

**AUTHORITY OF WORK**  
PINK BOOK- 2024-25  
PAGE NO.-4:2:1  
ITEM NO. - 21

#### TRACK DETAILS

PROP R.L.	117.175
PROP F.L.	116.413
VERTICAL ALIGNMENT	-
HORIZONTAL ALIGNMENT	STRAIGHT

#### LEGEND

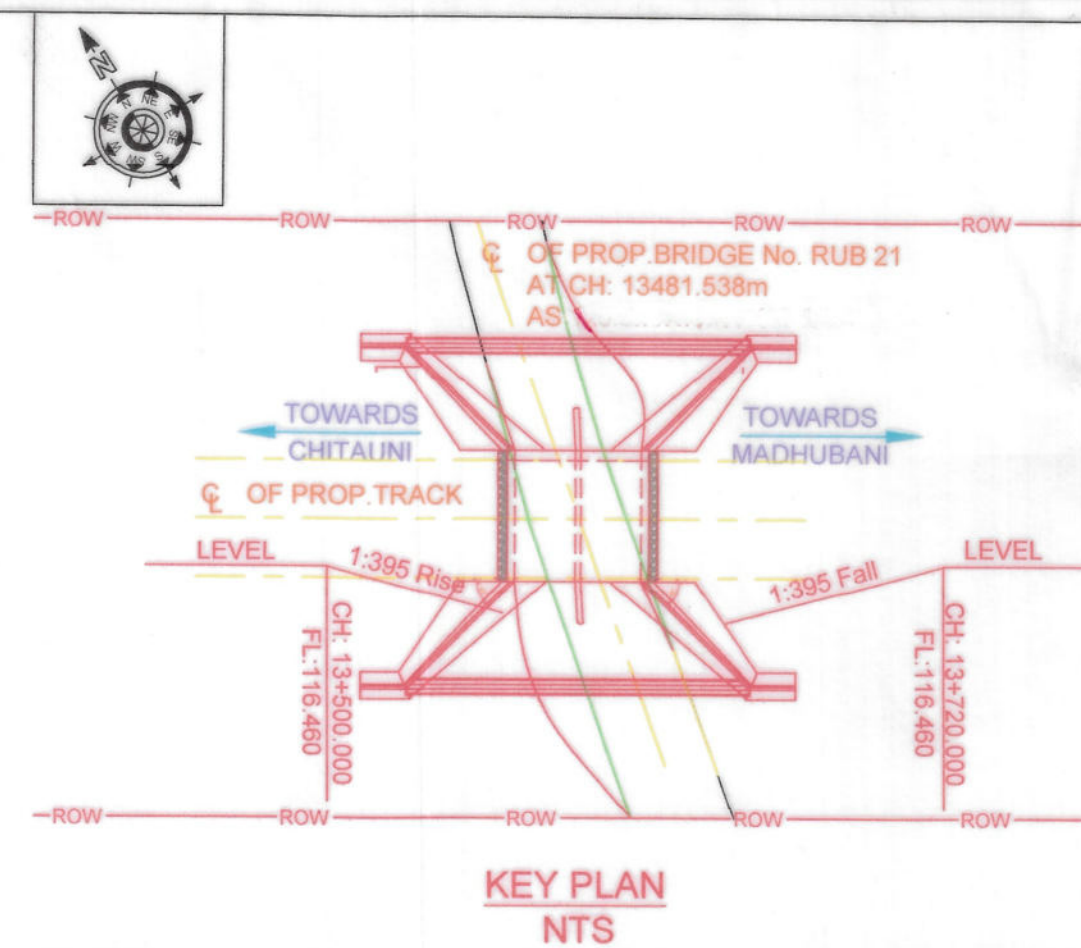
F.L.	FORMATION LEVEL
R.L.	RAIL LEVEL
P.R.L.	PROPOSED ROAD LEVEL
BOF	BOTTOM OF FOUNDATION
PROP.	PROPOSED
EXG.	EXISTING
THK.	THICKNESS
CH.	CHAINAGE
PCC	PLAIN CEMENT CONCRETE
RCC	REINFORCED CEMENT CONCRETE
BR.	BRIDGE
PRL	PROPOSED ROAD LEVEL
ERL	EXISTING ROAD LEVEL

#### CONSTRUCTION DEPTH

1) RAIL (60kg)	172 mm
2) RUBBER PAD	10 mm
3) WIDER PSC SLEEPER HEIGHT AT RAIL SEAT	230 mm
4) MINIMUM BALLAST THK.	350 mm
TOTAL	762 mm

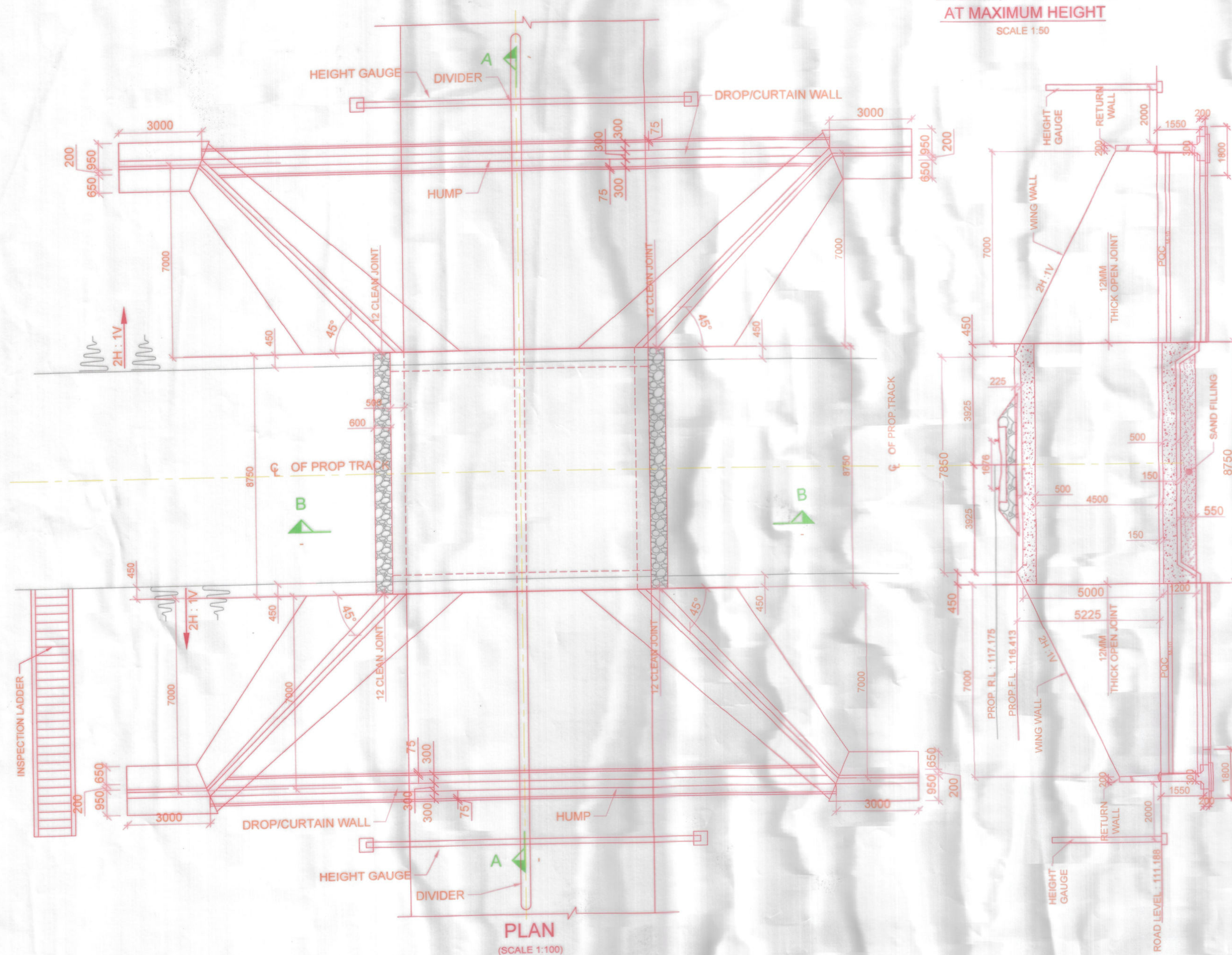
#### COLOR CODE LEGEND

RED	PROPOSED
CONTINUOUS	VISIBLE
DOTTED	INVISIBLE



#### NOTES:

- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- ALL REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS (GRADE DESIGNATION FE415) CONFORMING TO IS: 1786.
- MINIMUM LAP LENGTH OF REINFORCEMENT FOR M 35 SHALL BE 48 TIMES BAR DIA.
- THE BRIDGE LIES IN SEISMIC ZONE IV.
- ENSURE PROPER COMPACTION OF SOIL BEHIND RETAINING WALLS.
- BEHIND RCC BOX WELL HAND PACKED BOULDERS/COBBLERS TO A THICKNESS NOT LESS THAN 600 MM WITH SMALLER SIZE TOWARD, SHALL BE PROVIDED AS PER DRAWING & AS PER CLAUSE 7.5 OF IRC BRIDGES SUB STRUCTURE AND FOUNDATION CODE.
- MAXIMUM DESIGN FOUNDATION PRESSURE COME OUT 14.26t/m².
- FOR REINFORCEMENT DETAIL OF RCC BOX SEE DRAWING NUMBER RDSO/B-10158 & RDSO/B-10158/2.
- RCC BOX WITH KEY CONSTRUCTION AS PER DRAWING NUMBER RDSO/B-10158 & RDSO/B-10158/2.
- EPOXY GROUTING WITH GI SHEET ON BOTTOM OF JOINTS TO BE PROVIDED TO PREVENT ANY LEAKAGES AT JOINT. IF REQUIRED.
- SUITABLE GRANULAR MATERIALS TO BE PROVIDED BELOW RCC BOX TO IMPROVE BEARING CAPACITY OF SOIL, IF REQUIRED.
- FOR RCC WORK DESIGN MIXED M35 WILL BE USED EXPECT UNLESS OTHERWISE SPECIFIED.
- WATERPROOFING COMPOUND MIX WITH CONCRETE FOR WATERPROOFING
- ON BOTH APPROACHES SHED WILL BE AS PER DRAWING & DESIGN IF REQUIRED.
- BEHIND RCC BOX WELL HAND PACKED BOULDERS/COBBLERS TO A THICKNESS NOT LESS THAN 600MM WITH SMALLER SIZE TOWARDS BACK FILL, SHALL BE PROVIDED AS PER DRAWING & AS PER CLAUSE 7.5 OF IRC BRIDGE SUB STRUCTURE & FOUNDATION CODE.
- TOP OF RETAINING WALL SHALL BE KEPT MINIMUM 500 MM ABOVE THE EXISTING GROUND LEVEL AT ALL LOCATIONS IN APPROACH.
- BEFORE EXECUTION OF WORK FEASIBILITY WILL BE CHECKED BY SITE ENGINEER.
- LAYOUT SHOULD BE CHECKED BY AXEN/XEN/CON & ALL REFERENCE, PILLARS & LINE SHOULD BE KEPT INTACT TILL THE ENTIRE WORK IS COMPLETED.
- HEIGHT GAUGE, SPEED BREAKER WARNING BOARD ETO SHOULD BE PROVIDED ON BOTH END OF THE SUBWAY.
- RCC WATER COLLECTION CHAMBER FOR THE RAINWATER, INFILTRATING INTO THE APPROACH ROAD AND LHS SHOULD BE CAST MONOLITHICALLY WITH RCC FLOOR AND WALL SO THAT NO INGRESS OF GROUND WATER IN IT.
- AS THE GROUND WATER LEVEL IS HIGH ALL THE NECESSARY PRECAUTIONS TO BE TAKEN TO PROTECT THE LHS FROM WATER LOGGING ETC.
- RECOMMENDATION GIVEN IN RLY BD'S LETTER NO. 2017/CE-IV/RUB/88DT.22/04/2020 SHOULD BE FOLLOWED AS PER SITE CONDITION.
- LAND WILL BE ACQUIRED AS PER SITE CONDITION.
- WING/RETURN WALL AS PER CE/CON. PLAN NO. B/14/02-11 DT. 11.02.11
- CURTAIN/DROP WALL TO BE PROVIDED AND DESIGNED PER SCOUR REQUIREMENTS.
- TYPE OF ROAD IS VILLAGE ROAD.
- SHARP CURVE IN THE APPROACH ROAD TO BE AVOIDED.
- HEIGHT GAUGE AS PER RDSO DRG. RDSO/M-0001.
- SOIL BEARING CAPACITY AFTER STRENGTHENING OF SOIL AND CONFIRMED BY PLATE LOAD TEST SHOULD BE MENTION IN COMPLETION PLAN.
- HUMP AS PER RDSO DRAWING NO. B-10159.
- BOULDER PACKING BEHIND WING AND RETURN WALL MUST BE AS SHOWN IN SECTION.
- FIELD UNIT MUST PRE-VALIDATE ALL DATA AND LEVELS BEFORE STARTING EXECUTION OF WORK.
- FIELD UNIT MUST OBTAIN CAO/CON APPROVAL BEFORE WORK STARTS AS PER RAILWAY BOARD'S LETTER NO. 2015/CE-III/GR/ STRUCTURE CODE DT. 19.01.2022



SECTION A-A  
SCALE 1:100

SECTION: CHITAUNI TO MADHUBANI  
Bore Hole Terminated at : 10.45M.

DEPTH (M)	SPT N-VALUE	DESCRIPTION OF SOIL	IS CLASSIFICATION
0.00 - 0.50	-	CL	CLAY
0.50 - 0.95	13	CL	CLAY
0.95 - 1.50	16	CL	CLAY
1.50 - 3.00	17	CL	CLAY
3.00 - 4.50	19	SM	SAND
4.50 - 6.00	20	SM	SAND
6.00 - 7.50	20	SM	SAND
7.50 - 9.00	20	SM	SAND
9.00 - 10.00	21	SM	SAND

BRIDGE NO.: 21  
BOREHOLE NO.: 01

RL=111.413

FL=110.388  
SBC=19.96 t/m² > 11.82 t/m² (safe)

S.NO.	BR.NO.	CHAINAGE	SIZE OF STRUCTURE	SKUE ANGLE	R.L.	F.L.	G.L.	P.R.L.	F.L.
21	21	13481.538	2x4x4.5	0°	117.175	116.413	111.188	111.188	110.388

**FOR EPC  
TENDER ONLY**

CE/CON/PLAN No. B/RUB/CTE-TOI/159/06-2025 dt. 10-6-2025

(G.K.MISHRA) SSE/W/CON/GKP	RANJEET KUMAR SINGH (R.K.SINGH) SSE/DRG/CON/CPR	(BILAL AHMAD) SSE/DES/CON/GKP	CHK. BY
-------------------------------	---	----------------------------------	---------

LOADING STANDARD 25T-AXLE LOAD-2008	CE / CON / I/GKP	(SANJAY KANUJA)
DY. CE / CON / BSB	PANKAJ PANDEY (PANKAJ PANDEY)	DY. CE / CON. / P&D (SHALENDRA SINGH)
XEN / CON / GKP	SHASHI KANT SINGH (S.K. SINGH)	XEN / C / DESIGN (R.K. SINGH)
CONST. & HQ. OFFICER'S SIGNATURE		
CLIENT: NORTH EASTERN RAILWAY		
PROJECT: CHITAUNI-TAMKUHI ROAD NEW LINE PART-1		
TITLE: GENERAL ARRANGEMENT DRAWING FOR PROPOSED BR. NO. 21 (2X4.0MX4.5M) (RUB) KM 13/4-5		
BETWEEN STATION :- CHITAUNI-MADHUBANI KM : 13/4-5 CH:- 13481.538 M		
TYPE OF MAP: GENERAL ARRANGEMENT DRAWING		
FILE NO. AAA/2644/STR/BR. NO. 21 /GAD/001		
CONSULTANT		
CE/CON/ Plan No. B/CTE-TOI / -2025	SCALE	AS SHOWN
Date: / / 2025	SHEET : 1/1	