

Point Table

Point #	Elevation	Latitude	Longitude	Description
1	2375	N 3817007	E 702456	RESERVOIR
2	2335	N 3816994	E 702193	Water point (well)



IRW

Islamic Relief Worldwide - SIDA
Food Security, WASH, and Protection support to vulnerable families in Ghor - Afghanistan

Department: WASH
Drawing Title: Being Map Site Plan

All dimension in cm otherwise stated

Surveyed by: Eng. Neman "Sultani"
Drawing & designed by: Abdul Majeed "Khamosh"
Review & check by: Eng. Hikmatullah "Arifzai"
Approved by: Eng. Shah Faisal

SHEET NO. 1/18
30-Jul-2024

PROVINCE: Ghor
DISTRICT: Feroz koh
VILLAGE: Akhta Khana Sufla

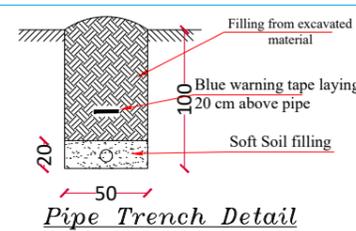
SIDA Project

LEGEND

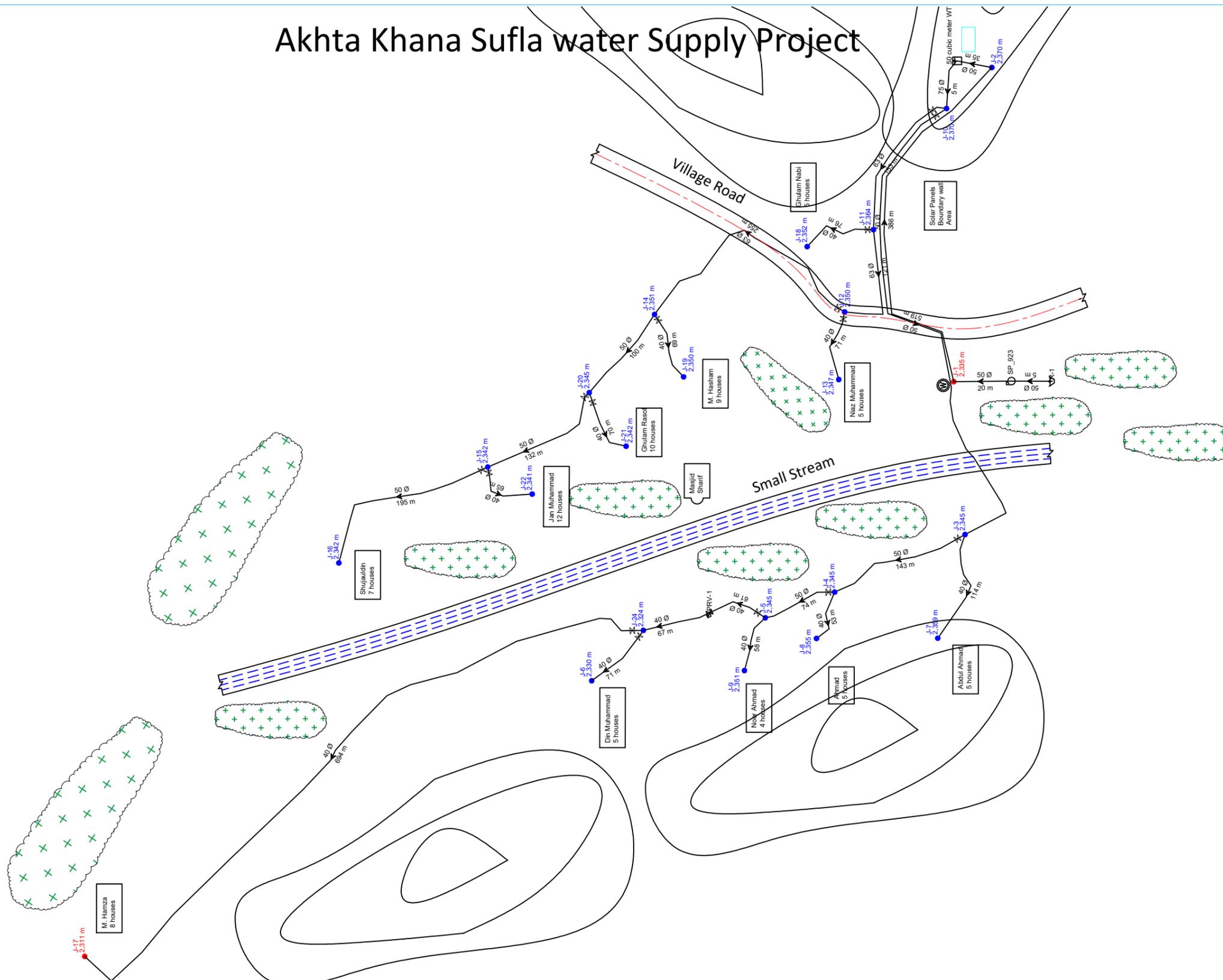
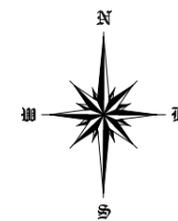
Proposed Well	
Main line	
Distribution Line	
Reservoir Area	
Tertiary Road	
Village houses	
Agricultural Land	
Mosque	
Hill	
Control Valve	

Point Table				
Point #	Elevation	Latitude	Longitude	Description
1	2384	N 3817007	E 702456	RESERVOIR
2	2335	N 3816994	E 702193	WELL

Note:
 Type of soil :#2 to #4
 Population : 1575
 House Number: 75 Houses , 2 Mosque,
 Static water level :8m
 Dynamic water level:20 m
 Total depth :25m
 Drilling type :Percussion 18".



Akhta Khana Sufla water Supply Project



Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department WASH
 Drawing Title Final Site Plan

All dimension in (m)
 otherwise stated

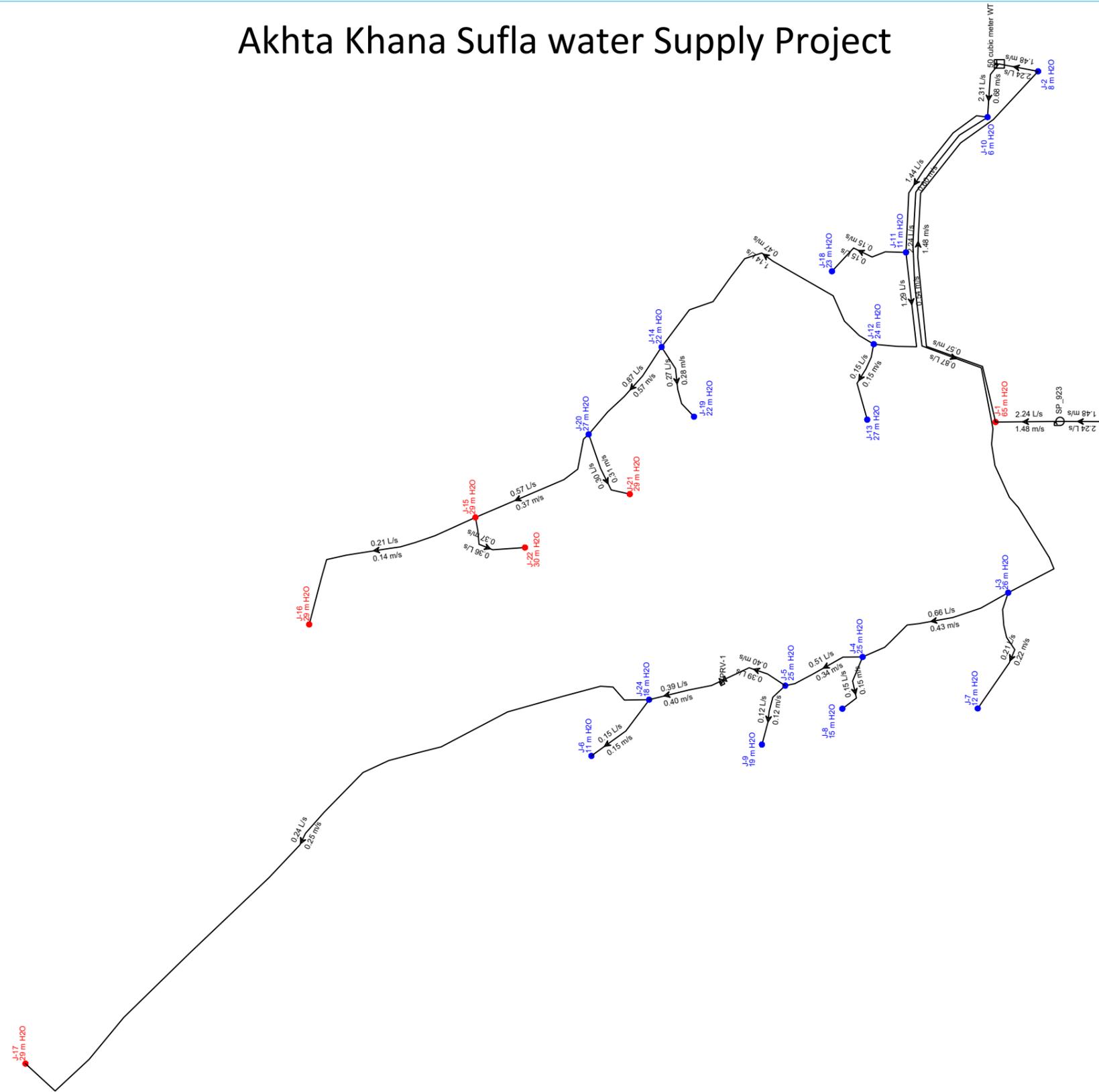
Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed "Khamosh"
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET No. 2 / 18
 30-Jul-2024

PROVINCE	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufla



Akhta Khana Sufla water Supply Project



Islamic Relief Worldwide-SIDA
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan

Department: WASH
Drawing Title: Node ID, Flow in (L/s), Velocity in (m/s), and Pressure in (mH2O)

All dimension in (m) otherwise stated

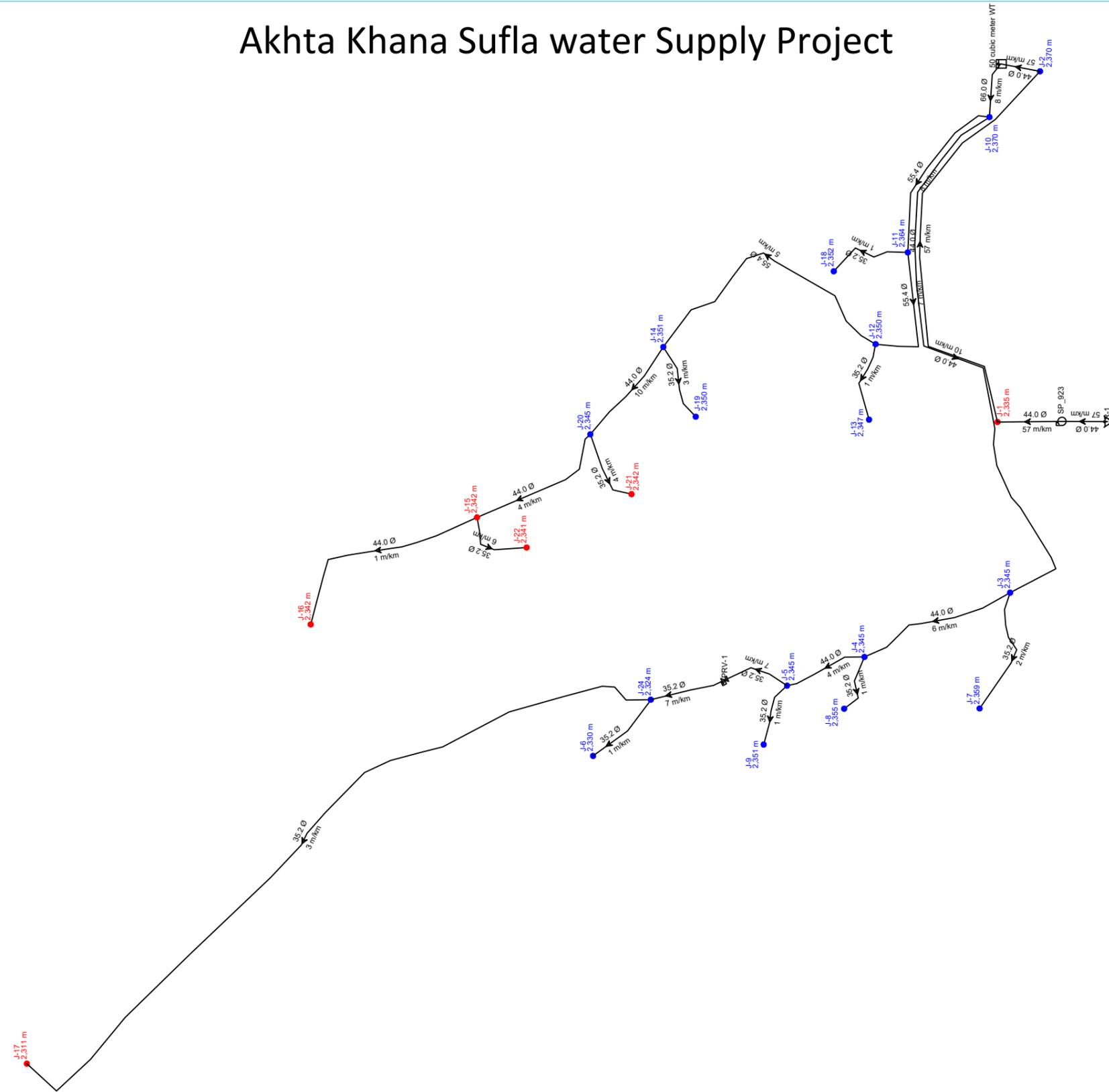
Surveyed by: Eng. Neman "Sultani"
Drawing & designed by: Abdul Majeed "Khamosh"
Review & check by: Eng. Hikmatullah "Arifzai"
Approved by: Eng. Shah Faisal

Sheet No. 3/18
30-Jul-2024

PROVINCE: Ghor
District: Feroz Koh
VILLAGE: Akhta Khana Sufla



Akhta Khana Sufla water Supply Project



Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department WASH
 Drawing Title Node ID, In Dia in (mm), Head loss Gradient in (m/km) and Elevation in (m)

All dimension in (m) otherwise stated

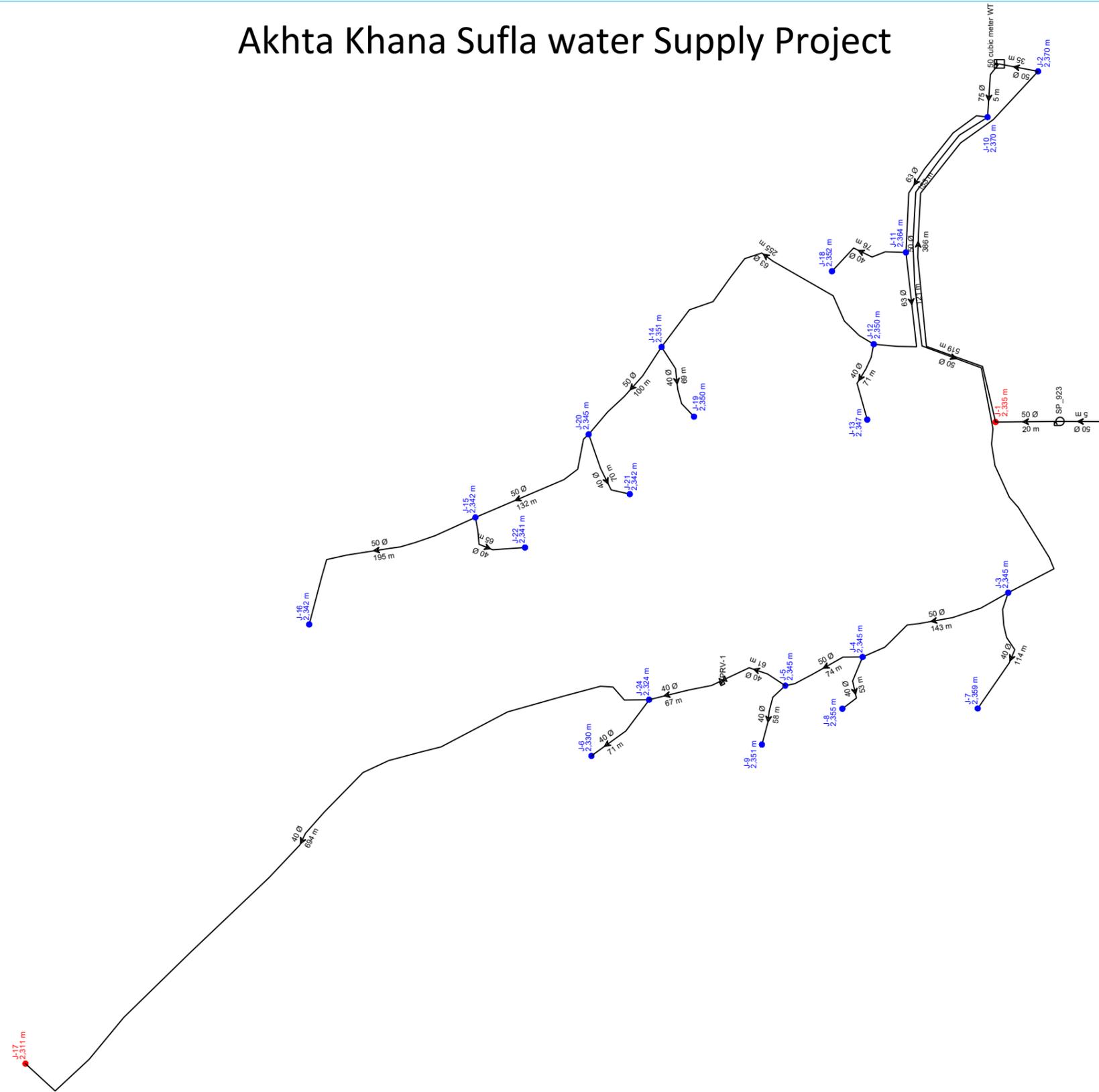
Surveyed by Eng. Neman "Sultani"
 Drawing & designed by Abdul Majeed "Khamosh"
 Review & check by Eng. Hikmatullah "Arifzai"
 Approved by Eng. Shah Faisal

Sheet No. 4/18
 30-Jul-2024

PROVINCE Ghor
 District Feroz Koh
 VILLAGE Akhta Khana Sufla



Akhta Khana Sufla water Supply Project



Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan

Department	WASH
Drawing Title	Node ID, Out Dia in (mm), Length in (m) and Elevation in (m)

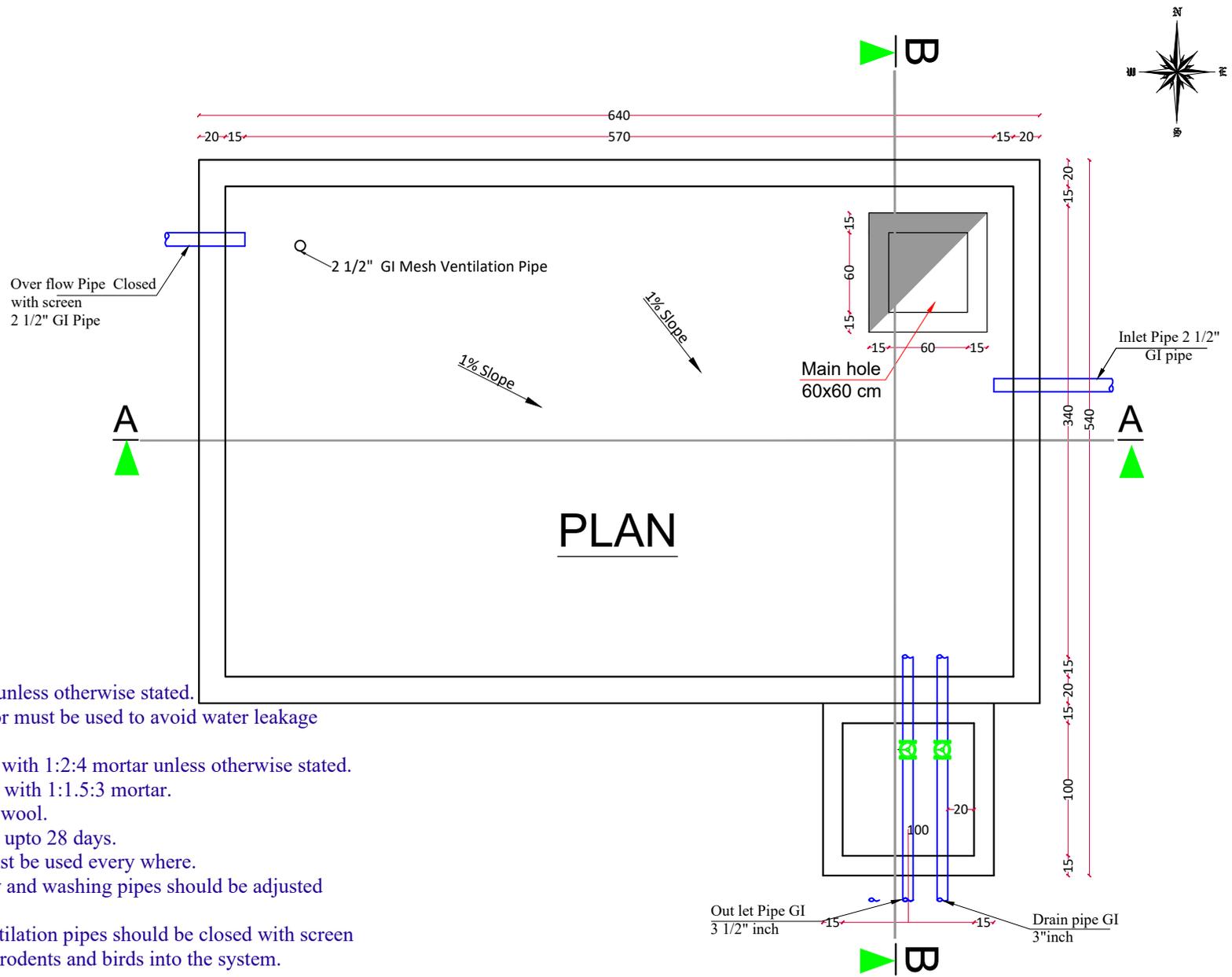
All dimension in (m)
 otherwise stated

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed "Khamosh"
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

Sheet No. **5/18**
 30-Jul-2024

PROVINCE	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufla

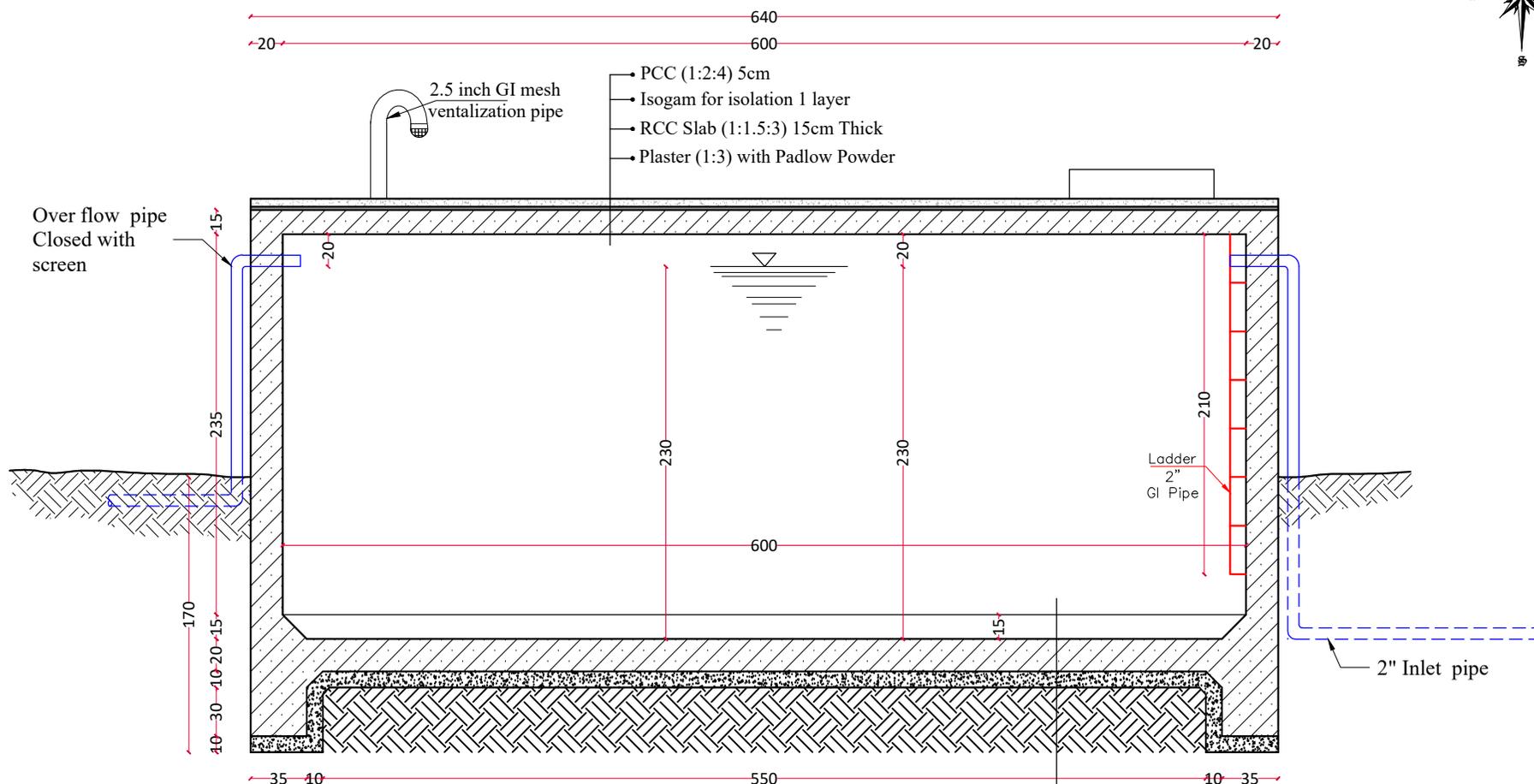




Note:

- 1- All dimensions are in cm unless otherwise stated.
- 2- During RCC work vibrator must be used to avoid water leakage from reservoir.
- 3- All PCC works should be with 1:2:4 mortar unless otherwise stated.
- 4- All RCC works should be with 1:1.5:3 mortar.
- 5- Isolation material is glass wool.
- 7- Curing must be continued upto 28 days.
- 8- Clear and Clean water must be used every where.
- 9- The inlet, outlet, overflow and washing pipes should be adjusted according to site condition.
- 10-End of overflow and Ventilation pipes should be closed with screen to avoid entrance of insects, rodents and birds into the system.

 IRW	Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		Surveyed by	Eng. Neman "Sultani"		Province	Ghor	SIDA Project
	Department	WASH	Drawing & designed by	Abdul Majeed Khamosh		District	Feroz Koh	
	Drawing Title	50 Cubic Meter RCC Reservoir Plan	Review & check by	Eng. Hikmatullah "Arifzai"		VILLAGE	Akhta Khana Sulfa	
	All dimension in cm otherwise stated		Approved by	Eng. Shah Faisal		30-July-2024		



SECTION A-A

- Plaster (1:3) with Padlow Powder
- RCC (1:1.5:3) 20cm
- PCC (1:2:4) 10cm
- Back filling with Compacted soil



IRW

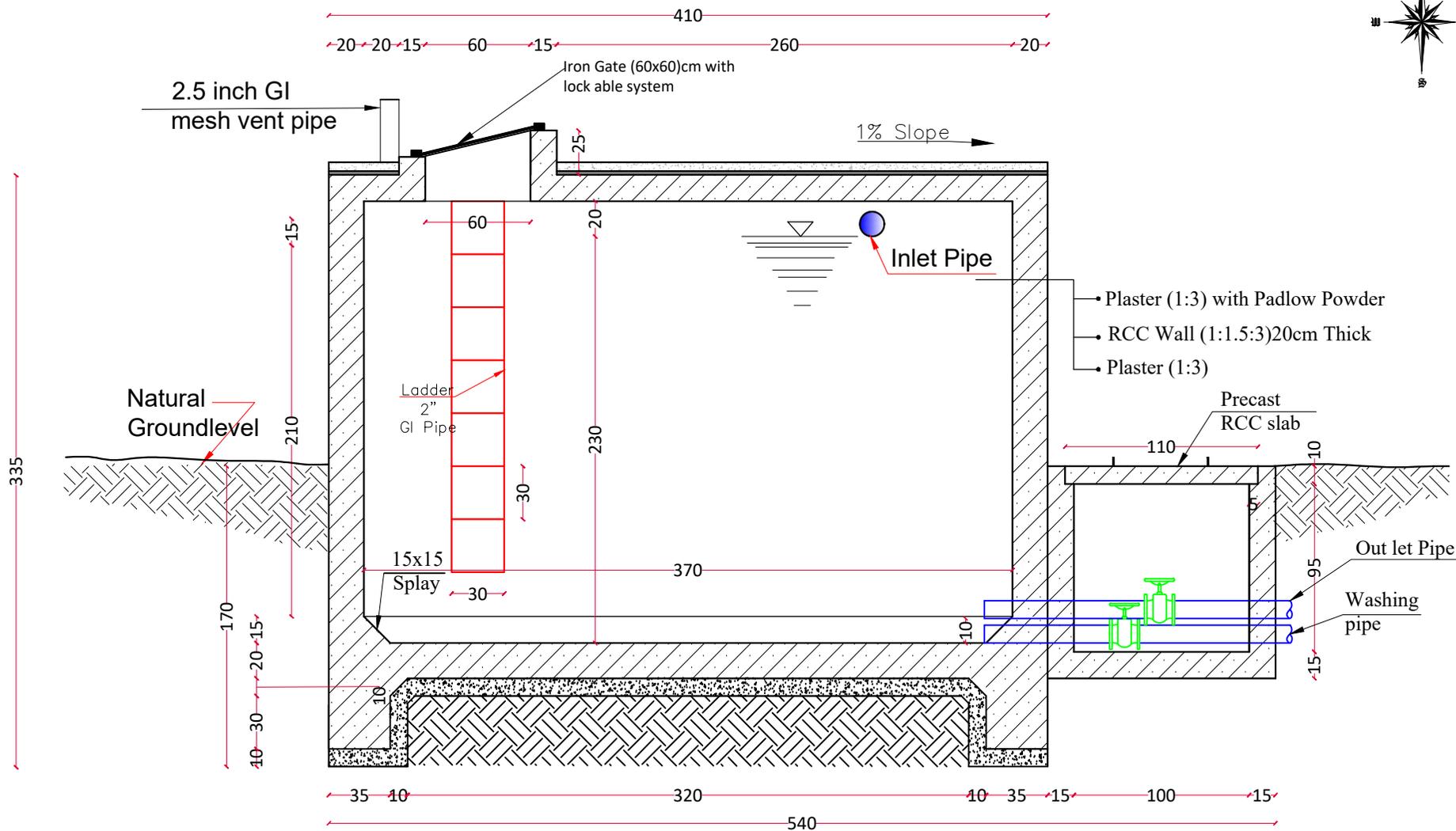
Islamic Relief Worldwide-SIDA		All dimension in cm otherwise stated
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		
Department	WASH	
Drawing Title	Section A-A	

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET NO.	7/18
30-July-2024	

Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sulfa

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SECTION B-B



IRW

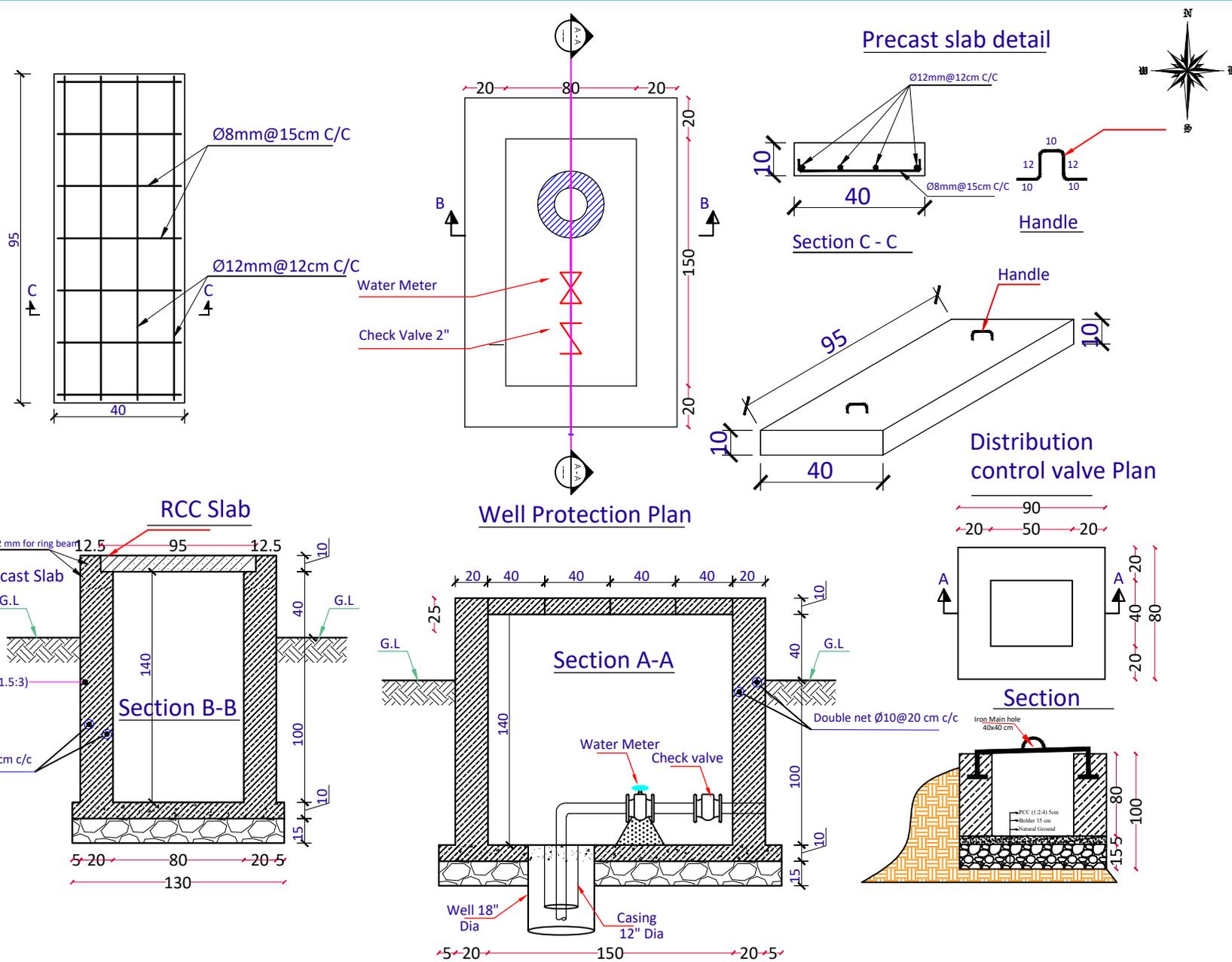
Islamic Relief Worldwide-SIDA		All dimension in cm otherwise stated
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		
Department	WASH	
Drawing Title	Section B-B	

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET NO. 8 18	Province	Ghor
	District	Feroz Koh
	VILLAGE	Akhta Khana Sufla
	30-July-2024	

Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufla

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Project



IRW

Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department: WASH
 Drawing Title: Well and Gate valve protection

All dimension in cm otherwise stated

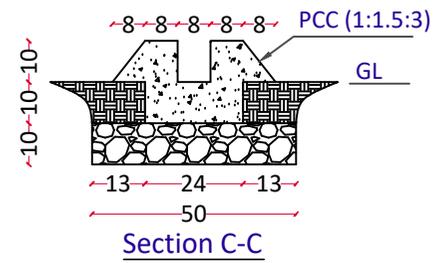
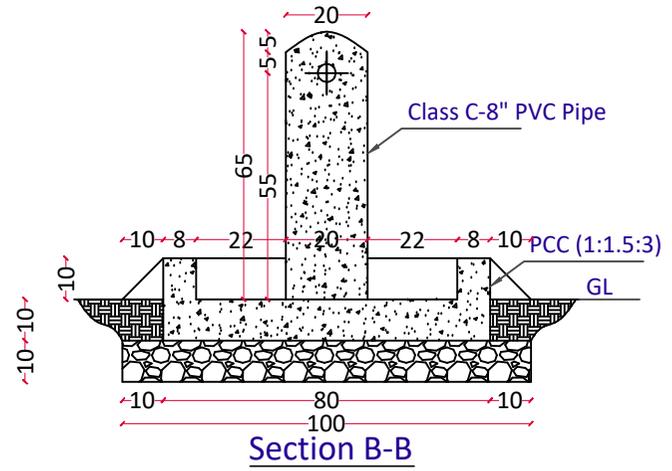
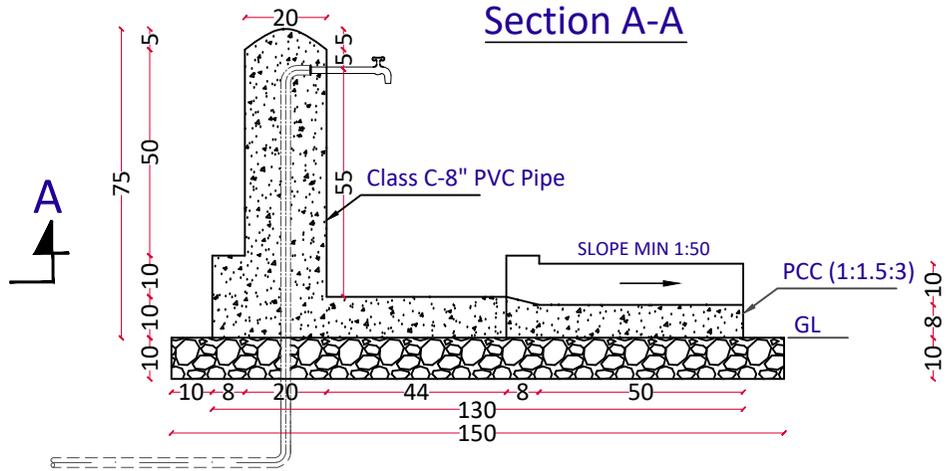
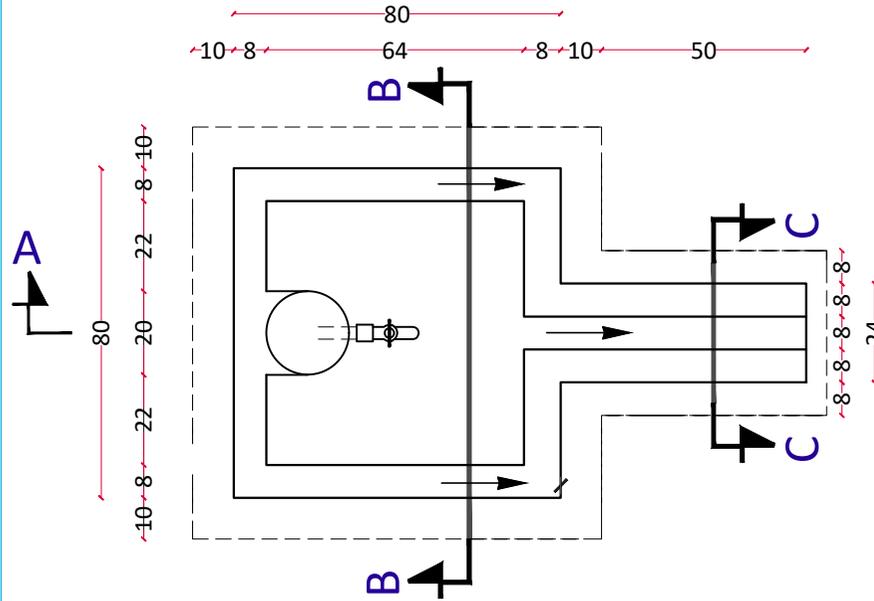
Surveyed by: Eng. Neman "Sultani"
 Drawing & designed by: Abdul Majeed Khamosh
 Review & check by: Eng. Hikmatullah "Arifzai"
 Approved by: Eng. Shah Faisal

SHEET NO. 10/18
 30-July-2024

Province: Ghor
 District: Feroz Koh
 VILLAGE: Akhta Khana Sulfa

SIDA Project

Stand Tap



IRW

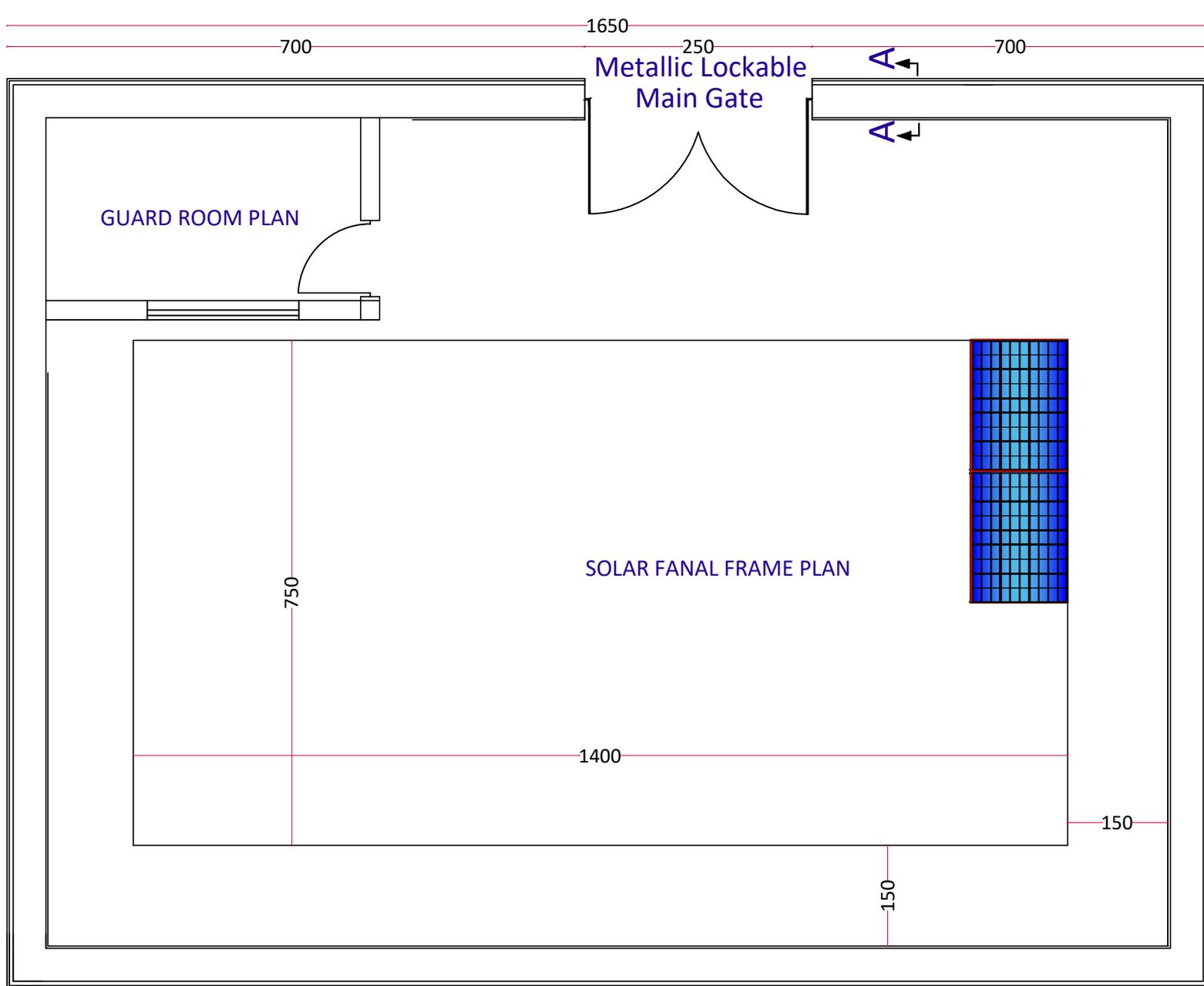
Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department: WASH
 Drawing Title: House connection stand tape
 All dimension in cm otherwise stated

Surveyed by: Eng. Neman "Sultani"
 Drawing & designed by: Abdul Majeed Khamosh
 Review & check by: Eng. Hikmatullah "Arifzai"
 Approved by: Eng. Shah Faisal

SHEET NO. 11/18
 30-July-2024

Province: Ghor
 District: Feroz Koh
 VILLAGE: Akhta Khana Sufla

SIDA Project



IRW

Islamic Relief Worldwide-SIDA
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan

Department	WASH
Drawing Title	Boundary wall and Guard room plan

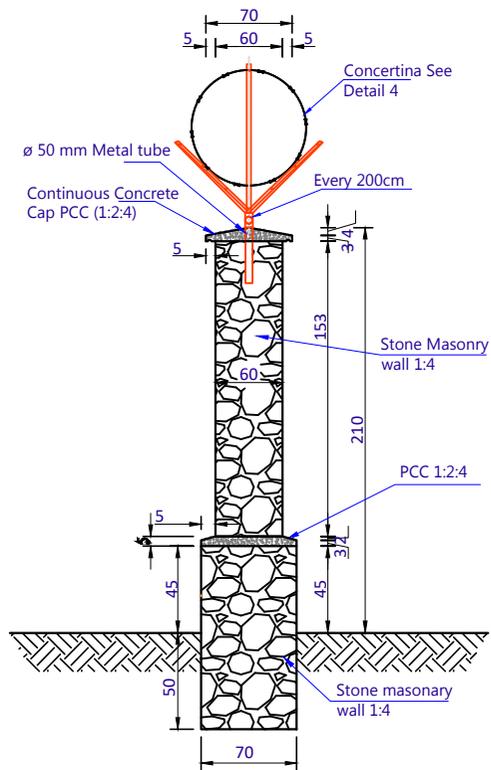
All dimension in cm
otherwise stated

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

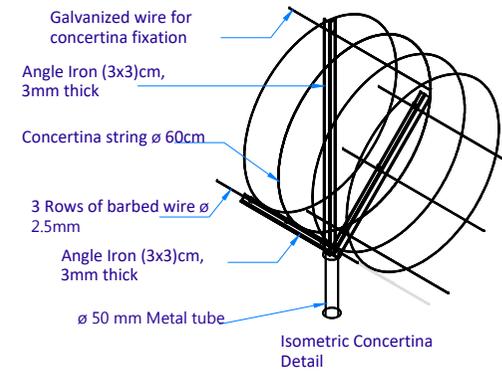
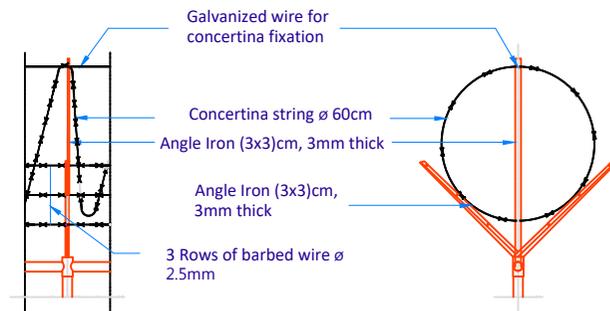
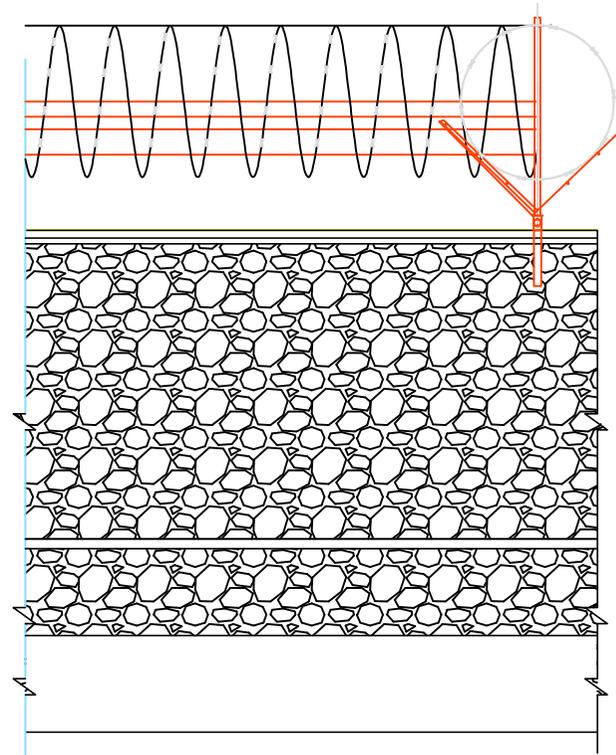
SHEET NO.	12/18
30-July-2024	

Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufla

SIDA
Project



Section A-A



Isometric Concertina Detail



IRW

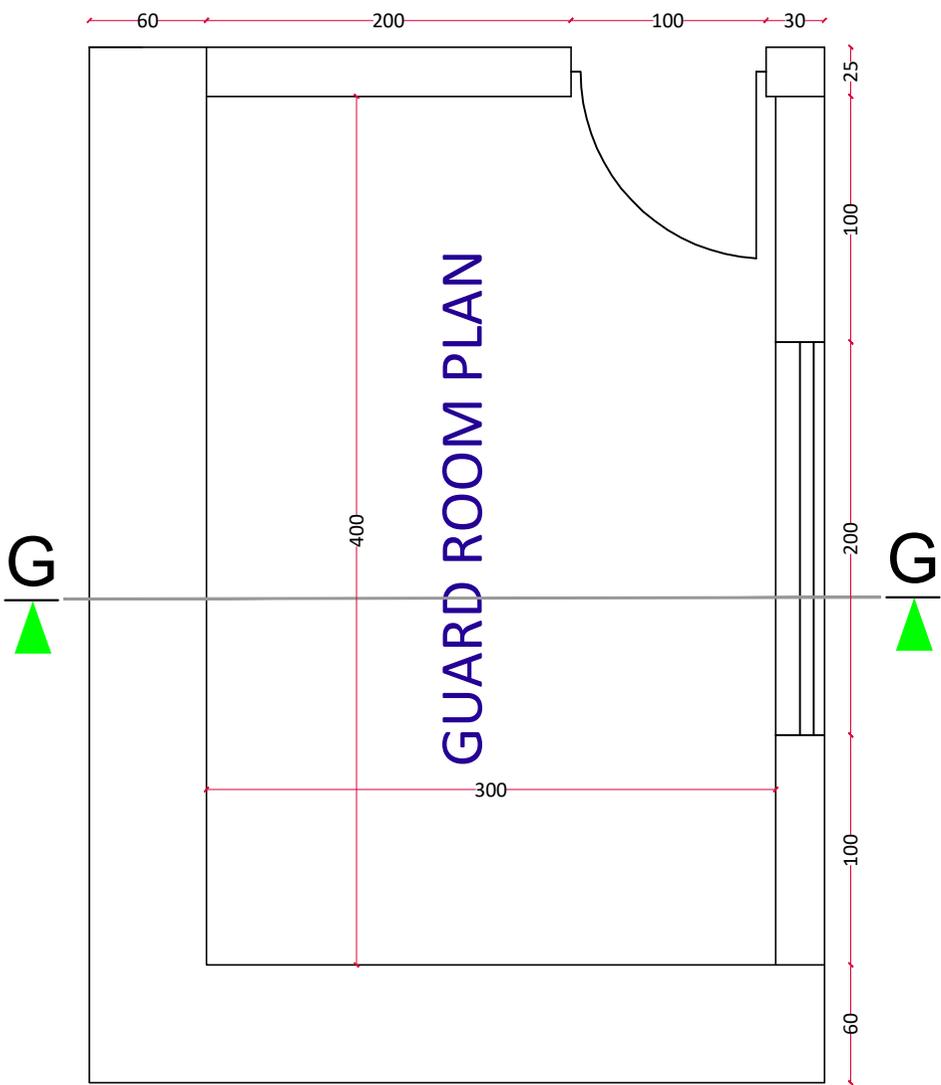
Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		All dimension in cm otherwise stated
Department	WASH	
Drawing Title	boundary section and barbed wire plan	

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

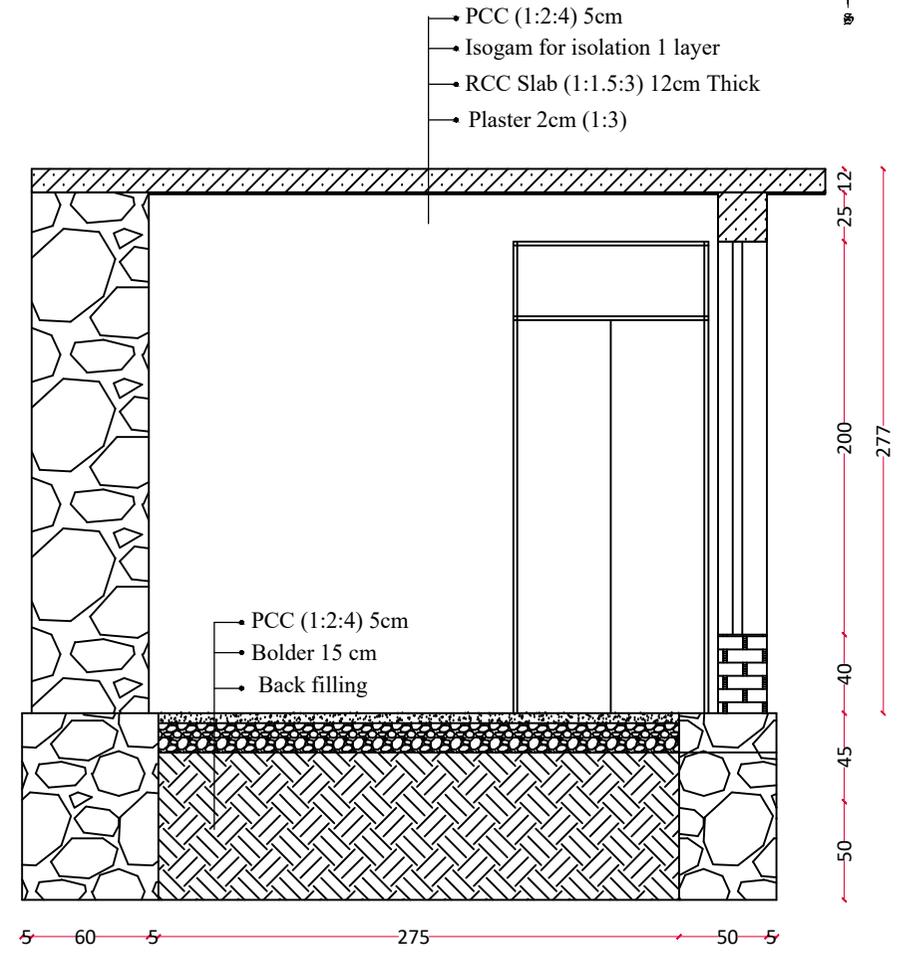
SHEET NO.	13
	18
30-July-2024	

Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufia

SIDA
Project



GUARD ROOM PLAN



IRW

Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department: WASH
 Drawing Title: Guard Room Plan
 All dimension in cm otherwise stated

Surveyed by: Eng. Neman "Sultani"
 Drawing & designed by: Abdul Majeed Khamosh
 Review & check by: Eng. Hikmatullah "Arifzai"
 Approved by: Eng. Shah Faisal

SHEET NO. 14/18
 30-July-2024

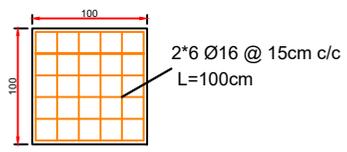
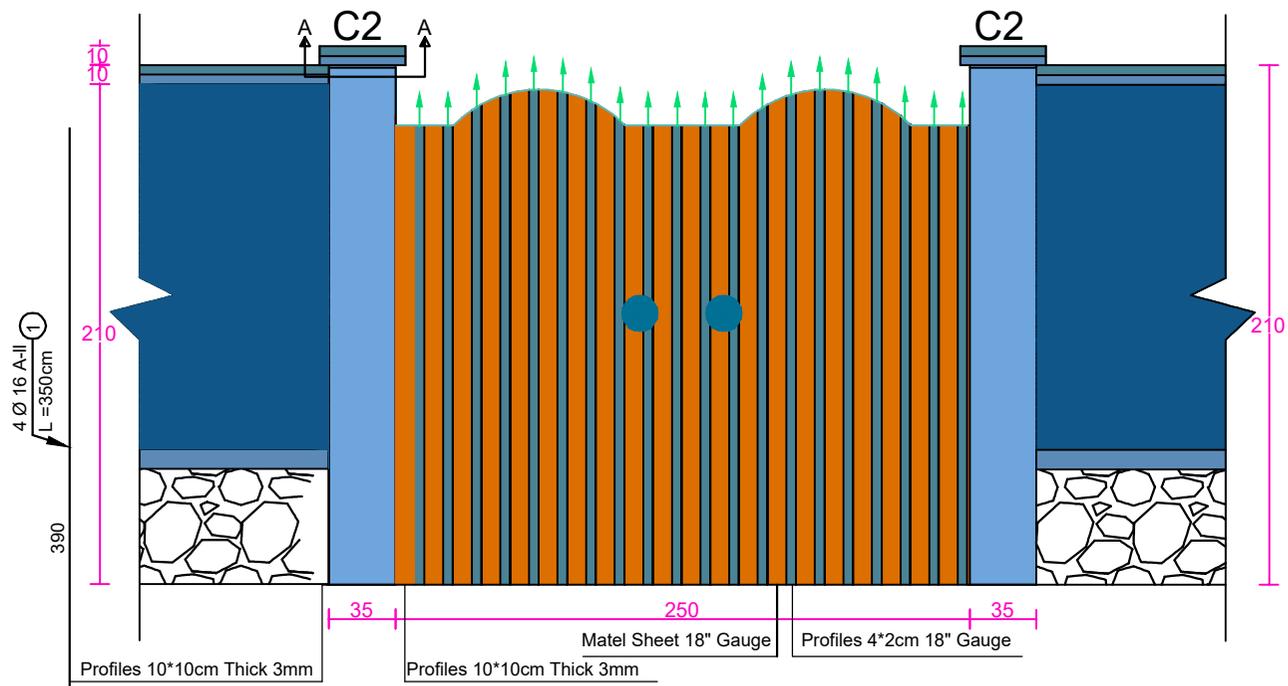
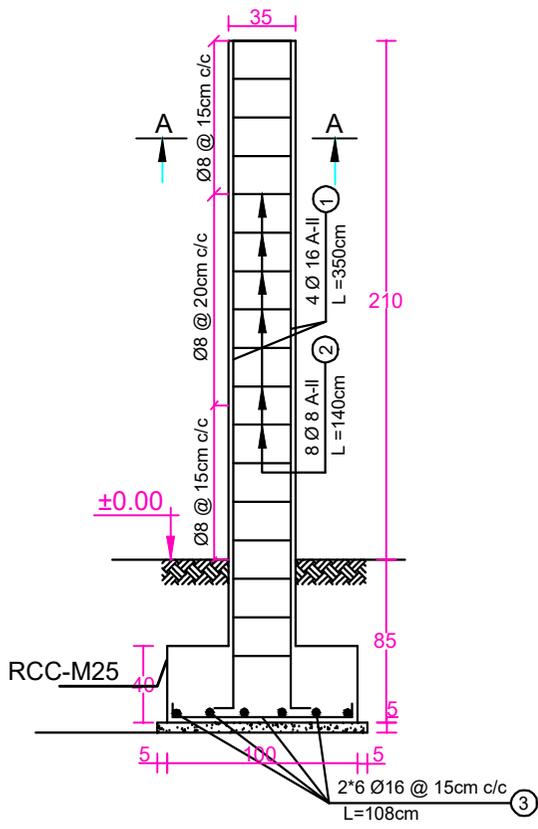
Province: Ghor
 District: Feroz Koh
 VILLAGE: Akhta Khana Sulfa

SIDA Project

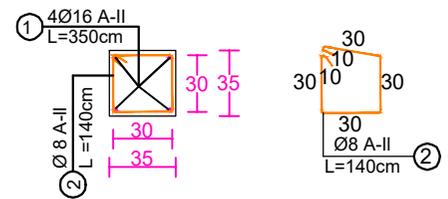


Main Gate Front View

Column - C2 No=3



Footing for Main gate columns



Sec. A-A



Islamic Relief Worldwide-SIDA
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan

Department	WASH	All dimension in cm otherwise stated
Drawing Title	Metallic Gate front view , Section and detail	

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET NO. 15/18
30-July-2024

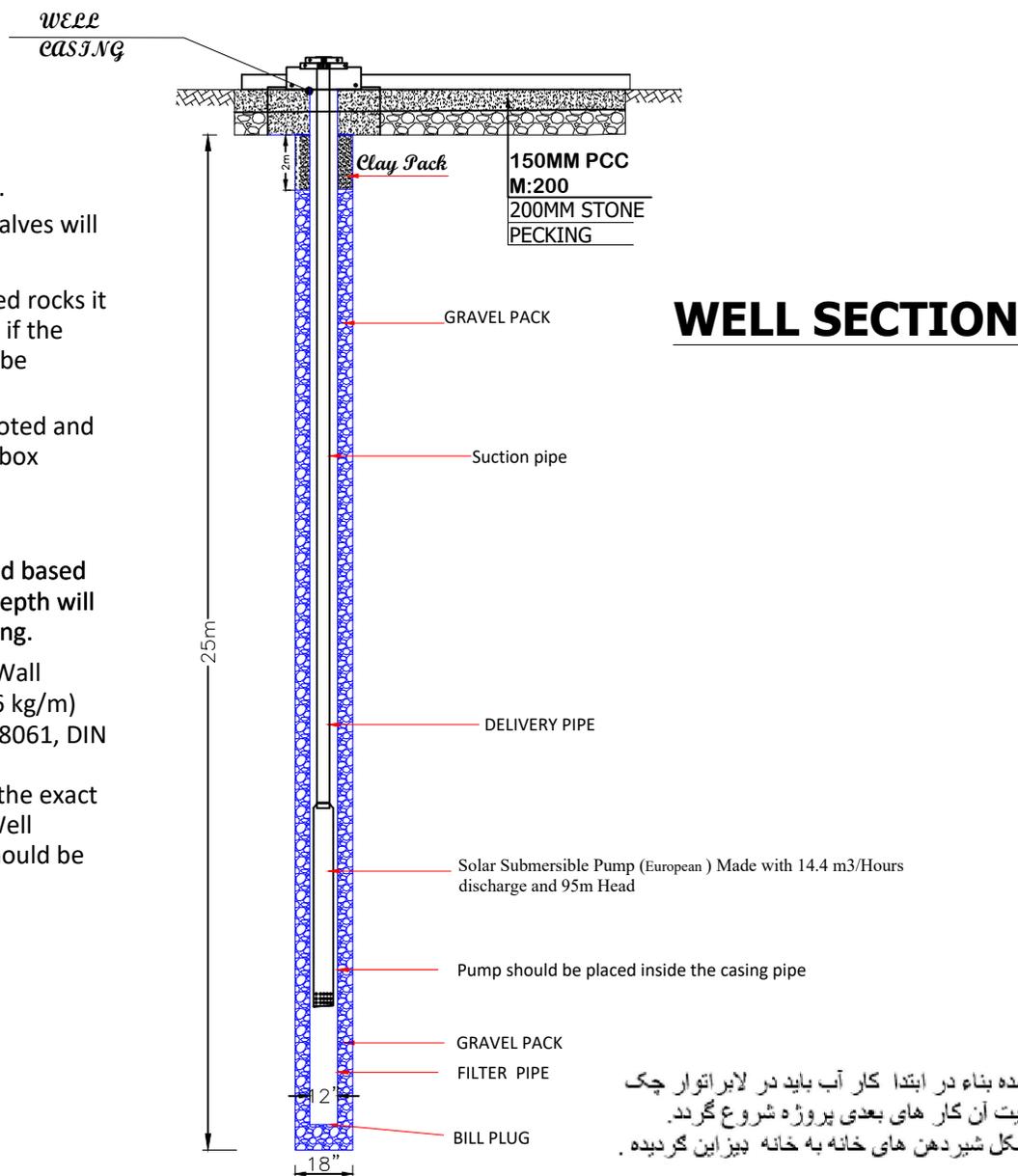
Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufla

SIDA Project



Notes

- 1-Well designed by WASH department.
- 2-The working pressure for pipes and valves will be 16 or 20 bar (290 PSI)
- 3- If the ground stratum are made of bed rocks it no need for installation of casing pipes. if the stratum are made of Loss soil it should be stablized by installation casing pipes.
- 4-Each drilled strata depth should be noted and soil sample should be kept in a sample box separately .
- 5-Pump test for 8 hours.
- 6-the depth of filter pipe has considered based on the previous experience . the true depth will be determined after well practical drilling.
- 7-Diameter=(12") inches, Class C, Min Wall Thickness (12.1) mm, Min weight (16.6 kg/m) According to ASTM D1785 Sch.80, DIN 8061, DIN 8062, ASTM F480 Standards
- 8-the Size of Gravel Packing (3-6) mm, the exact size will be declared after boring and Well Hydrological calculations, the Gravel should be clean and technical acceptable



WELL SECTION

نوٹ:

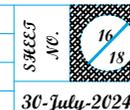
از اینکه آب چاه در لایراتوار تست نشده بناء در ابتدا کار آب باید در لایراتوار چگ شود و بعد از حصول اطمینان از کیفیت آن کار های بعدی پروژه شروع گردد. همچنان نظر به مشخصات شبکه به شکل شیردهن های خانه به خانه بیزاین گردیده .



IRW

Islamic Relief Worldwide-SIDA		All dimension in cm otherwise stated
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		
Department	WASH	
Drawing Title	Well Section	

Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal



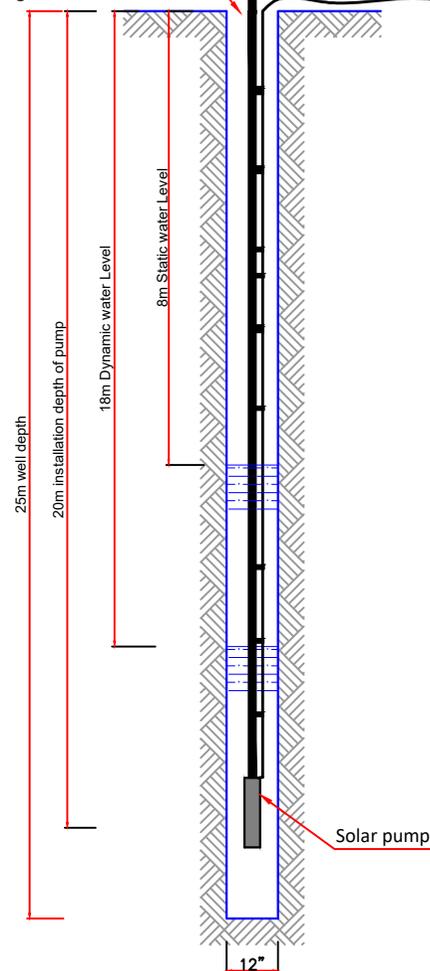
Province	Ghor
District	Feroz Koh
VILLAGE	Akhta Khana Sufia

SIDA Project

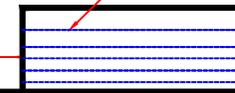


Typical Site plan of Solar pump system

New proposed well 18" with the depth of 25 m as per the existing dug well observation and community elder information, the groundwater under 30 meters has salt, so we plan a 25-meter-deep well, and the diameter of digging will be 18 inches by the percussion machine; the casing and filter should be 12 inches. Class C



50 m³
Ground RCC
Reservoir



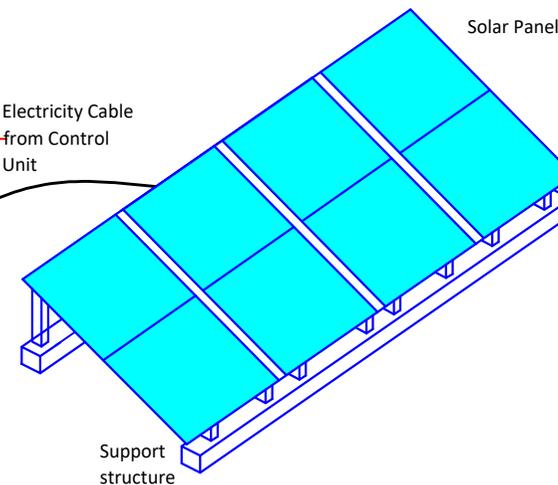
50 mm 16 bar PE Pipe, 380m

Electricity Cable
from Control
Unit

Control Unit



Electricity Cable
from Control
Unit



Solar Panels

Support
structure

تعمیر وولتاژ برای این چاه تعیین شده که از معلومات چاه های نزدیک این سامانه
نمونه گرفته شده و معلومات دقیق این چاه بعد از حفاری و پمپ تست
آن بدست خواهد آمد ، در صورت تعیین مقدار آذنی ممکن که
در مشخصات سوار و لفر پمپ و تعداد پمپ های آن نیز
تغییر رونما گردد.



IRW

Islamic Relief Worldwide-SIDA
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
Department WASH
Drawing Title TDH
All dimension in cm
otherwise stated

Surveyed by Eng. Neman "Sultani"
Drawing & designed by Abdul Majeed Khamosh
Review & check by Eng. Hikmatullah "Arifzai"
Approved by Eng. Shah Faisal

SHEET
NO. 17/18
30-July-2024

Province Ghor
District Feroz Koh
VILLAGE Akhta Khana Sufia

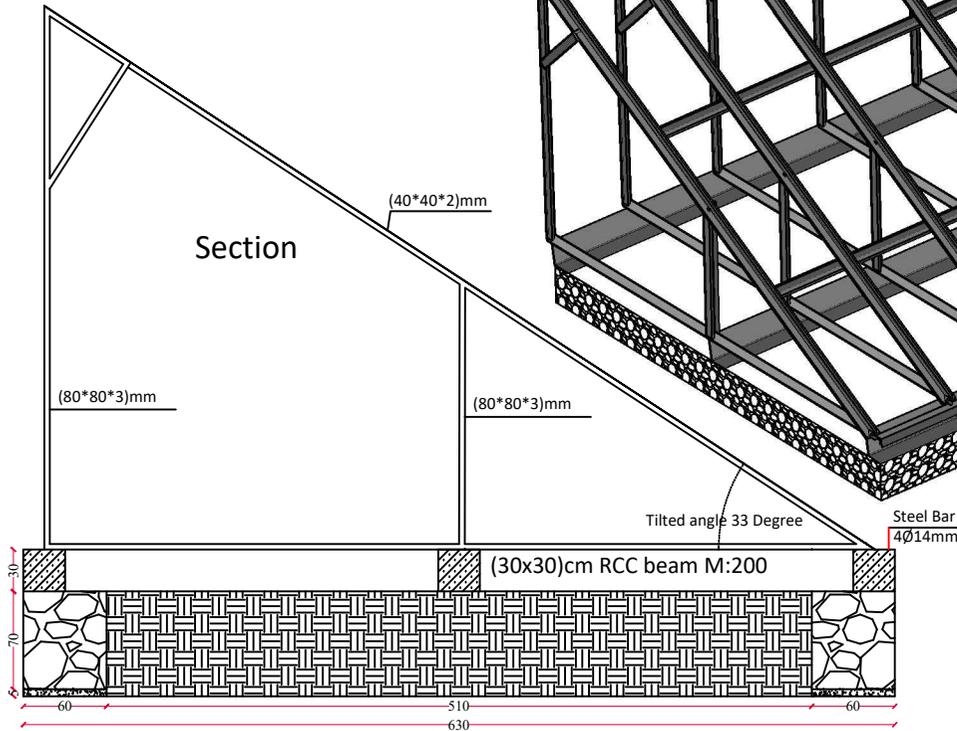
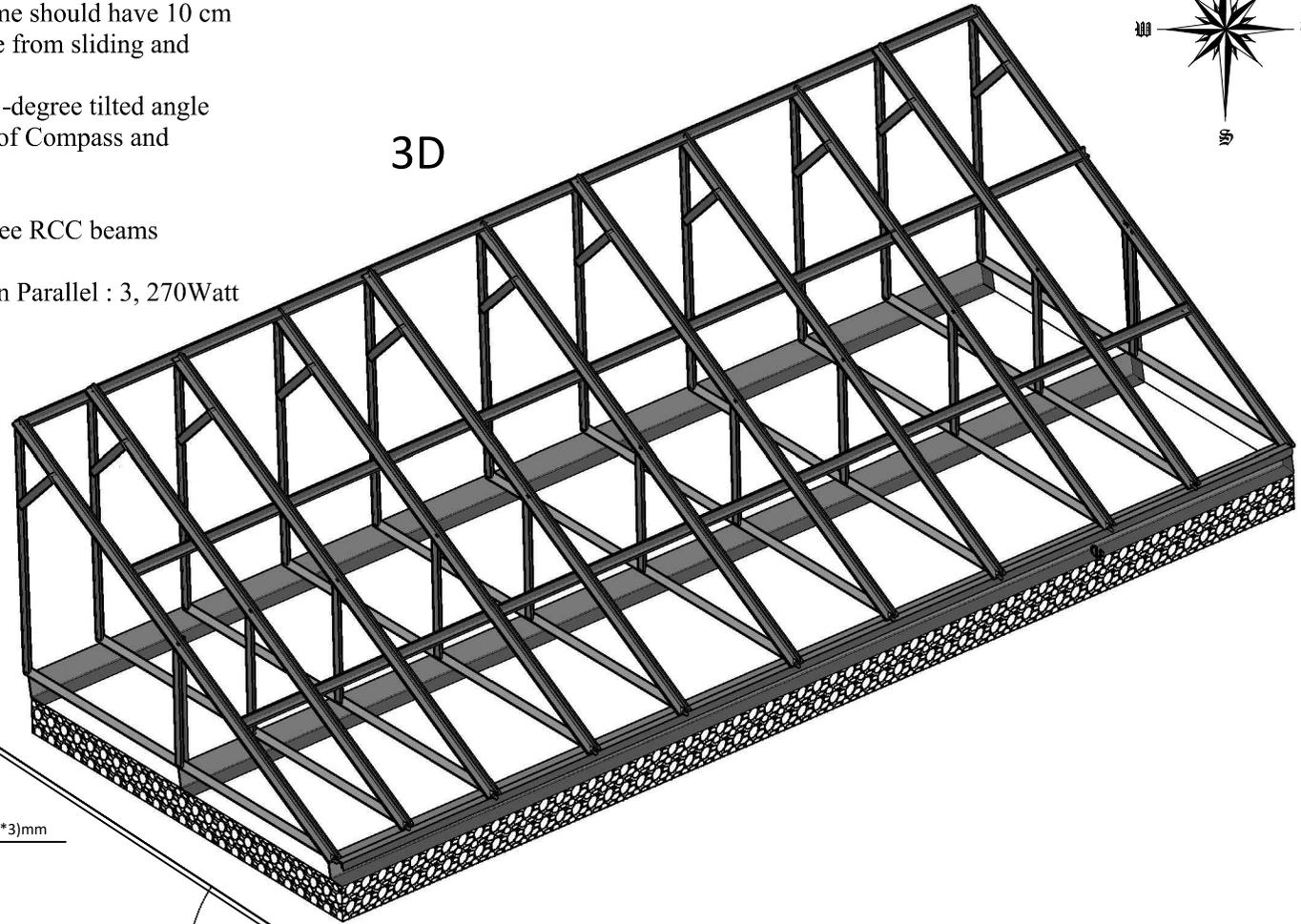
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Project

Akhta Khana Sufla Village water Supply Project

- 3- All solar panels should have 10 Number Nut&bold and between two solar panel vertical array frame should have 10 cm space for air vent to protect the solar frame from sliding and overturning.
- 4- the solar panel's frame should have a 33-degree tilted angle with the surface of the yard as instruction of Compass and Groundfos software's and product.
- 5- under the frame we have (30*30)cm three RCC beams according to the drawing
- 6- Number of solar modules in series: 10 in Parallel : 3, 270Watt



3D



IRW

Islamic Relief Worldwide-SIDA
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan
 Department WASH
 Drawing Title Solar Frame Plan and Section

All dimension in cm otherwise stated

Surveyed by Eng. Neman "Sultani"
 Drawing & designed by Abdul Majeed Khamosh
 Review & check by Eng. Hikmatullah "Arifzai"
 Approved by Eng. Shah Faisal

SHEET NO. 18/18
 30-July-2024

Province Ghor
 District Feroz Koh
 VILLAGE Akhta Khana Sufla

SIDA Project