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APÉNDICE 1: Listados

## 1. INTRODUCCIÓN

El presente anejo tiene como objeto la incorporación de los listados de replanteo correspondientes al trazado mecanizado por el Proyecto de construcción "Aumento de capacidad de la carretera N-II. Tramo: Variante de Figueras - Pont de Molins", clave T2-GI-3720, en la provincia de Girona

## 2. BASES DE REPLANTEO

NOMBRE	X	Y	Z
BR-101	496768,268	4675056,065	42,071
F-2	496829,485	4675093,466	41,331
BR-102	496920,383	4675131,7	40,828
BR-103	497156,597	4675201,923	41,272
BR-105	497602,904	4675330,688	44,46
BR-104	497401,055	4675264,289	41,925
BR-106	497850,681	4675435,94	44,374
BR-107	498100,92	4675611,351	38,733
BR-108	498223,012	4675702,103	35,583
BR-109	498336,366	4675825,587	33,592
BR-120	498858,515	4678561,535	27,855
BR-121	498911,088	4678780,729	26,99
BR-122	498962,813	4678976,719	26,205
BR-123	499039,998	4679262,104	25,204
BR-124	499032,521	4679413,437	24,953
BR-125	498997,803	4679695,195	22,702
BR-126	498870,853	4680012,004	22,802
BR-127	498666,003	4680253,873	27,136
BR-128	498562,52	4680331,832	26,791
BR-110	498460,355	4676000,688	32,993
BR-111	498606,145	4676318,634	29,506
BR-112	498636,446	4676488,215	28,137
BR-113	498666,551	4676700,843	28,816
BR-114	498679,375	4676904,679	29,015
BR-115	498703,998	4677245,839	29,938
BR-116	498706,5	4677515,938	28,326
BR-117	498735,215	4677829,89	26,445
BR-118	498768,91	4678082,994	27,654
BR-119	498818,292	4678369,575	28,546
BR-134	497428,073	4681111,059	25,376
BR-133	497653,016	4680927,399	26,641
BR-132	497819,571	4680803,702	25,258

BR-131	498017,239	4680669,435	22,535
BR-130	498251,339	4680526,384	22,774
BR-129	498390,846	4680443,755	24,595
BR-135	497273,239	4681242,029	25,568
BR-136	497024,523	4681444,002	28,525

## 3. SISTEMAS DE REPLANTEO

El sistema utilizado para replantear los elementos resumidos en el apartado introductorio es el sistema de coordenadas polares, sistema de coordenadas bidimensional en el cual cada punto o posición del plano se determina por un ángulo y una distancia.

De manera más precisa, todo punto del plano corresponde a un par de coordenadas  $(r, \theta)$  donde  $r$  es la distancia del punto al origen o polo y  $\theta$  es el ángulo positivo en sentido antihorario medido desde el eje polar (equivalente al eje x del sistema cartesiano). La distancia se conoce como la *coordenada radial* mientras que el ángulo es la *coordenada angular* o *ángulo polar*.

El método de cálculo (menú de replanteo) del programa de trazado utilizado al respecto (*ISTRAM*) calcula una serie de líneas de órdenes a partir de la red de bases de replanteo, determinando tramos con replanteos desde parejas de bases (la distribución de tramos está relacionada con la proyección de cada base sobre el eje de referencia).

La interpretación de la información característica de los listados (incorporados en los Apéndices correspondientes) está relacionada con las siguientes consideraciones:

### ▪ Encabezado de listados

- B.R.: nombre de la base en que se estaciona el aparato topográfico.
- B.O.: nombre de la base en que se estaciona el aparato topográfico.
- X, Y, Z.: coordenadas en planta y cota del punto base donde se estaciona el aparato.
- Distancia: longitud medida entre las dos bases en las cuales se estaciona el aparato.
- Azimut: ángulo azimutal entre de la línea que une ambas bases.

### ▪ Cuerpo de listados

- TIPO: tipo de alineación en la que se encuentra el punto a replantear (recta, clotoide o circunferencia).
- PK Estacc.: punto kilométrico que se quiere replantear.
- Azimut: valor del azimut de la línea que une la base en la que se estaciona el instrumento topográfico y el punto a replantear.

- X, Y: coordenadas en planta del punto a replantear.
- Ang. Azimut.: valor del ángulo azimutal que forma la visual lanzada al punto situado en el eje a replantear con el Norte.
- Dis. Redu: valor de la distancia reducida que une la base en la que se estaciona el aparato topográfico y el punto situado en el eje a replantear.
- Ángulo 1-2: valor del ángulo que forman la visual lanzada al punto situado en el eje a replantear y la línea que resulta de unir las ambas bases.
- Ang. Az. (BO): valor del ángulo azimutal que forma la visual lanzada desde el punto base BO al punto situado en el eje a replantear con el Norte.
- Dis. R (BO): valor de la distancia reducida que une el punto base BO y el punto situado en el eje a replantear.

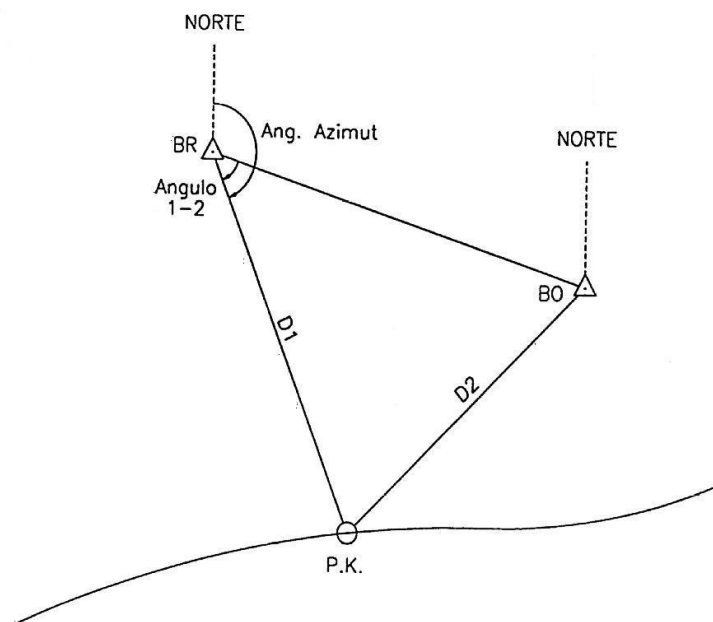


Figura 3-1. Esquema del sistema de replanteo (Fuente: elaboración propia)

**APÉNDICE 1: Listados**



PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERAS – PONT DE MOLINS  
Clave: 12-GI-3720

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 1350.552 Dia= 2.498  
Distancia: 269.205 Azimut: 74.427704  
BO : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 1619.881 Dia= -0.409

TIPO	PK Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	1340.000	79.463185	0.000	497592.102	4675329.696	294.171516	10.847	219.743812	275.181612	279.555	0.753908	44.963
CLOT.	1360.000	79.109621	0.000	497611.053	4675336.088	62.745219	9.776	388.317515	274.865172	259.600	0.437468	45.047
CLOT.	1380.000	78.690867	0.000	497629.965	4675342.594	73.613184	29.565	399.185480	274.528188	239.643	0.100484	45.127
CLOT.	1400.000	78.206923	0.000	497648.831	4675349.234	75.566433	49.530	1.138729	274.170980	219.685	399.743276	45.207
CLOT.	1420.000	77.657789	0.000	497667.642	4675356.028	76.248493	69.520	1.820789	273.793996	199.723	399.366292	45.287
CLOT.	1440.000	77.043465	0.000	497686.390	4675362.992	76.495932	89.518	2.068228	273.397885	179.758	398.970181	45.367
CLOT.	1460.000	76.363951	0.000	497705.066	4675370.147	76.534868	109.517	2.107164	272.983616	159.789	398.555912	45.446
CLOT.	1480.000	75.619247	0.000	497723.661	4675377.510	76.451817	129.517	2.024113	272.552717	139.814	398.125014	45.499
CIRC.	1496.007	74.976273	0.000	497738.478	4675383.566	76.325266	145.521	1.897562	272.197530	123.825	397.769827	45.513
CIRC.	1500.000	74.810654	0.000	497742.165	4675385.100	76.287027	149.513	1.859323	272.107718	119.835	397.680014	45.513
CIRC.	1520.000	73.981182	0.000	497760.569	4675392.929	76.063928	169.505	1.636224	271.649492	99.851	397.221788	45.486
CIRC.	1540.000	73.151709	0.000	497778.869	4675400.997	75.800399	189.492	1.372695	271.169499	79.862	396.741795	45.419
CIRC.	1560.000	72.322237	0.000	497797.063	4675409.302	75.508020	209.470	1.080316	270.645927	59.870	396.218223	45.312
CIRC.	1580.000	71.492765	0.000	497815.147	4675417.844	75.194337	229.441	0.766634	270.013222	39.876	395.585518	45.166
CIRC.	1600.000	70.663293	0.000	497833.118	4675426.621	74.864475	249.403	0.436771	268.942116	19.882	394.514412	44.979

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 1619.881 Dia= -0.409  
Distancia: 305.595 Azimut: 61.078387  
BO : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 1927.006 Dia= -11.944

TIPO	PK Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	1600.000	70.663293	0.000	497833.118	4675426.621	268.942116	19.882	207.863729	261.557747	325.335	0.479360	44.979
CIRC.	1620.000	69.833821	0.000	497850.974	4675435.631	151.779559	0.426	90.701172	260.990615	305.534	399.912228	44.779
CIRC.	1640.000	69.004349	0.000	497868.710	4675444.873	70.714968	20.120	9.636581	260.402354	285.721	399.323967	44.579
CIRC.	1660.000	68.174877	0.000	497886.324	4675454.345	69.655486	40.115	8.577099	259.788227	265.899	398.709841	44.379
CIRC.	1680.000	67.345405	0.000	497903.814	4675464.046	69.024935	60.109	7.946548	259.141970	246.068	398.063583	44.179
CIRC.	1700.000	66.515933	0.000	497921.176	4675473.974	68.502117	80.100	7.423730	258.455116	226.231	397.376729	43.979
CIRC.	1720.000	65.686461	0.000	497938.407	4675484.127	68.022472	100.089	6.944085	257.715946	206.389	396.637560	43.779
CIRC.	1740.000	64.856989	0.000	497955.504	4675494.504	67.564436	120.073	6.486049	256.907755	186.545	395.829368	43.578
CIRC.	1760.000	64.027517	0.000	497972.464	4675505.103	67.118755	140.052	6.040368	256.005891	166.702	394.927504	43.347
CIRC.	1780.000	63.198045	0.000	497989.285	4675515.922	66.680800	160.026	5.602413	254.972406	146.864	393.894019	43.075
CIRC.	1800.000	62.368573	0.000	498005.964	4675526.959	66.247997	179.992	5.169610	253.745726	127.038	392.667339	42.764
CIRC.	1820.000	61.539101	0.000	498022.497	4675538.213	65.818802	199.951	4.740415	252.218964	107.235	391.140577	42.413
CIRC.	1840.000	60.709629	0.000	498038.882	4675549.681	65.392231	219.902	4.313844	250.189164	87.475	389.110777	42.022
CIRC.	1860.000	59.880157	0.000	498055.117	4675561.362	64.967628	239.843	3.889242	247.219583	67.800	386.141196	41.591
CIRC.	1880.000	59.050685	0.000	498071.198	4675573.253	64.544540	259.774	3.466153	242.176987	48.321	381.098600	41.141
CIRC.	1900.000	58.221213	0.000	498087.122	4675585.352	64.122642	279.694	3.044255	231.060886	29.433	369.982499	40.691
CIRC.	1920.000	57.391741	0.000	498102.888	4675597.658	63.701696	299.602	2.623309	190.911846	13.834	329.833459	40.241

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 1927.006 Dia= -11.944  
Distancia: 152.126 Azimut: 59.306967  
BO : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 2079.205 Dia= 0.869

TIPO	PK Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	1920.000	57.391741	0.000	498102.888	4675597.658	190.911846	13.834	131.604879	254.437589	159.181	395.130622	40.241
CIRC.	1940.000	56.562269	0.000	498118.492	4675610.169	104.277281	17.612	44.970314	254.072825	139.199	394.765858	39.791
CIRC.	1960.000	55.732797	0.000	498133.932	4675622.881	78.607645	34.967	19.300677	253.724816	119.211	394.417848	39.341
CIRC.	1980.000	54.903325	0.000	498149.204	4675635.794	70.166865	54.119	10.859897	253.403693	99.219	394.096726	38.910
CIRC.	2000.000	54.073853	0.000	498164.308	4675648.905	65.950742	73.677	6.643775	253.129823	79.223	393.822856	38.512
CIRC.	2020.000	53.244381	0.000	498179.239	4675662.211	63.333856	93.384	4.026888	252.951083	59.224	393.644116	38.147
CIRC.	2040.000	52.414909	0.000	498193.995	4675675.711	61.485495	113.160	2.178528	253.013003	39.224	393.706035	37.816
CIRC.	2060.000	51.585437	0.000	498208.574	4675689.401	60.063987	132.971	0.757019	254.066412	19.229	394.759444	37.518

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 2079.205 Dia= 0.869  
Distancia: 167.623 Azimut: 47.278718  
BO : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 2246.821 Dia= 0.779

TIPO	PK Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	2060.000	51.585437	0.000	498208.574	4675689.401	254.066412	19.229	206.787694	247.976315	186.754	0.697597	37.518
CIRC.	2080.000	50.755965	0.000	498222.974	4675703.281	397.956824	1.179	350.678106	247.593417	166.783	0.314699	37.251
CIRC.	2100.000	49.926493	0.000	498237.192	4675717.347	47.698526	20.819	0.419808	247.219182	146.804	399.940464	36.991
CIRC.	2120.000	49.097021	0.000	498251.225	4675731.597	48.586938	40.815	1.308220	246.857711	126.819	399.578993	36.731
CIRC.	2140.000	48.267549	0.000	498265.071	4675746.029	48.618294	60.815	1.339576	246.516171	106.829	399.237453	36.471
CIRC.	2160.000	47.438077	0.000	498278.728	4675760.640	48.428857	80.814	1.150139	246.208335	86.835	398.929617	36.211
CIRC.	2180.000	46.608605	0.000	498292.194	4675775.427	48.150035	100.810	0.871317	245.964464	66.837	398.685746	35.951
CIRC.	2200.000	45.779133	0.000	498305.466	4675790.389	47.826223	120.802	0.547505	245.866506	46.837	398.587788	35.691
CIRC.	2220.000	44.949661	0.000	498318.541	4675805.522	47.476591	140.789	0.197873	246.240673	26.838	398.961955	35.431
CIRC.	2240.000	44.120189	0.000	498331.419	4675820.825	47.110774	160.770	399.832057	251.213271	6.867	3.934553	35.179

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 2246.821 Dia= 0.779  
Distancia: 214.554 Azimut: 39.224785  
BO : BR-110 X: 498460.355 Y: 4676000.688 Z: 32.993 PK: 2461.479 Dia= 0.234

TIPO	PK Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	2240.000	44.120189	0.000	498331.419	4675820.825	251.213271	6.867	211.988486	239.594576	221.304	0.369791	35.179
CIRC.	2260.000	43.290717	0.000	498344.096	4675836.294	39.808112	13.206	0.583327	239.186527	201.349	399.961743	34.972
CIRC.	2280.000	42.461245	0.000	498356.570	4675851.927	41.655968	33.196	2.431183	238.779950	181.387	399.555166	34.815
CIRC.	2300.000	41.631773	0.000	498368.840	4675867.721	41.802797	53.196	2.578013	238.375392	161.417	399.150607	34.708
CIRC.	2320.000	40.802301	0.000	498380.903	4675883.673	41.642746	73.195	2.417961	237.973708	141.440	398.748293	34.651
CIRC.	2340.000	39.972829	0.000	498392.756	4675899.782	41.373389	93.192	2.148604	237.576318	121.456	398.351533	34.644
CIRC.	2360.000	39.143357	0.000	498404.399	4675916.043	41.052667</						

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-111 X: 498606.145 Y: 4676318.634 Z: 29.506 PK: 2812.146 Dis= -1.385  
 Distancia: 172.267 Azimut: 11.256430  
 BO : BR-112 X: 498636.446 Y: 4676488.215 Z: 28.137 PK: 2984.850 Dis= -16.417

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	2800.000	20.894972	0.000	498603.590	4676306.685	213.412345	12.219	202.155914	211.399200	184.479	0.142770	31.780	
CIRC.	2820.000	20.065500	0.000	498609.913	4676325.659	31.343956	7.972	20.087525	210.300200	164.707	399.043769	31.530	
CIRC.	2840.000	19.236028	0.000	498615.989	4676344.714	22.977533	27.876	11.721102	209.014596	144.952	397.758165	31.280	
CIRC.	2860.000	18.406556	0.000	498621.816	4676363.846	21.241396	47.851	9.984966	207.454407	125.227	396.197976	31.030	
CIRC.	2880.000	17.577084	0.000	498627.394	4676383.052	20.283662	67.832	9.027232	205.466565	105.552	394.210135	30.780	
CIRC.	2900.000	16.747612	0.000	498632.720	4676402.330	19.573041	87.814	8.316611	202.760025	85.966	391.503594	30.530	
CIRC.	2920.000	15.918140	0.000	498637.795	4676421.675	18.972110	107.792	7.715679	198.709381	66.554	387.452951	30.280	
CIRC.	2940.000	15.088668	0.000	498642.618	4676441.085	18.429403	127.767	7.172972	191.710699	47.533	380.454268	30.030	
CIRC.	2960.000	14.259196	0.000	498647.187	4676460.556	17.921296	147.737	6.664865	176.419407	29.672	365.162976	29.782	
CIRC.	2980.000	13.429724	0.000	498651.502	4676480.084	17.435423	167.701	6.178993	131.522109	17.111	320.265678	29.567	

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 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-112 X: 498636.446 Y: 4676488.215 Z: 28.137 PK: 2984.850 Dis= -16.417  
 Distancia: 214.749 Azimut: 8.954085  
 BO : BR-113 X: 498666.551 Y: 4676700.843 Z: 28.816 PK: 3201.894 Dis= -15.922

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	2980.000	13.429724	0.000	498651.502	4676480.084	17.435423	17.111	122.568024	204.333103	221.271	395.379019	29.567	
CIRC.	3000.000	12.600252	0.000	498655.562	4676499.668	16.537369	22.285	56.683284	203.473920	201.475	394.519835	29.391	
CIRC.	3020.000	11.770780	0.000	498659.367	4676519.302	15.446462	38.624	31.492377	202.517890	181.683	393.563806	29.255	
CIRC.	3040.000	10.941308	0.000	498662.916	4676538.985	14.595683	57.256	21.641599	201.429537	161.899	392.475452	29.159	
CIRC.	3060.000	10.111836	0.000	498666.208	4676558.712	13.711178	76.522	16.477093	200.153724	142.131	391.199640	29.103	
CIRC.	3080.000	9.282364	0.000	498669.242	4676578.480	12.866440	96.039	13.232356	198.599942	122.392	389.645857	29.088	
CIRC.	3100.000	8.452892	0.000	498672.019	4676598.286	19.899969	115.677	10.945884	196.608783	102.702	387.654698	29.112	
CLOT.	3115.015	7.830158	0.000	498673.934	4676613.179	18.554287	130.466	9.600203	194.650857	87.974	385.696772	29.142	
CLOT.	3120.000	7.625445	0.000	498674.538	4676618.127	18.157556	135.381	9.203472	193.871941	83.101	384.917856	29.152	
CLOT.	3140.000	6.844816	0.000	498676.804	4676637.998	16.755451	155.125	7.801366	189.704154	63.676	380.750070	29.192	
CLOT.	3160.000	6.129377	0.000	498678.837	4676657.894	15.585629	174.895	6.631545	182.262361	44.671	373.308277	29.232	
CLOT.	3180.000	5.479127	0.000	498680.656	4676677.811	14.584137	194.683	5.630052	165.017123	27.008	356.063038	29.272	
CLOT.	3200.000	4.894068	0.000	498682.282	4676697.745	13.710502	214.485	4.756417	112.378038	16.033	303.423953	29.312	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-113 X: 498666.551 Y: 4676700.843 Z: 28.816 PK: 3201.894 Dis= -15.922  
 Distancia: 204.239 Azimut: 3.999915  
 BO : BR-114 X: 498679.375 Y: 4676904.679 Z: 29.015 PK: 3406.674 Dis= -13.279

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	3200.000	4.894068	0.000	498682.282	4676697.745	13.710502	16.033	108.378123	199.105698	206.954	395.105783	29.312	
CLOT.	3220.000	4.374198	0.000	498683.735	4676717.692	12.626037	24.066	46.626122	198.515855	187.038	394.515940	29.352	
CLOT.	3240.000	3.919518	0.000	498685.035	4676737.650	11.628234	41.188	25.628319	197.843502	167.125	393.843587	29.392	
CLOT.	3260.000	3.530028	0.000	498686.203	4676757.616	10.712480	60.078	17.214889	197.046385	147.222	393.046470	29.433	
CLOT.	3280.000	3.205728	0.000	498687.259	4676777.588	16.778108	79.490	12.778194	196.055937	127.335	392.056022	29.484	
CLOT.	3300.000	2.946618	0.000	498688.223	4676797.565	14.032765	99.120	10.032850	194.753155	107.479	390.753240	29.544	
CLOT.	3320.000	2.752697	0.000	498689.116	4676817.545	12.159581	118.863	8.159667	192.912214	87.677	388.912299	29.615	
CLOT.	3340.000	2.623967	0.000	498689.959	4676837.527	10.797761	138.674	6.797846	190.047989	67.981	386.048074	29.696	
CLOT.	3360.000	2.560426	0.000	498690.771	4676857.510	9.764684	158.529	5.764769	184.907877	48.526	380.907962	29.786	
RECTA	3369.494	2.553081	0.000	498691.152	4676866.997	9.358063	167.965	5.358148	180.715120	39.480	376.715200	29.833	
RECTA	3380.000	2.553081	0.000	498691.574	4676877.494	8.958111	178.415	4.958196	173.147500	29.796	369.147585	29.885	
RECTA	3400.000	2.553081	0.000	498692.375	4676897.478	8.313272	198.324	4.313357	132.201649	14.861	328.201735	29.985	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-114 X: 498679.375 Y: 4676904.679 Z: 29.015 PK: 3406.674 Dis= -13.279  
 Distancia: 342.047 Azimut: 4.586808  
 BO : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 3748.547 Dis= -2.354

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	3400.000	2.553081	0.000	498692.375	4676897.478	132.201649	14.861	127.614841	202.123196	348.555	397.536388	29.985	
RECTA	3420.000	2.553081	0.000	498693.177	4676917.462	52.439432	18.813	47.852624	202.097028	328.555	397.510220	30.085	
RECTA	3440.000	2.553081	0.000	498693.979	4676937.446	26.691585	35.874	22.104777	202.067468	308.556	397.480659	30.185	
RECTA	3460.000	2.553081	0.000	498694.781	4676957.430	18.089537	54.955	13.502729	202.033810	288.556	397.447002	30.285	
RECTA	3480.000	2.553081	0.000	498695.583	4676977.414	13.958101	74.519	9.371292	201.995139	268.557	397.408331	30.385	
RECTA	3500.000	2.553081	0.000	498696.385	4676997.398	11.550701	94.266	6.963893	201.950245	248.558	397.363437	30.485	
RECTA	3520.000	2.553081	0.000	498697.187	4677017.382	9.978661	114.102	5.391853	201.897495	228.559	397.310687	30.585	
RECTA	3540.000	2.553081	0.000	498697.988	4677037.366	8.872705	133.986	4.285897	201.834628	208.560	397.247820	30.685	
RECTA	3560.000	2.553081	0.000	498698.790	4677057.350	8.052767	153.900	3.465959	201.758426	188.561	397.171618	30.785	
RECTA	3580.000	2.553081	0.000	498699.592	4677077.333	7.420793	173.834	2.833984	201.664143	168.563	397.077335	30.885	
RECTA	3600.000	2.553081	0.000	498700.394	4677097.317	6.918886	193.782	2.332077	201.544477	148.565	396.957669	30.985	
RECTA	3620.000	2.553081	0.000	498701.196	4677117.301	6.510686	213.739	1.923878	201.387585	128.568	396.800777	31.067	
RECTA	3640.000	2.553081	0.000	498701.998	4677137.285	6.172217	233.704	1.585409	201.172920	108.572	396.586094	31.121	
RECTA	3660.000	2.553081	0.000	498702.800	4677157.269	5.887032	253.674	1.300224	200.861295	88.578	396.274487	31.150	
RECTA	3680.000	2.553081	0.000	498703.602	4677177.253	5.643476	273.649	1.056668	200.368023	68.587	395.781215	31.151	
RECTA	3700.000	2.553081	0.000	498704.403	4677197.237	5.433060	293.627	0.846252	199.469037	48.604	394.882229	31.126	
RECTA	3720.000	2.553081	0.000	498705.205	4677217.221	5.249455	313.607	0.662647	197.316073	28.644	392.792625	31.074	
RECTA	3740.000	2.553081	0.000	498706.007	4677237.205	5.087845	333.591	0.501037	185.445486	8.865	380.858678	30.996	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 3748.547 Dis= -2.354  
 Distancia: 270.111 Azimut: 0.589701  
 BO : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 4018.190 Dis= -13.295

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	3740.000	2.553081	0.000	498706.007	4677237.205	185.445486	8.865	184.855785	200.112580	278.734	399.522879	30.996	
RECTA	3760.000	2.553081	0.000	498706.809	4677257.189	15.455886	11.693	14.866185	199.923988	258.749	399.334287	30.891	
RECTA	3780.000	2.553081	0.000	498707.611	4677277.173	7.308018	31.541	6.718317	199.70				

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 4018.190 Dis= -13.295  
 Distancia: 315.262 Azimut: 5.806561  
 BO : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 4332.890 Dis= -12.875

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	4000.000	4.125273	0.000	498718.563	4677496.893	164.055351	22.544	158.248790	203.180793	333.413	397.374231	28.901
CIRC.	4020.000	4.307164	0.000	498719.887	4677516.849	95.675369	13.418	89.868808	203.114722	313.416	397.308161	28.731
CIRC.	4040.000	4.489056	0.000	498721.268	4677536.801	39.213396	25.561	33.406835	203.027251	293.421	397.220689	28.561
CIRC.	4060.000	4.670947	0.000	498722.705	4677556.749	24.063082	43.911	18.256520	202.913685	273.427	397.107123	28.391
CIRC.	4080.000	4.852838	0.000	498724.200	4677576.693	18.047017	63.281	12.240456	202.767853	253.436	396.961292	28.221
CIRC.	4100.000	5.034730	0.000	498725.751	4677596.633	14.909066	82.960	9.102505	202.581473	233.449	396.774912	28.051
CIRC.	4120.000	5.216621	0.000	498727.360	4677616.568	13.012326	102.770	7.205764	202.343166	213.466	396.536604	27.881
CIRC.	4140.000	5.398512	0.000	498729.025	4677636.499	11.758899	122.647	5.952337	202.036862	193.490	396.230300	27.711
CIRC.	4160.000	5.580404	0.000	498730.748	4677656.425	10.880764	142.564	5.074203	201.639113	173.523	395.832552	27.541
CIRC.	4180.000	5.762295	0.000	498732.527	4677676.345	10.240330	162.505	4.433769	201.114319	153.568	395.307758	27.381
CIRC.	4200.000	5.944186	0.000	498734.363	4677696.261	9.759831	182.463	3.953270	200.405710	133.632	394.599149	27.240
CIRC.	4220.000	6.126078	0.000	498736.257	4677716.171	9.392044	202.432	3.585482	199.416944	113.724	393.610383	27.118
CIRC.	4240.000	6.307969	0.000	498738.207	4677736.076	9.106650	222.409	3.300088	197.970623	93.862	392.164061	27.016
CIRC.	4260.000	6.489861	0.000	498740.213	4677755.975	8.883300	242.393	3.076738	195.701454	74.084	389.894893	26.932
CIRC.	4280.000	6.671752	0.000	498742.277	4677775.868	8.707830	262.381	2.901268	191.724520	54.482	385.917958	26.867
CIRC.	4300.000	6.853643	0.000	498744.398	4677795.755	8.570080	282.372	2.763519	183.270057	35.348	377.463495	26.822
CIRC.	4320.000	7.035535	0.000	498746.575	4677815.636	8.462574	302.366	2.656012	157.161440	18.227	351.354878	26.795

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 4332.890 Dis= -12.875  
 Distancia: 255.337 Azimut: 8.425592  
 BO : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 4587.780 Dis= -12.418

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	4320.000	7.035535	0.000	498746.575	4677815.636	157.161440	18.227	148.735848	205.305949	268.289	396.880357	26.795
CIRC.	4340.000	7.217426	0.000	498748.809	4677835.511	75.039438	14.711	66.613846	205.159328	248.298	396.733736	26.788
CIRC.	4360.000	7.399317	0.000	498751.100	4677855.379	35.479545	30.034	27.053953	204.971107	228.310	396.545515	26.799
CIRC.	4380.000	7.581209	0.000	498753.448	4677875.241	24.335682	48.879	15.910090	204.729324	208.327	396.303732	26.830
CIRC.	4400.000	7.763100	0.000	498755.852	4677895.096	19.513722	68.394	11.088130	204.416950	188.351	395.991358	26.880
CIRC.	4420.000	7.944991	0.000	498758.314	4677914.944	16.881867	88.135	8.456275	204.008900	168.384	395.583308	26.949
CIRC.	4440.000	8.126883	0.000	498760.831	4677934.785	15.248480	107.978	6.822888	203.466634	148.429	395.041042	27.036
CIRC.	4460.000	8.308774	0.000	498763.406	4677954.619	14.151045	127.875	5.725453	202.727781	128.493	394.302189	27.143
CIRC.	4480.000	8.490666	0.000	498766.037	4677974.445	13.373848	147.804	4.948256	201.684438	108.587	393.258846	27.269
CIRC.	4500.000	8.672557	0.000	498768.725	4677994.263	12.803040	167.754	4.377448	200.132698	88.731	391.707106	27.414
CIRC.	4520.000	8.854448	0.000	498771.469	4678014.074	12.372942	187.718	3.947350	197.636856	68.967	389.211264	27.578
CIRC.	4540.000	9.036340	0.000	498774.271	4678033.877	12.043040	207.692	3.617448	193.079454	49.409	384.653862	27.748
CIRC.	4560.000	9.218231	0.000	498777.128	4678053.672	11.786994	227.673	3.361402	182.603813	30.452	374.178221	27.918
CIRC.	4580.000	9.400122	0.000	498780.042	4678073.458	11.586945	247.659	3.161353	145.091979	14.658	336.666387	28.088

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 4587.780 Dis= -12.418  
 Distancia: 290.804 Azimut: 10.863189  
 BO : BR-119 X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 4878.097 Dis= -12.089

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	4580.000	9.400122	0.000	498780.042	4678073.458	145.091979	14.658	134.228790	208.178001	298.577	397.314812	28.088
CIRC.	4600.000	9.582014	0.000	498783.013	4678093.236	60.011797	17.430	49.148608	208.083739	278.581	397.220550	28.258
CIRC.	4620.000	9.763906	0.000	498786.040	4678113.006	33.018566	34.557	22.155377	207.960837	258.588	397.097648	28.428
CIRC.	4640.000	9.945796	0.000	498789.124	4678132.767	24.558991	53.721	13.695802	207.802098	238.598	396.938909	28.598
CIRC.	4660.000	10.127688	0.000	498792.264	4678152.519	20.630628	73.342	9.767439	207.597700	218.611	396.734511	28.768
CIRC.	4680.000	10.309579	0.000	498795.460	4678172.262	18.404174	93.132	7.540985	207.333873	198.630	396.470684	28.938
CIRC.	4700.000	10.491471	0.000	498798.713	4678191.995	16.991242	113.002	6.128053	206.990701	178.656	396.127512	29.108
CIRC.	4720.000	10.673362	0.000	498802.023	4678211.720	16.028493	132.916	5.165304	206.538271	158.692	395.675082	29.278
CIRC.	4740.000	10.855253	0.000	498805.388	4678231.434	15.340492	152.857	4.477303	205.929515	138.742	395.066326	29.448
CIRC.	4760.000	11.037145	0.000	498808.810	4678251.140	14.832335	172.815	3.969146	205.085907	118.814	394.222718	29.618
CIRC.	4780.000	11.219036	0.000	498812.288	4678270.835	14.448261	192.784	3.585072	203.866608	98.923	393.002879	29.788
CIRC.	4800.000	11.400927	0.000	498815.823	4678290.520	14.153376	212.762	3.290187	201.987778	79.094	391.124589	29.958
CIRC.	4820.000	11.582819	0.000	498819.413	4678310.195	13.924738	232.746	3.061549	198.797782	59.391	387.934593	30.127
CIRC.	4840.000	11.764710	0.000	498823.060	4678329.860	13.746646	252.735	2.883457	192.392889	40.001	381.529700	30.259
CIRC.	4860.000	11.946601	0.000	498826.763	4678349.514	13.607993	272.727	2.744804	174.562829	21.776	363.699640	30.335

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-119 X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 4878.097 Dis= -12.089  
 Distancia: 196.129 Azimut: 13.149387  
 BO : BR-120 X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 5073.900 Dis= -11.633

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	4860.000	11.946601	0.000	498826.763	4678349.514	174.562829	21.776	161.413442	209.463465	214.385	396.314077	30.335
CIRC.	4880.000	12.128493	0.000	498830.523	4678369.157	102.172964	12.238	89.023577	209.198718	194.404	396.049330	30.353
CIRC.	4900.000	12.310384	0.000	498834.338	4678388.790	44.293726	25.034	31.144338	208.852490	174.429	395.703103	30.314
CIRC.	4920.000	12.492276	0.000	498838.209	4678408.412	30.167722	43.646	17.018335	208.393219	154.464	395.243832	30.218
CIRC.	4940.000	12.674167	0.000	498842.137	4678428.022	24.660039	63.124	11.510652	207.770673	134.513	394.621286	30.065
CIRC.	4960.000	12.856058	0.000	498846.120	4678447.622	21.804652	82.859	8.655264	206.899801	114.586	393.750414	29.858
CIRC.	4980.000	13.037950	0.000	498850.160	4678467.209	20.085109	102.704	6.935722	205.624438	94.695	392.475051	29.638
CIRC.	5000.000	13.219841	0.000	498854.255	4678486.786	18.952559	122.604	5.803172	203.624102	74.871	390.474715	29.418
CIRC.	5020.000	13.401732	0.000	498858.406	4678506.350	18.161949	142.536	5.012562	200.125252	55.185	386.975665	29.198
CIRC.	5040.000	13.583624	0.000	498862.614	4678525.903	17.587738	162.489	4.438351	192.709338	35.867	379.559951	28.978
CIRC.	5060.000	13.765515	0.000	498866.877	4678545.443	17.159060	182.455	4.009673	169.492244	18.135	356.342857	28.758

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-120 X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 5073.900 Dis= -11.633  
 Distancia: 225.411 Azimut: 14.986043  
 BO : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 5298.950 Dis=



PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES - PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 5298.950 Dis= -11.383  
 BO : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 5501.573 Dis= -11.060  
 Distancia: 202.701 Azimut: 16.426896  
 5949.260 Dis= -18.618  
 Distancia: 283.889 Azimut: 392.194964  
 6238.732 Dis= -19.121

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	5280.000	15.766320	0.000	498917.446	4678759.543	181.440351	22.119	165.013455	213.110250	221.864	396.683354	27.145
CIRC.	5300.000	15.948211	0.000	498922.376	4678778.926	110.085219	11.431	93.658322	212.838196	201.885	396.411300	27.067
CIRC.	5320.000	16.130103	0.000	498927.362	4678798.294	47.571291	23.945	31.144395	212.486420	181.913	396.059524	26.989
CIRC.	5340.000	16.311994	0.000	498932.403	4678817.649	33.332305	42.631	16.905409	212.025476	161.951	395.598580	26.911
RECTA	5347.247	16.377905	0.000	498934.243	4678824.658	30.081840	49.658	14.454944	211.823305	154.721	395.396409	26.883
RECTA	5360.000	16.377905	0.000	498937.488	4678836.991	27.930262	62.148	11.503366	211.414623	142.004	394.987727	26.833
RECTA	5380.000	16.377905	0.000	498942.576	4678856.333	25.123699	81.899	8.696803	210.602271	122.075	394.175375	26.755
RECTA	5400.000	16.377905	0.000	498947.665	4678875.675	23.409782	101.748	6.982886	209.473205	102.173	393.046309	26.677
RECTA	5420.000	16.377905	0.000	498952.754	4678895.017	22.255945	121.646	5.829049	207.798756	82.319	391.371860	26.599
RECTA	5440.000	16.377905	0.000	498957.843	4678914.358	21.426709	141.573	4.999813	205.063440	62.558	388.636544	26.521
RECTA	5460.000	16.377905	0.000	498962.931	4678933.700	20.802184	161.518	4.375288	199.824949	43.019	383.398053	26.443
RECTA	5480.000	16.377905	0.000	498968.020	4678953.042	20.314979	181.475	3.888083	186.218942	24.243	369.792046	26.365
RECTA	5500.000	16.377905	0.000	498973.109	4678972.384	19.924333	201.440	3.497437	125.371300	11.171	308.944404	26.286

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 5501.573 Dis= -11.060  
 BO : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 5797.528 Dis= -0.004  
 Distancia: 295.638 Azimut: 16.815661  
 5949.260 Dis= -18.618  
 Distancia: 283.889 Azimut: 392.194964  
 6238.732 Dis= -19.121

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	5500.000	16.377905	0.000	498973.109	4678972.384	125.371300	11.171	108.555639	214.444892	297.341	397.629230	26.286
RECTA	5520.000	16.377905	0.000	498978.197	4678991.726	50.791224	21.491	33.975562	214.305522	277.351	397.408961	26.203
RECTA	5540.000	16.377905	0.000	498983.286	4679011.067	34.218539	39.987	17.402878	214.144503	257.363	397.328841	26.116
RECTA	5560.000	16.377905	0.000	498988.375	4679030.409	28.287783	59.465	11.472122	213.956367	237.376	397.140706	26.024
CLOT.	5571.626	16.377905	0.000	498991.333	4679041.653	26.346465	70.921	9.530804	213.831693	225.759	397.016032	25.969
CLOT.	5580.000	16.367356	0.000	498993.463	4679049.751	25.296400	79.203	8.480739	213.733775	217.392	396.918113	25.928
CLOT.	5600.000	16.256796	0.000	498998.535	4679069.097	23.489980	99.045	6.674319	213.471617	197.410	396.655956	25.829
CLOT.	5620.000	16.025893	0.000	499003.555	4679088.457	22.258572	118.934	5.442910	213.169642	177.430	396.353981	25.729
CLOT.	5640.000	15.674645	0.000	499008.486	4679107.840	21.338466	138.848	4.522805	212.827963	157.450	396.012302	25.634
CLOT.	5660.000	15.203053	0.000	499013.292	4679127.254	20.597620	158.773	3.781959	212.446761	137.469	395.631099	25.571
CLOT.	5680.000	14.611117	0.000	499017.935	4679146.707	19.962703	178.702	3.147042	212.026333	117.487	395.210672	25.540
CLOT.	5700.000	13.898838	0.000	499022.379	4679166.207	19.389764	198.630	2.574103	211.567221	97.502	394.751560	25.543
CLOT.	5720.000	13.066214	0.000	499026.587	4679185.759	18.850871	218.552	2.035209	211.070523	77.514	394.254862	25.579
CLOT.	5740.000	12.113246	0.000	499030.519	4679205.369	18.327429	238.463	1.511768	210.538866	57.522	393.723204	25.649
CIRC.	5758.058	11.149441	0.000	499033.802	4679223.125	17.857330	256.428	1.041669	210.035310	39.468	393.219648	25.740
CIRC.	5760.000	11.040502	0.000	499034.139	4679225.038	17.806589	258.360	0.990928	209.980467	37.526	393.164806	25.752
CIRC.	5780.000	9.918705	0.000	499037.416	4679244.767	17.281079	278.237	0.465418	209.410933	17.528	392.595272	25.888

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 C.R.S. : ETR889 (HUSO 31)  
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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 5797.528 Dis= -0.004  
 BO : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 5949.260 Dis= -18.618  
 Distancia: 151.518 Azimut: 396.857170  
 5949.260 Dis= -18.618  
 Distancia: 283.889 Azimut: 392.194964  
 6238.732 Dis= -19.121

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	5780.000	9.918705	0.000	499037.416	4679244.767	209.410933	17.528	212.553763	198.152829	168.741	1.295659	25.888
CIRC.	5800.000	8.796908	0.000	499040.346	4679264.552	8.981128	2.472	12.123957	196.657353	149.091	399.800182	26.058
CIRC.	5820.000	7.675111	0.000	499042.926	4679284.384	8.317978	22.472	11.460808	194.878387	129.472	398.021217	26.260
CIRC.	5840.000	6.553314	0.000	499045.156	4679304.259	7.751127	42.470	10.893957	192.665066	109.907	395.807896	26.497
CIRC.	5860.000	5.431517	0.000	499047.036	4679324.170	7.188088	62.464	10.330917	189.738296	90.439	392.881126	26.766
CIRC.	5880.000	4.309720	0.000	499048.564	4679344.112	6.626086	82.454	9.768916	185.522023	71.158	388.664853	27.063
CIRC.	5900.000	3.187923	0.000	499049.742	4679364.077	6.064515	102.437	9.207345	178.630506	52.278	381.773336	27.363
CIRC.	5920.000	2.066126	0.000	499050.567	4679384.059	5.503164	122.412	8.645994	164.932359	34.477	368.075189	27.646
CIRC.	5940.000	0.944329	0.000	499051.039	4679404.054	4.941940	142.378	8.084769	129.857526	20.760	333.000356	27.856

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES - PONT DE MOLINS  
Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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TIPO	PK	Estac.	Azimuth	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-126	X:	498870.853	Y:	4680012.004	Z:	22.802	PK:	6586.076	Dis=	-12.125		
									Distancia:	316.961	Azimet:	355.263555	
									6907.829	Dis=	-14.232		
BO	BR-127	X:	498666.003	Y:	4680253.873	Z:	27.136	PK:					
-----													
CIRC.	6580.000	365.046826	0.000	498884.347	4680013.213	94.312166	13.548	139.048611	153.092754	324.948	397.829198	23.773	
CIRC.	6600.000	363.925030	0.000	498873.760	4680030.180	10.094806	18.407	54.831251	152.350337	305.289	397.086782	24.030	
CIRC.	6620.000	362.803233	0.000	498862.875	4680046.959	385.714858	35.854	30.451303	151.582919	285.608	396.319363	24.321	
CIRC.	6640.000	361.681436	0.000	498851.697	4680063.543	377.345056	54.984	22.081500	150.784915	265.909	395.521360	24.639	
CIRC.	6660.000	360.559639	0.000	498840.228	4680079.928	373.033729	74.508	17.770174	149.948952	246.194	394.685396	24.959	
CIRC.	6680.000	359.437842	0.000	498828.472	4680096.107	370.284060	94.178	15.020504	149.065078	226.464	393.801523	25.279	
CIRC.	6700.000	358.316045	0.000	498816.433	4680112.078	368.291694	113.914	13.028138	148.119539	206.724	392.855984	25.599	
CIRC.	6720.000	357.194248	0.000	498804.114	4680127.833	366.722367	133.681	11.458811	147.092770	186.978	391.829214	25.919	
CIRC.	6740.000	356.072451	0.000	498791.520	4680143.369	365.412935	153.462	10.149379	145.955969	167.229	390.692413	26.239	
CIRC.	6760.000	354.950654	0.000	498778.653	4680158.681	364.274463	173.248	9.010908	144.664946	147.484	389.401391	26.559	
CIRC.	6780.000	353.828857	0.000	498765.519	4680173.764	363.254392	193.032	7.990837	143.148304	127.754	388.884749	26.879	
CIRC.	6800.000	352.707060	0.000	498752.122	4680188.613	362.319681	212.809	7.056126	141.282839	108.052	386.019283	27.199	
CIRC.	6820.000	351.585263	0.000	498738.465	4680203.223	361.448529	232.576	6.184974	139.836646	88.408	383.573090	27.519	
CIRC.	6840.000	350.463466	0.000	498724.552	4680217.591	360.625969	252.329	5.362413	135.317612	68.879	380.054056	27.836	
CIRC.	6860.000	349.341669	0.000	498710.388	4680231.711	359.841389	272.067	4.577834	129.481020	49.610	374.217464	28.106	
CIRC.	6880.000	348.219872	0.000	498695.978	4680245.580	359.087057	291.786	3.823502	117.183135	31.101	361.919580	28.314	
CIRC.	6900.000	347.098075	0.000	498681.326	4680259.192	358.357203	311.485	3.093648	78.727992	16.220	323.464436	28.461	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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TIPO	PK	Estac.	Azimuth	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-127	X:	498666.003	Y:	4680253.873	Z:	27.136	PK:	6907.829	Dis=	-14.232		
									Distancia:	129.562	Azimet:	341.102857	
									7039.277	Dis=	-18.043		
BO	BR-128	X:	498562.520	Y:	4680331.832	Z:	26.791	PK:					
-----													
CIRC.	6900.000	347.098075	0.000	498681.326	4680259.192	78.727992	16.220	137.625135	134.935777	139.253	393.832920	28.461	
CIRC.	6920.000	345.976278	0.000	498666.436	4680272.545	1.475937	18.677	60.373080	133.006825	119.639	391.903968	28.546	
CIRC.	6940.000	344.854481	0.000	498651.313	4680285.632	372.419662	34.992	31.316805	130.542507	100.093	389.439650	28.570	
CIRC.	6960.000	343.732684	0.000	498635.962	4680298.452	362.249366	53.756	21.146509	127.158275	80.672	386.055418	28.532	
CIRC.	6980.000	342.610887	0.000	498620.387	4680310.998	357.102246	73.103	15.999388	122.000086	61.503	380.897229	28.432	
CIRC.	7000.000	341.489090	0.000	498604.594	4680323.269	353.882356	92.665	12.779499	112.782378	42.937	371.679521	28.271	
CIRC.	7020.000	340.367293	0.000	498588.587	4680335.259	351.591224	112.325	10.488367	91.678289	26.291	350.575432	28.049	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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TIPO	PK	Estac.	Azimuth	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-128	X:	498562.520	Y:	4680331.832	Z:	26.791	PK:	7039.277	Dis=	-18.043		
									Distancia:	204.936	Azimet:	336.780413	
									7245.644	Dis=	-14.215		
BO	BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:					
-----													
CIRC.	7020.000	340.367293	0.000	498588.587	4680335.259	91.678289	26.291	154.897876	131.947304	225.550	395.166891	28.049	
CIRC.	7040.000	339.245497	0.000	498572.371	4680346.965	36.736596	18.057	99.956183	131.185169	205.717	394.404756	27.799	
CLOT.	7040.344	339.226197	0.000	498572.091	4680347.164	35.525519	18.074	98.745106	131.171717	205.376	394.391304	27.795	
CLOT.	7060.000	338.181819	0.000	498555.955	4680358.389	384.572071	27.356	47.791658	130.378042	185.872	393.597628	27.549	
CLOT.	7080.000	337.238468	0.000	498539.361	4680369.552	364.946071	44.263	28.166568	129.497895	166.020	392.717482	27.299	
CLOT.	7100.000	336.415460	0.000	498522.613	4680380.485	356.266906	62.926	19.486493	128.498626	146.170	391.718212	27.049	
CLOT.	7120.000	335.712797	0.000	498505.736	4680391.216	351.424363	82.163	14.643950	127.305250	126.333	390.524837	26.799	
CLOT.	7140.000	335.130478	0.000	498488.751	4680401.776	348.305859	101.656	11.525446	125.787266	106.526	389.006853	26.549	
CLOT.	7160.000	334.668502	0.000	498471.680	4680412.196	346.109404	121.286	9.328990	123.696188	86.777	386.915774	26.299	
CLOT.	7180.000	334.326871	0.000	498454.544	4680422.508	344.469891	141.000	7.689477	120.495982	67.148	383.715569	26.049	
CLOT.	7200.000	334.105584	0.000	498437.362	4680432.745	343.198535	160.773	6.418122	114.796299	47.801	378.015886	25.799	
CLOT.	7220.000	334.004640	0.000	498420.155	4680442.938	342.188249	180.589	5.407836	101.774689	29.320	364.994276	25.549	
RECTA	7226.776	333.997734	0.000	498414.322	4680446.387	341.892864	187.311	5.112450	92.892568	23.623	356.112155	25.464	
RECTA	7240.000	333.997734	0.000	498402.940	4680453.118	341.373304	200.440	4.592891	58.057543	15.295	321.277130	25.299	

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 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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TIPO	PK	Estac.	Azimuth	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:	7245.644	Dis=	-14.215		
									Distancia:	162.141	Azimet:	334.042174	
									7407.783	Dis=	-14.102		
BO	BR-130	X:	498251.339	Y:	4680526.384	Z:	22.774	PK:					
-----													
RECTA	7240.000	333.997734	0.000	498402.940	4680453.118	58.057543	15.295	124.015369	128.659609	168.376	394.617435	25.299	
RECTA	7260.000	333.997734	0.000	498385.724	4680463.298	383.683173	20.203	49.640999	127.941284	148.456	393.899110	25.049	
RECTA	7280.000	333.997734	0.000	498368.509	4680473.479	358.972917	37.181	24.930744	127.000476	128.561	392.958303	24.799	
RECTA	7300.000	333.997734	0.000	498351.294	4680483.659	350.281810	56.184	16.239637	125.715575	108.703	391.673402	24.549	
RECTA	7320.000	333.997734	0.000	498334.079	4680493.839	346.023298	75.703	11.981124	123.857524	88.910	389.815351	24.299	
RECTA	7340.000	333.997734	0.000	498316.863	4680504.019	343.517089	95.421	9.474916	120.939705	69.236	386.897532	24.049	
RECTA	7360.000	333.997734	0.000	498299.648	4680514.199	341.870913	115.236	7.828740	115.728713	49.822	381.686540	23.803	
RECTA	7380.000	333.997734	0.000	498282.433	4680524.380	340.708338	135.106	6.666164	104.097941	31.159	370.055767	23.579	
RECTA	7400.000	333.997734	0.000	498265.218	4680534.560	339.844083	155.010	5.801909	66.108979	16.108	332.066805	23.376	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 1 : TRONCO N-II

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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TIPO	PK	Estac.	Azimuth	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)
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PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 1 : TRONCO N-II

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-135 X: 497273.239 Y: 4681242.029 Z: 25.568 PK: 8619.582 Dis=-12.925  
BO : BR-136 X: 497024.523 Y: 4681444.002 Z: 28.525 PK: 8940.620 Dis=-12.504

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC. and CLOT. data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 1 : TRONCO N-II

\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-135 X: 497273.239 Y: 4681242.029 Z: 25.568 PK: 8619.582 Dis=-12.925  
BO : BR-136 X: 497024.523 Y: 4681444.002 Z: 28.525 PK: 8940.620 Dis=-12.504

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC. and CLOT. data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 4 : EI RAMAL 4

\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-110 X: 498460.355 Y: 4676000.688 Z: 32.993 PK: 0.000 Dis=-484.013  
BO : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 3.032 Dis=-300.026

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC. data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 4 : EI RAMAL 4

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\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 3.032 Dis=-300.026  
BO : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 167.623 Azimut: 247.278718  
20.069 Dis=-178.203

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC. data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 4 : EI RAMAL 4

\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 20.069 Dis=-178.203  
BO : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 145.518 Dis=-44.859

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC., CLOT., and CRECTA data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 4 : EI RAMAL 4

\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 145.518 Dis=-44.859  
BO : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 221.835 Dis=-200.568

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC., CLOT., and CRECTA data points.

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 5 : EI RAMAL 3

\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*

BR : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 0.000 Dis=-94.669  
BO : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 167.623 Azimut: 247.278718  
72.155 Dis=-16.331

Table with columns: TIPO, PK Estac., Azimut, Dis.Eje, X, Y, Ang.Azimu., Dis.Redu, Angulo 1-2, Ang.Az.(BO), Dis.R.(BO), Ang1-2(BO), COTA. Rows include CIRC., CLOT., and RECTA data points.

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720**

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : S : EI RAMAL 3

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 72.155 Dis=-16.331  
BO : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 204.046 Dis=-33.939  
Distancia: 152.126 Azimut: 259.306967  
204.046 Dis=-33.939

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	60.000	253.866046	0.000	498221.305	4675722.390	394.656636	20.359	135.349668	52.569572	163.775	393.262604		36.458
RECTA	64.608	253.927342	0.000	498217.853	4675719.338	381.485684	17.991	122.178717	52.530861	159.169	393.223893		36.523
RECTA	80.000	253.927342	0.000	498206.319	4675709.146	325.416581	18.118	66.109614	52.381373	143.780	393.074406		36.738
RECTA	100.000	253.927342	0.000	498191.332	4675695.902	287.695276	32.281	28.388308	52.131618	123.787	392.824651		37.018
RECTA	120.000	253.927342	0.000	498176.345	4675682.659	274.867635	50.556	15.560668	51.785654	103.797	392.478687		37.298
CLOT.	131.519	253.927342	0.000	498167.713	4675675.032	271.017952	61.570	11.710985	51.518387	92.285	392.211419		37.459
CLOT.	140.000	254.684264	0.000	498161.336	4675669.441	268.995136	69.791	9.688169	51.249162	83.812	391.942194		37.578
CLOT.	160.000	262.463152	0.000	498145.567	4675657.159	266.524245	89.541	7.217277	49.183119	63.967	389.876151		37.858
CLOT.	180.000	278.660153	0.000	498127.815	4675648.064	267.131679	109.465	7.824712	40.250593	45.511	380.943625		37.901
CIRC.	186.519	285.758331	0.000	498121.555	4675646.260	267.967960	115.810	8.660993	33.986157	40.552	374.679190		37.807
CIRC.	200.000	301.362822	0.000	498108.176	4675644.902	270.579607	128.294	11.272639	13.559190	34.327	354.252222		37.444

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : S : EI RAMAL 3

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 204.046 Dis=-33.939  
BO : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 241.464 Dis=-314.568  
Distancia: 305.595 Azimut: 261.078387  
241.464 Dis=-314.568

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	200.000	301.362822	0.000	498108.176	4675644.902	13.559190	34.327	152.480803	56.600022	331.615	395.521635		37.444
CIRC.	220.000	324.512632	0.000	498088.695	4675648.916	379.970994	39.504	118.892607	53.530733	319.390	392.452346		36.487
CIRC.	240.000	347.662441	0.000	498071.916	4675659.597	365.541503	56.293	104.463116	49.653460	314.591	388.575073		35.195

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : S : EI RAMAL 3

pagina 22

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 241.464 Dis=-314.568  
BO : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 250.571 Dis=-571.738  
Distancia: 269.205 Azimut: 274.427704  
250.571 Dis=-571.738

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	240.000	347.662441	0.000	498071.916	4675659.597	49.653460	314.591	175.225756	61.065309	572.847	386.637605		35.195

Istram 22.11.11.15 16/11/22 16:45:44 200315  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : S : EI RAMAL 3

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 250.571 Dis=-571.738  
BO : BR-104 X: 497401.055 Y: 4675264.289 Z: 41.925 PK: 254.891 Dis=-776.525  
Distancia: 212.490 Azimut: 279.767980  
254.891 Dis=-776.525

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	240.000	347.662441	0.000	498071.916	4675659.597	61.065309	572.847	181.297329	66.101209	778.668	386.333229		35.195
CIRC.	260.000	370.812251	0.000	498060.033	4675675.547	58.854479	572.621	179.086499	64.480388	776.779	384.712408		33.979
CIRC.	280.000	393.962061	0.000	498054.600	4675694.681	56.818796	580.104	177.050816	62.925700	782.534	383.157720		33.081
CLOT.	282.882	397.298229	0.000	498054.403	4675697.556	56.560240	581.759	176.792260	62.721879	783.954	382.953899		32.979
CIRC.	293.840	16.097048	0.000	498055.375	4675708.430	55.714909	589.423	175.946930	62.035564	790.820	382.267584		32.655
CIRC.	300.000	30.102605	0.000	498057.557	4675714.178	55.392363	594.789	175.624383	61.753210	795.861	381.985230		32.517
CIRC.	320.000	75.575445	0.000	498072.004	4675727.390	55.311017	614.351	175.543037	61.539842	815.252	381.771862		32.208
CIRC.	328.088	93.963857	0.000	498079.834	4675729.300	55.679505	621.574	175.911525	61.762373	822.786	381.994393		32.090

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES - PONT DE MOLINS**  
**Clave: 12-GI-3720**

Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 1  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : EI RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 0.000 Dis=-142.276  
 Distancia: 305.595 Azimut: 61.078387  
 BO : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 166.096 Dis=-27.802

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	63.986203	0.000	497980.273	4675494.662	72.914836	142.276	11.836450	251.061471	167.845	389.983084	43.751
CLOT.	0.000	63.986203	0.000	497980.273	4675494.662	72.914836	142.276	11.836450	251.061471	167.845	389.983084	43.751
CLOT.	20.000	63.210784	0.000	497997.091	4675505.487	71.768382	162.088	10.689995	249.382270	148.283	388.303883	43.392
CLOT.	40.000	62.529539	0.000	498013.783	4675516.503	70.792388	181.914	9.714001	247.304310	128.798	386.225924	43.033
CLOT.	60.000	61.942469	0.000	498030.365	4675527.686	69.945935	201.751	8.867540	244.601200	109.444	383.522813	42.675
CLOT.	80.000	61.449574	0.000	498046.851	4675539.008	69.202716	221.598	8.124329	240.860493	90.316	379.782106	42.316
CLOT.	100.000	61.050853	0.000	498063.258	4675550.446	68.545057	241.455	7.466670	235.257493	71.609	374.179106	41.957
CLOT.	120.000	60.746307	0.000	498079.601	4675561.974	67.960643	261.321	6.882256	225.947694	53.783	364.869307	41.599
CLOT.	140.000	60.535935	0.000	498095.897	4675573.568	67.440635	281.198	6.362248	208.413612	38.115	347.335225	41.240
CLOT.	160.000	60.419738	0.000	498112.164	4675585.204	66.978523	301.087	5.900136	174.145146	28.462	313.066759	40.882
CLOT.	174.677	60.394380	0.000	498124.092	4675593.756	66.673348	315.689	5.594961	141.344526	29.095	280.266139	40.618

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : EI RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 166.096 Dis=-27.802  
 Distancia: 152.126 Azimut: 59.306967  
 BO : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 299.891 Dis=-53.848

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	160.000	60.419738	0.000	498112.164	4675585.204	174.145146	28.462	114.838179	248.309020	161.098	389.002053	40.882
CLOT.	174.677	60.394380	0.000	498124.092	4675593.756	141.344526	29.095	82.037558	247.106347	146.711	387.799380	40.618
CLOT.	180.000	60.457012	0.000	498128.419	4675596.856	130.881553	31.085	71.574586	246.609352	141.509	387.302384	40.523
CLOT.	200.000	61.811863	0.000	498144.779	4675608.360	104.335210	43.961	45.028251	244.273750	122.099	384.966783	40.164
CLOT.	220.000	64.935101	0.000	498161.533	4675619.280	91.719570	61.129	32.412603	240.651397	103.148	381.344430	39.674
CIRC.	234.677	68.352127	0.000	498174.230	4675626.638	86.912711	74.887	27.605744	236.532500	89.859	377.225533	39.103
CIRC.	240.000	69.764096	0.000	498178.936	4675629.124	85.740407	80.015	26.433439	234.588687	85.256	375.281720	38.852
CIRC.	260.000	75.069261	0.000	498197.083	4675637.519	83.086042	99.660	23.779075	224.304580	69.595	364.997612	37.697
CIRC.	280.000	80.374425	0.000	498215.866	4675644.374	82.190272	119.595	22.883305	207.840992	58.170	348.534025	36.306

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : EI RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 299.891 Dis=-53.848  
 Distancia: 167.623 Azimut: 47.278718  
 BO : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 381.779 Dis=-172.663

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	280.000	80.374425	0.000	498215.866	4675644.374	207.840992	58.170	160.562275	237.358319	217.621	390.079601	36.306
CIRC.	300.000	85.679590	0.000	498235.153	4675649.641	185.521480	53.848	138.242762	233.232937	202.980	385.954219	34.906
CIRC.	320.000	90.984755	0.000	498254.813	4675653.285	163.243452	58.262	115.964734	228.143326	190.627	380.864608	33.506
CIRC.	340.000	96.289920	0.000	498274.707	4675655.280	146.854037	69.748	99.575319	222.113997	181.125	374.835279	32.106
CIRC.	360.000	101.595084	0.000	498294.699	4675655.612	136.627178	85.442	89.348460	215.304252	175.007	368.025534	30.734
CIRC.	380.000	106.900249	0.000	498314.648	4675654.279	130.621571	103.365	83.342853	208.027992	172.679	360.749274	29.686

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : EI RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 381.779 Dis=-172.663  
 Distancia: 214.554 Azimut: 39.224785  
 BO : BR-110 X: 498460.355 Y: 4676000.688 Z: 32.993 PK: 423.356 Dis=-369.645

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	380.000	106.900249	0.000	498314.648	4675654.279	208.027992	172.679	168.803207	225.347377	375.805	386.122592	29.686
CIRC.	400.000	112.205414	0.000	498334.418	4675651.290	200.711547	174.308	161.486762	222.023593	371.401	382.798808	29.038
CLOT.	410.277	114.931380	0.000	498344.461	4675649.117	197.081698	176.656	157.856914	220.271739	370.181	381.046954	28.860
CLOT.	420.000	117.301592	0.000	498353.873	4675646.676	193.790329	179.765	154.565544	218.600704	369.679	379.375919	28.789

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : EI RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-110 X: 498460.355 Y: 4676000.688 Z: 32.993 PK: 423.356 Dis=-369.645  
 Distancia: 518.354 Azimut: 22.065922  
 BO : BR-112 X: 498636.446 Y: 4676488.215 Z: 28.137 PK: 432.469 Dis=-887.399

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	420.000	117.301592	0.000	498353.873	4675646.676	218.600704	369.679	196.534782	220.623456	887.713	398.557534	28.789

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 23  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 8 : E1 RAMAL 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-112           X: 498636.446 Y: 4676488.215 Z: 28.137 PK: 432.469 Dia=-887.399
                       Distancia: 172.267 Azimut: 211.256430
BO : BR-111           X: 498606.145 Y: 4676318.634 Z: 29.506 PK: 441.034 Dia=-716.887
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CLOT. 420.000 117.301592 0.000 498353.873 4675646.676 220.623456 887.713 9.367026 222.863984 717.752 211.607553 28.789
CLOT. 440.000 120.862829 0.000 498372.965 4675640.728 219.189231 887.501 7.932801 221.090819 716.889 209.834388 28.940
CLOT. 460.000 122.655679 0.000 498391.792 4675633.981 217.757569 888.579 6.501139 219.316057 717.424 208.059627 29.269
RECTA 470.277 122.889127 0.000 498401.416 4675630.377 217.024326 889.453 5.767895 218.406291 718.062 207.149861 29.438
RECTA 476.583 122.889127 0.000 498407.319 4675628.158 216.575181 890.055 5.318751 217.848943 718.533 206.592513 29.542
    
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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-125           X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 160.558 Dia= 189.389
                       Distancia: 341.298 Azimut: 375.737002
BO : BR-126           X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 175.190 Dia= 522.162
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 0.000 30.000000 0.000 499077.897 4679394.097 183.448743 311.569 207.711741 179.417077 651.672 3.680075 19.970
CIRC. 20.000 13.464421 0.000 499084.574 4679412.890 181.015949 295.340 205.278947 178.185825 636.093 2.448823 20.068
CIRC. 40.000 396.928843 0.000 499086.200 4679432.767 179.315798 276.916 203.578796 177.340000 617.972 1.602998 20.148
CIRC. 60.000 380.393264 0.000 499082.667 4679452.396 178.593740 257.203 202.856738 176.964639 598.353 1.227637 20.208
CIRC. 80.000 363.857686 0.000 499074.211 4679470.458 179.136274 237.371 203.399272 177.131318 578.469 1.394316 20.248
CIRC. 100.000 347.322107 0.000 499061.399 4679485.743 181.233422 218.894 205.496420 177.884365 559.695 2.147363 20.268
CIRC. 120.000 330.786529 0.000 499045.092 4679497.224 185.072855 203.540 209.335853 179.222698 543.468 3.485696 20.268
CIRC. 140.000 314.250950 0.000 499026.383 4679504.133 190.547260 193.188 214.810258 181.081529 531.152 5.344527 20.248
CIRC. 160.000 297.715372 0.000 499006.527 4679506.004 197.066456 189.392 221.329454 183.322545 523.873 7.585543 20.208
    
```

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-126           X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 175.190 Dia= 522.162
                       Distancia: 316.961 Azimut: 355.263555
BO : BR-127           X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 187.605 Dia= 816.405
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 160.000 297.715372 0.000 499006.527 4679506.004 183.322545 523.873 228.058990 172.798874 821.744 17.535318 20.208
CIRC. 180.000 281.179793 0.000 498986.857 4679502.714 185.742634 522.335 230.479078 174.300568 816.815 19.037013 20.158
    
```

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-127           X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 187.605 Dia= 816.405
                       Distancia: 129.562 Azimut: 341.102857
BO : BR-128           X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 192.622 Dia= 930.279
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 180.000 281.179793 0.000 498986.857 4679502.714 174.300568 816.815 233.197711 169.885520 931.396 28.782663 20.158
    
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Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 26  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-128           X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 192.622 Dia= 930.279
                       Distancia: 1978.856 Azimut: 191.748449
BO : BR-119           X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 385.406 Dia= 999.557
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 180.000 281.179793 0.000 498986.857 4679502.714 169.885520 931.396 378.137071 9.401349 1145.608 17.652900 20.158
CIRC. 200.000 264.644215 0.000 498968.691 4679494.481 171.248342 930.662 379.499893 8.461377 1134.916 16.712928 20.108
CIRC. 220.000 248.108636 0.000 498953.249 4679481.860 172.568804 935.480 380.820355 7.686745 1120.442 15.938296 20.058
CIRC. 240.000 231.573058 0.000 498941.567 4679465.696 173.738209 945.446 381.989760 7.129767 1103.031 15.381318 20.008
CIRC. 260.000 215.037479 0.000 498934.428 4679447.073 174.667301 959.746 382.918853 6.835284 1083.739 15.086835 19.958
CIRC. 280.000 198.501901 0.000 498932.311 4679427.242 175.295043 977.255 383.546594 6.836514 1063.795 15.088065 19.908
CIRC. 300.000 181.966322 0.000 498935.359 4679407.533 175.591248 996.663 383.842799 7.149931 1044.538 15.401482 19.858
CIRC. 320.000 165.430744 0.000 498943.366 4679389.267 175.554121 1016.599 383.805673 7.769865 1027.334 16.021417 19.808
CIRC. 340.000 148.895165 0.000 498955.796 4679373.670 175.204888 1035.732 383.456440 8.664158 1013.466 16.915709 19.759
CIRC. 360.000 132.359587 0.000 498971.814 4679361.789 174.581623 1052.856 382.833174 9.772724 1004.021 18.024276 19.727
CIRC. 380.000 115.824008 0.000 498990.347 4679354.420 173.733691 1066.944 381.985242 11.010780 999.762 19.262331 19.714
    
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Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 27  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-119           X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 385.406 Dia= 999.557
                       Distancia: 196.129 Azimut: 13.149387
BO : BR-120           X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 385.889 Dia= 803.524
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 380.000 115.824008 0.000 498990.347 4679354.420 11.010780 999.762 397.861392 10.489028 803.771 197.339641 19.714
    
```

Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 28  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-120           X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 385.889 Dia= 803.524
                       Distancia: 225.411 Azimut: 14.986043
BO : BR-121           X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 387.564 Dia= 578.720
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 380.000 115.824008 0.000 498990.347 4679354.420 10.489028 803.771 395.502985 8.739955 579.141 193.753912 19.714
    
```

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-121           X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 387.564 Dia= 578.720
                       Distancia: 202.701 Azimut: 16.426896
BO : BR-122           X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 391.255 Dia= 377.716
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 380.000 115.824008 0.000 498990.347 4679354.420 8.739955 579.141 392.313059 4.632672 378.704 188.205776 19.714
    
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Istram 22.11.11.15 16/11/22 16:45:44 200315 pagina 25  
 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-122           X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 391.255 Dia= 377.716
                       Distancia: 295.638 Azimut: 16.815661
BO : BR-123           X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 413.146 Dia= 92.751
*****
TIPO  PK Estac. Azimut  Dis.Eje  X  Y  Ang.Azimu.  Dis.Redu  Angulo 1-2  Ang.Az(BO)  Dis.R(BO)  Ang1-2(BO)  COTA
-----
CIRC. 380.000 115.824008 0.000 498990.347 4679354.420 4.632672 378.704 387.817011 368.585612 104.822 151.769951 19.714
CIRC. 400.000 99.288430 0.000 499010.150 4679352.059 7.986803 378.313 391.171142 379.604251 94.777 162.788590 19.722
    
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**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720**

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 10 : E2 GLORIETA (PI 5.8 Y 6.0)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 413.146 Dis= 92.751  
 Distancia: 151.518 Azimut: 396.857170  
 BO : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 474.518 Dis=-49.007

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	400.000	99.288430	0.000	499010.150	4679352.059	379.604251	94.777	382.747081	222.250407	65.328	25.393237		19.722
CIRC.	420.000	82.752851	0.000	499029.896	4679354.863	393.094140	93.307	396.236970	202.850900	58.633	5.993730		19.749
CIRC.	440.000	66.217273	0.000	499048.260	4679362.644	5.219504	100.878	8.362334	180.871363	53.176	384.014193		19.796
CIRC.	460.000	49.681694	0.000	499064.009	4679374.880	13.354568	115.303	16.497398	156.403807	49.781	359.546637		19.864
CIRC.	480.000	33.146116	0.000	499076.087	4679390.750	17.411331	133.612	20.554161	130.564565	49.119	333.707394		19.951
CIRC.	483.805	30.000000	0.000	499077.897	4679394.097	17.800483	137.326	20.943313	125.649573	49.326	328.792403		19.970

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 11 : E2 VIAL 1 C-260

pagina 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 0.000 Dis=-846.512  
 Distancia: 1493.392 Azimut: 189.504768  
 BO : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 48.060 Dis= 646.120

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	96.926757	0.000	498831.905	4679423.777	187.442041	846.512	397.937273	392.200130	647.905	2.695362		19.380
RECTA	20.000	96.926757	0.000	498851.882	4679424.743	185.960067	849.711	396.455299	394.163754	646.729	4.658986		19.277
RECTA	40.000	96.926757	0.000	498871.858	4679425.708	184.490000	853.366	394.985232	396.132651	646.171	6.627883		19.319

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 11 : E2 VIAL 1 C-260

pagina 26

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 48.060 Dis= 646.120  
 Distancia: 1231.932 Azimut: 397.920425  
 BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 67.288 Dis=-585.662

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	40.000	96.926757	0.000	498871.858	4679425.708	396.132651	646.171	398.212226	199.890824	586.297	1.970399		19.319
RECTA	60.000	96.926757	0.000	498891.835	4679426.673	398.103068	646.231	0.182643	197.718909	585.707	399.798484		19.369

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 11 : E2 VIAL 1 C-260

pagina 27

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 67.288 Dis=-585.662  
 Distancia: 620.015 Azimut: 183.206140  
 BO : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 88.322 Dis= 113.144

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	60.000	96.926757	0.000	498891.835	4679426.673	197.718909	585.707	14.512769	305.971760	141.307	322.765620		19.369
RECTA	80.000	96.926757	0.000	498911.812	4679427.638	195.545148	585.800	12.339008	307.455272	121.542	324.249132		19.522
RECTA	88.522	96.926757	0.000	498920.324	4679428.049	194.619569	586.047	11.413429	308.244707	113.144	325.038567		19.671

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 12 : E2 VIAL 2 C-260

pagina 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 114.457 Dis= -69.473  
 Distancia: 151.518 Azimut: 196.857170  
 BO : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 114.457 Dis=-184.044

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	296.917748	0.000	499212.276	4679442.324	89.856169	182.061	292.998999	48.565925	249.317	51.708755		19.623
RECTA	20.000	296.917748	0.000	499192.299	4679441.356	88.987198	162.199	292.130028	44.836558	235.217	47.979388		19.523
RECTA	40.000	296.917748	0.000	499172.323	4679440.388	87.875992	142.376	291.018821	40.648139	222.025	43.790969		19.423
RECTA	60.000	296.917748	0.000	499152.346	4679439.420	86.405934	122.610	289.548764	35.953943	209.912	39.096772		19.349
RECTA	80.000	296.917748	0.000	499132.370	4679438.452	84.372431	102.935	287.515260	30.717449	199.076	33.860279		19.421
RECTA	100.000	296.917748	0.000	499112.393	4679437.484	81.382784	83.414	284.525614	24.922610	189.735	28.065439		19.653
RECTA	114.457	296.917748	0.000	499097.954	4679436.785	78.180787	69.473	281.323616	20.394270	184.044	23.537099		19.918

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 13 : E2 RAMAL 3

pagina 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 0.000 Dis= 121.150  
 Distancia: 341.298 Azimut: 175.737002  
 BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 221.752 Dis= -1.302

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	0.000	171.580552	0.000	498928.211	4679905.292	168.602259	121.150	392.865257	379.636771	221.323	3.899769		21.212
CLOT.	20.000	172.911154	0.000	498936.665	4679887.167	169.113730	141.122	393.376728	380.372035	201.472	4.635033		21.403
CIRC.	34.938	174.160491	0.000	498942.702	4679873.503	169.535023	156.028	393.798021	380.919624	186.628	5.182622		21.545
CIRC.	40.000	174.620830	0.000	498944.683	4679868.845	169.687460	161.076	393.950458	381.101292	181.593	5.364290		21.594
CIRC.	60.000	176.439744	0.000	498952.183	4679850.305	170.332160	181.000	394.595158	381.789542	161.680	6.052540		21.784
CIRC.	80.000	178.258657	0.000	498959.149	4679831.559	171.029332	200.890	395.292330	382.415587	141.736	6.678585		21.975
CIRC.	100.000	180.077571	0.000	498965.577	4679812.620	171.764723	220.741	396.027721	382.948734	121.767	7.211732		22.166
CLOT.	104.536	180.490062	0.000	498966.960	4679808.301	171.935760	225.237	396.198758	383.051804	117.236	7.314802		22.209
CLOT.	120.000	181.779417	0.000	498971.471	4679793.509	172.526327	240.549	396.789325	383.340072	101.779	7.603070		22.357
CLOT.	140.000	183.099718	0.000	498976.908	4679774.263	173.287342	260.324	397.550340	383.552302	81.782	7.815300		22.548
CLOT.	160.000	184.028403	0.000	498982.004	4679754.923	174.020309	280.081	398.283307	383.537931	61.782	7.800929		22.738
CIRC.	171.418	184.382995	0.000	498984.806	4679743.854	174.418190	291.359	398.681188	383.384129	50.365	7.647127		22.853
CIRC.	180.000	184.601522	0.000	498986.876	4679735.526	174.705318	299.836	398.968316	383.156557	41.785	7.419556		22.948
CIRC.	200.000	185.110818	0.000	498991.589	4679716.089	175.337864	319.598	399.600663	381.597200	21.798	5.860198		23.192
CLOT.	211.227	185.396718	0.000	498994.167	4679705.162	175.673157	330.694	399.936155	377.727384	10.609	1.990383		23.345
CLOT.	220.000	185.681358	0.000	498996.144	4679696.615	175.926915	339.364	0.189913	345.049180	2.184	369.312178		23.472

Istram 22.11.11.15 16/11/22 16:45:44 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 13 : E2 RAMAL 3

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 221.752 Dis= -1.302  
 Distancia: 283.889 Azimut: 192.194964  
 BO : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 421.699 Dis=-114.219

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	220.000	185.681358	0.000	498996.144	4679696.615	345.049180	2.184	152.854217	391.866423	285.505	399.671460		23.472
CLOT.	240.000	186.788208	0.000	499000.451	4679677.084	190.758772	18.303	398.563809	392.293932	265.590	0.098968		23.769
CLOT.	260.000	188.231679	0.000	499004.319	4679657.462	189.113040	38.291	396.918076	392.675181	245.650	0.480218		23.812
CIRC.	275.227	190.285958	0.000	499006.848	4679642.447	189.188444	53.518	396.993480	392.892943	230.445	0.697980		23.509
CIRC.	280.000	190.893642	0.000	499007.551	4679637.726	189.303177	58.289	397.108214	392.941641	225.675	0.746677		23.354
CIRC.	300.000	193.440121											



PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720

Tetram 22.11.11.15 16/11/22 16:45:44 200315 pagina 1  
PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 15 : E2 RAMAL 2

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 0.000 Dis=-81.676  
Distancia: 283.889 Azimut: 392.194964  
BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 237.023 Dis=-36.444

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	0.000	364.442408	0.000	499084.765	4679476.219	44.183490	81.676	51.988527	175.933948	235.611	383.738985	20.122	
CIRC.	0.000	364.442408	0.000	499084.765	4679476.219	44.183490	81.676	51.988526	175.933948	235.611	383.738985	20.122	
CLOT.	18.979	376.524711	0.000	499076.290	4679493.169	31.960559	90.955	39.765595	176.409926	216.736	384.214963	19.954	
CLOT.	20.000	377.168029	0.000	499075.927	4679494.123	31.420193	91.621	39.225230	176.407855	215.715	384.212891	19.945	
CLOT.	40.000	387.036633	0.000	499070.514	4679513.356	23.131807	106.899	30.936844	175.783641	195.837	383.588678	19.911	
CLOT.	60.000	391.708341	0.000	499067.326	4679533.096	18.019896	124.618	25.824933	174.206685	176.379	382.011722	20.362	
CLOT.	67.979	392.121896	0.000	499066.324	4679541.011	16.489230	131.977	24.294266	173.376866	168.724	381.181902	20.681	
CLOT.	80.000	392.034942	0.000	499064.834	4679552.940	14.490623	143.197	22.295660	171.966563	157.257	379.771599	21.313	
CLOT.	100.000	391.504919	0.000	499062.269	4679572.775	11.750107	162.091	19.555143	169.143414	138.357	376.948451	22.513	
CLOT.	120.000	390.493520	0.000	499059.463	4679592.577	9.503250	181.154	17.308286	165.555337	119.718	373.360373	23.713	
CLOT.	140.000	389.000745	0.000	499056.268	4679612.319	7.565620	200.295	15.370657	160.887408	101.423	368.692445	24.913	
CIRC.	156.146	387.444509	0.000	499053.305	4679628.190	6.142097	215.757	13.947134	155.960124	87.006	363.765160	25.721	
CIRC.	160.000	387.035534	0.000	499052.537	4679631.968	5.814944	219.445	13.619980	154.575603	83.628	362.380639	25.866	
CIRC.	180.000	384.913468	0.000	499048.167	4679651.483	4.178284	238.560	11.983320	145.505839	66.688	353.310875	26.319	
CIRC.	188.432	384.018780	0.000	499046.130	4679659.666	3.514971	246.604	11.320007	140.358780	59.982	348.163817	26.361	
CIRC.	200.000	382.871920	0.000	499043.153	4679670.844	2.628081	257.626	10.433118	131.371151	51.475	339.176187	26.273	
CLOT.	220.000	381.268965	0.000	499037.583	4679690.052	1.164810	276.661	8.969847	108.185680	40.111	315.990716	25.896	

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PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 15 : E2 RAMAL 2

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 237.023 Dis=-36.444  
Distancia: 341.298 Azimut: 375.737002  
BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 405.304 Dis=-180.653

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CLOT.	220.000	381.268965	0.000	499037.583	4679690.052	108.185680	40.111	132.448678	169.579637	362.563	393.842635	25.896	
CLOT.	240.000	380.147385	0.000	499031.602	4679709.136	75.094511	36.562	99.357509	168.936125	342.884	393.199123	25.511	
CIRC.	255.439	379.610810	0.000	499026.798	4679723.809	50.421455	40.737	74.684453	168.424181	327.682	392.687180	25.214	
CIRC.	260.000	379.494663	0.000	499025.358	4679728.137	44.346746	42.947	68.609744	168.267926	323.191	392.530924	25.127	
CIRC.	280.000	378.985367	0.000	499018.951	4679747.083	24.638672	56.032	48.901670	167.548466	303.507	391.811465	24.742	
CIRC.	300.000	378.476071	0.000	499012.393	4679765.977	12.941193	72.270	37.204191	166.764557	283.836	391.027555	24.357	
CIRC.	320.000	377.966776	0.000	499005.684	4679784.818	5.583599	89.968	29.846597	165.901866	264.184	390.164864	23.973	
CLOT.	335.478	377.572631	0.000	499000.388	4679799.362	1.579583	104.199	25.842581	165.168374	248.990	389.431372	23.675	
CLOT.	340.000	377.453089	0.000	498998.824	4679803.604	0.599486	108.414	24.862485	164.941531	244.555	389.204529	23.588	
CLOT.	360.000	376.819050	0.000	498995.799	4679822.330	396.995584	127.277	21.258582	163.862670	224.954	388.125668	23.203	
CLOT.	380.000	376.013214	0.000	498984.562	4679840.975	394.233516	146.380	18.496514	162.646680	205.380	386.909678	22.819	
CLOT.	400.000	375.035579	0.000	498977.065	4679859.516	392.007898	165.625	16.270896	161.268558	185.832	385.531556	22.434	
CIRC.	405.304	374.747495	0.000	498975.027	4679864.413	391.482612	170.744	15.745610	160.871607	180.653	385.134605	22.332	
CIRC.	405.304	374.747495	0.000	498975.027	4679864.413	391.482612	170.744	15.745610	160.871607	180.653	385.134605	22.332	

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PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 16 : E2 RAMAL 4

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 0.000 Dis=-37.668  
Distancia: 283.889 Azimut: 192.194964  
BO : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 17.198 Dis=-93.428

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	0.000	144.125717	0.000	498952.424	4679360.591	208.581521	337.668	16.386558	262.871140	95.960	270.676176	19.604	

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PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 16 : E2 RAMAL 4

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 17.198 Dis=-93.428  
Distancia: 151.518 Azimut: 196.857170  
BO : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 118.627 Dis=-33.982

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	0.000	144.125717	0.000	498952.424	4679360.591	262.871140	95.960	66.013970	353.729431	131.791	356.872261	19.604	
CIRC.	0.000	144.125717	0.000	498952.424	4679360.591	262.871140	95.960	66.013969	353.729431	131.791	356.872261	19.604	
CIRC.	20.000	152.613980	0.000	498966.913	4679346.825	249.516959	93.496	52.659788	354.685643	111.889	357.828473	19.419	
CIRC.	40.000	161.102244	0.000	498979.443	4679331.256	236.507985	97.831	39.650815	354.213384	91.918	357.356214	19.336	
CIRC.	60.000	169.590507	0.000	498989.792	4679314.159	225.874314	108.882	29.017144	351.151386	72.321	354.294216	19.721	
CIRC.	80.000	178.078771	0.000	498997.777	4679295.839	218.288440	122.624	21.431270	342.916495	54.043	346.059325	20.605	
CLOT.	94.172	184.093548	0.000	499001.924	4679282.293	214.591708	134.666	17.734537	331.038514	43.095	334.181343	21.451	
CLOT.	100.000	186.468970	0.000	499003.258	4679276.620	213.414074	139.912	16.556904	323.953912	39.503	327.096742	21.801	

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PROYECTO :  
C.R.S. : ETR889 (HUSO 31)  
EJE : 16 : E2 RAMAL 4

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 118.627 Dis=-33.982  
Distancia: 295.638 Azimut: 216.815661  
BO : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 404.449 Dis=-7.464

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CLOT.	100.000	186.468970	0.000	499003.258	4679276.620	323.953912	39.503	107.138251	8.534083	302.616	391.718421	21.801	
CLOT.	120.000	193.129310	0.000	499006.388	4679256.875	290.174780	34.014	73.359119	9.823160	283.525	393.007498	23.001	
CIRC.	130.922	195.791436	0.000	499007.327	4679245.995	270.836360	36.426	54.020699	10.429725	272.930	393.614063	23.580	
CIRC.	140.000	197.717851	0.000	499007.790	4679236.929	257.763544	40.880	40.947883	10.896220	264.068	394.080559	23.948	
CIRC.	160.000	201.961983	0.000	499007.840	4679216.932	239.385812	55.449	22.570151	11.796324	244.397	394.980662	24.395	
CIRC.	180.000	206.206114	0.000	499006.558	4679196.977	230.198379	73.210	13.382718	12.481409	224.560	395.665748	24.560	
CLOT.	189.909	208.308934	0.000	499005.431	4679187.133	227.503300	82.556	10.687639	12.722247	214.686	395.906586	24.641	
CLOT.	200.000	210.296092	0.000	499003.958	4679177.151	225.542579	92.282	8.726918	12.889544	204.611	396.073882	24.724	
CLOT.	220.000	213.323564	0.000	499000.238	4679157.501	223.124464	111.904	6.308803	12.995564	184.616	396.179903	24.887	
CLOT.	240.000	215.139869	0.000	498995.773	4679138.007	221.793948	131.742	4.978287	12.833138	164.621	396.017476	25.051	
RECTA	259.993	215.745007	0.000	498990.941	4679118.600	220.971207	151.651	4.155546	12.458667	144.649	395.643006	25.218	
RECTA	260.000	215.745007	0.000	498990.939	4679118.600	220.970953	151.658	4.155292	12.458500	144.642	395.642839	25.218	
RECTA	280.000	215.745007	0.000	498986.043	4679099.209	220.362538	171.599	3.546877	11.931507	124.673	395.115846	25.408	
RECTA	300.000	215.745007	0.000	498981.146	4679079.817	219.880837	191.552	3.065176	11.203573	104.716	394.387912	25.624	
RECTA	320.000	215.745007	0.000	498976.250	4679060.426	219.490039	211.513	2.674378	10.133066	84.778	393.317405	25.857	
RECTA	340.000	215.745007	0.000	498971.354	4679041.034	219.166654	231.482	2.350993	8.405149	64.880	391.589488	26.049	
RECTA	360.000	215.745007	0.000	498966.458	4679021.643	218.894636	251.455	2.078975	5.153966	45.072	388.338305	26.188	
RECTA	380.000	215.745007	0.000	498961.562	4679002.251	218.662656	271.432	1.846995					

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES - PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 16 : E2 RAMAL 4

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-122		X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 404.449				Dis: -7.464						
BO	BR-121		X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 607.077				Dis: -7.000						
RECTA	400.000	215.745007	0.000	498956.666	4678982.860	349.967150	8.689	133.540254	14.118723	207.206	397.691827	26.355	
CIRC.	418.223	215.745007	0.000	498952.205	4678965.192	247.359527	15.666	30.932631	13.961932	188.990	397.535036	26.426	
CIRC.	420.000	215.777335	0.000	498951.769	4678963.469	244.234431	17.249	27.807535	13.944852	187.213	397.517956	26.433	
CIRC.	440.000	216.141118	0.000	498946.808	4678944.094	229.035441	36.340	12.608545	13.703973	167.224	397.277077	26.511	
RECTA	453.078	216.378995	0.000	498943.504	4678931.440	225.662421	49.224	9.235525	13.487187	154.158	397.060291	26.562	
RECTA	460.000	216.378995	0.000	498941.742	4678924.746	224.520582	56.082	8.093686	13.351287	147.243	396.924391	26.589	
RECTA	480.000	216.378995	0.000	498936.653	4678905.404	222.382405	75.961	5.955508	12.875667	127.269	396.448771	26.667	
RECTA	500.000	216.378995	0.000	498931.564	4678886.063	221.132046	95.891	4.705150	12.232020	107.305	395.796124	26.745	
RECTA	520.000	216.378995	0.000	498926.475	4678866.721	220.312196	115.845	3.885300	11.272177	87.358	394.845280	26.823	
RECTA	540.000	216.378995	0.000	498921.386	4678847.379	219.733345	135.812	3.306449	9.759204	67.441	393.332308	26.901	
RECTA	560.000	216.378995	0.000	498916.297	4678828.037	219.302911	155.788	2.876015	8.981581	47.594	390.554685	26.979	
RECTA	580.000	216.378995	0.000	498911.208	4678808.696	218.970328	175.769	2.543432	8.273199	27.967	383.846303	27.062	
RECTA	600.000	216.378995	0.000	498906.119	4678789.354	218.705647	195.755	2.278751	7.625725	9.954	350.298829	27.163	
CLOT.	607.725	216.378995	0.000	498904.153	4678781.883	218.617336	203.474	2.190440	7.021213	7.030	294.075227	27.206	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 16 : E2 RAMAL 4

\*\*\*\*\*  
 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-121		X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 607.077				Dis: -7.000						
BO	BR-120		X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 728.301				Dis: -104.523						
RECTA	600.000	216.378995	0.000	498906.119	4678789.354	219.733345	9.954	151.739682	13.113817	232.739	398.127774	27.163	
CLOT.	607.725	216.378995	0.000	498904.153	4678781.883	219.502123	7.030	95.516080	13.001776	225.025	398.015733	27.206	
CLOT.	620.000	215.899367	0.000	498901.060	4678770.005	247.865061	14.683	32.879019	12.816237	212.767	397.830194	27.281	
CIRC.	627.725	215.105755	0.000	498899.193	4678762.509	236.818907	21.759	21.832864	12.713874	205.049	397.727831	27.332	
CIRC.	640.000	213.542833	0.000	498896.455	4678750.543	228.736321	33.546	13.750279	12.611344	192.778	397.625301	27.418	
CLOT.	659.615	211.045327	0.000	498892.691	4678731.294	222.680930	52.748	7.694887	12.647279	173.165	397.661237	27.565	
CLOT.	660.000	210.996825	0.000	498892.624	4678730.915	222.596983	53.126	7.610941	12.650899	172.780	397.664857	27.568	
CLOT.	679.615	209.772087	0.000	498889.501	4678711.550	219.255919	72.469	4.269876	12.967180	153.182	397.981137	27.715	
CLOT.	680.000	209.772558	0.000	498889.442	4678711.170	219.206032	72.849	4.219989	12.975219	152.798	397.989176	27.718	
CIRC.	699.615	211.045327	0.000	498886.311	4678691.806	217.299437	92.310	2.313394	13.383050	133.204	398.397007	27.865	
CIRC.	700.000	211.094300	0.000	498886.245	4678691.428	217.273628	92.693	2.287585	13.389747	132.819	398.403705	27.868	
CIRC.	720.000	213.640779	0.000	498882.384	4678671.805	216.403431	112.643	1.417388	13.570932	112.824	398.594889	28.018	
CIRC.	728.301	214.697745	0.000	498880.552	4678663.708	216.250108	120.939	1.264066	13.523413	104.523	398.537370	28.080	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 19 : E2 RAMAL 5

\*\*\*\*\*  
 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-125		X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 0.000				Dis: 240.183						
BO	BR-124		X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 1.623				Dis: -116.646						
CIRC.	0.000	226.756524	0.000	498928.035	4679465.368	329.364724	240.183	26.567831	329.364724	116.679	337.169760	19.863	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 19 : E2 RAMAL 5

\*\*\*\*\*  
 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-124		X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 1.623				Dis: -116.646						
BO	BR-123		X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 31.112				Dis: -222.260						
CIRC.	0.000	226.756524	0.000	498928.035	4679465.368	329.364724	116.679	132.507553	367.947812	232.060	371.090642	19.863	
CIRC.	0.000	226.756524	0.000	498928.035	4679465.368	329.364723	116.679	132.507553	367.947812	232.060	371.090642	19.863	
CIRC.	20.000	247.977183	0.000	498917.010	4679448.793	318.909286	120.801	122.052115	362.915169	223.559	366.057998	19.610	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 19 : E2 RAMAL 5

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-123		X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 31.112				Dis: -222.260						
BO	BR-122		X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 58.663				Dis: -460.887						
CIRC.	20.000	247.977183	0.000	498917.010	4679448.793	362.915169	223.559	146.099508	393.842465	474.291	377.026804	19.610	
CIRC.	40.000	269.197842	0.000	498901.168	4679436.737	357.239943	223.093	140.424282	391.519463	464.130	374.703802	19.437	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 19 : E2 RAMAL 5

\*\*\*\*\*  
 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-122		X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 58.663				Dis: -460.887						
BO	BR-121		X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 607.077				Dis: -7.000						
CIRC.	40.000	269.197842	0.000	498901.168	4679436.737	357.239943	223.093	140.424282	391.519463	464.130	374.703802	19.437	
CIRC.	60.000	290.418501	0.000	498882.253	4679430.528	397.176882	650.439	182.190839	1.738635	869.317	386.752593	19.308	
RECTA	66.134	296.926757	0.000	498876.153	4679429.920	396.577402	650.130	181.591359	1.292842	868.564	386.306799	19.268	
RECTA	66.134	296.926757	0.000	498876.153	4679429.920	396.577402	650.130	181.591359	1.292842	868.564	386.306799	19.268	

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 21 : E2 RAMAL 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-121      X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 0.000 Dis=-192.812
BO : BR-122      X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 11.589 Dis=-24.515
                  Distancia: 202.701 Azimut: 16.426896
                  11.589 Dis=-24.515

TIPO PK Estac. Azimut Dis.Eje X Y Ang.Azimu. Dis.Redu Angulo 1-2 Ang.Az(BO) Dis.R(BO) Ang1-2(BO) COTA
-----
RECTA 0.000 15.808827 0.000 498983.674 4678959.357 24.571651 192.812 8.144755 144.189310 27.141 327.762414 25.951

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 21 : E2 RAMAL 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-122      X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 11.589 Dis=-24.515
BO : BR-123      X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 309.530 Dis=-21.151
                  Distancia: 295.638 Azimut: 16.815661
                  309.530 Dis=-21.151

TIPO PK Estac. Azimut Dis.Eje X Y Ang.Azimu. Dis.Redu Angulo 1-2 Ang.Az(BO) Dis.R(BO) Ang1-2(BO) COTA
-----
RECTA 0.000 15.808827 0.000 498983.674 4678959.357 144.189310 27.141 127.373649 211.710025 307.942 394.894364 25.951
CIRC. 0.000 15.808827 0.000 498983.674 4678959.357 144.188666 27.141 127.373005 211.710021 307.942 394.894360 25.951
CIRC. 20.000 16.318115 0.000 498988.667 4678978.723 95.074408 25.931 78.258746 211.407930 287.992 394.592269 25.975
CIRC. 40.000 16.827410 0.000 498993.815 4678998.049 61.633898 37.631 44.818237 211.023007 268.063 394.207345 25.999
CIRC. 60.000 17.336706 0.000 498999.117 4679017.334 46.436024 54.475 29.620363 210.535423 248.161 393.719762 26.023
CIRC. 80.000 17.846002 0.000 499004.573 4679036.575 38.780921 72.984 21.965260 209.918536 228.294 393.102875 26.047
CIRC. 100.000 18.355298 0.000 499010.184 4679055.772 34.367977 92.159 17.552316 209.135729 208.475 392.320068 26.071
CIRC. 120.000 18.864594 0.000 499015.947 4679074.923 31.573250 111.657 14.757589 208.135339 188.719 391.319678 26.096
CIRC. 140.000 19.373970 0.000 499019.511 4679086.497 30.350647 123.555 13.534986 207.393480 176.798 390.577819 26.110
CIRC. 160.000 19.883410 0.000 499021.850 4679094.032 29.681768 131.331 12.866107 206.847420 169.049 390.031759 26.120
CIRC. 180.000 20.392866 0.000 499027.716 4679113.153 28.267535 151.085 11.451874 205.237655 149.457 388.421994 26.144
CIRC. 200.000 20.902316 0.000 499033.368 4679132.337 27.098534 170.866 10.282872 203.249966 129.936 386.434305 26.168
CIRC. 220.000 21.411785 0.000 499039.970 4679151.622 26.052013 190.644 9.236352 200.765298 110.490 383.949636 26.192
CIRC. 240.000 21.921254 0.000 499043.585 4679171.008 25.082540 210.410 8.266878 197.494337 91.167 380.678675 26.216
CIRC. 260.000 22.430723 0.000 499048.112 4679190.488 24.170213 230.159 7.354552 192.817668 72.074 376.002007 26.240
CIRC. 280.000 22.940192 0.000 499052.248 4679210.056 23.301445 249.889 6.485784 185.283947 53.471 368.468286 26.194
CIRC. 299.868 11.997420 0.000 499054.145 4679219.740 22.885771 259.617 6.070110 179.481961 44.664 362.666300 26.015
CIRC. 280.000 11.381541 0.000 499055.994 4679229.701 22.466997 269.597 5.651335 170.806558 36.136 353.990897 25.703
CIRC. 300.000 10.336702 0.000 499059.383 4679249.412 21.667623 289.287 4.851962 136.904410 23.171 320.088749 24.713

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 21 : E2 RAMAL 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-123      X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 309.530 Dis=-21.151
BO : BR-124      X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 436.607 Dis=-61.061
                  Distancia: 151.518 Azimut: 396.857170
                  436.607 Dis=-61.061

TIPO PK Estac. Azimut Dis.Eje X Y Ang.Azimu. Dis.Redu Angulo 1-2 Ang.Az(BO) Dis.R(BO) Ang1-2(BO) COTA
-----
CLOT. 300.000 10.336702 0.000 499059.383 4679249.412 136.904410 23.171 140.047240 189.665874 166.210 392.808704 24.713
CLOT. 320.000 9.518771 0.000 499062.484 4679269.170 80.616575 23.570 83.759405 186.963467 147.346 390.106297 23.338
CLOT. 340.000 8.927749 0.000 499065.365 4679288.961 48.184068 36.943 51.326898 183.576470 128.736 386.719300 21.938
CLOT. 360.000 8.563635 0.000 499068.098 4679308.774 34.502799 54.476 37.645628 179.140081 110.545 382.282910 20.632
CLOT. 380.000 8.426430 0.000 499070.753 4679328.597 27.580234 73.261 30.723063 173.046597 93.057 376.189426 19.790
CLOT. 382.093 8.425187 0.000 499071.029 4679330.672 27.055437 75.263 30.198266 172.276346 91.285 375.419176 19.730
CLOT. 400.000 11.260303 0.000 499073.655 4679348.383 23.678506 92.612 26.821336 164.104855 76.968 367.247685 19.447
CLOT. 420.000 21.130221 0.000 499078.504 4679367.766 22.247967 112.459 25.390797 149.783486 64.810 352.926316 19.577
CIRC. 424.446 24.285610 0.000 499080.055 4679371.932 22.264351 116.905 25.407181 145.695815 63.104 348.838645 19.630

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 21 : E2 RAMAL 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-124      X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 436.607 Dis=-61.061
BO : BR-125      X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 437.527 Dis=-323.744
                  Distancia: 283.889 Azimut: 392.194964
                  437.527 Dis=-323.744

TIPO PK Estac. Azimut Dis.Eje X Y Ang.Azimu. Dis.Redu Angulo 1-2 Ang.Az(BO) Dis.R(BO) Ang1-2(BO) COTA
-----
CLOT. 420.000 21.130221 0.000 499078.504 4679367.766 149.783486 64.810 157.588523 184.615935 337.228 392.420972 19.577
CIRC. 424.446 24.285610 0.000 499080.055 4679371.932 145.695815 63.104 153.500852 184.138294 333.563 391.943330 19.630
CIRC. 437.527 34.082166 0.000 499085.837 4679383.651 132.434450 61.073 140.239487 182.467893 323.744 390.272930 19.788

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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*****
* * * DATOS PARA REPLANTEO DE PUNTOS * * *
*****
BR : BR-128      X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 11.218 Dis=-148.672
BO : BR-129      X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 42.667 Dis=-159.430
                  Distancia: 204.936 Azimut: 336.780413
                  42.667 Dis=-159.430

TIPO PK Estac. Azimut Dis.Eje X Y Ang.Azimu. Dis.Redu Angulo 1-2 Ang.Az(BO) Dis.R(BO) Ang1-2(BO) COTA
-----
CIRC. 0.000 0.000000 0.000 498429.857 4680258.782 267.956491 151.446 331.176077 186.767638 189.042 49.987225 19.850
CIRC. 20.000 351.029248 0.000 498422.536 4680276.867 276.180364 150.388 339.399951 188.053475 169.870 51.273062 19.948
CIRC. 40.000 302.058497 0.000 498404.697 4680284.768 281.550017 164.691 344.769604 194.467584 159.589 57.687170 19.992

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**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 42.667 Dis= 159.430  
 Distancia: 162.141 Azimut: 334.042174  
 BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 54.309 Dis= 282.014

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	40.000	302.058497	0.000	498404.697	4680284.768	194.467584	159.589	260.425410	163.995456	286.177	29.953282	19.992	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 54.309 Dis= 282.014  
 Distancia: 274.347 Azimut: 334.919738  
 BO : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 60.477 Dis= 538.012

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	40.000	302.058497	0.000	498404.697	4680284.768	163.995456	286.177	229.075718	149.769850	545.979	14.850112	19.992	
CIRC.	60.000	253.087745	0.000	498386.385	4680278.036	168.292941	282.691	233.373204	151.862162	538.017	16.942424	19.955	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 60.477 Dis= 538.012  
 Distancia: 238.957 Azimut: 337.985009  
 BO : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 62.167 Dis= 772.954

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	60.000	253.087745	0.000	498386.385	4680278.036	151.862162	538.017	213.877153	147.603312	773.048	9.618303	19.955	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 62.167 Dis= 772.954  
 Distancia: 207.464 Azimut: 340.667243  
 BO : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 62.765 Dis= 979.391

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	60.000	253.087745	0.000	498386.385	4680278.036	147.603312	773.048	206.936068	146.137045	979.542	5.469801	19.955	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 62.765 Dis= 979.391  
 Distancia: 1823.946 Azimut: 147.220517  
 BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 143.624 Dis= 792.781

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	60.000	253.087745	0.000	498386.385	4680278.036	146.137045	979.542	398.916527	348.476953	844.711	1.256436	19.955	
CIRC.	80.000	204.116993	0.000	498377.911	4680260.462	147.350549	985.027	0.130032	347.067840	838.923	399.847322	19.858	
CIRC.	100.000	155.146241	0.000	498384.047	4680241.941	147.952454	1002.127	0.731936	346.328143	821.966	399.107626	19.759	
CIRC.	120.000	106.175490	0.000	498401.339	4680232.904	147.626050	1020.936	0.405533	346.704956	803.057	399.484439	19.709	
CIRC.	140.000	57.204738	0.000	498420.048	4680238.438	146.589679	1031.021	399.369162	348.040670	793.041	0.820152	19.739	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 143.624 Dis= 792.781  
 Distancia: 341.298 Azimut: 375.737002  
 BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 150.723 Dis= 502.190

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	140.000	57.204738	0.000	498420.048	4680238.438	348.040670	793.041	372.303668	329.633168	504.478	153.896166	19.739	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 22 : E3 GLORIETA 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 150.723 Dis= 502.190  
 Distancia: 316.961 Azimut: 355.263555  
 BO : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 162.876 Dis= 236.192

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	140.000	57.204738	0.000	498420.048	4680238.438	329.633168	504.478	374.369613	296.010180	246.439	140.746624	19.739	
CIRC.	160.000	8.233986	0.000	498429.640	4680255.428	332.095773	503.909	376.832218	300.418872	236.369	145.155317	19.833	
CIRC.	163.363	0.000000	0.000	498429.857	4680258.782	332.478886	505.348	377.215330	301.323120	236.197	146.059565	19.850	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 24 : E3 RAMAL 4

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 0.000 Dis=-830.346  
 Distancia: 1823.946 Azimut: 347.220517  
 BO : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 97.904 Dis=-928.124

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	327.473612	0.000	498418.078	4680289.664	350.799387	830.346	3.578869	144.237377	996.005	397.016860	19.904	
CIRC.	0.000	327.473611	0.000	498418.078	4680289.664	350.799387	830.346	3.578869	144.237377	996.005	397.016860	19.904	
CIRC.	20.000	350.623421	0.000	498401.814	4680301.114	350.525944	849.906	3.305427	144.342985	976.182	397.122468	19.684	
CIRC.	40.000	373.773231	0.000	498390.686	4680317.599	350.791469	869.470	3.570951	143.976762	957.085	396.756245	19.657	
CIRC.	60.000	396.923041	0.000	498386.148	4680336.965	351.529249	886.561	4.308731	143.162816	941.327	395.942299	20.151	
CIRC.	80.000	20.072851	0.000	498388.795	4680356.678	352.627933	899.138	5.407415	141.999590	931.179	394.779073	21.171	

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES - PONT DE MOLINS  
Clave: 12-GI-3720

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 24 : E3 RAMAL 4

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-133	X:	497653.016	Y:	4680927.399	Z:	26.641	PK:	97.904	Dis=-928.124				
										Distancia:	207.464	Azmut:	140.667243
BO : BR-132	X:	497819.571	Y:	4680803.702	Z:	25.258	PK:	97.934	Dis=-720.660				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	80.000	20.072851	0.000	498388.795	4680356.678	141.999590	931.179	1.332347	142.381472	723.773	201.714229	21.171	

Istram 22.11.11.15 16/11/22 16:45:45 200315 pagina 37  
PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 24 : E3 RAMAL 4

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-132	X:	497819.571	Y:	4680803.702	Z:	25.258	PK:	97.934	Dis=-720.660				
										Distancia:	238.957	Azmut:	137.985009
BO : BR-131	X:	498017.239	Y:	4680669.435	Z:	22.535	PK:	99.028	Dis=-482.049				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	80.000	20.072851	0.000	498388.795	4680356.678	142.381472	723.773	4.396464	144.543311	485.666	206.558302	21.171	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 24 : E3 RAMAL 4

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-131	X:	498017.239	Y:	4680669.435	Z:	22.535	PK:	99.028	Dis=-482.049				
										Distancia:	274.347	Azmut:	134.919738
BO : BR-130	X:	498251.339	Y:	4680526.384	Z:	22.774	PK:	105.419	Dis=-211.239				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	80.000	20.072851	0.000	498388.795	4680356.678	144.543311	485.666	9.623573	156.659681	218.391	221.739943	21.171	
CIRC.	100.000	43.222661	0.000	498398.281	4680374.160	141.969587	482.058	7.049849	151.123896	211.575	216.204158	22.471	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 24 : E3 RAMAL 4

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-130	X:	498251.339	Y:	4680526.384	Z:	22.774	PK:	105.419	Dis=-211.239				
										Distancia:	162.141	Azmut:	134.042174
BO : BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:	124.330	Dis=-60.618				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	100.000	43.222661	0.000	498398.281	4680374.160	151.123896	211.575	17.081722	193.224668	69.991	259.182495	22.471	
CIRC.	120.000	66.372470	0.000	498413.364	4680387.126	145.198442	213.647	11.156268	175.905777	60.942	241.863603	23.771	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 24 : E3 RAMAL 4

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:	124.330	Dis=-60.618				
										Distancia:	204.936	Azmut:	136.780413
BO : BR-128	X:	498562.520	Y:	4680331.832	Z:	26.791	PK:	226.930	Dis=-62.887				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	120.000	66.372470	0.000	498413.364	4680387.126	175.905777	60.942	39.125363	322.600305	159.075	385.819892	23.771	

CIRC.	126.562	73.967662	0.000	498419.215	4680390.087	169.043012	60.705	32.262599	324.580416	154.693	387.800002	24.198
CIRC.	140.000	87.622040	0.000	498432.042	4680394.009	155.968275	64.589	19.187862	328.310091	144.536	391.529678	24.980
CIRC.	145.974	92.471489	0.000	498437.942	4680394.933	151.145818	67.835	14.365405	329.847626	139.647	393.067212	25.255

CIRC.	160.000	102.976810	0.000	498451.943	4680395.433	142.600318	77.897	5.819905	333.229587	127.563	396.449174	25.727
CIRC.	179.720	117.746560	0.000	498471.359	4680392.245	136.233176	95.581	399.452763	337.258690	109.362	0.478277	26.039
CIRC.	180.000	117.955509	0.000	498471.628	4680392.168	136.180264	95.849	399.399851	337.307693	109.095	0.527280	26.042

CIRC.	200.000	129.836901	0.000	498490.150	4680384.700	134.155070	115.537	397.374656	340.165487	89.623	3.385073	26.299
CIRC.	220.000	135.691124	0.000	498507.475	4680374.721	134.023972	135.528	397.243559	342.138583	69.781	5.358169	26.555
CIRC.	226.930	136.313575	0.000	498513.322	4680371.003	134.123125	142.455	397.342712	342.807100	62.887	6.026687	26.644
CIRC.	226.930	136.313575	0.000	498513.322	4680371.003	134.123125	142.455	397.342712	342.807100	62.887	6.026687	26.644

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 25 : E3 RAMAL 3

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-130	X:	498251.339	Y:	4680526.384	Z:	22.774	PK:	105.419	Dis=-211.239				
										Distancia:	162.141	Azmut:	134.042174
BO : BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:	124.330	Dis=-60.618				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
RECTA	0.000	133.997734	0.000	498338.832	4680475.925	133.303114	101.000	399.260940	335.262730	61.159	1.220556	24.462	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 25 : E3 RAMAL 3

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-129	X:	498390.846	Y:	4680443.755	Z:	24.595	PK:	124.330	Dis=-60.618				
										Distancia:	204.936	Azmut:	136.780413
BO : BR-128	X:	498562.520	Y:	4680331.832	Z:	26.791	PK:	226.930	Dis=-62.887				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	40.000	154.369567	0.000	498370.755	4680452.127	325.134697	21.765	188.354284	335.666882	226.373	398.886468	24.636	
CIRC.	45.455	160.304336	0.000	498374.146	4680447.857	315.332774	17.196	178.552361	335.144524	221.238	398.364110	24.660	
CIRC.	60.000	177.140561	0.000	498380.988	4680435.069	254.017472	13.138	117.237059	332.918778	208.834	396.138364	24.722	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 25 : E3 RAMAL 3

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-128	X:	498562.520	Y:	4680331.832	Z:	26.791	PK:	226.930	Dis=-62.887				
										Distancia:	129.562	Azmut:	141.102857
BO : BR-127	X:	498666.003	Y:	4680253.873	Z:	27.136	PK:	207.028	Dis=-287.352				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	180.000	179.360793	0.000	498374.731	4680317.323	295.091199	188.349	153.988342	313.654699	298.103	372.551842	19.852	

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 25 : E3 RAMAL 3

* * * DATOS PARA REPLANTEO DE PUNTOS * * *													
BR : BR-127	X:	498666.003	Y:	4680253.873	Z:	27.136	PK:	207.028	Dis=-287.352				
										Distancia:	316.961	Azmut:	155.263555
BO : BR-126	X:	498870.853	Y:	4680012.004	Z:	22.802	PK:	218.073	Dis=-561.756				
TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
CIRC.	200.000	193.444516	0.000	498381.224	4680298.505	309.896942	288.256	154.633387	333.703963	567.292	378.440407	19.643	

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 25 : E3 RAMAL 3

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 218.073 Dis=-561.756  
 Distancia: 341.298 Azimut: 175.737002  
 BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 221.376 Dis=-852.416

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	200.000	193.444516	0.000	498381.224	4680298.505	333.703963	567.292	157.966961	349.307558	862.643	373.570556		19.643
CIRC.	220.000	235.885834	0.000	498376.741	4680279.392	331.577769	561.821	155.840767	348.053410	852.645	372.316408		19.840
CIRC.	221.376	238.804961	0.000	498375.980	4680278.247	331.422582	561.947	155.685580	347.952133	852.416	372.215131		19.856

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 26 : E3 VIAL 2 N-260

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 0.000 Dis=-549.852  
 Distancia: 436.479 Azimut: 134.593753  
 BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 71.689 Dis=-204.589

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	68.474309	0.000	498312.620	4680205.660	163.896329	549.852	29.302576	220.208800	250.616	285.615047		18.732
RECTA	20.000	68.474309	0.000	498330.217	4680215.164	161.593734	551.650	26.999981	216.504905	236.494	281.911152		18.777
RECTA	40.000	68.474309	0.000	498347.815	4680224.669	159.309063	554.164	24.715310	212.346788	223.272	277.753035		18.997
RECTA	60.000	68.474309	0.000	498365.412	4680234.173	157.047910	557.385	22.454158	207.688062	211.120	273.094309		19.379
RECTA	71.689	68.474309	0.000	498375.697	4680239.728	155.739334	559.590	21.145581	204.718097	204.589	270.124344		19.613

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 27 : E3 VIAL 1 N-260 (PI 7.0)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 0.000 Dis=-314.411  
 Distancia: 162.141 Azimut: 134.042174  
 BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 42.960 Dis=-172.680

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	68.366898	0.000	498435.397	4680271.478	160.187012	314.411	26.144838	183.898811	177.944	249.847638		19.740
RECTA	20.000	68.366898	0.000	498452.978	4680281.012	156.208449	317.594	22.166276	176.782188	174.200	242.740015		19.340
RECTA	40.000	68.366898	0.000	498470.560	4680290.546	152.323646	321.989	18.281473	169.458044	172.706	235.415870		19.037

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 27 : E3 VIAL 1 N-260 (PI 7.0)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 42.960 Dis=-172.680  
 Distancia: 204.936 Azimut: 136.780413  
 BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 140.520 Dis=-7.544

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	40.000	68.366898	0.000	498470.560	4680290.546	169.458044	172.706	32.677631	273.135776	100.803	336.355363		19.037
RECTA	60.000	68.366898	0.000	498488.141	4680300.080	162.105027	173.519	25.324613	274.314096	80.873	337.533682		18.953
RECTA	80.000	68.366898	0.000	498505.723	4680309.614	154.915192	176.608	18.134778	276.261836	60.988	339.481423		18.993
RECTA	100.000	68.366898	0.000	498523.304	4680319.148	148.056326	181.857	11.275913	280.085300	41.216	343.304887		19.033
RECTA	120.000	68.366898	0.000	498540.885	4680328.682	141.651679	189.086	4.871265	290.795248	21.863	354.014835		19.071
RECTA	140.000	68.366898	0.000	498558.467	4680338.216	135.773104	198.079	398.992691	363.985547	7.562	27.205133		19.091

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 27 : E3 VIAL 1 N-260 (PI 7.0)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 140.520 Dis=-7.544  
 Distancia: 129.562 Azimut: 141.102857  
 BO : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 194.326 Dis=-125.405

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	140.000	68.366898	0.000	498558.467	4680338.216	363.985547	7.562	222.882690	342.341971	136.667	1.239114		19.091
RECTA	160.000	68.366898	0.000	498576.048	4680347.750	44.844816	20.890	303.741959	351.357924	130.018	10.255067		19.092
RECTA	180.000	68.366898	0.000	498593.629	4680357.284	56.346989	40.194	315.244131	361.125703	126.221	20.022846		19.072

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 27 : E3 VIAL 1 N-260 (PI 7.0)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 194.326 Dis=-125.405  
 Distancia: 649.779 Azimut: 165.882042  
 BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 219.682 Dis=-774.689

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	180.000	68.366898	0.000	498593.629	4680357.284	361.125703	126.221	195.243662	365.108802	775.705	399.226761		19.072
RECTA	200.000	68.366898	0.000	498611.211	4680366.818	371.245355	125.533	205.363314	366.749852	774.939	0.867810		19.035

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 27 : E3 VIAL 1 N-260 (PI 7.0)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 219.682 Dis=-774.689  
 Distancia: 341.298 Azimut: 375.737002  
 BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 259.106 Dis=-435.676

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	200.000	68.366898	0.000	498611.211	4680366.818	366.749852	774.939	391.012850	359.782690	439.667	184.045688		19.035
RECTA	220.000	68.366898	0.000	498628.792	4680376.351	368.393054	774.689	392.656052	362.668003	437.427	186.931001		18.995
RECTA	240.000	68.366898	0.000	498646.374	4680385.885	370.036220	774.955	394.292218	365.576967	436.094	189.839965		18.955
RECTA	260.000	68.366898	0.000	498663.955	4680395.419	371.677166	775.737	395.940164	368.497627	435.677	192.760625		18.915
RECTA	280.000	68.366898	0.000	498681.536	4680404.953	373.313721	777.034	397.576719	371.417738	436.176	195.680736		18.912
RECTA	300.000	68.366898	0.000	498699.118	4680414.487	374.943753	778.841	399.206751	374.325067	437.591	198.588065		19.003
RECTA	306.318	68.366898	0.000	498704.671	4680417.499	375.456958	779.518	399.719956	375.238855	438.226	199.501853		19.050

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 28 : E3 GLORIETA 2

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 80.181 Dis=-951.818  
 Distancia: 238.957 Azimut: 137.985009  
 BO : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 82.200 Dis=-720.432

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	0.000000	0.000	498760.603	4680442.869	123.309997	1007.840	385.324988	118.833772	777.124	180.848764		19.040
CIRC.	20.000	356.095188	0.000	498753.976	4680461.321	122.359602	995.157	384.374593	117.526619	765.567	179.541610		19.240
CIRC.	40.000	312.190376	0.000	498737.122	4680471.339	122.124223	975.892	384.139214	117.095230	746.642	179.110222		19.437
CIRC.	60.000	268.285564	0.000	498717.747	4680468.345	122.749375	958.741	384.764366	117.796511	728.799	179.811502		19.525
CIRC.	80.000	224.380752	0.000	498704.704	4680453.706	123.971832	951.818	385.986824	119.357829	720.519	181.372820		19.453

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-131			X: 498017.239 Y: 4680669.435 Z: 22.535 PK:				82.200	Dis= 720.432				
BO	BR-130			X: 498251.339 Y: 4680526.384 Z: 22.774 PK:				86.113	Dis= 458.471				
									Distancia: 274.347 Azimet: 134.919738				
CIRC.	80.000	224.380752	0.000	498704.704	4680453.706	119.357829		720.519	384.438091	110.119422	459.154	175.199684	19.453

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-130			X: 498251.339 Y: 4680526.384 Z: 22.774 PK:				86.113	Dis= 458.471				
BO	BR-129			X: 498390.846 Y: 4680443.755 Z: 24.595 PK:				91.031	Dis= 311.758				
									Distancia: 162.141 Azimet: 134.042174				
CIRC.	80.000	224.380752	0.000	498704.704	4680453.706	110.119422		459.154	376.077248	97.982250	314.016	163.940077	19.453

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-129			X: 498390.846 Y: 4680443.755 Z: 24.595 PK:				91.031	Dis= 311.758				
BO	BR-128			X: 498562.520 Y: 4680331.832 Z: 26.791 PK:				107.957	Dis= 173.283				
									Distancia: 204.936 Azimet: 136.780413				
CIRC.	80.000	224.380752	0.000	498704.704	4680453.706	97.982250		314.016	361.201837	54.886949	187.269	118.106535	19.453

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-128			X: 498562.520 Y: 4680331.832 Z: 26.791 PK:				107.957	Dis= 173.283				
BO	BR-127			X: 498666.003 Y: 4680253.873 Z: 27.136 PK:				126.971	Dis= 171.057				
									Distancia: 129.562 Azimet: 141.102857				
CIRC.	100.000	180.475941	0.000	498703.956	4680434.114	60.140835		174.545	319.037978	13.212272	184.194	72.109415	19.260

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-127			X: 498666.003 Y: 4680253.873 Z: 27.136 PK:				126.971	Dis= 171.057				
BO	BR-126			X: 498870.853 Y: 4680012.004 Z: 22.802 PK:				145.724	Dis= 423.808				
									Distancia: 316.961 Azimet: 155.263555				
CIRC.	120.000	136.571129	0.000	498715.845	4680418.524	67.239542		176.137	326.136685	18.713110	172.030	77.610253	19.060

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 28 : E3 GLORIETA 2

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-126			X: 498870.853 Y: 4680012.004 Z: 22.802 PK:				145.724	Dis= 423.808				
BO	BR-125			X: 498997.803 Y: 4679695.195 Z: 22.702 PK:				146.579	Dis= 764.649				
									Distancia: 341.298 Azimet: 175.737002				
CIRC.	140.000	92.666317	0.000	498734.937	4680414.062	379.246735		424.410	203.509733	377.682394	765.420	1.945392	18.893

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 29 : E3 VIAL 4

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-125			X: 498997.803 Y: 4679695.195 Z: 22.702 PK:				304.776	Dis=-724.270				
BO	BR-126			X: 498870.853 Y: 4680012.004 Z: 22.802 PK:				307.168	Dis=-385.160				
									Distancia: 341.298 Azimet: 375.737002				
CIRC.	0.000	369.108951	0.000	498971.413	4680463.446	397.814014		768.704	22.077012	13.953083	462.506	238.216081	25.722

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 29 : E3 VIAL 4

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-126			X: 498870.853 Y: 4680012.004 Z: 22.802 PK:				307.168	Dis=-385.160				
BO	BR-127			X: 498666.003 Y: 4680253.873 Z: 27.136 PK:				335.467	Dis=-165.063				
									Distancia: 316.961 Azimet: 355.263555				
CIRC.	300.000	272.406707	0.000	498790.324	4680389.467	383.384102		385.957	31.355294	47.240767	183.961	291.977212	17.771

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 29 : E3 VIAL 4

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-127			X: 498666.003 Y: 4680253.873 Z: 27.136 PK:				335.467	Dis=-165.063				
BO	BR-128			X: 498562.520 Y: 4680331.832 Z: 26.791 PK:				356.246	Dis=-196.097				
									Distancia: 129.562 Azimet: 341.102857				
CIRC.	320.000	308.784980	0.000	498770.810	4680386.563	383.384102		387.689	28.120546	42.560018	169.089	287.296463	18.205

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 29 : E3 VIAL 4

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-128			X: 498562.520 Y: 4680331.832 Z: 26.791 PK:				356.246	Dis=-196.097				
BO	BR-129			X: 498390.846 Y: 4680443.755 Z: 24.595 PK:				356.334	Dis=-354.302				
									Distancia: 204.936 Azimet: 336.780413				
CIRC.	340.000	345.163252	0.000	498752.826	4680394.674	35.177107		165.418	94.074250	79.695399	200.413	338.592542	18.588

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 29 : E3 VIAL 4

\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Angl-2(BO)	COTA
BR	BR-128			X: 498562.520 Y: 4680331.832 Z: 26.791 PK:				356.246	Dis=-196.097				
BO	BR-129			X: 498390.846 Y: 4680443.755 Z: 24.595 PK:				356.334	Dis=-354.302				
									Distancia: 204.936 Azimet: 336.780413				
CIRC.	340.000	345.163252	0.000	498752.826	4680394.674	79.695399		200.413	142.914986	108.579560	365.292	371.799147	18.598

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 32 : E3 RAMAL 5

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 0.000 Dis= 167.975  
 Distancia: 129.562 Azimut: 141.102857  
 BO : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 42.423 Dis= 205.962

TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	120.152989	0.000	498657.071	4680470.669	38.061772	167.975	296.958915	397.378534	216.980	56.275677	19.540	
RECTA	20.000	120.152989	0.000	498676.077	4680464.443	45.082160	174.588	303.979303	3.043355	210.811	61.940498	19.292	
RECTA	40.000	120.152989	0.000	498695.083	4680458.217	51.518570	183.156	310.415713	8.999300	206.403	67.896443	19.350	
RECTA	42.623	120.152989	0.000	498697.576	4680457.401	52.316486	184.412	311.213629	9.797757	205.962	68.694900	19.377	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 34 : E3 VIAL 5

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 292.824 Dis= 967.962  
 Distancia: 238.957 Azimut: 137.985009  
 BO : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 296.463 Dis= 740.141

TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	169.142515	0.000	498962.000	4680611.962	110.586075	1158.407	372.601066	103.868012	946.507	165.883003	19.641	
CIRC.	12.298	169.142515	0.000	498967.730	4680601.081	111.120247	1165.901	373.135238	104.570365	952.946	166.585356	19.745	
CIRC.	20.000	193.659439	0.000	498969.935	4680593.750	111.492392	1169.366	373.507383	105.046875	955.697	167.061866	19.796	
CIRC.	40.000	257.321416	0.000	498962.460	4680576.090	112.514850	1165.333	374.529841	106.266591	949.819	168.281582	19.608	
RECTA	44.177	270.617616	0.000	498958.940	4680573.854	112.672602	1162.322	374.687593	106.439503	946.539	168.454494	19.508	
RECTA	60.000	270.617616	0.000	498944.773	4680566.808	113.210129	1149.869	375.225120	107.015345	933.194	169.030336	18.950	
RECTA	80.000	270.617616	0.000	498926.866	4680557.902	113.906381	1134.248	375.921372	107.767119	916.439	169.782110	18.315	
RECTA	100.000	270.617616	0.000	498908.958	4680548.995	114.621989	1118.767	376.636981	108.546781	899.816	170.561772	18.059	
RECTA	120.000	270.617616	0.000	498891.051	4680540.088	115.357585	1103.431	377.372576	109.355664	883.333	171.370656	18.018	
CIRC.	138.673	270.617616	0.000	498874.331	4680531.773	116.063001	1089.249	378.077993	110.138510	868.077	172.153501	17.981	
CIRC.	140.000	271.267222	0.000	498873.140	4680531.188	116.113511	1088.243	378.128502	110.194763	866.994	172.209754	17.978	
CIRC.	160.000	281.061373	0.000	498854.544	4680523.881	116.810110	1072.133	378.825101	110.957277	849.862	172.972268	17.938	
CIRC.	180.000	290.855523	0.000	498835.048	4680519.510	117.372072	1054.495	379.387063	111.542711	831.438	173.557702	17.898	
CIRC.	200.000	300.649673	0.000	498815.112	4680518.177	117.781187	1035.677	379.796179	111.927238	812.084	173.942229	17.858	
CIRC.	220.000	310.443824	0.000	498795.208	4680519.916	118.020291	1016.072	380.035282	112.087891	792.207	174.102883	17.822	
CIRC.	227.071	313.906353	0.000	498788.267	4680521.260	118.061187	1009.032	380.076179	112.087106	785.137	174.102097	17.844	
CIRC.	240.000	295.615002	0.000	498775.418	4680522.223	118.231930	996.431	380.246921	112.209064	772.339	174.224055	17.987	
CIRC.	260.000	267.320790	0.000	498756.417	4680516.530	118.935487	979.871	380.950478	112.985888	754.827	175.000879	18.470	
CIRC.	280.000	239.026578	0.000	498741.709	4680503.220	120.053768	969.860	382.068759	114.357487	743.293	176.372479	19.000	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 34 : E3 VIAL 5

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 296.463 Dis= 740.141  
 Distancia: 274.347 Azimut: 134.919738  
 BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 303.411 Dis= 484.453

TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	280.000	239.026578	0.000	498741.709	4680503.220	114.357487	743.293	379.437750	103.005033	490.917	168.085295	19.000	
CIRC.	300.000	210.732366	0.000	498734.153	4680484.880	116.040241	740.288	381.120504	105.459181	484.595	170.539443	19.333	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 34 : E3 VIAL 5

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 303.411 Dis= 484.453  
 Distancia: 366.993 Azimut: 135.570933  
 BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 305.098 Dis= 226.191

TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	300.000	210.732366	0.000	498734.153	4680484.880	105.459181	484.595	369.888248	53.640159	229.960	118.069226	19.333	
CIRC.	305.098	203.520143	0.000	498733.584	4680479.816	106.128488	484.488	370.557555	54.597225	226.191	119.026292	19.387	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 39 : E3 VIAL 3 N-260

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 370.957 Dis=222.110  
 Distancia: 129.562 Azimut: 341.102857  
 BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 370.957 Dis=237.390

TIPO	PK	Estac.	Azmut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	276.998669	0.000	499097.246	4680620.802	55.118614	566.222	114.015757	68.458764	607.812	327.355907	19.404	
CIRC.	20.000	275.725430	0.000	499078.609	4680613.545	54.356725	547.364	113.253868	68.190626	587.971	327.087769	19.500	
CIRC.	40.000	274.452190	0.000	499060.121	4680605.917	53.585884	528.455	112.483027	67.948250	568.093	326.845393	19.565	
CIRC.	60.000	273.178951	0.000	499041.789	4680597.921	52.805066	509.495	111.702209	67.734491	548.181	326.631634	19.598	
CIRC.	80.000	271.905711	0.000	499023.621	4680589.560	52.013086	490.486	110.910229	67.552635	528.241	326.449778	19.597	
CLOT.	85.947	271.527116	0.000	499018.252	4680587.004	51.775241	484.825	110.672384	67.505260	522.307	326.402403	19.590	
CLOT.	100.000	270.688486	0.000	499005.622	4680580.842	51.208033	471.433	110.105176	67.405967	508.277	326.303110	19.563	
CLOT.	120.000	269.688138	0.000	498987.778	4680571.809	50.382013	452.352	109.279156	67.292817	488.296	326.189960	19.495	
CLOT.	140.000	268.914699	0.000	498970.061	4680562.529	49.522288	433.267	108.419431	67.207857	468.307	326.105000	19.395	
CLOT.	160.000	268.368168	0.000	498952.442	4680553.066	48.613769	414.203	107.510912	67.144752	448.312	326.041895	19.262	
CLOT.	180.000	268.048545	0.000	498934.887	4680543.483	47.638566	395.187	106.535709	67.095972	428.315	325.993115	19.122	
RECTA	198.172	267.954883	0.000	498918.965	4680534.725	46.676858	377.979	105.574001	67.056535	410.145	325.953678	19.011	
RECTA	200.000	267.954883	0.000	498917.364	4680533.844	46.575392	376.252	105.472535	67.052513	408.317	325.949656	19.001	
RECTA	220.000	267.954883	0.000	498899.844	4680524.196	45.401396	357.430	104.298539	67.006039	388.319	325.903182	18.920	
RECTA	240.000	267.954883	0.000	498882.325	4680514.549	44.097387	338.743	102.994530	66.954519	368.321	325.851662	18.875	
RECTA	260.000	267.954883	0.000	498864.806	4680504.901	42.641801	320.215	101.538944	66.897082	348.324	325.794225	18.835	
RECTA	280.000	267.954883	0.000	498847.286	4680495.254	41.008405	301.875	99.905548	66.832649	328.327	325.729792	18.795	
RECTA	300.000	267.954883	0.000	498829.767	4680485.606	39.165100	283.759	98.062243	66.759859	308.330	325.657002	18.763	
RECTA	320.000	267.954883	0.000	498812.248	4680475.959	37.072422	265.913	95.969565	66.676972	288.334	325.574115	18.775	
RECTA	340.000	267.954883	0.000	498794.729	4680466.311	34.681685	248.395	93.578828	66.581732	268.338	325.478875	18.838	



PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 39 : E3 VIAL 3 N-260

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 370.957 Dis=-222.110  
BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 370.957 Dis=-237.390  
Distancia: 129.562 Azimut: 341.102857

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	360.000	267.954883	0.000	498777.209	4680456.664	31.932753	231.281	90.829896	66.471156	248.343	325.368299	18.951
RECTA	370.957	267.954883	0.000	498767.612	4680451.378	30.248882	222.110	89.146025	66.402680	237.390	325.299823	19.027

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 43 : E3 RAMAL 2

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 0.000 Dis=-222.140  
BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 163.167 Dis=-165.698  
Distancia: 129.562 Azimut: 341.102857

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	320.152989	0.000	498658.783	4680475.896	397.930466	222.140	56.827609	37.500751	173.266	296.397894	19.430
RECTA	20.000	320.152989	0.000	498639.777	4680482.122	392.717034	229.751	51.614177	30.228296	168.984	289.125439	19.830
RECTA	40.000	320.152989	0.000	498620.770	4680488.348	387.868004	238.798	46.765147	22.681915	167.004	281.579058	20.242
CLOT.	52.977	320.152989	0.000	498608.439	4680492.388	384.923789	245.363	43.820932	17.733817	166.993	276.630960	20.589
CLOT.	60.000	319.716835	0.000	498601.759	4680494.559	383.394509	249.112	42.291652	15.063617	167.391	273.960760	20.811
CLOT.	80.000	313.696046	0.000	498582.500	4680499.924	379.171356	259.834	38.068499	7.531832	169.275	266.428975	21.569
CIRC.	95.330	304.292565	0.000	498567.349	4680502.163	375.922708	267.171	34.819851	1.804448	170.399	260.701591	22.182
CIRC.	100.000	300.794573	0.000	498562.683	4680502.349	374.913095	269.101	33.810238	0.060879	170.518	258.958022	22.369
CLOT.	112.057	291.764321	0.000	498550.657	4680501.646	372.262779	273.306	31.159922	395.559768	170.228	254.456911	22.851
CLOT.	120.000	286.373135	0.000	498542.835	4680500.278	370.490341	275.473	29.387484	392.593838	169.592	251.490981	23.169
CLOT.	140.000	277.739890	0.000	498523.691	4680494.542	366.003773	279.596	24.900916	385.086727	167.278	243.983870	23.969
CLOT.	154.410	275.903897	0.000	498510.251	4680489.346	362.797387	282.323	21.694530	379.602538	165.960	238.499681	24.518
CLOT.	160.000	276.041570	0.000	498505.055	4680487.284	361.568810	283.522	20.465953	377.458389	165.733	236.355532	24.701

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 43 : E3 RAMAL 2

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 163.167 Dis=-165.698  
BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 267.847 Dis=-33.435  
Distancia: 204.936 Azimut: 336.780413

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	160.000	276.041570	0.000	498505.055	4680487.284	377.458389	165.733	40.677976	76.818332	122.223	340.037919	24.701
CLOT.	180.000	278.788961	0.000	498486.334	4680480.251	369.808767	166.830	33.028354	76.759014	102.225	339.978601	25.216
CLOT.	200.000	285.060890	0.000	498467.169	4680474.562	362.505606	171.650	25.725193	75.576671	82.306	338.796257	25.508
CIRC.	209.987	289.512116	0.000	498457.385	4680472.570	359.154758	175.672	22.374345	73.983029	72.510	337.202616	25.570
CIRC.	220.000	294.415631	0.000	498447.454	4680471.310	356.086784	180.815	19.306370	71.160913	62.958	334.380500	25.576
CIRC.	240.000	304.209782	0.000	498427.475	4680471.094	350.978568	193.987	14.198155	59.181164	45.707	322.400750	25.420
CIRC.	260.000	314.003932	0.000	498407.699	4680473.942	347.276442	210.155	10.496029	32.414512	34.573	295.634098	25.109
CLOT.	273.040	320.389515	0.000	498395.137	4680477.421	345.573948	221.840	8.793534	8.070998	33.938	271.290585	24.901

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 43 : E3 RAMAL 2

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 267.847 Dis=-33.435  
BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 328.617 Dis=-97.229  
Distancia: 162.141 Azimut: 334.042174

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	260.000	314.003932	0.000	498407.699	4680473.942	32.414512	34.573	98.372338	120.601079	164.919	386.558905	25.109
CLOT.	273.040	320.389515	0.000	498395.137	4680477.421	8.070998	33.938	74.028824	120.893048	151.906	386.850874	24.901
CLOT.	280.000	323.584639	0.000	498388.590	4680479.780	396.018039	36.096	61.975866	120.838812	144.947	386.796639	24.791
CLOT.	300.000	330.389908	0.000	498370.407	4680488.087	372.497963	48.817	38.455789	119.810880	125.075	385.768706	24.473
CLOT.	320.000	333.670638	0.000	498352.932	4680497.810	361.060440	66.026	27.018267	117.454474	105.535	383.412300	24.156
RECTA	328.617	333.997734	0.000	498345.508	4680502.183	357.988742	73.956	23.946568	116.014056	97.229	381.971883	24.019
RECTA	328.617	333.997734	0.000	498345.508	4680502.183	357.988742	73.956	23.946568	116.014056	97.229	381.971882	24.019

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 44 : E3 RAMAL 1

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 0.000 Dis=-37.854  
BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 105.147 Dis=-32.372  
Distancia: 129.562 Azimut: 341.102857

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	0.000	345.183207	0.000	498664.240	4680291.686	397.033489	37.854	55.930632	123.931013	109.355	382.828156	29.041
CLOT.	20.000	344.160013	0.000	498648.962	4680304.593	379.364999	53.506	38.262142	119.433987	90.632	378.331130	28.902
CLOT.	40.000	343.308616	0.000	498633.496	4680317.273	369.838322	71.248	28.735464	112.880029	72.454	371.777172	28.762
CLOT.	60.000	342.629018	0.000	498617.879	4680329.767	364.023392	89.866	22.920535	102.374042	55.397	361.271185	28.622
CLOT.	80.000	342.121218	0.000	498602.145	4680342.114	360.119691	108.923	19.016834	83.837176	40.937	342.734319	28.483
CLOT.	100.000	341.785217	0.000	498586.330	4680354.357	357.321685	128.237	16.218828	51.765451	32.777	310.662594	28.343

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 44 : E3 RAMAL 1

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 163.167 Dis=-165.698  
BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 267.847 Dis=-33.435  
Distancia: 204.936 Azimut: 336.780413

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CLOT.	100.000	341.785217	0.000	498586.330	4680354.357	357.321685	128.237	16.218828	51.765451	32.777	310.662594	28.343
CLOT.	120.000	341.621013	0.000	498570.468	4680366.538	344.331314	35.604	77.550901	125.847000	195.516	389.066587	28.204
CLOT.	129.116	341.603168	0.000	498563.230	4680372.081	1.123579	40.255	64.343166	125.085180	186.691	388.304767	28.140
CLOT.	140.000	343.111507	0.000	498554.642	4680378.766	389.412267	47.590	52.631854	124.046345	176.217	387.265932	28.064
CLOT.	160.000	353.747715	0.000	498539.990	4680392.344	377.309236	64.571	40.528822	121.132658	157.756	384.352245	27.925
CIRC.	174.570	367.909770	0.000	498531.513	4680404.158	374.216297	78.692	37.435883	117.468413	146.134	380.688000	27.729
CIRC.	180.000	374.194482	0.000	498529.129	4680409.034	374.012213	84.114	37.231800	115.660864	142.576	378.880451	27.590
CIRC.	200.000	397.344291	0.000	498524.720	4680428.429	376.254302	103.730	39.473888	107.256396	134.749	370.475982	26.759

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PROYECTO :  
C.R.S. : ETRS89 (HUSO 31)  
EJE : 44 : E3 RAMAL 1

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\* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 267.847 Dis=-33.435  
BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 328.617 Dis=-97.229  
Distancia: 162.141 Azimut: 334.042174

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	200.000	397.344291	0.000	498524.720	4680428.429	376.254302	103.730	39.473888	107.256396	134.749	370.475982	26.759

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 44 : E3 RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 217.887 Dis=-286.985  
 Distancia: 274.347 Azimut: 334.919738  
 BO : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 224.371 Dis=-555.995

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	200.000	397.344291	0.000	498524.720	4680428.429	121.903381	290.400	186.983643	128.225915	561.801	393.306178	26.759	
CIRC.	220.000	20.494101	0.000	498527.498	4680448.124	117.580036	287.033	182.660298	126.052744	556.186	391.133006	25.461	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 44 : E3 RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 224.371 Dis=-555.995  
 Distancia: 238.957 Azimut: 337.985009  
 BO : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 227.384 Dis=-791.680

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	220.000	20.494101	0.000	498527.498	4680448.124	126.052744	556.186	188.067735	129.632761	792.209	391.647752	25.461	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 44 : E3 RAMAL 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 227.384 Dis=-791.680  
 Distancia: 207.464 Azimut: 340.667243  
 BO : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 229.355 Dis=-996.370

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	220.000	20.494101	0.000	498527.498	4680448.124	129.632761	792.209	188.965517	131.917448	997.207	391.250205	25.461	
CIRC.	240.000	43.643911	0.000	498537.099	4680465.544	128.037437	793.219	187.370194	130.647898	997.453	389.980655	24.061	
CIRC.	260.000	66.793721	0.000	498552.267	4680478.409	126.599596	801.660	185.932353	129.480707	1005.109	388.813464	22.661	
CIRC.	280.000	89.943531	0.000	498571.020	4680485.038	125.533490	816.225	184.866247	128.586817	1019.026	387.919574	21.471	
CLOT.	283.372	93.846387	0.000	498574.364	4680485.466	125.401398	819.138	184.734155	128.472355	1021.855	387.805112	21.319	
CLOT.	300.000	109.572882	0.000	498590.939	4680484.868	124.952294	834.664	184.285051	128.065431	1037.079	387.398188	20.779	
CLOT.	320.000	119.161074	0.000	498610.352	4680480.137	124.725497	854.417	184.058254	127.824105	1056.662	387.156862	20.377	
RECTA	328.826	120.152989	0.000	498618.754	4680477.433	124.675413	863.217	184.008170	127.757991	1065.419	387.090747	20.200	
RECTA	340.000	120.152989	0.000	498629.372	4680473.955	124.617669	874.363	183.950425	127.679242	1076.514	387.011999	19.977	
RECTA	360.000	120.152989	0.000	498648.378	4680467.729	124.517905	894.315	183.850661	127.542269	1096.377	386.875025	19.577	
RECTA	367.345	120.152989	0.000	498655.359	4680465.443	124.482374	901.643	183.815131	127.493202	1103.673	386.825959	19.430	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 45 : CAMINO MD\_04

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 569.822 Dis= 918.180  
 Distancia: 212.490 Azimut: 279.767980  
 BO : BR-104 X: 497401.055 Y: 4675264.289 Z: 41.925 PK: 569.998 Dis= 706.176

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	3.858797	0.000	496367.589	4674635.522	267.368468	1417.484	387.600488	265.203781	1209.711	185.435801	46.001	
RECTA	20.000	3.858797	0.000	496368.800	4674655.485	268.128930	1406.738	388.360950	266.076340	1198.412	186.308360	45.961	
RECTA	40.000	3.858797	0.000	496370.012	4674675.448	268.900987	1396.196	389.133007	266.965338	1187.343	187.197358	45.890	
CLOT.	42.952	3.858797	0.000	496370.191	4674678.395	269.015937	1394.657	389.247957	267.097964	1185.729	187.329984	45.874	
CIRC.	54.952	398.765839	0.000	496370.598	4674690.385	269.493019	1388.728	389.725039	267.649722	1179.495	187.881742	45.790	
CIRC.	60.000	394.481172	0.000	496370.330	4674695.424	269.703997	1386.650	389.936018	267.894850	1177.285	188.126870	45.747	
CIRC.	73.049	383.404977	0.000	496368.078	4674708.261	270.276794	1382.827	390.508815	268.563790	1173.119	188.795810	45.626	
CIRC.	80.000	393.238866	0.000	496366.812	4674715.088	270.584163	1380.901	390.816183	268.923278	1171.017	189.155298	45.561	
CIRC.	100.000	21.533078	0.000	496369.108	4674734.791	271.356060	1370.163	391.588800	269.819309	1159.864	190.051329	45.373	
CIRC.	120.000	49.827290	0.000	496379.652	4674751.592	271.851999	1353.402	392.084019	270.383852	1142.857	190.615873	45.186	
CIRC.	140.000	78.121502	0.000	496396.396	4674762.227	271.968860	1333.720	392.200880	270.496861	1123.124	190.728881	44.999	
CIRC.	140.586	78.950138	0.000	496396.948	4674762.421	271.965980	1333.138	392.198000	270.492677	1122.542	190.724697	44.994	
CIRC.	160.000	71.459527	0.000	496414.898	4674769.789	271.918165	1313.760	392.150186	270.409875	1103.193	190.641895	44.812	
CIRC.	180.000	63.742923	0.000	496432.353	4674779.527	271.984805	1293.819	392.216825	270.461683	1083.225	190.693704	44.625	
CIRC.	200.000	56.026320	0.000	496448.502	4674791.305	272.173475	1274.197	392.405495	270.659556	1063.518	190.891576	44.438	
CIRC.	220.000	48.309717	0.000	496463.109	4674804.949	272.486824	1255.203	392.718845	271.008499	1044.383	191.240520	44.353	
CIRC.	233.801	42.985010	0.000	496472.175	4674815.348	272.776069	1242.627	393.008089	271.338755	1031.681	191.570775	44.412	
CIRC.	240.000	44.563661	0.000	496476.110	4674820.139	272.916428	1237.063	393.148448	271.500137	1026.057	191.732158	44.470	
CIRC.	260.000	49.656619	0.000	496489.592	4674834.904	273.328318	1218.715	393.560338	271.972408	1007.540	192.204428	44.688	
CIRC.	280.000	54.749577	0.000	496504.211	4674848.545	273.673937	1199.828	393.905957	272.365886	988.520	192.597906	44.656	

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 45 : CAMINO MD\_04

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 569.822 Dis= 918.180  
 BO : BR-104 X: 497401.055 Y: 4675264.289 Z: 41.925 PK: 569.998 Dis= 706.176  
 Distancia: 212.490 Azimut: 279.767980  
 569.998 Dis= 706.176

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	300.000	59.842536	0.000	496519.873	4674860.974	273.948287	1180.503	394.180308	272.673917	969.094	192.905937	44.183	
CLOT.	301.267	60.165204	0.000	496520.899	4674861.719	273.963151	1179.266	394.195171	272.690396	967.852	192.922416	44.141	
CLOT.	320.000	64.274537	0.000	496536.444	4674872.166	274.149801	1160.853	394.381822	272.893888	949.375	193.125908	43.518	
CLOT.	340.000	67.202771	0.000	496553.635	4674882.382	274.294609	1141.027	394.526629	273.044824	929.501	193.276844	42.853	
CLOT.	360.000	68.624212	0.000	496571.167	4674892.007	274.406022	1121.126	394.638042	273.154778	909.565	193.386798	42.188	
RECTA	368.867	68.772303	0.000	496578.985	4674896.190	274.451266	1112.294	394.683287	273.198372	900.719	193.430392	41.894	
RECTA	380.000	68.772303	0.000	496588.806	4674901.434	274.508603	1101.206	394.740623	273.253716	889.614	193.485736	41.528	
RECTA	400.000	68.772303	0.000	496606.447	4674910.856	274.614561	1081.289	394.846581	273.356692	869.664	193.588712	40.998	
RECTA	420.000	68.772303	0.000	496624.089	4674920.278	274.724495	1061.374	394.956515	273.464503	849.718	193.696523	40.656	
RECTA	440.000	68.772303	0.000	496641.731	4674929.700	274.838633	1041.463	395.070653	273.577496	829.773	193.809516	40.498	
RECTA	460.000	68.772303	0.000	496659.372	4674939.121	274.957220	1021.556	395.189240	273.696055	809.831	193.928075	40.398	
RECTA	480.000	68.772303	0.000	496677.014	4674948.543	275.080520	1001.652	395.312540	273.820600	789.893	194.052620	40.298	
RECTA	500.000	68.772303	0.000	496694.656	4674957.965	275.208819	981.752	395.440839	273.951594	769.957	194.183615	40.198	
RECTA	520.000	68.772303	0.000	496712.298	4674967.387	275.342427	961.856	395.574447	274.089552	750.025	194.321572	40.098	
CIRC.	539.357	68.772303	0.000	496729.372	4674976.505	275.477109	942.604	395.709129	274.230241	730.737	194.462261	40.001	
CIRC.	540.000	70.819028	0.000	496729.944	4674976.799	275.480982	941.964	395.713002	274.234143	730.096	194.466163	39.998	
CIRC.	549.950	102.491990	0.000	496739.577	4674978.848	275.363545	932.269	395.595565	274.065424	720.437	194.297444	39.948	
CIRC.	560.000	38.513959	0.000	496748.193	4674983.153	275.414237	922.665	395.646257	274.113672	710.821	194.345692	40.016	

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 C.R.S. : ETR889 (HUSO 31)  
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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-104 X: 497401.055 Y: 4675264.289 Z: 41.925 PK: 569.998 Dis= 706.176  
 BO : BR-103 X: 497156.597 Y: 4675201.923 Z: 41.272 PK: 570.777 Dis= 457.957  
 Distancia: 252.288 Azimut: 284.097800  
 570.777 Dis= 457.957

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	560.000	38.513959	0.000	496748.193	4674983.153	274.113672	710.821	390.015872	268.692657	463.308	184.594857	40.016	

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-103 X: 497156.597 Y: 4675201.923 Z: 41.272 PK: 570.777 Dis= 457.957  
 BO : BR-101 X: 496768.268 Y: 4675056.065 Z: 42.071 PK: 570.856 Dis= 65.547  
 Distancia: 414.818 Azimut: 277.126235  
 570.856 Dis= 65.547

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	560.000	38.513959	0.000	496748.193	4674983.153	268.692657	463.308	391.566423	217.104379	75.625	139.978144	40.016	
CIRC.	570.856	369.399690	0.000	496748.835	4674993.465	269.914131	457.957	392.787897	219.162255	65.547	142.036020	40.407	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 47 : CE 1.1 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-104 X: 497401.055 Y: 4675264.289 Z: 41.925 PK: 569.998 Dis= -28.537  
 BO : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 569.998 Dis= -19.518  
 Distancia: 212.490 Azimut: 79.767980  
 200.800 Dis= -19.518

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	81.406081	0.000	497420.778	4675243.664	151.423646	28.537	71.655666	271.622725	201.849	391.854745	36.071	
RECTA	20.000	81.406081	0.000	497439.931	4675249.423	123.252525	41.621	43.484545	270.552459	182.111	390.784479	36.121	
RECTA	40.000	81.406081	0.000	497459.084	4675255.181	109.910936	58.739	30.142956	269.222472	162.436	389.454492	36.171	
CIRC.	56.891	81.406081	0.000	497475.259	4675260.045	103.637223	74.325	23.869243	267.820359	145.889	388.052379	36.262	
CIRC.	60.000	81.208142	0.000	497478.235	4675260.945	102.756779	77.253	22.988799	267.529002	142.851	387.761023	36.289	
CIRC.	80.000	79.934902	0.000	497497.311	4675266.954	98.237881	96.293	18.469901	265.428475	123.337	385.660496	36.548	
CIRC.	100.000	78.661662	0.000	497516.262	4675273.343	95.006878	115.563	15.238898	262.778983	103.900	383.011004	36.878	
CIRC.	107.026	78.214404	0.000	497522.889	4675275.678	94.066258	122.365	14.298278	261.657342	97.101	381.889363	37.024	
CIRC.	120.000	75.461133	0.000	497535.013	4675280.294	92.429476	134.911	12.661496	259.349542	84.550	379.581562	37.685	
CIRC.	140.000	71.217001	0.000	497553.281	4675288.426	89.989073	154.128	10.221094	255.089064	65.180	375.321084	39.273	
CIRC.	144.653	70.229678	0.000	497557.450	4675290.491	89.432397	158.575	9.664417	253.902221	60.678	374.134241	39.646	
CIRC.	160.000	72.672284	0.000	497571.279	4675297.145	87.861600	173.366	8.093620	248.126203	46.101	368.358223	40.873	
CIRC.	180.000	75.855383	0.000	497589.665	4675305.011	86.462911	192.956	6.694931	230.305193	28.889	350.537213	42.347	
CIRC.	200.000	79.038482	0.000	497608.421	4675311.948	85.618329	212.773	5.850349	181.771655	19.535	302.003675	42.708	
CIRC.	205.680	79.942445	0.000	497613.809	4675313.746	85.459233	218.427	5.691253	163.590665	20.148	283.822685	42.736	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 47 : CE 1.1 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-105 X: 497602.904 Y: 4675330.688 Z: 44.460 PK: 569.998 Dis= -19.518  
 BO : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 570.376 Dis= -108.016  
 Distancia: 269.205 Azimut: 74.427704  
 370.376 Dis= -108.016

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	200.000	79.038482	0.000	497608.421	4675311.948	181.771655	19.535	107.343951	269.884406	272.146	395.456702	42.708	
CIRC.	205.680	79.942445	0.000	497613.809	4675313.746	163.590665	20.148	89.162961	269.680480	266.533	395.252776	42.736	
CIRC.	220.000	79.309352	0.000	497627.402	4675318.251	129.905453	27.474	55.477749	269.118494	252.397	394.690790	42.808	
CIRC.	240.000	78.425158	0.000	497646.310	4675324.769	108.627714	43.808	34.200010	268.283689	232.651	393.855985	42.908	
CIRC.	260.000	77.540964	0.000	497665.126	4675331.549	99.119248	62.228	24.691544	267.376039	212.904	392.948335	43.043	
CIRC.	280.000	76.656770	0.000	497683.845	4675338.589	93.805133	81.326	19.377429	266.373209	193.161	391.945505	43.250	
CIRC.	300.000	75.772576	0.000	497702.465	4675345.889	90.354641	100.715	15.926938	265.242735	173.427	390.815031	43.521	
CIRC.	320.000	74.888382	0.000	497720.982	4675353.447	87.878381	120.252	13.450677	263.935575	153.710	389.507872	43.801	
CIRC.	340.000	74.004187	0.000	497739.393	4675361.261	85.971685	139.871	11.543981	262.374053	134.023	387.946349	44.081	
CIRC.	355.745	73.308116	0.000	497753.808	4675367.591	84.731210	155.351	10.303506	260.883458	118.557	386.455754	44.301	
CIRC.	360.000	91.367910	0.000	497757.887	4675368.753	84.667627	159.589	10.239923	260.104169	114.563	385.676465	44.361	
CIRC.	370.376	135.404815	0.000	497767.833	4675366.630	86.340046	168.800	11.912342	255.649266	108.016	381.221562	44.506	

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 0.000 Dis=-367.553  
 BO : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 10.541 Dis=-202.708  
 Distancia: 167.623 Azimut: 47.278718  
 10.541 Dis=-202.708

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	360.398475	0.000	498507.245	4675935.140	56.280375	367.553	9.001657	63.706037	202.982	216.427319	28.985	

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 49 : CE 2.4 CD

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-109	X: 498336.366	Y: 4675825.587	Z: 33.592	PK: 10.541	Dis=-202.708							
BO	BR-110	X: 498460.355	Y: 4676000.688	Z: 32.993	PK: 65.804	Dis=-38.294							
RECTA	0.000	360.398475	0.000	498507.245	4675935.140	63.706037	202.982	24.481252	160.468243	80.593	321.243458	28.985	
CIRC.	18.482	360.398475	0.000	498496.476	4675950.160	57.905948	202.864	18.681163	160.489003	62.111	321.264218	28.893	
CIRC.	20.000	364.264549	0.000	498495.629	4675951.420	57.430990	202.975	18.206205	160.442851	60.594	321.218067	28.885	
CIRC.	40.000	15.194131	0.000	498492.502	4675970.638	52.341838	213.115	13.117053	147.854655	44.004	308.629870	28.784	
CIRC.	47.393	34.020507	0.000	498495.278	4675977.461	51.441524	219.815	12.216739	137.363659	41.942	298.138875	28.717	
CIRC.	60.000	1.917301	0.000	498498.753	4675989.441	49.713641	230.689	10.488856	118.139576	40.011	278.914791	28.510	
CIRC.	65.804	387.136521	0.000	498498.255	4675995.211	48.514934	234.479	9.290149	109.136428	38.294	269.911643	28.394	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 50 : CE 2.5 CD (PI 2.4)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-108	X: 498223.012	Y: 4675702.103	Z: 35.583	PK: 0.000	Dis= 392.757							
BO	BR-109	X: 498336.366	Y: 4675825.587	Z: 33.592	PK: 9.043	Dis= 227.448							
RECTA	0.000	135.331038	0.000	498448.528	4676023.663	38.936325	392.757	391.657607	32.801144	227.628	185.522426	28.560	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 50 : CE 2.5 CD (PI 2.4)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-109	X: 498336.366	Y: 4675825.587	Z: 33.592	PK: 9.043	Dis= 227.448							
BO	BR-110	X: 498460.355	Y: 4676000.688	Z: 32.993	PK: 22.158	Dis= 13.295							
RECTA	0.000	135.331038	0.000	498448.528	4676023.663	32.801144	227.628	393.576359	369.735150	25.840	130.510366	28.560	
RECTA	20.000	135.331038	0.000	498465.526	4676013.124	38.395377	227.712	399.170592	25.086761	13.469	185.861976	28.444	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 50 : CE 2.5 CD (PI 2.4)

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-110	X: 498460.355	Y: 4676000.688	Z: 32.993	PK: 22.158	Dis= 13.295							
BO	BR-111	X: 498606.145	Y: 4676318.634	Z: 29.506	PK: 216.314	Dis=-196.715							
RECTA	20.000	135.331038	0.000	498465.526	4676013.124	25.086761	13.469	397.716531	227.461658	336.318	0.091428	28.444	
RECTA	40.000	135.331038	0.000	498482.524	4676002.586	94.562967	22.251	67.192738	223.736327	339.365	396.366097	28.377	
CIRC.	45.516	135.331038	0.000	498487.213	4675999.679	102.389404	26.876	75.019174	222.721764	340.407	395.351535	28.366	
CIRC.	60.000	73.858904	0.000	498501.104	4675998.675	103.142205	40.799	75.771975	220.194156	336.760	392.823926	28.337	
RECTA	70.317	30.072927	0.000	498508.474	4676005.603	93.519832	48.369	66.149603	219.254286	327.915	391.884056	28.316	
RECTA	80.000	30.072927	0.000	498512.880	4676014.226	83.941241	54.241	56.571011	218.926824	318.375	391.556594	28.297	
RECTA	100.000	30.072927	0.000	498521.980	4676032.035	70.042661	69.140	42.672432	218.184310	298.701	390.814080	28.257	
RECTA	120.000	30.072927	0.000	498531.080	4676049.845	61.332157	86.131	33.961927	217.337223	279.074	389.966994	28.217	
RECTA	140.000	30.072927	0.000	498540.180	4676067.655	55.562349	104.195	28.192119	216.362174	259.503	388.991944	28.186	
RECTA	160.000	30.072927	0.000	498549.281	4676085.465	51.520300	122.861	24.150071	215.228378	240.003	387.858149	28.221	
CIRC.	171.125	30.072927	0.000	498554.343	4676095.371	49.765250	133.411	22.395021	214.514326	229.194	387.144096	28.272	
CIRC.	180.000	41.372946	0.000	498559.059	4676102.875	48.896267	142.073	21.526037	213.678744	220.837	386.308514	28.321	
CIRC.	200.000	66.837737	0.000	498573.983	4676115.989	49.534848	161.882	22.164618	210.020199	205.181	382.649970	28.430	
RECTA	206.003	74.481572	0.000	498579.357	4676118.657	50.277454	167.566	22.907224	208.477379	201.763	381.107149	28.463	
RECTA	216.314	74.481572	0.000	498588.850	4676122.680	51.652363	177.181	24.282133	205.604203	196.715	378.233973	28.520	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 51 : REPOSICION GI-8593

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-113	X: 498666.551	Y: 4676700.843	Z: 28.816	PK: 0.000	Dis=-81.137							
BO	BR-114	X: 498679.375	Y: 4676904.679	Z: 29.015	PK: 171.270	Dis=-44.903							
RECTA	0.000	375.699879	0.000	498740.438	4676734.370	72.881524	81.137	68.881609	178.083586	180.925	374.083671	27.329	
CLOT.	1.569	375.699879	0.000	498739.853	4676735.826	71.652990	81.222	67.653075	178.104432	179.357	374.104517	27.340	
CLOT.	20.000	377.196520	0.000	498733.122	4676752.983	57.701069	84.559	53.701154	178.322641	160.936	374.322727	27.474	
CLOT.	40.000	382.206856	0.000	498726.767	4676771.941	44.736114	93.171	40.736199	178.168684	140.944	374.168769	27.618	
CIRC.	53.176	387.433496	0.000	498723.630	4676784.734	38.034387	101.468	34.034472	177.497676	127.848	373.497761	27.714	
CIRC.	60.000	390.536570	0.000	498722.455	4676791.456	35.191929	106.471	31.192015	176.854143	121.142	372.854228	27.760	
CLOT.	61.611	391.269189	0.000	498722.226	4676793.051	34.581625	107.712	30.581711	176.666381	119.570	372.666466	27.769	
CLOT.	80.000	398.141355	0.000	498720.770	4676811.373	29.033097	123.112	25.033182	173.417262	102.076	369.417347	27.842	
CLOT.	100.000	2.233037	0.000	498720.921	4676831.369	25.126782	141.397	21.126867	167.176584	84.264	363.176670	27.844	
RECTA	113.218	3.002806	0.000	498721.491	4676844.575	23.243318	153.874	19.243403	161.089201	73.392	357.089286	27.812	
RECTA	120.000	3.002806	0.000	498721.811	4676851.349	22.401497	160.330	18.401583	157.210963	68.154	353.211049	27.795	
RECTA	140.000	3.002806	0.000	498722.754	4676871.327	20.273086	179.509	16.273171	141.727974	54.719	337.728059	27.745	
RECTA	160.000	3.002806	0.000	498723.697	4676891.304	18.557087	198.850	14.557172	118.657449	46.296	314.657534	27.695	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 51 : REPOSICION GI-8593

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
BR	BR-114	X: 498679.375	Y: 4676904.679	Z: 29.015	PK: 171.270	Dis=-44.903							
BO	BR-115	X: 498703.998	Y: 4677245.839	Z: 29.938	PK: 311.522	Dis=-219.096							
RECTA	160.000	3.002806	0.000	498723.697	4676891.304	18.557449	46.296	114.070641	196.466360	355.081	391.879551	27.695	
RECTA	180.000	3.002806	0.000	498724.640	4676911.282	90.778268	45.744	86.191460	196.077031	335.193	391.490223	27.645	
CLOT.	184.860	3.002806	0.000	498724.869	4676916.137	84.293200	46.915	79.706392	195.975343	330.362	391.388534	27.633	
CLOT.	200.000	4.012650	0.000	498725.663	4676931.256	66.819264	53.375	62.232456	195.622562	315.328	391.035754	27.595	
CIRC.	220.000	8.442966	0.000	498727.524	4676951.165	51.118894	66.927	46.532086	194.928098	295.612	390.341289	27.545	
CIRC.	236.467	14.736423	0.000	498730.454	4676967.363	43.528229	80.860	38.941421	193.970097	279.730	389.383289	27.504	
CIRC.	240.000	16.342838	0.000	498731.308	4676970.791	42.389613	84.070	37.802805	193.699667	276.401	3		

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-114 X: 498679.375 Y: 4676904.679 Z: 29.015 PK: 0.802 Dis=-117.647  
 Distancia: 342.047 Azimut: 4.586808  
 BO : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 244.959 Dis=-35.977

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	332.856444	0.000	498741.376	4677004.681	35.332039	117.663	30.745230	190.210662	244.037	385.623854	27.504	
CIRC.	20.000	383.786026	0.000	498729.520	4677020.126	26.086604	125.867	21.499796	192.832008	227.151	388.245199	27.908	
RECTA	27.729	3.466788	0.000	498728.751	4677027.785	24.283069	132.639	19.696261	192.804143	219.454	388.217335	27.831	
RECTA	40.000	3.466788	0.000	498729.419	4677040.039	22.544167	144.314	17.957359	192.176086	207.364	387.589278	27.708	
RECTA	60.000	3.466788	0.000	498730.507	4677060.009	20.245228	163.529	15.658420	190.979326	187.711	386.392518	27.554	
RECTA	80.000	3.466788	0.000	498731.596	4677079.979	18.431567	182.913	13.844759	189.503336	168.140	384.916528	27.493	
RECTA	100.000	3.466788	0.000	498732.684	4677099.950	16.966406	202.417	12.379598	187.639808	148.683	383.053000	27.372	
RECTA	120.000	3.466788	0.000	498733.773	4677119.920	15.759293	222.009	11.172485	185.217973	129.391	380.631165	27.175	
RECTA	140.000	3.466788	0.000	498734.861	4677139.890	14.748253	241.667	10.161444	181.954283	110.352	377.367475	26.975	
RECTA	160.000	3.466788	0.000	498735.950	4677159.861	13.889508	261.378	9.302699	177.348298	91.723	372.761489	26.775	
RECTA	180.000	3.466788	0.000	498737.039	4677179.831	13.151310	281.129	8.564502	170.455000	73.815	365.868192	26.575	
CIRC.	195.191	3.466788	0.000	498737.865	4677195.000	12.656457	296.154	8.069649	162.588682	61.087	358.001873	26.444	
CIRC.	200.000	3.313715	0.000	498738.121	4677199.802	12.508894	300.913	7.922086	159.392961	57.305	354.806153	26.410	
CIRC.	220.000	2.677095	0.000	498739.062	4677219.780	11.917805	320.704	7.330997	140.688387	43.687	336.101579	26.304	
CIRC.	240.000	2.040475	0.000	498739.803	4677239.766	11.358425	340.492	6.771617	110.696612	36.316	306.109804	26.224	
CIRC.	242.514	1.960447	0.000	498739.882	4677242.279	11.290074	342.979	6.703266	106.295852	36.060	301.709044	26.214	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 244.959 Dis=-35.977  
 Distancia: 270.111 Azimut: 0.589701  
 BO : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 513.815 Dis=-45.489

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	240.000	2.040475	0.000	498739.803	4677239.766	11.0.696612	36.316	110.106911	192.360040	278.173	391.770339	26.224	
CIRC.	242.514	1.960447	0.000	498739.882	4677242.279	10.6.295852	36.060	105.706151	192.272459	275.688	391.682758	26.214	
CIRC.	260.000	2.071765	0.000	498740.436	4677259.756	76.773921	39.005	76.184219	191.615721	258.420	391.026019	26.144	
CIRC.	280.000	2.199089	0.000	498741.106	4677279.744	52.869380	50.265	52.279679	190.738338	238.715	390.148637	26.064	
CIRC.	300.000	2.326413	0.000	498741.817	4677299.732	38.954569	65.839	38.364868	189.691915	219.072	389.102214	25.984	
CIRC.	320.000	2.453737	0.000	498742.568	4677319.718	30.630724	83.341	30.041023	188.427306	199.508	387.837605	25.904	
CIRC.	340.000	2.581061	0.000	498743.358	4677339.702	25.277990	101.782	24.688288	186.874760	180.049	386.285058	25.824	
CIRC.	360.000	2.708385	0.000	498744.189	4677359.685	21.605096	120.732	21.015395	184.932225	160.734	384.342524	25.744	
CIRC.	380.000	2.835709	0.000	498745.060	4677379.666	18.952672	139.985	18.362971	182.445089	141.623	381.855388	25.664	
CIRC.	400.000	2.963033	0.000	498745.970	4677399.645	16.959787	159.430	16.370086	179.169575	122.809	378.579874	25.584	
CIRC.	420.000	3.090357	0.000	498746.921	4677419.623	15.415314	179.006	14.825613	174.704090	104.453	374.114389	25.504	
CIRC.	440.000	3.217680	0.000	498747.911	4677439.598	14.188535	198.673	13.598834	168.357877	86.849	367.768176	25.424	
CIRC.	460.000	3.345004	0.000	498748.942	4677459.571	13.194578	218.407	12.604876	158.913181	70.558	358.323480	25.344	
CIRC.	480.000	3.472328	0.000	498750.012	4677479.543	12.376100	238.191	11.786398	144.345085	56.727	343.755384	25.264	
CIRC.	500.000	3.599652	0.000	498751.122	4677499.512	11.693041	258.013	11.103340	122.454906	47.550	321.865205	25.185	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 513.815 Dis=-45.489  
 Distancia: 315.262 Azimut: 5.806561  
 BO : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 826.216 Dis=-44.062

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	500.000	3.599652	0.000	498751.122	4677499.512	122.454906	47.550	116.648345	196.937138	330.761	391.130576	25.185	
CIRC.	520.000	3.726976	0.000	498752.272	4677519.479	95.085123	45.909	89.278562	196.505220	310.880	390.698658	25.130	
CIRC.	540.000	3.854300	0.000	498753.463	4677539.443	70.457201	52.517	64.650640	196.005624	291.019	390.199063	25.104	
CIRC.	560.000	3.981624	0.000	498754.693	4677559.405	53.278956	64.900	47.472394	195.423579	271.185	389.617018	25.084	
CIRC.	580.000	4.108948	0.000	498755.963	4677579.365	42.164841	80.434	36.358280	194.739718	251.383	388.933156	25.064	
CIRC.	600.000	4.236272	0.000	498757.273	4677599.322	34.819149	97.626	29.012587	193.928160	231.621	388.121599	25.044	
CIRC.	620.000	4.363596	0.000	498758.622	4677619.277	29.739674	115.739	23.933113	192.953563	211.910	387.147002	25.024	
CIRC.	638.125	4.478983	0.000	498759.880	4677637.358	26.368779	132.636	20.562217	191.888479	194.106	386.081918	25.006	
CIRC.	640.000	4.526732	0.000	498760.013	4677639.228	26.069683	134.403	20.263122	191.766261	192.268	385.959700	25.004	
CIRC.	660.000	5.036027	0.000	498761.513	4677659.172	23.345395	153.435	17.538834	190.269630	172.732	384.463069	24.960	
CIRC.	680.000	5.545323	0.000	498763.174	4677679.103	21.282401	172.727	15.475840	188.328502	153.357	382.521941	24.856	
CIRC.	700.000	6.054619	0.000	498764.993	4677699.020	19.686987	192.199	13.880426	185.756872	134.215	379.950311	24.717	
CIRC.	716.084	6.464198	0.000	498766.572	4677715.026	18.656074	207.954	12.849512	183.034100	119.067	377.227539	24.604	
CIRC.	720.000	6.514056	0.000	498766.971	4677718.922	18.432491	211.800	12.625929	182.256218	115.423	376.449656	24.577	
CIRC.	740.000	6.768704	0.000	498769.053	4677738.813	17.419535	231.487	11.612973	177.353637	97.160	371.547076	24.437	
CIRC.	760.000	7.023352	0.000	498771.215	4677758.696	16.585581	251.236	10.779020	170.195459	79.779	364.388898	24.297	
CIRC.	780.000	7.278000	0.000	498773.457	4677778.570	15.891895	271.033	10.085333	159.230905	64.002	353.424443	24.157	
CIRC.	800.000	7.532648	0.000	498775.778	4677798.434	15.310078	290.867	9.503516	141.991570	51.331	336.185009	24.017	
CIRC.	820.000	7.787296	0.000	498778.179	4677818.290	14.818865	310.732	9.012304	116.788280	44.502	310.981718	23.877	

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 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 826.216 Dis=-44.062  
 Distancia: 255.337 Azimut: 8.425592  
 BO : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 1080.242 Dis=-46.860

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	820.000	7.787296	0.000	498778.179	4677818.290	116.788280	44.502	108.362688	197.771691	264.866	389.346099	23.877	
CIRC.	840.000	8.041944	0.000	498780.659	4677838.135	88.573384	46.186	80.147792	196.947644	245.140	388.522052	23.737	
CIRC.	860.000	8.296592	0.000	498783.218	4677857.971	66.303664	55.614	57.878072	195.957386	225.477	387.531794	23.597	
CIRC.	880.000	8.551240	0.000	498785.857	4677877.796	51.767043	69.711	43.341451	194.754089	205.897	386.328497	23.457	
CIRC.	900.000	8.805888	0.000	498788.575	4677897.611	42.484707	86.217	34.059115	193.271985	186.424	384.846393	23.335	
CIRC.	920.000	9.060535	0.000	498791.372	4677917.414	36.316887	103.991	27.891295	191.416063	167.097	382.990471	23.211	
CIRC.	940.000	9.315183	0.000	498794.249	4677937.206	32.016588	122.482	23.590996	189.044570	147.974	380.618978	23.250	
CIRC.	960.000	9.569831	0.000	498797.204	4677956.986	28.889060	141.408	20.463468	185.938199	129.145	377.512607	23.230	
CIRC.	980.000	9.824479	0.000	498800.239	4677976.755	26.534768	160.616	18.109176	181.743983	110.762	373.318391	23.210	
CIRC.	1000.000	10.079127	0.000	498803.353	4677996.511	24.712885	180.015	16.287293	175.871653	93.089			

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERAS – PONT DE MOLINS**  
**Clave: 12-GI-3720**

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 PROYECTO :  
 C.R.S. : ETR589 (HUSO 31)  
 EJE : 52 : CE 3.5 CD

\*\*\*\*\* DATOS PARA REPLANTEO DE PUNTOS \*\*\*\*\*

BR : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 1080.242 Dia=-46.860  
 Distancia: 290.804 Azimut: 10.863189  
 BO : BR-119 X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 1357.779 Dia=-52.641

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	1080.000	9.711392	0.000	498815.188	4678075.629	110.047365	46.861	99.184176	200.672137	293.962	389.808947	23.110	
CIRC.	1099.927	10.345691	0.000	498818.315	4678095.309	84.447767	50.916	73.584578	199.994771	274.266	389.131582	23.090	
CIRC.	1100.000	10.346465	0.000	498818.326	4678095.381	84.364097	50.945	73.500908	199.992031	274.194	389.128842	23.090	
CIRC.	1120.000	10.558671	0.000	498821.595	4678115.112	65.147327	61.704	54.284138	199.173606	254.484	388.310417	23.070	
CIRC.	1140.000	10.770878	0.000	498824.930	4678134.832	52.467124	76.325	41.603935	198.200222	234.837	387.337033	23.050	
CIRC.	1160.000	10.983085	0.000	498828.331	4678154.541	44.122289	93.004	33.259100	197.030161	215.268	386.166972	23.030	
CIRC.	1180.000	11.195291	0.000	498831.797	4678174.238	38.416831	110.816	27.553642	195.605648	195.803	384.742459	23.010	
CIRC.	1200.000	11.407498	0.000	498835.329	4678193.924	34.345344	129.294	23.482155	193.844587	176.475	382.981398	22.990	
CIRC.	1220.000	11.619704	0.000	498838.926	4678213.598	31.328388	148.188	20.465199	191.626843	157.336	380.763654	22.970	
CIRC.	1240.000	11.831911	0.000	498842.589	4678233.259	29.022118	167.357	18.158929	188.770743	138.464	377.907554	22.950	
CIRC.	1260.000	12.044118	0.000	498846.318	4678252.909	27.213808	186.716	16.350619	184.991506	119.985	374.128317	22.930	
CIRC.	1280.000	12.256324	0.000	498850.112	4678272.546	25.766300	206.212	14.903111	179.826411	102.114	368.963222	22.911	
CIRC.	1300.000	12.468531	0.000	498853.971	4678292.170	24.587801	225.809	13.724612	172.503660	85.232	361.640471	22.912	
CIRC.	1320.000	12.680737	0.000	498857.896	4678311.781	23.614824	245.483	12.751635	161.754357	70.062	350.891168	22.943	
CIRC.	1336.570	12.856546	0.000	498861.197	4678328.018	22.931735	261.828	12.068546	148.983990	59.731	338.120801	22.976	
CIRC.	1340.000	13.048488	0.000	498861.914	4678331.373	22.808942	265.220	11.945753	145.789500	57.985	334.926311	22.983	
CIRC.	1357.779	19.607645	0.000	498866.544	4678348.532	22.430647	282.918	11.567458	126.180334	52.641	315.317145	23.019	

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 PROYECTO :  
 EJE : 52 : CE 3.5 CD

Istram 23.06.06.27 13/09/23 08:34:34 200315 pagina 1  
 PROYECTO :  
 EJE : 53 : CE 4.8 CD

REPLANTEO POR BISECCION

PK	Az1	d1	X	Y	Az2	d2
*BASE 1: BR-119			498818.292	4678369.575	13.1494	196.129
*BASE 2: BR-120			498858.515	4678561.535		
0.000	119.1848	50.900	498866.898	4678354.467	197.4241	207.237
8.354	108.7469	50.988	498868.800	4678362.592	196.7119	199.209
20.000	94.4796	52.403	498870.498	4678374.113	195.9351	187.804
39.446	74.0422	59.959	498873.335	4678393.351	194.4047	168.836
40.000	73.5442	60.252	498873.416	4678393.899	194.3559	168.297
60.000	58.8947	73.193	498876.750	4678413.618	192.1911	149.037
80.000	49.4782	89.234	498880.871	4678433.188	189.0215	130.280
81.091	49.0765	89.166	498881.118	4678434.250	188.8118	129.276
100.000	43.2507	106.809	498885.401	4678452.668	184.5863	112.138
120.000	38.7897	125.096	498889.884	4678472.159	178.5111	94.721
140.000	35.4574	143.823	498894.218	4678491.661	169.8549	78.513
160.000	32.8794	162.839	498898.704	4678511.174	157.1214	64.431
180.000	30.8263	182.053	498903.041	4678530.699	138.5607	54.161
200.000	29.1512	201.408	498907.329	4678550.234	114.4840	50.105
210.178	28.4112	211.299	498908.492	4678560.179	101.5927	50.995
*BASE 1: BR-120			498858.515	4678561.535	14.9860	225.411
*BASE 2: BR-121			498911.088	4678780.729		
200.000	114.4840	50.105	498907.329	4678550.234	201.0383	230.526
210.178	101.6927	50.995	498909.492	4678560.179	200.4607	220.555
220.000	90.1908	53.701	498911.579	4678569.777	199.8517	210.953
240.000	71.2866	63.724	498915.066	4678589.312	198.4111	191.477
260.000	58.3549	77.735	498920.502	4678608.836	196.6276	172.134
280.000	49.6443	93.966	498924.587	4678628.350	194.3750	152.976
300.000	43.6029	111.452	498929.020	4678647.852	191.4601	134.082
320.000	39.2507	129.886	498933.003	4678667.343	187.5753	115.580
340.000	36.0029	148.392	498938.033	4678686.823	182.2107	97.695
360.000	33.5054	167.413	498942.613	4678706.292	174.4964	80.838
380.000	31.5384	186.651	498947.241	4678725.749	162.9692	65.802
400.000	29.9515	206.046	498951.918	4678745.194	145.5924	54.128
417.090	28.8276	222.712	498955.953	4678761.801	125.4159	48.694
420.000	28.6537	225.557	498956.643	4678764.628	121.6279	48.317
428.519	28.1688	233.894	498958.663	4678772.904	110.3777	48.214
440.000	26.9251	244.273	498958.775	4678784.284	95.2626	47.819
447.652	25.5364	249.665	498955.998	4678791.383	85.1722	46.156

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 PROYECTO :  
 EJE : 54 : CE 5.4 CD

REPLANTEO POR BISECCION

PK	Az1	d1	X	Y	Az2	d2
*BASE 1: BR-119			498818.292	4678369.575	13.1494	196.129
*BASE 2: BR-120			498858.515	4678561.535		
0.000	119.603	504.876	498912.587	4678865.567	11.2051	308.803
16.130	13.5127	515.040	498926.794	4678873.057	13.7361	318.916
20.000	13.8304	517.927	498929.927	4678875.327	14.2455	321.816
33.343	14.9994	527.184	498941.356	4678882.194	16.0949	331.187
40.000	15.6042	531.547	498947.279	4678885.234	17.0383	335.649
54.120	16.8542	540.955	498959.840	4678891.683	18.9574	345.347
60.000	17.3421	545.098	498964.960	4678894.571	19.6944	349.633
80.000	18.6426	561.533	498980.390	4678907.203	21.5795	366.524
100.000	19.3415	580.463	498991.945	4678923.454	22.4863	385.732
118.353	19.4555	598.739	498998.436	4678940.572	22.5128	404.038
120.000	19.4442	600.383	498998.828	4678942.172	22.4837	405.675
140.000	19.3285	620.352	499003.758	4678961.554	22.1727	425.571
160.000	19.2506	640.337	499008.984	4678980.859	21.9332	445.504
180.000	19.2070	660.332	499014.507	4679000.081	21.7563	465.464
200.000	19.1948	680.332	499020.325	4679019.216	21.6342	485.443
*BASE 1: BR-120			498858.515	4678561.535	14.9860	225.411
*BASE 2: BR-121			498911.088	4678780.729		
200.000	21.6342	485.443	499020.325	4679019.216	27.3443	262.314
220.000	21.5605	505.434	499026.437	4679038.259	26.8088	282.183
240.000	21.5296	525.432	499032.841	4679057.206	26.4083	302.098
260.000	21.5370	545.432	499039.536	4679076.052	26.1180	322.047
266.614	21.5471	552.046	499041.814	4679082.261	26.0429	326.650
280.000	21.8202	565.152	499048.451	4679093.814	26.3210	341.893
300.000	23.0363	581.638	499064.420	4679105.507	28.0806	359.154
301.057	23.1224	582.344	499065.405	4679105.888	28.2095	359.920
320.000	24.6479	594.988	499083.163	4679112.484	30.4611	373.726
325.125	25.0495	598.467	499087.968	4679114.268	31.0417	377.538

**PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.**  
**TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS**  
**Clave: 12-GI-3720**

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 54 : CE 5.4 CD

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 146.751 Dis=-49.464  
 BO : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 324.426 Dis=-155.424

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	140.000	16.223897	0.000	499008.895	4678957.473	125.186591	49.940	108.370930	206.477457	306.215	389.661796	21.531	
CIRC.	160.000	17.203312	0.000	499014.086	4678976.787	99.915256	51.273	83.099595	205.765937	286.491	388.950276	21.677	
CIRC.	180.000	18.182727	0.000	499019.573	4678996.020	79.133199	59.951	62.317538	204.877278	266.867	388.061616	21.151	
CIRC.	200.000	19.162142	0.000	499025.355	4679015.165	64.910923	73.414	48.095261	203.770606	247.372	386.954945	20.551	
CIRC.	220.000	20.141557	0.000	499031.431	4679034.220	55.597376	89.525	38.781714	202.392098	228.045	385.576437	20.188	
CIRC.	240.000	21.120972	0.000	499037.800	4679053.178	49.380965	107.094	32.565304	200.669791	208.937	383.854130	20.422	
CIRC.	260.000	22.100387	0.000	499044.459	4679072.037	45.091429	125.506	28.275768	198.505988	190.119	381.690327	20.853	
CIRC.	273.982	22.785120	0.000	499049.287	4679085.160	42.855569	138.698	26.039908	196.661003	177.188	379.845342	20.865	
CIRC.	280.000	32.362270	0.000	499051.810	4679090.616	42.226048	144.544	25.410387	195.621804	171.894	378.806143	20.795	
CIRC.	300.000	64.193258	0.000	499065.422	4679104.985	42.954169	164.258	26.138508	189.787199	159.163	372.971538	20.450	
RECTA	308.274	77.360987	0.000	499072.826	4679108.644	44.249772	171.776	27.434111	186.583795	156.932	369.768134	20.346	
RECTA	320.000	77.360987	0.000	499083.819	4679112.727	46.288114	182.045	29.472453	181.834087	155.672	365.018426	20.243	
RECTA	324.426	77.360987	0.000	499087.968	4679114.268	46.998702	185.966	30.183041	180.025277	155.424	363.209616	20.217	

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 55 : CE 5.4 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 0.000 Dis=-96.412  
 BO : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 112.122 Dis=-26.640

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	362.074856	0.000	498926.583	4678875.888	10.276095	96.412	393.849199	221.960055	107.142	5.533159	21.019	
CIRC.	9.738	362.074856	0.000	498921.119	4678883.948	6.167483	103.705	389.740587	226.889469	101.709	10.462573	21.394	
CIRC.	20.000	388.207691	0.000	498917.240	4678893.372	3.473645	112.810	387.046749	231.854377	94.993	15.427481	21.678	
RECTA	30.644	15.311294	0.000	498917.532	4678903.931	3.326891	123.370	386.899995	235.428151	85.723	19.001254	21.834	
RECTA	40.000	15.311294	0.000	498919.761	4678913.018	4.167737	132.573	387.740841	237.836287	76.885	21.409391	21.853	
RECTA	60.000	15.311294	0.000	498924.525	4678932.442	5.623703	152.307	389.196807	245.390609	58.535	28.963713	21.669	
RECTA	80.000	15.311294	0.000	498929.289	4678951.867	6.745212	172.103	390.318316	259.388397	41.731	42.961500	21.469	
RECTA	100.000	15.311294	0.000	498934.053	4678971.291	7.635125	191.941	391.208229	288.124655	29.268	71.697759	21.269	

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 55 : CE 5.4 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-122 X: 498962.813 Y: 4678976.719 Z: 26.205 PK: 112.122 Dis=-26.640  
 BO : BR-123 X: 499039.998 Y: 4679262.104 Z: 25.204 PK: 217.187 Dis=-195.794

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	100.000	15.311294	0.000	498934.053	4678971.291	288.124655	29.268	271.308994	222.241161	309.510	5.425500	21.269	
RECTA	120.000	15.311294	0.000	498938.817	4678990.715	333.615338	27.780	316.799677	222.718742	289.637	5.903081	21.069	
RECTA	140.000	15.311294	0.000	498943.581	4679010.140	366.756875	38.559	349.941214	223.266654	269.782	6.450993	20.871	
RECTA	160.000	15.311294	0.000	498948.345	4679029.564	382.986944	54.790	366.171283	223.901565	249.950	7.085903	20.695	
RECTA	180.000	15.311294	0.000	498953.109	4679048.988	391.502180	72.918	374.686519	224.645818	230.148	7.830157	20.541	
RECTA	200.000	15.311294	0.000	498957.872	4679068.413	396.573158	91.827	379.757497	225.530055	210.383	8.714394	20.391	
CIRC.	204.530	15.311294	0.000	498958.952	4679072.813	397.443197	96.171	380.627536	225.753919	205.912	8.938258	20.357	
CIRC.	217.187	361.594121	0.000	498956.736	4679084.896	396.427178	108.347	379.611517	227.963110	195.794	11.147449	20.262	

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

pagina 1

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-124 X: 499032.521 Y: 4679413.437 Z: 24.953 PK: 0.000 Dis=-264.329  
 BO : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 18.681 Dis=-23.426

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	374.486745	0.000	498979.580	4679672.411	387.162792	264.329	394.967828	242.946963	29.175	50.752000	17.370	

Istram 22.11.11.15 16/11/22 16:45:47 200315  
 PROYECTO :  
 C.R.S. : ETR889 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 18.681 Dis=-23.426  
 BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 354.456 Dis=-18.085

TIPO	PK	Estac.	Azimet	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	0.000	374.486745	0.000	498979.580	4679672.411	242.946963	29.175	267.209961	180.273917	356.574	4.536915	17.370	
RECTA	9.833	387.006843	0.000	498976.656	4679681.782	264.016156	25.041	288.279154	180.260529	346.757	4.523527	17.567	
RECTA	20.000	387.006843	0.000	498974.596	4679691.738	290.586543	23.463	314.849541	180.057172	336.649	4.320170	17.727	
RECTA	40.000	387.006843	0.000	498970.542	4679711.323	334.010495	31.674	358.273493	179.619264	316.776	3.882262	17.742	
RECTA	60.000	387.006843	0.000	498966.488	4679730.908	354.171650	47.498	378.434648	179.122760	296.919	3.385758	17.400	
RECTA	80.000	387.006843	0.000	498962.435	4679750.493	363.774774	65.641	388.037772	178.555130	277.084	2.818128	17.194	
RECTA	100.000	387.006843	0.000	498958.381	4679770.078	369.150652	84.626	393.413651	177.900024	257.273	2.163022	17.278	
CIRC.	116.080	387.006843	0.000	498955.122	4679785.824	371.980390	100.176	396.243388	177.295380	241.368	1.558378	17.320	
CIRC.	120.000	385.759103	0.000	498954.290	4679789.655	372.518620	104.000	396.781618	177.145895	237.489	1.408893	17.326	
CIRC.	140.000	379.392905	0.000	498948.886	4679808.902	374.136376	123.783	398.399374	176.647558	217.577	0.910556	17.347	
CIRC.	141.259	378.992148	0.000	498948.482	4679810.095	374.187233	125.038	398.450231	176.632750	216.319	0.895748	17.348	
CIRC.	160.000	377.799060	0.000	498942.244	4679827.766	374.735513	143.743	398.998511	176.465567	197.586	0.728565	17.367	
CIRC.	180.000	376.525820	0.000	498935.222	4679846.493	375.031893	163.730	399.294891	176.387088	177.587	0.650086	17.387	
CIRC.	200.000	375.252581	0.000	498927.827	4679865.075	375.125212	183.728	399.388210	176.450274	157.588	0.713272	17.407	
CIRC.	220.000	373.979341	0.000	498920.063	4679883.506	375.075220	203.727	399.338218	176.716852	137.598	0.979850	17.427	
CIRC.	240.000	372.706102	0.000	498911.931	4679901.778	374.920360	223.720	399.183359	177.290260	117.631	1.553258	17.482	
CIRC.	242.413	372.552515	0.000	498910.925	4679903.971	374.895923	226.131	399.158921	177.387762	115.226	1.650760	17.500	
CIRC.	260.000	361.355591	0.000	498902.211	4679919.222	374.324692	243.569	398.587690	179.250872	97.938	3.513870	17.670	
CIRC.	264.106	358.742084	0.000	498899.801	4679922.545	374.089930	247.573	398.352928	180.076688	94.026	4.339686	17.711	
CIRC.	280.000	378.979059	0.000	498892.364	4679936.517	373.776000	263.351	398.038998	182.327097	78.492	6.590095	17.714	

PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-125 X: 498997.803 Y: 4679695.195 Z: 22.702 PK: 18.681 Dis=-23.426  
 Distancia: 341.298 Azimut: 375.737002  
 BO : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 354.456 Dis=-18.085

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	280.417	379.510580	0.000	498892.230	4679936.912	373.784645	263.766	398.047643	182.343571	78.075	6.606569	17.707	
CIRC.	300.000	367.043946	0.000	498884.262	4679954.766	373.749632	283.317	398.012630	185.349728	58.788	9.612726	17.325	
RECTA	301.666	365.983084	0.000	498883.426	4679956.207	373.707410	284.973	397.970408	185.890549	57.196	10.153547	17.299	
RECTA	320.000	365.983084	0.000	498874.089	4679971.985	373.241453	303.180	397.504451	194.863242	40.149	19.126240	17.209	
RECTA	340.000	365.983084	0.000	498863.904	4679989.197	372.793068	323.058	397.056066	218.829308	23.842	43.092306	17.238	
CIRC.	345.348	365.983084	0.000	498861.180	4679993.800	372.682368	328.376	396.945366	231.094134	20.614	55.357132	17.237	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-126 X: 498870.853 Y: 4680012.004 Z: 22.802 PK: 354.456 Dis=-18.085  
 Distancia: 805.223 Azimut: 344.114126  
 BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 406.861 Dis=-757.120

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	340.000	365.983084	0.000	498863.904	4679989.197	218.829308	23.842	274.715182	145.832265	814.742	1.718139	17.238	
CIRC.	345.348	365.983084	0.000	498861.180	4679993.800	231.094134	20.614	286.980008	145.701372	809.661	1.587246	17.237	
CIRC.	360.000	356.655418	0.000	498852.823	4680005.819	278.961813	19.062	334.847687	145.416835	795.469	1.302708	17.219	
CIRC.	380.000	343.923023	0.000	498838.769	4680020.001	315.551474	33.066	371.437347	145.291519	775.562	1.177392	17.162	
CIRC.	382.840	342.115076	0.000	498836.553	4680021.778	317.671708	35.666	373.557582	145.299868	772.724	1.185742	17.154	
CIRC.	400.000	14.944733	0.000	498831.179	4680037.102	335.909045	46.946	391.794918	144.620440	758.690	0.506313	17.127	
RECTA	411.024	61.731421	0.000	498837.284	4680045.984	350.387441	47.765	6.273315	143.719300	757.705	399.605174	17.126	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 406.861 Dis=-757.120  
 Distancia: 162.141 Azimut: 134.042174  
 BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 407.484 Dis=-597.511

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	400.000	14.944733	0.000	498831.179	4680037.102	335.909045	758.690	10.578266	147.469805	599.383	213.427631	17.127	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 407.484 Dis=-597.511  
 Distancia: 204.936 Azimut: 136.780413  
 BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 408.646 Dis=-396.295

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	400.000	14.944733	0.000	498831.179	4680037.102	335.909045	599.383	10.689392	152.943819	398.802	216.163406	17.127	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 56 : CE 6.2 CI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 408.646 Dis=-396.295  
 Distancia: 129.562 Azimut: 141.102857  
 BO : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 409.773 Dis=-269.306

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	400.000	14.944733	0.000	498831.179	4680037.102	335.909045	398.802	11.840962	158.547901	272.530	217.445044	17.127	
RECTA	411.024	61.731421	0.000	498837.284	4680045.984	350.387441	396.490	10.155644	156.127403	269.361	215.024546	17.126	
RECTA	420.000	61.731421	0.000	498844.687	4680051.060	349.842201	398.059	8.739344	154.021095	270.298	212.918238	17.134	
RECTA	440.000	61.731421	0.000	498861.181	4680062.372	346.730727	402.253	5.627870	149.394686	273.436	208.291829	17.157	
RECTA	452.593	61.731421	0.000	498871.566	4680069.494	344.807443	405.377	3.704586	146.544848	276.138	205.441991	17.171	

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 PROYECTO :  
 EJE : 57 : CE 7.4 CD

REPLANTEO POR BISECCION

PK	A21	d1	X	Y	A22	d2
*BASE 1: BR-119			498818.292	4678369.575	13.1494	196.129
*BASE 2: BR-120			498858.515	4678561.535		
0.000	384.4263	2267.775	498269.039	4680569.830	381.8244	2093.020
20.000	384.0656	2283.023	498252.807	4680581.457	381.4530	2108.783
21.467	384.0361	2284.039	498251.529	4680582.179	381.4224	2109.842
40.000	383.6639	2296.850	498235.350	4680591.218	381.0358	2123.193
60.000	383.2689	2310.840	498217.945	4680601.069	380.6263	2137.763
80.000	382.8810	2325.000	498200.596	4680611.020	380.2250	2152.498
100.000	382.5000	2339.324	498183.304	4680621.069	379.8316	2167.393
120.000	382.1259	2353.810	498166.070	4680631.217	379.4461	2182.445
140.000	381.7586	2368.454	498148.894	4680641.464	379.0685	2197.650
160.000	381.3981	2383.252	498131.777	4680651.808	378.6985	2213.005
180.000	381.0443	2398.202	498114.720	4680662.250	378.3362	2228.505
200.000	380.6972	2413.300	498097.722	4680672.790	377.9815	2244.149
*BASE 1: BR-120			498858.515	4678561.535	14.9860	225.411
*BASE 2: BR-121			498911.088	4678780.729		
200.000	377.9815	2244.149	498097.722	4680672.790	374.1532	2059.480
220.000	377.6342	2259.931	498080.785	4680683.426	373.8049	2075.972
240.000	377.2942	2275.848	498063.909	4680694.159	373.4649	2092.589
260.000	376.9616	2291.898	498047.094	4680704.988	373.1332	2109.327
280.000	376.6362	2308.076	498030.342	4680715.913	372.8096	2126.182
300.000	376.3178	2324.381	498013.652	4680726.934	372.4940	2143.153
318.372	376.0315	2339.466	497998.376	4680737.142	372.2110	2158.841
320.000	376.0064	2340.807	497997.025	4680738.049	372.1862	2160.235
340.000	375.7005	2357.316	497980.426	4680749.205	371.8844	2177.391
358.638	375.4192	2372.749	497964.957	4680759.601	371.6075	2193.421
360.000	375.3988	2373.879	497963.826	4680760.361	371.5874	2194.595
380.000	375.1027	2390.531	497947.263	4680771.570	371.2967	2211.879
400.000	374.8133	2407.295	497930.763	4680782.874	371.0132	2229.265
420.000	374.5304	2424.170	497914.329	4680794.272	370.7370	2246.750
440.000	374.2539	2441.153	497897.960	4680805.764	370.4679	2264.331
447.652	374.1499	2447.678	497891.715	4680810.185	370.3668	2271.082



PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-112 X: 498636.446 Y: 4676488.215 Z: 28.137 PK: 0.000 Dis= 749.648  
 Distancia: 214.749 Azimut: 8.954085  
 BO : BR-113 X: 498666.551 Y: 4676700.843 Z: 28.816 PK: 2.570 Dis= 535.775

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	102.428864	0.000	498684.419	4677236.326	4.076775	749.648	395.122690	2.123486	535.781	193.169402		26.500

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-113 X: 498666.551 Y: 4676700.843 Z: 28.816 PK: 2.570 Dis= 535.775  
 Distancia: 204.239 Azimut: 3.999915  
 BO : BR-114 X: 498679.375 Y: 4676904.679 Z: 29.015 PK: 7.610 Dis= 331.598

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	102.428864	0.000	498684.419	4677236.326	2.123486	535.781	398.123571	0.968159	331.686	196.968244		26.500

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-114 X: 498679.375 Y: 4676904.679 Z: 29.015 PK: 7.610 Dis= 331.598  
 Distancia: 611.861 Azimut: 2.823188  
 BO : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 11.400 Dis= 280.251

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	102.428864	0.000	498684.419	4677236.326	0.968159	331.686	398.144971	205.016985	280.482	2.193797		26.500

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 11.400 Dis= 280.251  
 Distancia: 270.111 Azimut: 200.589701  
 BO : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 19.202 Dis= -10.253

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	102.428864	0.000	498684.419	4677236.326	205.016985	280.482	4.427283	271.207182	21.768	270.617481		26.500

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 19.202 Dis= -10.253  
 Distancia: 584.885 Azimut: 3.399441  
 BO : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 28.118 Dis= 595.069

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	102.428864	0.000	498684.419	4677236.326	271.207182	21.768	267.807742	205.434821	595.733	2.035381		26.500
RECTA	20.000	102.428864	0.000	498704.404	4677235.563	197.483112	10.284	194.083671	203.297354	595.125	399.897914		26.066

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 58 : C ACCESO (PI 3.7)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 28.118 Dis= 595.069  
 Distancia: 255.337 Azimut: 8.425592  
 BO : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 52.135 Dis= 849.274

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	20.000	102.428864	0.000	498704.404	4677235.563	203.297354	595.125	194.871762	204.836557	849.882	396.410965		26.066
RECTA	40.000	102.428864	0.000	498724.390	4677234.801	201.157928	595.188	192.732336	203.338435	849.361	394.912843		26.024
RECTA	52.738	102.428864	0.000	498737.119	4677234.315	199.796518	595.578	191.370926	202.383651	849.275	393.958059		26.196

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-118 X: 498768.910 Y: 4678082.994 Z: 27.654 PK: 10.335 Dis= 5.536  
 Distancia: 290.804 Azimut: 10.863189  
 BO : BR-119 X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 12.083 Dis= 285.263

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	110.480465	0.000	498759.622	4678090.149	341.789384	11.725	330.926195	213.175464	285.519	2.312275		23.500

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 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-119 X: 498818.292 Y: 4678369.575 Z: 28.546 PK: 12.083 Dis= 285.263  
 Distancia: 546.042 Azimut: 209.723551  
 BO : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 18.575 Dis= 260.740

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	110.480465	0.000	498759.622	4678090.149	213.175464	285.519	3.451913	5.952803	261.401	396.229251		23.500

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-117 X: 498735.215 Y: 4677829.890 Z: 26.445 PK: 18.575 Dis= 260.740  
 Distancia: 741.962 Azimut: 10.628724  
 BO : BR-120 X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 20.304 Dis= 481.219

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
RECTA	0.000	110.480465	0.000	498759.622	4678090.149	5.952803	261.401	395.324078	213.164846	481.647	2.536121		23.500
RECTA	20.000	110.480465	0.000	498779.352	4678086.872	10.828318	260.744	0.199594	210.520576	481.219	399.891852		22.920

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-120 X: 498858.515 Y: 4678561.535 Z: 27.855 PK: 20.304 Dis=-481.219  
 Distancia: 225.411 Azimut: 14.986043  
 BO : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 36.243 Dis=-706.066

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	110.480465	0.000	498779.352	4678086.872	210.520576	481.219	195.534534	211.944744	706.252	396.958702	22.920

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-121 X: 498911.088 Y: 4678780.729 Z: 26.990 PK: 36.243 Dis=-706.066  
 Distancia: 1281.231 Azimut: 210.209301  
 BO : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 41.701 Dis= 575.154

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	110.480465	0.000	498779.352	4678086.872	211.944744	706.252	1.735444	8.079667	575.563	397.870366	22.920

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	40.000	110.480465	0.000	498799.081	4678083.594	210.141718	706.076	399.932417	10.292267	575.156	0.082966	22.902

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 59 : C ACCESO (PI 4.5)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-116 X: 498706.500 Y: 4677515.938 Z: 28.326 PK: 41.701 Dis= 575.154  
 Distancia: 270.111 Azimut: 200.589701  
 BO : BR-115 X: 498703.998 Y: 4677245.839 Z: 29.938 PK: 54.639 Dis= 842.505

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	40.000	110.480465	0.000	498799.081	4678083.594	10.292267	575.156	209.702566	7.194701	843.134	6.605000	22.902

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	54.639	110.480465	0.000	498813.522	4678081.195	11.912335	575.299	211.322634	8.299422	842.505	7.709721	23.055

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-131 X: 498017.239 Y: 4680669.435 Z: 22.535 PK: 10.177 Dis= 8.636  
 Distancia: 770.446 Azimut: 136.268174  
 BO : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 13.203 Dis= 779.075

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	0.000	36.518217	0.000	498004.463	4680665.574	281.314805	13.347	145.046631	335.439458	779.187	399.171284	18.210

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-127 X: 498666.003 Y: 4680253.873 Z: 27.136 PK: 13.203 Dis= 779.075  
 Distancia: 1009.336 Azimut: 336.674582  
 BO : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 15.682 Dis=-230.258

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	0.000	36.518217	0.000	498004.463	4680665.574	335.439458	779.187	399.764876	140.847284	230.791	4.172702	18.210

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-132 X: 497819.571 Y: 4680803.702 Z: 25.258 PK: 15.682 Dis=-230.258  
 Distancia: 519.156 Azimut: 136.346683  
 BO : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 17.065 Dis= 282.896

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	0.000	36.518217	0.000	498004.463	4680665.574	140.847284	230.791	4.500601	332.682719	283.411	396.336037	18.210

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-130 X: 498251.339 Y: 4680526.384 Z: 22.774 PK: 17.065 Dis= 282.896  
 Distancia: 366.993 Azimut: 135.570933  
 BO : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 22.525 Dis= 649.849

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	0.000	36.518217	0.000	498004.463	4680665.574	332.682719	283.411	197.111786	334.312438	650.239	398.741505	18.210

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	36.518217	0.000	498015.316	4680682.372	337.178775	282.912	201.607842	336.270841	649.854	0.699908	18.157

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-128 X: 498562.520 Y: 4680331.832 Z: 26.791 PK: 22.525 Dis= 649.849  
 Distancia: 204.936 Azimut: 336.780413  
 BO : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 23.369 Dis= 444.915

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	36.518217	0.000	498015.316	4680682.372	336.270841	649.854	399.490428	336.036132	444.928	199.255718	18.157

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-129 X: 498390.846 Y: 4680443.755 Z: 24.595 PK: 23.369 Dis= 444.915  
 Distancia: 882.216 Azimut: 336.938497  
 BO : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 29.193 Dis=-437.282

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	36.518217	0.000	498015.316	4680682.372	336.036132	444.928	399.097634	137.856440	437.378	0.917942	18.157

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 60 : PI 7.6 (Camino)

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*

BR : BR-133 X: 497653.016 Y: 4680927.399 Z: 26.641 PK: 29.193 Dis=-437.282  
 Distancia: 290.397 Azimut: 343.589697  
 BO : BR-134 X: 497428.073 Y: 4681111.059 Z: 25.376 PK: 55.291 Dis=-725.914

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	20.000	36.518217	0.000	498015.316	4680682.372	137.856440	437.378	194.266743	140.143749	727.067	396.554052	18.157

TIPO	PK Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az.(BO)	Dis.R.(BO)	Ang1-2(BO)	COTA
RECTA	40.000	36.518217	0.000	498026.170	4680699.171	134.945242	437.415	191.355545	138.393089	726.204	394.803392	17.970



























PROYECTO DE CONSTRUCCIÓN. AUMENTO DE CAPACIDAD DE LA CARRETERA N-II.  
 TRAMO: VARIANTE DE FIGUERES – PONT DE MOLINS  
 Clave: 12-GI-3720

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 317 : GIV-6228 - CARRIL BICI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-106 X: 497850.681 Y: 4675435.940 Z: 44.374 PK: 40.985 Dis= 417.036  
 Distancia: 305.595 Azimut: 61.078387  
 BO : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 49.662 Dis= 677.197

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	40.000	8.446231	0.000	497435.623	4675476.686	306.229643	417.053	245.151256	287.285705	678.789	26.207319	34.699	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 317 : GIV-6228 - CARRIL BICI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-107 X: 498100.920 Y: 4675611.351 Z: 38.733 PK: 49.662 Dis= 677.197  
 Distancia: 152.126 Azimut: 59.306967  
 BO : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 52.053 Dis= 816.574

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	40.000	8.446231	0.000	497435.623	4675476.686	287.285705	678.789	227.978738	282.249321	819.020	22.942354	34.699	

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 PROYECTO :  
 C.R.S. : ETRS89 (HUSO 31)  
 EJE : 317 : GIV-6228 - CARRIL BICI

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 \* \* \* DATOS PARA REPLANTEO DE PUNTOS \* \* \*  
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BR : BR-108 X: 498223.012 Y: 4675702.103 Z: 35.583 PK: 52.053 Dis= 816.574  
 Distancia: 167.623 Azimut: 47.278718  
 BO : BR-109 X: 498336.366 Y: 4675825.587 Z: 33.592 PK: 54.794 Dis= 962.315

TIPO	PK	Estac.	Azimut	Dis.Eje	X	Y	Ang.Azimu.	Dis.Redu	Angulo 1-2	Ang.Az(BO)	Dis.R(BO)	Ang1-2(BO)	COTA
CIRC.	40.000	8.446231	0.000	497435.623	4675476.686	282.249321	819.020	234.970603	276.473549	965.955	29.194832	34.699	
CIRC.	60.000	366.490205	0.000	497431.782	4675495.946	283.773504	817.646	236.494786	277.752982	962.775	30.474264	34.665	
CIRC.	65.664	354.608766	0.000	497428.497	4675500.550	284.183849	819.681	236.905131	278.112806	964.300	30.834088	34.656	
CIRC.	80.000	385.031217	0.000	497422.015	4675513.184	285.254530	822.974	237.975812	279.040505	966.247	31.761787	34.632	
CIRC.	84.817	395.253026	0.000	497421.273	4675517.939	285.625813	822.619	238.347095	279.352990	965.424	32.074272	34.624	