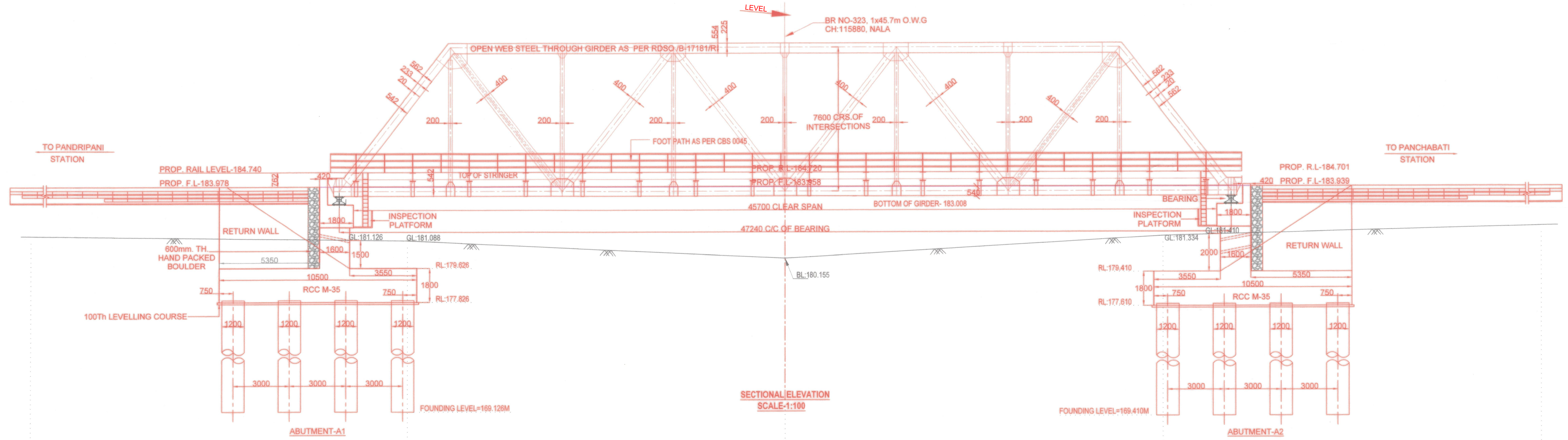
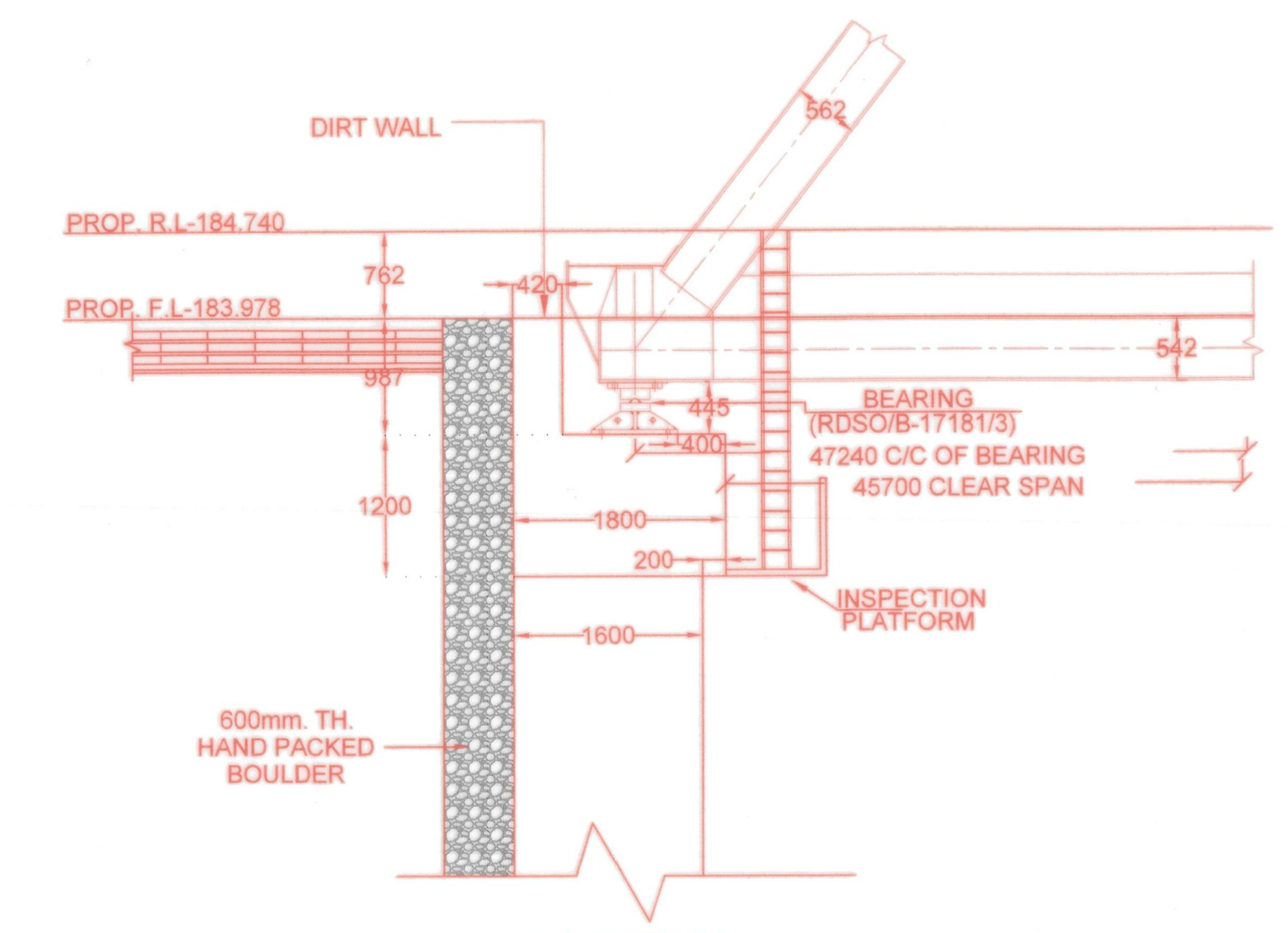
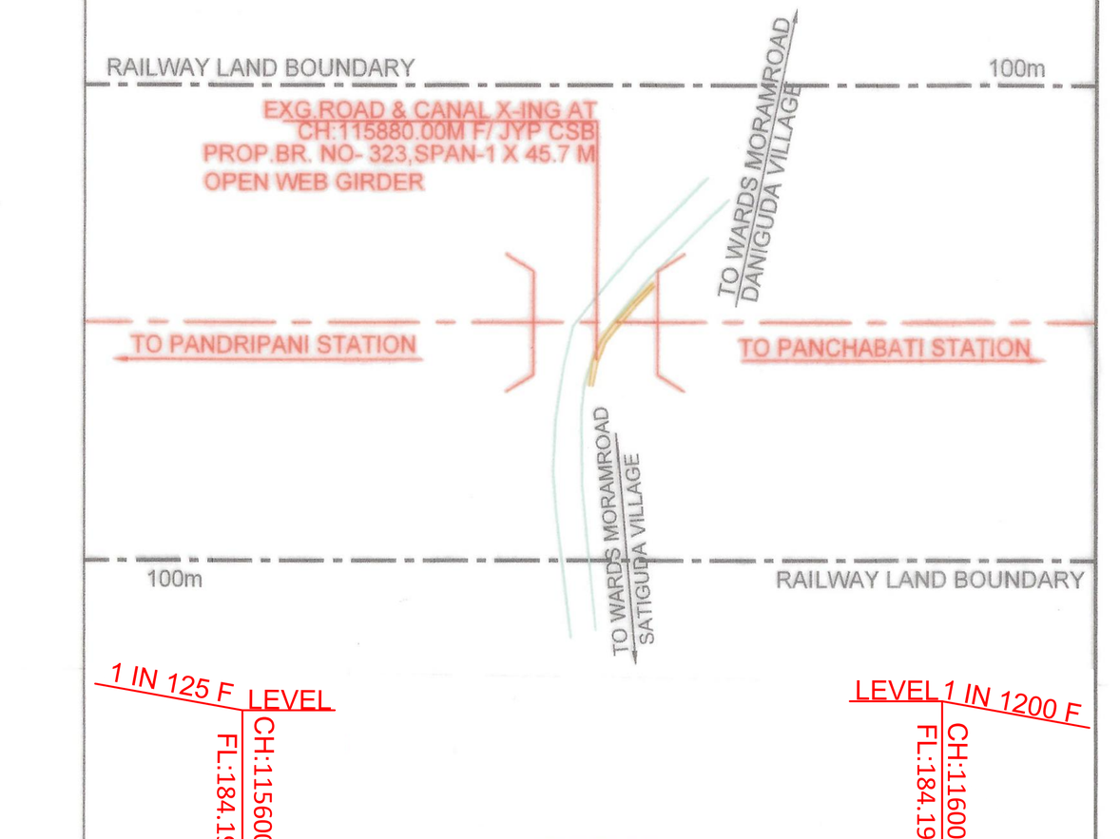


SECTIONAL ELEVATION
SCALE-1:100

FILLING HEIGHT	+2.651	+2.887	+3.803	+2.608	+2.088
FORMATION LEVEL	183.992	183.975	183.958	183.942	183.925
GROUND LEVEL	181.341	181.088	180.155	181.334	181.837
CHAINAGE	115840	115860	115880	115900	115920



AT ABUTMENT 'A1'
SCALE-1:50

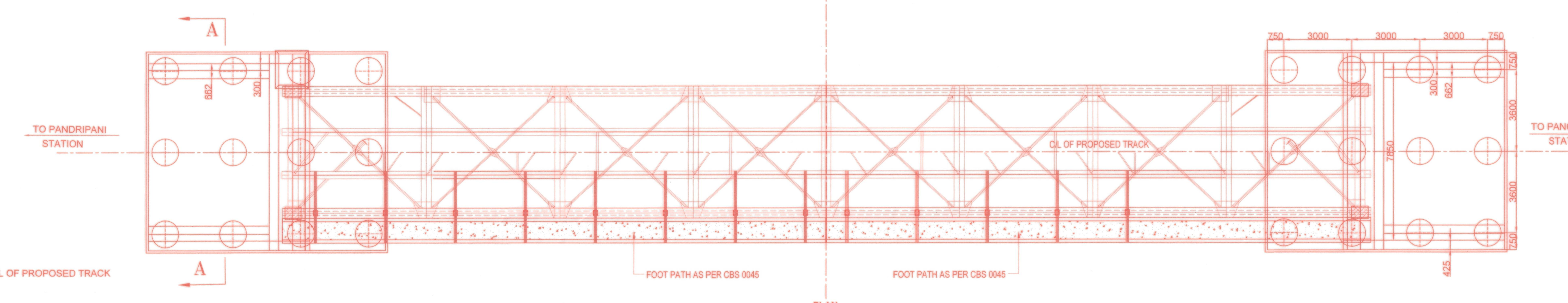


KEY PLAN
(NOT TO SCALE)

NOTES-1 (GENERAL): -

1. ALL DIMENSIONS ARE IN MILLIMETER & ALL LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED. NO DIMENSION SHALL BE SCALED FROM THIS DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
2. MINIMUM CLEAR COVER TO ANY REINFORCEMENT SHALL BE
   a. ABUTMENT = 50MM
   b. FOUNDATION = 75MM
   c. WING WALL = 50MM
3. DESIGN CRITERIA.
   a. IRS BRIDGE RULES-2014 (INCORPORATING LATEST CORRECTION SLIPS AS ON DATE)
   b. IRS CONCRETE BRIDGE CODE (INCORPORATING LATEST CORRECTION SLIPS AS ON DATE)
   c. IRS BRIDGE SUBSTRUCTURE & FOUNDATION CODE, (2nd REVISION-2013) (INCORPORATING LATEST CORRECTION SLIPS AS ON DATE)
4. FOR SUPERSTRUCTURE DETAILS REFER RDSO DRG, NO RDSO/B-17181/R. FOR BEARING DETAILS REFER RDSO DRG. NO RDSO/B-17181/3.
5. LOADING STANDARD: 25 T. AXLE LOAD.
6. EXPOSURE CONDITION: SEVERE.
7. CONCRETE GRADE: -
   a. ALL RCC WORKS - M-35/45 (DESIGN MIX)
   b. ALL MCC WORKS - M-25 (DESIGN MIX)
   c. LEVELING COURSE -C.C-1:2:4
   d. SKIN REINFORCEMENT TO BE PROVIDED FOR RETAINING WALL.
8. HSD/TMT BARS CONFORMING TO IS-1786-2008 SHALL BE USED AS REINFORCEMENT. GRADE OF REINFORCEMENT IS Fe-500 / Fe-500D.
9. INSPECTION PLATFORM WILL BE PROVIDED AT ABUTMENTS .
10. RDSO LETTER NO CBS/DBR/IMP/POLICY dtd. 02.11.2017 HAS BEEN FOLLOWED FOR PREPARING THE GAD.
11. THE PROPOSED RAIL LEVEL AND THE FORMATION LEVEL HAVE BEEN CHECKED WITH RESPECT TO THE APPROVED L-SECTION. SAME SHOULD BE VERIFIED BY ENGINEER-IN -CHARGE BEFORE EXECUTION OF WORK.
12. SUITABILITY OF THE FOUNDATION PRESSURE SHALL BE CHECKED AS PER SITE CONDITION.
13. BACK FILL MATERIAL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUBSTRUCTURE & FOUNDATION CODE. ANGLE OF INTERNAL FRICTION OF BACKFILL SHALL NOT BE LESS THAN 35.
14. ALL RCC SURFACES COMING IN CONTACT WITH SOIL SHOULD BE PAINTED WITH BITUMEN OR COAL-TAR OF APPROVED QUALITY @1.464 KG/SQM.
15. TOLERANCE SHALL BE FOLLOWED AS PER IRS CONCRETE BRIDGE CODE.
16. DEPTH & SIZE OF FOUNDATION, LENGTH OF RETURN WALL SHALL BE DECIDED BASED ON-SITE CONDITION AND AS PER IRS SUBSTRUCTURE CODE.
17. DIMENSIONS SHOWN FOR RETURN WALL ARE TENTATIVE, WHICH MAY CHANGE AFTER FINAL DESIGN AS PER ARTICLE 20 OF SP-13 - IRC-2004 AND IRS SUB-STRUCTURE CODE.
18. TYPE OF FOUNDATION IS TENTATIVE AND MAY CHANGE DURING DETAIL DESIGN .
19. NECESSARY TOE WALL SHALL BE PROVIDED WITH PROPER PITCHING.
20. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WORKS WITHOUT SPECIAL PRECAUTIONS AS PER RELEVANT BRIDGE CODE.
21. ALL CONCRETE WORK SHALL BE MECHANICALLY MIXED AND VIBRATED .
22. MIX DESIGN SHALL BE APPROVED BY ENGINEER IN CHARGE.
23. CURING SHALL BE DONE AS PER CLAUSE 8.4 OF IRS CONCRETE BRIDGE CODE .
24. BRIDGE DETAILS LIKE INSPECTION STEPS, PAINTINGS ETC. SHOULD BE FOLLOWED AS PER BRIDGE MANUAL DURING CONSTRUCTION .
25. PILES ARE BORED CAST IN SITU AND THEIR CONSTRUCTION SHALL CONFIRM TO RELEVANT CLAUSES OF IS:2911 (PART 1/ SEC 2) AND IRC:78-2000.
26. FINISHED PILE HEAD AFTER CUT - OFF SHALL BE 75MM MINIMUM INTO PILE CAP FOR ANCHORAGE.
27. BOTH VERTICAL AND HORIZONTAL INITIAL AND ROUTINE LOAD TEST SHALL BE CARRIED OUT IN PILE AS PER IS: 2911 (PART-IV) FOR CONFIRMING DESIGN LOAD CARRYING CAPACITY OF PILE.
28. ALL SAFETY NORMS SUCH AS PROVISION OF BARRICADING TO SAFEGUARD THE EXISTING TRACK DURING THE PERIOD OF THE EXECUTION SHOULD BE ENSURED. (JOINT SAFETY CIRCULAR 01 /2014 DT. 18.03.2014)
29. THIS DRAWING IS BASED ON APRROVED DETAILED PLAN AND SECTION:- CE / CON / I / VSKP / JEYPORE-MALKANGIRI / 17 OF 18.
30. THE TRANSITION SYSTEM ON BRIDGE APPROACH ARE PROVIDED AS PER DRG. No.GE/SK/GL/912A/Rev.0/2024

DETAILS OF	PROPOSED BRIDGE
1. LODING STANDARD	25T AXLE LOADING
2. ALIGNMENT	STRIGHT
3. GRADE	1 IN 1200 F
4. SIZE OF BRIDGE	1 X 45.7 m C.G
5. DESIGN DISCHARGE	175.33 Cumecs
6. VERTICAL CLEARANCE	0.929 m
7. FREE BOARD	3.216 m
8. FOUNDATION	PILE



PLAN
SCALE-1:100

ABUTMANT -1

GL:181.126

DEPTH	TYPE	SPTN	SBC(T/M²)
BH-7			
0.00	SM	-	
1.00	SM		
1.50	SM	49	28.09
2.50	SM		
3.00	SM-SP	74	44.89
4.00	SM-SP		
4.50	SM-SP	R	
5.50	SM		
6.00	SM	R	
7.00	SM		
7.50	SM	R	
8.50	SM		
9.00	ROCK	-	
10.50	ROCK	-	
12.00	ROCK	-	
13.50	ROCK	-	
15.00	ROCK	-	
16.50	ROCK	-	
18.00	ROCK	-	

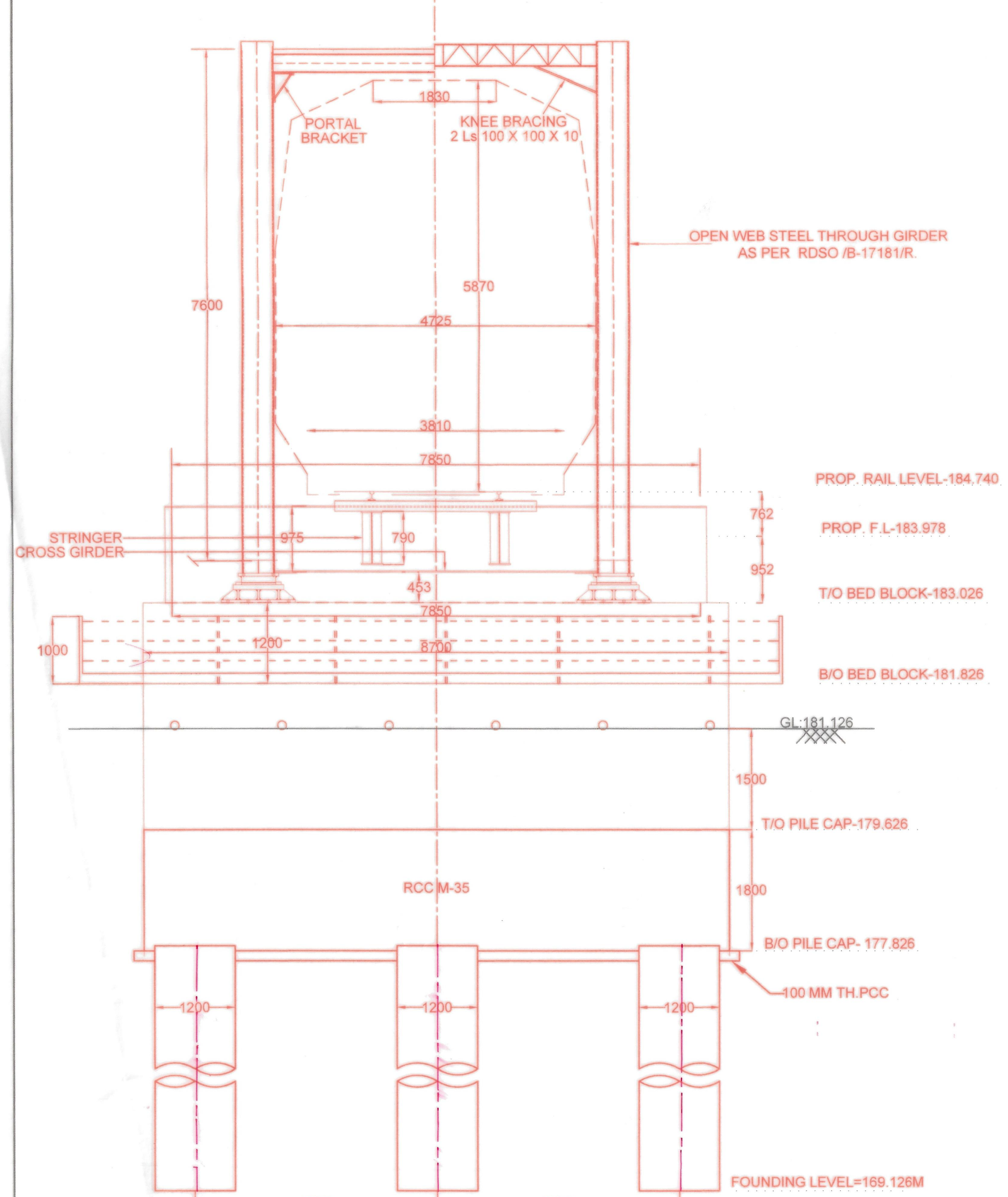
SM- POORLY GRADED MEDIUM DENSE SILTY SAND
SM-SP- POORLY GRADED DENSE SAND WITH SILTY
CALCULATED SBC VALUE OF SOIL AS PER REPORT IS 22.50 t/m²

ABUTMANT -2

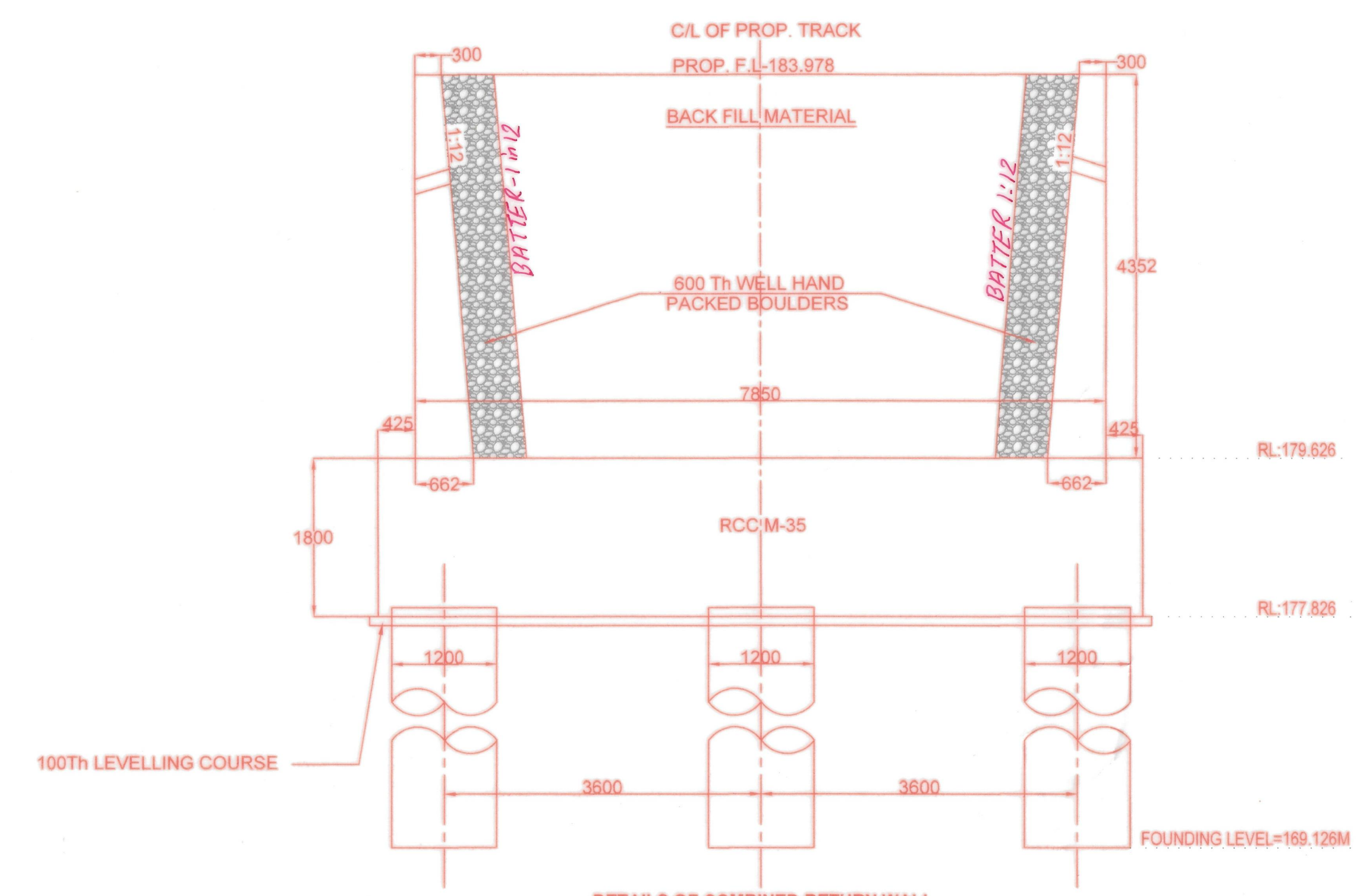
GL:181.410

DEPTH	TYPE	SPTN	SBC(T/M²)
BH-8			
0.00	SM	-	
1.00	SM		
1.50	SM	43	24.65
2.50	SM		
3.00	SM-SP	77	46.71
4.00	SM-SP		
4.50	SM	R	
5.50	SM		
6.00	SM	R	
7.00	SM		
7.50	SM	R	
8.50	SM		
9.00	ROCK	-	
10.50	ROCK	-	
12.00	ROCK	-	
13.50	ROCK	-	
15.00	ROCK	-	
16.50	ROCK	-	
18.00	ROCK	-	

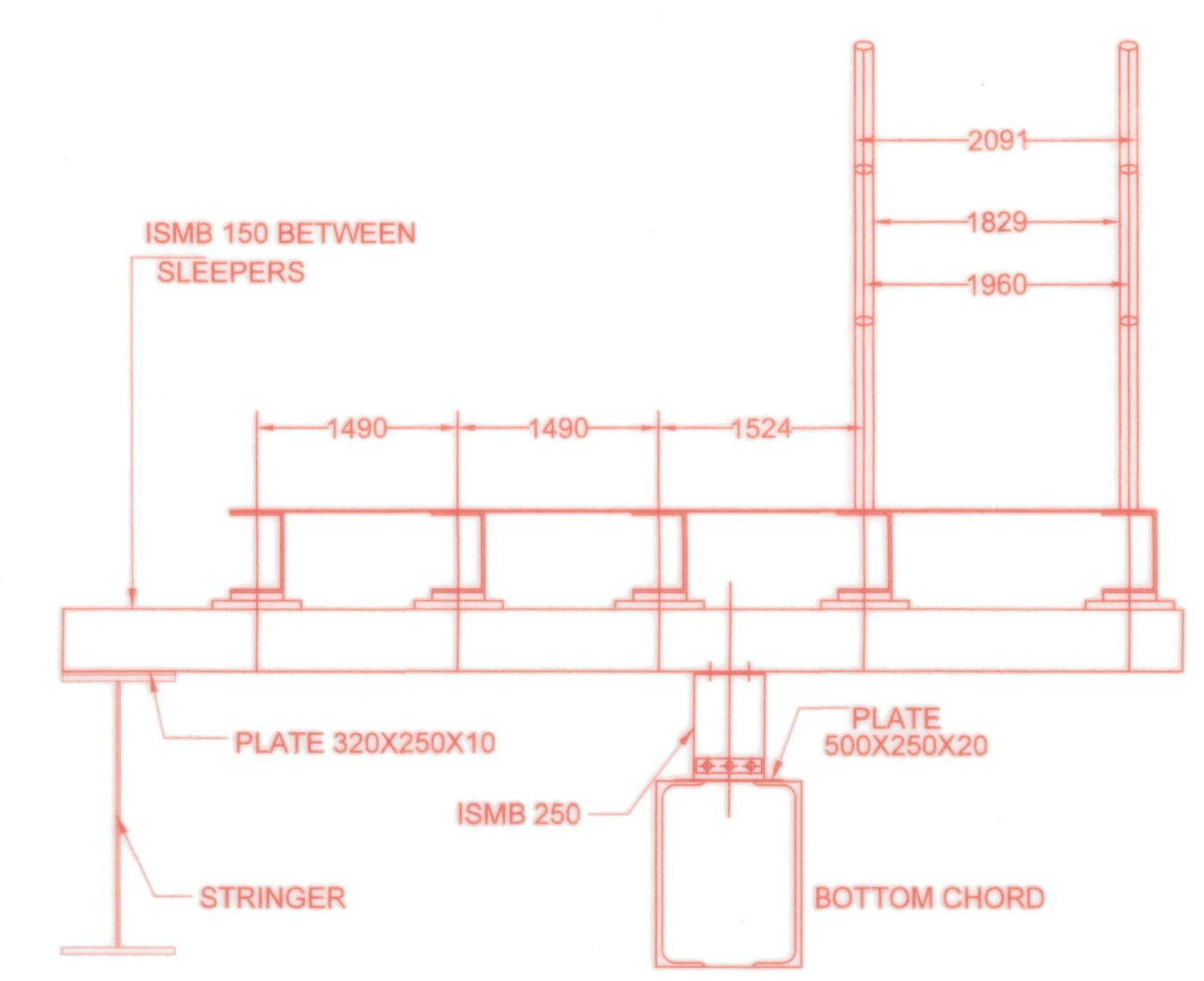
SM- POORLY GRADED MEDIUM DENSE SILTY SAND
SM-SP- POORLY GRADED DENSE SAND WITH SILTY
CALCULATED SBC VALUE OF SOIL AS PER REPORT IS 22.50 t/m²



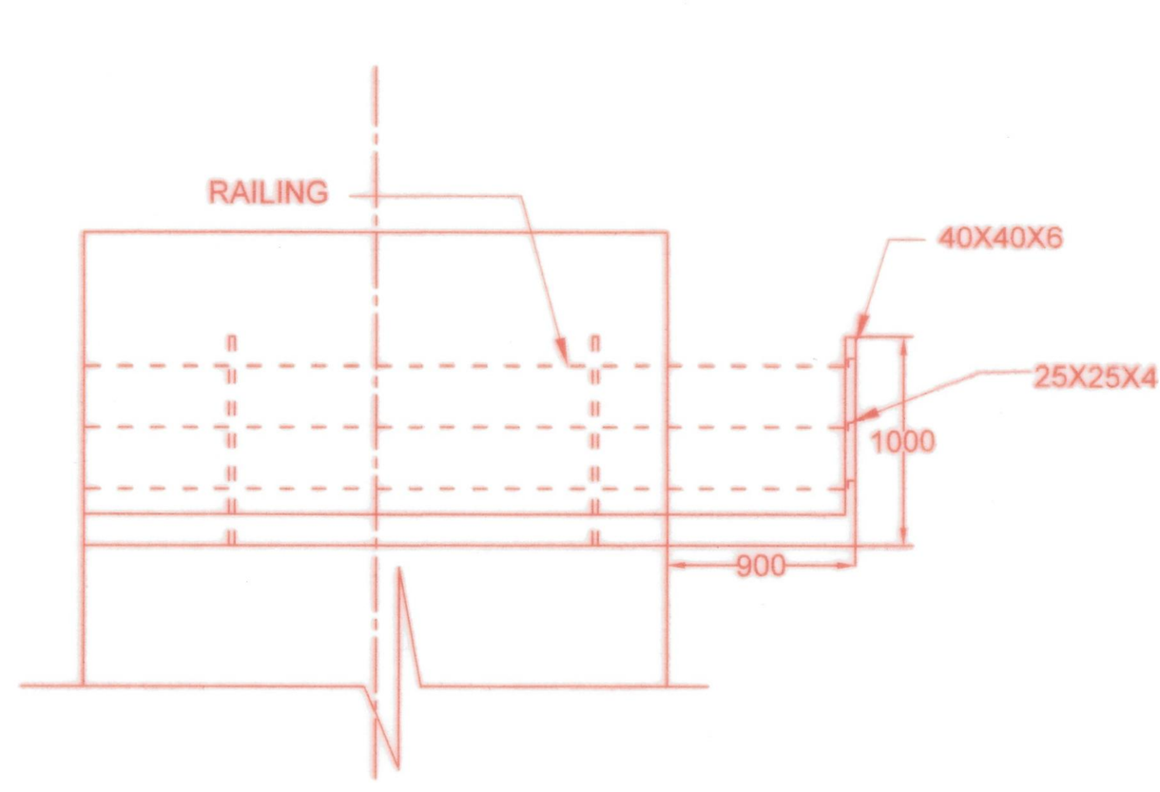
TYPICAL CROSS SECTION OF ABUTMENT -A1
SCALE-1:50



DETAILS OF COMBINED RETURN WALL
SECTION AT A-A
SCALE-1:50



TYPICAL DETAILS OF FOOT PATH
SCALE-1:50



DETAILS OF
INSPECTION PLATFORM
(NOT TO SCALE)

(A.GOURI SANKAR RAO) CE / C-II / VSKP E.Co.Railway	(B.B MOHARANA) DY.CE/CON/I/KRPU E.Co.Railway	(SANYASI NAIDU) SSE/DRG/CON/VSKP E.Co.Railway

DRG.NO. CE/CON/I/VSKP/JEYPORE-MALKANGIRI/NEWBG/323/2024

STANDARD OF LOADING : RAILWAY LOADING (25T-2008)

EAST COAST RAILWAY
(CONSTRUCTION)

DIVISION:	WALTAIR	
BR.NO-323	PROP.BRIDGE	1 X 45.7 M OPEN WEB GIRDER
	LOCATION	CH:115880.00M

PROPOSED BRIDGE NO-323(CH:115880.00M) BETWEEN
PANDRIPANI-PANCHABATI
IN WALTAIR DIVISION OF EAST COAST RAILWAY

CONSULTANTS:
M/s SATRA SERVICES AND SOLUTIONS PVT. LTD.
Corporate Office : 401, Capital Park, Image Garden Lane, Hi-Tech City, Madhapur, Hyderabad, Telangana - 500 081, India.

Prepared By:
M/s ODRA ASSOCIATES PVT. LTD
Corporate Office : Plot No. 5841, Chakeisihani, Near Mangala Mandir, Post - Mancheswar, Mancheswar Road, Bhubaneswar, Khurda, Odisha, India - 751010
Email: odraassociates@gmail.com / info@odraassociates.com
Ph: 09439068176/0674-2952715

SHEET NO :		SHEET SIZE	1400 X 900
SCALE : AS SHOWN	REVISION : R 0	ISSUE DATE :	

☐ TENDER ☐ PRELIMINARY ☐ INFORMATION ☑ APPROVAL ☐ CONSTRUCTION

SAIRANJAN PANDA		RACHITA MOHANTY
PROJECT INCHARGE	CHECKED BY	DRAWN BY