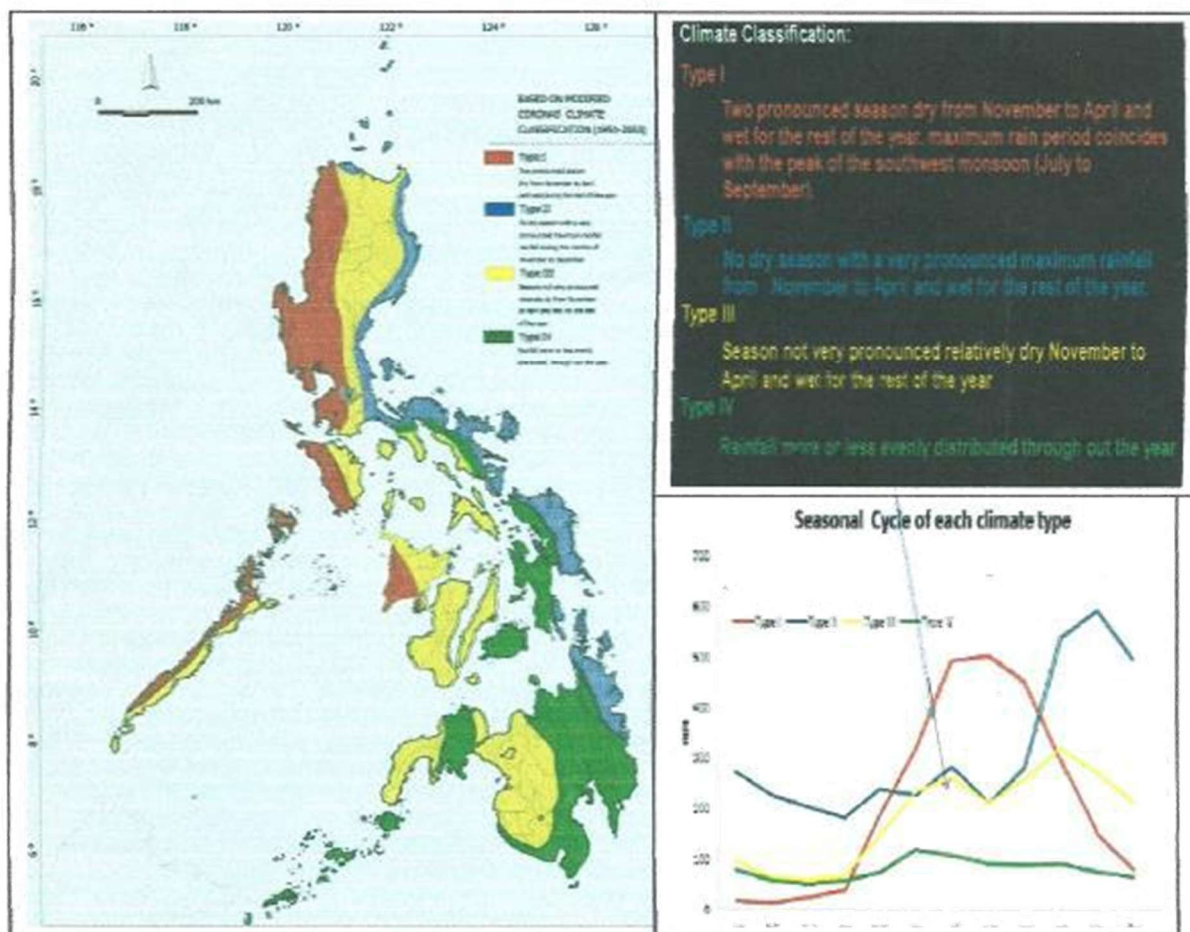


## 14. PAG-ASA CLIMATOLOGICAL DATA



REPUBLIC OF THE PHILIPPINES  
**Department of Science and Technology**  
**Philippine Atmospheric, Geophysical and**  
**Astronomical Services Administration (PAGASA)**  
 Science Garden, Agham Road, Diliman, Quezon City 1100

### The Philippine Climate



#### Seasons

Month	December-February	March-May	June-August	September-November
Rainfall	DRY		RAINY	
Temperature	COOL	HOT		
Season	Cool Dry	Hot Dry	Rainy	

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**Department of Science and Technology**  
**Philippine Atmospheric, Geophysical and**  
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 Science Garden, Agham Road, Diliman, Quezon City 1100


**RAINFALL (in Millimeter, mm)**

**STATION: ZAMBOANGA CITY, ZAMBOANGA DEL SUR**      **LATITUDE : 06°54'18"N**  
**YEAR: 2014**      **LONGITUDE: 122°04'30"E**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	75.6	Trace	Trace
2	Trace	0.0	0.0	0.0	0.0	0.0	20.3	Trace	0.0	28.2	0.0	0.0
3	Trace	0.0	0.0	0.0	0.0	0.0	5.0	0.0	20.6	1.6	0.3	0.0
4	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	22.2	6.8	0.2	1.0
5	0.0	Trace	0.0	5.8	0.0	0.0	Trace	0.0	13.2	11.3	3.6	0.0
6	8.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	4.0	64.8	10.6	0.0
7	2.4	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.5	10.8	5.9	0.0
8	1.0	4.4	0.0	3.8	Trace	0.0	2.4	Trace	36.8	46.2	7.7	0.0
9	0.5	0.8	0.0	0.0	2.4	2.4	0.0	Trace	0.0	20.0	7.6	0.0
10	3.0	1.0	Trace	0.0	0.0	0.0	Trace	Trace	0.0	15.5	8.1	0.0
11	3.5	1.0	0.0	0.2	Trace	0.0	1.6	0.0	0.0	0.0	6.4	0.0
12	6.6	7.4	Trace	1.4	3.8	Trace	0.0	0.0	0.0	0.0	7.0	0.0
13	7.7	4.6	4.2	1.2	5.7	1.2	0.0	0.4	25.0	0.0	7.6	0.0
14	0.4	0.0	96.0	0.0	0.0	0.2	4.6	0.0	0.0	0.0	0.0	0.0
15	Trace	1.2	0.0	0.0	0.6	19.2	9.6	Trace	0.0	0.0	Trace	0.2
16	0.0	1.0	0.0	0.0	0.0	8.2	0.0	61.4	0.0	0.0	Trace	0.0
17	Trace	0.0	1.0	0.0	Trace	8.4	0.0	1.8	1.8	0.0	0.0	5.4
18	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	Trace	Trace	0.0	11.4
19	Trace	0.0	0.0	1.0	0.2	0.0	1.0	0.0	0.0	0.0	0.2	6.6
20	0.0	0.0	0.0	0.0	0.0	Trace	7.2	1.0	0.0	0.0	Trace	12.8
21	0.0	0.0	Trace	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.4
22	0.0	0.0	0.2	0.2	0.5	0.2	0.0	0.0	1.5	0.0	0.0	0.0
23	0.0	0.0	4.8	0.3	1.2	0.0	0.0	0.0	9.8	0.4	0.0	1.4
24	0.0	0.0	4.4	0.0	4.1	0.0	0.0	Trace	0.0	Trace	0.0	0.0
25	0.0	0.0	9.8	Trace	0.8	0.1	0.6	2.8	0.0	0.0	Trace	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	2.0	Trace	5.2	0.2	2.2	0.0
27	0.0	0.0	0.0	0.0	39.4	0.2	4.3	0.0	22.4	0.2	Trace	0.0
28	0.0	0.0	0.2	0.1	0.0	0.0	19.3	3.2	0.4	0.0	0.0	1.0
29	0.0		0.0	Trace	0.0	2.7	30.0	26.3	0.4	Trace	3.6	1.3
30	0.0		0.0	0.0	0.6	0.3	0.0	0.0	2.6	24.2	0.0	4.0
31	0.0		Trace		1.6		0.0	2.0		0.0		21.2
TOTAL	38.3	21.6	122.4	14.6	60.9	43.1	109.4	110.3	166.4	305.6	71.0	66.7
AVERAGE	2.8	1.5	8.7	1.5	4.2	3.0	7.3	9.2	11.1	21.8	5.7	4.3
HIGHEST	8.0	7.4	96.0	14.6	39.4	19.2	30.0	61.4	36.8	75.6	10.6	21.2

**LEGEND:** Trace – Rainfall amount less than 0.1 mm

Certified correct:

  
**MARIBEL "Hasannah" G. ENRIQUEZ**  
 Chief Meteorological Officer  
 PAGASA Zamboanga Synoptic Station

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REPUBLIC OF THE PHILIPPINES  
**Department of Science and Technology**  
**Philippine Atmospheric, Geophysical and**  
**Astronomical Services Administration (PAGASA)**  
 Science Garden, Agham Road, Diliman, Quezon City 1100

**CLIMATOLOGICAL EXTREMES**

**STATION: ZAMBOANGA CITY**  
**YEAR: AS OF 2010**

MONTH	TEMPERATURE (°C)				GREATEST DAILY RAINFALL (MM)		HIGHEST WIND (MPS)		
	HIGH	DATE	LOW	DATE	AMOUNT	DATE	SPD	DIR	DATE
JAN	35.5	01-23-2002	15.8	01-22-1965	128.0	01-23-1916	22	NE	01-30-1982
FEB	35.5	02-28-2010	15.6	02-27-1905	156.5	02-26-1928	16	SSE	02-01-1988
MAR	36.0	03-26-2002	17.5	03-10-1911	79.6	03-21-2010	17	NNE	03-05-1972
APR	36.9	04-22-1987	16.7	04-07-1967	106.0	04-30-2004	14	W	04-22-1990
MAY	36.1	05-24-1987	20.7	05-11-1954	88.9	05-13-1990	20	NE	05-09-1978
JUNE	36.0	06-05-2010	20.4	06-02-1904	123.5	06-20-2008	21	W	06-23-1984
JULY	35.2	07-07-1988	20.0	07-18-1958	140.4	07-09-1940	20	WSW	07-21-1989
AUG	35.7	08-31-1992	19.0	08-12-1917	136.6	08-29-1952	23	ENE	08-17-1988
SEP	35.8	09-02-2004	19.9	09-07-1911	193.2	09-29-1990	22	W	09-13-1986
OCT	36.0	10-01-1999	18.4	10-05-1955	199.1	10-09-2001	23	WSW	10-06-1984
NOV	35.5	11-11-1988	18.5	11-11-1910	163.3	11-27-1955	22	W	11-07-1988
DEC	35.2	12-13-2004	16.7	12-28-1950	161.0	12-02-1910	18	NE	12-22-1992
ANNUAL	36.9	04-22-1987	15.6	02-27-1905	199.1	10-09-2001	23	ENE	08-17-1988
Period of Record	1903 - 2010				1902 - 2010		1950 - 2010		

**Certified Correct:**

**MARIBEL "Hasanah" G. ENRIQUEZ**  
 Chief Meteorological Officer  
 PAGASA Zamboanga Synoptic Station  
 Zamboanga City

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15. BOARD RESOLUTION NO. 190 S. 2017



Republic of the Philippines  
**ZAMBOANGA CITY WATER DISTRICT**  
BOARD OF DIRECTORS  
Pilar Street, Zamboanga City  
Tel Nos. (062) 991 1556 loc. 8116; Telefax 991 1634

**A RESOLUTION APPROVING THE PERFORMANCE SPECIFICATIONS  
AND PARAMETERS FOR THE DESIGN, BUILD, TESTING AND  
COMMISSIONING OF THE 4000 CUBIC METER PER DAY SEWERAGE  
TREATMENT PLANT**

**Board Resolution No. 190  
Series of 2017**

WHEREAS, Engr. Anne Aubrey R. De Guzman-Bugtong, Environmental Specialist, through the recommendation of AGM Arnulfo A. Alfonso, presented to the Board the Performance Specifications and Parameters for the Design, Build, Testing and Commissioning of the 4000 cubic meter per day Sewerage Treatment Plant (STP) located at the Materials Recovery Facility (MRF) Compound, Gov. Lim Avenue, Zamboanga City, for their approval;

WHEREAS, after a thorough review and discussion on the matter, the Board finds it in order;

NOW THEREFORE, on motion by Director Abram M. Eustaquio, duly seconded by Director Efren F. Arañez, it was **RESOLVED**, as it is hereby **RESOLVED**, to APPROVE the Performance Specifications and Parameters for the Design, Build, Testing and Commissioning of the 4000 cubic meter per day STP.

The motion was unanimously approved.

18 December 2017, Zamboanga City Philippines.

ATTESTED BY:

  
ESTHER G. ORENDAIN  
Secretary

  
JOSE VICENTE F. ATILANO III  
Chairman

  
MILAGROS L. FERNANDEZ, M.D.  
Vice-Chairperson

  
ENGR. EFREN F. ARAÑEZ  
Director

  
ABRAM M. EUSTAQUIO  
Director

# 16. BILL OF QUANTITIES (BOQ) FORMAT



Republic of the Philippines  
**ZAMBOANGA CITY WATER DISTRICT**  
 Pilar Street, Zamboanga City

## BILL OF QUANTITIES

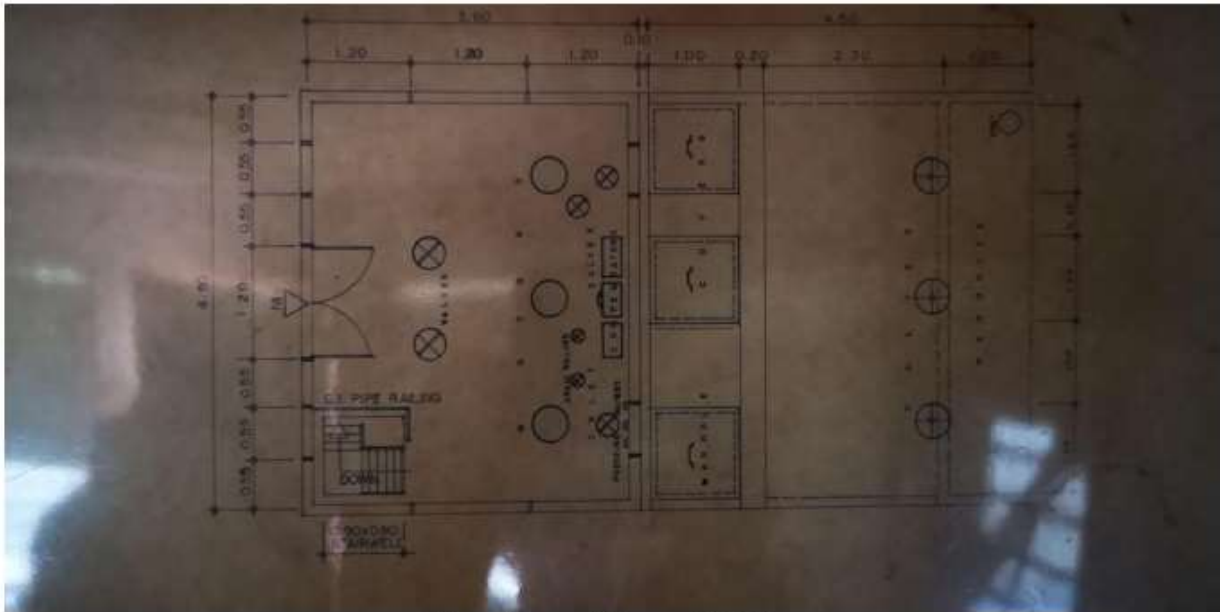
Project Title:  
 Total Project Cost:  
 Project Duration: One Thousand Two Hundred Seventy Seven (1277) Calendar Days

WORK ITEM / DESCRIPTIONS	QUANTITY	UNIT	UNIT COST (w/ OCM, Profit & VAT)	TOTAL AMOUNT
<b>I. GENERAL REQUIREMENTS</b>				
<b>II. PLANNING AND ENGINEERING DESIGN PHASE</b>				
<b>II. CONSTRUCTION PHASE</b>				
<b>A. EARTHWORKS</b>				
<b>B. CIVIL WORKS</b>				
<b>C. ELECTRICAL WORKS</b>				
<b>D. SSTP PROCESS</b>				
<b>E. OTHERS</b>				
<b>III. TURNOVER</b>				
<b>A. TESTING AND COMMISSIONING</b>				
<b>B. PROVING TREATMENT PERFORMANCE</b>				
<b>C. TURNOVER OF LABORATORY TOOLS &amp; EQUIPMENT AND OFFICE EQUIPMENT</b>				
<b>D. OTHERS</b>				

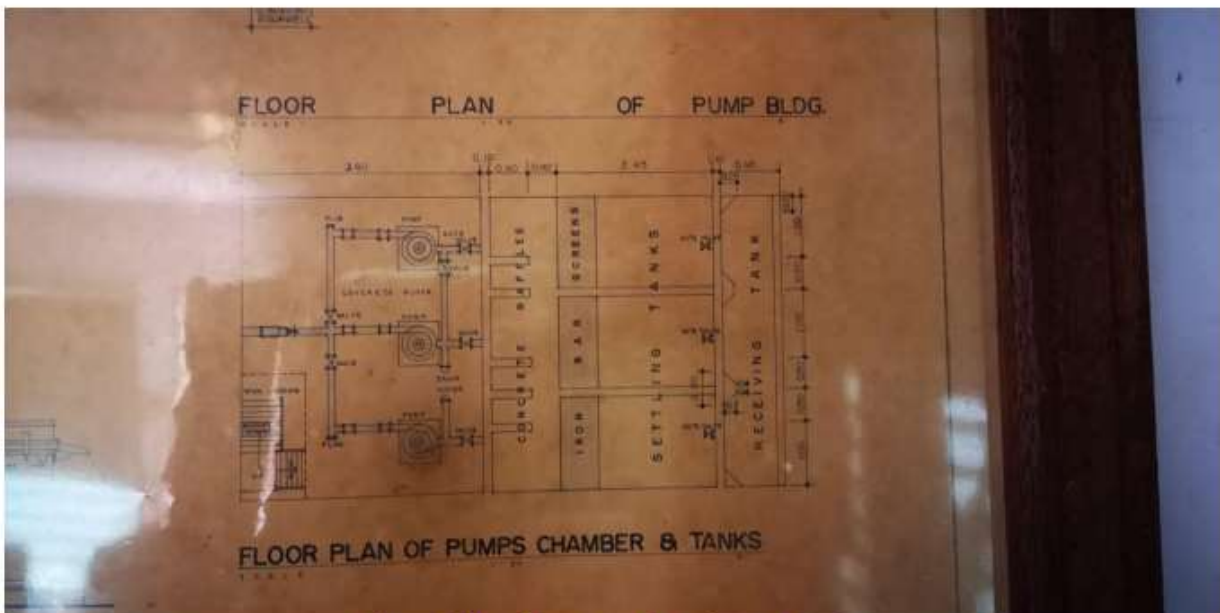
Total Project Cost \_\_\_\_\_

Prepared & Submitted by:  
 \_\_\_\_\_  
 Contractor's Authorized Representative

## 17. PHOTOGRAPHS OF AS-BUILT PLAN OF THE SEWAGE PUMPING STATIONS

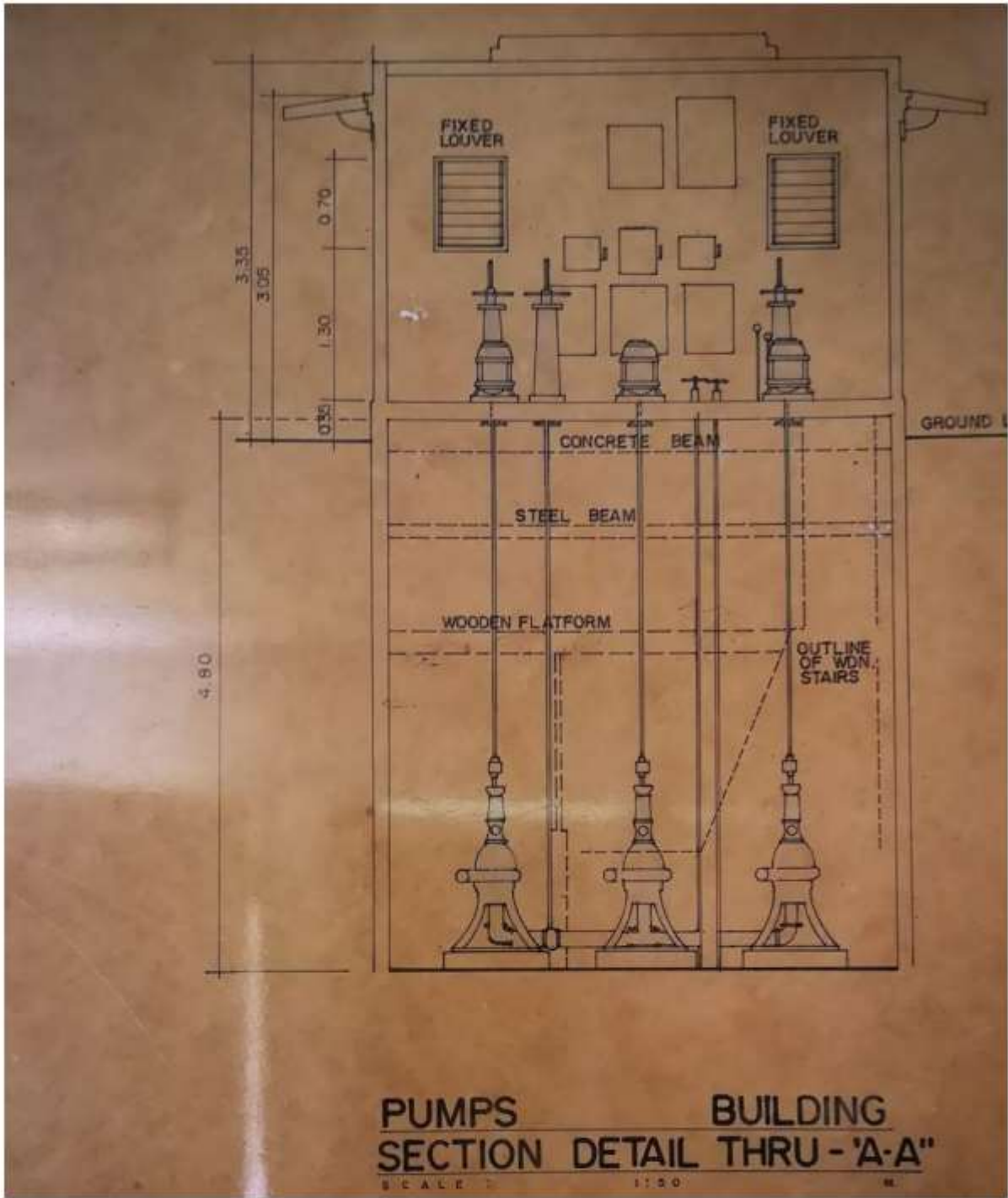


Floor Plan of Pump Building



Floor Plan of Pumps Chamber & Tanks





Pumps Building