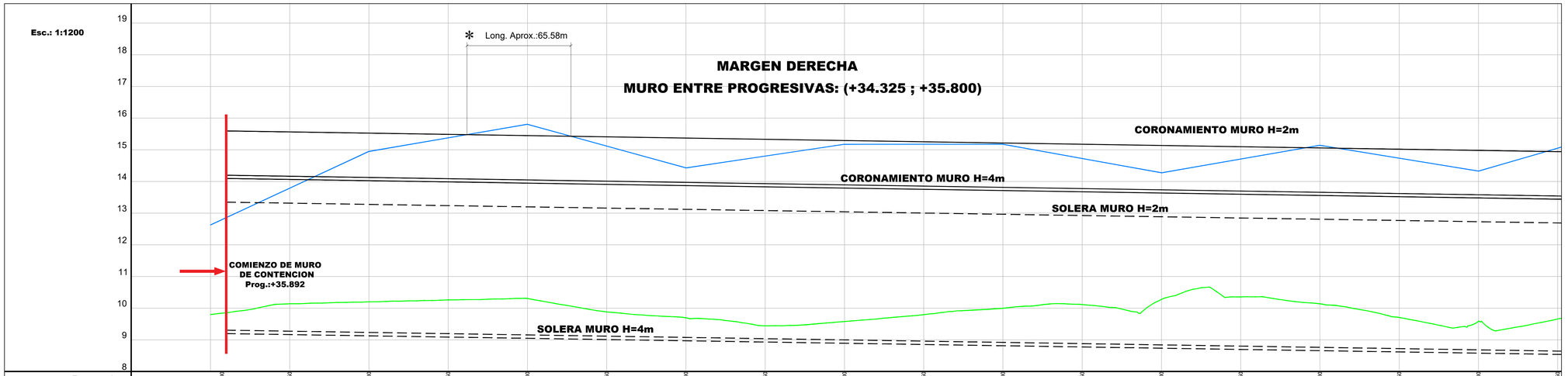
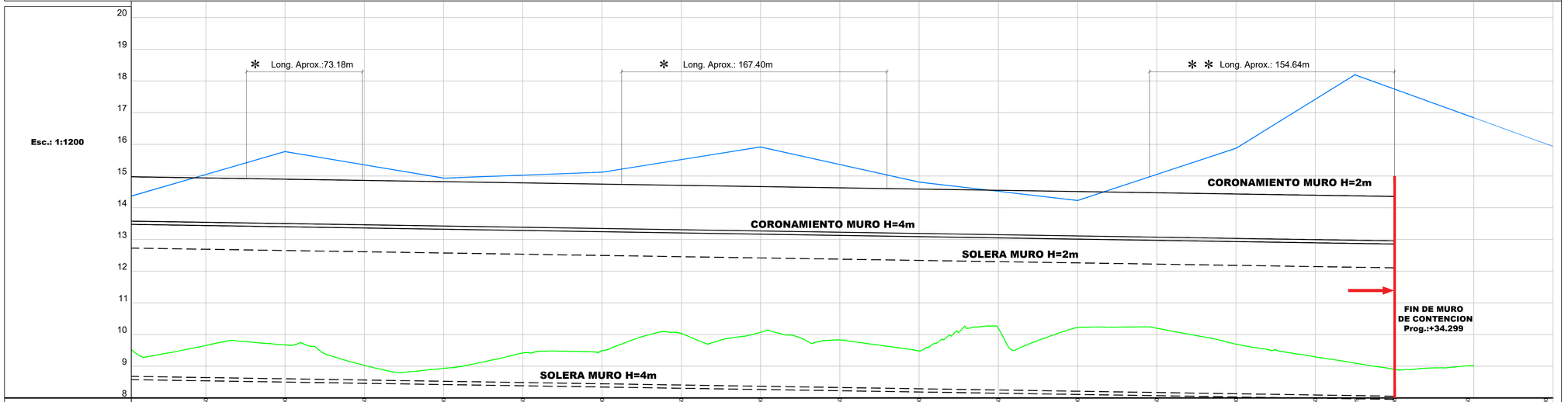
Esc.: 1:1200

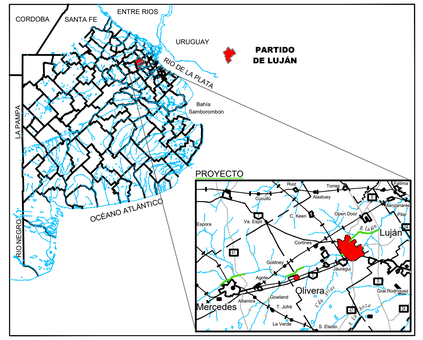



| Progresivas | 35+800 | 35+850 | 35+900 | 35+750 | 35+700 | 35+650 | 35+600 | 35+550 | 35+500 | 35+450 | 35+400 | 35+350 | 35+300 | 35+250 | 35+200 | 35+150 | 35+100 | 35+050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | 10.15 | 10.14 | 10.07 | | 10.00 | | 9.92 | | 9.84 | | 9.76 | | 9.68 | | 9.60 | | 9.52 | |
| C. Proy. Fondo | | | | | | | | | | | | | | | | | | |
| CMI | 19.41 | 16.80 | 14.20 | 14.25 | 14.30 | 14.00 | 13.89 | 13.64 | 13.58 | 13.79 | 14.00 | 14.14 | 14.27 | 14.21 | 14.14 | 14.70 | 15.25 | 14.46 |
| CMD | 12.63 | 13.79 | 14.95 | 15.38 | 15.80 | 15.12 | 14.43 | 14.80 | 15.17 | 15.18 | 15.18 | 14.73 | 14.27 | 14.71 | 15.14 | 14.73 | 14.33 | 15.05 |
| CBerma | | | | | | | | | | | | | | | | | | |
| CTablestaca | | | 14.20 | 14.26 | 14.31 | 13.88 | 13.69 | 13.44 | 13.58 | 13.79 | 14.00 | 14.11 | 14.27 | 14.35 | 14.14 | 13.71 | 13.58 | 13.66 |

Esc.: 1:1200




| Progresivas | 35+050 | 35+000 | 34+950 | 34+900 | 34+850 | 34+800 | 34+750 | 34+700 | 34+650 | 34+600 | 34+550 | 34+500 | 34+450 | 34+400 | 34+350 | 34+300 | 34+250 | 34+200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | | 9.44 | | 9.36 | | 9.28 | | 9.20 | | 9.12 | | 9.04 | | 8.96 | | 8.88 | 9.02 | 9.13 |
| C. Proy. Fondo | | | | | | | | | | | | | | | | | | |
| CMI | 14.46 | 13.67 | 13.60 | 13.52 | 14.25 | 14.97 | 14.52 | 14.07 | 14.24 | 14.42 | 14.47 | 14.52 | 14.37 | 14.22 | 14.34 | 14.88 | 15.86 | 16.84 |
| CMD | 15.05 | 15.77 | 15.35 | 14.94 | 15.03 | 15.12 | 15.52 | 15.92 | 15.38 | 14.81 | 14.52 | 14.23 | 15.05 | 15.88 | 17.42 | 17.74 | 16.84 | 15.93 |
| CBerma | | | | | | | | | | | | | | | | | | 10.93 |
| CTablestaca | 13.66 | 13.67 | 13.03 | 12.93 | 13.42 | 13.49 | 14.03 | 14.07 | 13.83 | 13.48 | 14.20 | 14.23 | 14.20 | 13.70 | 13.29 | | | |




CROQUIS DE UBICACIÓN S/ESCALA

REFERENCIAS

- *COTA SUPERIOR MURO (4.00m)*
- *COTA SOLERA MURO (4.00m)*
- *COTA SUPERIOR MURO (2.00m)*
- *COTA SOLERA MURO (2.00m)*
- *PERFIL LONGITUDINAL MARGEN DERECHA*
- *COTA DE FONDO/PROYECTO*

*: Sobrepasa el muro hasta 1.5m, vereda de1m y talud 1:1.5 hasta terreno natural

**: Sobrepasa el muro más de 1.5m, soluciones específicas a evaluar en perfiles correspondientes s/ ingenieria de detalle

DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| Desarrollo de margenes protegidas - Margen Derecha | N° Plano 3 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Estructuras: Ing. Victor H. Barros | Proyectista Estructural: Ing. Victor H. Barros | Proyectista Hidraulico: Ing. Leandro F. Mugetti<br>Ing. Francisco Ferro |
| Topografia: DPH | Escala: indicadas | Dibujo: Ing. Turdó Juan Tadeo |
| Fecha: Agosto 2019 | Archivo: 064-2020-LUJAN-PR-ES-Perfil longitudinal derecho | |

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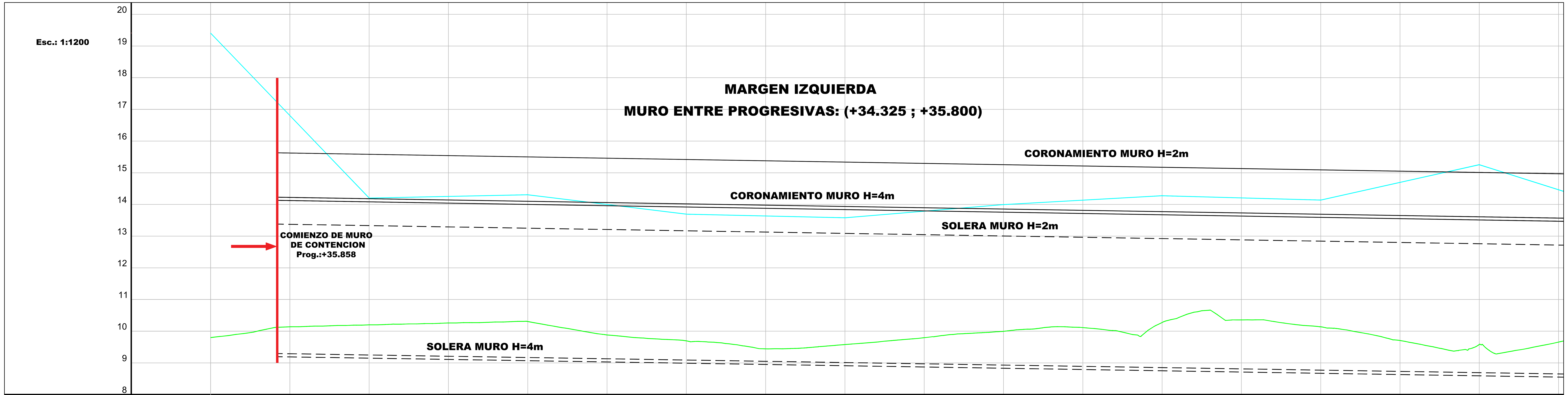
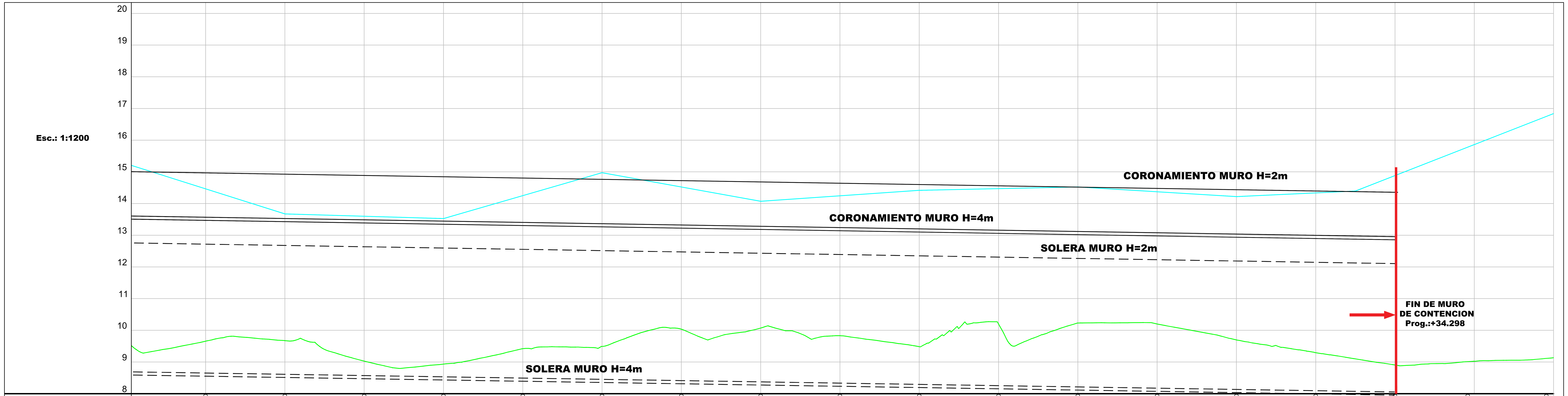
064-2020-LUJAN-PR-ES-Perfiles Muros.dwg



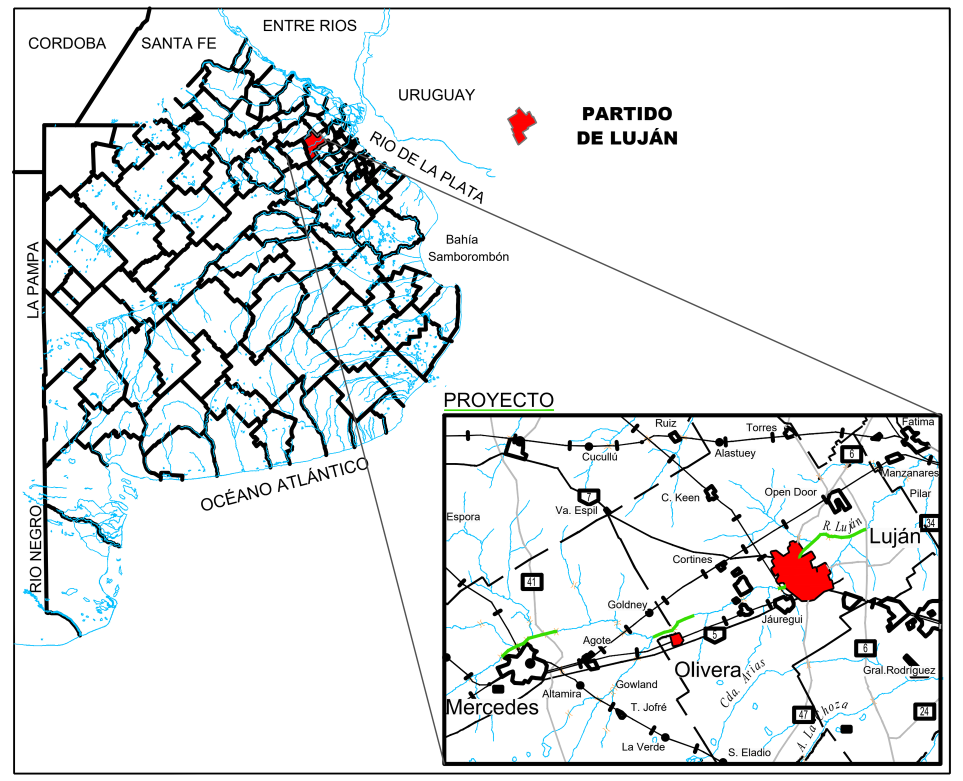

| Progresivas | 35+900 | 35+850 | 35+800 | 35+750 | 35+700 | 35+650 | 35+600 | 35+550 | 35+500 |
|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | 10.18 | 10.14 | 10.10 | | 10.02 | | 9.94 | | 9.86 |
| C. Proy. Fondo | | | | | | | | | |
| CMI | 19.41 | 16.80 | 14.20 | 14.25 | 14.30 | 14.00 | 13.69 | 13.64 | 13.58 |
| CMD | 12.63 | 13.79 | 14.95 | 15.38 | 15.80 | 15.12 | 14.43 | 14.80 | 15.17 |
| CBerma | | | | | | | | | |
| CTablestaca | | | 14.20 | 14.26 | 14.31 | 13.88 | 13.69 | 13.44 | 13.58 |

| Progresivas | 35+450 | 35+400 | 35+350 | 35+300 | 35+250 | 35+200 | 35+150 | 35+100 | 35+050 |
|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | | 9.78 | | 9.70 | | 9.62 | | 9.54 | |
| C. Proy. Fondo | | | | | | | | | |
| CMI | 13.79 | 14.00 | 14.14 | 14.27 | 14.21 | 14.14 | 14.70 | 15.25 | 14.46 |
| CMD | 15.18 | 15.18 | 14.73 | 14.27 | 14.71 | 15.14 | 14.73 | 14.33 | 15.05 |
| CBerma | | | | | | | | | |
| CTablestaca | 13.79 | 14.00 | 14.11 | 14.27 | 14.35 | 14.14 | 13.71 | 13.58 | 13.66 |




| Progresivas | 35+050 | 35+000 | 34+950 | 34+900 | 34+850 | 34+800 | 34+750 | 34+700 | 34+650 |
|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | | 9.46 | | 9.38 | | 9.30 | | 9.22 | |
| C. Proy. Fondo | | | | | | | | | |
| CMI | 14.46 | 13.67 | 13.60 | 13.52 | 14.25 | 14.97 | 14.52 | 14.07 | 14.24 |
| CMD | 15.05 | 15.77 | 15.35 | 14.94 | 15.03 | 15.12 | 15.52 | 15.92 | 15.36 |
| CBerma | | | | | | | | | |
| CTablestaca | 13.66 | 13.67 | 13.03 | 12.93 | 13.42 | 13.49 | 14.03 | 14.07 | 13.83 |

| Progresivas | 34+600 | 34+550 | 34+500 | 34+450 | 34+400 | 34+350 | 34+300 | 34+250 | 34+200 |
|---|---|---|---|---|---|---|---|---|---|
| CTN Fondo | 9.14 | | 9.06 | | 8.98 | | 8.90 | | 9.13 |
| C. Proy. Fondo | | | | | | | | | |
| CMI | 14.42 | 14.47 | 14.52 | 14.37 | 14.22 | 14.34 | 14.88 | 15.86 | 16.84 |
| CMD | 14.81 | 14.52 | 14.23 | 15.05 | 15.88 | 17.42 | 17.74 | 16.84 | 15.93 |
| CBerma | | | | | | | | | 10.93 |
| CTablestaca | 13.48 | 14.20 | 14.23 | 14.20 | 13.70 | 13.29 | | | |




CROQUIS DE UBICACIÓN S/ESCALA

REFERENCIAS

*COTA SUPERIOR MURO (4.00m)*
*COTA SOLERA MURO (4.00m)*
*COTA SUPERIOR MURO (2.00m)*
*COTA SOLERA MURO (2.00m)*
*PERFIL LONGITUDINAL MARGEN IZQUIERDA*
*COTA DE FONDO/PROYECTO*

*: Sobrepasa el muro hasta 1.5m, vereda de 1m y talud 1:1.5 hasta terreno natural

**: Sobrepasa el muro más de 1.5m, soluciones especificas a evaluar en perfiles correspondientes s/ ingenieria de detalle

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| Desarrollo de margenes protegidas - Margen Izquierda | N° Plano 2 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Estructuras: Ing. Victor H. Barros | Proyectista Estructural: Ing. Victor H. Barros | Proyectista Hidraulico: Ing. Leandro F. Mugetti, Ing. Francisco Ferro |
| Topografía: DPH | Escala: indicadas | Dibujo: Ing. Turdó Juan Tadeo |
| Fecha: Agosto 2019 | Archivo: 064-2020-LUJAN-PR-ES-Perfil longitudinal izquierdo | |

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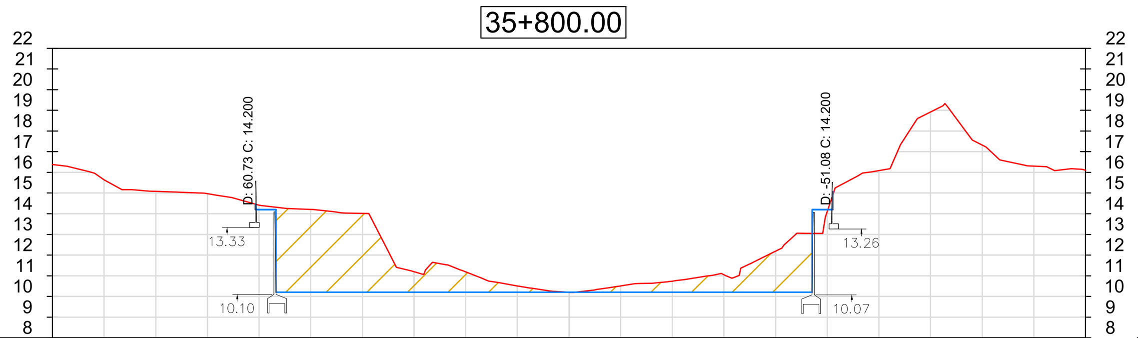
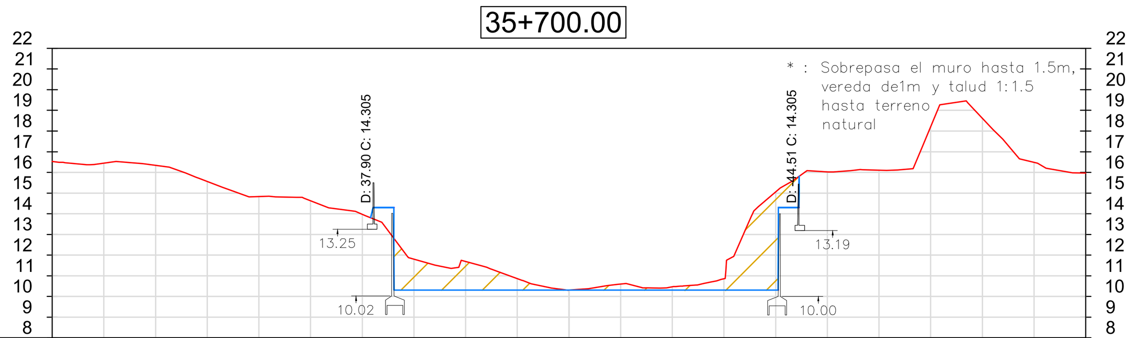
064-2020-LUJAN-PR-ES-Perfiles Muros.dwg

## 35+800.00



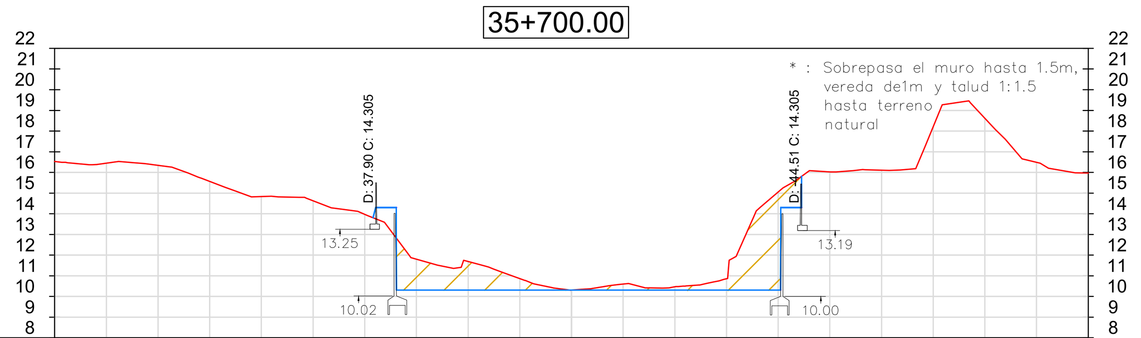
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.64 | 15.08 | 14.97 | 14.41 | 14.21 | 14.01 | 11.19 | 11.19 | 10.51 | 10.20 | 10.51 | 10.74 | 11.05 | 12.19 | 14.11 | 16.09 | 18.92 | 17.32 | 16.30 |
| COTA PROYECTO | | | | 14.19 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 14.19 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+700.00



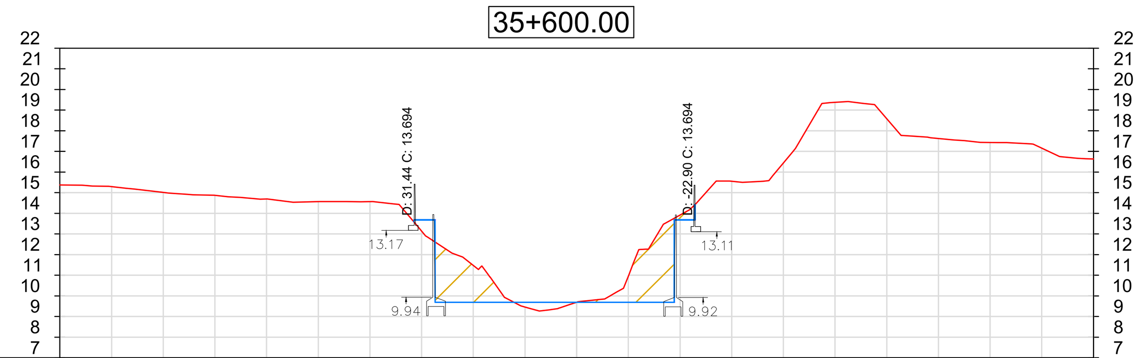

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.45 | 16.34 | 15.56 | 14.83 | 14.63 | 13.97 | 11.80 | 11.69 | 10.87 | 10.31 | 10.60 | 10.46 | 10.86 | 15.06 | 16.03 | 16.10 | 18.20 | 18.62 | 16.49 |
| COTA PROYECTO | | | | | | | 10.30 | 10.30 | 10.30 | 10.30 | 10.29 | 10.29 | 10.29 | 10.30 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |


## 35+700.00



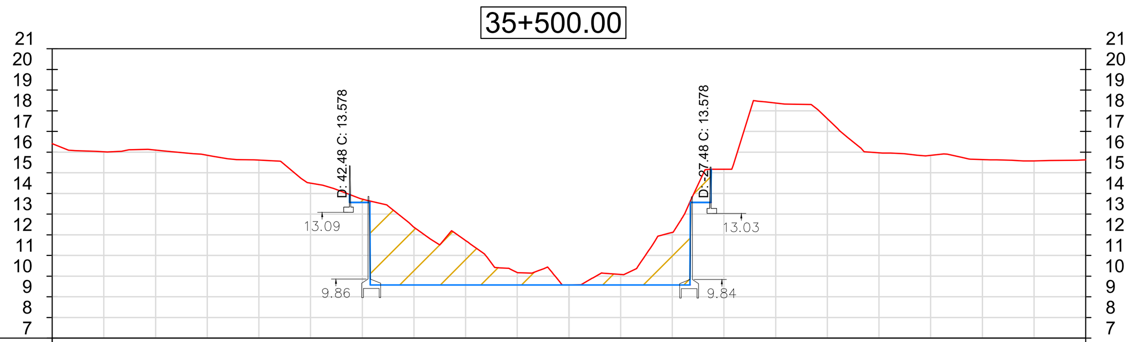

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.45 | 16.34 | 15.56 | 14.83 | 14.63 | 13.97 | 11.80 | 11.69 | 10.87 | 10.31 | 10.60 | 10.46 | 10.86 | 15.06 | 16.03 | 16.10 | 18.20 | 18.62 | 16.49 |
| COTA PROYECTO | | | | | | | 10.30 | 10.30 | 10.30 | 10.30 | 10.29 | 10.29 | 10.29 | 10.30 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |


## 35+600.00



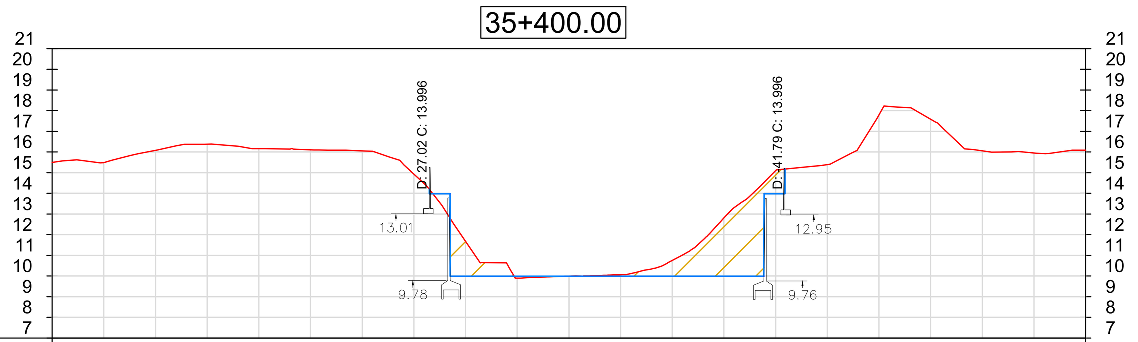
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.30 | 15.02 | 14.87 | 14.70 | 14.57 | 14.57 | 13.14 | 11.48 | 9.46 | 9.69 | 10.96 | 13.92 | 15.55 | 16.44 | 19.37 | 18.58 | 17.63 | 17.43 | 17.16 |
| COTA PROYECTO | | | | | | | 13.68 | 9.69 | 9.69 | 9.69 | 9.69 | 13.68 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+500.00



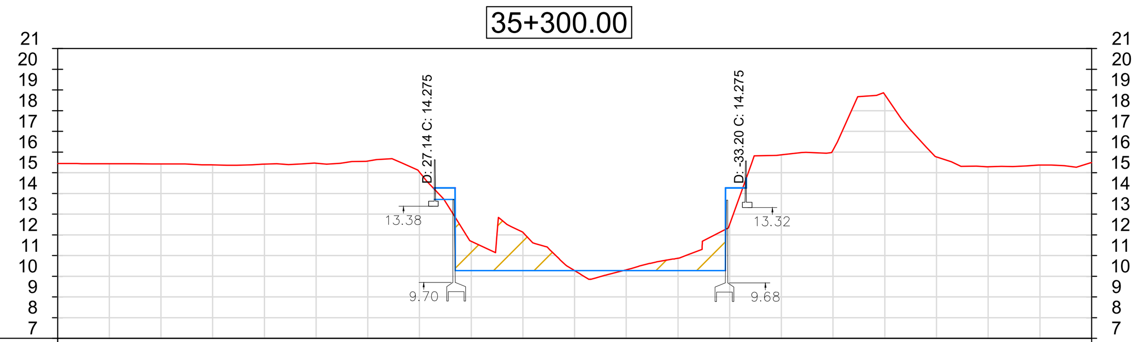
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.01 | 16.10 | 15.85 | 15.62 | 14.50 | 13.73 | 12.37 | 11.72 | 10.18 | 9.58 | 10.08 | 12.11 | 15.17 | 18.37 | 17.62 | 15.97 | 15.84 | 15.64 | 15.57 |
| COTA PROYECTO | | | | | | 13.58 | 9.58 | 9.58 | 9.58 | 9.58 | 9.58 | 9.58 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+400.00



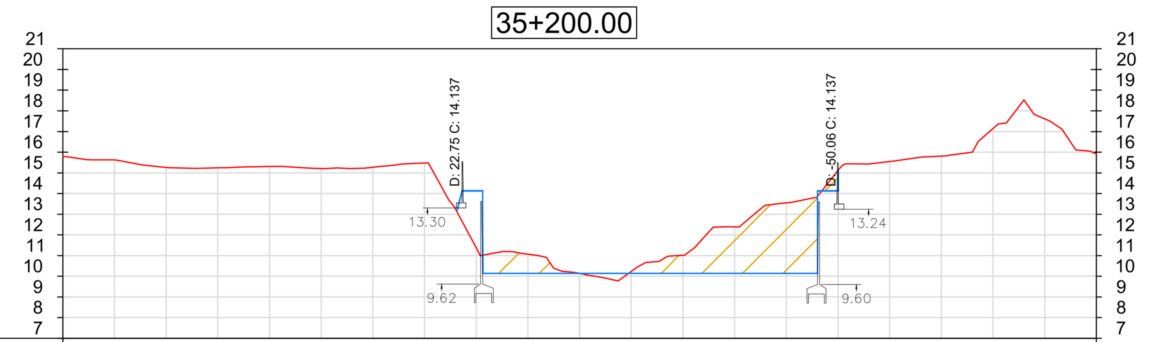
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.48 | 16.08 | 16.38 | 16.16 | 16.10 | 16.05 | 14.93 | 11.68 | 9.90 | 10.00 | 10.06 | 10.75 | 12.80 | 15.09 | 15.39 | 17.79 | 17.58 | 16.06 | 15.95 |
| COTA PROYECTO | | | | | | | | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 13.99 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+300.00



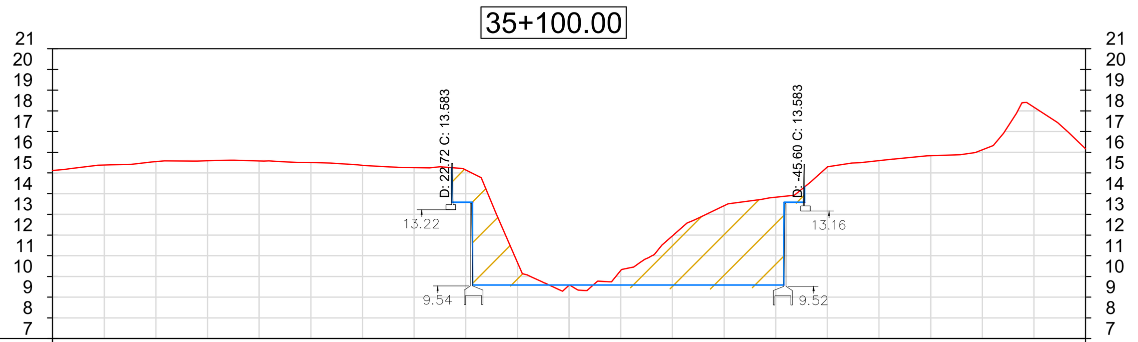
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.43 | 15.42 | 15.38 | 15.42 | 15.46 | 15.57 | 15.04 | 11.69 | 12.12 | 10.27 | 10.31 | 10.87 | 12.52 | 15.87 | 16.09 | 18.77 | 15.77 | 15.29 | 15.37 |
| COTA PROYECTO | | | | | | | | 10.27 | 10.27 | 10.27 | 10.27 | 10.27 | 14.27 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+200.00



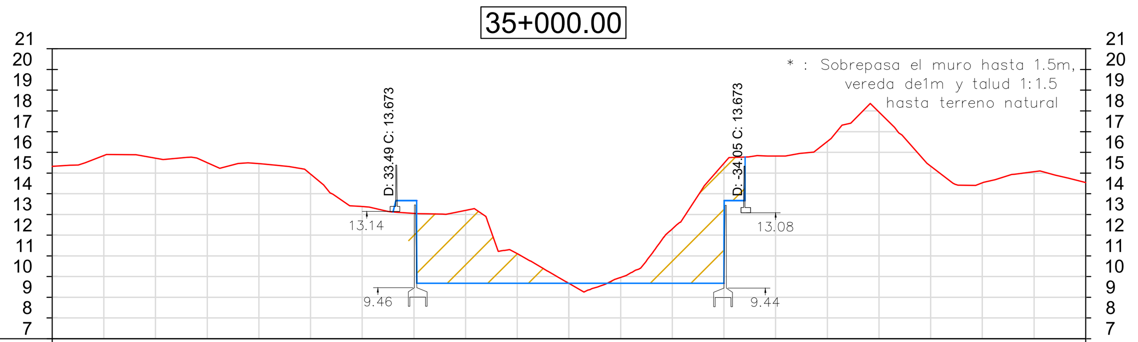
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.63 | 15.27 | 15.24 | 15.31 | 15.21 | 15.27 | 15.48 | 11.38 | 11.07 | 10.14 | 10.24 | 11.01 | 12.39 | 13.55 | 15.12 | 15.55 | 15.81 | 17.14 | 17.61 |
| COTA PROYECTO | | | | | | | | 14.13 | 10.14 | 10.13 | 10.14 | 10.14 | 10.15 | 10.15 | 14.13 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+100.00



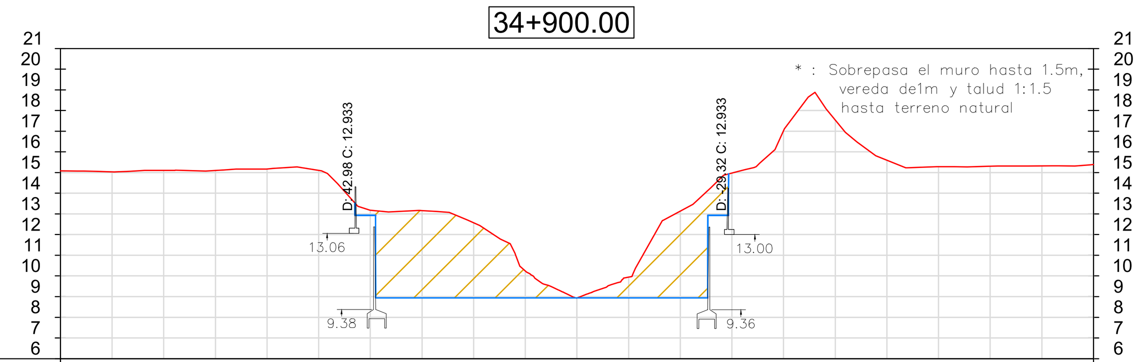
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.39 | 15.55 | 15.59 | 15.58 | 15.50 | 15.36 | 15.26 | 15.14 | 10.68 | 9.58 | 10.29 | 11.96 | 13.42 | 13.83 | 15.29 | 15.60 | 15.83 | 16.12 | 18.17 |
| COTA PROYECTO | | | | | | | | 13.54 | 9.54 | 9.55 | 9.48 | 9.41 | 9.42 | 9.49 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+000.00



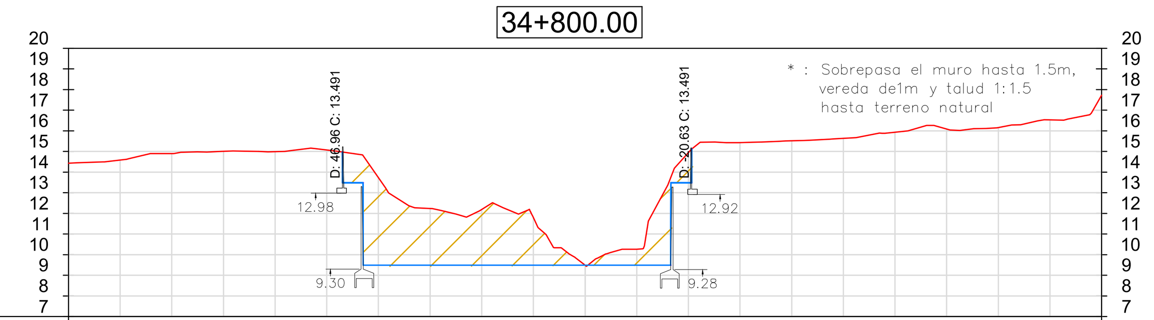

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.85 | 15.71 | 15.50 | 15.45 | 14.95 | 13.38 | 13.05 | 13.20 | 11.11 | 9.67 | 9.96 | 12.30 | 15.47 | 15.82 | 16.52 | 17.95 | 15.33 | 14.53 | 15.06 |
| COTA PROYECTO | | | | | | | 11.20 | 9.67 | 9.67 | 9.67 | 9.67 | 9.67 | 9.67 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+900.00



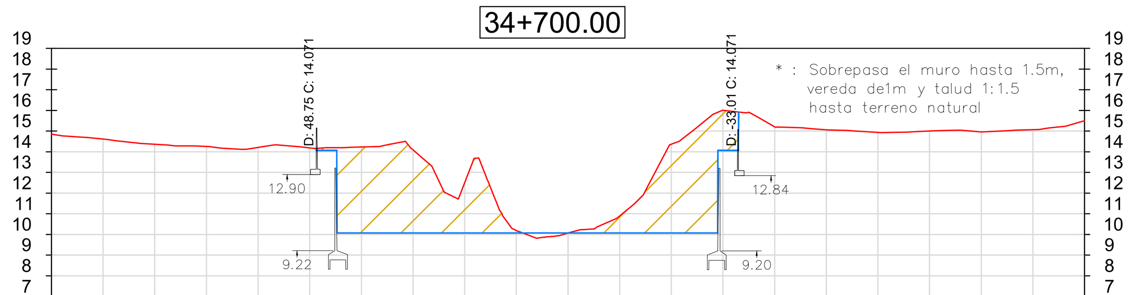

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.03 | 15.11 | 15.10 | 15.17 | 15.10 | 13.17 | 13.16 | 12.57 | 10.24 | 8.93 | 9.95 | 13.13 | 14.98 | 17.02 | 17.54 | 15.60 | 15.29 | 15.30 | 15.32 |
| COTA PROYECTO | | | | | | 12.93 | 8.93 | 8.93 | 8.93 | 8.93 | 8.93 | 8.93 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+800.00



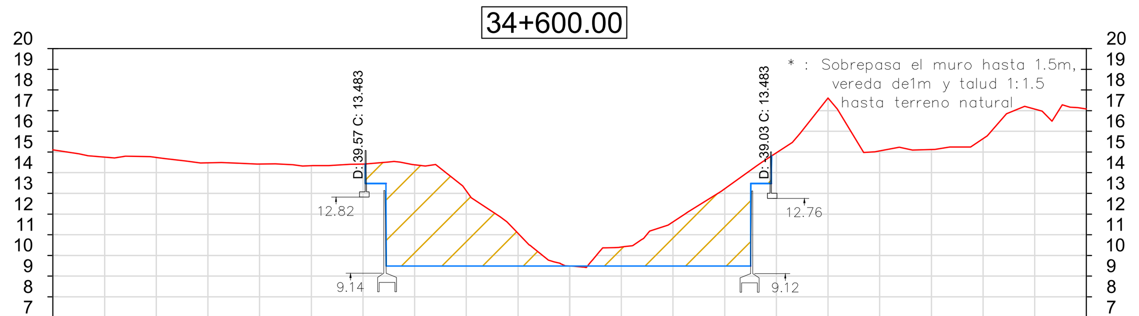

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.59 | 14.90 | 15.00 | 14.99 | 15.07 | 13.73 | 12.24 | 12.19 | 11.79 | 9.49 | 10.26 | 14.95 | 15.43 | 15.52 | 15.64 | 15.93 | 16.09 | 16.16 | 16.53 |
| COTA PROYECTO | | | | | | 9.43 | 9.44 | 9.45 | 9.47 | 9.48 | 9.48 | 13.47 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+700.00



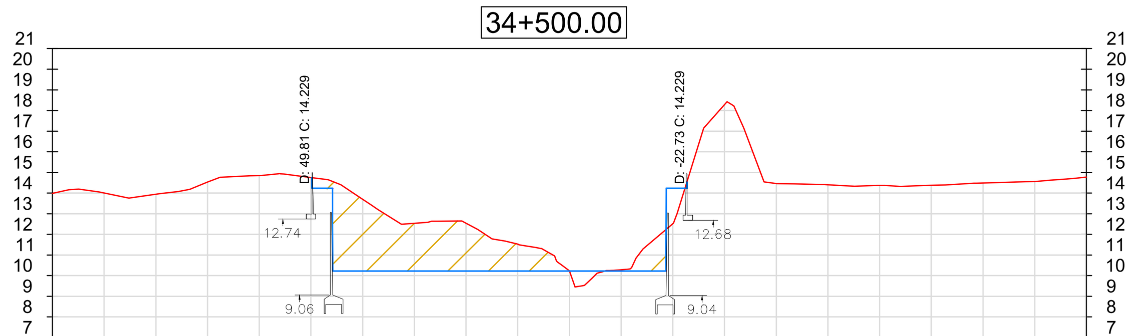

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.62 | 14.36 | 14.26 | 14.21 | 14.19 | 14.23 | 14.09 | 12.50 | 10.19 | 10.07 | 10.89 | 14.37 | 16.01 | 15.21 | 15.07 | 14.94 | 15.01 | 14.96 | 15.07 |
| COTA PROYECTO | | | | | | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 14.06 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+600.00



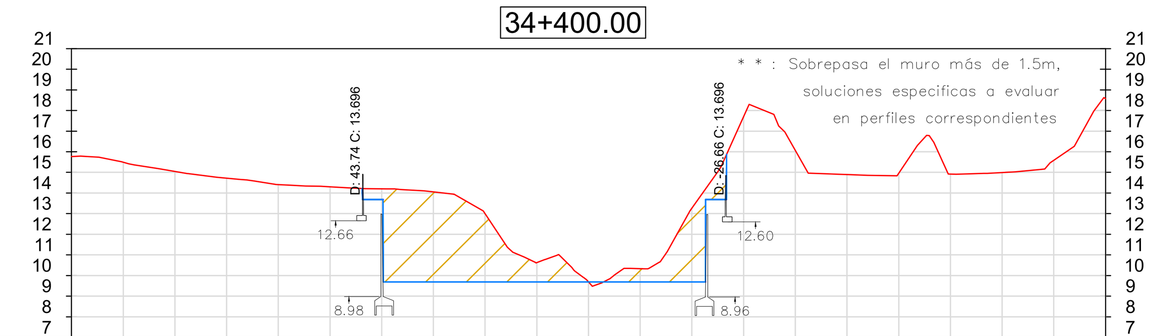

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.75 | 14.74 | 14.48 | 14.42 | 14.34 | 14.41 | 14.39 | 13.11 | 11.07 | 9.48 | 10.41 | 11.63 | 13.22 | 14.96 | 17.61 | 15.05 | 15.12 | 15.64 | 17.07 |
| COTA PROYECTO | | | | | | | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+500.00



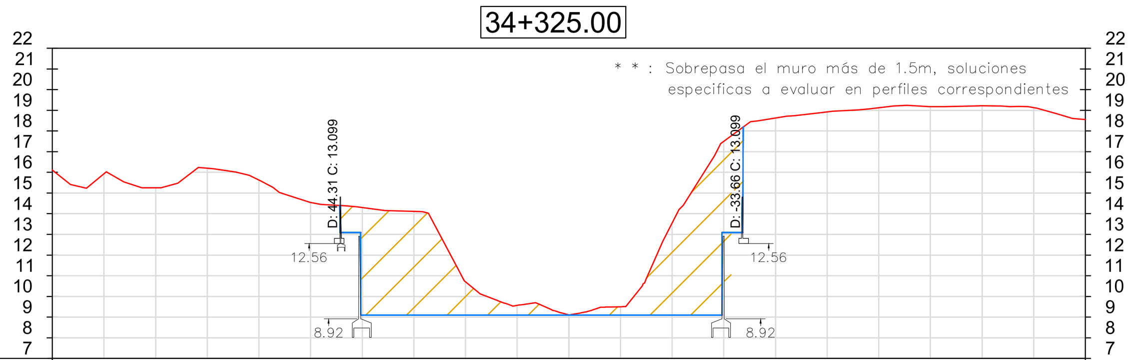
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.00 | 13.94 | 14.53 | 14.85 | 14.75 | 13.70 | 12.53 | 12.54 | 11.53 | 10.23 | 10.29 | 12.52 | 18.28 | 14.46 | 14.40 | 14.37 | 14.38 | 14.49 | 14.56 |
| COTA PROYECTO | | | | | | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 14.20 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+400.00

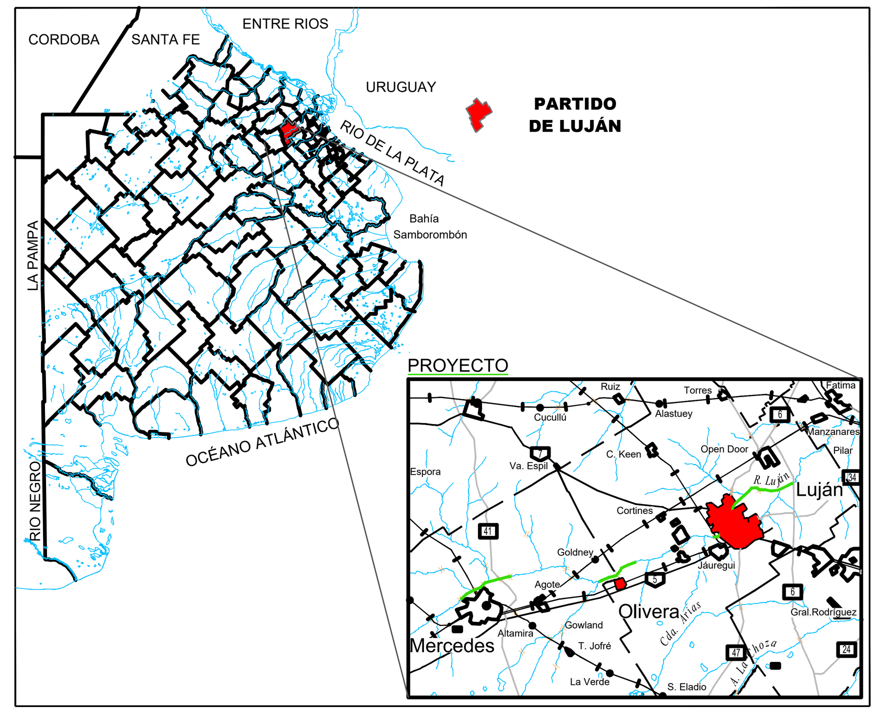



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.49 | 15.04 | 14.72 | 14.41 | 14.30 | 14.21 | 14.05 | 13.00 | 10.63 | 9.70 | 10.34 | 13.27 | 17.70 | 16.07 | 14.90 | 14.96 | 14.92 | 14.99 | 15.58 |
| COTA PROYECTO | | | | | | 13.70 | 9.70 | 9.70 | 9.70 | 9.70 | 9.70 | 9.70 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+325.00




| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.94 | 15.26 | 16.20 | 15.63 | 14.54 | 14.30 | 14.11 | 10.70 | 9.57 | 9.10 | 9.50 | 13.56 | 17.51 | 18.63 | 18.93 | 19.12 | 19.18 | 19.22 | 19.13 |
| COTA PROYECTO | | | | | | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 10.74 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

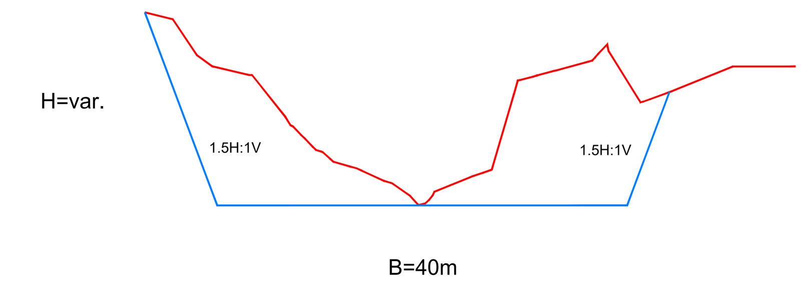



### CROQUIS DE UBICACIÓN S/ESCALA

### REFERENCIAS

- TERRENO NATURAL
- SECCION PROYECTO
- EXCAVACION NETA

### SECCIÓN TIPO




D=Distancia C=Cota

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

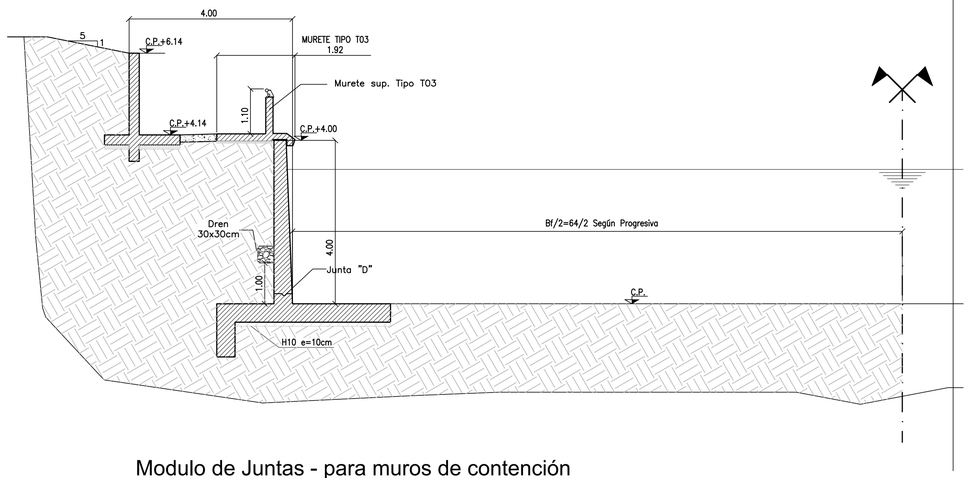
| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| Perfiles Transversales y Movimiento de suelos - Prog. 35+800.00 A 34+325.00 | N° Plano 1 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Estructuras: Ing. Victor H. Barros | Proyectista Estructural: Ing. Victor H. Barros | Proyectista Hidraulico: Ing. Leandro F. Mugetti, Ing. Francisco Ferro |
| Topografía: DPH | Escala: 1:1000 | Dibujo: Ing. Turdó Juan Tadeo |
| Fecha: Agosto 2019 | Archivo: 064-2020-LUJAN-PR-ES-Perfiles transversales | |

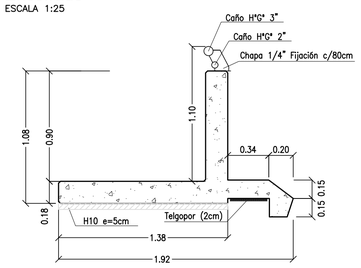
A1 (+42) - 1261 x 594

064-2020-LUJAN-PR-ES-Perfiles Muros.dwg

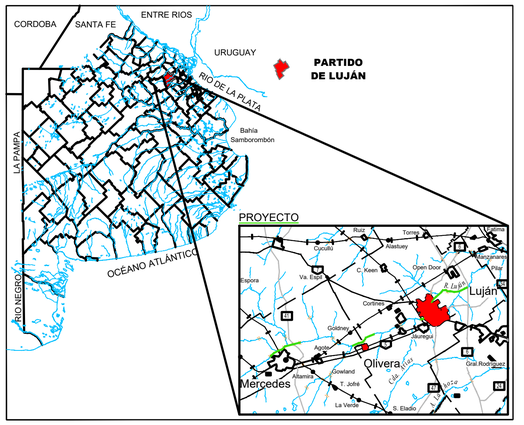
## Sección Canalización
### Encofrado
ESCALA 1:75




## Murete Tipo03
### Encofrado
ESCALA 1:25

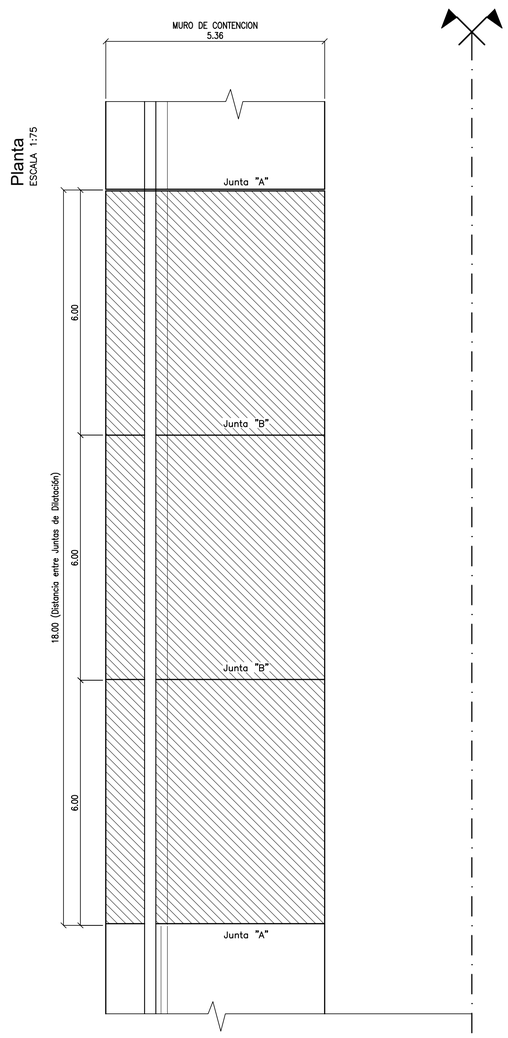



Vol H-30 = 0.50m3/m
Vol H-10 = 0.07m3/m
Vol Acero = 40Kg/m

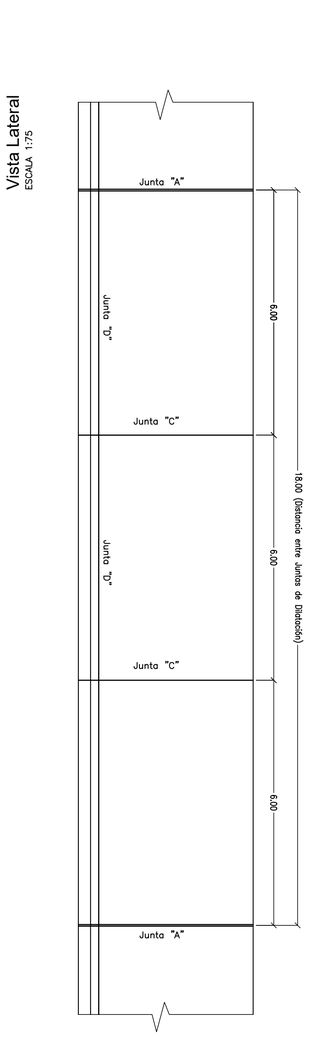



**CROQUIS DE UBICACIÓN S/ESCALA**

## Modulo de Juntas - para muros de contención
### Planta
ESCALA 1:75




### Vista Lateral
ESCALA 1:75




Junta tipo "A"
Junta de dilatación con OP30 o similar.

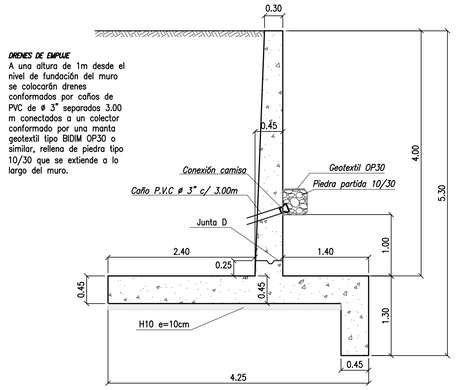
Junta tipo "B"
Junta de contracción por fragüe armadura pasante horizontal

Junta tipo "C"
Junta de contracción por fragüe armadura pasante vertical

Junta tipo "D"
Junta de constructiva horizontal en muro vertical

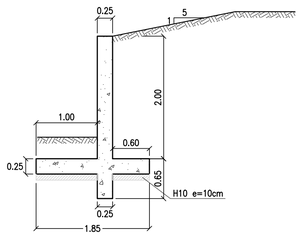
Los espesores de juntas se mantienen para Muro Tipo01, Muro Tipo02 y Murete superior Tipo03.

## Muro Tipo01 H=4.00m
### Encofrado
ESCALA 1:50




Vol H-30 = 3.80m3/m
Vol H-10 = 0.38m3/m
Vol Acero = 340Kg/m

## Muro Tipo02 H=2.00m
### Encofrado
ESCALA 1:50




Vol H-30 = 1.06m3/m
Vol H-10 = 0.16m3/m
Vol Acero = 90Kg/m

## MATERIALES

| | | | |
|---|---|---|---|
| Hormigon : | H10 | LIMPIEZA | |
| | H30 | ESTRUCTURAL | |
| Acero : | Tipo III ADN 420 S/CIRSOC | | |
| Recubrimientos : | Solera | | 5 cm |
| | Muros Verticales | | 4 cm |
| | Prefabricados | | 3 cm |

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

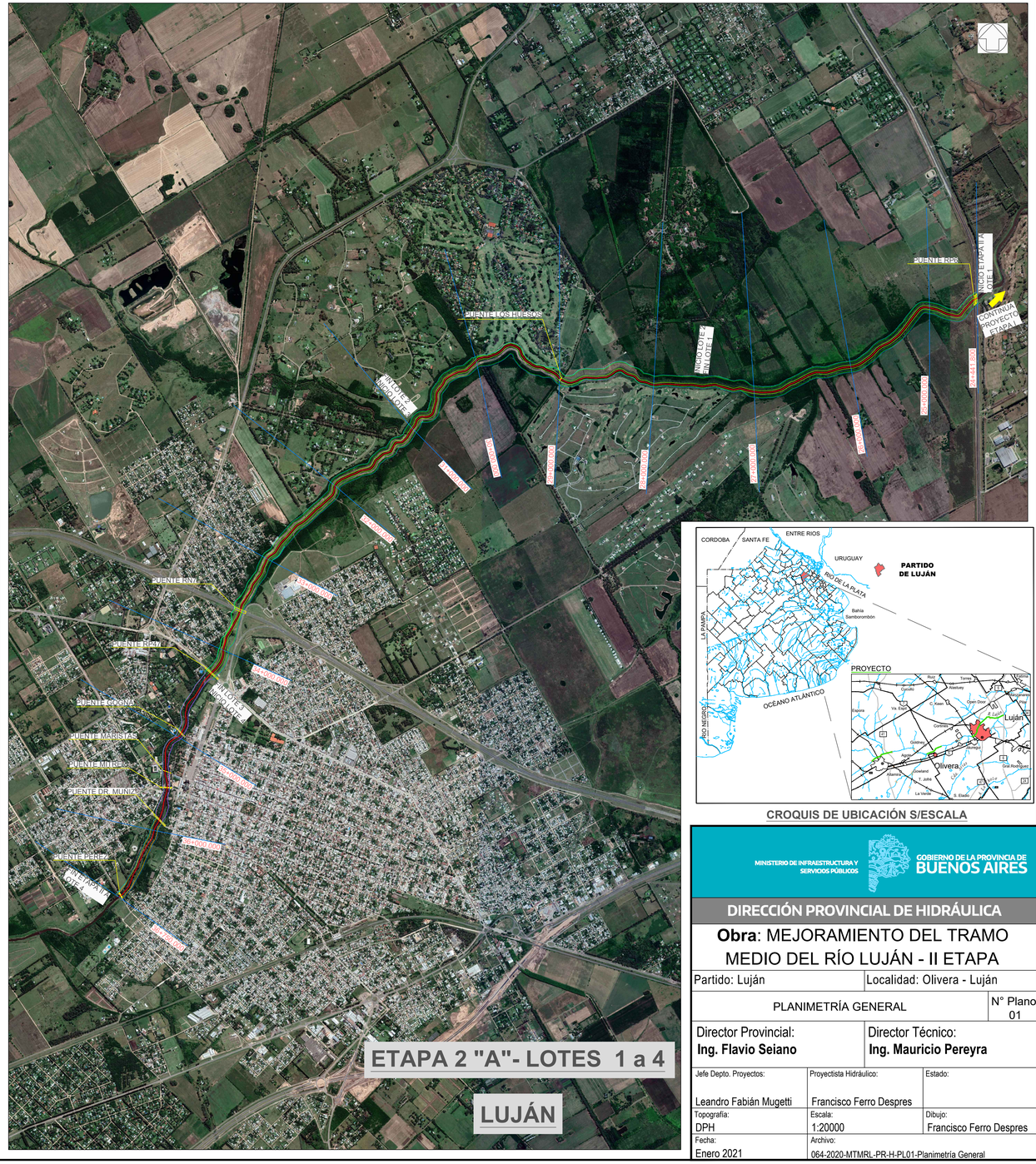
**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| Sección de Muros y disposición de juntas | N° Plano 4 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Estructuras: Ing. Victor H. Barros | Proyectista Estructural: Ing. Victor H. Barros | Proyectista Hidraulico: Ing. Leandro F. Mugetti, Ing. Francisco Ferro |
| Topografia: DPH | Escala: Indicadas | Dibujo: Ing. Turdó Juan Tadeo |
| Fecha: Agosto 2019 | Archivo: 064-2020-LUJAN-PR-ES-Seccion y juntas Muros | |

A1 – 841 x 594

064-2020-LUJAN-PR-ES-Seccion y juntas Muros.dwg







CROQUIS DE UBICACIÓN S/ESCALA

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

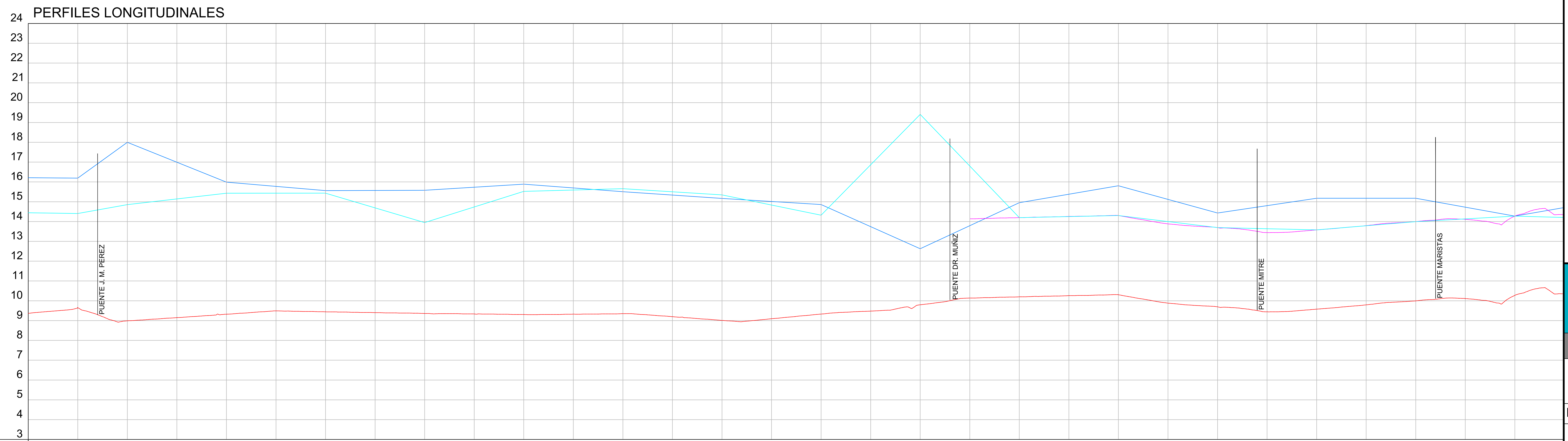
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

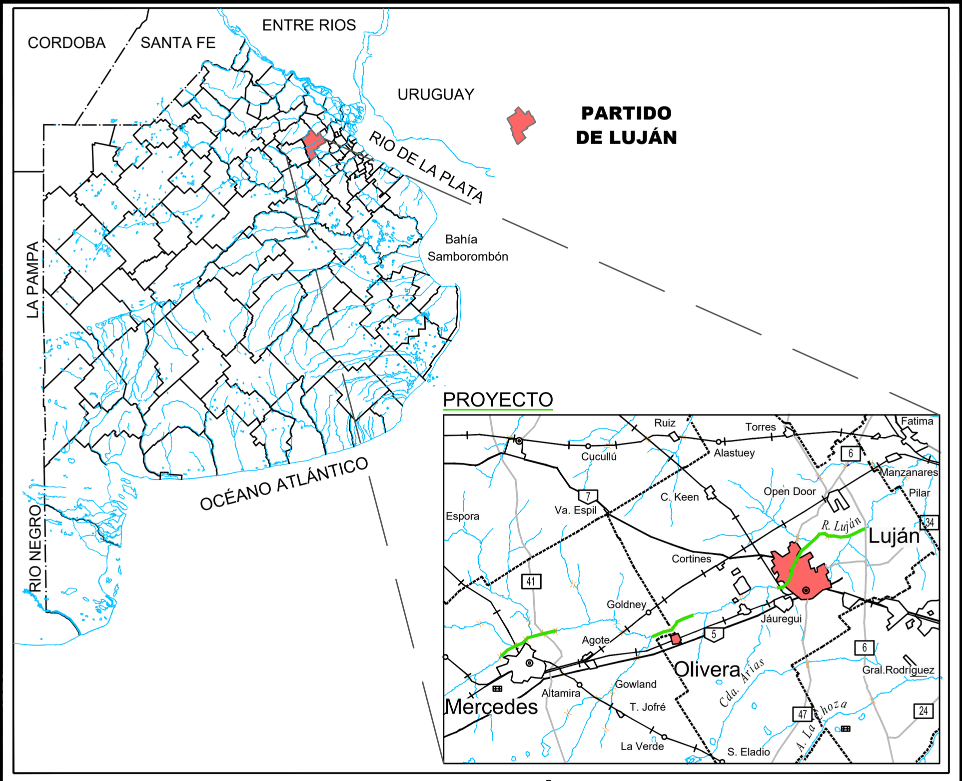
| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA GENERAL | N° Plano 01 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: 1:20000 | Dibujo: Francisco Ferro Despres |
| Fecha: Enero 2021 | Archivo: 064-2020-MTMRL-PR-H-PL01-Planimetría General | |




| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 9.65 | 8.99 | 9.15 | 9.32 | 9.49 | 9.44 | 9.40 | 9.36 | 9.33 | 9.31 | 9.33 | 9.35 | 9.20 | 9.01 | 9.10 | 9.33 |
| C. Margen Izquierda | 14.40 | 14.86 | 15.14 | 15.43 | 15.43 | 15.43 | 14.69 | 13.95 | 14.73 | 15.52 | 15.59 | 15.66 | 15.50 | 15.34 | 14.83 | 14.32 |
| C. Margen Derecha | 16.19 | 18.00 | 16.99 | 15.99 | 15.78 | 15.56 | 15.57 | 15.58 | 15.73 | 15.89 | 15.70 | 15.51 | 15.34 | 15.17 | 15.01 | 14.86 |
| C. Fondo Berma | | | | | | | | | | | | | | | | |
| C. Muros Verticales | | | | | | | | | | | | | | | | |
| Progresivas | 36+750 | 36+700 | 36+650 | 36+600 | 36+550 | 36+500 | 36+450 | 36+400 | 36+350 | 36+300 | 36+250 | 36+200 | 36+150 | 36+100 | 36+050 | 36+000 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 9.48 | 9.80 | 10.14 | 10.20 | 10.26 | 10.31 | 9.88 | 9.69 | 9.44 | 9.58 | 9.79 | 10.00 | 10.11 | 10.27 |
| C. Margen Izquierda | 16.87 | 19.41 | 16.80 | 14.20 | 14.25 | 14.30 | 14.00 | 13.69 | 13.64 | 13.58 | 13.79 | 14.00 | 14.14 | 14.27 |
| C. Margen Derecha | 13.74 | 12.63 | 13.79 | 14.95 | 15.38 | 15.80 | 15.12 | 14.43 | 14.80 | 15.17 | 15.18 | 15.18 | 14.73 | 14.27 |
| C. Fondo Berma | | | | | | | | | | | | | | |
| C. Muros Verticales | | | | 14.20 | 14.26 | 14.31 | 13.88 | 13.69 | 13.44 | 13.58 | 13.79 | 14.00 | 14.11 | 14.27 |
| Progresivas | 35+950 | 35+900 | 35+850 | 35+800 | 35+750 | 35+700 | 35+650 | 35+600 | 35+550 | 35+500 | 35+450 | 35+400 | 35+350 | 35+300 |



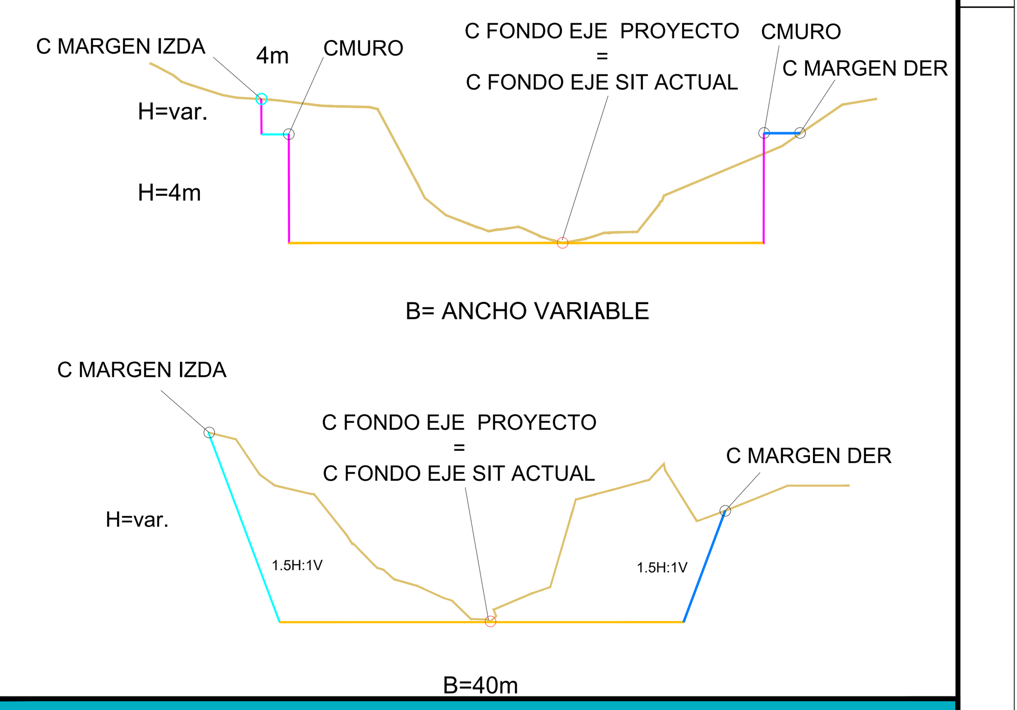

**CROQUIS DE UBICACIÓN S/ESCALA**

**REFERENCIAS**

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA INTERSECCIÓN CON TN
- MARGEN DERECHA INTERSECCIÓN CON TN
- MUROS VERTICALES
- 23.74 PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- 24+600.00 PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00

**SECCIÓN TIPO**



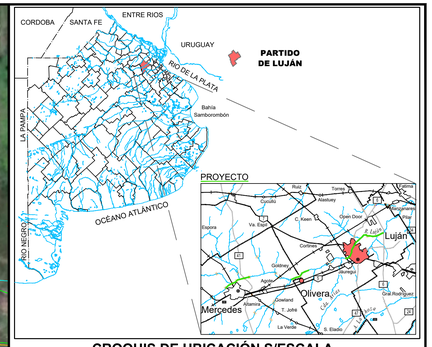

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| Partido: Luján | Localidad: Olivera - Luján |
|---|---|
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 36+750.00 A 35+300.00 | N° Plano 06 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres / Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 / Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL06-Planimetría y PLong 36750-35300 |




CROQUIS DE UBICACIÓN S/ESCALA

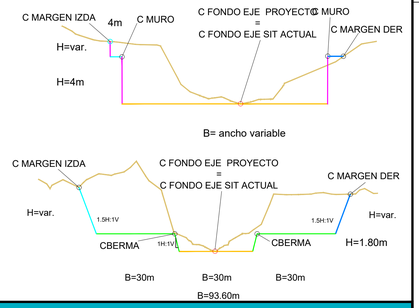
## REFERENCIAS

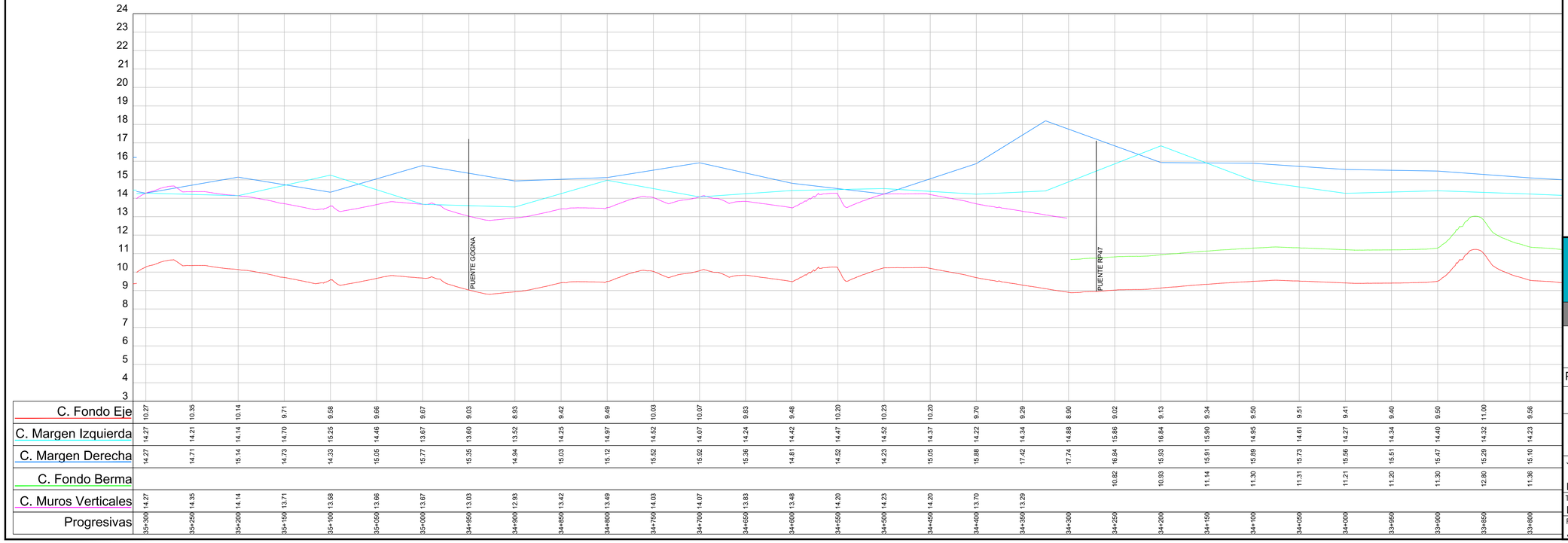
- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- MUROS VERTICALES
- 23.74 PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- 24+600.00 PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

LUJÁN - EII A - PROG 36+750.00 A 24+441.80

LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00

## SECCIÓN TIPO




MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

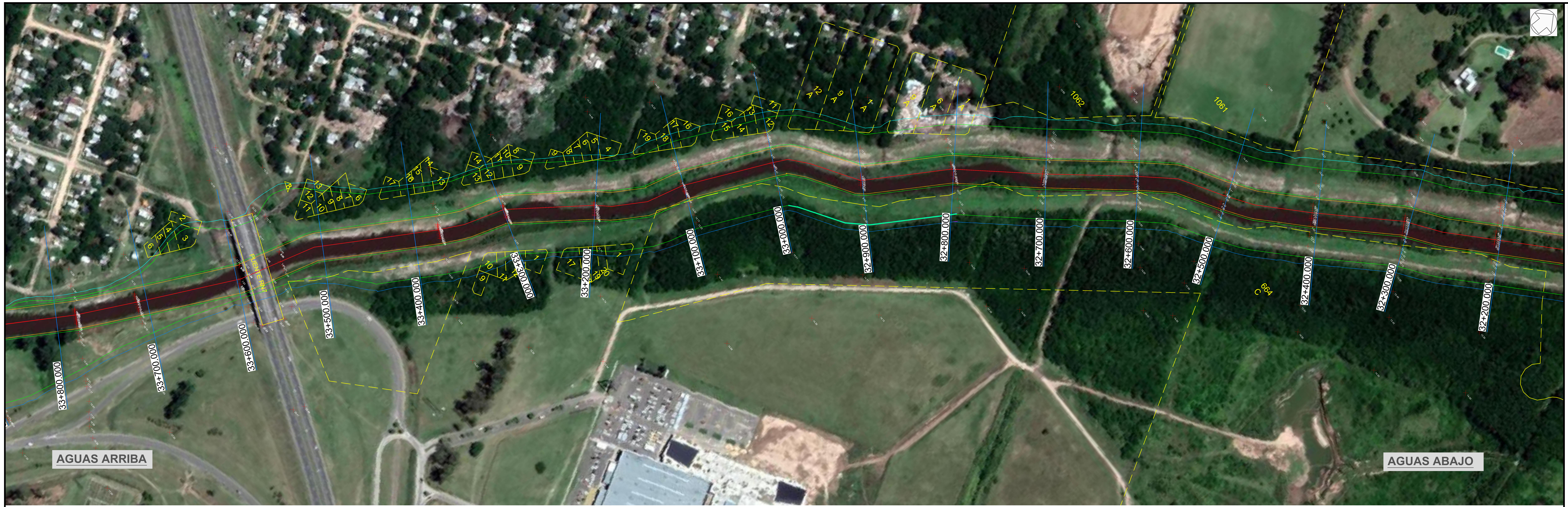
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

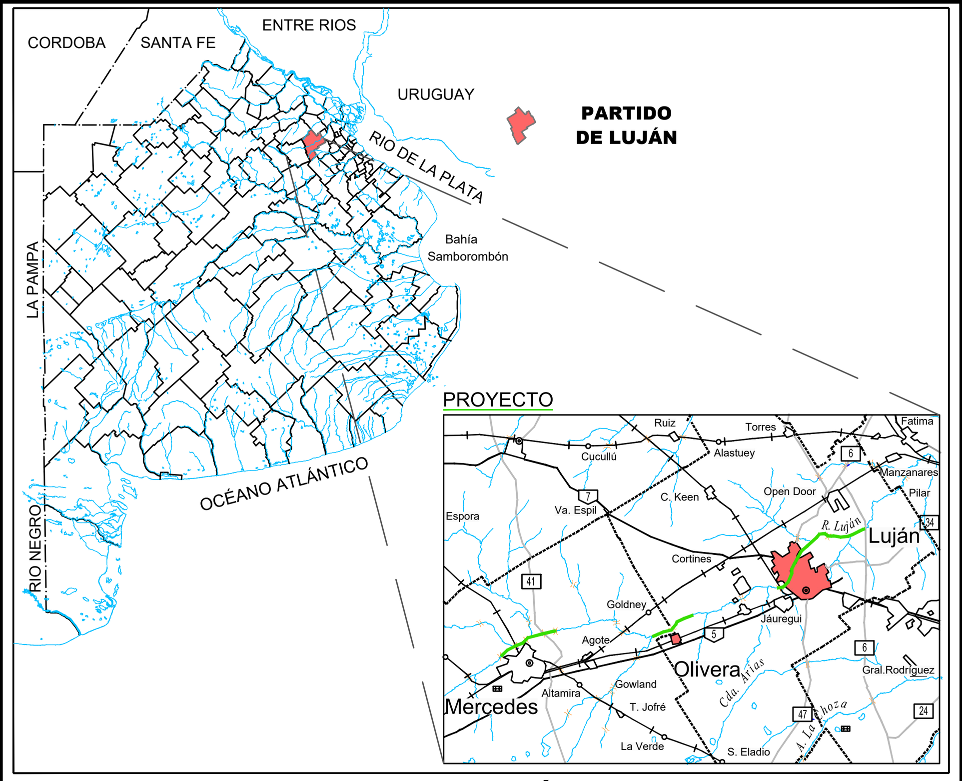
**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 35+300.00 A 33+800.00 | N° Plano 07 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL07-Planimetría y PLong 35300-33800 | |



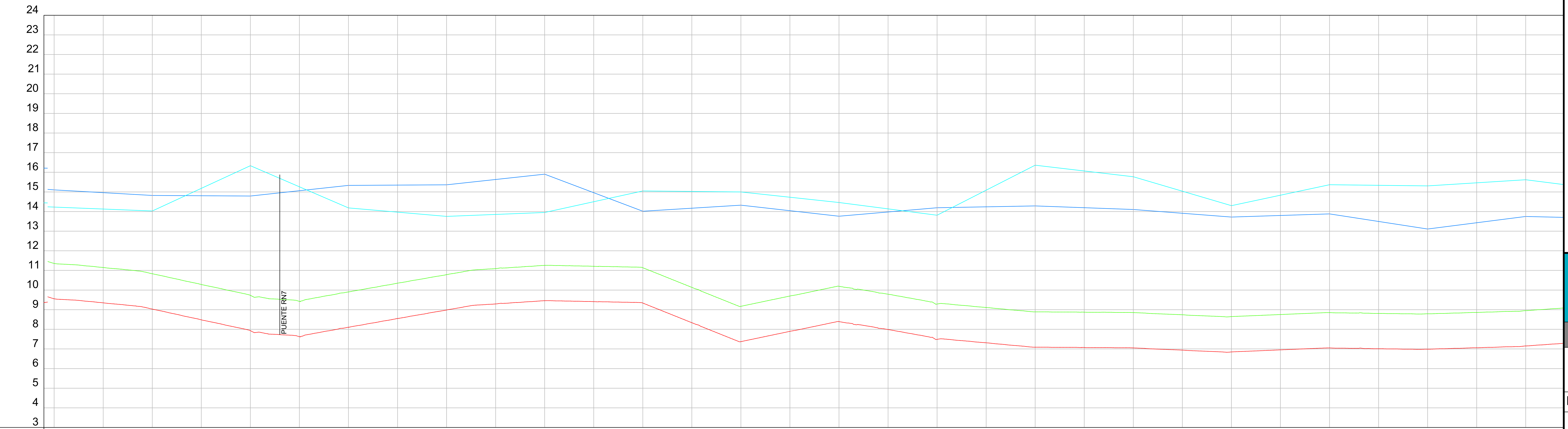




**CROQUIS DE UBICACIÓN S/ESCALA**

## REFERENCIAS

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

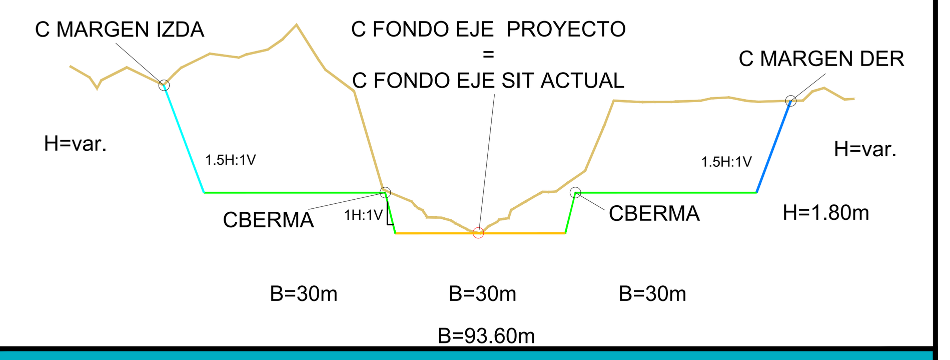
LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00




| Progresivas | 33+800 | 33+750 | 33+700 | 33+650 | 33+600 | 33+550 | 33+500 | 33+450 | 33+400 | 33+350 | 33+300 | 33+250 | 33+200 | 33+150 | 33+100 | 33+050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 9.56 | 9.35 | 9.03 | 8.48 | 7.93 | 7.62 | 8.10 | 8.55 | 8.99 | 9.29 | 9.46 | 9.41 | 9.34 | 8.34 | 7.37 | 7.90 |
| C. Margen Izquierda | 14.23 | 14.13 | 14.03 | 15.18 | 16.33 | 15.26 | 14.18 | 13.97 | 13.75 | 13.85 | 13.95 | 14.50 | 15.05 | 15.02 | 15.00 | 14.73 |
| C. Margen Derecha | 15.10 | 14.96 | 14.82 | 14.80 | 14.79 | 15.06 | 15.33 | 15.35 | 15.36 | 15.63 | 15.91 | 14.96 | 14.01 | 14.17 | 14.32 | 14.04 |
| C. Fondo Berma | 11.36 | 11.15 | 10.83 | 10.28 | 9.73 | 9.42 | 9.90 | 10.35 | 10.79 | 11.09 | 11.26 | 11.21 | 11.14 | 10.14 | 9.17 | 9.70 |
| C. Muros Verticales | | | | | | | | | | | | | | | | |

| Progresivas | 33+000 | 32+950 | 32+900 | 32+850 | 32+800 | 32+750 | 32+700 | 32+650 | 32+600 | 32+550 | 32+500 | 32+450 | 32+400 | 32+350 | 32+300 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 8.39 | 7.99 | 7.49 | 7.31 | 7.09 | 7.07 | 7.05 | 6.94 | 6.85 | 6.95 | 7.05 | 7.01 | 6.99 | 7.06 | 7.15 |
| C. Margen Izquierda | 14.46 | 14.14 | 13.81 | 15.09 | 16.36 | 16.07 | 15.77 | 15.04 | 14.30 | 14.83 | 15.37 | 15.34 | 15.31 | 15.46 | 15.62 |
| C. Margen Derecha | 13.76 | 13.98 | 14.19 | 14.24 | 14.28 | 14.19 | 14.10 | 13.91 | 13.72 | 13.80 | 13.88 | 13.50 | 13.11 | 13.43 | 13.75 |
| C. Fondo Berma | 10.19 | 9.79 | 9.29 | 9.11 | 8.89 | 8.87 | 8.85 | 8.74 | 8.65 | 8.75 | 8.85 | 8.81 | 8.79 | 8.86 | 8.95 |
| C. Muros Verticales | | | | | | | | | | | | | | | |

## SECCIÓN TIPO



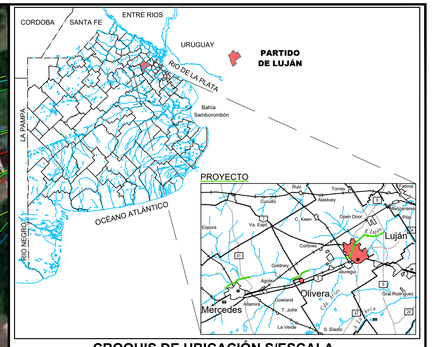

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| Partido: Luján | Localidad: Olivera - Luján |
|---|---|
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 33+800.00 A 32+300.00 | N° Plano 08 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| Jefe Depto. Proyectos: | Proyectista Hidráulico: | Estado: |
|---|---|---|
| Leandro Fabián Mugetti | Francisco Ferro Despres | |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL08-Planimetría y PLong 33800-32300 | |



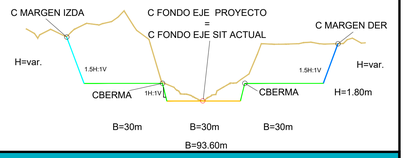

CROQUIS DE UBICACIÓN S/ESCALA

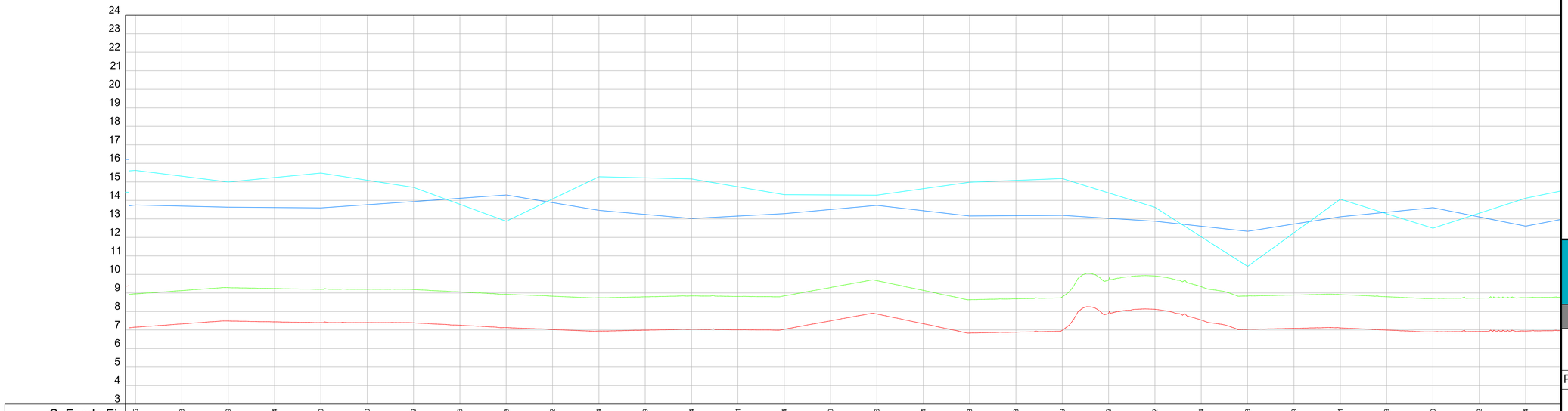
## REFERENCIAS

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- 23.74 PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- 24+600.00 PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00

## SECCIÓN TIPO




| Progresivas | C. Fondo Eje | C. Margen Izquierda | C. Margen Derecha | C. Fondo Berma | C. Muros Verticales |
|---|---|---|---|---|---|
| 32+300 | 7.15 | 15.62 | 13.75 | 8.95 | |
| 32+250 | 7.33 | 15.31 | 13.69 | 9.13 | |
| 32+200 | 7.49 | 14.99 | 13.63 | 9.29 | |
| 32+150 | 7.44 | 15.23 | 13.61 | 9.24 | |
| 32+100 | 7.40 | 15.48 | 13.59 | 9.20 | |
| 32+050 | 7.40 | 15.09 | 13.76 | 9.20 | |
| 32+000 | 7.39 | 14.70 | 13.94 | 9.19 | |
| 31+950 | 7.26 | 13.79 | 14.11 | 9.06 | |
| 31+900 | 7.13 | 12.87 | 14.29 | 8.93 | |
| 31+850 | 7.02 | 14.07 | 13.88 | 8.82 | |
| 31+800 | 6.94 | 15.28 | 13.46 | 8.74 | |
| 31+750 | 6.99 | 15.22 | 13.24 | 8.79 | |
| 31+700 | 7.04 | 15.16 | 13.02 | 8.84 | |
| 31+650 | 7.01 | 14.74 | 13.15 | 8.81 | |
| 31+600 | 7.04 | 14.31 | 13.28 | 8.84 | |
| 31+550 | 7.49 | 14.30 | 13.51 | 9.29 | |
| 31+500 | 7.86 | 14.28 | 13.73 | 9.66 | |
| 31+450 | 7.34 | 14.63 | 13.44 | 9.14 | |
| 31+400 | 6.83 | 14.98 | 13.15 | 8.63 | |
| 31+350 | 6.88 | 15.08 | 13.17 | 8.68 | |
| 31+300 | 6.99 | 15.18 | 13.19 | 8.79 | |
| 31+250 | 7.89 | 14.40 | 13.03 | 9.69 | |
| 31+200 | 8.12 | 13.62 | 12.87 | 9.92 | |
| 31+150 | 7.54 | 12.03 | 12.60 | 9.34 | |
| 31+100 | 7.03 | 10.43 | 12.33 | 8.83 | |
| 31+050 | 7.09 | 12.25 | 12.72 | 8.89 | |
| 31+000 | 7.11 | 14.06 | 13.12 | 8.91 | |
| 30+950 | 6.99 | 13.28 | 13.36 | 8.79 | |
| 30+900 | 6.90 | 12.50 | 13.60 | 8.70 | |
| 30+850 | 6.92 | 13.31 | 13.11 | 8.72 | |
| 30+800 | 6.94 | 14.12 | 12.61 | 8.74 | |

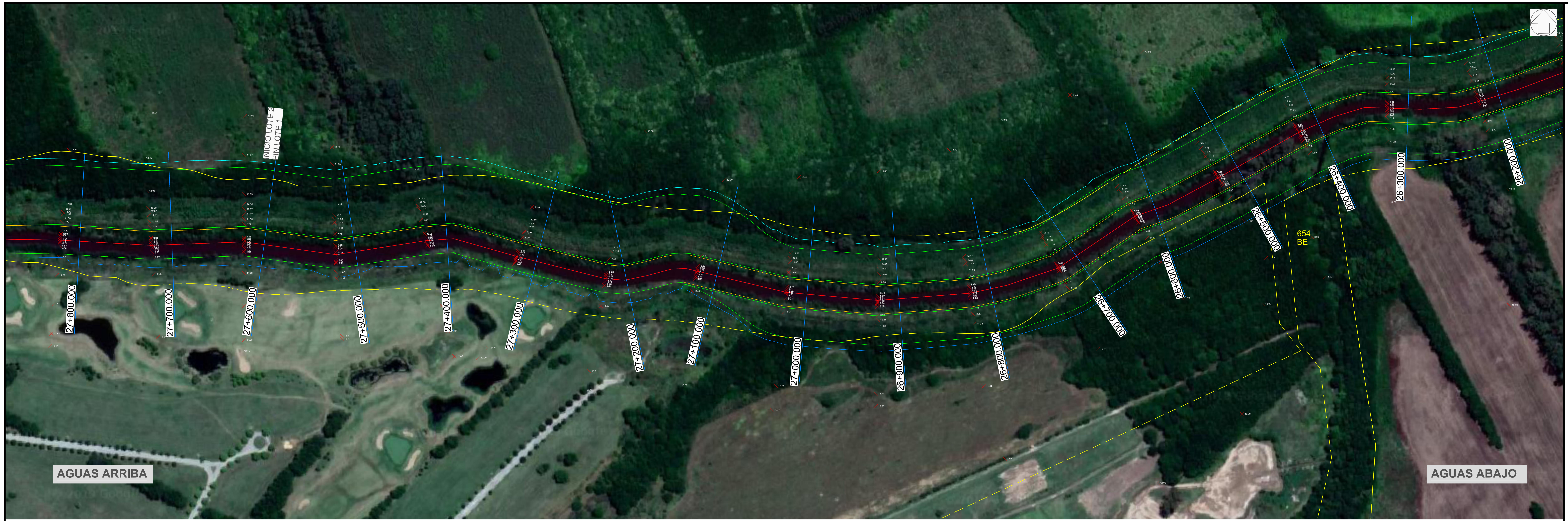
MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

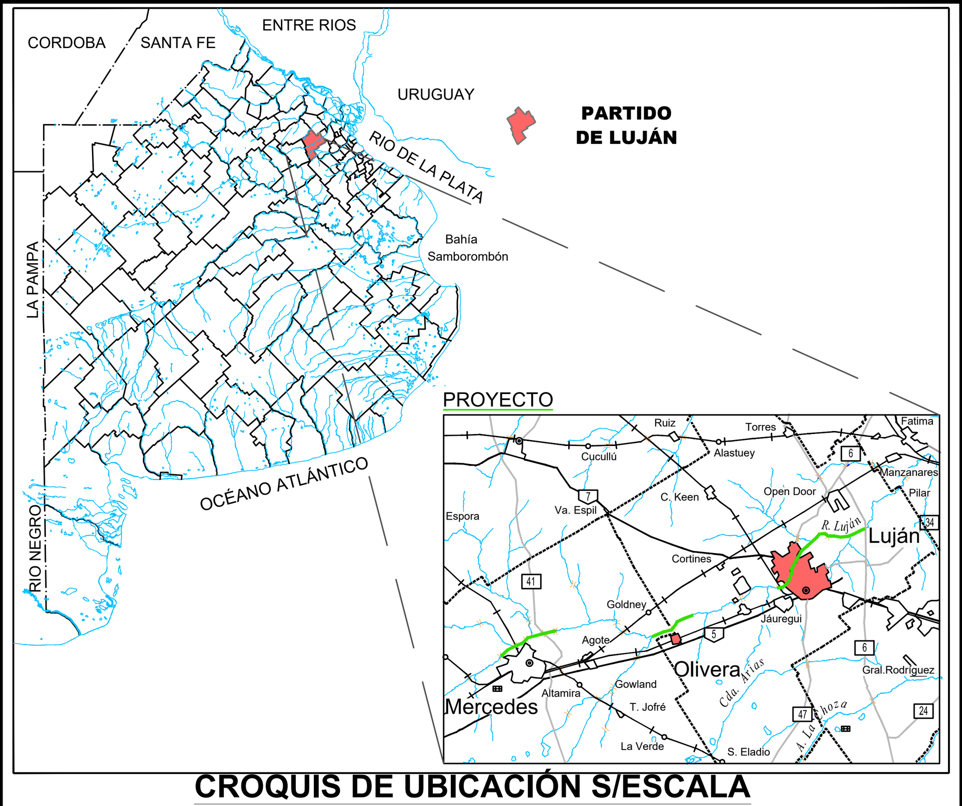
**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 32+300.00 A 30+800.00 | N° Plano 09 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL09-Planimetría y PLong 32300-30800 | |



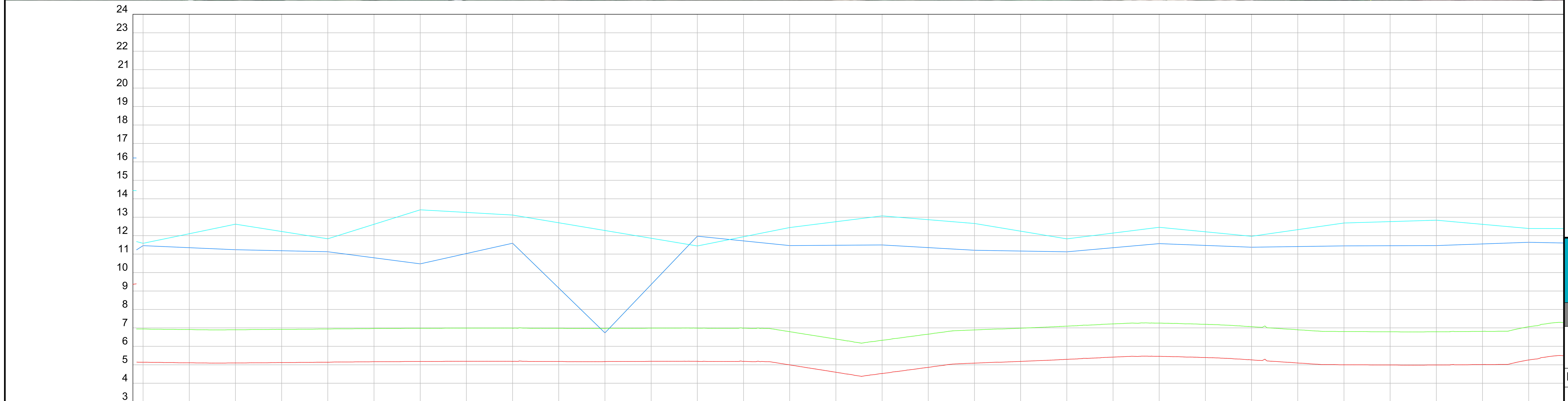




CROQUIS DE UBICACIÓN S/ESCALA

## REFERENCIAS

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

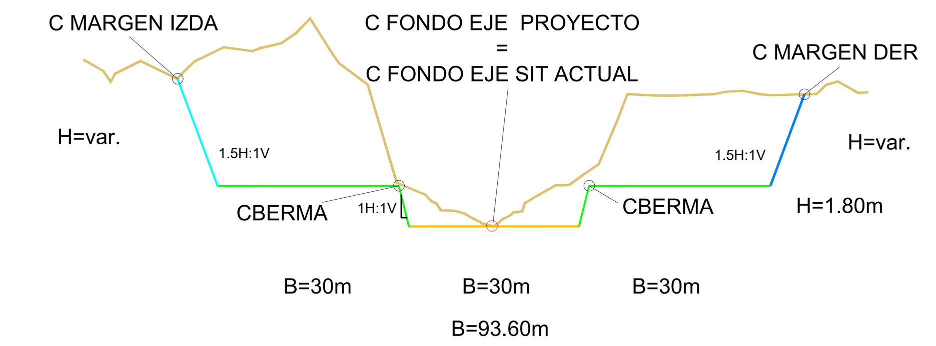
LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00




| Progresivas | 27+800 | 27+750 | 27+700 | 27+650 | 27+600 | 27+550 | 27+500 | 27+450 | 27+400 | 27+350 | 27+300 | 27+250 | 27+200 | 27+150 | 27+100 | 27+050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 5.14 | 5.11 | 5.10 | 5.12 | 5.14 | 5.17 | 5.18 | 5.19 | 5.19 | 5.18 | 5.17 | 5.19 | 5.19 | 5.19 | 4.99 | 4.60 |
| C. Margen Izquierda | 11.59 | 12.10 | 12.62 | 12.23 | 11.83 | 12.61 | 13.40 | 13.26 | 13.12 | 12.70 | 12.28 | 11.86 | 11.44 | 11.94 | 12.44 | 12.75 |
| C. Margen Derecha | 11.46 | 11.35 | 11.24 | 11.18 | 11.13 | 10.80 | 10.47 | 11.03 | 11.59 | 9.16 | 6.73 | 9.35 | 11.97 | 11.72 | 11.46 | 11.48 |
| C. Fondo Berma | 6.94 | 6.91 | 6.90 | 6.92 | 6.94 | 6.97 | 6.98 | 6.99 | 6.99 | 6.98 | 6.97 | 6.99 | 6.99 | 6.99 | 6.79 | 6.40 |
| C. Muros Verticales | | | | | | | | | | | | | | | | |

| Progresivas | 27+000 | 26+950 | 26+900 | 26+850 | 26+800 | 26+750 | 26+700 | 26+650 | 26+600 | 26+550 | 26+500 | 26+450 | 26+400 | 26+350 | 26+300 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 4.53 | 4.86 | 5.09 | 5.18 | 5.29 | 5.42 | 5.46 | 5.39 | 5.27 | 5.10 | 5.00 | 4.99 | 4.99 | 5.01 | 5.26 |
| C. Margen Izquierda | 13.07 | 12.87 | 12.66 | 12.24 | 11.83 | 12.14 | 12.45 | 12.21 | 11.97 | 12.32 | 12.68 | 12.76 | 12.84 | 12.61 | 12.39 |
| C. Margen Derecha | 11.50 | 11.35 | 11.21 | 11.17 | 11.12 | 11.35 | 11.57 | 11.47 | 11.37 | 11.41 | 11.44 | 11.45 | 11.46 | 11.55 | 11.64 |
| C. Fondo Berma | 6.33 | 6.66 | 6.89 | 6.98 | 7.09 | 7.22 | 7.26 | 7.19 | 7.07 | 6.90 | 6.80 | 6.79 | 6.79 | 6.81 | 7.06 |
| C. Muros Verticales | | | | | | | | | | | | | | | |

## SECCIÓN TIPO

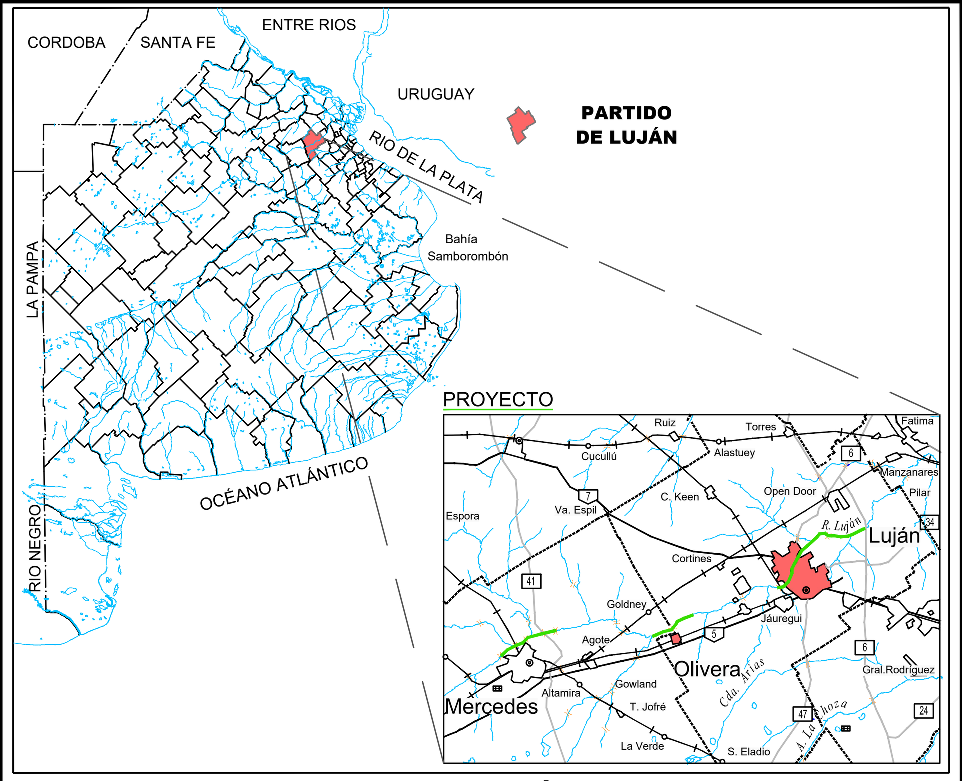



MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 27+800.00 A 26+300.00 | N° Plano 12 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres / Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 / Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL12-Planimetría y PLong 27800-26300 |



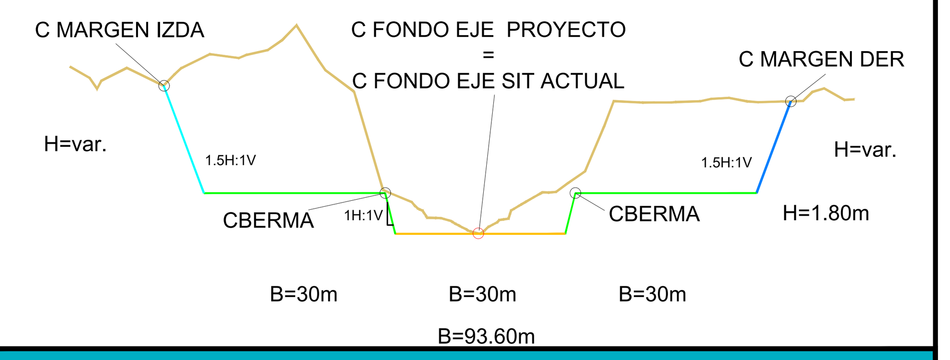

**CROQUIS DE UBICACIÓN S/ESCALA**

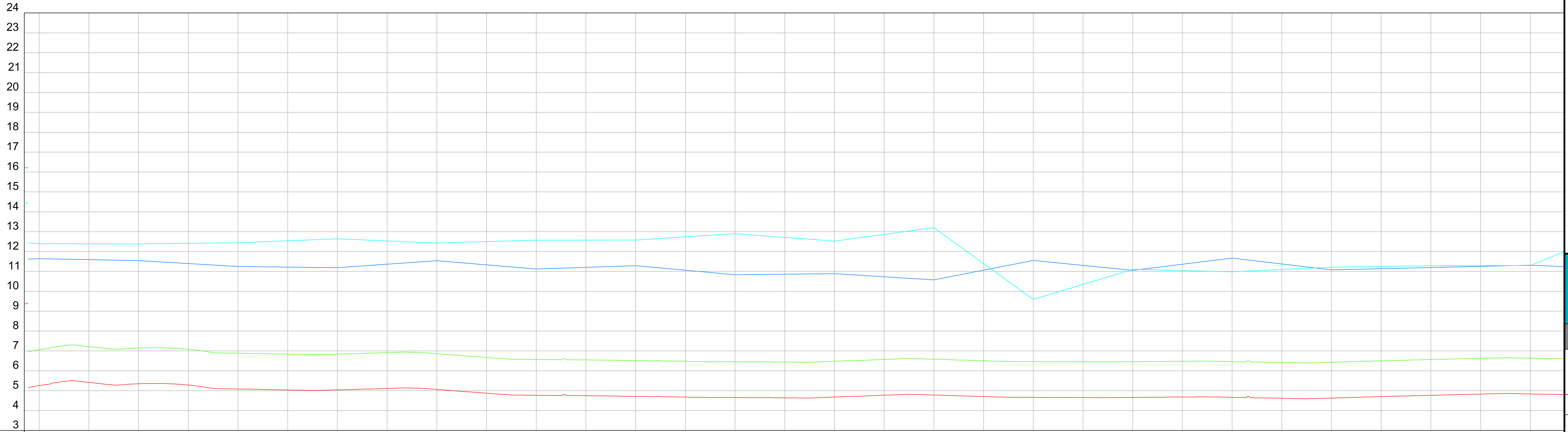
## REFERENCIAS

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- 23.74 PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- 24+600.00 PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00

## SECCIÓN TIPO




| Progresivas | 26+300 | 26+250 | 26+200 | 26+150 | 26+100 | 26+050 | 26+000 | 25+950 | 25+900 | 25+850 | 25+800 | 25+750 | 25+700 | 25+650 | 25+600 | 25+550 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 5.26 | 5.41 | 5.35 | 5.28 | 5.08 | 5.04 | 5.04 | 5.11 | 5.06 | 4.87 | 4.77 | 4.75 | 4.71 | 4.68 | 4.66 | 4.64 |
| C. Margen Izquierda | 12.39 | 12.39 | 12.39 | 12.41 | 12.44 | 12.54 | 12.64 | 12.53 | 12.43 | 12.50 | 12.57 | 12.57 | 12.57 | 12.74 | 12.90 | 12.71 |
| C. Margen Derecha | 11.64 | 11.59 | 11.54 | 11.39 | 11.25 | 11.22 | 11.19 | 11.36 | 11.54 | 11.33 | 11.12 | 11.20 | 11.29 | 11.06 | 10.83 | 10.86 |
| C. Fondo Berma | 7.06 | 7.21 | 7.15 | 7.08 | 6.88 | 6.84 | 6.84 | 6.91 | 6.86 | 6.67 | 6.57 | 6.55 | 6.51 | 6.48 | 6.46 | 6.44 |
| C. Muros Verticales | | | | | | | | | | | | | | | | |

| Progresivas | 25+500 | 25+450 | 25+400 | 25+350 | 25+300 | 25+250 | 25+200 | 25+150 | 25+100 | 25+050 | 25+000 | 24+950 | 24+900 | 24+850 | 24+800 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 4.68 | 4.77 | 4.78 | 4.71 | 4.67 | 4.66 | 4.66 | 4.68 | 4.66 | 4.62 | 4.63 | 4.70 | 4.77 | 4.83 | 4.84 |
| C. Margen Izquierda | 12.52 | 12.86 | 13.20 | 11.40 | 9.59 | 10.35 | 11.10 | 11.04 | 10.98 | 11.10 | 11.21 | 11.25 | 11.28 | 11.29 | 11.30 |
| C. Margen Derecha | 10.89 | 10.73 | 10.57 | 11.06 | 11.55 | 11.30 | 11.05 | 11.36 | 11.67 | 11.37 | 11.08 | 11.14 | 11.19 | 11.25 | 11.31 |
| C. Fondo Berma | 6.48 | 6.57 | 6.58 | 6.51 | 6.47 | 6.46 | 6.46 | 6.48 | 6.46 | 6.42 | 6.43 | 6.50 | 6.57 | 6.63 | 6.64 |
| C. Muros Verticales | | | | | | | | | | | | | | | |

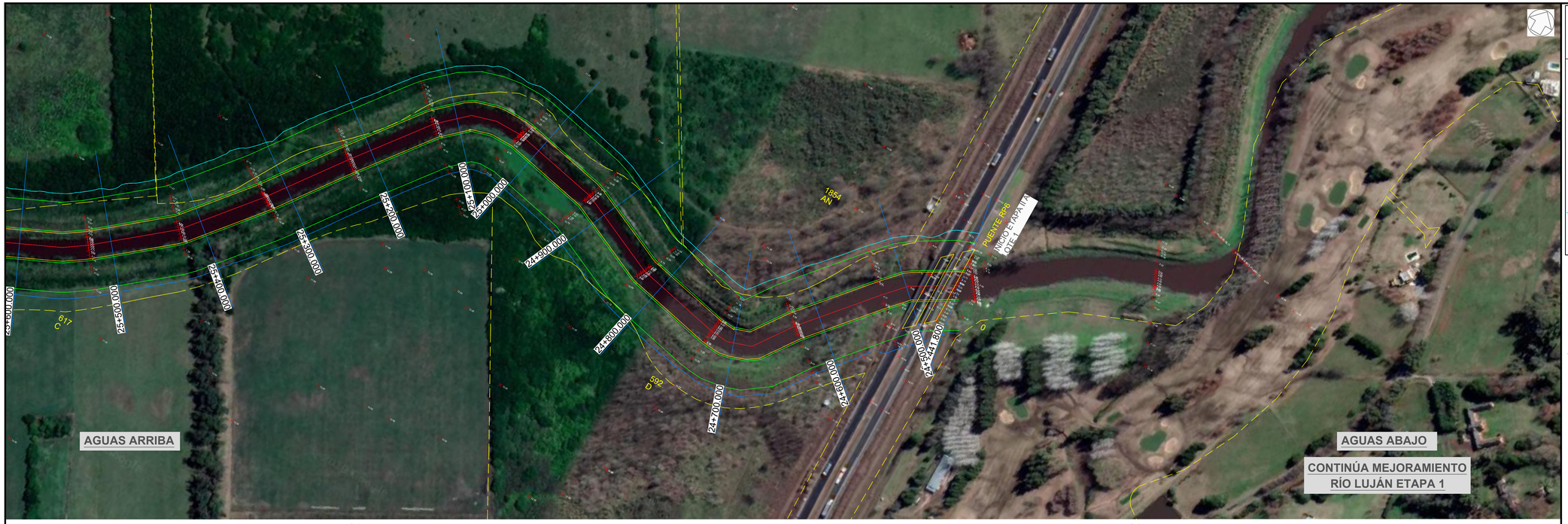
MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

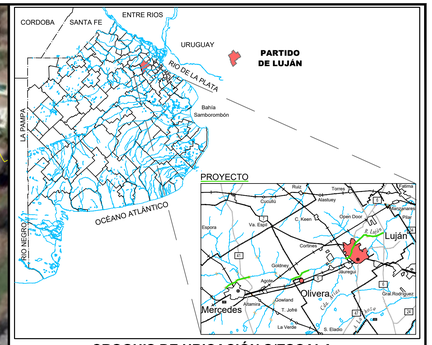
**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 26+300.00 A 24+800.00 | N° Plano 13 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL13-Planimetría y PLong 26300-24800 | |



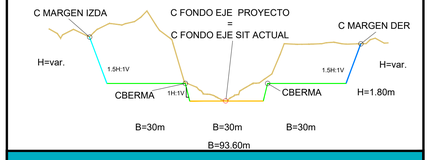

CROQUIS DE UBICACIÓN S/ESCALA

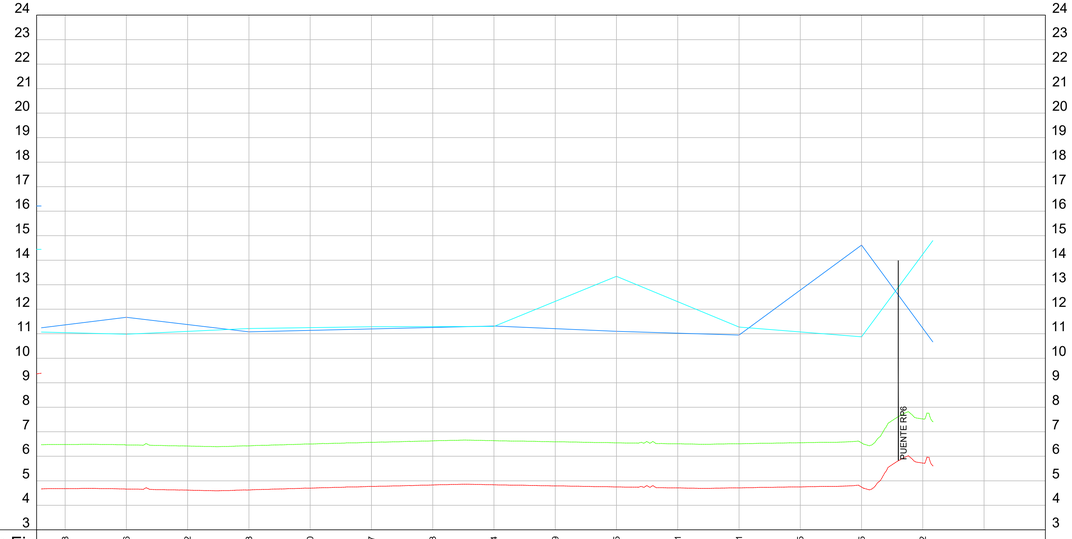
## REFERENCIAS

- BASE DE FONDO PROYECTO
- MARGEN IZQUIERDA TN
- MARGEN DERECHA TN
- BERMA
- 23.74 PUNTOS ACOTADOS
- EJE DEL RÍO LUJÁN
- 24+600.00 PROGRESIVADO REFERIDO AL EJE DEL RÍO LUJÁN
- PARCELAS IDENTIFICADAS

LUJÁN - EII A - PROG 36+750.00 A 24+441.80
LOTE 1 - 24+441.80 a 27+600.00
LOTE 2 - 27+600.00 a 30+900.00
LOTE 3 - 30+900.00 a 34+600.00
LOTE 4 - 34+600.00 a 36+750.00

## SECCIÓN TIPO




| | 25+150 | 25+100 | 25+050 | 25+000 | 24+950 | 24+900 | 24+850 | 24+800 | 24+750 | 24+700 | 24+650 | 24+600 | 24+550 | 24+500 | 24+450 | 24+400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Fondo Eje | 4.68 | 4.66 | 4.62 | 4.63 | 4.70 | 4.77 | 4.83 | 4.84 | 4.79 | 4.75 | 4.71 | 4.71 | 4.75 | 4.75 | 5.72 | |
| C. Margen Izquierda | 11.04 | 10.98 | 11.10 | 11.21 | 11.25 | 11.28 | 11.29 | 11.30 | 12.32 | 13.34 | 12.31 | 11.27 | 11.07 | 10.87 | 14.25 | |
| C. Margen Derecha | 11.36 | 11.67 | 11.37 | 11.68 | 11.14 | 11.19 | 11.25 | 11.31 | 11.21 | 11.10 | 11.02 | 10.85 | 12.78 | 14.61 | 11.22 | |
| C. Fondo Berma | 6.48 | 6.46 | 6.42 | 6.43 | 6.50 | 6.57 | 6.83 | 6.64 | 6.59 | 6.55 | 6.51 | 6.51 | 6.55 | 6.55 | 7.52 | |
| C. Muros Verticales | | | | | | | | | | | | | | | | |
| Progresivas | | | | | | | | | | | | | | | | |

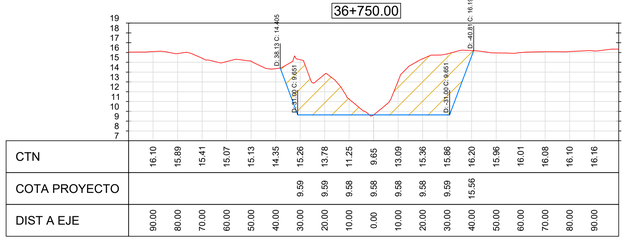
MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PLANIMETRÍA Y PERFIL LONGITUDINAL PROG. 24+800.00 A 24+441.80 | N° Plano 14 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL14-Planimetría y PLong 24800-24441 | |

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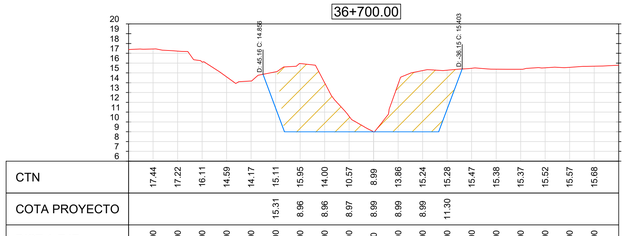
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.10 | 15.89 | 15.41 | 15.07 | 15.13 | 14.35 | 15.26 | 13.78 | 11.25 | 9.65 | 13.09 | 15.36 | 15.86 | 16.20 | 15.96 | 16.01 | 16.08 | 16.10 | 16.16 | | |
| COTA PROYECTO | | | | | | | 9.59 | 9.59 | 9.58 | 9.58 | 9.58 | 9.58 | 9.59 | 15.56 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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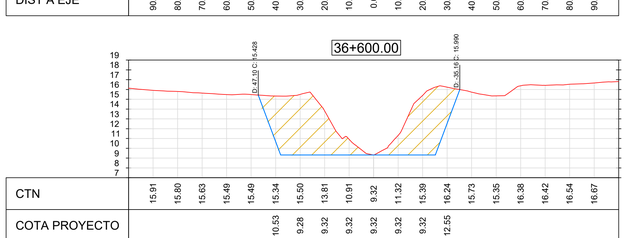
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 17.44 | 17.22 | 16.11 | 14.59 | 14.17 | 15.11 | 15.95 | 14.00 | 10.57 | 8.99 | 13.86 | 15.24 | 15.28 | 15.47 | 15.38 | 15.37 | 15.52 | 15.57 | 15.68 | | |
| COTA PROYECTO | | | | | | 15.31 | 8.96 | 8.96 | 8.97 | 8.99 | 8.99 | 8.99 | 11.30 | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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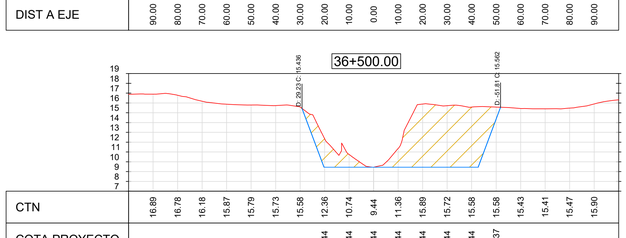
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.91 | 15.80 | 15.63 | 15.49 | 15.49 | 15.34 | 15.50 | 13.81 | 10.91 | 9.32 | 11.32 | 15.39 | 16.24 | 15.73 | 15.35 | 16.38 | 16.42 | 16.54 | 16.67 | | |
| COTA PROYECTO | | | | | | 10.53 | 9.28 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 | 12.55 | 15.56 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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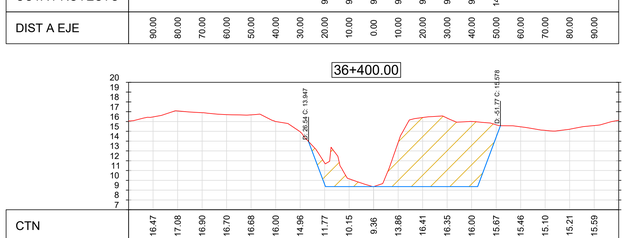
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.89 | 16.78 | 16.18 | 15.87 | 15.79 | 15.73 | 15.58 | 12.36 | 10.74 | 9.44 | 11.36 | 15.89 | 15.72 | 15.58 | 15.58 | 15.43 | 15.41 | 15.47 | 15.90 | | |
| COTA PROYECTO | | | | | | | 9.44 | 9.44 | 9.44 | 9.44 | 9.44 | 9.44 | 9.44 | 9.44 | 14.37 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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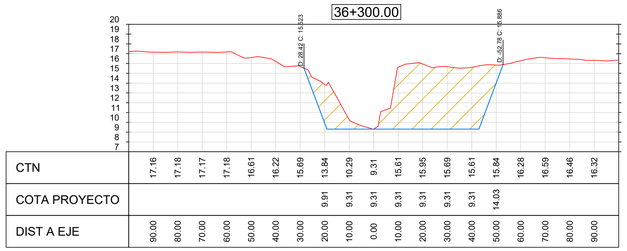
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.47 | 17.08 | 16.90 | 16.70 | 16.68 | 16.00 | 14.96 | 11.77 | 10.15 | 9.36 | 13.86 | 16.41 | 16.35 | 16.00 | 15.67 | 15.46 | 15.10 | 15.21 | 15.59 | | |
| COTA PROYECTO | | | | | | | 9.59 | 9.36 | 9.36 | 9.36 | 9.36 | 9.36 | 9.36 | 9.36 | 14.40 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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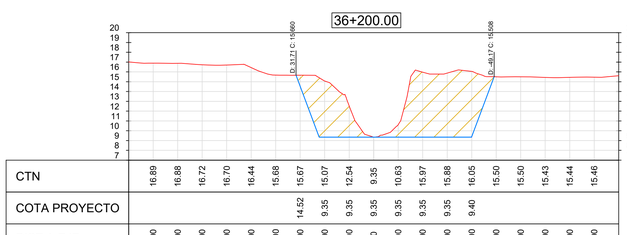
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 17.16 | 17.18 | 17.17 | 17.18 | 16.61 | 16.22 | 15.69 | 13.84 | 10.29 | 9.31 | 15.61 | 15.95 | 15.69 | 15.61 | 15.84 | 16.28 | 16.59 | 16.46 | 16.32 | | |
| COTA PROYECTO | | | | | | | | 9.91 | 9.31 | 9.31 | 9.31 | 9.31 | 9.31 | 9.31 | 14.03 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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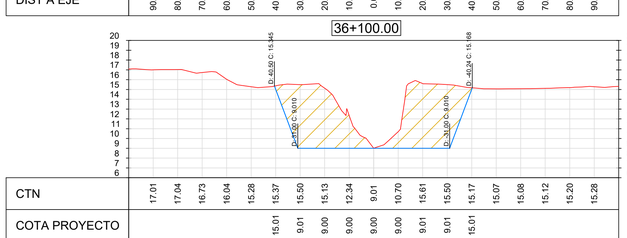
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.89 | 16.88 | 16.72 | 16.70 | 16.44 | 15.68 | 15.67 | 15.07 | 12.54 | 9.35 | 10.63 | 15.97 | 15.88 | 16.05 | 15.50 | 15.50 | 15.43 | 15.44 | 15.46 | | |
| COTA PROYECTO | | | | | | | 14.52 | 9.35 | 9.35 | 9.35 | 9.35 | 9.35 | 9.35 | 9.40 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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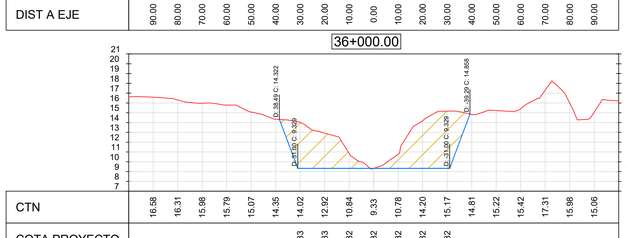
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 17.01 | 17.04 | 16.73 | 16.04 | 15.28 | 15.37 | 15.50 | 15.13 | 12.34 | 9.01 | 10.70 | 15.61 | 15.50 | 15.17 | 15.07 | 15.08 | 15.12 | 15.20 | 15.28 | | |
| COTA PROYECTO | | | | | | 15.01 | 9.01 | 9.00 | 9.00 | 9.00 | 9.00 | 9.01 | 9.01 | 15.01 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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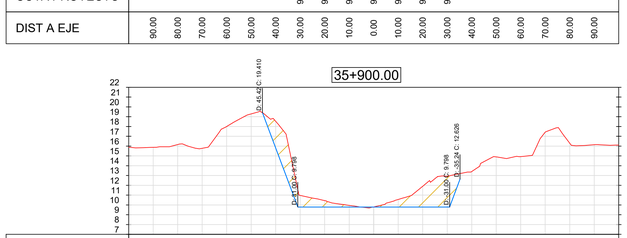
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.58 | 16.31 | 15.98 | 15.79 | 15.07 | 14.35 | 14.02 | 12.92 | 10.84 | 9.33 | 10.78 | 14.20 | 15.17 | 14.81 | 15.22 | 15.42 | 17.31 | 15.98 | 15.06 | | |
| COTA PROYECTO | | | | | | | 9.33 | 9.33 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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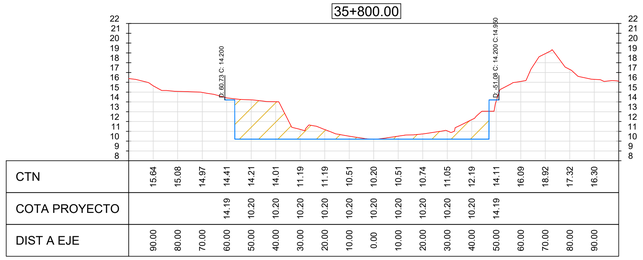
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.87 | 16.16 | 15.78 | 18.00 | 19.28 | 18.54 | 10.97 | 10.44 | 9.96 | 9.80 | 10.56 | 11.91 | 12.93 | 13.41 | 14.90 | 14.93 | 17.43 | 16.29 | 16.14 | | |
| COTA PROYECTO | | | | | | 15.78 | 9.79 | 9.79 | 9.79 | 9.79 | 9.79 | 9.79 | 9.79 | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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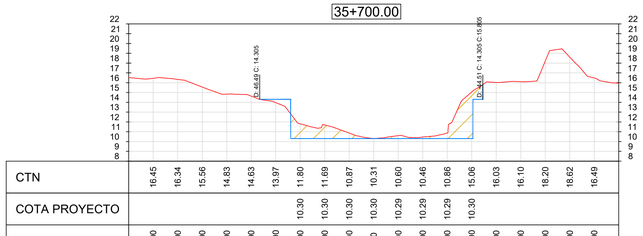
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.64 | 15.08 | 14.97 | 14.41 | 14.21 | 14.01 | 11.19 | 11.19 | 10.51 | 10.20 | 10.51 | 10.74 | 11.05 | 12.19 | 14.11 | 16.09 | 18.92 | 17.32 | 16.30 | | |
| COTA PROYECTO | | | | 14.19 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 10.20 | 14.19 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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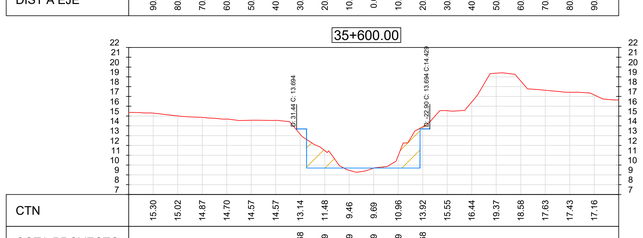
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.45 | 16.34 | 15.56 | 14.83 | 14.63 | 13.97 | 11.80 | 11.69 | 10.87 | 10.31 | 10.60 | 10.46 | 10.86 | 15.06 | 16.03 | 16.10 | 18.20 | 18.62 | 18.49 | | |
| COTA PROYECTO | | | | | | | 10.30 | 10.30 | 10.30 | 10.30 | 10.29 | 10.29 | 10.29 | 10.30 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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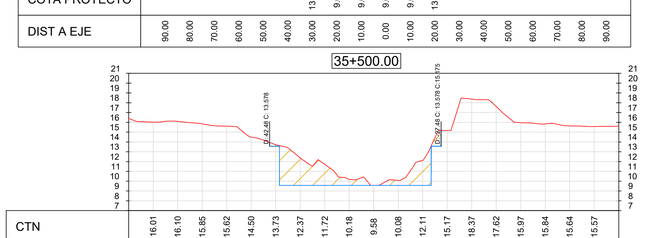
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.30 | 15.02 | 14.87 | 14.70 | 14.57 | 14.57 | 13.14 | 11.48 | 9.46 | 9.69 | 10.96 | 13.92 | 15.55 | 16.44 | 19.37 | 18.58 | 17.63 | 17.43 | 17.16 | | |
| COTA PROYECTO | | | | | | | 13.68 | 9.69 | 9.69 | 9.69 | 9.69 | 13.68 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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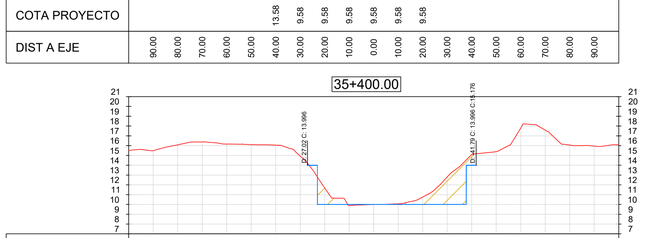
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.01 | 16.10 | 15.85 | 15.62 | 14.50 | 13.73 | 12.37 | 11.72 | 10.18 | 9.58 | 10.08 | 12.11 | 15.17 | 18.37 | 17.62 | 15.97 | 15.84 | 15.64 | 15.57 | | |
| COTA PROYECTO | | | | | | 13.58 | 9.58 | 9.58 | 9.58 | 9.58 | 9.58 | 9.58 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |

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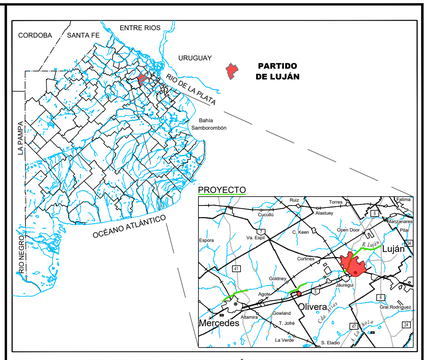
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.48 | 16.08 | 16.38 | 16.16 | 16.10 | 16.05 | 14.93 | 11.68 | 9.90 | 10.00 | 10.06 | 10.75 | 12.80 | 15.09 | 15.39 | 17.79 | 17.58 | 16.06 | 15.95 | | |
| COTA PROYECTO | | | | | | | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 13.99 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | |




CROQUIS DE UBICACIÓN S/ESCALA

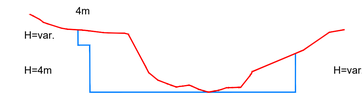
## REFERENCIAS

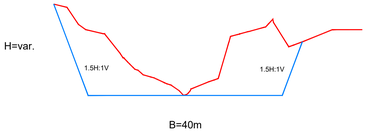
- TERRENO NATURAL
- PROYECTO
- EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00 LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00 LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

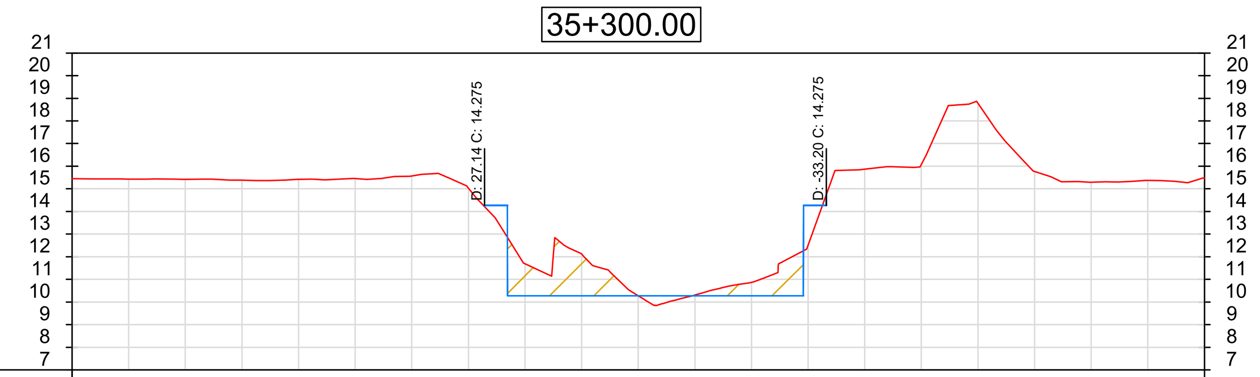
**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 36+750.00 A 35+400.00 | N° Plano 19 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

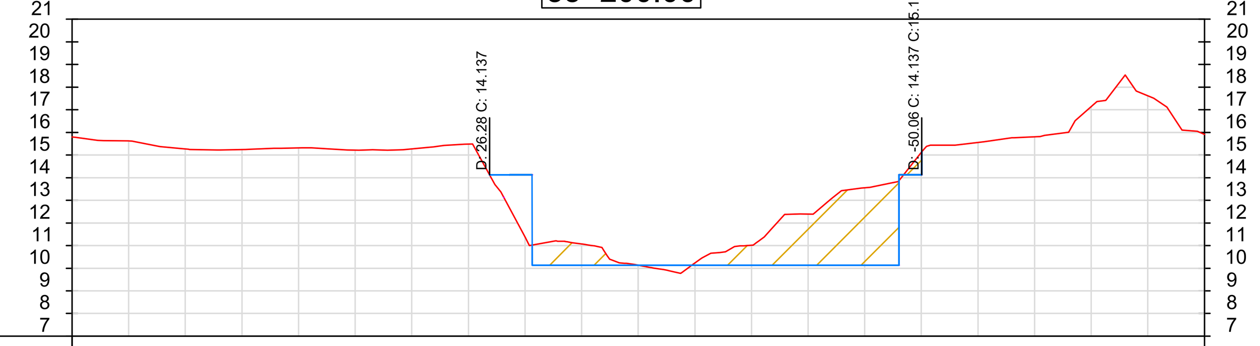
| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL19-PTransv y Mov Suelo 36750-35400 | |

## 35+300.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.43 | 15.42 | 15.38 | 15.42 | 15.46 | 15.57 | 15.04 | 11.69 | 12.12 | 10.27 | 10.31 | 10.87 | 12.52 | 15.87 | 16.09 | 18.77 | 15.77 | 15.29 | 15.37 |
| COTA PROYECTO | | | | | | | | 10.27 | 10.27 | 10.27 | 10.27 | 10.27 | 14.27 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+200.00



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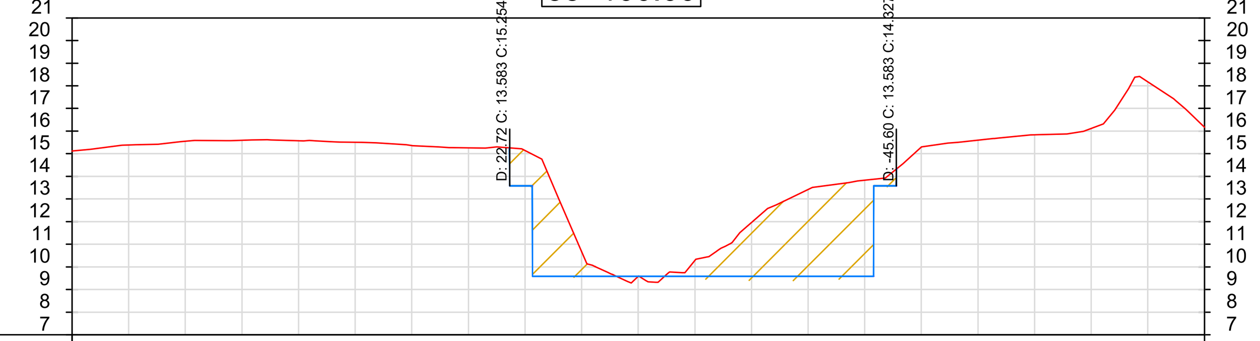
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.63 | 15.27 | 15.24 | 15.31 | 15.21 | 15.27 | 15.48 | 11.38 | 11.07 | 10.14 | 10.24 | 11.01 | 12.39 | 13.55 | 15.12 | 15.55 | 15.81 | 17.14 | 17.61 |
| COTA PROYECTO | | | | | | | | 14.13 | 10.14 | 10.13 | 10.14 | 10.15 | 10.15 | 14.13 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+100.00



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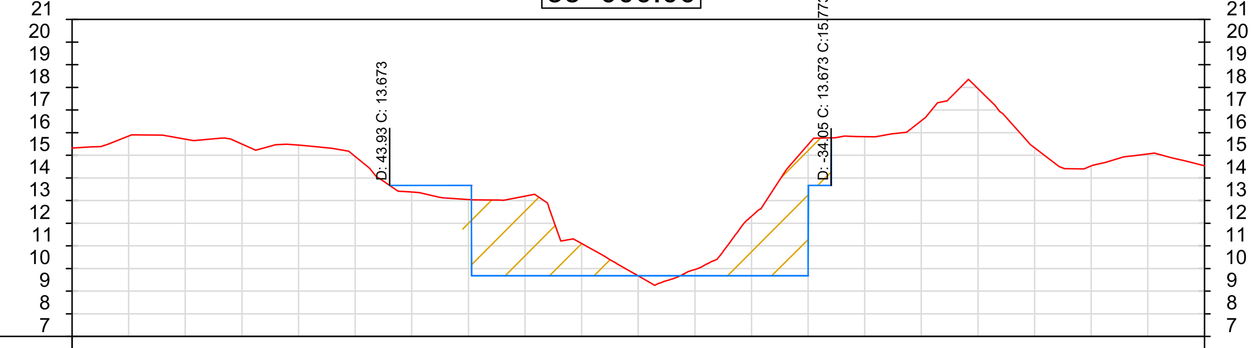
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.39 | 15.55 | 15.59 | 15.58 | 15.50 | 15.36 | 15.26 | 15.14 | 10.68 | 9.58 | 10.29 | 11.96 | 13.42 | 13.83 | 15.29 | 15.60 | 15.83 | 16.12 | 18.17 |
| COTA PROYECTO | | | | | | | | 13.54 | 9.54 | 9.55 | 9.48 | 9.41 | 9.42 | 9.49 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 35+000.00



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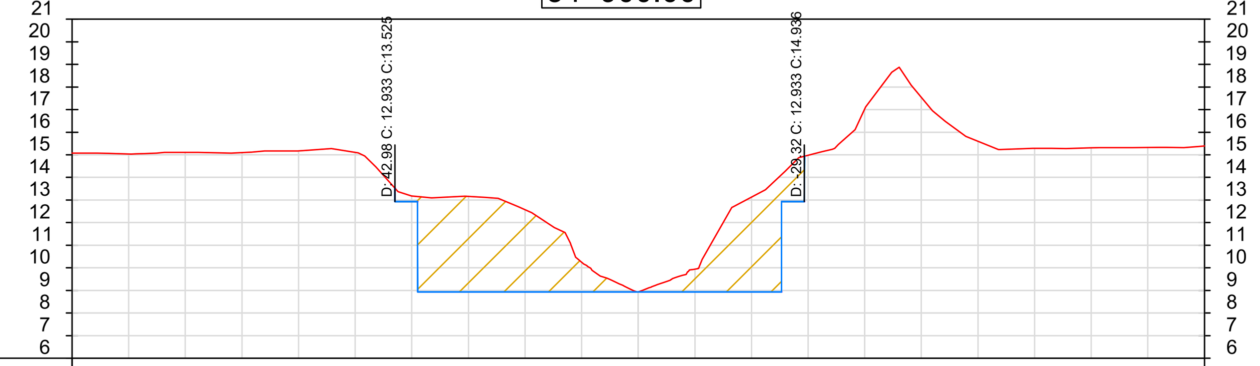
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.85 | 15.71 | 15.50 | 15.45 | 14.95 | 13.38 | 13.05 | 13.20 | 11.11 | 9.67 | 9.96 | 12.30 | 15.47 | 15.82 | 16.52 | 17.95 | 15.33 | 14.53 | 15.06 |
| COTA PROYECTO | | | | | | | 11.20 | 9.67 | 9.67 | 9.67 | 9.67 | 9.67 | 9.67 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+900.00



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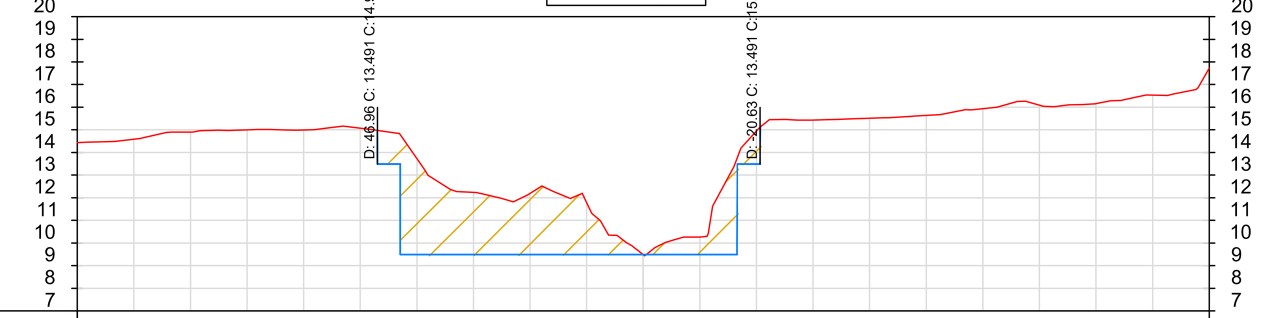
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.03 | 15.11 | 15.10 | 15.17 | 15.10 | 13.17 | 13.16 | 12.57 | 10.24 | 8.93 | 9.95 | 13.13 | 14.98 | 17.02 | 17.54 | 15.60 | 15.29 | 15.30 | 15.32 |
| COTA PROYECTO | | | | | | 12.93 | 8.93 | 8.93 | 8.93 | 8.93 | 8.93 | 8.93 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+800.00



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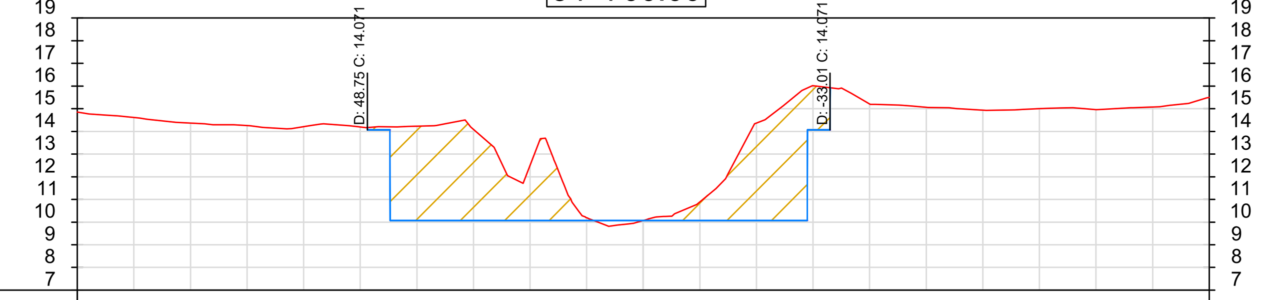
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.59 | 14.90 | 15.00 | 14.99 | 15.07 | 13.73 | 12.24 | 12.19 | 11.79 | 9.49 | 10.26 | 14.95 | 15.43 | 15.52 | 15.64 | 15.93 | 16.09 | 16.16 | 16.53 |
| COTA PROYECTO | | | | | | 9.43 | 9.44 | 9.45 | 9.47 | 9.48 | 9.48 | 13.47 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+700.00



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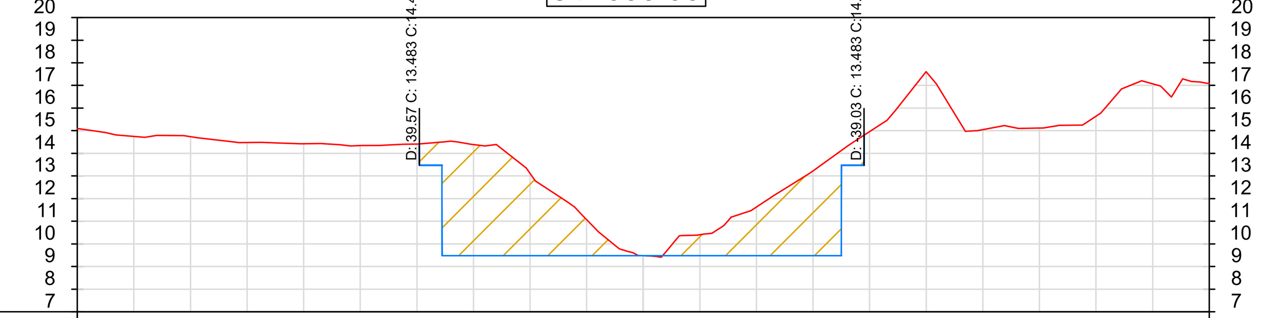
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.62 | 14.36 | 14.26 | 14.21 | 14.19 | 14.23 | 14.09 | 12.50 | 11.70 | 10.07 | 10.89 | 14.37 | 16.01 | 15.21 | 15.07 | 14.94 | 15.01 | 14.96 | 15.07 |
| COTA PROYECTO | | | | | | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 10.07 | 14.06 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+600.00



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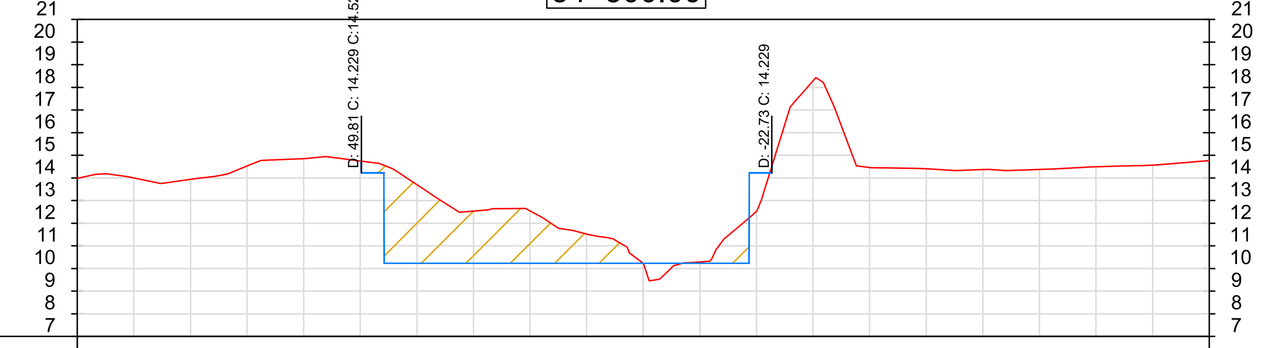
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.75 | 14.74 | 14.48 | 14.42 | 14.34 | 14.41 | 14.39 | 13.11 | 11.07 | 9.48 | 10.41 | 11.63 | 13.22 | 14.96 | 17.61 | 15.05 | 15.12 | 15.64 | 17.07 |
| COTA PROYECTO | | | | | | | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | 9.51 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+500.00



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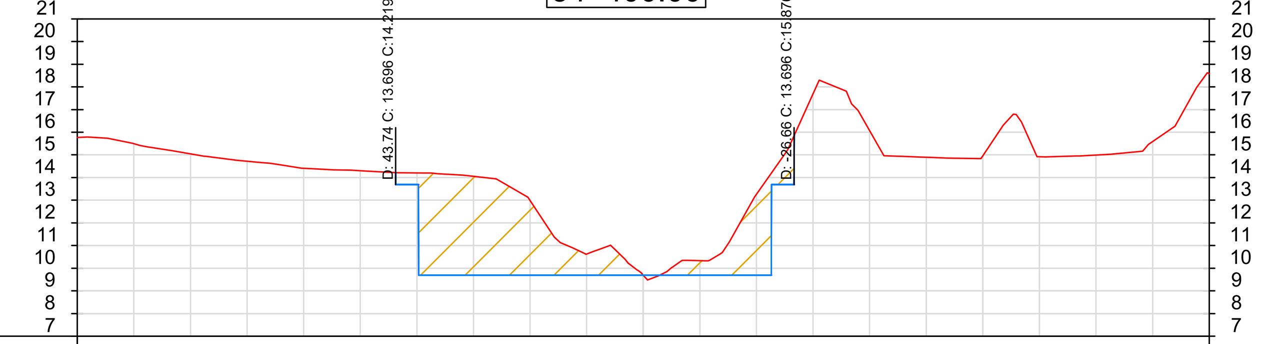
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.00 | 13.94 | 14.53 | 14.85 | 14.75 | 13.70 | 12.53 | 12.54 | 11.53 | 10.23 | 10.29 | 12.52 | 18.28 | 14.46 | 14.40 | 14.37 | 14.38 | 14.49 | 14.56 |
| COTA PROYECTO | | | | | | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 14.20 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+400.00



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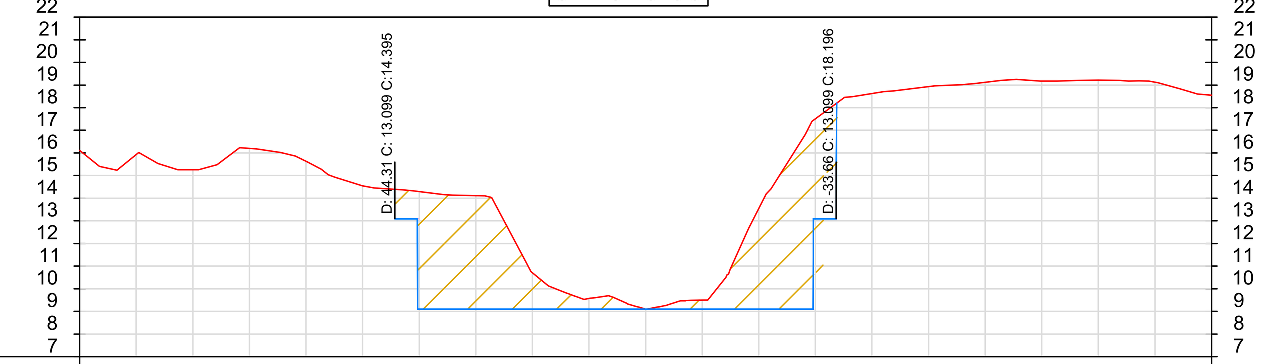
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.49 | 15.04 | 14.72 | 14.41 | 14.30 | 14.21 | 14.05 | 13.00 | 10.63 | 9.70 | 10.34 | 13.27 | 17.70 | 16.07 | 14.90 | 14.96 | 14.92 | 14.99 | 15.58 |
| COTA PROYECTO | | | | | | 13.70 | 9.70 | 9.70 | 9.70 | 9.70 | 9.70 | 9.70 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+325.00



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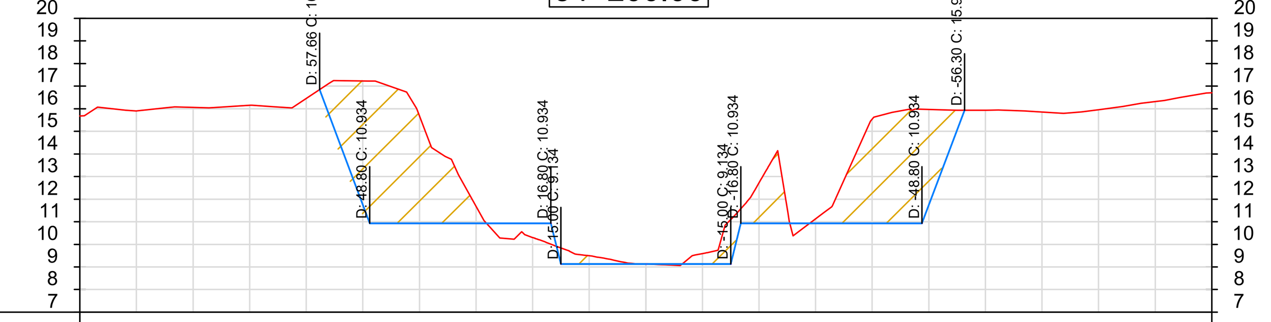
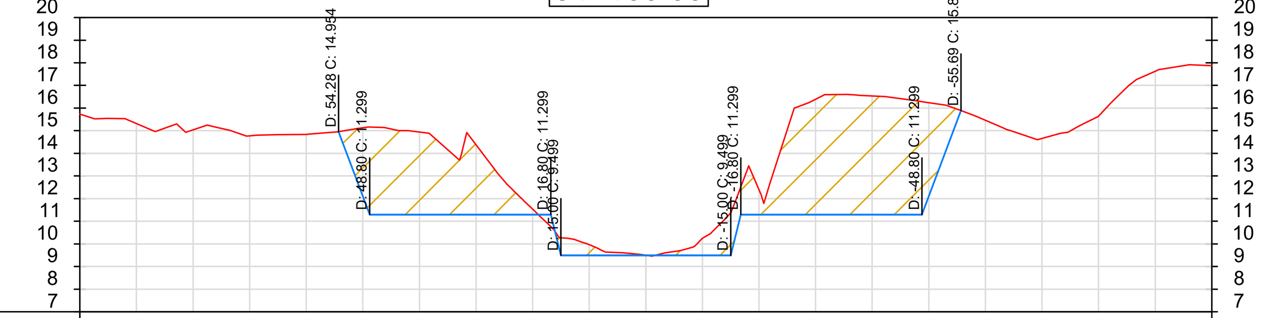
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.94 | 15.26 | 16.20 | 15.63 | 14.54 | 14.30 | 14.11 | 10.70 | 9.57 | 9.10 | 9.50 | 13.56 | 17.51 | 18.63 | 18.93 | 19.12 | 19.18 | 19.22 | 19.13 |
| COTA PROYECTO | | | | | | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 9.10 | 10.74 | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+200.00



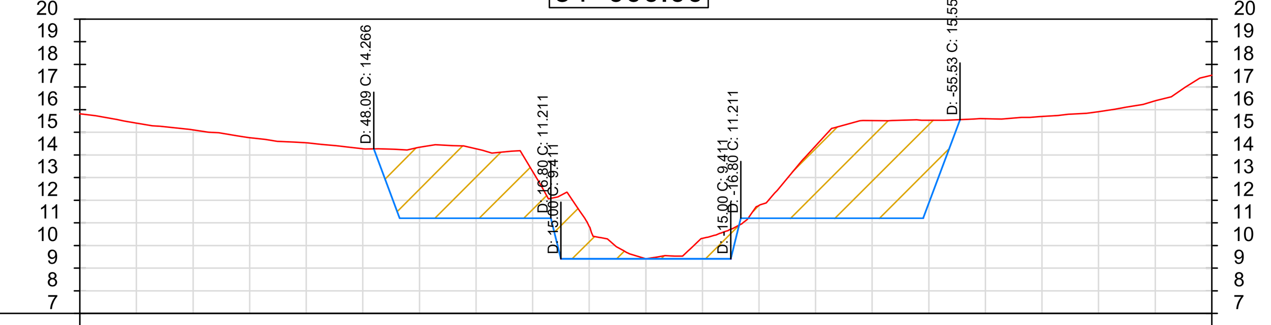
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.90 | 16.06 | 16.15 | 16.45 | 17.23 | 15.69 | 11.67 | 10.30 | 9.50 | 9.13 | 9.59 | 12.72 | 11.13 | 15.54 | 15.97 | 15.93 | 15.85 | 15.95 | 16.32 |
| COTA PROYECTO | | | | | 11.32 | 10.96 | 10.94 | 10.93 | 9.14 | 9.13 | 9.12 | 10.92 | 10.92 | 10.93 | 11.87 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+100.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.31 | 15.04 | 14.77 | 14.84 | 15.13 | 14.94 | 14.38 | 11.53 | 9.97 | 9.50 | 10.24 | 12.39 | 16.38 | 16.54 | 16.24 | 15.46 | 14.66 | 15.65 | 17.63 |
| COTA PROYECTO | | | | | 12.09 | 11.29 | 11.29 | 11.29 | 9.49 | 9.49 | 9.49 | 11.29 | 11.29 | 11.29 | 12.10 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 34+000.00



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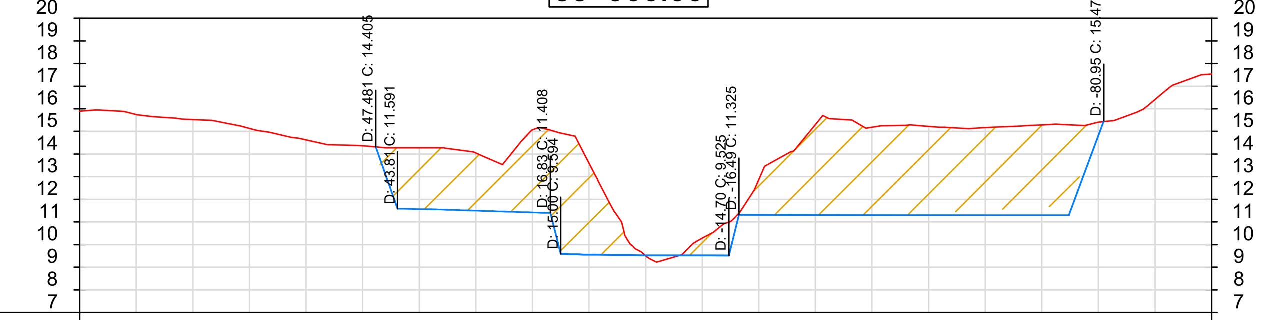
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.40 | 15.10 | 14.76 | 14.54 | 14.27 | 14.34 | 14.27 | 13.27 | 10.84 | 9.41 | 10.31 | 11.77 | 14.40 | 15.52 | 15.53 | 15.60 | 15.69 | 15.91 | 16.39 |
| COTA PROYECTO | | | | | | 11.20 | 11.20 | 11.20 | 9.40 | 9.40 | 9.40 | 11.20 | 11.19 | 11.19 | 11.88 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 33+900.00



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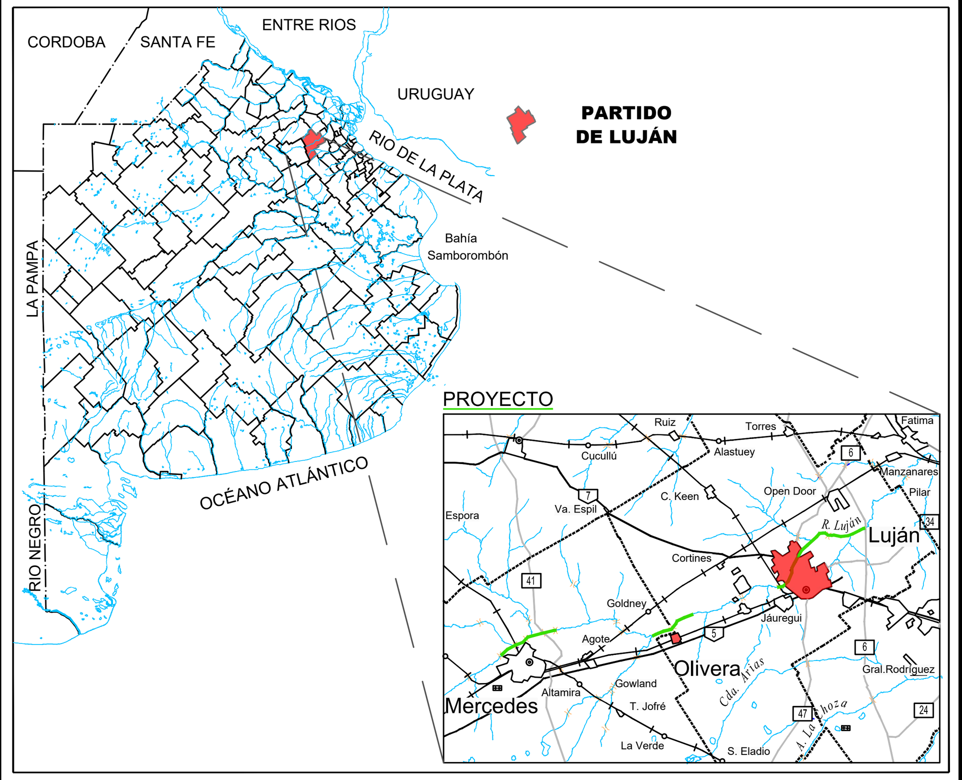
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 15.75 | 15.52 | 15.13 | 14.62 | 14.37 | 14.27 | 14.04 | 13.07 | 13.60 | 9.50 | 10.28 | 12.87 | 15.30 | 15.18 | 15.22 | 15.16 | 15.29 | 15.41 | 16.41 |
| COTA PROYECTO | | | | | | 11.57 | 11.49 | 11.41 | 9.55 | 9.53 | 9.52 | 11.32 | 11.32 | 11.32 | 11.40 | 11.53 | 11.66 | 15.21 | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




## CROQUIS DE UBICACIÓN S/ESCALA

## REFERENCIAS

TERRENO NATURAL

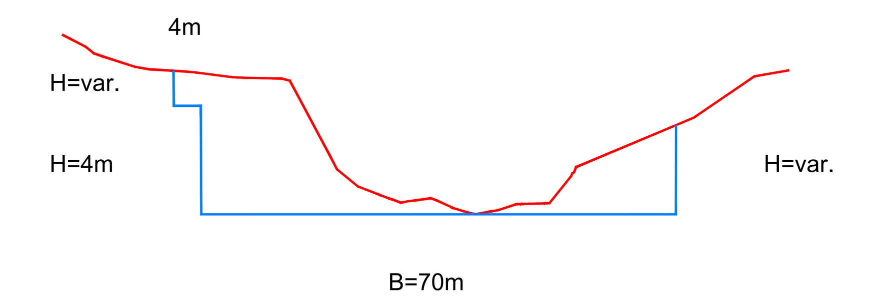
PROYECTO

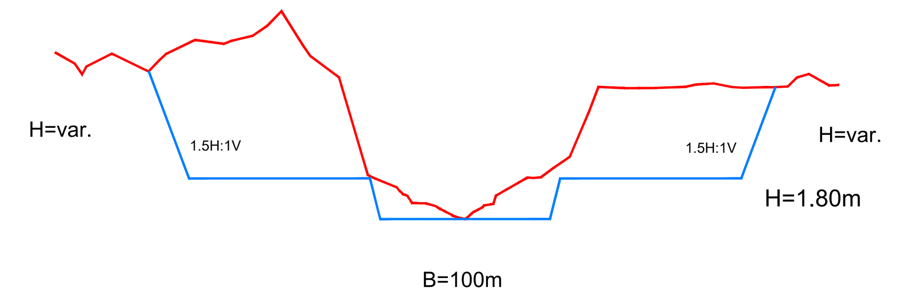
EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00 LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00 LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

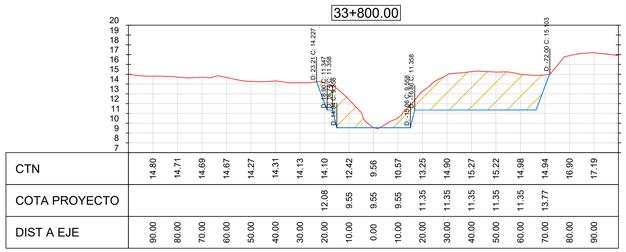
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 35+300.00 A 33+900.00 | N° Plano 20 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL20-PTransv y Mov Suelo 35300-33900 | |

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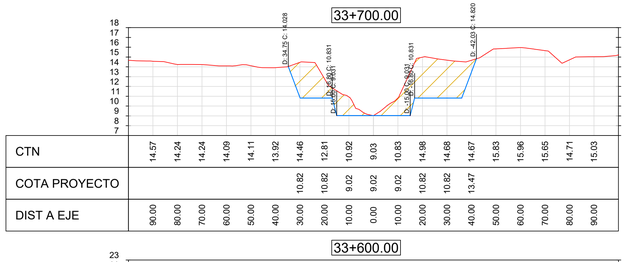
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.80 | 14.71 | 14.69 | 14.67 | 14.27 | 14.31 | 14.13 | 14.10 | 12.42 | 9.56 | 10.57 | 13.25 | 14.90 | 15.27 | 15.22 | 14.98 | 14.94 | 16.90 | 17.19 |
| COTA PROYECTO | | | | | | | | 12.08 | 9.55 | 9.55 | 9.55 | 11.35 | 11.35 | 11.35 | 11.35 | 11.35 | 13.77 | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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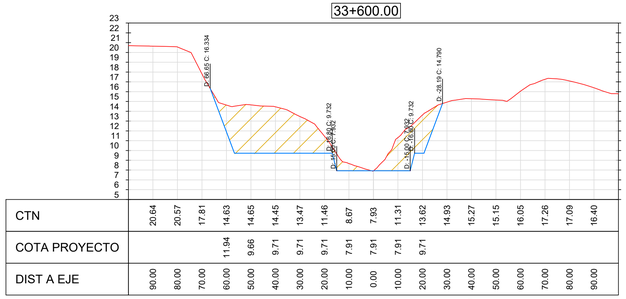
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.57 | 14.24 | 14.24 | 14.09 | 14.11 | 13.92 | 14.46 | 12.81 | 10.92 | 9.03 | 10.83 | 14.98 | 14.68 | 14.67 | 15.83 | 15.96 | 15.65 | 14.71 | 15.03 |
| COTA PROYECTO | | | | | | | 10.82 | 10.82 | 9.02 | 9.02 | 9.02 | 10.82 | 10.82 | 13.47 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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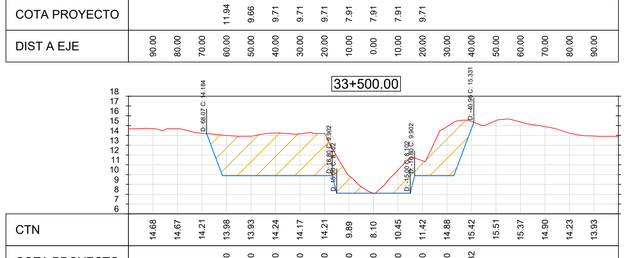
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 20.64 | 20.57 | 17.81 | 14.63 | 14.65 | 14.45 | 13.47 | 11.46 | 8.67 | 7.93 | 11.31 | 13.62 | 14.93 | 15.27 | 15.15 | 16.05 | 17.26 | 17.09 | 16.40 |
| COTA PROYECTO | | | | 11.94 | 9.66 | 9.71 | 9.71 | 9.71 | 7.91 | 7.91 | 7.91 | 9.71 | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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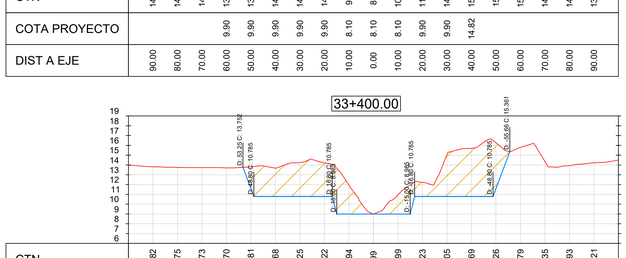
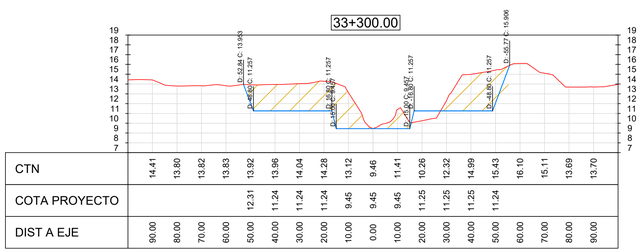
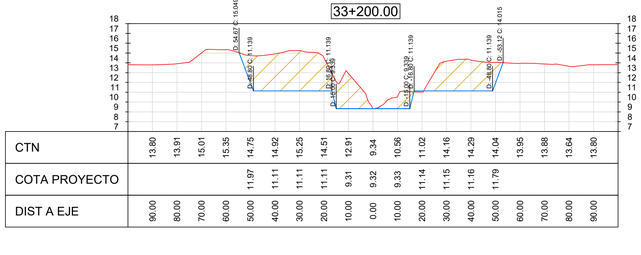
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.68 | 14.67 | 14.21 | 13.98 | 13.93 | 14.24 | 14.17 | 14.21 | 9.89 | 8.10 | 10.45 | 11.42 | 14.88 | 15.42 | 15.51 | 15.37 | 14.90 | 14.23 | 13.93 |
| COTA PROYECTO | | | | 9.90 | 9.90 | 9.90 | 9.90 | 9.90 | 8.10 | 8.10 | 8.10 | 9.90 | 9.90 | 14.82 | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |



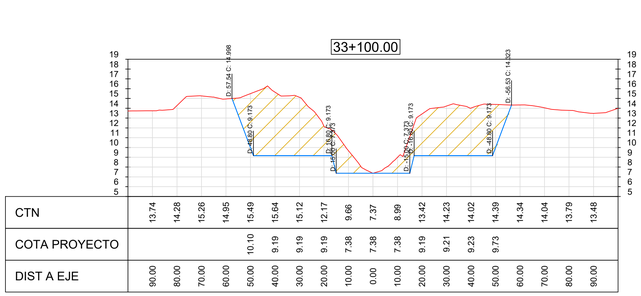

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.82 | 13.75 | 13.73 | 13.70 | 13.81 | 13.68 | 14.25 | 14.22 | 11.94 | 8.99 | 10.99 | 12.23 | 15.05 | 15.69 | 16.26 | 15.79 | 14.35 | 13.93 | 14.21 |
| COTA PROYECTO | | | | | 11.59 | 10.78 | 10.78 | 10.78 | 8.98 | 8.98 | 8.98 | 10.78 | 10.78 | 10.78 | 11.59 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |



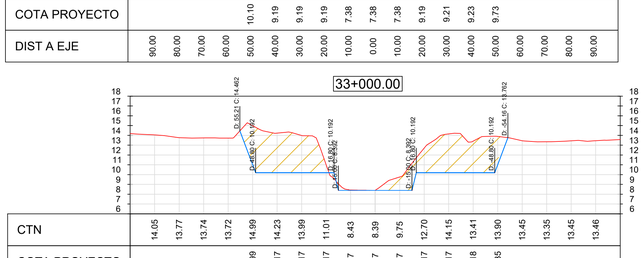

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.41 | 13.80 | 13.82 | 13.83 | 13.92 | 13.96 | 14.04 | 14.28 | 13.12 | 9.46 | 11.41 | 10.26 | 12.32 | 14.99 | 15.43 | 16.10 | 15.11 | 13.69 | 13.70 |
| COTA PROYECTO | | | | | 12.31 | 11.24 | 11.24 | 11.24 | 9.45 | 9.45 | 9.45 | 11.25 | 11.25 | 11.25 | 11.24 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.80 | 13.91 | 15.01 | 15.35 | 14.75 | 14.92 | 15.25 | 14.51 | 12.91 | 9.34 | 10.56 | 11.02 | 14.16 | 14.29 | 14.04 | 13.95 | 13.88 | 13.64 | 13.80 |
| COTA PROYECTO | | | | | 11.97 | 11.11 | 11.11 | 11.11 | 9.31 | 9.32 | 9.33 | 11.14 | 11.15 | 11.16 | 11.79 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.74 | 14.28 | 15.26 | 14.95 | 15.49 | 15.64 | 15.12 | 12.17 | 9.66 | 7.37 | 8.99 | 13.42 | 14.23 | 14.02 | 14.39 | 14.34 | 14.04 | 13.79 | 13.48 |
| COTA PROYECTO | | | | | 10.10 | 9.19 | 9.19 | 9.19 | 7.38 | 7.38 | 7.38 | 9.19 | 9.21 | 9.23 | 9.73 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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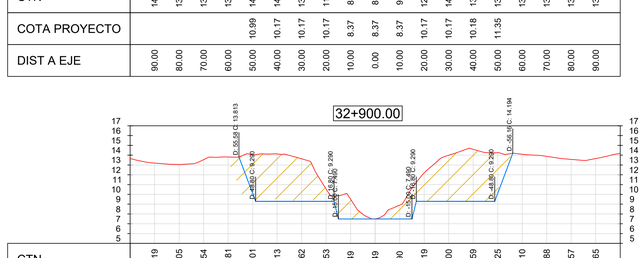
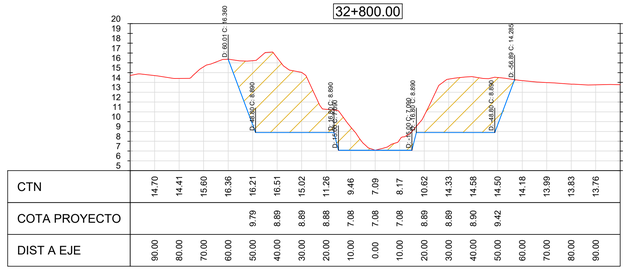
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.05 | 13.77 | 13.74 | 13.72 | 14.99 | 14.23 | 13.99 | 11.01 | 8.43 | 8.39 | 9.75 | 12.70 | 14.15 | 13.41 | 13.90 | 13.45 | 13.35 | 13.45 | 13.46 |
| COTA PROYECTO | | | | | 10.99 | 10.17 | 10.17 | 10.17 | 8.37 | 8.37 | 8.37 | 10.17 | 10.17 | 10.18 | 11.35 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.19 | 13.05 | 13.54 | 13.81 | 14.01 | 14.13 | 13.62 | 10.53 | 9.49 | 7.49 | 8.80 | 12.19 | 14.00 | 14.59 | 14.25 | 14.10 | 13.88 | 13.57 | 13.65 |
| COTA PROYECTO | | | | | 9.46 | 9.47 | 9.44 | 9.41 | 7.51 | 7.51 | 7.51 | 9.30 | 9.31 | 9.31 | 10.40 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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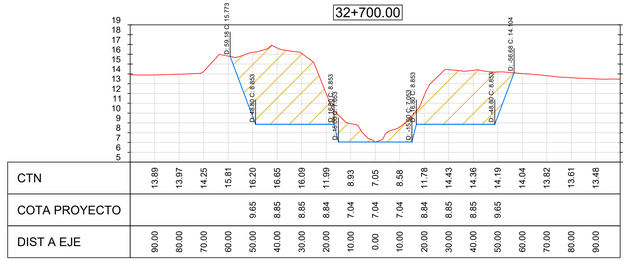
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.70 | 14.41 | 15.60 | 16.36 | 16.21 | 16.51 | 15.02 | 11.26 | 9.46 | 7.09 | 8.17 | 10.62 | 14.33 | 14.58 | 14.50 | 14.18 | 13.99 | 13.83 | 13.76 |
| COTA PROYECTO | | | | | 9.79 | 8.89 | 8.89 | 8.88 | 7.08 | 7.08 | 7.08 | 8.89 | 8.89 | 8.90 | 9.42 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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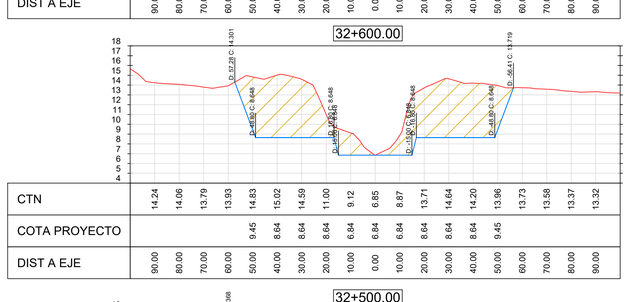
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.89 | 13.97 | 14.25 | 15.81 | 16.20 | 16.65 | 16.09 | 11.99 | 8.93 | 7.05 | 8.58 | 11.78 | 14.43 | 14.36 | 14.19 | 14.04 | 13.92 | 13.61 | 13.48 |
| COTA PROYECTO | | | | | 9.65 | 8.85 | 8.85 | 8.84 | 7.04 | 7.04 | 7.04 | 8.84 | 8.85 | 8.85 | 9.65 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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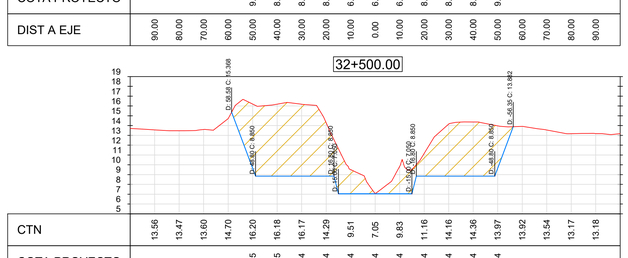
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.24 | 14.06 | 13.79 | 13.93 | 14.83 | 15.02 | 14.59 | 11.00 | 9.12 | 6.85 | 8.87 | 13.71 | 14.64 | 14.20 | 13.96 | 13.73 | 13.58 | 13.37 | 13.32 |
| COTA PROYECTO | | | | | 9.45 | 8.64 | 8.64 | 8.64 | 6.84 | 6.84 | 6.84 | 8.64 | 8.64 | 8.64 | 9.45 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

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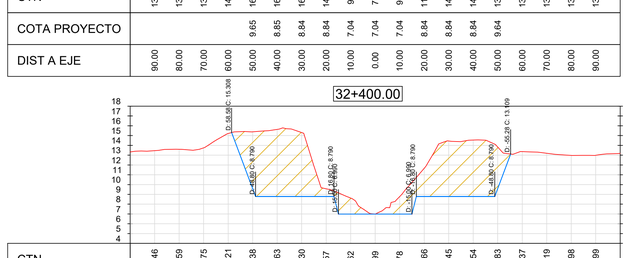
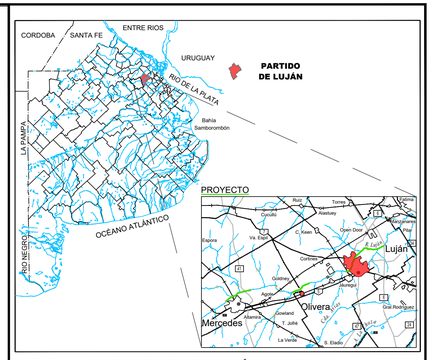
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.56 | 13.47 | 13.60 | 14.70 | 16.20 | 16.18 | 16.17 | 14.29 | 9.51 | 7.05 | 9.83 | 11.16 | 14.16 | 14.36 | 13.97 | 13.92 | 13.54 | 13.17 | 13.18 |
| COTA PROYECTO | | | | | 9.65 | 8.85 | 8.84 | 8.84 | 7.04 | 7.04 | 7.04 | 8.84 | 8.84 | 8.84 | 9.64 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.46 | 13.59 | 13.75 | 15.21 | 15.38 | 15.63 | 15.30 | 9.57 | 8.62 | 6.99 | 8.78 | 11.66 | 14.45 | 14.54 | 13.83 | 13.37 | 13.19 | 12.98 | 12.99 |
| COTA PROYECTO | | | | | 9.58 | 8.78 | 8.78 | 8.78 | 6.98 | 6.98 | 6.98 | 8.78 | 8.78 | 8.78 | 9.59 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




CROQUIS DE UBICACIÓN S/ESCALA

## REFERENCIAS

TERRENO NATURAL

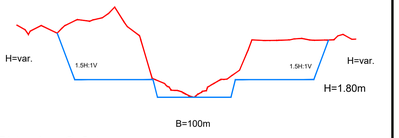
PROYECTO

EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00
LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00
LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

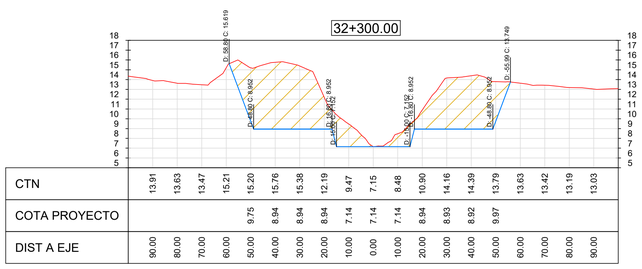
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 33+800.00 A 32+400.00 | N° Plano 21 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL21-PTransv y Mov Suelo 33800-32400 | |

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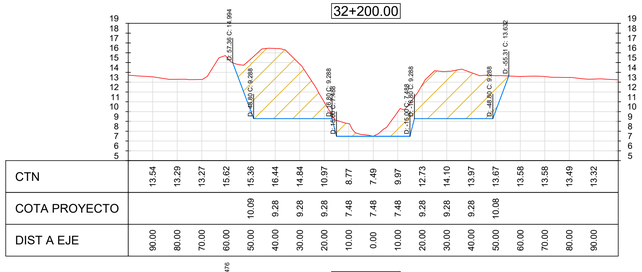
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.91 | 13.63 | 13.47 | 15.21 | 15.20 | 15.76 | 15.38 | 12.19 | 9.47 | 7.15 | 8.48 | 10.90 | 14.16 | 14.39 | 13.79 | 13.63 | 13.42 | 13.19 | 13.03 | | | | | |
| COTA PROYECTO | | | | | 9.75 | 8.94 | 8.94 | 8.94 | 7.14 | 7.14 | 7.14 | 8.94 | 8.93 | 8.92 | 9.97 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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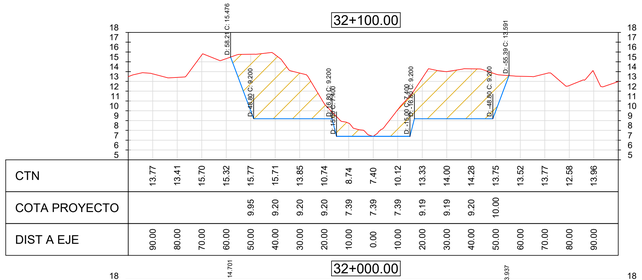
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.54 | 13.29 | 13.27 | 15.62 | 15.36 | 16.44 | 14.84 | 10.97 | 8.77 | 7.49 | 9.97 | 12.73 | 14.10 | 13.97 | 13.67 | 13.58 | 13.58 | 13.49 | 13.32 | | | | | |
| COTA PROYECTO | | | | | 10.09 | 9.28 | 9.28 | 9.28 | 7.48 | 7.48 | 7.48 | 9.28 | 9.28 | 9.28 | 10.08 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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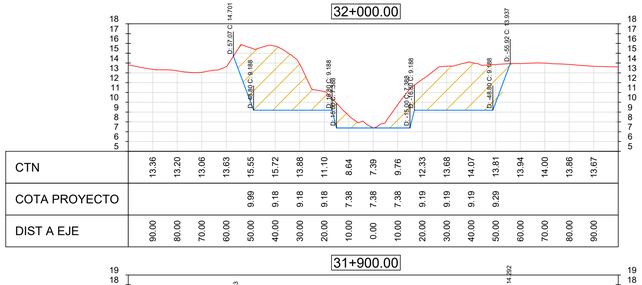
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.77 | 13.41 | 15.70 | 15.32 | 15.77 | 15.71 | 13.85 | 10.74 | 8.74 | 7.40 | 10.12 | 13.33 | 14.00 | 14.28 | 13.75 | 13.52 | 13.77 | 12.58 | 13.96 | | | | | |
| COTA PROYECTO | | | | | 9.95 | 9.20 | 9.20 | 9.20 | 7.39 | 7.39 | 7.39 | 9.19 | 9.19 | 9.20 | 10.00 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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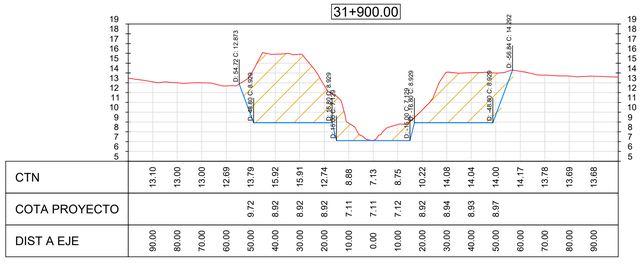
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.36 | 13.20 | 13.06 | 13.63 | 15.55 | 15.72 | 13.88 | 11.10 | 8.64 | 7.39 | 9.76 | 12.33 | 13.68 | 14.07 | 13.81 | 13.94 | 14.00 | 13.86 | 13.67 | | | | | |
| COTA PROYECTO | | | | | 9.99 | 9.18 | 9.18 | 9.18 | 7.38 | 7.38 | 7.38 | 9.19 | 9.19 | 9.19 | 9.29 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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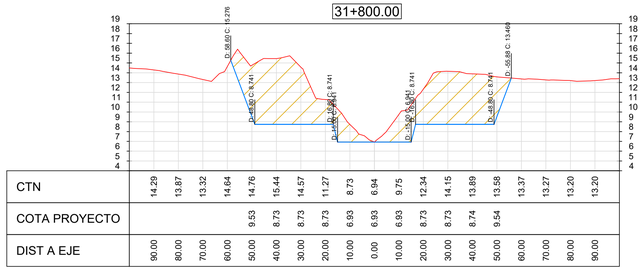
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.10 | 13.00 | 13.00 | 12.69 | 13.79 | 15.92 | 15.91 | 12.74 | 8.88 | 7.13 | 8.75 | 10.22 | 14.08 | 14.04 | 14.00 | 14.17 | 13.78 | 13.69 | 13.68 | | | | | |
| COTA PROYECTO | | | | | 9.72 | 8.92 | 8.92 | 8.92 | 7.11 | 7.11 | 7.12 | 8.92 | 8.94 | 8.93 | 8.97 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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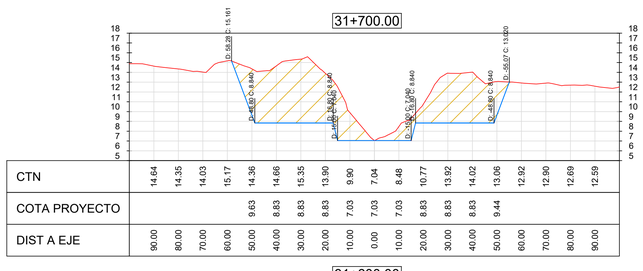
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.29 | 13.87 | 13.32 | 14.64 | 14.76 | 15.44 | 14.57 | 11.27 | 8.73 | 6.94 | 9.75 | 12.34 | 14.15 | 13.89 | 13.58 | 13.37 | 13.27 | 13.20 | 13.20 | | | | | |
| COTA PROYECTO | | | | | 9.53 | 8.73 | 8.73 | 8.73 | 6.93 | 6.93 | 6.93 | 8.73 | 8.73 | 8.74 | 9.54 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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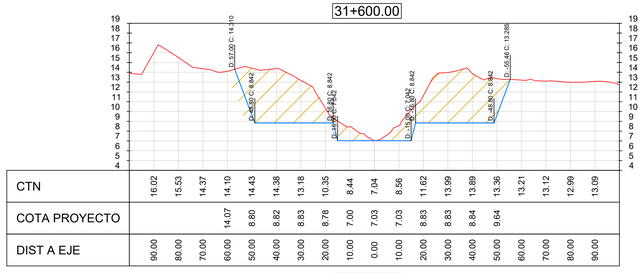
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.64 | 14.35 | 14.03 | 15.17 | 14.36 | 14.66 | 15.35 | 13.90 | 9.90 | 7.04 | 8.48 | 10.77 | 13.92 | 14.02 | 13.06 | 12.92 | 12.90 | 12.69 | 12.59 | | | | | |
| COTA PROYECTO | | | | | 9.63 | 8.83 | 8.83 | 8.83 | 7.03 | 7.03 | 7.03 | 8.83 | 8.83 | 8.83 | 9.44 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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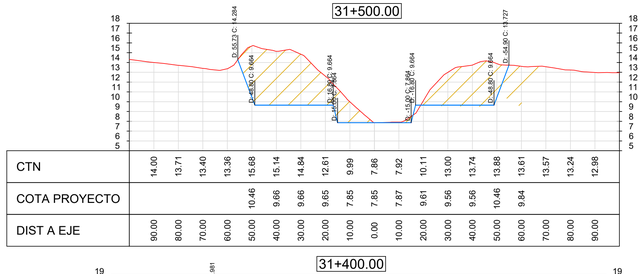
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 16.02 | 15.53 | 14.37 | 14.10 | 14.43 | 14.38 | 13.18 | 10.35 | 8.44 | 7.04 | 8.56 | 11.62 | 13.99 | 13.89 | 13.36 | 13.21 | 13.12 | 12.99 | 13.09 | | | | | |
| COTA PROYECTO | | | | | 9.80 | 8.82 | 8.83 | 8.78 | 7.00 | 7.03 | 7.03 | 8.83 | 8.83 | 8.84 | 9.64 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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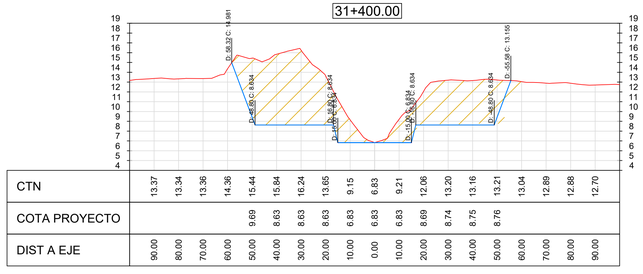
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.00 | 13.71 | 13.40 | 13.36 | 15.68 | 15.14 | 14.84 | 12.61 | 9.99 | 7.86 | 7.92 | 10.11 | 13.00 | 13.74 | 13.88 | 13.61 | 13.57 | 13.24 | 12.98 | | | | | |
| COTA PROYECTO | | | | | 10.46 | 9.66 | 9.66 | 9.65 | 7.85 | 7.85 | 7.87 | 9.61 | 9.56 | 9.56 | 10.46 | 9.84 | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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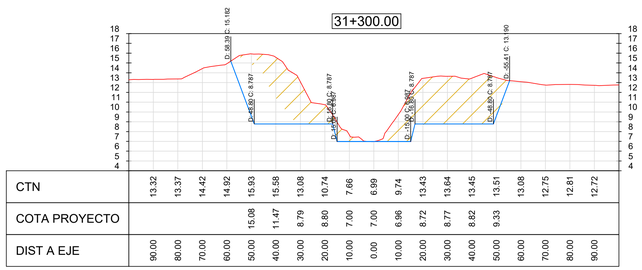
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.37 | 13.34 | 13.36 | 14.36 | 15.44 | 15.84 | 16.24 | 13.65 | 9.15 | 6.83 | 9.21 | 12.06 | 13.20 | 13.16 | 13.21 | 13.04 | 12.89 | 12.88 | 12.70 | | | | | |
| COTA PROYECTO | | | | | 9.69 | 8.63 | 8.63 | 8.63 | 6.83 | 6.83 | 6.83 | 8.69 | 8.74 | 8.75 | 8.76 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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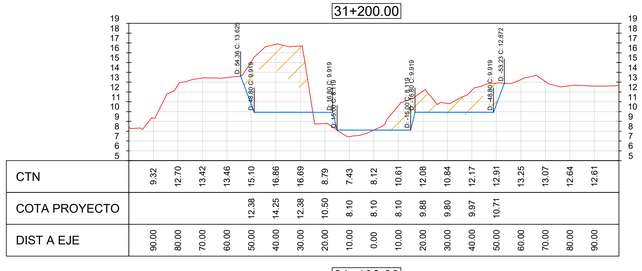
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.32 | 13.37 | 14.42 | 14.92 | 15.93 | 15.58 | 13.08 | 10.74 | 7.66 | 6.99 | 9.74 | 13.43 | 13.64 | 13.45 | 13.51 | 13.08 | 12.75 | 12.81 | 12.72 | | | | | |
| COTA PROYECTO | | | | | 15.08 | 11.47 | 8.79 | 8.80 | 7.00 | 7.00 | 6.96 | 8.72 | 8.77 | 8.82 | 9.33 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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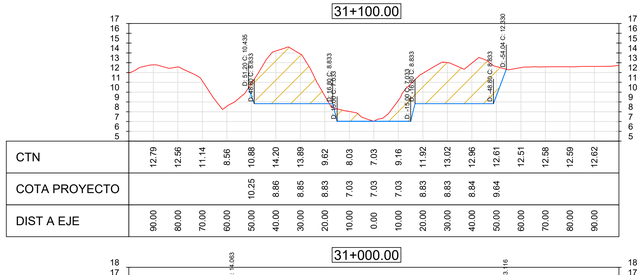
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 9.32 | 12.70 | 13.42 | 13.46 | 15.10 | 16.86 | 16.69 | 8.79 | 7.43 | 8.12 | 10.61 | 12.08 | 10.84 | 12.17 | 12.91 | 13.25 | 13.07 | 12.64 | 12.61 | | | | | |
| COTA PROYECTO | | | | | 12.38 | 14.25 | 12.38 | 10.50 | 8.10 | 8.10 | 8.10 | 9.88 | 9.80 | 9.97 | 10.71 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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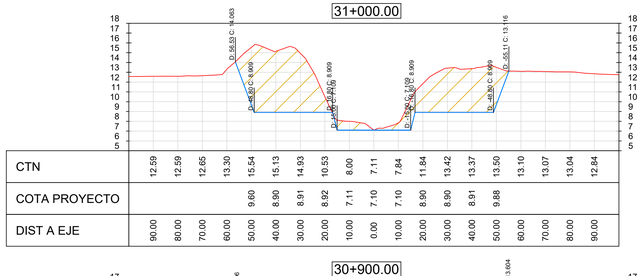
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.79 | 12.56 | 11.14 | 8.56 | 10.88 | 14.20 | 13.89 | 9.62 | 8.03 | 7.03 | 9.16 | 11.92 | 13.02 | 12.96 | 12.61 | 12.51 | 12.58 | 12.59 | 12.62 | | | | | |
| COTA PROYECTO | | | | | 10.25 | 8.86 | 8.85 | 8.83 | 7.03 | 7.03 | 7.03 | 8.83 | 8.83 | 8.84 | 9.64 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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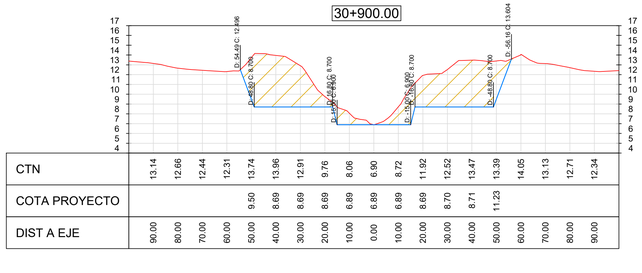
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.59 | 12.59 | 12.65 | 13.30 | 15.54 | 15.13 | 14.93 | 10.53 | 8.00 | 7.11 | 7.84 | 11.84 | 13.42 | 13.37 | 13.50 | 13.10 | 13.07 | 13.04 | 12.84 | | | | | |
| COTA PROYECTO | | | | | 9.60 | 8.90 | 8.91 | 8.92 | 7.11 | 7.10 | 7.10 | 8.90 | 8.90 | 8.91 | 9.88 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |

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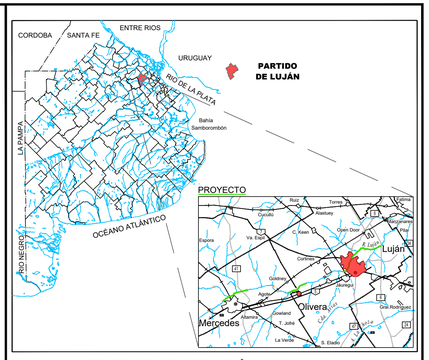
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.14 | 12.66 | 12.44 | 12.31 | 13.74 | 13.96 | 12.91 | 9.76 | 8.06 | 6.90 | 8.72 | 11.92 | 12.52 | 13.47 | 13.39 | 14.05 | 13.13 | 12.71 | 12.34 | | | | | |
| COTA PROYECTO | | | | | 9.50 | 8.69 | 8.69 | 8.69 | 6.89 | 6.89 | 6.89 | 8.69 | 8.70 | 8.71 | 11.23 | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | |




CROQUIS DE UBICACIÓN S/ESCALA

## REFERENCIAS

TERRENO NATURAL

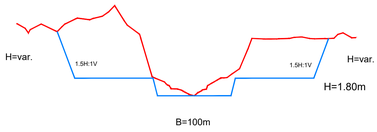
PROYECTO

EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00
LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00
LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

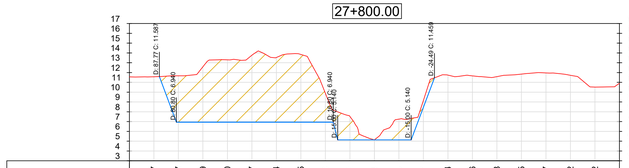
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 32+300.00 A 30+900.00 | N° Plano 22 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL22-PTransv y Mov Suelo 32300-30900 | |

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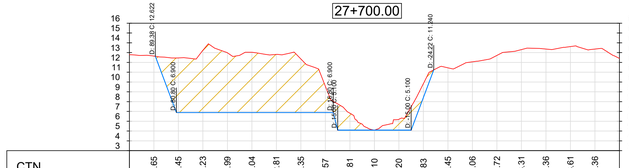
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.57 | 11.67 | 12.59 | 13.30 | 13.77 | 13.54 | 13.85 | 9.88 | 7.52 | 5.14 | 7.25 | 9.17 | 11.74 | 11.66 | 11.58 | 11.85 | 11.97 | 11.72 | 10.52 | | | | | | |
| COTA PROYECTO | | 6.94 | 6.93 | 6.93 | 6.93 | 6.93 | 6.93 | 6.93 | 5.13 | 5.13 | 5.13 | 8.46 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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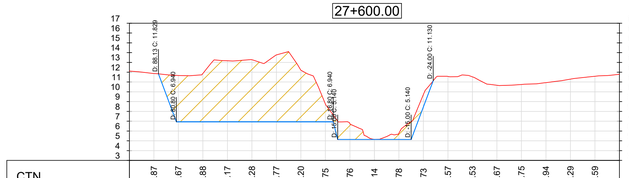
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.65 | 12.45 | 13.23 | 12.99 | 13.04 | 12.81 | 12.35 | 9.57 | 6.81 | 5.10 | 6.20 | 9.83 | 11.45 | 12.06 | 12.72 | 13.31 | 13.36 | 13.61 | 13.36 | | | | | | |
| COTA PROYECTO | | 6.90 | 6.90 | 6.90 | 6.90 | 6.89 | 6.89 | 6.89 | 5.09 | 5.09 | 5.09 | 8.42 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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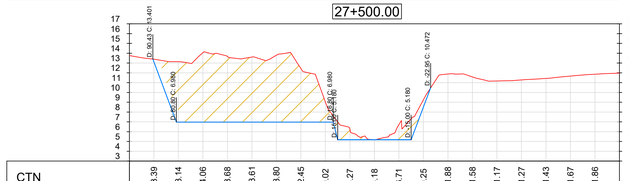
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.87 | 11.67 | 11.88 | 13.17 | 13.28 | 13.77 | 12.20 | 8.75 | 6.76 | 5.14 | 5.78 | 9.73 | 11.57 | 11.53 | 10.67 | 10.75 | 10.94 | 11.29 | 11.59 | | | | | | |
| COTA PROYECTO | | 6.93 | 6.93 | 6.93 | 6.93 | 6.93 | 6.93 | 6.93 | 5.13 | 5.13 | 5.13 | 8.46 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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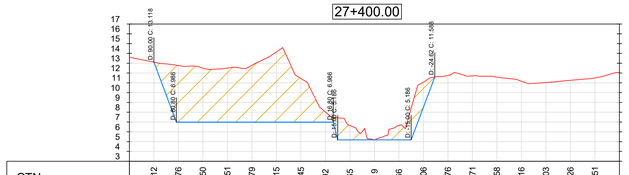
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.39 | 13.14 | 14.06 | 13.88 | 13.61 | 13.80 | 12.45 | 9.02 | 6.27 | 5.18 | 6.71 | 9.25 | 11.88 | 11.58 | 11.17 | 11.27 | 11.43 | 11.67 | 11.86 | | | | | | |
| COTA PROYECTO | 13.40 | 8.14 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 5.17 | 5.17 | 5.17 | 8.50 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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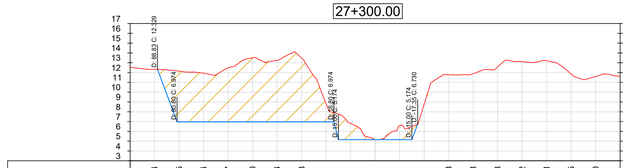
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 13.12 | 12.76 | 12.50 | 12.51 | 12.79 | 14.15 | 11.45 | 8.02 | 6.65 | 5.19 | 6.66 | 11.06 | 11.76 | 11.71 | 11.58 | 11.16 | 11.03 | 11.26 | 11.51 | | | | | | |
| COTA PROYECTO | | 6.99 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 6.98 | 5.18 | 5.18 | 5.18 | 8.51 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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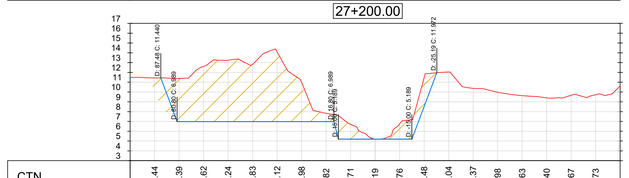
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.34 | 12.15 | 11.94 | 12.47 | 13.50 | 13.24 | 13.48 | 8.81 | 6.81 | 5.17 | 6.57 | 8.76 | 11.78 | 11.88 | 12.58 | 13.12 | 13.21 | 11.85 | 11.60 | | | | | | |
| COTA PROYECTO | | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 6.97 | 5.17 | 5.17 | 5.17 | 8.50 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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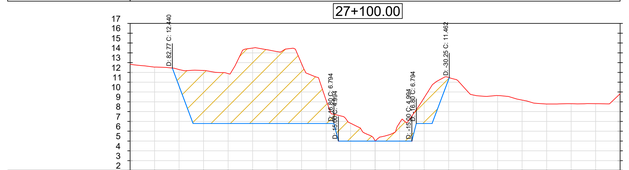
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.44 | 11.39 | 12.62 | 13.24 | 12.83 | 14.12 | 10.98 | 7.82 | 6.71 | 5.19 | 6.76 | 11.48 | 12.04 | 10.37 | 9.98 | 9.63 | 9.40 | 9.67 | 9.73 | | | | | | |
| COTA PROYECTO | 10.10 | 6.98 | 6.99 | 6.99 | 6.99 | 6.98 | 6.98 | 6.98 | 5.18 | 5.17 | 5.17 | 8.63 | | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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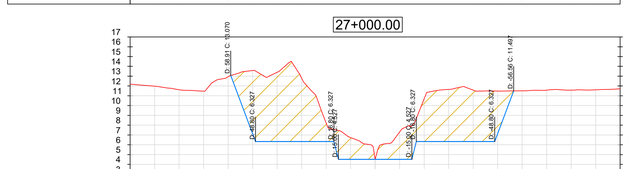
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.54 | 12.29 | 12.20 | 11.88 | 14.48 | 14.13 | 12.89 | 9.18 | 6.81 | 4.99 | 6.87 | 9.41 | 11.48 | 9.70 | 9.64 | 9.18 | 8.78 | 8.81 | 8.81 | | | | | | |
| COTA PROYECTO | | 10.59 | 6.78 | 6.78 | 6.78 | 6.78 | 6.78 | 6.78 | 4.98 | 4.98 | 4.98 | 6.78 | 11.25 | | | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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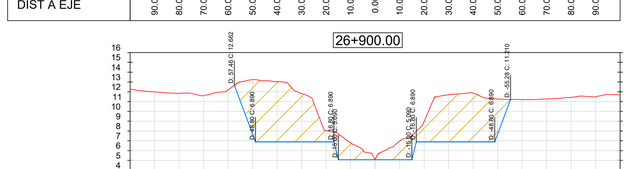
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.88 | 11.61 | 11.47 | 12.84 | 13.58 | 13.40 | 12.79 | 8.23 | 6.74 | 4.53 | 7.30 | 10.69 | 11.85 | 11.58 | 11.48 | 11.50 | 11.58 | 11.58 | 11.61 | | | | | | |
| COTA PROYECTO | | | | | 7.13 | 6.33 | 6.32 | 6.32 | 4.52 | 4.52 | 4.52 | 6.32 | 6.32 | 6.32 | 7.12 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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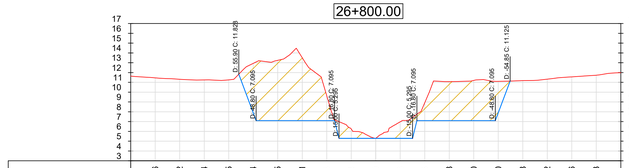
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.99 | 11.85 | 11.61 | 12.19 | 13.23 | 13.03 | 11.83 | 8.04 | 6.81 | 5.09 | 6.97 | 8.97 | 11.70 | 11.86 | 11.26 | 11.20 | 11.26 | 11.43 | 11.50 | | | | | | |
| COTA PROYECTO | | | | | 7.69 | 6.89 | 6.88 | 6.88 | 5.08 | 5.08 | 5.08 | 6.88 | 6.88 | 6.88 | 7.68 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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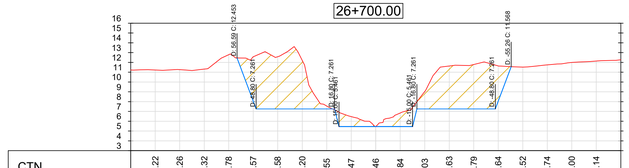
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.46 | 11.32 | 11.24 | 11.25 | 12.94 | 13.25 | 13.51 | 9.63 | 6.24 | 5.29 | 6.98 | 8.93 | 11.08 | 11.20 | 11.10 | 11.18 | 11.32 | 11.56 | 11.73 | | | | | | |
| COTA PROYECTO | | | | | 7.88 | 7.08 | 7.08 | 7.08 | 5.28 | 5.28 | 5.28 | 7.08 | 7.09 | 7.09 | 7.89 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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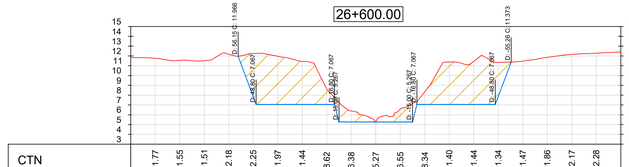
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.22 | 11.26 | 11.32 | 12.78 | 12.57 | 12.58 | 12.20 | 7.55 | 6.47 | 5.46 | 6.84 | 9.03 | 11.63 | 11.79 | 11.64 | 11.52 | 11.74 | 12.00 | 12.14 | | | | | | |
| COTA PROYECTO | | | | | 8.06 | 7.25 | 7.25 | 7.25 | 5.45 | 5.45 | 5.45 | 7.25 | 7.25 | 7.25 | 8.06 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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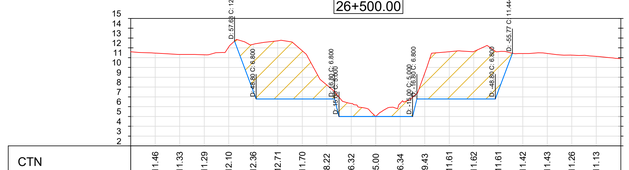
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.77 | 11.55 | 11.51 | 12.18 | 12.25 | 11.97 | 11.44 | 8.62 | 6.38 | 5.27 | 6.55 | 8.34 | 11.40 | 11.44 | 11.34 | 11.47 | 11.86 | 12.17 | 12.28 | | | | | | |
| COTA PROYECTO | | | | | 7.87 | 7.06 | 7.06 | 7.06 | 5.26 | 5.26 | 5.26 | 7.06 | 7.06 | 7.06 | 7.86 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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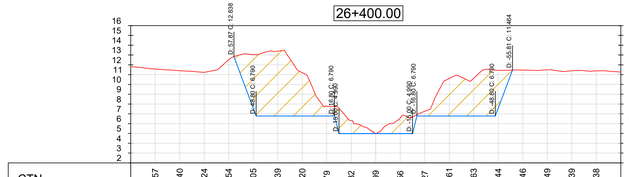
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.46 | 11.33 | 11.29 | 12.10 | 12.36 | 12.71 | 11.70 | 8.22 | 6.32 | 5.00 | 6.34 | 9.43 | 11.61 | 11.62 | 11.61 | 11.42 | 11.43 | 11.26 | 11.13 | | | | | | |
| COTA PROYECTO | | | | | 7.60 | 6.79 | 6.79 | 6.79 | 4.99 | 4.99 | 4.99 | 6.79 | 6.80 | 6.80 | 7.60 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |

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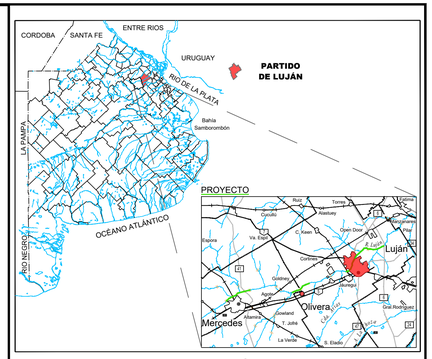
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.57 | 11.40 | 11.24 | 12.54 | 13.05 | 13.39 | 11.20 | 7.79 | 6.32 | 4.99 | 6.56 | 7.27 | 10.61 | 10.63 | 11.44 | 11.46 | 11.49 | 11.39 | 11.38 | | | | | | |
| COTA PROYECTO | | | | | 7.59 | 6.79 | 6.78 | 6.78 | 4.98 | 4.98 | 4.98 | 6.78 | 6.78 | 6.78 | 7.59 | | | | | | | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 | | | | | | |




CROQUIS DE UBICACIÓN S/ESCALA

## REFERENCIAS

TERRENO NATURAL

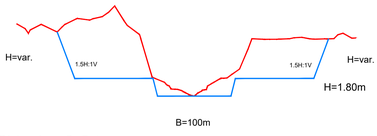
PROYECTO

EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00
LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00
LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

Partido: Luján | Localidad: Olivera - Luján

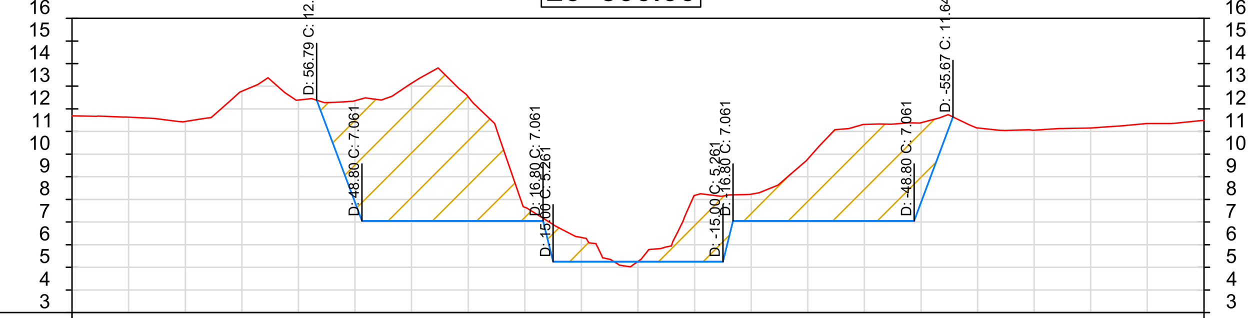
PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 27+800.00 A 26+400.00 | N° Plano 25

Director Provincial: **Ing. Flavio Seiano**

Director Técnico: **Ing. Mauricio Pereyra**

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL25-PTransv y Mov Suelo 27800-26400 | |

## 26+300.00



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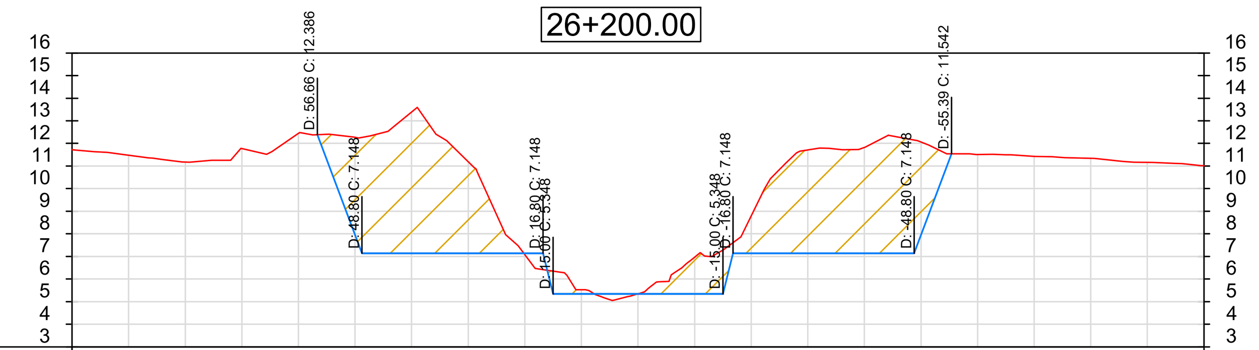
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.63 | 11.44 | 12.78 | 12.39 | 12.36 | 13.14 | 12.53 | 7.66 | 6.32 | 5.26 | 8.18 | 8.23 | 9.78 | 11.31 | 11.39 | 11.16 | 11.06 | 11.15 | 11.35 |
| COTA PROYECTO | | | | | 7.86 | 7.06 | 7.05 | 7.05 | 5.25 | 5.25 | 5.25 | 7.05 | 7.05 | 7.05 | 7.85 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 26+200.00



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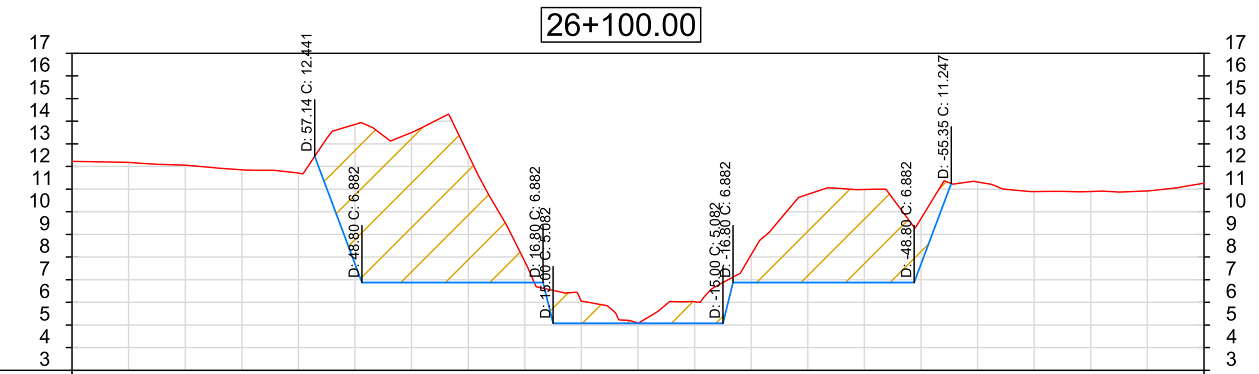
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.48 | 11.17 | 11.77 | 12.44 | 12.27 | 13.39 | 11.19 | 7.07 | 5.53 | 5.35 | 6.97 | 8.80 | 11.71 | 11.82 | 12.06 | 11.51 | 11.42 | 11.34 | 11.16 |
| COTA PROYECTO | | | | | 7.95 | 7.14 | 7.14 | 7.14 | 5.34 | 5.34 | 5.34 | 7.14 | 7.14 | 7.14 | 7.94 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 26+100.00



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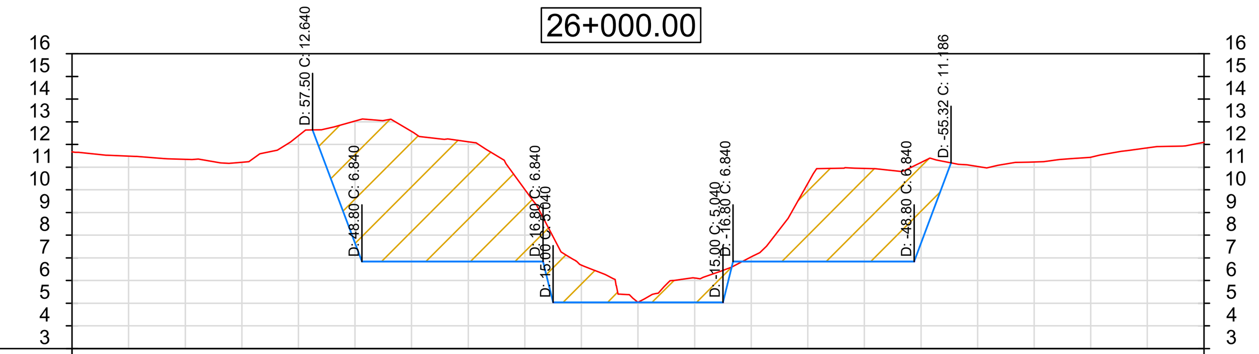
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 12.18 | 12.06 | 11.85 | 11.71 | 13.86 | 13.50 | 12.52 | 7.80 | 6.06 | 5.08 | 6.02 | 8.11 | 10.77 | 10.98 | 9.69 | 11.31 | 10.89 | 10.89 | 10.92 |
| COTA PROYECTO | | | | | 7.68 | 6.88 | 6.88 | 6.87 | 5.07 | 5.07 | 5.07 | 6.87 | 6.88 | 6.88 | 7.68 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 26+000.00



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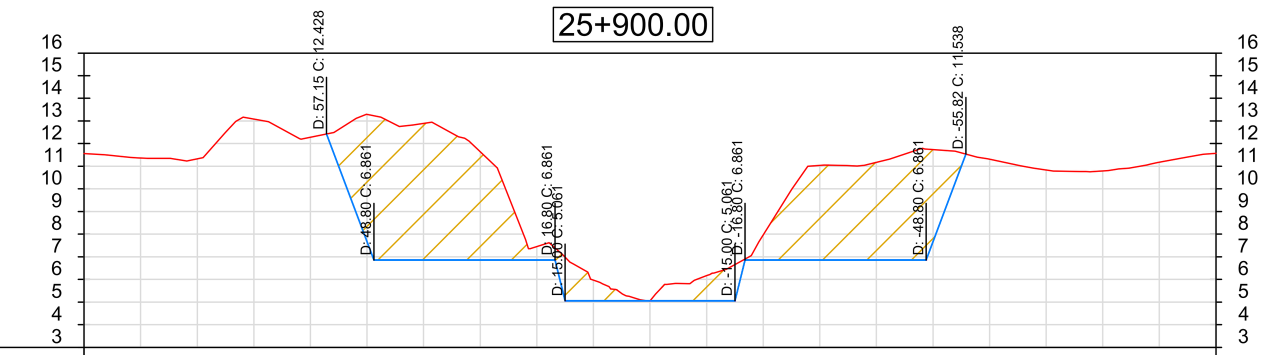
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.49 | 11.34 | 11.22 | 12.38 | 13.04 | 12.57 | 12.12 | 10.01 | 6.68 | 5.04 | 6.11 | 7.04 | 10.28 | 10.94 | 11.21 | 11.03 | 11.23 | 11.44 | 11.85 |
| COTA PROYECTO | | | | | 7.64 | 6.83 | 6.83 | 6.83 | 5.03 | 5.03 | 5.03 | 6.83 | 6.83 | 6.83 | 7.64 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+900.00



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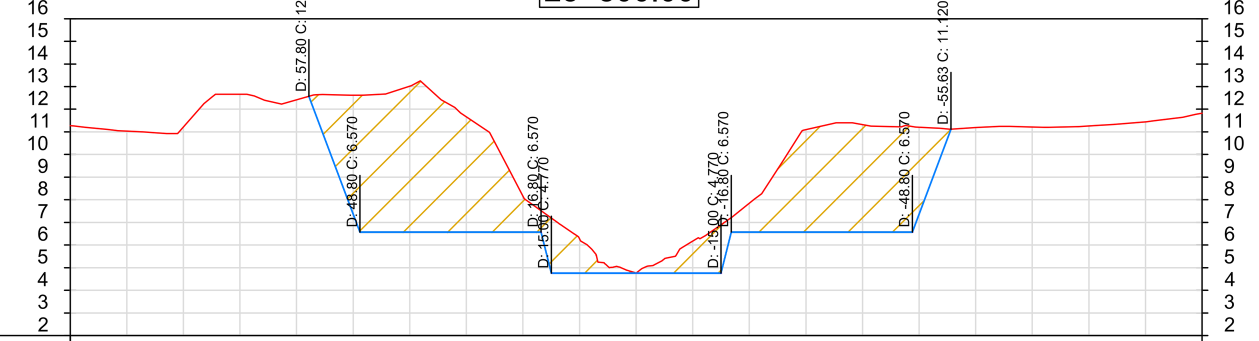
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.36 | 11.33 | 13.08 | 12.29 | 13.30 | 12.89 | 11.64 | 7.45 | 5.97 | 5.06 | 6.17 | 7.97 | 11.04 | 11.17 | 11.73 | 11.31 | 10.83 | 10.79 | 11.18 |
| COTA PROYECTO | | | | | 7.66 | 6.86 | 6.86 | 6.85 | 5.05 | 5.05 | 5.05 | 6.85 | 6.86 | 6.86 | 7.66 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+800.00



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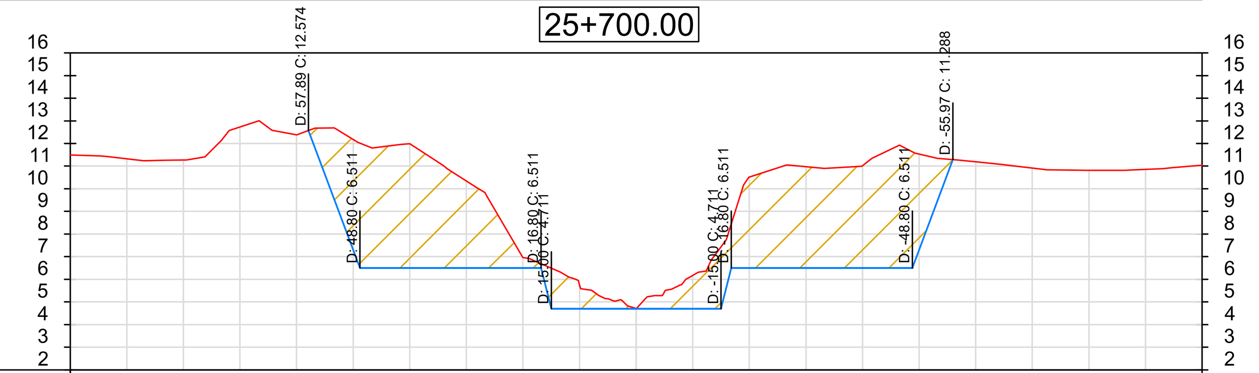
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.04 | 11.22 | 12.67 | 12.41 | 12.62 | 13.02 | 11.66 | 8.16 | 6.28 | 4.77 | 6.17 | 7.85 | 11.10 | 11.32 | 11.20 | 11.19 | 11.22 | 11.26 | 11.44 |
| COTA PROYECTO | | | | | 7.36 | 6.56 | 6.56 | 6.56 | 4.76 | 4.76 | 4.76 | 6.56 | 6.56 | 6.57 | 7.37 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+700.00



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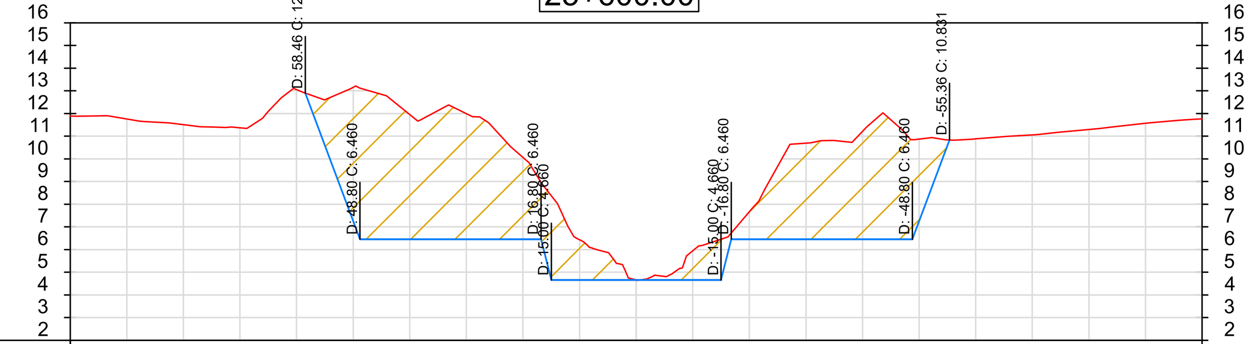
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.32 | 11.27 | 12.72 | 12.38 | 12.18 | 11.98 | 10.35 | 6.96 | 5.75 | 4.71 | 6.17 | 10.51 | 10.97 | 11.02 | 11.53 | 11.19 | 10.91 | 10.81 | 10.86 |
| COTA PROYECTO | | | | | 7.31 | 6.51 | 6.51 | 6.50 | 4.70 | 4.70 | 4.70 | 6.50 | 6.50 | 6.50 | 7.30 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+600.00



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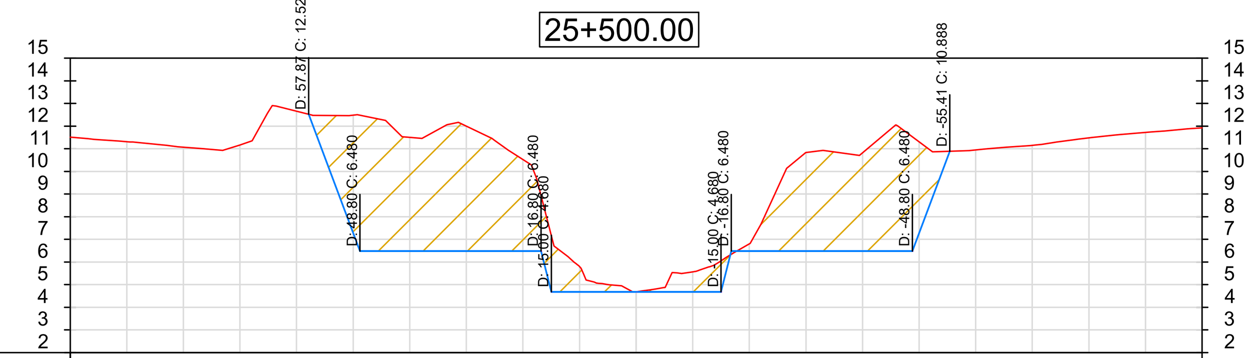
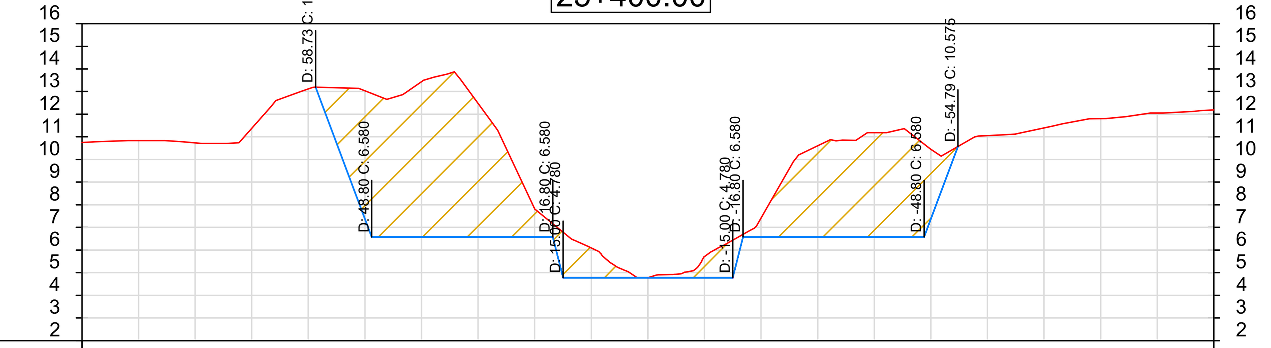
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.75 | 11.51 | 11.37 | 13.05 | 13.15 | 11.95 | 11.99 | 10.06 | 6.43 | 4.66 | 5.94 | 7.67 | 10.69 | 11.21 | 10.87 | 10.88 | 11.06 | 11.29 | 11.57 |
| COTA PROYECTO | | | | | 7.25 | 6.45 | 6.45 | 6.45 | 4.65 | 4.65 | 4.65 | 6.45 | 6.45 | 6.46 | 7.26 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+500.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.32 | 11.07 | 11.16 | 12.66 | 12.48 | 11.50 | 12.00 | 10.52 | 5.80 | 4.68 | 5.56 | 6.80 | 10.84 | 10.82 | 11.30 | 10.95 | 11.15 | 11.48 | 11.72 |
| COTA PROYECTO | | | | | 7.28 | 6.48 | 6.47 | 6.47 | 4.67 | 4.67 | 4.67 | 6.47 | 6.47 | 6.47 | 7.28 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+400.00



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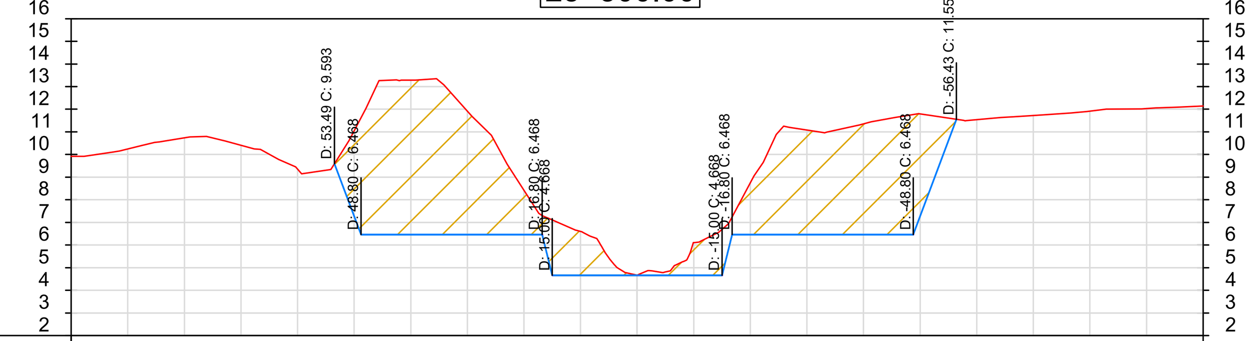
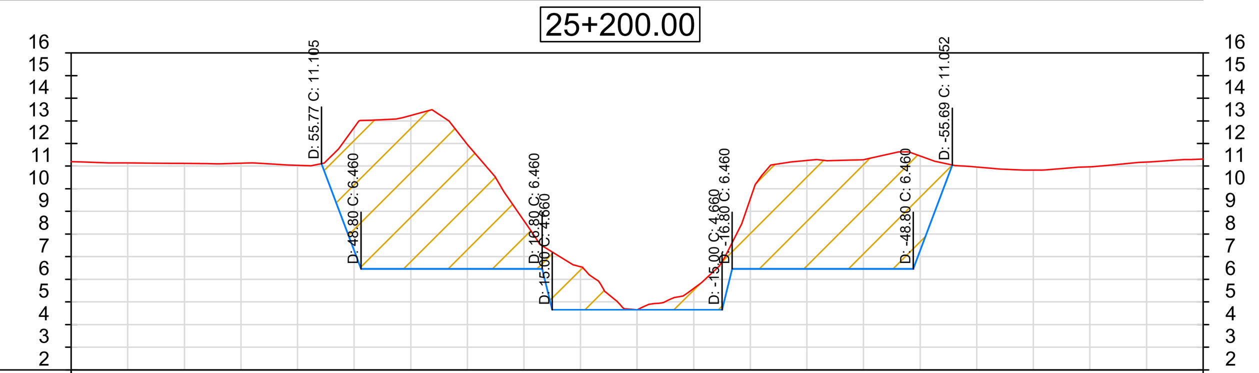
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 10.84 | 10.74 | 11.38 | 13.12 | 13.04 | 13.44 | 12.48 | 7.82 | 6.09 | 4.78 | 5.72 | 7.42 | 10.61 | 11.19 | 10.46 | 11.06 | 11.40 | 11.80 | 12.05 |
| COTA PROYECTO | | | | | 7.38 | 6.58 | 6.57 | 6.57 | 4.77 | 4.77 | 4.77 | 6.57 | 6.58 | 6.58 | 7.38 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+300.00



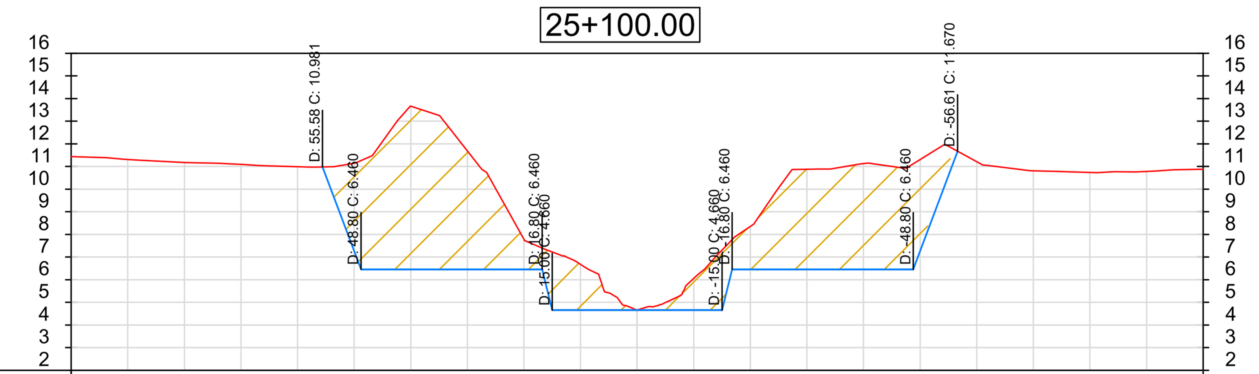
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 10.24 | 10.74 | 10.40 | 9.35 | 11.05 | 13.29 | 11.91 | 8.42 | 6.61 | 4.67 | 6.11 | 8.76 | 11.08 | 11.35 | 11.79 | 11.54 | 11.73 | 11.92 | 12.03 |
| COTA PROYECTO | | | | | 7.27 | 6.46 | 6.46 | 6.46 | 4.66 | 4.66 | 4.66 | 6.46 | 6.46 | 6.46 | 7.26 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+200.00



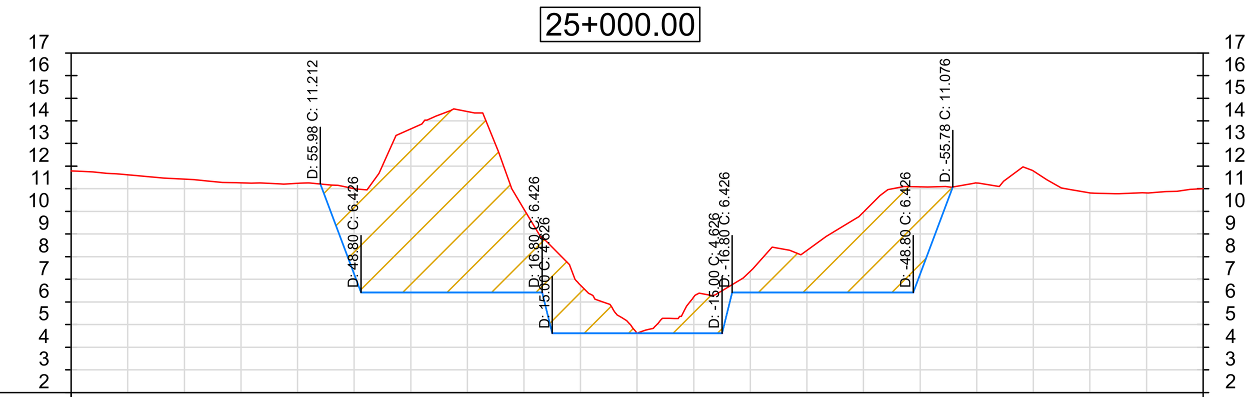
| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.14 | 11.12 | 11.13 | 11.03 | 12.71 | 13.24 | 11.96 | 8.59 | 6.56 | 4.66 | 5.60 | 9.57 | 11.25 | 11.29 | 11.45 | 10.96 | 10.82 | 10.97 | 11.18 |
| COTA PROYECTO | | | | | 7.26 | 6.45 | 6.45 | 6.45 | 4.65 | 4.65 | 4.65 | 6.45 | 6.45 | 6.46 | 7.26 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+100.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.31 | 11.18 | 11.10 | 10.99 | 11.14 | 13.66 | 11.69 | 7.78 | 6.68 | 4.66 | 6.06 | 8.35 | 10.88 | 11.13 | 11.30 | 11.21 | 10.81 | 10.74 | 10.78 |
| COTA PROYECTO | | | | | 7.26 | 6.46 | 6.46 | 6.45 | 4.65 | 4.65 | 4.65 | 6.45 | 6.45 | 6.45 | 7.38 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 25+000.00



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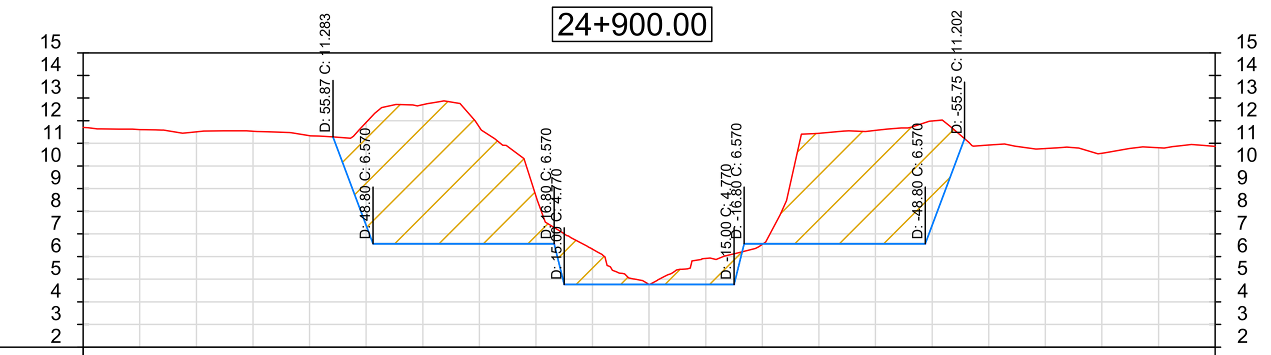
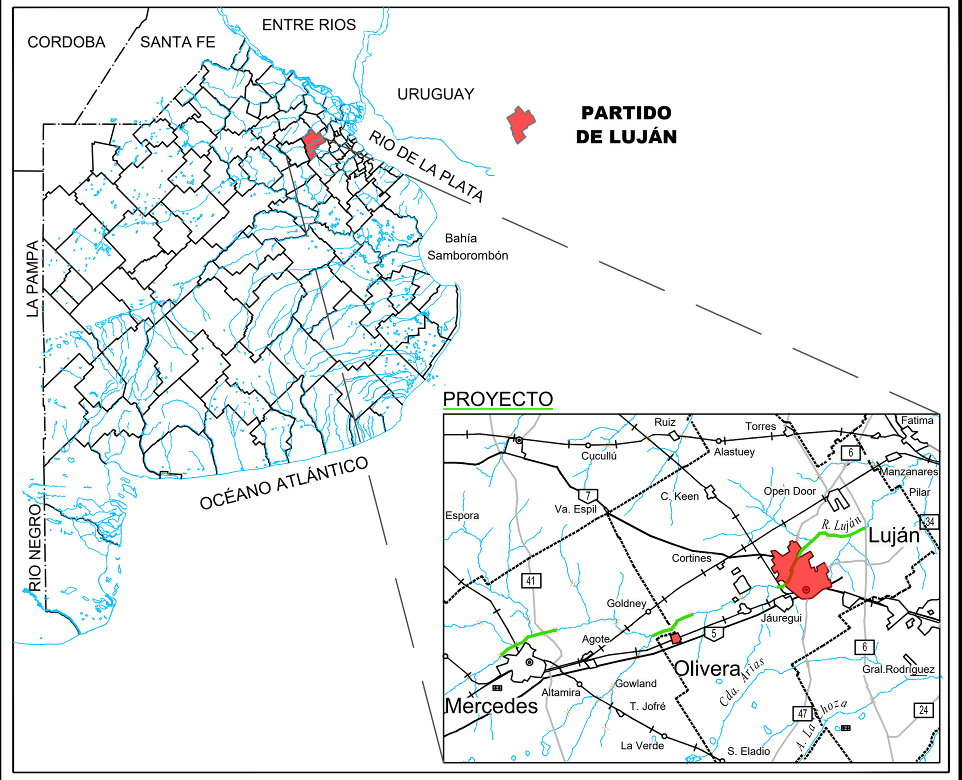
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.62 | 11.43 | 11.26 | 11.24 | 11.01 | 13.65 | 14.41 | 10.09 | 6.74 | 4.63 | 6.22 | 7.35 | 8.28 | 9.97 | 11.08 | 11.26 | 11.79 | 10.82 | 10.82 |
| COTA PROYECTO | | | | | 7.22 | 6.42 | 6.42 | 6.42 | 4.62 | 4.62 | 4.62 | 6.42 | 6.42 | 6.42 | 7.23 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 24+900.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.61 | 11.51 | 11.54 | 11.34 | 11.93 | 12.71 | 11.71 | 8.68 | 6.32 | 4.77 | 5.92 | 6.54 | 11.44 | 11.57 | 11.99 | 10.93 | 10.77 | 10.56 | 10.80 |
| COTA PROYECTO | | | | | 7.37 | 6.56 | 6.56 | 6.56 | 4.76 | 4.76 | 4.76 | 6.56 | 6.56 | 6.57 | 7.37 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




**CROQUIS DE UBICACIÓN S/ESCALA**

**REFERENCIAS**

TERRENO NATURAL

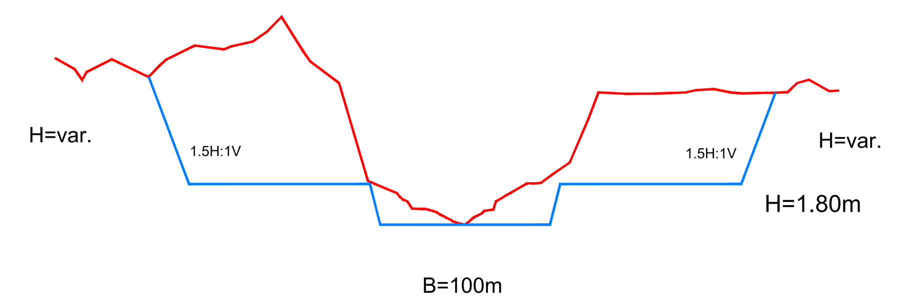
PROYECTO

EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00
LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00
LOTE 4 - 34+600.00 - 36+750.00

**SECCIÓN TIPO**




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

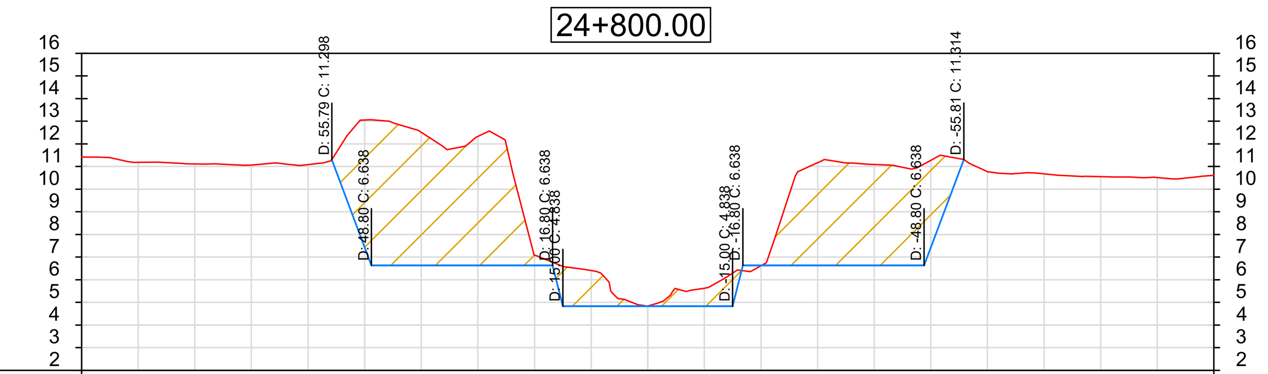
**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| Partido: Luján | Localidad: Olivera - Luján |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 26+300.00 A 24+900.00 | N° Plano 26 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

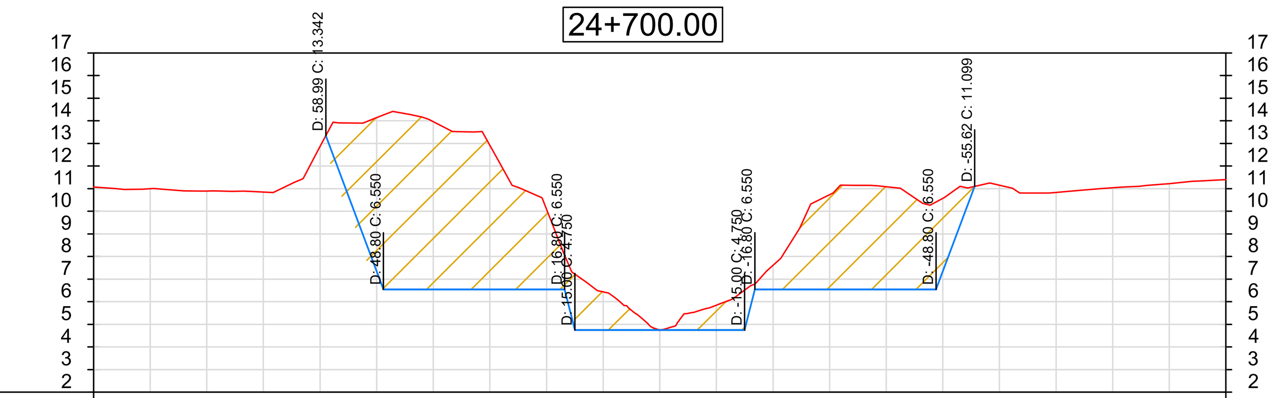
| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL26-PTransv y Mov Suelo 26300-24900 | |

## 24+800.00



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.19 | 11.11 | 11.06 | 11.09 | 13.06 | 12.51 | 12.33 | 7.09 | 6.41 | 4.84 | 5.63 | 6.62 | 11.17 | 11.09 | 11.28 | 10.78 | 10.68 | 10.55 | 10.51 |
| COTA PROYECTO | | | | | 7.44 | 6.63 | 6.63 | 6.63 | 4.83 | 4.83 | 4.83 | 6.63 | 6.63 | 6.63 | 7.44 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 24+700.00



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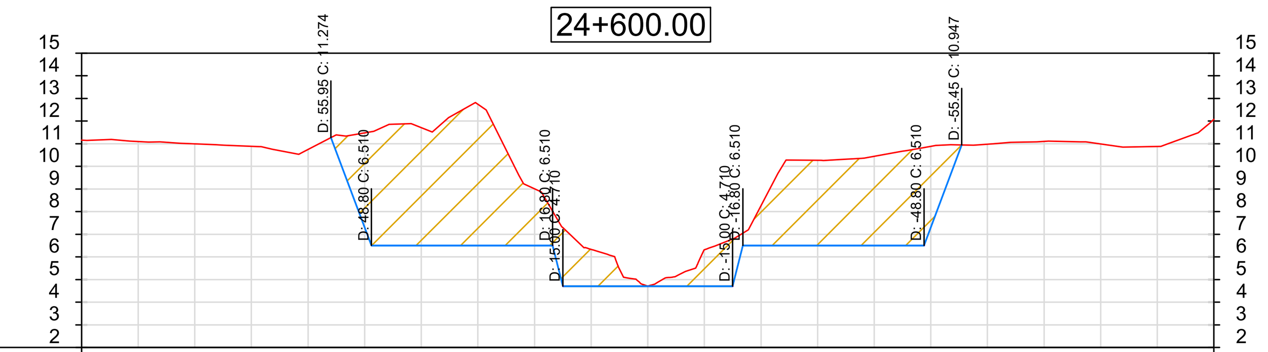
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.00 | 10.90 | 10.85 | 12.86 | 14.14 | 13.97 | 12.91 | 10.09 | 6.44 | 4.75 | 5.84 | 7.61 | 10.74 | 11.08 | 10.57 | 11.15 | 10.83 | 11.04 | 11.22 |
| COTA PROYECTO | | | | 12.84 | 6.70 | 6.54 | 6.55 | 6.55 | 4.74 | 4.74 | 4.74 | 6.54 | 6.54 | 6.55 | 7.35 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 24+600.00



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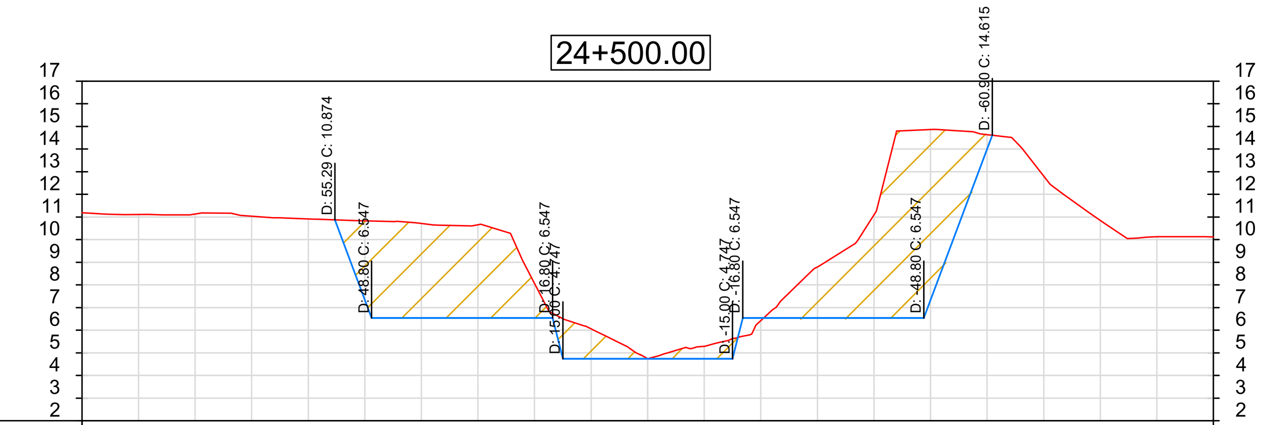
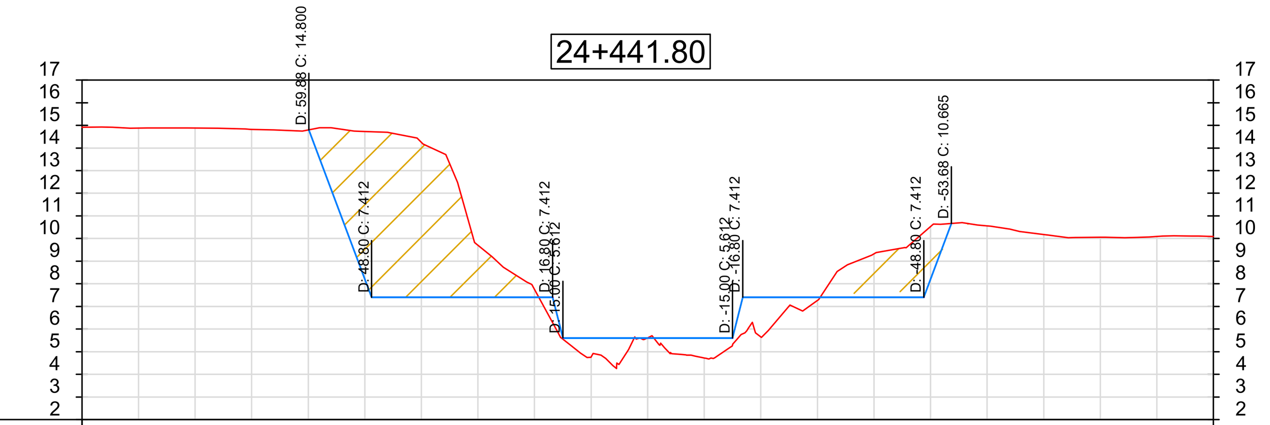
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.10 | 10.99 | 10.89 | 10.75 | 11.48 | 11.71 | 12.74 | 9.01 | 6.33 | 4.71 | 6.31 | 8.26 | 10.27 | 10.44 | 10.88 | 10.98 | 11.10 | 10.99 | 10.87 |
| COTA PROYECTO | | | | | 7.31 | 6.51 | 6.50 | 6.50 | 4.70 | 4.70 | 4.70 | 6.50 | 6.50 | 6.50 | 7.31 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 24+500.00

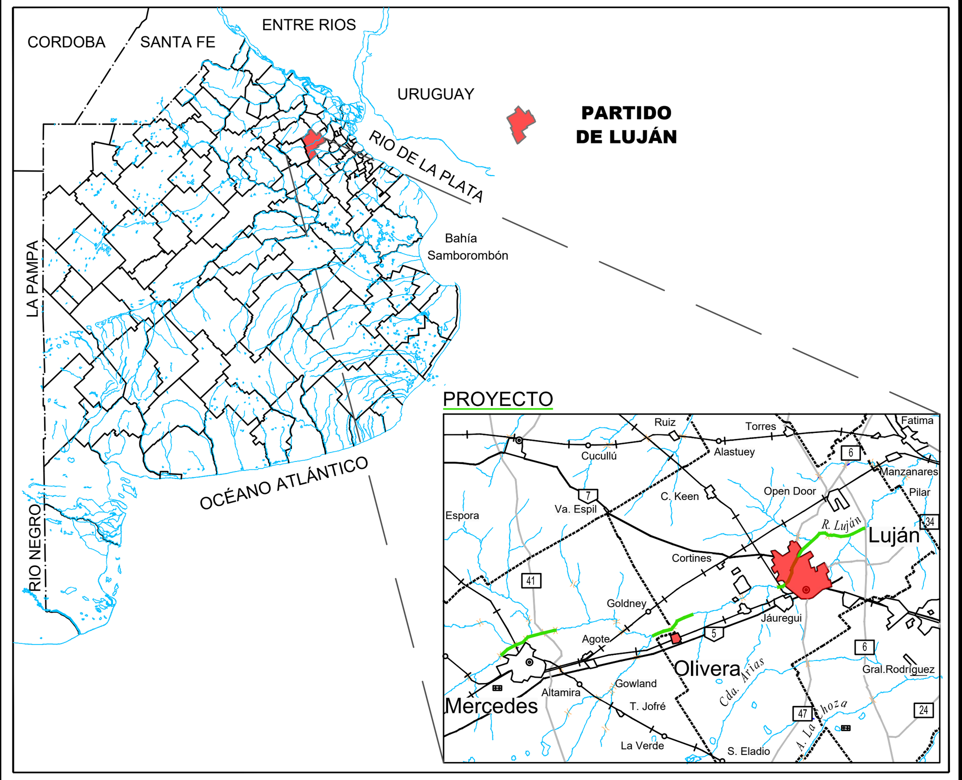


| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 11.11 | 11.14 | 11.03 | 10.92 | 10.83 | 10.71 | 10.66 | 8.06 | 6.06 | 4.75 | 5.29 | 6.42 | 8.79 | 11.09 | 14.86 | 14.64 | 12.81 | 10.85 | 10.13 |
| COTA PROYECTO | | | | | 7.34 | 6.53 | 6.53 | 6.53 | 4.73 | 4.73 | 4.73 | 6.49 | 6.49 | 6.52 | 7.17 | 13.97 | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |

## 24+441.80



| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTN | 14.88 | 14.88 | 14.82 | 14.79 | 14.73 | 14.25 | 9.71 | 7.75 | 4.77 | 5.61 | 4.73 | 5.65 | 7.27 | 9.33 | 10.52 | 10.56 | 10.18 | 10.05 | 10.09 |
| COTA PROYECTO | | | | | 8.22 | 7.40 | 7.40 | 7.40 | 5.60 | 5.61 | 5.64 | 7.51 | 7.54 | 7.61 | 8.10 | | | | |
| DIST A EJE | 90.00 | 80.00 | 70.00 | 60.00 | 50.00 | 40.00 | 30.00 | 20.00 | 10.00 | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 | 70.00 | 80.00 | 90.00 |




**CROQUIS DE UBICACIÓN S/ESCALA**

## REFERENCIAS

TERRENO NATURAL

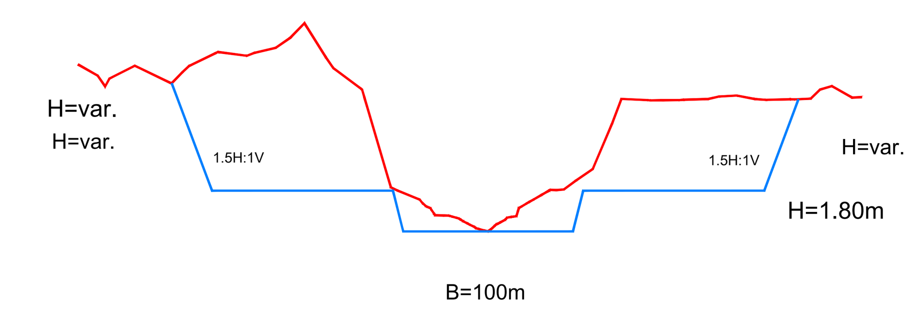
PROYECTO

EXCAVACIÓN

LUJÁN - EII A - PREGRESIVAS 36+750.00 - 24+441.80

LOTE 1 - 24+441.80 - 27+600.00
LOTE 2 - 27+600.00 - 30+900.00
LOTE 3 - 30+900.00 - 34+600.00
LOTE 4 - 34+600.00 - 36+750.00

## SECCIÓN TIPO




D=Distancia C=Cota

MINISTERIO DE INFRAESTRUCTURA Y SERVICIOS PÚBLICOS

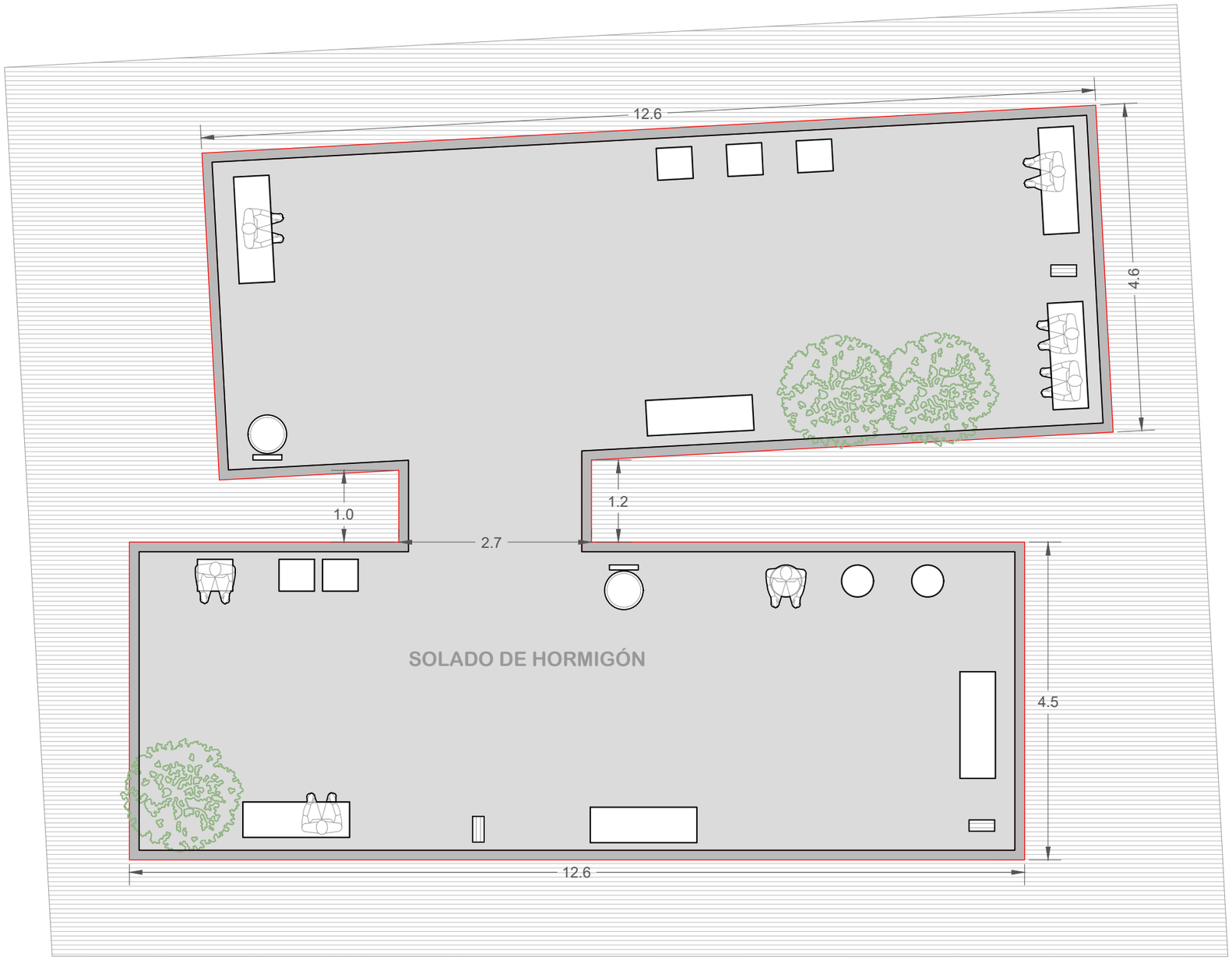
GOBIERNO DE LA PROVINCIA DE BUENOS AIRES

**DIRECCIÓN PROVINCIAL DE HIDRÁULICA**

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

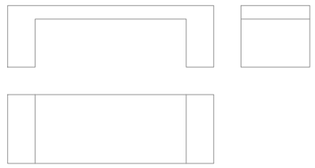
| | | |
|---|---|---|
| Partido: Luján | Localidad: Olivera - Luján | |
| PERFILES TRANSVERSALES Y MOVIMIENTO DE SUELOS - PROG. 24+800.00 A 24+481.80 | | N° Plano 27 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** | |
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: Planimetría 1:2000 P. Long H 1:2000 V 1:100 | Dibujo: Francisco Ferro Despres |
| Fecha: Julio 2019 | Archivo: 064-2020-MTMRL-PR-H-PL27-PTransv y Mov Suelo 24800-2448180 | |

# MÓDULO A



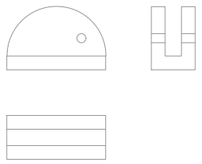

LADO PARALELO A LA BICISENDA

Banco Largo



Banco Individual

Bicicletero



Cesto de Basura

**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

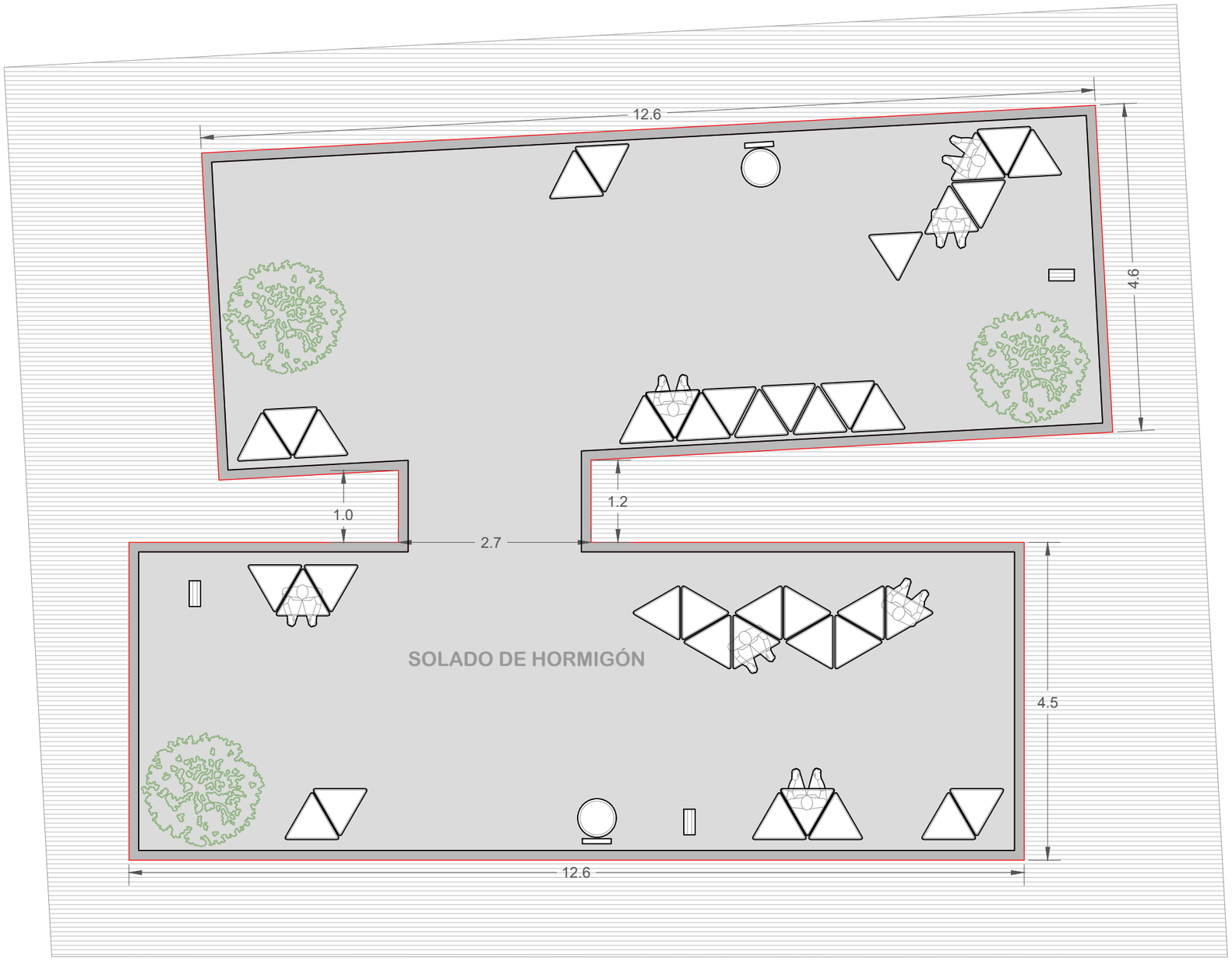
DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA DETALLE MÓDULO TIPO A** | Nº Plano OCPD-01 |
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: | Dibujo: Ivan Ariel Soto |
| Fecha: Agosto 2020 | Archivo: | |

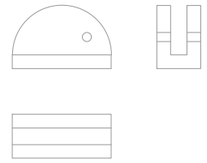
# MÓDULO B




LADO PARALELO A LA BICISENDA

Módulo Triangular Asiento

**Bicicletero**



**Cesto de Basura**

**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

DIRECCIÓN PROVINCIAL DE HIDRÁULICA

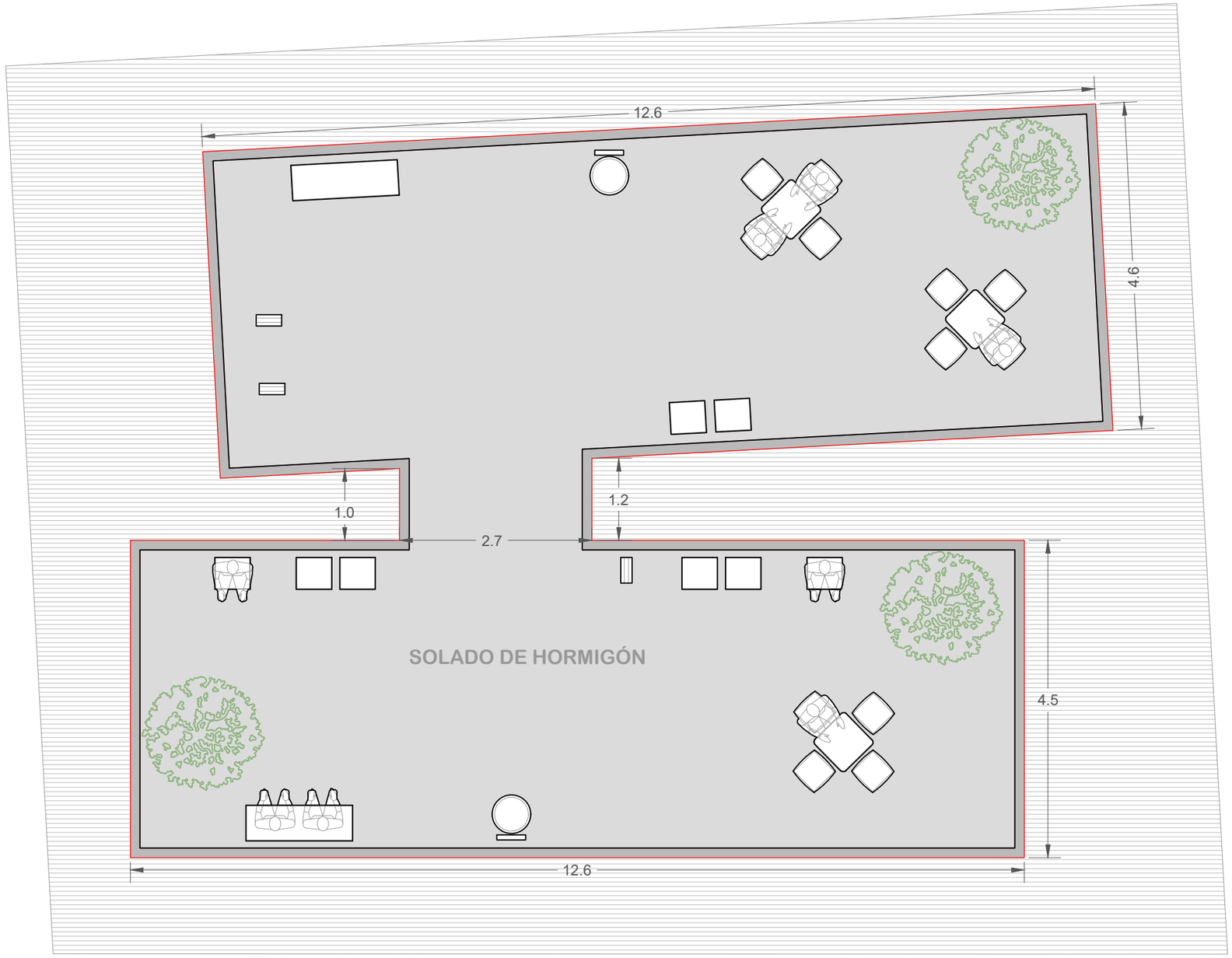
**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA**<br>**DETALLE MÓDULO TIPO B** | Nº Plano<br>OCPD-02 |

| | |
|---|---|
| Director Provincial:<br>**Ing. Flavio Seiano** | Director Técnico:<br>**Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos:<br>Leandro Fabián Mugetti | Proyectista Hidráulico:<br>Francisco Ferro Despres | Estado: |
| Topografía:<br>DPH | Escala: | Dibujo:<br>Ivan Ariel Soto |
| Fecha:<br>Agosto 2020 | Archivo: | |

# MÓDULO C

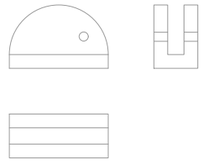



LADO PARALELO A LA BICISENDA

Banco Trapecial

Banco Individual

Bicicletero



Cesto de Basura

**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

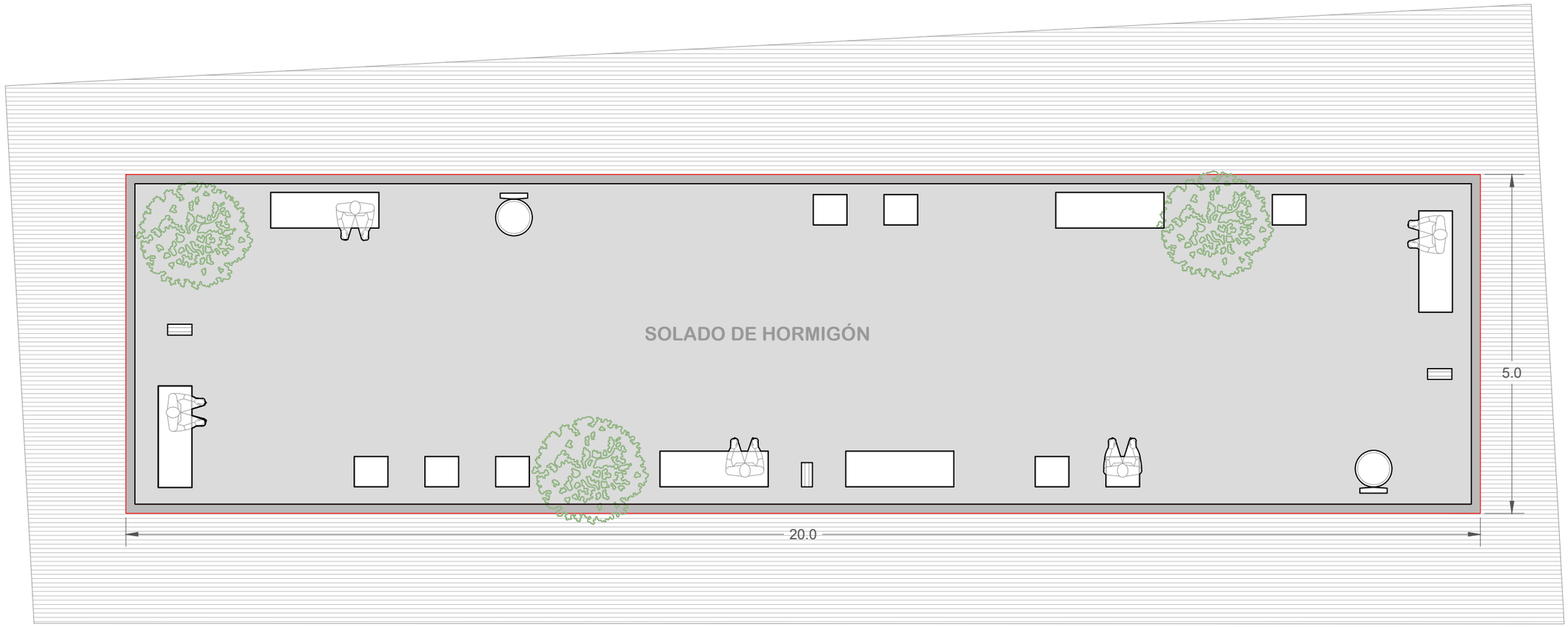
DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA**<br>**DETALLE MÓDULO TIPO C** | Nº Plano<br>OCPD-03 |
| Director Provincial:<br>**Ing. Flavio Seiano** | Director Técnico:<br>**Ing. Mauricio Pereyra** |

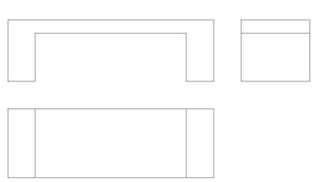
| | | |
|---|---|---|
| Jefe Depto. Proyectos:<br>Leandro Fabián Mugetti | Proyectista Hidráulico:<br>Francisco Ferro Despres | Estado: |
| Topografía:<br>DPH | Escala: | Dibujo:<br>Ivan Ariel Soto |
| Fecha:<br>Agosto 2020 | Archivo: | |

# MÓDULO D



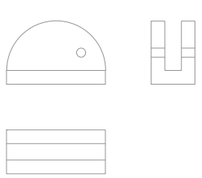

## LADO PARALELO A LA BICISENDA

Banco Largo



Banco Individual

Bicicletero



Cesto de Basura

**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

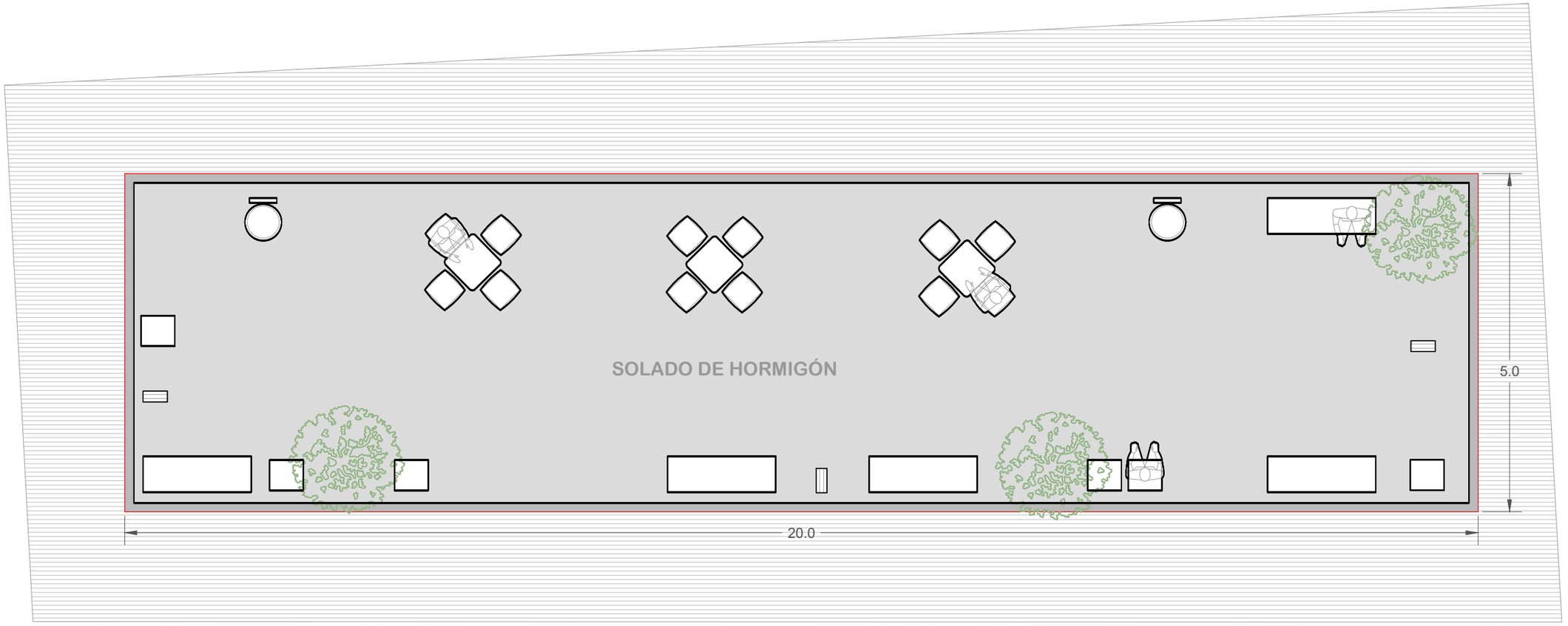
DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA**<br>**DETALLE MÓDULO TIPO D** | Nº Plano<br>OCPD-04 |
| Director Provincial:<br>**Ing. Flavio Seiano** | Director Técnico:<br>**Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos:<br>Leandro Fabián Mugetti | Proyectista Hidráulico:<br>Francisco Ferro Despres | Estado: |
| Topografía:<br>DPH | Escala: | Dibujo:<br>Ivan Ariel Soto |
| Fecha:<br>Agosto 2020 | Archivo: | |

# MÓDULO E

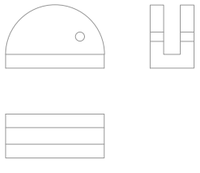



## LADO PARALELO A LA BICISENDA

Banco Trapecial

Banco Individual

Bicicletero



**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

DIRECCIÓN PROVINCIAL DE HIDRÁULICA

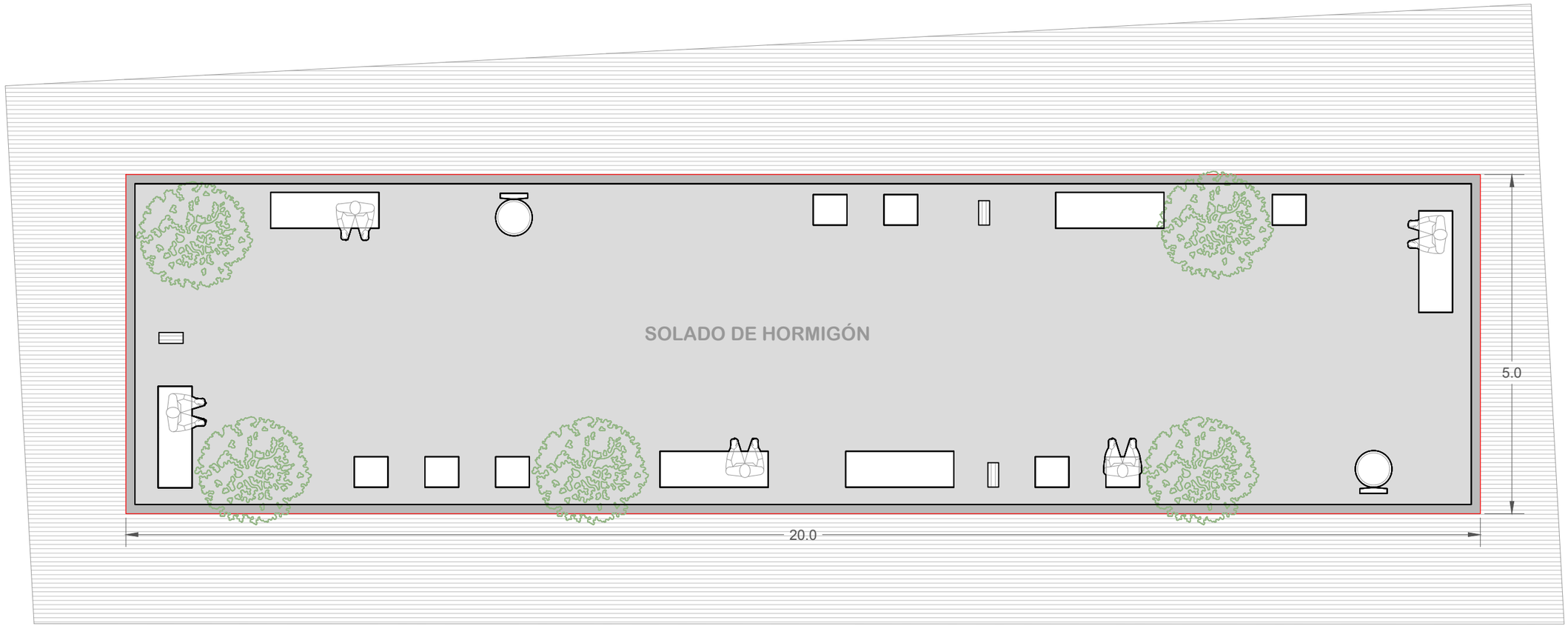
**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA DETALLE MÓDULO TIPO E** | Nº Plano OCPD-05 |

| | |
|---|---|
| Director Provincial: **Ing. Flavio Seiano** | Director Técnico: **Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos: Leandro Fabián Mugetti | Proyectista Hidráulico: Francisco Ferro Despres | Estado: |
| Topografía: DPH | Escala: | Dibujo: Ivan Ariel Soto |
| Fecha: Agosto 2020 | Archivo: | |

# MÓDULO F

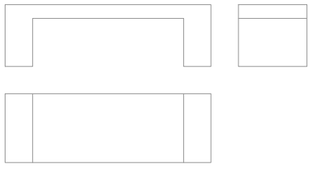



## LADO PARALELO A LA BICISENDA

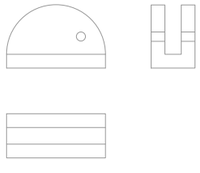
### Banco Trapecial

### Banco Individual

### Banco Largo



### Bicicletero



### Cesto de Basura

**Nota:**

- Pendiente de 0.5% en el solado en sentido decreciente hacia el río

DIRECCIÓN PROVINCIAL DE HIDRÁULICA

**Obra**: MEJORAMIENTO DEL TRAMO MEDIO DEL RÍO LUJÁN - II ETAPA

| | |
|---|---|
| **OBRA COMPLEMENTARIA**<br>**DETALLE MÓDULO TIPO F** | Nº Plano<br>OCPD-06 |

| | |
|---|---|
| Director Provincial:<br>**Ing. Flavio Seiano** | Director Técnico:<br>**Ing. Mauricio Pereyra** |

| | | |
|---|---|---|
| Jefe Depto. Proyectos:<br>Leandro Fabián Mugetti | Proyectista Hidráulico:<br>Francisco Ferro Despres | Estado: |
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