



**ACTION AGAINST HUNGER
DAIKUNDI OFFICE
WASH DEPARTMENT**

(TECHNICAL DRAWING PART)

**PROJECT NAME:
WATER SUPPLY NETWORK PROJECT**

JUN, 10, 2024

PREPARED BY: WASH DEPARTMENT

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Scale:

Note: All dimension are in millimeter

Action Against Hunger

WASH Department

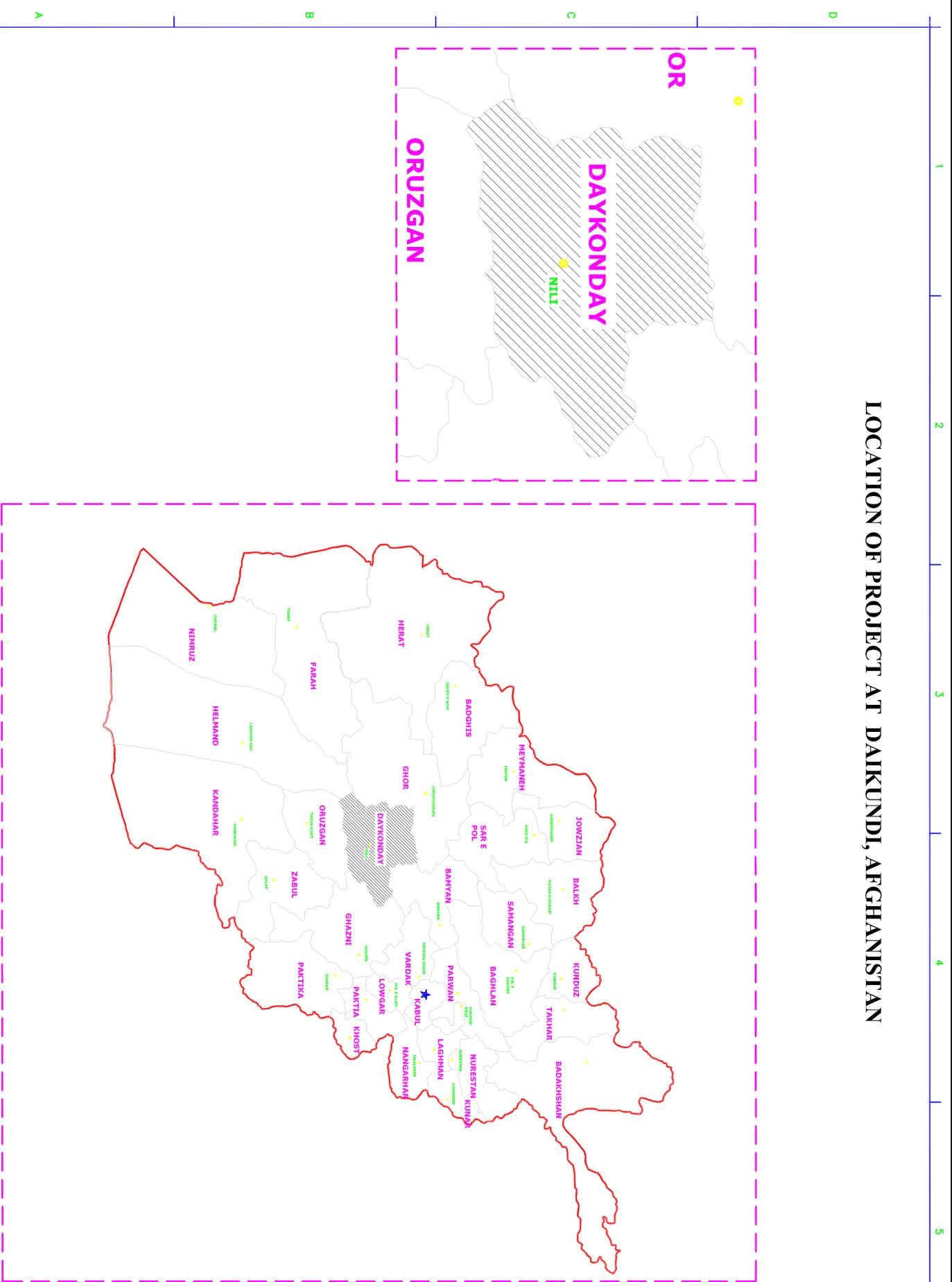
DW.No:

G-101

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali



LOCATION OF PROJECT AT DAIKUNDI, AFGHANISTAN



G-102 | LOCATION OF PROJECT
REF. SCALE: N.T.S



DW.No:	Action Against Hunger				Scale:
	WASH Department				
G-102	Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh	Note: All dimension are in millimeter
	Province	Daikundi	Chick by	Mohamad Nekandesh	
	District	Shahrستان	Approved by	Yaddullah Jalali	

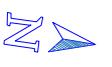
Site plan for Nawa Jamalqo Networking project



G-103 | SITE PLAN

REF

SCALE: N.T.S



DW.No:

G-103

Action Against Hunger

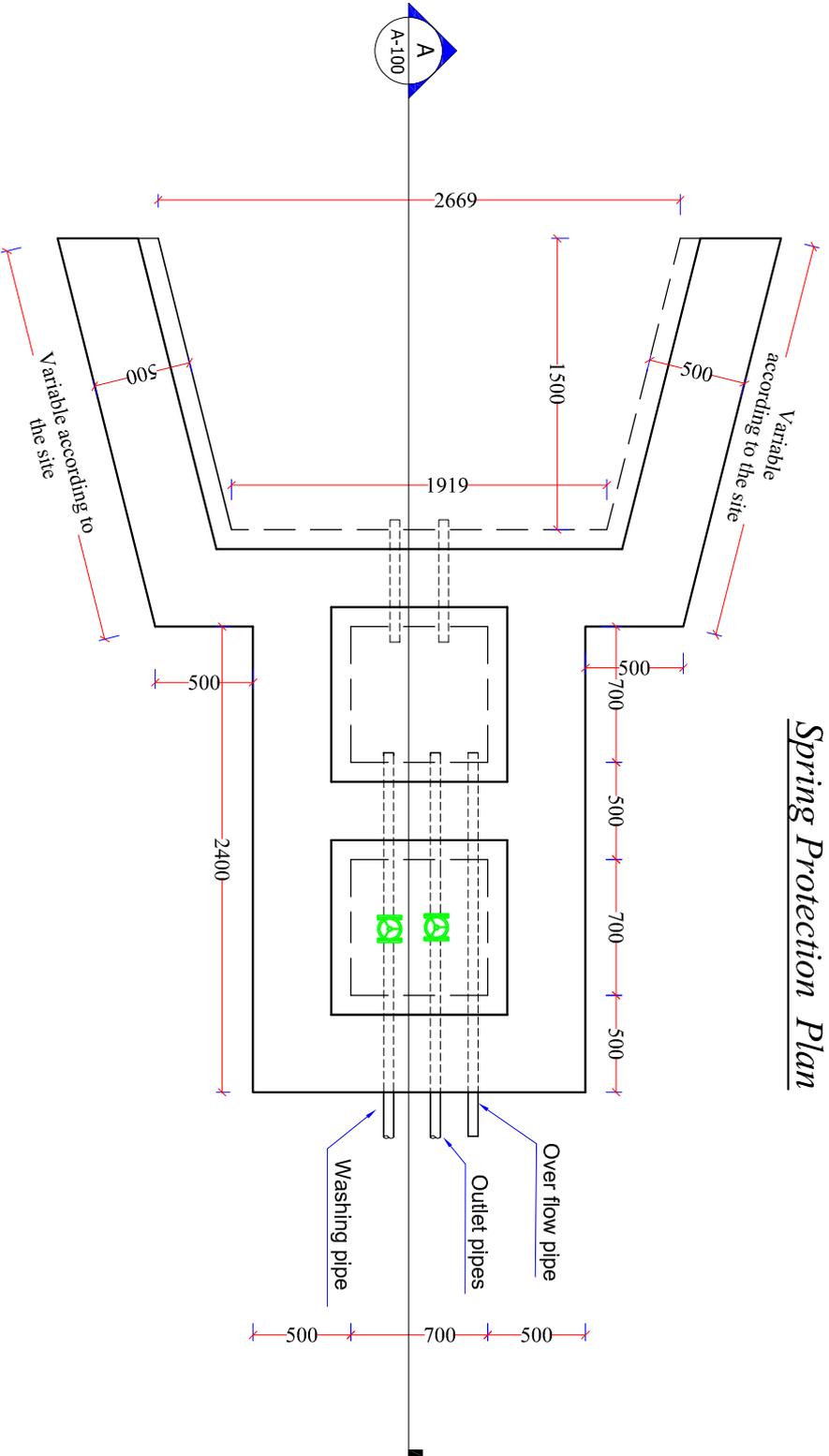
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	(.....)	Approved by	Yaddullah Jalali

Scale:

Note: All dimension are in millimeter

- Note:**
- 1- All dimensions are in mm unless otherwise stated.
 - 2- All PCC works should be with 1:2:4 mortar unless otherwise stated.
 - 3- All RCC works should be with 1:1.5:3 mortar unless otherwise stated.
 - 4- Stone masonry must be worked with 1:4 mortar unless otherwise stated.
 - 5- Curing must be continued upto 28 days.
 - 6- Clear and Clean water must be used every where.



Note:
All GI and polyethylene pipes diameters must chose according to BoQ specification



DW.No:

A-101

Action Against Hunger

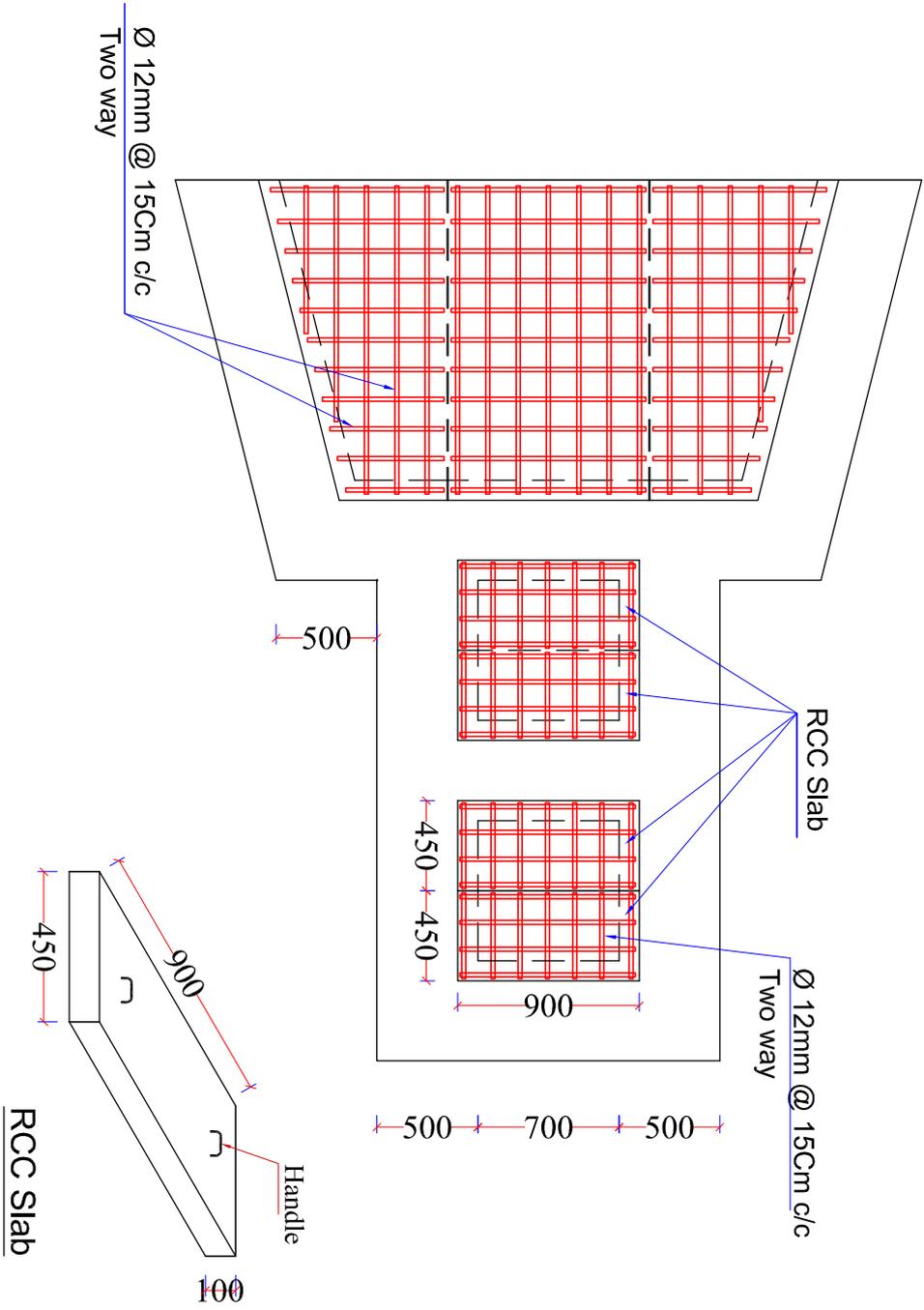
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:

Note: All dimension are in millimeter

Spring Protection Structure Reinforcement



A-102 SPRING PROTECTION REINFORCEMENT
 REF: SCALE: 1:25



DW.No:

A-102

Action Against Hunger

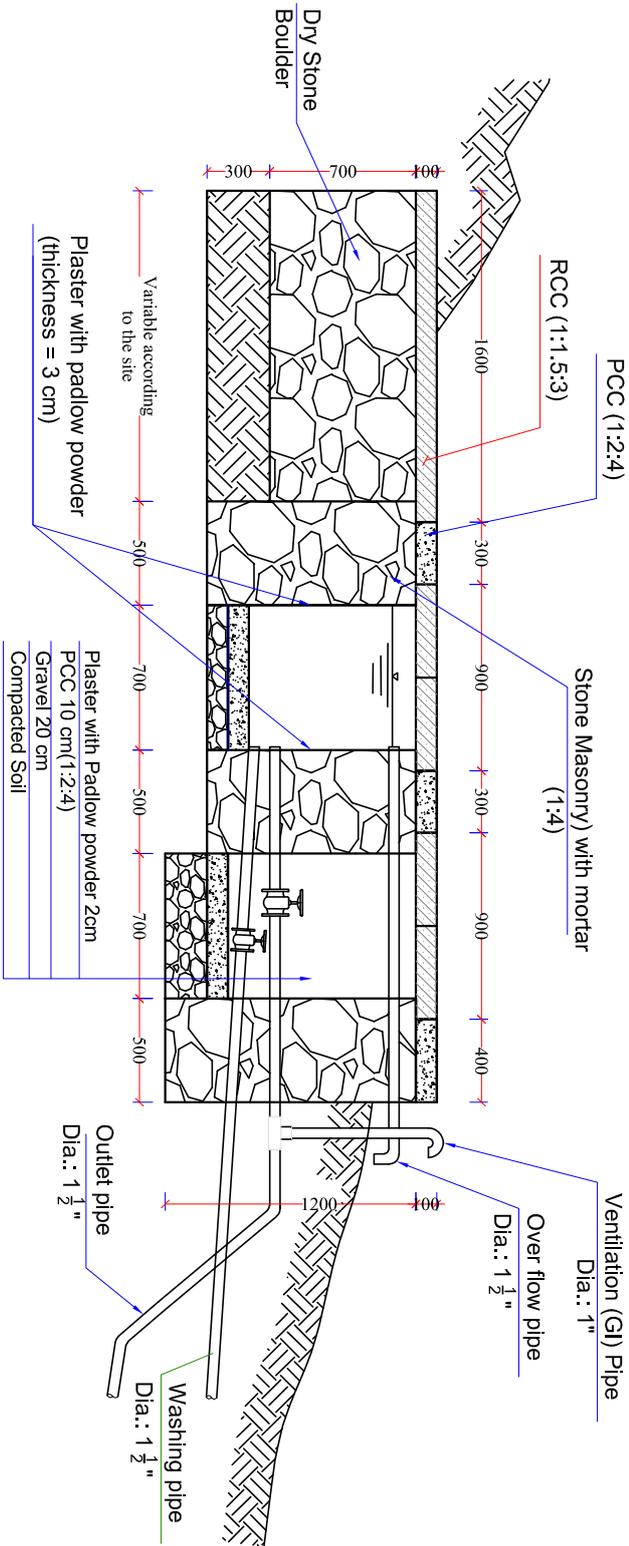
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:

Note: All dimension are in millimeter

Note:
The inside of sedimentation and gate valve box should be plastered with cement-sand mortar and padlow powder.



Section A - A

Note:
All GI and polyethylene pipes diameters must chose according to BoQ specification



DW.No:

A-103

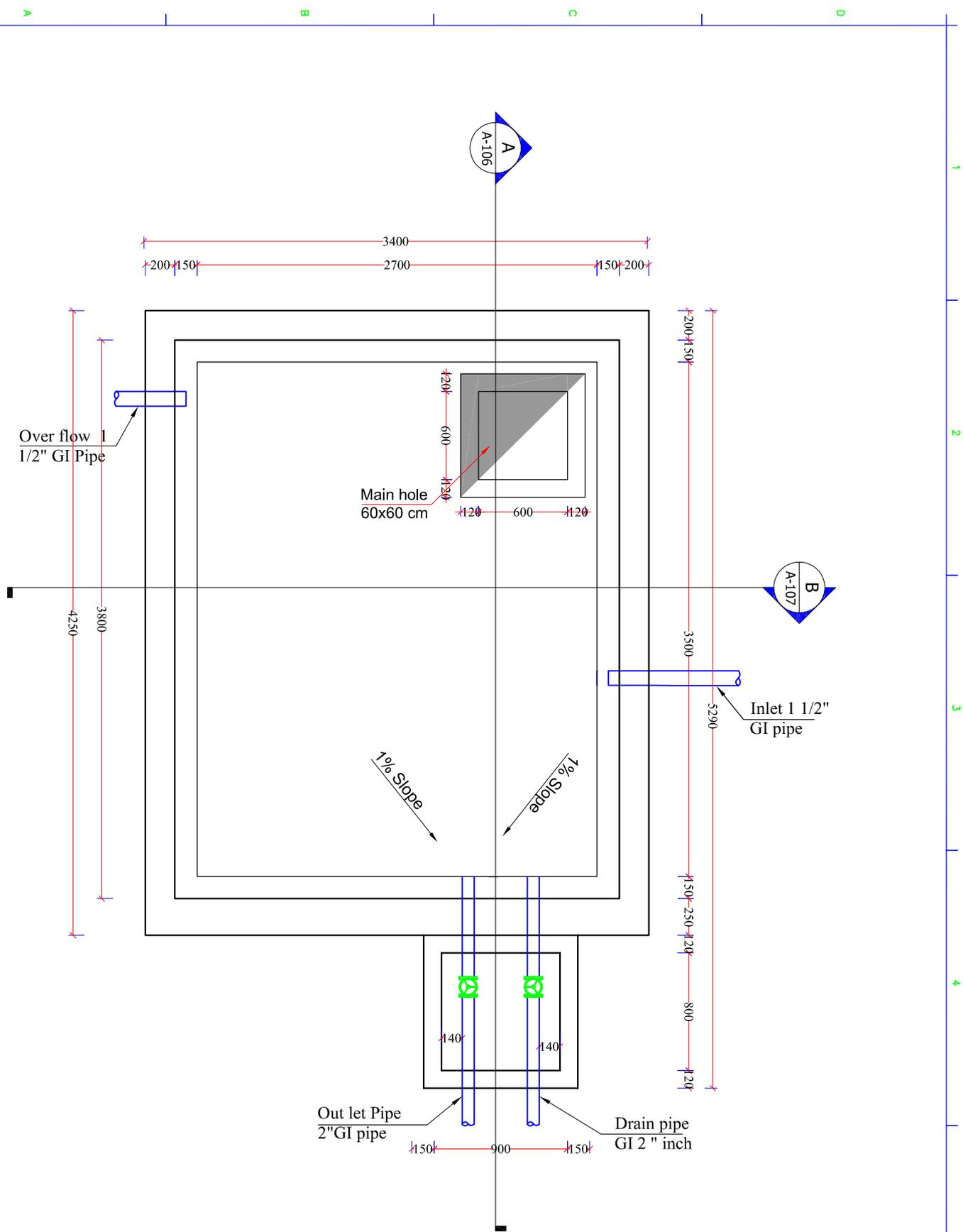
Action Against Hunger

WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:

Note: All dimension are in millimeter



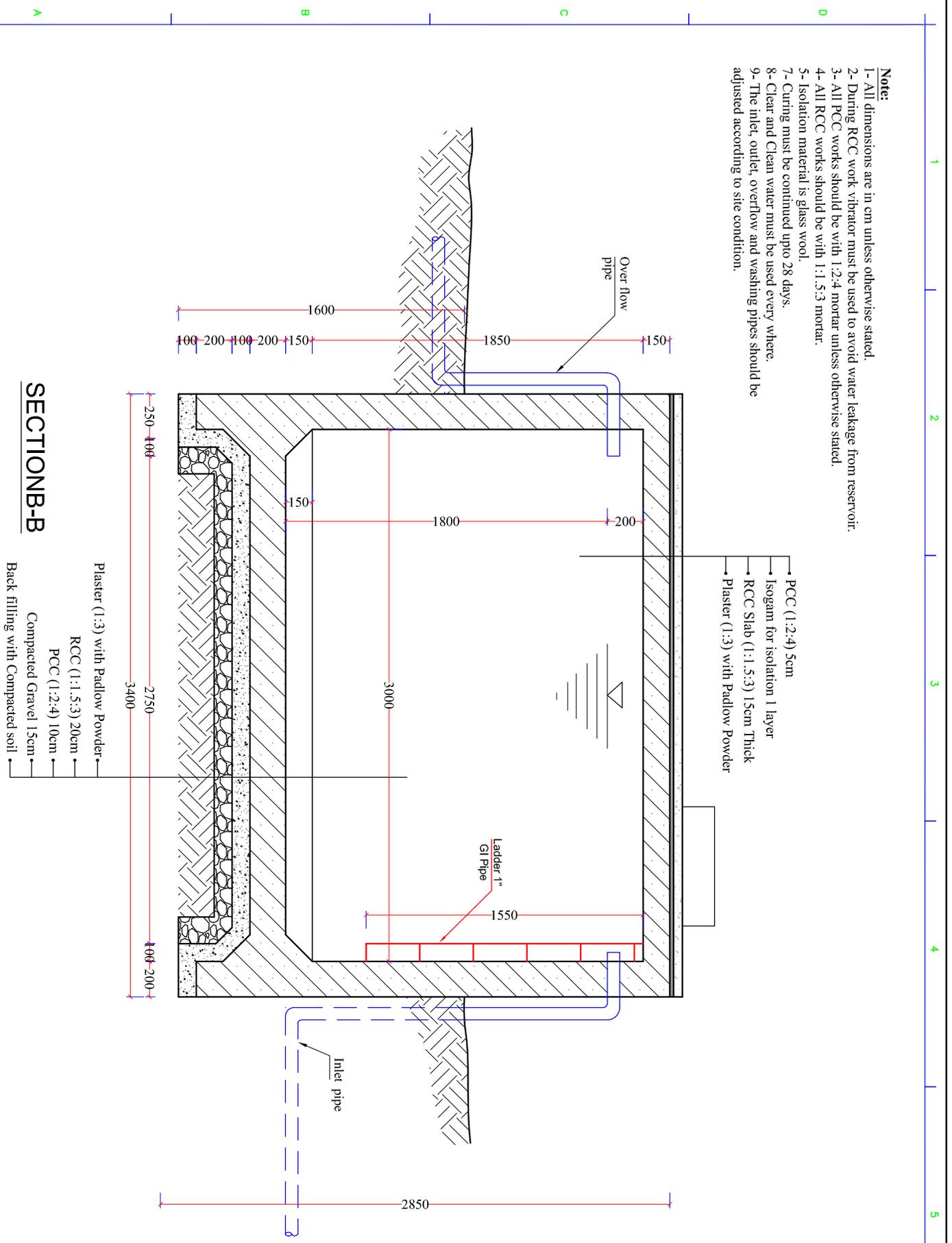
Note:
All GI and polyethylene pipes diameters must chose according to BeQ specification

A-105 WATER RESERVOIR TANK PLAN
SCALE: 1:25



DW.No:	Action Against Hunger				Scale:
	WASH Department				
A-105	Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh	Note: All dimension are in millimeter
	Province	Daikundi	Chick by	Mohamad Nekandesh	
	District	Shahristan	Approved by	Yadullah Jalali	

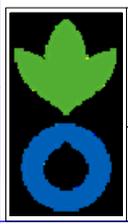
- Note:**
- 1- All dimensions are in cm unless otherwise stated.
 - 2- During RCC work vibrator must be used to avoid water leakage from reservoir.
 - 3- All RCC works should be with 1:2:4 mortar unless otherwise stated.
 - 4- All RCC works should be with 1:1.5:3 mortar.
 - 5- Isolation material is glass 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.



SECTION B-B

- Plaster (1:3) with Padlow Powder
- RCC (1:1.5:3) 20cm
- PCC (1:2:4) 10cm
- Compacted Gravel 15cm
- Back filling with Compacted soil

A-107 SECTION B-B
SCALE: 1:20



DW.No:

A-107

Action Against Hunger

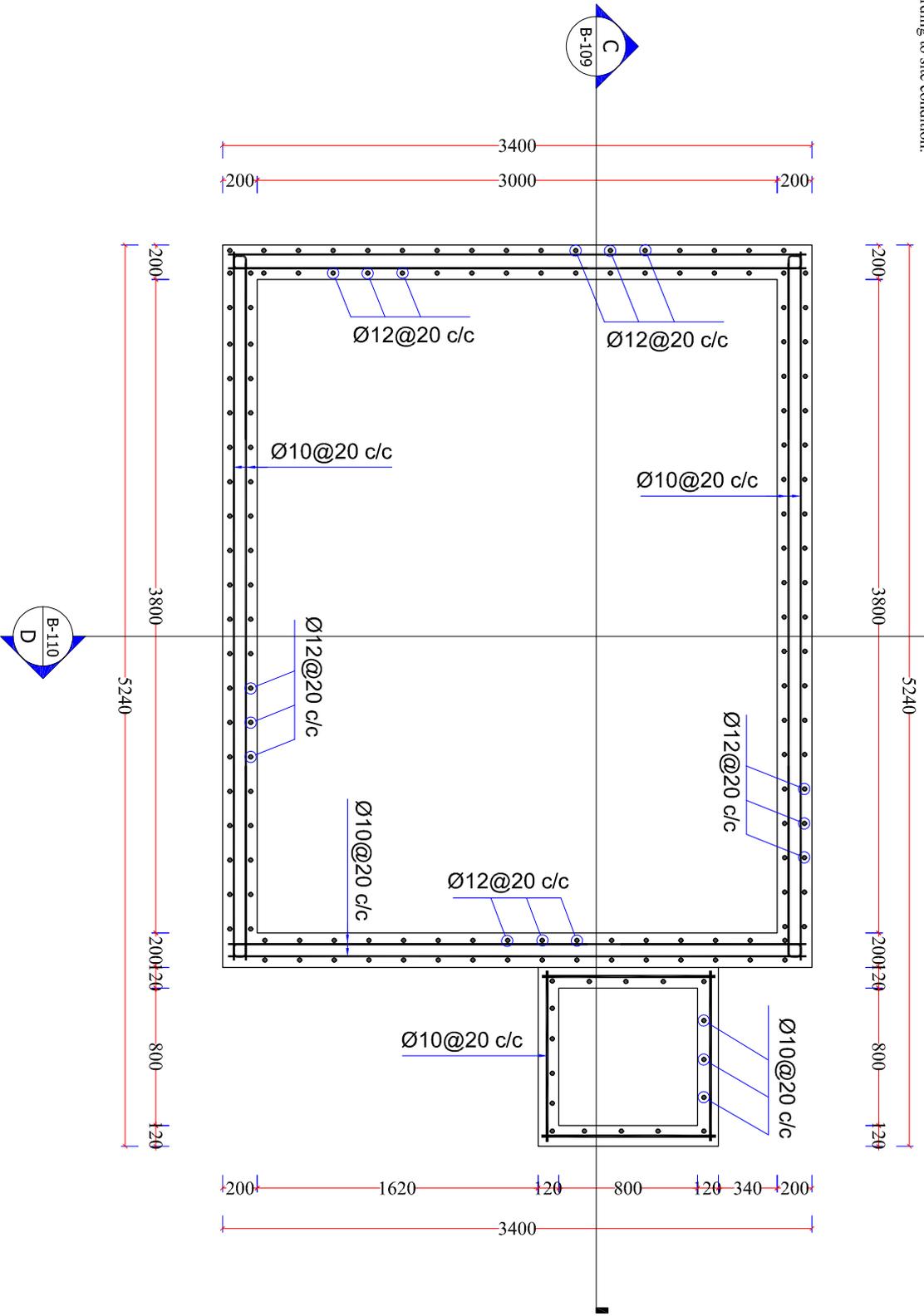
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yadullah Jalali

Scale:

Note: All dimension are in millimeter

- 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.



A-108 STRUCTURAL HORIZONTAL SECTION
SCALE: 1:20



DW.No:

A-108

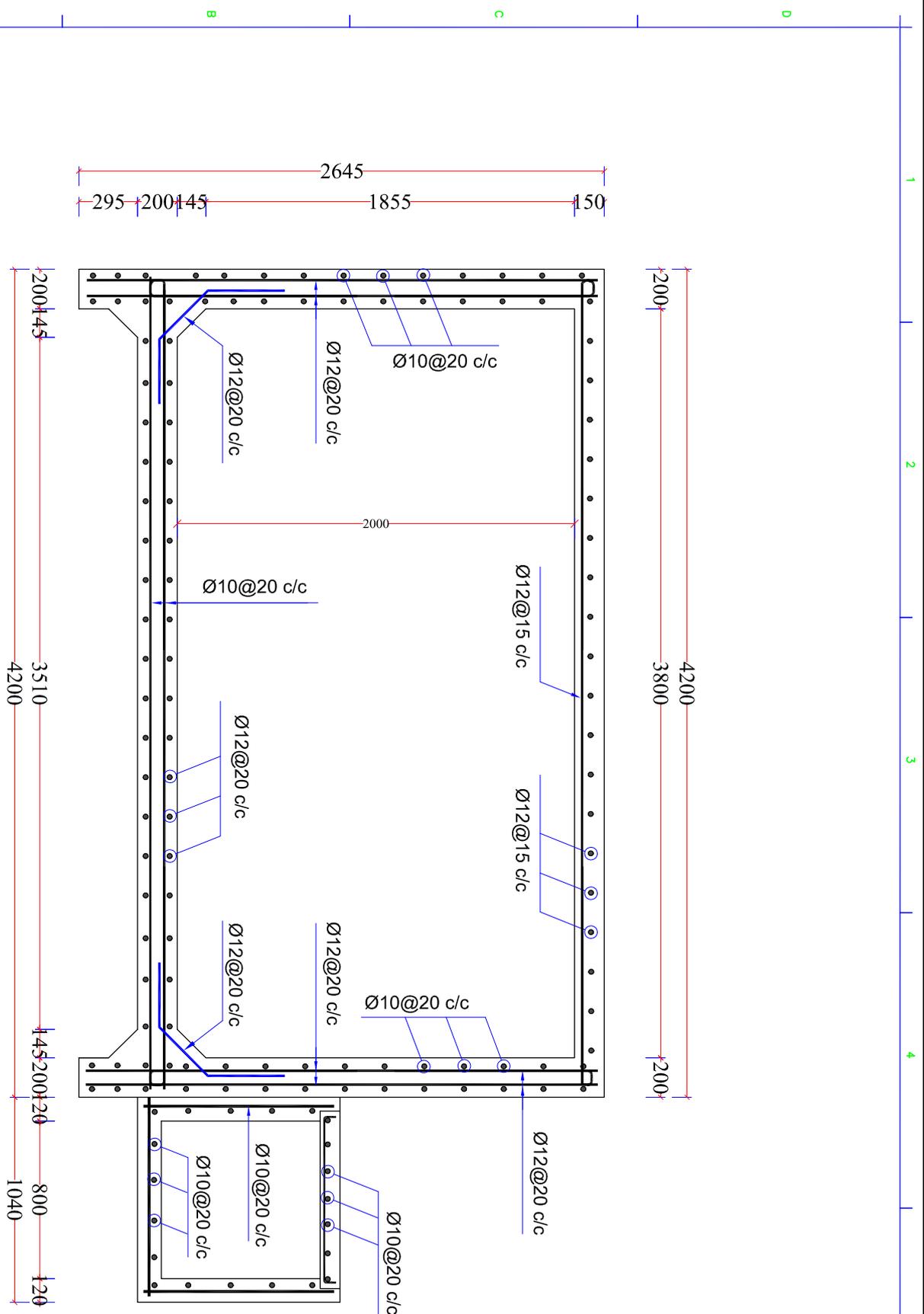
Action Against Hunger

WASH Department

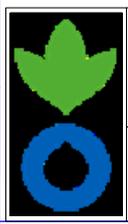
Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yadullah Jalali

Scale:

Note: All dimension are in millimeter



A-109 STRUCTURAL LONGITUDINAL SECTION C-C
 REF: SCALE: 1:20



DW.No:

A-109

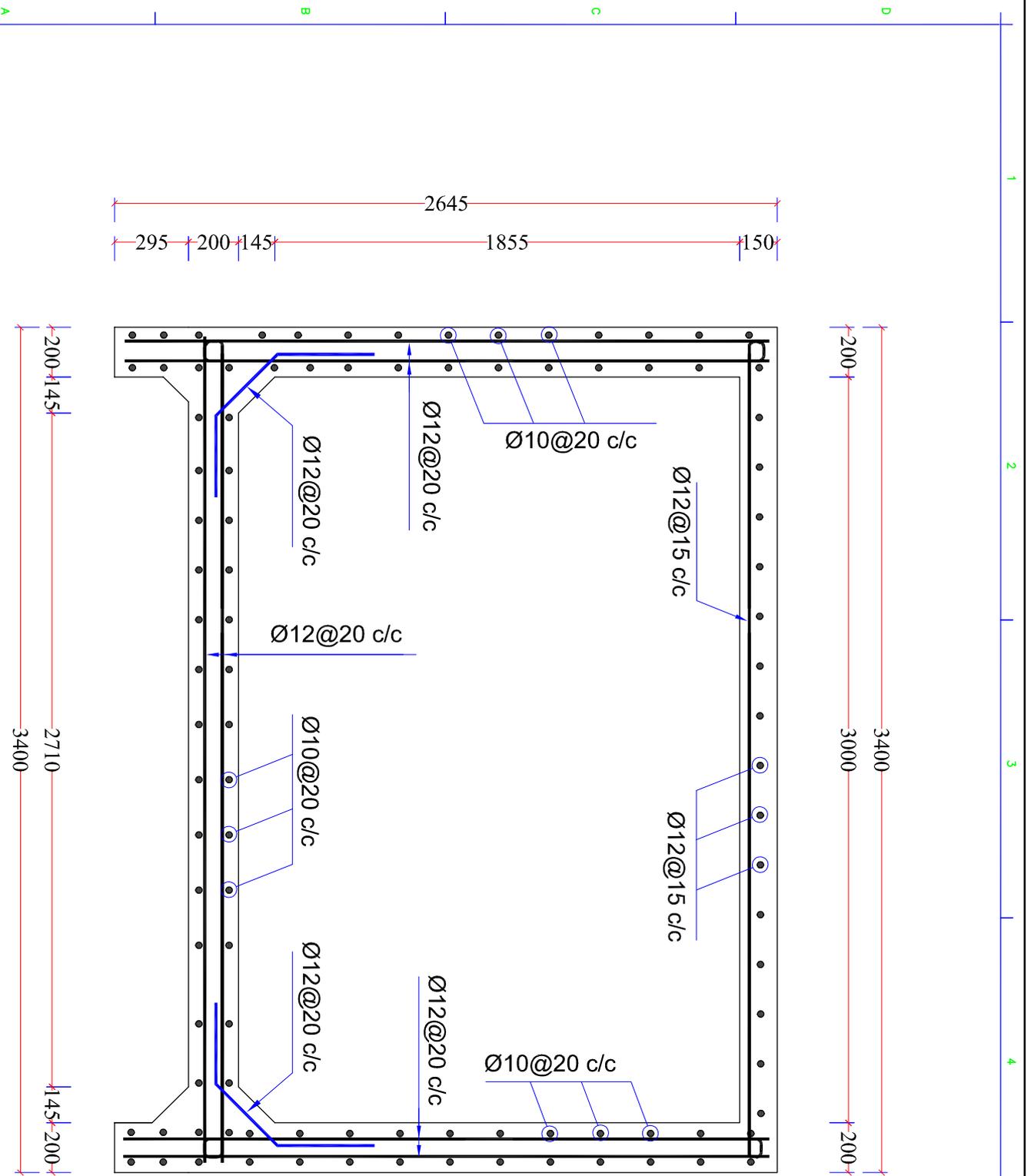
Action Against Hunger

WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yadullah Jalali

Scale:

Note: All dimension are in millimeter



A-110 | STRUCTURAL CROSS SECTION D-D
 REF: SCALE: 1/5



DW.No:

A-110

Action Against Hunger

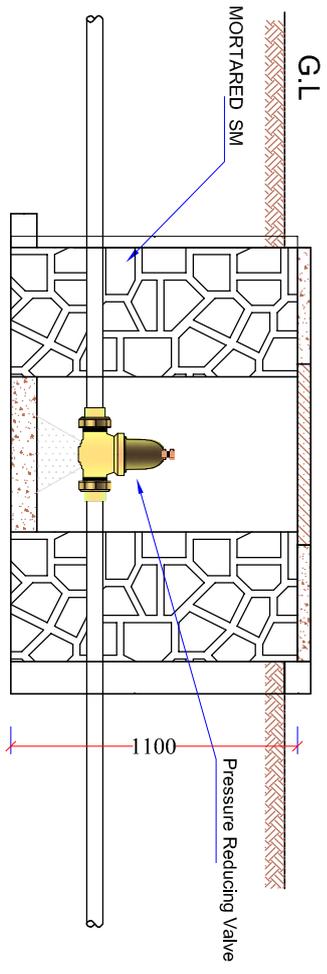
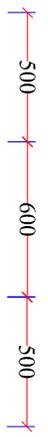
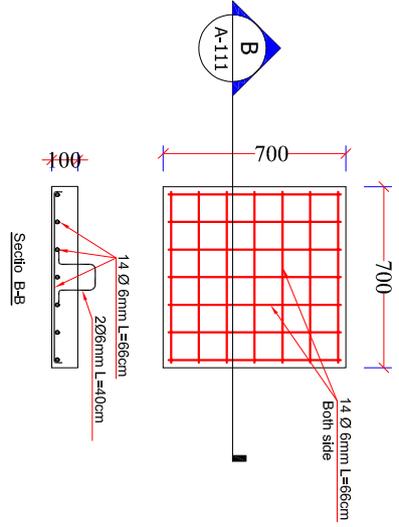
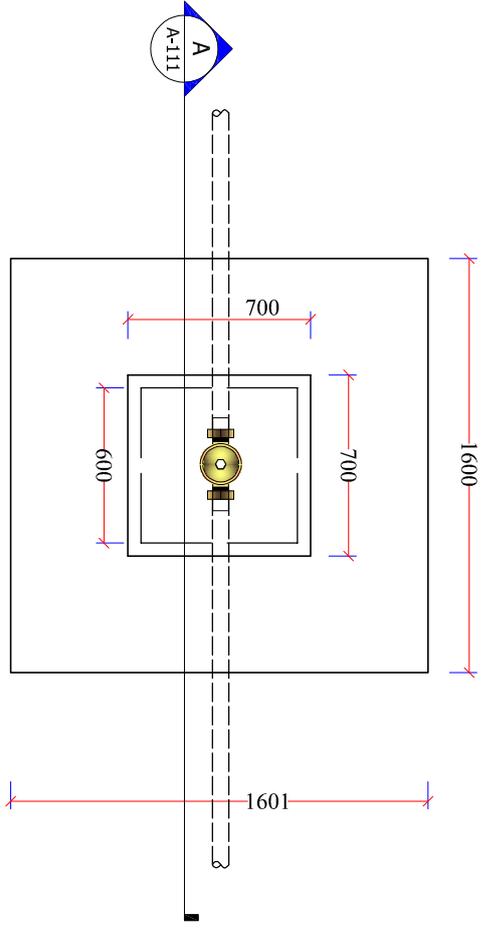
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yadullah Jalali

Scale:

Note: All dimension are in millimeter

VALE BREAK PRESSURE



TYPICAL DIMENSIONS OF VALVE CHAMBER

SNO.	DIAMETER OF VALVE (mm.)	DIMENSION (mm.) (L x B)
1.	50	600 X 600

SECTION A-A

Note:
All GI and polyethylene pipes diameters must chose according to BoQ specification



DW.No:

A-111

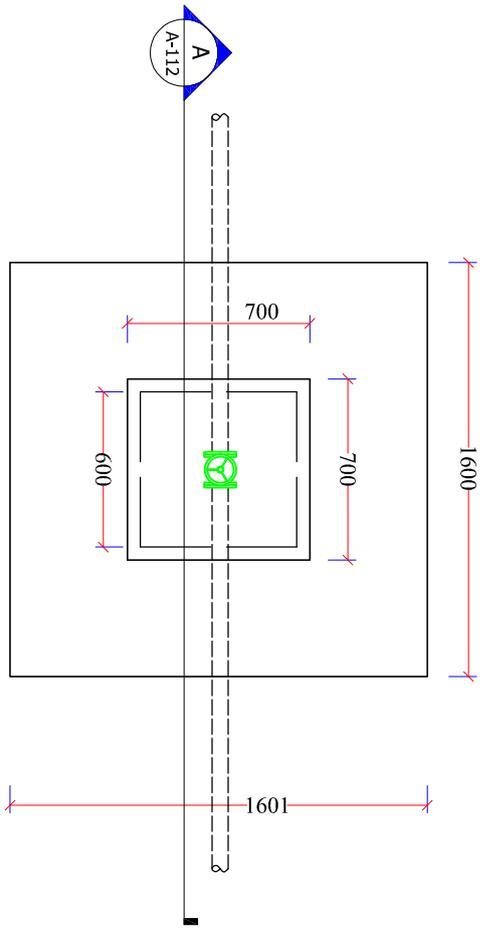
Action Against Hunger
WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:

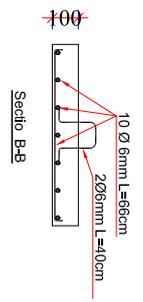
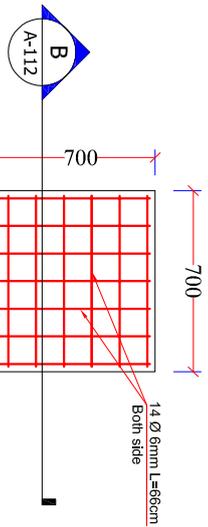
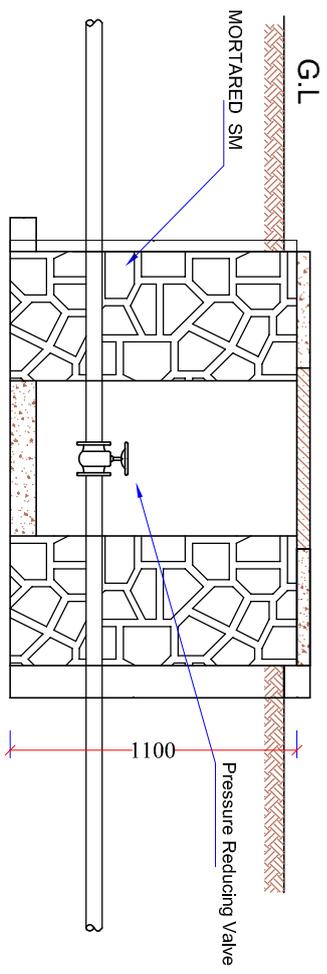
Note: All dimension are in millimeter

GATE VALE BOX FOR CONTROL



500 600 500

SECTION A-A



TYPICAL DIMENSIONS OF VALVE CHAMBER

S.NO.	DIAMETER OF VALVE (mm.)	DIMENSION (L x B)
1.	50	600 X600

Note:
All GI and polyethylene pipes diameters must chose according to BoQ specification

A-112 GATE VALE BOX
REF: SCALE: 1:20

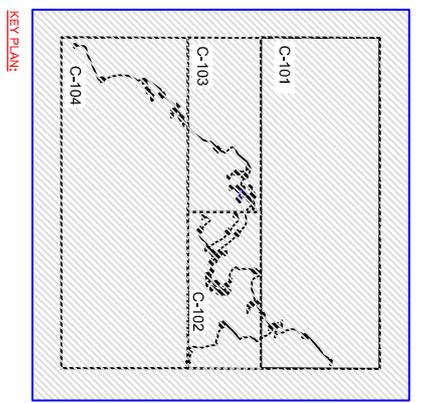
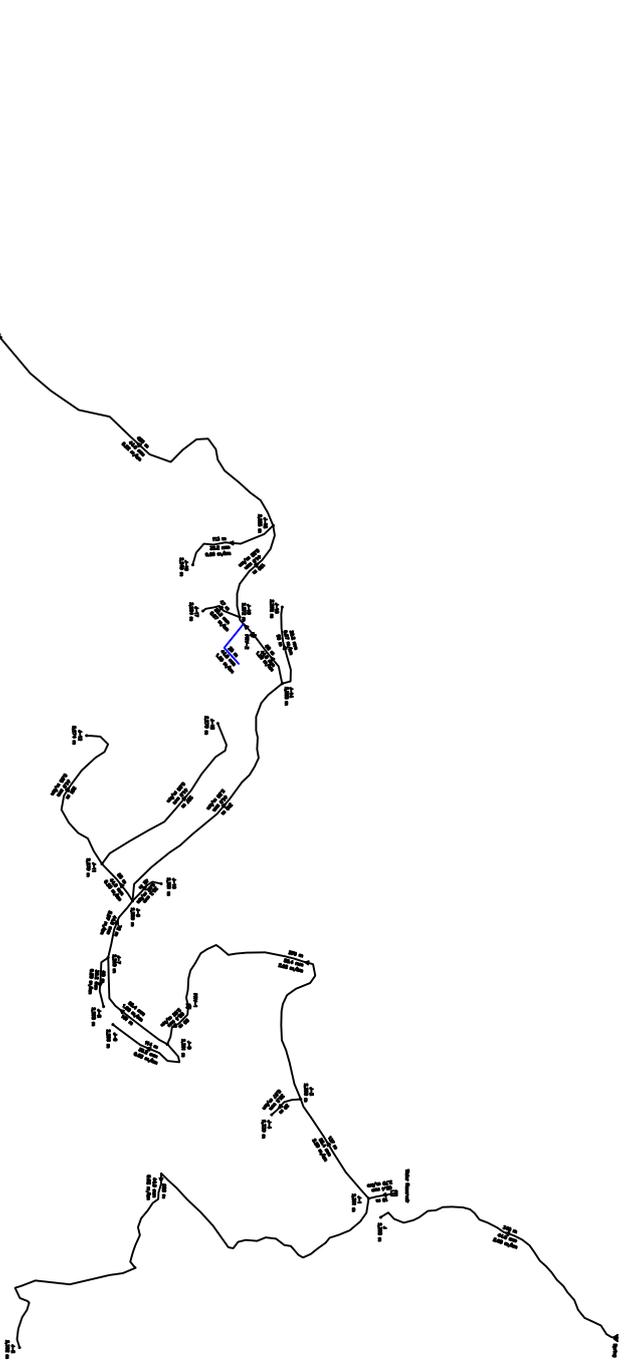


DW.No:
A-112

Action Against Hunger			
WASH Department			
Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:
Note: All dimension are in millimeter

1. Node ID:
2. Length in (m)
3. In Diameter in (mm)
4. Head loss Gradient in (m/km)
5. Elevation in (m)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES

NAMES	EAST	NORTH	ELEVATION
SPRING	287291.99	3718748.32	2890.000
RESERVOIR	296724.72	3719022.14	2548.000
BP-1	296872.21	3718819.09	2590.000
V.B-P-1	296894.53	3719018.66	2507.000
V.B-P-2	296385.62	3719415.00	2485.000

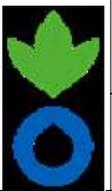
Action Against Hunger
WASH Department

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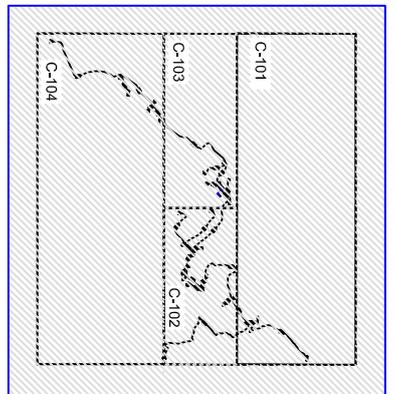
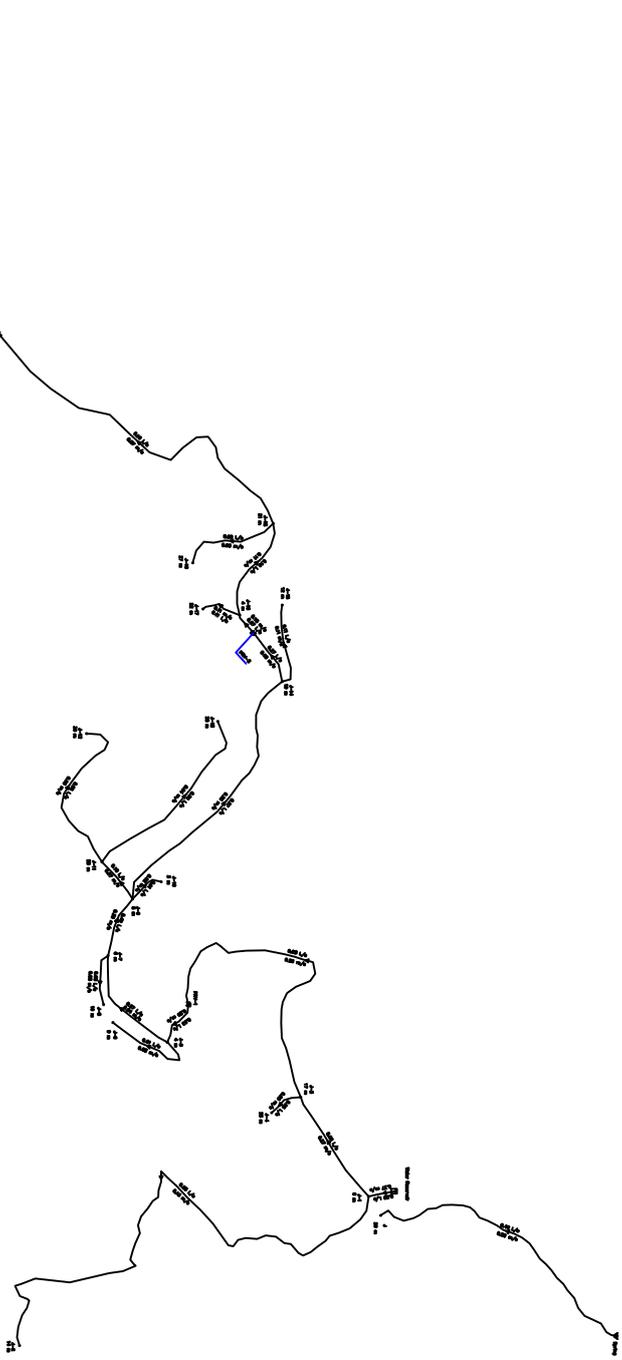
C-100

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (Liter/sec)
3. Velocity in (Meter/ sec)
4. Pressure Head in (Meter)



KEY PLAN

LEGEND

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287291.99	3718748.32	2890.000
RESERVOIR	296724.72	3719032.14	2548.000
B.P.1	296872.21	3718819.09	2590.000
V.B.P-1	296894.53	3719018.66	2507.000
V.B.P-2	296385.62	3719415.00	2485.000

Action Against Hunger

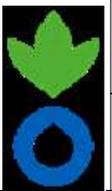
WASH Department

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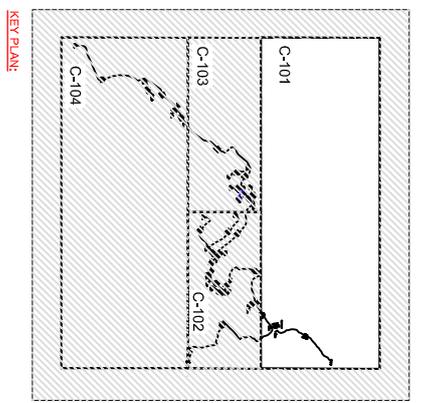
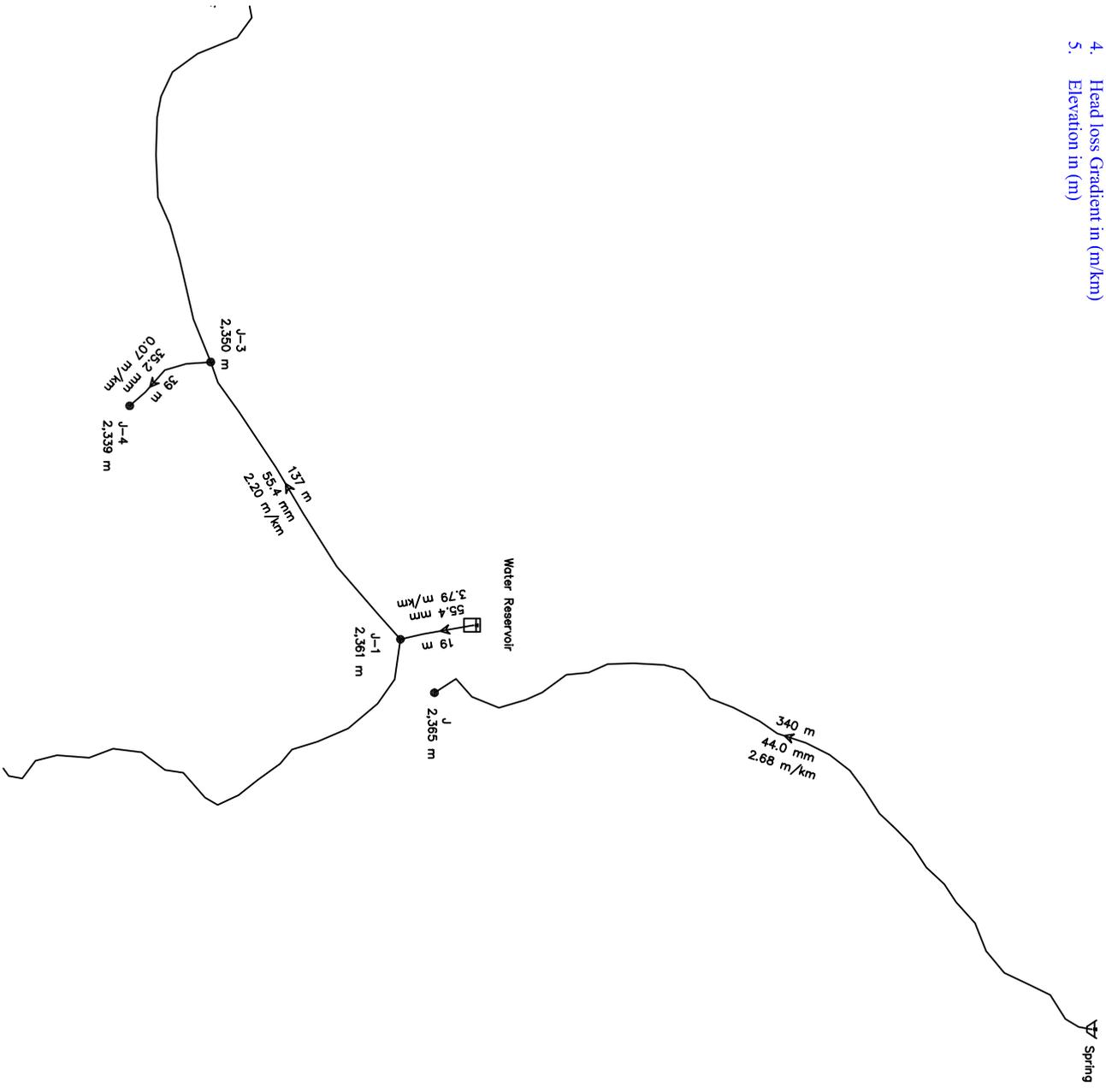
C-100

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing& Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Length in (m)
3. In Diameter in (mm)
4. Head loss Gradient in (m/km)
5. Elevation in (m)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287291.99	37187748.32	2890.000
RESERVOIR	286724.72	37192021.14	2548.000
B.P.1	286872.21	3718819.09	2590.000
V.B.P-1	286894.53	3719018.66	2507.000
V.B.P-2	286385.62	3719415.00	2485.000

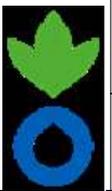
Action Against Hunger
WASH Department

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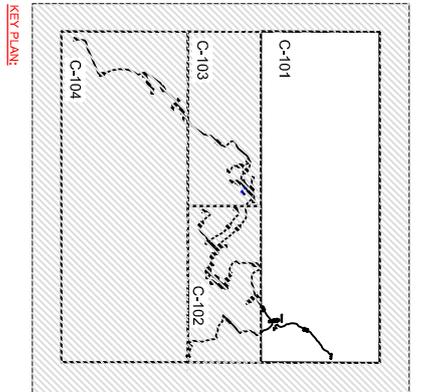
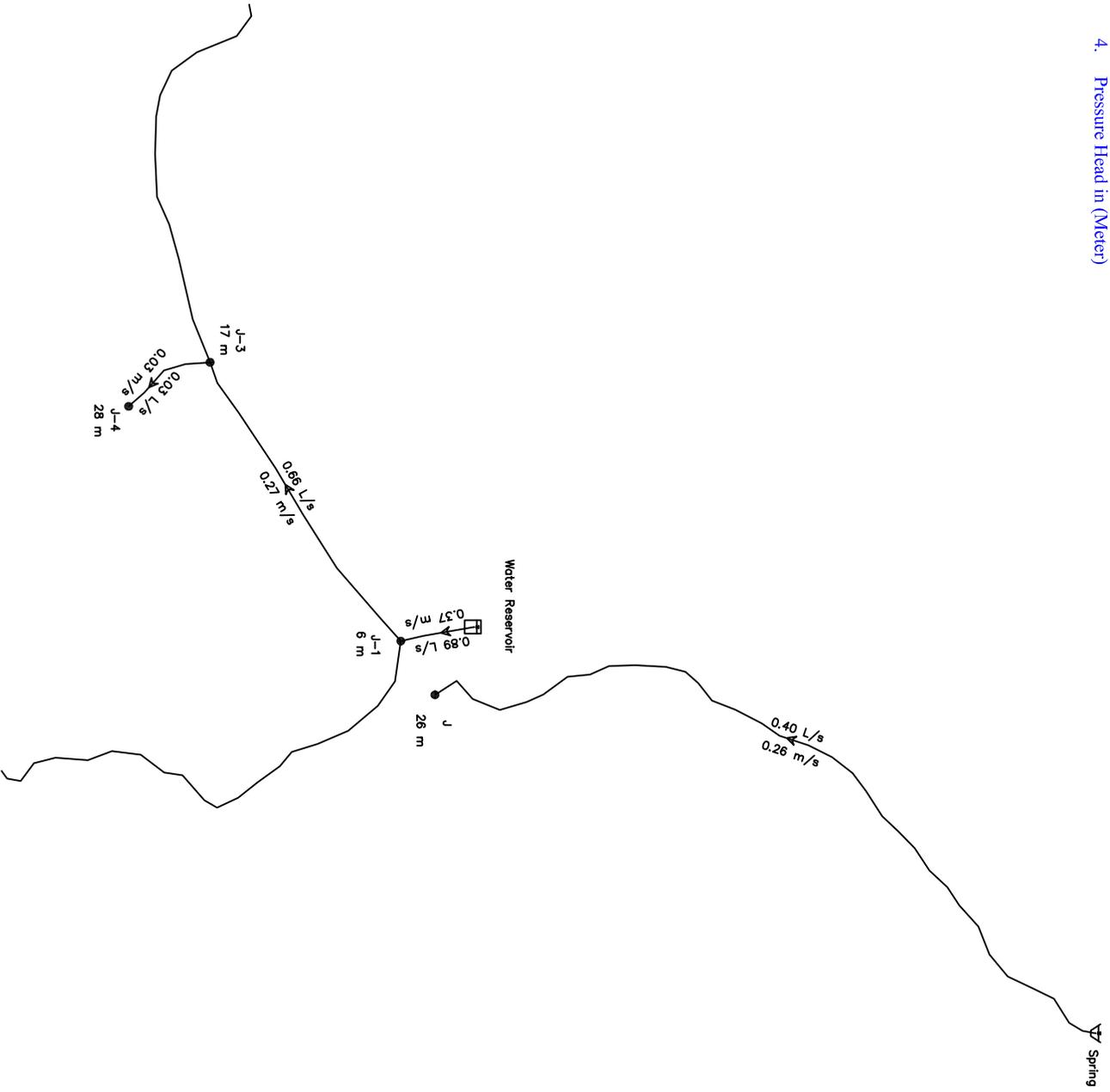
C-101

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Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (Liter/sec)
3. Velocity in (Meter/sec)
4. Pressure Head in (Meter)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287,291.99	3,718,748.32	2890.000
RESERVOIR	296,724.72	3,719,032.14	2548.000
BP-T	296,872.21	3,718,819.09	2590.000
V.B-P-1	296,694.53	3,719,018.66	2507.000
V.B-P-2	296,385.62	3,719,415.00	2485.000

Action Against Hunger

WASH Department

DW.No:

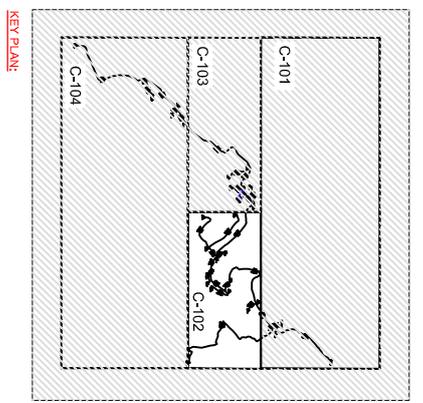
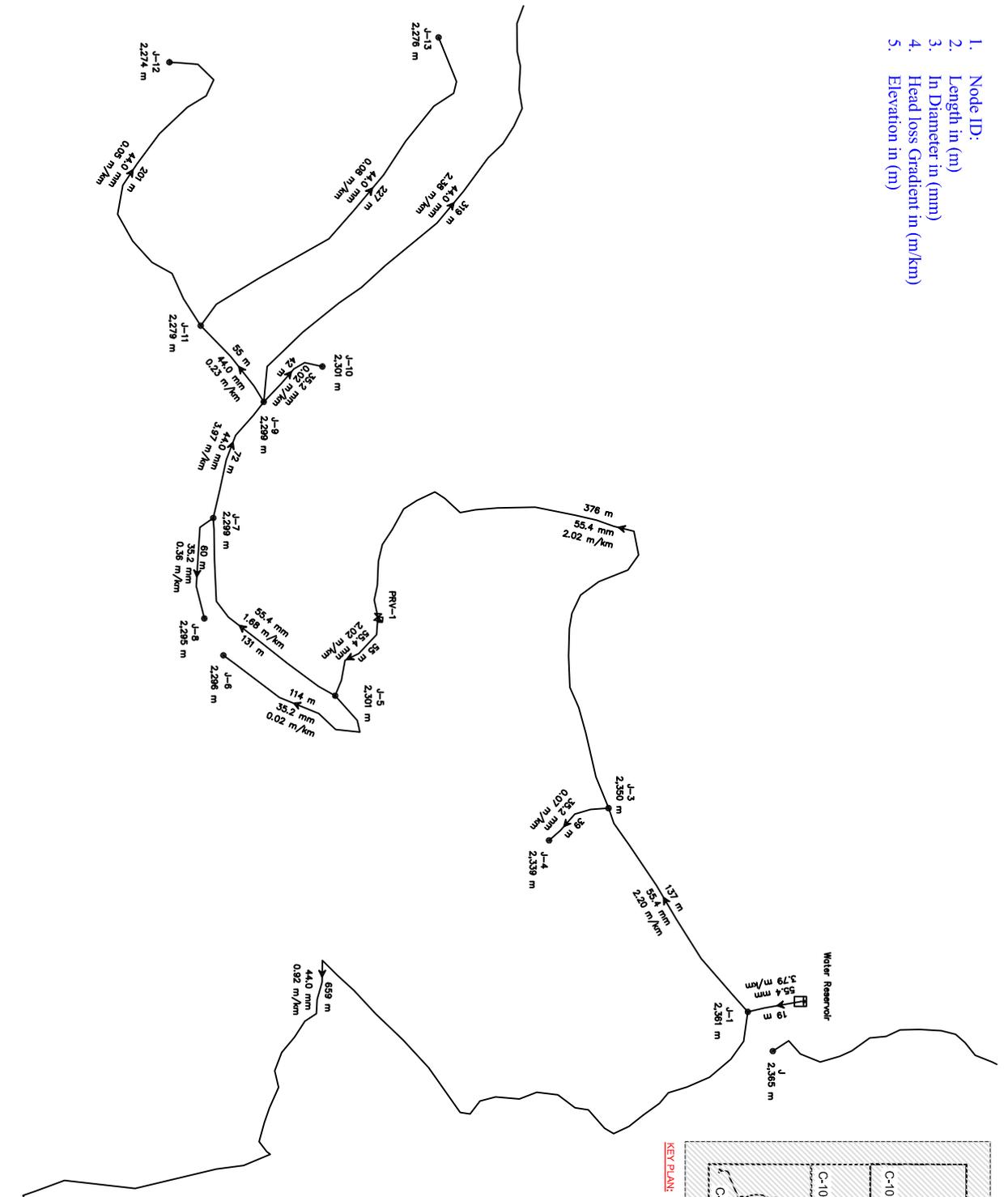
C-101

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Length in (m)
3. In Diameter in (mm)
4. Head loss Gradient in (m/km)
5. Elevation in (m)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
ROC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287,291.99	3,718,748.32	2890.000
RESERVOIR	296,734.72	3,719,032.14	2548.000
BP-1	296,872.21	3,718,819.09	2590.000
V.B-P-1	296,694.53	3,719,018.66	2507.000
V.B-P-2	296,395.62	3,719,415.00	2448.000

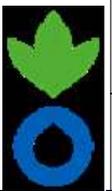
Action Against Hunger
WASH Department

DW.No:

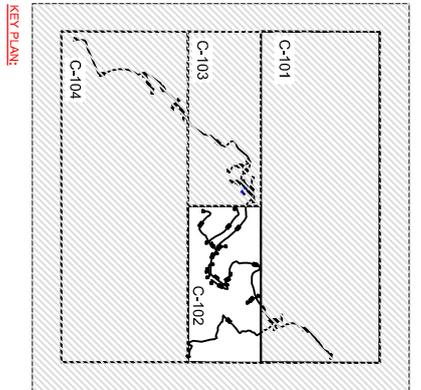
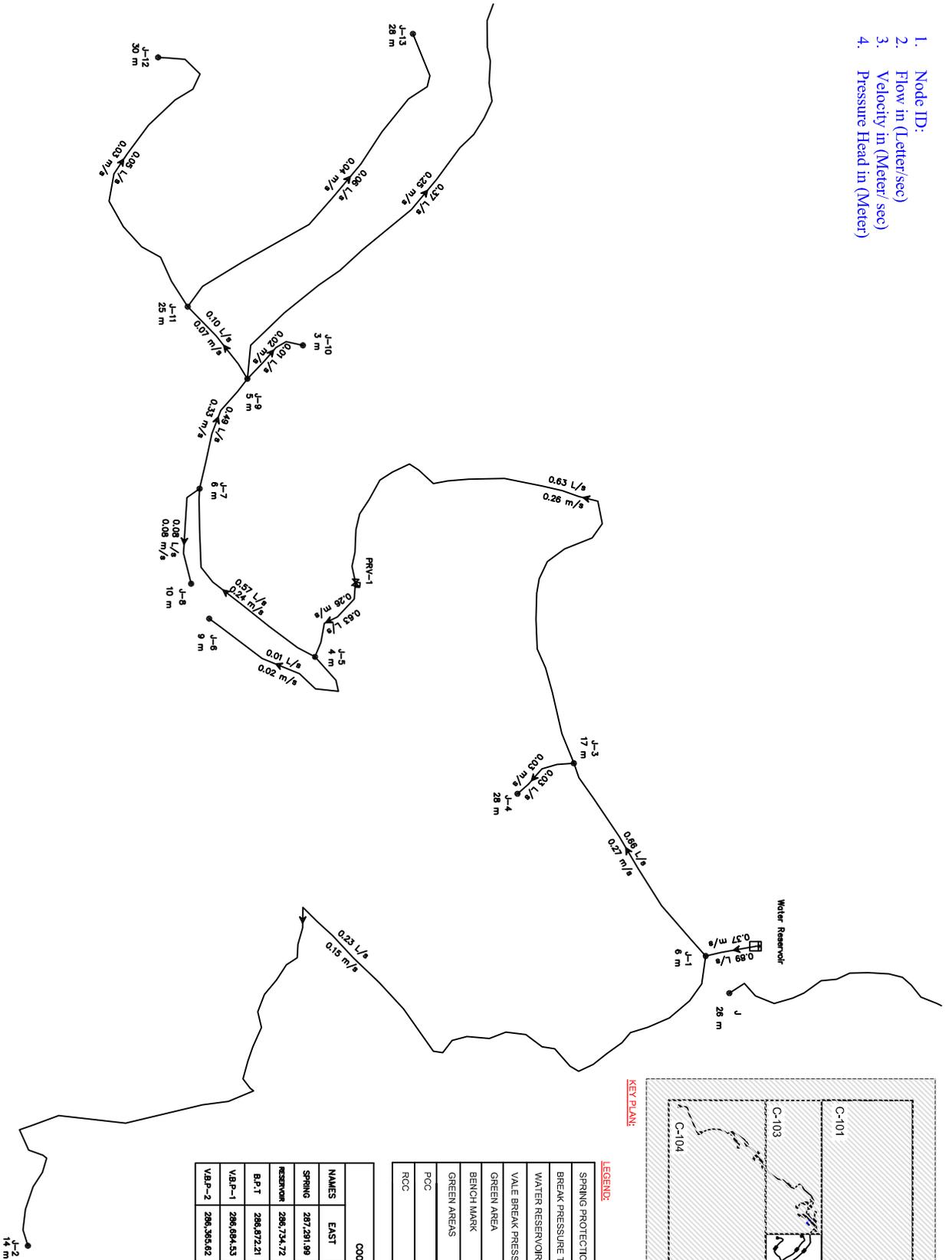
C-102

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (Liter/sec)
3. Velocity in (Meter/ sec)
4. Pressure Head in (Meter)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287291.99	3718748.32	2890.000
RESERVOIR	286724.72	3719023.14	2548.000
BP-1	286872.21	3718819.09	2590.000
V.B-P-1	286894.53	3719018.66	2507.000
V.B-P-2	286385.62	3719415.00	2483.000

Action Against Hunger

WASH Department

DW.No:

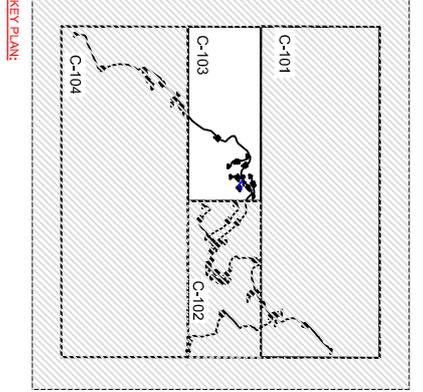
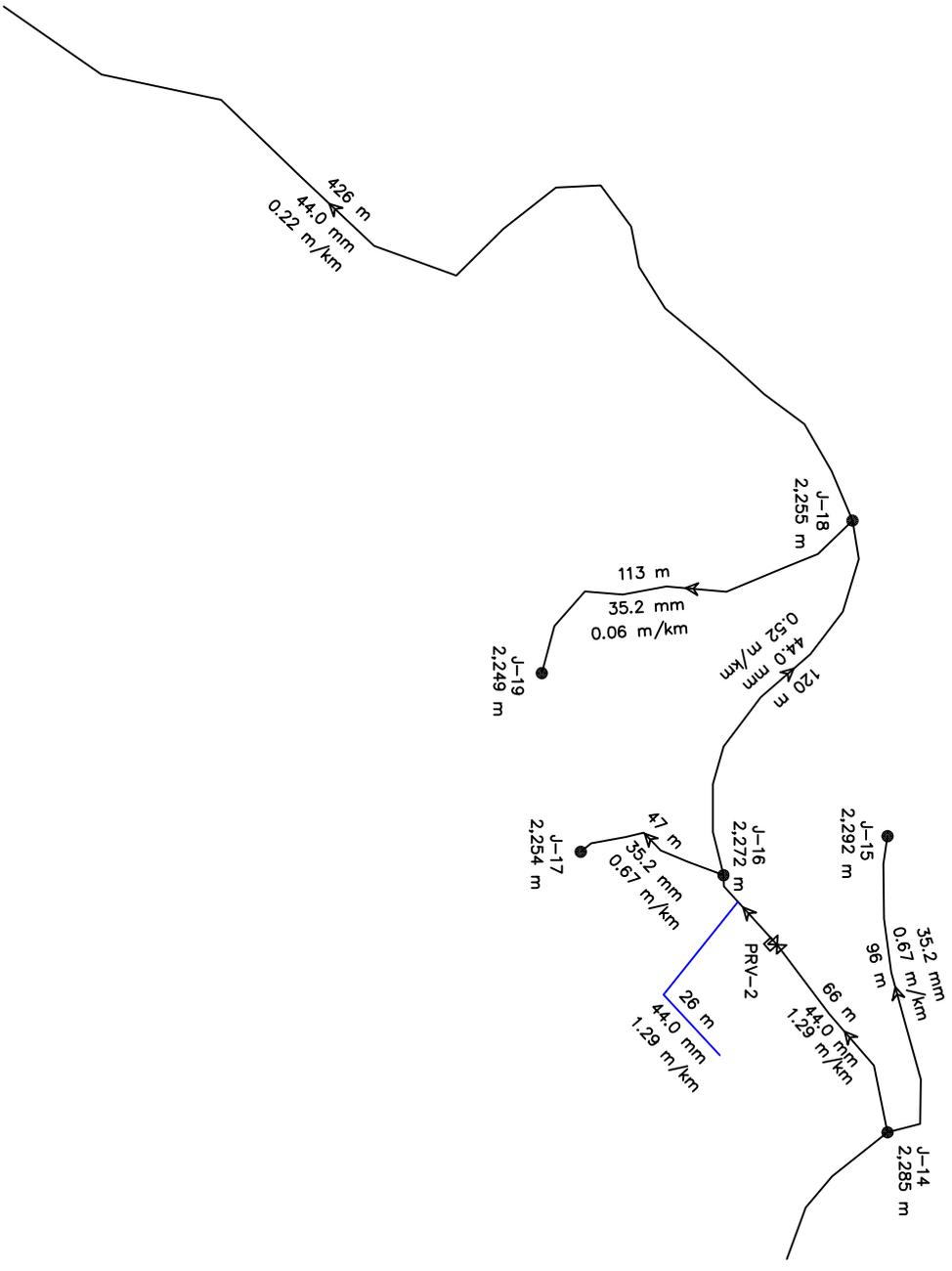
C-102

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Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Length in (m)
3. In Diameter in (mm)
4. Head loss Gradient in (m/km)
5. Elevation in (m)



KEY PLAN

LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
PCC	
RCC	

COORDINATES

NAMES	EAST	NORTH	ELEVATION
SPRING	287,291.99	3,718,748.32	2890.000
RESERVOIR	296,724.72	3,719,032.14	2548.000
B.P.1	296,872.21	3,718,819.09	2590.000
V.B.P-1	296,694.53	3,719,018.66	2507.000
V.B.P-2	296,385.62	3,719,415.00	2448.000

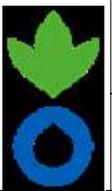
Action Against Hunger
WASH Department

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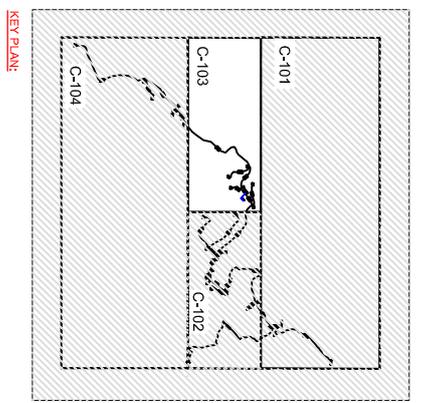
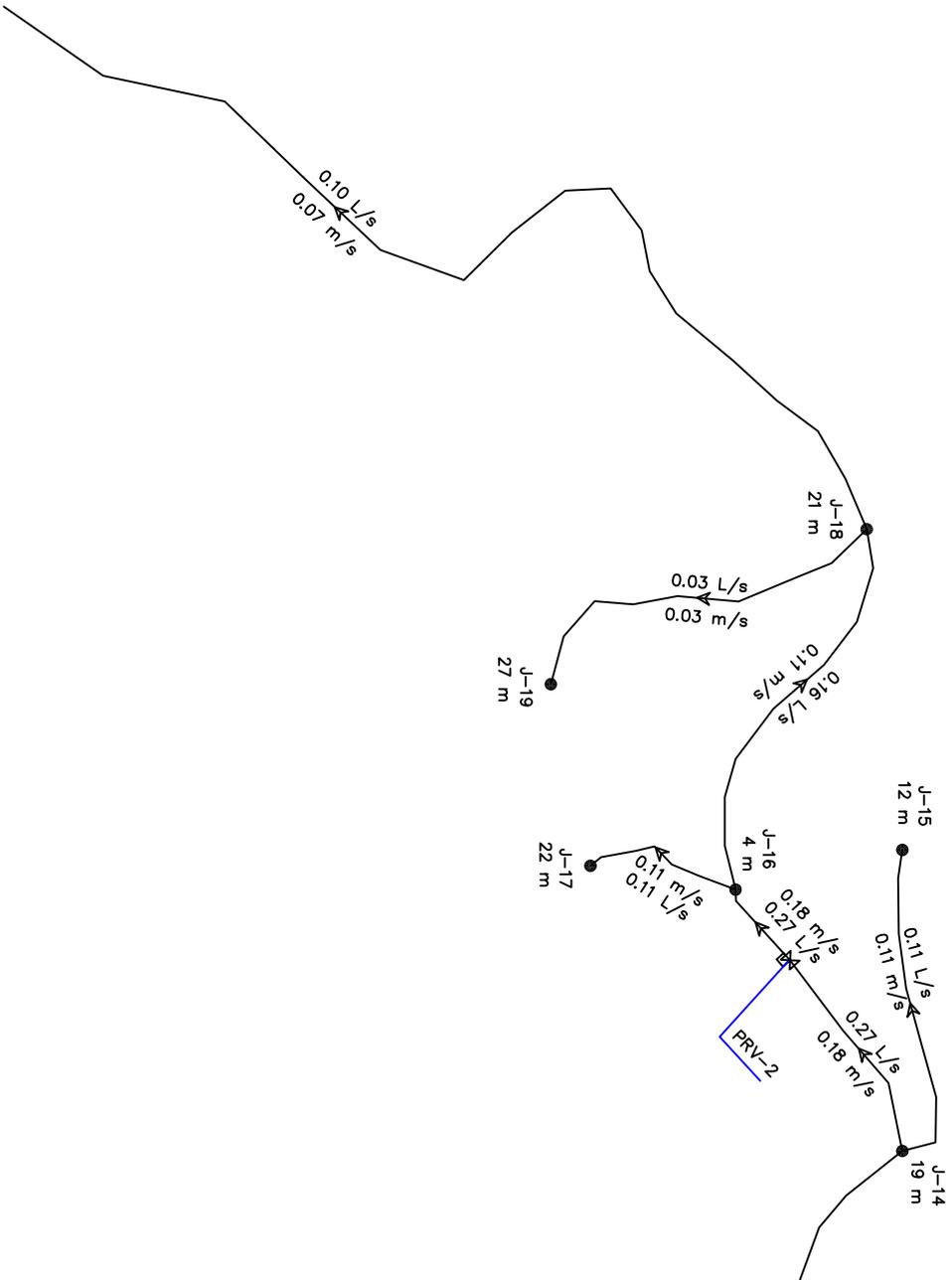
C-103

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (Liter/sec)
3. Velocity in (Meter/sec)
4. Pressure Head in (Meter)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287,291.99	3,718,748.32	2890.000
RESERVOIR	296,724.72	3,719,032.14	2548.000
BP-1	296,872.21	3,718,819.09	2590.000
V.B-P-1	296,894.53	3,719,018.66	2507.000
V.B-P-2	296,365.62	3,719,415.00	2445.000

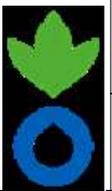
Action Against Hunger
WASH Department

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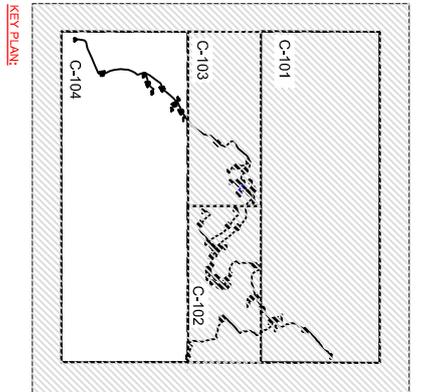
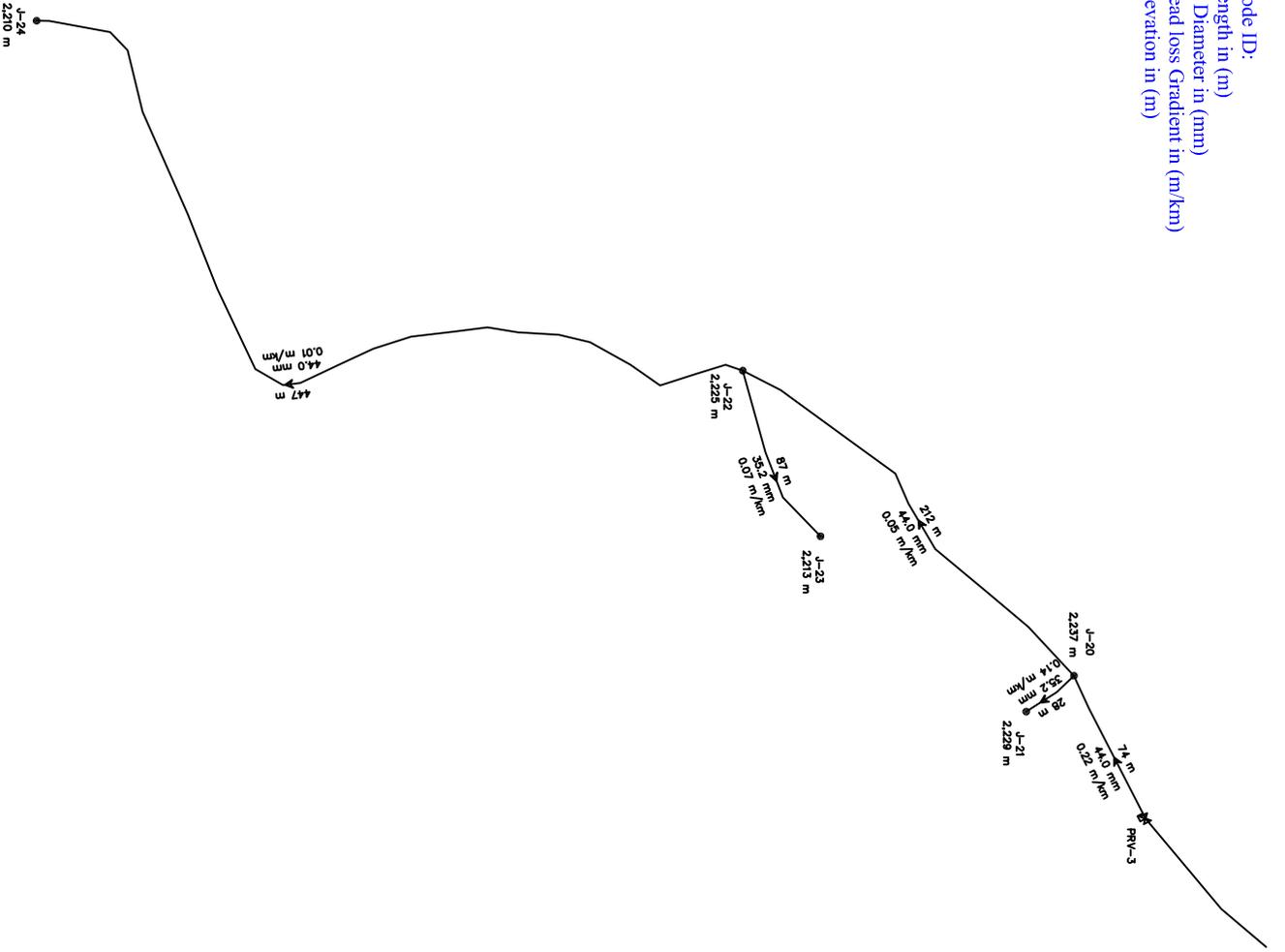
C-103

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Length in (m)
3. In Diameter in (mm)
4. Head loss Gradient in (m/km)
5. Elevation in (m)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287291.99	3718748.32	2890.000
RESERVOIR	296724.72	3719022.14	2548.000
B.P.1	296872.21	3718819.09	2590.000
V.B.P-1	296894.53	3719018.66	2507.000
V.B.P-2	296395.62	3719415.00	2485.000

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WASH Department

DW.No:

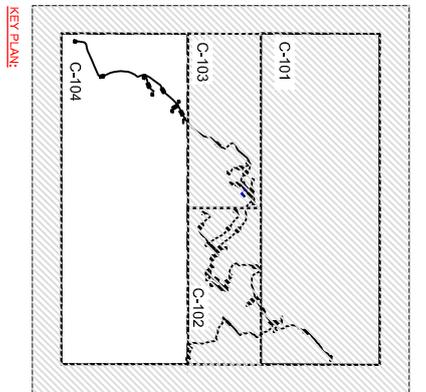
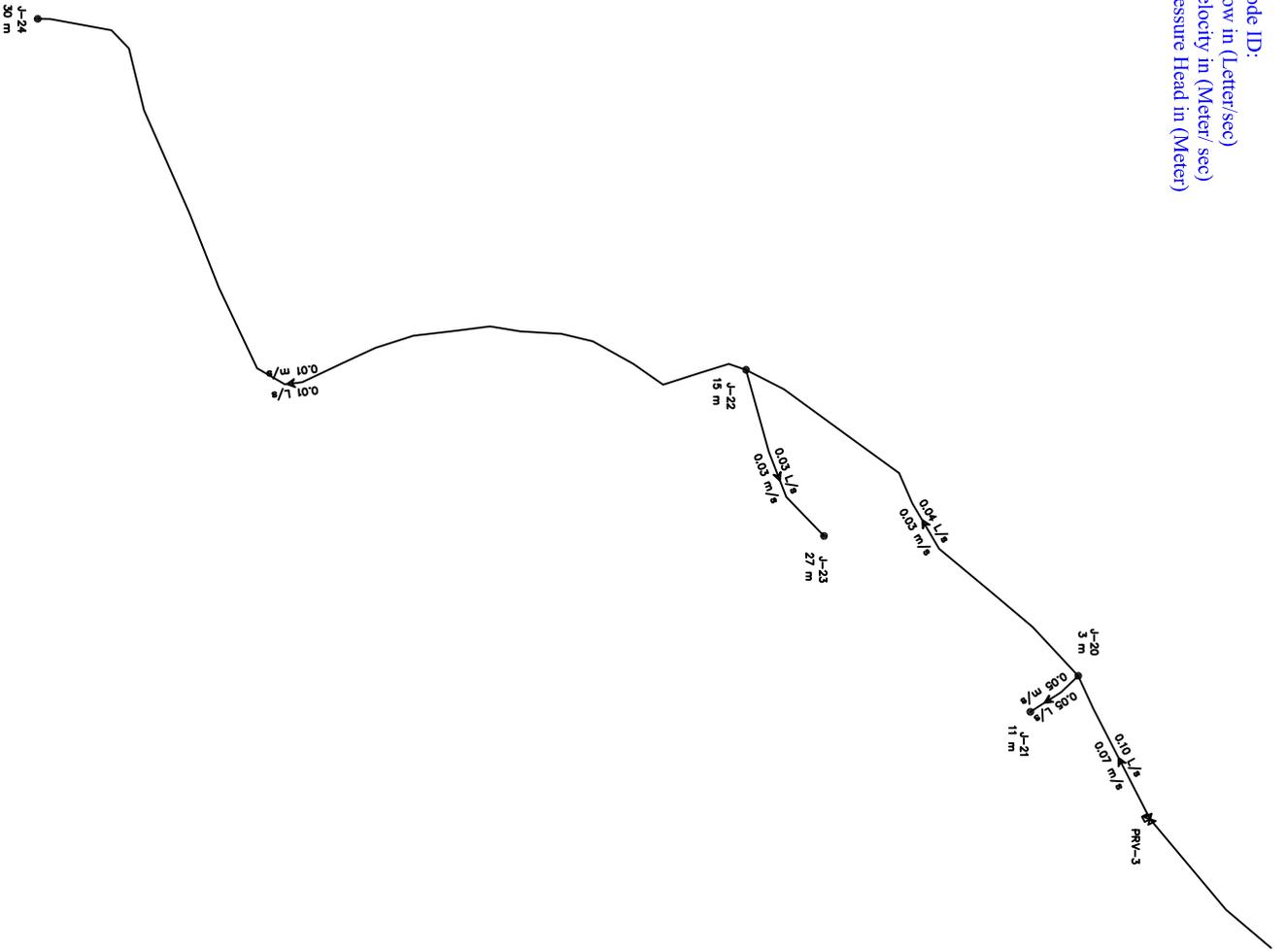
C-104

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing & Layout by	Mohamad Nekandesh
District	Shahristan	Approved by

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (Liter/sec)
3. Velocity in (Meter/ sec)
4. Pressure Head in (Meter)



LEGEND:

SPRING PROTECTION	
BREAK PRESSURE TANK	
WATER RESERVOIR	
VALE BREAK PRESSURE	
GREEN AREA	
BENCH MARK	
GREEN AREAS	
POC	
RCC	

COORDINATES			
NAMES	EAST	NORTH	ELEVATION
SPRING	287,291.99	3,718,748.32	2890.000
RESERVOIR	296,724.72	3,719,032.14	2548.000
B.P.1	296,872.21	3,718,819.09	2590.000
V.B.P-1	296,894.53	3,719,018.66	2507.000
V.B.P-2	296,385.62	3,719,415.00	2485.000

Action Against Hunger

WASH Department

DW.No:

C1-104

Project Name
Province
District

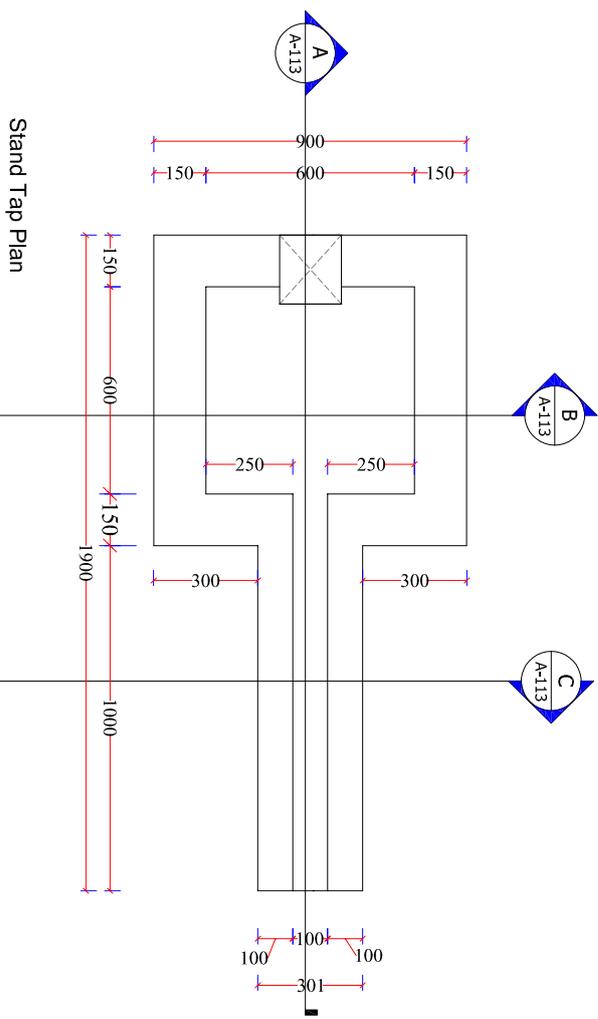
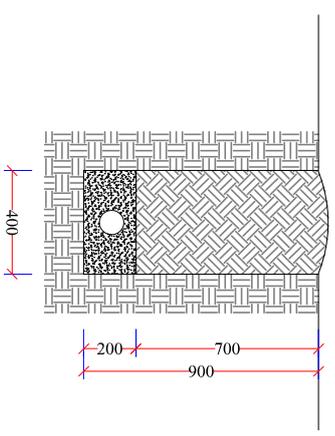
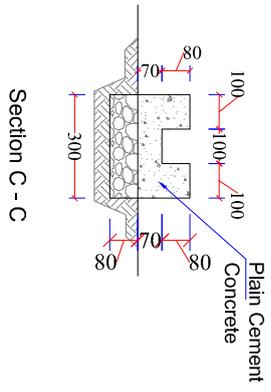
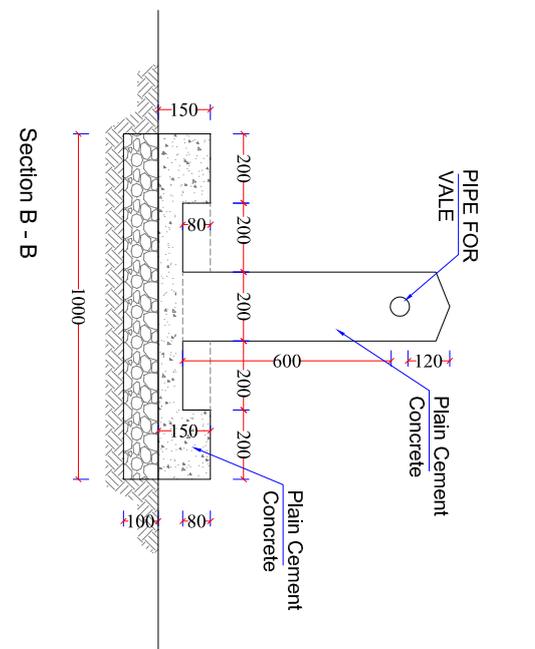
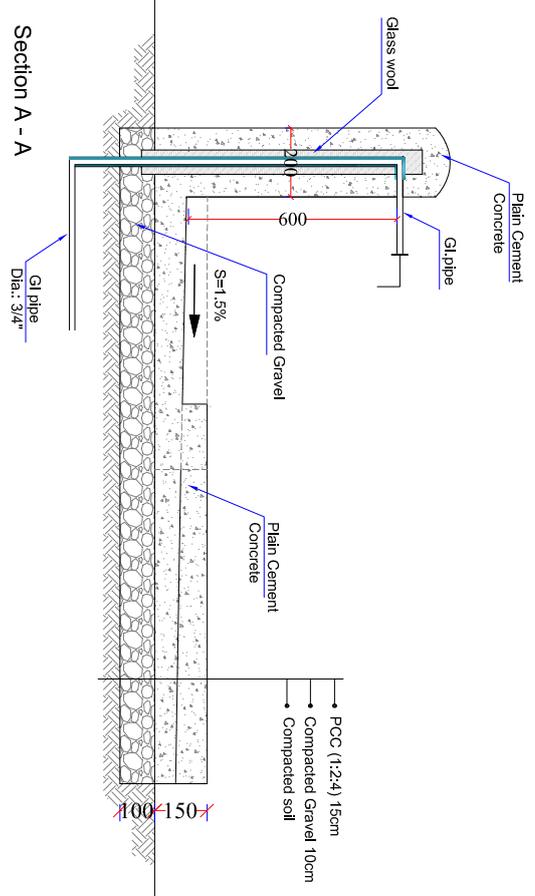
Water Supply
Daikundi
Shahristan

Design by
Drawing & Layout by
Approved by

Yaddullah Jalali
Mohamad Nekandesh
.....

Note: All dimension showed in sheet





Stand Tap Plan

A-113 STAND TAP

REF. SHEET - 11

SCALE: 1:15



DW.No:

A-113

Action Against Hunger

WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Shahristan	Approved by	Yaddullah Jalali

Scale:

Note: All dimension are in millimeter