



**USAID** | **HAITI**  
DU PEUPLE AMERICAIN

**AVANSE**



## United States Agency for International Development **USAID**

PROJET D'APPUI A LA VALORISATION DU POTENTIEL AGRICOLE NORD POUR LA SECURITE ECONOMIQUE ET ENVIRONNEMENTALE  
(AVANSE)

MINISTERE DE L'AGRICULTURE, DES RESSOURCES NATURELLES ET DU DEVELOPPEMENT RURAL  
(MARNDR)



## **REHABILITATION DU SYSTÈME D'IRRIGATION DU PÉRIMÈTRE DE DUBRÉ**

**JUIN 2017**  
Revised (01) 29 January 2017

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GENERAL CONSTRUCTION NOTES

- 1. **Communications, Instruction, Clarifications:** Contractor shall only accept and/or seek instructions/clarifications from the DAI/AVANSE appointed Engineer or his/her Representative on Site. Contractor shall also meet regularly with and develop excellent working relationship with Dubre Water User Association Officers and seek and obtain their input on scheduling all construction activities.
- 2. **Site Operations and Meetings:** Contractor Site Superintendent and Engineer’s Representative shall meet daily and discuss the work to be done and work out any issues on materials and methods at that time. Once each weekly they shall meet and review work during the week and plan the work for the next week. They shall mark up the schedule as required as well. There shall be a daily one-half hour site health and safety meeting with all Contractor personnel. All meeting shall be documented.
- 3. **Contract Documents and AS BUILT DRAWINGS:** The Contractor Superintendent shall keep a set of drawings and specifications on site for use during the day. The Contractor shall also keep a set of drawings and specifications on site that he/she marks up every day showing work done, notes and any additions, subtractions and/or deviations from the drawings and specifications. All such notes shall include the date of the notes. The Engineer’s Representative shall review the As Built drawings every day to ensure they are being well kept.
- 4. **Compliance with Construction Operational Plans:** Contractor shall ensure that all work is carried out in compliance with the submitted and approved Plans
  - a. Health & Safety Plan
  - b. Quality Control Plan
  - c. Environmental Management and Monitoring Plan
- 5. **Lines and Grades, Drawing and Specifications Instructions:** Contractor shall carefully set and use grade and elevation stakes to carry out all new

canal and structure construction and shall ensure that they are well protected so as to be useful and correct during the entire construction period. Contractor is also required to make small adjustments in canal locations not shown on the drawings to match agricultural field conditions at the time of construction so as to ensure canals properly feed downstream irrigated areas. Prior to beginning canal construction activities, Contractor and Engineer’s representatives will meet with WUA members to finalize all canal locations.

- 6. **Contractor shall, at its expense:**
  - a. **Farm Operation Operations During the Work / Protection of Persons and Property**

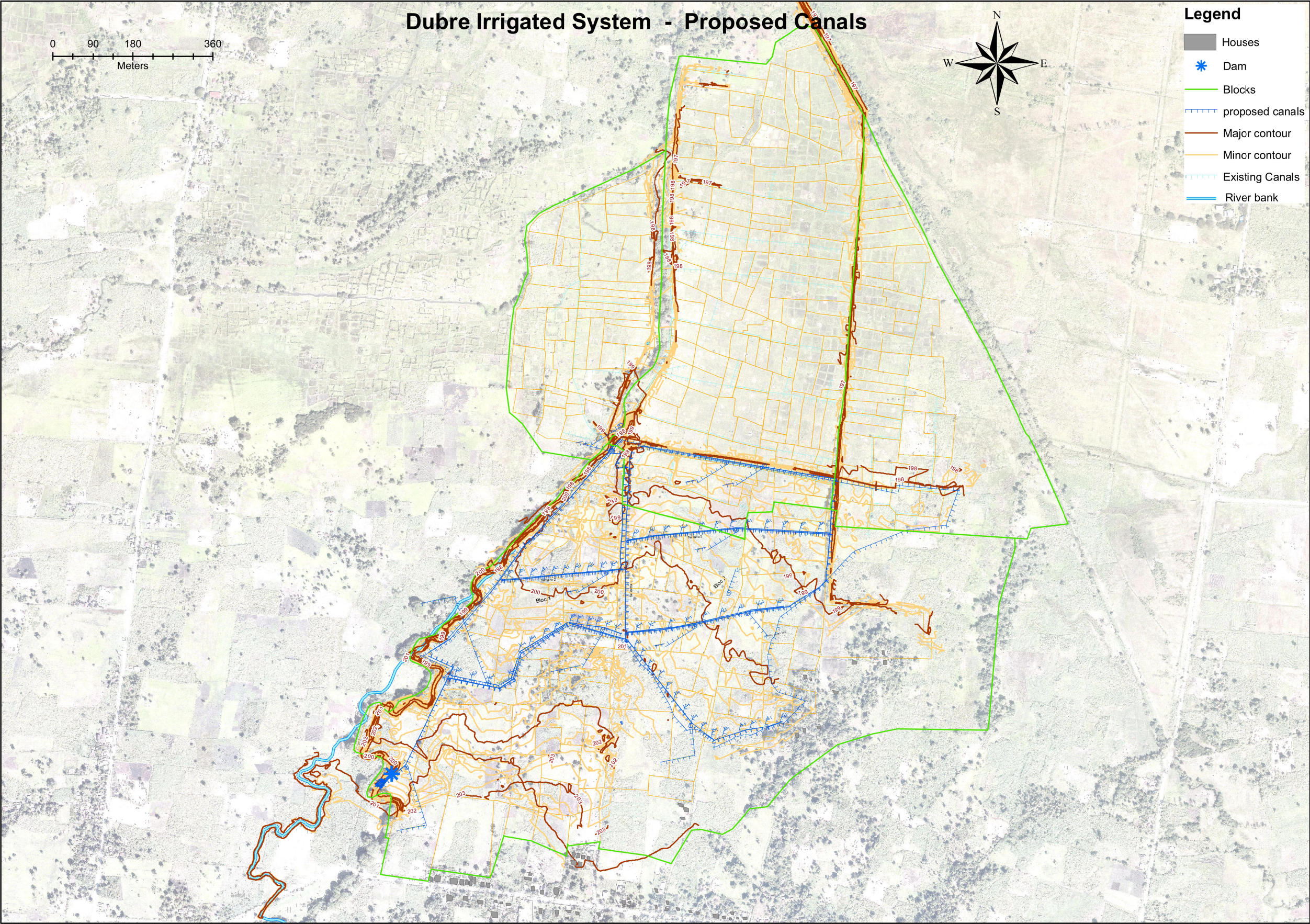
Ensure local farmers and their families and the WUA can continue to use existing facilities in and around all construction so as to continue farming activities and operations during construction and that all these construction and equipment/material storage areas are made safe (24 hours each day, seven days per week) so as to not make safety or health hazards during, before and/or after construction operations.

    - i. **Temporary Works:** Provide and maintain required barricades, guards, fencing, shoring, temporary roadways, footpaths, signs, lighting and traffic flagging.
    - ii. **Access and Services:** Do not obstruct or damage roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services. If damage occurs, immediately repair it at the Contractors cost.
  - b. **Property:** Do no damage to private or public property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site. If damage occurs, Contractor shall immediately notify the Engineer and then repair it at the Contractor’s cost.
  - c. **Nuisance:** Arrange construction work to minimize noise, dust, dirt, water and/or other nuisance to WUA members and local farm families.
  - d. **Access:** Arrange local access on to and within the construction sites, use of the site for temporary works and constructional plant, including working and storage (lay-down) areas, location of temporary offices, workshops, sheds, roads and parking.
  - e. **Excavation** – Store drainage and existing diversion structure excavated materials for use on secondary canal construction.
- 7. **Verify Drawing Dimensions and Existing Work Site Conditions:**

Contractor shall verify all dimensions and existing conditions shown on the drawings prior to beginning any and/or all work and inform the Engineer of any discrepancies or questions. Any work carried out by the Contractor that does not take changed conditions of verified dimensions in to account and results in work not matching required field conditions shall be carried out again at the Contractor’s expense.

|               | NAME        | DATE      |
|---------------|-------------|-----------|
| DESIGNER BY:  | PLANCONSULT | 6/6/2017  |
| DWG BY:       | M.P         | 6/12/2017 |
| CHECKED BY :  | M.F.M       | 6/15/2017 |
| APPROVED BY : | F.Sj/ M.SE  | 6/14/2017 |





1  
L001  
SCALE 1/100  
LOCATION MAP

PROGRAMME D'APPUI A LA VALORISATION DU POTENTIEL AGRICOLE DU NORD  
POUR LA SECURITE ECONOMIQUE ET ENVIRONNEMENTALE



HAITI



TITLE  
LOCATION MAP—EXISTING  
AND PROPOSED DUBRE  
IRRIGATION SYSTEM

SHEET CONTENTS  
MAP OF DUBRE

DWG. NO L001

|               | NAME        | DATE |
|---------------|-------------|------|
| DESIGNER BY:  | PLANCONSULT |      |
| DWG BY:       | M.P         |      |
| CHECKED BY :  | M.F.M       |      |
| APPROVED BY : | F.SJ/ M.SE  |      |





# DUBRE - NEW PROPOSED IRRIGATION SYSTEM

INSET

Existing Dubre Irrigated Land

Not to Scale

**Staking for new canal linings, new walls, new canals, new structures:** Contractor shall set construction stakes at each 20 m that clearly show vertical and horizontal control for each and every structure that ties to the drawing elevations at the diversion structures. For the new system tertiary, secondary, primary and feeder canals, the Contractor shall stake all the canal construction out using the center lines, length and slope data from the tables in the drawings so as to check that the weir water diversion elevation properly serves the entire canal system and that the canal system correctly irrigates all the farm plots to be served in the new system. These construction stakes shall delineate each canal's center-line by reference and excavation invert depth.

- Gate or Valve
- Feeder canal
- Primary canal
- S1
- S2
- Boundaries of extension zone
- T1 to T5
- Drain

PROGRAMME D'APPUI A LA VALORISATION DU POTENTIEL AGRICOLE DU NORD POUR LA SECURITE ECONOMIQUE ET ENVIRONNEMENTALE

TITLE

NEW PROPOSED IRRIGATION CANALS PLAN

SHEET CONTENTS

NEW PROPOSED IRRIGATION CANALS PLAN

DWG. NO L002

| DESIGNER BY: | NAME         | DATE      |
|--------------|--------------|-----------|
| DWG BY:      | M.P.         | 6/12/2017 |
| CHECKED BY:  | M.F.M.       | 6/13/2017 |
| APPROVED BY: | F.SJ/ N.S.E. | 6/14/2017 |

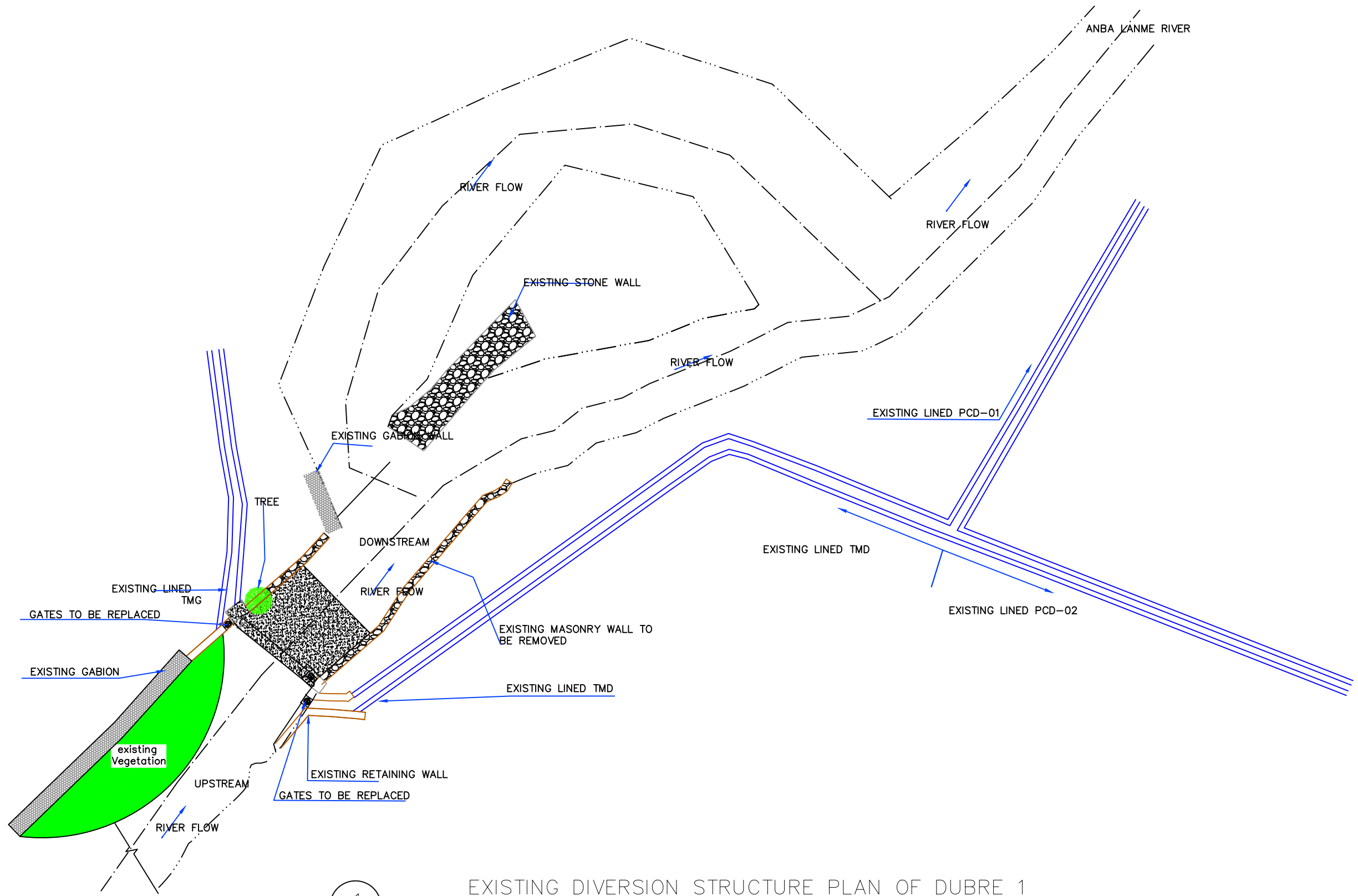
CONTRACTOR



HAITI



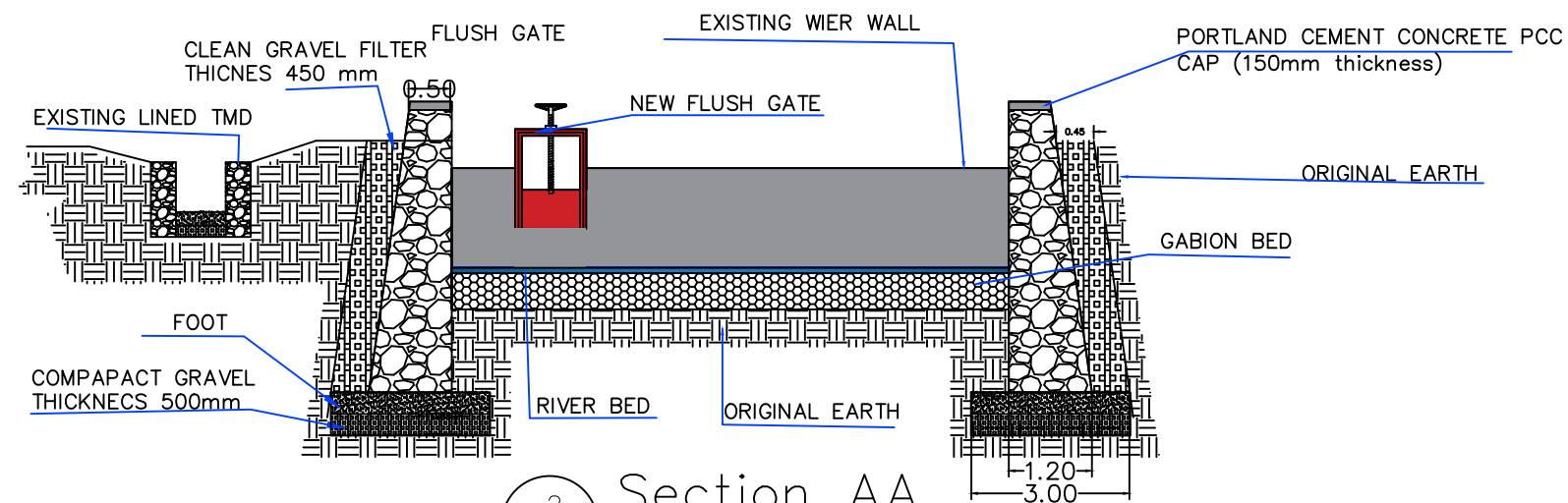




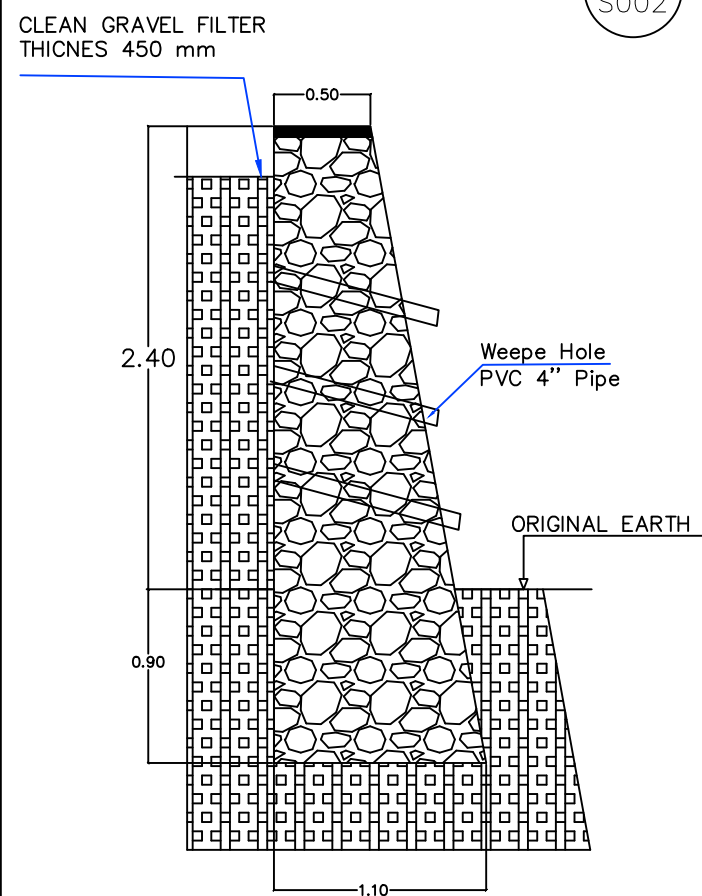
1  
S001

EXISTING DIVERSION STRUCTURE PLAN OF DUBRE 1  
SCALE 1/100



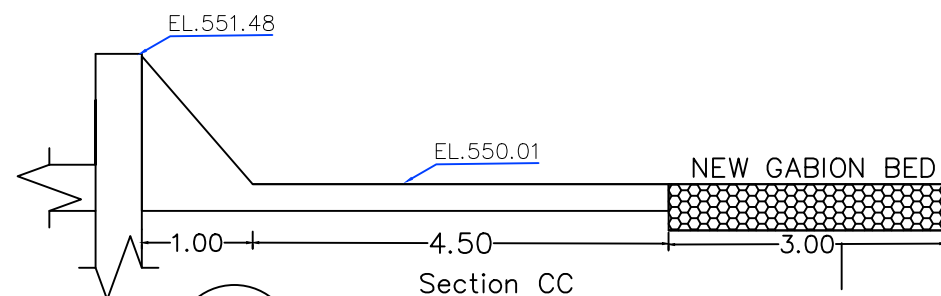


2 Section AA  
S002 SCALE 1/50

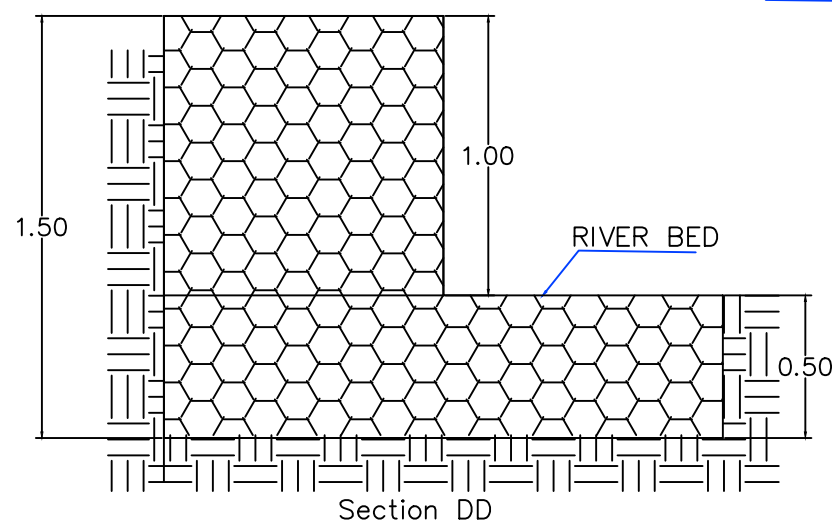


Section BB

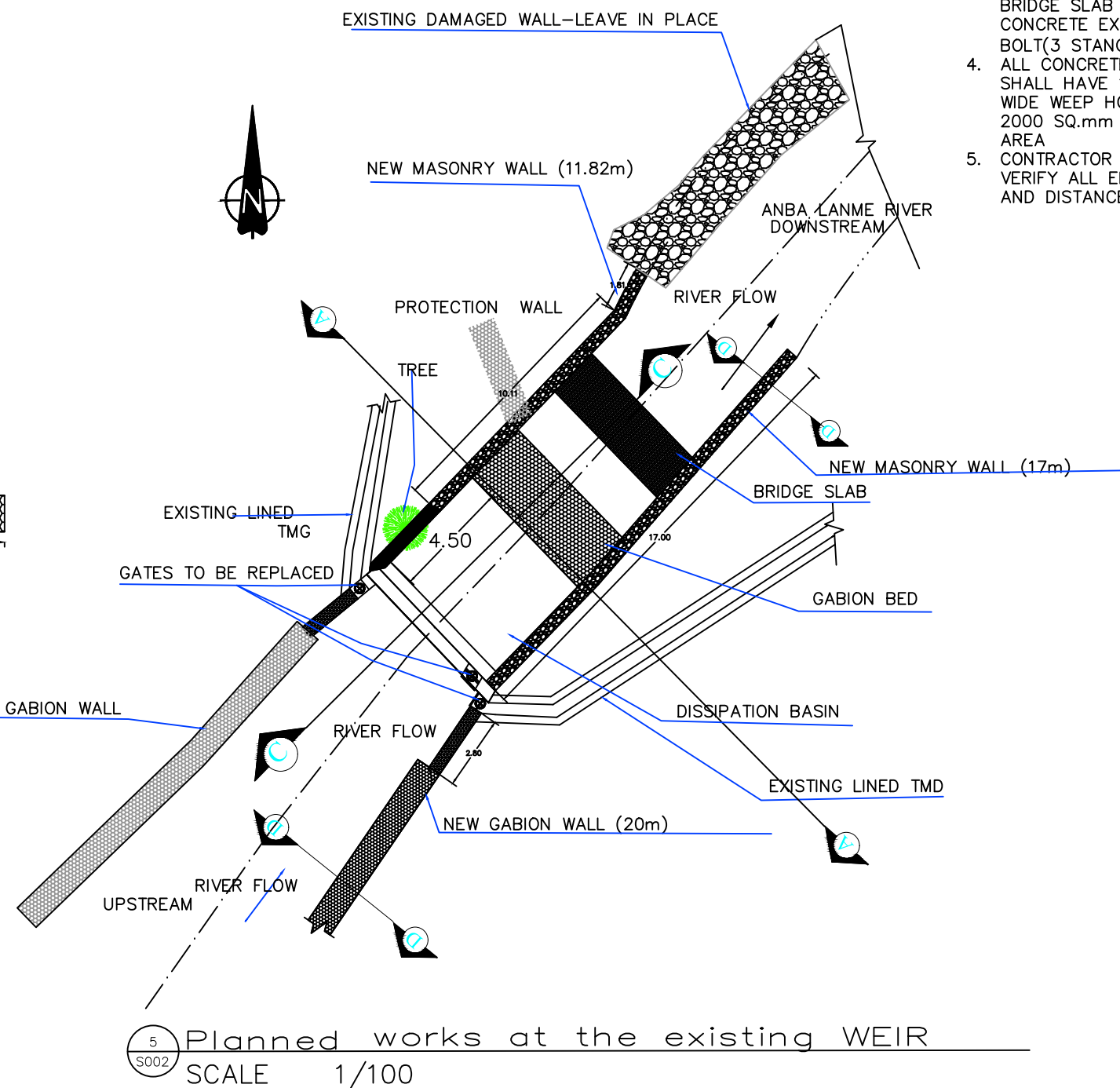
5 New retaining masonry wall after weir  
S002



3 Section CC  
S002 Existing dissipation basin SCALE 1/50



5 Section DD  
S002 New gabion wall on right bank SCALE 1/100



5 Planned works at the existing WEIR  
S002 SCALE 1/100

- NOTE:
1. INSTALL BRIDGE SLAB (t=200mm) ON EXISTING WEIR PROTECTION WALL
  2. SLAB SHALL BE FASTENED TO WALL USING VERTICALLY PLACED EPOXY ANCHOR BOLTS (3-EACH WALL 450mm)
  3. INSTALL 50mm PIPE RAILING EACH SIDE OF BRIDGE SLAB WITH CONCRETE EXPANSION BOLT(3 STANCHIONS)
  4. ALL CONCRETE WALL SHALL HAVE 1-70mm WIDE WEEP HOLE PER 2000 SQ.mm OF WALL AREA
  5. CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND DISTANCES



CANAL, GATE AND WORK SCHEDULE / DUBRE 1

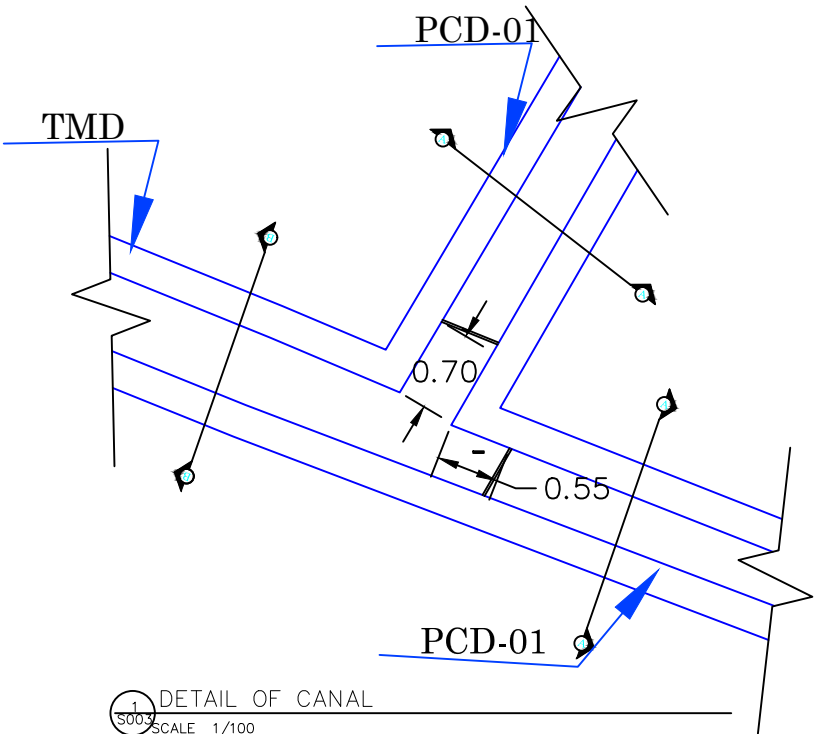
| # | Canal / Gate |         |        | Length | Debit<br>(Q) +/-  | Slope | Width | Depth<br>(vertical<br>I) | Slide Gates<br>Quantity | See<br>Detail         | Construction /<br>Instructions |                                |                             |                            |                           |
|---|--------------|---------|--------|--------|-------------------|-------|-------|--------------------------|-------------------------|-----------------------|--------------------------------|--------------------------------|-----------------------------|----------------------------|---------------------------|
|   | Francais     | English | Abrev. | m      | m <sup>3</sup> /s | m/m   | m     | m                        | #                       | Sheet/<br>Detail<br># | Instructions                   | Earthwork<br>(m <sup>3</sup> ) | Cement<br>(42.5 Kg<br>Bags) | Stone<br>(m <sup>3</sup> ) | Sand<br>(m <sup>3</sup> ) |
| a | b            | c       | d      | e      | f                 | g     | h     | i                        | j                       | k                     | l                              | m                              | n                           | o                          | p                         |

Principales Caracteristiques des Canaux and Gates - Dubre 1 (EXISITNG SYSTEM)

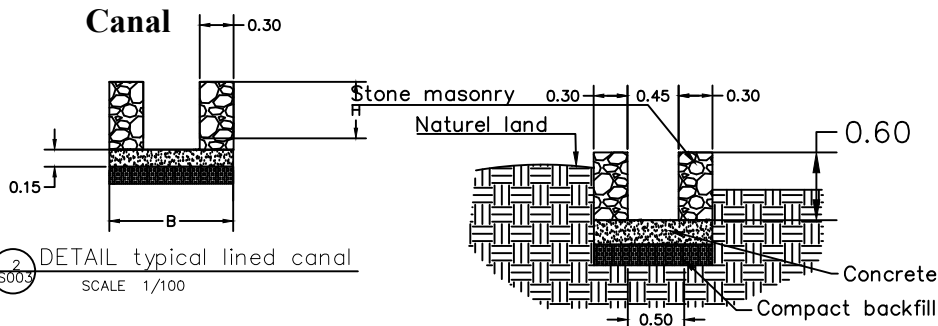
|                         |                            |                          |        |       |    |        |     |     |     |    |  |     |       |     |      |
|-------------------------|----------------------------|--------------------------|--------|-------|----|--------|-----|-----|-----|----|--|-----|-------|-----|------|
| 1                       | Tete morte rive droite     | Feeder canal, right bank | TMD    | 50.0  | 60 | 0.002  | 0.6 | 0.6 |     |    | Existing stone masonry canal: Repair as instructed by the Engineer (wall cracks, bottom PCC, and mortar plastering). Estimated quantities of these repairs and materials are shown in the next columns |     | 0.50  | -   | 0.50 |
| 2                       | Tete morte, rive gauche    | Feeder canal, left bank  | TMG    | 20.0  | 60 | 0.0010 | 0.5 | 0.6 |     |    | Existing stone masonry canal: Repair as instructed by the Engineer (wall cracks, bottom PCC, and mortar plastering). Estimated quantities of these repairs and materials are shown in the next columns |     | 0.60  | -   | 0.60 |
| 3                       | Primaire, rive gauche 01   | Primary canal            | PCG-01 | 324.3 | 60 | 0.0015 | 0.5 | 0.6 |     |    | Existing stone masonry canal: Repair as instructed by the Engineer (wall cracks, bottom PCC, and mortar plastering). Estimated quantities of these repairs and materials are shown in the next columns |     | 12.00 | -   | 2.00 |
| 4                       | Primaire, rive droit 01    | Primary canal            | PCD-01 | 370.0 | 60 | 0.0010 | 0.5 | 0.6 |     |    | Existing stone masonry canal: Repair as instructed by the Engineer (wall cracks, bottom PCC, and mortar plastering). Estimated quantities of these repairs and materials are shown in the next columns |     | 18.00 | -   | 3.00 |
| 5                       | Primaire, rive droit 02    | Primary canal            | PCD-02 | 525.0 | 60 | 0.0017 | 0.5 | 0.6 |     |    | Existing stone masonry canal: Repair as instructed by the Engineer (wall cracks, bottom PCC, and mortar plastering). Estimated quantities of these repairs and materials are shown in the next columns |     | 24.00 | -   | 4.00 |
| 6                       | Portes, primaire, gauche   | Gates (primary canal)    | PCG    |       |    |        |     |     | 6   |    | Provide new gates and guides   |     |       |     |      |
| 7                       | Portes, primaire, droit 01 | Gates (primary canal)    | PCD-01 |       |    |        | 0.4 | 0.8 | 7   |    | Provide new gates and guides   |     |       |     |      |
|                         | Portes, primaire, droit 02 | Gates (primary canals)   | PCD-02 |       |    |        |     |     | 8   |    | Provide new gates and guides   |     |       |     |      |
| 8                       | Secondaire gauche 01       | Secondary, left 01       | SCG-01 | 324.0 | 60 | 0.002  | 0.5 | 0.6 |     |    | New masonry lining for existing secondary canal: Includes side earthwork, new masonry canals   | 292 | 486   | 139 | 81   |
| 9                       | Portes nouveau             | Gates (new)              |        |       |    |        |     |     | 6   |    | Provide new gates and guides   |     |       |     |      |
| 10                      | Secondaire droit 02        | Secondary, right 02      | SCD-02 | 56.0  | 60 | 0.002  | 0.5 | 0.6 |     |    | New masonry lining for existing secondary canal: Includes side earthwork, new masonry canals   | 50  | 84    | 24  | 14   |
| 11                      | Portes nouveau             | Gates (new)              |        |       |    |        |     | 0.4 | 0.8 | 6  | Provide new gates and guides   |     |       |     |      |
| 12                      | Portes, teriaire, droit    | Gates (tertiary, right)  | TCD    |       |    |        |     | 0.4 | 0.8 | 10 | Provide new gates and fir new gates to existing guides   |     |       |     |      |
| 13                      | Portes, teriaire, gauche   | Gates (tertiary, left)   | TCG    |       |    |        |     | 0.4 | 0.8 | 5  | Provide new gates and fir new gates to existing guides   |     |       |     |      |
| Totals Canals and Gates |                            |                          |        |       |    |        |     |     | 48  |    |  |     |       |     |      |

Principales Caracteristiques des Drains Dubre 1

|                         |                               |                       |        |       |       |  |     |     |  |  |  |     |  |  |  |
|-------------------------|-------------------------------|-----------------------|--------|-------|-------|--|-----|-----|--|--|--|-----|--|--|--|
| 1                       | Drain collecteur, rive droite | Collector, right bank | DCD-01 | 475   | 727   |  | 1.0 | 1.0 |  |  | Excavation: Excavate deposited sediments in drain and spread excavated material on embankment adjacent to drain to dry | 285 |  |  |  |
| 2                       | Collecteur, rive gauche       | Collector, left bank  | DCG-01 | 647   | 727   |  | 1.0 | 1.0 |  |  | Excavation: Excavate deposited sediments in drain and spread excavated material on embankment adjacent to drain to dry | 388 |  |  |  |
| 3                       | Drain Principal               | Main drain            | DP-001 | 1,500 | 1,540 |  | 1.0 | 1.0 |  |  | Excavation: Excavate deposited sediments in drain and spread excavated material on embankment adjacent to drain to dry | 900 |  |  |  |
| Totals Canals and Gates |                               |                       |        | 2,622 |       |  |     |     |  |  |  |     |  |  |  |

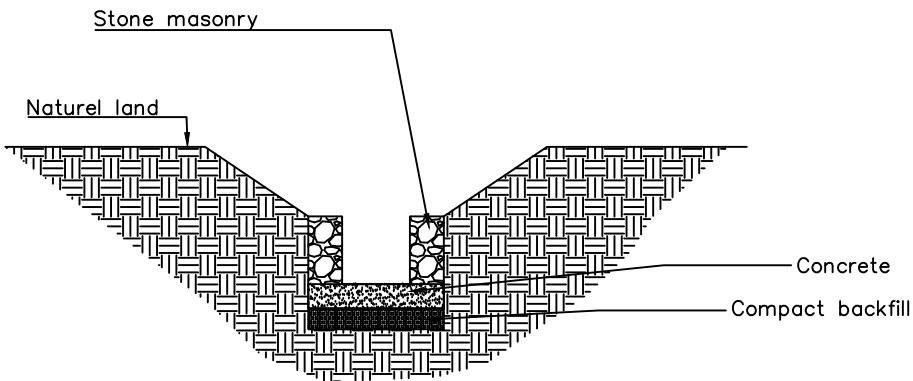


1  
S003  
DETAIL OF CANAL  
SCALE 1/100



2  
S003  
DETAIL typical lined canal  
SCALE 1/100

3  
S003  
primary Canals (both banks)  
SCALE 1/100



4  
S003  
Feeder canals (left bank)  
SCALE 1/100

1  
S003  
SECTION OF THE CANALS  
SCALE 1/100

PROGRAMME D'APPUI A LA VALORISATION DU POTENTIEL AGRICOLE DU NORD  
POUR LA SECURITE ECONOMIQUE ET ENVIRONNEMENTALE



HAITI



TITLE  
EXISTING DIVERSION CANAL PLAN

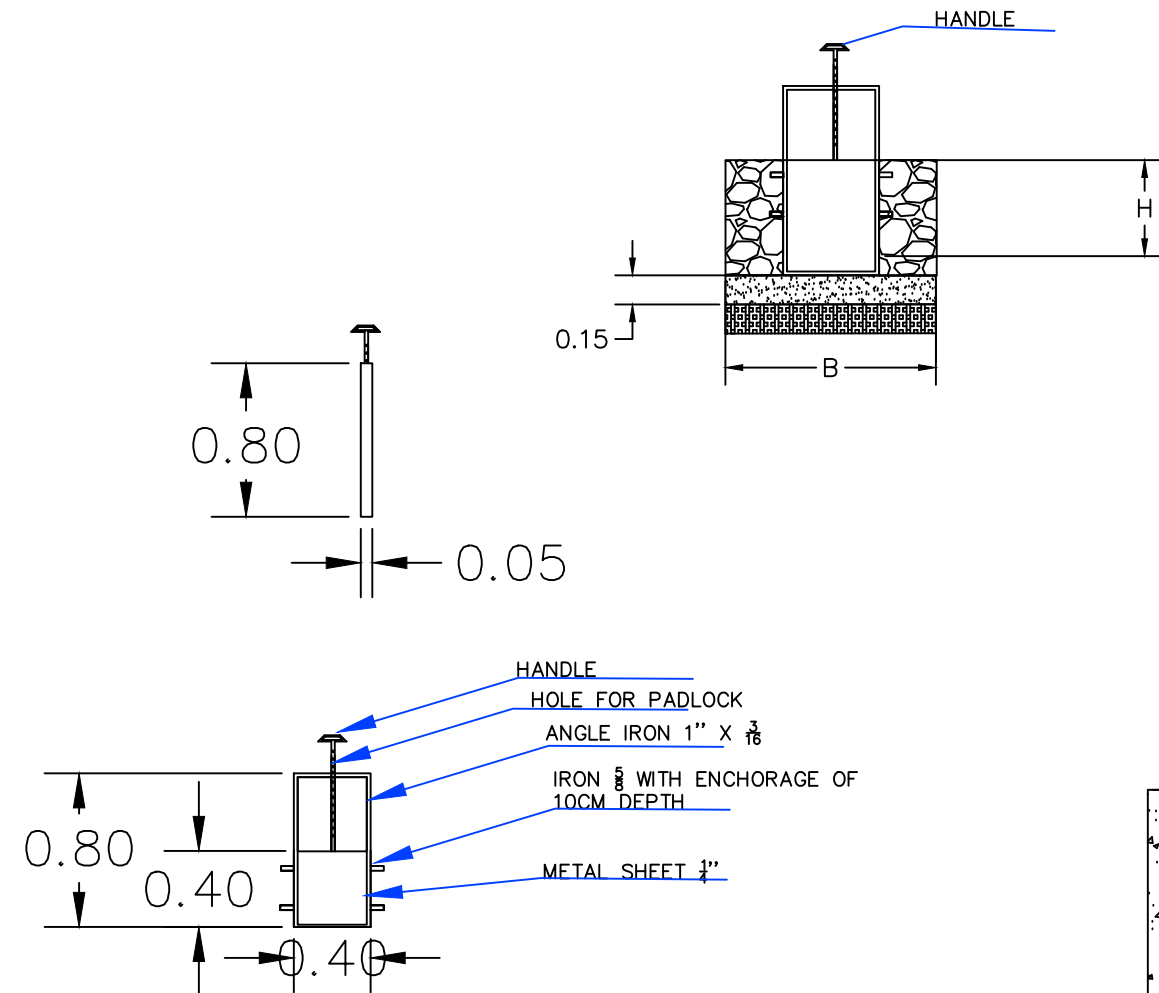
SHEET CONTENTS  
REHABILITATION OF EXISTING CANALS

DWG. NO S003

| NAME                     | DATE      |
|--------------------------|-----------|
| DESIGNER BY: PLANCONSULT | 6/6/2017  |
| DWG BY: M.P              | 6/12/2017 |
| CHECKED BY : M.F.M       | 6/15/2017 |
| APPROVED BY : F.SJ/ M.SE | 6/14/2017 |



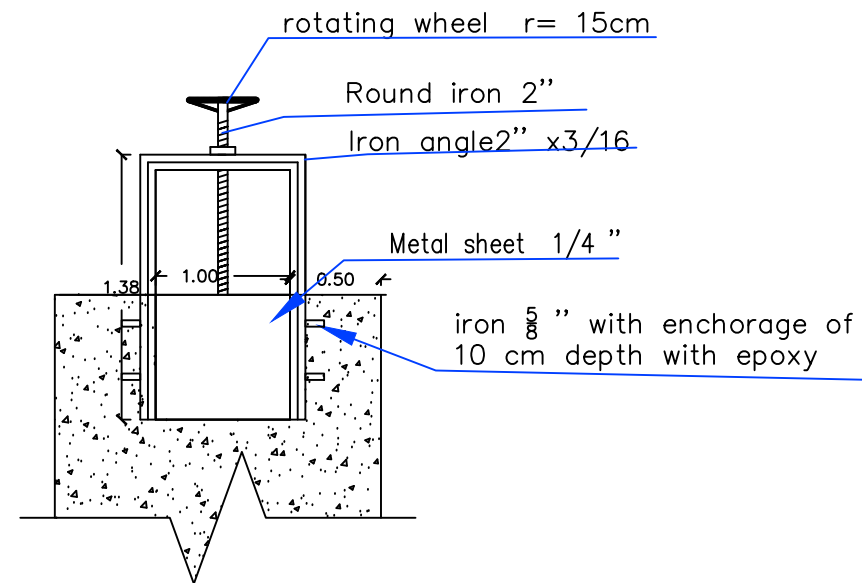




1  
S002

TYPICAL CANAL GATE

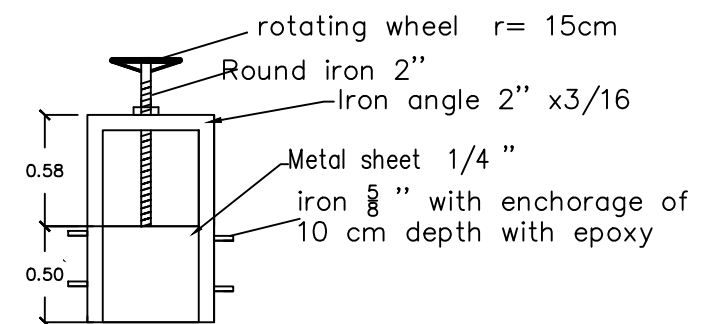
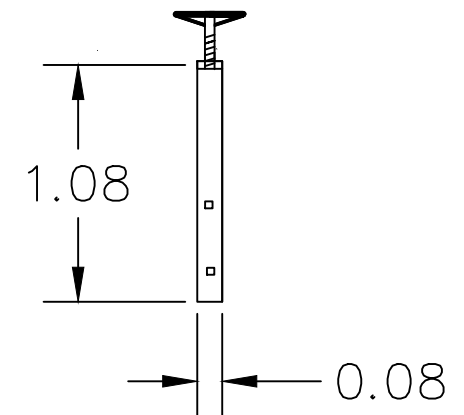
SCALE 1/10



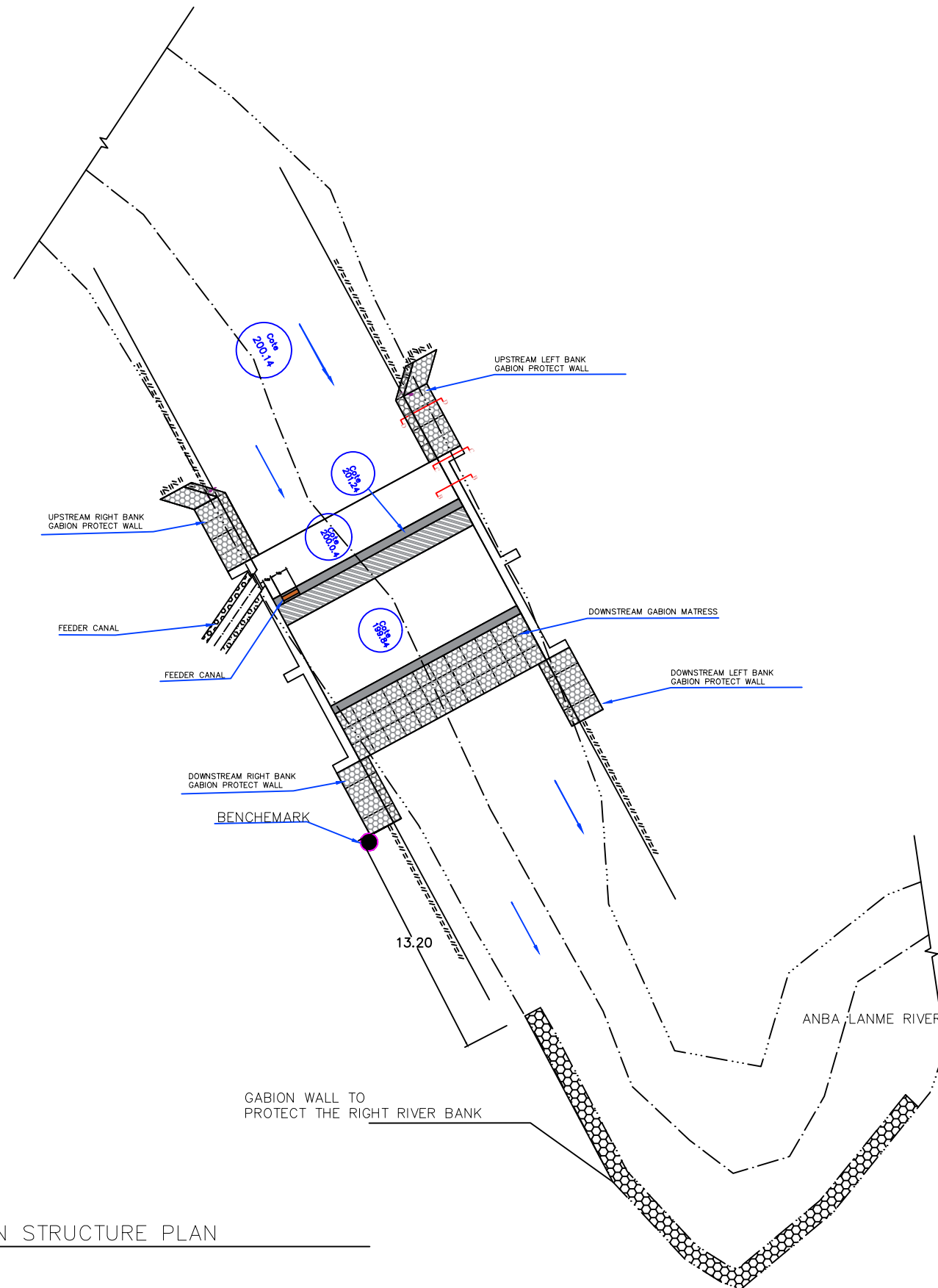
1  
S002

TYPICAL WEIR GATE

SCALE 1/10

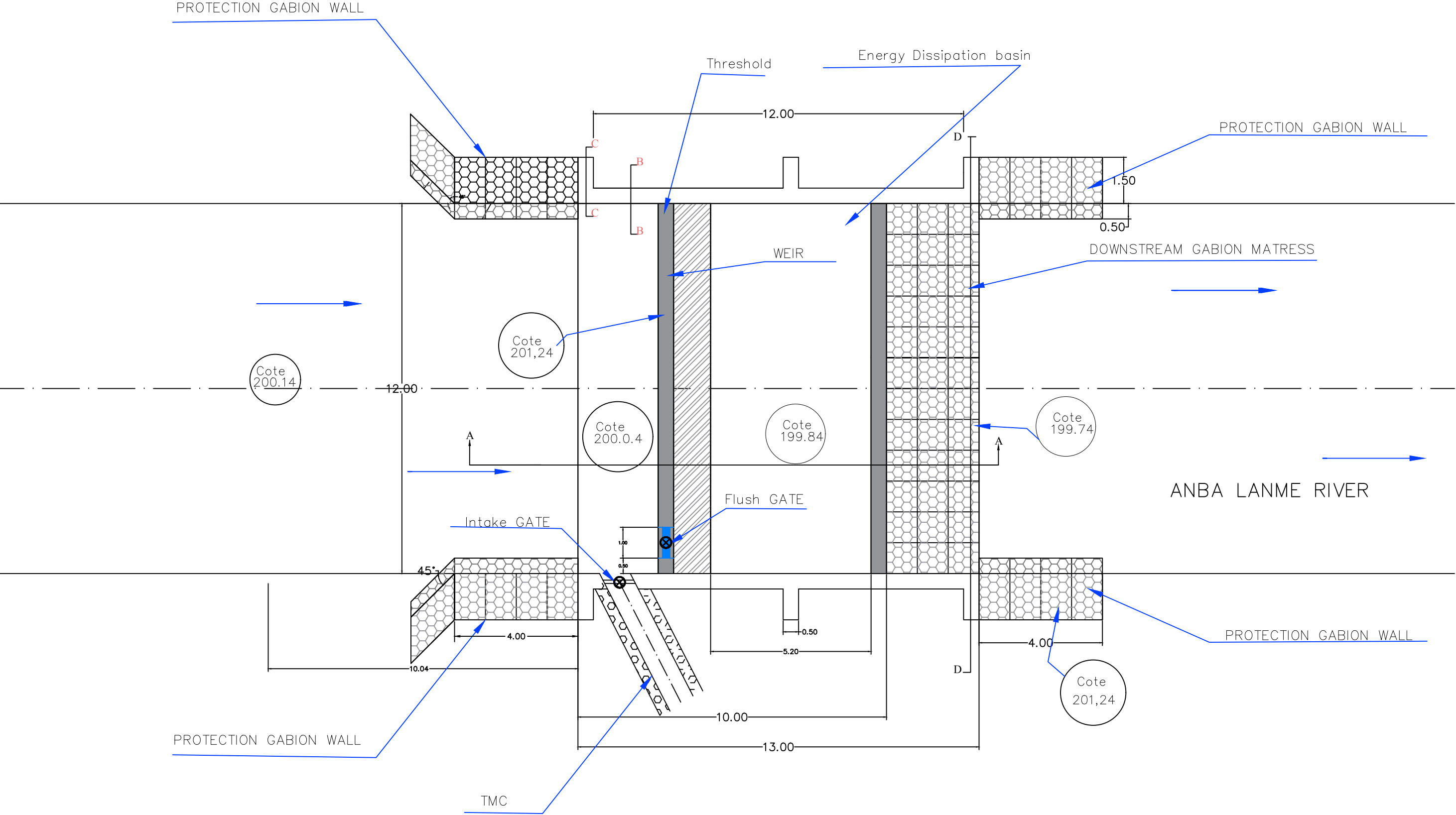






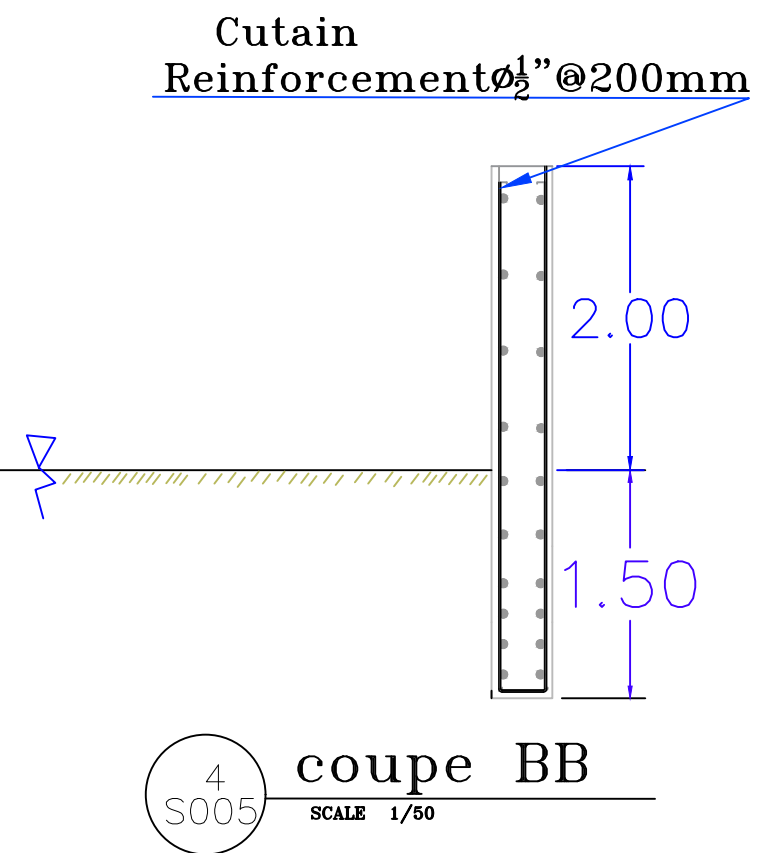
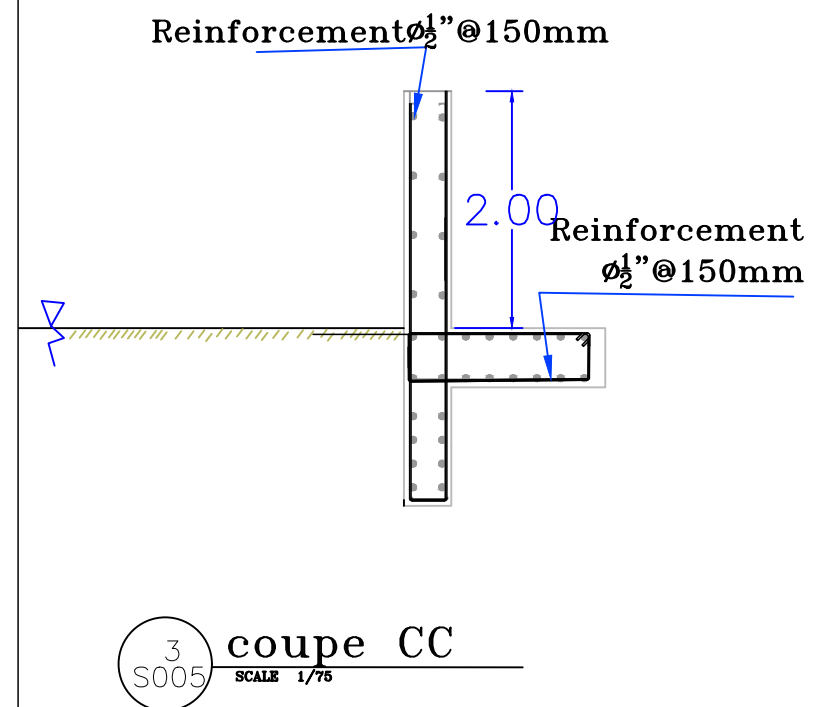
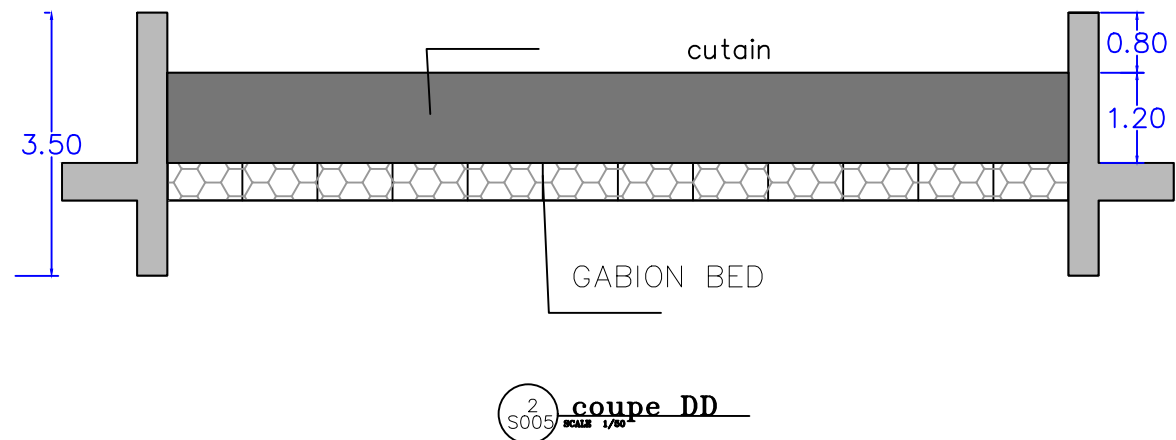
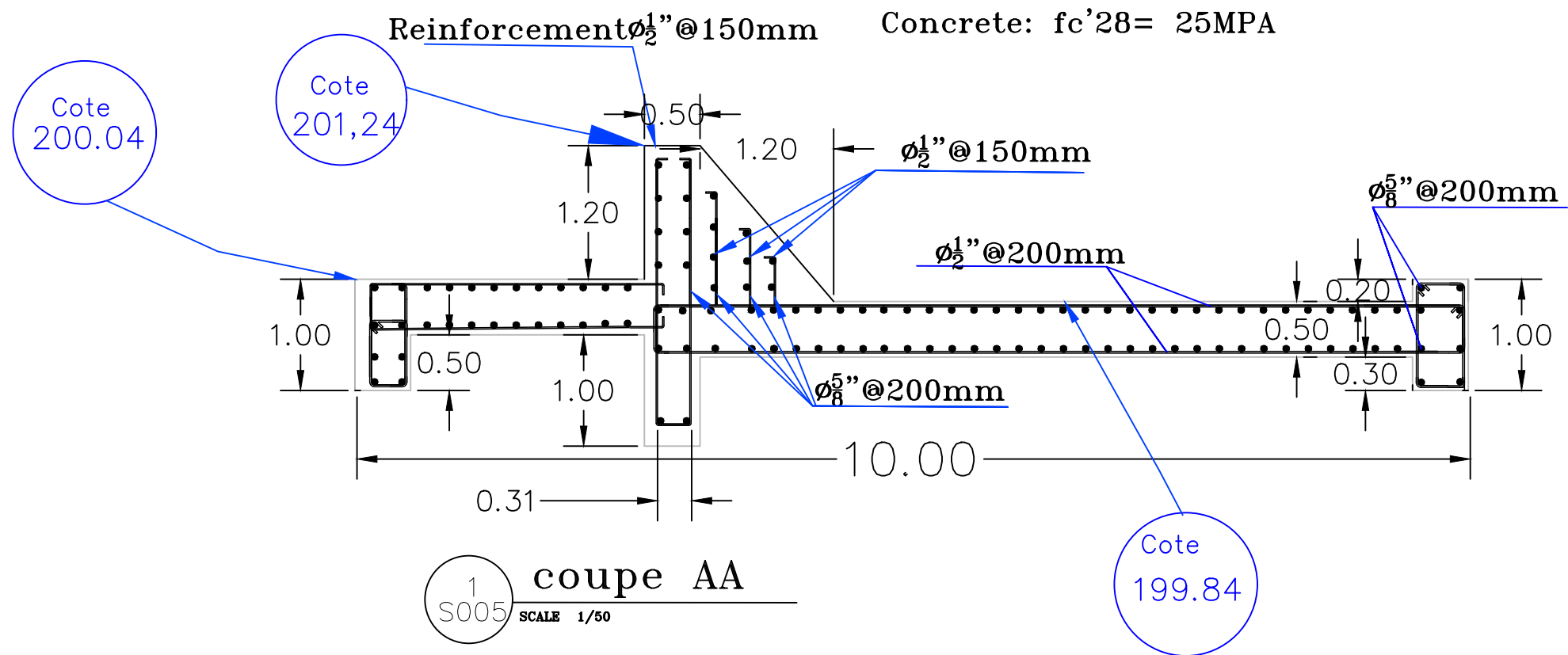
1  
A004 NEW DIVERSION STRUCTURE PLAN  
SCALE 1/100



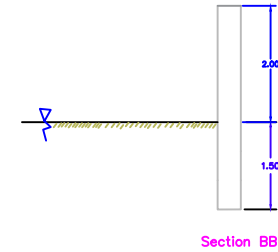
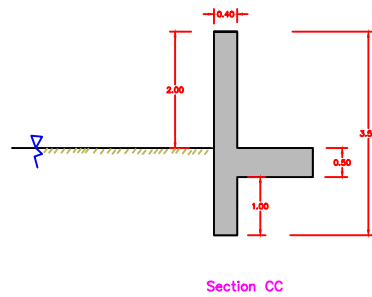
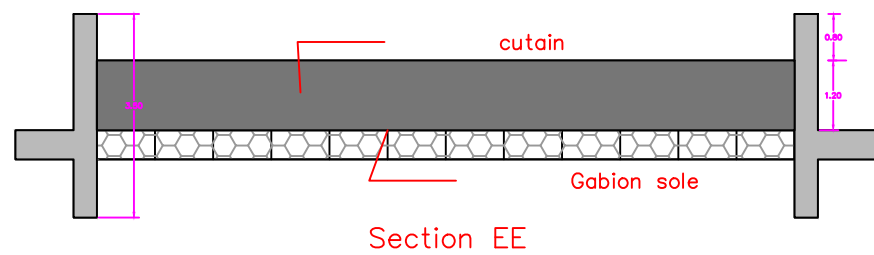
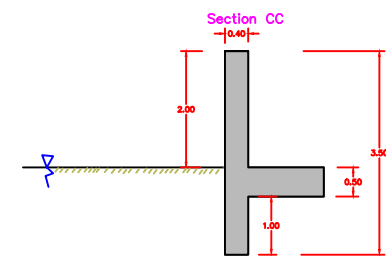
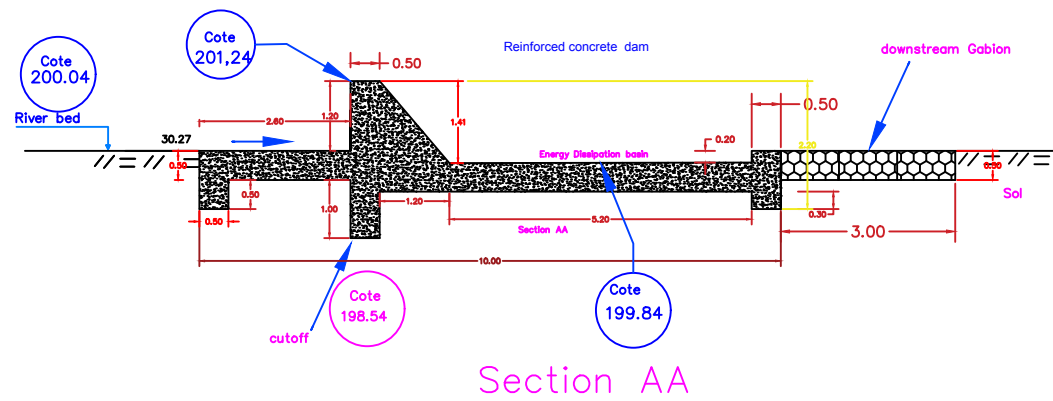


1 NEW DIVERSION STRUCTURE PLAN  
SCALE 1/100









EXISTING DIVERSION STRUCTURE PLAN  
SCALE 1/100

PROGRAMME D'APPUI A LA VALORISATION DU POTENTIEL  
AGRICOLE DU NORD POUR LA SECURITE ECONOMIQUE ET  
ENVIRONNEMENTALE



HAITI



TITLE  
NEW PROPOSED DIVERSION  
STRUCTURE-SECTIONS

SHEET CONTENS  
NEW PROPOSED DIVERSION  
STRUCTURE-SECTIONS

DWG. NO S004

| DESIGNER BY:  | NAME        | DATE      |
|---------------|-------------|-----------|
| DWG BY:       | PLANCONSULT | 6/6/2017  |
| CHECKED BY :  | M.P         | 6/12/2017 |
| APPROVED BY : | M.F.M       | 6/15/2017 |
|               | F.SJ/ M.SE  | 6/14/2017 |





CANAL, GATE AND WORK SCHEDULE / DUBRE 2

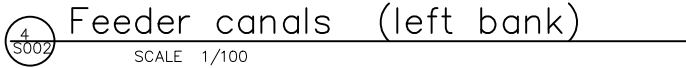
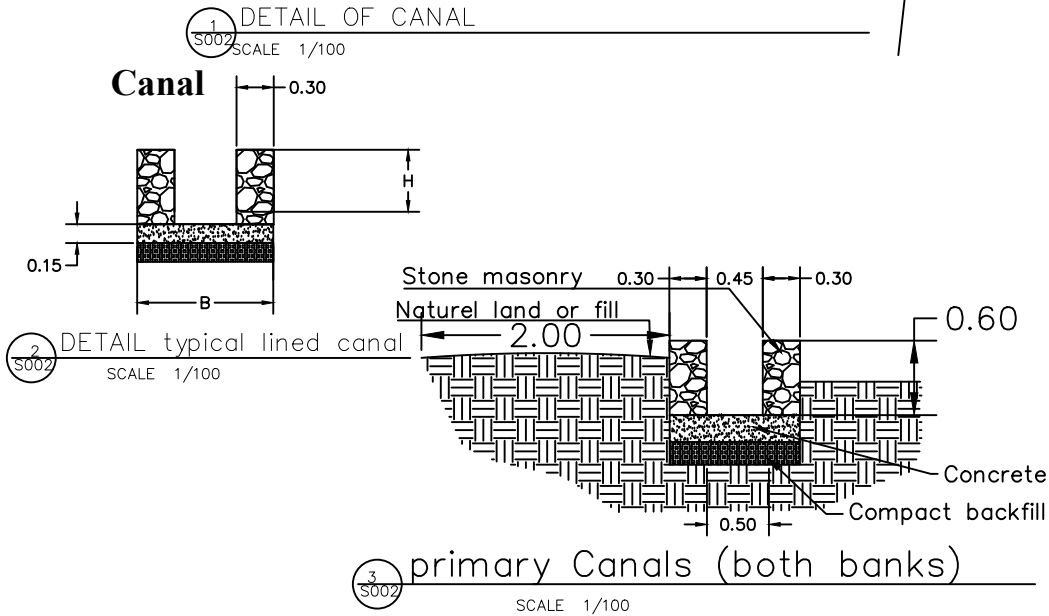
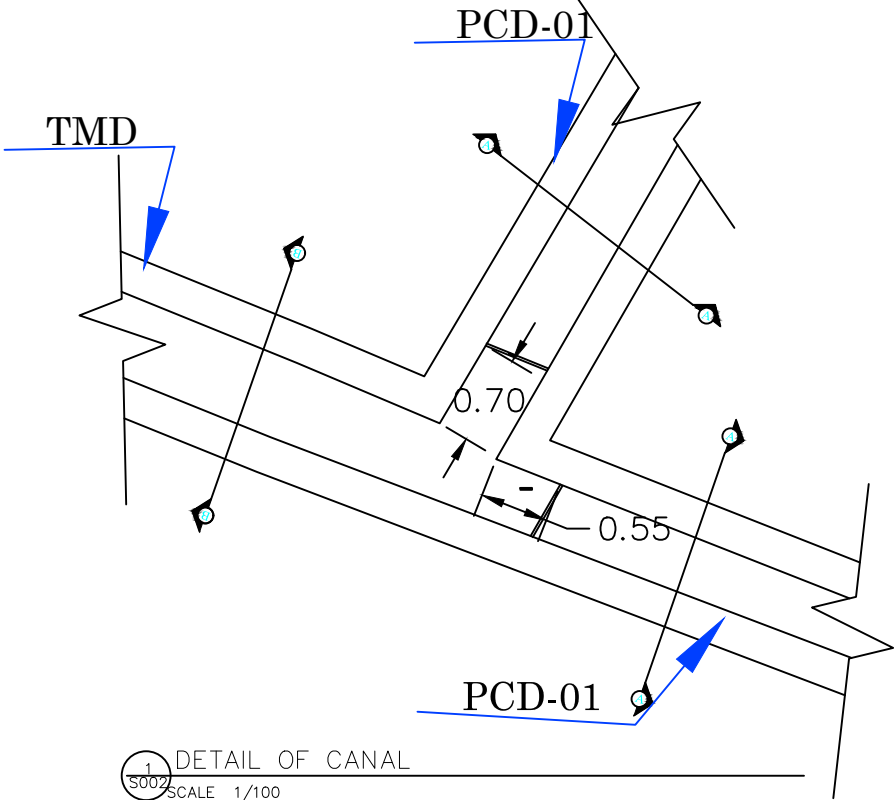
| # | Canal / Gate |         |        | Length | Debit<br>(Q) +/-  | Slope | Width | Depth<br>(vertical) | Slide<br>Gates<br>Quantit | See<br>Detail      | Construction /<br>Instructions |                                 |                                |                            |  |
|---|--------------|---------|--------|--------|-------------------|-------|-------|---------------------|---------------------------|--------------------|--------------------------------|---------------------------------|--------------------------------|----------------------------|--|
|   | Francais     | English | Abrev. | m      | m <sup>3</sup> /s | m/m   | m     | m                   | #                         | Sheet/<br>Detail # | Instructions                   | Earthwor<br>k (m <sup>3</sup> ) | Cement<br>(42.5<br>Kg<br>Bags) | Stone<br>(m <sup>3</sup> ) | Sand<br>and<br>Gravel<br>(m <sup>3</sup> ) |
| a | b            | c       | d      | e      | f                 | g     | h     | i                   | j                         | k                  | l                              | m                               | n                              | o                          | p  |

Principales Caracteristiques des Canaux - Dubre 2 (PROPOSED NEW SYSTEM)

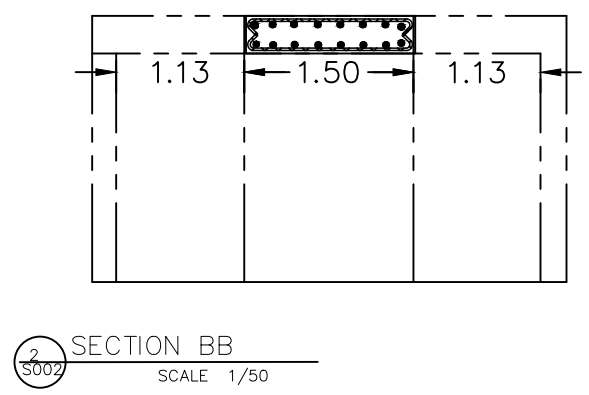
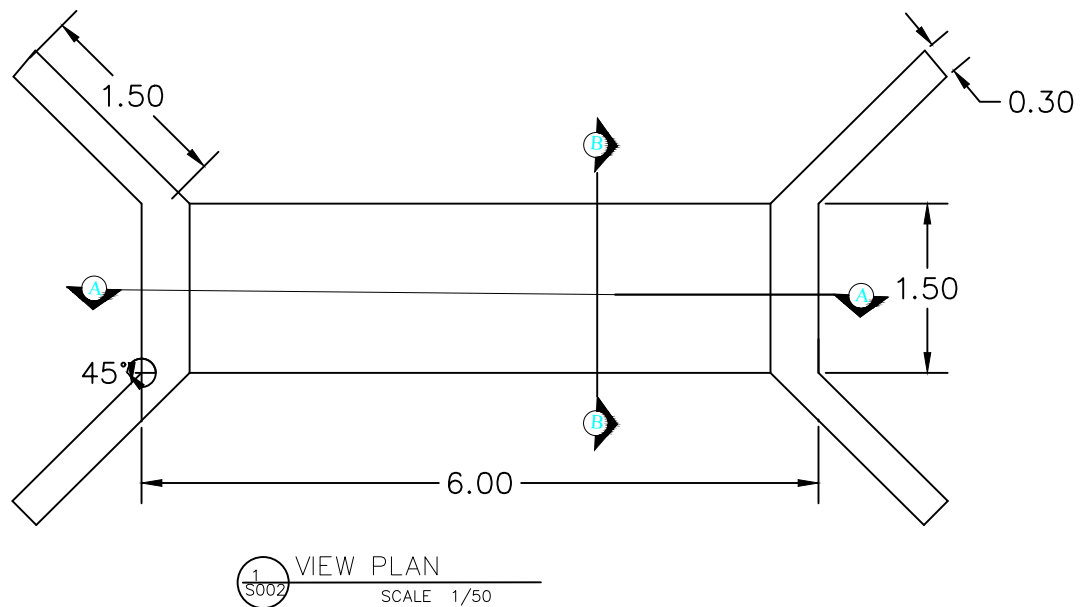
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|-------|--|---------------|--------|---------|----|--------|-----|-----|---|--|--|-------|---------|-------|-------|
| 1     | Tete morte, rive droit Feeder canal, right bar TMD |               |        | 282.8   | 60 | 0.0015 | 0.6 | 0.6 |   |  | <b>New Stone Masonry Canal:</b> Set out survey and grade stakes, excavate and constuct canal and backfilled paths each side of canals as instructed by the Engineer. | 193.4 | 441.2   | 121.6 | 70.7  |
| 2     | Canal primaire                                     | Primary canal | PCD-01 | 475.9   | 60 | 0.0015 | 0.5 | 0.5 |   |  | <b>New Stone Masonry Canal:</b> Set out survey and grade stakes, excavate and constuct canal and backfilled paths each side of canals as instructed by the Engineer. | 226.0 | 742.3   | 204.6 | 119.0 |
| 3     | portes   | Gates         | PCD-01 |         |    |        | 0.5 | 0.7 | 2 |  | Provide new gates and guides   |       |         |       |       |
| 4     | Secondaire, S1                                     | Secondary, S1 | SCD-01 | 745.6   | 60 | 0.0024 | 0.5 | 0.5 |   |  | <b>New Stone Masonry Canal:</b> Set out survey and grade stakes, excavate and constuct canal and backfilled paths each side of canals as instructed by the Engineer. | 286.9 | 1,163.1 | 320.6 | 186.4 |
| 5     | Portes   | Gates         | SCD-01 |         |    |        | 0.5 | 0.7 | 2 |  | Provide new gates and guides   |       |         |       |       |
| 6     | Terciaire 1  | Tertiary 1    | TCD-01 | 456.0   | 30 | 0.0015 | 0.4 | 0.4 |   |  | Excavate earthen canals  | 138.6 |         |       |       |
| 7     | Portes   | Gates         | TCD-01 |         |    |        | 0.4 | 0.6 | 1 |  | Provide new gates and guides   |       |         |       |       |
| 8     | Tertiaire 2  | Tertiary 2    | TCD-02 | 274.7   | 30 | 0.0015 | 0.4 | 0.4 |   |  | Excavate earthen canals  | 83.5  |         |       |       |
| 9     | Porte  | Gate          | TCD-02 |         |    |        | 0.4 | 0.6 | 1 |  | Provide new gates and guides   |       |         |       |       |
| 10    | Secondaire, S2                                     | Secondary, S2 | SCD-02 | 426.9   | 60 | 0.0015 | 0.5 | 0.5 |   |  | <b>New Stone Masonry Canal:</b> Set out survey and grade stakes, excavate and constuct canal and backfilled paths each side of canals as instructed by the Engineer. |       |         |       |       |
| 11    | Portes   | Gates         | SCD-02 |         |    |        | 0.5 | 0.8 | 3 |  | Provide new gates and guides   |       |         |       |       |
| 12    | Terciaire 1  | Tertiary 1    | TCD-01 | 459.7   | 30 | 0.0015 | 0.4 | 0.4 |   |  | Excavate earthen canals  | 139.7 |         |       |       |
| 13    | Porte  | Gate          | TCD-01 |         |    |        | 0.4 | 0.6 | 1 |  | Provide new gates and guides   |       |         |       |       |
| 14    | Tertiaire 2  | Tertiary 2    | TCD-02 | 356.0   | 30 | 0.0015 | 0.4 | 0.4 |   |  | Excavate earthen canals  | 108.2 |         |       |       |
| 15    | Porte  | Gate          | TCD-02 |         |    |        | 0.4 | 0.6 | 1 |  | Provide new gates and guides   |       |         |       |       |
| 16    | Tertiaire 3  | Tertiary 3    | TCD-03 | 454.2   | 30 | 0.0015 | 0.4 | 0.4 |   |  | Excavate earthen canals  | 138.1 |         |       |       |
| 17    | Porte  | Gate          | TCD-03 |         |    |        | 0.4 | 0.6 | 1 |  | Provide new gates and guides   |       |         |       |       |
| Total |  |               |        | 3,931.6 |    |        |     |     |   |  |  |       |         |       |       |

Principales Caracteristiques des Drains - Dubre 2

|       |                     |                    |        |       |     |     |     |     |  |  |  |       |  |  |  |
|-------|---------------------|--------------------|--------|-------|-----|-----|-----|-----|--|--|--|-------|--|--|--|
| 1     | Collecteur - bloc 1 | Colector - Block 1 | DCD-01 | 332.1 | 727 | 1.0 | 0.5 | 0.8 |  |  | <b>Excavation:</b> Excavate drain deposited sediments and spread excavated material on embankment adjacent to drain to dry as directed by the WUA and the Engineer | 124.5 |  |  |  |
| 2     | Collecteur - bloc 2 | Colector - Block 2 | DCD-02 | 335.2 | 727 | 1.0 | 0.5 | 0.8 |  |  | <b>Excavation:</b> Excavate drain deposited sediments and spread excavated material on embankment adjacent to drain to dry as directed by the WUA and the Engineer | 125.7 |  |  |  |
| Total |                     |                    |        | 667.3 |     |     |     |     |  |  |  |       |  |  |  |



Reinforced Concrete  $f_c'28=25\text{MPa}$



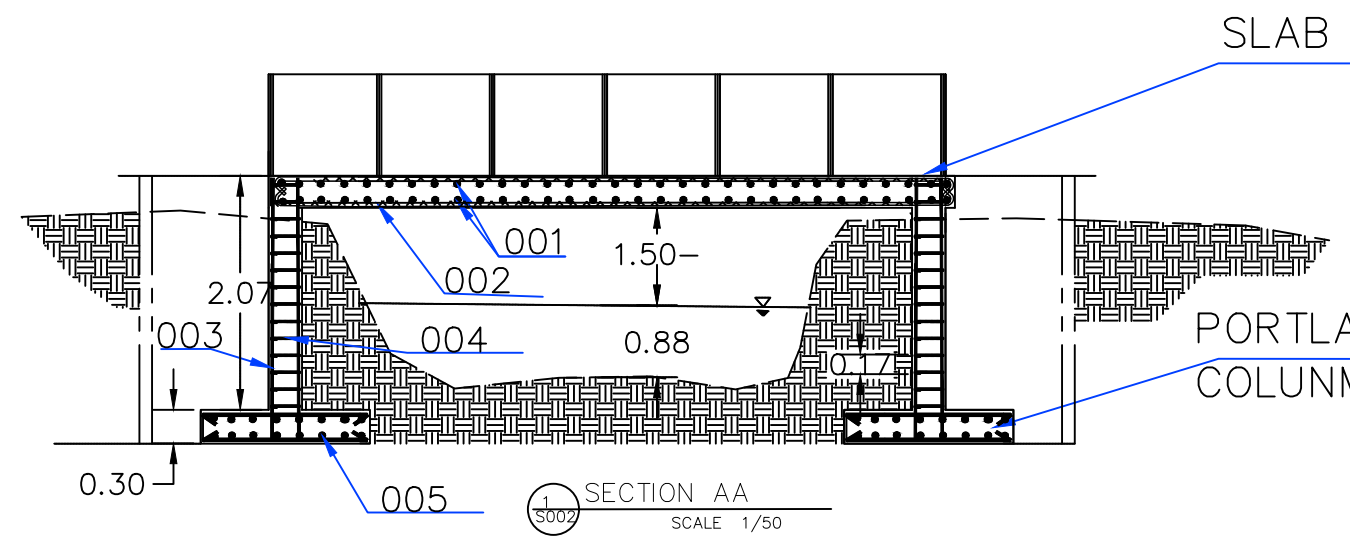
- NOTES :
- 1. INSTALL BRIDGE SLAB ON EXISTING WEIR PROTECTION WALLS
  - 2. SLAB SHALL BE FASTENED TO WALL USING VERTICALLY PLACED EPOXY ANCHOR BOLTS (3- PATCH WALL, 450mm)
  - 3. INSTALL 50mm PIPE RAILING EACH SIDE OF BRIDGE SLAB WITH CONCRETE EXPANSION BOLT (3 STANCHIONS)
  - 4. ALL CONCRETE WALLS SHALL HAVE 1-70mm WIDE WEEP HOLE PER 2000 SQ.mm OF WALL AREA

INSTALL REINFORCING:  
1. SLAB : TOP: #7BARS @150mm-LONG  
#7BARS @150mm-SHORT  
ALL IRONS SHALL  $\varnothing$  #4

BOTTOM: SAME AS TOP

- 2. ABUTMENTS: SAME AS SLAB
- 3. FOOTERS: SAME AS SLAB

PORTLAND CEMENT CONCRETE PCC  
COLUMN AND FOOTING (1:3:6)



| BRIDGE MARK | L    | $\varnothing$ | # | TYP |
|-------------|------|---------------|---|-----|
| 001         | 1500 | $\frac{1}{2}$ | 4 | S   |
| 002         | 6000 | $\frac{1}{2}$ | 4 | S   |
| 003         | 3000 | $\frac{1}{2}$ | 4 | S   |
| 004         | 1200 | $\frac{3}{8}$ | 3 | st  |
| 004         | 1000 | $\frac{1}{2}$ | 3 | s   |

Note  
st=stirrup,H=hook,s=straight  
L=lenght in mm, $\varnothing$ =diameter in inche  
TYP= typical

PROPOSED PEDESTRIAN BRIDGE  
SCALE 1/50



# DRAWING REVISIONS

| # | Page                        | SUBJECT                          | DESCRIPTION  | Date      |
|---|-----------------------------|----------------------------------|--|-----------|
| 1 | S001                        | Revised note                     | Gates to be "replaced"   | 23-Jun-17 |
| 2 | S002                        | Revised and added notes          | Added elevations in details, added notes delineating existing vs. proposed work, added wall lengths, and wall work starting locations, added weep hole sizes | 23-Jun-17 |
| 3 | A005                        | Section continuity corrections   | Made corrections to wall detail of S004 to match instructions on A005. Added top of wall and gate invert elevations  | 24-Jun-17 |
| 4 | S004                        | Elevations and detail continuity | Added elevations of Section AA, Corrected Section identification for CC and DD on A005   | 25-Jun-17 |
| 5 | S006 Rebar , schedules S007 |                                  | Added rebar schedules for pedestrian bridge slab and pedestrain bridge, also added irmpoved bridge drawing   | 26-Jun-17 |
| 6 | S005                        | Note addition                    | Changed Section 1 to read "Typical Canal Control Slide Gate"   | 26-Jun-17 |
| 7 | L002                        | Added Sheet                      | Added L002 to illustrate new canal locations   | 27-Jun-17 |
| 8 | G002                        | Table of Contents                | Changed TOC to reflect new L002, and Page 15, Record of Drawing Revisions  | 27-Jun-17 |
| 9 | S005                        | Foot Bridge                      | Changed Footbridge Drawing and Details   | 27-Jun-17 |
|   |                             |                                  |  |           |