TABLA DE DATOS DE CURVAS

CURVA	ALFA	RADIO	TAN.	LONG.
C1	45°45'37"	50.00	21.10	39.93
C2	38°06'20"	50.00	17.27	33.25
C3	40°16'34"	50.00	18.34	35.15
C4	49°42'47"	35.00	16.21	30.37
C5	111°32'10"	25.00	36.74	48.67
C6	33°48'17"	30.00	9.12	17.70
C7	50°55'39"	30.00	14.29	26.67
C8	13°28'15"	50.00	5.91	11.76
C9	11°44'03"	50.00	5.14	10.24
C10	122°27'17"	110.00	200.32	235.10
C11	48°02'46"	50.00	22.29	41.93
C12	72°19'16"	50.00	36.54	63.11
C13	8°37'13"	50.00	3.77	7.52
C14	9°26'12"	50.00	4.13	8.23
C15	13°52'33"	50.00	6.08	12.11
C16	22°48'54"	50.00	10.09	19.91
C17	62°44'30"	50.00	30.49	54.75
C18	21°04'26"	50.00	9.30	18.39
C19	10°55'16"	50.00	4.78	9.53
C20	7°51'16"	50.00	3.43	6.85
C21	55°14'34"	50.00	26.16	48.21
C22	33°02'59"	50.00	14.83	28.84
C23	21°55'06"	50.00	9.68	19.13
C24	40°51'50"	50.00	18.63	35.66
C25	38°46'09"	50.00	17.59	33.83
C26	50°55'35"	50.00	23.81	44.44
C27	40°07'26"	50.00	18.26	35.01
C28	26°39'41"	50.00	11.85	23.27
C29	13°32'38"	50.00	5.94	11.82
C30	58°41'45"	50.00	28.11	51.22
C31	79°33'23"	50.00	41.63	69.43
C32	20°16'03"	50.00	8.94	17.69
C33	36°44'44"	50.00	16.61	32.07
C34	40°42'43"	50.00	18.55	35.53
C35	72°05'19"	50.00	36.39	62.91
C36	106°28'52"	50.00	66.94	92.92
C37	54°50'39"	50.00	25.94	47.86
C38	22°23'12"	50.00	9.89	19.54
C39	16°51'29"	50.00	7.41	14.71
C40	136°04'10"	40.00	99.18	94.99
C41	77°25'53"	30.00	24.05	40.54
C42	130°11'01"	30.00	64.61	68.16
C43	107°45'01"	30.00	41.10	56.42
C44	150°14'58"	20.00	75.30	52.45
C45	32°04'41"	50.00	14.37	27.99
C46	173°22'09"	20.00	345.25	60.52
C47	5°07'07"	50.00	2.23	4.47
C48	48°52'56"	50.00	22.72	42.66
C49	46°57'21"	50.00	21.72	40.98
C50	19°59'21"	50.00	8.81	17.44
C51	23°17'04"	50.00	10.30	20.32
C52	21°07'37"	50.00	9.32	18.44
C53	34°44'39"	50.00	15.64	30.32
C54	23°34'13"	50.00	10.43	20.57
C55	21°03'40"	50.00	9.29	18.38
C56	33°44'38"	50.00	15.16	29.45
C57	7°36'28"	50.00	3.32	6.64
C58	114°25'47"	95.00	147.50	189.73
C59	68°44'42"	30.00	20.52	35.99
C60	17°07'30"	50.00	7.53	14.94
C61	57°29'19"	200.00	109.70	200.67
C62	11°59'16"	50.00	5.25	10.46
C63	18°35'58"	50.00	8.19	16.23

COORDENADAS DEL PROYECTO

PI. No.	NORTE	ESTE	LONG.	RUMBO
0+000	9791997.464	187662.026		
PI-1	9792046.084	187690.281	56.23	N30°09'44"E
PI-2	9792068.993	187781.637	94.18	N75°55'21"E
PI-3	9792025.290	187879.667	107.33	S65°58'19"E
PI-4	9792095.348	188120.056	250.39	N73°45'07"E
PI-5	9792055.948	188179.664	71.45	S56°32'07"E
PI-6	9792117.483	188192.663	62.89	N11°55'43"E
PI-7	9792172.046	188248.640	78.17	N45°44'00"E
PI-8	9792154.352	188400.160	152.55	S83°20'22"E
PI-9	9792134.666	188453.860	57.19	S69°52'06"E
PI-10	9791946.739	188756.182	355.97	S58°08'04"E
PI-11	9792210.835	188753.467	264.11	N00°35'21"W
PI-12	9792357.316	188913.082	216.64	N47°27'25"E
PI-13	9792241.619	189115.280	232.96	S60°13'19"E
PI-14	9792174.131	189289.654	186.98	S68°50'32"E
PI-15	9792113.958	189391.423	118.23	S59°24'20"E
PI-16	9791992.619	189515.027	173.21	S45°31'47"E
PI-17	9791891.236	189557.467	109.91	S22°42'53"E
PI-18	9791873.549	189780.034	223.27	S85°27'23"E
PI-19	9791769.665	189996.683	240.27	S64°22'56"E
PI-20	9791693.701	190099.197	127.59	S53°27'40"E
PI-21	9791542.781	190253.349	215.73	S45°36'24"E
PI-22	9791564.866	190368.583	117.33	N79°09'02"E
PI-23	9791519.630	190479.428	119.72	S67°47'59"E
PI-24	9791518.924	190622.918	143.49	S89°43'05"E
PI-25	9791418.928	190737.360	151.97	S48°51'15"E
PI-26	9791414.069	190854.430	117.17	S87°37'24"E
PI-27	9791268.889	190962.632	181.07	S36°41'49"E
PI-28	9791247.901	191052.264	92.06	S76°49'15"E
PI-29	9791268.396	191137.753	87.91	N76°31'04"E
PI-30	9791268.315	191213.836	76.08	S89°56'18"E
PI-31	9791401.661	191295.122	156.17	N31°21'57"E
PI-32	9791353.362	191421.458	135.25	S69°04'40"E
PI-33	9791352.492	191497.581	76.13	S89°20'43"E
PI-34	9791306.604	191557.599	75.55	S52°35'59"E
PI-35	9791311.140	191635.990	78.52	N86°41'18"E
PI-36	9791161.249	191694.199	160.80	S21°13'23"E
PI-37	9791237.931	191793.400	125.38	N52°17'45"E
PI-38	9791204.406	191902.105	113.76	S72°51'36"E
PI-39	9791105.140	192022.409	155.97	S50°28'23"E
PI-40	9791025.491	192213.110	206.67	S67°19'52"E
PI-41	9791198.033	192138.441	188.01	N23°24'03"W
PI-42	9791269.783	192237.307	122.16	N54°01'50"E
PI-43	9791123.993	192226.565	146.19	S04°12'51"W
PI-44	9791162.547	192386.710	164.72	N76°27'50"E
PI-45	9791085.383	192304.787	112.54	S46°42'48"W
PI-46	9791010.729	191928.056	384.06	S78°47'29"W
PI-47	9791042.109	192319.970	393.17	N85°25'20"E
PI-48	9791054.903	192394.845	75.96	N80°18'13"E
PI-49	9791021.574	192435.730	52.75	S50°48'51"E
PI-50	9791029.364	192492.822	57.62	N82°13'48"E
PI-51	9791013.821	192564.595	73.44	S77°46'51"E
PI-52	9790913.765	192704.849	172.29	S54°29'47"E
PI-53	9790889.710	192798.699	96.88	S75°37'24"E
PI-54	9790934.501	192919.350	128.70	N69°37'57"E
PI-55	9790924.496	193098.163	179.09	S86°47'51"E
PI-56	9790894.495	193164.720	73.01	S65°44'10"E
PI-57	9790923.239	193336.853	174.52	N80°31'12"E
PI-58	9791033.382	193695.147	374.84	N72°54'44"E
PI-59	9790840.811	193670.336	194.16	S07°20'30"W
PI-60	9790751.593	193833.996	186.40	S61°24'12"E
PI-61	9790699.848	194088.974	260.18	S78°31'42"E
PI-62	9790383.668	194209.284	338.30	S20°49'56"E
PI-63	9790315.255	194253.092	81.24	S32°37'59"E
8+666.90	9790078.186	194312.346	244.36	S14°02'00"E

PONTIFICIA UNIVERSIDAD CATÓLICA DEL ECUADOR
SERÉIS MIS TESTIGOS

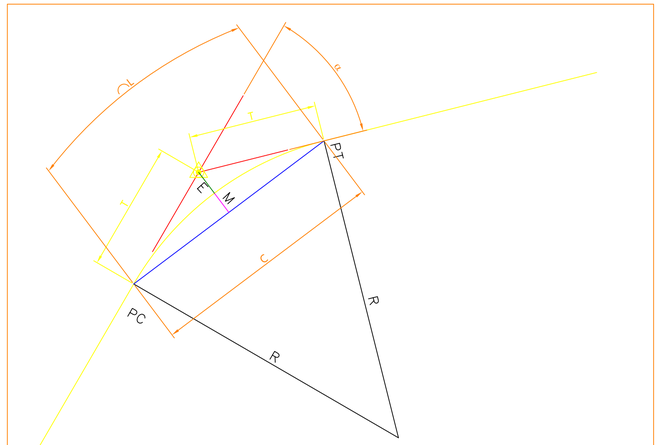
DISERTACION DE GRADO
TEMA: Estudio para la construcción de un camino ecológico en la Provincia de Pastaza

PROYECTO: TRONCAL AMAZONICA – SHIRAM PUPUNAS

CONTIENE: DATOS DE CURVAS HORIZONTALES, COORDENADAS DEL PROYECTO Y SECCION TIPO

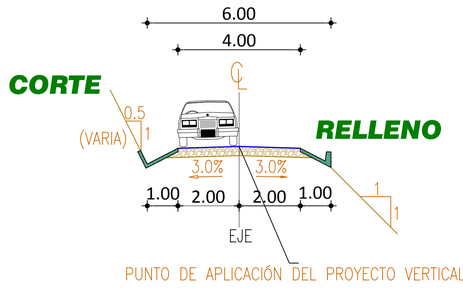
CLASE	LONGITUD	ESTUDIO	PROVINCIA	FECHA: AGOSTO/2011
V	8.60 Km	DEFINITIVO	PASTAZA	

COORDINADOR AREA TRANSPORTES Y VIAS	PROFESOR EVALUADOR	PROFESOR EVALUADOR	TOPOGRAFIA / DISEÑO VIAL
Ing. Fredi Paredes	Ing. Gustavo Yánez	Ing. Gonzalo Moya	Renato Villarreal



ELEMENTOS DE LA CURVA CIRCULAR SIMPLE

SECCIÓN TÍPICA MIXTA NORMAL
KM 0+000 - KM 8+600



PUNTO DE APLICACIÓN DEL PROYECTO VERTICAL

TABLA DE DATOS DE CURVAS

CURVA	ALFA	RADIO	TAN.	LONG.
C1	45°45'37"	50.00	21.10	39.93
C2	38°06'20"	50.00	17.27	33.25
C3	40°16'34"	50.00	18.34	35.15
C4	49°42'47"	35.00	16.21	30.37
C5	111°32'10"	25.00	36.74	48.67
C6	33°48'17"	30.00	9.12	17.70
C7	50°55'39"	30.00	14.29	26.67
C8	13°28'15"	50.00	5.91	11.76
C9	11°44'03"	50.00	5.14	10.24
C10	122°27'17"	110.00	200.32	235.10
C11	48°02'46"	50.00	22.29	41.93
C12	72°19'16"	50.00	36.54	63.11
C13	8°37'13"	50.00	3.77	7.52
C14	9°26'12"	50.00	4.13	8.23
C15	13°52'33"	50.00	6.08	12.11
C16	22°48'54"	50.00	10.09	19.91
C17	62°44'30"	50.00	30.49	54.75
C18	21°04'26"	50.00	9.30	18.39
C19	10°55'16"	50.00	4.78	9.53
C20	7°51'16"	50.00	3.43	6.85
C21	55°14'34"	50.00	26.16	48.21
C22	33°02'59"	50.00	14.83	28.84
C23	21°55'06"	50.00	9.68	19.13
C24	40°51'50"	50.00	18.63	35.66
C25	38°46'09"	50.00	17.59	33.83
C26	50°55'35"	50.00	23.81	44.44
C27	40°07'26"	50.00	18.26	35.01
C28	26°39'41"	50.00	11.85	23.27
C29	13°32'38"	50.00	5.94	11.82
C30	58°41'45"	50.00	28.11	51.22
C31	79°33'23"	50.00	41.63	69.43
C32	20°16'03"	50.00	8.94	17.69
C33	36°44'44"	50.00	16.61	32.07
C34	40°42'43"	50.00	18.55	35.53
C35	72°05'19"	50.00	36.39	62.91
C36	106°28'52"	50.00	66.94	92.92
C37	54°50'39"	50.00	25.94	47.86
C38	22°23'12"	50.00	9.89	19.54
C39	16°51'29"	50.00	7.41	14.71
C40	136°04'10"	40.00	99.18	94.99
C41	77°25'53"	30.00	24.05	40.54
C42	130°11'01"	30.00	64.61	68.16
C43	107°45'01"	30.00	41.10	56.42
C44	150°14'58"	20.00	75.30	52.45
C45	32°04'41"	50.00	14.37	27.99
C46	173°22'09"	20.00	345.25	60.52
C47	5°07'07"	50.00	2.23	4.47
C48	48°52'56"	50.00	22.72	42.66
C49	46°57'21"	50.00	21.72	40.98
C50	19°59'21"	50.00	8.81	17.44
C51	23°17'04"	50.00	10.30	20.32
C52	21°07'37"	50.00	9.32	18.44
C53	34°44'39"	50.00	15.64	30.32
C54	23°34'13"	50.00	10.43	20.57
C55	21°03'40"	50.00	9.29	18.38
C56	33°44'38"	50.00	15.16	29.45
C57	7°36'28"	50.00	3.32	6.64
C58	114°25'47"	95.00	147.50	189.73
C59	68°44'42"	30.00	20.52	35.99
C60	17°07'30"	50.00	7.53	14.94
C61	57°29'19"	200.00	109.70	200.67
C62	11°59'16"	50.00	5.25	10.46
C63	18°35'58"	50.00	8.19	16.23

COORDENADAS DEL PROYECTO

Pl. No.	NORTE	ESTE	LONG.	RUMBO
0+000	9791997.464	187662.026		
			56.23	N30°09'44"E
PI-1	9792046.084	187690.281		
			94.18	N75°55'21"E
PI-2	9792068.993	187781.637		
			107.33	S65°58'19"E
PI-3	9792025.290	187879.667		
			250.39	N73°45'07"E
PI-4	9792095.348	188120.056		
			71.45	S56°32'07"E
PI-5	9792055.948	188179.664		
			62.89	N11°55'43"E
PI-6	9792117.483	188192.663		
			78.17	N45°44'00"E
PI-7	9792172.046	188248.640		
			152.55	S83°20'22"E
PI-8	9792154.352	188400.160		
			57.19	S69°52'06"E
PI-9	9792134.666	188453.860		
			355.97	S58°08'04"E
PI-10	9791946.739	188756.182		
			264.11	N00°35'21"W
PI-11	9792210.835	188753.467		
			216.64	N47°27'25"E
PI-12	9792357.316	188913.082		
			232.96	S60°13'19"E
PI-13	9792241.619	189115.280		
			186.98	S68°50'32"E
PI-14	9792174.131	189289.654		
			118.23	S59°24'20"E
PI-15	9792113.958	189391.423		
			173.21	S45°31'47"E
PI-16	9791992.619	189515.027		
			109.91	S22°42'53"E
PI-17	9791891.236	189557.467		
			223.27	S85°27'23"E
PI-18	9791873.549	189780.034		
			240.27	S64°22'56"E
PI-19	9791769.665	189996.683		
			127.59	S53°27'40"E
PI-20	9791693.701	190099.197		
			215.73	S45°36'24"E
PI-21	9791542.781	190253.349		
			117.33	N79°09'02"E
PI-22	9791564.866	190368.583		
			119.72	S67°47'59"E
PI-23	9791519.630	190479.428		
			143.49	S89°43'05"E
PI-24	9791518.924	190622.918		
			151.97	S48°51'15"E
PI-25	9791418.928	190737.360		
			117.17	S87°37'24"E
PI-26	9791414.069	190854.430		
			181.07	S36°41'49"E
PI-27	9791268.889	190962.632		
			92.06	S76°49'15"E
PI-28	9791247.901	191052.264		
			87.91	N76°31'04"E
PI-29	9791268.396	191137.753		
			76.08	S89°56'18"E
PI-30	9791268.315	191213.836		
			156.17	N31°21'57"E
PI-31	9791401.661	191295.122		
			135.25	S69°04'40"E
PI-32	9791353.362	191421.458		
			76.13	S89°20'43"E
PI-33	9791352.492	191497.581		
			75.55	S52°35'59"E
PI-34	9791306.604	191557.599		
			78.52	N86°41'18"E
PI-35	9791311.140	191635.990		
			160.80	S21°13'23"E
PI-36	9791161.249	191694.199		
			125.38	N52°17'45"E
PI-37	9791237.931	191793.400		
			113.76	S72°51'36"E
PI-38	9791204.406	191902.105		
			155.97	S50°28'23"E
PI-39	9791105.140	192022.409		
			206.67	S67°19'52"E
PI-40	9791025.491	192213.110		
			188.01	N23°24'03"W
PI-41	9791198.033	192138.441		
			122.16	N54°01'50"E
PI-42	9791269.783	192237.307		
			146.19	S04°12'51"W
PI-43	9791123.993	192226.565		
			164.72	N76°27'50"E
PI-44	9791162.547	192386.710		
			112.54	S46°42'48"W
PI-45	9791085.383	192304.787		
			384.06	S78°47'29"W
PI-46	9791010.729	191928.056		
			393.17	N85°25'20"E
PI-47	9791042.109	192319.970		
			75.96	N80°18'13"E
PI-48	9791054.903	192394.845		
			52.75	S50°48'51"E
PI-49	9791021.574	192435.730		
			57.62	N82°13'48"E
PI-50	9791029.364	192492.822		
			73.44	S77°46'51"E
PI-51	9791013.821	192564.595		
			172.29	S54°29'47"E
PI-52	9790913.765	192704.849		
			96.88	S75°37'24"E
PI-53	9790889.710	192798.699		
			128.70	N69°37'57"E
PI-54	9790934.501	192919.350		
			179.09	S86°47'51"E
PI-55	9790924.496	193098.163		
			73.01	S65°44'10"E
PI-56	9790894.495	193164.720		
			174.52	N80°31'12"E
PI-57	9790923.239	193336.853		
			374.84	N72°54'44"E
PI-58	9791033.382	193695.147		
			194.16	S07°20'30"W
PI-59	9790840.811	193670.336		
			186.40	S61°24'12"E
PI-60	9790751.593	193833.996		
			260.18	S78°31'42"E
PI-61	9790699.848	194088.974		
			338.30	S20°49'56"E
PI-62	9790383.668	194209.284		
			81.24	S32°37'59"E
PI-63	9790315.255	194253.092		
			244.36	S14°02'00"E
8+666.90	9790078.186	194312.346		

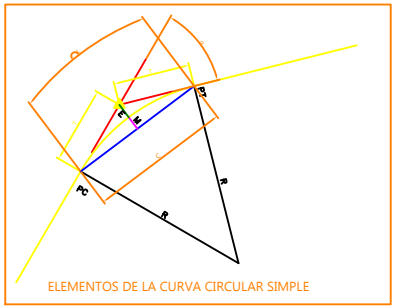
DISERTACION DE GRADO
TEMA: Estudio para la construcción de un camino ecológico en la Provincia de Pastaza

PROYECTO: TRONCAL AMAZONICA – SHIRAM PUPUNAS

CONTIENE: DATOS DE CURVAS HORIZONTALES, COORDENADAS DEL PROYECTO Y SECCION TIPO

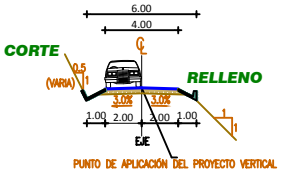
CLASE	LONGITUD	ESTUDIO	PROVINCIA	FECHA: AGOSTO/2011
V	8.00 Km	DEFINITIVO	PASTAZA	

COORDINADOR AREA TRANSPORTES Y VIAS	PROYECTOR EVALUADOR	PROYECTOR EVALUADOR	TOPOGRAFIA / DISEÑO VIAL
Ing. Fredi Paredes	Ing. Gustavo Yánez	Ing. Gonzalo Moya	Renato Villarreal



ELEMENTOS DE LA CURVA CIRCULAR SIMPLE

SECCIÓN TÍPICA MIXTA NORMAL
KM 0+000 - KM 8+600



PUNTO DE APLICACIÓN DEL PROYECTO VERTICAL

TABLA DE DATOS DE CURVAS

CURVA	ALFA	RADIO	TAN.	LONG.
C1	45°45'37"	50.00	21.10	39.93
C2	38°06'20"	50.00	17.27	33.25
C3	40°16'34"	50.00	18.34	35.15
C4	49°42'47"	35.00	16.21	30.37
C5	111°32'10"	25.00	36.74	48.67
C6	33°48'17"	30.00	9.12	17.70
C7	50°55'39"	30.00	14.29	26.67
C8	13°28'15"	50.00	5.91	11.76
C9	11°44'03"	50.00	5.14	10.24
C10	122°27'17"	110.00	200.32	235.10
C11	48°02'46"	50.00	22.29	41.93
C12	72°19'16"	50.00	36.54	63.11
C13	8°37'13"	50.00	3.77	7.52
C14	9°26'12"	50.00	4.13	8.23
C15	13°52'33"	50.00	6.08	12.11
C16	22°48'54"	50.00	10.09	19.91
C17	62°44'30"	50.00	30.49	54.75
C18	21°04'26"	50.00	9.30	18.39
C19	10°55'16"	50.00	4.78	9.53
C20	7°51'16"	50.00	3.43	6.85
C21	55°14'34"	50.00	26.16	48.21
C22	33°02'59"	50.00	14.83	28.84
C23	21°55'06"	50.00	9.68	19.13
C24	40°51'50"	50.00	18.63	35.66
C25	38°46'09"	50.00	17.59	33.83
C26	50°55'35"	50.00	23.81	44.44
C27	40°07'26"	50.00	18.26	35.01
C28	26°39'41"	50.00	11.85	23.27
C29	13°32'38"	50.00	5.94	11.82
C30	58°41'45"	50.00	28.11	51.22
C31	79°33'23"	50.00	41.63	69.43
C32	20°16'03"	50.00	8.94	17.69
C33	36°44'44"	50.00	16.61	32.07
C34	40°42'43"	50.00	18.55	35.53
C35	72°05'19"	50.00	36.39	62.91
C36	106°28'52"	50.00	66.94	92.92
C37	54°50'39"	50.00	25.94	47.86
C38	22°23'12"	50.00	9.89	19.54
C39	16°51'29"	50.00	7.41	14.71
C40	136°04'10"	40.00	99.18	94.99
C41	77°25'53"	30.00	24.05	40.54
C42	130°11'01"	30.00	64.61	68.16
C43	107°45'01"	30.00	41.10	56.42
C44	150°14'58"	20.00	75.30	52.45
C45	32°04'41"	50.00	14.37	27.99
C46	173°22'09"	20.00	345.25	60.52
C47	5°07'07"	50.00	2.23	4.47
C48	48°52'56"	50.00	22.72	42.66
C49	46°57'21"	50.00	21.72	40.98
C50	19°59'21"	50.00	8.81	17.44
C51	23°17'04"	50.00	10.30	20.32
C52	21°07'37"	50.00	9.32	18.44
C53	34°44'39"	50.00	15.64	30.32
C54	23°34'13"	50.00	10.43	20.57
C55	21°03'40"	50.00	9.29	18.38
C56	33°44'38"	50.00	15.16	29.45
C57	7°36'28"	50.00	3.32	6.64
C58	114°25'47"	95.00	147.50	189.73
C59	68°44'42"	30.00	20.52	35.99
C60	17°07'30"	50.00	7.53	14.94
C61	57°29'19"	200.00	109.70	200.67
C62	11°59'16"	50.00	5.25	10.46
C63	18°35'58"	50.00	8.19	16.23

COORDENADAS DEL PROYECTO

Pl. No.	NORTE	ESTE	LONG.	RUMBO
0+000	9791997.464	187662.026		
			56.23	N30°09'44"E
PI-1	9792046.084	187690.281		
			94.18	N75°55'21"E
PI-2	9792068.993	187781.637		
			107.33	S65°58'19"E
PI-3	9792025.290	187879.667		
			250.39	N73°45'07"E
PI-4	9792095.348	188120.056		
			71.45	S56°32'07"E
PI-5	9792055.948	188179.664		
			62.89	N11°55'43"E
PI-6	9792117.483	188192.663		
			78.17	N45°44'00"E
PI-7	9792172.046	188248.640		
			152.55	S83°20'22"E
PI-8	9792154.352	188400.160		
			57.19	S69°52'06"E
PI-9	9792134.666	188453.860		
			355.97	S58°08'04"E
PI-10	9791946.739	188756.182		
			264.11	N00°35'21"W
PI-11	9792210.835	188753.467		
			216.64	N47°27'25"E
PI-12	9792357.316	188913.082		
			232.96	S60°13'19"E
PI-13	9792241.619	189115.280		
			186.98	S68°50'32"E
PI-14	9792174.131	189289.654		
			118.23	S59°24'20"E
PI-15	9792113.958	189391.423		
			173.21	S45°31'47"E
PI-16	9791992.619	189515.027		
			109.91	S22°42'53"E
PI-17	9791891.236	189557.467		
			223.27	S85°27'23"E
PI-18	9791873.549	189780.034		
			240.27	S64°22'56"E
PI-19	9791769.665	189996.683		
			127.59	S53°27'40"E
PI-20	9791693.701	190099.197		
			215.73	S45°36'24"E
PI-21	9791542.781	190253.349		
			117.33	N79°09'02"E
PI-22	9791564.866	190368.583		
			119.72	S67°47'59"E
PI-23	9791519.630	190479.428		
			143.49	S89°43'05"E
PI-24	9791518.924	190622.918		
			151.97	S48°51'15"E
PI-25	9791418.928	190737.360		
			117.17	S87°37'24"E
PI-26	9791414.069	190854.430		
			181.07	S36°41'49"E
PI-27	9791268.889	190962.632		
			92.06	S76°49'15"E
PI-28	9791247.901	191052.264		
			87.91	N76°31'04"E
PI-29	9791268.396	191137.753		
			76.08	S89°56'18"E
PI-30	9791268.315	191213.836		
			156.17	N31°21'57"E
PI-31	9791401.661	191295.122		
			135.25	S69°04'40"E
PI-32	9791353.362	191421.458		
			76.13	S89°20'43"E
PI-33	9791352.492	191497.581		
			75.55	S52°35'59"E
PI-34	9791306.604	191557.599		
			78.52	N86°41'18"E
PI-35	9791311.140	191635.990		
			160.80	S21°13'23"E
PI-36	9791161.249	191694.199		
			125.38	N52°17'45"E
PI-37	9791237.931	191793.400		
			113.76	S72°51'36"E
PI-38	9791204.406	191902.105		
			155.97	S50°28'23"E
PI-39	9791105.140	192022.409		
			206.67	S67°19'52"E
PI-40	9791025.491	192213.110		
			188.01	N23°24'03"W
PI-41	9791198.033	192138.441		
			122.16	N54°01'50"E
PI-42	9791269.783	192237.307		
			146.19	S04°12'51"W
PI-43	9791123.993	192226.565		
			164.72	N76°27'50"E
PI-44	9791162.547	192386.710		
			112.54	S46°42'48"W
PI-45	9791085.383	192304.787		
			384.06	S78°47'29"W
PI-46	9791010.729	191928.056		
			393.17	N85°25'20"E
PI-47	9791042.109	192319.970		
			75.96	N80°18'13"E
PI-48	9791054.903	192394.845		
			52.75	S50°48'51"E
PI-49	9791021.574	192435.730		
			57.62	N82°13'48"E
PI-50	9791029.364	192492.822		
			73.44	S77°46'51"E
PI-51	9791013.821	192564.595		
			172.29	S54°29'47"E
PI-52	9790913.765	192704.849		
			96.88	S75°37'24"E
PI-53	9790889.710	192798.699		
			128.70	N69°37'57"E
PI-54	9790934.501	192919.350		
			179.09	S86°47'51"E
PI-55	9790924.496	193098.163		
			73.01	S65°44'10"E
PI-56	9790894.495	193164.720		
			174.52	N80°31'12"E
PI-57	9790923.239	193336.853		
			374.84	N72°54'44"E
PI-58	9791033.382	193695.147		
			194.16	S07°20'30"W
PI-59	9790840.811	193670.336		
			186.40	S61°24'12"E
PI-60	9790751.593	193833.996		
			260.18	S78°31'42"E
PI-61	9790699.848	194088.974		
			338.30	S20°49'56"E
PI-62	9790383.668	194209.284		
			81.24	S32°37'59"E
PI-63	9790315.255	194253.092		
			244.36	S14°02'00"E
8+666.90	9790078.186	194312.346		

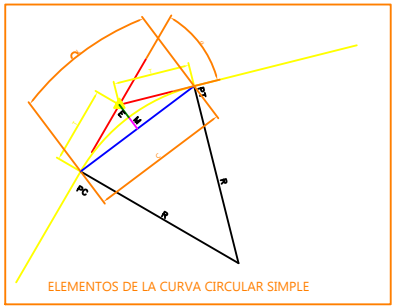
DISERTACION DE GRADO
TEMA: Estudio para la construcción de un camino ecológico en la Provincia de Pastaza

PROYECTO: TRONCAL AMAZONICA – SHIRAM PUPUNAS

CONTIENE: DATOS DE CURVAS HORIZONTALES, COORDENADAS DEL PROYECTO Y SECCION TIPO

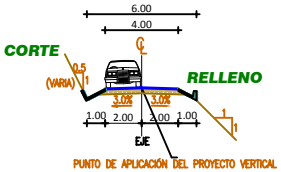
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ELEMENTOS DE LA CURVA CIRCULAR SIMPLE

SECCIÓN TÍPICA MIXTA NORMAL
KM 0+000 - KM 8+600



PUNTO DE APLICACIÓN DEL PROYECTO VERTICAL