



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
Caraga Region
Capitol Site, Butuan City

CONSTRUCTION OF SPRING DEVELOPMENT
MABINI, TUBAJON, PROVINCE OF DINAGAT ISLANDS

SUBMITTED:


ENGR. RENE Q. MORALES
CHIEF, RAED

DATE:

RECOMMENDED:


REBECCA R. ATEGA
RTD FOR OPERATIONS

DATE:

APPROVED:


ARLAN M. MANGELEN
REGIONAL EXECUTIVE DIRECTOR

DATE:



THE SITE
 LATITUDE: 10.28708°
 LONGITUDE: 125.50059°

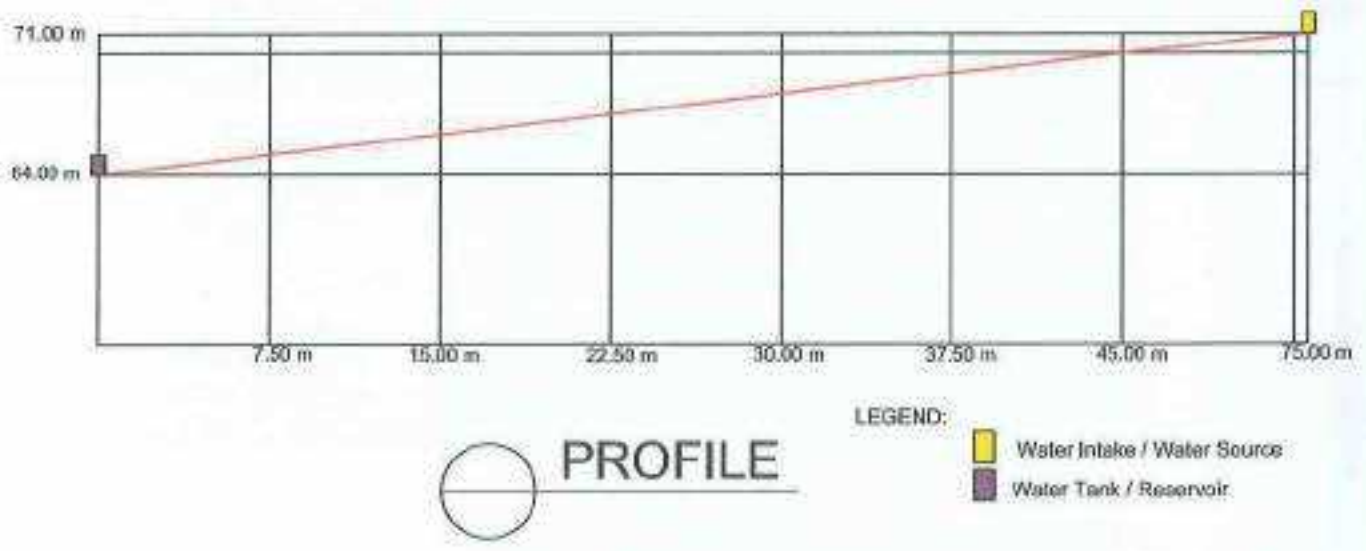
WATER TANK
 LATITUDE: 10.28750°
 LONGITUDE: 125.50650°

WATER INTAKE STRUCTURE
 LATITUDE: 10.28757°
 LONGITUDE: 125.50677°



VICINITY MAP
 NOT TO SCALE

Republic of the Philippines DEPARTMENT OF AGRICULTURE Caraga Region	Project Title:	Prepared by:	Checked and Reviewed by:	Submitted by:	Noted by:	Recommended by:	Approved:	Sheet No.:
	CONSTRUCTION OF SPRING DEVELOPMENT	<i>[Signature]</i> DAN LOWELL S. PALMEJAR HVCDP TECHNICAL STAFF	<i>[Signature]</i> ENGR. THESSA LYB. LIMAS ENGINEER II	<i>[Signature]</i> ENGR. ENE Q. MORALES CHIEF R/ED	<i>[Signature]</i> DAILINDA M. MAMALIS REGIONAL HVCDP COORDINATOR	<i>[Signature]</i> REBECCA R. ANTEGA RTD FOR OPERATIONS	<i>[Signature]</i> ARTAN M. MANGELAN REGIONAL EXECUTIVE DIRECTOR	1 / 13
	LOGARON, DANANGAL, ESPERANZA, MOUNTAIN DEL SUR							



LEGEND:
■ Water Intake / Water Source
■ Water Tank / Reservoir

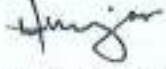
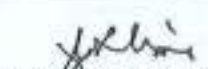




GENERAL NOTES AND SPECIFICATIONS:

1. The location of liquid waste facility shall conform with the existing zoning, land use standards, rules and regulations set by Department of Environment and Natural Resources (AO 34 and 35) and other national policies such as Water Code (PD 1067) and Environmental Code on Solid and Liquid Waste Disposal (PD 1152).
2. All materials to be use shall be brand new.
3. All welding works shall be full-weld.
4. Shall apply waterproof cement to the water tank to prevent water leaking.
5. Shall provide gate valve appropriate to the size in every HDPE Pipe subject for the distribution of water to the production areas.
6. Use 8'x8' COA format tarpaulin with frame for project signage.

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	CONSTRUCTION OF SPRING DEVELOPMENT	 DAN LOWELL S. PALMEJAR HVCDP TECHNICAL STAFF	 ENGR. TRESSA LYN B. LIMAS ENGINEER II	 ENGR. RENE G. MORALES CHIEF ROAD	 DAILINDA M. MAMILIS REGIONAL HVCDP COORDINATOR	 REBECCA R. WEGA RTD FOR OPERATIONS	 ARLAN M. MANGELEN REGIONAL EXECUTIVE DIRECTOR	2 13
	LOCATION: OJANGAL, ESPERANZA, AGUASAN DEL SUR							

BILL OF QUANTITIES

Item No.	Scope of Work	Quantity	Unit
B.5	Project Billboard/SignBoard	1.00	each
803 (1) a	Structure Excavation	12.00	cubic meter
804(1) b	Embankment (Common Borrow)	6.00	cubic meter
804(4)	Gravel Fill	4.00	cubic meter
902(1) a	Reinforcing Steel (Deformed)	948.00	kilogram
900(1) a1	Structural Concrete - Class "A"	18.00	cubic meter
403 (1)	Structural Steel, Furnished	32.00	kilogram
903 (1)	Formworks and Falseworks	1.00	each
1002(4)	Plumbing Fixtures	1.00	lump sum
1032(1) a	Painting Works (Concrete)	9.00	square meter

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	CONSTRUCTION OF SPRING DEVELOPMENT							3
	LOCATION: DUNAGAN, ESPERANZA, AGUSAN DEL SUR	DAN LOWELL S. PALMEJAR HVCDP TECHNICAL STAFF	ENGR. CHESSA LYN B. LIMAS ENGINEER III	ENGR. RENE O. MORALES CHIEF RAED	DAILINDA M. MAMALIS REGIONAL HVCDP COORDINATOR	REBECCA R. ATEGA RTD FOR OPERATIONS	ARLAN M. MANGELEN REGIONAL EXECUTIVE DIRECTOR	13

NOTE:
ALL DIMENSIONS ARE IN METERS
UNLESS IT IS SPECIFIED.



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
Caraga Region
Capitol Site, Butuan City
Tel. No. (085) 342-4092, Telefax No. (085) 341-2114

Project Name: Construction of Spring Development Cost:
Location: Tubajon, Province of Dinagat Islands Fund Source/s:
Implementing Agency/ies: DA-Caraga Region
Development Partners:
Contractor/Supplier:
Brief Description:

Project Details:

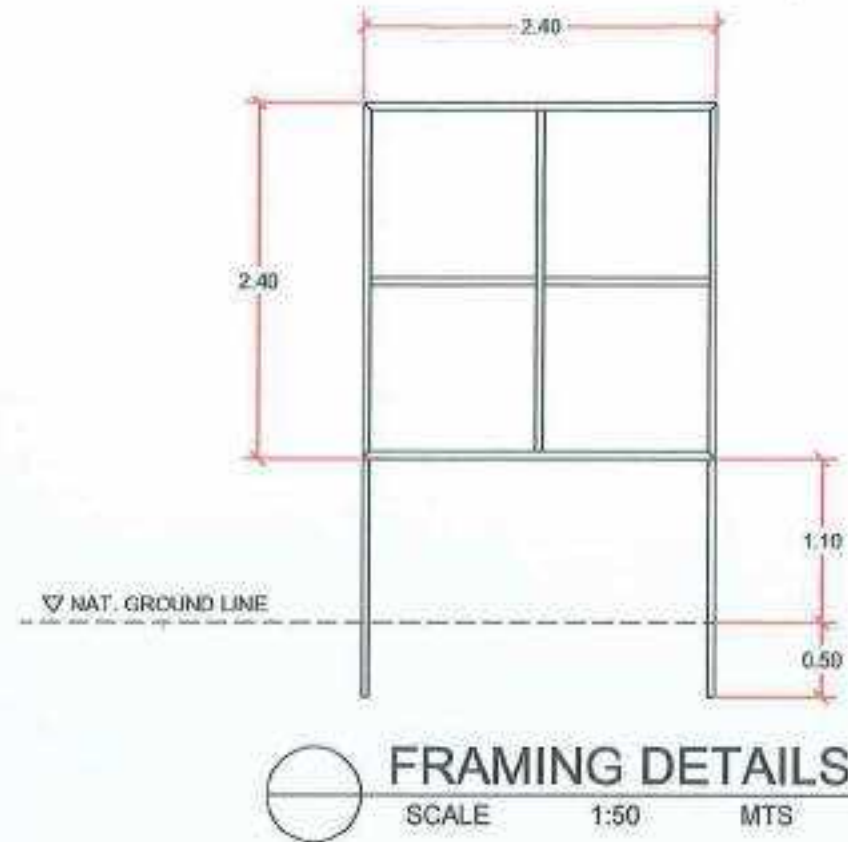
Project Date			Project Status				Remarks
Duration	Started	Target Date of Completion	Percentage of Completion	As of (Date)	Cost Incurred to Date	Date Completed	

For particulars or complaints about this project, please contact Regional Office or Cluster which has audit jurisdiction on this project

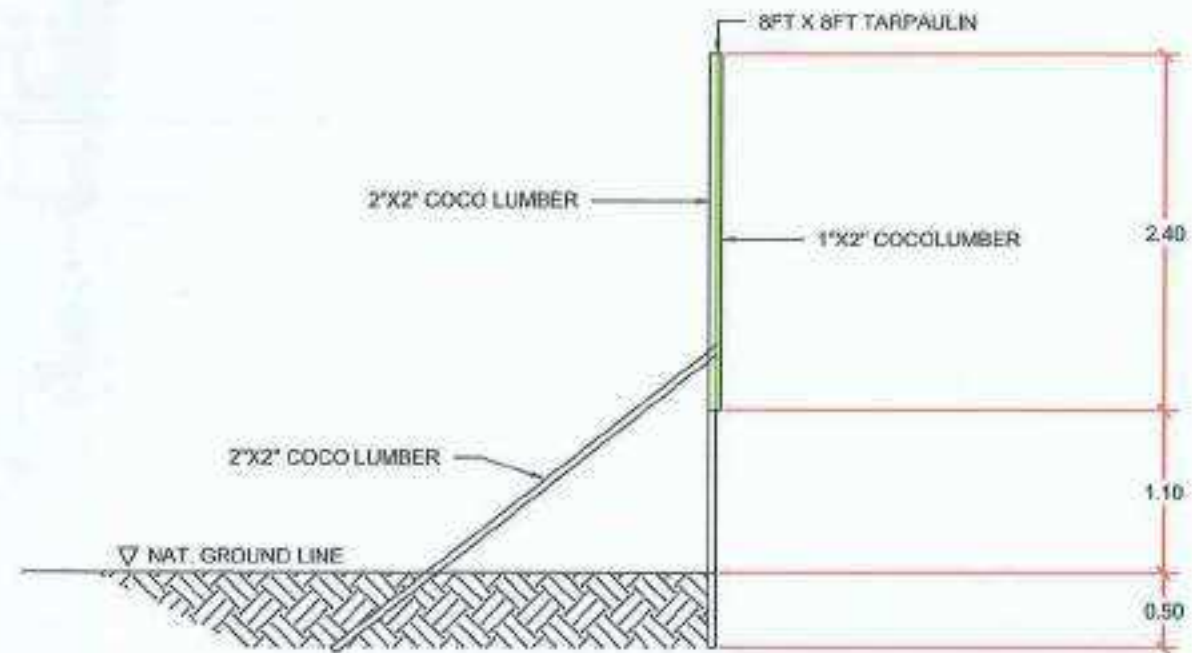
COA Regional Office No./Cluster: XIII-CARAGA
Address: SOUTH MONTILLA BOULEVARD, BUTUAN CITY
Contact No.: (085) 342-567 or text COA Citizen's Desk at 0915-5391957

FONT COLOR : BLACK
RESOLUTION : 70 dpi
FONT : HELVETICA
FONT SIZE : MAIN INFORMATION - 3"
 : SUB-INFORMATION - 1"

PROJECT BILLBOARD DETAILS
NOT TO SCALE



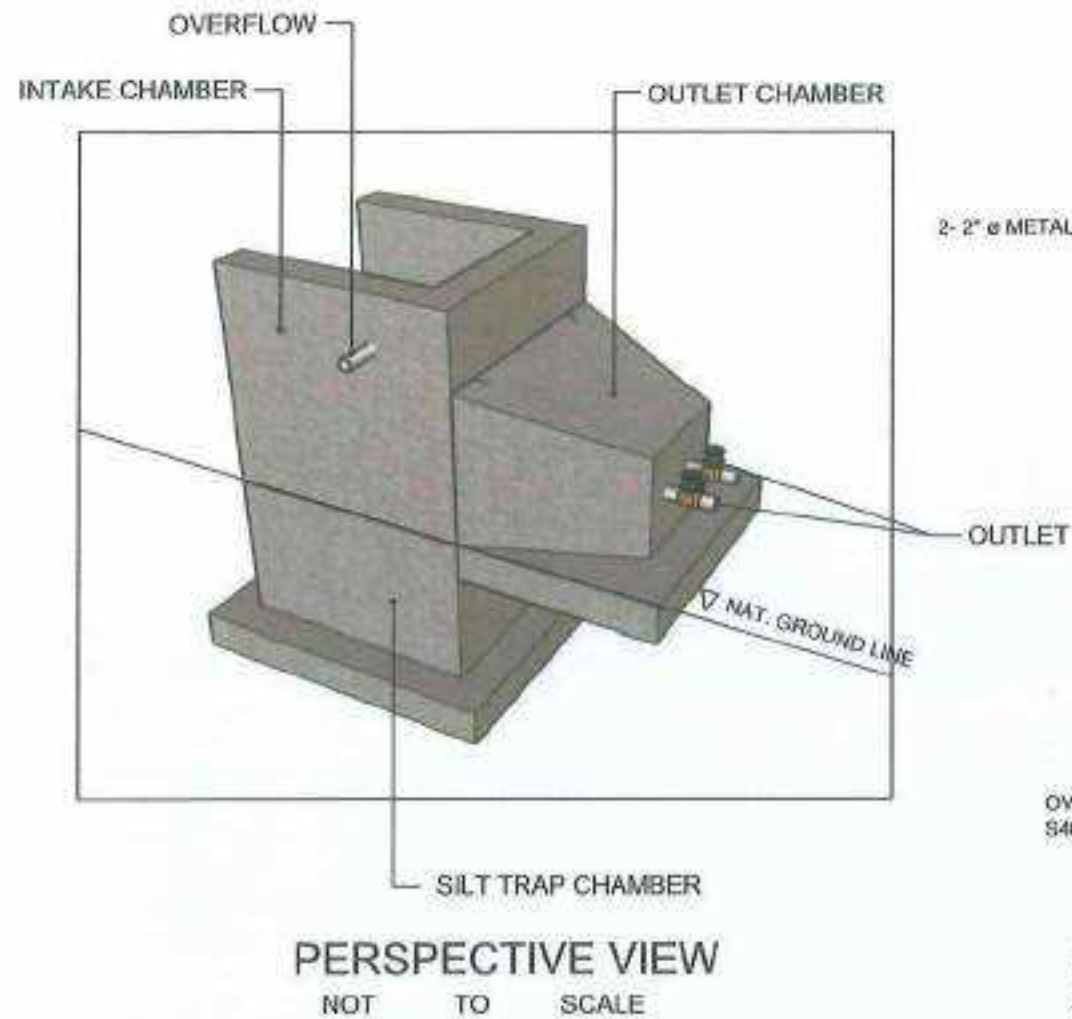
FRAMING DETAILS
SCALE 1:50 MTS



LEFT & RIGHT SIDE ELEVATION
SCALE 1:50 MTS

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	CONSTRUCTION OF SPRING DEVELOPMENT	<i>Dan Lowell S. Palmejar</i> DAN LOWELL S. PALMEJAR HVCDP TECHNICAL STAFF	<i>Engr. Diessa Lyn B. Limas</i> ENGR. DIESSA LYN B. LIMAS ENGINEER III	<i>Engr. Rene G. Morales</i> ENGR. RENE G. MORALES CHIEF RMD	<i>Dailinda M. Mamalis</i> DAILINDA M. MAMALIS REGIONAL HVCDP COORDINATOR	<i>Rebecca R. Avelar</i> REBECCA R. AVELAR RTD FOR OPERATIONS	<i>Arlan M. Mangelen</i> ARLAN M. MANGELEN REGIONAL EXECUTIVE DIRECTOR	4
	LOCATION: DUMANDAN ESPERANZA, AGULAN DEL SUR							13

NOTE:
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UNLESS IT IS SPECIFIED.

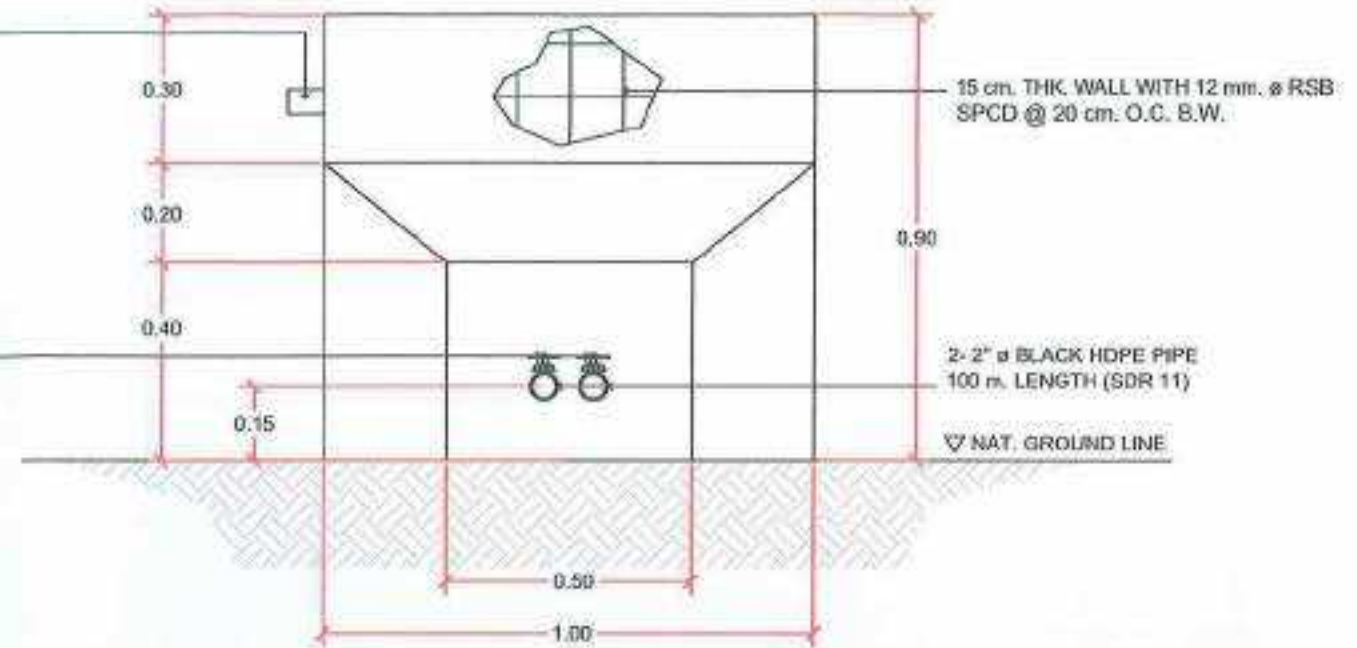


○ **WATER INTAKE DETAILS**

OVERFLOW - 2" Ø G.I. PIPE
S40 W/ 1 ft. LENGTH

2- 2" Ø METAL VALVE

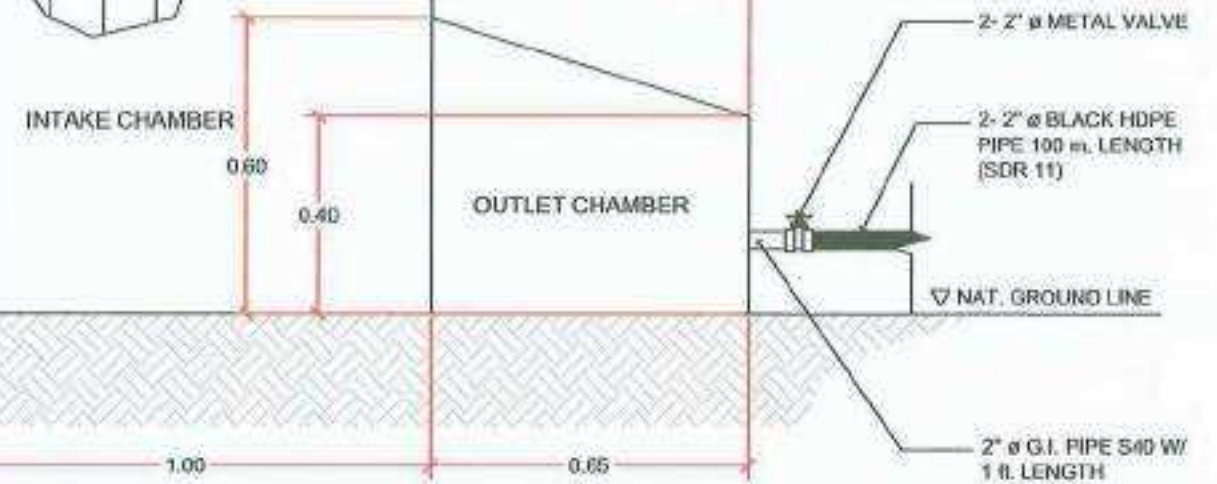
OUTLET



○ **FRONT ELEVATION**
SCALE 1:15 MTS

OVERFLOW - 2" Ø G.I. PIPE
S40 W/ 1 ft. LENGTH

15 cm. THK. WALL WITH
12 mm. Ø RSB SPCD
@ 20 cm. O.C. B.W.

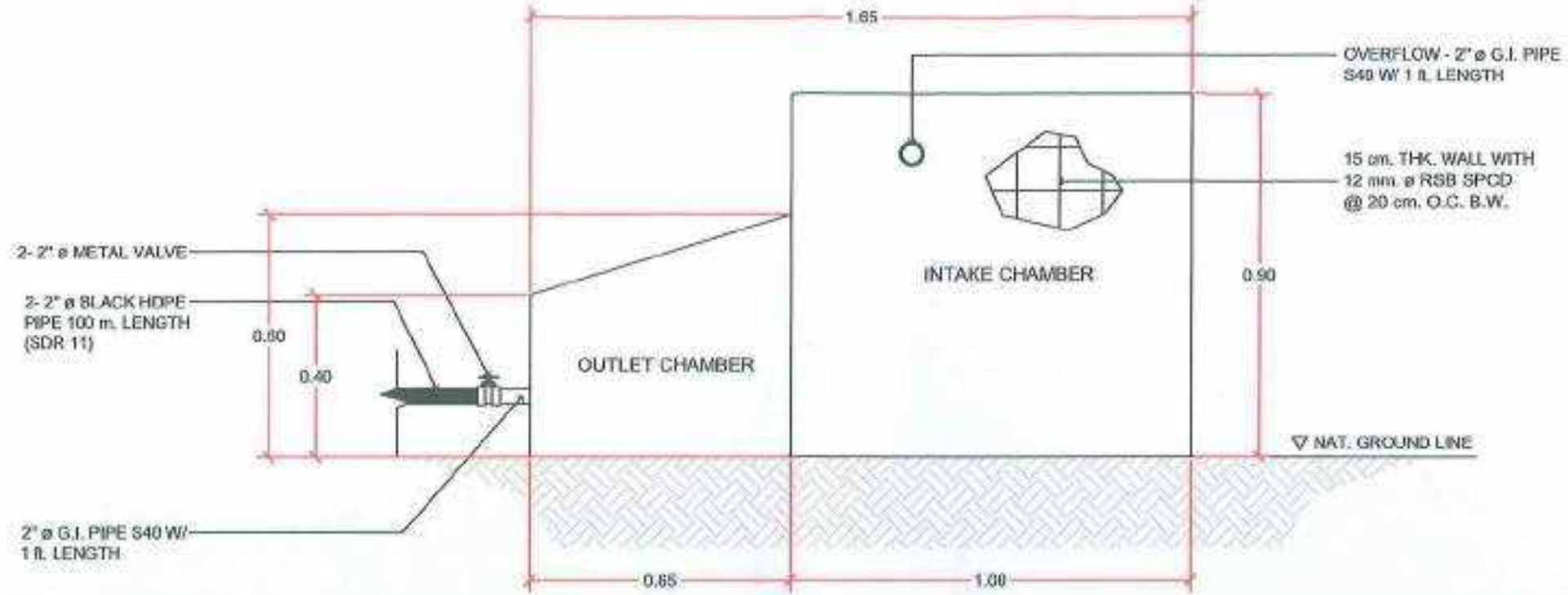


○ **RIGHT SIDE ELEVATION**
SCALE 1:15 MTS

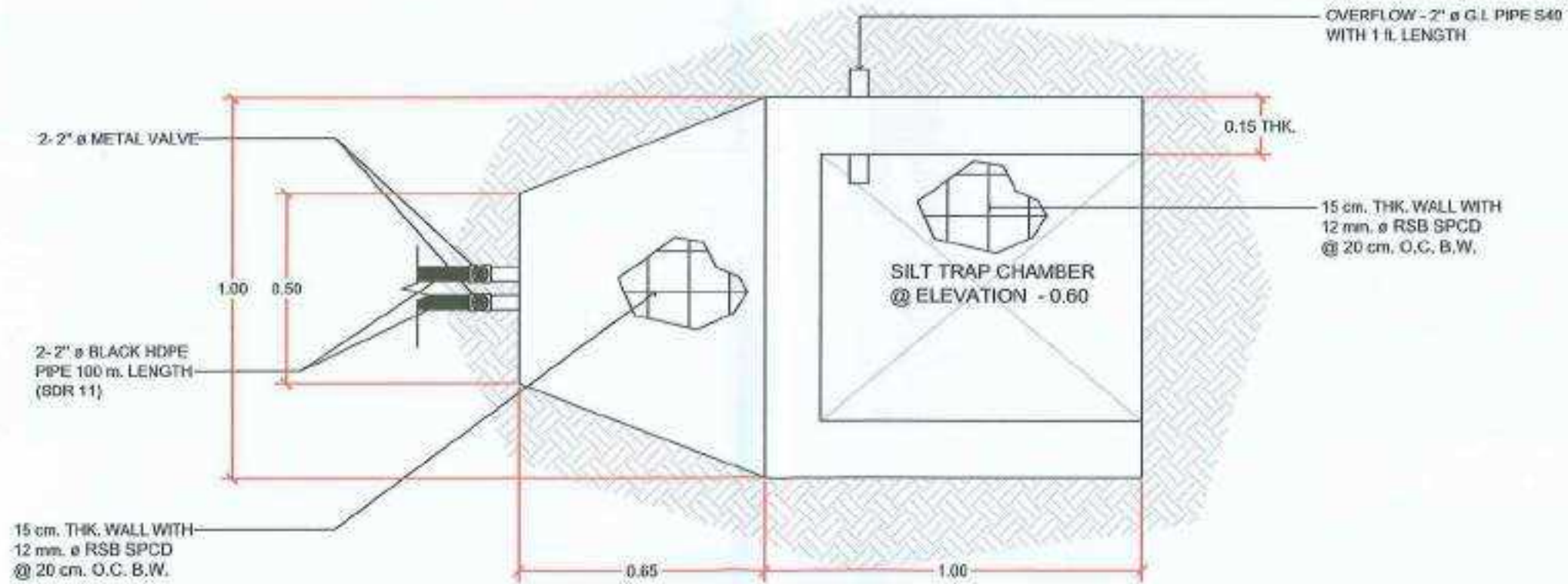
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DEPARTMENT OF AGRICULTURE
Caraga Region

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LOCATION: GUARDIAN ESPERANZA, ALOSAN DEL SUR							

NOTE:
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UNLESS IT IS SPECIFIED.



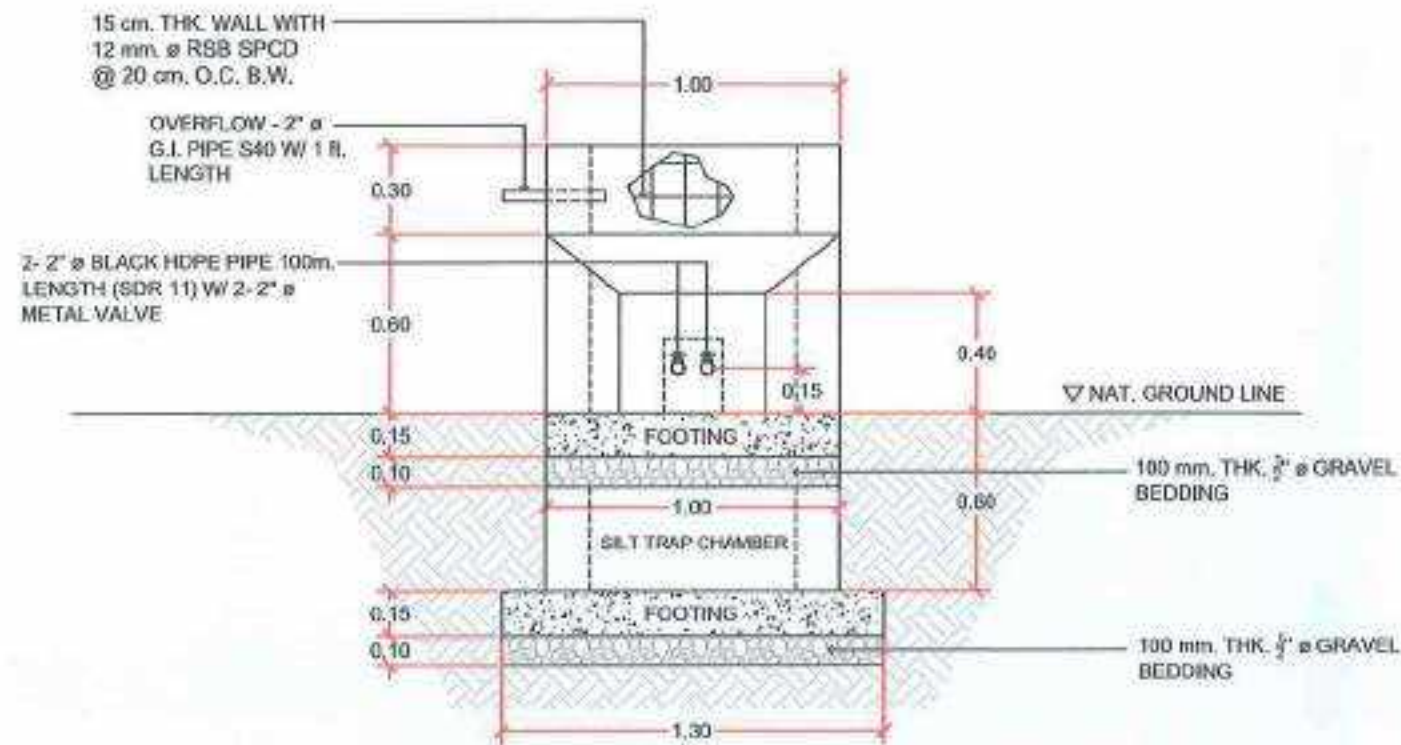
LEFT SIDE ELEVATION
SCALE 1:15 MTS



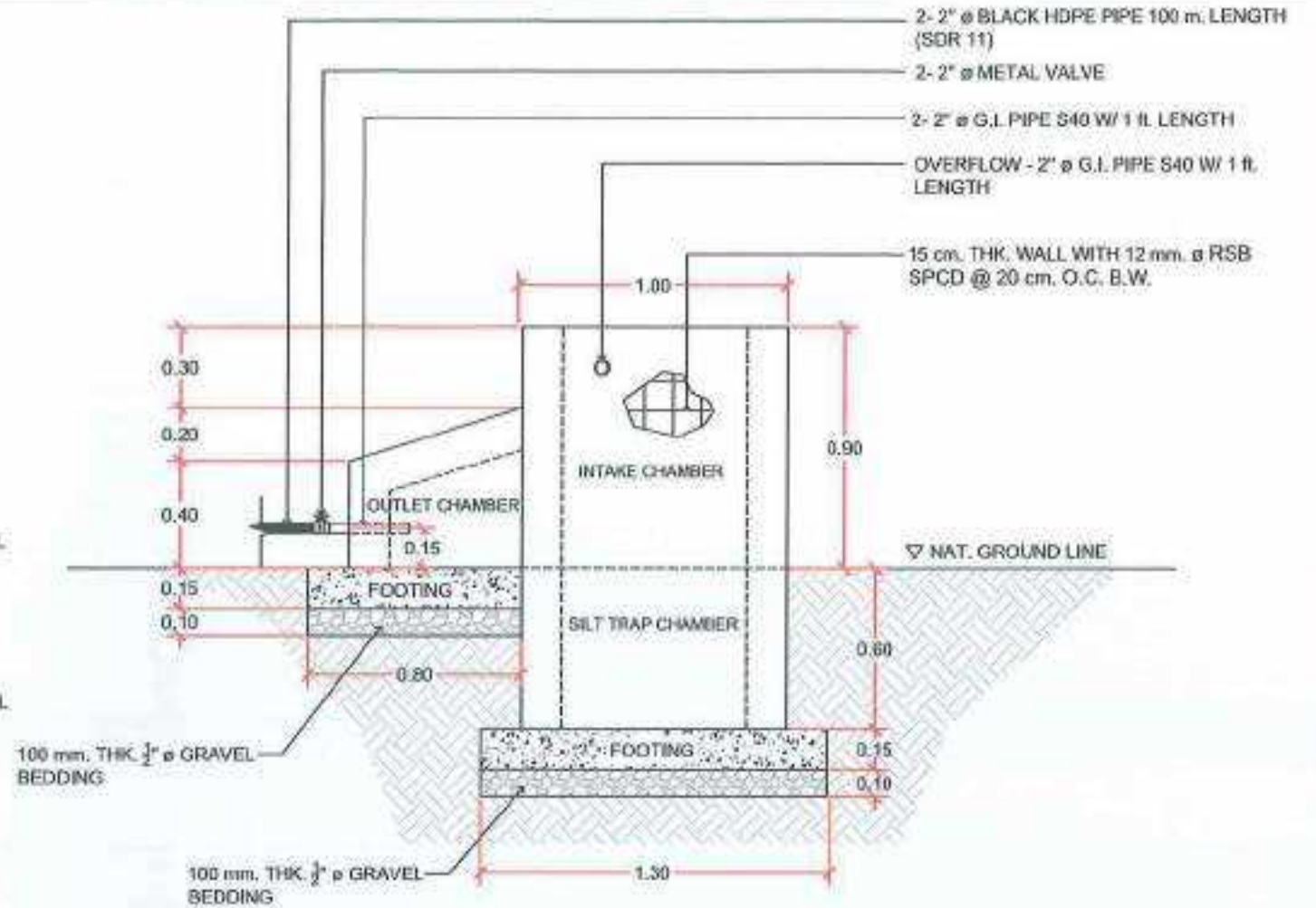
TOP ELEVATION
SCALE 1:15 MTS

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	LOCATION: BUNAGAN, ESPERANZA, AGULSAN DEL SUR		<i>[Signature]</i>					13

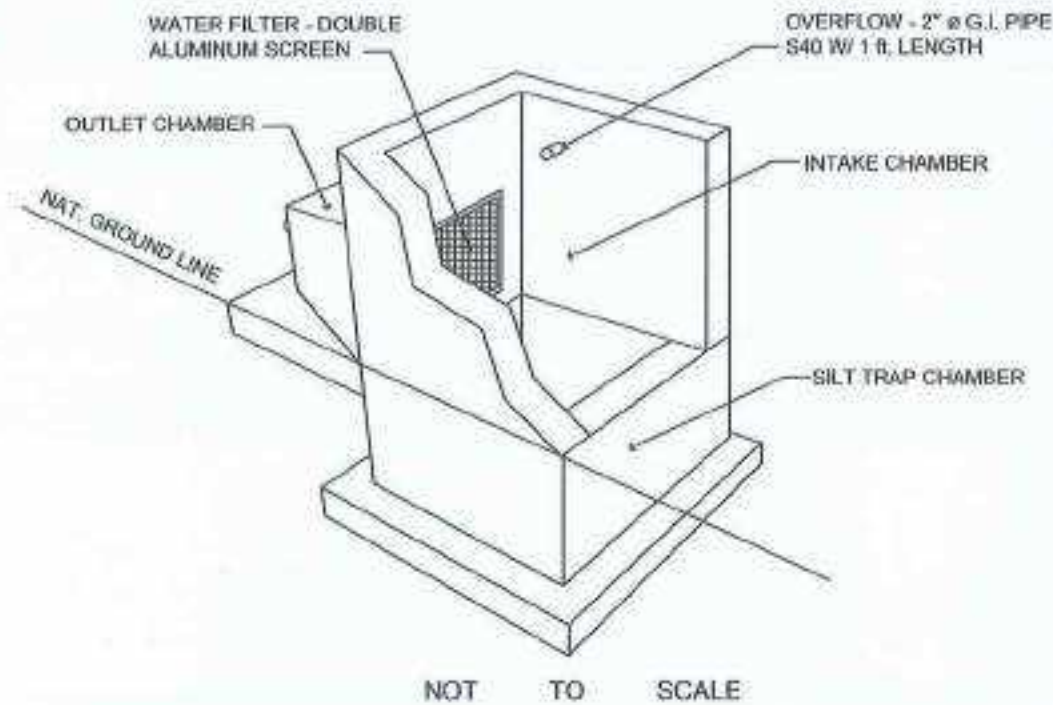
NOTE:
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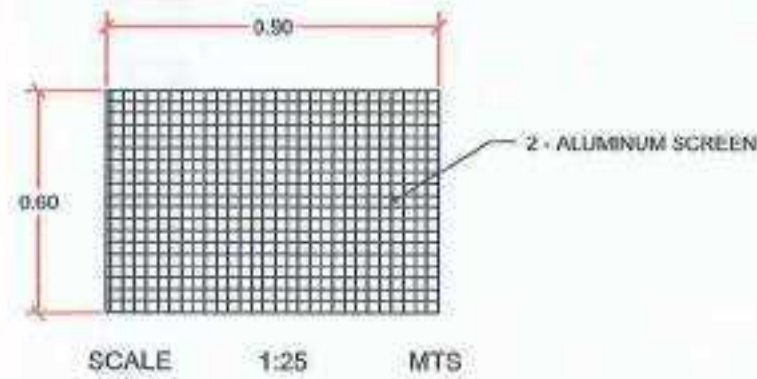
CROSS SECTION
SCALE 1:25 MTS



LONGITUDINAL SECTION
SCALE 1:25 MTS



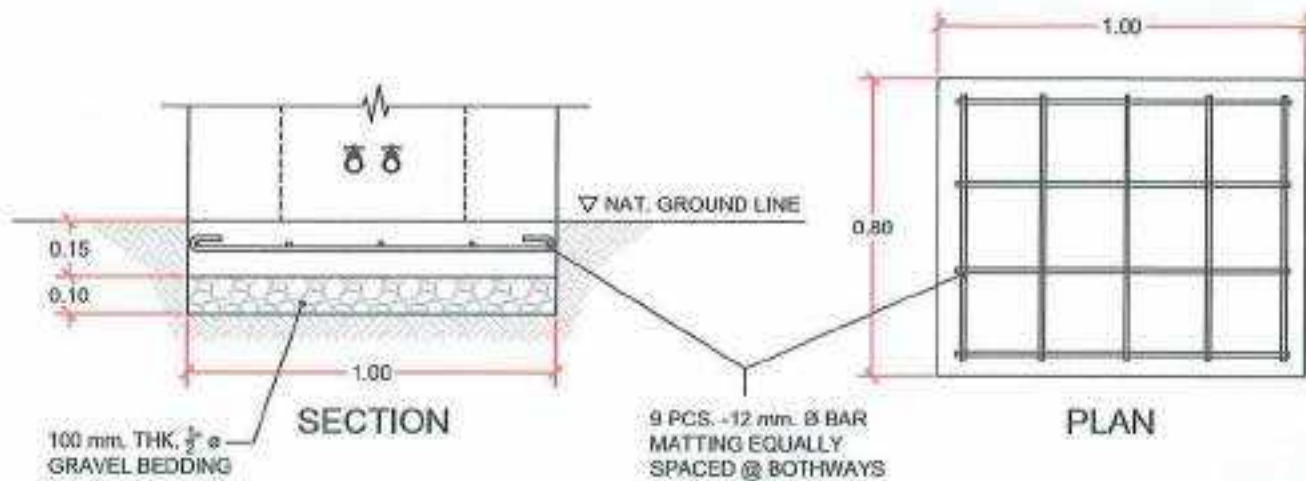
NOT TO SCALE



WATER FILTER DETAILS
SCALE 1:25 MTS

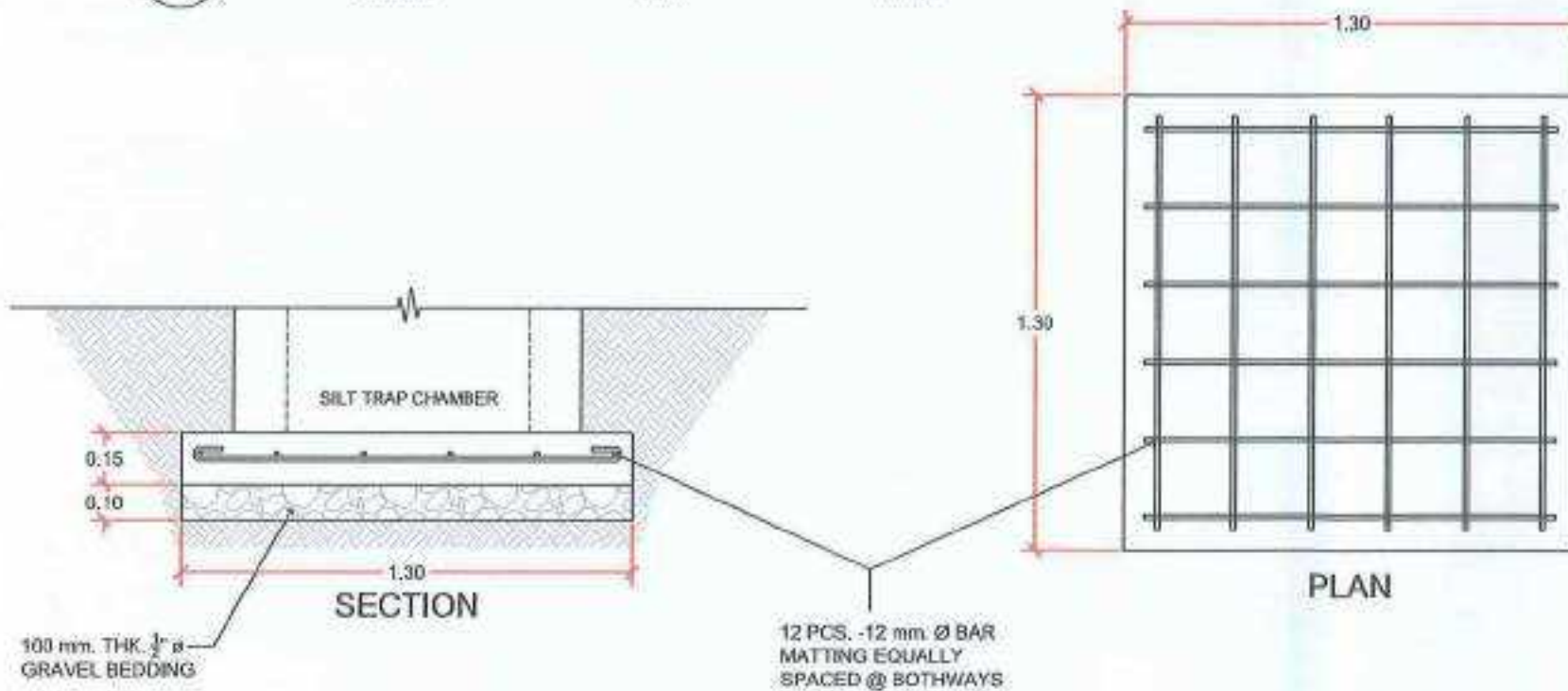
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	LOCATION: BAWANG ESPERANZA, AGUAN/DL, SUR							13

NOTE:
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UNLESS IT IS SPECIFIED.



OUTLET CHAMBER FOOTING DETAILS

SCALE 1:20 MTS



SILT TRAP CHAMBER FOOTING DETAILS

SCALE 1:20 MTS

NOTES ON FOOTINGS

1. FOOTINGS ARE DESIGNED FOR AN ALLOWANCE SOIL BEARING PRESSURE OF 96 KPa (2000 psf).
2. FOOTINGS SHALL REST BELOW NATURAL GRADE LINE AS INDICATED IN PLANS.
3. FOOTINGS SHALL HAVE A 150 mm THICKNESS AND PLACE ON COMPACTED 1/2 INCHES DIAMETER GRAVEL ON BED.
4. ALL FOOTINGS REINFORCEMENTS SHALL BE 20 mm CLEAR MINIMUM FROM BOTH SIDES OF THE FOOTINGS AND PLACE ON THE CENTER OF THE FOOTINGS.
5. PROVIDE EXTRA BAR FOR THE CONNECTION OF THE REINFORCEMENTS OF THE WALL.
6. TYPICAL BARS AND BENDING DETAILS FOR FOOTINGS SHALL BE AS SHOWN IN FIGURES.

175 mm.

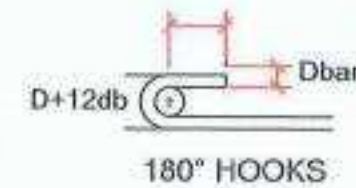
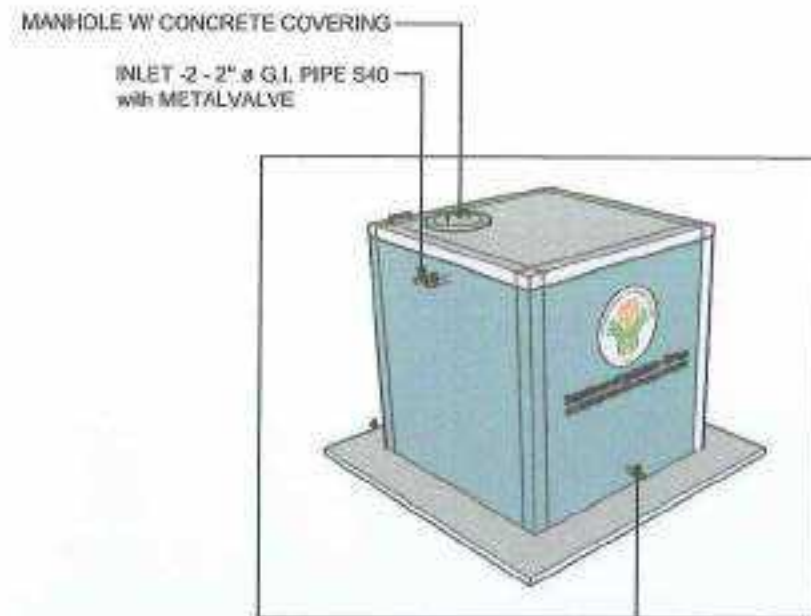
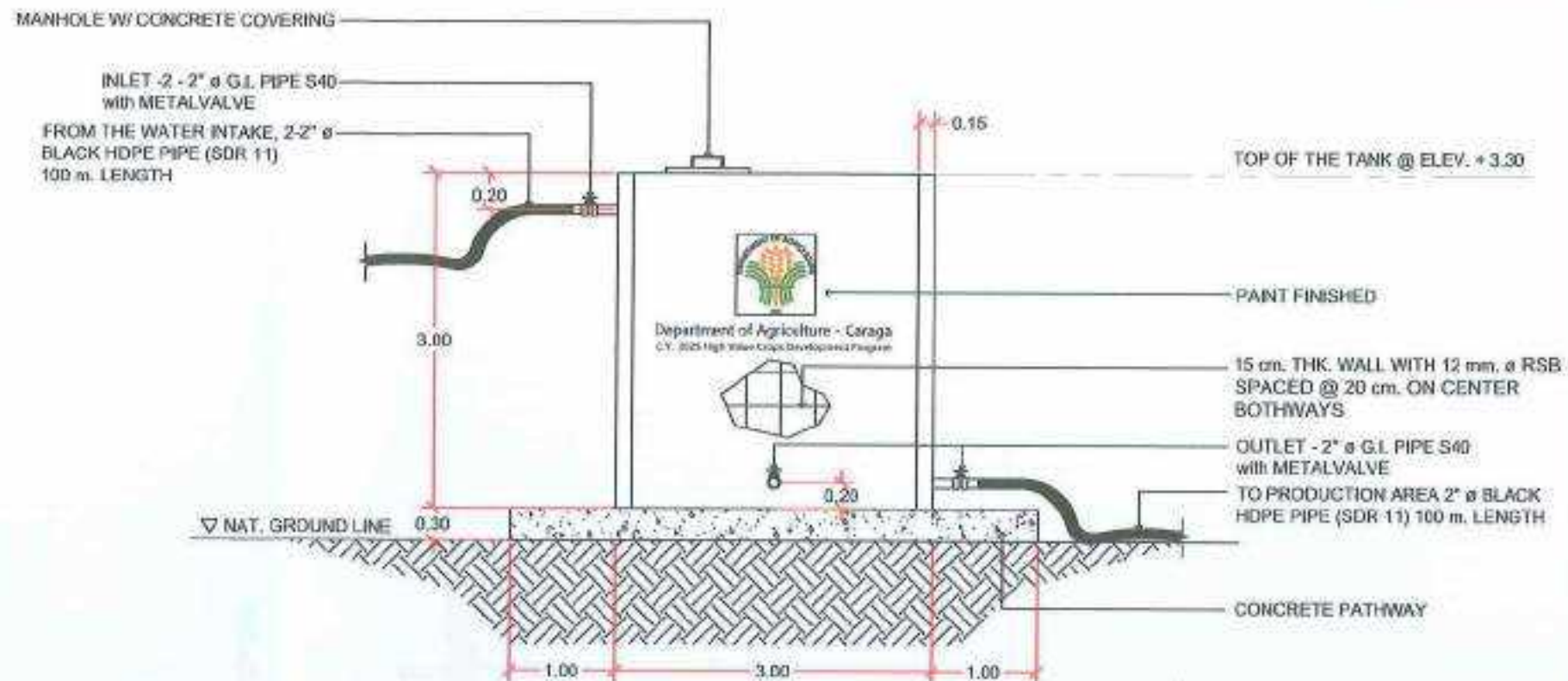


FIGURE A. MATTING BENDING DETAILS

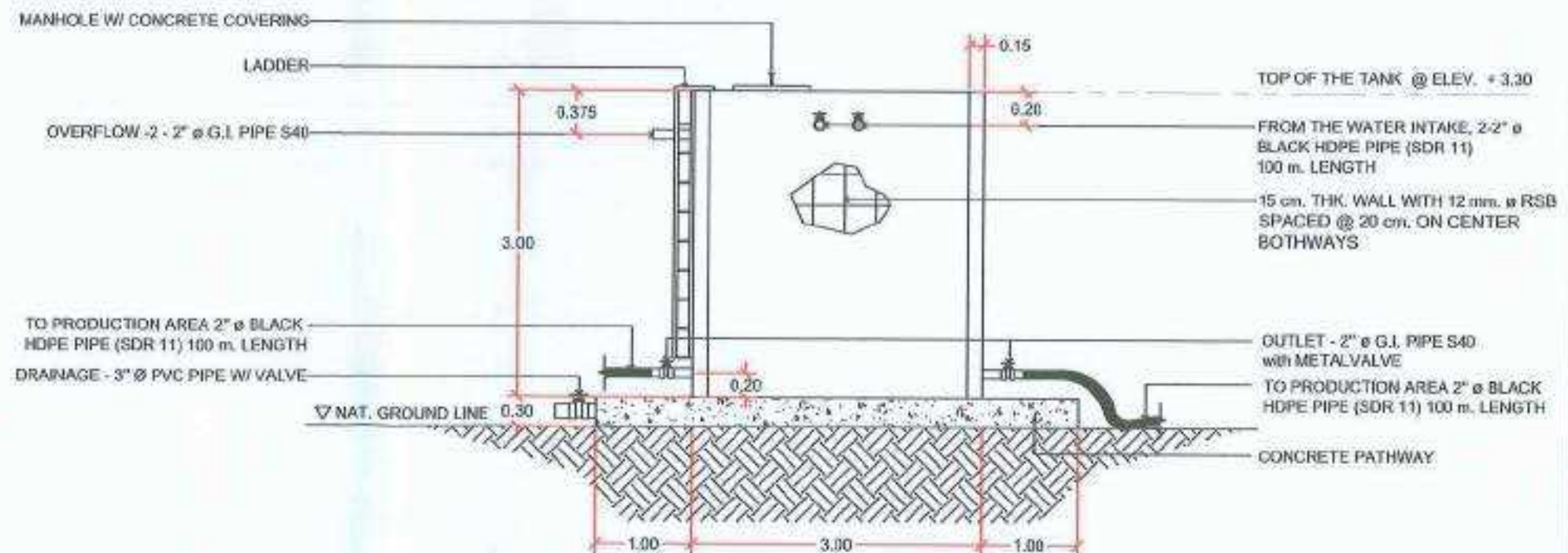
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	LOCATION: BUNDAAL ESPERANZA, AGUSAN DEL SUR							13



WATER TANK DETAILS



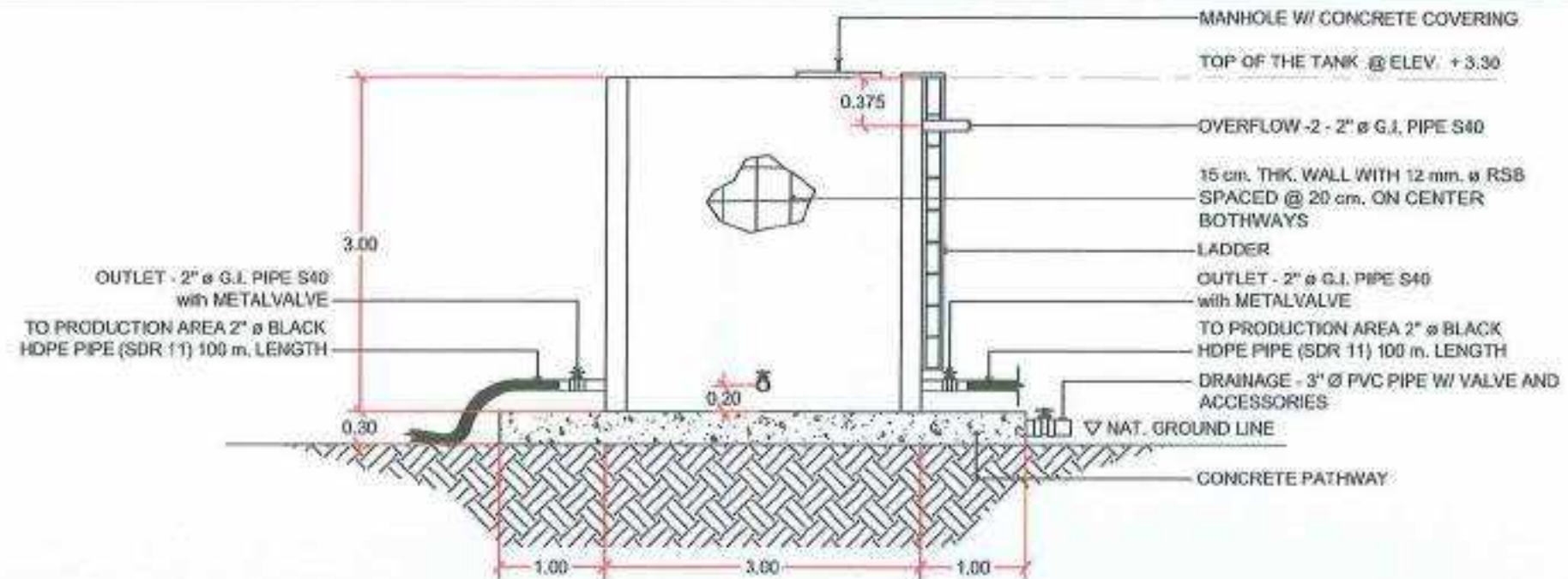
FRONT ELEVATION
SCALE 1:60 MTS



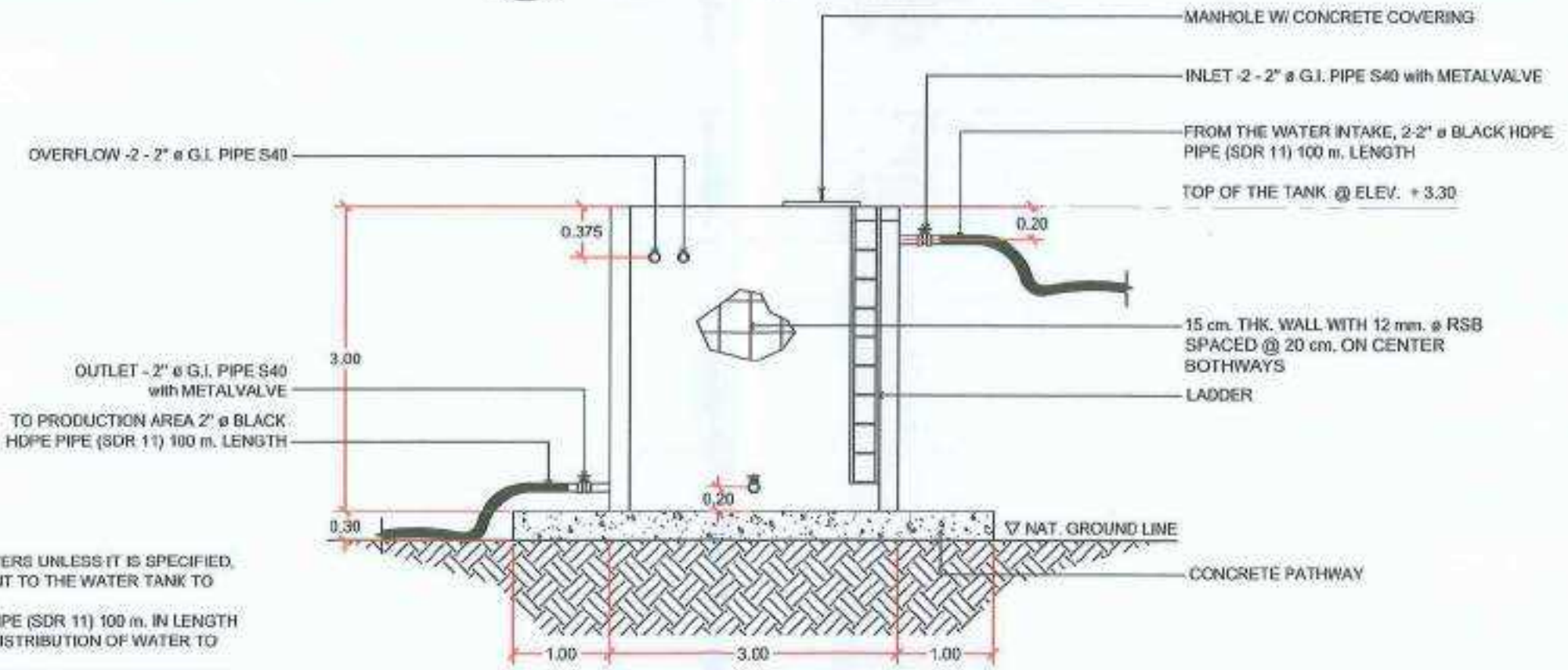
RIGHT SIDE ELEVATION
SCALE 1:60 MTS

- NOTE:
1. ALL DIMENSIONS ARE IN METERS UNLESS IT IS SPECIFIED,
 2. APPLY WATERPROOF CEMENT TO THE WATER TANK TO PREVENT WATER LEAKING,
 3. PROVIDE 2" Ø BLACK HDPE PIPE (SDR 11) 100 m. IN LENGTH TO EACH OUTLET FOR THE DISTRIBUTION OF WATER TO THE PRODUCTION AREAS,
 4. THE LENGTH OF THE G.I. PIPES TO BE INSTALLED ON THE OUTLETS, INLETS AND OVERFLOW MUST BE 50 CM.

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	LOCATION: BUNGAN, ESPERANZA, AGUSAN DEL SUR							13



LEFT SIDE ELEVATION
SCALE 1:60 MTS

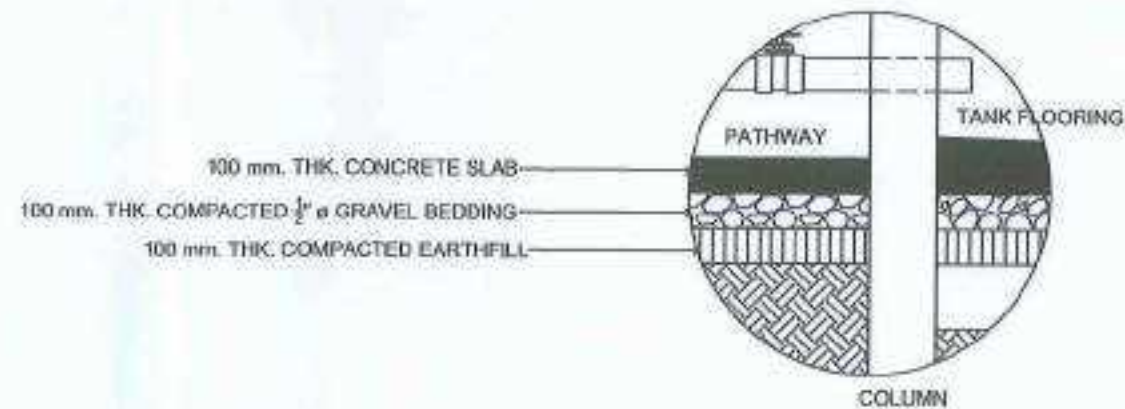
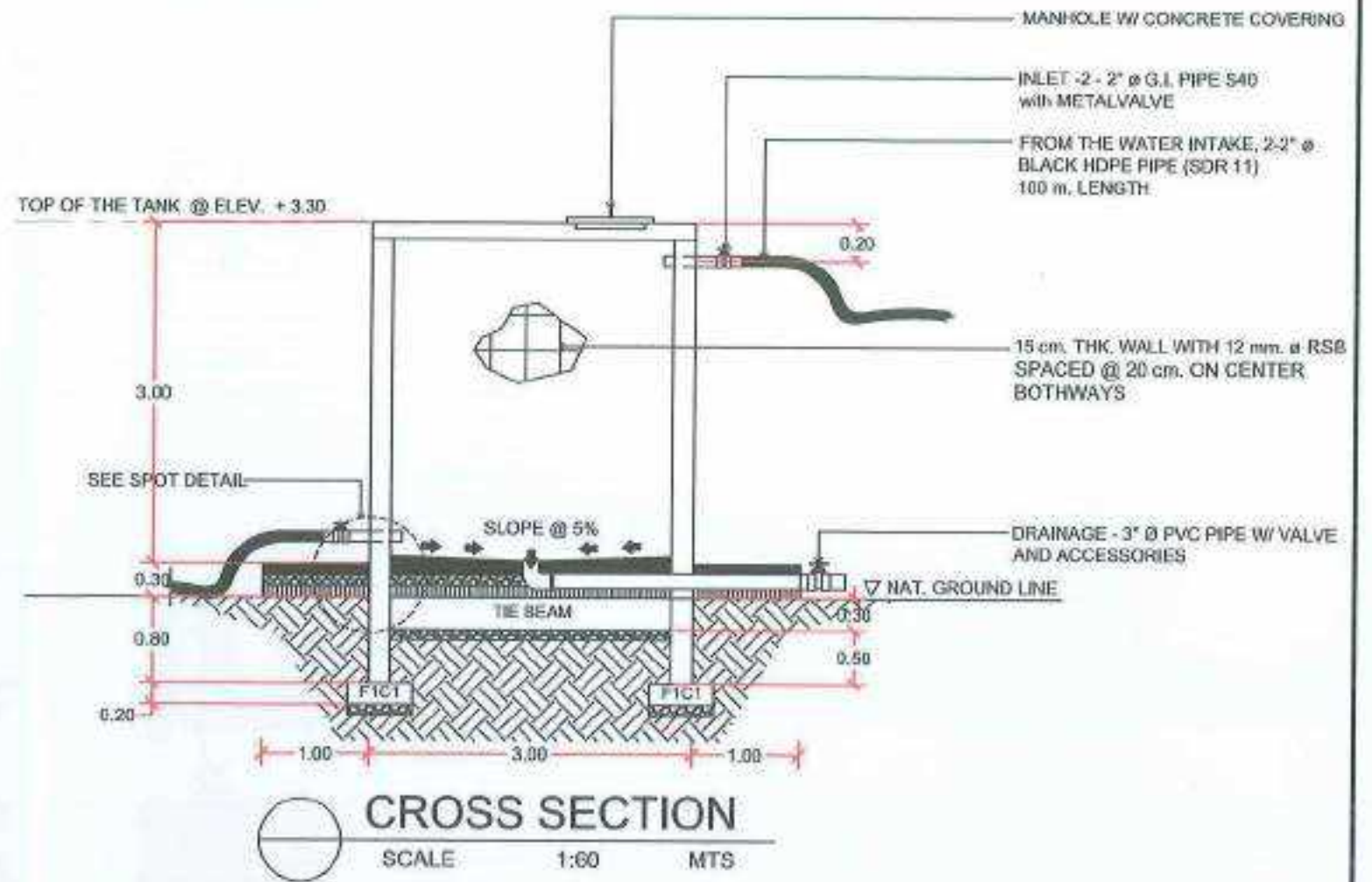
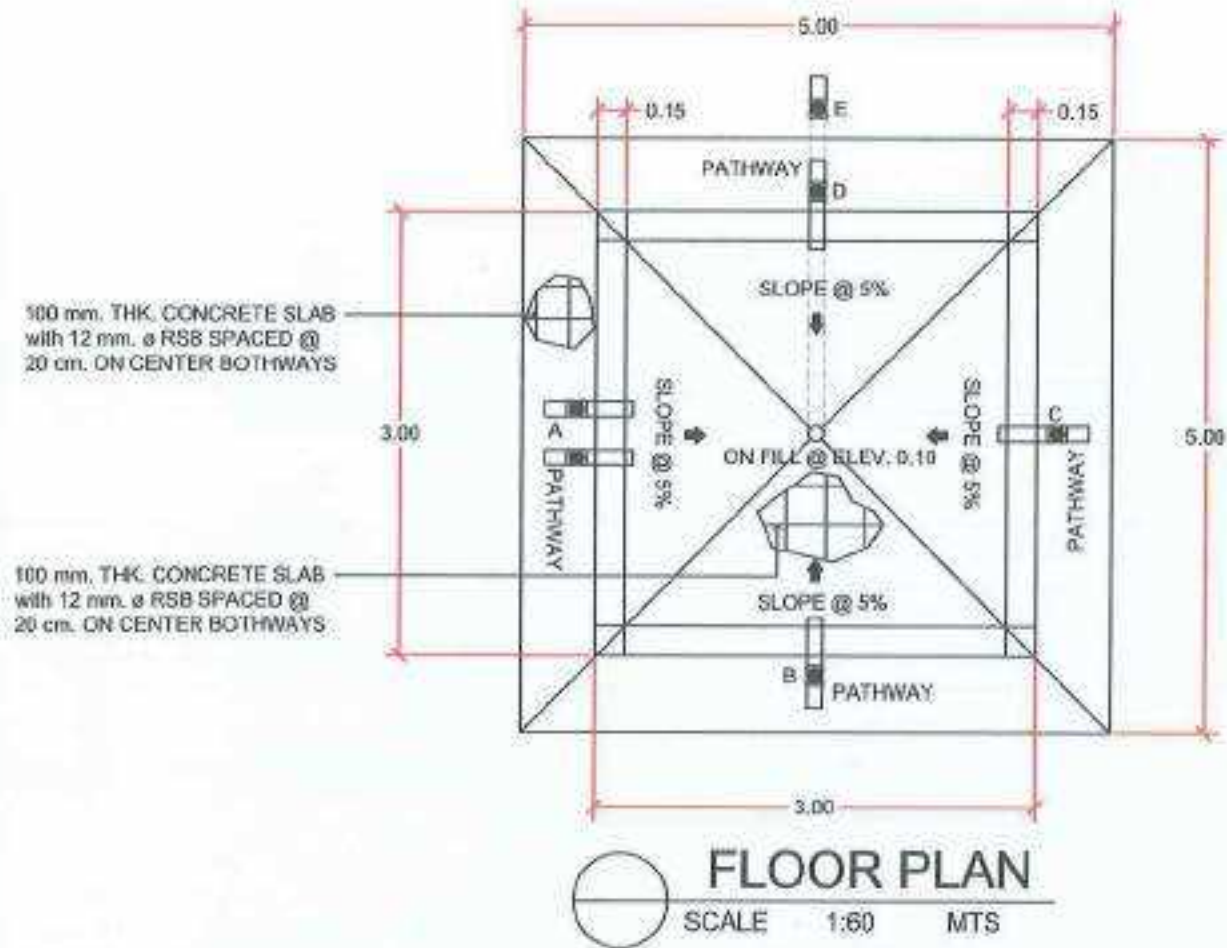


REAR ELEVATION
SCALE 1:60 MTS

- NOTE:
1. ALL DIMENSIONS ARE IN METERS UNLESS IT IS SPECIFIED.
 2. APPLY WATERPROOF CEMENT TO THE WATER TANK TO PREVENT WATER LEAKING.
 3. PROVIDE 2" Ø BLACK HDPE PIPE (SDR 11) 100 m. IN LENGTH TO EACH OUTLET FOR THE DISTRIBUTION OF WATER TO THE PRODUCTION AREAS.
 4. THE LENGTH OF THE G.I. PIPES TO BE INSTALLED ON THE OUTLETS, INLETS AND OVERFLOW MUST BE 50 CM.

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	LOCATION: MANANAN ESPERANZA, MOUNTAIN DEL SUR							13

SCHEDULE OF PIPES			
MARK	DESCRIPTION	SPECIFICATION	REMARKS
A	2 - G.I. PIPES (S40)	2" Ø x 50 CM.	INLET (FROM THE WATER SOURCE)
B	1 - G.I. PIPE (S40)	2" Ø x 50 CM.	OUTLET (TO THE PRODUCTION AREAS)
C	1 - G.I. PIPE (S40)	2" Ø x 50 CM.	OUTLET (TO THE PRODUCTION AREAS)
D	1 - G.I. PIPE (S40)	2" Ø x 50 CM.	OUTLET (TO THE PRODUCTION AREAS)
E	1 - PVC PIPE	3" Ø x 300 CM.	DRAINAGE

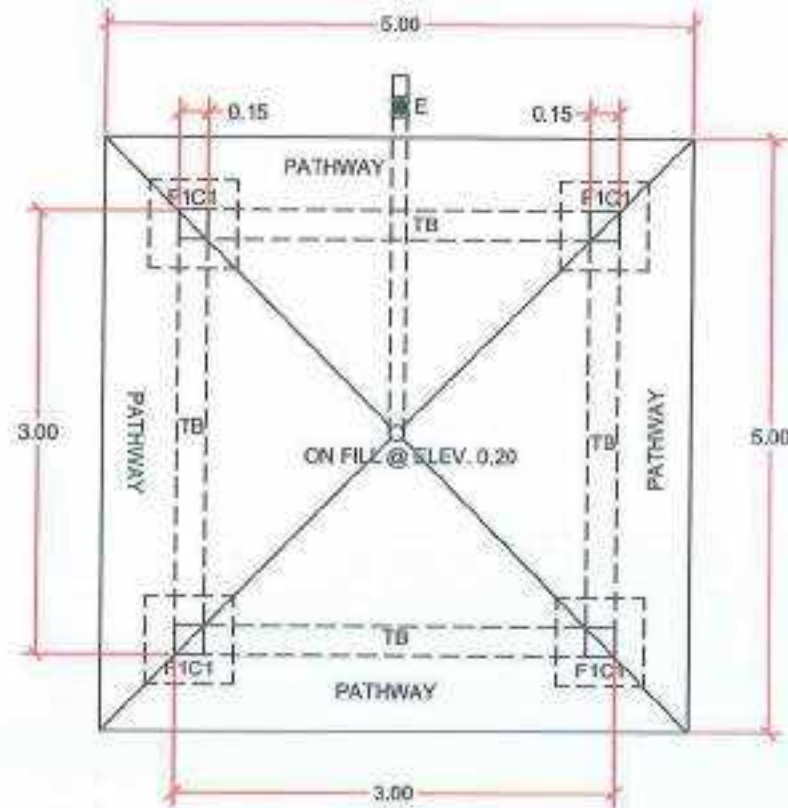


- NOTE:
1. ALL DIMENSIONS ARE IN METERS UNLESS IT IS SPECIFIED.
 2. APPLY WATERPROOF CEMENT TO THE WATER TANK TO PREVENT WATER LEAKING.
 3. PROVIDE 2" Ø BLACK HDPE PIPE (SDR 11) 100 m. IN LENGTH TO EACH OUTLET FOR THE DISTRIBUTION OF WATER TO THE PRODUCTION AREAS.
 4. THE LENGTH OF THE G.I. PIPES TO BE INSTALLED ON THE OUTLETS, INLETS AND OVERFLOW MUST BE 50 CM.

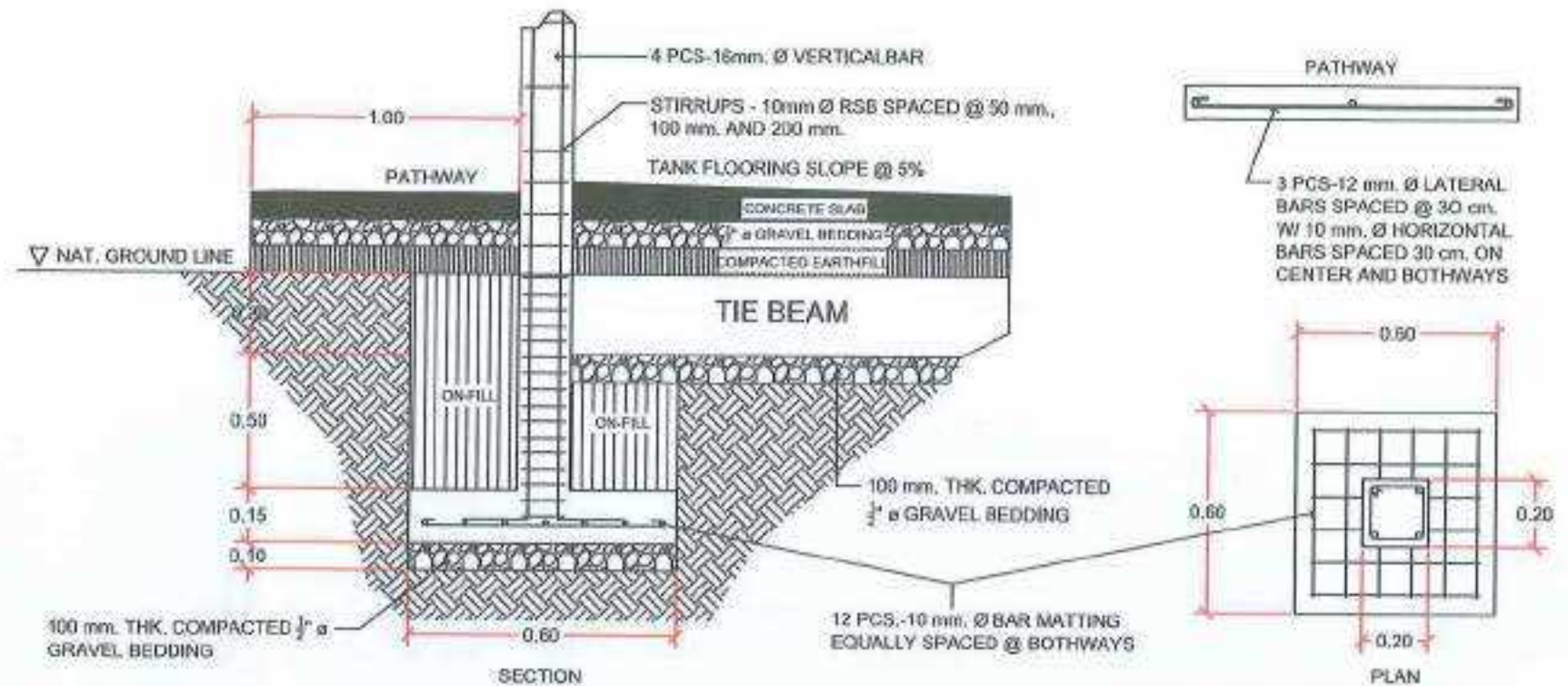
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LOCATION: GUANAJAN ESPERANZA, WZBAN DEL SUR							

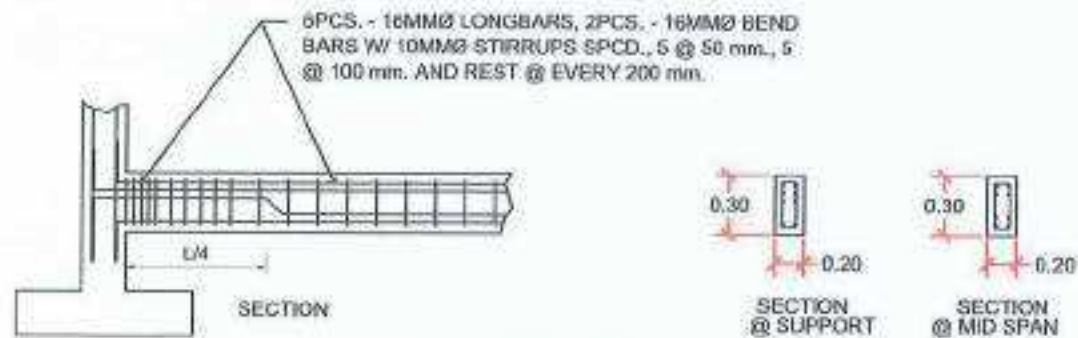
NOTE:
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FOUNDATION PLAN
SCALE 1:60 MTS



FOOTING 1 COLUMN 1 (F1C1) DETAILS
SCALE 1:25 MTS



TIE BEAM (TB) DETAILS
SCALE 1:40 MTS

NOTES ON FOOTINGS AND COLUMNS:

1. FOOTINGS ARE DESIGNED FOR AN ALLOWANCE SOIL BEARING PRESSURE OF 96 KPa (2000 psf).
2. FOOTINGS SHALL REST BELOW NATURAL GRADE LINE AS INDICATED IN PLANS.
3. FOOTINGS SHALL HAVE A 150 mm THICKNESS AND PLACE ON COMPACTED 1/2 INCHES DIAMETER GRAVEL ON BED.
4. ALL FOOTINGS REINFORCEMENTS SHALL BE 20 mm CLEAR MINIMUM FROM BOTH SIDES OF THE FOOTINGS AND PLACE ON THE CENTER OF THE FOOTINGS.
5. DISTANCE OF STIRRUPS FROM THE MATTING THAT PASSES THROUGH THE TIE BEAM IS 50 mm., THEN 6 STIRRUPS WITH 100 mm. DISTANCE AND THE REST IS 200 mm. DISTANCE.
6. TYPICAL BARS AND BENDING DETAILS FOR FOOTINGS SHALL BE AS SHOWN IN FIGURES.

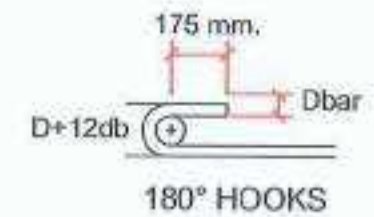


FIGURE A. MATTING BENDING DETAILS

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	LOCATION: DUAANAN ESPERANZA, AGUSAN DEL SUR							13

