



DFCCIL DRG NO.		STATE GOVT. U.P.		MGS DIVISION	
DESIGNATION	SIGNATURE	DESIGNATION	SIGNATURE	DESIGNATION	SIGNATURE
(A.K. MSHRA)	CPM/DFCCIL/MGS	EXECUTIVE ENGINEER			
DY CPM/ENGG/DFCCIL					
DPA/ENGG/DFCCIL					

SPECIAL NOTES:

- LAUNCHING SCHEME OF THE RAILWAY SPAN GIRDER WILL BE SUBMITTED SEPARATELY.
- MAINTENANCE AGREEMENT TO BE EXECUTED BEFORE EXECUTION OF WORK.
- NO WORK WITH RAILWAY BOUNDARY TO BE DONE WITHOUT PRESENCE OF RAILWAY REPRESENTATIVE.
- GIRDERS OVER ROB PROPER TO BE FABRICATED PREFERABLY BY ROSO APPROVED FIRMS.
- SEPARATE DRAWING FOR FOUNDATION SUB-STRUCTURE OTHER STRUCTURAL DETAILS.
- APPROVAL FOR CONSTRUCTION OF ROB ON PILE FOUNDATION HAS BEEN OBTAINED BY CAGCON SOUTH VIDE NOTE NO. 10/2017 DATED 22/07/2017.
- SUITABLE RE WALL, RETURN WALL WILL BE PROVIDED AS PER DESIGN WHERE EVER REQUIRED.

NOTES:

- ALL DIMENSION ARE IN MM. AND LEVELS ARE IN METERS UNLESS SPECIFIED OTHERWISE.
- DIMENSION ARE NOT TO BE SCALE ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.
- ALL THE DIMENSIONS SHOWN SHOULD BE VERIFIED AT SITE BEFORE TAKING UP DESIGN WORK IN HAND. ANY DISCREPANCY NOTED SHOULD BE FORWARDED IMMEDIATELY TO THE DESIGNER FOR CORRECTION.
- MAXIMUM SAFE BEARING CAPACITY AT THE FOUNDING LEVEL CONSIDERED AS PER GEOTECHNICAL REPORT IF IT IS LESS THAN THE SAFE BEARING CAPACITY OF THE FOUNDING SOIL TO BE USED.
- EXPOSURE CONDITION OF THE BRIDGE AND ITS COMPONENTS SHOULD BE DECLARED AS PER IRC 21:2008/IRC 112:546. ALL SPECIFICATION LAID DOWN IN IRC CODES/546 CODE FOR RELEVANT EXPOSURE CONDITION SHALL BE FOLLOWED.
- FOR DETAILS OF SUBSTRUCTURE AND FOUNDATION REFER SEPARATE DRAWING DULY APPROVED BY RAILWAY.
- WORK SHOULD BE CARRIED OUT UNDER THE SUPERVISION OF RAILWAY ENGINEERS WITHIN RAILWAY LAND LIMIT.
- SANCTION OF CRG SHOULD BE OBTAINED PRIOR TO EXECUTION OF PROPOSED WORK.
- TYPE OF BEARING - POT REQUIRED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
- SUITABLE UTILITY DUCTS IF REQUIRED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
- DESIGN SHALL BE AS PER LATEST RELEVANT CODE OF IRC INCLUDING SP-33 AND OTHER CODES AS APPROVED BY M.S.E.
- STATE GOVT./PRIVATE AUTHORITIES SHOULD BE ENSURE DURING EXECUTION OF WORK SAFETY OF RUNNING RAIL TRAFFIC SHOULD NOT BE AFFECTED.
- SUITABLE CR. IF REQUIRED SHOULD BE IMPOSED BEFORE TAKING UP THE EXECUTION OF WORK WITH THE APPROVAL OF ENGINEER IN CHARGE.
- TEMPORARY SIGNALING ARRANGEMENT WILL BE DONE AS PER G.R.15.09 (D) OR GR15.09(2) AS R.
- LOADING STANDARD OF ROB AS PER IRC-6:2000.
- FULL DEDICATED LOAD TEST OF SUPER STRUCTURE SHOULD BE DONE AS PER IRC-SP-5 TO ENSURE QUALITY WORK.
- CONCRETE DESIGN MIX: RCC PIER SLAB - M40, PIER PIER CAP, PILE CAP - M35, CRASH BARRIER - M40, PEDESTAL - M40, LEVELING COURSE - M15.
- MANDED LEVEL CROSSING NO 78-C EXIST AT THIS LOCATION.
- L.C. SHALL BE CLOSED DURING CONSTRUCTION OF ROB AND NOC IN THIS REGARD HAS BEEN ISSUED BY STATE GOVT. VIDE LETTER NO. _____ DATED _____.
- TRIP OF L.C. IS NOT TO BE INTERRUPTED.
- TEMPORARY DIVERSION OF ROAD TRAFFIC DURING CONSTRUCTION OF ROBRUB WILL BE THROUGH DIVERSION ROAD. AUTHORITY WILL ENSURE DIVERSION OF EXISTING ROAD TRAFFIC THROUGH THE PROPOSED DIVERSION BEFORE EXECUTION.
- REINFORCEMENT SHALL BE THT DEFORMED BARS GRADE F-500 CONFORMING TO IS 1786.
- 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.
- ALL R.C.C. P.C.C. WORK SHOULD CONFORM TO RELEVANT ISIRC CODES & MOST SPECIFICATION.
- FOR FABRICATION WORKMANSHIP, INSPECTION & TESTING, PROTECTION AGAINST CORROSION ETC. RELEVANT PROVISION OF IRC 24:2001 SHALL BE FOLLOWED.
- THE DEPTH OF FOUNDATION SHOWN IN THIS DRAWING IS TENTATIVE & SHOULD BE DECIDED BY COMPETENT AUTHORITY ON THE BASIS OF ACTUAL SOIL PROPERTIES AND DESIGN CALCULATION.
- REPRESENTATIVE OF TELECOM & SIGNAL DEPARTMENTS SHOULD BE MADE AVAILABLE BEFORE COMMENCEMENT OF PROPOSED WORK. IN THE VICINITY OF SIGNAL & TELECOM CABLE.
- TEMPORARY ARRANGEMENT DRAWING OR METHODOLOGY TO LAUNCHING OF GIRDERS OVER RAILWAY TRACK SHOULD BE GOT APPROVED FROM RAILWAY AUTHORITY BEFORE START THE WORK.
- DIMENSION GIVEN IN THIS DRAWING MUST BE RECONCILED AT SITE BEFORE START OF WORK FOR FEASIBILITY. PRECAUTIONARY MEASURES FOR CONSTRUCTION OF ROB ON EXISTING TRACKS SHOULD BE TAKEN WITH STATE GOVT. AND PRIVATE AGENCY ISSUED BY ADVISOR CIVIL ENGINEERING RAILWAY BOARD LETTER NO. _____ DATED 16/11/2012 SHOULD BE STRICTLY FOLLOWED.
- NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WORKS WITHOUT SPECIAL PRECAUTIONS AS PER THE RELEVANT BRIDGE CODES AND SUITABLE PROTECTION PAINTING OF APPROVED MAKE SHALL BE USED TO PAINT THE UNDERSIDE OF CONCRETE ROB GIRDERS ALSO TO ENSURE LONG LIFE.
- CONTROLLED CONCRETE WITH WEIGH BATCHING SHALL BE USED.
- GIRDS SHALL BE PROVIDED IN THE TRACK BEHIND THE SLOTTED PILLAR OR ROB. NO CONSTRUCTION JOINT SHALL BE ALLOWED IN PSC OR RCC SLAB OR GIRDER AND CURING OF ALL CONCRETE AND MASONRY WORKS AS PER THE RELEVANT CODES OF PRACTICE SHALL BE ENSURE BEFORE USE.
- INSPECTOR LAIDERS SHOULD BE PROVIDED TO ENSURE PROPER INSPECTION/ACCESSIBILITY OF ROB.
- STRUCTURAL STEEL SHALL CONFORM TO IS 2062 (GRADE - B).
- STRIP SEAL TYPE EXPANSION JOINTS SHALL BE PROVIDED AS PER LATEST MOST REQUIREMENT. CONTRACTOR SHALL FURNISH DESIGN DRAWING OF EXPANSION JOINTS FROM FIRMS APPROVED BY MOST AT VARIOUS RELEVANT AMBIENT TEMPERATURE TO SUIT SITE CONDITIONS WITH THE APPROVAL OF ENGINEER IN CHARGE.
- TO PROTECT THE CONCRETE FROM DAMAGE DUE TO SMOKE OF LOCOMOTIVES, 4.0M WIDE STRIP WITH ROAD AUTHORITY SHALL BE PAINT PREFERABLY IN BLACK COLOUR SHALL BE PROVIDED IN THE SOFFIT OF THE DECK OVER RUNNING TRACKS.
- STANDARD MAINTENANCE AGREEMENT SHOULD BE EXECUTED WITH RAILWAY AND STATE GOVT. AUTHORITIES FOR GRANT OF PERMISSION FOR CONSTRUCTION OF ROBRUB IN RAILWAY PORTION.
- ROAD AUTHORITY SHALL PROVIDE THAT BEFORE LAUNCHING OF NEW HEAVY COIL IN FUTURE EXISTING WEARING COAT SHOULD BE COMPLETELY REMOVED.
- NO WORK SHOULD BE TAKEN UP UNLESS FULLY PROOF CHECKED DESIGN AND DRAWING WITHIN RAILWAY PORTION AREA APPROVED BY RAILWAY.
- ALL STEEL STRUCTURES SHOULD HAVE AN ANTI-CORROSION PROTECTION OF LONG DURABILITY.
- FOR DETAILS OF SUPER STRUCTURE OF RAILWAY SPAN OF 30.00M SPAN REFER ROSO'S DRG. NO. ROSO-11709K AND FOR 24.00M SPAN REFER ROSO'S DRG. NO. ROSO-11709R.
- ANY CHANGE IN THE GAD FOR RAILWAY PORTION SHOULD BE DONE WITH PRIOR APPROVAL OF RAILWAY.
- CLEAR COVER TO OUTER MOST STEEL SHALL BE AS UNDER:
A. FOR SUPER STRUCTURE - 50MM.
B. FOR FOUNDATION - 75MM.
C. FOR ABUTMENT, DIET WALL AND RETURN WALL - 50MM.
- BACK FILLING BEHIND ABUTMENTS SHALL CONSISTS OF SELECTED EARTH CONFORM TO SOIL PROPERTIES CL-0, 0.500 F & 10% F200.
- FOR JACKING UP THE GIRDER FOR ANY HANDLING REQUIREMENTS IN FUTURE SUCH AS FOR REPLACEMENT OF BEARINGS OR ANY OTHER WORKS REQUIRED, SUITABLE FEATURES SHOULD BE PROVIDED TO ENABLE JACKING.
- THE DIMENSIONS & LEVELS SHOWN IN THE GAD ARE SUBJECT TO CHANGES AS PER SITE REQUIREMENT AND WILL BE DONE WITH PRIOR APPROVAL OF RAILWAY.
- AS PER DATA GIVEN BY DFC OFFICIAL, THE DISTANCE BETWEEN PROPOSED DFC TRACK FROM ON LINE AND ITS PROPOSED LEVEL HAVE BEEN SHOWN IN THIS DRAWING.
- PROVISION OF EXPANSION JOINT SHOULD BE BEYOND THE GIRDER.
- GIRDER SHALL BE METALLIZED AS PER ISIRI JOB.
- VERTICAL CLEARANCE WILL BE TAKEN FROM HIGHEST RAIL LEVEL.
- VERTICAL CURVE WILL BE PROVIDED WHEREVER THERE IS CHANGE IN GRADIENT IN APPROACHES AS PER IRC SP-2.
- SAFE BEARING CAPACITY AT FOUNDING LEVEL SHALL BE TAKEN AND TO BE VERIFIED AT SITE IF REQUIRED.
- RESTRICTIONS ON BOTH SIDES OF UTTERMOST GIRDER ON PIER CAP & ABUTMENT CAP WILL BE PROVIDED IN SEISMIC ZONE II & V.
- DRAWING FOR SHIFTING OF L.C. WILL BE GOT APPROVED FROM COMPETENT AUTHORITY BEFORE START OF WORK.
- SAT CABLE SHOULD BE SHIFTED BEFORE UNDER TAKING DIGGING OR TRENCHING NEAR IN TRACK BY SAT CONSTRUCTION.
- APPROACH SPAN CONFIGURATION ARE INDICATIVE ONLY. FINAL SPAN OF APPROACH SPAN DECIDED BY UPSC/CL END.

OPERATION SCHEDULE FOR RAILWAY SPAN:

- TRACK SHALL BE PROTECTED SUITABLY DURING THE CONSTRUCTION OF BRIDGE/ROB FOR SAFETY OF RUNNING TRAIN.
- ADAPTED MEASURES SHALL BE TAKEN AT SITE TO ENSURE SAFETY FOR WORKING MEMBERS, MATERIALS, EQUIPMENTS, TRAINS ETC.
- FOR SHIFTING OF THE MASTS AND SIGNALING EQUIPMENTS, DIVISION MAY BE CONSULTED AS PER EXISTING RULES.
- FOR LAUNCHING OF GIRDERS OVER RAILWAY TRACK, SUITABLE BLOCK WILL BE TAKEN WITH ADVANCE INTIMATION.
- DETAILED STRUCTURAL DRAWINGS OF THE ROB SHALL BE APPROVED BY COMPETENT AUTHORITY.
- LAUNCHING SCHEME SHALL BE APPROVED BY CBE BEFORE EXECUTION OF WORK.
- DRAWING APPROVAL SHALL BE SUBJECTED TO APPROVAL OF ALIGNMENT AND LEVELS BY STATE GOVT.
- CONSTRUCTION SEQUENCE SHALL BE AS UNDER:
(i) CONSTRUCTION OF SUITABLE FOUNDATION FOR PIERS.
(ii) CONSTRUCTION OF SUITABLE PIER CAP AND ABUTMENT CAP.
(iii) CONSTRUCTION OF SUITABLE PILE CAPS.
(iv) FABRICATION OF STEEL GIRDERS, CROSS GIRDERS AND DAMPHRAGGAS ETC.
(v) POSITIONING OF GIRDERS FOR LIFTING AND PLACEMENT OF GIRDERS WITH RAILWAY TRAFFIC BLOCK IMPOSED AND LAUNCHING OF GIRDERS.
(vi) CASTING OF RCC DECK SLAB WITH SLIGHTLY OVERSTRESS SUPPORTED ON GIRDERS.
(vii) REMOVAL OF STAGING AND SHUTTERING OF DECK SLAB.
(viii) COMPLETION OF ANCHORAGE WORKS LIKE CRASH BARRIER, RAILING, WEARING COURSE, EXPANSION JOINT ETC.
- ALL SAFETY RULES SHALL BE FOLLOWED DURING EXECUTION OF WORK.
- RAILWAY AUTHORITIES SHALL BE INFORMED BEFORE STARTING ANY WORK. INSTRUCTIONS GIVEN BY RAILWAY AUTHORITIES TIME TO TIME DURING EXECUTION SHALL BE FOLLOWED.

FOR DRAFT

EAST CENTRAL RAILWAY (E.C.RLY)

PROPOSED TWO LANE ROB SPAN 2x30.00 FOR OBLIGATORY SPAN IN LIEU OF L-XING NO 75, (SKEW ANGLE AT IR-11° & DFCC 11°) (TVU-50707, DT.08/2015) ON MUGHALSARAI - GAYA SECTION OF EAST CENTRAL RAILWAY MUGHALSARAI GENERAL ARRANGEMENT DRAWING

DFCCIL DRG NO.	SH. NO.	DATE	REV.
RITES/R/RCED/DFCC/ROB/75/GGA	3 OF 3	OCTOBER, 2017	Ro

SCALE: 100 0 200 400 600 800 1000

(SUNIL KUMAR) DRAWN BY (ATIF AHMED) AMD (MD. NOMAN) MANAGER/IB (D.S. NEG) JGM (A.K. MATHUR) GGMD

RITES LTD.