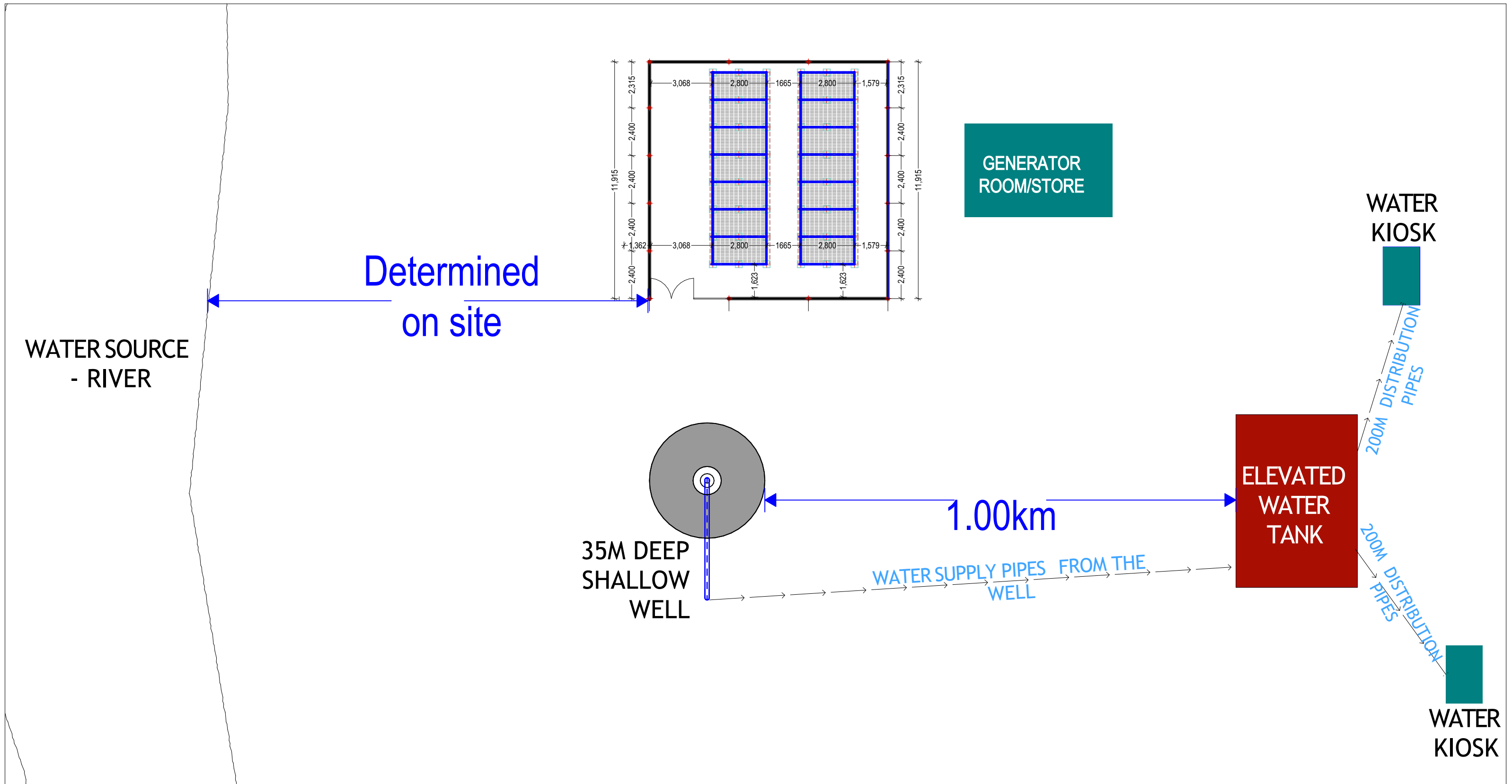


**CONSTRUCTION OF MOTORIZED SHALLOW WELL - HIIRAN  
BILE VILLAGE -BELEDWEYNE DISTRICT- HIRSHABELLE STATE**



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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	NOV 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

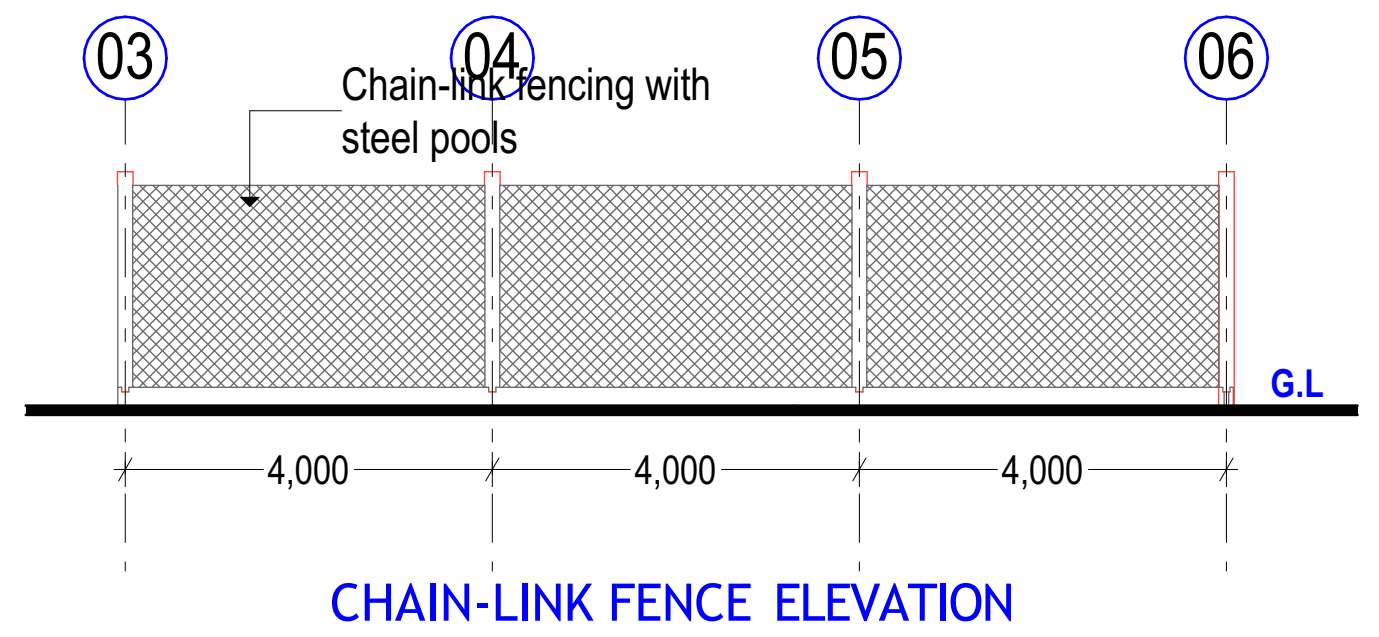
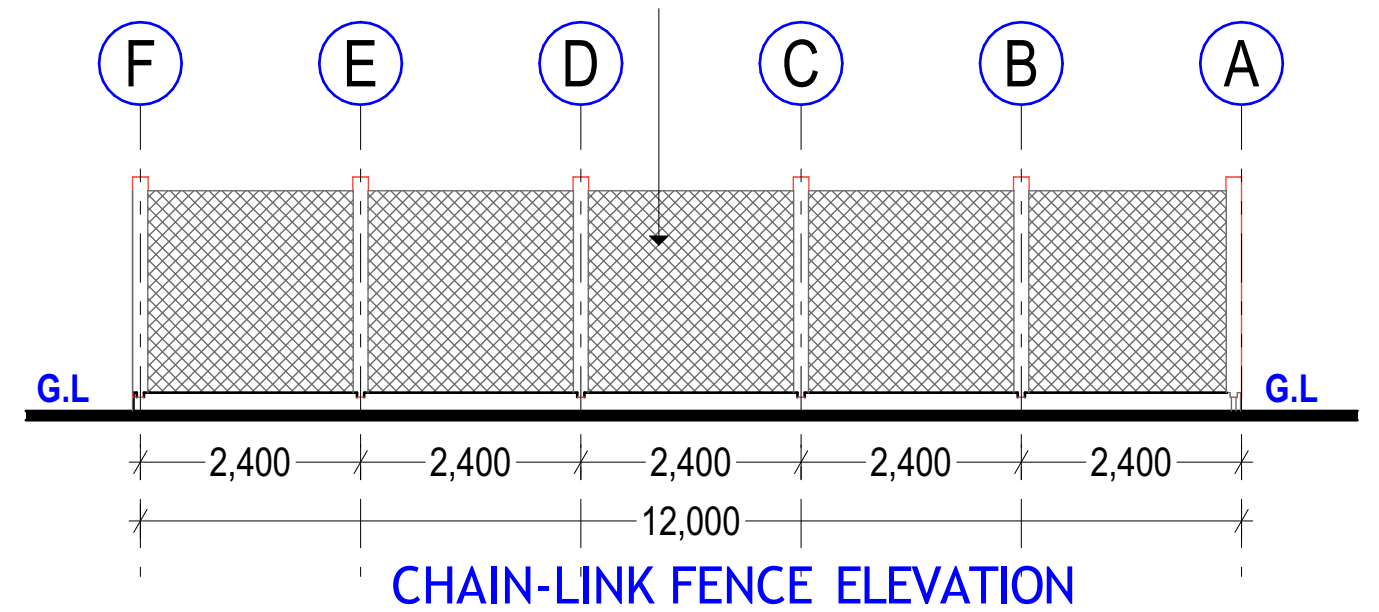
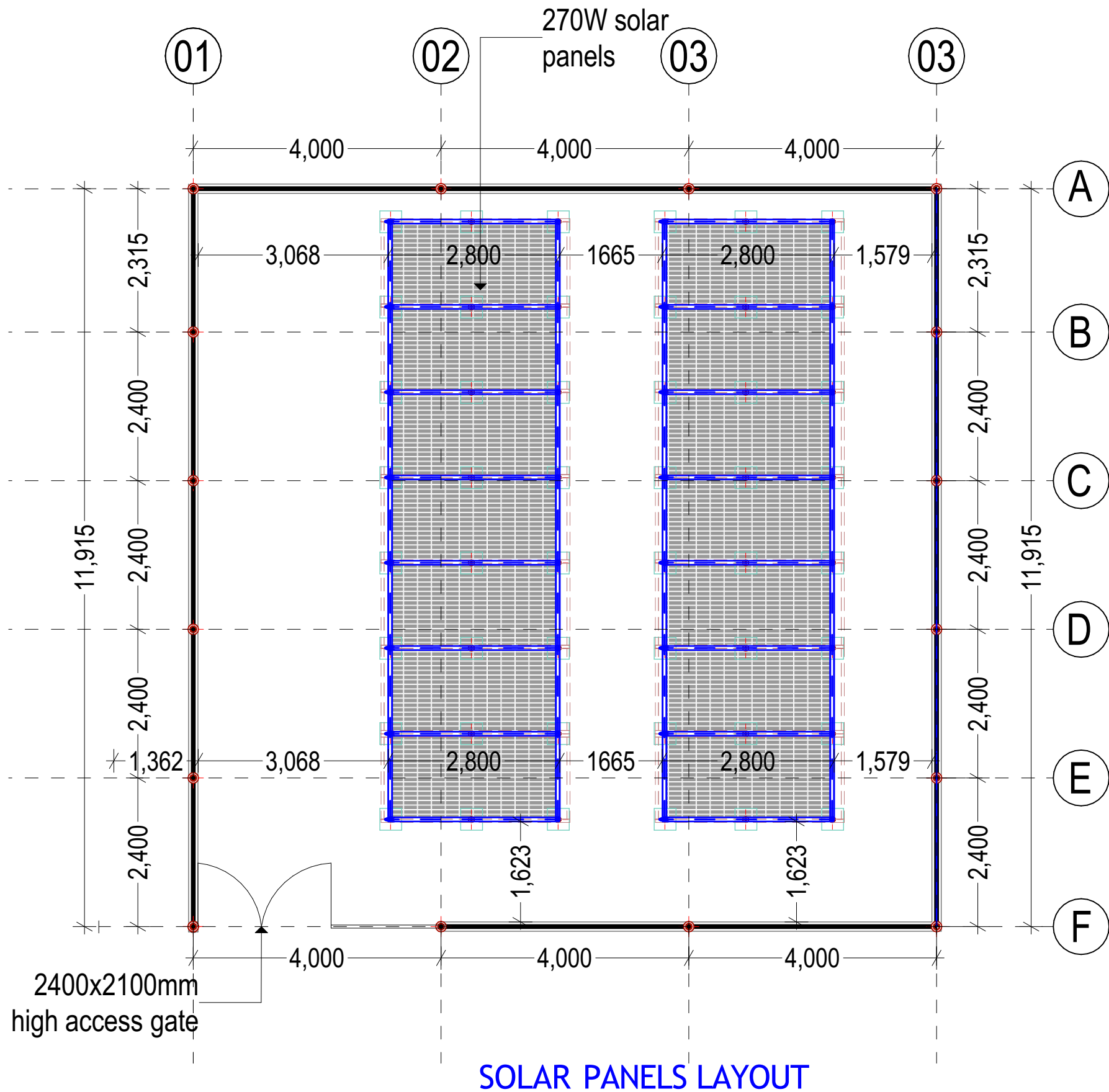
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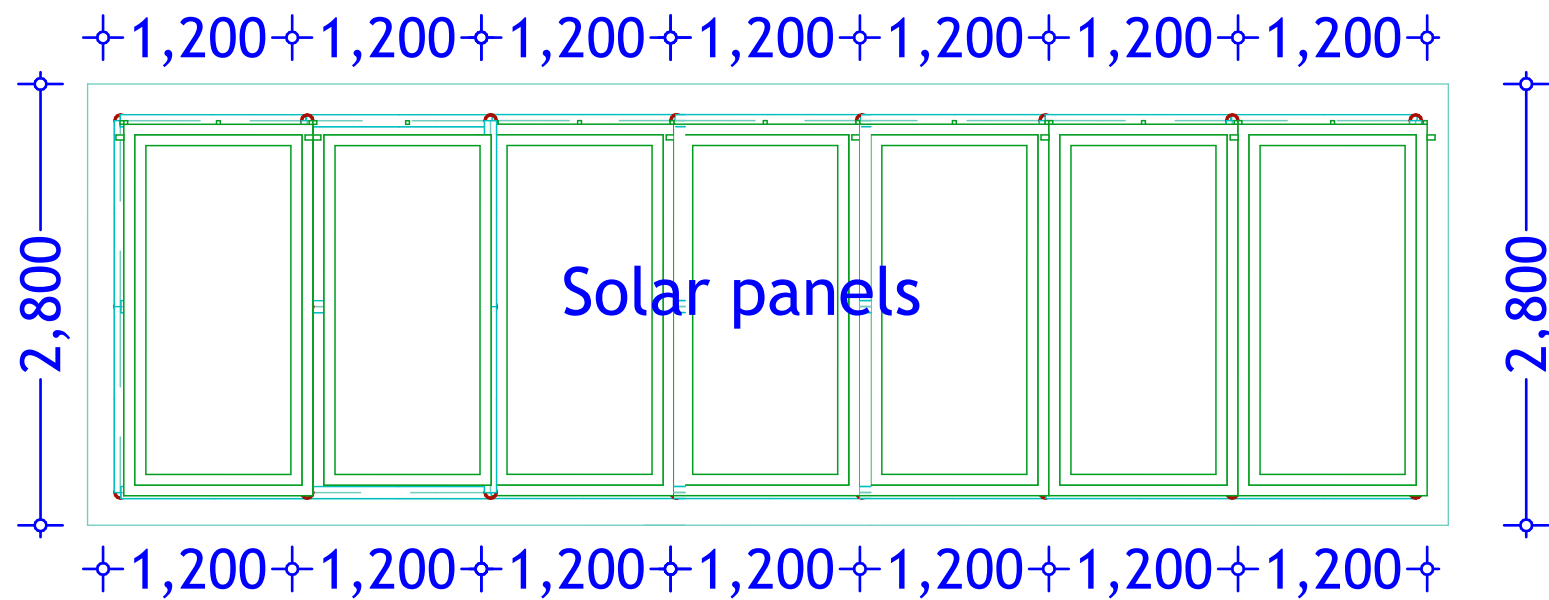
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**SITE PLAN**

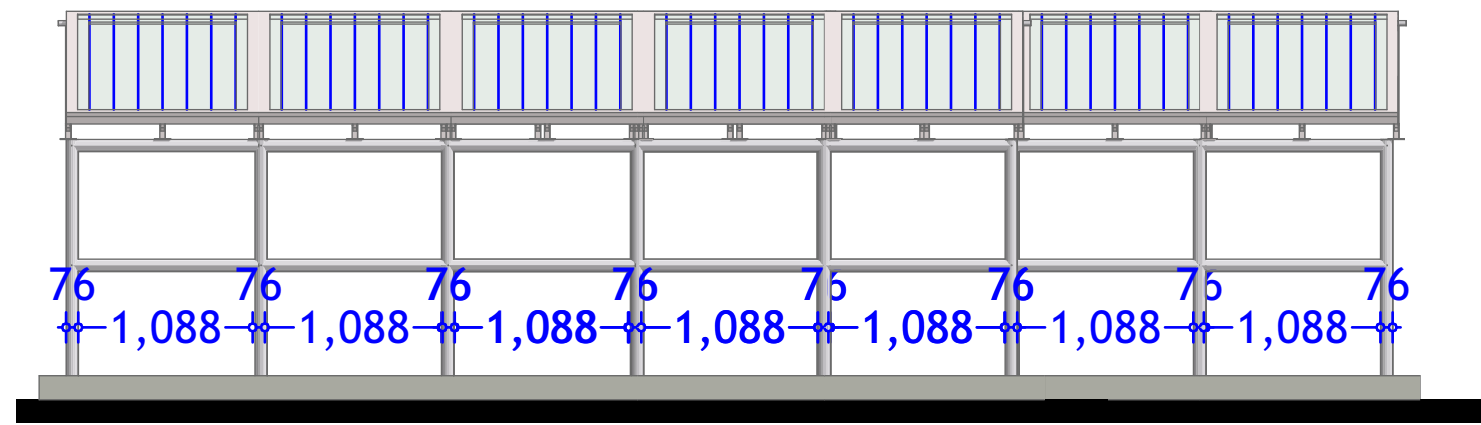
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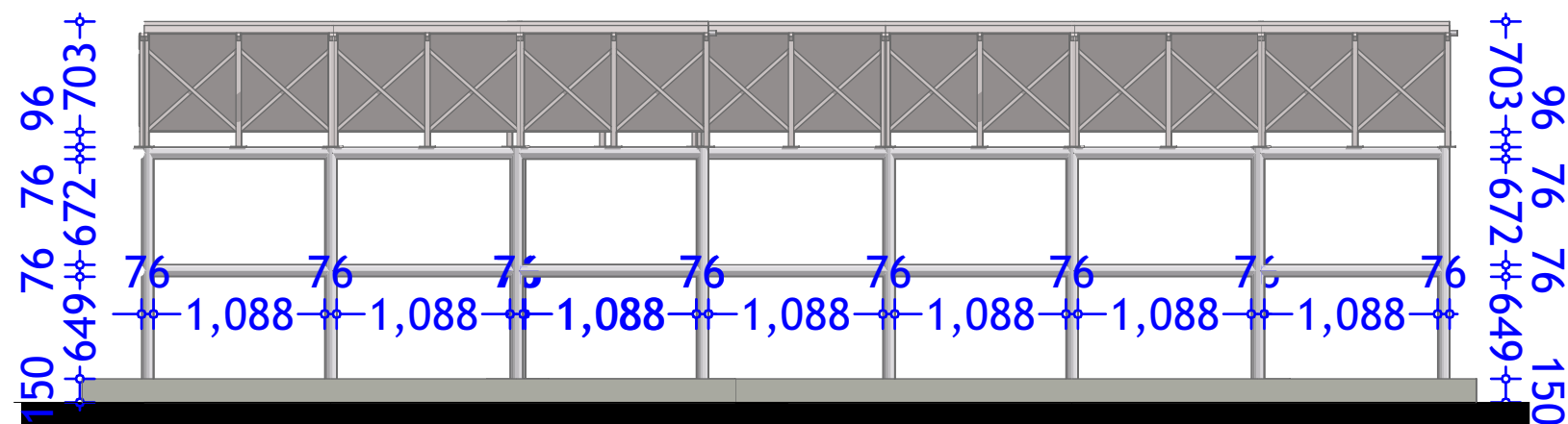
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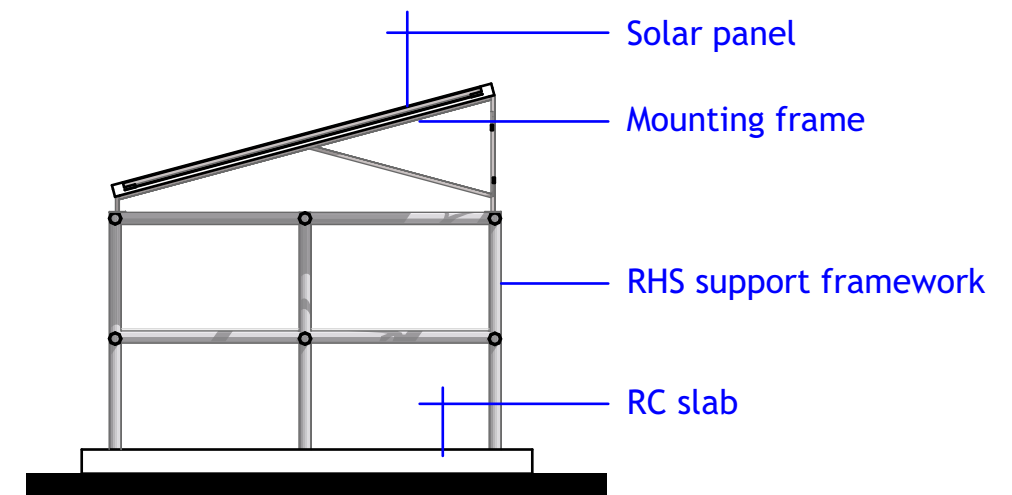
TYPICAL 7 NO. PANEL LAYOUT



SOLAR STRUCTURE ELEVATION



SOLAR STRUCTURE ELEVATION



SOLAR STRUCTURE ELEVATION

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EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

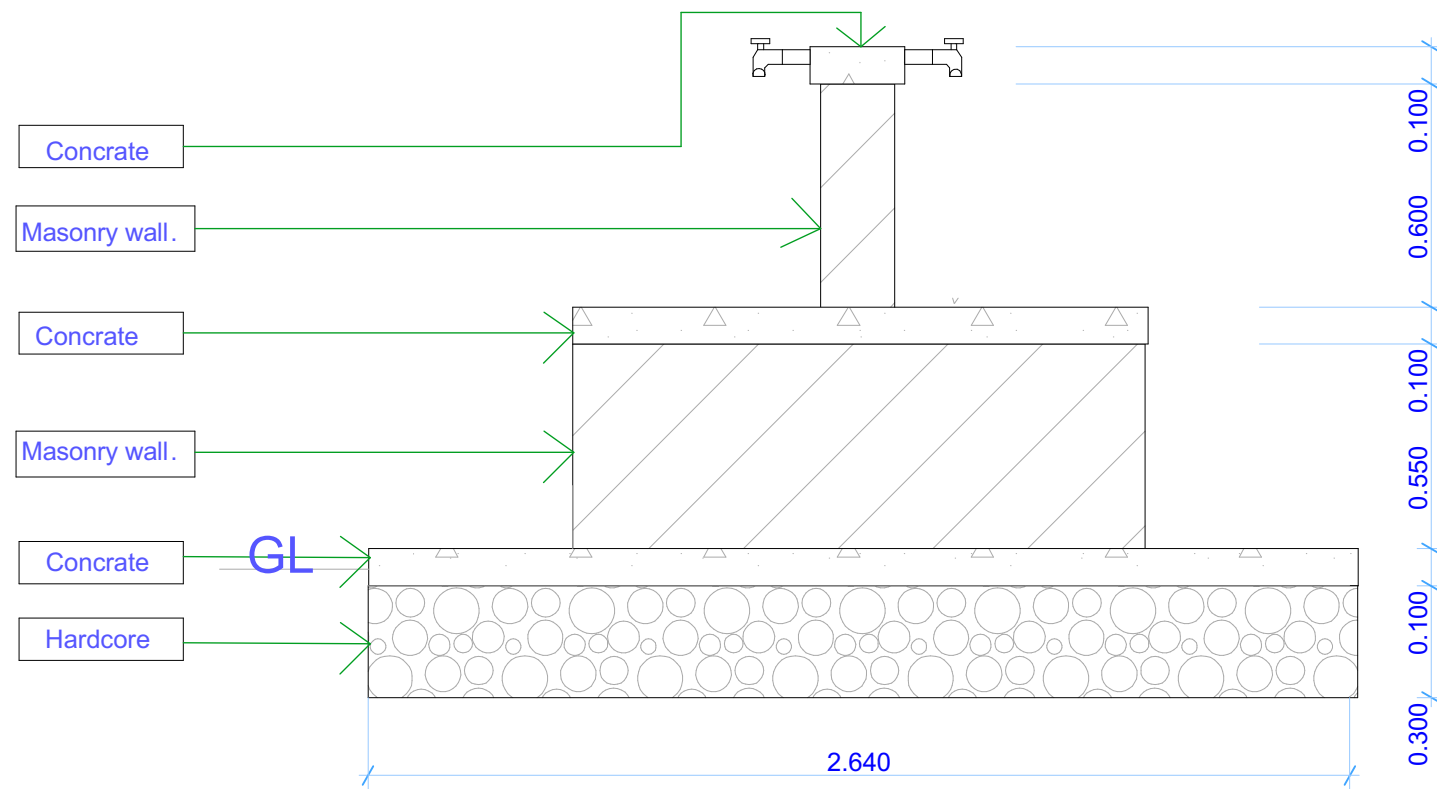
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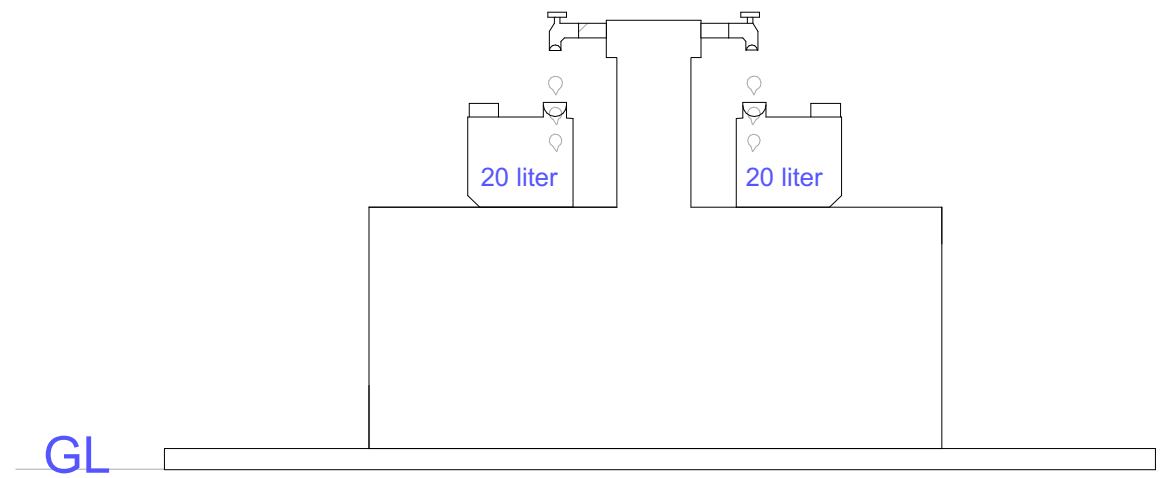
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**S.STRUCTURE  
DETAILS**

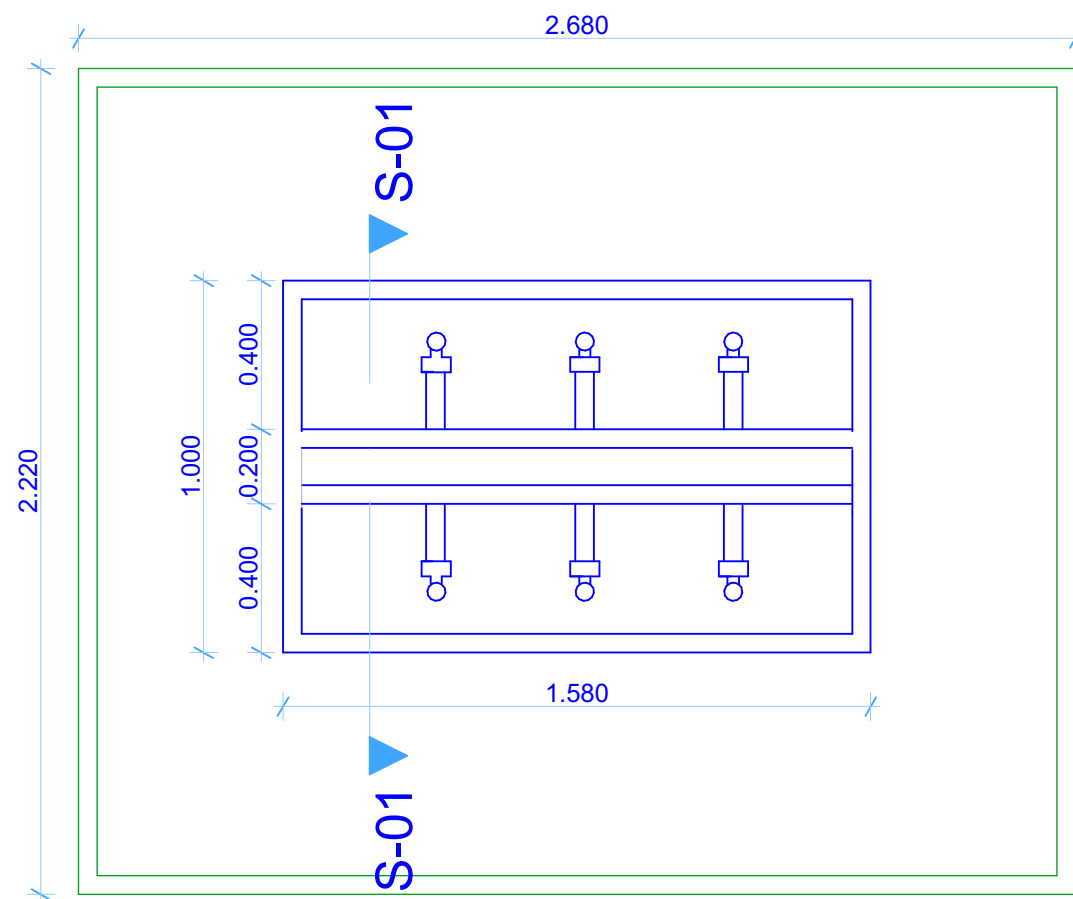
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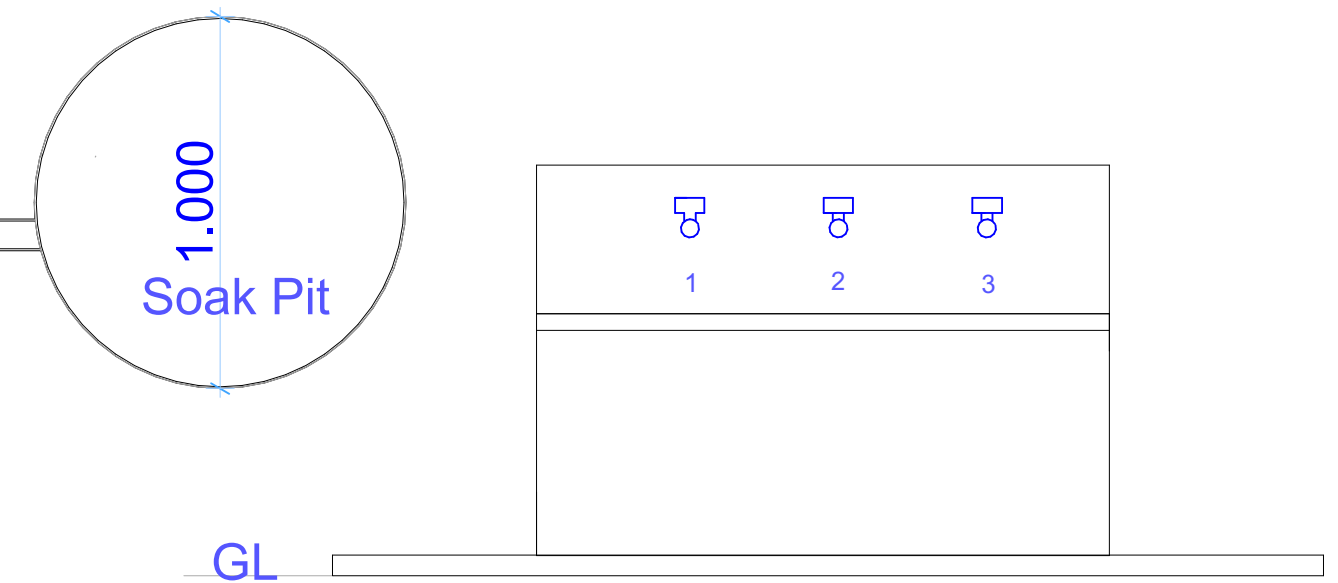
Section S-01



Side Elevation



Floor Plan



Front Elevation

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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

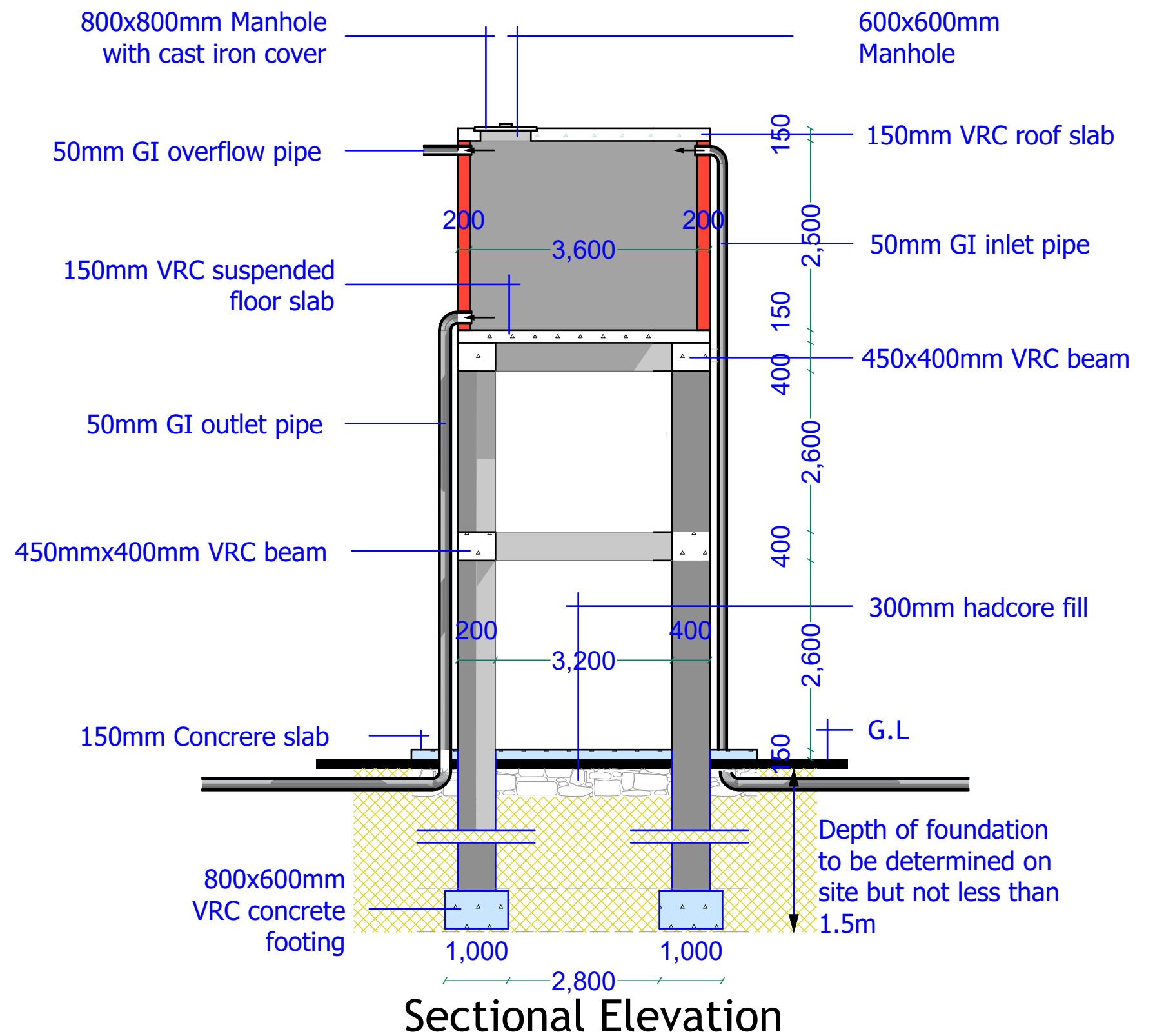
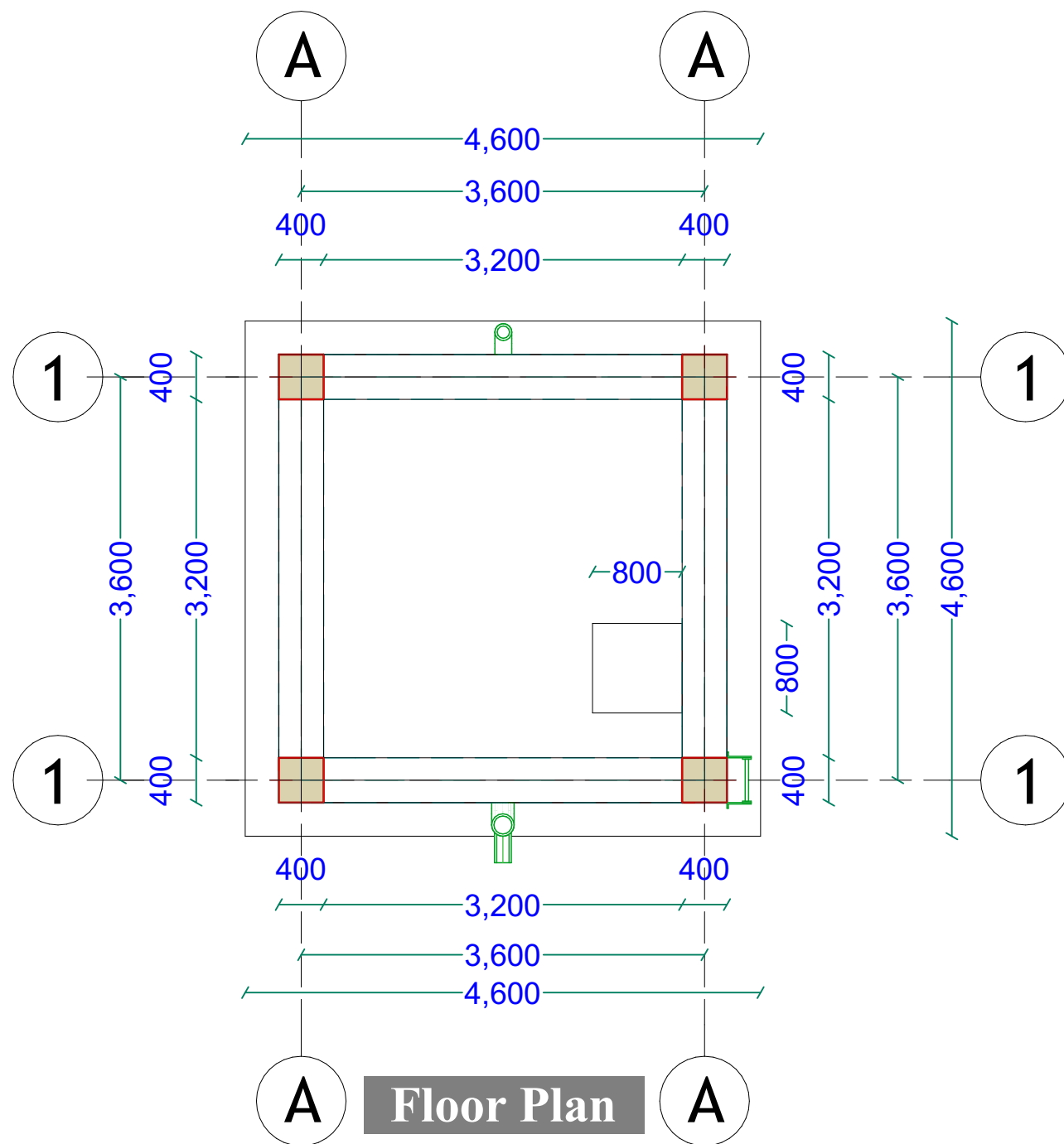
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**DRAWING N<sup>o</sup>:**

**PROJECT N<sup>o</sup>:**

**WATER KIOSK**

SHEET N<sup>o</sup>:



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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
**WASH**

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

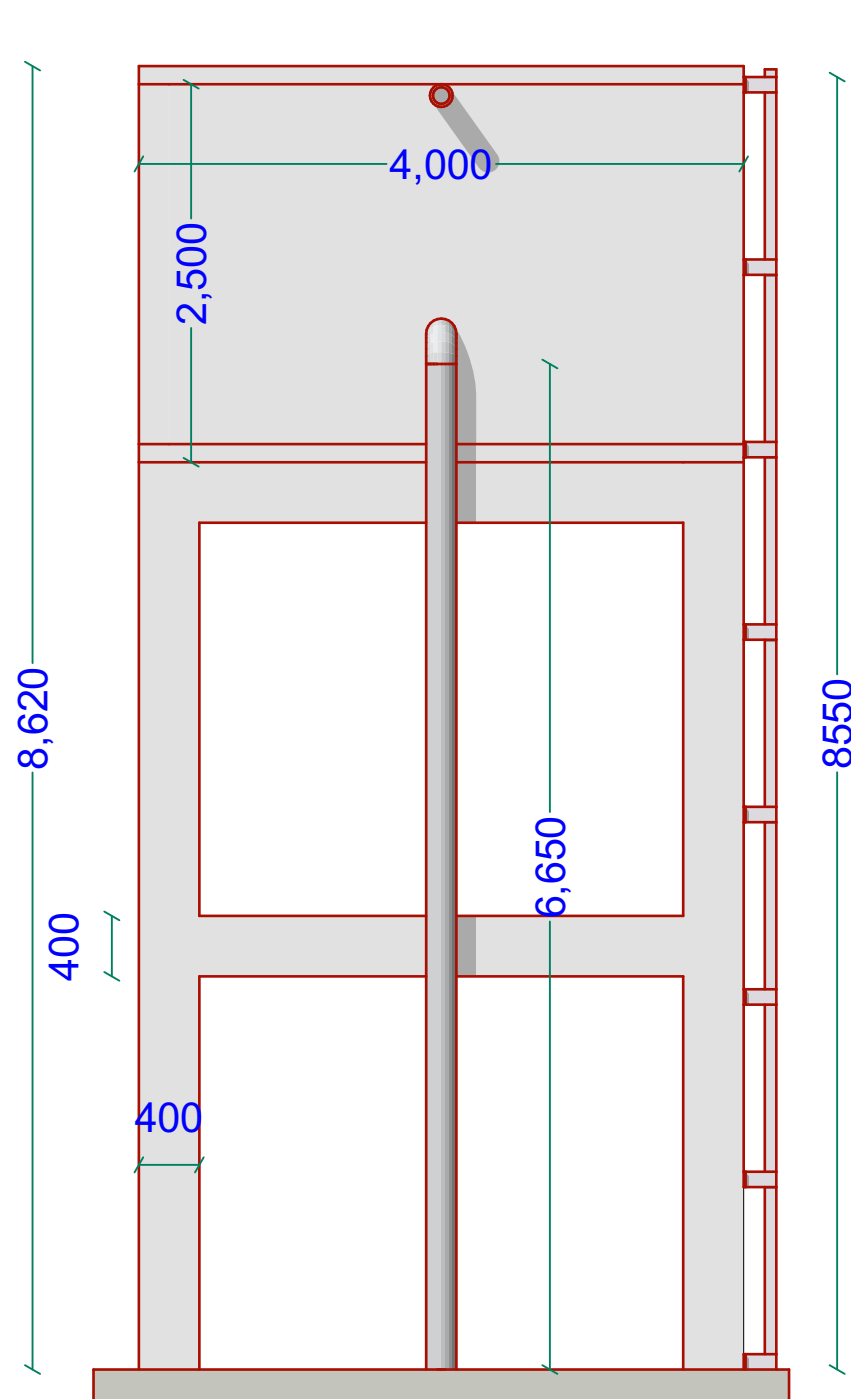
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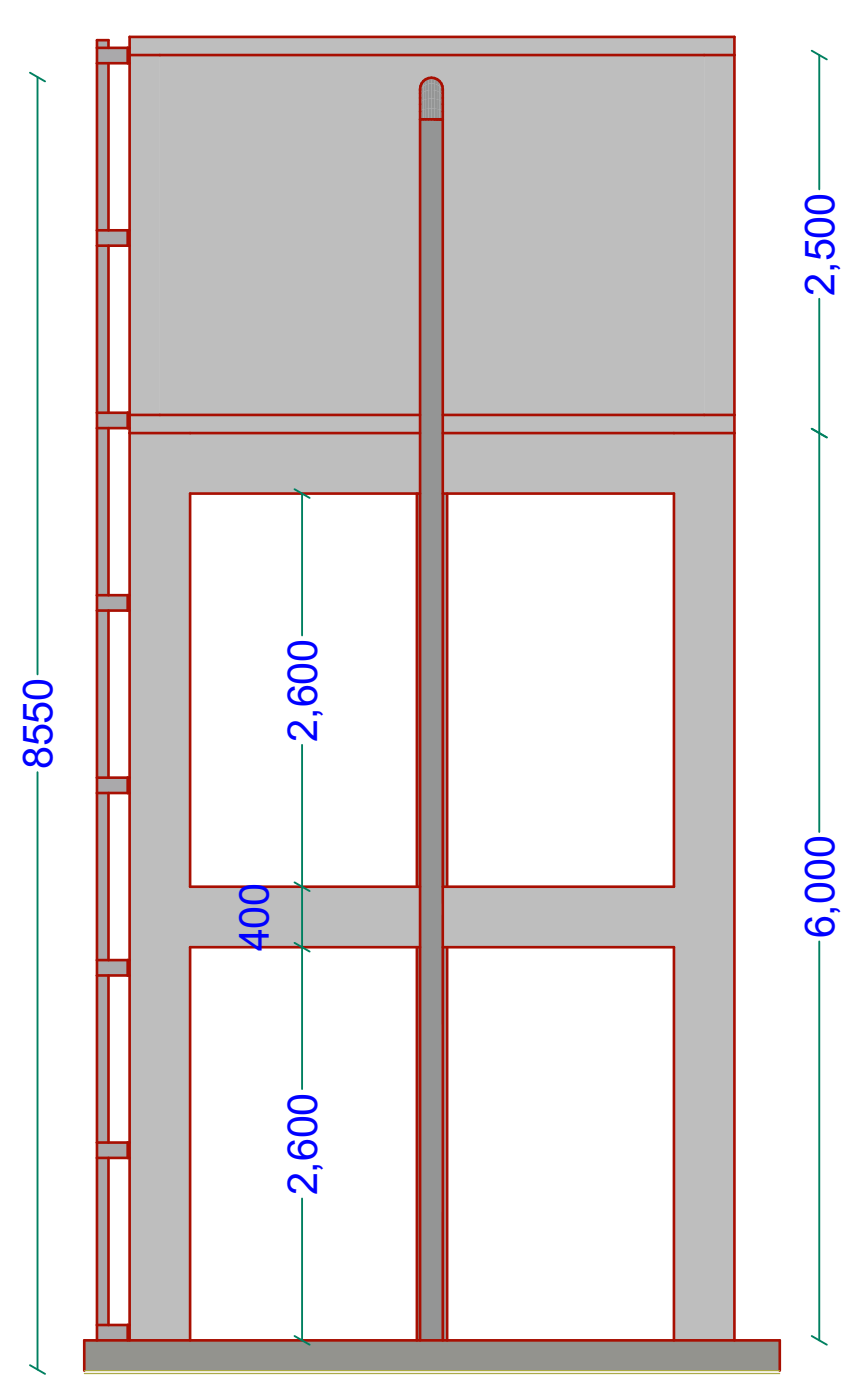
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SHEET N<sup>o</sup>:

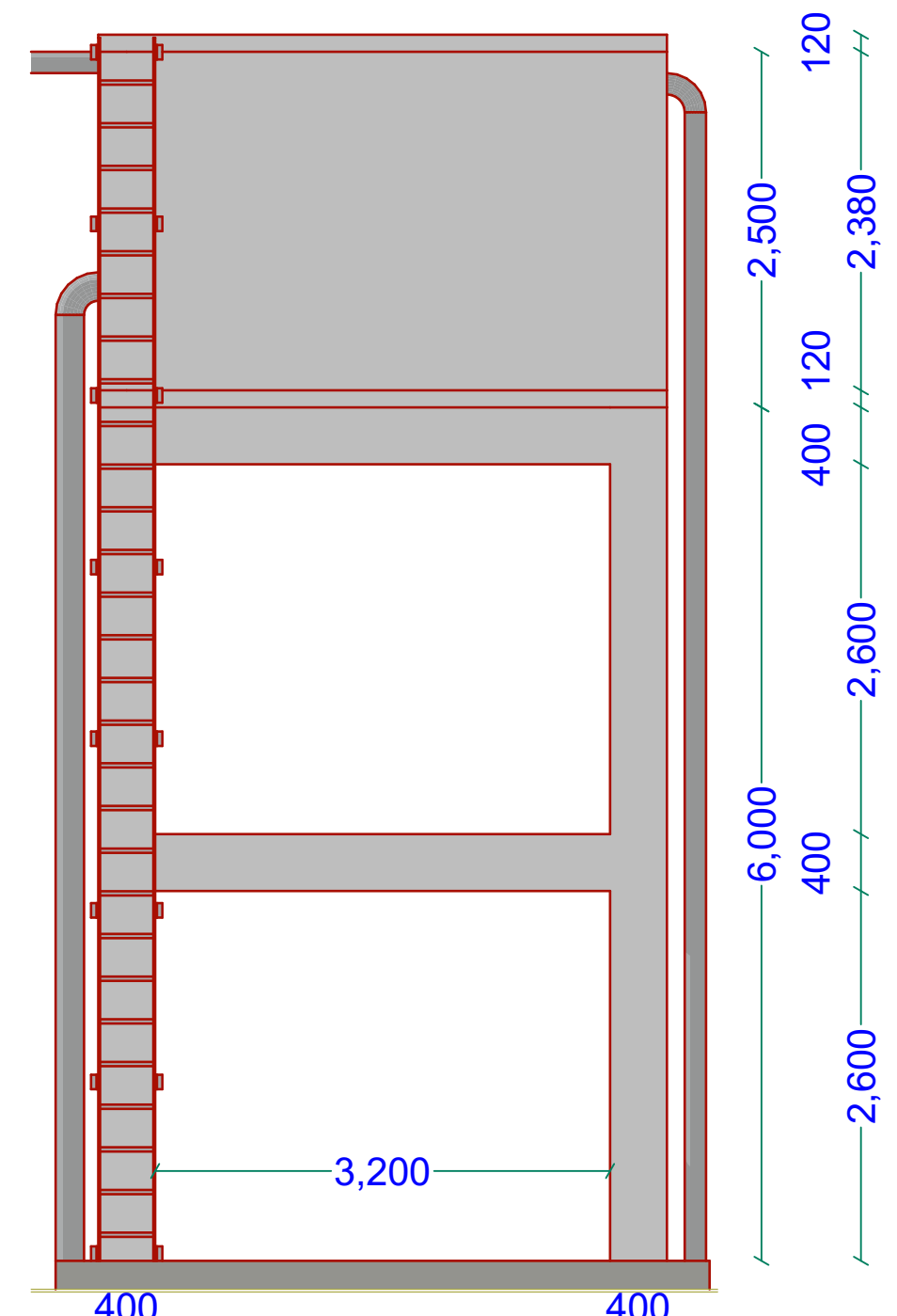
**PROJECT N<sup>o</sup>:**



**South Elevation**



**North Elevation**



**East Elevation**

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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
**WASH**

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

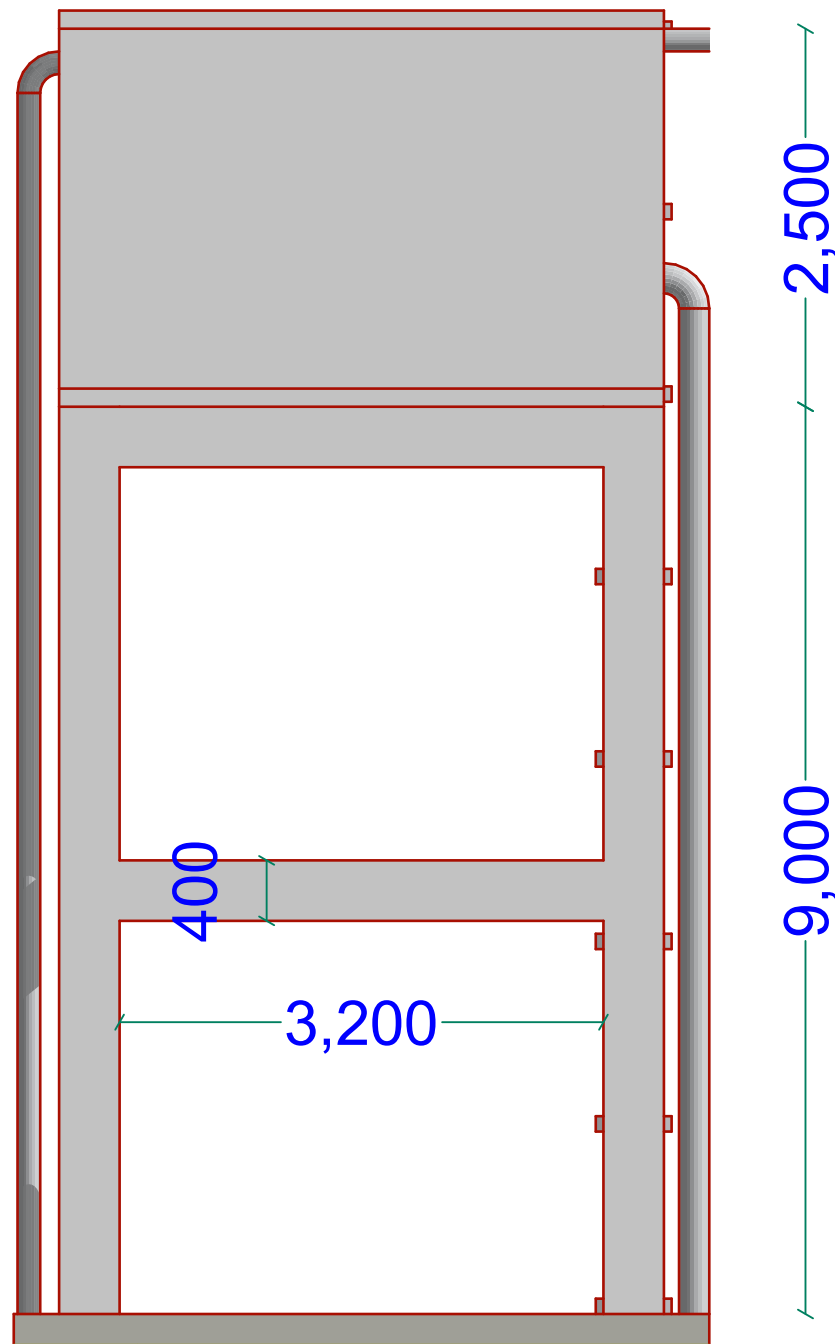
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**DRAWING N°:**

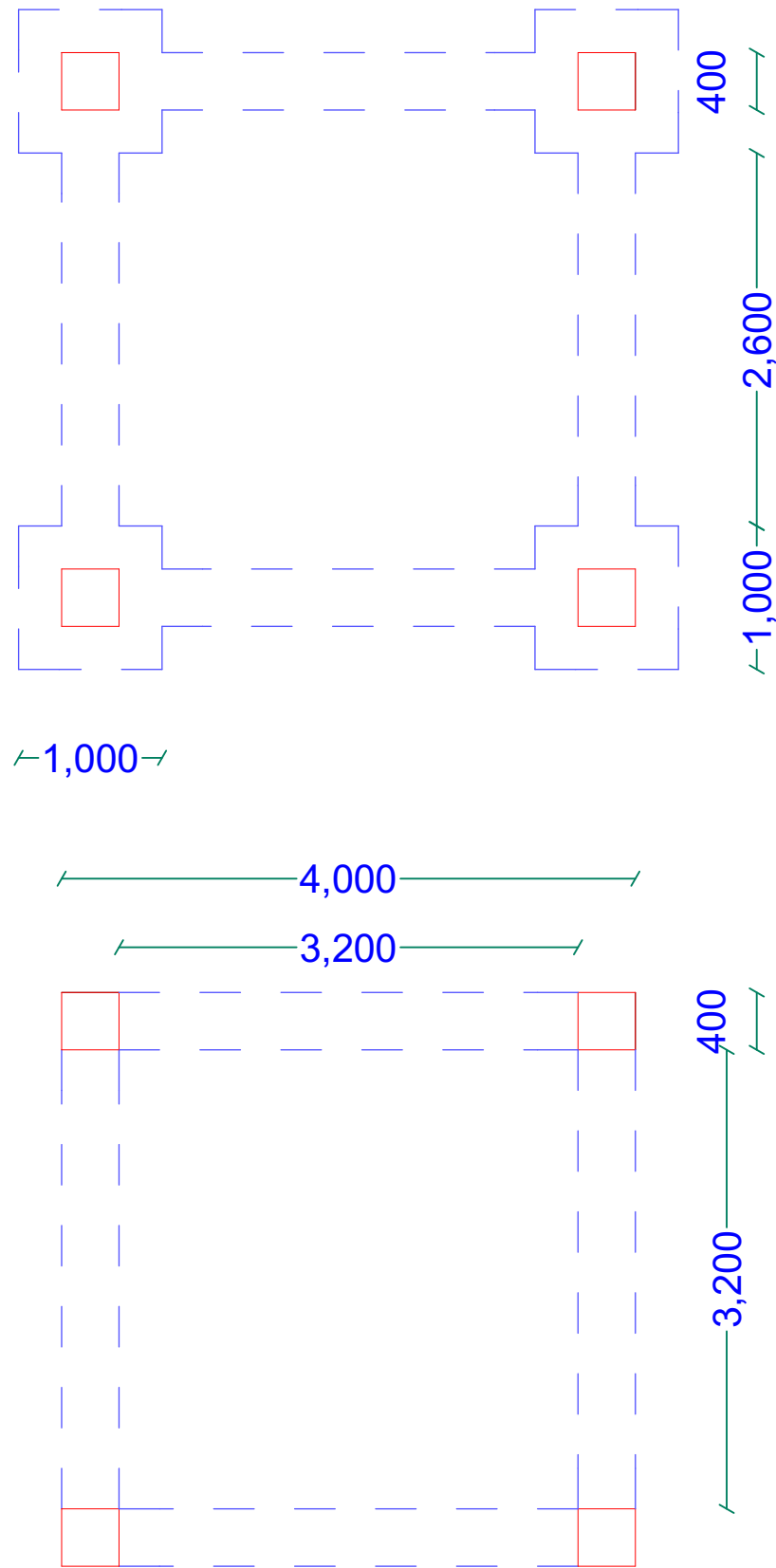
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**ELEVATED TANK**

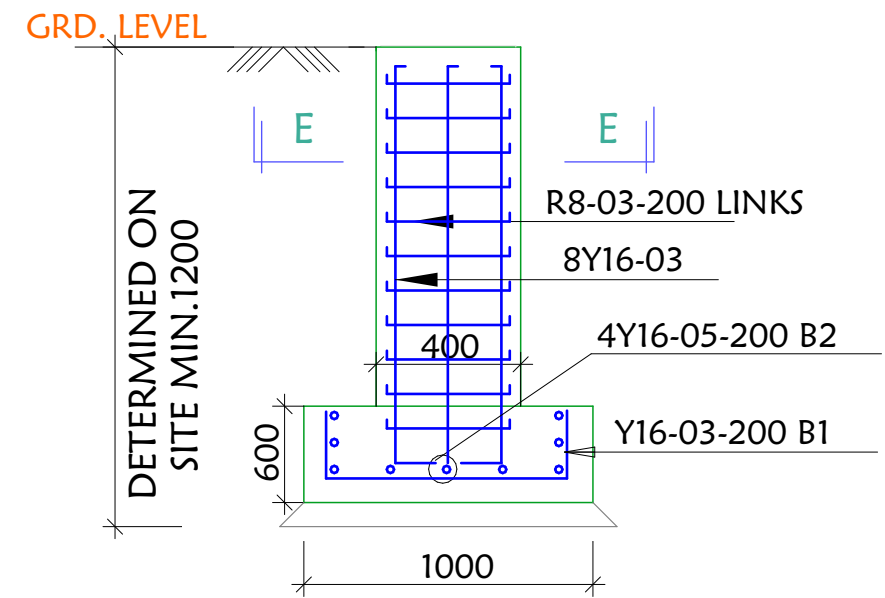
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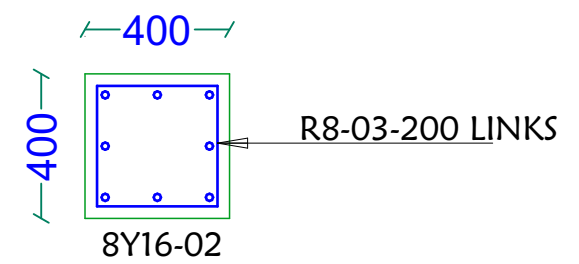
**West Elevation**




**FOUNDATION LAYOUT**



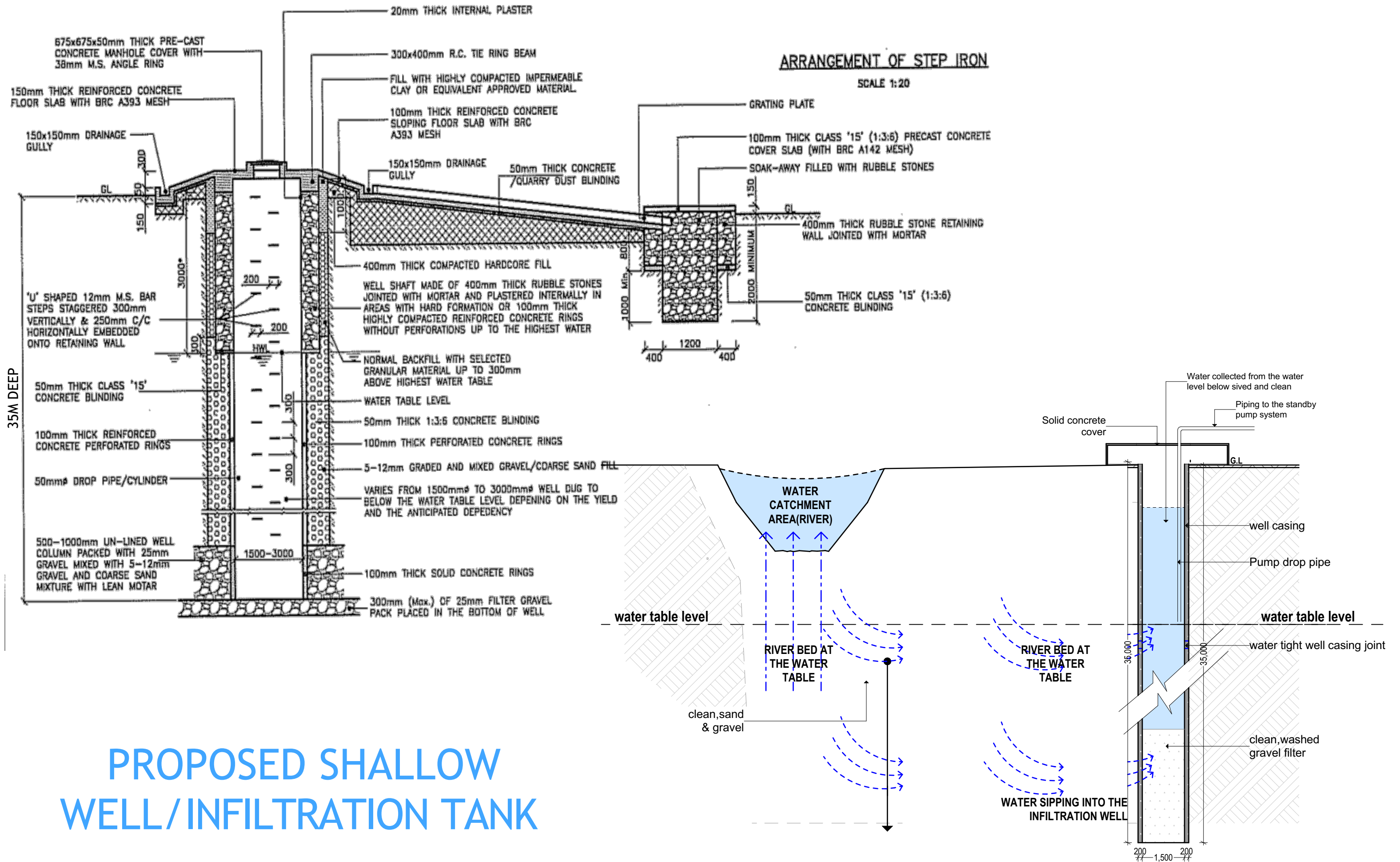
**SECTION D-D**  
SCALE 1:25



**SECTION E-E (Column)**  
SCALE 1:25

<p><b>GENERAL NOTES</b></p> <ol style="list-style-type: none"> <li>All dimensions are in mm unless stated.</li> <li>All dimensions to be checked and confirmed on site before commencement of any work.</li> <li>Any discrepancy to be reported to the engineer promptly before proceeding.</li> </ol>	<p><b>PROJECT</b></p> <p>EXCAVATION OF SHALLOW WELLS</p>	<p><b>IMPLEMENTING AGENCY</b></p>  <p>International Organization for Migration (IOM) The UN Migration Agency</p>	<p><b>DEPARTMENT</b></p> <p>WATER SANITATION AND HYGIENE <b>WASH</b></p>	<table border="1"> <tr><td>SCALE</td><td></td></tr> <tr><td>DATE</td><td>JUNE 2020</td></tr> <tr><td>DESIGNED BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>DRAWN BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>REVIEWED BY:</td><td></td></tr> <tr><td>APPROVED BY:</td><td></td></tr> </table>	SCALE		DATE	JUNE 2020	DESIGNED BY:	ENG. Wanja.D	DRAWN BY:	ENG. Wanja.D	REVIEWED BY:		APPROVED BY:		<p><b>DRAWING TITLE:</b></p> <p><b>DRAWING N<sup>o</sup>:</b></p> <p><b>PROJECT N<sup>o</sup>:</b></p>	<p><b>ELEVATED TANK</b></p> <p><b>SHEET N<sup>o</sup>:</b></p>
SCALE																		
DATE	JUNE 2020																	
DESIGNED BY:	ENG. Wanja.D																	
DRAWN BY:	ENG. Wanja.D																	
REVIEWED BY:																		
APPROVED BY:																		





# PROPOSED SHALLOW WELL/INFILTRATION TANK

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## PROJECT

EXCAVATION OF SHALLOW WELLS

## IMPLEMENTING AGENCY



## DEPARTMENT

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

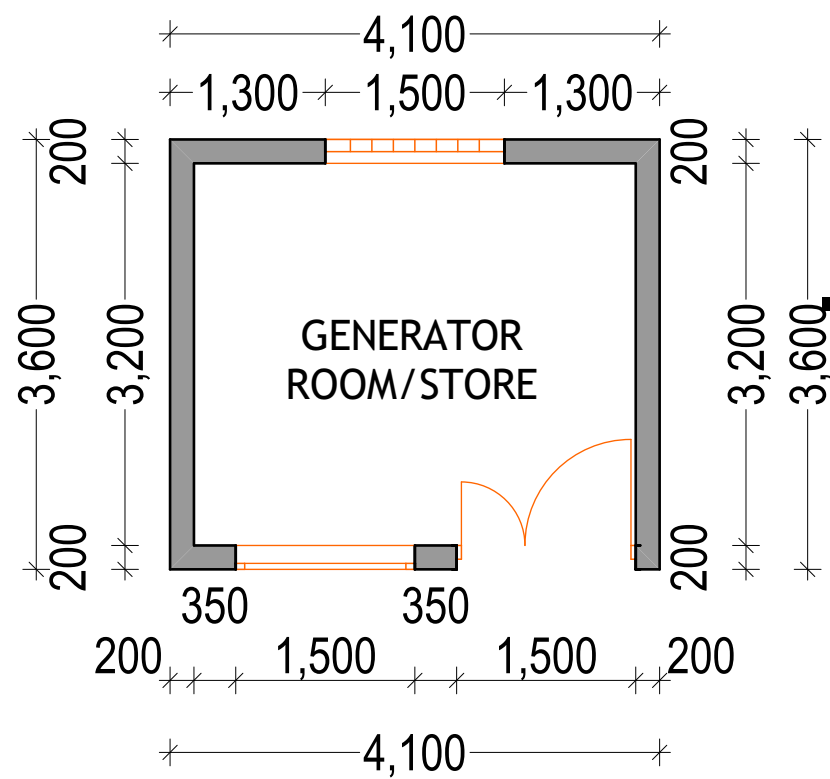
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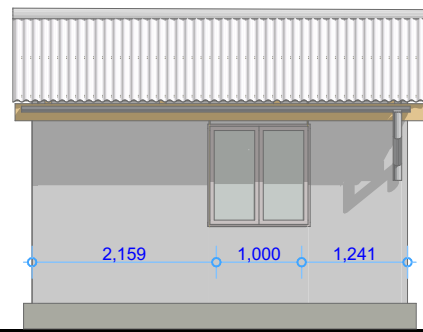
PROJECT N<sup>o</sup>:

SHALLOW WELL

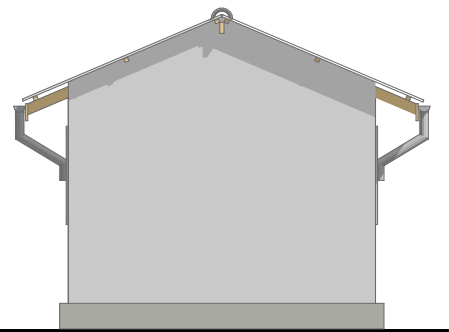
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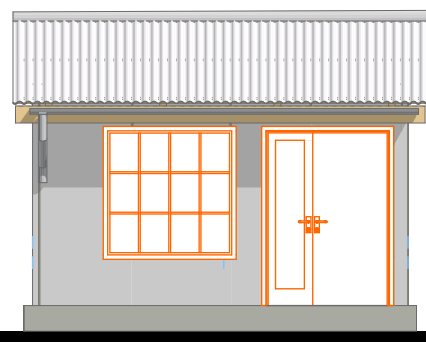
GENERATOR ROOM/STORE



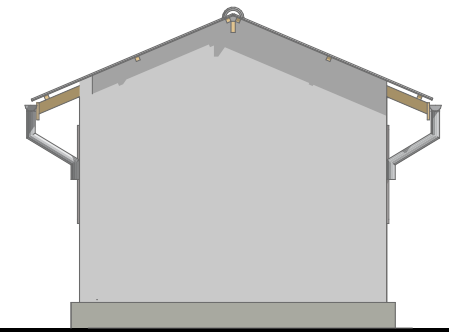
SOUTH ELEVATION



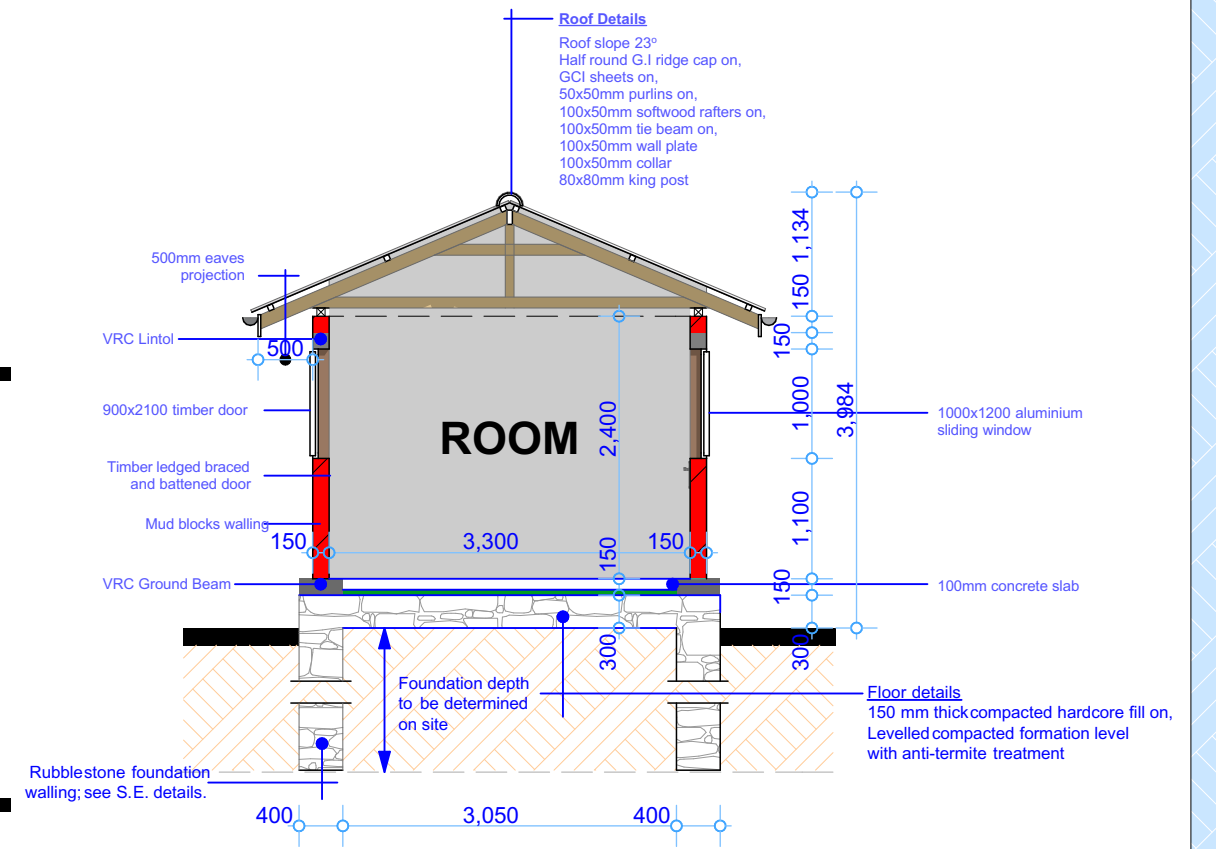
EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



SECTIONAL ELEVATION

**PROJECT**  
PROPOSED  
REHABILITATION/CONSTRUCTION WORKS



**LOCATION**  
**WASH** SUPPORTED  
ACTIVITIES IN SOMALIA

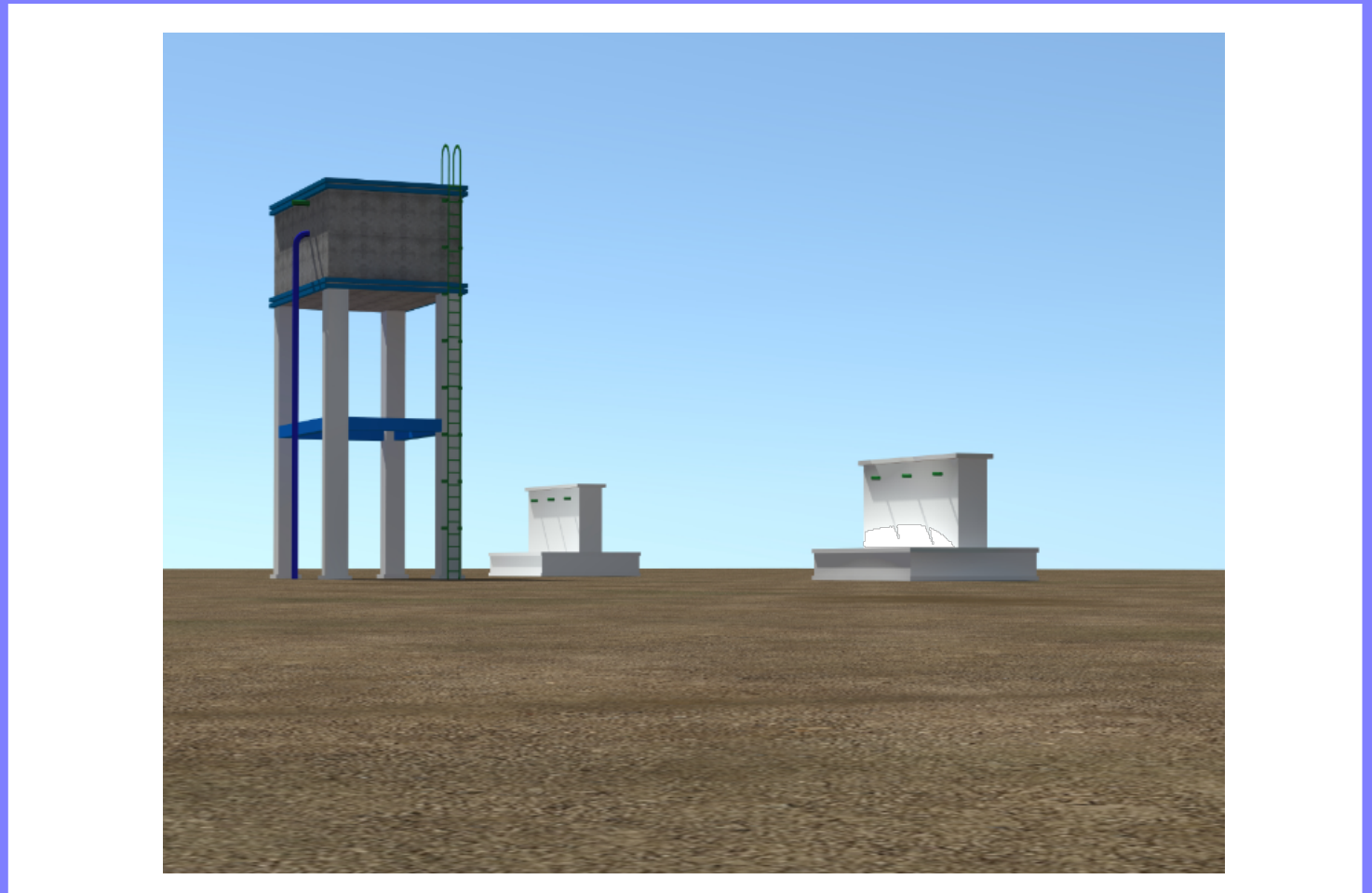
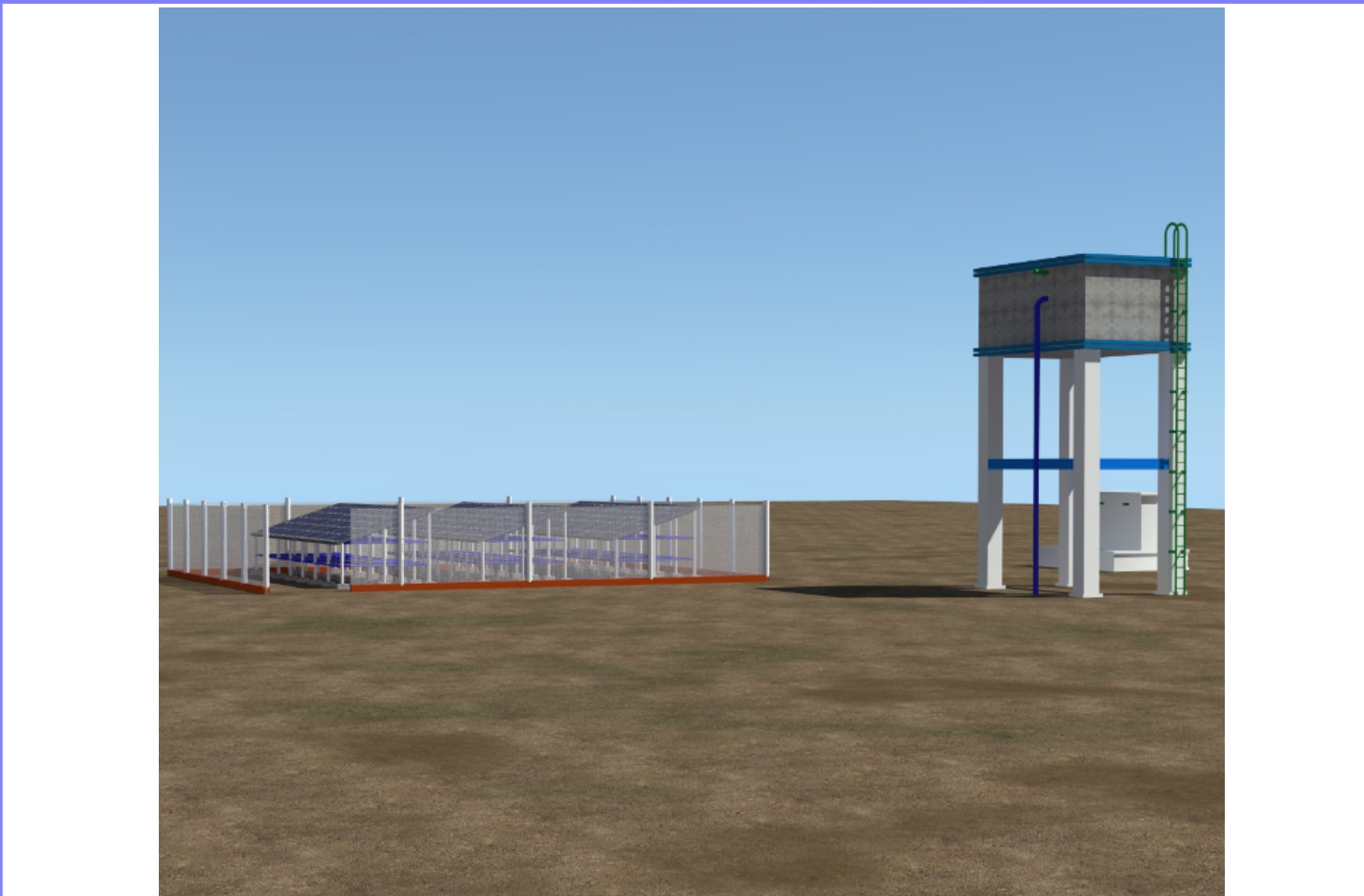
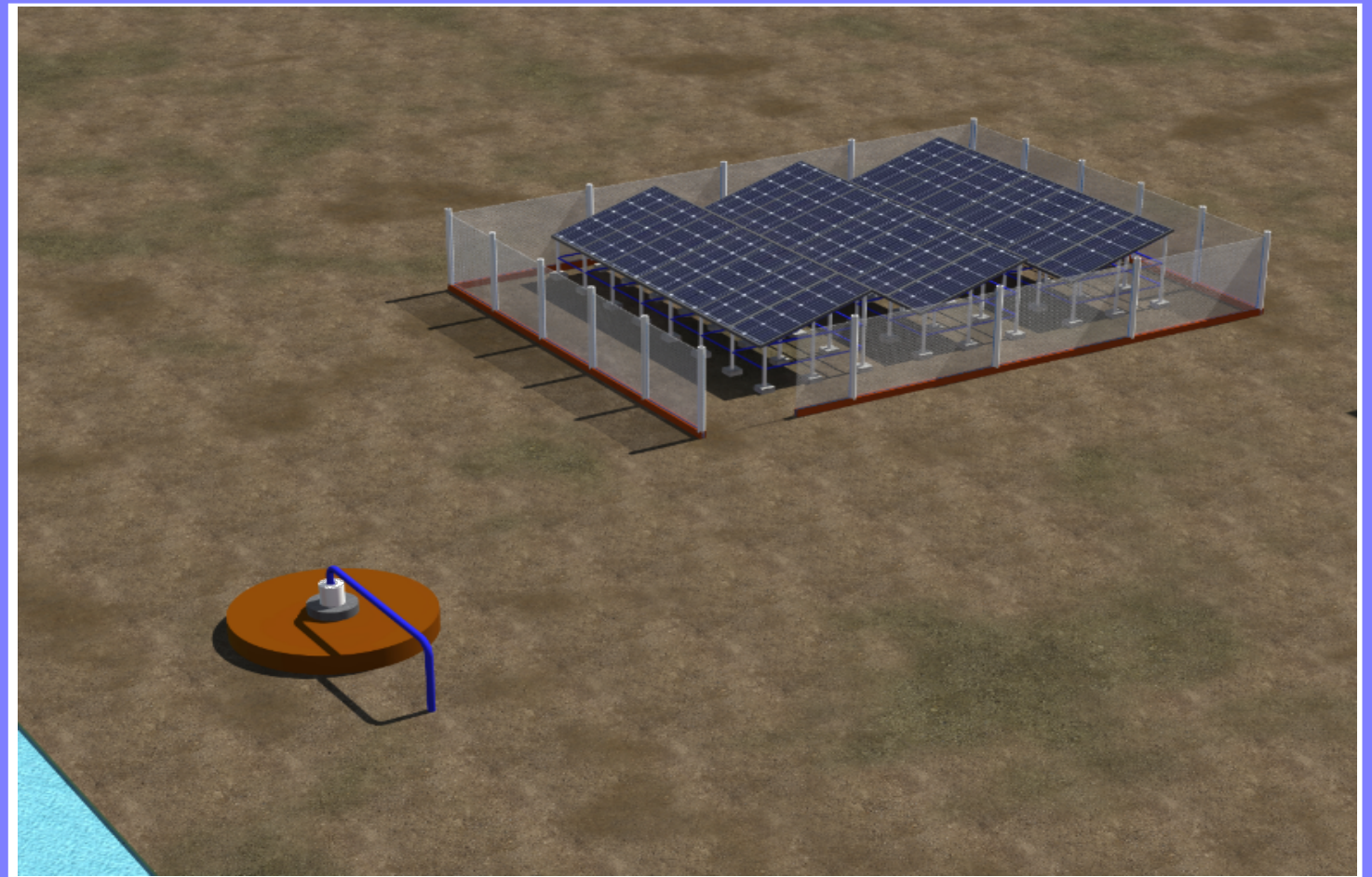
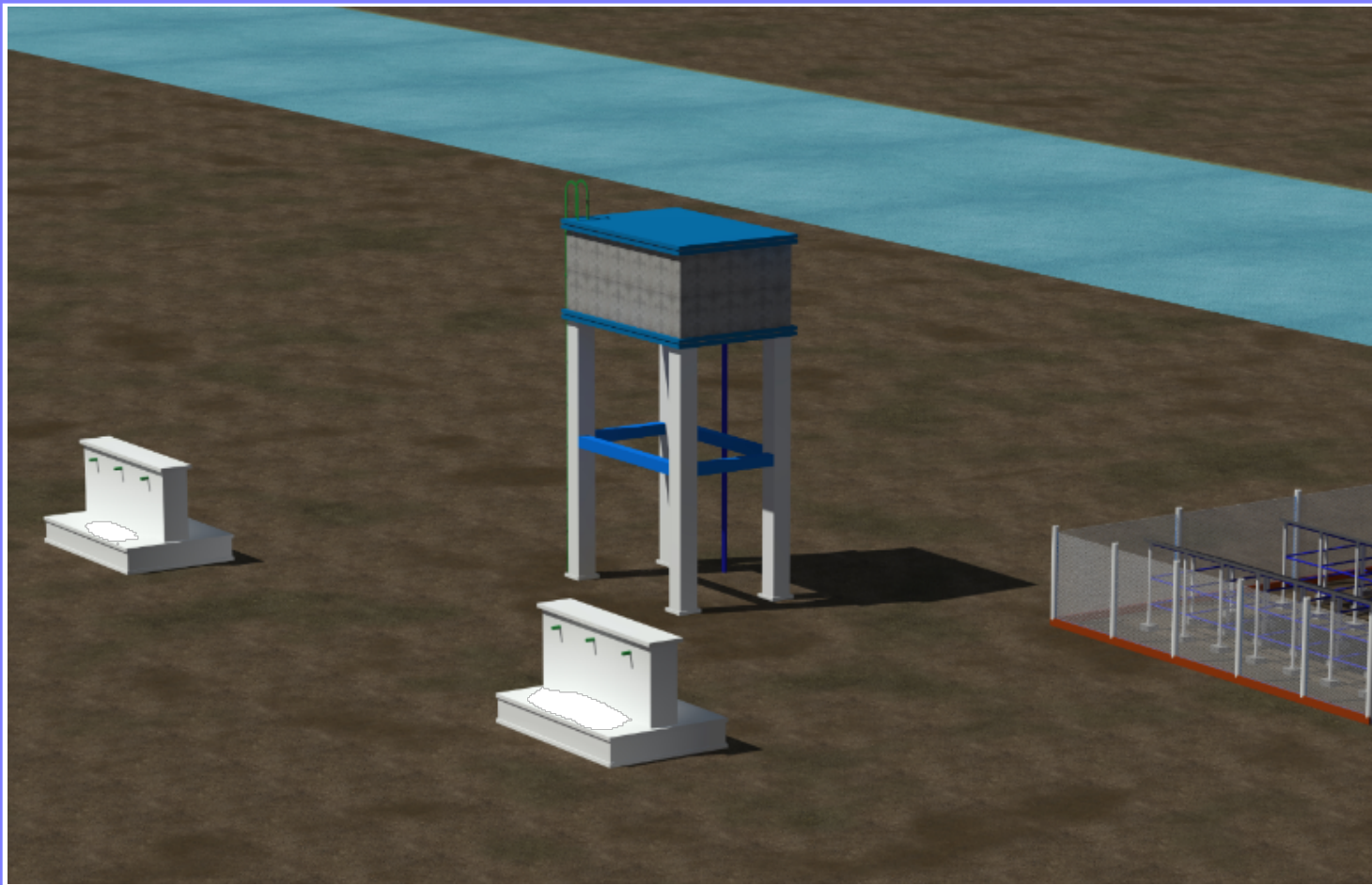
**DESCRIPTION**

REV.	DESCRIPTION	DATE

STATUS	NEW CONSTRUCTION
DATE	APRIL 2020
DESIGNED BY:	ENG. WANJA D.
DRAWN BY :	ENG. WANJA D.
REVIEWED BY:	
APPROVED BY:	DR. O. KHYARE

**DRAWING TITLE:**  
Details  
**DRAWING N<sup>o</sup>:**  
**PROJECT N<sup>o</sup>:**

SHEET N<sup>o</sup>:



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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
**WASH**

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

<b>DRAWING TITLE:</b>
<b>DRAWING N<sup>o</sup>:</b>
<b>PROJECT N<sup>o</sup>:</b>

<b>VIEWS</b>
SHEET N <sup>o</sup> :

# PS2-1800 C-SJ8-7

## Solar Submersible Pump System for 4" wells

### System Overview

Head	max. 40 m
Flow rate	max. 13 m <sup>3</sup> /h

### Technical Data

#### Controller PS2-1800

- Controlling and monitoring
- Control inputs for dry running protection, remote control etc.
- Protected against reverse polarity, overload and overtemperature
- Integrated MPPT (Maximum Power Point Tracking)
- Battery operation: Integrated low voltage disconnect
- Integrated Sun Sensor

Power	max. 1,8 kW
Input voltage	max. 200 V
Optimum Vmp**	> 102 V
Motor current	max. 14 A
Efficiency	max. 98 %
Ambient temp.	-40...50 °C
Enclosure class	IP68

#### Motor ECDRIVE 1200-C / ECDRIVE 1800-C

- Maintenance-free brushless DC motor
- Water filled
- Premium materials, stainless steel: AISI 304/316
- No electronics in the motor

Rated power	1,7 kW
Efficiency	max. 92 %
Motor speed	900...3 300 rpm
Insulation class	F
Enclosure class	IP68
Submersion	max. 150 m

#### Pump End PE C-SJ8-7

- Non-return valve
- Premium materials, stainless steel: AISI 304
- Optional: dry running protection
- Centrifugal pump

#### Pump Unit PU1800 C-SJ8-7 (Motor, Pump End)

Borehole diameter	min. 4,0 in
Water temperature	max. 50 °C

### Standards



2006/42/EC, 2004/108/EC, 2006/95/EC

IEC/EN 61702:1995

The logos shown reflect the approvals that have been granted for this product family. Products are ordered and supplied with the approvals specific to the market requirements.

\*\*Vmp: MPP-voltage under Standard Test Conditions (STC): 1000 W/m<sup>2</sup> solar irradiance, 25 °C cell temperature

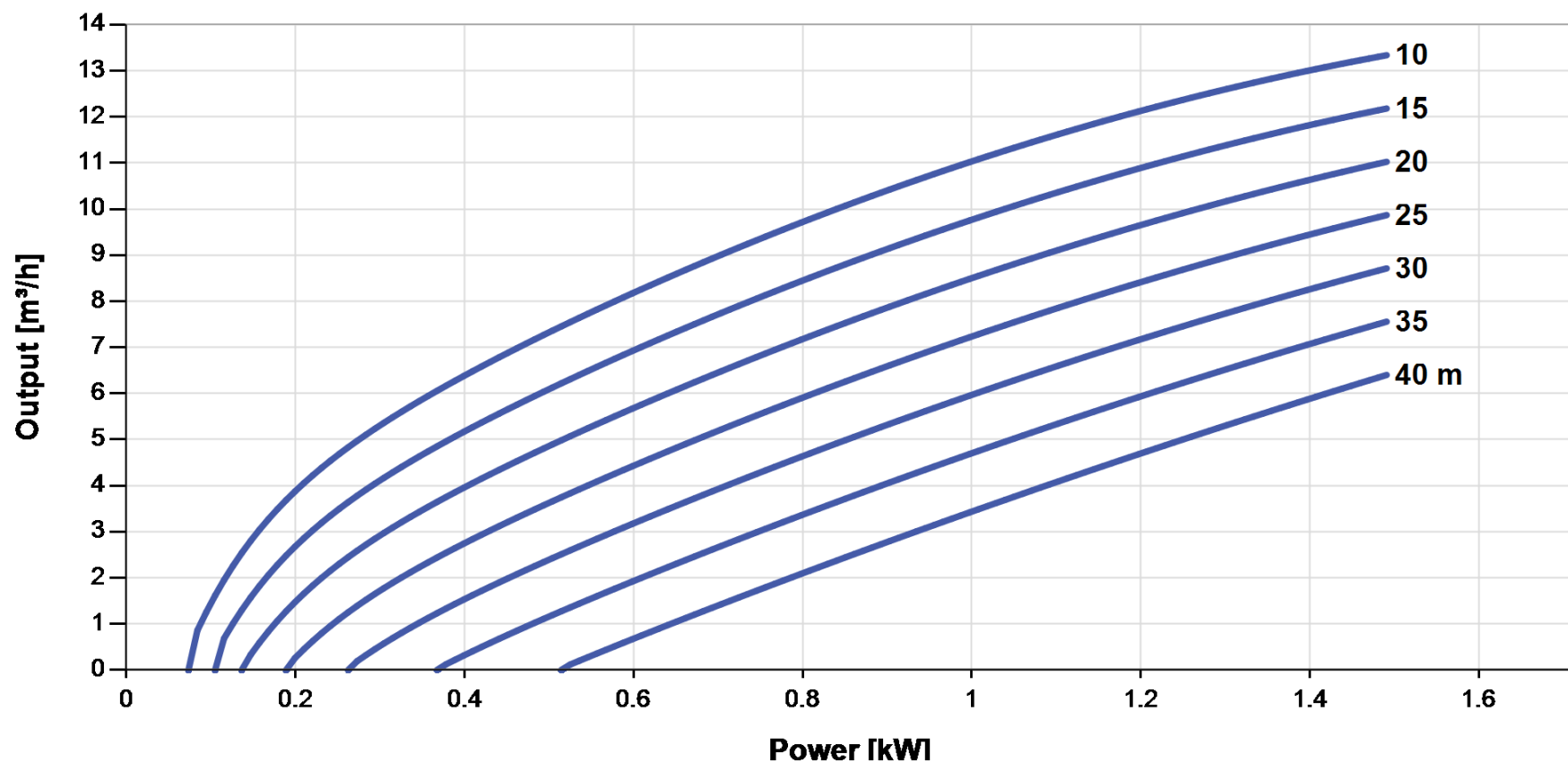


## PS2-1800 C-SJ8-7

Solar Submersible Pump System for 4" wells

### Pump Chart

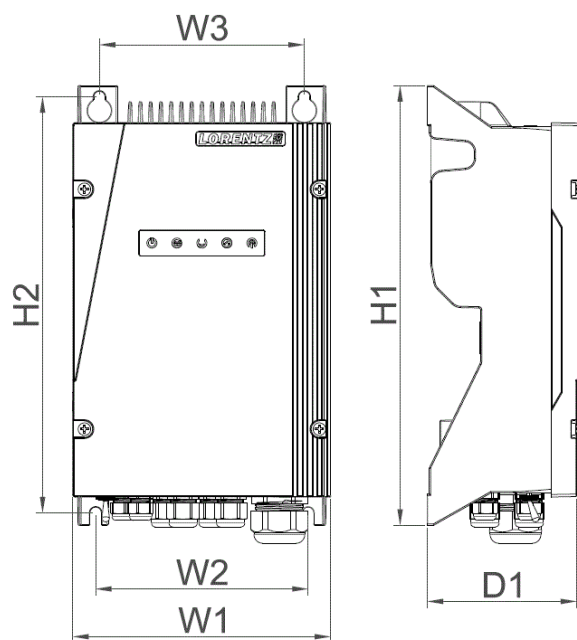
Vmp\* > 102 V



### Dimensions and Weights

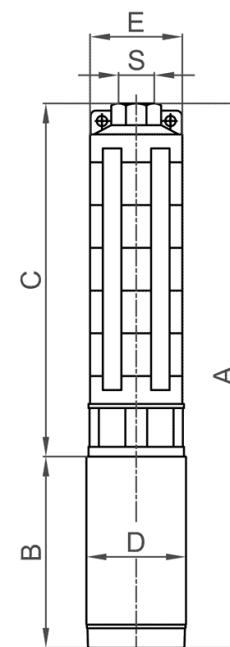
#### Controller

H1 = 352 mm  
 H2 = 333 mm  
 W1 = 207 mm  
 W2 = 170 mm  
 W3 = 164 mm  
 D1 = 124 mm



#### Pump Unit

A = 684 mm  
 B = 185 mm  
 C = 499 mm  
 D = 96 mm  
 E = 98 mm  
 S = 2 in



	Net weight
Controller	6,0 kg
Pump Unit	14 kg
Motor	7,0 kg
Pump End	6,5 kg

\*Vmp: MPP-voltage under Standard Test Conditions (STC): 1000 W/m² solar irradiance, 25 °C cell temperature

BERNT LORENTZ GmbH & Co. KG  
 Siebenstuecken 24, 24558 Henstedt-Ulzburg,  
 Germany, Tel +49 (0)4193 8806-700, www.lorentz.de



Created by LORENTZ COMPASS 3.1.0.95

All specifications and information are given with good intent, errors are possible and products may be subject to change without notice. Pictures may differ from actual products depending on local market requirements and regulations.

**Sun. Water. Life.**