

KHANDAULI SIDE

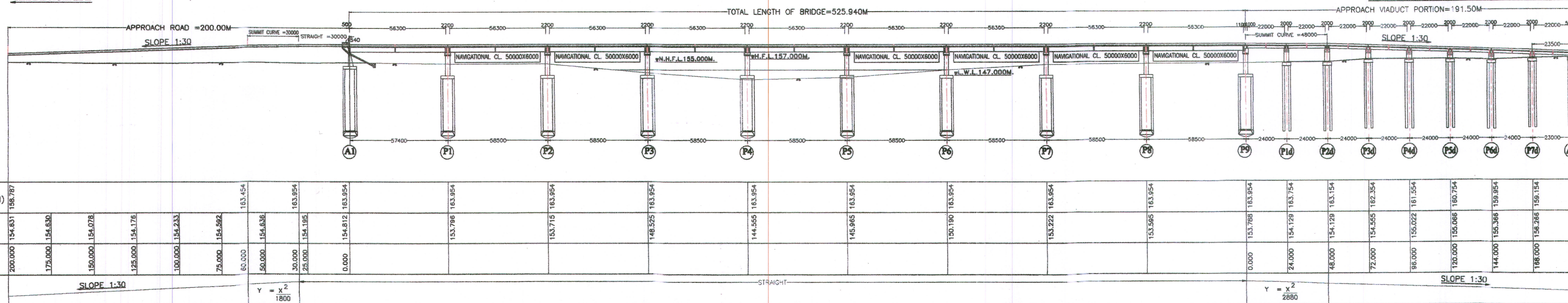
DAYALBAGH SIDE NAGLA BUDI CHAURAHA

NOTES :-

- 1- ALL DIMENSIONS ARE IN MILLIMETRE UNLESS OTHERWISE SPECIFIED AND R.L.'S ARE IN METRES.
- 2- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE TENTATIVE & SHALL BE DECIDED AT THE TIME OF DETAILED DESIGN.
- 3- ONLY WRITTEN DIMENSION SHALL BE FOLLOWED AND NOT THE SCALED DIMENSIONS.
- 4- THE DIRECTION OF FLOW OF WATER IN RIVER IS AT 90 TO THE CENTER LINE OF THE BRIDGE.
- 5- PROPOSED STRUCTURE IS DESIGNED FOR ONE LANE OF IRC CLASS 70R LOADING OR TWO LANES OF IRC CLASS A.
- 6- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC STRENGTH OF CUBES AS FOLLOWS:
 - (i) WELL CURB CAP, STEINING.....M30
 - (ii) PILE, PILE CAP.....M35
 - (iii) PIER, PIER CAP.....M35
 - (iv) ABUTMENT CAP, ABUTMENT.....M35
 - (v) P.S.C. BOX GIRDER.....M50
 - (vi) P.S.C. BEAM FOR 24.0M SPAN.....M45
 - (vii) BEARING PEDESTAL.....M45
 - (viii) CRASH BARRIER.....M40
 - (ix) APPROACH SLAB.....M30
 - (x) LEVELLING COURSE.....M15
 - (xi) BOTTOM PLUGGING- THE CONCRETE OF BOTTOM PLUG SHALL BE DONE IN ACCORDANCE TO CLAUSE 708.6 OF IRC-78-2014. THE CONCRETE MIX USED IN BOTTOM PLUG SHALL HAVE A MINIMUM CEMENT CONTENT OF 330 KG/CU.M FOR UNDERWATER CONCRETE BY TREMIE BOXES. THE CEMENT CONTENT SHALL BE INCREASED BY 10 PERCENT.

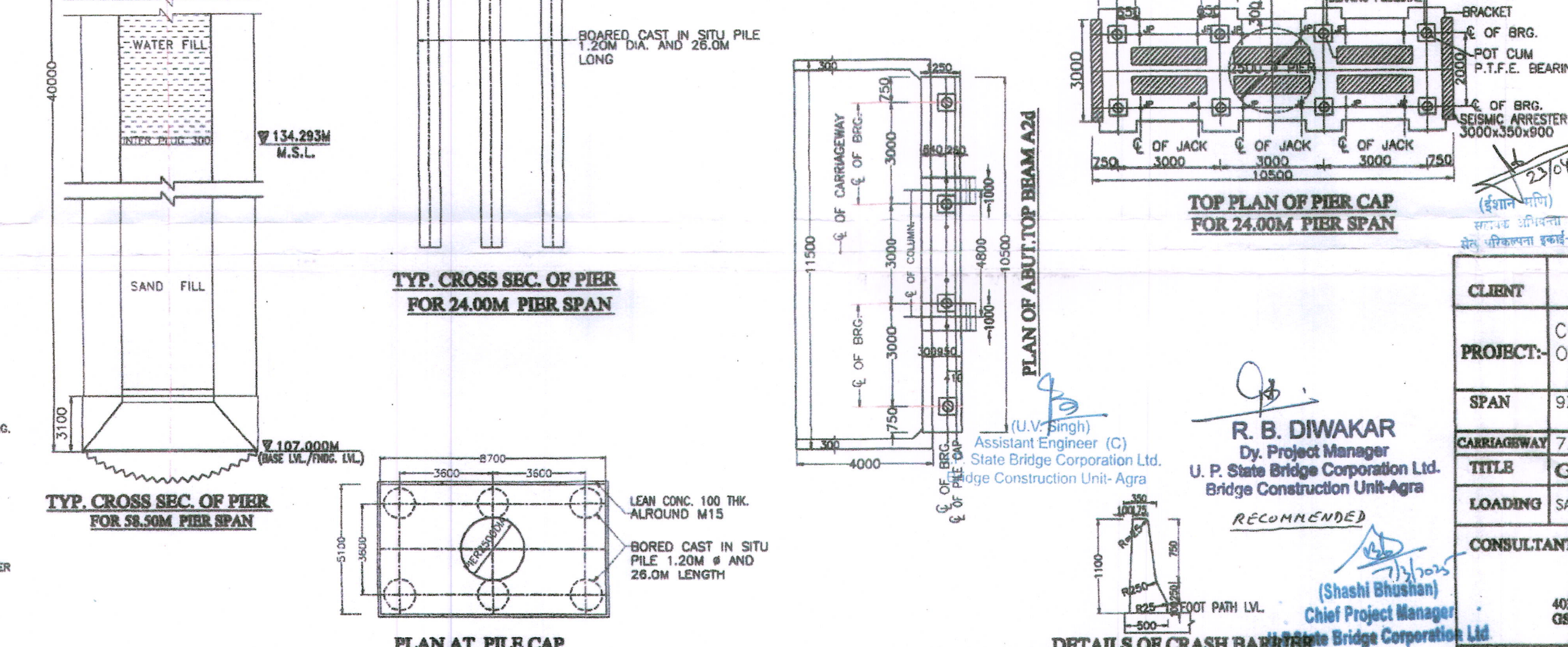
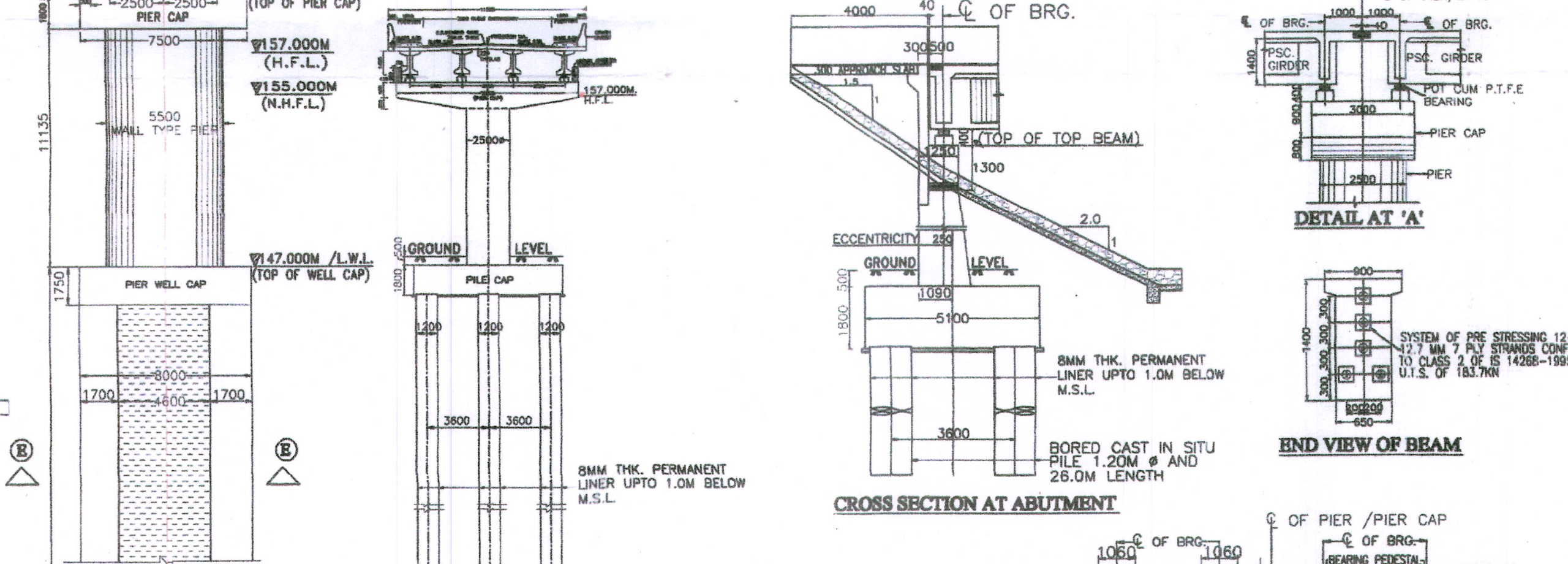
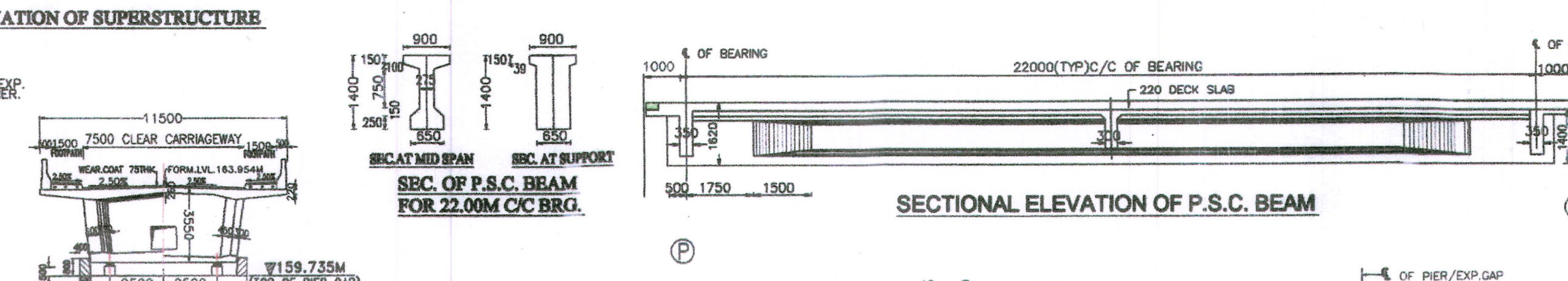
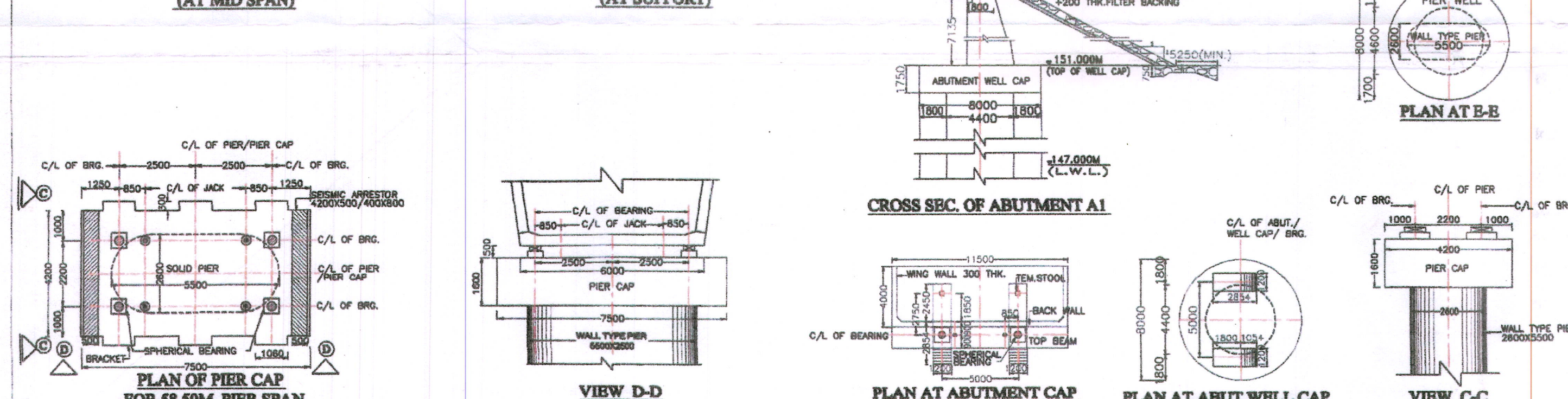
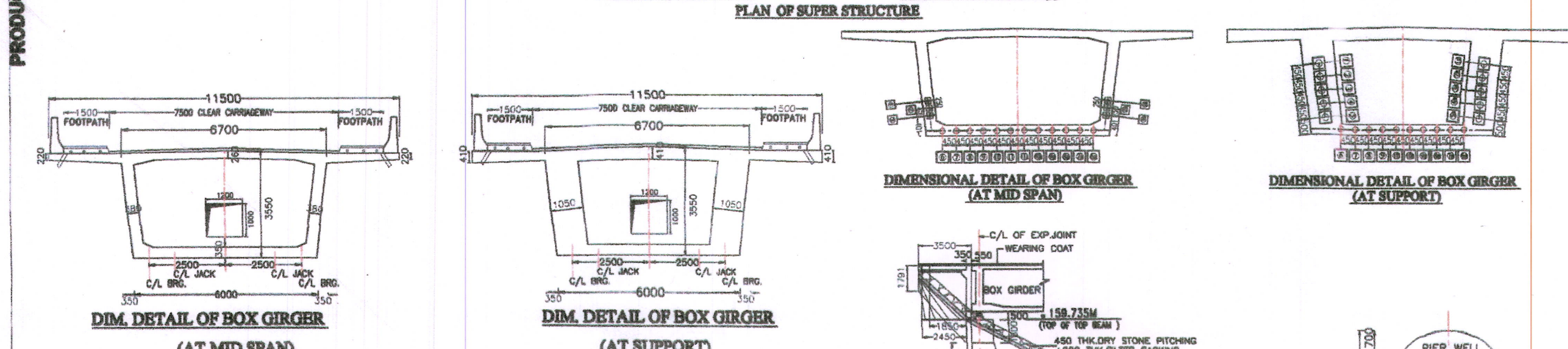
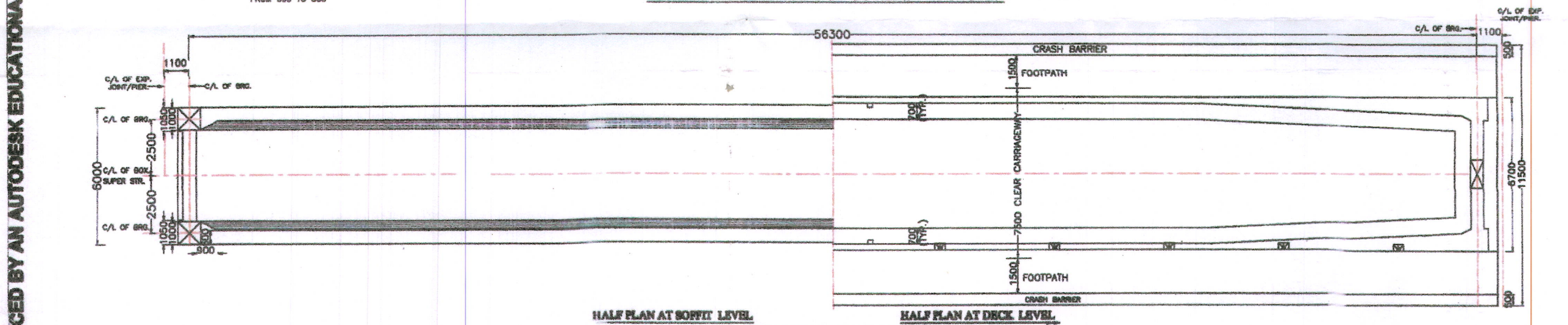
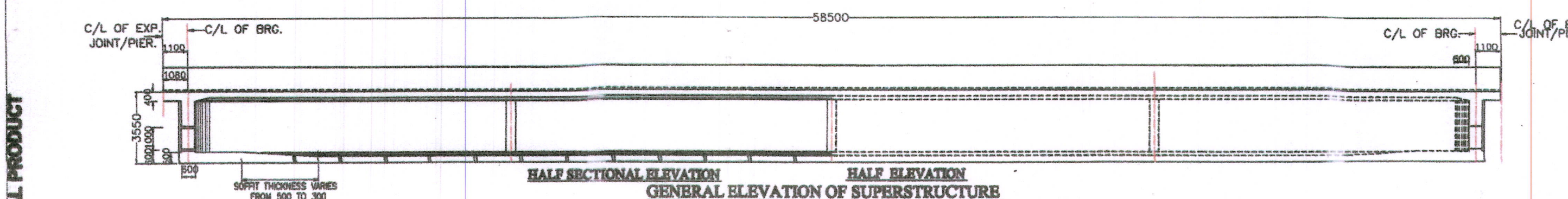
- 7- ASPHALTIC WEARING COAT OF MIN. THICKNESS 65MM SHALL BE PROVIDED.
- 8- HYDRAULIC DATA- (AS PER INFORMATION PROVIDED)
 - (i) DISCHARGE OF RIVER.....9500 CU.M/SEC.
 - (ii) HIGHEST FLOOD LEVEL.....157.000 M
 - (iii) N.H.F.L.....155.000 M
 - (iv) LOW WATER LEVEL.....147.000 M
 - (v) VELOCITY OF FLOW.....2.50M/ SEC.
- 9- SEISMIC PARAMETERS:-
 - (i) IMPORTANCE FACTOR.....1.5
 - (ii) SEISMIC ZONE.....II
 - (iii) $g = 0.25$
 - (iv) $g = 1.10$
 - (v) $g = 2.00$ /M²

- 10- SAFE BEARING CAPACITY AT FOUNDATION AND PIER WELL HAS BEEN CONSIDERED AS=88.75T/M² AND SAME SHALL BE VERIFIED BEFORE TAKING UP THE WORK.
- 11- REINFORCING STEEL SHALL BE CORROSION RESISTANT TMT H.S.D. BARS (GRADE DESIGNATION Fe500) CONFORMING TO IS.1786.
- 12- MODULAR EXPANSION JOINTS OF PROVEN QUALITY SHALL BE PROVIDED IN ACCORDANCE WITH IRC SP: 69-2011.
- 13- CLEAR COVER TO OUTERMOST STEEL IN FOUNDATIONS AND EARTH FACE OF ABUTMENT/ RETURN WALL WHERE IT SHALL BE 75MM.
- 14- PRESTRESSING CABLES SHALL COMPRISE OF LOW RELAXATION STRANDS CONFORMING TO IS:14268.1ST 15 CABLE SHALL BE USED. QUANTITY OF PRESTRESSING STEEL (M²)S MAY BE TAKEN AS 135 KG /M² FOR ESTIMATION PURPOSE.
- 15- BACK FILLING BEHIND ABUTMENTS/ RETURN/ RETAINING WALL AND MEDIAN WALL SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX 'B' OF IRC-2014 HAVING PROPERTIES C=0.65, $\phi = 9^\circ$, $c_{uf} = 1.10$ AND $g = 2.00$ /M².
- 16- 100MM WEEP HOLES AT 100MM C/C BOTH HORIZONTAL AND VERTICALLY SHALL BE PROVIDED IN STAGGERED MANNER IN VERTICAL WALLS OF THE ABUTMENT AND RETURN WALL ABOVE L.W.L. IN ONE OR TWO LAYERS AT A SLOPE OF 1 VERTICAL TO 20 HORIZONTAL TOWARDS THE DRAINAGE FACE.
- 17- WATER TO BE USED IN CONCRETING - GROUTING AND CURING SHALL CONFORM TO CLAUSE 18.4.5 OF IRC 112:2011.
- 18- SPHERICAL BEARINGS SHALL BE DESIGNED AND MANUFACTURED AS PER PROVISIONS OF IRC: 63 (PART-V)-2014 FOR ESTIMATION PURPOSE SPHERICAL BEARING OF 800 MTN) CAPACITY MAY BE TAKEN.
- 19- MINIMUM CONCRETE COVER GRADE OF CONCRETE CEMENT CONTENT AND MAXIMUM WATER CEMENT RATIO SHALL BE AS PER MODERATE CONDITION OF EXPOSURE AS PER IRC :112:2011.
- 20- SUITABLE LENGTH OF SIDE SLOPE OF APPROACH ROAD BEHIND ABUTMENTS WILL BE PROTECTED AS PER IRC:112:2011.
- 21- ALL CHANGES FRL, Q.L. SHALL BE CONFIRMED AT SITE PRIOR TO EXECUTION OF WORKS.
- 22- SPAN ARRANGEMENT HAS BEEN FIXED SO THAT MINIMUM HORIZONTAL AND VERTICAL CLEARANCE ARE 50.0M AND 6.0M RESPECTIVELY AS PER REQUIREMENT OF INLAND WATERWAYS AUTHORITY OF INDIA. MINISTRY OF SHIPPING, GOVERNMENT OF INDIA. TOTAL LENGTH OF PROPOSED BRIDGE IS KEPT 525.94M.
- 23- WELL CAP TOP HAS BEEN KEPT AT L.W.L.
- 24- FOOTPATH CAN BE CONVERTED IN CARRIAGEWAY AS PER FUTURE REQUIREMENT.
- 25- 8MM THICK PERMANENT LINER IN PILE UPTO 1.0M BELOW M.S.L.



GENERAL ELEVATION OF SUPERSTRUCTURE

FORMATION LEVEL(M)	GROUND LEVEL(M)	CHAINAGE(M)	VERTICAL PROFILE
106.787	104.831	200.000	SLOPE 1:30
106.787	104.831	375.000	
106.787	104.831	100.000	Y = X ² /1800
106.787	104.831	125.000	
106.787	104.831	150.000	SLOPE 1:30
106.787	104.831	175.000	
106.787	104.831	200.000	SLOPE 1:30
106.787	104.831	225.000	
106.787	104.831	250.000	SLOPE 1:30
106.787	104.831	275.000	
106.787	104.831	300.000	SLOPE 1:30
106.787	104.831	325.000	
106.787	104.831	350.000	SLOPE 1:30
106.787	104.831	375.000	
106.787	104.831	400.000	SLOPE 1:30
106.787	104.831	425.000	
106.787	104.831	450.000	SLOPE 1:30
106.787	104.831	475.000	
106.787	104.831	500.000	SLOPE 1:30
106.787	104.831	525.000	
106.787	104.831	550.000	SLOPE 1:30
106.787	104.831	575.000	
106.787	104.831	600.000	SLOPE 1:30
106.787	104.831	625.000	
106.787	104.831	650.000	SLOPE 1:30
106.787	104.831	675.000	
106.787	104.831	700.000	SLOPE 1:30
106.787	104.831	725.000	
106.787	104.831	750.000	SLOPE 1:30
106.787	104.831	775.000	
106.787	104.831	800.000	SLOPE 1:30
106.787	104.831	825.000	
106.787	104.831	850.000	SLOPE 1:30
106.787	104.831	875.000	
106.787	104.831	900.000	SLOPE 1:30
106.787	104.831	925.000	
106.787	104.831	950.000	SLOPE 1:30
106.787	104.831	975.000	
106.787	104.831	1000.000	SLOPE 1:30
106.787	104.831	1025.000	
106.787	104.831	1050.000	SLOPE 1:30
106.787	104.831	1075.000	
106.787	104.831	1100.000	SLOPE 1:30
106.787	104.831	1125.000	
106.787	104.831	1150.000	SLOPE 1:30
106.787	104.831	1175.000	
106.787	104.831	1200.000	SLOPE 1:30
106.787	104.831	1225.000	
106.787	104.831	1250.000	SLOPE 1:30
106.787	104.831	1275.000	
106.787	104.831	1300.000	SLOPE 1:30
106.787	104.831	1325.000	
106.787	104.831	1350.000	SLOPE 1:30
106.787	104.831	1375.000	
106.787	104.831	1400.000	SLOPE 1:30
106.787	104.831	1425.000	
106.787	104.831	1450.000	SLOPE 1:30
106.787	104.831	1475.000	
106.787	104.831	1500.000	SLOPE 1:30
106.787	104.831	1525.000	
106.787	104.831	1550.000	SLOPE 1:30
106.787	104.831	1575.000	
106.787	104.831	1600.000	SLOPE 1:30
106.787	104.831	1625.000	
106.787	104.831	1650.000	SLOPE 1:30
106.787	104.831	1675.000	
106.787	104.831	1700.000	SLOPE 1:30
106.787	104.831	1725.000	
106.787	104.831	1750.000	SLOPE 1:30
106.787	104.831	1775.000	
106.787	104.831	1800.000	SLOPE 1:30
106.787	104.831	1825.000	
106.787	104.831	1850.000	SLOPE 1:30
106.787	104.831	1875.000	
106.787	104.831	1900.000	SLOPE 1:30
106.787	104.831	1925.000	
106.787	104.831	1950.000	SLOPE 1:30
106.787	104.831	1975.000	
106.787	104.831	2000.000	SLOPE 1:30
106.787	104.831	2025.000	
106.787	104.831	2050.000	SLOPE 1:30
106.787	104.831	2075.000	
106.787	104.831	2100.000	SLOPE 1:30
106.787	104.831	2125.000	
106.787	104.831	2150.000	SLOPE 1:30
106.787	104.831	2175.000	
106.787	104.831	2200.000	SLOPE 1:30
106.787	104.831	2225.000	
106.787	104.831	2250.000	SLOPE 1:30
106.787	104.831	2275.000	
106.787	104.831	2300.000	SLOPE 1:30
106.787	104.831	2325.000	



DRAWING NO. OI(R)/G.A.D./B.D.U.-5/
ANADI BHARAV YAMUNA (SH-1 OF 2) AGR/2025

APPROVED: *[Signature]*
25/01/25

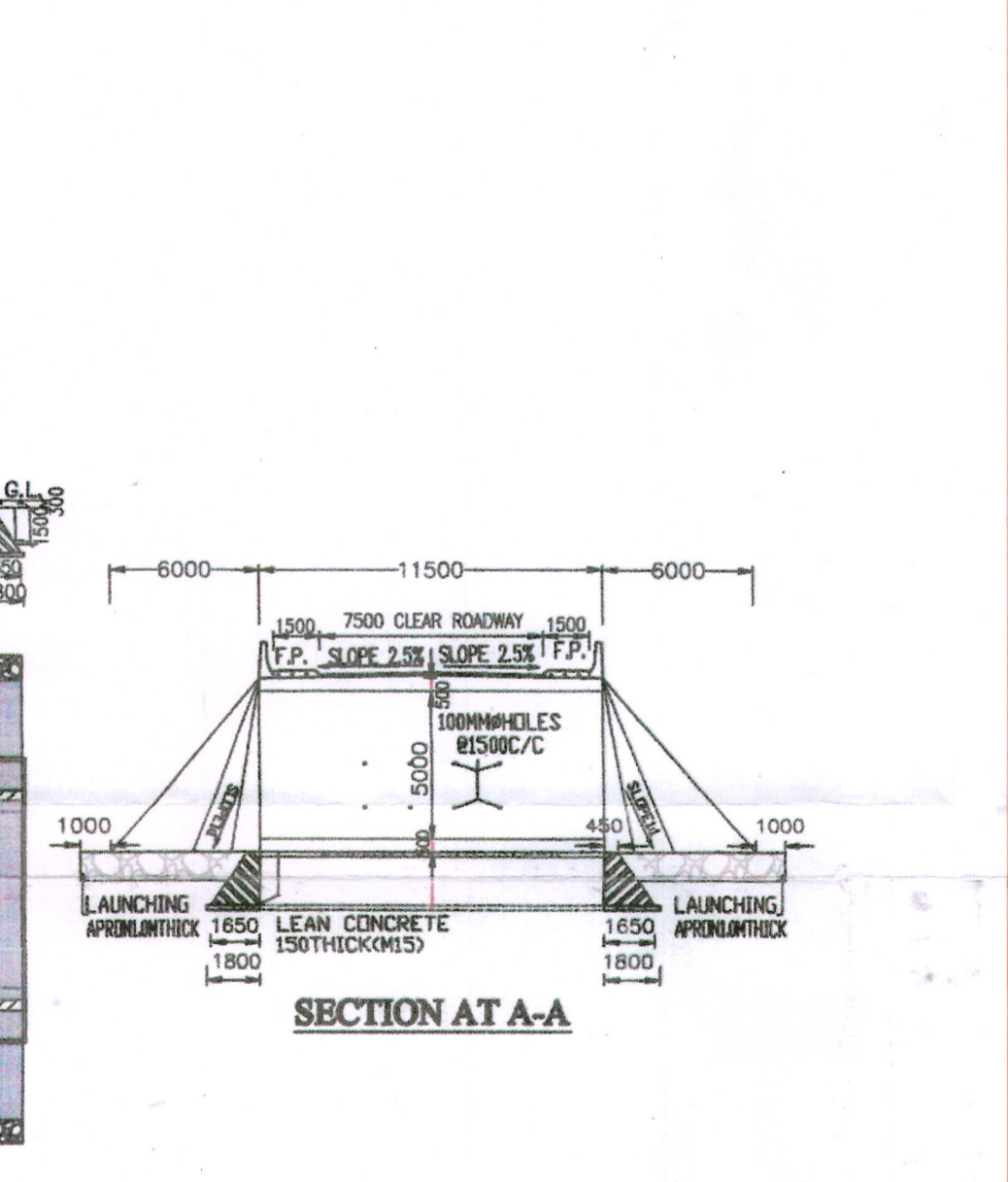
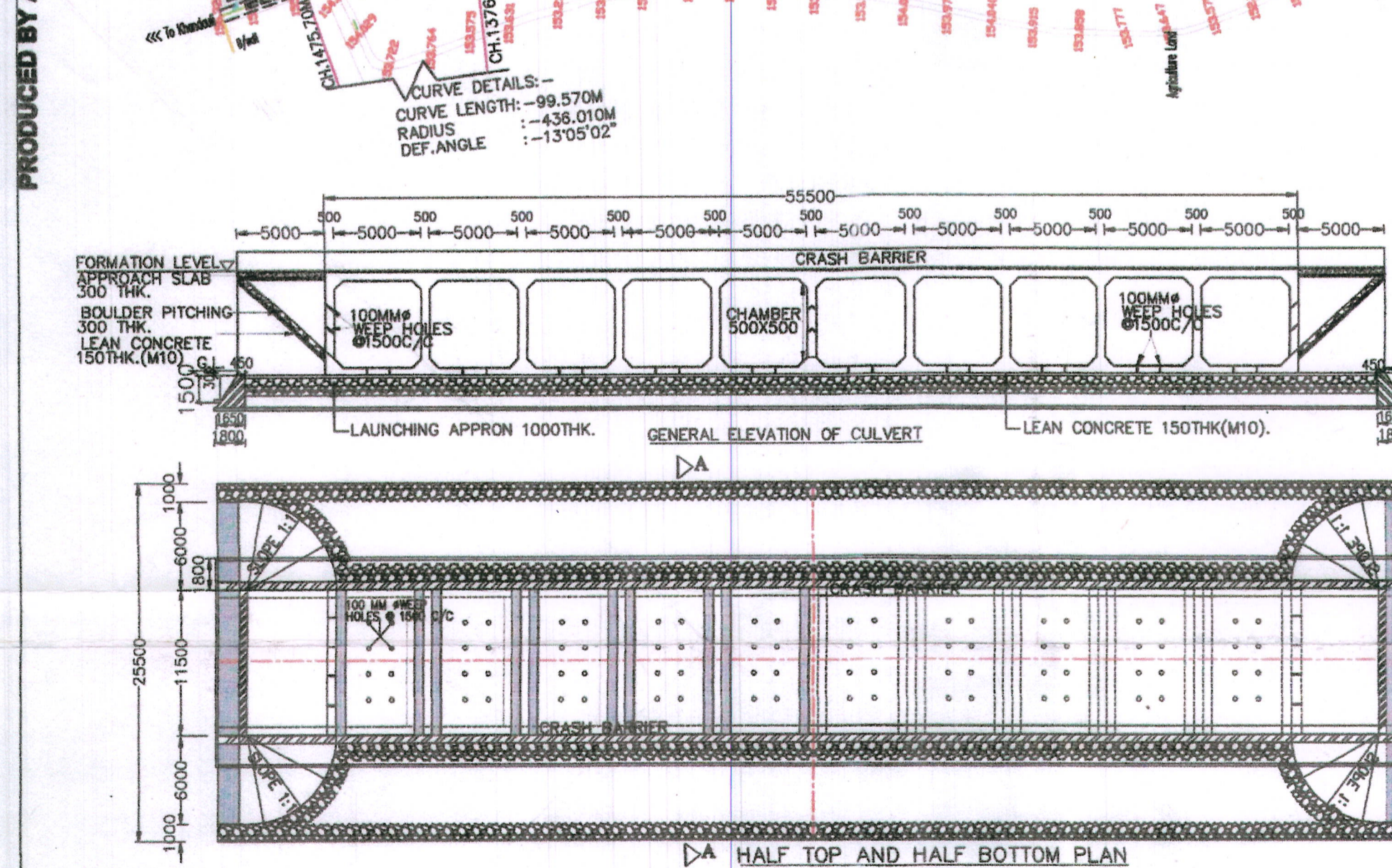
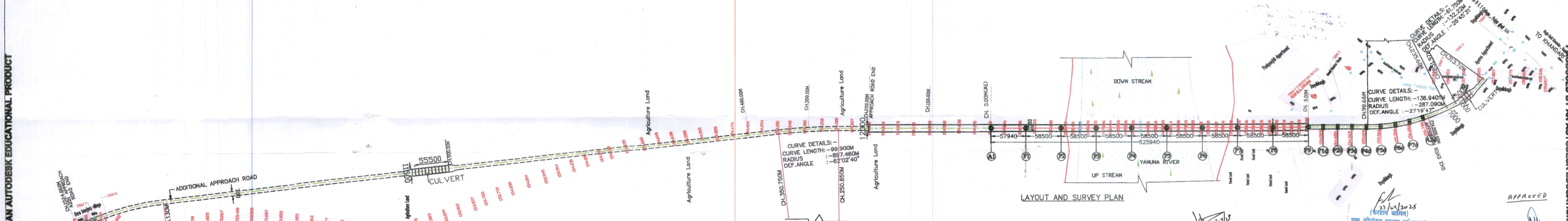
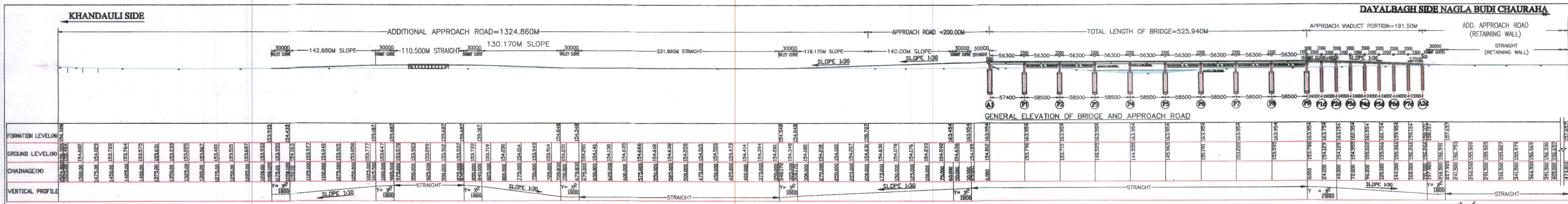
BY: *[Signature]*
25/01/25

CLIENT	U.P. STATE BRIDGE CORPORATION LTD. BRIDGE CONSTRUCTION UNIT, AGRA (U.P.)
PROJECT	CONST. OF 2-LANE BRIDGE OVER RIVER YAMUNA ON ANADI BHARAV TO DERA BANJARA (GIJALI) MARG IN DIST. -AGRA.
SPAN	9X56.30M/C/C OF BEARING (MAIN BRIDGE)+8X22.00M C/C OF BEARING (APPROACH VIADUCT PORTION)
CARRIAGEWAY	7.50M CLEAR CARRIAGEWAY WITH FOOT PATH
TITLE	GENERAL ARRANGEMENT DRAWING
LOADING	SAFE FOR 2 LANES OF IRC CLASS 'A' AND ONE LANE OF CLASS '70R'.
CONSULTANTS	M/S IRS ASSOCIATES LLP 403, TOWER 28, LOTUS BOULEVARD, SECTOR 100, NOIDA GSTIN : 09AAIR1732 P2Z7 ac+91 120 423 4229 / Mob: +91 88511 69 899 Email: info@irs.org.in

DRG. NO. OI(R)/G.A.D./YAMUNA RIVER /ANADI BHARAV MANDIR /AGRA/2025(SH-1 OF 2)

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NOTES & CONDITIONS

- 1- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 1 OF 2 OF THIS DRAWING AND SITE PLAN OF THIS BRIDGE.
- 2- IF DISTANCE BETWEEN COORDINATES OF ABUTMENTS DIFFER WITH ACTUAL LENGTH OF BRIDGE AS PER G.A.D., THEN THE ACTUAL LENGTH OF BRIDGE AS PER G.A.D. SHOULD BE ADOPTED.
- 3- T.B.M.1 -149.836 M TAKEN ON ROAD TOP AT DAYALBAGH SIDE (AS PROVIDED BY P.M. B.C.U. AGRA).
- 4- MAXIMUM SPEED LIMIT IS 35.00 KM./HOUR. IT MUST BE ENSURED TO PROVIDE PROPER CAUTION BOARD FOR SPEED LIMIT AS PER SITE REQUIREMENT.
- 5- CAUTIONARY SIGN BOARD SHALL BE PROVIDED AS PER SITE REQUIREMENT.
- 6- CROSS DRAINS SHALL BE PROVIDED AS PER SITE REQUIREMENT.
- 7-FOR PROTECTION WORK OF BRIDGE AND APPROACH ROAD REFER U.P.STATE BRIDGE CORPORATION LTD. STANDARD DRAWING.

U.P.S.B.C. NOTES:-

1. THIS G.A.D. FOR REVISED SANCTION PURPOSE HAS BEEN PREPARED BY TRS ASSOCIATES LLP, NOIDA, U.P. ON THE BASIS OF DATA REPORTED AND SUBMITTED BY D.M. B.C.U.-AGRA VIDE L-NO.66/2025-26, DATED-11-04-2025 AND RECOMMENDED BY C.M. (AGRA) VIDE L-NO.64/CPM/AGRA/2025-26, DATED-15-04-2025 AND G.A.D. PROVIDED ON 23/04/2025.
2. THE PROPOSED SPAN ARRANGEMENT, SIZE, DIMENSION OF SUPER STRUCTURE, SUB STRUCTURE, FOUNDATION AND THEIR TYPE IS CONCERNED ALONG WITH THEIR CONSTRUCTION METHODOLOGY SHALL BE CHECKED AND CERTIFIED BY THE PROOF CONSULTANT WHO WILL FINALLY CHECK AND APPROVE ALL DESIGN, DRAWINGS AND CONSTRUCTION METHODOLOGY.
3. NECESSARY PERMISSION SHALL BE TAKEN FROM FOREST AND ALL CONCERNED DEPARTMENT.
4. THIS G.A.D. IS APPLICABLE ONLY AFTER REVISED CHECK AND APPROVE ALL DESIGN, DRAWINGS AND CONSTRUCTION METHODOLOGY.
5. THIS G.A.D. CONTAIN TWO SHEETS.
 - 1) SHEET 1 OF 2 (MAIN RIVER BRIDGE G.A.D.)
 - 2) SHEET 2 OF 2 (APPROACH ROAD G.A.D.)

DRAWING NO. 01(R1) G.A.D./B.D.U.-5/ANANDI-BHAIYAR/YAMUNA/AGRA/2025. (SH. 2 OF 2)

CLIENT	DY. PROJECT MANAGER U.P. STATE BRIDGE CORPORATION LTD. BRIDGE CONSTRUCTION UNIT, AGRA (U.P.)
PROJECT	CONST. OF 2-LANE BRIDGE OVER RIVER YAMUNA ON ANADI BHAIYAR TO DERA BANJARA (GJAU) MARG IN DISTT.-AGRA.
SPAN	9X56.30M C/C OF BEARING (MAIN BRIDGE)+8X22.00M C/C BEARING (APPROACH VIADUCT PORTION)
CARRIAGEWAY	7.50M CLEAR CARRIAGEWAY WITH FOOT PATH
TITLE	GENERAL ARRANGEMENT DRAWING
LOADING	SAFE FOR 2 LANES OF I.R.C. CLASS 'A' AND ONE LANE OF CLASS '70R'.
CONSULTANTS	M/S IRS ASSOCIATES LLP 403, TOWER 28, LOTUS BOULEVARD, SECTOR 100, NOIDA GSTIN: 09AADE1732 PZZ7 Ph: +91 120 423 4229 / Mob: +91 88511 69 899 Email: info@irs.org.in

DRG. NO. 01(R1)/G.A.D./YAMUNA RIVER /ANADI BHAIYAR MANDIR /AGRA/2025(SH.2 OF 2)

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