

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

PROJECT NAME

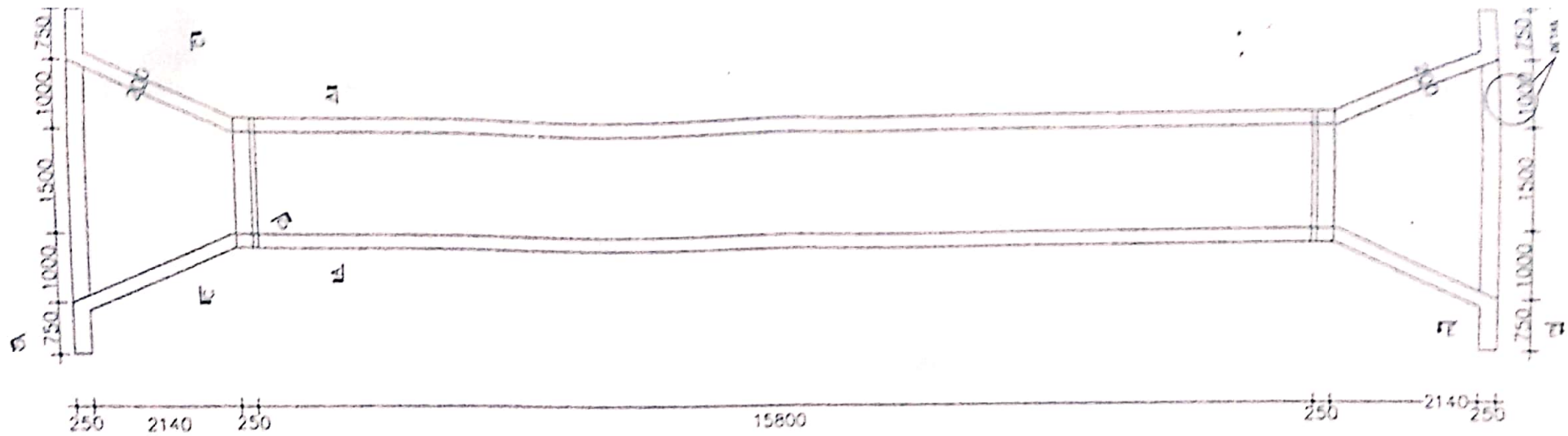
CONSTRUCTION OF IMPORTANT BRIDGES ON RURAL ROADS.

REVISED
DETAIL DRAWING
OF

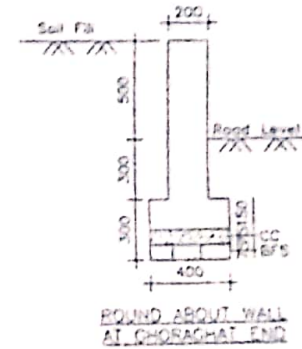
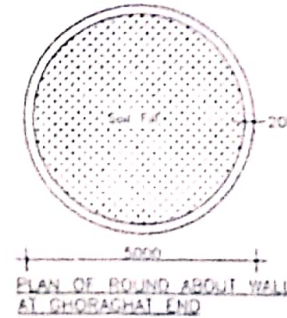
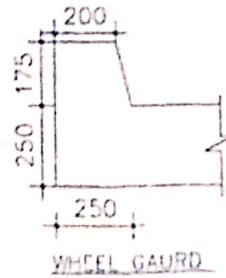
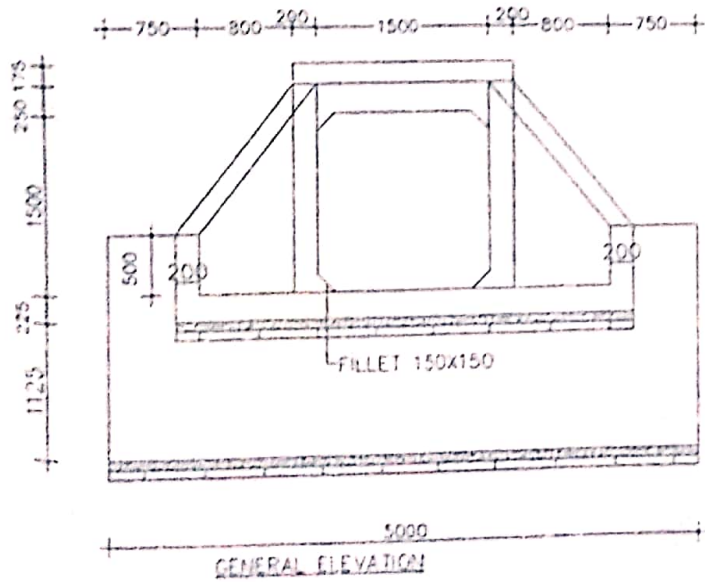
APPROACH ROAD & 1- VENT 1.5MX1.5 BOX CULVERT AT GHORAGHAT END OF 301.30M LONG PSC GIRDER
BRIDGE AT NUNDAHA GHAT OVER THE RIVER KARTOA AT CH. 4+500 Km ON CHATRA GC - GILLABARI GHAT
VIA NISCHINTOBATI PRIMARY SCHOOL ROAD, ROAD ID: 185764034.
UPAZILA:PIRGANJ, DISTRICT: RANGPUR

FEBRUARY - 2022





PLAN



उत्तर दिशा में
 प्रवेश करने पर
 बायाँ हाथ में
 चौराहा है।

REVISION		
REV. NO.	DATE	DESCRIPTION

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
 SOCIAL GOVERNMENT ENGINEERING DEPARTMENT
 PROJECT: CONSTRUCTION OF WATER TREATMENT
 AND RAINY POND.

DESIGN UNIT, LGED
 FOR C. ENGINEERING DEPT.
 SOG, RAJSHAHI
 1. NAME OF THE PROJECT
 2. LOCATION OF THE PROJECT
 3. SCALE OF THE PROJECT
 4. DATE OF THE PROJECT
 5. DRAWN BY
 6. CHECKED BY
 7. APPROVED BY

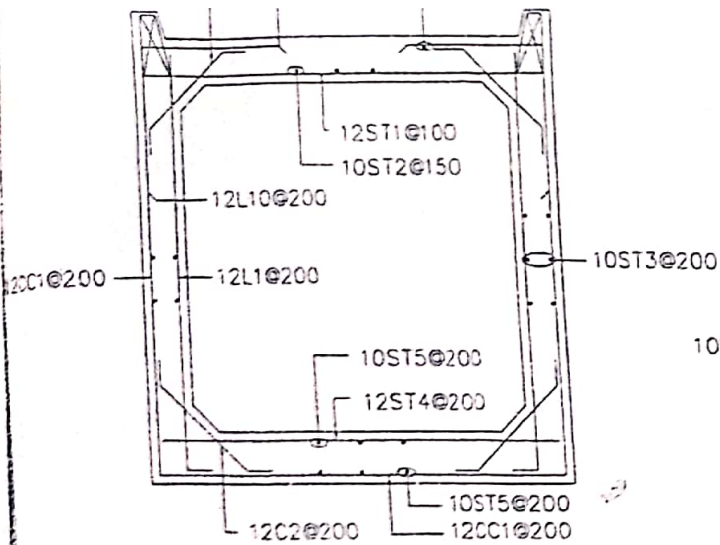
DESIGNED BY
 APPROVED BY

DESIGNED BY
 APPROVED BY

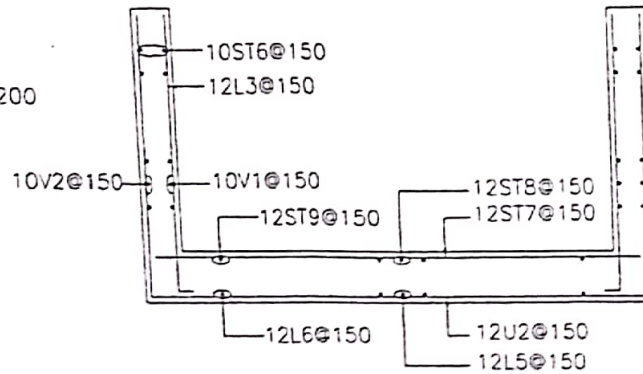
DESIGNED BY
 APPROVED BY

DESIGNED BY
 APPROVED BY

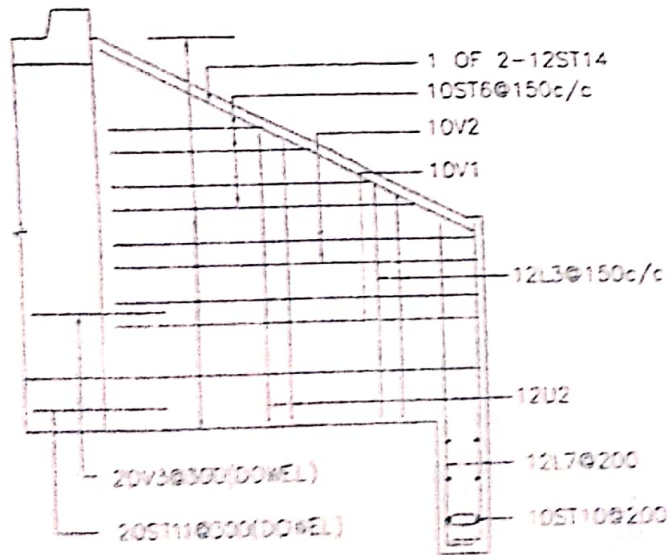
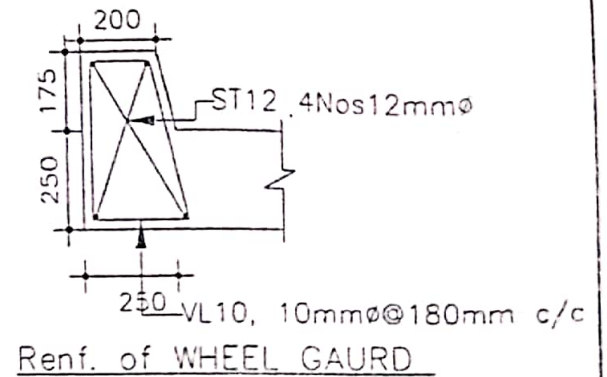
SHEET NO. S-01
 DATE: February 2022



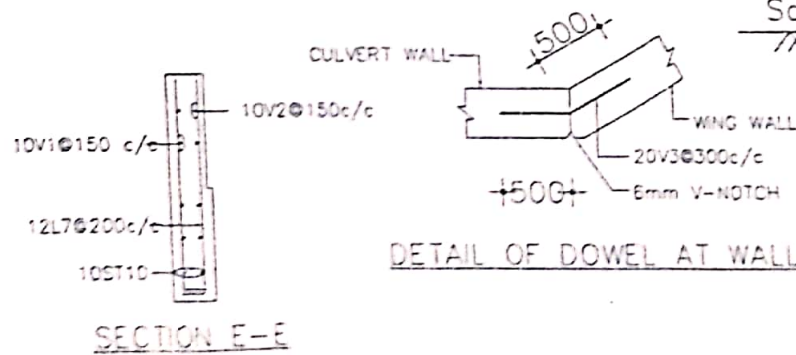
SECTION A-A (REINF. DETAIL)



SECTION C-C (REINF. DETAIL)



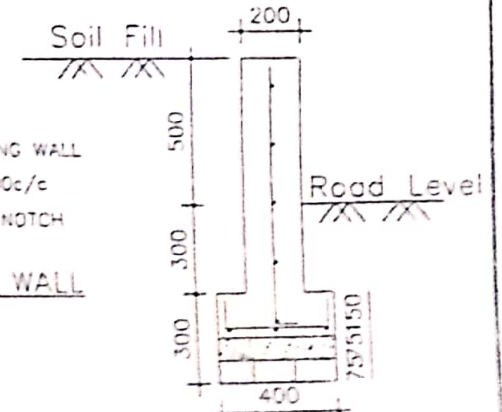
SECTION D-D (REINF. DETAIL)



DETAIL OF DOWEL AT WALL



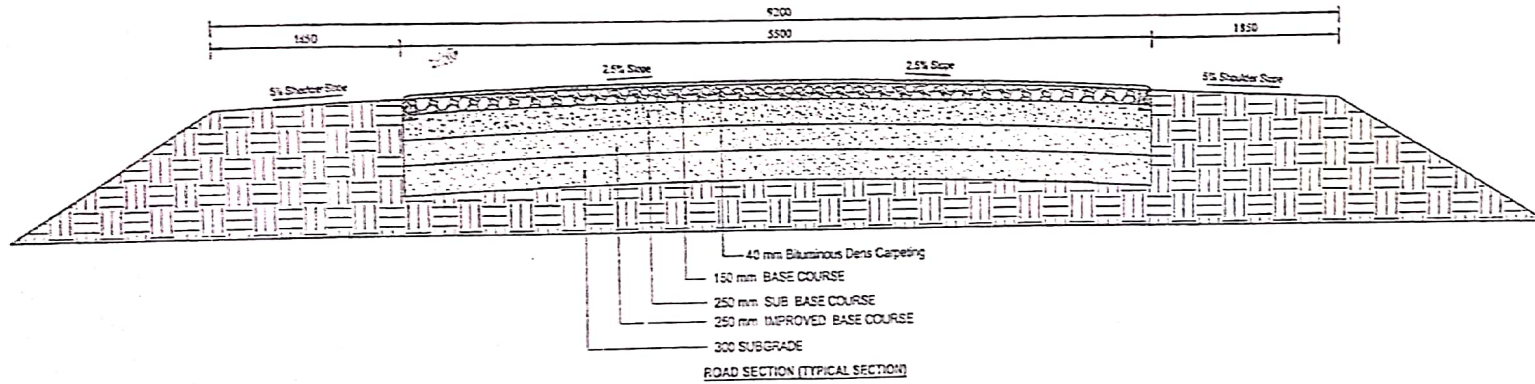
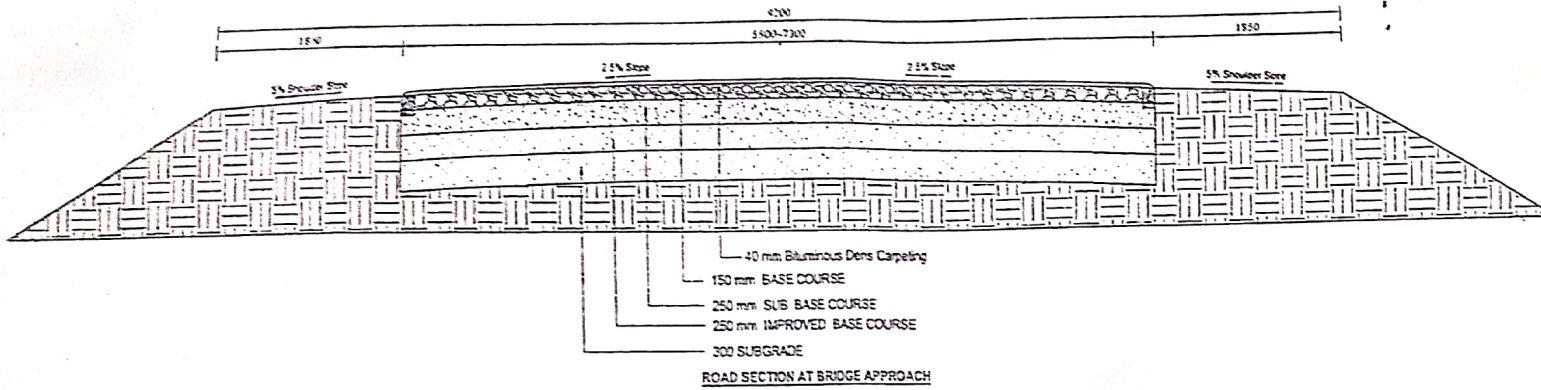
REINF. DETAIL OF 'A'



REINF. ROUND ABOUT WALL AT GHORAGHAT END

REVISION		
REV. NO.	DATE	DESCRIPTION

PROJECT: LOCATION: DATE:	DESIGN UNIT: DESIGNER: CHECKER:	DESIGNED BY: [Signature]	CHECKED BY: [Signature]	APPROVED BY: [Signature]	SHEET NO. 5 OF 10 DATE: 15/05/2017
		PROJECT: LOCATION: DATE:	DESIGN UNIT: DESIGNER: CHECKER:	APPROVED BY: [Signature]	



ডেপুটি সিনিয়র ইঞ্জিনিয়ার
 জাতীয় সড়ক পরিবহন কর্তৃপক্ষ, রাজশাহী
 ১৯৯৩ সাল, ১৯৯৩ সাল, ১৯৯৩ সাল

REVISION		
REV NO	DATE	DESCRIPTION

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
 LOCAL GOVERNMENT ENGINEERING DEPARTMENT

PROJECT: CEMENT CONCRETE ROAD WORKS AT JASHORRAH BAZAR
 (Dhaka District)

DESIGN UNIT: LGED
 (LOCAL GOVERNMENT ENGINEERING DEPARTMENT)
 ESTABLISHED IN 1972

DETAILS OF ROAD CROSS SECTION

DESIGNED BY: *APL*
 CHECKED BY: *[Signature]*
 APPROVED BY: *[Signature]*

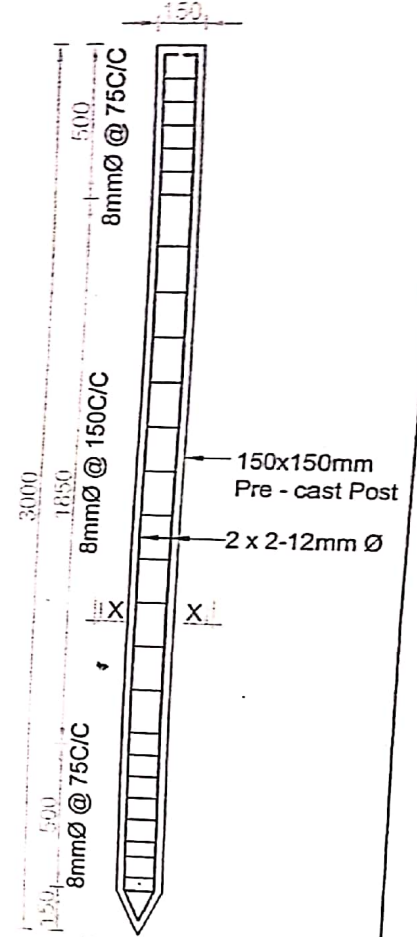
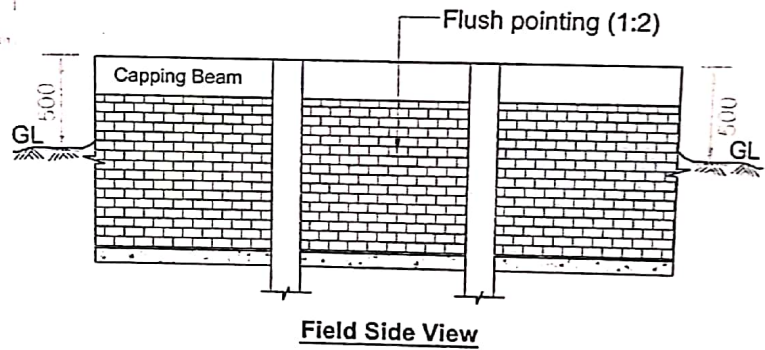
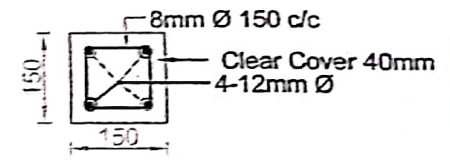
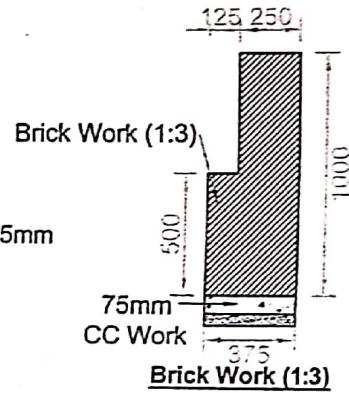
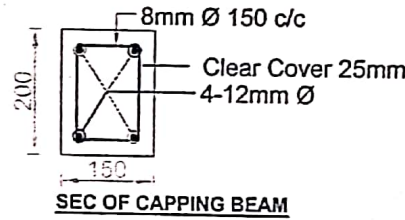
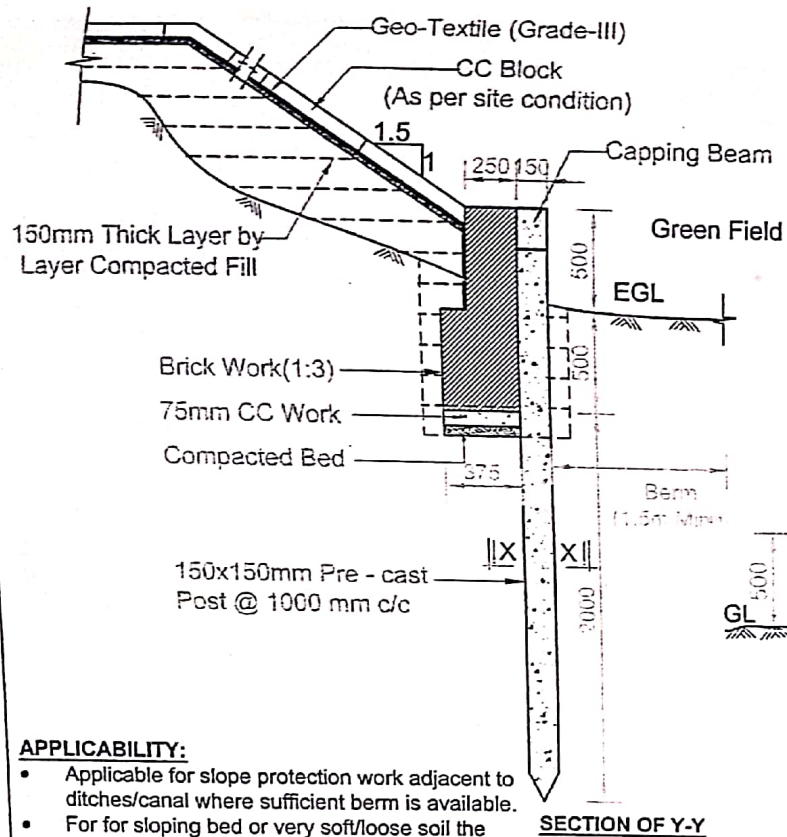
SHEET NO: 5-4/95
 DATE: February 2007

BAR BENDING SCHEDULE OF (PIVENT 1.50' X 50') RCC BOX CULVERT OF 30M TO RISTEP EXIT SIDE OF PIRGONJI FACILITY - DISTRICT-RANGPUR.

COMPONENT	BAR MARKS	SPECI NG (MM)	BAR DIA (MM)	BAR LENGT (MM)	NO OF BAR	NO OF BARS IN EACH	TOTAL NO OF BARS	TOTAL LENGTH (M)	UNIT WEIGHT (kg)	TOTAL WEIGHT (kg)	SHAPE CODE	DIMENSION				
												1	2	3	4	5
ECU	ST1	200	12	1800	1	18	183.00	233.40	0.882	230.40	1	1000				
	ST2	200	10	18200	1	18	18.00	219.60	0.817	139.84	1	1200				
	L10	200	12	1350	2	82	164.00	221.40	0.888	188.88	8	650	700			
	CC1	200	12	8930	1	82	82.00	585.00	0.888	502.08	3	700	1250	1000	1000	
	ST3	200	10	18200	1	9	36.00	503.20	0.817	359.56	1	18200				
	ST4	200	12	1000	1	92	82.00	147.60	0.888	131.04	1	18200				
	ST5	200	10	18200	2	10	20.00	324.00	0.617	129.78	1	18200				
	L1	200	12	1970	2	82	164.00	823.08	0.888	236.88	32	1350	120			
	C1	200	12	735	2	82	164.00	120.21	0.888	108.93	42	120	485	120		
	C2	200	12	755	2	82	164.00	128.82	0.888	108.93	40	120	515	120		
	ST11	300	20	1000	2	7	14.00	14.00	2.468	34.56	1	1300				
	V3	300	20	1000	4	6	24.00	24.00	2.468	59.19	1	600	500			
	ST12		12	1890	2	4	8.00	8.00	0.888	12.72	1	1800				
	VL10	180	12	1275	2	10	20.00	20.00	0.888	25.64	8	150	330	260	315	300
	SUB TOTAL										2412.21	kg				
TOTAL=(S.T.10)										2412.21	kg					
WING APPROX & CUT OFF WALL-(LAND SIDE)	L2 av	150	12	1345	2	16	30.00	40.38	0.888	35.82	82	1225	120			
	ST6 av	150	10	1181	4	9	36.00	42.52	0.617	23.21	1	1181				
	V1	150	10	3062	2	5	10.00	30.62	0.617	18.38	51	2362	700			
	V2	150	10	2862	2	5	10.00	28.62	0.617	17.65	51	2162	700			
	ST7 av	150	12	2600	1	18	18.00	30.71	0.888	34.75	1	2600				
	ST8	150	12	2362	1	12	12.00	30.71	0.888	37.26	1	1184				
	ST9	150	12	1184	2	7	14.00	10.58	0.388	14.72	1	1184				
	U2 av	150	12	5250	1	17	17.00	39.25	0.888	79.24	5	1225	2600	1225		
	L5	150	12	1045	1	7	7.00	13.59	0.888	12.05	51	825	120			
	L8 av	150	12	621	2	7	14.00	2.60	0.888	7.72	51	501	120			
	L7	200	12	1759	2	7	14.00	26.30	0.888	25.43	51	1325	144			
	ST10	200	10	4800	2	5	10.00	48.00	0.888	7.72	5	144	1125	1000		
	UT1	200	12	2208	1	20	20.00	45.38	0.888	40.29	5	2462				
ST14		12	2462	2	2	4.00	9.55	0.888	5.74	1	2462					
SUB TOTAL										388.67	kg					
TOTAL=(S.T.12)										777.34	kg					
GROSS TOTAL=										3189.55	kg					

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TOE WALL WITH MASONRY BRICK AND PRE-CAST RCC POST (BP-TW)

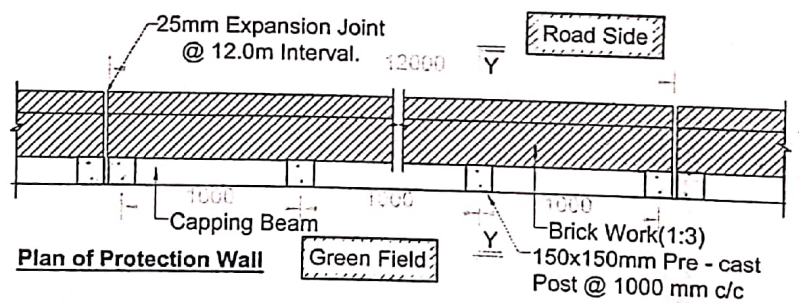


APPLICABILITY:

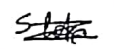


- Applicable for slope protection work adjacent to ditches/canal where sufficient berm is available.
- For sloping bed or very soft/loose soil the design may not be suitable.

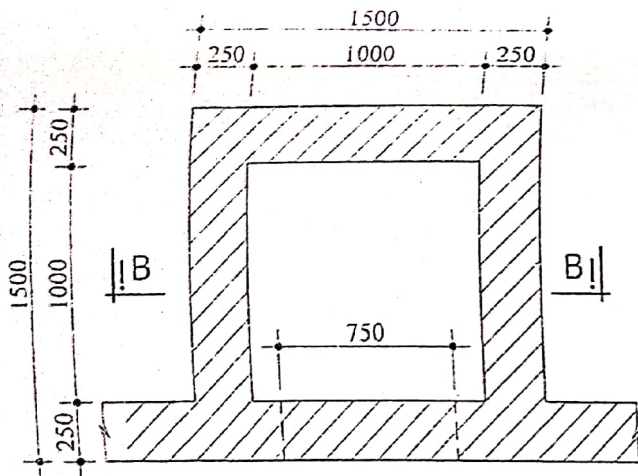
NOTES:

1. All dimensions are in mm (unless otherwise mentioned).
2. 28 day's Cylindrical Concrete Strength $f_c = 25$ MPa.
3. MS Deformed bar ($f_y = 400$ Mpa)
4. Expansion joint at 12.0m interval
5. Joint Filling in Brick Work (1:3)
6. Pre-cast post must be driven by drop hammer
7. Construction of the Structure which is under water should be done by bailing out of water.

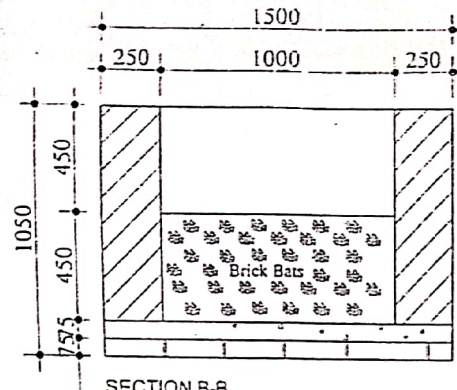


Reinforcement Details of 3.00m Long RCC Post

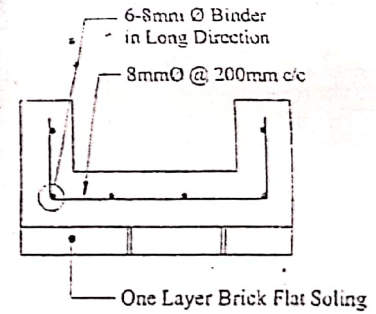
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH LOCAL GOVERNMENT ENGINEERING DEPARTMENT AGARGAON, SHER-E-BANGLA NAGAR, DHAKA-1207	DESIGN ORGANIZATION DESIGN UNIT, LGED, ROAD & BUILDING DESIGN SECTION RDEC BUILDING (LEVEL - 4), Tel. : +880 2 9119609, +880 2 9123960 Fax : +880 2 9118175 E-mail: sa_design.rnb@lged.gov.bd	DESIGNED BY  Md. Shamim Hasan AE (R&B Design) LGED HQ, Dhaka.	CHECKED BY  Md. Ibrahim Khalil XEN (R&B Design) LGED HQ, Dhaka.	COUNTER SIGNED BY  Md. Abdus Salam Molla SE (R&B Design) LGED HQ, Dhaka.
	GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH LOCAL GOVERNMENT ENGINEERING DEPARTMENT AGARGAON, SHER-E-BANGLA NAGAR, DHAKA-1207			



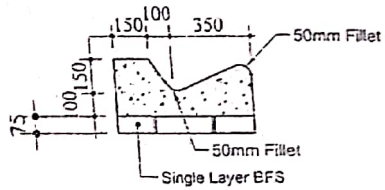
PLAN OF RAIN WATER
OUTLET DRAIN PIT



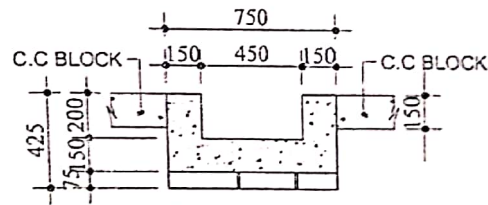
SECTION B-B



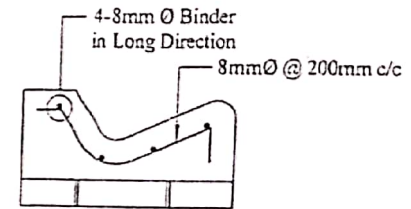
REINF. DETAIL OF RAIN
WATER OUTLET DRAIN



CROSS SECTION OF RAIN WATER
SURFACE DRAIN



CROSS SECTION OF
RAIN WATER OUTLET DRAIN



REINF. DETAIL OF RAIN
WATER SURFACE DRAIN

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চৈতন্য কুমার মজুমদার
কম্পিউটার এন্ড ইঞ্জিনিয়ারিং ইঞ্জিনিয়ার
কম্পিউটার এন্ড ইঞ্জিনিয়ারিং ইঞ্জিনিয়ার
কম্পিউটার এন্ড ইঞ্জিনিয়ারিং ইঞ্জিনিয়ার

REVISION		
REV. NO.	DATE	DESCRIPTION

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH LOCAL GOVERNMENT ENGINEERING DEPARTMENT PROJECT: CONSTRUCTION OF IMPORTANT BRIDGES ON RURAL ROADS	DESIGN UNIT LGED REGIONAL OFFICE II AGARTALA WATER SUPPLY & SEWERAGE DIVISION	DESIGNED BY <i>[Signature]</i> CHECKED BY <i>[Signature]</i> APPROVED BY <i>[Signature]</i>	SHEET NO. 3-01 DRAWN BY: RAJIBUL KABIR DATE: FEBRUARY 2014
	PROJECT: CONSTRUCTION OF IMPORTANT BRIDGES ON RURAL ROADS	DESIGN UNIT LGED REGIONAL OFFICE II AGARTALA WATER SUPPLY & SEWERAGE DIVISION	DESIGNED BY <i>[Signature]</i> CHECKED BY <i>[Signature]</i> APPROVED BY <i>[Signature]</i>

Slope protection work for Approach Road (Ghoraghat End)

Component	Specing	Bar Mark	Bar dia (mm)	Bar Length (m)	Nos Member	Nos of bars in each	Total nos of bar	Total length (m)	Unit weight (Kg)	Total weight (Kg)	Shape code	Dimension				
												a	b	c	d	e
Pre Cast Pile		Main	12	3000	1	4	4	12.000	0.888	10.656	2	2900	50	50		
	75/150	Ring	8	550	1	27	27	14.850	0.395	5.866	8	100	100	100	100	150
Sub-total										16.522						
Sub-total = (S.Tx186)										3073.046						

Cap Beam		Main	12	167000	1	4	4	668.000	0.888	593.184	2	80000	50	50		
	200	Ring	8	650	1	836	836	543.400	0.395	214.643	8	100	150	100	150	150
Sub-total										807.827						
Sub-total = (S.Tx1)										807.827						
Total										3880.873						

Surface drain	200	Main	8	700	1	675	675	472.500	0.395	186.638	2	100	500	100		
		Binder	8	135000	1	6	6	810.000	0.395	319.950	1	39900				
Sub-total										506.588						
Sub-total = (S.Tx1)										506.588						

Slope drain	200	Main	8	1300	1	81	81	105.300	0.395	41.594	6	300	700	300		
		Binder	8	16000	1	6	6	96.000	0.395	37.920	1	16000				
Sub-total										79.514						
Sub-total = (S.Tx9)										715.622						

Outfall	150	Main	10	2550	1	10	10	25.500	0.617	15.734	1	2550				
		Binder	10	1400	1	18	18	25.200	0.617	15.548	1	1400				
Sub-total										31.282						
Sub-total = (S.Tx9)										281.537						
Total										1503.746						
Grand Total										5384.619						

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Nundaha ghat 301m Bridge. Upazila: Pargana, District: Nagerhat
Slope protection work for Connecting Road(Ghoraghat End)

Component	Specing	Bar Mark	Bar dia (mm)	Bar Length (mm)	Nos Member	Nos of bars in each	Total nos of bar	Total length (m)	Unit weight (Kg)	Total weight (Kg)	Shape code	Dimension (mm)				
												a	b	c	d	e
Pre Cast Pile		Main	12	3000	1	4	4	12.000	0.888	10.656	2	2900	50	50		
	75/150	Ring	8	550	1	27	27	14.850	0.395	5.866	8	100	100	100	100	150
										Sub-total	16.522					
										Sub-total = (S.Tx41)	677.392					

Cap Beam		Main	12	40000	1	4	4	160.000	0.888	142.080	2	80000	50	50		
	200	Ring	8	650	1	201	201	130.650	0.395	51.607	8	100	150	100	150	150
										Sub-total	193.687					
										Sub-total = (S.Tx1)	193.687					
										Total	871.079					

Surface drain	200	Main	8	700	1	270	270	189.000	0.395	74.655	2	100	500	100		
		Binder	8	40000	1	6	6	240.000	0.395	94.800	1	39900				
										Sub-total	169.455					
										Sub-total = (S.Tx1)	169.455					

Slope drain	200	Main	8	1300	1	81	81	105.300	0.395	41.594	6	300	700	300		
		Binder	8	16000	1	6	6	96.000	0.395	37.920	1	16000				
										Sub-total	79.514					
										Sub-total = (S.Tx3)	238.541					

Outfall	150	Main	10	2550	1	10	10	25.500	0.617	15.734	1	2550				
		Binder	10	1400	1	18	18	25.200	0.617	15.548	1	1400				
										Sub-total	31.282					
										Sub-total = (S.Tx3)	187.691					
										Total	595.687					
										Grand Total	1466.765					

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