

DESIGNS AND DRAWINGS



PREPARED AND FUNDED BY:
SAMARITAN'S PURSE

PROJECT:
SINJAR LIVING WATER

BOREHOLE (BOH)
DRAWINGS PACKAGE



NOTES :

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

COVER

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	DRAWINGS PACKAGE
SCALE	NTS

COMMENTS:	SHEET No. 0
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Drawings List

No.	File Name	Drawing Title
1	SP-WASH-BOH-01	Drawings List
2	SP-WASH-BOH-02	General Notes
3	SP-WASH-BOH-03	Whole site Aerial photo
4	SP-WASH-BOH-04	Pipeline network path
5	SP-WASH-BOH-05	Borehole room details
6	SP-WASH-BOH-06	Borehole room details
7	SP-WASH-BOH-07	Borehole room details
8	SP-WASH-BOH-08	3D Borehole room details
9	SP-WASH-BOH-09	3D Borehole room
10	SP-WASH-BOH-10	Borehole room door and window
11	SP-WASH-BOH-11	Water tank foundation details
12	SP-WASH-BOH-12	3D Water tank outside details
13	SP-WASH-BOH-13	3D Water tank inside details
14	SP-WASH-BOH-14	Pipe Trench details
15	SP-WASH-BOH-15	Manhole details
16	SP-WASH-BOH-16	Transformer and Electrical Poles
17	SP-WASH-BOH-17	Borehole details
18	SP-WASH-BOH-18	Submersible Pump
19	SP-WASH-BOH-19	Signboard details



NOTES :

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

DRAWINGS LIST

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS

FILE NAME SP-WASH-BOH-01

SCALE NTS

COMMENTS:

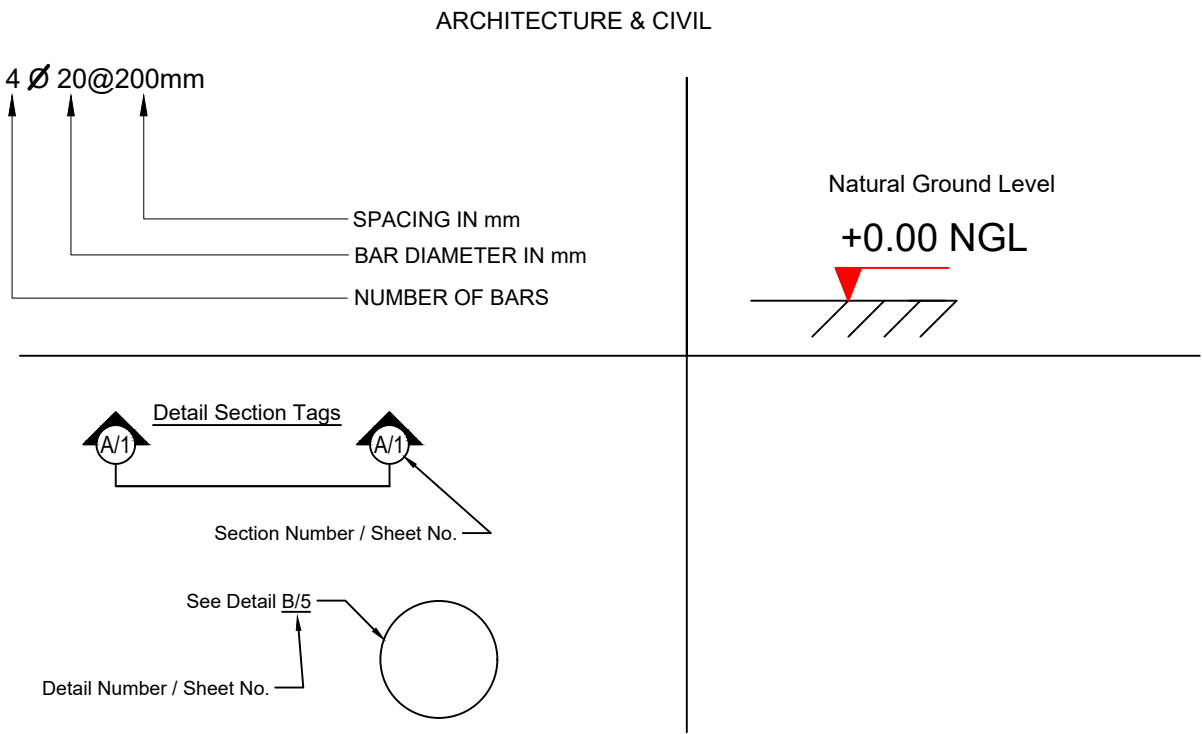
SHEET No.

1

GENERAL NOTES AND REMARKS:

- 1- THE DESIGN DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATIONS AND DRAWINGS (CIVIL, ELECTRICAL AND MECHANICAL). IN CASE OF ANY DISCREPANCY, THE CONTRACTOR MUST CONTACT THE ENGINEER FOR CLARIFICATION.
- 2- THESE NOTES ARE GENERALLY APPLICABLE TO THE OVERALL SYSTEMS INSTALLATION. ANY ADDITIONAL NOTES ON THE INDIVIDUAL DRAWINGS WHICH ARE SUPPLEMENTARY TO THESE NOTES SHALL BE READ WITH THE INSTRUCTIONS STATED HEREIN.
- 3- DO NOT SCALE DRAWINGS, USE ONLY WRITTEN DIMENSIONS.
- 4- IN THE ABSENCE OF ANY INDICATION ON THE DRAWINGS OR THE SPECIFICATION, THE IMPLEMENTATION SHOULD BE DONE AS PER SP ENGINEERS INSTRUCTIONS.
- 5- UNLESS OTHERWISE SPECIFIED ALL EQUIPMENT AND MATERIALS TO BE USED SHALL BE SUITABLE AND RATED FOR THE SITE AMBIENT CONDITIONS.
- 6- THE INSTALLATION SHALL COMPLY IN ALL RESPECTS TO THE REQUIREMENTS OF THE MANUFACTURERS AND THE CODES REFERRED IN THE SPECIFICATIONS.
- 7- ANY EQUIPMENT DIMENSION AND ELECTRICAL LOAD STATED ON THE DRAWINGS SHALL BE COORDINATED / CONFIRMED WITH THE ACTUAL DIMENSIONS AND ACTUAL ELECTRICAL LOADS OF EQUIPMENT FROM RESPECTIVE MANUFACTURER.
- 8- ALL MATERIAL AND EQUIPMENT MUST BE OF THE BEST QUALITY AND ACCORDING TO THE LATEST INTERNATIONAL STANDARDS, THE CONTRACTOR SHALL SUBMIT SAMPLES AND CATALOGUES OF ALL MATERIAL AND OBTAIN ENGINEER'S APPROVAL BEFORE THE COMMENCEMENT OF ANY WORK.
- 9- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO LIAISE WITH RELATED DIRECTORATES FOR ANY ADMINISTRATIVEOR TECHNICAL ISSUE UNDER THEIR AUTHORITY.
- 10- FOR SPECIAL SYSTEMS, THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS PREPARED BY SPECIALISTS EXPERIENCED IN THE DESIGN OF THE RELEVANT SYSTEMS AND AS PER THE MANUFACTURES REQUIREMENTS.
- 11- ALL SECTIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS BEFORE ERECTION OF FORMWORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CLARIFICATION.
- 12- THE CONTRACTOR SHALL BE DEEMED TO HAVE VISITED THE SITE OF WORKS AND SATISFIED HIMSELF AS TO THE NATURE OF THE GROUND AND MADE HIMSELF CONVERSANT WITH LOCAL CONDITIONS TO BE ENCOUNTERED DURING THE EXECUTION OF WORK.

SYMBOLS



ITEM	DESCRIPTION
	4 inchs HDPE, DN110 - PN16
	3 inchs HDPE, DN75 - PN16
	Existing 4 inchs HDPE, DN110
	½ inches PPR Pipe for water supply
	Manholes for Gate valves
	Main Points for Start-End line
	Branch from pipeline to group of houses
	Number of Households
	Borehole Location (BOH)



NOTES :

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

GENERAL NOTES

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-02
SCALE	NTS
COMMENTS:	SHEET No. 2



NOTES :

Source: Google Earth map

PROJECT TITLE:

SINJAR LIVING WATER PROJECT

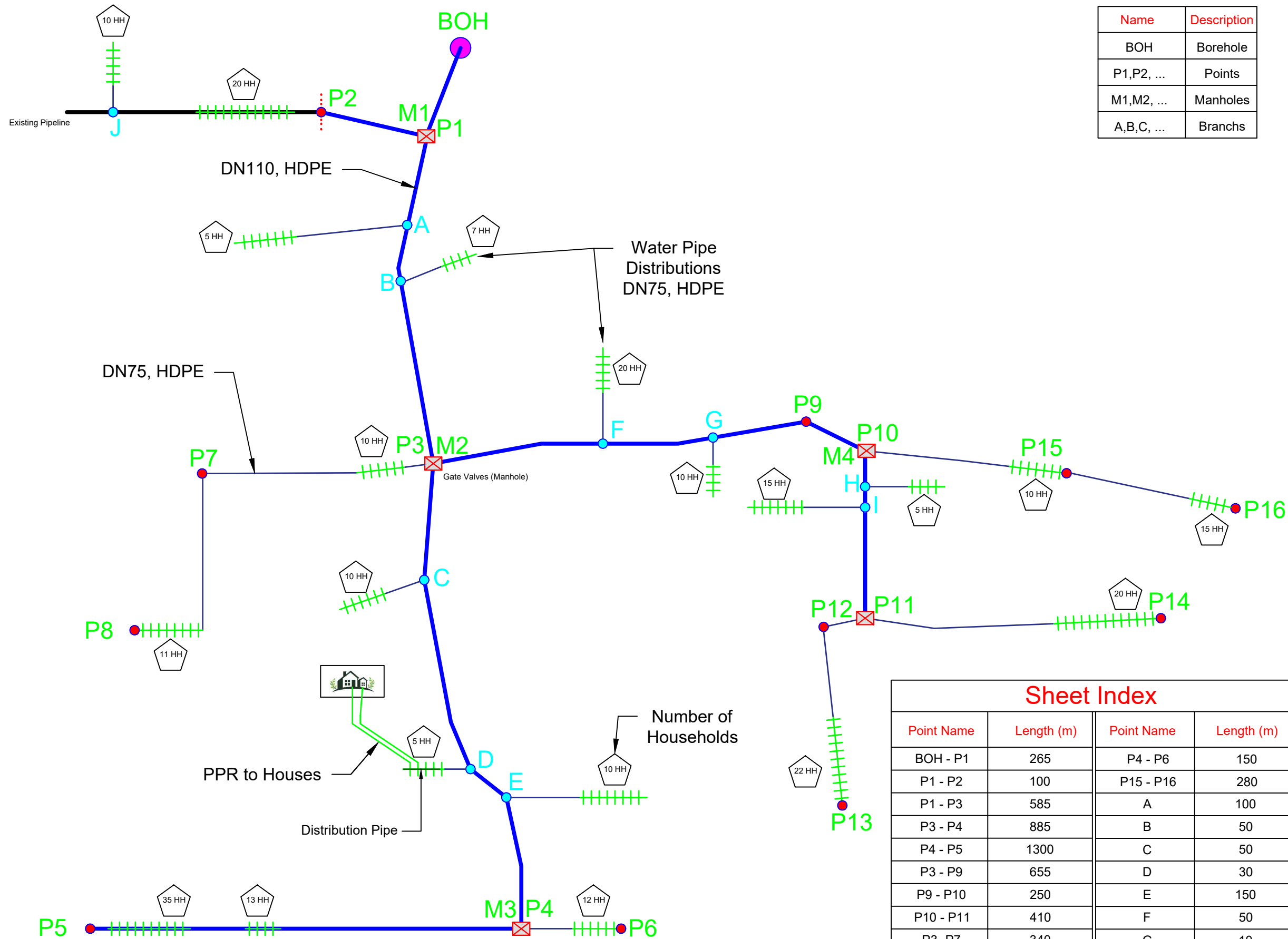
PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

WHOLE SITE AERIAL PHOTO

DESIGN	SAMARITAN'S PURSE	
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO	
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS	
FILE NAME	SP-WASH-BOH-03	
SCALE	NTS	
COMMENTS:		SHEET No. 3



Name	Description
BOH	Borehole
P1,P2, ...	Points
M1,M2, ...	Manholes
A,B,C, ...	Branchs



NOTES :

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

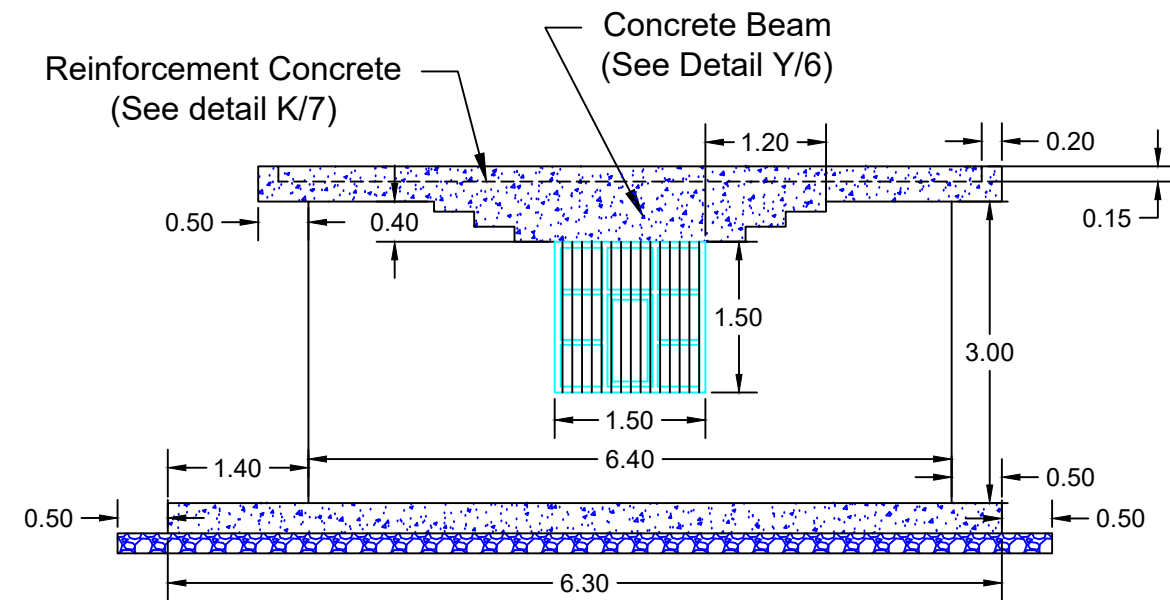
SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

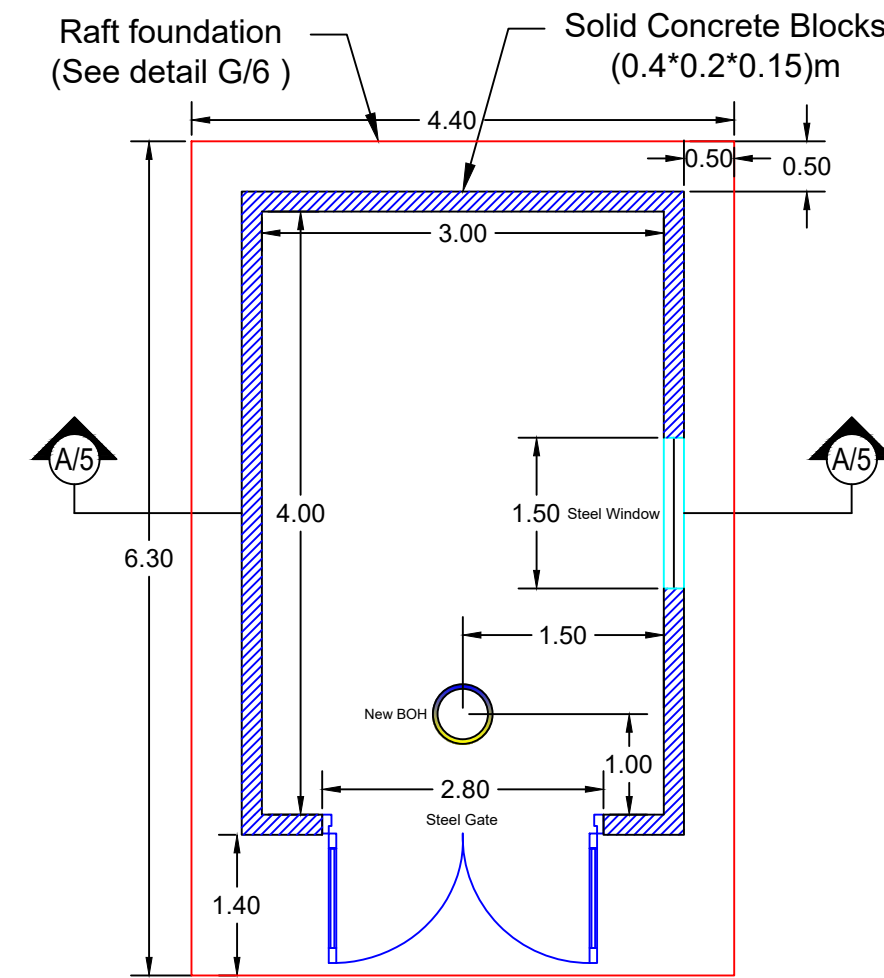
PIPELINE NETWORK PATH

Sheet Index			
Point Name	Length (m)	Point Name	Length (m)
BOH - P1	265	P4 - P6	150
P1 - P2	100	P15 - P16	280
P1 - P3	585	A	100
P3 - P4	885	B	50
P4 - P5	1300	C	50
P3 - P9	655	D	30
P9 - P10	250	E	150
P10 - P11	410	F	50
P3- P7	340	G	10
P7 - P8	350	H	50
P10 - P15	350	I	60
P11 - P14	350	J	120
P11 - P12	50		
P12- P13	350		

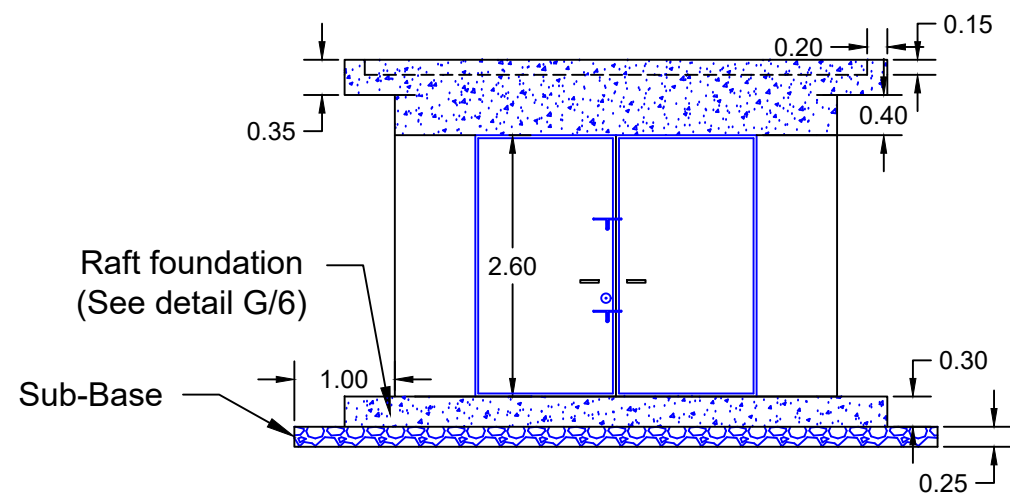
DESIGN	SAMARITAN'S PURSE	
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO	
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS	
FILE NAME	SP-WASH-BOH-04	
SCALE	NTS	
COMMENTS:		SHEET No. 4



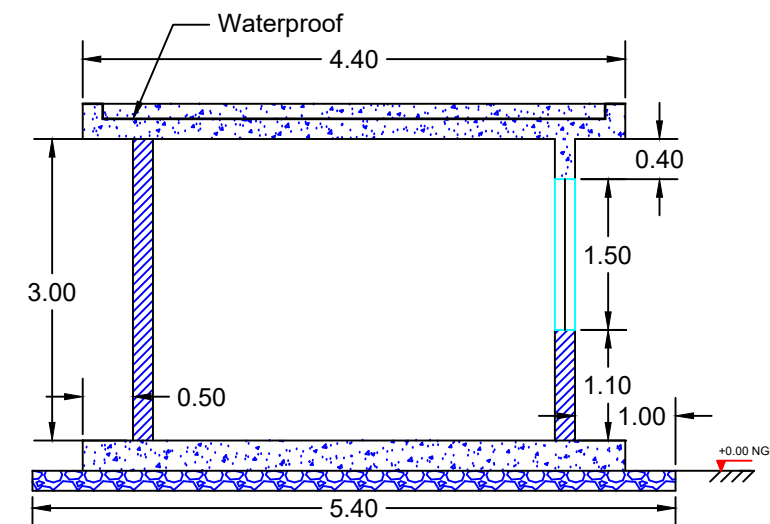
Side view



Floor plan



Front view



Section(A-A)
Room Cross Section



NOTES :

All dimensions in meter

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

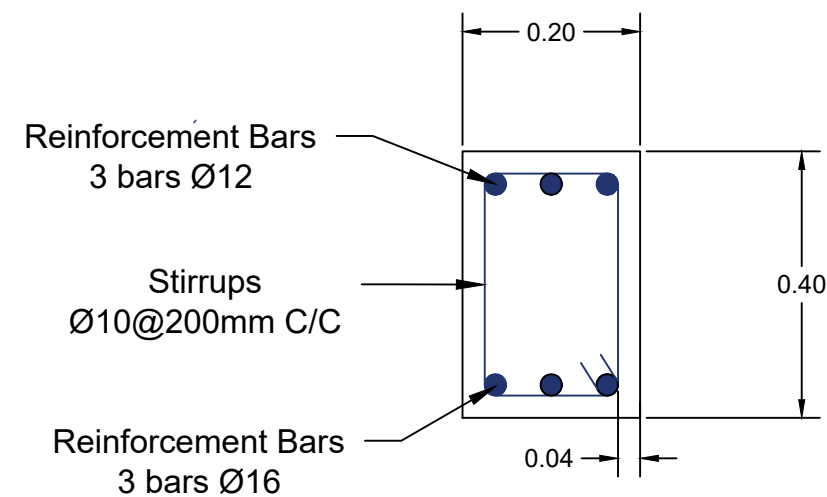
BOH ROOM DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-05
SCALE	NTS

COMMENTS:

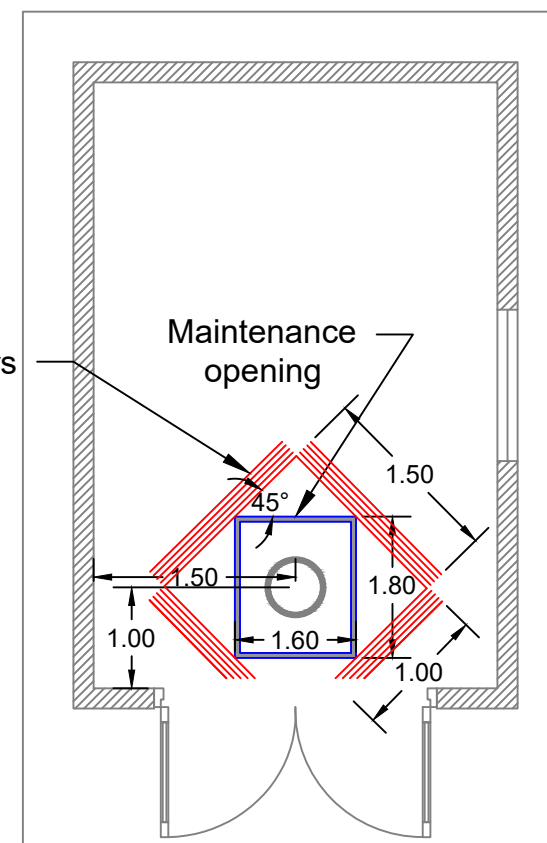
SHEET No.

5

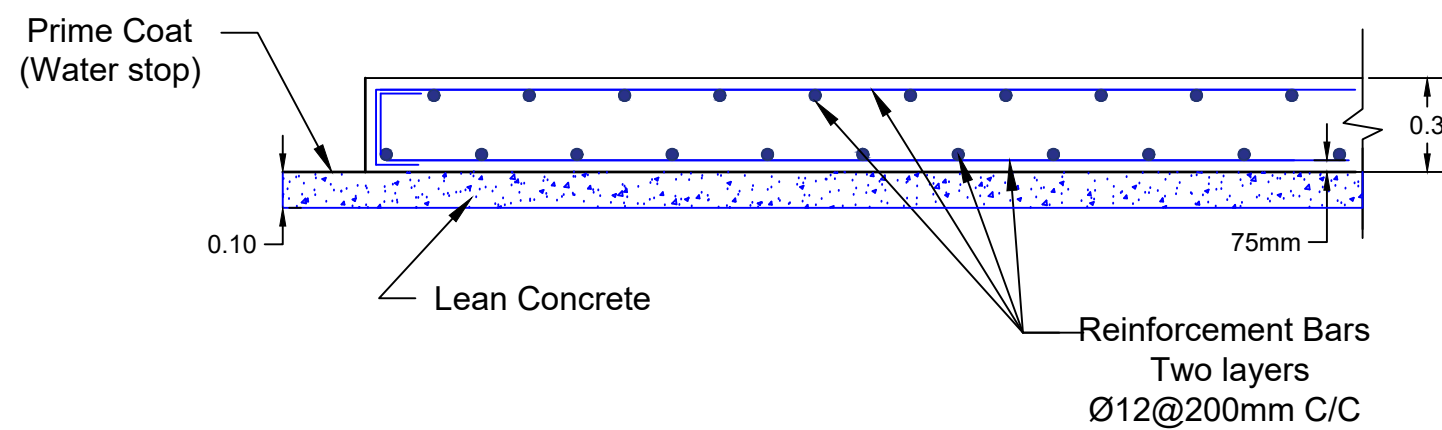


Detail Y
Concrete Beam

Reinforcement Bars
5 bars Ø12



Top View



Detail G
Raft foundation
(Room)

NOTES :

Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

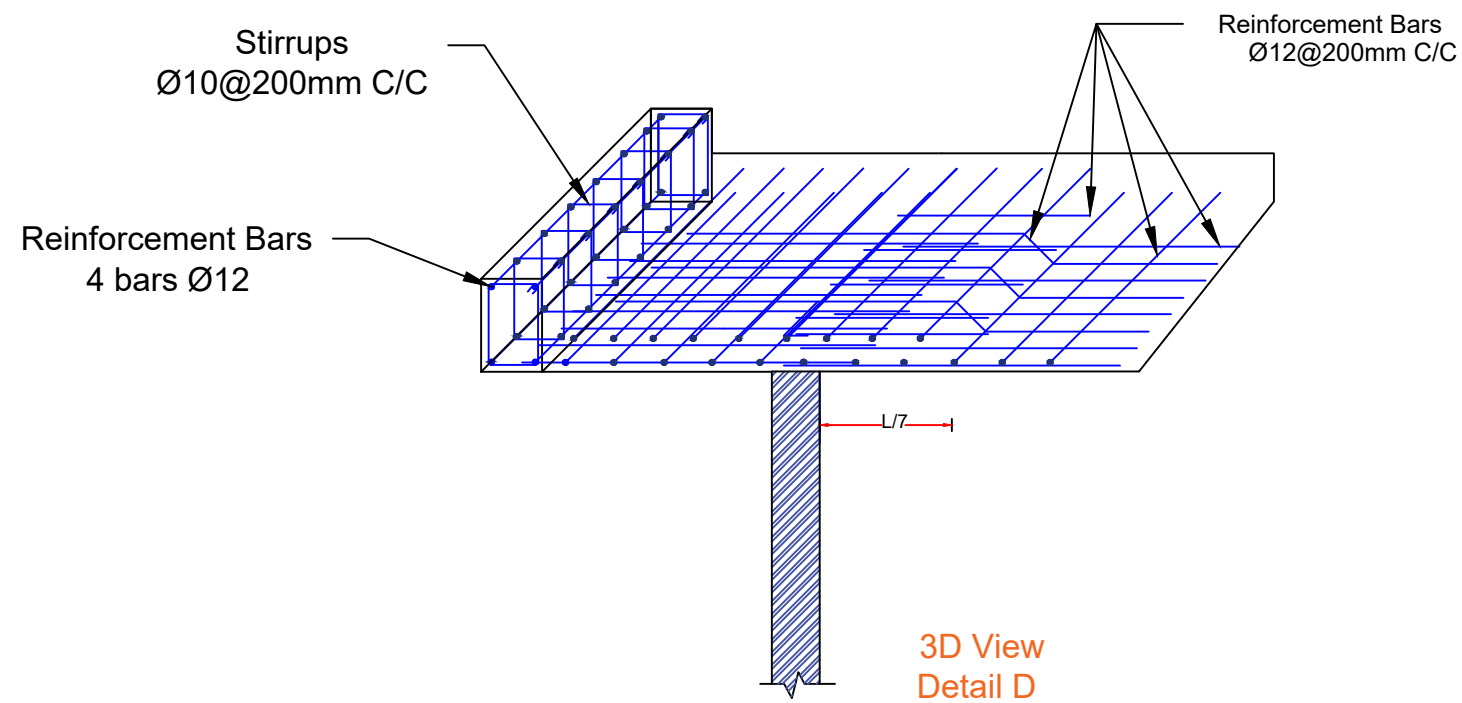
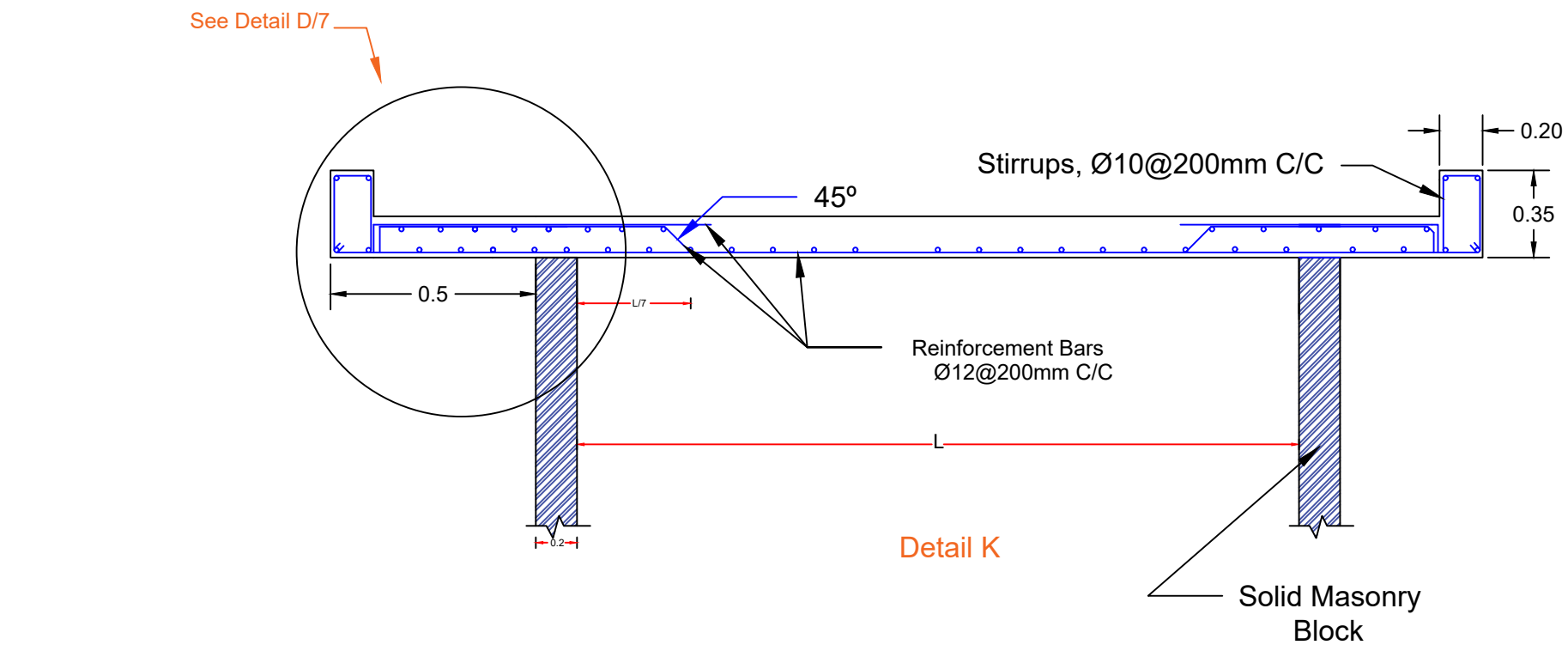
BOH ROOM DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-06
SCALE	NTS

COMMENTS:

SHEET No.

6



NOTES :

All dimensions in millimeter

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

BOH ROOM DETAILS

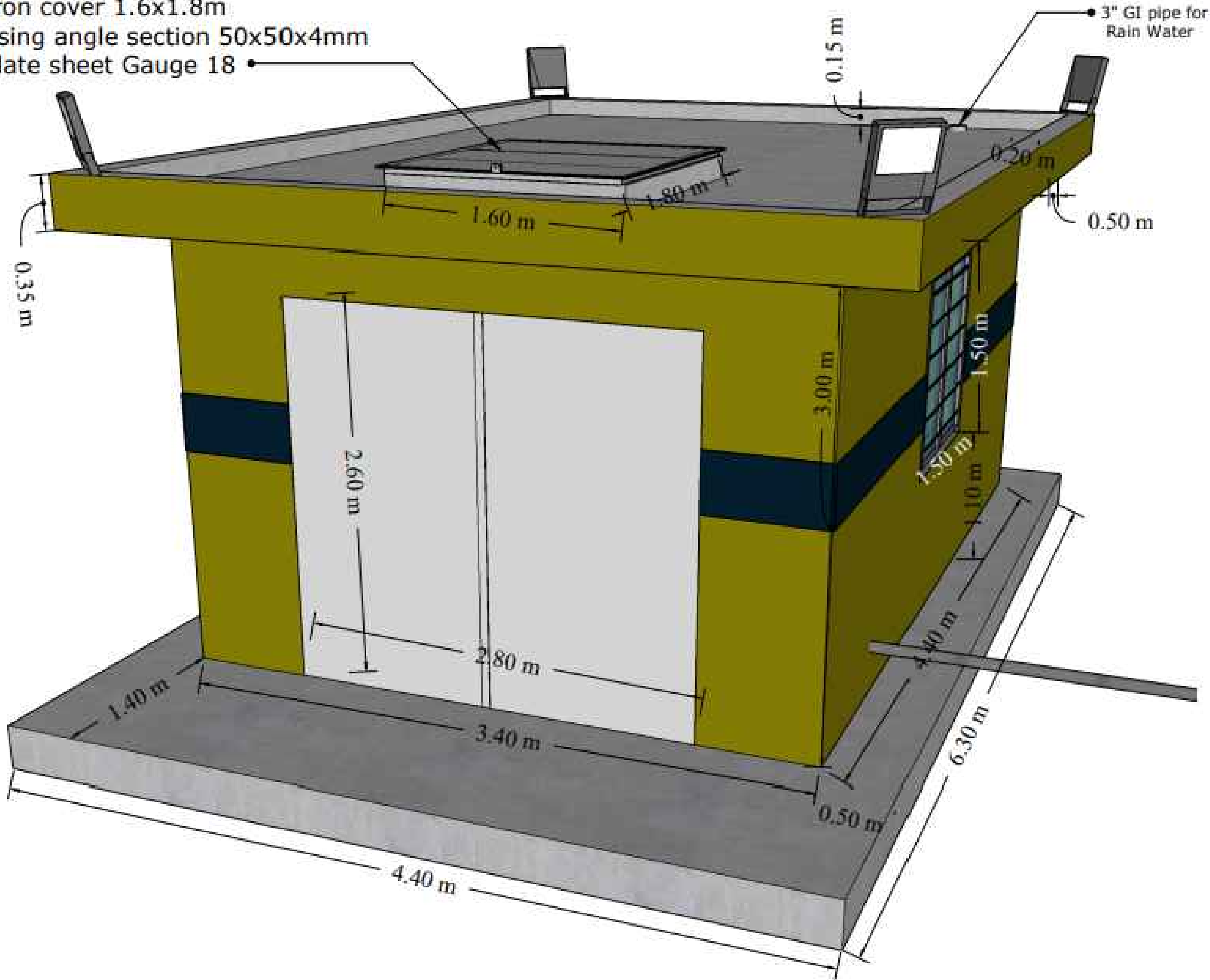
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DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-07
SCALE	NTS

COMMENTS:

SHEET No.

7

Iron cover 1.6x1.8m
using angle section 50x50x4mm
Plate sheet Gauge 18



NOTES :

Dimensions are in
(m, mm and inches)

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

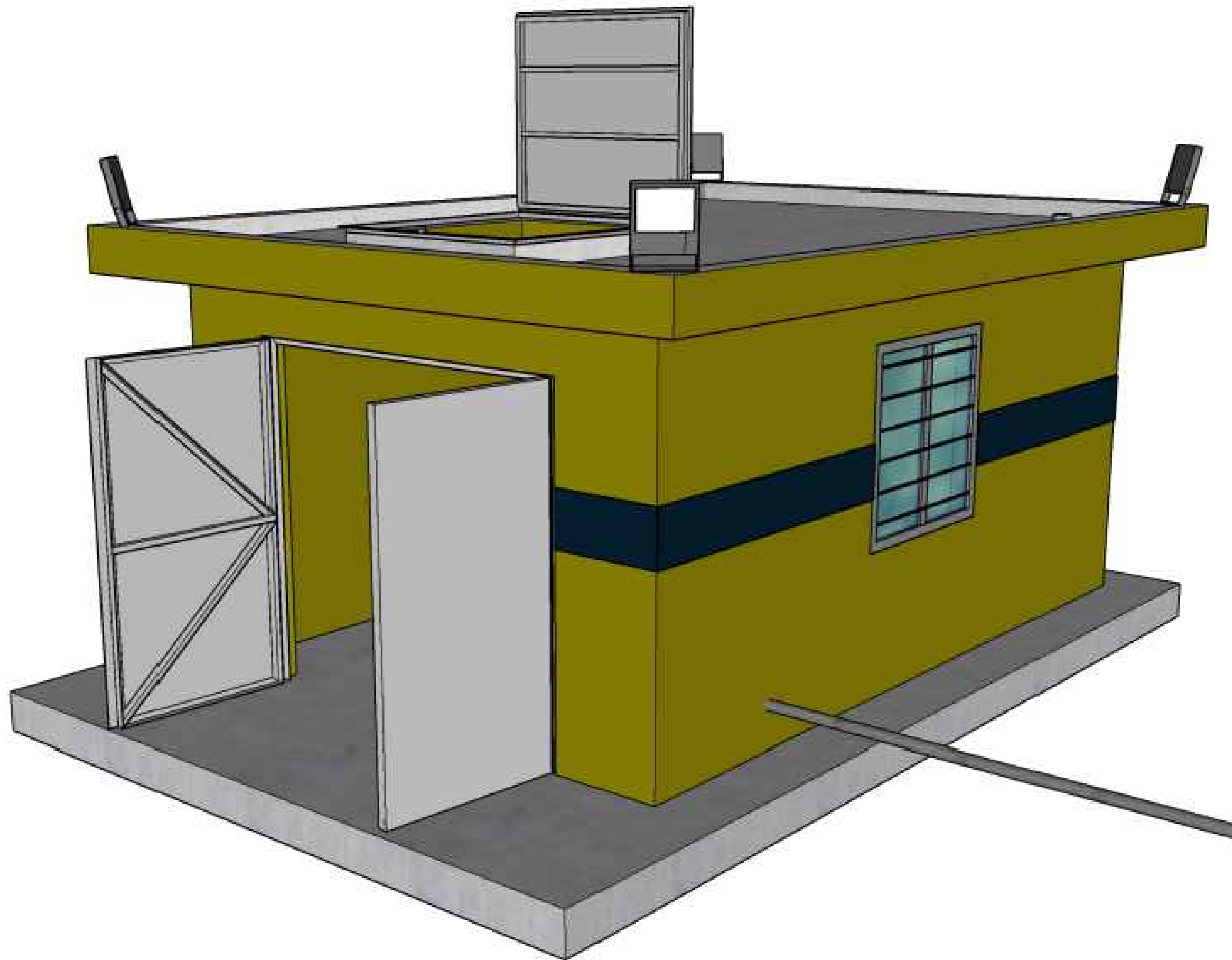
DRAWING TITLE:

3D BOH ROOM DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-08
SCALE	NTS

COMMENTS:

SHEET No.
8



NOTES :

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

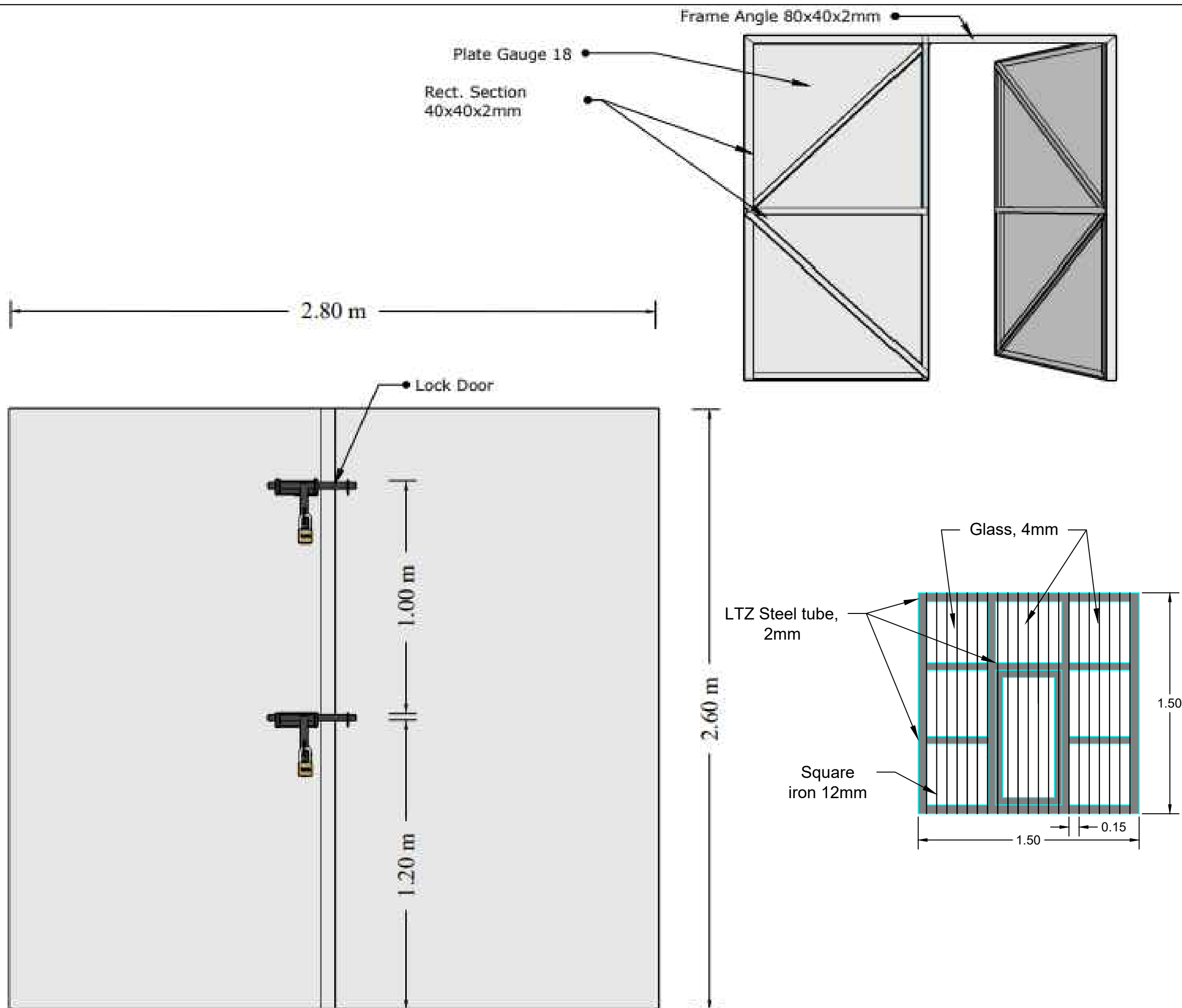
SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

3D BOH ROOM

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-09
SCALE	NTS

COMMENTS:	SHEET No. 9
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NOTES :

Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

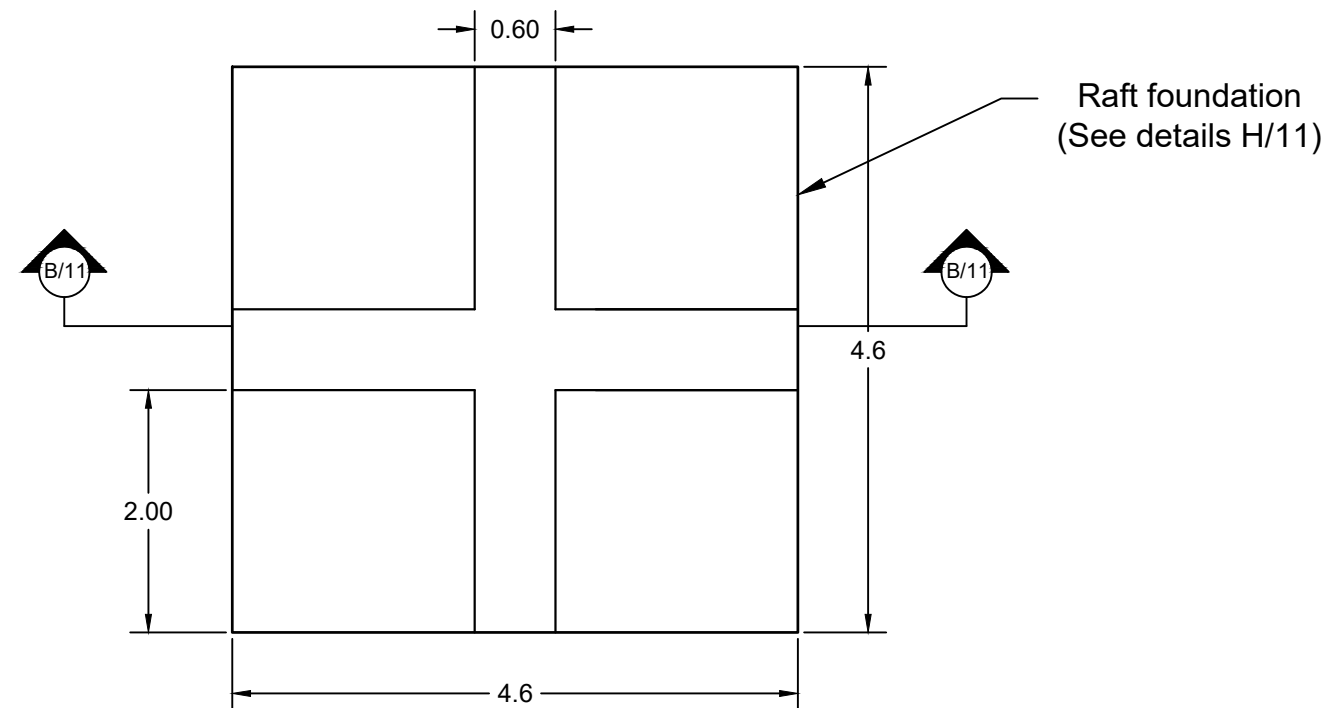
PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

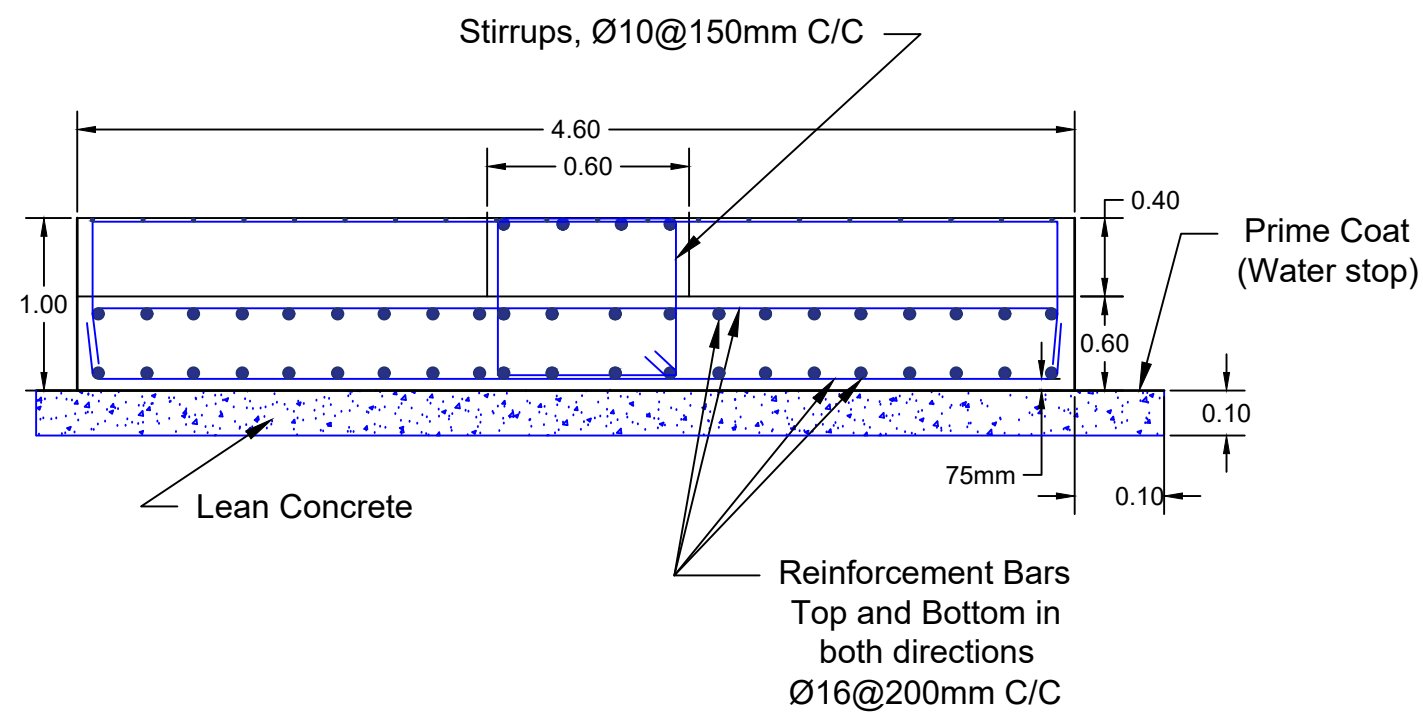
DRAWING TITLE:

BOH ROOM DOOR AND
WINDOW DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-10
SCALE	NTS
COMMENTS:	SHEET No. 10



Water Tank Raft foundation
Top View



Section(B-B)
Details H



NOTES :

Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

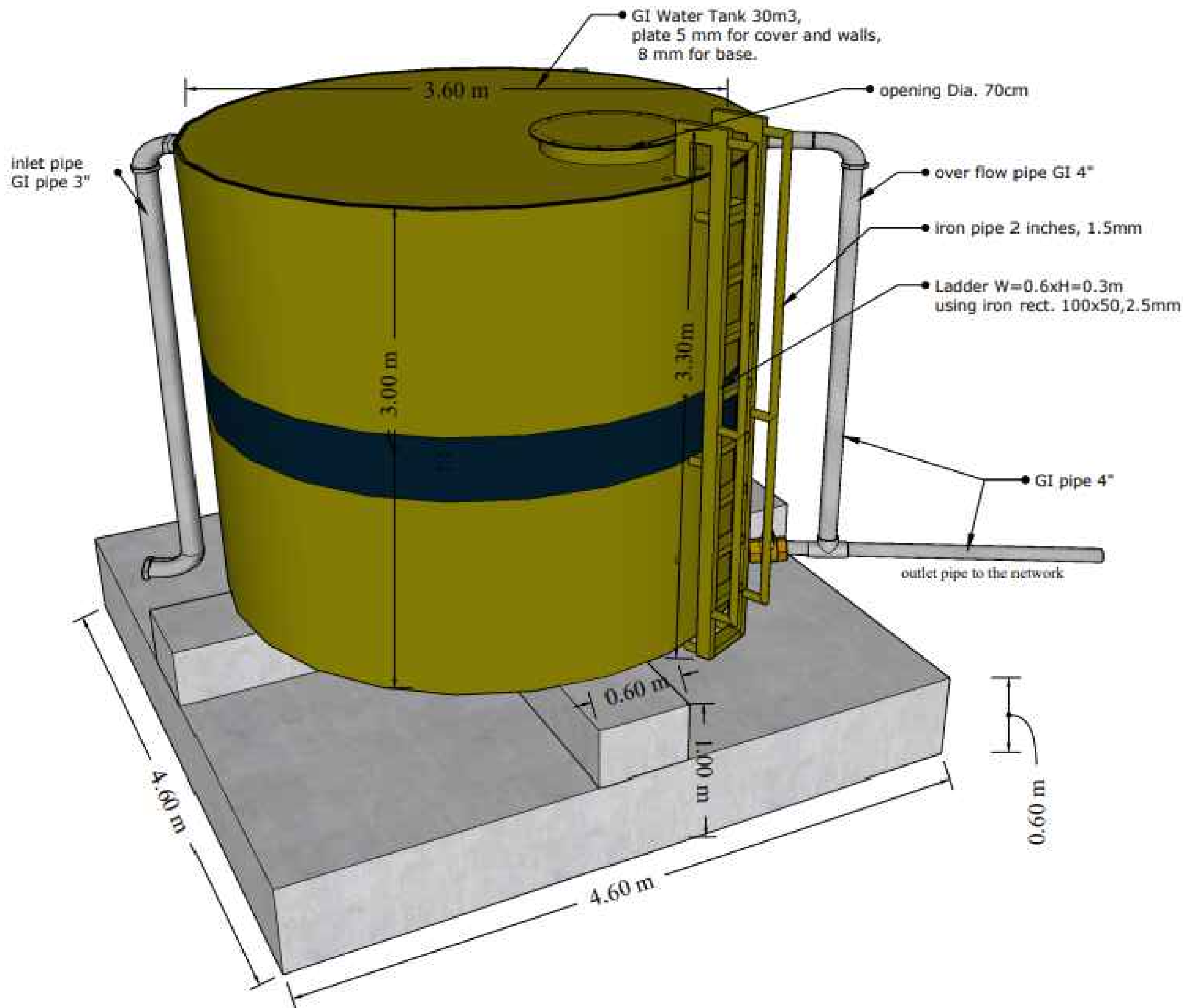
WATER TANK
FOUNDATION DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-11
SCALE	NTS

COMMENTS:

SHEET No.

11



NOTES :

Dimensions are in
(m, cm, mm and inches)

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

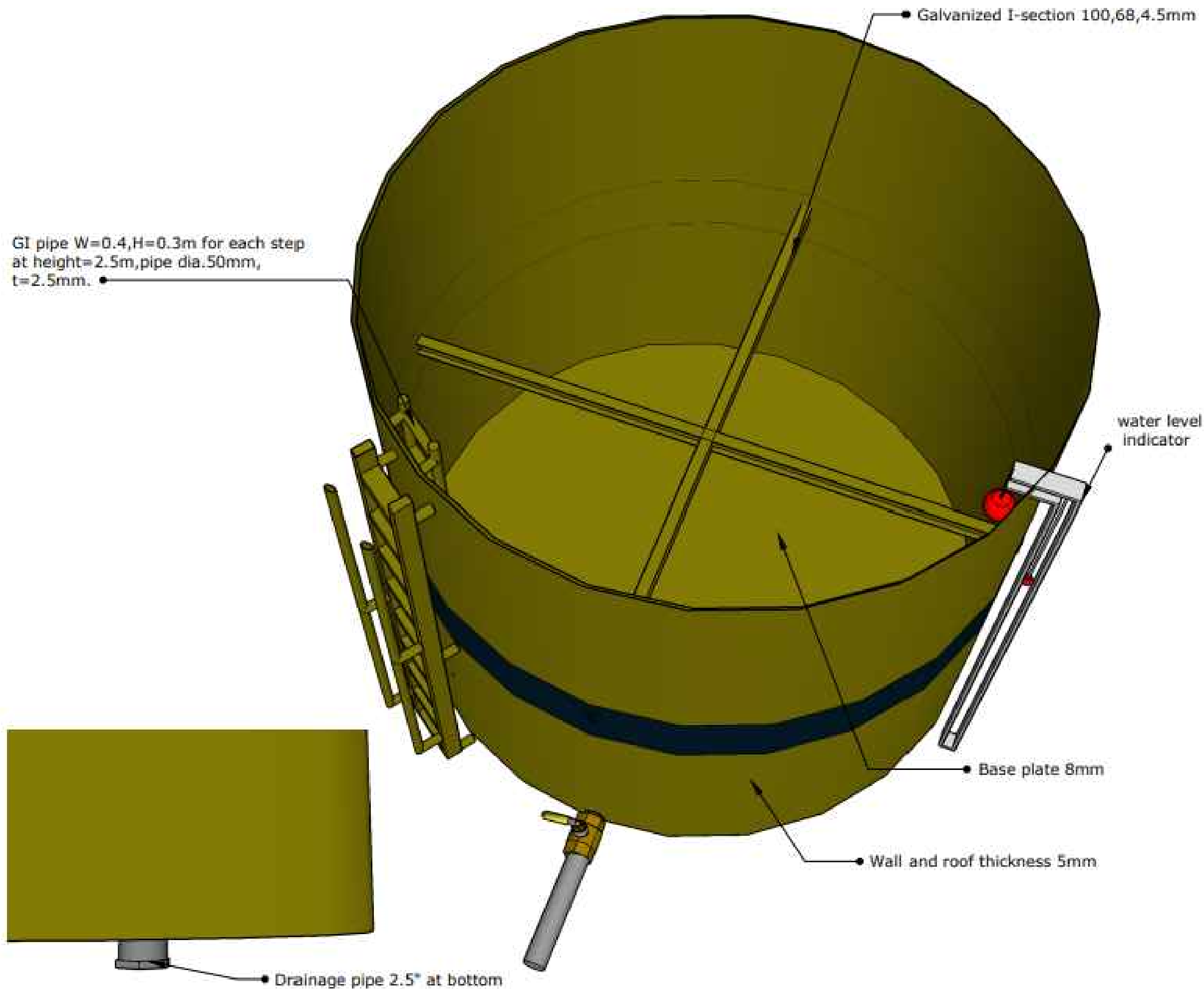
PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

3D WATER TANK
OUTSIDE DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-12
SCALE	NTS
COMMENTS:	SHEET No. 12



NOTES :

Dimensions are in
(m, mm and inches)

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

**3D WATER TANK
INSIDE DETAILS**

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-13
SCALE	NTS

COMMENTS:

SHEET No.

13

NOTES :

 Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

SINJAR LIVING WATER PROJECT

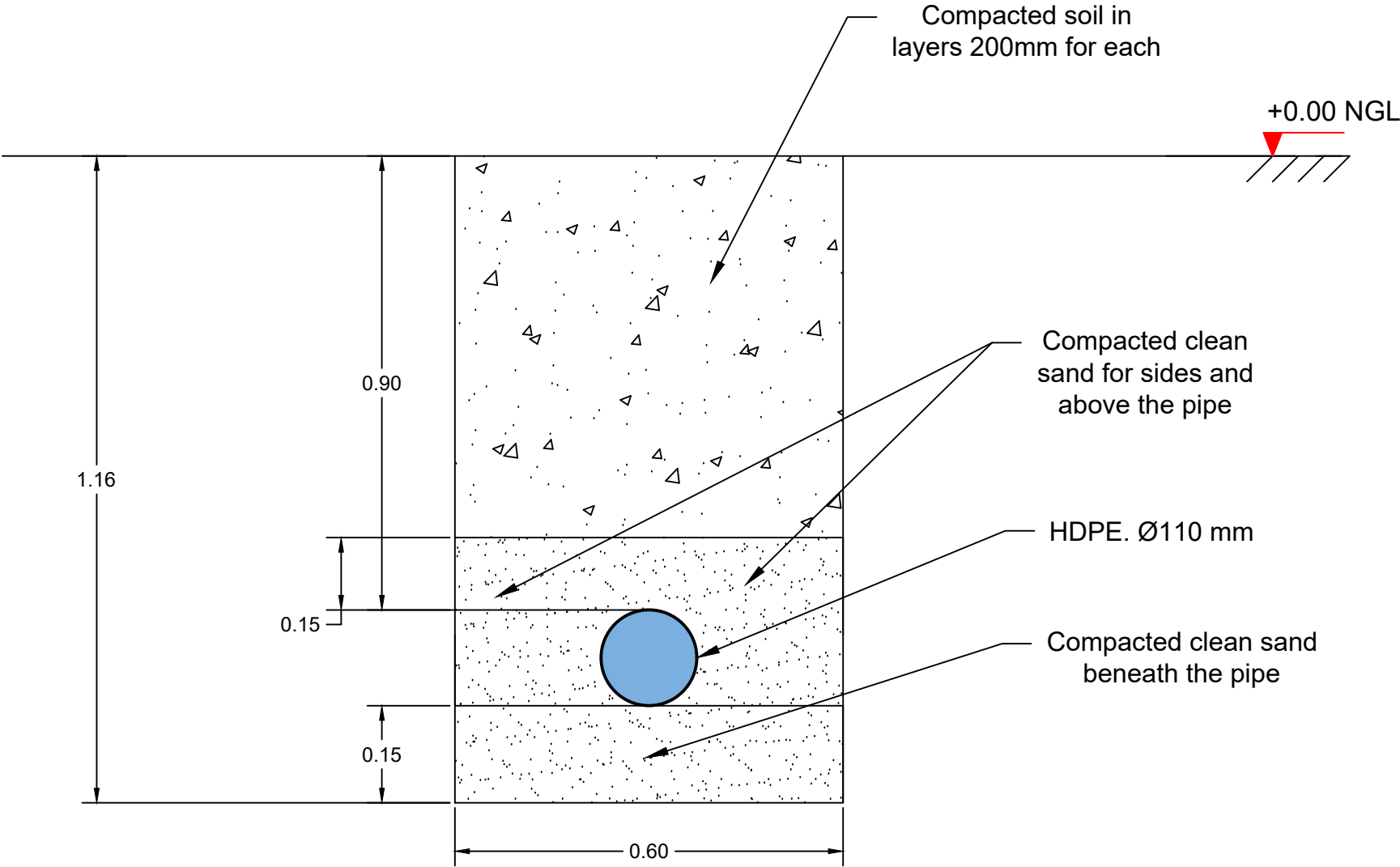
PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

PIPE TRENCH DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-14
SCALE	NTS



Pipe Trench
 Cross Section

NOTES :

Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

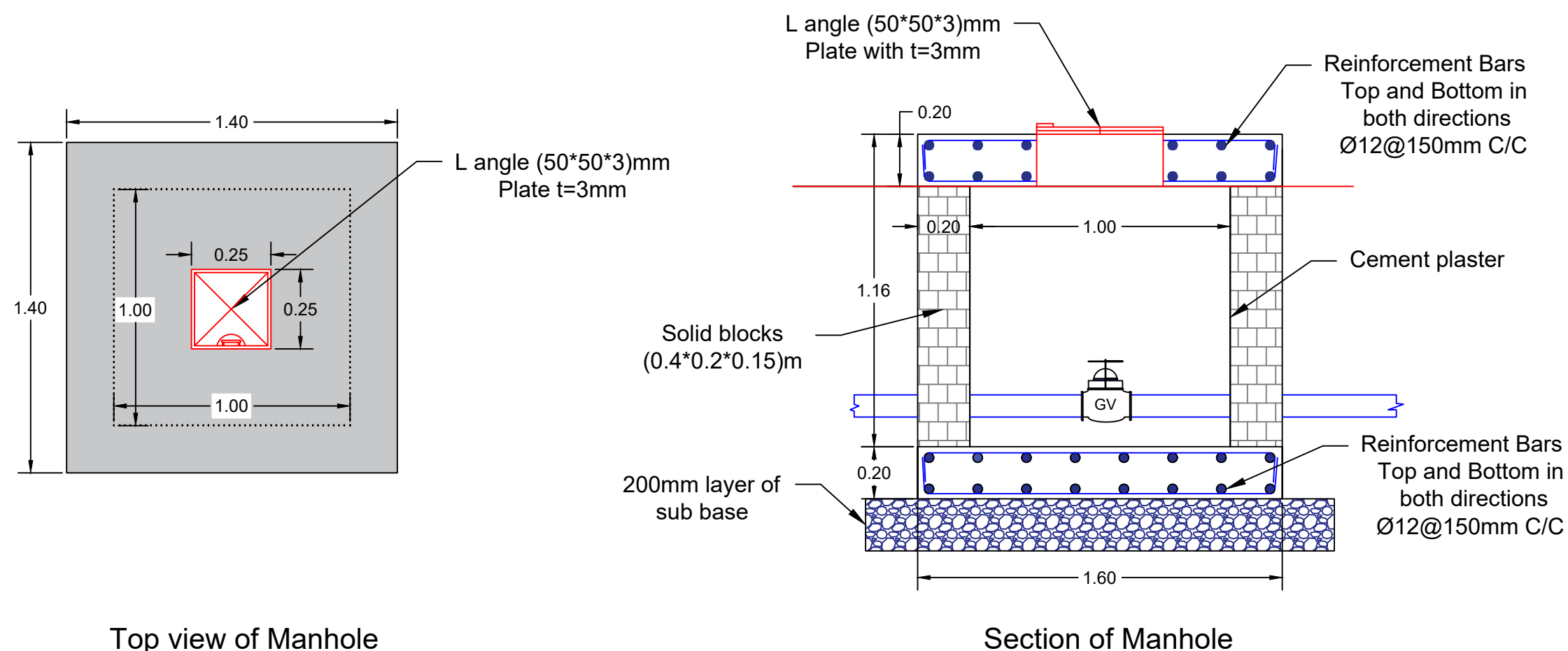
**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

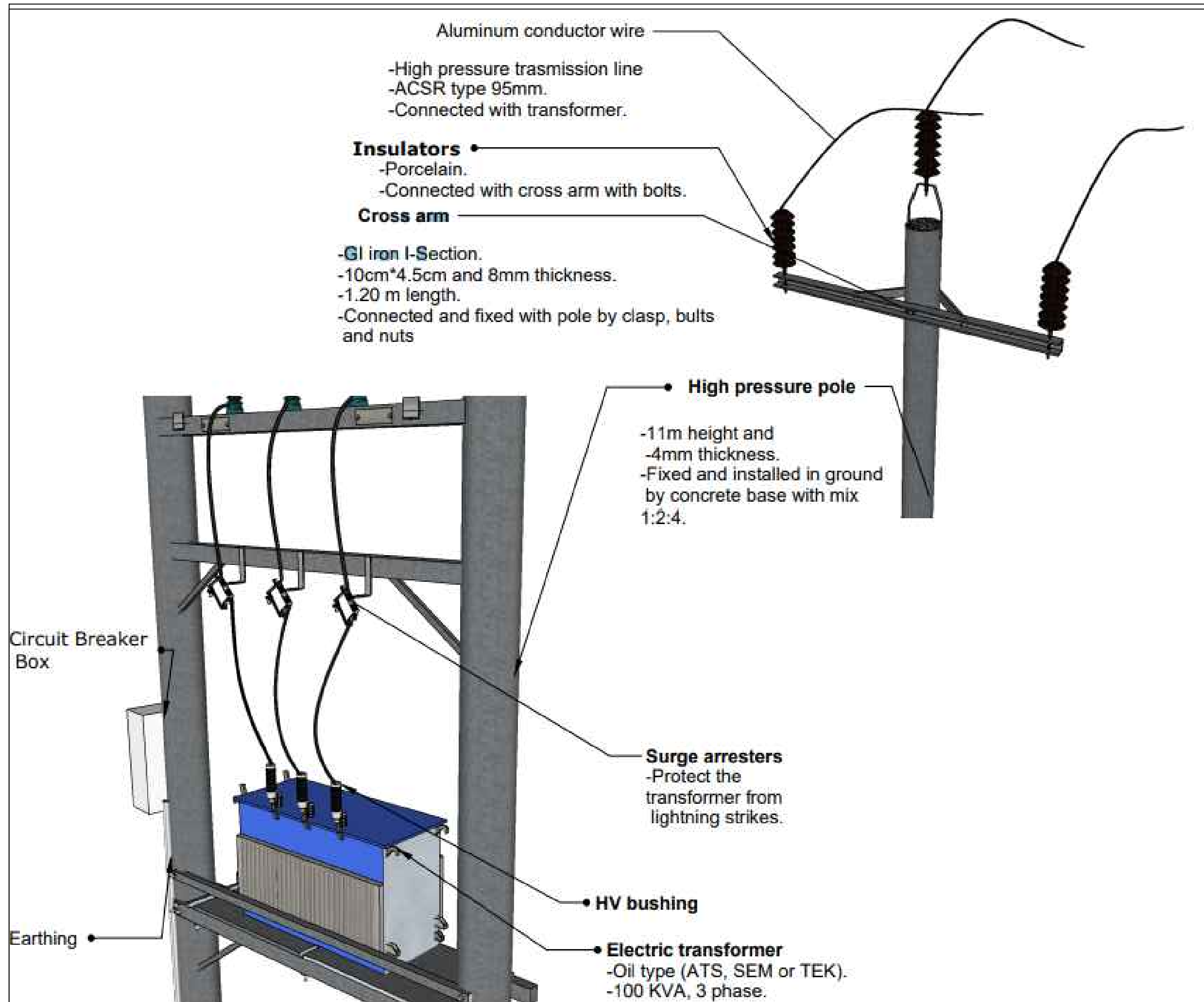
SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

MANHOLE DETAILS



DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-15
SCALE	NTS
COMMENTS:	SHEET No. 15



NOTES :

Dimensions are in
(m, cm and mm)

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

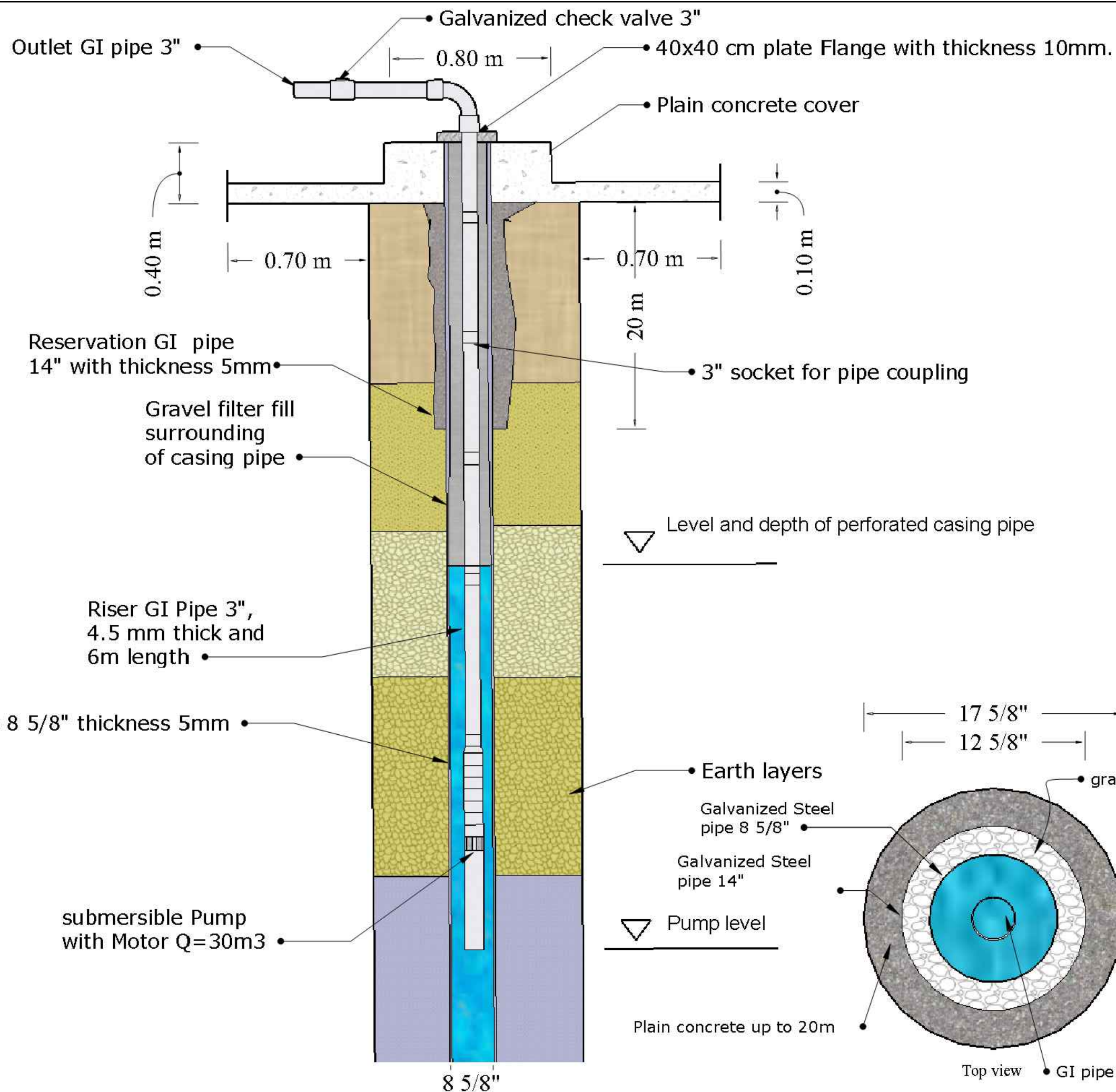
**TRANSFORMER
AND ELECTRICAL
POLE DETAILS**

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-16
SCALE	NTS

COMMENTS:

SHEET No.

16



NOTES :

Dimensions are in
(m, cm,mm and
inches)

PROJECT TITLE:

SINJAR LIVING
WATER PROJECT

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

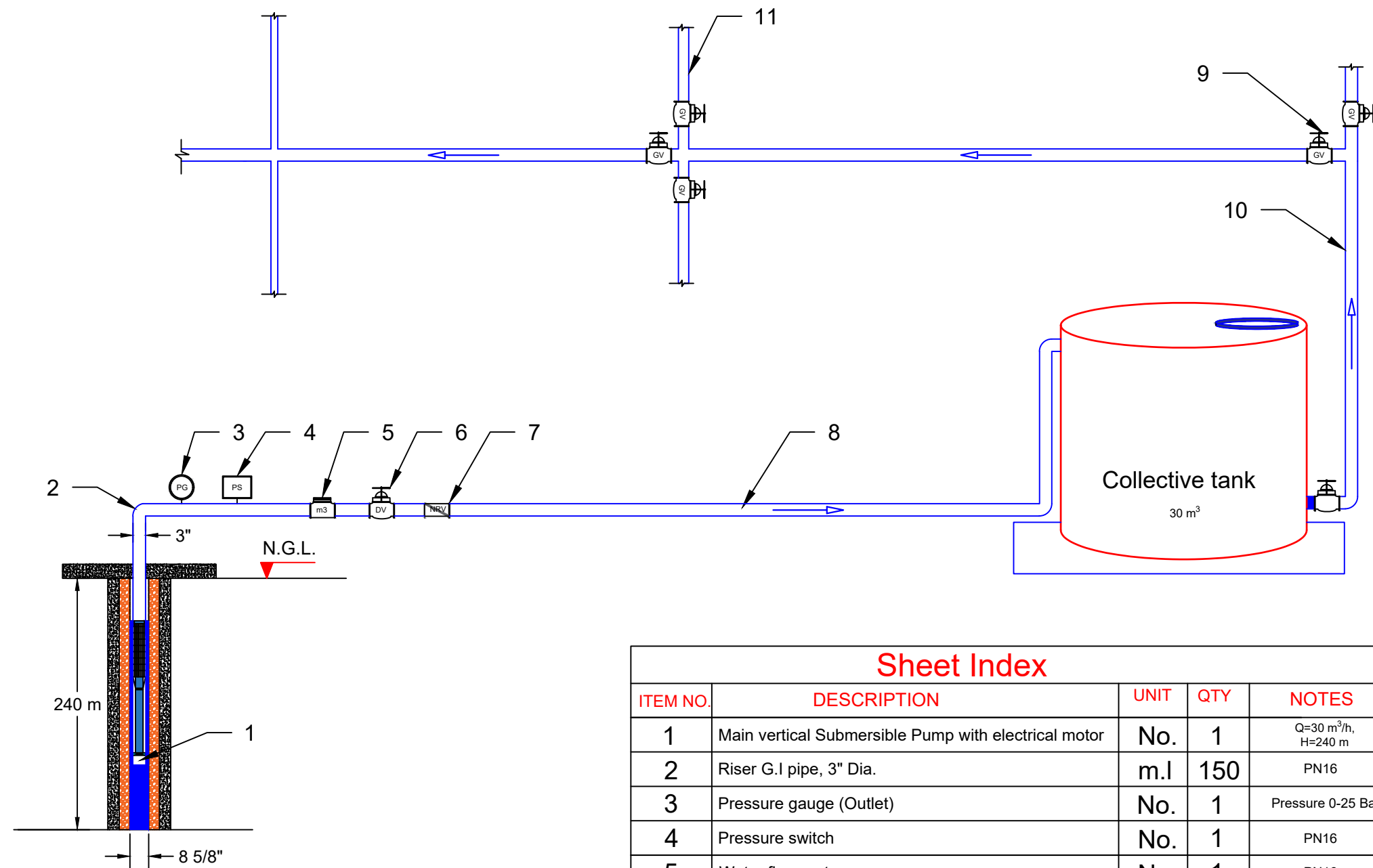
BOH DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-17
SCALE	NTS

COMMENTS:

SHEET No.

17



Sheet Index

ITEM NO.	DESCRIPTION	UNIT	QTY	NOTES
1	Main vertical Submersible Pump with electrical motor	No.	1	Q=30 m³/h, H=240 m
2	Riser G.I pipe, 3" Dia.	m.l	150	PN16
3	Pressure gauge (Outlet)	No.	1	Pressure 0-25 Bar
4	Pressure switch	No.	1	PN16
5	Water flow meter	No.	1	PN16
6	Discharge valve	No.	1	PN16
7	Non Return valve	No.	1	PN16
8	Pipe from Pump to Water tank, 3"Dia. G.I	m.l	20	PN16
9	Gate valve	No.	8	PN16
10	Distribution pipe from tank to villages, 110mm HDPE	m.l	4450	DN110 PN16
11	Distribution pipe from tank to villages, 75mm HDPE	m.l	2770	DN75 PN16

NOTES :

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

SUBMERSIBLE PUMP

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-18
SCALE	NTS
COMMENTS:	SHEET No. 18



NOTES :

Dimensions are in meter and millimeter (m & mm)

PROJECT TITLE:

**SINJAR LIVING
WATER PROJECT**

PROJECT LOCATION:

SINJAR / NINEVEH / IRAQ

DRAWING TITLE:

SIGNBOARD DETAILS

DESIGN	SAMARITAN'S PURSE
DRAWN	ENG. AMEEN HASAN ENG. DAKHEEL EEDO
CHECKED AND APPROVED	ENG. MIRZA MURAD PM. ALEXIS AMOS
FILE NAME	SP-WASH-BOH-19
SCALE	NTS
COMMENTS:	SHEET No. 19

