



BRIDGE DETAILS		
DESCRIPTION	OLD BRIDGE	PROPOSED BSRP BRIDGE
CHANGE AT CENTER OF BRIDGE (m)	7x346	7x361
RAIL LEVEL AT CENTER OF BRIDGE (m)	883.779	884.027
FORMATION LEVEL AT CENTER OF BRIDGE (m)	883.209	884.027
DIMENSIONS (m x HEIGHT (m))	2 x 4.575	1 x 24.40
CONFIGURATION	RCC SLAB	PSC

TRACK DETAILS (PRO BRIDGE)		
LOADING	25 T.2008	
ALIGNMENT	STRAIGHT	
RAIL LEVEL	884.398	
FORMATION LEVEL	883.836	

TRACK DETAILS (EXG BRIDGE)		TRACK DETAILS (OLD BRIDGE)	
ALIGNMENT	STRAIGHT	ALIGNMENT	STRAIGHT
GRADE	RISE 1 IN 100	GRADE	RISE 1 IN 100
RAIL LEVEL	884.715	RAIL LEVEL	883.779
FORMATION LEVEL	884.027	FORMATION LEVEL	883.209

EXG DEPTH OF CONSTRUCTION FOR 1 x 24.40m PSC GIRDER		EXG DEPTH OF CONSTRUCTION FOR 2 x 4.575m RCC SLAB	
RAIL 60 Kg	172 mm	RAIL TO FORMATION	688 mm
GROUDED RUBBER PAD	8 mm	RCC SLAB	685 mm
PISA SLEEPER	210 mm	EARTH CUSHION	1380 mm
BALAST CUSHION	300 mm	BOTTOM OF SLAB	2805 mm
PSC TROUGH/GIRDER	700 mm	TO BED LEVEL	
ELASTOMERIC PAD	10 mm	TOTAL	7200 mm
RCC PEDESTAL	750 mm		
TOTAL	2218 mm		

- SPECIFICATION:**
1. ALL WORKS ARE TO BE CARRIED OUT AS PER THE FOLLOWING CODES AND MANUALS WITH THE LATEST CORRECTION SHEETS AND REVISIONS.
 - (i) INDIAN RAILWAY UNIFIED STANDARD SPECIFICATIONS FOR WORKS AND MATERIALS 2018.
 - (ii) IRIS CONCRETE BRIDGE CODE 2014 (IRIS PRINT) & RELEVANT IS SPECIFICATIONS.
 - (iii) IRIS BRIDGE SUB-STRUCTURE CODE: 2018 (IRIS PRINT).
 - (iv) IRIS BRIDGE RULES 2014 (IRIS PRINT).
 - (v) IRIS BRIDGE RULES 2014 (IRIS PRINT) WITH UPDATED CORRECTION SHEETS.
 - (vi) FOUNDATION - CEMENT CONCRETE OF GRADE M35 WITH MAX. 30 MM SIZE GRADED OF APPROVED QUALITY (AS PER DESIGN FOR PILE & PILE CAP).
 - (vii) SUB STRUCTURE - CEMENT CONCRETE OF GRADE M35 WITH MAX. 20 MM SIZE GRADED OF APPROVED QUALITY (AS PER DESIGN) FOR PIER & ABUTMENT.
 - (viii) SUPER STRUCTURE - CONCRETE FOR PSC SLABS & BALAST RETAINERS SHALL BE OF GRADE M35 & M30 RESPECTIVELY.
 - (ix) BED BLOCK - RCC BED BLOCK M30 GRADE USING 20MM MAX. SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
 - (x) WEAP HOLES - WEAP HOLES TO BE PROVIDED WHEREVER REQUIRED AS PER PARA 7.8 OF SUB STRUCTURE CODE SHALL BE OF 75/100 DIA PVC/DI PIPE STAGGERED AT 1000 C/C ABOVE LOW WATER LEVEL IN ABUTMENT WALL & RETURN WALL.
 - (xi) LEVELING COURSE - 150 MM THICK M20 GRADE USING 10MM MAX. SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.
 - (xii) WEAP HOLES - WEAP HOLES TO BE PROVIDED WHEREVER REQUIRED AS PER PARA 7.8 OF SUB STRUCTURE CODE SHALL BE OF 75/100 DIA PVC/DI PIPE STAGGERED AT 1000 C/C ABOVE LOW WATER LEVEL IN ABUTMENT WALL & RETURN WALL.
 - (xiii) LOADING STANDARD - 25 T.2008.
 - (xiv) RETAINING WALL & RETURN WALL AS PER DESIGN.
 - (xv) GRADE OF STEEL FOR RCC IS TO BE 500 CONFORMING TO IS 1786-2008.

- MODUS OPERANDI:**
- BETWEEN TRAIN TRACKS:**
1. EXCAVATE THE EARTH TO REQUIRED DEPTH AND PORTION INCLUDING DISMANTLING OF GUIDE BIND.
 2. INSTALL THE TEMPORARY ENGINEERING INDICATORS AT THE APPROACHES AS PER THE SKETCH.
 3. CAST THE PILE SLAB AS PER DESIGN. 10% HALLI. OUTSIDE CURE PROPERLY & KEEP READY FOR LAYING.
 4. IMPOSE A SPEED RESTRICTION OF NON-TOP 30 MPH AS STIPULATED IN THE RFP/M.
 5. CONTRACT FOUNDATION PILES & PILE CAPS & CURE PROPERLY. KEEP READY FOR LAYING.
 6. CONTRACT THE SUBSTRUCTURE & ABUTMENTS AND CURE PROPERLY.
 7. PLACE THE PRECAST PSC SLAB OVER THE BED BLOCK & BALAST RETAINERS IN POSITION & RESTORE THE NORMAL SPEED IN EX-LINE AFTER ATTAINING THE REQUIRED.
 8. COMPLETE THE REMAINING WORKS IN ALL RESPECTS WITHOUT IMPAIRING TRAIN TRAFFIC & RESTORE THE NORMAL SPEED IN EX-LINE AFTER ATTAINING THE REQUIRED.
- SPECIAL SAFETY NOTES:**
1. FOR ANY ONE MODIFICATION, PRIOR APPROVALS OF SECTIONING TO BE TAKEN FROM TRO AND THEN TO BE MODIFIED SUITABLY.
 2. DURING THE EARTH WORKS IT SHOULD BE ENSURED THAT NO FOUNDATION OF ANY ONE STRUCTURE IS EXPOSING. IN CASE OF ANY ONE STRUCTURE INFERRING THE TRACK ALIGNMENT SAME SHOULD BE RELOCATED WITH THE APPROVAL OF THIS OFFICE.
 3. ONE CONTACT AND CATENARY WIRES DURING THE CRANE OPERATION FOR INSERTION AND REMOVAL TEMPORARY GIRDER SHOULD NOT BE DISTURBED/DAMAGED.
 4. ONE MAST SHOULD BE AT LEAST 10M AWAY FROM BRIDGE ABUTMENT IF NOT AVAILABLE SUITABLE MODIFICATION TO BE DONE BY KRIDE.
 5. ANCHORING OF ONE TO BE AVOIDED IN THE UPCOMING LINES ON THE MAST NEAR THE BRIDGE ABUTMENT.

- SPECIAL NOTES FOR 25 KV A.C. TRACTION SYSTEM:**
1. NECESSARY PROTECTIVE ARRANGEMENT SHALL BE MADE BY KRIDE IN CONSULTATION WITH ELECTRICAL TRO/BRANCHES TO AVOID ANY ELECTRICAL INDUCTION DURING EXECUTION OF WORK.
 2. DURING ANY WORK INVOLVING LESS THAN 2.0M WORKING CLEARANCE FROM ONE OF THE WORK SHALL BE CARRIED OUT ON TRAINING BLOCK CONTAINING 01 SWINGING PERMISSION TO WORK FROM AUTHORIZED TRO BRANCH OFFICIALS.
 3. LAYING OF PSC SLAB TO BE DONE WITHOUT DISTURBING THE ONE.
 4. ONE TRACTION CONDUCTORS SHALL BE RE-PROTECTED TO GET MAXIMUM CONTACT WIRE HEIGHT WITH NORMAL ELECTRICAL CLEARANCE AFTER COMPLETION OF WORK BY OUTDRO.
 5. ALL THE PROFILING WORKS AND LAYING OF PSC SLAB SHALL BE DONE UNDER THE SUPERVISION OF SECURIFIED UNDER POWER BLOCK CONDITION.
- REFERENCE:**
1. PSC GIRDER AS PER DESIGN.
 2. RETAINING WALL & RETURN WALL AS PER DESIGN.
 3. FOUNDATION (PILE FOUNDATIONS) AS PER DESIGN.
 4. RETAINING WALL & RETURN WALL AS PER DESIGN.
 5. WEAP HOLES AS PER PARA 7.8 OF SUB-STRUCTURE CODE.

- GENERAL CONSULTANTS:**
- AECOM** | **EGIS-ACOM-WSP**
- RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED**
- KRIDE**
- GENERAL ARRANGEMENT DRAWING**
- BENGALURU SUBURBAN RAILWAY PROJECT (BSRP)**
- BETWEEN STATIONS HEELALIGE-RAJANUKUNTE SECTION OF BSRP C-4**
- NAME OF WORK**
- PROPOSED EXTENSION OF MAJOR BRIDGE NO.537 AS U-GIRDER OF SIZE OF 2 x 25 M AT (BSRP CH:28-476.307) ON UP-STREAM SIDE OF THE EXG. BRIDGE AS RCC SLAB SIZE OF 2 x 4.575 m WITH 1 x 24.40 m PSC TROUGH GIRDER AT IR CH:7-346 BETWEEN CHANNSANDRA AND YELAHANKA STATIONS. (BSRP-CORRIDOR 4).**
- SCALE: 1:100 (UNLESS SPECIFIED OTHERWISE)**

GC	KRIDE
FOR GC	FOR KRIDE

DRG.NO: _____