

CLIENT:



National Highways & Infrastructure Development Corporation Ltd. (NHIDCL)

PROJECT:

CONSULTANCY SERVICES FOR PREPARATION OF FEASIBILITY STUDY AND DETAILED PROJECT REPORT FOR TWO LANING OF JORAM -KOLORIANG ROAD (NH-713) FROM KM. 20.00 TO KM. 70.00 & KM. 138.00 TO KM. 158.00 (TOTAL LENGTH 70 KM)

IN THE STATE OF ARUNACHAL PRADESH ON EPC MODE

PARTNERING VISION

DESIGN CONSULTANT:

Voyants Solutions Pvt Ltd. 403, 4th Floor, Park Centra,

Sector-30, Opp. 32nd Milestone, NH-8 Gurgaon-122002, Haryana CIN- U74140HR2004PTC046918 Ph: 0124-4598200 Fax: 0124-4019051 E-mail: info@voyants.in, www.voyants.in

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				DESIGNE
	R0	14/09/2016		APPROVI
1	REV.		DESCRIPTION	SCALE :

PD DRAWN BY: SG DESIGNED BY: APPROVED BY: KG

AS SHOWN

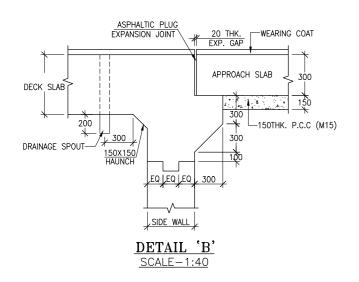
TITLE:
GENERAL ARRANGEMENT DRAWING MINOR BRIDGE AT EXISTING CHAINAGE 143+400 (DESIGN CHAINAGE 127+283) SHEET 01 OF 02

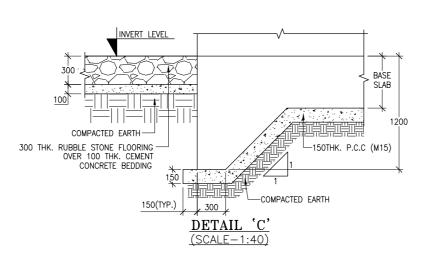
DRG. NO. : VSPL/1438/JK/DPR/GAD/MNBR- 07

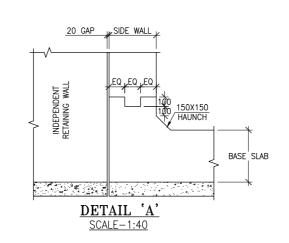
REVISION: R0 JANUARY 2017

3500 APPROACH SLAB 3500 APPROACH SLAB Q OF BOX STRUCTURE/SYMM. ─HAUNCH (150X150) 10000 CLEAR SPAN -WEEP HOLES(TYP.) HAUNCH (150X150) INDEPENDENT RETAINING WALL (TYP.) INDEPENDENT RETAINING WALL (TYP.) INVERT LEVEL FOUNDING LEVEL

> SECTION A-A (SCALE-1:75)







1. ALL DIMENSIONS ARE IN MILLIMETRES, LEVELS ARE IN METRES AND CHAINAGES ARE IN KILOMETRES, UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

KOLORIANG →

- 2. GRADE OF CONCRETE FOR VARIES ELEMENTS SHALL BE AS FOLLOWS: a) RCC BOX....
- b) CRASH BARRIER. ..M40 ..M30 c) APPROACH SLAB... e) PCC LEVELLING COURSE..M15
- 3. DESIGN CRITERIA HAS BEEN FROM THE FOLLOWING CODES. a) IRC: SP13-2004 b) IRC: 6-2014
- c) IRC: 78-2014 d) IRC: 112-2011
- 4. REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION FE-500 CONFORMING TO IS:1786.
- DECK SLAB- 50MM, INNER & OUTER WALL 50MM, BOTTOM SLAB 75MM
- 6. BACK FILLING BEHIND THE STRUCTURE SHALL CONSIST OF SELECTED
- EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES $\phi < 30^{\circ}$, C=0, $\gamma = 2.0T/M^{3}$
- 7. SOFT AND LOOSE PATCHES IN THE BEARING AREA ARE TO BE REPLACED
- BY COMPACTED GRANULAR FILLS WITH LAYERS NOT EXCEEDING 300MM.
- 8. COMPRESSIBLE FILLER BOARD SHALL BE PROVIDED IN ALL EXPANSION
- GAPS AND SEALED WITH POLY-SULPHIDE SEALANT. 9. THE MINOR BRIDGE IS DESIGNED FOR A MINIMUM SAFE BEARING
- CAPACITY OF THE SOIL OF 15.0T/M2 AFTER EXCAVATION. SBC OF THE SOIL SHALL BE VERIFIED TO ENSURE CONFORMITY WITH THE DESIGN IN CASE OF ANY DEFICIENCY, NECESSARY GROUND IMPROVEMENT SHALL BE CARRIED OUT & REQUIRED SBC SHALL BE ENSURE BEFORE LAYING FOUNDATION LEVELING COURSE.
- 10. ALL THE LEVELS AND CAMBERS TO BE VERIFIED WITH RESPECT TO
- PLAN & PROFILE DRAWINGS BEFORE STARTING UP OF EXCAVATION.
- 11. BACK FILLING BEHIND WALLS SHALL BE DONE SIMULTANEOUSLY ON EITHER SIDE OF THE STRUCTURE WITH HEIGHT DIFFERENCE NOT MORE THAN 1.0M.
- 12. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SIDE WALLS
- AND WING WALLS AS PER IR:78-2014.
- 13. WEARING COAT 65MM THICK ASPHALTIC CONCRETE OVER WATER PROOFING MEMBRANE. 14. MINIMUM ANCHORAGE LENGTH OF 40xD & LAP LENGTH OF 56xD
- FOR HYSD Fe500 BARS SHALL BE PROVIDED. WHERE 'D' IS THE
- DIAMETER OF BAR TO BE LAPPED. THE LAPS SHALL BE STAGGERED SUITABLY & MORE THAN 50% BARS SHALL NOT BE LAPPED AT ONE LOCATION.
- 7. DESIGN OF BRIDGE IS BASED ON LIVE LOAD COMBINATION OF 4-LANES OF CLASS A OR 2-LANE OF 70R OR 2-LANE OF CLASS A + 1-LANE OF 70R WHICHEVER PRODUCE SEVER EFFECT.
- 16. ANY DISCREPANCY NOTED SHOULD BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.

CLIENT :

← JORAM



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__150THK. P.C.C (M15)



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150THK. P.C.C (M15)-

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403, 4th Floor, Park Centra, Sector-30, Opp. 32nd Milestone, NH-8 Gurgaon-122002, Haryana				DESIGNE
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Fax: 0124-4019051 E-mail: info@voyants.in, www.voyants.in	REV.	DATE	DESCRIPTION	SCALE :

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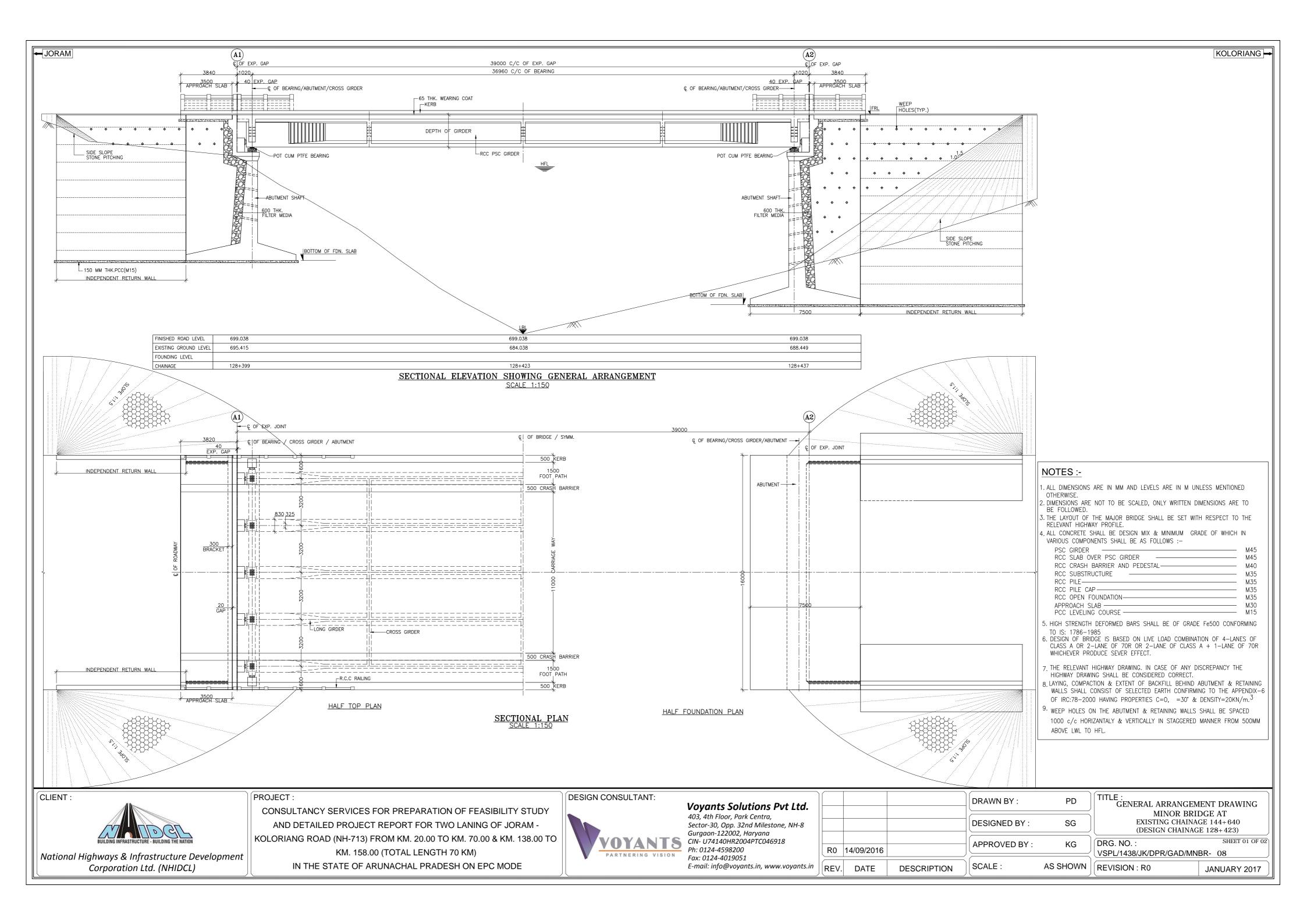
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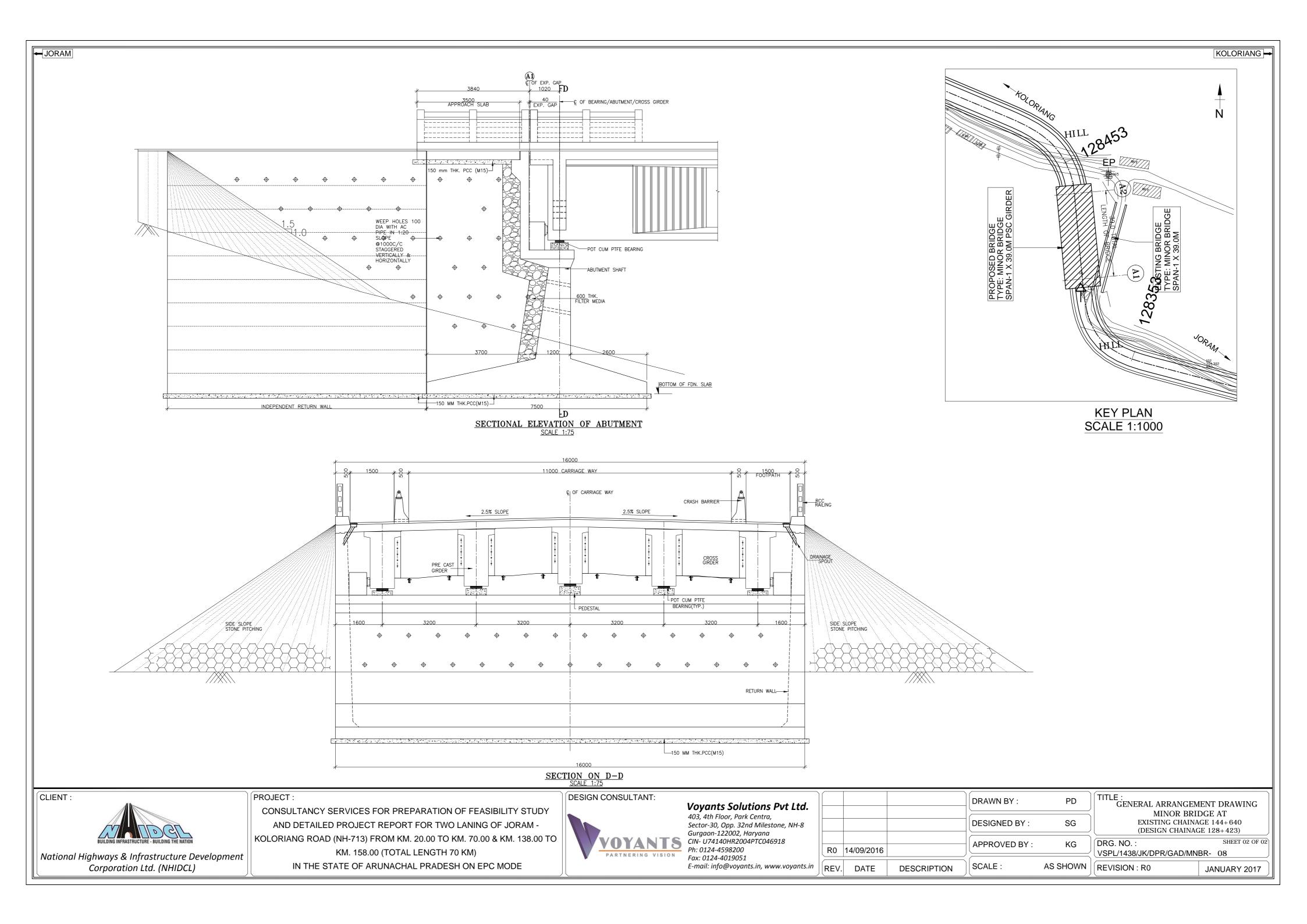
TITLE:
GENERAL ARRANGEMENT DRAWING MINOR BRIDGE AT EXISTING CHAINAGE 143+400 (DESIGN CHAINAGE 127+283)

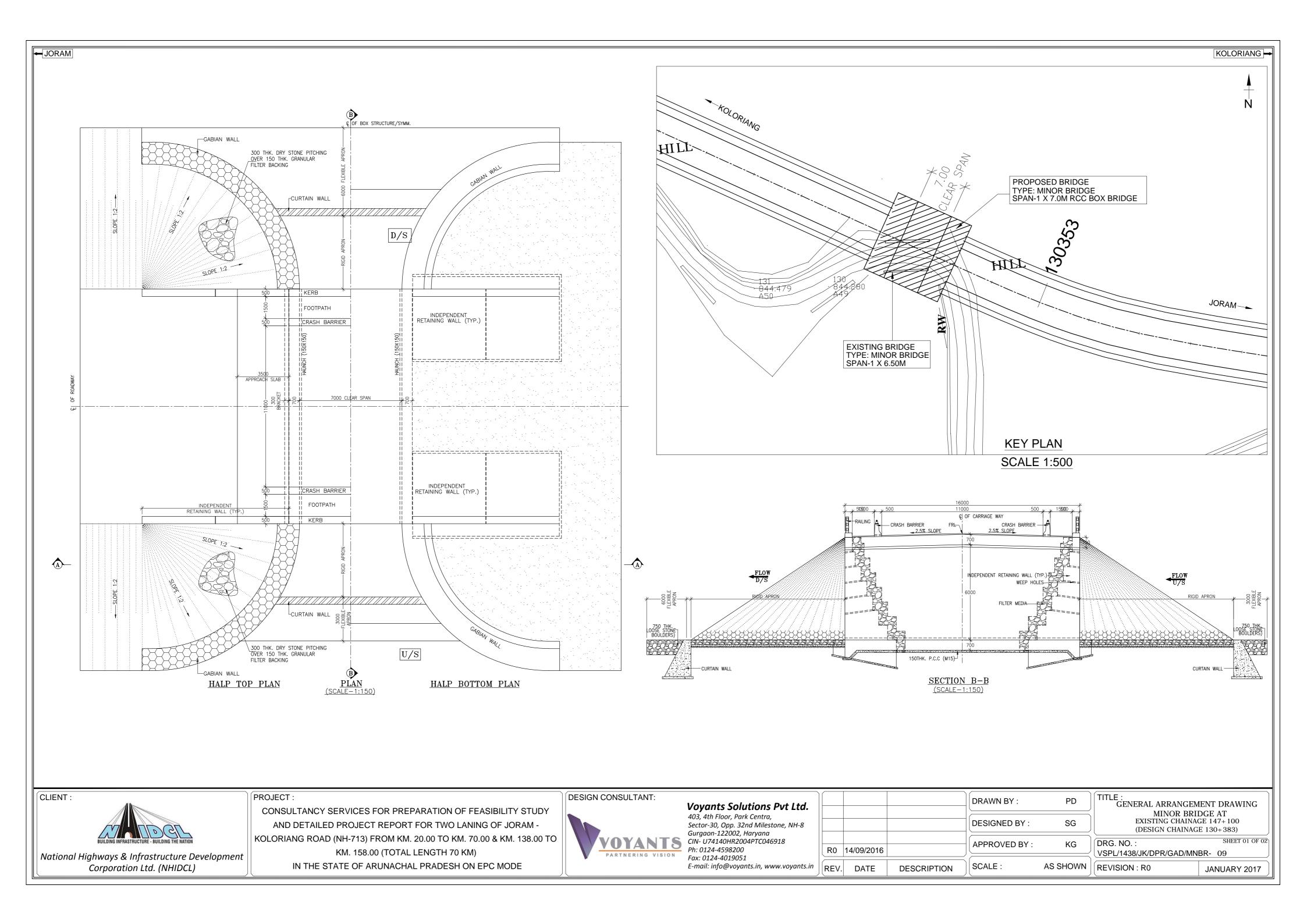
SHEET 02 OF 02 DRG. NO. : VSPL/1438/JK/DPR/GAD/MNBR- 07

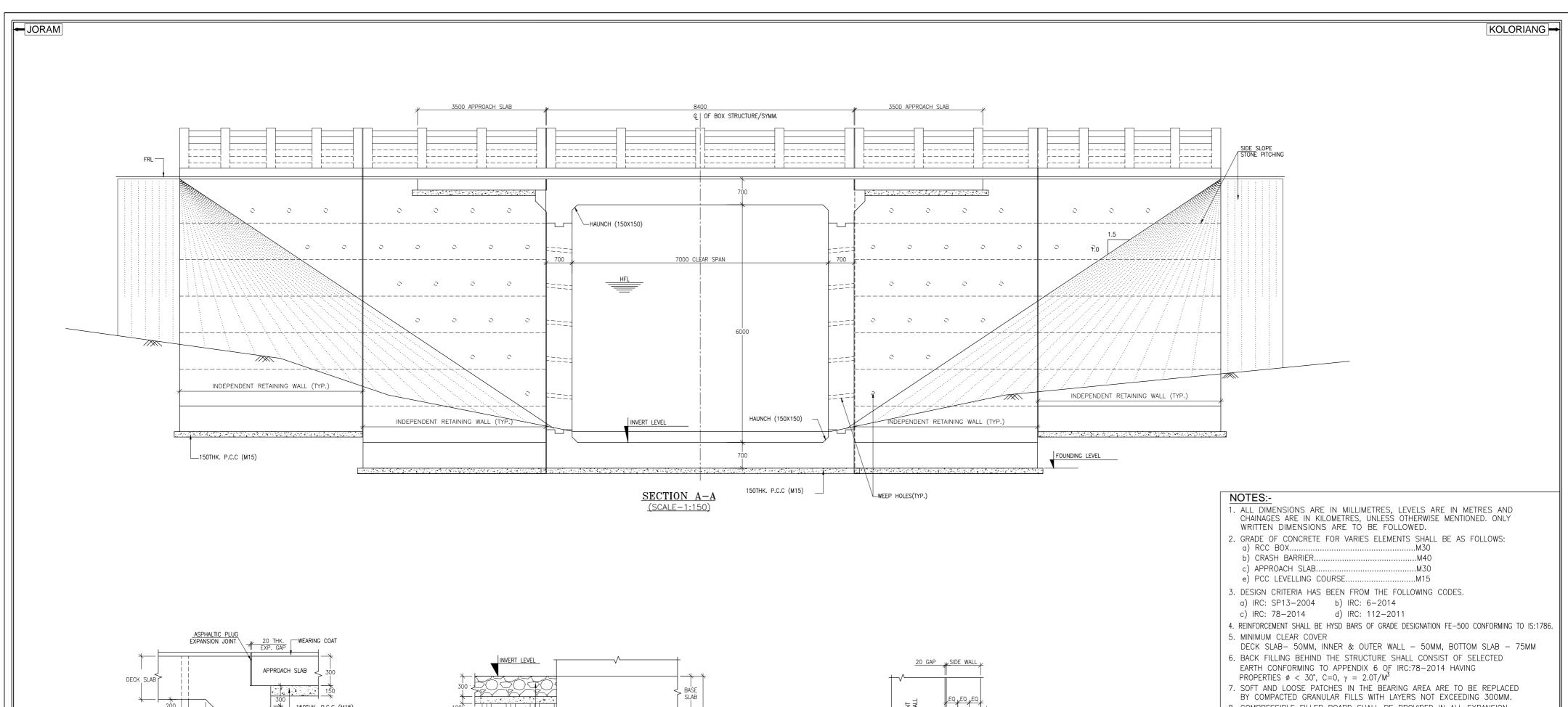
REVISION: R0 JANUARY 2017

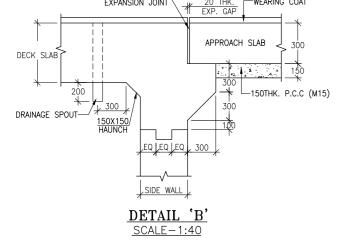
IN THE STATE OF ARUNACHAL PRADESH ON EPC MODE

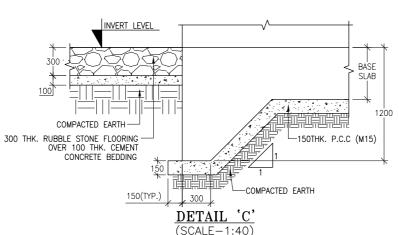


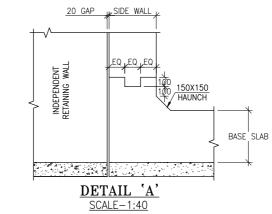












- 8. COMPRESSIBLE FILLER BOARD SHALL BE PROVIDED IN ALL EXPANSION GAPS AND SEALED WITH POLY-SULPHIDE SEALANT.
- 9. THE MINOR BRIDGE IS DESIGNED FOR A MINIMUM SAFE BEARING CAPACITY OF THE SOIL OF 15.0T/M2 AFTER EXCAVATION. SBC OF THE SOIL SHALL BE VERIFIED TO ENSURE CONFORMITY WITH THE DESIGN IN CASE OF ANY DEFICIENCY, NECESSARY GROUND IMPROVEMENT SHALL BE CARRIED OUT & REQUIRED SBC SHALL BE ENSURE BEFORE LAYING FOUNDATION LEVELING COURSE.
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- 14. MINIMUM ANCHORAGE LENGTH OF 40xD & LAP LENGTH OF 56xD FOR HYSD Fe500 BARS SHALL BE PROVIDED. WHERE 'D' IS THE DIAMETER OF BAR TO BE LAPPED. THE LAPS SHALL BE STAGGERED SUITABLY & MORE THAN 50% BARS SHALL NOT BE LAPPED AT ONE LOCATION.
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- WHICHEVER PRODUCE SEVER EFFECT. 16. ANY DISCREPANCY NOTED SHOULD BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.

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Fax: 0124-4019051 E-mail: info@voyants.in, www.voyants.in	REV.	DATE	DESCRIPTION	SCALE :

RAWN BY: PD ESIGNED BY: SG PPROVED BY: KG

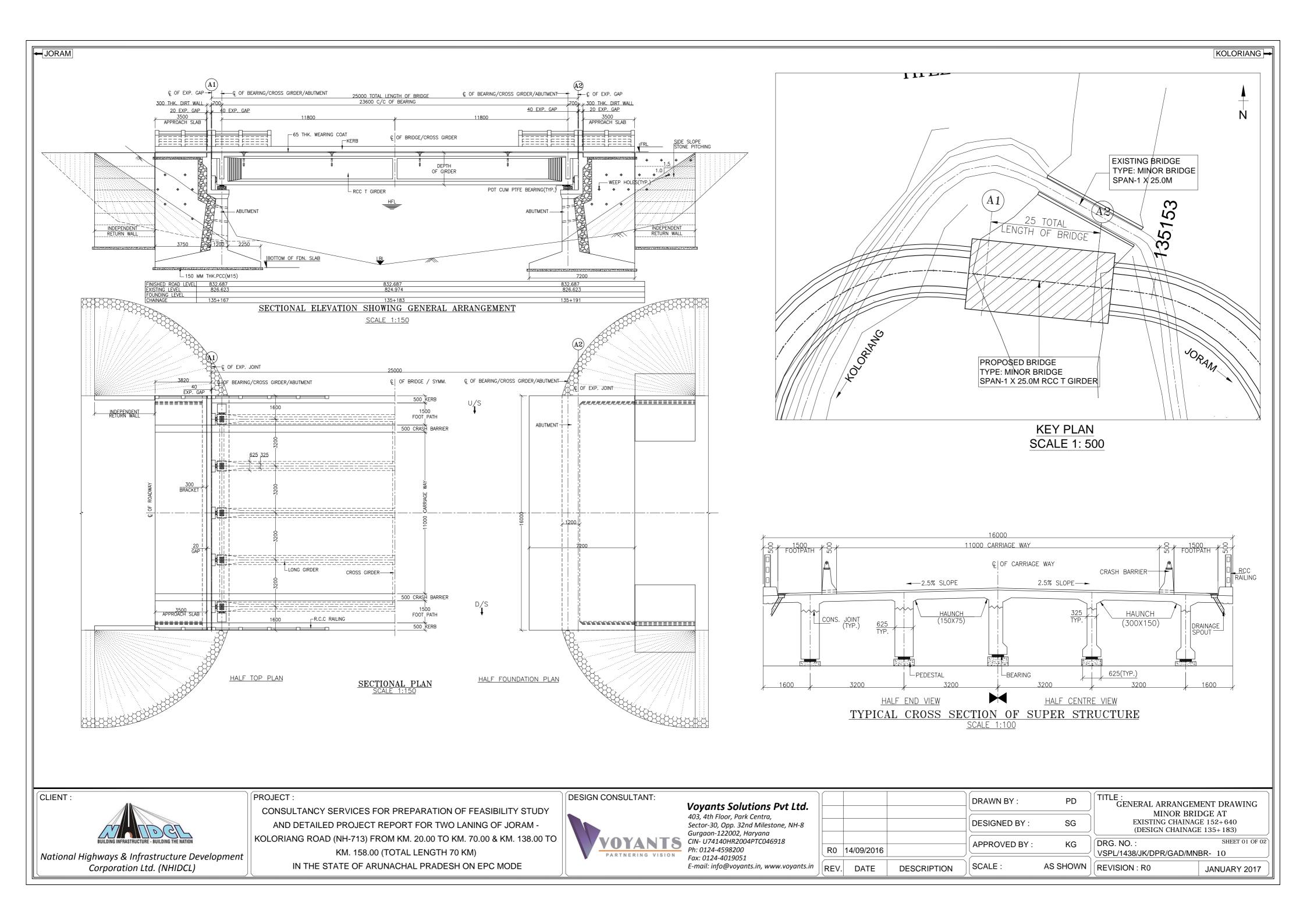
GENERAL ARRANGEMENT DRAWING MINOR BRIDGE AT EXISTING CHAINAGE 147+100 (DESIGN CHAINAGE 130+383)

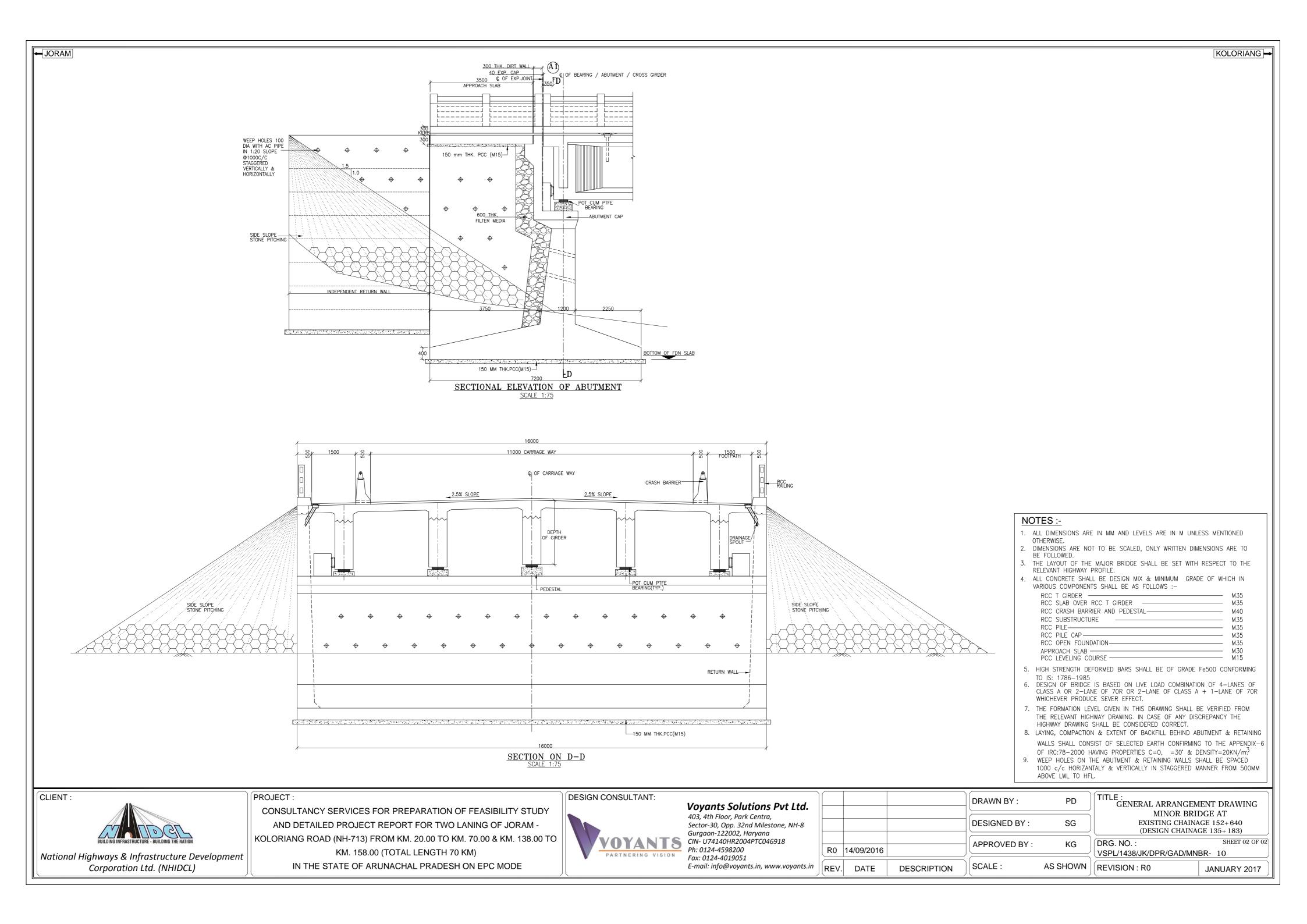
SHEET 02 OF 02 DRG. NO. : VSPL/1438/JK/DPR/GAD/MNBR- 09

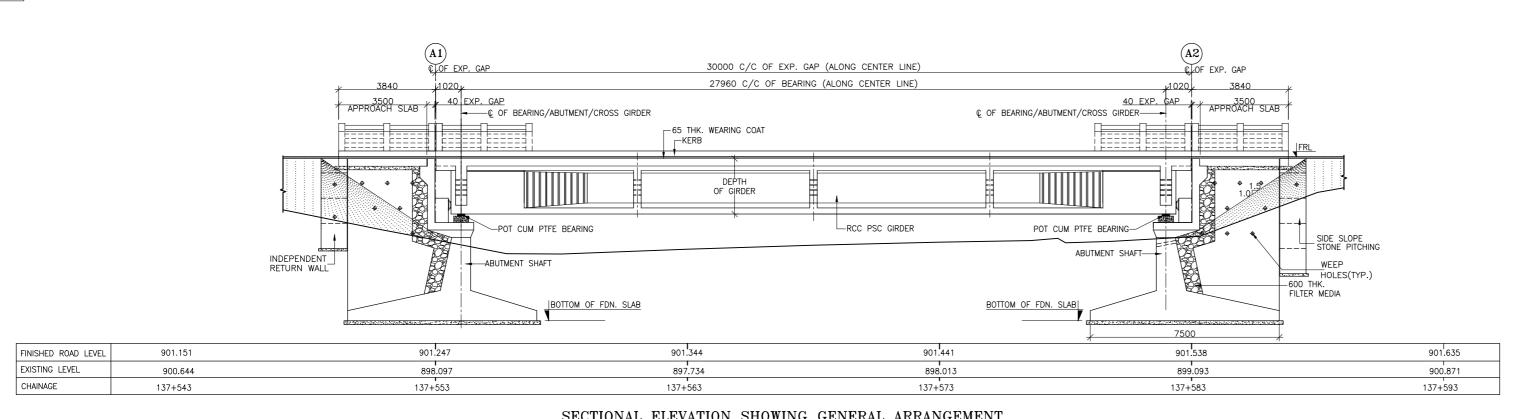
REVISION: R0 JANUARY 2017

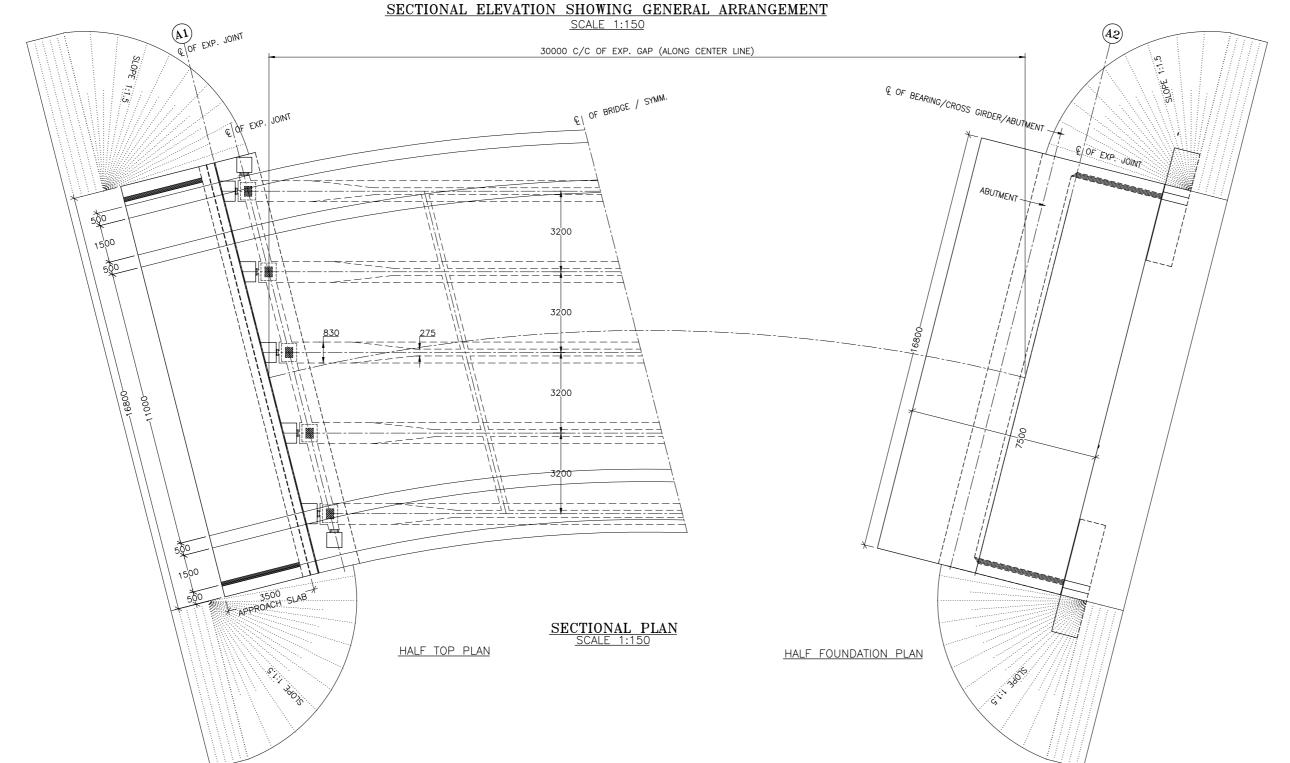
IN THE STATE OF ARUNACHAL PRADESH ON EPC MODE

AS SHOWN









NOTES:-

ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN M UNLESS MENTIONED OTHERWISE.

KOLORIANG →

- DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS ARE TO
- THE LAYOUT OF THE MAJOR BRIDGE SHALL BE SET WITH RESPECT TO THE RELEVANT HIGHWAY PROFILE.
- ALL CONCRETE SHALL BE DESIGN MIX & MINIMUM GRADE OF WHICH IN VARIOUS COMPONENTS SHALL BE AS FOLLOWS :-
- PSC GIRDER RCC SLAB OVER PSC GIRDER M45 RCC CRASH BARRIER AND PEDESTAL-RCC SUBSTRUCTURE M35 RCC PILE-M35 RCC PILE CAP-M35 RCC OPEN FOUNDATION-M35 APPROACH SLAB -PCC LEVELING COURSE -
- 5. HIGH STRENGTH DEFORMED BARS SHALL BE OF GRADE Fe500 CONFORMING TO IS: 1786-1985
- 6. DESIGN OF BRIDGE IS BASED ON LIVE LOAD COMBINATION OF 4-LANES OF CLASS A OR 2-LANE OF 70R OR 2-LANE OF CLASS A + 1-LANE OF 70R WHICHEVER PRODUCE SEVER EFFECT.
- 7. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH BORE LOG DETAILS REFER 2 OF 2 OF THIS DRAWING
- 8. THE FORMATION LEVEL GIVEN IN THIS DRAWING SHALL BE VERIFIED FROM THE RELEVANT HIGHWAY DRAWING. IN CASE OF ANY DISCREPANCY THE HIGHWAY DRAWING SHALL BE CONSIDERED CORRECT.
- 9. LAYING, COMPACTION & EXTENT OF BACKFILL BEHIND ABUTMENT & RETAINING WALLS SHALL CONSIST OF SELECTED EARTH CONFIRMING TO THE APPENDIX-6 OF IRC:78-2000 HAVING PROPERTIES C=0, =30° & DENSITY=20KN/m³
- 10. WEEP HOLES ON THE ABUTMENT & RETAINING WALLS SHALL BE SPACED 1000 c/c HORIZANTALY & VERTICALLY IN STAGGERED MANNER FROM 500MM ABOVE LWL TO HFL.

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Fax: 0124-4019051 E-mail: info@voyants.in, www.voyants.in	REV. DATE DES	SCRIPTION SCALE :

DRAWN BY :	PD
DESIGNED BY:	SG
APPROVED BY :	KG

AS SHOWN

TITLE:
GENERAL ARRANGEMENT DRAWING MINOR BRIDGE AT EXISTING CHAINAGE 155+600 (DESIGN CHAINAGE 137+568)

SHEET 01 OF 02 DRG. NO. : VSPL/1438/JK/DPR/GAD/MNBR- 01

REVISION: R0 JANUARY 2017

