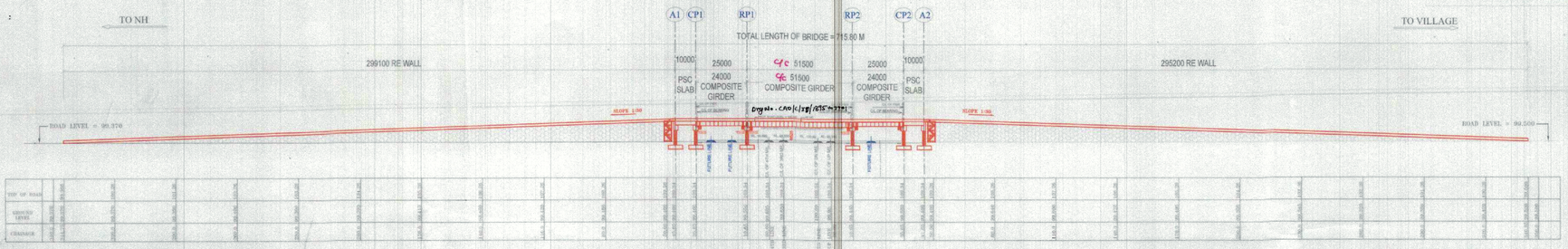
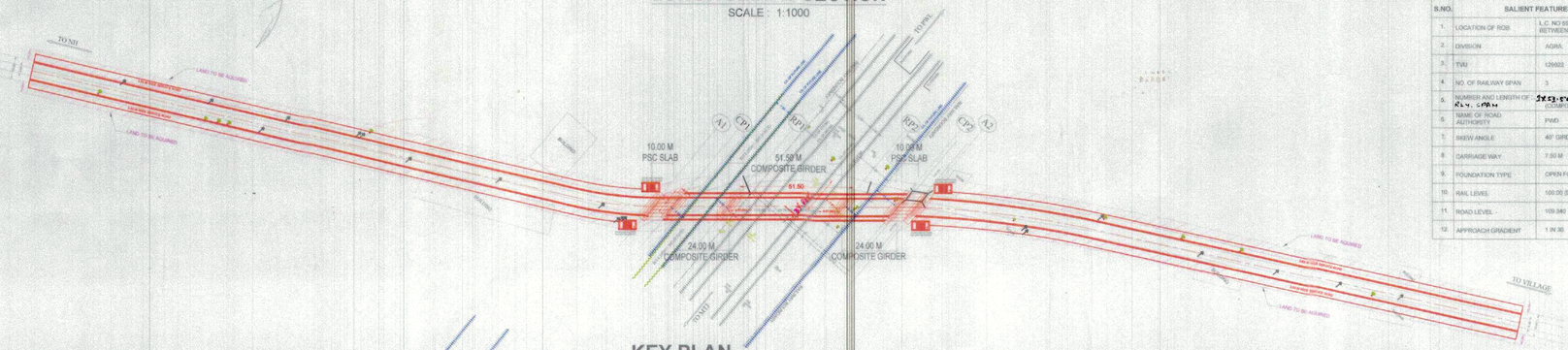


LONGITUDINAL SECTION

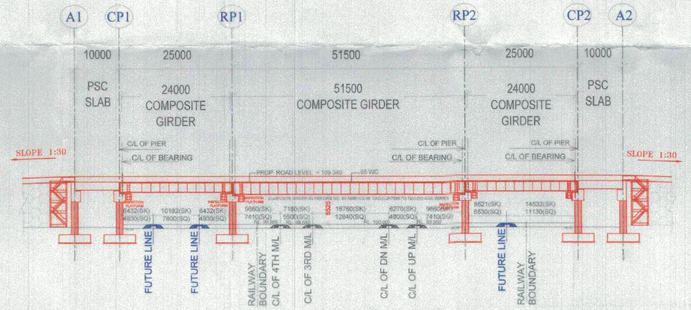
SCALE : 1:1000



KEY PLAN

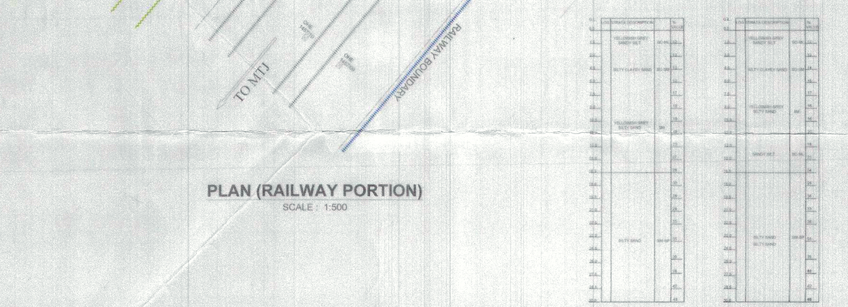
SCALE : 1:1000

S.NO.	SALIENT FEATURES OF ROB	
1.	LOCATION OF ROB	L.C. NO 555-A SPL AT KM. 1457/14-16 BETWEEN HODAL-BANCHARI STNS.
2.	DIVISION	AGRA
3.	TVU	129022
4.	NO. OF RAILWAY SPAN	3
5.	NUMBER AND LENGTH OF RLY. SPAN	3X51.50 m = 2X24.0M (COMPOSITE GIRDER)
6.	NAME OF ROAD AUTHORITY	PWD
7.	SKEW ANGLE	40° GIRDER
8.	CARRIAGE WAY	7.50 M
9.	FOUNDATION TYPE	OPEN FOUNDATION
10.	RAIL LEVEL	100.00 (DN MAIN LINE)
11.	ROAD LEVEL	109.340
12.	APPROACH GRADIENT	1 IN 30



ELEVATION (RAILWAY PORTION)

SCALE : 1:500

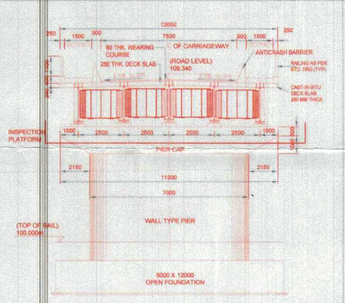


PLAN (RAILWAY PORTION)

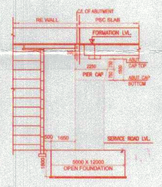
SCALE : 1:500

BH - 1 DETAILS (NOT TO SCALE)

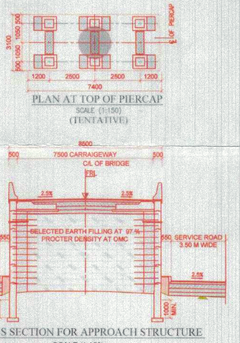
BH - 2 DETAILS (NOT TO SCALE)



SECTION AT CP1-CP2 & RP1-RP2



SECTION OF ABUTMENT (A1 & A3)



CROSS SECTION FOR APPROACH STRUCTURE

SCALE (1:150)

NOTES & SPECIFICATIONS

01. ALL DIMENSIONS ARE IN MILLIMETERES AND LEVEL IN METRES UNLESS WRITTEN OTHERWISE.
02. NO DIMENSIONS SHALL BE SCALED FROM THIS DRAWING . ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
03. ACTUAL LAYOUT OF ROB APPROACHES HAS TO BE DECIDED BY ENGINEER-IN-CHARGE OF RAILWAY IN CONSULTATION WITH ROAD AUTHORITY AT THE TIME OF ITS CONSTRUCTION.
04. THE STRUCTURAL DESIGN AND DRGS WILL BE APPROVED BY NCR/HQ BEFORE START OF WORK.
05. TYPE/DEPTH OF FOUNDATION IS TENTATIVE AND MAY BE ALTERED BY ENGINEER-IN-CHARGE OF RAILWAY TO SUIT THE SOIL STRATA MET AT SITE DURING EXECUTION OF WORK.
06. THERE SHOULD BE NO INFRINGEMENT TO IRSOD DURING EXECUTION OF WORKS. BRIDGE WHEN CONSTRUCTED BE CLEAR OF MOVING DIMENSIONS.
07. GUARD RAIL SHALL BE PROVIDED IN THE TRACK ADJACENT TO PIERS AND ABUTMENTS AS PER STATNDARD DRAWING.
08. PROTECTION SCREEN ON THE ROB SHOULD BE PROVIDED FROM THE INSIDE ONLY AS PER LATEST RDSO DRAWING NO. ETI/C/0068/1.
09. SINGLE SUMMIT CURVE SHALL BE PROVIDED AT THE APEX OF THE GRADIENT APPROACHES.
10. EACH 2-LANE UNIT OF ROB IS DESIGNED FOR 1-LANE OF IRC:70-R OR 2 LANE OF IRC CLASS -A LOADING , WHICH EVER GOVERNS . WITH 25T SV LOADING.
11. HIGH CONTAINMENT CRASH BARRIERS SHALL BE PROVEDED AS PER LATEST DESIGN BY IRC.
12. DRAWING AND DESIGN OF APPROACH SLAB SHALL BE DECIDED AND GOT APPROVED BY NCR/HQ BEFORE EXECUTION OF WORK.
13. POT PTFE BEARING SHALL BE PROVIDED IN RAILWAY SPAN GIRDERS.
14. DRAINAGE ARRANGEMENT IN THE RAILWAY PORTION SHALL BE PROVIDED AVOIDING TRACK BELOW AS PER STANDARD DRAWING OF MOST.
15. SUITABLE JACKING POINT SHALL BE PROVIDED FOR LIFTING PSC/RCC/STEEL GIRDERS FOR INSPECTION /REPAIR OF BEARINGS.
16. CONTROLLED CEMENT CONCRETE MIX TO BE PROVIDED AND SHOULD NOT BE LEANER THAN PROVISIONS IN RAILWAY'S CONCRETE BRIDGE CODE.
17. 4 NOS. STAIRCASE SHOULD BE PROVIDED BEYOND RAILWAY BOUNDARY FOR THE USE OF PADESTARIAN.
18. MOU TO BE DRAWN WITH TRAFFIC DEPARTMENT FOR BLOCK AND CAUTIONS BEFORE STARTING THE WORK.
19. PRIOR TO START OF THE WORK AT SITE IT SHOULD BE ENSURED THAT BEARING CAPACITY OF SOIL IS MORE THAN THE FOUNDATION PRESSURE.
20. L-XING NO. 556-A SHALL BE CLOSED FOR THE TRAFFIC MOVEMENT AFTER THE CONSTRUCTION OF ROB.
21. INSPECTION LADDER FROM ROAD TO PIERS TOP AND INSPECTION PLATFORMS IN THE PIERS SHALL BE INCORPORATED IN THE STRUCTURAL DRGS. TO ENSURE PROPER INSPECTION ACESSIBILITY.
22. STANDARD NON RDSO DRG NO. SV-NWR-CG-09 CAO/CJP/7895 TO 7901/DO-GGC SERIES FOR 51.50 M COMPOSITE GIRDER SHALL BE FOLLOWED.
23. SEISMIC ZONE -II.
24. AS PER CODAL REQUIREMENT 2.5% OF CAMBER SHALL BE PROVIDED IN STRAIGHT & CURVED PORTION OF ROB.
25. LENGTH OF VIADUCT AND R.E. WALL HAS BEEN SHOWN ALONG THE CENTER LINE OF CARRIAGEWAY OF BRIDGE.
26. A SLOPE OF ASPHALTIC CONCRETE WEARING COAT SHOULD BE PROVIDED OVER DECK SLAB @ 2.5%.
27. EXPANSION JOINTS WILL BE PROVIDED AT EACH PIER AS PER DETAILED APPROVED DRAWING.
28. THE GAD HAS BEEN PREPARED BASED ON SITE SURVEY.
29. SHIFTING OF S&T CABLE SHOULD BE DONE BY S & T DEPTT. WHILE WORK WHEREVER REQUIRED.
30. GRADE OF CONCRETE SHOWN BELOW:-

A. FOUNDATION
- LEVELING COURSE : M15
- PILE : M35
- PILE CAP : M35

B. SUB STRUCTURE
- PIER : M35
- PIER CAP : M35

C. SUPER STRUCTURE
- DECK SLAB : M40
- WEARING COAT : C.C. M30
- BEARINGS : POT/PTFE

31. THE LENGTH OF APPROACHES ON BOTH SIDE OF RAILWAY SPAN HAS BEEN CALCULATED TAKING FORMATION LEVEL OF RAILWAY SPAN AS 109.340 M AND GROUND LEVEL AS SHOWN IN LAYOUT PLAN.
32. FORMATION LEVEL HAS BEEN GIVEN AS 109.340 M AND RAIL TOP AS 100.000 M FOR DN MAIN LINE AS PER SURVEY.
33. SLOPE OF R.O.B. SHALL BE BE PROVIDED 1:30 IN BOTH SIDE.
34. DESIGN SPEED CONSIDERED 65.0 Km/HR. CAUTION BOARD MUST BE PROVIDED FOR SPEED LIMIT AS PER SITE REQUIREMENT.
35. H.T. LINE & ELECTRIC POLE ON NH SIDE APPROACH HAS TO BE SHIFTED BY ELECTRICAL DEPTT.
36. THE LAND ACQUISITION WHEREVER REQUIRED IN APPROACH PORTION WILL BE ACQUIRED BY PWD/HARYANA.
37. IT IS RESPONSIBILITY OF PWD TO ACQUIRE SUFFICIENT LAND FOR BRIDGE AND SERVICE ROAD BEFORE START OF WORK.
38. DRAINAGE PIPE SHALL BE PROVIDED AS PER SITE REQUIREMENT TO PROTECT FOUNDATION FROM SEEPAGE OF WATER.
39. THE STRUCTURAL ADEQUACY AND DESIGN OF THE SUPERSTRUCTURE FOR 2-4.0m COMPOSITE GIRDER SHALL BE SUBMITTED SEPARATELY AFTER PROP CHECKING FROM REPUTED DTT FOR APPROVAL OF RAILWAY. ALSO THE DESIGN OF THE ALL SUBSTRUCTURE SHOULD BE GOT APPROVED FROM THE RAILWAY.

S&T WORK:
1. AS PER IR CABLE PLAN EXISTING OPTICAL FIBRE AND OTHER CABLES OUTSIDE THE UP & DN TRACK SHALL BE PROTECTED FROM DAMAGE.
2. TO PREVENT DAMAGE OF CABLES ONLY MANUAL EXCAVATION WILL BE ALLOWED NEAR CABLES.
3. UNDERGROUND CABLES ETC SHALL BE SHIFTED/REALIGNED AS PER REQUIREMENT AT SITE BY S&T STAFF.
4. AT CABLE LOCATION THE WORK SHALL BE DONE IN THE PRESENCE OF S&T SUPERVISORS.
5. Non-std/ drg No. SV-NWR-CG-09 to be adopted for 51.0M girder.

METHODOLOGY OF WORKING

1. MODUS OPERANDIMETHODOLOGY OF CONSTRUCTION ACTIVITIES, SAFETY PRECAUTIONS AND MEASURES TO BE OBSERVED DURING CONSTRUCTION SHOULD BE IN ACCORDANCE OF IRPWM & BOARD'S LETTER NO. 97/CE-I/BRO/158/9(POLICY)PT.II DATED 16-07-2009 AND PCE CIRCULAR NO. 103(R).
2. FABRICATED COMPOSITE GIRDERS WILL BE LAUNCHED FIRST THEN RCC DECK SLAB WILL BE CASTED IN SITU AFTER PROVIDING TEMPORARY ARRANGEMENT.
3. THE WORK UNDER TRAFFIC BLOCK SHALL BE CARRIED OUT UNDER THE PROVISION OF BANNER FLAG AND PROTECTION OF ENGG. FLAGMAN.
4. INSTRUCTION ON "SPECIAL CONDITION OF WORKING OF ROAD CRANES" AS PER RAILWAY BOARD LATEST GUIDELINES IN LETTER NO. 2015/CE-IV/RUB/208 DATED 15-02-2016 SHALL BE FOLLOWED.

SPECIAL NOTE

1. THE APPROVAL OF GAD OF THIS ROB AT LC NO.-556A IS ONLY FOR DETAIL OF RAILWAY PORTION. THE APPROVAL OF REST PORTION AND COMBINED GAD SHALL BE GOT APPROVED FROM COMPETENT AUTHORITY OF EXECUTING AGENCY.
2. DURING CONSTRUCTION OF SUB STRUCTURE CAUTION OF 45 Kmph ADJACENT TO EXISTING TRACK WILL BE REQUIRED.

THIS DRAWING SUPERCEDES NCR/HQ APPROVED PLAN NO. NCR/ENGG/GAD/ROB/56/2023

HEAD QTR. PLAN NO. NCR/ENGG/GAD/ROB/288/2024

N.C. RLY. ROUGH PLAN NO. Dy. C.E /GSU/AGC/ROB-556A/2024/01

NORTH CENTRAL RAILWAY
AGRA DIVISION

PROPOSED 2-LANE ROB IN LIEU OF LEVEL X-ING NO.556-A SPL AT KM.1457/14-16 ON MTJ-PWL SECTION (BET. HODAL-BANCHARI STATION) (1x24.0+1x51.50+1x24.0)

P.B. NO. 225 (UMBRELLA), TVU-129022 DT.04/21

(SKEW ANGLE - 39.862° ≈ 40°)

GENERAL ARRANGEMENT DRG.

SCALE:- 1:1000

HEAD QUARTER APPROVAL				DIVISIONAL APPROVAL				STATE AUTHORITIES APPROVAL				EXECUTIVE OFFICIAL APPROVAL				
(S. C. SAGAR)	(AMAN RICHHEE)	(U.C. RUHELA)		(TEJ PRAKASH AGRAWAL)	(BHUVNESH SINGH)	(RISHIKESH MAURYA)		(YOGESH MITTAL)	(NITIN GARG)		org no. NCR/ENGG/GAD ROB/556/2023	(M.P. SINGH)	(SUBODH RAJPUT)	(CHANDRA PAL)	(HOTAM SINGH)	(D.K. SINGH)	(O. P. MEENA)	(BRIJESH PACHORI)
CBE/NCR	DY. CE/BR/HQ	XEN/BR/HQ	SSE/DRG/HQ	DRM/AGRA	SR.DEN-CO/AGC	SR.DOM/AGC	SR.DEE/TRD/AGC	SR.DSTE/CO/AGC	SR.DEN/I/AGC	SSE/Drg/AGRA	XEN/PWD/PALWAL	CPM/GSU/AGC	DY.CSTE/GSU/AGC	DY.CEE/GSU/AGC	DY.CE/GSU/AGC	ADEN/GSU/AGC	JE/W/GSU/AGC	SSE/DRG/GSU/AGC