

MEMÓRIA DE CÁLCULO

TRECHO		PONTO INICIAL			PONTO FINAL			DADOS DA REDE		ESCAVAÇÃO			REATERRO MANUAL/MECÂNICO				TRANSPORTE	APILOAMENTO	ASSENTAMENTO DE TUBOS		
INICIAL	FINAL	COTA TERRENO (m)	COTA FUNDO (m)	ALTURA (m)	COTA TERRENO (m)	COTA FUNDO (m)	ALTURA (m)	DIÂMETRO (mm)	COMPRIMENTO DA REDE (m)	ALTURA ESCAVAÇÃO (m)	LARGURA DA VALA (m)	VOLUME ESCAVAÇÃO (m³)	DIÂMETRO EXTERNO (mm)	VOLUME DA TUBULAÇÃO (m³/m)	VOLUME DA TUBULAÇÃO (m³)	REATERRO MECÂNICO (m³)	BOTA FORA (m³)	REGULARIZAÇÃO (m²)	150	200	
PVN08	PVN06	658,548	657,390	1,158	658,125	656,611	1,514	150	103,87	1,34	0,40	55,51	150	0,02	2,08	53,43	2,08	41,55	103,87	-	
PVN01	PVN02	657,307	656,257	1,050	656,732	655,615	1,117	150	73,00	1,08	0,40	31,64	150	0,02	1,46	30,18	1,46	29,20	73,00	-	
PVN02	PVN03	656,732	655,615	1,117	657,089	655,143	1,946	150	73,77	1,53	0,40	45,19	150	0,02	1,48	43,72	1,48	29,51	73,77	-	
PVN06	PVN04	658,125	656,611	1,514	658,205	656,048	2,157	150	104,20	1,84	0,40	76,50	150	0,02	2,08	74,42	2,08	41,68	104,20	-	
PVN07	PVN03	657,043	655,943	1,100	657,089	655,143	1,946	150	100,00	1,52	0,40	60,92	150	0,02	2,00	58,92	2,00	40,00	100,00	-	
PVN07	PVN09	657,043	655,943	1,100	656,960	655,146	1,814	150	107,67	1,46	0,40	62,75	150	0,02	2,15	60,60	2,15	43,07	107,67	-	
PVN11	PVN09	657,266	656,216	1,050	656,960	655,146	1,814	150	77,52	1,43	0,40	44,40	150	0,02	1,55	42,85	1,55	31,01	77,52	-	
PVN05	PVN04	657,902	656,852	1,050	658,205	656,048	2,157	150	53,00	1,60	0,40	33,99	150	0,02	1,06	32,93	1,06	21,20	53,00	-	
PVN04	PVN03	658,205	656,048	2,157	657,089	655,143	1,946	150	69,41	2,05	0,40	56,96	150	0,02	1,39	55,57	1,39	27,76	69,41	-	
PVN03	PVN20	657,089	655,143	1,946	656,173	654,947	1,226	150	61,30	1,59	0,40	38,89	150	0,02	1,23	37,66	1,23	24,52	61,30	-	
PVN20	PVN21	656,173	654,947	1,226	655,854	654,631	1,223	150	105,24	1,22	0,40	51,55	150	0,02	2,10	49,44	2,10	42,10	105,24	-	
PVN12	PVN10	659,556	658,506	1,050	659,084	658,034	1,050	150	37,86	1,05	0,40	15,90	150	0,02	0,76	15,14	0,76	15,14	37,86	-	
PVN10	PVN08	659,084	658,034	1,050	658,548	657,390	1,158	150	96,18	1,10	0,40	42,47	150	0,02	1,92	40,55	1,92	38,47	96,18	-	
PVN08	PVN09	658,548	657,390	1,158	656,960	655,146	1,814	150	67,83	1,49	0,40	40,32	150	0,02	1,36	38,96	1,36	27,13	67,83	-	
PVN09	PVN22	656,960	655,146	1,814	655,501	654,401	1,100	150	60,22	1,46	0,40	35,10	150	0,02	1,20	33,89	1,20	24,09	60,22	-	
PVN5	PVN17	653,857	652,308	1,549	656,678	655,418	1,260	150	46,09	1,40	0,40	25,89	150	0,02	0,92	24,97	0,92	18,44	46,09	-	
PVN11	PVN15	657,266	656,216	1,050	656,975	655,701	1,274	150	47,27	1,16	0,40	21,97	150	0,02	0,95	21,03	0,95	18,91	47,27	-	
PVN16	PVN17	659,506	658,456	1,050	656,678	655,418	1,260	150	78,42	1,15	0,40	36,23	150	0,02	1,57	34,66	1,57	31,37	78,42	-	
PVN17	PVN19	656,678	655,418	1,260	656,375	655,153	1,222	150	44,19	1,24	0,40	21,94	150	0,02	0,88	21,05	0,88	17,68	44,19	-	
PVN14	PVN15	659,730	658,680	1,050	656,975	655,701	1,274	150	78,50	1,16	0,40	36,49	150	0,02	1,57	34,92	1,57	31,40	78,50	-	
PVN15	PVN24	656,975	655,701	1,274	654,660	653,560	1,100	150	61,31	1,19	0,40	29,11	150	0,02	1,23	27,88	1,23	24,52	61,31	-	
PVN18	PVN19	659,612	658,562	1,050	656,375	655,153	1,222	150	77,43	1,14	0,40	35,18	150	0,02	1,55	33,64	1,55	30,97	77,43	-	
PVN19	PVN25	656,375	655,153	1,222	653,844	652,744	1,100	150	58,88	1,16	0,40	27,34	150	0,02	1,18	26,17	1,18	23,55	58,88	-	
PVN27	PVN28	659,694	658,644	1,050	656,451	655,401	1,050	150	77,41	1,05	0,40	32,51	150	0,02	1,55	30,96	1,55	30,96	77,41	-	
PVN28	PVN29	656,451	655,401	1,050	654,148	652,331	1,817	150	60,36	1,43	0,40	34,61	150	0,02	1,21	33,40	1,21	24,14	60,36	-	
PVN06	PVEX1	658,125	656,611	1,514	658,040	656,400	1,640	200	5,50	1,58	0,40	3,47	150	0,02	0,11	3,36	0,11	2,20	-	5,50	
PVEX1	PVN07	658,040	656,400	1,640	657,043	655,943	1,100	200	63,25	1,37	0,40	34,66	150	0,02	1,27	33,40	1,27	25,30	-	63,25	
PVN07	PVN21	657,043	655,943	1,100	655,854	654,631	1,223	200	59,94	1,16	0,40	27,85	150	0,02	1,20	26,65	1,20	23,98	-	59,94	
PVN21	PVN22	655,854	654,631	1,223	655,501	654,401	1,100	200	104,17	1,16	0,40	48,40	150	0,02	2,08	46,31	2,08	41,67	-	104,17	
PVN22	PVN23	655,501	654,401	1,100	655,152	654,052	1,100	200	66,95	1,10	0,40	29,46	150	0,02	1,34	28,12	1,34	26,78	-	66,95	
PVN23	PVN24	655,152	654,052	1,100	654,660	653,560	1,100	200	35,84	1,10	0,40	15,77	150	0,02	0,72	15,05	0,72	14,34	-	35,84	
PVN24	PVN25	654,660	653,560	1,100	653,844	652,744	1,100	200	95,13	1,10	0,40	41,86	150	0,02	1,90	39,95	1,90	38,05	-	95,13	
PVN25	PVN26	653,844	652,744	1,100	653,504	652,404	1,100	200	46,01	1,10	0,40	20,24	150	0,02	0,92	19,32	0,92	18,40	-	46,01	
PVN26	PVN29	653,504	652,404	1,100	654,148	652,331	1,817	200	48,34	1,46	0,40	28,20	150	0,02	0,97	27,23	0,97	19,34	-	48,34	
PVN29	PVN30	654,148	652,331	1,817	653,857	652,308	1,549	200	17,50	1,68	0,40	11,78	150	0,02	0,35	11,43	0,35	7,00	-	17,50	
PVN30	PVEX2	653,857	652,308	1,549	653,754	652,204	1,550														
TOTAL									2.363,56			1.255,06				1.207,79	47,27	945,42	1.820,93	542,63	