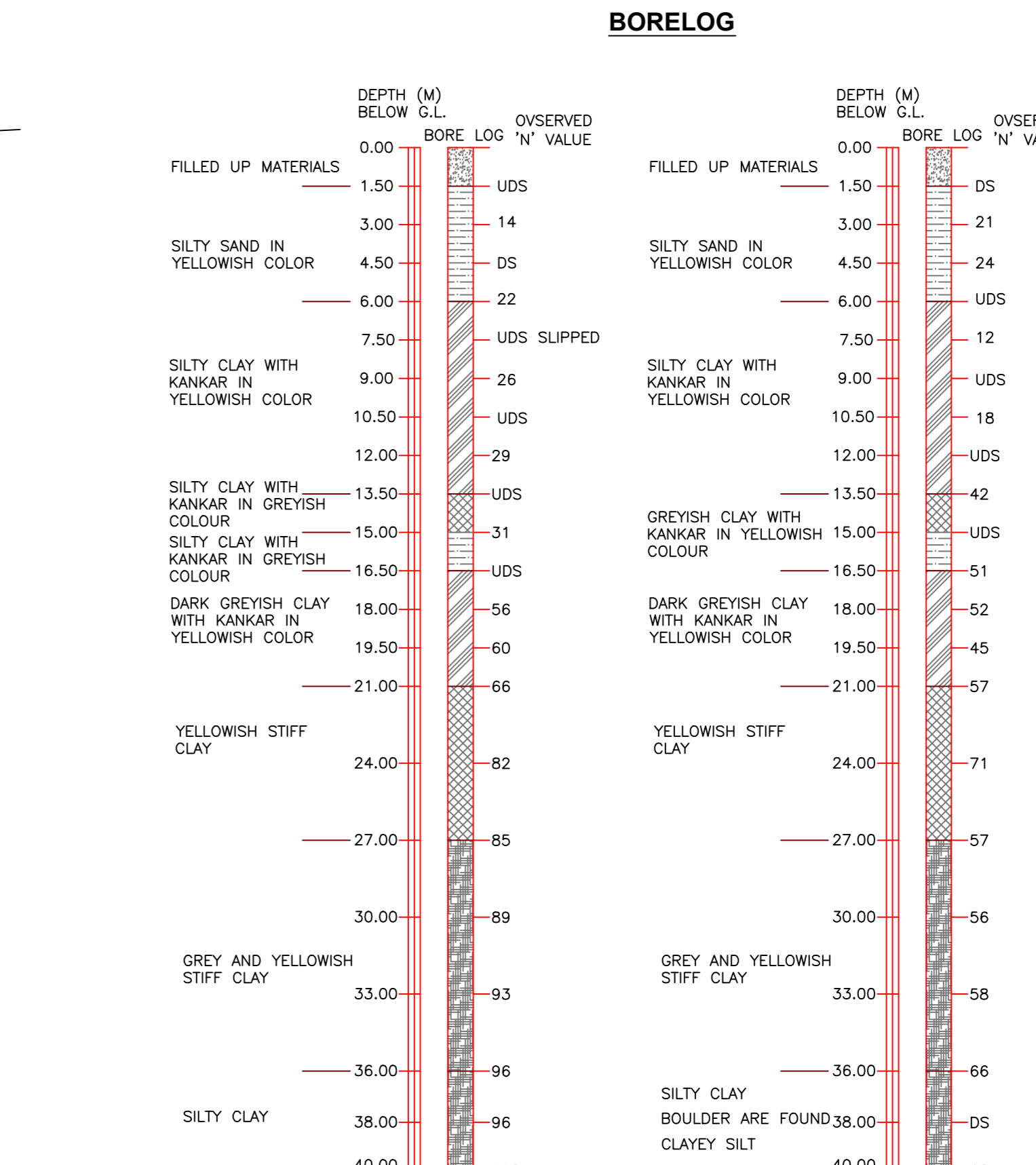
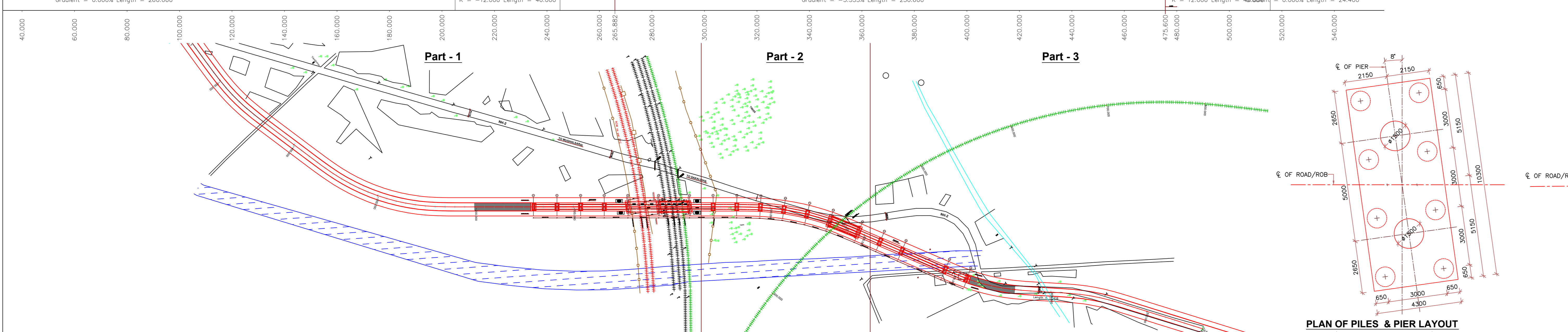
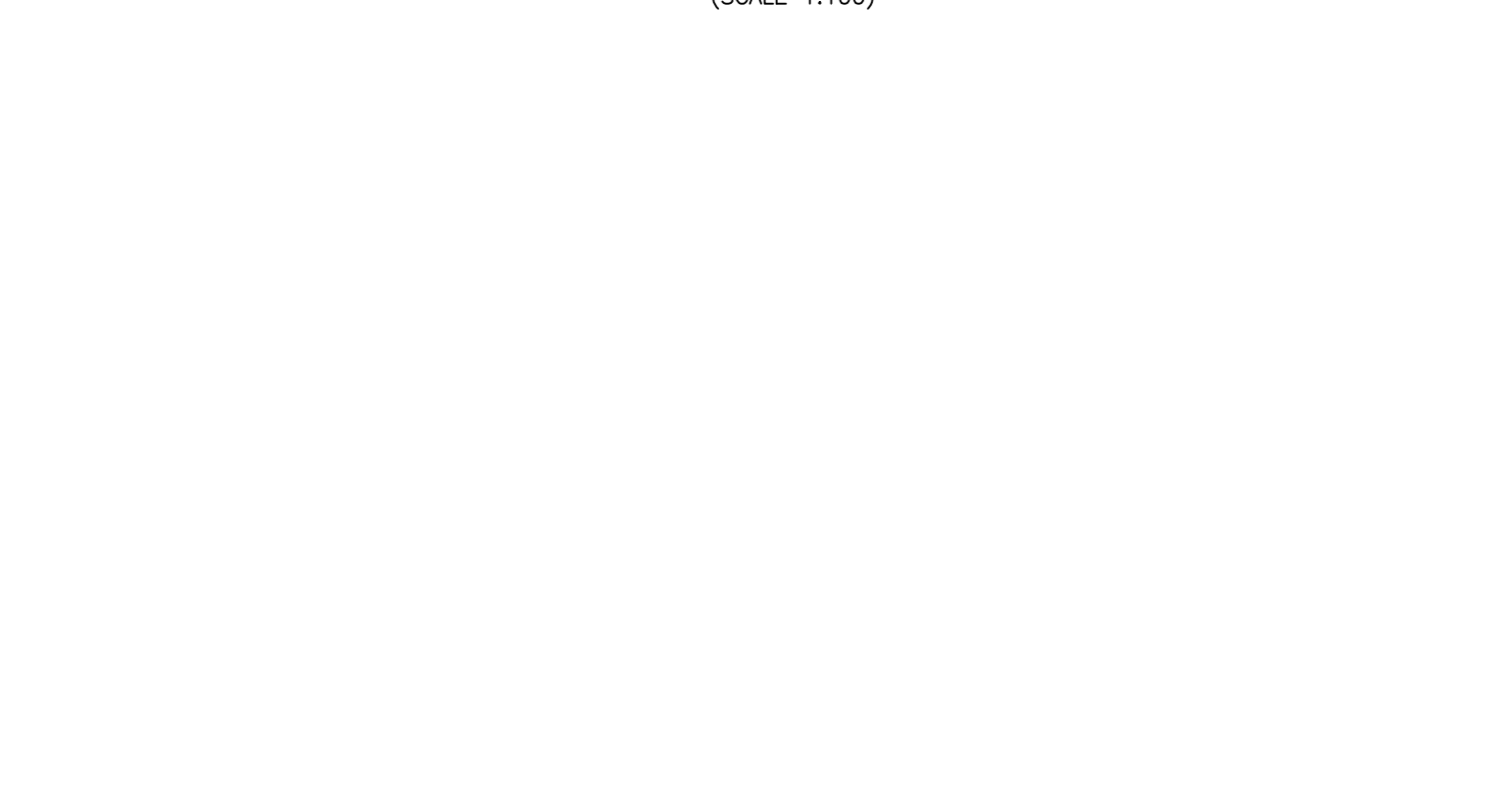


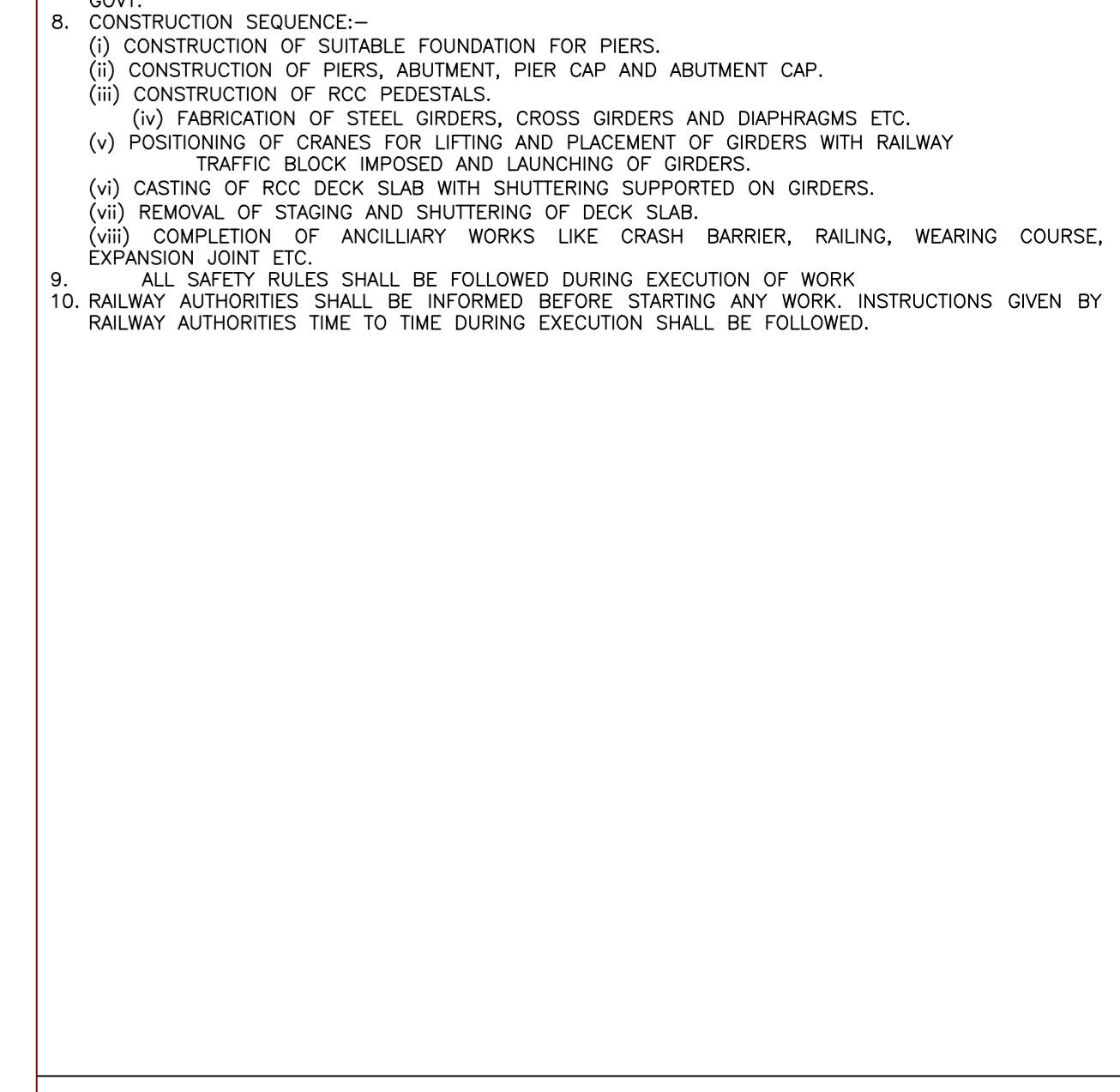
Station	76.541	76.111	76.023	77.120	76.297	77.538	77.519	76.786	75.977	77.099	78.143	77.884	77.272	77.441	77.335	77.214	77.312	76.103	77.008	76.140	76.657	77.125	77.138	
CH	699/21-23																							



- SANCTION OF CRS TO BE TAKEN PRIOR TO EXECUTION OF WORK**
1. LAUNCHING SCHEME OF THE BOW STRING GIRDER WILL BE SUBMITTED SEPARATELY.
 2. MAINTENANCE AGREEMENT TO BE EXECUTED BEFORE EXECUTION OF WORK.
 3. NO WORK WITHIN RAILWAY BOUNDARY TO BE DONE WITHOUT PRESENCE OF RAILWAY REPRESENTATIVE.
 4. GIRDERS OVER ROAD PROPER TO BE FABRICATED PREFERABLY BY RDSO APPROVED FIRMS. SET SEPARATE DRAWINGS FOR FOUNDATION, SUB STRUCTURE & OTHER STRUCTURAL DETAILS.
 5. APPROVAL FOR CONSTRUCTION OF ROB ON PILE FOUNDATION HAS BEEN OBTAINED BY CAG/COV/SOUTH WIDE NO. - ECR/CE/COV/S/ROB DATED 22.03.2017.
 6. SUITABLE REINFORCEMENT WILL BE PROVIDED AS PER DESIGN WHERE EVER REQUIRED.
- NOTES:**
1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS SPECIFIED OTHERWISE.
 2. DIMENSION ARE NOT TO BE SCALED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.
 3. ALL THE DIMENSIONS SHOWN SHOULD BE VERIFIED AT SITE BEFORE WORKING. DESIGN WORK IN HAND, ANY DISCREPANCY SHOULD BE FORWARDED IMMEDIATELY TO THE DESIGNER.
 4. MAXIMUM SAFE BEARING CAPACITY AT THE FOUNDING LEVEL CONSIDERED AS PER GEOTECHNICAL REPORT. IF SAFE BEARING CAPACITY IS LESS THAN THE DESIGN LOAD, THE FOUNDATION HAS TO BE REDESIGNED.
 5. DRAINAGE SLOUT SHALL BE PROVIDED AS PER WORTH SPECIFICATION. DESIGN CONSULTANT SHOULD SUBMIT SEPARATE SHEET OF DRAINAGE SLOUTS AS PER LATEST WORTH STANDARDS.
 6. EXPOSURE CONDITION OF THE BRIDGE AND ITS COMPONENTS SHOULD BE DECLARED AS PER IRC 21-2000/ISS-5. ALL SPECIFICATION LOAD DOWN IN IRC CODES/ISS-5 CODE FOR RELEVANT EXPOSURE CONDITION SHALL BE FOLLOWED.
 7. FOR DETAILS OF SUBSTRUCTURE AND FOUNDATION REFER SEPARATE DRAWING DULY APPROVED BY RAILWAY.
 8. WORK SHOULD BE CARRIED OUT UNDER THE SUPERVISION OF RAILWAY ENGINEERS WITHIN RAILWAY LAND LIMIT.
 9. TYPE OF BEARINGS - POT-PTFE.
 10. SUITABLE UTILITY DUCTS IF REQUIRED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
 11. DESIGN SHALL BE AS PER LATEST RELEVANT CODE OF IRC INCLUDING SP-33 AND OTHER CODES AS APPROVED BY M.O.S.T.
 12. STATE GOVT./PRIVATE AUTHORITIES SHOULD BE ENSURE DURING EXECUTION OF WORK SAFETY OF RUNNING RAIL TRAFFIC SHOULD NOT BE INTERRUPTED.
 13. SUITABLE SR, IF REQUIRED SHOULD BE IMPOSED BEFORE TAKING UP THE EXECUTION OF WORK WITH THE APPROVAL OF ENGINEER IN CHARGE.
 14. TEMPORARY SIGNALING ARRANGEMENT WILL BE DONE AS PER G.R.15.09 (I) & S.R.15.09 (2) OR G.R.15.09 (S.R.15.09) WHICHEVER IS APPLICABLE IF REQUIRED.
 15. TEMPORARY SIGNALING ARRANGEMENT WILL BE DONE AS PER IRC-6.2000.
 16. FULL FLOODED LOAD TEST OF SUPER STRUCTURE SHOULD BE DONE AS PER IRC-SP-5 TO ENSURE QUALITY WORK.
 17. CONCRETE DESIGN MIX: RCC DECK SLAB : M40, PIER/PIER CAP/PILE/PILE CAP : M35, MAO PEDESTAL : M40, LEVELING COURSE : M15
 18. MANNED LEVEL CROSSING NO 50/C EXIST AT THIS LOCATION.
 19. L.C. SHALL BE CLOSED SIMULTANEOUSLY WITH COMMISSIONING OF ROB AND NOC IN THIS REGARD HAS BEEN ISSUED BY STATE GOVT. WIDE LETTER NO.587(0)/23-11-2015-1/2(304)/2015 DATED 07.06.2016.
 20. T.V.U. OF L.C. IS 58128 OF YEAR OCT-2016.
 21. TEMPORARY DIVERSION OF ROAD TRAFFIC DURING CONSTRUCTION OF ROB/RUB WILL BE THROUGH DIVERSION ROAD. AUTHORITY WILL ENSURE DIVERSION OF EXISTING ROAD TRAFFIC THROUGH THE PROPOSED DIVERSION BEFORE COMMENCEMENT.
 22. REINFORCEMENT SHALL BE TMT DEFORMED BARS GRADE Fe 500 CONFORMING TO IS 1786.
 23. PROVISION OF CLAMPS IN THE SUPERSTRUCTURE FOR THE SUPPORTING THE AC TRACTION WIRE TO BE MADE INVARIABLY IN CONSULTATION WITH CONCERN AUTHORITIES BASED ON TYPICAL DRAWING.
 24. ALL R.C.C./M.C.C./P.C.C. WORK SHOULD CONFORM TO RELEVANT IS/IRC CODES & MOST SPECIFICATION.
 25. FOR FABRICATION, WORKMANSHIP, INCEPTION & TESTING, PROTECTION AGAINST CORROSION ETC. RELEVANT PROVISION OF IRC-24-2001 SHALL BE FOLLOWED.
 26. THE DEPTH OF FOUNDATION SHOWN IN THIS DRAWING IS TENTATIVE & SHOULD BE DECIDED BY COMPETENT AUTHORITIES AS PER ACTUAL SOIL PROPERTIES AND DESIGN CALCULATION.
 27. REPRESENTATIVE OF TELECOM & SIGNAL DEPARTMENTS SHOULD BE MADE AVAILABLE BEFORE COMMENCEMENT OF PROPOSED WORK IN THE VICINITY OF SIGNAL & TELECOM CABLE.
 28. TEMPORARY ARRANGEMENT DRAWING OR METHODOLOGY TO LAUNCHING OF GIRDERS OVER RAILWAY TRACK SHOULD BE GOT APPROVED FROM RAILWAY AUTHORITY BEFORE START THE WORK.
 29. DIMENSION GIVEN IN THIS DRAWING MUST BE RECHECKED AT SITE BEFORE START OF WORK FOR FEASIBILITY.
 30. PRECAUTIONARY MEASURES FOR CONSTRUCTION OF ROB ON DEPOSIT WORK/COST SHARING WORK WITH STATE GOVT. AND PRIVATE AGENCY ISSUED BY ADVISOR CIVIL ENGINEERING RAILWAY BOARD LETTER NO. 97/EE-1/ROB/RSB/ROB/PT/1-11-11 DATED -16.07.2009, 27.10.2009, 15.02.2011 & 09.07.2012 SHOULD BE STRICTLY FOLLOWED.
 31. NO CONSTRUCTION SHALL BE ALLOWED IN CONCRETE WORKS WITHOUT SPECIAL PRECAUTIONS AS PER THE RELEVANT BRIDGE CODES & SUITABLE PROTECTION PAINTING OF APPROVED MAKE SHOULD BE USED TO PAINT THE UNDERSIDE OF CONCRETE ROB GIRDERS ALSO TO ENSURE LONG LIFE.
 32. CONTROLLED CONCRETE WITH WEIGH BATCHING SHALL BE USED.
 33. GUARDED RAIL SHOULD BE PROVIDED IN THE TRACK NEAR THE ISOLATED PILLAR OF ROB. NO ANCHORAGE JOINT SHALL BE PROVIDED IN PCC OR RCC SLAB OR GIRDER AND CURING OF ALL CONCRETE AND MASONRY WORKS AS PER THE RELEVANT CODES OF PRACTICE SHALL BE ENSURED BEFORE USE.
 34. INSPECTION LADDER/STEPS SHOULD BE PROVIDED TO ENSURE PROPER INSPECTION/ACCESSIBILITY OF ROB.
 35. STRUCTURAL STEEL SHALL CONFORM TO IS:2063 (GRADE - B).
 36. STRIP SEAL TYPE EXPANSION JOINTS SHALL BE PROVIDED AS PER LATEST MOST REQUIREMENT. CONTRACTOR SHOULD FURNISH DESIGN/DRAWING OF EXPANSION JOINTS FROM FIRMS APPROVED BY RAILWAY AUTHORITY FOR GRANT OF PERMISSION FOR CONSTRUCTION OF ROB/RUB IN RAILWAY PORTION. MOST AT VARIOUS TEMPERATURE TO SUIT SITE CONDITIONS WITH THE APPROVAL OF ENGINEER IN CHARGE.
 37. TO PROTECT THE CONCRETE FROM DAMAGE DUE TO SMOKE OF LOCOMOTIVES, 4.00M WIDE STRIP WITH POLYSULPHURE PAINT PREFERABLE IN BLACK COLOUR SHALL BE PROVIDED IN THE SOFFIT OF THE DECK OVER RUNNING TRACKS.
 38. STANDARD MAINTENANCE AGREEMENT SHOULD BE EXECUTED WITH RAILWAY AND STATE GOVT. AUTHORITIES FOR GRANT OF PERMISSION FOR CONSTRUCTION OF ROB/RUB IN RAILWAY PORTION.
 39. ROAD AUTHORITY SHOULD ENSURE THAT BEFORE LAYING OF ANY NEW WEARING COAT IN FUTURE EXISTING WEARING COAT SHOULD BE COMPLETELY REMOVED.
 40. NO WORK SHOULD BE TAKEN UP IN HAND TILL PROOF CHECKED DESIGN AND DRAWING WITHIN RAILWAY PORTION AREA APPROVED BY RAILWAY.
 41. ALL STEEL STRUCTURES SHOULD HAVE ANTI-CORROSION PROTECTION OF LONG DURABILITY.
 42. FOR DETAILS OF SUPER STRUCTURE OF 18.00M SPAN REFER RDSO'S DRG. NO. RDSO/SR-17356/R. AND FOR 60M RAILWAY SPAN OF BOW STRING GIRDER REFER RDSO DRG. NO. B-10411/R.
 43. ANY CHANGE IN THE GAD FOR RAILWAY PORTION SHOULD BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 44. CLEAR COVER TO OUTER MOST STEEL SHALL BE AS UNDER: A. FOR SUPER STRUCTURE - 50MM. B. FOR FOUNDATION - 75MM.
 45. FOR ABUTMENT, DIRT WALL AND RETURN WALL - 50MM.
 46. BACK FILLING BEHIND ABUTMENTS SHALL CONSISTS OF SELECTED EARTH CONFORM TO SOIL PROPERTIES C.O. 0-30, 0-20 & 1-TRANSION.
 47. FOR JACKING UP THE GIRDER FOR ANY HANDLING REQUIREMENTS IN FUTURE SUCH AS FOR REPLACEMENT OF BEARING OR ANY OTHER WORK REQUIRED, SUITABLE FEATURES SHOULD BE PROVIDED TO ENABLE JACKING.
 48. THE DIMENSIONS & LEVELS SHOWN IN THE GAD ARE SUBJECT TO CHANGES AS PER SITE REQUIREMENT AND WILL BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 49. THE BRIDGE IS DESIGNED FOR SEISMIC ZONE II.
 50. DIMENSIONS MAY GET CHANGED AFTER ITS DETAILED DESIGN.
 51. AS PER DATA GIVEN BY DFC OFFICIAL, THE DISTANCE BETWEEN PROPOSED DFC TRACK FROM DN LINE AND ITS PROPOSED LEVEL HAVE BEEN SHOWN IN THE DRAWING.
 52. PROVISION OF EXPANSION JOINT SHOULD BE SHOWN IN THE DRAWING.
 53. GIRDER SHALL BE METALISED AS PER IRSB1-2001.
 54. VERTICAL CLEARANCE WILL BE TAKEN FROM HIGHEST RAIL LEVEL.
 55. VERTICAL CURVE WILL BE PROVIDED WHEREVER THERE IS CHANGE IN GRADIENT IN APPROACHES AS PER IRC SP-33.
 56. SAFE BEARING CAPACITY AT 2.0M DEPTH 13.00 T/M².
 57. RESTRAINER ON BOTH SIDE OF OUTERMOST GIRDER ON PIER CAP & ABUTMENT CAP WILL BE PROVIDED.
 58. DRAWING FOR SHIFTING OF LC WILL BE GOT APPROVED FROM COMPETENT AUTHORITY BEFORE START OF WORK.
 59. S&T CABLE SHOULD BE SHIFTED BEFORE UNDER TAKING DIGGING OR TRENCHING NEAR IR TRACK BY S&T/CONSTRUCTION.

OPERATION SCHEDULE FOR RAILWAY SPAN.

1. TRACK SHALL BE PROTECTED SUITABLY DURING THE CONSTRUCTION OF BRIDGE/ROB FOR SAFETY OF RUNNING TRAIN.
2. ADEQUATE MEASURES SHALL BE TAKEN AT SITE TO ENSURE SAFETY FOR WORKING MEMBERS, MATERIALS, EQUIPMENTS, TRAFFIC ETC.
3. FOR SHIFTING OF THE MASTS AND SIGNALING EQUIPMENTS, DIVISION MAY BE CONSULTED AS PER EXISTING RULES.
4. FOR LAUNCHING OF GIRDERS OVER RAILWAY TRACK, SUITABLE BLOCK WILL BE TAKEN WITH ADVANCE INTENTION.
5. DETAILED STRUCTURAL DRAWINGS OF THE ROB SHALL BE APPROVED BY COMPETENT AUTHORITY.
6. LAUNCHING SCHEME OF THE ROB SHALL BE APPROVED BY C.E./C.O.P/UP BEFORE EXECUTION OF WORK.
7. DRAWING APPROVAL SHALL BE SUBJECTED TO APPROVAL OF ALIGNMENT AND LEVELS BY STATE GOVT.



EAST CENTRAL RAILWAY

PROPOSED TWO LANE ROB SPAN 2x30.00 FOR OBLIGATORY SPAN IN LIEU OF L-XING NO 83, (SKEW ANGLE 8°) (TVU-450206, DT.06/2015) ON MUGHALSARAI - GAYA SECTION OF EAST CENTRAL RAILWAY MUGHALSARAI GENERAL ARRANGEMENT DRAWING

DESIGNATION	SIGNATURE	DESIGNATION	SIGNATURE
(S&T MGR/PA) CPM/DFCCIL/MGS		EXECUTIVE ENGINEER	
DFPM/ENOS/DFCCIL		STATE GOVT. U.P.	
DFCCIL/MGS		MGS DIVISION	

SCALE: 100 0 100 200 300m / 200 0 200 400 600cm

DATE: SEPTEMBER, 2017

REV: RO

SCALE: 100 0 100 200 300m / 200 0 200 400 600cm

(SUNEL KUMAR) DRAWN BY (ATF AMMED) (MD. NOHAM) MANAGER/D (D.S. NEGI) JGM/D (A.K. MATHUR) GCM/D

RITES LTD.