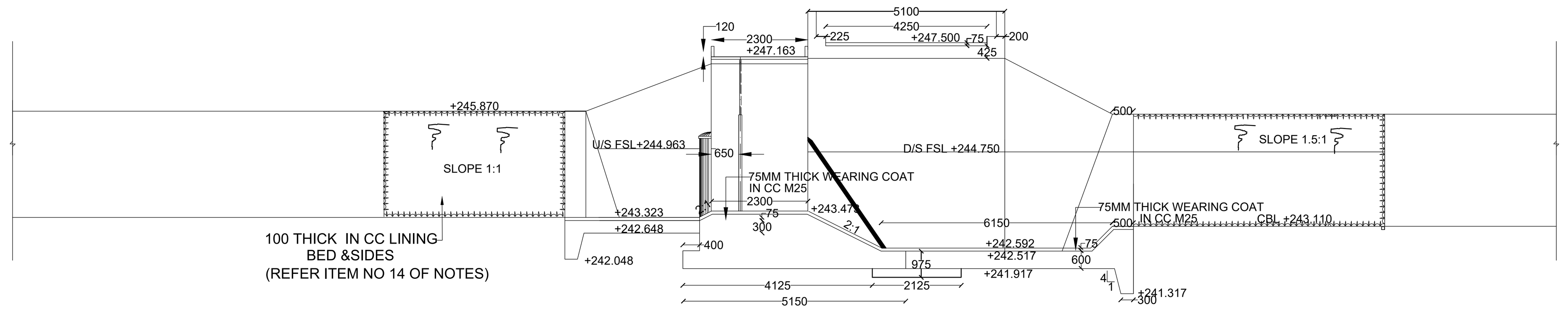
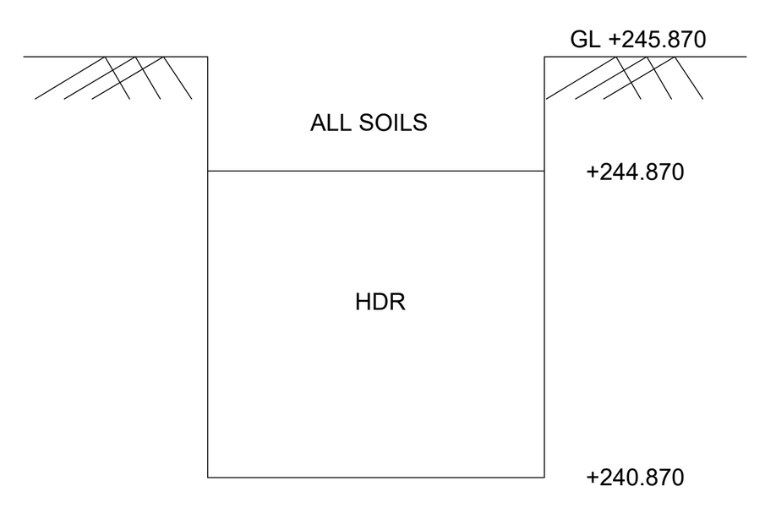


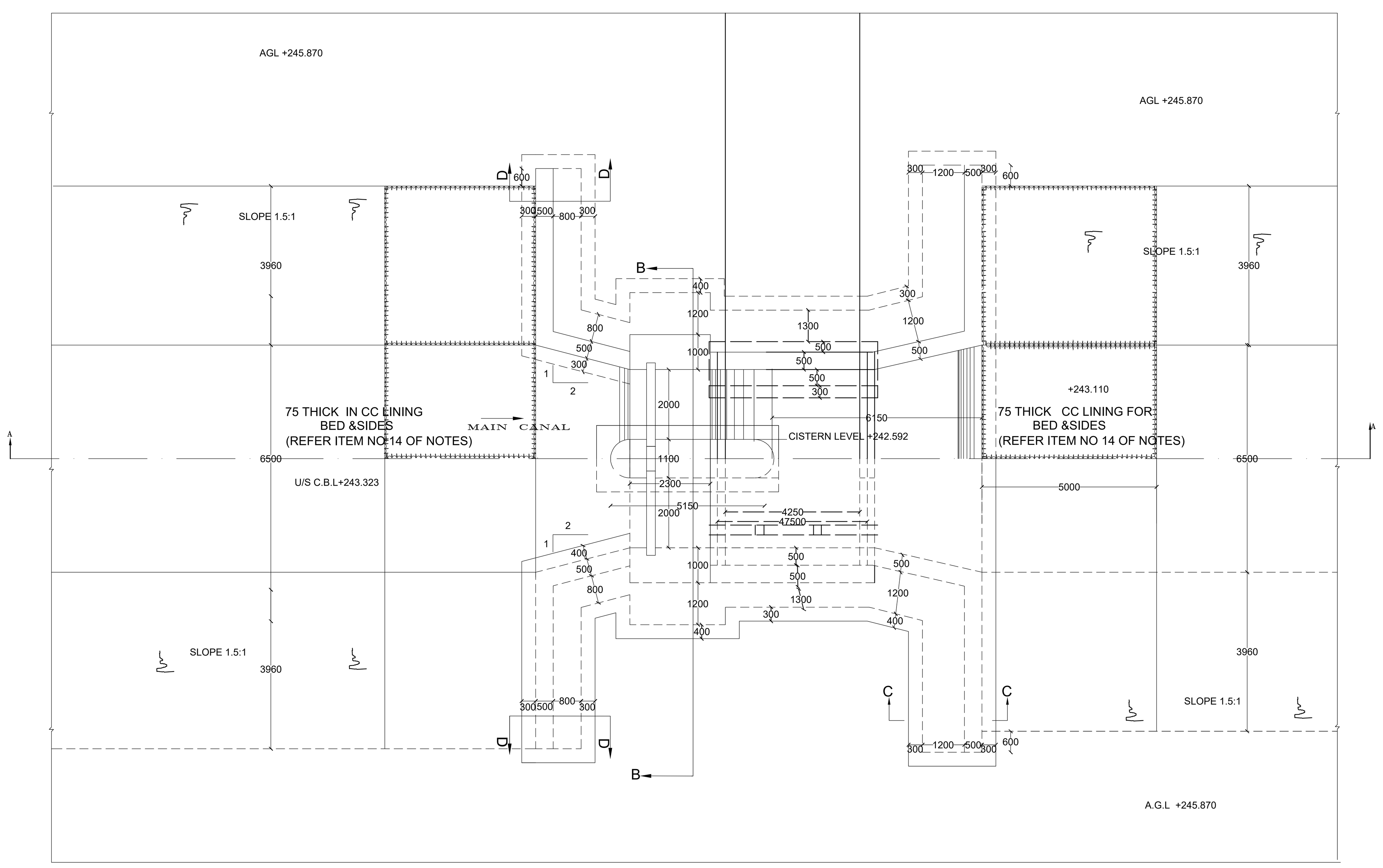
LONGITUDANAL SECTION AT A-A



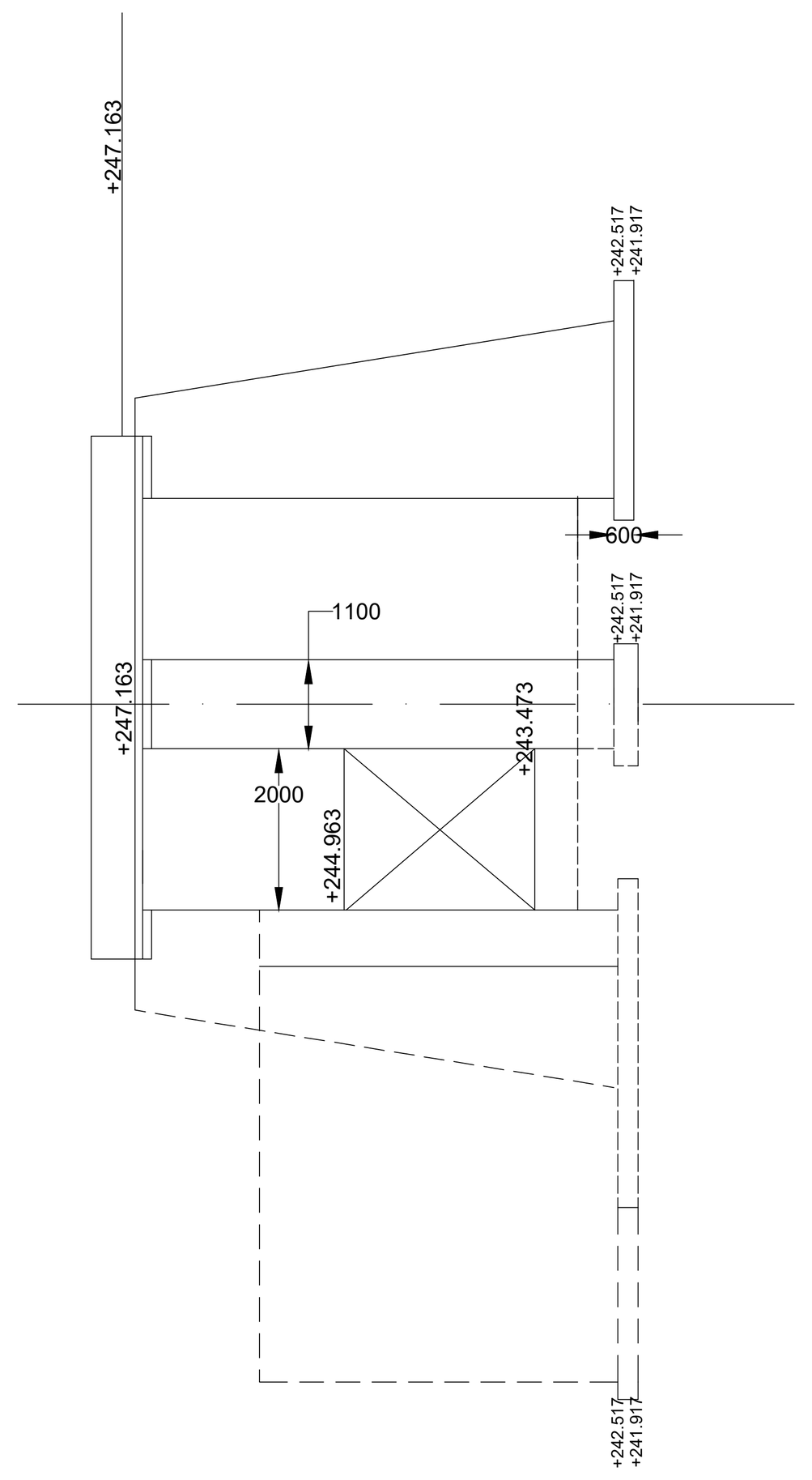
TRAIL PIT PARTICULARS AT KM.16.600

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
2. SPECIFICATIONS FOR ALL MATERIALS AND WORKMANSHIP SHALL CONFIRM TO THE RELEVANT ISI STANDARD.
3. ENERGY DISSIPATION ARRANGEMENTS ARE ONLY TENTATIVE SUBJECT TO CONFIRMATION BY MODEL STUDIES. IN THE INITIAL STAGES OF OPENING OF THE REGULATOR SHUTTER,WHEN THERE IS NO WATER IN REAR,THE WATER WILL SHOOT OUT D/S TILL THE TAIL WATER BUILDS UP. SO,IT IS POSSIBLE IN THE INITIAL STAGE FOR THE BED TO GET SCOURED OUT. IN ORDER TO DISSIPATE THIS EXCESS VELOCITY TWO OR THREE ROWS OF FRICTION BLOCKS MAY BE PROVIDED ON THE SOLID APRON. THIS WILL EVETUALLY REDUCE SCOUR D/S OF SOLID APRON
4. ABUTMENTS, WINGS AND RETURNS ARE DESIGNED AS PER TVA PROCEDURE. ABUTMENTS SHALL BE CONSTRUCTED MONOLITHIC WITH GLACIS ETC.
5. CC M15 GRADE CONCRETE IS ADOPTED FOR ABUTMENT,WINGS,RETURNS, GLACIS,APRONS,CISTERN ETC.
6. BACK FILLING ON THE REAR SIDE OF ABUTMENTS AND RETURN WALLS SHALL BE DONE SIMULTANEOUSLY WITH RISING OF WALLS WITH SOILS OF Ø VALUE NOT LESS THAN 28°
7. WEEP HOLES OF 75MM DIA SHALL BE PROVIDED ABOVE LOW WATER LEVEL WITH REVERSE FILTERS AT 1.5M HORIZONTALLY AND VERTICALLY STAGGERED.
8. THREE VENTS OF 3.1X4.55 M FOR CROSS REGULATOR AND 1 VENTS OF 2.5MX2.5M FOR OFFTAKE REGULATOR ARE PROVIDED.
9. PRESSURE RELIEF HOLES/PIPES OF 50MM Ø ARE PROVIDED IN THE FLOOR OF BOTH THE REGULATORS @ 3M C/C STAGGERED WITH 60 X 60 X 60CM FILTERS IN NO FINES CONCRETE BELOW.
10. DRAINAGE SPOUTS ARE TO BE PROVIDED AS PER MOST.
11. 300MM THICK ROUGH STONE BED PITCHING AND SIDE REVETMENT FOR U/S AND D/S OF REGULATORS ARE TO BE PROVIDED.
12. IF ANY SPECIFICATION MENTIONED IN THE BID DOCUMENT IS HIGHER THAN SPECIFICATION PROPOSED IN THE DRAWING,HIGHER SPECIFICATION SHALL BE FOLLOWED.
13. THE MINIMUM CEMENT CONTENT FOR EACH COMPONENT SHALL BE VERIFIED AS PER THE BID DOCUMENT.
14. 100 THICK CANAL LINING IN CC M15 GRADE USING 20MM MSA SHALL BE PROVIDED FOR A LENGTH OF 30 M ON EITHER SIDE OF THE STRUCTURE.
15. THE DESIGN SBC HAVE TO GOT CONFIRMED BEFORE LAYING FOUNDATION CONCRETE DULY VERIFIED BY THE GEOLOGIST OF GSI AND THE RECOMMEND THE GEOLOGIST TO BE CARRIEDOUT
16. THE SAFE BEARING CAPACITY OF SOIL BELOW THE WINGS,RETURNS,ABUTMENTS AND PIERS SHALL BE WORKEDOUT BY NECESSARY FIELD TESTS AND THE FOUNDATION SHALL BE PRELOADED IN ORDER TO INCREASE THE SBC AS PER THE STRESS TABLE. IN CASE OF DEVIATION IN FOUNDATION STRATA THE SECTIONS NEED REVISION AND TO BE REFERRED TO CDO.
17. IF FONDATION STRATA MET WITH DURING EXECUTION IS NOT CAPABLE OF TAKING DESIGNED STRESSES SECTIONS HAVE BE MODIFIED SUITABLY AND APPROVALS SHALL BE TAKEN FROM THE COMPITEN AUTHORITY/CENTRAL DESIGNS ORGANIZATION, HYDERABAD.
18. RCC BREAST WALL FROM TOP OF VENT TO 0.45M ABOVE FSL OF MAIN CANAL BE DESIGNED AND PROVIDED FOR OFF-TAKE REGULATOR.
19. SUITABLE GROUND CONNECTIONS SHALL BE PROVIDED ALONG WITH THE LADDER ON EITHER SIDE OF BOTH THE CROSS&OFFTAKE REGULATORS.
20. THE LOCATION AND SIZE OF GROOVE IS TENTATIVE FOR BOTH CROSS AND OFF-TAKE REGULATOR AND SUBJECT TO FINALISATION OF MECHANICAL DRAWINGS.



GENERAL PLAN

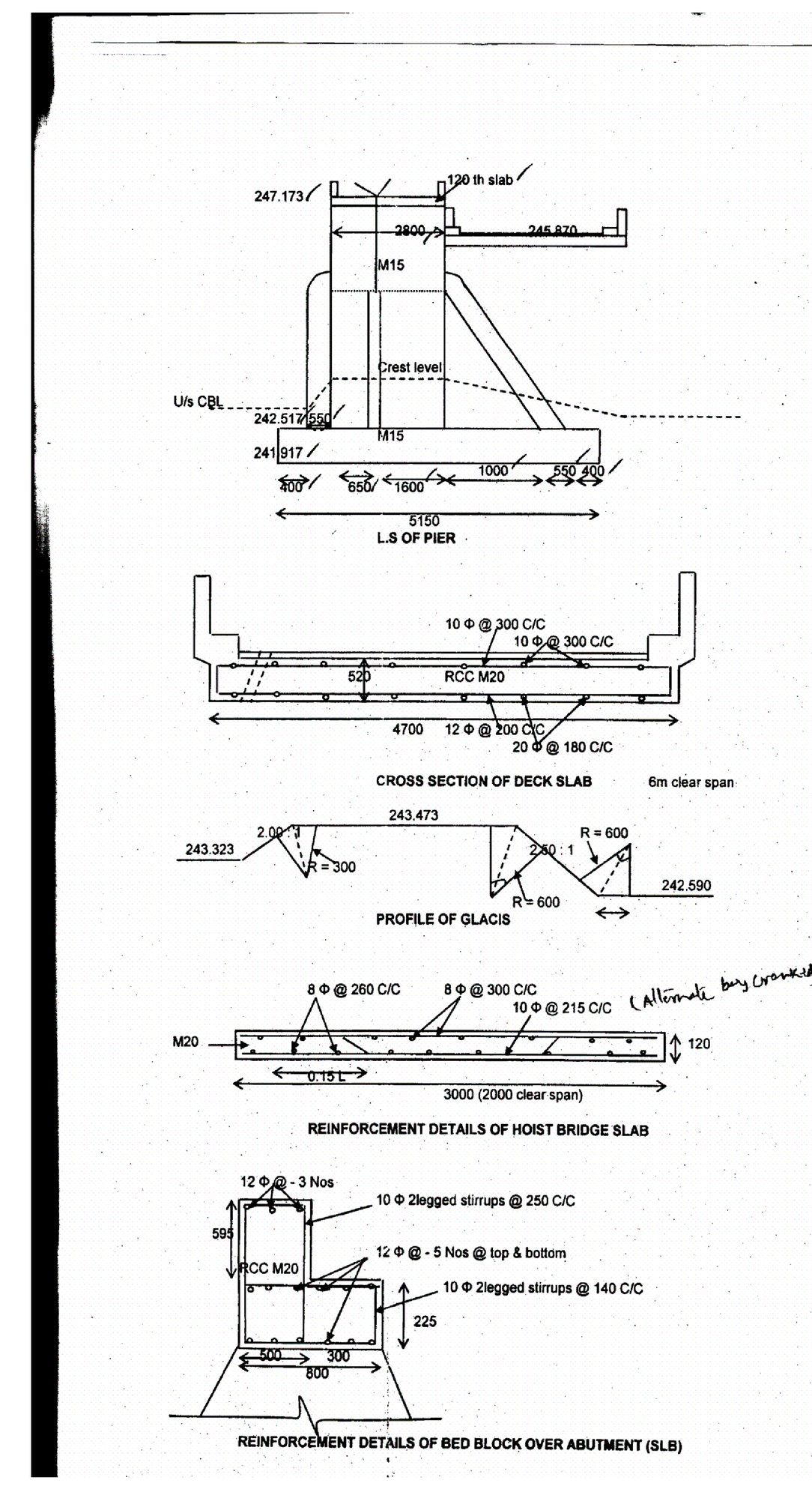


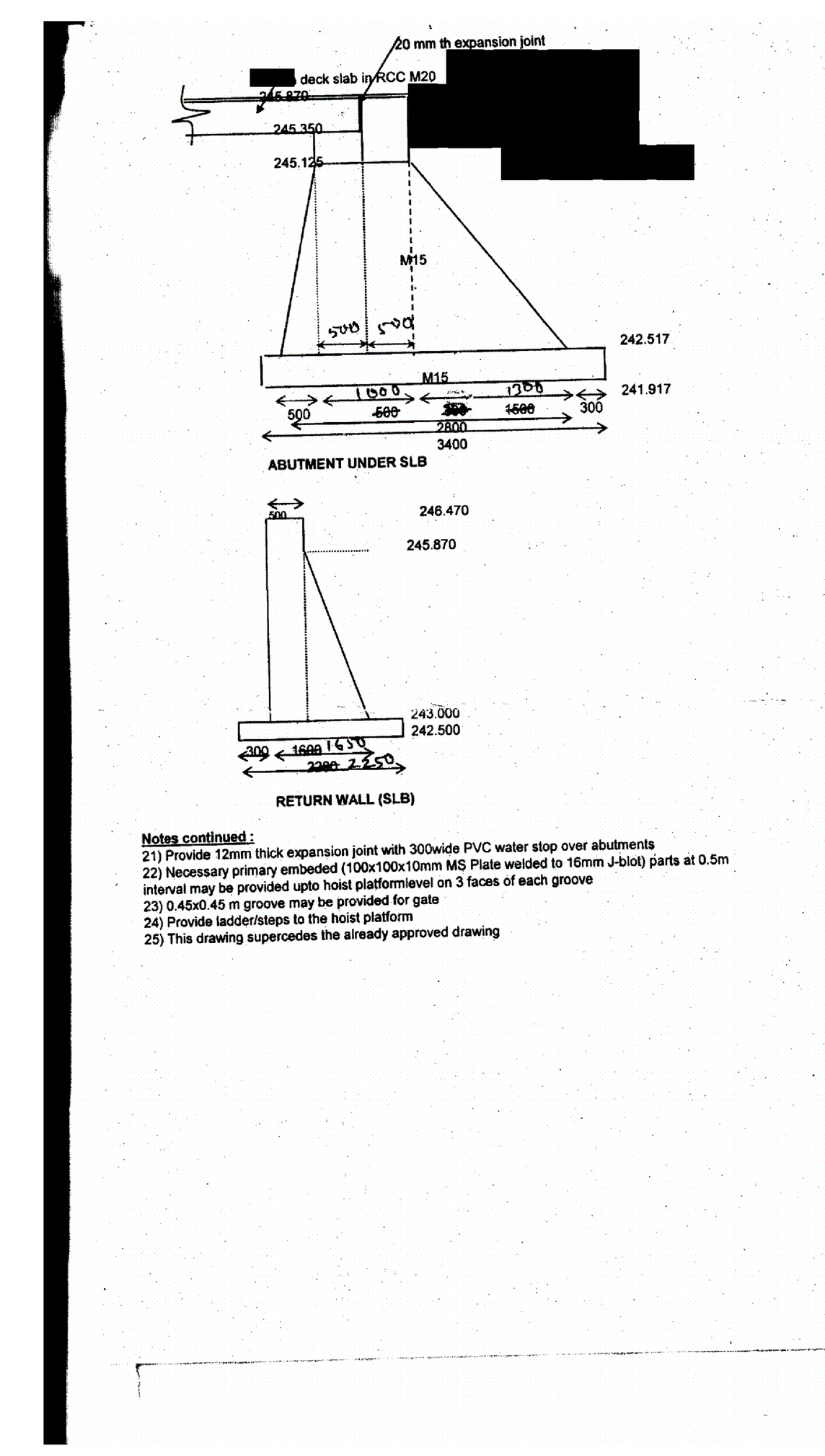
HYDRAULIC PARTICULARS OF INFALL REGULATOR AT KM 16.600

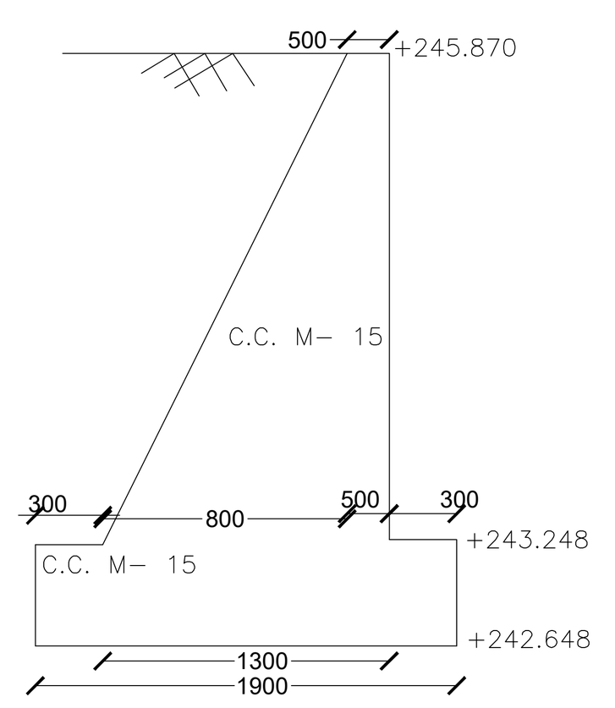
DESCRIPTION	U/S SIDE	D/S SIDE
1. DISCHARGE (Required)	9.068 Cumecs	9.068 Cumecs
2. DISCHARGE (Designed)	9.135 Cumecs	9.135 Cumecs
3. BED WIDTH	6.50 M	6.50 M
4. F.S.D	1.64 M	1.64 M
5. FREE BOARD	0.60 M	0.60 M
6. SIDE SLOPES	1.5:1	1.5:1
7. BED FALL	1 in 10000	1 in 10000
8. VALUE OF n	0.018	0.018
9. VELOCITY	0.622 M/sec	0.622 M/sec
10. C.B.L	+243.323	+243.110
11. F.S.L	+244.963	+244.750
12. T.B.L	+245.563	+245.350
13. G.L	+245.870	+245.870
14. LOSS OF HEAD	0.213	–

SALIENT FEATURES OF THE RESERVOIR

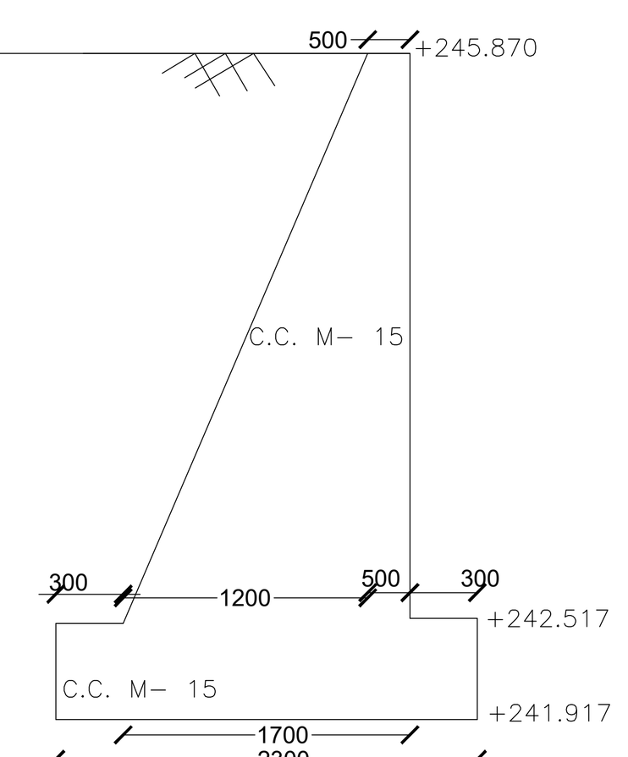
1. GROSS STORAGE	:	0.04 TMC
2. T.B.L	:	+247.500
3. F.R.L	:	+244.750
4. M.W.L	:	+245.660



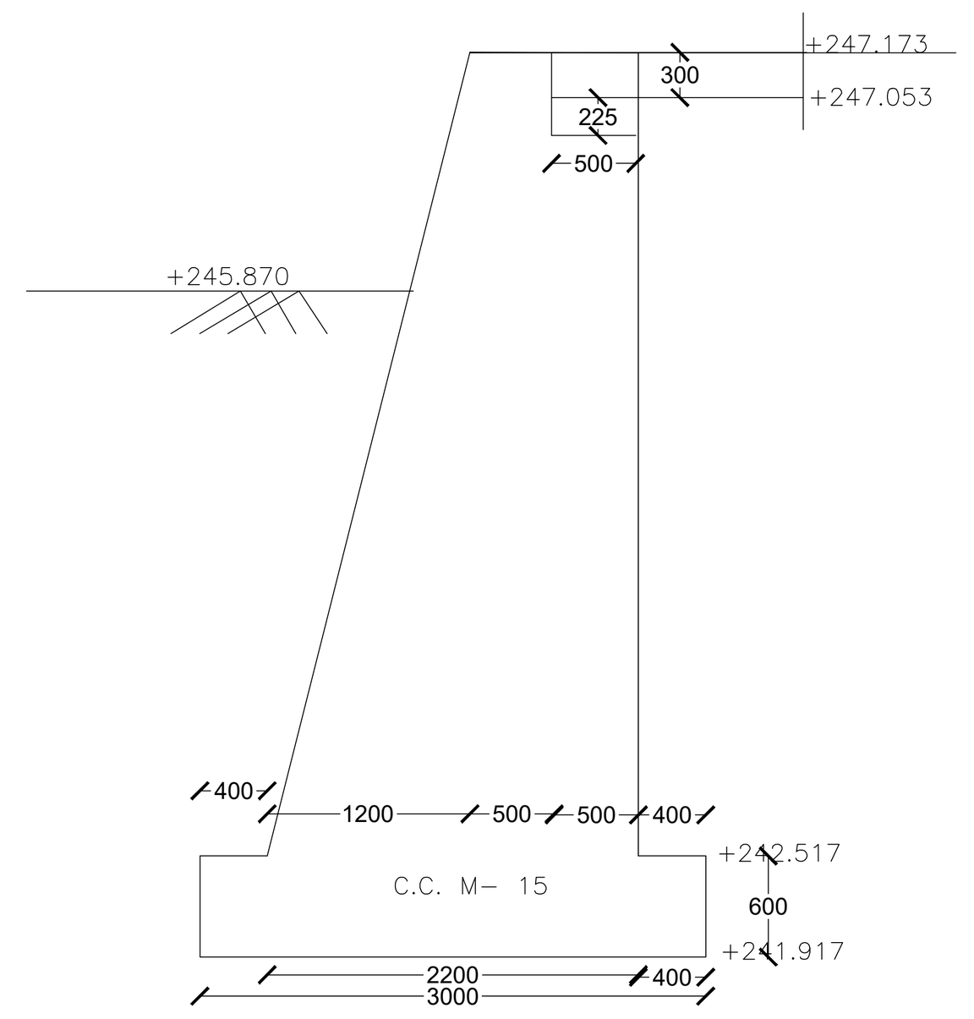




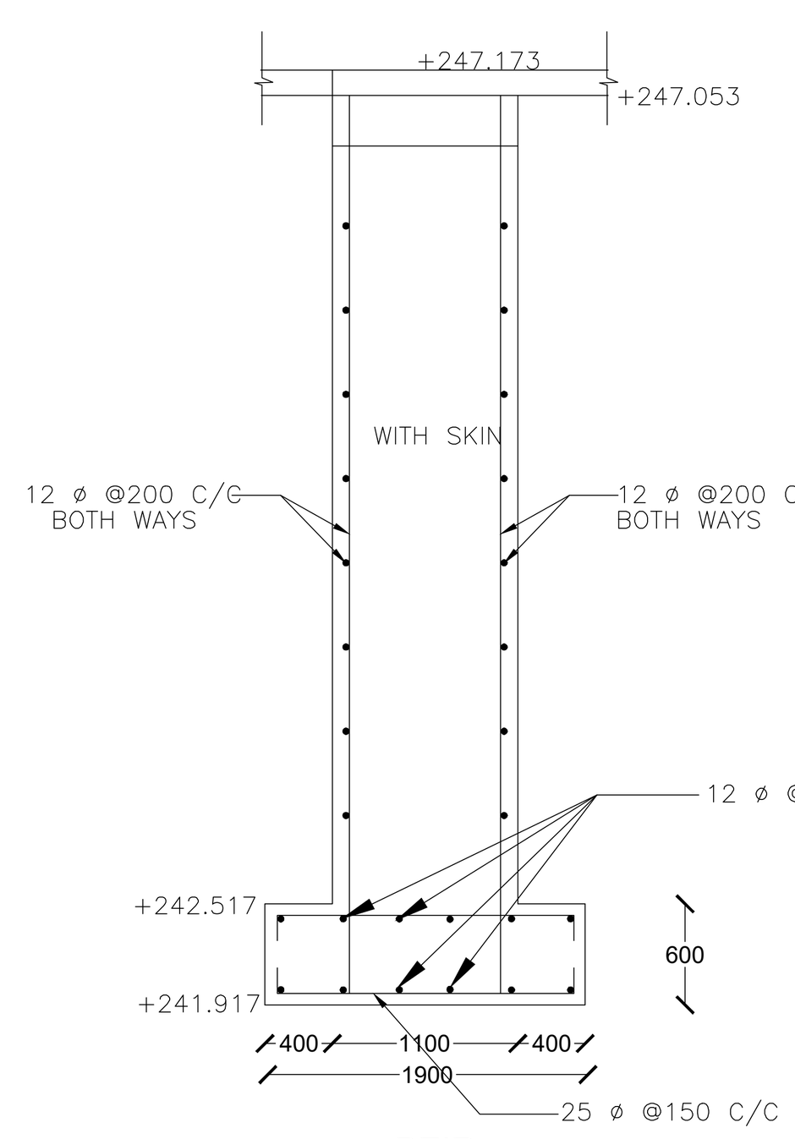
U/S WING & RETURN WALLS D-D
(SCALE 1:50)



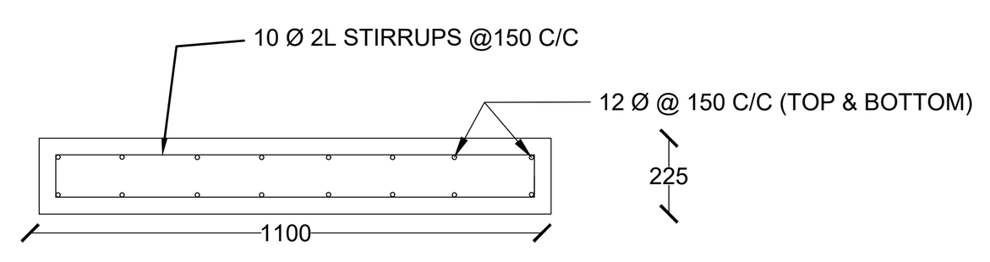
D/S WING & RETURN WALLS C-C
(SCALE 1:50)



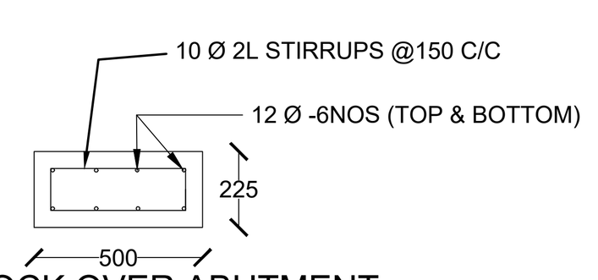
ABUTMENT B-B
(SCALE 1:50)



PEIR
(SCALE 1:50)



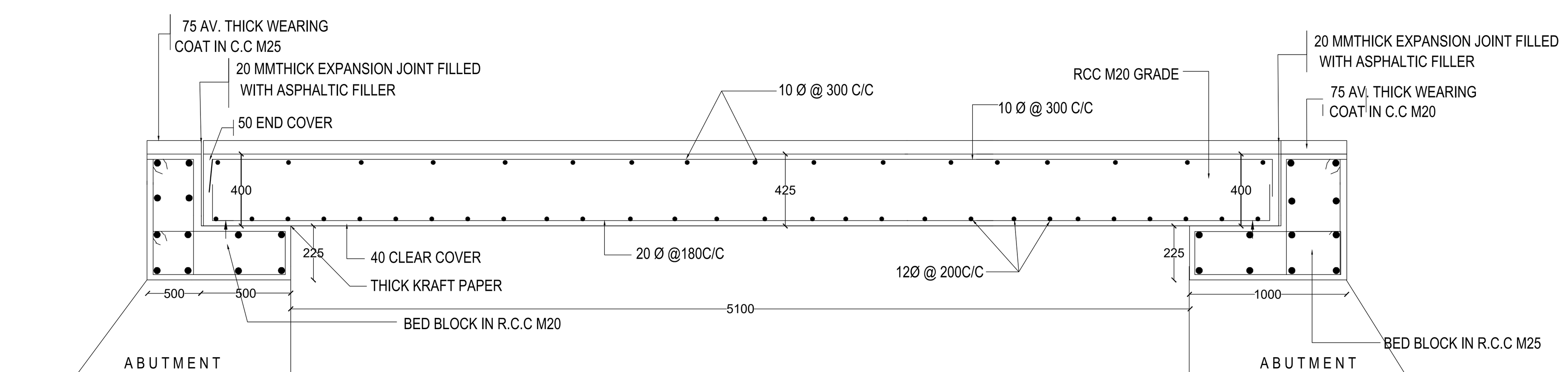
BED BLOCK OVER PIER
(SCALE 1:25)



BED BLOCK OVER ABUTMENT
(SCALE 1:25)

STRESS TABLE

S.N0	DESCRIPTION	STRESS ON CONCRETE (T/sq.m)		STRESS ON SOILS (T/sq.m)	
		MAX	MIN	MAX	MIN
1	ABUTMENT	+33.31	- 4.68	+22.40	+3.600
2	U/S WING	+19.869	-1.482	+13.493	+0.990
3	U/S RETURN	+19.869	-1.482	+13.493	+0.990
4	PEIR	+16.026	4.194	+7.561	+2.565
5	D/S WING	+23.135	-1.670	+14.207	+3.050
6	D/S RETURN	+23.135	-1.670	+14.207	+3.050



RCC DETAILS OF DECK SLAB

GOVERNMENT OF ANDHRA PRADESH. I & CAD DEPARTMENT.				
GANDIKOTA LIFT IRRIGATION SCHEME FEEDER CHANNEL (PAIDIPALEM RESERVOIR - PBC LINK)				
TITLE : GENERAL PLAN, SECTIONAL ELEVATION AND SECTIONS OF INFALL REGULATOR AT KM 16.600				
CONTRACTORS : KBL - MCC (J.V)., HYDERABAD.				
PREPARED BY :				
CHECKED BY	CHECKED BY	SUBMITTED BY	RECOMMENDED BY	APPROVED BY
				S.E ,GNSS , KADAPA
PREPARED FOR : ----------	DRG NO :-------------		SCALE: HOR: 1:200	
PREPARED BY :		CHECKED BY : P.GANESH		REV :0