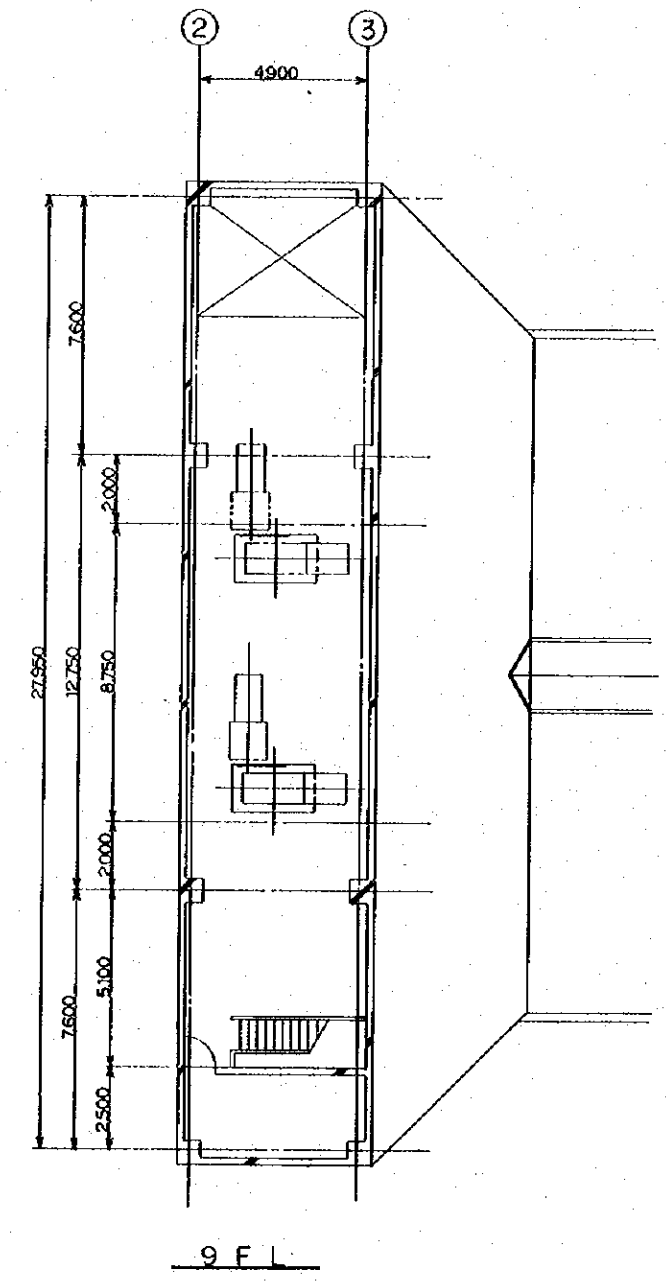
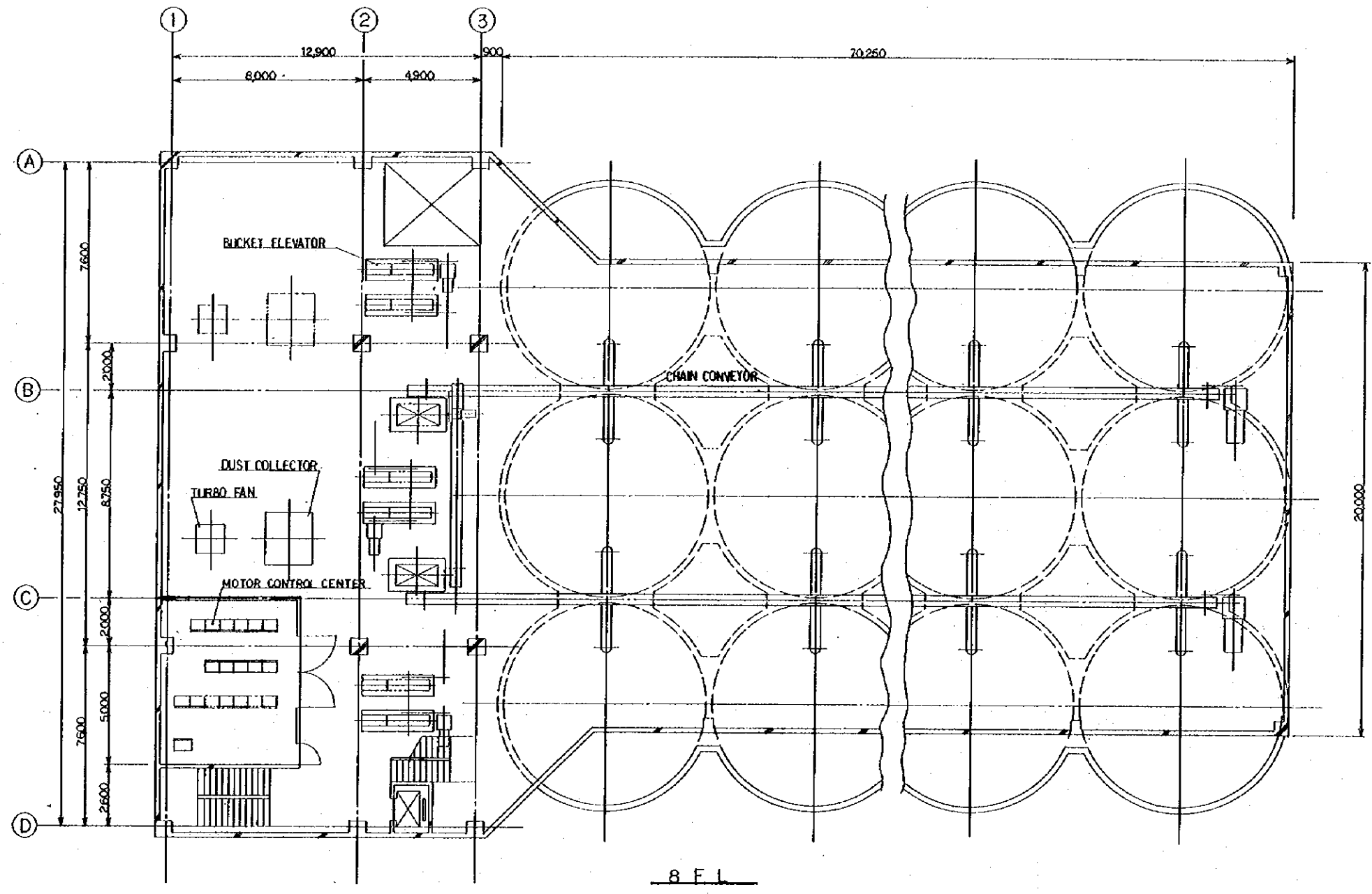
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
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DATE	7 JAN. 1977		LAYOUT OF MECHANICAL EQUIPMENT
DRAWING NO.	SGM-M-004		4TH AND 5TH FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



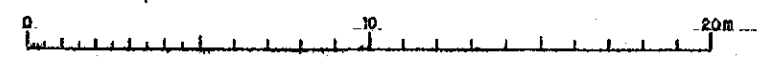
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GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE	LAYOUT OF MECHANICAL EQUIPMENT		
7. Nov. 1975	6TH AND 7TH FL. PLAN		
DRAWING NO.	SGM - No. 005		
JAPAN INTERNATIONAL COOPERATION AGENCY			

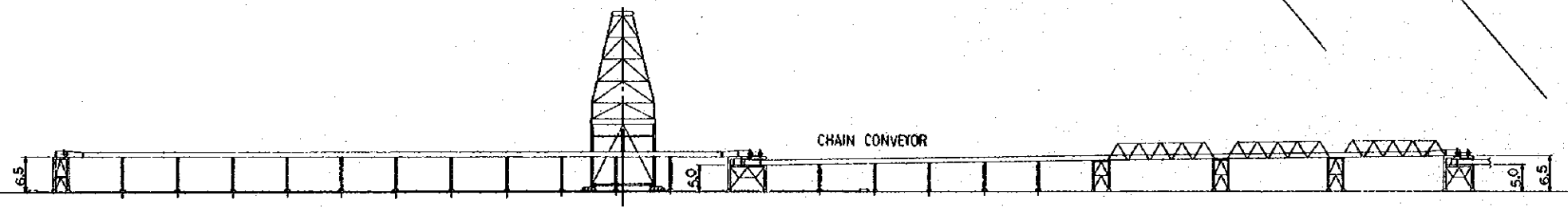
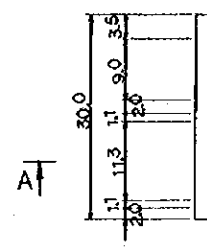
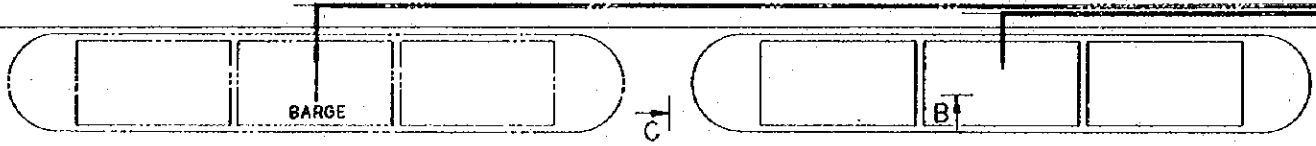
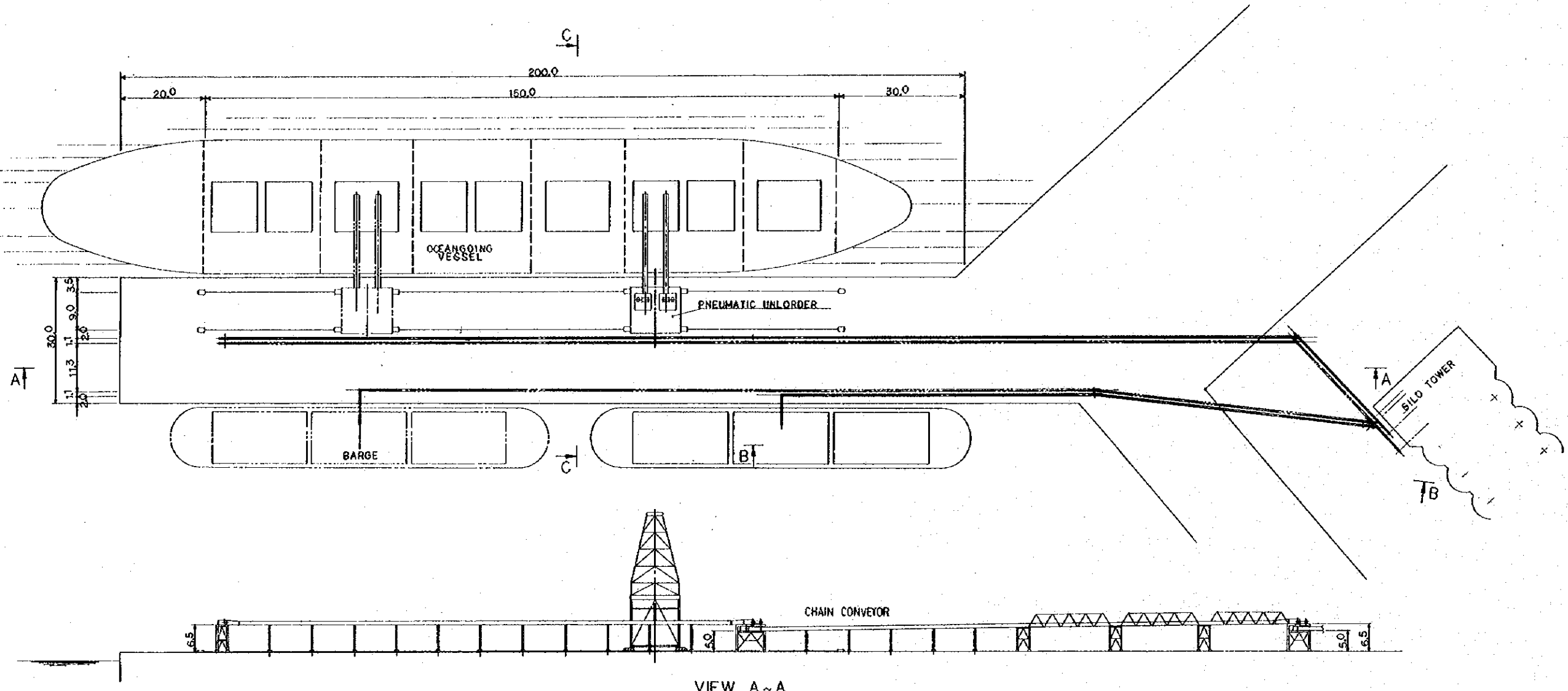


REMARKS  
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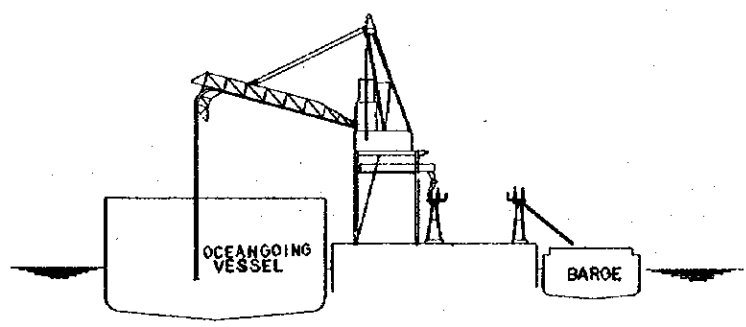


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DATE	DRAWING NO.		LAYOUT OF MECHANICAL EQUIPMENT
7 May 1977	SGM-M-006		8TH AND 9TH FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			

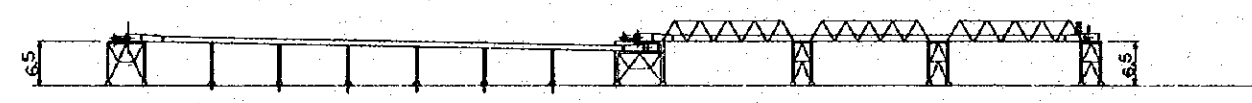




VIEW A~A

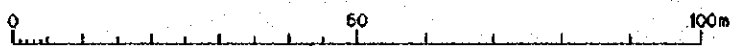


SECTION C~C

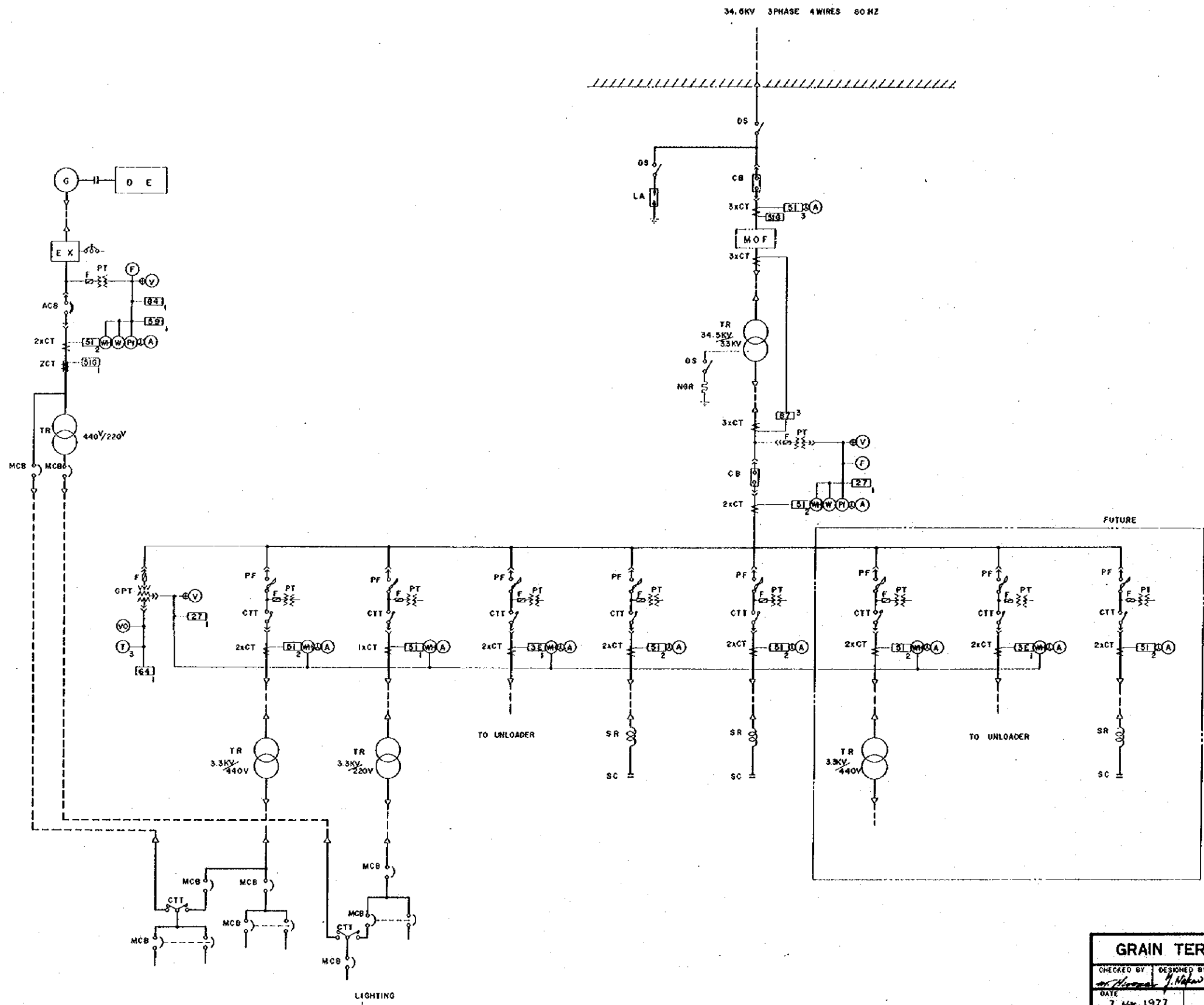


VIEW B~B

- REMARKS
- STEP I CONSTRUCTION
  - STEP II CONSTRUCTION



<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	MANILA
DATE	DRAWING NO.		LAYOUT OF UNLOADER AND OUTDOOR CONVEYOR
7. Mar. 1977	SGM-M-007		CONVEYOR
JAPAN INTERNATIONAL COOPERATION AGENCY			

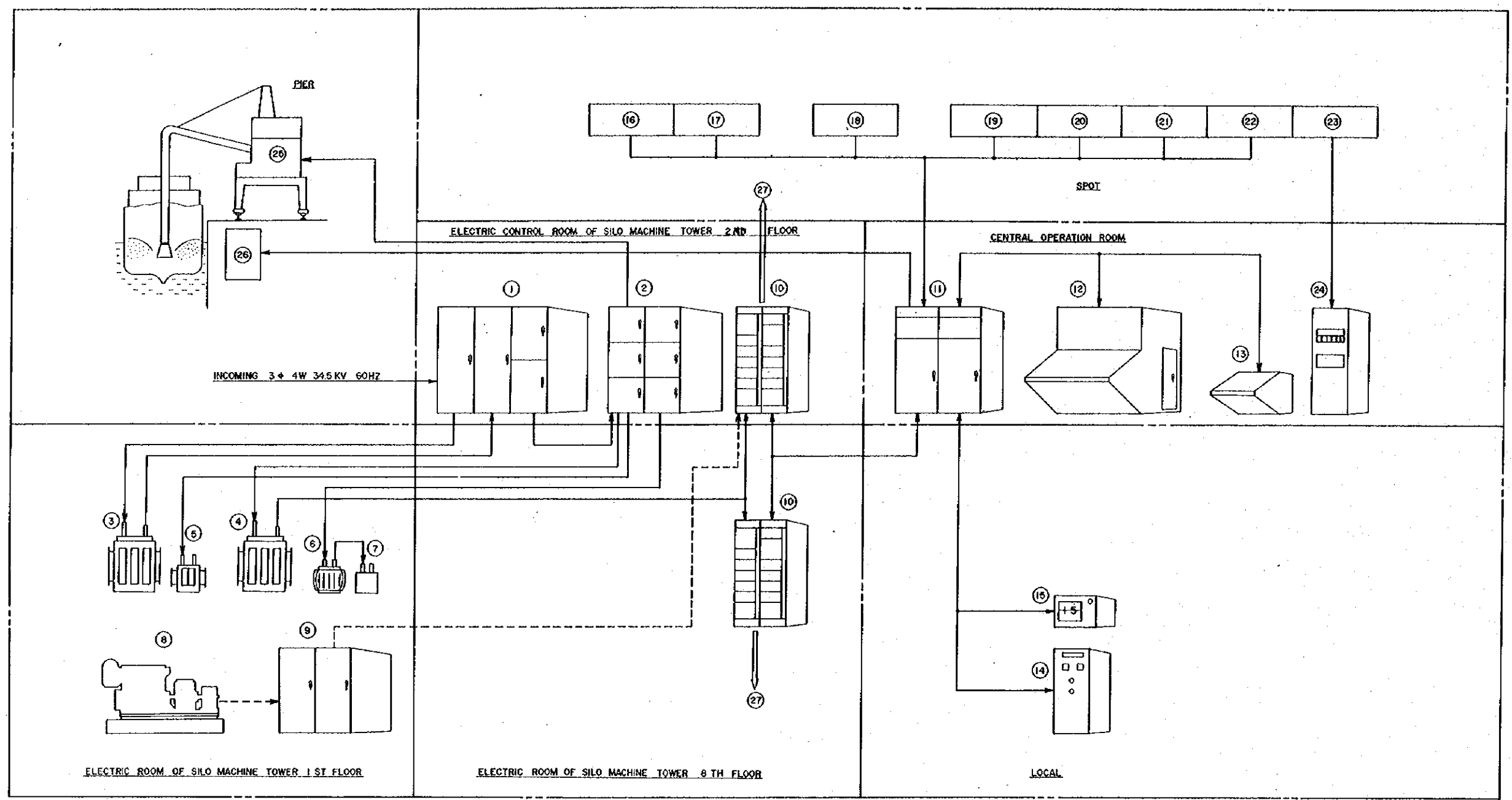


SYMBOLS	NAME
	CIRCUIT BREAKER
	DISCONNECTING SWITCH
	ELECTRO MAGNETIC CONTACTOR
	ELECTRO MAGNETIC CONTACTOR
	POWER FUSE
	MOLDED CASE CIRCUIT BREAKER
	AIR CIRCUIT BREAKER
	PLUG-IN TYPE DISCONNECTING SWITCH
	LIGHTNING ARRESTER
	NEUTRAL GROUNDING RESISTOR
	CABLE HEAD
	FUSE
	POTENTIAL TRANSFORMER
	GROUNDING POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	ZERO-PHASE SEQUENCE CURRENT TRANSFORMER
	EARTH
	TRANSFORMER
	SERIES REACTOR
	STATIC CONDENSER
	METERING OUT FIT
	DIFFERENTIAL RELAY
	OVER CURRENT RELAY
	OVER CURRENT GROUND RELAY
	UNDER VOLTAGE RELAY
	OVER VOLTAGE RELAY
	VOLTAGE RELAY
	3-ELEMENT RELAY
	OVER VOLTAGE GROUND RELAY
	VOLT METER
	CHANGE-OVER SWITCH FOR VOLTMETER
	AMMETER
	CHANGE-OVER SWITCH FOR AMMETER
	WATT-HOUR METER
	WATTMETER
	POWER FACTOR METER
	FREQUENCY METER
	ZERO-PHASE SEQUENCE VOLTMETER
	EARTH INDICATING LAMP
	GENERATOR
	DIESEL ENGINE
	EXCITER

**GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES**

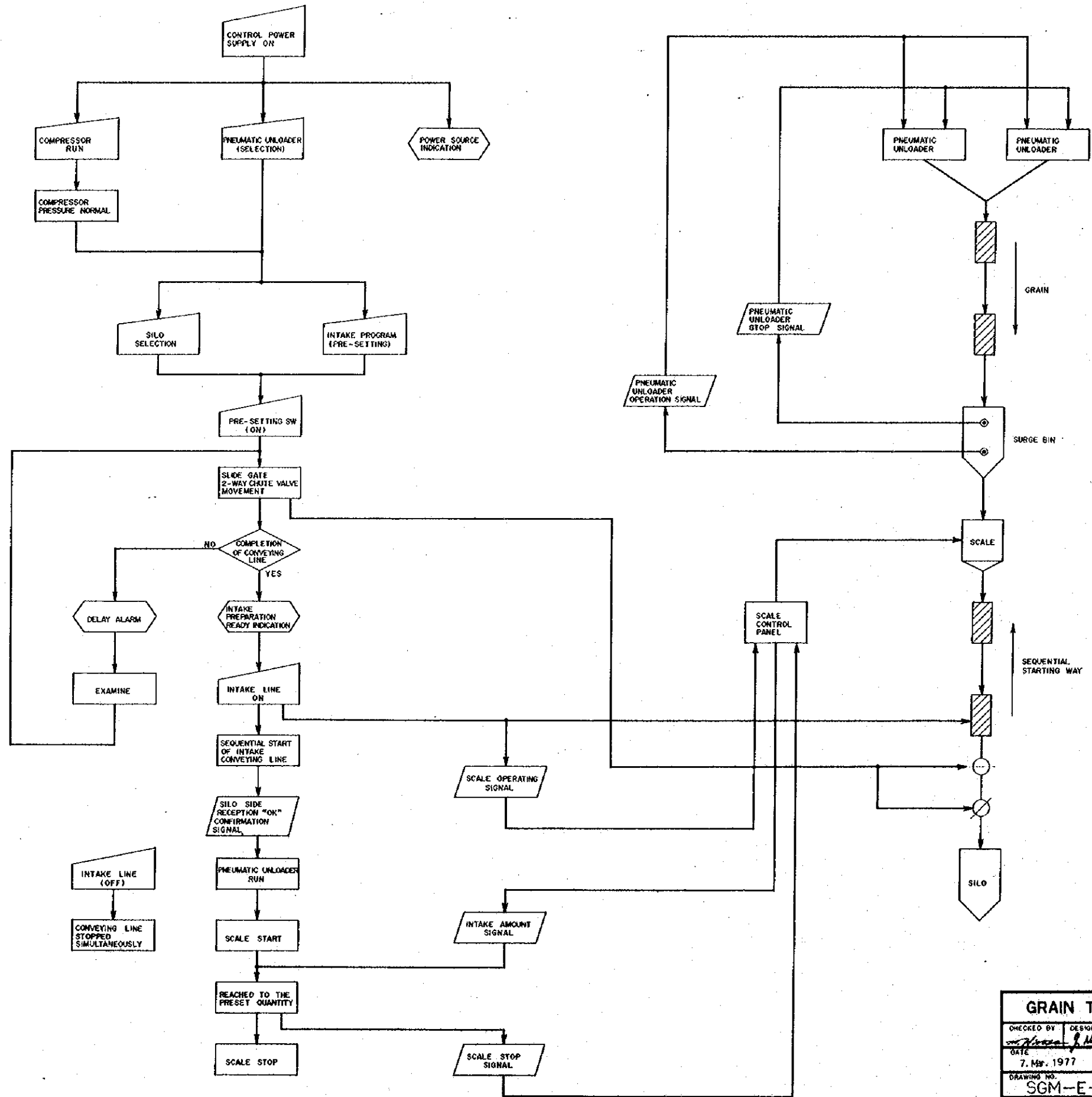
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DATE 7. Mar. 1977	DRAWING NO. SGM-E-001		MANILA SILO SKELETON DIAGRAM

JAPAN INTERNATIONAL COOPERATION AGENCY



- NOTICE:
- ① METAL ENCLOSED SWITCHGEARS (FOR SERVICE ELECTRIC / POWER)
  - ② METAL ENCLOSED SWITCHGEARS ( OR HIGH VOLTAGE COMBINATION STARTERS)
  - ③ MAIN TRANSFORMER 34.5KV / 3.3KV
  - ④ POWER TRANSFORMER 3.3KV / 440V
  - ⑤ LIGHTING TRANSFORMER 3.3KV / 220V
  - ⑥ REACTOR
  - ⑦ CONDENSER
  - ⑧ DIESEL-GENERATOR
  - ⑨ GENERATOR PANEL AND AUTOMATIC STARTING PANEL
  - ⑩ LOW VOLTAGE MOTOR CONTROL CENTER
  - ⑪ PROGRAMMABLE SEQUENCE CONTROLLER
  - ⑫ CENTRAL OPERATION PANEL
  - ⑬ DELIVERY COMMAND PANEL
  - ⑭ TRUCK DELIVERY LOADING KEY READER PANEL
  - ⑮ DELIVERY INDICATING DEVICE FOR TRUCK
  - ⑯ LOCAL SWITCH PANELS (MANUAL SWITCH PANELS)
  - ⑰ EMERGENCY SWITCHES
  - ⑱ AIR CYLINDER SOLENOID VALVE
  - ⑲ LIMIT SWITCHES
  - ⑳ LEVEL SWITCHES
  - ㉑ SPEED SWITCHES
  - ㉒ PRESSUER SWITCHES
  - ㉓ TEMPERATURE DETECTOR
  - ㉔ GRAIN TEMPERATURE MONITORING PANEL
  - ㉕ PNEUMATIC UNLOADER
  - ㉖ UNLOADER MAIN OPERATION PANELS
  - ㉗ LOW VOLTAGE INDUCTION MOTOR

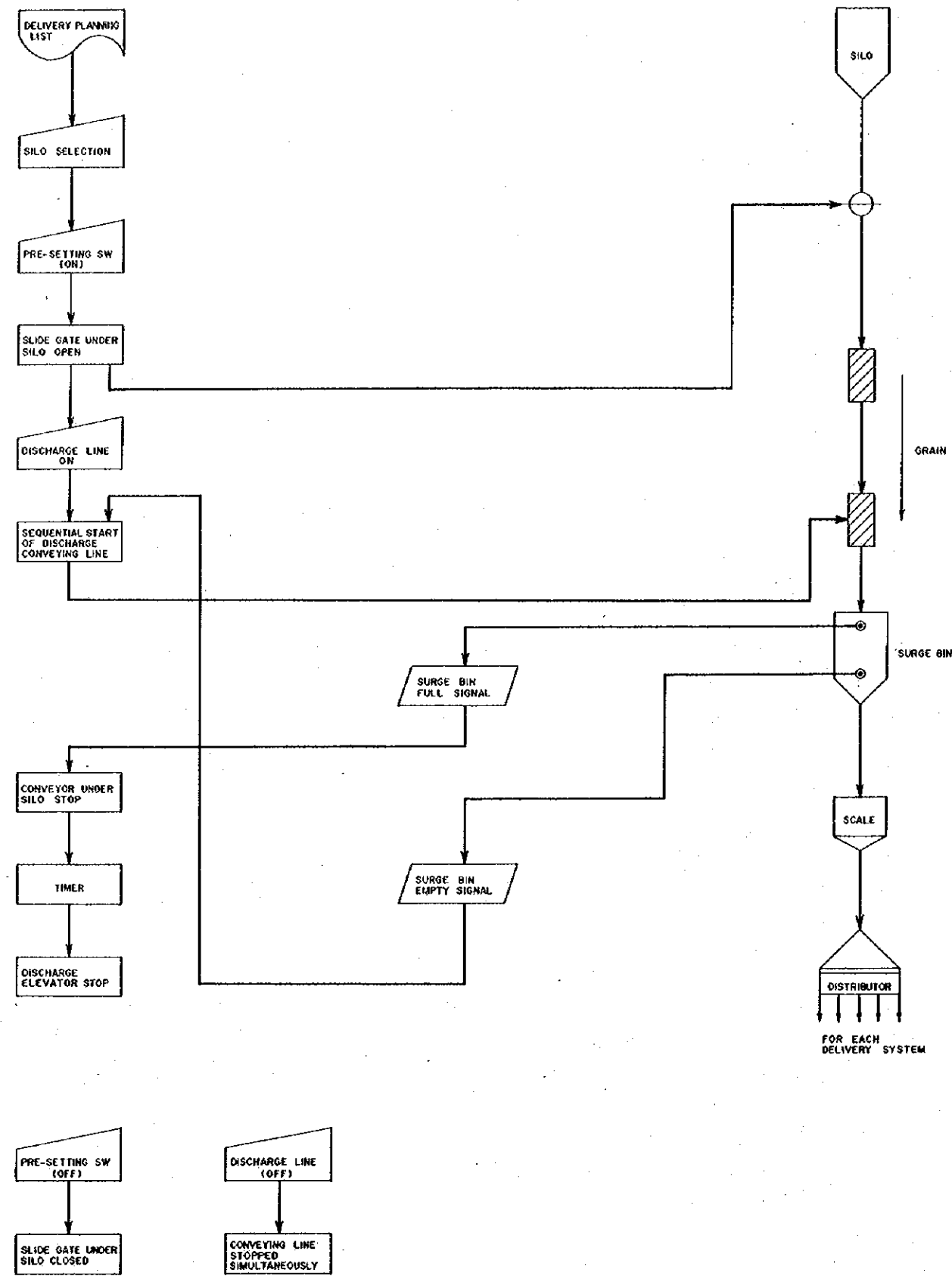
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<small>DATE</small> 7. Mar. 1977			MANILA SILO
<small>DRAWING NO.</small> SGM-E-002			COMPOSITION DIAGRAM FOR ELECTRICAL EQUIPMENT
JAPAN INTERNATIONAL COOPERATION AGENCY			






INTAKE CONTROL FLOW CHART

- LEGEND
- CONVEYING MACHINE
  - LEVEL SWITCH
  - SLIDE GATE
  - 2-WAY CHUTE VALVE

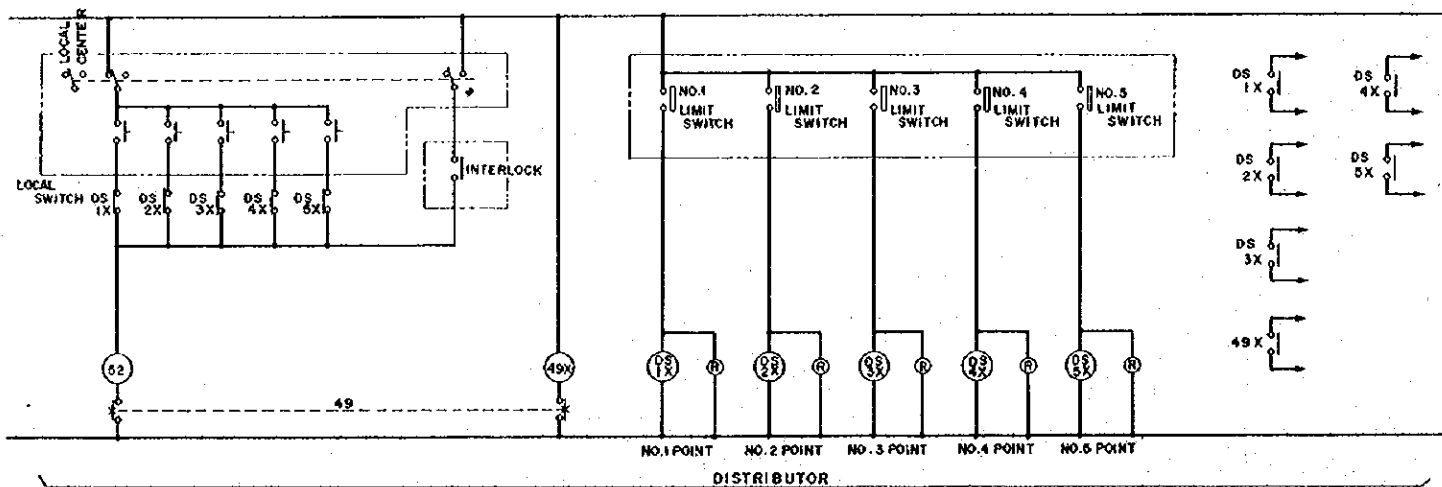
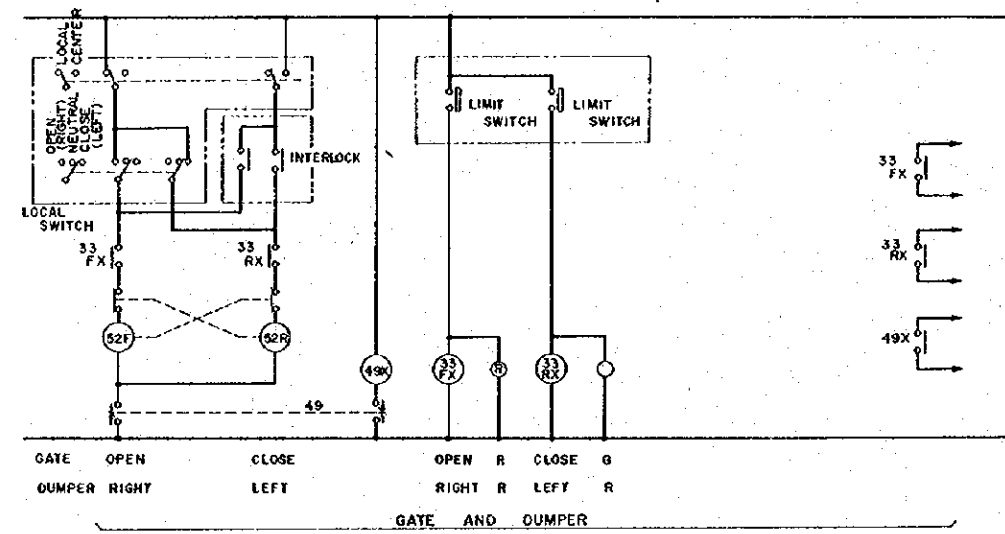
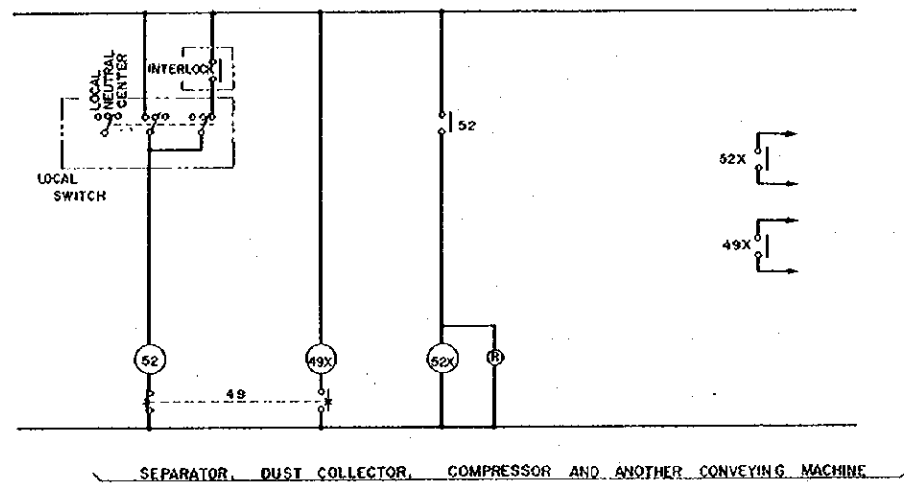
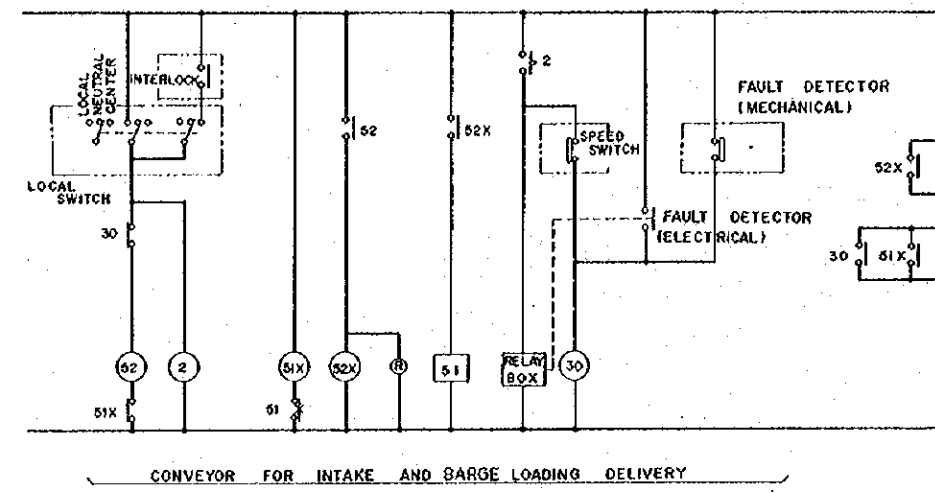
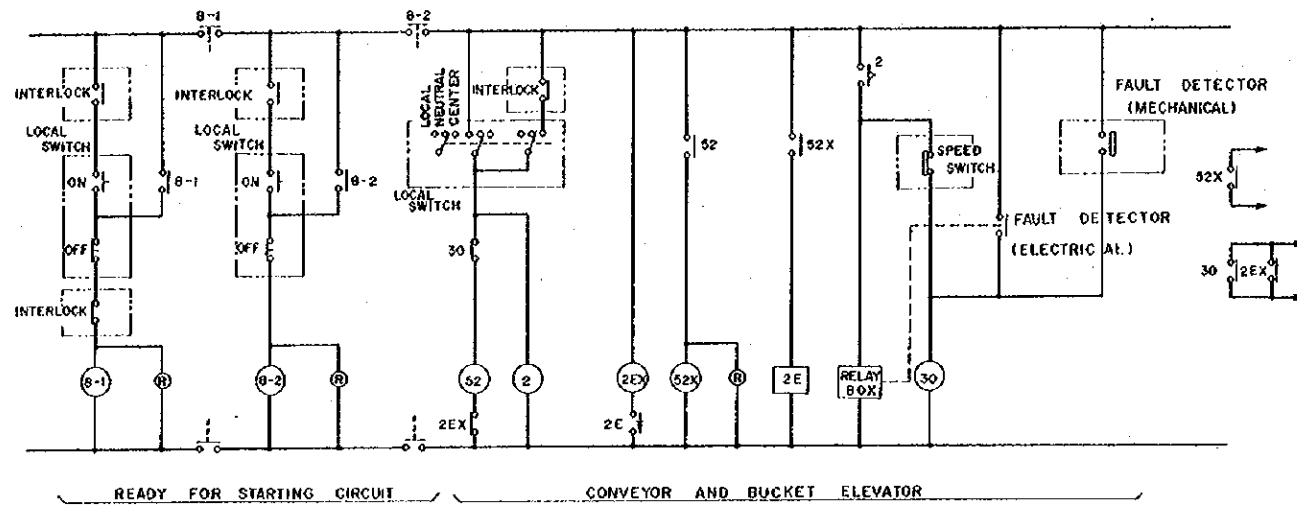
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CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7. Mar. 1977			MANILA SILO
DRAWING NO. SGM-E-003			INTAKE CONTROL FLOW CHART
JAPAN INTERNATIONAL COOPERATION AGENCY			



DISCHARGE CONTROL FLOW CHART

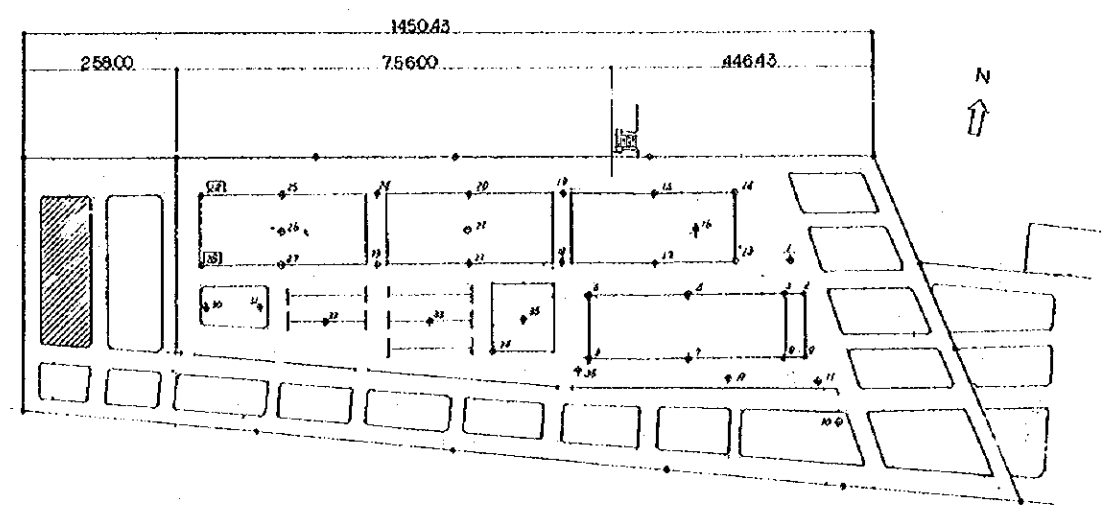
- LEGEND
-  CONVEYING MACHINE
  -  LEVEL SWITCH
  -  SLIDE GATE

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE	DRAWING NO.		DISCHARGE CONTROL FLOW CHART
7, Mar. 1977	SGM-E-004		
JAPAN INTERNATIONAL COOPERATION AGENCY			

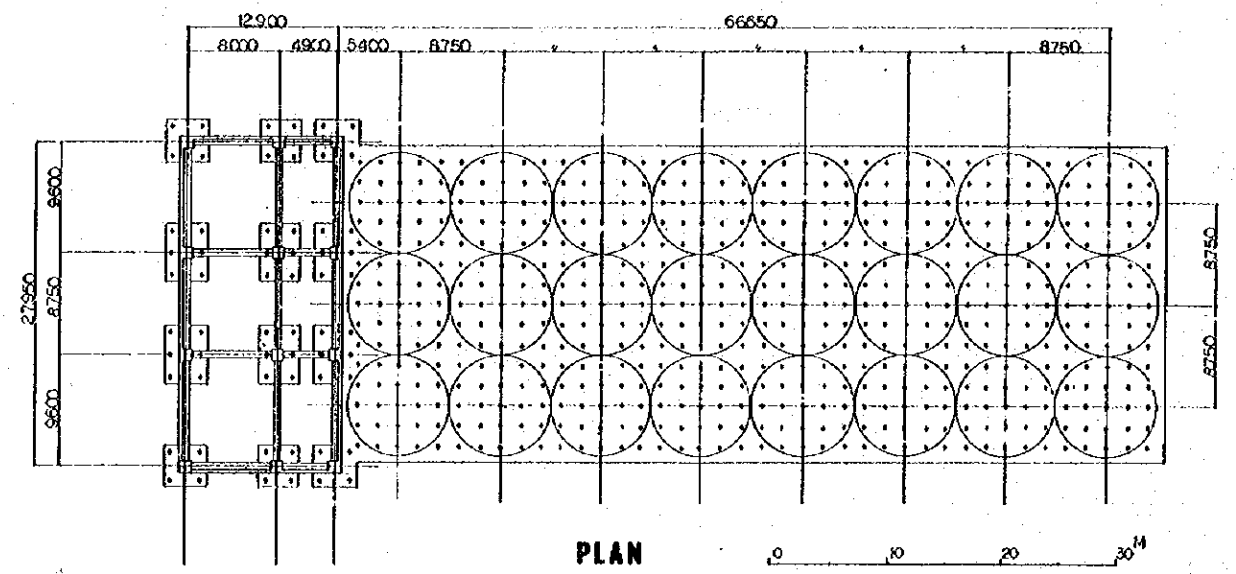


<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE			STANDARD SEQUENCE
7 May 1977			
DRAWING NO.			
SGM-E-005			
JAPAN INTERNATIONAL COOPERATION AGENCY			

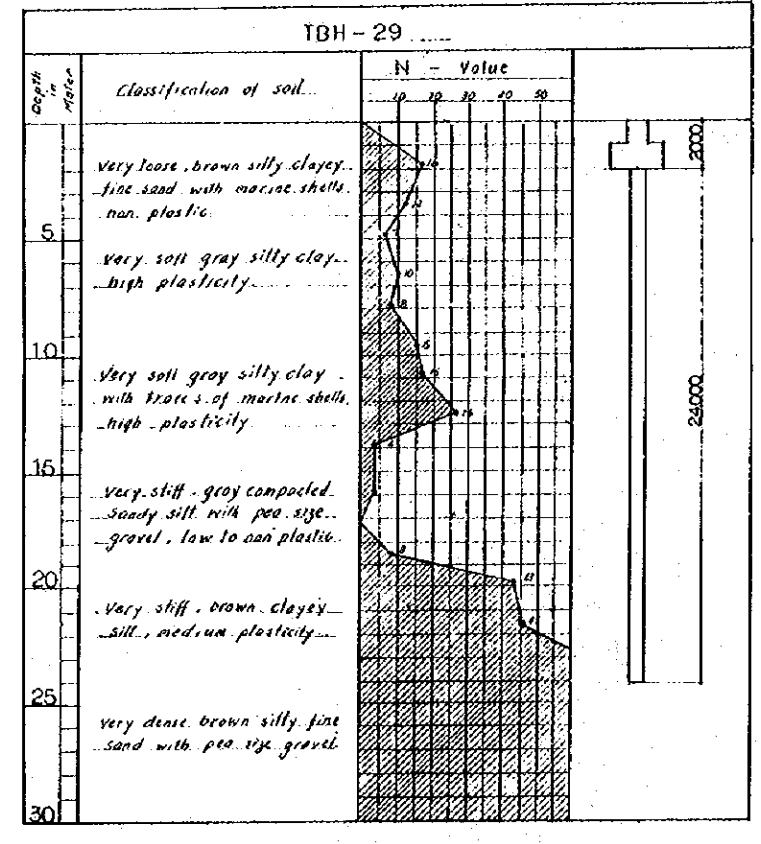
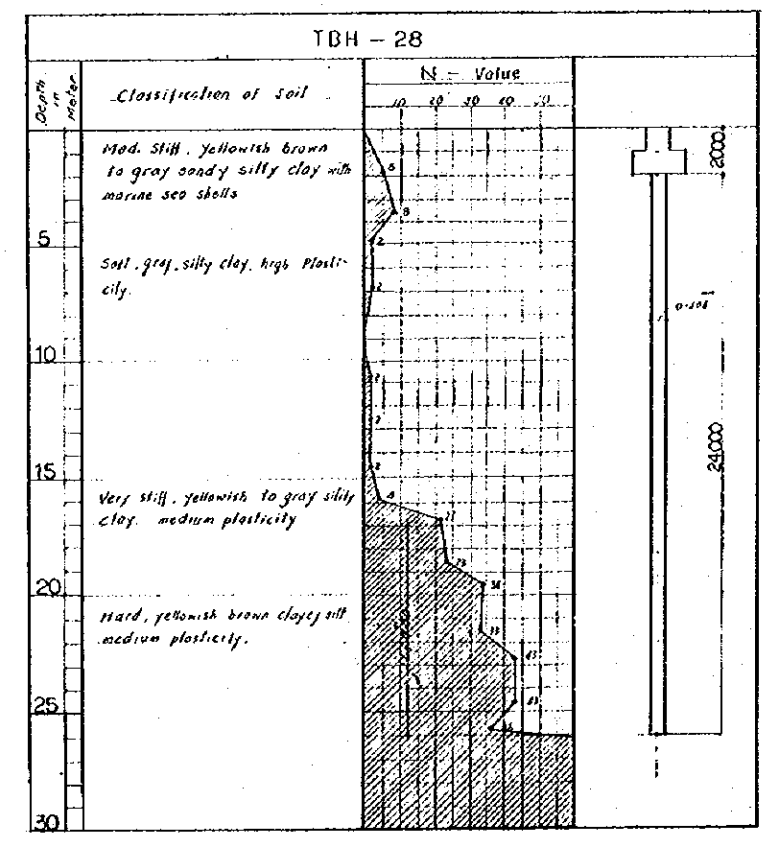




LOCATION



PLAN



Ultimate Bearing power of Pile

Meyerhof's Formula

$$R_u = 30 \bar{N} A_p \left[ \frac{L_s}{\bar{N}} + \frac{q_u}{\bar{N}} \right] \phi$$

$R_u$  — Ultimate bearing power of pile.

$$\bar{N} = \frac{60 + 35 \cdot q_u}{2} = 46.3$$

$$A_p = 0.308 \times 0.103 = 0.0317$$

$$N_s = \frac{21 + 22 + 18 + 23 + 25 + 23 + 16 + 20}{8} = 20.62$$

$$L_s = 9.0$$

$$\phi = 500 \times 1.18 = 590$$

$q_u, L_c$  — Neglect

$$R_u = 30 \times 46.3 \times 0.0317 + \frac{36.62}{5} \times 90 \times 590 = 201.27 + 103.74 = 305.01$$

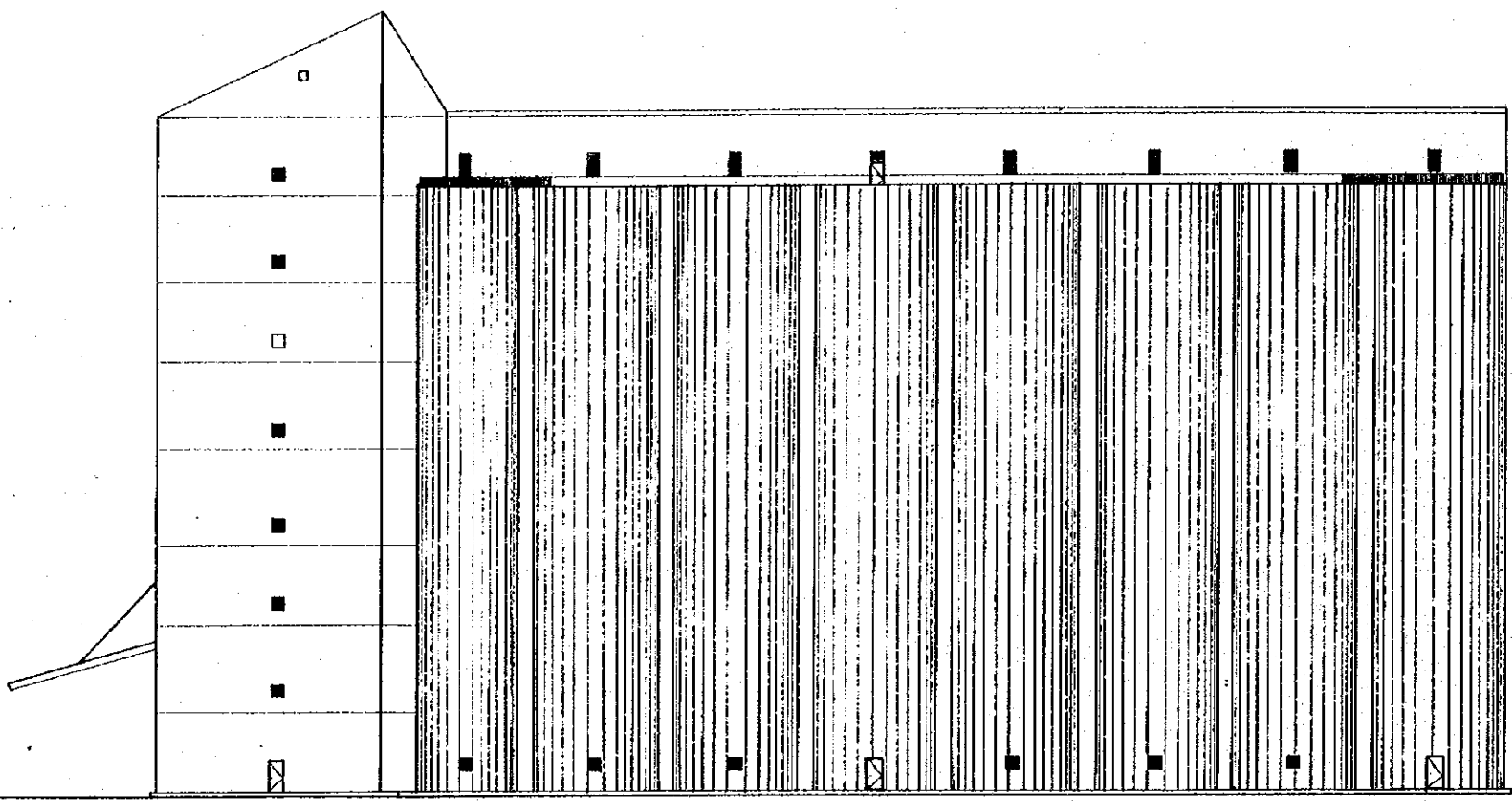
Allowable Bearing power of pile  $R_a = \frac{1}{2} R_u$

$$= \frac{1}{2} \times 305.01 = 152.505 > 120' \text{ ok}$$

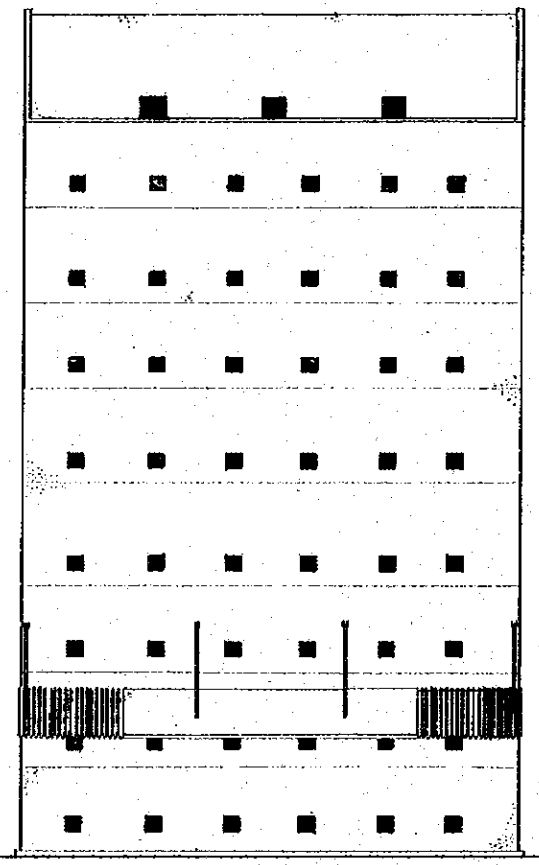
Notation

- $R_a$  — Allowable bearing capacity of pile
- $R_u$  — Ultimate bearing capacity of pile
- $A_p$  — Sectional area of pile head
- $\phi$  — Perimeter of pile
- $N_s$  — The average of exact measurement of N-value into sandy formation
- $L_s$  — Length of pile in sandy formation
- $L_c$  — Length of pile in clayey formation
- $q_u$  — In part of penetrated pile under ground: The average of unconfined compression strength in clayey formation

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES		
CHECKED BY	DESIGNED BY	TITLE OF DRAWING
DATE	7:MSF, 1977	MANILA
DRAWING NO.	SGM-B-001	EXPLANATORY DIAGRAM OF SOIL EXPLORATION
JAPAN INTERNATIONAL COOPERATION AGENCY		

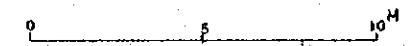
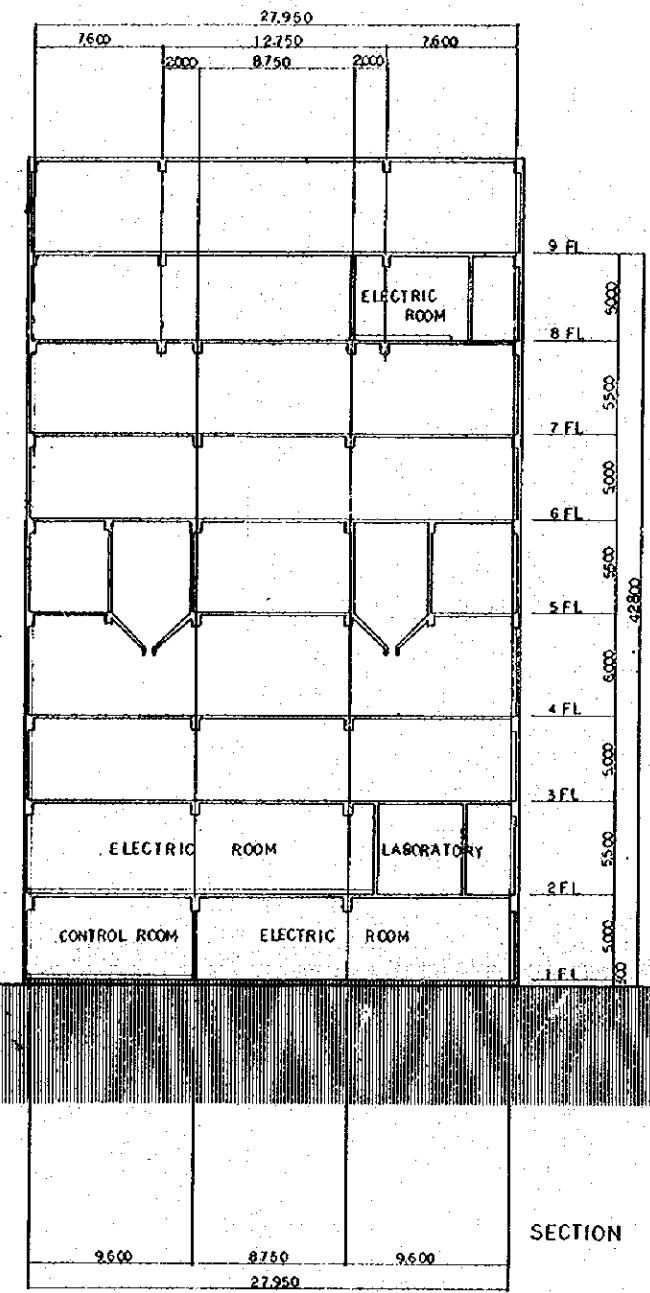
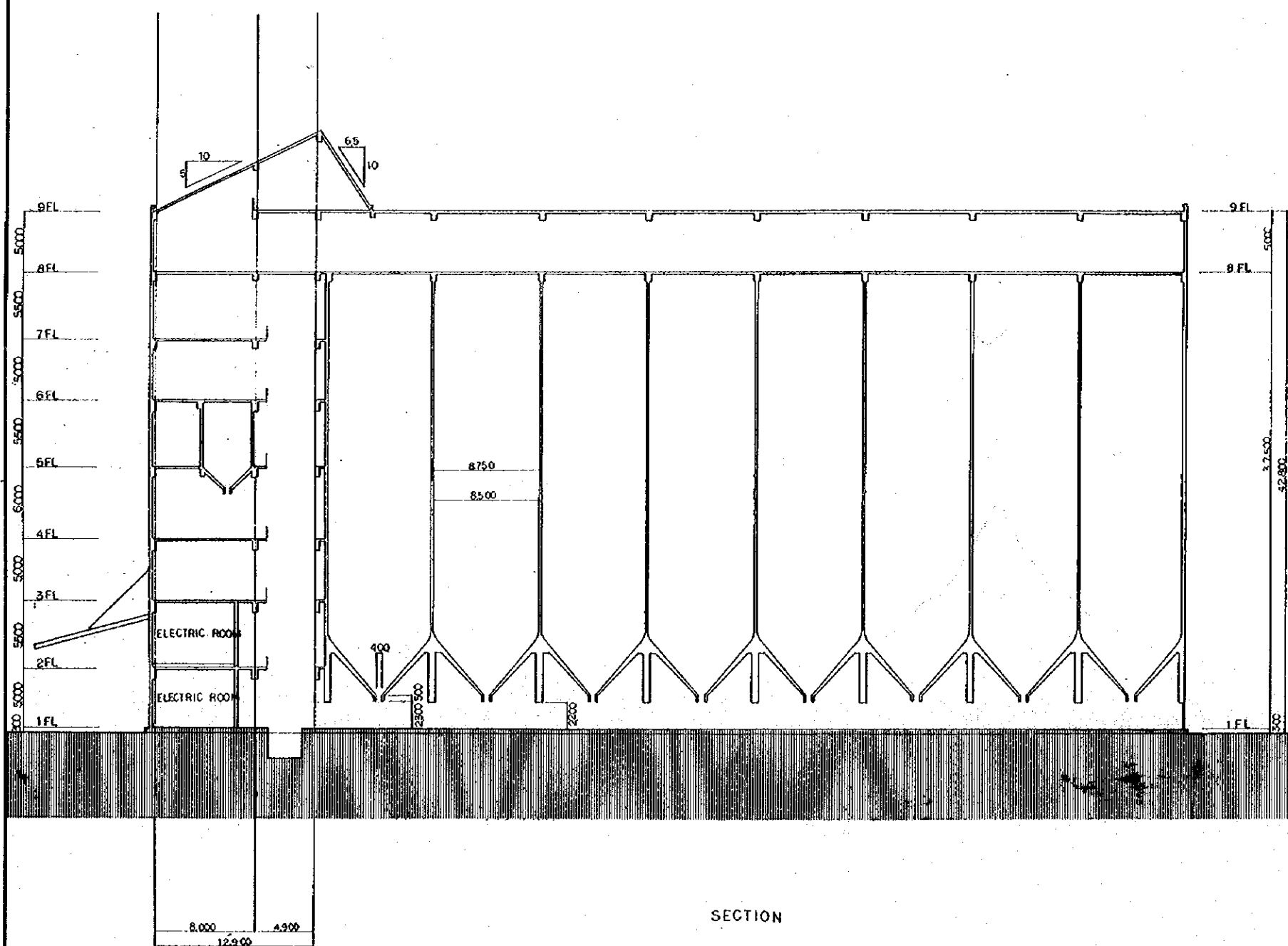


ELEVATION

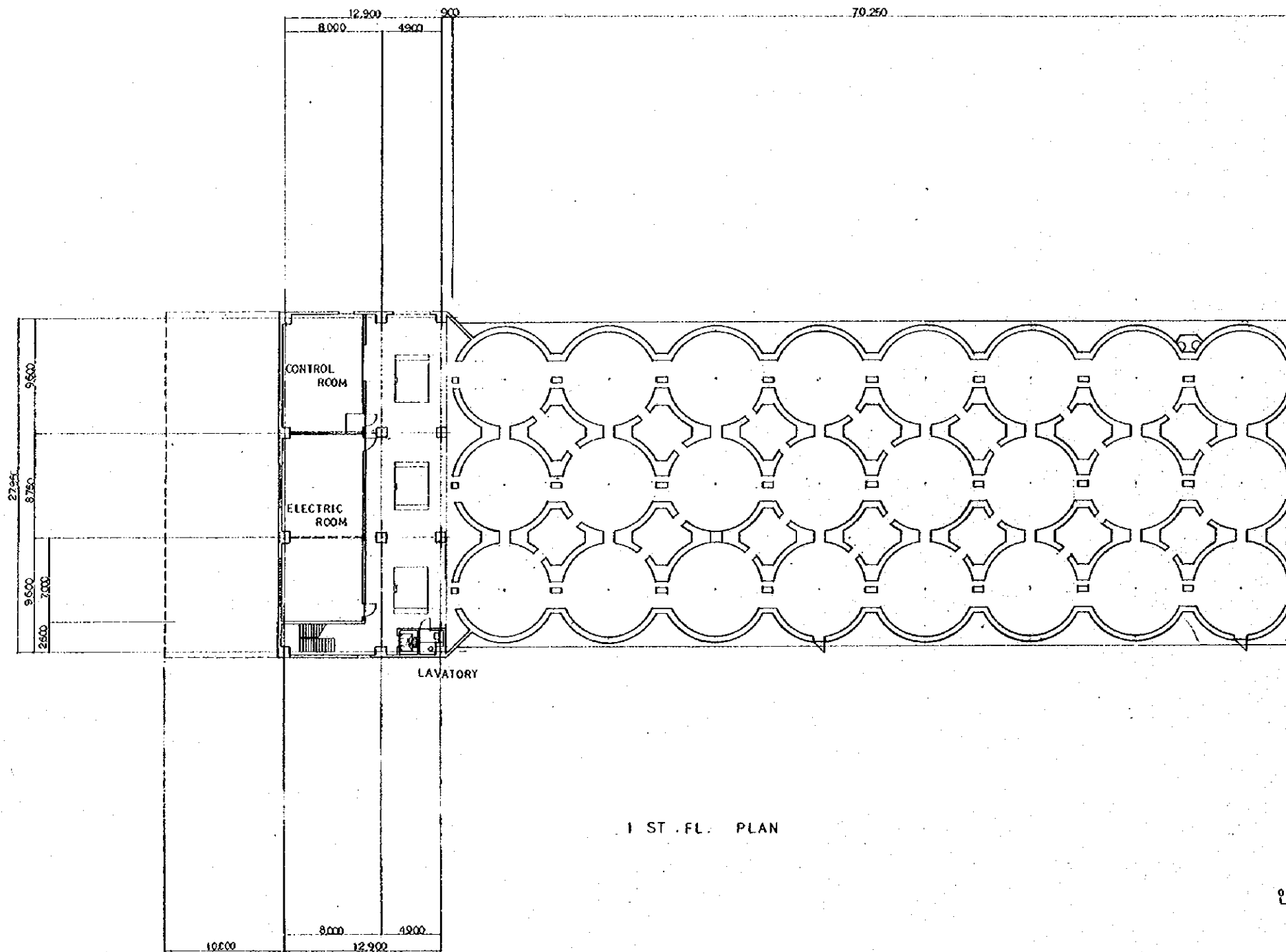


ELEVATION

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7. Mar. 1977			MANILA SILO ELEVATION
DRAWING NO. SGM-B-002			
JAPAN INTERNATIONAL COOPERATION AGENCY			

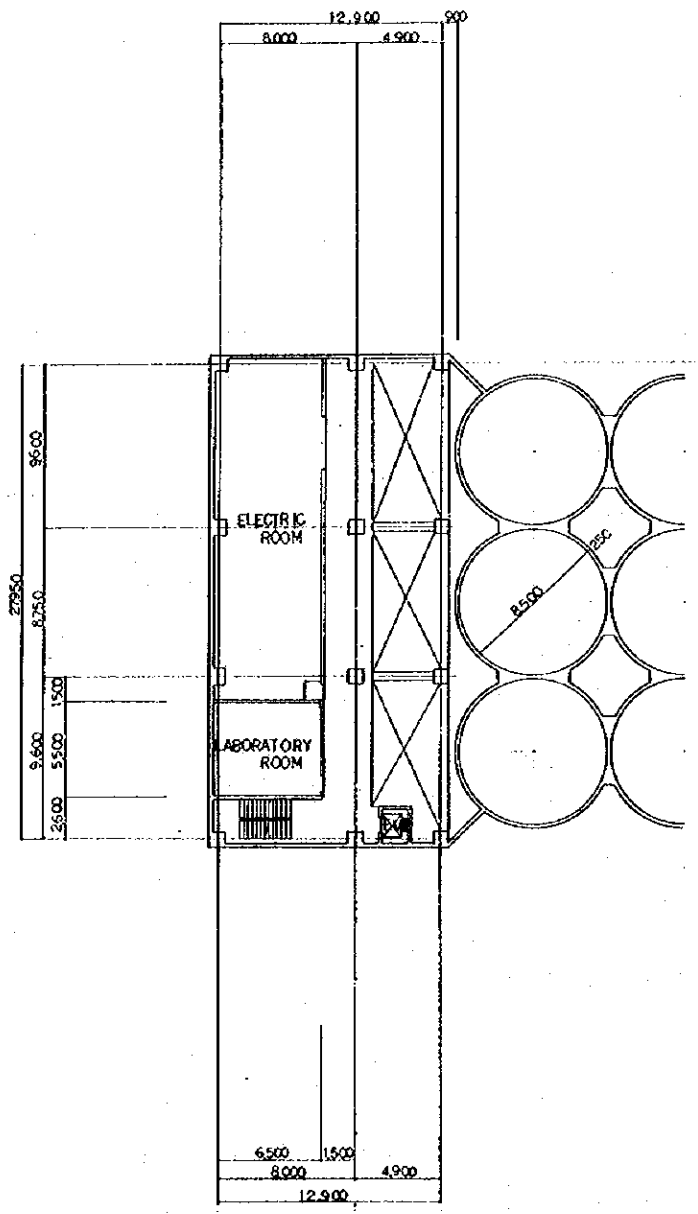


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CHECKED BY: <i>[Signature]</i>	TITLE OF DRAWING: MANILA SILO SECTION
DATE: 7. May 1977	
DRAWING NO: SGM-B-003	
JAPAN INTERNATIONAL COOPERATION AGENCY	

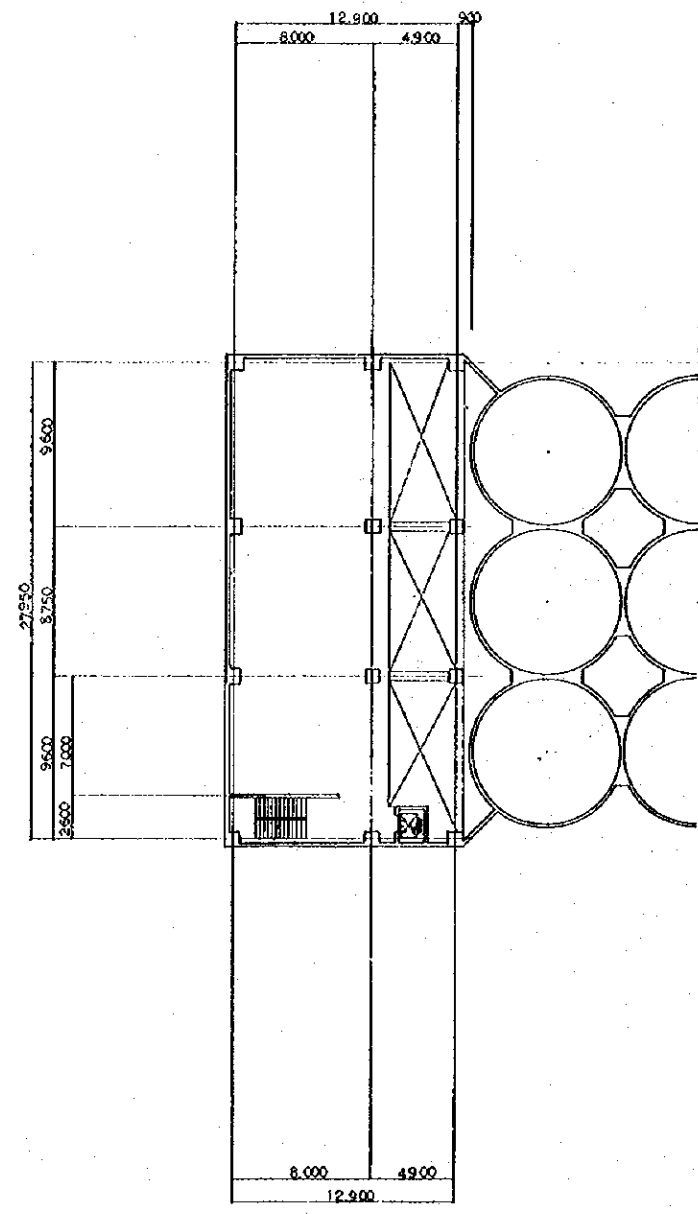


1 ST. FL. PLAN

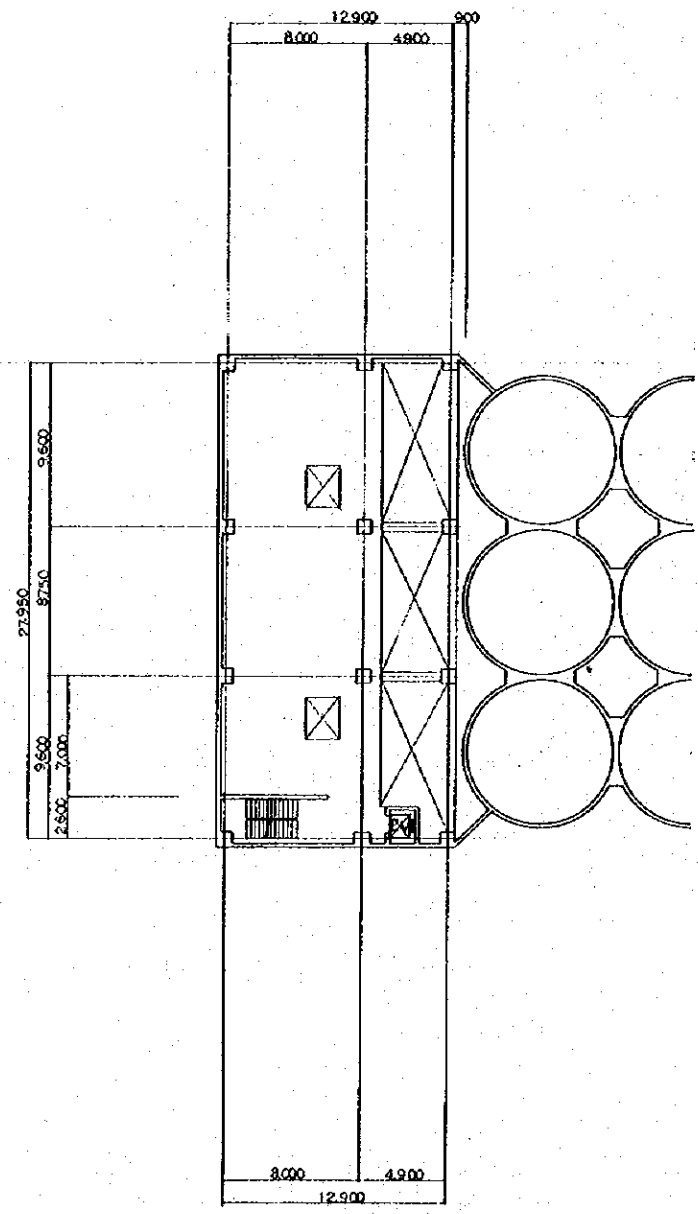
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE			1ST. FL. PLAN
7. Mar. 1977			
DRAWING NO.			
SGM-B-004			
JAPAN INTERNATIONAL COOPERATION AGENCY			



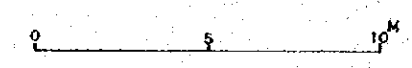
2ND FL. PLAN



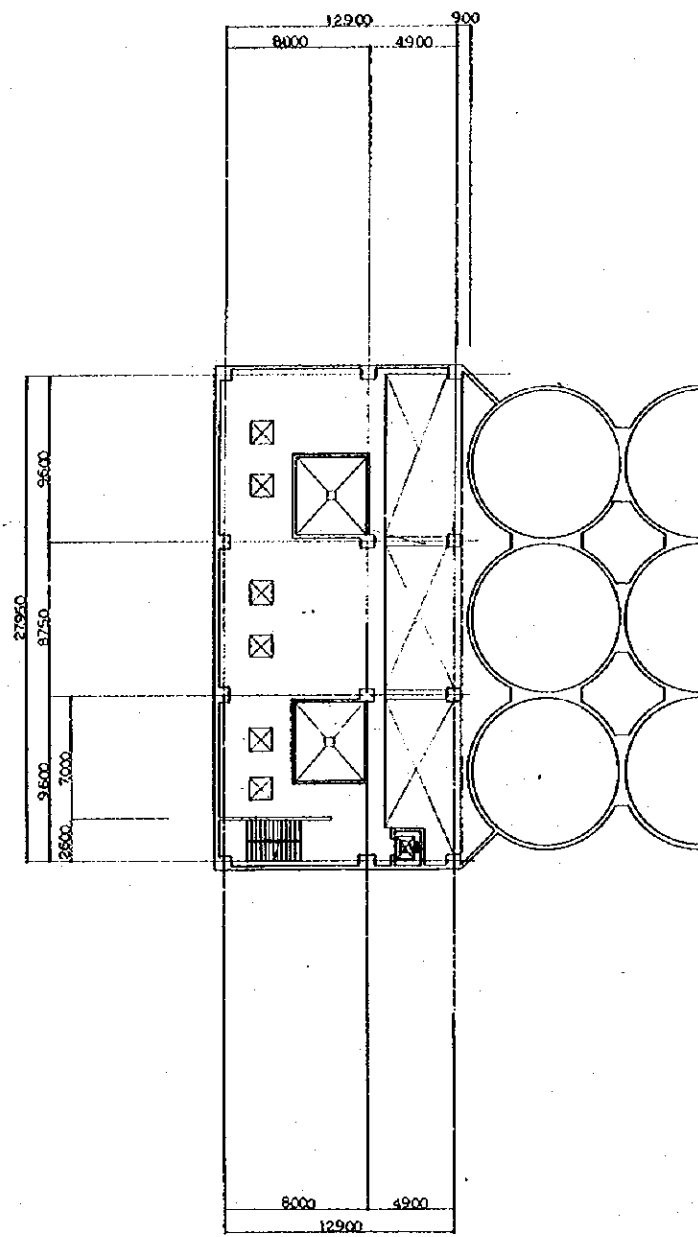
3RD FL. PLAN



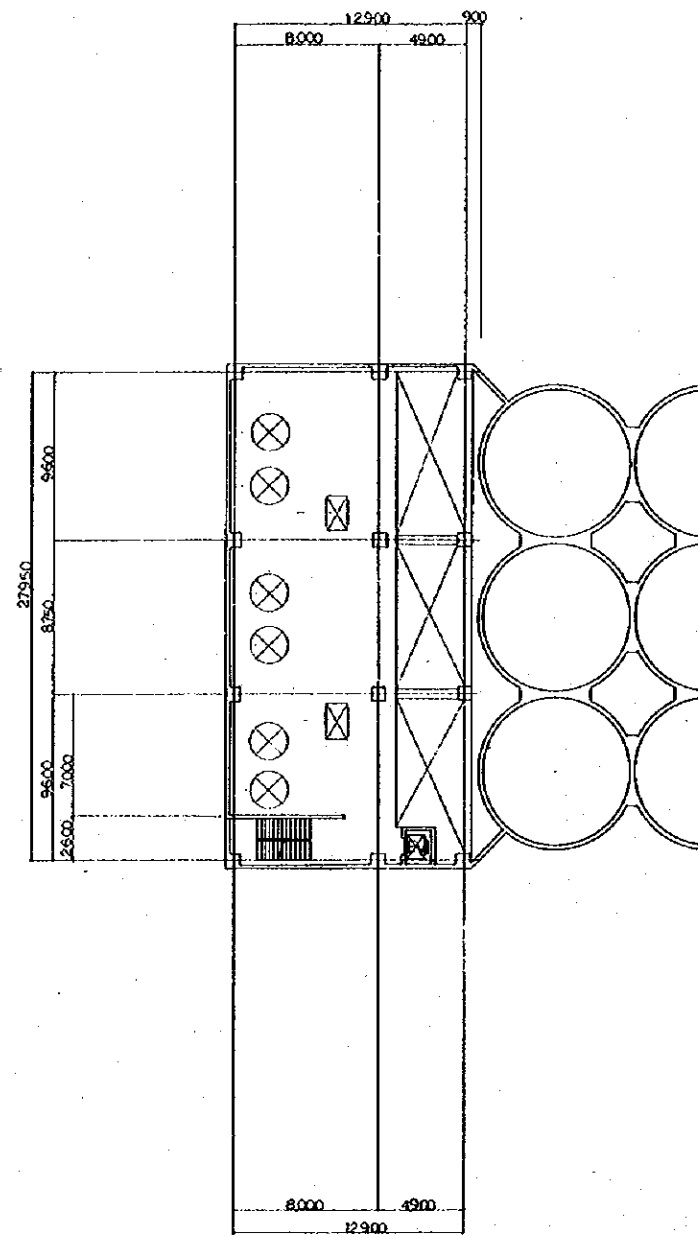
4TH FL. PLAN



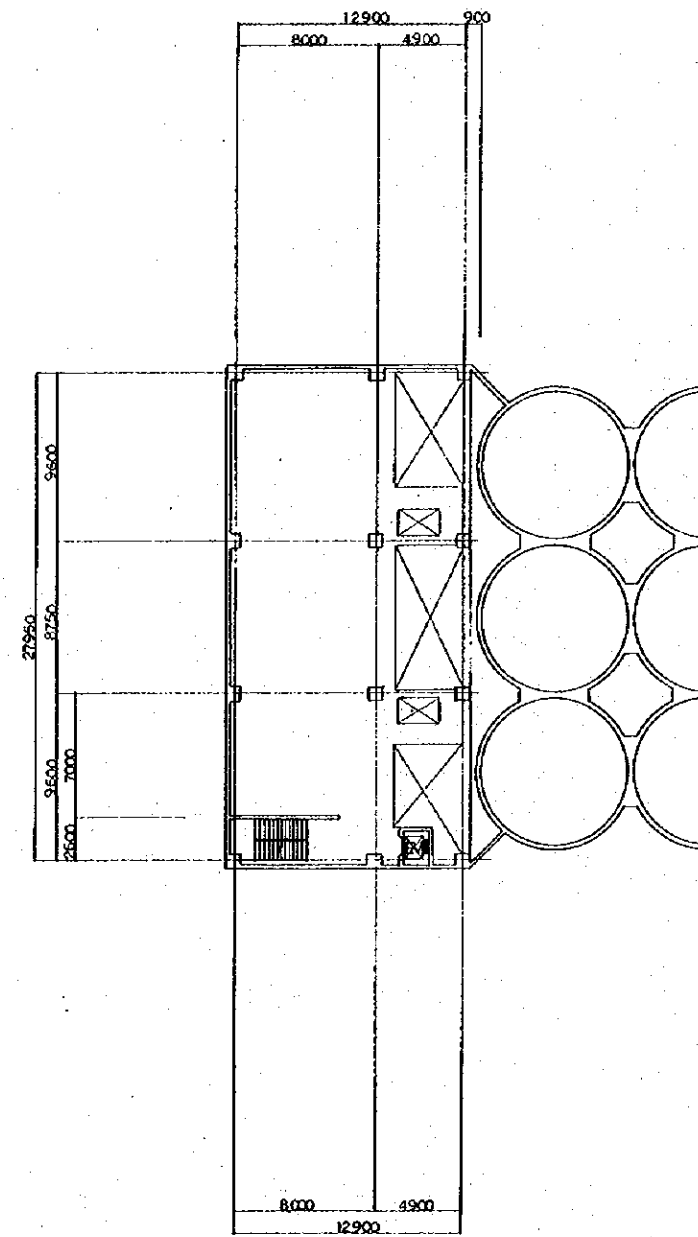
<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>		
CHECKED BY	DESIGNED BY	DRAWN BY
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DATE	TITLE OF DRAWING	
7. Mar. 1977	MANILA SILO	
DRAWING NO.	2ND, 3RD AND 4TH FL. PLAN	
SGM-B-005		
JAPAN INTERNATIONAL COOPERATION AGENCY		



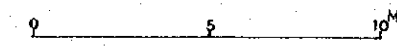
5 TH. FL. PLAN



6 TH. FL. PLAN

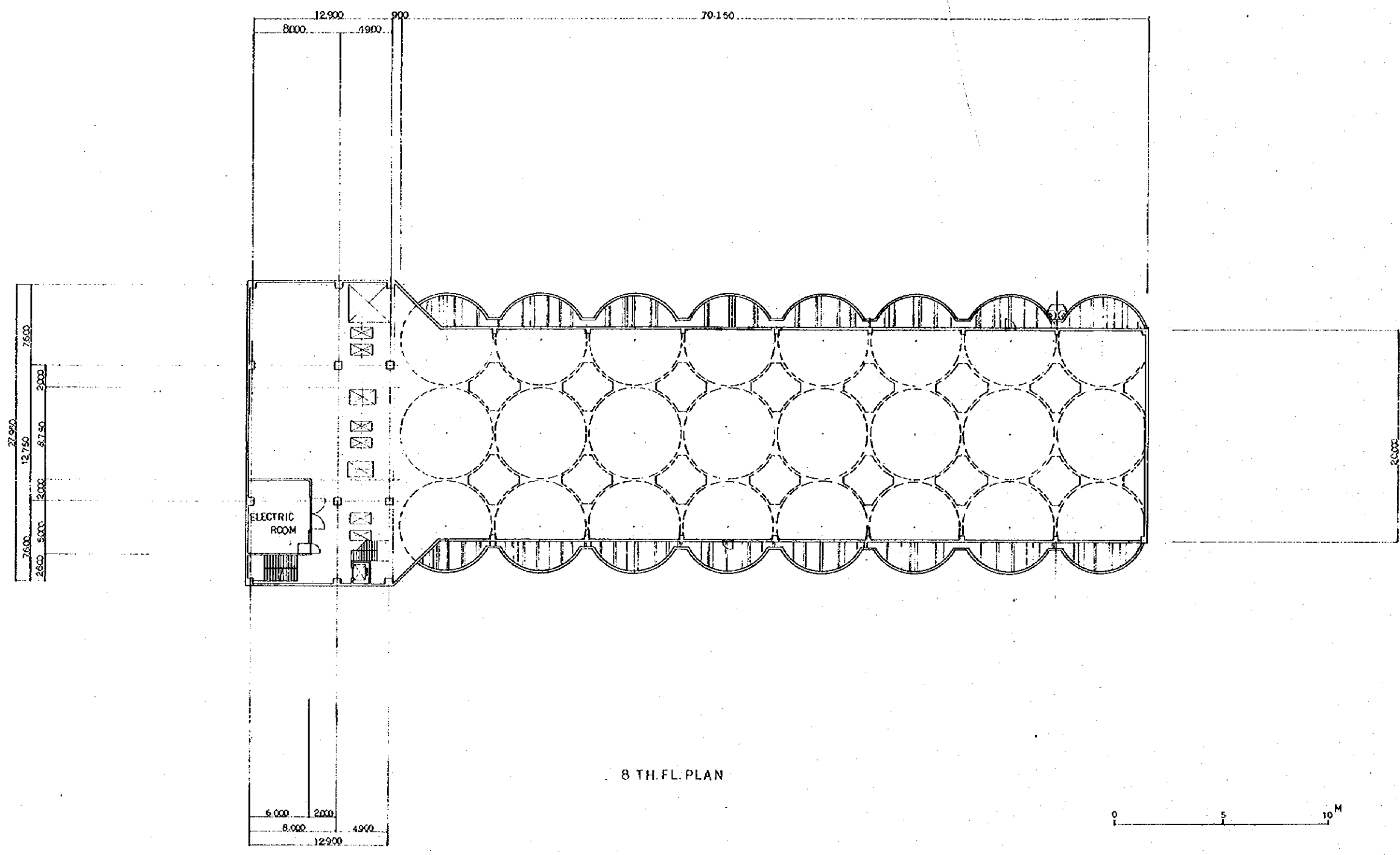


7 TH. FL. PLAN



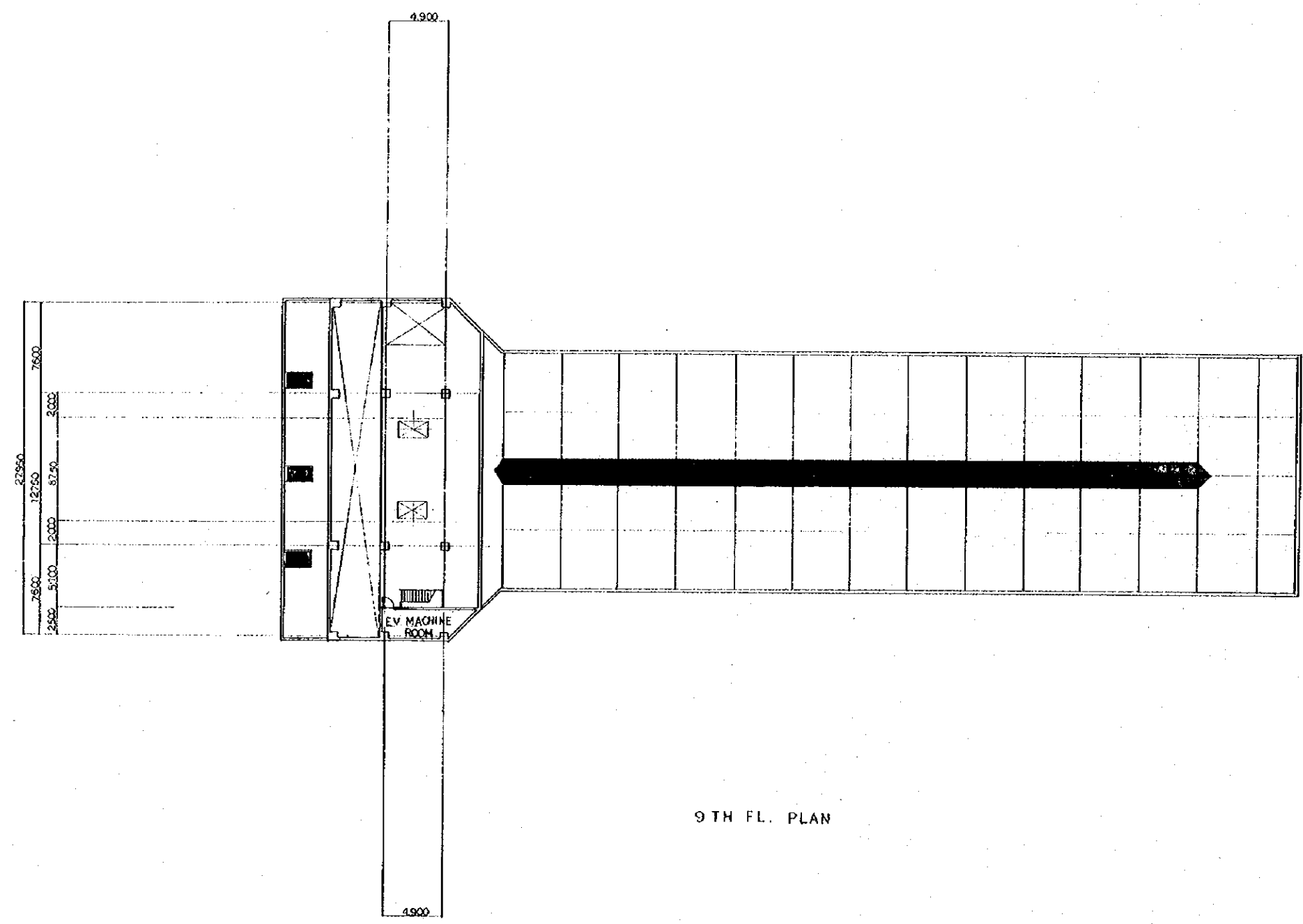
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CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7, Mar. 1977.			MANILA SILO
DRAWING NO. SGM-B-006			5 TH, 6 TH. AND 7 TH. FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



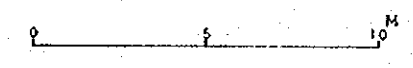


8 TH. FL. PLAN

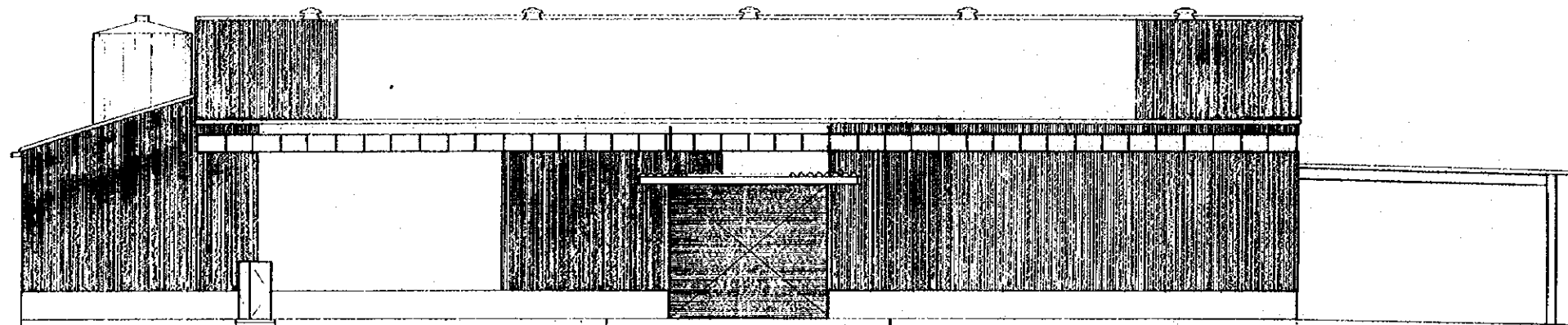
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE			8TH. FL. PLAN
7. Mar. 1977			
DRAWING NO.			
SGM-B-007			
JAPAN INTERNATIONAL COOPERATION AGENCY			



9TH FL. PLAN

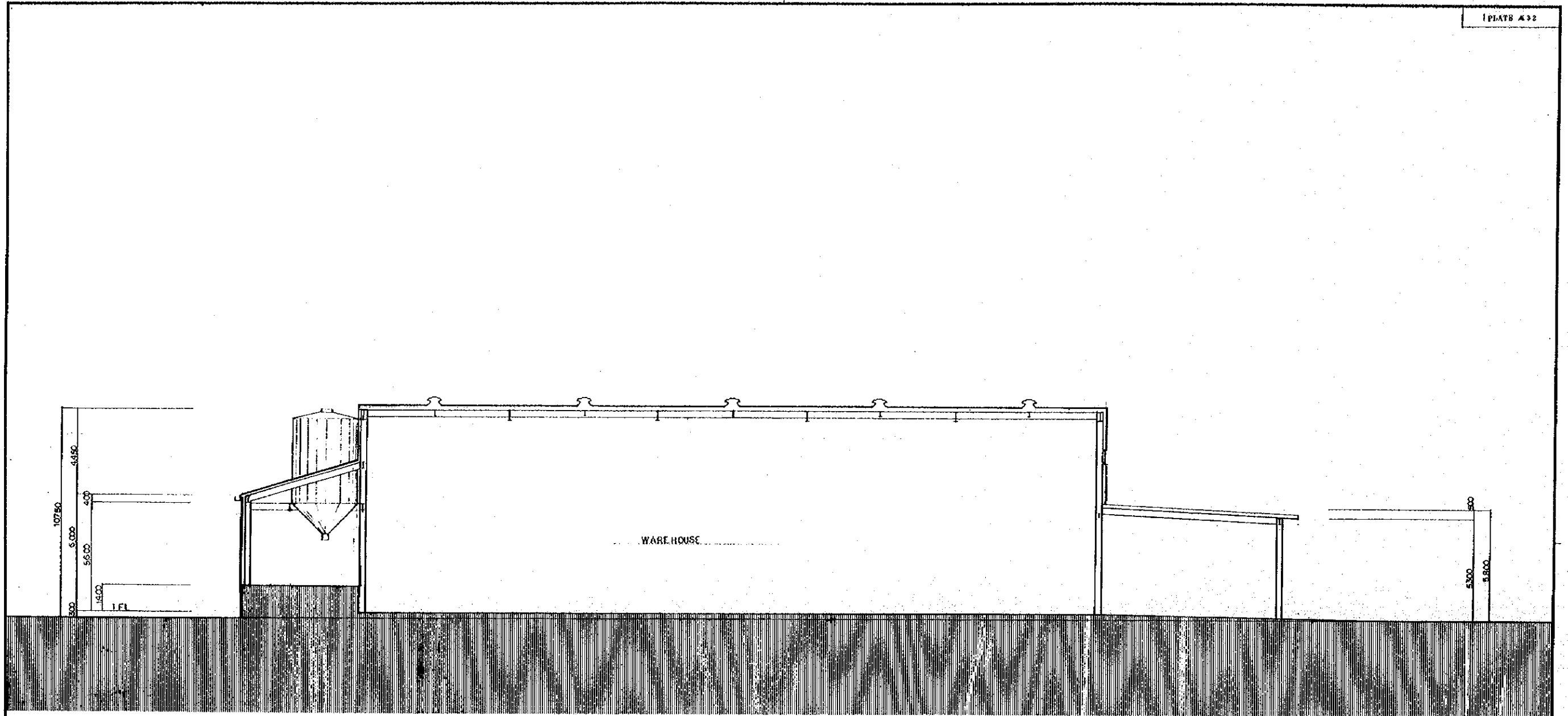


GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			MANILA SILO
DATE			9TH FL. PLAN
7. Mar. 1977			
DRAWING NO.	SGM-B-008		
JAPAN INTERNATIONAL COOPERATION AGENCY			



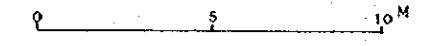
ELEVATION

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
	<i>[Signature]</i>	<i>[Signature]</i>	MANILA WAREHOUSE
DATE			ELEVATION
7 May 1977			
DRAWING NO.	SGM-B-009		
JAPAN INTERNATIONAL COOPERATION AGENCY			

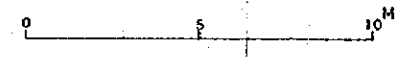
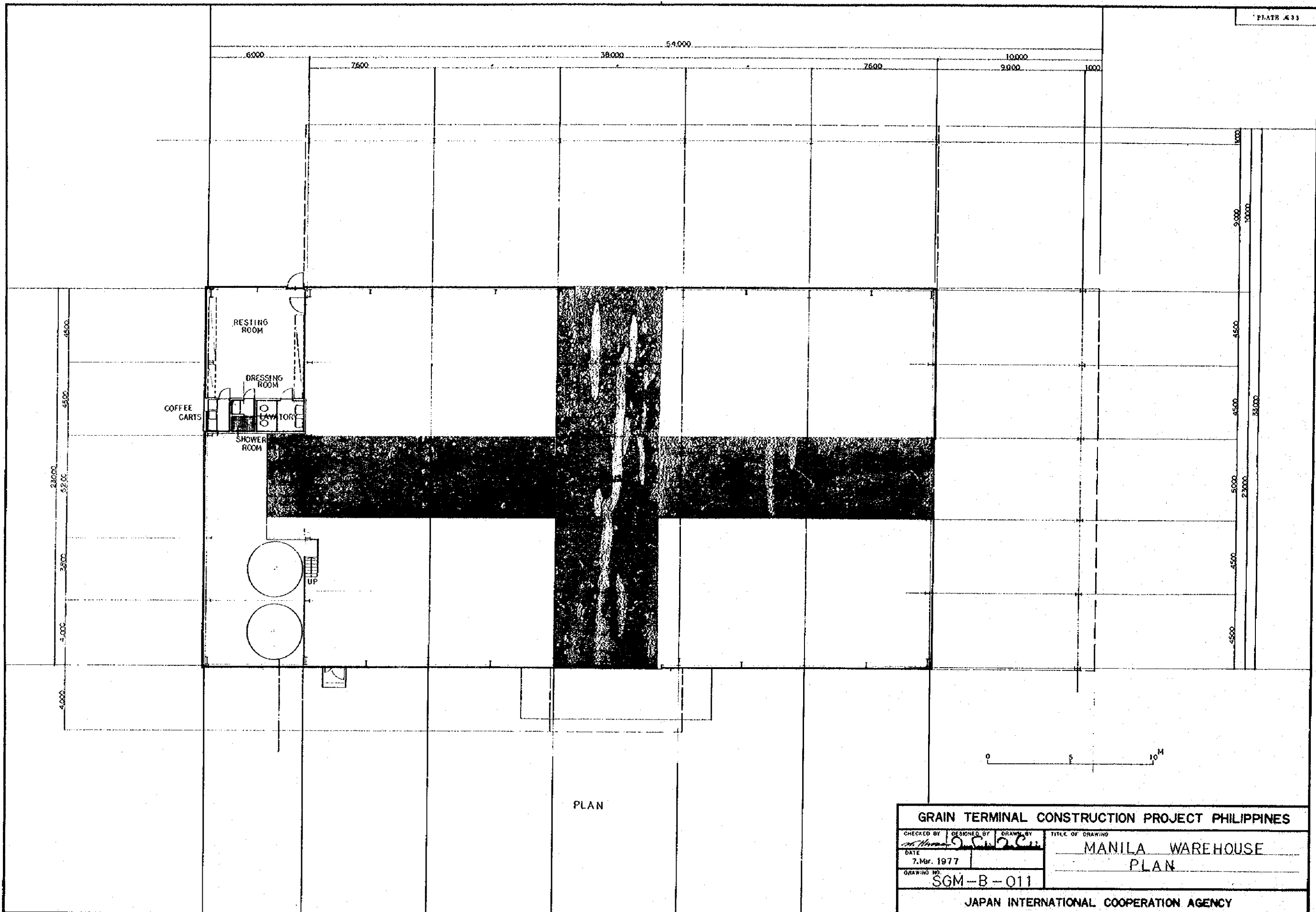


WAREHOUSE

SECTION

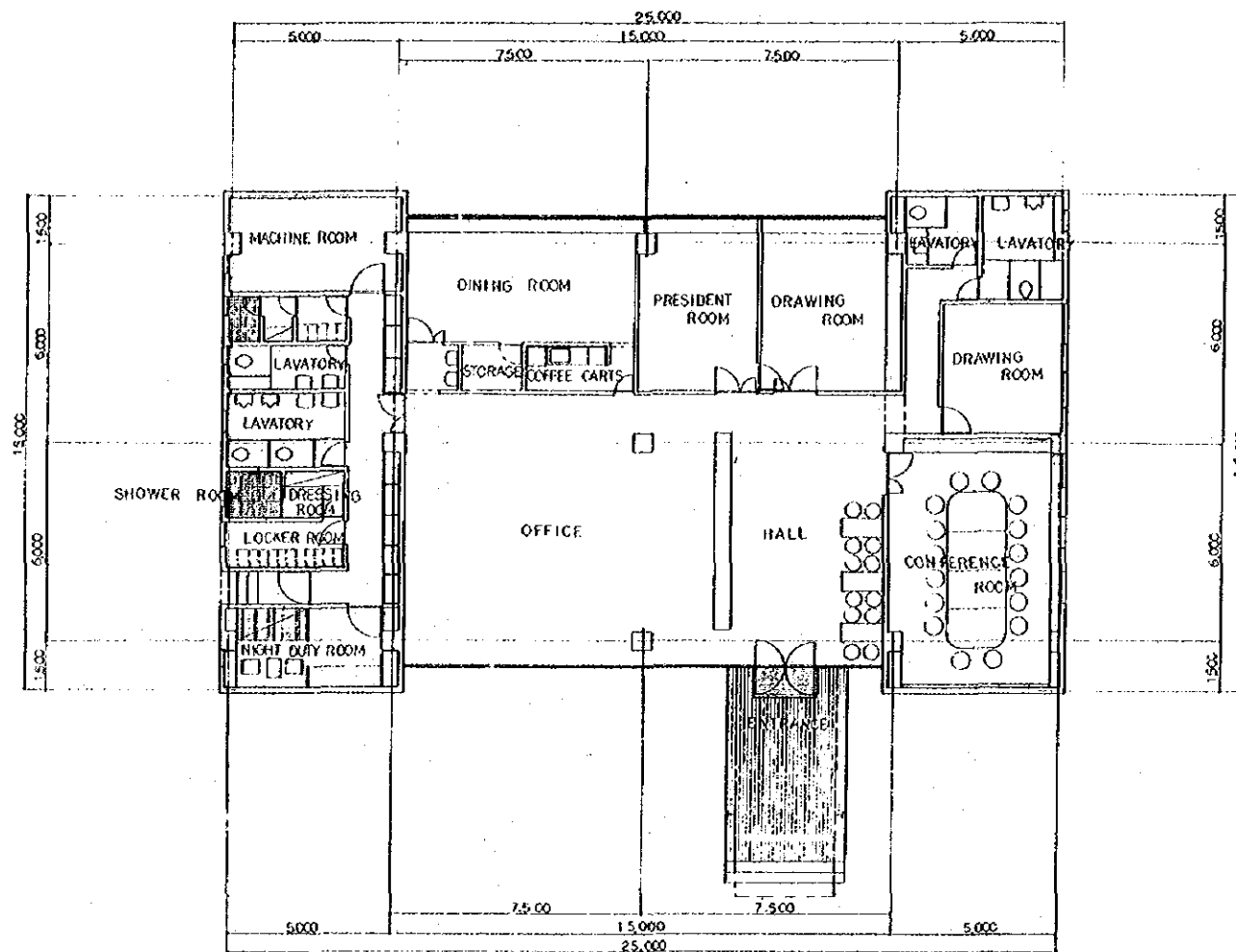


GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>H. H. H.</i>	DESIGNED BY <i>S. S. S.</i>	DRAWN BY <i>S. S. S.</i>	TITLE OF DRAWING
DATE 7. Mar. 1977	DRAWING NO. SGM-B-010		MANILA WAREHOUSE SECTION
JAPAN INTERNATIONAL COOPERATION AGENCY			

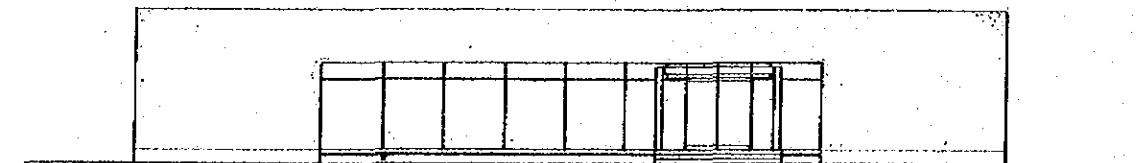


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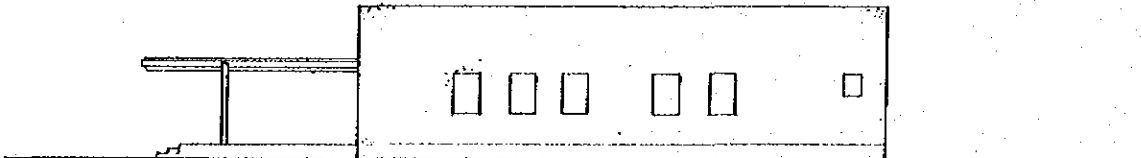
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DATE 7. Mar. 1977			MANILA WAREHOUSE PLAN
DRAWING NO. SGM-B-011			
JAPAN INTERNATIONAL COOPERATION AGENCY			



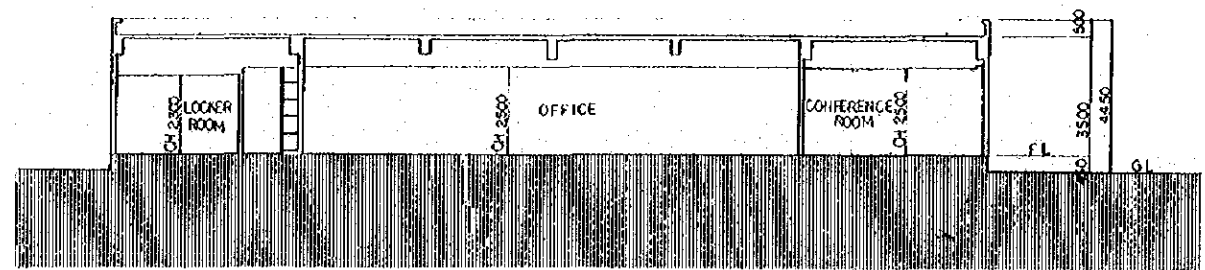
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ELEVATION



ELEVATION

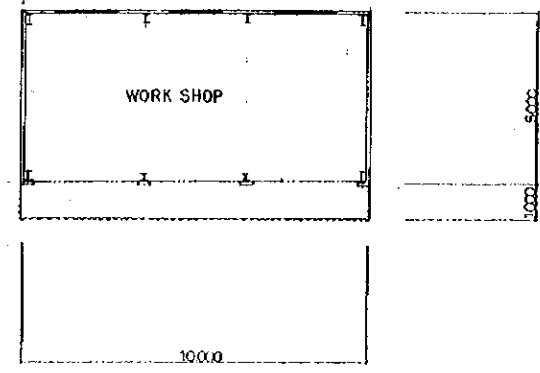


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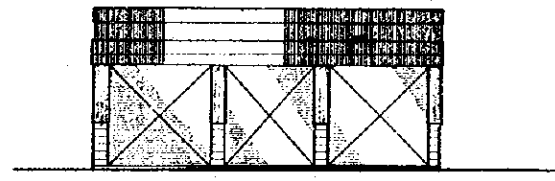


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DATE	7. Mar. 1977	MANILA
DRAWING NO.	SGM-B-012	ADMINISTRATION BUILDING
JAPAN INTERNATIONAL COOPERATION AGENCY		

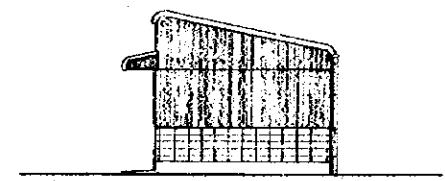




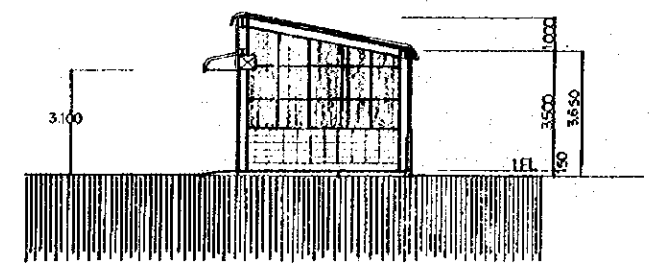
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ELEVATION



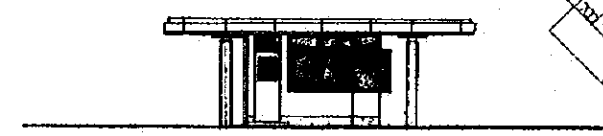
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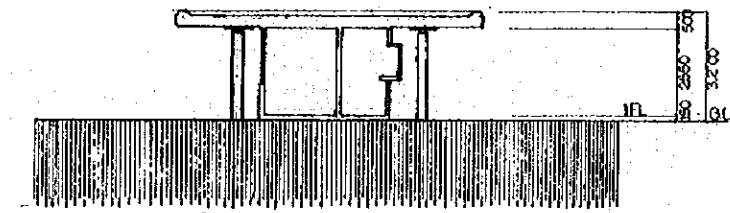
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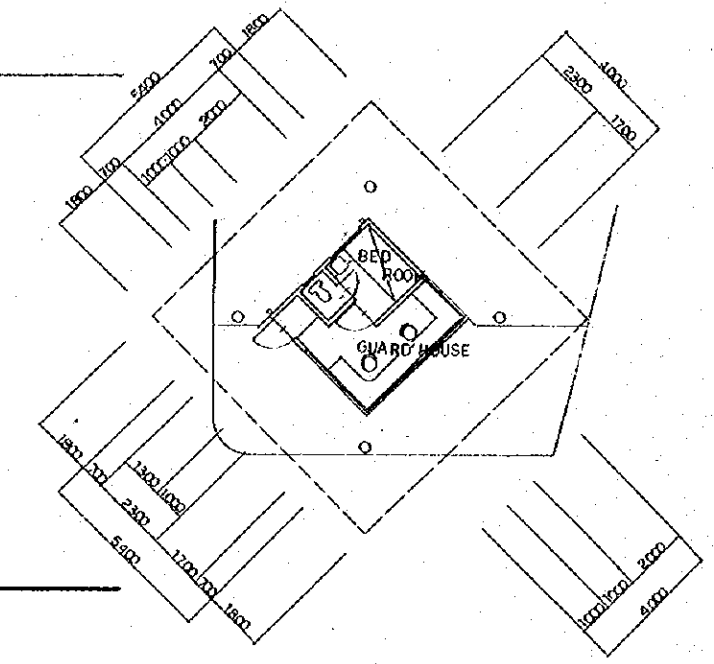
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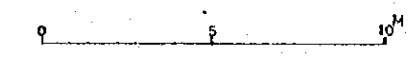
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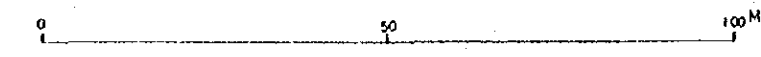
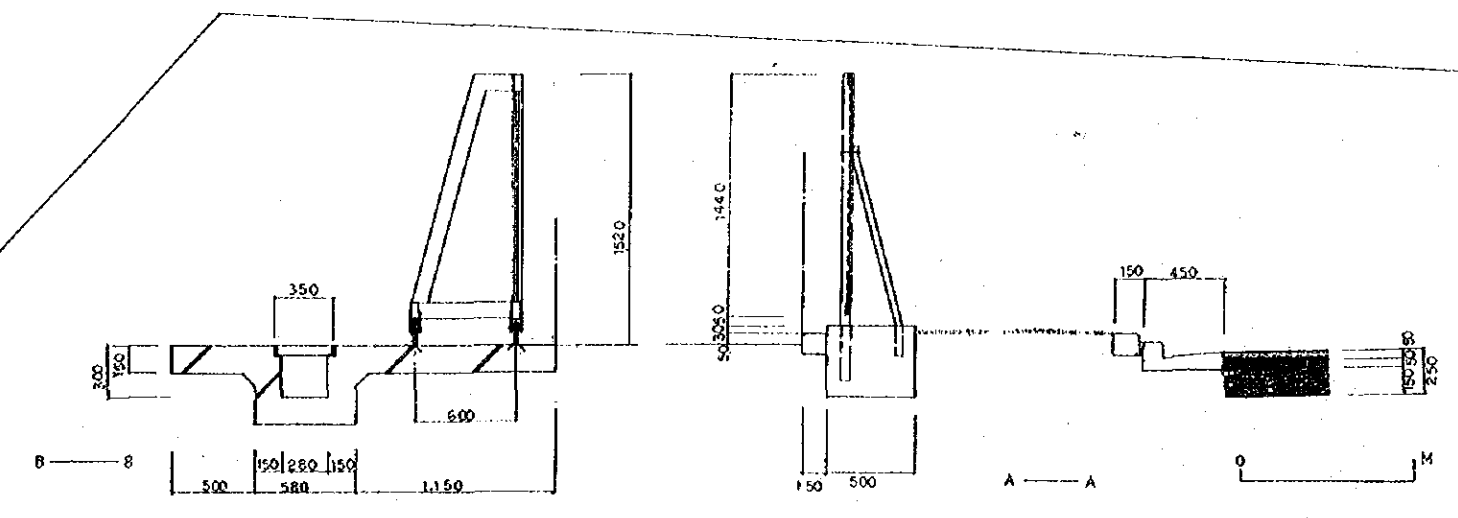
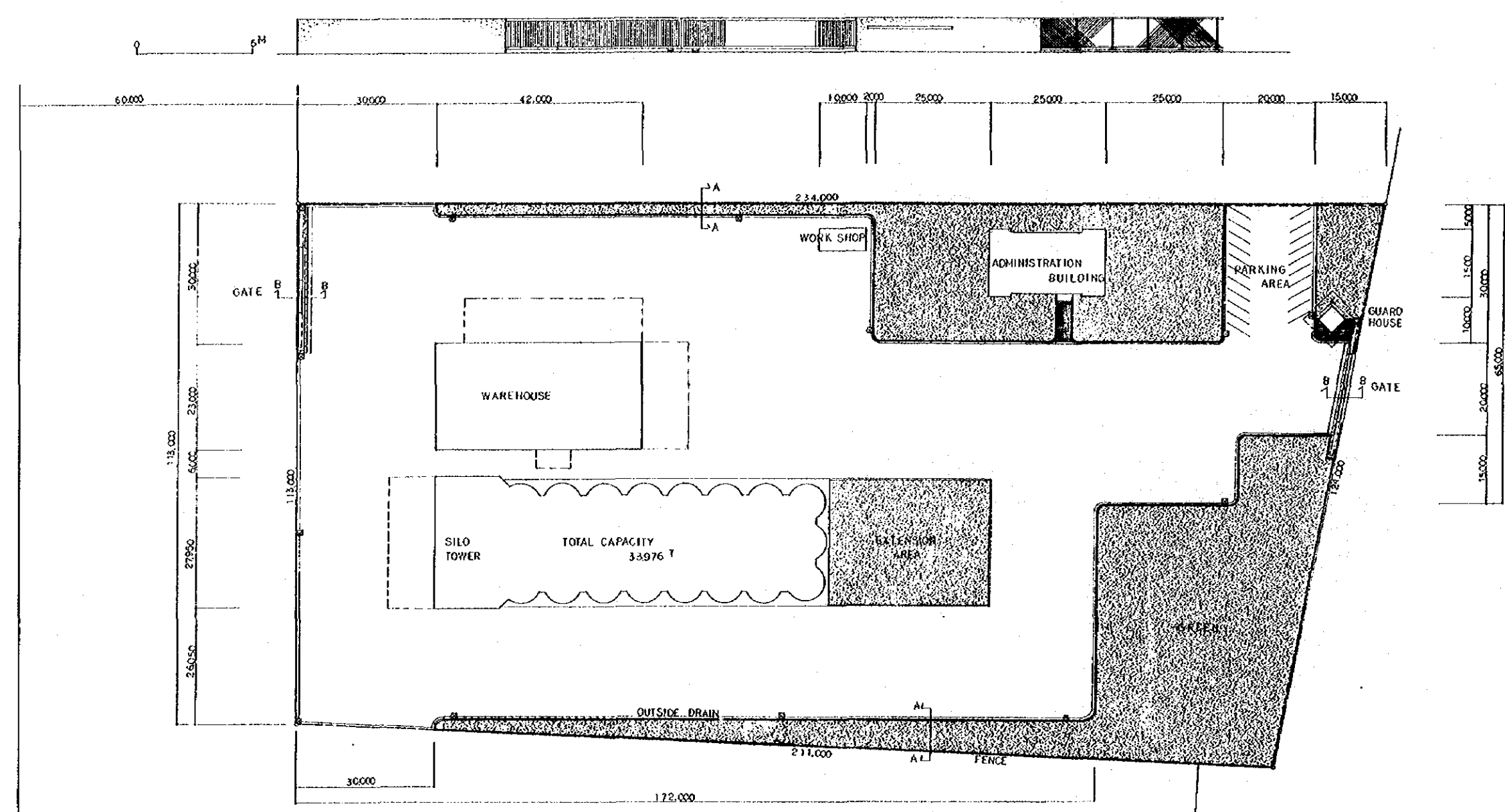
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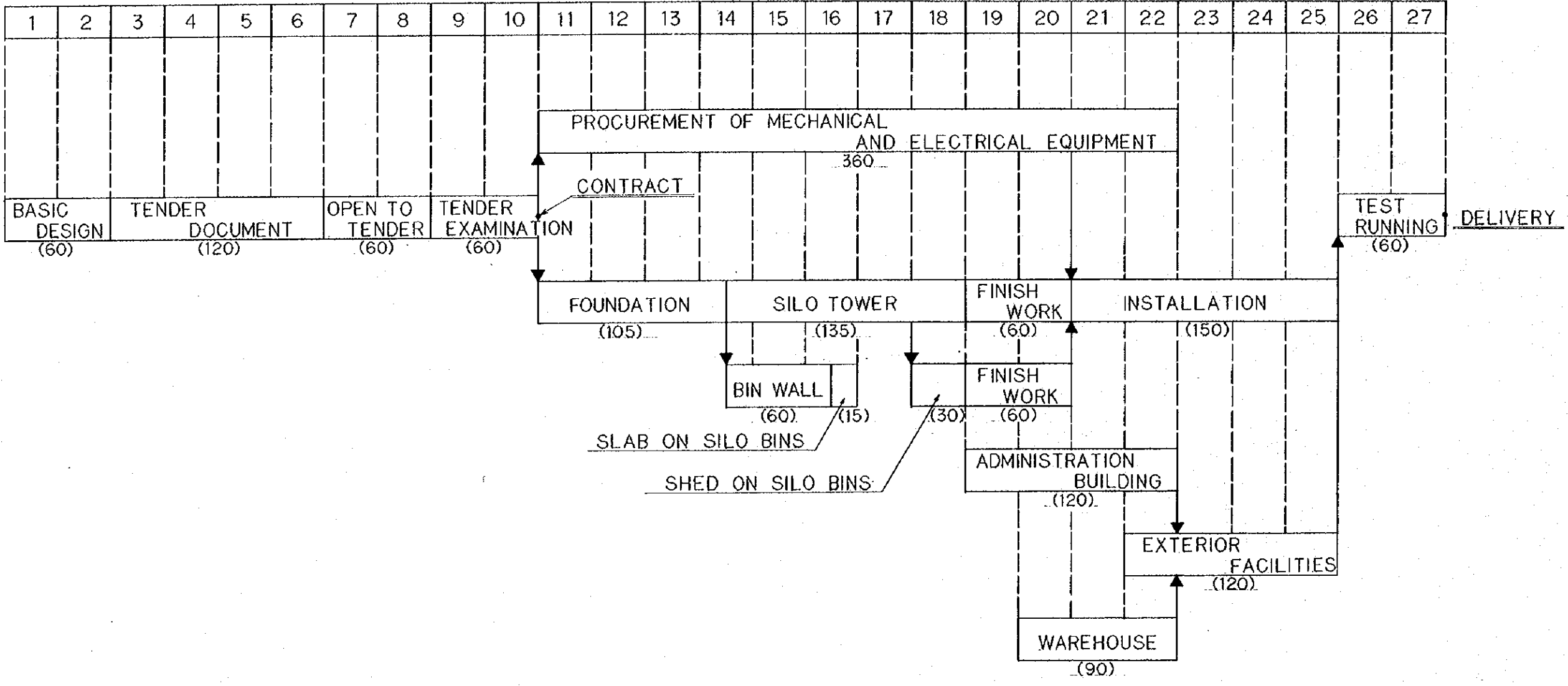
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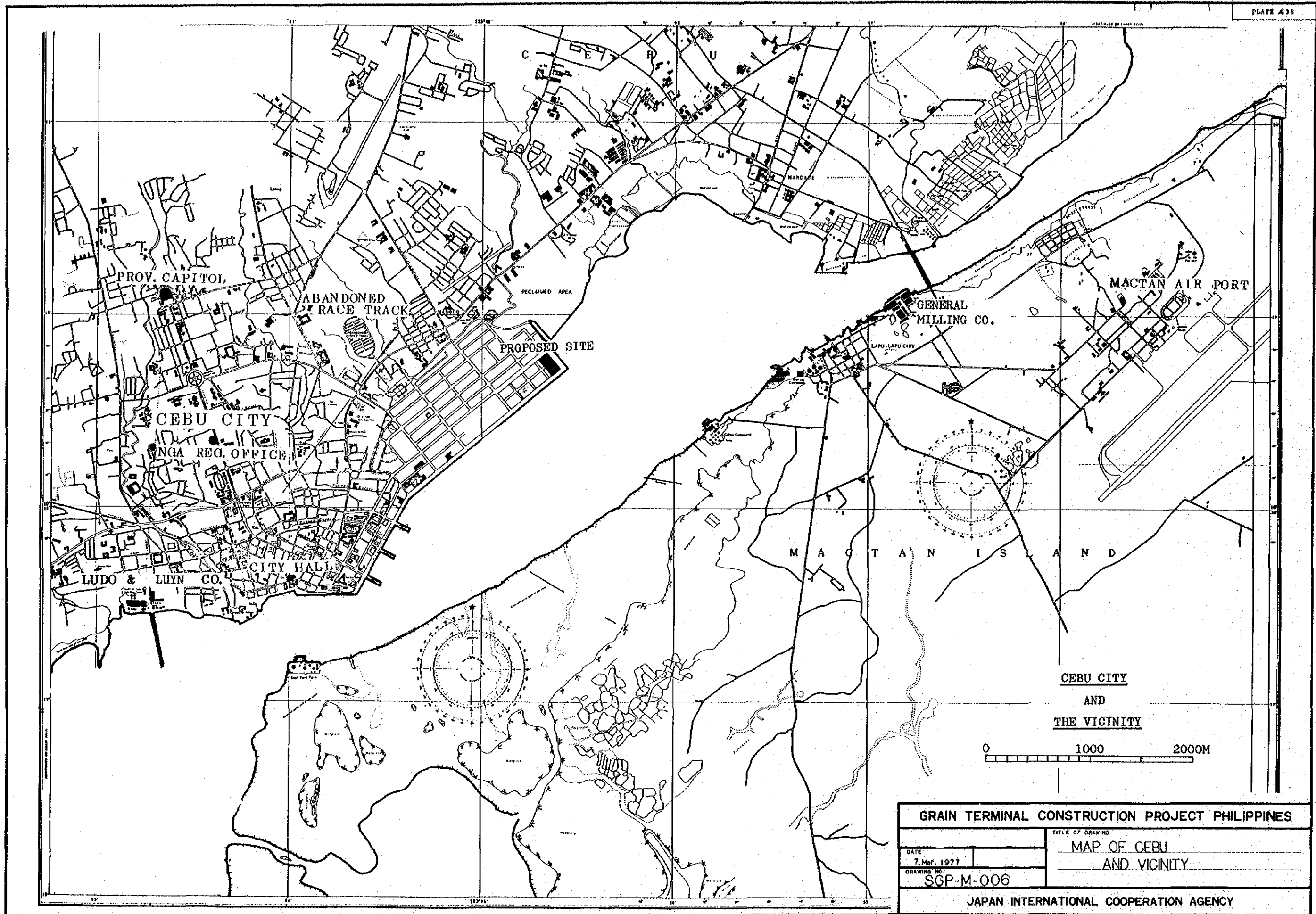
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DATE 7, MAR. 1977	DRAWING NO. SGM-B-013		
JAPAN INTERNATIONAL COOPERATION AGENCY			



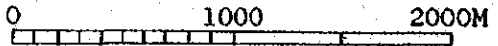
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DATE			EXTERIOR FACILITIES
7, Mar. 1977			
DRAWING NO.	SGM-B-014		
JAPAN INTERNATIONAL COOPERATION AGENCY			



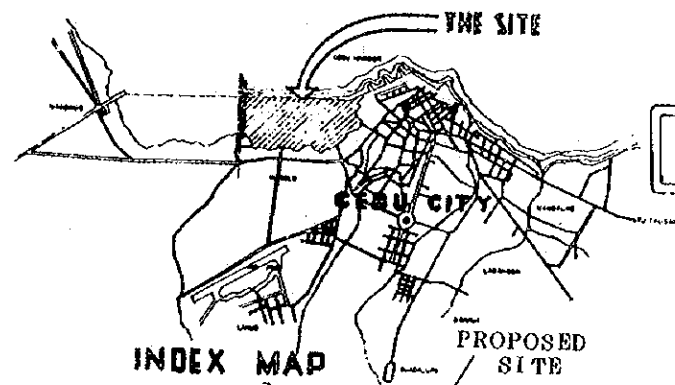
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DATE	DRAWING NO.		TIME SCHEDULE
7. Mar. 1977	SGM-G-006		
JAPAN INTERNATIONAL COOPERATION AGENCY			



CEBU CITY  
AND  
THE VICINITY

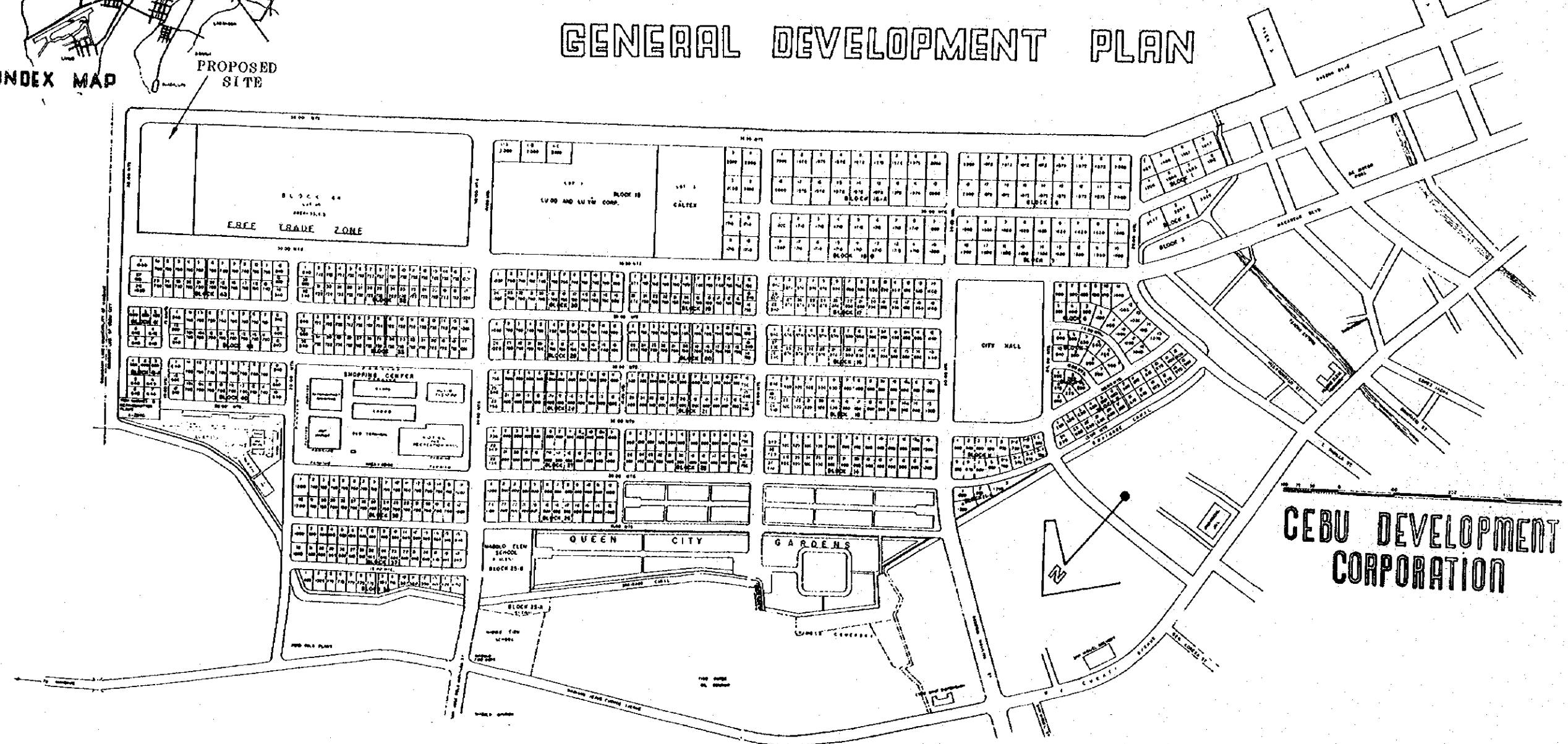


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TITLE OF DRAWING	
DATE 7, Mar. 1977	MAP OF CEBU AND VICINITY
DRAWING NO. SGP-M-006	
JAPAN INTERNATIONAL COOPERATION AGENCY	



# CEBU PORT DEVELOPMENT AND RECLAMATION PROJECT

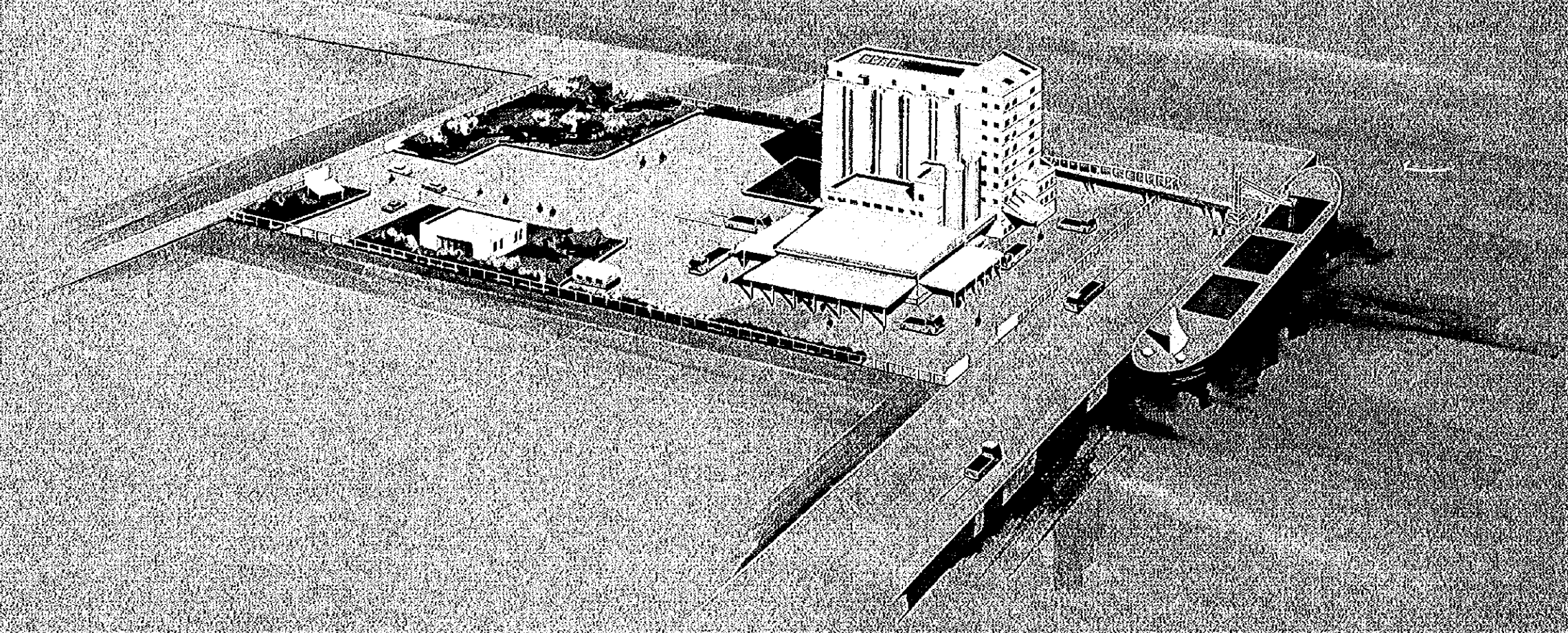
## GENERAL DEVELOPMENT PLAN



**CEBU DEVELOPMENT CORPORATION**

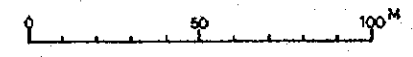
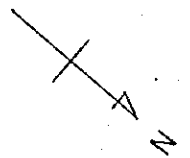
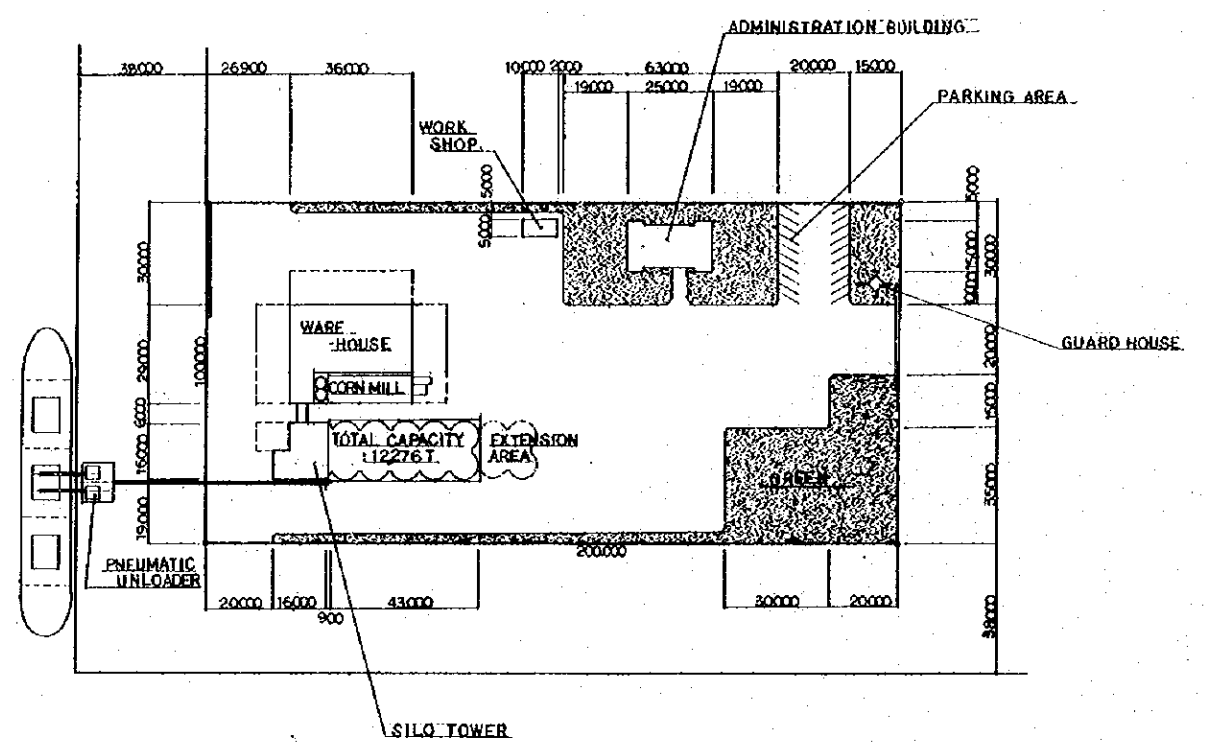
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DATE	TITLE OF DRAWING	
7-Mar. 1977	CEBU PORT	
DRAWING NO.	DEVELOPMENT PLAN	
SGC-G-001		
JAPAN INTERNATIONAL COOPERATION AGENCY		



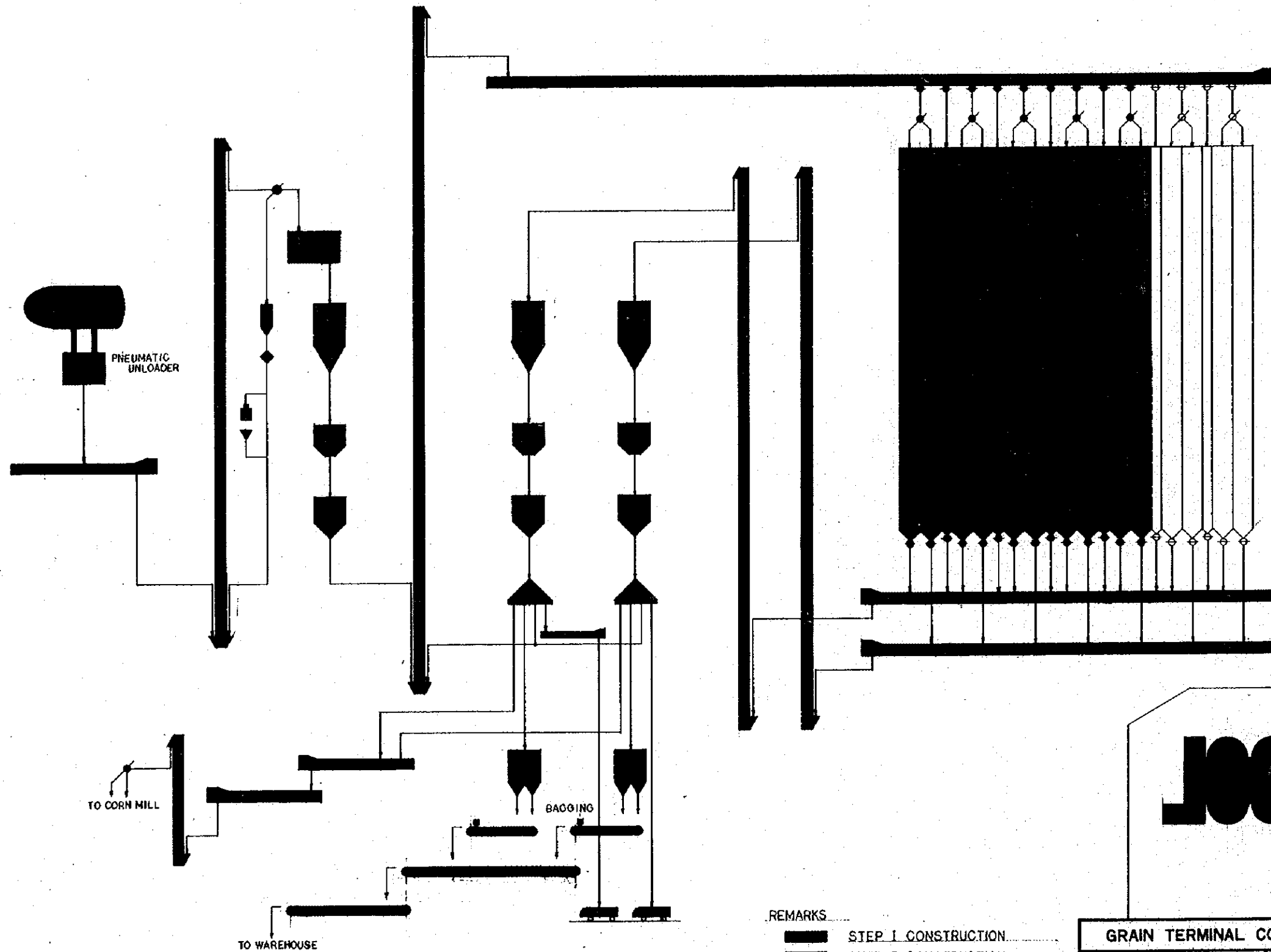


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DATE 7.15.1977	PROJECT NO. SGC-6-C12		CEBU BIRD'S EYE VIEW
JAPAN INTERNATIONAL COOPERATION AGENCY			



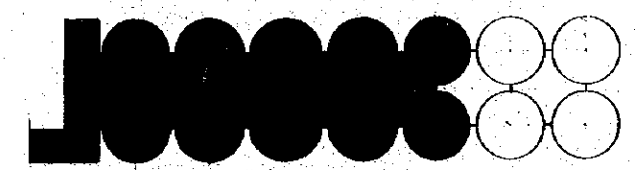


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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU
DATE			GENERAL LAYOUT
7. Oct. 1977			
DRAWING NO.	SGC-6-003		
JAPAN INTERNATIONAL COOPERATION AGENCY			

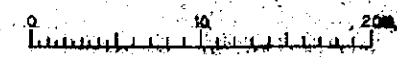
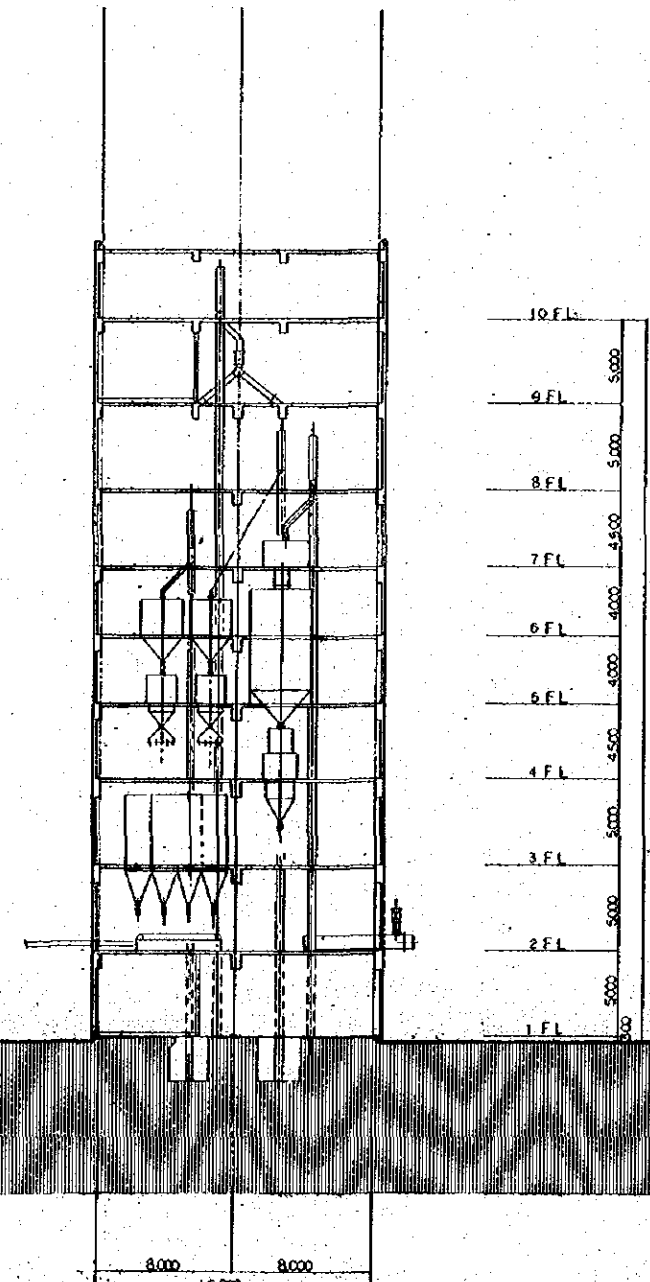
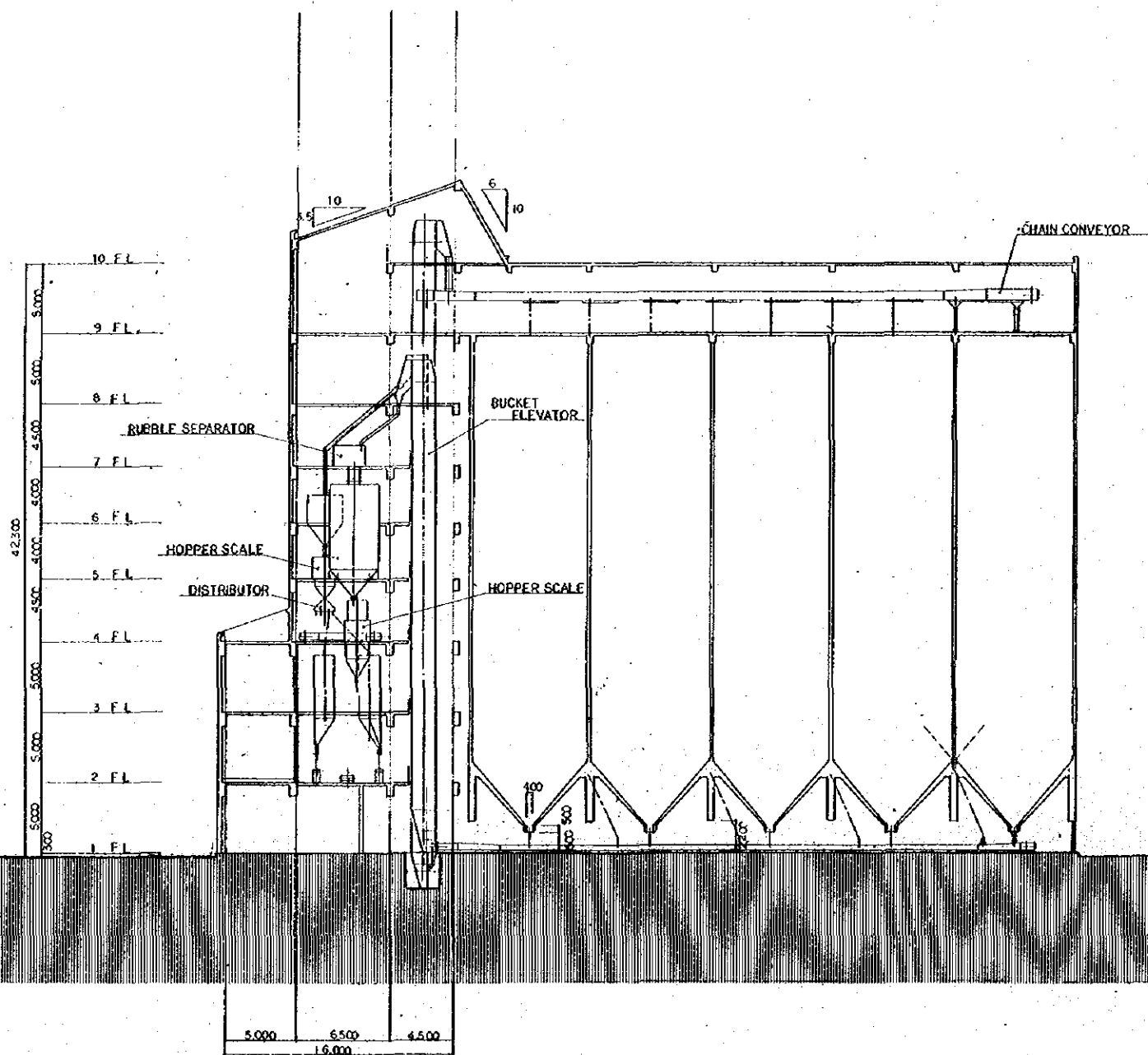


	BELT CONVEYOR
	BUCKET ELEVATOR
	CHAIN CONVEYOR
	TWO-WAY CHUTE VALVE
	RUBBLE SEPARATOR
	HOPPER SCALE
	DISTRIBUTOR
	SURGE BIN
	RECEIVING HOPPER
	SAMPLE DIVIDER
	AUTOMATIC SAMPLER
	SEWING MACHINE
	SLIDE GATE

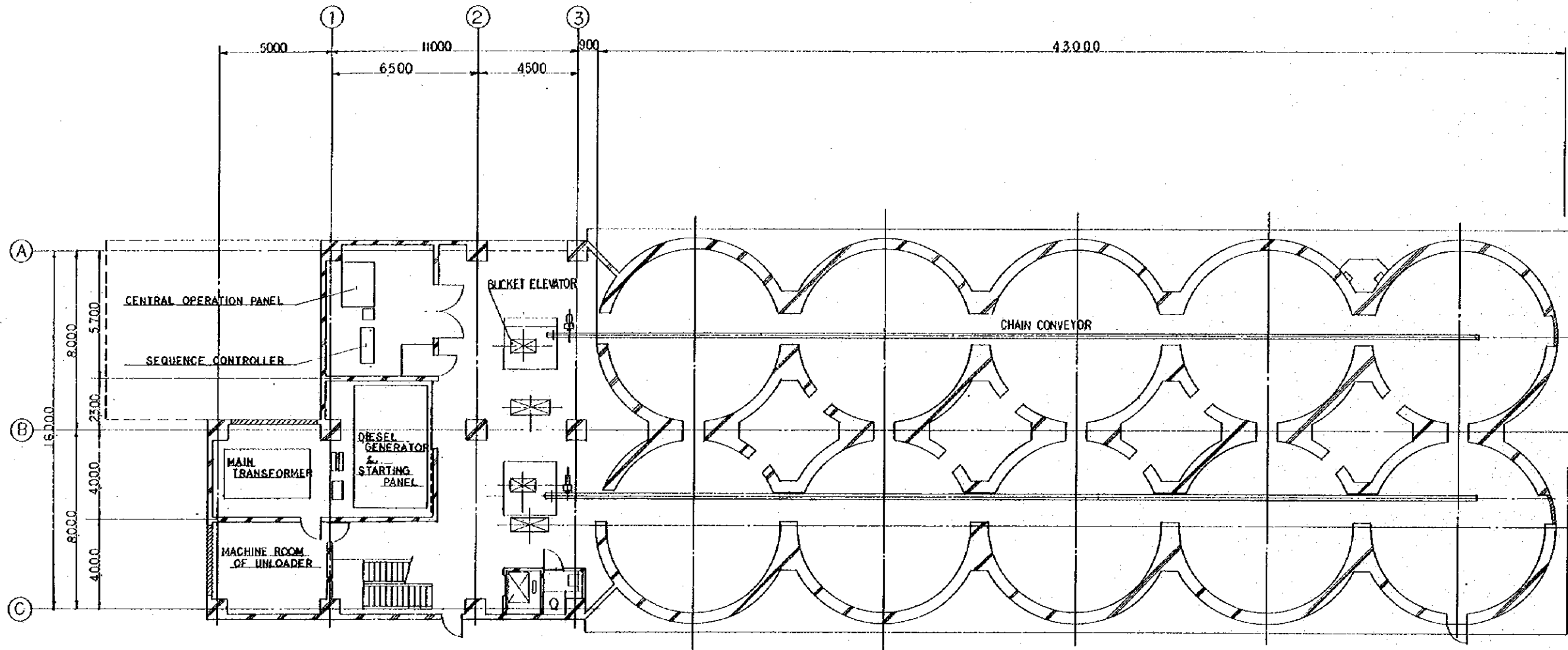
REMARKS  
 STEP I CONSTRUCTION  
 STEP II CONSTRUCTION



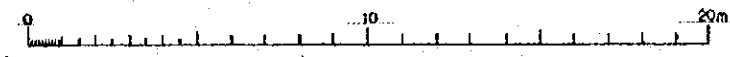
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DATE 7. Mar. 1977	DRAWING NO. SGC-6-004		FLOW SHEET
JAPAN INTERNATIONAL COOPERATION AGENCY			



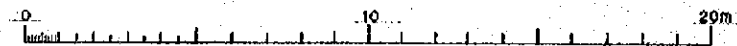
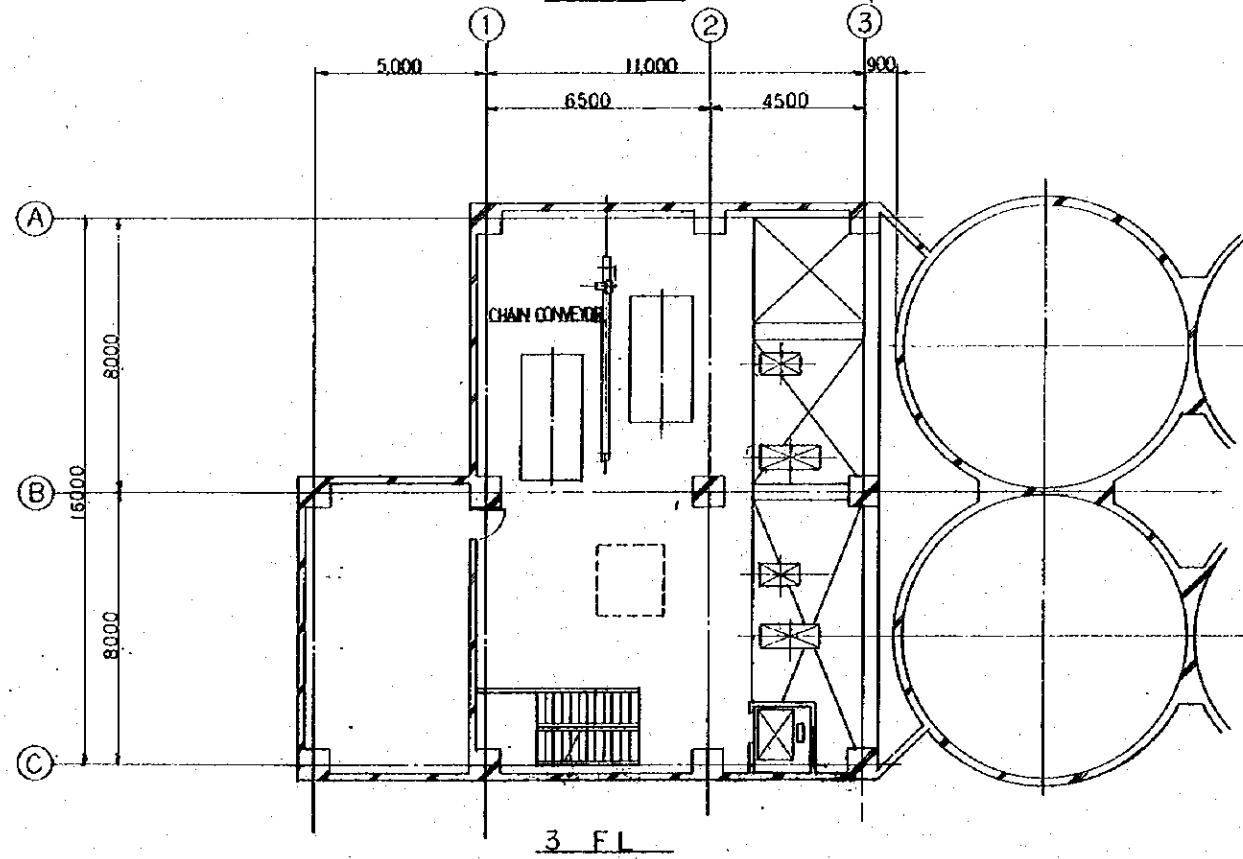
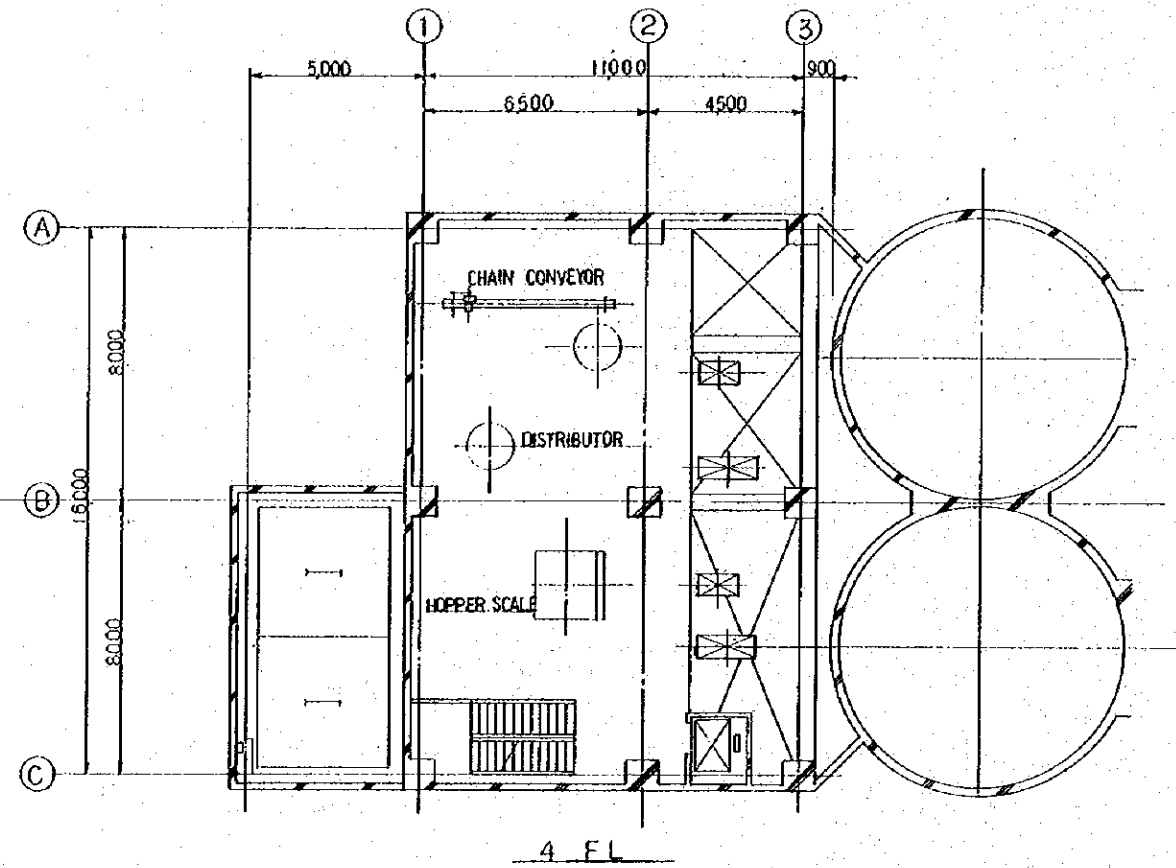
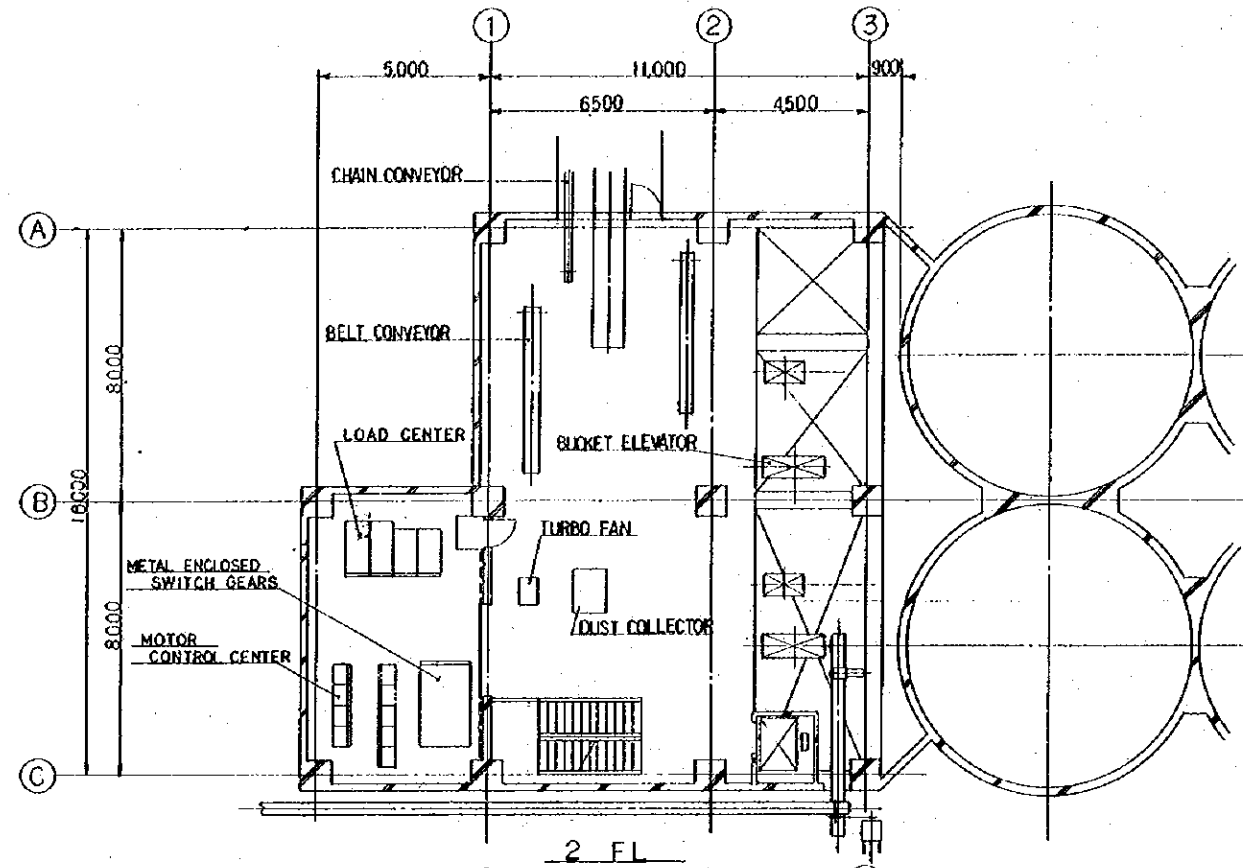
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			CEBU SILO
DATE			LAYOUT OF MECHANICAL EQUIPMENT
7. MAY 1977			SECTION
PROJECT NO. GGC-M-001			
JAPAN INTERNATIONAL COOPERATION AGENCY			



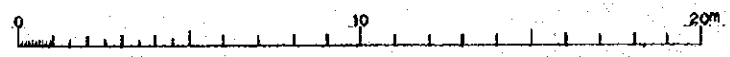
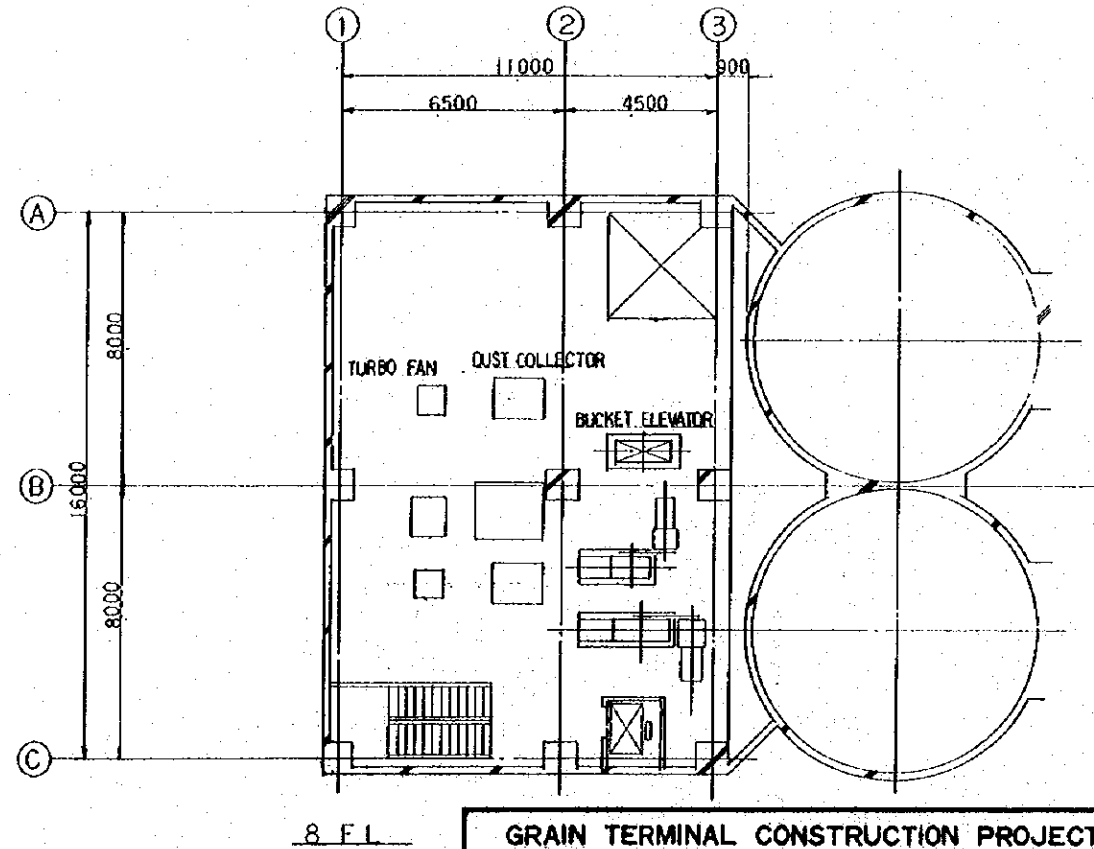
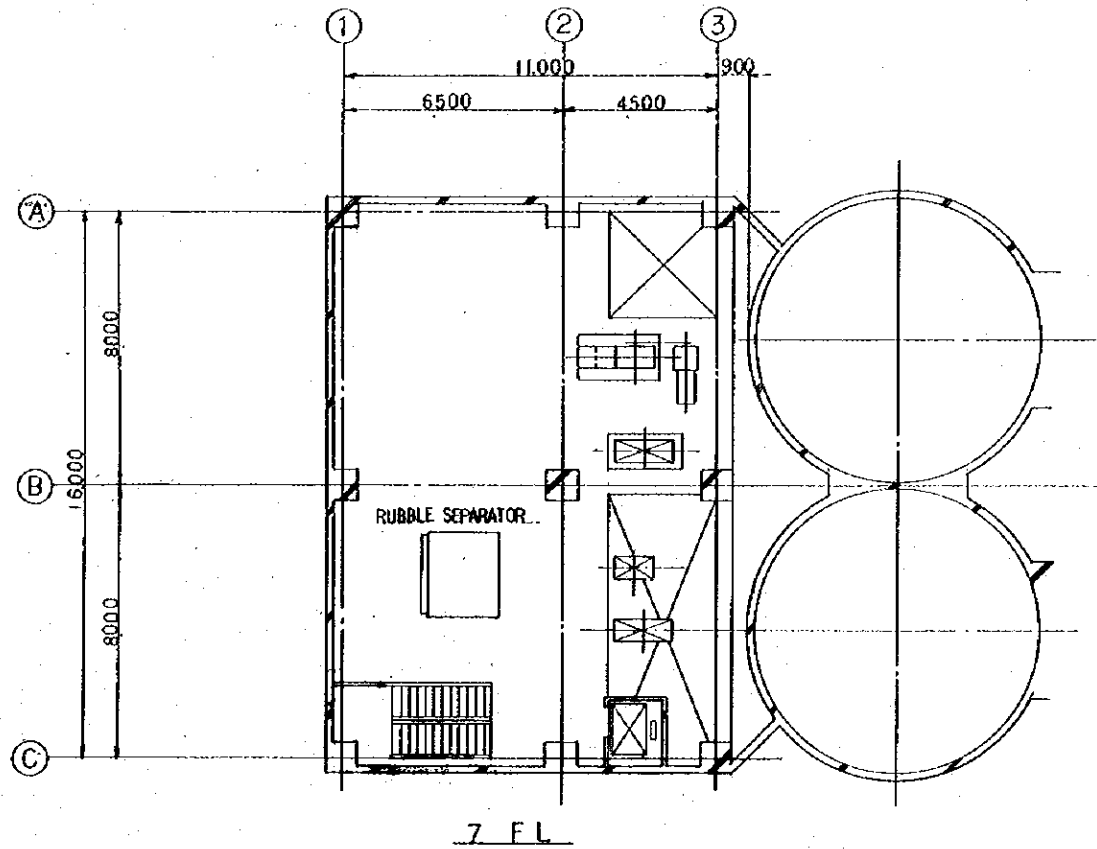
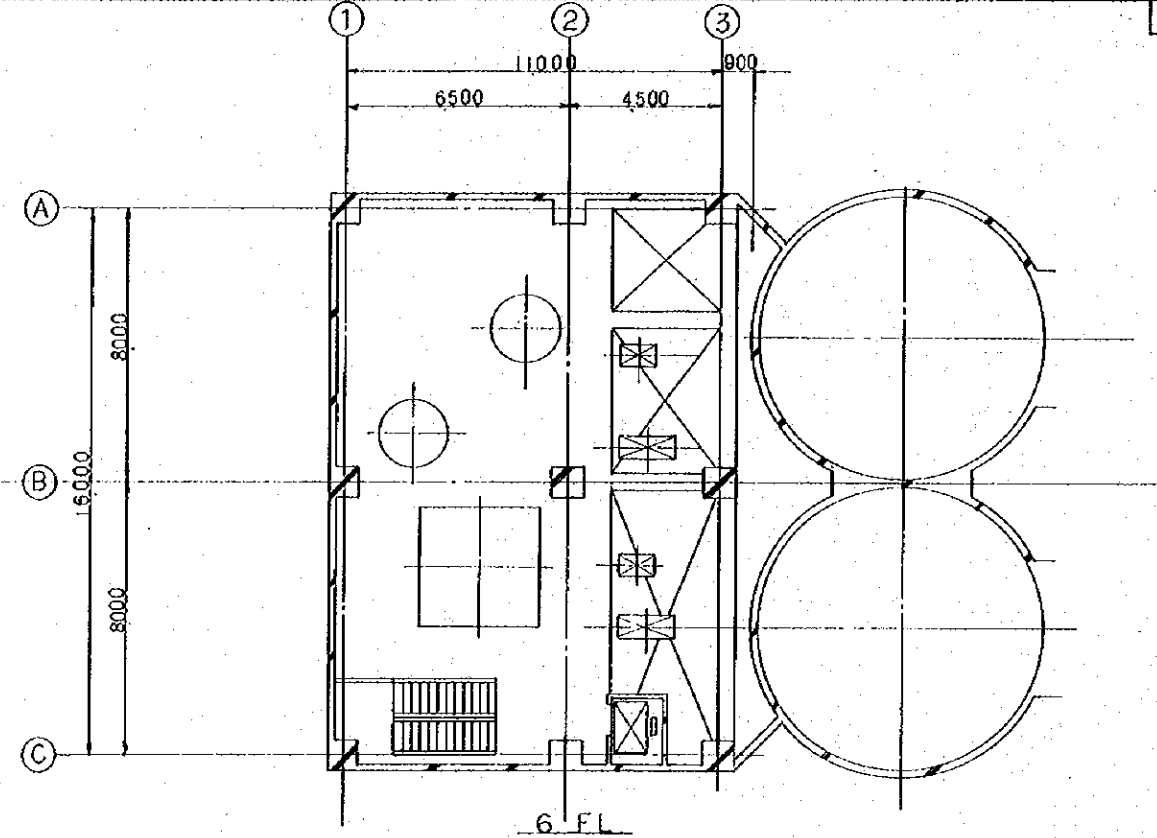
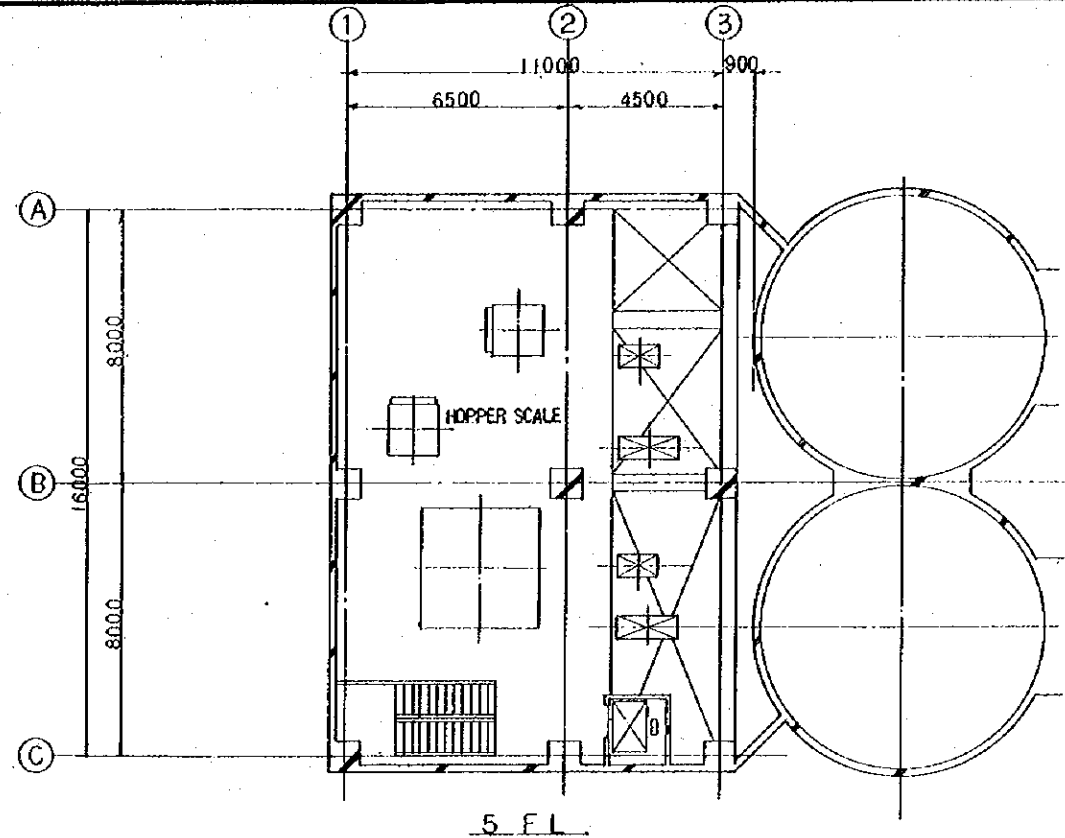
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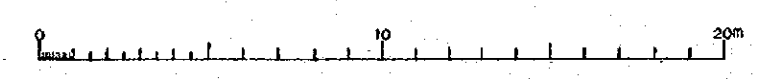
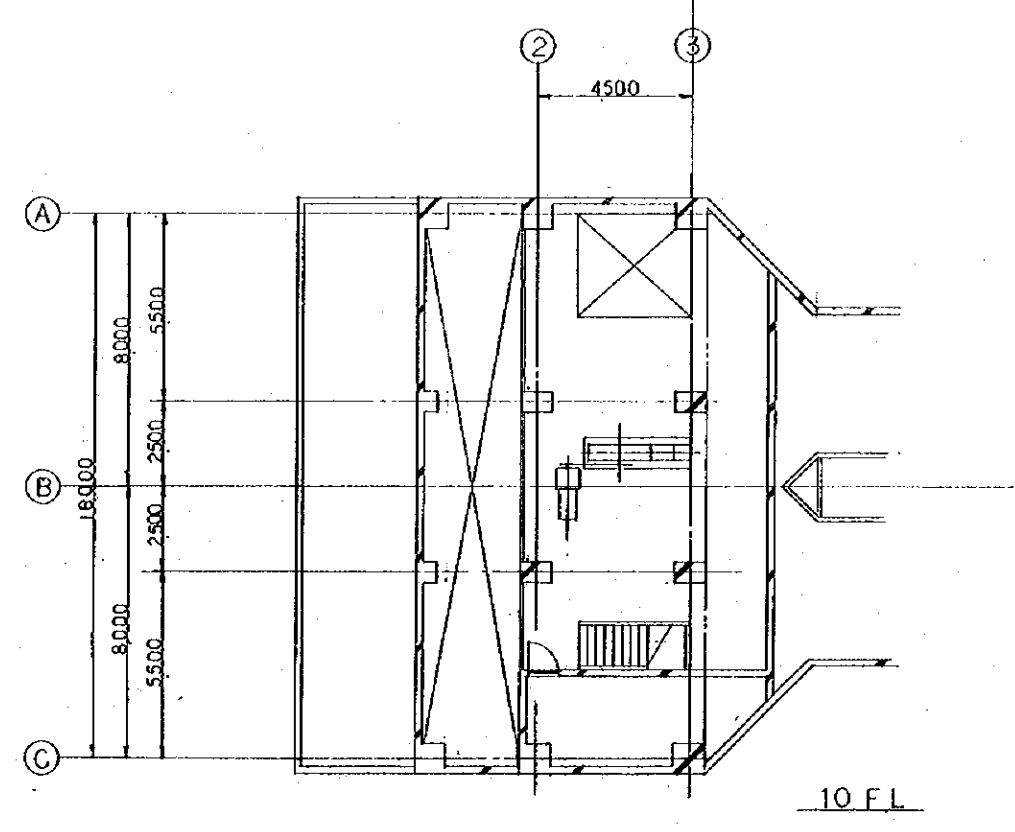
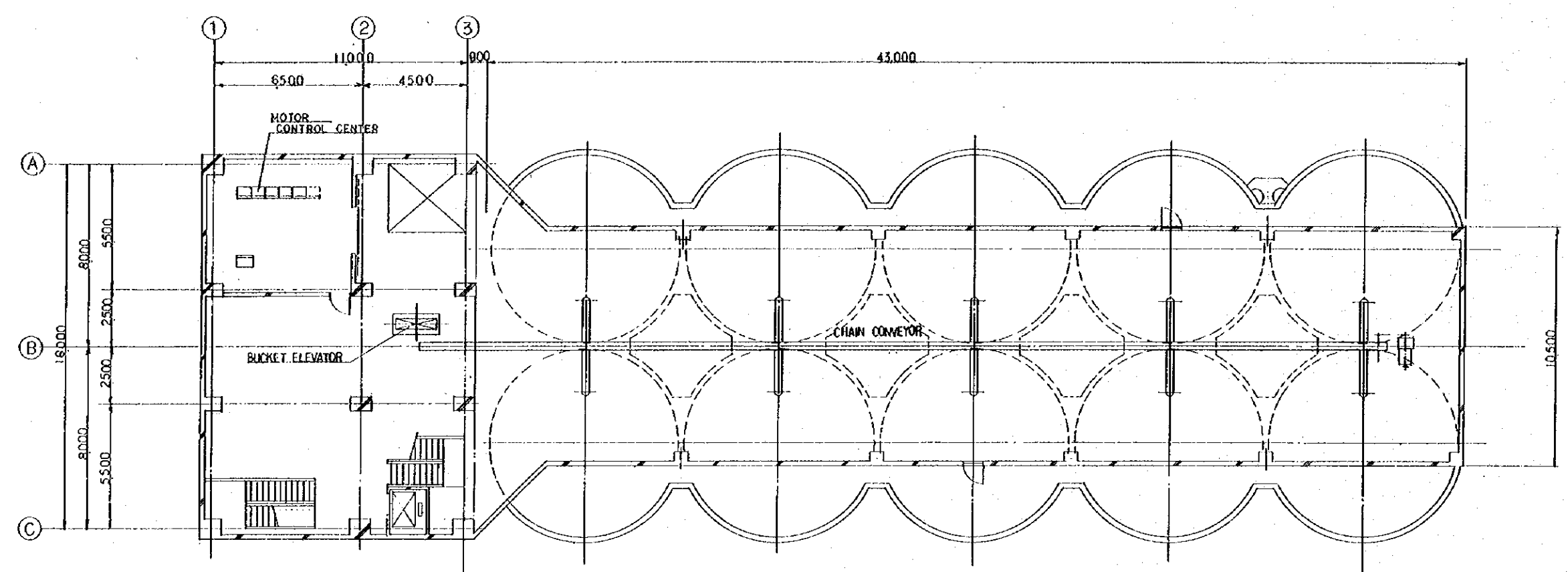
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DATE 7. MAR. 1977			CEBU SILO
DRAWING NO. SGC-M-002			LAYOUT OF MECHANICAL EQUIPMENT
			1ST FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 27 MAR 1977			SEBU SILO
DRAWING NO. SGC-M-003	LAYOUT OF MECHANICAL EQUIPMENT 2ND, 3RD AND 4TH FL PLAN		
JAPAN INTERNATIONAL COOPERATION AGENCY			

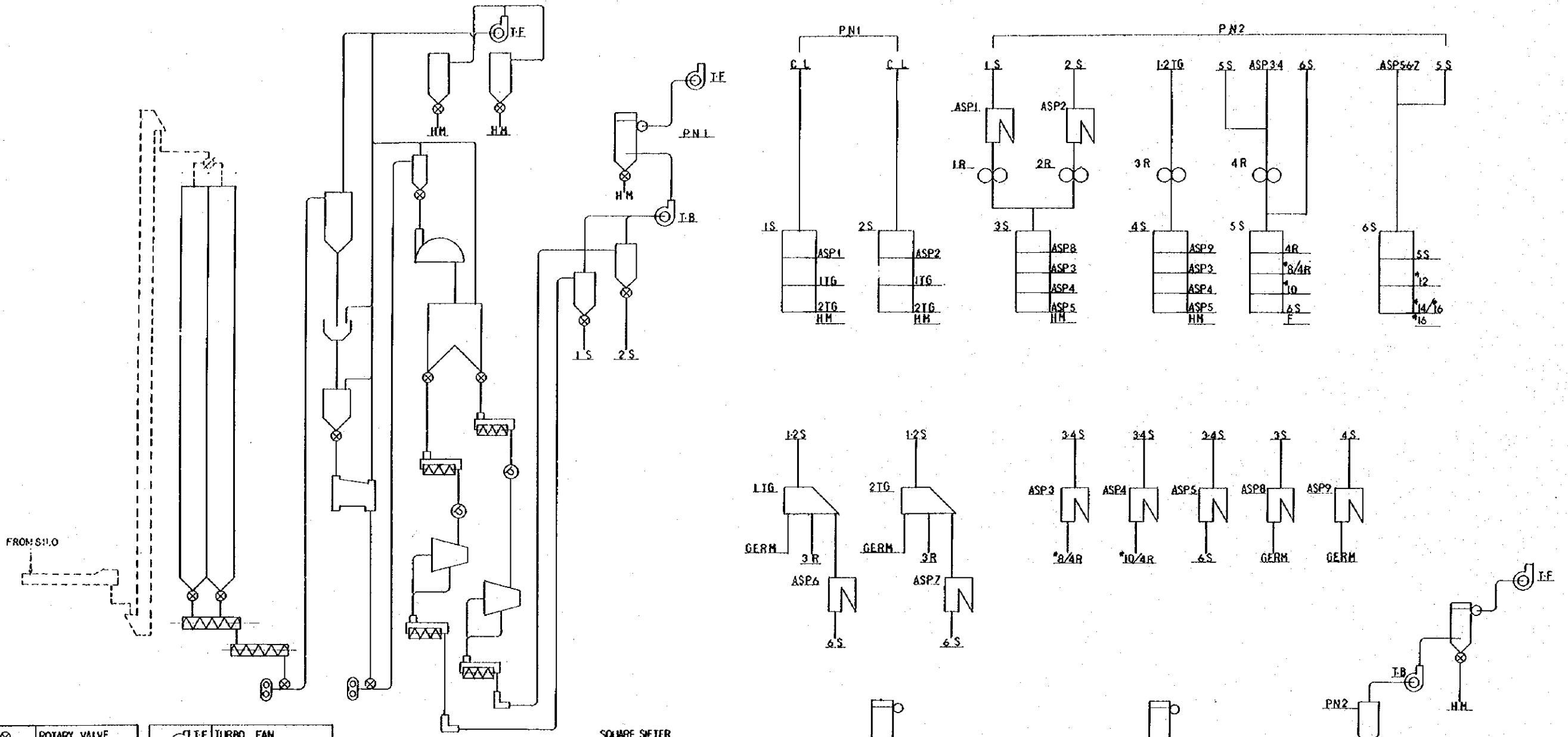


<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU SILO
DATE	7. MAR. 1977.		LAYOUT OF MECHANICAL EQUIPMENT
DRAWING NO.	SGC-M-004		5TH, 6TH, 7TH AND 8TH FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



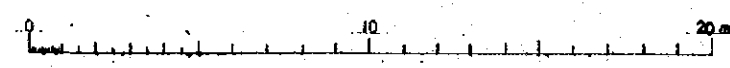
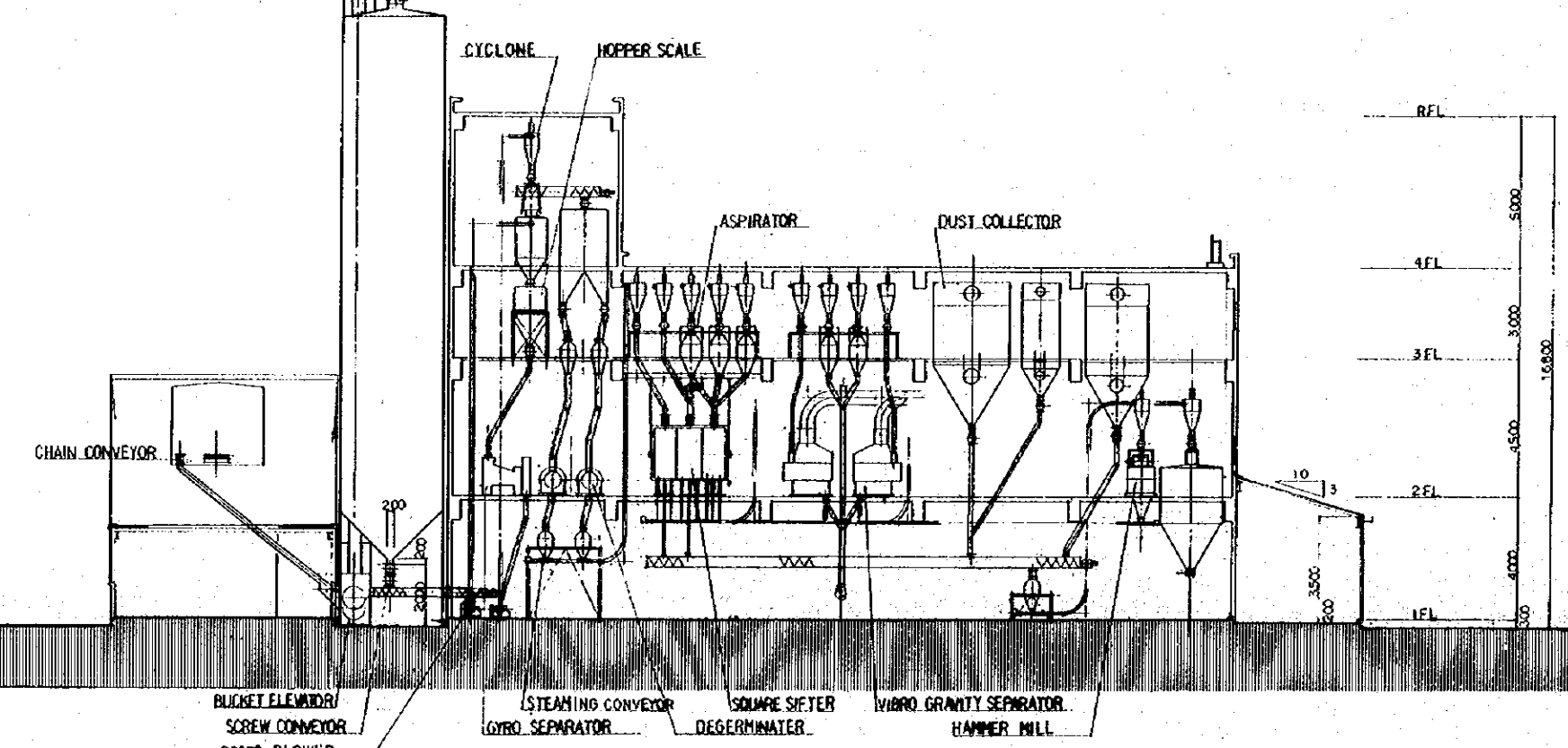
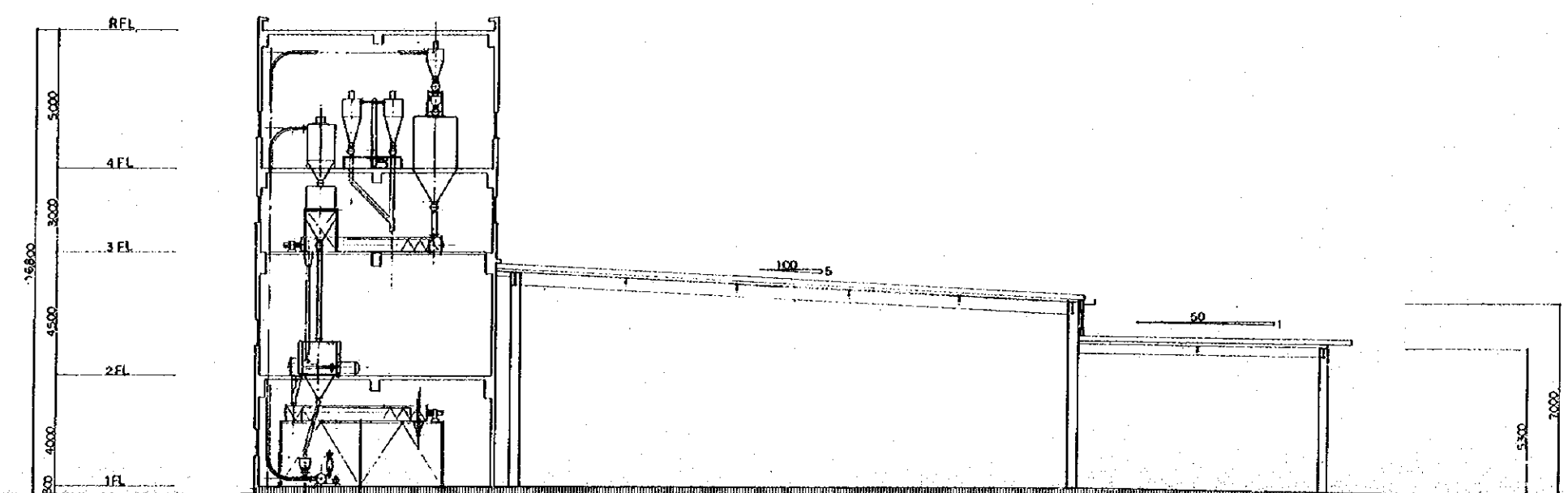
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			CEBU SILO
DATE	DRAWING NO.		LAYOUT OF MECHANICAL EQUIPMENT
July 1977	SGC - M - 005		9TH AND 10TH FLOOR PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



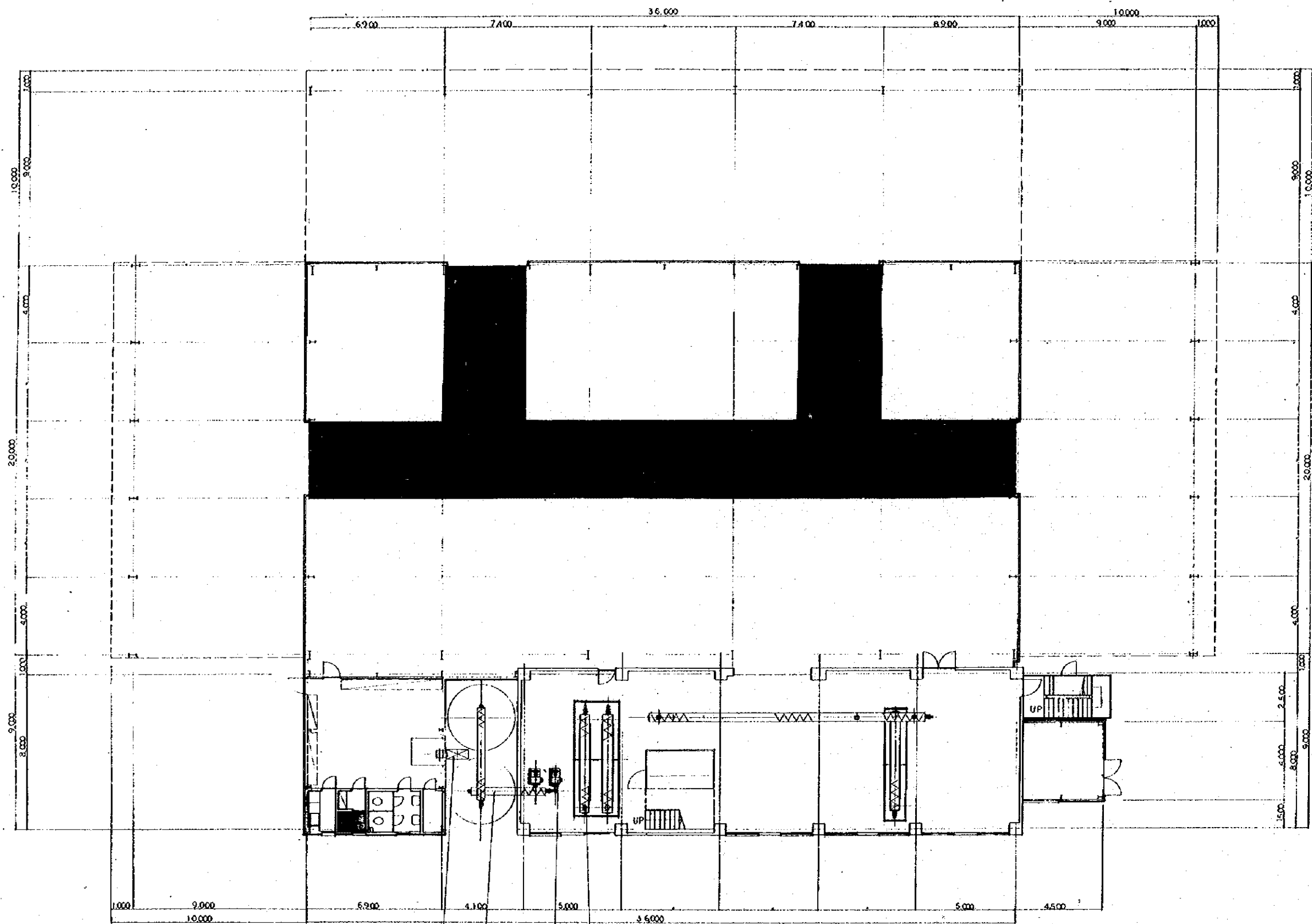


	ROTARY VALVE		TURBO FAN TURBO BLOWER
	SCREW CONVEYOR		SQUARE SIFTER
	ROOTS BLOWER		ASPIRATOR
	HOPPER SCALE		DOUBLE ROLLER MILL
	GYRO SEPARATOR		VIBRO GRAVITY SEPARATOR
	DAMPENER		HAMMER MILL
	STEAMING CONVEYOR		CLEANING LINE
	MAGNET SEPARATOR		PNEUMATIC CONVEYOR
	DEGERMINATOR		
	INLET EQUIPMENT		
	CYCLONE		
	DUST COLLECTOR		

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL
DATE	7, Mar. 1977		FLOW SHEET
DRAWING NO.	SGC - G - 005		
JAPAN INTERNATIONAL COOPERATION AGENCY			

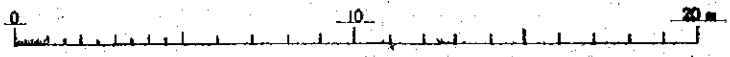
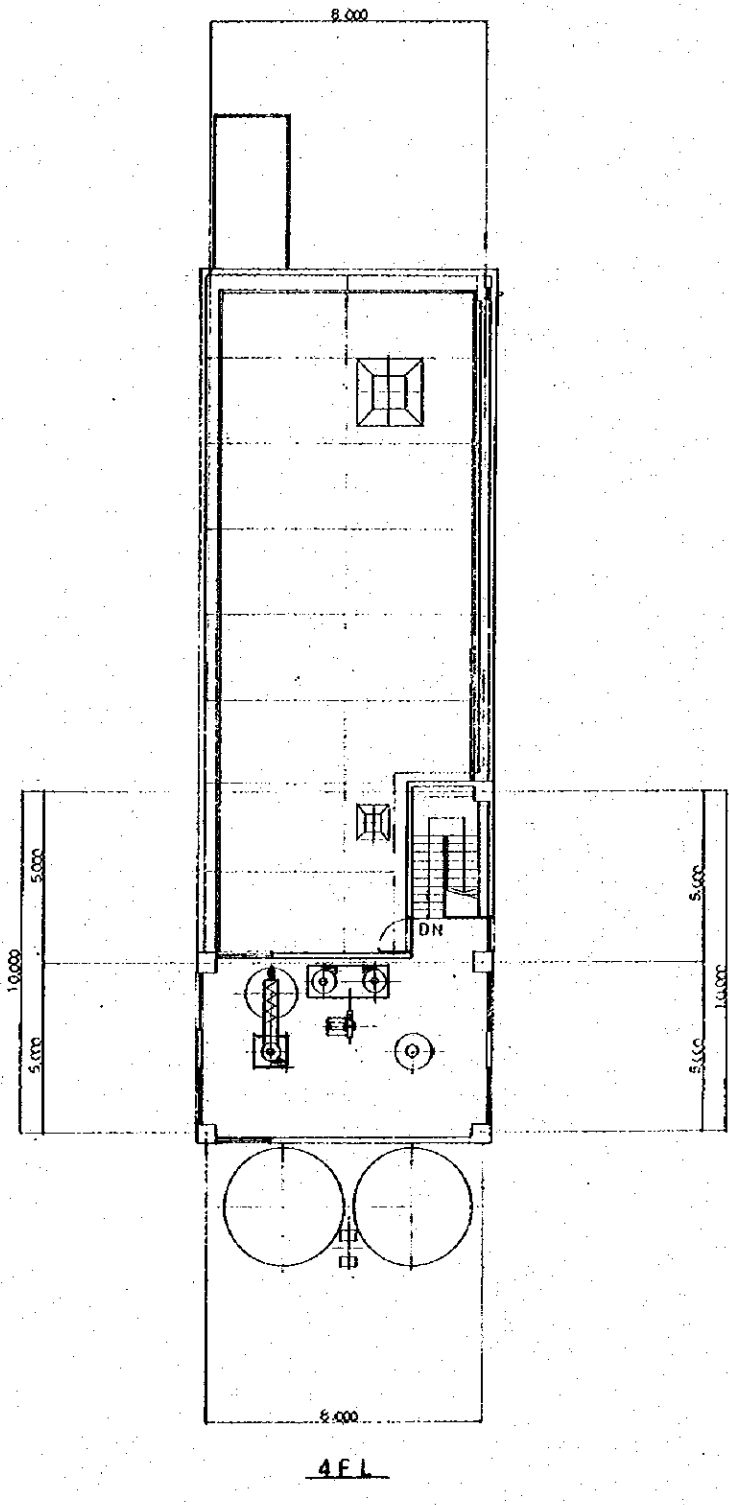
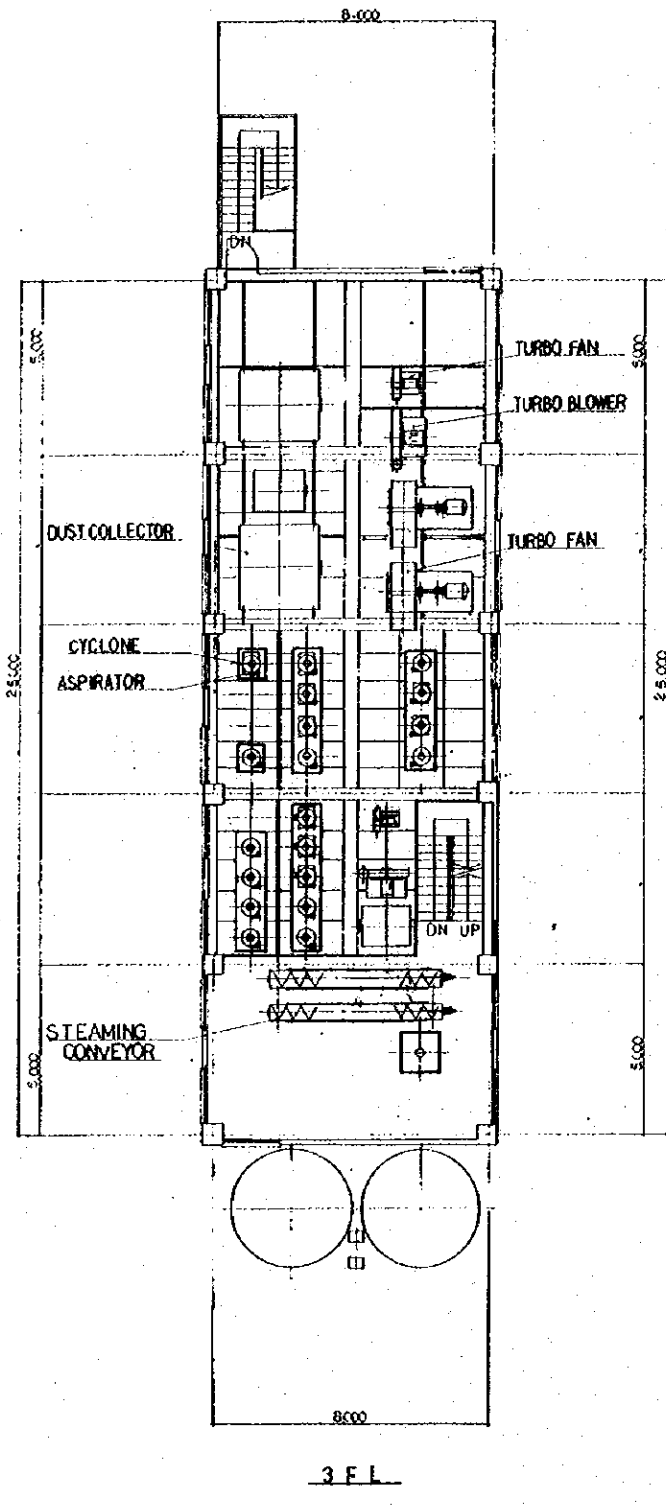
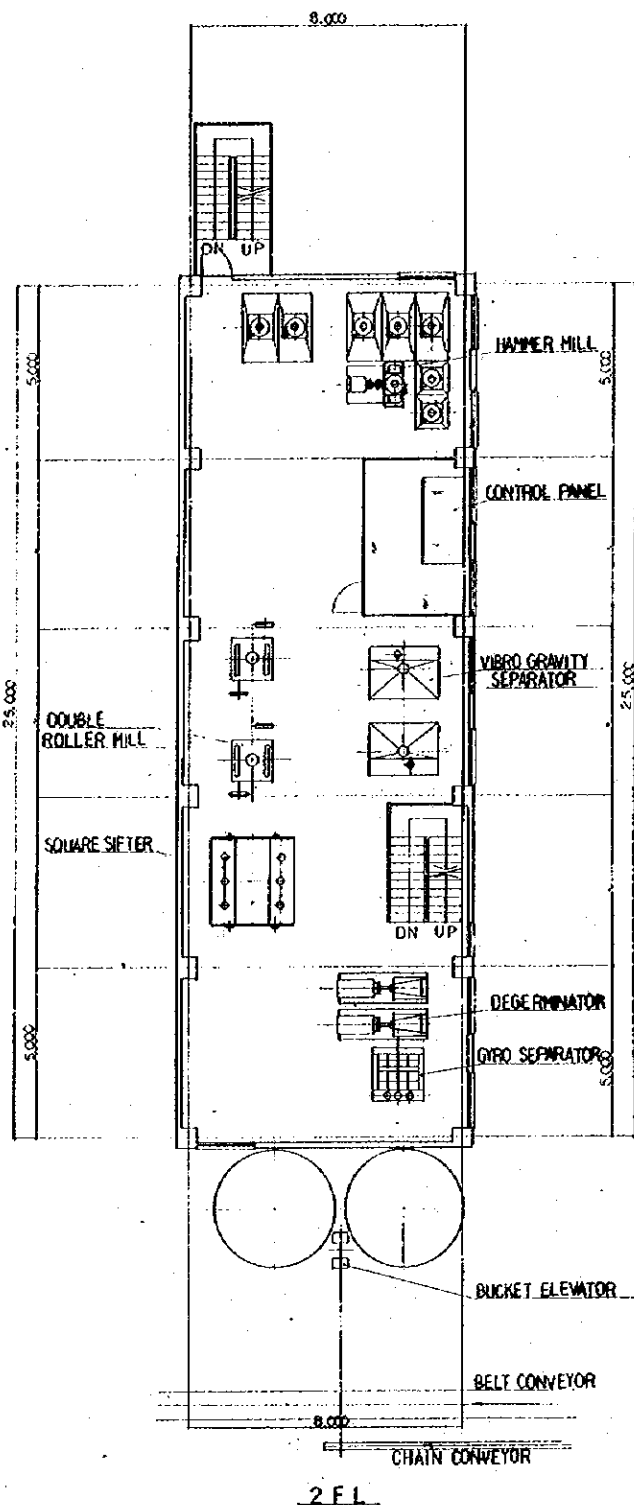


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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL
DATE			LAYOUT OF MECHANICAL EQUIPMENT
7. Mar. 1977			SECTION
DRAWING NO.			
SGC-M-006			
JAPAN INTERNATIONAL COOPERATION AGENCY			

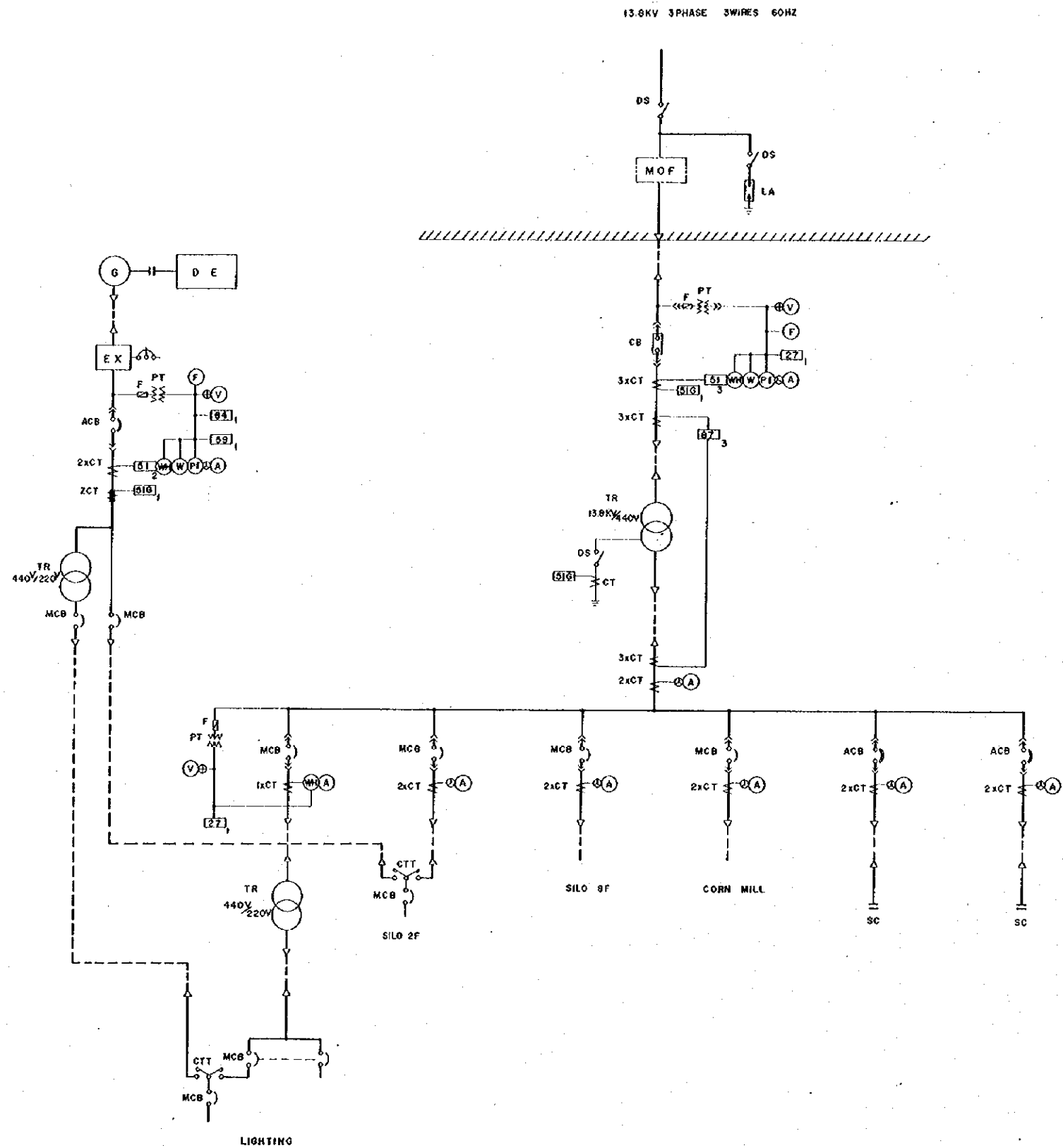


BUCKET ELEVATOR  
 SCREW CONVEYOR  
 ROOTS BLOWER  
 STEAMING CONVEYOR

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	CEBU CORN MILL AND WAREHOUSE LAYOUT OF MECHANICAL EQUIPMENT
DATE	DRAWING NO.		1ST FL PLAN
7 Nov 1977	SGC-M-007		
JAPAN INTERNATIONAL COOPERATION AGENCY			

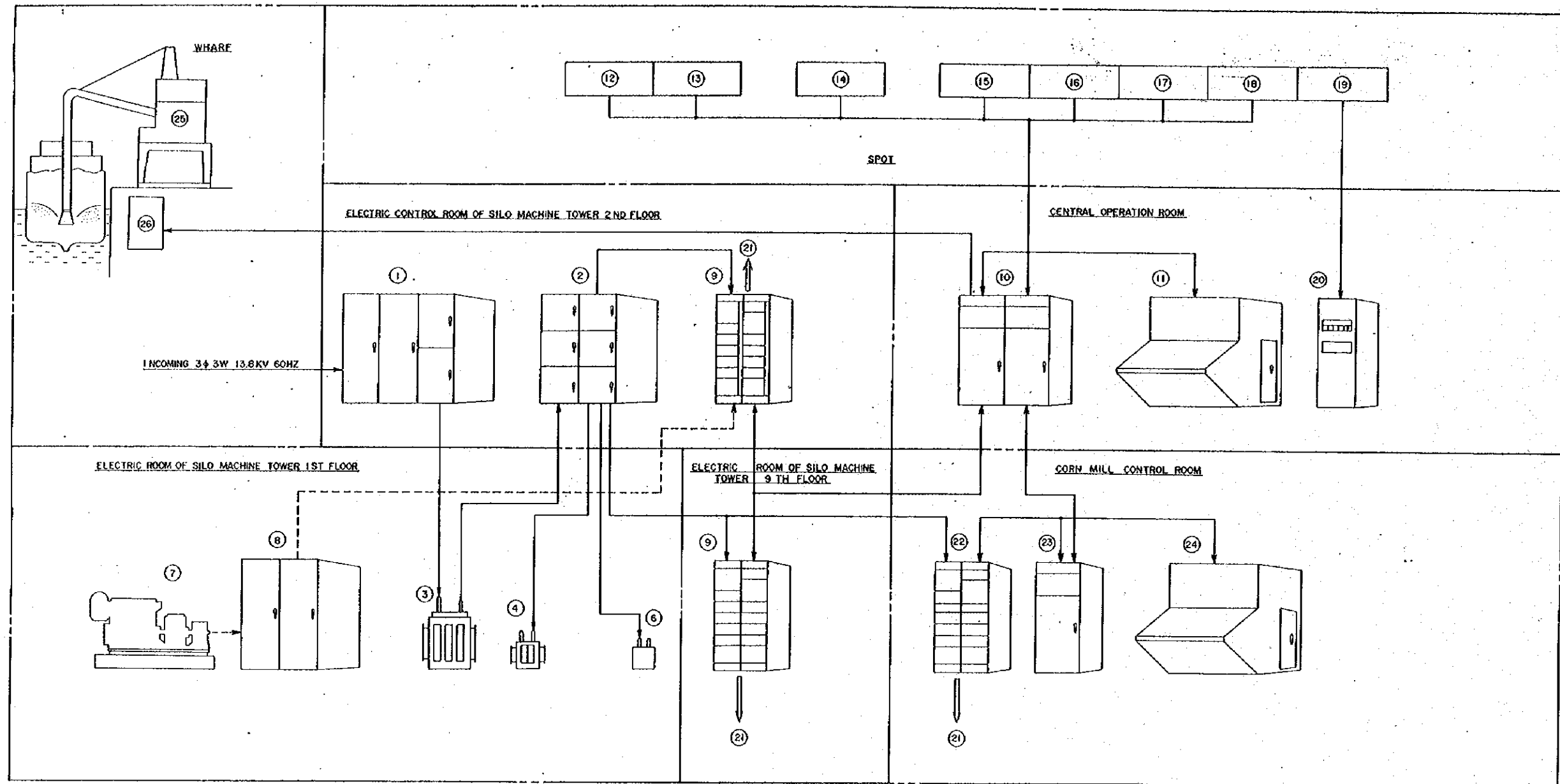


GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL
DATE	LAYOUT OF MECHANICAL EQUIPMENT		
7. MAR. 1977	2ND, 3RD AND 4TH FL. PLAN		
DRAWING NO.	SGC-M-008		
JAPAN INTERNATIONAL COOPERATION AGENCY			



SYMBOLS	NAME
	CIRCUIT BREAKER
	DISCONNECTING SWITCH
	ELECTRO MAGNETIC CONTACTOR
	ELECTRO MAGNETIC CONTACTOR
	POWER FUSE
	MOLDED CASE CIRCUIT BREAKER
	AIR CIRCUIT BREAKER
	PLUG-IN TYPE DISCONNECTING SWITCH
	LIGHTNING ARRESTER
	CABLE HEAD
	FUSE
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	ZERO-PHASE SEQUENCE CURRENT TRANSFORMER
	EARTH
	TRANSFORMER
	STATIC CONDENSER
	METERING OUT FIT
	DIFFERENTIAL RELAY
	OVER CURRENT RELAY
	OVER CURRENT GROUND RELAY
	UNDER VOLTAGE RELAY
	OVER VOLTAGE RELAY
	VOLTAGE RELAY
	VOLT METER
	CHANGE-OVER SWITCH FOR VOLTMETER
	AMMETER
	CHANGE-OVER SWITCH FOR AMMETER
	WATT-HOUR METER
	WATT METER
	POWER FACTOR METER
	FREQUENCY METER
	ZERO-PHASE SEQUENCE VOLTMETER
	EARTH INDICATING LAMP
	GENERATOR
	DIESEL ENGINE
	EXCITER

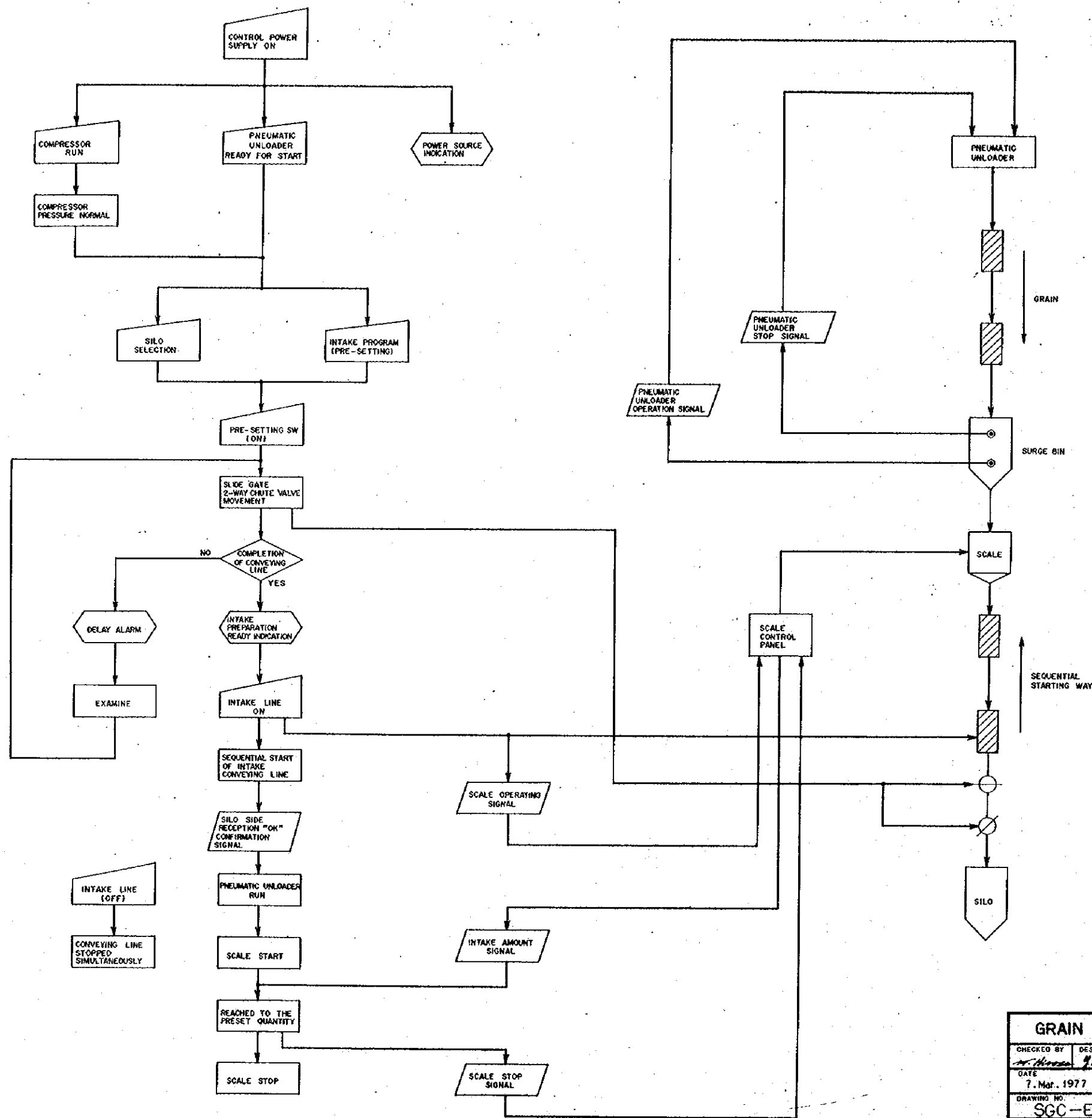
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	CEBU SILO AND CORN MILL
DATE			SKELETON DIAGRAM
7. Mar. 1977			
DRAWING NO.			
SGC-E-001			
JAPAN INTERNATIONAL COOPERATION AGENCY			







NOTICE:

- ① METAL ENCLOSED SWITCHGEARS (FOR SERVICE ELECTRIC / POWER)    ② POWER LOW VOLTAGE LOAD CENTER    ③ MAIN TRANSFORMER 13.8KV / 440V
- ④ LIGHTING TRANSFORMER 440V / 220V 60HZ    ⑤ CONDENSER    ⑥ DIESEL-GENERATOR    ⑦ GENERATOR PANEL AND AUTOMATIC STARTING PANEL    ⑧ LOW VOLTAGE MOTOR CONTROL CENTER    ⑨ PROGRAMMABLE SEQUENCE CONTROLLER
- ⑩ CENTRAL OPERATION PANEL    ⑪ LOCAL SWITCH PANELS (MANUAL SWITCH PANELS)    ⑫ EMERGENCY SWITCHES    ⑬ AIR CYLINDER SOLENOID VALVE
- ⑭ LIMIT SWITCHES    ⑮ LEVEL SWITCHES    ⑯ SPEED SWITCHES    ⑰ PRESSUR SWITCHES
- ⑱ TEMPERATURE DETECTOR    ⑲ GRAIN TEMPERATURE MONITORING PANEL    ⑳ LOW VOLTAGE INDUCTION MOTOR
- ㉑ LOW VOLTAGE MOTOR CONTROL CENTER FOR CORN MILL    ㉒ PROGRAMMABLE SEQUENCE CONTROLLER OR RELAY PANEL
- ㉓ CONTROL DESK FOR CORN MILL    ㉔ PNEUMATIC UNLOADER    ㉕ UNLOADER MAIN OPERATION PANELS

GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>M. Hernandez</i>	DESIGNED BY <i>N. Takahashi</i>	DRAWN BY <i>N. Takahashi</i>	TITLE OF DRAWING CEBU SILO AND CORN MILL COMPOSITION DIAGRAM FOR ELECTRICAL EQUIPMENT
DATE 7. Mar. 1977		DRAWING NO. SGC-E-002	
JAPAN INTERNATIONAL COOPERATION AGENCY			

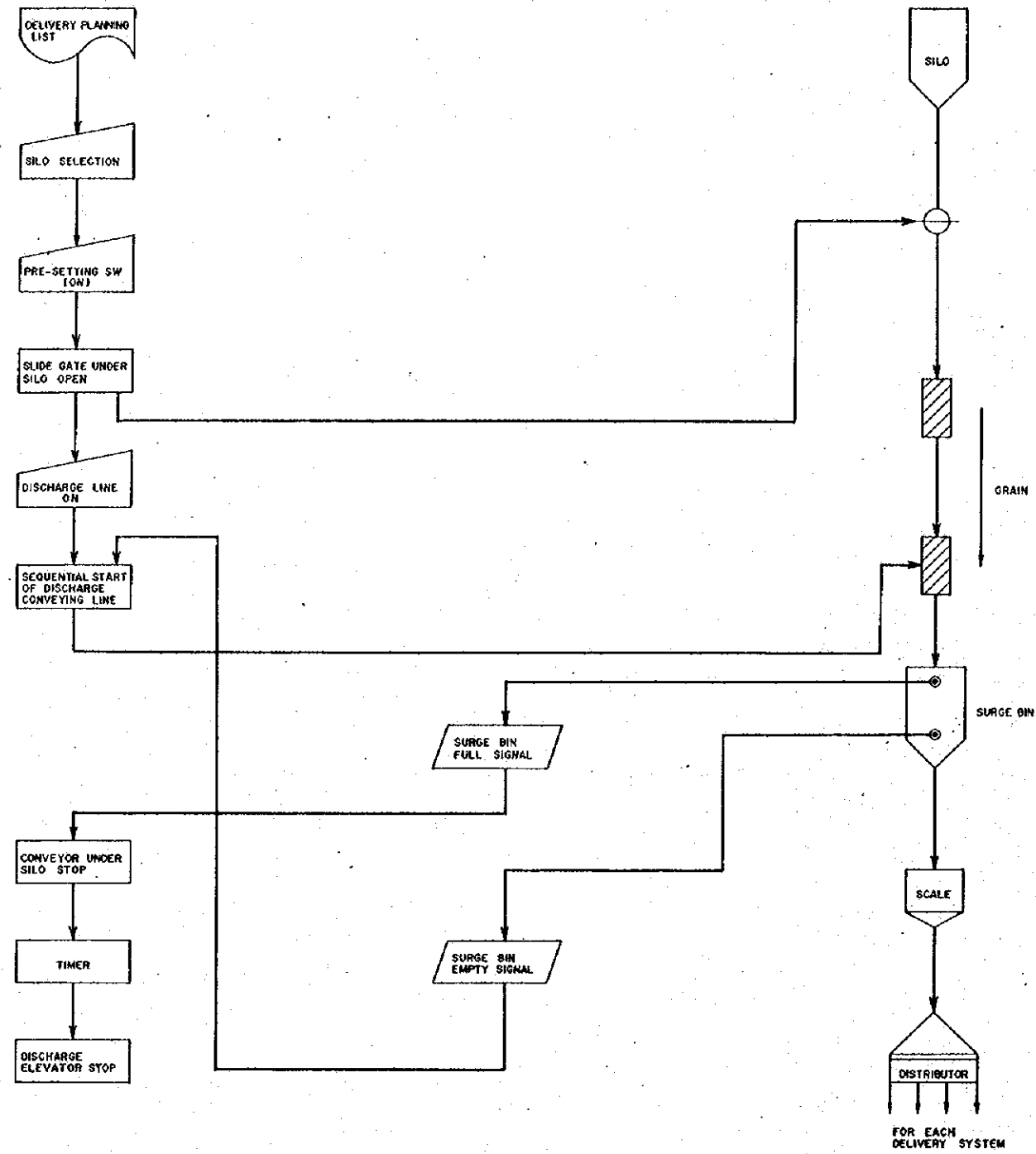


INTAKE CONTROL FLOW CHART

- LEGEND
-  CONVEYING MACHINE
  -  LEVEL SWITCH
  -  SLIDE GATE
  -  2-WAY CHUTE VALVE




GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>M. Hironaka</i>	DESIGNED BY <i>G. Nakano</i>	DRAWN BY <i>N. Takahashi</i>	TITLE OF DRAWING CEBU SILO
DATE 7. Mar. 1977			INTAKE CONTROL FLOW CHART
DRAWING NO. SGC-E-003			
JAPAN INTERNATIONAL COOPERATION AGENCY			

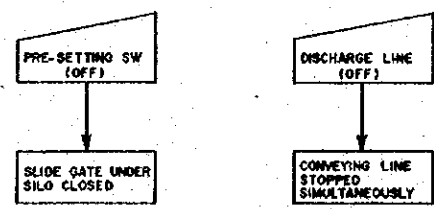




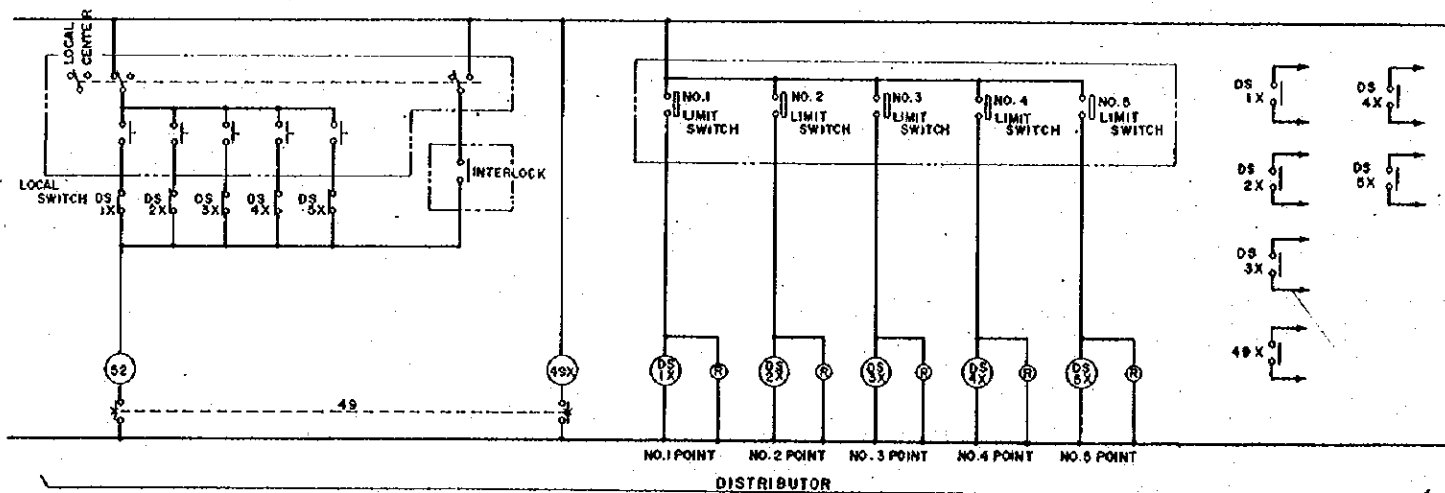
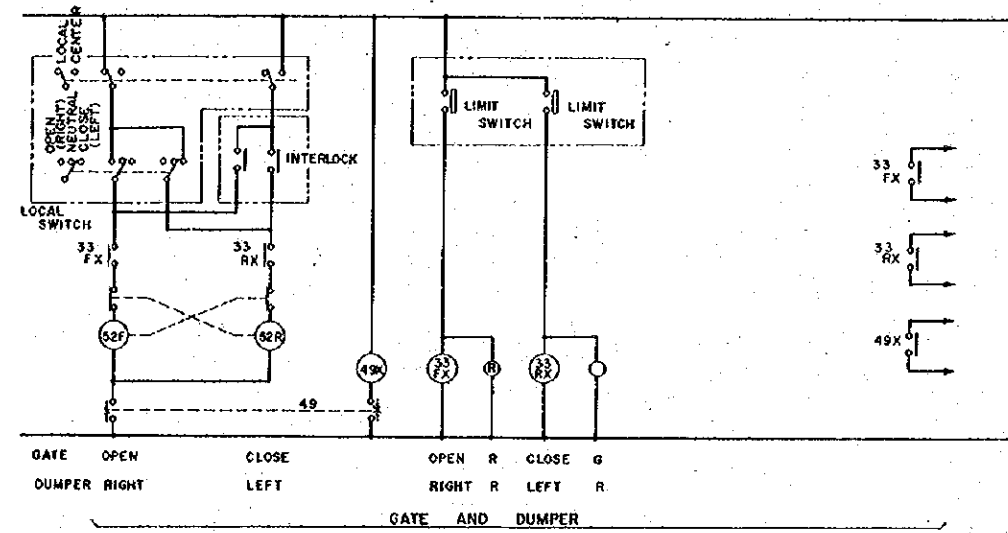
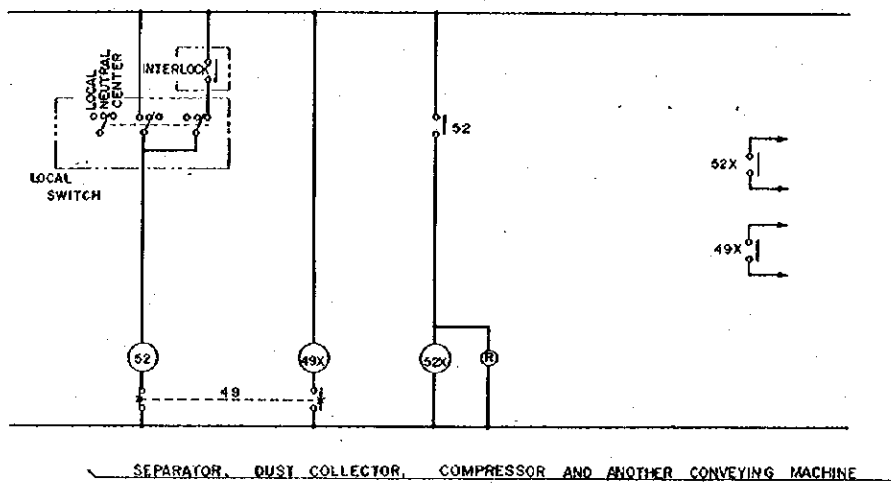
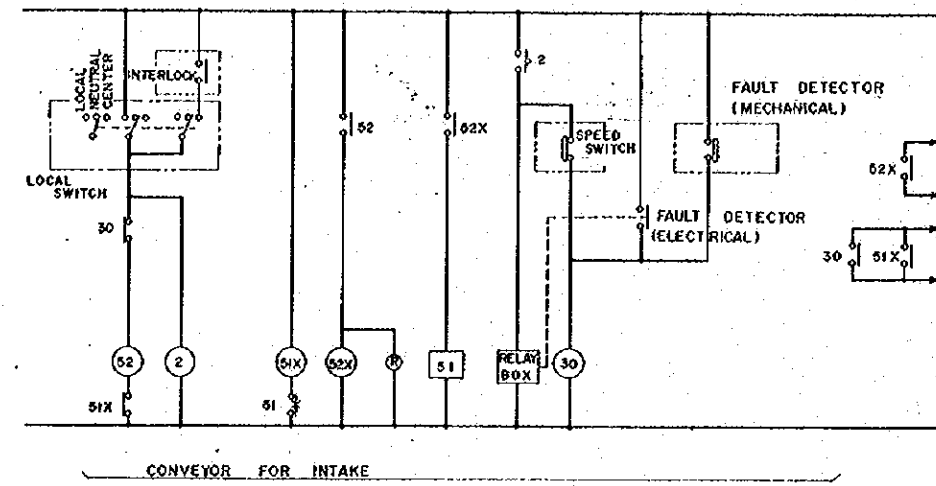
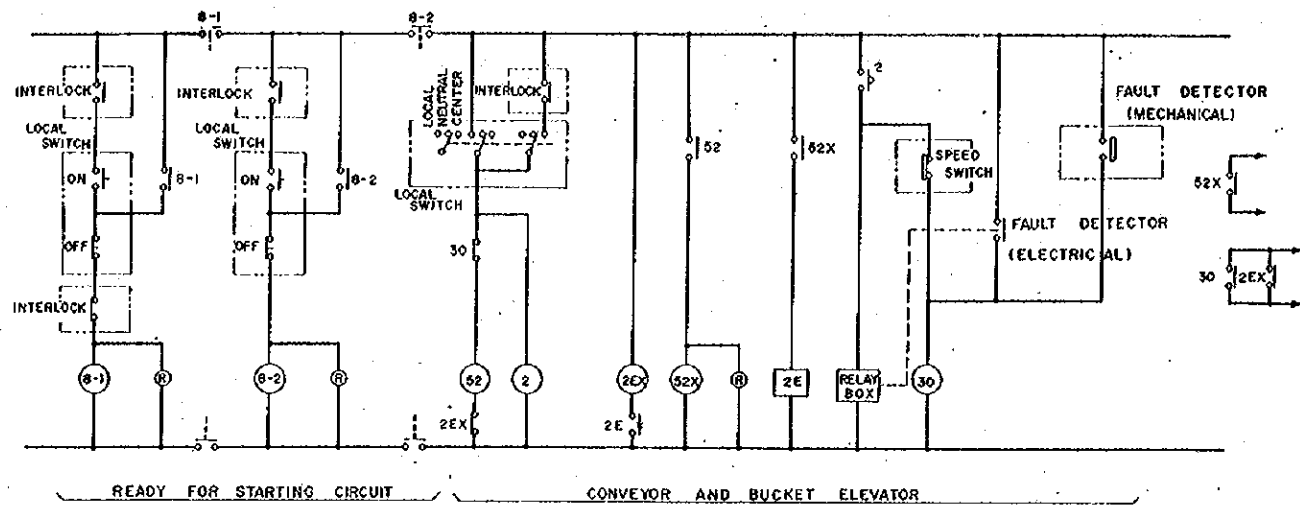
DISCHARGE CONTROL FLOW CHART

LEGEND

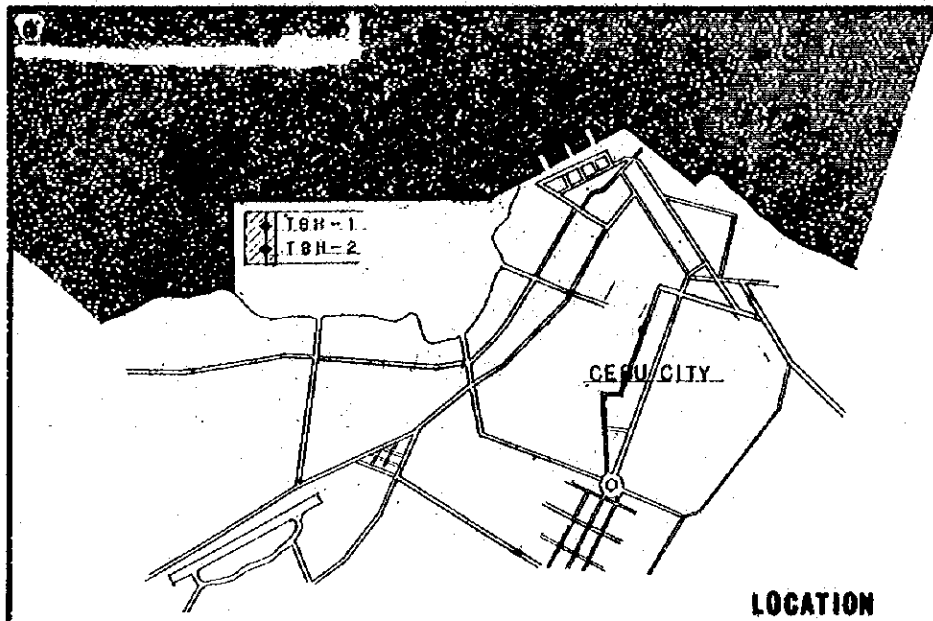
-  CONVEYING MACHINE
-  LEVEL SWITCH
-  SLIDE GATE



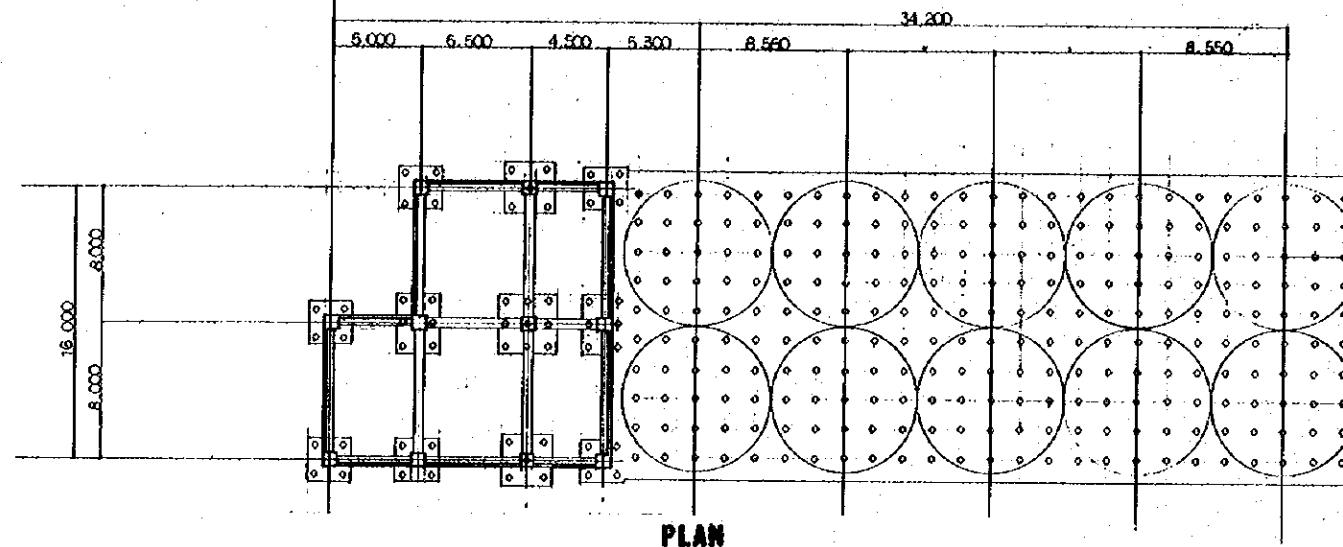
GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING CEBU SILO DISCHARGE CONTROL FLOW CHART
DATE 7. Mar. 1977		DRAWING NO. SGC-E-004	
JAPAN INTERNATIONAL COOPERATION AGENCY			



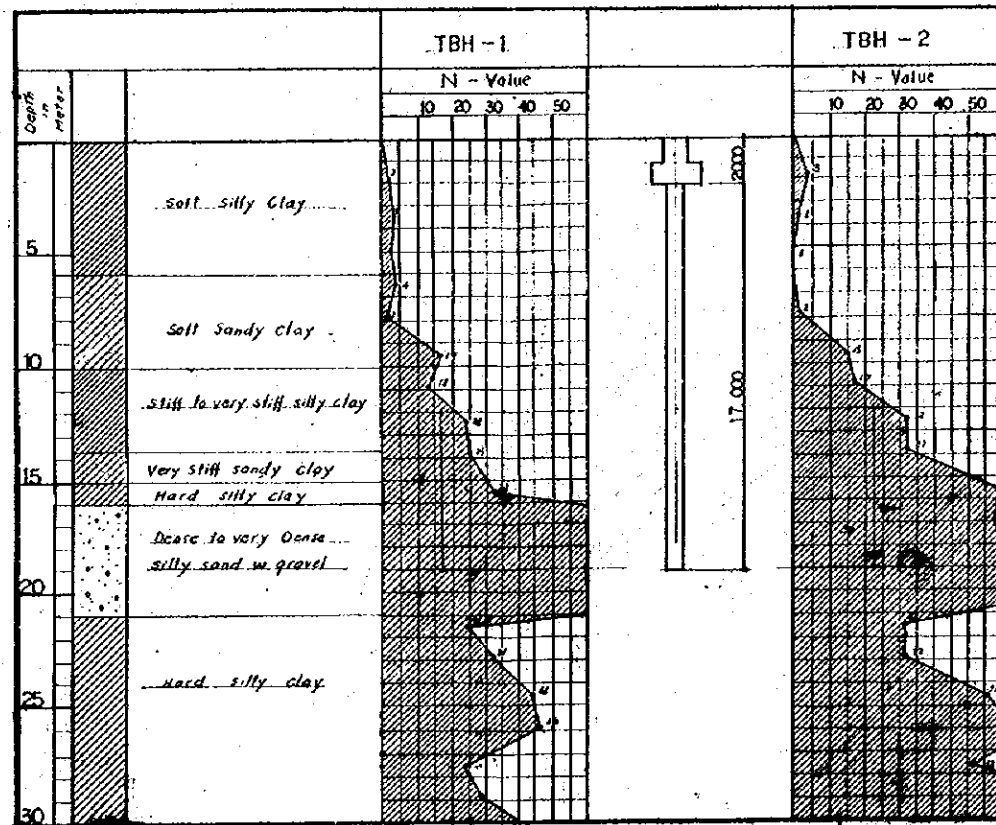
GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>M. Hinojosa</i>	DESIGNED BY <i>H. Hinojosa</i>	DRAWN BY <i>N. Ishikawa</i>	TITLE OF DRAWING
GATE 7. Mar. 1977			CEBU SILO AND CORN MILL STANDARD SEQUENCE
DRAWING NO. SGC-E-005			
JAPAN INTERNATIONAL COOPERATION AGENCY			



LOCATION



PLAN



Ultimate Bearing power of Pile

$$R_u = 30 N A_p + \left( \frac{N_s}{s} L_s + \frac{90}{s} L_c \right) \psi$$

$$F_c = \frac{50 \times 41 \times 32}{3} = 21.3$$

$$A_p = 0.588 \times 0.2735 = 0.2075$$

$$N_s = \frac{21 \times 23 \times 32 \times 0.1 \times 60}{5} = 96.8$$

$$\psi = \frac{30.8 \times 3.18}{5} = 1.595$$

$$q_u \text{ L.s.} = \text{neglect}$$

$$R_u = 30 \times 21.3 + 0.2075 \times \frac{36.8}{5} \times 70 = 1595$$

$$= 269.17 + 81.28 = 350.4$$

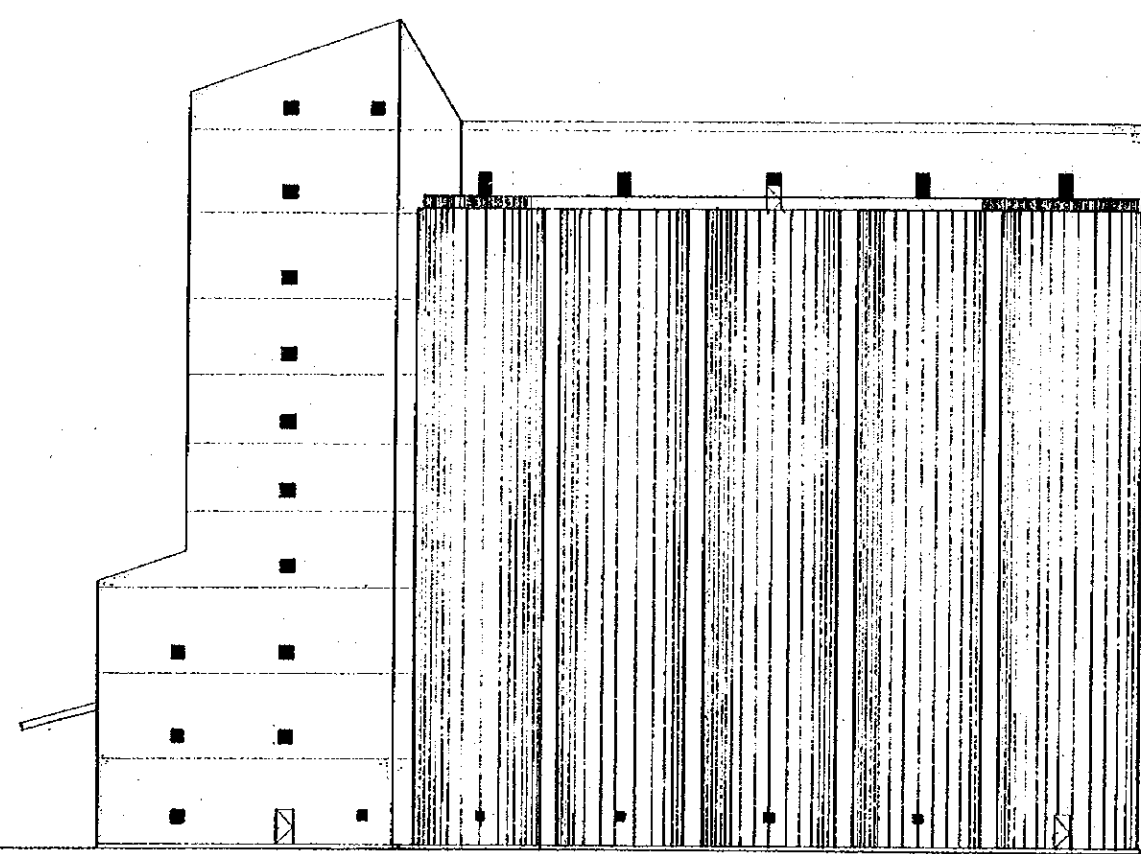
Allowable Bearing power of pile

$$R_a = \frac{1}{3} R_u = \frac{1}{3} \times 350.4 = 116.8$$

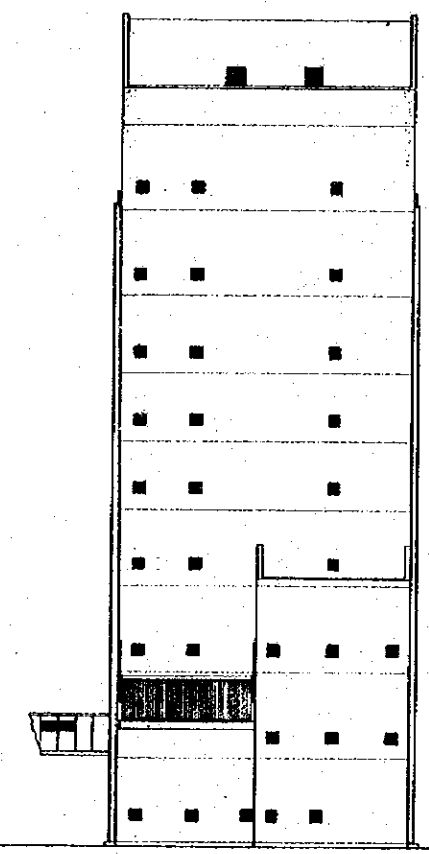
Adopt  $f_a = 110 \text{ T/m}^2$

- $R_u$  Ultimate bearing capacity of Pile
- $R_a$  Allowable bearing capacity of pile (Longtime)
- $A_p$  Sectional area of pile head
- $\psi$  Perimeter of pile
- $N_s$  The average of exact measurement of N-Value into sandy formation
- $L_s$  Length of pile in sandy formation
- $L_c$  Length of pile in clayey formation
- $q_u$  In part of penetrated pile underground:-  
The Average of unconfined compression strength in clayey formation.

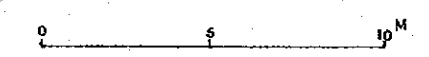
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU
DATE	EXPLANATORY DIAGRAM OF		
7. Mar. 1977	SOIL EXPLORATION		
DRAWING NO.			
SGC-B-001			
JAPAN INTERNATIONAL COOPERATION AGENCY			



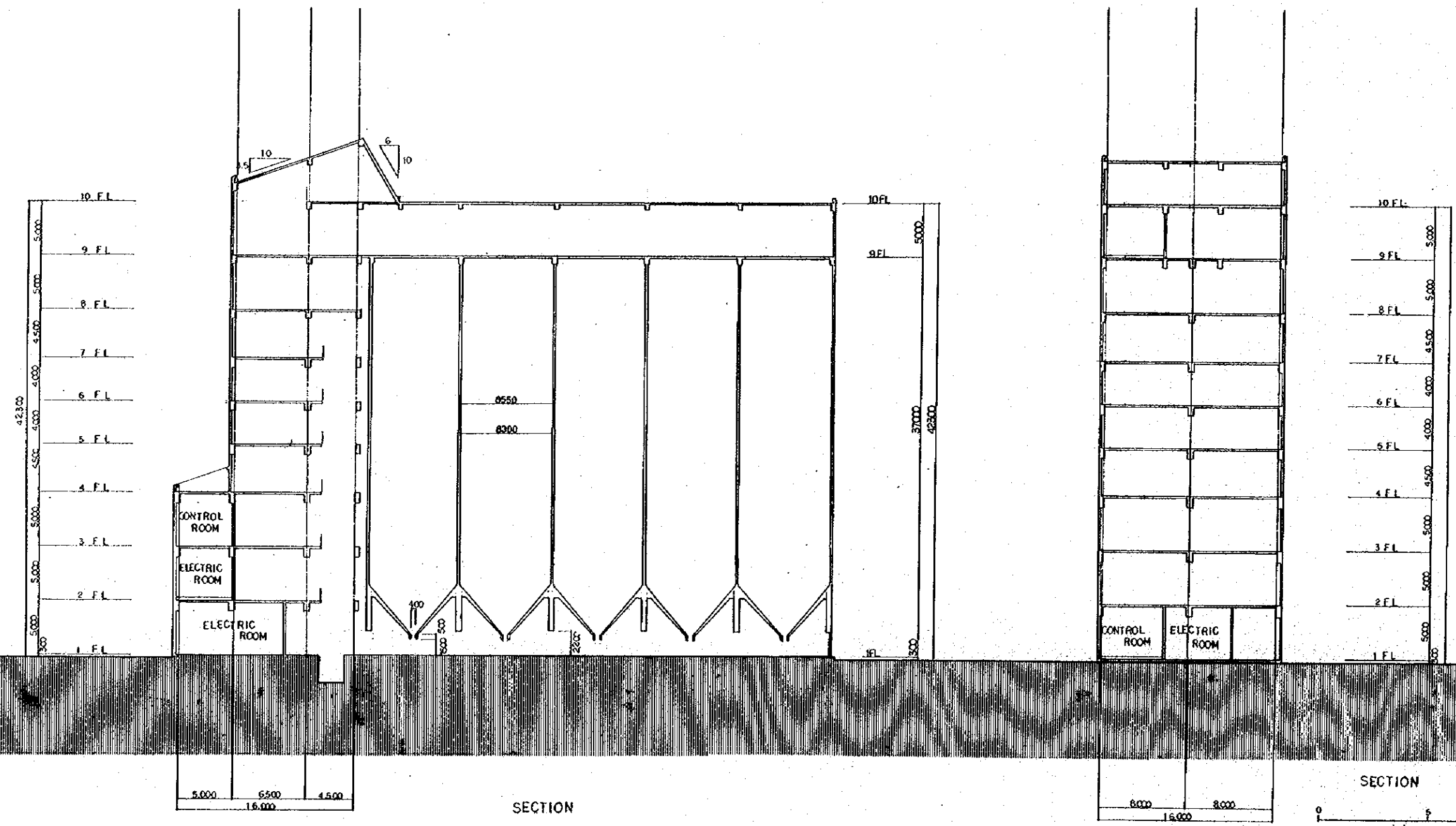
ELEVATION



ELEVATION



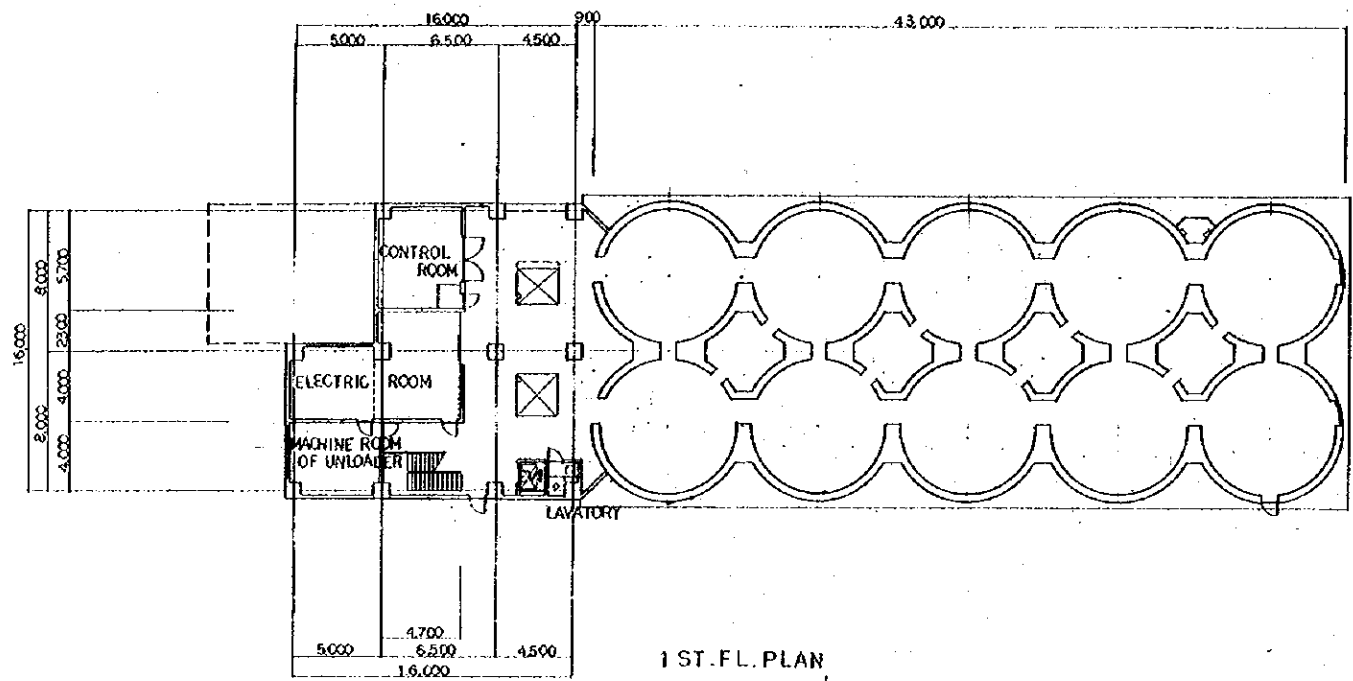
<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	CEBU SILO
DATE			ELEVATION
7. MAR. 1977			
DRAWING NO.			
SGC-B-002			
JAPAN INTERNATIONAL COOPERATION AGENCY			



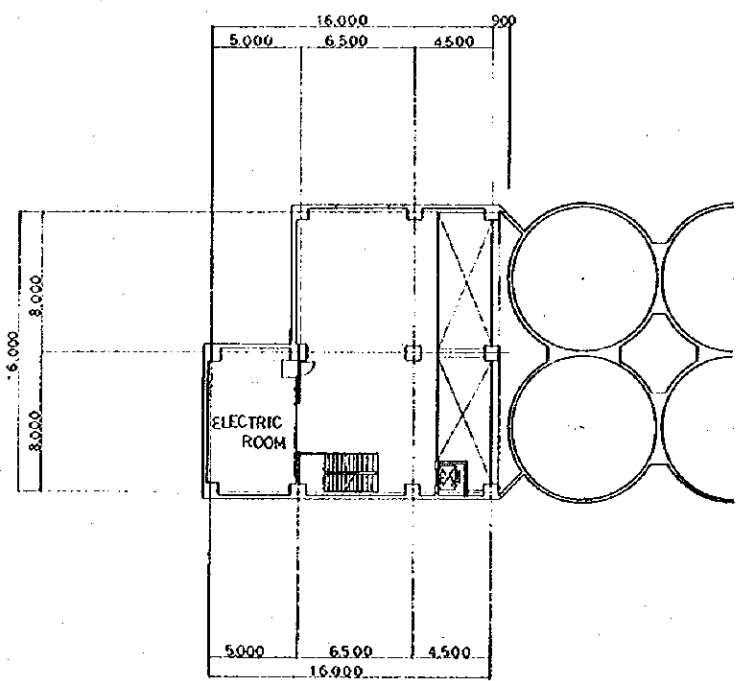
SECTION

SECTION

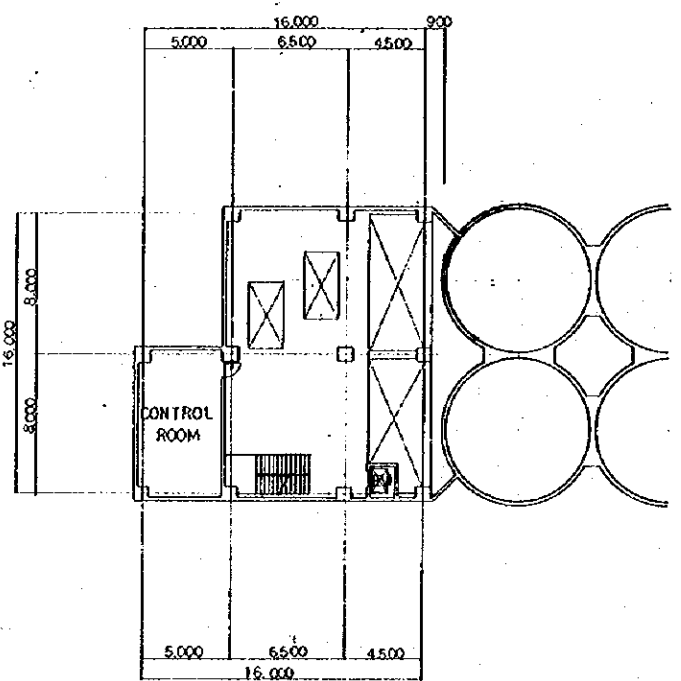
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	CEBU SILO
DATE			SECTION
7. NOV. 1977			
DRAWING NO.			
SGC-B-003			
JAPAN INTERNATIONAL COOPERATION AGENCY			



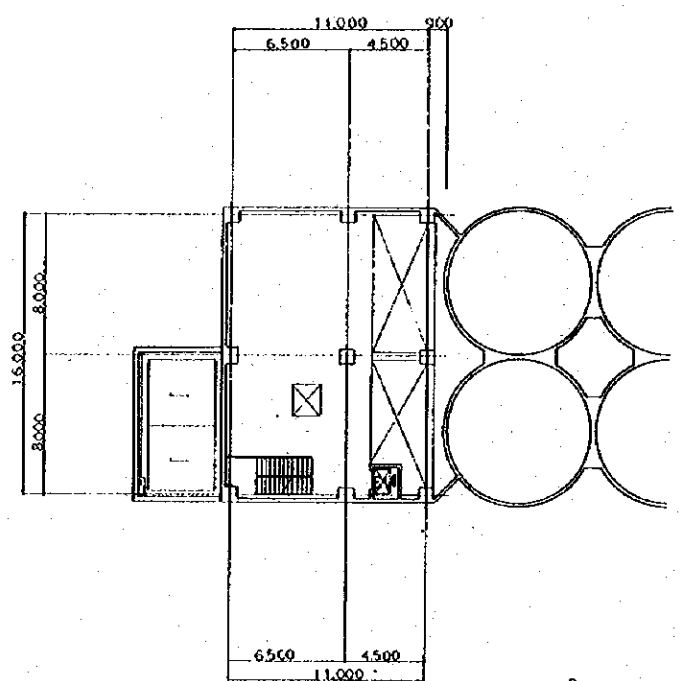
1 ST. FL. PLAN



2ND. FL. PLAN



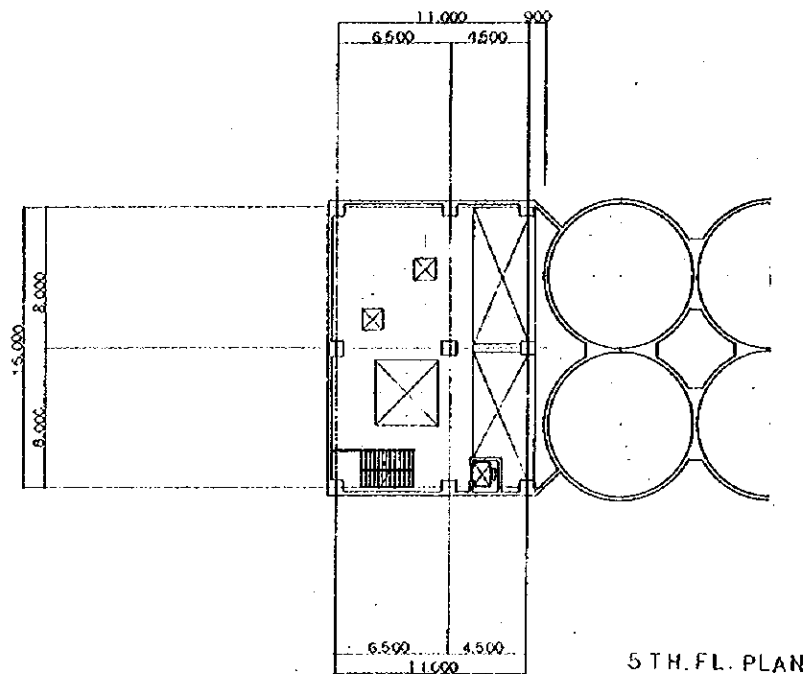
3RD. FL. PLAN



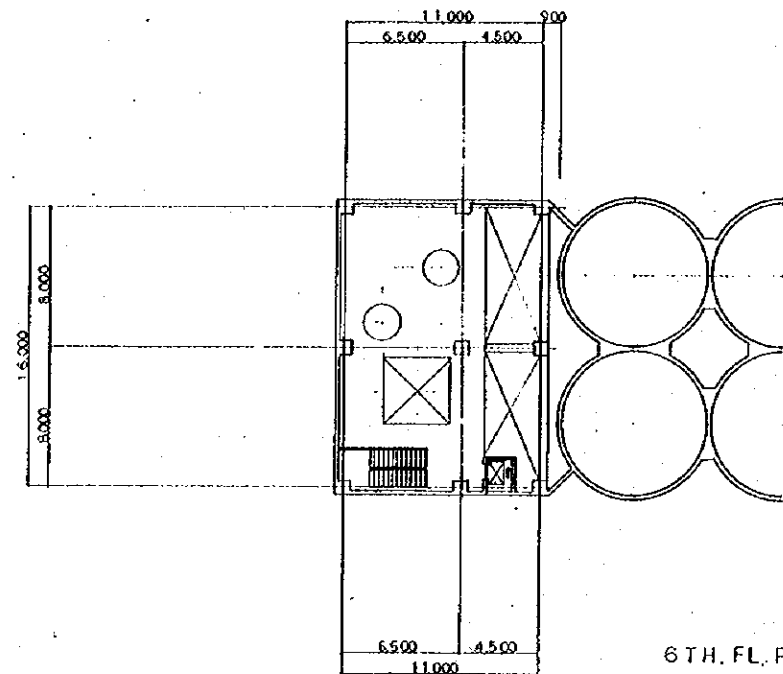
4 TH. FL. PLAN

0 5 10M

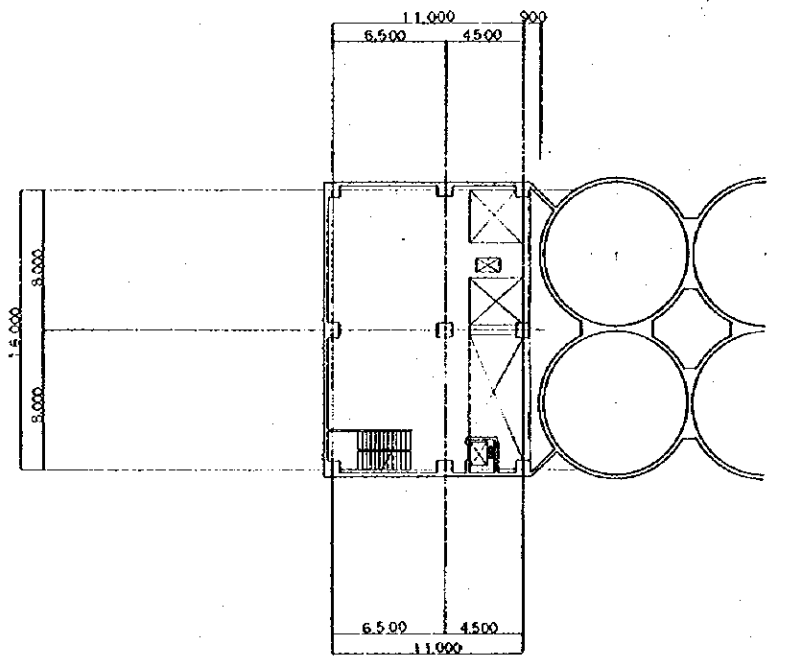
GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7. Mar. 1977			CEBU SILO
DRAWING NO. SGC-B-004			1ST. 2ND. 3RD. AND 4TH FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY			



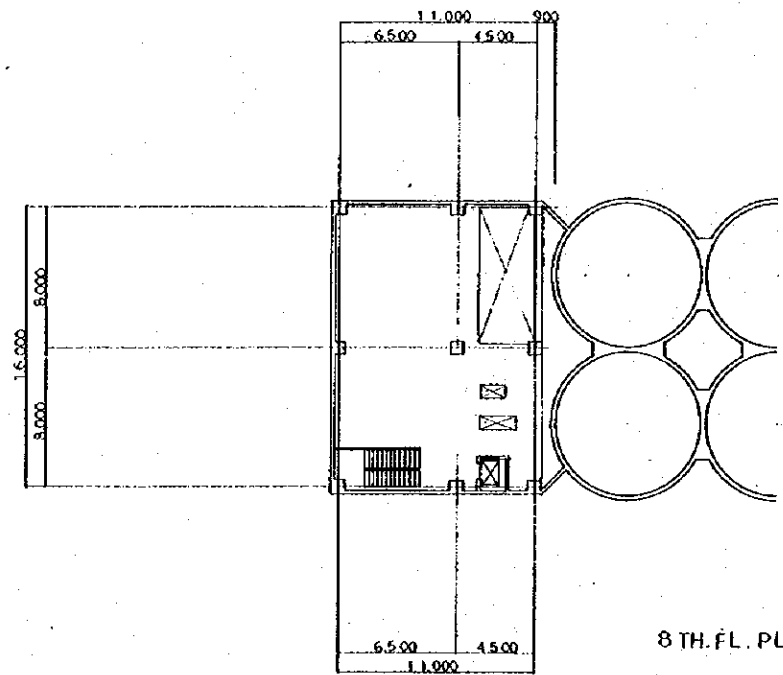
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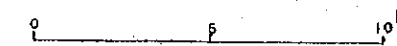
6TH. FL. PLAN



7TH. FL. PLAN

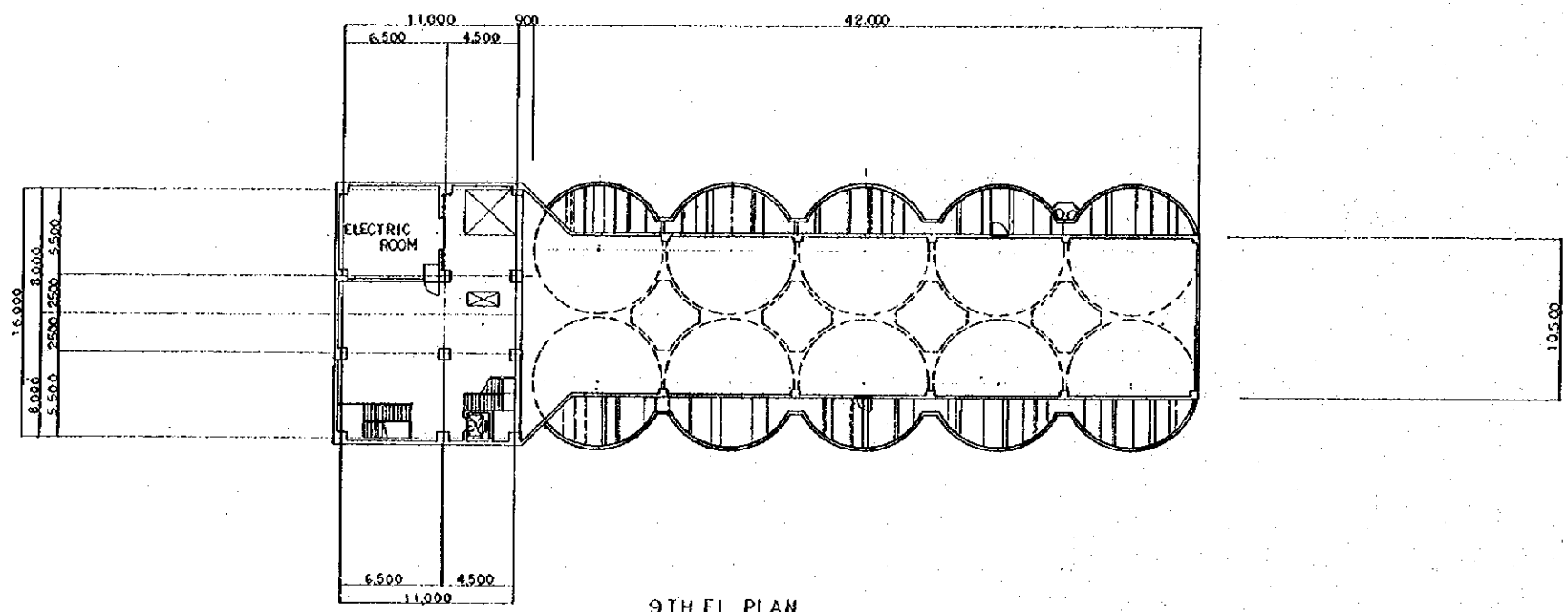


8TH. FL. PLAN

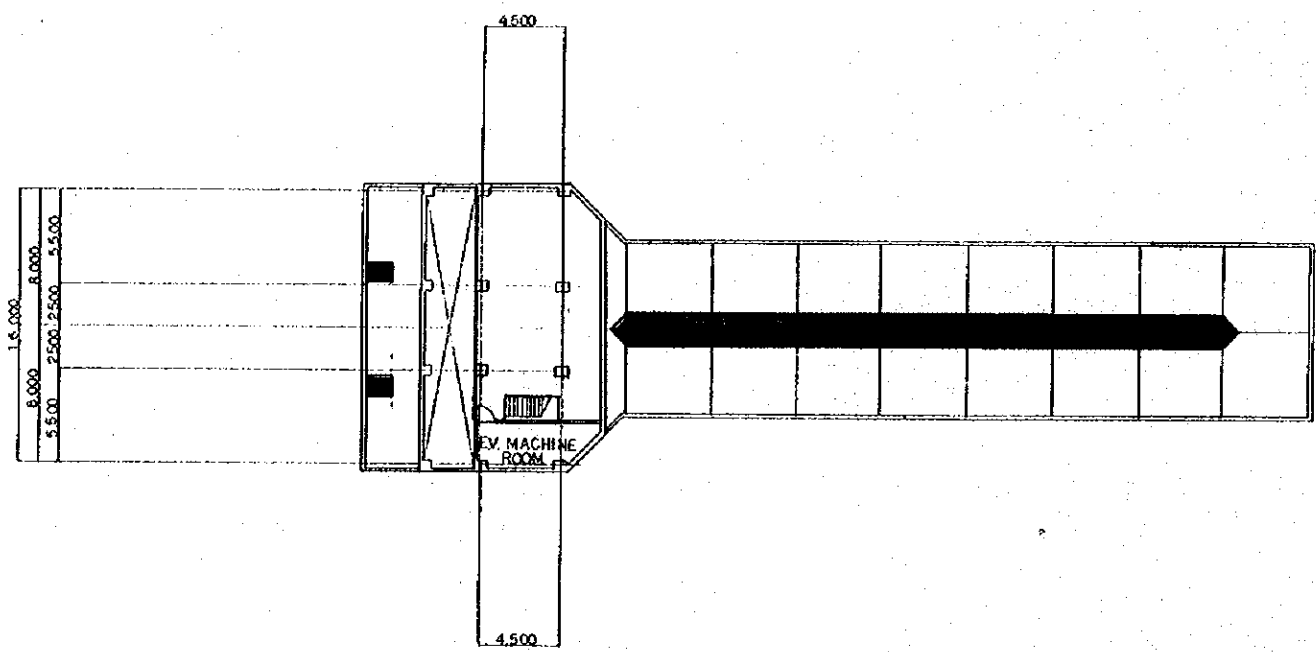


<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>		
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7. Nov. 1977	DRAWING NO. SGC-B-005	CEBU SILO 5TH. 6TH. 7TH. AND 8TH. FL. PLAN
JAPAN INTERNATIONAL COOPERATION AGENCY		

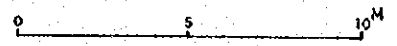




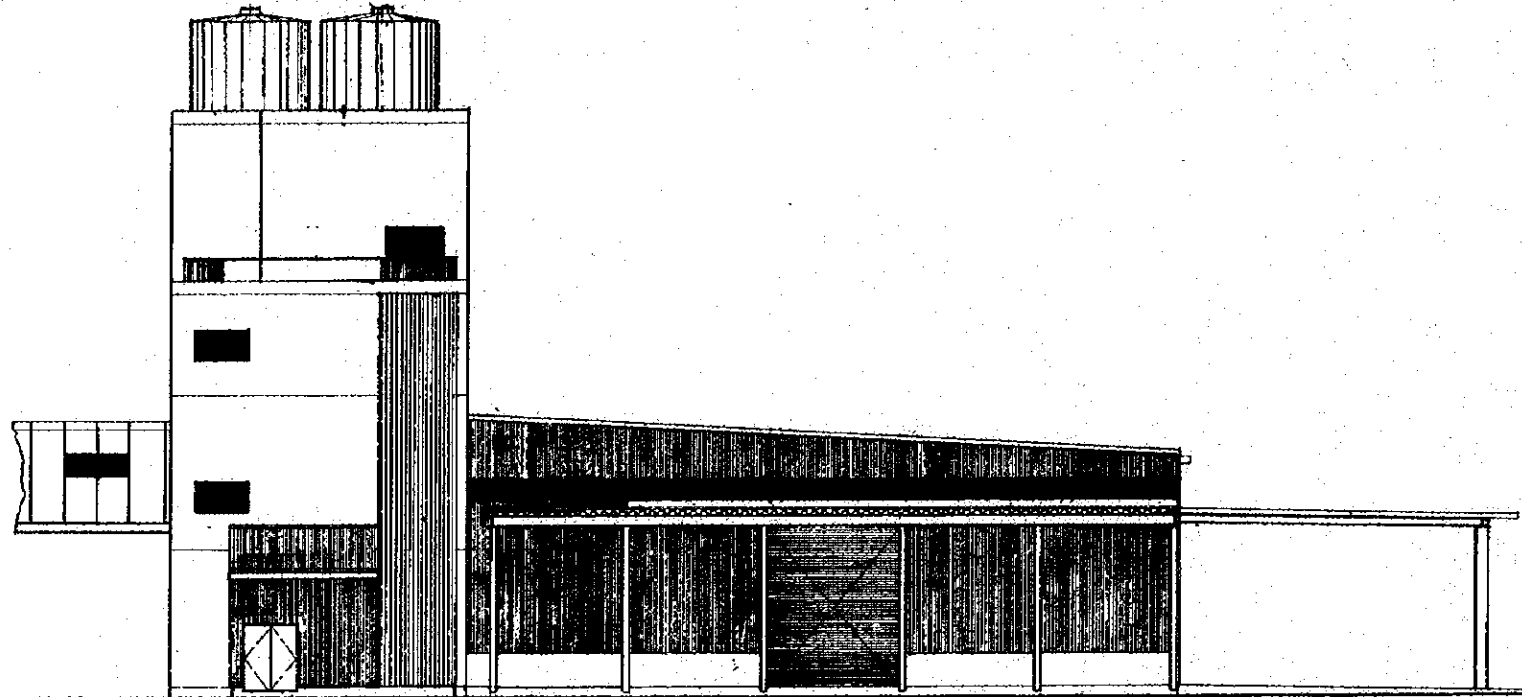
9TH FL. PLAN



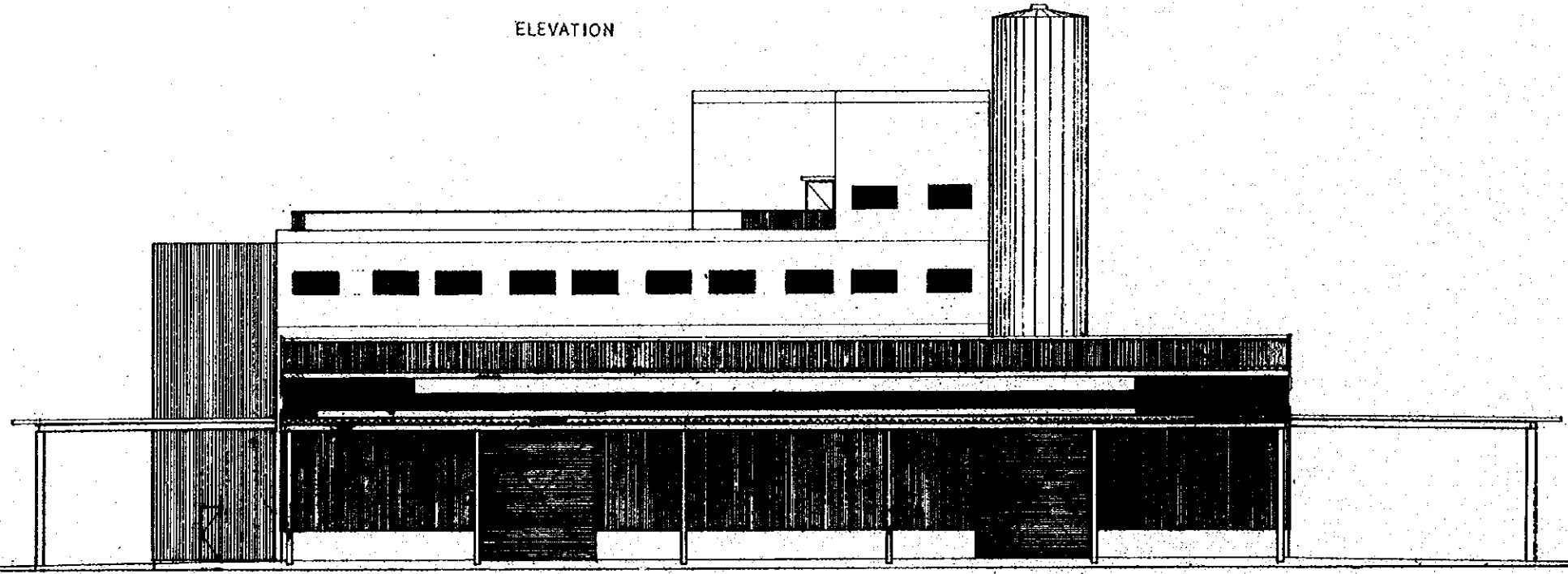
10TH FL. PLAN



<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU SILO
DATE			9TH AND 10TH FL. PLAN
7. MAR. 1977			
DRAWING NO.	SGC-B-006		
JAPAN INTERNATIONAL COOPERATION AGENCY			

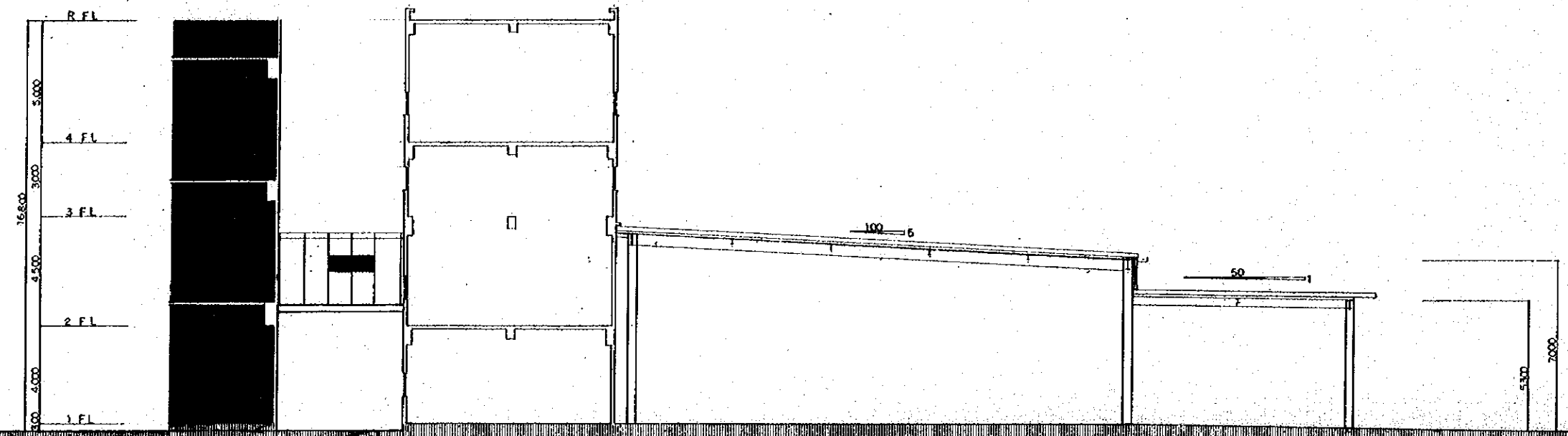


ELEVATION

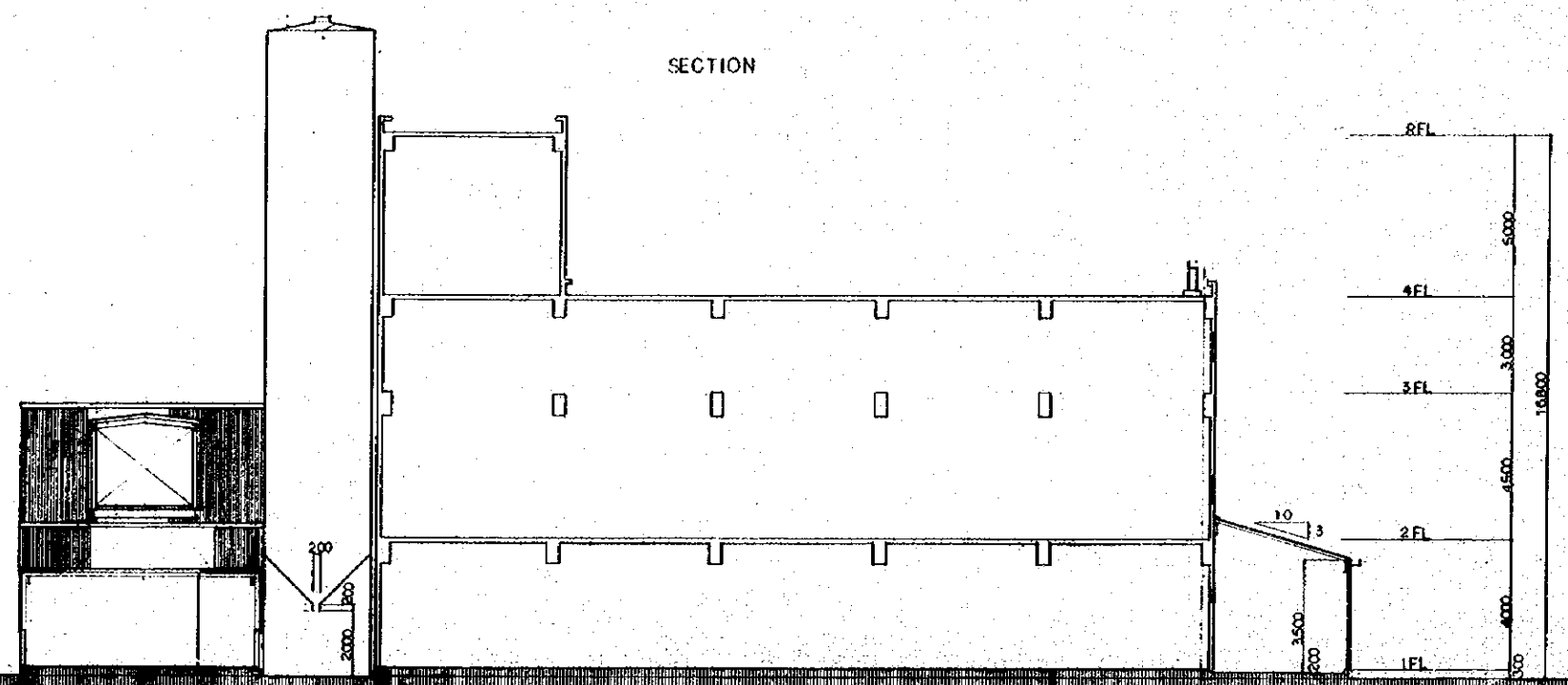


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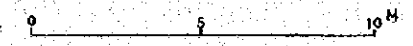
GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL AND WAREHOUSE
DATE			ELEVATION
7. May 1977			
DRAWING NO.	SGC-B-007		
JAPAN INTERNATIONAL COOPERATION AGENCY			



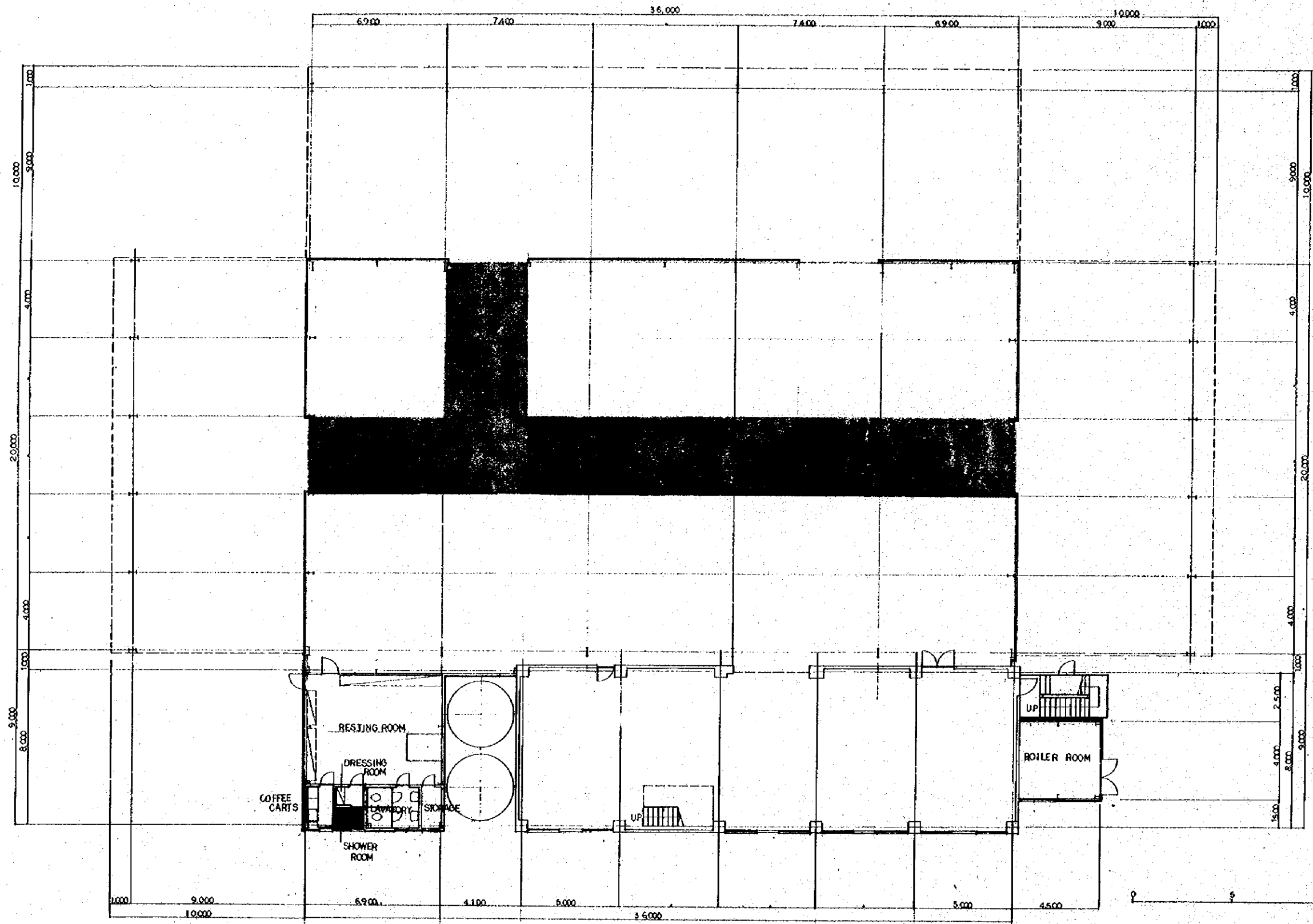
SECTION



SECTION

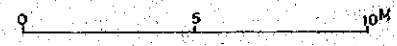
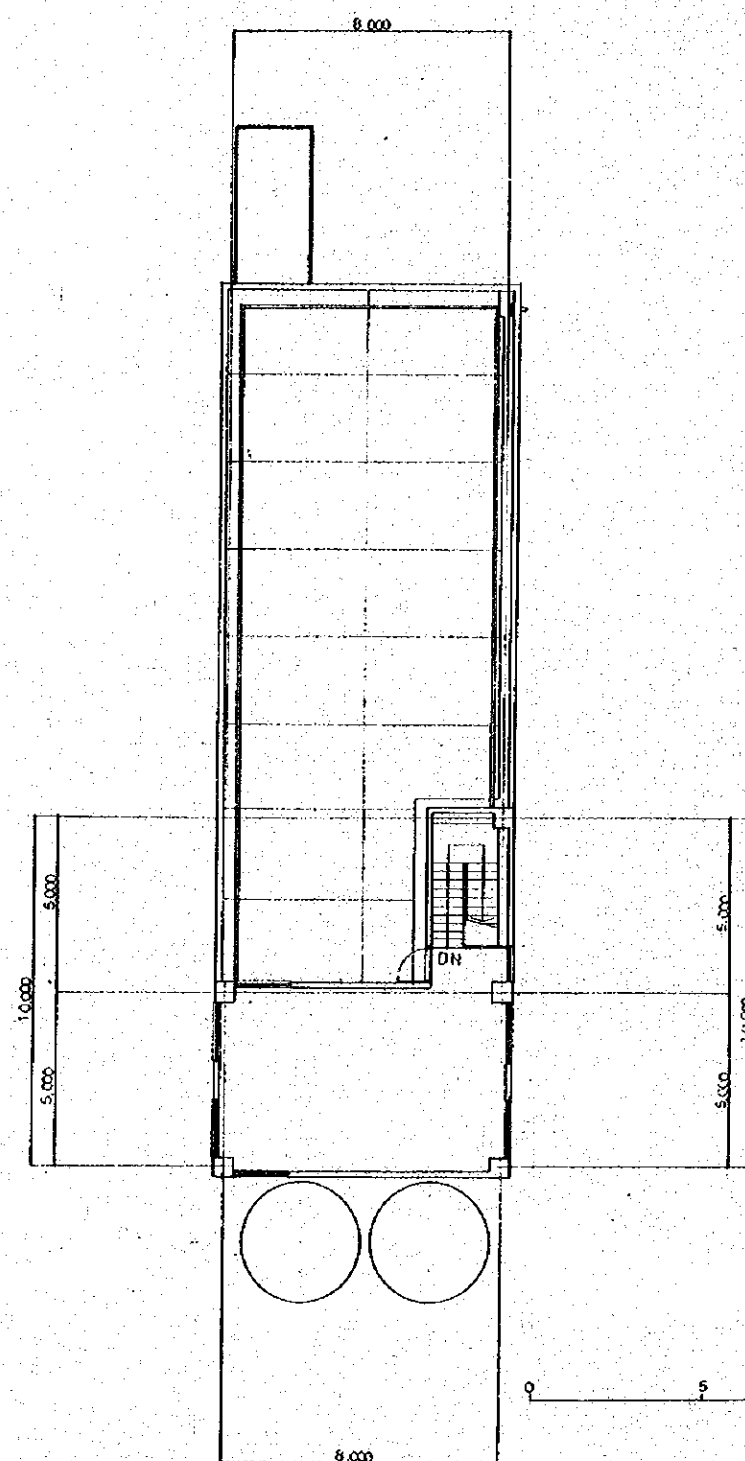
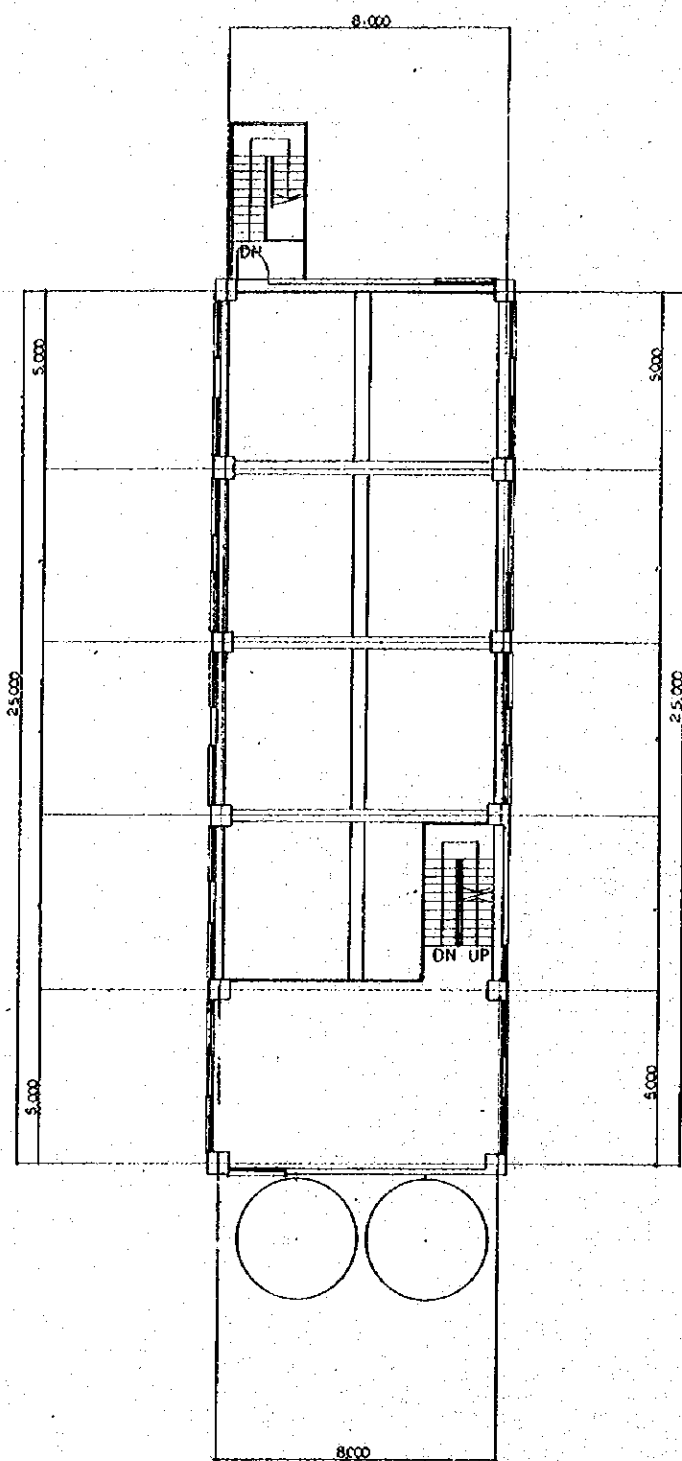
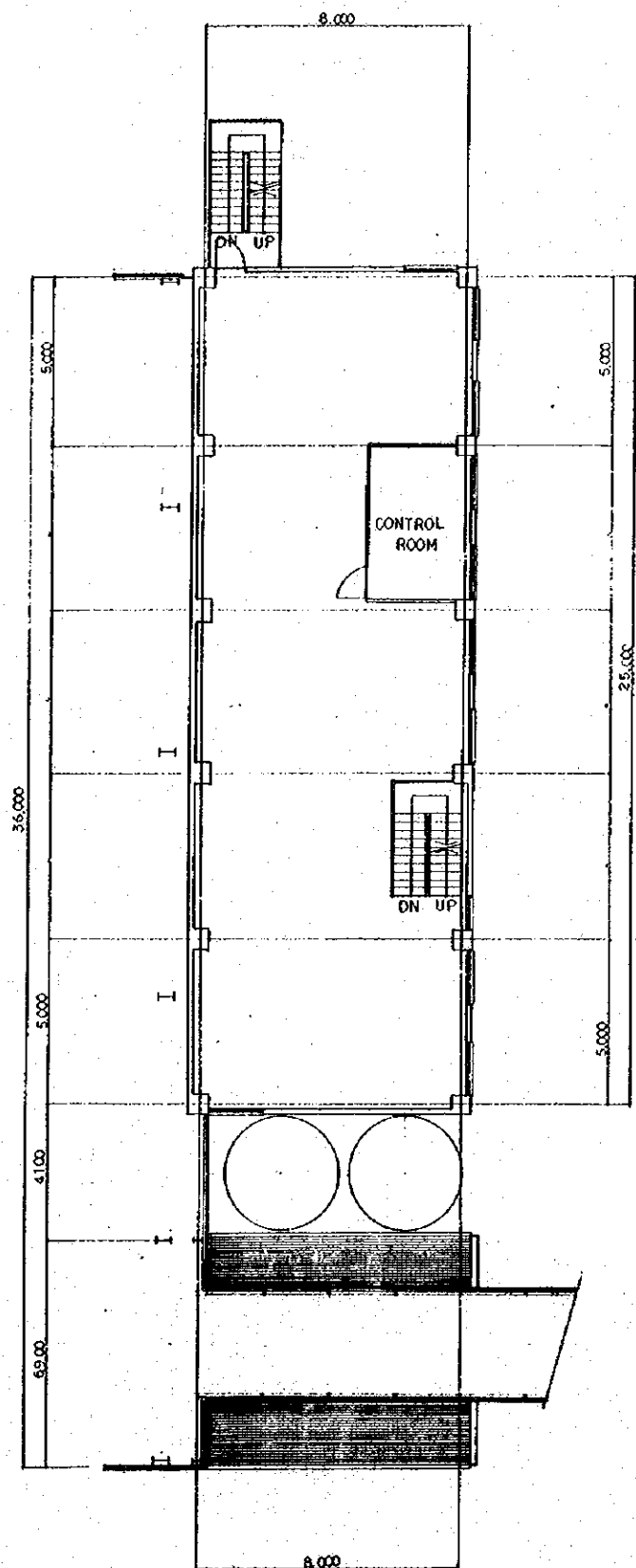


<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING
DATE 7. Mar. 1977			CEBU CORN MILL AND WAREHOUSE SECTION
DRAWING NO. SGC-B-008			
JAPAN INTERNATIONAL COOPERATION AGENCY			

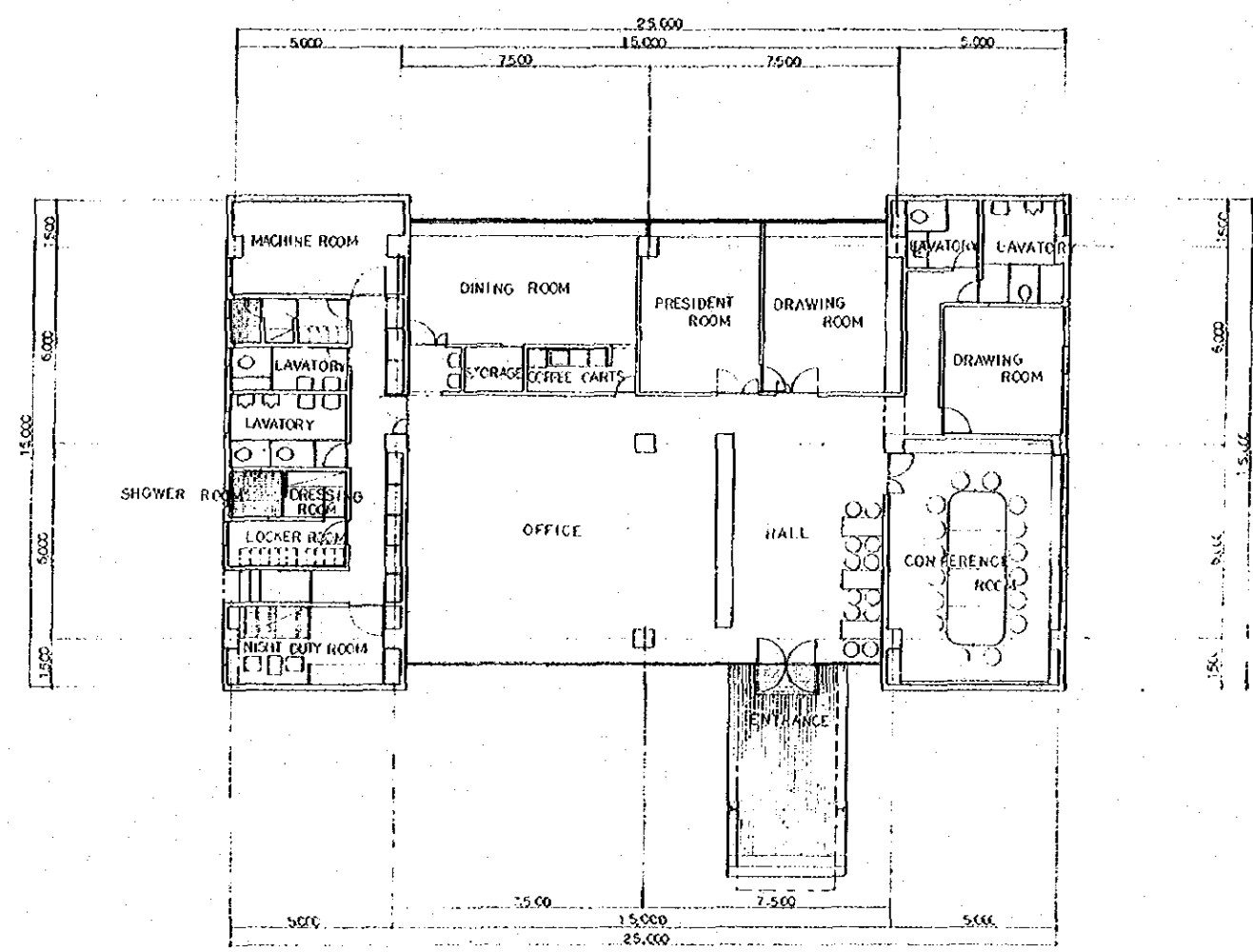


1 ST. FL. PLAN

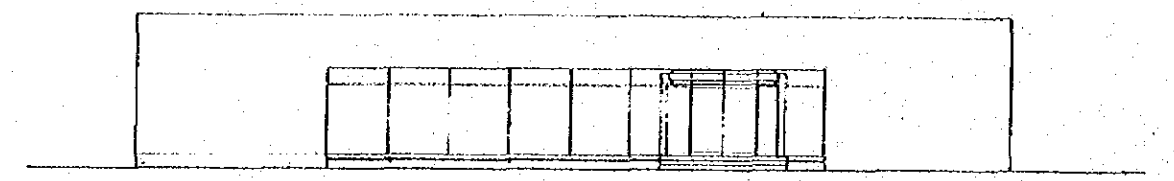
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL AND WAREHOUSE
DATE			1 ST. FL. PLAN
7. MAR. 1977			
DRAWING NO.	SGC-B-009		
JAPAN INTERNATIONAL COOPERATION AGENCY			



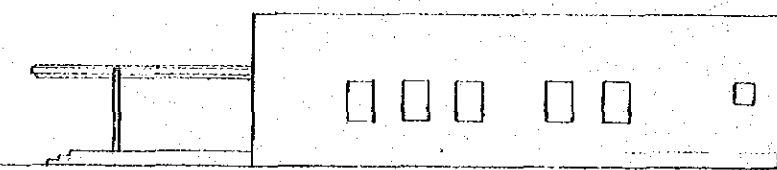
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CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU CORN MILL
DATE			2ND, 3RD AND 4TH.FL. PLAN
7. MAR. 1977			
DRAWING NO.	SGC-B-010		
JAPAN INTERNATIONAL COOPERATION AGENCY			



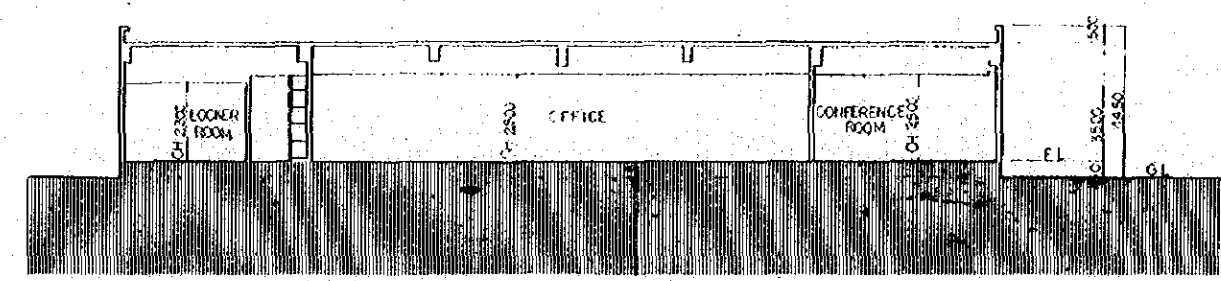
PLAN



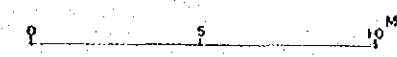
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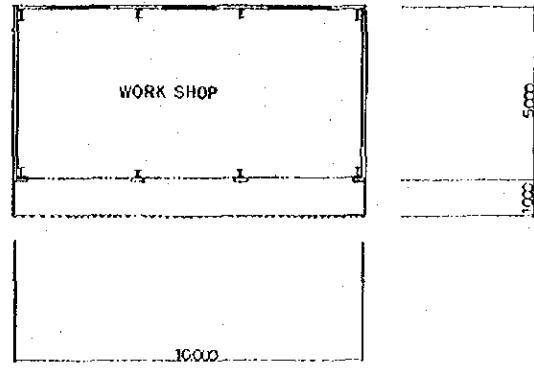
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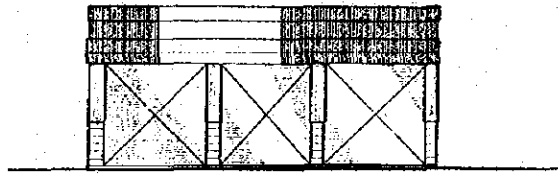
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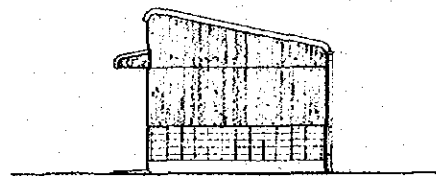
GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU
DATE			ADMINISTRATION BUILDING
7, MAR. 1977			
DRAWING NO.			
SGC-B-011			
JAPAN INTERNATIONAL COOPERATION AGENCY			



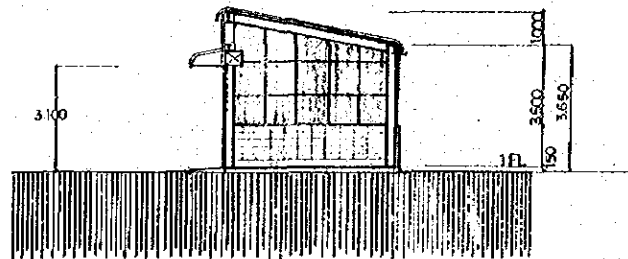
PLAN



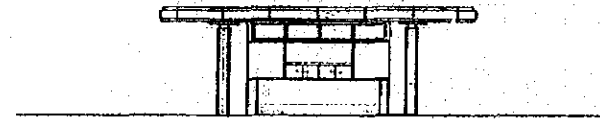
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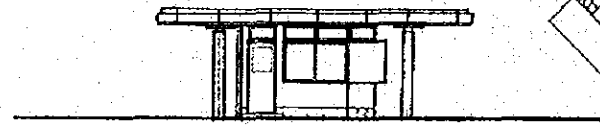
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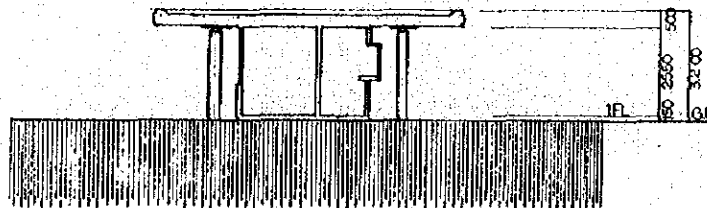
SECTION



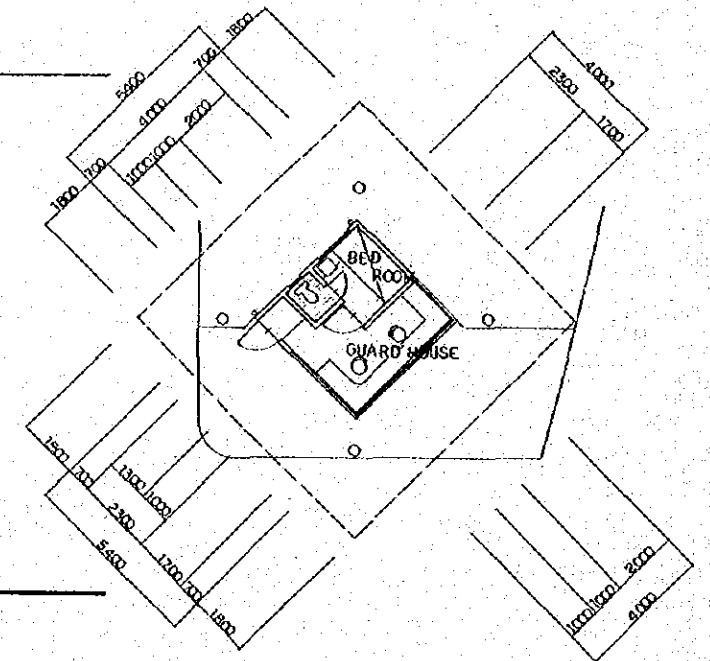
ELEVATION



ELEVATION



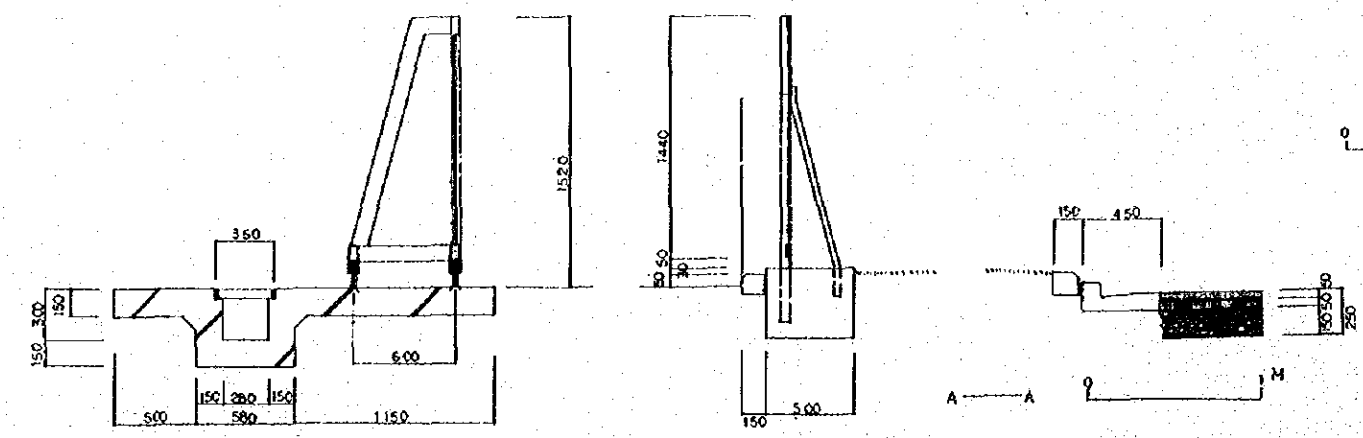
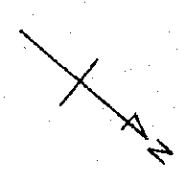
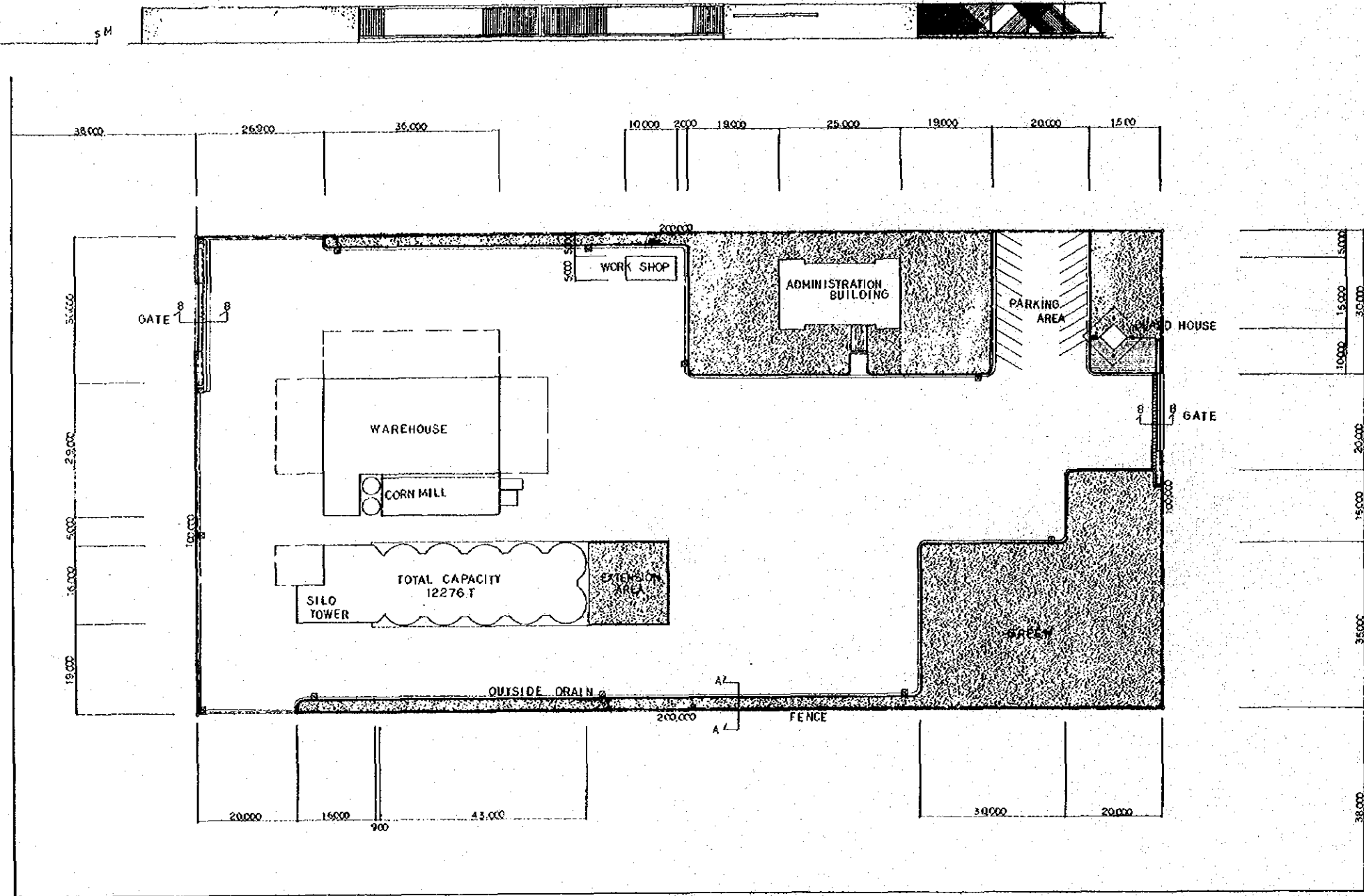
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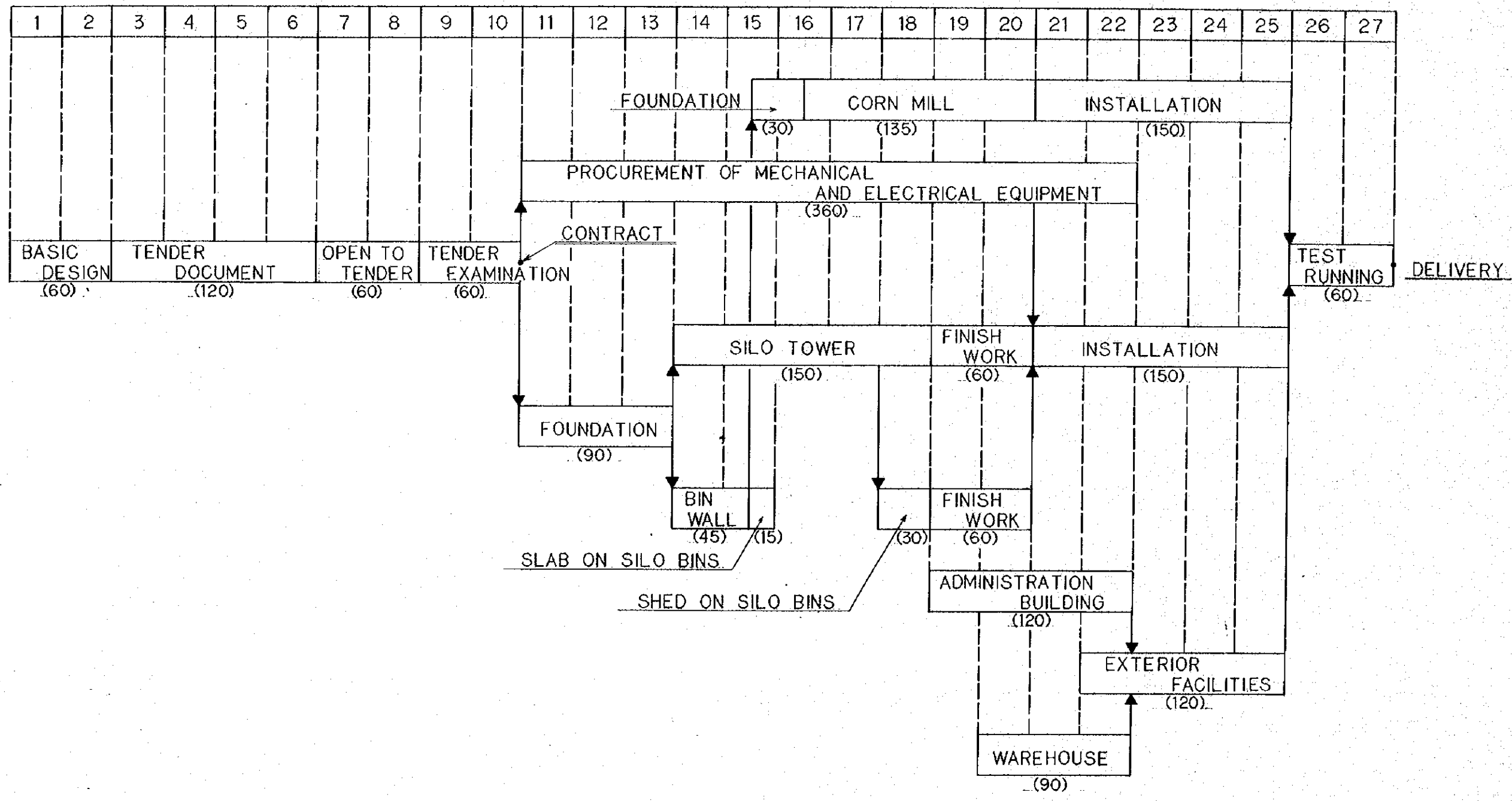
PLAN

<b>GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES</b>			
CHECKED BY <i>[Signature]</i>	DESIGNED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	TITLE OF DRAWING CEBU WORK SHOP AND GUARD HOUSE
DATE 7, Mar. 1977	DRAWING NO. SGC-B-012		
JAPAN INTERNATIONAL COOPERATION AGENCY			





GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
			CEBU
DATE			EXTERIOR FACILITIES
5.7.1977			
DRAWING NO.	SGC-B-013		
JAPAN INTERNATIONAL COOPERATION AGENCY			



GRAIN TERMINAL CONSTRUCTION PROJECT PHILIPPINES			
CHECKED BY	DESIGNED BY	DRAWN BY	TITLE OF DRAWING
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	CEBU
DATE	TIME SCHEDULE		
7 Mar 1977			
DRAWING NO.			
SGC-G-006			
JAPAN INTERNATIONAL COOPERATION AGENCY			

