

QUADRO ALINHAMENTO HORIZONTAL – LINHA 1

DEFLEXÃO	CURVA N°	CURVA CIRCULAR				ESTACAS		COORDENADAS				
		R (m)	D (m)	T (m)	AC	PC/PI	PT	PONTO	CC	PC	PI	PT
	INICIAL					602+353,023		N			9428281,6992	
								E			830540,6427	
00°14'0.015"	1	24000,000	99,526	49,763	00°14'0.015"	602+353,023	602+452,549	N	9449724,4767	9428281,6992	9428259,3474	9428237,1801
								E	819760,6941	830540,6427	830496,1819	830451,6287
00°14'0.015"	2	24000,000	99,529	49,765	00°14'0.015"	602+594,150	602+693,679	N	9406686,8087	9428174,1033	9428151,9353	9428129,5827
								E	841015,7878	830324,8532	830280,2986	830235,8362
00°14'0.015"	3	24000,000	99,529	49,765	00°14'0.015"	602+773,679	602+873,209	N	9406650,8735	9428093,6495	9428071,2969	9428048,7602
								E	840944,3119	830164,3603	830119,8980	830075,5287
00°14'0.016"	4	24000,000	99,543	49,772	00°14'0.016"	603+14,809	603+114,352	N	9449382,5207	9427984,6341	9427962,0942	9427939,7386
								E	819080,4975	829949,2807	829904,9054	829860,4370
	FINAL					603+114,352		N			9427939,7386	
								E			829860,4370	

QUADRO ALINHAMENTO HORIZONTAL – LINHA 2

DEFLEXÃO	CURVA N°	CURVA DE TRANSIÇÃO					CURVA CIRCULAR				ESTACAS			COORDENADAS							
		Lc (m)	Tl (m)	Tc (m)	Xc (m)	Yc (m)	R (m)	D (m)	T (m)	AC	TE/PC/PI	EC	CE	ET/PT	PONTO	CC	TE/PC	EC	PI	CE	ET/PT
	INICIAL										599+150,000				N				9427993,6098		
															E				833382,0211		
63°10'0.058"	1	60,000	40,001	20,001	59,996	0,524	1146,000	1203,750	664,086	60°10'0.058"	600+125,702	600+185,702	601+389,452	601+449,452	N	9427671,2096	9428574,3537	9428609,6429	9429011,7510	9428708,5192	9428682,0715
															E	831891,6824	832597,9733	832549,4506	832007,4541	831404,5431	831350,6887
00°14'0.015"	2	-	-	-	-	-	24000,000	99,530	49,765	00°14'0.015"	602+353,023	-	-	602+452,552	N	9449725,9911	9428276,7068	-	9428254,3812	-	9428232,2401
															E	819776,1526	830543,1487	-	830498,6729	-	830454,1049
00°14'0.015"	3	-	-	-	-	-	24000,000	99,529	49,765	00°14'0.015"	602+594,158	-	-	602+693,687	N	9406675,4867	9428169,2377	-	9428147,0966	-	9428124,7709
															E	841005,2391	830327,2668	-	830282,7168	-	830238,2430
00°14'0.015"	4	-	-	-	-	-	24000,000	99,529	49,765	00°14'0.015"	602+773,687	-	-	602+873,217	N	9406639,5967	9428088,8809	-	9428066,5552	-	9428044,0452
															E	840933,7415	830166,7453	-	830122,2695	-	830077,8867
00°14'0.015"	5	-	-	-	-	-	24000,000	99,529	49,765	00°14'0.015"	603+14,823	-	-	603+114,352	N	9449384,4416	9427979,9930	-	9427957,4831	-	9427935,1573
															E	819095,7405	829951,5953	-	829907,2124	-	829862,7366
	FINAL										603+150,000				N				9427919,1650		
															E				829830,8778		

QUADRO ALINHAMENTO HORIZONTAL – ESTRADA DE SERVIÇO

DEFLEXÃO	CURVA N°	CURVA CIRCULAR				ESTACAS		COORDENADAS				
		R (m)	D (m)	T (m)	AC	PC/PI	PT	PONTO	CC	PC	PI	PT
	INICIAL					1599+110,000		N			9427967,5660	
								E			833414,6239	
22°44'0.030"	1	80,000	31,753	16,088	22°44'0.030"	1599+121,135	1599+152,888	N	9427905,2561	9427973,3995	9427981,8279	9427984,3034
								E	833363,2287	833405,1391	833391,4351	833375,5383
27°54'0.026"	2	80,000	38,966	19,877	27°54'0.026"	1599+152,888	1599+191,854	N	9428063,3505	9427984,3034	9427987,3619	9427999,2573
								E	833387,8477	833375,5383	833355,8976	833339,9726
22°19'0.015"	3	60,000	23,374	11,837	22°19'0.015"	1599+411,225	1599+434,599	N	9428178,6078	9428130,5378	9428137,6217	9428147,7766
								E	833200,1264	833164,2200	833154,7363	833148,6537
22°33'0.007"	4	79,999	31,488	15,951	22°33'0.007"	1599+434,599	1599+466,087	N	9428106,6688	9428147,7766	9428161,4604	9428170,9543
								E	833080,0238	833148,6537	833140,4575	833127,6400
24°05'0.023"	5	60,000	25,227	12,803	24°05'0.023"	1599+508,500	1599+533,727	N	9428147,9840	9428196,1984	9428203,8185	9428208,5759
								E	833057,8462	833093,5585	833083,2707	833070,7686
23°03'0.048"	6	60,000	24,152	12,242	23°03'0.048"	1599+533,727	1599+557,878	N	9428265,1678	9428206,5759	9428209,2124	9428216,3213
								E	833083,6911	833070,7686	833058,8143	833048,8483
17°38'0.057"	7	200,000	61,607	31,049	17°38'0.057"	1600+166,141	1600+227,748	N	9428406,7260	9428569,5476	9428587,5784	9428597,0967
								E	832437,5142	832553,6569	832528,3794	832498,8250
13°04'0.020"	8	200,000	45,631	22,915	13°04'0.020"	1600+227,748	1600+273,379	N	9428787,4673	9428597,0967	9428604,1214	9428615,8974
								E	832560,1359	832498,8250	832477,0133	832457,3557
21°59'0.020"	9	1100,000	422,157	213,708	21°59'0.020"	1600+273,379	1600+695,535	N	9427672,2831	9428615,8974	9428725,7221	9428758,9144
								E	831892,0644	832457,3557	832274,0266	832062,9122
12°12'0.033"	10	200,000	42,618	21,390	12°12'0.033"	1600+695,535	1600+738,153	N	9428956,4873	9428758,9144	9428762,2366	9428769,9523
								E	832093,9754	832062,9122	832041,7818	832021,8320
17°30'0.018"	11	200,000	61,104	30,792	17°30'0.018"	1600+738,153	1600+799,257	N	9428583,4172	9428769,9523	9428781,0594	9428783,0139
								E	831949,6886	832021,8320	831993,1133	831962,3836
29°42'0.035"	12	1114,000	577,645	295,473	29°42'0.035"	1600+799,257	1601+376,902	N	9427671,2604	9428783,0139	9428801,7690	9428671,9161
								E	831891,6724	831962,3836	831667,5067	831402,0969
05°48'0.056"	13	500,000	50,751	25,397	05°48'0.056"	1601+617,927	1601+668,678	N	9429015,1187	9428565,9913	9428554,8299	9428546,0375
								E	830965,8570	831185,5947	831162,7816	831138,9549
06°33'0.027"	14	500,000	57,226	28,644	06°33'0.027"	1601+668,678	1601+725,904	N	9428076,9564	9428546,0375	9428536,1210	9428523,2005
								E	831312,0529	831138,9549	831112,0821	831086,5175
06°17'0.000"	15	500,000	54,833	27,444	06°17'0.000"	1602+508,643	1602+563,476	N	9428616,3739	9428170,1298	9428157,7506	9428148,1264
								E	830162,3969	830387,9324	830363,4388	830337,7375
07°02'0.017"	16	500,000	61,418	30,748	07°02'0.017"	1602+626,965	1602+688,382	N	9427657,6146	9428125,8621	9428115,0795	9428100,8500
								E	830453,6212	830278,2806	830249,4857	830222,2289
24°42'0.037"	17	60,000	25,877	13,143	24°42'0.037"	1603+59,414	1603+85,291	N	9427982,3304	9427929,1422	9427923,0600	9427922,4050
								E	829865,5529	829893,3200	829881,6694	829868,5431
23°47'0.056"	18	60,000	24,922	12,643	23°47'0.056"	1603+85,291	1603+110,213	N	9427862,4796	9427922,4050	9427921,7749	9427916,1028
								E	829871,5333	829868,5431	829855,9155	829844,6158
07°15'0.011"	19	200,000	25,318	12,676	07°15'0.011"	1603+123,505	1603+148,823	N	9428088,8837	9427910,1397	9427904,4529	9427900,2419
								E	829743,0116	829832,7366	829821,4077	829809,4516
08°55'0.053"	20	200,000	31,177	15,620	08°55'0.053"	1603+148,823	1603+180,000	N	9427711,6001	9427900,2419	9427895,0529	9427887,6395
								E	829875,8916	829809,4516	829794,7186	829780,9699
	FINAL					1603+180,000		N			9427887,6395	
								E			829780,9699	

NOTAS

1-TODAS AS MEDIDAS ESTÃO EM METRO.  
2-SISTEMA DE COORDENADAS UTM (SAD 69).  
4-ESTAQUEAMENTO ACMA DE 1000, REFERE-SE AO EIXO DA ESTRADA DE SERVIÇO.

N° SUB-CONTRATADA  
C0538-40-FE-2-GE-DE-107-ROD

DOCUMENTOS DE REFERÊNCIA

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