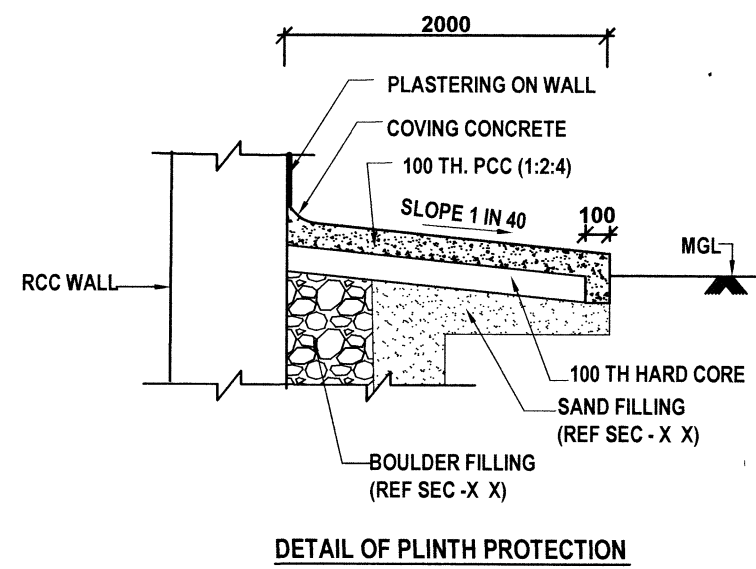
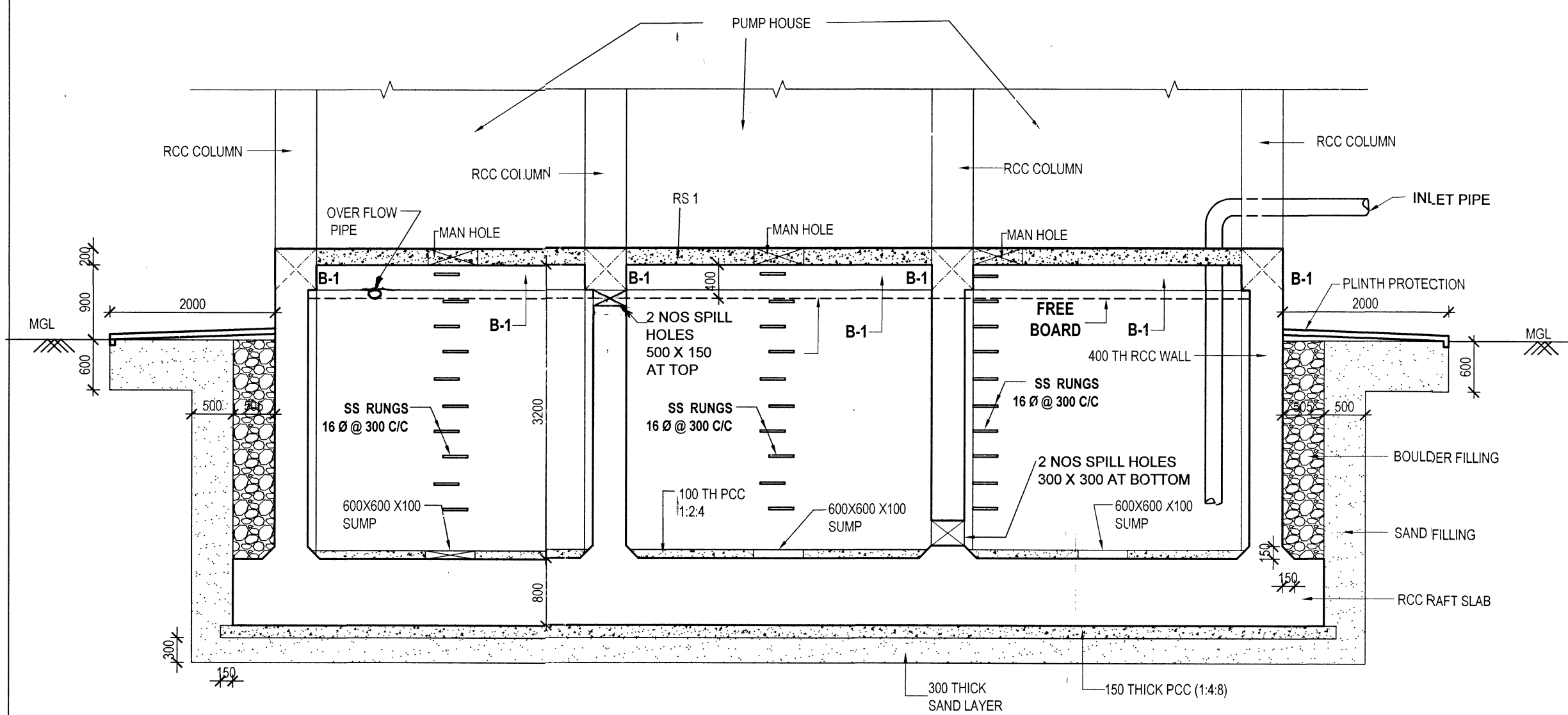


SCHEDULE OF RCC BEAMS																								
SL NO	TYPE	OVERALL DIMENSIONS		BOTTOM BARS		TOP BARS		EXTRA BARS AT BOTTOM				EXTRA BARS AT TOP				STIRRUPS						SIDE FACE REINFORCEMENT (ON EACH FACE)		REMARKS
				STRAIGHT THROUGH BARS "a"		STRAIGHT THROUGH BARS "v"		AT #ID SPAN "d"		CONT/DISCOUNT BUT MONOLITHIC SUPPORT "e"		CONT SUPPORT BARS "b"		DISCONT BUT MONOLITHIC SUPPORT "c"		SUPPORT SPAN (X1 / X2)			MID SPAN (X3)					
		WIDTH	DEPTH	NOS	DIA	NOS	DIA	NOS	DIA	NOS	DIA	NOS	DIA	NOS	DIA	DIA	NO OF LEGS	SPACING C/C	DIA	NO OF LEGS	SPACING C/C	NOS	DIA	
1	B-1	450	500	4	16#	4	20#	-	-	-	-	-	-	-	-	10#	2L	90	10#	2L	125			
2	B-2	300	400	3	16#	3	16#	-	-	-	-	-	-	-	-	10#	2L	90	10#	2L	90			
2	LB	200	350	3	16#	3	16#	-	-	-	-	-	-	-	-	12#	2L	100	12#	2L	100			SHAPE OF STIRRUPS AS SHOWN IN 500 WIDE CHAJJA IN SHT NO 3/3

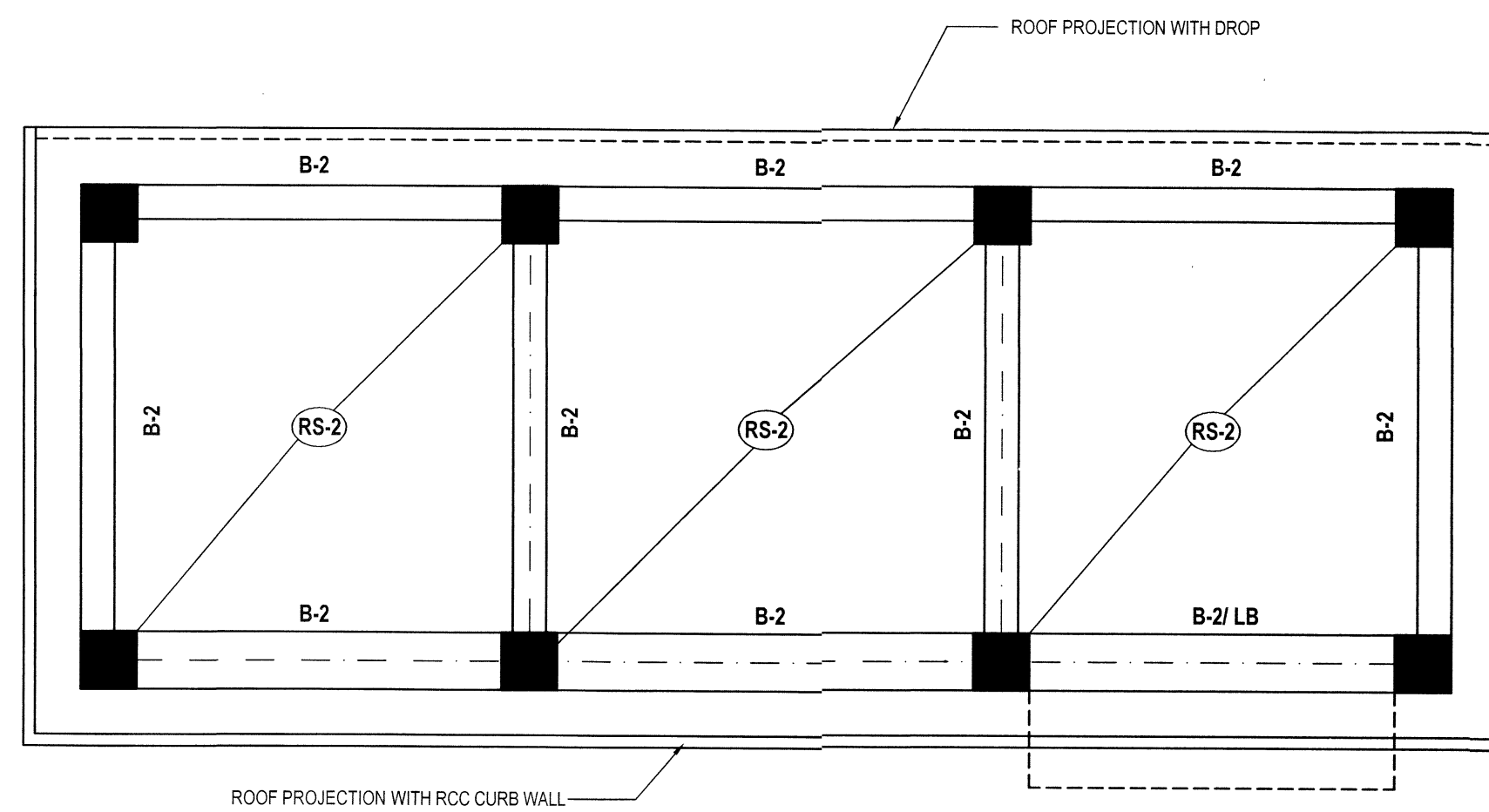


25. FLOOR OF THE SUMP SHALL BE CAST IN A SINGLE LAYER. POLYTHENE SHEET SHOULD BE PROVIDED IN BETWEEN THE LAYER OF LEAN CONCRETE AND SAND LAYER.
26. FORM WORK SHALL CONFORM TO IS 456. BOLTS PASSING COMPLETELY THROUGH LIQUID RETAINING SLABS FOR THE PURPOSE OF SECURING & ALIGNING THE FORMWORK SHOULD NOT BE USED UNLESS EFFECTIVE PRECAUTION ARE TAKEN TO ENSURE WATER TIGHTNESS AFTER REMOVAL. TESTING OF WATER TIGHTNESS SHALL BE DONE AS PER CLAUSE 12 OF IS 3370 (PART 1) 2009.
27. STRUCTURAL DESIGN HAS BEEN CARRIED OUT ASSUMING THAT THE FOLLOWING SITE CONTROLS ARE BEING DONE AT SITE :-
 - (a) PROPER BATCHING OF CEMENT.
 - (b) WEIGHT BATCHING OF ALL MATERIALS.
 - (c) CONTROLLED ADDITION OF WATER.
 - (d) REGULAR CHECKING OF ALL MATERIAL AGGREGATE GRADING AND MOISTURE CONTENT.
 - (e) PERIODIC CHECKING OF WORKABILITY AND STRENGTH.
28. THESE STRUCTURAL DRAWINGS ARE BASED ON STRUCTURAL DESIGN CALCULATIONS CONTAINED IN DESIGN FOLDER NO. 569 DATED 09 OCT 2019. THE PROVISIONS OF FOLLOWING IS CODES HAVE BEEN CONSIDERED IN DESIGN :-
 - (a) IS - 456 - 2000 (REAFFIRMED 2013)
 - (b) IS - 1883 (PART - I) - 2014
 - (c) IS - 3370 (PART - I & II) - 2009
 - (d) IS - 3370 (PART - IV) - 1967 (REAFFIRMED 2008)
29. IT SHALL BE ENSURED BY THE GE THAT IN NO CASE WATER SHALL CREATE UPWARD PRESSURE ON SLAB RS-1.
30. IT SHALL BE ENSURED BY GE THAT A MINIMUM CLEAR GAP OF 100MM IS MAINTAINED BETWEEN SOFFIT OF ROOF BEAM OF US SUMP AND WATER ALL THE TIME SO THAT NO WATER PRESSURE IS EXERTED ON ROOF BEAM AND ROOF SLAB.
31. FOR NOTES PERTAINING TO PILE FOUNDATION, REFER DRG NO. CEVZ/2022/WD/2110 (S), SHEET NO. 05/ 20.
32. FOR ARCHITECTURAL DETAILS OF PUMP HOUSE PORTION REFER DRG NO. 2110-2-PH (SHT. 1).

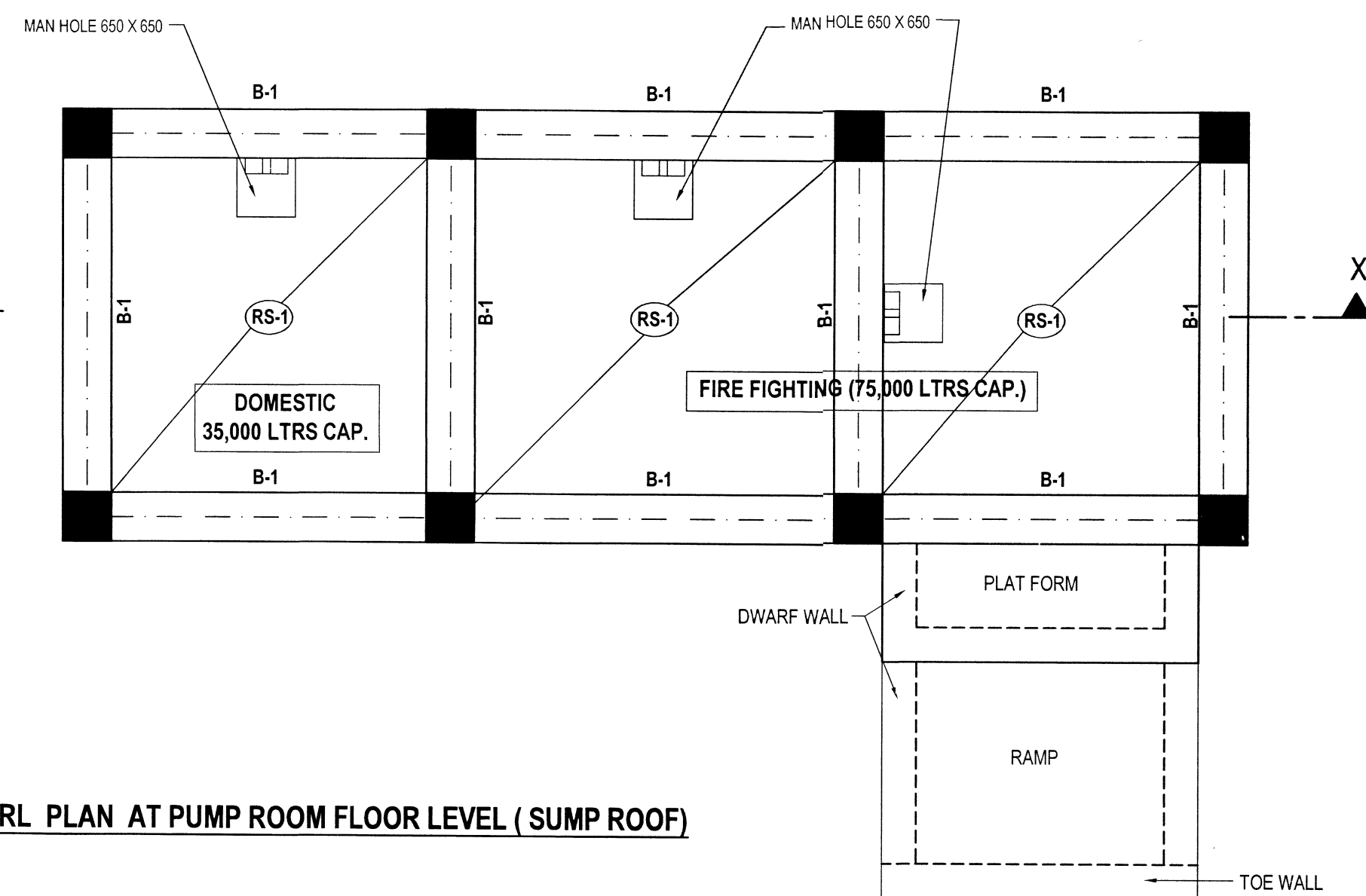
- NOTES**
1. ALL DIMENSIONS GIVEN ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
 2. FIGURED DIMENSION SHALL BE FOLLOWED.
 3. CONTRACTOR TO CHECK AND VERIFY ALL THE DIMENSIONS BEFORE EXECUTION OF THE WORK.
 4. EXECUTIVES SHALL CHECK THE DRAWINGS BEFORE EXECUTION OF WORK AND IF ANY DISCREPANCY IS OBSERVED THE SAME SHALL BE REPORTED TO ACCEPTING OFFICER FOR CLARIFICATION DECISION.
 5. GRADE OF CONCRETE FOR ALL RCC WORKS SHALL BE M-30 DESIGN MIX CONFORMING TO IS:1786-2008. BARS SHALL BE ISI MARKED. MINIMUM ELONGATION SHALL BE 18%. CRS STANDS FOR CORROSION RESISTANT STEEL.
 6. CEMENT SHALL BE 43 GRADE ORDINARY PORTLAND CEMENT CONFORMING TO IS : 8112-2013. CEMENT SHALL BE ISI MARKED.
 7. REINFORCEMENT STEEL SHALL BE TMT BARS GRADE Fe 500 D (CRS) TYPE CONFORMING TO IS:1786-2008. BARS SHALL BE ISI MARKED. MINIMUM ELONGATION SHALL BE 18%. CRS STANDS FOR CORROSION RESISTANT STEEL.
 8. CLEAR COVER FOR MAIN REINFORCEMENT SHALL BE AS UNDER:-
 - (a) TANK WALL - 50mm
 - (b) TANK FLOOR - 50mm
 - (c) BEAMS, COLUMNS - 50mm
 9. ACCEPTANCE CRITERIA FOR CONCRETE AS LAID DOWN IN CLAUSE 16 AND TABLE 11 OF IS:456-2000 SHALL BE STRICTLY FOLLOWED.
 10. VARIOUS QUALITY ASSURANCE MEASURE AS LAID DOWN IN CLAUSE 10, 11, 12, 13, 15, 16, 17 OF IS:456-2000 SHALL BE STRICTLY FOLLOWED.
 11. WATER TO BE USED FOR CONCRETING SHALL MEET ALL REQUIREMENTS OF CLAUSE 5.4 OF IS: 456-2000. SOURCE OF WATER SHALL BE APPROVED BY GE AND TESTING OF WATER SHALL BE DONE FOR ITS SUITABILITY.
 12. DEVELOPMENT LENGTH OF REINFORCEMENT BARS SHALL BE 48 TIMES DIA OF BAR.
 13. FILLING AROUND VERTICAL WALL SHALL BE WITH BOULDERS AND SAND AS SHOWN.
 14. VERTICAL WALL UPTO 450 HEIGHT SHALL BE CASTED MONOLITHICALLY WITH PILE RAFT SLAB. TO AVOID LEAKAGE, NO CONSTRUCTION JOINT SHALL BE PERMITTED BETWEEN BOTTOM OF WALL & TOP OF BASE SLAB.
 15. ALL FORM WORK SHALL BE OF STEEL. FORM WORK SHALL BE WELL DESIGNED, MADE AND ERECTED IN ACCORDANCE WITH THE RELEVANT IS CODE AND SHALL BE APPROVED BY GE.
 16. AS SOON AS US SUMP CONSTRUCTION IS COMPLETE, IT SHALL NOT BE KEPT EMPTY. INITIALLY FOR TESTING IT SHALL BE FILLED GRADUALLY AT THE RATE OF 600 MM DEPTH PER DAY.
 17. WATER TIGHTNESS OF THE SUMP SHALL BE CHECKED AS PER CLAUSE 12.1.1 AND 12.1.2 OF IS : 3370 (PART - I) -2009.
 18. ALL PIPES AND FIXTURES SHALL BE PLACED IN POSITION BEFORE STARTING CONCRETING. NO PART OF RCC SHALL BE DISTURBED OR BROKEN AFTER CASTING OF CONCRETE.
 19. THE LOCATION OF OUTLET PIPES, MANHOLE AND SUCTION PITS IS TENTATIVE AND SHALL BE DECIDED BY GE.
 20. ALL EXPOSED STEEL WORK SHALL BE PAINTED WITH TWO COATS OF LEAD FREE ANTI CORROSIVE PAINT AS PER IS : 9862 - 1981 (REAFFIRMED 2009) OVER A COAT OF PRIMER.
 21. CONSTRUCTION JOINTS IN VERTICAL WALL :-
 - (a) CONSTRUCTION JOINTS IN VERTICAL WALL SHALL BE PROVIDED ONLY AT THE LOCATION SHOWN IN THE DRG.
 - (b) THESE SHOULD BE SAT AT RIGHT ANGLES TO THE GENERAL DIRECTION OF THE MEMBER.
 - (c) THE SURFACE FILM OF THE FIRST PLACED CONCRETE SHALL BE REMOVED WHILST THE CONCRETE IS STILL GREEN TO LEAVE A SOUND IRREGULAR SURFACE.
 - (d) JUST BEFORE CONCRETING IS RESUMED THE ROUGHENED SURFACE OF JOINT SHALL BE THOROUGHLY CLEANED AND FREED FROM LOOSE MATTER AND THEN TREATED WITH CEMENT MORTAR (CEMENT SAND IN RATION OF 1:1) GROUT. SPECIAL CARE SHALL BE TAKEN TO AVOID SEGREGATION OF THE CONCRETE ALONG WITH JOINT PLANE AND PROPER COMPACTION SHALL BE ENSURED.
 22. U SHAPED (IN PLAN) 12# BARS WITH SPACING @ ONE IN CENTRE OF EACH WALL HORIZONTALLY AND VERTICALLY (TWO ROWS AT 1000 & 3600) FROM TOP OF BOTTOM SLAB) PROVIDED TO KEEP UNIFORM DISTANCE BETWEEN VERTICAL BARS OF TANK WALL. U SHAPE BAR.
 23. CONCRETE COVER BLOCK OF REQUIRED THICKNESS SHALL BE CASTED WITH BINDING WIRE EMBEDDED IN IT. WHILE PLACING THE COVER BLOCKS, THESE SHALL BE BOUND TO REINFORCEMENT BARS WITH EMBEDDED BINDING WIRE SO THAT THESE DO NOT FALL DOWN DURING VIBRATING THE CONCRETE.
 24. OVERLAP IN PVC WATER BAR SHALL BE AS PER THE MANUFACTURER'S INSTRUCTIONS.



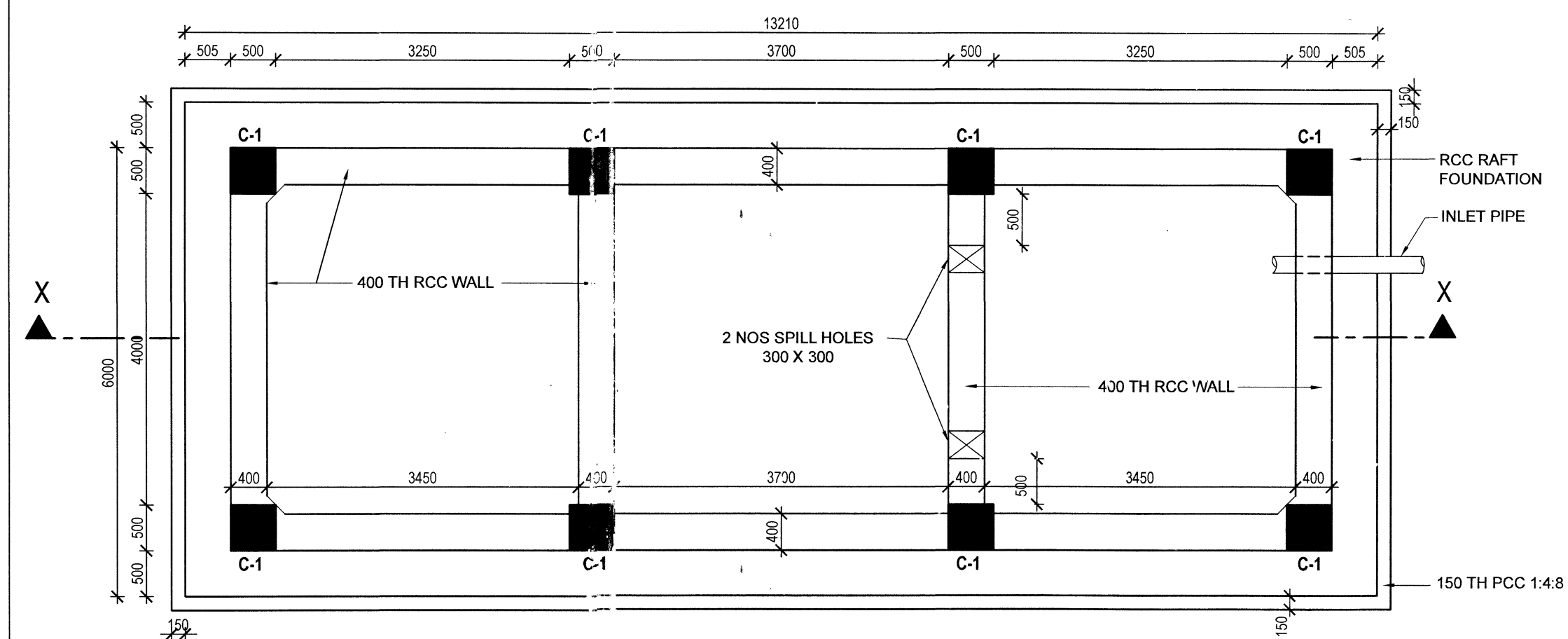
SECTION AT X-X



STRL PLAN AT PUMP ROOM ROOF LEVEL



STRL PLAN AT PUMP ROOM FLOOR LEVEL (SUMP ROOF)



STRL PLAN AT 3/4 SE SLAB LEVEL (SUMP BOTTOM LEVEL)

SL No.	DATE	DESCRIPTIONS	INITIAL
REVISIONS			
PROVN OF DEFICIENT 287 SINGLE INLIVING ACCN ASSOCIATED FACILITIES FOR DSC AT NAVAL DOCKYARD, VISAKHAPATNAM (BD NO AMWP 46/ 2020)			
SUMP CUM PUMP HOUSE			
STRL PLANS AT BASE SLAB LEVEL (SUMP BOTTOM), PUMP ROOM FLOOR LVL (SUMP ROOF) AND ROOF LEVEL & SCHEDULE OF RCC BEAMS			
DATE	21 JUN 2022	CHIEF ENGINEER (NAVY) VISAKHAPATNAM ZONE	SHT No. 1/ 3
DRN	SACHITA		
CKD			
SCALE	AS SHOWN	REF DRG NO: CEVZ/2022/WD/2110(S) S-PH	

N. Nalla
SRINIVAS NALLA, DSE
CE (N)
DIR (DESIGN)
FOR CHIEF ENGINEER