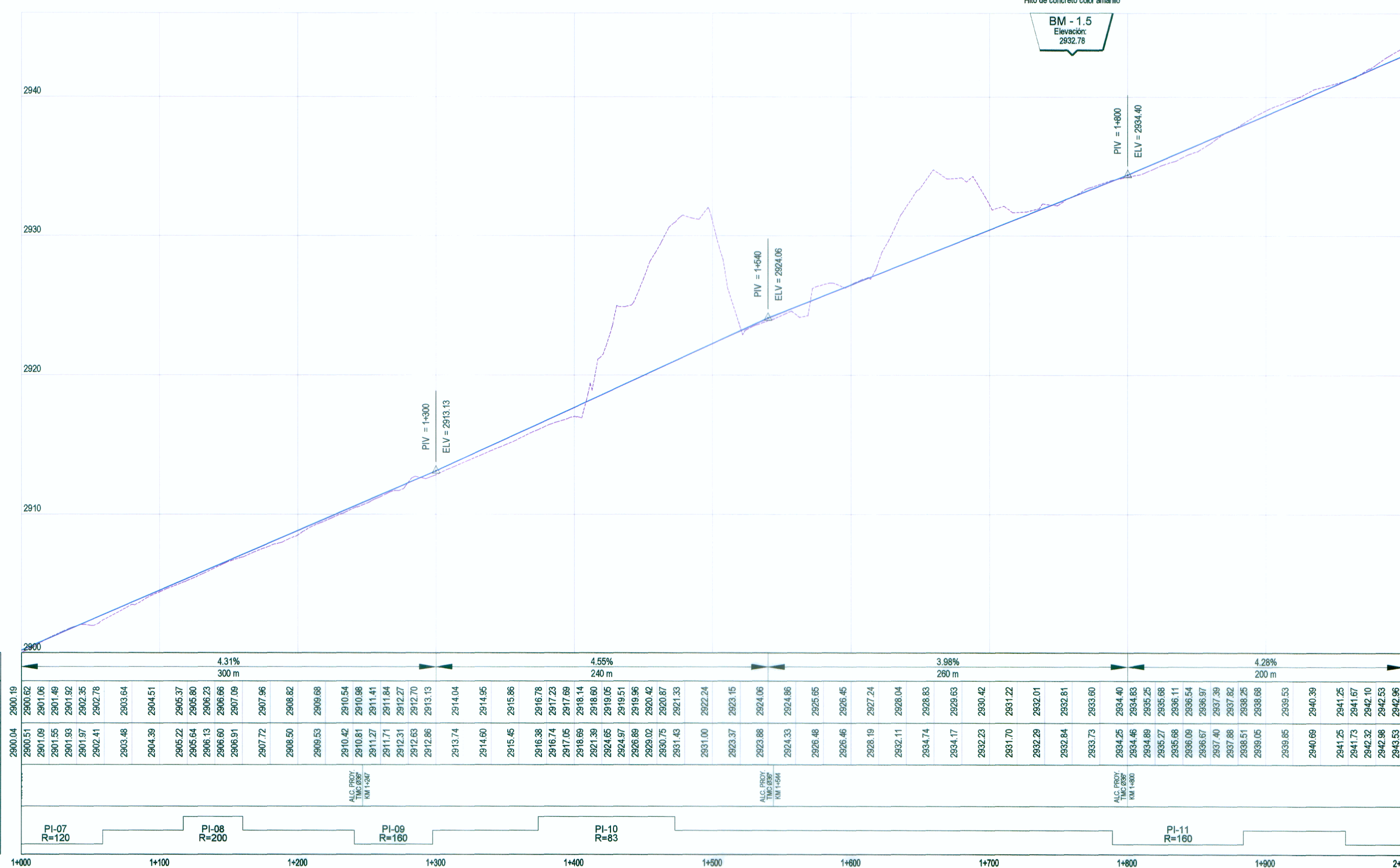


| Nº PI | ANGULO    | S | RADIO (m) | PC (Km)  | PT (Km)  | T (m) | LC (m) | EXT (m) | PER (%) | S/a (m) |
|-------|-----------|---|-----------|----------|----------|-------|--------|---------|---------|---------|
| 7     | 32°26'04" | D | 120.00    | 0+991.09 | 1+059.02 | 34.90 | 67.93  | 4.97    | 7.40%   | 1.20    |
| 8     | 12°18'26" | I | 200.00    | 1+117.31 | 1+160.27 | 21.56 | 42.96  | 1.16    | 5.80%   | 0.60    |
| 9     | 20°19'08" | D | 160.00    | 1+240.98 | 1+297.72 | 28.67 | 58.74  | 2.55    | 6.50%   | 0.80    |
| 10    | 68°11'10" | I | 83.00     | 1+374.16 | 1+472.94 | 56.18 | 98.78  | 17.23   | 7.97%   | 1.80    |
| 11    | 33°54'56" | D | 160.00    | 1+789.33 | 1+884.04 | 48.79 | 94.71  | 7.27    | 6.50%   | 0.80    |

| Nº PI | KM       | COORDENADAS |           |
|-------|----------|-------------|-----------|
|       |          | NORTE       | ESTE      |
| 7     | 1+025.99 | 8731174.25  | 322998.69 |
| 8     | 1+138.88 | 8731072.32  | 322945.95 |
| 9     | 1+269.65 | 8730945.67  | 322911.94 |
| 10    | 1+430.34 | 8730814.35  | 322818.57 |
| 11    | 1+838.12 | 8730460.23  | 323046.92 |

**PLANTA**  
H: 1/2,000



| PENDIENTE | COTA DE SUB RASANTE | COTA DE TERRENO | OBRAS DE ARTE | ALINEAMIENTO | KILOMETRAJE |
|-----------|---------------------|-----------------|---------------|--------------|-------------|
| 4.31%     | 2900.19             | 2900.04         |               | PI-07 R=120  | 1+000       |
| 4.55%     | 2900.51             | 2900.54         |               | PI-08 R=200  | 1+100       |
| 4.55%     | 2901.09             | 2901.08         |               | PI-09 R=160  | 1+200       |
| 4.55%     | 2901.55             | 2901.51         |               | PI-10 R=83   | 1+300       |
| 3.98%     | 2902.41             | 2902.27         |               | PI-11 R=160  | 1+400       |
| 4.28%     | 2903.48             | 2903.33         |               |              | 1+500       |
|           | 2904.39             | 2904.39         |               |              | 1+600       |
|           | 2905.21             | 2905.37         |               |              | 1+700       |
|           | 2906.04             | 2906.50         |               |              | 1+800       |
|           | 2906.84             | 2906.80         |               |              | 1+900       |
|           | 2907.64             | 2907.23         |               |              | 2+000       |

|                |                             |
|----------------|-----------------------------|
| <b>PLANTA:</b> |                             |
| 4+500          | EJE DE CARRETERA PROYECTADA |
| ---            | CARRETERA EXISTENTE         |
| ---            | CURVA MAYOR                 |
| ---            | CURVA MENOR                 |
| ■              | RIOS Y LAGUNAS              |
| ---            | QUEBRADA                    |
| ---            | CANAL                       |
| ---            | ALCANTARILLAS PROYECTADAS   |
| ■              | VIVIENDA EXISTENTE          |
| ---            | TERRENO DE CULTIVO          |
| ---            | CERCO                       |
| (L)            | POSTE LUZ                   |
| (T)            | POSTE TELEFONO              |
| ---            | MURO DE PIEDRA              |
| ---            | BOFEDAL                     |
| ---            | PLAZOLETAS                  |
| (PI-01)        | NUMERO DE CURVA             |
| <b>PERFIL:</b> |                             |
| ---            | SUB RASANTE                 |
| ---            | TERRENO EXISTENTE           |

**PERFIL LONGITUDINAL**  
H: 1/2,000 V: 1/200

ING. FERNANDO MASSA SILVA  
REG. Nº 11570 Y MUESTRO GEOMETRICO  
CIP Nº 8987

WINROD CONTRATISTAS S.A.  
ING. FERNANDO MASSA SILVA  
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