

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE.
2. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. REINFORCEMENT STEEL SHALL BE HYSD BARS OF GRADE F500 FOR ALL R.C.C. WORKS. DURABILITY REQUIREMENTS FOR CORROSION CONTROL SHALL BE AS PER IS:12011 AS PER TENDER.
4. IF ANY AMBIGUITY IS FOUND IN DRAWINGS OR AT SITE, THE SAME SHALL BE BROUGHT TO DESIGNER'S/ENGINEER'S NOTICE BEFORE EXECUTION.
5. GRADE OF CONCRETE SHALL BE M50.
6. MINIMUM CLEAR COVER TO ANY REINFORCEMENT SHALL BE 50MM FOR PORTAL BEAM.
7. DEVELOPMENT LENGTH SHALL BE AS GIVEN BELOW :

































GRADE OF CONCRETE	M35	M50
DEVELOPMENT LENGTH	46 $\phi$	41 $\phi$

WHERE  $\phi$  IS THE DIA. OF BAR.

8. FOR DEVELOPMENT LENGTH CALCULATION OF BUNDLE BAR, EQUIVALENT BAR DIA =  $\phi$  SHALL BE USED, WHERE,  $\phi$ =DIA (MM) OF BAR IN BUNDLE & n=NO OF BARS IN BUNDLE.
9. BENDING OF REINFORCEMENT SHALL CONFORM TO IS:2502 LATEST REVISION.

1. 022077-BSPR-CR2-C-V0-01-10-1301\_SH-1 TO 7.....GENERAL ARRANGEMENT DRAWING OF BENNIGHANHALI STATION (ELEVATED)
2. 022077-BSPR-CR2-C-V0-01-20-1328\_SH-1 & 2.....DIMENSIONAL DETAILS OF SUBSTRUCTURE FOUNDATION AND REINFORCEMENT OF PILE FOR PORTAL PIERS BP2 & BP10 AT BENNIGHANHALI STATION (ELEVATED)
3. 022077-BSPR-CR2-C-V0-01-20-1330\_SH-1 & 2.....DIMENSIONAL DETAILS OF SUBSTRUCTURE FOUNDATION AND REINFORCEMENT OF PILE FOR PORTAL PIERS BP3 & BP8 AT BENNIGHANHALI STATION (ELEVATED)
4. 022077-BSPR-CR2-C-V0-01-20-1331\_SH-1 & 2.....DIMENSIONAL DETAILS OF SUBSTRUCTURE FOUNDATION AND REINFORCEMENT OF PILE FOR PORTAL PIERS BP2 & BP10 AT BENNIGHANHALI STATION (ELEVATED)
5. 022077-BSPR-CR2-C-V0-01-20-1335.....REINFORCEMENT DETAILS OF PILECAP AND PIER FOR PORTAL PIERS BP3 & BP8 AT BENNIGHANHALI STATION (ELEVATED)
6. 022077-BSPR-CR2-C-V0-01-20-1336.....REINFORCEMENT DETAILS OF PILECAP AND PIER FOR PORTAL PIERS BP2 & BP10 AT BENNIGHANHALI STATION (ELEVATED)
7. 022077-BSPR-CR2-C-V0-01-20-1599-CONSTRUCTION SEQUENCE OF CAST IN-SITU PORTAL BEAM OF BENNIGHANHALI STATION
8. 022077-BSPR-CR2-C-V0-01-20-1664-DETAILS OF DRAINAGE SCHEME OF PORTAL PIER AT BENNIGHANHALI STATION (ELEVATED)

————	TOP REINFORCEMENT
-----	BOTTOM REINFORCEMENT
REINF ---	REINFORCEMENT
Ld ---	DEVELOPMENT LENGTH

ITEM	BAR MARK	BAR DIA.	SHAPE	TOTAL NOS./ SPACINGS	REMARKS	
PORTAL BEAM	①	Φ32		2100	16 Nos.	BOTTOM BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	①a	Φ32		2100	16 Nos.	BOTTOM BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	①b	Φ32		2100	16 Nos.	BOTTOM BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	①c	Φ32			16 Nos.	BOTTOM BAR (LAYER-2) 10 BUNDLES OF 2 BARS
	①d	Φ32		2100	16 Nos.	BOTTOM BAR (LAYER-3) 10 BUNDLES OF 2 BARS
	①e	Φ32			16 Nos.	BOTTOM BAR (LAYER-4) 10 BUNDLES OF 2 BARS
	①f	Φ16		300	● 110 c/c	BOTTOM BAR (CORBEL)
	②	Φ16		300	● 110 c/c	TOP BAR (CORBEL)
	③	Φ32		1050	(2x2) Nos.	SIDE FACE BAR
	④	Φ32			● 90 c/c	
	⑤	Φ16			● 110 c/c	VERTICAL STIRRUP
	⑥	Φ32		2100	20 Nos.	TOP BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	⑥a	Φ32		2050	20 Nos.	TOP BAR (LAYER-2) 10 BUNDLES OF 2 BARS
	⑥b	Φ32		2000	20 Nos.	TOP BAR (LAYER-3) 10 BUNDLES OF 2 BARS
	⑥c	Φ32		1950	20 Nos.	TOP BAR (LAYER-4) 10 BUNDLES OF 2 BARS
	⑥d	Φ32		1900	20 Nos.	TOP BAR (LAYER-5) 10 BUNDLES OF 2 BARS
	⑥e	Φ32		1850	20 Nos.	TOP BAR (LAYER-6) 10 BUNDLES OF 2 BARS
	⑥f	Φ32		1800	20 Nos.	TOP BAR (LAYER-7) 10 BUNDLES OF 2 BARS
	⑥g	Φ32		1750	20 Nos.	TOP BAR (LAYER-8) 10 BUNDLES OF 2 BARS
	⑥h	Φ32		1700	20 Nos.	TOP BAR (LAYER-9) 10 BUNDLES OF 2 BARS
	⑥i	Φ32		1650	20 Nos.	TOP BAR (LAYER-10) 10 BUNDLES OF 2 BARS
	⑥j	Φ32			20 Nos.	TOP BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	⑥k	Φ32			20 Nos.	TOP BAR (LAYER-2) 10 BUNDLES OF 2 BARS
	⑥l	Φ32			20 Nos.	TOP BAR (LAYER-3) 10 BUNDLES OF 2 BARS
	⑥m	Φ32			20 Nos.	TOP BAR (LAYER-4) 10 BUNDLES OF 2 BARS
	⑥n	Φ32			20 Nos.	TOP BAR (LAYER-5) 10 BUNDLES OF 2 BARS
	⑥o	Φ32			20 Nos.	TOP BAR (LAYER-6) 10 BUNDLES OF 2 BARS
	⑥p	Φ32			20 Nos.	TOP BAR (LAYER-7) 10 BUNDLES OF 2 BARS
	⑥q	Φ32			20 Nos.	TOP BAR (LAYER-8) 10 BUNDLES OF 2 BARS
	⑥r	Φ32			20 Nos.	TOP BAR (LAYER-1) 10 BUNDLES OF 2 BARS
	⑥s	Φ32			20 Nos.	TOP BAR (LAYER-2) 10 BUNDLES OF 2 BARS
	⑥t	Φ32			20 Nos.	TOP BAR (LAYER-3) 10 BUNDLES OF 2 BARS
	⑥u	Φ32			20 Nos.	TOP BAR (LAYER-4) 10 BUNDLES OF 2 BARS
	⑥v	Φ32			20 Nos.	TOP BAR (LAYER-5) 10 BUNDLES OF 2 BARS
	⑥w	Φ32			20 Nos.	TOP BAR (LAYER-6) 10 BUNDLES OF 2 BARS
	⑥x	Φ32			20 Nos.	TOP BAR (LAYER-7) 10 BUNDLES OF 2 BARS
	⑥y	Φ32			20 Nos.	TOP BAR (LAYER-8) 10 BUNDLES OF 2 BARS
	⑥z	Φ32			20 Nos.	TOP BAR (LAYER-9) 10 BUNDLES OF 2 BARS
	⑥za	Φ32			20 Nos.	TOP BAR (LAYER-10) 10 BUNDLES OF 2 BARS
	⑦	Φ32			● 1000 c/c	SPACER BAR
	⑧	Φ20		1050	● 130 c/c	SIDE FACE BAR
	⑧a	Φ20			● 130 c/c	SIDE FACE BAR
	⑧b	Φ20			● 130 c/c	SIDE FACE BAR
	⑧c	Φ20		1050	● 130 c/c	SIDE FACE BAR
	⑧d	Φ20			● 130 c/c	SIDE FACE BAR
	⑨	Φ20			● 125 c/c	2 LEGGED STIRRUP (BUNDLED WITH ⑨a ONLY INVERTED T BEAM)
⑨a	Φ20			● 125 c/c	2 LEGGED STIRRUP (BUNDLED WITH ⑨ ONLY INVERTED T BEAM)	
⑨b	Φ16			● 125 c/c	6 LEGGED STIRRUP	
⑨c	Φ12			● 125 c/c	8 LEGGED STIRRUP	
⑩	Φ25		200	● 125 c/c		
⑪	Φ25			● 90 c/c	3 ROWSx8 LEGS	
⑫	Φ16			16 Nos.		
⑬	Φ8			● 125 c/c		

21-01-2025 14:17:51 - E&I Production/04 - E&I Production/04 - Bangladesh/05 - MAJ AEC14 N0542E KRDE CORRIDOR 202 Drawings/KRIDE Binniganti Station/PORTAL BEAM/Rev C & D/O22077-BSRP-CR2-CVD-01-20-1338 SH-1 to 4 dwg