

BANGLADESH WATER DEVELOPMENT BOARD

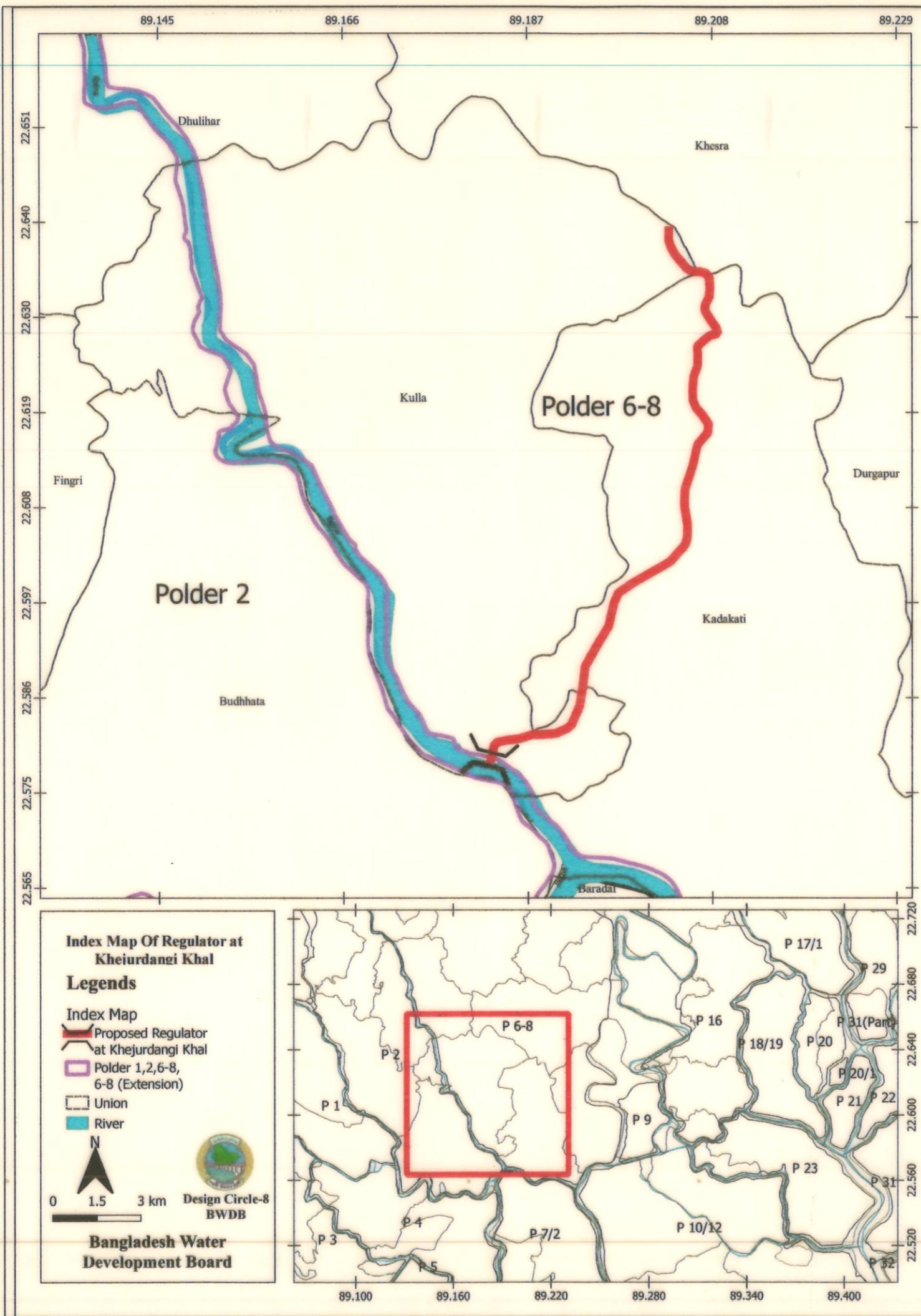


DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

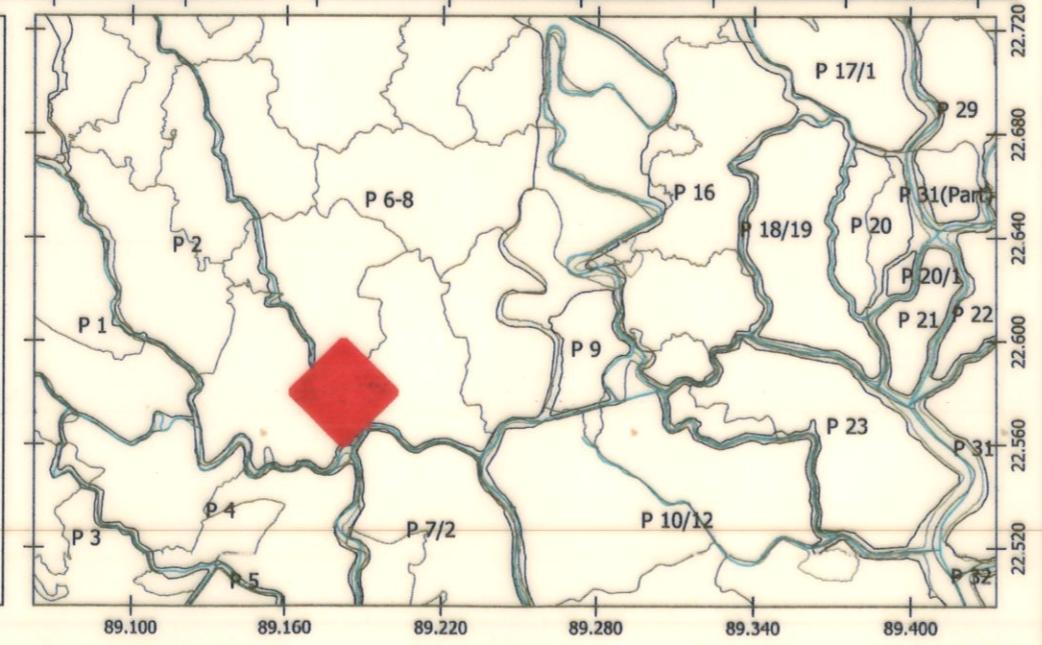
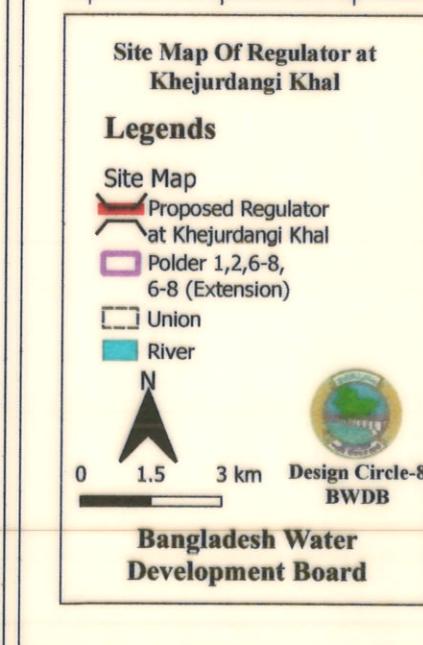
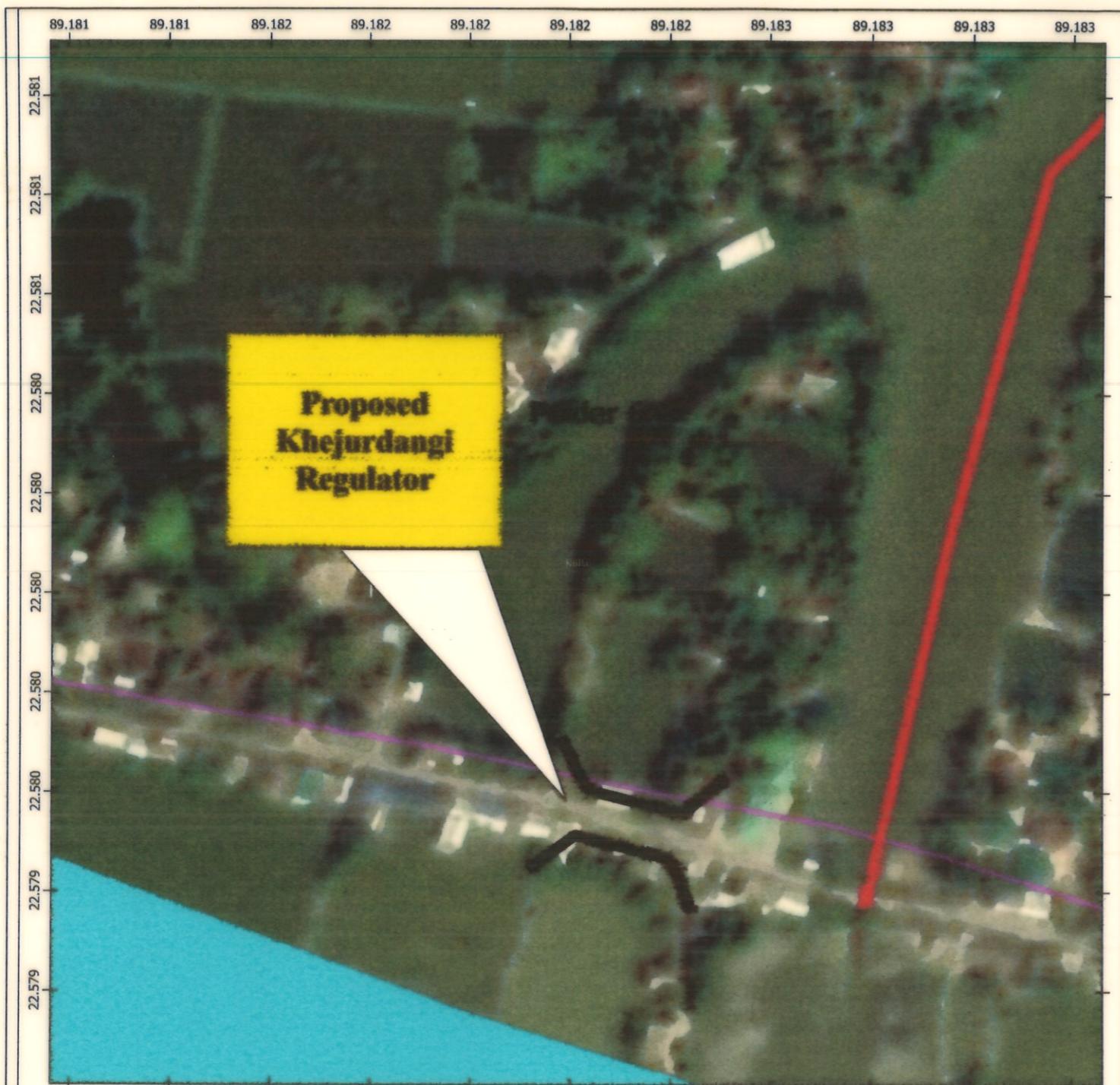
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km.
11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 ,
BWDB, SATKHIRA.

SATKHIRA O&M DIVISION-2
BWDB, SATKHIRA

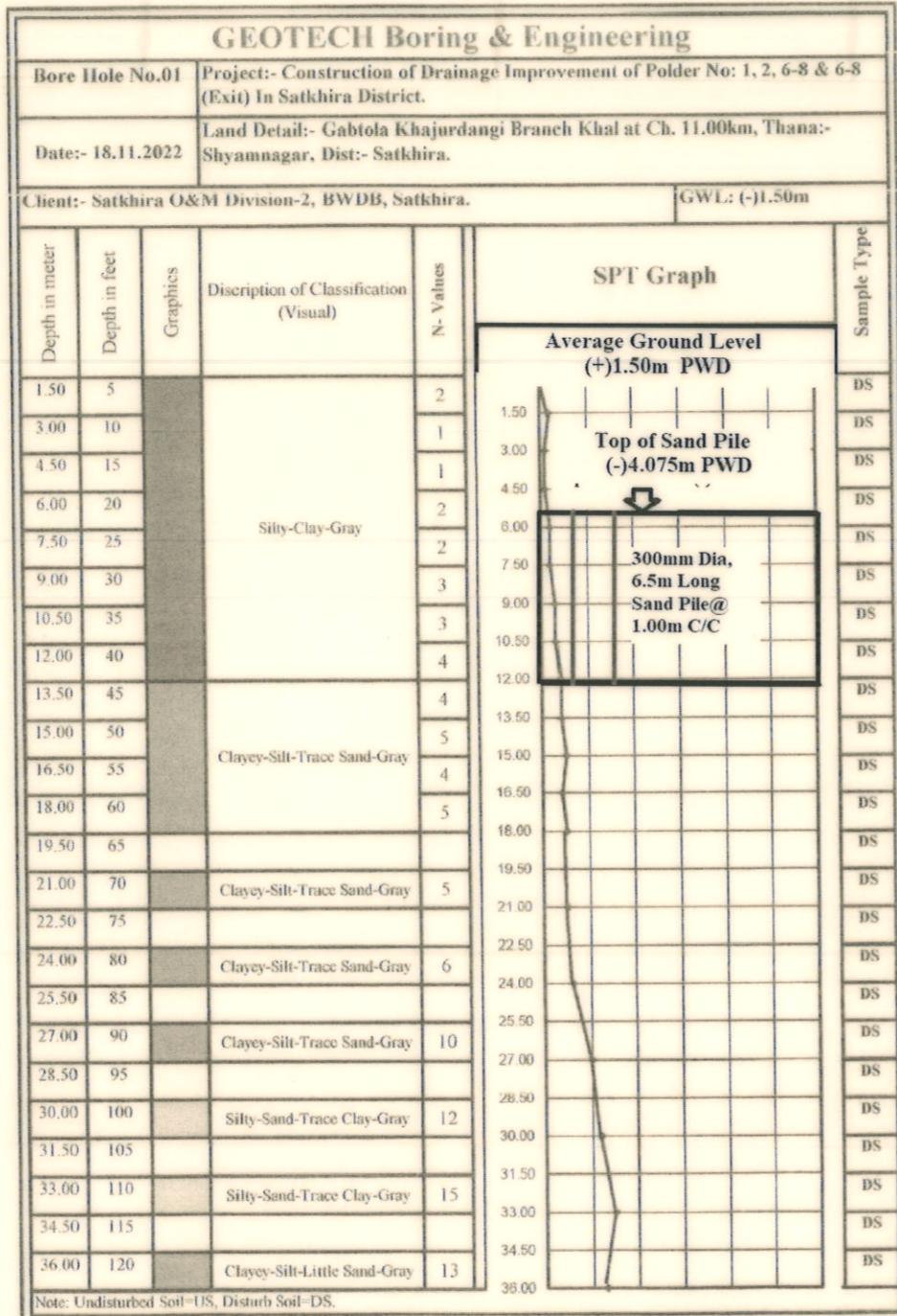
DESIGNED BY: DESIGN CIRCLE-8
MAY, 2023



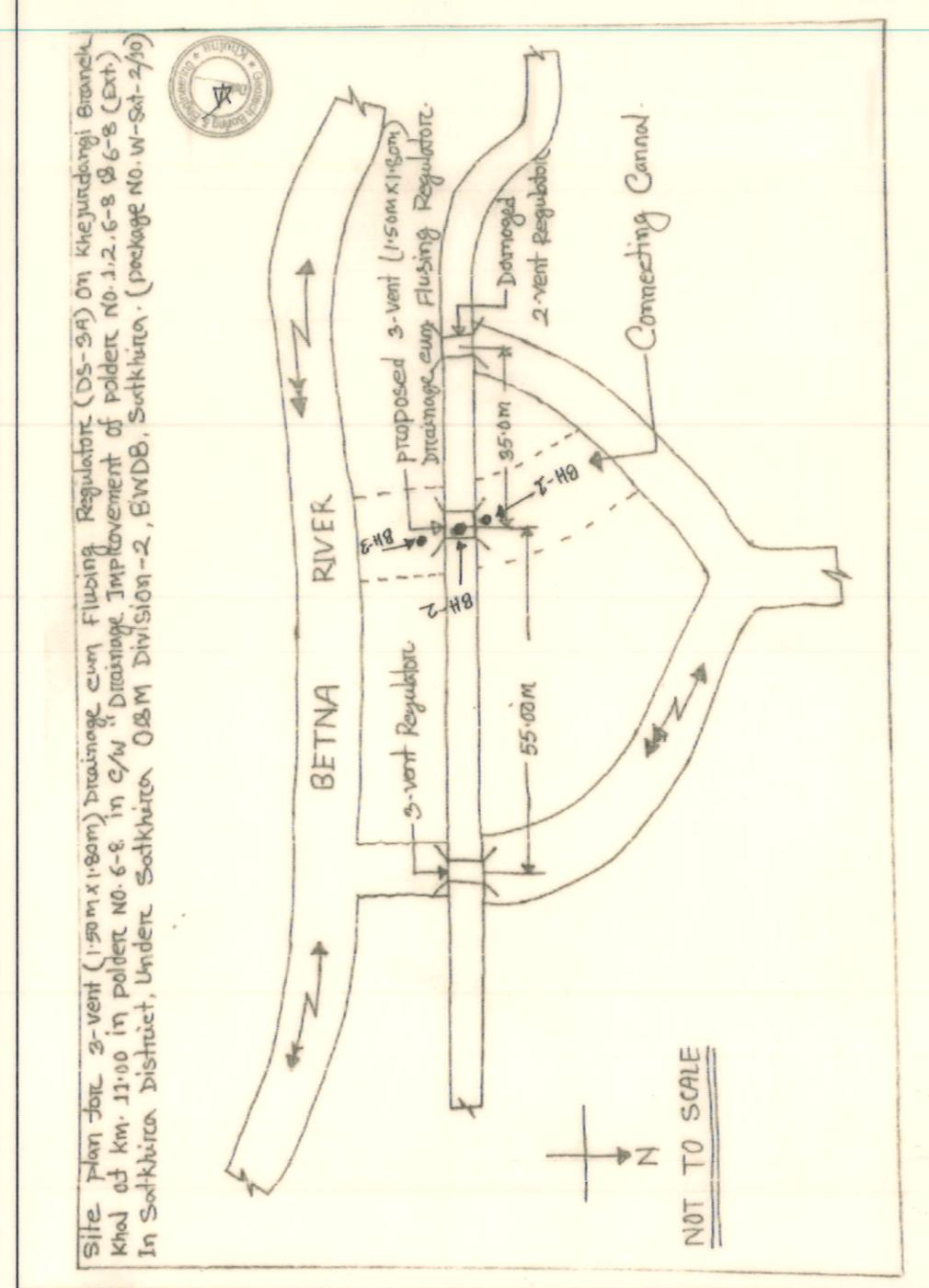
Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
INDEX MAP	
DESIGNED BY : (SAKIB BIN RAFI), AE	APPROVED BY : (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY : (JAKARIA PERVEZ), EE	
DATE:15/05/2023 DWG. NO.:DC-8-0377-01/23	



Bangladesh Water Development Board	
Office of the Superintending Engineer	
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DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
SITE MAP	
DESIGNED BY : (SAKIB BIN RAFI), AE	APPROVED BY : (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY : (JAKARIA PERVEZ), EE	
DATE:15/05/2023 DWG. NO.:DC-8-0377-02/23	



Rafiq
Engr. Md. Raton Mia
MIEB-A20078
B.Sc. in Civil Engineering
Geotech Boring & Engineering

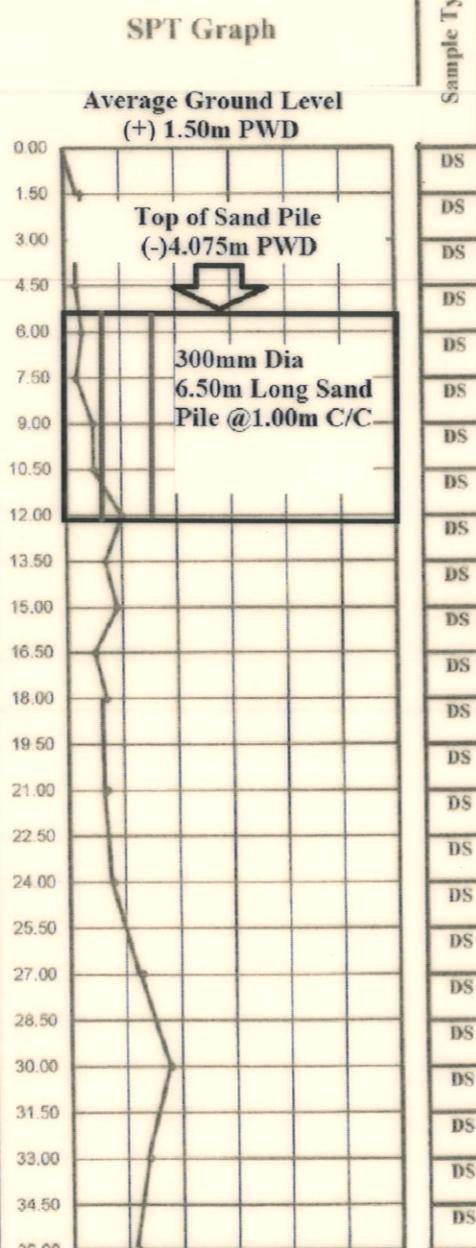


Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
BOREHOLE LOCATION AND BORELOG DATA	
DESIGNED BY : <i>Rafiq</i> (SAKIB BIN RAFIQ), AE	APPROVED BY : <i>Mohammed Saif Uddin</i> (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY : <i>Jakaria Pervez</i> (JAKARIA PERVEZ), EE	 <i>Mohammed Saif Uddin</i> (MOHAMMAD SAIF UDDIN), SE
DATE:15/05/2023 DWG. NO.:DC-8-0377-03/23	

GEOTECH Boring & Engineering					
Bore Hole No.02		Project:- Construction of Drainage Improvement of Polder No: 1, 2, 6-8 & 6-8 (Exit) In Satkhira District.			
Date:- 18.11.2022		Land Detail:- Gabtola Khajurdangi Branch Khal at Ch. 11.00km, Thana:- Shyamnagar, Dist:- Satkhira.			
Client:- Satkhira O&M Division-2, BWDB, Satkhira.		GWL: (-)1.50m			
Depth in meter	Depth in feet	Graphics	Description of Classification (Visual)	N- Values	Sample Type
1.50	5			3	DS
3.00	10			2	DS
4.50	15		Silty-Clay-Gray	2	DS
6.00	20			3	DS
7.50	25			2	DS
9.00	30			5	DS
10.50	35		Clayey-Silt-Trace Sand-Gray	5	DS
12.00	40		Sandy-Silt-Little Clay-Gray	10	DS
13.50	45			7	DS
15.00	50			9	DS
16.50	55		Clayey-Silt-Little Sand-Gray	5	DS
18.00	60			7	DS
19.50	65				DS
21.00	70		Clayey-Silt-Little Sand-Gray	7	DS
22.50	75				DS
24.00	80		Clayey-Silt-Little Sand-Gray	8	DS
25.50	85				DS
27.00	90		Silty-Sand-Little Clay-Gray	13	DS
28.50	95				DS
30.00	100		Silty-Sand-Little Clay-Gray	18	DS
31.50	105				DS
33.00	110		Clayey-Silt-Little Sand-Gray	14	DS
34.50	115				DS
36.00	120		Clayey-Silt-Little Sand-Gray	12	DS

Note: Undisturbed Soil=US, Disturb Soil=DS.

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DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
BORELOG DATA	
DESIGNED BY :	APPROVED BY :
(SAKIB BIN RAFI), AE	
CHECKED & APPROVED BY :	
JAKARIA PERVEZ), EE	(MOHAMMAD SAIF UDDIN), SE
DATE:15/05/2023 DWG. NO.:DC-8-0377-04/23	

GENERAL NOTES

1. THE SPECIFICATION OF MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD TECHNICAL SPECIFICATION OF BWDB, IN GENERAL.
2. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN mPWD UNLESS OTHERWISE MENTIONED IN THE DRAWINGS.
3. COMPRESSIVE STRENGTH OF REINFORCED CEMENT CONCRETE SHALL HAVE MINIMUM 28 DAYS CYLINDER STRENGTH, $f_c \geq 25.00 \text{ N/mm}^2$ AND SHALL BE CHECKED BY COLLECTING SAMPLES AND TESTING DURING CONSTRUCTION.
4. REINFORCING BAR SHALL BE DEFORMED MILD STEEL HAVING YIELD STRENGTH, $f_y \geq 400.00 \text{ N/mm}^2$. (MADE FROM BILLET) IN R.C.C. WORK.
5. CONCRETE FOR CC BLOCKS SHALL HAVE MINIMUM STRENGTH, $f_c \geq 12.00 \text{ N/mm}^2$ AT 28 DAYS.
6. CURING OF CONCRETE SHALL BE CONTINUED FOR MINIMUM 21 DAYS AFTER CASTING.
7. CONCRETE SHALL BE POURED IN DRY BED CONDITION.
8. THE SURFACE OF CONSTRUCTION JOINTS SHALL BE WASHED THOROUGHLY WITH WATER JET & SHALL BE CLEAN ENOUGH AFTER THAT, SURFACE SHALL BE DRY PRIOR TO PLACEMENT OF ADJOINING CONCRETE.
9. CONCRETE MIXTURE SHALL BE POURED AS QUICK AS POSSIBLE BUT NOT LATER THAN 45 MINUTES AFTER MIXING.
10. 75 mm LEAN CONCRETE AT BASE SHALL BE IN 1:3:6.
11. THE LEAN CONCRETE AT FOUNDATION OF THE PROPOSED REGULATOR SHALL BE PLACED AFTER PROPERLY PREPARING & COMPACTING EXCAVATED BASE.
12. CLEAR COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:
 - a) Operating deck & Railing : 25mm
 - b) Concrete adjacent to earth at foundation: 75mm
 - c) Concrete adjacent to earth: 75mm
 - d) Concrete exposed to weather and water or others: 75mm
 - e) Beam: 40mm
13. MINIMUM LAP LENGTH SHALL BE 40 TIMES THE BAR DIAMETER.
14. LAP SHALL BE STAGGERED SO THAT NOT MORE THAN 50% OF BARS ARE LAPPED IN ANY ONE CROSS SECTION. WHERE BARS MUST LAPED IN ONE CROSS SECTION, THEN LAP LENGTH SHALL NOT BE LESS THEN 1.30 TIMES MINIMUM LAP LENGTH.
15. REINFORCING BAR MUST BE SUPPORTED IN ITS PROPER POSITION BY USE OF MORTAR BLOCK, SUPPORTS OR BY OTHERS APPROVED MEANS.
16. SAND FILLING IN FOUNDATION SHOULD BE DONE WITH SAND OF F.M. ≥ 1.50 IN LAYERS OF 150 mm THICK LAYER BY LAYER AND COMPACTED TO ATTAIN MINIMUM 50% RELATIVE DENSITY.
17. UNLESS OTHERWISE SPECIFIED, BACK FILLING SHALL BE DONE WITH SAND (F.M. ≥ 0.80) FREE FROM VEGETABLE ROOTS AND ORGANIC MATTER, BACK FILLING FOR U-SHAPED WALL SHALL BE DONE SIMULTANEOUSLY ON BOTH WALLS.
18. DESIGN OF GATE AND HOISTING SYSTEM WILL BE PREPARED BY DESIGN CIRCLE-III, BWDB, DHAKA.
19. GATE TO BE OPERATED IN CONTROLLED WAY TO AVOID ANY SCOUR WHEN HEAD DIFFERENCE IS BEYOND 0.60m.
20. THE EMBEDDED PARTS OF GATE TO BE INSTALLED DURING CONSTRUCTION OF BARREL PART AND IT SHALL BE DONE IN ACCORDANCE WITH APPROVED MECHANICAL DRAWING .
21. THE GATE SHALL BE INSTALLED BEFORE THE OPERATION OF THE STRUCTURE.
22. ANY ERROR/OMISSION IF DETECTED SHALL BE REFERRED TO THE CONCERNED DESIGN OFFICE TAKING NECESSARY ACTION.
23. ALL BORE HOLES SHALL BE SEALED BEFORE CONSTRUCTION OF REGULATOR.

SPECIAL NOTES:

1. THIS DRAWING IS PREPARED AS PER PROPOSAL AND DESIGN DATA SUBMITTED BY SE, KHULNA O&M CIRCLE, BWDB, KHULNA VIDE HIS OFFICE MEMO NO: 831, DATE:09-02-2022 AND ADDITIONAL BORELOG DATA DATA RECEIVED DATE: 07-12-2022 FROM EE, SATKHIRA O&M DIVISION-2 BWDB, SATKHIRA.
2. BOTTOM SLAB LEVEL OF EXISTING ARONGGACHA CHECK STRUCTURE-01 IS HIGH ENOUGH WHICH RESULTS WATER LOGGING. SO IT IS NECESSARY TO DEMOLISH EXISTING STRUCTURE & TO BE REPLACED WITH NEW STRUCTURE TO SOLVE WATER LOGGING PROBLEM. EXISTING ARONGGACHA CHECK STRUCTURE-01 IS ALSO NON FUNCTIONING & NON REPAIRABLE.
3. EXISTING ARONGGACHA CHECK STRUCTURE-01 TO BE DEMOLISHED FOLLOWING THE PROPER PROCEDURE & PROPOSED STRUCTURE TO BE CONSTRUCTED AT SAME POSITION.
4. THE WORK SHALL BE EXECUTED WITH PRIOR ADMINISTRATIVE AND FINANCIAL APPROVAL FROM THE COMPETENT AUTHORITY & WITHIN THE DPP / BUDGET PROVISION .
5. EXISTING KHAL/LINK KHAL AT THE U/S & D/S OF THIS PROPOSED ARONGGACHA CHECK STRUCTURE-01 TO BE RE-EXCAVATED UPTO THE REQUIRED LENGTH IF NECESSARY. NECESSARY DATA TO BE SUBMITTED TO DESIGN OFFICE FOR THIS PURPOSE.

NOTES FOR SHEET PILES:

1. HOT ROLLED SHEET PILE SHALL BE USED. COLD ROLLED SHEET PILE SHALL NEVER BE USED.
2. COATING SHALL BE PROVIDED OVER SHEET PILE IN THE FOLLOWING WAY:-
 - i) CLEAN THE SHEET PILE SURFACE PREFERABLY WITH SAND BLASTING.
 - ii) PROVIDE 1 (ONE) COAT OF ZINK PHOSPHATE AS PRIMARY COAT,
 - iii) PROVIDE 2 (TWO) COAT OF COALTAR EPOXY COAT OVER PRIMARY COAT.
3. THICKNESS OF SHEET PILE SHALL BE 10.50mm ($\pm 0.50\text{mm}$)
4. CONCERNED CONSULTANT & EXECUTIVE ENGINEER MUST ENSURE SHEET PILE LOCKING & LENGTH.
5. TOP LEVEL OF EVERY CONNECTED SHEET PILES MUST HAVE SAME LEVEL.

Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH
KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.

NOTES

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

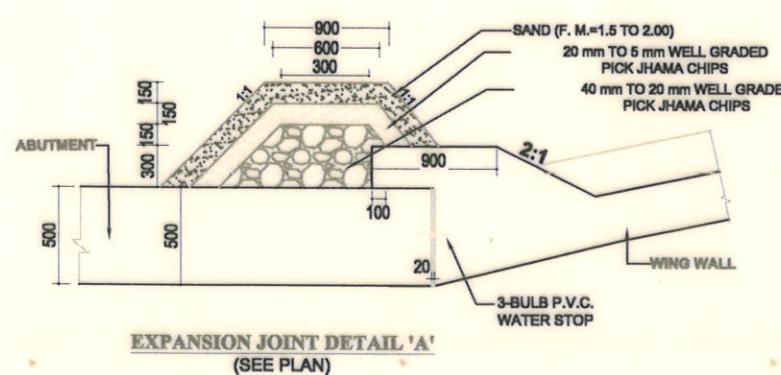
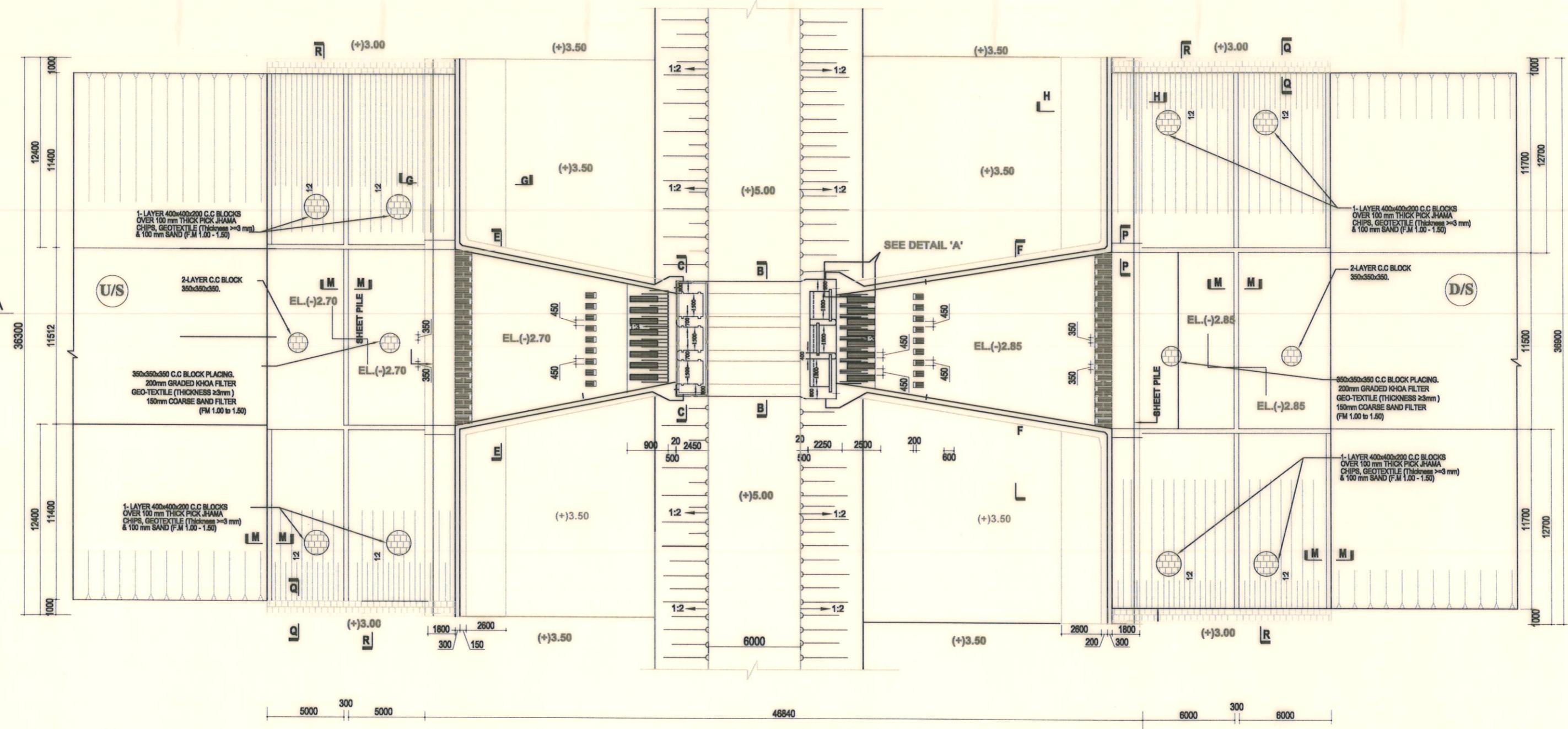
Mohammad Saif Uddin

CHECKED & APPROVED BY :

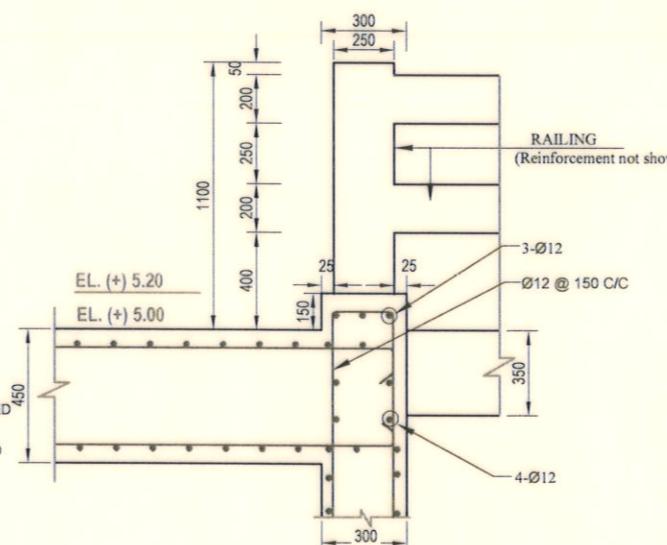
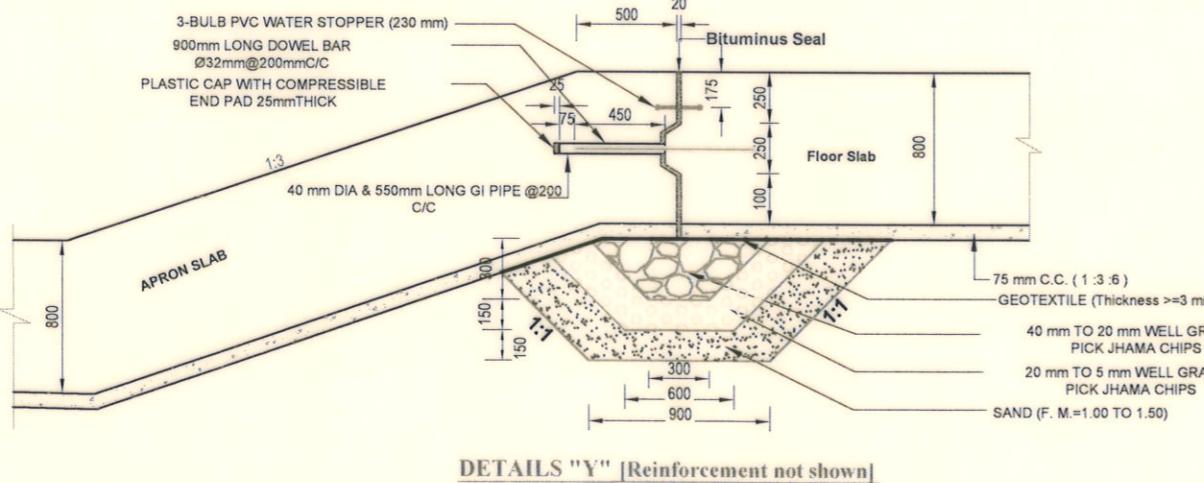
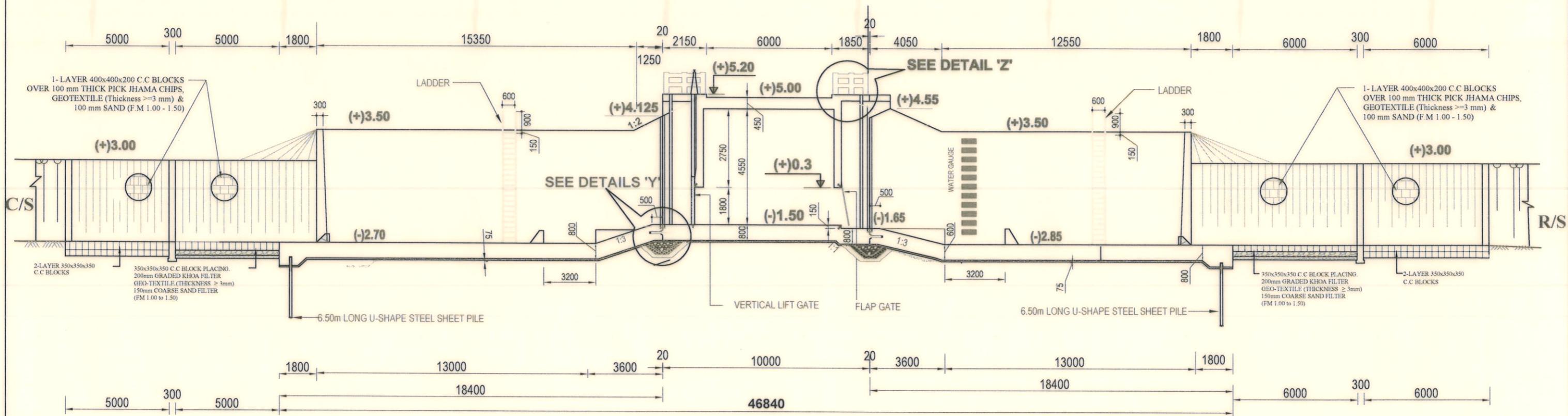
(JAKARIA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE

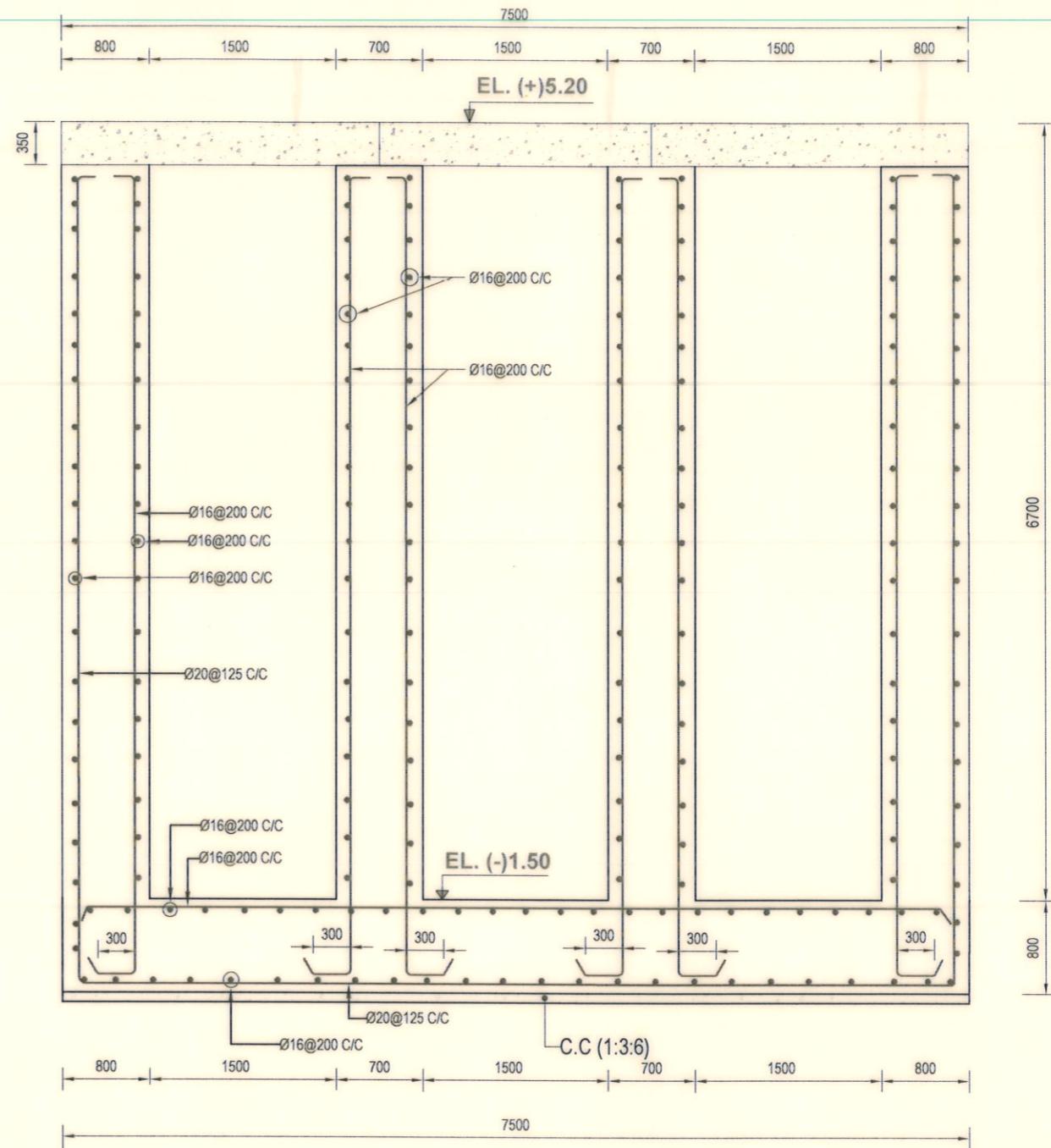
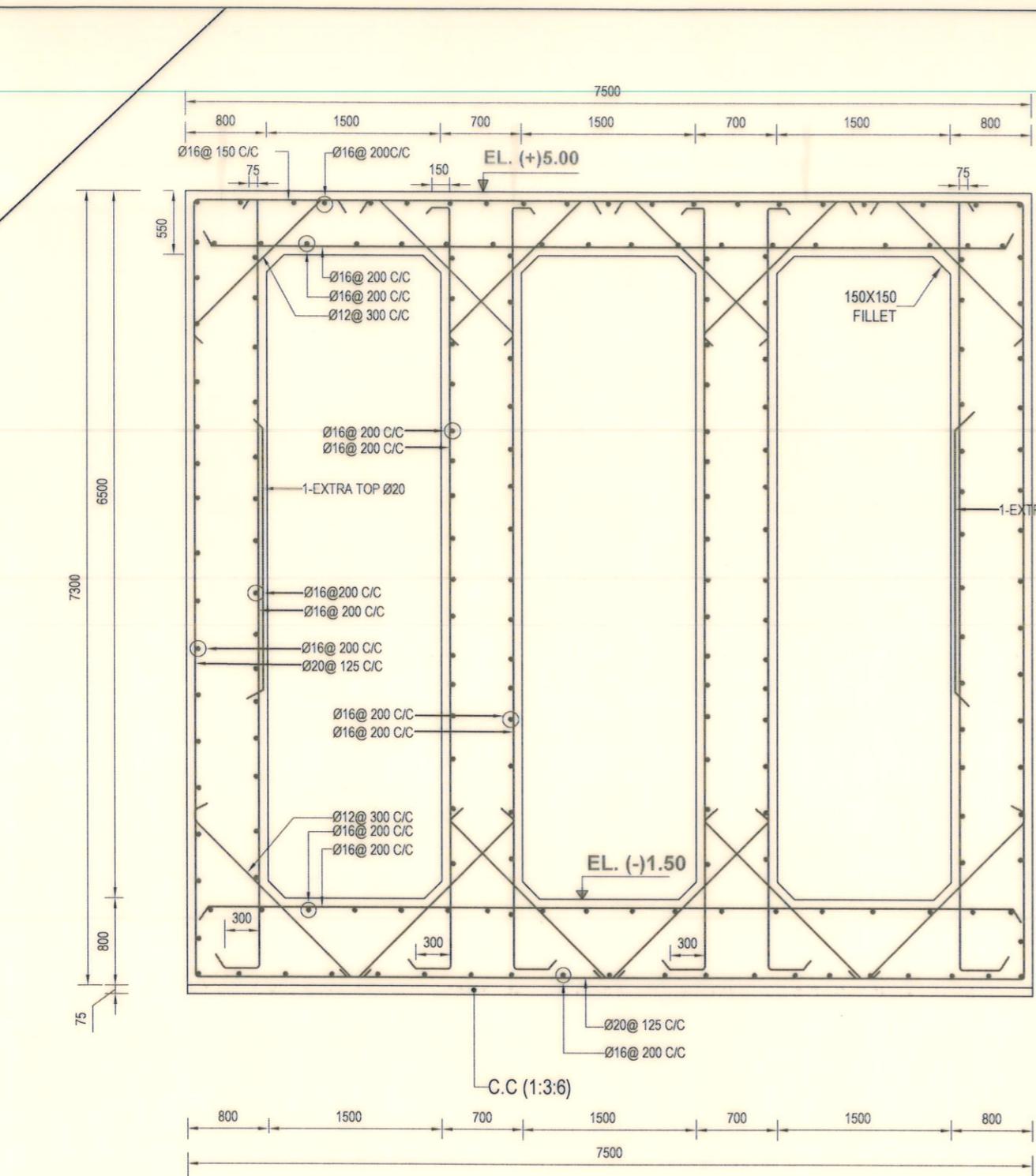
DATE:15/05/2023 DWG. NO.:DC-8-0377-05/23



Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGNED BY : (SAKIB BIN RAFI), AE	APPROVED BY : (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY : (JAKARIA PERVEZ), EE	 (MOHAMMAD SAIF UDDIN), SE
DATE:15/05/2023 DWG. NO.:DC-8-0377-06/23	



Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
SECTIONAL ELEVATION & DETAILS	
DESIGNED BY : (SAKIB BIN RAFI), AE	APPROVED BY : (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY : (JAKARIA PERVEZ), EE	
DATE:15/05/2023 DWG. NO.:DC-8-0377-07/23	



Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH
KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2, BWDB , SATKHIRA.

REINFORCEMENT DETAILS OF BARREL & EXTENDED PART (U/S & D/S)

DESIGNED BY :

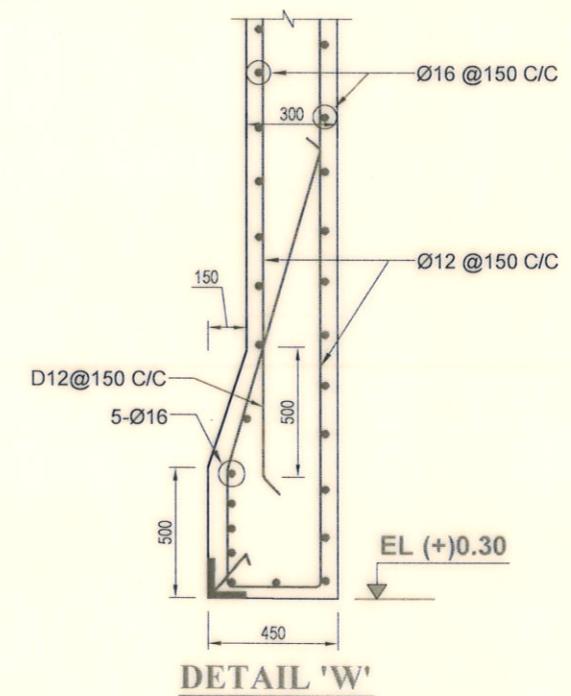
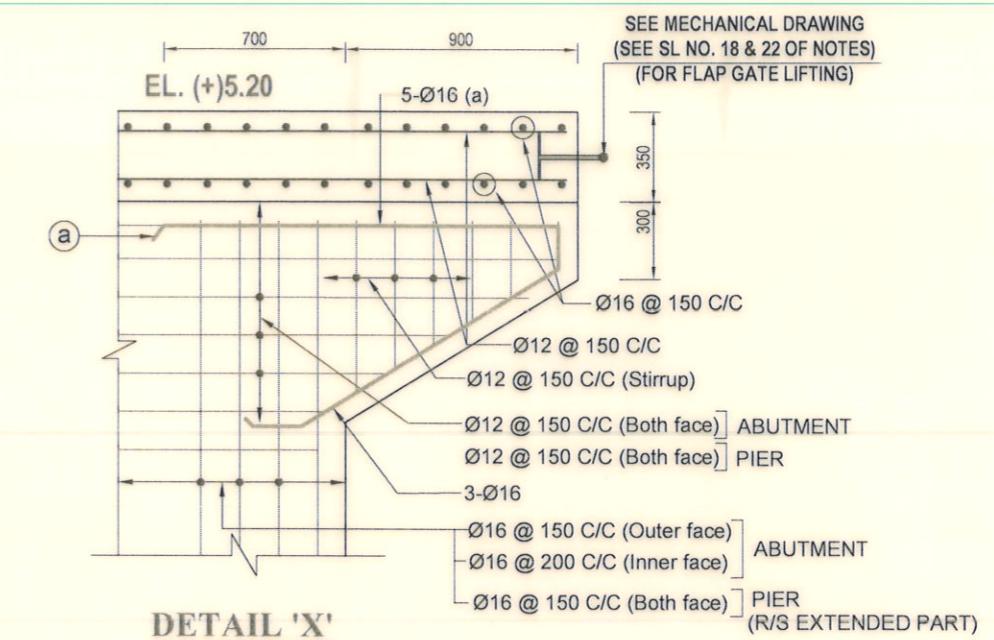
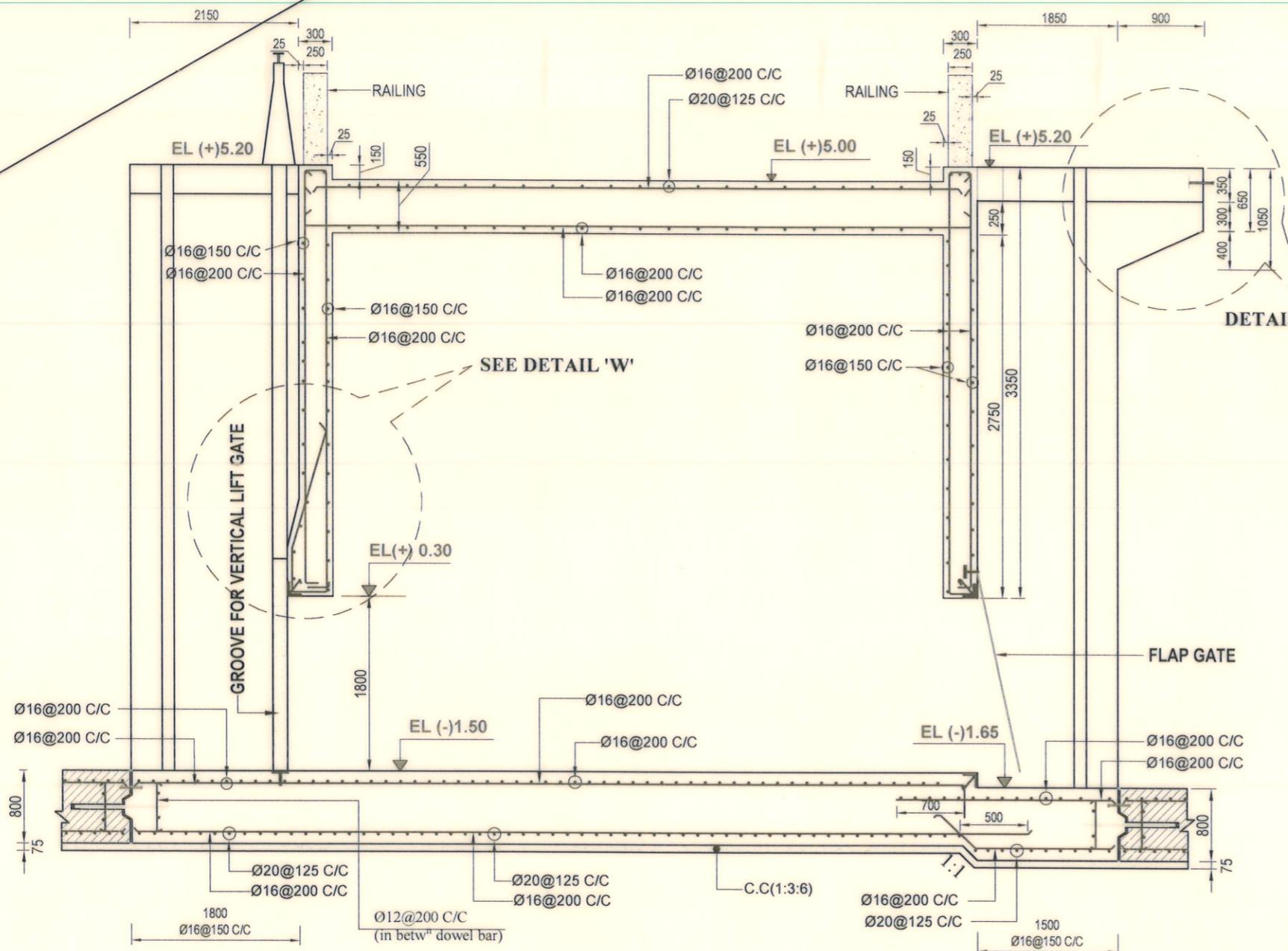
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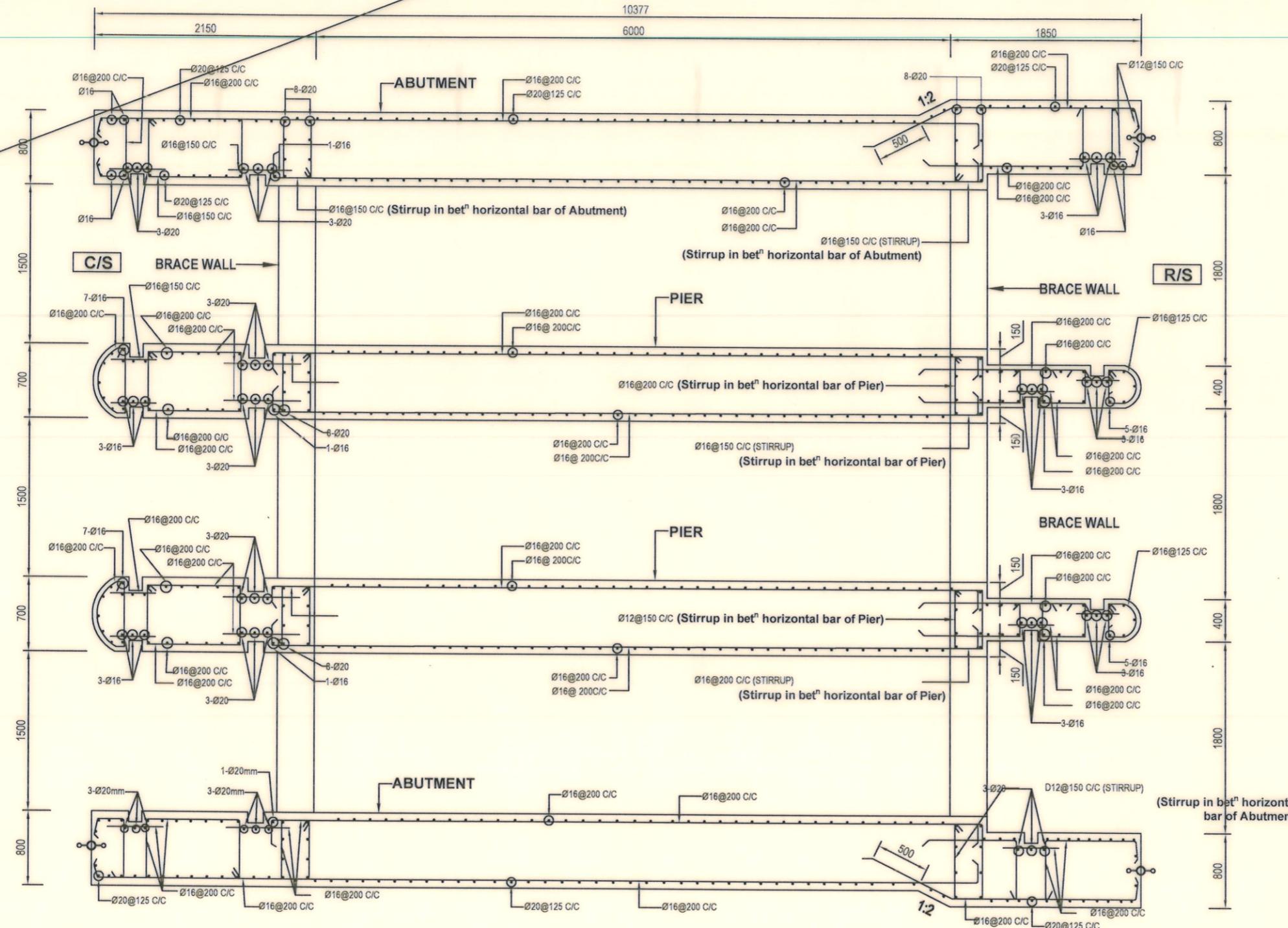
CHECKED & APPROVED BY :

(JAKARIA PERVEZ), EE

APPROVED BY :

(MOHAMMAD SAIF UDDIN), SE





REINFORCEMENT DETAILS OF ABUTMENT & PIER ACROSS THE CENTER LINE OF VENT OPENING

Scale : Not To Scale

Bangladesh Water Development BoardOffice of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

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KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.

REINFORCEMENT DETAILS OF ABUTMENT, PIER & BRACE WALL ABOVE VENT OPENING

DESIGNED BY :

(SAKIB BIN RAFI), AE

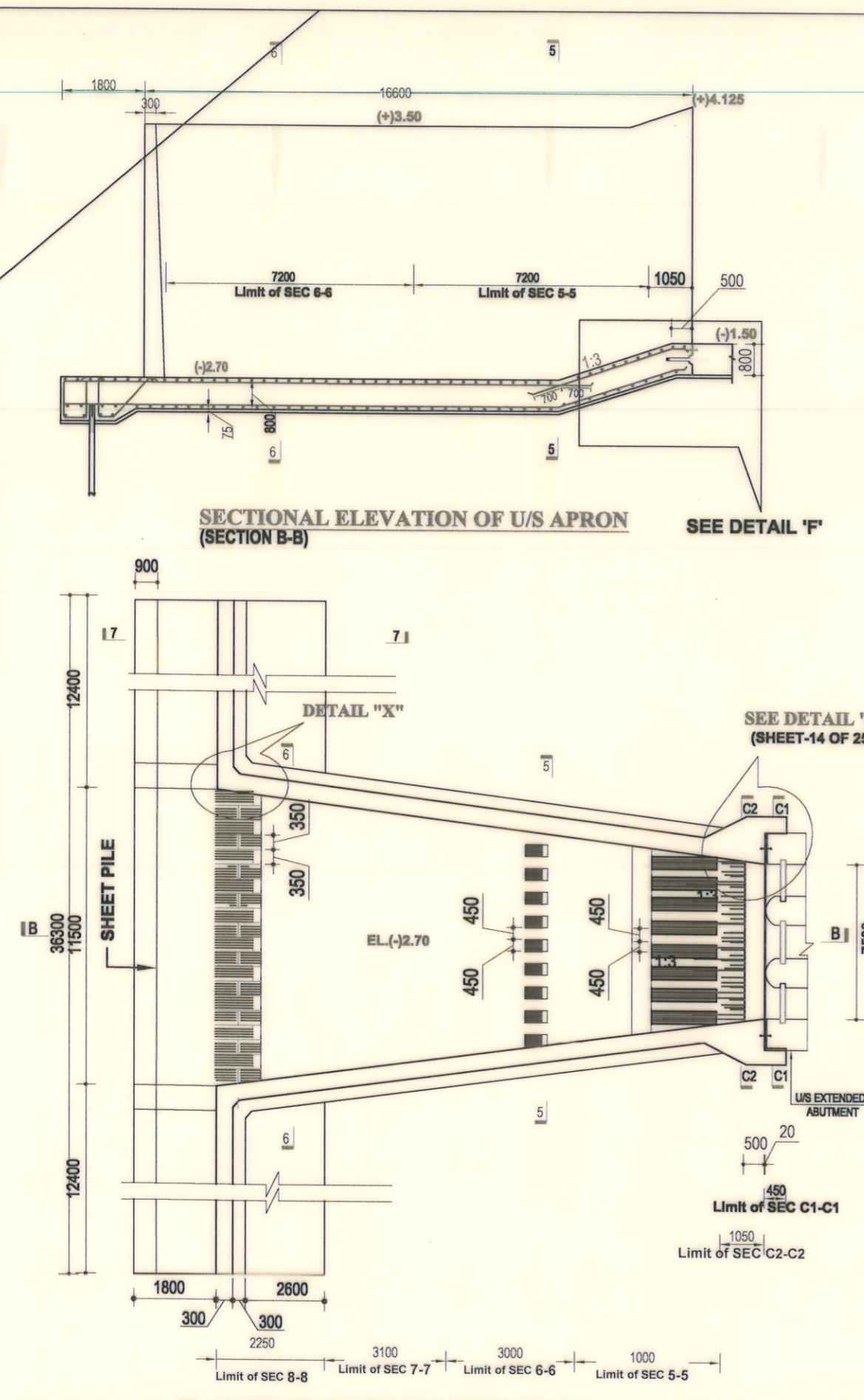
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(MOHAMMAD SAIF UDDIN), SE

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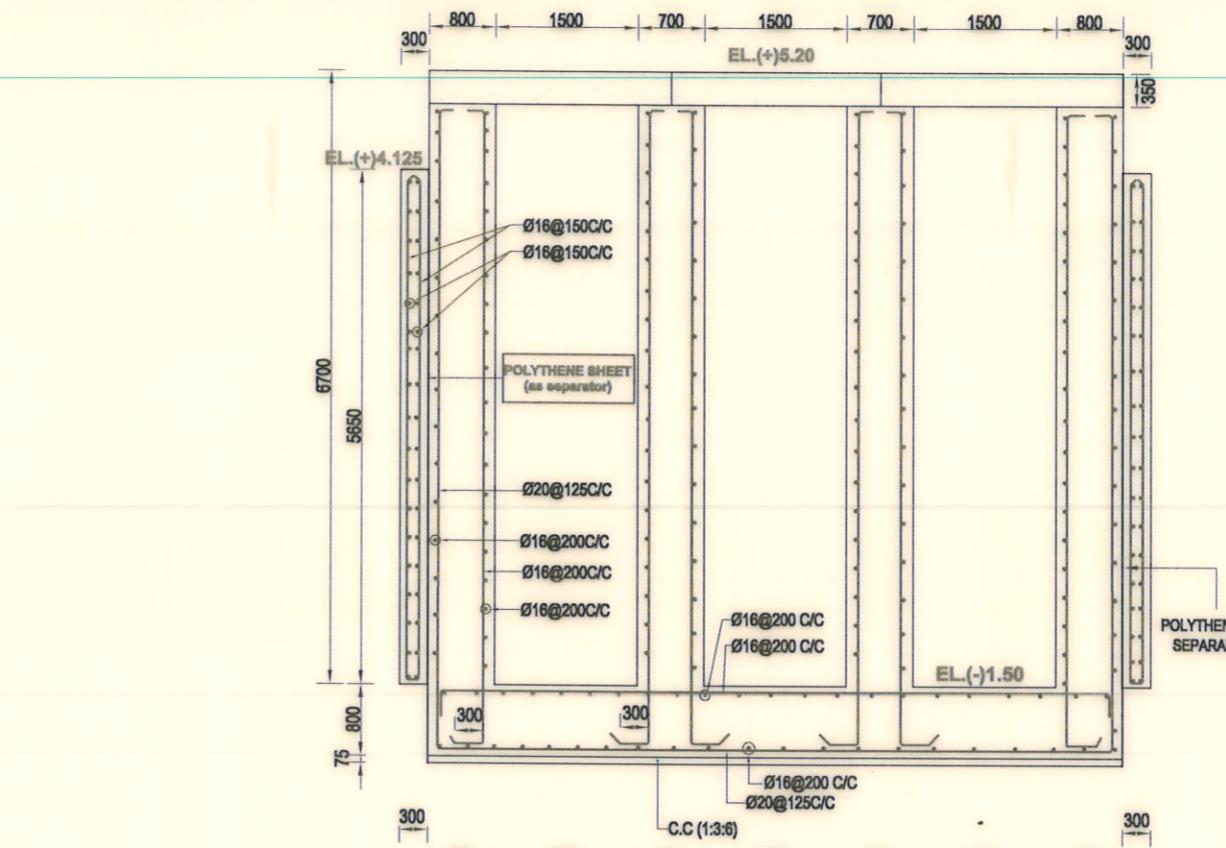
(JAKARIA PERVEZ), EE

DATE:15/05/2023 DWG. NO.:DC-8-0377-10/23

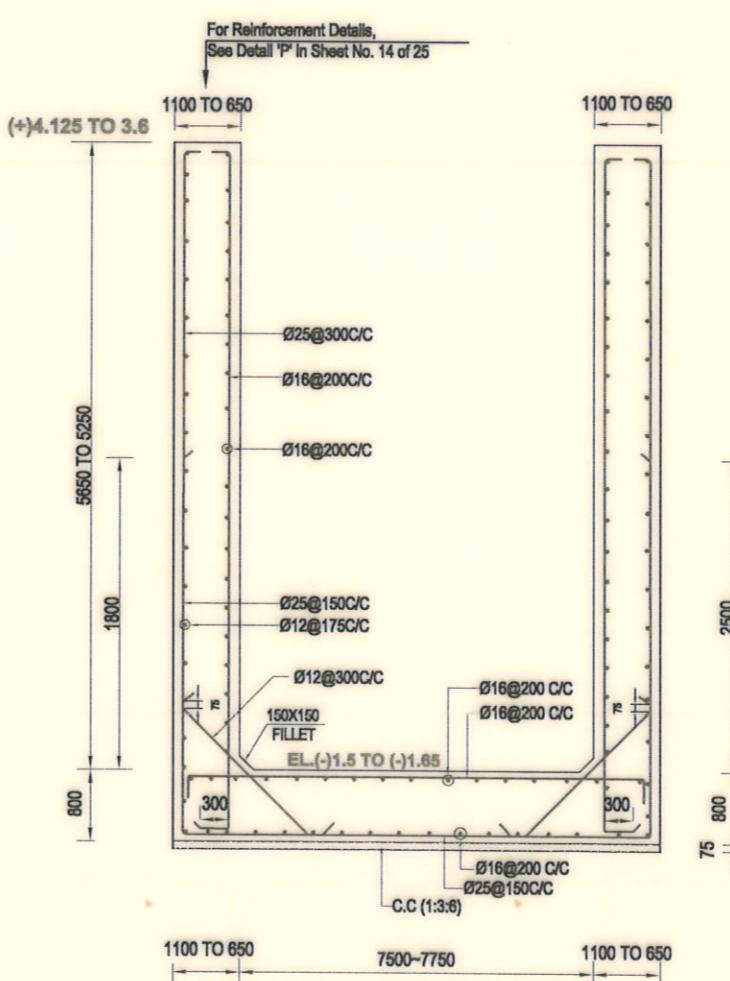


PLAN OF U/S APRON & RETURN WALL

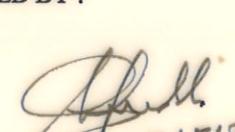
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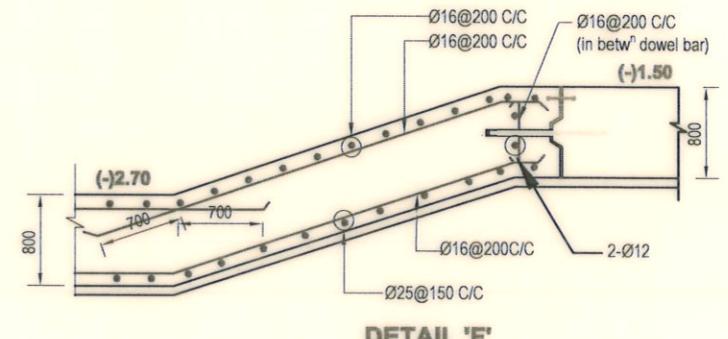
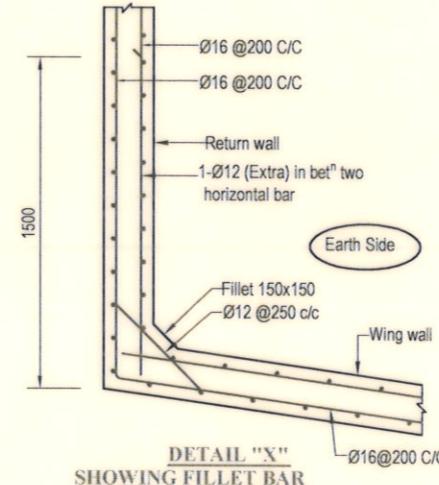
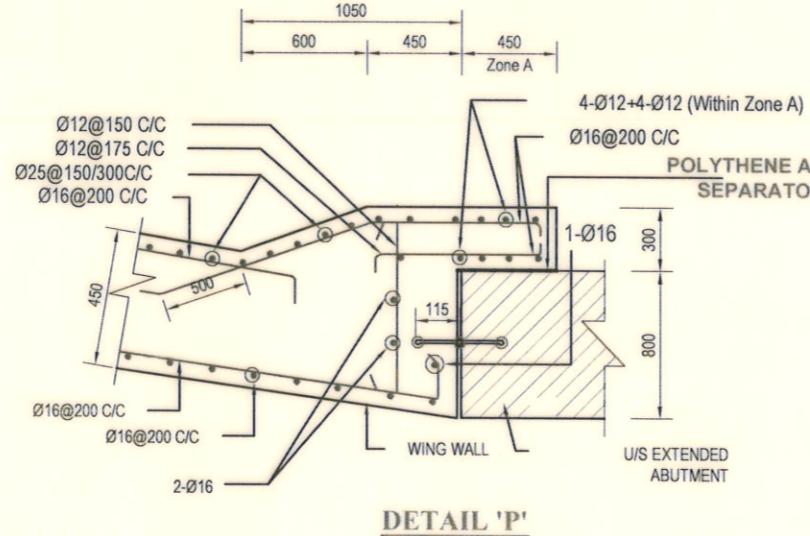
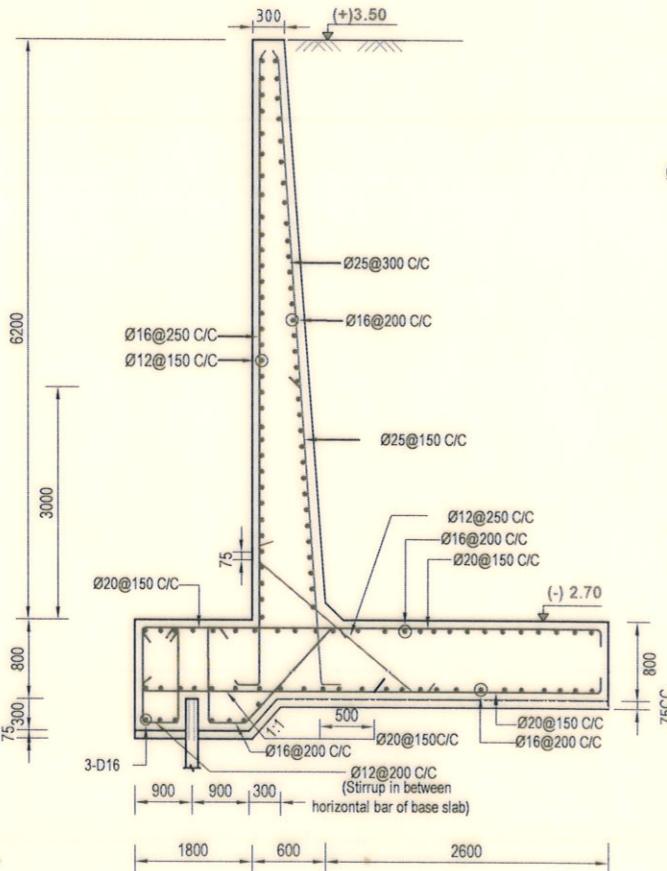
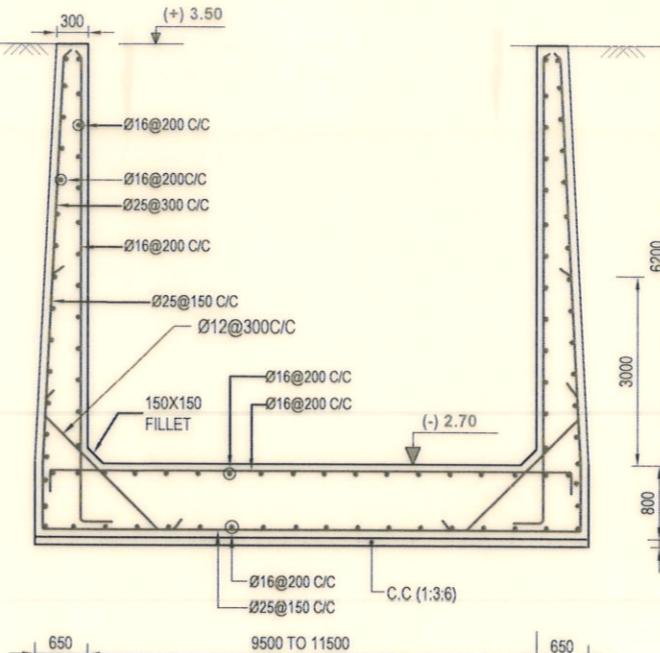
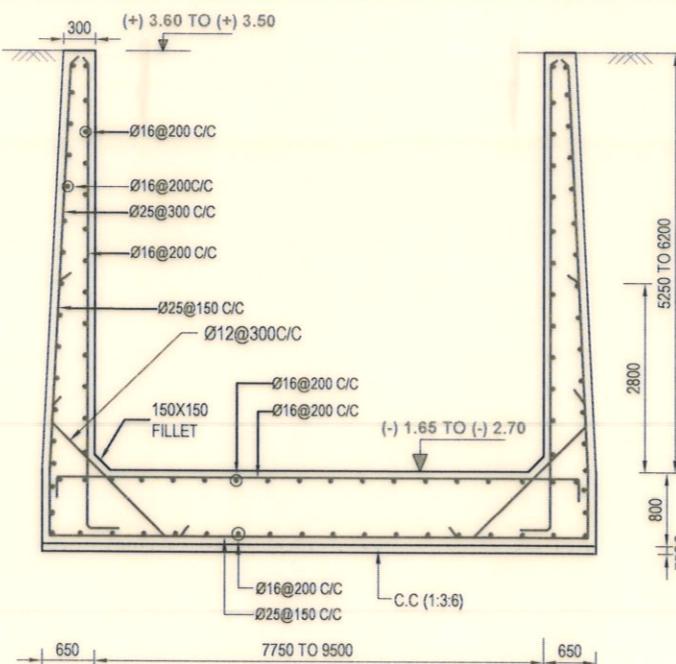


SECTION C-C₁ (VALID FOR 450 LENGTH IN BARREL PORTION)



**SECTION C₂-C₂ (VALID FOR 1050 LENGTH
IN WING WALL PORTION)**

<p style="text-align: center;">Bangladesh Water Development Board</p> <p style="text-align: center;">Office of the Superintending Engineer</p> <p style="text-align: center;">Design Circle-8</p>	
<p>DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT</p>	
<p>DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.</p>	
<p>REINFORCEMENT DETAILS OF U/S APRON AND WING WALL</p>	
<p>DESIGNED BY :</p> <p> (SAKIB BIN RAFI), AE</p>	<p>APPROVED BY :</p> <p> 15/5/23</p>
<p>CHECKED & APPROVED BY :</p> <p> (JAKARIA PERVEZ), EE</p>	<p>(MOHAMMAD SAIF UDDIN), SE</p>
<p>DATE:15/05/2023 DWG. NO :DC-8-0377-11/23</p>	



Bangladesh Water Development Board
Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

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REINFORCEMENT DETAILS OF U/S APRON, WING WALL & RETURN WALL

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

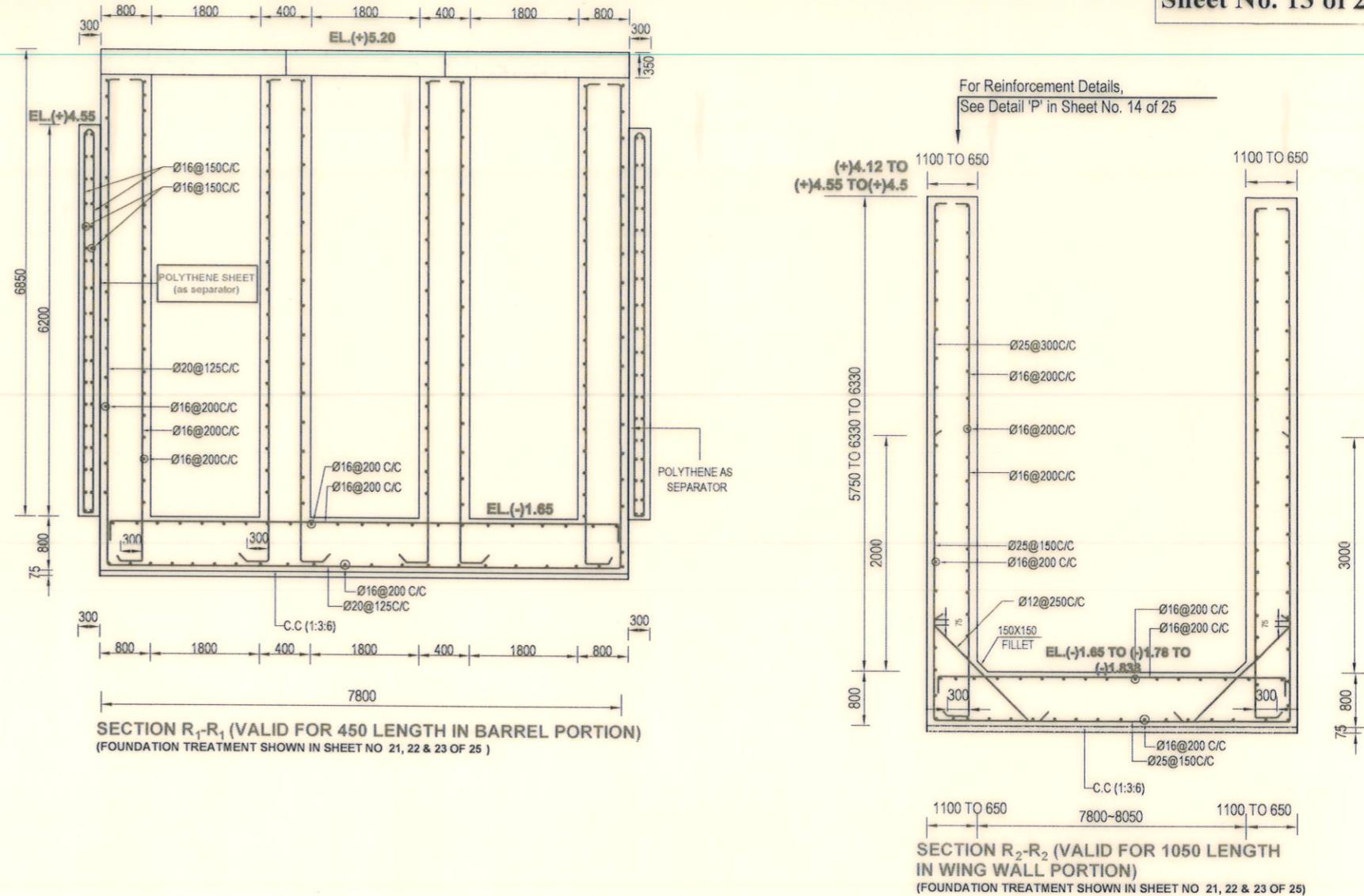
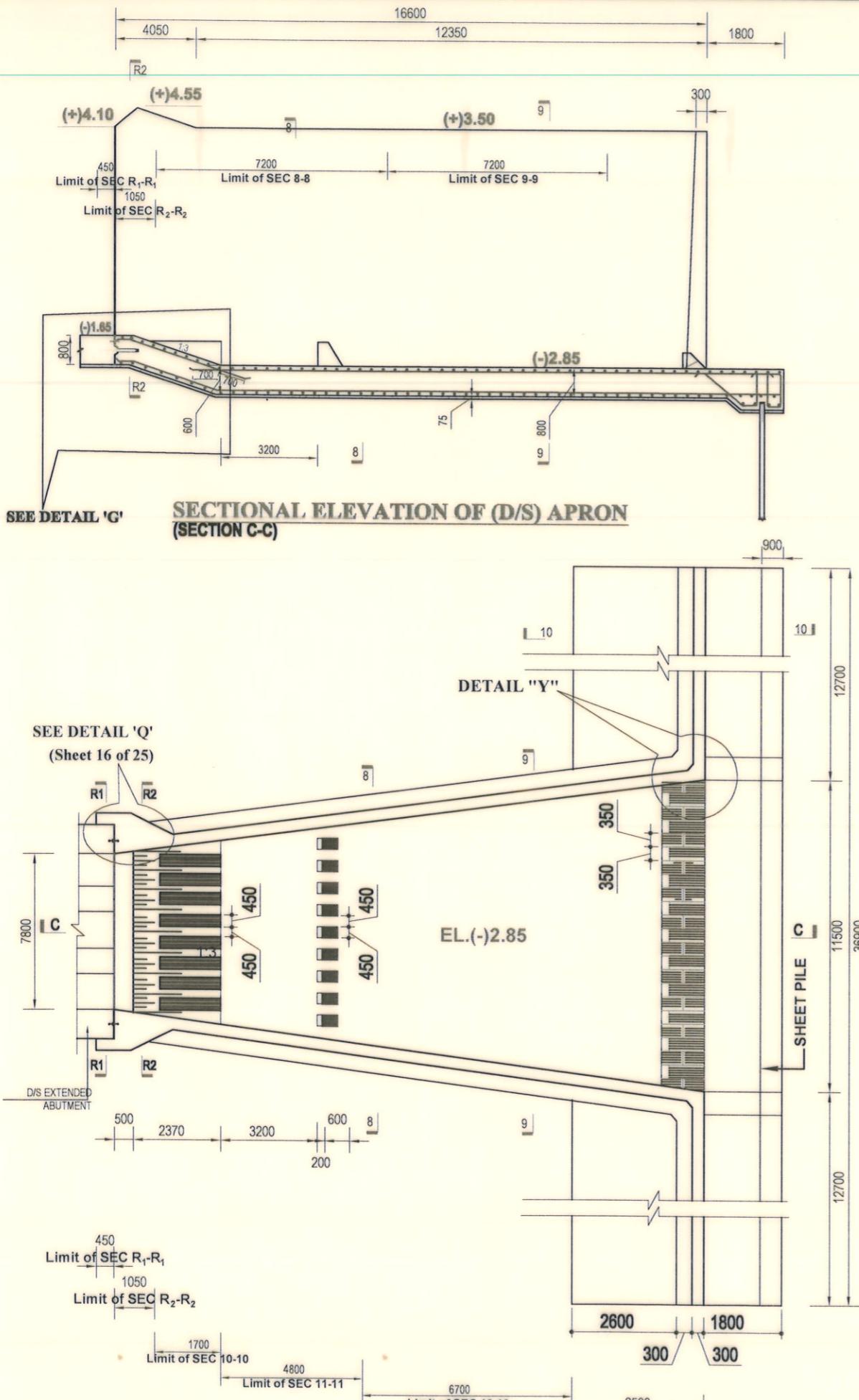
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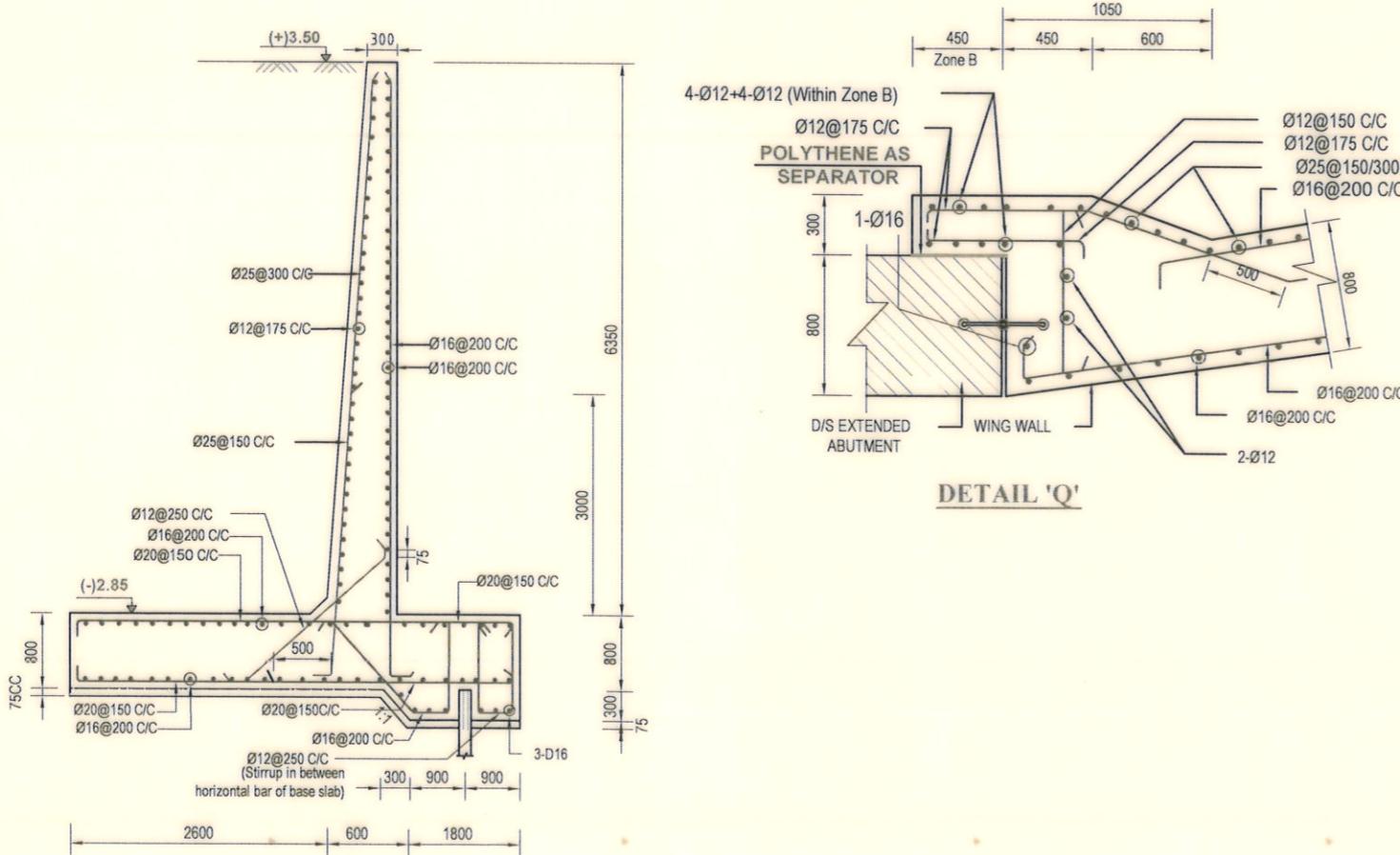
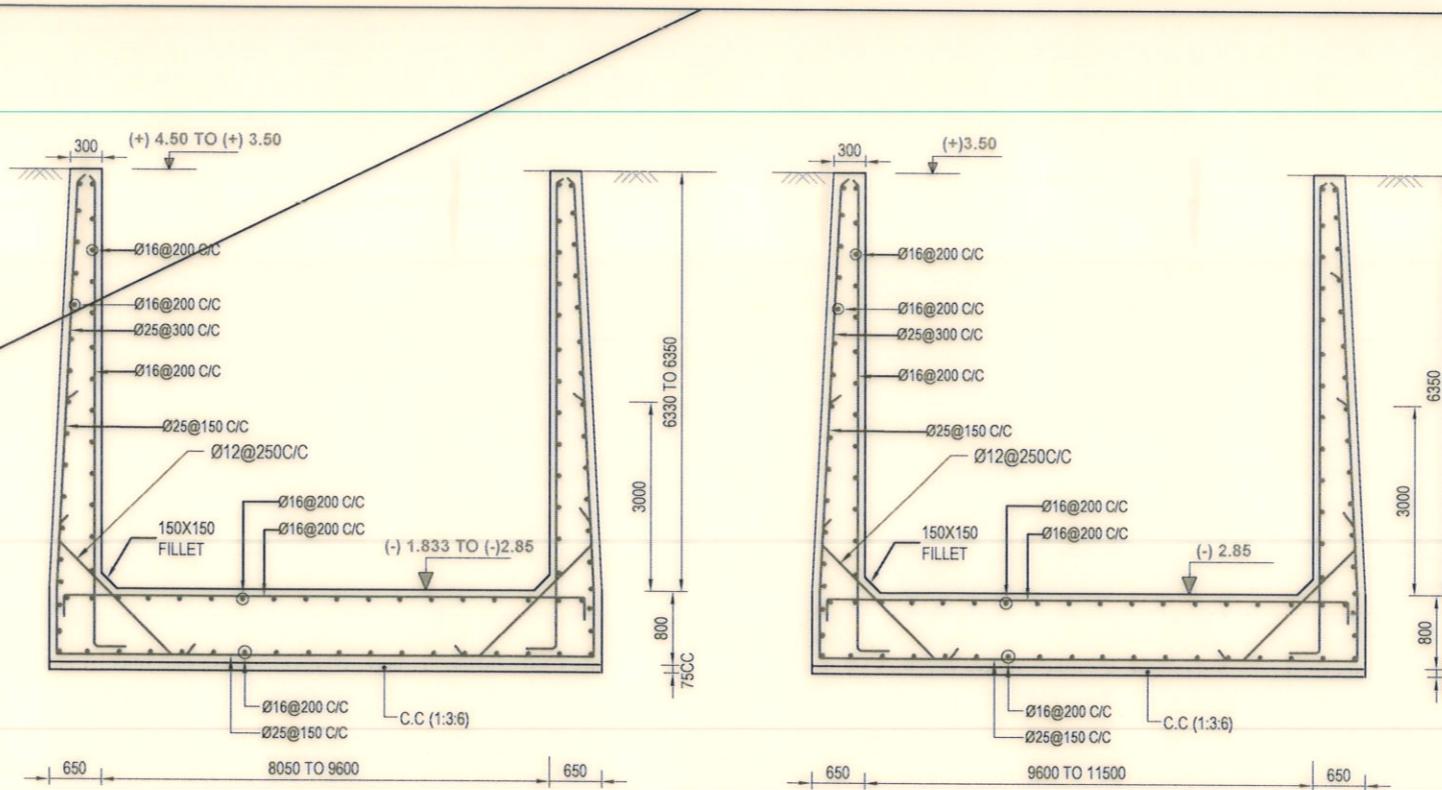
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(MOHAMMAD SAIF UDDIN), SE

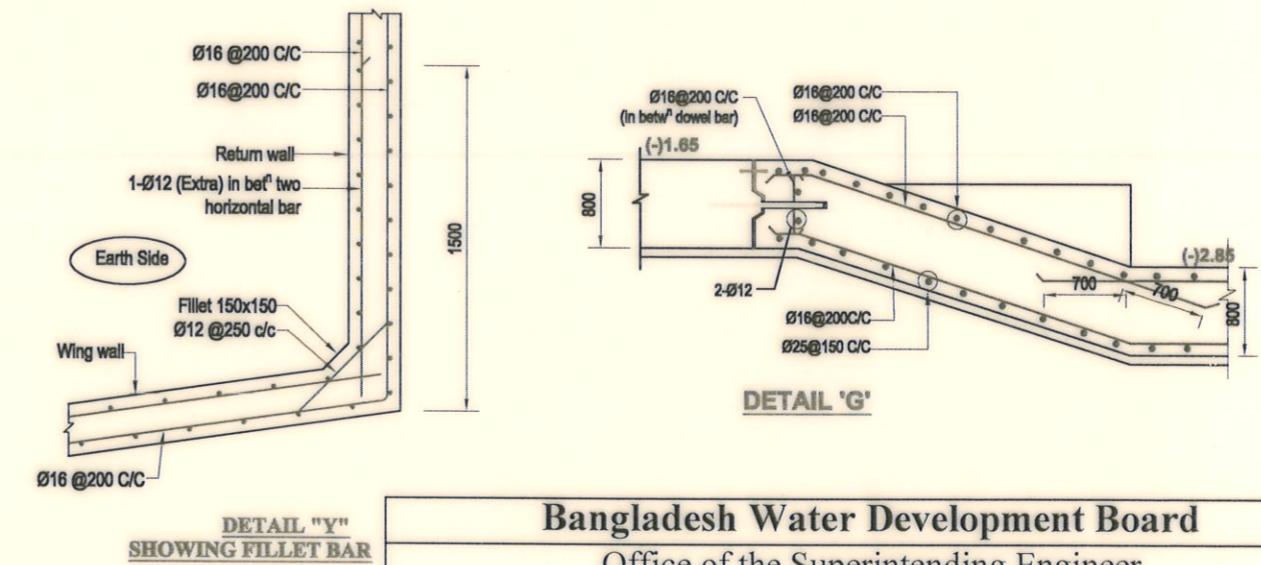
DATE:15/05/2023 DWG. NO.:DC-8-0377-12/23



Bangladesh Water Development Board Office of the Superintending Engineer Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
REINFORCEMENT DETAILS OF D/S APRON AND WING WALL	
DESIGNED BY :	APPROVED BY :
(SAKIB BIN RAFI), AE	(MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY :	
(JAKARIA PERVEZ), EE	
DATE:15/05/2023 DWG. NO.:DC-8-0377-13/23	



Scale : Not To Scale

**Bangladesh Water Development Board**Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH
KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2, BWDB , SATKHIRA.

REINFORCEMENT DETAILS OF D/S APRON, WING WALL & RETURN WALL

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

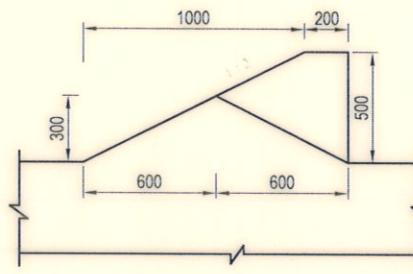
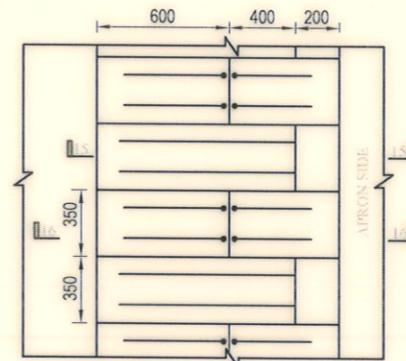
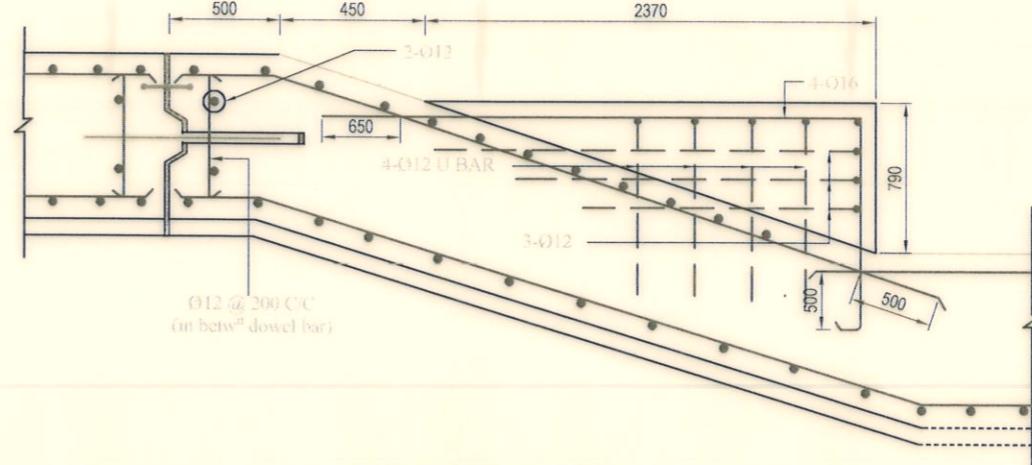
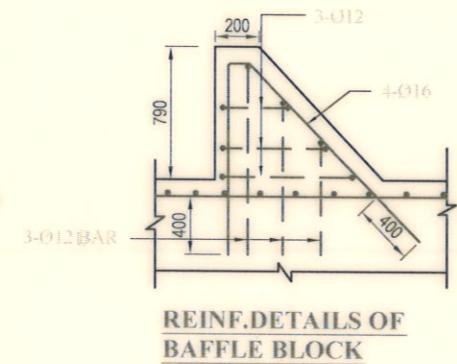
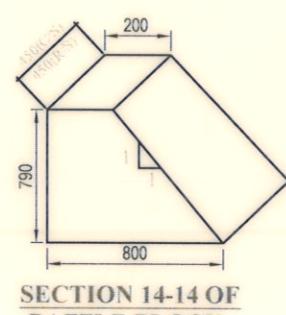
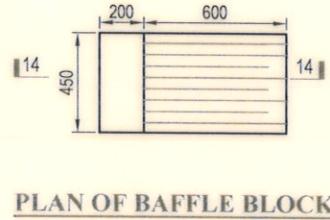
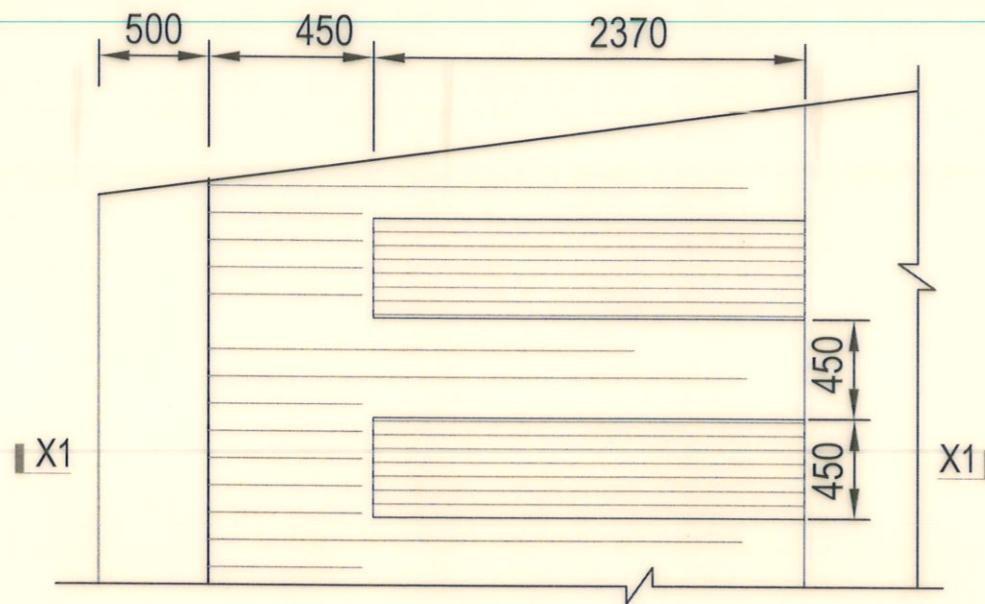
15/5/23

CHECKED & APPROVED BY :

(JAKARIA PERVEZ), EE

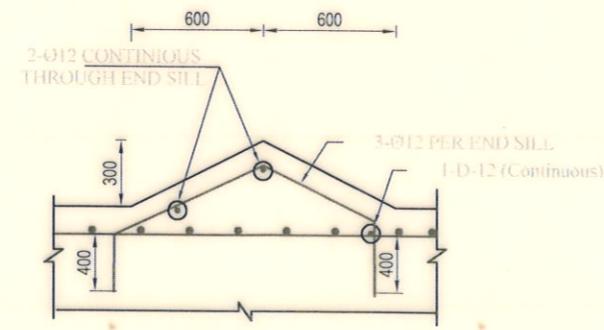
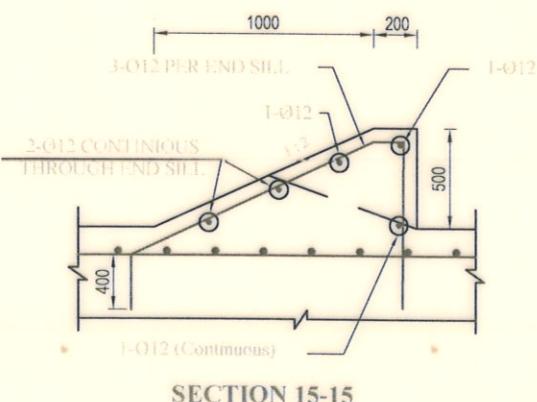
(MOHAMMAD SAIF UDDIN), SE

DATE:15/05/2023 DWG. NO.:DC-8-0377-14/23



BAFFLE BLOCK DETAILS

(Concrete Outline & Reinforcement)



Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.

CHUTE , ENDSILL & BAFFLE REINFORCEMENT DETAILS

DESIGNED BY :

(SAKIB BIN RAFI), AE

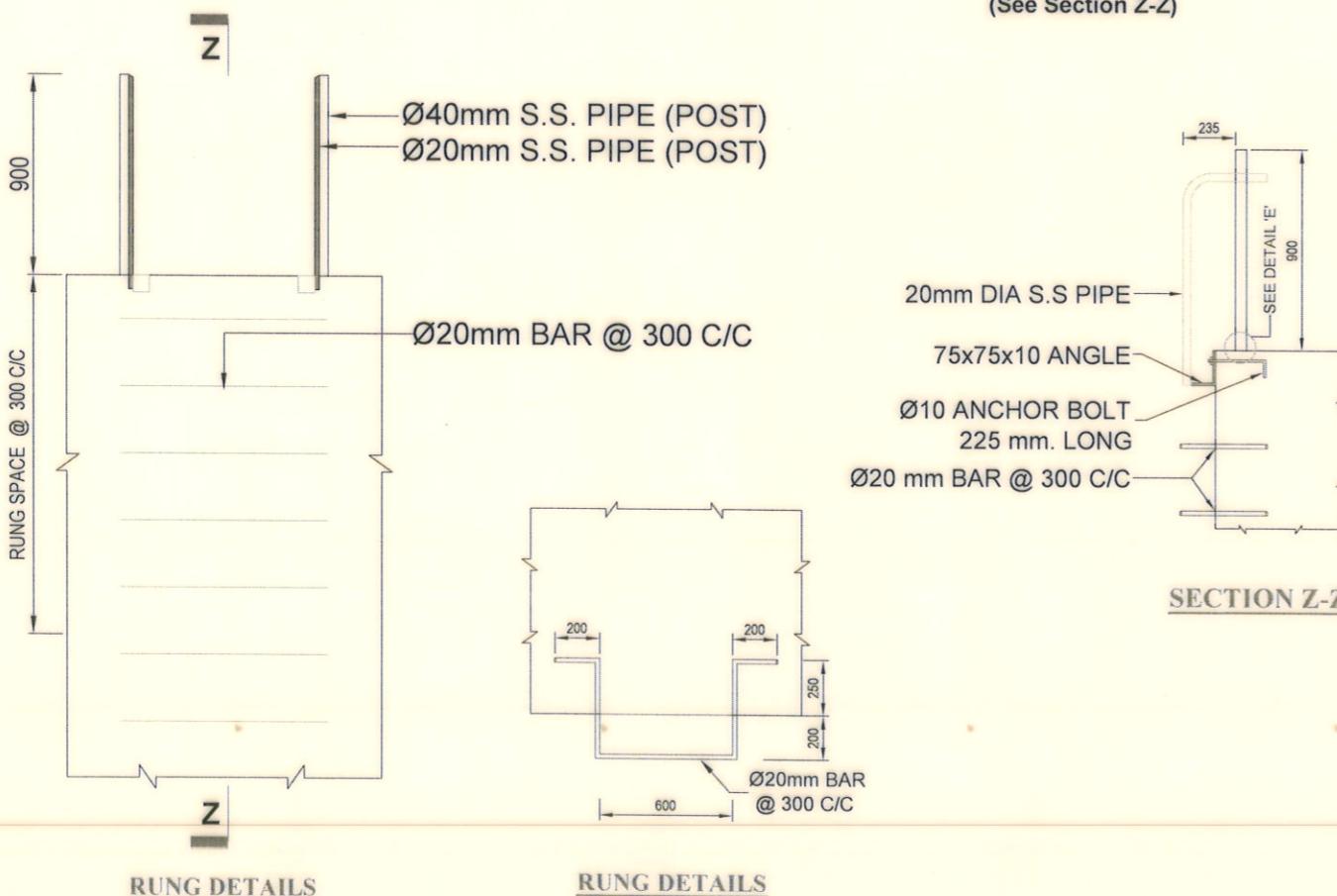
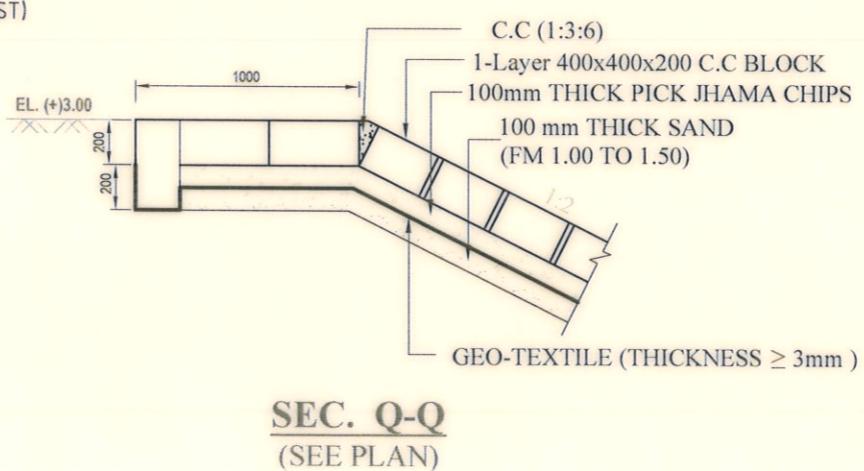
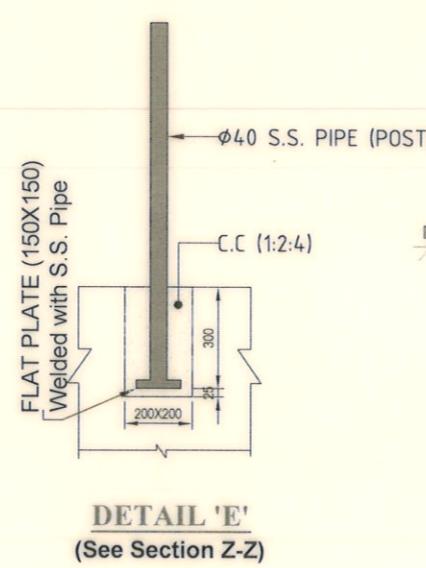
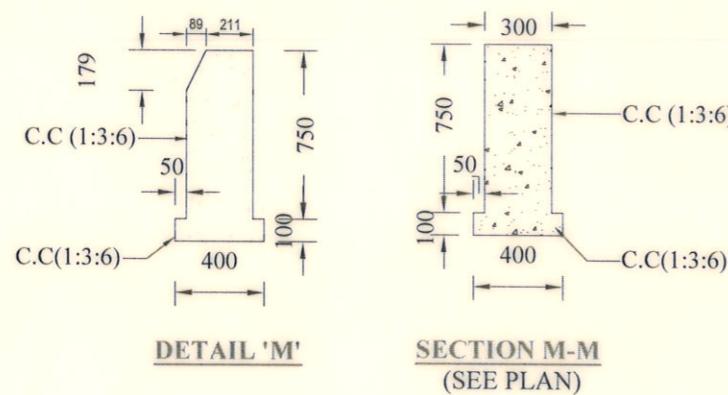
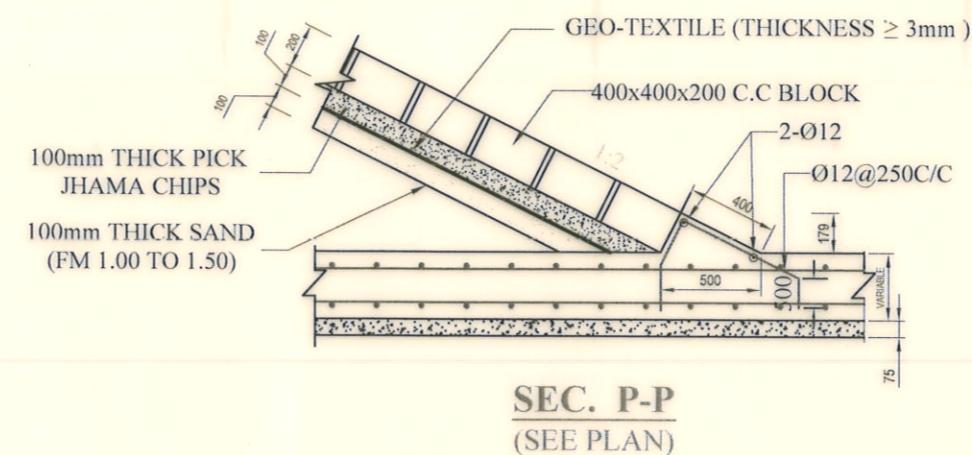
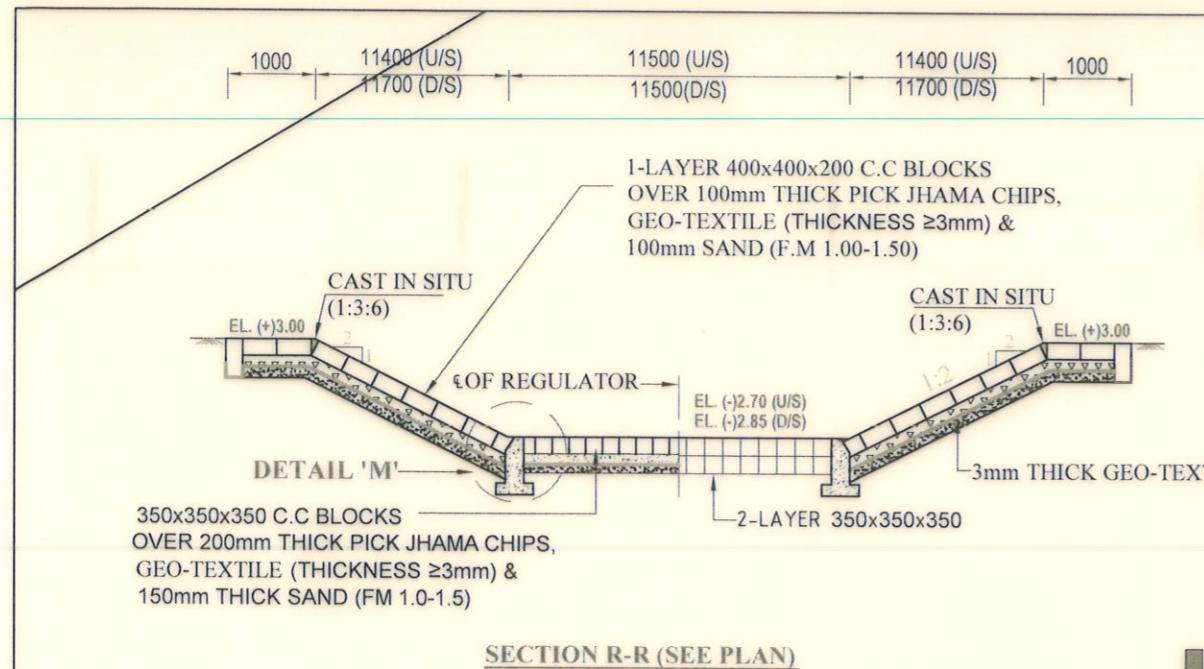
APPROVED BY :

15/5/23

CHECKED & APPROVED BY :

(JAKARIA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE



Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH
KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.

DETAIL OF PROTECTIVE WORKS & OTHERS

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

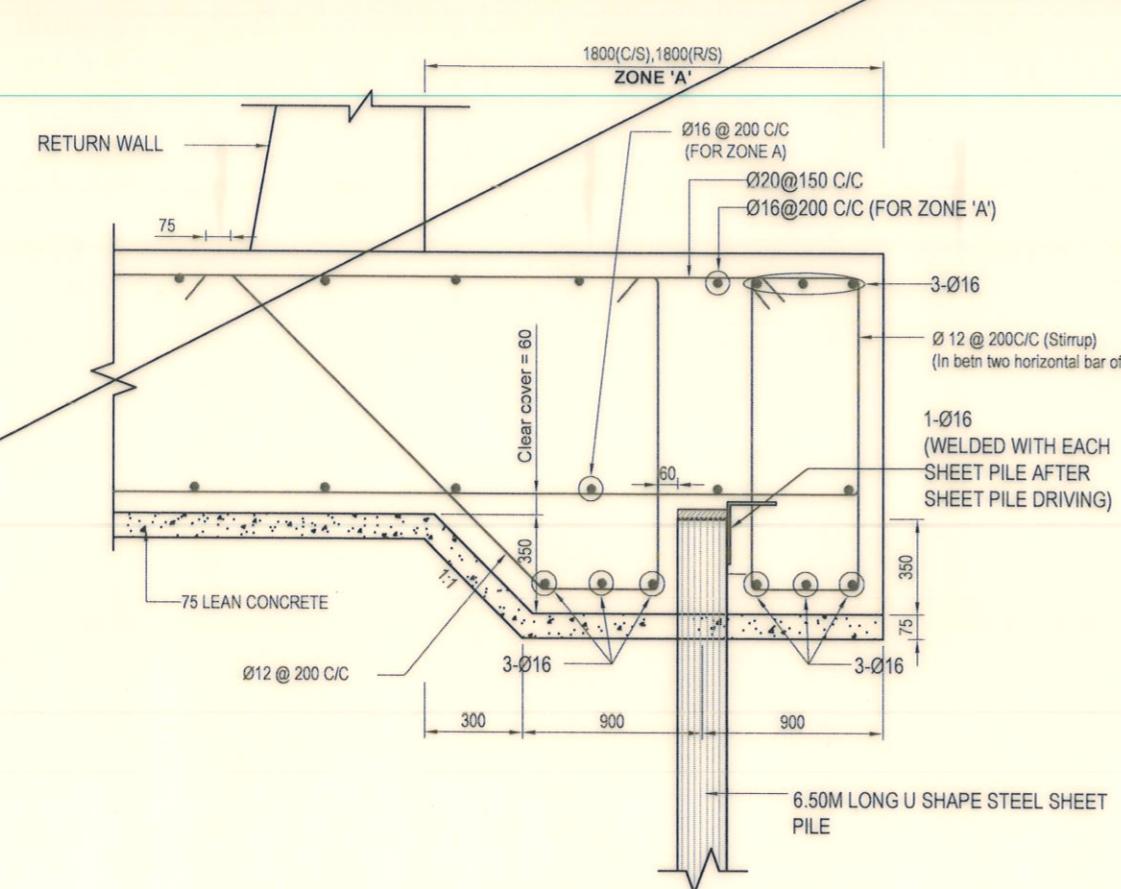
15/5/23

CHECKED & APPROVED BY :

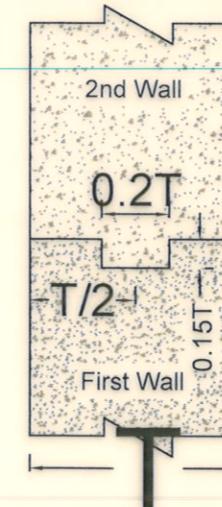
(JAKARIA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE

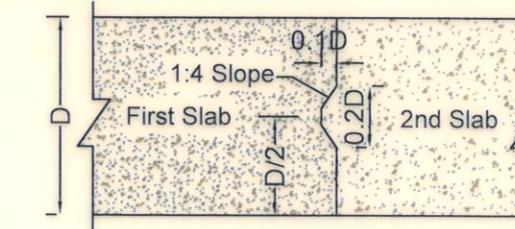
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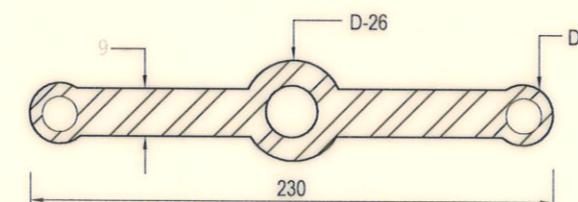
**DETAILS OF SHEET PILE CAP
(UNDER APRON)
(SECTION S-S)**



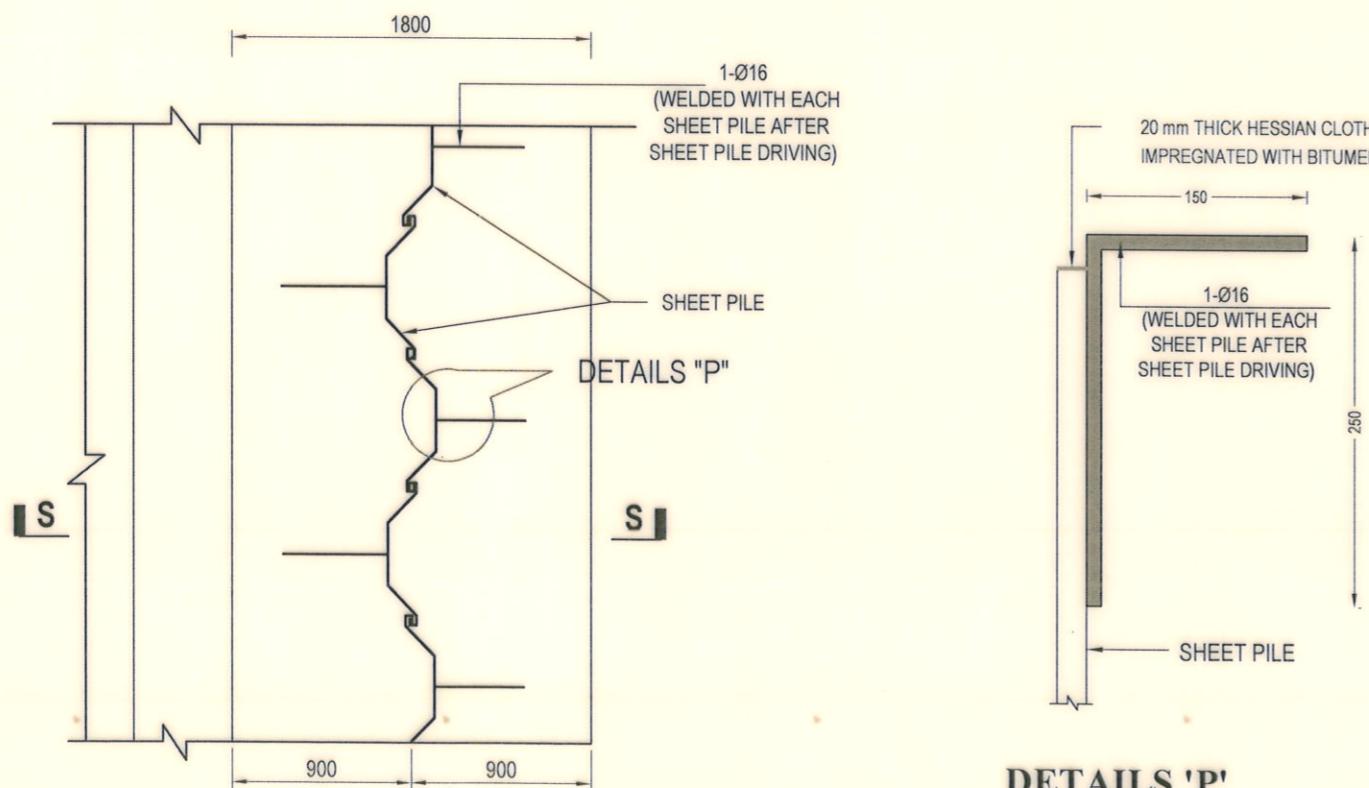
**DETAILS OF CONSTRUCTION
JOINT (FOR WALL)**



**DETAILS OF CONSTRUCTION
JOINT (FOR SLAB)**



**DETAILS OF P.V.C WATER
STOPPER**

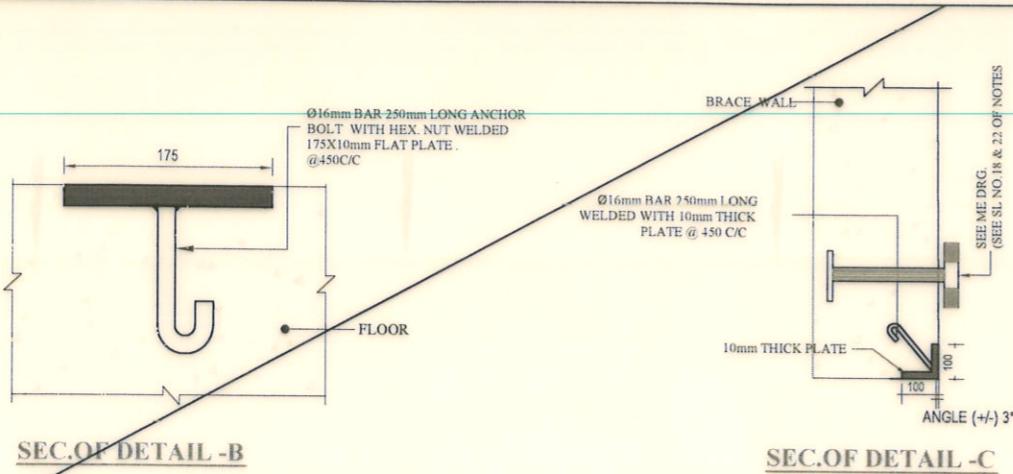
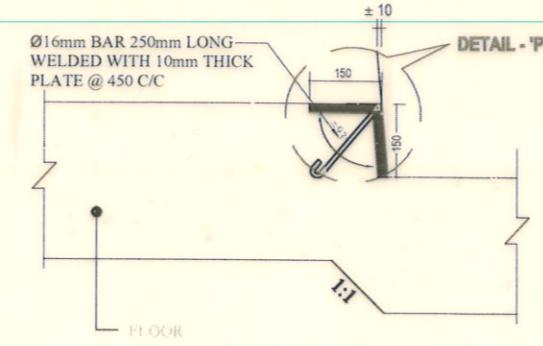
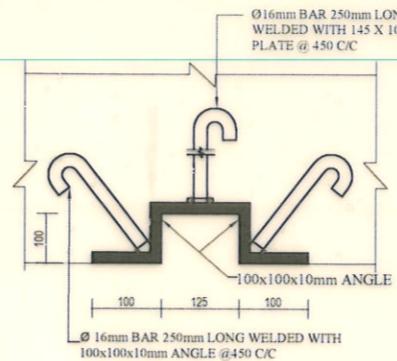
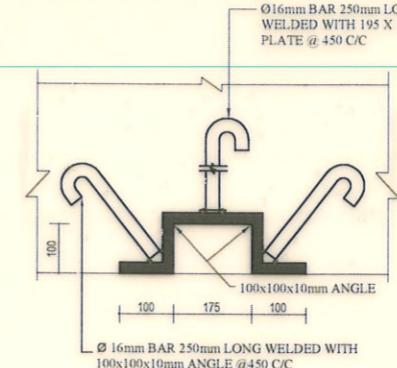
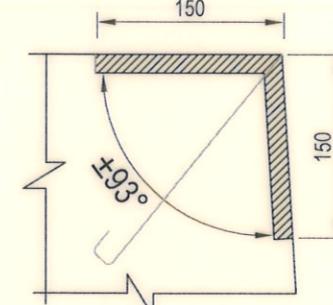
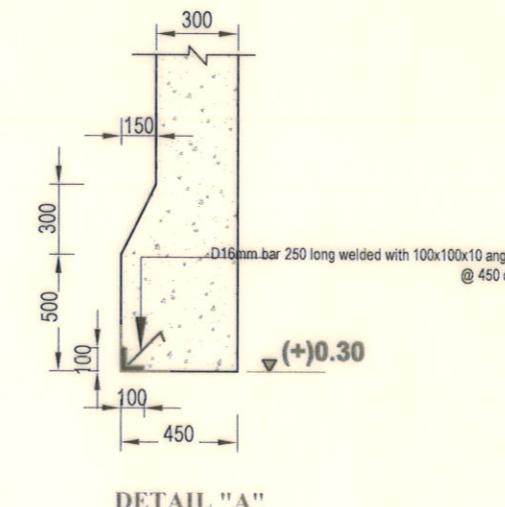
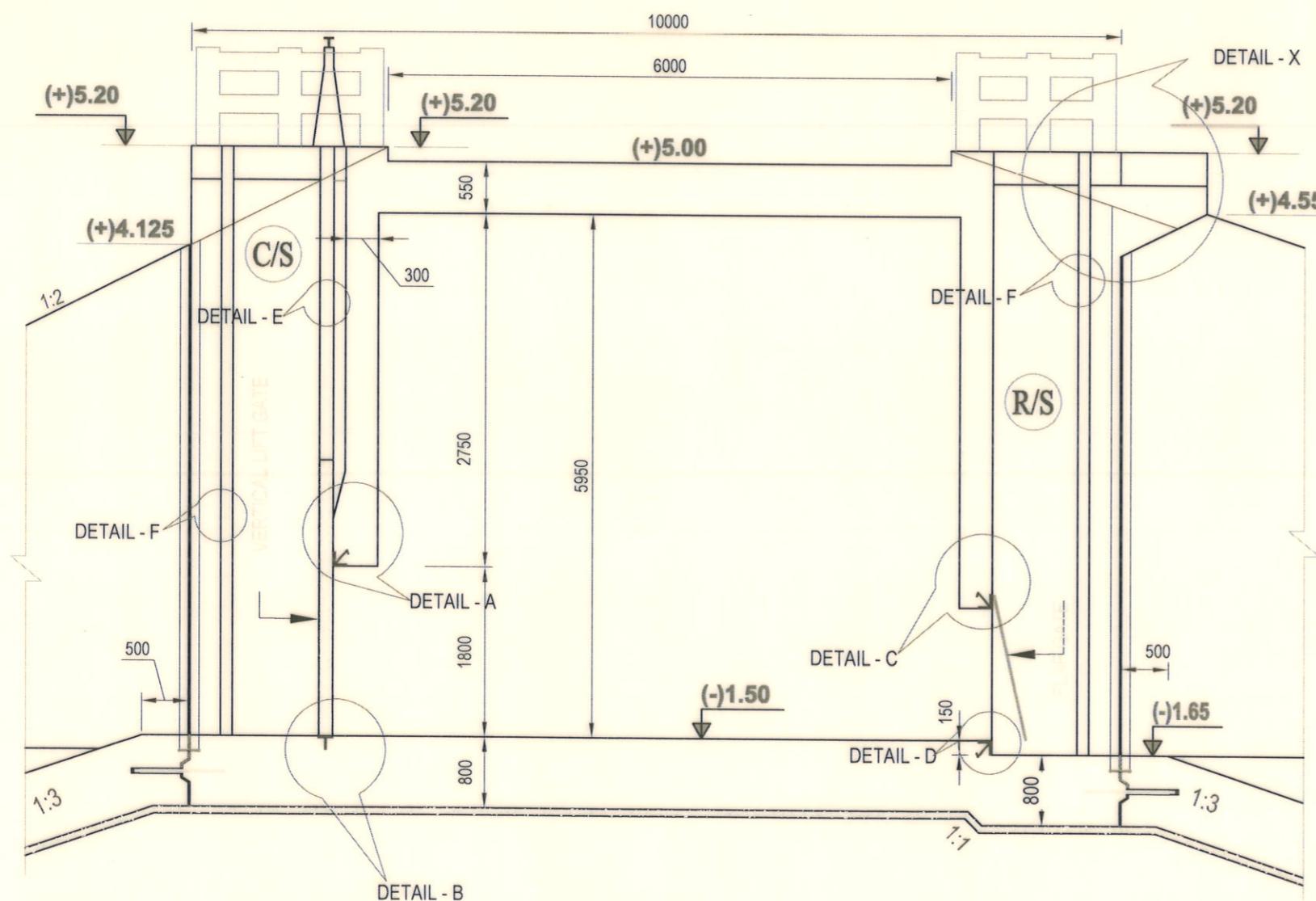


DETAILS 'P'

LAYOUT PLAN OF SHEET PILE

Scale : Not To Scale

Bangladesh Water Development Board	
Office of the Superintending Engineer Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
DETAIL OF SHEET PILE & OTHERS	
DESIGNED BY :	APPROVED BY :
 (SAKIB BIN RAFI), AE	 (MOHAMMAD SAIF UDDIN), SE
CHECKED & APPROVED BY :	
 (JAKARIA PERVEZ), EE	
DATE:15/05/2023 DWG. NO.:DC-8-0377-17/23	

**SEC.OF DETAIL - C****SEC.OF DETAIL - D****SEC.OF DETAIL - F****SEC.OF DETAIL - F****Bangladesh Water Development Board**Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.

MISCELLANEOUS METAL DETAIL**DESIGNED BY :**

(SAKIB BIN RAFI), AE

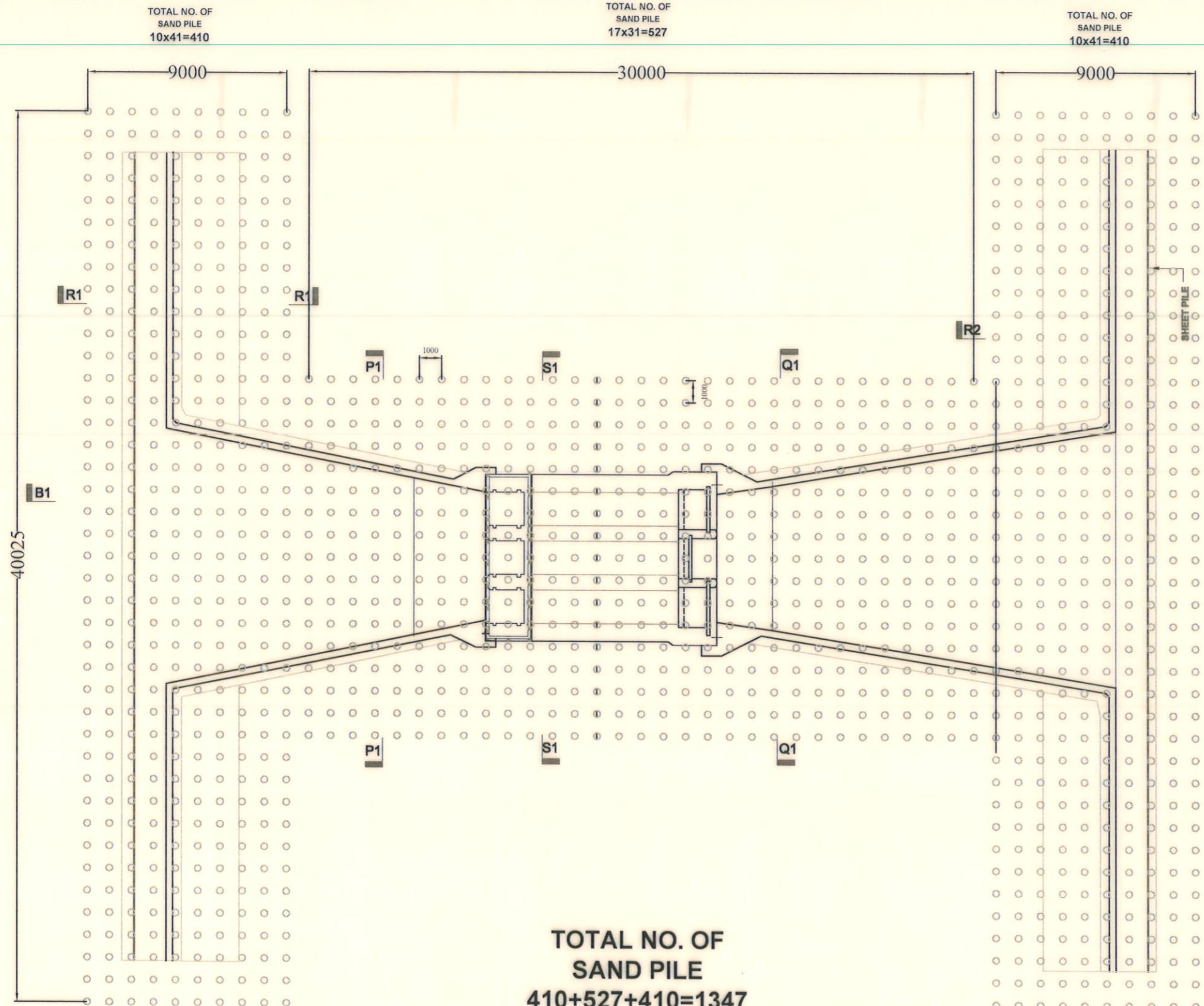
APPROVED BY :

15/5/23

CHECKED & APPROVED BY :

(JAKARTA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE

**SAND PILE LAYOUT PLAN****NOTE FOR SAND PILE:**

1. SAND PILE OF 6.50m LENGTH WITH 300mm CASING DIA. AS SPECIFIED IN THE DRAWING SHALL HAVE TO BE CONSTRUCTED AS PER STANDARD DISPLACEMENT METHOD.
2. SAND TO BE USED IN PILING SHALL BE FREE FROM ALL ORGANIC AND FOREIGN MATERIALS AND SHALL HAVE FM ≥ 2.00 .
3. DIAMETER LENGTH CONTINUITY OF PILE SHALL HAVE TO BE CHECKED BY MEASURING SAND FORCE VOLUME FOR EACH EXECUTED PILE. THE SAND FORCE VOLUME PER METER AND PER PILE SHALL NOT BE LESS THAN 0.25 CUBIC METER .
4. AFTER EXECUTION OF ALL SAND PILE, SPT VALUES SHALL HAVE TO BE DETERMINED BY THE FIELD TESTS. SPT VALUES ATTAINED AT 1.50 METER INTERVALS SHALL BE DETERMINED.
5. AFTER PILING SPT VALUE IN BETWEEN SAND PILES AT FOUNDATION LEVEL SHALL BE MINIMUM 12 TO 14 .
6. FOR ANY ERROR, OMISSION OR CONFUSION PLEASE REFER TO CONCERNED DESIGN OFFICE THROUGH CONSULTANTS FOR NECESSARY ACTION.

Bangladesh Water Development BoardOffice of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2, BWDB , SATKHIRA.

SAND PILE LAYOUT PLAN

DESIGNED BY :

(SAKIB BIN RAFI), AE

CHECKED & APPROVED BY :

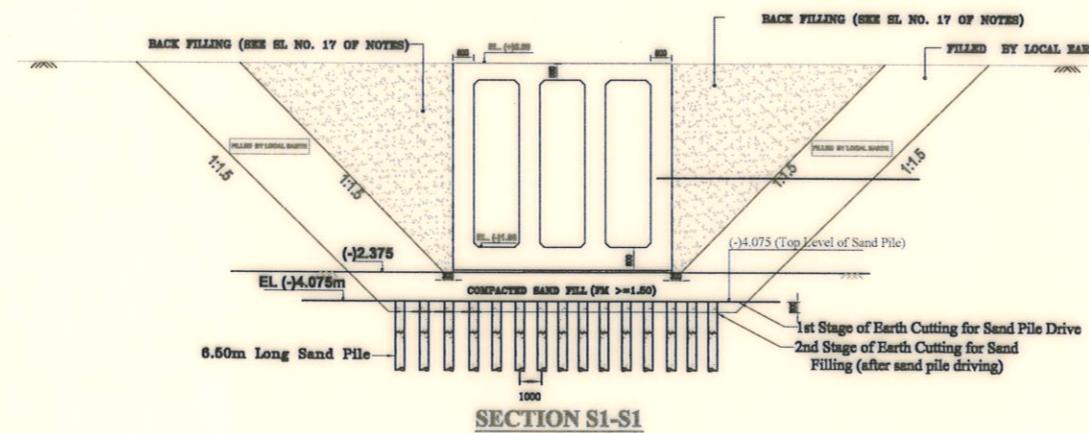
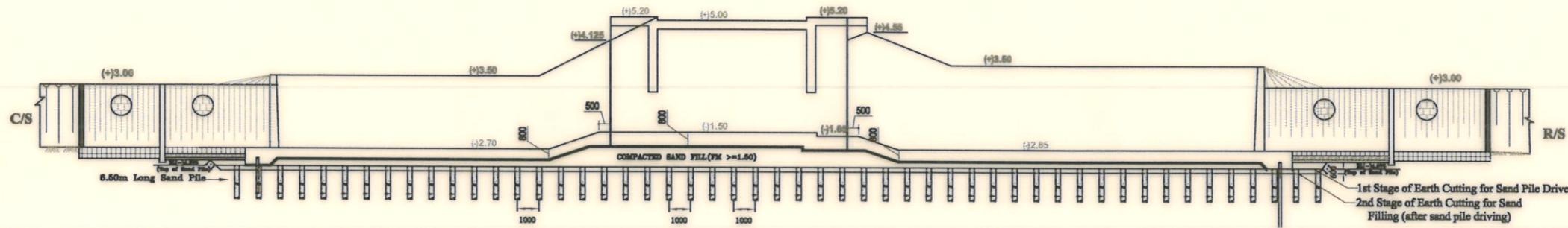
(JAKARIA PERVEZ), EE

APPROVED BY :

19/5/23

(MOHAMMAD SAIF UDDIN), SE

DATE:15/05/2023 DWG. NO.:DC-8-0377-19/23



Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH
KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER
SATKHIRA O&M DIVISION-2, BWDB , SATKHIRA.

SECTIONS DETAILS OF SAND PILE

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

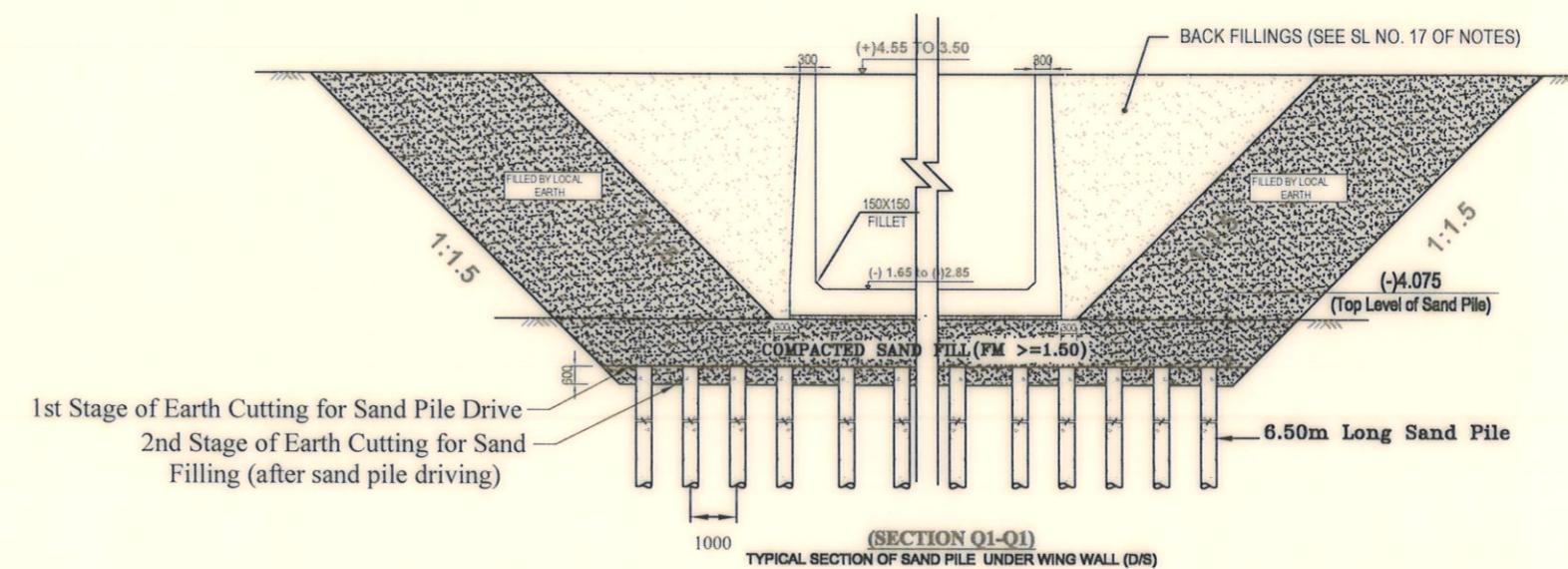
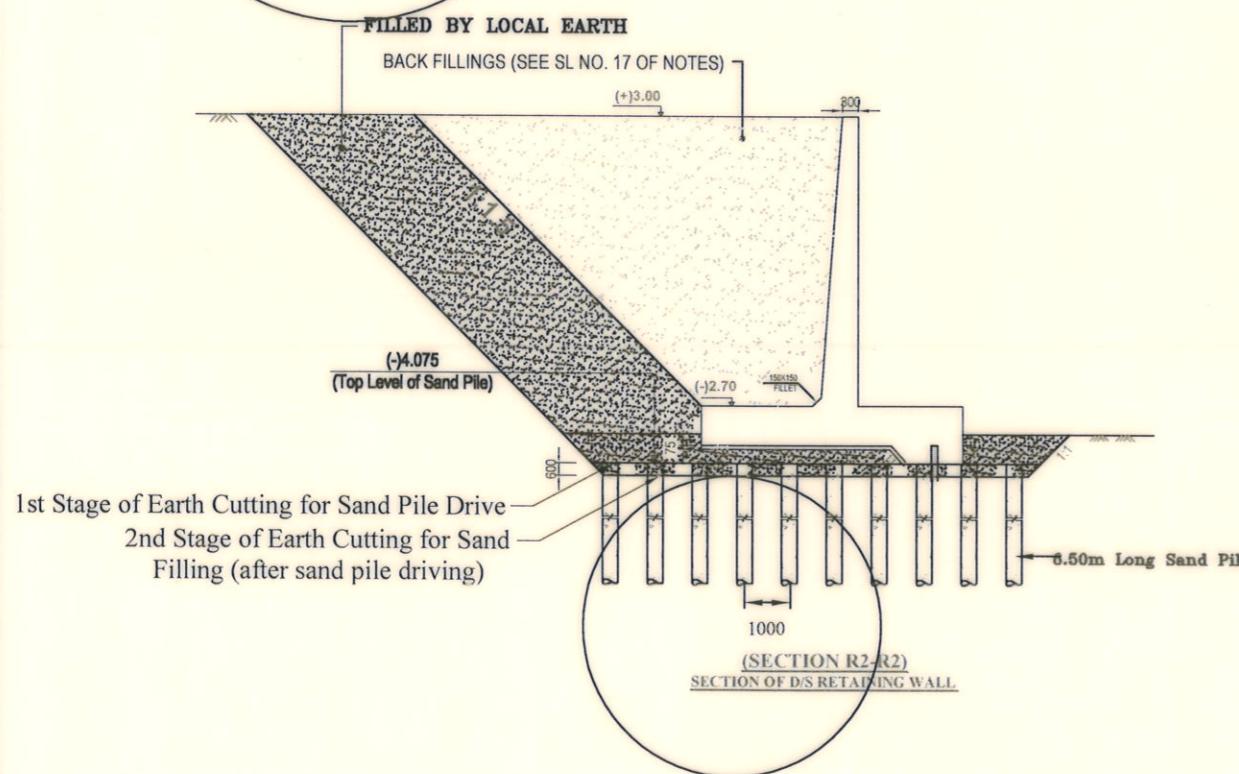
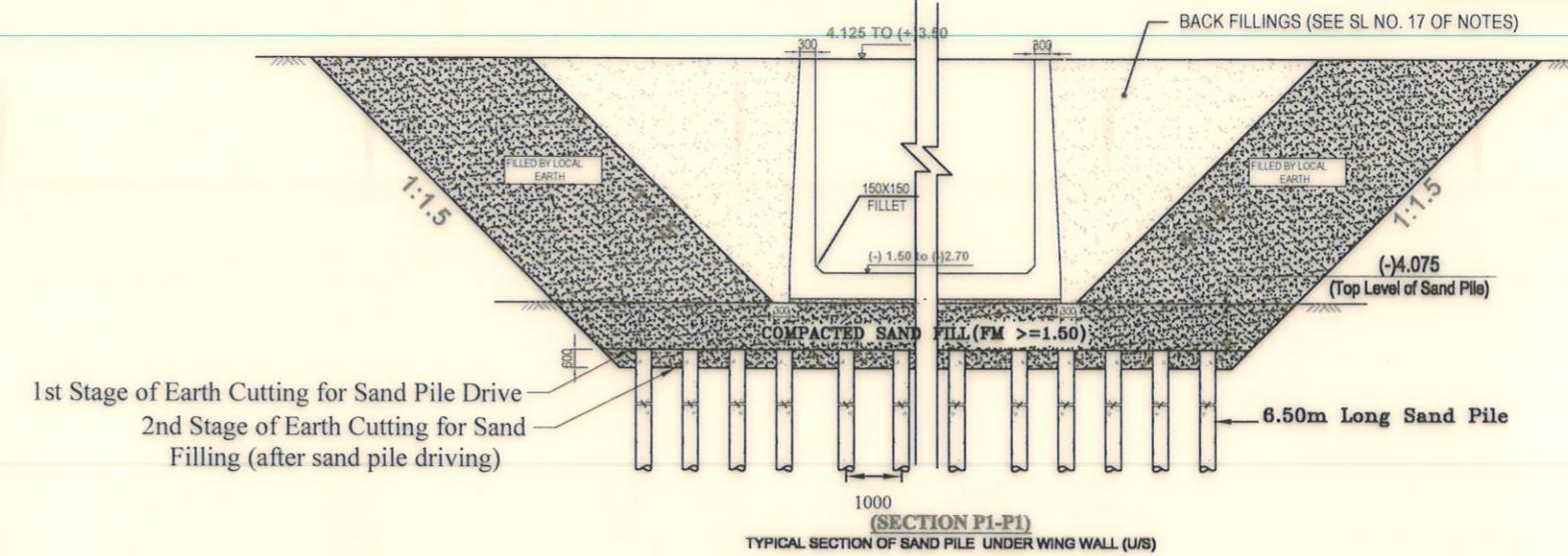
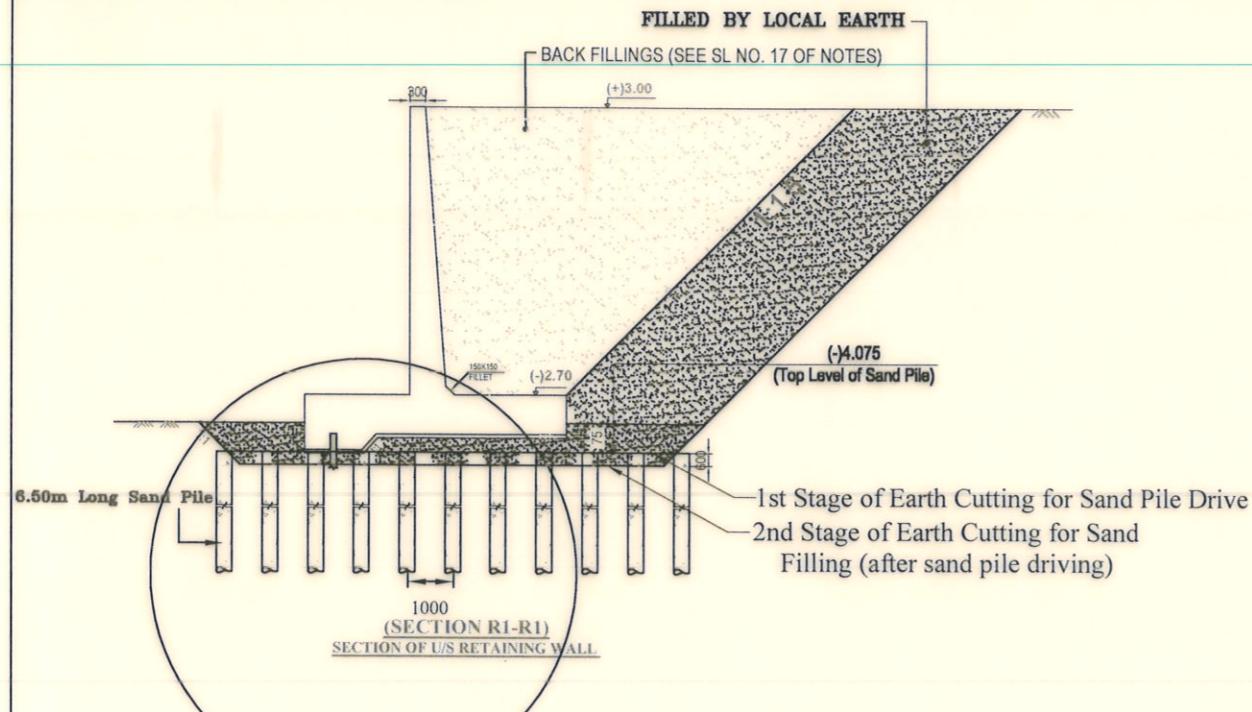
17/5/23
(MOHAMMAD SAIF UDDIN), SE

CHECKED & APPROVED BY :

(JAKARIA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE

DATE:15/05/2023 DWG. NO.:DC-8-0377-20/23



Bangladesh Water Development Board

Office of the Superintending Engineer
Design Circle-8

DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT

DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KIEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2, BWDB , SATKHIRA.

SECTIONS DETAILS OF SAND PILE

DESIGNED BY :

(SAKIB BIN RAFI), AE

APPROVED BY :

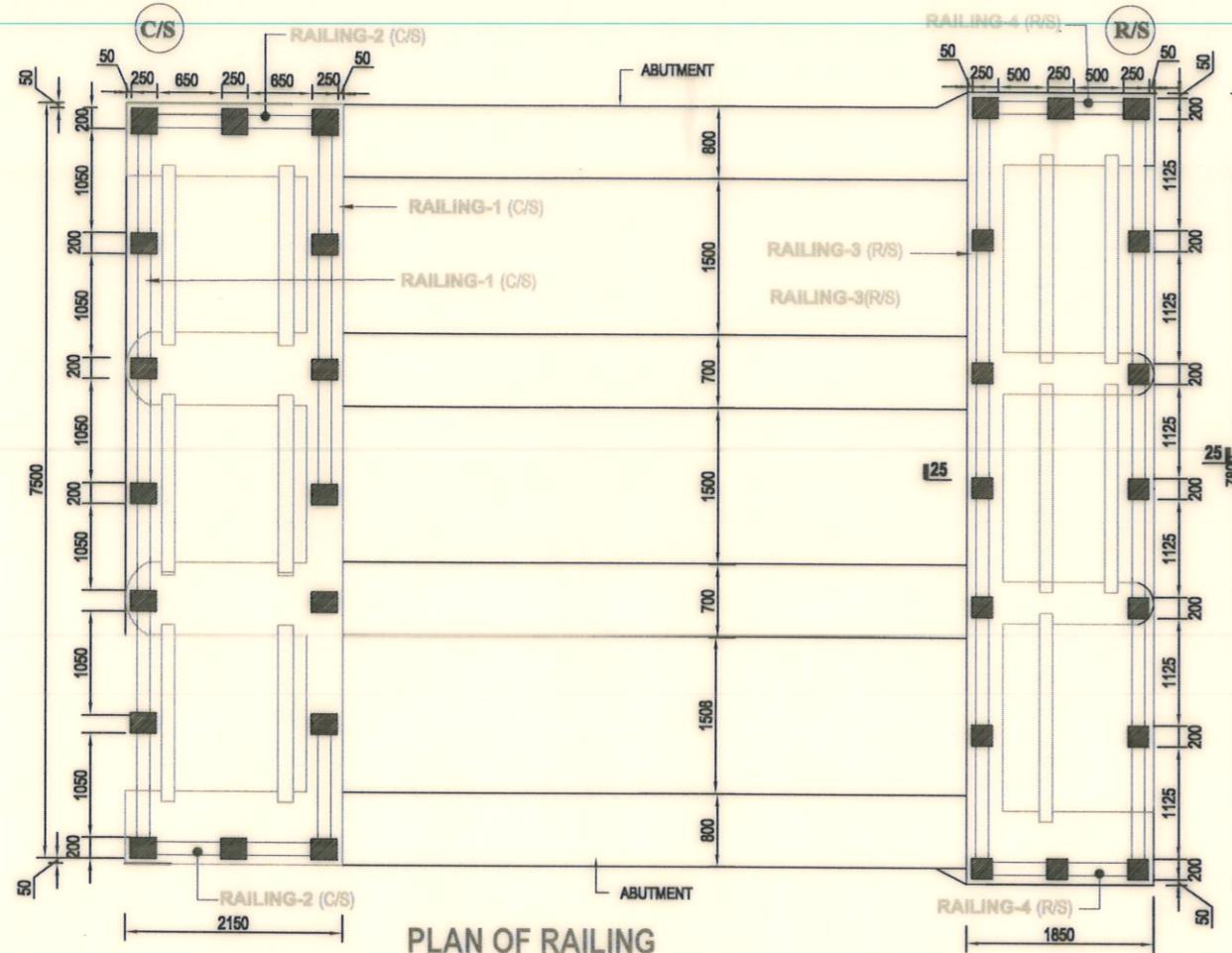
15/5/23

CHECKED & APPROVED BY :

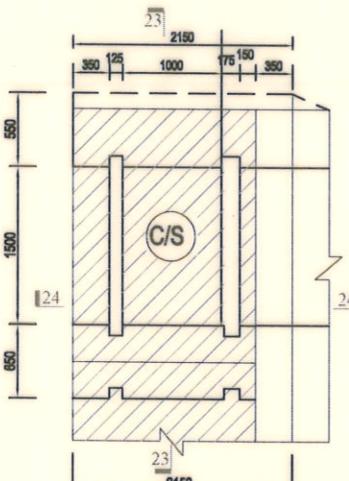
(JAKARIA PERVEZ), EE

(MOHAMMAD SAIF UDDIN), SE

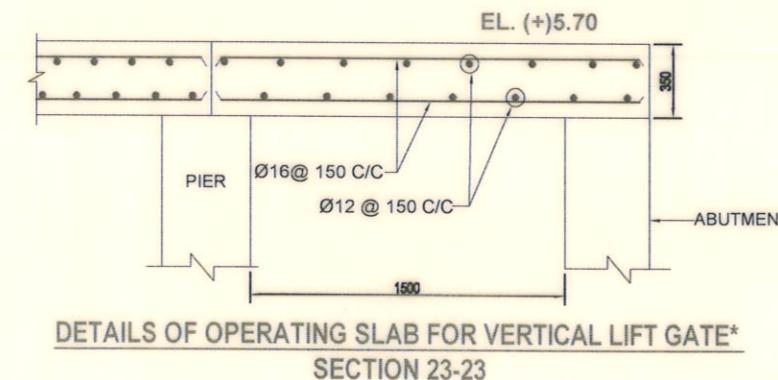
DATE:15/05/2023 DWG. NO.:DC-8-0377-21/23



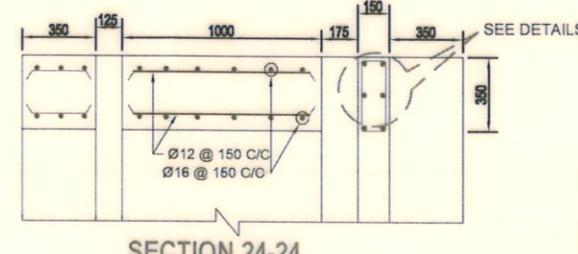
PLAN OF RAILING



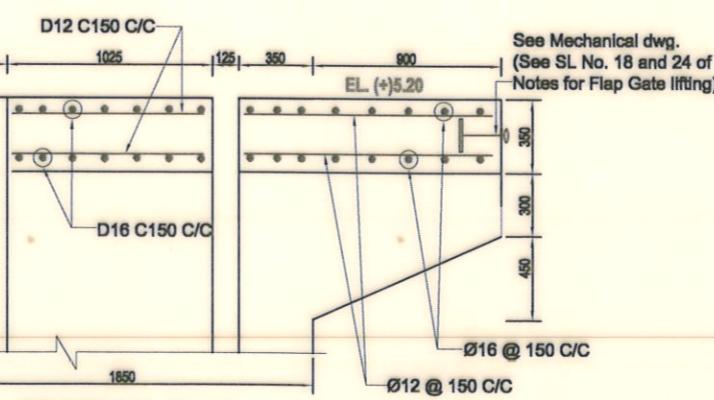
PLAN OF OPERATING SLAB FOR VERTICAL LIFT GATE



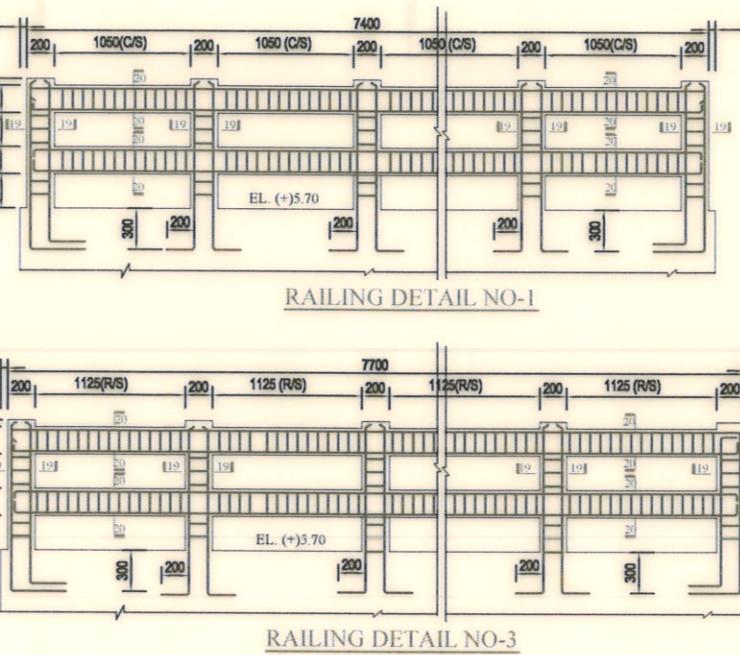
DETAILS OF OPERATING SLAB FOR VERTICAL LIFT GATE SECTION 23-23



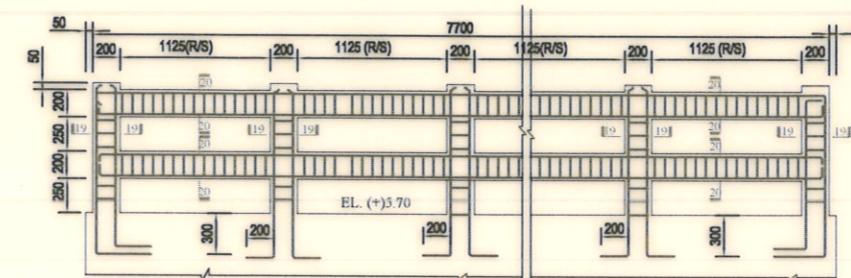
SECTION 24-24



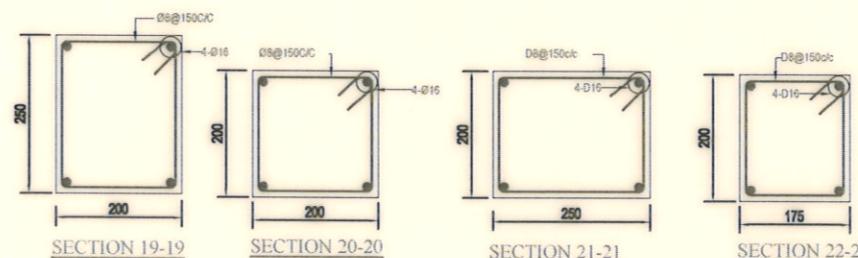
SECTION 25-25
(RAILING NOT SHOWN)



RAILING DETAIL NO-1



RAILING DETAIL NO-3

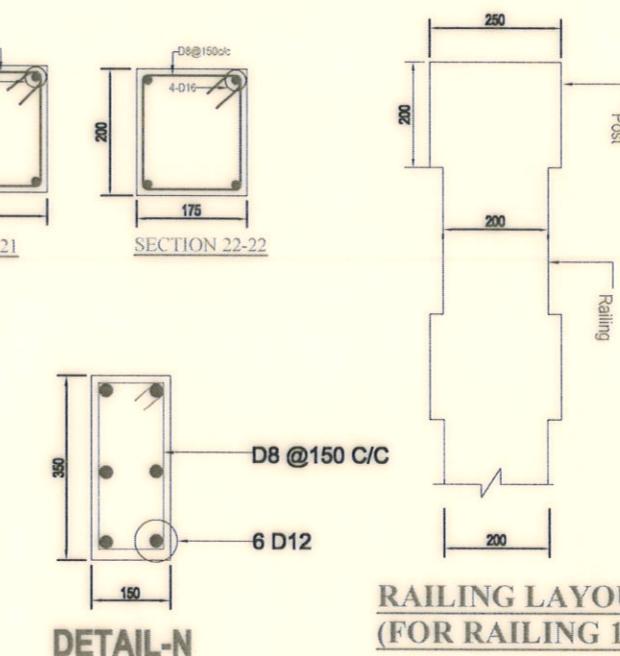


SECTION 19-1

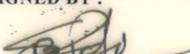
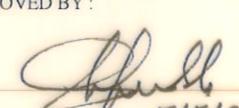
SECTION 20

SECTION 2

SECTION 22-

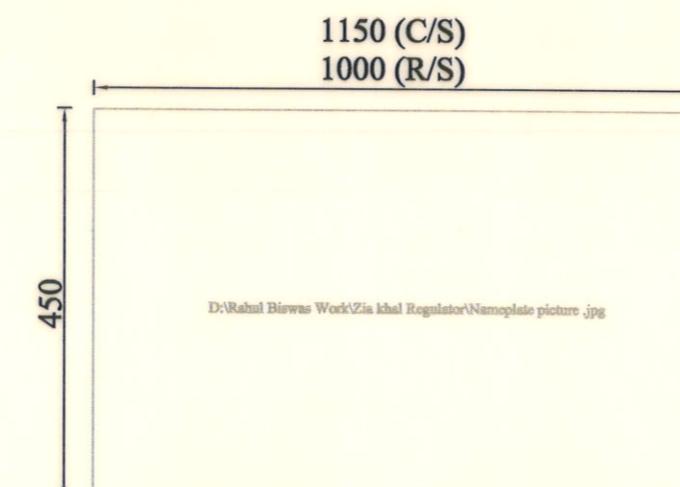
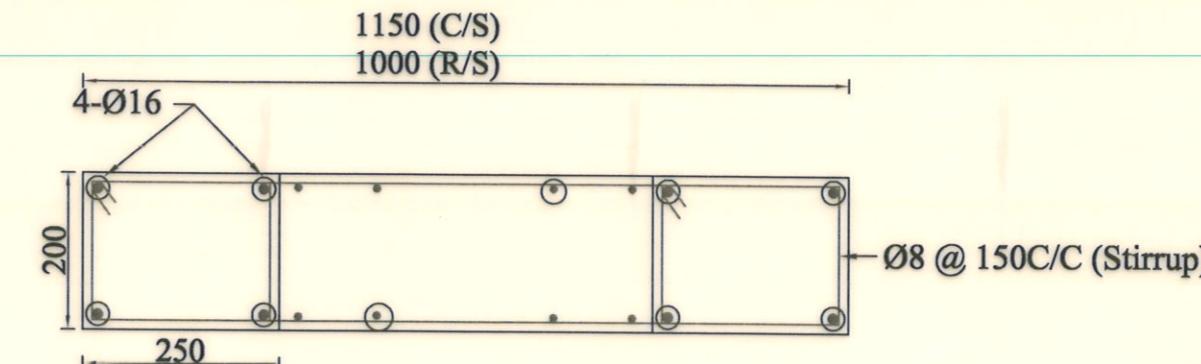
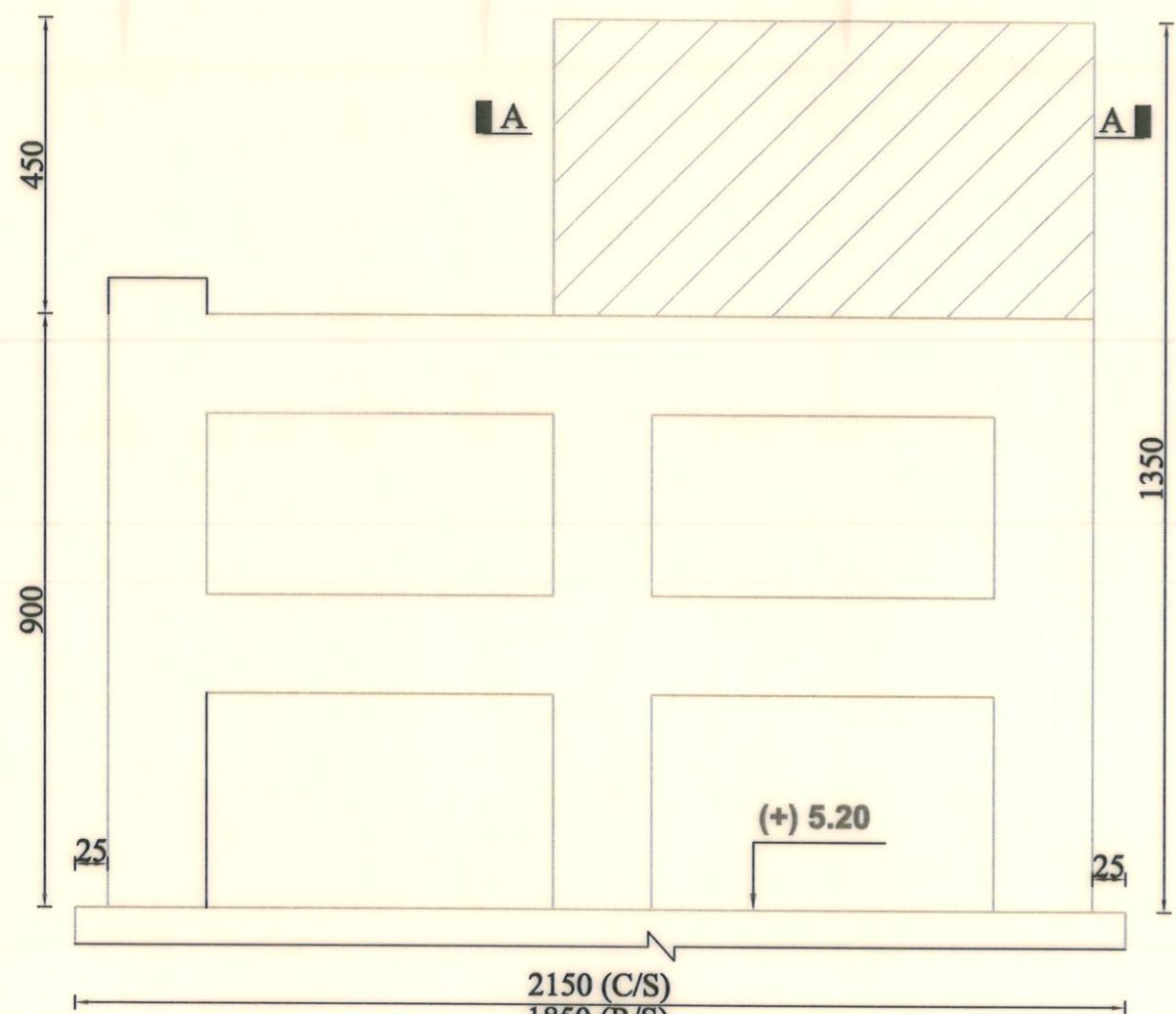


RAILING LAYOUT (FOR RAILING 1&3)

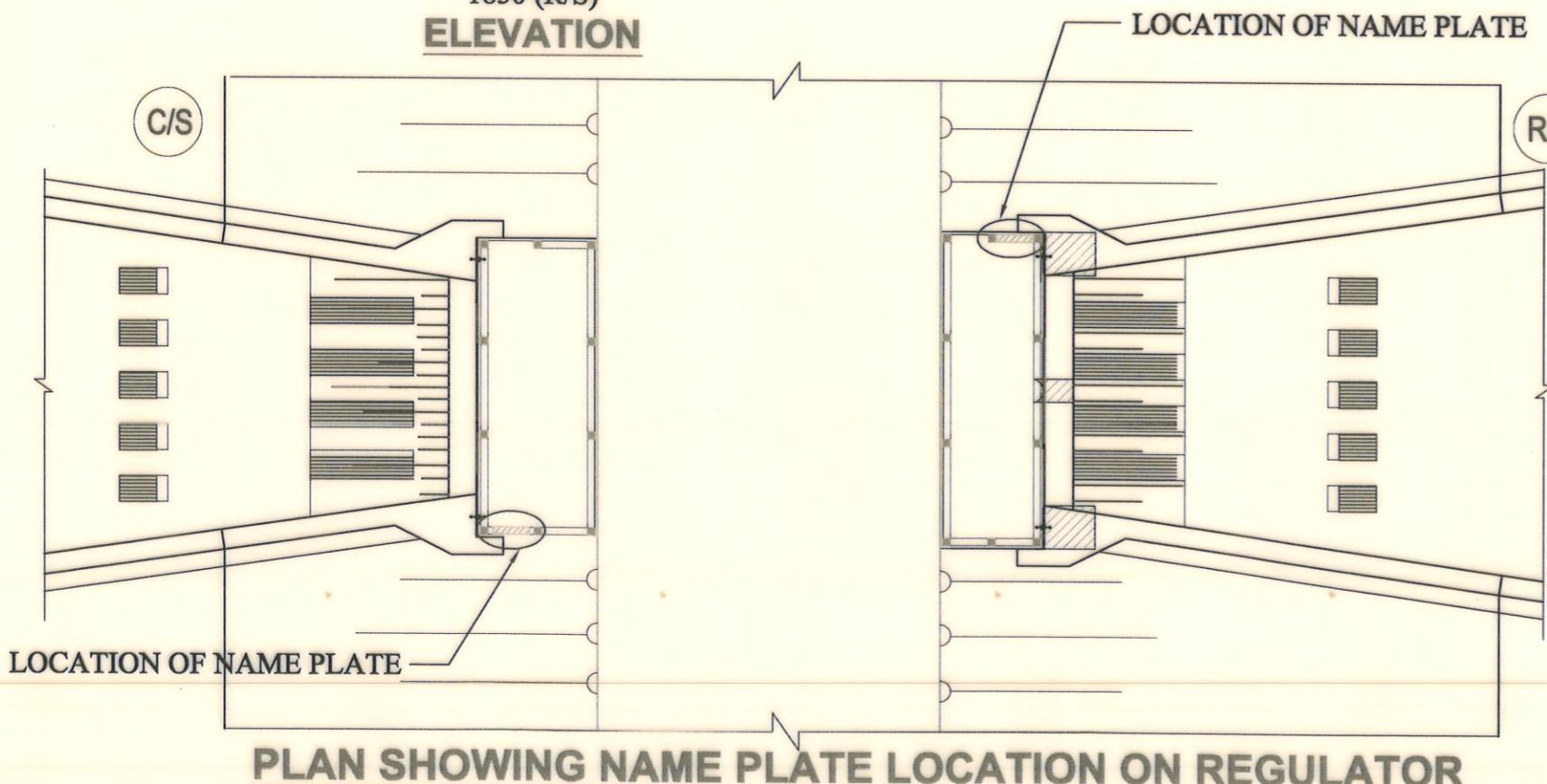
Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGN OF REGULATOR 3-VENT (1.50mX1.80m) AT KHEJURDANGI BRANCH KHAL AT Km. 11.00 IN POLDER NO- 6-8 IN SATKHIRA DISTRICT UNDER SATKHIRA O&M DIVISION-2 , BWDB , SATKHIRA.	
RAILING REINFORCEMENT DETAIL	
DESIGNED BY :  (SAKIB BIN RAFI), AE	APPROVED BY :  15/5/23
CHECKED & APPROVED BY : 	(MOHAMMAD SAIF UDDIN), SE
DATE:15/05/2023 DWG. NO.:DC-8-0377-22/23	

1150 (C/S)

1000 (R/S)



NAME PLATE



Bangladesh Water Development Board	
Office of the Superintending Engineer	
Design Circle-8	
DRAINAGE IMPROVEMENT OF POLDER NO.1, 2, 6-8 & 6-8 (Ext) IN SATKHIRA DISTRICT	
DESIGNED BY :	APPROVED BY :
(SAKIB BIN RAFTI), AE	
CHECKED & APPROVED BY :	
(JAKARIA PERVEZ), EE	(MOHAMMAD SAIF UDDIN), SE
DATE:15/05/2023 DWG. NO.:DC-8-0377-23/23	