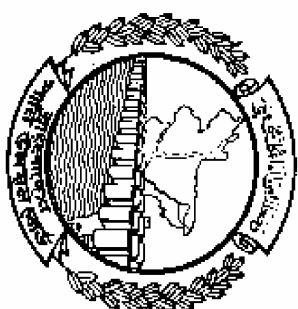


Bangladesh Water Development Board

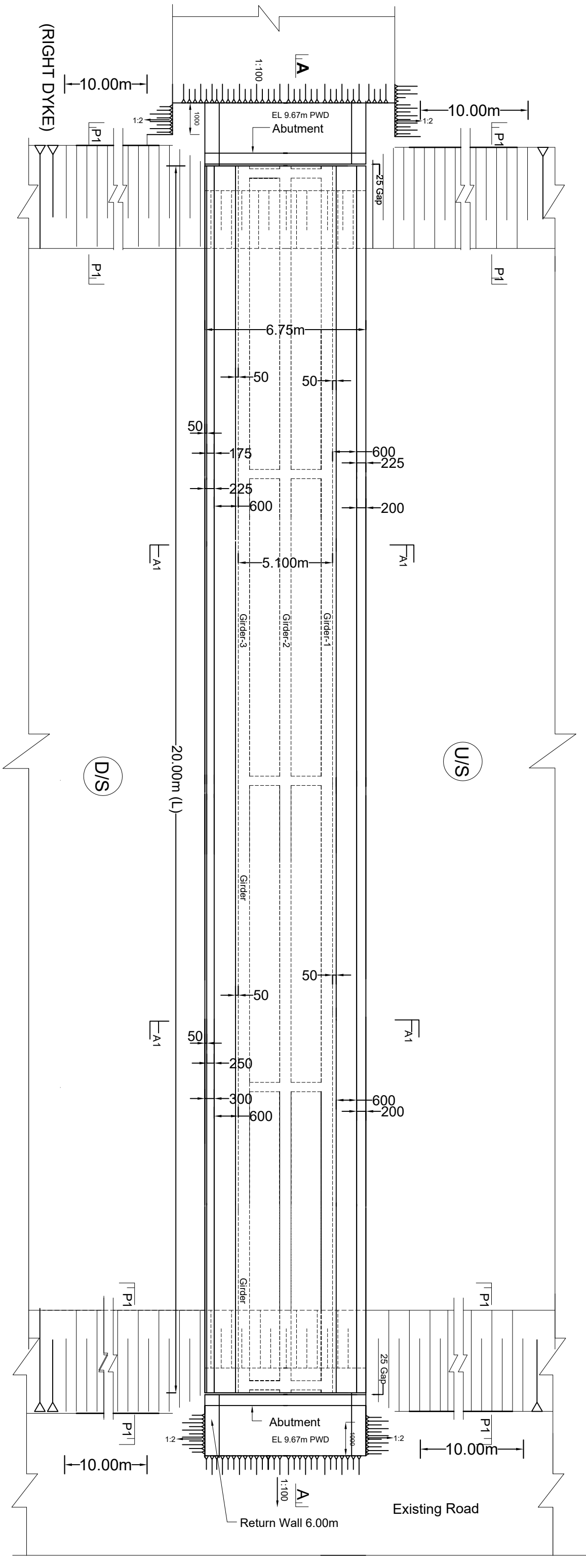


**Design of R.C.C Bridge Over Kalisankorpur khal at chainage 5.060km in C/W
Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of
Nabanga River to Revival and Conservation of Environmental Balance in Lohagora
Upazila of Narail District under Narail O&M Division, BWDB Narail.**

Narail O&M Division, BWDB Narail.

Design Circle-8, BWDB, Dhaka

November, 2020



PLAN OF BRIDGE

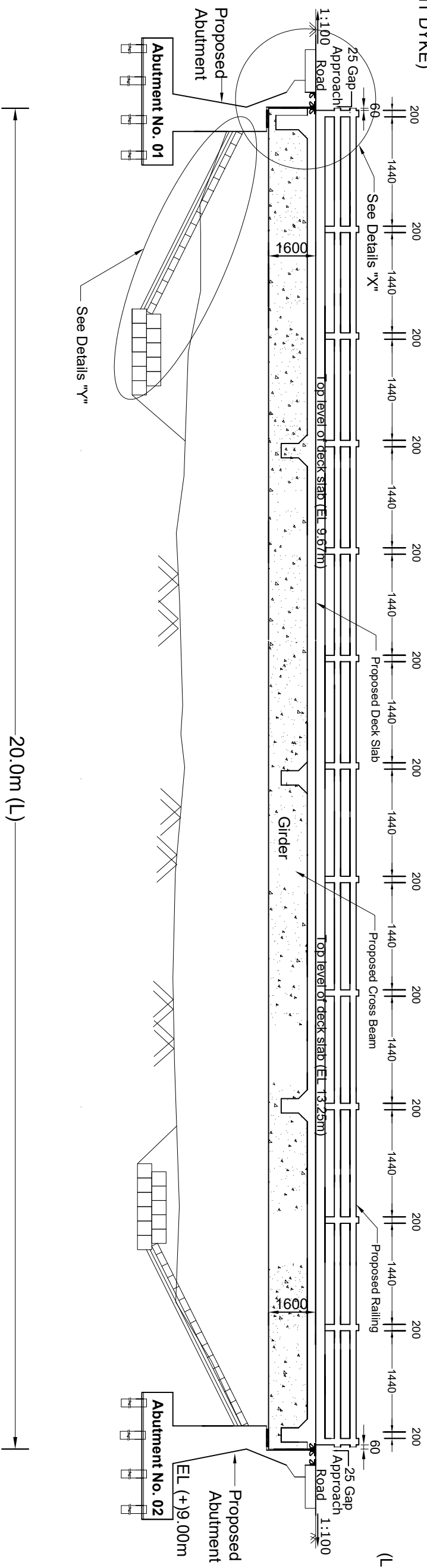
BANGLADESH WATER DEVELOPMENT BOARD
Office of the Superintending Engineer
Design Circle-8

Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagara Upazila of Narail District under Narail O&M Division, BWDB Narail.

Plan of Bridge	
DESIGNED BY :	RECOMMENDED BY :
(SAKIB BIN RAFI), AE	
CHECKED BY :	APPROVED BY :

(RIGHT DYKE)

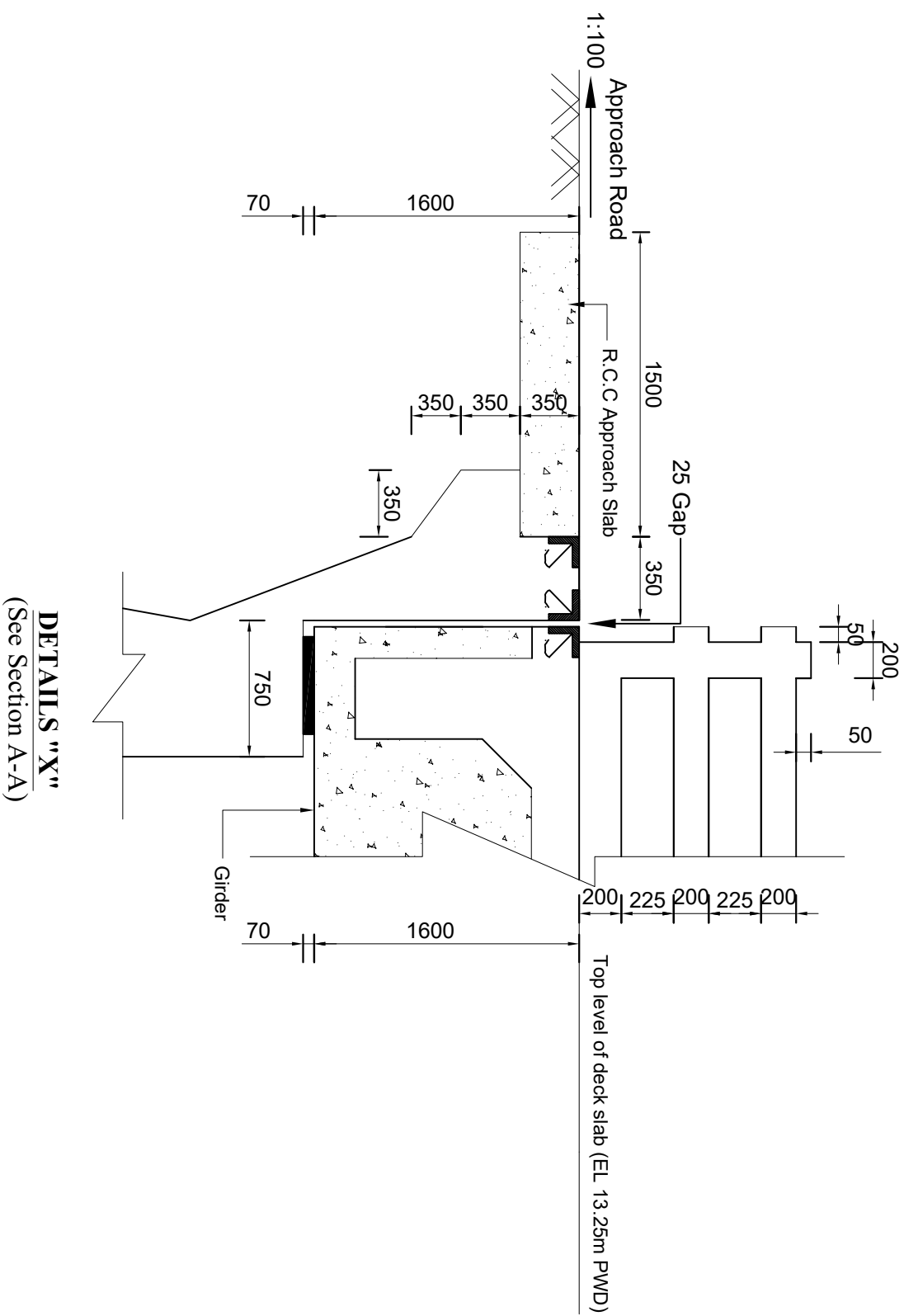
(LEFT DYKE)



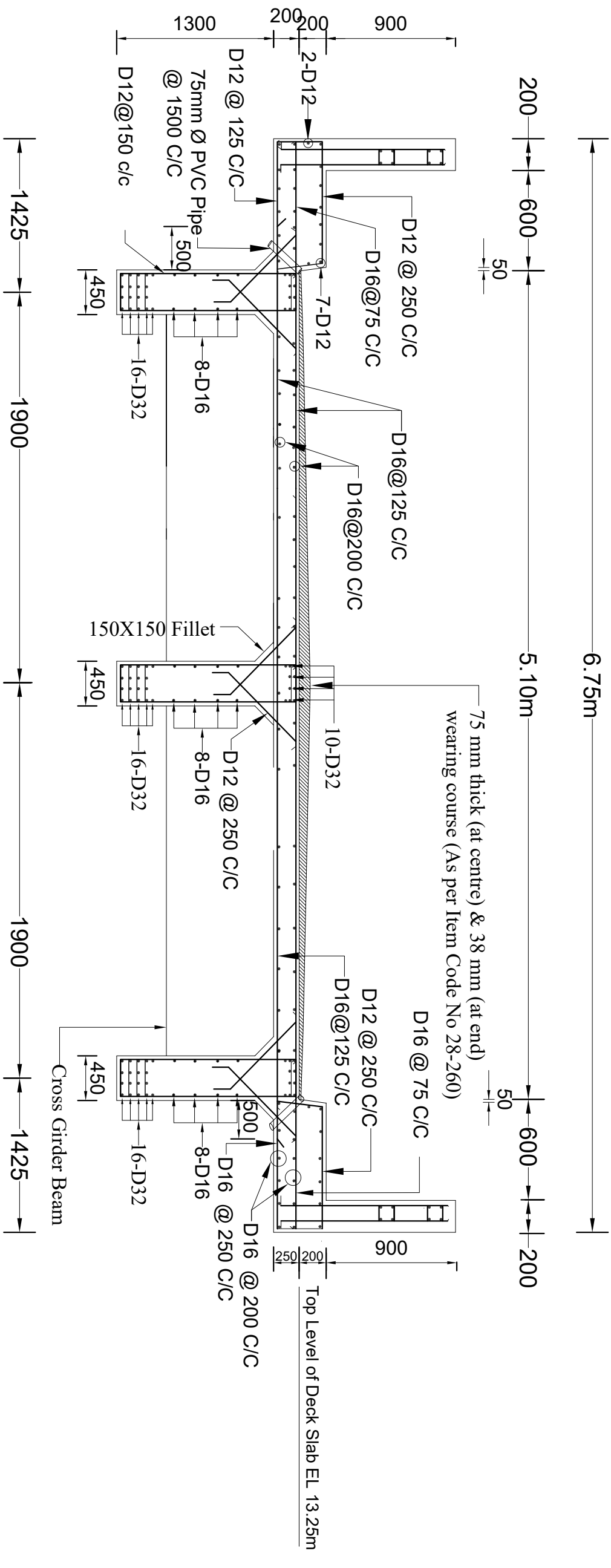
SECTION A-A
(See Sheet No. 04 of 14)

(See Sheet No. 04 of 14)

SECTIONAL ELEVATION OF BRIDGE



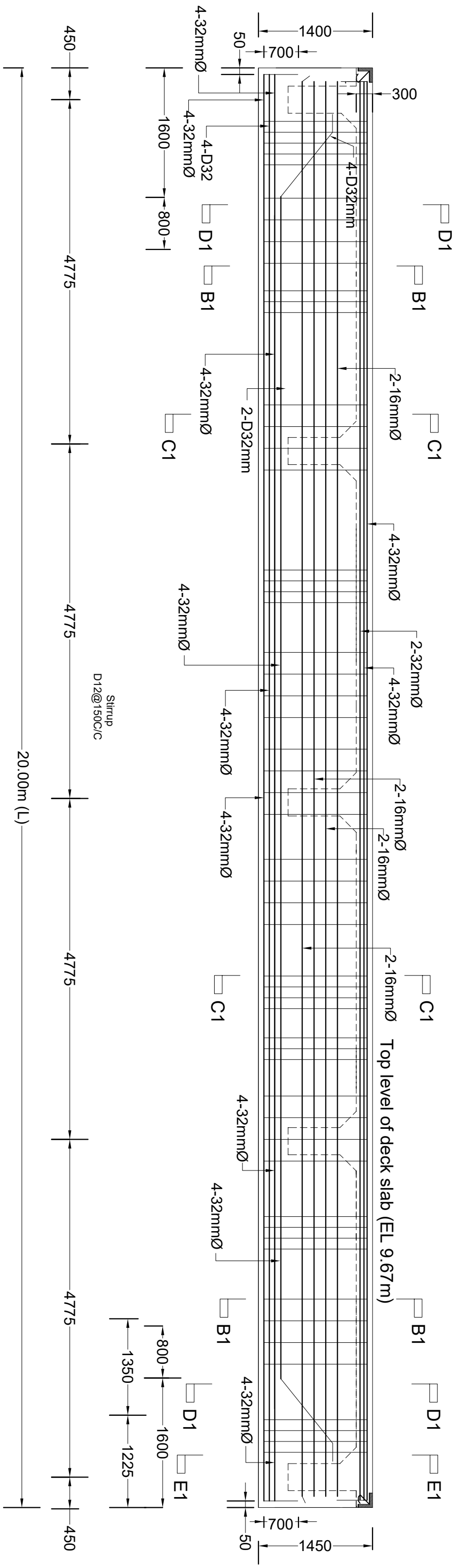
<p align="center">BANGLADESH WATER DEVELOPMENT BOARD</p> <p align="center">Office of the Superintending Engineer</p> <p align="center">Design Circle-8</p>	
<p align="center">Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazla of Narail District under Narail O&M Division, BWDB Narail.</p>	
<p align="center">Sectional Elevation of Bridge (Section A-A) & Details</p>	
<p>DESIGNED BY :</p>	<p>RECOMMENDED BY :</p>
<p>(SAKIB BIN RAFI), AE</p>	
<p>CHECKED BY :</p>	<p>APPROVED BY :</p>



SECTION A1-A1

(See Sheet No. 04 of 14)

<p align="center">BANGLADESH WATER DEVELOPMENT BOARD</p> <p align="center">Office of the Superintending Engineer</p> <p align="center">Design Circle-8</p>	
<p align="center">Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.</p>	
<p align="center">Reinforcement Details of Girder and Deck Slab</p>	
<p>DESIGNED BY :</p> <p align="center">(SAKIB BIN RAFI), AE</p> <p>CHECKED BY :</p>	<p>RECOMMENDED BY :</p> <p align="center">APPROVED BY :</p>



BANGLADESH WATER DEVELOPMENT BOARD
Office of the Superintending Engineer
Design Circle-8

Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.

Reinforcement Details of Girders and Cross Beam

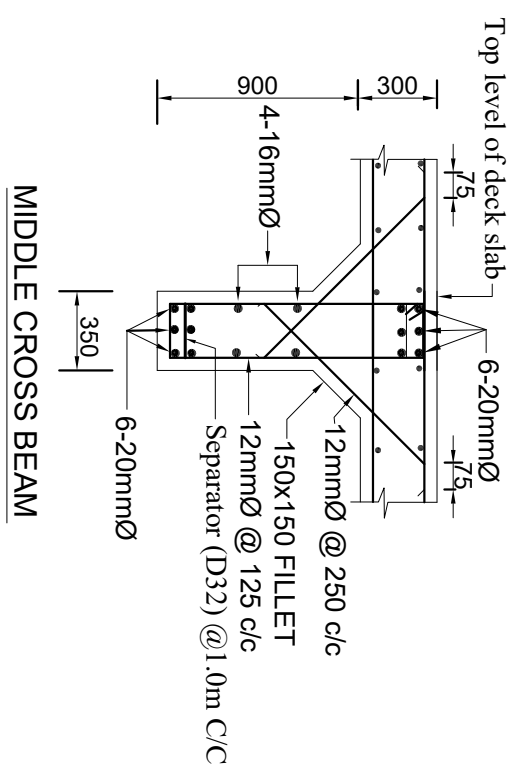
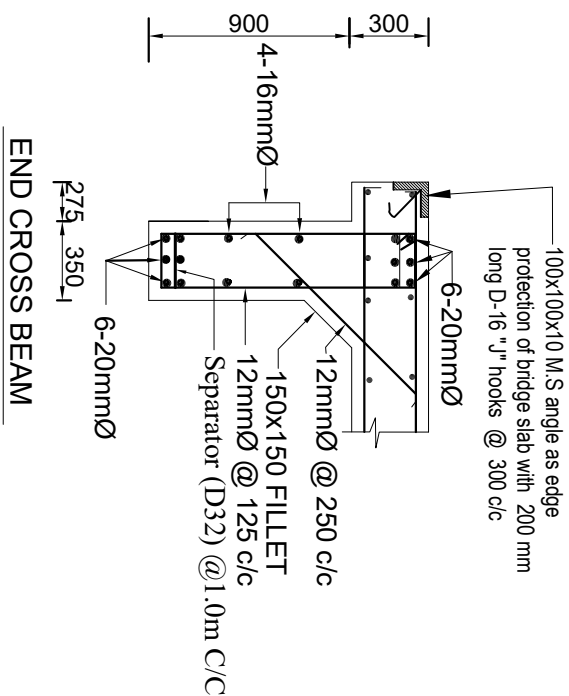
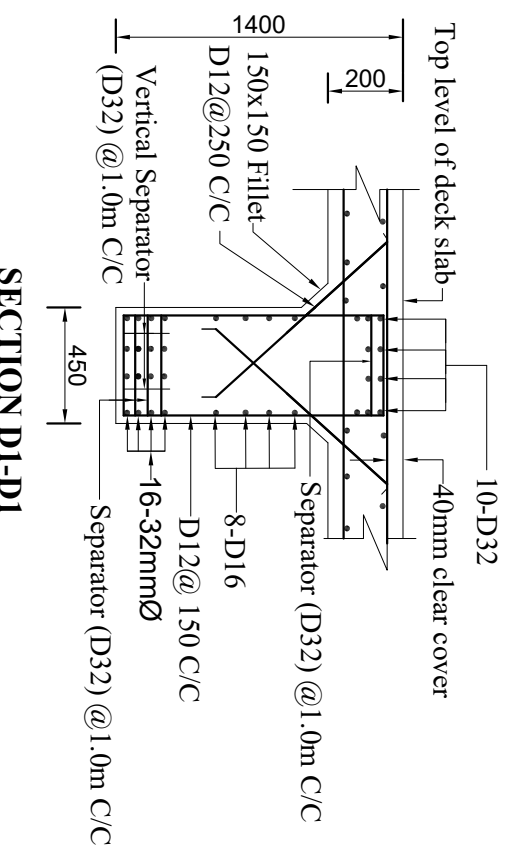
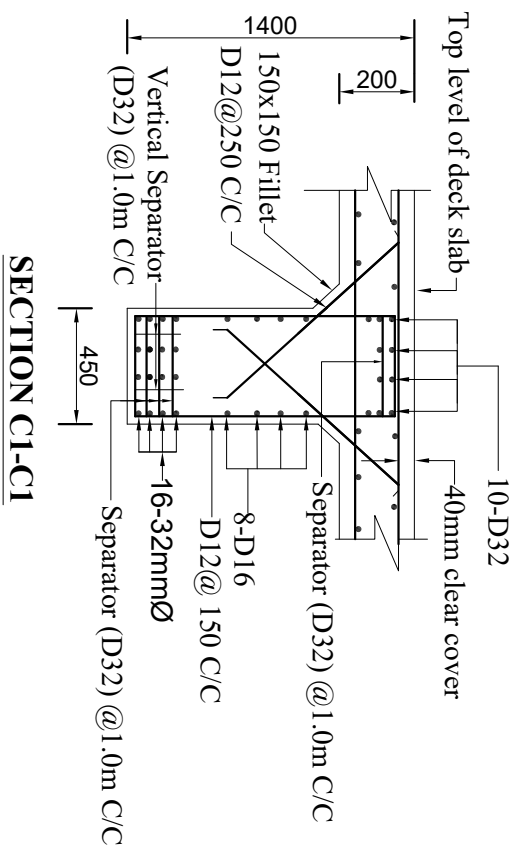
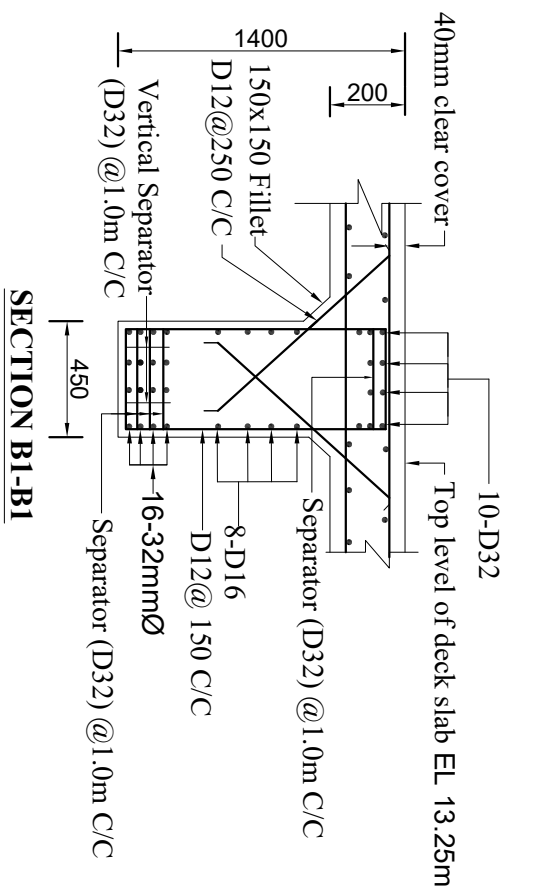
DESIGNED BY :

RECOMMENDED BY :


(SAKIB BIN RAFI), AE

CHECKED BY :

APPROVED BY:



STIRRUPS DETAILS:

Bar hook	Form and Extension	Bend Angle (degree)	Band Radius (r)	Used Bar
Tie/ stirrups		135	r = 1.25db	6mm to 12mm

BANGLADESH WATER DEVELOPMENT BOARD

Office of the Superintending Engineer
Design Circle-8

Design of R.C.C Bridge Over Kalisankorpur khal in CMW Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohgora Upazila of Narail District under Narail O&M Division, BWDB Narail.

Reinforcement Details of Girders and Cross Beam

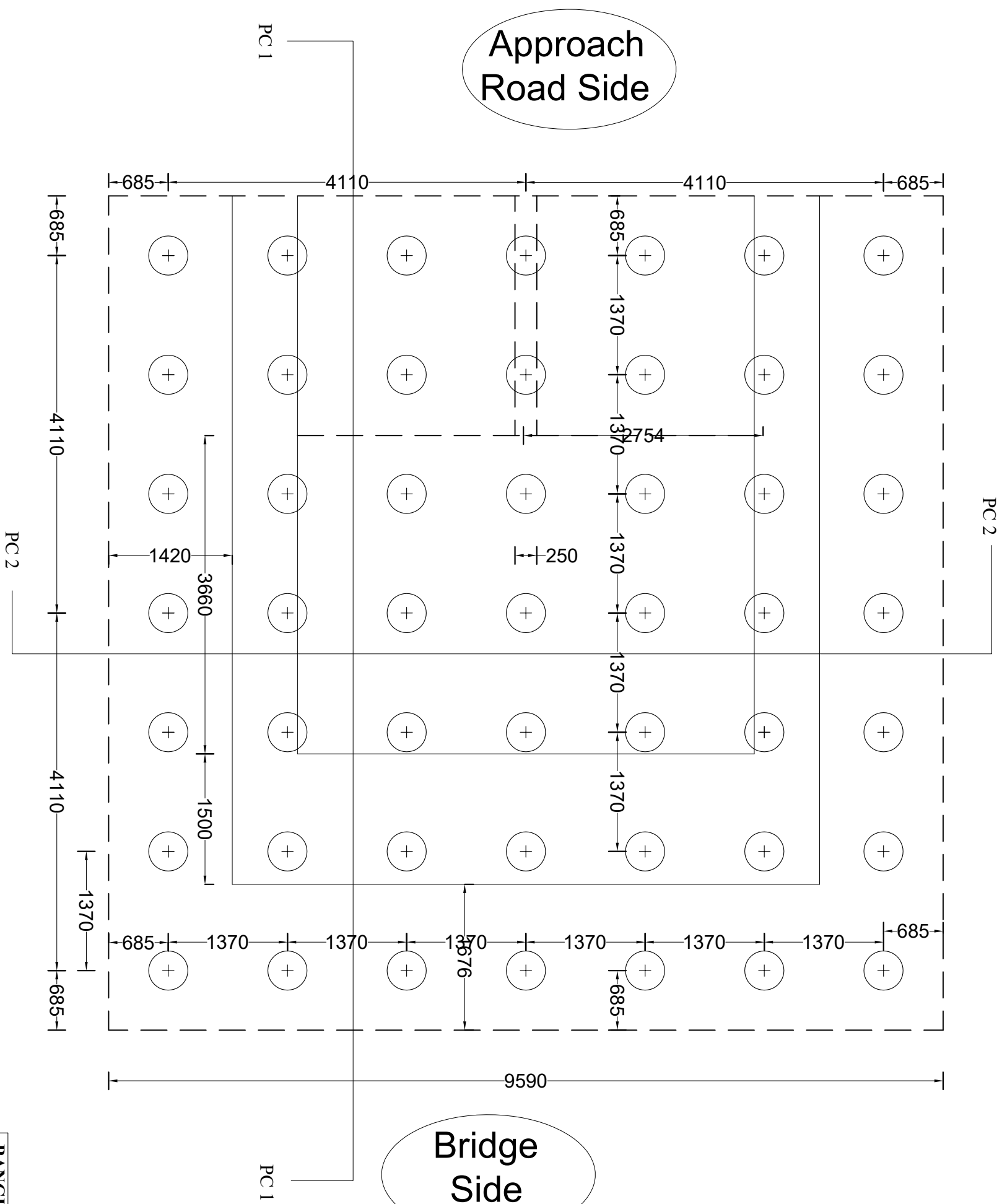
DESIGNED BY :

RECOMMENDED BY :

(SAKIB BIN RAFI), AE

CHECKED BY :

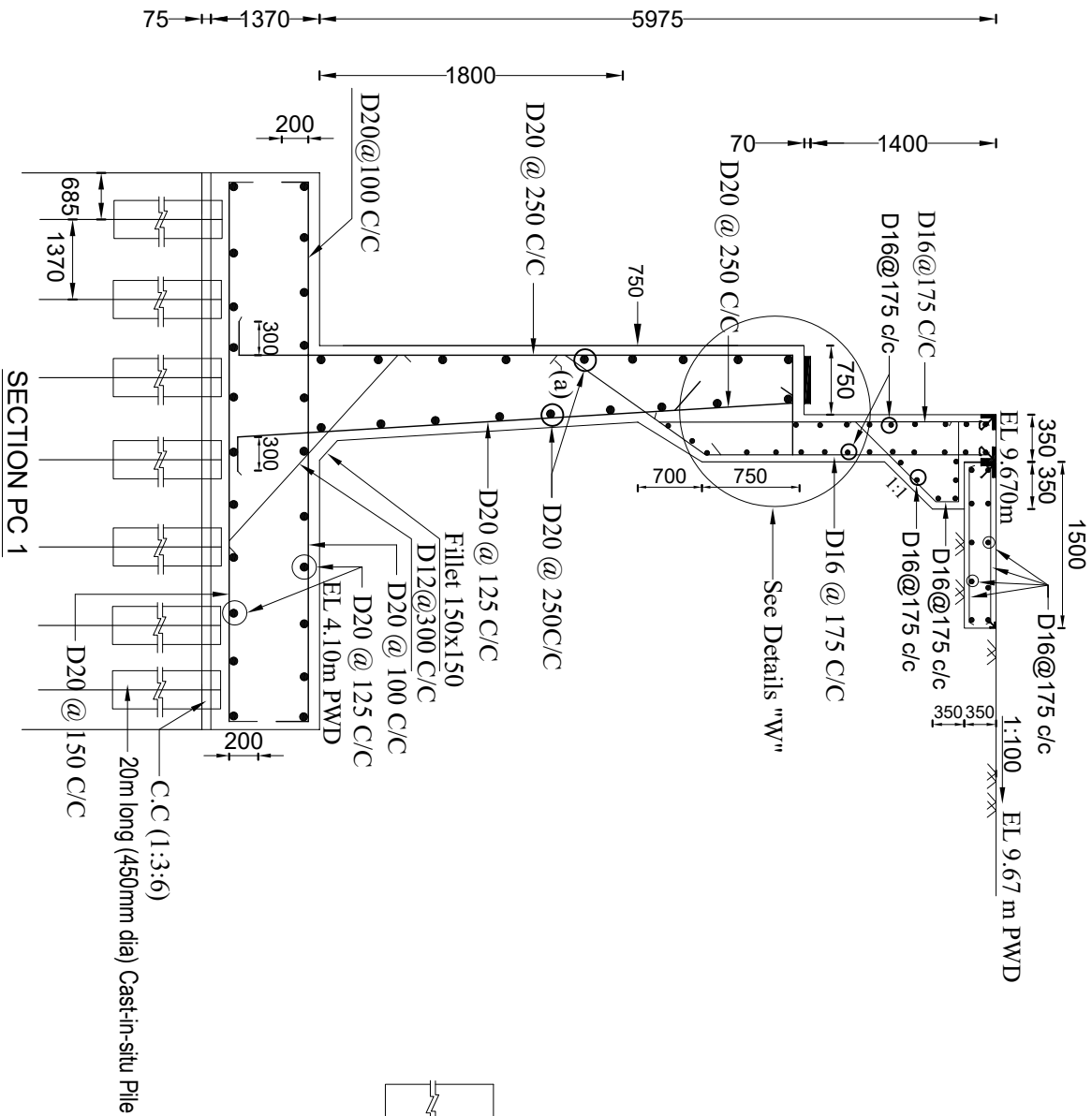
APPROVED BY :



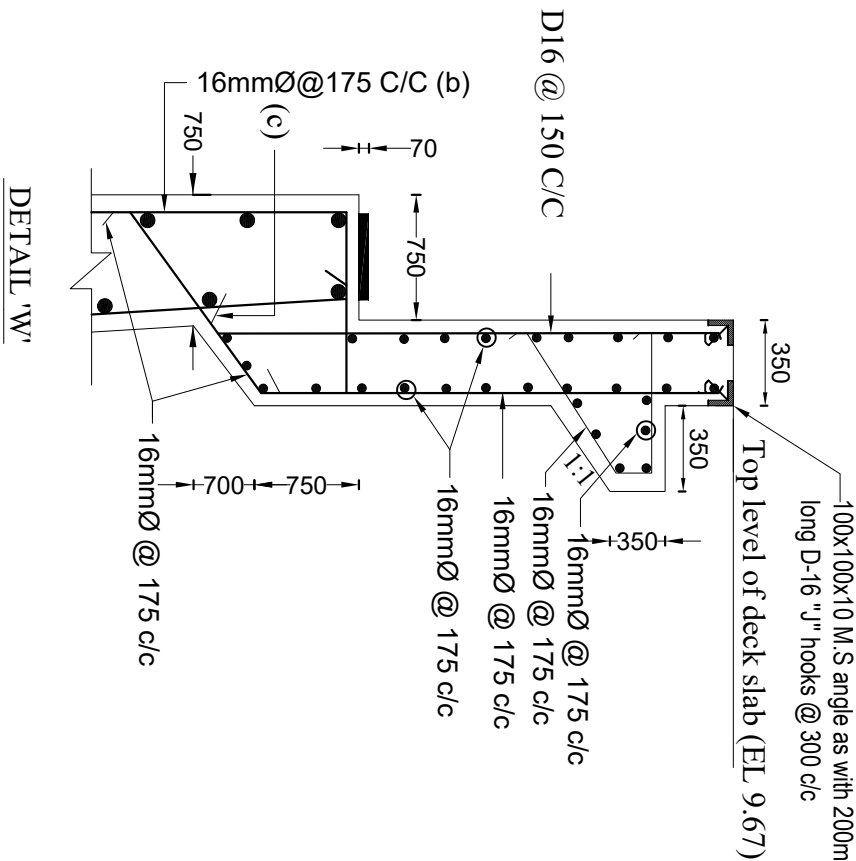
LAYOUT PLAN OF CAST IN SITU PILE FOR ABUTMENT & RETURN WALL

(Pile Length=20.00m, size = 450mm dia & Total No. of Pile under each abutment & return wall = 49)

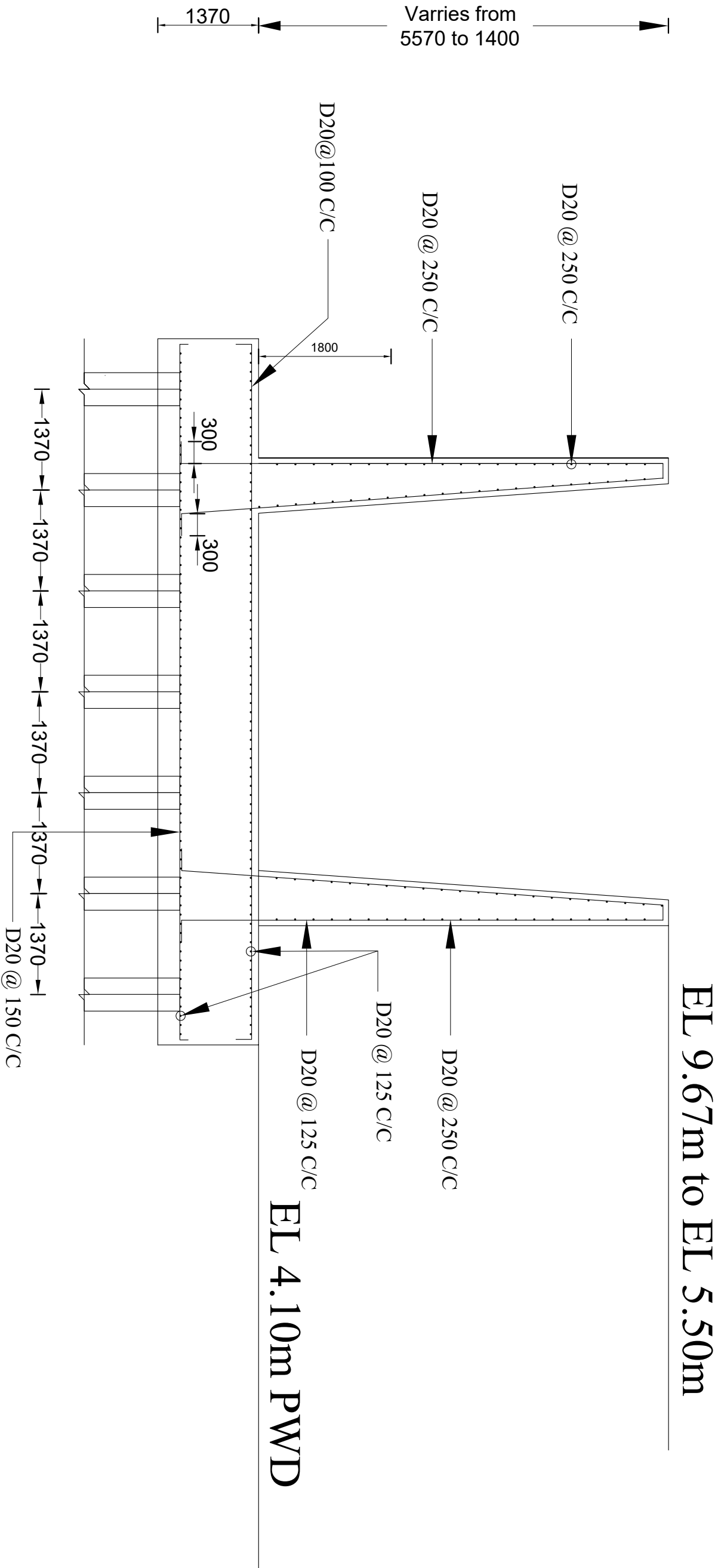
<p align="center">DESIGNED BY :</p> <p align="center">RECOMMENDED BY :</p>		<p align="center">Layout Plan of Pile</p>
<p>DESIGNED BY : SAKIB BIN RAFTI, AE</p>	<p>RECOMMENDED BY : APPROVED BY :</p>	
<p>DESIGNED BY : CHECKED BY :</p>		<p>DESIGNED BY : CHECKED BY :</p>



SECTION PC 2

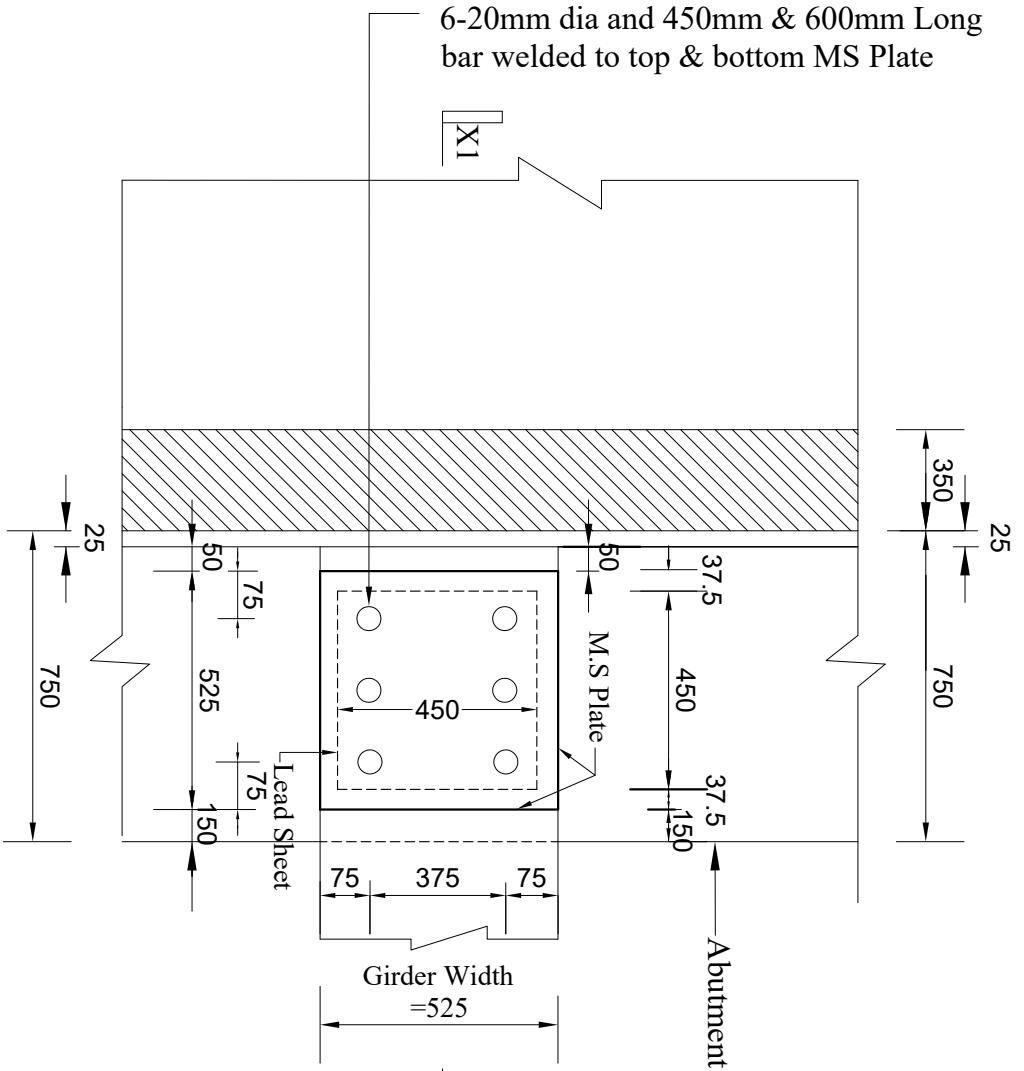


BANGLADESH WATER DEVELOPMENT BOARD	
Office of the Superintending Engineer	
Design Circle-8	
Design of R.C.C Bridge Over Kailsankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.	
Reinforcement Details of Abutment, Wing Wall & Return Wall	
DESIGNED BY :	RECOMMENDED BY :
(SAKIB BIN RAUF), AE	
CHECKED BY :	APPROVED BY :

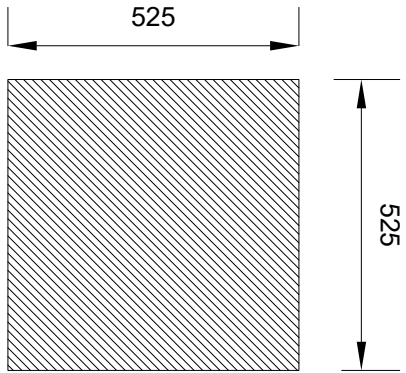


SECTION PC 2

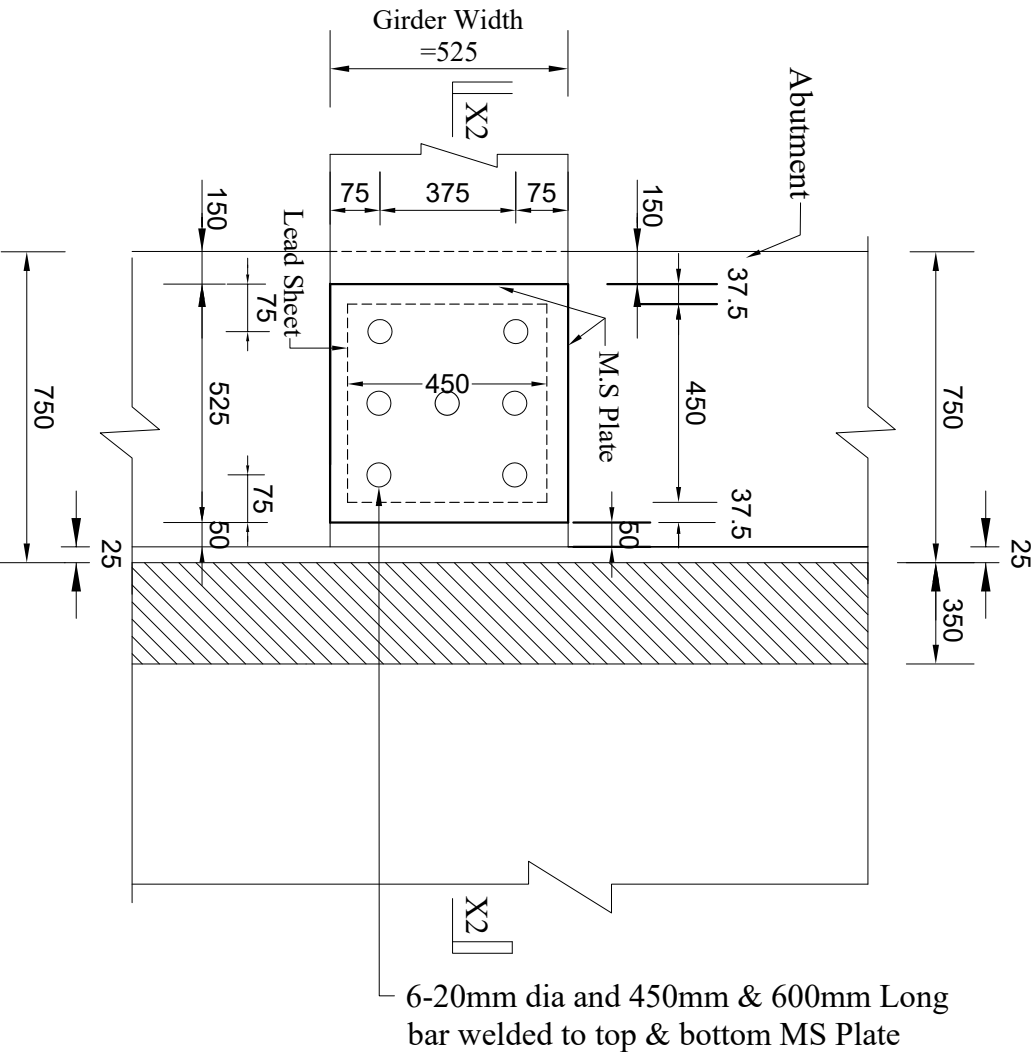
BANGLADESH WATER DEVELOPMENT BOARD	
Office of the Superintending Engineer	
Design Circle-8	
Design of R.C.C Bridge Over Kailsankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.	
Details of Return Wall	
DESIGNED BY :	RECOMMENDED BY :
CHECKED BY :	APPROVED BY :



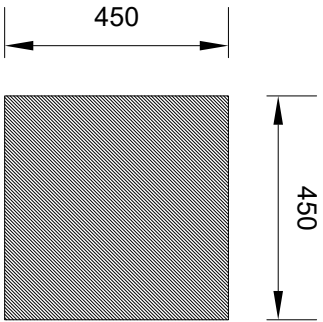
PLAN OF EXPANSION BEARING
(For Abutment No. 1)



MS PLATE (525x525x25)
(Without Hole for Abutment No. 01)

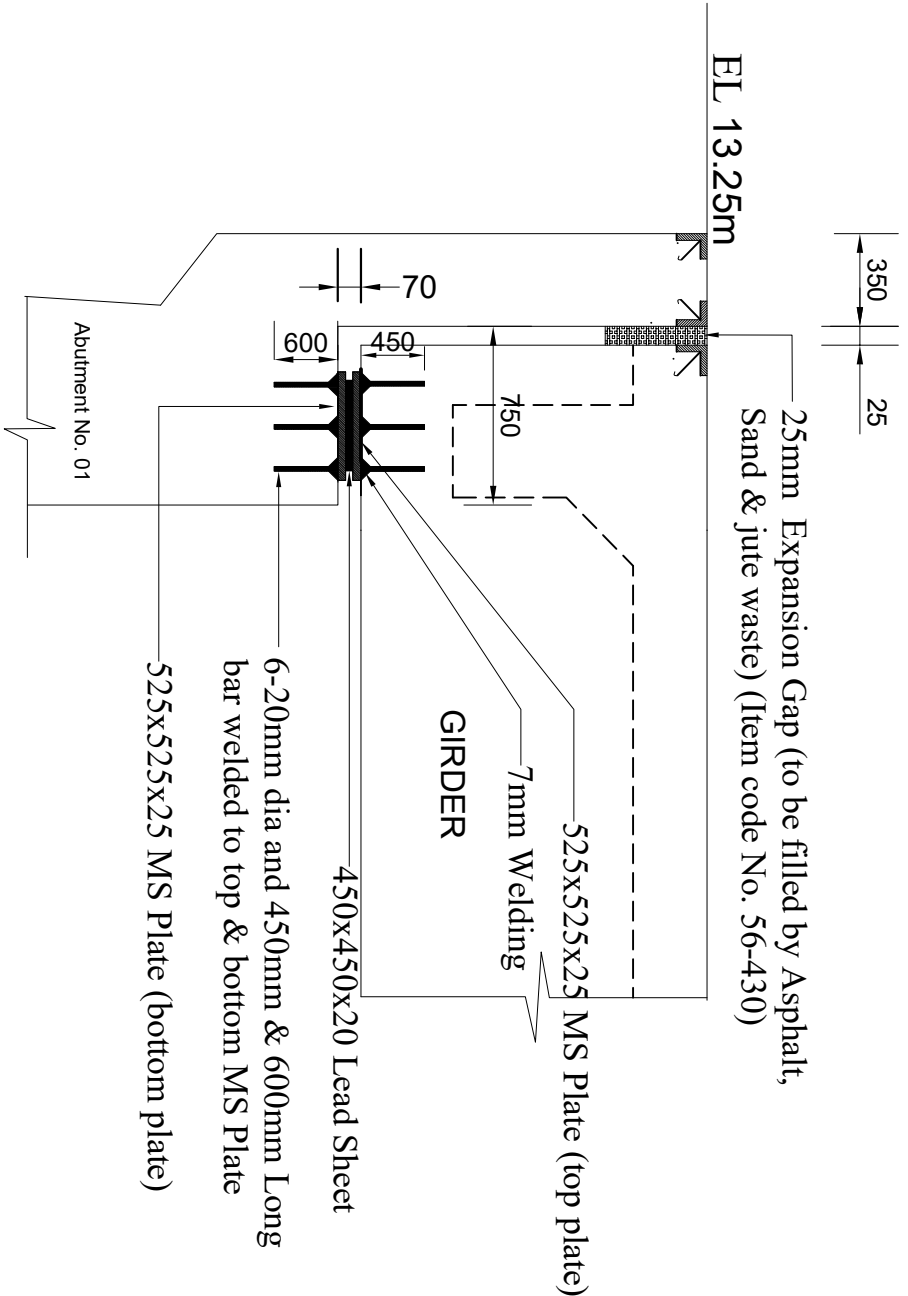


PLAN OF EXPANSION BEARING
(For Abutment No. 2)



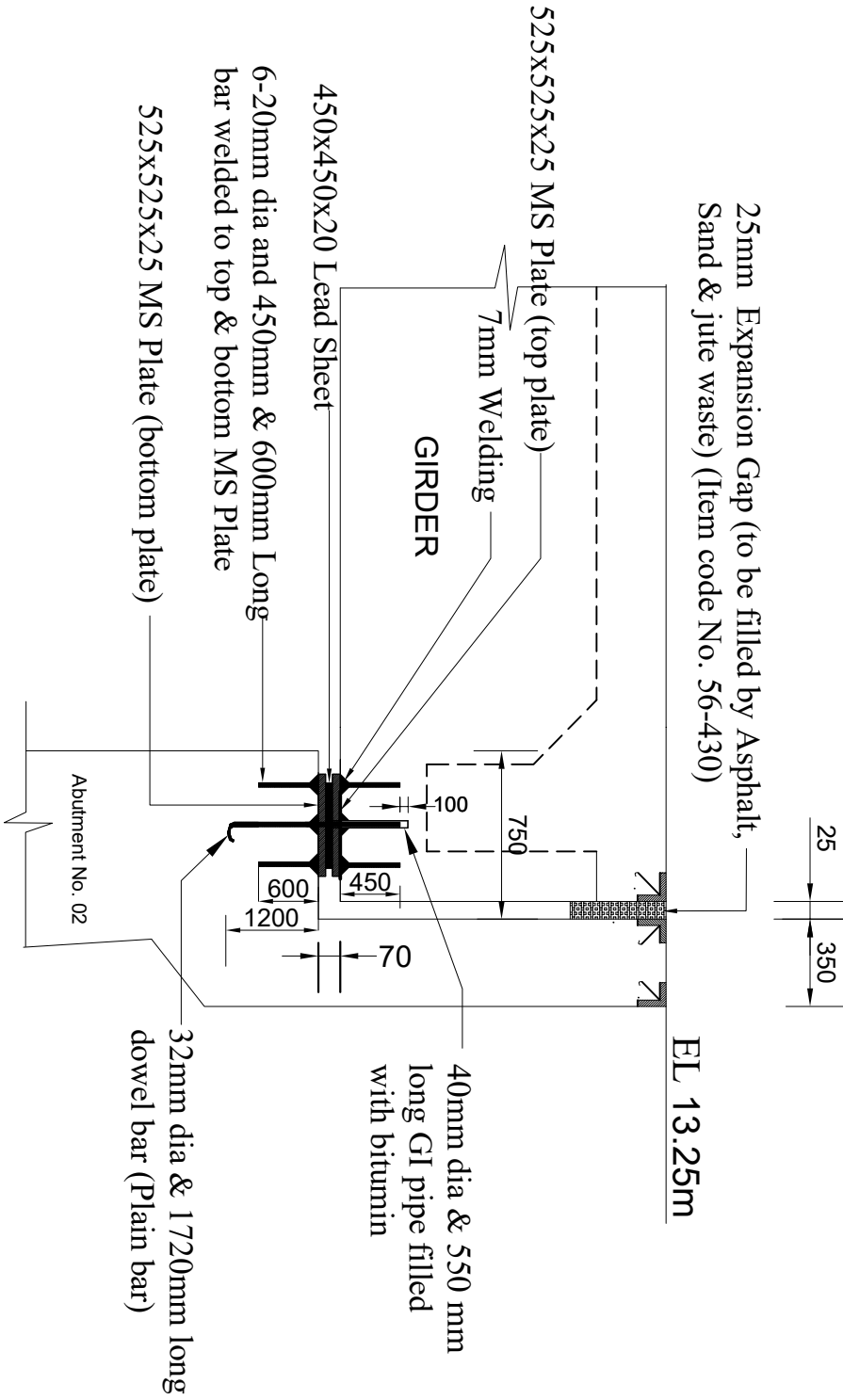
LEAD SHEET (450X450X20)
(Without Hole for Abutment No. 01)

BANGLADESH WATER DEVELOPMENT BOARD	
Office of the Superintending Engineer	
Design Circle-8	
Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabang River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.	
Details of Bearing (For Abutment)	
DESIGNED BY :	RECOMMENDED BY :
(SAKIB BIN RAFI), AE	
CHECKED BY :	APPROVED BY :
	CHIEF ENGINEER, DESIGN



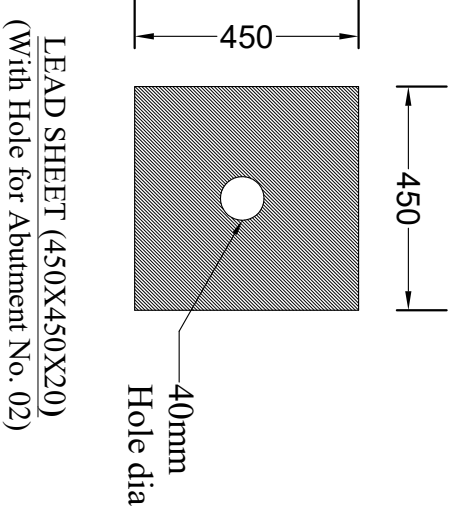
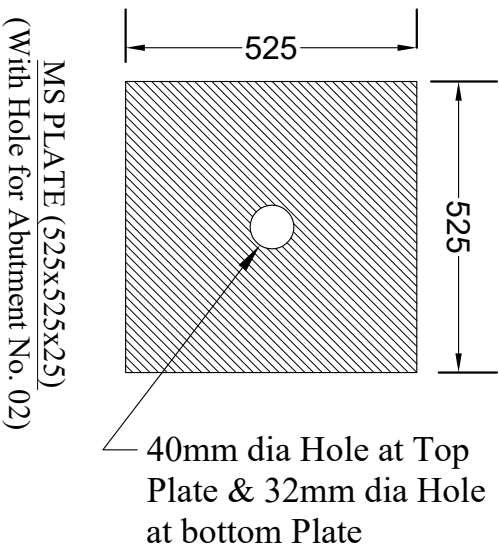
SECTION XI-XI

(See Plan of Eexpansion Bearing for
Abutment No. 01 in Sheet No. 13 of 14)



SECTION X2-X2

(See Plan of Eexpansion Bearing for
Abutment No. 02 in Sheet No. 13 of 14)



BANGLADESH WATER DEVELOPMENT BOARD
Office of the Superintending Engineer
Design Circle-8

Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of
Madhumoti-Nabaganga Sub-Projec and Re-excavation/Dredging of Nabang
River to Revival and Conservation of Environmental Balance in Lohagor
Upazila of Narail District under Narail O&M Division, BWDB Narail.

Details of Bearing (For Abutment)

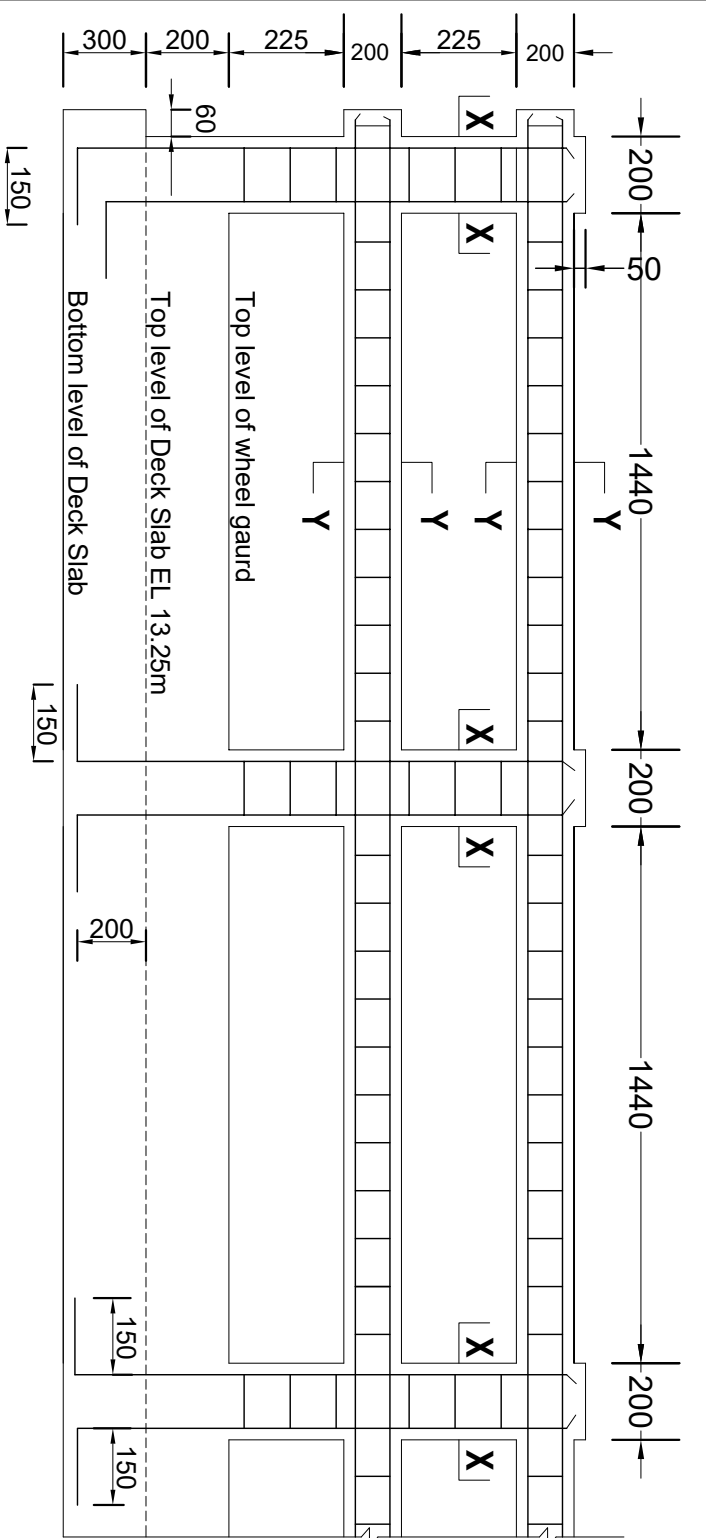
DESIGNED BY :

RECOMMENDED BY :

(SAKIB BIN RAFI), AE

CHECKED BY :

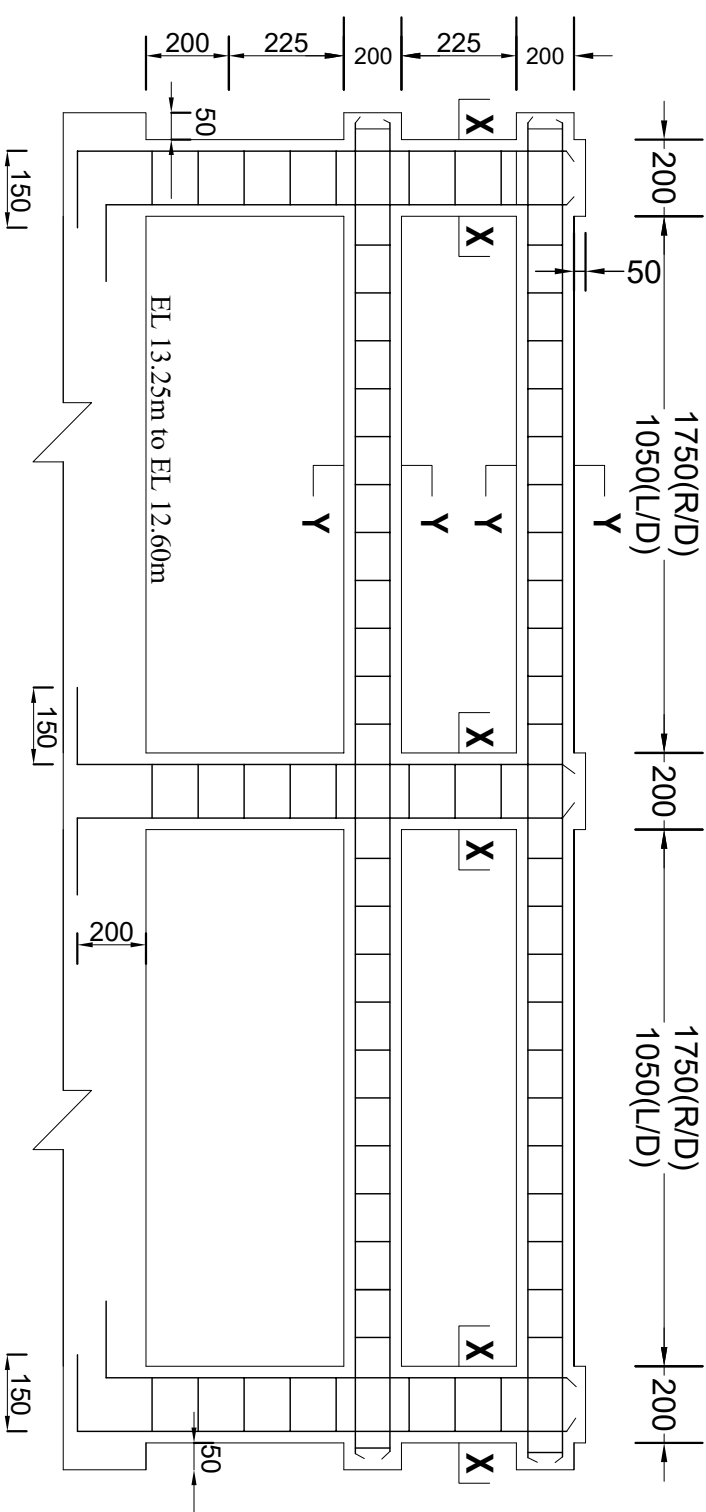
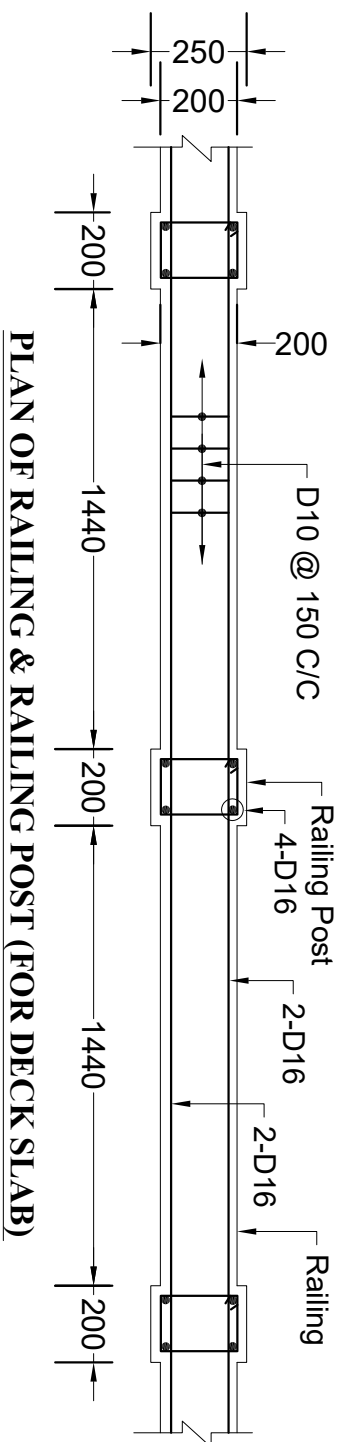
APPROVED BY :



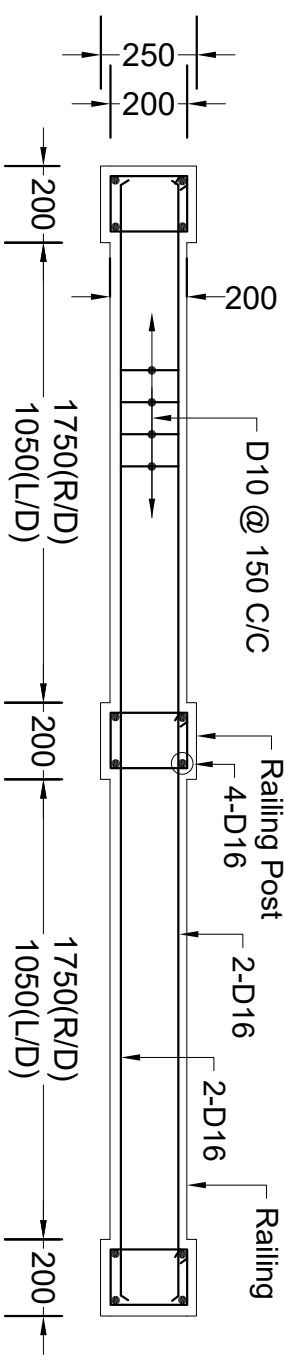
DETAILS OF RAILING (FOR DECK SLAB)
(All Railing & Railing Post Should be Painted)



SECTION X-X

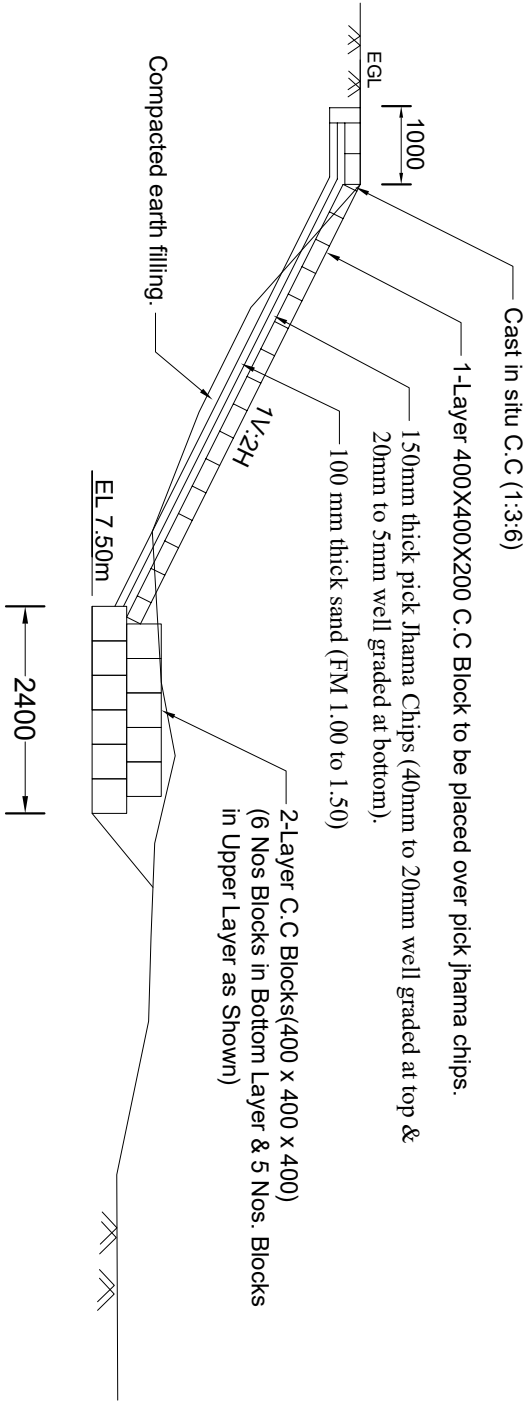


DETAILS OF RAILING (FOR WING WALL)
(All Railing & Railing Post Should be Painted)



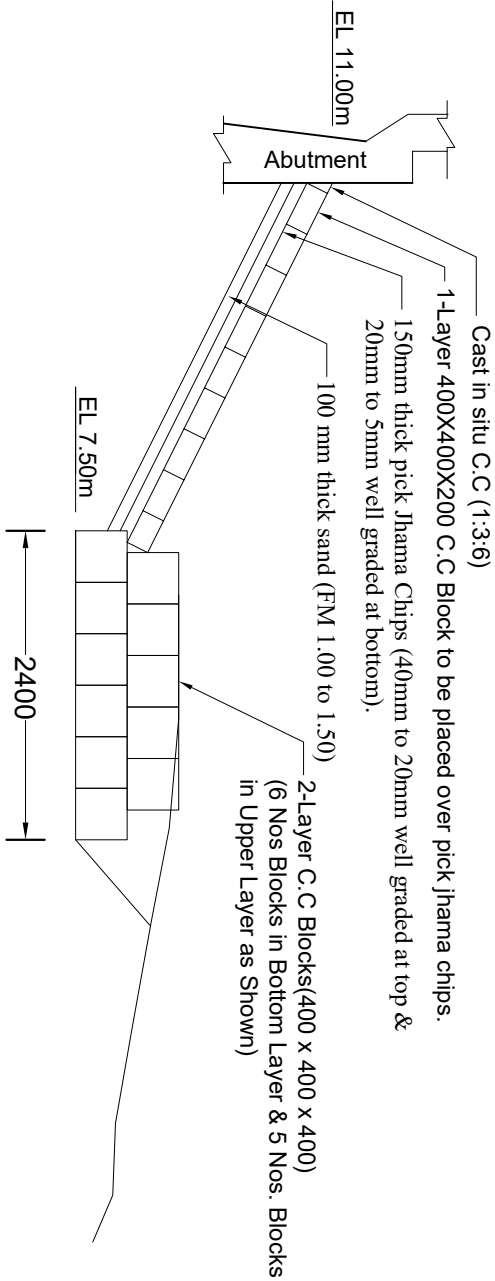
PLAN OF RAILING & RAILING POST (FOR WING WALL)

<p align="center">DESIGNED BY :</p> <p align="center">(SAKIB BIN RAFI), AE</p> <p align="center">CHECKED BY :</p> <p align="center">(MST. TASMEM JAHAN), EE</p>		<p align="center">RECOMMENDED BY :</p> <p align="center">APPROVED BY :</p>
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SECTION P-P

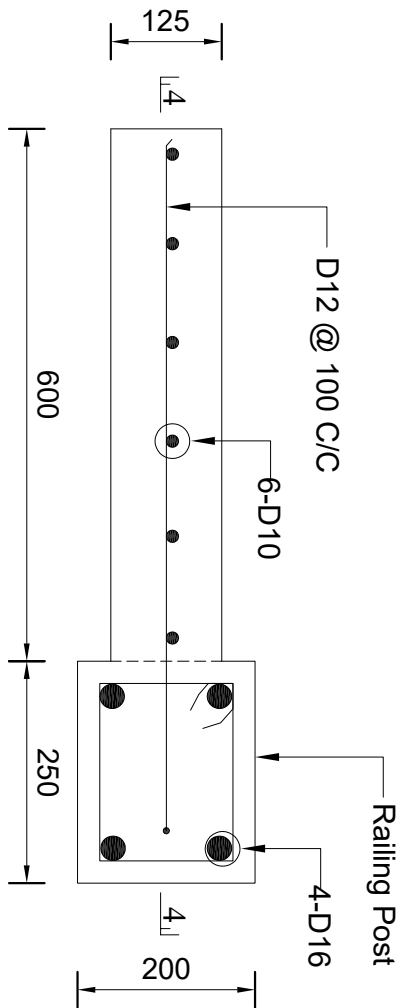
(Typical Section of Protective Work, See Plan of Bridge in Sheet No. 04 of 14)



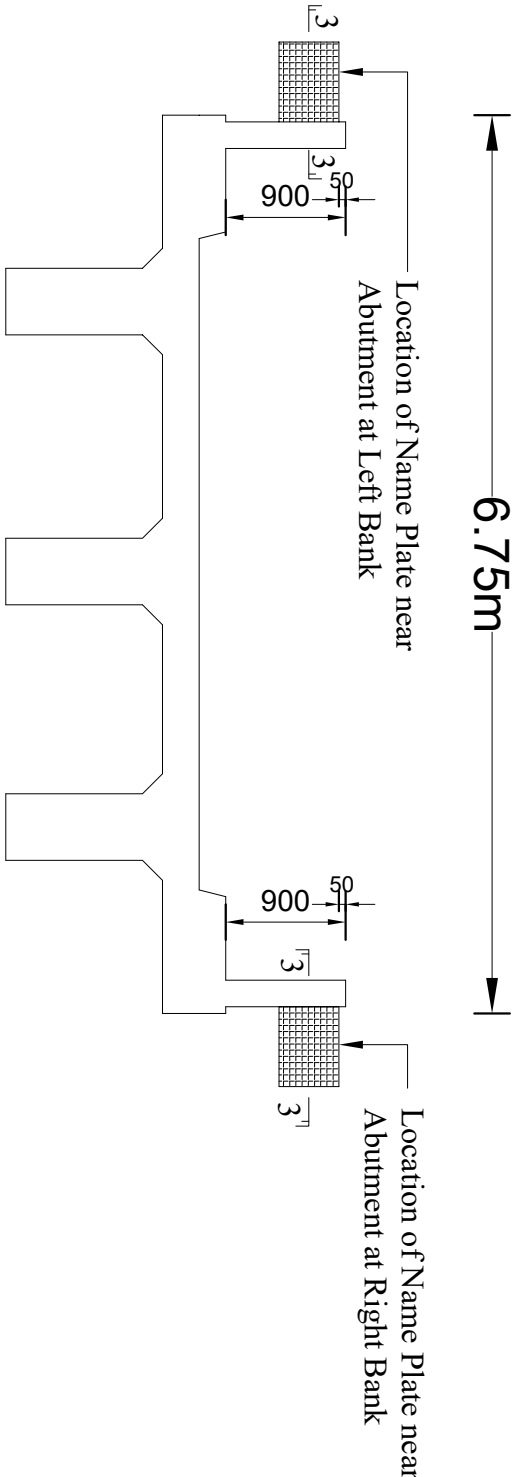
DETAILS "Y"

(Typical Section of Protective Work along Abutment in Section A-A, See Sheet No. 05 of 14)

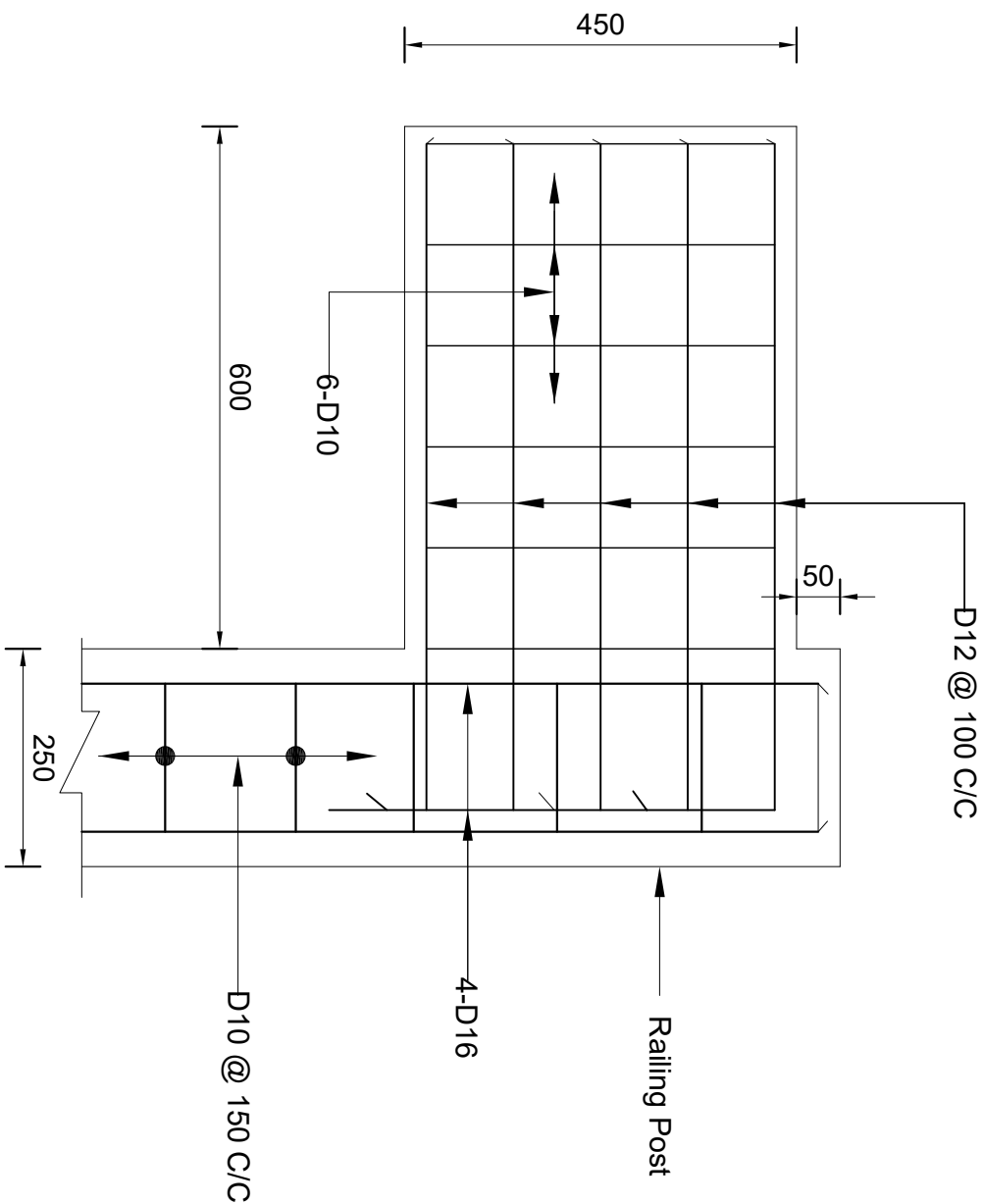
BANGLADESH WATER DEVELOPMENT BOARD	
Office of the Superintending Engineer	
Design Circle-5	
Design of R.C.C Bridge Over Kalisankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Project and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.	
Details of Protective Work	
DESIGNED BY :	RECOMMENDED BY :
(SAKIB BIN RAFI), AE	
CHECKED BY :	APPROVED BY :



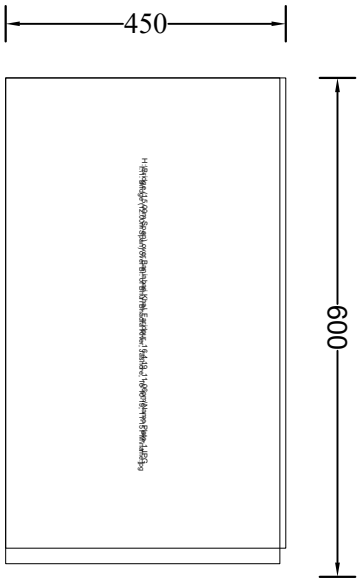
SECTION 3-3
(In Plan)



SECTIONAL ELEVATION FOR NAME PLATE



SECTION 4-4



TYPICAL NAME PLATE

BANGLADESH WATER DEVELOPMENT BOARD	
Office of the Superintending Engineer	
Design Circle-8	
Design of R.C.C Bridge Over Kailsankorpur khal in C/W Rehabilitation of Madhumoti-Nabaganga Sub-Project and Re-excavation/Dredging of Nabanga River to Revival and Conservation of Environmental Balance in Lohagora Upazila of Narail District under Narail O&M Division, BWDB Narail.	
Details of Name Plate	
DESIGNED BY :	RECOMMENDED BY :
CHECKED BY :	APPROVED BY :