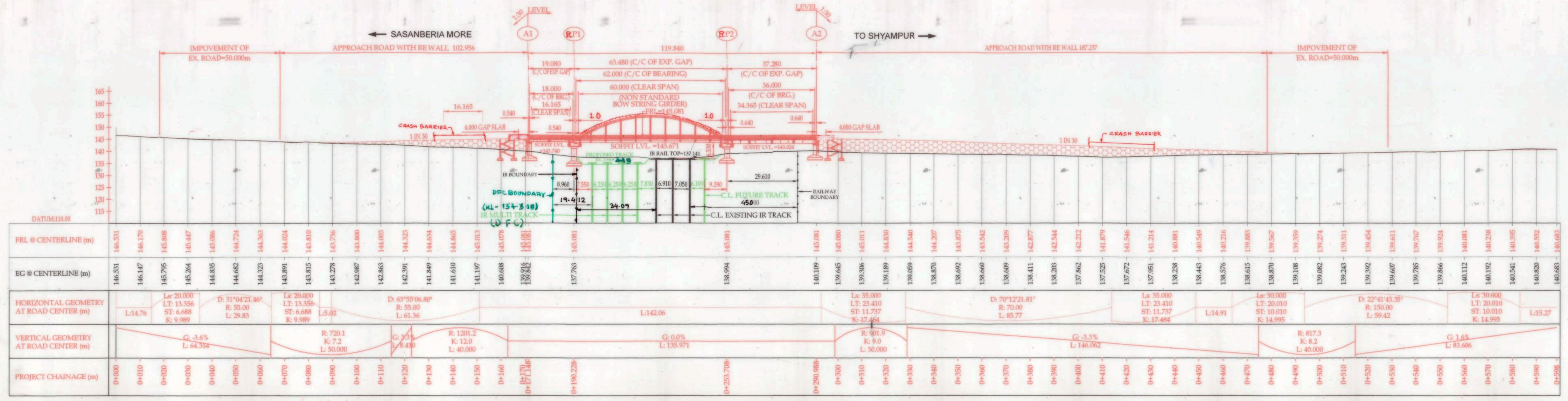
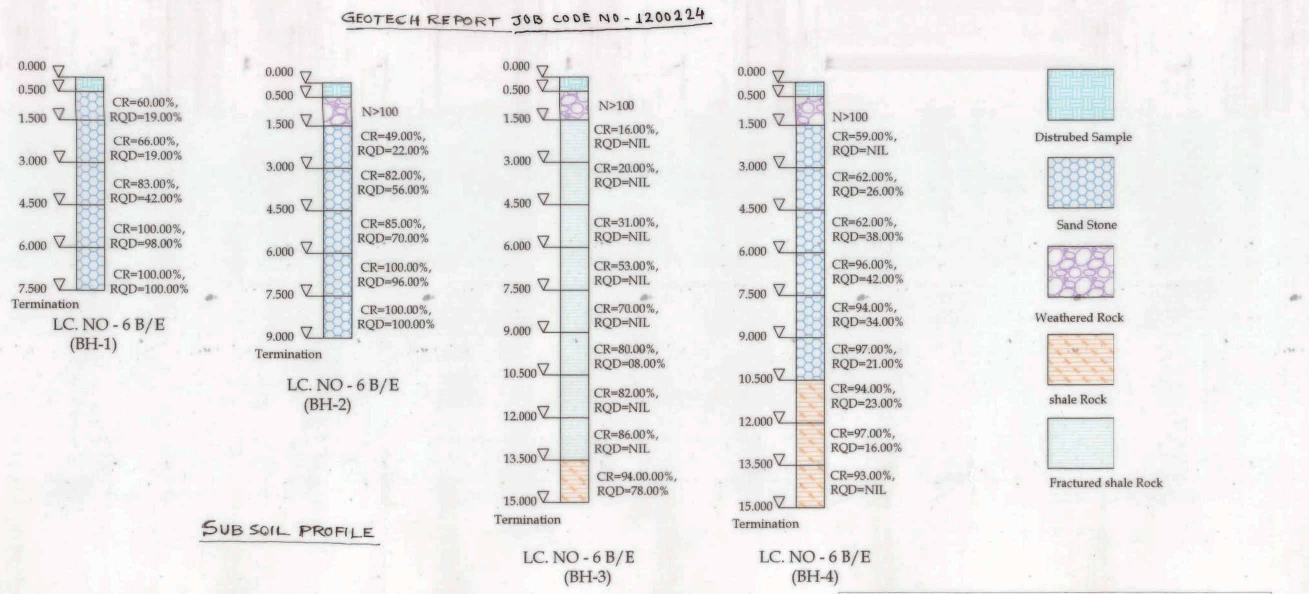
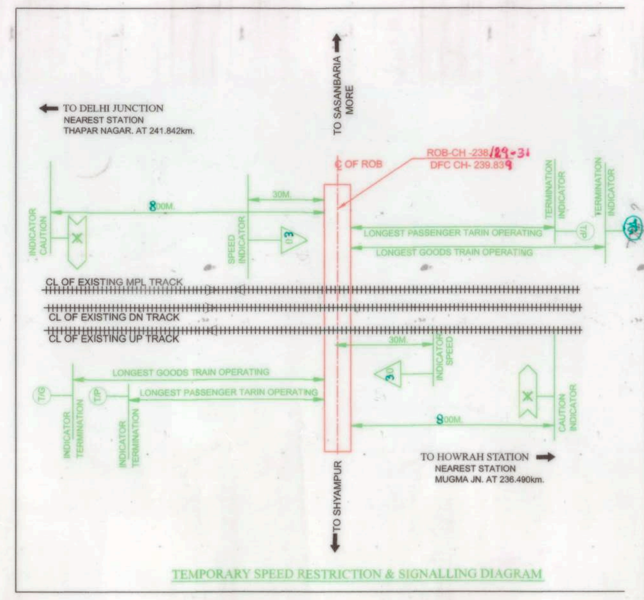
PCE'S SANCTION IS REQUIRED BEFORE EXECUTION OF WORK AS PER RB LETTER NO 2022/TRANSCELL/CIVIL/CRS DATED 21.06.2022



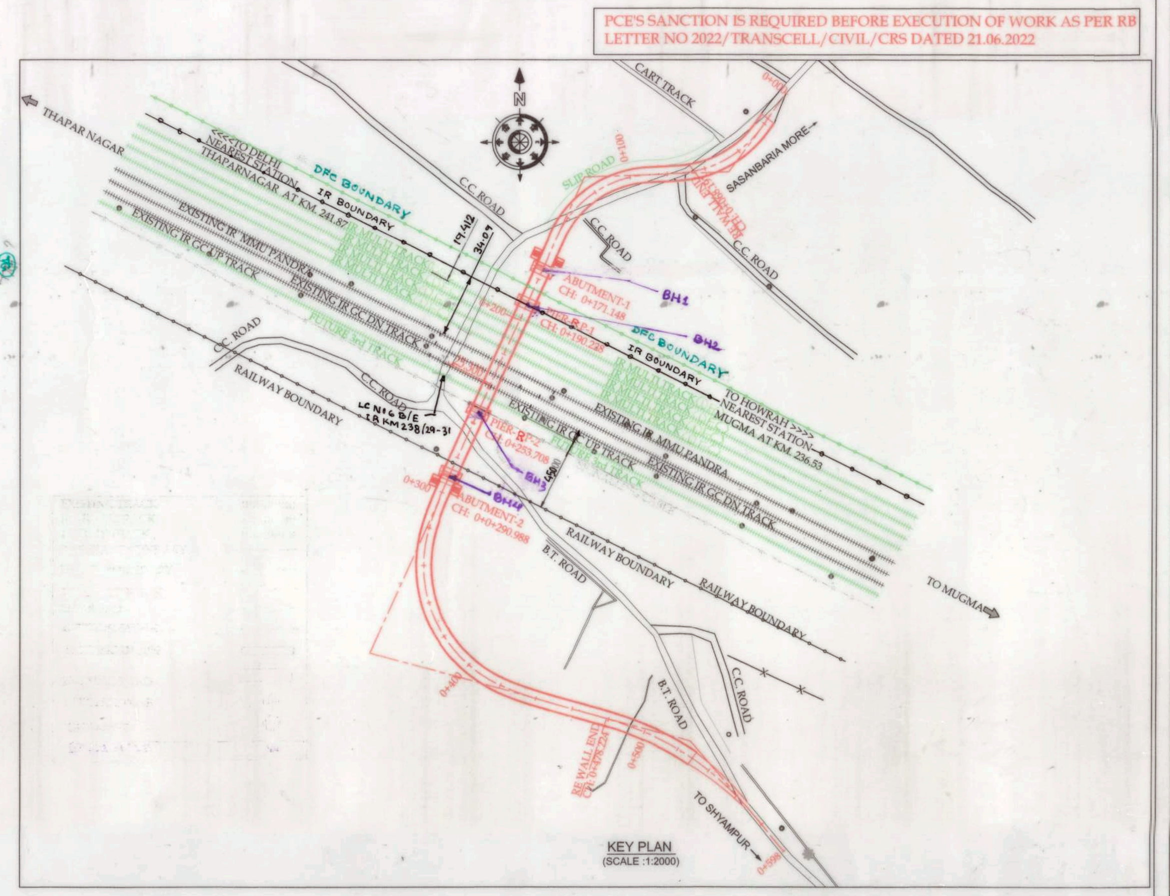
GEOTECH REPORT JOB CODE NO - 1200224



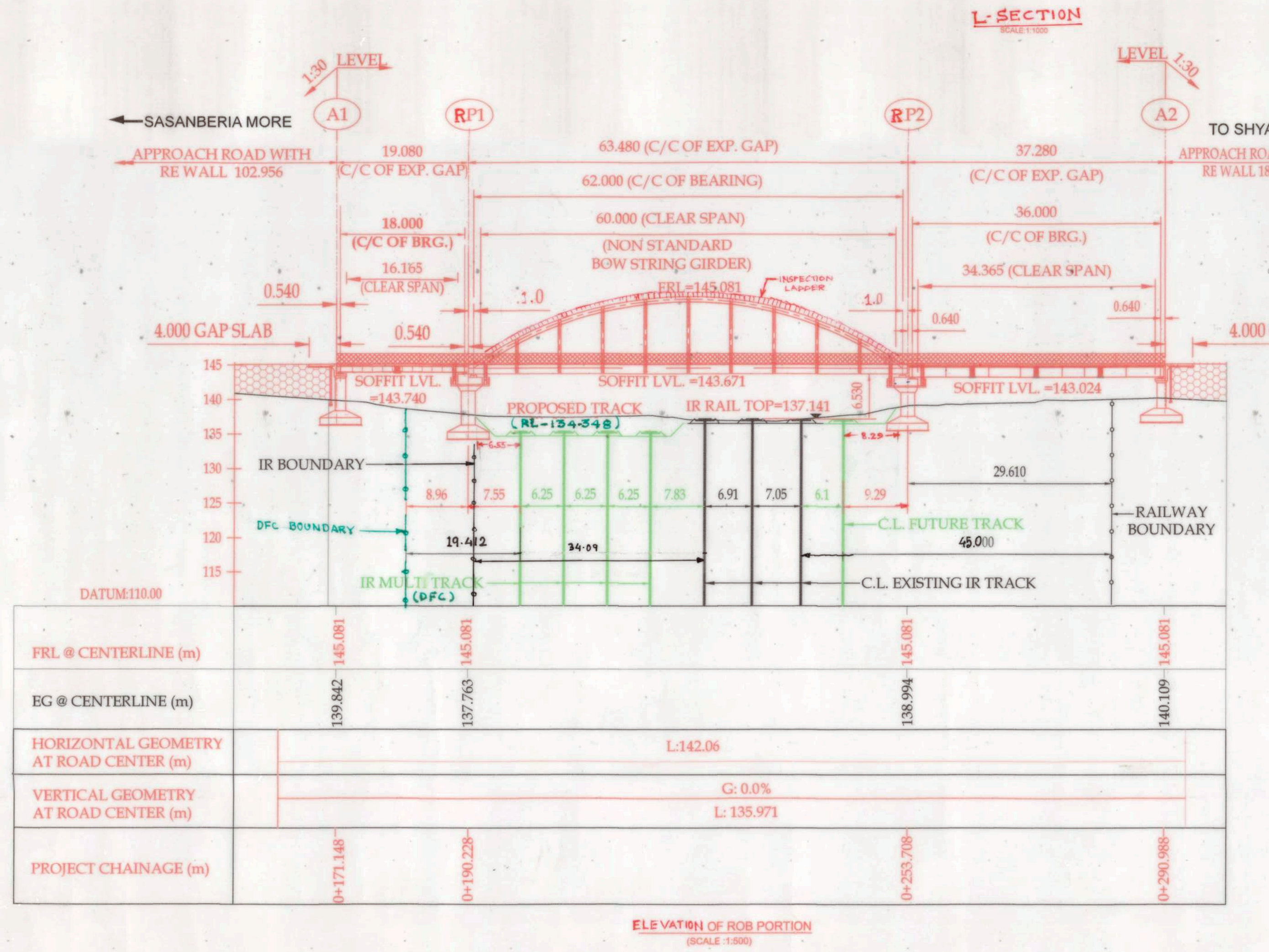
SUB SOIL PROFILE



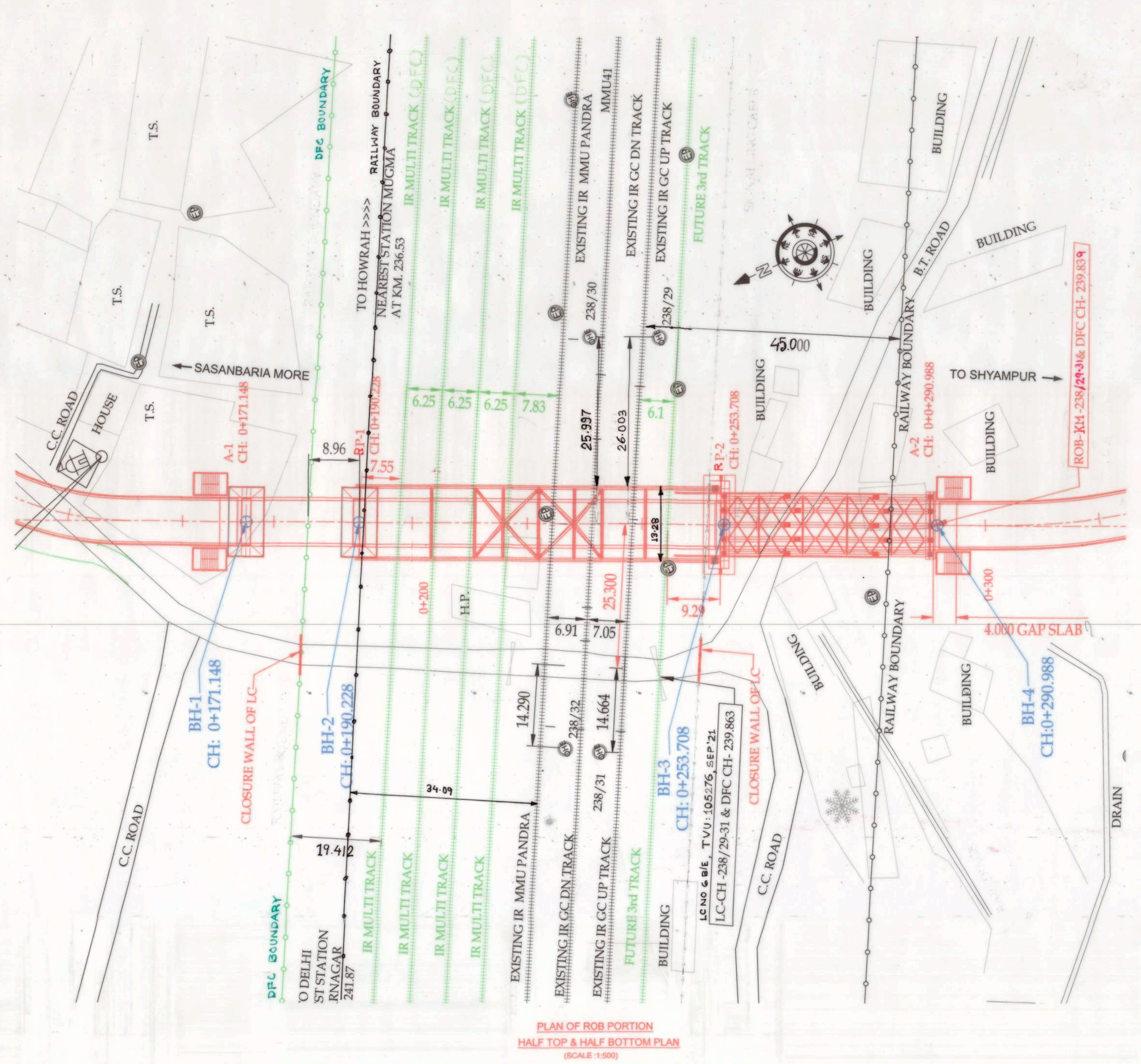
TEMPORARY SPEED RESTRICTION & SIGNALLING DIAGRAM



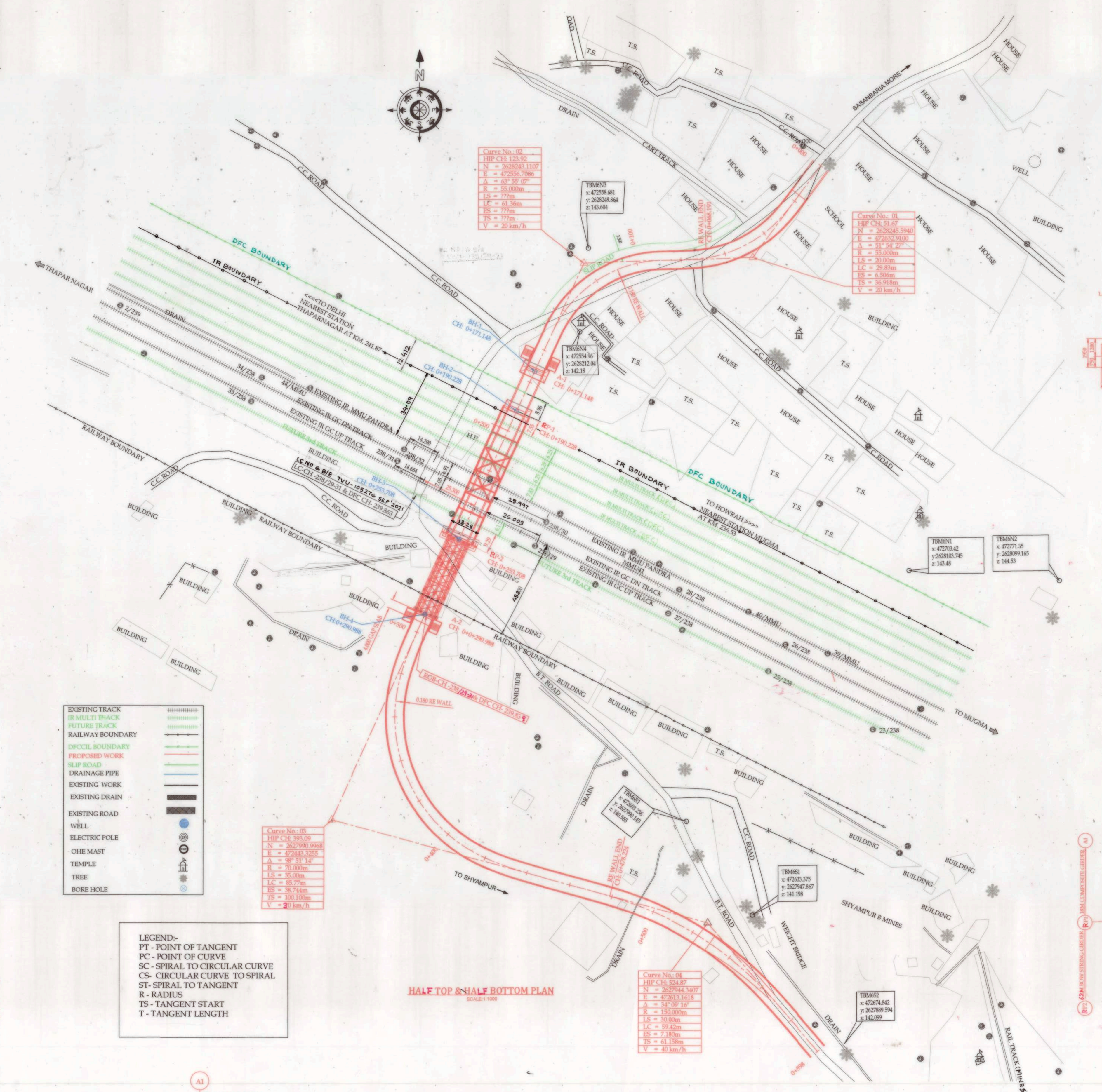
KEY PLAN
(SCALE 1:2000)



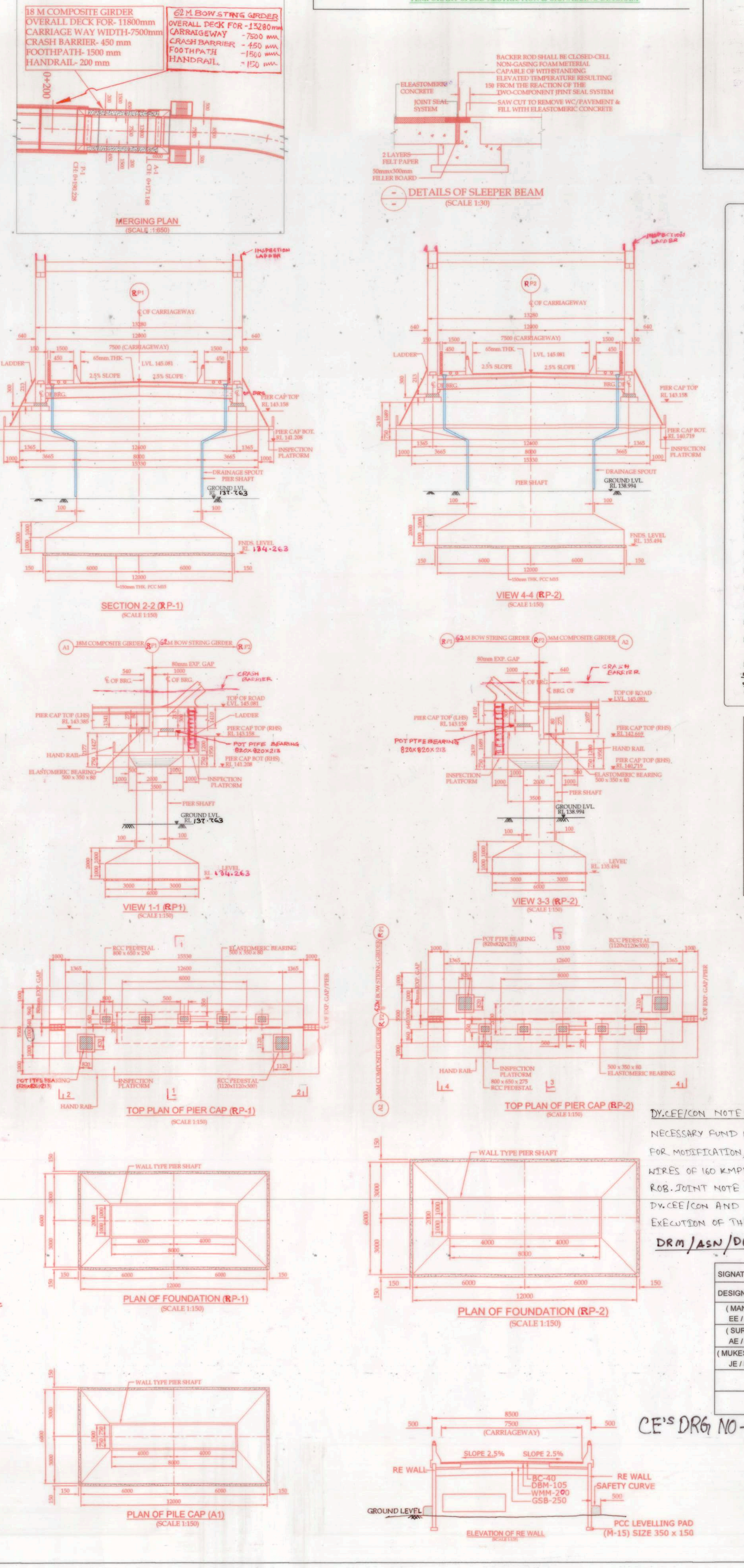
ELEVATION OF ROB PORTION
(SCALE 1:500)



PLAN OF ROB PORTION
HALF TOP & HALF BOTTOM PLAN
(SCALE 1:500)



HALF TOP & HALF BOTTOM PLAN



GENERAL NOTE

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED.
3. EXPOSURE CONDITION OF BRIDGE: MODERATE.
4. SEISMIC ZONE: III. TEMP GRADIENT RANGE:- MAX -46.3°& MIN:- 3.8°. BASIC WIND SPEED VALUE:- 39 m/s
5. BEARING SHALL BE PROVIDED AS PER RDSO REPORT BS-131 (NOV. 2021).
6. ALL THE DIMENSIONS AND LEVELS GIVEN IN THIS DRAWING, MUST BE RECONCILED AT SITE BEFORE EXECUTION OF THE WORK FOR FEASIBILITY.
7. ALL DIMENSIONS OF PROPOSED MEMBERS ARE TENTATIVE, IT WILL BE FINALIZED AFTER FINAL DESIGN CALCULATION.
8. STANDARD OF LOADING:AS PER IRC :6-2017.
   i. 2-LANE OF CLASS A
   ii. 1 LANE OF 70R
   iii. SPECIAL VEHICLE (SV)
   WITH CONGESTION FACTOR WHICHEVER GOVERN)
9. PROTECTIVE SCREEN SHALL BE PROVIDED OVER ROB AS PER STANDARD SPECIFICATION.
10. DRAINAGE ARRANGEMENT IN RAILWAY PORTION SHALL BE PROVIDED AVOIDING TRACK BELOW AS PER STANDARD DRAWING.
11. INSPECTION PLATFORM AND INSPECTION LADDER/STEPS SHALL BE PROVIDED TO ENSURE PROPER INSPECTION ACCESSIBILITY OF ROB AS PER RDSO GUIDLINE BS-113-2014
12. STANDARD CRASH BARRIER SHOULD BE PROVIDED FROM TAKE OFF POINT OF FOB ALL ALONG THE LENGTH AS PER LATEST PROVISION OF IRC-5
13. MAXIMUM SAFE BEARING CAPACITY AT THE FOUNDING LEVEL CONSIDERED AS PER GEOTECHNICAL REPORT. IF IT IS LESS THAN THE BASE PRESSURE, SOIL IMPROVEMENT TECHNIQUES TO BE EMPLOYED TO BRING THE BEARING CAPACITY EQUAL TO OR MORE THAN THE BASE PRESSURE. PLATE LOAD TEST TO BE DONE.
14. TYPE OF ROAD - VILLAGE ROAD.
15. QUALITY CONTROL AND SAFETY PRECAUTIONS AND MEASURES TO BE OBSERVED DURING EXECUTION OF ROB.
16. LATEST SOD PROVISION SHOULD BE TAKEN CARE BY FIELD UNIT BEFORE EXECUTION OF WORK.
17. METHODOLOGY OF WORK NEAR THE TRACK SHOLUD BE APPROVED BY THE COMPETENT AUTHORITY.
18. VERTICAL SLOPE OF GIRDER WILL BE DULY CONSIDERED IN DESIGN OF SUBSTRUCTURE AND BEARINGS.
19. NECESSARY PROVISION IS TO BE KEPT IN ESTIMATE FOR ELECTRICAL DEPT & S & T DEPT. FOR SHIFTING OF TELEGRAPH POST, SIGNAL CABLE, OHE MAST, LT/HT LINES WITH POLE ETC, IF REQUIRED.
20. EXISTING LEVEL CROSSING WILL BE CLOSED AFTER COMMISSIONING OF ROB.
21. FULL SCALE LOAD TESTING OF BRIDGE SUPER STRUCTURE SHALL BE DONE AS PER IRC-SP-51 TO ENSURE QUALITY WORK.
22. MIN. GRADE OF CONCRETE FOR DIFFERENT COMPONENTS OF ROB PORTION SHOULD BE AS PER DESIGN REQUIREMENT AND IRC CODAL PROVISIONS.
23. MINIMUM CEMENT CONTENT AND MAXIMUM W/C RATIO AS PER CLAUSE 14.3.2 OF IRC -112-2020.
24. REINFORCEMENT BARS SHALL BE H.Y.S.D STEEL OF GRADE FE-500/550 CONFORMS TO IS-1786:2008.
25. STRUCTURAL STEEL WILL BE OF IS:2062 E350 B0 (ZERO).
26. RAILWAY SUBSTRUCTURE SHALL BE CHECKED FOR ACCIDENTAL IMPACT LOAD AS PER PROVISION OF ACS NO. 50 DATED 06-12-2022 (CL. 2.16.4) OF IBS BRIDGE RULES 2014.
27. DETAILED DESIGN OF NON STANDARD (SUPER STRUCTURE & SUB-STRUCTURE) SHALL BE PREPARED AND PROOF CHECKED (DULY VETTED) BY ANY IIT AND GOT APPROVED BY COMPETENT AUTHORITY.
28. CONTROLLED CONCRETE WITH WEIGH BATCHING SHALL BE USED.
29. DURING EXECUTION OF WORK ALL SAFETY PRECAUTION AND MEASURES TO BE TAKEN AS PER GUIDELINES ISSUED BY RAILWAY BOARD VIDE LETTER NO. 97/CE/1/BRO/158 (POLICY) PT. II NEW DELHI DATED - 16.07.09, 27.10.09, 15.02.11 &09.07.12
30. THE PRECAUTIONS AT WORK SITE TO BE DONE AS PER PROVISION CONTAINED IN PARA 806 & 807 OF IRPWM.
31. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WORKS WITHOUT SPECIAL PRECAUTIONS AS PER THE RELEVANT BRIDGE CODES AND SUITABLE PROTECTION PAINTING IN APPROVED MAKE SHOULD BE USED TO PAINT THE UNDERSIDE OF CONCRETE ROB GIRDERS ALSO TO INSURE LONG LIFE.
32. THE PROVISION CONTAINED IN IS 1893/2002 & 13920/2016 MUST BE ADHERED TO.
33. NECESSARY TEMPORARY PROTECTION WORKS FOR SAFETY OF RUNNING TRACK IN CONNECTION WITH EXECUTION OF FOUNDATION SHALL BE MADE BEFORE EXECUTION OF THE WORK.
34. THE GUARD RAIL SHOULD BE PROVIDED IN THE TRACK NEAR ISOLATED PIER/ ABUTMENT OF ROB AS PER PROVISIONS CONTAINED IN PARA 228 OF IRPWM-2020
35. DURING EXECUTION OF THE WORK, ENGINEERS WILL BE RESPONSIBLE TO ENSURE, SAFETY OF EXISTING STRUCTURE TAKING INTO CONSIDERATION OF SITE AND METHODS OF EXECUTION.
36. FALSE WORK FOR CONCRETE STRUCTURE TO BE DONE AS PER IS-14687.
37. SEPARATE DRAWING SHOULD BE PREPARED FOR ERECTION SCHEME OF GIRDER AND GOT APPROVED BY THE COMPETENT AUTHORITIES.
38. GAP JOINT, CONCRETE, STEEL, STRUCTURE, AND BEARING TO BE PREPARED AND GOT IT APPROVED BY COMPETENT AUTHORITY BEFORE EXECUTION OF WORKS.
39. SUITABLE UTILITY DUCTS IF REQUIRED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
40. WORK WILL BE DONE UNDER THE SUPERVISION OF/AFTER INFORMATION TO RAILWAY ENGINEERS WITHIN THE RAILWAY LAND.
41. ALL WORKSHOP FABRICATION SHALL BE DONE USING SAW (SUBMERGED ARC WELDING) PROCESS ONLY.
42. FOR FABRICATION, WORKMANSHIP, INSPECTION & TESTING, PROTECTION AGAINST CORROSION ETC. RELEVANT PROVISION OF IRC-24:2010 SHALL BE FOLLOWED.
43. STRIP SEAL TYPE EXPANSION JOINTS SHALL BE PROVIDED AS PER LATEST MORTH REQUIREMENTS. CONTRACTOR WILL FURNISH DESIGN/DRAWING OF EXPANSION JOINT, FROM FIRMS APPROVED BY MOST AT VARIOUS RELEVANT AMBIENT TEMPERATURES TO SUIT SITE CONDITIONS WITH THE APPROVAL OF ENGINEER IN CHARGE.
44. RE WALL SHALL BE PROVIDED AS PER LATEST MORTH GUIDELINES. CONTRACTOR ENGAGED FOR EXECUTION SHALL FURNISH DESIGN/DRAWING FROM REPUTED FIRM FOR APPROVAL OF COMPETENT AUTHORITY.
45. ROAD AUTHORITY SHALL ENSURE THAT BEFORE LAYING OF ANY NEW WEARING COAT ON APPROACH ROAD IN FUTURE EXISTING WEARING COAT SHOULD BE COMPLETELY REMOVED.
46. NO WORK SHOULD BE TAKEN UP IN HAND TILL PROOF CHECKED DESIGN AND DRAWING WITHIN RAILWAY PORTION ARE APPROVED BY COMPETENT AUTHORITY.
47. NOC FOR CLOSING OF L/C GATE WILL BE OBTAINED FROM LOCAL DISTRICT MAGISTRATE.
48. RDSO PAINTING SCHEME FOR THE ROB SHALL BE ADOPTED.
49. MANUAL TRENCHING WILL BE DONE AS PER REQUIREMENT OF S&T DEPARTMENT TO PROTECT VITAL SAFETY CABLES.
50. PROTECTION OF S&T ASSETS FROM DAMAGE WILL BE INSURED DURING EXECUTION OF THIS WORK OR ELSE PENALTY WILL BE IMPOSED ON EXECUTING AGENCY.
51. TEMPORARY DIVERSION ROAD IN LIEU OF THE LEVEL CROSSING SHALL BE PROVIDED IN CONSULTATION WITH RAILWAY AUTHORITY BEFORE EXECUTION OF WORK IF REQUIRED.
52. STANDARD MAINTENANCE AGREEMENT SHOULD BE EXECUTED WITH RAILWAY AND STATE GOVT. WITHIN ONE MONTH AFTER APPROVAL OF GAD.
53. PROVISION FOR PROVIDING ELECTRICAL POLE ON BOTH SIDE OF ROB SHOULD BE KEPT SUITABLE FOR ELECTRIC POLE WITH HOLDING DOWN BOLT.
54. JOINT SURVEY WILL BE DONE WITH S&T OFFICIALS BEFORE EXECUTION OF WORK. REPLACEMENT OF DISMANTLED/SHIFTING OF S&T GEARS/CABLES ETC. WILL BE KEPT IN THE ESTIMATE. JPO OF DIGGING WORK IN VICINITY OF S&T CABLES SHALL BE FOLLOWED.
55. ANY CHANGE IN MODE OF ACTION, A PRIOR INFORMATION TO BE CONVEYED TO CONCERNED DEPARTMENT.
56. ELECTRICAL, SEWERAGE LINE, WATER SUPPLY LINE ETC. UTILITIES IN RAILWAY PORTION AND ON APPROACHES ARE REQUIRED TO BE SHIFTED FOR PREVENTION OF DISRUPTION OF THE SERVICE.
57. CLEAR COVER OF REINFORCEMENT SHOULD BE AS PER IRC-112-2020.
58. TYPE AND DEPTH OF FOUNDATION SHOWN IS TENTATIVE.
59. RDSO STANDARD DRAWING FOR SV LOADING OR NON SV LOADING WITH CONGESTION FACTOR WITH CARRIAGEWAY 7.5M IS NOT AVAILABLE, HENCE, NON STANDARD SUPERSTRUCTURE IS PROPOSED.

BREAK UP OF GIRDER FROM SOFFIT TO FRL OF 18M SPAN	BREAK UP OF GIRDER FROM SOFFIT TO FRL OF 36M SPAN	BREAK UP OF GIRDER FROM SOFFIT TO FRL OF 62M SPAN	VERTICAL CLEARANCE =6530mm
WEARING COURSE- 65 MM DECK SLAB- 250 TOP FLANGE- 36 WEB- 784 BOTTOM FLANGE- 45 SPLICE THICKNESS =36mm CAMBER 2.5% = 125mm TOTAL HEIGHT= 1341	WEARING COURSE- 65 MM DECK SLAB- 250 TOP FLANGE- 36 WEB- 1500 BOTTOM FLANGE-45 SPLICE THICKNESS =36mm CAMBER 2.5% = 125mm TOTAL HEIGHT= 2057	WEARING COURSE- 65 MM DECK SLAB- 200 CONCRETE SHUTTERING -70 ISMB-600 CAMBER -150 PLATE-I-50 (125+50+100=275) TOTAL HEIGHT= 1410MM	SPLICE THICKNESS =36mm CAMBER 2.5% = 125mm

AUTHORITY OF WORK:- PINK BOOK ITEM NO - 129 - 2023 - 24

DESIGNATION AND NAME	SIGNATURE	DESIGNATION AND NAME	SIGNATURE	DESIGNATION AND NAME	SIGNATURE
(PANKAJ KUMAR) CBE / ER / HQ		(C.N.SINGH) DRM / ASN		(A. K. TIWARI) GM/TECH&GBE / DFCC/CO	
(SUDHIR ARORA) Dy. CE / BR/ER		(M.K MEENA) CPM / GSU / ASN		(AJAY KUMAR) CGM / DFCCIL / KKK	
(M. SINHA) SSE/DRG/ER		(RAJEEV RANJAN) Sr. DEN / Co-ord / ASN		(SOUVIK SENGUPTA) G.M / CIVIL / DFCC / KKK	
SIGNATURE OF H.Q. OFFICIAL		(RAJNISH KUMAR) SR. DEE / TRD / ASN		(ARUNAVA ROY) Dy. CPM / ELECT / KKK	
(ALIND SHEKHAR) DY/CE / CON / ASN		(SHIV PRAKASH YADAV) SR. DSTE / ASN		(S.K. MUKHERJEE) Dy. PM / C / II / DFCC / KKK	
(SANKAR ROY) DY/CEE / CON / ASN		(SHASHI BHUSAN SINGH) SR. DOM / ASN		(RAJESH AGARWAL) Dy. CPM / C / DFCC / KKK	
		(AJAY KUMAR) SR. DEE / G / ASN		(KAHLID FAISAL) Dy. PM / C / DFCC / KKK	
		(VIKASH KUMAR) Dy. CPM / ENGG / GSU / ASN		(P.S. NAIDU) APM / C / II / DFCC / KKK	
		(MD. ARSAD NIZAM) DEN / I / ASN		(ABHISHEK MAZUMDAR) CAPD / DRG / KKK	
SIGNATURE OF CONSTRUCTION OFFICIAL		SIGNATURE OF DIV. OFFICIAL		SIGNATURE OF DFCCIL OFFICIAL	

DY.CEE/CON NOTE:-

NECESSARY FUND WILL BE KEPT IN THE ESTIMATE FOR MODIFICATION, SLEWING OF AEC, FEEDER WIRES OF 160 KMPH OHE FOR EXECUTION OF ROB. JOINT NOTE WILL BE PREPARED WITH DY.CEE/CON AND TRD OFFICIAL BEFORE EXECUTION OF THE ROB WORK.

DRM/ASN/DRG. NO. - 121 - 2024

1:40

SIGNATURE OF STATE GOVT. AUTHORITY	
DESIGNATION AND NAME	SIGNATURE
(MANOJ KUMAR) EE / RWD / DHN	
(SURYU RAVIDAS) AE / RWD / DHN	
(MUKESH KUMAR MANDAL) JE / RWD / DHN	

CE'S DRG NO - B - 209 - 2024

EASTERN RAILWAY

ASANSOL DIVISION

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A Govt. of India Enterprise), Ministry of Railway,

डेडिकेटेड फ्रेट कॉरिडोर

NAME OF WORK	CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR CONSTRUCTION OF ROBs IN CONNECTION WITH EASTERN DEDICATED FREIGHT CORRIDOR CORPORATION BETWEEN ANDAL TO PRADHANKHANTA OF ASANSOL DIVISION IN THE STATE OF WEST BENGAL & JHARKHAND
TITLE :	CONSTRUCTION OF PROPOSED ROB AT IR KM 238/29-31 (CH: 239.839) AND IT APPROACHES HAVING EFFECTIVE SPAN 1x18.0m C.G. + 1x62.0m B.S.G.+1x36.0m C.G. IN LIEU OF LC GATE NO- 6 /B/E AT IR Km. 238/29-31 (CH: 239.863) BETWEEN STATION MUGMA AND THAPARNAGAR ON ANDAL SECTION OF EASTERN RAILWAY UNDER ASANSOL DIVISION.
DRG. NO.	DFCC/KKK/GAD/ROB/6/B/E
DRG.	COMBINED GENERAL ARRANGEMENT DRAWING
SCALE = AS SHOWN	SHEET : 1 OF 1
CONSULTANT:	SPARSH ENGINEERING COMPANY PRIVATE LIMITED H-55, Harmu Housing Colony, Near Nigam Park, Ranchi, Jharkhand - 834 002, PH- 0651-2340659

DRAWN BY	JAVED
CHECKED BY	SUDHIR KUMAR
DATE OF	MARCH, 2024

Id - 1169