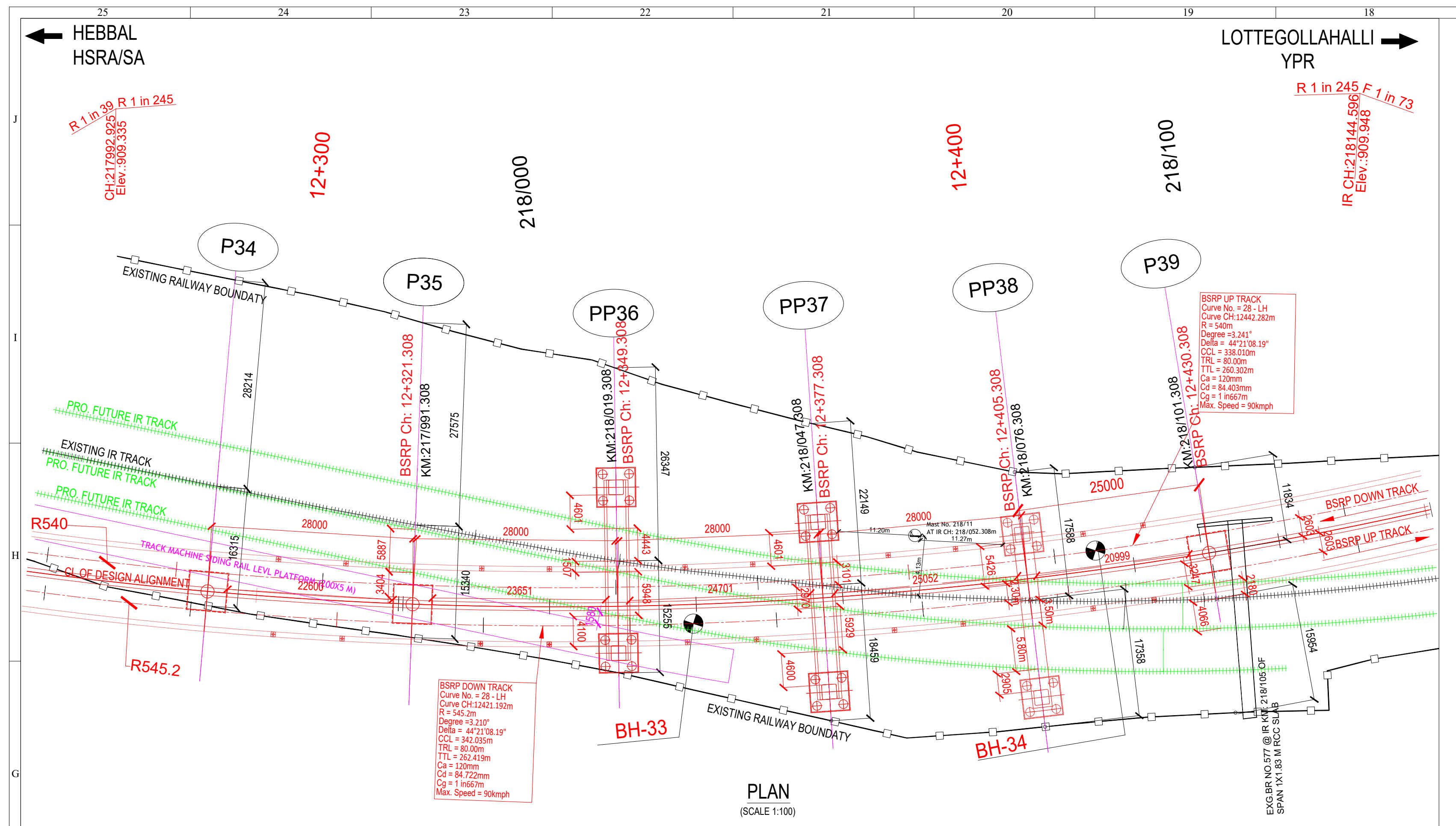
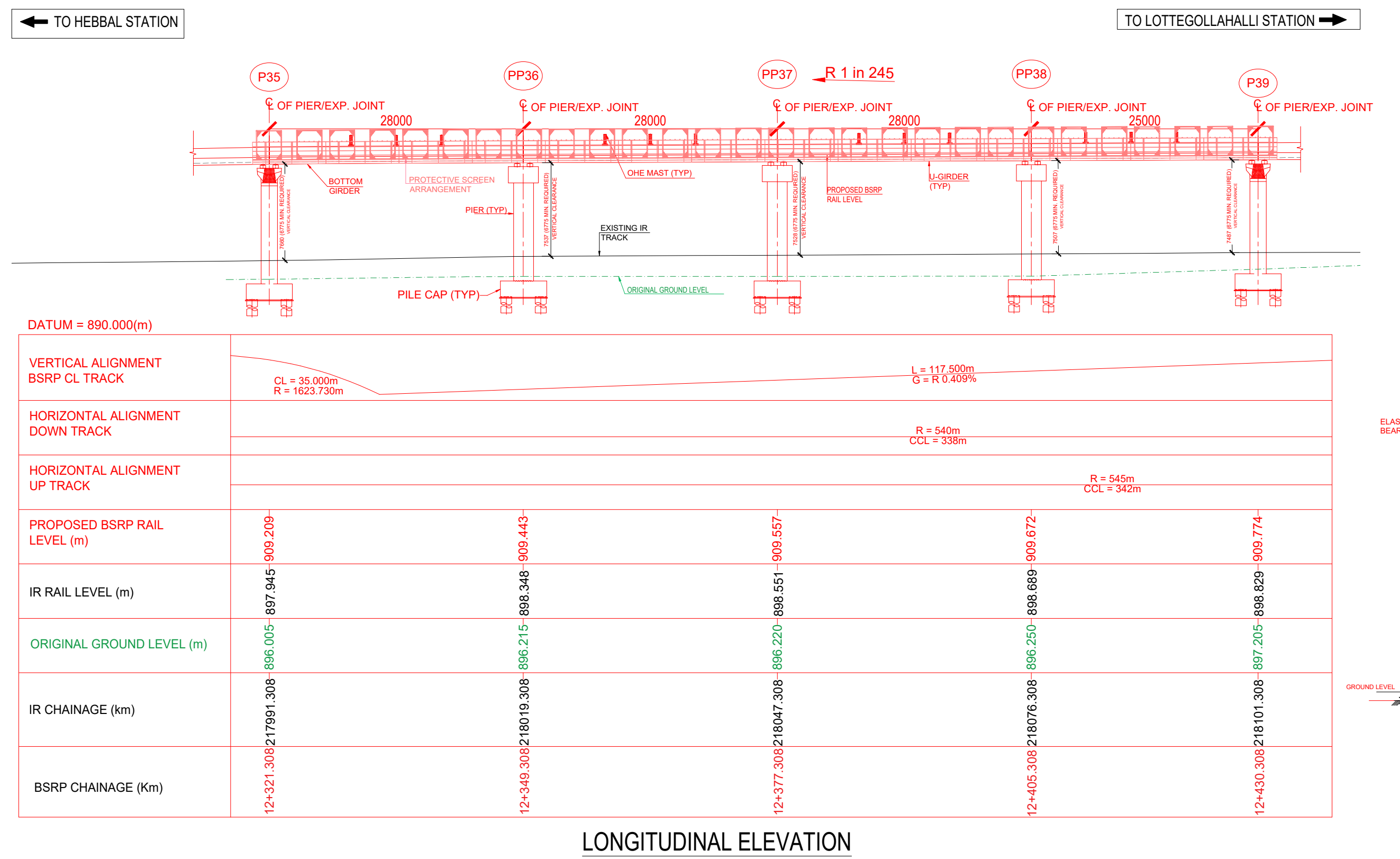

HEBBAL
HSRA/SA
LOTTEGOLLAHALLI
YPR
R 1 in 245 F 1 in 73
12+300
218/000
12+400
218/100
P34
P35
PP36
PP37
PP38
P39
EXISTING RAILWAY BOUNDATY
EXISTING IR TRACK
PRO. FUTURE IR TRACK
R540
R545.2
BH-33
BH-34
BSRP DOWN TRACK
BSRP UP TRACK
28000
25000

PLAN
(SCALE 1:100)

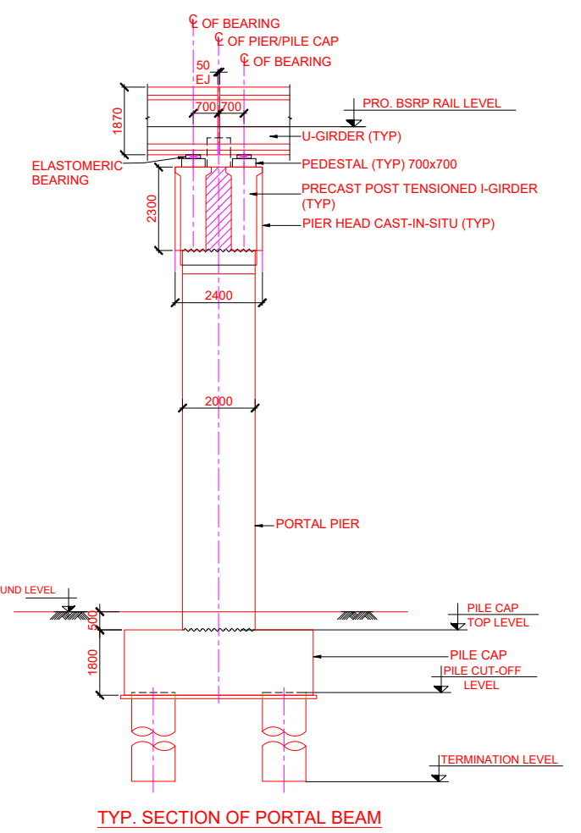

TO HEBBAL STATION
TO LOTTEGOLLAHALLI STATION
P35
PP36
PP37
PP38
P39
R 1 in 245
℄ OF PIER/EXP. JOINT
28000
25000
PILE CAP (TYP)
DATUM = 890.000(m)
VERTICAL ALIGNMENT BSRP CL TRACK
HORIZONTAL ALIGNMENT DOWN TRACK
HORIZONTAL ALIGNMENT UP TRACK
PROPOSED BSRP RAIL LEVEL (m)
IR RAIL LEVEL (m)
ORIGINAL GROUND LEVEL (m)
IR CHAINAGE (km)
BSRP CHAINAGE (Km)

LONGITUDINAL ELEVATION
(SCALE - VER : 1:62 & HORIZ - 1:100)

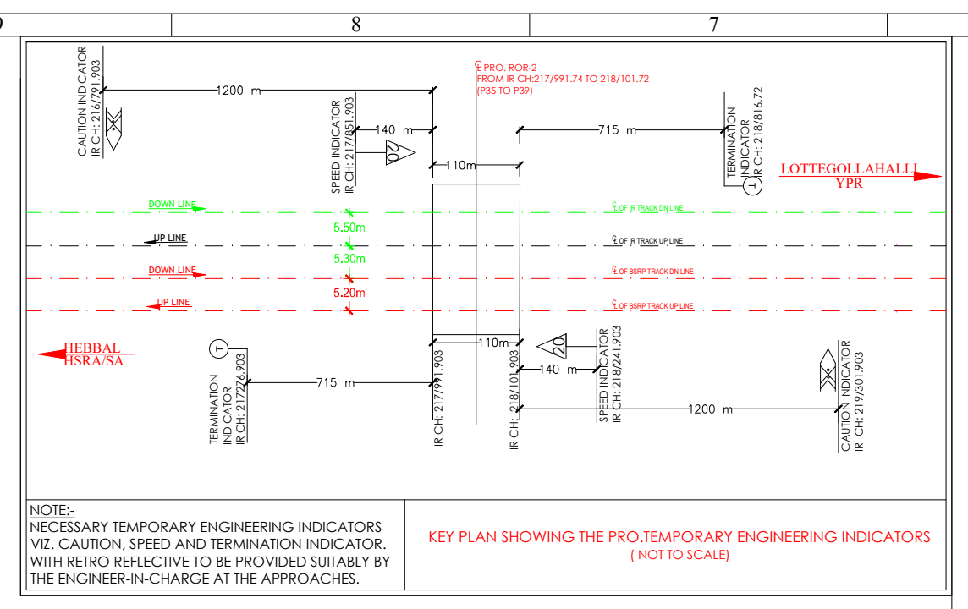
ABBREVIATIONS :-		
℄	--	CENTER LINE
TYP	-	TYPICAL
THK.	-	THICKNESS
BR	-	BRIDGE
SQ	-	SQUARE DIMENSION
DN	-	DOWN
PRO.	-	PROPOSED
EXG.	-	EXISTING
BH	-	BORE HOLE

PILE CAPACITY DETAILS:

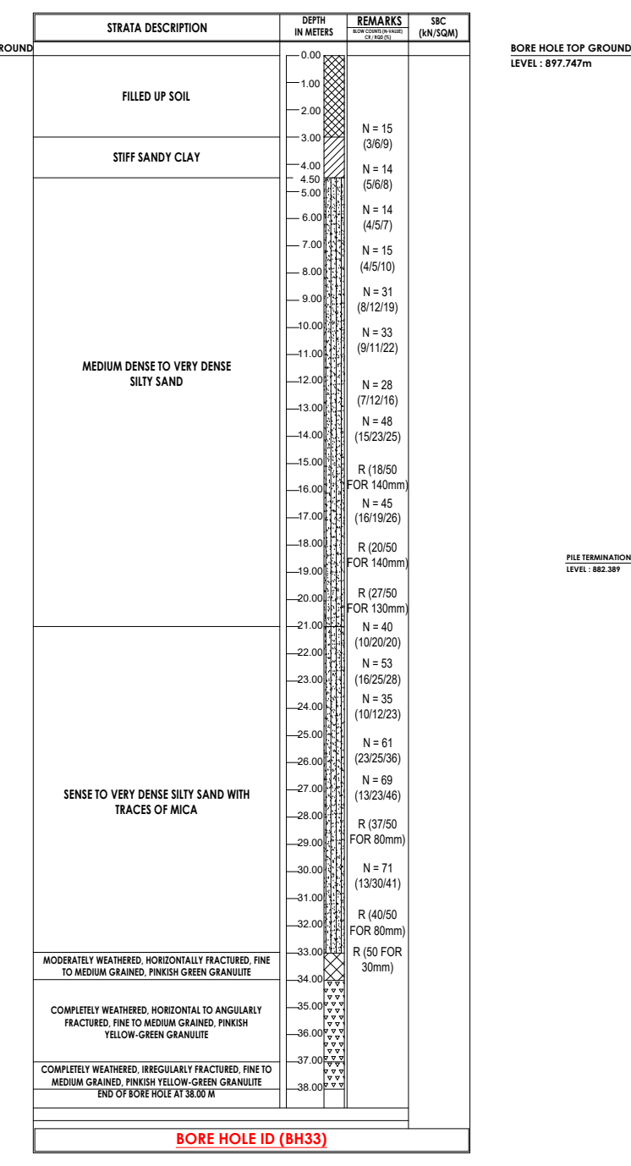
PORTAL PIERS	VERTICAL (TONNES)	HORIZONTAL (TONNES)
PP36	976	97
PP37	976	97
PP38	976	97


℄ OF BEARING
℄ OF PIER/PILE CAP
℄ OF BEARING
50 EJ
700 700
PRO. BSRP RAIL LEVEL
PORTAL PIER
PILE CAP

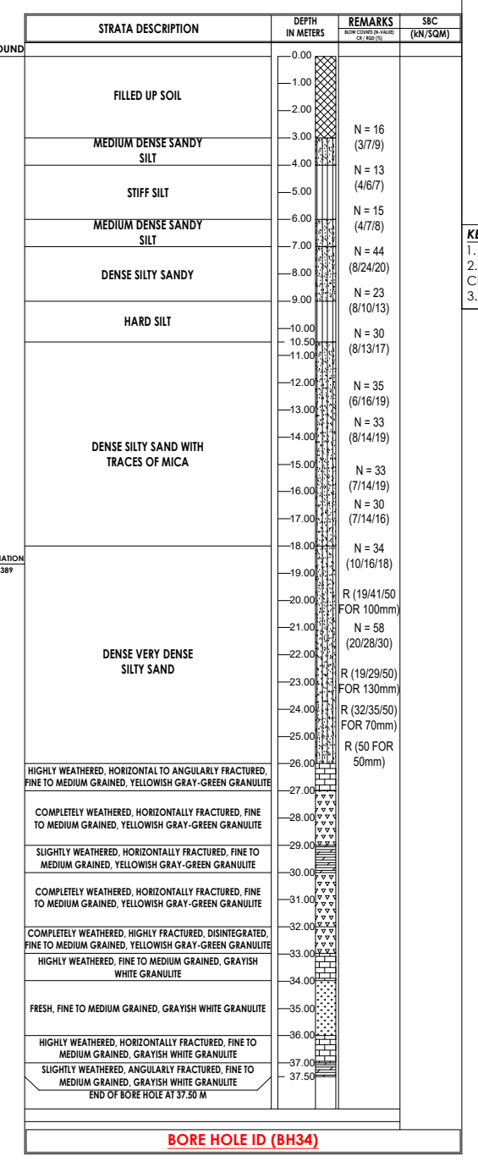
TYP. SECTION OF PORTAL BEAM


LOTTEGOLLAHALLI

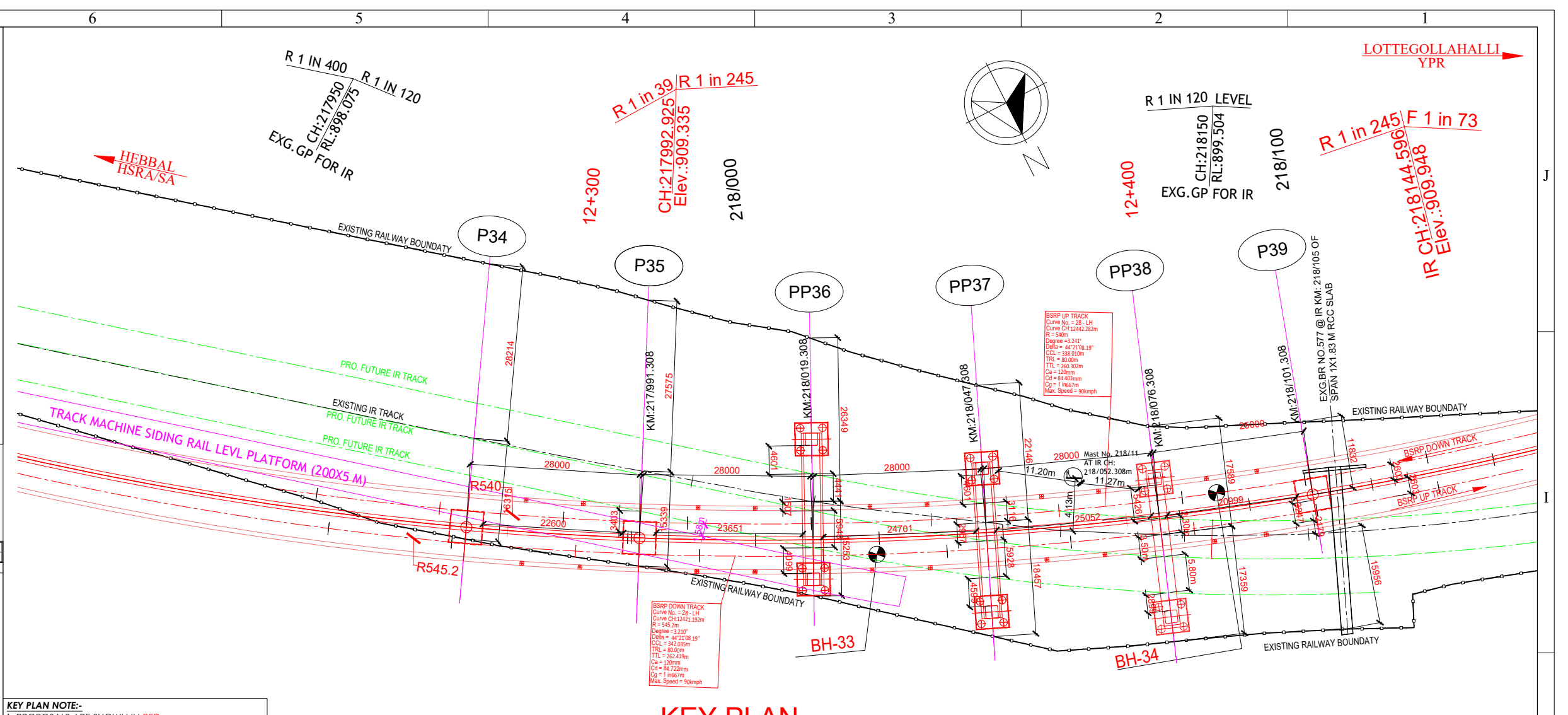
KEY PLAN SHOWING THE PRO.TEMPORARY ENGINEERING INDICATORS


BORE HOLE TOP GROUND LEVEL : 897.190m

BORE HOLE ID (BH33)

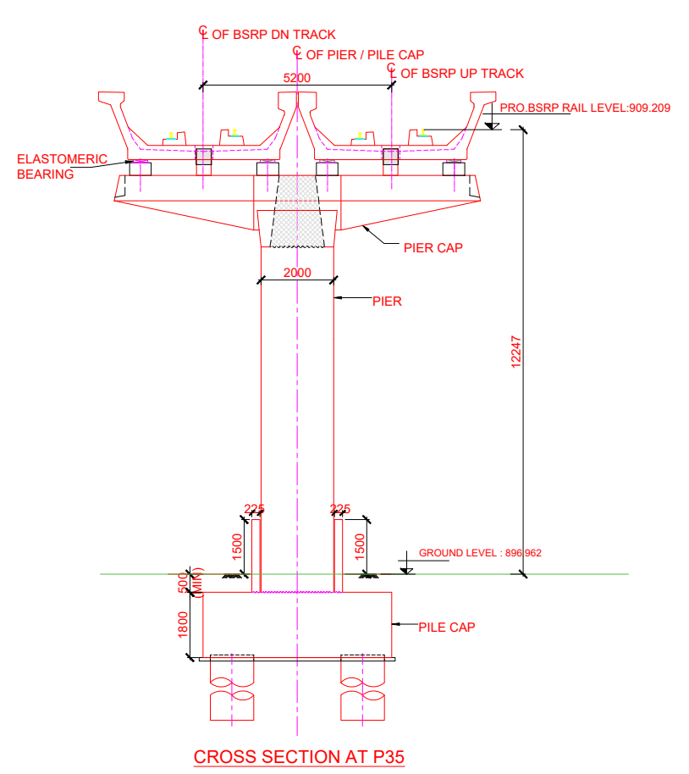

COMPLETELY WEATHERED, HORIZONTALLY FRACTURED, FINE TO MEDIUM GRAINED, YELLOWISH GRAY-GREEN GRANULITE
COMPLETELY WEATHERED, HIGHLY FRACTURED, DISINTEGRATED, FINE TO MEDIUM GRAINED, YELLOWISH GRAY-GREEN GRANULITE
HIGHLY WEATHERED, FINE TO MEDIUM GRAINED, GRAYISH WHITE GRANULITE
FRESH, FINE TO MEDIUM GRAINED, GRAYISH WHITE GRANULITE
HIGHLY WEATHERED, HORIZONTALLY FRACTURED, FINE TO MEDIUM GRAINED, GRAYISH WHITE GRANULITE
SLIGHTLY WEATHERED, ANGULARLY FRACTURED, FINE TO MEDIUM GRAINED, GRAYISH WHITE GRANULITE
END OF BORE HOLE AT 37.50 M
31.00
32.00
33.00
34.00
35.00
36.00
37.00
37.50

BORE HOLE ID (BH34)

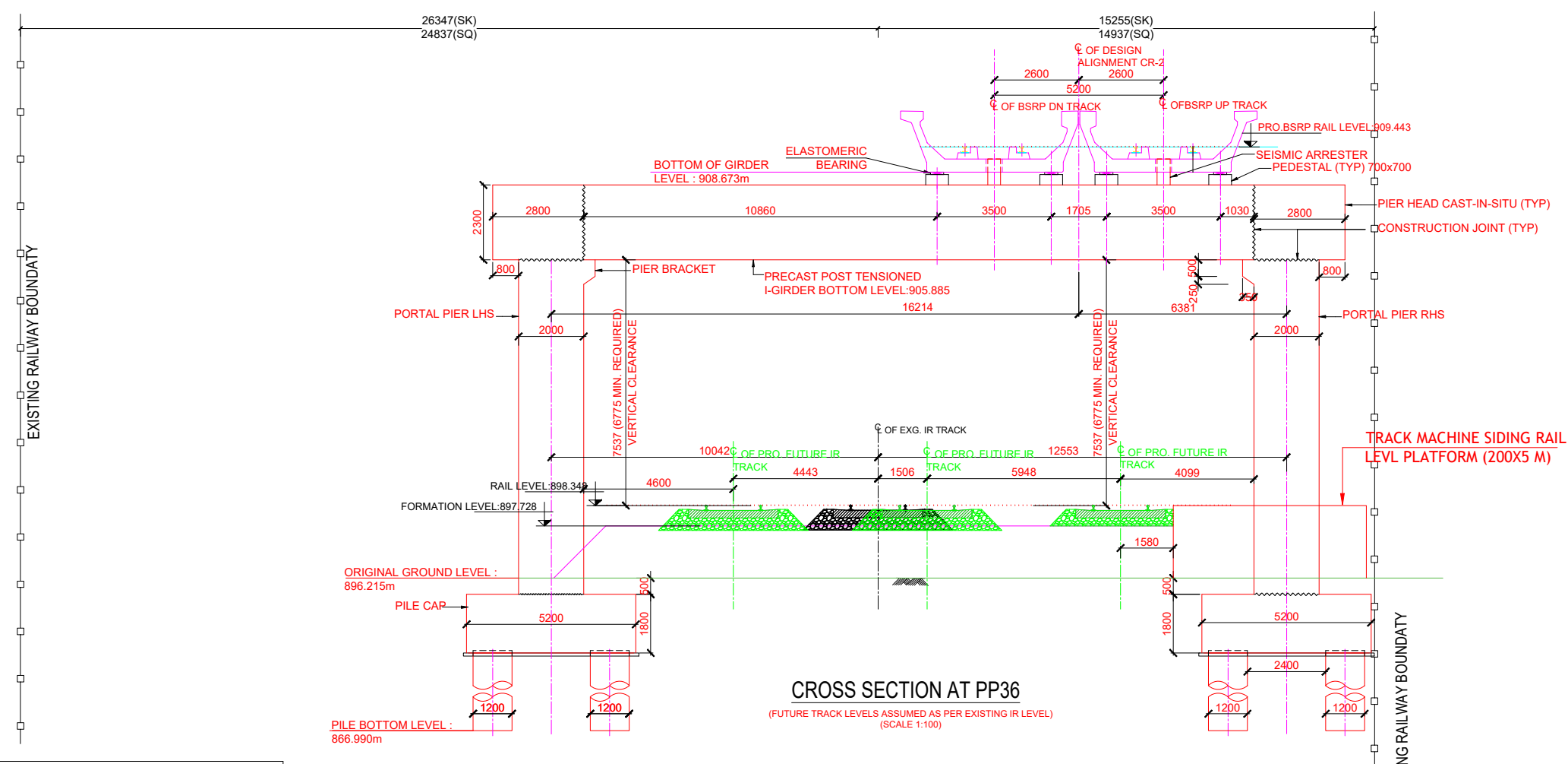

LOTTEGOLLAHALLI YPR
R 1 in 245 F 1 in 73
12+300
218/000
12+400
218/100
P34
P35
PP36
PP37
PP38
P39
R545.2
BH-33
BH-34
EXISTING RAILWAY BOUNDATY
BSRP DOWN TRACK
Curve No. = 28 - LH
Curve CH:12421.192m
R = 545.2m
Degree =3.210°
Delta = 44°21'08.19"
CCL = 342.035m
TRL = 80.00m
TTL = 262.419m
Ca = 120mm
Cd = 84.722mm
Cg = 1 in667m
Max. Speed = 90kmph

KEY PLAN
(NOT TO SCALE)

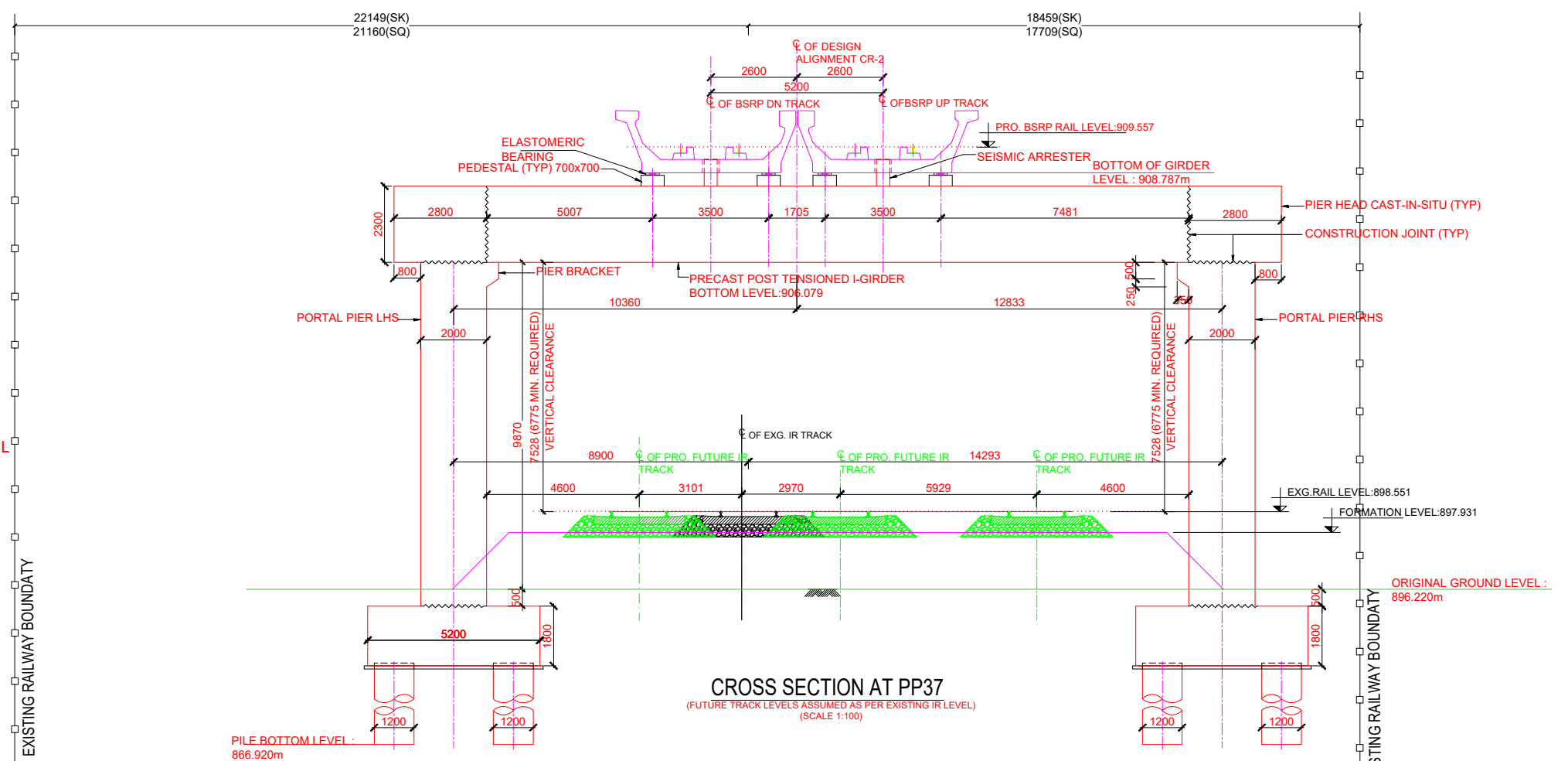
KEY PLAN NOTE:-
1. PROPOSALS ARE SHOWN IN RED.
2. RAILWAY BOUNDARY DISTANCE ARE WITH RESPECT TO CENTRE LINE OF EXG.TRACK.
3. TRACK IS CURVE PORTON.



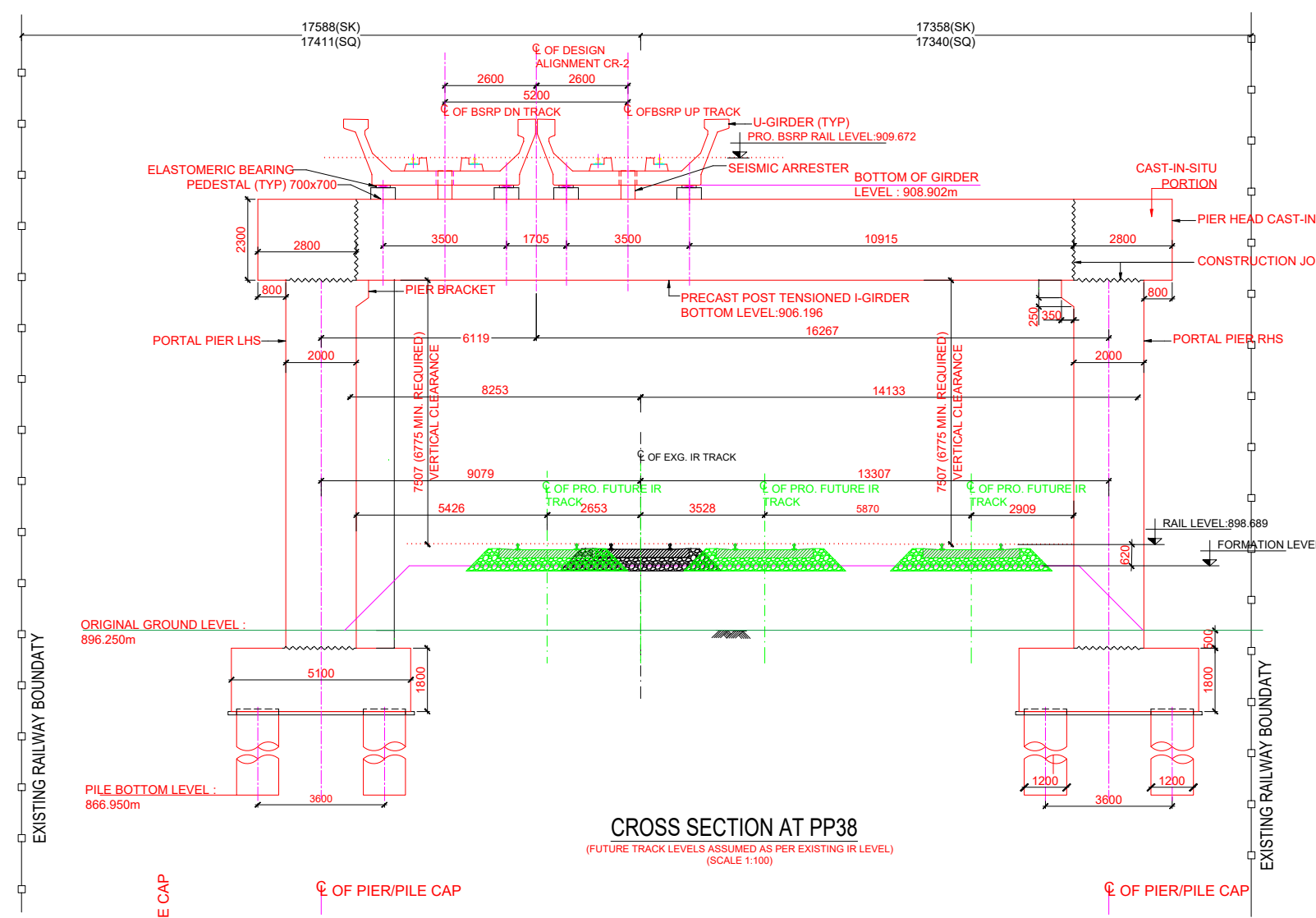
CROSS SECTION AT P35


EXISTING RAILWAY BOUNDATY
TRACK MACHINE SIDING RAIL LEVEL PLATFORM (4500) IR

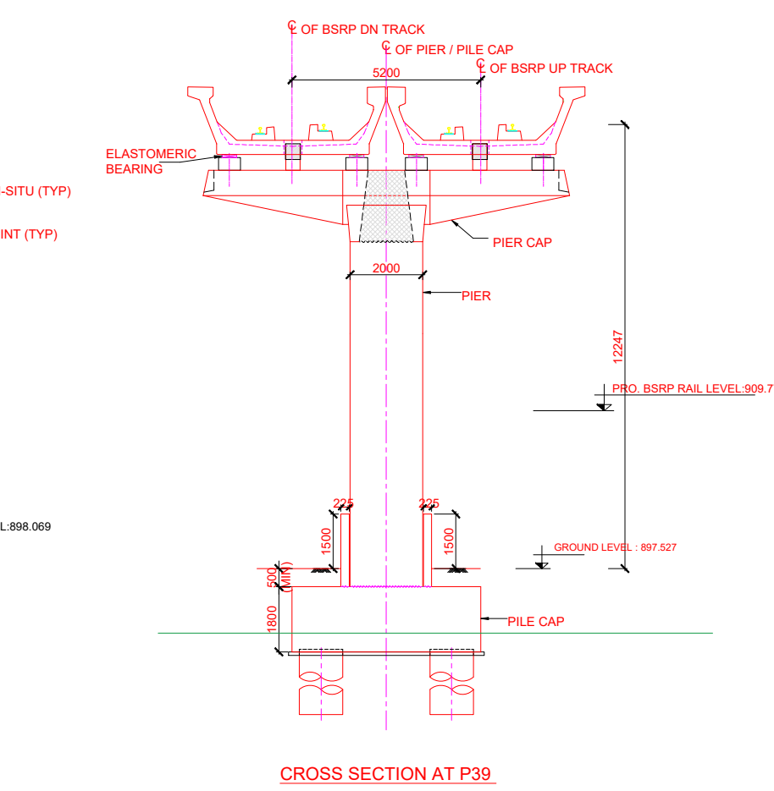
CROSS SECTION AT PP36



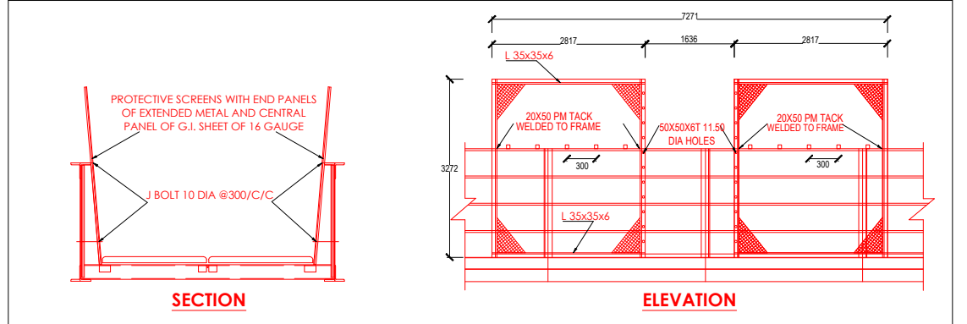
CROSS SECTION AT PP37



CROSS SECTION AT PP38


PILE CAP
EXISTING RAILWAY BOUNDATY
PILE BOTTOM LEVEL 866.990m

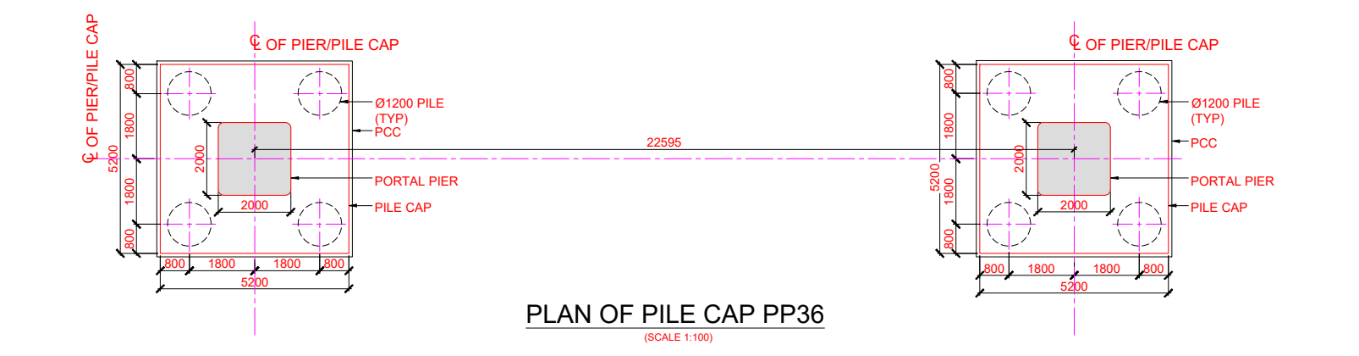
CROSS SECTION AT P39
(APPLICABLE FOR U-GIRDERS)
(SCALE 1:100)


PROTECTIVE SCREENS WITH END PANELS OF EXTENDED METAL AND CENTRAL PANEL OF G.I. SHEET OF 16 GAUGE
J BOLT 10 DIA @300/C/C
7271
2817
1636
2817
L 35x35x6
20X50 PM TACK WELDED TO FRAME
50X50X6T 11.50 DIA HOLES
300
3272
SECTION
ELEVATION

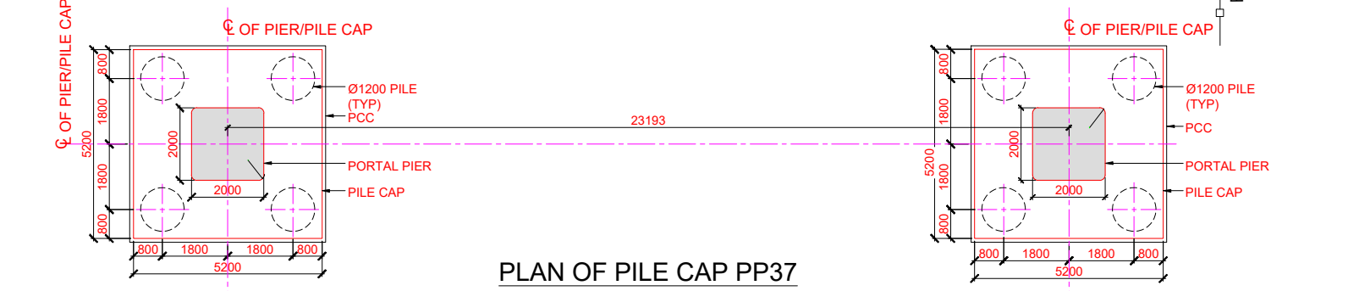
NOTE:

TYPICAL PROTECTIVE SCREENING ARRANGEMENT

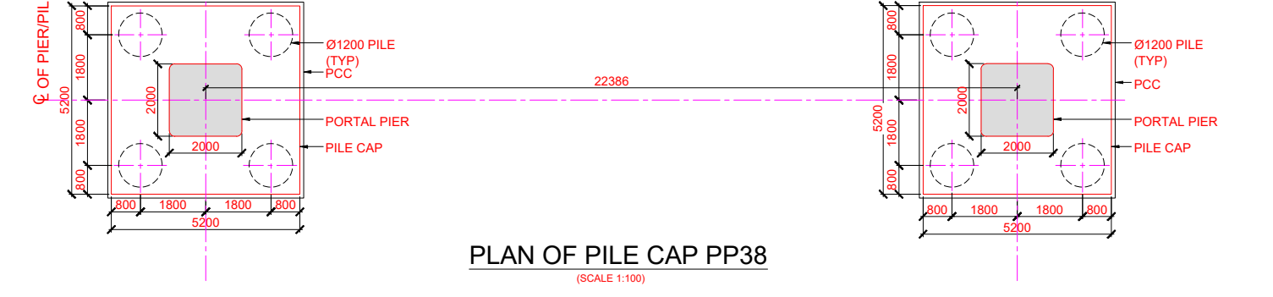
1. CONTINOUS PROTECTIVE SCREEN AS PER RDSO. ETI/C/0068-MOD-I OR WHICHEVER IS LATEST.
2. THE METHOD OF FIXING SHALL BE DECIDED TO SUIT THE LOCAL SITE CONDITION.
3. THE PROTECTIVE SCREEN MAY BE FIXED IN VERTICAL POSITION WHEN THERE IS NO OBSTRUCTION EITHER INSIDE OR OUTSIDE.



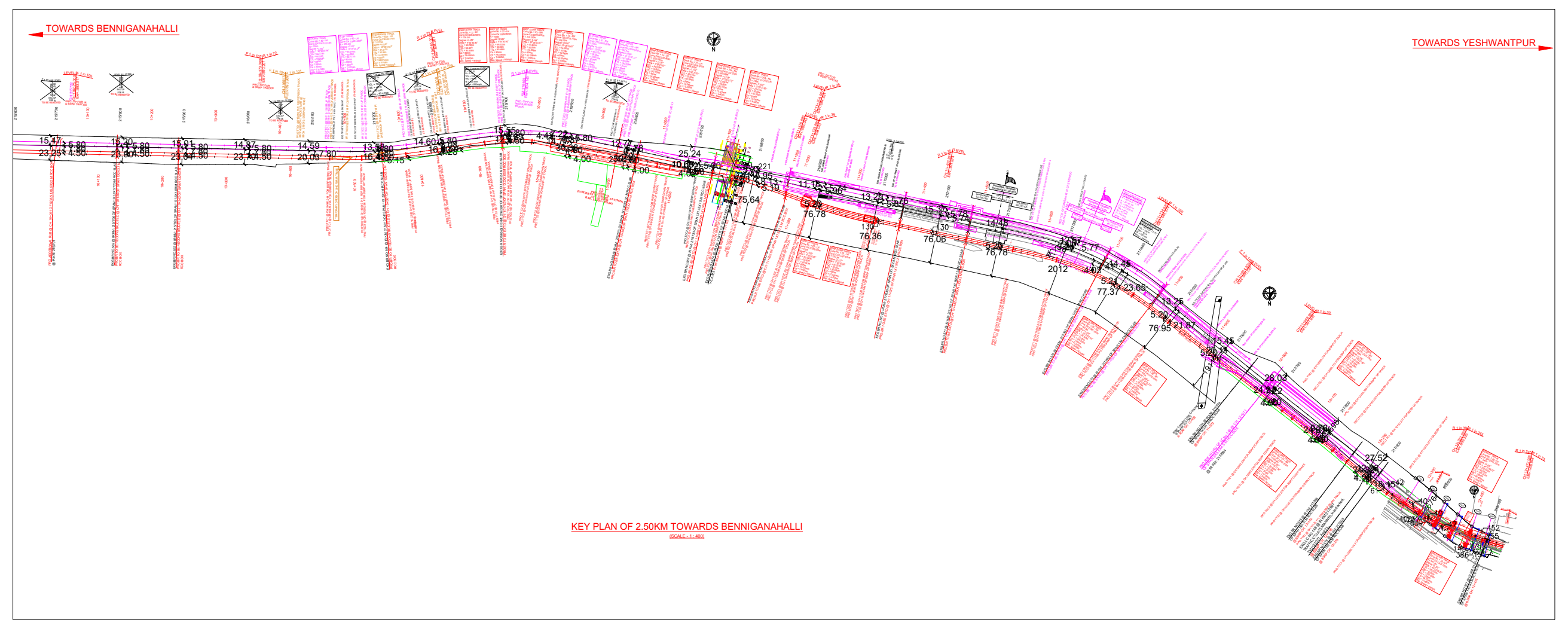
PLAN OF PILE CAP PP36

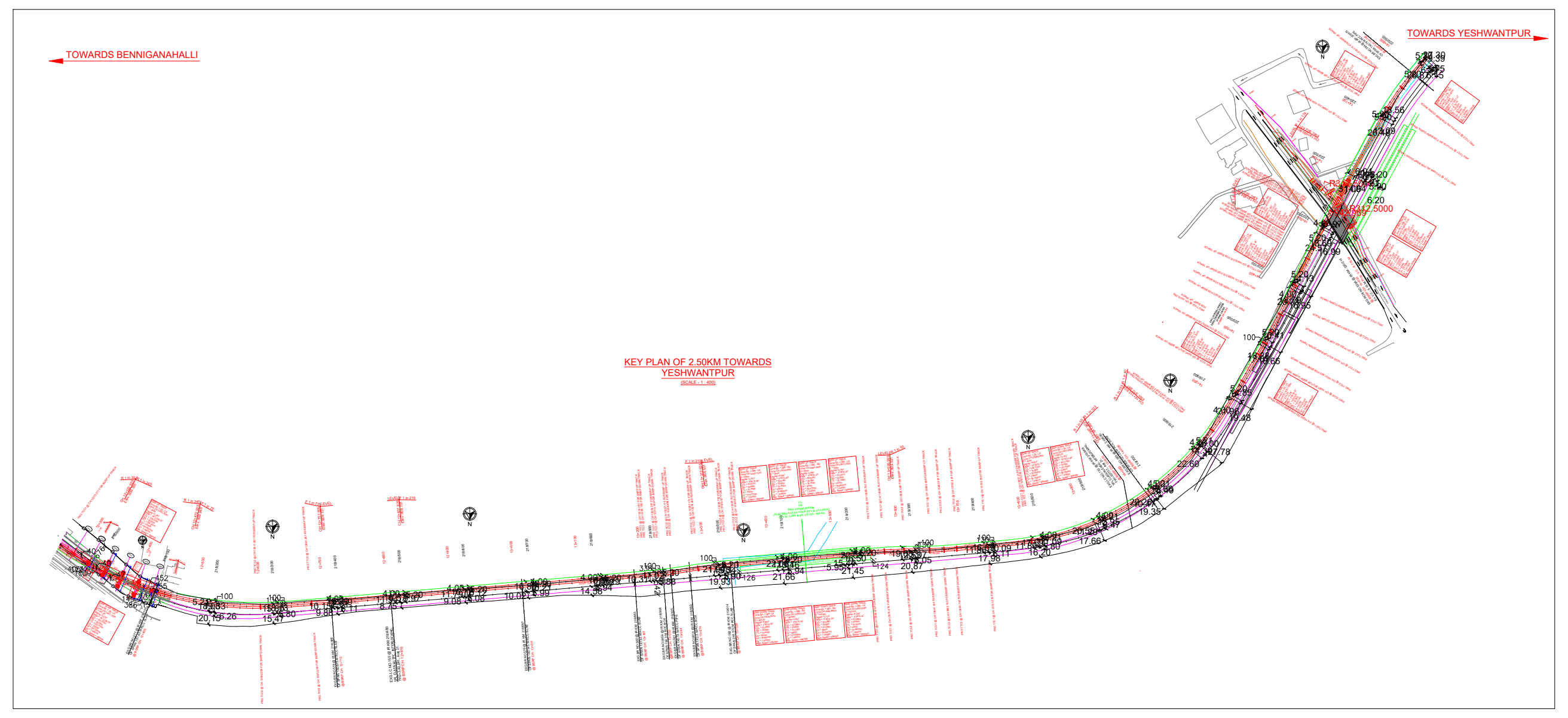


PLAN OF PILE CAP PP37


℄ OF PIER/PILE CAP
Ø1200 PILE (TYP)
PCC
PORTAL PIER
PILE CAP
2000
1800
800
5200

PLAN OF PILE CAP PP38


TOWARDS BENNIGANAHALLI
TOWARDS YESHWANTPUR


TOWARDS BENNIGANAHALLI
TOWARDS YESHWANTPUR

GRADE OF CONCRETE

	COMPONENTS	GRADE
i.	U-GIRDER	M60
ii.	PORTAL PIER	M40
iii.	PORTAL BEAM, DIAPHARMS & PEDESTRAL	M50
iv.	PIPE & PILE CAP	M35
v.	PCC LEVELING COURSE	M15
vi.	FILLING IN BETWEEN TWO PRECAST POST TENSIONED I-GIRDER	M 60

Sr.DEE/TRD/SBC SPECIAL NOTES:

1. PLEASE ENSURE THAT ALL ELECTRICAL CLEARANCES FROM OHE STRUCTURES ARE MAINTAINED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR BOTH EXISTING AND UPCOMING TRACKS.
2. THE ANTICREEP CENTER BETWEEN LOCATIONS 218/02 AND 218/06 SHOULD ALSO BE TAKEN INTO ACCOUNT, AS ITS HEIGHT EXCEEDS THAT OF THE CATENARY WIRE AT THE ACC WIRE TERMINATION POINT, AND IT IS PRESENTLY UNDERL IVE CONDITIONS.
3. CONSIDERING THE PLANNED ADDITION OF THREE NEW TRACKS AND POTENTIAL OHE PORTALS IN THE FUTURE, IT IS ESSENTIAL TO ENSURE THAT ADEQUATE CLEARANCE IS MAINTAINED TO ACCOMMODATE THESE UPCOMING INFRASTRUCTURE ENHANCEMENTS.
4. IF REQUIRED OHE PROFILING SHALL BE DONE UNDER PP36, PP37,AND PP38 TO ENSURE THAT ELECTRICAL CLEARANCES ARE PROPERLY MAINTAINED.
5. FALSE CATENARY ARRANGEMENT SHALL BE PROVIDED TO ENSURE SMOOTH AND SAFE OHE OPERATIONS.
6. FOR CLARITY AND BETTER UNDERSTANDING, A SCHEMATIC DIAGRAM SHALL BE CREATED, DETAILING ALL RELEVANT PARAMETERS OF THE EXISTING OHE AND UPCOMING TRACKS/OHE. THIS DIAGRAM WILL BE SUBMITTED FOR SANCTION FROM HIGHER AUTHORITIES BEFORE COMMENCING WORK.
7. IN THE PROPOSED SCHEMATIC DIAGRAM ALONG WITH EXISTING AND UPCOMING PARAMETERS STANDARDS PARAMETERS SHOULD BE BROUGHT OUT AS THE DESIGN PROPOSED IS NOT COMMON AND IS UNIQUE FOR THE PROPOSED LOCATION.

Sr.DSTE/SBC SPECIAL NOTES:

JOINT INSPECTION MAY BE CARRIED OUT BEFORE THE COMMENCEMENT OF EARTH WORKS. SHIFTING OF OFC, QUAD CABLES PASSING THROUGH THE PROPOSED ALIGNMENT SHALL BE CARRIED OUT BY K-RIDE. IT IS IMPORTANT TO TAKE AT MOST CARE TO THE S&T CABLES COMING UNDER THE ZONE OF EARTH WORK TO ENSURE SAFE AND PUNCTUAL RUNNING OF TRAINS

DEPTH OF CONSTRUCTION

	SPECIFICATION	THICKNESS
i.	RAIL 60 kg	172mm
ii.	GR PAD	10mm
iii.	CONCRETE TRACK	329mm
vi.	U-GIRDER SLAB THICKNESS	255 mm
	TOTAL	766mm

BRIDGE STRENGTH CERTIFICATE:

CERTIFIED THAT THE PROPOSED BRIDGE OF SUB-URBAN RAILWAY VIADUCT BETWEEN BSRP CH: 12+321.308 TO 12+430.308 WILL BE OF SUCH DESIGN.DIMENSIONS AND CONSTRUCTIONS AS WILL ENABLE IT TO CARRY THE DEAD LOAD OF THE STRUCTURE ITSELF (INCLUDING TWIN STANDARD GAUGE METRO TACK COMPLETE) AND IN ADDITION THERE TO LIVE LOAD EQUIVALENT OF 17T LOADING OF MODERN ROLLING STOCK(MRS) PRESCRIBED IN THE BSRP DESIGN BASIS REPORT (DBR) AT FULL SPEED.

ALSO CERTIFIED THAT HEAVIEST LOADS WHICH THE BRIDGE WILL HAVE TO CARRY WILL NOT BE IN EXCESS OF THE ABOVE STANDARDS OF LOADING AT THE STIPULATED SPEED AND WILL NOT CAUSE ANY STRESS IN ANY MEMBERS OR PORTION OF THE STRUCTURE IN EXCESS OF MAXIMUM PERMISSIBLE STRESSES LAID DOWN IN THE BSRP DESIGN REPORT (DBR) AND INDIAN RAILWAY STANDARD (IRS) CODE OF PRACTICE.

GENERAL CONSULTANT

GM/K-RIDE

TRACK DETAILS (PRO.ROR-2)

LOADING : 17 T-AXLE LOAD 2008-STD
ALIGNMENT : CURVE
GRADE : R 1 IN 245

TRACK DETAILS (EXG.IR TRACK)

LOADING : MBG-1987
ALIGNMENT : R 1 IN 120
GRADE : CURVE

LEGENDS:

P	=	SINGLE PIER		
PP	=	PORTAL PIER		
—□—□—	=	COLOUR CODE BLACK	=	EXISTING IR BOUNDARY
——	=	COLOUR CODE BLACK	=	EXISTING WORKS
——	=	COLOUR CODE RED	=	PROPOSED BSRP WORKS
——	=	COLOUR CODE GREEN	=	PROPOSED IR WORKS

MODUS OPERANDI:-

1. IMPOSE SPEED NON STOP 20 KMPH SPEED RESTRICTION AS PER IRPSM DULY FIXING TEMPORARY SPEED RESTRICTIONS INDICATORS AS PER SKETCH.
2. EXCAVATE THE EARTH TO REQUIRED DEPTH AND DIMENSIONS.
3. PROVIDE THE SHORING ARRANGEMENTS WHEREVER REQUIRED.
4. CONSTRUCT RCC PILE FOUNDATIONS, PILE CAP AND PIER AS PER APPROVED CONSTRUCTION METHODOLOGY.
5. PRECAST PORTAL BEAMS SEPARATELY AND TRANSPORT IT TO THE LOCATION USING TRAILERS. ALL THE NECESSARY APPROVAL FROM STAKE HOLDERS SHALL BE OBTAINED PRIOR TO TRANSPORTATION OF PRECAST PORTAL BEAMS.
6. ERECT THE PRECAST PIER CAP/PORTAL BEAMS AND CAST THE INTERMEDIATE DIAPHARMS THEN, THE CAST IN-SITU PORTION BETWEEN THE ERECTED PORTAL BEAMS AND PIERS. THE SEPARATE DRAWINGS SHOWING THE DETAILED ERECTION SEQUENCE AND CONSTRUCTION METHODOLOGY SHALL SUBMITTED SEPARATELY FOR APPROVAL, SHUTDOWN WILL TAKEN DURING ERECTION OF PORTAL BEAMS.
7. PLACE THE PRECAST U-GIRDER AS APPROVED DRAWING BY USING LAUNCHING GIRDER (REFER SEPARATE ERECTION SEQUENCE DRAWING).
8. RESTORATION OF IR TRAFFIC TO NORMAL SPEED BY KRIDE, RESTORE NORMAL SPEED IN STAGES GRADUALLY AS PER PARA 238(G) OF IRPWM. RAILWAY ELECTRIFICATION INSTALLATIONS WILL BE SHIFTED AS PER REQUIREMENT AT SITE, FOR WHICH NECESSARY POWER BLOCK TO BE PROVIDED.

SPECIAL NOTES: ALL THE FOLLOWING SAFETY MEASURES SHALL BE FOLLOWED:-

A. ADEQUATE SAFETY MEASURES FOR RUNNING TRAINS SHALL BE ADOPTED, WHILE EXECUTION OF BRIDGE WORKS BELOW THE TRACK.
B. DURING CONSTRUCTION OF BRIDGE, EXISTING TRACK SHALL BE PROTECTED SUITABLY BY IMPOSING NECESSARY SPEED RESTRICTION BY PROVIDING TEMPORARY ENGINEERING INDICATIONS.
C. DURING THE CONSTRUCTION OF THE PROPOSED BRIDGE, PROPER SAFETY PRECAUTIONS TO BE TAKEN WHILE EXECUTING CLOSE TO THE EXISTING TRACK, BY PROVIDING SAFETY BARRICADING
D. THE GRADUAL RELEASE OF SPEED RESTRICTION SHALL BE AS PER PARA 637 (1) (F) OF IRPWM - 2020.
E. NECESSARY SHORING ARRANGEMENTS IF REQUIRED TO BE MADE TO PROTECT EXISTING BRIDGE STRUCTURE WHEREVER REQUIRED AND TO PROTECTIVE WORKS, RETURN WALLS ETC.
F. JOINT PROCEDURE ORDER ON SAFETY RELATED ISSUES PERTAINING TO WORK SITE IN CONSTRUCTION.
G. PROJECTS (JPO NO. W.339/SAFETY PRECAUTION, DT: 18.02.2011) ISSUED VIDE CTE LR.NO.SWR/W.247/SAFETY AT WORK SPOT DT: 20.06.2017 HAS TO BE STRICTLY FOLLOWED.
H. DURING EXECUTION OF WORK, THE MATERIAL/EQUIPMENT SUCH AS RELEASED MATERIAL ETC. SHOULD NOT INFRINGE THE TRAIN TRAFFIC. ALL SAFETY. MEASURES TO BE TAKEN BY ENGINEER IN CHARGE DURING EXECUTION.
I. SUITABLE SAFETY BARRICADING HAS TO BE PROVIDED WHENEVER WORK IS BEING EXECUTED PARALLEL TO THE RUNNING TRACK.
J. NECESSARY PROTECTIVE ARRANGEMENTS SHALL BE MADE BY KRIDE IN CONSULTATION WITH SBC DIVISION ELECTRICAL TRD/BRANCH TO AVOID ANY ELECTRICAL INDUCTION DURING EXECUTION OF PROPOSED WORK.
K. DISMANTLING OF EXISTING PROTECTIVE WORKS, SUCH AS PITCHING. RETURN WALL, ETC TO BE DONE AS PER SITE CONDITION DULY TAKING ALL THE SAFETY PRECAUTIONS AND INDICATING TO GC/K-RIDE/IR AUTHORITIES, WELL IN ADVANCE.

SPECIAL NOTES FOR 25kv AC TRACTION SYSTEM:-

1) NECESSARY PROTECTIVE ARRANGEMENT SHALL BE MADE BY CONTRACTOR IN CONSULTATION WITH KRIDE AND GC TO AVOID ANY ELECTRICAL INDUCTION DURING EXECUTION OF WORK.
2) DURING ANY WORK INVOLVING LESS THAN 2.0M WORKING CLEARANCE FROM OHE, THE WORK SHALL BE CARRIED OUT ONLY DURING POWER BLOCK CONDITION BY OBTAINING PERMISSION TO WORK FROM AUTHORIZED TRD BRANCH OFFICIALS.
3) OHE TRACTION CONDUCTORS SHALL BE PROFILED TO GET MAXIMUM CONTACT WIRE HEIGHT WITH NORMAL ELECTRICAL CLEARANCE AFTER COMPLETION OF WORK BY OL/TRD.
4) ALL OHE PROFILING WORKS, GIRDERS ERECTION, CT.., WILL BE DONE UNDER THE SUPERVISION OF SSE/OL/TRD UNDER POWER BLOCK CONDITIONS.
5) CROSS BEAM TO BE EARTHED WITH PIER, AS IT IS RUNNING ABOVE 25kV OHE LINE.

SPECIFICATIONS:

1. BRIDGE WILL BE DESIGNATED FOR 17 T-AXLE LOADING.
2. DESIGN CRITERIA IS BASED ON FOLLOWING IRS CODES:
   a)IRS BRIDGE RULES 2008 WITH UP TO DATE CORRECTION SLIP.
   b)IRS CONCRETE BRIDGE CODE 2014 (REVISED) WITH UP TO DATE CORRECTION SLIPS.
   c)IRS BRIDGE SUBSTRUCTURE CODE 2013(REVISED) WITH UP TO DATE CORRECTIONS SLIP.
   d) IRS STEEL BRIDGE CODE.
   e) IRS WELDED BRIDGE CODE.
   f)IRS SPECIFICATION FOR FABRICATION &ERECTION
   g)IIT K-RDSO GUIDLINE(SEISMIC FORCE).
   h)IRS BRIDGE MANUAL 1998 WITH UP TO DATA CORRECTION.
   i)SEISMIC ZONE-II CONFIRMING TO I.S:1893-2002.
   j)BRIDGE WILL BE DESIGNED CONSIDERS SEISMIC ZONE-II.
   k)IRSOD-2022 SHALL REFERRED FOR INFRINGEMENT.
3. SELECTED BACKFILL SHALL COMPRISE COMPACTED BOULDER, CONSISTS OF WELL & PACKED BOULDERS COBBLES TO THICKNESS NOT LESS THAN 600MM WITH SMALLER SIZE TOWARDS THE BACK.BEHIND THE BOULDERS FILLING.BACK FILL MATERIAL SHALL GRANULAR MATERIAL GW,GP,GW,GRIPS AS PER I.S:11498-1970.
4. CLEAR COVER FOR REINFORCING BARS SHOULD BE AS PER CLAUSE NO.15.9.2 OF IRS CONCRETE BRIDGE CODE.
   a)PIER AND PIER CAP =50MM
   b)PILE AND PILE CAP=75MM
   c)PEDESTAL =50MM
5. HIGH YIELD STRENGTH DEFORMED/ THERMO MECHANICAL TREATED (TMT) BARS OF GRADE FE-550/55D CONFIRMING TO IS:1786-2008 SHALL BE USED AS REINFORCEMENT.
6. ALL THE WELDED CONNECTIONS ARE CONTINUOUS FILLET WELD TYPE UNLESS OTHERWISE STATED.
7. ALL WELDS TO BE MADE BY USING APPROVED PROCEDURES AND BY QUALIFIED WELDS ONLY

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS IN METERS & CHAINAGE ARE IN KILOMETERS, UNLESS OTHERWISE NOTED.
2. DIMENSIONS SHALL NOT BE SCALED OFF FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. STANDARDS COLOUR CODES- FOR EXISTING :BLACK, PROPOSED :RED, FUTURE:GREEN AND DISMANTLING:YELLOW ETC AS PER THE WORK MANUAL.
4. DIMENSION SHOWN OF STRUCTURAL ELEMENT IN THE GAD ARE ONLY TENTATIVE AND FOLLOW APPROVED DESIGN AND DRAWING OF EACH STRUCTURAL COMPONENT.
5. RAIL LEVEL, FORMATION LEVEL ETC. SHOULD BE CROSS VERIFIED BY THE ENGINEER-IN-CHARGE BEFORE AND DURING EXECUTION OF WORK AT SITE AS PER LATEST APPROVED WORKING SECTION/PLANS AND OTHER CONNECTED DRAWINGS IF ANY.
6. ALL DETAILS SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
7. CONTRACTOR AT SITE SHOULD VERIFY THE RAIL LEVEL, FORMATION LEVEL, BED-BLOCK LEVEL, TRACK CENTER & ALL OTHER RELEVANT LEVELS BEFORE COMMENCEMENT OF WORK.
8. ***MATERIALS -***

a) MINIMUM CONCRETE GRADES :

FOR U-GIRDER : M60
FOR PORTAL PIER : M40
PRECAST PORTAL BEAM, DIAPHARMS & PEDESTAL : M50
FOR PILE & PILE CAP : M35
FOR PCC LEVELING COURSE : M20
FILLING IN BETWEEN TWO PRECAST POST TENSIONED I-GIRDER : M60

b) REINFORCING STEEL :
THERMO MECHANICALLY TREATED REINFORCEMENT BARS OF GRADE Fe 500D CONFORMING TO IS:1786-2008.

9. BEARING : ELASTOMERIC BEARING FOR U-GIRDER AND PORTAL BEAM.
10. DEPTH OF PILE FOUNDATION WILL BE AS PER DETAIL DESIGN CALCULATION.
11. DESIGN LIVE LOAD SHALL BE :- 17T-LOADING AS PER DBR SEISMIC ZONE II WIND VELOCITY= 33m/s
12. THE DETAILS SHOWN ARE INDICATIVE AND THE FINAL DETAILS SHALL BE BASED ON APPROVED STRUCTURAL DESIGN.
13. DIMENSIONAL DETAILS OF FOUNDATIONS STRUCTURAL PARTS ARE ONLY INDICATIVE AND TO FOLLOW ONLY APPROVED DESIGN AND DRAWINGS PROPOSED.
14. GUARD RAIL SHALL BE PROVIDED AS PER STANDARD DRAWING.
15. THE WORK WILL BE DONE IN RAILWAY BOUNDARY DURING THE SPEED RESTRICTION.
16. THIS ARRANGEMENT SHOWN IS FOR GAD PURPOSE ONLY, FOR EXECUTION DETAILS WORKING DRAWING SHALL BE SUBMITTED FOR EACH COMPONENT.
17. MINIMUM VERTICAL CLEARANCE OF 6.775m SHALL BE MAINTAINED BETWEEN TRACK LEVEL AND BOTTOM MOST SOFFIT LEVEL.
18. WORK WITHIN RAILWAY LAND SHALL BE CARRIED OUT UNDER THE SUPERVISION OF RAILWAY ENGINEERS.
19. EXCAVATION OF ROR WORK SHALL BE DONE ONLY IN PRESENCE OF RAILWAY AUTHORIZED REPRESENTATIVE TO ENSURE THE SAFETY OF RUNNING TRAINS.
20. PROPER PRECAUTIONS SHALL BE TAKEN DURING EXCAVATION FOR PILE FOUNDATION NEARER TO EXISTING RAILWAY TRACK. IF THE DEPTH OF EXCAVATION IS MORE THAN 1.0m PROPER SHORING & STRUTTING WILL BE DONE CONSIDERING SHAPE & SIZE OF FOUNDATION.
21. THE CONCRETE SHALL BE CONTROLLED CONCRETE OF SPECIFIED GRADES.
22. ANY SUBMISSION OR DISCREPANCY IS TO BE BROUGHT TO THE NOTICE OF AUTHORITY. PRIOR TO ACTUAL EXECUTION.
23. TRACK SHOULD BE PROTECTED BY ANY SUITABLE METHOD IF REQUIRED AND SR.DEN SHOULD ENSURE THAT NO SETTLEMENT OF TRACK OCCURS WHILE WORK IS IN PROGRESS.
26. REPRESENTATIVE OF TELECOM/ SIGNALING DEPARTMENT SHOULD BE AVAILABLE AT SITE DURING EXECUTION IN THE VICINITY OF SIGNALING AND TELECOM CABLES.
27. TESTING OF ALL MATERIALS SHALL BE DONE IN NABL APPROVED LABS ONLY.
28. EXPOSURE CONDITION CONSIDERED FOR DESIGN OF FOUNDATION & SUBSTRUCTURE & DESIGN OF SUPERSTRUCTURE WILL BE SEVERE.
29. THE DESIGN OF SUPERSTRUCTURE WILL BE SUITABLE FOR FATIGUE CONSIDERATION: 100 YEARS OF FATIGUE LIFE FOR 50 GMT AS PER IRS SBC CLAUSE NO. 3.6.
30. FOR PILE FOUNDATION PILE CAPACITY FOR 13m LONG PILE IS 390 MT. THIS SHOULD BE VERIFIED AT DETAIL DESIGN STAGE.
31. PILE LOAD TEST INITIAL ROUTINE SHALL BE CARRIED OUT CONFORMING TO IS:2911 PART IV(2013).
32. 1) VERTICAL LOAD TEST:

a) INITIAL LOAD TEST SHALL BE CARRIED FOR TEST LOAD OF 2.5 TIMES THE WORKING LOAD (AS PER CL 5.1.2 OF IS: 2911-2013 PART IV).
b) ROUTINE LOAD TEST SHALL BE CARRIED FOR TEST LOAD OF 1.5 TIMES THE WORKING LOAD (AS PER CL 7.1.5.1 OF IS:2911-2013 PART IV).

2) HORIZONTAL LOAD TEST:

a) LATERAL LOAD TEST SHALL BE CARRIED FOR TEST LOAD OF 2.5 TIMES THE WORKING LOAD (AS PER CL 5.1.2 OF IS: 2911 PART IV-2013).

33. WORKING LOAD ON TOP OF PILES SHALL BE DECIDED AFTER DESIGN.
34. PILES ARE OF BORED CAST IN SITU AND THEIR CONSTRUCTION SHALL CONFORM TO RELEVANT CLAUSE OF IS:2911 (PART-1/ SEC-2) 2010 AND IRS: BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
35. THE WORK TO BE EXECUTED AS PER LATEST RELEVANT INDIAN RAILWAY CODES, MANUALS & LATEST INSTRUCTIONS WITH THEIR PROPER RECORD OF THE SAME. THE LATEST IS, IRC AND OTHER CODES MAY BE USED BUT THE IRS CODES WILL PREVAIL ON OTHER CODES FOLLOWING ORDER OF PREFERENCE SHALL BE FOLLOWED:

1. INDIAN RAILWAY UNIFIED STANDARD SPECIFICATIONS FOR WORKS AND MATERIALS 2010.
2. IRS CONCRETE BRIDGE CODE 2014 AND RELEVANT IS SPECIFICATIONS.
3. IRS BRIDGE SUBSTRUCTURE & FOUNDATION CODE 2013
4. IRS BRIDGE RULES 2014
5. IRS SCHEDULE OF DIMENSIONS 2004(READ WITH UPDATED CORRECTION SLIP).
6. RDSO GUIDELINES
7. IRC CODES & STANDARDS
8. RELEVANT MORTH STANDARDS
9. IS (BIS) CODAL PROVISIONS
10. ANY OTHER STANDARD RELEVANT TO THE WORK
11. LEVELING COURSE:- 150 MM THICK CC 1:3:6 USING 40MM MAX SIZE GRADED HARD STONE AGGREGATE OF APPROVED QUALITY.

SPECIAL NOTES - 1:-

1. ALL SUPERSTRUCTURE ELEMENTS ARE PRECAST PRE-TENSIONED U-GIRDER UNLESS OTHERWISE MENTIONED.
2. RAIL LEVELS ARE TAKEN FROM LATEST REVISION OF ALIGNMENT APPROVED BY KRIDE.

REFERENCE TABLE AS PER DESIGN:-

1) SUPER STRUCTURE AS PER DESIGN : AS PER DESIGN
2) SUB-STRUCTURE & FOUNDATION : AS PER DESIGN
3) PLAN AND PROFILE : O22077-C-RL-TR-PP-0013 (REV-0)
4) GEO-TECHNICAL INVESTIGATION REPORT: DOC-BSRP-CR2-EV-DGN-GB-10-1152.

S&T/KRIDE SPECIAL NOTE:-

1] CABLES SHALL BE PROTECTED WHILE CARRYING OUT THE WORK AT PIER No. 34, 35 & 36 CARE SHALL BE TAKEN, SINCE SIGNALING CABLE ARE PASSING VERY CLOSE TO THE ALIGNMENT.

SI NO	ALTERATION NO	DESCRIPTION	SIGNATURE OF OFFICER

K-RIDE		DATE	SWR- BANGALORE DIVISION		DATE
MANAGER/CIVIL/PLANNING			SR/DEN/S/SBC		
GM/ELE/I/C/K-RIDE			SR.DEN/CO-ORD/SBC		
GM/CIVIL//PLANNING/C-2			SR.DEE/TRD/SBC		
GM/DESIGN			SR.DOM		
DIRECTION/PROJECT & PLANNING			SR.DSTE		
			ADRM/T/SBC		
			DRM/SBC		
GC BSRP SIGNATURES		DATE	SWR- HEADQUARTERS		DATE
			JE/BRIDGE/HQ		
PE/GC FOR BSRP			AXEN/HQ/UBL		
			DY.CE/HQ/UBL		
PD/GC FOR BSRP			CBE/UBL		

SOUTH WESTERN RAILWAY

EMPLOYER : RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED

GENERAL CONSULTANTS:
EGIS-AECOM-WSP

AUTHORITY OF WORK :- AS PER BSRP DFSR
THE RAILWAY BOARD SANCTION FOR BENGALURU SUBURBAN TRANSPORT PROJECT (148.17 kms)
VIDE LETTER NO:2019/JV CELL/KRIDE/BSTP/EBR/07 DATED:21.10.2020.

GENERAL ARRANGEMENT DRAWING

BENGALURU SUBURBAN RAILWAY PROJECT(BSRP) CORRIDOR-2
BETWEEN STATIONS BENNIGANAHALLI AND CHIKKABANAVARA

PROPOSED GENERAL ARRANGEMENT DRAWING OF ROR ALONG CORRIDOR - 2 OF SPAN 3 x 28m + 1 x 25m U - GIRDER AT IR CH : 217/991.308 TO 218/101.308 & (BSRP Ch: 12+321.308 TO 12+430.308) BETWEEN HEBBAL AND LOTTEGOLLAHALLI STATIONS.

HQ.DRG.NO:

KRIDE.DRG.NO: KRIDE/BSRP/C-2/BR/067/2024

SCALE - 1 : 100
(UNLESS SPECIFIED OTHERWISE)