



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
WESTERN VISAYAS
PAROLA, ILOILO CITY

DETAILED ENGINEERING DESIGN PLANS
ESTABLISHMENT OF ABILAY SUR
SOLAR-POWERED IRRIGATION SYSTEM
(HVCDP 2025)

BRGY. ABILAY SUR, OTON, ILOILO

Submitted:


ENGR. MOISES D. MUNA-AY
Engineer V (License No. 0006077)
Chief, RAED

Recommended:

MARIA TERESA T. SOLIS
City-RTD for Operations and Extension

Approved:


DENNIS R. ARPJA
Regional Executive Director

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LIST OF DRAWINGS

LOCATION MAP



PERSPECTIVE VIEW

SCALE

1:200

TECHNICAL DATA

PUMP: 1 UNIT 4HP SUBMERSIBLE PUMP

INVERTER/CONTROLLER: 1 UNIT 4KW

SOLAR PANEL: 10 SOLAR MODULES (550 WATT-PEAK/MODULE)

TOTAL POWER: 5,500 watt-peak

CONVEYANCE:

30 meters - 3" dia. HDPE PIPE SDR 11 (PE100) from Pump to Tank
150 meters - 2" dia. HDPE SDR 17 (PE100) Distribution Pipe.

SERVICE AREA: 3 ha.

DISCHARGE: 44.63 cu.m./hr.

Item No.	Scope of Works	Quantity	Unit
SPL 1	TEMPORARY FACILITY	1.00	lot
B, 16 & B, 5	PROJECT MARKER & SIGNBOARD/BILLBOARD (1'-4" x 8' and 1'-5" x 8')	1.00	lot
B, 9	MOBILIZATION/DEMobilIZATION	1.00	lot
SPL 2	WELL DEVELOPMENT (with groundwater pump testing)	1.00	lot
1	SOLAR PUMP/ARRAY/MOUNTING STRUCTURE	1.00	lot
003	FOUNDATION EXCAVATION (FOR FOUNDATION/PEDESTAL)	2.00	m3
1708	LEVELLING COURSE	0.40	m3
404	REINFORCING STEEL BARS	120.45	kg
414	FORMWORKS	15.35	m2
405	CONCRETE FOUNDATION/PEDESTAL (Class B)	1.02	m3
1705	STRUCTURE BACKFILL	1.50	m3
1	SOLAR POWER MODULE MOUNTING STRUCTURE	1.00	lot
2	SOLAR POWER MODULES (Monocrystalline 550 watt-peak)	1.00	lot
3	INVERTER & CONTROLLER - 4 KW	1.00	unit
4	SOLAR PUMP (SUBMERSIBLE) - 4 HP	1.00	unit
5	INVERTER & CONTROLLER BOX	1.00	lot
8	ELEVATED TANK	1.00	lot
003	STRUCTURE EXCAVATION	1.44	m3
405	CONCRETE WORKS (Class A)	0.72	m3
404	REINFORCING STEEL BAR	94.32	kg
SPL 2	STORAGE TANK METAL FRAME	1.00	lot
1201 PM	INSTALLATION OF WATER TANK, PIPES, VALVES & FITTINGS	1.00	lot
1002 & 1003			
1705	STRUCTURAL BACKFILL	0.72	m3

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ESTABLISHMENT OF
ABILAY SUR SPI

BRGY. ABILAY SUR, OTON,
ILOILO

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LOCATION MAP
PERSPECTIVE VIEW
TECHNICAL DATA
BILL OF QUANTITIES

DESIGNED BY

JOHN ALVIN B. JALUSTRA, ABCE
REGISTERED CIVIL ENGINEER NO. 0020737

PREPARED BY

YVONNE BRACILAN SUR, ABCE
REGISTERED CIVIL ENGINEER NO. 0020737

CHECKED BY

ENGR. MOISES D. MANA-AY
REGISTERED CIVIL ENGINEER NO. 0020737

APPROVED BY

JOHN ALVIN B. JALUSTRA, ABCE
REGISTERED CIVIL ENGINEER NO. 0020737

DATE

APRIL 1, 2024

SCALE

1:200

OTON-SAN MIGUEL ROAD



ABILAY SUR BRGY. HALL

PROJECT SITE

BARANGAY ROAD

VICINITY MAP
SCALE: N T S

ESTABLISHMENT OF
ABILAY SUR SPIS

BRGY. ABILAY SUR, OTON,
ILOILO

VICINITY MAP

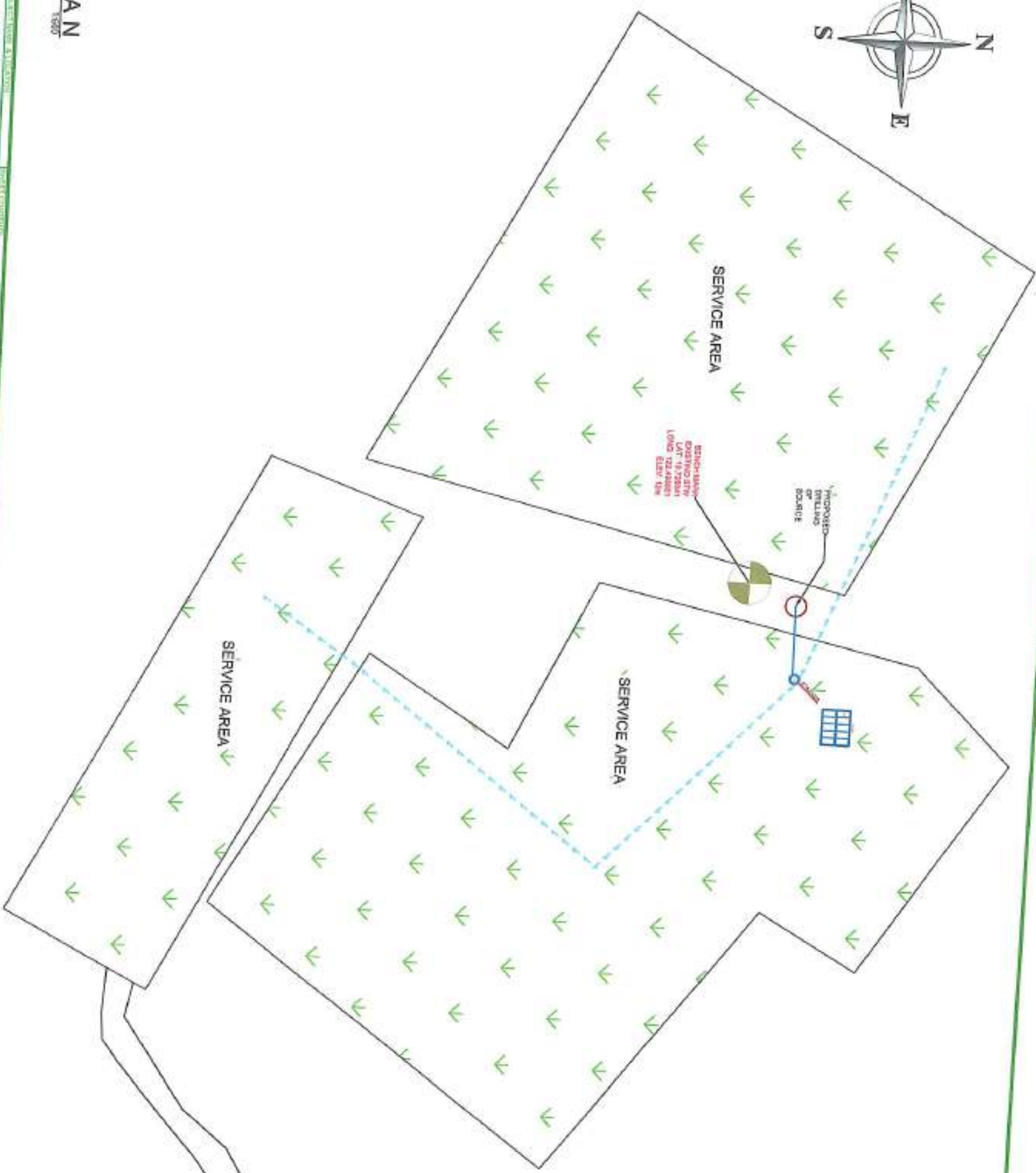
[Signature]
HON. ALVIN B. LAUTISTA, AB
Engr. No. 100-100-100

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YVONNE MARCELO, AB
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ENGR. MOISES D. MANALAY
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MARIA TERESA Y. SOLOS
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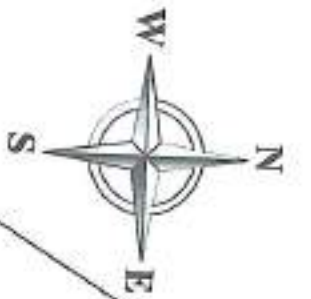
[Signature]
DEAN S. ARPA
Engr. No. 100-100-100



FARM PLAN
SCALE: 1:200



REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS ILOILO CITY		ESTABLISHMENT OF ABILAY SUR SPIS BRGY. ABILAY SUR, OTOM, ILOILO		FARM PLAN		DESIGNED BY <i>Engr. Baudilio A. Baudilio</i> Baudilio A. Baudilio, RCE		CHECKED BY <i>Engr. Yvonice B. Surabe</i> Yvonice B. Surabe, RCE		APPROVED BY <i>Engr. Moises A. Manayay</i> Moises A. Manayay, RCE		DATE 2024-01-15		DRAWN BY <i>Engr. Arnel A. Arnel</i> Arnel A. Arnel, RCE		SCALE 1:200		SHEET NO. 3	
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SERVICE AREA

2"Ø HDPE PIPE,
SDR 17 (PE100)
DELIVERY PIPE

PROPOSED
DRILLING
OF
SOURCE

BENCH MARK
EXISTING STW
LAT: 10.726041
LONG: 122.498851
ELEV: 12m

3"Ø HDPE PIPE,
SDR 11 (PE100)
DISCHARGE PIPE

2"Ø HDPE PIPE,
SDR 17 (PE100)
DELIVERY PIPE

SERVICE AREA

SITE DEVELOPMENT PLAN
SCALE: 1:300



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ILOILO

SITE DEVELOPMENT PLAN

[Signature]
Engr. R. B. SANTIAGO, JR.
Project Engineer

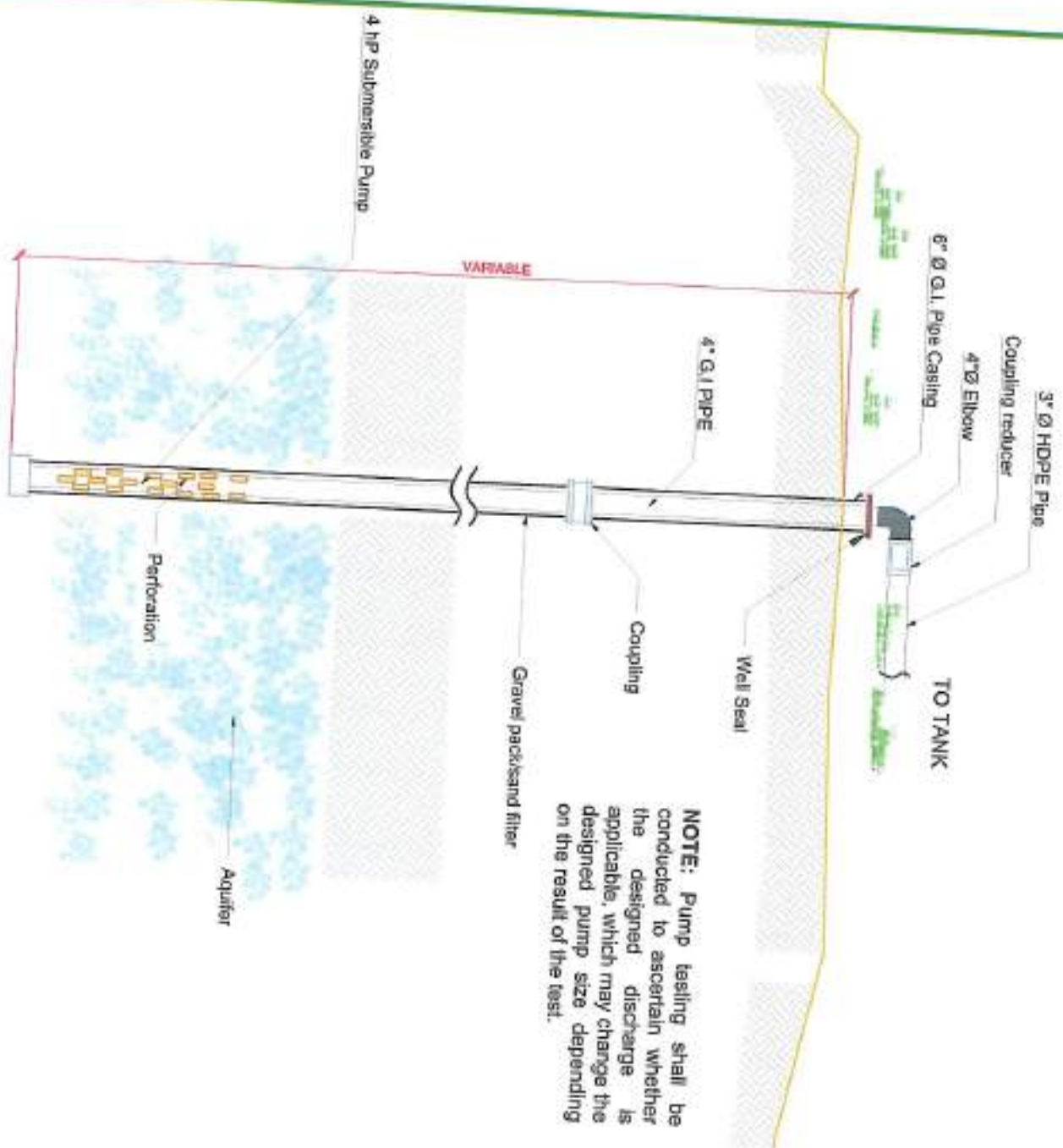
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Engr. R. B. SANTIAGO, JR.
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Engr. R. B. SANTIAGO, JR.
Project Engineer

A	3
B	4

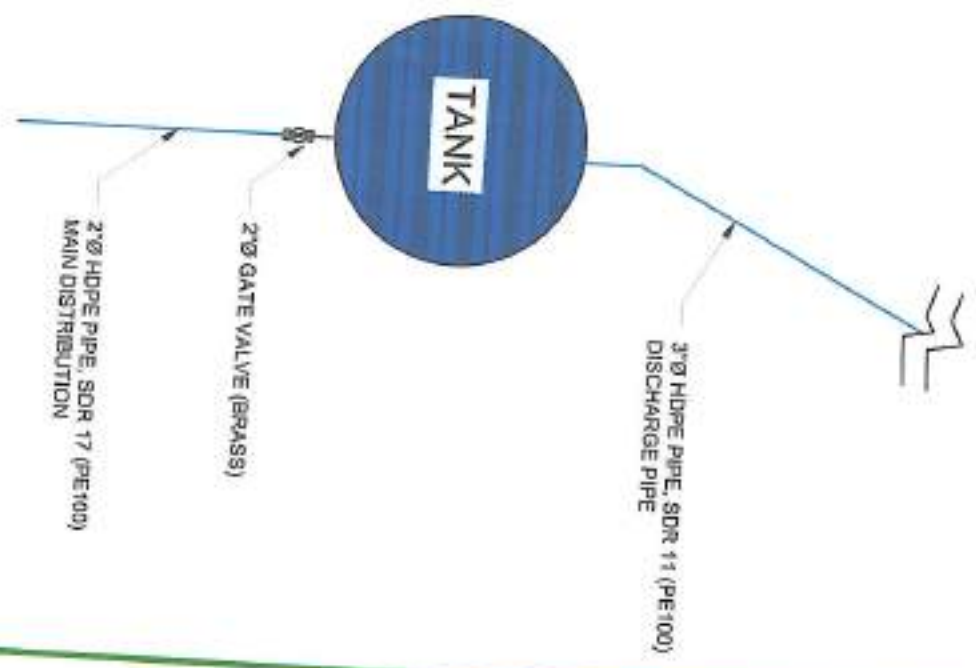


TYPICAL WELL DESIGN
SCALE: N T S

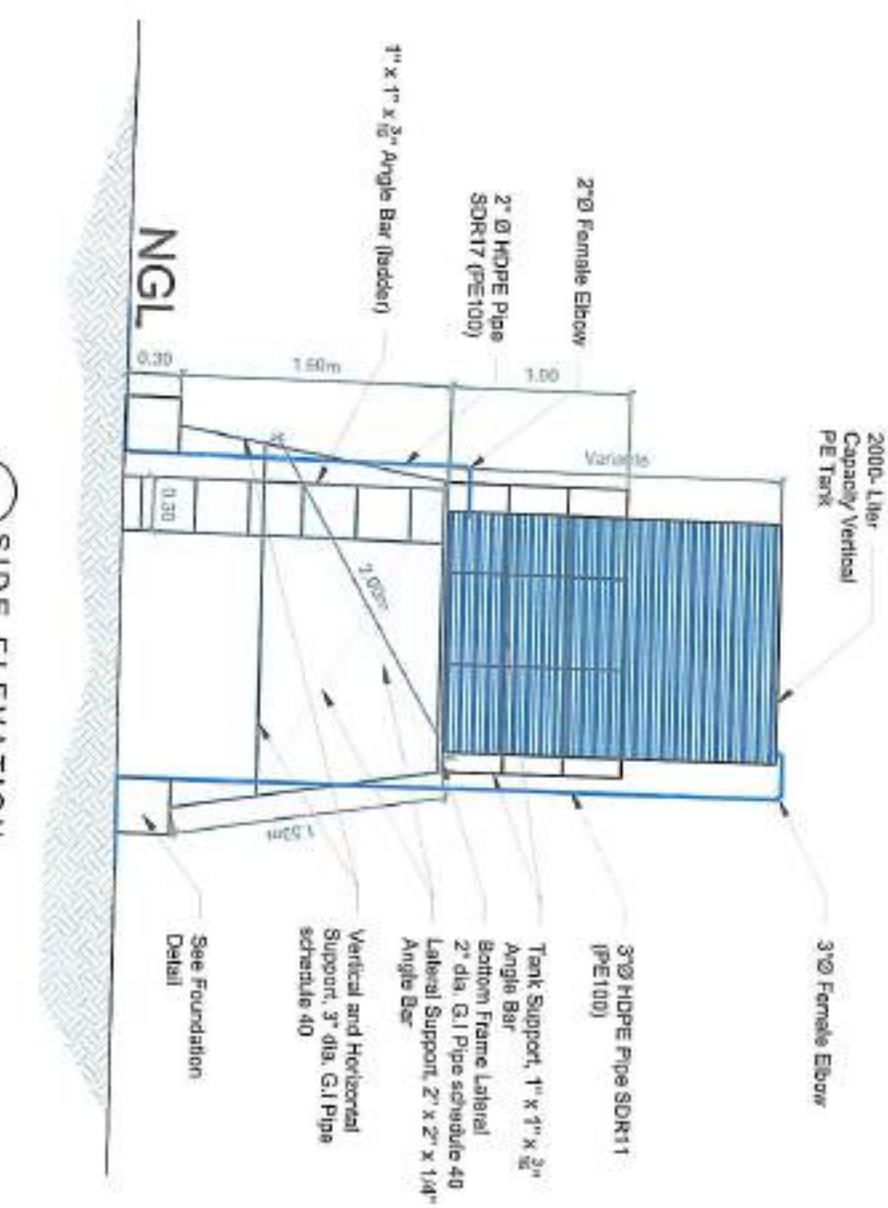
	GATE VALVE THREADED
	HDPE PIPE

LEGEND

NOTE:
Discharge Pipe - 3"Ø HDPE Pipe SDR 11 PE100, Irrigation Pipe (30 meters)
Delivery Pipe - 2"Ø HDPE Pipe SDR 17 PE100, Irrigation Pipe (150 meters)
with 1 pieces - 2"Ø Gate Valve (Brass).



DISTRIBUTION PLAN
SCALE: N T S



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