



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Provincial Environment and Natural Resources Office

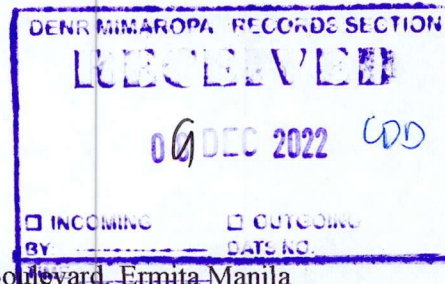
December 05, 2022

MEMORANDUM

FOR : The Regional Executive Director
DENR, MIMAROPA Region
1515 DENR By The Bay Building, Roxas Boulevard, Ermita Manila

FROM : The In-Charge, Office of the PENRO
Oriental Mindoro

SUBJECT : **DOCUMENTS FOR THE PROPOSED SMALL WATER
IMPOUNDING SYSTEM (SWIS) TARGET FOR FY 2023
FOR THE PROVINCE OF ORIENTAL MINDORO**



Respectfully submitting the following documents for the proposed Construction of Small Water Impounding Structure (SWIS) for FY 2023 target amounting to Three Million Two Hundred Ninety-Six Thousand Two Hundred Fifty Pesos (Php 3,296,250.00).

1. Letter of Intent from the Punong Barangay of Brgy. Milagrosa, Bulalacao;
2. Barangay Resolution from Tanggapan ng Sanguniang Barangay ng Brgy. Milagrosa, Bulalacao;
3. Program of Works including Detailed Unit Price Analysis (DUPA);
4. Detailed Plan and Design Specification for the Construction of SWIS; and
5. Location Map of the proposed SWIS.

The proposed SWIS project is located within the FY 2021 Established NGP Plantation at So. Bating, Brgy. Milagrosa, Bulalacao, Oriental Mindoro.

For information and records.


ALMA E. GIBE

DMO V/Chief, TSD
In-Charge, Office of the PENRO



DENRPENR02212000021



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Community Environment and Natural Resources Office
Camia St., San Mariano, Roxas, Oriental Mindoro
Contact No.: 0917 876 9985 / 0917 169 0232
VOIP: (043) 289-7118
Email: cenroroxas_orientalmin@yahoo.com

October 19, 2022

MEMORANDUM

FOR : The PENR Officer
DENR PENRO, Suqui, Calapan City, Or. Mindoro

FROM : The CENR Officer
CENRO Roxas, Oriental Mindoro

SUBJECT : PERTINENT DOCUMENTS FOR THE PROPOSE SMALL
WATER IMPOUNDING SYSTEM (SWIS) AT BRGY.
MILAGROSA, BULALACAO, ORIENTAL MINDORO

Forwarding herewith is the Program of Works and Design of propose SWIS, request letter from the Brgy. Chairman of Milagrosa as well as the Resolution dated October October 6, 2022.

For information and record.

ENGR. CAESAR E. QUEBEC

DENR-MIMAROPA REGION	
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE ORIENTAL MINDORO	
PENRO TRACKING NO.	
RECEIVED BY	<i>[Signature]</i>
DATE	OCT 24 2022
TIME	



Republika Ng Pilipinas
Lalawigan Ng Silangang Mindoro
Bayan Ng Bulalacao
Barangay **MILAGROSA**



TANGGAPAN NG SANGGUNIANG BARANGAY

Barangay Milagrosa, Bulalacao, Oriental Mindoro, 5214

October 12, 2022

ENGR. CAESAR E. QUEBEC
CENR OFFICER, DENR CENRO ROXAS
San Mariano, Roxas, Oriental Mindoro

SIR;

Mapagpalang araw po,


Ang Sangguniang Barangay po ng MILAGROSA, Bulalacao, Oriental Mindoro sa pangunguna ng inyong lingkod ay humihiling sa inyong Tanggapan na mapagkalooban ng pondo ang Barangay Milagrosa, Bulalacao, Oriental Mindoro para sa pagpapagawa ng **TANGKE** ng **TUBIG** na itatayo sa Sitio Bating, nasasakopan ng Barangay Milagrosa dahil mayroon ditong bukal ng tubig na hindi natutuyuan kung tag init na kayang suportahan ng tubig ang tatlo pang karatig Sitio's tulad ng Sitio Hinagdanan, Sitio Alimango at Sitio Calonacon na kabilang din sa mga proyekto ng inyong Tanggapan ang Enhanced National Greening Program.

Kaugnay po nito malaking tulong po sa aming Barangay ang inyong ipagkaloob na pondo para sa pagpapagawa ng **TANGKE** ng tubig sa Sitio Bating, Milagrosa, Bulalacao, Oriental Mindoro na higit na kailangan ng aming nasasakopang mga Sitio's, higit sa lahat ang nasabing proyekto na gagawin ay nangangailangan ng malaking pondo na hindi kayang tugunan ng aming 20% Development Fund ng Barangay.

Maraming salamat po at lubos po naming inaasahan ang inyong lubosang pagtugon sa aming kahilingan.

Maraming Salamat po muli!

Gumagalang;


DIOSDADO D. TAGALOG JR.
Punong Barangay



Republika ng Pilipinas
Lalawigan ng Silangang Mindoro
Bayan ng Bulalacao
Barangay **MILAGROSA**



TANGGAPAN NG SANGGUNIANG BARANGAY

Barangay Milagrosa, Bulalacao, Oriental Mindoro, 5214

HALAW MULA SA KATITIKAN NG REGULAR NA PAGPUPULONG NG SANGGUNIANG BARANGAY NG MILAGROSA, BULALACAO, SILANGANG MINDORO NA GINANAP NGAYONG IKA- **06** NG **OKTUBRE** TAONG 2022 SA BAHAY PULUNGAN NG SANGGUNIANG BARANGAY, SA GANAP NA IKA-09:00 NG UMAGA.

MGA DUMALO;

KGG. DIOSDADO D. TAGALOG JR.	= Punong Barangay/ Tagapamanihala Ng Pulong =
KGG. EDNA R. VICTOR	= Sangguniang Barangay Member =
KGG. EDWIN B. ABERTE	= do =
KGG. ROMEO E. APOSAGA	= do =
KGG. NONITO N. CASIO	= do =
KGG. SARLITO T. VILLAREAL	= do =
KGG. RICHARD F. TAGALOG	= do =
KGG. RAQUEL N. MAHINAY	= do =
SK. JIMMY A. AMRAD	= SK Chairperson =

HINDI NAKADALO;

WALA

KAPASYAHAN BILANG 26, SERYE 2022

KAPASYAHAN NA HUMIHILING KAY **ENGR. CAESAR E. QUEBEC**, CENR CENRO ROXAS, SAN MARIANO ROXAS, ORIENTAL MINDORO NA MABIGYAN AT MAPAGLAANAN NG PONDO ANG BARANGAY MILAGROSA, BULALACAO, ORIENTAL MINDORO PARA SA PAGPAPAGAWA NG TANGKE O MAINTANK NG TUBIG SA SITIO BATING, NASASAKOPAN NG BARANGAY MILAGROSA.

SAPAGKAT, ang Barangay Milagrosa, Bulalacao, Oriental Mindoro ay isa sa Barangay na napasama sa proyekto ng Enhanced National Greening Program (eNGP) na pinangangasiwaan ng inyong Tanggapan.

SAPAGKAT, sa Sitio Bating nasasakopan ng Barangay Milagrosa, Bulalacao, Oriental Mindoro ay may bukal ng tubig na hindi ito natutuyuan kung tag init at napapaligiran ng mga pananim na sakop ng proyekto ng eNGP.

SAPAGKAT, ang pagpapagawa ng TANGKE ng tubig sa Sitio Bating ay pakikinabangan din ng mga karatig na Sitio's, tulad ng Sitio Hinagdanan. Sitio Alimango at Sitio Calonacon na napapaloob din sa proyekto ng eNGP.

SAPAGKAT, ang nasabing proyekto TANGKE (Water main tank) ay nangangailangan ng malakihang pondo na hindi kayang matugonan ng pondo ng Barangay.

DAHIL DITO; PINAGPASYAHAN PA RIN GAYA NG GINAWANG PAGPAPASYA NA HUMIHILING KAY **ENGR. CAESAR E. QUEBEC**, CENR CENRO ROXAS, SAN MARIANO ROXAS, ORIENTAL MINDORO NA MABIGYAN AT MAPAGLAANAN NG PONDO ANG BARANGAY MILAGROSA, BULALACAO, ORIENTAL MINDORO PARA SA PAGPAPAGAWA NG TANGKE O MAINTANK NG TUBIG SA SITIO BATING, NASASAKOPAN NG BARANGAY MILAGROSA.

Sa mungkahi ni **Sangguniang Barangay Member RAQUEL N. MAHINAY** na sinang – ayunan ng lahat ng dumalo sa pagpupulong ang kapasyahang ito ay pinagtibay.

Pinagtibay ngayong ika- 06 ng Oktubre taon 2022, Barangay Milagrosa, Bulalacao, Oriental Mindoro



EDNA R. VICTOR
Sannguniang Barangay Member



EDWIN B. ABERTE
Sangguniang Barangay Member



ROMEO E. APOSAGA
Sangguniang Barangay Member



NONITO N. CASIO
Sangguniang Barangay Member



SARLITO T. VILLAREAL
Sangguniang Barangay Member



RICHARD F. TAGALOG
Sangguniang Barangay Member



RAQUEL N. MAHINAY
Sangguniang Barangay Member



JIMMY A. AMRAD
SK Chairperson

PINATOTOHAN KO ANG KAWASTUHAN NG KAPASIYAHANG ITO;



AGNES DEMATE RUTOR
Kalihim Ng Barangay

PINAGTIBAY;



DIOSDADO D. TAGALOG JR.
Punong Barangay



Republic of the Philippines
Department of Environment and Natural Resources
Region IV - B, MIMAROPA
Provincial Environment and Natural Resources Office
Calapan City, Oriental Mindoro

PROGRAM OF WORK

Office : DENR-CENRO- ROXAS
Name of Project : Construction of Small Water Impounding System
(Spring Development)
Location : So. Bating, Brgy. Milagrosa
Appropriation : Php3,296,250.00
Source of Funds : CY 2022GAA

Dimension: : 2units- 2.00 m x 3.50 x 2.00m 1
Volume: : unit- 2.4 m x 2.4m x 3.5m
Type of Structure : 48.16 cu.m
No. of Building : Concrete Water Tank
No. of Floor : N/A
Classification : N/A
Number of Days to Complete : Water System w/ pipe line
75cd

Date

DESCRIPTION OF WORK TO BE DONE		% of Total	EQUIPMENT		NUMBER	
					Needed	Available
OTHER GENERAL REQUIREMENTS		6.69%	Hand tools		all	
WATER SUPPLY		1.48%	One Bagger Mixer		1	
MECHANICAL		72.63%	Plate Compactor		1	
		80.79%	Cargo Truck/Backhoe		1/1	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ADJUSTED UNIT COST
I	OTHER GENERAL REQUIREMENTS					
a	Project Billboard /Signboard	ea	1.00	5,585.84	5,585.84	5,585.85
b	Occupational Safety and Health Program	mo	2.50	69,939.99	174,849.98	69,940.00
c	Mobilization/Demobilization	l.s.	1.00	40,000.95	40,000.95	40,000.95
II	WATER SUPPLY					
D	Structure Excavation (Common Soil)	m ³	92.32	304.25	28,088.36	304.25
E	Embankment from Structure Excavation	m ³	6.53	200.66	1,310.31	200.65
F	Gravel Fill	m ³	1.54	2,737.78	4,216.18	2,737.80
G	Structural Concrete for Footing and Slab on Fill (Class A, 28 days)	m ³	1.15	9,022.46	10,375.83	9,022.45
H	Structural Concrete for Footing Tie Beams (Class A, 28 days)	m ³	1.02	10,546.71	10,757.64	10,546.70
I	Structural Concrete for Column (Class A, 28 days)	m ³	2.09	10,546.71	22,042.62	10,546.70
J	Structural Concrete for Suspended Slab (Class A, 28 days)	m ³	11.91	10,546.71	125,611.32	10,546.70
K	Structural Concrete for Beams (Class A, 28 days)	m ³	2.05	10,546.71	21,620.76	10,546.70
L	Reinforcing Steel (Deformed), Grade 40	kg	2,974.94	116.92	347,829.98	116.90
M	Formworks and Falseworks	m ²	144.00	520.89	75,008.16	520.90
N	Painting Works (Masonry Painting)	m ²	99.36	352.61	35,035.33	352.60
III	MECHANICAL					
O	Galvanized Iron Pipes with Fittings	m	78.00	12,780.11	996,848.58	12,780.10
P	PVC Polyvinyl Chloride Pipe	l.s.	1.00	1,397,034.27	1,397,034.27	1,397,034.25
TOTAL					3,296,216.11	

Scope of Work: Construction of 3units of Concrete Water Tank - 48.16cu.m total volume and Installation of Pipes.

BREAKDOWN OF ESTIMATED EXPENDITURES:		TOTAL DIRECT COST	
1) Materials	2,057,516.80	A. Total Direct Cost	2,529,586.88
2) Labor & Equipment	472,070.08	B. OCM (15.00%)	356,724.89
3) OCM (15.00%)	356,724.89	C. Profit (10.00%)	252,965.87
4) Profit (10.00%)	252,965.87	D. VAT (5% of ABC)	156,971.29
5) VAT (5.00%)	156,971.29	E. Total Const. Cost	3,296,248.93
6) Overhead (0.00%)	-	F. Overhead (0.00%)	-
TOTAL	3,296,248.93	G. Total Estimated Cost	3,296,248.93
SAY	Php3,296,250.00	H. SAY	Php3,296,250.00

PREPARED BY:

CHRISTIAN S. DILANO
ENGINEER II
DPWH ENGINEER

APPROVED BY:

ALMA E. GIBE
PENR- OFFICER

RECOMMENDING APPROVAL:

ENGR. CAESAR E. QUEBEC
CENR Officer

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : A Project Billboard /Signboard
 Unit of Measure : 1 ea
 Outout per hour : 1.00 set

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	4.00	88.12	352.48
	b. Skilled Laborer	1	4.00	63.79	255.16
	c. Unskilled Laborer	1	4.00	49.20	196.80
	Sub- Total for A				804.44
	Name and Capacity	No. of Unit/s	NO. of Month/s	MOnthly Rate	Amount (PhP)
B.	Equipment				
	Minor Tools (10% of labor cost)				80.44
	Sub- Total for B				80.44
C.	Total (A + B)				884.88
D.	Output per Hour = 1.00 l.s.				
E.	Direct Unit Cost (C ÷ D)				884.88
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. 8' x 8' Tarpaulin	ft ²	64.00	20.00	1,280.00
	b. Good Lumber (Frames)	bd-ft	48.00	42.00	2,016.00
	c. Assorted Common Working Nails	kg	1.00	75.00	75.00
	Sub- Total for F				3,371.00
G.	Direct Unit Cost (E + F)				4,255.88
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses 15% of G				638.38
I.	Contractors's Profit (CP) 10% of G				425.59
J.	Value Added Tax (VAT) 5% of (G + H + I)				265.99
K.	Total Unit Cost (G + H + I + J)				5,585.84

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : B Occupational Safety and Health Program
 Unit of Measure : 2.50 mo
 Outout per hour : 2.00

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	Health and Safety Practitioner				
	a. Safety Practitioner/ Officer (Part Time)	1	4.00	760.80	3,043.20
	Sub- Total for A				3,043.20
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. Portable Mist Based Sanitation Tent	1	-	9.79	-
	b. Power Sprayer(w/ complete accesories)	1	500.00	3.42	1,710.00
	c. Thermal Scanner(w/rechargeable Battery)	1	500.00	1.01	505.00
	Sub- Total for B				2,215.00
C.	Total (A + B)				5,258.20
D.	Output				
E.	Direct Unit Cost (C ÷ D)				2,629.10
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	Personal Protective Equipment				
	a. Safety Helmet	man-days	25.00	36.00	900.00
	b. Safety Shoes	man-days	25.00	35.00	875.00
	c. Safety Gloves	man-days	25.00	65.00	1,625.00
	d. Vest	man-days	25.00	86.00	2,150.00
	f. Dust Mask	man-days	25.00	128.00	3,200.00
	g. Eye Goggles	man-days	25.00	288.00	7,200.00
	j. Rubber Boots	man-days	10.00	1,600.00	16,000.00
	Use for the whole project duration				
	a. PPE Signage (4' x 8')	set	2.00	2,200.00	4,400.00
	b. Safety First (4' x 4')	set	2.00	620.00	1,240.00
	c. Warning Signs (2' x 3')	sets	8.00	920.00	7,360.00
	d. Caution Tape , 1000 ft	roll	1.00	200.00	200.00
	COVID19 Rapid Antibody Test Antiseptics and Dissinfectant				
	a. Sanitizing Solution	lit	30.00	100.00	3,000.00
	b. Ethyl Alchohol	lit	15.00	185.00	2,775.00
	c. Disinfectant Spray	can	5.00	1,000.00	5,000.00
	d. Liquid Hand Soap	lit	10.00	200.00	2,000.00
	Note : Use for the whole project duration				
	Sub- Total for F				57,925.00
G.	Direct Unit Cost (E + F)				60,554.10
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses		0% of G		-
I.	Contractors's Profit (CP)		10% of G		6,055.41
J.	Value Added Tax (VAT)		5% of (G + H + I)		3,330.48
K.	Total Unit Cost		(G + H + I + J)		69,939.99

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : C Mobilization/Demobilization
 Unit of Measure : 1 l.s.
 Outout per hour : 1.00

A.	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Labor				
	Sub- Total for A				-
B.	Name and Capacity	No. of Unit/s	NO. of Month/s	MOonthly Rate	Amount (PhP)
	Equipment a. Mobilization/Demobilization (1% of Part III)				30,476.91
	Sub- Total for B				30,476.91
C.	Total (A + B)				30,476.91
D.	Output				
E.	Direct Unit Cost (C ÷ D)				30,476.91
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
	Materials				
	Sub- Total for F				-
G.	Direct Unit Cost (E + F)				30,476.91
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	4,571.54
I.	Contractors's Profit (CP)			10% of G	3,047.69
J.	Value Added Tax (VAT)			5% of (G + H + I)	1,904.81
K.	Total Unit Cost			(G + H + I + J)	40,000.95

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : D Structure Excavation (Common Soil)
 Unit of Measure : 92.32 m³
 Outout per hour : 20.00 m³

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Unskilled Laborer	3	1.00	49.20	147.60
	Sub- Total for A				235.72
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. Dump Truck (12yd ³)	2	1.00	1,420.00	2,840.00
	b. Backhoe (0.80 m ³)	1	1.00	1,537.00	1,537.00
	Minor Tools (10% of Labor Cost)				23.57
	Sub- Total for B				4,400.57
C.	Total (A + B)				4,636.29
D.	Output per Hour = 20.00 m ³				
E.	Direct Unit Cost (C ÷ D)				231.81
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	Sub- Total for F				-
G.	Direct Unit Cost (E + F)				231.81
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	34.77
I.	Contractors's Profit (CP)			10% of G	23.18
J.	Value Added Tax (VAT)			5% of (G + H + I)	14.49
K.	Total Unit Cost			(G + H + I + J)	304.25

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : E Embankment from Structure Excavation
 Unit of Measure : 6.53 m³
 Outout per hour : 9.84 m³

A.	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Unskilled Laborer	3	1.00	49.20	147.60
	Sub- Total for A				235.72
B.	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Equipment				
	a. Plate Compactor (5hp)	1	0.75	123.00	92.25
	b. Backhoe (0.80 m ³)	1	0.75	1,537.00	1,152.75
	Minor Tools (10% of Labor Cost)				23.57
	Sub- Total for B				1,268.57
C.	Total (A + B)				1,504.29
D.	Output per Hour = 9.84 m ³				
E.	Direct Unit Cost (C ÷ D)				152.88
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
	Materials				
	Sub- Total for F				-
G.	Direct Unit Cost (E + F)				152.88
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	22.93
I.	Contractors's Profit (CP)			10% of G	15.29
J.	Value Added Tax (VAT)			5% of (G + H + I)	9.56
K.	Total Unit Cost			(G + H + I + J)	200.66

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : F Gravel Fill
 Unit of Measure : 1.54 m³
 Outout per hour : 1.20 m³

A.	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Unskilled Laborer	3	1.00	49.20	147.60
	Sub- Total for A				235.72
B.	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Equipment				
	a. Plate Compactor	1	0.50	123.00	61.50
	Minor Tools (10% of Labor Cost)				23.57
	Sub- Total for B				85.07
C.	Total (A + B)				320.79
D.	Output per Hour = 1.20 m ³				
E.	Direct Unit Cost (C ÷ D)				267.33
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
	Materials				
	a. Gravel Bedding (G1) (w/ 25% Shrinkage Factor)	m ³	1.05	1,732.00	1,818.60
	Sub- Total for F				1,818.60
G.	Direct Unit Cost (E + F)				2,085.93
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	312.89
I.	Contractors's Profit (CP)			10% of G	208.59
J.	Value Added Tax (VAT)			5% of (G + H + I)	130.37
K.	Total Unit Cost			(G + H + I + J)	2,737.78

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : G Structural Concrete for Footing and Slab on Fill (Class A, 28 days)
 Unit of Measure : 1.15 m³
 Outout per hour : 0.357 m³

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	1	1.00	63.79	63.79
	c. Unskilled Laborer	4	1.00	49.20	196.80
	Sub- Total for A				348.71
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. One Bagger Mixer	1	1.00	172.00	172.00
	Minor Tools (10% of Labor Cost)				34.87
	Sub- Total for B				206.87
C.	Total (A + B)				555.58
D.	Output per Hour = 0.357 m ³				
E.	Direct Unit Cost (C ÷ D)				1,556.25
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. Gravel	m ³	1.00	1,732.00	1,732.00
	b. Sand	m ³	0.50	1,672.00	836.00
	c. Portland Cement	bags	10.00	275.00	2,750.00
	Sub- Total for F				5,318.00
G.	Direct Unit Cost (E + F)				6,874.25
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	1,031.14
I.	Contractors's Profit (CP)			10% of G	687.43
J.	Value Added Tax (VAT)			5% of (G + H + I)	429.64
K.	Total Unit Cost			(G + H + I + J)	9,022.46

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : H Structural Concrete for Footing Tie Beams (Class A, 28 days)
 Unit of Measure : 1.02 m³
 Outout per hour : 0.270 m³

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	2	1.00	63.79	127.58
	c. Unskilled Laborer	4	1.00	49.20	196.80
	Sub- Total for A				412.50
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. One Bagger Mixer	1	1.00	172.00	172.00
	Minor Tools (10% of Labor Cost)				41.25
	Sub- Total for B				213.25
C.	Total (A + B)				625.75
D.	Output per Hour = 0.27 m ³				
E.	Direct Unit Cost (C ÷ D)				2,317.59
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. Gravel	m ³	1.00	1,732.00	1,732.00
	b. Sand	m ³	0.50	1,672.00	836.00
	c. Portland Cement	bags	10.00	275.00	2,750.00
	i. Waterproofing(Sahara or equivalent)	bag	8.00	50.00	400.00
	Sub- Total for F				5,718.00
G.	Direct Unit Cost (E + F)				8,035.59
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses 15% of G				1,205.34
I.	Contractors's Profit (CP) 10% of G				803.56
J.	Value Added Tax (VAT) 5% of (G + H + I)				502.22
K.	Total Unit Cost (G + H + I + J)				10,546.71

Note: 1. This cost sheet shall be used for concreting footing tie beam, column, suspended slab, and girder/beam by using manual mixing and manual pouring of concrete applicable for Item Nos. 900(1)c3, 900(1)c4, 900(1)c5 and 900(1)c6. Ideally, this cost sheet shall be used for one-storey to two-storey buildings involving one to two spans in remote areas.

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : I Structural Concrete for Column (Class A, 28 days)
 Unit of Measure : 2.09 m³
 Outout per hour : 0.270 m³

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	2	1.00	63.79	127.58
	c. Unskilled Laborer	4	1.00	49.20	196.80
	Sub- Total for A				412.50
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. One Bagger Mixer	1	1.00	172.00	172.00
	Minor Tools (10% of Labor Cost)				41.25
	Sub- Total for B				213.25
C.	Total (A + B)				625.75
D.	Output per Hour = 0.27 m ³				
E.	Direct Unit Cost (C ÷ D)				2,317.59
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. Gravel	m ³	1.00	1,732.00	1,732.00
	b. Sand	m ³	0.50	1,672.00	836.00
	c. Portland Cement	bags	10.00	275.00	2,750.00
	i. Waterproofing(Sahara or equivalent)	bag	8.00	50.00	400.00
	Sub- Total for F				5,718.00
G.	Direct Unit Cost (E + F)				8,035.59
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses 15% of G				1,205.34
I.	Contractors's Profit (CP) 10% of G				803.56
J.	Value Added Tax (VAT) 5% of (G + H + I)				502.22
K.	Total Unit Cost (G + H + I + J)				10,546.71

Note: 1. This cost sheet shall be used for concreting footing tie beam, column, suspended slab, and girder/beam by using manual mixing and manual pouring of concrete applicable for Item Nos. 900(1)c3, 900(1)c4, 900(1)c5 and 900(1)c6. Ideally, this cost sheet shall be used for one-storey to two-storey buildings involving one to two spans in remote areas.

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : L Reinforcing Steel (Deformed), Grade 40
 Unit of Measure : 2,974.94 kg
 Outout per hour : 129.094 kg

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	3	1.00	63.79	191.37
	c. Unskilled Laborer	12	1.00	49.20	590.40
	Sub- Total for A				869.89
	Name and Capacity	No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	a. Bar Cutter	1	0.50	219.75	109.88
	b. Bar Bender	1	0.50	351.50	175.75
	c. Cargo Truck	1	1.00	1,352.00	1,352.00
	Minor Tools (10% of Labor Cost)				86.99
	Sub- Total for B				1,724.61
C.	Total (A + B)				2,594.50
D.	Output per Hour = 129.094 kg				
E.	Direct Unit Cost (C ÷ D)				20.10
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. Deformed Reinforcing Steel Grade 60/Grade 40	kg	1.00	68.00	68.00
	b. #16 Galvanized Iron Wire	kg	0.015	65.00	0.98
	Sub- Total for F				68.98
G.	Direct Unit Cost (E + F)				89.08
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	13.36
I.	Contractors's Profit (CP)			10% of G	8.91
J.	Value Added Tax (VAT)			5% of (G + H + I)	5.57
K.	Total Unit Cost			(G + H + I + J)	116.92

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : M Formworks and Falseworks
 Unit of Measure : 144.00 m²
 Outout per hour : 47.00 m²

	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	Installation				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	4	1.00	63.79	255.16
	c. Unskilled Laborer	6	1.00	49.20	295.20
	Stripping				
	a. Construction Foreman	1	0.56	88.12	49.35
	b. Unskilled Laborer	6	0.56	49.20	165.31
	Sub- Total for A				853.14
	Name and Capacity	No. of Unit/s	NO. of Day/s	Daily Rental Rate	Amount (PhP)
B.	Equipment				
	a. H-Frame 1.70m x 1.20m, set	10	14.00	6.08	851.20
	2 pcs H-frames				
	4 pcs diagonal cross braces				
	4 pcs horizontal braces				
	8 pcs joint pins				
	b. Shoring Jck, 3.8m full extension	31	14.00	4.50	1,953.00
	c. Adjustable U-Head Jack, 0.6m	40	14.00	0.85	476.00
	d. adjustable Base Jack, 0.6m	40	14.00	0.85	476.00
	e. 1-1/2" GI Pipe x 6.0m	31	14.00	2.50	1,085.00
	f. 1-1/2" GI Pipe x 3.0m	8	14.00	1.25	140.00
	g. 1-1/2" GI Pipe x 4.0m	16	14.00	1.75	392.00
	h. 1-1/2" GI Pipe x 1.0m	108	14.00	0.50	756.00
	i. Tie Rod x 0.60m	139	14.00	1.00	1,946.00
	j. Round Wing Nut	279	14.00	0.15	585.90
	Minor Tools (1% of Equipment Cost)				86.61
	Sub- Total for B				8,747.71
C.	Total (A + B)				9,600.85
D.	Output per Hour = 47.000 m ²				
E.	Direct Unit Cost (C ÷ D)				204.27
	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	a. Phenolic Board (0.019 x 1.2 x 2.4) - 4 uses	pcs	0.347	1,450.00	125.79
	b. Good Lumber - 3 uses	bd ft	4.727	40.00	63.03
	c. Consumables (2% of Materials Cost)				3.78
	Sub- Total for F				192.60
G.	Direct Unit Cost (E + F)				396.87
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses		15% of G		59.53
I.	Contractors's Profit (CP)		10% of G		39.69
J.	Value Added Tax (VAT)		5% of (G + H + I)		24.80
K.	Total Unit Cost		(G + H + I + J)		520.89

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : N Painting Works (Masonry Painting)
 Unit of Measure : 99.36 m²
 Outout per hour : 2.10

A.	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	2	1.00	63.79	127.58
	c. Unskilled Laborer	2	1.00	49.20	98.40
	Sub- Total for A				314.10
B.	Name and Capacity	No. of Unit/s	NO. of Month/s	MOnthly Rate	Amount (PhP)
	Equipment				
	Minor Tools (10% of Labor Cost)				31.41
	Sub- Total for B				31.41
C.	Total (A + B)				345.51
D.	Output per Hour = 2.100 m ²				
E.	Direct Unit Cost (C ÷ D)				164.53
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
	Materials				
	a. Concrete Neutralizer	l	0.020	177.00	3.54
	b. Concrete Sealer/Primer	gal	0.040	547.00	21.88
	c. Patching Compound	gal	0.050	550.00	27.50
	d. Semi Gloss Latex (two coats)	gal	0.08	640.00	51.20
	e. Consumables (5% of Materials Cost)				
	Sub- Total for F				104.12
G.	Direct Unit Cost (E + F)				268.65
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	40.30
I.	Contractors's Profit (CP)			10% of G	26.87
J.	Value Added Tax (VAT)			5% of (G + H + I)	16.79
K.	Total Unit Cost			(G + H + I + J)	352.61

DETAILED UNIT PRICE ANALYSIS (DUPA)

Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : O Galvanized Iron Pipes with Fittings
 Unit of Measure : 78.00 m
 Outout per hour : 1.00

A.	Designation	No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
	Labor				
	a. Construction Foreman	1	1.00	88.12	88.12
	b. Skilled Laborer	2	1.00	63.79	127.58
	c. Unskilled Laborer	8	1.00	49.20	393.60
	Sub- Total for A				609.30
B.	Name and Capacity	No. of Unit/s	NO. of Month/s	MOnthly Rate	Amount (PhP)
	Equipment Cargo Truck Minor Tools (10 % of Labor Cost)	1	1.00	1,352.00	1,352.00 60.93
	Sub- Total for B				1,412.93
C.	Total (A + B)				2,022.23
D.	Output per Hour = 1				
E.	Direct Unit Cost (C ÷ D)				2,022.23
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount (PhP)
	Materials				
	Galvanized Iron Pipe (76mm D)	m	1.00	5,550.00	5,550.00
	G.I Elbow	pcs	4.00	80.00	320.00
	G.I. Coupling	pcs	10.00	120.00	1,200.00
	G.I. Caps	pcs	3.00	135.00	405.00
	G.I. Plugs	pcs	3.00	80.00	240.00
	Sub- Total for F				7,715.00
G.	Direct Unit Cost (E + F)				9,737.23
H.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G	1,460.58
I.	Contractors's Profit (CP)			10% of G	973.72
J.	Value Added Tax (VAT)			5% of (G + H + I)	608.58
K.	Total Unit Cost			(G + H + I + J)	12,780.11

DETAILED UNIT PRICE ANALYSIS (DUPA)


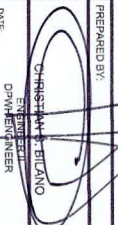

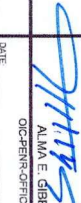
Project Title : Construction of Small Water Impounding Systyem (Spring Development)
 So. Bating, Brgy. Milagrosa
 Item No./ Description : P PVC Polyvinyl Chloride Pipe
 Unit of Measure : 1.00 l.s.
 Outout per hour : 1.00

Designation		No. of Person/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman	1	360.00	88.12	31,723.20
	b. Skilled Laborer	1	360.00	63.79	22,964.40
	c. Unskilled Laborer	1	360.00	49.20	17,712.00
	Sub- Total for A				72,399.60
Name and Capacity		No. of Unit/s	NO. of Hour/s	Hourly Rate	Amount (PhP)
B.	Equipment				
	Cargo Truck	1	20.00	1,352.00	27,040.00
	Minor Tools (10 % of Labor Cost)				7,239.96
C.	Sub- Total for B				34,279.96
	Total (A + B)				106,679.56
	Output per Hour =	1			
E. Direct Unit Cost (C ÷ D)					106,679.56
Name and Specification		Unit	Quantity	Unit Cost	Amount (PhP)
F.	Materials				
	PVC Polyvinyl Chloride Pipe 50.00 mm dia.@6m	pcs	720.00	1,300.00	936,000.00
	PPR Coupling Reducer 50mm x 25mm Ø	pcs	30.00	25.00	750.00
	PPR Coupling 50mm Ø	pcs	120.00	52.50	6,300.00
	PPR Coupling 25.4mm Ø	pcs	35.00	28.50	997.50
	Gate Valve 50mm Ø	pcs	4.00	1,750.00	7,000.00
	Teflon tape	roll	45.00	10.00	450.00
	Solvent	can	35.00	178.00	6,230.00
	Sub- Total for F				957,727.50
G. Direct Unit Cost (E + F)					1,064,407.06
H. Overhead, Contingencies & Miscellaneous (OCM) Expenses			15% of G		159,661.06
I. Contractors's Profit (CP)			10% of G		106,440.71
J. Value Added Tax (VAT)			5% of (G + H + I)		66,525.44
K. Total Unit Cost			(G + H + I + J)		1,397,034.27

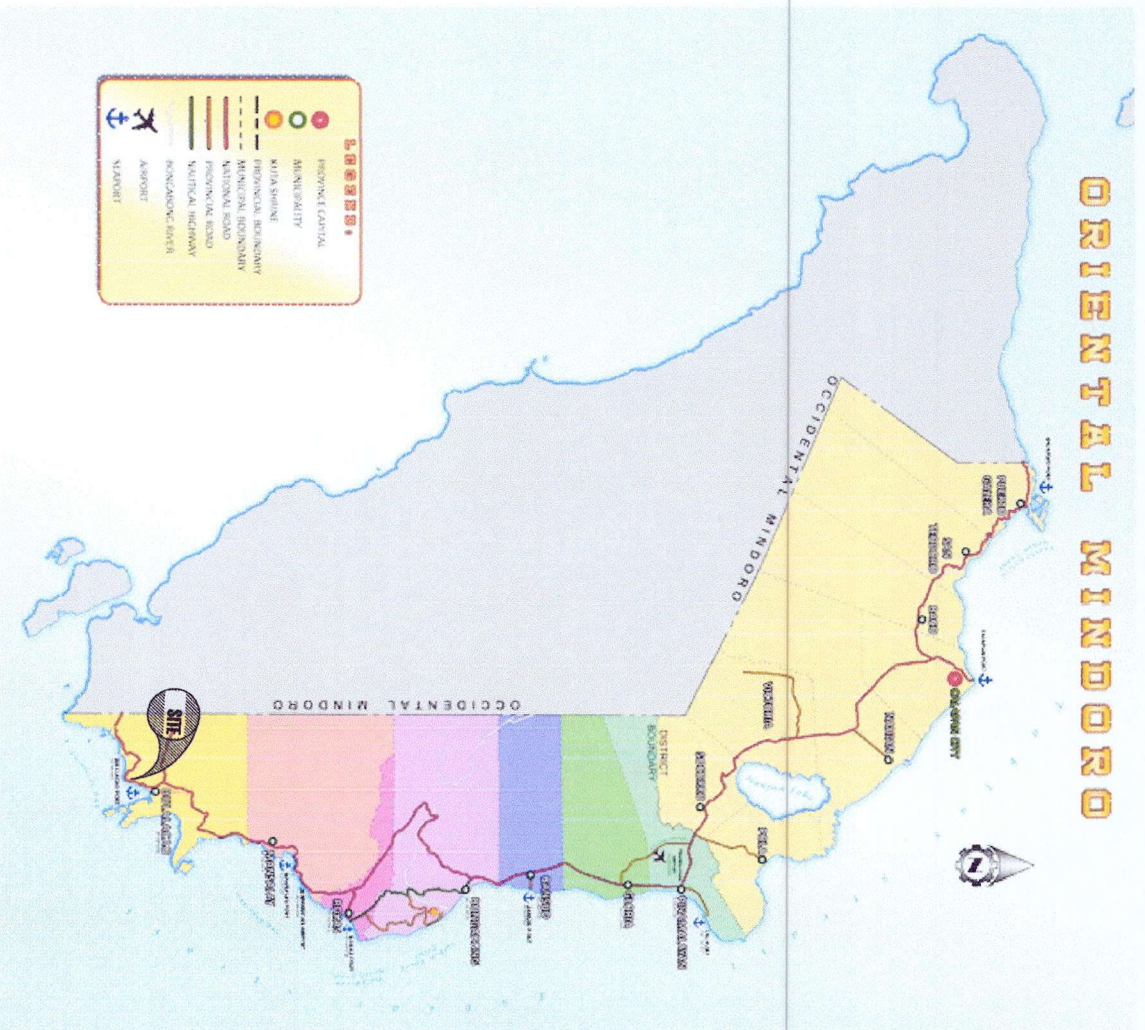


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
REGION IV - B, MIMAROPA
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE
SUQUI, CALAPAN CITY, ORIENTAL MINDORO

PLAN FOR THE CONSTRUCTION OF SMALL WATER
IMPOUNDING SYSTEM @ So.BATING, MILAGROSA
MILAGROSA, BULALACAO, ORIENTAL MINDORO

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES REGION IV - B, MIMAROPA PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE CALAPAN CITY		PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Bating, Milagrosa		BHEET CONTENTS TITLE PAGE		PREPARED BY:  CHRISTIAN T. BILANO ENVIRONMENTAL ENGINEER		RECOMMENDING APPROVAL:  CAESAR E. QUEBEC, CE/GE CENTR-OFFICER		APPROVED:  ALMA E. GIBRE OCC-PENR-OFFICER		SET NO. DENR CV - 202 PENR	SHEET NO. A-1 1/11
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ORIENTAL MINDORO



PROJECT PROFILE:

PROJECT : CONSTRUCTION OF SMALL WATER IMPOUNDING
SYSTEM @ BRGY. MILAGROSA

LOCATION : BRGY. MILAGROSA, BULALACAO ORIENTAL MINDORO

TYPE OF STRUCTURE : CONCRETE TANK
NUMBER OF UNIT : 2 UNITS OF 2.00m x 2.00m x 3.5h
: 1 UNIT OF 2.40m x 2.40m x 3.5m
TOTAL VOLUME : 48.16 cum




INDEX OF SHEET:

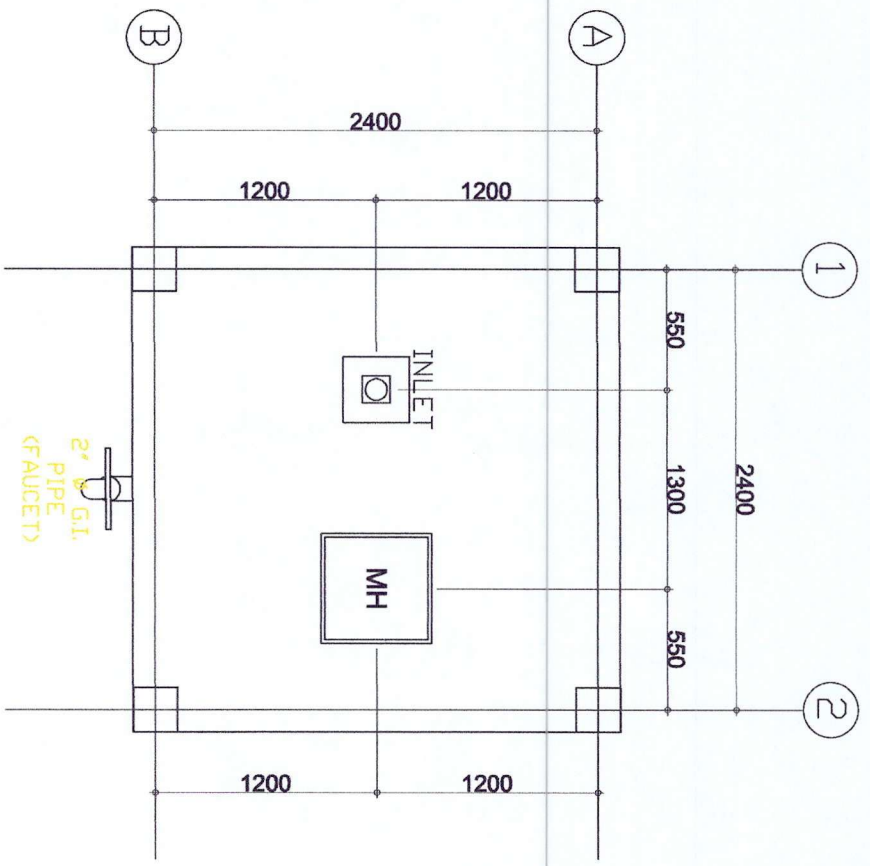
TITLE PAGE	A1
KEY MAP,	
PROJECT PROFILE	A2
INDEX OF SHEET	
SUMMARY OF QUANTITIES	A3
PLAN	
FRONT ELEVATION	A4
REAR ELEVATION	
LEFT & RIGHT ELEVATION	A5
GENERAL NOTES	S1-S2
FOUNDATION PLAN	S3
FRAMING PLAN	
DETAILS	S4

		PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Baling, Milagroa		SHEET CONTENTS KEY MAP PROJECT PROFILE INDEX OF SHEET		PREPARED BY: CHRISTIAN S. BLAND ENVIRONMENTAL DESIGN ENGINEER		DATE:	
RECOMMENDING APPROVAL: CAESAR E. QUEBEC, JR. CHIEF ENGINEER		APPROVED: ALMA E. GIBB DEPUTY CHIEF ENGINEER		DATE:		SET NO. 211		SHEET NO. 211	

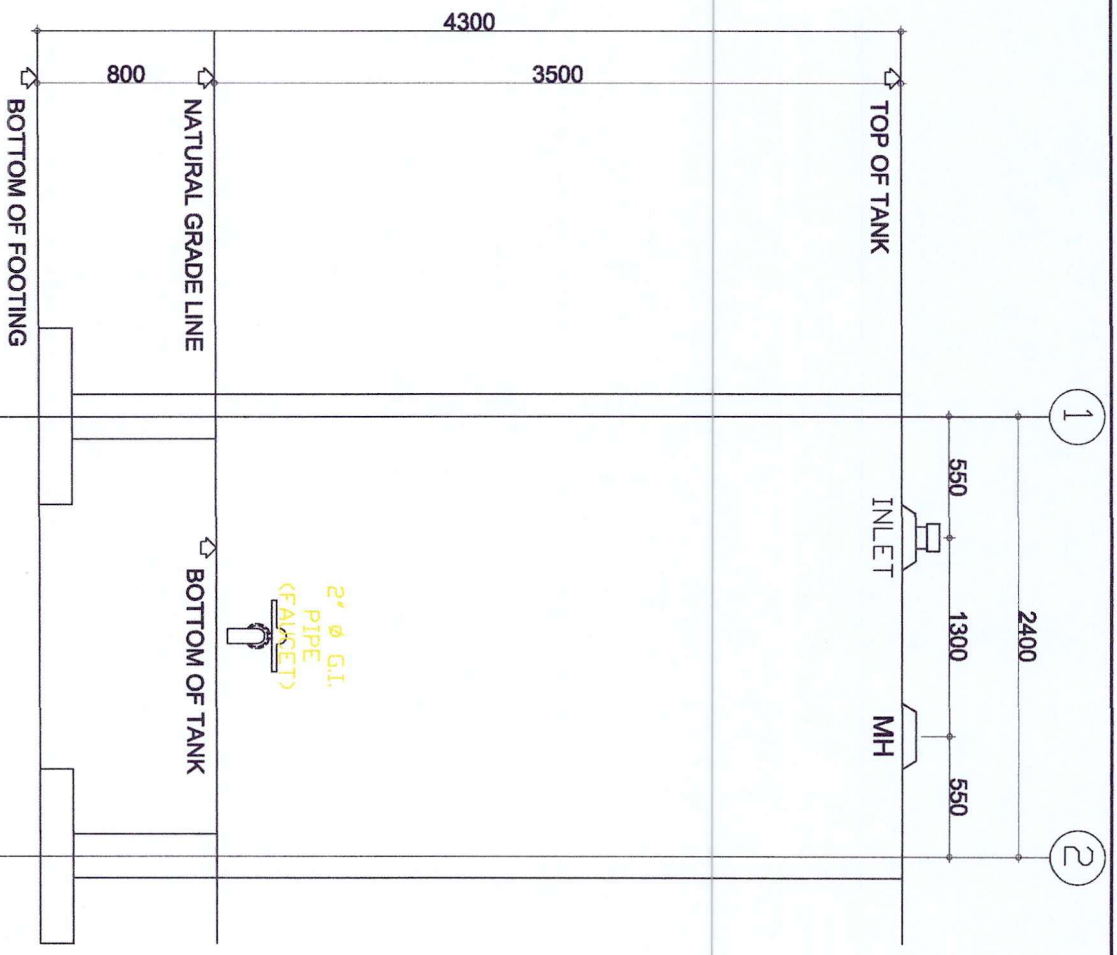
SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
I	OTHER GENERAL REQUIREMENTS			
A	Project Billboard/Signboard	each	1.00	TO BE INSTALLED
B	Occupational Safety and Health Program	month	2.50	TO BE COMPLIED
C	Mobilization / Demobilization	l.s.	1.00	TO BE COMPLIED
II	WATER SUPPLY			
D	Structure Excavation (Common Soil)	cum	92.32	TO BE EXCAVATED
E	Embankment from Structure Excavation	cum	6.53	COMPACTED VOLUME
F	Gravel Fill	cum	1.54	COMPACTED VOLUME
G	Structural Concrete for Footing and Slab on Fill (Class A, 28 days)	cum	1.15	TO BE INSTALLED
H	Structural Concrete for Footing Tie Beams (Class A, 28 days)	cum	1.02	TO BE INSTALLED
I	Structural Concrete for Column (Class A, 28 days)	cum	2.09	TO BE INSTALLED
J	Structural Concrete for Suspended Slab (Class A, 28 days)	cum	11.91	TO BE INSTALLED
K	Structural Concrete for Beams (Class A, 28 days)	cum	2.05	TO BE INSTALLED
L	Reinforcing Steel (Deformed), Grade 40	kg	2,974.94	TO BE INSTALLED
M	Formworks and Falseworks	sq.m	144.00	TO BE INSTALLED
N	Painting Works (Masonry Painting)	sq.m	99.36	TO BE INSTALLED
D	Galvanized Iron Pipes with Fittings	m	78.00	TO BE INSTALLED
P	PVC Polyvinyl Chloride Pipe	l.s	1.00	TO BE INSTALLED

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES REGION IV - B. MIMAROPA PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE CALAPAN CITY		PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Baling, Maligrosa PROV. MALABONSA, BULACAN ORIENTAL, MIMAROPA		SHEET CONTENTS SUMMARY OF QUANTITIES		PREPARED BY:  CHRISTIAN B. BILANO CIVIL ENGINEER		RECOMMENDING APPROVAL:  CAESAR E. QUIBEC, JR. CE CHIEF OFFICER		APPROVED:  ALMA E. SIBE CHIEF OFFICER		SET NO. DEIR CY - 2022 PENNO	SHEET NO. A-3 3 11
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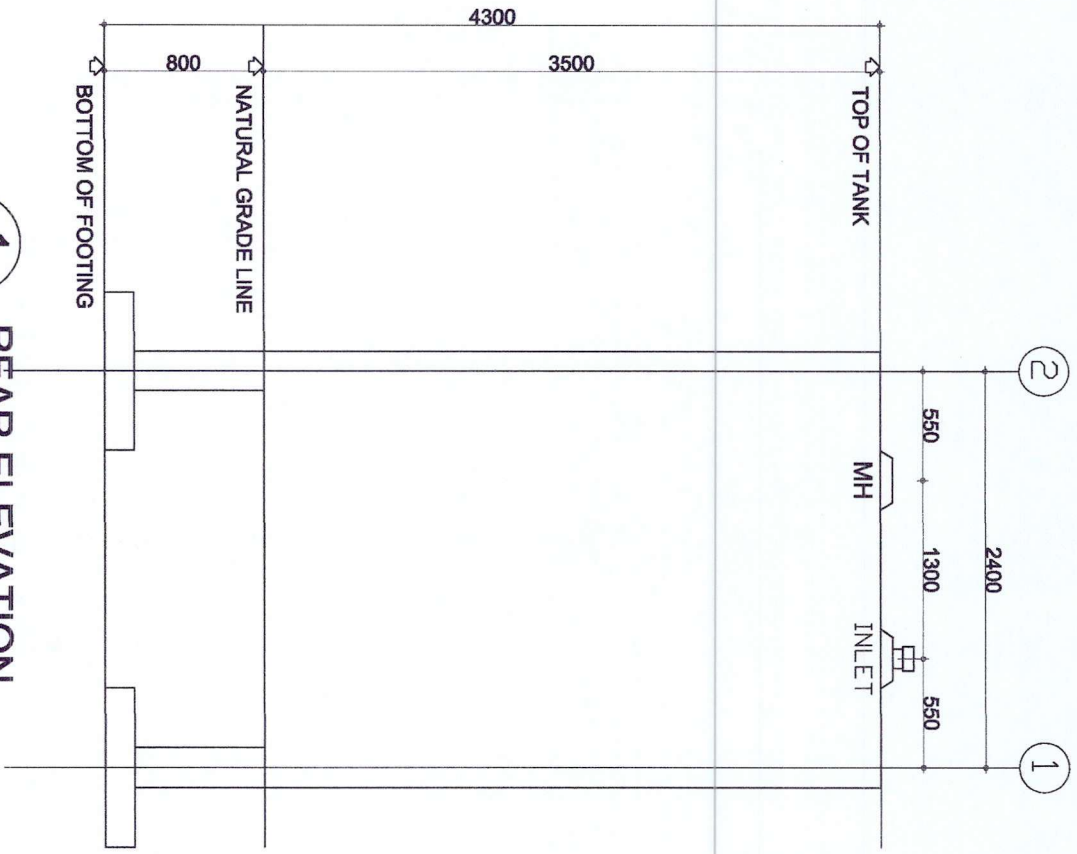


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SCALE 1:25 MTS

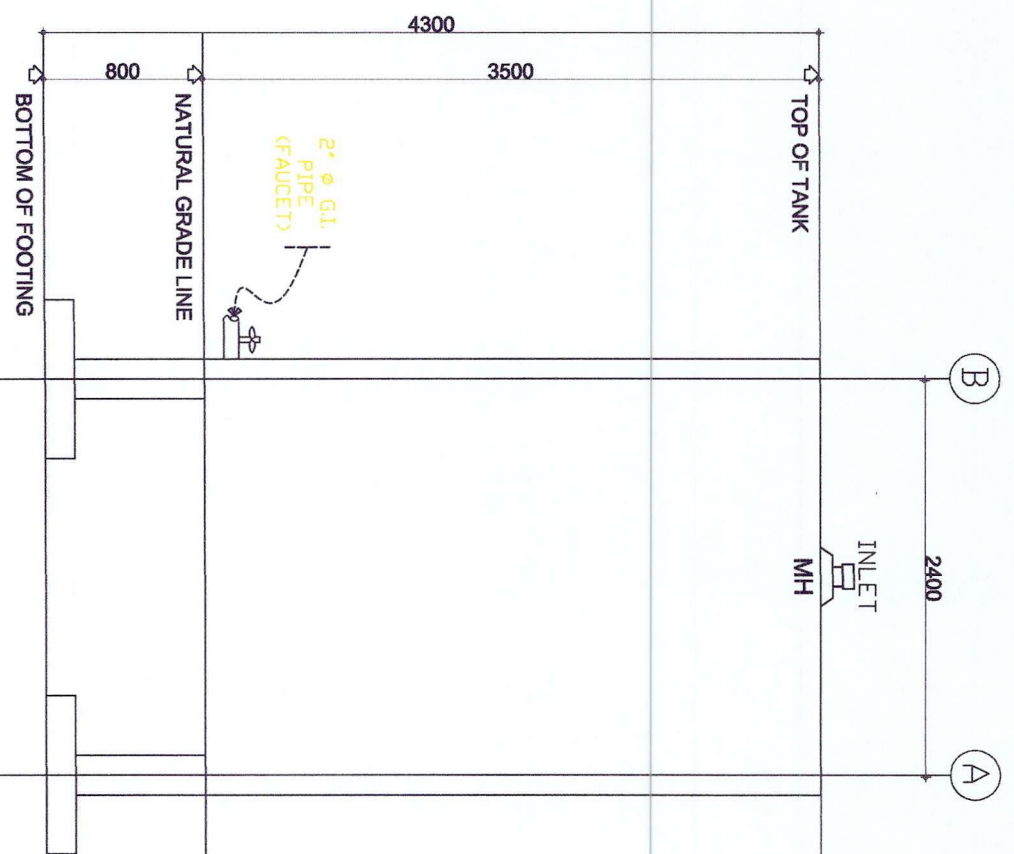


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SCALE 1:25 MTS

 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES REGION IV - B, MIMAROPA PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE ORIENTAL MINDORO</p>		<p>PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Baling, Miligrosa</p>		<p>SHEET CONTENTS PLAN FRONT ELEVATION (DISTRIBUTION TANK)</p>		<p>PREPARED BY: CHRISTIAN S. BILANO ENGINEER II</p>		<p>RECOMMENDING APPROVAL: CARLOS R. QUERO, CE, GE CHIEF ENGINEER</p>		<p>APPROVED: ALMA E. GIBRE DISPENSER OFFICER</p>		<p>SET NO. DENR CV - 2022 PENNO</p>		<p>SHEET NO. A-4 4 11</p>	
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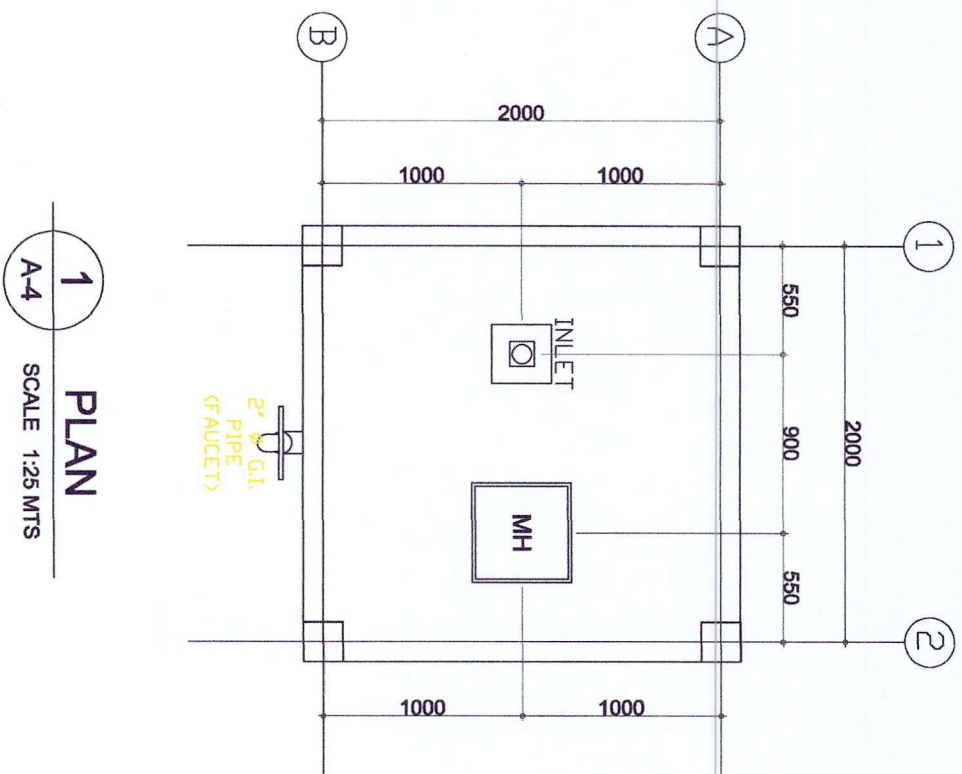


1 REAR ELEVATION
A-5
SCALE 1:25 MTS

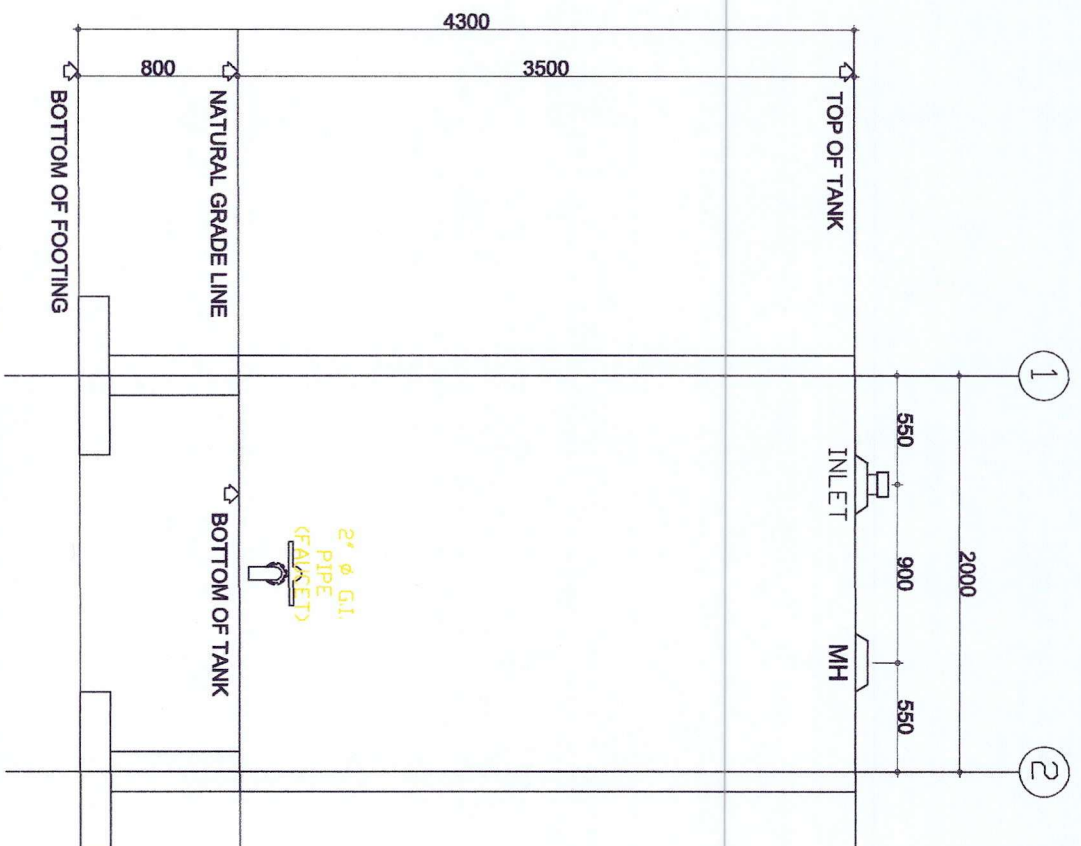


2 LEFT & RIGHT ELEVATION
A-5
SCALE 1:25 MTS

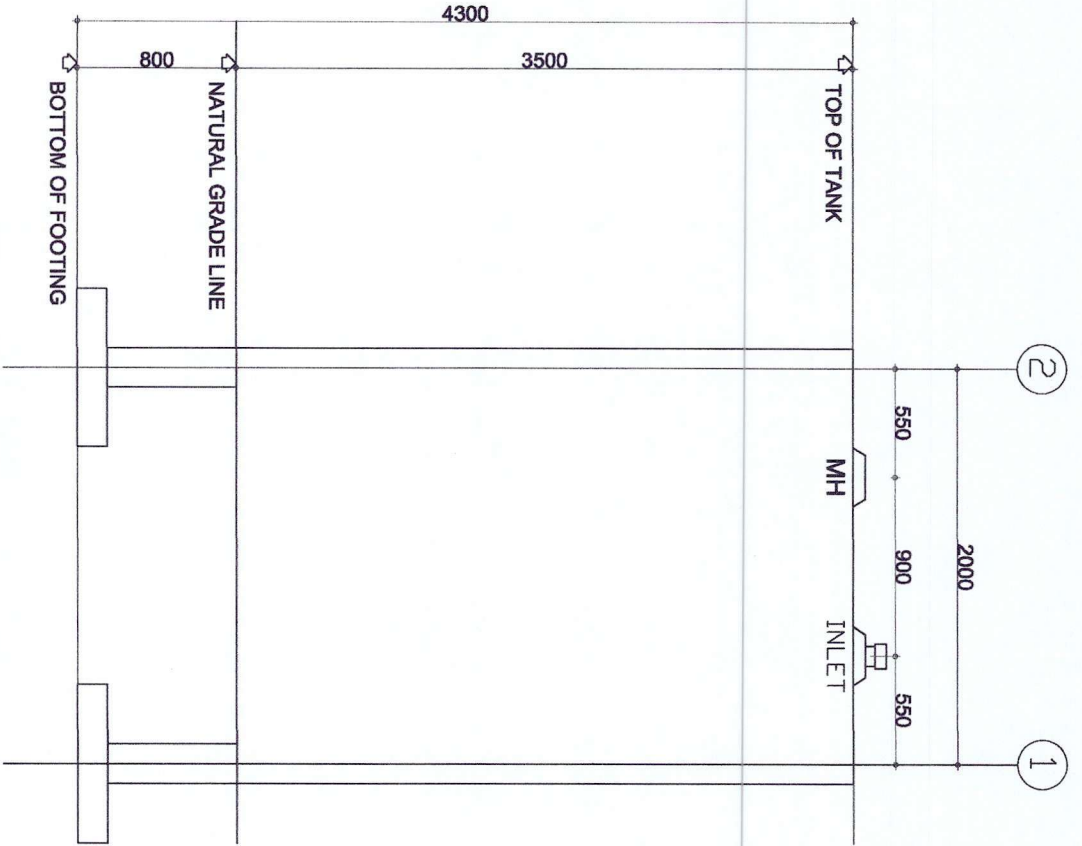
		PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Baling, Maligrosa		SHEET CONTENTS DETAILS LEFT ELEVATION (DISTRIBUTION TANK)		PREPARED BY: SUBSTANTIALS BIANO ENGINEER DATE:		RECOMMENDING APPROVAL: CESAR E. QUEBEC, JR. CE CHIEF OFFICER DATE:		APPROVED: ALMA E. GIBR CHIEF OFFICER DATE:		SET NO. DENR CY - 2022 PENNO		SHEET NO. A-5 5/11	
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1 PLAN
A-4 SCALE 1:25 MTS

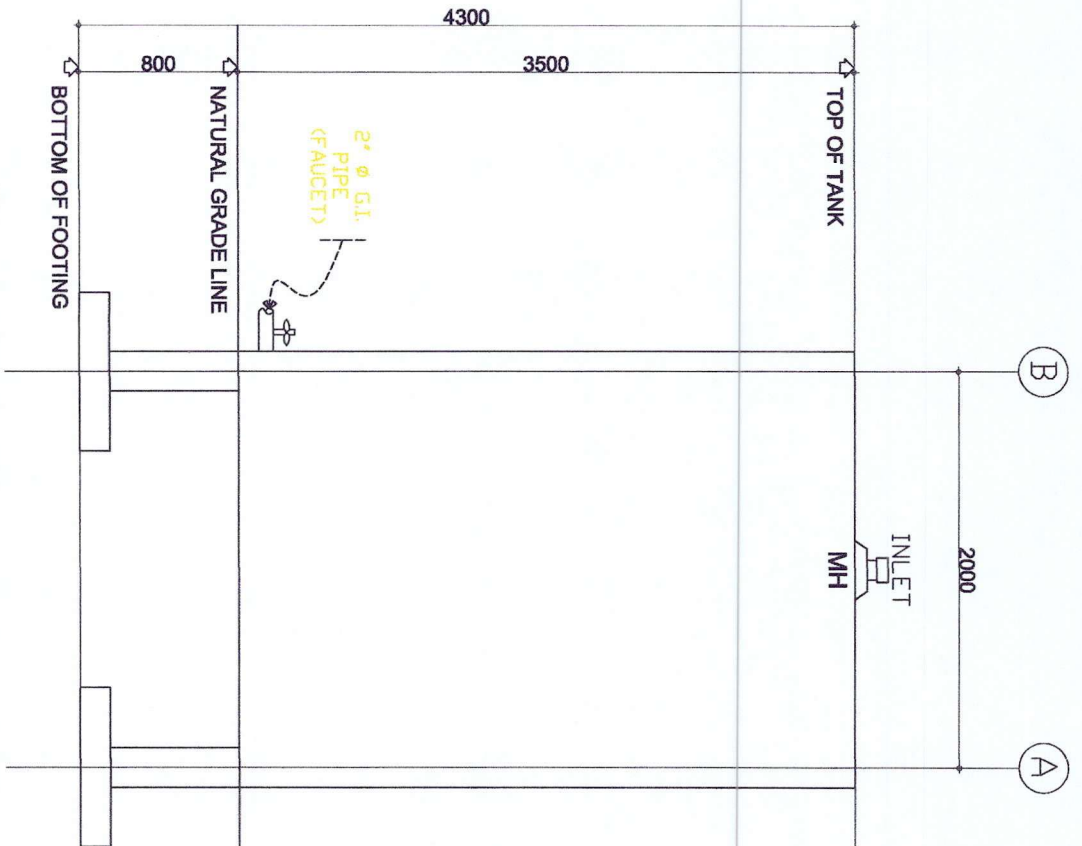


1 FRONT ELEVATION
A-4 SCALE 1:25 MTS



1 REAR ELEVATION

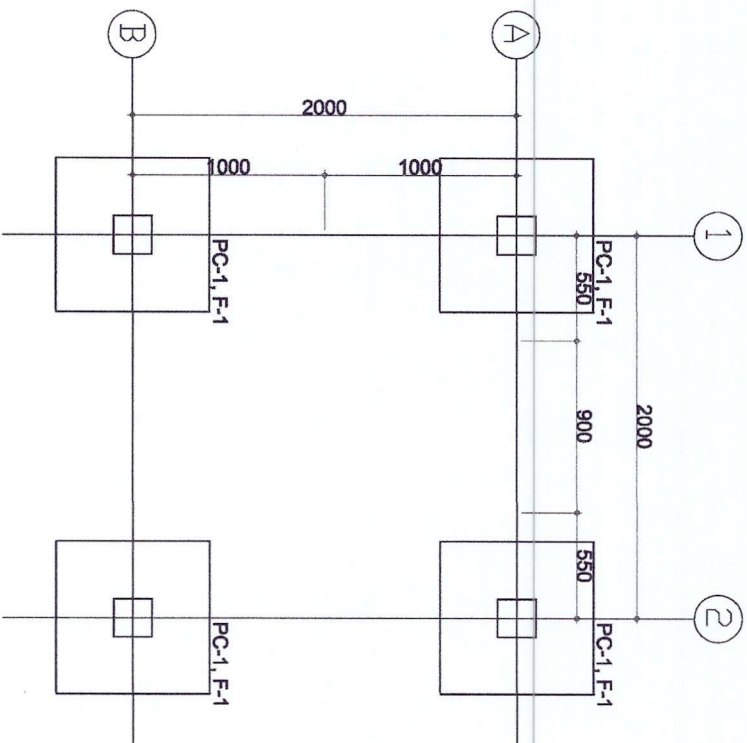
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2 LEFT & RIGHT ELEVATION

A-5 SCALE 1:25 MTS

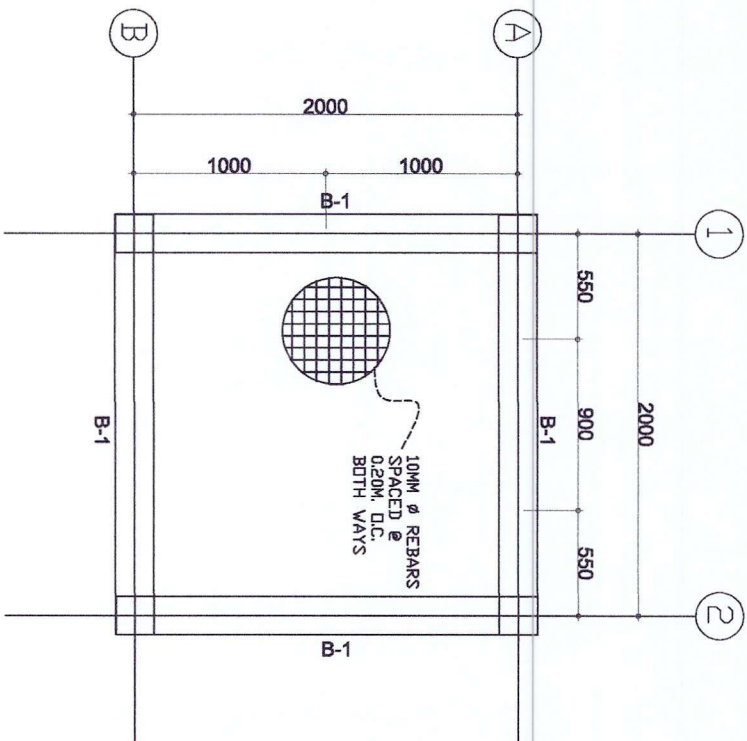
		PROJECT NAME & LOCATION Construction of Small Water Impounding System @ S. Baling, Miligrosa		SHEET CONTENTS REAR ELEVATION LEFT ELEVATION		PREPARED BY CHRISTOPHER S. BLANDO ENGINEER II DPM/ENGINEER		RECOMMENDING APPROVAL: CARLOS R. E. QUIRICO, CE/GE CHIEF OFFICER		APPROVED: ALMA E. GIBB DEC-PENRO OFFICER		SET NO. DENR CY - 2022 PENRO		SHEET NO. A-5 7/11	
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1 FOUNDATION PLAN

S-3

SCALE 1:25 MTS



2 FRAMING PLAN

S-3

SCALE 1:100 MTS



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
REGION IV - B. MIMAROPA
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE

CALAPAN CITY

ORIENTAL MINDORO

PROJECT NAME & LOCATION:

Construction of Small Water Impounding
System @ S. Baling, Miliagroa

SHEET CONTENTS:

SUMMARY OF QUANTITIES
VICINITY MAP

PREPARED BY:

CHRISTOPHER S. BAYAN
ENGINEER
DPWH ENGINEER

RECOMMENDING APPROVAL:

CÉSAR E. QUEBEC, JR., GE
CHIEF OFFICER

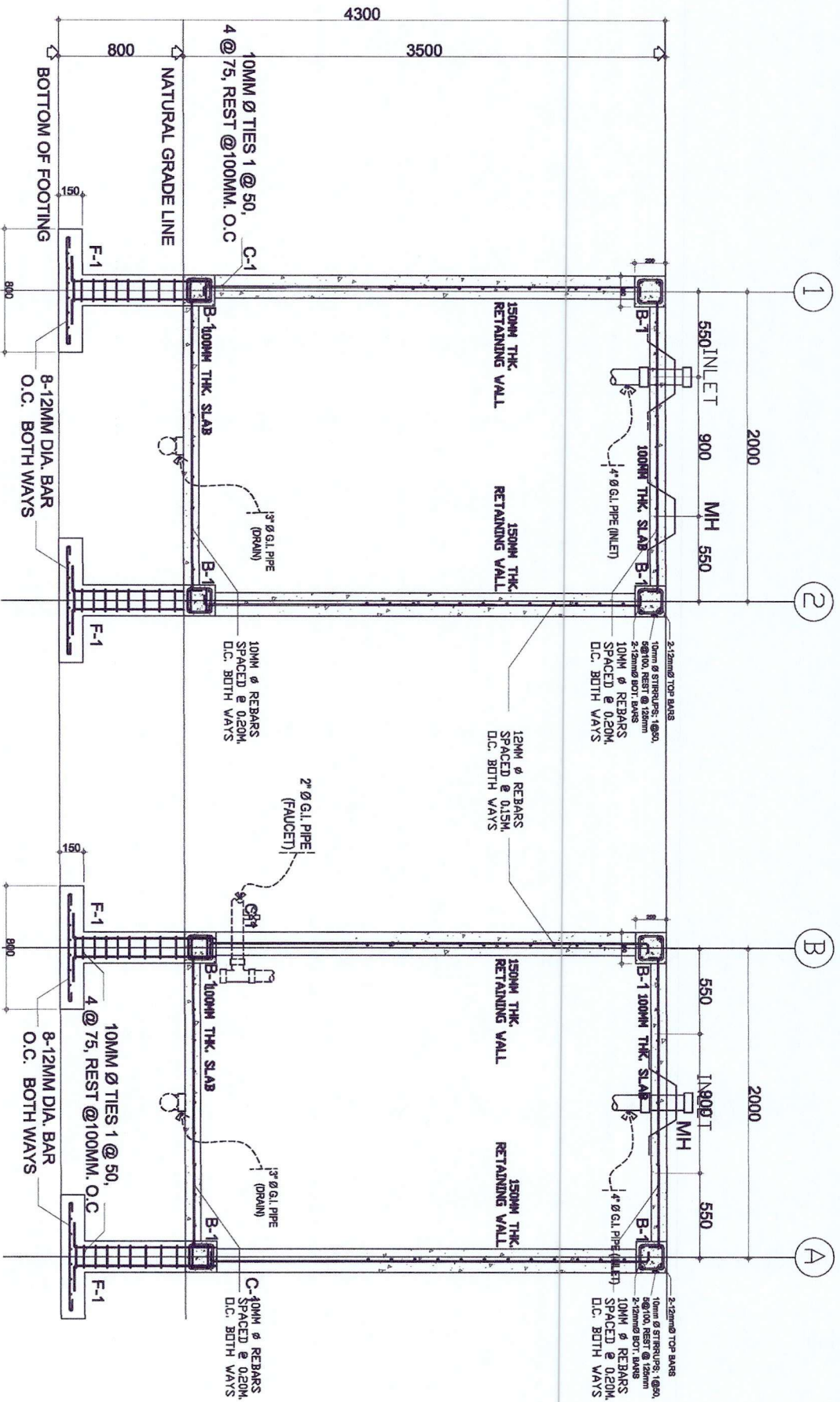
APPROVED:

ALMA E. GIBE
DCC-PEER OFFICER

SHEET NO.

SHEET NO.





1 DETAILS

S-4

SCALE 1:25 MTS



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DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
REGION IV - B. MIMAROPA
PROVINCIAL, ENVIRONMENT AND NATURAL RESOURCES OFFICE

ORIENTAL MINDORO

PROJECT NAME & LOCATION

Construction of Small Water Impounding System @ S. Baling, Maligrosa

SHEET CONTENTS

SUMMARY OF QUANTITIES
VICINITY MAP

PREPARED BY

CHRISTIAN S. DELANO
ENGINEER
DPWH ENGINEER

RECOMMENDING APPROVAL:

CAE/AR E. QUEBEC, CE/SE
CHIEF OFFICER

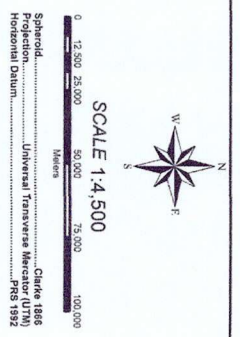
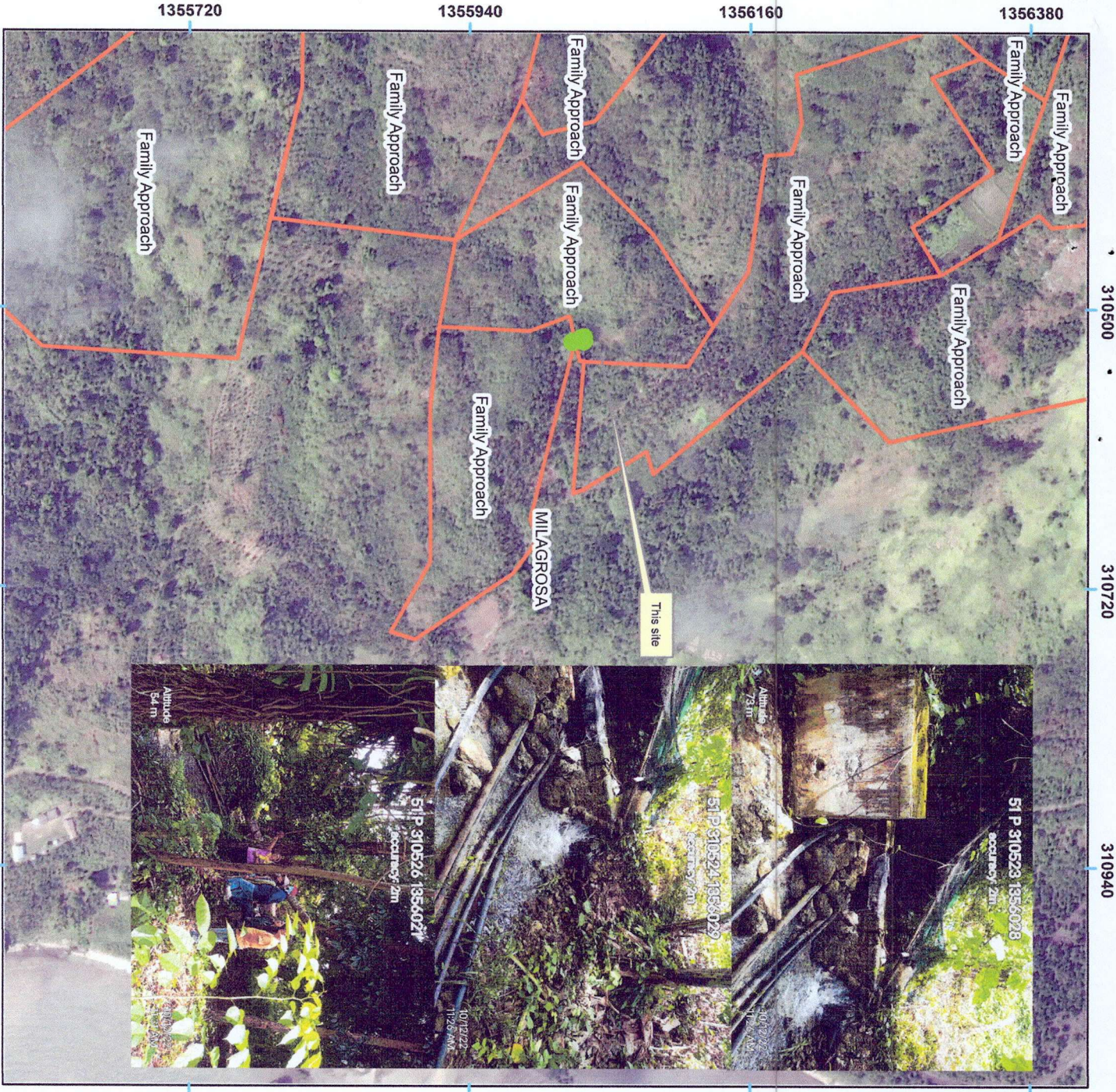
APPROVED:

ALMA E. GIBIE
DIP-PEN/CHIEF OFFICER

SET NO.

SHEET NO.

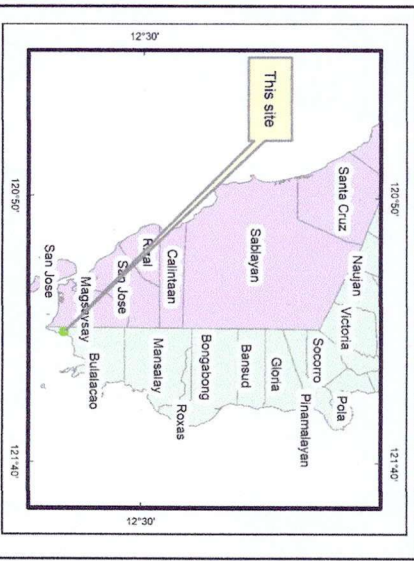
DATE: 11/11/2022
S-4



LOCATION MAP OF PROPOSED SMALL WATER IMPOUNDING SYSTEM

Located at: So. Bating, Brgy. Milagrosa, Bulacao, Oriental Mindoro

- LEGEND:**
- Proposed Swiss
 - Or_Mdo_Mun_Boundary
 - Occ_Mdo_Mun_Boundary
 - ENGP 2021



PERSONNEL IN CHARGE

Republic of the Philippines
Department of Environment and Natural Resources
MINDANAO REGION
San Mariano, Roxas, Oriental Mindoro

CERTIFICATION

This is to certify that this is the true and correct map of Proposed Small Water Impounding System (SWIS) located at So. Bating, Brgy. Milagrosa, Bulacao, Oriental Mindoro as described herein.
This map was prepared based on actual survey using GPS instrument.

Prepared by:
IVY M. CALALAN
Field Officer

Recommending approval:
JOSE T. MONTESALVO
SEMS/Chief, CDS

Approved by:
ENGR. CAESAR E. QUEBEC
ENR Officer