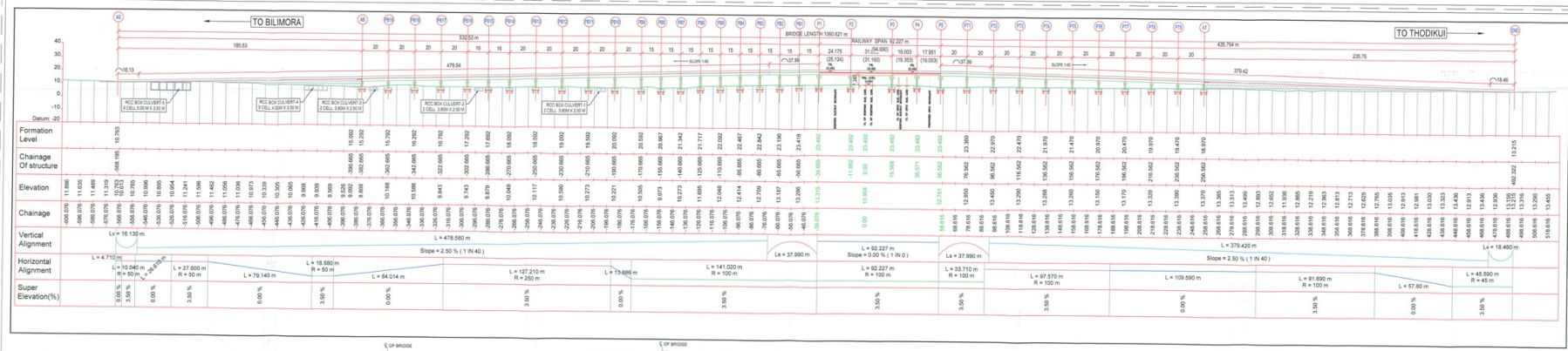
L.C NO - 106



NOTES :

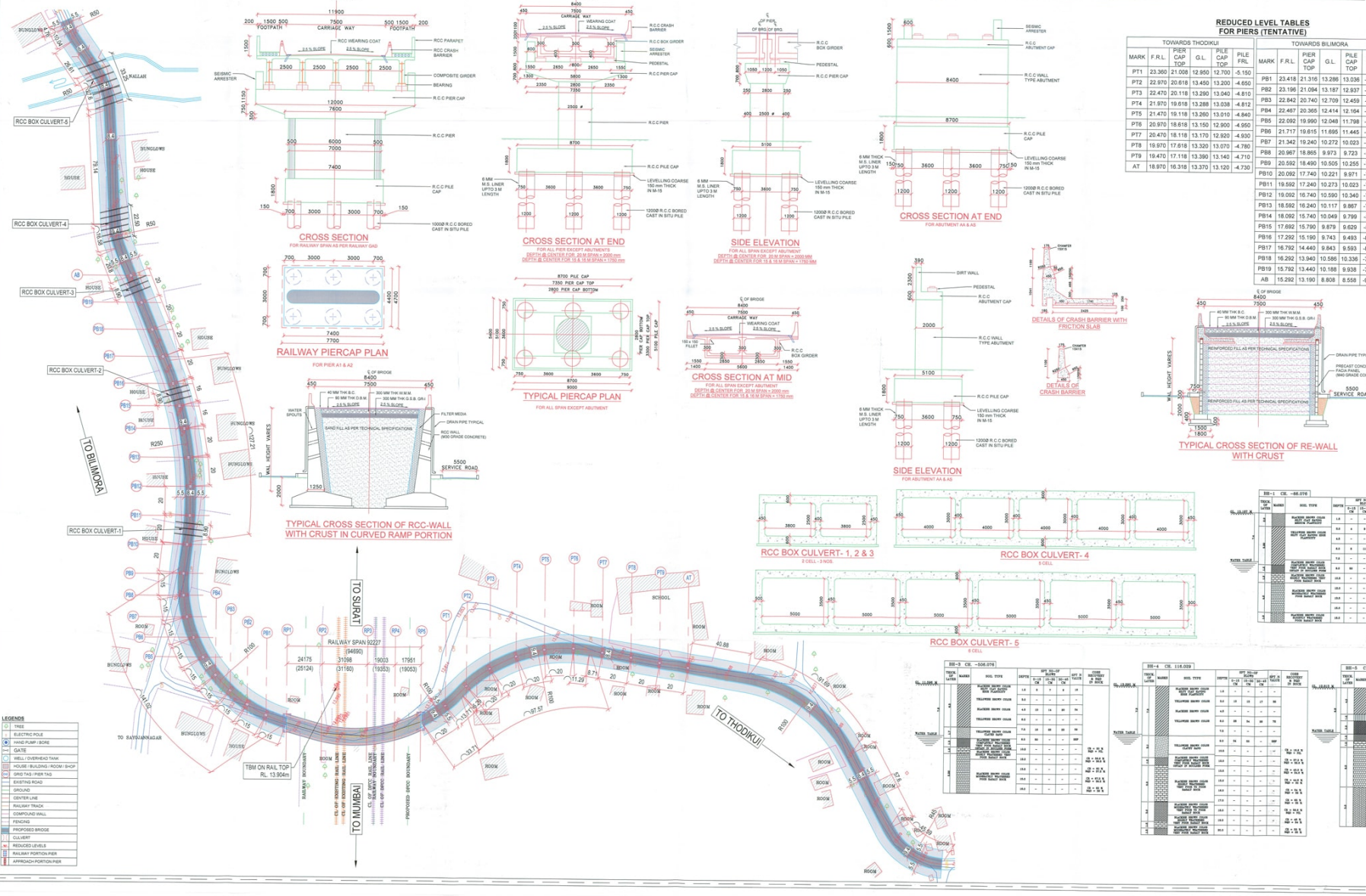
LIST OF STANDARD NOTES FOR GAD OF ROB

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS UNLESS WRITTEN OTHERWISE.
2. NO DIMENSIONS SHALL BE SCALED FROM THIS. DRAWING ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. EXISTING TRACK SHOWN IN BLACK.
4. PROPOSED WORK SHOWN IN RED. ASSETS BEING DISMANTLED SHOWN IN GREEN AND FUTURE WORKS/TRACKS SHOWN IN ORANGE.
5. PROPOSED ROAD OVER BRIDGE (RAILWAY PORTION) SHOWN IN RED, AND R&B PORTION SHOWN IN MAGENTA IN SITE PLAN.
6. EXISTING RAILWAY LAND BOUNDARY SHOWN IN GREEN AND LEVEL CROSSING SHOWN IN BLUE.
7. ACTUAL LOCATION OF ROB SHALL BE DECIDED BY RLY. ENGINEER-IN-CHARGE, IN CONSULTATION WITH ROAD AUTHORITIES AT THIS TIME OF ITS CONSTRUCTION.
8. ACTUAL DEPTH OF FOUNDATION SHALL BE DECIDED BY ENGINEER-IN-CHARGE TO SUIT THE SOIL STRATA MET WITH AT THE SITE.
9. VERTICAL CLEARANCE FROM HIGHEST RAIL LEVEL TO BOTTOM OF GIRDER SHALL BE NOT LESS THAN 6.525 METERS FROM A.C. TRACTION AREA AND 8.325 IN CASE OF DFC/FREIGHT/DOUBLE STACK CONTAINATE ROUTE.
10. GUARD RAIL SHALL BE PROVIDED AS PER STANDARD DRAWING.
11. SHAPES AND SIZE OF GIRDERS, POT-PTFE SLIDING PEDESTALS, SHOWN IN THE DRAWING ARE TENTATIVE AND ARE SUBJECT TO CHARGE IN FINAL DESIGN & DRAWINGS.
12. SHAPES AND DIMENSIONS OF ABUTMENTS, PIERS, PIER CAP, PIER SHAFT SHOWN IN THE DRAWINGS ARE TENTATIVE AND ARE SUBJECT TO CHARGE IN FINAL DESIGN & DRAWINGS.
13. WEEP HOLES SHALL BE PROVIDED IN ABUTMENT AND RETURN WALLS.
14. ANTI CRASH BARRIER SHALL BE PROVIDED AS PER MOST STD.
15. ONLY CONTROLLED CEMENT CONCRETE MIX IS TO BE PROVIDED GRADE OF CONCRETE FOR MASS CONCRETE AND RCC WORK SHALL NOT BE LEANER THAN M-30 AND M-25 RESPECTIVELY.
16. WEARING COAT OF THICKNESS 130mm PROVIDED ROAD SURFACE BE MAINTAINED BY ROAD AUTHORITY.
17. EXCAVATION OF ROB WORK SHALL BE DONE ONLY IN PRESENCE OF AUTHORIZED RAILWAY REPRESENTATIVE TO ENSURE THE SAFETY OF RUNNING TRAIN PROPER PRECAUTION SHALL BE TAKEN DURING EXCAVATION OF OPEN FOUNDATION NEAR THE TRACK PROPER SHORING SHALL BE DONE TO PROTECT SLOPE FAILURE OF SOIL.
18. ADDITIONAL LOAD TRANSFERRED FROM FUTURE TRACK SHALL BE CONSIDERED WHILE DESIGNING OPEN FOUNDATION ON EITHER SIDE.
19. IN ORDER TO OFFER ADEQUATE RESISTANCE AGAINST CORROSION, THE REINFORCEMENT BARS SHALL BE PROVIDED WITH SUITABLE PROTECTIVE COATING DEPENDING UPON THE ENVIRONMENT CONDITION AS PER PARA 7.1.5 OF CONCRETE BRIDGE CODE CORRECTION SL.NO.2DT.28.04.2000.
20. OFFICE FOR RAILWAY ENGINEERS AT SITE OR AT NEAR BY LOCATION DECIDED BY THE RAILWAY SHALL BE PROVIDED BY SPONSORING ROAD AUTHORITY AND MAINTAINED DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
21. DRAWING AND DESIGN OF ROB SHALL BE PROOF CHECKED BY IIT/NIT .
22. LONG DURABILITY ANTI-CORROSIVE PROTECTION SHOULD BE APPLIED TO THE STEEL STRUCTURE.
23. INSPECTION LADDER AND PLATFORM FOR INSPECTION OF BEARING SHOULD BE PROVIDED AT EVERY PIER.
24. ALL TECHNICAL RECORD I.E. CUBE STRENGTH, PRESTRESSING DETAILS ETC SHALL BE HANDED OVER TO RAILWAY ENGINEER IN CHARGE.
25. BEFORE OPENING OF ROB COMPLETION DRAWING AND COMPLETE COST OF ROB IN HARD COPY AND SOFT COPY DULY APPROVAL OF ROAD AUTHORITY SHALL BE HANDED OVER OF RAILWAY ENGINEER IN CHARGE.
26. BEFORE OPENING OF ROB (WITHIN RAILWAY PORTION) FOR ROAD TRAFFIC,APPROVAL OF RAILWAY ENGINEER IN CHARGE IS TO BE OBTAINED BY ROAD AUTHORITY.
27. GRADE OF CONCRETE
    - RCC ABUTMENT/CAP M-35
    - RCC PIER /CAP M-35
    - RCC CRASH BARRIER M-40
    - R.C.C SUPERSTRUCTURE M-35
    - R.C.C BOX CULVERT M-35
    - R.C.C PILE FOUNDATION M-35
    - R.C.C PILE CAP M-35
    - BEARING PEDESTALS M-40
28. THE REINFORCEMENT SHALL BE IN NYSD FE 500 GRADE CONFIRMING TO IS:1786 (LATEST VERSION).
29. STOPPER SHOULD BE PROVIDED AT END ON THE TOP OF PIER/ABUTMENT CAP TO REDUCE POSSIBILITIES OF TOPPING OF GIRDER DURING LAUNCHING OF GIRDER.
30. CBS SANCTION SHALL BE OBTAINED BEFORE COMMENCEMENT OF WORK.
31. THE BRIDGE SHALL BE DESIGNED FOR TWO LANES OF IRC CLASS "A" LOADING OR..... OF ONE LANE OF CLASS 70R LOADING ALONG WITH COMBINATION AS PER IRC 6-2014. FOOTHPATH LOADING SHALL BE CONSIDERED AS PER HOG IN RAILWAY PORTION ONLY.
32. AS PER RAILWAY BOARD LETTER NO.2007/RE/161/5-PTS-774 DATED 12.10.2011 TRACK LEVEL SHOULD BE FROZEN.
33. THIS COST OF MESNATION OF THE ONE TO BE CHARGEABLE TO ESTIMATE.
34. DIMENSIONS OF ALL STRUCTURAL MEMBER i.e. PILE, PILE CAP, PIER, ABUTMENT, PIER CAP ETC. SHOWN ARE TENTATIVE AND APPROVED BY RAILWAY. STRUCTURAL STERL OF COMPOSITE GIRDER CONFIRM TO IS:2062-2006 E 250 BO OTHERWISE SPECIFIED IN DESIGN.
35. FOR STEEL COMPOSITE GIRDER REFER DRG.NO.RDSO/D-11756/R,D-11757/R B-11755/R DULY MODIFIED FOR HIGH SKEW ANGLE.
36. ROAD TRAFFIC SHALL BE DIVERTED AT SUITABLE LOCATION IN CONSULTATION WITH ROAD AUTHORITY.
37. EXISTING LC WILL BE CLOSED AFTER COMPLETION OF ROB WORK.
38. THE QAP BEARING AS PER RDSO FORM AT (CIRCULATED BY RDSO VIDE LETTER NO.CBS/PBEI/REG DATED 18.05.2014) SHALL BE ENSURED BY INSPECTING ENGINEER.
39. LEVEL CROSSING WILL BE CLOSED PERMANENTLY OR ROAD TRAFFIC AFTER COMMISSIONING OF PEP. ROAD OVER BRIDGE.
40. FOR LAUNCHING OF COMPOSITE GIRDER OVER THE EXISTING TRACK REFER SEPARATE DRAWING SUBMITTED BY TENDERER PARTY AND DULY APPROVED BY RAILWAY BLOCK SHALL BE IMPOSED DURING.
41. WORK SHOULD BE CARRIED OUT BY THE PARTY UNDER THE SUPERVISION OF RLY. ENGINEER WITHIN RLY. LAND LIMIT.
42. SEPARATE ENGINEERING PLAN IS TO BE PREPARED FOR CLOSING OF LEVEL CROSSING NO.106.
43. STORM WATER DRAIN TO BE PROVIDED UP TO GROUND LEVEL.
44. EPOXY PAINT ON PIERS & ABUTMENTS.
45. SUITABLE S.R. TO BE IMPOSED ON EXISTING B.G.MAIN LINE WHILE CASTING HER IF REQUIRED.
46. THE CABLE LAID PARALLEL TO THE TRACK SHALL NORMALLY BE BURIED AT A DEPTH OF 0.60 METERS FROM GROUND LEVEL WITH WHILE THOSE LAID ACROSS THE TRACK MUST BE 1.0 METER BELOW THE RAIL PLAN GRS BEFORE CUTTING THE WORKS WRITTEN INFORMATION WILL BE GIVEN TO CONCERN SSE(SIG)& SSE (TELE) ALL PRECAUTIONS TO BE TAKEN WHILE CASHING OUT THE WORKS .
47. AS PER RLY BOARDS LETTER NO.2000/TELE/RCIL/1/PARS IX OT 4.5 2007 CIRCULATED BY CSTE CCG V-1-DE LETTER NO SG/245/P FLAT PENALTY OF RS ONE LAKH WILL BE IMPOSED AND WILL BE LOGGED AS PER RPF ACT IF CABLE DAMAGED.
48. INSPECTION LADDER WILL BE PROVIDED ON EACH PIER.
49. DURING THE CONSTRUCTION OF ROB TRACK WILL BE PROTECTED SUITABLY IMPOSING SUITABLE SR.
50. ONE MAST NO. 318/7 AND 318/8 ARE INFRINGING HENCE NECESSARY ONE MODIFICATION IS INVOLVED FOR WHICH TED ESTIMATE IS REQUIRED.
51. EXISTING S&T CABLE SHOULD MARKED ON G.T. AFTER JOINT SITE SURVEY.
52. BORE LOG DETAIL HAS BEEN PROVIDED BY STATE GOVT. AUTHORITY.
53. EXISTING ROW

REDUCED LEVEL TABLES FOR PIERS (TENTATIVE)

TOWARDS THODIKUI					
MARK	F.R.L	PIER CAP TOP	G.L.	PILE CAP TOP	PILE FRL
PT1	23.360	21.008	12.950	12.700	-5.150
PT2	22.970	20.618	13.450	13.200	-4.650
PT3	22.470	20.118	13.290	13.040	-4.810
PT4	21.970	19.618	13.288	13.038	-4.812
PT5	21.470	19.118	13.260	13.010	-4.840
PT6	20.970	18.618	13.150	12.900	-4.950
PT7	20.470	18.118	13.170	12.920	-4.930
PT8	19.970	17.618	13.320	13.070	-4.780
PT9	19.470	17.118	13.390	13.140	-4.710
AT	18.970	16.318	13.370	13.120	-4.730

TOWARDS BILIMORA					
MARK	F.R.L	PIER CAP TOP	G.L.	PILE CAP TOP	PILE FRL
PB1	23.418	21.316	13.286	13.036	-4.814
PB2	23.196	21.094	13.187	12.937	-4.913
PB3	22.842	20.740	12.709	12.459	-5.391
PB4	22.487	20.365	12.414	12.164	-5.686
PB5	22.092	19.990	12.048	11.798	-6.052
PB6	21.717	19.615	11.666	11.445	-6.405
PB7	21.342	19.240	10.272	10.023	-7.827
PB8	20.967	18.865	9.973	9.723	-8.127
PB9	20.592	18.490	10.505	10.255	-7.595
PB10	20.092	17.740	10.221	9.971	-7.879
PB11	19.592	17.240	10.273	10.023	-7.827
PB12	19.092	16.740	10.590	10.340	-7.510
PB13	18.592	16.240	10.117	9.867	-7.983
PB14	18.092	15.740	10.049	9.799	-8.051
PB15	17.692	15.790	9.879	9.629	-8.221
PB16	17.292	15.190	9.743	9.493	-8.357
PB17	16.792	14.440	9.843	9.593	-8.257
PB18	16.292	13.940	10.586	10.336	-7.514
PB19	15.792	13.440	10.188	9.938	-7.912
AB	15.292	13.190	8.808	8.558	-9.292



BSI-1 CH. -66.076

TRACK OF LAYER	MARKS	SOIL TYPE	DEPTH	SPT NO.OF BLOWS 0-15 CM	SPT NO.OF BLOWS 15-30 CM	SPT NO.OF BLOWS 30-45 CM	SPT N VALUE	CODE RECOVERY IN BOX
1A		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	6	7	8	15	24
		YELLOWISH BROWN COLOR	4.5	-	-	-	-	-
			6.0	8	11	14	25	39
		BLACKISH BROWN COLOR	7.5	-	-	-	-	-
			9.0	9	12	18	30	42
		YELLOWISH BROWN COLOR	10.5	-	-	-	-	-
			12.0	10	15	20	35	50
		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	13.5	-	-	-	-	-
			15.0	50	-	-	100*	
1B		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	50	-	-	100*	
2		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
			10.5	-	-	-	-	-
			12.0	-	-	-	-	-
			13.5	-	-	-	-	-
			15.0	-	-	-	-	-

BSI-2 CH. -362.665

TRACK OF LAYER	MARKS	SOIL TYPE	DEPTH	SPT NO.OF BLOWS 0-15 CM	SPT NO.OF BLOWS 15-30 CM	SPT NO.OF BLOWS 30-45 CM	SPT N VALUE	CODE RECOVERY IN BOX
1A		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	6	8	15	24	
		YELLOWISH BROWN COLOR	4.5	-	-	-	-	-
			6.0	8	10	15	25	
		BLACKISH BROWN COLOR	7.5	-	-	-	-	-
			9.0	8	11	18	29	
		YELLOWISH BROWN COLOR	10.5	-	-	-	-	-
			12.0	9	14	17	31	
		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	13.5	-	-	-	-	-
			15.0	50	-	-	100*	
1B		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
2		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
			10.5	-	-	-	-	-
			12.0	-	-	-	-	-
			13.5	-	-	-	-	-
			15.0	-	-	-	-	-

BSI-3 CH. -506.076

TRACK OF LAYER	MARKS	SOIL TYPE	DEPTH	SPT NO.OF BLOWS 0-15 CM	SPT NO.OF BLOWS 15-30 CM	SPT NO.OF BLOWS 30-45 CM	SPT N VALUE	CODE RECOVERY IN BOX
1A		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	6	7	8	15	
			3.0	-	-	-	-	-
		YELLOWISH BROWN COLOR	4.5	10	14	20	34	
			6.0	-	-	-	-	-
		BLACKISH BROWN COLOR	7.5	15	20	30	50	
			9.0	50	-	-	100*	
		YELLOWISH BROWN COLOR SILTY SAND	10.5	-	-	-	-	-
			12.0	50	-	-	100*	
		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	13.5	-	-	-	-	-
			15.0	-	-	-	-	-
1B		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
2		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
			10.5	-	-	-	-	-
			12.0	-	-	-	-	-
			13.5	-	-	-	-	-
			15.0	-	-	-	-	-

BSI-4 CH. 116.009

TRACK OF LAYER	MARKS	SOIL TYPE	DEPTH	SPT NO.OF BLOWS 0-15 CM	SPT NO.OF BLOWS 15-30 CM	SPT NO.OF BLOWS 30-45 CM	SPT N VALUE	CODE RECOVERY IN BOX
1A		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
		YELLOWISH BROWN COLOR	4.5	8	12	17	29	
			6.0	-	-	-	-	-
		BLACKISH BROWN COLOR	7.5	18	30	20	50	
			9.0	50	-	-	100*	
		YELLOWISH BROWN COLOR SILTY SAND	10.5	-	-	-	-	-
			12.0	50	-	-	100*	
		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	13.5	-	-	-	-	-
			15.0	-	-	-	-	-
1B		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
2		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
			10.5	-	-	-	-	-
			12.0	-	-	-	-	-
			13.5	-	-	-	-	-
			15.0	-	-	-	-	-

BSI-5 CH. 358.616

TRACK OF LAYER	MARKS	SOIL TYPE	DEPTH	SPT NO.OF BLOWS 0-15 CM	SPT NO.OF BLOWS 15-30 CM	SPT NO.OF BLOWS 30-45 CM	SPT N VALUE	CODE RECOVERY IN BOX
1A		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	9	12	19	31	
			3.0	-	-	-	-	-
		YELLOWISH BROWN COLOR	4.5	8	10	15	25	
			6.0	-	-	-	-	-
		BLACKISH BROWN COLOR	7.5	18	30	-	50*	
			9.0	-	-	-	-	-
		YELLOWISH BROWN COLOR SILTY SAND	10.5	-	-	-	-	-
			12.0	-	-	-	-	-
		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	13.5	-	-	-	-	-
			15.0	-	-	-	-	-
1B		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
2		BLACKISH BROWN COLOR SILTY SAND ALONG WITH PEBBLES	1.5	-	-	-	-	-
			3.0	-	-	-	-	-
			4.5	-	-	-	-	-
			6.0	-	-	-	-	-
			7.5	-	-	-	-	-
			9.0	-	-	-	-	-
			10.5	-	-	-	-	-
			12.0	-	-	-	-	-
			13.5	-	-	-	-	-
			15.0	-	-	-	-	-

NO	DATE	ITEM DESCRIPTION	DSP	PSP
		PURPOSE OF ISSUE	PREPARED	CHECKED

GOVERNMENT OF GUJARAT
ROADS AND BUILDING DEPARTMENT

THE EXECUTIVE ENGINEER , R&B DIVISION, VALSAD

CONSTRUCTION OF R.O.B. IN LIEU OF L.C. NO. 106 BETWEEN STATIONS BILIMORA AND DUNGARI AT KM 312/10-12 OF MUMBAI-DELHI TRUNK ROUTE OF WESTERN RAILWAY OF VALSAD DISTRICT ON ROAD OF BILIMORA TO THODIKUI

GENERAL ARRANGEMENT DRAWING

SUPERINTENDING ENGINEER R&B CIRCLE SURAT	
EXECUTIVE ENGINEER R&B DIVISION VALSAD	
DY. EXECUTIVE ENGINEER R&B SUB DIVISION VALSAD	
STRUKAD CONSULTANT	

STRUKAD CONSULTANT
204 BANDICHAR SOCIETY
PALDI AHMEDABAD 380007

DRG NO.: STK/LC/106/01
DATE: 06/11/2017

PREPARED BY	CHECKED BY	APPROVED BY
R.D.P.D	P.K.P	