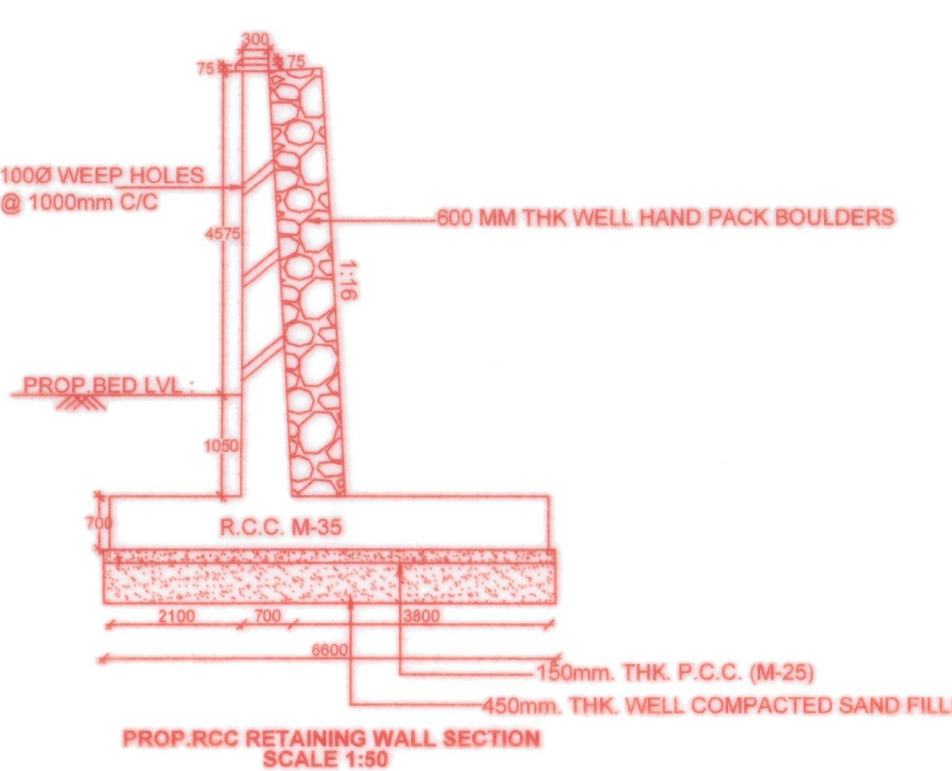


**R.L. 250.605M**

DEPTH	TYPE	SPTN
0.00	ML	8
1.00	ML	8
1.50	SM	16
2.50	SM	16
3.00	SM	16
4.00	SM	20
4.50	SM-SP	20
5.50	SM-SP	22
6.00	SM-SP	22
7.00	SM-SP	22

ML - INORGANIC SANDY SILTS OF MEDIUM PLASTICITY  
SM - POORLY GRADED MEDIUM DENSE SILTY SAND  
SM-SP - POORLY GRADED DENSE SAND WITH SILT



**MODUS OPERANDI :**

- EXISTING WATER BODY (FLOW) TO BE TRAINED / DIVERTED SUITABLY.
- EXCAVATE THE FOUNDATIONS FOR THE PROPOSED RCC BOX, RETURN WALLS, ETC., TO THE REQUIRED DEPTH BY USING SUITABLE EQUIPMENT, TOOLS AND PLANTS.
- PREPARE THE GROUND WELL (BY RAMMING ETC. AS NECESSARY AS PER SITE REQUIREMENTS) LAY SAND FILLING, P.C.C. BASE COURSE ETC. IF NECESSARY AND LEVELING COURSE ETC. AND ALLOW BALAST TO REQUIRED DEPTH.
- CAST THE RCC BOX, RETURNS "IN SITU" CURE AND ALLOW TO SET AS PER CODAL PROVISIONS AND COMPLETE THE WORK.
- FILL EARTH AS PER CODAL PROVISIONS IN LAYERS OF 300mm AND CONSOLIDATE / RAM WELL TO REQUIRED PROFILE AND FORMATION LEVEL AS PER RDSO SPECIFICATIONS OVER THIS LAY BALAST TO REQUIRED DEPTH.
- LAY 150 mm THICK WEARING COURSE OVER THE FLOOR OF THE RCC BOX.
- LAY & LINK THE PROPOSED LINE. COMPLETE THE REMAINING WORKS IN ALL RESPECTS.
- ALLOW THE TRAINED / DIVERTED WATER BODY THROUGH THE BRIDGE.

**REFERENCES:-**

- REINFORCEMENT DETAILS OF RCC BOX SIMILAR TO DRG. NO. RDSO-B-10155/6 OF SIZE 1 X 4.00 X 4.00m (WITH 5 m FLL).
- THIS DRAWING IS BASED ON APPROVED DETAILED PLAN AND SECTION-CE/CON/IVSKP/JEYPORE-MALKANGIRI/15 OF 18.

**NOTES :-**

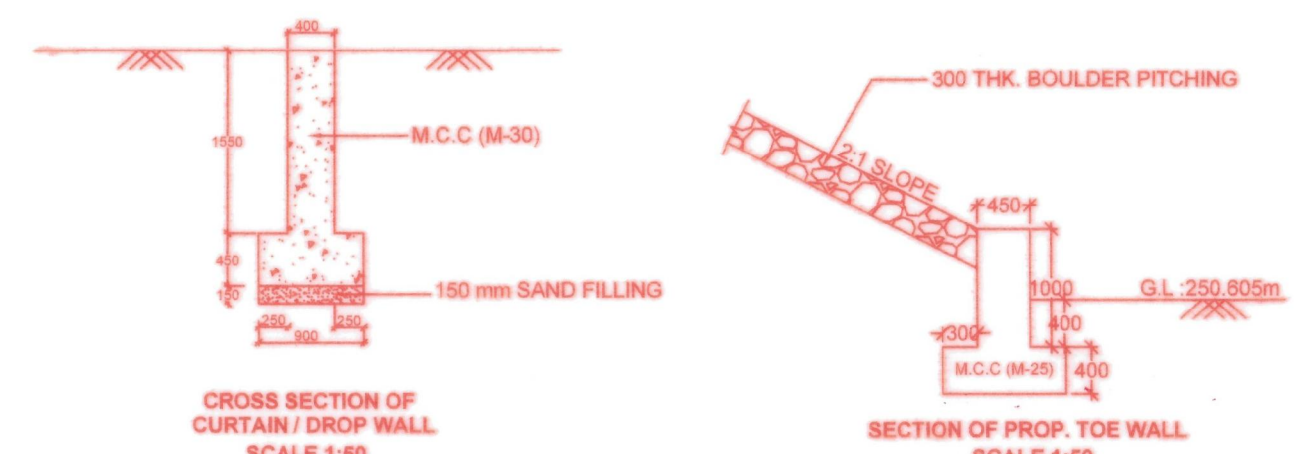
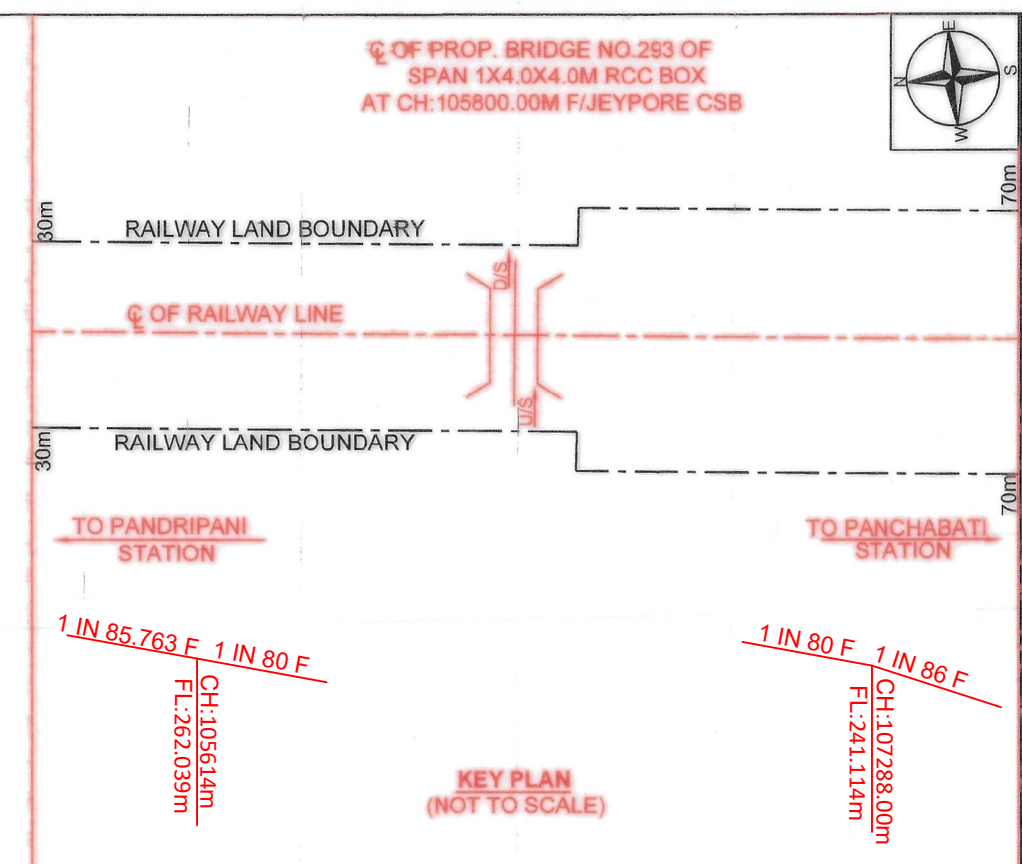
- ALL DIMENSIONS SHOWN IN THIS GAD ARE IN MM AND REDUCED LEVELS ARE IN M UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE THE DRAWING, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- EXPOSURE CONDITION - SEVERE
- SEISMIC ZONE IS ZONE - II
- PROPOSED BRIDGE IS DESIGNED FOR 25T LOADING 2008 STANDARD.
- THIS GAD IS SUBJECT TO MAINTAINING SAME LEVELS, ALIGNMENT, GRADE AS THAT OF APPROVED WORKING SECTION/WORKING PLAN AND YARD PLANS IF ANY.
- BACK FILL MATERIAL SHALL CONFORM TO CL. 7.5 OF IRS SUBSTRUCTURE 2013 (REVISED) & FOUNDATION CODE, WITH LATEST CORRIGENDUM & ADDENDUM SLIPS.
- DEPTH OF FOUNDATION SHOWN IN THIS DRAWING IS TENTATIVE THE ACTUAL DEPTH SHALL BE DECIDED BY ENGINEER-IN-CHARGE.
- BOX SHALL BE PLACED ON NON ERODIBLE STRATA.
- THE DETAILS OF ITEMS SUCH AS BOULDER/SAND FILLING, GRADES OF CONCRETE, PITCHING, FLOORING, TOE WALL ETC., ARE SHOWN IN THE DRAWING.
- CALCULATED SBC OF THE SOIL AS PER REPORT IS 12.01m<sup>2</sup>.

**CODES/MANUALS TO BE FOLLOWED:-**

- I.R.S CONCRETE BRIDGE CODE 2014 (REVISED) INCLUDING LATEST ACS READ IN CONJUNCTION WITH RELEVANT I.S. SPECIFICATIONS MENTIONED THEREIN.
- I.R.S BRIDGE SUB STRUCTURE CODE - 2013 (REVISED) INCLUDING LATEST A&C SLIPS.
- I.R.S BRIDGE RULES - 2014 INCLUDING LATEST A&C SLIPS.
- I.R. BRIDGE MANUAL - 1998 INCLUDING LATEST A&C SLIPS.
- INDIAN RAILWAYS UNIFIED STANDARD SPECIFICATION FOR MATERIALS AND WORKS (2018/2019)

**MATERIAL SPECIFICATIONS:-**

- GRADE OF CONCRETE FOR VARIOUS RCC/MASS CONCRETE WORK SHALL BE IN ACCORDANCE WITH IRS BRIDGE CODE 1987 WHERE IRS CONCRETE BRIDGE CODE IS SILENT, IRC CODE & IS 456 MAY BE REFERRED TO.
- ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING:  
i) INDIAN RAILWAYS UNIFIED STANDARD SPECIFICATION FOR MATERIALS & WORKS OF 2010 WITH UPTO LATEST CORRECTION SLIPS  
ii) I.R.S CONCRETE BRIDGES CODE 2014 (REVISED) INCLUDING LATEST A&C CORRECTION SLIPS READ IN CONJUNCTION WITH RELEVANT I.S. SPECIFICATIONS MENTIONED THEREIN.  
iii) I.R.S BRIDGE SUB STRUCTURE CODE 2013 (REVISED) INCLUDING LATEST A&C SLIPS  
iv) I.R.S BRIDGE RULES INCLUDING LATEST A&C SLIPS - 2014.  
v) I.R. BRIDGE MANUAL 1998 INCLUDING LATEST A & C SLIPS.  
vi) I.R.S CONCRETE BRIDGES CODE 2014 (REVISED).
- FOUNDATION & SUB-STRUCTURE OF RETAINING WALLS:- RCC GRADE M-35 USING 20mm MAXIMUM SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
- RCC BOX:- MINIMUM CONTROLLED RCC GRADE M35 USING 20mm MAXIMUM SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY AS PER RDSO DRG NO B-10155.
- PITCHING:- HAND PACKED ROUGH STONE PITCHING 300mm THICK OVER GRAVEL BACKING AS PER ANNEXURE 2/3 (PARA 205) OF IRBM. THE FACE STONE MUST BE IN GENERAL OF WEIGHT AT LEAST 35KG AND BE WELL BEDDED AND HAND SET.
- CORNER/ PARAPET WALL:- CONTROLLED C.C. M25 GRADE USING 20mm MAXIMUM SIZE WELL GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
- CC WEARING COURSE:- CC M25 GRADE USING 20mm MAXIMUM SIZE WELL GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
- FLOORING:- AS PER PARA NO. 403.2 AND AS SHOWN IN ANNEXURE 4/4 OF IRBM.
- TOE WALL:- BR MASONRY IN CM 1:6 OVER CC M20 FOUNDATION USING MAX. SIZE WELL GRADED HARD STONE AGGREGATE OF 40mm APPROVED QUALITY IN FOUNDATION REINFORCEMENT BAR SHALL BE OF HYSD BARS CONFORMING TO IS 1786 : 2008.
- DROP WALL / CURTAIN WALL:- IN CC M25 USING 20mm MAX. SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
- BAR BENDING SHALL CONFORM TO 2502 : 1963.



**TRACK DETAILS**

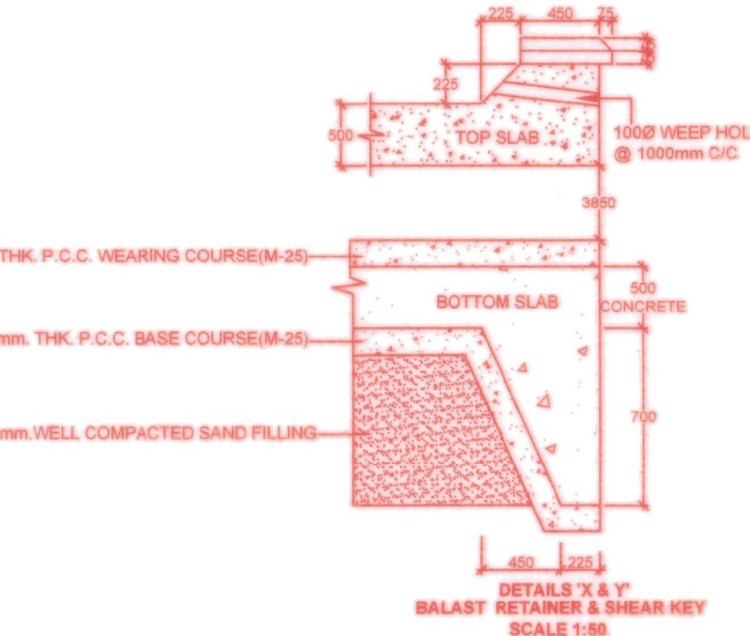
NO.	DESCRIPTION	AS SHOWN
1	RAIL	172 mm
2	GRADE	1 IN 80 (F/C)
3	PROP. RAIL LEVEL	280.257 m
4	PROP. FORMATION LEVEL	258.519 m
5	BED LEVEL	250.605 m

**CONSTRUCTION DEPTH**

NO.	DESCRIPTION	AS SHOWN
1	RAIL	172 mm
2	RUBBER PAD	5 mm
3	P.C. SLEEPER	210 mm
4	BALLAST	350 mm
TOTAL		738 mm

**LEGEND**

SYMBOL	DESCRIPTION
F.L.	FORMATION LEVEL
B.L.	BED LEVEL
BOF	BOTTOM OF FOUNDATION
HFL	HIGH FLOOD LEVEL
PROP.	PROPOSED
U/S	UP STREAM
D/S	DOWN STREAM



**LEGEND**  
PROP WORK SHOWN THIS

DRG. NO. CE/CON/IVSKP/JEYPORE-MALKANGIRI/NEWBG/293/2024  
STANDARD OF LOADING : RAILWAY LOADING (25T-2008)

**EAST COAST RAILWAY**  
(CONSTRUCTION)

DIVISION: WALTAIR

BRNO-293  
PROPOSED BRIDGE NO-293 (CH:105800 M) BETWEEN PANDRIPANI - PANCHABATI IN WALTAR DIVISION OF EAST COAST RAILWAY

CONSULTANT: M/s SATRA SERVICES AND SOLUTIONS PVT. LTD.  
Corporate Office : Plot No. 5841, Chakraborty, Near Mangla Mandir, Post - Machilipatnam, Machilipatnam Road, Bhikshapur, Khurda, Odisha, India - 751010  
Email: sathraservices@gmail.com / info@sathrasolutions.com  
Tel: 09439068176/0678-2922715

M/s Odra Associates PVT. LTD  
Corporate Office : Plot No. 5841, Chakraborty, Near Mangla Mandir, Post - Machilipatnam, Machilipatnam Road, Bhikshapur, Khurda, Odisha, India - 751010  
Email: odraassociates@gmail.com / info@odraassociates.com  
Tel: 09439068176/0678-2922715

SHEET NO: 1000 X 400  
SCALE: AS SHOWN  
REVISION: R-0  
DATE: 10/05/2024

DESIGNED BY: Sushanta Barik  
CHECKED BY: Sushanta Barik  
APPROVED BY: Sushanta Barik

TENDER: PRELIMINARY INFORMATION APPROVAL CONSTRUCTION