

NR/PRK BOOK/2023-24/ITEM NO 1599.
PB-53 UNDER UMBRELLA
0667-12.84.00/- (THIRUVANANTHAPURAM)

NR DIVL. PLAN NO. FOB-89/SASN-2023/UMB

NRHQ PLAN No.-FB-102/UMB

Sh-01

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETRES & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE. FOLLOW WRITTEN DIMENSIONS ONLY.
- PCE SANCTION SHALL BE OBTAINED BEFORE EXECUTION OF WORK.
- LOADING SHALL BE AS PER RDSO SPECIFICATIONS.
- ALL DIMENSIONS ARE AS PER ACTUAL EXISTING DATA AT SITE.
- ANY OBSTRUCTION AT SITE SHALL BE REMOVED BEFORE COMMENCEMENT OF WORK.
- LIVE LOAD ON FOB HAS BEEN TAKEN IN ACCORDANCE WITH CLAUSE 2.3.2.1 OF IRS BRIDGE RULE.
- WIND LOAD ON FOR HAS BEEN TAKEN IN ACCORDANCE WITH CLAUSE 2.11 (OF IRS BRIDGE RULE. MAXIMUM WIND PRESSURE IS TAKEN AS 75 Kg/m².
- THE VALUE OF LIVE LOAD IS TAKEN AS 400 KG/M² AS PER IRS BRIDGE RULES. CARE SHOULD BE TAKEN IN FIELD THAT THE VALUE OF LIVE LOAD AND IMPOSED LOAD SHALL NOT EXCEED ITS DESIGN VALUE.
- FOR DESIGN OF FOUNDATION THE DESIGN LOADS MENTIONED IN RDSO DRG NO. RDSO-B-10438 SHOULD BE TAKEN.
- ALL RCD WORK TO BE DONE IN ACCORDANCE WITH SPECIFICATIONS LAID DOWN IN IRS CONCRETE BRIDGE CODE.
- ALL CEMENT CONC. IS TO BE MECHANICALLY MIXED & VIBRATED.
- CONCRETE MIX SHALL BE AS PER DESIGN FOR FOUNDATION AND M-35 FOR PRECAST RCD DECK SLAB.
- HS/D/TMT BARS CONFORMING TO IS 1796:2000 SHALL BE USED.
- BEFORE COMMENCEMENT OF WORK LAUNCH OF FOOT OVER BRIDGE SHALL BE MARKED TO AVOID ANY INFRINGEMENT TO S.O.D.
- MINOR MODIFICATIONS MAY BE DONE AT SITE/WORKSHOP IN CONSENT WITH ENGINEER INCHARGE.
- PROTECTIVE SCREEN WILL BE PROVIDED AT THE LOCATION OF ALL ELECTRIFIED LINES AS PER RDSO DRG. NO. ETVC0068.
- ALL STEEL WORKS SHALL BE AS PER IRS STEEL BRIDGE CODE.
- ALL STEELS FOR ORDERS SHALL BE EX30. GRADE A AS PER IS 2062:2011. RECTANGULAR OR SQUARE HOLLOW STRUCTURAL PIPES OF GRADE YST 310 OR HIGHER TO BE USED AS PER IS:4023:1997.
- NECESSARY PROTECTION SHOULD BE DONE & ENGG. INDICATORS DISPLAYED IN ACCORDANCE WITH P. WAY MANUAL PARA 807 & 808.
- MAIN LINE (LINE NO. 2) IS HIGHEST TRACK WHOSE LEVEL HAS BEEN ASSUMED AS 100.00 M.
- SOIL BEARING CAPACITY SHOULD BE CONFIRMED BY CONDUCTING PLATE LOAD TEST BEFORE EXECUTION. ALLOWABLE BEARING CAPACITY OF SOIL SHALL BE TAKEN AS PER DESIGN OF FOUNDATION. IF SITE SOIL IS HAVING LOWER BEARING CAPACITY, THE FOUNDATION DESIGN SHOULD BE ALTERED WITH THE APPROVAL OF COMPETENT AUTHORITY.
- FABRICATION TO CONFORM AS PER B1-2001 SPECIFICATION & IRS WELDED BRIDGE CODE.
- ALL WELDS TO CONFORM TO IS 15816:1986 & IS-5985.
- AUTOMATIC SUBMERGED ARC WELDING (SAW) SHOULD BE DONE IN FILLET WELDS OF CONNECTION OF FLANGE TO WEB OF MAIN GIRDER. OTHER WELDS SHOULD ALSO BE DONE BY SUBMERGE ARC WELDING TO THE MAXIMUM EXTENT POSSIBLE. FCWV OR GMAW WELDING MAY BE DONE IN CASES WHERE SAW WELDING IS NOT POSSIBLE.
- ALL BOLTS ARE OF STEEL WITH F_y = 250 MPA. UNLESS OTHERWISE STATED.
- SEISMIC ZONE-IV EXPOSURE CONDITION-MODERATE. BASIC WIND SPEED-V_b IS 39M/S.
- FLOORING MATERIAL FOR STAIRS & GANGWAY WOULD BE BURNT GRANITE WITH GROOVED LINING ROOF TRUSS WITH TUBULAR MEMBER ALL STEEL MEMBERS WILL BE GALVANISED. ROOFING MATERIAL SHALL BE AS PER RDSO DRAWING SPECIFICATIONS.
- HAND RAILING SHOWN IN THESE DRAWINGS IS INDICATIVE ONLY. IMPROVED TYPE OF SIDE RAILING WITH STAINLESS STEEL MATERIAL OR TOUGHENED GLASS MAY BE ADOPTED. SIDE RAILING SHOULD BE AESTHETICALLY GOOD AND ERGONOMIC. ENGINEER-IN-CHARGE SHOULD DECIDE ABOUT THE SIDE RAILINGS TO BE PROVIDED, CONSIDERING THESE FACTORS.
- THE STRUCTURE OF GIRDER AND FOB TO BE EXECUTED BY BRIDGE WORKSHOP ON WORK ORDER FROM OPEN LINE AFTER APPROVAL OF GAD.
- THE STRUCTURE OF FOB TO BE AS PER REFERENCED RDSO DRAWINGS.
- ROOFING SHALL BE 1 MM THICK ZINC COATED CORRUGATED G.S. SHEET.
- LAUNCHING SCHEME WILL BE PREPARED IN DUE TIME AND APPROVAL FROM HQ WILL BE OBTAINED.
- LENGTH OF WALKWAY TO BE PROVIDED WITH TACTICAL GUIDING AND WARNING BLOCKS. WALKWAY SHOULD ALSO BE FREE OF OBSTRUCTIONS AND PROJECTIONS.
- WARNING BLOCKS TO BE INSTALLED AT THE BEGINNING AND END OF ALL FLIGHTS OF STAIRCASE. STEP EDGES SHOULD ALSO BE OF DIFFERENT COLOUR AND TEXTURE EASILY IDENTIFIABLE BY LOW VISION & VISION IMPAIRED PERSONS.
- HANDRAIL SHOULD BE EASY TO GRIP & SECURELY ATTACHED & SLIP RESISTANT WITH ROUND ENDS. HANDRAILS TO EXTEND HORIZONTALLY 300MM AT THE TOP & BOTTOM OF EVERY STAIRCASE. HANDRAIL TO BE GROUTED IN THE GROUND.
- LOCATION OF PROPOSED FOB SHIFTED 8 M TOWARDS CHANDIGARH END TO AVOID DISMANTLING OF PF COLUMN.
- SEA STALL & WATER COOLER TO BE SHIFTED.

KEY PLAN FOR 12.0 M WIDE FOB

- PCE SANCTION SHALL BE OBTAINED BY THE EXECUTING AGENCY BEFORE COMMENCEMENT OF WORK OF FOB AS WELL AS LAUNCHING OF GIRDERS.
- THE VALUE OF LIVE LOAD IS TAKEN AS 400 KG/M² AS PER IRS BRIDGE RULES. CARE SHOULD BE TAKEN IN FIELD THAT THE VALUE OF LIVE LOAD & IMPOSED LOAD SHALL NOT BE EXCEED ITS DESIGN VALUE.
- FEASIBILITY OF THE STRUCTURE SHALL BE CHECKED AT SITE IN EVERY RESPECT BY ENGINEER IN CHARGE BEFORE FABRICATION/ERECTOR. IF THERE IS ANY CONFUSION/AMBIGUITY IN DIFFERENT DIMENSIONS PROVIDED IN THESE DRAWINGS, A FULL SCALE LAYOUT SHOULD BE PREPARED FOR THE VERIFICATION OF THE SAME BEFORE START OF EXECUTION OF THE WORK.
- BEFORE THE FABRICATION WORK IS TAKEN UP, GIRDER PIECES TO BE FABRICATED (ALONG WITH ITS EXACT DIMENSIONS) AND THEIR NUMBERS SHALL BE WORKED OUT. Moreover, EXACT DIMENSIONS & THEIR NUMBERS OF OTHER COMPONENTS SUCH AS BRACINGS, CROSS GIRDERS, MAIN COLUMN, STAIR GIRDERS ETC. ALSO BE WORKOUT IN ORDER TO AVOID ANY PROBLEM AT LATER STAGE.
- ALL STEEL FOR GIRDERS SHALL BE E-350, GRADE 'A' AS PER IS: 2062-2011. RECTANGULAR OR SQUARE HOLLOW STRUCTURAL PIPES OF GRADE YST 310 OR HIGHER TO BE USED AS PER IS: 1500-1997.
- EXCAVATED EARTH SHALL NOT BE USED FOR BACK FILLING AROUND FOUNDATIONS. ALL BACK FILLING SHALL BE CARRIED OUT USING GRANULAR SOIL (MOORMU). BACK FILLING SHALL BE LAID IN LAYERS NOT EXCEEDING 300MM & SHALL BE COMPACTED TO 95% PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT.
- ALL HOLLOW COLUMNS SHALL BE FILLED WITH SELF COMPACTING CONCRETE OF MINIMUM GRADE OF M20. THIS FILLING IS DONE TO ENSURE FIRE SAFETY AND PROTECTION FROM INSIDE CORROSION. STRUCTURE DESIGN IN SAFE WITHOUT THIS FILLING.
- THICKNESS OF DECK SLAB & FLOOR FINISH SHALL NOT EXCEED 150MM.
- ALL INSTRUCTIONS/GUIDELINES & SPECIFICATIONS GIVEN IN REFERRED RDSO DRAWINGS SHALL BE FOLLOWED IN TRUE SPIRIT.

LEGENDS AS SHOWN IN KEY PLAN:

EXISTING WORK SHOWN IN BLACK	---
WORK TO BE DISMANTLED SHOWN IN GREEN	---
PROPOSED WORK SHOWN IN RED	---
FUTURE WORK SHOWN IN MAGENTA	---

REFERRED DRAWINGS

S.NO.	DESCRIPTION	REFERENCE DRG. NO.
1.	GAD 12.00M WIDE FOB	RDSO-B-10438
2.	DETAIL OF MAIN GIRDER-1	RDSO-B-10438/1
3.	DETAIL OF MAIN GIRDER-2	RDSO-B-10438/2
4.	DETAIL OF SPLICE JOINT CAMBER DIAGRAM & WELDING SEQUENCE	RDSO-B-10438/3
5.	DETAILS OF CROSS GIRDER	RDSO-B-10438/4
6.	DETAILS OF MAIN COLUMN AND TRESTLE	RDSO-B-10438/5
7.	DETAILS OF ROOFING/DECK SLAB FOR MAIN SPAN	RDSO-B-10438/6
8.	DETAILS OF STAIR CASE	RDSO-B-10433/5-6
9.	DETAILS OF FOUNDATION	AS PER DESIGN
10.	DETAILS OF LIFT	NURDE PLAN NO. 286 FB/2016/SHEET NO.14
11.	DETAILS OF RAMP	RDSO-B-10433/7-8

SECTION B-B

SIDE VIEW C-C

ELEVATION A-A

FEASIBILITY CERTIFICATE:
FEASIBILITY OF THE PROPOSAL HAS BEEN CHECKED BY ME PERSONALLY AND FOUND FEASIBLE AT SITE.

-sd- SSE/P.W/CDG -sd- SSE/W/CDG -sd- SSE/S&T/ -sd- SSE/TRD/ -sd- SSE/P/SEC -sd- CM/SEC -sd- T/SEC -sd- ADEN/CDG

DRW/UMB	MANDEEP SINGH BHATIA Digitally signed by MANDEEP SINGH BHATIA Date: 2023.05.17 17:49:48 +05'30'	CBE	BRUNESH KUMAR GUPTA Digitally signed by BRUNESH KUMAR GUPTA Date: 2023.08.30 03:28:16 +05'30'
AOR/A-INFRA-UMB	GUNINDER SINGH NARANG Digitally signed by GUNINDER SINGH NARANG Date: 2023.05.17 17:45:45 +05'30'	CE-SD	Nar Singh Das Digitally signed by Nar Singh Das Date: 2023.06.05 15:15:48 +05'30'
CPM/GS-UMB	VINOD KUMAR SINGH Digitally signed by VINOD KUMAR SINGH Date: 2023.05.17 17:43:17 +05'30'	CCM-PS	MOHA SRIVASTAVA Digitally signed by MOHA SRIVASTAVA Date: 2023.07.25 16:51:37 +05'30'
SRDEN-CO-UMB	ATUL Digitally signed by ATUL Date: 2023.05.17 17:37:45 +05'30'	DY-CE-SD	KAUSHAL KISHORE SHARMA Digitally signed by KAUSHAL KISHORE SHARMA Date: 2023.06.02 17:09:50 +05'30'
SRDOM-UMB	SAMARTH GUPTA Digitally signed by SAMARTH GUPTA Date: 2023.05.17 10:51:35 +05'30'	DY-CE-SD	SANJIV KUMAR GARG Digitally signed by SANJIV KUMAR GARG Date: 2023.08.30 03:23:59 +05'30'
SRDOM-UMB	RITIKA VASHISTH Digitally signed by RITIKA VASHISTH Date: 2023.05.17 16:45:16 +05'30'		
SRDSTE-UMB	ATESH KUMAR Digitally signed by ATESH KUMAR Date: 2023.05.16 05:23:58 +05'30'		
SRDCE-TRD-UMB	ANURAG JAIN Digitally signed by ANURAG JAIN Date: 2023.05.17 12:20:04 +05'30'		
SRDCE-CH-UMB	MANISH KUMAR Digitally signed by MANISH KUMAR Date: 2023.05.17 16:50:05 +05'30'		
DY-CE-OS-UMB	HARSHVARDH Digitally signed by HARSHVARDH Date: 2023.05.17 17:30:04 +05'30'		
SRDEN-UMB			

AMRITA DIVISION

GENERAL ARRANGEMENT PLAN FOR
PROPOSED 12.0 M WIDE FOOT OVER BRIDGE
AT SASN (MOHALI) STATION UNDER AMRIT
BHARAT STATION SCHEME

SCALE:-

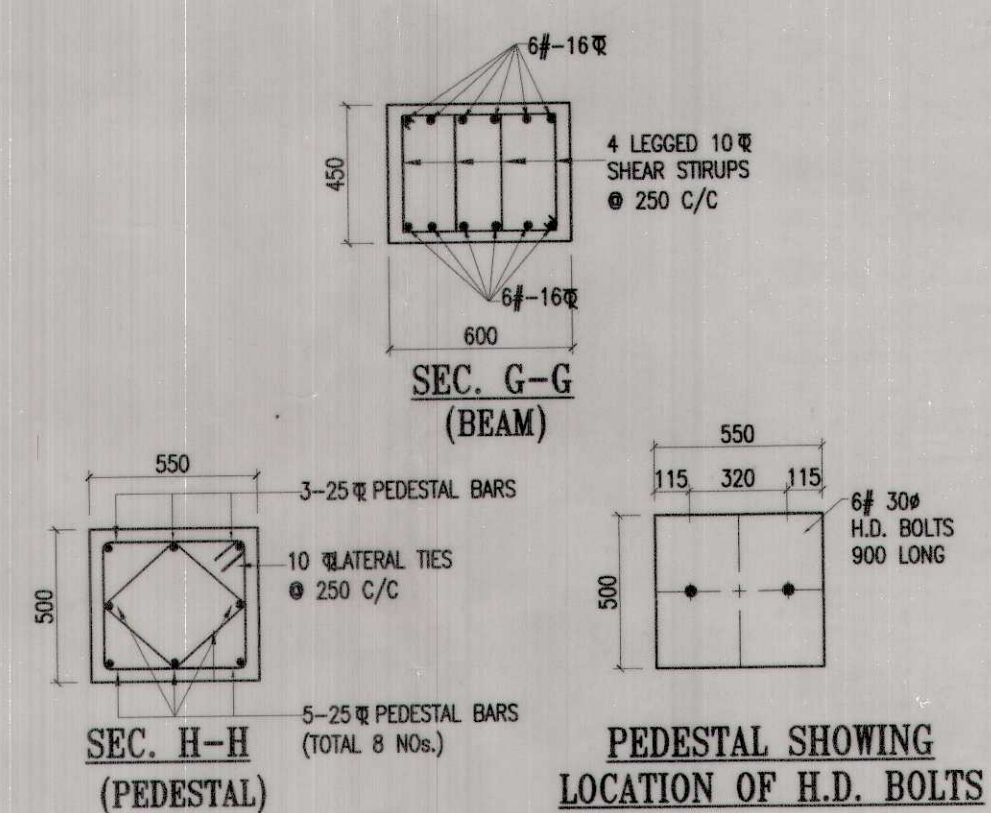
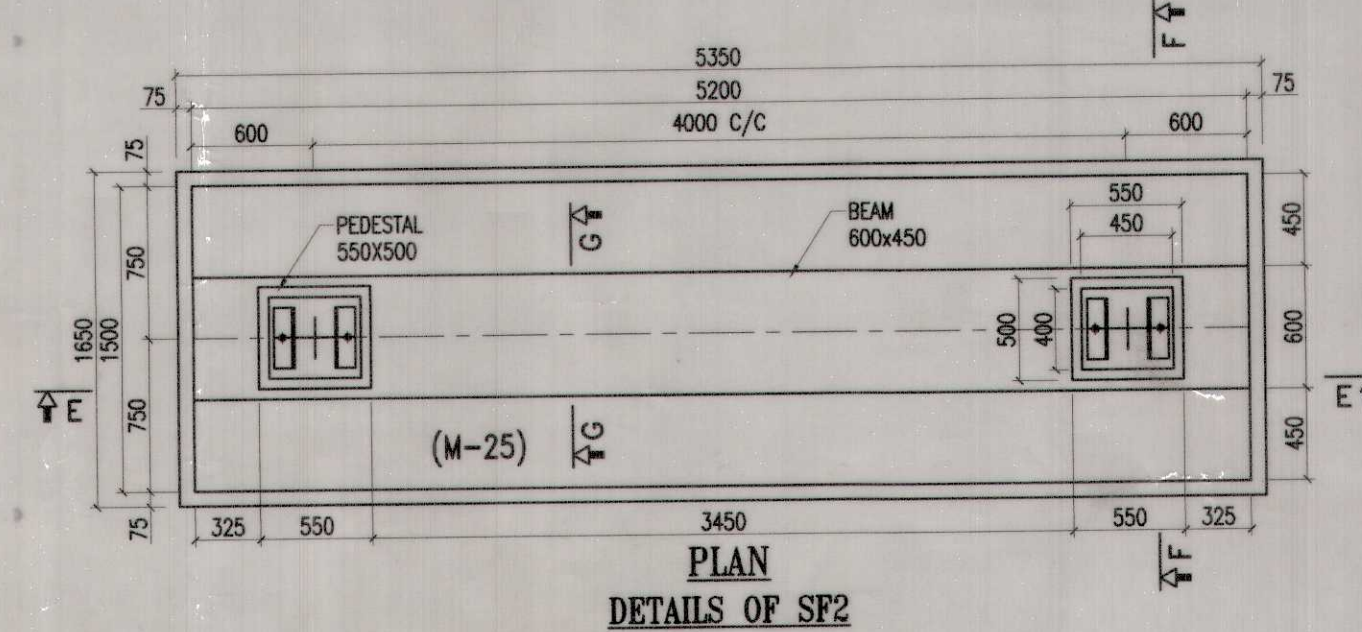
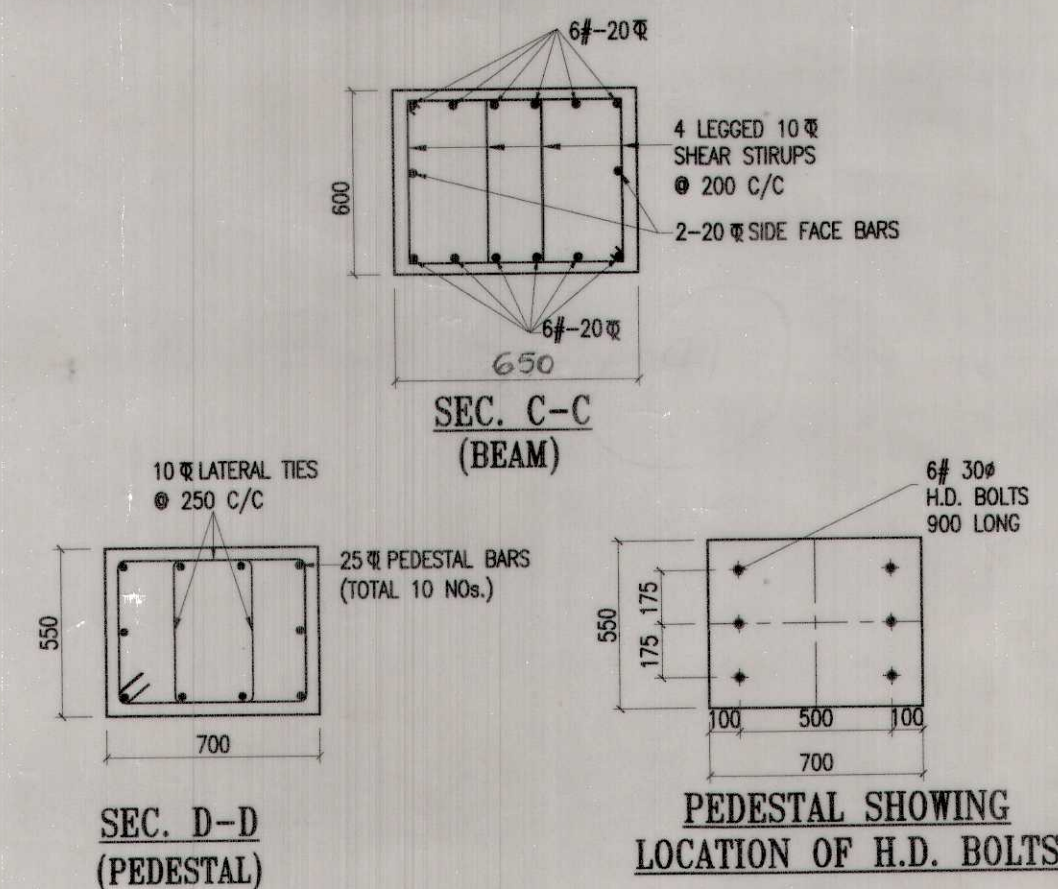
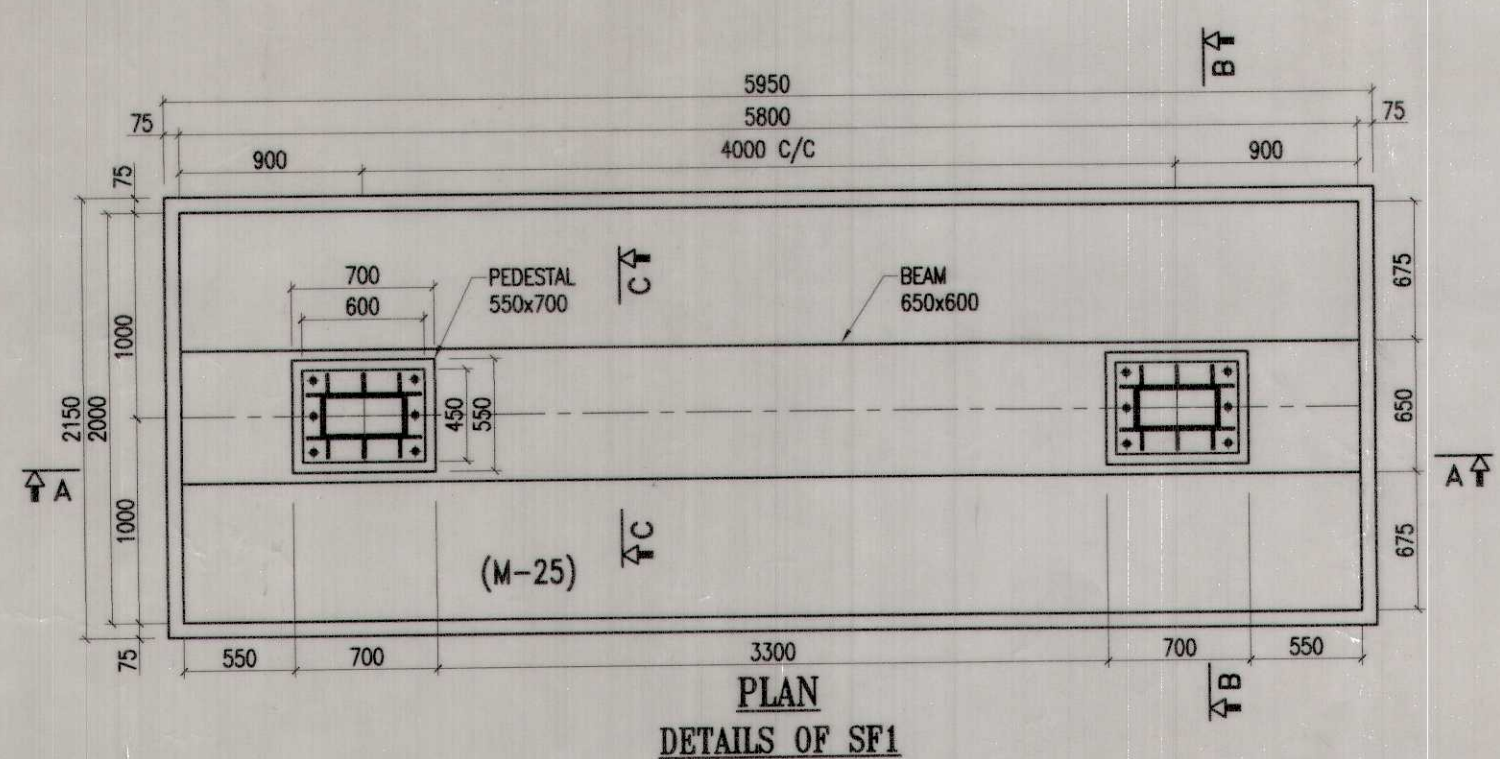
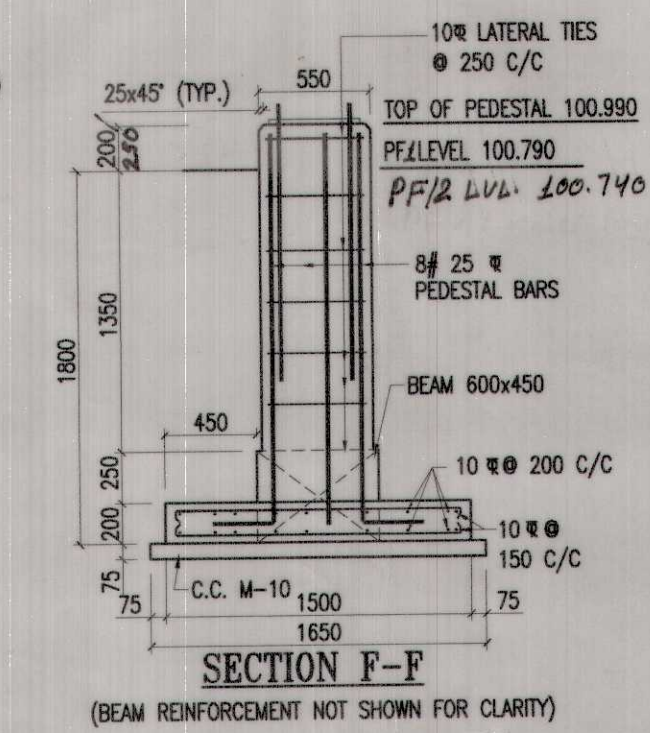
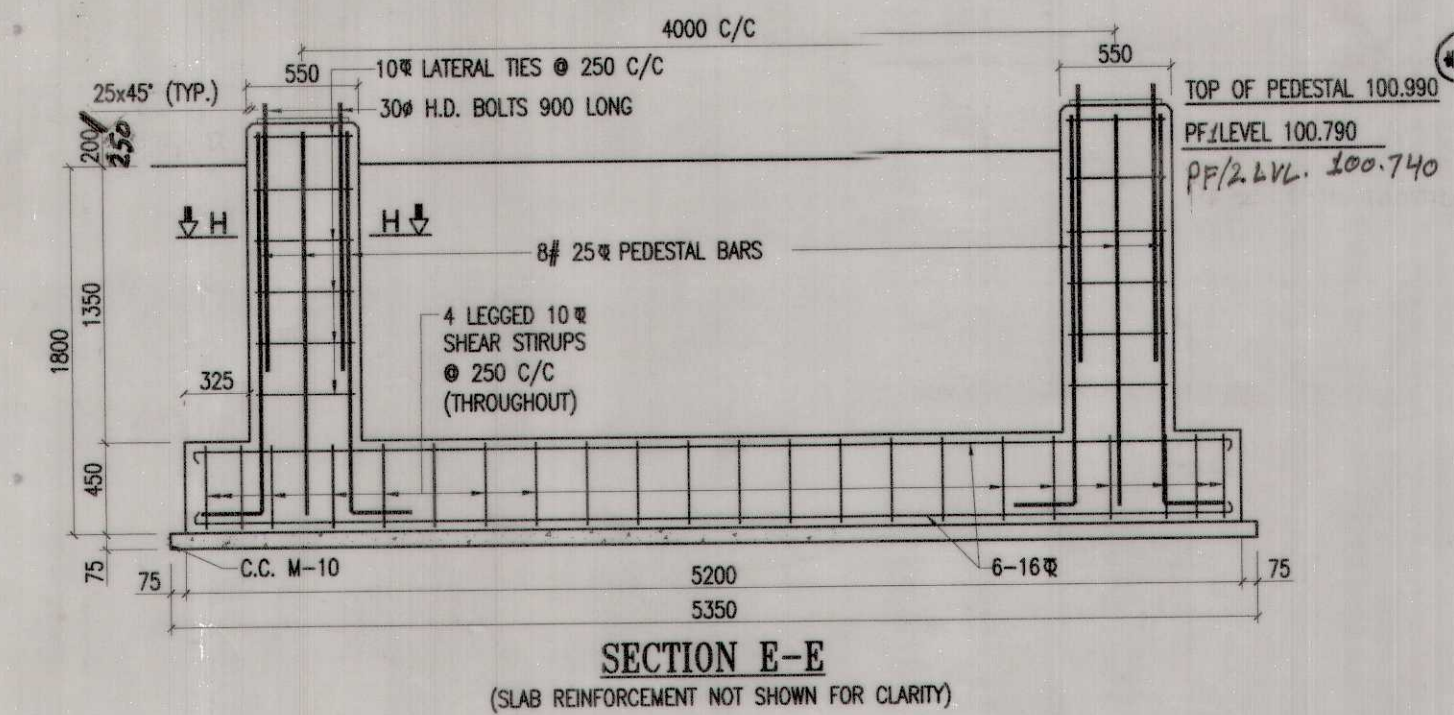
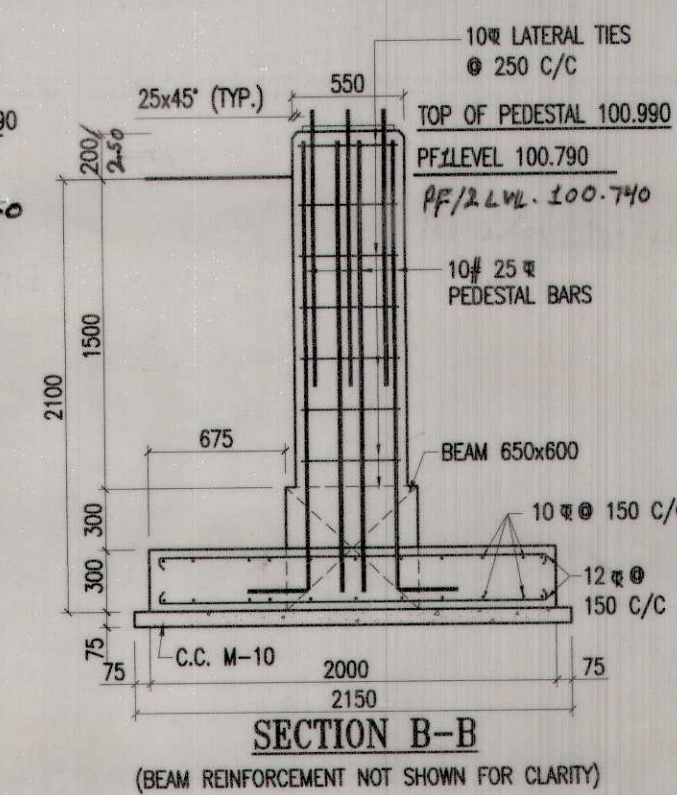
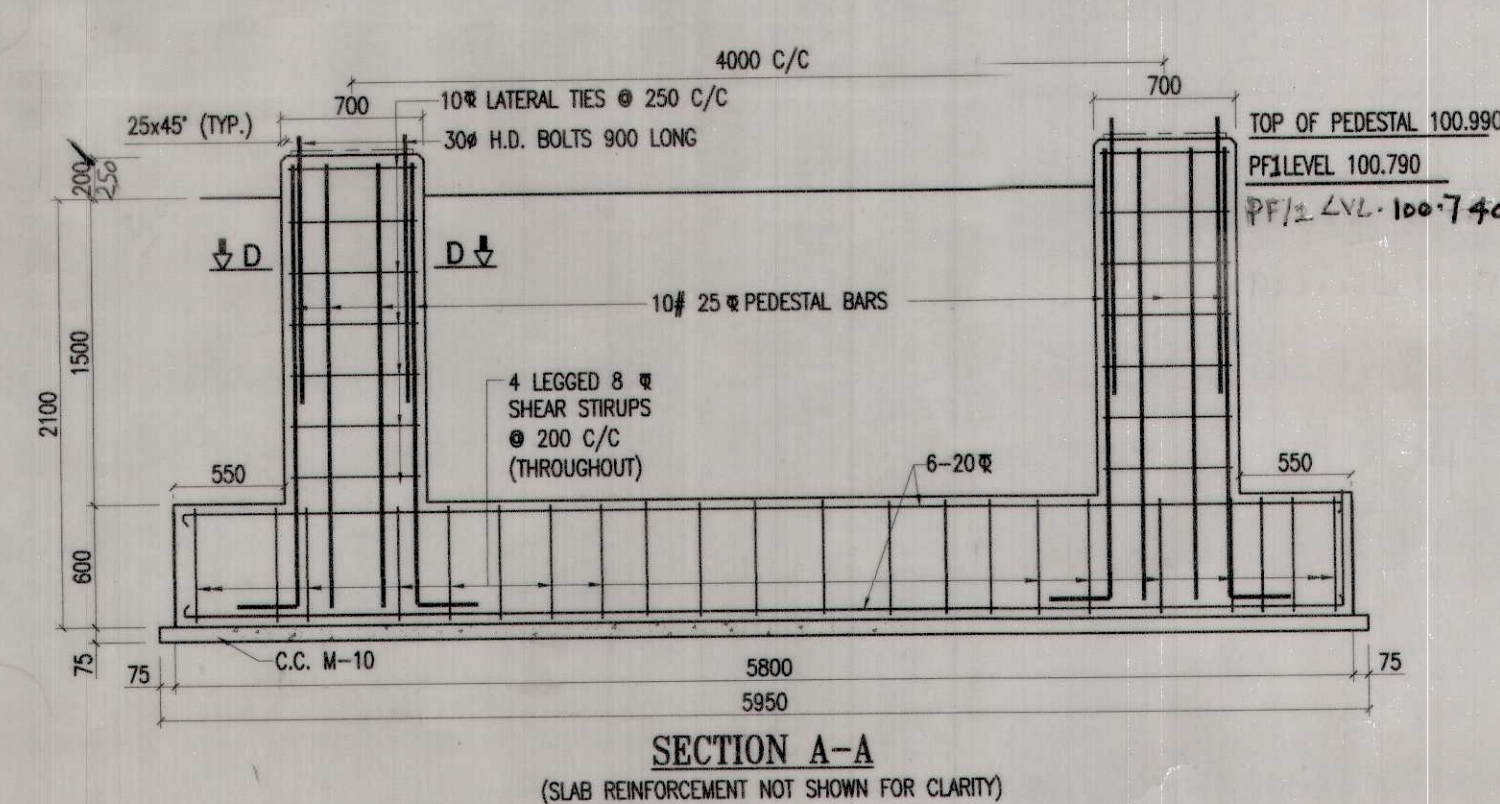
N.R.DIVL CASE NO.

N.R.H.Q.E. CASE NO.

NR DIVL. PLAN NO. FOB-89/SASN-2023/UMB

NRHQ PLAN No.- FB-102/UMB

Sh-01

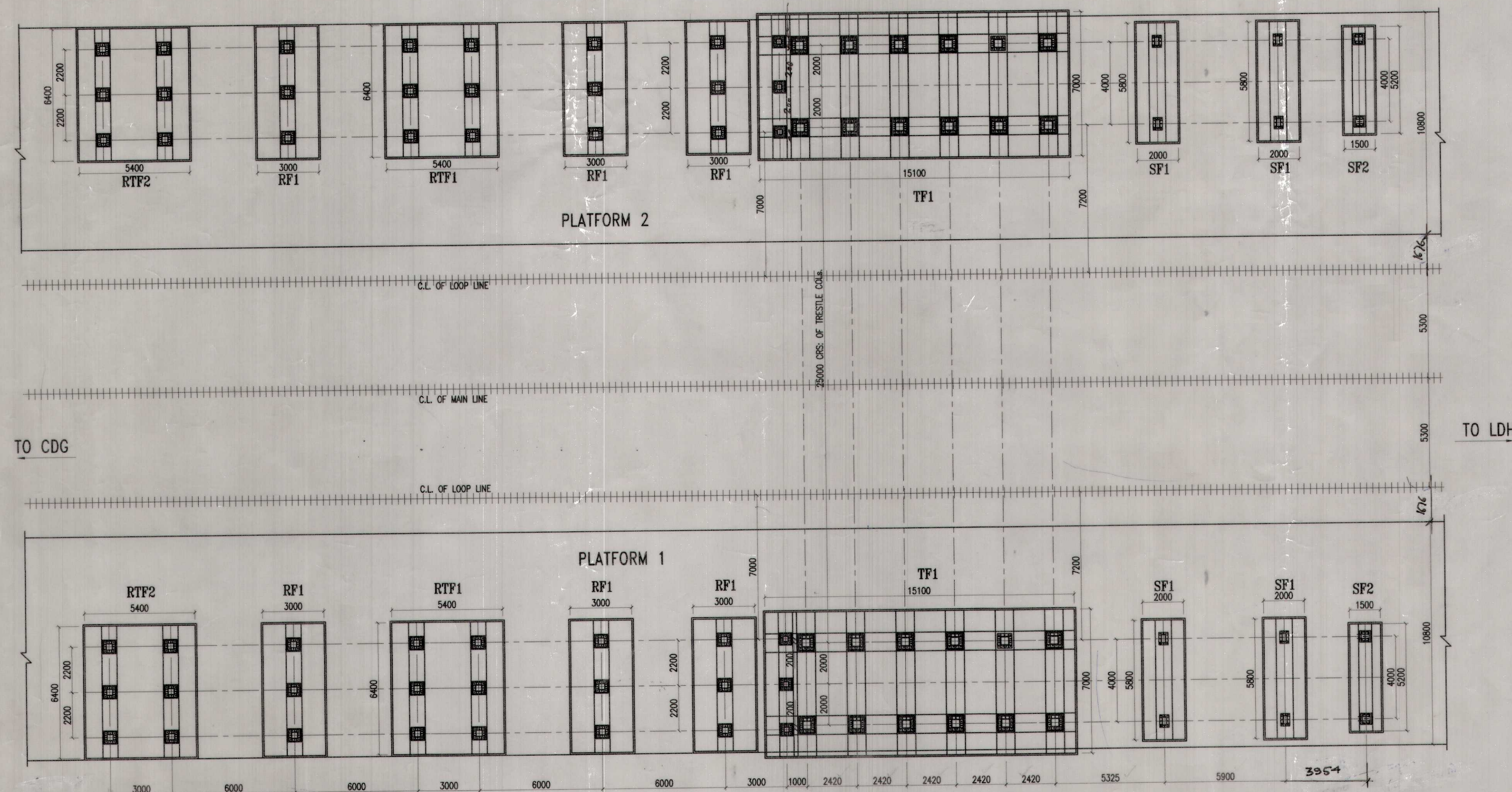


NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 2. DO NOT SCALE, FOLLOW WRITTEN DIMENSION ONLY.
 3. FOUNDATION PLAN IS COMPILED ON APPROVED Q&A NRMDC PLAN NO. FB-89/S&N-2023/UMJ
 4. ALL R.C.C. WORK IS TO BE DONE IN ACCORDANCE WITH LATEST NORTHERN RAILWAY SPECIFICATIONS & IRS CONC. BRIDGE CODE CORRECTED UP TO DATE.
 5. PARTICULAR CARE MUST BE TAKEN TO ENSURE THAT:
 - (a) NO SAG OCCURS IN REINFORCEMENT DURING EXECUTION OF WORK.
 - (b) MINIMUM 50 mm CLEAR COVER TO REINFORCEMENT TO BE MAINTAINED IN FOUNDATION & PEDESTAL.
 - (c) LAP LENGTH WHERE BARS OBTAINED ARE OF SHORTER LENGTH MUST NOT BE LESS 42 TIMES DIA OF BAR.
 6. ALL CEMENT CONC. IS TO BE MECHANICALLY MIXED AND VIBRATED.
 7. ALL BINDERS/STIRRUPS/LINKS SHALL BE EFFECTIVELY TIED WITH MAIN REINFORCEMENT BARS.
 8. VIBRATED COMPRESSED CONCRETE OF MINIMUM COMPRESSIVE STRENGTH OF 250 KG/Cm² (M-25) TO BE USED FOR ALL FOUNDATIONS.
 9. NET BEARING CAPACITY OF SOIL IS 8.50 T/m² AS PER SOIL REPORT IT SHOULD BE RE CONFIRM AT THE TIME OF EXECUTION.
 10. HSD/ TMT BARS OF GRADE Fe-500 CONFORMING TO IS:1786-2000 SHALL BE USED.
 11. ENGINEER INCHARGE SHOULD ENSURE THE LOCATIONS/DIA/LENGTH OF HOLDING DOWN BOLTS DURING CONCRETING OF FOUNDATIONS, HOLDING DOWN BOLTS SHOULD BE PLACED PROPERLY AT DESIRED LOCATIONS AND MATCH WITH THE BASE PLATE OF COLLUMNS.
 12. DEPTH OF FOUNDATION BELOW GROUND LEVEL SHOWN IN DRAWING FOR DIFFERENT FOUNDATIONS IS THE MINIMUM GRP LENGTH OF FOOTING IN THE GROUND, IF ANY LOCATION THE GROUND IS FOUND LOWER THAN THE GROUND LEVEL SHOWN IN THE DRAWING, THEN BOTTOM OF FOUNDATION SHOULD BE ACCORDINGLY LOWERED TO HAVE MINIMUM GRP LENGTHREAD THIS DRAWING IN CONJUNCTION WITH SHEET NO. 2 & 3.
 13. TOP OF PEDESTAL OF STAIRCASE (SF-2) IS INDICATIVE ONLY. IT SHOULD BE VERIFIED BEFORE CASTING OF FOUNDATION
- FOR

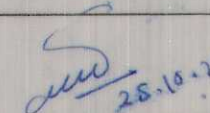
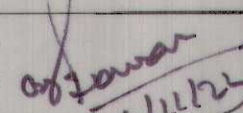
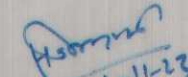
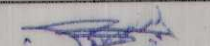
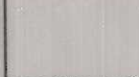
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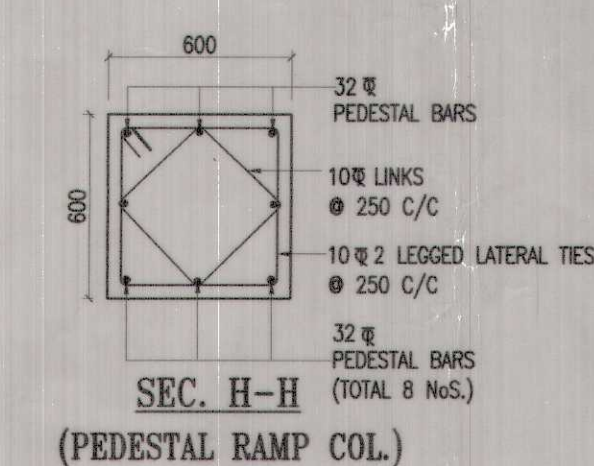
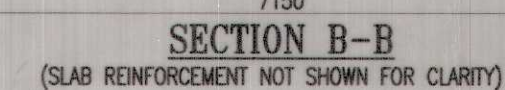
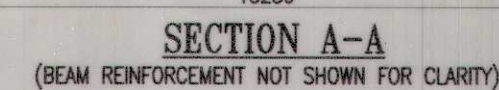
FOR CASTING OF FOUNDATION		SEE
GENERAL ARRANGEMENT		NRHOE PLAN NO. FB-89/SASN-2023/UMB
FOUNDATION LAYOUT & DETAIL OF STAIRCASE FOUNDATIONS		SHEET No-2
DETAIL OF TRESTLE FOUNDATION		SHEET No-3
DETAIL OF RAMP FOUNDATIONS		SHEET No-4



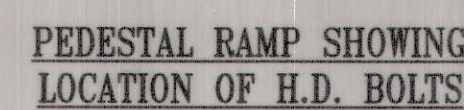
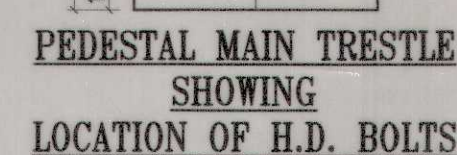
S.NO.	REVISION	DATE	APPROVE
REVISION			

	PROOF CHECKED BY	DESIGN & DRAWING
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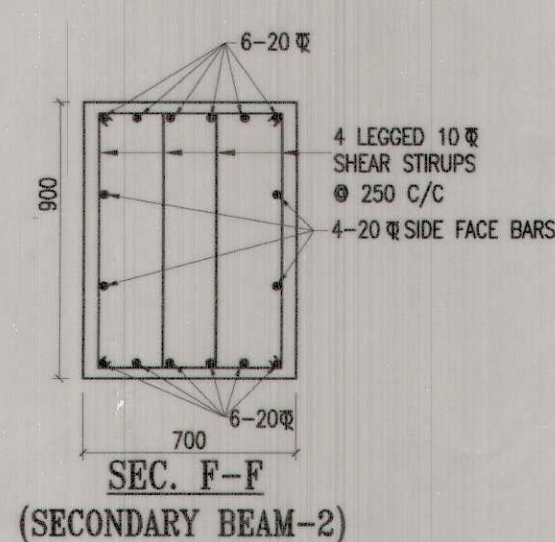
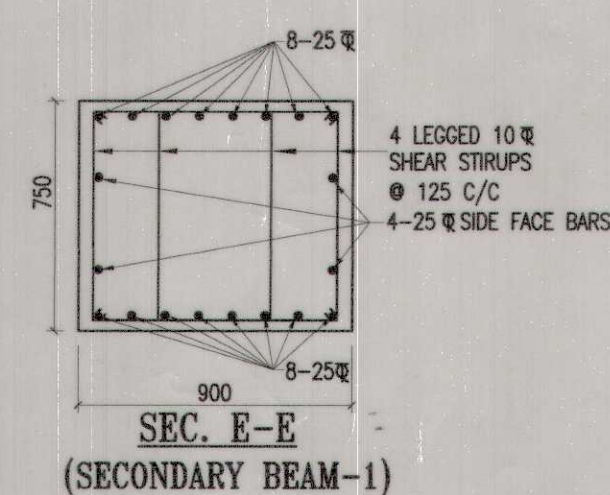
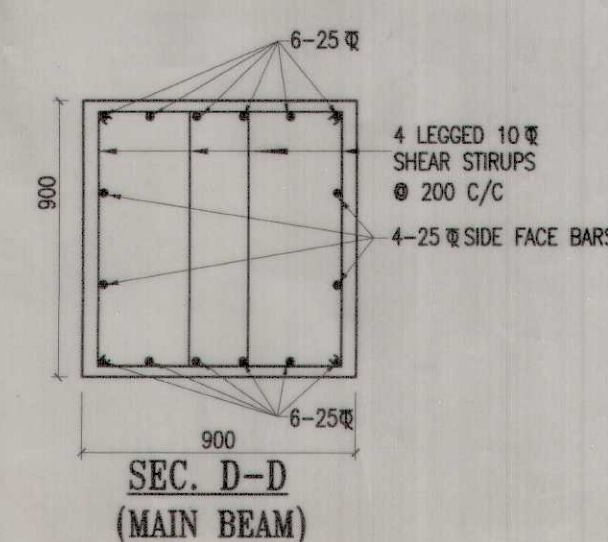
	 28.10.23 SR.DEN/CD/UMB	 28.10.23 CBE (SSS TMS)	 28.10.23 AMBALA DIVISION PROPOSED 12.0 M WIDE FOOT OVER BRIDGE AT SAHIBZADA AJIT SINGH NAGAR (MOHALI) RAILWAY STATION UNDER AMRIT BHARAT STATION SCHEME FOUNDATION LAYOUT PLAN & DETAIL OF STAIRCASE FOUNDATION
AGENCY	 SR. DEN-/UMB	 6-11-23 DT. CE/BD (S.L. SARG)	
PARMAG JINDAL CONTRACTORS Vinod Kumar PARTNER	 21/10/23 ADEN/CDG	 AXEN/BD	
DESIGN & DRAWING	 SSE/W/CDG	 SSE/DESIGN (GUSHKAL)	
	 SSE/DRG/UMB	 21/10/2023 (ASUGARU) SSE/DRG. (ASUGARU)	
	DIVISIONAL OFFICERS	HQ. OFFICERS	
		SCALE=1:35	



1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW WRITTEN DIMENSION ONLY.
3. FOR OTHER NOTES REFER SHEET NO. 1
4. READ THIS DRAWING IN CONJUNCTION WITH SHEET NO. 1 & 3.



FOR	SEE
GENERAL ARRANGEMENT	NRHO PLAN NO. FB-89/SASN-2023/UM
FOUNDATION LAYOUT & DETAIL OF STAIRCASE FOUNDATIONS	SHEET No- 2
DETAIL OF TRESTLE FOUNDATION	SHEET No- 3
DETAIL OF RAMP FOUNDATIONS	SHEET No- 4

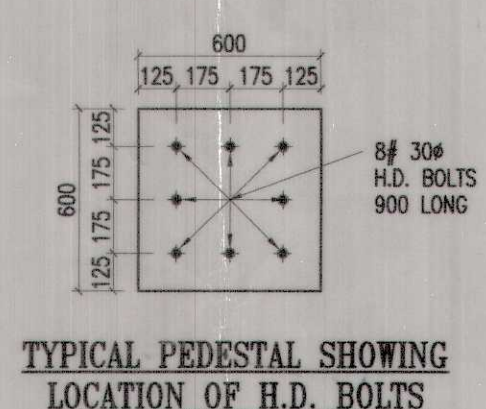
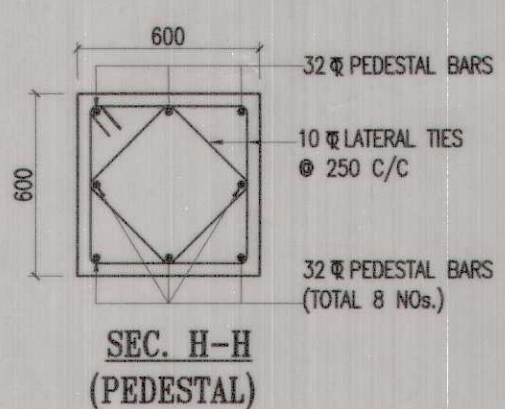
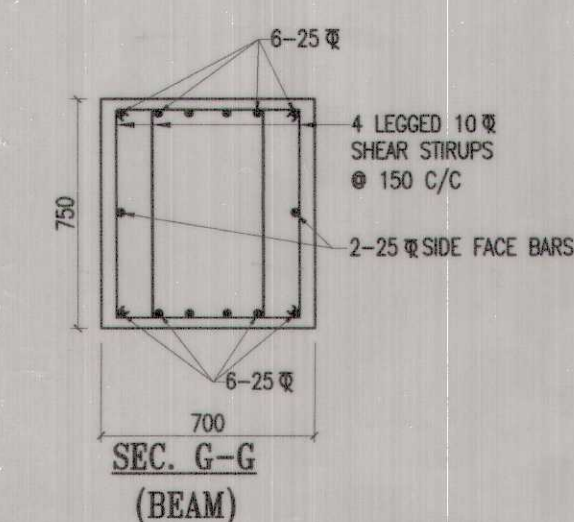
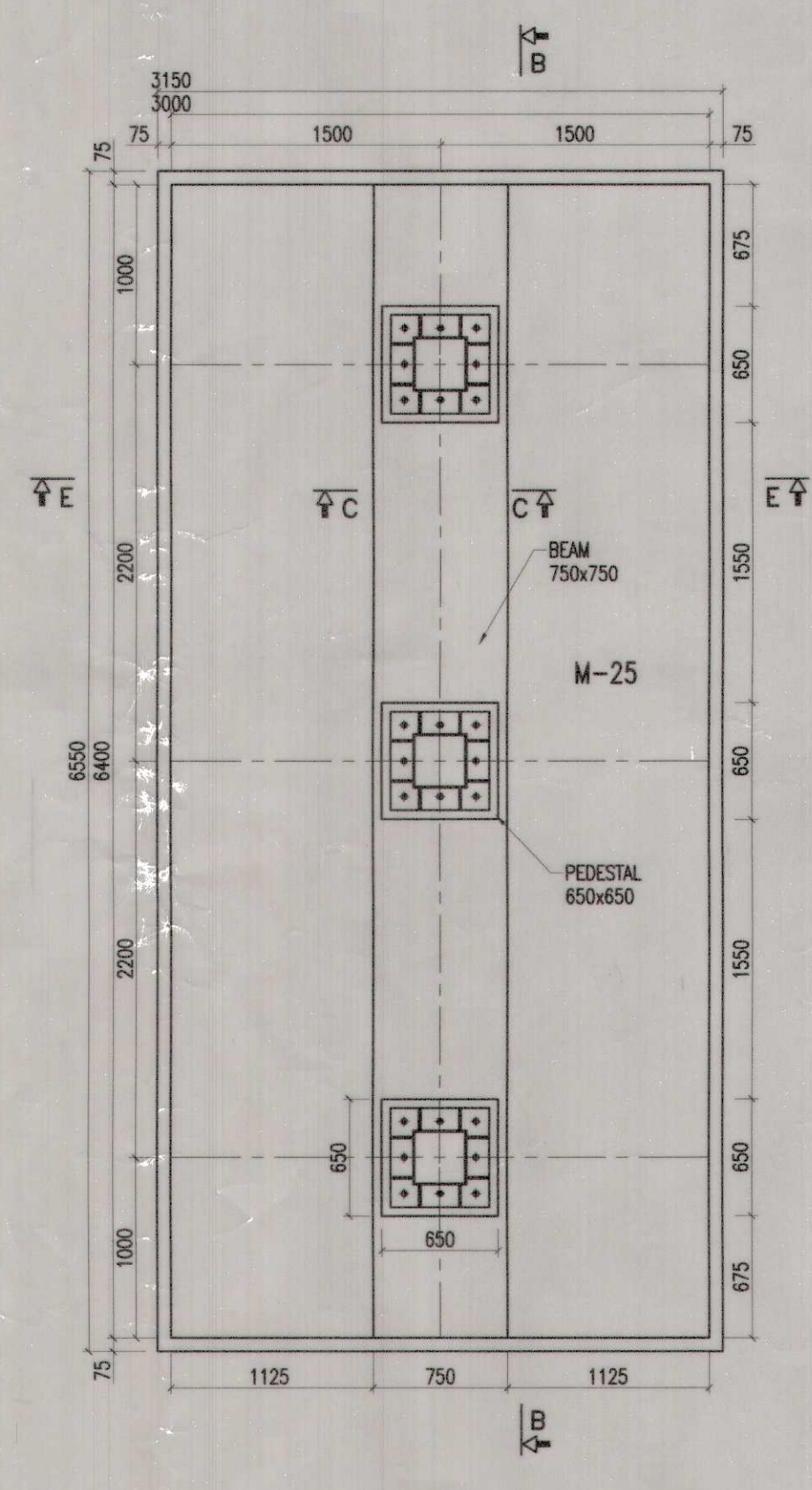
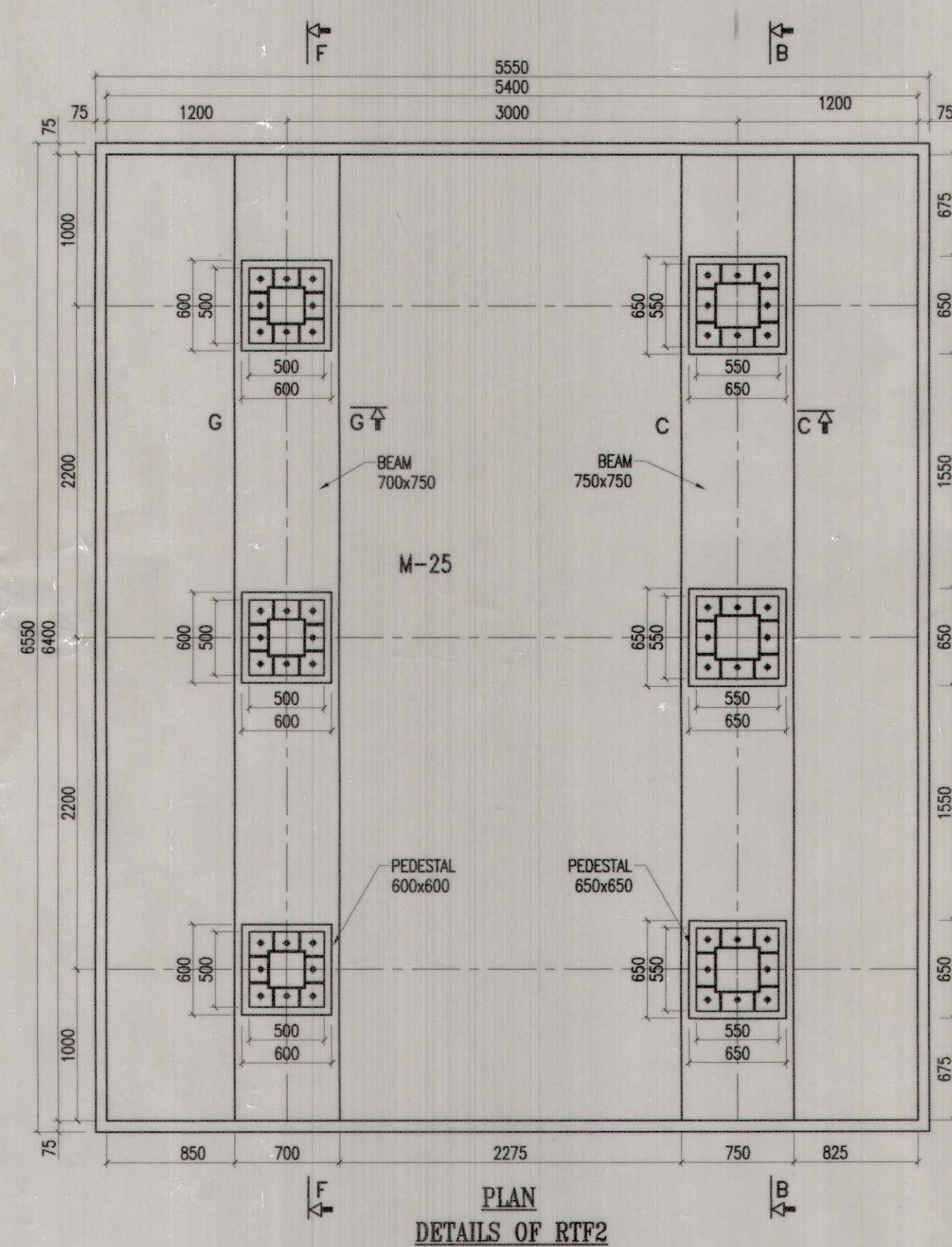
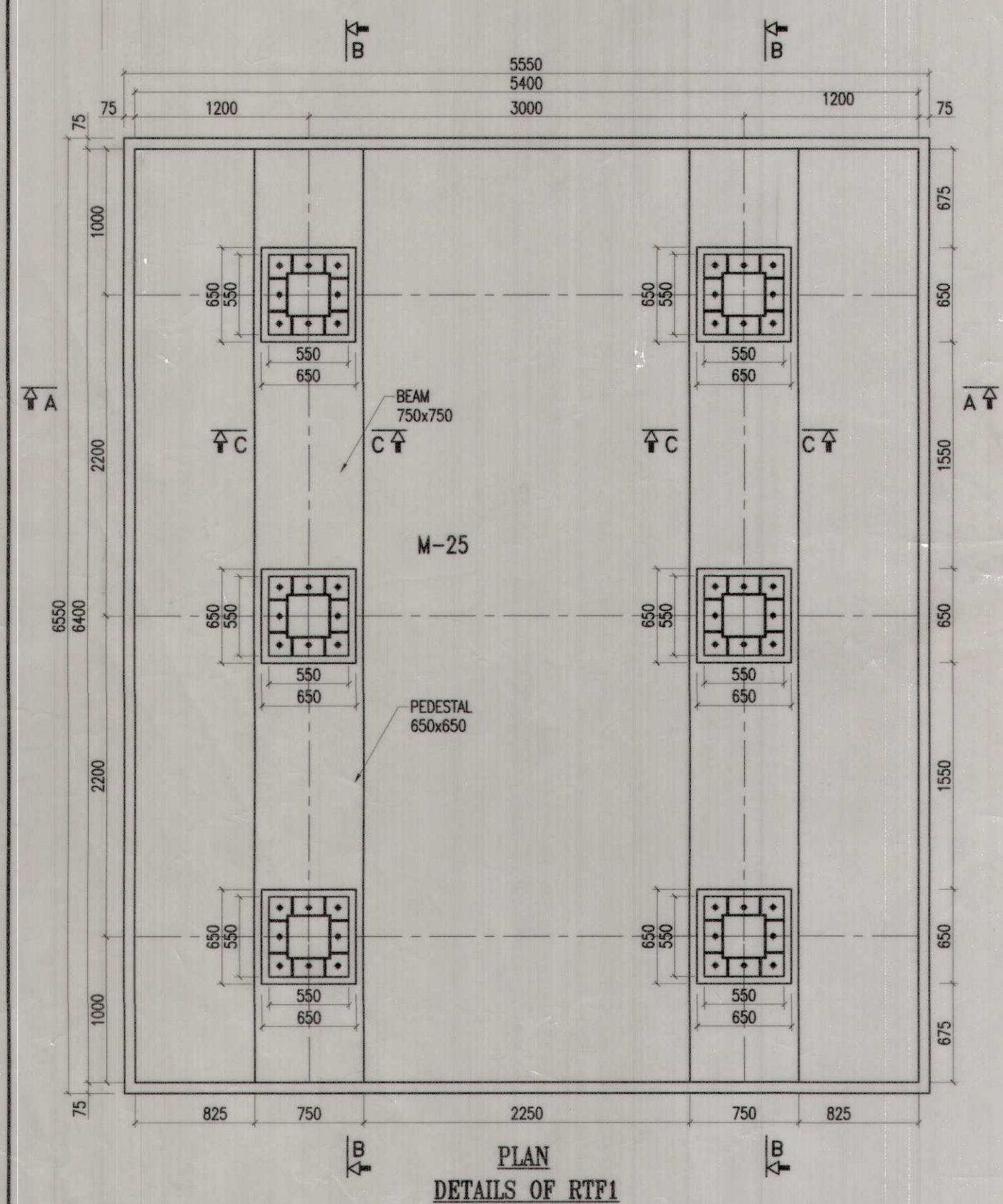
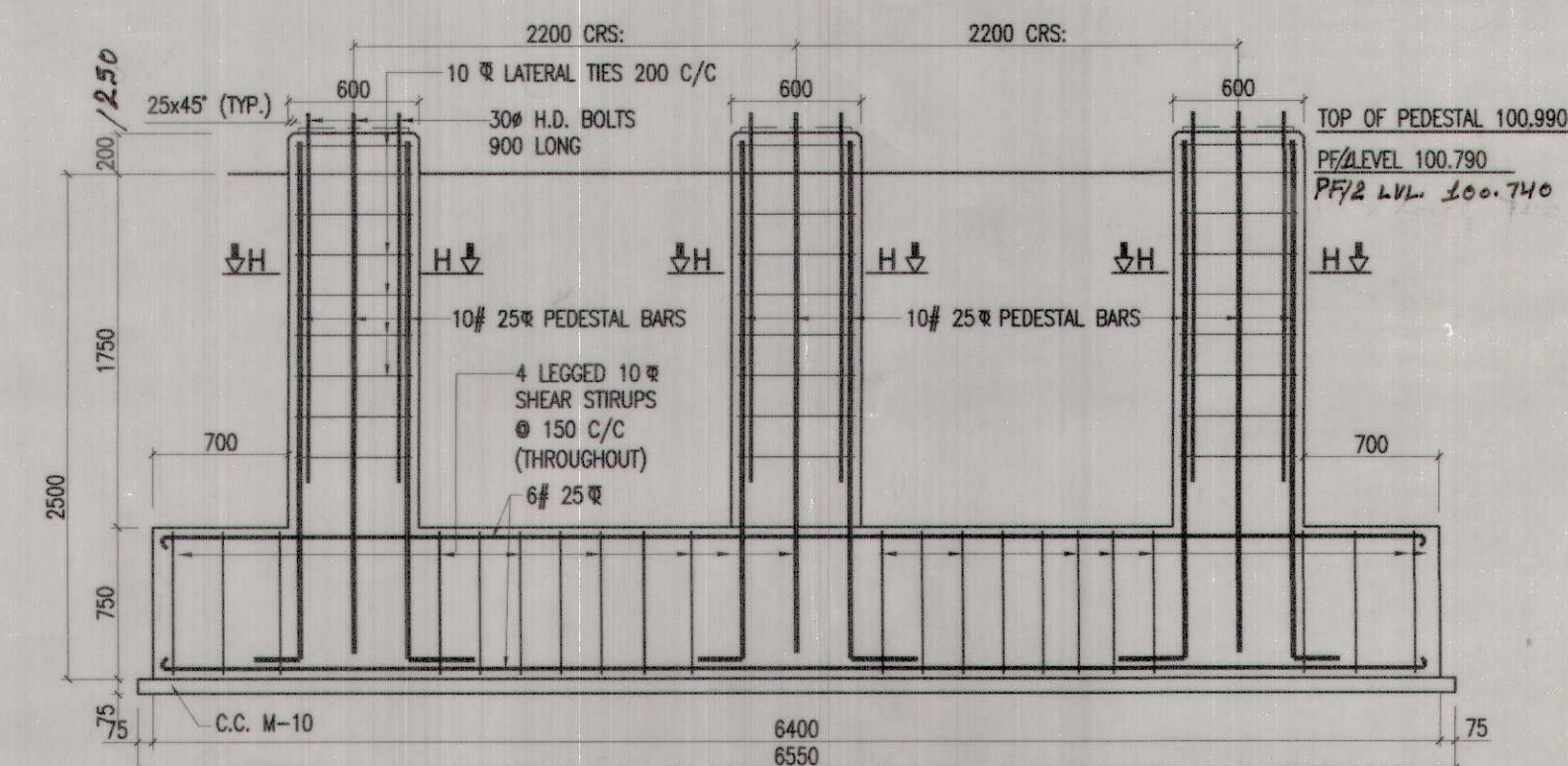
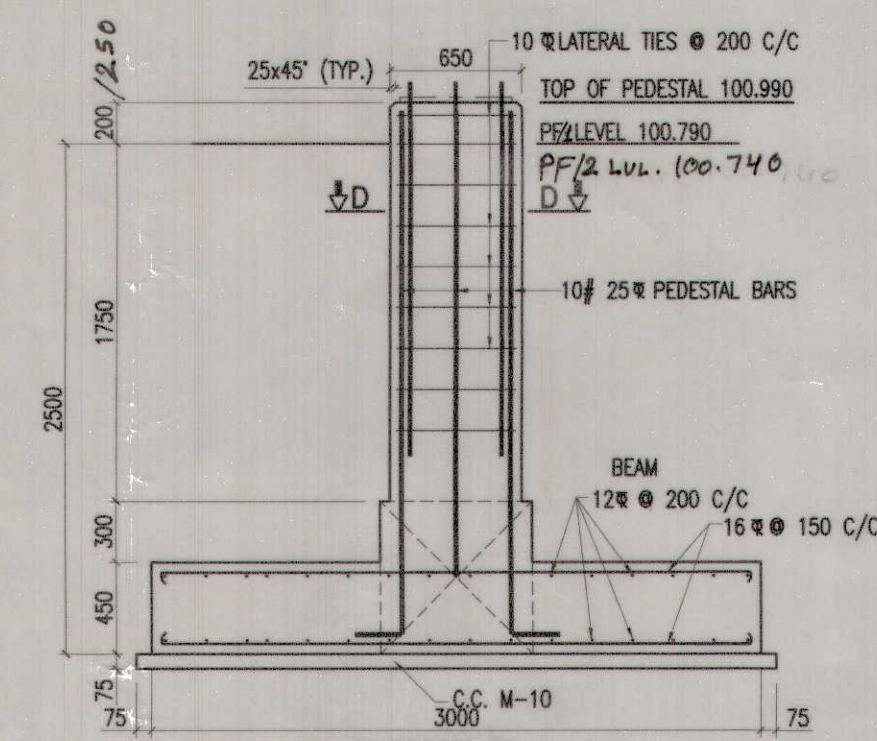
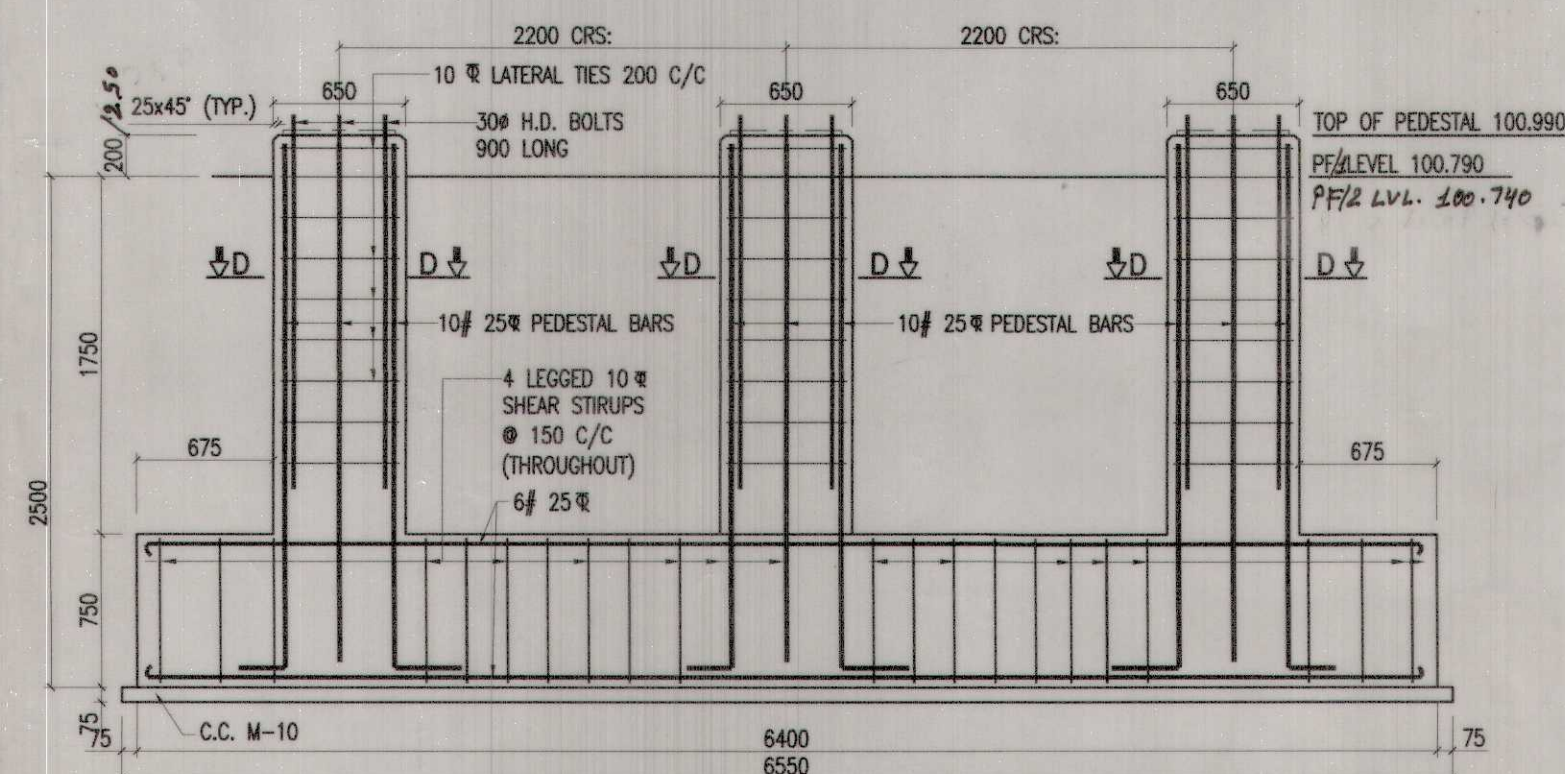
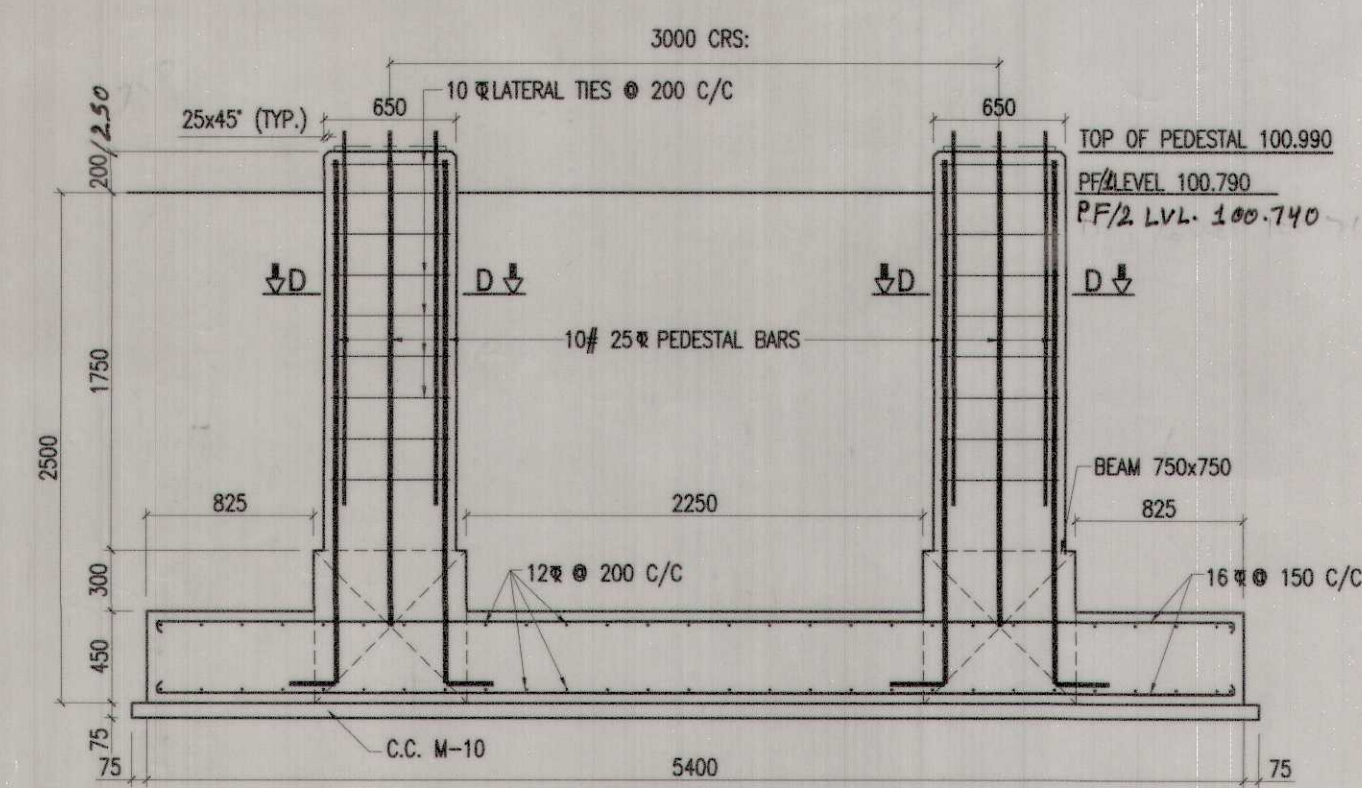


S.NO.	REVISION	DATE	APPROVE
REVISION			

PROOF CHECKED BY	DESIGN & DRAWING	ARMY/CDG 21/12/2002	ARMY/BU 
		SSE/W/CDG 	SSE/DESIGN (P) 
D		SSE/DWG/UMB 	SSE/DWG. 
		DIVISIONAL OFFICERS	HQ. OFFICERS

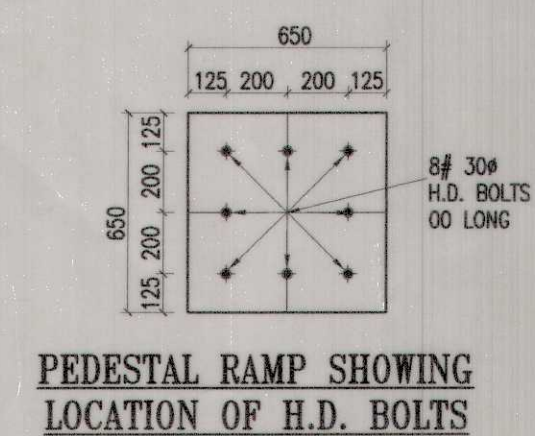
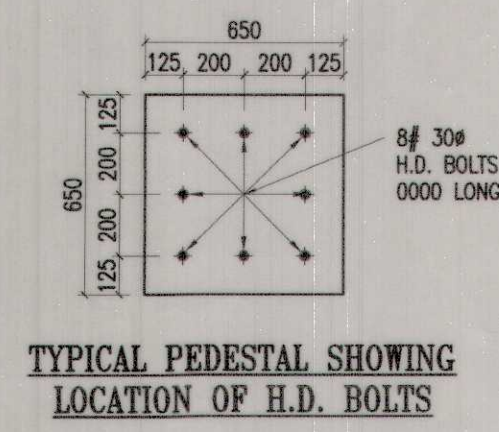
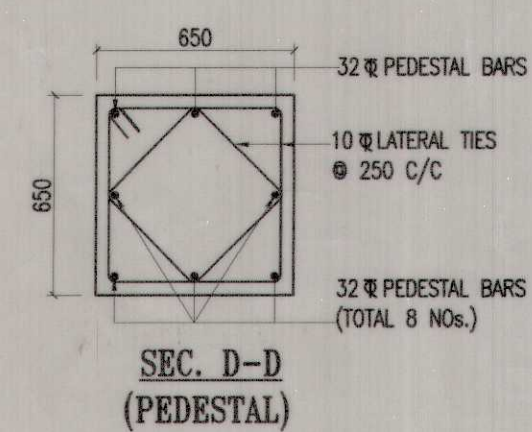
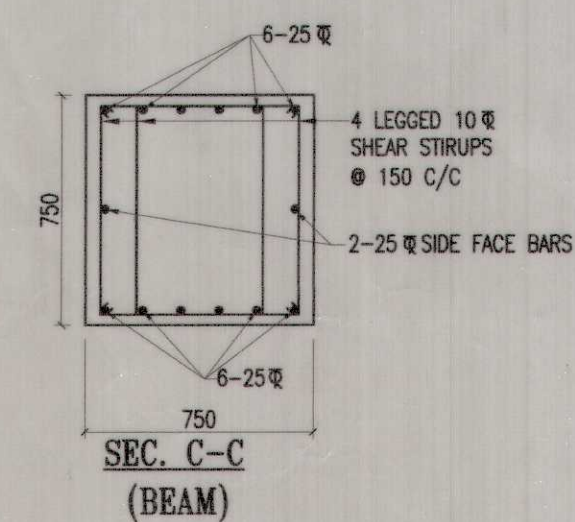
AMBALA DIVISION
PROPOSED 12.0 M WIDE FOOT OVER BRIDGE
AT SAHIBZADA AJIT SINGH NAGAR (MOHALI)
RAILWAY STATION
UNDER AMRIT BHARAT STATION SCHEME
DETAIL OF TRESTLE FOUNDATION TF1

DIVL. PLAN NO. FOB-157 / S.A.S.N-2023 / UMB
NRHQ PLAN No. FB-102 / UMB
SCALE-1:35 (SHEET No-3)



- NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW WRITTEN DIMENSION ONLY.
3. FOR OTHER NOTES REFER SHEET NO. 1.
4. READ THIS DRAWING IN CONJUNCTION WITH SHEET NO. 1 & 2.



FOR	SEE
GENERAL ARRANGEMENT	NRHOE PLAN NO. FB-89/SASN-2023/UMB
FOUNDATION LAYOUT & DETAIL OF STAIRCASE FOUNDATIONS	SHEET No- 2
DETAIL OF TRESTLE FOUNDATION	SHEET No- 3
DETAIL OF RAMP FOUNDATIONS	SHEET No- 4

S.NO.	REVISION	DATE	APPROVED
REVISION			

	PROOF CHECKED BY
VED	

AGENCY	SR. DEN-1/UMB	SR. CE/BD
DESIGN & DRAWING	AXEN/CDG	AXEN/BD
	SSE/W/CDG	SSE/DESIGN
	SSE/DRG./UMB	SSE/DRG. (ASST. ADM)
	DIVISIONAL OFFICERS	HQ. OFFICERS

<u>AMBALA DIVISION</u>	
PROPOSED 12.0 M WIDE FOOT OVER BRIDGE AT SAHIBZADA AJIT SINGH NAGAR (MOHALI) RAILWAY STATION UNDER AMRIT BHARAT STATION SCHEME	
<u>DETAIL OF FOUNDATIONS</u> RTF1, RTF2 & RF1	
DIVL. PLAN NO. <u>FOB-157/SAJN-2023/UMB</u> NRHQE PLAN No. <u>FB-102/UMB</u>	
SCALE-1:35	(SHEET No-4)