



Point Table

Point #	Elevation	Latitude	Longitude	Description
1	2324	N 3824081	E 709763	RESERVOIR
2	2286	N 3823723	E 709894	Water point (well)



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.  30-Jul-2024	PROVINCE	Ghor
	DISTRICT	Baharistan
	VILLAGE	Baharistan 2-3

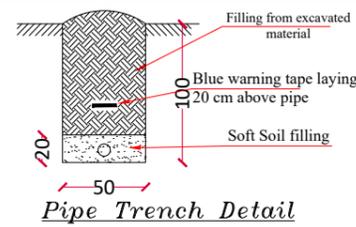
SIDA Project

LEGEND

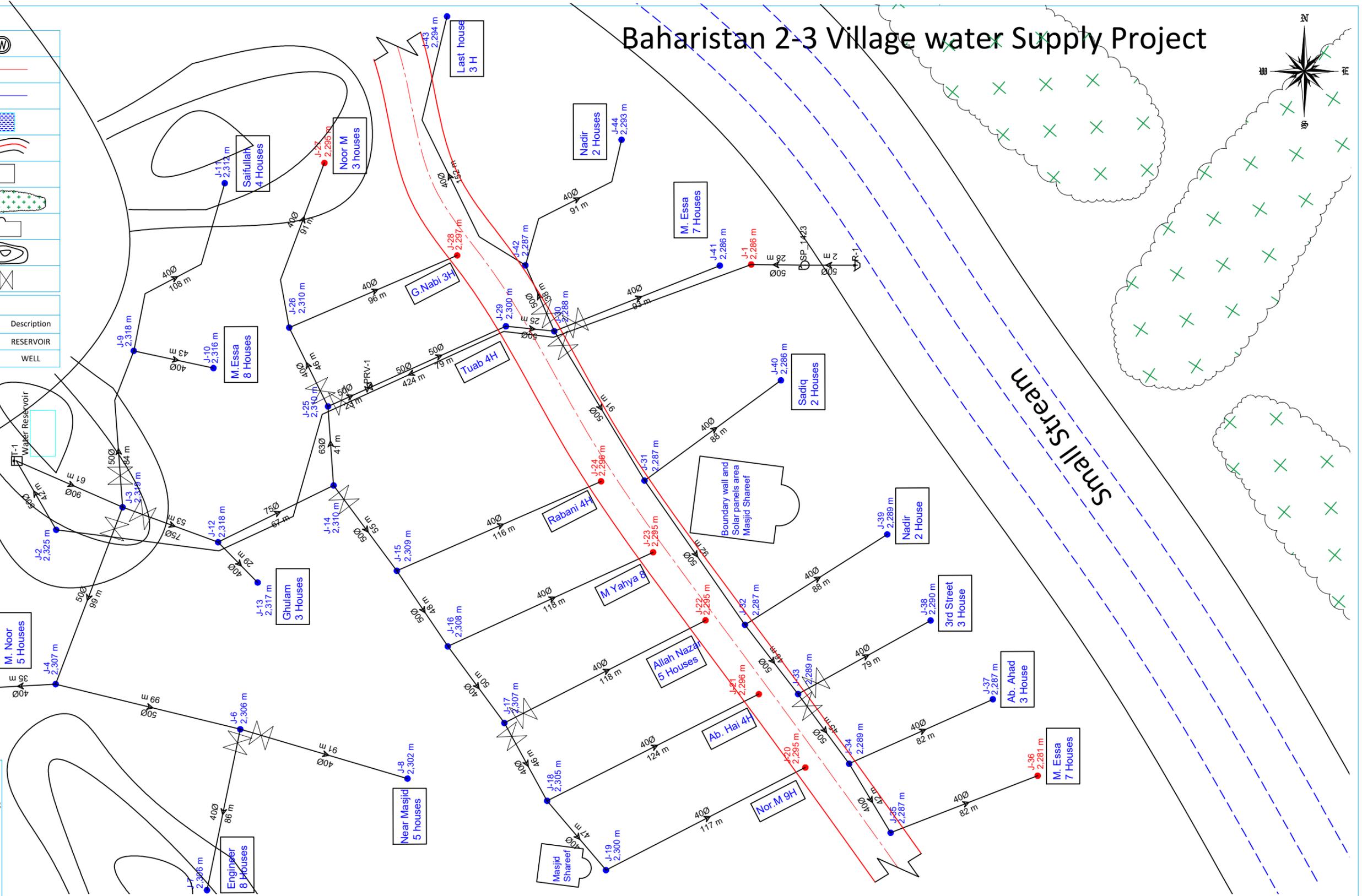
Proposed Well	
Main line	
Distribution Line	
Reservoir Area	
Tertiary Road	
Village houses	
Agricultural Land	
Mosque	
Hill	
Control Valve	

Point Table				
Point #	Elevation	Latitude	Longitude	Description
1	2324	N 3824081	E 709763	RESERVOIR
2	2286	N 3823722	E 709894	WELL

Note:  
 Type of soil :#3 to #5  
 Population : 1838  
 House Number: 105 Houses , 2 Mosque,  
 Static water level :8m  
 Dynamic water level:20 m  
 Total depth :30m  
 Drilling type :Percussion 18".



# Baharistan 2-3 Village 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

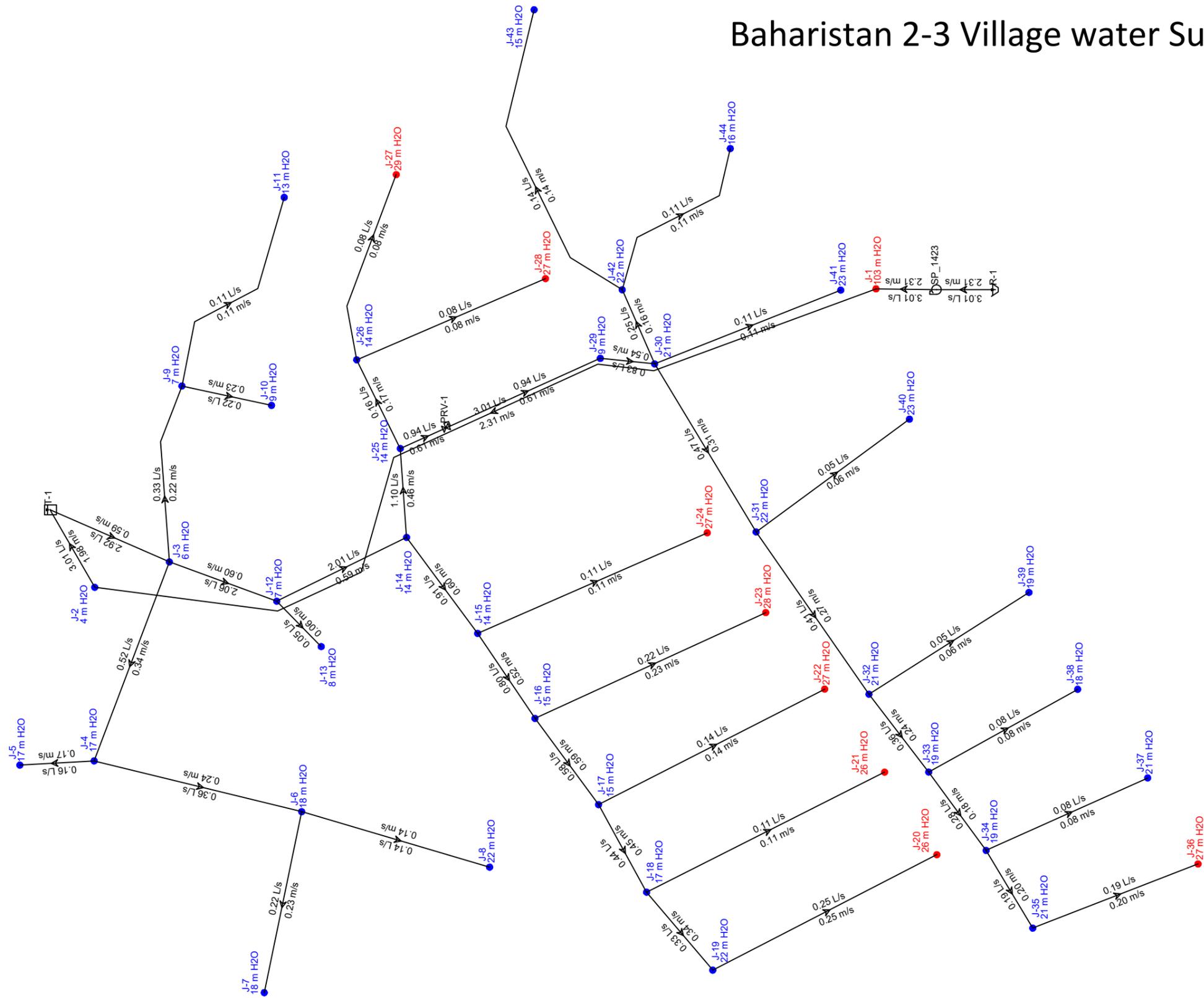
Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed "Khamosh"
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET No. 2 / 18  
 30-Jul-2024

PROVINCE	Ghor
VILLAGE	Baharistan



# Baharistan 2-3 Village 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

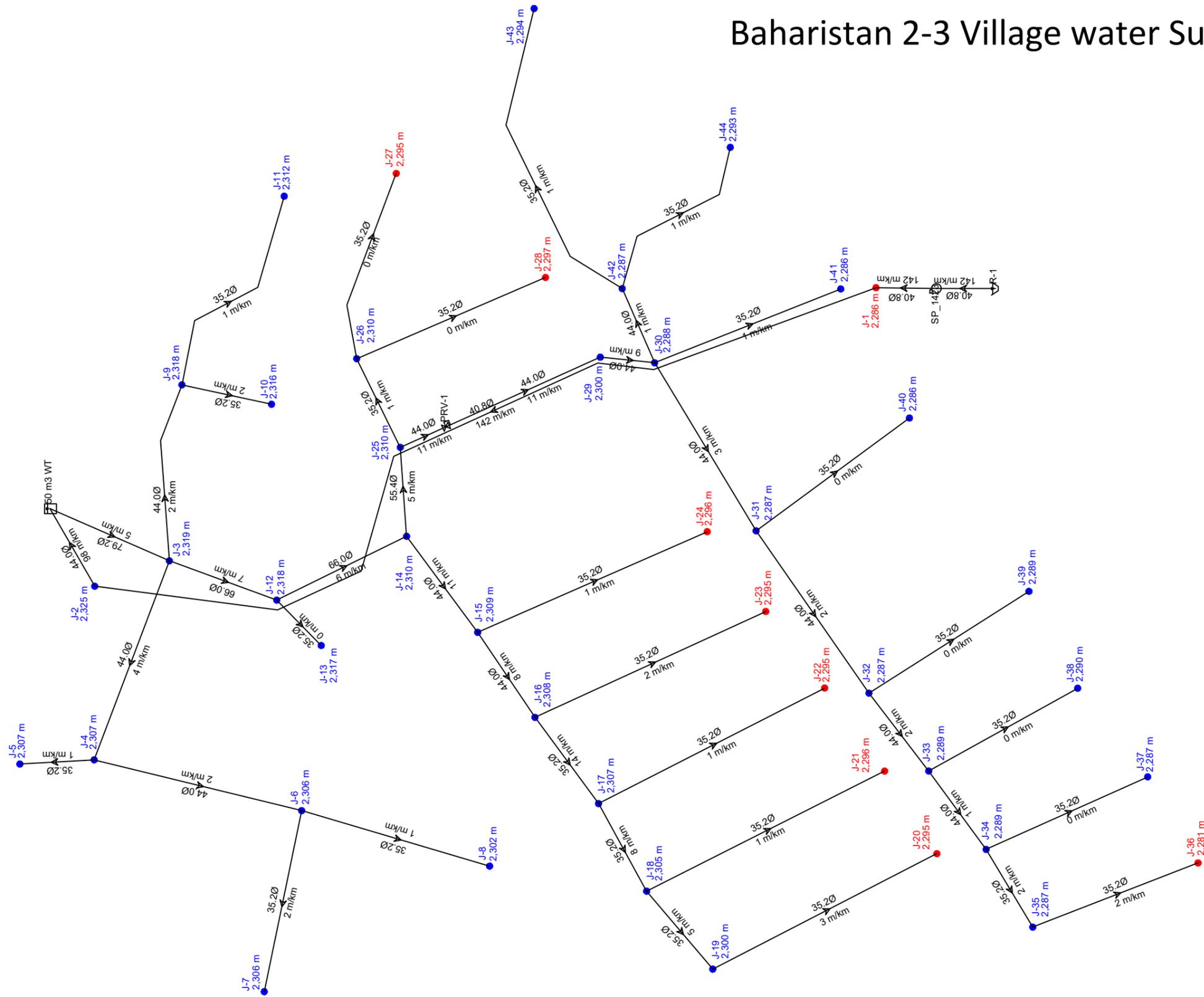
Surveyed by: Eng. Neman "Sultani"  
 Drawing & designed by: Abdul Majeed "Khamosh"  
 Review & check by: Eng. Hikmatullah "Arifzai"  
 Approved by: Eng. Shah Faisal

SHEET No. 3/18  
 30-Jul-2024

PROVINCE: Ghor  
 VILLAGE: Baharistan



# Baharistan 2-3 Village water Supply Project



**IRW**

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), Headloss Gradient in (m/km), and Elevation in (m)

Dimension in (m)  
otherwise stated

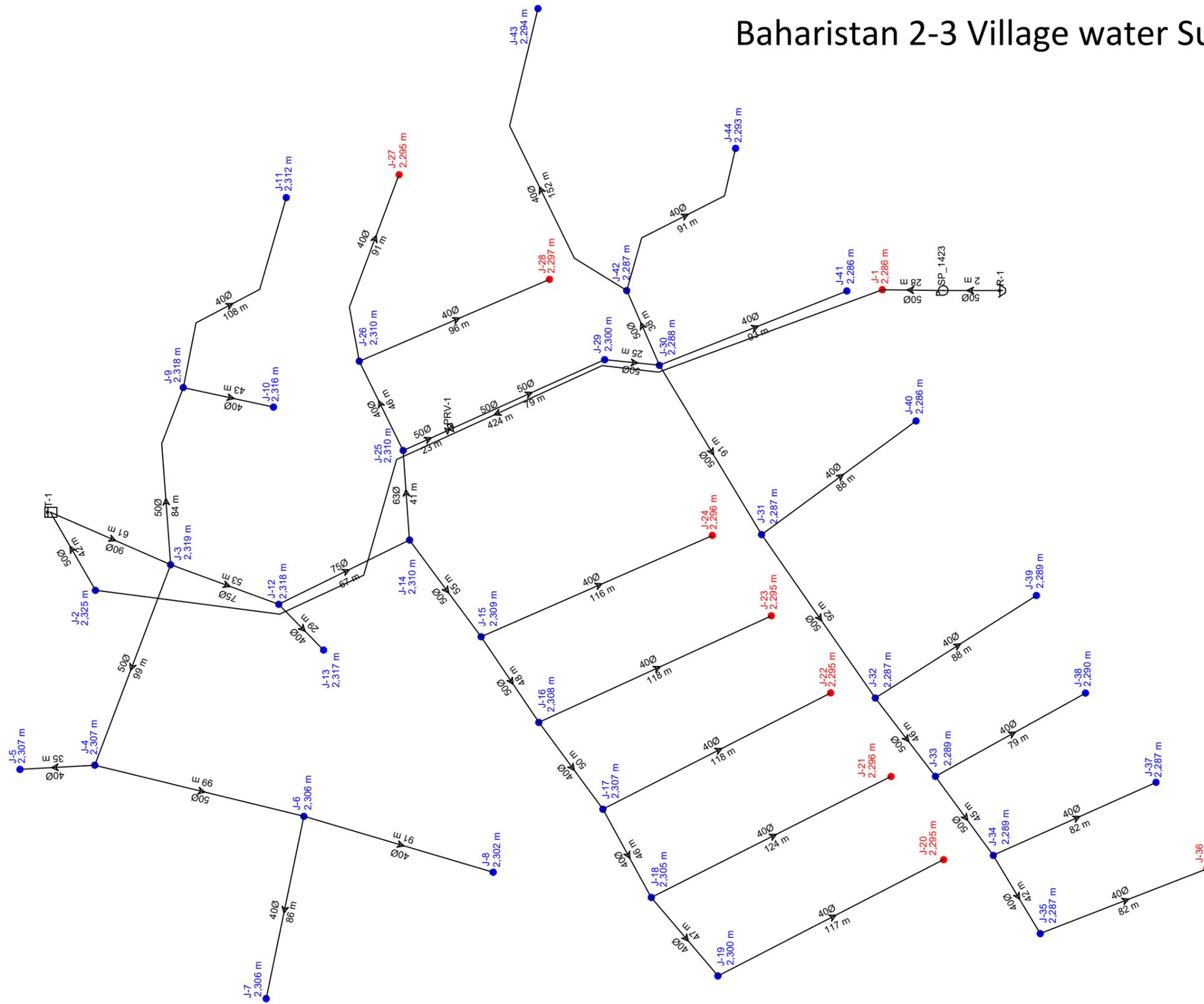
Surveyed by: Eng. Neman "Sultani"  
Drawing & designed by: Abdul Majeed "Khamosh"  
Review & check by: Eng. Hikmatullah "Arifzai"  
Approved by: Eng. Shah Faisal

Sheet No. 4/18  
30-Jul-2024

PROVINCE: Ghor  
VILLAGE: Baharistan

**SIDA**

# Baharistan 2-3 Village water Supply Project



**IRW**

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)

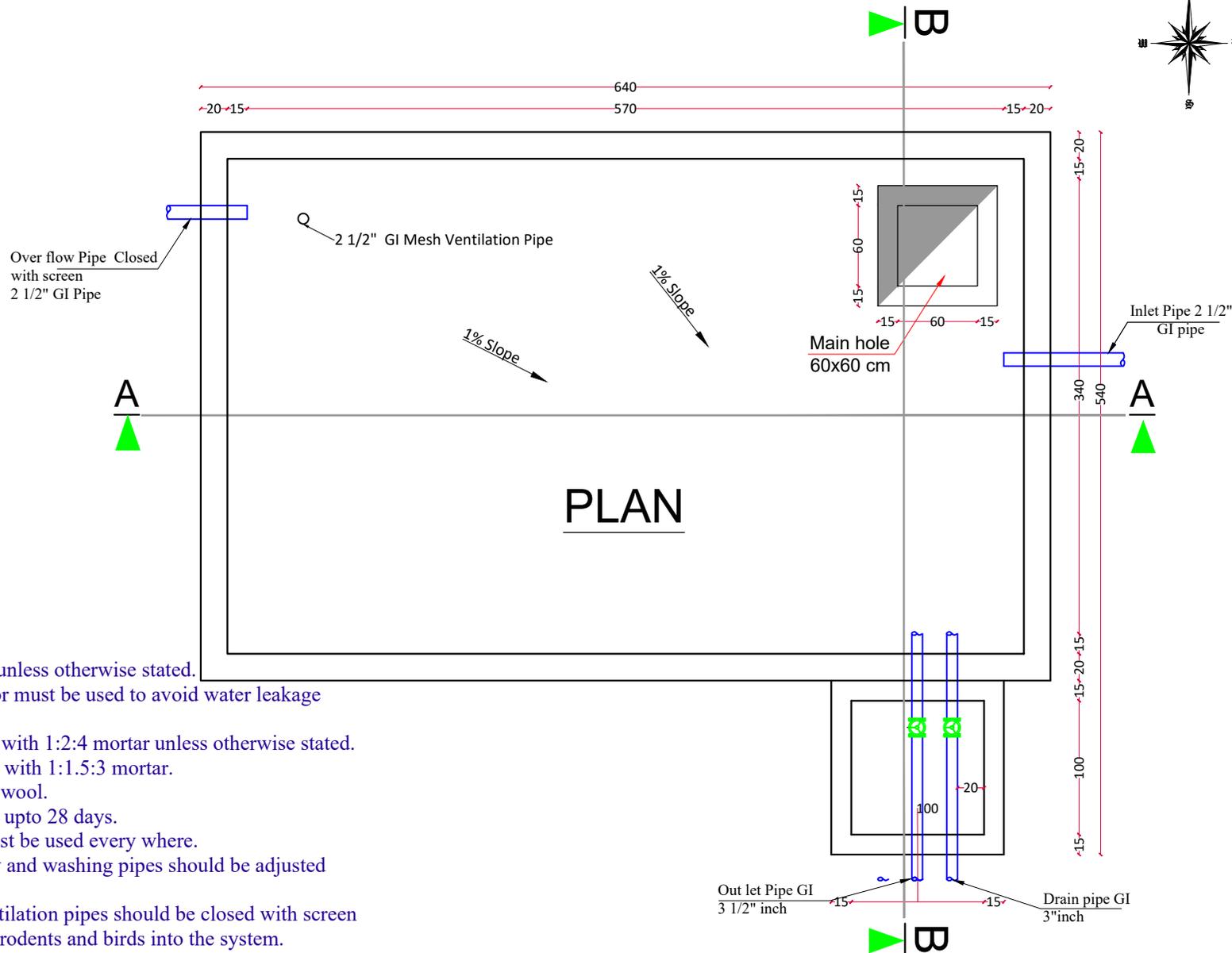
All dimension in (m) otherwise stated

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

SHEET No. 5/18  
 30-Jul-2024

PROVINCE	Ghor
VILLAGE	Baharistan

**SIDA**



**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.



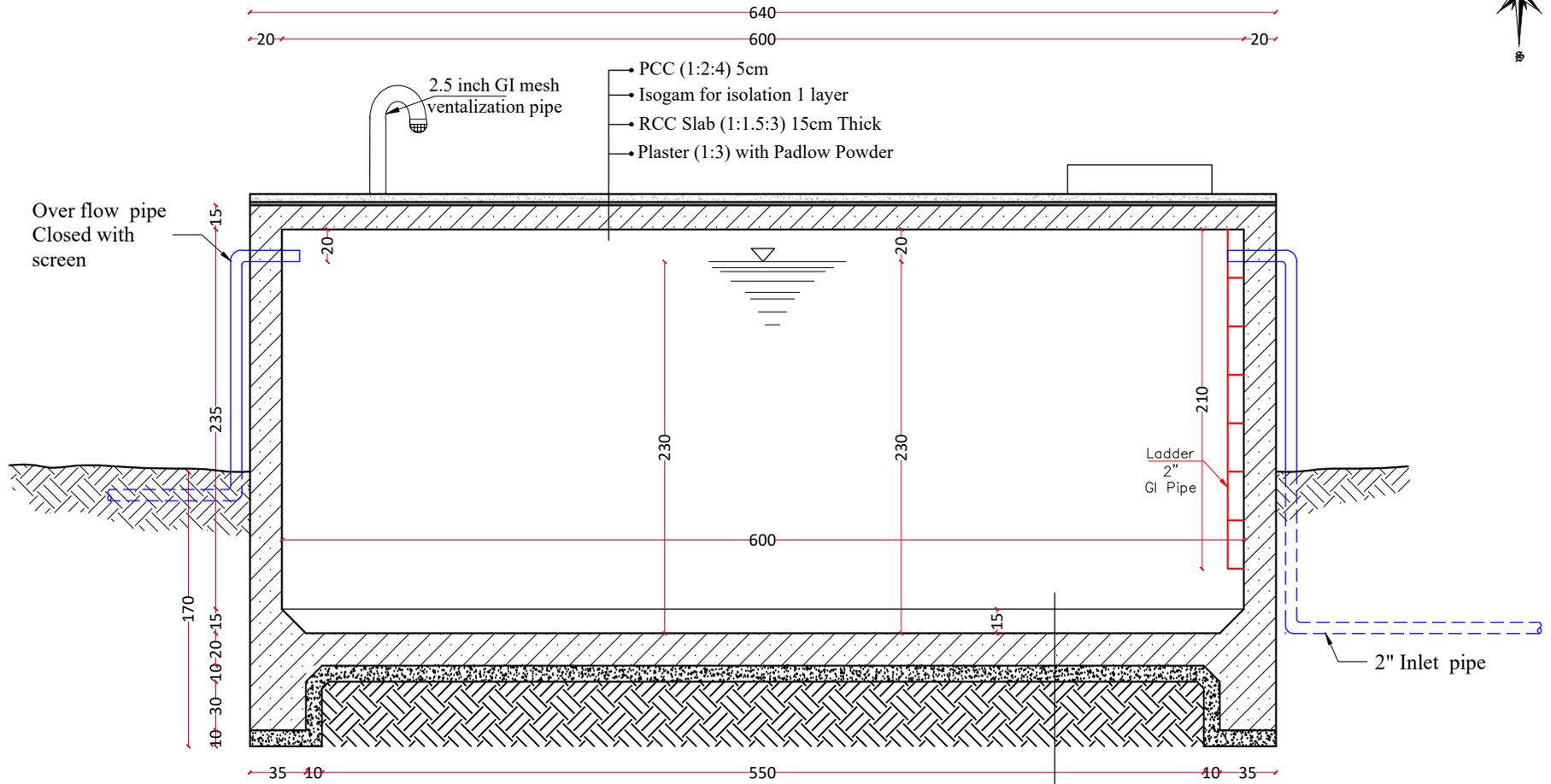
**IRW**

Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		All dimension in cm otherwise stated
Department	WASH	
Drawing Title	50 Cubic Meter RCC Reservoir 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.	6
	18
30-July-2024	

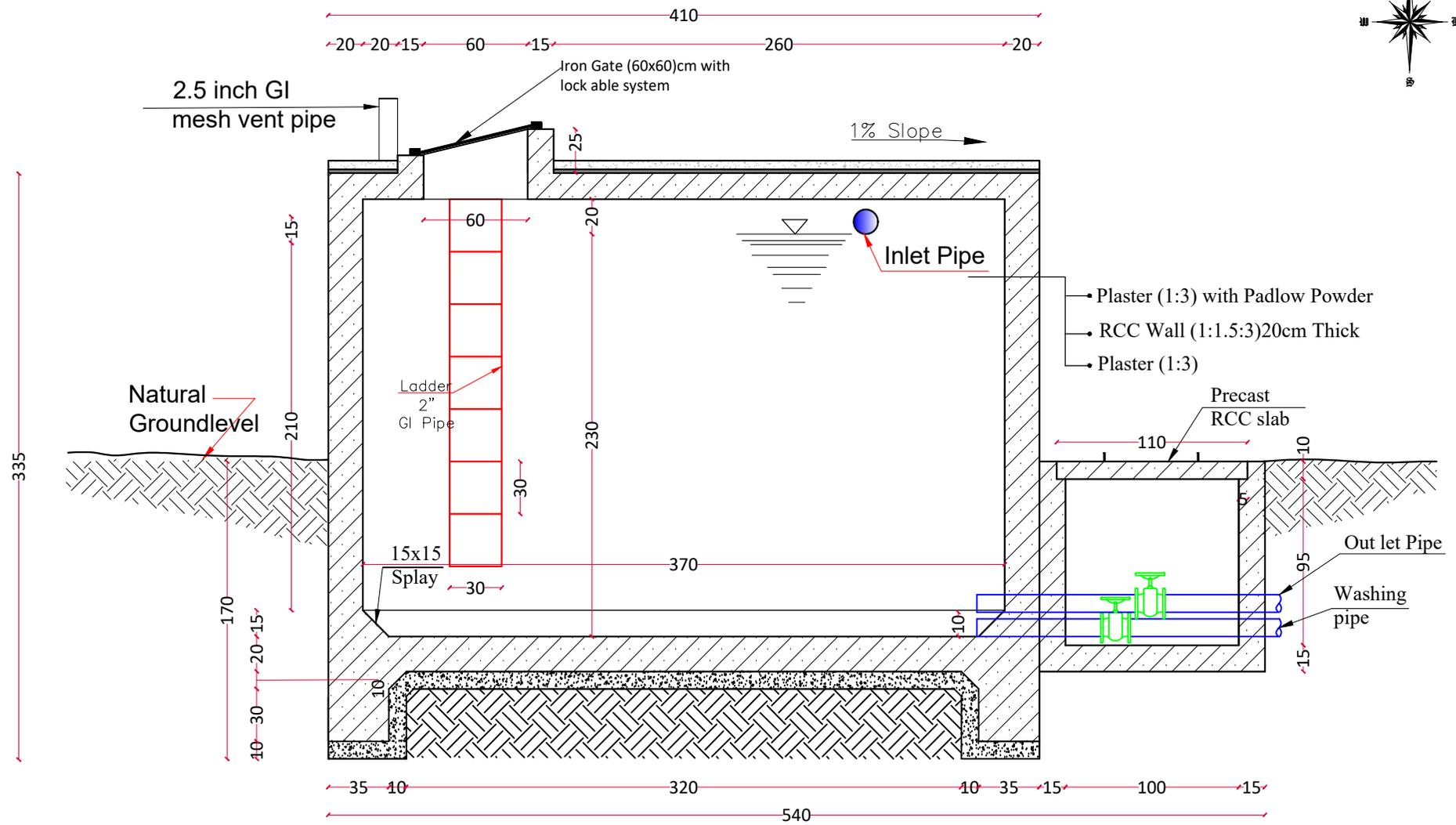
PROVINCE	Ghor	SIDA Project
VILLAGE	Baharistan 2-3	



# SECTION A-A

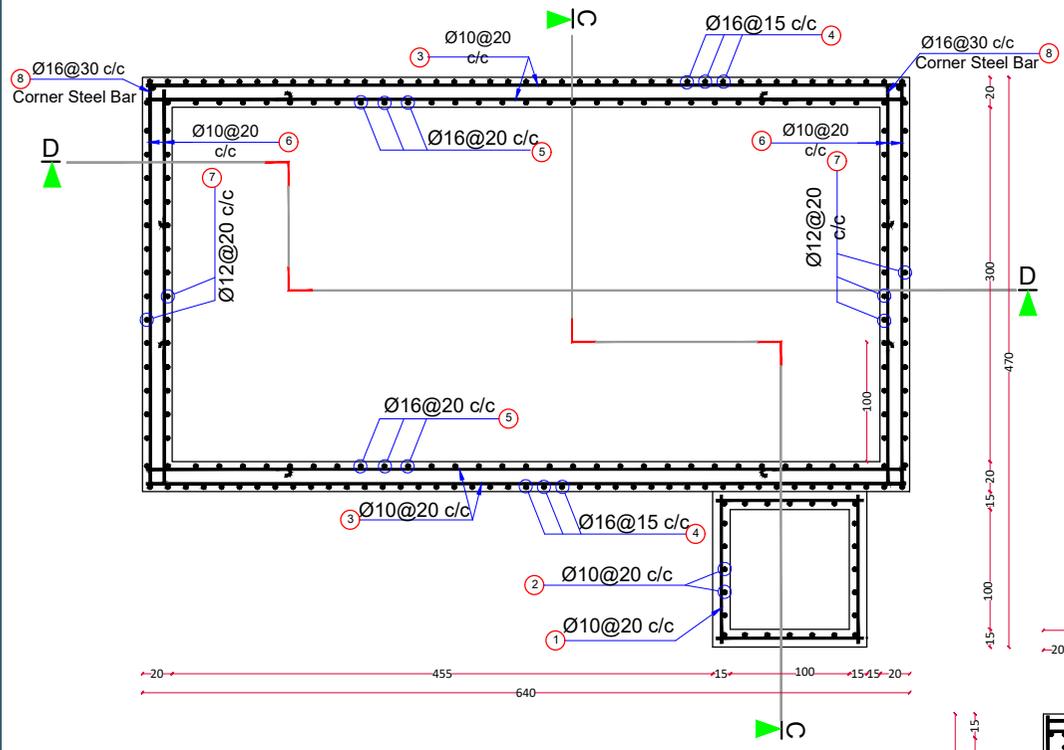
- Plaster (1:3) with Padlow Powder
- RCC (1:1.5:3) 20cm
- PCC (1:2:4) 10cm
- Back filling with Compacted soil

	Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		Surveyed by	Eng. Neman "Sultani"	SHEET NO. 	PROVINCE	Ghor	SIDA Project
	Department	WASH	Drawing & designed by	Abdul Majeed Khamosh		VILLAGE	Baharistan 2-3	
	Drawing Title	Section A-A	Review & check by	Eng. Hikmatullah "Arifzai"		30-July-2024		
	All dimension in cm otherwise stated		Approved by	Eng. Shah Faisal				

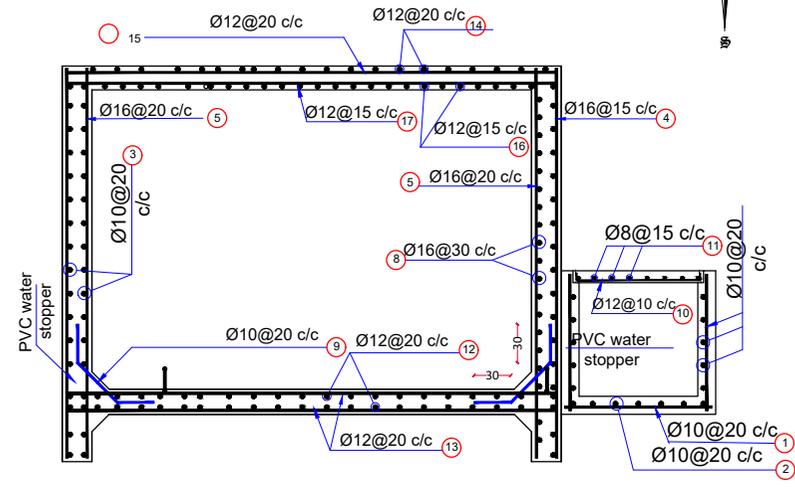
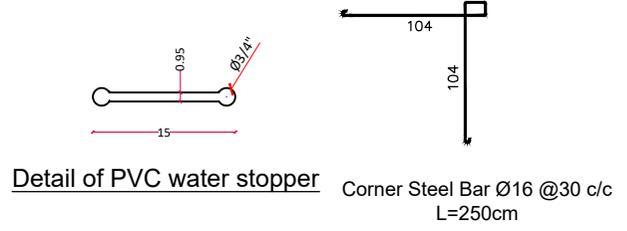


# SECTION B-B

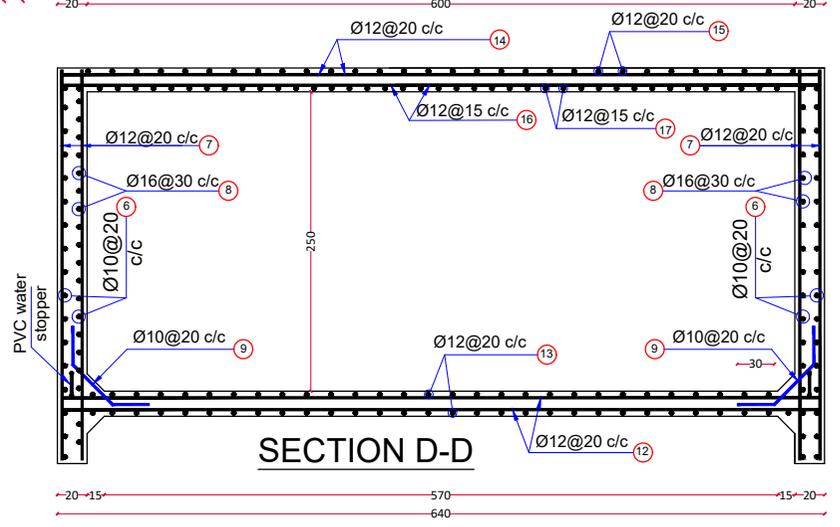
 <b>IRW</b>	Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		Surveyed by	Eng. Neman "Sultani"		PROVINCE	Ghor	<b>SIDA Project</b>
	Department	WASH	Drawing & designed by	Abdul Majeed Khamosh		VILLAGE	Baharistan 2-3	
	Drawing Title	Section B-B	Review & check by	Eng. Hikmatullah "Arifzai"		30-July-2024		
	All dimension in cm otherwise stated		Approved by	Eng. Shah Faisal				



**REINFORCEMENT PLAN**

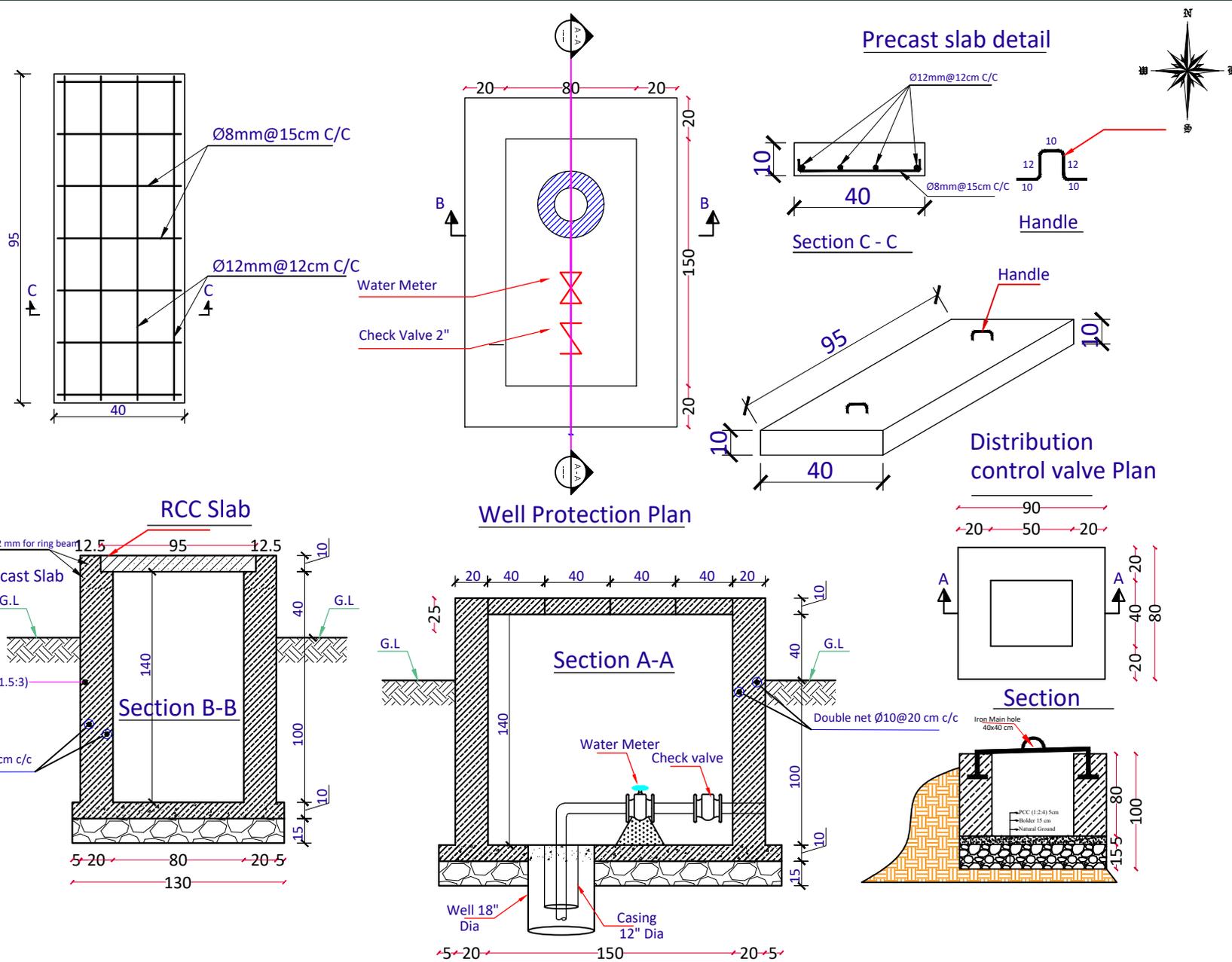


**SECTION C-C**



**SECTION D-D**

 <b>IRW</b>	Islamic Relief Worldwide-SIDA Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		Surveyed by	Eng. Neman "Sultani"	SHEET NO. 	PROVINCE	Ghor	SIDA Project
	Department	WASH	Drawing & designed by	Abdul Majeed Khamosh		VILLAGE	Baharistan 2-3	
	Drawing Title	Reservoir section and steel bar detail	Review & check by	Eng. Hikmatullah "Arifzai"				
	All dimension in cm otherwise stated		Approved by	Eng. Shah Faisal		30-July-2024		



**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

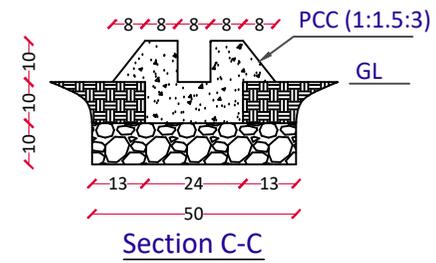
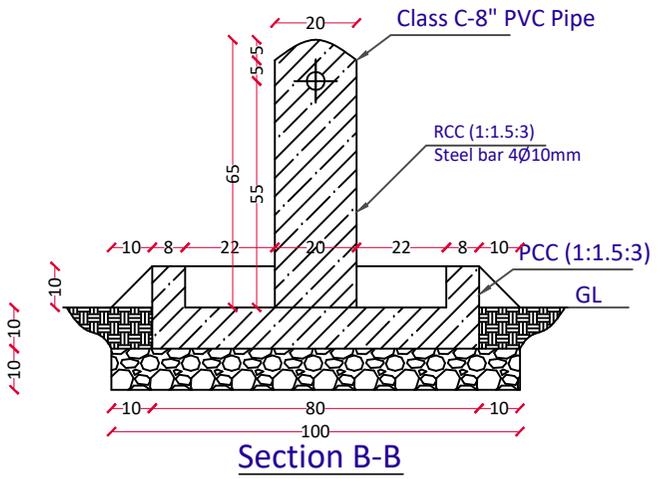
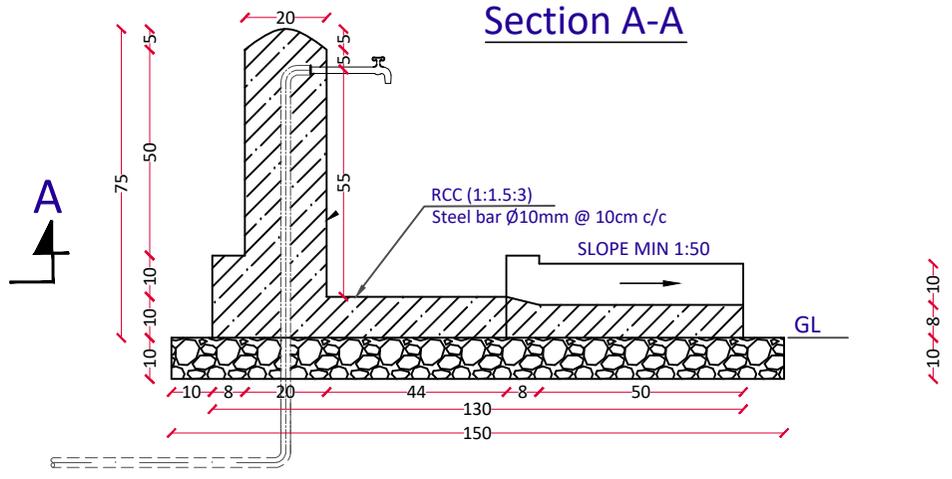
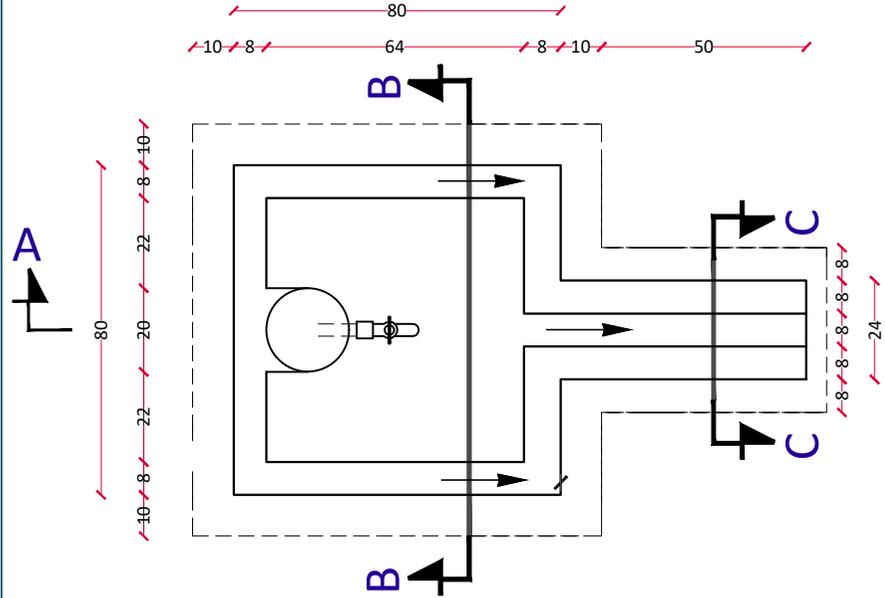
Surveyed by: Eng. Neman "Sultani"  
 Drawing & designed by: Abdul Majeed Khamosh  
 Review & check by: Eng. Hikmatullah "Arifzai"  
 Approved by: Eng. Shah Faisal

SHEET NO. 10/18  
 30-July-2024

PROVINCE: Ghor  
 VILLAGE: Baharistan 2-3

SIDA Project

# Stand Tap



**IRW**

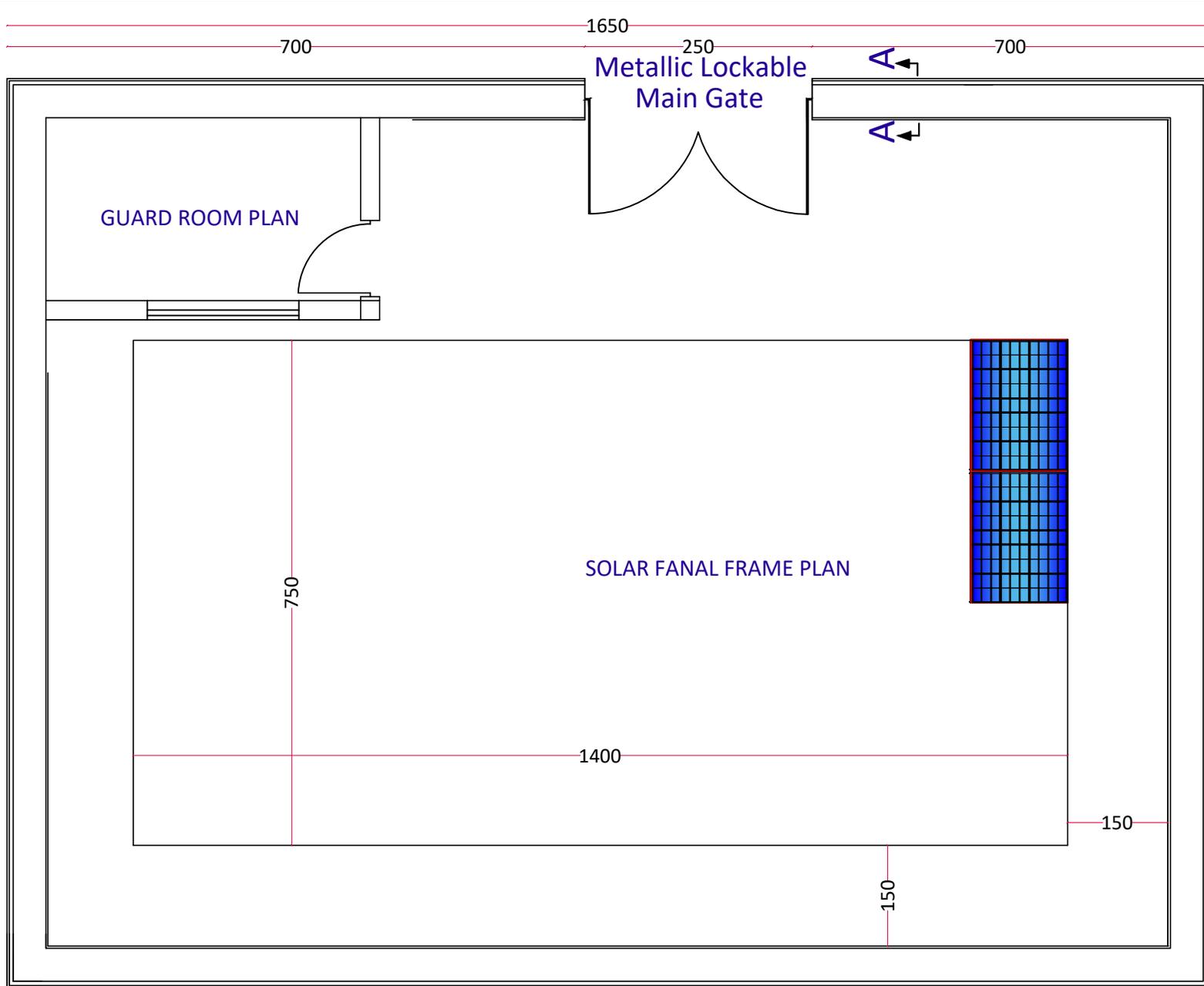
Islamic Relief Worldwide-SIDA  
 Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan  
 Department: WASH  
 Drawing Title: House connection stand tape  
 All dimension in cm otherwise stated

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  
 VILLAGE: Baharistan

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

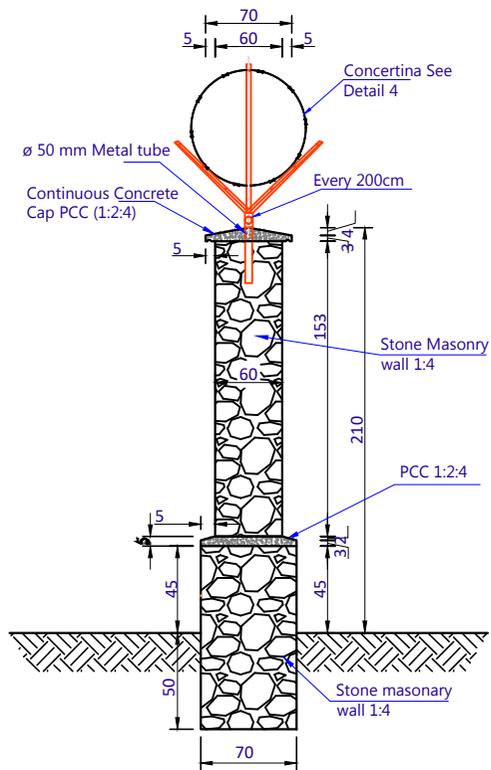
All dimension in cm  
otherwise stated

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

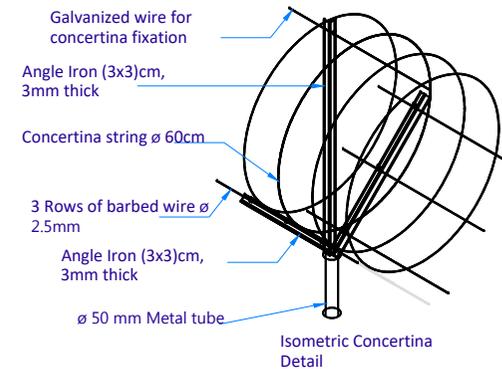
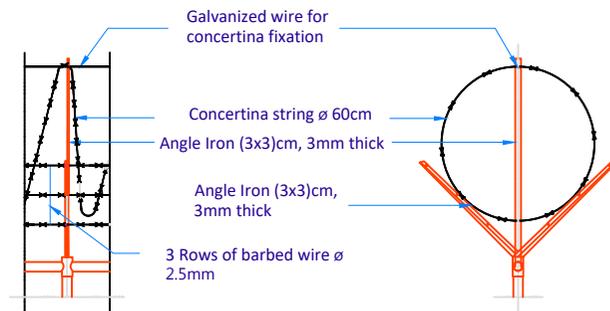
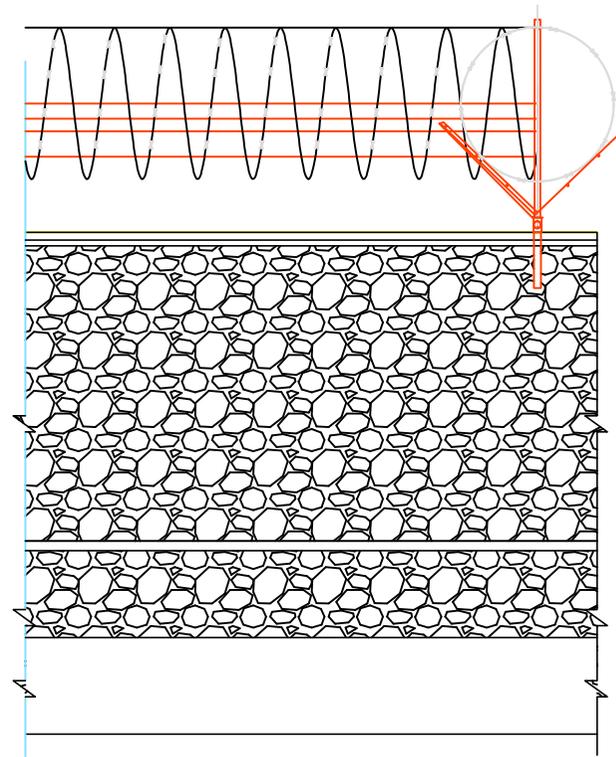
SHEET NO.	12
	18
30-July-2024	

PROVINCE	Ghor
VILLAGE	Baharistan 2-3

SIDA  
Project



Section A-A



Isometric Concertina Detail



IRW

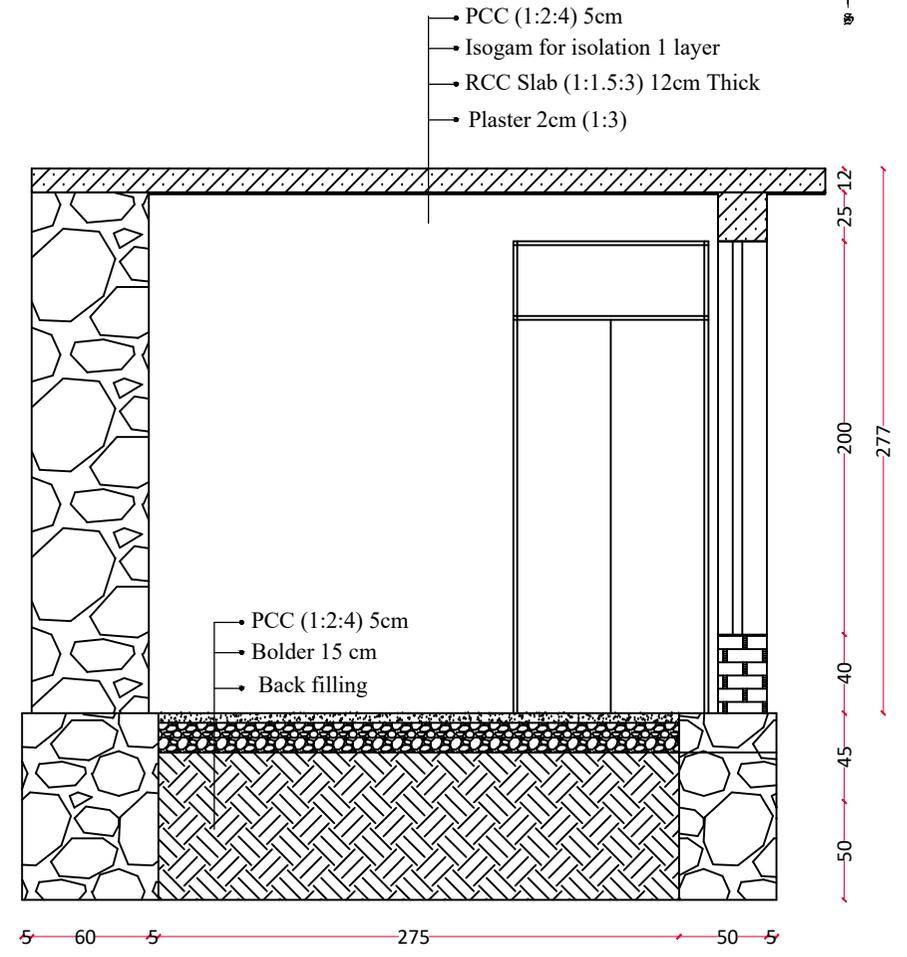
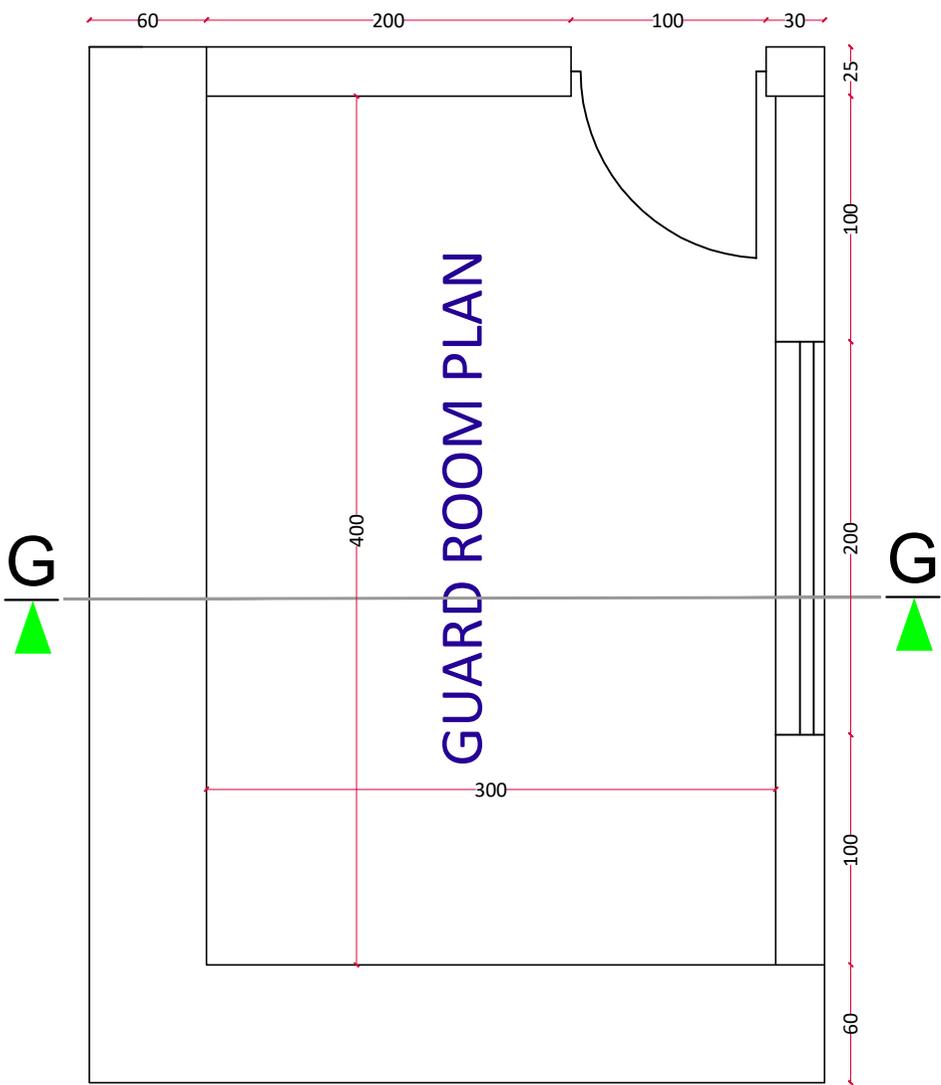
Islamic Relief Worldwide-SIDA		All dimension in cm otherwise stated
Food Security, WASH, and protection support to vulnerable families in Ghor- Afghanistan		
Department	WASH	
Drawing Title	boundary section and barbed wire plan	

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
VILLAGE	Baharistan 2-3

SIDA Project



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	Guard Room Plan	

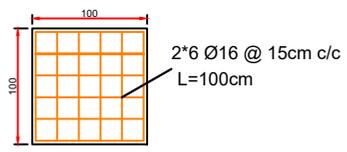
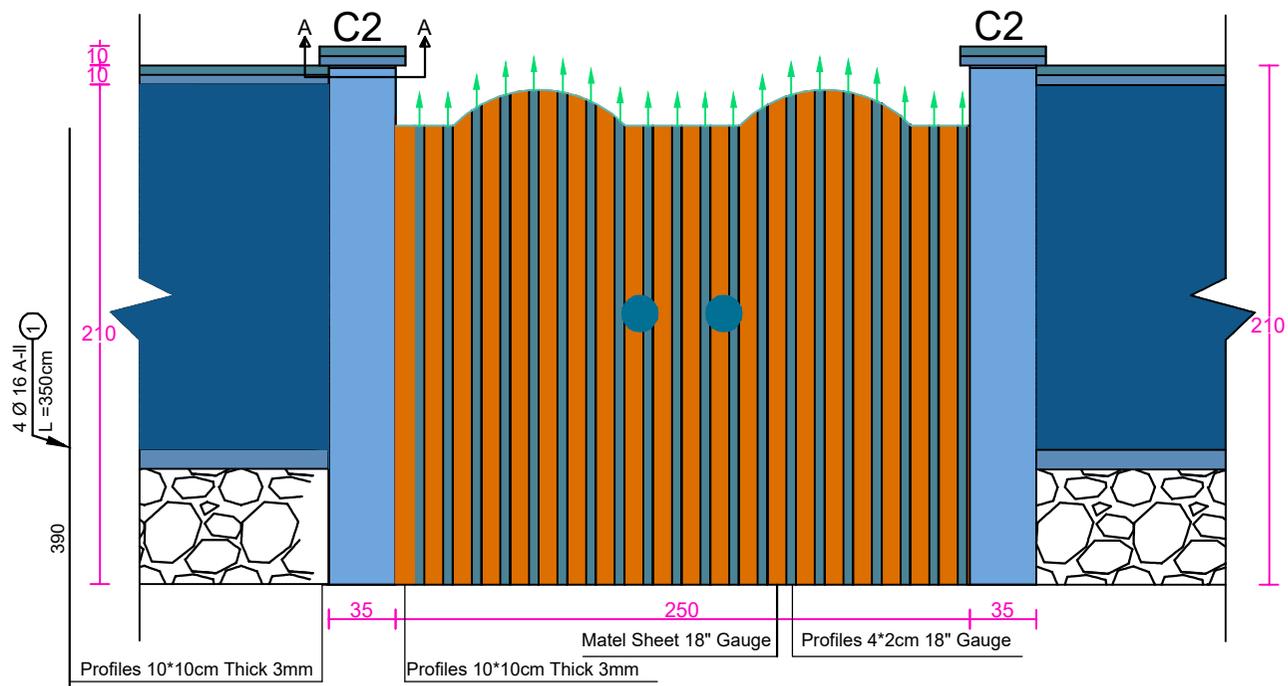
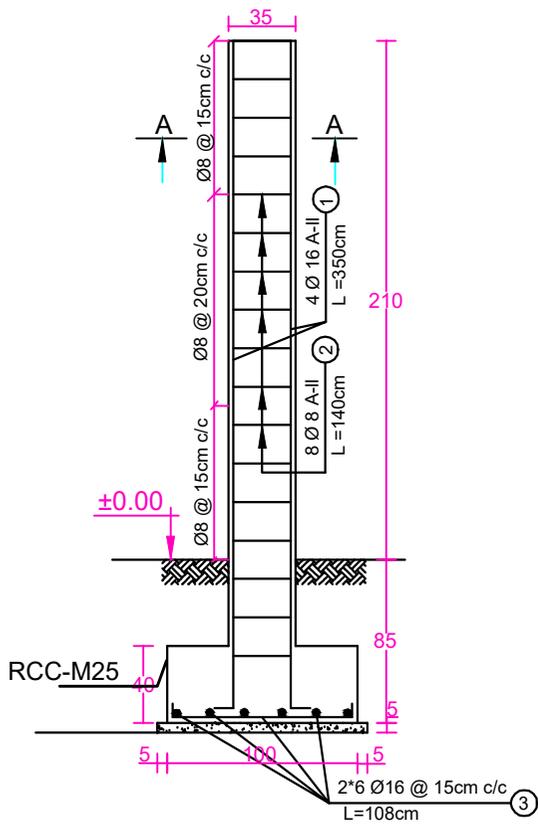
Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET NO.	14/18	PROVINCE	Ghor	SIDA Project
	30-July-2024	VILLAGE	Baharistan 2-3	

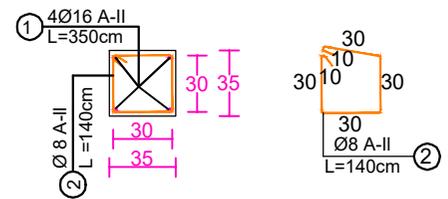


## Main Gate Front View

### 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

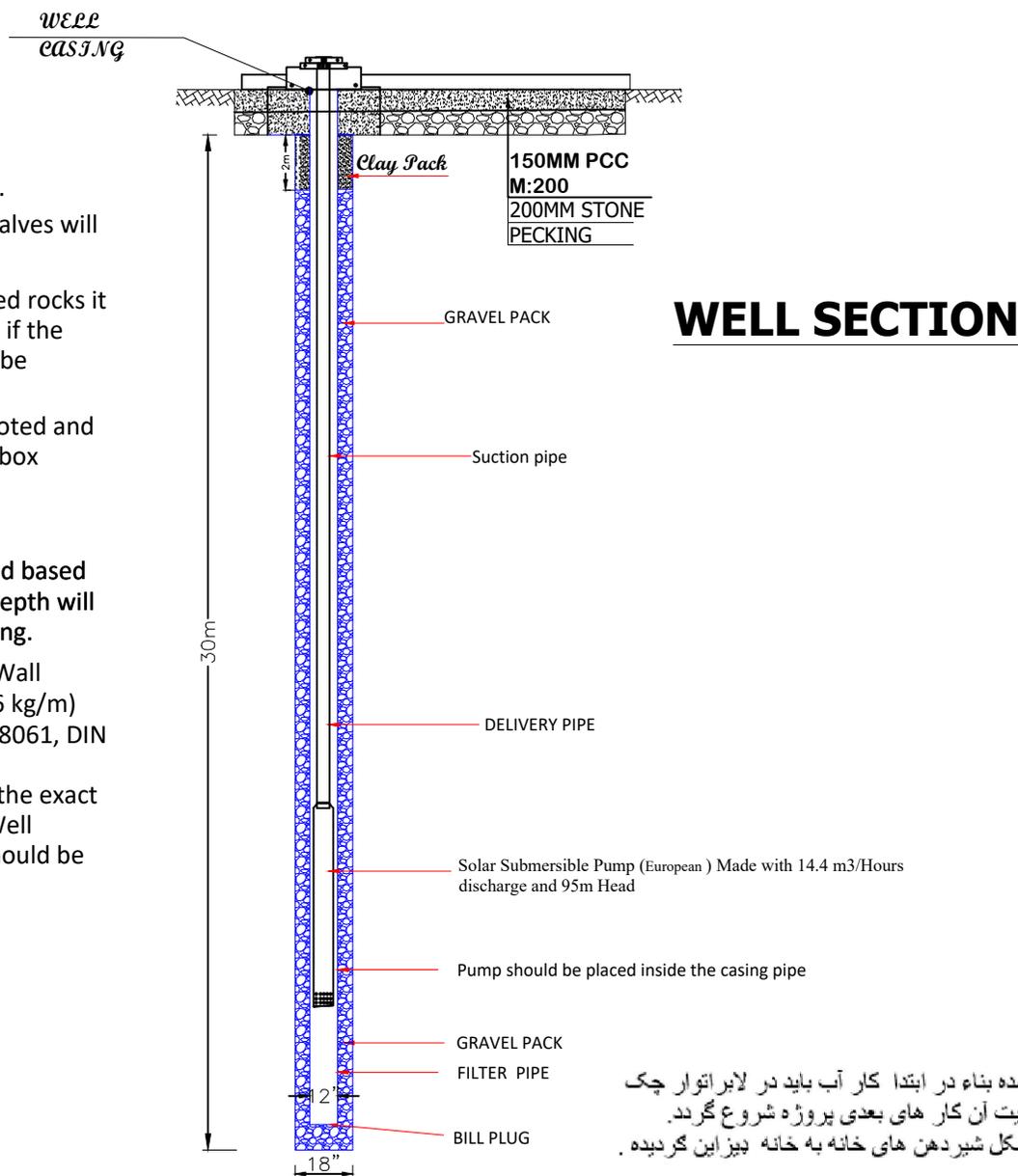
PROVINCE	Ghor
VILLAGE	Baharistan 2-3

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

نوت:  
از اینکه آب چاه در لایراتوار تست نشده بناء در ابتدا کار آب باید در لایراتوار چک 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	

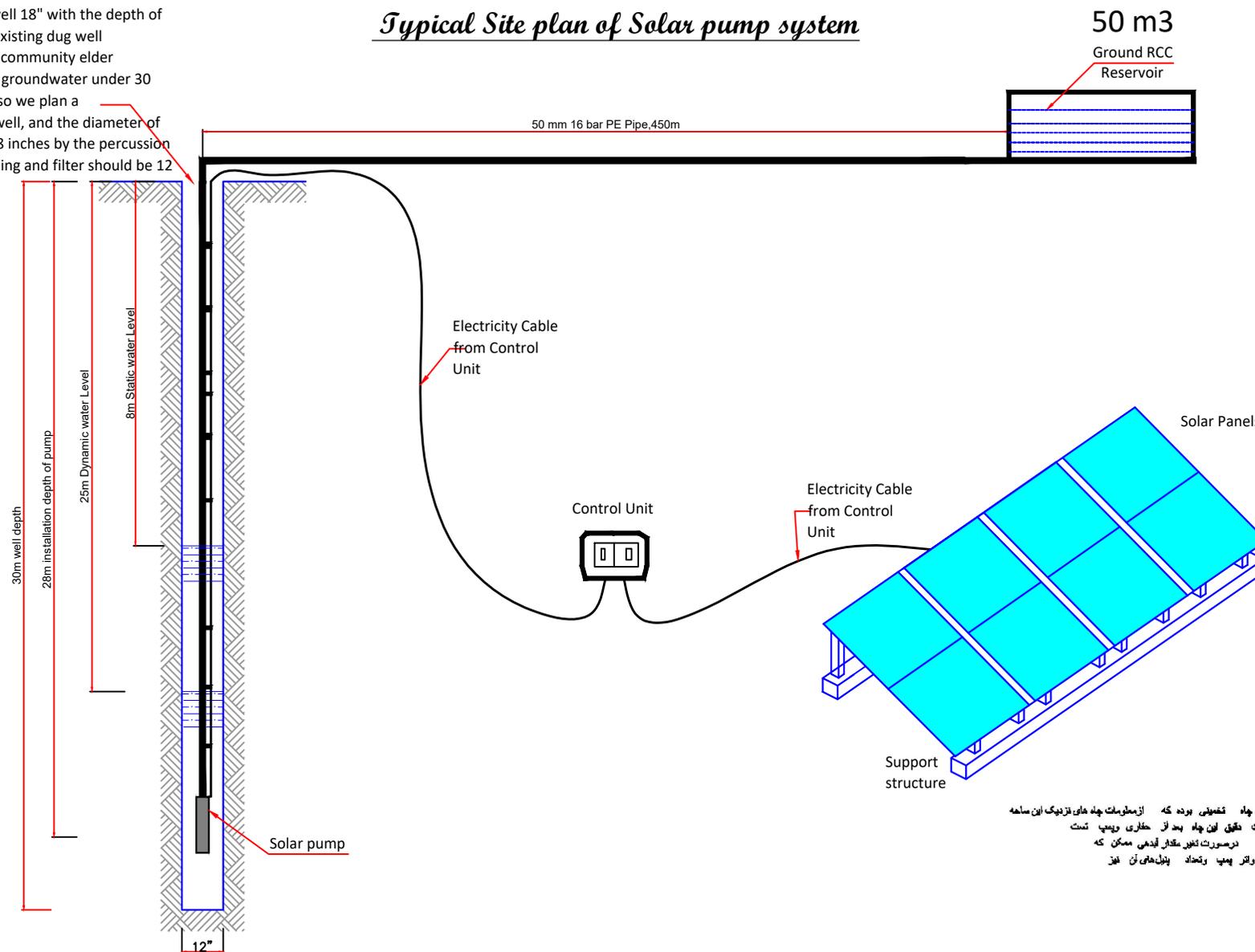
Surveyed by	Eng. Neman "Sultani"
Drawing & designed by	Abdul Majeed Khamosh
Review & check by	Eng. Hikmatullah "Arifzai"
Approved by	Eng. Shah Faisal

SHEET NO.	16/18	PROVINCE	Ghor
		VILLAGE	Qudosi Sufia
30-July-2024		SIDA Project	



## Typical Site plan of Solar pump system

New proposed well 18" with the depth of 30m as per the existing dug well observation and community elder information, the groundwater under 30 meters has salt, so we plan a 30-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



تعمیر و ترمیم برای این چاه تصمیمی بوده که از معلومات چاه های نزدیک این مساحه اخذ گردیده 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  
VILLAGE Qudosi Sufia

**SIDA Project**

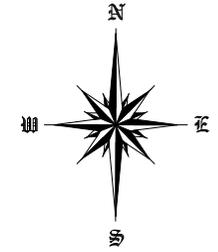
# Baharistan Village water Supply Project

between two solar panel vertical array frame should have 10 cm space for air vent to protect the solar frame from sliding and overturning.

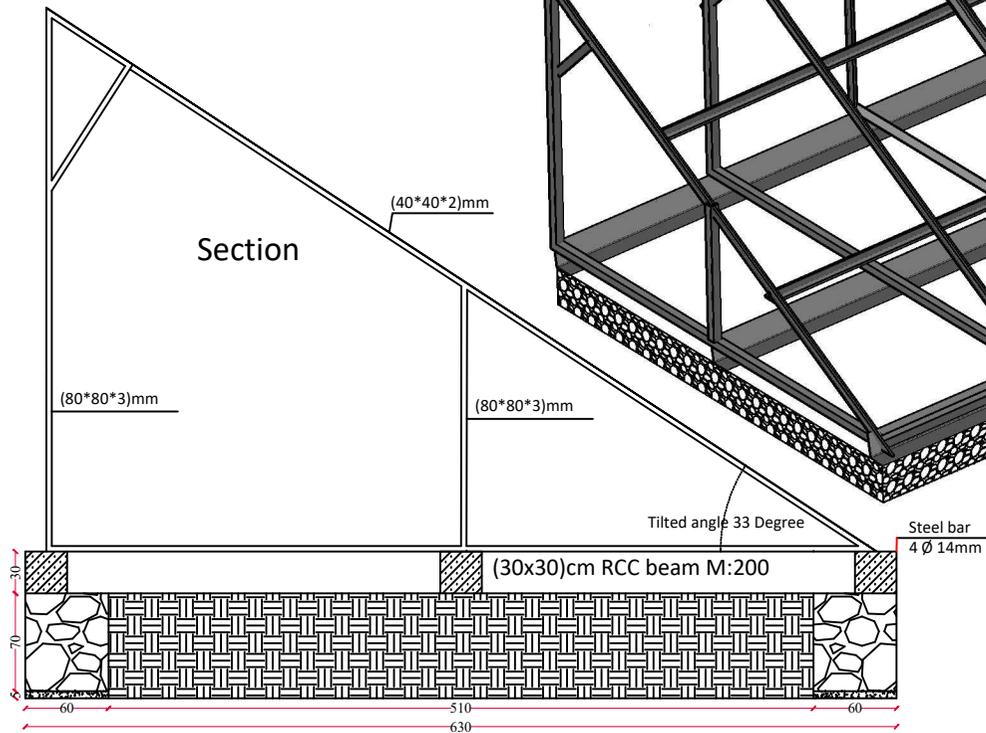
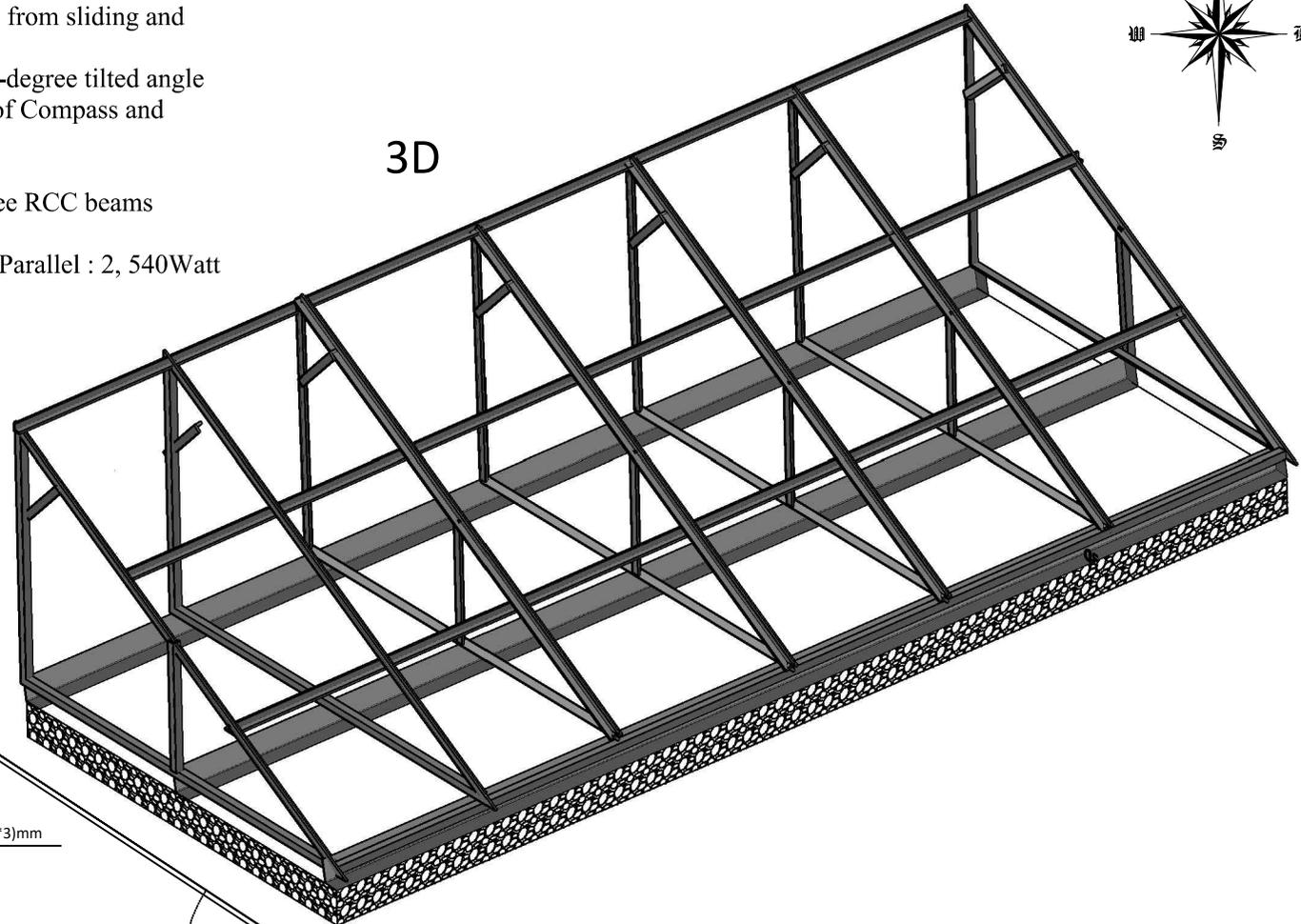
4- the solar panel's frame should have a 33-degree tilted angle with the surface of the yard as instruction of Compass and Groundfos software's and product.

5- under the frame we have (30\*30)cm three RCC beams according to the drawing

6- Number of solar modules in series: 9 in Parallel : 2, 540Watt Or 18, in parallel: 2, 270 Watt,



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  
VILLAGE Baharistan 2-3

SIDA Project