



**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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Action Against Hunger

WASH Department

Scale:

Note: All dimension are in millimeter

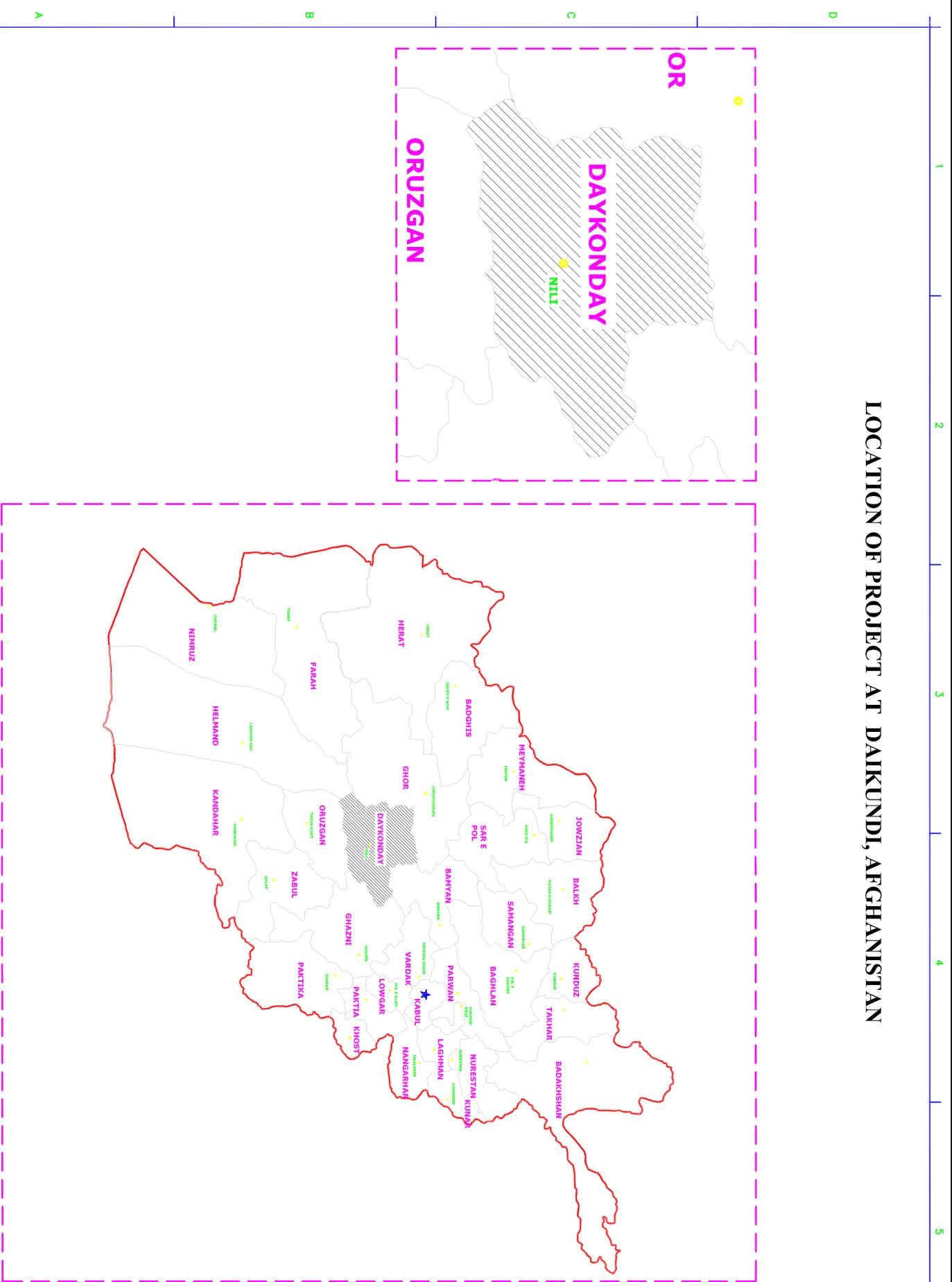
DW.No:

G-101

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



LOCATION OF PROJECT AT DAIKUNDI, AFGHANISTAN



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	Ashterly	Approved by	Yaddullah Jalali	

SITE PLAN OF JENGAN VILLAGE NETWORKING PROJECT



G-103 | SITE PLAN

REF

SCALE: N.T.S



DW.No:

G-103

Action Against Hunger

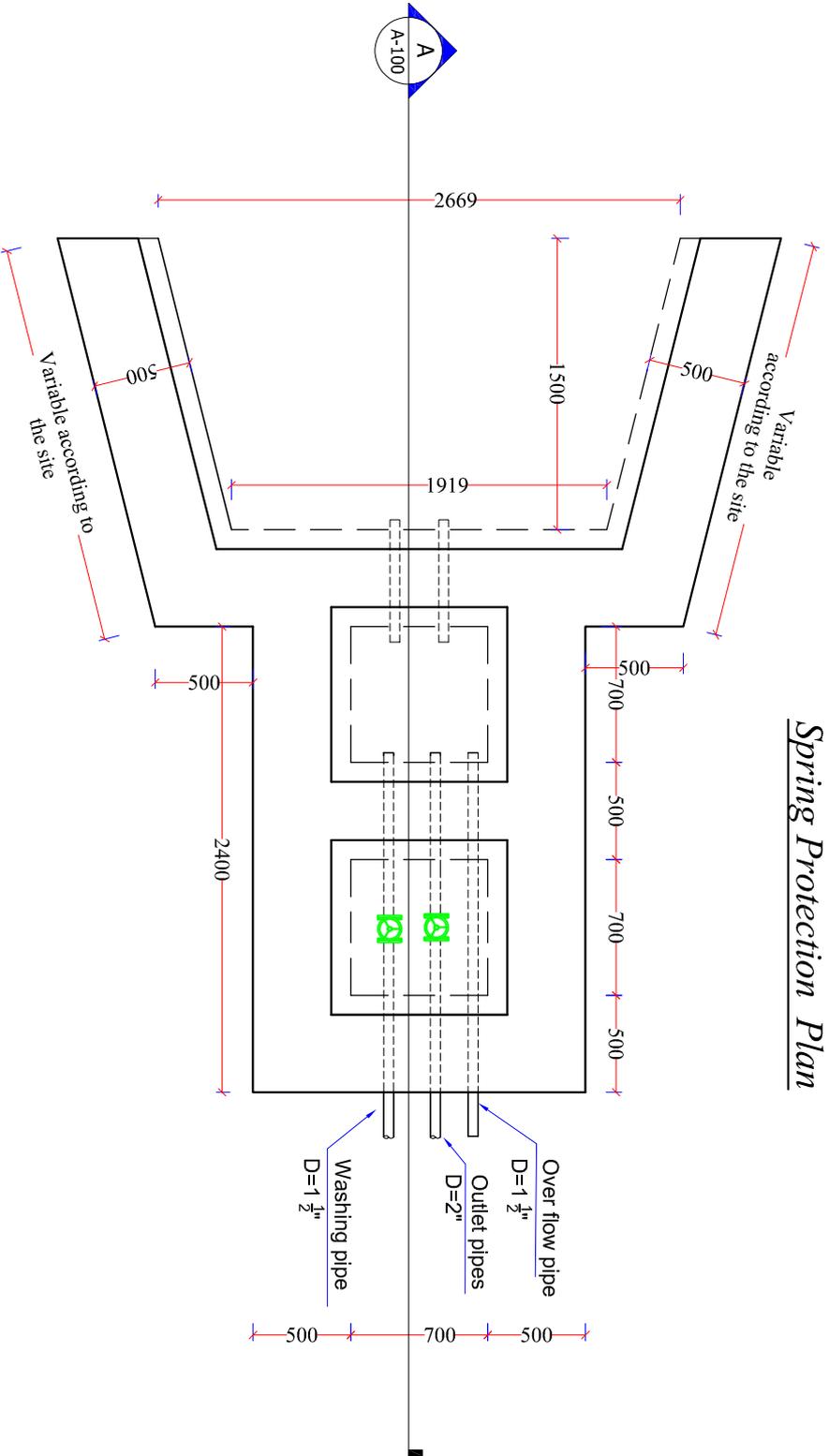
WASH Department

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

Ashterly

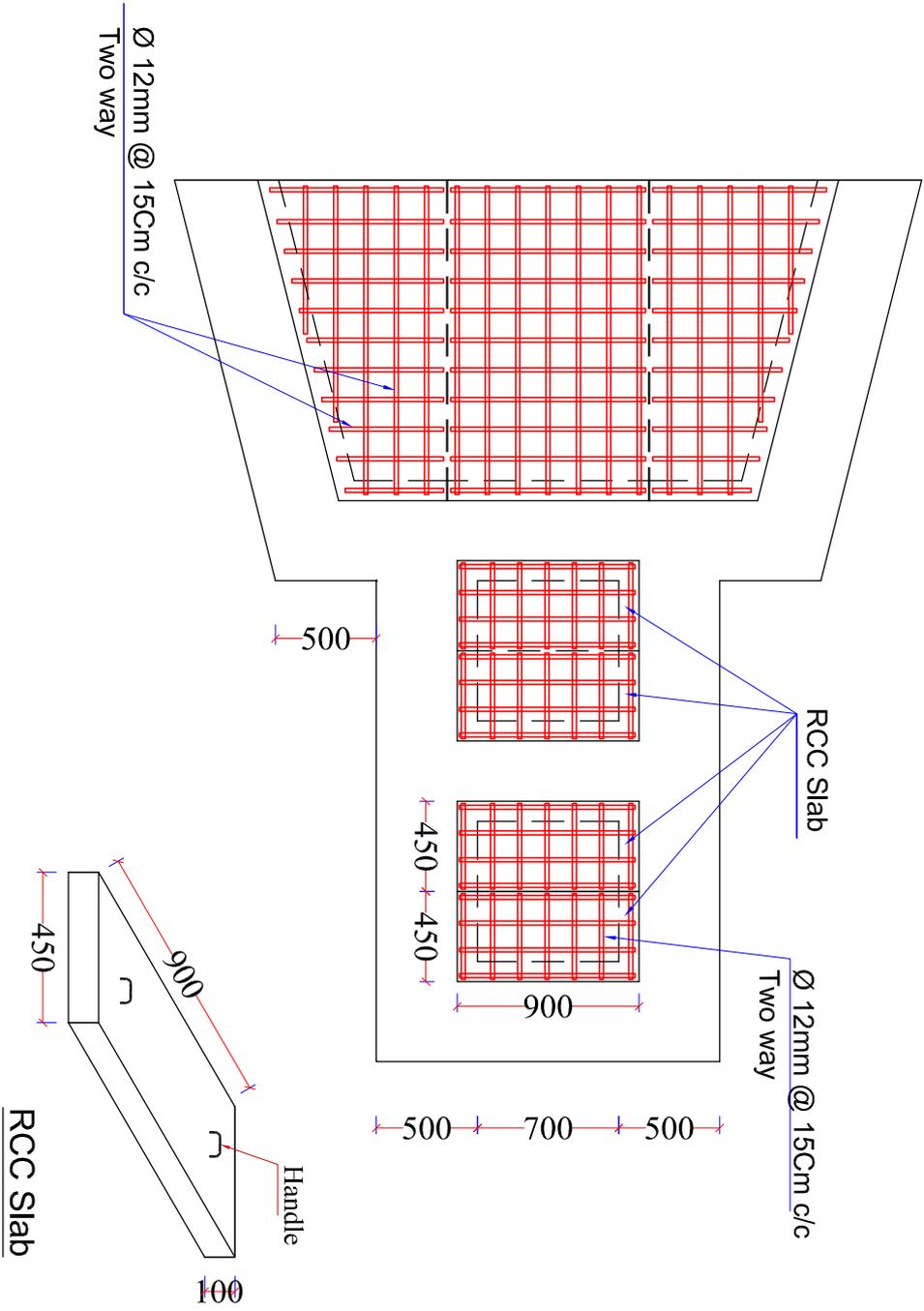
Approved by

Yaddullah Jalali

Scale:

Note: All dimension are in millimeter

Spring Protection Structure Reinforcement

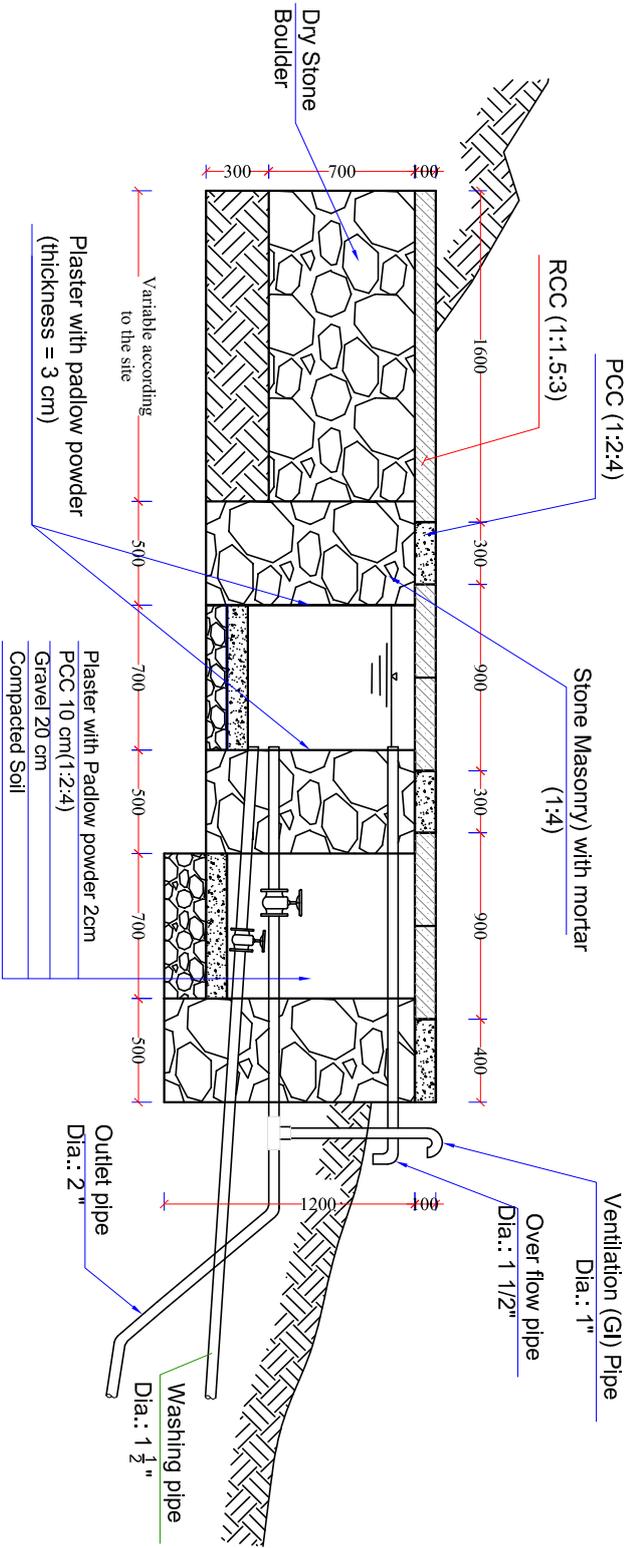


A-102 | SPRING PROTECTION REINFORCEMENT
 REF: SCALE: 1:25



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

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

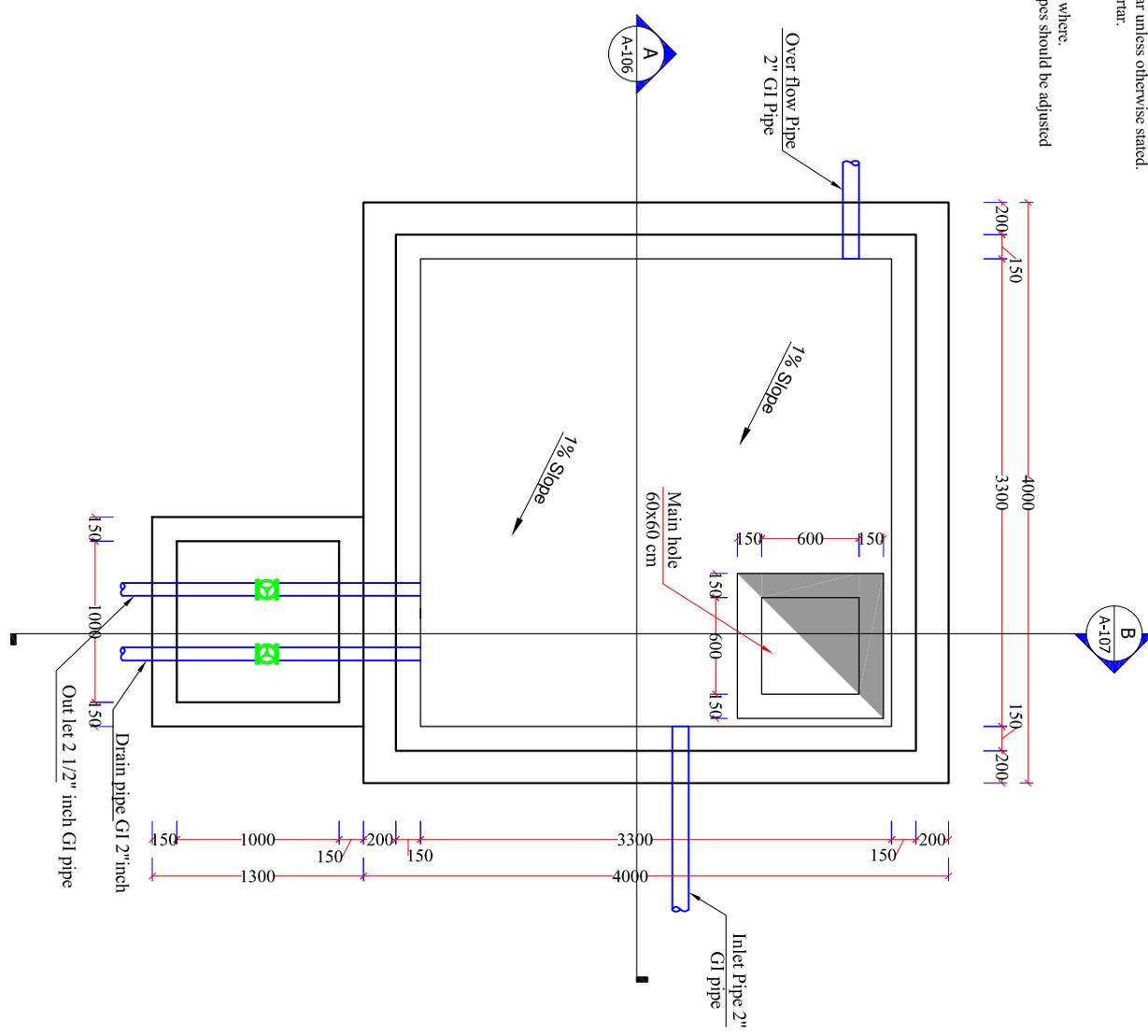
WASH Department

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

Scale:

Note: All dimension are in millimeter

- Note:**
- 1- All dimensions are in mm 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-105 RESERVOIR PLAN

SCALE: 1:30



DW.No:

A-105

Action Against Hunger

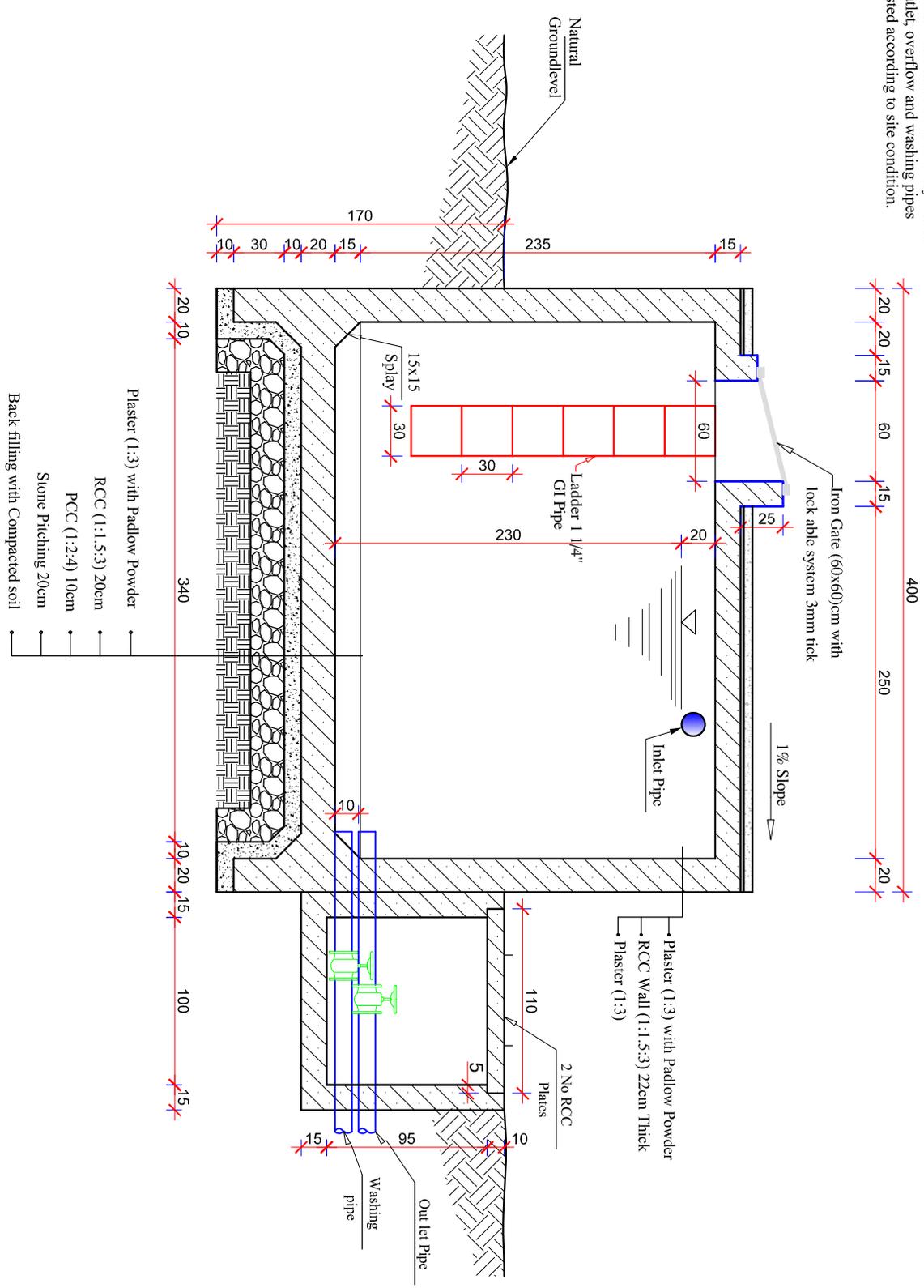
WASH Department

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

Scale:

Note: All dimension are in millimeter

- Note:**
- 1- All dimensions are in cm unless otherwise stated.
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 - 3- All RCC works should be with 1:2:4 mortar unless otherwise stated.
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 - 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-107 RESERVOIR LONGITUDINAL SECTION (B-B)
SCALE: 1:25



DW.No:

A-107

Action Against Hunger

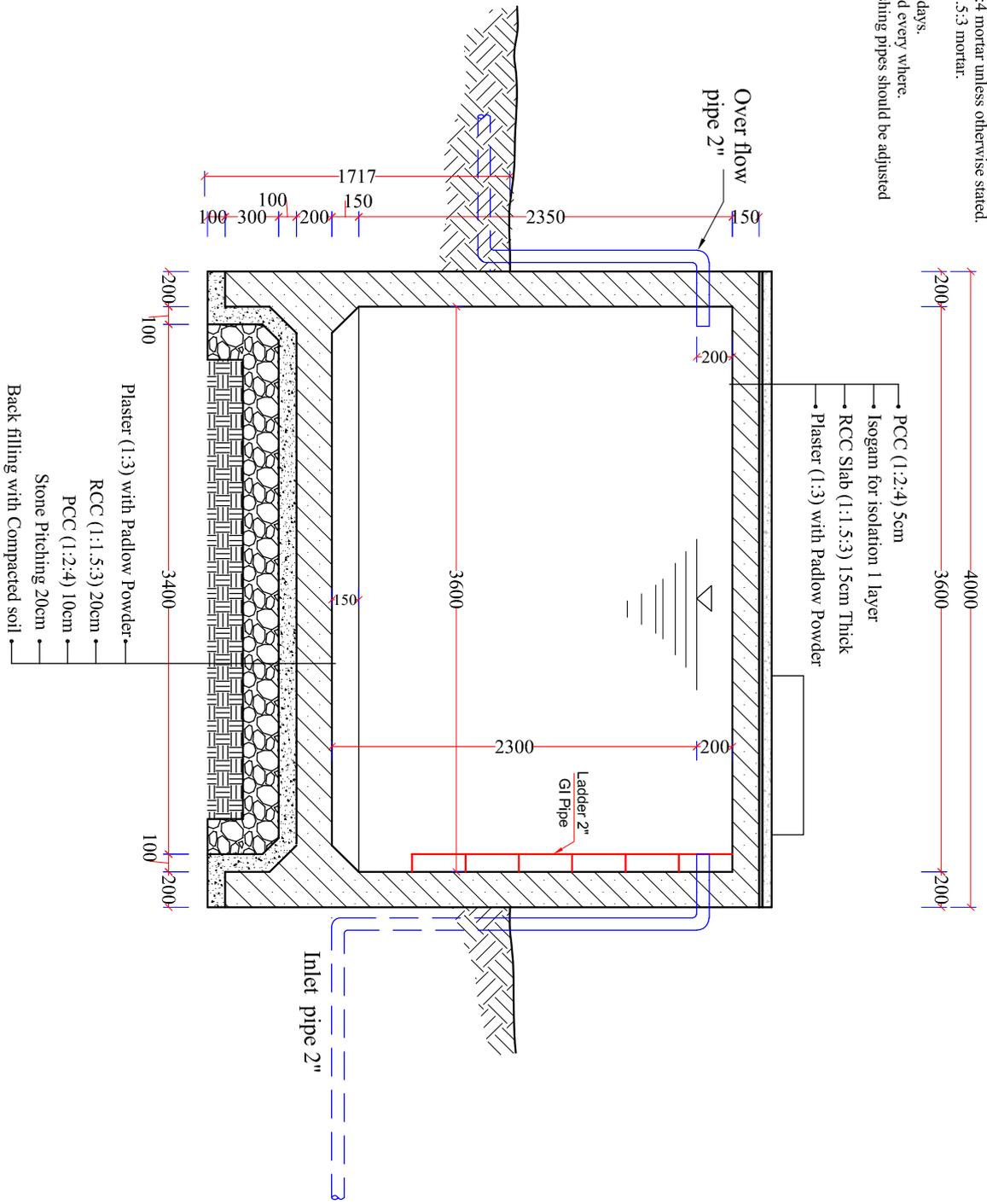
WASH Department

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

Scale:

Note: All dimension are in millimeter

- Note:**
- 1- All dimensions are in cm unless otherwise stated.
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 - 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-106 RESERVOIR SECTION (A-A)
SCALE: 1:25



DW.No:

A-106

Action Against Hunger

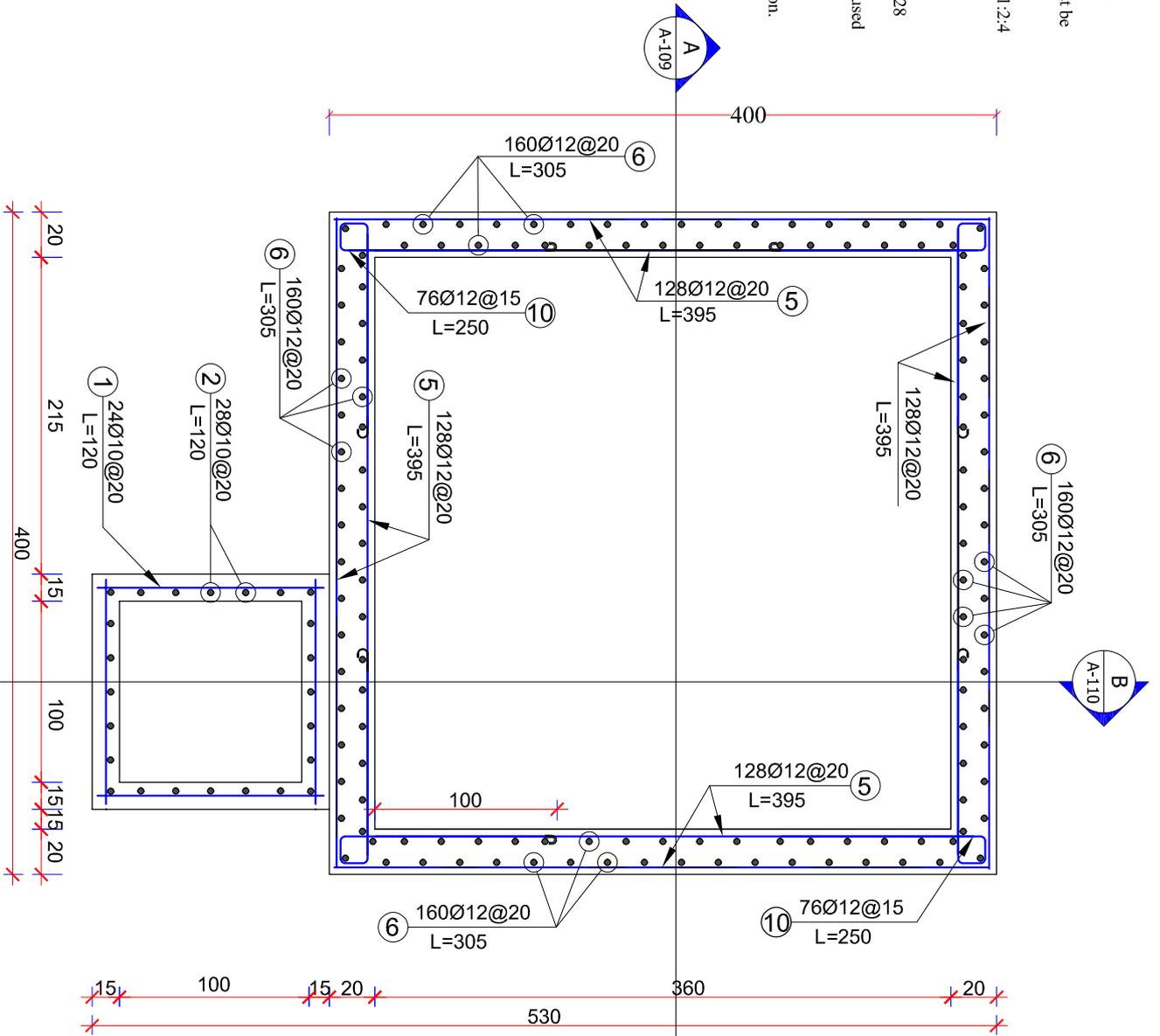
WASH Department

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Province	Daikundi	Chick by	Mohamad Nekandesh
District	Ashterly	Approved by	Yadullah Jalali

Scale:

Note: All dimension are in millimeter

- Note:**
- 1- All dimensions are in cm unless otherwise stated.
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 - 3- All PCC works should be with 1:2:4 mortar unless otherwise stated.
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 - 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.



DW.No:

A-108

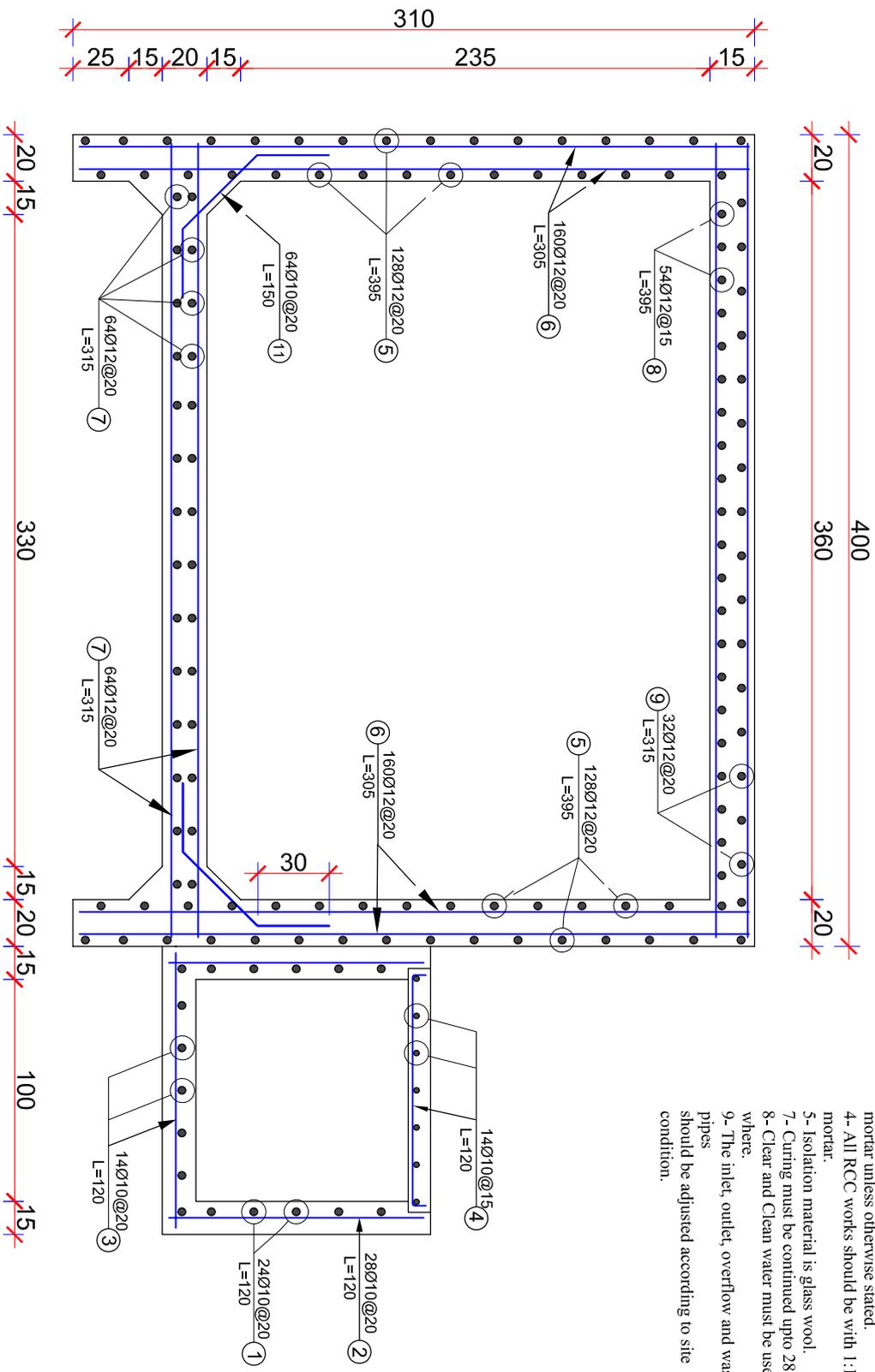
Action Against Hunger

WASH Department

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Ashterly	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-110 LONGITUDINAL SECTION (B-B)
SCALE: 1:20

Action Against Hunger
WASH Department

Scale:

Note: All dimension are in millimeter

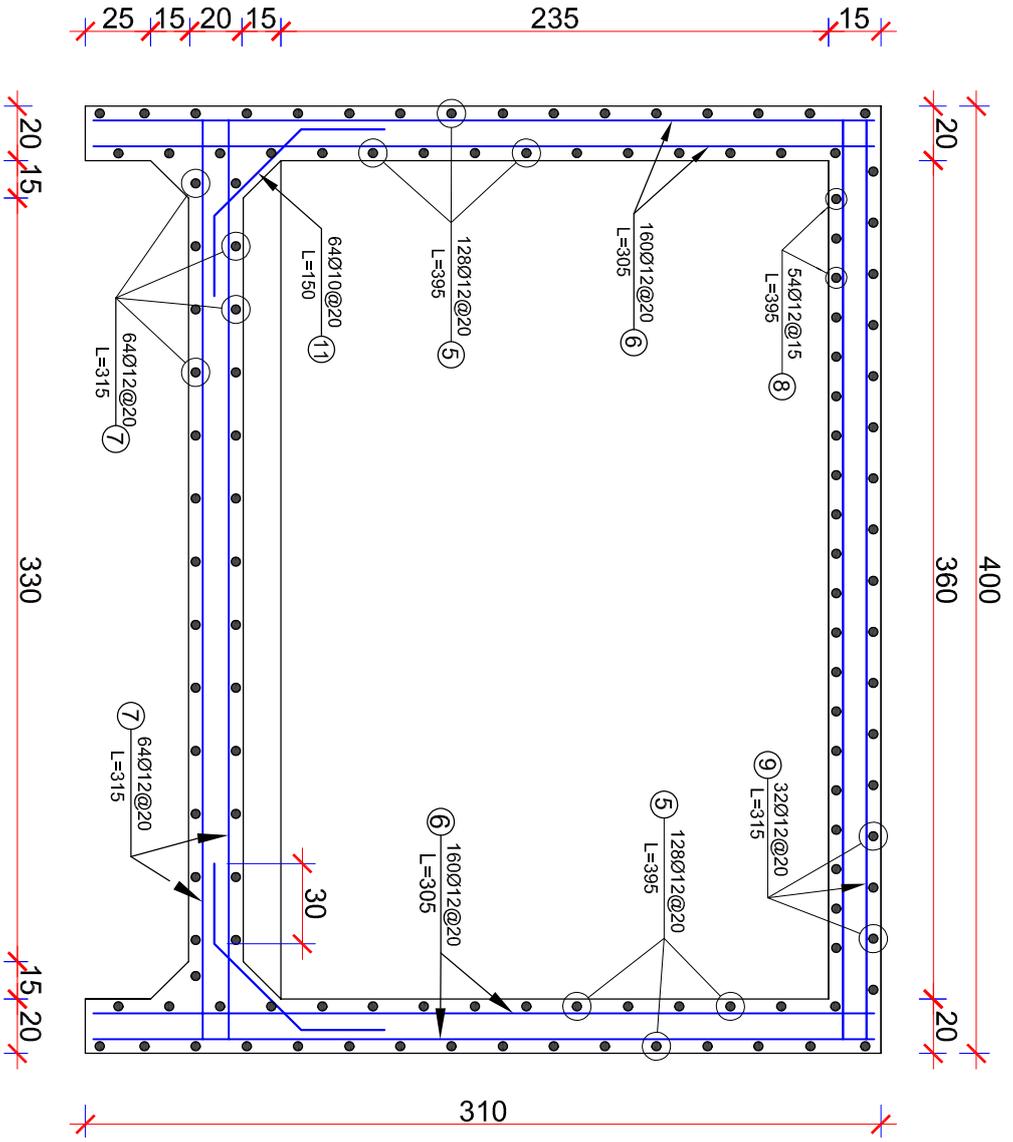
DW.No:

A-110

Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh
Province	Daikundi	Chick by	Mohamad Nekandesh
District	Ashterly	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 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.

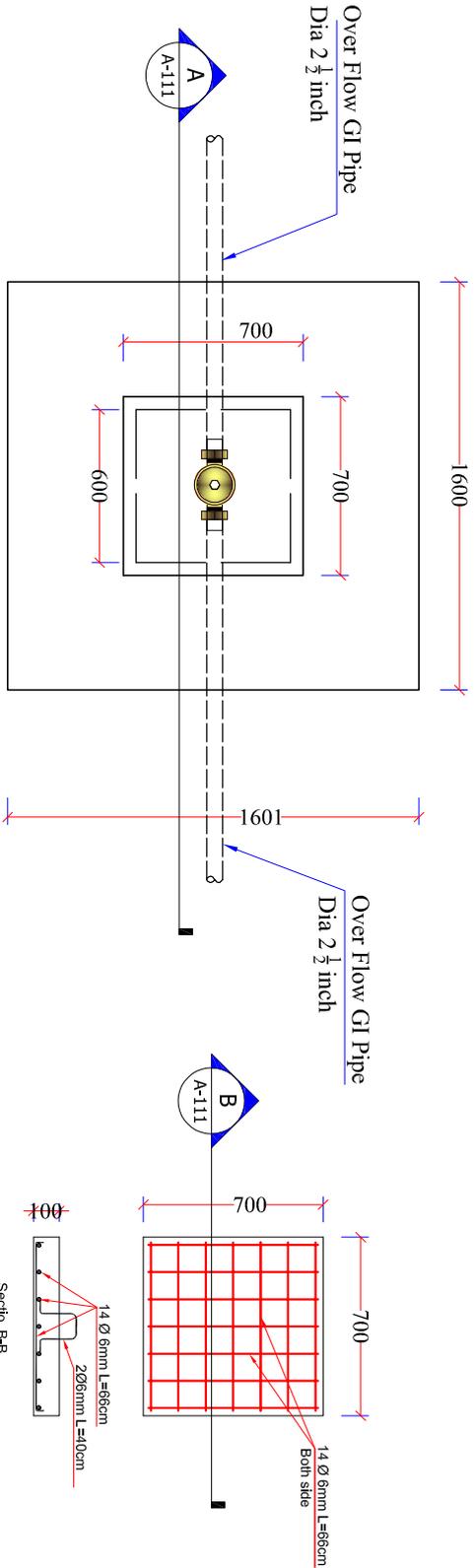


A-109 CROSS SECTION (A-A)
SCALE: 1:20

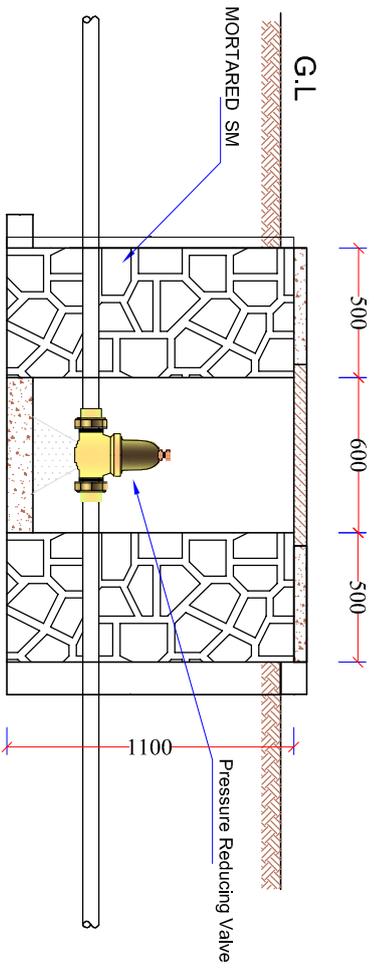


DW.No:	Action Against Hunger				Scale:
	WASH Department				Note: All dimension are in millimeter
A-109	Project Name	Water Supply	Design&Drawing by	Mohamad Nekandesh	
	Province	Daikundi	Chick by	Mohamad Nekandesh	
	District	Ashterly	Approved by	Yadullah Jalali	

VALE BREAK PRESSURE



SECTION A-A



TYPICAL DIMENSIONS OF VALVE CHAMBER

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



DW.No:

A-111

Action Against Hunger

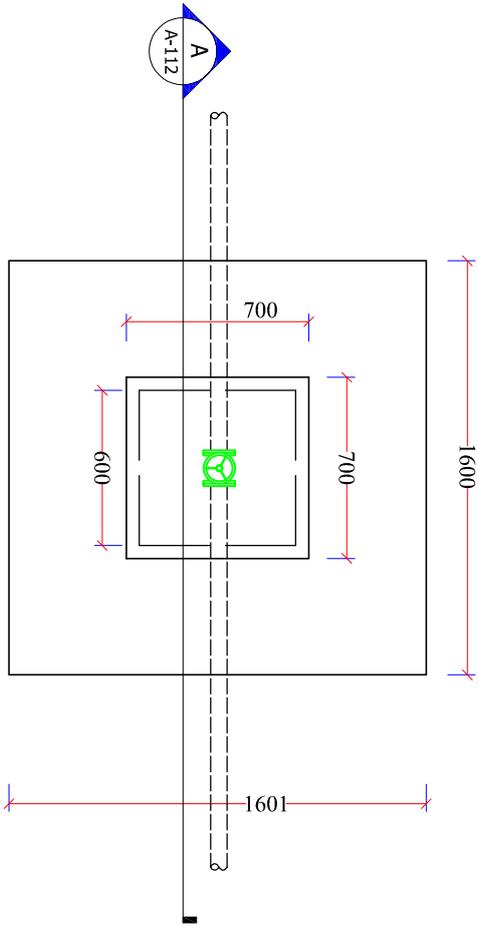
WASH Department

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

Scale:

Note: All dimension are in millimeter

GATE VALE BOX FOR CONTROL



1600

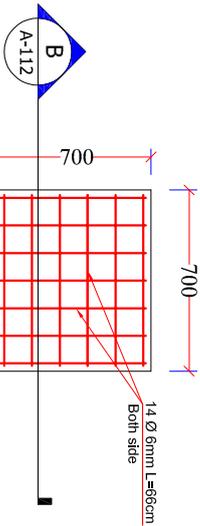
700

700

600

600

1601



700

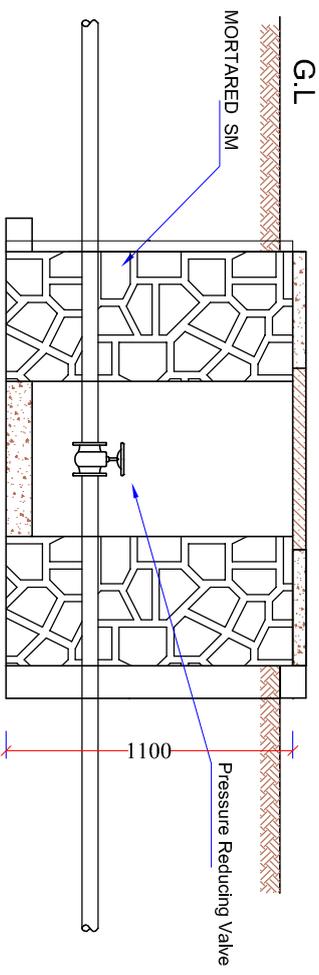
700

10 Ø 6mm L=66cm

20Ø6mm L=40cm

14 Ø 6mm L=66cm Both side

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



SECTION A-A

G.L.

MORTARED SM

500

600

500

1100

Pressure Reducing Valve



DW.No:

A-112

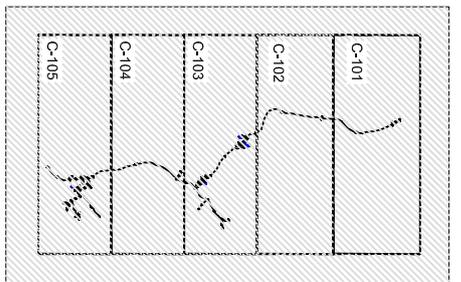
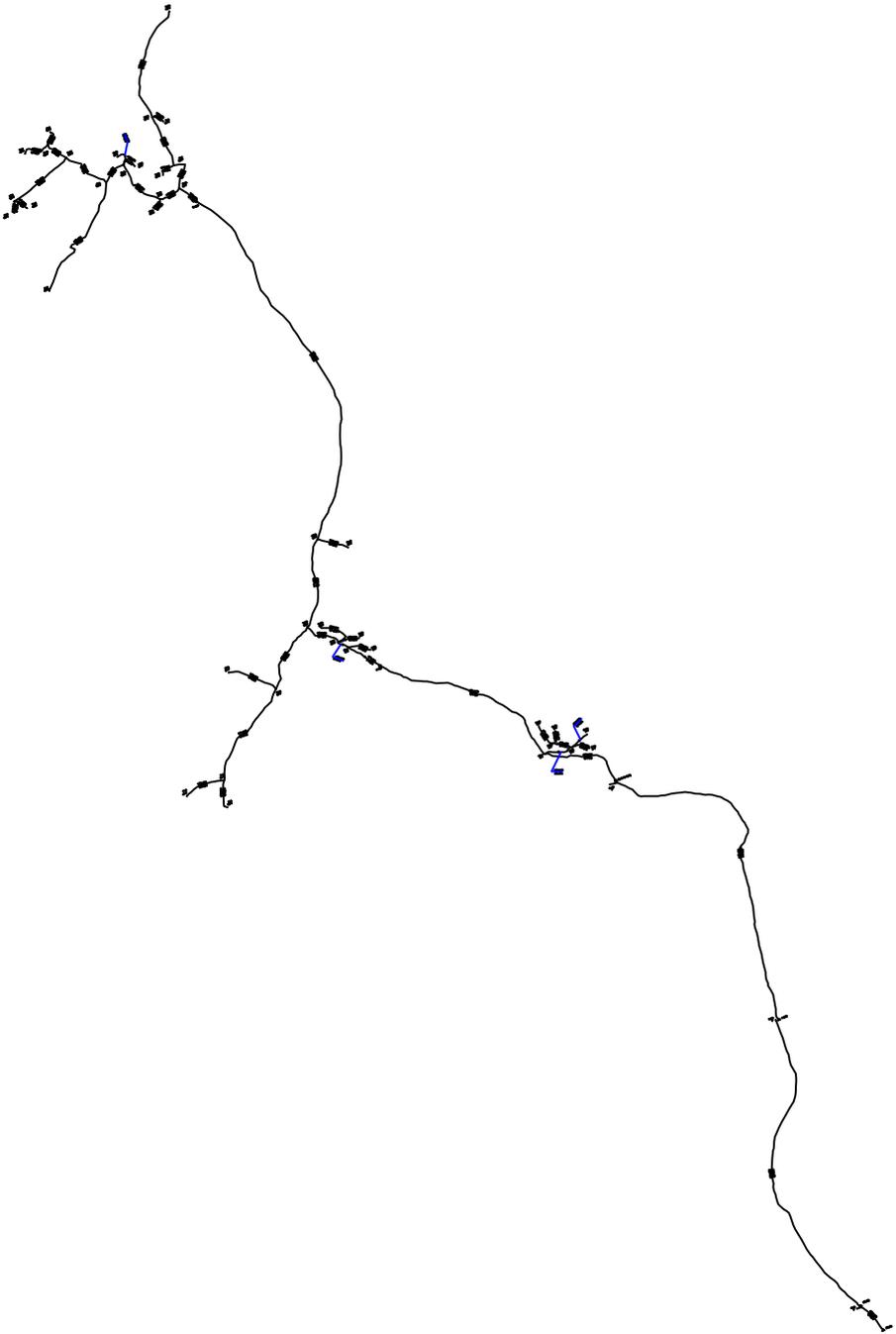
Action Against Hunger
WASH Department

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

Scale:

Note: All dimension are in millimeter

1. Node ID:
2. Flow in (liter/sec)
3. Velocity in (meter/sec)
4. Pressure Head (m)



LEGEND:

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

Coordinates

NAMES	EAST	NORTH	ELEVATION
SPRING	251293.000	3797091.000	2923.000
RESERVOIR	251293.000	3798152.000	2811.000
B.P.T	251444.000	3798371.000	2741.000
B.P.V	251944.000	3794941.000	2843.000



DW.No:

C-100

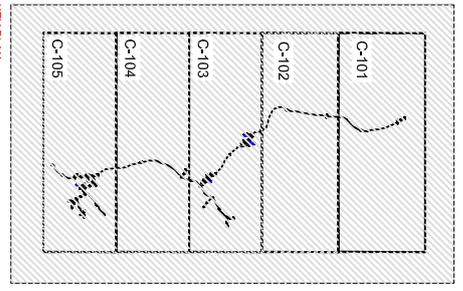
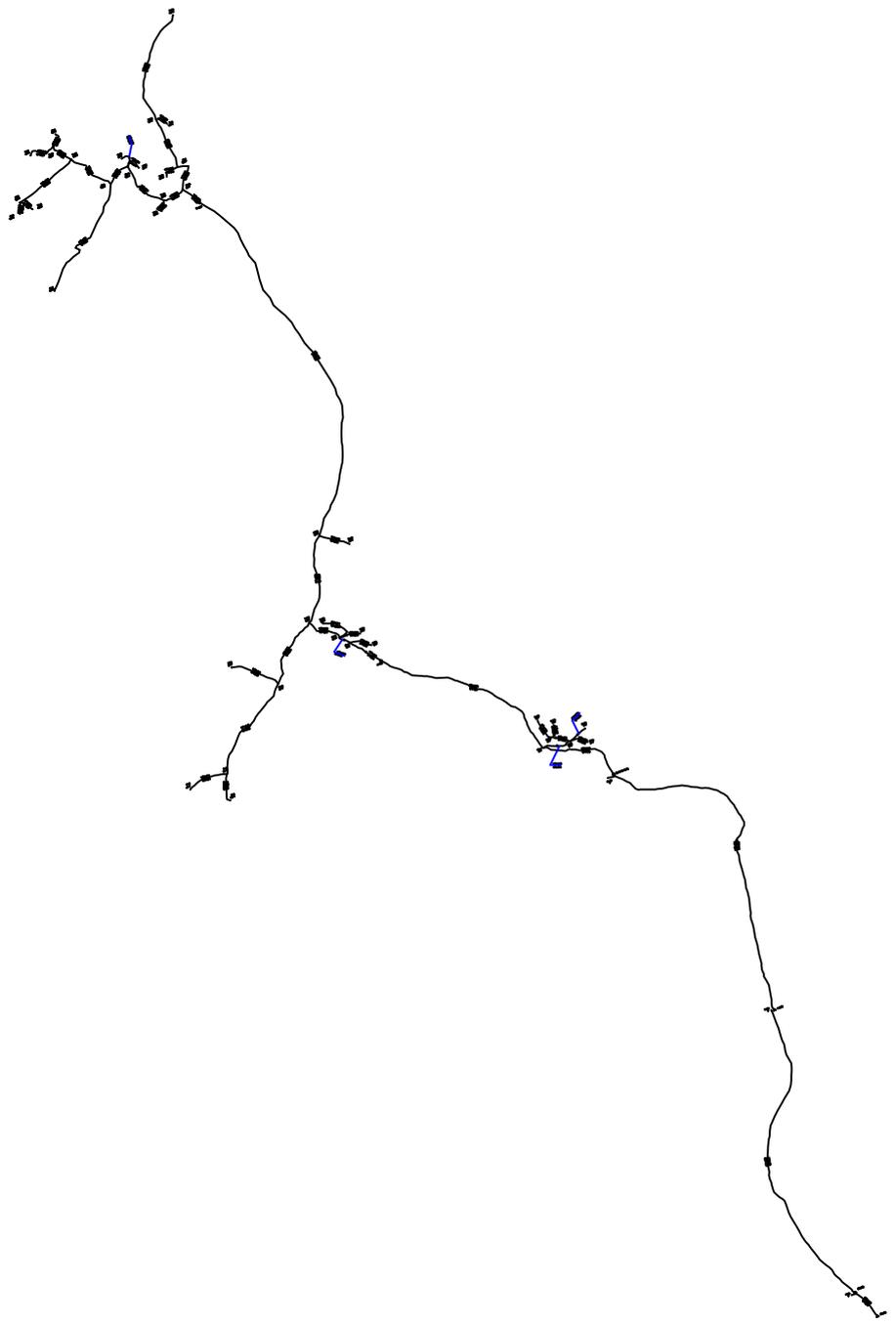
Action Against Hunger

WASH Department

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing& Lyout by	Mohamad Nekandesh
District	Ashterly	Approved by	.....

Note: All dimension showed in sheet

1. Node ID:
2. Flow in (liter/sec)
3. Velocity in (meter/sec)
4. Pressure Head (m)



LEGEND:

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

Coordinates

NAMES	EAST	NORTH	ELEVATION
SPRING	251293.000	3797091.000	2923.000
RESERVOIR	251293.000	3798152.000	2811.000
B.P.T	251444.000	3798371.000	2741.000
B.P.V	251944.000	3794941.000	2843.000



DW.No:

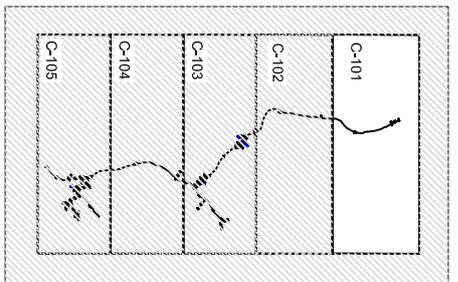
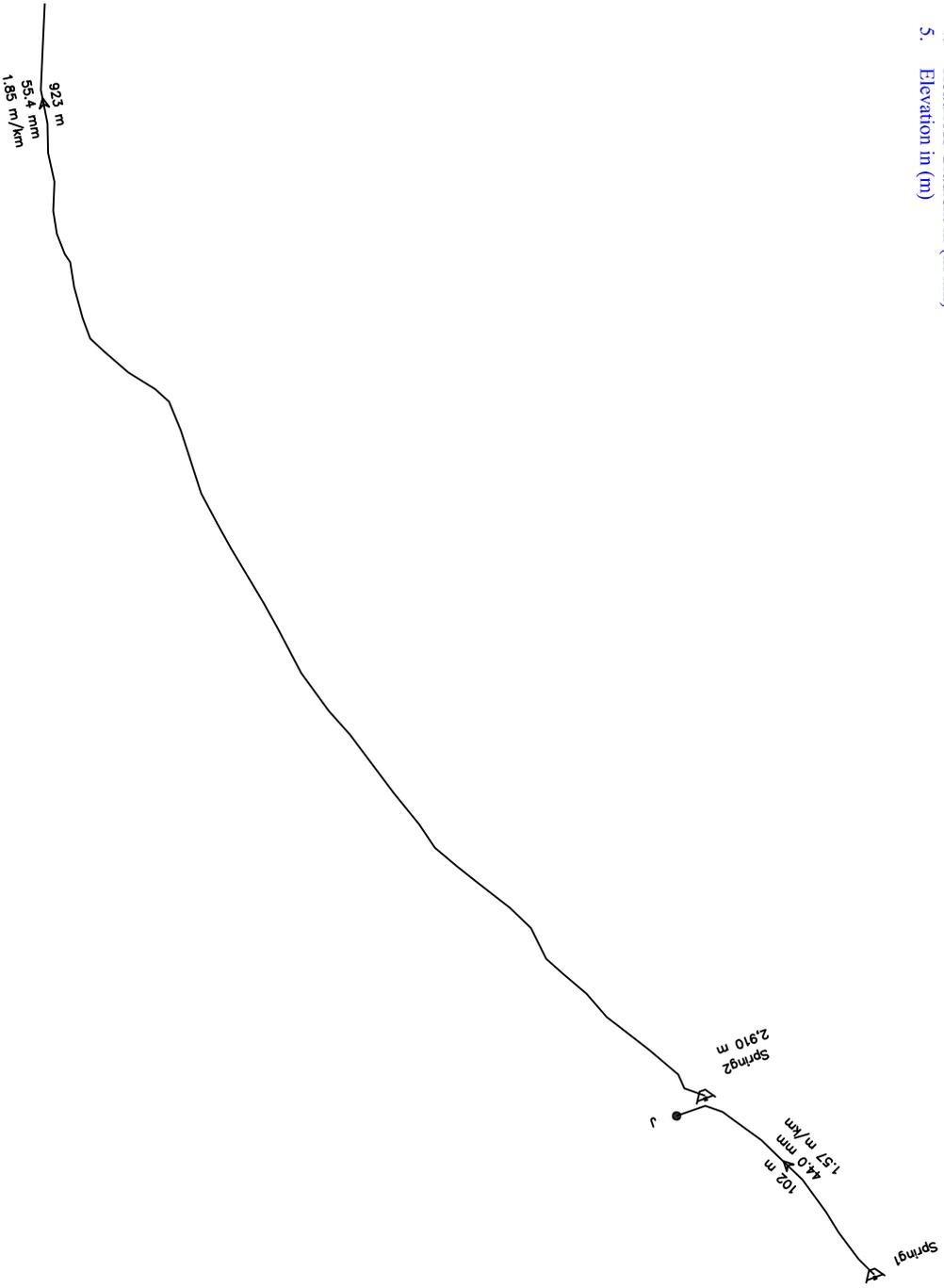
C1-100

Action Against Hunger
WASH Department

Project Name	Water Supply	Design by	Yaddullah Jalali
Province	Daikundi	Drawing& Lyout by	Mohamad Nekandesh
District	Ashterly	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)



REVISIONS

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	257263.000	3787081.000	2923.000
RESERVOIR	257260.000	3786932.000	2871.000
B.P.1	258144.000	3785371.000	2741.000
B.P.V	258146.000	3784628	2643.000

Action Against Hunger

WASH Department

DW.No:

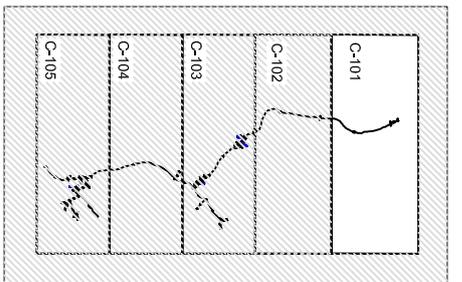
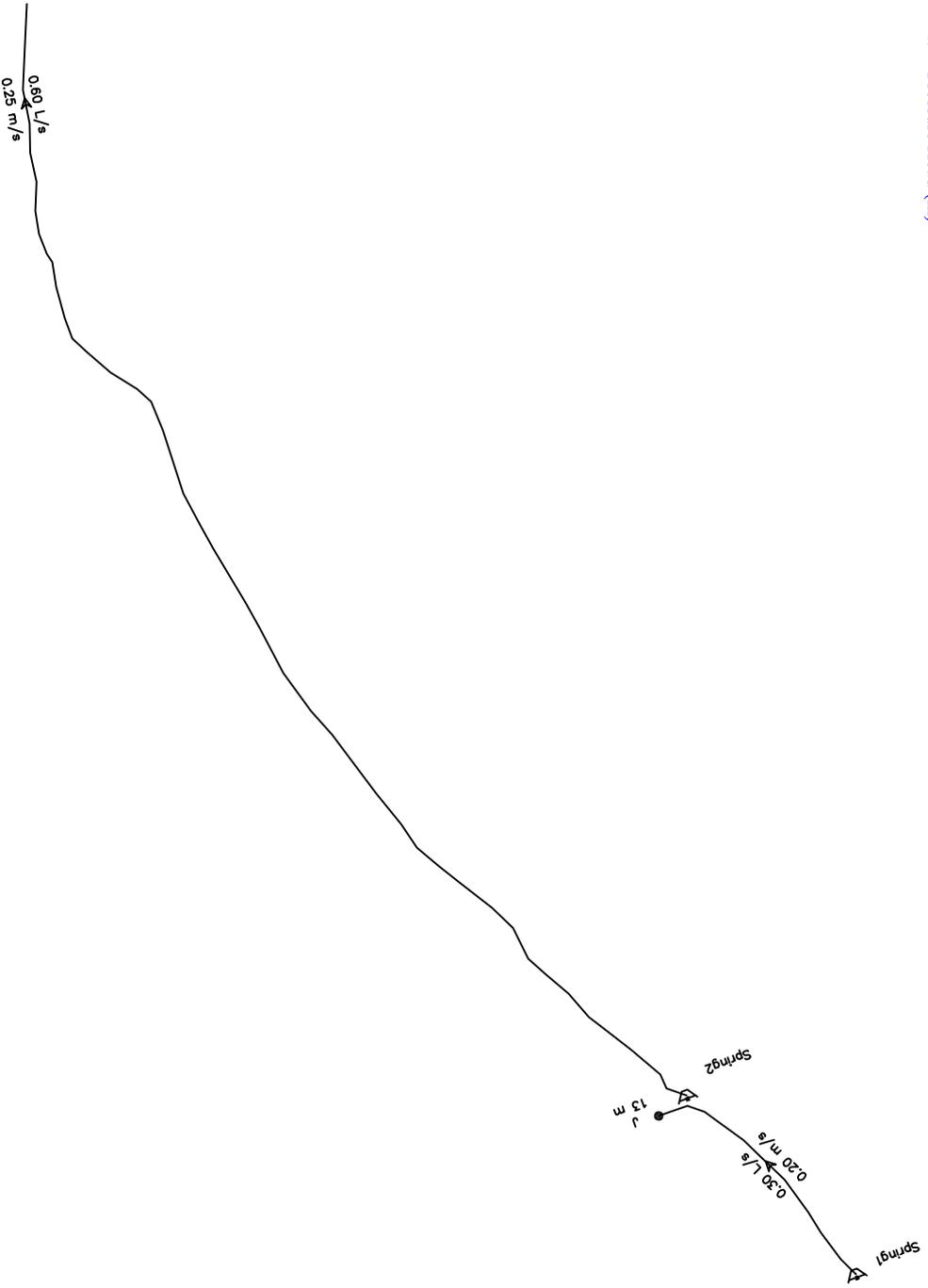
C-101

Note: All dimension showed in sheet

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



1. Node ID:
2. Flow in (liter/sec)
3. Velocity in (meter/sec)
4. Pressure Head (m)



REMARKS

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	257263.000	3787081.000	2923.000
RESERVOIR	257260.000	3786932.000	2871.000
B.P.T	258144.000	3785371.000	2741.000
B.P.V	258146.000	3784828	2643.000

Action Against Hunger

WASH Department

DW.No:

C1-101

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

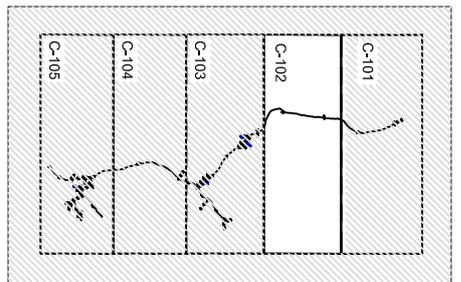
Note: All dimension showed in sheet



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

1.005 m
55+ mm
1.85 m/km

2.810 m
BPT-1



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	291263.000	3797081.000	2822.000
RESERVOIR	291260.000	3796162.000	2811.000
B.M.T	291444.000	3796371.000	2741.000
B.M.V	291846.000	3794926.000	2883.000

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	Ashterly	Approved by	.....

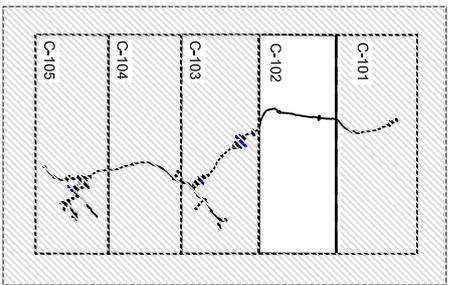
Note: All dimension showed in sheet



1. Node ID:
2. Flow in (liter/sec)
3. Velocity in (meter/sec)
4. Pressure Head (m)

0.60 L/s
0.25 m/s

BPT-1
98 m



ELEVATION

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	291263.000	3797081.000	2823.000
RESERVOIR	291260.000	3796952.000	2811.000
B.P.T	291444.000	3796271.000	2794.000
B.V.V	291846.000	3794905.000	2863.000

Action Against Hunger

WASH Department

DW.No:

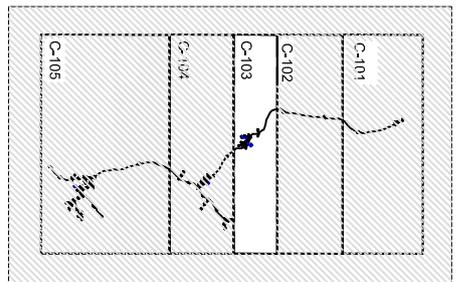
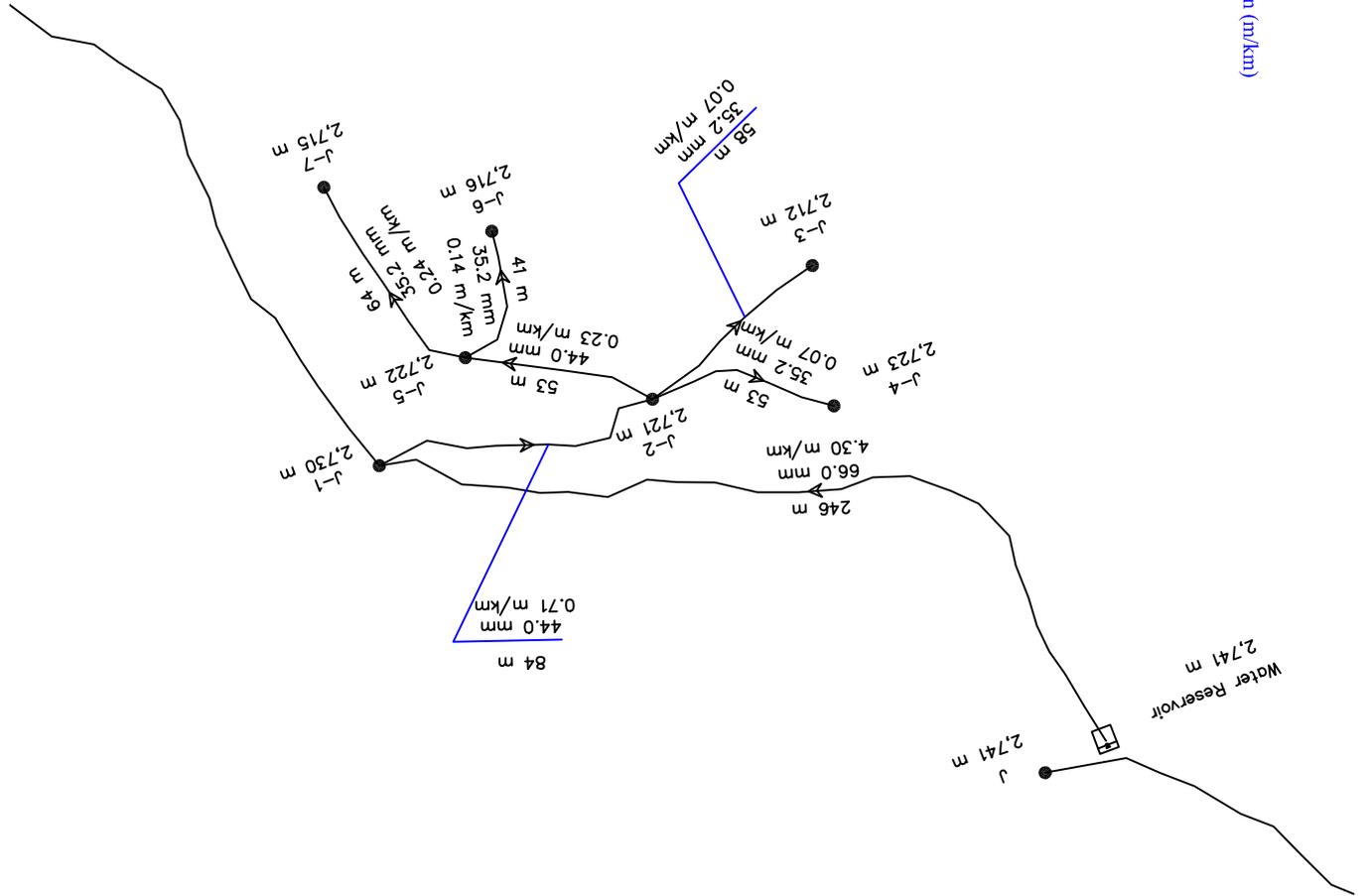
C1-102

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

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

Coordinates

	EAST	NORTH	ELEVATION
MASS	207263.000	379701.000	2023.000
SPRING	207260.000	379692.000	2011.000
RESERVOIR	207260.000	379692.000	2011.000
B.P.T	207444.000	3794371.000	2741.000
B.P.V	207444.000	3794371.000	2043.000

Action Against Hunger
WASH Department

DW.No:

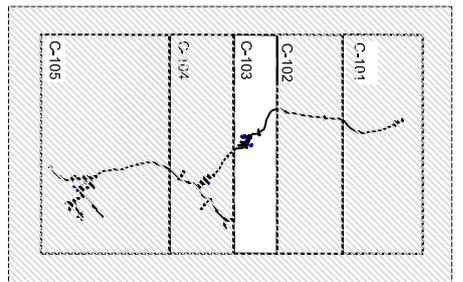
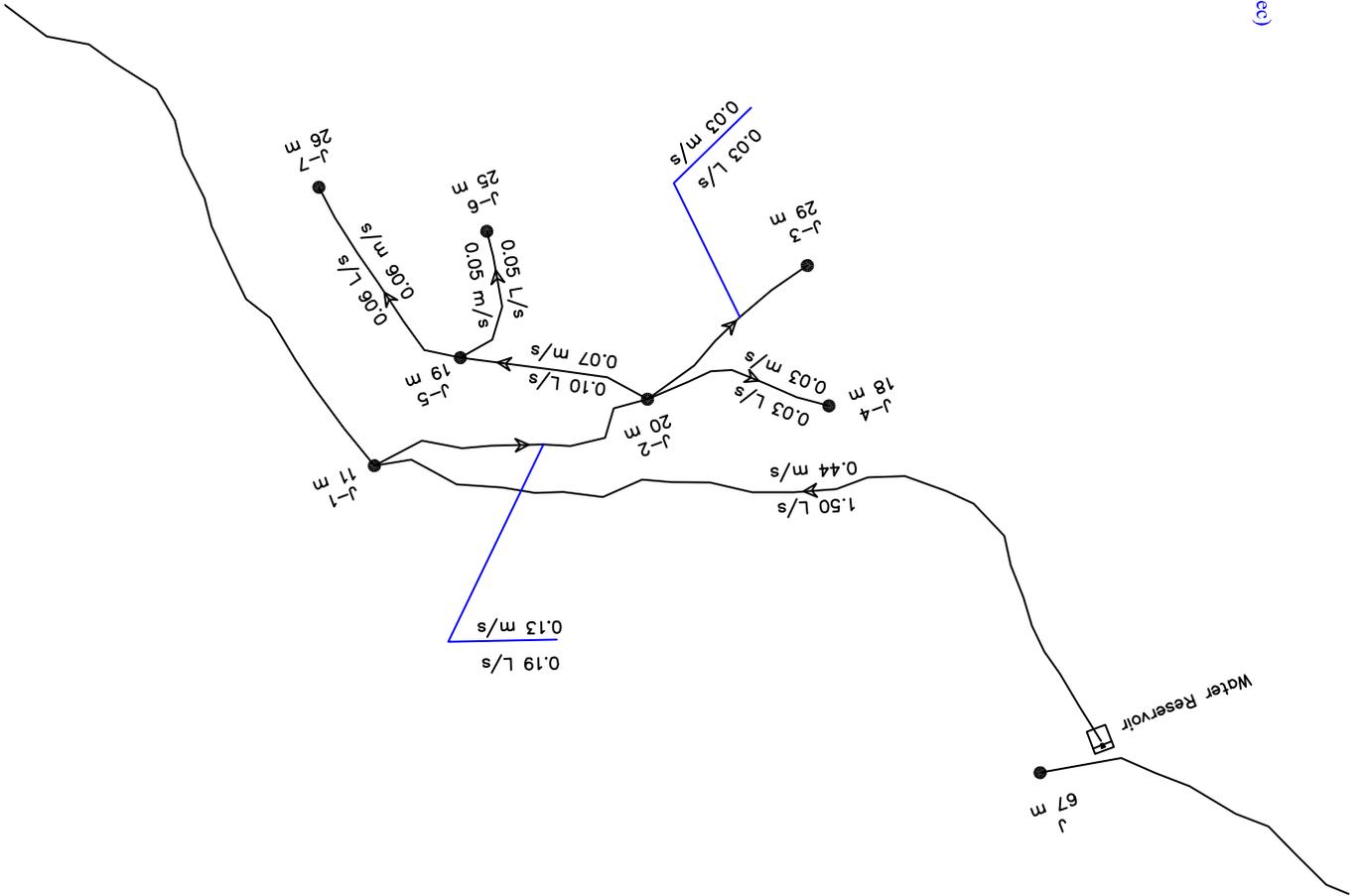
C-103

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

Note: All dimension showed in sheet



1. Node ID:
2. Flow in (liter/sec)
3. Velocity in (meter/sec)
4. Pressure Head (m)



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

Coordinates			
	EAST	NORTH	ELEVATION
MASS	207283.000	379701.000	2823.000
SPRING	207280.000	379692.000	2811.000
RESERVOIR	207444.000	3794371.000	2741.000
B.P.T	207444.000	3794371.000	2741.000
B.P.V	207444.000	3794371.000	2843.000

Action Against Hunger

WASH Department

DW.No:

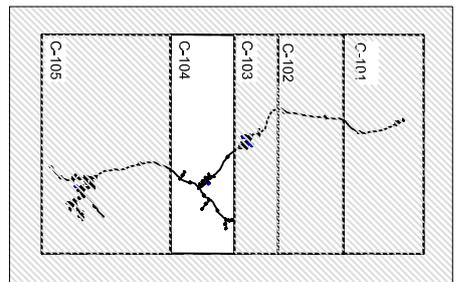
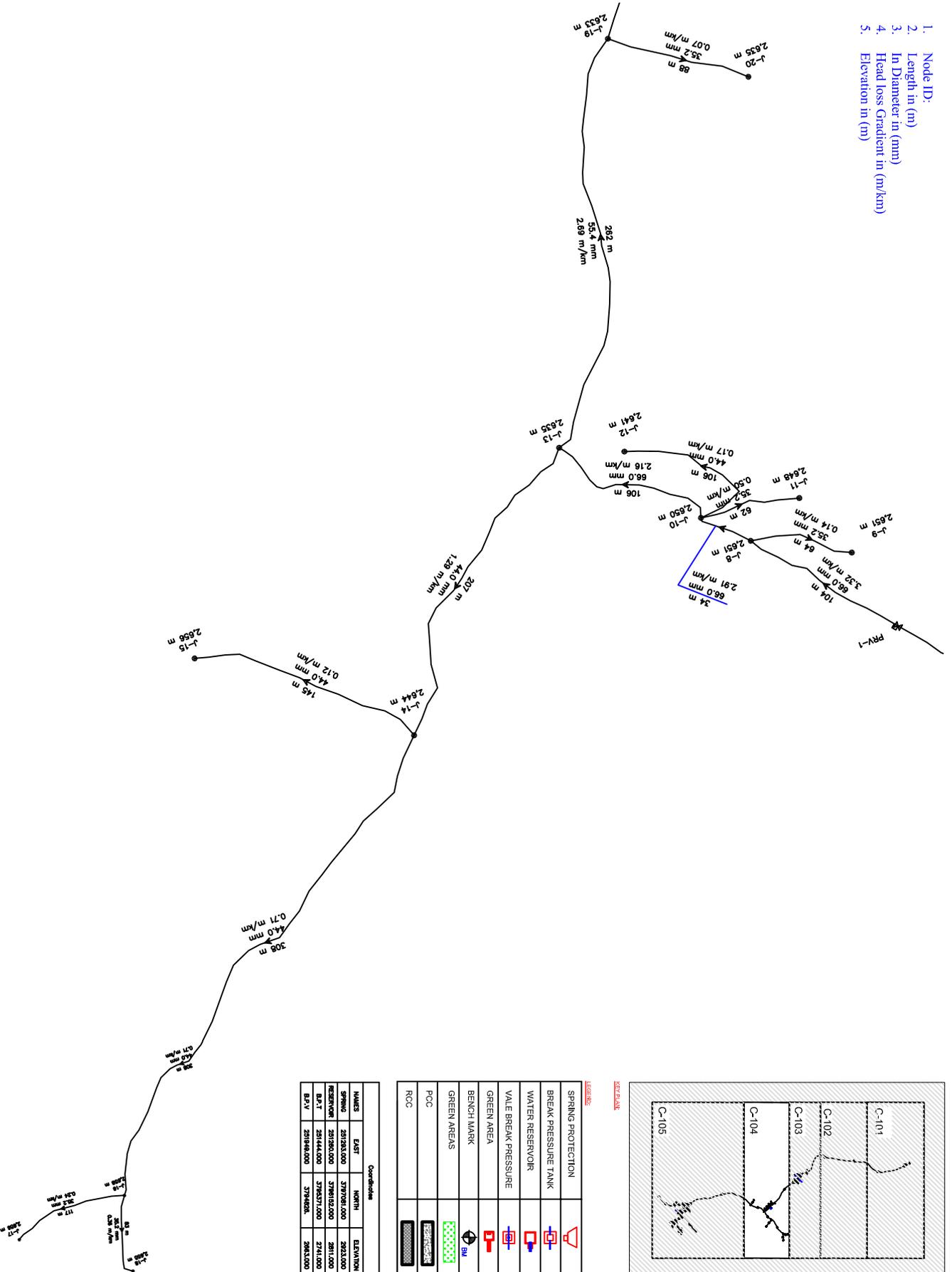
C1-103

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



REMARK:

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	201283.000	3797081.000	2923.000
RESERVOIR	201280.000	3796932.000	2811.000
B.P.T	201444.000	3796371.000	2741.000
B.A.V	201849.000	3794926.000	2663.000

Action Against Hunger

WASH Department

DW.No:

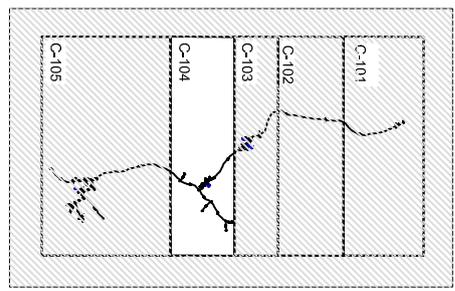
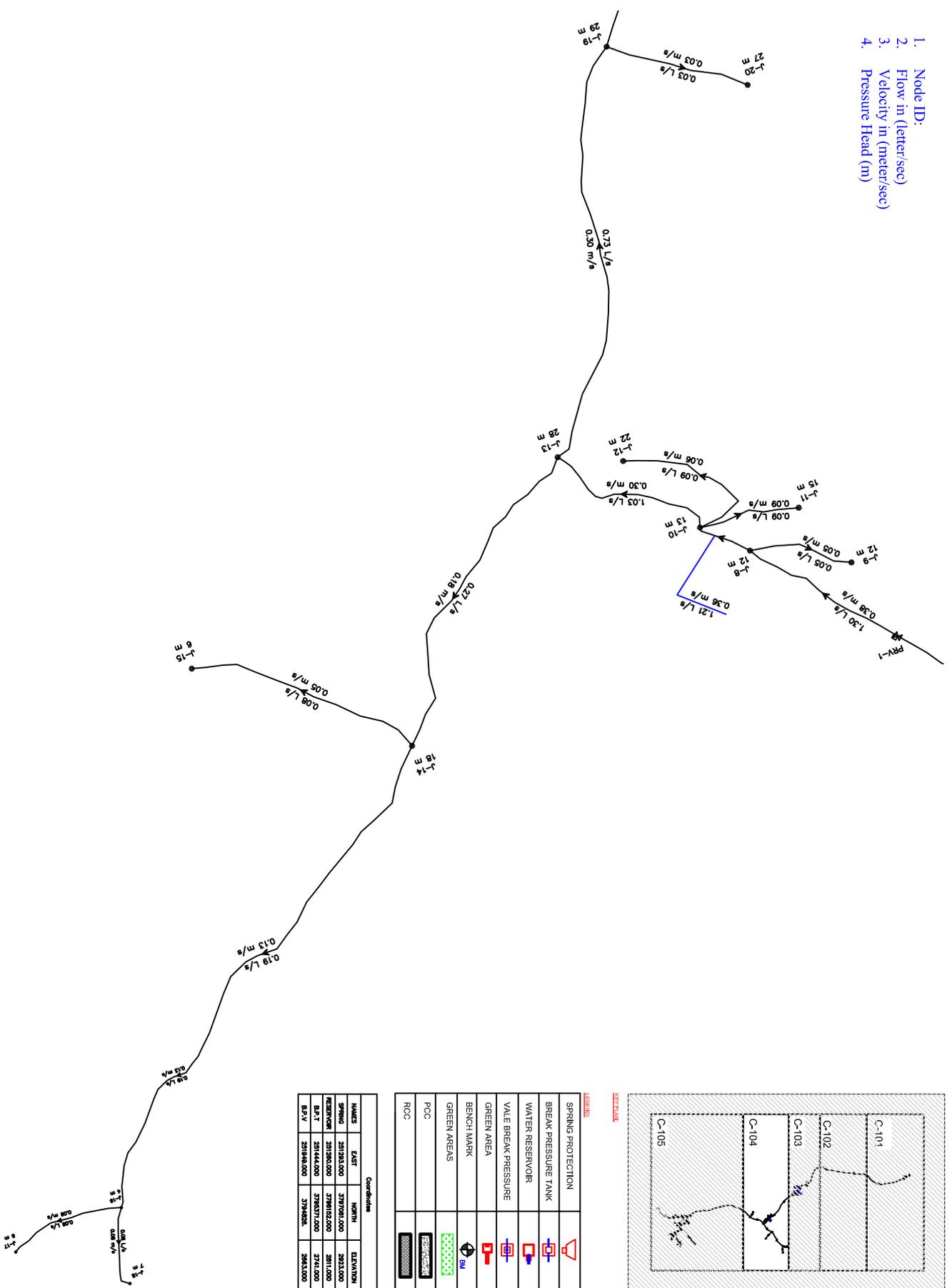
C-104

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

Note: All dimension showed in sheet



- 1. Node ID:
- 2. Flow in (liter/sec)
- 3. Velocity in (meter/sec)
- 4. Pressure Head (m)



Action Against Hunger
WASH Department

DW.No:

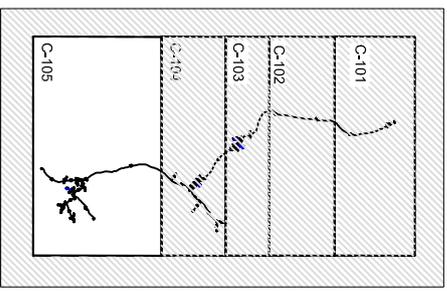
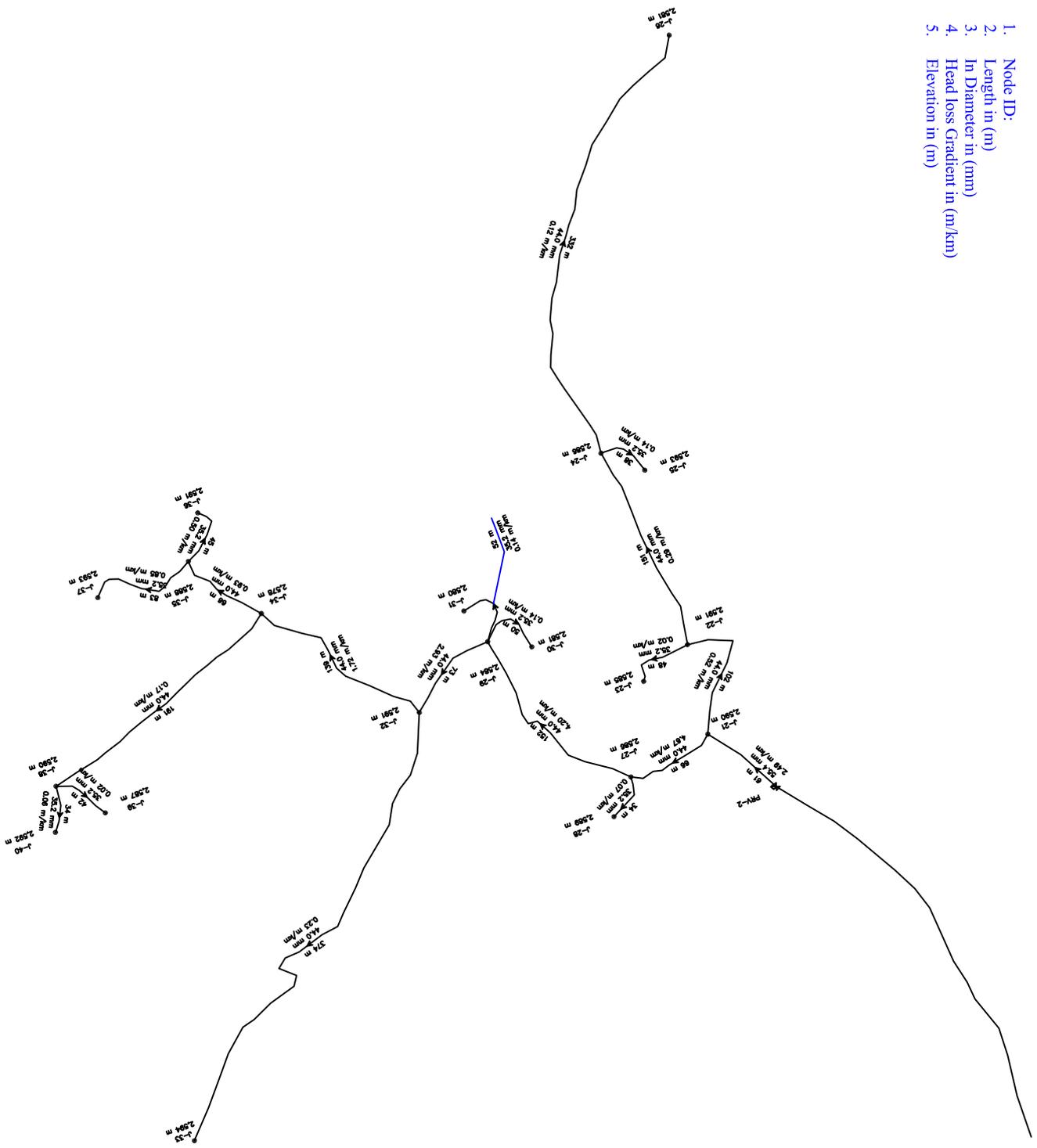
C1-104

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



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

Coordinates			
NAMES	EAST	NORTH	ELEVATION
SPRING	207200.000	379700.000	2023.000
RESERVOIR	207000.000	3796100.000	2011.000
B.P.T	207144.000	3796371.000	2741.000
B.P.V	207044.000	3794900.000	2083.000

Action Against Hunger
WASH Department

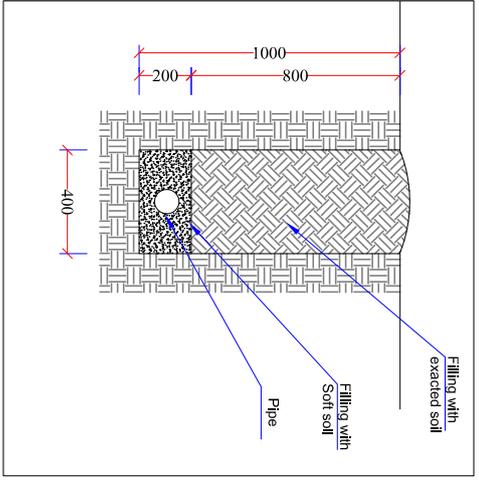
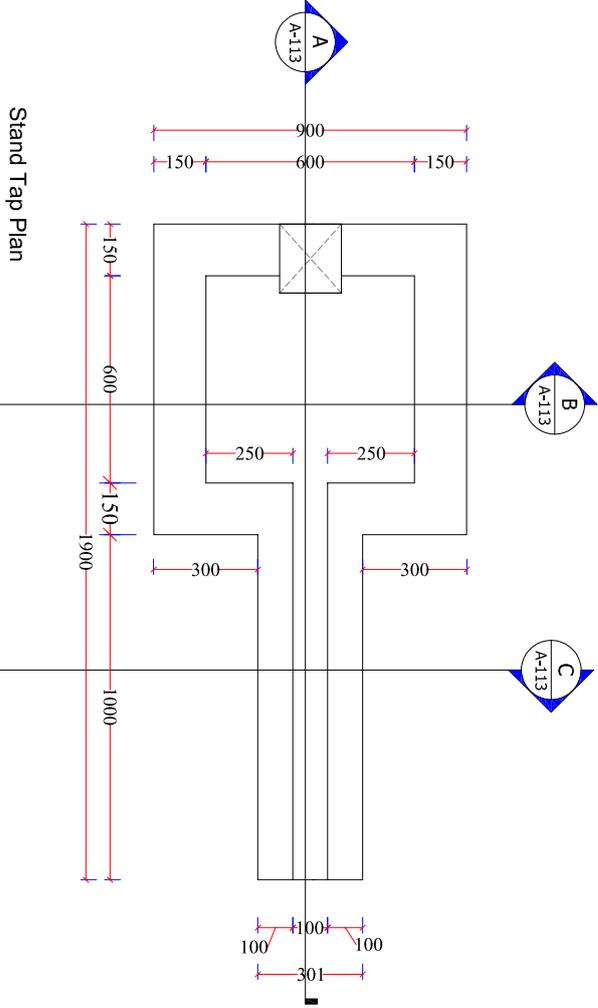
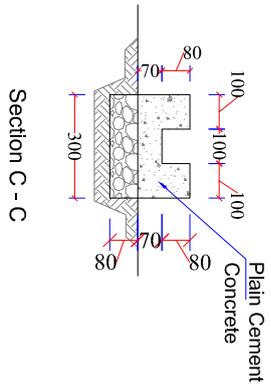
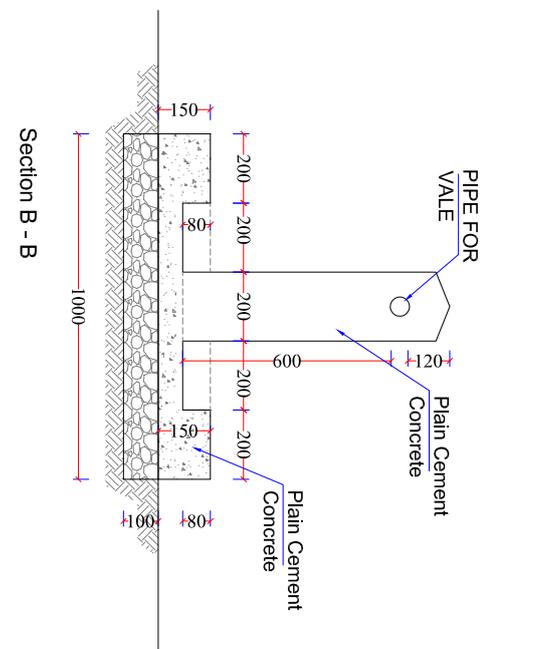
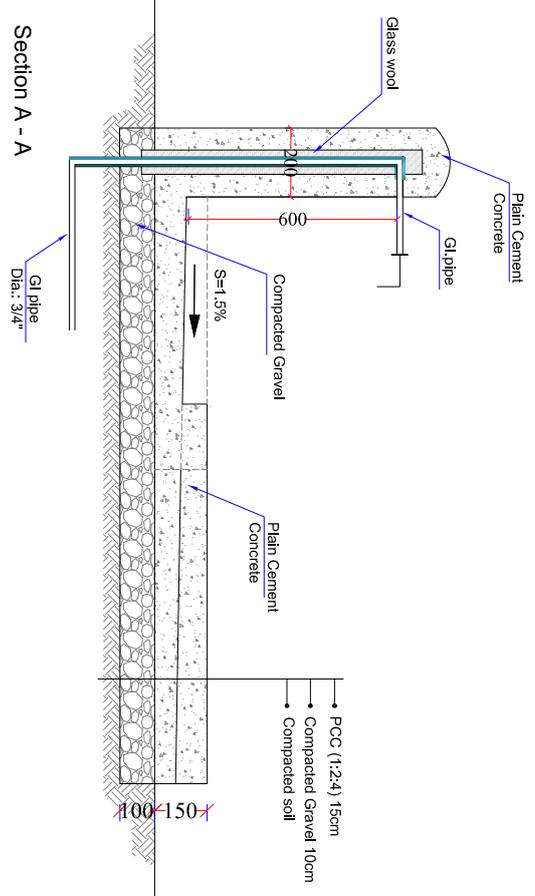
DW.No:

C-105

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

Note: All dimension showed in sheet





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	Ashterly	Approved by	Yaddullah Jalali

Scale:
Note: All dimension are in millimeter