

otros ejes de apoyo definidos en planta utilizados para los abocinamientos en las conexiones entre calles o entre calle y rotonda.

De las calles definidas, ni la Calle 1 ni la Calle 2 se proyectan ejecutar íntegramente mediante este proyecto, ajustándose la ejecución prevista a la necesaria para acceder y rodear íntegramente la denominada parcela nº 4. Sin embargo, se incluye la definición geométrica completa de la Calle 1, que se ejecutará desde el P.K. 0+357 hasta el final, y de la Calle 2, que se ejecutará desde el P.K. 0+584 en adelante. Por otro lado, se aportan los listados de definición geométrica de la Calle 3 y de la vía de servicio perimetral “camino Vía Terra Mítica”. Estos dos viales, pese a que no son objeto del proyecto, se ven afectados por el cambio de trazado en alzado de la Rotonda 2, cambio que invalida la definición de la rasante planteada en el “proyecto original”.

En este Anejo se proporcionan los datos geométricos correspondientes al trazado en planta y en alzado, incluyendo las coordenadas y variables que permitirán materializar y definir sobre el terreno las obras a realizar. Como ya se comenta en el Anejo de Cartografía y Topografía, estas coordenadas, igual que todo el proyecto, se encuentran en la proyección UTM.

## 2.- SECCIONES TIPO.

Transversalmente las secciones no son homogéneas y presentan soluciones diferentes para cada calle, para su definición se ha tenido en cuenta el proyecto original.

De forma gráfica, dichos valores se reflejan en el plano de secciones tipo. A continuación, se recoge un cuadro resumen con las principales características de las secciones tipo.

| VÍA                     | TRAMO            | ANCHO TOTAL      | ACERA IZQ.     | CALZADA     | ACERA DERE. |
|-------------------------|------------------|------------------|----------------|-------------|-------------|
| Conexión vial existente | RAMAL DERECHA    | 9,00-7,00 m      | Jardín         | 5,00-3,00 m | 3,75 m      |
|                         | RAMAL IZQUIERDO  | 7,00-5,00 m      | 1,95 m         | 5,00-3,00 m | Jardín      |
| Vial 1                  | Completo         | 12,00 m          | 1,95 m         | 6,30 m      | 3,75 m      |
| Calle 1                 | Completo         | 12,00 m          | 2,00 m         | 8,00 m      | 2,00 m      |
| Calle 2                 | 0+584 a 0+707,39 | 10,00 m          | 2,00 m         | 6,00 m      | 2,00 m      |
|                         | 0+707,39 a 0+720 | 10,00-12,00m     | 4,00-6,00 m    | 4,00 m      | 2,00 m      |
|                         | 0+720 a 0+920,91 | 12,00 m          | 6,00 m         | 4,00 m      | 2,00 m      |
| Calle 6                 | Completo         | 12,00 m          | 2,00 m         | 8,00 m      | 2,00 m      |
| Rotonda 2               | Completo         | R Ext.: 15,05 m. | R Int.: 9,05 m | 6,00 m      | 1,95 m      |

Se han considerado, asimismo, una pendiente transversal para las calzadas del 2% para todo el trazado para facilitar el drenaje, y del 1,5% para las aceras en dirección hacia la calzada para recoger el agua de escorrentía y dirigirla hacia la calzada donde desembocará en los colectores de desagüe. En cuanto a los taludes de desmonte y terraplén, se ha adoptado para ambos la pendiente 3H 2V.

### **3.- DEFINICIÓN DE EJES**

La definición en planta de los ejes se ha realizado de la misma manera que en el proyecto original, teniendo en cuenta los anchos de calzada y la zona de aparcamiento para colocar correctamente las pendientes transversales. En los planos de trazado en planta se pueden observar la ubicación de cada eje.

La definición de las rasantes se ha hecho coincidente con los ejes en planta, para facilitar la ejecución de los viales.

En el Apéndice 1 se recopilan los listados de la definición geométrica en planta de todos los ejes en estos listados aparecen los puntos singulares de la definición, así como las coordenadas cada 20 metros de cada eje.

En el Apéndice 2 incorporamos la definición de las rasantes, para ello se muestran los listados de los vértices que definen la rasante, así como los listados de cotas cada 20m.

## **APÉNDICE 1. TRAZADO EN PLANTA**

Calle 2

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.048,130     | 4.272.005,810   | 309,2495      | -439,000     |               | 746.984,572     | 4.271.571,435   |
| 0+045,089       | 45,089          | 747.003,260     | 4.272.010,037   | 302,7109      | -439,000     |               | 746.984,572     | 4.271.571,435   |
| 0+292,427       | 247,338         | 746.806,267     | 4.271.886,346   | 225,9009      | -205,000     |               | 746.994,533     | 4.271.805,223   |
| 0+378,634       | 86,207          | 746.810,567     | 4.271.803,240   | 167,5171      | -94,000      |               | 746.892,594     | 4.271.849,148   |
| 0+485,999       | 107,365         | 746.840,266     | 4.271.701,025   | 196,4793      | 236,000      |               | 746.604,627     | 4.271.687,980   |
| 0+551,787       | 65,787          | 746.860,378     | 4.271.639,158   | 163,5017      | -127,000     |               | 746.967,072     | 4.271.708,045   |
| 0+610,169       | 58,383          | 746.887,254     | 4.271.587,426   | 175,4912      | 310,000      |               | 746.599,944     | 4.271.471,008   |
| 0+681,550       | 71,381          | 746.916,412     | 4.271.522,289   | 170,9196      | -994,000     |               | 747.808,498     | 4.271.960,716   |
| 0+704,237       | 22,688          | 746.926,419     | 4.271.501,928   | 170,9196      | Infinito     |               |                 |                 |
| 0+725,587       | 21,349          | 746.941,450     | 4.271.487,363   | 127,0761      | -31,000      |               | 746.954,240     | 4.271.515,601   |
| 0+926,175       | 200,588         | 747.113,209     | 4.271.547,058   | 30,3351       | -132,000     |               | 746.995,913     | 4.271.607,603   |

Calle 2

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.048,130    | 4.272.005,810  | 309,2495      | -439,000     |               |
|    | 0+020           | 747.028,282    | 4.272.008,254  | 306,3492      |              |               |
|    | 0+040           | 747.008,343    | 4.272.009,791  | 303,4488      |              |               |
| PS | 0+045,089       | 747.003,260    | 4.272.010,037  | 302,7109      | -439,000     |               |
|    | 0+060           | 746.988,352    | 4.272.010,130  | 298,0803      |              |               |
|    | 0+080           | 746.968,422    | 4.272.008,554  | 291,8694      |              |               |
|    | 0+100           | 746.948,741    | 4.272.005,043  | 285,6584      |              |               |
|    | 0+120           | 746.929,495    | 4.271.999,633  | 279,4475      |              |               |
|    | 0+140           | 746.910,867    | 4.271.992,373  | 273,2366      |              |               |
|    | 0+160           | 746.893,036    | 4.271.983,334  | 267,0257      |              |               |
|    | 0+180           | 746.876,169    | 4.271.972,600  | 260,8147      |              |               |
|    | 0+200           | 746.860,429    | 4.271.960,275  | 254,6038      |              |               |
|    | 0+220           | 746.845,963    | 4.271.946,475  | 248,3929      |              |               |
|    | 0+240           | 746.832,911    | 4.271.931,332  | 242,1820      |              |               |
|    | 0+260           | 746.821,396    | 4.271.914,989  | 235,9710      |              |               |
|    | 0+280           | 746.811,527    | 4.271.897,602  | 229,7601      |              |               |
| PS | 0+292,427       | 746.806,267    | 4.271.886,346  | 225,9009      | -205,000     |               |
|    | 0+300           | 746.803,553    | 4.271.879,278  | 220,7722      |              |               |
|    | 0+320           | 746.799,199    | 4.271.859,796  | 207,2271      |              |               |
|    | 0+340           | 746.799,056    | 4.271.839,834  | 193,6820      |              |               |
|    | 0+360           | 746.803,132    | 4.271.820,293  | 180,1369      |              |               |
| PS | 0+378,634       | 746.810,567    | 4.271.803,240  | 167,5171      | -94,000      |               |
|    | 0+380           | 746.811,230    | 4.271.802,045  | 167,8856      |              |               |
|    | 0+400           | 746.820,144    | 4.271.784,148  | 173,2807      |              |               |
|    | 0+420           | 746.827,511    | 4.271.765,561  | 178,6758      |              |               |
|    | 0+440           | 746.833,278    | 4.271.746,417  | 184,0709      |              |               |
|    | 0+460           | 746.837,403    | 4.271.726,853  | 189,4660      |              |               |
|    | 0+480           | 746.839,858    | 4.271.707,010  | 194,8610      |              |               |
| PS | 0+485,999       | 746.840,266    | 4.271.701,025  | 196,4793      | 236,000      |               |
|    | 0+500           | 746.841,808    | 4.271.687,116  | 189,4611      |              |               |
|    | 0+520           | 746.846,640    | 4.271.667,730  | 179,4356      |              |               |
|    | 0+540           | 746.854,453    | 4.271.649,342  | 169,4101      |              |               |
| PS | 0+551,787       | 746.860,378    | 4.271.639,158  | 163,5017      | -127,000     |               |
|    | 0+560           | 746.864,741    | 4.271.632,199  | 165,1884      |              |               |
|    | 0+580           | 746.874,583    | 4.271.614,792  | 169,2957      |              |               |
|    | 0+600           | 746.883,281    | 4.271.596,787  | 173,4029      |              |               |
| PS | 0+610,169       | 746.887,254    | 4.271.587,426  | 175,4912      | 310,000      |               |
|    | 0+620           | 746.890,991    | 4.271.578,333  | 174,8616      |              |               |
|    | 0+640           | 746.898,870    | 4.271.559,951  | 173,5807      |              |               |
|    | 0+660           | 746.907,117    | 4.271.541,731  | 172,2998      |              |               |
|    | 0+680           | 746.915,729    | 4.271.523,681  | 171,0188      |              |               |
| PS | 0+681,550       | 746.916,412    | 4.271.522,289  | 170,9196      | -994,000     |               |
|    | 0+700           | 746.924,550    | 4.271.505,731  | 170,9196      |              |               |
| PS | 0+704,237       | 746.926,419    | 4.271.501,928  | 170,9196      | Infinito     |               |
|    | 0+720           | 746.936,595    | 4.271.490,113  | 138,5491      |              |               |
| PS | 0+725,587       | 746.941,450    | 4.271.487,363  | 127,0761      | -31,000      |               |
|    | 0+740           | 746.954,877    | 4.271.482,144  | 120,1248      |              |               |
|    | 0+760           | 746.974,283    | 4.271.477,387  | 110,4790      |              |               |
|    | 0+780           | 746.994,186    | 4.271.475,614  | 100,8333      |              |               |
|    | 0+800           | 747.014,127    | 4.271.476,866  | 91,1875       |              |               |
|    | 0+820           | 747.033,651    | 4.271.481,113  | 81,5418       |              |               |
|    | 0+840           | 747.052,311    | 4.271.488,258  | 71,8960       |              |               |
|    | 0+860           | 747.069,678    | 4.271.498,138  | 62,2502       |              |               |
|    | 0+880           | 747.085,356    | 4.271.510,525  | 52,6045       |              |               |
|    | 0+900           | 747.098,983    | 4.271.525,138  | 42,9587       |              |               |
|    | 0+920           | 747.110,250    | 4.271.541,640  | 33,3130       |              |               |
| PS | 0+926,175       | 747.113,209    | 4.271.547,058  | 30,3351       | -132,000     |               |
|    | 0+926,175       | 747.113,209    | 4.271.547,058  | 30,3351       |              |               |

Calle 5

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.836,272     | 4.271.733,107   | 71,9038       | -258,000     |               | 746.726,068     | 4.271.966,386   |
| 0+179,962       | 179,962         | 746.960,373     | 4.271.858,380   | 27,4978       | -258,000     |               | 746.726,068     | 4.271.966,386   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.836,272    | 4.271.733,107  | 71,9038       | -258,000     |               |
|    | 0+020           | 746.854,007    | 4.271.742,342  | 66,9688       |              |               |
|    | 0+040           | 746.870,973    | 4.271.752,923  | 62,0337       |              |               |
|    | 0+060           | 746.887,069    | 4.271.764,785  | 57,0987       |              |               |
|    | 0+080           | 746.902,197    | 4.271.777,859  | 52,1637       |              |               |
|    | 0+100           | 746.916,268    | 4.271.792,065  | 47,2286       |              |               |
|    | 0+120           | 746.929,197    | 4.271.807,318  | 42,2936       |              |               |
|    | 0+140           | 746.940,905    | 4.271.823,526  | 37,3585       |              |               |
|    | 0+160           | 746.951,324    | 4.271.840,592  | 32,4235       |              |               |
|    | 0+179,962       | 746.960,373    | 4.271.858,380  | 27,4979       |              |               |

Calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.879,656     | 4.271.604,653   | 81,7962       | -328,000     |               | 746.787,139     | 4.271.919,335   |
| 0+136,577       | 136,577         | 746.999,028     | 4.271.668,961   | 55,2878       | -328,000     |               | 746.787,139     | 4.271.919,335   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.879,656    | 4.271.604,653  | 81,7962       | -328,000     |               |
|    | 0+020           | 746.898,660    | 4.271.610,876  | 77,9143       |              |               |
|    | 0+040           | 746.917,250    | 4.271.618,245  | 74,0325       |              |               |
|    | 0+060           | 746.935,356    | 4.271.626,733  | 70,1507       |              |               |
|    | 0+080           | 746.952,911    | 4.271.636,309  | 66,2688       |              |               |
|    | 0+100           | 746.969,850    | 4.271.646,936  | 62,3870       |              |               |
|    | 0+120           | 746.986,109    | 4.271.658,577  | 58,5052       |              |               |
|    | 0+136,577       | 746.999,028    | 4.271.668,961  | 55,2878       |              |               |

Calle1

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.047,655     | 4.271.993,126   | 198,3907      | 73,000       |               | 746.974,678     | 4.271.991,281   |
| 0+079,122       | 79,122          | 747.010,457     | 4.271.927,650   | 267,3912      | 73,000       |               | 746.974,678     | 4.271.991,281   |
| 0+135,940       | 56,819          | 746.970,554     | 4.271.888,158   | 233,2666      | -106,000     |               | 747.062,408     | 4.271.835,254   |
| 0+168,948       | 33,007          | 746.960,201     | 4.271.857,050   | 207,6408      | -82,000      |               | 747.041,611     | 4.271.847,232   |
| 0+517,679       | 348,731         | 747.105,776     | 4.271.561,256   | 134,1279      | -302,000     |               | 747.260,029     | 4.271.820,891   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|-----------------|-----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.047,655     | 4.271.993,126   | 198,3907      | 73,000       |               |
|    | 0+020           | 747.045,432     | 4.271.973,313   | 215,8324      |              |               |
|    | 0+040           | 747.037,932     | 4.271.954,840   | 233,2740      |              |               |
|    | 0+060           | 747.025,714     | 4.271.939,085   | 250,7156      |              |               |
| PS | 0+079,122       | 747.010,457     | 4.271.927,650   | 267,3912      | 73,000       |               |
|    | 0+080           | 747.009,693     | 4.271.927,216   | 266,8636      |              |               |
|    | 0+100           | 746.993,380     | 4.271.915,696   | 254,8519      |              |               |
|    | 0+120           | 746.979,517     | 4.271.901,322   | 242,8402      |              |               |
| PS | 0+135,940       | 746.970,554     | 4.271.888,158   | 233,2666      | -106,000     |               |
|    | 0+140           | 746.968,616     | 4.271.884,591   | 230,1149      |              |               |
|    | 0+160           | 746.961,755     | 4.271.865,858   | 214,5876      |              |               |
|    | 0+168,948       | 746.960,201     | 4.271.857,050   | 207,6408      | -82,000      |               |
| PS | 0+180           | 746.959,079     | 4.271.846,056   | 205,3110      |              |               |
|    | 0+200           | 746.958,073     | 4.271.826,085   | 201,0950      |              |               |
|    | 0+220           | 746.958,391     | 4.271.806,091   | 196,8789      |              |               |
|    | 0+240           | 746.960,032     | 4.271.786,162   | 192,6629      |              |               |
|    | 0+260           | 746.962,988     | 4.271.766,385   | 188,4469      |              |               |
|    | 0+280           | 746.967,246     | 4.271.746,848   | 184,2309      |              |               |
|    | 0+300           | 746.972,788     | 4.271.727,634   | 180,0148      |              |               |
|    | 0+320           | 746.979,589     | 4.271.708,830   | 175,7988      |              |               |
|    | 0+340           | 746.987,619     | 4.271.690,517   | 171,5828      |              |               |
|    | 0+360           | 746.996,844     | 4.271.672,776   | 167,3668      |              |               |
|    | 0+380           | 747.007,223     | 4.271.655,684   | 163,1507      |              |               |
|    | 0+400           | 747.018,710     | 4.271.639,316   | 158,9347      |              |               |
|    | 0+420           | 747.031,255     | 4.271.623,745   | 154,7187      |              |               |
|    | 0+440           | 747.044,803     | 4.271.609,037   | 150,5027      |              |               |
|    | 0+460           | 747.059,294     | 4.271.595,259   | 146,2866      |              |               |
|    | 0+480           | 747.074,666     | 4.271.582,469   | 142,0706      |              |               |
| PS | 0+500           | 747.090,850     | 4.271.570,725   | 137,8546      |              |               |
|    | 0+517,679       | 747.105,776     | 4.271.561,256   | 134,1279      | -302,000     |               |
|    | 0+517,679       | 747.105,776     | 4.271.561,256   | 134,1279      |              |               |

Calle3

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.064,743     | 4.271.995,094   | 195,5619      | -53,000      |               | 747.117,614     | 4.271.998,786   |
| 0+038,061       | 38,061          | 747.080,230     | 4.271.961,217   | 149,8437      | -53,000      |               | 747.117,614     | 4.271.998,786   |
| 0+074,894       | 36,833          | 747.085,467     | 4.271.927,211   | 230,7010      | 29,000       |               | 747.059,774     | 4.271.940,661   |
| 0+125,779       | 50,885          | 747.086,762     | 4.271.878,512   | 165,9128      | -50,000      |               | 747.129,764     | 4.271.904,023   |
| 0+154,815       | 29,036          | 747.084,867     | 4.271.851,280   | 242,9344      | 24,000       |               | 747.066,121     | 4.271.866,266   |
| 0+261,293       | 106,477         | 747.065,951     | 4.271.750,750   | 180,7460      | -109,000     |               | 747.170,004     | 4.271.783,216   |
| 0+275,205       | 13,912          | 747.069,042     | 4.271.737,201   | 190,6973      | 89,000       |               | 746.980,991     | 4.271.724,242   |
| 0+324,895       | 49,690          | 747.086,859     | 4.271.691,258   | 162,1986      | -111,000     |               | 747.178,859     | 4.271.753,363   |
| 0+359,375       | 34,481          | 747.114,128     | 4.271.671,284   | 118,2966      | -50,000      |               | 747.128,301     | 4.271.719,233   |
| 0+431,087       | 71,712          | 747.139,140     | 4.271.613,556   | 229,6461      | 41,000       |               | 747.102,506     | 4.271.631,966   |
| 0+485,515       | 54,428          | 747.123,591     | 4.271.561,684   | 207,4348      | -156,000     |               | 747.278,528     | 4.271.543,507   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.064,743    | 4.271.995,094  | 195,5619      | -53,000      |               |
|    | 0+020           | 747.069,823    | 4.271.975,872  | 171,5385      |              |               |
| PS | 0+038,061       | 747.080,230    | 4.271.961,217  | 149,8437      | -53,000      |               |
|    | 0+040           | 747.081,557    | 4.271.959,805  | 154,0993      |              |               |
|    | 0+060           | 747.088,760    | 4.271.941,570  | 198,0042      |              |               |
| PS | 0+074,894       | 747.085,467    | 4.271.927,211  | 230,7010      | 29,000       |               |
|    | 0+080           | 747.083,334    | 4.271.922,575  | 224,2004      |              |               |
|    | 0+100           | 747.079,774    | 4.271.903,030  | 198,7356      |              |               |
|    | 0+120           | 747.084,107    | 4.271.883,641  | 173,2708      |              |               |
| PS | 0+125,779       | 747.086,762    | 4.271.878,512  | 165,9128      | -50,000      |               |
|    | 0+140           | 747.090,082    | 4.271.864,897  | 203,6351      |              |               |
| PS | 0+154,815       | 747.084,867    | 4.271.851,280  | 242,9344      | 24,000       |               |
|    | 0+160           | 747.081,727    | 4.271.847,155  | 239,9064      |              |               |
|    | 0+180           | 747.071,543    | 4.271.829,975  | 228,2253      |              |               |
|    | 0+200           | 747.064,664    | 4.271.811,225  | 216,5442      |              |               |
|    | 0+220           | 747.061,322    | 4.271.791,534  | 204,8631      |              |               |
|    | 0+240           | 747.061,628    | 4.271.771,565  | 193,1820      |              |               |
|    | 0+260           | 747.065,574    | 4.271.751,986  | 181,5009      |              |               |
| PS | 0+261,293       | 747.065,951    | 4.271.750,750  | 180,7460      | -109,000     |               |
| PS | 0+275,205       | 747.069,042    | 4.271.737,201  | 190,6973      | 89,000       |               |
|    | 0+280           | 747.069,843    | 4.271.732,473  | 187,9470      |              |               |
|    | 0+300           | 747.075,351    | 4.271.713,274  | 176,4763      |              |               |
|    | 0+320           | 747.084,211    | 4.271.695,374  | 165,0057      |              |               |
| PS | 0+324,895       | 747.086,859    | 4.271.691,258  | 162,1986      | -111,000     |               |
|    | 0+340           | 747.097,060    | 4.271.680,195  | 142,9657      |              |               |
| PS | 0+359,375       | 747.114,128    | 4.271.671,284  | 118,2966      | -50,000      |               |
|    | 0+360           | 747.114,725    | 4.271.671,102  | 119,2670      |              |               |
|    | 0+380           | 747.131,643    | 4.271.660,810  | 150,3216      |              |               |
|    | 0+400           | 747.141,764    | 4.271.643,790  | 181,3762      |              |               |
|    | 0+420           | 747.142,726    | 4.271.624,011  | 212,4308      |              |               |
| PS | 0+431,087       | 747.139,140    | 4.271.613,556  | 229,6461      | 41,000       |               |
|    | 0+440           | 747.135,367    | 4.271.605,482  | 226,0088      |              |               |
|    | 0+460           | 747.128,618    | 4.271.586,669  | 217,8470      |              |               |
|    | 0+480           | 747.124,330    | 4.271.567,149  | 209,6852      |              |               |
| PS | 0+485,515       | 747.123,591    | 4.271.561,684  | 207,4348      | -156,000     |               |
|    | 0+485,515       | 747.123,591    | 4.271.561,684  | 207,4348      |              |               |

Camino existente (conduce a  
paso inferior Terra Mítica)

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.113,819     | 4.271.856,086   | 261,7330      | -150,000     |               | 747.198,651     | 4.271.732,379   |
| 0+000,989       | 0,989           | 747.113,005     | 4.271.855,524   | 261,3133      | -150,000     |               | 747.198,651     | 4.271.732,379   |
| 0+065,050       | 64,061          | 747.079,735     | 4.271.802,777   | 210,3355      | -80,000      |               | 747.158,683     | 4.271.789,846   |
| 0+098,788       | 33,738          | 747.078,056     | 4.271.769,152   | 196,0165      | -150,000     |               | 747.227,762     | 4.271.778,532   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.113,819    | 4.271.856,086  | 261,7330      | -150,000     |               |
| PS | 0+000,989       | 747.113,005    | 4.271.855,524  | 261,3133      | -150,000     |               |
|    | 0+020           | 747.098,828    | 4.271.842,925  | 246,1849      |              |               |
|    | 0+040           | 747.087,557    | 4.271.826,467  | 230,2694      |              |               |
|    | 0+060           | 747.080,708    | 4.271.807,732  | 214,3539      |              |               |
| PS | 0+065,050       | 747.079,735    | 4.271.802,777  | 210,3355      | -80,000      |               |
|    | 0+080           | 747.078,057    | 4.271.787,928  | 203,9904      |              |               |
|    | 0+098,788       | 747.078,056    | 4.271.769,152  | 196,0165      |              |               |

R 4

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.829,432     | 4.271.784,072   | 272,6793      | 10,000       |               | 747.825,271     | 4.271.793,165   |
| 0+039,999       | 39,999          | 747.829,432     | 4.271.802,258   | 127,3228      | 10,000       |               | 747.825,271     | 4.271.793,165   |
| 0+039,999       | 0,000           | 747.829,432     | 4.271.802,258   | 127,3228      | Infinito     |               |                 |                 |
| 0+062,832       | 22,833          | 747.829,432     | 4.271.784,072   | 272,6793      | 10,000       |               | 747.825,271     | 4.271.793,165   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.829,432    | 4.271.784,072  | 272,6793      | 10,000       |               |
|    | 0+020           | 747.815,271    | 4.271.793,166  | 0,0033        |              |               |
| PS | 0+039,999       | 747.829,432    | 4.271.802,258  | 127,3228      | 10,000       |               |
| PS | 0+039,999       | 747.829,432    | 4.271.802,258  | 127,3228      | 10,000       |               |
|    | 0+040           | 747.829,432    | 4.271.802,258  | 127,3228      |              |               |
|    | 0+060           | 747.831,807    | 4.271.785,597  | 254,6512      |              |               |
| PS | 0+062,832       | 747.829,432    | 4.271.784,072  | 272,6793      | 10,000       |               |
|    | 0+062,832       | 747.829,432    | 4.271.784,072  | 272,6793      |              |               |

R3

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.059,777     | 4.271.990,086   | 272,6723      | 10,000       |               | 747.055,615     | 4.271.999,179   |
| 0+040,001       | 40,001          | 747.059,777     | 4.272.008,272   | 127,3257      | 10,000       |               | 747.055,615     | 4.271.999,179   |
| 0+040,001       | 0,000           | 747.059,777     | 4.272.008,272   | 127,3257      | Infinito     |               |                 |                 |
| 0+062,832       | 22,831          | 747.059,777     | 4.271.990,086   | 272,6723      | 10,000       |               | 747.055,615     | 4.271.999,179   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.059,777    | 4.271.990,086  | 272,6723      | 10,000       |               |
|    | 0+020           | 747.045,615    | 4.271.999,178  | 399,9963      |              |               |
|    | 0+040           | 747.059,776    | 4.272.008,272  | 127,3202      |              |               |
| PS | 0+040,001       | 747.059,777    | 4.272.008,272  | 127,3257      | 10,000       |               |
| PS | 0+040,001       | 747.059,777    | 4.272.008,272  | 127,3257      | 10,000       |               |
|    | 0+060           | 747.062,152    | 4.271.991,611  | 254,6442      |              |               |
|    | 0+062,832       | 747.059,777    | 4.271.990,086  | 272,6723      |              |               |

Ramal 1R2

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.146,879     | 4.271.544,908   | 330,4638      | 96,850       |               | 747.191,475     | 4.271.630,879   |
| 0+008,166       | 8,166           | 747.139,797     | 4.271.548,969   | 335,8315      | 96,850       |               | 747.191,475     | 4.271.630,879   |
| 0+025,087       | 16,921          | 747.129,495     | 4.271.561,985   | 378,9200      | 25,000       |               | 747.153,137     | 4.271.570,113   |
| 0+050,840       | 25,753          | 747.108,499     | 4.271.571,149   | 273,4782      | -15,549      |               | 747.114,791     | 4.271.556,930   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.146,879    | 4.271.544,908  | 330,4638      | 96,850       |               |
| PS | 0+008,166       | 747.139,797    | 4.271.548,969  | 335,8315      | 96,850       |               |
|    | 0+020           | 747.131,625    | 4.271.557,375  | 365,9665      |              |               |
| PS | 0+025,087       | 747.129,495    | 4.271.561,985  | 378,9200      | 25,000       |               |
|    | 0+040           | 747.119,096    | 4.271.571,871  | 317,8611      |              |               |
|    | 0+050,840       | 747.108,499    | 4.271.571,149  | 273,4791      |              |               |

Ramal 1 calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.860,378     | 4.271.639,158   | 163,5019      | 310,000      |               | 746.599,944     | 4.271.471,009   |
| 0+025,623       | 25,623          | 746.873,372     | 4.271.617,082   | 168,7639      | 310,000      |               | 746.599,944     | 4.271.471,009   |
| 0+042,371       | 16,748          | 746.887,680     | 4.271.611,329   | 79,9134       | -12,000      |               | 746.883,956     | 4.271.622,737   |
| 0+167,700       | 125,329         | 746.996,444     | 4.271.672,014   | 55,2878       | -324,000     |               | 746.787,139     | 4.271.919,335   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.860,378    | 4.271.639,158  | 163,5019      | 310,000      |               |
|    | 0+020           | 746.870,677    | 4.271.622,018  | 167,6091      |              |               |
| PS | 0+025,623       | 746.873,372    | 4.271.617,082  | 168,7639      | 310,000      |               |
|    | 0+040           | 746.885,368    | 4.271.610,820  | 92,4929       |              |               |
| PS | 0+042,371       | 746.887,680    | 4.271.611,329  | 79,9134       | -12,000      |               |
|    | 0+060           | 746.904,281    | 4.271.617,252  | 76,4495       |              |               |
|    | 0+080           | 746.922,693    | 4.271.625,054  | 72,5198       |              |               |
|    | 0+100           | 746.940,589    | 4.271.633,977  | 68,5900       |              |               |
|    | 0+120           | 746.957,900    | 4.271.643,987  | 64,6603       |              |               |
|    | 0+140           | 746.974,561    | 4.271.655,045  | 60,7305       |              |               |
|    | 0+160           | 746.990,508    | 4.271.667,110  | 56,8008       |              |               |
|    | 0+167,700       | 746.996,444    | 4.271.672,014  | 55,2878       |              |               |

Ramal 2 R2

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.108,353     | 4.271.543,327   | 128,1389      | -15,049      |               | 747.114,791     | 4.271.556,929   |
| 0+010,741       | 10,741          | 747.118,830     | 4.271.542,432   | 82,7027       | -15,049      |               | 747.114,791     | 4.271.556,929   |
| 0+027,296       | 16,556          | 747.135,176     | 4.271.542,363   | 117,8349      | 30,000       |               | 747.126,881     | 4.271.513,533   |
| 0+035,160       | 7,863           | 747.142,636     | 4.271.539,885   | 123,0037      | 96,850       |               | 747.108,397     | 4.271.449,289   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.108,353    | 4.271.543,327  | 128,1389      | -15,049      |               |
| PS | 0+010,741       | 747.118,830    | 4.271.542,432  | 82,7027       | -15,049      |               |
|    | 0+020           | 747.127,989    | 4.271.543,513  | 102,3516      |              |               |
| PS | 0+027,296       | 747.135,176    | 4.271.542,363  | 117,8349      | 30,000       |               |
| PS | 0+035,160       | 747.142,636    | 4.271.539,885  | 123,0037      | 96,850       |               |
|    | 0+035,160       | 747.142,636    | 4.271.539,885  | 123,0037      |              |               |

Ramal 2 calle 5

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.840,266     | 4.271.701,025   | 396,4796      | -236,000     |               | 746.604,627     | 4.271.687,981   |
| 0+023,586       | 23,586          | 746.837,789     | 4.271.724,470   | 390,1172      | -236,000     |               | 746.604,627     | 4.271.687,981   |
| 0+038,593       | 15,008          | 746.844,152     | 4.271.736,995   | 69,7354       | 12,000       |               | 746.849,644     | 4.271.726,326   |
| 0+209,768       | 171,175         | 746.960,373     | 4.271.858,380   | 27,4978       | -258,000     |               | 746.726,068     | 4.271.966,386   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.840,266    | 4.271.701,025  | 396,4796      | -236,000     |               |
|    | 0+020           | 746.838,316    | 4.271.720,924  | 391,0845      |              |               |
| PS | 0+023,586       | 746.837,789    | 4.271.724,470  | 390,1172      | -236,000     |               |
| PS | 0+038,593       | 746.844,152    | 4.271.736,995  | 69,7354       | 12,000       |               |
|    | 0+040           | 746.845,401    | 4.271.737,642  | 69,3884       |              |               |
|    | 0+060           | 746.862,757    | 4.271.747,571  | 64,4533       |              |               |
|    | 0+080           | 746.879,292    | 4.271.758,813  | 59,5183       |              |               |
|    | 0+100           | 746.894,907    | 4.271.771,302  | 54,5833       |              |               |
|    | 0+120           | 746.909,507    | 4.271.784,963  | 49,6482       |              |               |
|    | 0+140           | 746.923,006    | 4.271.799,714  | 44,7132       |              |               |
|    | 0+160           | 746.935,322    | 4.271.815,466  | 39,7781       |              |               |
|    | 0+180           | 746.946,381    | 4.271.832,124  | 34,8431       |              |               |
|    | 0+200           | 746.956,117    | 4.271.849,589  | 29,9081       |              |               |
|    | 0+209,768       | 746.960,373    | 4.271.858,380  | 27,4978       |              |               |

Ramal 2 calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.887,254     | 4.271.587,426   | 375,4915      | -310,000     |               | 746.599,944     | 4.271.471,009   |
| 0+005,580       | 5,580           | 746.885,112     | 4.271.592,578   | 374,3456      | -310,000     |               | 746.599,944     | 4.271.471,009   |
| 0+025,349       | 19,769          | 746.892,303     | 4.271.608,651   | 79,2215       | 12,000       |               | 746.896,151     | 4.271.597,284   |
| 0+148,660       | 123,311         | 746.999,028     | 4.271.668,961   | 55,2878       | -328,000     |               | 746.787,139     | 4.271.919,335   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.887,254    | 4.271.587,426  | 375,4915      | -310,000     |               |
| PS | 0+005,580       | 746.885,112    | 4.271.592,578  | 374,3456      | -310,000     |               |
|    | 0+020           | 746.887,779    | 4.271.605,882  | 50,8458       |              |               |
| PS | 0+025,349       | 746.892,303    | 4.271.608,651  | 79,2215       | 12,000       |               |
|    | 0+040           | 746.906,072    | 4.271.613,657  | 76,3778       |              |               |
|    | 0+060           | 746.924,478    | 4.271.621,472  | 72,4960       |              |               |
|    | 0+080           | 746.942,374    | 4.271.630,395  | 68,6142       |              |               |
|    | 0+100           | 746.959,693    | 4.271.640,392  | 64,7324       |              |               |
|    | 0+120           | 746.976,370    | 4.271.651,425  | 60,8505       |              |               |
|    | 0+140           | 746.992,344    | 4.271.663,454  | 56,9687       |              |               |
|    | 0+148,660       | 746.999,028    | 4.271.668,961  | 55,2879       |              |               |

Ramal 3 calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.879,656     | 4.271.604,653   | 81,7962       | -328,000     |               | 746.787,139     | 4.271.919,335   |
| 0+120,216       | 120,216         | 746.986,281     | 4.271.658,708   | 58,4633       | -328,000     |               | 746.787,139     | 4.271.919,335   |
| 0+140,025       | 19,810          | 747.003,654     | 4.271.655,673   | 163,5564      | 12,000       |               | 746.993,567     | 4.271.649,173   |
| 0+281,015       | 140,990         | 747.104,244     | 4.271.558,677   | 134,1279      | -305,000     |               | 747.260,028     | 4.271.820,891   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|-----------------|-----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.879,656     | 4.271.604,653   | 81,7962       | -328,000     |               |
|    | 0+020           | 746.898,660     | 4.271.610,876   | 77,9143       |              |               |
|    | 0+040           | 746.917,250     | 4.271.618,245   | 74,0325       |              |               |
|    | 0+060           | 746.935,356     | 4.271.626,733   | 70,1507       |              |               |
|    | 0+080           | 746.952,911     | 4.271.636,309   | 66,2688       |              |               |
|    | 0+100           | 746.969,850     | 4.271.646,936   | 62,3870       |              |               |
|    | 0+120           | 746.986,109     | 4.271.658,577   | 58,5052       |              |               |
| PS | 0+120,216       | 746.986,281     | 4.271.658,708   | 58,4633       | -328,000     |               |
|    | 0+140           | 747.003,640     | 4.271.655,694   | 163,4214      |              |               |
| PS | 0+140,025       | 747.003,654     | 4.271.655,673   | 163,5564      | 12,000       |               |
|    | 0+160           | 747.015,016     | 4.271.639,249   | 159,3871      |              |               |
|    | 0+180           | 747.027,445     | 4.271.623,585   | 155,2126      |              |               |
|    | 0+200           | 747.040,873     | 4.271.608,768   | 151,0380      |              |               |
|    | 0+220           | 747.055,244     | 4.271.594,863   | 146,8635      |              |               |
|    | 0+240           | 747.070,495     | 4.271.581,930   | 142,6889      |              |               |
|    | 0+260           | 747.086,561     | 4.271.570,024   | 138,5143      |              |               |
|    | 0+280           | 747.103,372     | 4.271.559,197   | 134,3398      |              |               |
|    | 0+281,015       | 747.104,244     | 4.271.558,677   | 134,1279      |              |               |

Ramal 4 calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.878,528     | 4.271.608,491   | 81,7962       | -324,000     |               | 746.787,139     | 4.271.919,335   |
| 0+122,393       | 122,393         | 746.986,735     | 4.271.664,114   | 57,7475       | -324,000     |               | 746.787,139     | 4.271.919,335   |
| 0+139,078       | 16,685          | 746.989,968     | 4.271.679,144   | 369,2293      | -12,000      |               | 746.979,342     | 4.271.673,567   |
| 0+323,105       | 184,027         | 746.957,223     | 4.271.857,409   | 7,6408        | 305,000      |               | 747.260,028     | 4.271.820,891   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|-----------------|-----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.878,528     | 4.271.608,491   | 81,7962       | -324,000     |               |
|    | 0+020           | 746.897,529     | 4.271.614,720   | 77,8664       |              |               |
|    | 0+040           | 746.916,111     | 4.271.622,110   | 73,9367       |              |               |
|    | 0+060           | 746.934,200     | 4.271.630,633   | 70,0069       |              |               |
|    | 0+080           | 746.951,730     | 4.271.640,255   | 66,0772       |              |               |
|    | 0+100           | 746.968,633     | 4.271.650,940   | 62,1474       |              |               |
|    | 0+120           | 746.984,844     | 4.271.662,647   | 58,2177       |              |               |
| PS | 0+122,393       | 746.986,735     | 4.271.664,114   | 57,7475       | -324,000     |               |
| PS | 0+139,078       | 746.989,968     | 4.271.679,144   | 369,2293      | -12,000      |               |
|    | 0+140           | 746.989,541     | 4.271.679,961   | 369,4217      |              |               |
|    | 0+160           | 746.980,887     | 4.271.697,988   | 373,5962      |              |               |
|    | 0+180           | 746.973,434     | 4.271.716,543   | 377,7708      |              |               |
|    | 0+200           | 746.967,212     | 4.271.735,547   | 381,9453      |              |               |
|    | 0+220           | 746.962,249     | 4.271.754,918   | 386,1199      |              |               |
|    | 0+240           | 746.958,566     | 4.271.774,572   | 390,2944      |              |               |
|    | 0+260           | 746.956,179     | 4.271.794,425   | 394,4690      |              |               |
|    | 0+280           | 746.955,098     | 4.271.814,393   | 398,6436      |              |               |
|    | 0+300           | 746.955,327     | 4.271.834,388   | 2,8181        |              |               |
|    | 0+320           | 746.956,867     | 4.271.854,325   | 6,9927        |              |               |
|    | 0+323,105       | 746.957,223     | 4.271.857,409   | 7,6408        |              |               |

Ramal 4 rotonda 2

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0-026,593       | 0,000           | 747.129,839     | 4.271.556,738   | 0,8078        | -15,049      |               | 747.114,791     | 4.271.556,929   |
| 0+000,477       | 27,070          | 747.111,576     | 4.271.571,631   | 286,2948      | -15,049      |               | 747.114,791     | 4.271.556,929   |
| 0+025,339       | 24,862          | 747.087,897     | 4.271.576,408   | 339,0533      | 30,000       |               | 747.105,168     | 4.271.600,938   |
| 0+347,472       | 322,133         | 746.963,179     | 4.271.856,691   | 7,6408        | 299,000      |               | 747.260,028     | 4.271.820,891   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0-026,593       | 747.129,839    | 4.271.556,738  | 0,8078        | -15,049      |               |
|    | 0-020           | 747.128,499    | 4.271.563,140  | 372,9174      |              |               |
|    | 0+000           | 747.112,044    | 4.271.571,725  | 288,3111      |              |               |
| PS | 0+000,477       | 747.111,576    | 4.271.571,631  | 286,2948      | -15,049      |               |
|    | 0+020           | 747.092,512    | 4.271.573,738  | 327,7247      |              |               |
|    | 0+025,339       | 747.087,897    | 4.271.576,408  | 339,0533      | 30,000       |               |
| PS | 0+040           | 747.076,121    | 4.271.585,139  | 342,1750      |              |               |
|    | 0+060           | 747.060,774    | 4.271.597,959  | 346,4333      |              |               |
|    | 0+080           | 747.046,319    | 4.271.611,775  | 350,6916      |              |               |
|    | 0+100           | 747.032,820    | 4.271.626,527  | 354,9500      |              |               |
|    | 0+120           | 747.020,337    | 4.271.642,148  | 359,2083      |              |               |
|    | 0+140           | 747.008,926    | 4.271.658,569  | 363,4666      |              |               |
|    | 0+160           | 746.998,638    | 4.271.675,716  | 367,7250      |              |               |
|    | 0+180           | 746.989,519    | 4.271.693,512  | 371,9833      |              |               |
|    | 0+200           | 746.981,610    | 4.271.711,877  | 376,2416      |              |               |
|    | 0+220           | 746.974,946    | 4.271.730,731  | 380,4999      |              |               |
|    | 0+240           | 746.969,557    | 4.271.749,987  | 384,7583      |              |               |
|    | 0+260           | 746.965,467    | 4.271.769,561  | 389,0166      |              |               |
|    | 0+280           | 746.962,695    | 4.271.789,364  | 393,2749      |              |               |
|    | 0+300           | 746.961,253    | 4.271.809,308  | 397,5332      |              |               |
|    | 0+320           | 746.961,147    | 4.271.829,304  | 1,7916        |              |               |
|    | 0+340           | 746.962,378    | 4.271.849,262  | 6,0499        |              |               |
|    | 0+347,472       | 746.963,179    | 4.271.856,691  | 7,6408        |              |               |

Ramal calle 6

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.837,126     | 4.271.731,299   | 71,9038       | -260,000     |               | 746.726,068     | 4.271.966,386   |
| 0+128,794       | 128,794         | 746.935,526     | 4.271.812,349   | 40,3680       | -260,000     |               | 746.726,068     | 4.271.966,386   |
| 0+155,852       | 27,058          | 746.955,375     | 4.271.806,356   | 196,9650      | 11,000       |               | 746.944,387     | 4.271.805,832   |
| 0+456,901       | 301,048         | 747.104,244     | 4.271.558,677   | 134,1279      | -305,000     |               | 747.260,028     | 4.271.820,891   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|-----------------|-----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.837,126     | 4.271.731,299   | 71,9038       | -260,000     |               |
|    | 0+020           | 746.854,864     | 4.271.740,528   | 67,0067       |              |               |
|    | 0+040           | 746.871,839     | 4.271.751,094   | 62,1097       |              |               |
|    | 0+060           | 746.887,953     | 4.271.762,933   | 57,2126       |              |               |
|    | 0+080           | 746.903,109     | 4.271.775,975   | 52,3155       |              |               |
|    | 0+100           | 746.917,218     | 4.271.790,143   | 47,4184       |              |               |
|    | 0+120           | 746.930,197     | 4.271.805,353   | 42,5214       |              |               |
| PS | 0+128,794       | 746.935,526     | 4.271.812,349   | 40,3680       | -260,000     |               |
|    | 0+140           | 746.945,288     | 4.271.816,795   | 105,2197      |              |               |
| PS | 0+155,852       | 746.955,375     | 4.271.806,356   | 196,9650      | 11,000       |               |
|    | 0+160           | 746.955,601     | 4.271.802,214   | 196,0993      |              |               |
|    | 0+180           | 746.957,479     | 4.271.782,306   | 191,9248      |              |               |
|    | 0+200           | 746.960,657     | 4.271.762,564   | 187,7502      |              |               |
|    | 0+220           | 746.965,123     | 4.271.743,073   | 183,5756      |              |               |
|    | 0+240           | 746.970,856     | 4.271.723,916   | 179,4011      |              |               |
|    | 0+260           | 746.977,832     | 4.271.705,176   | 175,2265      |              |               |
|    | 0+280           | 746.986,021     | 4.271.686,933   | 171,0520      |              |               |
|    | 0+300           | 746.995,387     | 4.271.669,266   | 166,8774      |              |               |
|    | 0+320           | 747.005,892     | 4.271.652,251   | 162,7029      |              |               |
|    | 0+340           | 747.017,488     | 4.271.635,960   | 158,5283      |              |               |
|    | 0+360           | 747.030,127     | 4.271.620,465   | 154,3538      |              |               |
|    | 0+380           | 747.043,755     | 4.271.605,831   | 150,1792      |              |               |
|    | 0+400           | 747.058,312     | 4.271.592,122   | 146,0046      |              |               |
|    | 0+420           | 747.073,736     | 4.271.579,395   | 141,8301      |              |               |
|    | 0+440           | 747.089,960     | 4.271.567,707   | 137,6555      |              |               |
|    | 0+456,901       | 747.104,244     | 4.271.558,677   | 134,1279      |              |               |

Ramal conexión derecho

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.383,190     | 4.271.494,500   | 316,6118      | Infinito     |               |                 |                 |
| 0+017,358       | 17,358          | 747.366,419     | 4.271.498,978   | 316,6118      | Infinito     |               |                 |                 |
| 0+044,363       | 27,005          | 747.339,651     | 4.271.501,275   | 294,2848      | -77,000      |               | 747.346,554     | 4.271.424,585   |
| 0+050,840       | 6,477           | 747.333,200     | 4.271.500,694   | 294,2848      | Infinito     |               |                 |                 |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.383,190    | 4.271.494,500  | 316,6118      | Infinito     |               |
| PS | 0+017,358       | 747.366,419    | 4.271.498,978  | 316,6118      | Infinito     |               |
|    | 0+020           | 747.363,856    | 4.271.499,616  | 314,4277      |              |               |
|    | 0+040           | 747.344,005    | 4.271.501,543  | 297,8921      |              |               |
| PS | 0+044,363       | 747.339,651    | 4.271.501,275  | 294,2848      | -77,000      |               |
|    | 0+050,840       | 747.333,200    | 4.271.500,694  | 294,2848      |              |               |

Ramal conexión izquierdo

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.360,780     | 4.271.480,140   | 1,8705        | -20,000      |               | 747.340,789     | 4.271.480,728   |
| 0+029,915       | 29,915          | 747.342,873     | 4.271.500,619   | 306,6476      | -20,000      |               | 747.340,789     | 4.271.480,728   |
| 0+029,950       | 0,034           | 747.342,839     | 4.271.500,622   | 306,6476      | Infinito     |               |                 |                 |
| 0+039,604       | 9,654           | 747.333,200     | 4.271.500,700   | 294,3800      | -50,100      |               | 747.337,617     | 4.271.450,795   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.360,780    | 4.271.480,140  | 1,8705        | -20,000      |               |
|    | 0+020           | 747.352,084    | 4.271.497,232  | 338,2085      |              |               |
| PS | 0+029,915       | 747.342,873    | 4.271.500,619  | 306,6476      | -20,000      |               |
| PS | 0+029,950       | 747.342,839    | 4.271.500,622  | 306,6476      | Infinito     |               |
| PS | 0+039,604       | 747.333,200    | 4.271.500,700  | 294,3800      | -50,100      |               |
|    | 0+039,604       | 747.333,200    | 4.271.500,700  | 294,3800      |              |               |

Ramal1 calle 5

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 746.810,567     | 4.271.803,240   | 167,5172      | 236,000      |               | 746.604,627     | 4.271.687,981   |
| 0+056,066       | 56,066          | 746.831,908     | 4.271.751,537   | 182,6413      | 236,000      |               | 746.604,627     | 4.271.687,981   |
| 0+077,722       | 21,655          | 746.849,286     | 4.271.744,275   | 67,7560       | -12,000      |               | 746.843,465     | 4.271.754,768   |
| 0+238,345       | 160,623         | 746.956,740     | 4.271.860,055   | 27,4978       | -254,000     |               | 746.726,068     | 4.271.966,386   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 746.810,567    | 4.271.803,240  | 167,5172      | 236,000      |               |
|    | 0+020           | 746.819,584    | 4.271.785,395  | 172,9123      |              |               |
|    | 0+040           | 746.827,058    | 4.271.766,850  | 178,3074      |              |               |
| PS | 0+056,066       | 746.831,908    | 4.271.751,537  | 182,6413      | 236,000      |               |
|    | 0+060           | 746.833,564    | 4.271.747,988  | 161,7725      |              |               |
| PS | 0+077,722       | 746.849,286    | 4.271.744,275  | 67,7560       | -12,000      |               |
|    | 0+080           | 746.851,273    | 4.271.745,389  | 67,1850       |              |               |
|    | 0+100           | 746.868,269    | 4.271.755,922  | 62,1723       |              |               |
|    | 0+120           | 746.884,383    | 4.271.767,760  | 57,1595       |              |               |
|    | 0+140           | 746.899,516    | 4.271.780,828  | 52,1467       |              |               |
|    | 0+160           | 746.913,574    | 4.271.795,046  | 47,1340       |              |               |
|    | 0+180           | 746.926,471    | 4.271.810,326  | 42,1212       |              |               |
|    | 0+200           | 746.938,125    | 4.271.826,573  | 37,1085       |              |               |
|    | 0+220           | 746.948,466    | 4.271.843,686  | 32,0957       |              |               |
| PS | 0+238,345       | 746.956,740    | 4.271.860,055  | 27,4978       | -254,000     |               |
|    | 0+238,345       | 746.956,740    | 4.271.860,055  | 27,4978       |              |               |

Rotonda 2

PUNTOS SINGULARES

| <u>Estación</u> | <u>Longitud</u> | <u>Coord. X</u> | <u>Coord. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> | <u>X Centro</u> | <u>Y Centro</u> |
|-----------------|-----------------|-----------------|-----------------|---------------|--------------|---------------|-----------------|-----------------|
| 0+000,000       | 0,000           | 747.110,920     | 4.271.548,750   | 128,1388      | -9,049       |               | 747.114,791     | 4.271.556,929   |
| 0+036,197       | 36,197          | 747.111,129     | 4.271.565,205   | 273,4806      | -9,049       |               | 747.114,791     | 4.271.556,929   |
| 0+036,197       | 0,000           | 747.111,129     | 4.271.565,205   | 273,4806      | Infinito     |               |                 |                 |
| 0+056,857       | 20,659          | 747.110,920     | 4.271.548,750   | 128,1388      | -9,049       |               | 747.114,791     | 4.271.556,929   |

PUNTOS DEL EJE CADA 20 METROS

|    | <u>Estación</u> | <u>Coor. X</u> | <u>Coor. Y</u> | <u>Acimut</u> | <u>Radio</u> | <u>Parám.</u> |
|----|-----------------|----------------|----------------|---------------|--------------|---------------|
| PS | 0+000,000       | 747.110,920    | 4.271.548,750  | 128,1388      | -9,049       |               |
|    | 0+020           | 747.123,664    | 4.271.558,704  | 387,4338      |              |               |
| PS | 0+036,197       | 747.111,129    | 4.271.565,205  | 273,4806      | -9,049       |               |
| PS | 0+036,197       | 747.111,129    | 4.271.565,205  | 273,4806      | -9,049       |               |
|    | 0+040           | 747.108,072    | 4.271.562,991  | 246,7288      |              |               |
| PS | 0+056,857       | 747.110,920    | 4.271.548,750  | 128,1388      | -9,049       |               |
|    | 0+056,857       | 747.110,920    | 4.271.548,750  | 128,1388      |              |               |