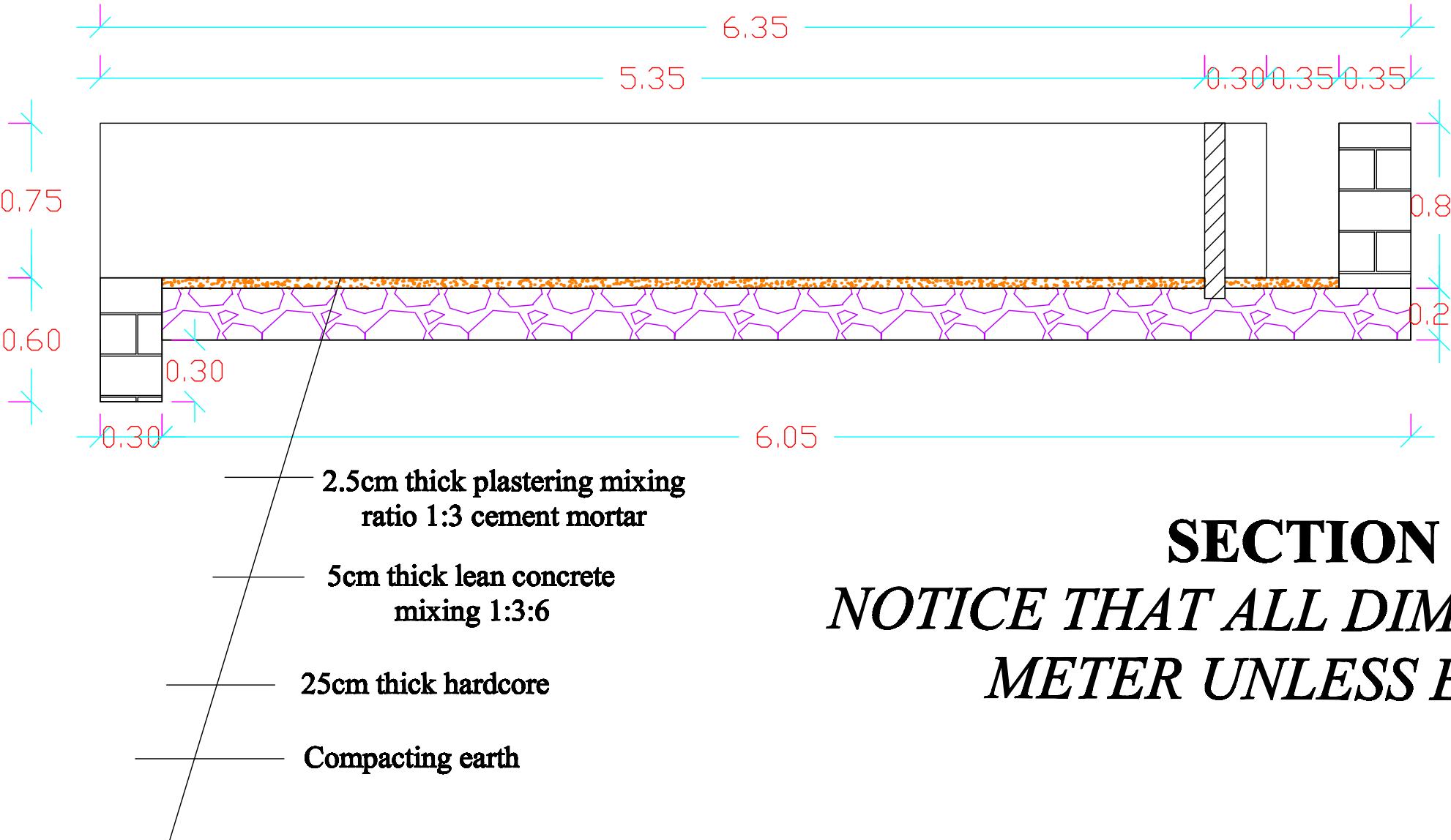


| Harena Buluk Woreda Pastoralist Development office |   |
|--|---|
| Project  | Shawe Gindiba Gojo phase III SSIP Expansion |
| Title  | Section A-A                                 |
| Designed by  | Ashenafi Tedla and Diriba Beyene            |
| Checked by   | Ashenafi Tedla                              |
| Approved by  | Ashenafi Tedla                              |
| Scale  | Not drawn to scale                          |
| Date:Feburary,2021                                 | Drawing No                                  |
|  | Sheet NO -                                  |

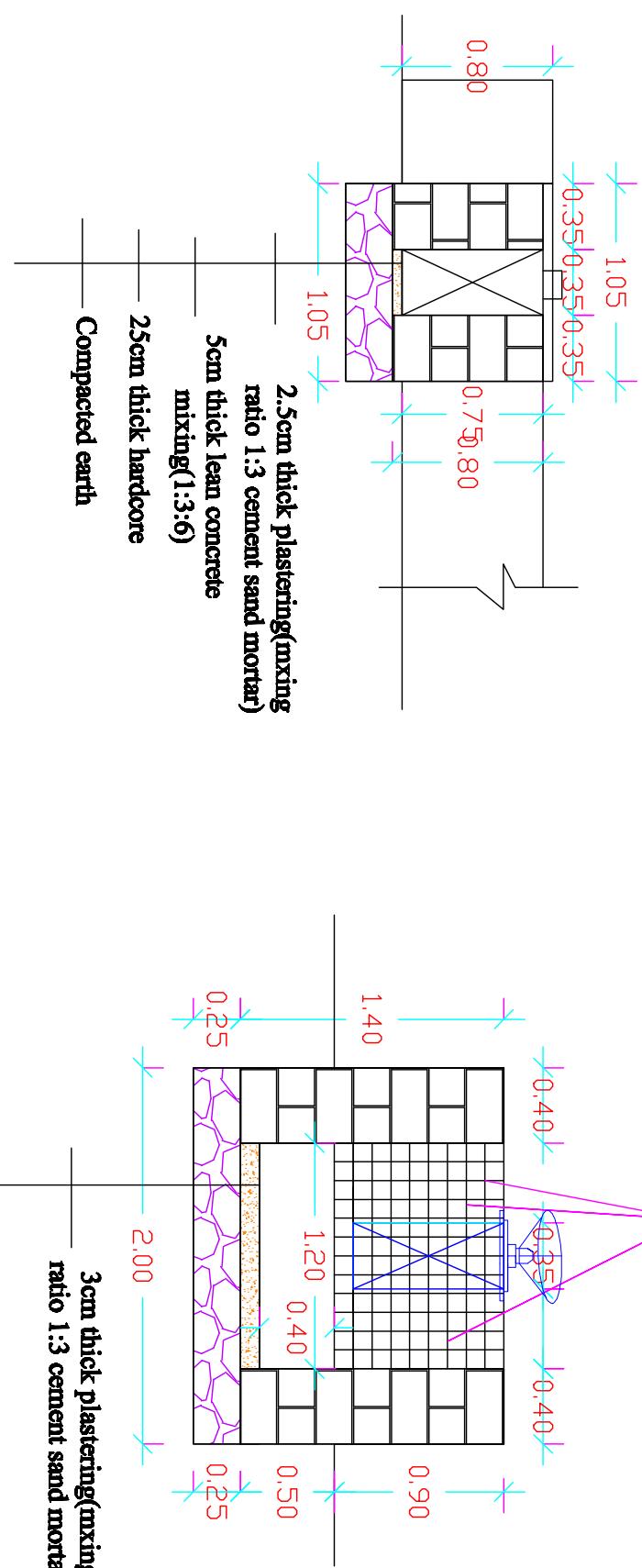


## SECTION Q-Q

*NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS EXPLAINED*

| Harena Buluk Woreda Pastoralist Development office |   |
|--|---|
| Project  | Shawe Gindiba Gojo phase III SSIP Expansion |
| Title  | Section Q-Q                                 |
| Designed by  | Ashenafi Tedla                              |
| Checked by   | Ashenafi Tedla                              |
| Approved by  | Ashenafi Tedla                              |
| Scale  | Not drawn to scale                          |
| Date:Feburary,2021                                 | Drawing No      Sheet NO -                  |

10mm dia. Reinforcement bars  
trash rack @10cm interval both  
ways



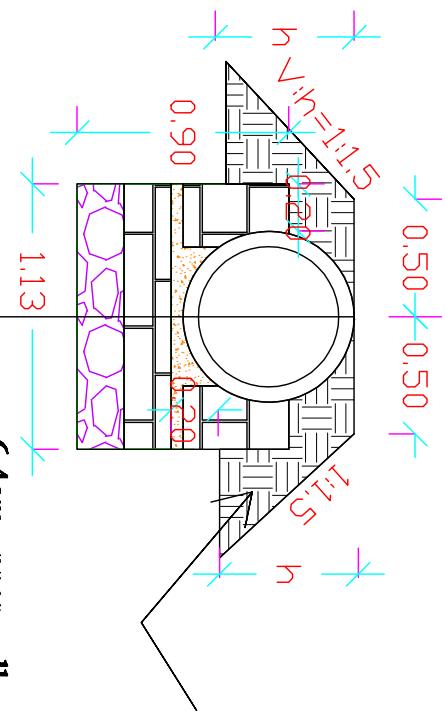
## SECTION N1-N1

*NOTICE THAT ALL DIMENSIONS ARE  
IN METER UNLESS EXPLAINED*

## SECTION R-R

*NOTICE THAT ALL DIMENSIONS ARE  
IN METER UNLESS EXPLAINED*

|   |  |
|---|--|
| <b>Barana Buluk Wereda Pastoralist Development office</b> |  |
| Project Title   | Shawee Gindiba Gojo phase III SSIP Expansion |
| Designed by   | Ashenafi Teda                                |
| Checked by  | Ashenafi Teda                                |
| Approved by   | Ashenafi Teda                                |
| Scale   | Not drawn to scale                           |
| Date:February,2021  | Drawing No Sheet NO -                        |



6.4cm upper wall  
/thickness of RCC  
pipe

60cm internal  
diameter RCC pipe

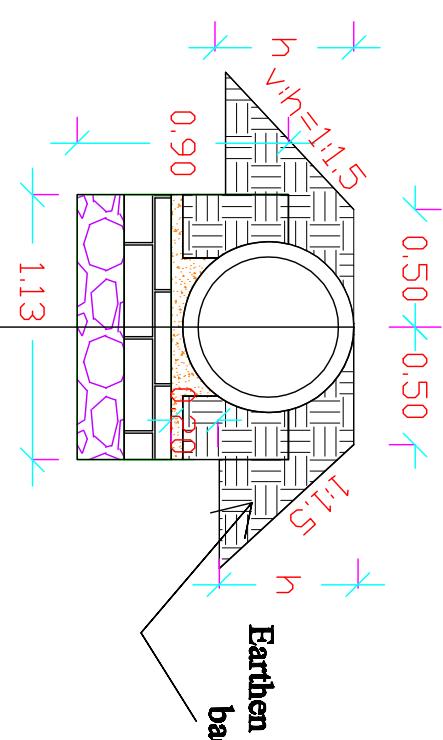
6.4cm lower wall  
/thickness of RCC pipe

5 to 20cm thick lean concrete  
mixing 1:3:6

20cm thick masonry with mixing of  
ratio 1:4 cement sand mortar

20cm thick hardcore

Compacted earth



6.4cm upper wall  
/thickness of RCC pipe

60cm internal  
diameter RCC pipe

6.4cm lower wall  
/thickness of RCC pipe

5 to 20cm thick lean  
concrete mixing 1:3:6

20cm thick masonry with mixing  
of ratio 1:4 cement sand mortar

20cm thick hardcore

Compacted earth

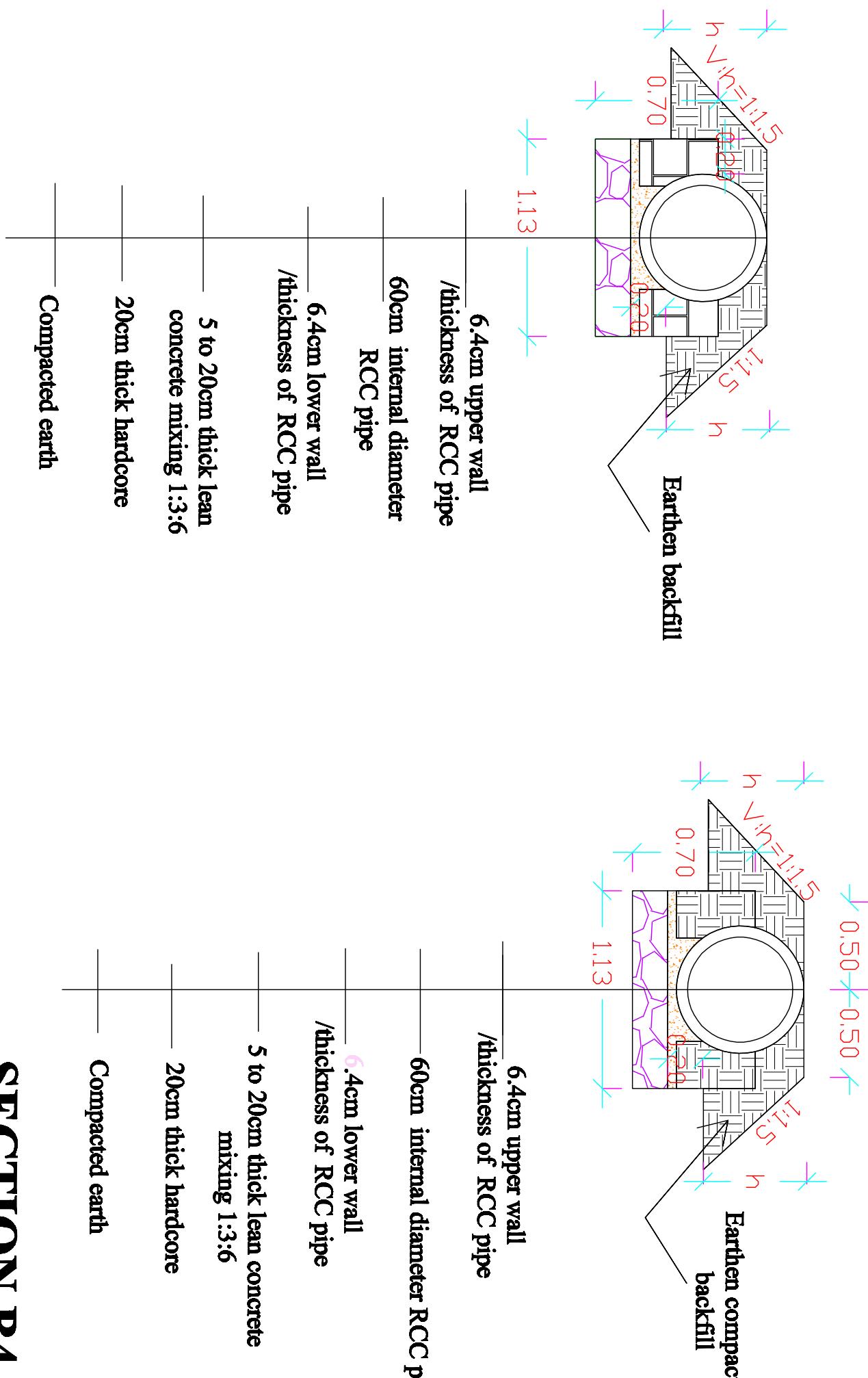
## SECTION B1-B1

*NOTICE THAT ALL DIMENSIONS ARE  
IN METER UNLESS EXPLAINED*

## SECTION B2-B2

*NOTICE THAT ALL DIMENSIONS ARE  
IN METER UNLESS EXPLAINED*

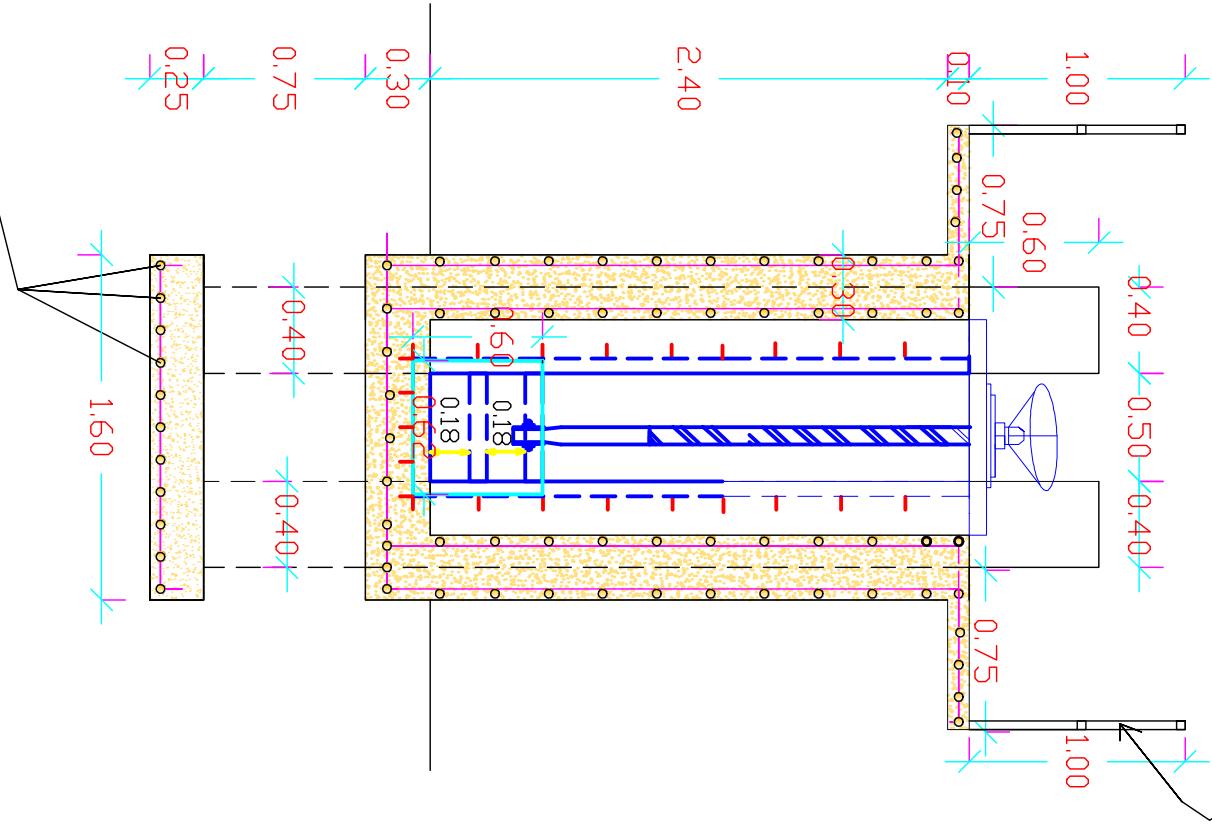
| <b>Harere Buluk Woreda Pastoralist Development office</b> |  |
|---|--|
| <b>Project</b>  | <b>Shawe Gindiba Gojo phase III SSIP Expansion</b> |
| <b>Title</b>  | <b>Section B1-B1 &amp; B2-B2</b>                   |
| <b>Designed by</b>  | <b>Asabenafi Tedla</b>                             |
| <b>Checked by</b>   | <b>Asabenafi Tedla</b>                             |
| <b>Approved by</b>  | <b>Asabenafi Tedla</b>                             |
| <b>Date</b>   | <b>Not drawn to scale</b>                          |
| <b>Date:February 2021</b>                                 | <b>Drawing No</b> <b>Sheet NO -</b>                |



## SECTION B4-B4

**NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS EXPLAINED**

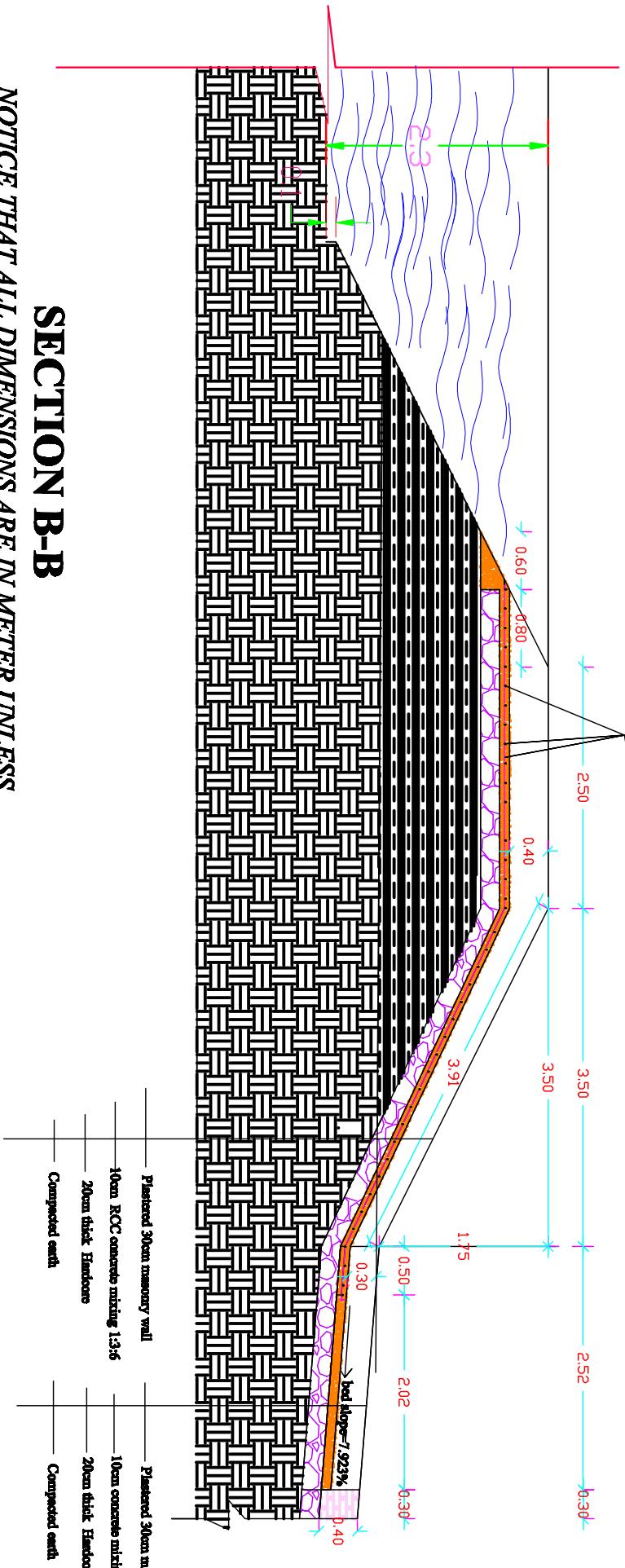
|  |
|--|
| Harene Bahuk Wereda Pastoralist Development office |
| Project Title                                      |
| Shawe Gindiba Gojo phase III SSIP Expansion        |
| Designed by  |
| Ashenafi Teda                                      |
| Checked by   |
| Ashenafi Teda                                      |
| Approved by  |
| Ashenafi Teda                                      |
| Scale  |
| Not drawn to scale                                 |
| Date: February, 2021                               |
| Drawing No   |
| Sheet NO -   |



hand rill made of  
40mm hollow iron

|                            |  |                   |
|----------------------------|--|-------------------|
| <b>Project</b>             | <b>Shawe Gindiba Gojo phase III SSIP Expansion</b> |                   |
| <b>Title</b>               | <b>Section T-T</b>                                 |                   |
| <b>Designed by</b>         | <b>Ashenafi Tedla</b>                              |                   |
| <b>Checked by</b>          | <b>Ashenafi Tedla</b>                              |                   |
| <b>Approved by</b>         | <b>Ashenafi Tedla</b>                              |                   |
| <b>Scale</b>               | <b>Not drawn to scale</b>                          |                   |
| <b>Date:</b> February,2021 | <b>Drawing No</b>                                  | <b>Sheet NO -</b> |

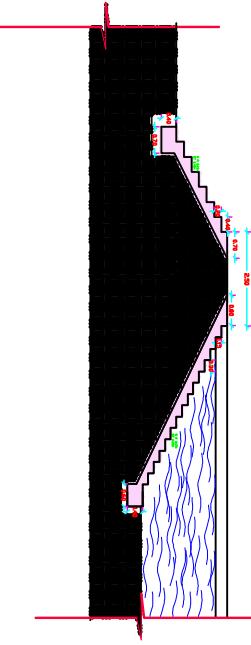
06mm bars for foundation and and canal walls @20cm interval both ways until the spill way canal section 50cm outside of embankment



## SECTION B-B

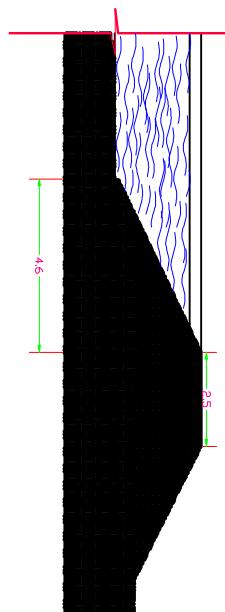
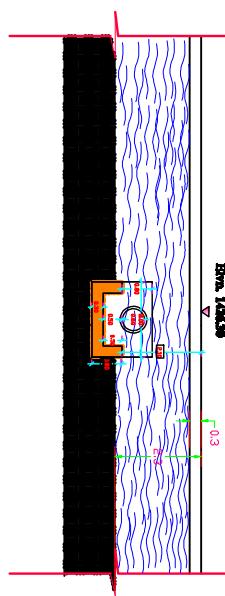
**NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS EXPLAINED**

|                            |   |
|----------------------------|---|
| <b>Project Title</b>       | Shawe Cindiba Gojo phase III SSIP Expansion |
| <b>Designed by</b>         | Section B-B                                 |
| <b>Checked by</b>          | Ashenafi Tedla and Dirliba Beyene           |
| <b>Approved by</b>         | Ashenafi Tedla                              |
| <b>Scale</b>               | Not drawn to scale                          |
| <b>Date:</b> February 2021 | <b>Drawing No</b> _____ <b>Sheet NO</b> -   |



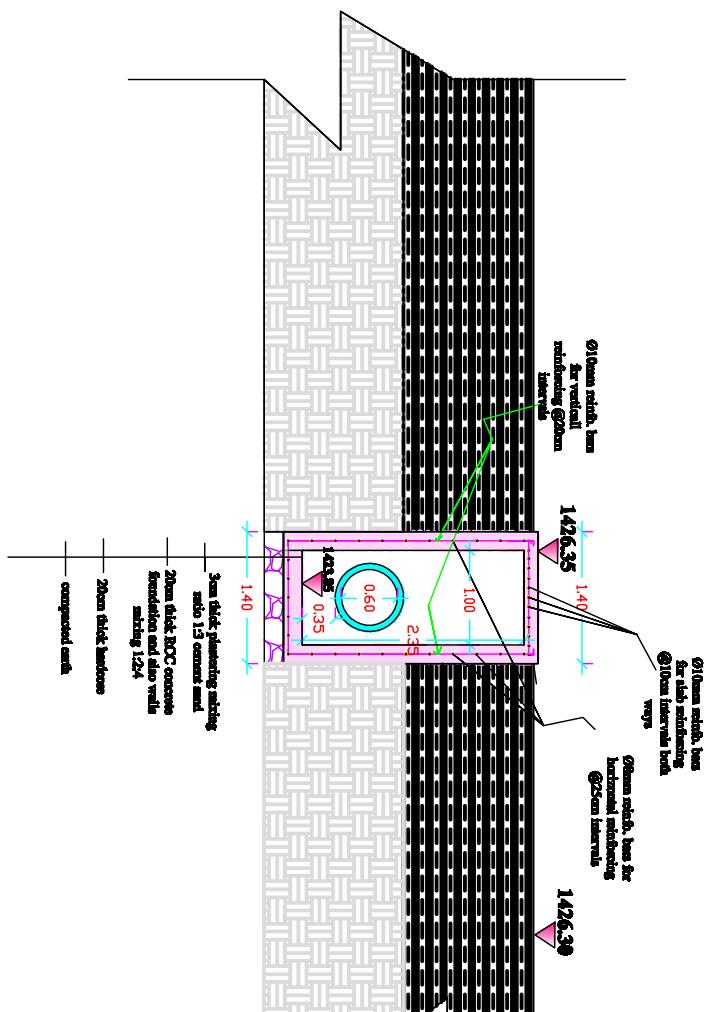
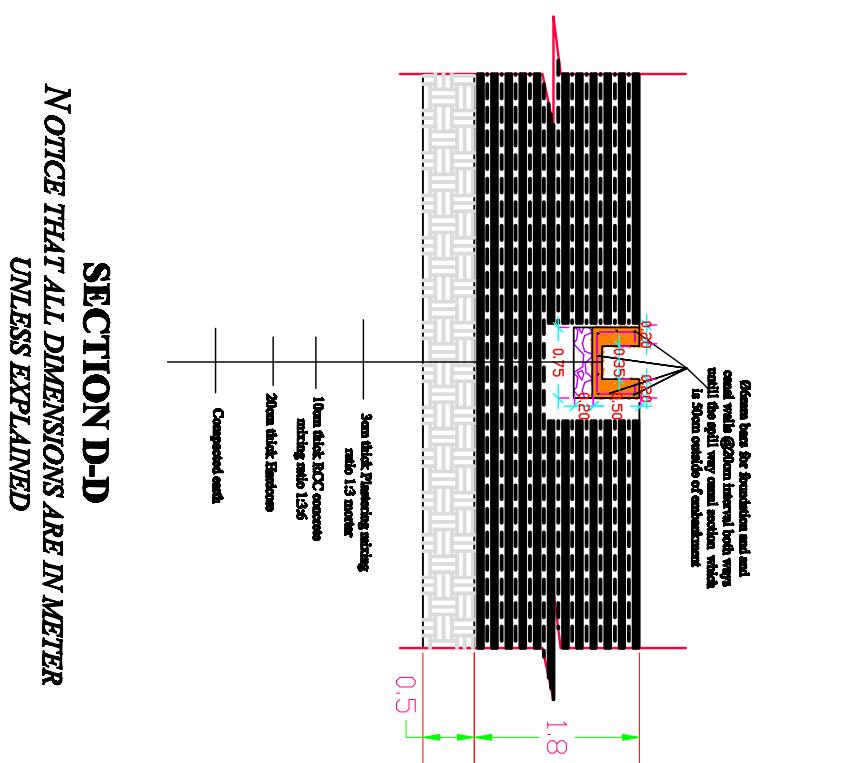
### SECTION C-C

NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS EXPLAINED



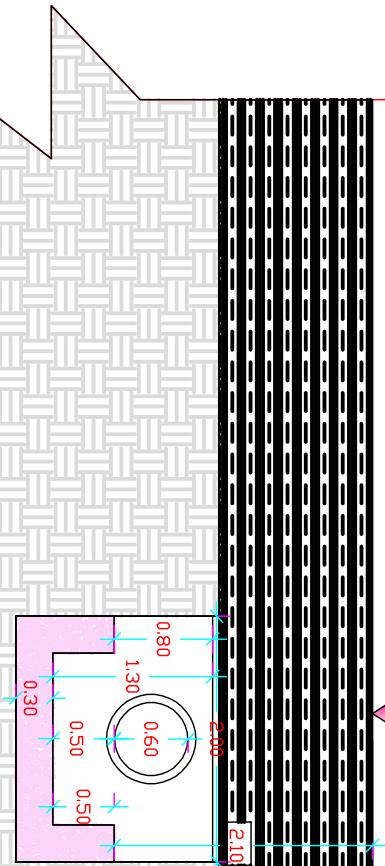
Harena Bank Woreda Pastoralist Development office

|                    |                                      |
|--------------------|--------------------------------------|
| Project            | Shave Gindiba Gojo phase III SSIP Ex |
| Title              | Section C-C                          |
| Designed by        | Ashenafi Tedla and Diniba Beyene     |
| Checked by         | Ashenafi Tedla                       |
| Approved by        | Ashenafi Tedla                       |
| Scale              | Not drawn to scale                   |
| Date:February 2021 | Drawing No Sheet NO -                |



| Harenna Bulk Woreda Pastoralist Development office |                                      |
|--|--------------------------------------|
| Project Title                                      | Shave Gindiba Gojo phase III SSIP Ex |
| Designed by  | Ashenafi Tedla and Diniba Beyene     |
| Checked by   | Ashenafi Tedla                       |
| Approved by  | Ashenafi Tedla                       |
| Scale  | Not drawn to scale                   |
| Date: February, 2021                               | Drawing No Sheet NO -                |

Elvn. 1426.30

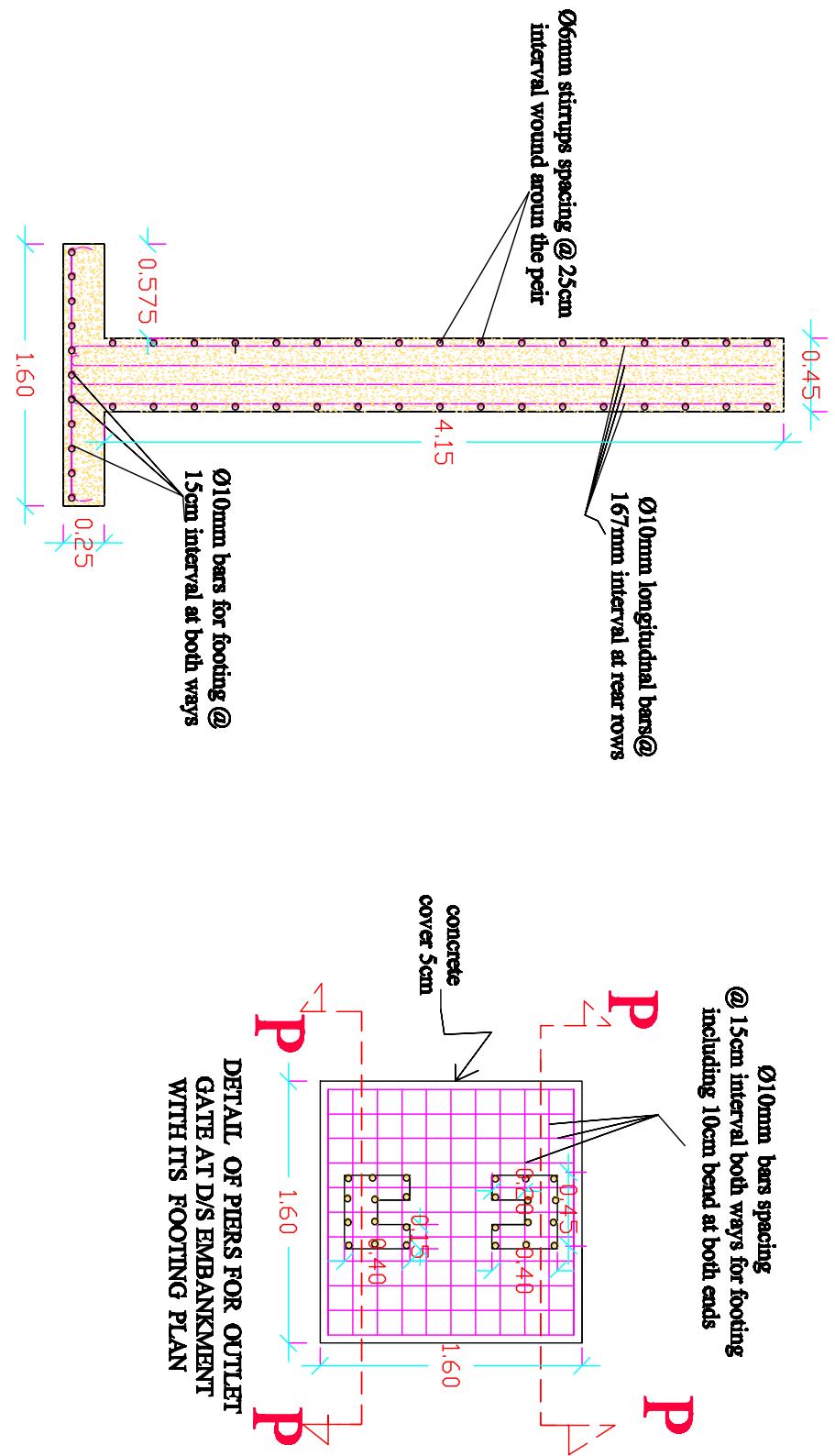


**SECTION X-X**  
**NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS  
EXPLAINED**

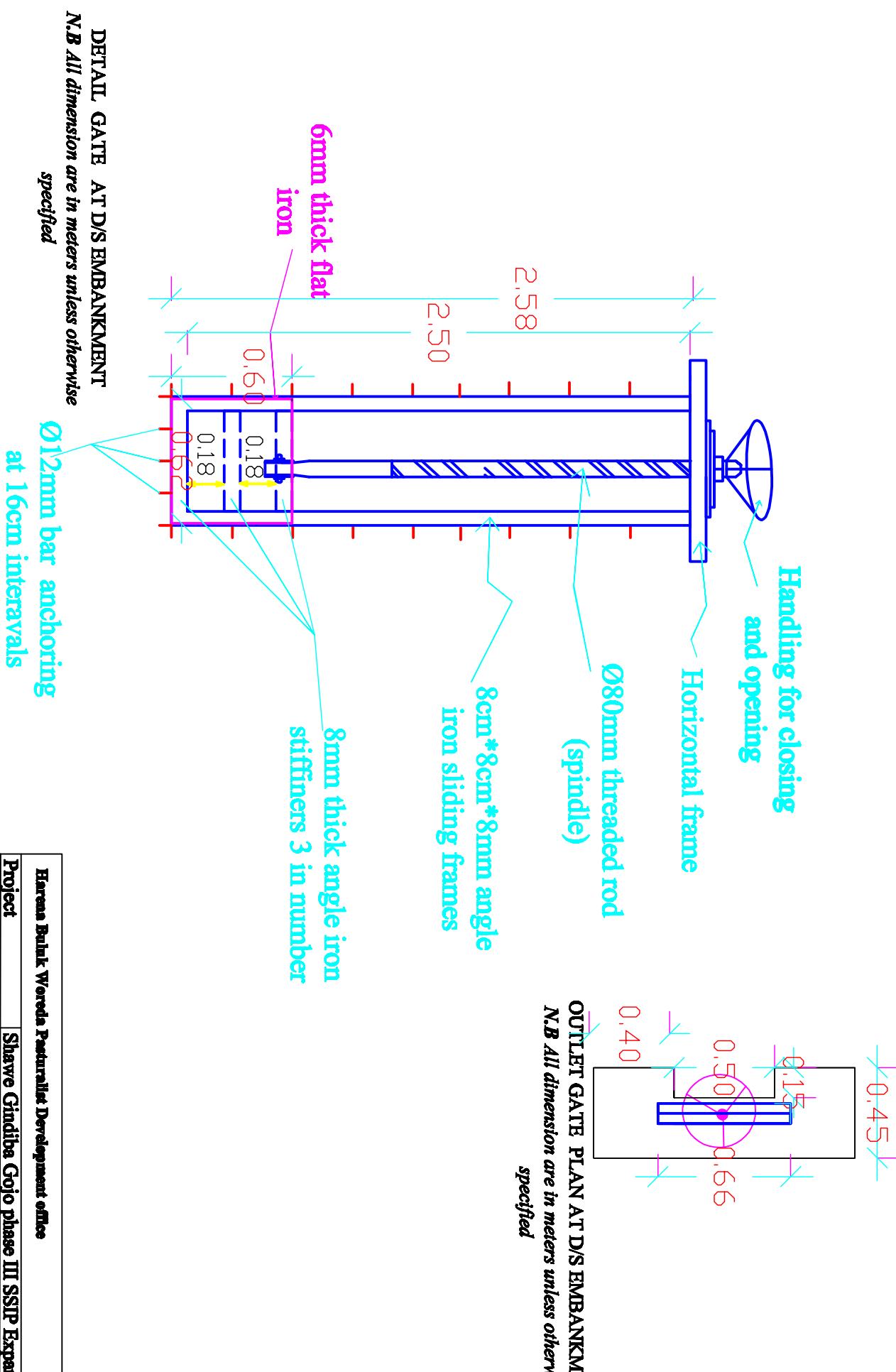
| Harenna Buhuk Woreda Pastoralist Development office |                                       |
|---|---------------------------------------|
| Project   | Shawa Gindiba Gojo phase III SSDP Exp |
| Title   | Section X-X                           |
| Designed by   | Ashenafi Tedla and Diriba Beyene      |
| Checked by  | Ashenafi Tedla                        |
| Approved by   | Ashenafi Tedla                        |
| Scale   | Not drawn to scale                    |
| Date:February,2021                                  | Drawing No Sheet NO -                 |

# SECTION P-P

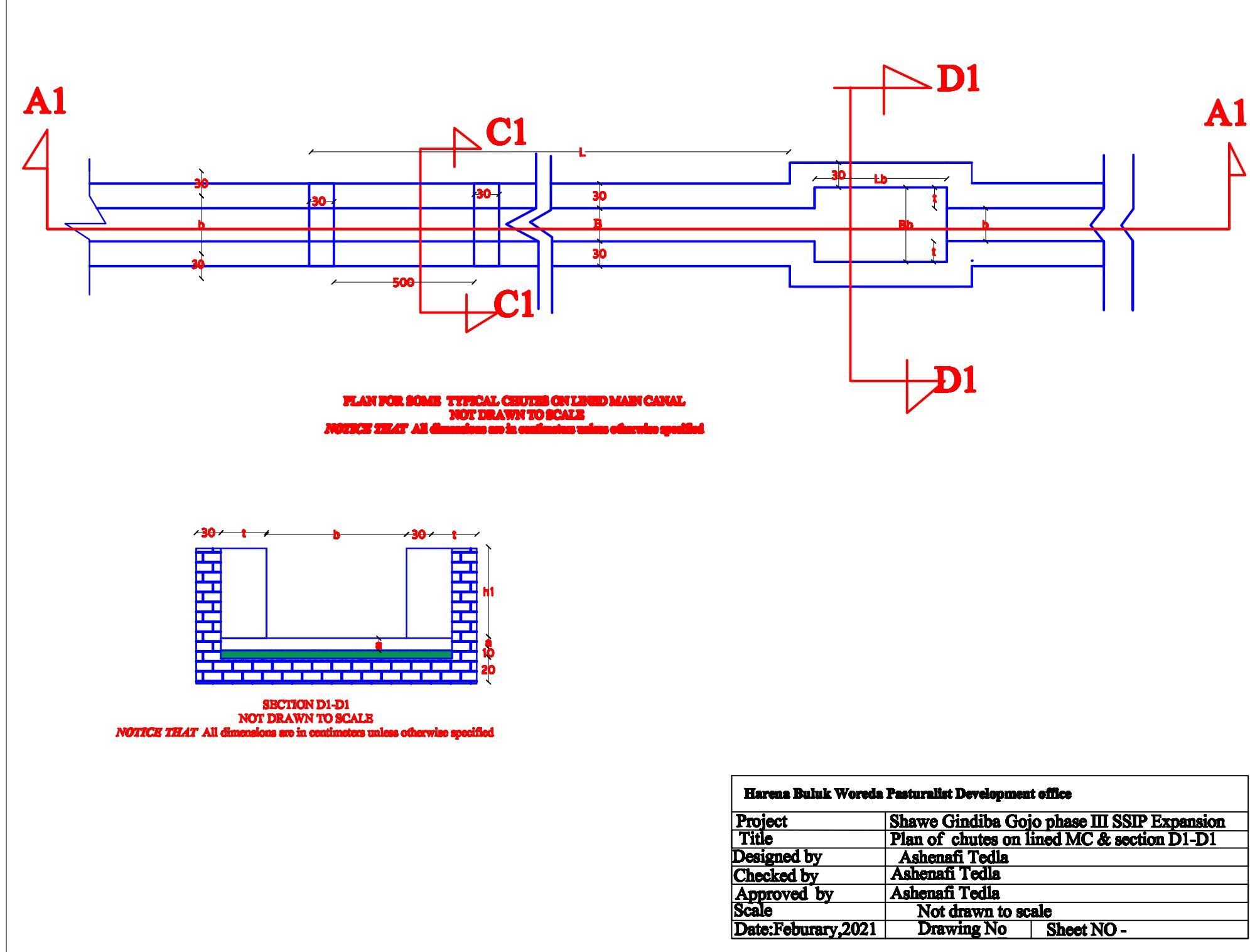
*NOTICE THAT ALL DIMENSIONS ARE IN METER UNLESS EXPLAINED*

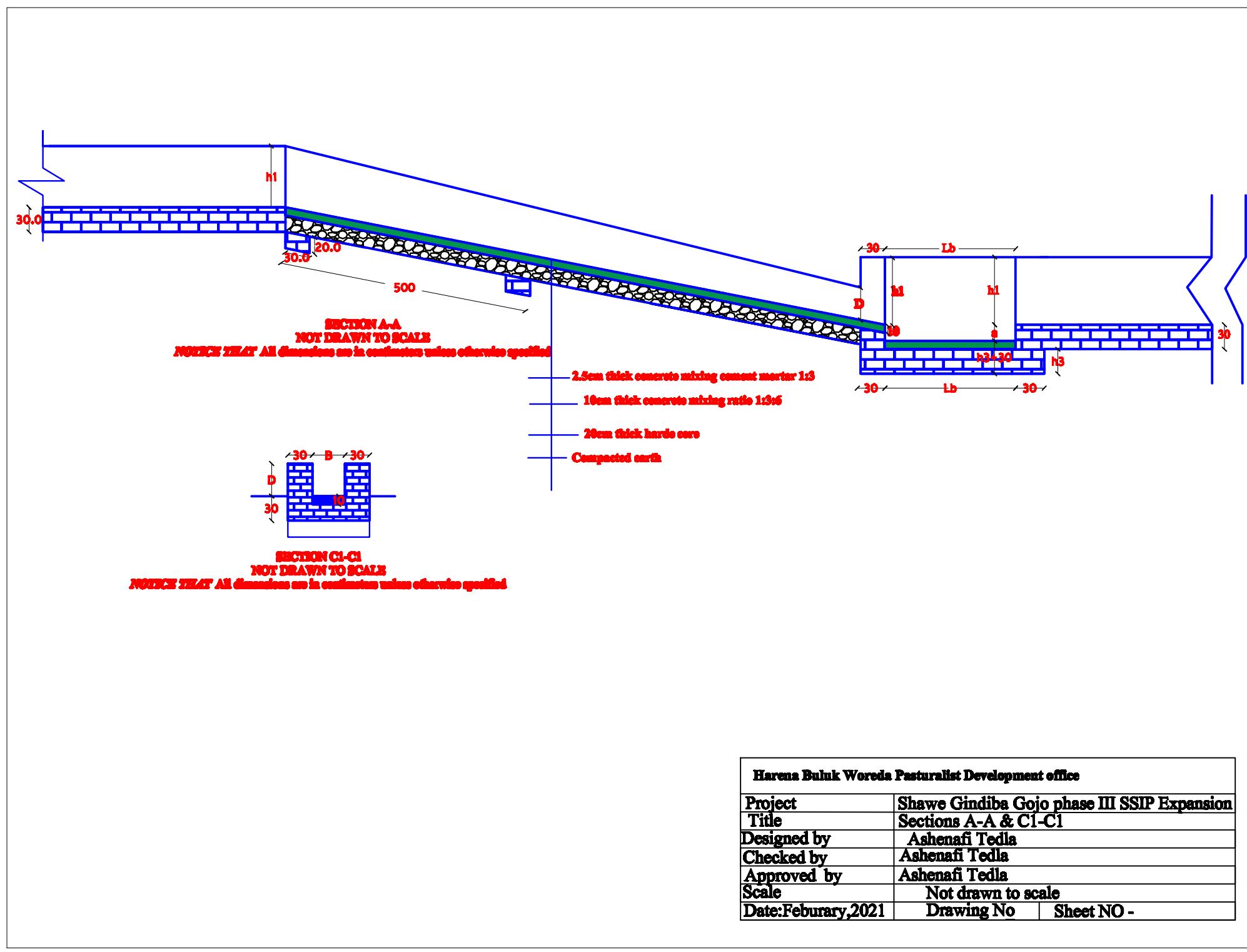


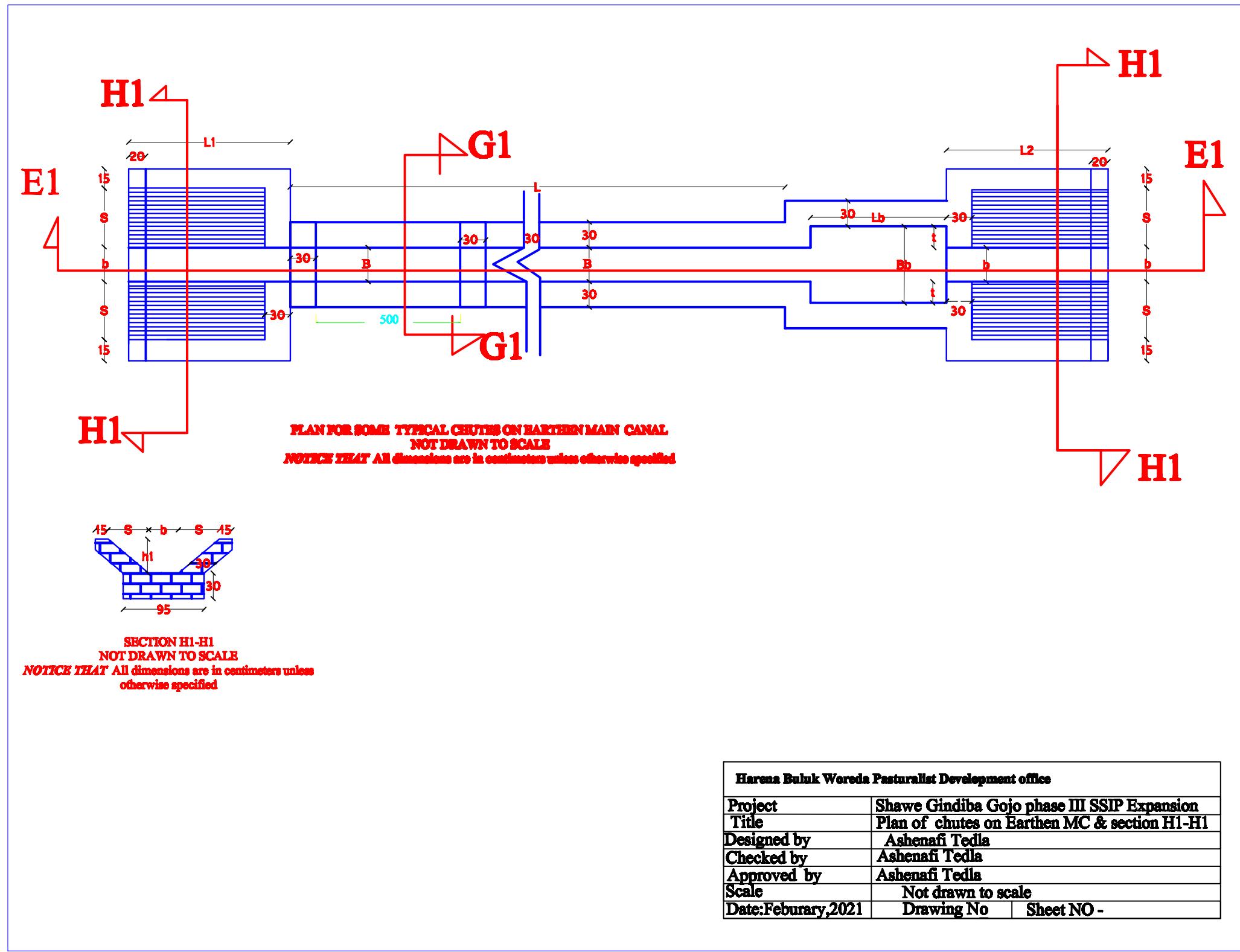
|   |  |
|---|--|
| Harenna Buluk Woreda Pastoralist Development office |  |
| <b>Project</b>                                      | Shawee Gindiba Gojo phase III SSIP Exp |
| <b>Title</b>  | Section and plan detail of piers       |
| <b>Designed by</b>                                  | Ashenafi Tedla                         |
| <b>Checked by</b>                                   | Ashenafi Tedla                         |
| <b>Approved by</b>                                  | Ashenafi Tedla                         |
| <b>Scale</b>  | Not drawn to scale                     |
| Date:February,2021                                  | Drawing No Sheet NO -                  |



| Harena Buluk Woreda Pastoralist Development office |   |
|--|---|
| Project Title                                      | Shawe Gindiba Gojo phase III SSIP Expar |
| Designed by  | Ashenafi Teda                           |
| Checked by   | Ashenafi Teda                           |
| Approved by  | Ashenafi Teda                           |
| Scale  | Not drawn to scale                      |
| Date:February,2021                                 | Drawing No Sheet NO -                   |







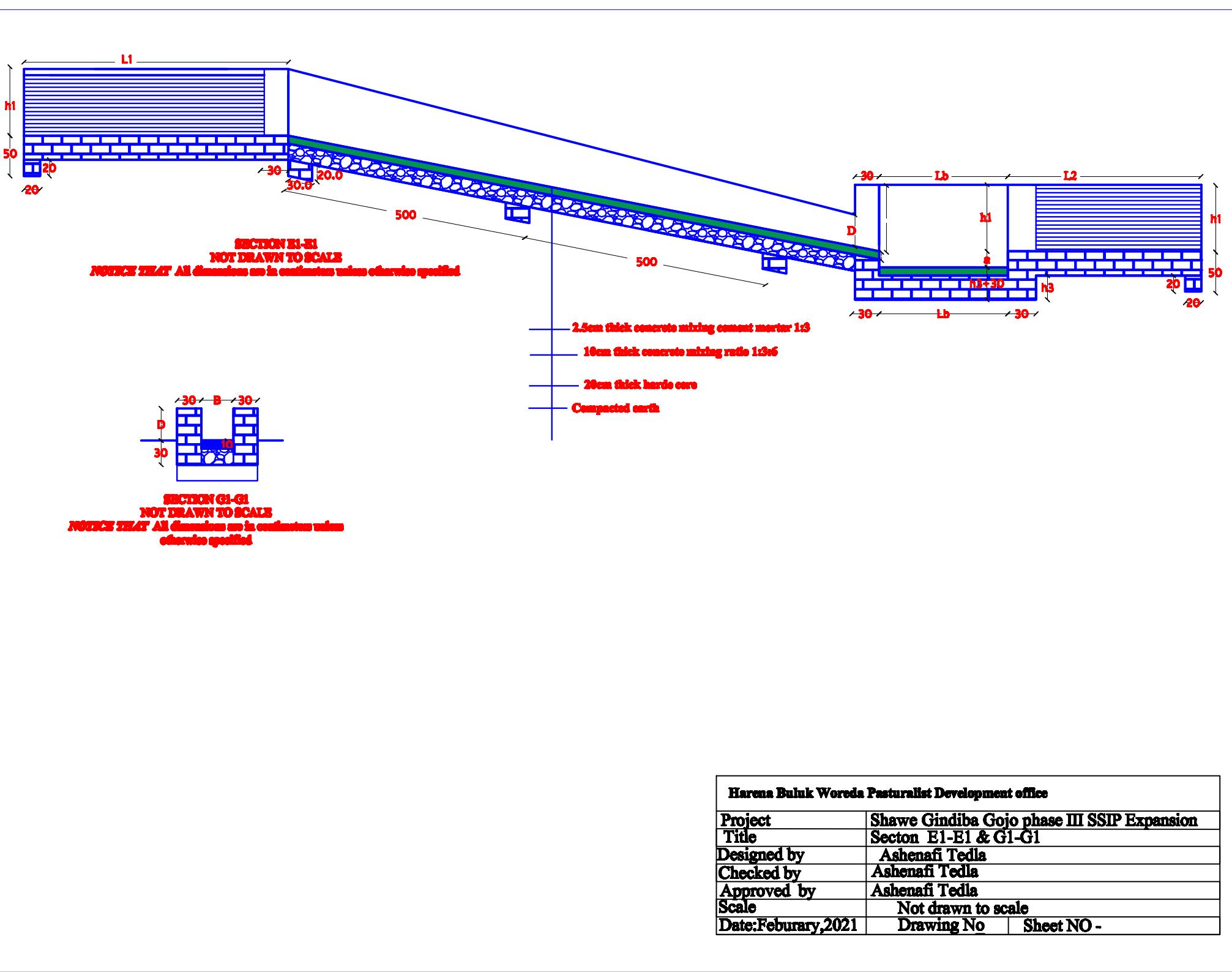


TABLE OF DIMENSIONS FOR SOME TYPICAL CHUTES ON UNLINED MAIN CANAL CANAL

| Located on Canal | Designing Chute No | Designing OG (m) | Designing DS (m) | L1   | B    | h1   | b    | lb   | l2   | D    | lb   | hb   | hs   | a    | t     | V(m/s) | Q(m³/s) | Chute Slope(m) | Chute Length(m) -L | Remark                          |
|------------------|--------------------|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|---------|----------------|--------------------|---------------------------------|
| MC               | 1+710              | 1,440.725        | 1440.555         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.00   | 95.0    | 2.50           | 14.0               | Chute #6 on Harthen main canal  |
|                  | 1+910              | 1,441.900        | 1441.571         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.77   | 95.0    | 6.0            | 8.0                | Chute #7 on Harthen main canal  |
|                  | 2+100              | 1,440.505        | 1440.405         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.50   | 95.0    | 8.0            | 8.0                | Chute #8 on Harthen main canal  |
|                  | 2+300              | 1,440.731        | 1440.405         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 3.07   | 95.0    | 8.0            | 8.0                | Chute #9 on Harthen main canal  |
|                  | 2+500              | 1,440.500        | 1440.191         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.51   | 95.0    | 4.5            | 6.0                | Chute #10 on Harthen main canal |
|                  | 2+600              | 1,440.515        | 1440.600         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.40   | 95.0    | 4.0            | 8.0                | Chute #11 on Harthen main canal |
|                  | 2+700              | 1,440.501        | 1440.700         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.00   | 95.0    | 2.5            | 12.0               | Chute #12 on Harthen main canal |
|                  | 3+772              | 1,447.300        | 1447.200         | 1.50 | 0.40 | 0.35 | 0.10 | 1.50 | 0.35 | 0.30 | 1.50 | 0.60 | 0.35 | 0.10 | 0.125 | 2.20   | 95.0    | 3.5            | 9.0                | Chute #13 on Harthen main canal |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED

TABLE OF DIMENSIONS FOR SOME TYPICAL CHUTES ON LINED MAIN CANAL

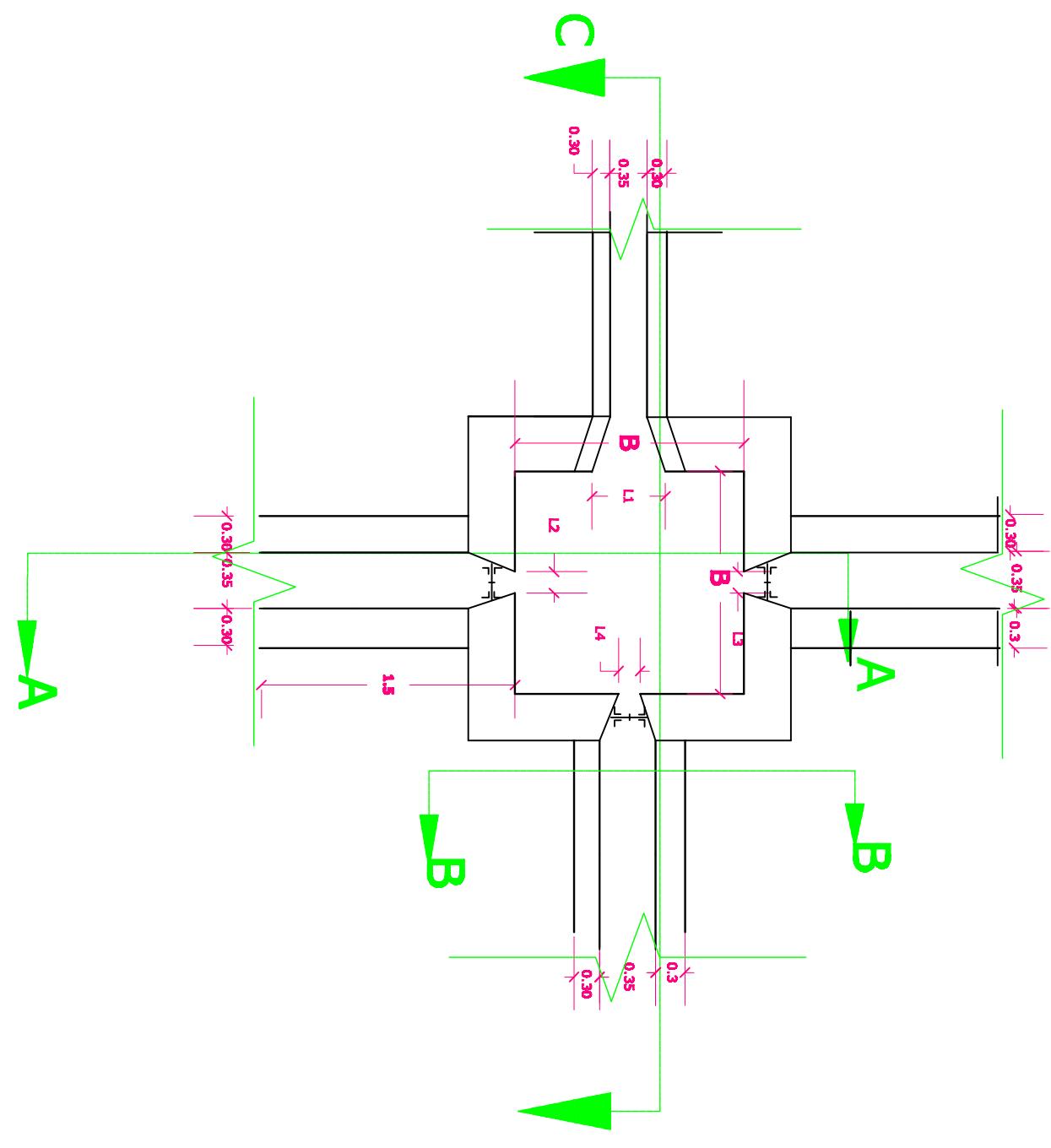
| Located at Canal | Designing Chute No | Designing OG (m) | Designing DS (m) | b    | D    | hb   | lb   | t     | h1   | a    | hs   | D    | V(m/s) | Q(m³/s) | Chute Slope(m) | Chute Length(m) -L | Remark                       |
|------------------|--------------------|------------------|------------------|------|------|------|------|-------|------|------|------|------|--------|---------|----------------|--------------------|------------------------------|
| MC               | 0+400              | 1,440.105        | 1440.105         | 0.35 | 0.35 | 0.60 | 0.60 | 0.125 | 0.40 | 0.10 | 0.10 | 0.35 | 1.75   | 95.0    | 1.75           | 41.0               | Chute #1 on Lined main canal |
|                  | 0+604              | 1,440.575        | 1440.019         | 0.35 | 0.35 | 0.60 | 1.50 | 0.125 | 0.45 | 0.10 | 0.10 | 0.35 | 2.05   | 95.0    | 2.5            | 51.0               | Chute #2 on Lined main canal |
|                  | 0+784              | 1,447.300        | 1447.300         | 0.35 | 0.35 | 0.60 | 1.50 | 0.125 | 0.45 | 0.10 | 0.10 | 0.35 | 1.87   | 95.0    | 2.0            | 14.0               | Chute #3 on Lined main canal |
|                  | 1+020              | 1,447.200        | 1446.720         | 0.35 | 0.35 | 0.60 | 1.20 | 0.125 | 0.45 | 0.10 | 0.10 | 0.35 | 1.87   | 95.0    | 2.0            | 20.0               | Chute #4 on Lined main canal |
|                  | 1+413              | 1,446.150        | 1446.770         | 0.35 | 0.35 | 0.60 | 1.20 | 0.125 | 0.45 | 0.10 | 0.10 | 0.35 | 1.65   | 95.0    | 1.50           | 50.0               | Chute #5 on Lined main canal |

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED

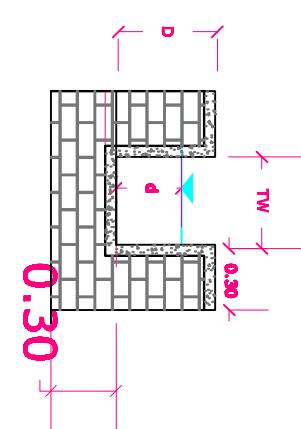
Harena Buluk Woreda Pastoralist Development office

|                    |   |            |
|--------------------|---|------------|
| Project            | Shawe Gindiba Gojo phase III SSIP Expansion |            |
| Title              | Tabe of dimensions for chutes               |            |
| Designed by        | Ashenafi Tedla                              |            |
| Checked by         | Ashenafi Tedla                              |            |
| Approved by        | Ashenafi Tedla                              |            |
| Scale              | Not drawn to scale                          |            |
| Date:Feburary,2021 | Drawing No                                  | Sheet NO - |

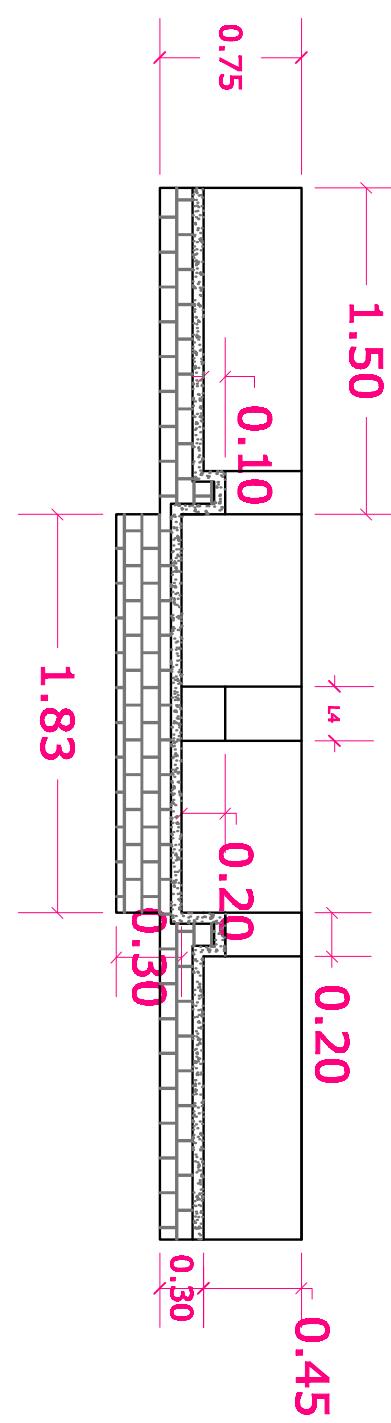
## Plan of sample division box



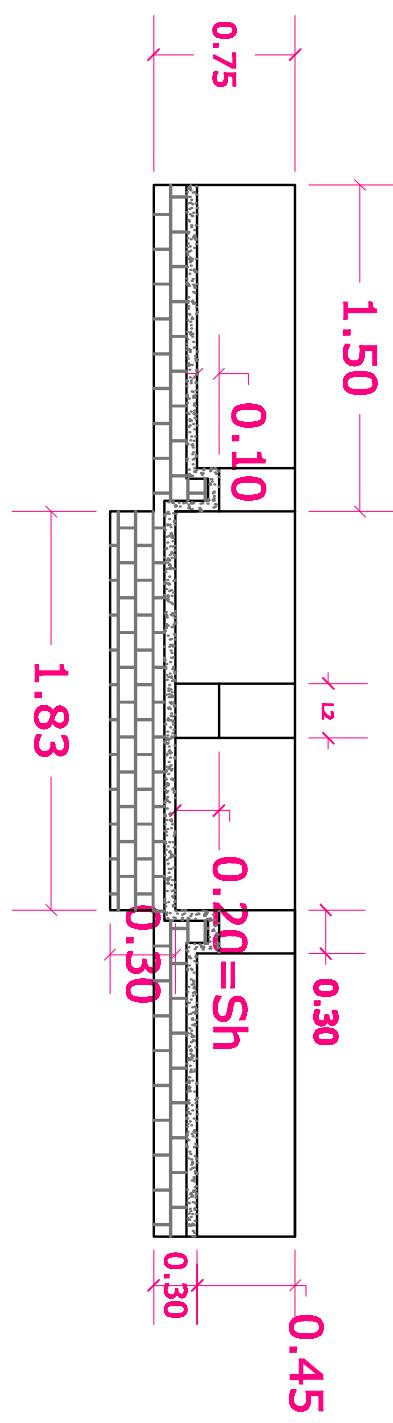
### Section B-B



### Section A-A

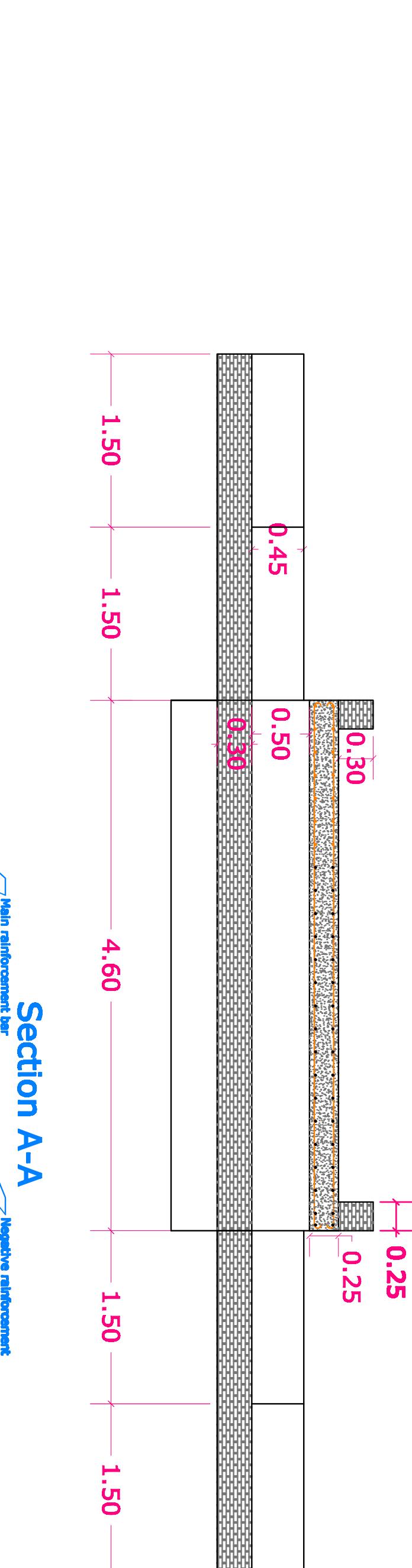
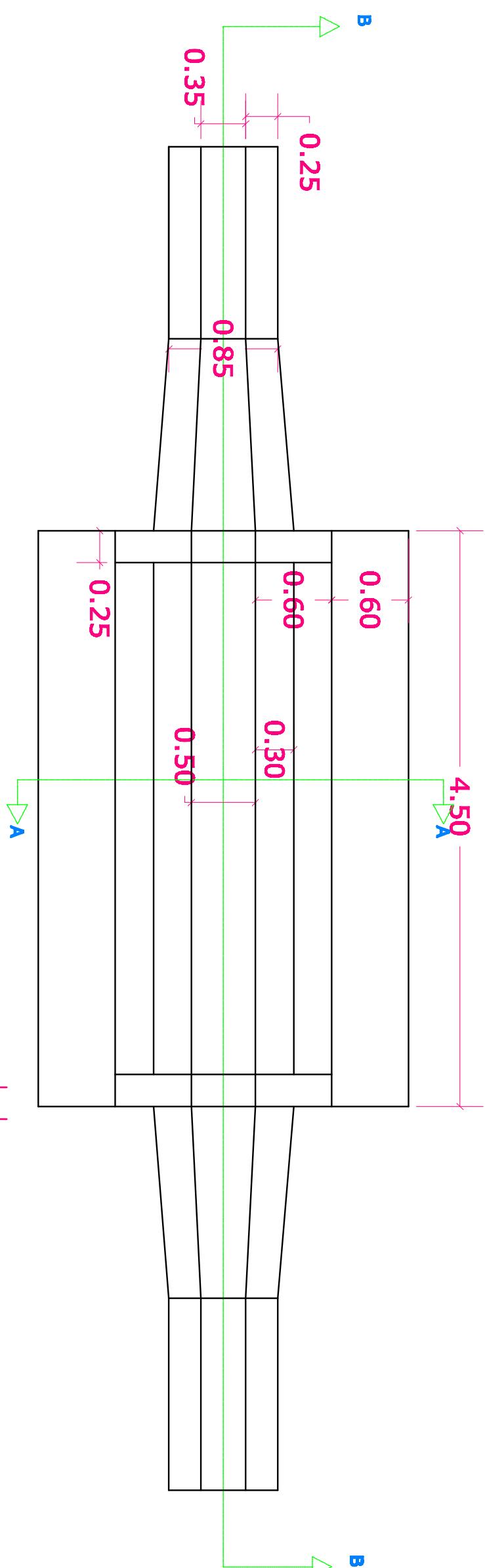


## Section C-C

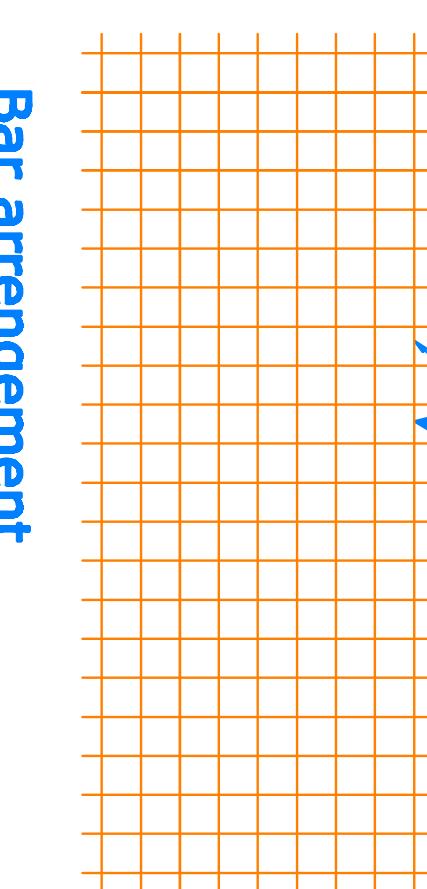


|             |   |
|-------------|---|
| OWNER       | Harena Buluk pastoralist Development office |
| PROJECT     | Shame Gindiba Gejol-SSP-III                 |
| TITLE       | Sample-off-take DRAWING                     |
| DRAWN-BY    | Dritta Bayana                               |
| DESIGNED-BY | Dritta Bayana                               |
| CHECKED-BY  |   |
| APPROVED-BY |   |
| DATE        |   |

## Plan of road crossing

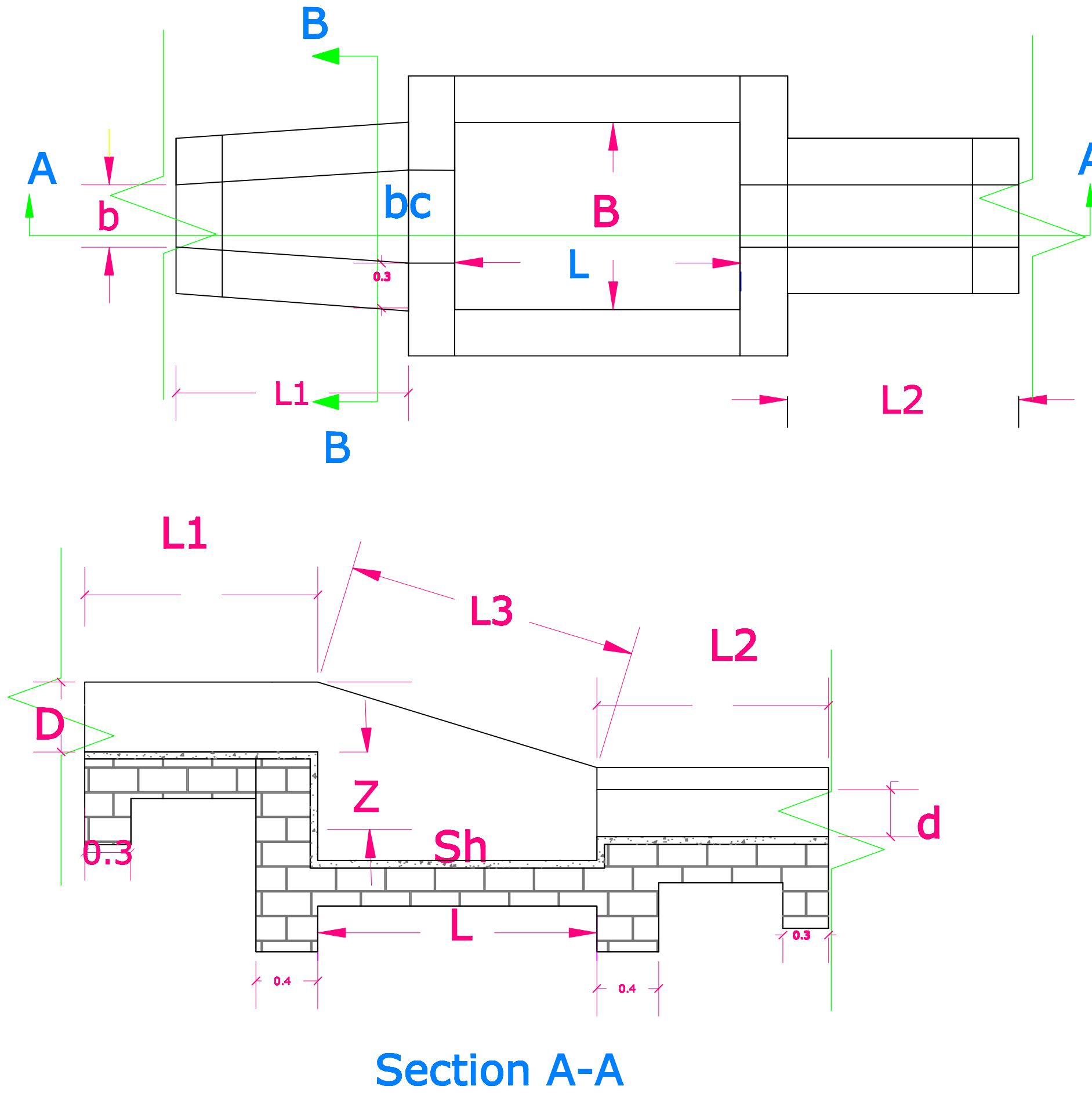


## Bar arrangement

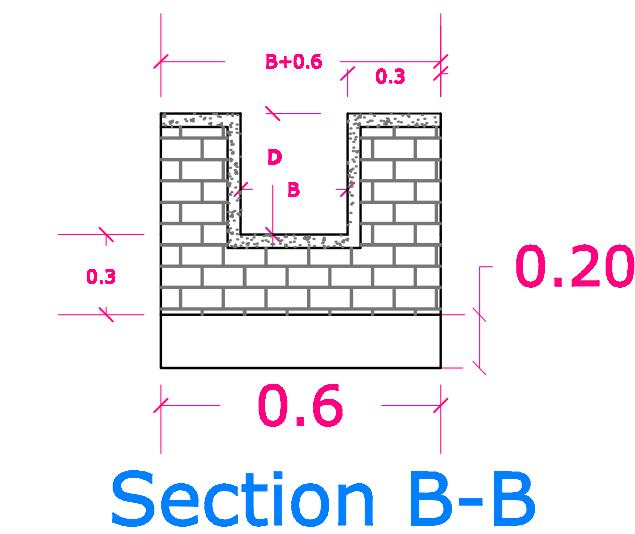


## Section B-B

| OWNER       | Harena Buluk pastoralist Development office |
|-------------|---|
| PROJECT     | Shwe Gindiba Gejep-SSP-III                  |
| TITLE       | Sample-Culvert DRAWING                      |
| DRAWN-BY    | Dritta Bayara                               |
| DESIGNED-BY | Dritta Bayara                               |
| CHECKED-BY  |   |
| APPROVED-BY |   |
| DATE        |   |

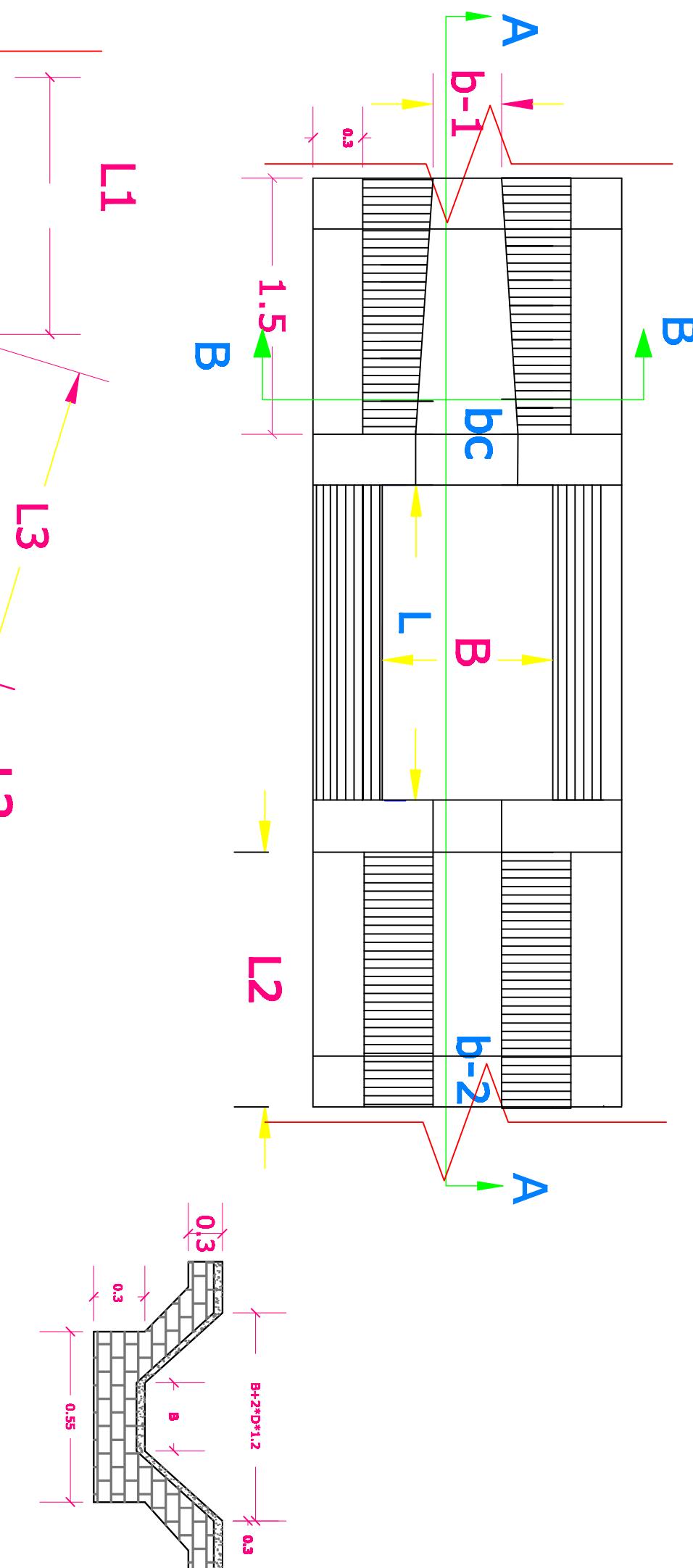


# Section A-A

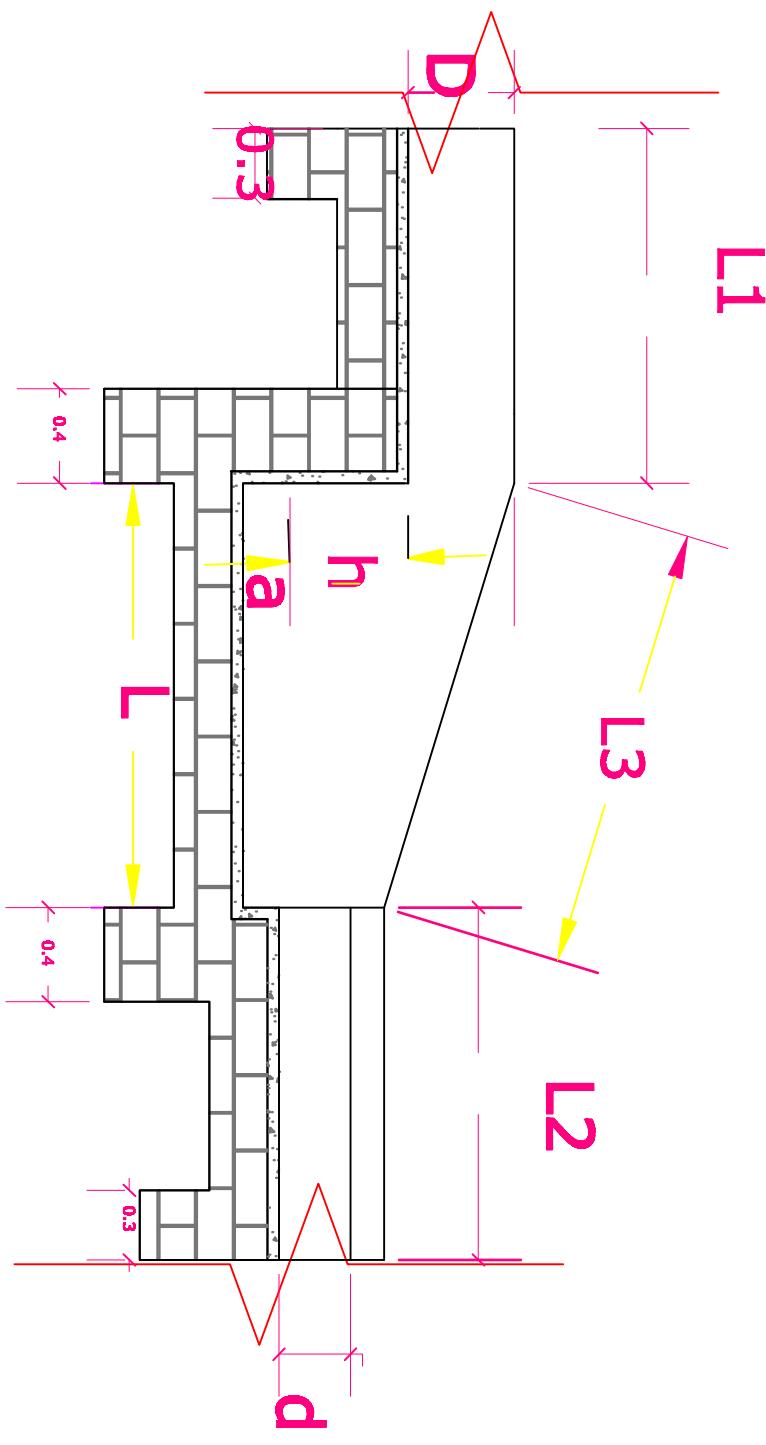
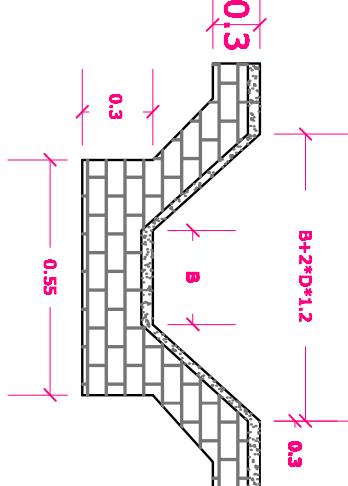


|                    |   |       |  |
|--------------------|---|-------|--|
| <b>OWNER</b>       | Harena Buluk pastoralist Development office |       |  |
| <b>PROJECT</b>     | Shawa Gindiba Gojol-SSIP-III                |       |  |
| <b>TITLE</b>       | Sample-Drop DRAWING on Lined MC             |       |  |
| <b>DRAWINED-BY</b> | Diriba Beyene                               | DR.NO |  |
| <b>DESIGNED-BY</b> | Diriba Beyene                               | SCALE |  |
| <b>CHECKED-BY</b>  |   | DATE  |  |
| <b>APPROVED-BY</b> |   |       |  |

## Plan of sample drop on trapezoidal canal



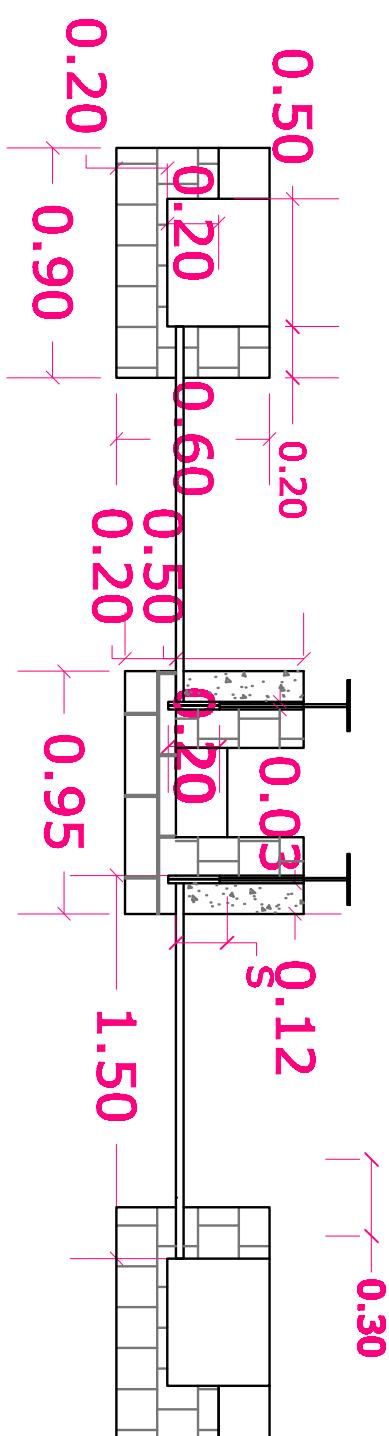
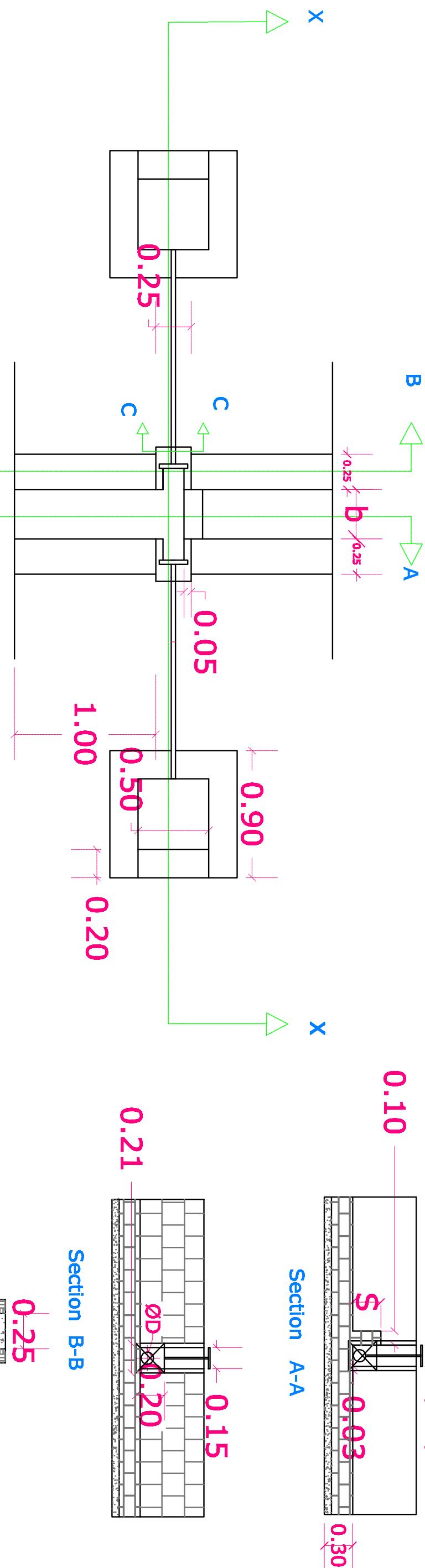
## Section B-B



## Section A-A

|             |   |
|-------------|---|
| OWNER       | Hanena Buluk pastoralist Development office |
| PROJECT     | Shawa Gindiba Gof-SSP-II                    |
| TITLE       | Sample-Drop DRAWING on Eathan MC            |
| DRAWN-By    | Dipta Bayrite                               |
| DESIGNED-By | Dipta Bayrite                               |
| CHECKED-By  |   |
| APPROVED-By |   |
| DATE        |   |

# Sample Off-Take Plan & section view (all dimensions are in meter) on Masonary canal



Section X-X

|             |   |
|-------------|---|
| OWNER       | Harena Buluk pastoralist Development office |
| PROJECT     | Shwe Gindiba Gejep-SSP-III                  |
| TITLE       | Sample-Charte DRAWING                       |
| DRAWN-BY    | Dritta Bayana                               |
| DESIGNED-BY | Dritta Bayana                               |
| CHECKED-BY  |   |
| APPROVED-BY |   |

DATE

# Sample Off-Take Plan & section view (all dimensions are in meter) on earthen canal

