

CALCULO DE CUNETAS										C O T A S			
CALLE	NODO	LONG	PENDIENTE (S)	CAUDAL (Q)	CAUDAL POR CUNETA (l/s)	Tipo de cuneta	Velocidad (m/s)	l proyecto (mm)	TERRENO	PROYECTO	CORTE		
	No	m	LONG. TERRENO (m/m)	DISEÑO l/s				(mm)					
LONGITUDINAL 3	60	110.63	-0.0019	63.63	31.82	3	0.50	0.0019	9.635	9.065	0.55		
	61							0.0019	9.420	8.875	0.55		
	61	30.40	0.0161	74.77	37.38	1	1.21	0.0161	9.420	8.870	0.55		
LONGITUDINAL 3	62							0.0161	9.910	8.385	1.52		
	61							0.0012	9.420	8.870	0.55		
	61	301.32	-0.0007	251.34	125.67	2	0.97	0.0012	9.207	8.598	0.70		
LONGITUDINAL 4	26							0.0012	9.970	9.420	0.55		
	26	55.97	-0.0029	62.04	31.02	3	0.48	0.0012	9.810	9.355	0.46		
	27							0.0030	9.635	9.065	0.55		
TRANSVERSAL 19	28							0.0030	9.810	8.925	0.89		
	28	53.48	0.0033	19.09	9.54	1	0.31	0.0012	9.780	8.925	0.86		
	28	55.97	-0.0007	116.13	58.06	4	0.62	0.0012	9.740	8.859	0.88		
LONGITUDINAL 4	42							0.0012	9.710	8.859	0.85		
	42	142.72	-0.0011	221.12	110.56	2	0.86	0.0012	9.560	8.692	0.87		
	49							0.0016	9.530	8.692	0.84		
LONGITUDINAL 4	49	42.68	-0.0016	249.75	124.88	2	0.97	0.0016	9.460	8.624	0.84		
	51							0.0014	9.430	8.624	0.81		
	51	44.68	0.0003	281.57	140.78	2	1.09	0.0014	9.443	8.561	0.88		
LONGITUDINAL 4	53							0.0021	9.413	8.561	0.85		
	53	63.18	-0.0026	337.24	168.62	2	1.31	0.0021	9.200	8.387	0.81		
	63							0.0121	9.200	8.387	0.81		
LONGITUDINAL 4	63	26.69	-0.0412	588.58	294.29	2	2.28	0.0121	8.100	8.053	0.04		
	63							0.0061	9.560	9.010	0.55		
	49	68.62	-0.0043	35.00	17.50	1	0.56	0.0061	9.263	8.589	0.67		
TRANSVERSAL 9	50							0.0036	9.460	8.910	0.550		
	51	65.50	-0.0028	35.00	17.50	1	0.56	0.0036	9.276	8.676	0.69		
	52							0.0008	9.263	8.713	0.550		
LONGITUDINAL 5	52	41.73	-0.0004	23.86	11.93	3	0.19	0.0008	9.246	8.680	0.57		
	52							0.0070	9.276	8.676	0.600		
	52	36.00	-0.0021	58.86	29.43	1	0.05	0.0070	9.200	8.424	0.76		
TRANSVERSAL 11	53							0.0033	9.443	8.893	0.550		
	53	56.29	-0.0054	25.45	12.73	1	0.41	0.0033	9.120	8.695	0.43		
	54							0.0017	9.276	8.726	0.550		
LONGITUDINAL 5	54	41.03	-0.0038	20.68	10.34	1	0.33	0.0017	9.120	8.656	0.46		
	54							0.0010	9.120	8.656	0.46		
	54	31.11	-0.0005	63.63	31.82	3	0.50	0.0010	9.106	8.625	0.48		
LONGITUDINAL 5	64							0.0017	9.197	8.647	0.550		
	64	45.06	0.0020	19.09	9.54	1	0.31	0.0017	9.287	8.570	0.72		
	57							0.0017	9.257	8.570	0.687		
LONGITUDINAL 5	57	44.14	-0.0034	41.36	20.68	3	0.32	0.0017	9.106	8.495	0.61		
	55							0.0030	9.076	8.495	0.581		
	55							0.0030	9.076	8.495	0.581		
TRANSVERSAL 12	56	64.45	-0.0075	127.26	63.63	3	0.99	0.0030	8.594	8.299	0.29		
	57							0.0028	9.287	8.737	0.550		
	58	33.11	0.0045	17.50	8.75	1	0.28	0.0028	9.436	8.645	0.79		
TRANSVERSAL 13	58							0.0041	9.436	8.645	0.500		
	58	53.15	-0.0041	38.18	19.09	1	0.62	0.0041	9.219	8.428	0.79		
	66							0.0060	9.192	8.642	0.550		
TRANSVERSAL 14	66	81.75	-0.0053	38.77	19.88	1	0.64	0.0060	8.762	8.154	0.61		
	56							0.0009	9.170	8.620	0.550		
	63	50.52	0.0005	22.27	11.14	1	0.36	0.0009	9.197	8.575	0.62		
LONGITUDINAL 3	64							0.0015	9.197	8.575	0.592		
	64	34.64	0.0015	38.18	19.09	3	0.30	0.0015	9.219	8.523	0.70		
	65							0.0009	9.196	8.426	0.761		
LONGITUDINAL 3	65	26.54	0.0001	86.08	44.54	4	0.48	0.0009	9.150	8.404	0.79		
	66							0.0009	9.162	8.404	0.798		
	66	66.63	0.0004	133.62	66.81	2	0.52	0.0009	9.195	8.326	0.87		
TRANSVERSAL 15	67							0.0028	9.200	8.650	0.550		
	67	49.51	-0.0001	11.14	5.57	1	0.18	0.0028	9.195	8.513	0.68		
	67							0.0015	8.165	8.326	0.839		
LONGITUDINAL 3	69							0.0015	9.374	8.088	1.28		
	3							0.0005	10.036	9.506	0.550		
	4	279.36	0.0002	49.31	24.66	3	0.39	0.0006	10.100	9.330	0.77		
VIA PRINCIPAL	4							0.0006	9.786	9.236	0.550		
	4	136.54	0.0023	49.31	24.66	3	0.39	0.0006	10.100	9.153	0.95		
	4							0.0034	10.100	9.153	0.947		
TRANSVERSAL 25	6							0.0034	8.566	8.629	0.94		
	5							0.0011	10.000	9.450	0.550		
	5	187.19	-0.0011	65.22	32.61	3	0.51	0.0011	9.789	9.244	0.54		
TRANSVERSAL 24	5							0.0043	9.789	9.244	0.545		
	5	134.90	-0.0017	151.12	75.56	3	1.18	0.0043	9.566	8.967	0.90		
	11							0.0159	10.000	9.450	0.550		
TRANSVERSAL 23	12	74.74	-0.0159	52.50	26.25	1	0.85	0.0159	8.811	8.262	0.55		
	12							0.0035	8.811	8.262	0.549		
	12	81.06	-0.0035	73.18	36.59	3	0.57	0.0035	8.524	7.978	0.55		
TRANSVERSAL 23	12							0.0041	8.833	8.283	0.550		
	13							0.0041	8.997	8.119	0.88		
	14	40.04	0.0041	25.45	12.73	1	0.41	0.0041					

TRANSVERSAL 22	15	79.89	-0.0200	46.13	23.07	1	0.74	0.0200	10.359	9.809	0.550		
	16							0.0200	8.759	8.211	0.55		
	16							0.0033	8.759	8.209	0.550		
TRANSVERSAL 22	17	51.32	0.0030	25.45	12.73	1	0.41	0.0033	8.911	8.040	0.87		
	18							0.0222	10.535	9.985	0.550		
TRANSVERSAL 21	17	83.94	-0.0222	27.04	13.52	1	0.44	0.0222	8.674	8.122	0.55		
	20							0.0012	8.811	8.261	0.550		
LONGITUDINAL 10	12	108.32	-0.0005	81.13	40.56	3	0.63	0.0012	8.759	8.131	0.63		
	16							0.0050	8.729	8.131	0.598		
LONGITUDINAL 10	16	82.90	-0.0041	162.26	81.13	3	1.27	0.0050	8.387	7.717	0.87		
	21							0.0008	8.987	8.447	0.550		
LONGITUDINAL 11	14	105.72	-0.0008	50.90	25.45	3	0.40	0.0008	8.911	8.362	0.55		
	17							0.0025	8.881	8.040	0.841		
LONGITUDINAL 11	17	93.94	-0.0025	76.36	38.18	3	0.60	0.0025	8.649	7.805	0.84		
	22							0.0066	8.760	8.210	0.550		
sin	19	91.89	-0.0066	81.13	40.56	Canal 14	0.32	0.0066	8.160	7.604	0.55		
	21							0.0098	8.150	7.904	0.55		
TRANSVERSAL 19	28							0.0027	9.810	9.260	0.550		
	29	88.68	-0.0027	97.04	48.52	3	0.76	0.0027	9.570	9.021	0.55		
TRANSVERSAL 19	29							0.0038	9.540	9.021	0.519		
	48	48.64	0.0038	146.35	73.18	3	1.14	0.0038	9.724	8.836	0.88		
TRANSVERSAL 19	30							0.0050	9.724	8.836	0.888		
	30	33.90	0.0032	165.44	82.72	3	1.29	0.0050	9.834	8.668	1.17		
VIA PRINCIPAL	31							0.0009	9.970	9.420	0.550		
	26							0.0009	10.179	9.296	0.88		
VIA PRINCIPAL	24	137.52	0.0015	42.95	21.48	3	0.34	0.0009	10.179	9.222	0.96		
	18							0.0007	9.970	9.420	0.550		
TRANSVERSAL 20	24	283.56	0.0007	90.67	45.34	4	0.49	0.0007	10.179	9.222	0.96		
	20							0.0098	10.179	9.222	0.907		
TRANSVERSAL 20	24	121.89	-0.0099	345.20	172.60	4	1.66	0.0098	8.975	8.018	0.96		
	23	63.22	-0.0015	85.90	42.95	3	0.67	0.0015	8.975	8.018	0.96		
LONGITUDINAL 7	25							0.0014	8.975	8.018	0.967		
	25	70.50	0.0040	513.02	256.51	Canal T3	0.61	0.0014	9.260	8.418	1.34		
LONGITUDINAL 7	NA							0.0014	9.830	8.725	1.405		
	31	48.90	-0.0117	19.09	9.54	1	0.31	0.0014	9.260	8.357	0.90		
LONGITUDINAL 7	NA							0.0017	9.260	7.919	1.341		
	136.00	-0.0082	603.70	301.85	Canal T3	0.72	0.0017	8.140	7.686	0.45			
TRANSVERSAL 19	C29							0.0015	9.834	8.666	1.168		
	31	30.69	-0.0119	173.39	86.70	2	0.67	0.0015	9.470	8.620	0.850		
TRANSVERSAL 19	32							0.0017	9.470	8.620	0.850		
	32	106.82	-0.0109	217.94	106.97	2	0.84	0.0017	8.280	8.434	-0.15		
TRANSVERSAL 17	33							0.0088	9.630	9.080	0.550		
	34	58.42	-0.0068	33.41	16.70	1	0.54	0.0088	9.230	8.683	0.55		
LONGITUDINAL 5	35							0.0092	9.540	8.960	0.550		
	29	33.57	-0.0092	14.32	7.16	1	0.23	0.0092	9.230	8.681	0.55		
LONGITUDINAL 5	35							0.0008	9.255	8.705	0.550		
	43	32.79	-0.0008	11.14	5.57	1	0.18	0.0008	9.230	8.679	0.55		
TRANSVERSAL 17	35							0.0025	9.200	8.679	0.521		
	48	48.17	0.0025	79.54	39.77	3	0.62	0.0025	9.321	8.556	0.77		
LONGITUDINAL 6	36							0.0072	9.724	9.174	0.550		
	30	52.14	-0.0077	23.86	11.93	1	0.38	0.0072	9.321	8.798	0.52		
LONGITUDINAL 6	36							0.0014	9.255	8.705	0.550		
	44	45.98	0.0014	19.09	9.54	1	0.31	0.0014	9.321	8.641	0.68		
TRANSVERSAL 17	36							0.0014	9.291	8.556	0.735		
	33.39	0.0054	132.03	66.02	4	0.71	0.0014	9.471	8.510	0.96			
LONGITUDINAL 7	37							0.0030	9.230	7.919	1.311		
	31	61.70	0.0039	28.63	14.32	1	0.46	0.0030	9.471	7.731	1.74		
TRANSVERSAL 17	37							0.0020	9.471	8.510	0.961		
	37	31.45	-0.0079	170.21	85.11	4	0.92	0.0020	9.223	8.447	0.76		
TRANSVERSAL 15	38							0.0029	9.129	8.579	0.550		
	41	97.60	-0.0011	39.77	19.88	1	0.64	0.0029	9.020	8.296	0.72		
LONGITUDINAL 8	32							0.0035	9.471	8.921	0.550		
	38	67.55	-0.0041	23.86	11.93	1	0.38	0.0035	9.193	8.685	0.51		
TRANSVERSAL 17	38							0.0029	9.193	8.447	0.746		
	40	115.05	0.0013	230.66	115.33	4	1.24	0.0029	9.338	8.114	1.22		
TRANSVERSAL 15	42							0.0056	9.740	9.190	0.550		
	43	81.89	-0.0056	30.90	25.45	1	0.62	0.0056	9.285	8.731	0.55		
TRANSVERSAL 16	44	54.74	0.0005	79.54	39.77	3	0.62	0.0012	9.255	8.731	0.524		
	44							0.0013	9.285	8.666	0.62		
TRANSVERSAL 16	44							0.0042	9.255	8.666	0.588		
	37	33.97	-0.0042	101.81	50.90	3	0.80	0.0042	9.111	8.523	0.59		
LONGITUDINAL 7	45							0.0050	9.441	8.691	0.550		
	45	56.08	-0.0060	30.22	15.11	3	0.24	0.0050	9.111	8.616	0.50		
TRANSVERSAL 16	45							0.0044	9.111	8.523	0.588		
	32.17	-0.0023	138.40	69.20	3	1.08	0.0044	9.036	8.378	0.68			
LONGITUDINAL 8	38							0.0030	9.163	8.613	0.550		
	46	68.05	-0.0019	27.04	13.52	1	0.44	0.0030	9.036	8.111	0.63		
VIA PRINCIPAL	0							0.0054	10.250	9.700	0.550		
	1	114.00	-0.0054	26.09	13.04	1	0.42	0.0054	9.630	9.084	0.55		
VIA PRINCIPAL	1							0.0010	9.630	9.084	0.546		
	2	76.89	0.0098	52.18	26.09	3	0.41	0.0010	10.150	9.908	1.14		
VIA PRINCIPAL	2							0.0035	10.150	9.908	1.142		
	60	113.00	-0.0035	78.27	39.13	3	0.61	0.0035	9.750	8.612	1.14		
Longitudinal 1	60							0.0053	9.630	9.080	0.550		
	70	60.54	-0.0053	18.93	9.47	1	0.31	0.0053	9.310	8.759	0.55		