

ANEJO N°8

Replanteo

Índice

1	Introducción	1
2	Replanteo	2

APÉNDICE Nº 8.1: LISTADOS DE REPLANTEO

1 Introducción

El presente anejo tiene por objeto establecer los datos de replanteo necesarios para materializar los ejes proyectados.

2 Replanteo

En el Apéndice 8.1 Listados de Replanteo, se adjuntan los listados de replanteo de los ejes proyectados:

EJE	NOMBRE
9	Tronco
10	Eje ampliación tronco intersección
11	Ramal de entrada
15	Ramal Ubide
16	Ramal de salida
21	Acceso 1
22	Acceso 3
6	Eje auxiliar entrada
7	Eje auxiliar salida

APÉNDICE N°8.1

Listados de replanteo

Índice

1 Eje 9: Tronco	2
2 Eje 10: Eje ampliación tronco intersección	4
3 Eje 11: Ramal de entrada	6
4 Eje 15: Ramal Ubide	7
5 Eje 16: Ramal de salida	8
6 Eje 21: Acceso 1	9
7 Eje 22: Acceso 3	10
8 Eje 6: Eje auxiliar entrada	11
9 Eje 7: Eje auxiliar salida	12

1 Eje 9: Tronco

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 9 : TRONCO

pagina 1

***** PUNTOS DEL EJE EN PLANTA * * *														
TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Rampa	920.000	525475.327	4763688.742	0.000	583.101	583.101	157.603818	0.000	1.163	-2.00	2.00	583.101	583.101	583.101
RECTA KV -3095	930.000	525481.506	4763680.879	0.000	583.187	583.187	157.603818	0.000	0.479	-2.00	2.00	583.187	583.190	583.190
RECTA KV -3095	940.000	525487.684	4763673.016	0.000	583.218	583.218	157.603818	0.000	0.156	-2.00	2.00	583.218	583.223	583.223
RECTA KV -3095	950.000	525493.862	4763665.152	0.000	583.218	583.218	157.603818	0.000	-0.167	-2.00	2.00	583.218	583.196	583.196
RECTA KV -3095	960.000	525500.040	4763657.289	0.000	583.185	583.185	157.603818	0.000	-0.490	-2.00	2.00	583.185	583.150	583.150
RECTA KV -3095	970.000	525506.218	4763649.426	0.000	583.120	583.120	157.603818	0.000	-0.814	-2.00	2.00	583.120	583.093	583.093
RECTA Pendiente	980.000	525512.396	4763641.563	0.000	583.023	583.023	157.603818	0.000	-1.050	-2.00	2.00	583.023	583.006	583.006
RECTA Pendiente	990.000	525518.574	4763633.699	0.000	582.918	582.918	157.603818	0.000	-1.050	-2.00	2.00	582.918	582.918	582.918
RECTA Pendiente	1000.000	525524.752	4763625.836	0.000	582.813	582.813	157.603818	0.000	-1.050	-2.00	2.00	582.813	582.800	582.800
RECTA Pendiente	1010.000	525530.931	4763617.973	0.000	582.708	582.708	157.603818	0.000	-1.050	-2.00	2.00	582.708	582.670	582.670
RECTA Pendiente	1020.000	525537.109	4763610.110	0.000	582.603	582.603	157.603818	0.000	-1.050	-2.00	2.00	582.603	582.547	582.547
RECTA Pendiente	1030.000	525543.287	4763602.246	0.000	582.498	582.498	157.603818	0.000	-1.050	-2.00	2.00	582.498	582.430	582.430
RECTA Pendiente	1040.000	525549.465	4763594.383	0.000	582.393	582.393	157.603818	0.000	-1.050	-2.00	2.00	582.393	582.319	582.319
RECTA Pendiente	1050.000	525555.643	4763586.520	0.000	582.288	582.288	157.603818	0.000	-1.050	-2.00	2.00	582.288	582.204	582.204
RECTA Pendiente	1060.000	525561.821	4763578.657	0.000	582.183	582.183	157.603818	0.000	-1.050	-2.00	2.00	582.183	582.086	582.086
RECTA Pendiente	1070.000	525567.999	4763570.793	0.000	582.078	582.078	157.603818	0.000	-1.050	-2.00	2.00	582.078	581.969	581.969
RECTA Pendiente	1080.000	525574.177	4763562.930	0.000	581.973	581.973	157.603818	0.000	-1.050	-2.00	2.00	581.973	581.857	581.857
RECTA Pendiente	1090.000	525580.356	4763555.067	0.000	581.868	581.868	157.603818	0.000	-1.050	-2.00	2.00	581.868	581.747	581.747
RECTA Pendiente	1100.000	525586.534	4763547.204	0.000	581.763	581.763	157.603818	0.000	-1.050	-0.79	2.67	581.763	581.638	581.638
CLOT. Pendiente	1106.585	525590.602	4763542.025	1000000.000	581.694	581.694	157.603818	0.000	-1.050	-0.00	3.11	581.694	581.565	581.565
CLOT. Pendiente	1110.000	525592.711	4763539.340	4575.873	581.658	581.658	157.627571	0.000	-1.050	0.41	3.34	581.658	581.528	581.528
CLOT. Pendiente	1120.000	525598.870	4763531.461	1164.771	581.553	581.553	157.970415	0.000	-1.050	1.62	4.01	581.553	581.387	581.387
CLOT. Pendiente	1130.000	525604.960	4763523.530	667.317	581.448	581.448	158.720695	0.000	-1.050	2.82	4.68	581.448	581.319	581.319
CLOT. Pendiente	1140.000	525610.931	4763515.508	467.609	581.343	581.343	159.878412	0.000	-1.050	4.03	5.35	581.343	581.227	581.227
CLOT. Pendiente	1150.000	525616.728	4763507.361	359.902	581.238	581.238	161.443566	0.000	-1.050	5.23	6.02	581.238	581.126	581.126
CLOT. KV -3000	1160.000	525622.297	4763499.055	292.523	581.133	581.133	163.416156	0.000	-1.078	6.44	6.69	581.133	580.969	580.969
CIRC. KV -3000	1164.671	525624.804	4763495.114	269.000	581.079	581.079	164.477123	0.000	-1.233	7.00	7.00	581.079	580.890	580.890
CIRC. KV -3000	1170.000	525627.581	4763490.566	269.000	581.009	581.009	165.738327	0.000	-1.411	7.00	7.00	581.009	580.800	580.800
CIRC. KV -3000	1180.000	525632.546	4763481.886	269.000	580.851	580.851	168.104944	0.000	-1.744	7.00	7.00	580.851	580.622	580.622
CIRC. KV -3000	1190.000	525637.185	4763473.028	269.000	580.660	580.660	170.471560	0.000	-2.078	7.00	7.00	580.660	580.422	580.422
CIRC. KV -3000	1200.000	525641.491	4763464.003	269.000	580.436	580.436	172.838176	0.000	-2.411	7.00	7.00	580.436	580.211	580.211
CIRC. KV -3000	1210.000	525645.459	4763454.825	269.000	580.178	580.178	175.204792	0.000	-2.744	7.00	7.00	580.178	579.987	579.987
CIRC. KV -3000	1220.000	525649.084	4763445.505	269.000	579.887	579.887	177.571409	0.000	-3.078	7.00	7.00	579.887	579.737	579.737
CIRC. KV -3000	1230.000	525652.359	4763436.057	269.000	579.562	579.562	179.938025	0.000	-3.411	7.00	7.00	579.562	579.424	579.424
CIRC. KV -3000	1240.000	525655.281	4763426.495	269.000	579.204	579.204	182.304641	0.000	-3.744	7.00	7.00	579.204	579.050	579.050
CLOT. KV -3000	1245.010	525656.611	4763421.664	269.000	579.013	579.013	183.490293	0.000	-3.911	7.00	7.00	579.013	578.855	578.855
CLOT. KV -3000	1250.000	525657.847	4763416.830	294.282	578.813	578.813	184.620529	0.000	-4.078	6.40	6.67	578.813	578.653	578.653
CLOT. KV -3000	1260.000	525660.084	4763407.084	362.568	578.389	578.389	186.580112	0.000	-4.411	5.19	6.00	578.389	578.229	578.229
CLOT. KV -3000	1270.000	525662.052	4763397.280	472.120	577.931	577.931	188.132259	0.000	-4.744	3.99	5.33	577.931	577.784	577.784
CLOT. KV -3000	1280.000	525663.812	4763387.436	676.542	577.440	577.440	189.276969	0.000	-5.078	2.78	4.66	577.440	577.296	577.296
CLOT. KV -3000	1290.000	525665.426	4763377.567	1193.167	576.916	576.916	190.014242	0.000	-5.411	1.58	3.99	576.916	576.797	576.797
CLOT. KV -3000	1300.000	525666.957	4763367.685	5047.806	576.358	576.358	190.344078	0.000	-5.744	0.37	3.32	576.358	576.271	576.271
RECTA KV -3000	1303.095	525667.424	4763364.625	0.000	576.178	576.178	190.363597	0.000	-5.848	0.00	3.11	576.178	576.095	576.095
RECTA KV -3000	1310.000	525668.465	4763357.799	0.000	575.767	575.767	190.363597	0.000	-6.078	-0.83	2.65	575.767	575.693	575.693
RECTA KV -3000	1320.000	525669.973	4763347.914	0.000	575.142	575.142	190.363597	0.000	-6.411	-2.00	2.00	575.142	575.076	575.076
RECTA Pendiente	1330.000	525671.481	4763338.028	0.000	574.501	574.501	190.363597	0.000	-6.416	-2.00	2.00	574.501	574.453	574.453
RECTA Pendiente	1340.000	525672.989	4763328.142	0.000	573.859	573.859	190.363597	0.000	-6.416	-2.00	2.00	573.859	573.803	573.803
RECTA Pendiente	1350.000	525674.497	4763318.257	0.000	573.217	573.217	190.363597	0.000	-6.416	-2.00	2.00	573.217	573.156	573.156
RECTA Pendiente	1360.000	525676.005	4763308.371	0.000	572.576	572.576	190.363597	0.000	-6.416	-2.00	2.00	572.576	572.514	572.514
RECTA Pendiente	1370.000	525677.513	4763298.485	0.000	571.934	571.934	190.363597	0.000	-6.416	-2.00	2.00	571.934	571.870	571.870

***** PUNTOS DEL EJE EN PLANTA *****														
TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA KV 3500	1380.000	525679.021	4763288.600	0.000	571.296	571.296	190.363597	0.000	-6.276	-2.00	2.00	571.296	571.212	571.212
RECTA KV 3500	1390.000	525680.529	4763278.714	0.000	570.683	570.683	190.363597	0.000	-5.990	-2.00	2.00	570.683	570.567	570.567
RECTA KV 3500	1400.000	525682.036	4763268.828	0.000	570.098	570.098	190.363597	0.000	-5.705	-2.00	2.00	570.098	569.912	569.912
RECTA KV 3500	1410.000	525683.544	4763258.943	0.000	569.542	569.542	190.363597	0.000	-5.419	-2.00	2.00	569.542	569.287	569.287
RECTA KV 3500	1420.000	525685.052	4763249.057	0.000	569.014	569.014	190.363597	0.000	-5.133	-2.00	2.00	569.014	568.676	568.676
RECTA KV 3500	1430.000	525686.560	4763239.171	0.000	568.515	568.515	190.363597	0.000	-4.847	-2.00	2.00	568.515	568.079	568.079
RECTA KV 3500	1440.000	525688.068	4763229.286	0.000	568.045	568.045	190.363597	0.000	-4.562	-2.00	2.00	568.045	567.471	567.471
RECTA KV 3500	1450.000	525689.576	4763219.400	0.000	567.603	567.603	190.363597	0.000	-4.276	-2.00	2.00	567.603	566.953	566.953
RECTA KV 3500	1460.000	525691.084	4763209.514	0.000	567.190	567.190	190.363597	0.000	-3.990	-2.00	2.00	567.190	566.505	566.505
CIRC. KV 3500	1461.491	525691.309	4763208.041	5000.000	567.130	567.130	190.363597	0.000	-3.948	-2.00	2.00	567.130	566.441	566.441
CIRC. KV 3500	1470.000	525692.585	4763199.628	5000.000	566.805	566.805	190.471942	0.000	-3.705	-2.00	2.00	566.805	566.136	566.136
CIRC. KV 3500	1480.000	525694.066	4763189.738	5000.000	566.449	566.449	190.599266	0.000	-3.419	-2.00	2.00	566.449	565.832	565.832
CIRC. KV 3500	1490.000	525695.527	4763179.845	5000.000	566.121	566.121	190.726590	0.000	-3.133	-2.00	2.00	566.121	565.641	565.641
CIRC. KV 3500	1496.472	525696.462	4763173.442	-5000.000	565.924	565.924	190.808990	0.000	-2.948	-2.00	2.00	565.924	565.551	565.551
CIRC. KV 3500	1500.000	525696.971	4763169.950	-5000.000	565.822	565.822	190.764066	0.000	-2.847	-2.00	2.00	565.822	565.502	565.502
CIRC. KV 3500	1510.000	525698.427	4763160.057	-5000.000	565.552	565.552	190.636742	0.000	-2.562	-2.00	2.00	565.552	565.350	565.350
CIRC. KV 3500	1520.000	525699.902	4763150.166	-5000.000	565.310	565.310	190.509418	0.000	-2.276	-2.00	2.00	565.310	565.186	565.186
CIRC. KV 3500	1530.000	525701.397	4763140.279	-5000.000	565.096	565.096	190.382095	0.000	-1.990	-2.00	2.00	565.096	565.014	565.014
RECTA KV 3500	1535.282	525702.195	4763135.058	0.000	564.995	564.995	190.314848	0.000	-1.839	-2.00	2.00	564.995	564.931	564.931
RECTA KV 3500	1540.000	525702.910	4763130.394	0.000	564.912	564.912	190.314848	0.000	-1.705	-2.00	2.00	564.912	564.859	564.859
RECTA KV 3500	1550.000	525704.426	4763120.509	0.000	564.755	564.755	190.314848	0.000	-1.419	-2.00	2.00	564.755	564.705	564.705
RECTA KV 3500	1560.000	525705.941	4763110.625	0.000	564.628	564.628	190.314848	0.000	-1.133	-2.00	2.00	564.628	564.547	564.547
RECTA KV 3500	1570.000	525707.457	4763100.740	0.000	564.529	564.529	190.314848	0.000	-0.847	-2.00	2.00	564.529	564.556	564.556
RECTA KV 3500	1580.000	525708.972	4763090.856	0.000	564.458	564.458	190.314848	0.000	-0.562	-2.00	2.00	564.458	564.492	564.492
RECTA Pendiente	1590.000	525710.488	4763080.971	0.000	564.415	564.415	190.314848	0.000	-0.374	-2.00	2.00	564.415	564.427	564.427
RECTA Pendiente	1600.000	525712.003	4763071.087	0.000	564.378	564.378	190.314848	0.000	-0.374	-2.00	2.00	564.378	564.378	564.378
RECTA Pendiente	1610.000	525713.519	4763061.202	0.000	564.340	564.340	190.314848	0.000	-0.374	-2.00	2.00	564.340	564.340	564.340
RECTA Pendiente	1620.000	525715.034	4763051.318	0.000	564.303	564.303	190.314848	0.000	-0.374	-2.00	2.00	564.303	564.303	564.303
RECTA Pendiente	1630.000	525716.549	4763041.433	0.000	564.265	564.265	190.314848	0.000	-0.374	-2.00	2.00	564.265	564.288	564.288
RECTA Pendiente	1640.000	525718.065	4763031.549	0.000	564.228	564.228	190.314848	0.000	-0.374	-2.00	2.00	564.228	564.330	564.330
RECTA Pendiente	1650.000	525719.580	4763021.664	0.000	564.191	564.191	190.314848	0.000	-0.374	-2.00	2.00	564.191	564.372	564.372
RECTA Pendiente	1660.000	525721.096	4763011.780	0.000	564.153	564.153	190.314848	0.000	-0.374	-2.00	2.00	564.153	564.415	564.415
RECTA Pendiente	1670.000	525722.611	4763001.895	0.000	564.116	564.116	190.314848	0.000	-0.374	-2.00	2.00	564.116	564.457	564.457
RECTA Pendiente	1680.000	525724.127	4762992.011	0.000	564.079	564.079	190.314848	0.000	-0.374	-2.00	2.00	564.079	564.491	564.491
RECTA Pendiente	1690.000	525725.642	4762982.126	0.000	564.041	564.041	190.314848	0.000	-0.374	-2.00	2.00	564.041	564.520	564.520
RECTA Pendiente	1700.000	525727.158	4762972.242	0.000	564.004	564.004	190.314848	0.000	-0.374	-2.00	2.00	564.004	564.549	564.549
RECTA Pendiente	1710.000	525728.673	4762962.357	0.000	563.967	563.967	190.314848	0.000	-0.374	-2.00	2.00	563.967	564.569	564.569
RECTA Pendiente	1713.348	525729.181	4762959.048	0.000	563.954	563.954	190.314848	0.000	-0.374	-2.00	2.00	563.954	564.575	564.575



2 Eje 10: Eje ampliación tronco intersección

Istram 21.11.11.19 07/01/22 12:40:57 143
PROYECTO :
EJE : 10 : EJE AMPLIACION TRONCO INTERSECCION

pagina 1

***** * * * PUNTOS DEL EJE EN PLANTA * * * *****														
TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Rampa	920.000	525475.327	4763688.742	0.000	583.101	583.101	157.603818	0.000	0.860	2.00	2.00	583.101	583.101	583.101
RECTA Tg. Entrada	930.000	525481.506	4763680.879	0.000	583.187	583.187	157.603818	0.000	0.860	2.00	2.00	583.187	583.190	583.190
RECTA Tg. Entrada	940.000	525487.684	4763673.016	0.000	583.218	583.218	157.603818	0.000	0.317	2.00	2.00	583.218	583.223	583.223
RECTA Tg. Entrada	950.000	525493.862	4763665.152	0.000	583.218	583.218	157.603818	0.000	-0.005	2.00	2.00	583.218	583.196	583.196
RECTA Tg. Entrada	960.000	525500.040	4763657.289	0.000	583.185	583.185	157.603818	0.000	-0.329	2.00	2.00	583.185	583.150	583.150
RECTA Tg. Entrada	970.000	525506.218	4763649.426	0.000	583.120	583.120	157.603818	0.000	-0.652	2.00	2.00	583.120	583.093	583.093
RECTA Tg. Entrada	980.000	525512.396	4763641.563	0.000	583.023	583.023	157.603818	0.000	-0.964	2.00	2.00	583.023	583.006	583.006
RECTA Pendiente	990.000	525518.574	4763633.699	0.000	582.918	582.918	157.603818	0.000	-1.050	2.00	2.00	582.918	582.918	582.918
RECTA Pendiente	1000.000	525524.752	4763625.836	0.000	582.813	582.813	157.603818	0.000	-1.050	2.00	2.00	582.813	582.800	582.800
RECTA Pendiente	1010.000	525530.931	4763617.973	0.000	582.708	582.708	157.603818	0.000	-1.050	2.00	2.00	582.708	582.670	582.670
RECTA Pendiente	1020.000	525537.109	4763610.110	0.000	582.603	582.603	157.603818	0.000	-1.050	2.00	2.00	582.603	582.547	582.547
RECTA Pendiente	1030.000	525543.287	4763602.246	0.000	582.498	582.498	157.603818	0.000	-1.050	2.00	2.00	582.498	582.430	582.430
CLOT. Pendiente	1038.724	525548.677	4763595.386	1000000.000	582.407	582.407	157.603818	0.000	-1.050	2.00	2.00	582.407	582.333	582.333
CLOT. Pendiente	1040.000	525549.465	4763594.383	26831.722	582.393	582.393	157.605331	0.000	-1.050	2.00	2.00	582.393	582.319	582.319
CLOT. Tg. Entrada	1050.000	525555.638	4763586.516	3035.331	582.288	582.288	157.722063	0.000	-1.051	2.00	2.00	582.288	582.204	582.204
CLOT. Tg. Entrada	1060.000	525561.784	4763578.628	1608.655	582.182	582.182	158.024804	0.000	-1.058	2.00	2.00	582.182	582.087	582.087
CLOT. Tg. Entrada	1070.000	525567.882	4763570.702	1094.306	582.075	582.075	158.513556	0.000	-1.071	2.00	2.00	582.075	581.960	581.960
CIRC. Pendiente	1072.949	525569.667	4763568.354	1000.000	582.043	582.043	158.693234	0.000	-1.088	2.00	2.00	582.043	581.934	581.934
CIRC. Tg. Entrada	1080.000	525573.908	4763562.722	1000.000	581.967	581.967	159.142085	0.000	-1.088	2.00	2.00	581.967	581.854	581.854
CIRC. Tg. Entrada	1090.000	525579.854	4763554.682	1000.000	581.856	581.856	159.778705	0.000	-1.108	2.00	2.00	581.856	581.739	581.739
CIRC. Tg. Entrada	1100.000	525585.720	4763546.582	1000.000	581.736	581.736	160.415325	0.000	-1.196	2.67	2.67	581.736	581.623	581.623
CIRC. Tg. Entrada	1110.000	525591.504	4763538.425	1000.000	581.608	581.608	161.051945	0.000	-1.281	3.34	3.34	581.608	581.497	581.497
CIRC. Tg. Entrada	1120.000	525597.206	4763530.210	1000.000	581.470	581.470	161.688564	0.000	-1.378	4.02	4.02	581.470	581.369	581.369
CIRC. Tg. Entrada	1130.000	525602.826	4763521.939	1000.000	581.324	581.324	162.325184	0.000	-1.462	4.69	4.69	581.324	581.241	581.241
CIRC. Tg. Entrada	1140.000	525608.363	4763513.612	1000.000	581.172	581.172	162.961804	0.000	-1.517	5.36	5.36	581.172	581.111	581.111
CLOT. Pendiente	1147.836	525612.644	4763507.048	1000.000	581.053	581.053	163.460678	0.000	-1.523	5.89	5.89	581.053	580.998	580.998
CLOT. Tg. Entrada	1150.000	525613.816	4763505.230	848.307	581.020	581.020	163.610739	0.000	-1.523	6.03	6.03	581.020	580.965	580.965
CLOT. Tg. Entrada	1160.000	525619.165	4763496.780	498.687	580.872	580.872	164.624265	0.000	-1.482	6.70	6.70	580.872	580.784	580.784
CLOT. Tg. Entrada	1170.000	525624.343	4763488.225	353.143	580.725	580.725	166.163922	0.000	-1.467	7.00	7.00	580.725	580.579	580.579
CLOT. Tg. Entrada	1180.000	525629.276	4763479.528	273.362	580.562	580.562	168.229711	0.000	-1.630	7.00	7.00	580.562	580.386	580.386
CIRC. Pendiente	1181.397	525629.941	4763478.300	265.000	580.535	580.535	168.560108	0.000	-1.960	7.00	7.00	580.535	580.355	580.355
CIRC. Tg. Entrada	1190.000	525633.896	4763470.659	265.000	580.366	580.366	170.626918	0.000	-1.960	7.00	7.00	580.366	580.160	580.160
CIRC. Tg. Entrada	1200.000	525638.178	4763461.623	265.000	580.136	580.136	173.029257	0.000	-2.303	7.00	7.00	580.136	579.932	579.932
CIRC. Tg. Entrada	1210.000	525642.116	4763452.432	265.000	579.871	579.871	175.431596	0.000	-2.646	7.00	7.00	579.871	579.686	579.686
CIRC. Tg. Entrada	1220.000	525645.704	4763443.099	265.000	579.572	579.572	177.833935	0.000	-2.990	7.00	7.00	579.572	579.425	579.425
CIRC. Tg. Entrada	1230.000	525648.938	4763433.636	265.000	579.239	579.239	180.236274	0.000	-3.333	7.00	7.00	579.239	579.133	579.133
CIRC. Tg. Entrada	1240.000	525651.812	4763424.059	265.000	578.871	578.871	182.638612	0.000	-3.677	7.00	7.00	578.871	578.779	578.779
CLOT. Pendiente	1242.968	525652.596	4763421.196	265.000	578.757	578.757	183.351668	0.000	-3.842	7.00	7.00	578.757	578.667	578.667
CLOT. Tg. Entrada	1250.000	525654.327	4763414.381	301.029	578.487	578.487	184.939859	0.000	-3.842	6.57	6.57	578.487	578.418	578.418
CLOT. Tg. Entrada	1260.000	525656.519	4763404.625	373.183	578.079	578.079	186.850225	0.000	-4.078	5.89	5.89	578.079	578.003	578.003
CLOT. Tg. Entrada	1270.000	525658.449	4763394.813	490.830	577.639	577.639	188.351697	0.000	-4.407	5.22	5.22	577.639	577.566	577.566
CLOT. Tg. Entrada	1280.000	525660.179	4763384.964	716.807	577.165	577.165	189.444277	0.000	-4.735	4.55	4.55	577.165	577.080	577.080
CLOT. Tg. Entrada	1290.000	525661.771	4763375.091	1328.395	576.659	576.659	190.127963	0.000	-5.061	3.87	3.87	576.659	576.561	576.561
CLOT. Tg. Entrada	1300.000	525663.289	4763365.207	9049.763	576.121	576.121	190.402756	0.000	-5.383	3.20	3.20	576.121	576.037	576.037
RECTA Pendiente	1301.720	525663.548	4763363.506	0.000	576.022	576.022	190.408807	0.000	-5.709	3.08	3.08	576.022	575.950	575.950
RECTA Tg. Entrada	1310.000	525664.790	4763355.321	0.000	575.550	575.550	190.408807	0.000	-5.709	2.52	2.52	575.550	575.482	575.482
RECTA Tg. Entrada	1320.000	525666.291	4763345.434	0.000	574.940	574.940	190.408807	0.000	-6.094	2.00	2.00	574.940	574.890	574.890
RECTA Pendiente	1330.000	525667.792	4763335.547	0.000	574.299	574.299	190.408807	0.000	-6.418	2.00	2.00	574.299	574.246	574.246
RECTA Pendiente	1340.000	525669.293	4763325.660	0.000	573.657	573.657	190.408807	0.000	-6.417	2.00	2.00	573.657	573.600	573.600
RECTA Pendiente	1350.000	525670.794	4763315.774	0.000	573.015	573.015	190.408807	0.000	-6.418	2.00	2.00	573.015	572.942	572.942

Apéndice 5.3. Listados de replanteo
X000232-PC-Anejo 8 Replanteo-1

***** PUNTOS DEL EJE EN PLANTA *****														
TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Tg. Entrada	1360.000	525672.295	4763305.887	0.000	572.373	572.373	190.408807	0.000	-6.418	2.00	2.00	572.373	572.282	572.282
RECTA Tg. Entrada	1370.000	525673.796	4763296.000	0.000	571.732	571.732	190.408807	0.000	-6.417	2.00	2.00	571.732	571.640	571.640
RECTA Tg. Entrada	1380.000	525675.297	4763286.114	0.000	571.096	571.096	190.408807	0.000	-6.351	2.00	2.00	571.096	570.997	570.997
RECTA Tg. Entrada	1390.000	525676.797	4763276.227	0.000	570.488	570.488	190.408807	0.000	-6.081	2.00	2.00	570.488	570.347	570.347
RECTA Tg. Entrada	1400.000	525678.298	4763266.340	0.000	569.909	569.909	190.408807	0.000	-5.795	2.00	2.00	569.909	569.706	569.706
RECTA Tg. Entrada	1410.000	525679.799	4763256.453	0.000	569.358	569.358	190.408807	0.000	-5.508	2.00	2.00	569.358	569.078	569.078
RECTA Tg. Entrada	1420.000	525681.300	4763246.567	0.000	568.836	568.836	190.408807	0.000	-5.223	2.00	2.00	568.836	568.422	568.422
RECTA Tg. Entrada	1430.000	525682.801	4763236.680	0.000	568.342	568.342	190.408807	0.000	-4.938	2.00	2.00	568.342	567.813	567.813
RECTA Tg. Entrada	1440.000	525684.302	4763226.793	0.000	567.877	567.877	190.408807	0.000	-4.651	2.00	2.00	567.877	567.289	567.289
RECTA Tg. Entrada	1450.000	525685.803	4763216.906	0.000	567.440	567.440	190.408807	0.000	-4.366	2.00	2.00	567.440	566.780	566.780
RECTA Tg. Entrada	1460.000	525687.304	4763207.020	0.000	567.032	567.032	190.408807	0.000	-4.081	2.00	2.00	567.032	566.337	566.337
RECTA Tg. Entrada	1470.000	525688.805	4763197.133	0.000	566.653	566.653	190.408807	0.000	-3.796	2.00	2.00	566.653	565.929	565.929
RECTA Tg. Entrada	1480.000	525690.305	4763187.246	0.000	566.302	566.302	190.408807	0.000	-3.505	2.00	2.00	566.302	565.647	565.647
RECTA Tg. Entrada	1490.000	525691.806	4763177.360	0.000	565.981	565.981	190.408807	0.000	-3.215	2.00	2.00	565.981	565.481	565.481
CLOT. Pendiente	1492.128	525692.126	4763175.256	-1000000.000	565.918	565.918	190.408807	0.000	-2.923	2.00	2.00	565.918	565.454	565.454
CLOT. Tg. Entrada	1500.000	525693.310	4763167.473	-3251.843	565.688	565.688	190.331747	0.000	-2.923	2.00	2.00	565.688	565.357	565.357
CLOT. Tg. Entrada	1510.000	525694.845	4763157.592	-1432.371	565.425	565.425	190.011635	0.000	-2.633	2.00	2.00	565.425	565.230	565.230
CIRC. Pendiente	1518.656	525696.227	4763149.047	-965.000	565.223	565.223	189.533752	0.000	-2.336	2.00	2.00	565.223	565.083	565.083
CIRC. Tg. Entrada	1520.000	525696.448	4763147.721	-965.000	565.191	565.191	189.445090	0.000	-2.336	2.00	2.00	565.191	565.061	565.061
CIRC. Tg. Entrada	1530.000	525698.150	4763137.867	-965.000	564.988	564.988	188.785380	0.000	-2.036	2.00	2.00	564.988	564.899	564.899
CIRC. Tg. Entrada	1540.000	525699.953	4763128.031	-965.000	564.814	564.814	188.125670	0.000	-1.733	2.00	2.00	564.814	564.755	564.755
CIRC. Tg. Entrada	1550.000	525701.858	4763118.214	-965.000	564.672	564.672	187.465961	0.000	-1.428	2.00	2.00	564.672	564.614	564.614
CLOT. Pendiente	1557.260	525703.305	4763111.100	-965.000	564.590	564.590	186.987036	0.000	-1.121	2.00	2.00	564.590	564.518	564.518
CLOT. Tg. Entrada	1560.000	525703.865	4763108.418	-1076.167	564.560	564.560	186.815589	0.000	-1.121	2.00	2.00	564.560	564.510	564.510
CLOT. Tg. Entrada	1570.000	525705.961	4763098.640	-1856.670	564.478	564.478	186.348366	0.000	-0.818	2.00	2.00	564.478	564.495	564.495
CLOT. Tg. Entrada	1580.000	525708.108	4763088.873	-6757.953	564.426	564.426	186.129823	0.000	-0.522	2.00	2.00	564.426	564.450	564.450
CLOT. Pendiente	1583.788	525708.928	4763085.175	1000000.000	564.415	564.415	186.111981	0.000	-0.276	2.00	2.00	564.415	564.432	564.432
CLOT. Tg. Entrada	1590.000	525710.257	4763079.107	402.455	564.398	564.398	186.603290	0.000	-0.276	2.00	2.00	564.398	564.402	564.402
CIRC. Pendiente	1592.717	525710.814	4763076.448	280.000	564.390	564.390	187.127000	0.000	-0.289	2.00	2.00	564.390	564.390	564.390
CIRC. Tg. Entrada	1600.000	525712.184	4763069.295	280.000	564.369	564.369	188.782961	0.000	-0.289	2.00	2.00	564.369	564.369	564.369
CLOT. Pendiente	1602.273	525712.573	4763067.055	280.000	564.361	564.361	189.299829	0.000	-0.355	2.00	2.00	564.361	564.361	564.361
CLOT. Tg. Entrada	1610.000	525713.791	4763059.425	2080.084	564.333	564.333	190.296456	0.000	-0.355	2.00	2.00	564.333	564.333	564.333
RECTA Pendiente	1611.202	525713.973	4763058.237	0.000	564.329	564.329	190.314848	0.000	-0.376	2.00	2.00	564.329	564.329	564.329
RECTA Pendiente	1611.202	525713.973	4763058.237	0.000	564.329	564.329	190.314848	0.000	-0.376	2.00	2.00	564.329	564.329	564.329



3 Eje 11: Ramal de entrada

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 11 : RAMAL DE ENTRADA

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *														

TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.

CIRC. Rampa	0.000	525627.190	4763314.475	-337.023	567.682	567.682	165.230729	0.000	9.574	2.00	2.00	567.682	566.847	566.847
CIRC. Rampa	10.000	525632.510	4763306.008	-337.023	568.596	568.596	163.341780	0.000	8.702	2.06	2.06	568.596	567.515	567.515
CLOT. Rampa	17.331	525636.569	4763299.903	-337.023	569.147	569.147	161.956973	0.000	6.904	2.23	2.23	569.147	568.034	568.034
CLOT. KV -350	20.000	525638.079	4763297.702	-359.478	569.329	569.329	161.468577	0.000	6.593	2.23	2.23	569.329	568.226	568.226
CLOT. KV -350	30.000	525643.873	4763289.552	-479.072	569.846	569.846	159.918668	0.000	3.736	3.25	3.25	569.846	568.887	568.887
CLOT. KV -350	40.000	525649.836	4763281.524	-717.914	570.077	570.077	158.810857	0.000	0.879	4.99	4.99	570.077	569.315	569.315
CLOT. KV -350	50.000	525655.910	4763273.581	-1431.681	570.022	570.022	158.145142	0.000	-1.978	4.93	4.93	570.022	569.357	569.357
CLOT. Pendiente	60.000	525662.040	4763265.679	-247816.934	569.692	569.692	157.921525	0.000	-4.028	4.54	4.54	569.692	569.077	569.077
CLOT. Pendiente	60.058	525662.075	4763265.633	1000000.000	569.690	569.690	157.921517	0.000	-4.028	4.54	4.54	569.690	569.075	569.075
CLOT. Tg. Entrada	70.000	525667.968	4763257.629	62.865	569.289	569.289	162.955460	0.000	-4.028	4.04	4.04	569.289	568.708	568.708
CIRC. Pendiente	73.947	525670.018	4763254.258	45.000	569.121	569.121	167.745896	0.000	-4.257	3.72	3.72	569.121	568.416	568.416
CIRC. Tg. Entrada	80.000	525672.591	4763248.784	45.000	568.853	568.853	176.309145	0.000	-4.474	3.11	3.11	568.853	567.777	567.777
CLOT. Pendiente	83.022	525673.595	4763245.934	45.000	568.710	568.710	180.584428	0.000	-4.736	2.79	2.79	568.710	567.523	567.523
CLOT. Pendiente	90.000	525675.255	4763239.161	90.437	568.377	568.377	187.976377	0.000	-4.819	2.29	2.29	568.377	566.516	566.516
RECTA Pendiente	96.911	525676.379	4763232.342	0.000	568.047	568.047	190.408807	0.000	-4.654	2.00	2.00	568.047	566.792	566.792
RECTA Pendiente	96.911	525676.379	4763232.342	0.000	568.047	568.047	190.408807	0.000	-4.654	2.00	2.00	568.047	566.792	566.792

4 Eje 15: Ramal Ubide

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 15 : RAMAL UBIDE

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *														

TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Pendiente	0.000	525614.323	4763344.303	0.000	566.814	566.814	168.092254	0.000	-0.998	-2.00	2.00	566.814	566.814	566.814
CLOT. Pendiente	2.208	525615.384	4763342.367	-1000000.000	566.792	566.792	168.092254	0.000	-0.998	-2.00	2.00	566.792	566.775	566.775
CLOT. KV 220	10.000	525619.135	4763335.537	-1283.373	566.718	566.718	167.898993	0.000	-0.385	-2.00	2.00	566.718	566.742	566.742
CLOT. KV 220	20.000	525624.015	4763326.808	-562.051	566.907	566.907	167.084631	0.000	4.160	-2.00	2.00	566.907	566.721	566.721
CLOT. KV 220	30.000	525629.049	4763318.168	-359.816	567.550	567.550	165.633650	0.000	8.706	-2.00	2.00	567.550	566.806	566.806
CLOT. KV -550	40.000	525634.322	4763309.672	-264.607	568.489	568.489	163.546048	0.000	8.749	-2.00	2.00	568.489	567.406	567.406
CIRC. KV -550	42.208	525635.526	4763307.821	-250.000	568.678	568.678	162.999296	0.000	8.348	-2.00	2.00	568.678	567.571	567.571
CIRC. KV -550	50.000	525639.905	4763301.376	-250.000	569.273	569.273	161.015088	0.000	6.931	-2.00	2.00	569.273	568.134	568.134
CLOT. KV -550	56.501	525643.711	4763296.106	-250.000	569.685	569.685	159.359544	0.000	5.749	-2.00	2.00	569.685	568.578	568.578
CLOT. KV -550	60.000	525645.829	4763293.321	-78.451	569.875	569.875	157.494513	0.000	5.113	-2.00	2.00	569.875	568.813	568.813
CLOT. KV -550	70.000	525652.794	4763286.183	-26.492	570.296	570.296	141.421945	0.000	3.295	-2.00	2.00	570.296	569.453	569.453
CIRC. KV -550	70.901	525653.520	4763285.650	-25.000	570.324	570.324	139.191430	0.000	3.131	-2.00	2.00	570.324	569.508	569.508
CIRC. Rampa	80.000	525661.731	4763281.847	-25.000	570.542	570.542	116.021799	0.000	1.999	-2.00	2.00	570.542	570.008	570.008
CIRC. Rampa	90.000	525671.651	4763281.334	-25.000	570.741	570.741	90.557008	0.000	1.999	-2.00	2.00	570.741	570.560	570.560
RECTA Rampa	90.058	525671.709	4763281.343	0.000	570.743	570.743	90.408814	0.000	1.999	-2.00	2.00	570.743	570.563	570.563
RECTA Rampa	94.321	525675.924	4763281.983	0.000	570.828	570.828	90.408814	0.000	1.999	-2.00	2.00	570.828	570.726	570.726

5 Eje 16: Ramal de salida

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 16 : RAMAL SALIDA

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *														

TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Pendiente	0.000	525664.951	4763307.626	0.000	572.416	572.416	190.408807	0.000	-6.410	2.00	2.00	572.416	572.202	572.202
CIRC. Pendiente	0.000	525664.951	4763307.626	10.500	572.416	572.416	190.408807	0.000	-6.410	2.00	2.00	572.416	572.202	572.202
CIRC. KV -350	10.000	525661.872	4763298.505	10.500	571.687	571.687	251.039187	0.000	-8.646	-4.07	-4.07	571.687	571.122	571.122
CIRC. Pendiente	20.000	525652.655	4763295.726	10.500	570.719	570.719	311.669641	0.000	-10.000	-6.72	-6.72	570.719	569.361	569.361
CLOT. Pendiente	22.956	525649.863	4763296.664	10.500	570.424	570.424	329.589032	0.000	-10.000	-7.58	-7.58	570.424	568.817	568.817
CLOT. Pendiente	30.000	525644.596	4763301.262	40.334	569.719	569.719	356.504019	0.000	-10.000	-6.45	-6.45	569.719	568.297	568.297
CIRC. Pendiente	31.646	525643.578	4763302.554	120.000	569.555	569.555	358.239629	0.000	-10.000	-5.22	-5.22	569.555	568.183	568.183
CLOT. Pendiente	37.412	525640.172	4763307.206	120.000	568.978	568.978	361.298393	0.000	-10.000	-1.30	-1.30	568.978	567.769	567.769
CLOT. Pendiente	40.000	525638.715	4763309.345	148.907	568.719	568.719	362.538284	0.000	-10.000	0.00	0.00	568.719	567.582	567.582
CIRC. Pendiente	45.897	525635.522	4763314.303	330.024	568.129	568.129	364.367564	0.000	-10.000	1.77	1.77	568.129	567.160	567.160
CIRC. Pendiente	50.000	525633.365	4763317.793	330.024	567.719	567.719	365.159073	0.000	-10.000	2.00	2.00	567.719	566.914	566.914
CIRC. Pendiente	50.372	525633.172	4763318.110	330.024	567.682	567.682	365.230736	0.000	-10.000	2.00	2.00	567.682	566.893	566.893

6 Eje 21: Acceso 1

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 21 : acceso 1

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *														

TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Pendiente	0.000	525540.841	4763630.115	0.000	584.739	584.739	203.384685	0.000	-23.776	-2.50	2.50	584.739	584.717	584.717
CIRC. Pendiente	6.215	525540.511	4763623.909	10.000	583.261	583.261	203.384685	0.000	-23.776	-2.50	2.50	583.261	583.275	583.275
CIRC. KV 15	10.000	525539.608	4763620.257	10.000	582.564	582.564	227.479592	0.000	-7.322	-2.50	2.50	582.564	582.554	582.554
RECTA Rampa	14.732	525536.703	4763616.577	0.000	582.590	582.590	257.603818	0.000	1.882	-2.50	2.50	582.590	582.556	582.556
RECTA Rampa	18.409	525533.812	4763614.306	0.000	582.659	582.659	257.603818	0.000	1.882	-2.50	2.50	582.659	582.613	582.613

7 Eje 22: Acceso 3

Istram 21.11.11.19 07/01/22 12:40:57 143
PROYECTO :
EJE : 22 : acceso 3

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *														

TIPO	P.K.	X	Y	RADIO	Z RAS IZ.	Z RAS DR.	AZIMUT	DIST. EJE	Pend (%)	PERAL_I	PERAL_D	Z PROY.	ZT (eje)	Z TERR.
RECTA Pendiente	0.000	525668.077	4763434.613	0.000	580.786	580.786	282.159378	0.000	-18.653	-2.50	2.50	580.786	580.688	580.688
RECTA Pendiente	10.000	525658.467	4763431.848	0.000	579.679	579.679	282.159378	0.000	-6.951	-2.50	2.50	579.679	579.408	579.408
RECTA Pendiente	14.569	525654.076	4763430.584	0.000	579.361	579.361	282.159378	0.000	-6.951	-2.50	2.50	579.361	579.215	579.215

8 Eje 6: Eje auxiliar entrada

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :

EJE : 6 : EJE AUXILIAR ENTRADA

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *						

TIPO	P.K.	X	Y	RADIO	AZIMUT	DIST. EJE

CIRC.	0.000	525681.220	4763274.180	-18.000	390.363597	0.000
CIRC.	10.000	525677.112	4763283.157	-18.000	354.995832	0.000
CIRC.	20.000	525668.888	4763288.617	-18.000	319.628067	0.000
CIRC.	23.891	525665.082	4763289.389	25.000	305.866369	0.000
CIRC.	30.000	525659.128	4763290.686	25.000	321.422737	0.000
CIRC.	33.470	525655.943	4763292.054	35.650	330.258166	0.000
CIRC.	40.000	525650.442	4763295.556	35.650	341.919779	0.000
CIRC.	47.860	525644.803	4763301.010	35.650	355.956090	0.000

9 Eje 7: Eje auxiliar salida

Istram 21.11.11.19 07/01/22 12:40:57 143

PROYECTO :
EJE : 7 : EJE AUXILIAR SALIDA

pagina 1

* * * PUNTOS DEL EJE EN PLANTA * * *						

TIPO	P.K.	X	Y	RADIO	AZIMUT	DIST. EJE

CIRC.	0.000	525652.059	4763278.596	-15.000	158.514735	0.000
CIRC.	10.000	525660.238	4763273.169	-15.000	116.073416	0.000
CIRC.	20.000	525670.022	4763273.962	-15.000	73.632098	0.000
CIRC.	30.000	525677.221	4763280.635	-15.000	31.190780	0.000
RECTA	39.620	525678.814	4763289.956	0.000	390.363597	0.000
RECTA	39.620	525678.814	4763289.956	0.000	390.363597	0.000