TO LAXMIPURA
TO JETALVASANA
SLOPE 1 IN 40
SLOPE 1 IN 40
APL13 APL12 APL11 APL10 APL9 APL8 APL7 APL6 APL5 APL4 APL3 APL2 APL1
P1 P2 P3 P4
APR1 APR2 APR3 APR4 APR5 APR6 APR7 APR8 APR9 APR10 APR11 APR12 APR13
FRL 112.143
VUP-1x10.5x5.5

CHAINAGE	PROPOSED ROAD LEVEL AT CENTRELINE (m)	EXISTING ROAD LEVEL AT CENTRELINE (m)
0+000	95.948	95.948
0+020	96.046	96.026
0+040	96.145	96.170
0+060	96.311	96.275
0+080	96.604	96.243
0+100	97.026	96.361
0+120	97.526	96.437
0+140	98.026	96.385
0+160	98.525	96.413
0+180	99.025	96.388
0+200	99.525	96.415
0+220	100.025	96.456
0+240	100.525	96.340
0+260	101.025	96.366
0+280	101.525	96.344
0+300	102.025	96.432
0+320	102.525	96.498
0+340	103.025	96.473
0+360	103.525	96.851
0+380	104.025	96.678
0+400	104.525	96.724
0+420	105.025	96.740
0+440	105.525	96.832
0+460	106.025	96.900
0+480	106.525	96.939
0+500	107.025	96.988
0+520	107.525	97.053
0+540	108.025	97.131
0+560	108.525	97.220
0+580	109.025	97.212
0+600	109.525	97.329
0+620	110.025	97.390
0+640	110.525	97.393
0+660	111.025	97.522
0+680	111.525	97.490
0+700	111.922	97.553
0+720	112.119	97.588
0+740	112.143	97.591
0+760	112.143	96.506
0+780	112.143	98.284
0+800	112.143	98.654
0+820	112.143	97.233
0+840	112.130	97.429
0+860	111.958	97.500
0+880	111.587	97.526
0+900	111.089	97.565
0+920	110.589	97.589
0+940	110.089	97.551
0+960	109.589	97.386
0+980	109.089	98.204
1+000	108.589	96.743
1+020	108.089	97.102
1+040	107.589	97.404
1+060	107.089	97.394
1+080	106.589	97.391
1+100	106.089	97.341
1+120	105.589	97.307
1+140	105.089	97.223
1+160	104.589	97.181
1+180	104.089	97.194
1+200	103.589	97.131
1+220	103.089	97.134
1+240	102.589	97.180
1+260	102.089	97.231
1+280	101.589	97.291
1+300	101.089	97.209
1+320	100.589	97.219
1+340	100.089	97.241
1+360	99.589	97.261
1+380	99.089	97.274
1+400	98.589	97.281
1+420	98.089	97.283
1+440	97.653	97.282
1+460	97.407	97.282
1+480	97.345	97.330
1+500	97.329	97.324

ELEVATION

TABLE (TO LAXMIPURA)

LOCATION	CHAINAGE	TOP OF PIER CAP	BED LEVEL	TOP OF PILE CAP	BOTTOM OF PILE CAP
APL1	731.518	109.156	97.395	96.885	95.085
APL2	707.518	109.020	97.543	96.885	95.085
APL3	683.516	108.603	97.490	96.885	95.085
APL4	659.514	108.008	97.518	96.885	95.085
APL5	635.513	107.408	97.392	96.885	95.085
APL6	611.512	106.808	97.388	96.885	95.085
APL7	587.512	106.208	97.249	96.542	94.742
APL8	563.512	105.608	97.218	96.542	94.742
APL9	539.512	105.008	97.128	96.542	94.742
APL10	515.512	104.408	97.038	96.542	94.742
APL11	491.512	103.808	96.962	96.354	94.554
APL12	467.512	103.208	96.913	96.354	94.554
APL13	443.512	102.623	96.865	96.354	94.554

TABLE (TO JETALVASANA)

LOCATION	CHAINAGE	TOP OF PIER CAP	BED LEVEL	TOP OF PILE CAP	BOTTOM OF PILE CAP
APR1	674.957	109.022	97.465	96.961	95.161
APR2	878.957	108.605	97.532	96.961	95.161
APR3	902.957	108.011	97.568	96.961	95.161
APR4	926.957	107.411	97.597	96.961	95.161
APR5	950.972	106.811	97.460	96.950	95.150
APR6	974.997	106.211	97.938	96.998	95.198
APR7	999.022	105.611	96.788	99.240	97.440
APR8	1023.041	105.011	97.157	96.245	94.445
APR9	1047.045	104.411	97.401	96.700	94.900
APR10	1071.045	103.811	97.392	96.700	94.900
APR11	1095.045	103.211	97.362	99.700	94.900
APR12	1119.045	102.611	97.307	96.700	94.900
APR13	1143.045	102.029	97.207	96.700	94.900

C OF MEDIAN
8400 (O/O BETWEEN LEFT AND RIGHT SIDE OF CRASH BARRIER)
7500 CARRIAGEWAY
300mm THK. G.S.B
250mm THK. W.M.M.
90mm THK. D.B.M
40mm THK. B.C
RCC CRASH BARRIER (AS PER DESIGN)
40mm THICK COMPRESSIBLE FILLER
DETAIL A
TAKE DOWN DRAIN PIPE (TYP.)
PRECAST CONCRETE (M 35) PANELS, 180 THICK
DRAINAGE BAY 600mm THICK WITH WELL GRADED AGGREGATES
GEOGRID AS PER DESIGN
RETAINED FILL AS PER TECHNICAL SPECIFICATION
REINFORCED FILL AS PER TECHNICAL SPECIFICATION
CONNECTOR BAR
EPDM BEARING PAD 20mm THICK
TIE RODS AS PER DRAWING @ 250 C/C
SERVICE ROAD 3750 mm
DRAIN
P.C.C
GEOGRID REINFORCEMENT LENGTH (AS PER DESIGN)
EXCAVATION LINE
LEVELLING PAD (PCC M15)
TO PALANPUR (UNJHA)
TO MEHSANA (BHANDU)
P1 P2 P3 P4
RADHA ASSOCIATE
TO LAXMIPURA
TO JETALVASANA
ROB START
ROB END EP: 1+512.53
PC: 0+024.72
Mid: 0+080.03
PT: 0+135.34
PC: 0+169.89
Mid: 0+210.05
PT: 0+250.20
PC: 0+652.21
Mid: 0+679.21
PT: 0+706.21
TS: 0+907.19
SC: 0+952.19
Mid: 0+979.01
CS: 1+005.83
ST: 1+050.83
FORMATION LEVEL
100Ø WEEP HOLES
600mm FILTER MEDIA
EARTH SIDE
G.L
150mm THK. P.C.C.
40mm THICK B.C.
FILLER MATERIAL
INSITU PORTION OF CRASH BARRIER
FILLER MATERIAL 40mm THK.
COPING BEAM
P.C.C. LEVELLING COURSE (M15) 100mm THK.
RS WALL PANEL 180mm THK.
TOP SLAB
INVERT LVL.
DRAIN
TO LAXMIPURA
TO JETALVASANA
328441mm KANOODAR LEFT END SIDE
269900mm KAMALPUR RIGHT END SIDE
END OF RE WALL
START OF RE WALL
ROB @ 206
180mm THICK PANEL FACIA
328441mm LAXMIPURA LEFT END SIDE
269900mm JETALVASANA RIGHT END SIDE

TYPICAL CROSS SECTION OF REINFORCED SOIL WALL WITH GEOGRID REINFORCEMENT AND TECHFORM PANEL FACING

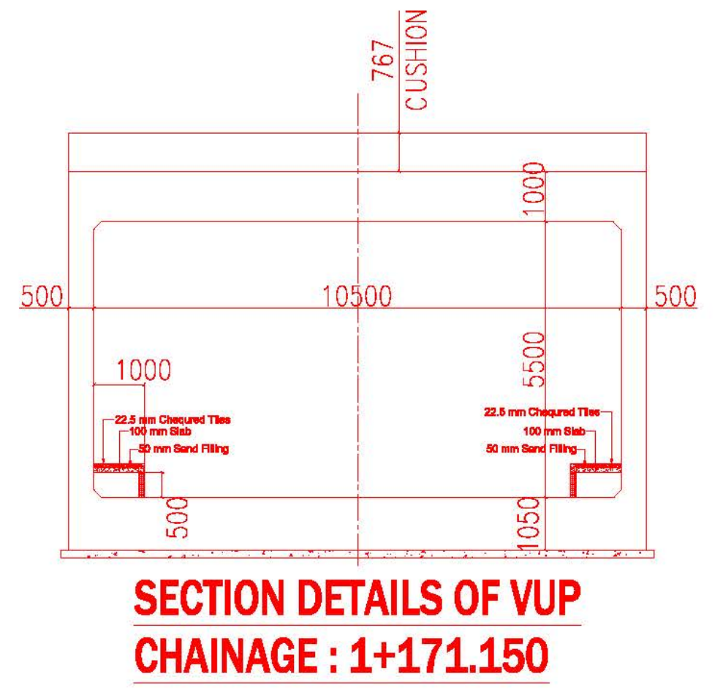
PLAN

R.C.C. DETAILS OF RETAINING WALL WITH CRASH BARRIER

K E Y P L A N FOR RE WALL

DETAILS OF CRASH BRARIER WITH FRICTION SLAB

SECTION OF DRAIN


767 CUSHION
500
10500
500
1000
5500
1000
500
1050
22.5 mm Chequred Tiles
100 mm Slab
50 mm Sand Filling

SECTION DETAILS OF VUP
CHAINAGE : 1+171.150

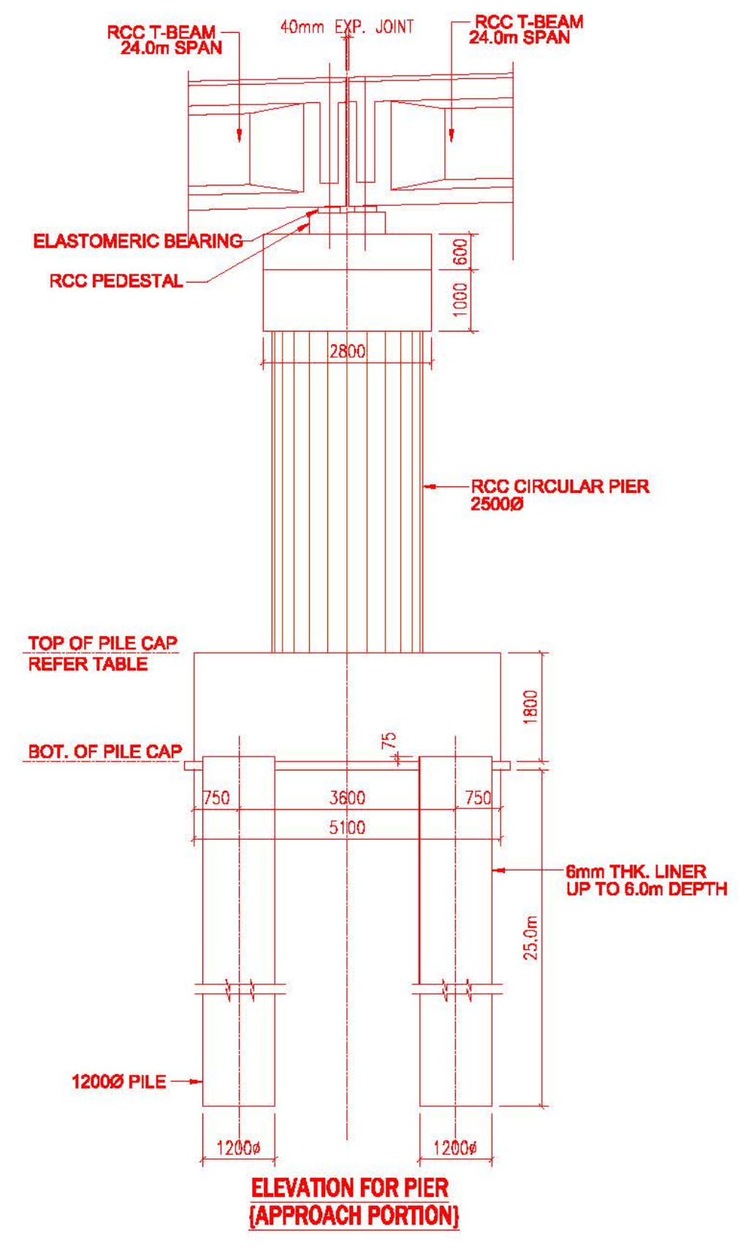
NOTE:

1. THE DIMENSIONS, SECTIONAL DETAILS, CURVE DETAILS ARE TENTATIVE AND ARE SUBJECT TO CHANGES TO SUIT DESIGN REQUIREMENT AND SITE CONDITIONS.
2. DIAMETER, DEPTH AND NUMBER OF PILES ARE TENTATIVE AND ARE SUBJECT TO CHANGES AS PER DESIGN.
3. TEST PILE SHALL BE LOAD TESTED BEFORE CASTING OF MAIN PILES.
4. STRIP SEAL TYPE EXPANSION JOINTS SHALL BE AS PER MORTH, IRC & IS SPECIFICATIONS.
5. ALL OTHER SPECIFICATIONS SHALL BE AS PER MORTH & IRC SPECIFICATIONS FOR ROADS & BRIDGES.
6. SUPER STRUCTURE AND BEARINGS SHALL BE AS PER MORTH DRAWINGS.
7. CONCRETE GRADE SHALL BE:
   (I)LEVELLING COURSE M-15, (II) PIER, PIER CAP, PILE, PILE CAP, SEISMIC RESTRAINER M-35, (III) SUPERSTRUCTURE M-35, (IV) PEDESTAL, CRASH BARRIER M-40 & (V) RETAINING WALL M-35.
8. REINFORCEMENT SHALL BE Fe-500d (TMT) CONFORMING TO IS 1786-2008.
9. CLEAR COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:
   (I)PILE : 75 mm, (II) PILE CAP : 75 mm & (III) PIER - 50 mm.
10. CRASH BARRIER SHALL BE AS PER LATEST IRC STANDARD.
11. THE STRUCTURE SHALL BE DESIGNED AS PER LATEST IRC/IS SPECIFICATIONS FOR MODERATE EXPOSURE CONDITION.
12. ALL THE SETTING OUT DIMENSIONS & REDUCED LEVELS etc. SHALL BE VERIFIED AT SITE BEFORE STARTING THE WORK.
13. DESIGN LOADING: 70R FOR SINGLE LANE AND/OR CLASS A FOR TWO LANE.
14. PROPER PROTECTION MEASURES SHALL BE TAKEN WHILE EXECUTING THE WORK NEAR RAILWAY TRACKS.
15. SAFETY MEASURES SHALL BE PROVIDED LIKE PROTECTIVE SCREENS, EARTHING, CAUTION BOARD etc.
16. IF VARIATION IN SOIL STRATA BY MORE THAN 500mm IS NOTICED, THE SAME SHALL BE REPORTED TO DESIGN SECTION.
17. CHECK & VERIFY THE ALIGNMENT BEFORE STARTING EXECUTION OF WORK.
18. BED LEVEL & FRL SHOULD BE VERIFIED BEFORE EXECUTION.
19. THE APPROACHES PORTION WORK SHALL BE CARRIED OUT AS PER MOST SPECIFICATIONS.
20. SHAPES & SIZE OF PIER, PIER CAP, BEARING SHOWN IN THIS DRAWING ARE TENTATIVE & ARE SUBJECT TO CHANGE IN FINAL DESIGN & DRAWING.
21. EXCATION WORK FOR ROB SHALL BE DONE ONLY IN PRESENCE OF AUTHORISED RAILWAY REPRESENTATIVE TO ENSURE THE SAFETY OF LABOUR & RUNNING TRAIN. PROPER PRECAUTION SHALL BE TAKEN DURING FOUNDATION EXCAVATION NEAR THE TRACK BY PROVIDING PROPER SHORING / STRUTTING TO PREVENT SLOPE FAILURE OF SOIL.
22. 6mm THICK LINER SHALL BE PROVIDED UPTO A DEPTH OF 3.0 m.
23. THE LEVELS SHOWN FOR PIER CAP, PILE CAP ARE TENTATIVE AND ARE SUBJECT TO CHANGES AS PER FINAL DESIGN.
24. ROB IS LOCATED IN SEISMIC ZONE-IV.

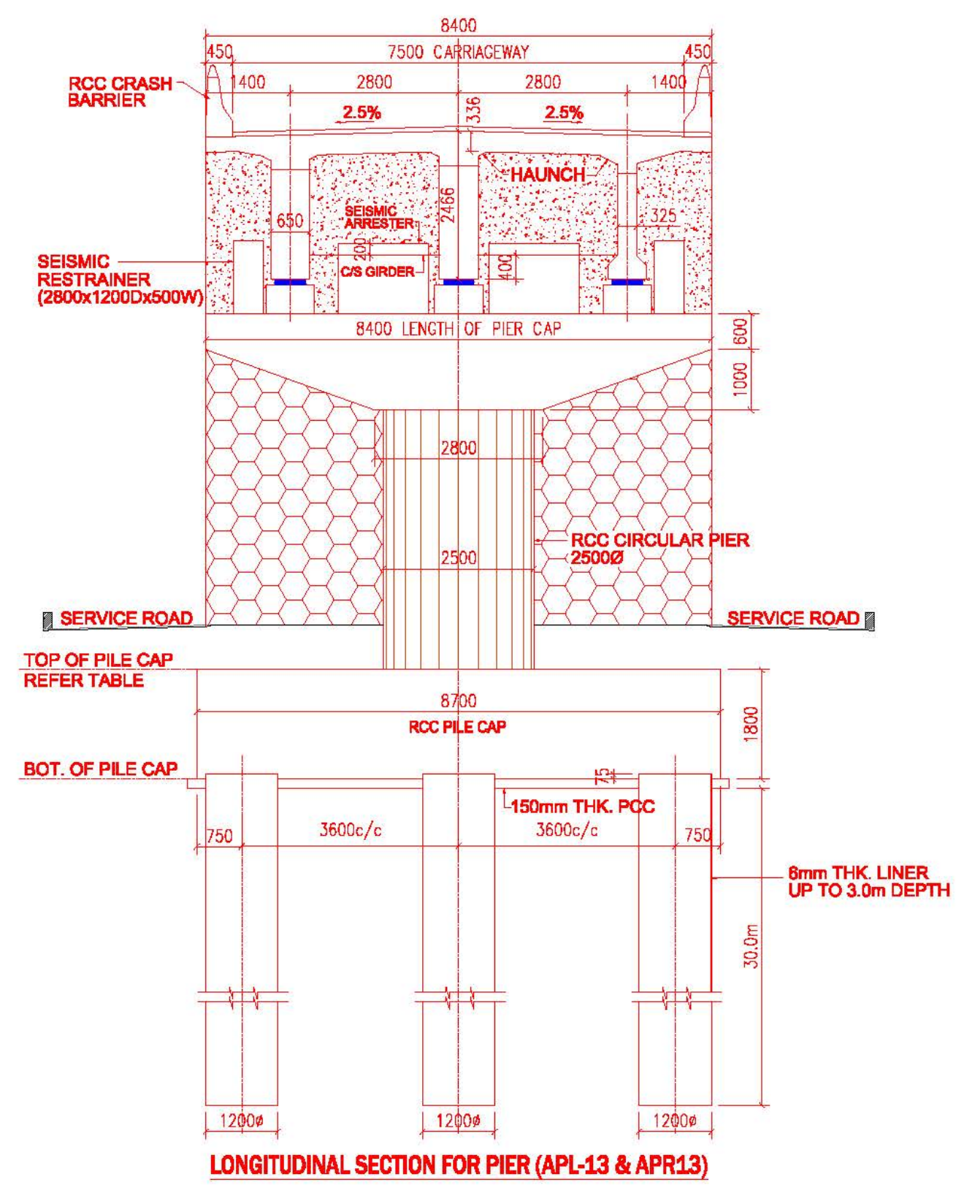
NOTE:RE WALL PORTION

1. THE MINIMUM GRADE OF CONCRETE FOR RE WALL SHALL BE:
   - M-35 FOR T-PANEL
   - M-25 FOR COPING BEAMS
   - M-15 FOR LEVELLING PADS.
2. THE REQUIRED SAFE BEARING CAPACITIES FOR VARIOUS LOCATIONS ARE SHOWN IN CORRESPONDING L-SECTIONS.
3. ANY UNSUITABLE SOIL/FILLED-UP SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED FILL OF APPROVED QUALITY.
4. IN THE REINFORCED & RETAINED ZONE SELECT GRANULAR FILL AS PER SPECIFICATIONS SHALL BE USED. TO ENSURE PROPER PLACING, SPREADING, GRADING & COMPACTION STRICT SUPERVISION SHALL BE FOLLOWED.
5. CONSTRUCTION JOINT SHALL BE PROVIDED AT THE JUNCTION OF CROSS DRAINAGE STRUCTURE AND RE WALL.
6. CUTTING WIDTH OF TECHGRID (TGU) SHALL BE 250mm WITH 8 RIBS.
7. SERVICE ROAD SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE CONSTRUCTION OF RS/RE WALL TO ENSURE MINIMUM REQUIRED EMBEDMENT.

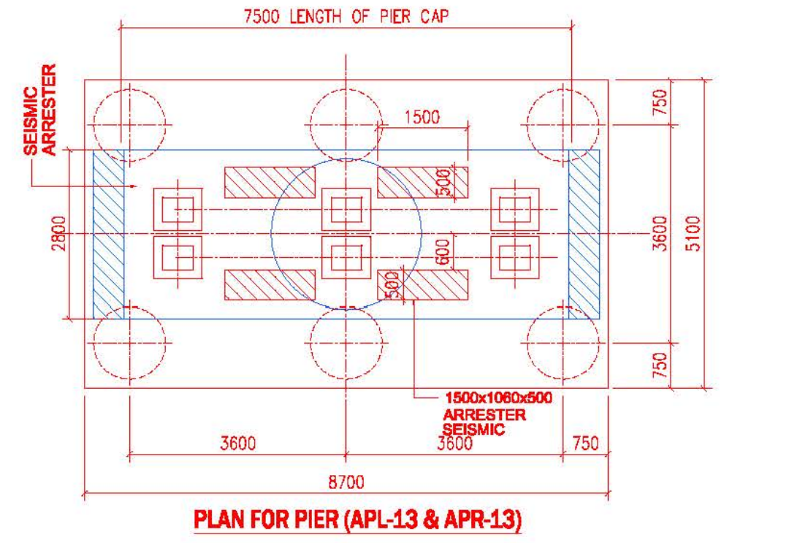
	APPROACH PORTION (TO LAXMIPURA)	RAILWAY PORTION	APPROACH PORTION (TO JETALVASANA)
SKEW ANGLE	-	20°	-
NO OF SPAN	13 x 24tr.	2 x 18m, 1 x 36m	13 x 24mtr.
RE WALL LENGTH	328.441m	-	269.900m
MAX. RE WALL HEIGHT ABOVE G.L.	8.747m	-	7.808m
RETAINING WALL LENGTH	36.281m	-	32.919m
KERB STONE	78.755m	-	66.589m
TOTAL LENGTH OF APPROACH	755.518m	-	681.408m
TOTAL LENGTH OF RAILWAY	-	75.440m	-


RCC T-BEAM 24.0m SPAN
40mm EXP. JOINT
RCC T-BEAM 24.0m SPAN
ELASTOMERIC BEARING
RCC PEDESTAL
RCC CIRCULAR PIER 2500Ø
TOP OF PILE CAP REFER TABLE
BOT. OF PILE CAP
6mm THK. LINER UP TO 6.0m DEPTH
1200Ø PILE

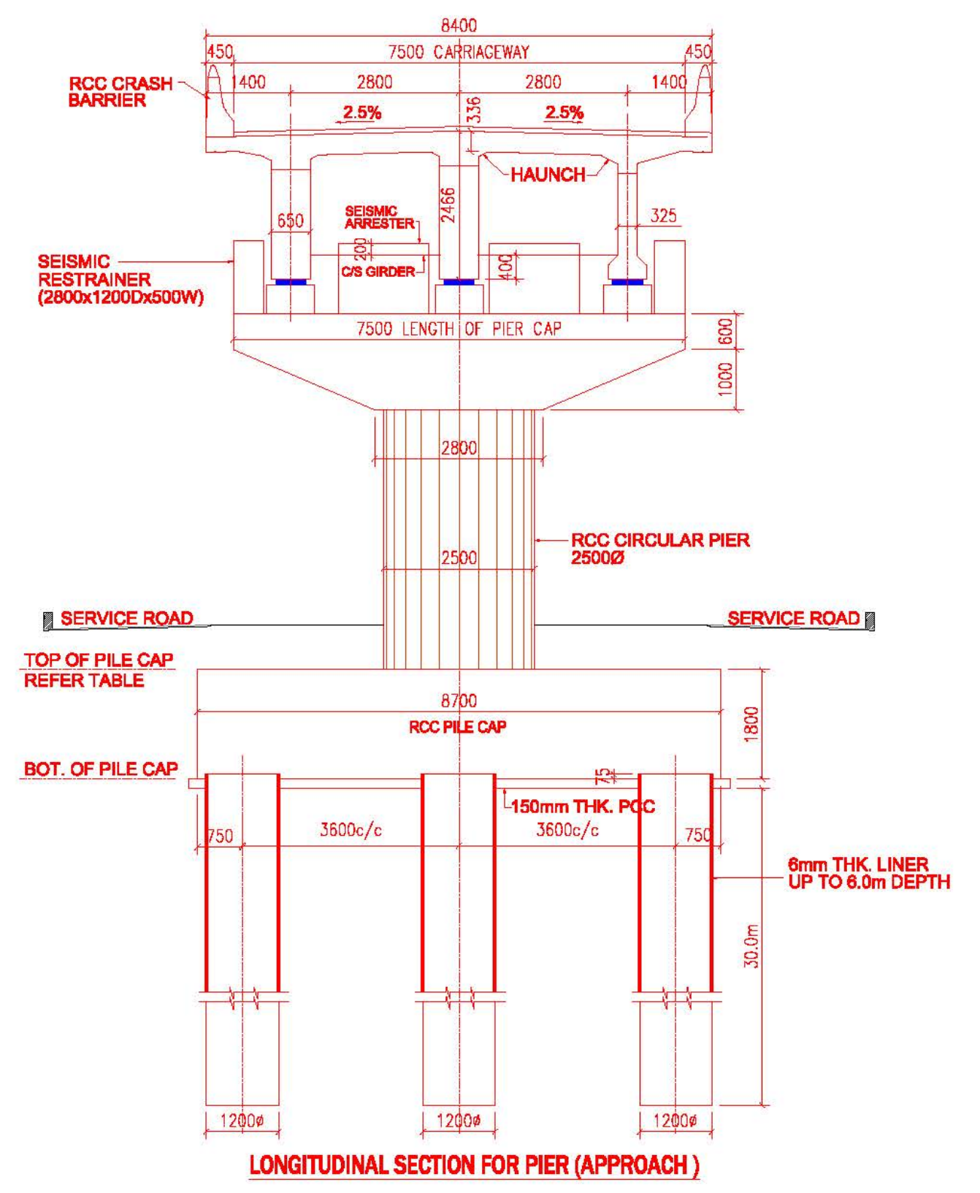
ELEVATION FOR PIER (APPROACH PORTION)


RCC CRASH BARRIER
SEISMIC RESTRAINER (2800x1200Dx500W)
HAUNCH
SEISMIC ARRESTER
C/S GIRDER
8400 LENGTH OF PIER CAP
RCC CIRCULAR PIER 2500Ø
SERVICE ROAD
TOP OF PILE CAP REFER TABLE
BOT. OF PILE CAP
RCC PILE CAP
150mm THK. PCC
6mm THK. LINER UP TO 3.0m DEPTH

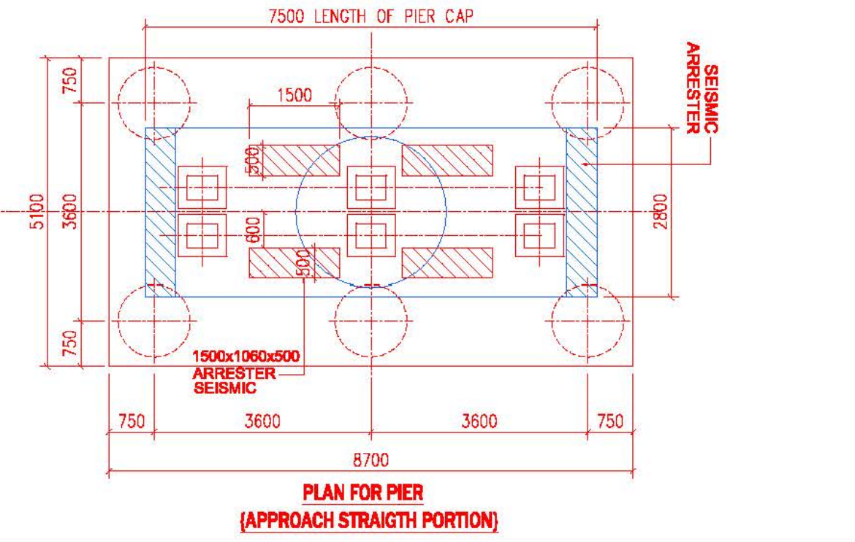
LONGITUDINAL SECTION FOR PIER (APL-13 & APR13)


7500 LENGTH OF PIER CAP
SEISMIC ARRESTER
1500x1060x500 ARRESTER SEISMIC

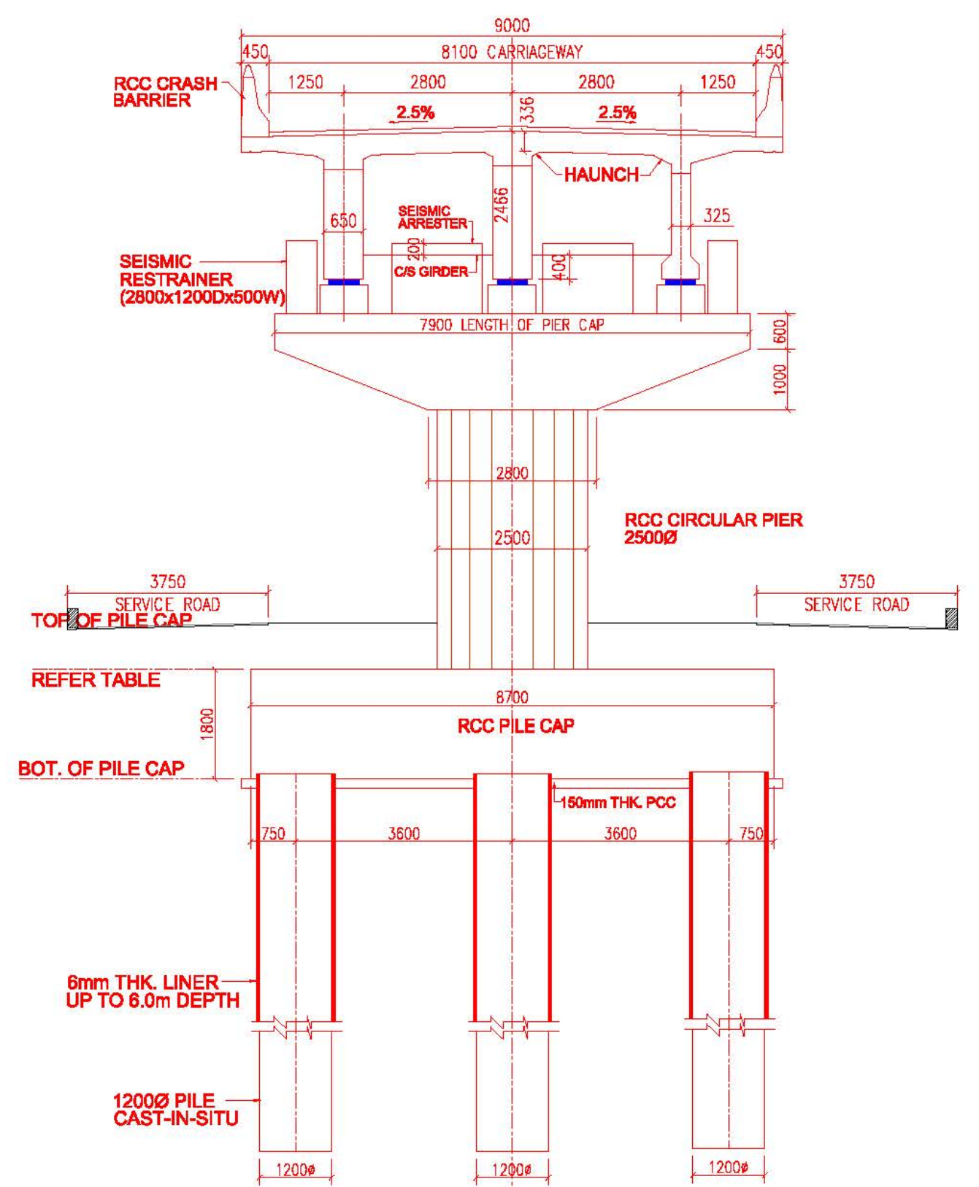
PLAN FOR PIER (APL-13 & APR-13)


RCC CRASH BARRIER
SEISMIC RESTRAINER (2800x1200Dx500W)
HAUNCH
7500 LENGTH OF PIER CAP
RCC CIRCULAR PIER 2500Ø
SERVICE ROAD
TOP OF PILE CAP REFER TABLE
BOT. OF PILE CAP
RCC PILE CAP
150mm THK. PCC
6mm THK. LINER UP TO 6.0m DEPTH

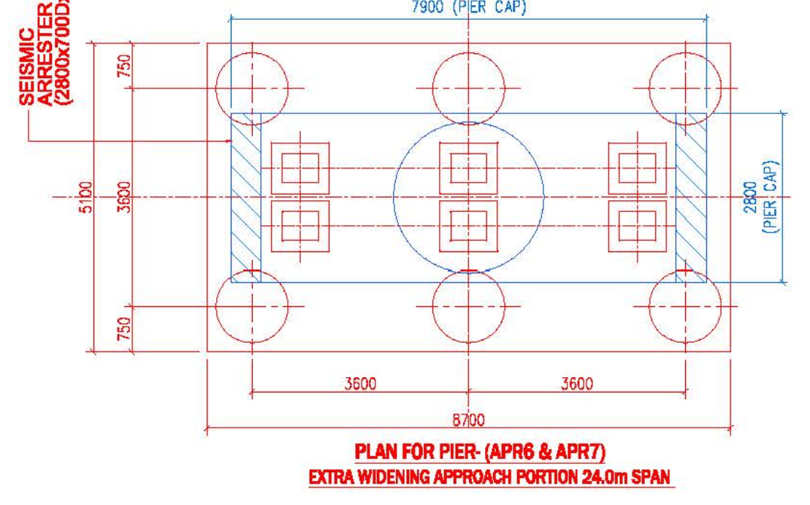
LONGITUDINAL SECTION FOR PIER (APPROACH)


7500 LENGTH OF PIER CAP
SEISMIC ARRESTER
1500x1060x500 ARRESTER SEISMIC

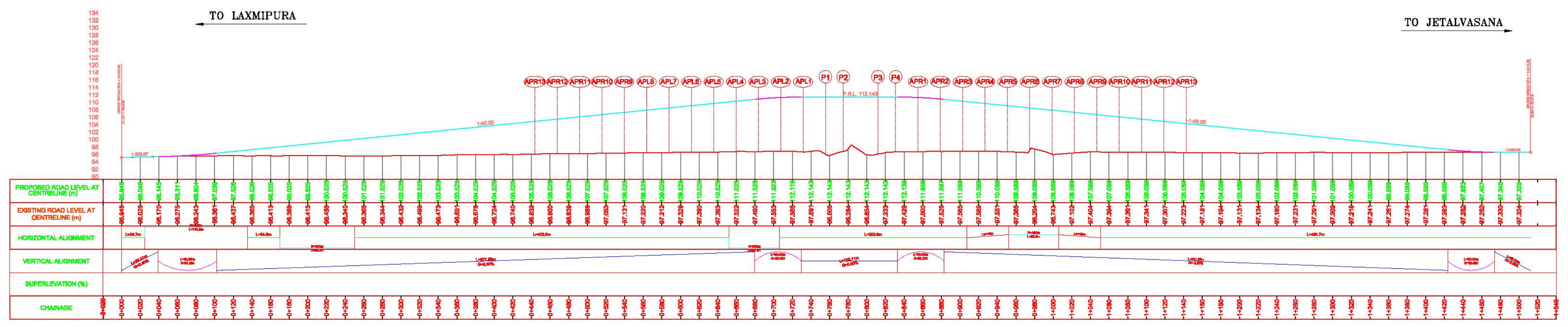
PLAN FOR PIER
(APPROACH STRAIGTH PORTION)


RCC CRASH BARRIER
SEISMIC RESTRAINER (2800x1200Dx500W)
HAUNCH
7900 LENGTH OF PIER CAP
RCC CIRCULAR PIER 2500Ø
SERVICE ROAD
TOP OF PILE CAP
REFER TABLE
BOT. OF PILE CAP
RCC PILE CAP
150mm THK. PCC
6mm THK. LINER UP TO 6.0m DEPTH
1200Ø PILE CAST-IN-SITU

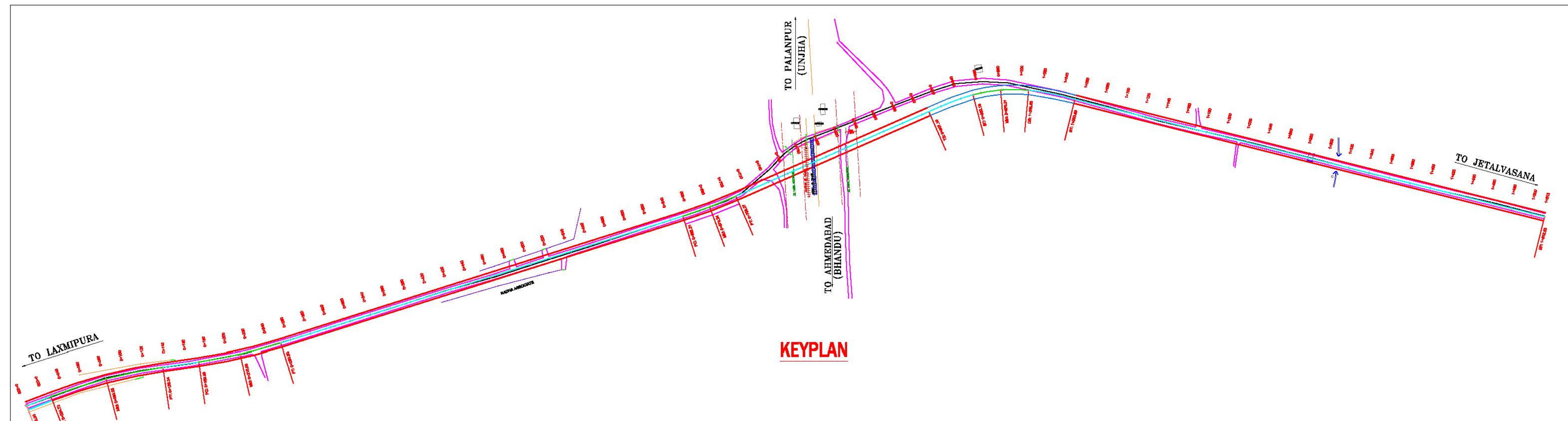
LONGITUDINAL SECTION FOR PIER - (APL1 & APR12 TO APR13)
EXTRA WIDENING APPROACH PORTION 24.0m SPAN


7900 (PIER CAP)
SEISMIC ARRESTER (2800x700Dx500W)
2800 (PIER CAP)

PLAN FOR PIER- (APR6 & APR7)
EXTRA WIDENING APPROACH PORTION 24.0m SPAN


TO LAXMIPURA
TO JETALVASANA
PROPOSED ROAD LEVEL AT CENTRELINE (m)
EXISTING ROAD LEVEL AT CENTRELINE (m)
HORIZONTAL ALIGNMENT
VERTICAL ALIGNMENT
SUPERELEVATION (%)
CHAINAGE
F.R.L. 112.143

PROFILE (N.T.S)


TO PALANPUR (UNJHA)
TO AHMEDABAD (BHANDU)
TO LAXMIPURA
TO JETALVASANA

KEYPLAN

LEGEND: -

─·─·─	RAILWAY BOUNDARY
⬡⬡⬡	RE WALL
┼┼┼┼┼┼	EXISTING TRACK
┼┼┼┼┼┼	PROPOSED DFC TRACK
── PROW ── PROW ──	PROPOSED ROW
────	EXISTING ROAD
▨	SERVICE ROAD
────	SIDE DRAIN

GEO DESIGN & RESEARCH PVT. LTD. AN ISO 9001 - 2015 Certified GANDHINAGAR

NOTE :- 1.ALL DIMENSIONS ARE IN MM UNLESS & LEVELS ARE IN METER.

CLIENT:- DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.
AHMEDABAD DIVISION.

TITLE:-
GENERAL ARRANGEMENT DRAWING FOR LC-206 (RLY Km : 703/1-2)

LOCATION:- BETWEEN BLOCK STATION: BHANDU MOTIDAU TO UNJHA
NAME OF ROAD : TO LAXMIPURA TO JETALVASANA

SURVEY AGENCY :- (A Division of GEO DESIGNS AND RESEARCH PVT LTD)
GEO TEST HOUSE
An ISO 9001-2000 Company
PLOT - NO - 101/1/2 - G.I.D.C.
SECTOR - 28
GANDHINAGAR - 388028
CONTACT : 079-23210179
E-Mail : gandhinagargdr@geogroup.in

PREPARED BY	KETAN KHARWA (SR. ENGINEER)	DRG NO.	GTH_GAD_01	Rev.
DESIGNED BY	ASEEF SHEIKH (SR. ENGINEER)	DATE	20/05/2019	R0
CHECKED BY	MEHUL PATEL (DESIGN ENGINEER)	JOB NO.	2018_19_114	