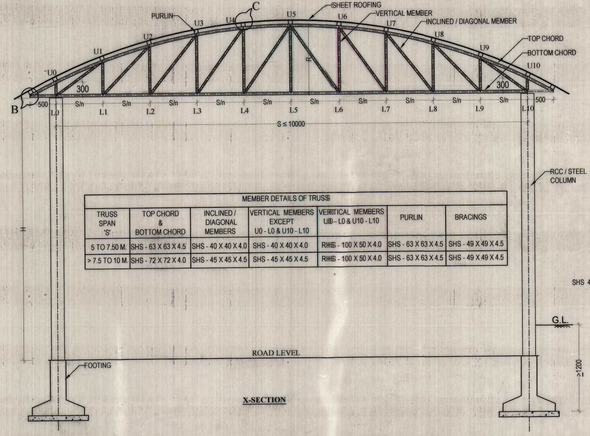
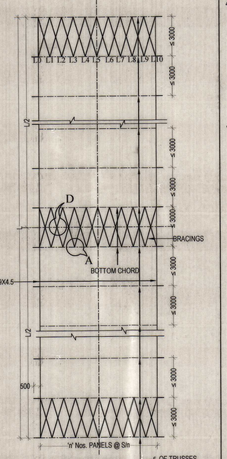


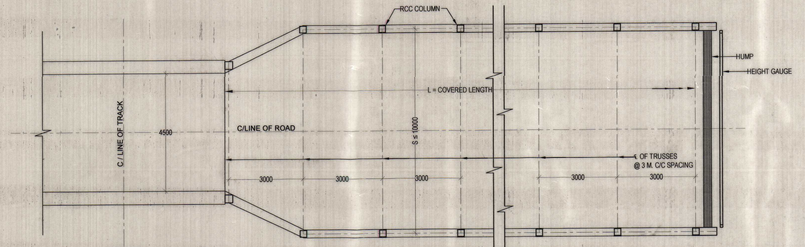
X-SECTION

MEMBER DETAILS OF TRUSS

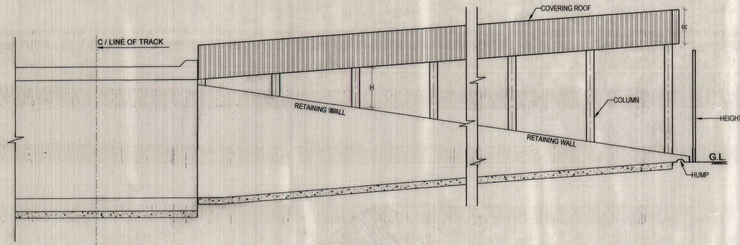
TRUSS SPAN 'S'	TOP CHORD & BOTTOM CHORD	INCLINED / DIAGONAL MEMBERS	VERTICAL MEMBERS EXCEPT U0 - L0 & U10 - L10	VERTICAL MEMBERS U0 - L0 & U10 - L10	PURLIN	BRACINGS
≤ TO 7.50 M.	SHS - 63 X 63 X 4.5	SHS - 40 X 40 X 4.0	SHS - 40 X 40 X 4.0	RHS - 100 X 50 X 4.0	SHS - 63 X 63 X 4.5	SHS - 49 X 49 X 4.5
> 7.5 TO 10 M.	SHS - 72 X 72 X 4.0	SHS - 45 X 45 X 4.5	SHS - 45 X 45 X 4.5	RHS - 100 X 50 X 4.0	SHS - 63 X 63 X 4.5	SHS - 49 X 49 X 4.5



PLAN OF TRUSS

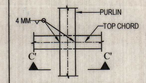


PLAN



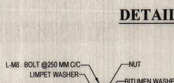
SECTIONAL ELEVATION

DETAILS FOR TRUSS

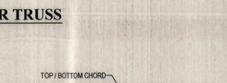


DETAILS AT 'C', PURLIN & TOP CHORD CONNECTION

DETAILS AT 'A'



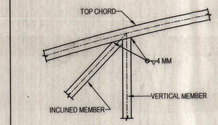
FIXING ARRANGEMENT OF SHEET OVER PURLIN (AS PER IS 12093-1987)



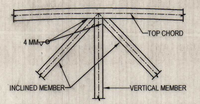
DETAILS OF TYPICAL SPLICE JOINTS

SECTION AT 'C'-'C'

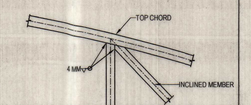
DETAILS AT 'D'



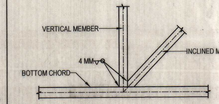
DETAILS AT 'U1 TO L4'



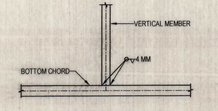
DETAILS AT 'U5'



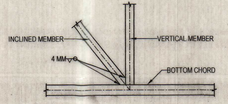
DETAILS AT 'U6 TO U9'



DETAILS AT 'L0' TO L4

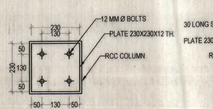


DETAILS AT 'L5'

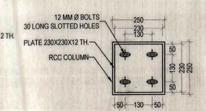


DETAILS AT 'L6' TO L10

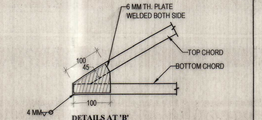
DETAILS FOR RCC COLUMN



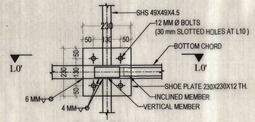
DETAIL OF BEARING PLATE OVER COLUMN 'L0'



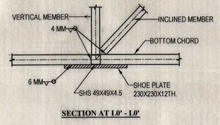
DETAIL OF BEARING PLATE OVER COLUMN 'L10'



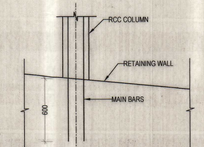
DETAILS AT 'B'



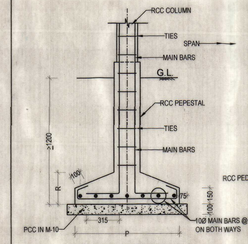
DETAILS AT L0 & L10



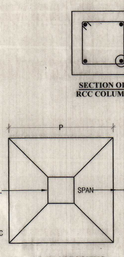
SECTION AT L0' - L0'



FIXING OF RCC COLUMN ON EXISTING RETAINING WALL



DETAILS OF FOOTING



PLAN OF FOOTING

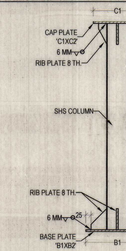
SECTION OF RCC COLUMN

DETAILS OF RCC COLUMNS

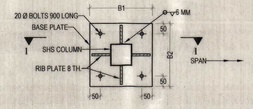
HEIGHT IN M. 'H'	SIZE	MAIN BARS	TIES	SIZE OF PEDESTAL	FOOTING DIMENSIONS (MM) P	Q	R
1.0	300X300	4 Nos.-16Ø	8Ø @ 175 C/C	400X400	1000	1250	300
2.0	300X300	4 Nos.-16Ø	8Ø @ 175 C/C	400X400	1000	1250	300
3.0	300X300	4 Nos.-20Ø	8Ø @ 175 C/C	400X400	1100	2000	350
4.0	300X300	8 Nos.-16Ø	8Ø @ 175 C/C	400X400	1100	2000	350
5.0	300X300	8 Nos.-25Ø	8Ø @ 175 C/C	400X400	1100	2000	350
6.0	300X300	8 Nos.-20Ø	8Ø @ 175 C/C	400X400	1100	2000	350

DETAILS FOR STEEL COLUMN

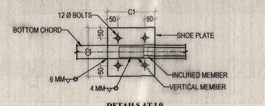
COLUMN (SHS) HEIGHT UPTO 2.0 M



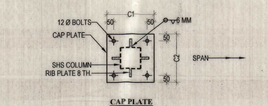
SECTION OF SHS COLUMN (ALONG 1-1)



BASE PLATE

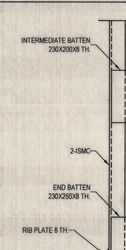


DETAILS AT L0

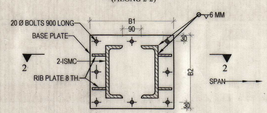


CAP PLATE

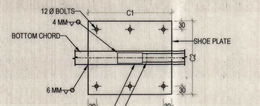
COLUMN HEIGHT 2.1 M TO 5.0 M



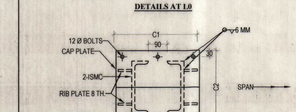
SECTION OF COLUMN (ALONG 2-2)



BASE PLATE

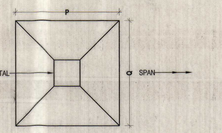


DETAILS AT L0

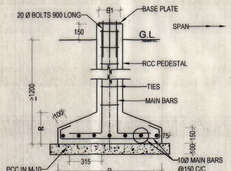


CAP PLATE

FOUNDATION DETAILS FOR STEEL COLUMN



PLAN OF FOOTING



DETAILS OF FOOTING

DETAILS OF STEEL COLUMNS

HEIGHT IN METER 'H'	SIZE OF COLUMN	SIZE OF BASE PLATE 'B1XB2'	SIZE OF CAP & SHOE PLATE 'C1XC2'	LENGTH OF RIB PLATE 'h'	SIZE OF PEDESTAL	FOOTING DIMENSIONS (MM) P	Q	R
1.0	SHS - 125X125X5	300X350X16TH.	300X350X12TH.	100	400X400	1000	1250	300
2.0	SHS - 150X150X6	300X350X16TH.	300X350X12TH.	150	400X400	1000	1250	300
3.0	2-ISMC 200	360X400X16TH.	360X400X12TH.	200	500X500	1100	2000	350
4.0	2-ISMC 200	360X400X16TH.	360X400X12TH.	250	500X500	1100	2000	350
5.0	2-ISMC 200	360X400X16TH.	360X400X12TH.	300	500X500	1100	2000	350

SSE/DRG

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED. NO DIMENSION SHALL BE SCALED FROM THE DRAWING.
2. FEASIBILITY OF THIS STRUCTURE SHALL BE CHECKED AT SITE IN EVERY RESPECT BY ENGINEER - INCHARGE BEFORE STARTING EXECUTION.
3. ALL FILLET WELDS ARE 4 MM SIZE EXCEPT OTHERWISE SPECIFIED.
4. ALL WELDS WILL BE IN FULL LENGTH AROUND THE MEMBERS AT EACH JOINTS.
5. THE PAINTING SCHEME SHALL BE AS PER PARA 216 OF INDIAN RAILWAY BRIDGE MANUAL. FOR EFFECTIVE PREVENTION OF CORROSION, EPOXY BASED PAINTING AS PER PARA 216 OF INDIAN RAILWAY BRIDGE MANUAL IS RECOMMENDED.
6. SQUARE HOLLOW STRUCTURAL SECTIONS OF GRADE Yst -310 MPa TO BE USED AS PER IS - 4923 : 1997.
7. HOLLOW SQUARE SECTIONS SHOULD BE CLOSED AT OPEN END WITH SUITABLE ARRANGEMENTS TO REDUCE CHANCES OF CORROSION INSIDE OF RECTANGULAR HOLLOW SECTIONS.
9. SHEET ROOFING (CGS / NON-AC SHEET) SHALL BE PROVIDED AS APPROVED BY SECTIONAL Sr. DEN / DEN.
10. HSD STEEL BARS TO BE PROVIDED IN CONFIRMATION WITH IS: 1786 - 2008 .
11. SPECIFICATION OF BOLTS ARE AS PER IS:1367 PROPERTY CLASS 6.6
12. MAXIMUM FOUNDATION PRESSURE IS 12.5 T/M² , IT SHOULD BE ENSURED BY ENGINEER INCHARGE THATSAFE BEARING CAPACITY OF SOIL IS MORE THAN MAX. FOUNDATION PRESSURE.
13. ALL CEMENT CONCRETE TO BE MECHANICALLY MIXED & VIBRATED.
14. PROPER EARTHING OF STEEL STRUCTURE AND TRUSS SHALL BE ENSURED.
15. WELDING SHOULD BE DONE AS PER IS: 9595-1996.
16. NECESSARY JIGS AND FIXTURE SHOULD BE USED FOR WELDING VARIOUS MEMBER TO AVOID DISTORTION.
17. NECESSARY HEAT TREATMENT SHOULD BE GIVEN BEFORE AND AFTER WELDING WHEREVER REQUIRED.
18. WELDING SHOULD BE DONE BY TRAINED WELDER UNDER THE SUPERVISION OF QUALIFIED PERSON ONLY.
19. THE ELECTRODES SHALL CONFIRM TO IS: 815-1974.

RCC STRUCTURES -

GRADE OF CONCRETE : M-25
STEEL : Fe500D
CLEAR COVER : 50 MM
LAP LENGTH : 40 x DIA.

TRUSS SPAN IN METER (S)	NOS. OF PANELS (n)	PANEL LENGTH (S/n) IN M.	HEIGHT OF TRUSS (RISE) 'R' IN M.
10.0	10	1.000	1.0
9.0	10	0.900	1.0
8.0	8	1.000	1.0
7.0	8	0.875	1.0
6.0	6	1.000	1.0
5.0	6	0.833	1.0
4.0	4	1.000	1.0

REFERENCE CODES -

IS : 800-1984	(GENERAL CONSTRUCTION IN STEEL- CODE OF PRACTICE : FIRST REVISION).
IS : 456-2000	(PLAIN AND REINFORCED CONCRETE - CODE OF PRACTICE : FOURTH REVISION).
IS : 4923-1997	(HOLLOW STEEL SECTIONS FOR STRUCTURAL USE - SPECIFICATION)
IS : 1786-2008	(HIGH STRENGTH DEFORMED BARS AND WIRES - FOR CONCRETE REINFORCEMENT - SPECIFICATION. (FOURTH REVISION).
IS : 1367-17	(INDUSTRIAL FASTENERS - THREADED STEEL FASTENERS - TECHNICAL SUPPLY CONDITIONS)
IS : 9595-1996	(METAL ARC WELDING OF CARBON AND CARBON MANGANESE STEELS)
IS : 815-1974	CLASSIFICATION CODING OF COVERED ELECTRODES FOR METAL ARC WELDING OF STRUCTURAL STEELS.
IS : 875 - 1987	CODE OF PRACTICE FOR DESIGN LOADS.
IRBM	(INDIAN RAILWAY BRIDGE MANUAL)

NORTH WESTERN RAILWAY

TITLE :-

TYPE PLAN FOR COVERING ON LIMITED HEIGHT SUBWAY APPROACHES (SPAN ≤ 10.0 M) (PROVISIONAL)

CBE

XEN (BD)

DY. CE (BR-P&D)

DRG. NO.CBE/819/RUB/TYPE PLAN/2017