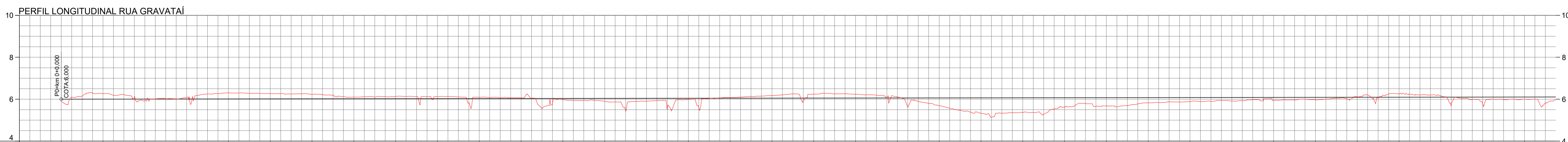


PERFIL LONGITUDINAL RUA GRAVATAÍ

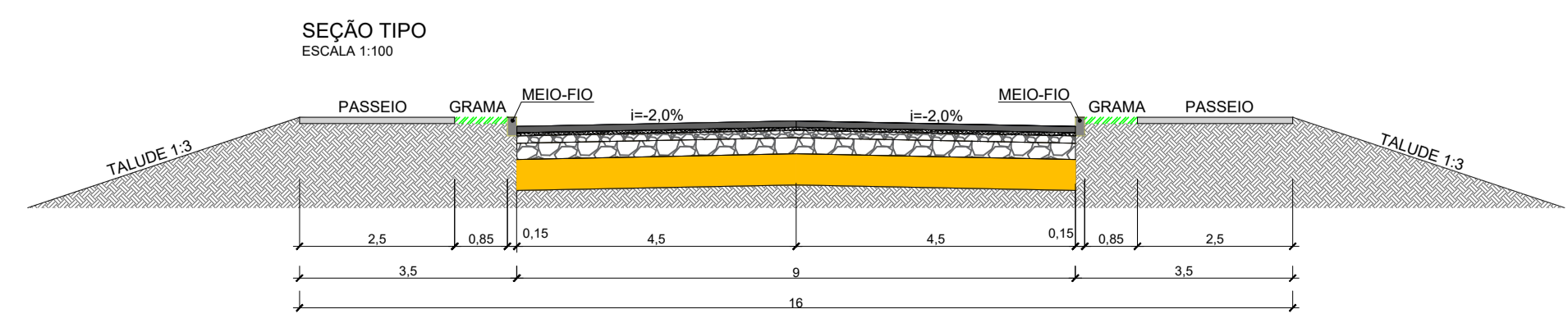
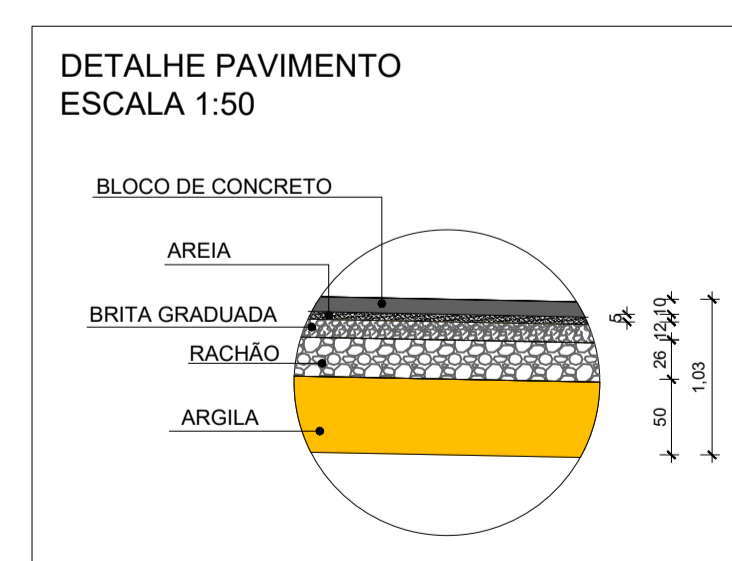
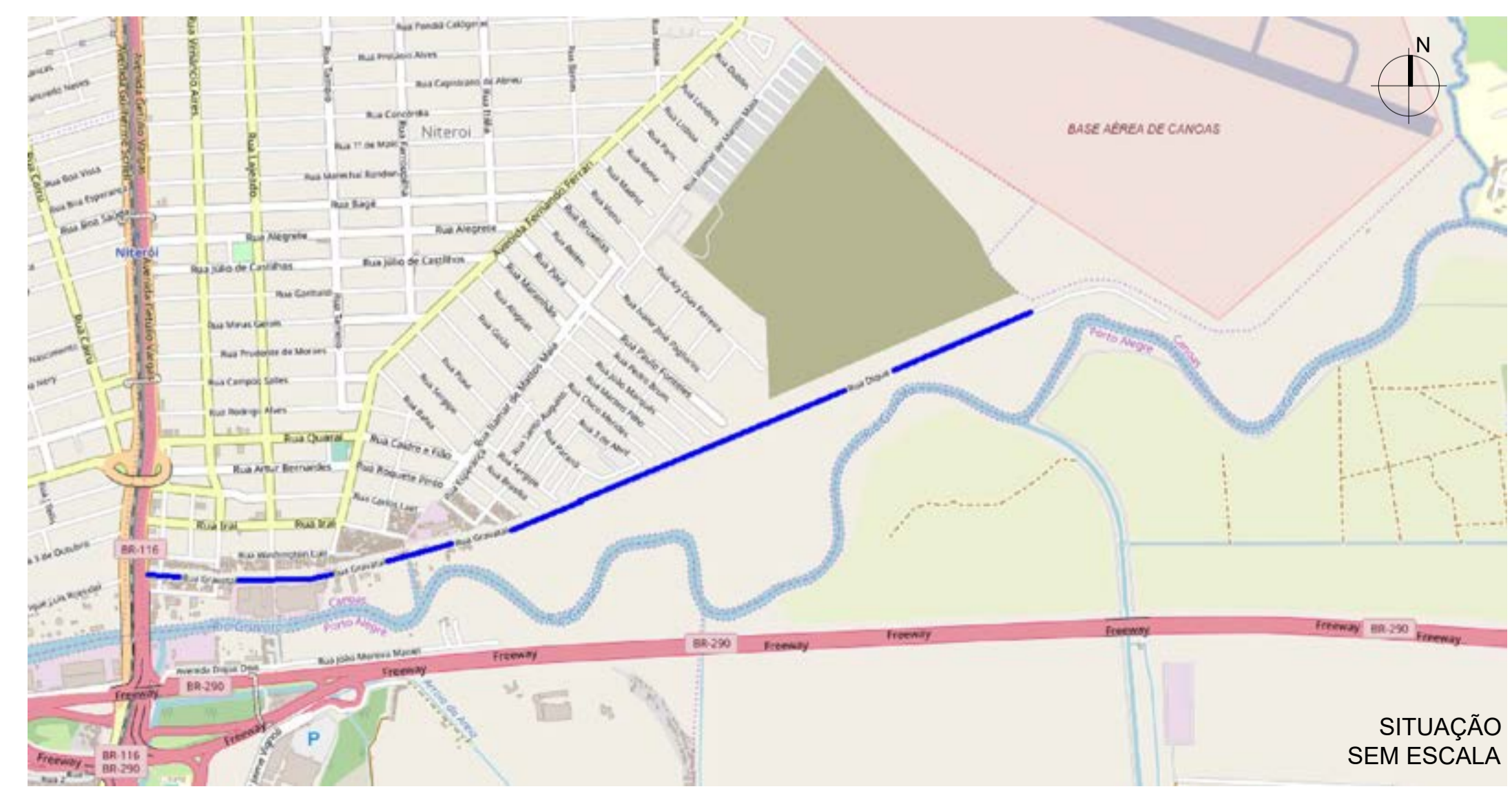


| COTAS TERRENO/PROJETO | EST. 0+00.00 km 0+00.00 | EST. 1+00.00 km 0+20.00 | EST. 2+00.00 km 0+40.00 | EST. 3+00.00 km 0+60.00 | EST. 4+00.00 km 0+80.00 | EST. 5+00.00 km 0+100.00 | EST. 6+00.00 km 0+120.00 | EST. 7+00.00 km 0+140.00 | EST. 8+00.00 km 0+160.00 | EST. 9+00.00 km 0+180.00 | EST. 10+00.00 km 0+200.00 | EST. 11+00.00 km 0+220.00 | EST. 12+00.00 km 0+240.00 | EST. 13+00.00 km 0+260.00 | EST. 14+00.00 km 0+280.00 | EST. 15+00.00 km 0+300.00 | EST. 16+00.00 km 0+320.00 | EST. 17+00.00 km 0+340.00 | EST. 18+00.00 km 0+360.00 | EST. 19+00.00 km 0+380.00 | EST. 20+00.00 km 0+400.00 | EST. 21+00.00 km 0+420.00 | EST. 22+00.00 km 0+440.00 | EST. 23+00.00 km 0+460.00 | EST. 24+00.00 km 0+480.00 | EST. 25+00.00 km 0+500.00 | EST. 26+00.00 km 0+520.00 | EST. 27+00.00 km 0+540.00 | EST. 28+00.00 km 0+560.00 | EST. 29+00.00 km 0+580.00 | EST. 30+00.00 km 0+600.00 | EST. 31+00.00 km 0+620.00 | EST. 32+00.00 km 0+640.00 | EST. 33+00.00 km 0+660.00 | EST. 34+00.00 km 0+680.00 | EST. 35+00.00 km 0+700.00 |
|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | 5,90 | 6,27 | 5,93 | 6,09 | 6,30 | 6,27 | 6,23 | 6,10 | 6,13 | 6,09 | 6,06 | 5,98 | 5,90 | 5,90 | 5,98 | 6,09 | 6,18 | 6,24 | 6,24 | 6,12 | 5,69 | 5,33 | 5,37 | 5,60 | 5,68 | 5,83 | 5,89 | 5,91 | 5,64 | 5,97 | 6,11 | 6,25 | 6,16 | 5,79 | 6,00 | |
| | 6,000 | 6,003 | 6,006 | 6,009 | 6,012 | 6,015 | 6,017 | 6,020 | 6,023 | 6,026 | 6,029 | 6,032 | 6,035 | 6,038 | 6,041 | 6,044 | 6,047 | 6,049 | 6,052 | 6,055 | 6,058 | 6,061 | 6,064 | 6,067 | 6,070 | 6,073 | 6,076 | 6,079 | 6,081 | 6,084 | 6,087 | 6,091 | 6,093 | 6,096 | 6,099 | 6,102 |

i=0,015%
d=3440,00m

- LEGENDA**
- GREIDE
 - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - CURSO D'ÁGUA
 - EIXO PROJETADO
 - ▨ TALUDE
 - - - OLEODUTO ORNIT 6"
 - - - GASODUTO 16"

| PIn | Estaqueamento | | Parâmetros da Curva | | | |
|-----|---------------|-------------|---------------------|-----|-------|-------|
| | PC/TE | PT/ET | AC | R | Dc | T |
| 0 | - | - | - | - | - | - |
| 1 | km 0+314,85 | km 0+325,76 | 2°30'3" | 250 | 10,91 | 10,86 |
| 2 | km 0+439,26 | km 0+464,92 | 2°45'59" | 500 | 25,66 | 12,87 |
| 3 | km 0+586,00 | km 0+642,94 | 10°52'25" | 300 | 56,93 | 28,55 |
| 4 | km 1+352,45 | km 1+433,83 | 9°19'32" | 500 | 81,38 | 40,78 |
| 5 | - | - | - | - | - | - |



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS
Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

EMPREENDIMENTO: **URBANIZAÇÃO DA RUA GRAVATAÍ**

ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS

PROJETO: **GEOMÉTRICO**

DISCRIMINAÇÃO DA PRANCHA: **PLANTA DO TRECHO E PERFIL LONGITUDINAL**

RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984

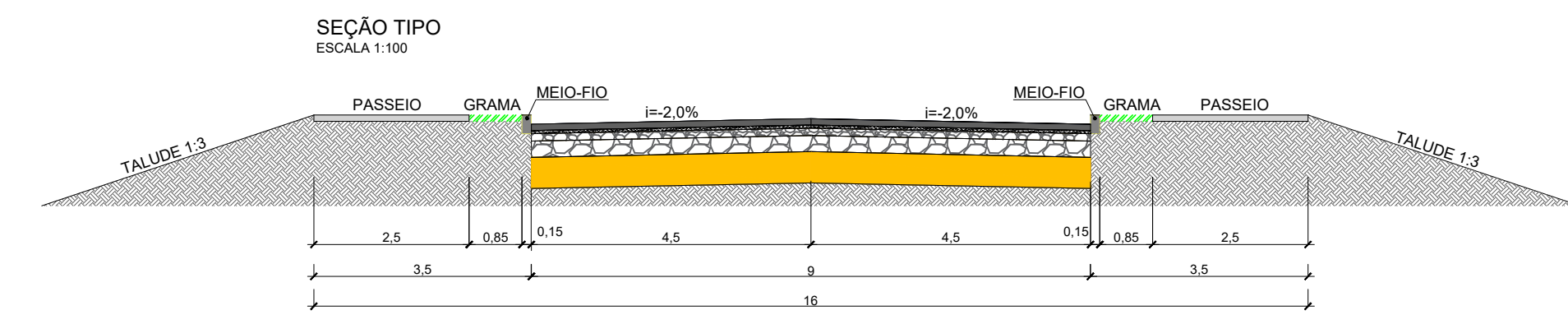
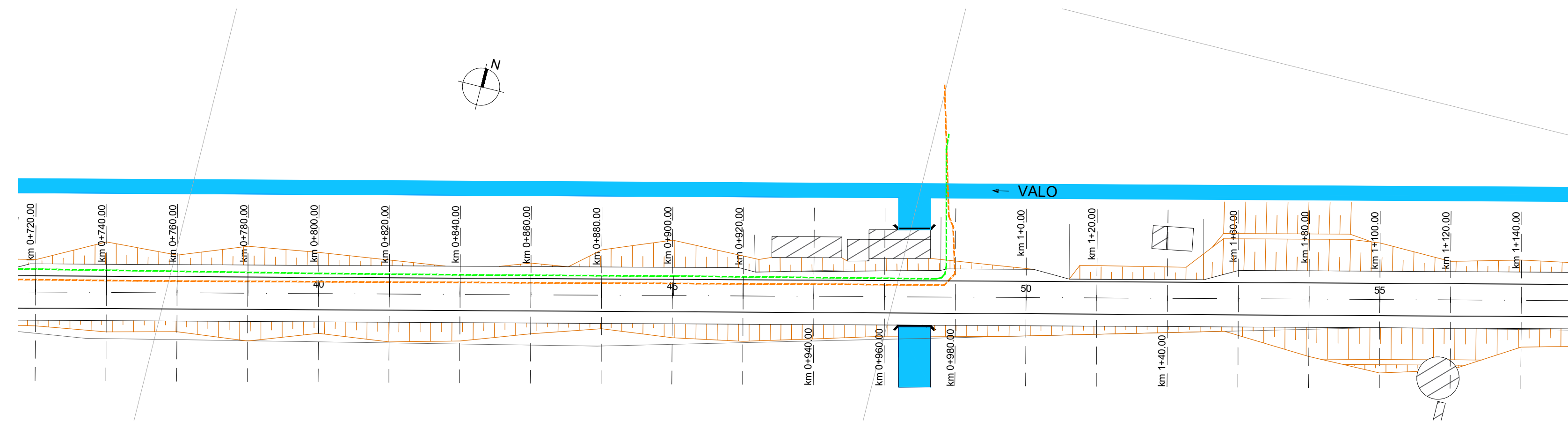
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ÁREA: -

DESENHO: Eng. Elen

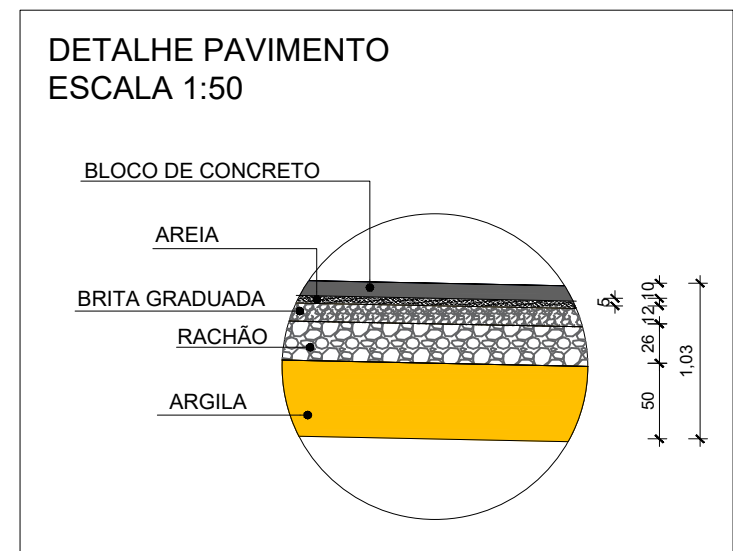
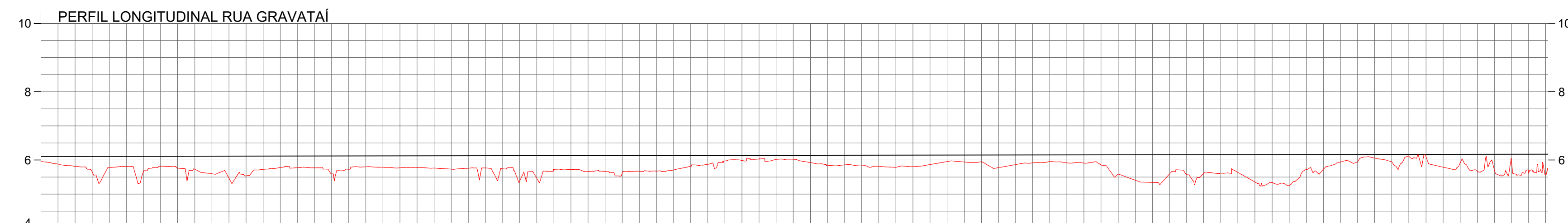
DATA: JUNHO/2022

01/20



PLANILHA FINAL DE COORDENADAS

| PIn | Estaqueamento | | Parâmetros da Curva | | | |
|-----|---------------|-------------|---------------------|-----|-------|-------|
| | PC/TE | PT/ET | AC | R | Dc | T |
| 0 | - | - | - | - | - | - |
| 1 | km 0+314,85 | km 0+325,76 | 2°30'3" | 250 | 10,91 | 10,86 |
| 2 | km 0+439,26 | km 0+464,92 | 2°45'59" | 500 | 25,66 | 12,87 |
| 3 | km 0+586,00 | km 0+642,94 | 10°52'25" | 300 | 56,93 | 28,55 |
| 4 | km 1+352,45 | km 1+433,83 | 9°19'32" | 500 | 81,38 | 40,78 |
| 5 | - | - | - | - | - | - |



| COTAS TERRENO/PROJETO | 5,88 | 6,105 | 5,81 | 6,108 | 5,73 | 6,110 | 5,73 | 6,113 | 5,59 | 6,116 | 5,77 | 6,119 | 5,76 | 6,122 | 5,46 | 6,125 | 5,67 | 6,128 | 5,71 | 6,131 | 5,99 | 6,134 | 5,93 | 6,137 | 5,81 | 6,140 | 5,95 | 6,142 | 5,87 | 6,145 | 5,91 | 6,148 | 5,34 | 6,151 | 5,61 | 6,154 | 5,25 | 6,157 | 5,94 | 6,160 | 6,10 | 6,163 | 5,71 | 6,166 |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|----------|-------|------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| EST. 36+0,00 | EST. 37+0,00 | EST. 38+0,00 | EST. 39+0,00 | EST. 40+0,00 | EST. 41+0,00 | EST. 42+0,00 | EST. 43+0,00 | EST. 44+0,00 | EST. 45+0,00 | EST. 46+0,00 | EST. 47+0,00 | EST. 48+0,00 | EST. 49+0,00 | EST. 50+0,00 | EST. 51+0,00 | EST. 52+0,00 | EST. 53+0,00 | EST. 54+0,00 | EST. 55+0,00 | EST. 56+0,00 | EST. 57+0,00 | | | | | | | | | | | | | | | | | | | | | | | |
| km 0+720,00 | km 0+740,00 | km 0+760,00 | km 0+780,00 | km 0+800,00 | km 0+820,00 | km 0+840,00 | km 0+860,00 | km 0+880,00 | km 0+900,00 | km 0+920,00 | km 0+940,00 | km 0+960,00 | km 0+980,00 | km 1+000,00 | km 1+020,00 | km 1+040,00 | km 1+060,00 | km 1+080,00 | km 1+100,00 | km 1+120,00 | km 1+140,00 | | | | | | | | | | | | | | | | | | | | | | | |
| INCLINAÇÃO LONGITUDINAL | | | | | | | | | | | | | | | | | | | | | | | i=0,015% | | d=3440,00m | | | | | | | | | | | | | | | | | | | |

- LEGENDA**
- GREIDE
 - - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - ~ CURSO D'ÁGUA
 - EIXO PROJETADO
 - ▨ TALUDE
 - - - - OLEODUTO ORNIT 6"
 - - - - GASODUTO 16"

PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANIZAÇÃO DA RUA GRAVATAÍ

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

EMPREENDIMENTO: **URBANIZAÇÃO DA RUA GRAVATAÍ**

PROJETO: **GEOMÉTRICO**

RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984

DISCRIMINAÇÃO DA PRANCHA: **PLANTA DO TRECHO E PERFIL LONGITUDINAL**

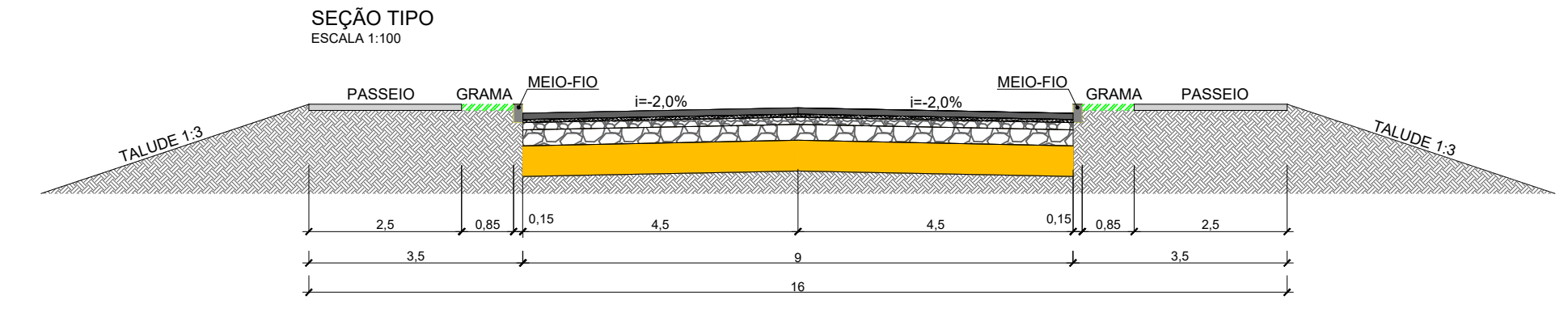
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ÁREA: -

DESENHO: Eng. Elen

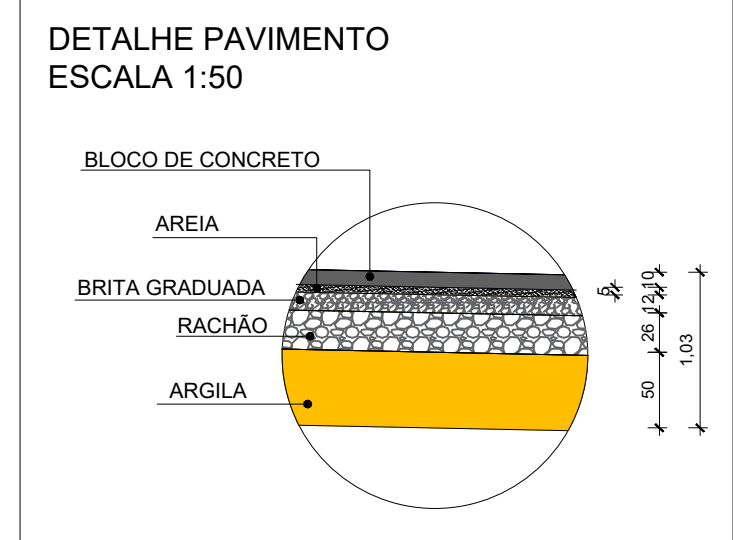
DATA: JUNHO/2022

02/20

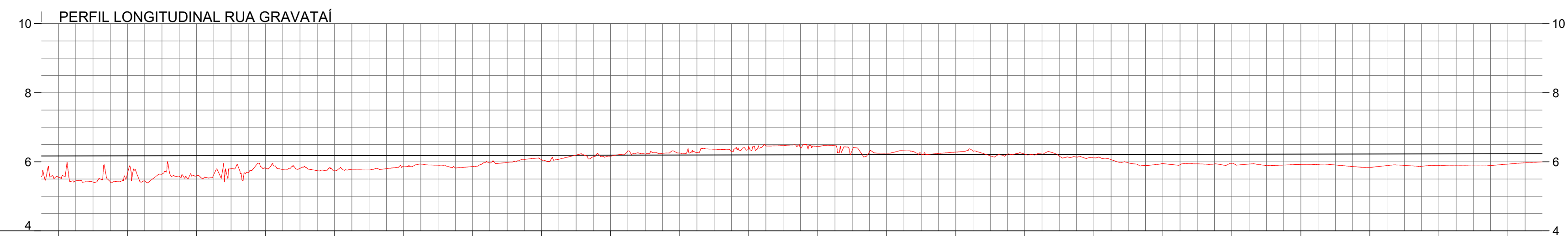


PLANILHA FINAL DE COORDENADAS

| PIn | Estaqueamento | | Parâmetros da Curva | | | |
|-----|---------------|-------------|---------------------|-----|-------|-------|
| | PC/TE | PT/ET | AC | R | Dc | T |
| 0 | - | - | - | - | - | - |
| 1 | km 0+314,85 | km 0+325,76 | 2°30'3" | 250 | 10,91 | 10,86 |
| 2 | km 0+439,26 | km 0+464,92 | 2°45'59" | 500 | 25,66 | 12,87 |
| 3 | km 0+586,00 | km 0+642,94 | 10°52'25" | 300 | 56,93 | 28,55 |
| 4 | km 1+352,45 | km 1+433,83 | 9°19'32" | 500 | 81,38 | 40,78 |
| 5 | - | - | - | - | - | - |



- LEGENDA**
- GREIDE
 - - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - CURSO D'ÁGUA
 - EIXO PROJETADO
 - ▨ TALUDE
 - - - - OLEODUTO ORNIT 6"
 - - - - GASODUTO 16"



| COTAS TERRENO/PROJETO | EST. 58+0.00 km 1+160.00 | EST. 59+0.00 km 1+180.00 | EST. 60+0.00 km 1+200.00 | EST. 61+0.00 km 1+220.00 | EST. 62+0.00 km 1+240.00 | EST. 63+0.00 km 1+260.00 | EST. 64+0.00 km 1+280.00 | EST. 65+0.00 km 1+300.00 | EST. 66+0.00 km 1+320.00 | EST. 67+0.00 km 1+340.00 | EST. 68+0.00 km 1+360.00 | EST. 69+0.00 km 1+380.00 | EST. 70+0.00 km 1+400.00 | EST. 71+0.00 km 1+420.00 | EST. 72+0.00 km 1+440.00 | EST. 73+0.00 km 1+460.00 | EST. 74+0.00 km 1+480.00 | EST. 75+0.00 km 1+500.00 | EST. 76+0.00 km 1+520.00 | EST. 77+0.00 km 1+540.00 | EST. 78+0.00 km 1+560.00 | EST. 79+0.00 km 1+580.00 |
|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 5.55 6.169 | 5.66 6.172 | 5.60 6.174 | 5.82 6.177 | 5.76 6.180 | 5.86 6.183 | 5.86 6.186 | 6.06 6.189 | 6.17 6.192 | 6.25 6.195 | 6.44 6.198 | 6.44 6.201 | 6.25 6.203 | 6.28 6.206 | 6.22 6.209 | 6.11 6.212 | 5.95 6.215 | 5.96 6.218 | 5.92 6.221 | 5.84 6.224 | 5.89 6.227 | 5.93 6.230 |
| INCLINAÇÃO LONGITUDINAL | i=0,015% d=3440,00m | | | | | | | | | | | | | | | | | | | | | |

PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANIZAÇÃO DA RUA GRAVATAÍ

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

EMPREENDIMENTO: **URBANIZAÇÃO DA RUA GRAVATAÍ**

PROJETO: **GEOMÉTRICO**

RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984

DISCRIMINAÇÃO DA PRANCHA: **PLANTA DO TRECHO E PERFIL LONGITUDINAL**

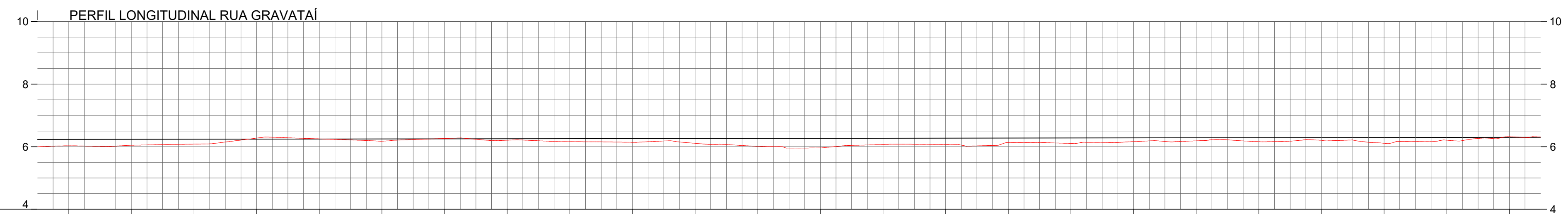
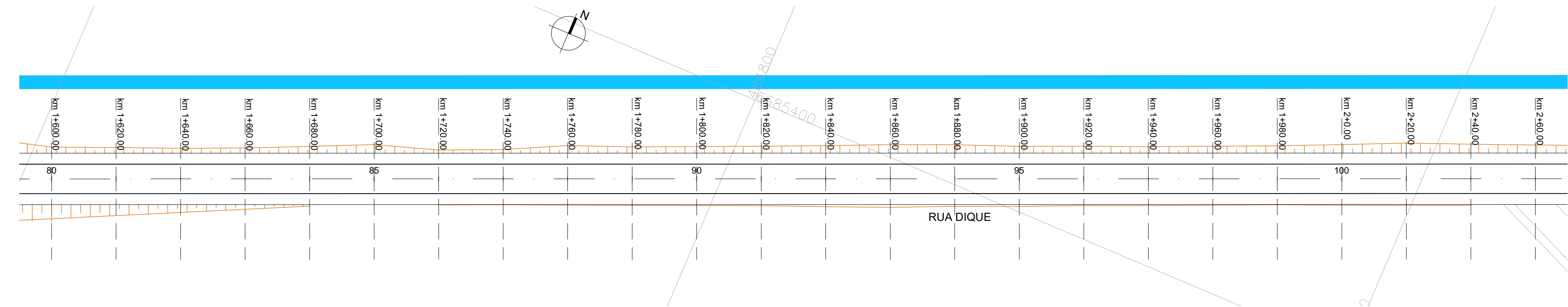
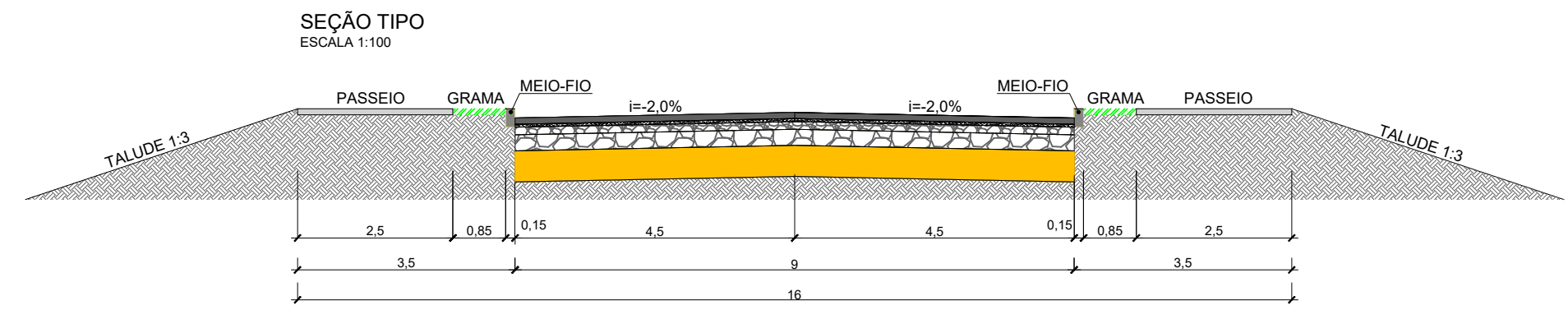
ESCALA: 1:100 / 1:1.000

ÁREA: -

DESENHO: Eng. Elen

DATA: JUNHO/2022

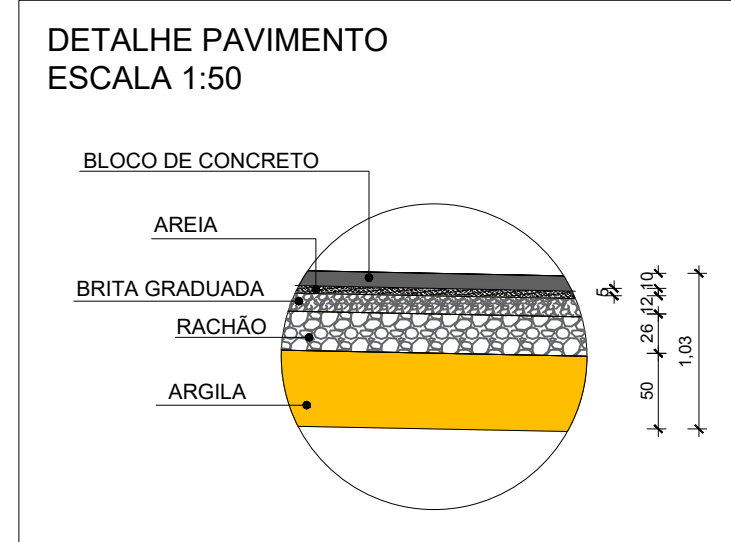
03/20



| COTAS TERRENO/PROJETO | 6.03 | 6.233 | 6.05 | 6.235 | 6.08 | 6.238 | 6.28 | 6.241 | 6.25 | 6.244 | 6.18 | 6.247 | 6.26 | 6.250 | 6.21 | 6.253 | 6.16 | 6.256 | 6.14 | 6.259 | 6.11 | 6.262 | 6.02 | 6.265 | 5.96 | 6.267 | 6.07 | 6.270 | 6.07 | 6.273 | 6.14 | 6.276 | 6.11 | 6.279 | 6.16 | 6.282 | 6.19 | 6.285 | 6.16 | 6.288 | 6.20 | 6.291 | 6.11 | 6.294 | 6.21 | 6.297 | 6.32 | 6.299 |
|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| ESTAQUEAMENTO | EST. 80+0.00 km 1+600.00 | EST. 81+0.00 km 1+620.00 | EST. 82+0.00 km 1+640.00 | EST. 83+0.00 km 1+660.00 | EST. 84+0.00 km 1+680.00 | EST. 85+0.00 km 1+700.00 | EST. 86+0.00 km 1+720.00 | EST. 87+0.00 km 1+740.00 | EST. 88+0.00 km 1+760.00 | EST. 89+0.00 km 1+780.00 | EST. 90+0.00 km 1+800.00 | EST. 91+0.00 km 1+820.00 | EST. 92+0.00 km 1+840.00 | EST. 93+0.00 km 1+860.00 | EST. 94+0.00 km 1+880.00 | EST. 95+0.00 km 1+900.00 | EST. 96+0.00 km 1+920.00 | EST. 97+0.00 km 1+940.00 | EST. 98+0.00 km 1+960.00 | EST. 99+0.00 km 1+980.00 | EST. 100+0.00 km 2+000.00 | EST. 101+0.00 km 2+200.00 | EST. 102+0.00 km 2+400.00 | EST. 103+0.00 km 2+600.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| INCLINAÇÃO LONGITUDINAL | | | | | | | | | | | | | | | | | | | | | | | | | i=0,015% d=3440,00m | | | | | | | | | | | | | | | | | | | | | | | |

LEGENDA

- GREIDE
- - - TERRENO NATURAL
- ▨ EDIFICAÇÃO
- ~ CURSO D'ÁGUA
- EIXO PROJETADO
- ▤ TALUDE
- - - OLEODUTO ORNIT 6"
- - - GASODUTO 16"



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

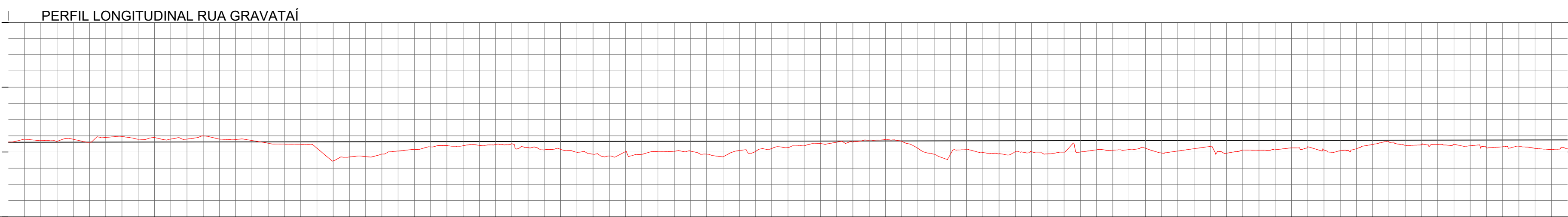
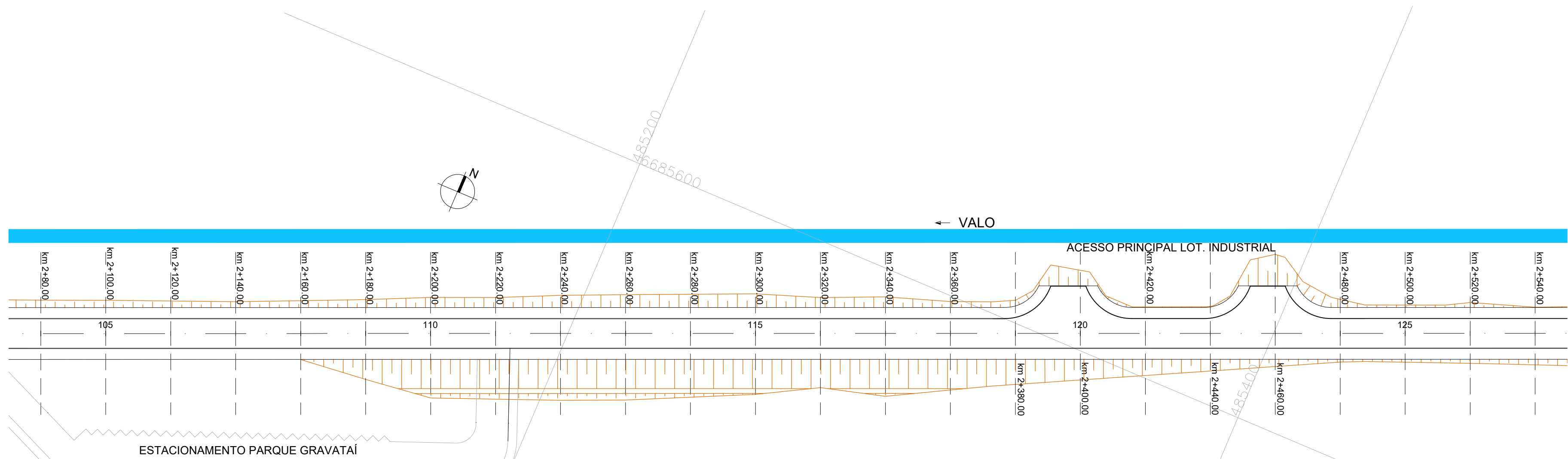
Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANIZAÇÃO DA RUA GRAVATAÍ

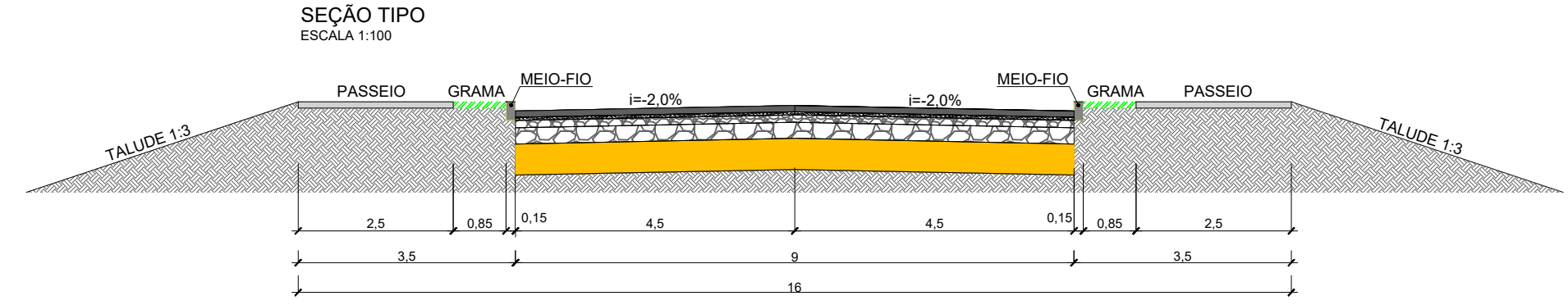
ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

| | | | |
|--|-------|---|------------|
| EMPREENDIMENTO: | | URBANIZAÇÃO DA RUA GRAVATAÍ | |
| PROJETO: | | GEOMÉTRICO | |
| DISCRIMINAÇÃO DA PRANCHA: | | PLANTA DO TRECHO E PERFIL LONGITUDINAL | |
| RESPONSÁVEL TÉCNICO: | | | |
| Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: | ÁREA: | DESENHO: | DATA: |
| 1:100 1:1.000 | - | Eng. Elen | JUNHO/2022 |

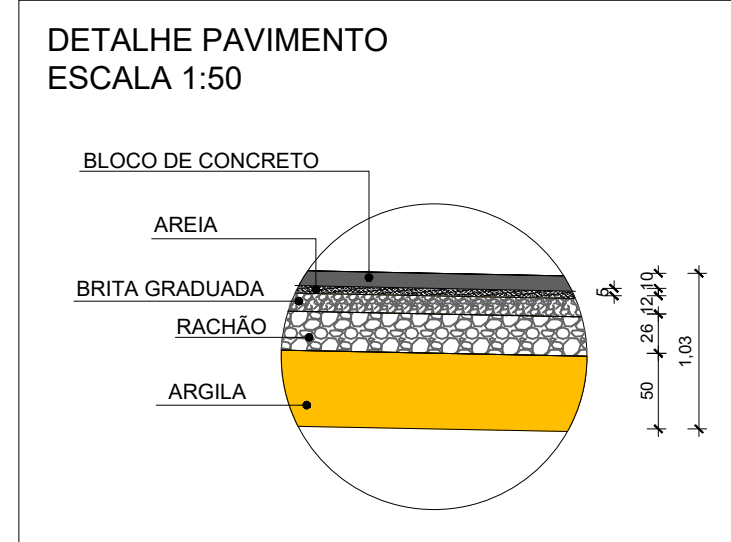
04/20



| COTAS TERRENO/PROJETO | 6.35 | 6.302 | 6.45 | 6.305 | 6.40 | 6.308 | 6.38 | 6.311 | 6.24 | 6.314 | 5.86 | 6.317 | 6.16 | 6.320 | 6.23 | 6.323 | 6.08 | 6.326 | 6.01 | 6.328 | 6.03 | 6.331 | 6.01 | 6.334 | 6.26 | 6.337 | 6.39 | 6.340 | 5.93 | 6.343 | 6.01 | 6.346 | 6.00 | 6.349 | 6.12 | 6.352 | 6.27 | 6.355 | 6.07 | 6.358 | 6.04 | 6.360 | 6.21 | 6.363 | 6.19 | 6.366 | 6.11 | 6.369 |
|-------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| ESTAQUEAMENTO | EST. 104+0.00 km 2+80.00 | EST. 105+0.00 km 2+100.00 | EST. 106+0.00 km 2+120.00 | EST. 107+0.00 km 2+140.00 | EST. 108+0.00 km 2+160.00 | EST. 109+0.00 km 2+180.00 | EST. 110+0.00 km 2+200.00 | EST. 111+0.00 km 2+220.00 | EST. 112+0.00 km 2+240.00 | EST. 113+0.00 km 2+260.00 | EST. 114+0.00 km 2+280.00 | EST. 115+0.00 km 2+300.00 | EST. 116+0.00 km 2+320.00 | EST. 117+0.00 km 2+340.00 | EST. 118+0.00 km 2+360.00 | EST. 119+0.00 km 2+380.00 | EST. 120+0.00 km 2+400.00 | EST. 121+0.00 km 2+420.00 | EST. 122+0.00 km 2+440.00 | EST. 123+0.00 km 2+460.00 | EST. 124+0.00 km 2+480.00 | EST. 125+0.00 km 2+500.00 | EST. 126+0.00 km 2+520.00 | EST. 127+0.00 km 2+540.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| INCLINAÇÃO LONGITUDINAL | | | | | | | | | | | | | | | | | | | | | | | | | i=0,015% d=3440,00m | | | | | | | | | | | | | | | | | | | | | | | |



- LEGENDA**
- GREIDE
 - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - ~ CURSO D'ÁGUA
 - EIXO PROJETADO
 - ▤ TALUDE
 - - - OLEODUTO ORNIT 6"
 - - - GASODUTO 16"



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANA
ENGENHARIA

EMPREENDIMENTO: **URBANIZAÇÃO DO PARQUE E RUA GRAVATAÍ**

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

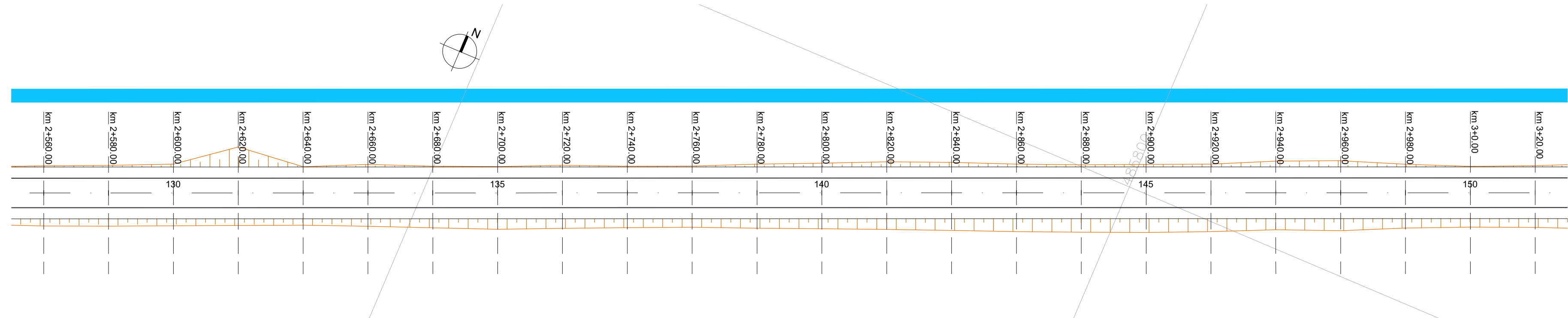
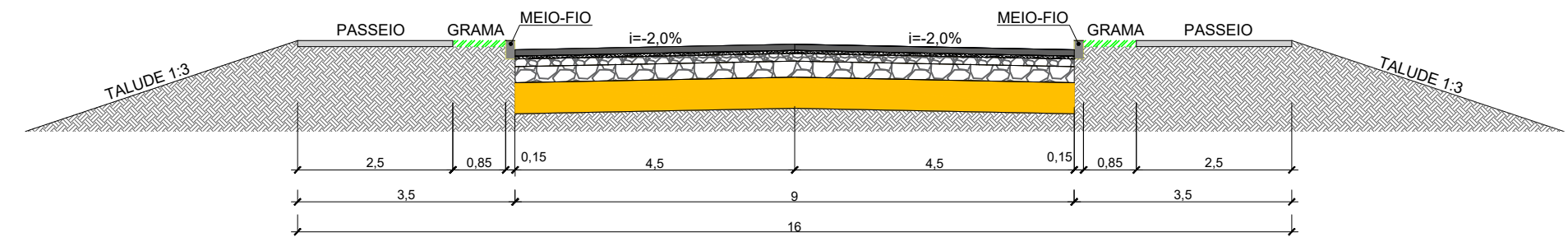
PROJETO: **GEOMÉTRICO** DISCRIMINAÇÃO DA PRANCHA: **PLANTA DO TRECHO E PERFIL LONGITUDINAL**

RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984

| | | | |
|-----------------------------|------------|-----------------------|-----------------------|
| ESCALA: 1:100 1:1.000 | ÁREA: - | DESENHO: Eng. Elen | DATA: JANEIRO/2022 |
|-----------------------------|------------|-----------------------|-----------------------|

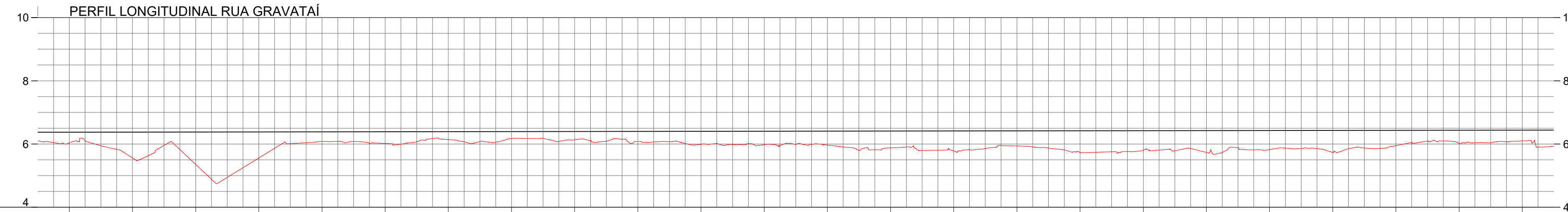
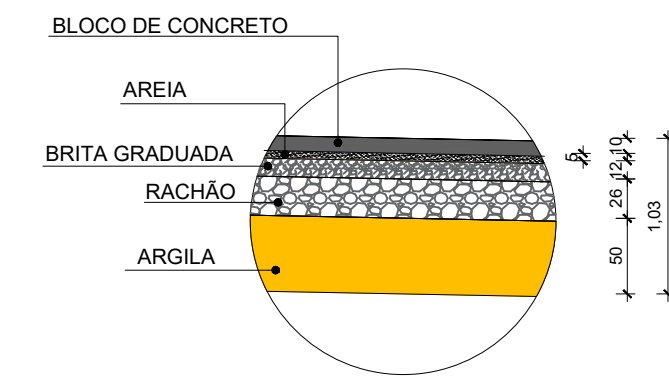
05/20

SEÇÃO TIPO
ESCALA 1:100



- LEGENDA**
- GREIDE
 - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - ~ CURSO D'ÁGUA
 - EIXO PROJETADO
 - ┆ TALUDE
 - - - OLEODUTO ORNIT 6"
 - - - GASODUTO 16"

DETALHE PAVIMENTO
ESCALA 1:50



| COTAS TERRENO/PROJETO | 6.03 6.372 | 5.56 6.375 | 5.96 6.378 | 5.56 6.381 | 6.08 6.384 | 6.02 6.387 | 6.14 6.390 | 6.17 6.392 | 6.13 6.395 | 6.08 6.398 | 5.99 6.401 | 5.98 6.404 | 5.97 6.407 | 5.88 6.410 | 5.78 6.413 | 5.94 6.416 | 5.74 6.419 | 5.80 6.422 | 5.74 6.424 | 5.82 6.427 | 5.73 6.430 | 5.95 6.433 | 6.02 6.436 | 6.10 6.439 |
|-------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| ESTAQUEAMENTO | EST. 128+0.00 km 2+560.00 | EST. 129+0.00 km 2+580.00 | EST. 130+0.00 km 2+600.00 | EST. 131+0.00 km 2+620.00 | EST. 132+0.00 km 2+640.00 | EST. 133+0.00 km 2+660.00 | EST. 134+0.00 km 2+680.00 | EST. 135+0.00 km 2+700.00 | EST. 136+0.00 km 2+720.00 | EST. 137+0.00 km 2+740.00 | EST. 138+0.00 km 2+760.00 | EST. 139+0.00 km 2+780.00 | EST. 140+0.00 km 2+800.00 | EST. 141+0.00 km 2+820.00 | EST. 142+0.00 km 2+840.00 | EST. 143+0.00 km 2+860.00 | EST. 144+0.00 km 2+880.00 | EST. 145+0.00 km 2+900.00 | EST. 146+0.00 km 2+920.00 | EST. 147+0.00 km 2+940.00 | EST. 148+0.00 km 2+960.00 | EST. 149+0.00 km 2+980.00 | EST. 150+0.00 km 3+00.00 | EST. 151+0.00 km 3+20.00 |
| INCLINAÇÃO LONGITUDINAL | i=0,015% d=3440,00m | | | | | | | | | | | | | | | | | | | | | | | |

PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

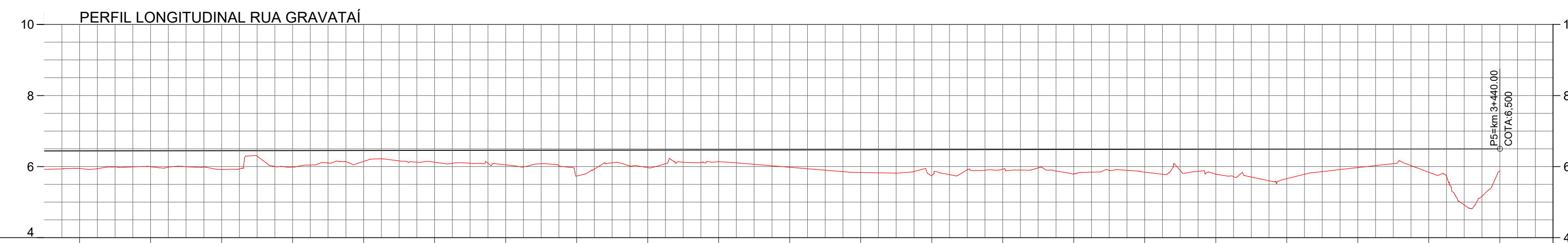
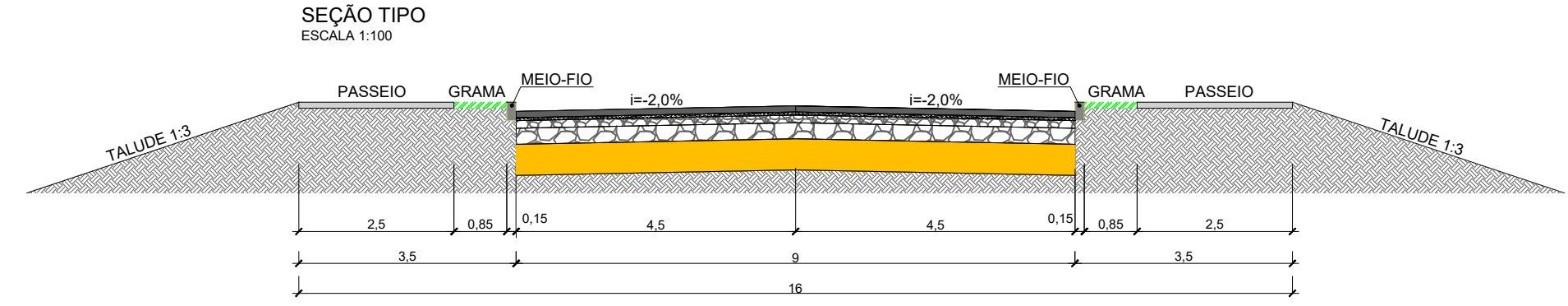
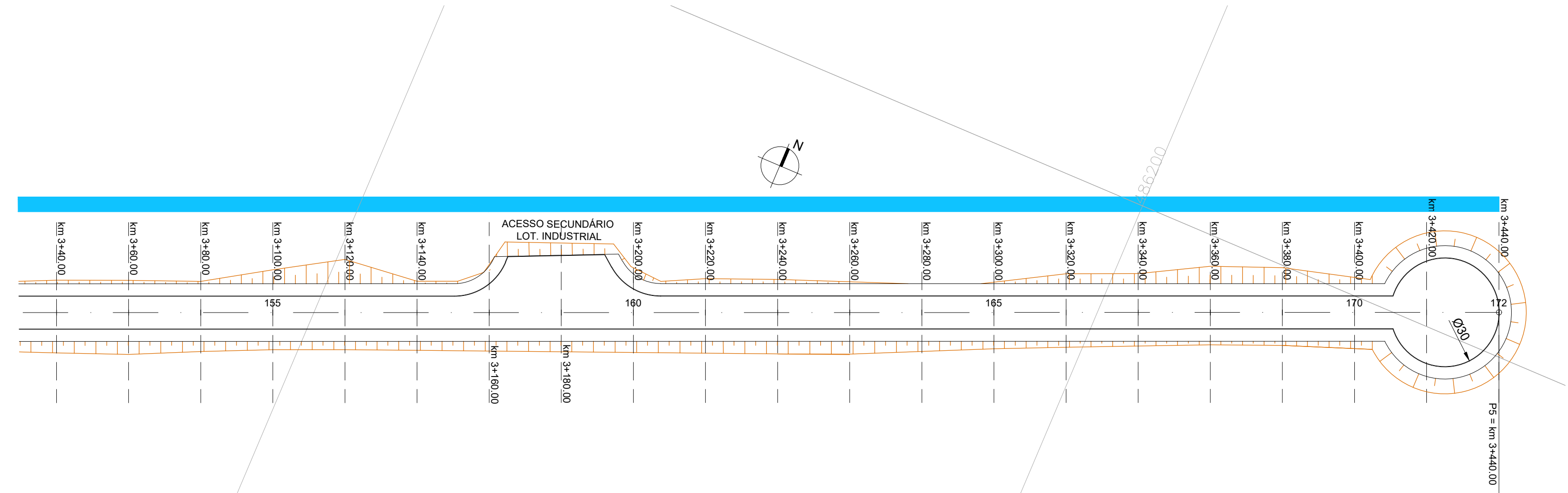
Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANIZAÇÃO DA RUA GRAVATAÍ

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

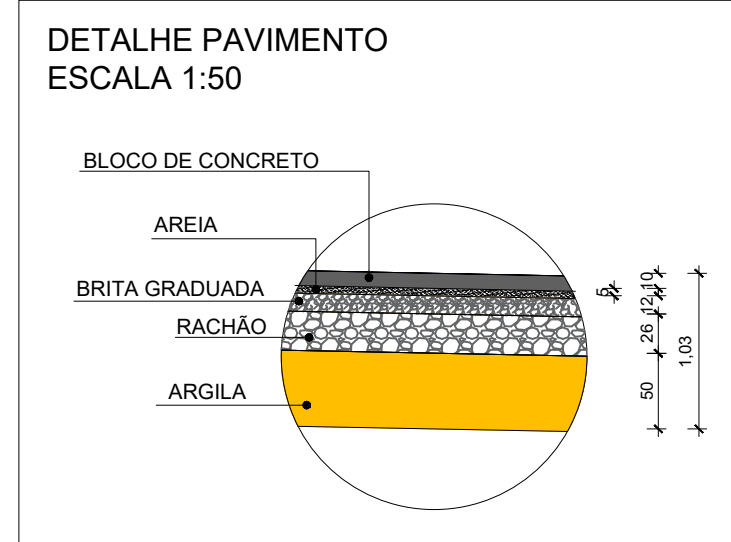
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|--|------------|------------------------------------|--|
| EMPREENDIMENTO: | | URBANIZAÇÃO DA RUA GRAVATAÍ | |
| PROJETO: | | GEOMÉTRICO | DISCRIMINAÇÃO DA PRANCHA: PLANTA DO TRECHO E PERFIL LONGITUDINAL |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:100 1:1.000 | ÁREA: - | DESENHO: Eng. Elen | DATA: JUNHO/2022 |

06/20



| COTAS TERRENO/PROJETO | 5.95 6.442 | 6.00 6.445 | 5.92 6.448 | 5.99 6.450 | 6.15 6.453 | 6.12 6.456 | 6.05 6.459 | 5.73 6.462 | 5.97 6.465 | 6.14 6.468 | 5.98 6.471 | 5.83 6.474 | 5.75 6.477 | 5.93 6.480 | 5.79 6.483 | 5.84 6.485 | 5.79 6.488 | 5.66 6.491 | 5.97 6.494 | 5.84 6.497 | 5.86 6.500 |
|-------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| ESTAQUEAMENTO | EST. 152+0.00 km 3+40.00 | EST. 153+0.00 km 3+60.00 | EST. 154+0.00 km 3+80.00 | EST. 155+0.00 km 3+100.00 | EST. 156+0.00 km 3+120.00 | EST. 157+0.00 km 3+140.00 | EST. 158+0.00 km 3+160.00 | EST. 159+0.00 km 3+180.00 | EST. 160+0.00 km 3+200.00 | EST. 161+0.00 km 3+220.00 | EST. 162+0.00 km 3+240.00 | EST. 163+0.00 km 3+260.00 | EST. 164+0.00 km 3+280.00 | EST. 165+0.00 km 3+300.00 | EST. 166+0.00 km 3+320.00 | EST. 167+0.00 km 3+340.00 | EST. 168+0.00 km 3+360.00 | EST. 169+0.00 km 3+380.00 | EST. 170+0.00 km 3+400.00 | EST. 171+0.00 km 3+420.00 | EST. 172+0.00 km 3+440.00 |
| INCLINAÇÃO LONGITUDINAL | i=0,015% d=3440,00m | | | | | | | | | | | | | | | | | | | | |

- LEGENDA**
- GREIDE
 - - - TERRENO NATURAL
 - ▨ EDIFICAÇÃO
 - ~ CURSO D'ÁGUA
 - EIXO PROJETADO
 - ▤ TALUDE
 - - - OLEODUTO ORNIT 6"
 - - - GASODUTO 16"



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

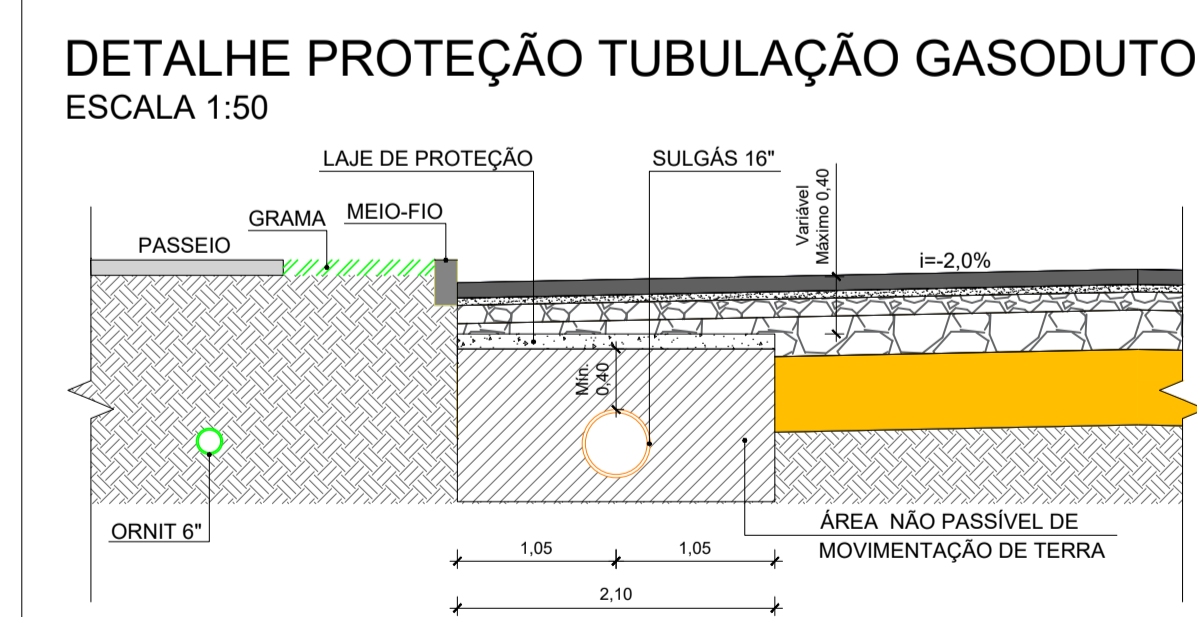
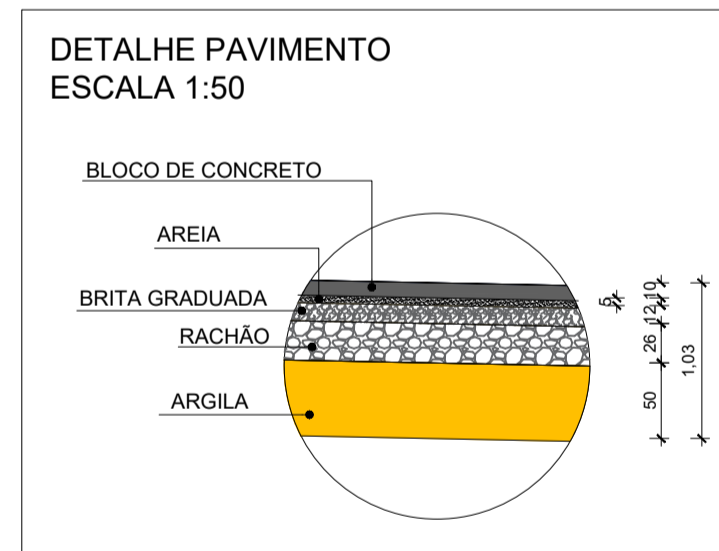
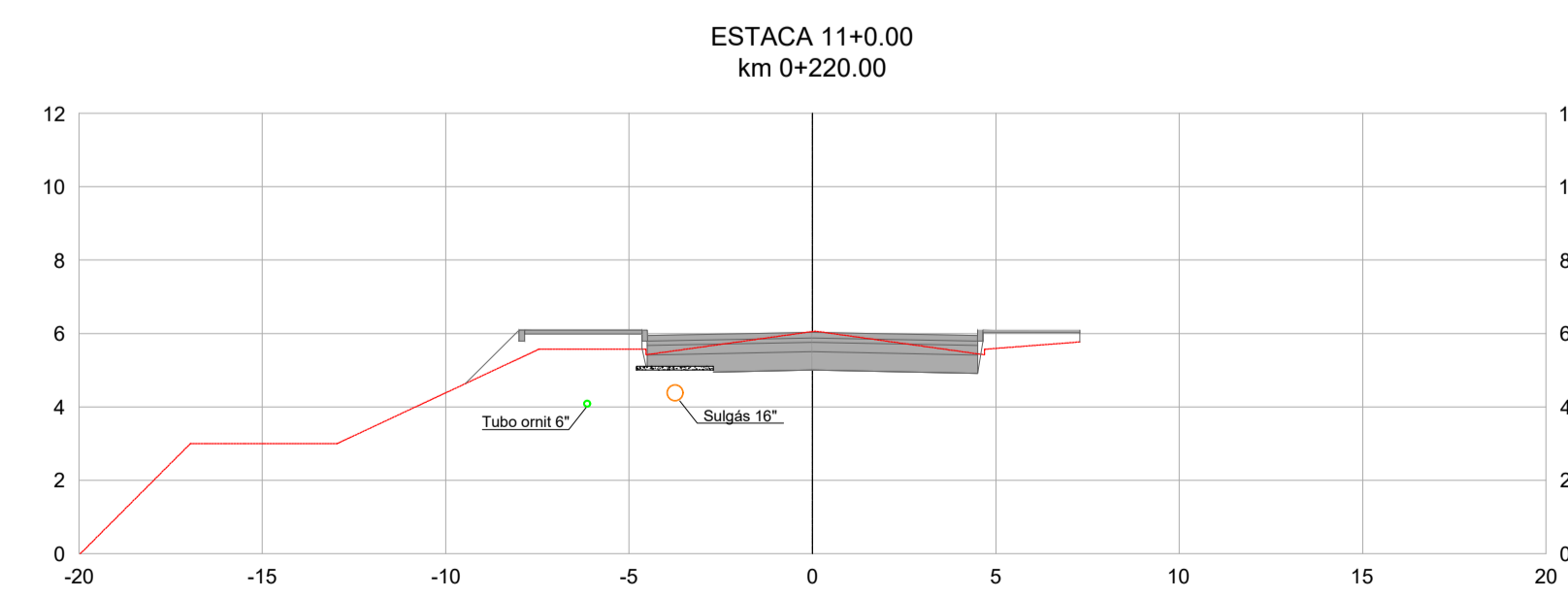
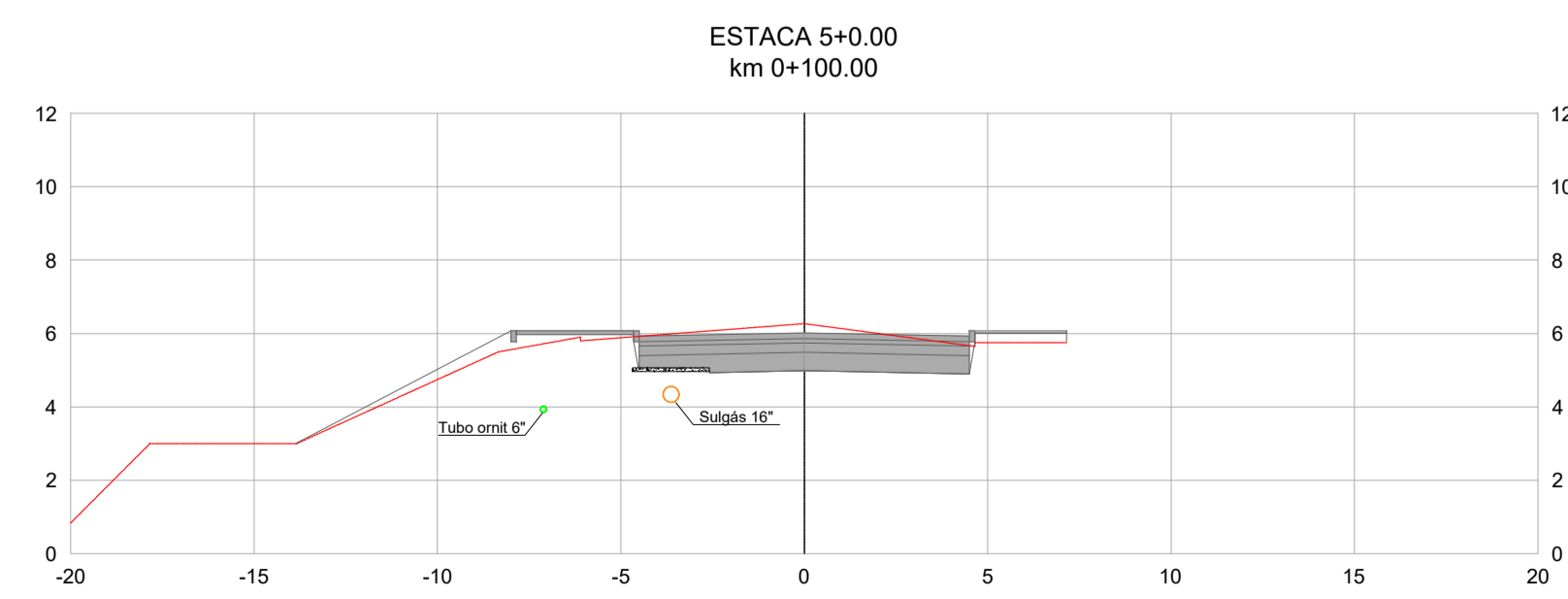
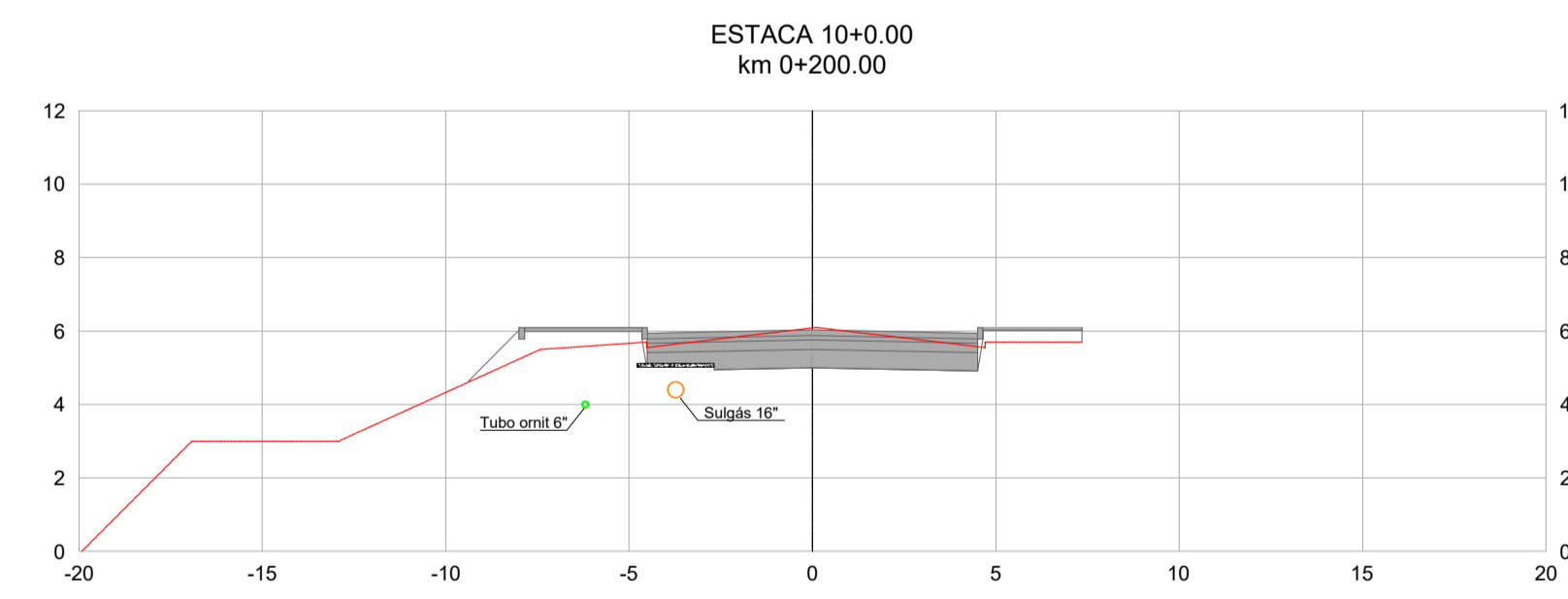
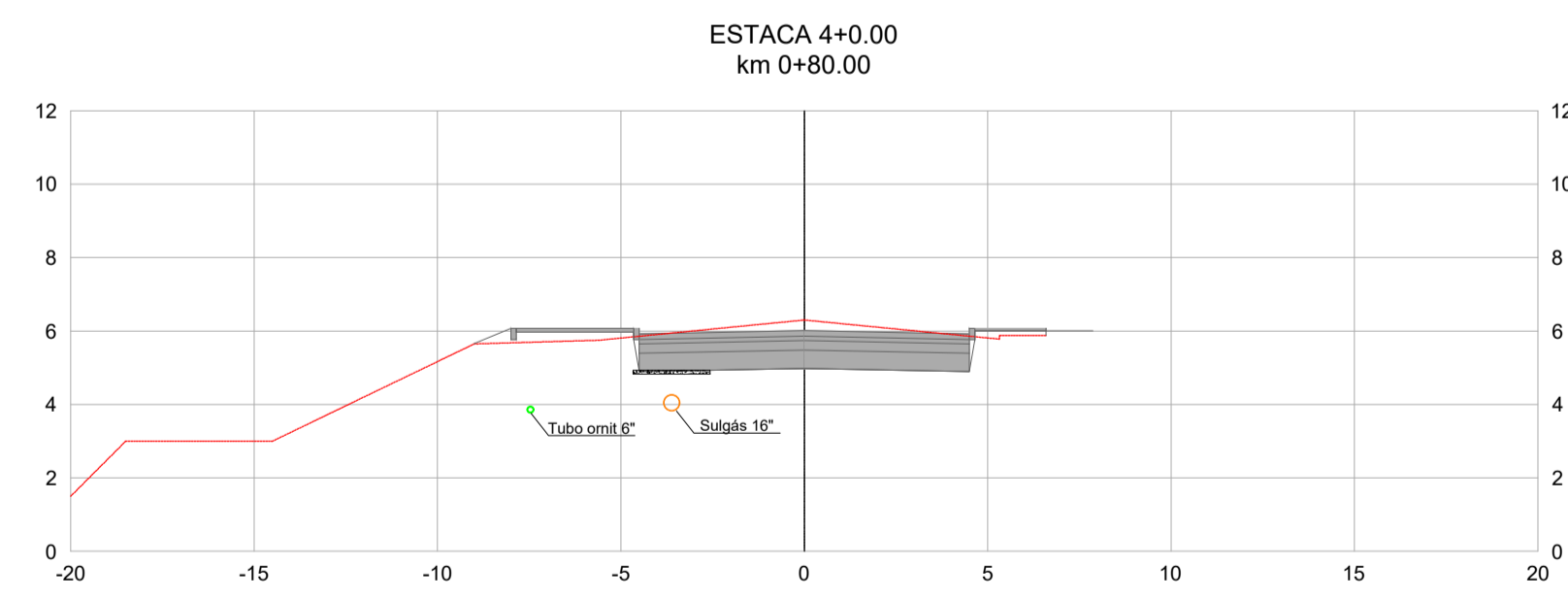
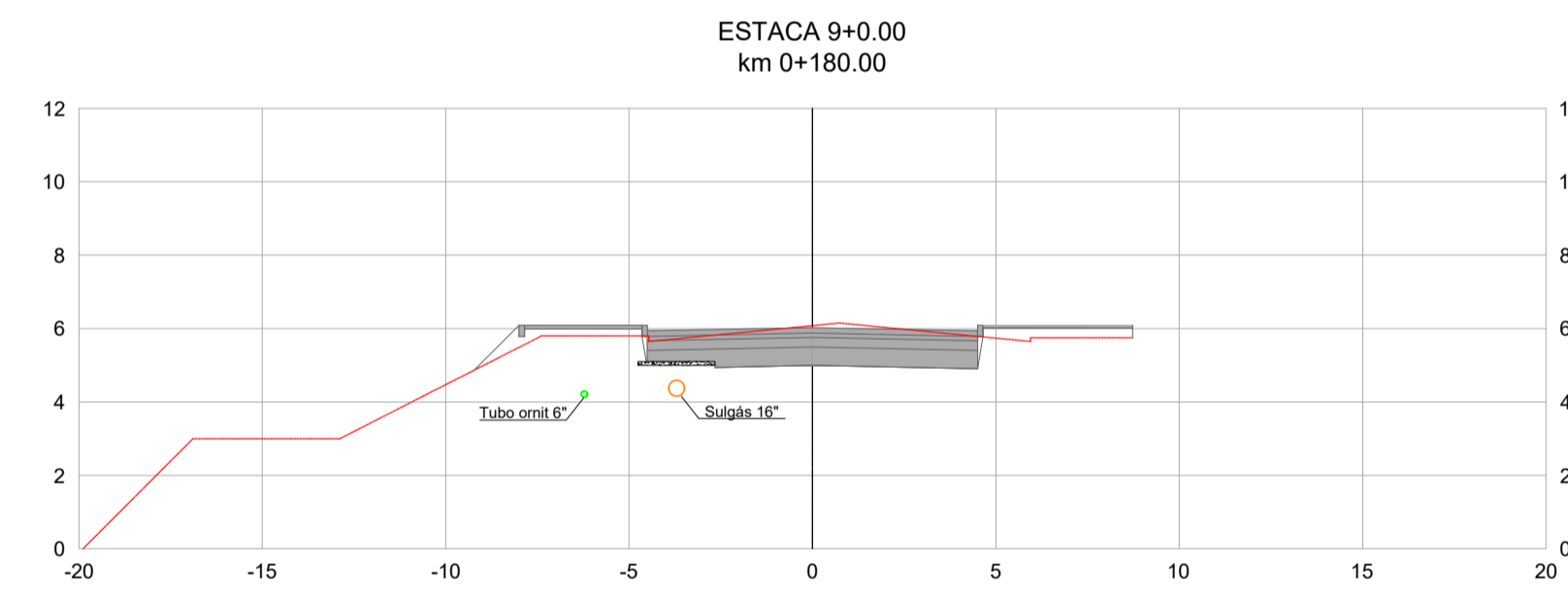
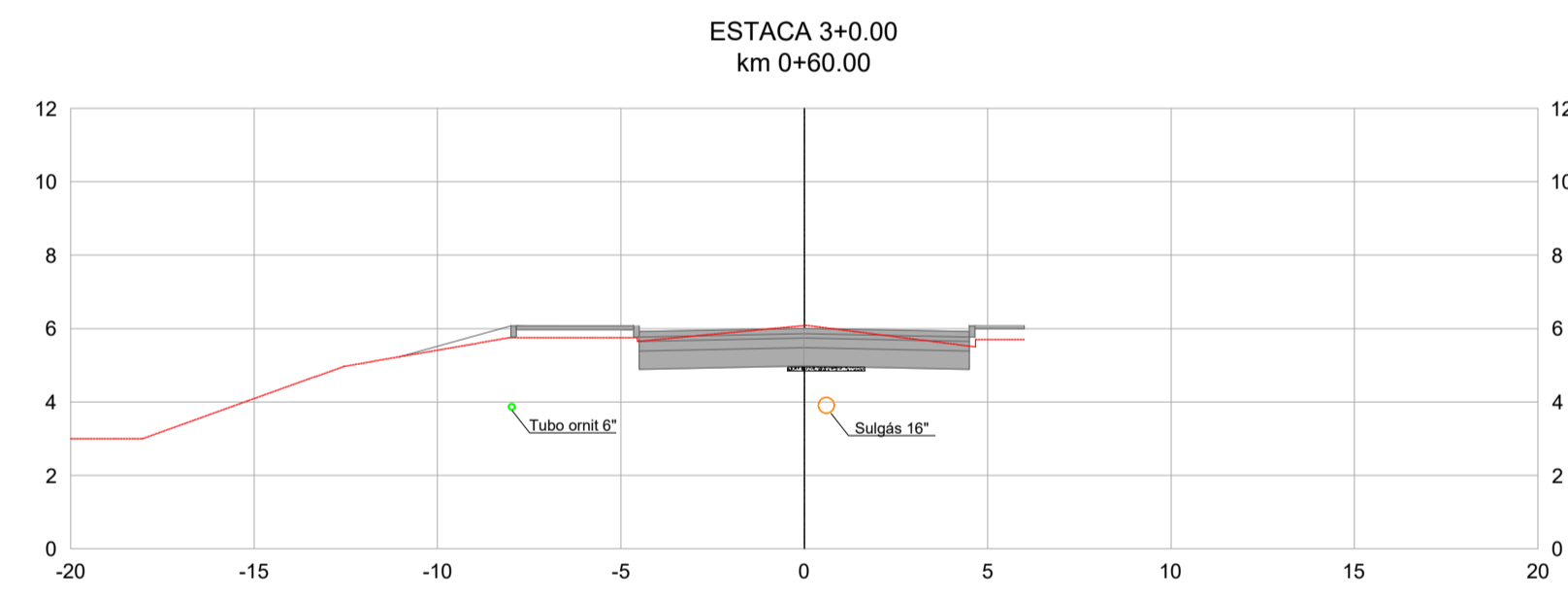
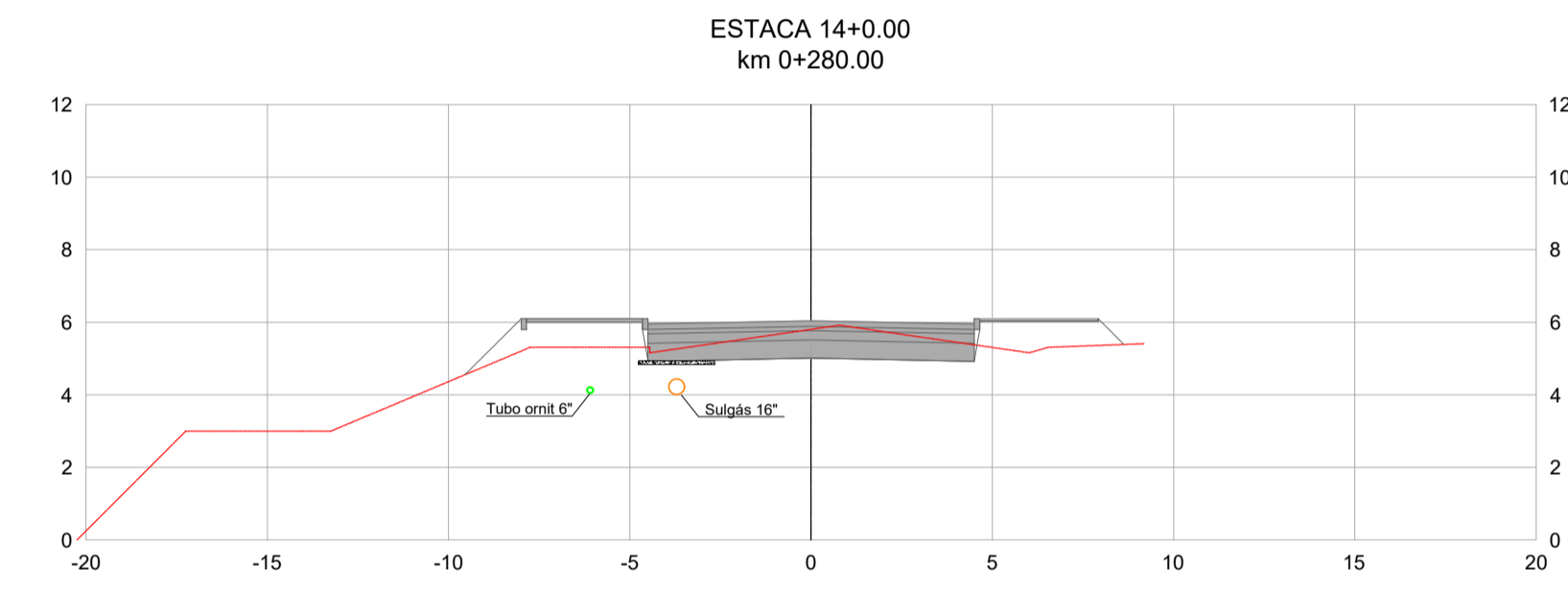
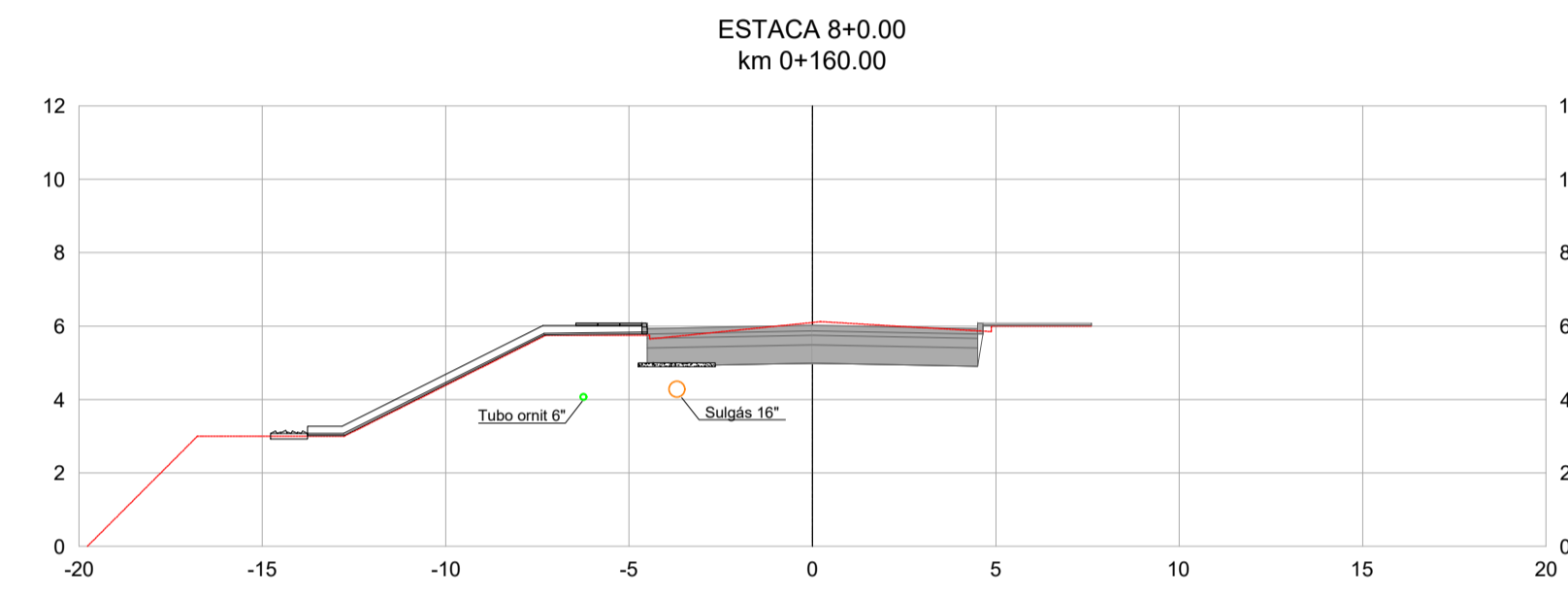
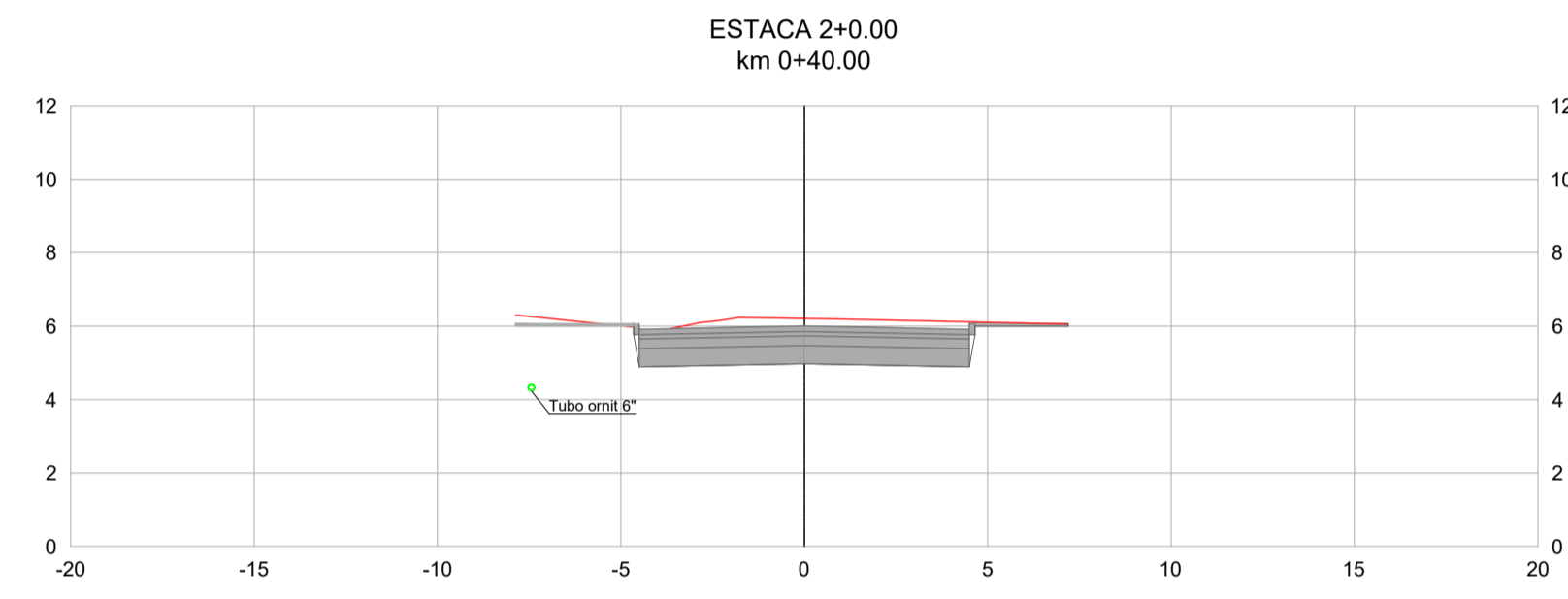
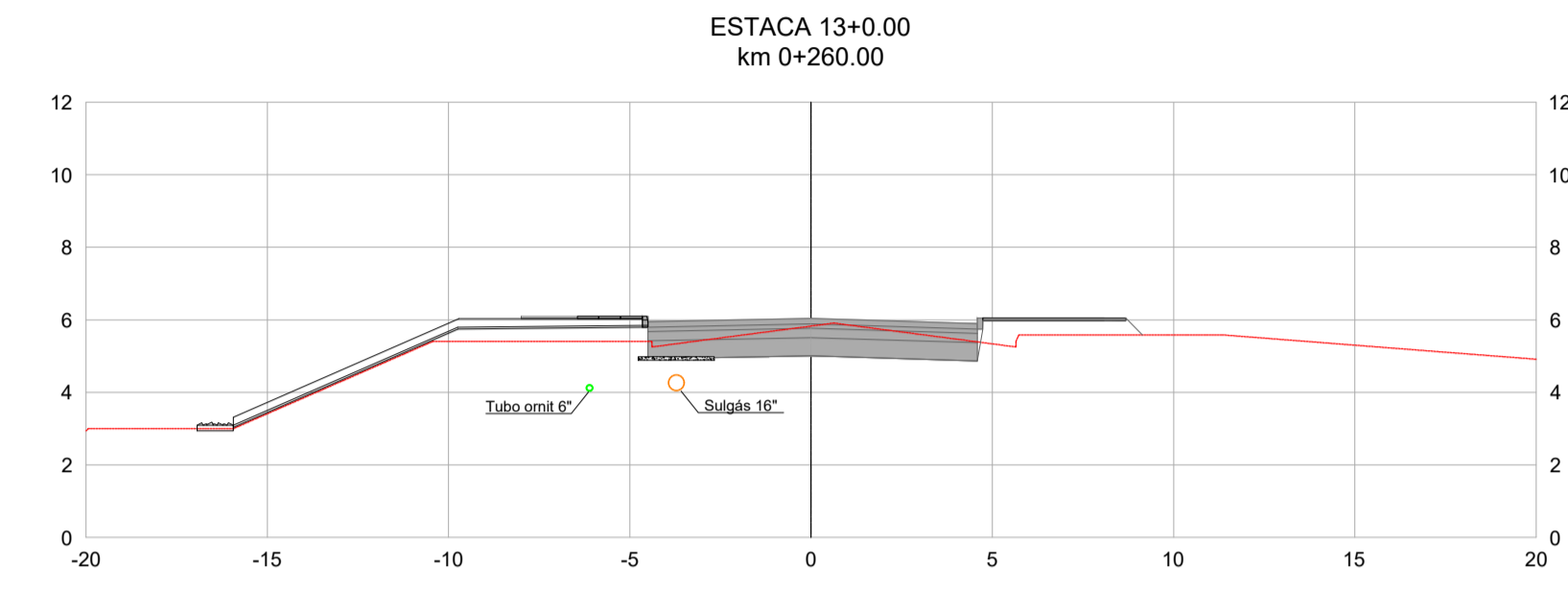
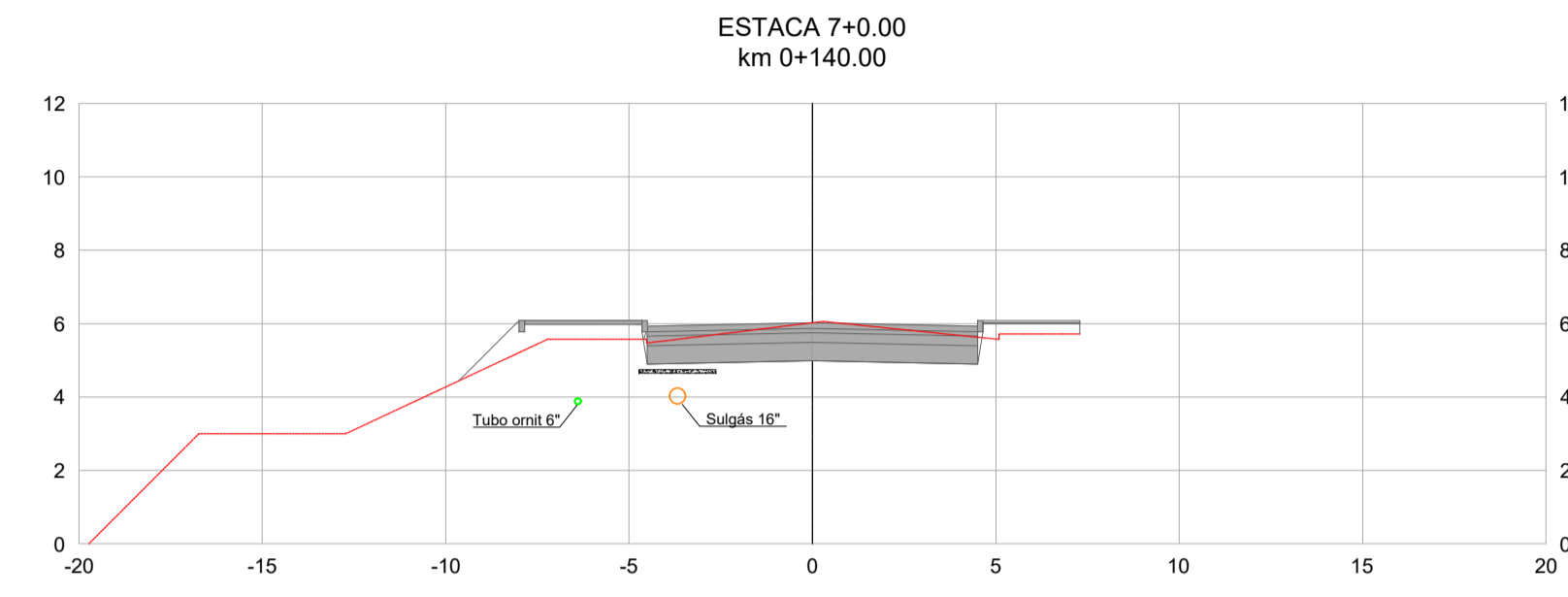
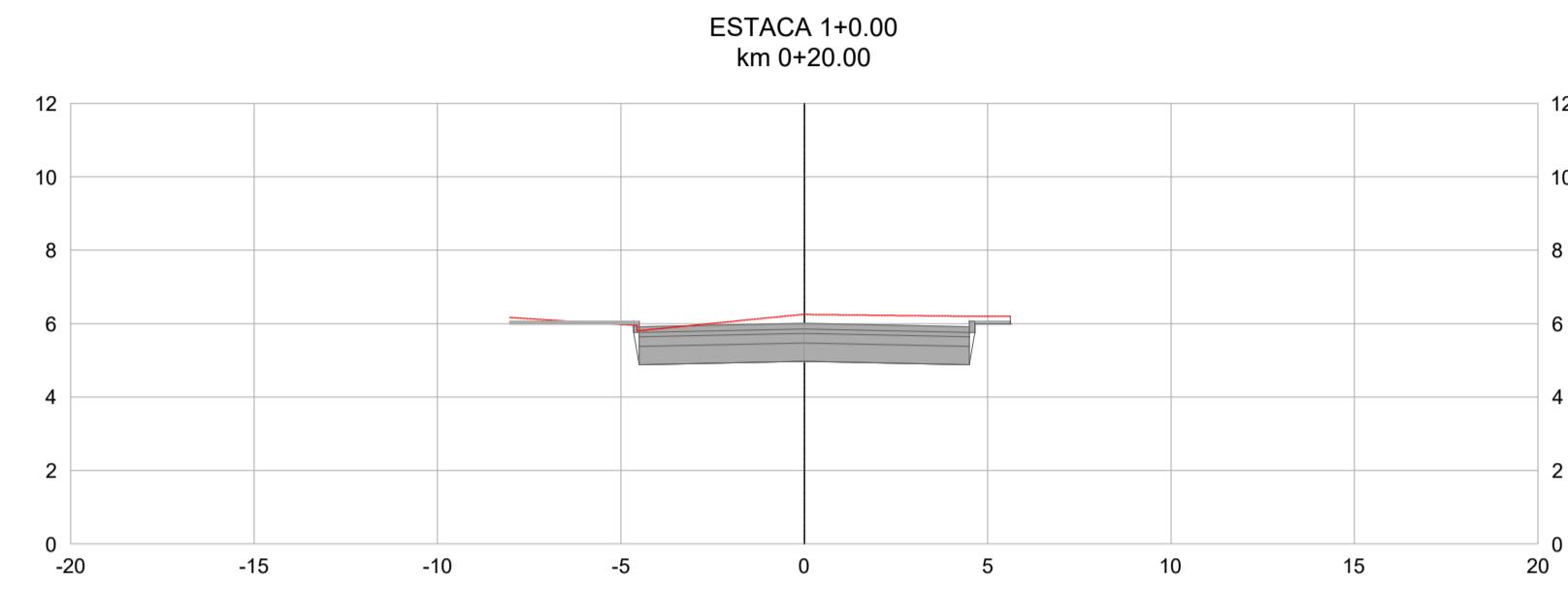
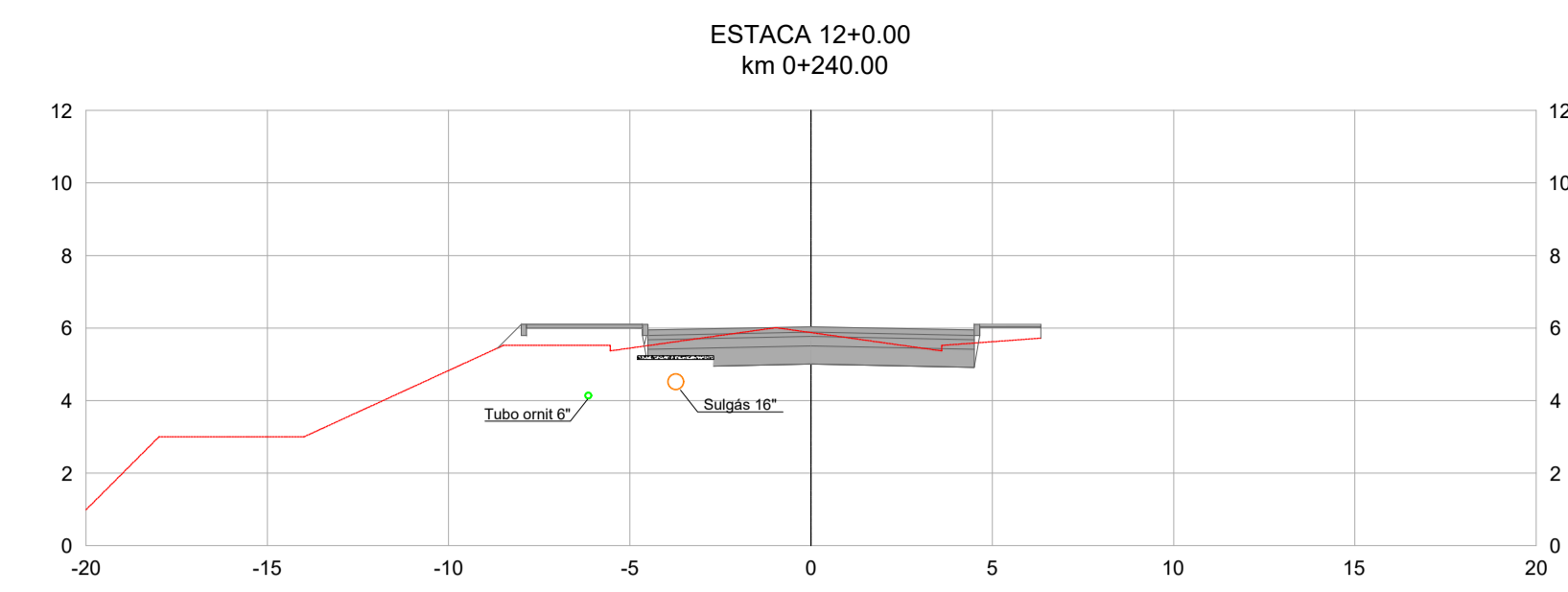
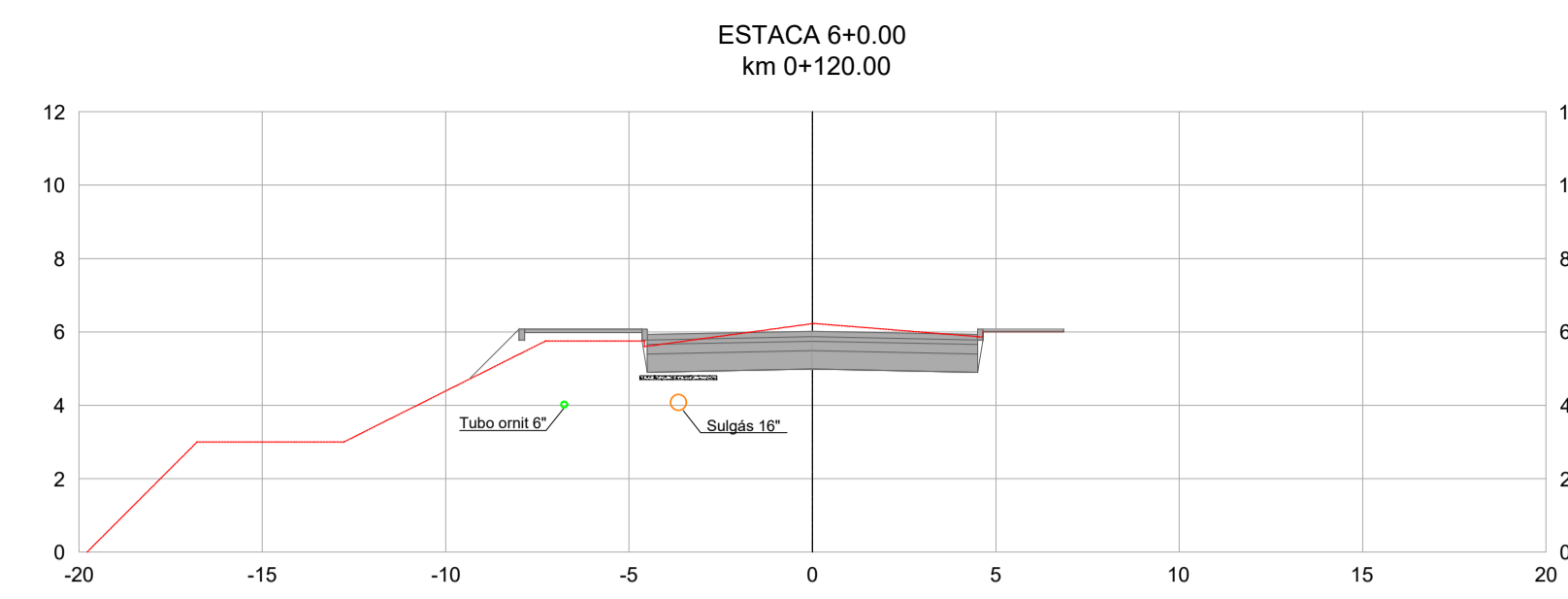
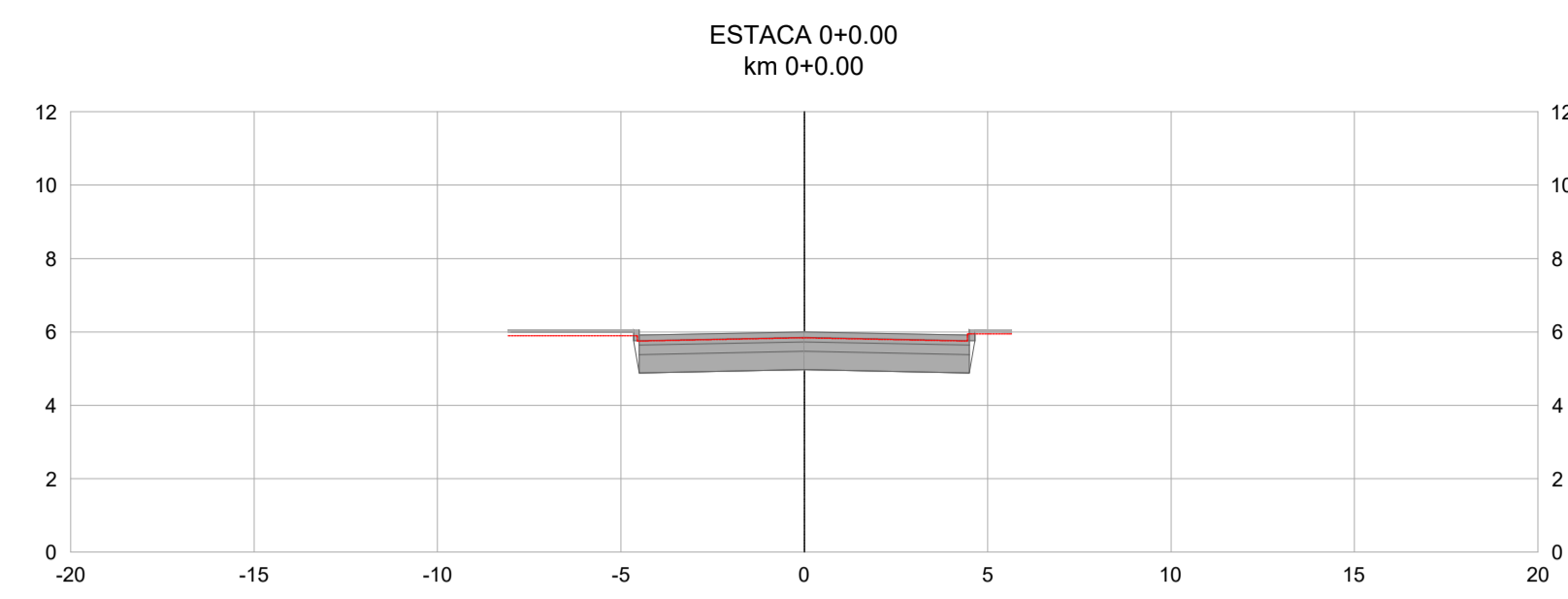
Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

URBANIZAÇÃO DA RUA E PARQUE GRAVATAÍ

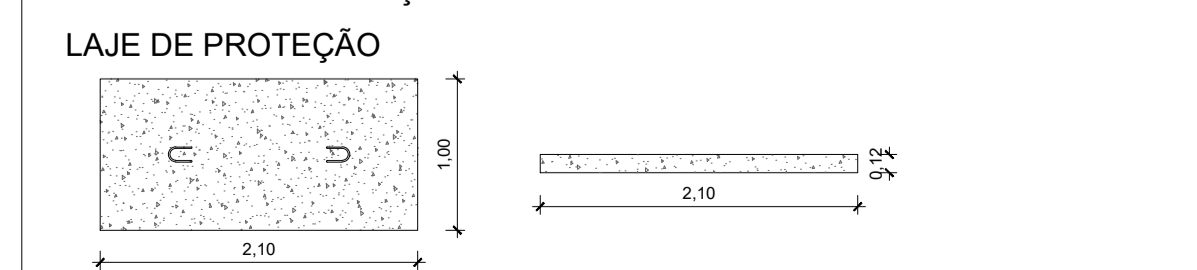
ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS


| | | | |
|--|---|-----------------------|-----------------------|
| PROJETO: GEOMÉTRICO | DISCRIMINAÇÃO DA PRANCHA: PLANTA DO TRECHO E PERFIL LONGITUDINAL | | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:100 1:1.000 | ÁREA: - | DESENHO: Eng. Elen | DATA: JANEIRO/2022 |

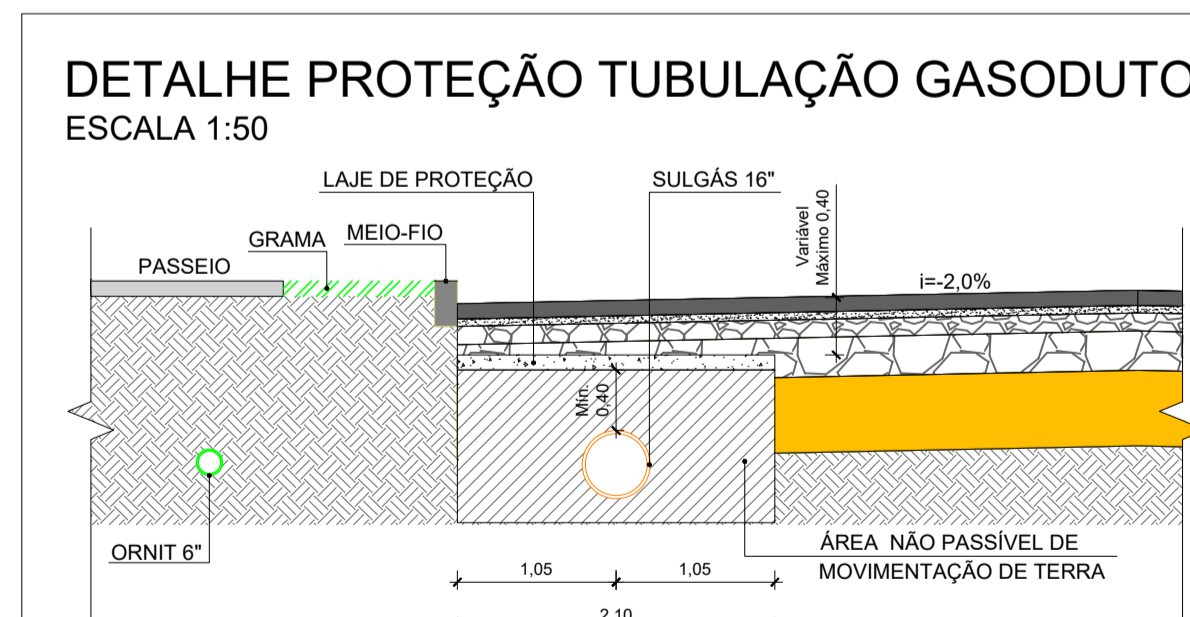
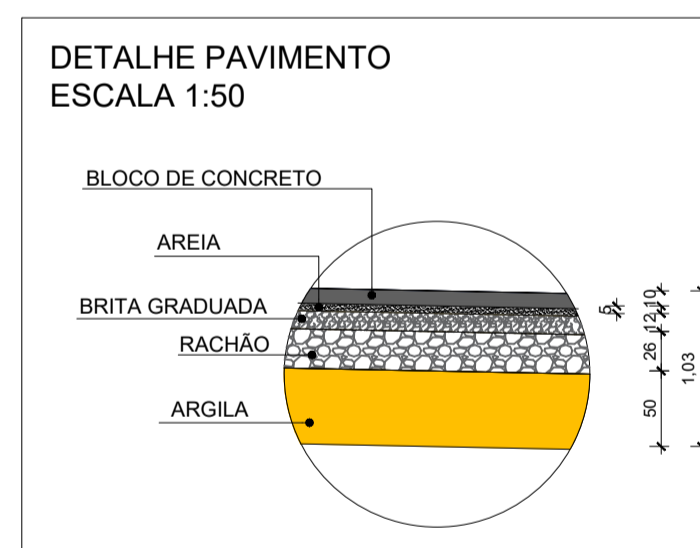
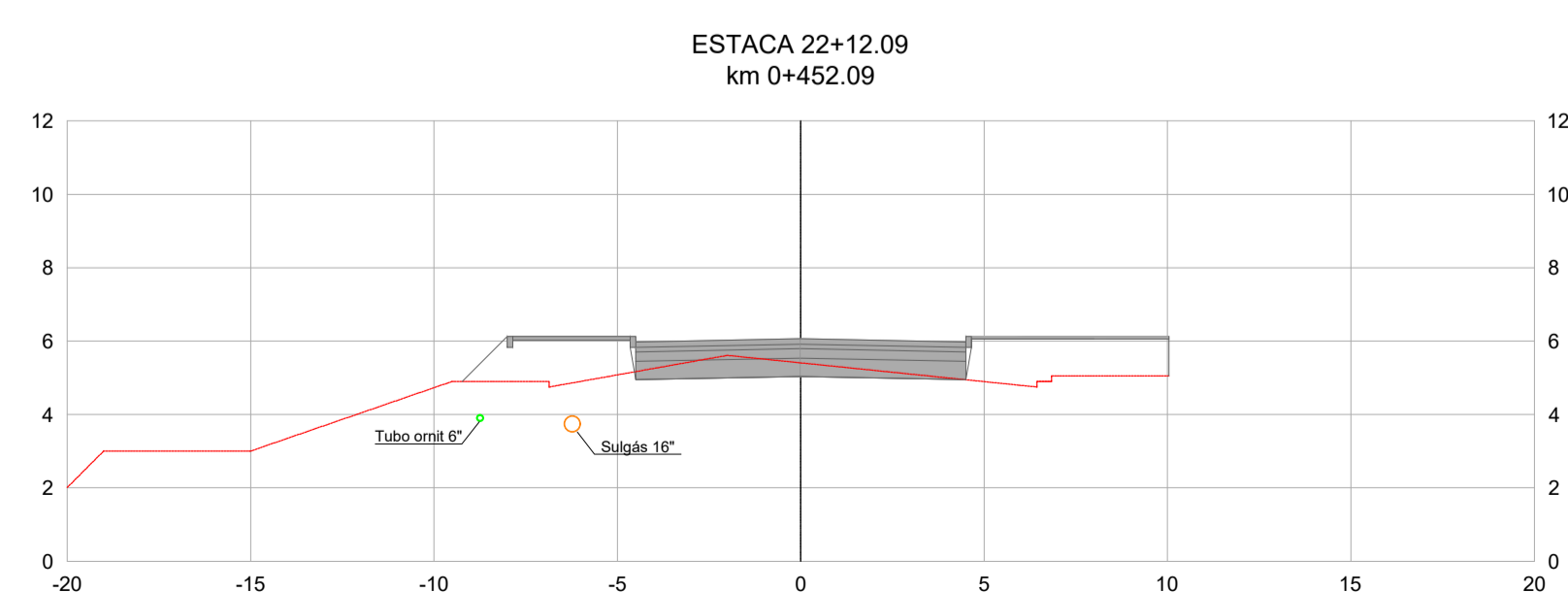
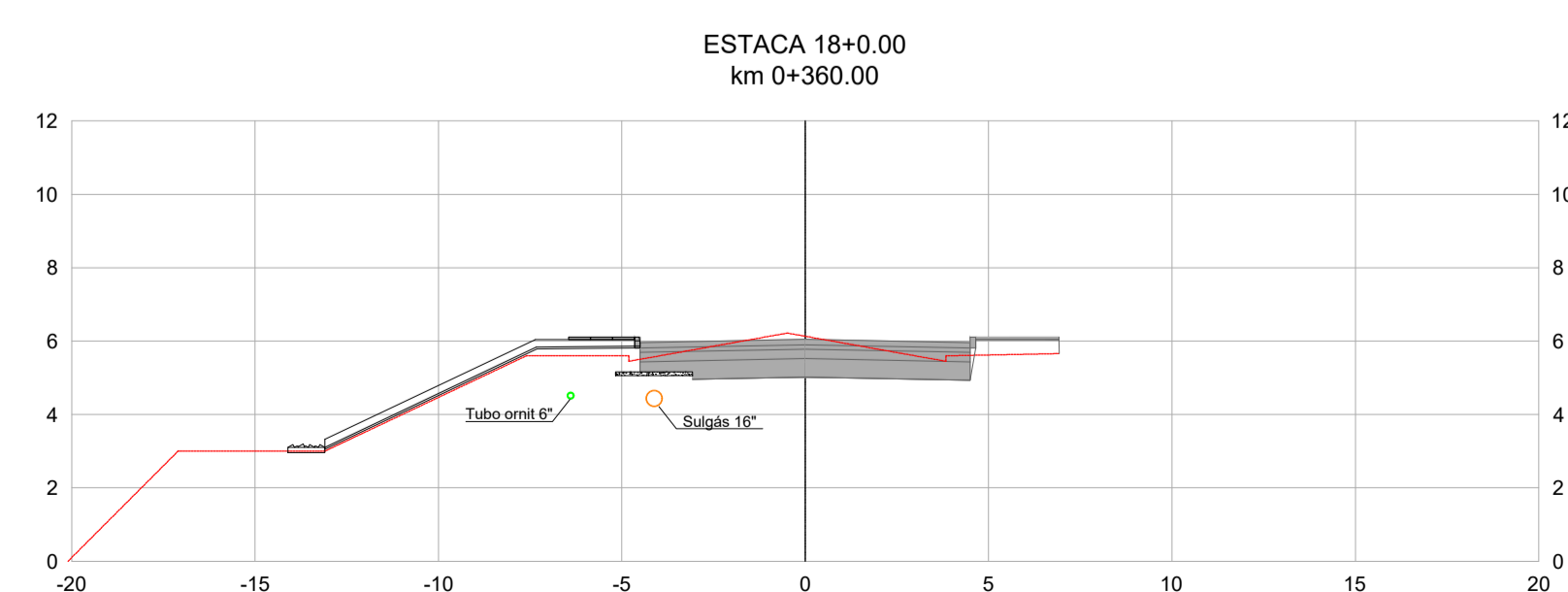
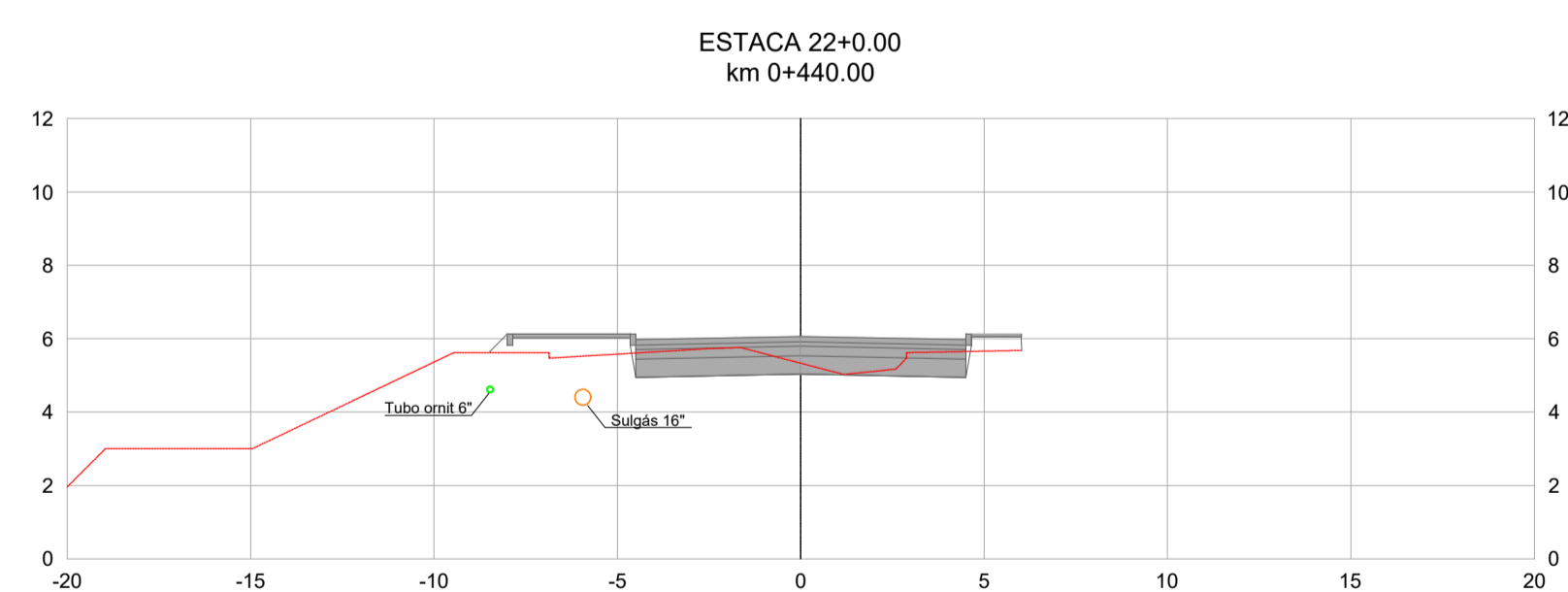
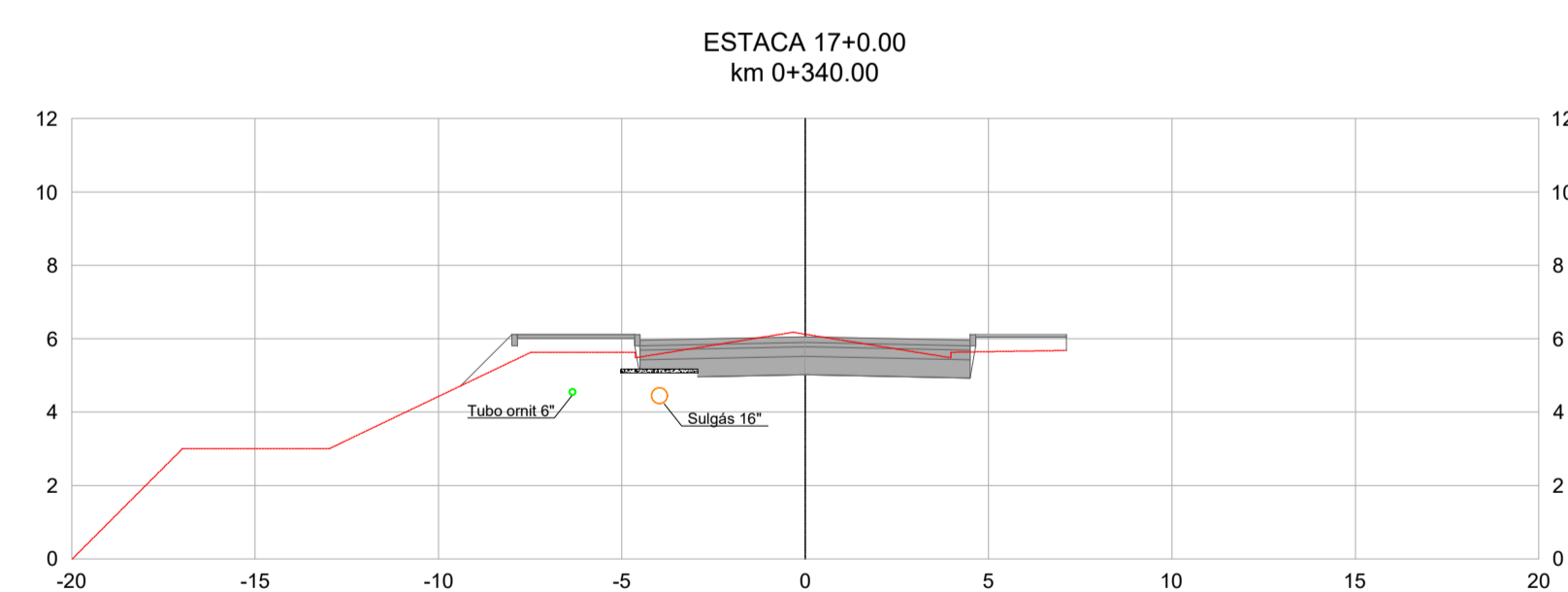
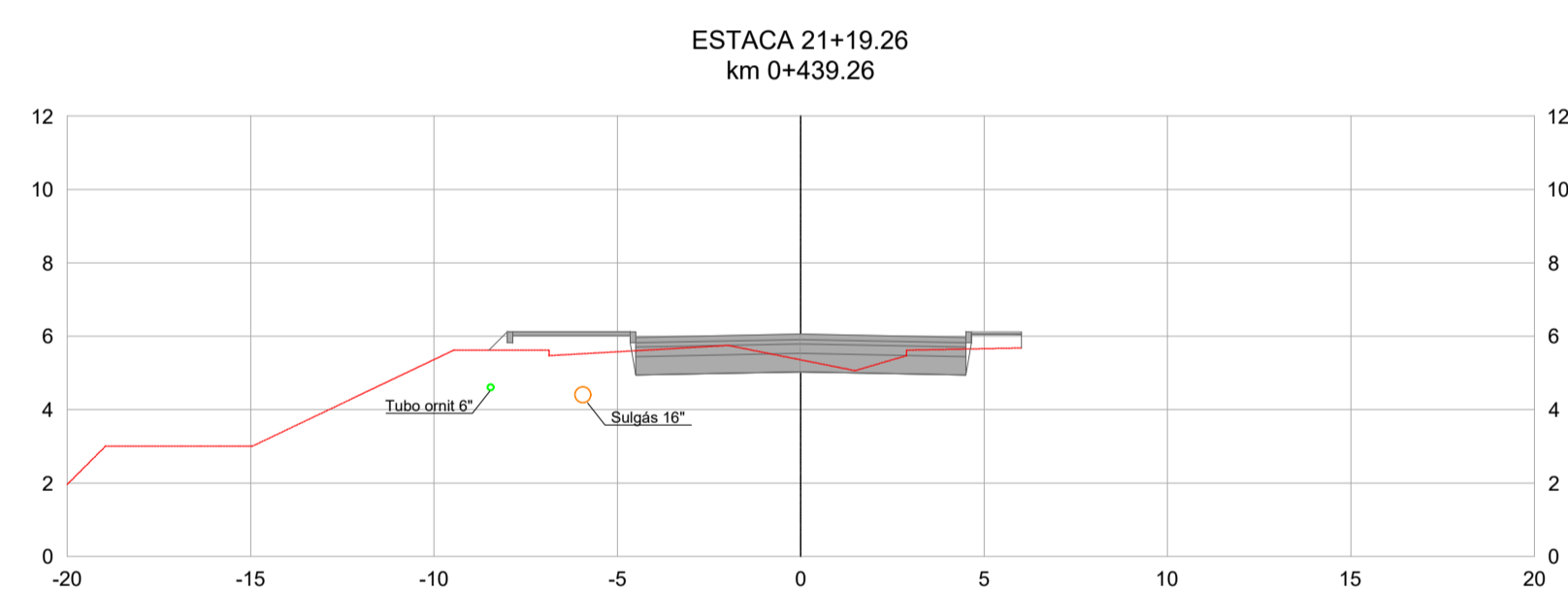
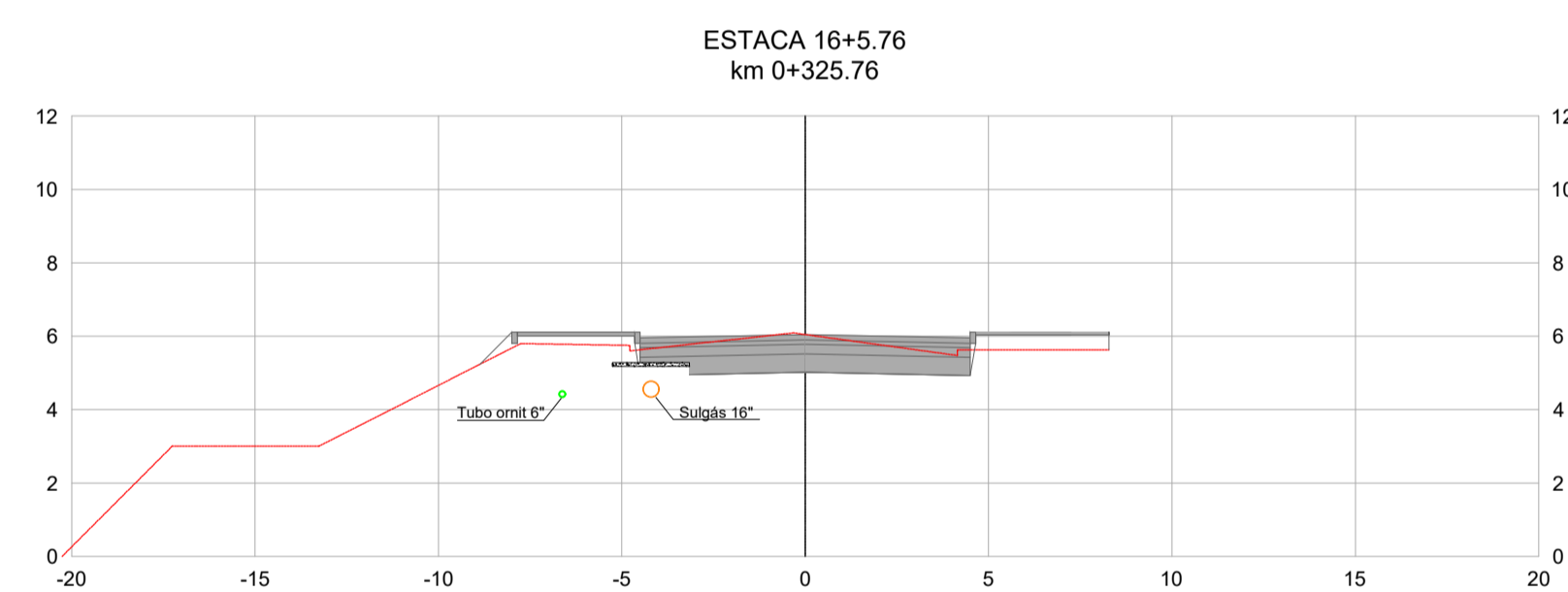
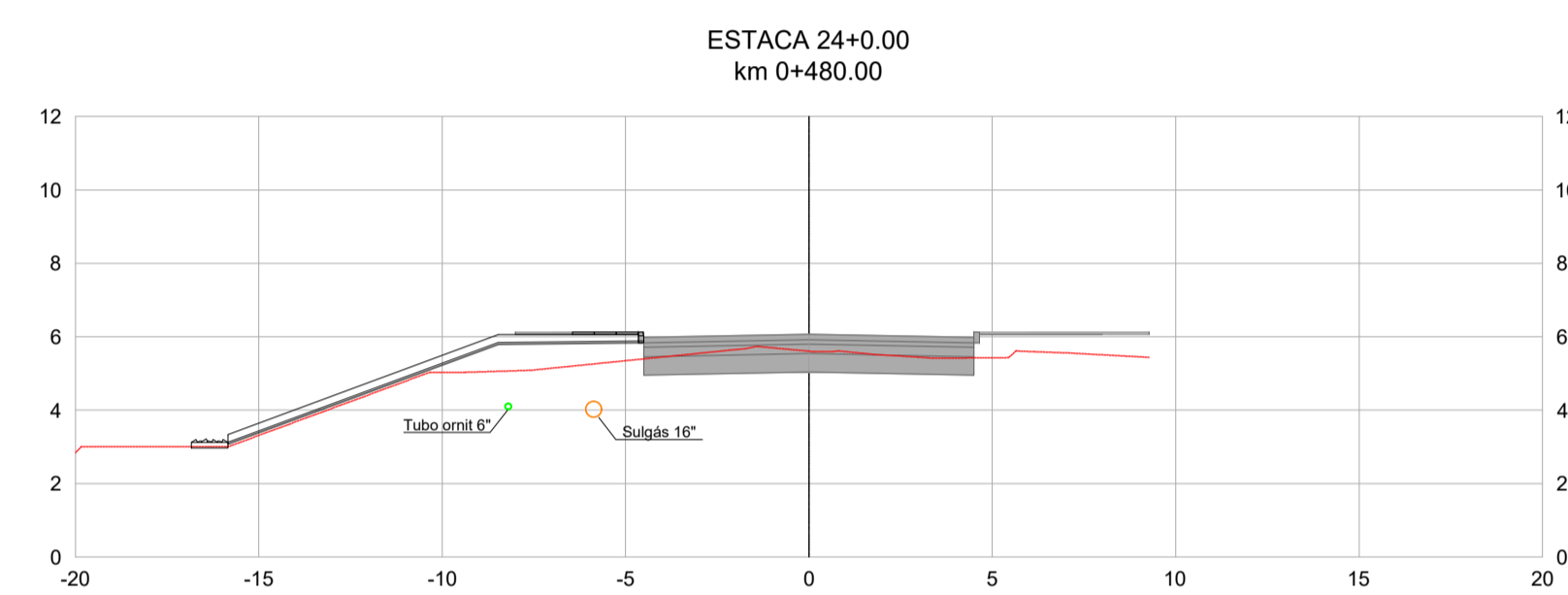
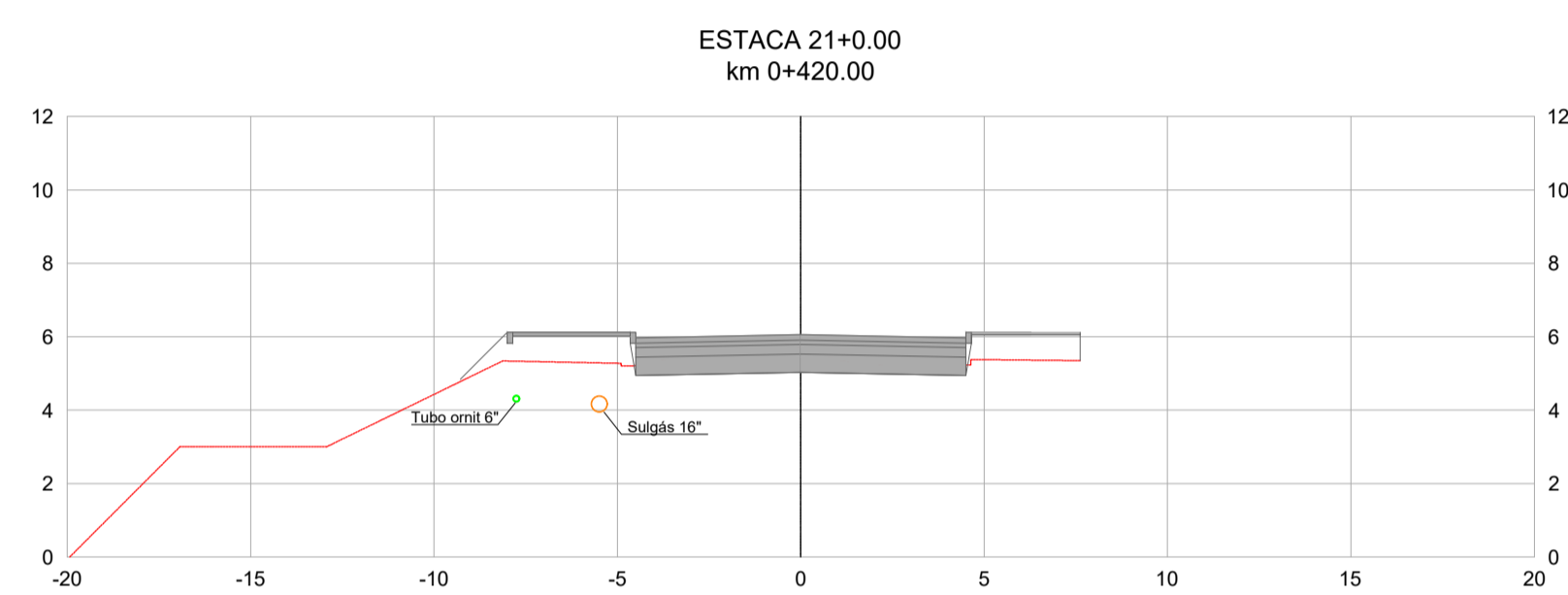
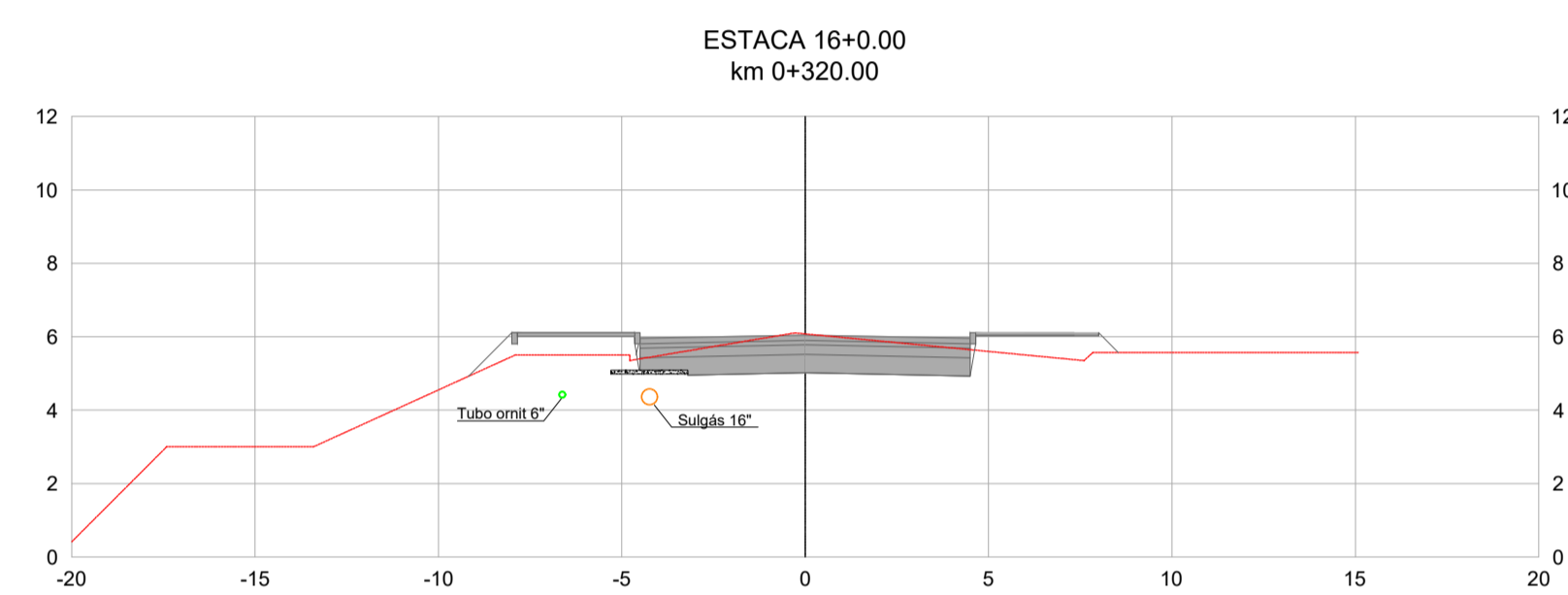
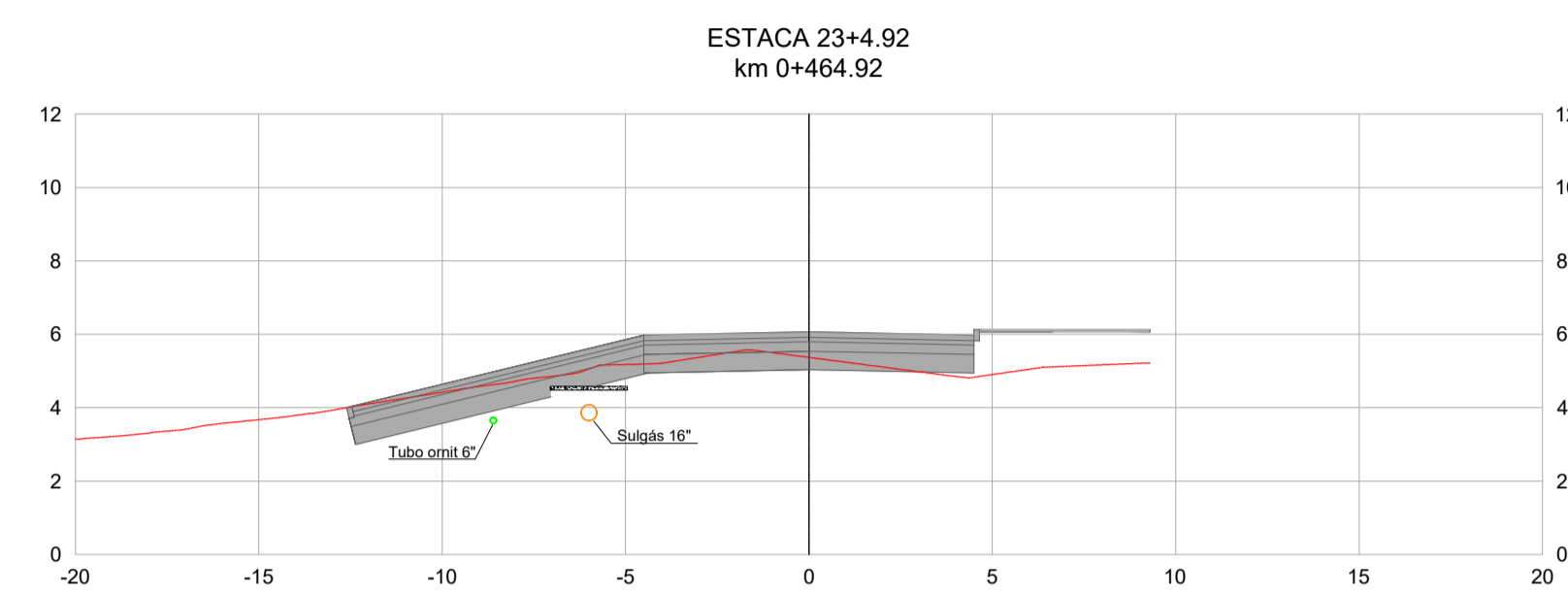
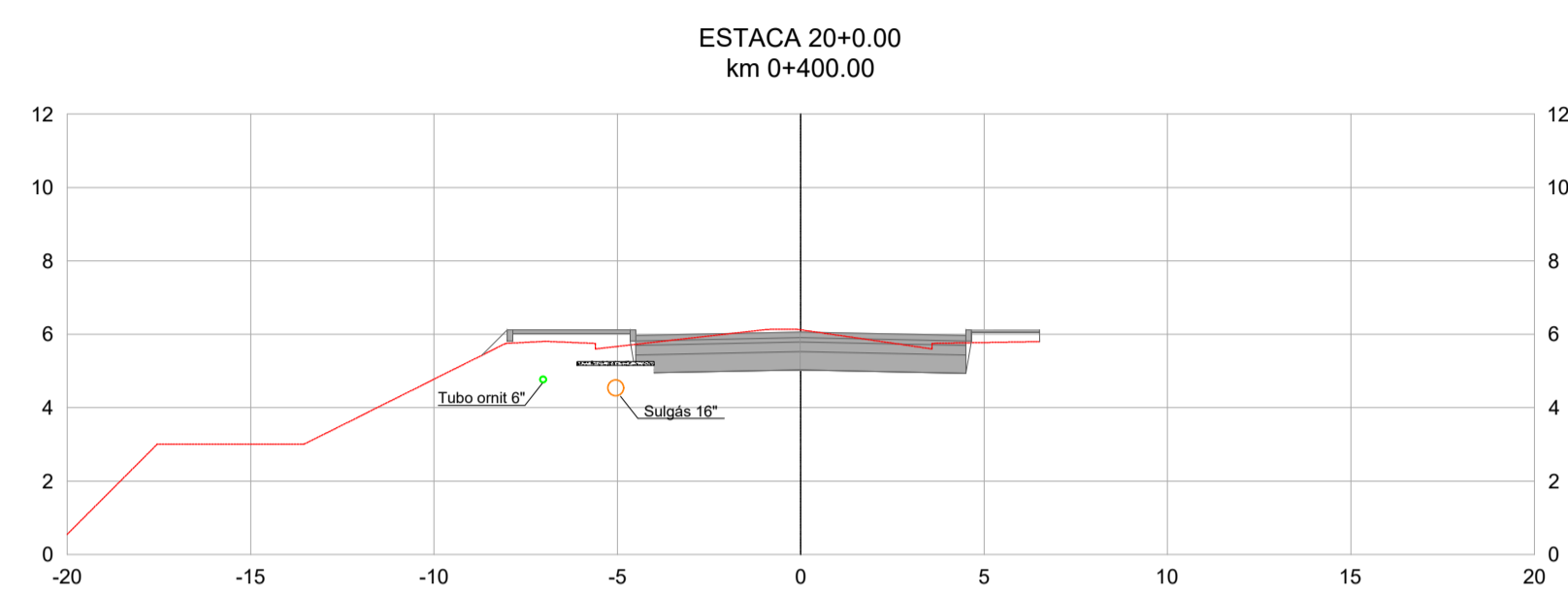
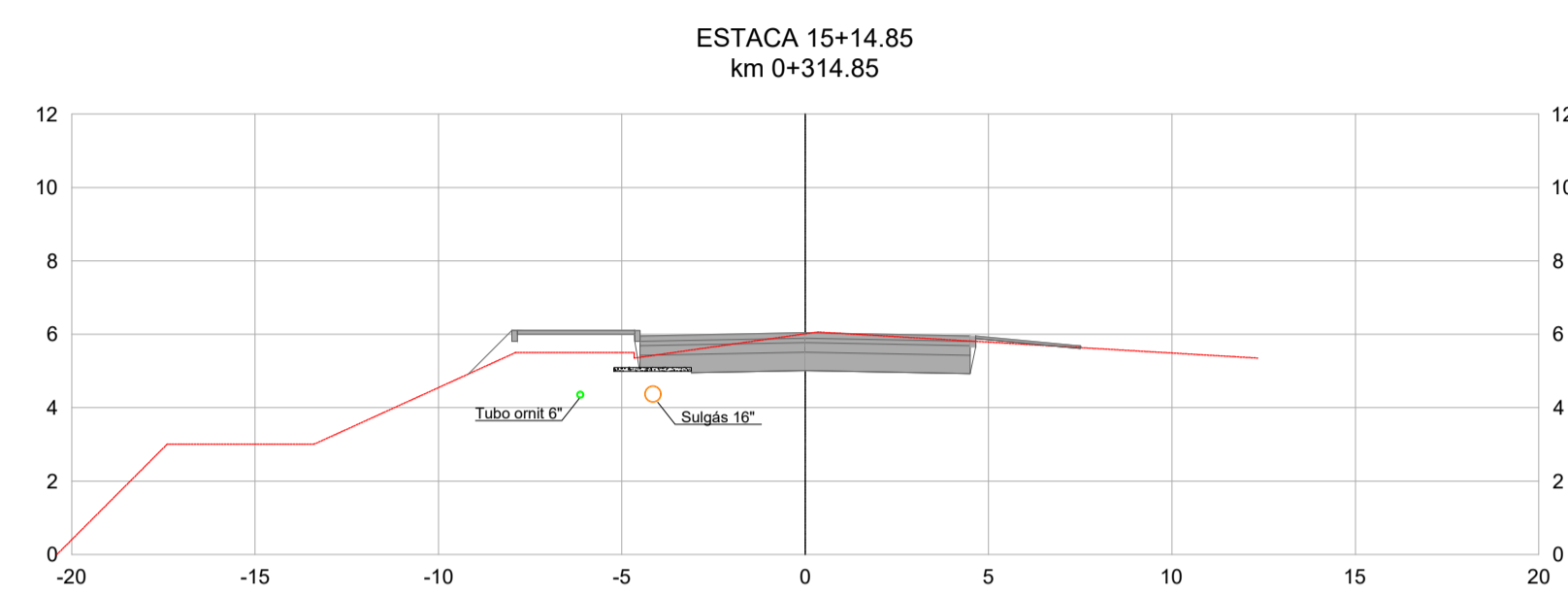
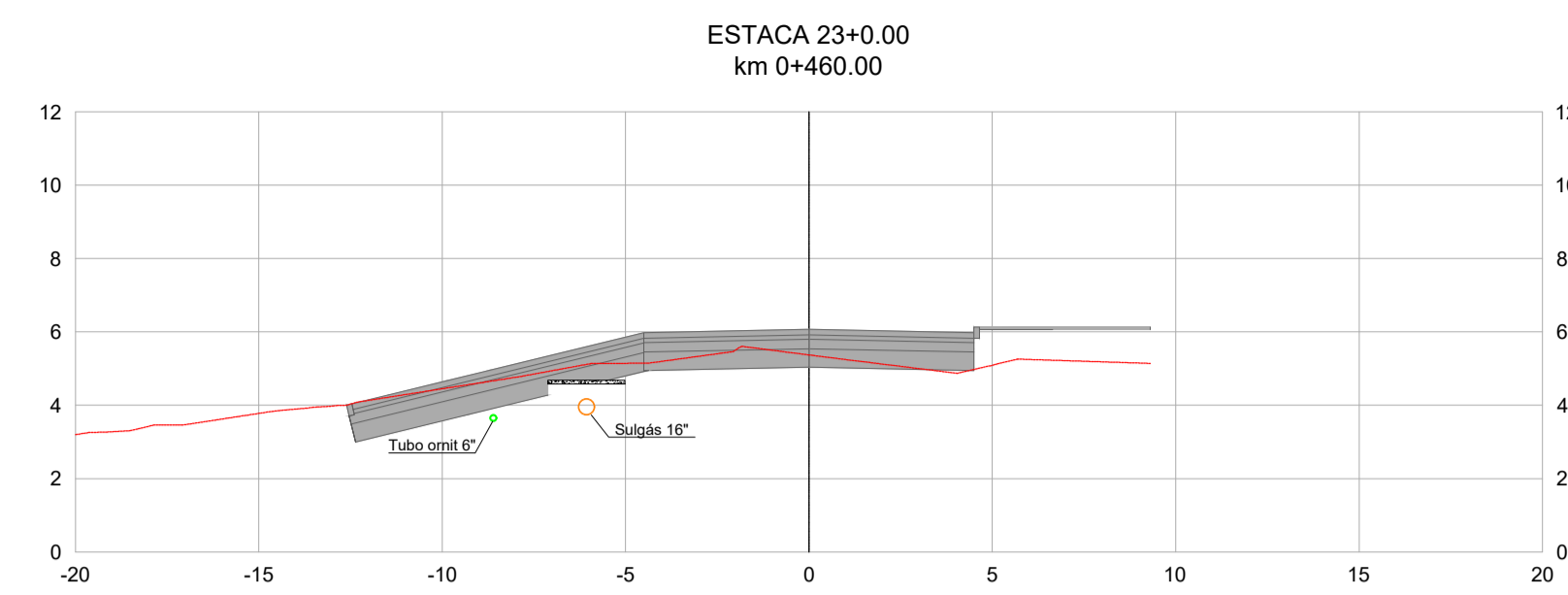
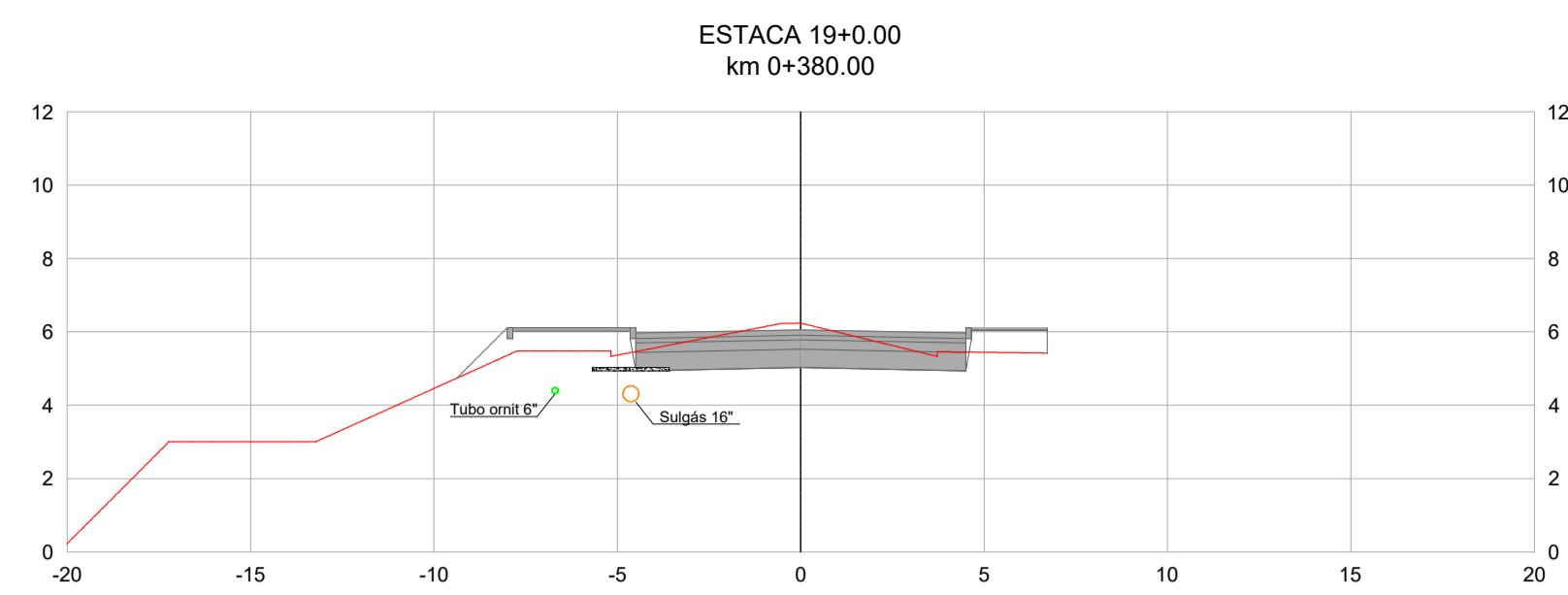
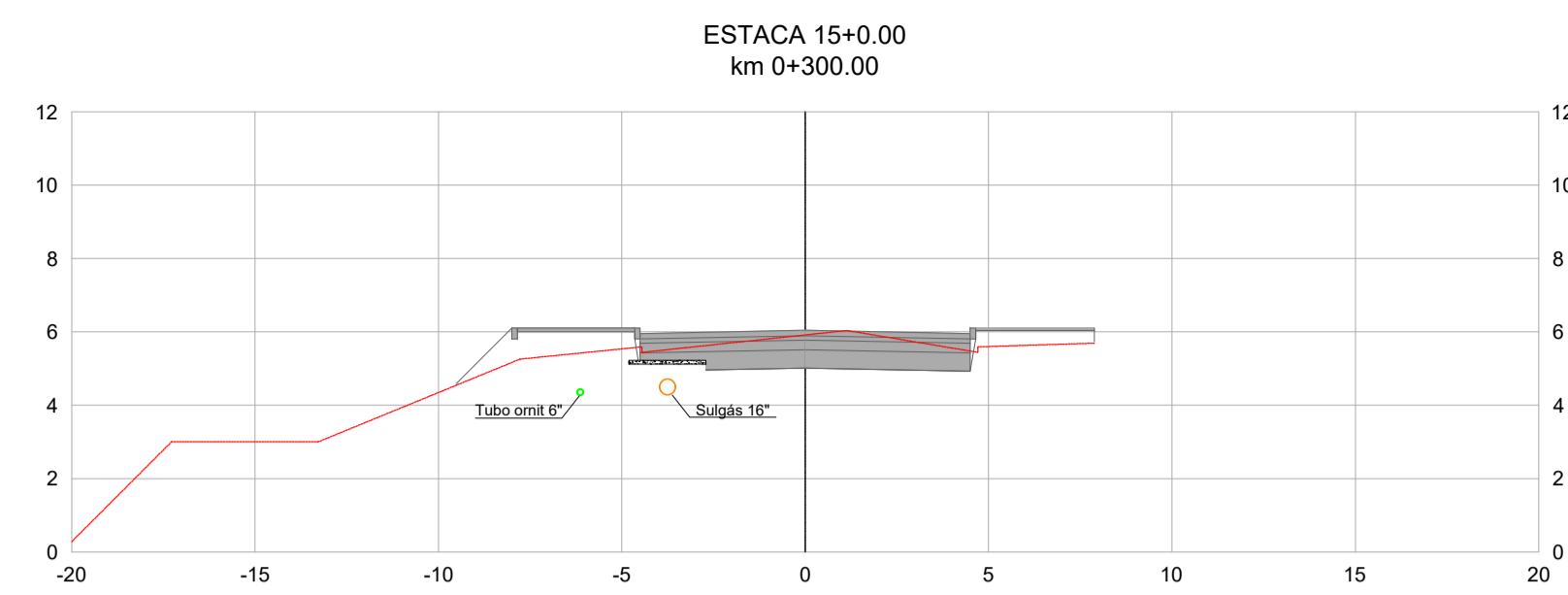
07/20



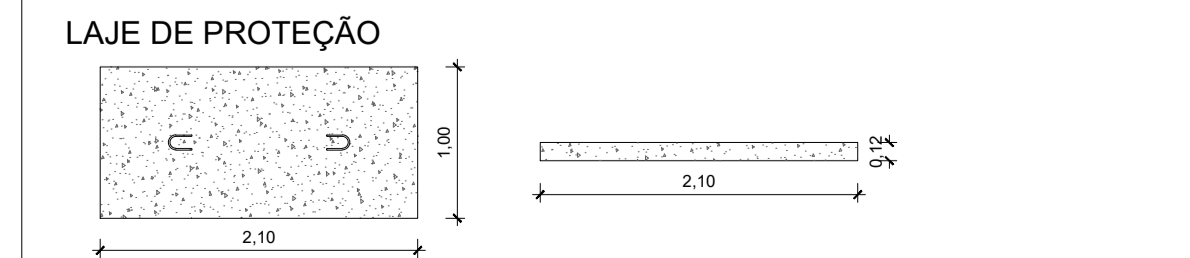
- Observações:
- Quando a faixa de dutos estiver dentro da caixa viária a escavação deverá ser realizada manualmente, sendo retirada apenas as camadas do pavimento existente, em qualquer caso essa escavação não poderá ultrapassar 0,40 m de profundidade;
 - O recobrimento mínimo sobre os dutos abaixo da laje de proteção deverá ser de 0,40m;
 - Quando a faixa de dutos estiver no passeio deverá ser realizada decapagem de no máximo 0,20 m;
 - A laje de proteção servirá para assegurar a integridade da tubulação facilitando manutenções futuras.




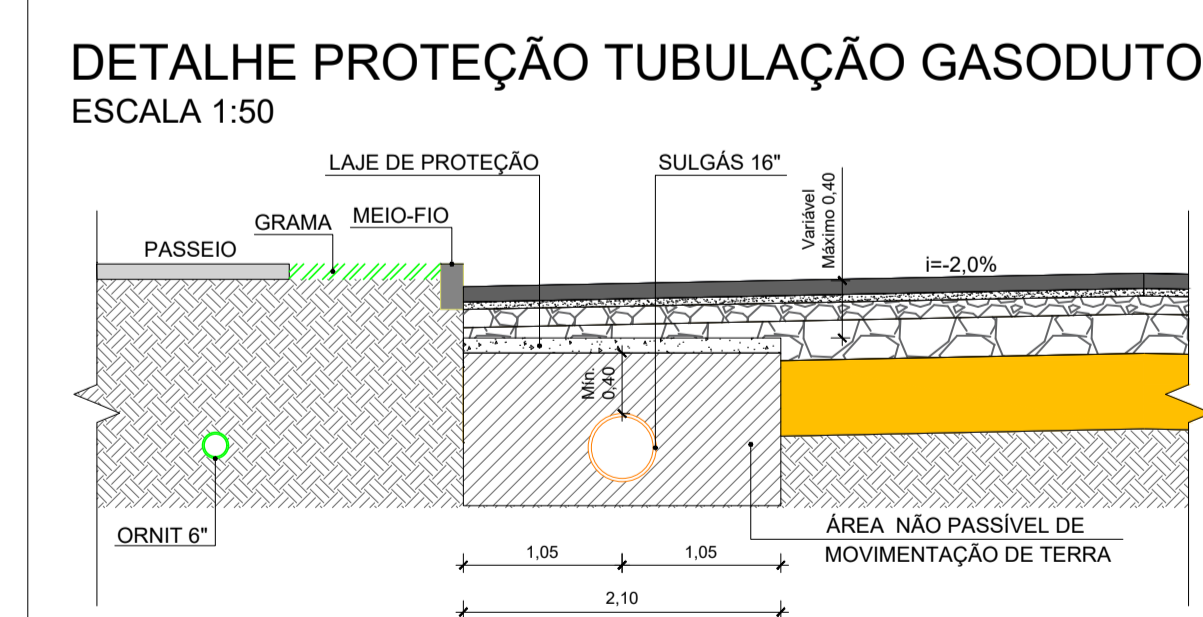
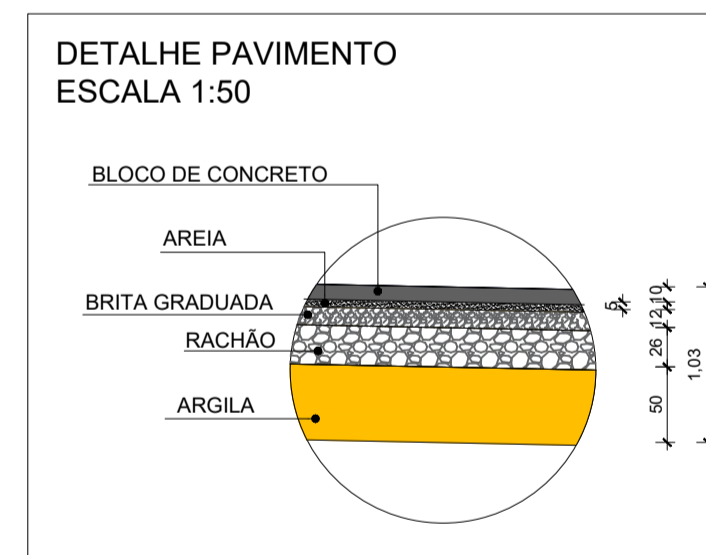
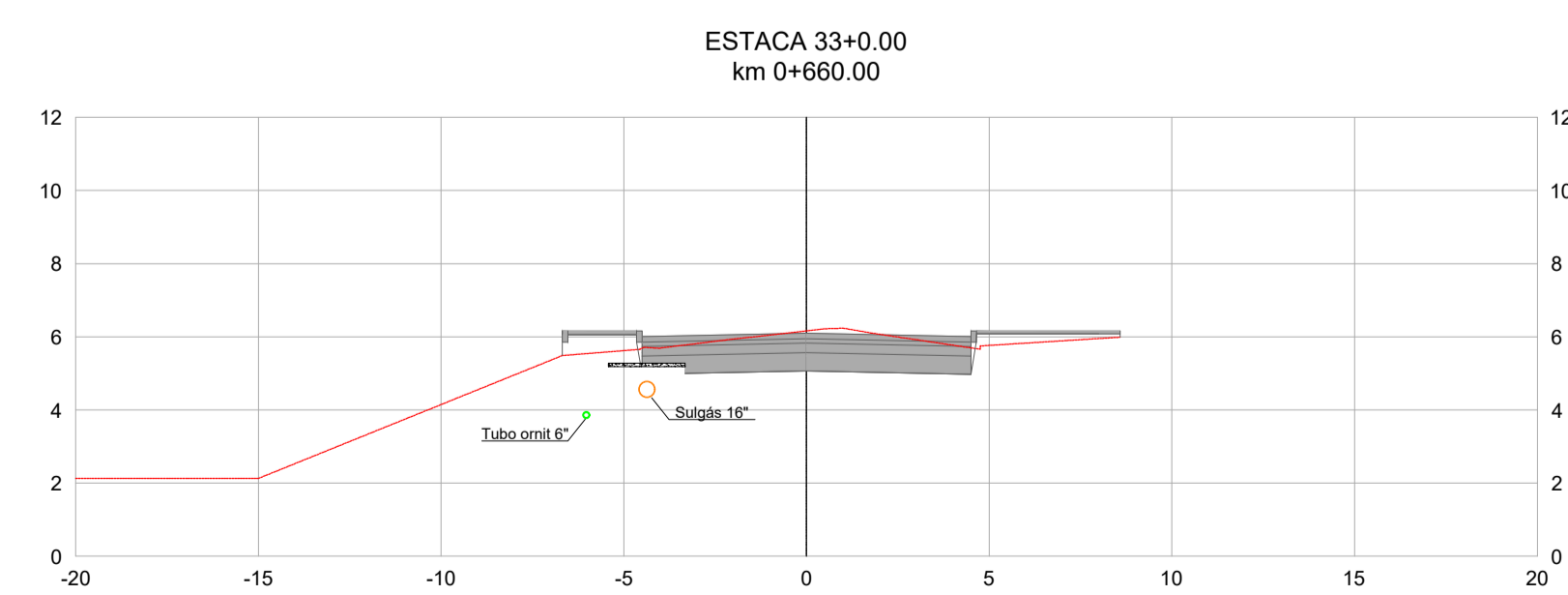
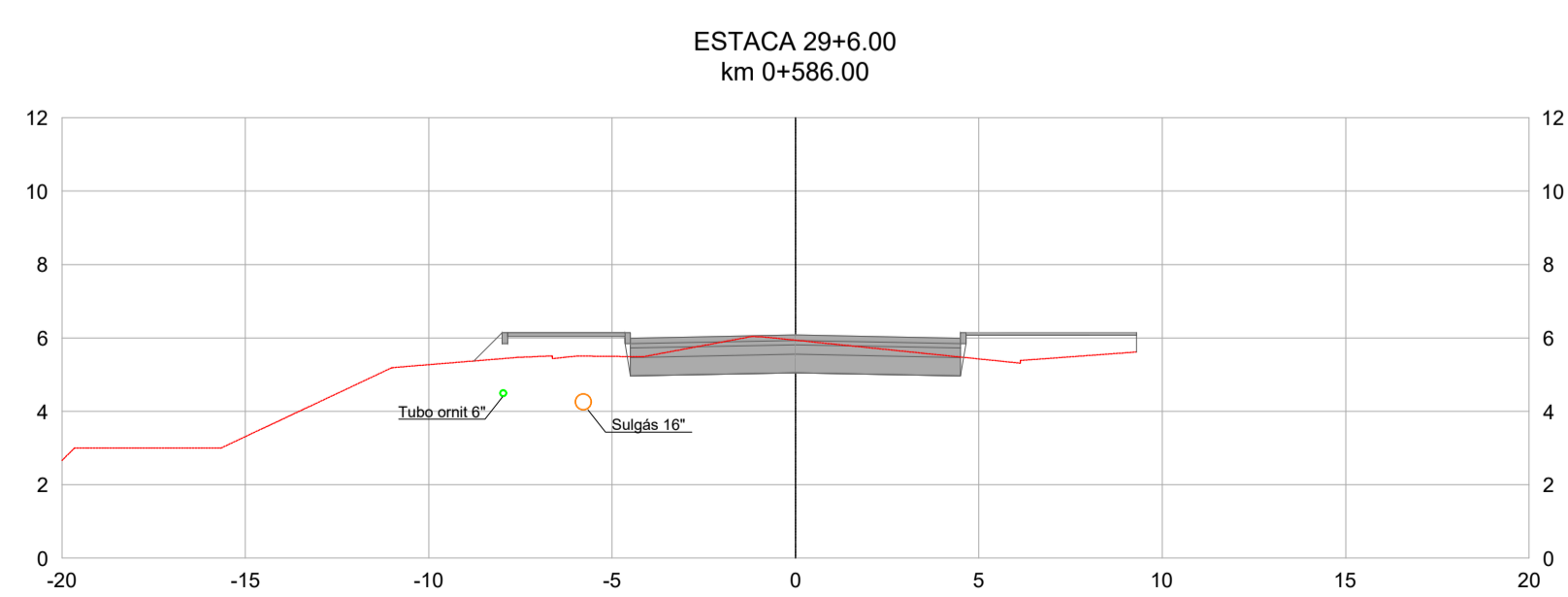
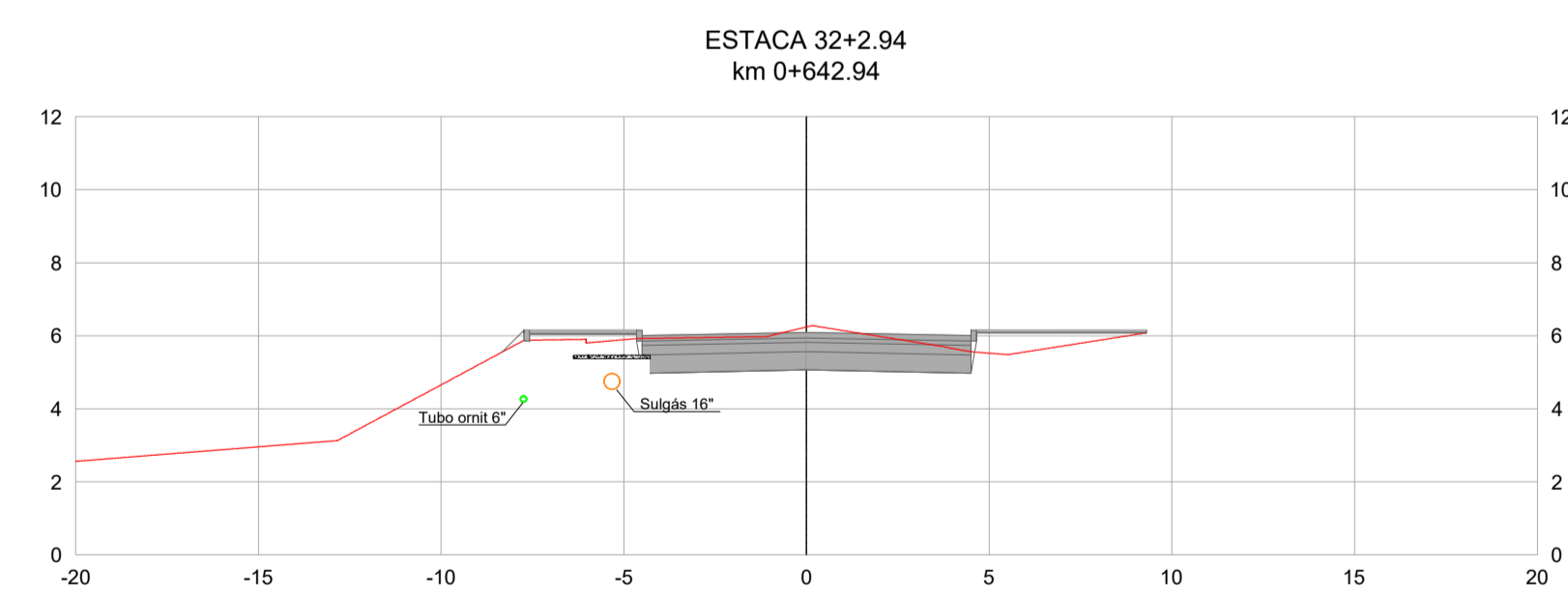
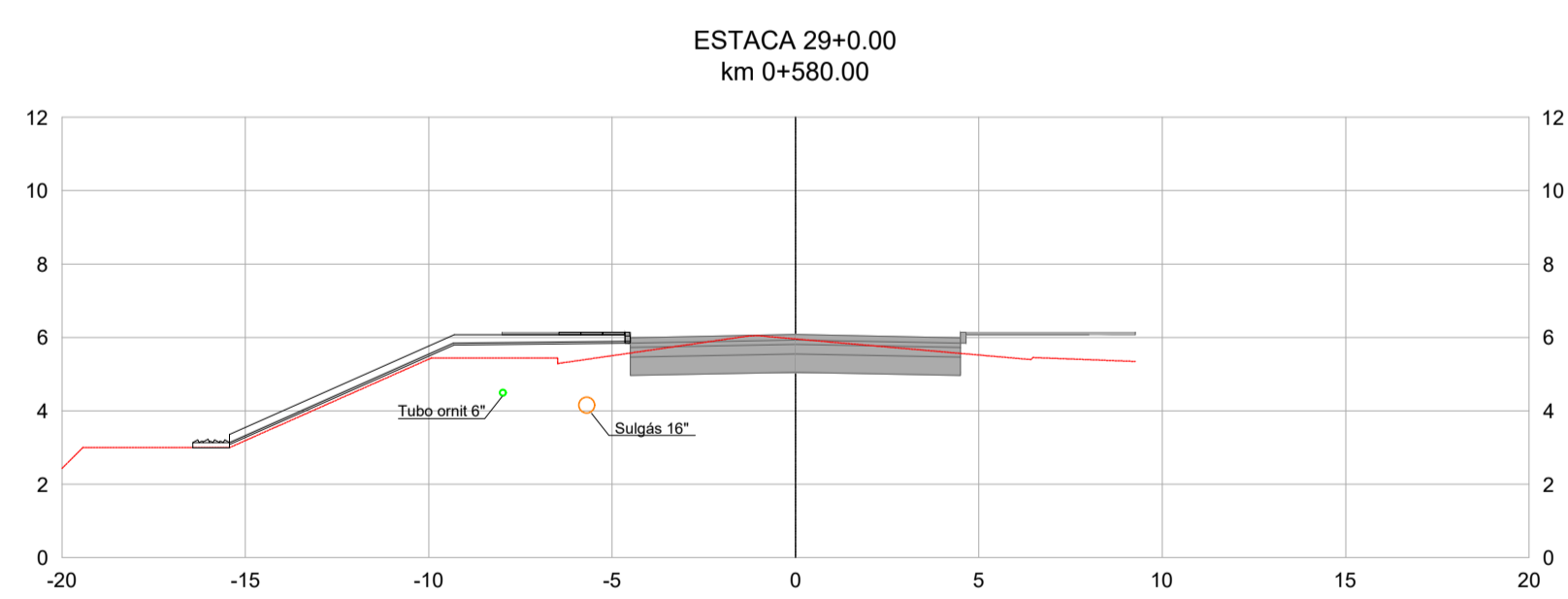
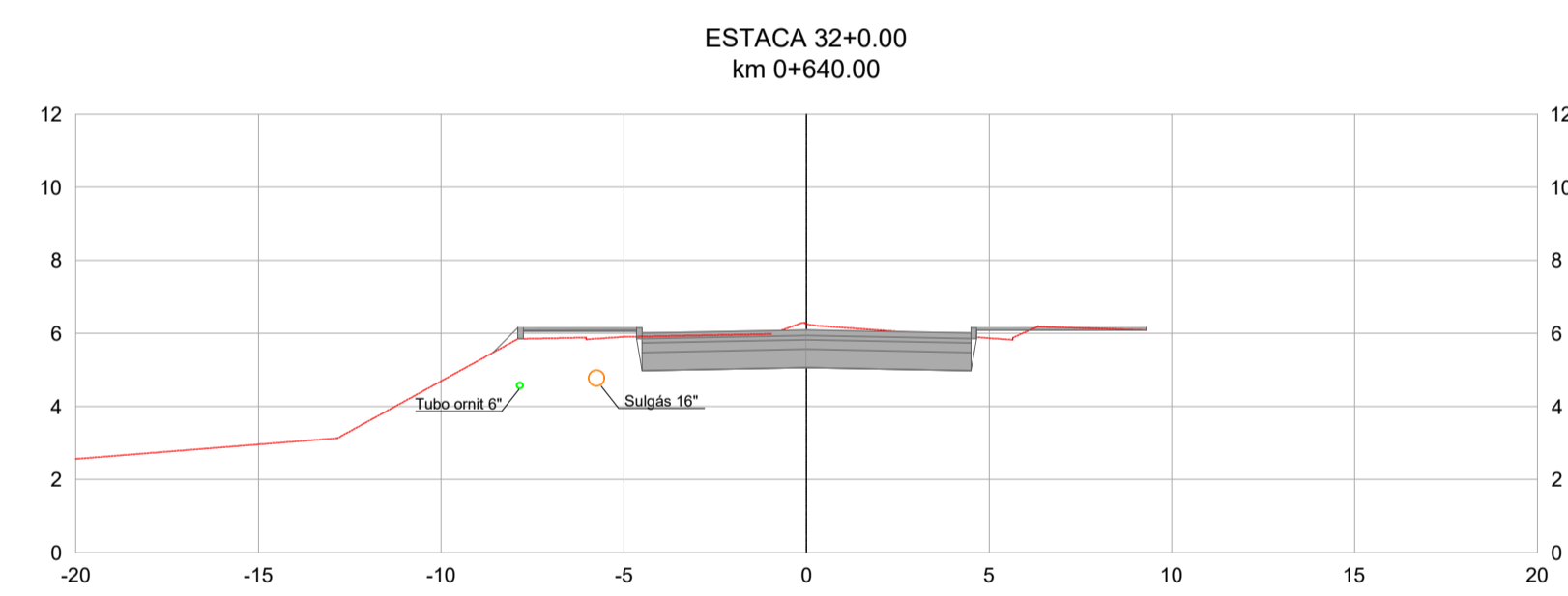
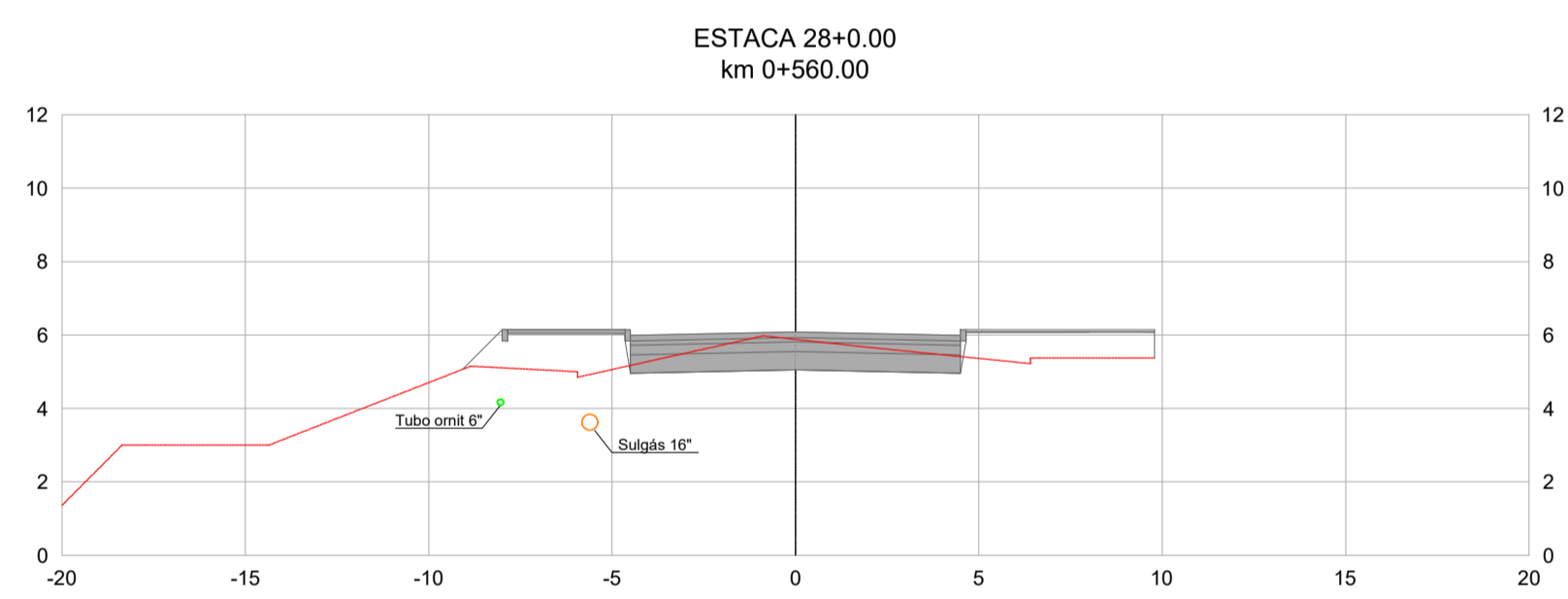
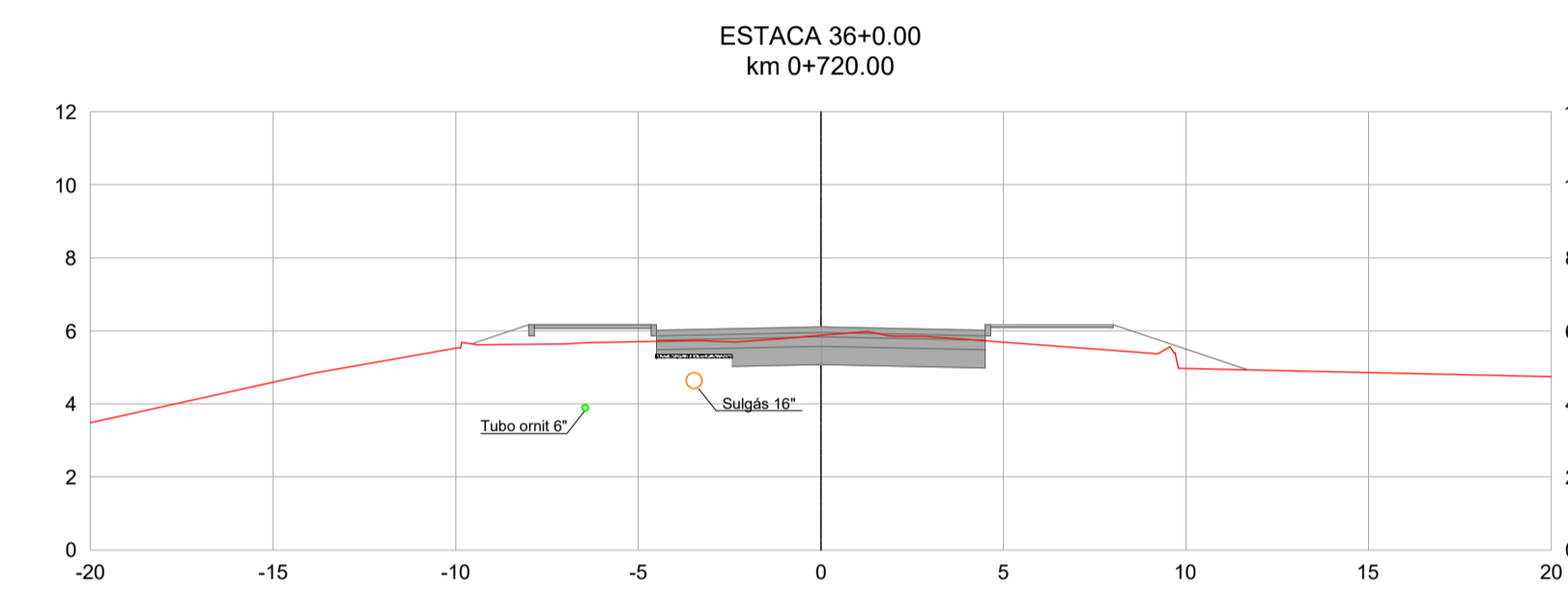
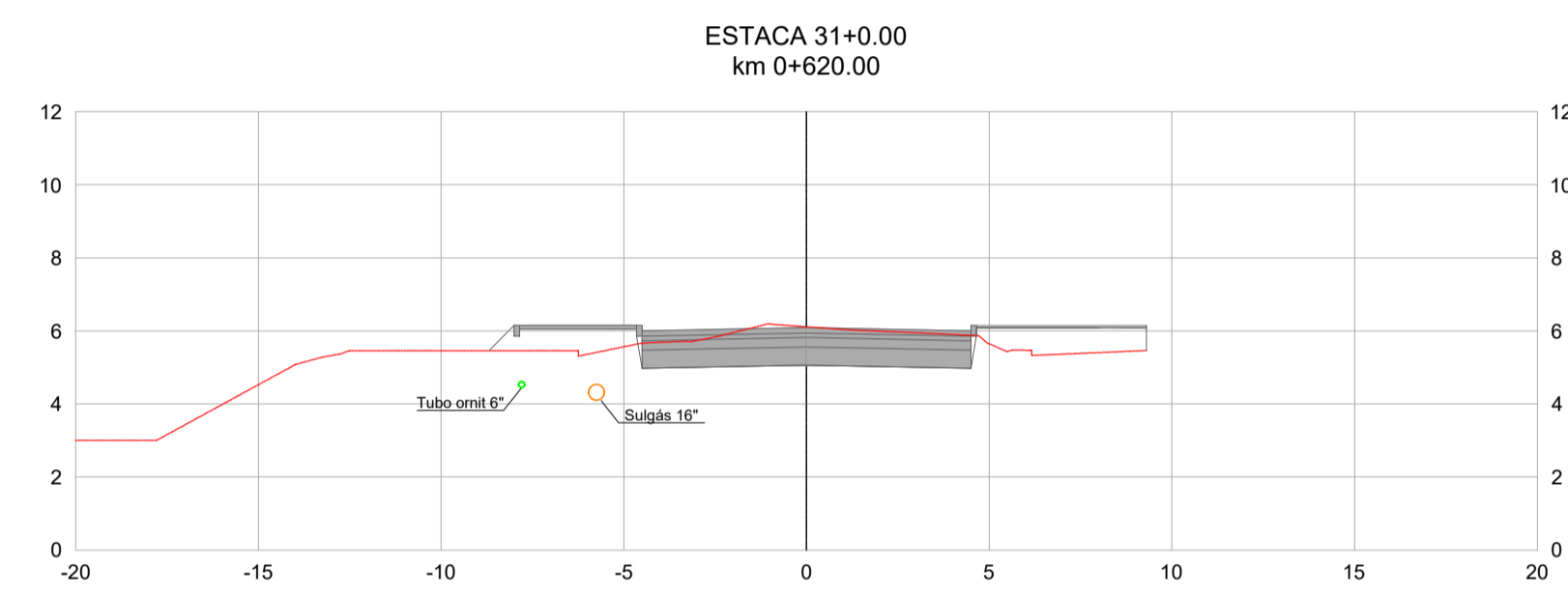
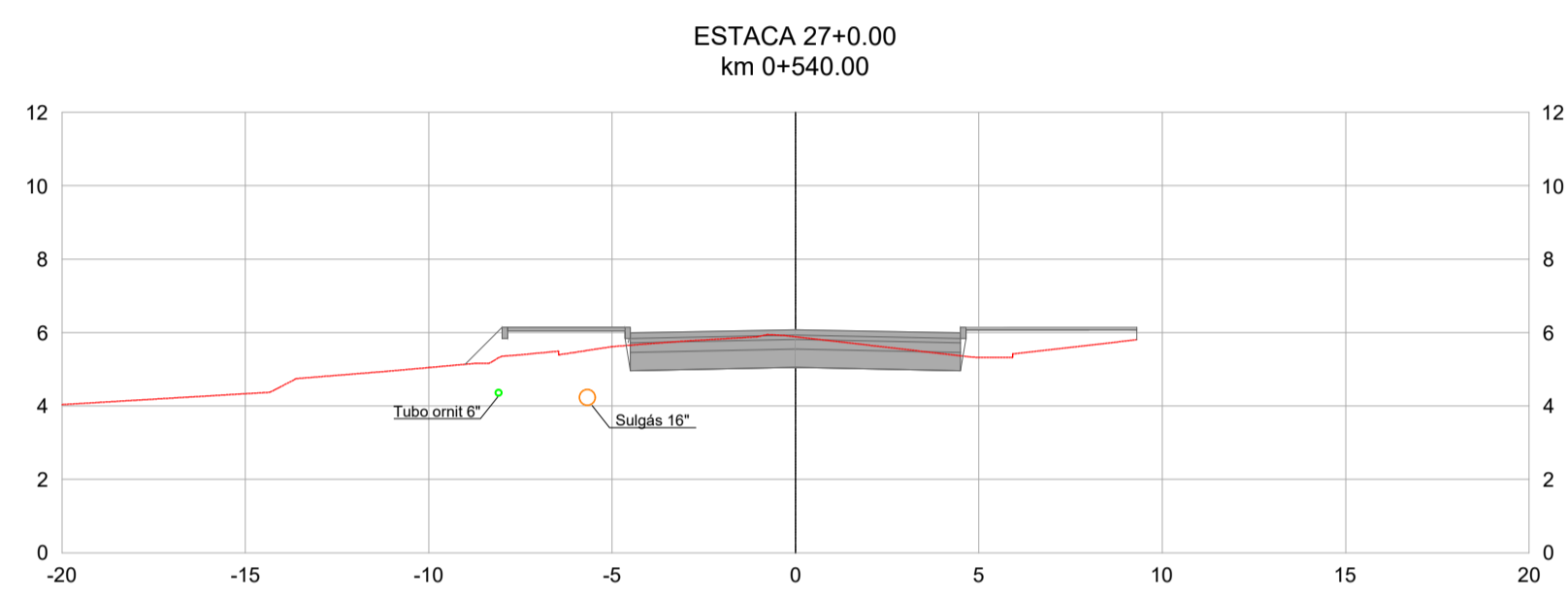
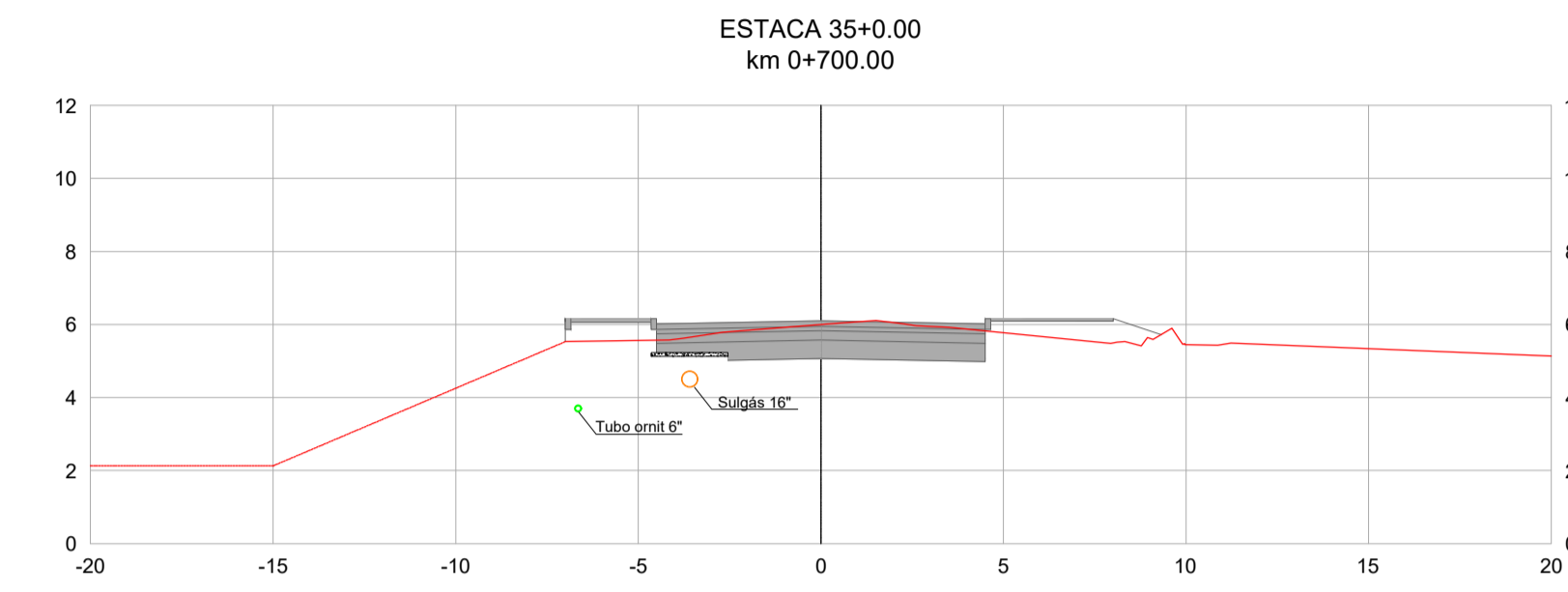
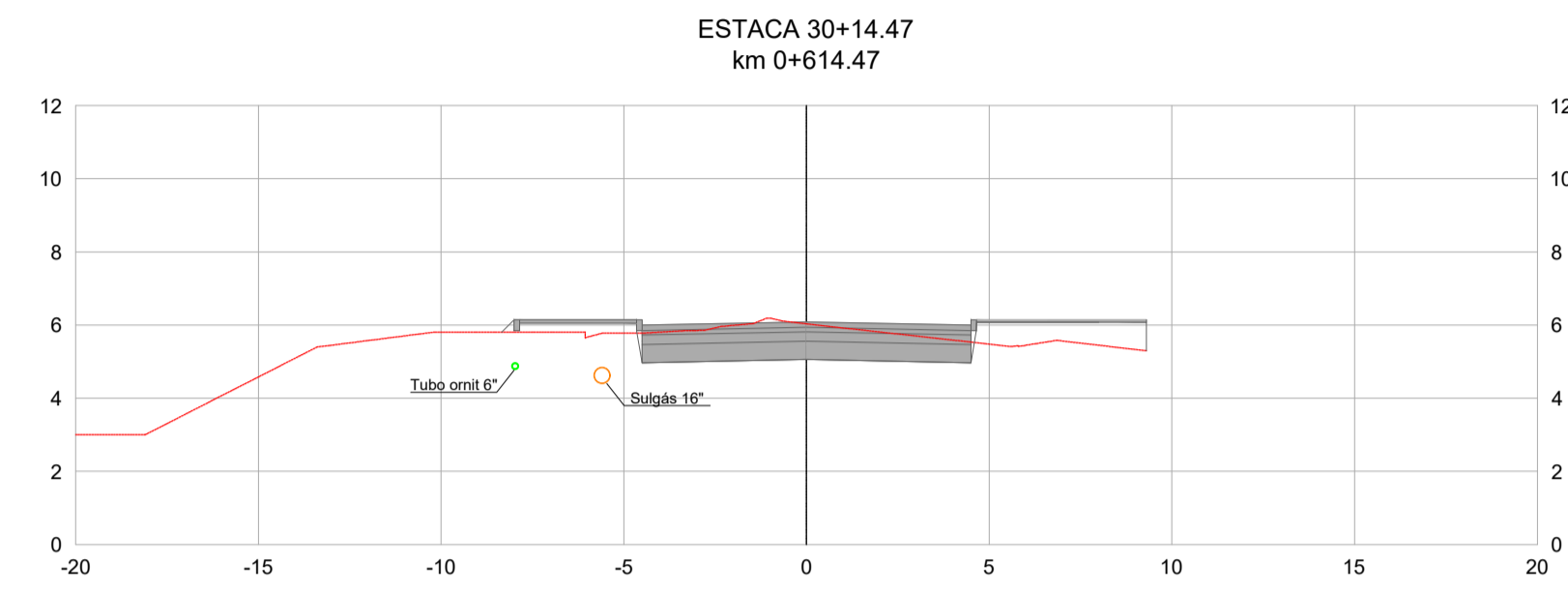
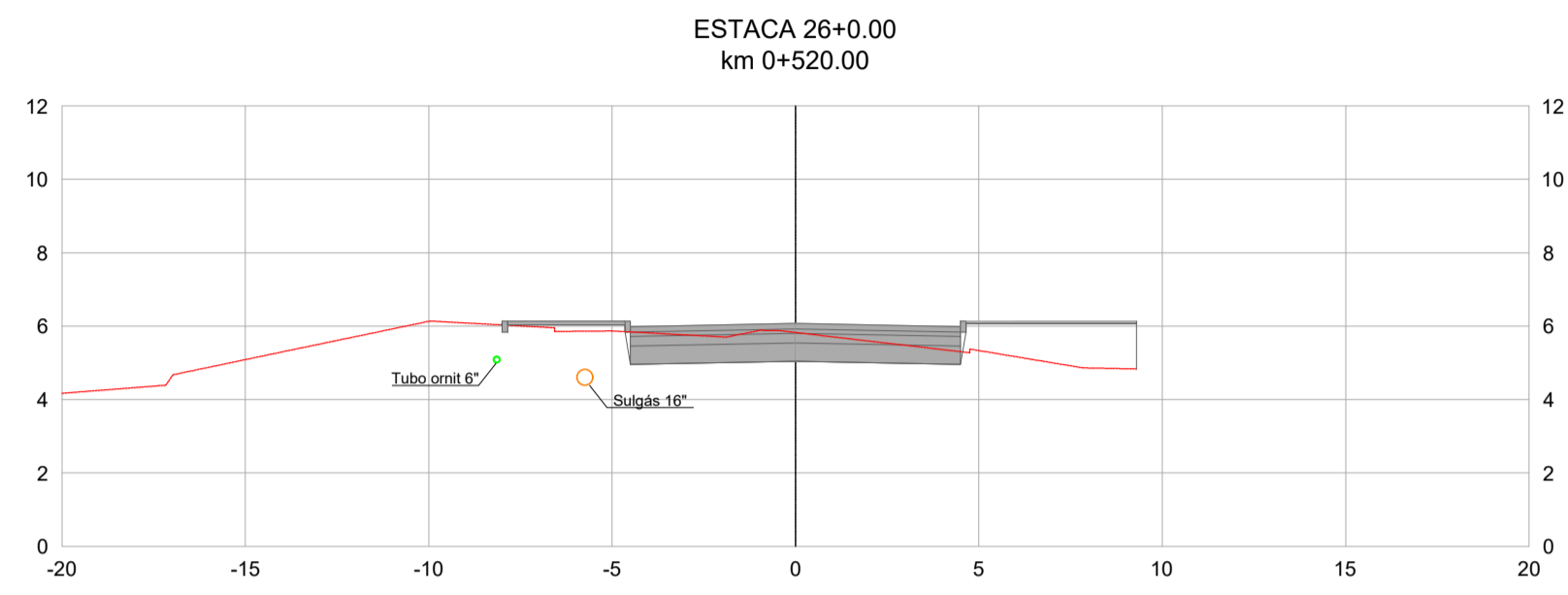
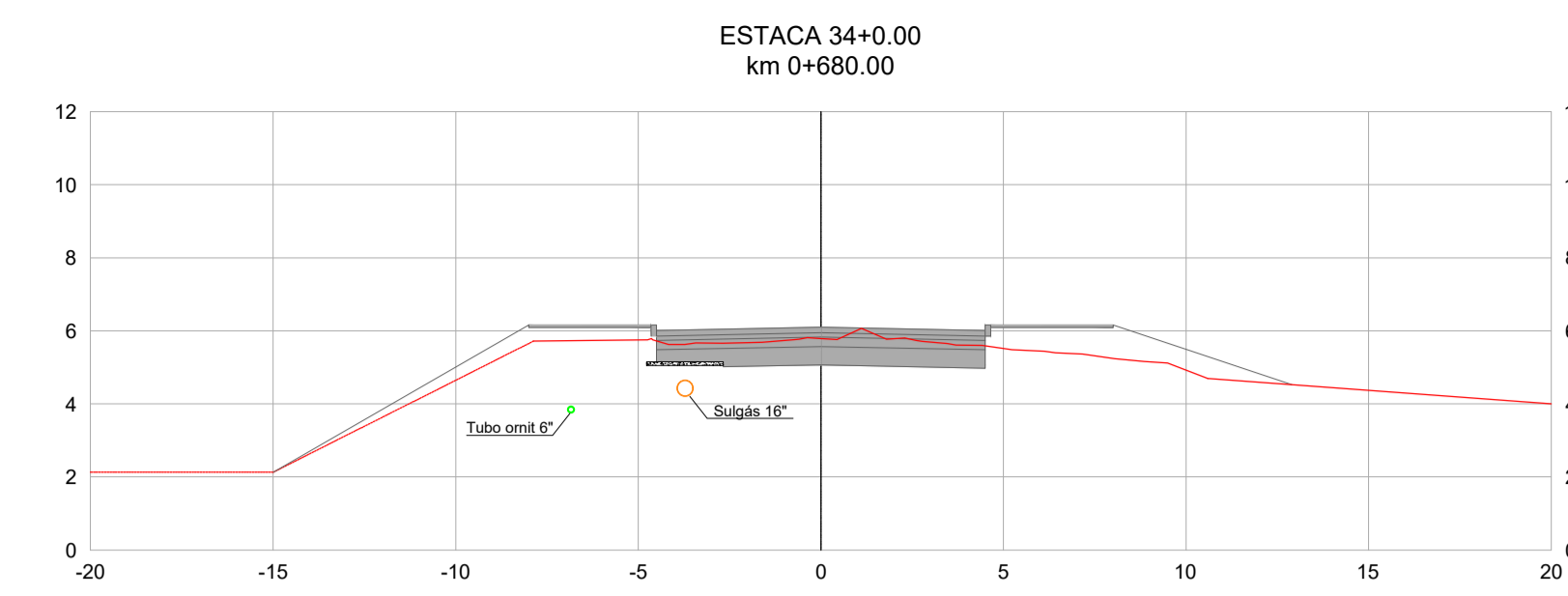
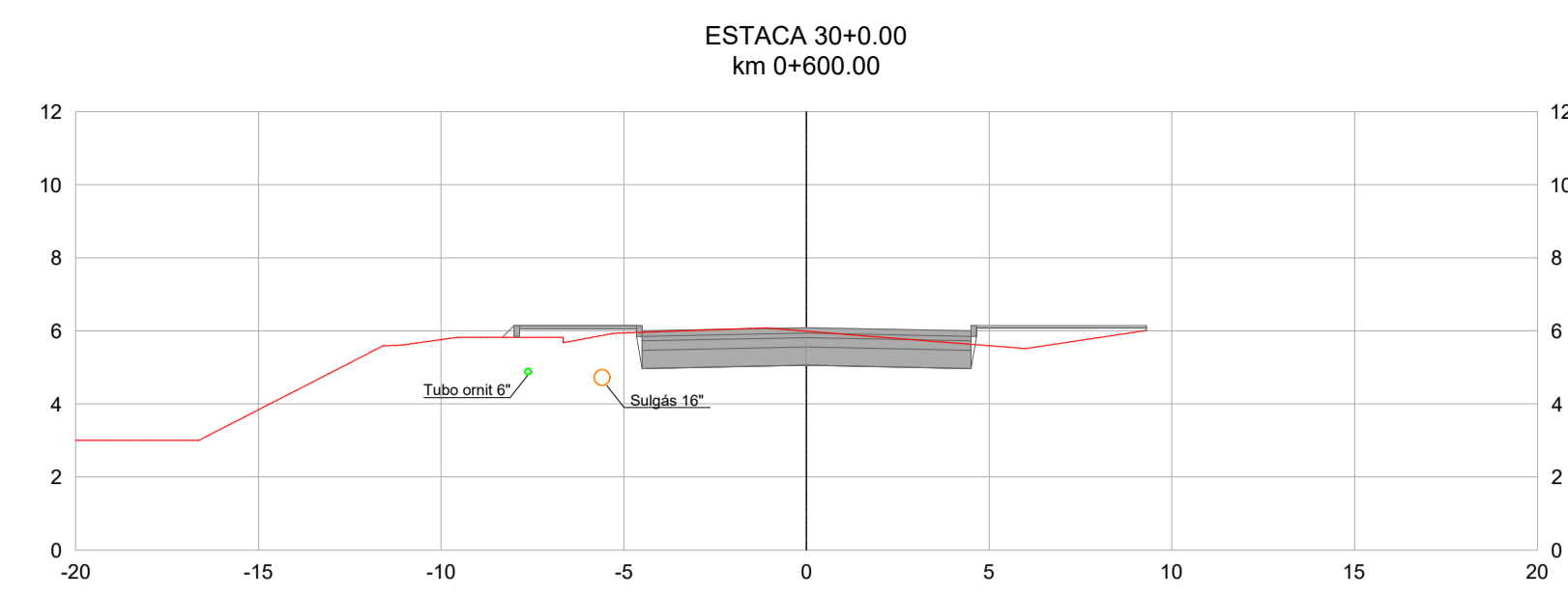
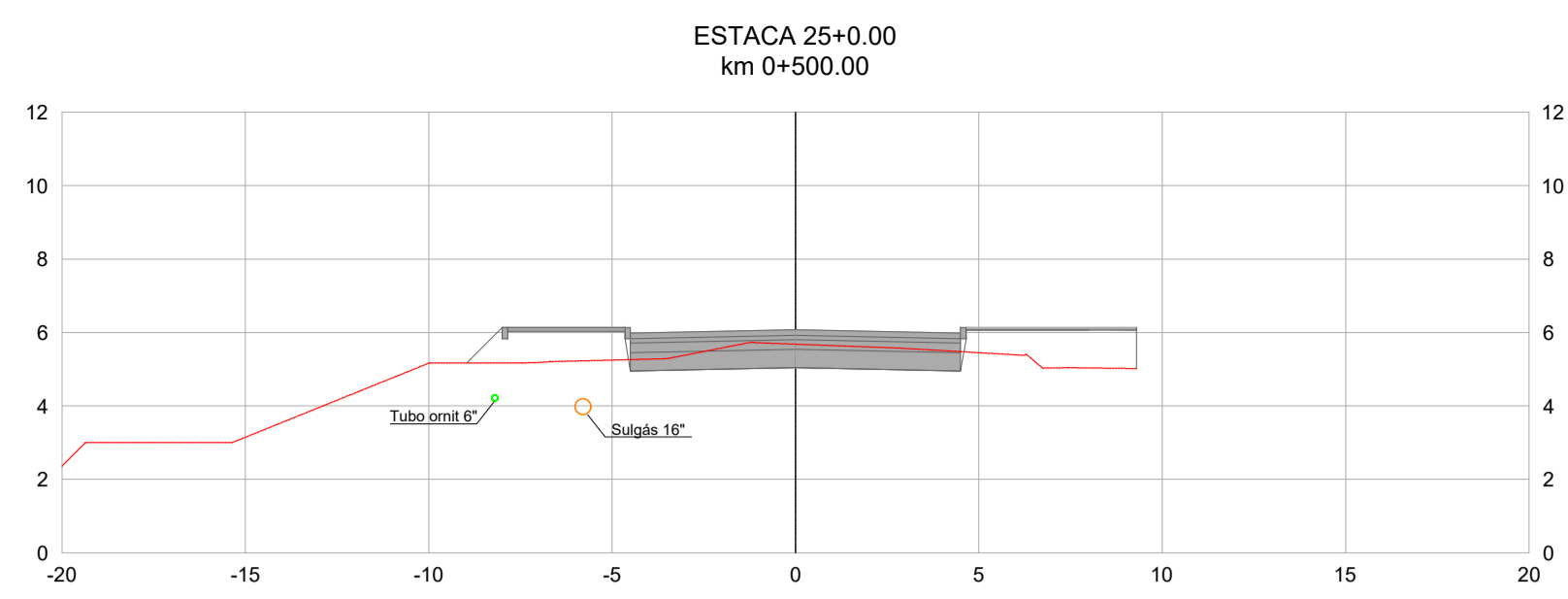
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|---|---|
|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | |
| <p>EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ</p> | |
| <p>ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS</p> | |
| <p>PROJETO: PAVIMENTAÇÃO</p> | <p>DISCRIMINAÇÃO DA FRANCHA: SEÇÕES TRANSVERSAIS</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:200</p> | <p>ÁREA: -</p> |
| <p>DESENHO: Eng. Elen</p> | <p>DATA: JUNHO/2022</p> |
| <p>08/20</p> | |



- Observações:
- Quando a faixa de dutos estiver dentro da caixa viária a escavação deverá ser realizada manualmente, sendo retirada apenas as camadas do pavimento existente, em qualquer caso essa escavação não poderá ultrapassar 0,40 m de profundidade;
 - O recobrimento mínimo sobre os dutos abaixo da laje de proteção deverá ser de 0,40m;
 - Quando a faixa de dutos estiver no passeio deverá ser realizada decapagem de no máximo 0,20 m;
 - A laje de proteção servirá para assegurar a integridade da tubulação facilitando manutenções futuras.



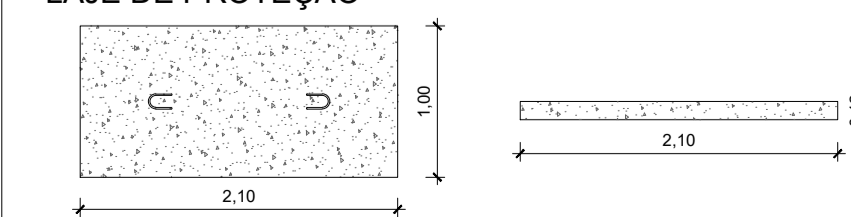
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|--|--|
|  PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | |
| PROJETO: PAVIMENTAÇÃO | DISCRIMINAÇÃO DA FRANCHA: SEÇÕES TRANSVERSAIS |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | |
| ESCALA: 1:200 | DATA: JUNHO/2022 |
| ÁREA: - | DESENHO: Eng. Elen |
| 09/20 | |




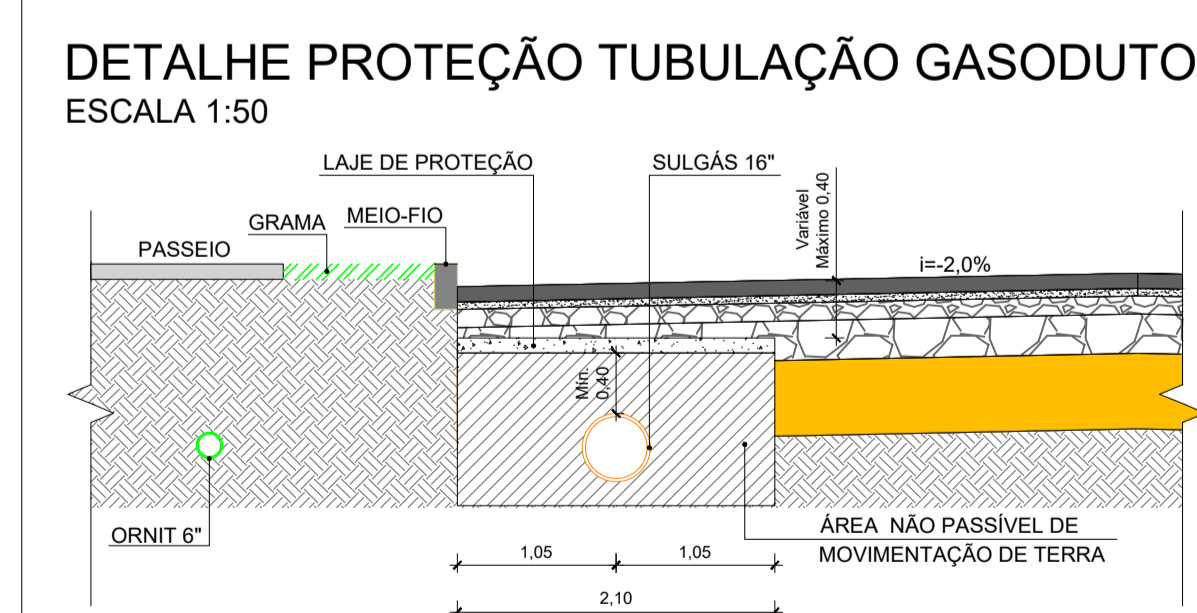
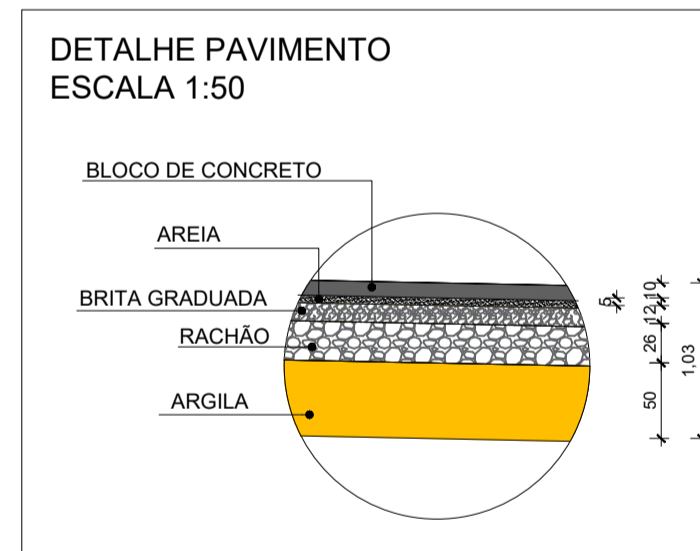
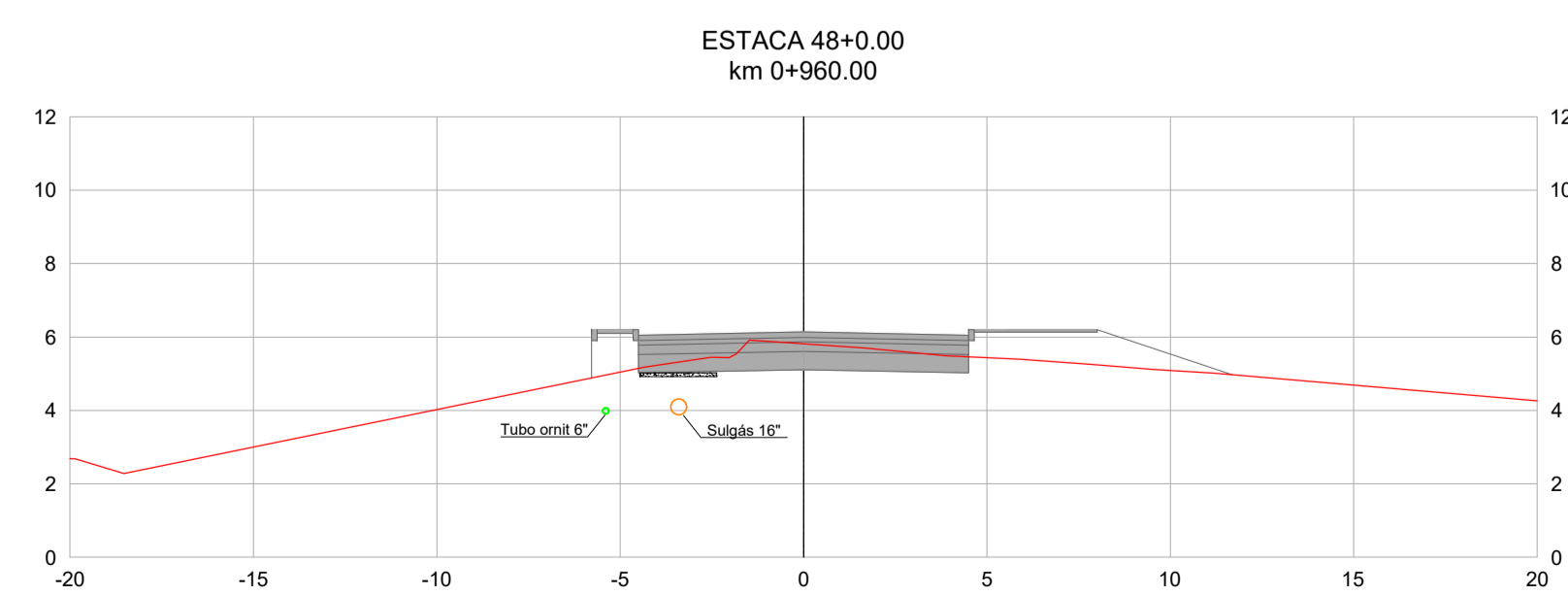
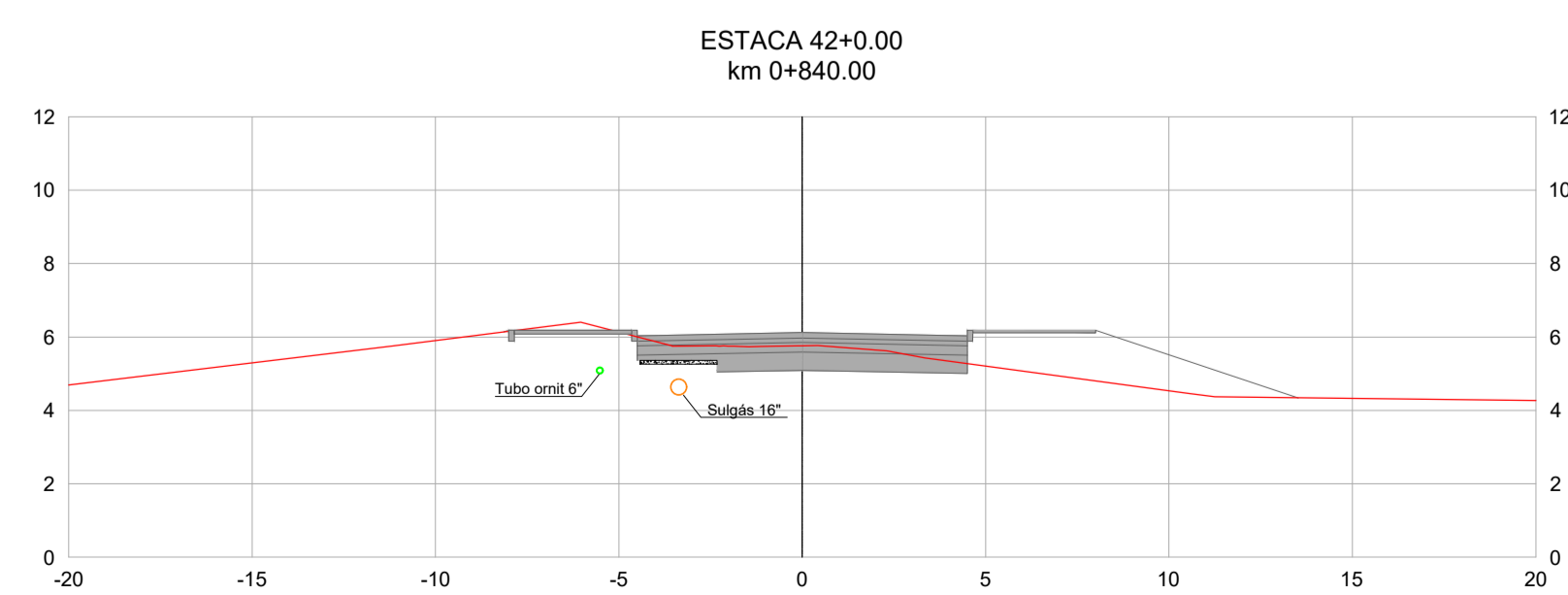
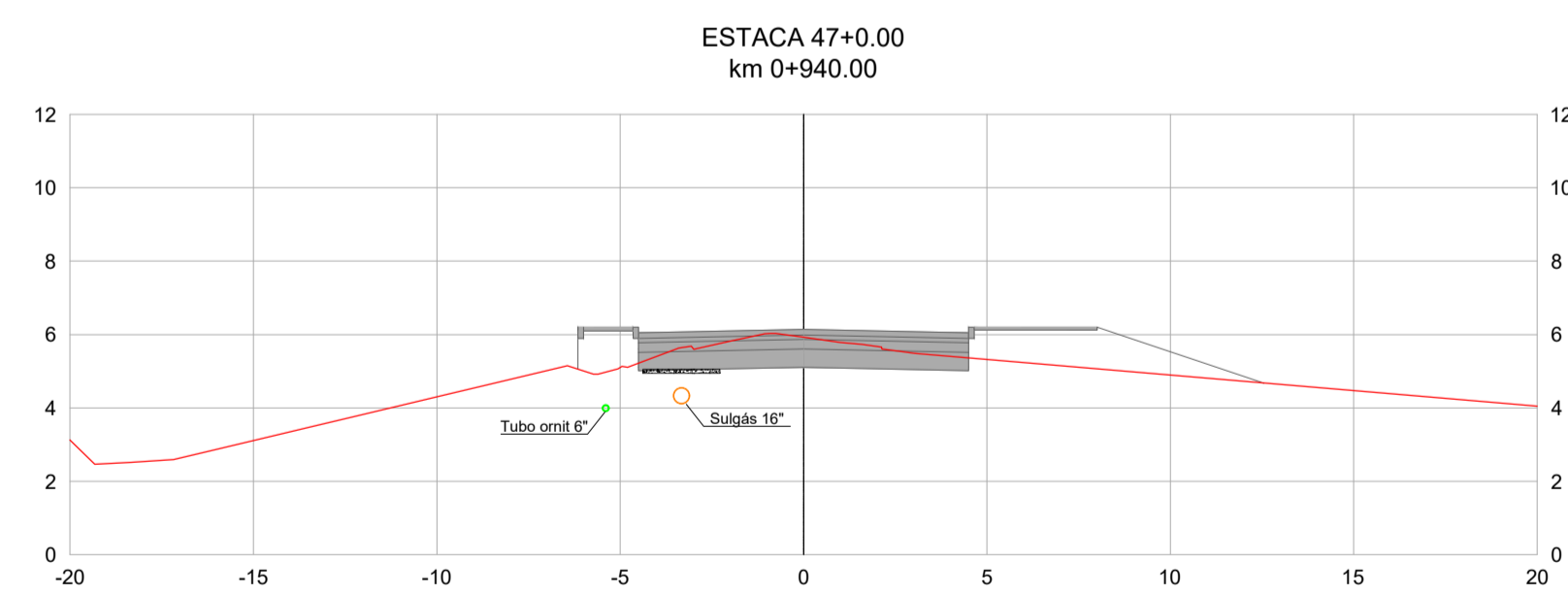
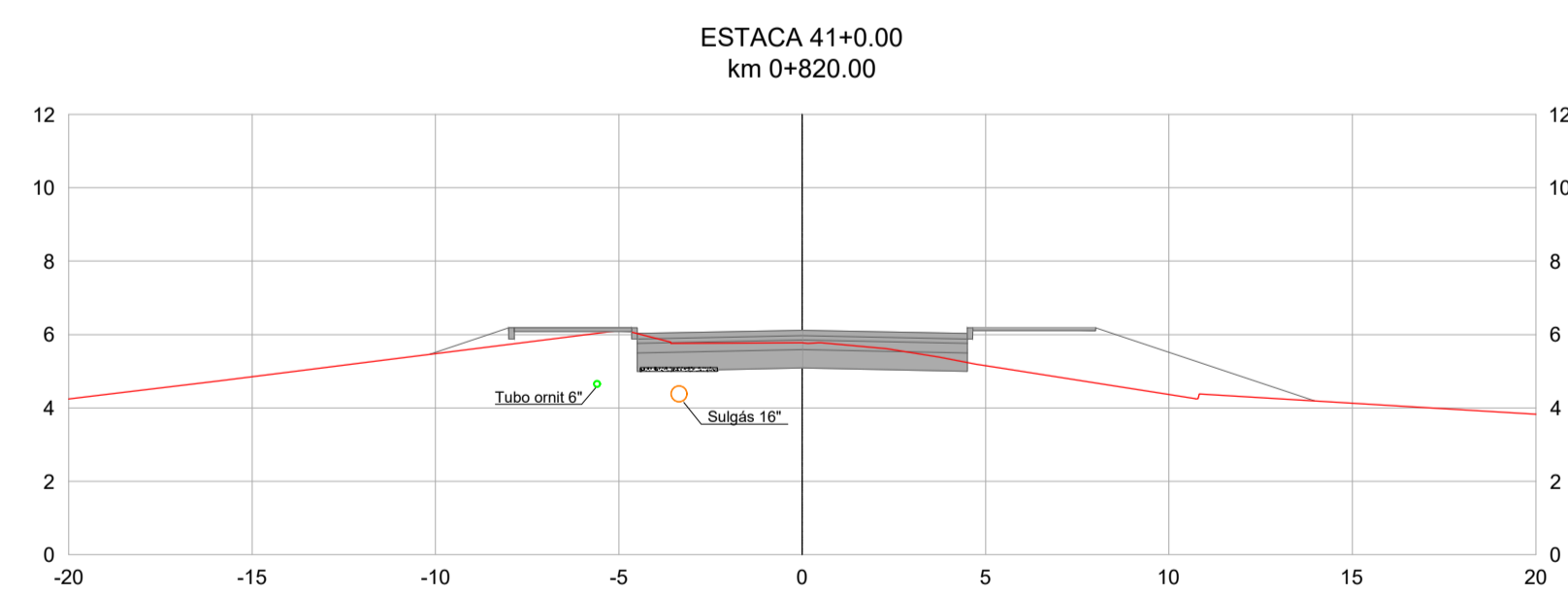
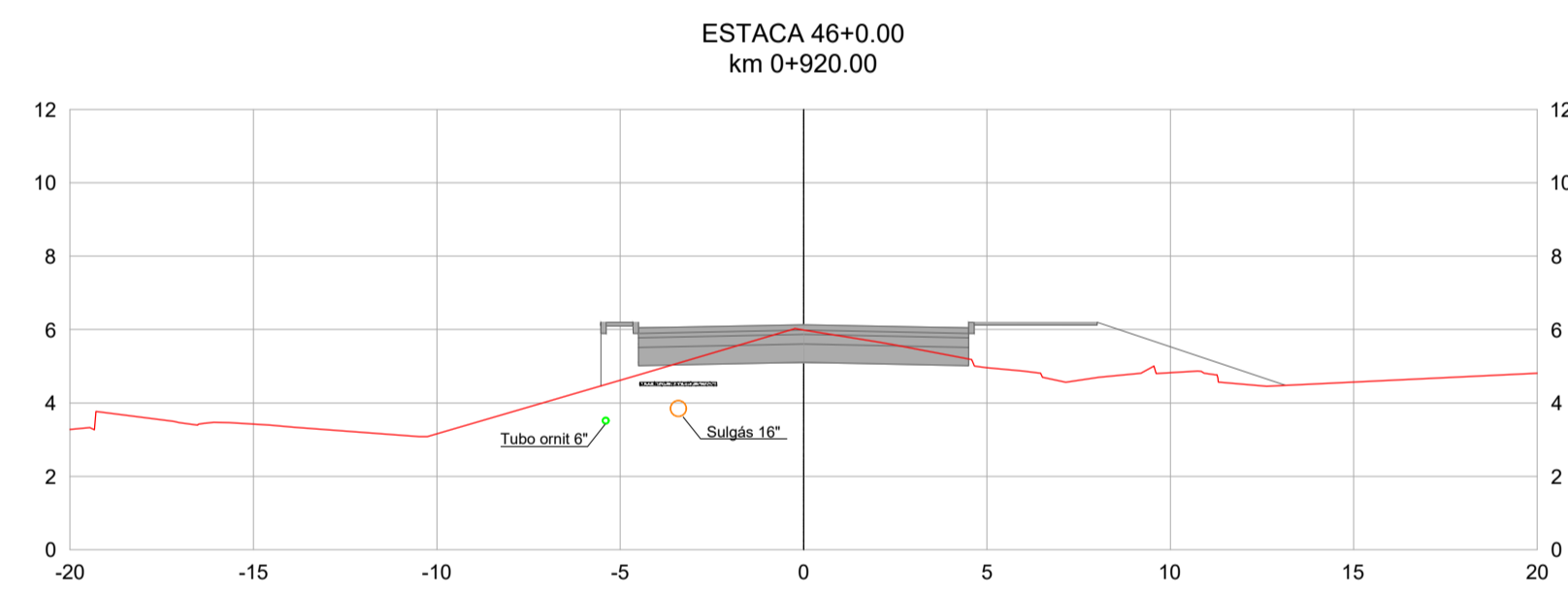
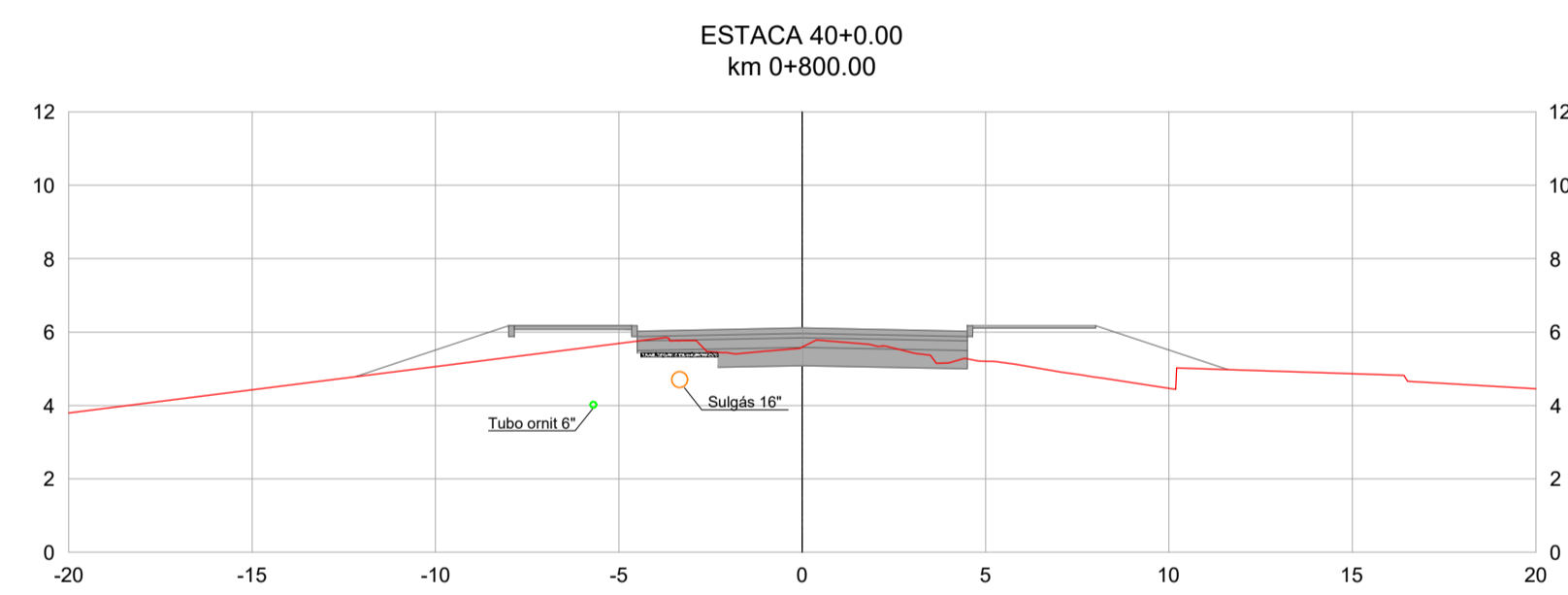
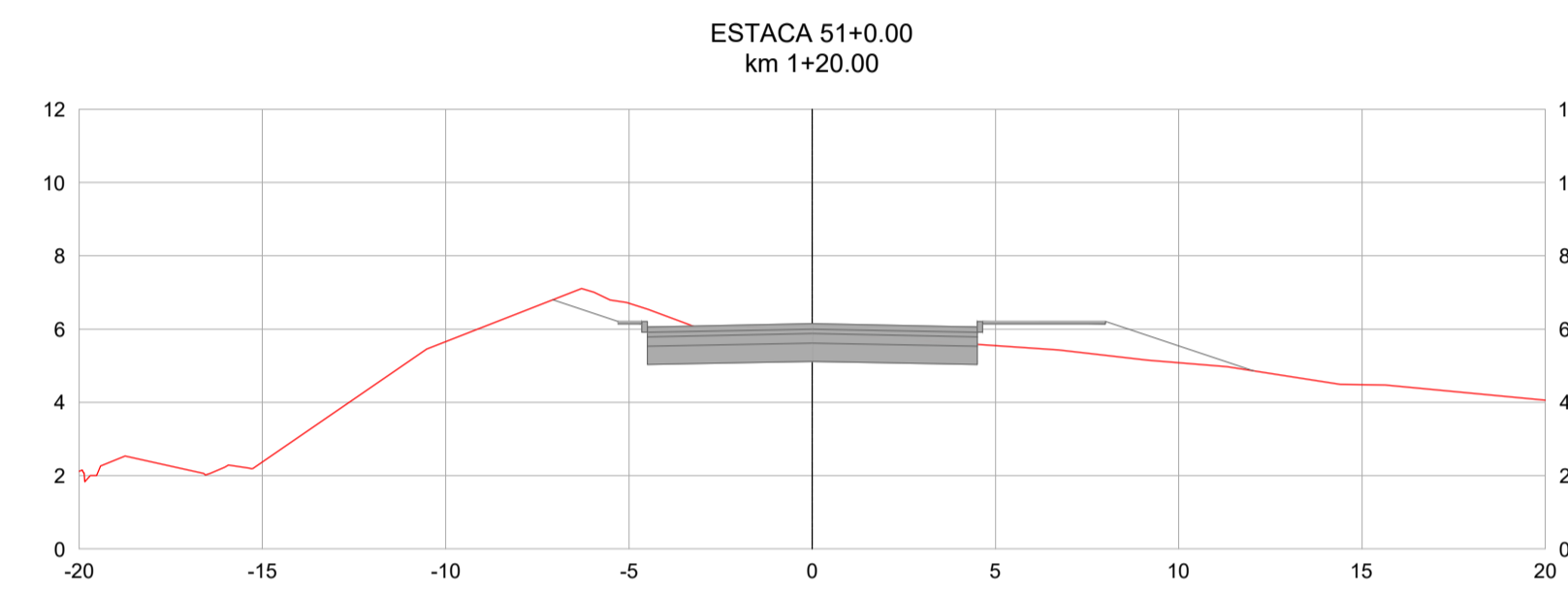
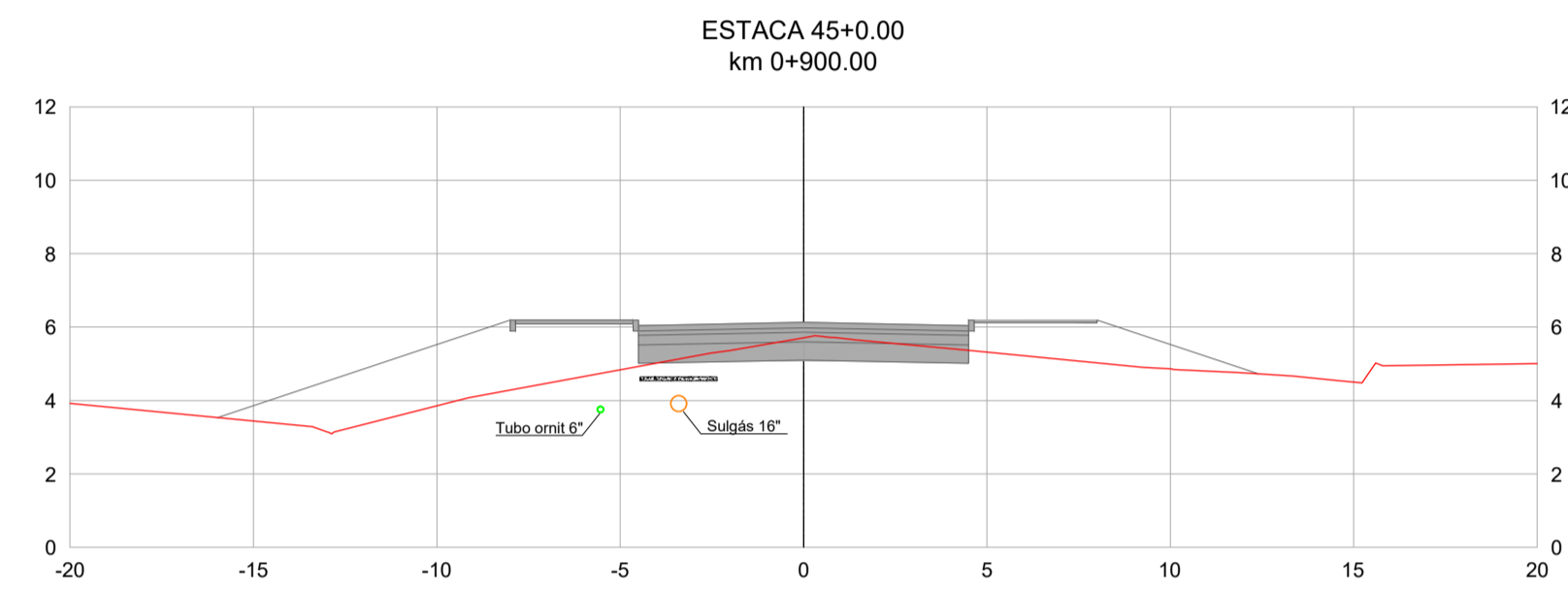
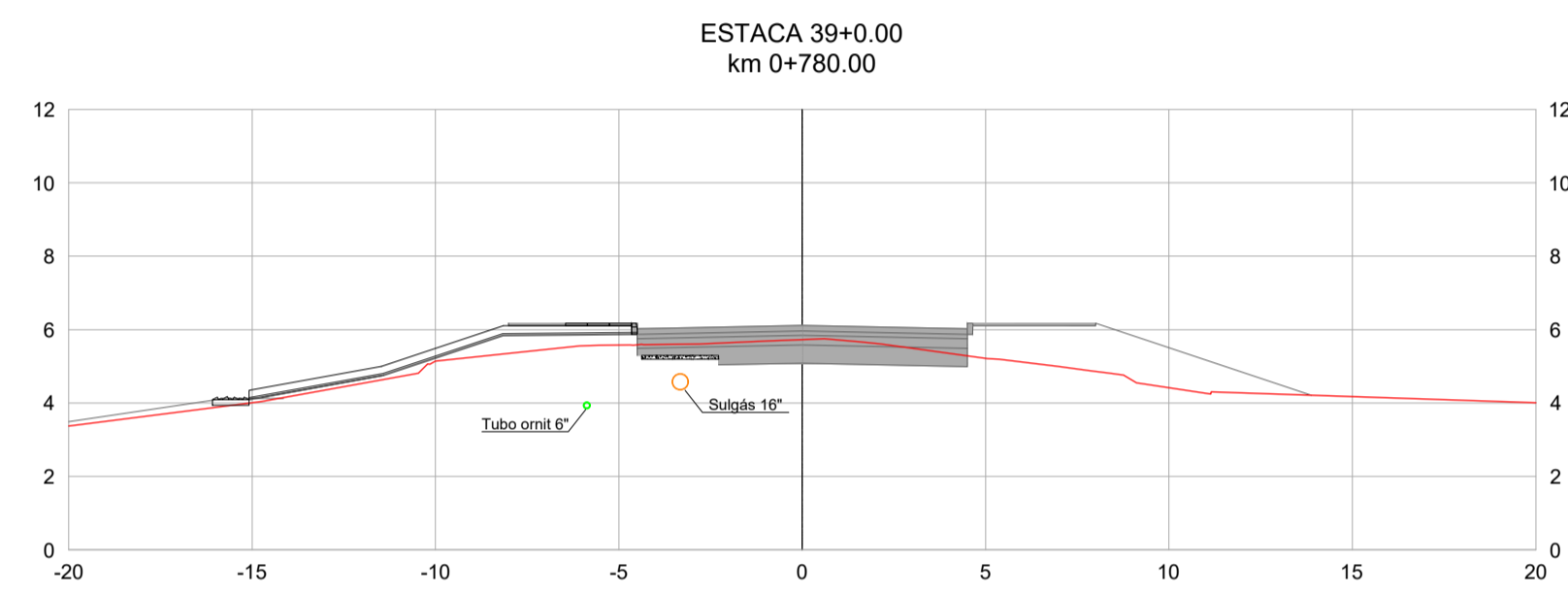
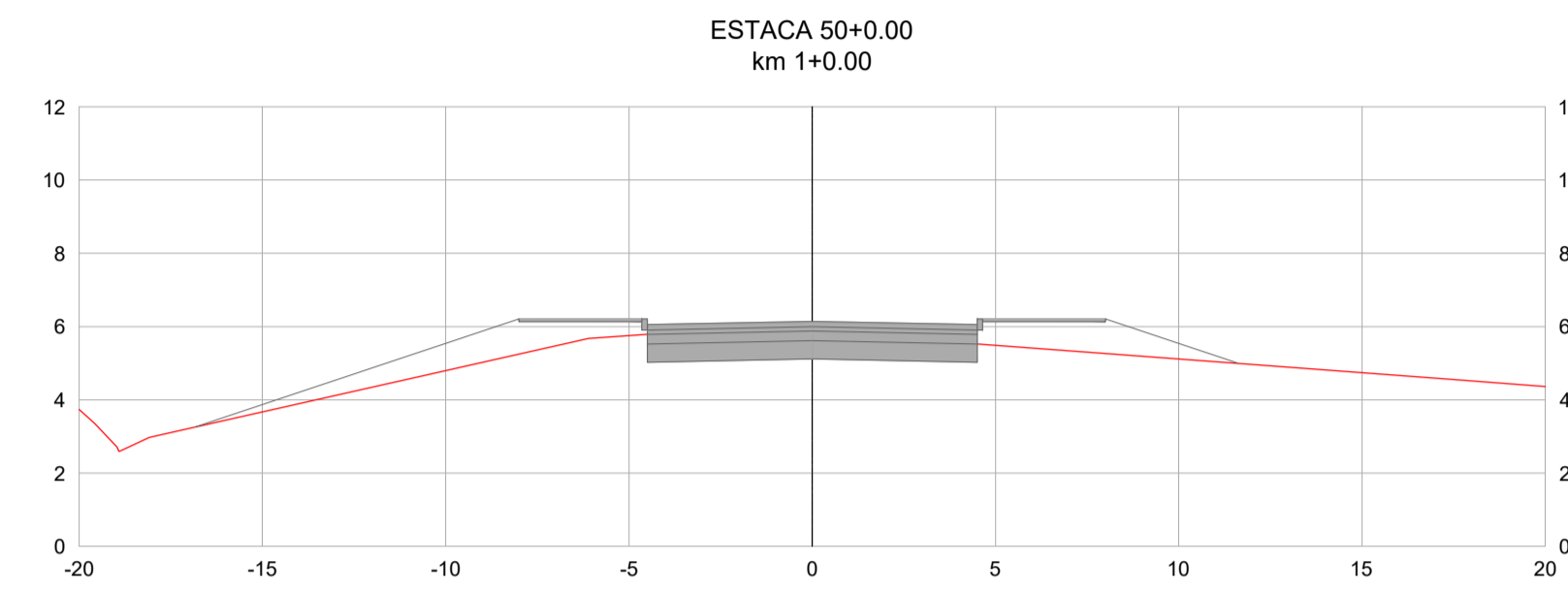
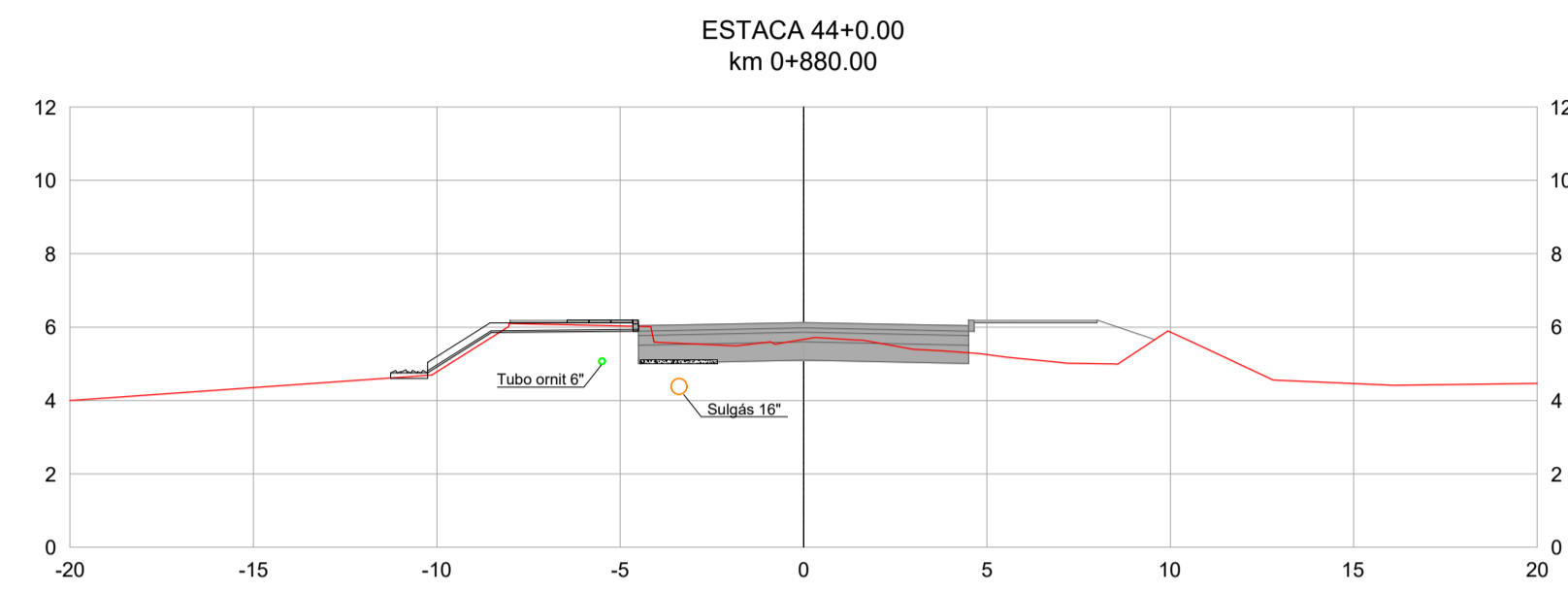
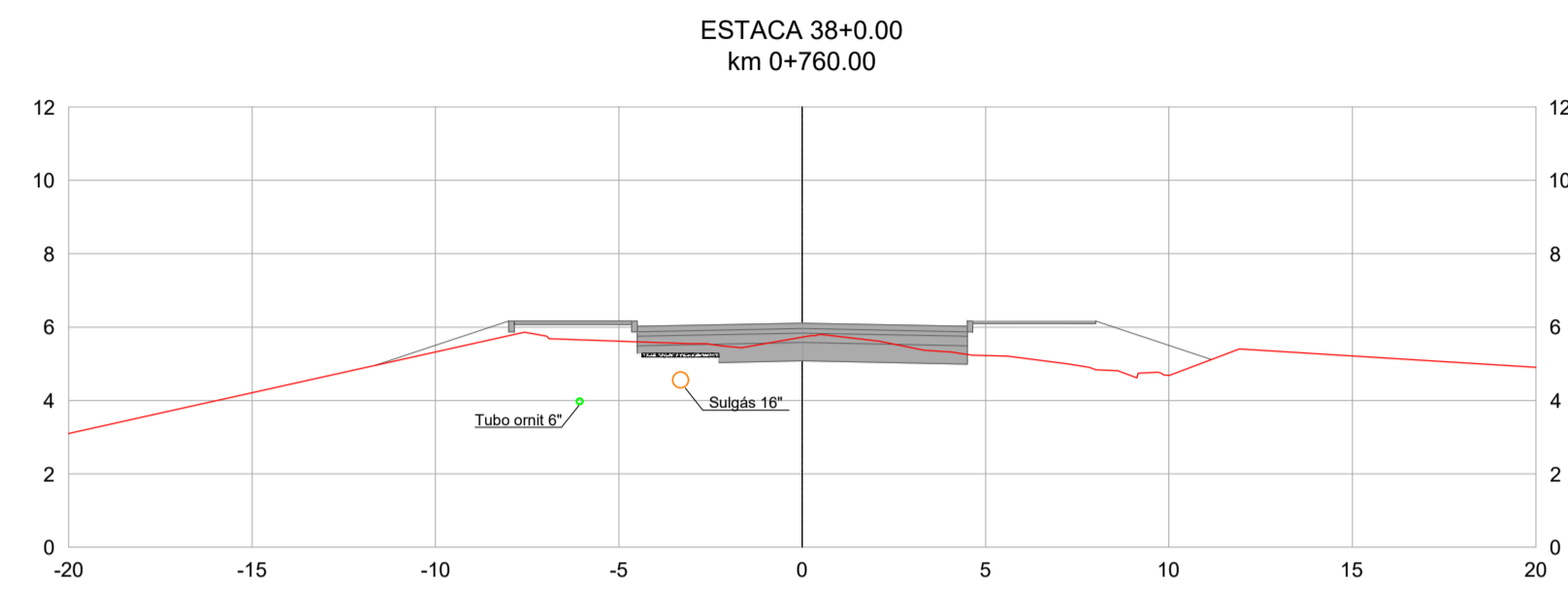
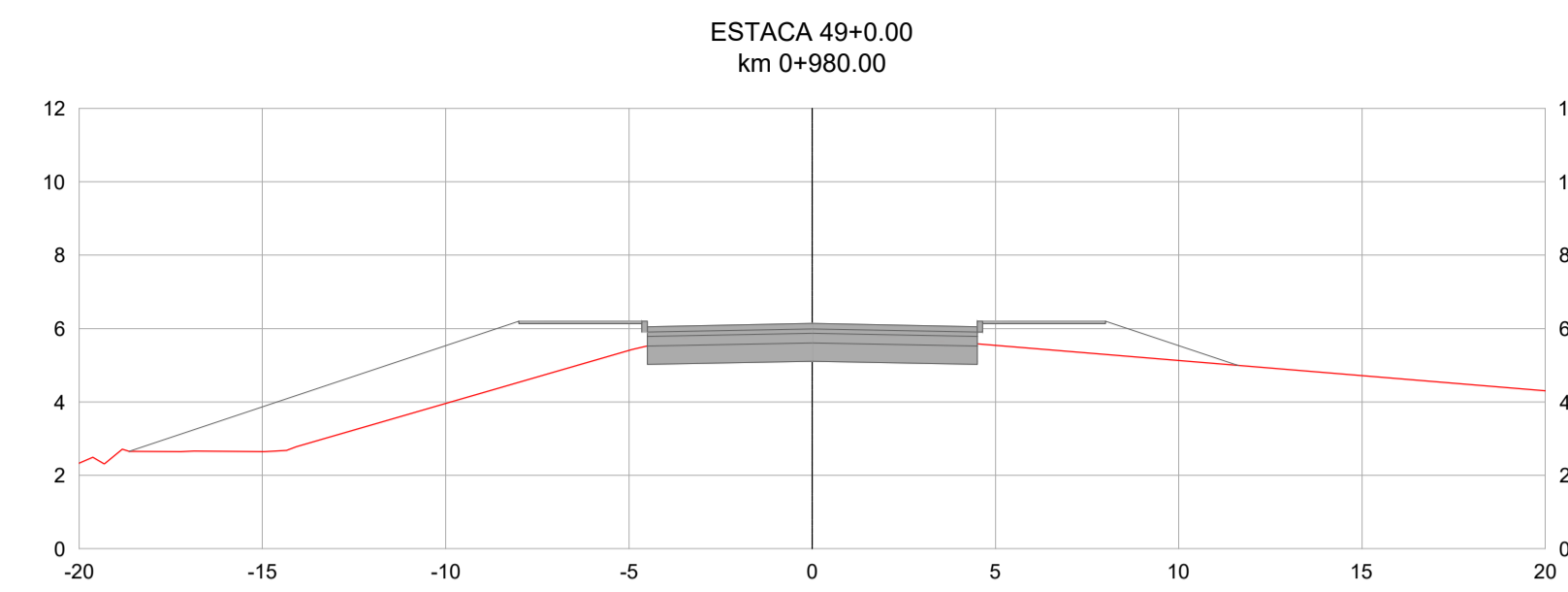
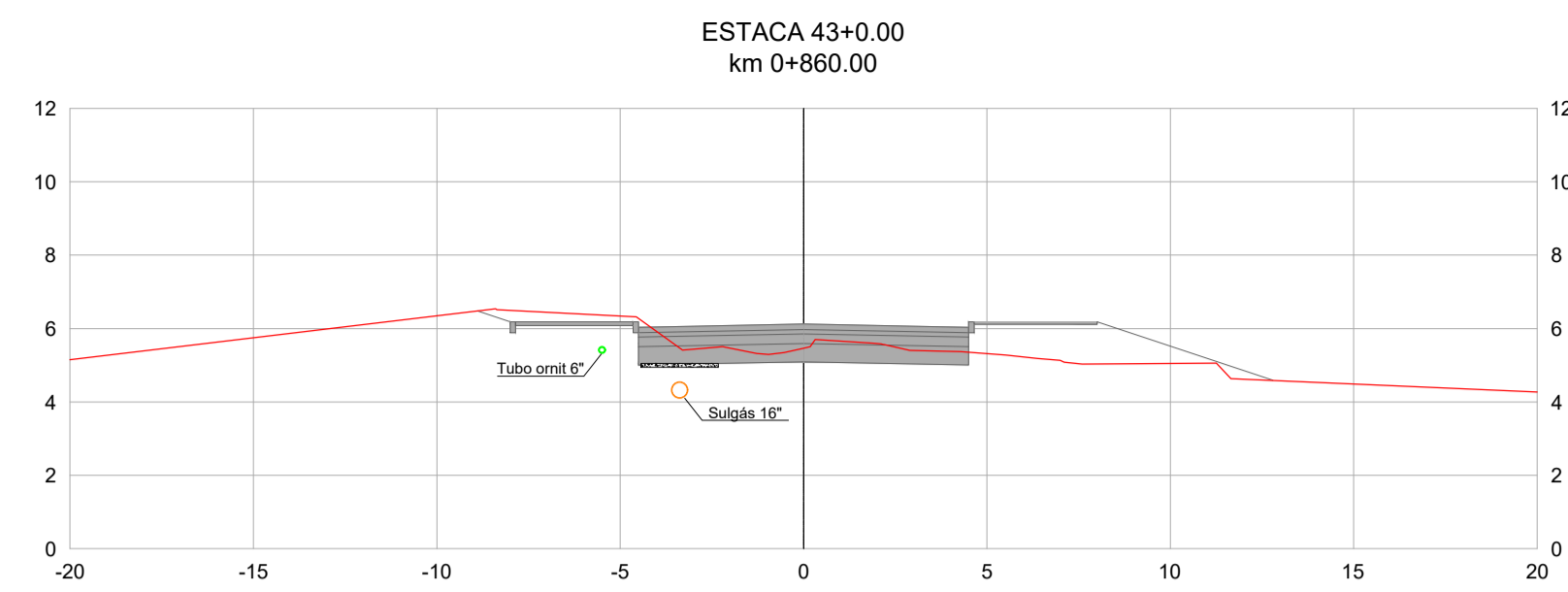
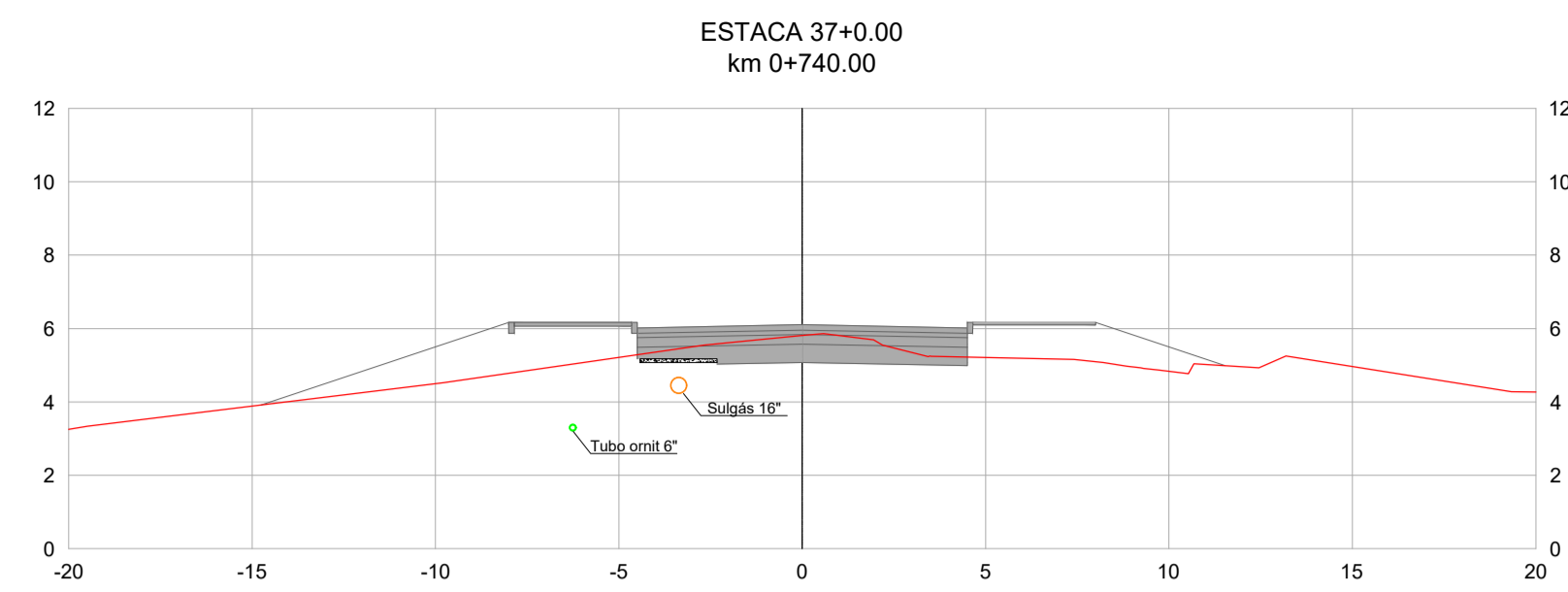
Observações:

- Quando a faixa de dutos estiver dentro da caixa viária a escavação deverá ser realizada manualmente, sendo retirada apenas as camadas do pavimento existente, em qualquer caso essa escavação não poderá ultrapassar 0,40 m de profundidade;
- O recobrimento mínimo sobre os dutos abaixo da laje de proteção deverá ser de 0,40m;
- Quando a faixa de dutos estiver no passeio deverá ser realizada decapagem de no máximo 0,20 m;
- A laje de proteção servirá para assegurar a integridade da tubulação facilitando manutenções futuras.

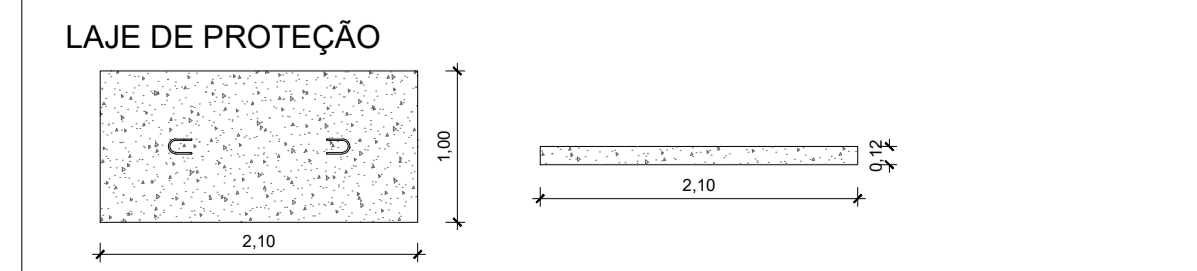
LAJE DE PROTEÇÃO




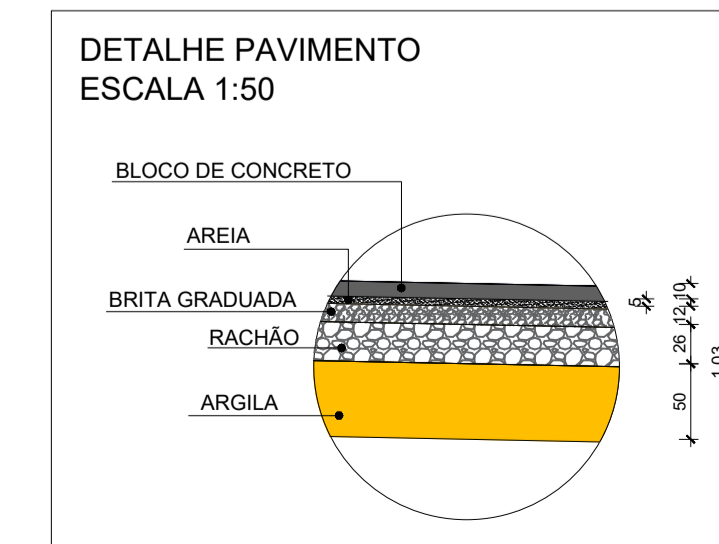
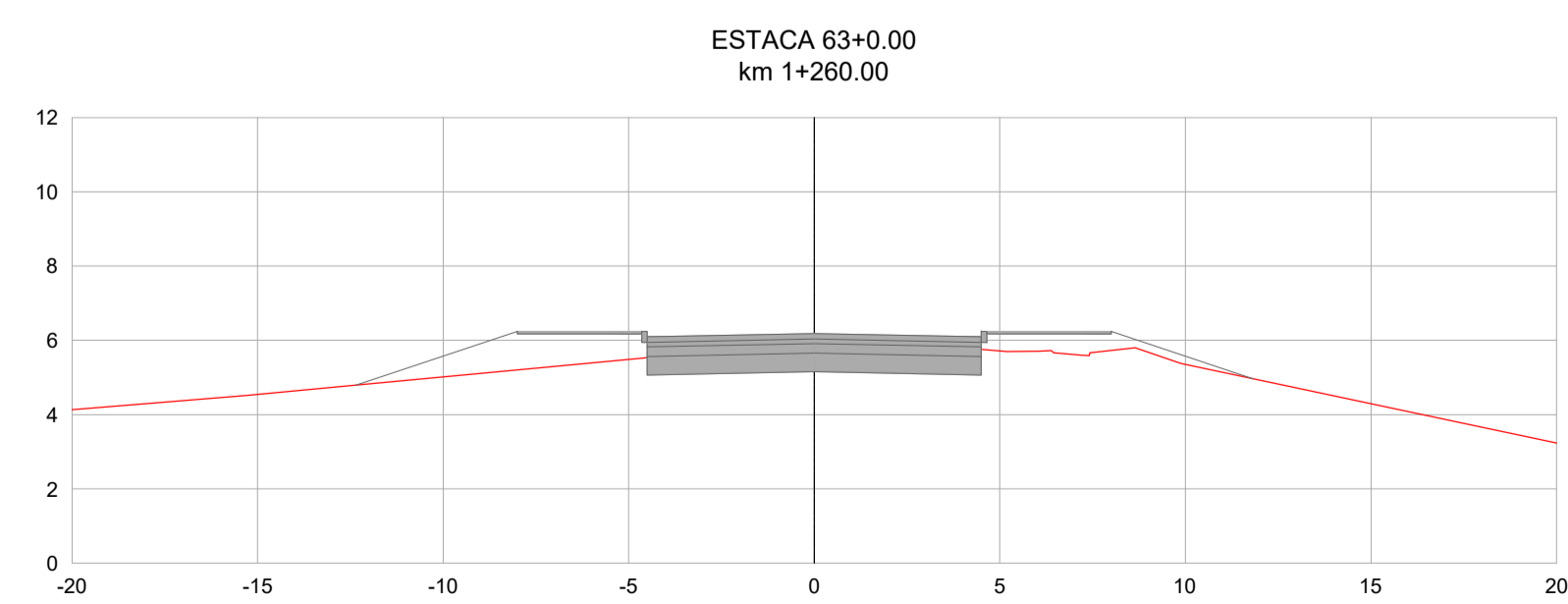
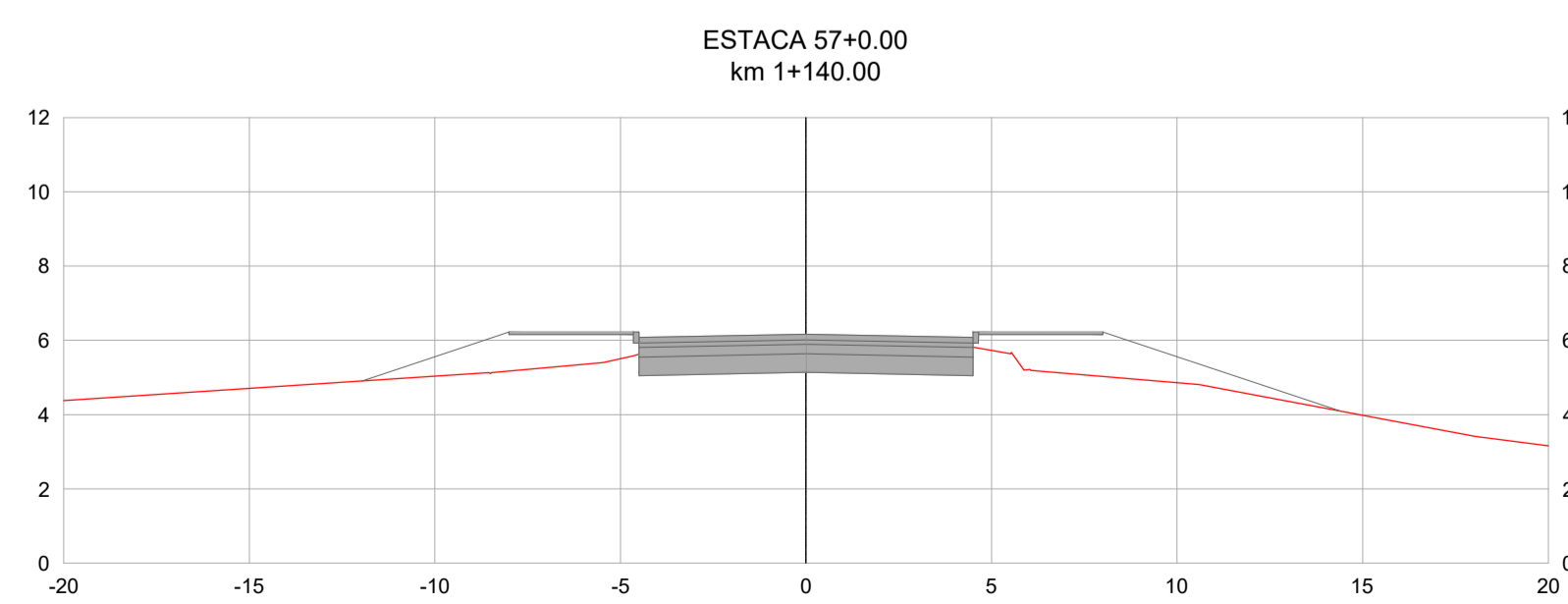
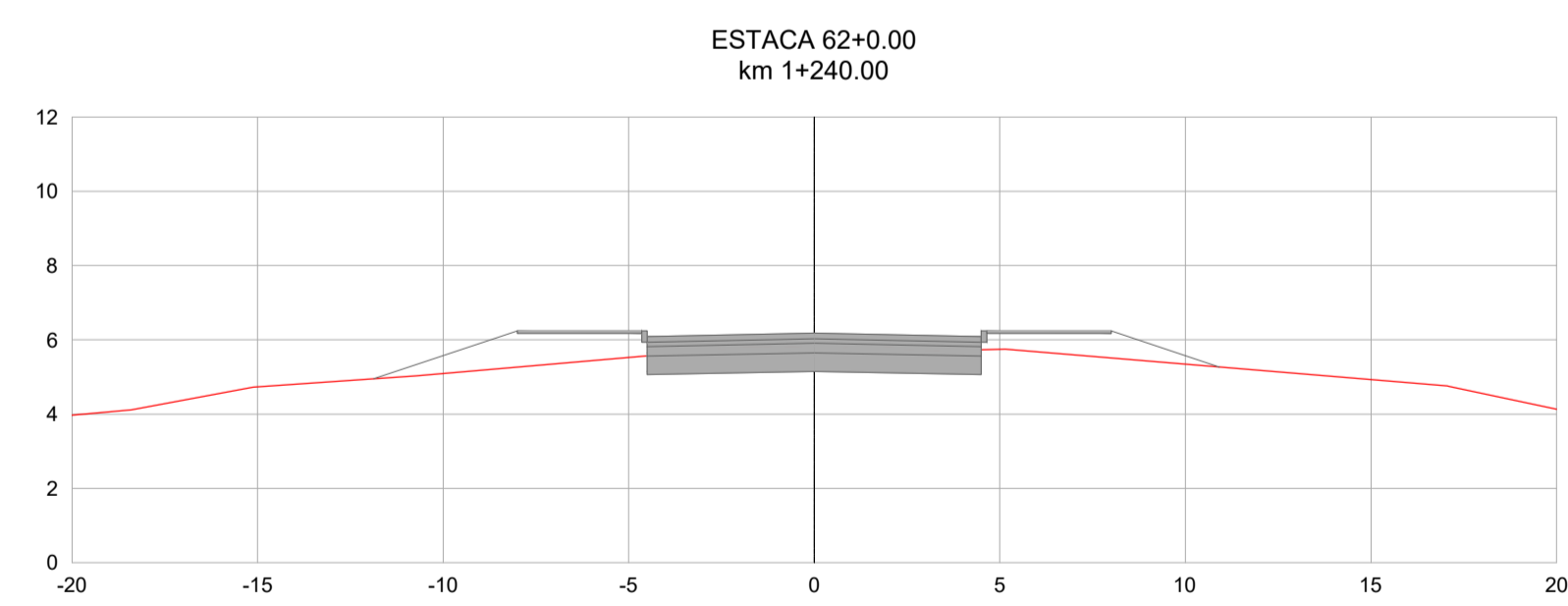
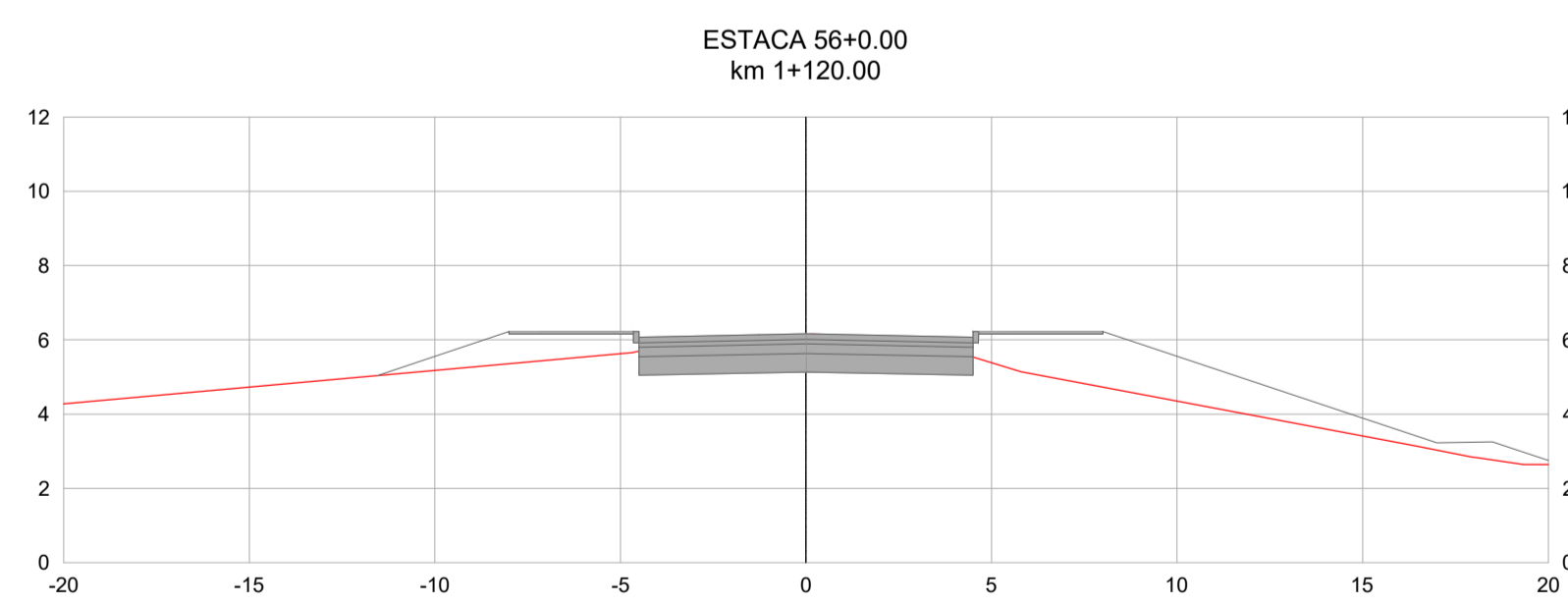
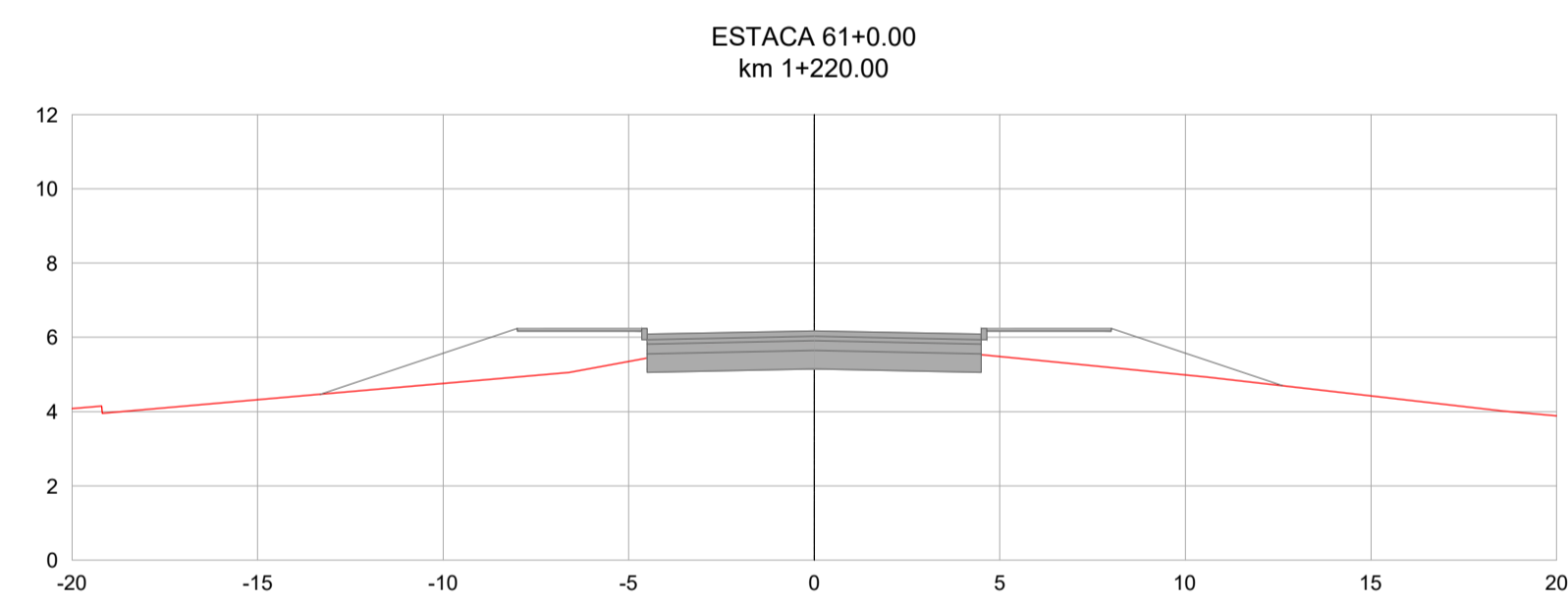
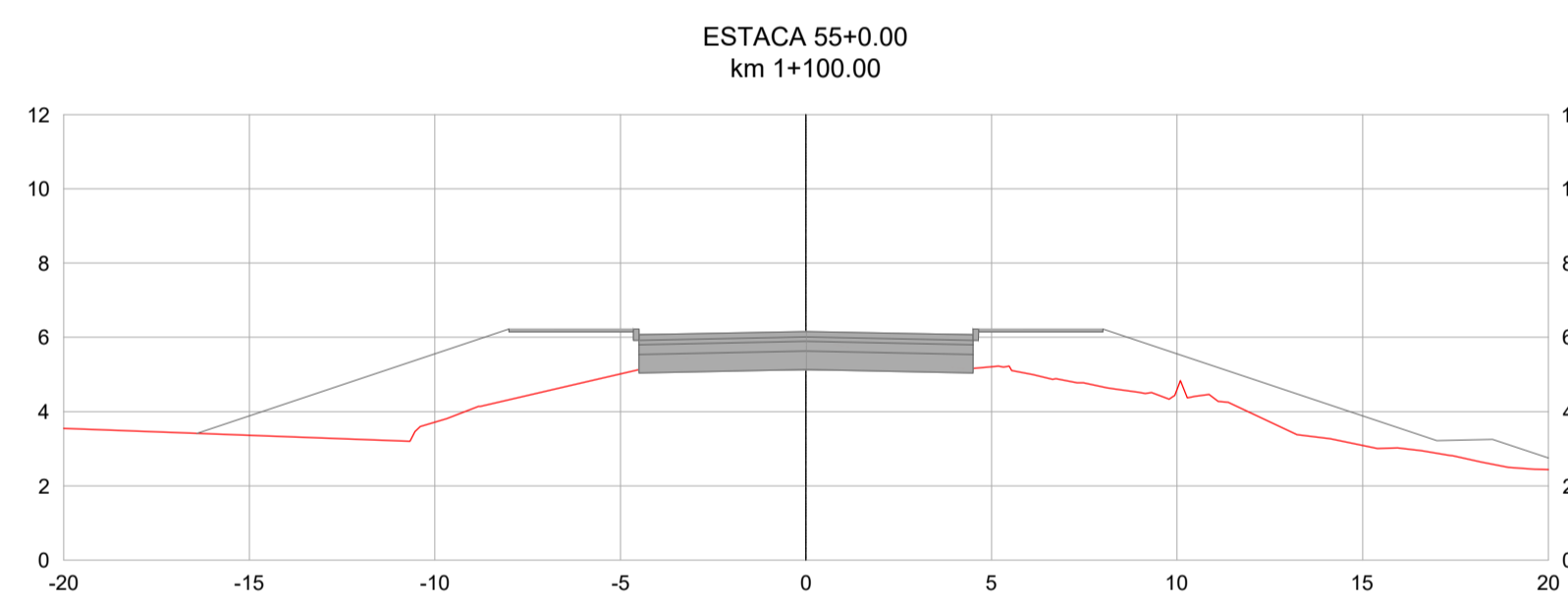
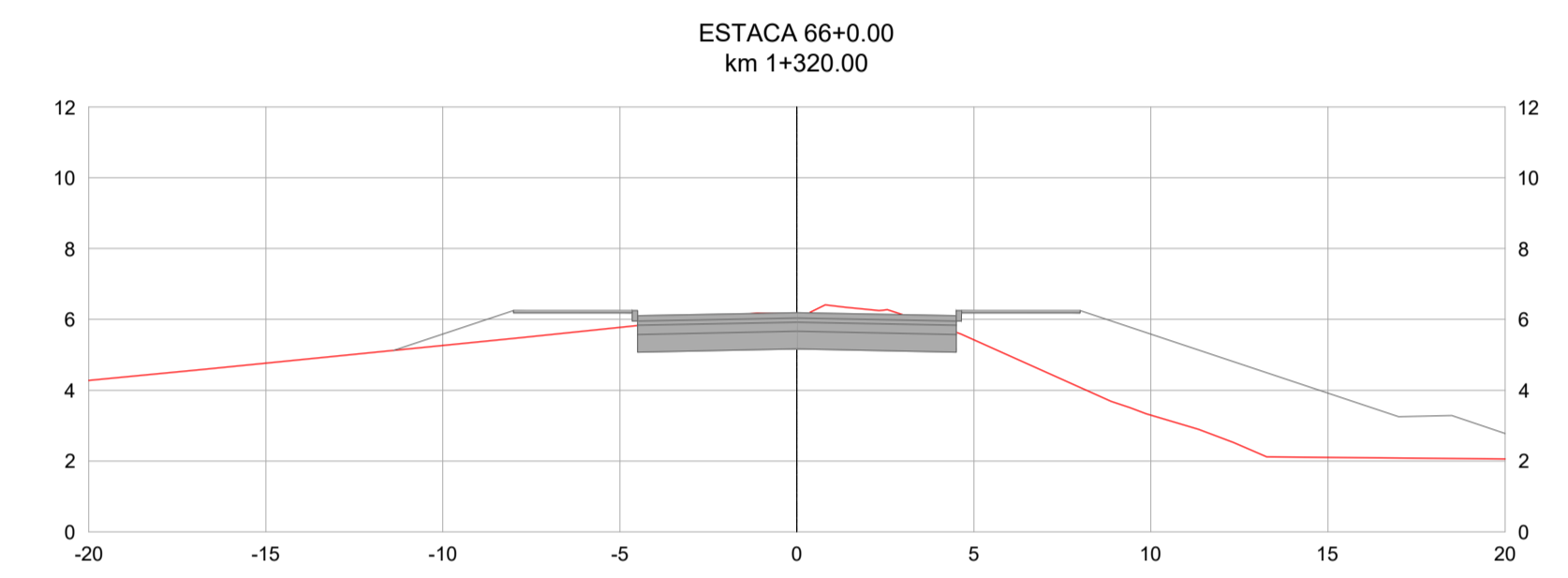
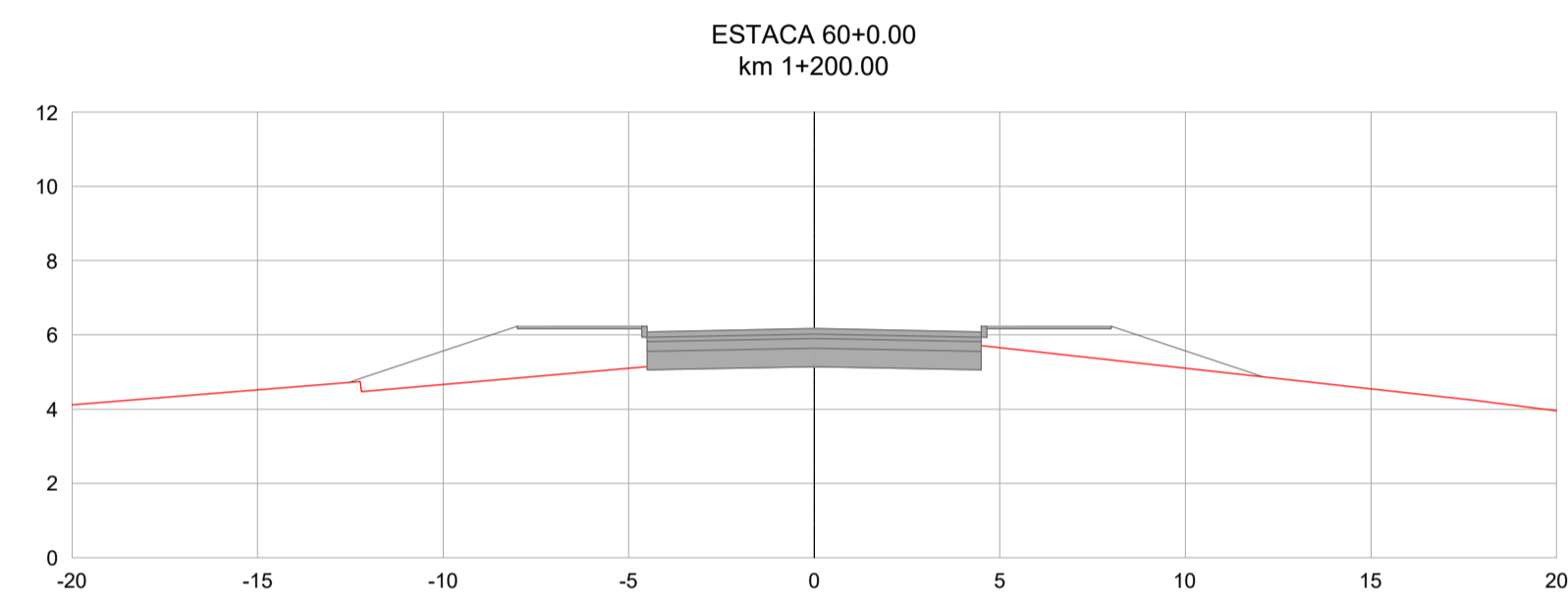
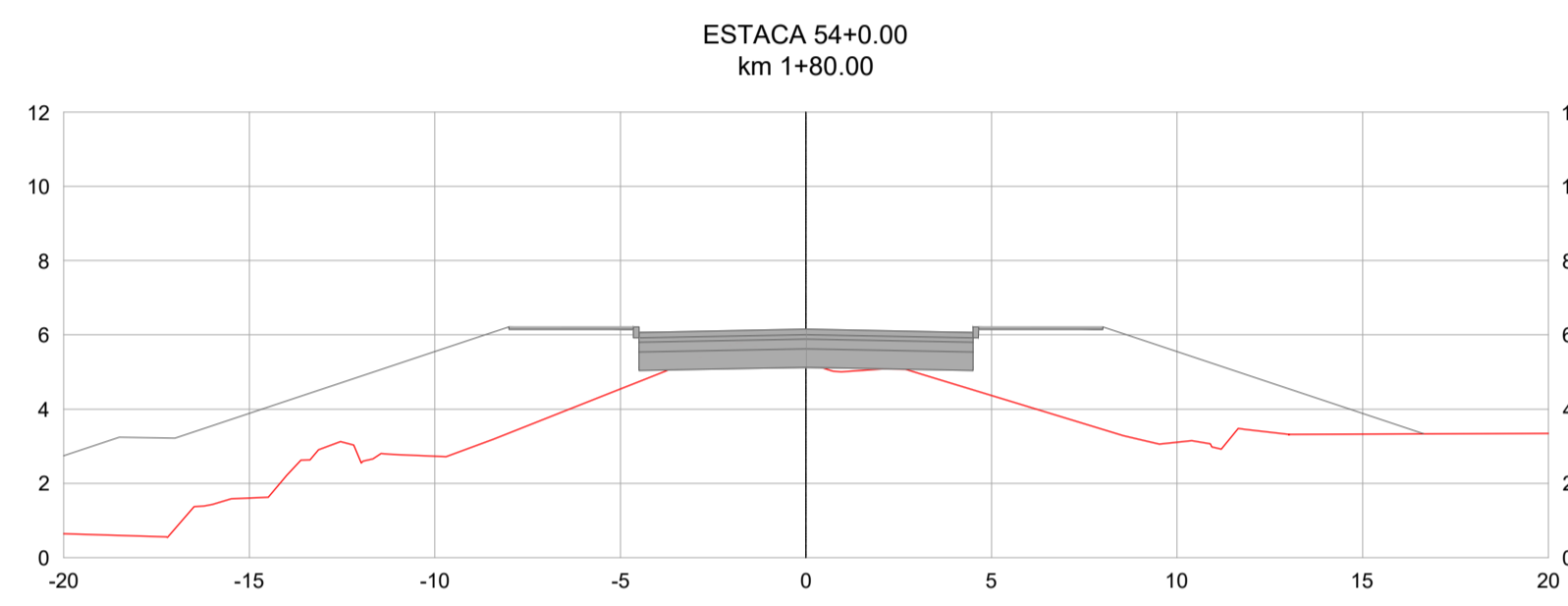
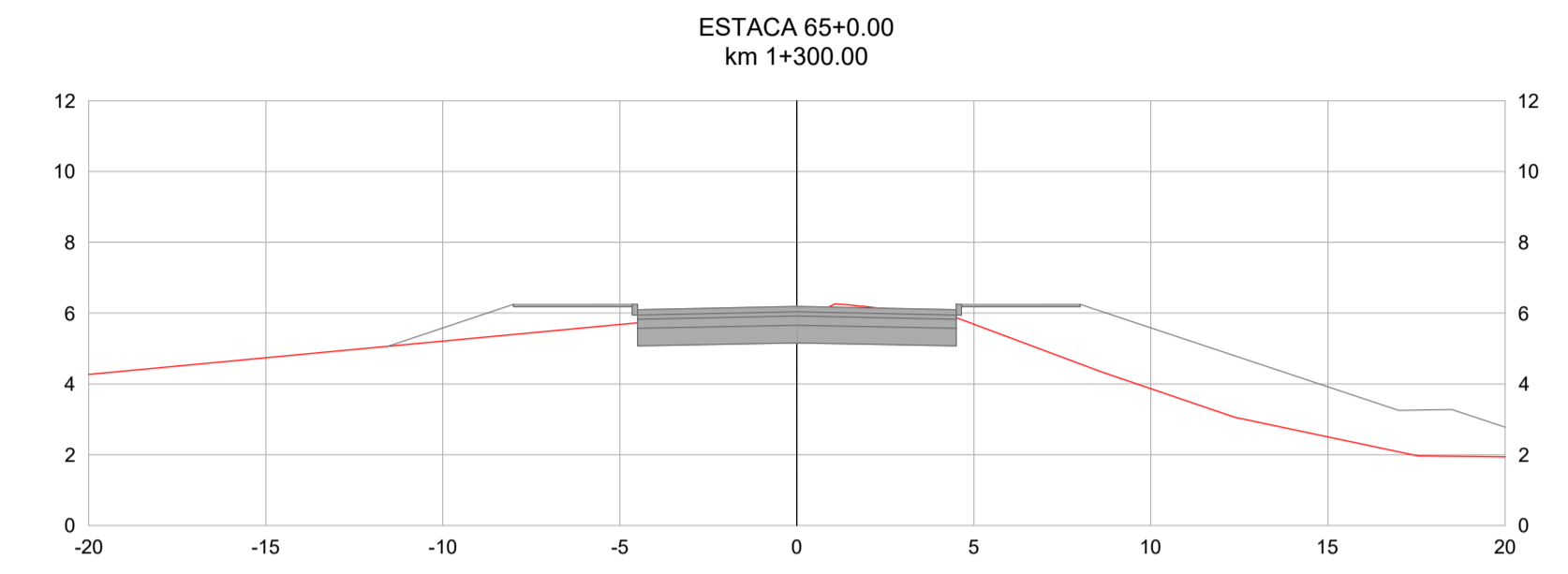
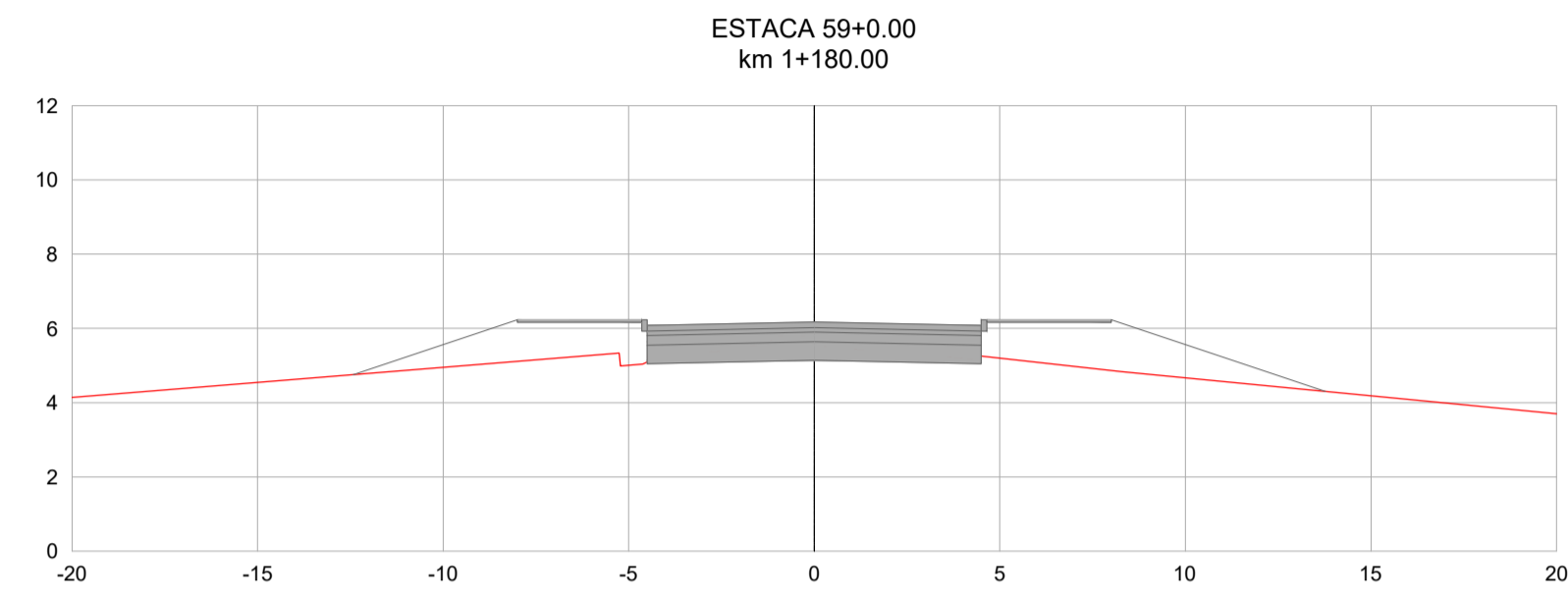
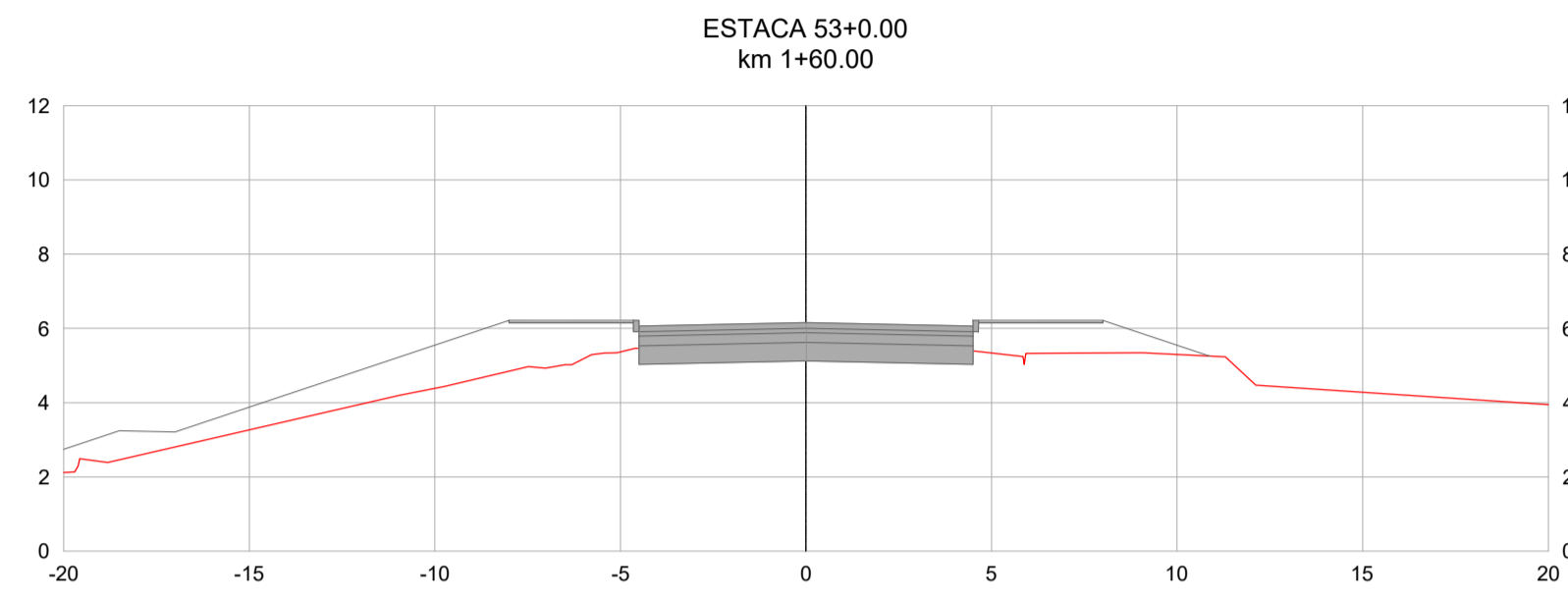
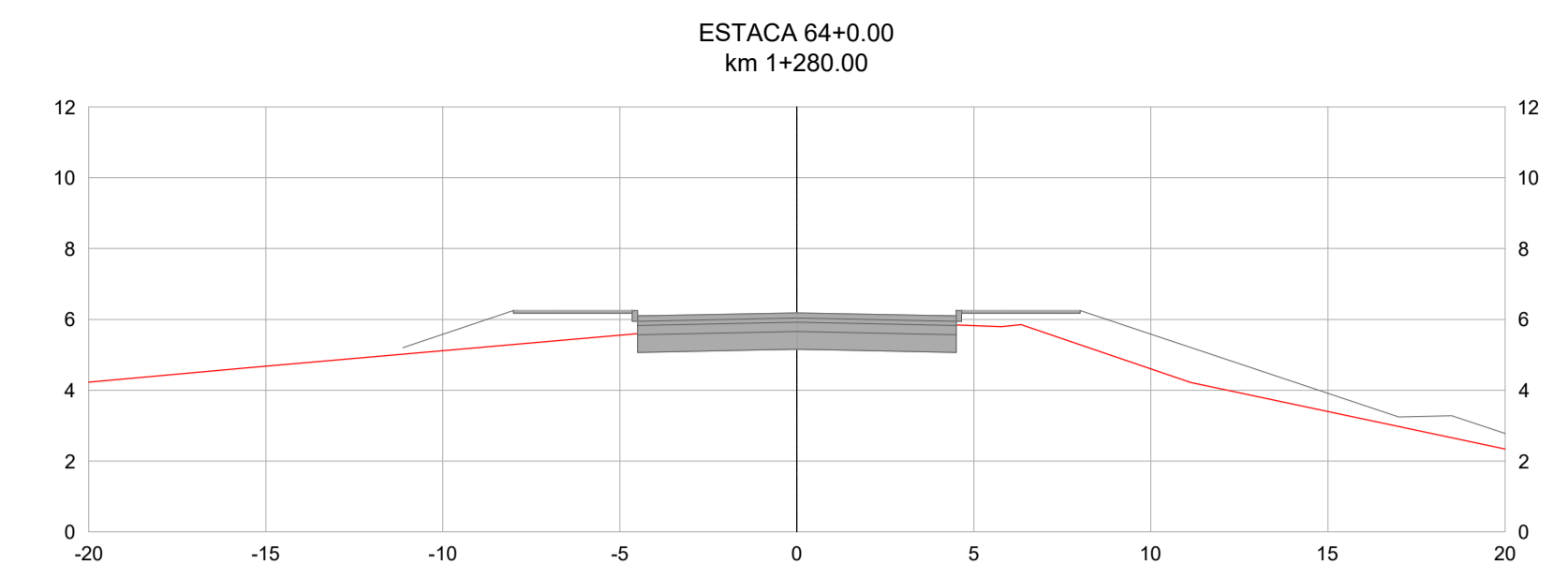
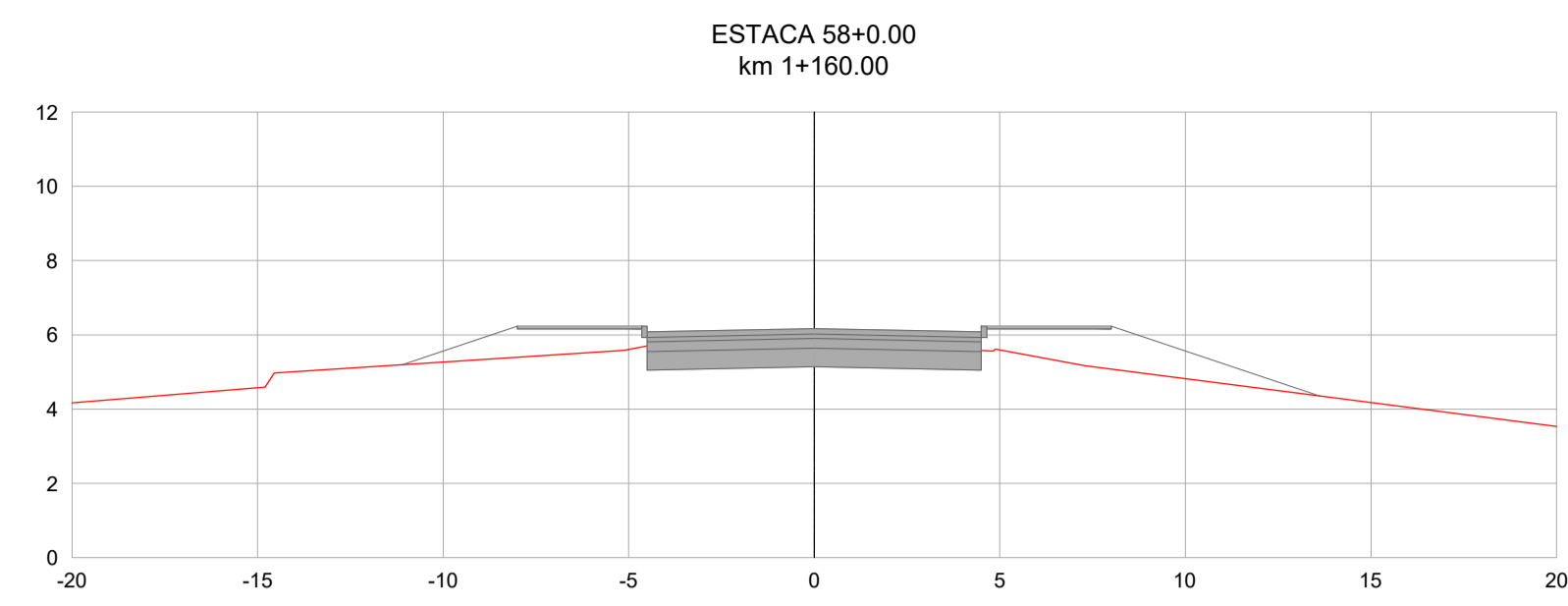
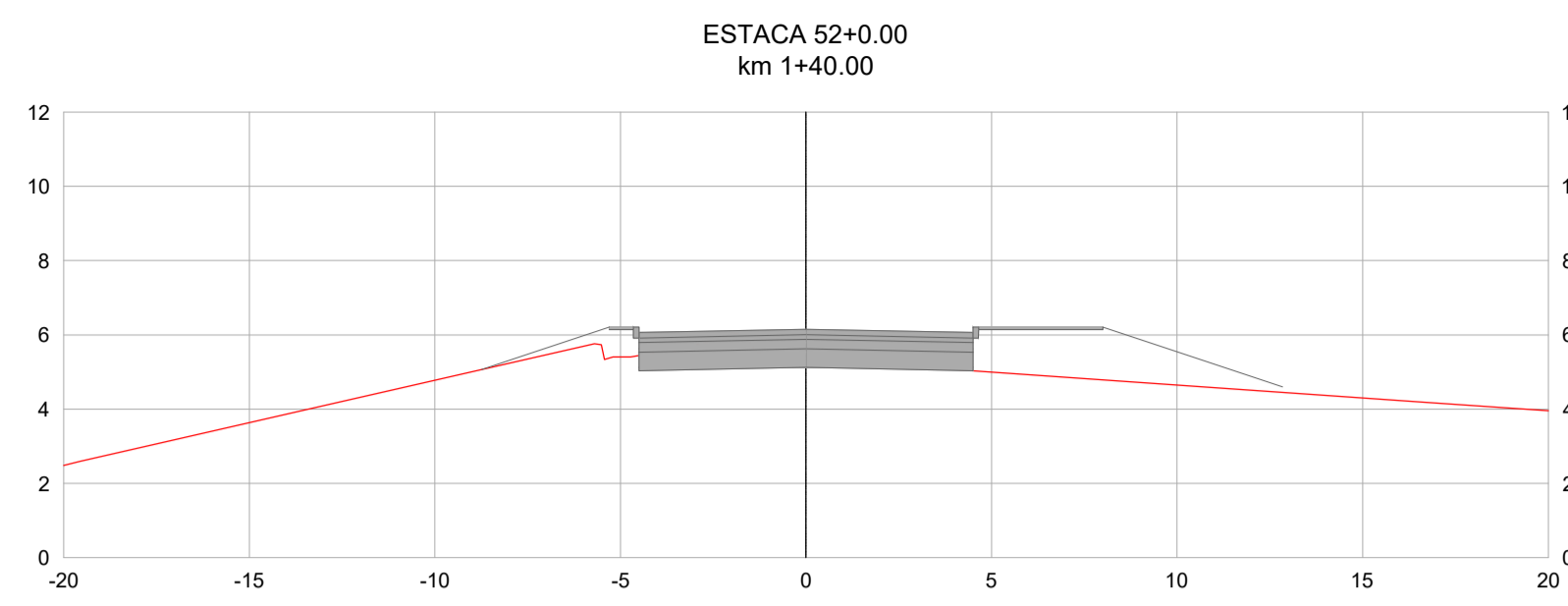
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|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | |
| <p>EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ</p> | |
| <p>ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS</p> | |
| <p>PROJETO: PAVIMENTAÇÃO</p> | <p>DISCRIMINAÇÃO DA FRANCHA: SEÇÕES TRANSVERSAIS</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:200</p> | <p>ÁREA: -</p> |
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| <p>10/20</p> | |





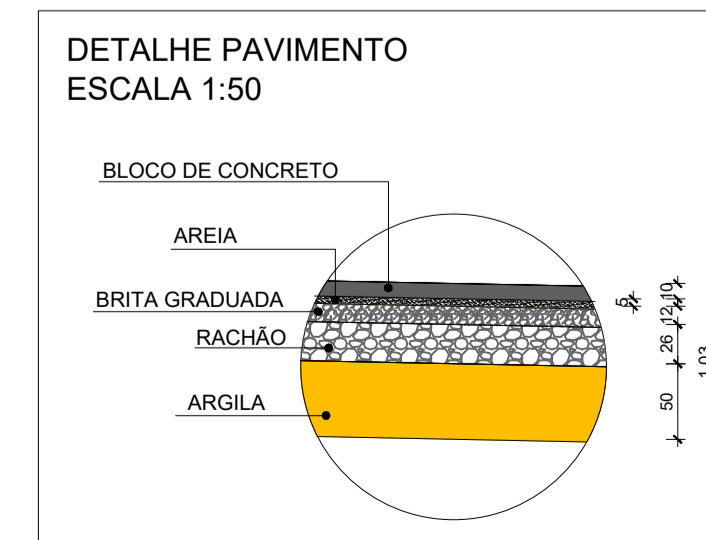
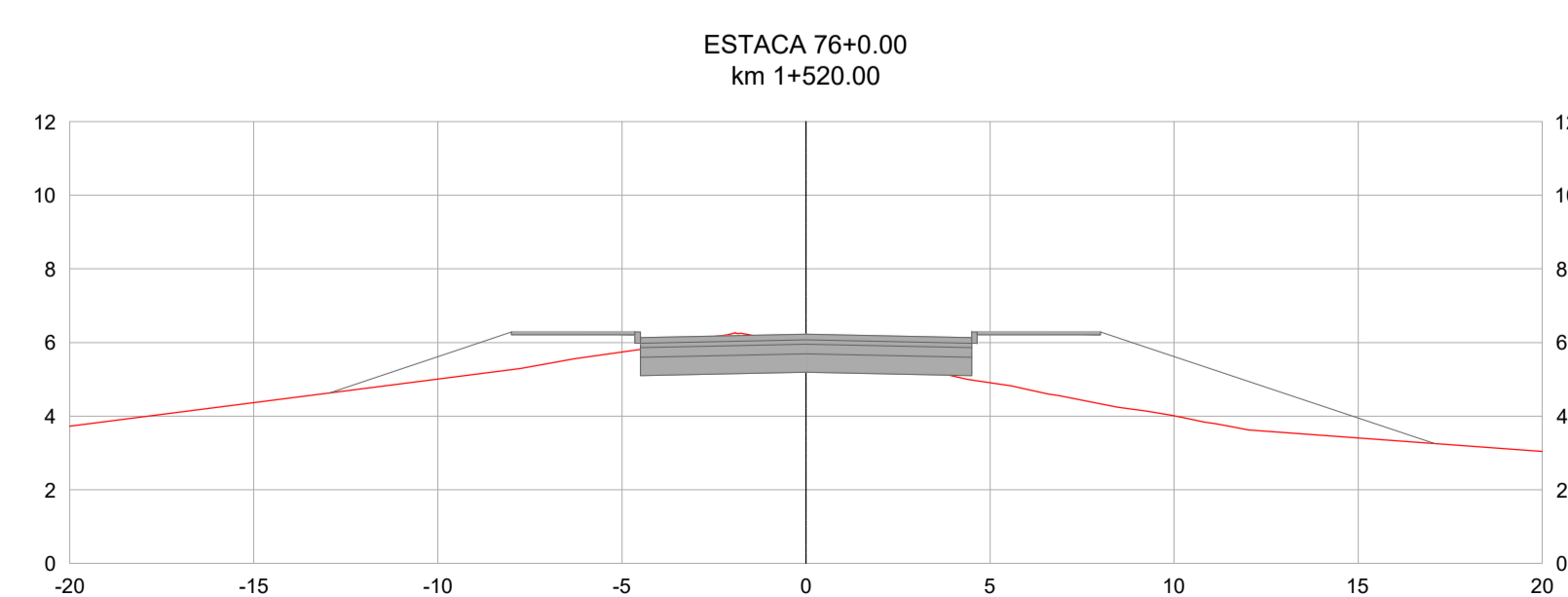
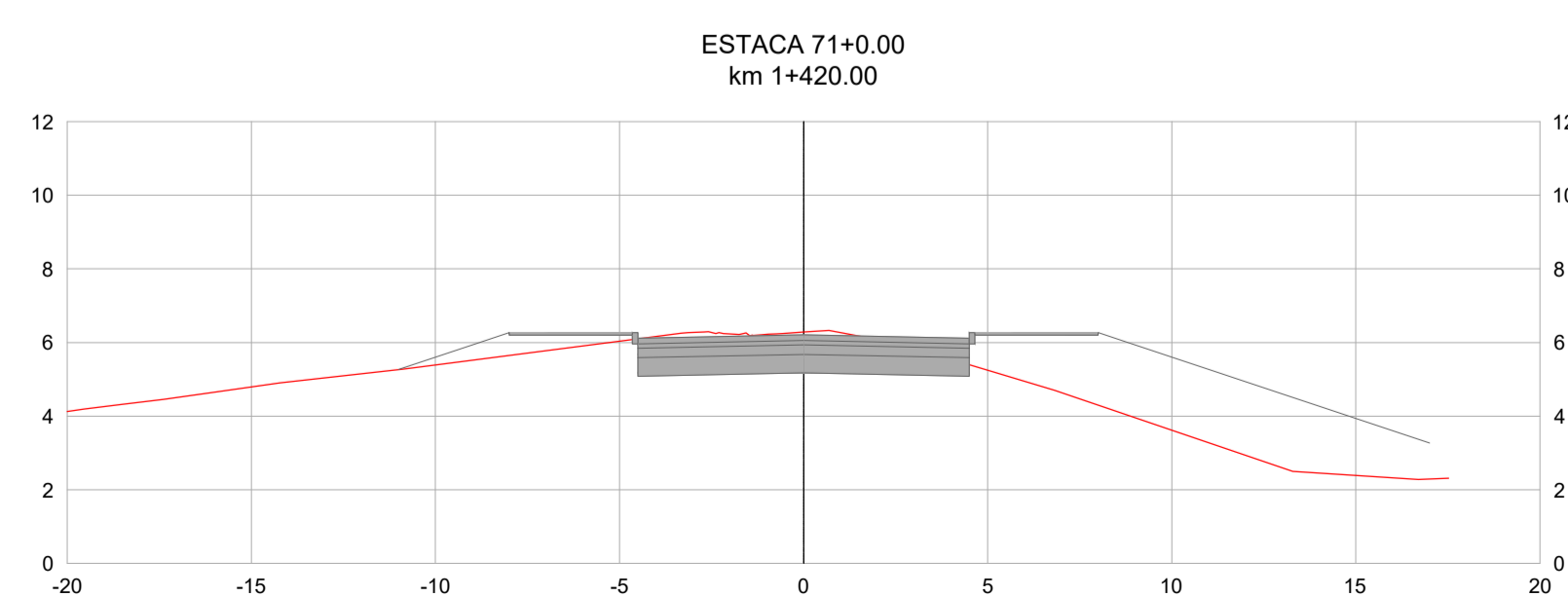
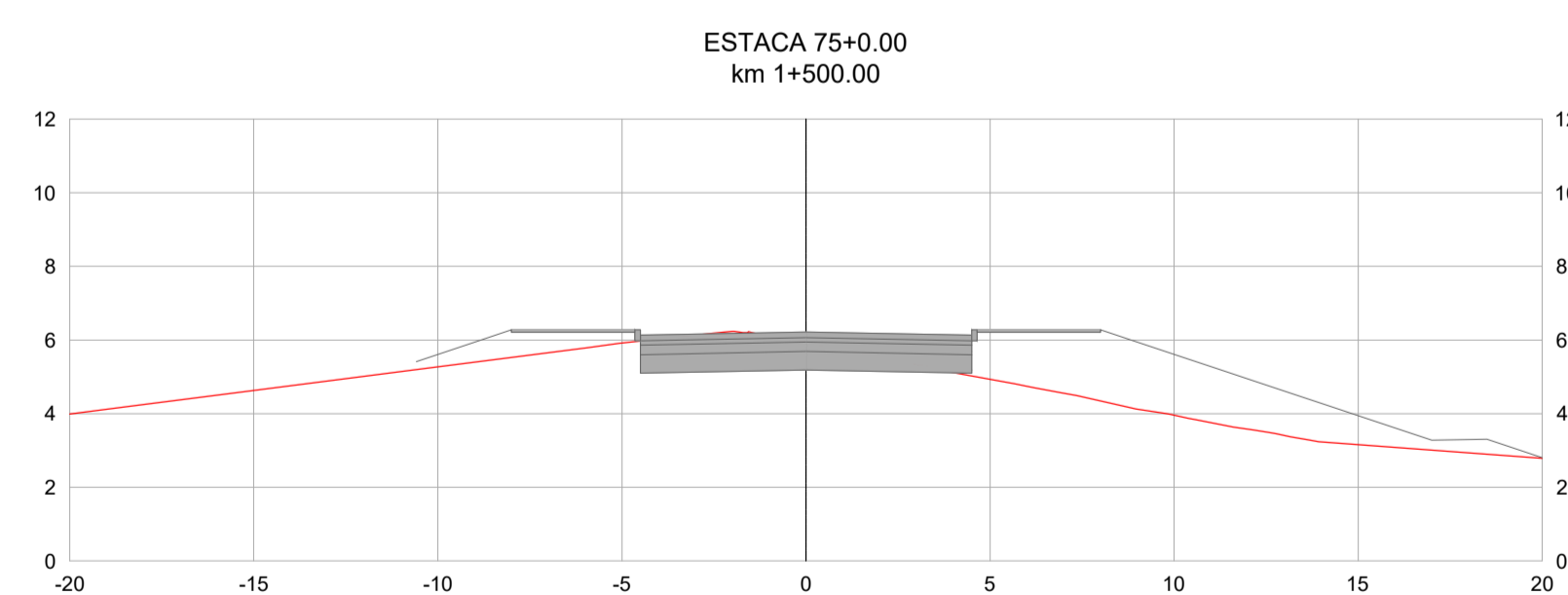
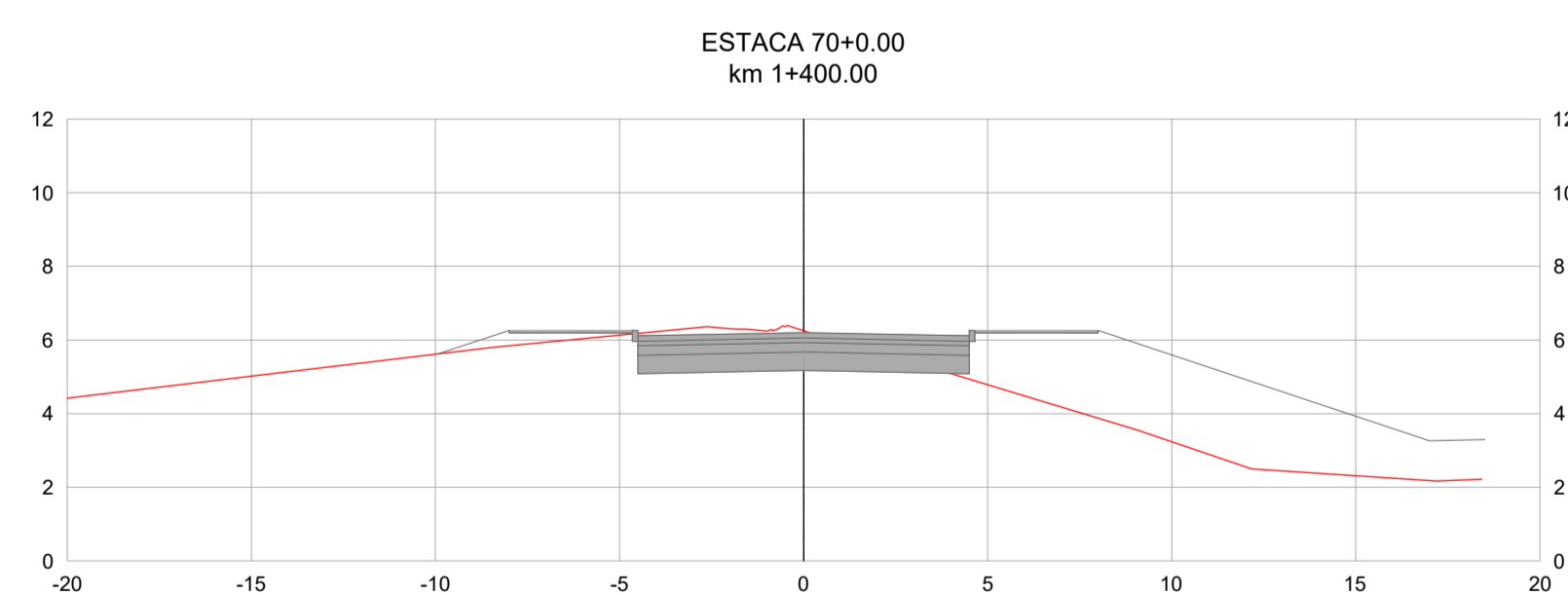
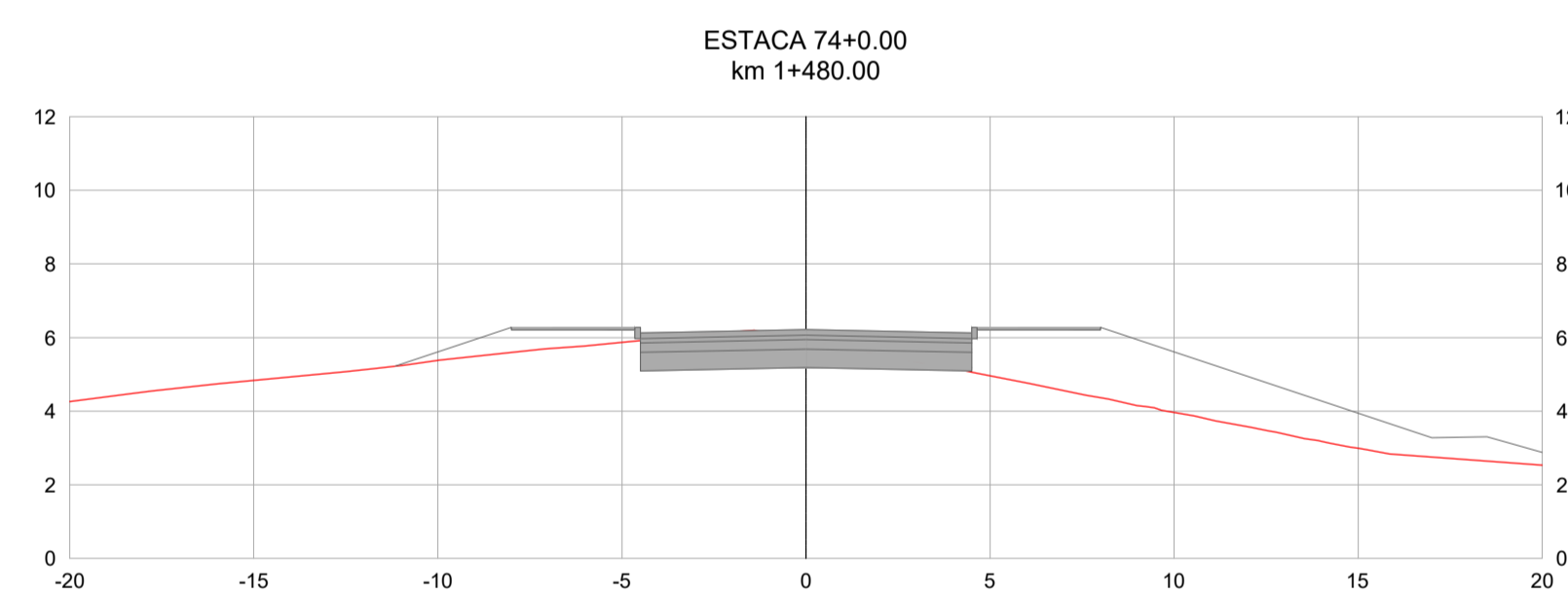
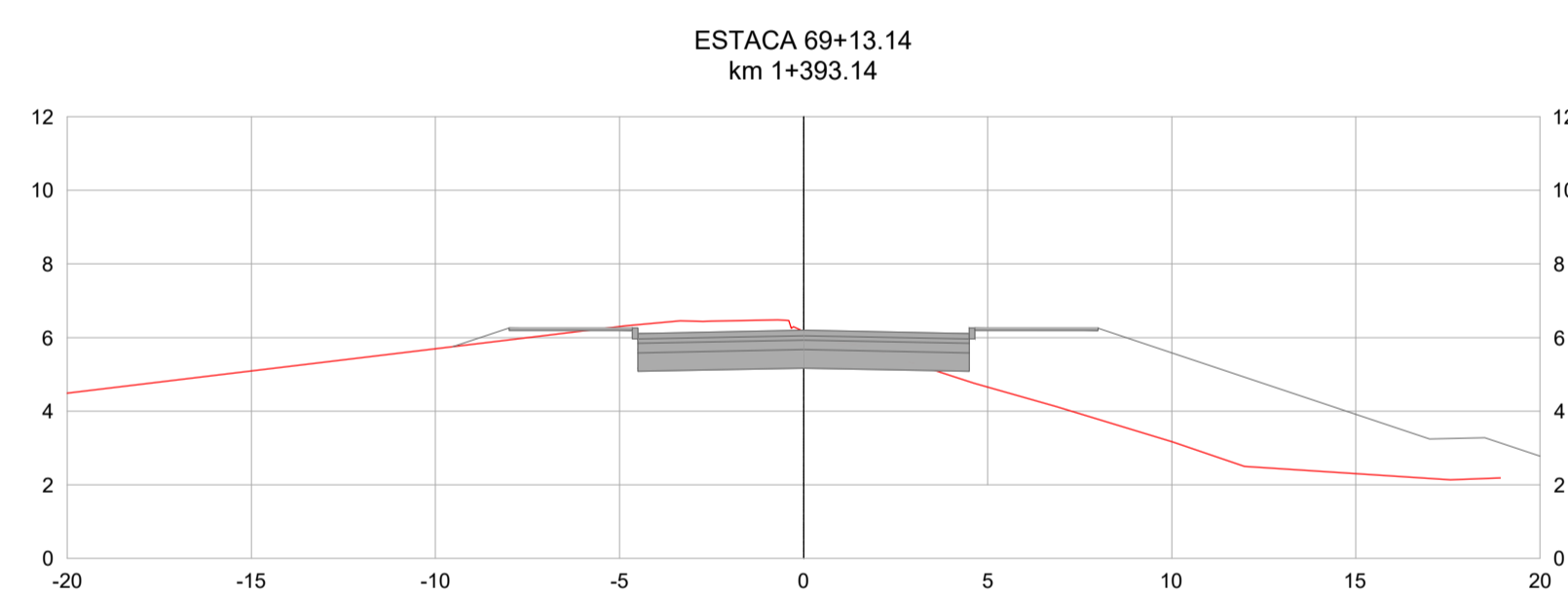
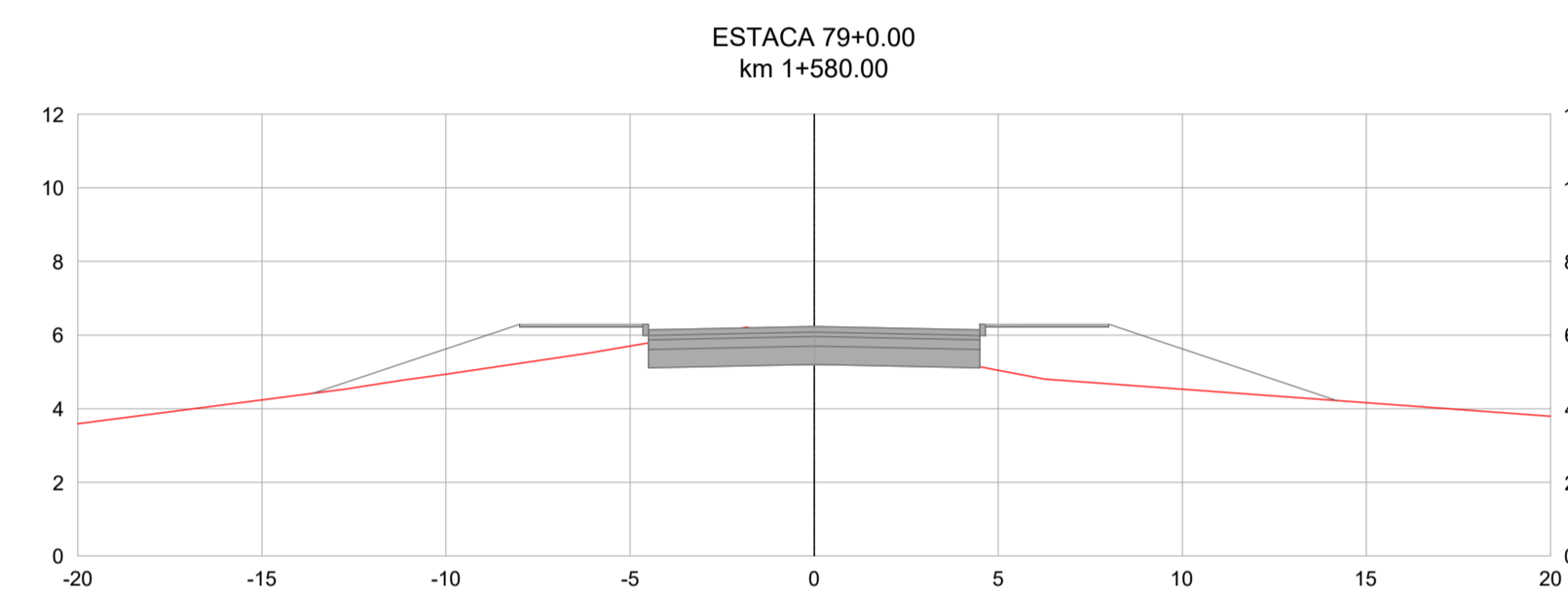
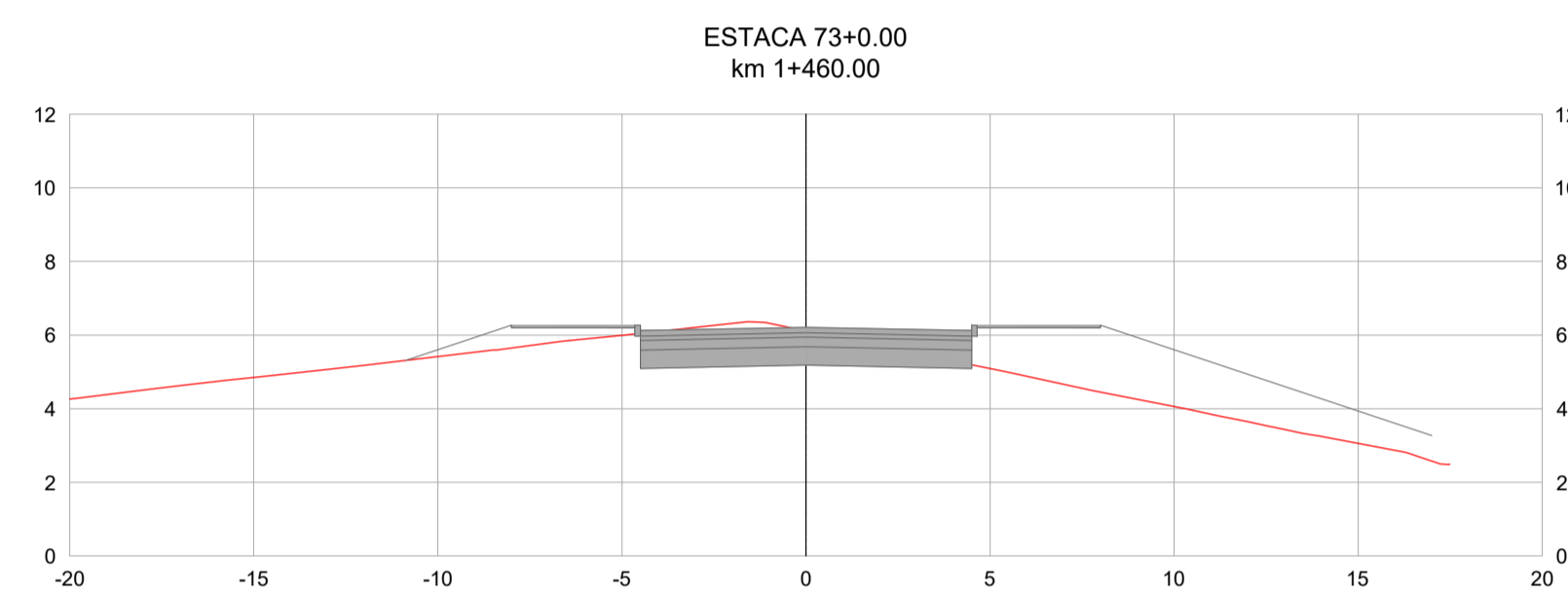
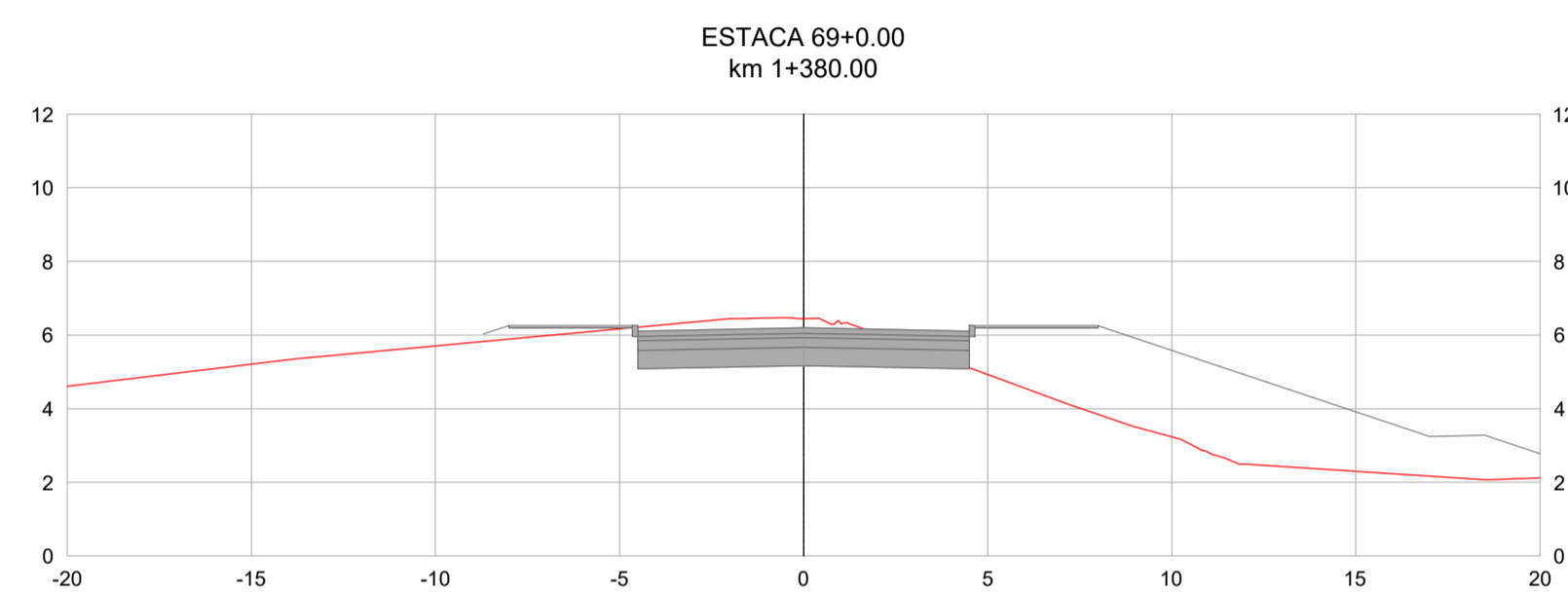
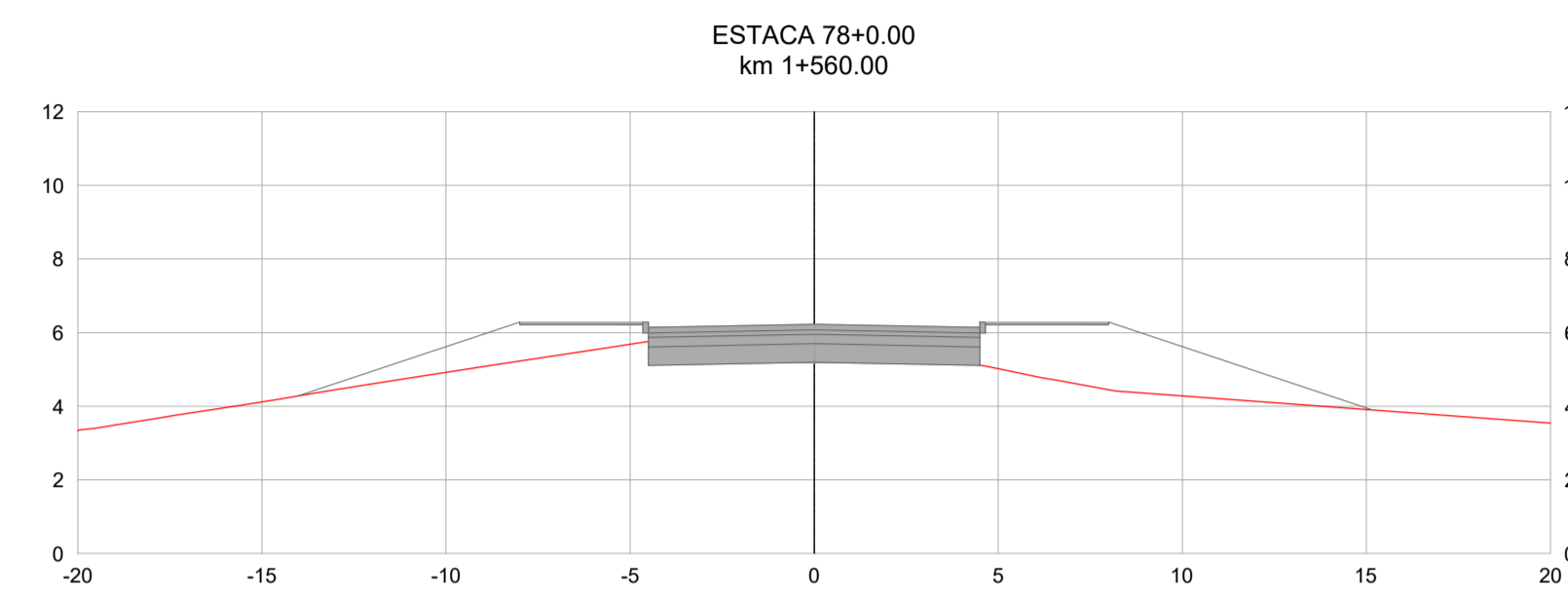
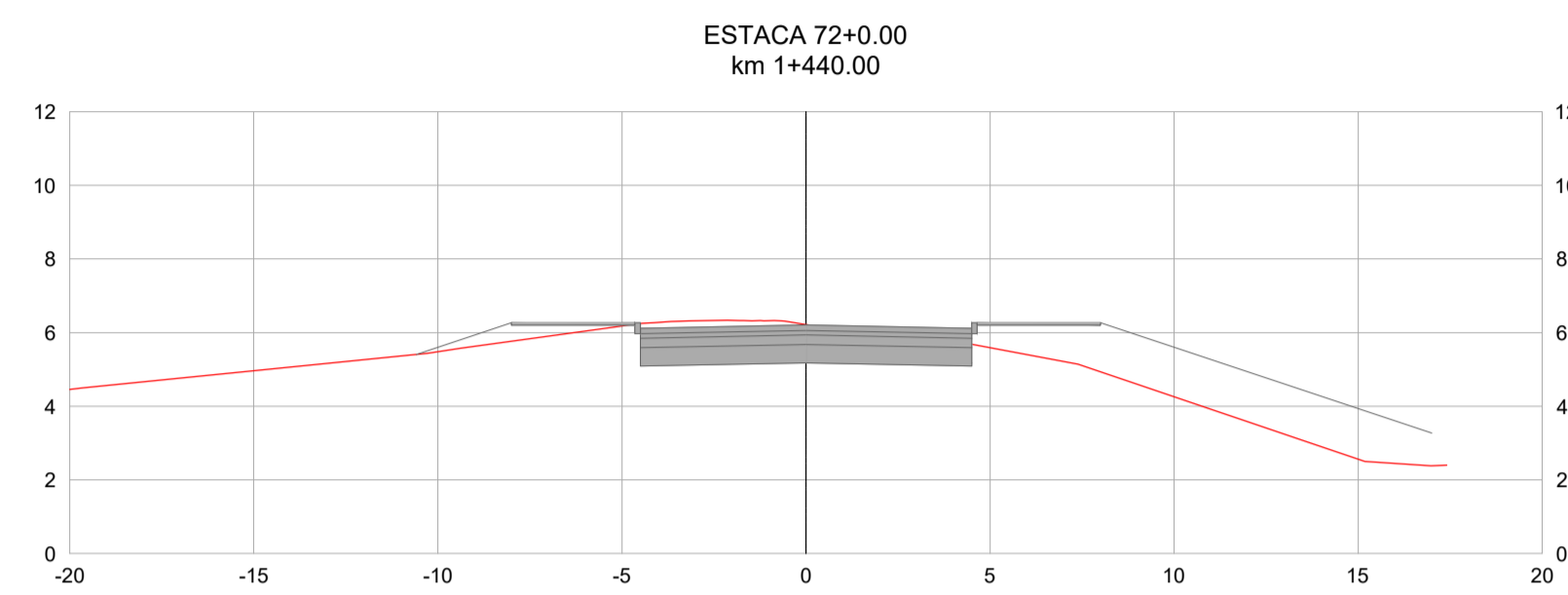
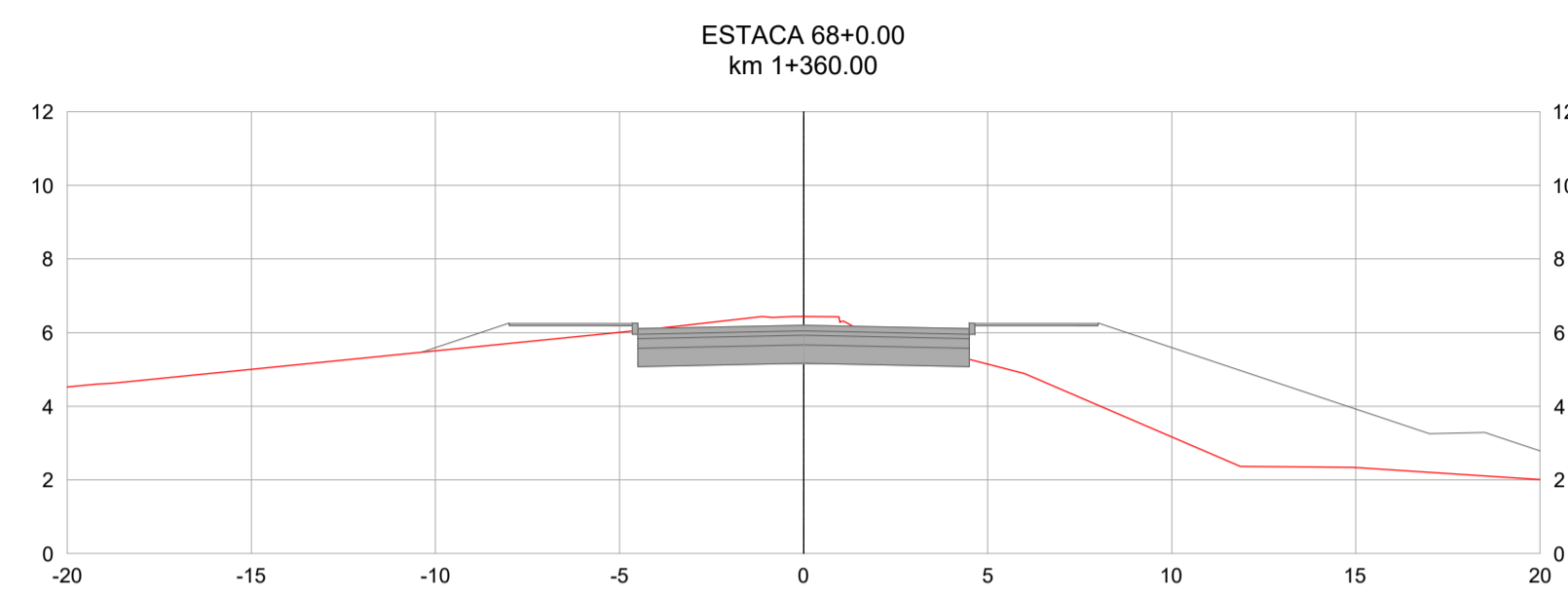
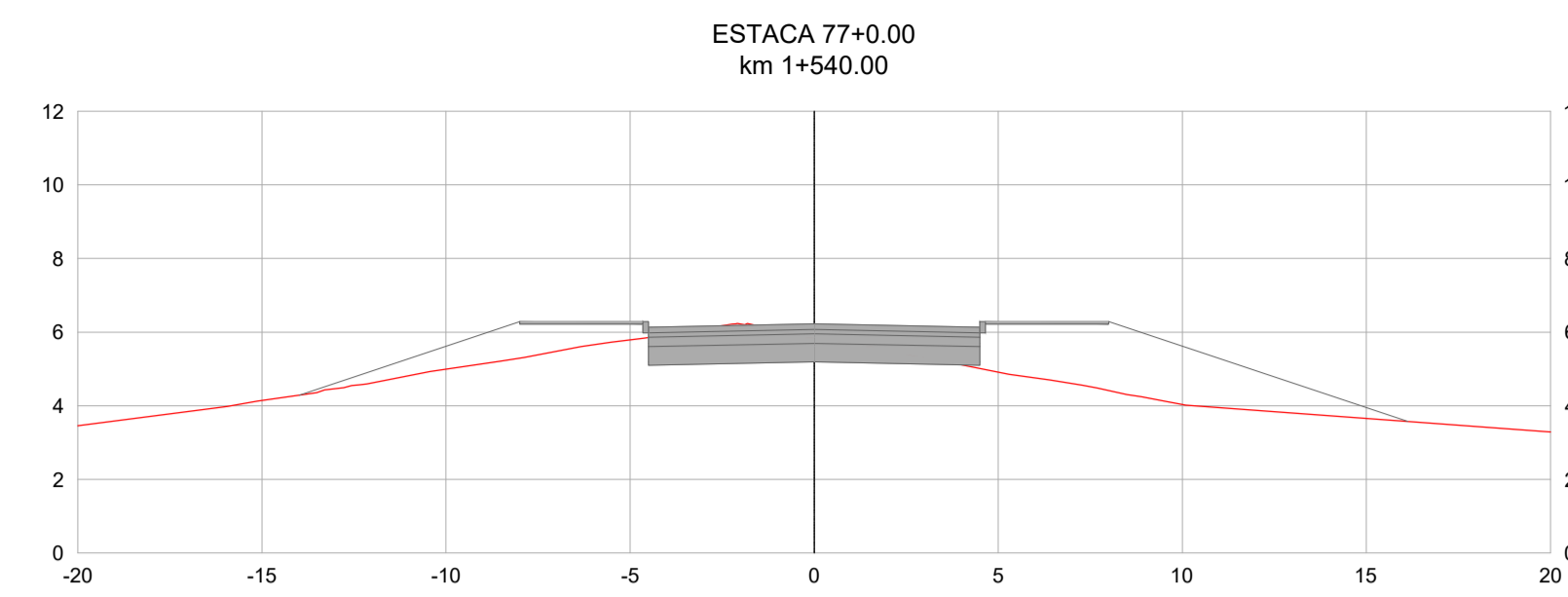
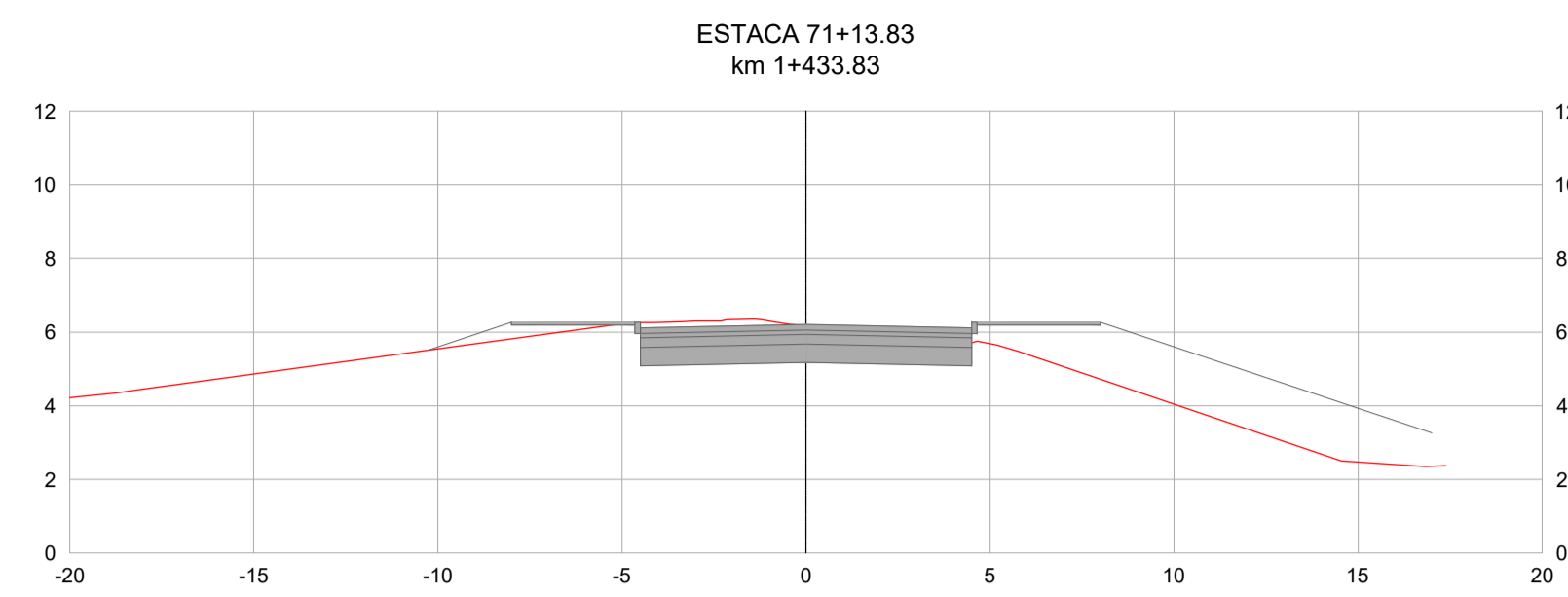
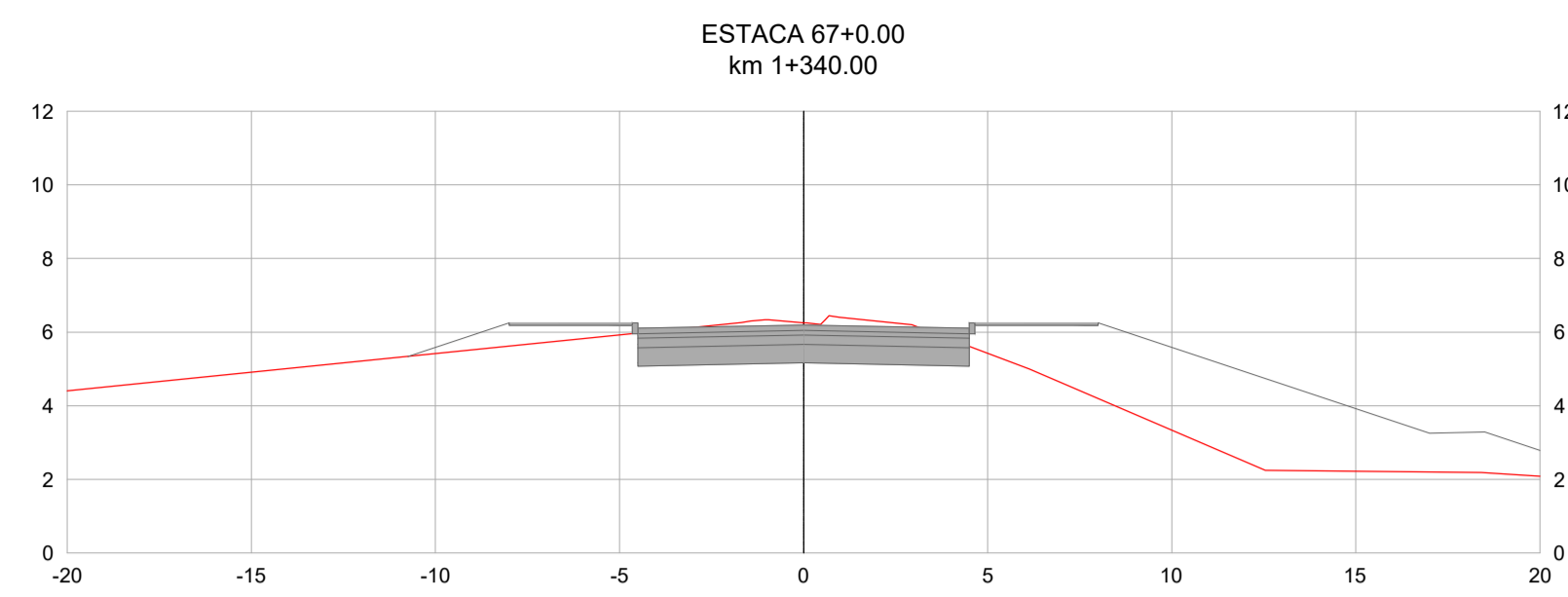
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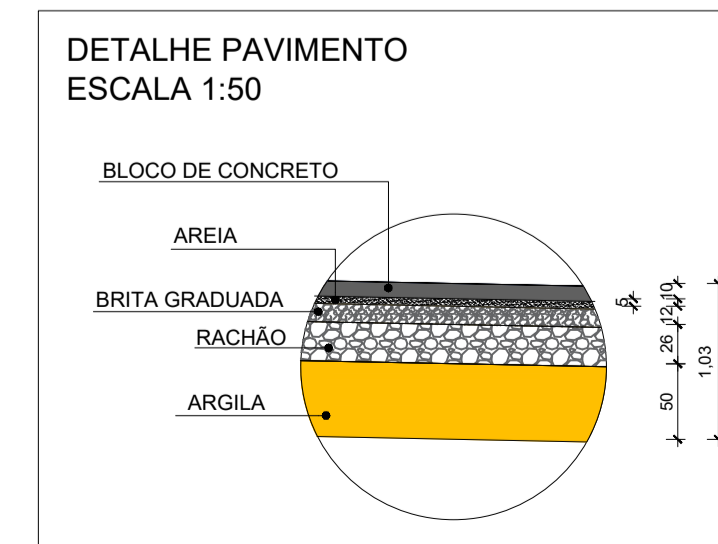
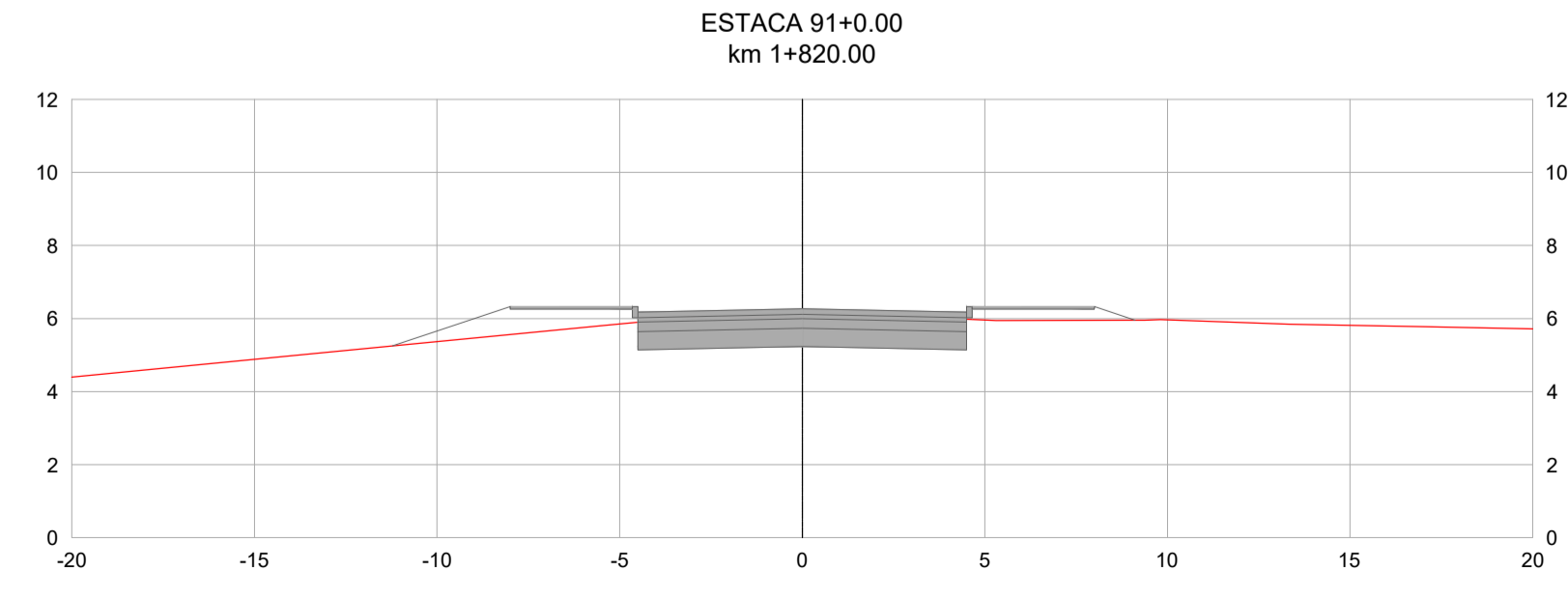
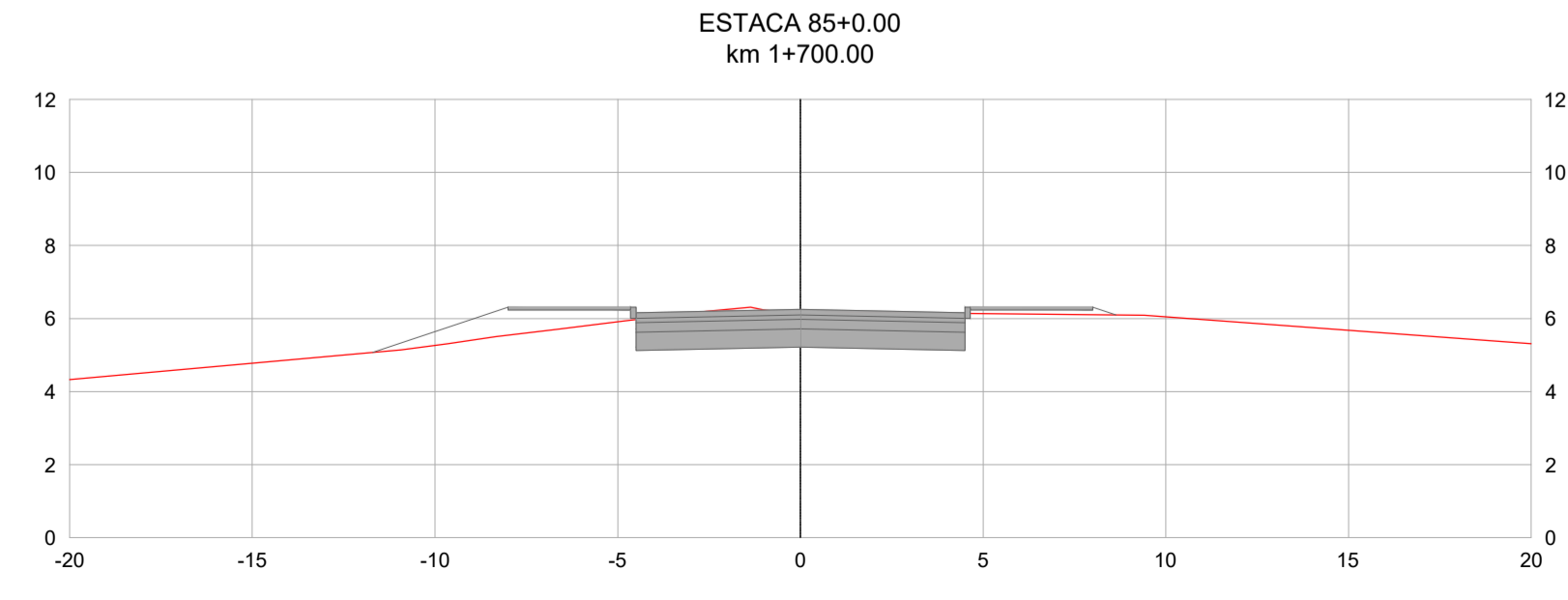
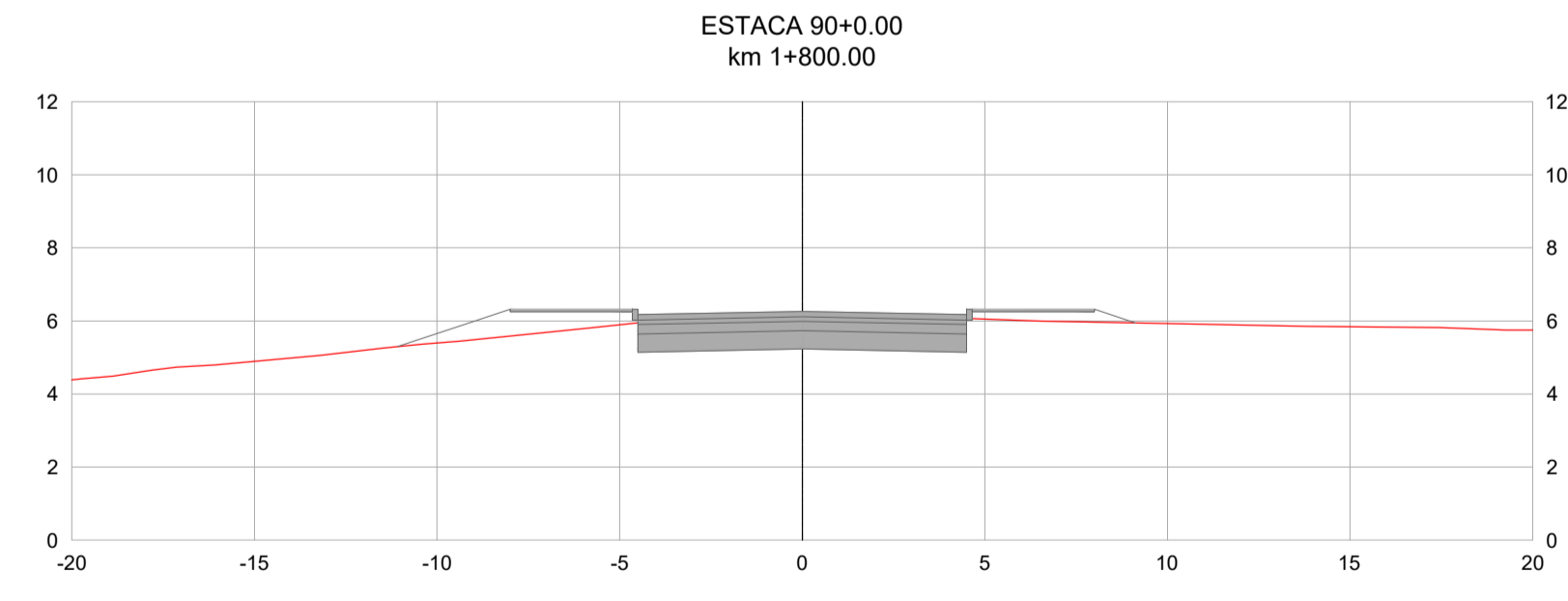
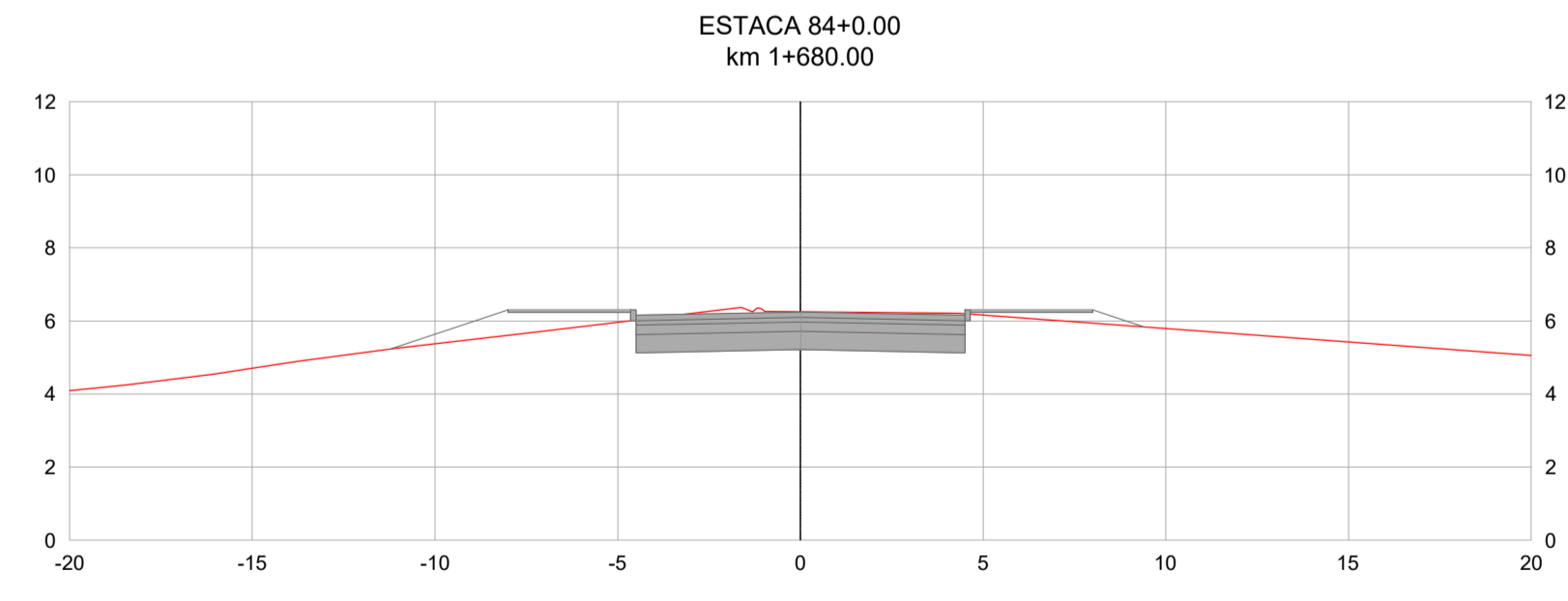
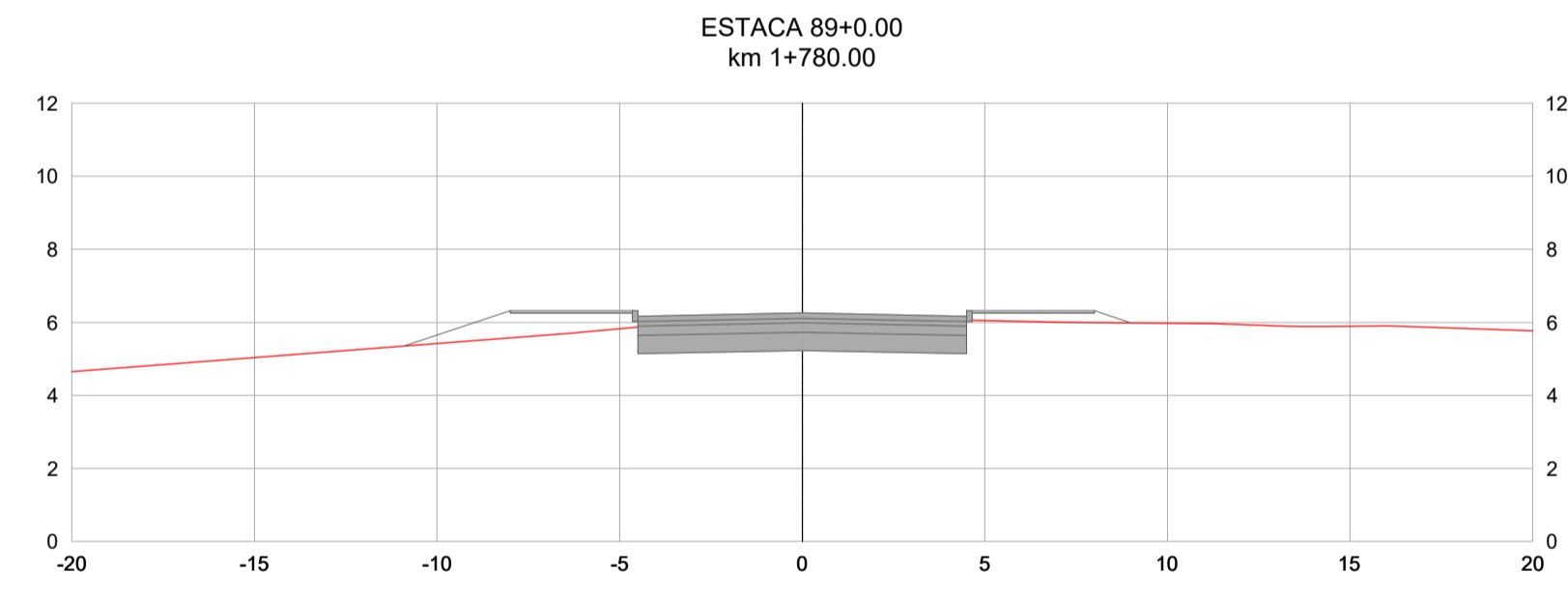
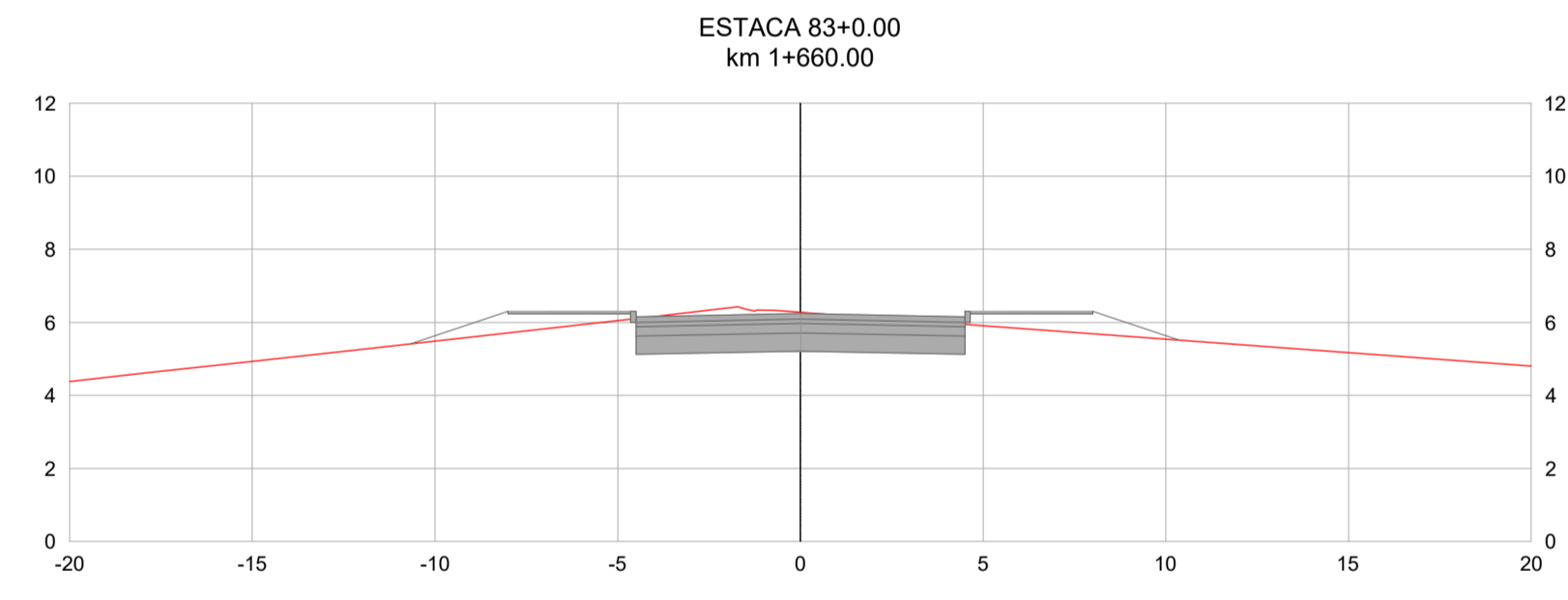
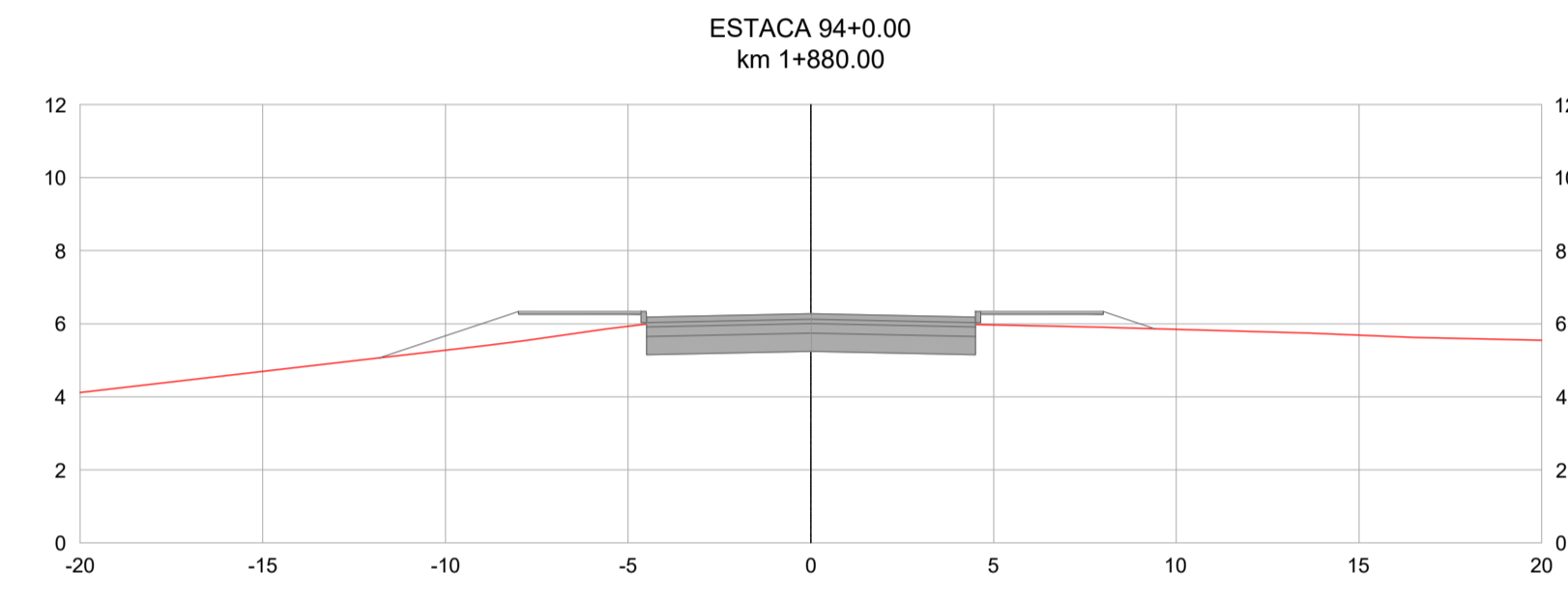
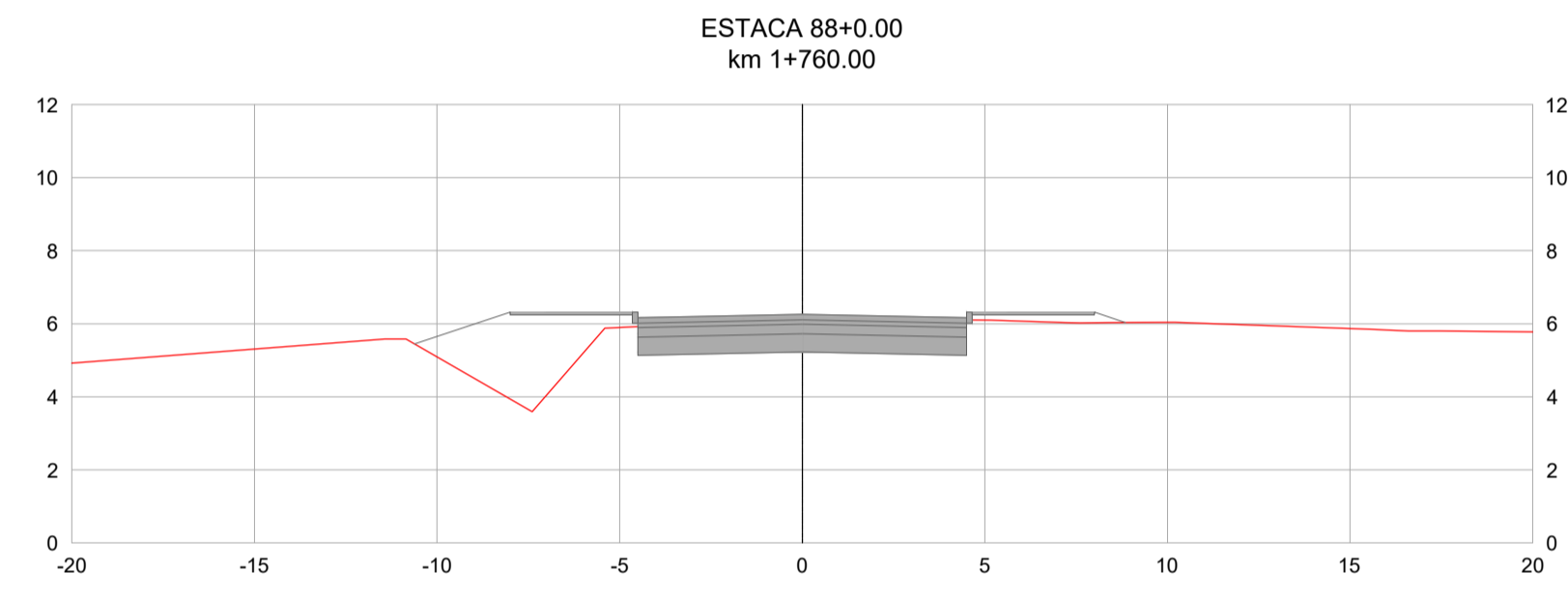
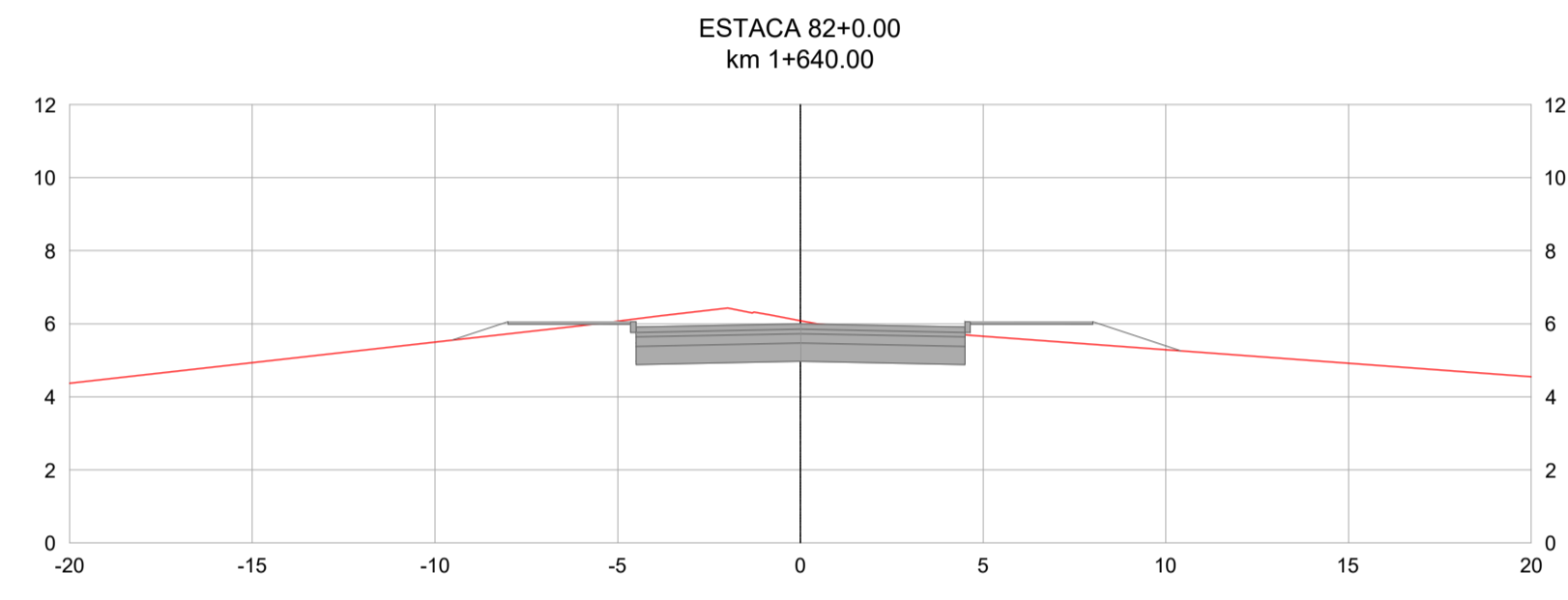
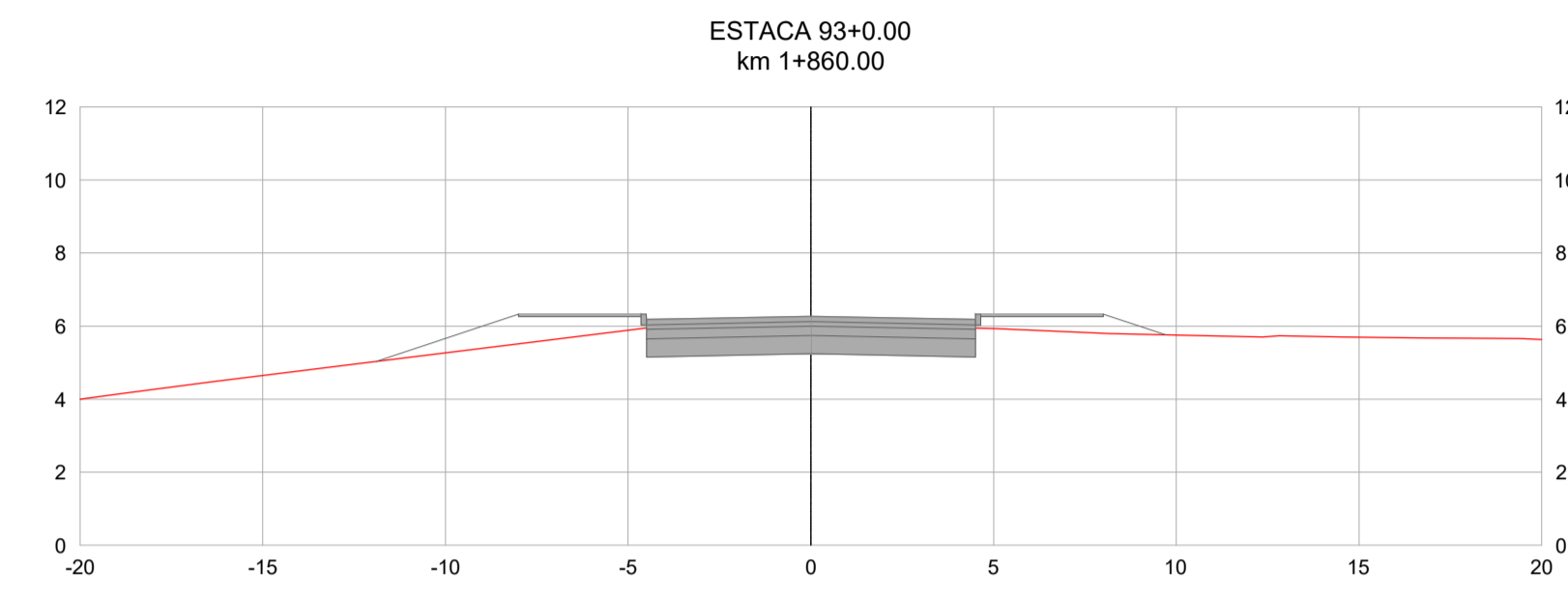
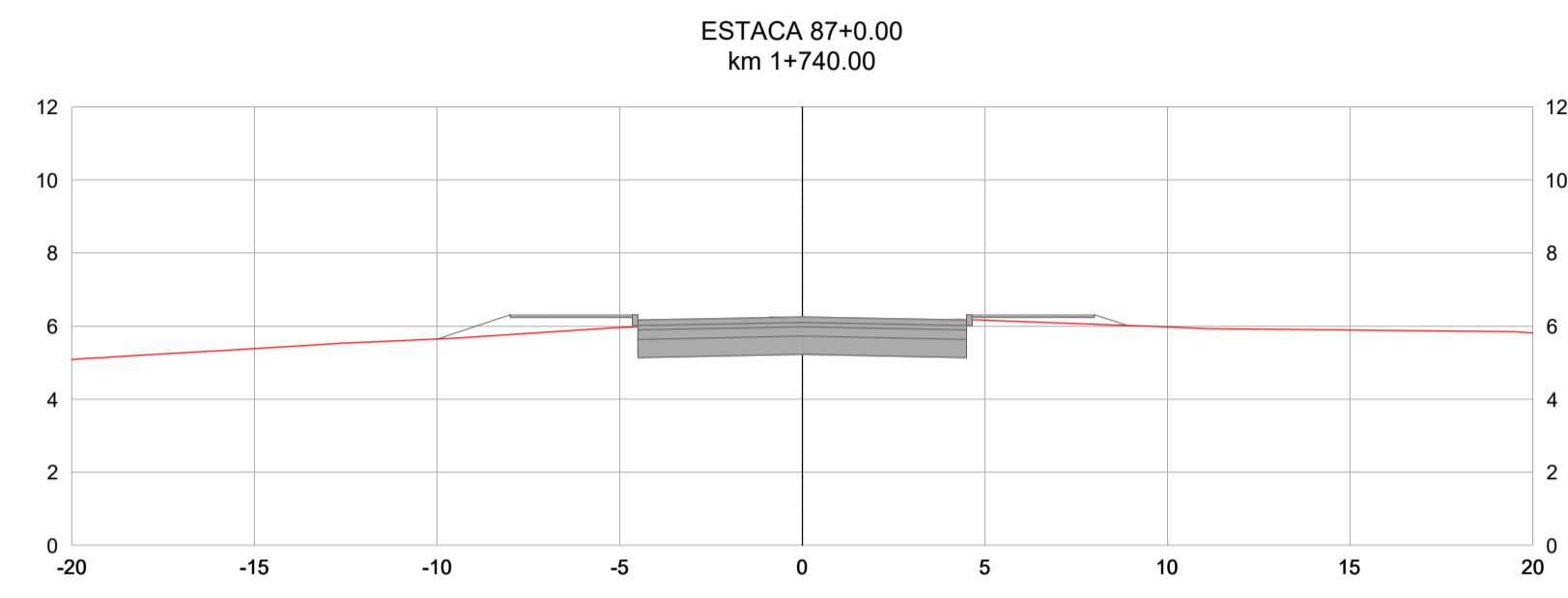
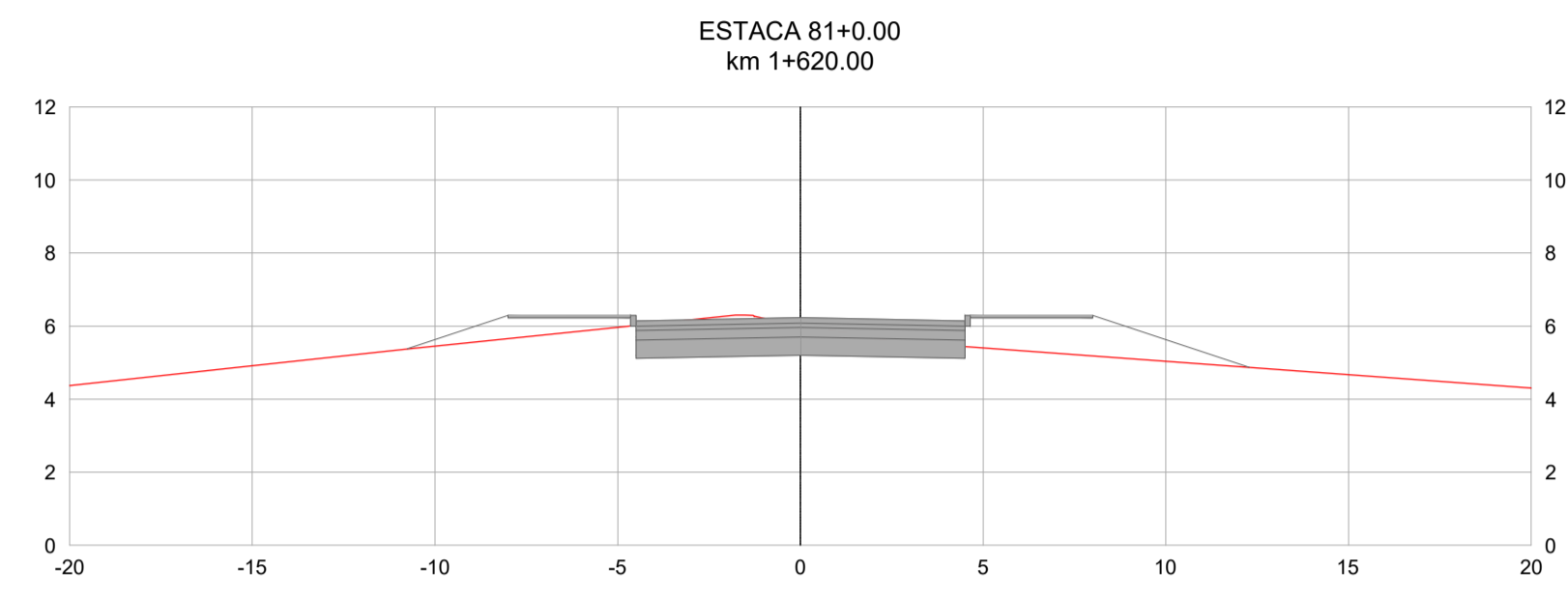
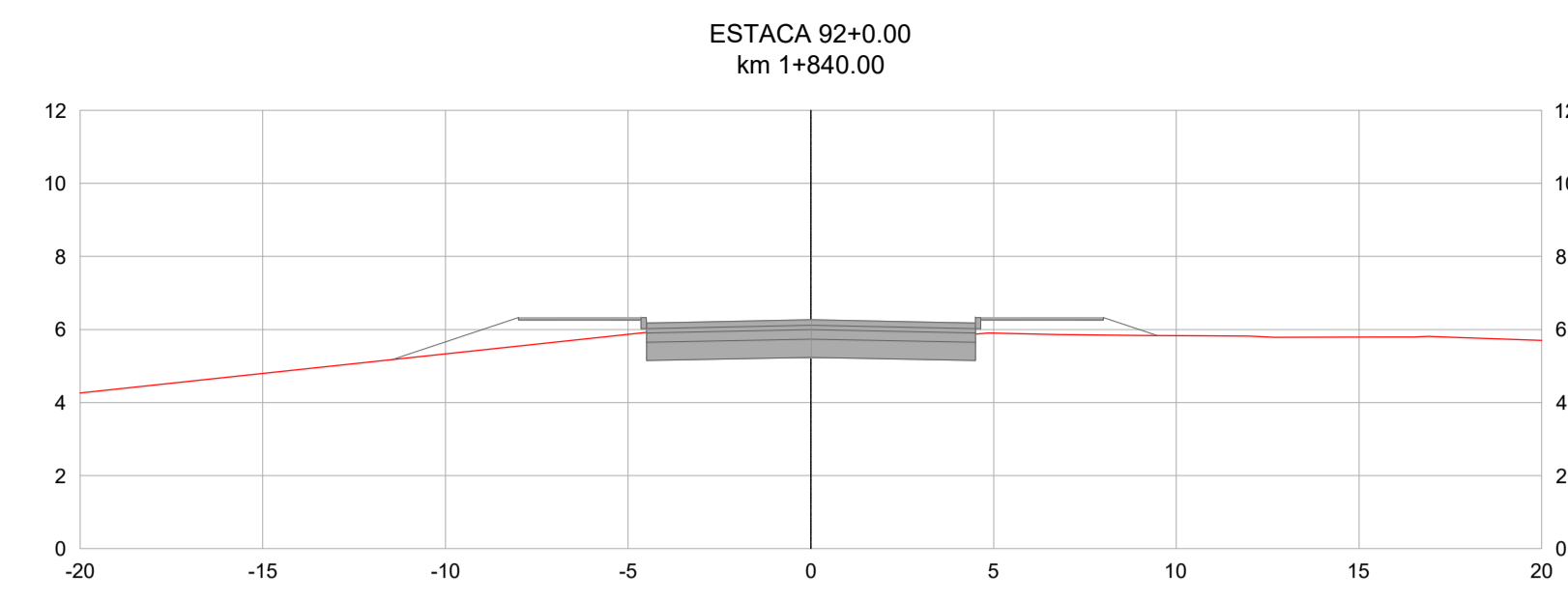
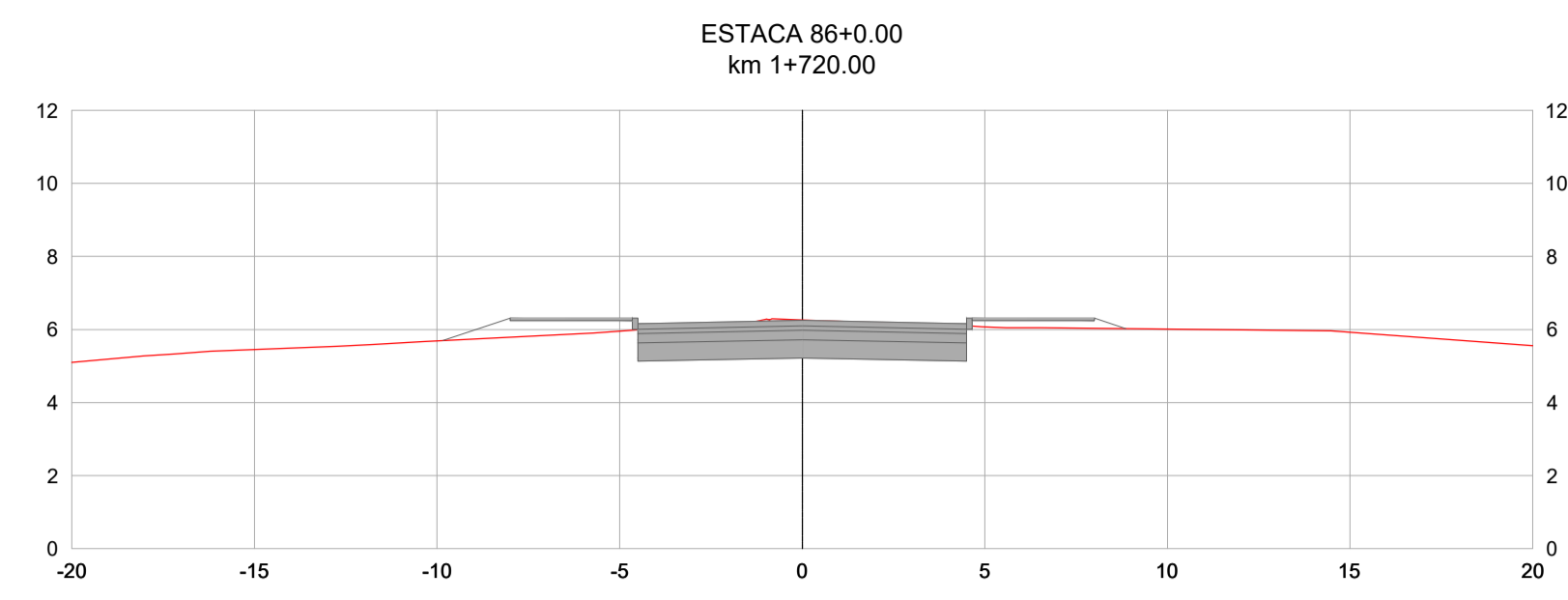
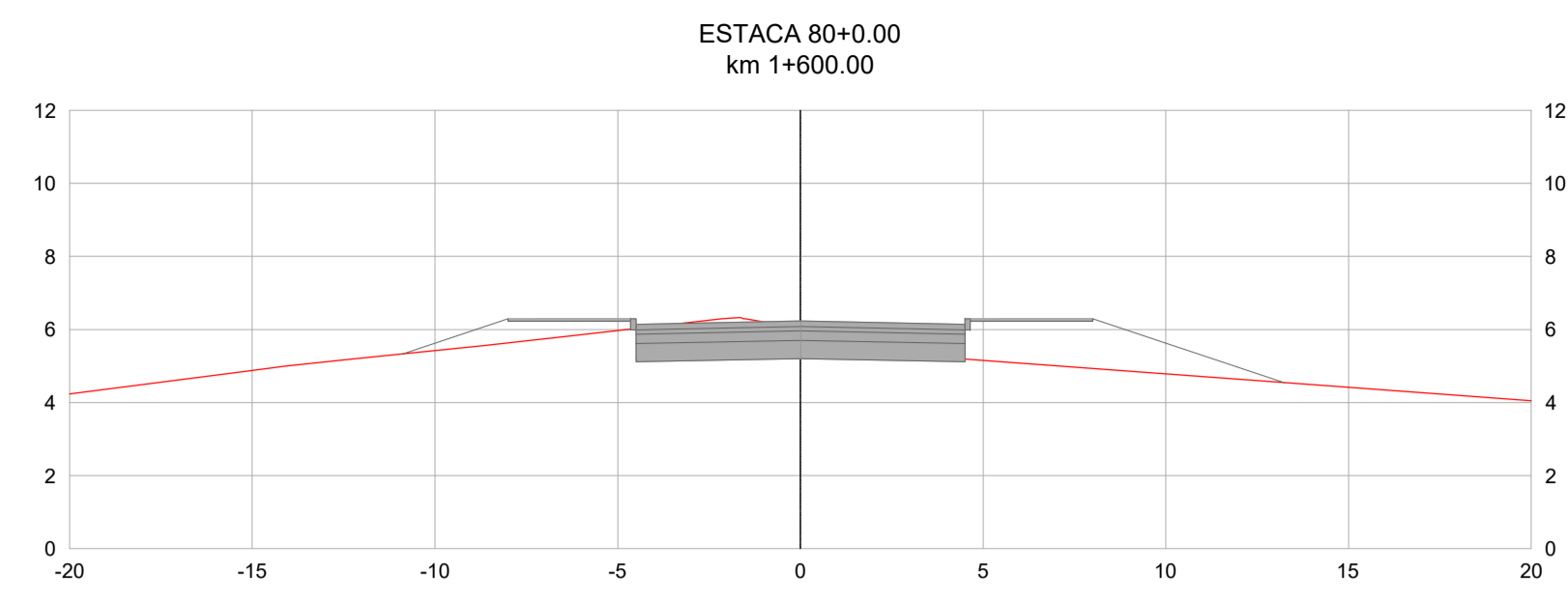
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|---|-------|--|--------------|
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| PROJETO: | | PAVIMENTAÇÃO | |
| RESPONSÁVEL TÉCNICO: | | Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | |
| ESCALA: | ÁREA: | DESENHO: | DATA: |
| 1:200 | - | Eng. Elen | JUNHO/2022 |
| | | | 11/20 |




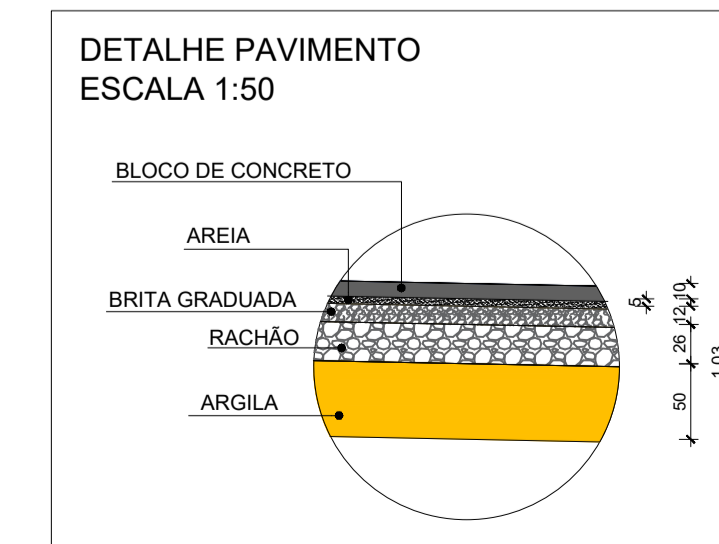
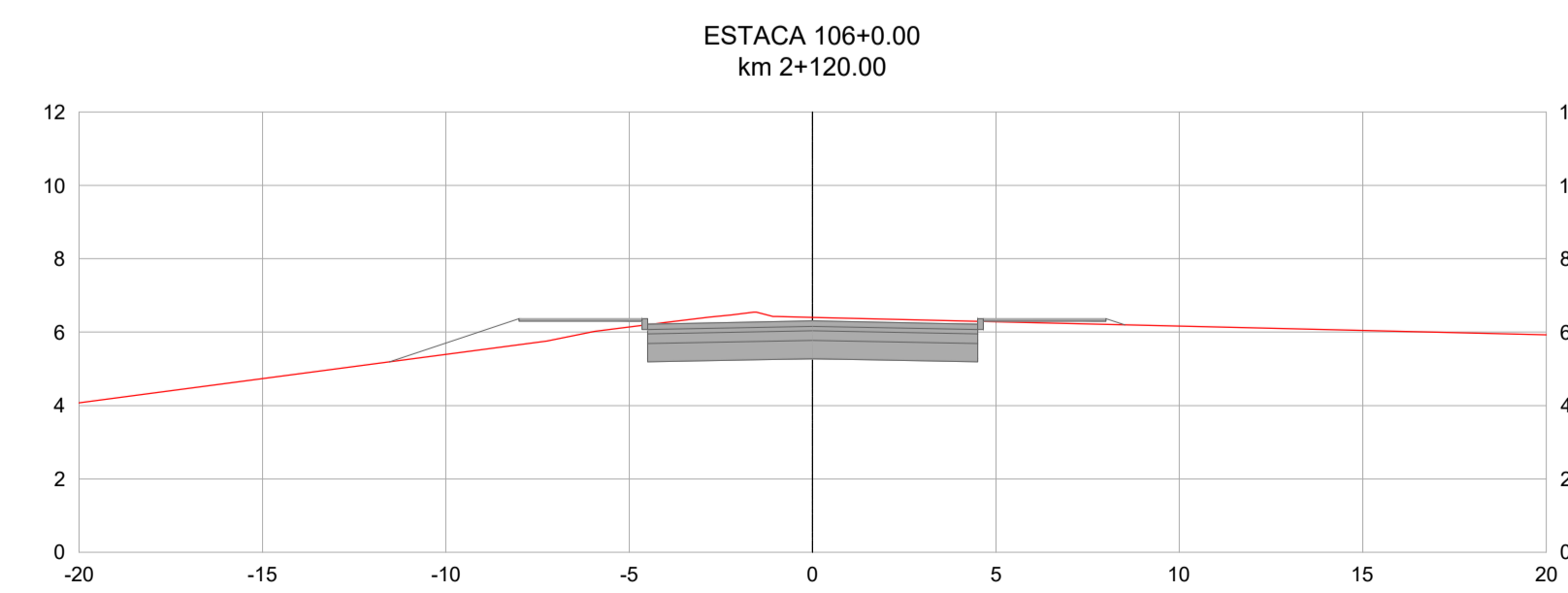
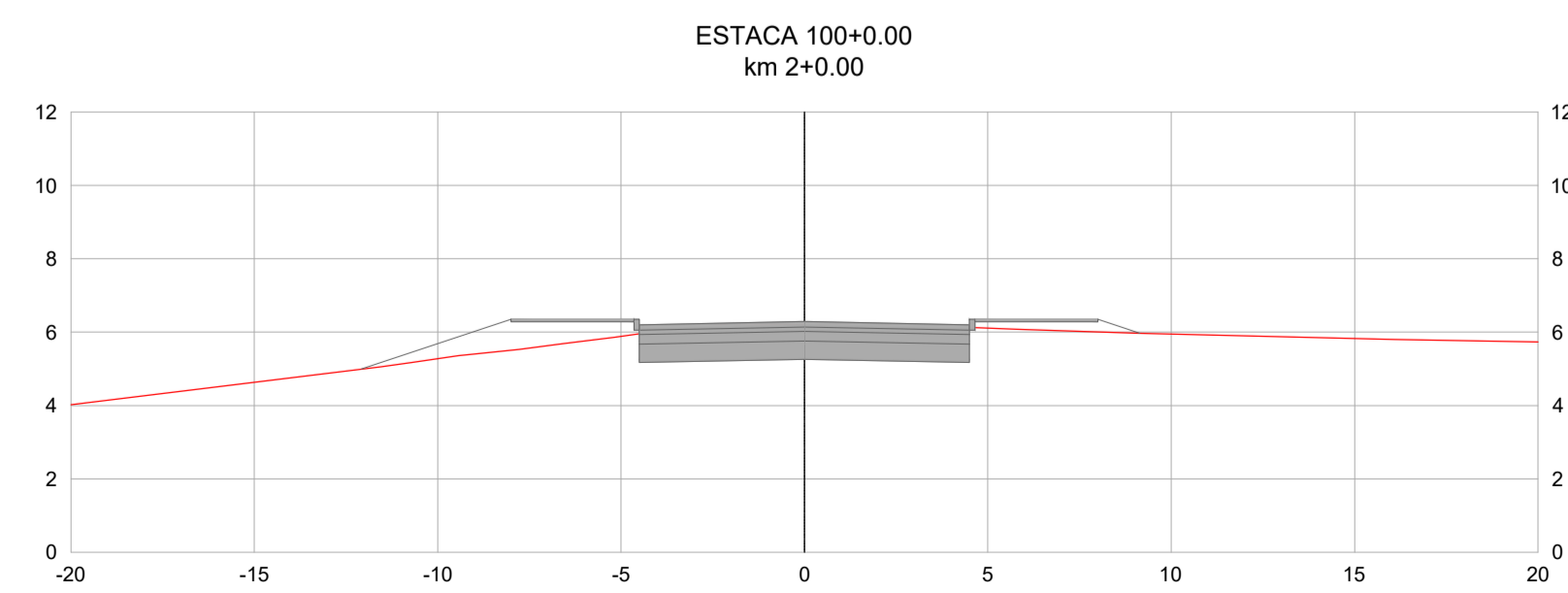
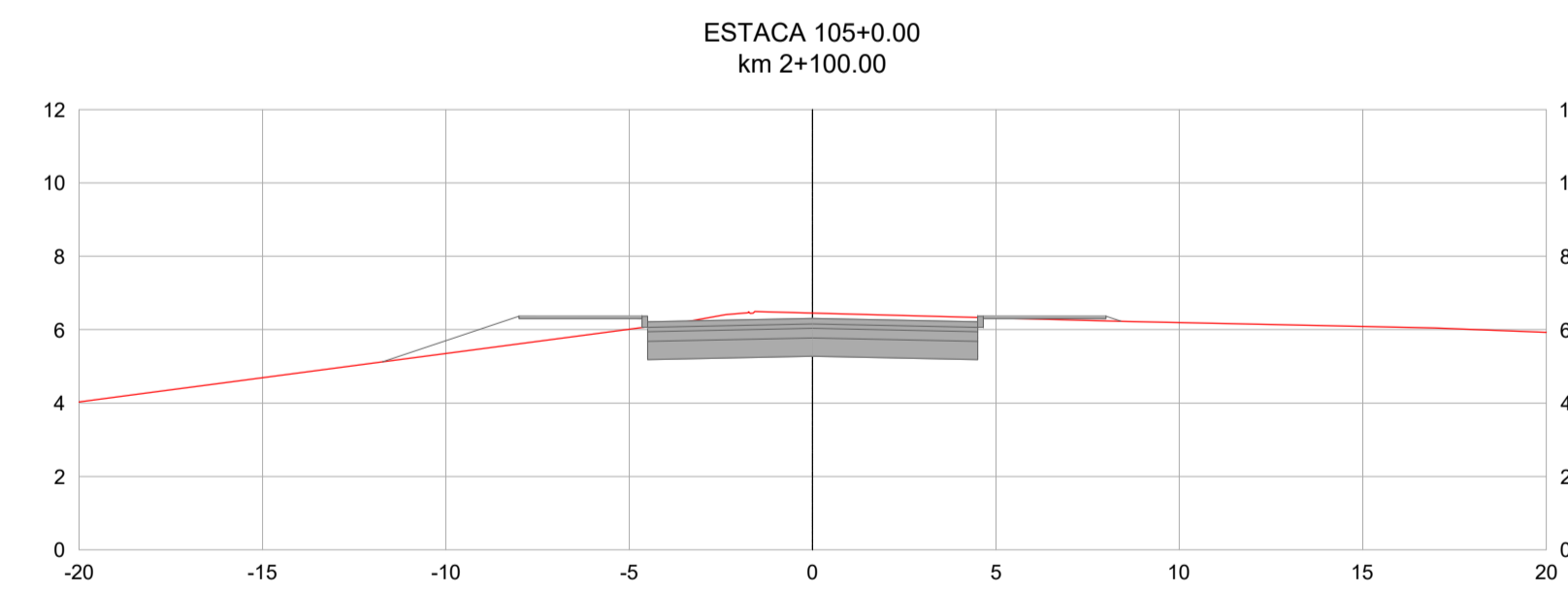
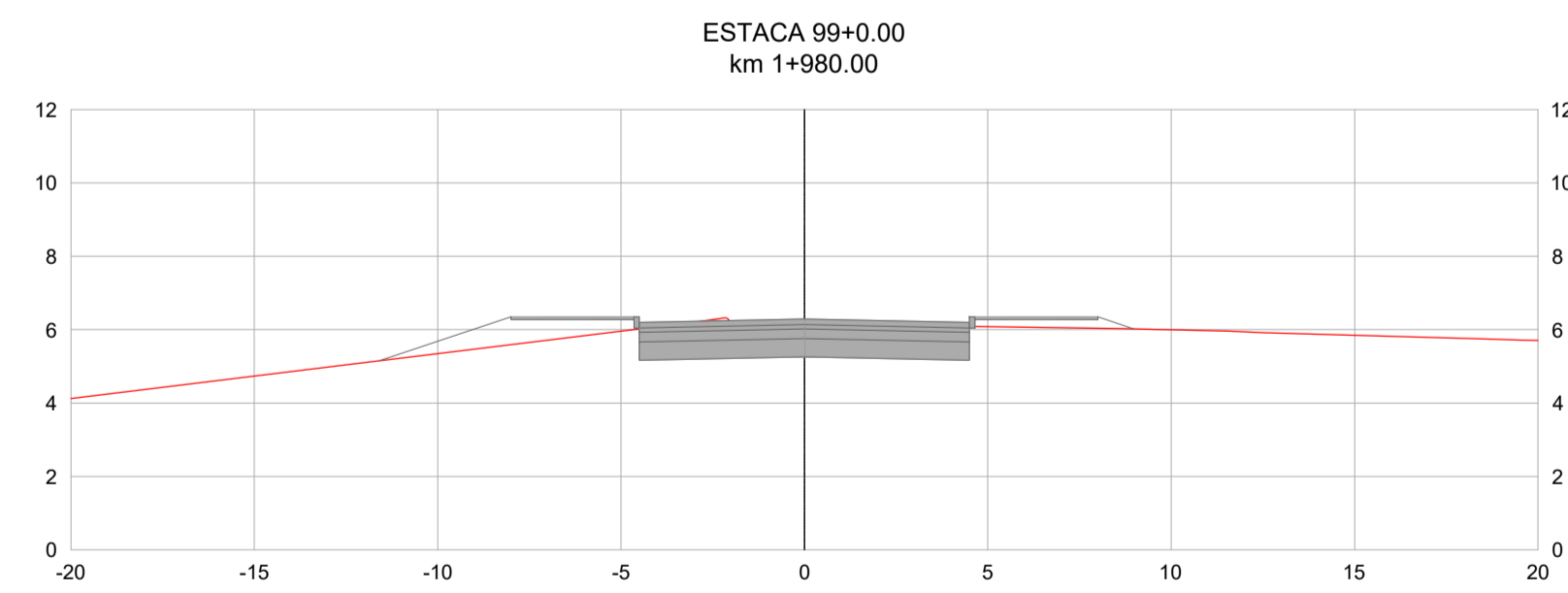
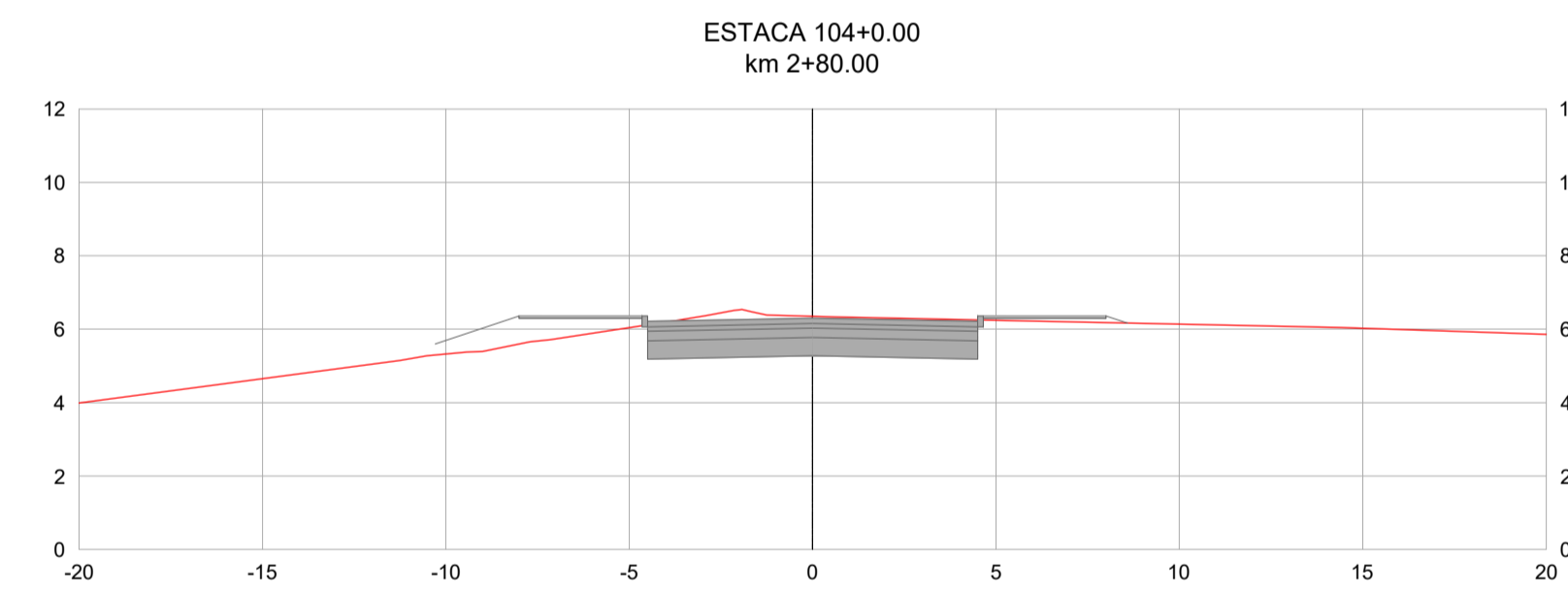
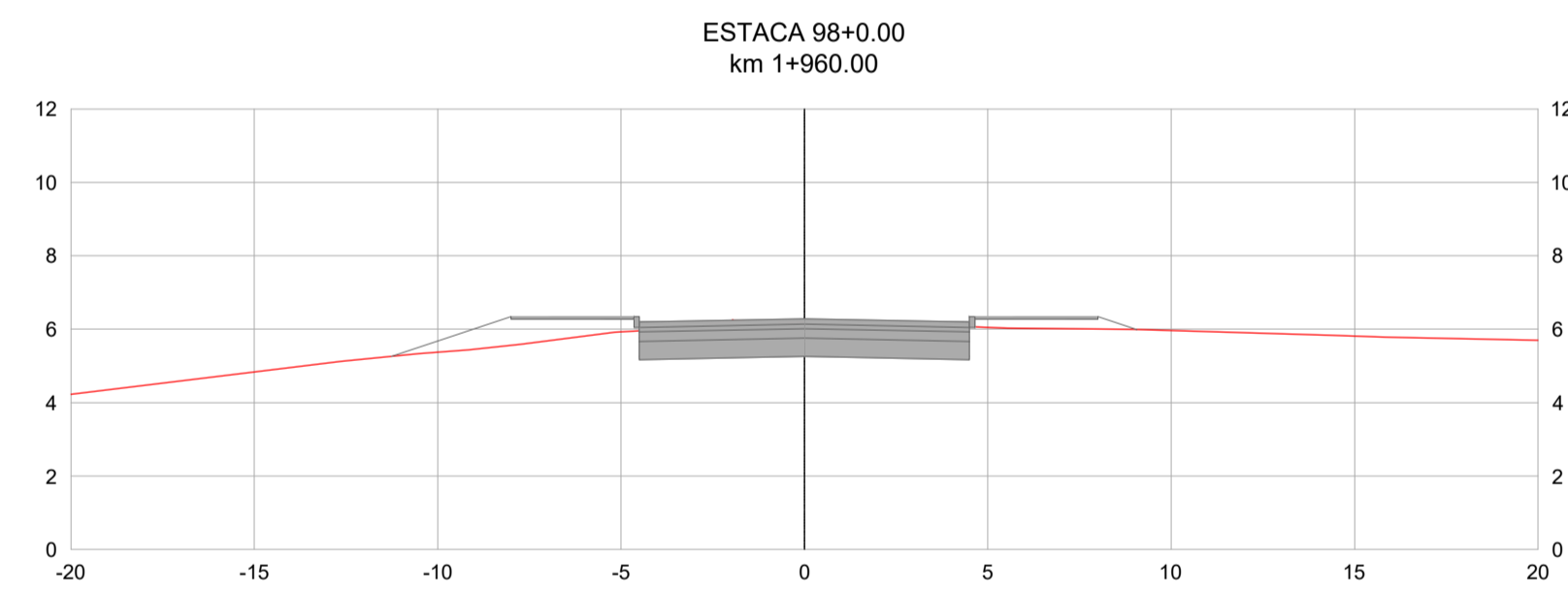
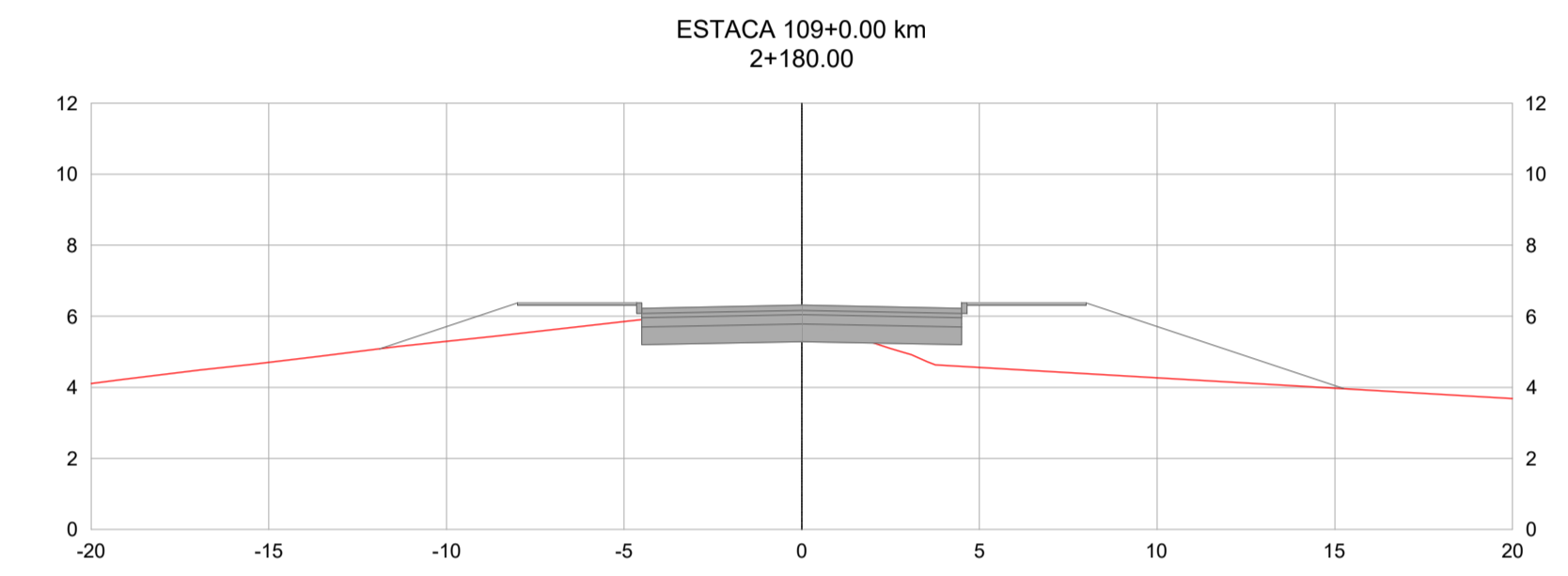
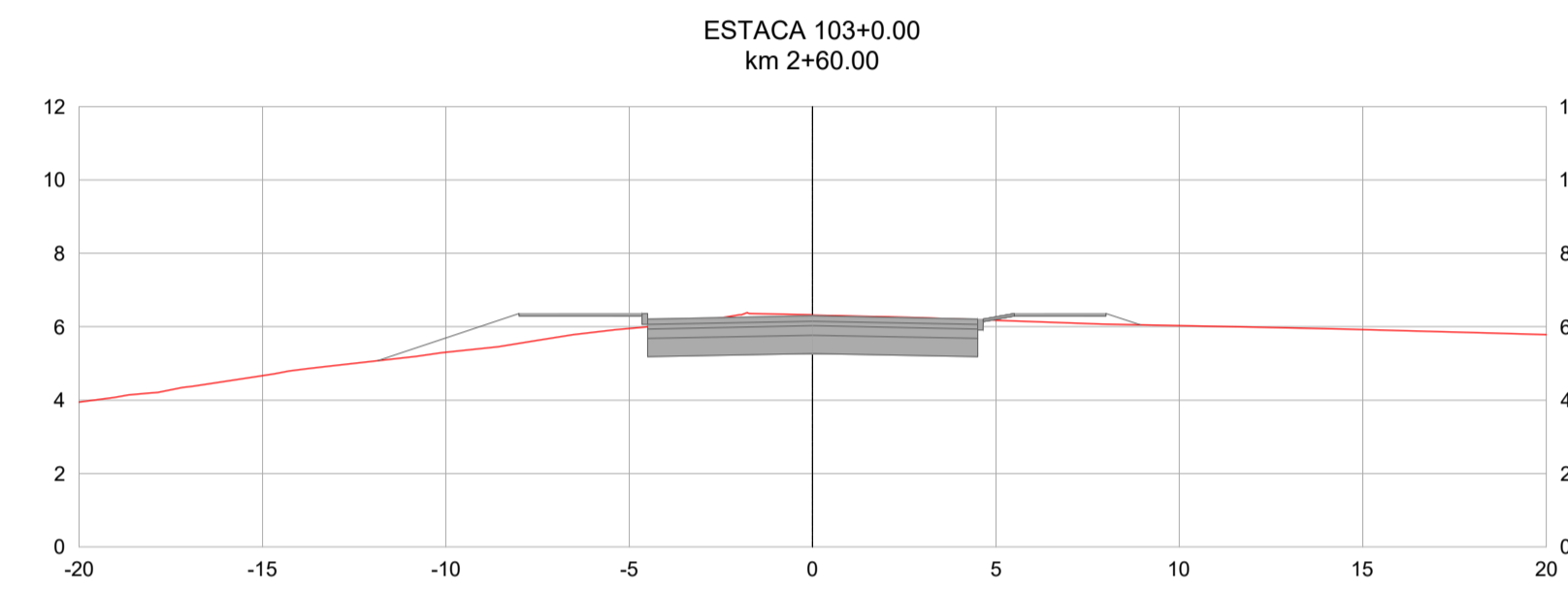
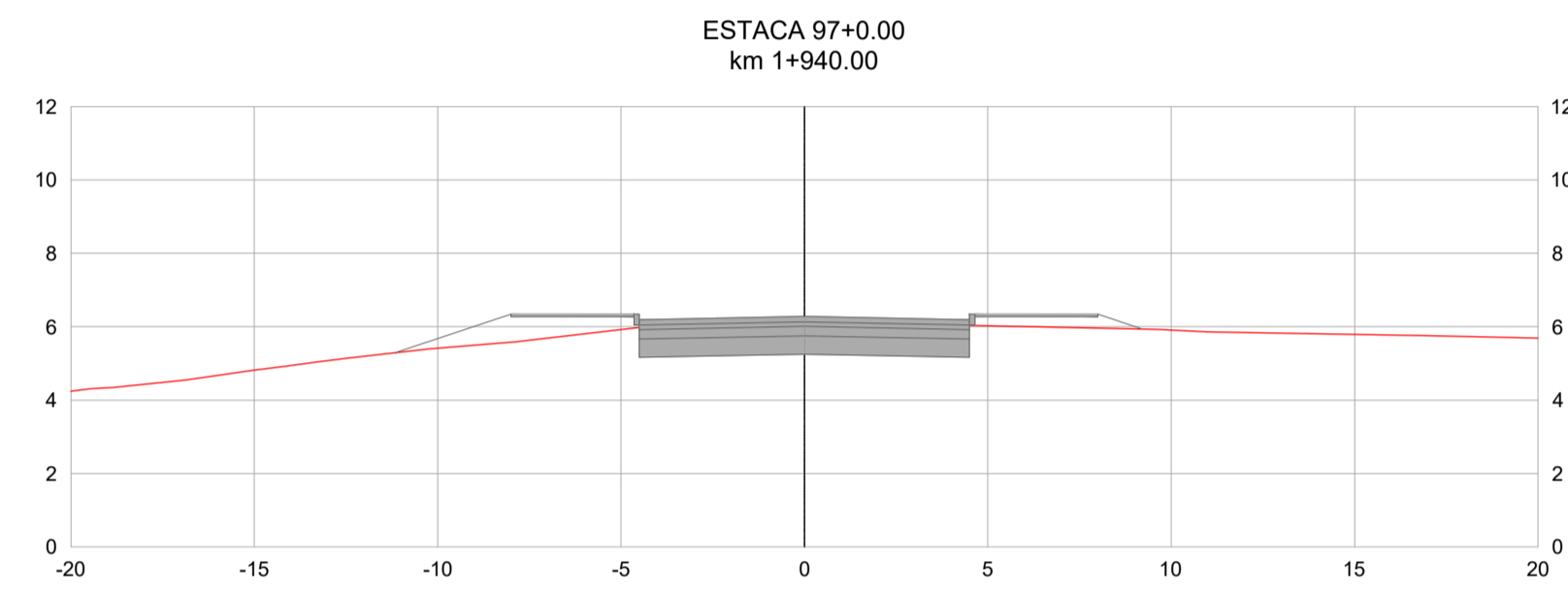
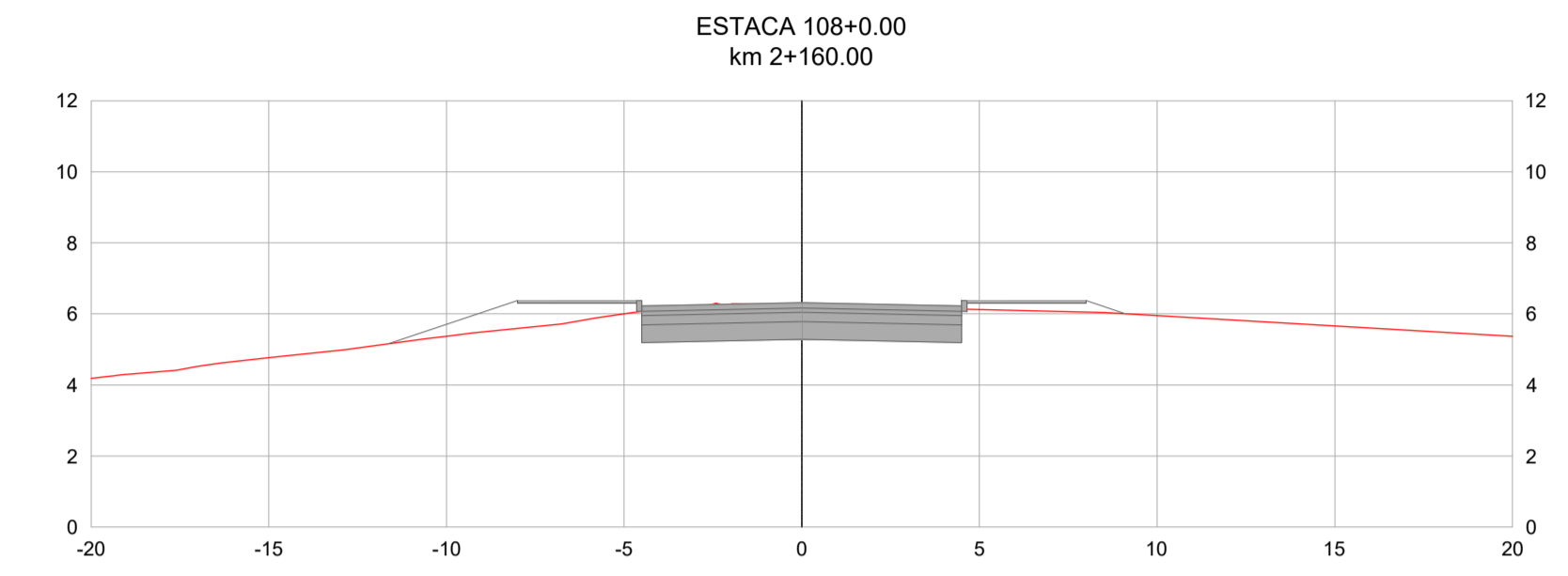
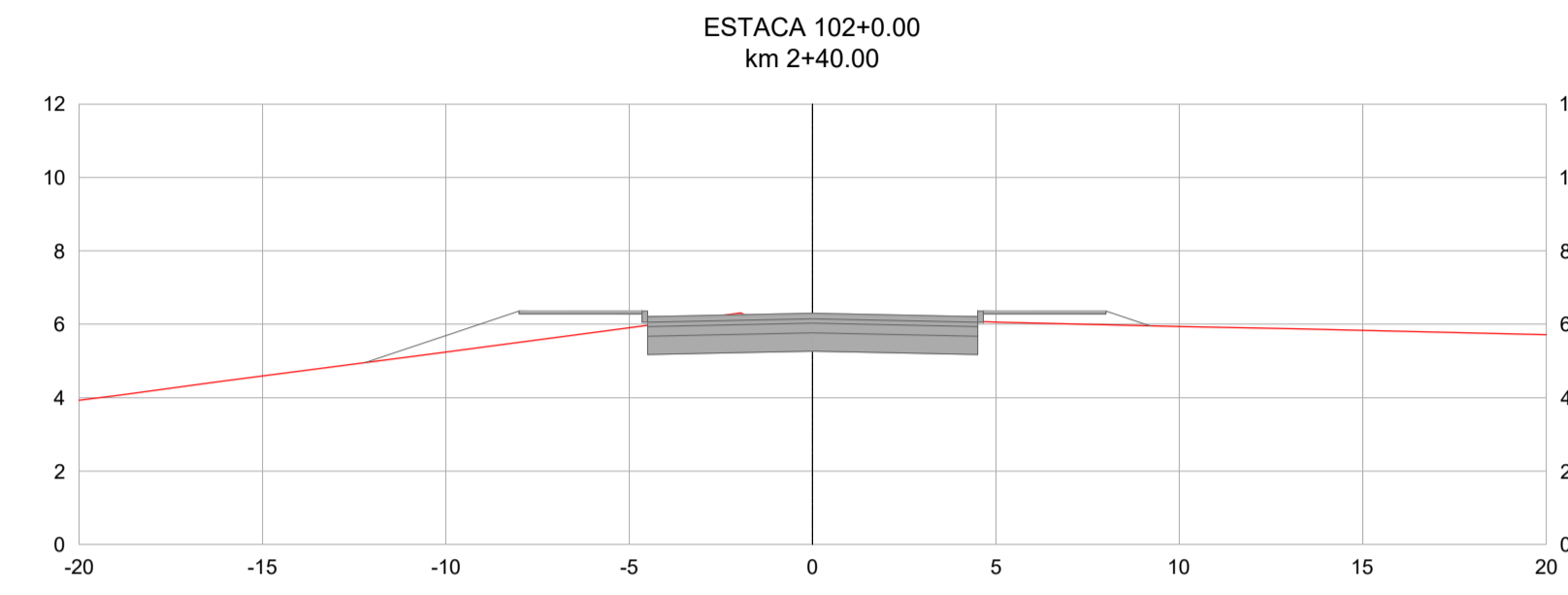
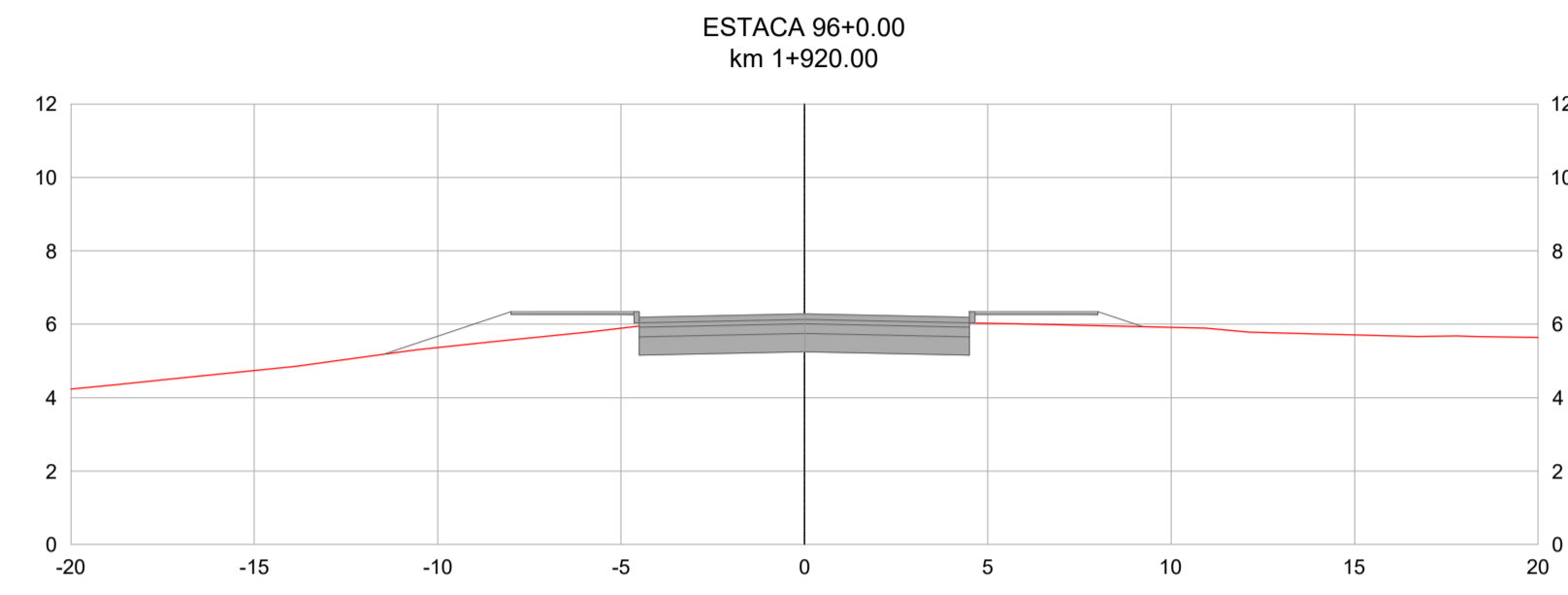
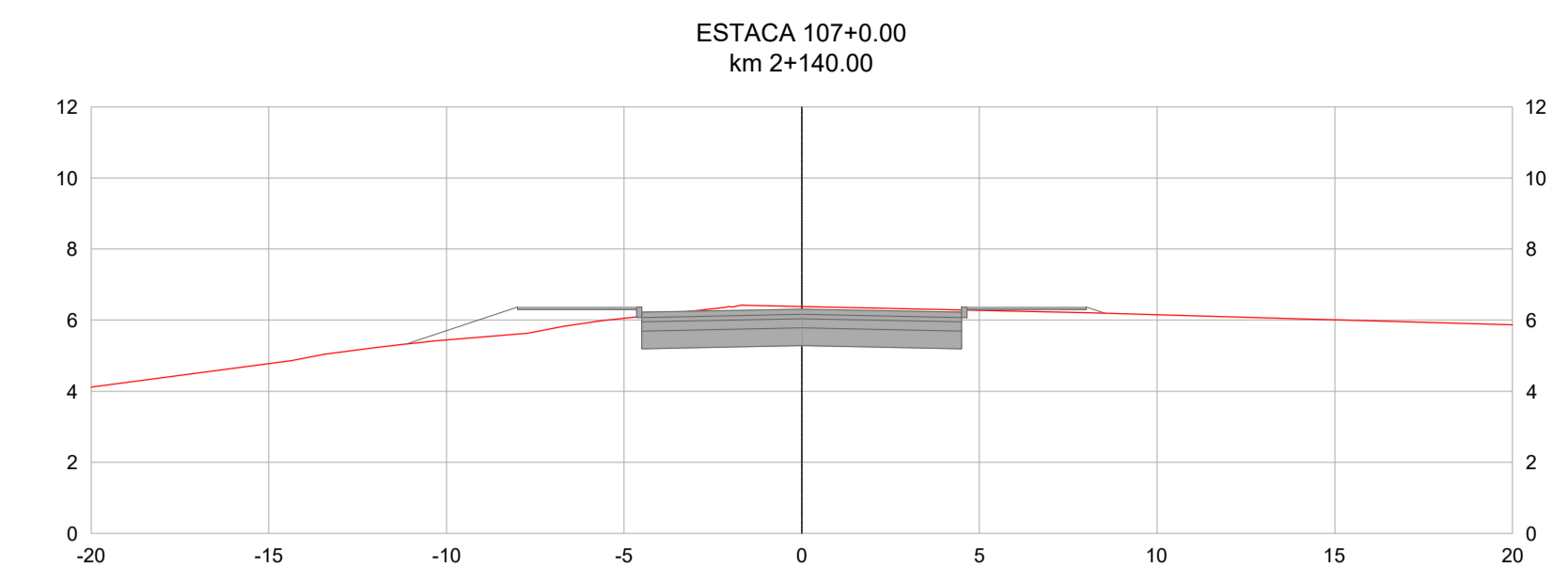
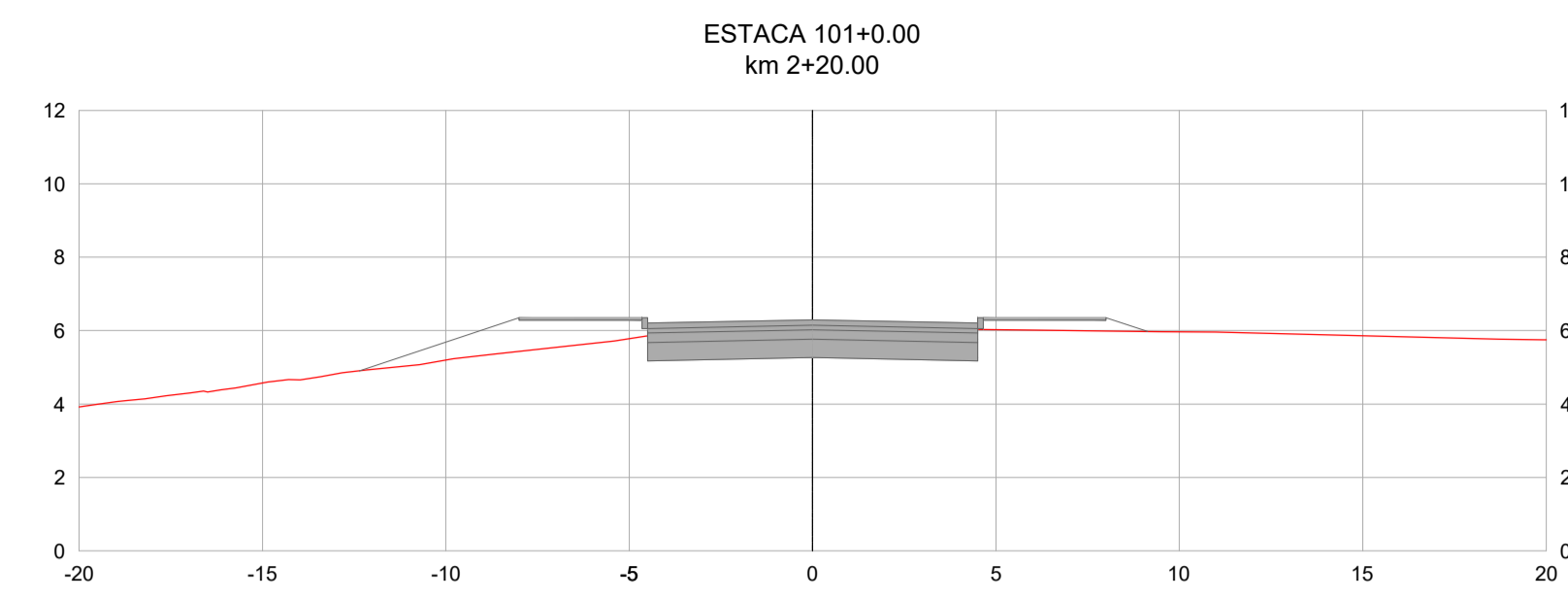
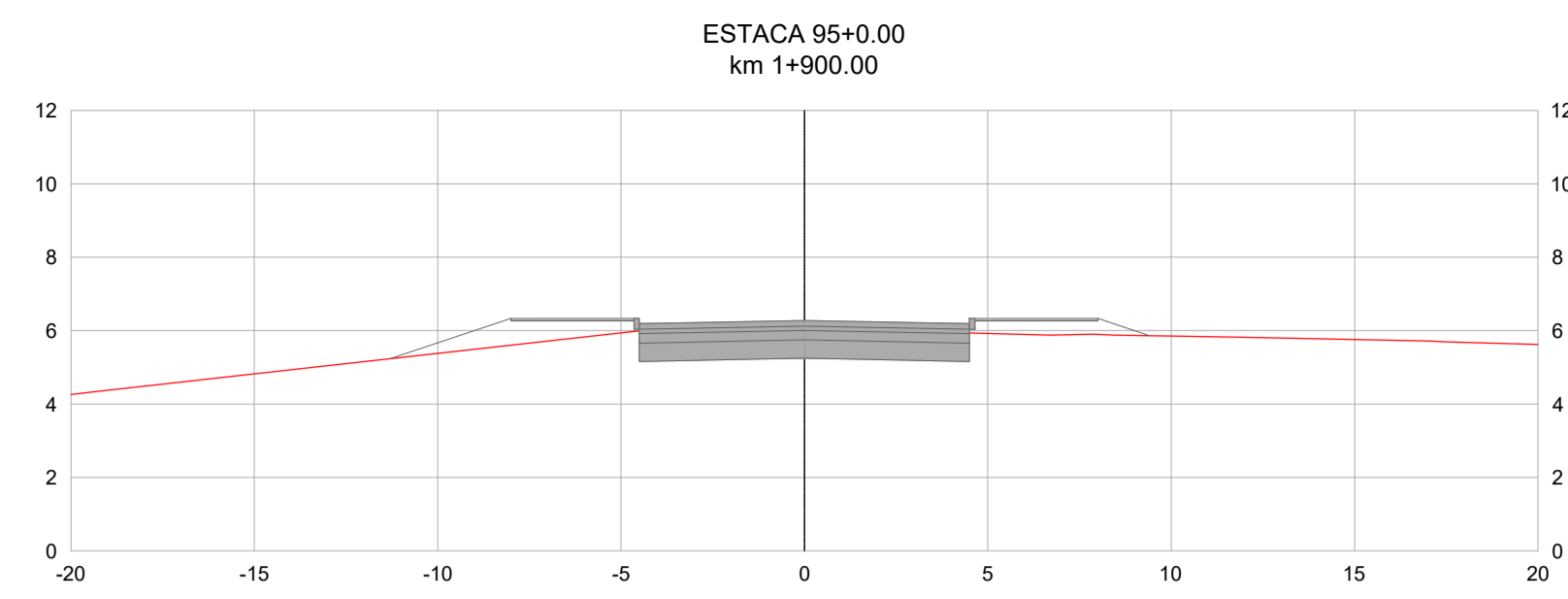
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|  PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | |
| PROJETO: PAVIMENTAÇÃO | DISCRIMINAÇÃO DA FRANCHA: SEÇÕES TRANSVERSAIS |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | |
| ESCALA: 1:200 | ÁREA: - |
| DESENHO: Eng. Elen | DATA: JUNHO/2022 |
|  12/20 | |




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|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | |
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| <p>PROJETO: PAVIMENTAÇÃO</p> | <p>DISCRIMINAÇÃO DA FRANCHA: SEÇÕES TRANSVERSAIS</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:200</p> | <p>ÁREA: -</p> |
| <p>DESENHO: Eng. Elen</p> | <p>DATA: JUNHO/2022</p> |
| <p>13/20</p> | |

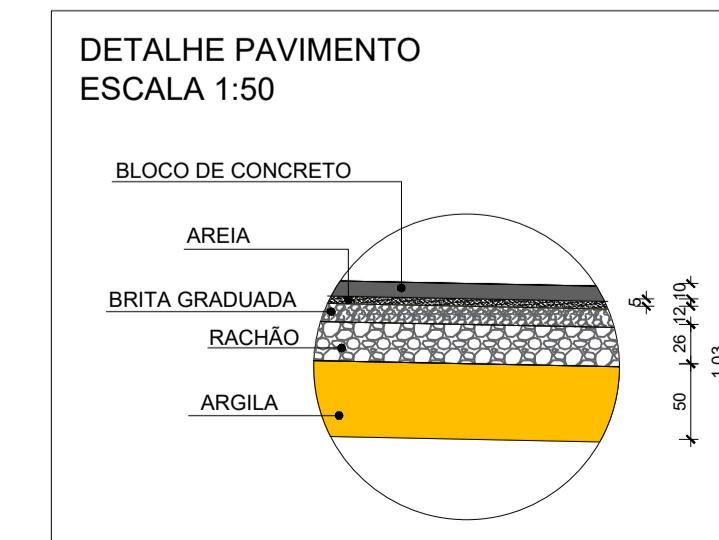
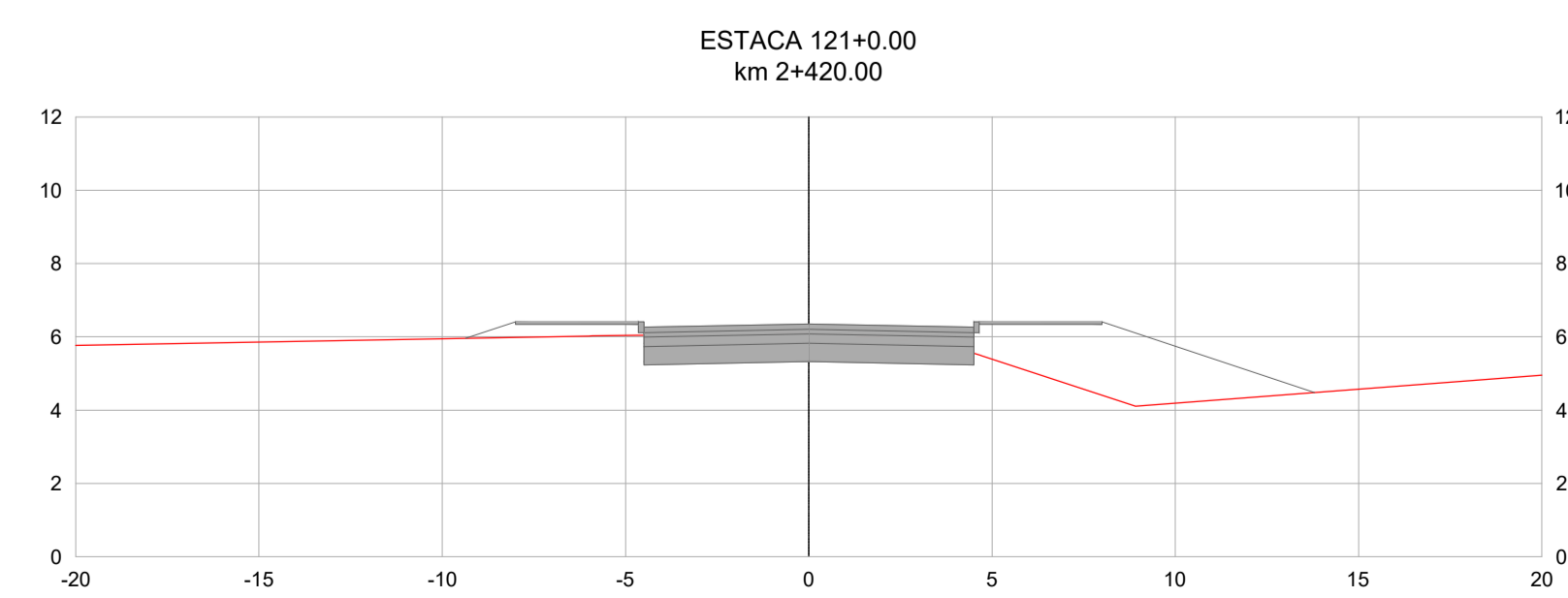
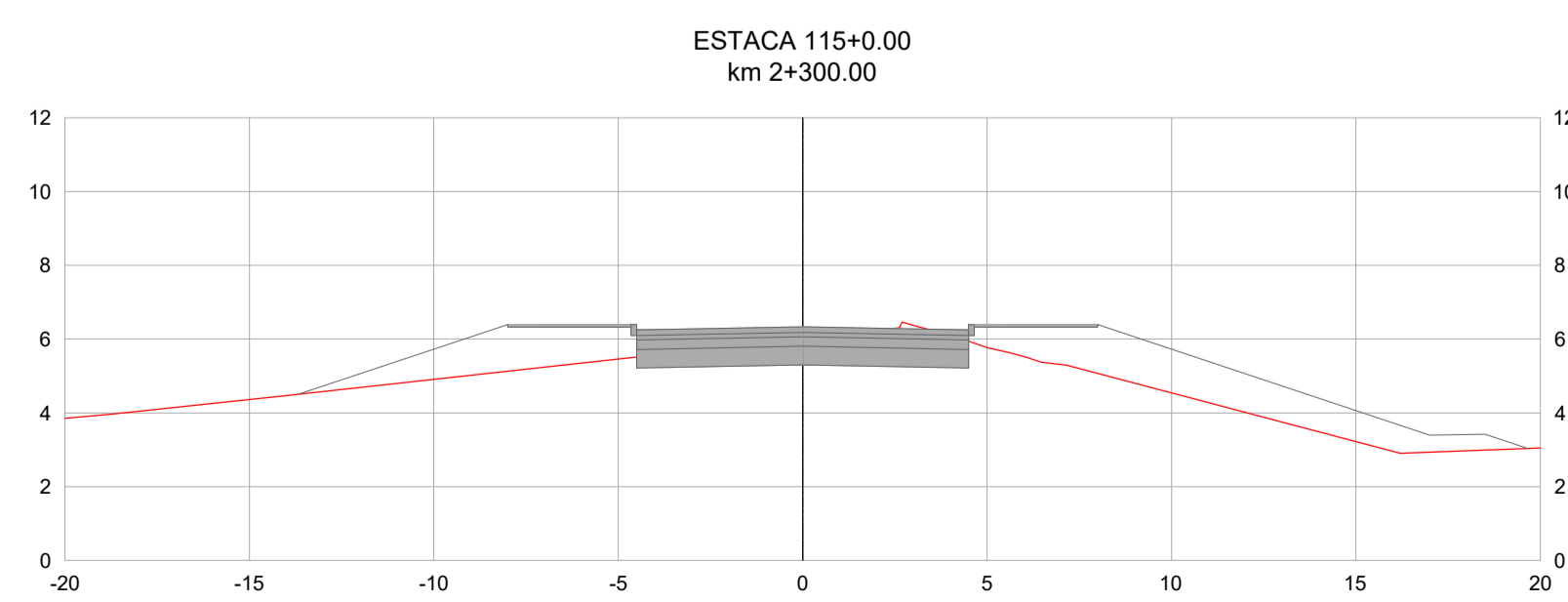
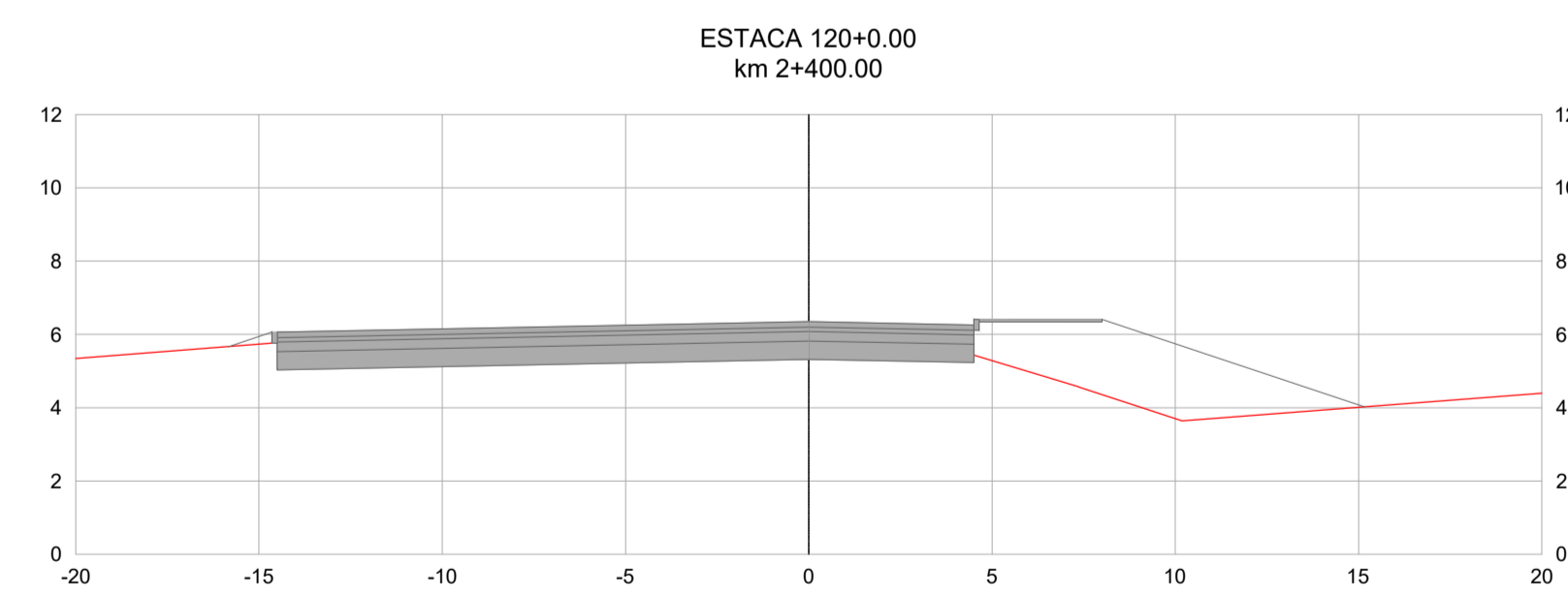
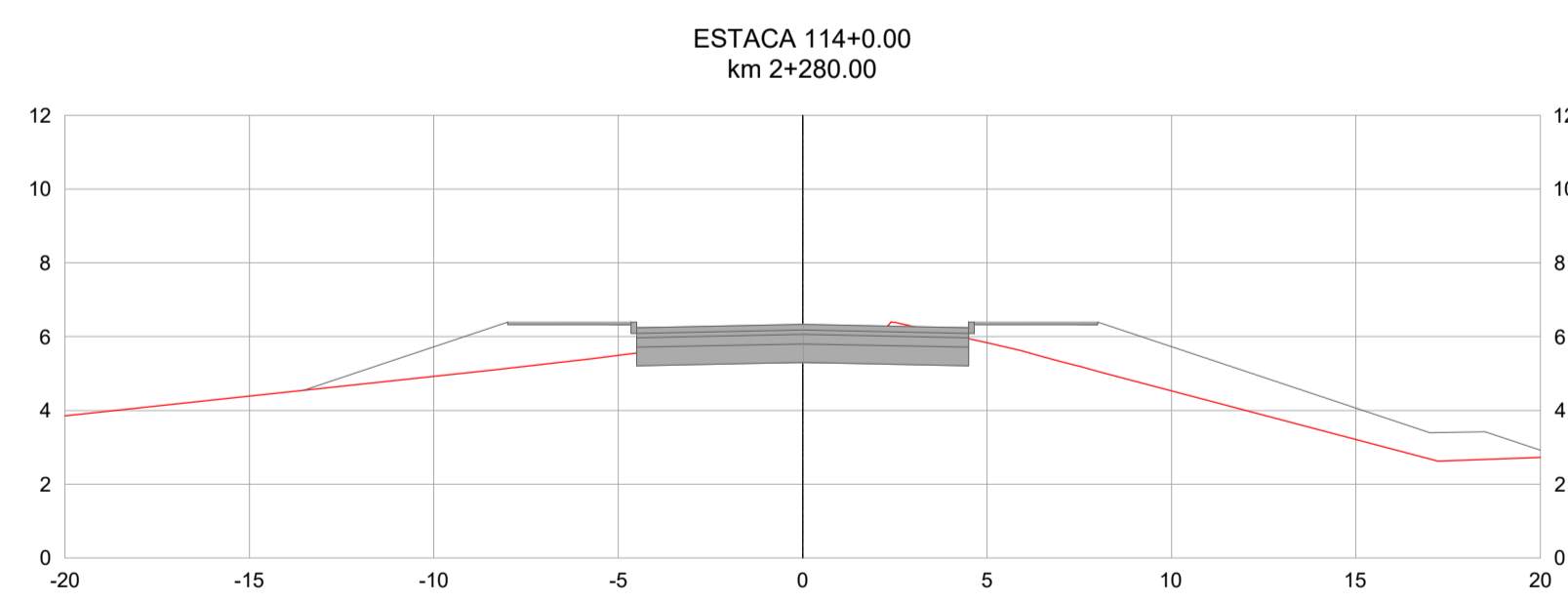
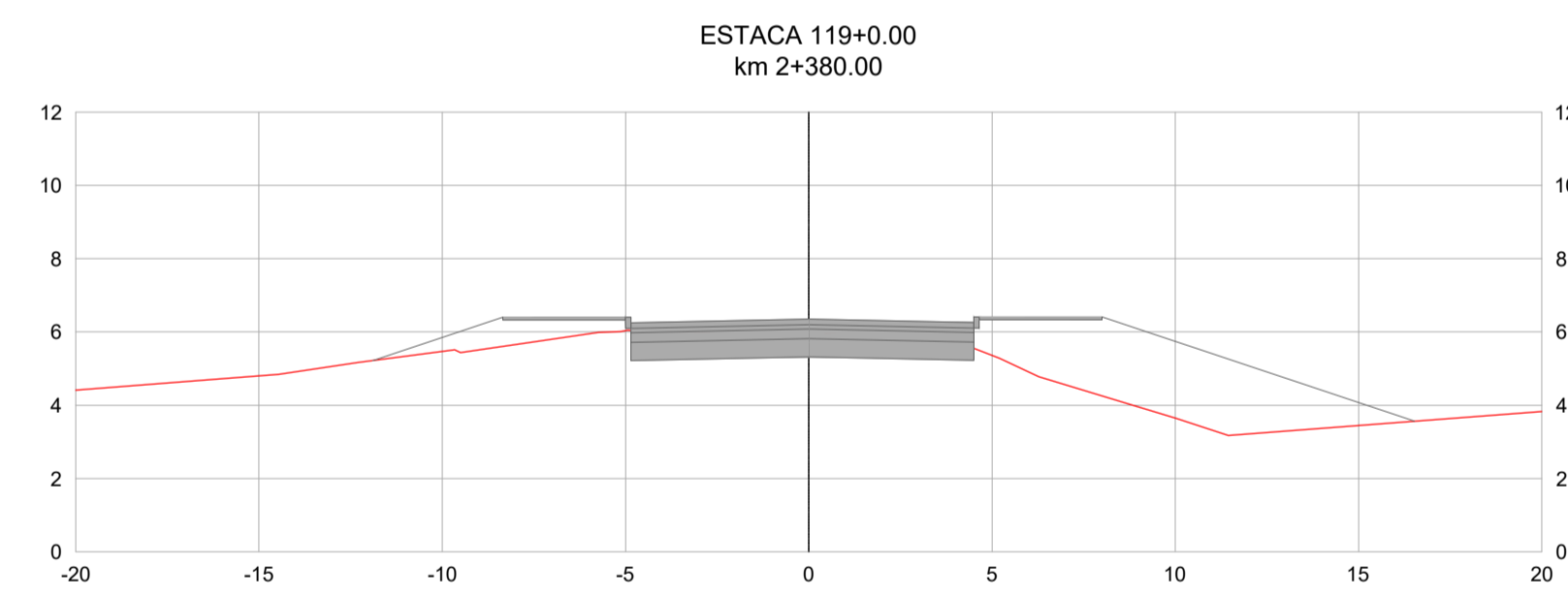
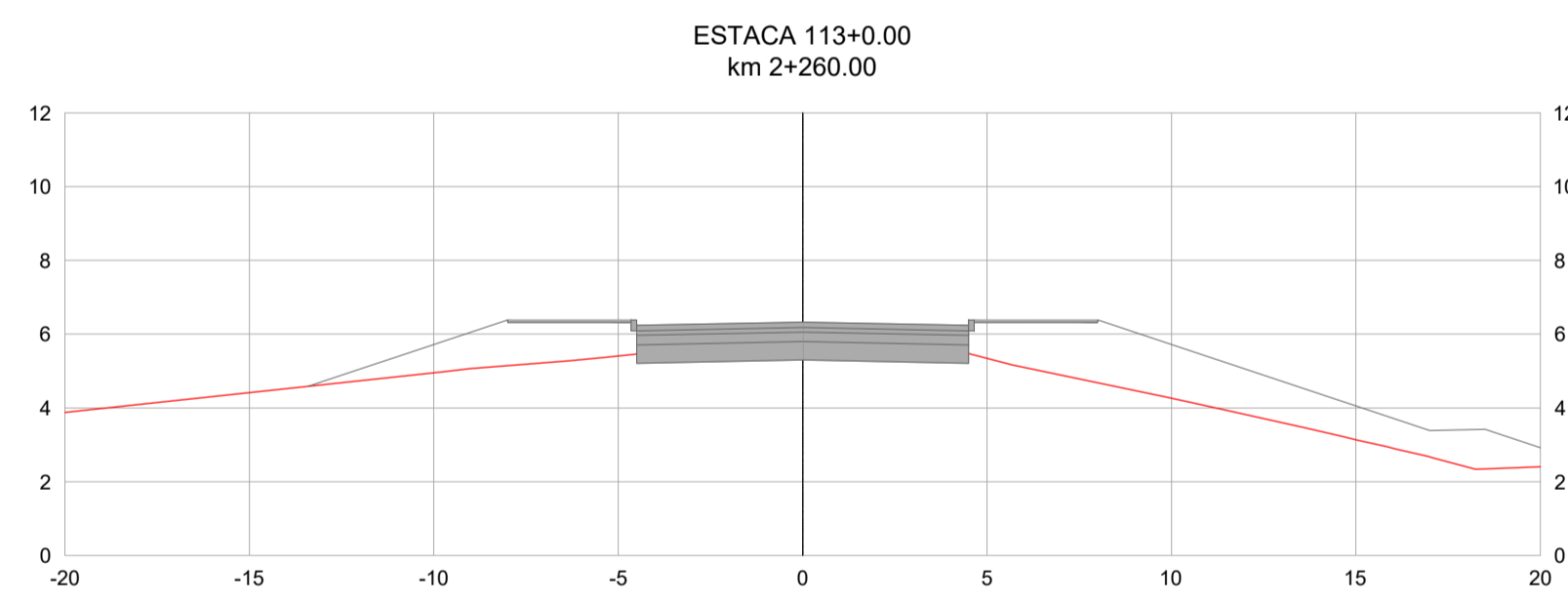
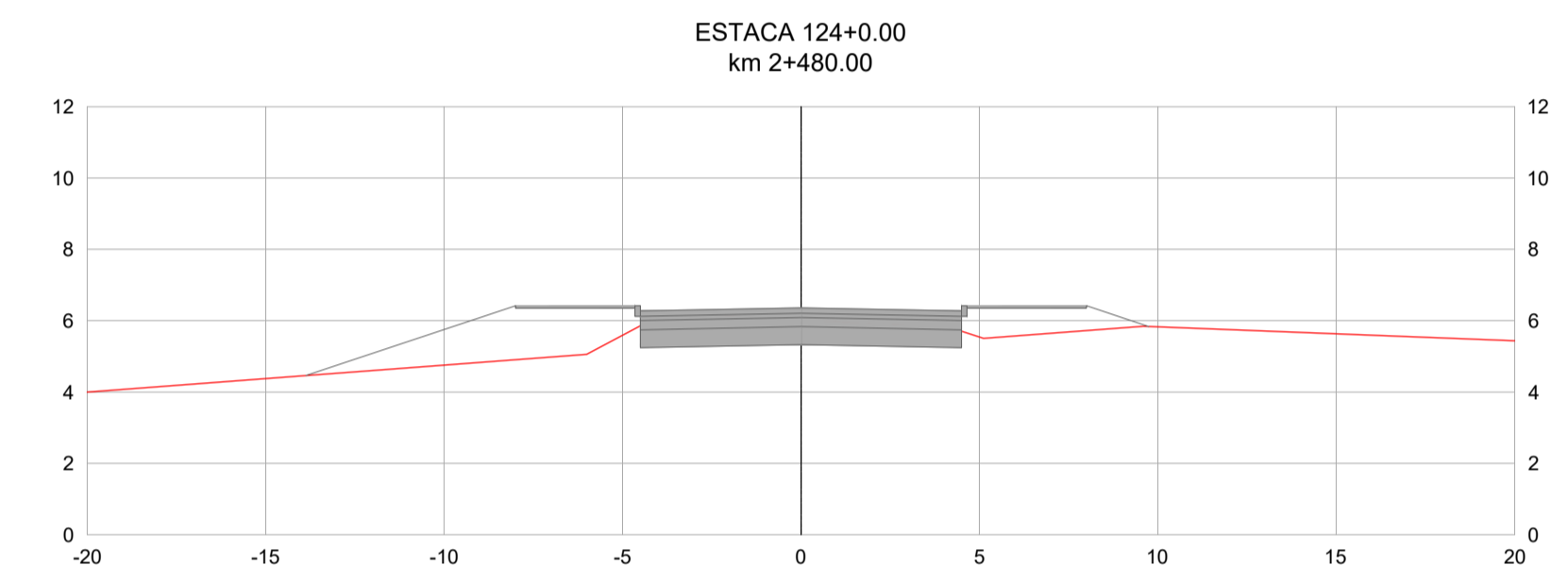
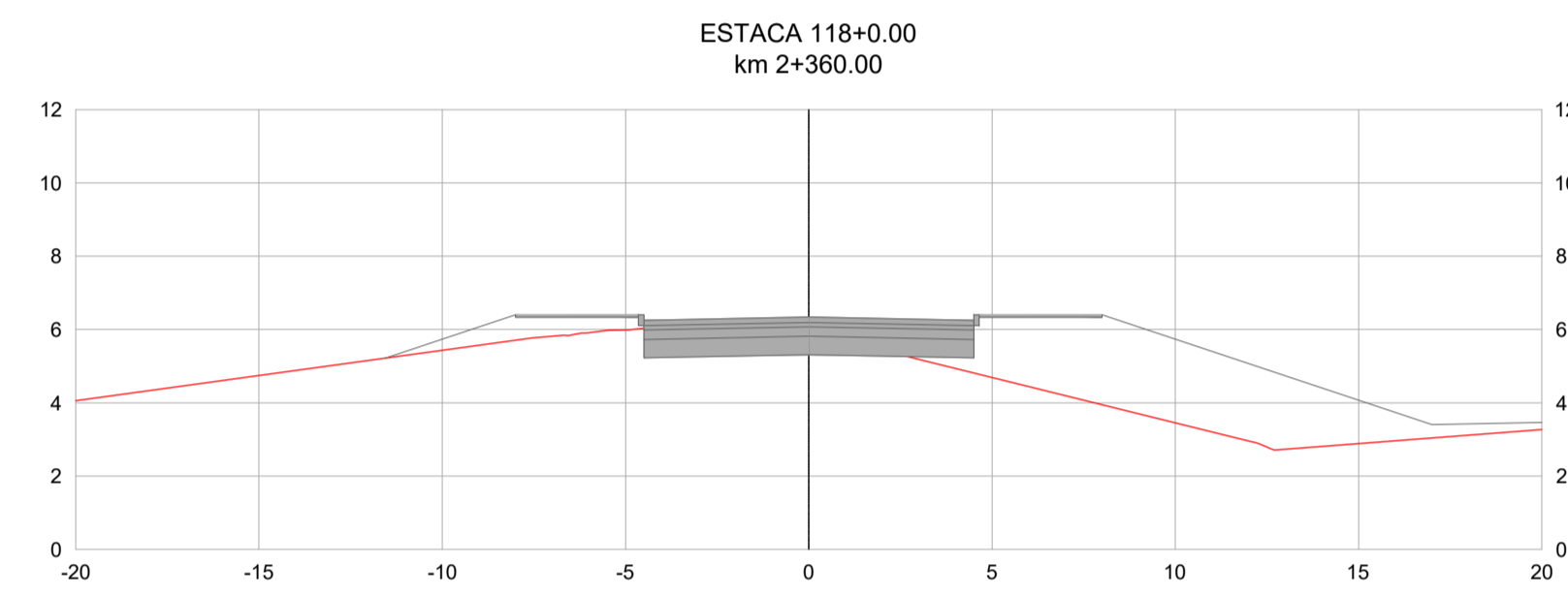
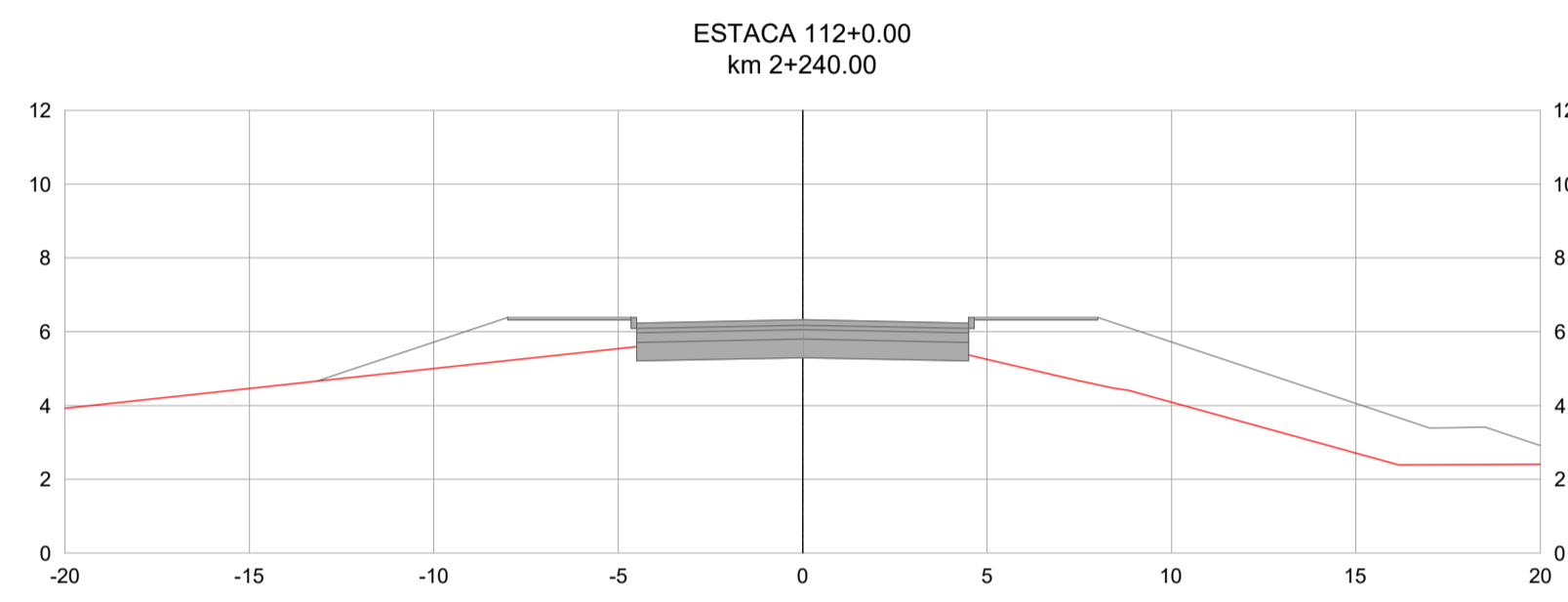
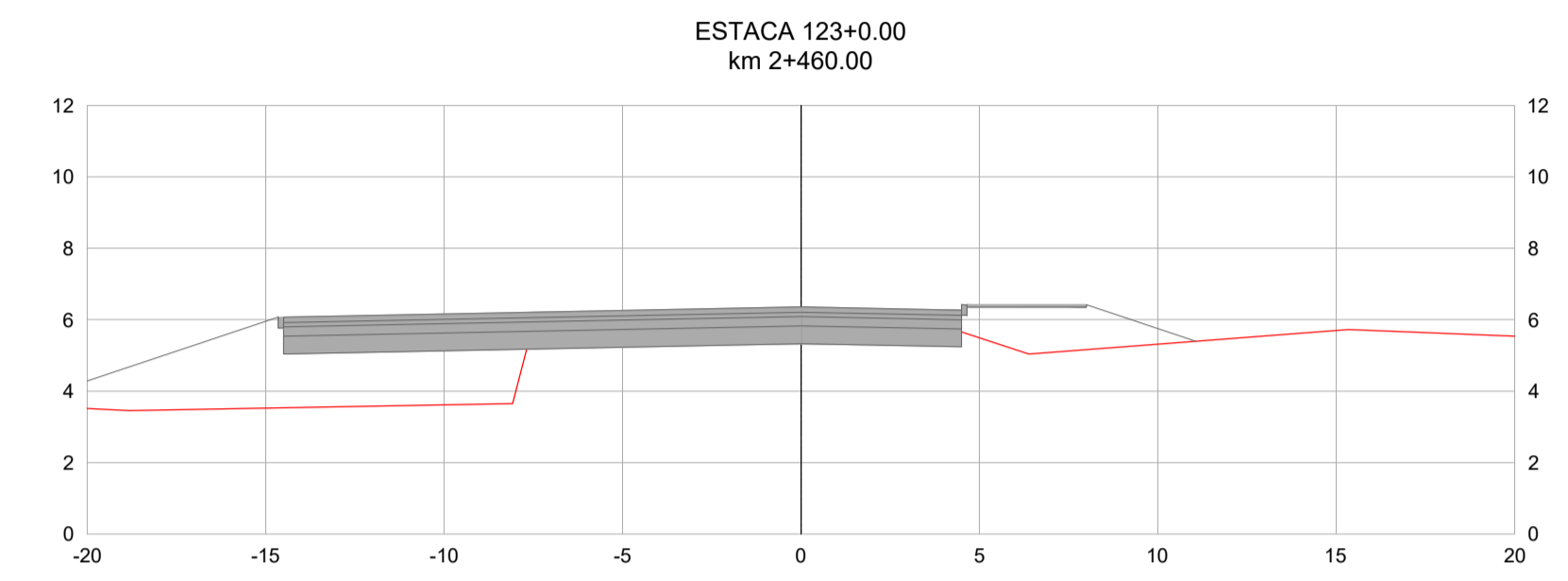
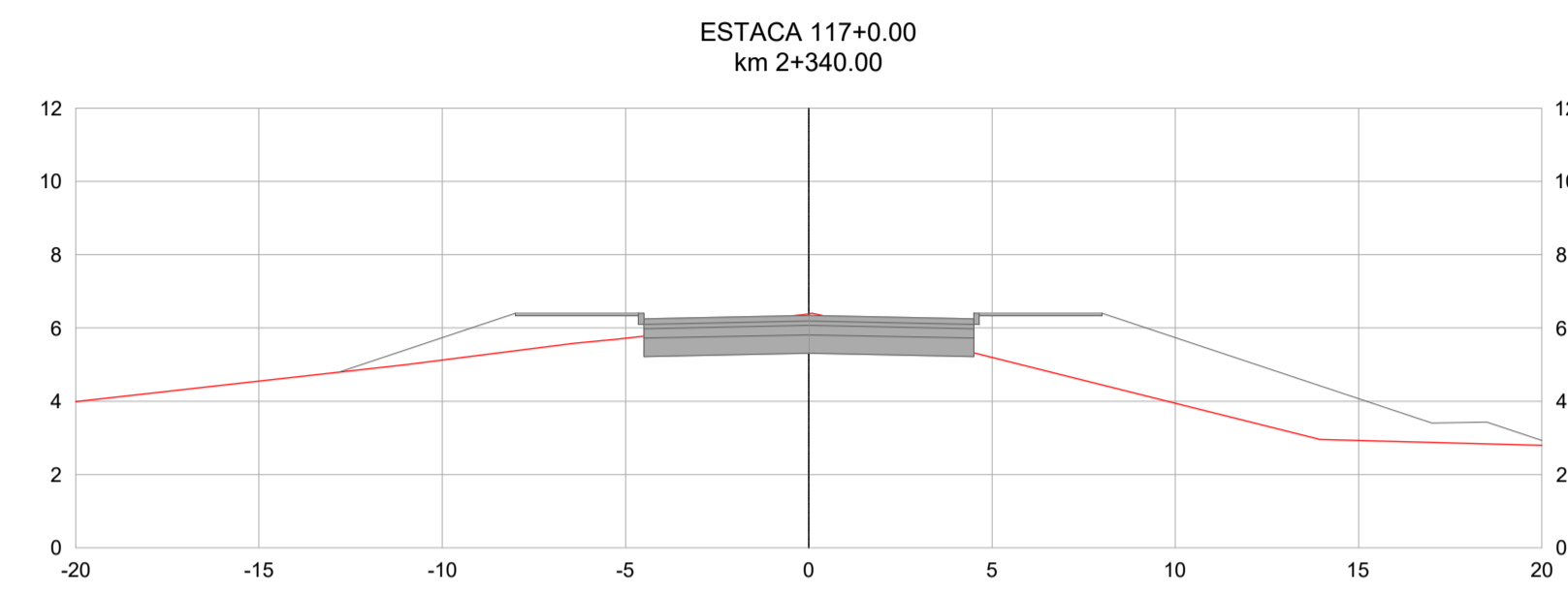
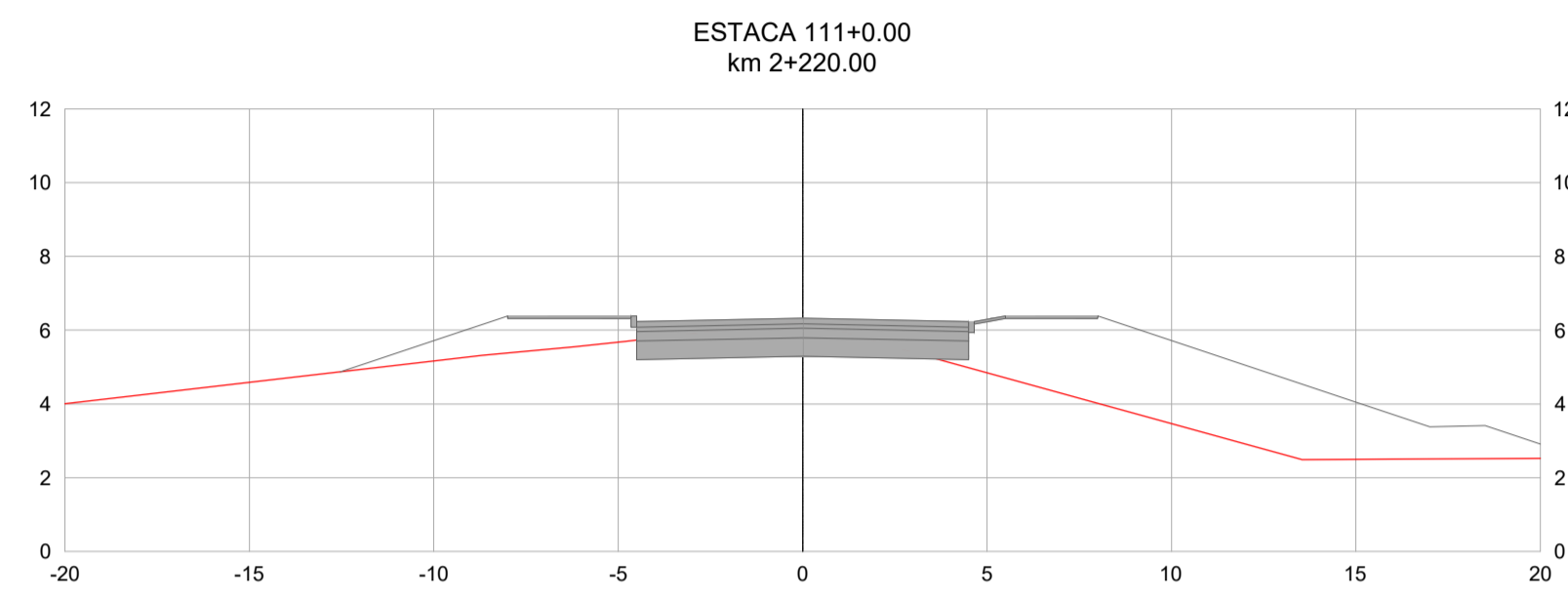
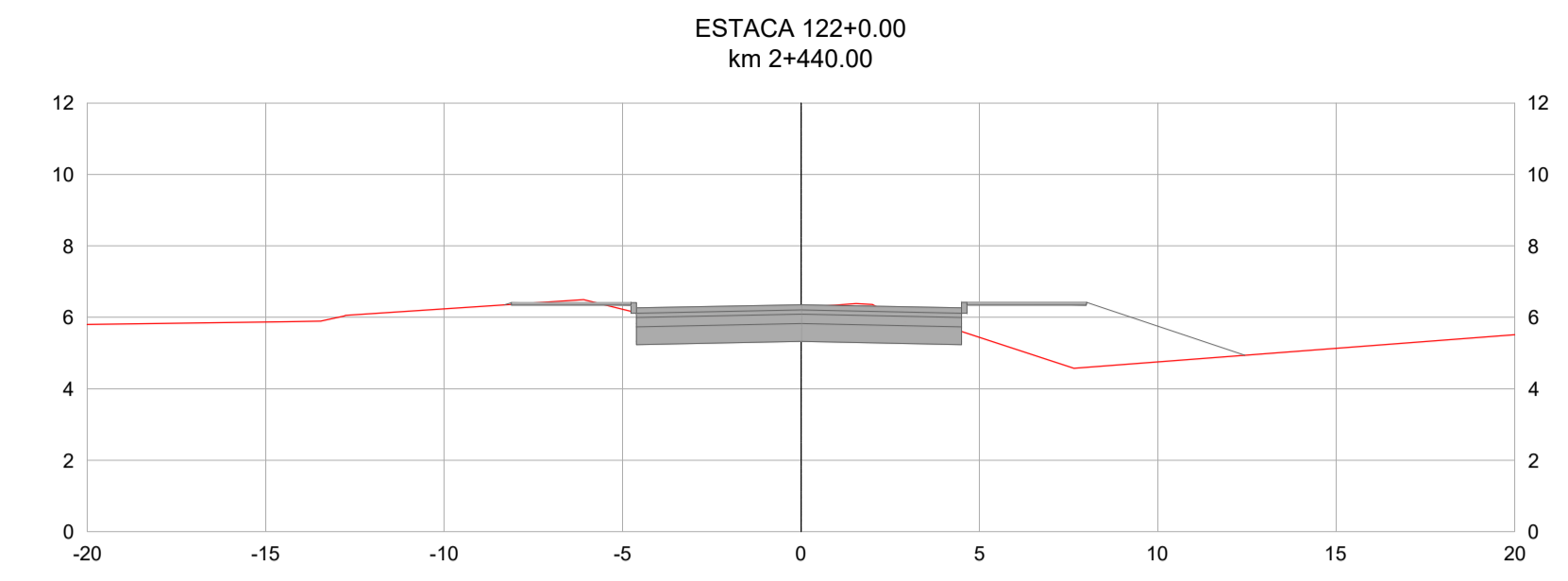
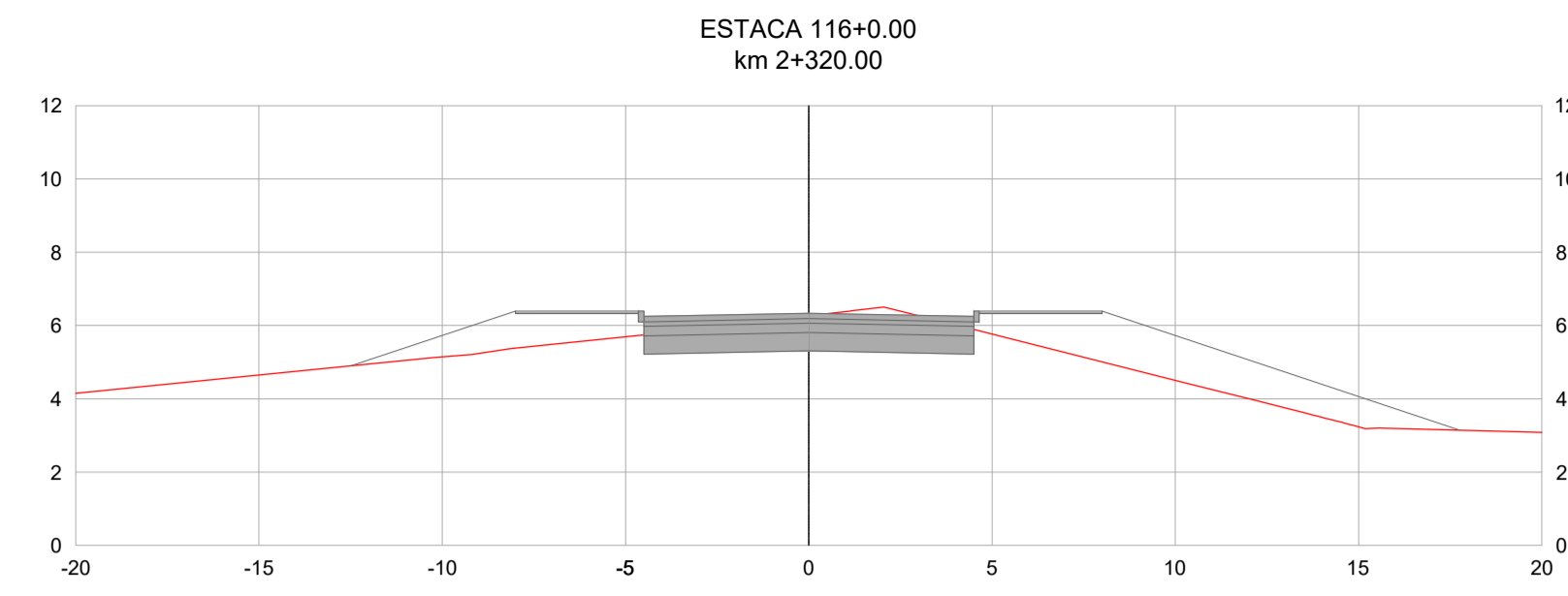
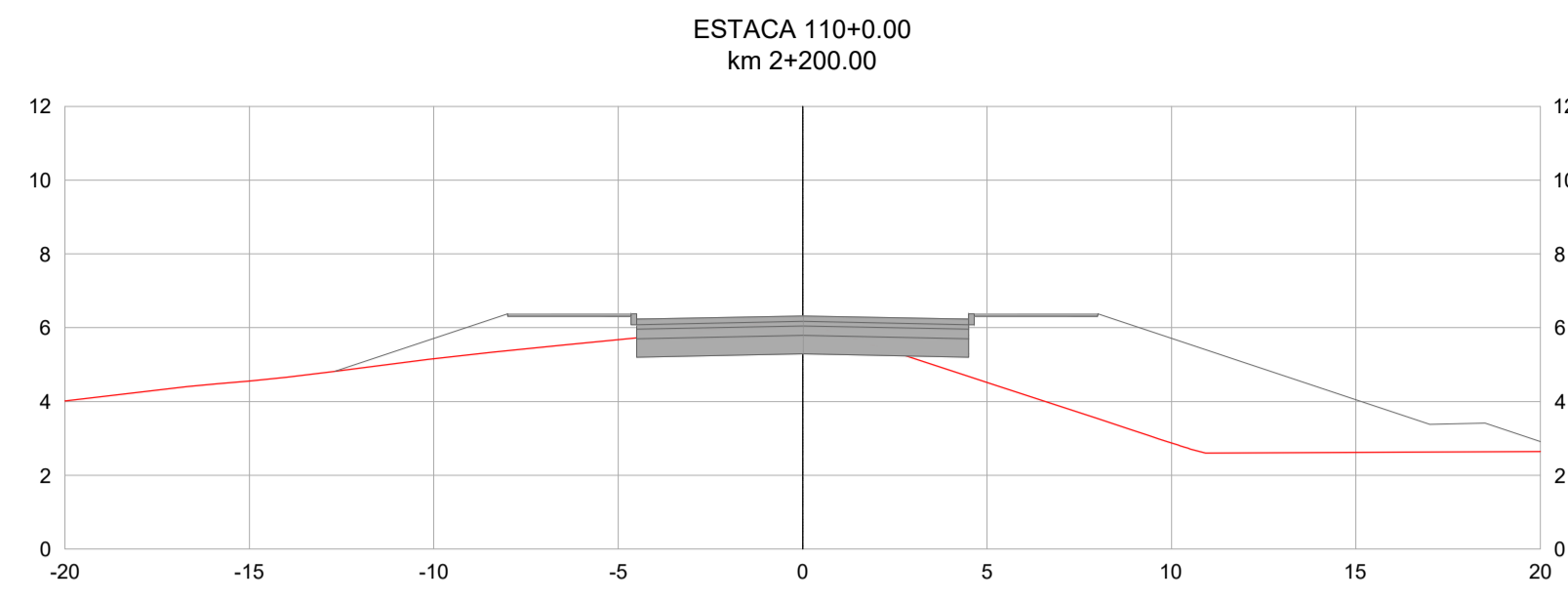




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| <p>PROJETO: PAVIMENTAÇÃO</p> | <p>DISCRIMINAÇÃO DA PRANCHA: SEÇÕES TRANSVERSAIS</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:200</p> | <p>ÁREA: -</p> |
| <p>DESENHO: Eng. Elen</p> | <p>DATA: JUNHO/2022</p> |
| <p>14/20</p> | |

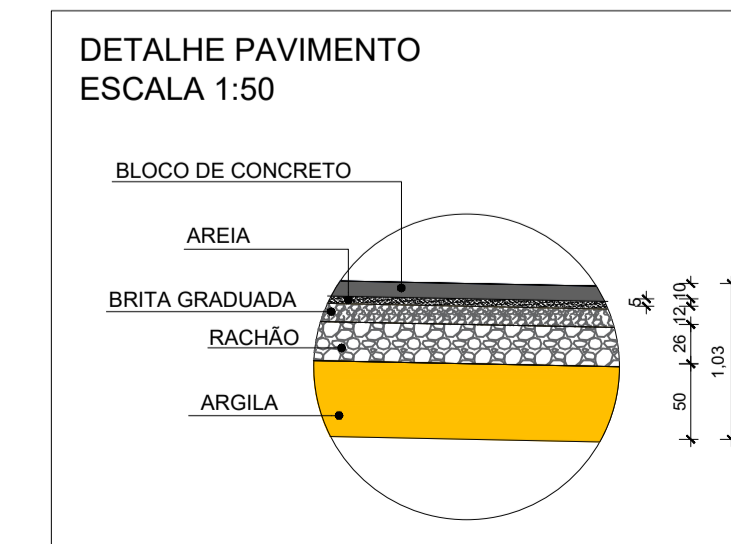
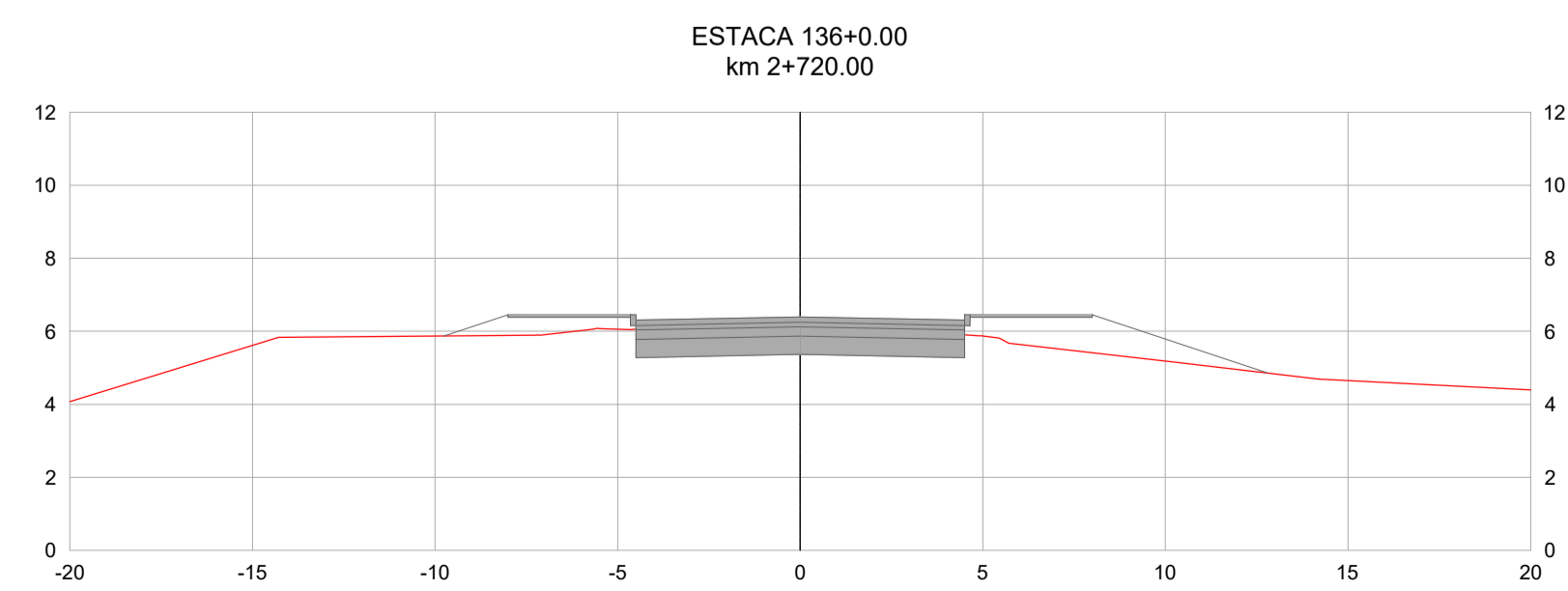
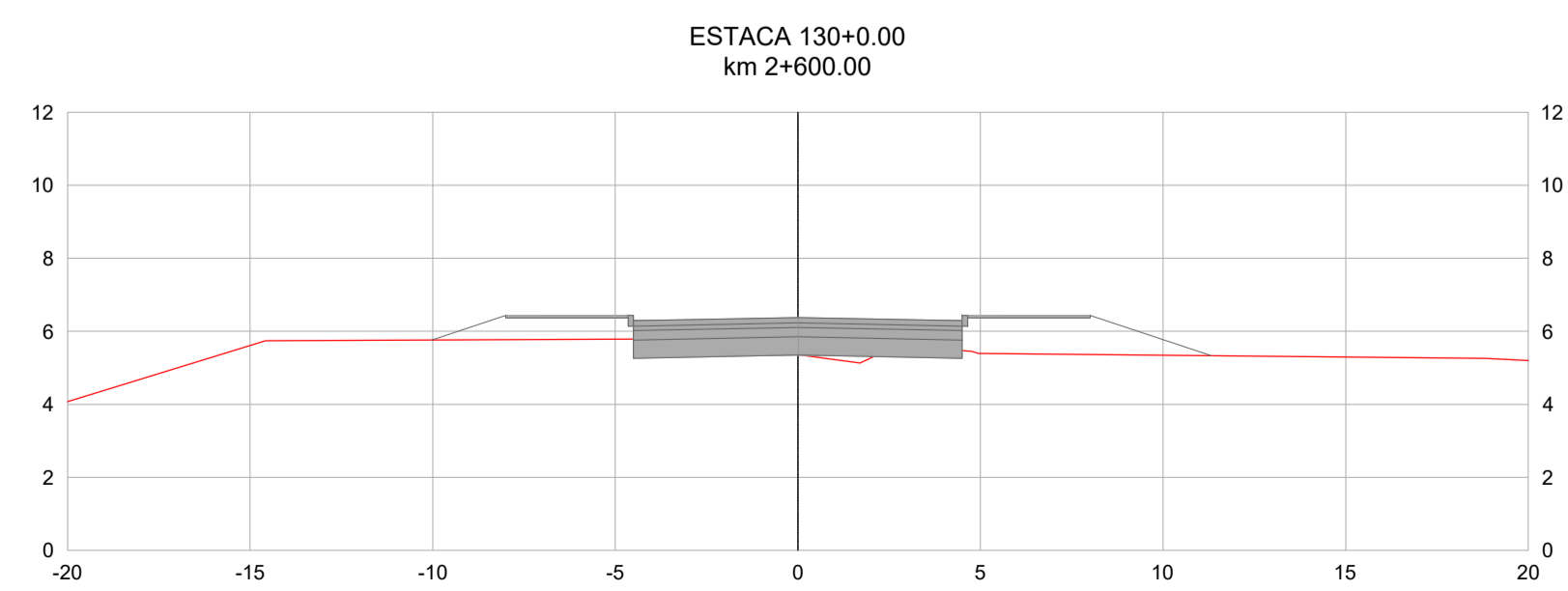
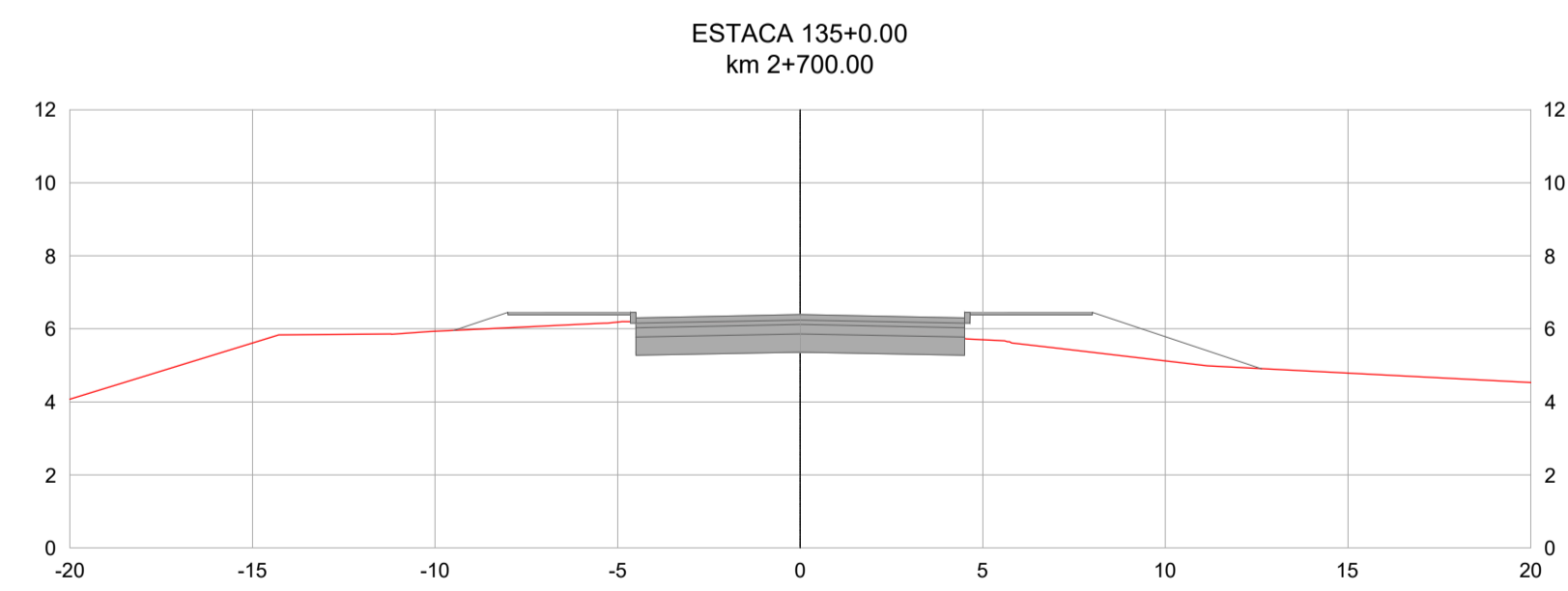
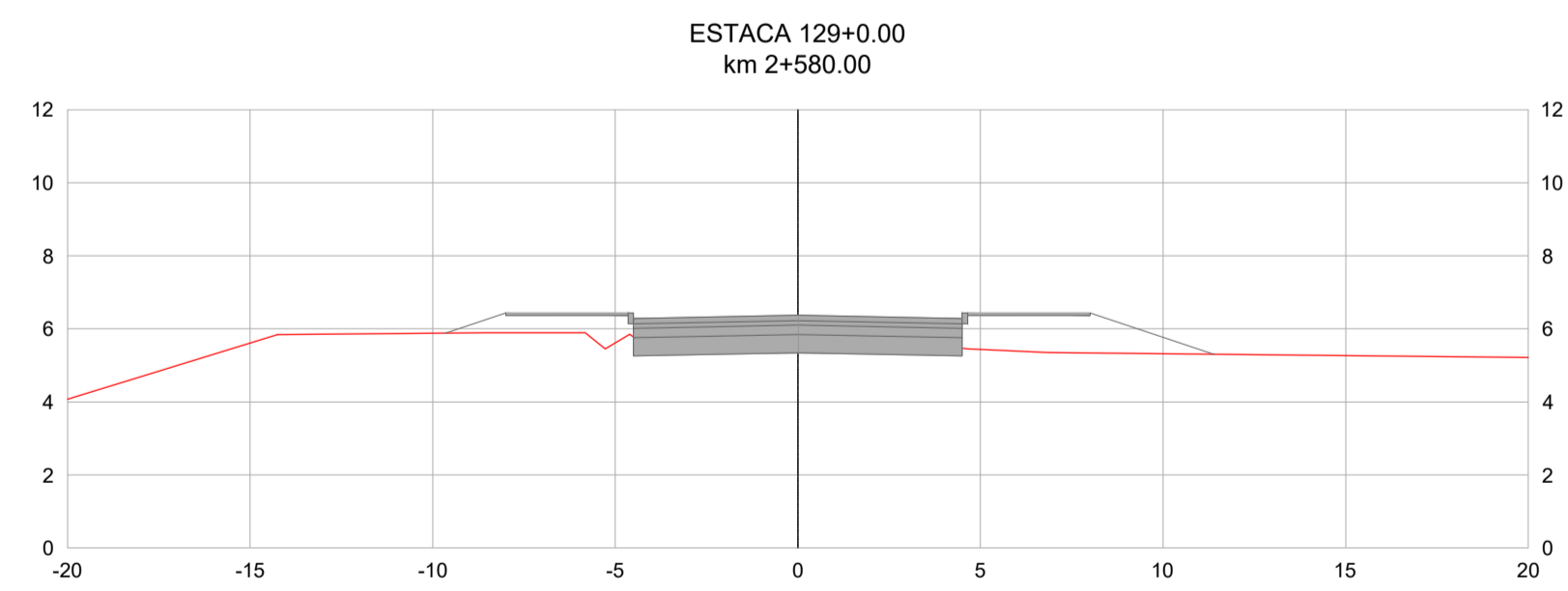
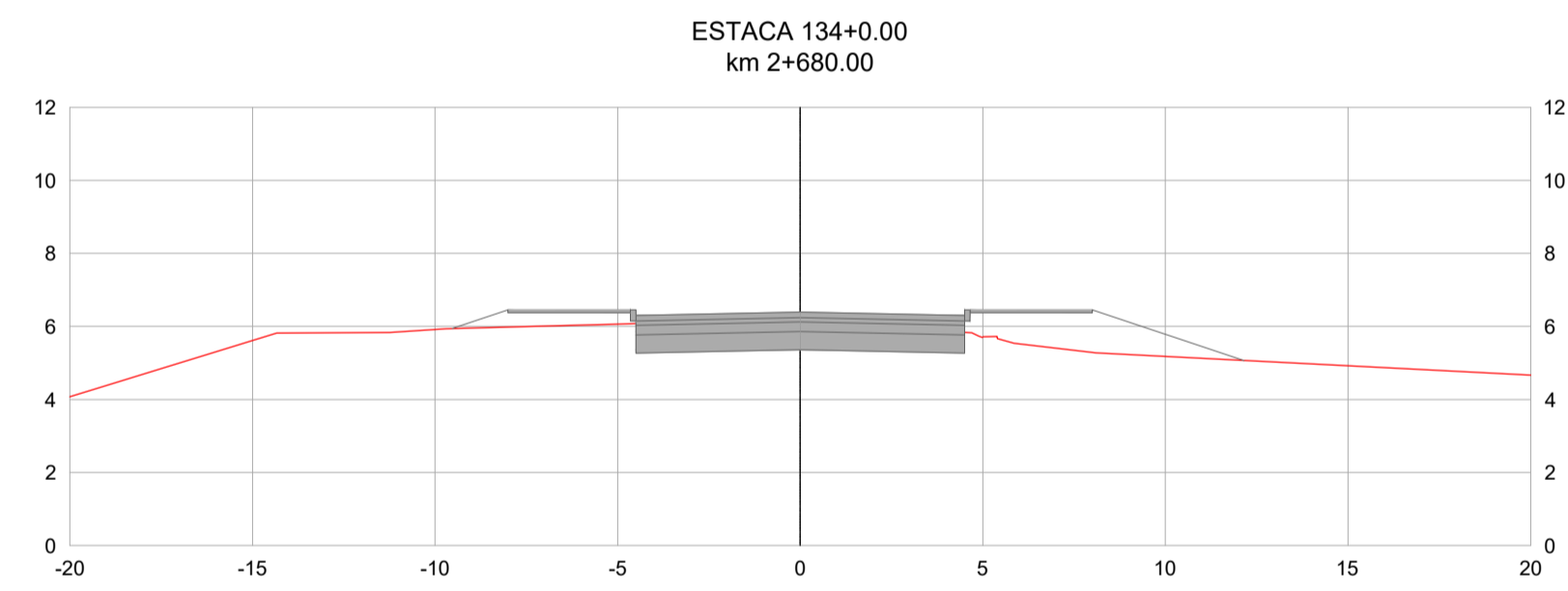
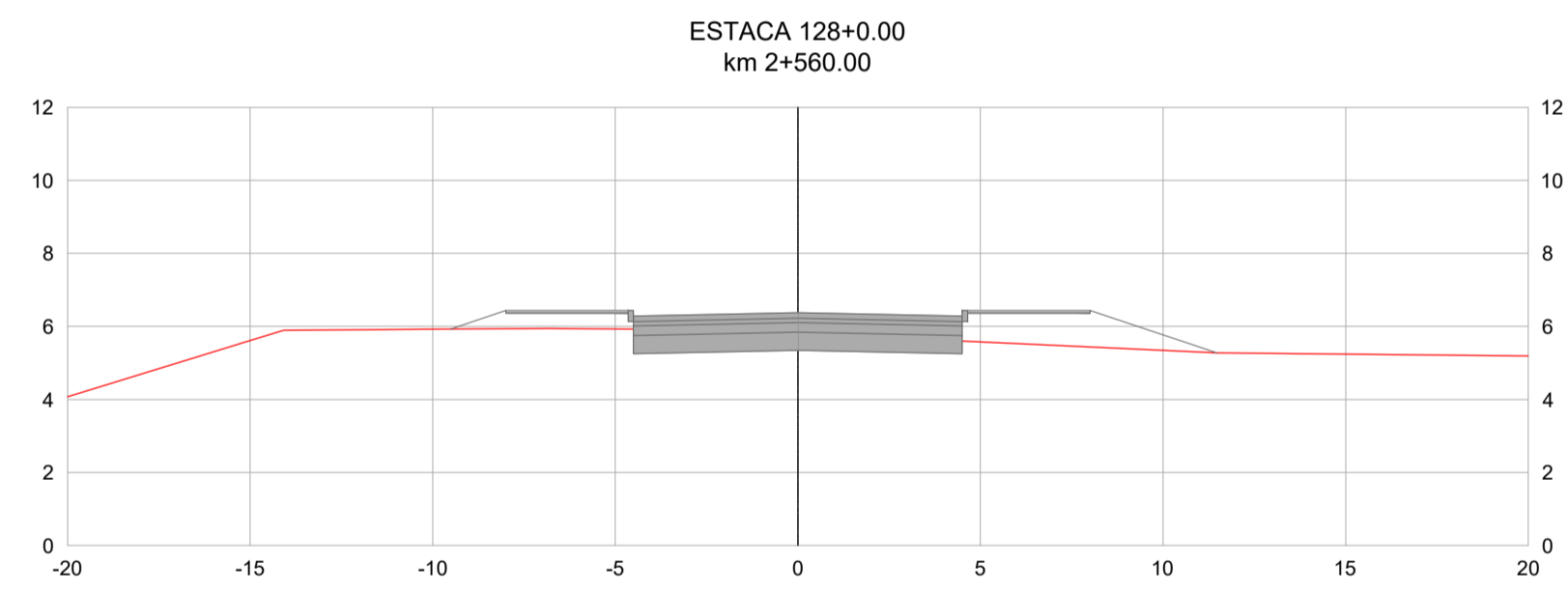
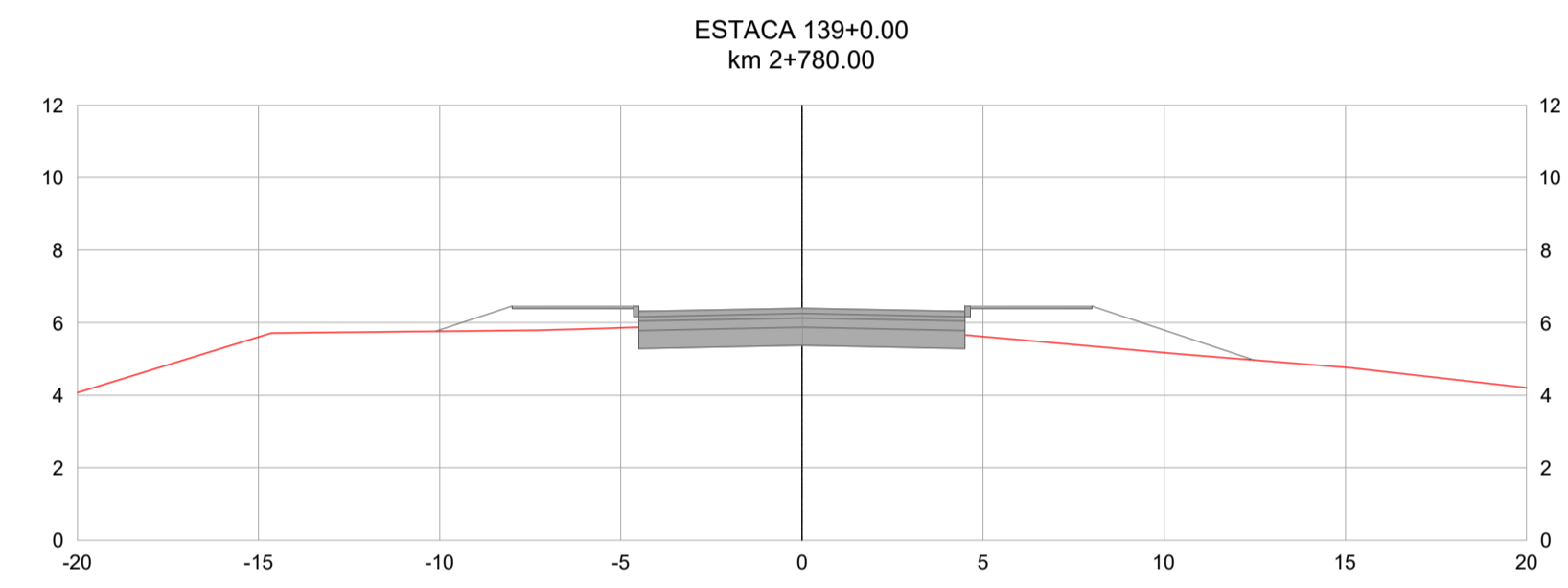
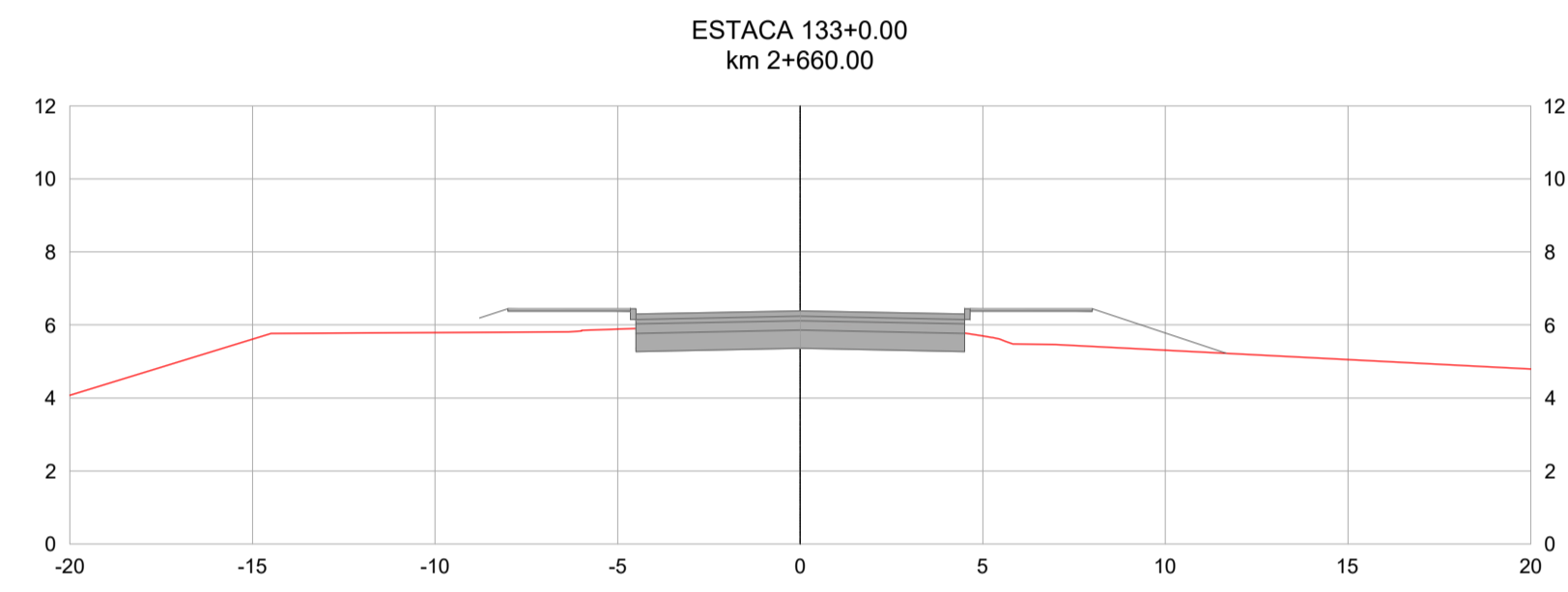
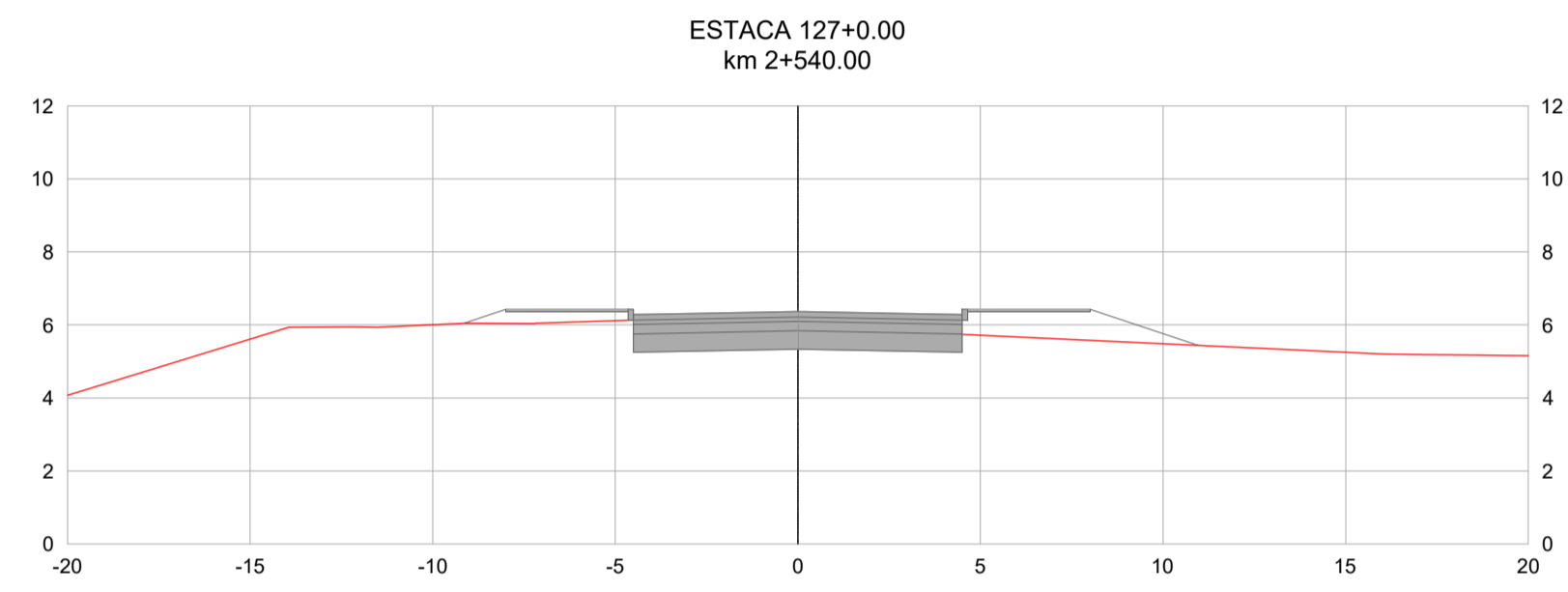
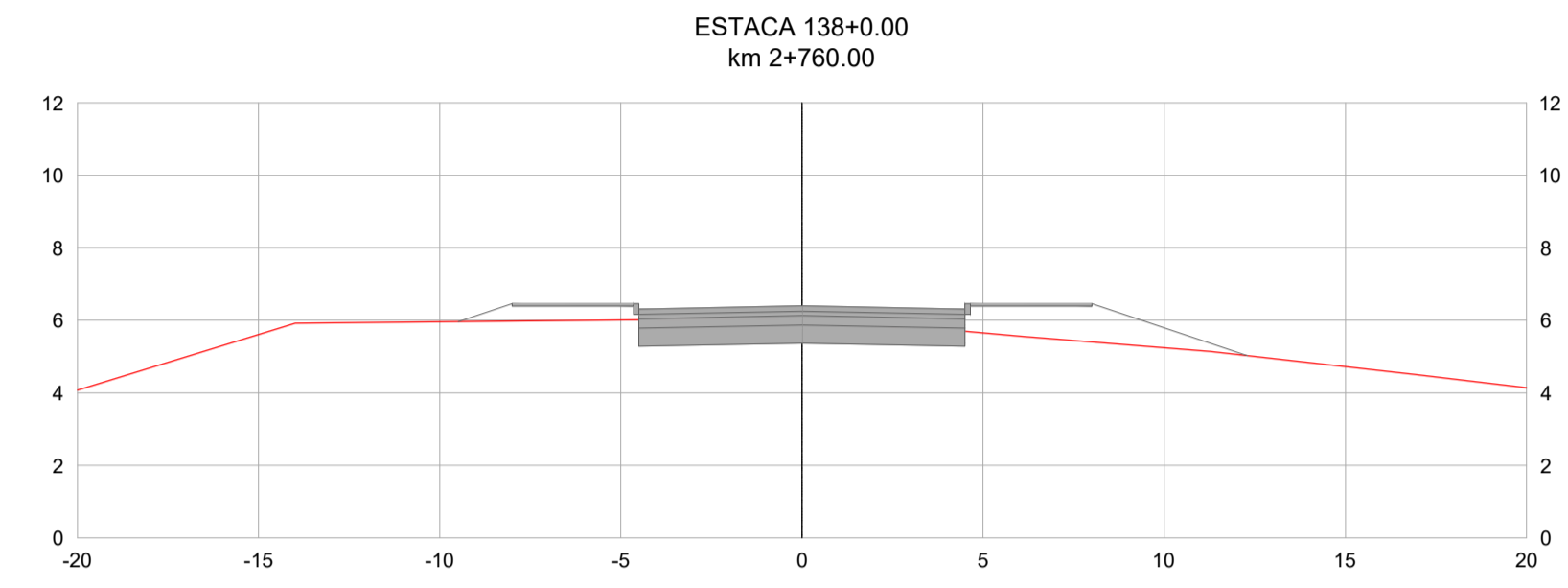
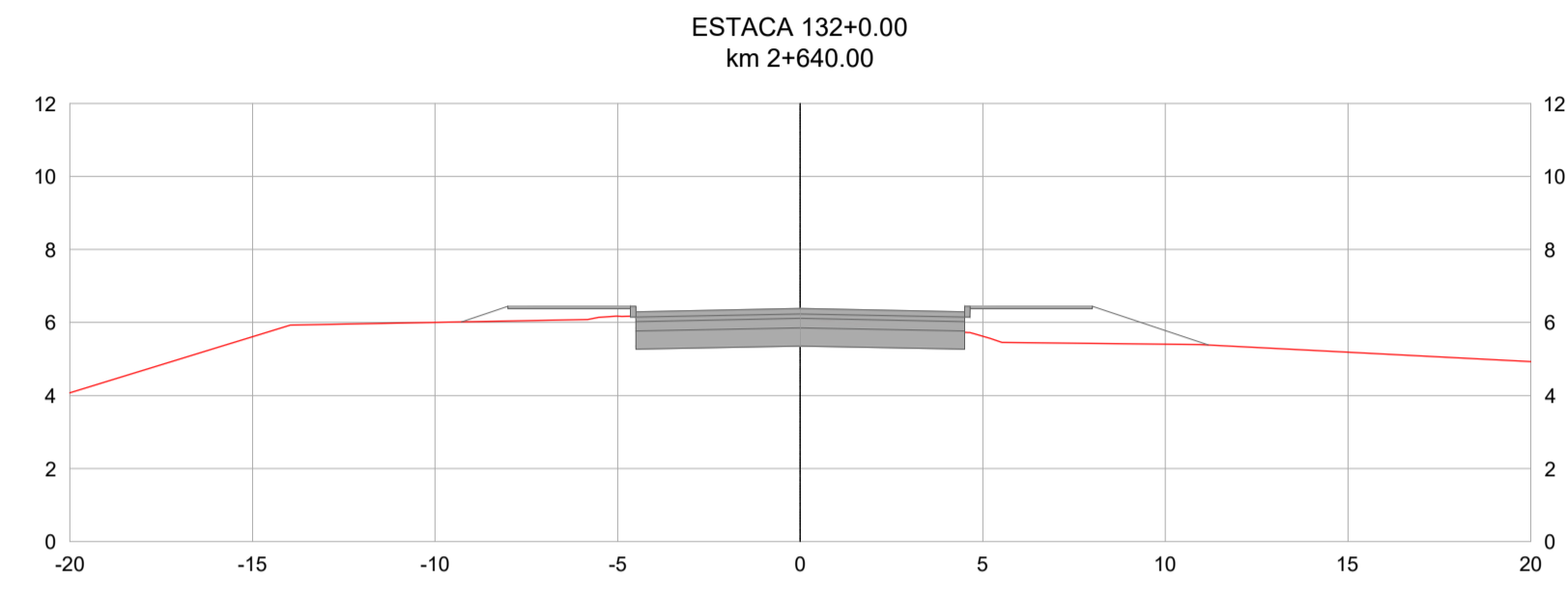
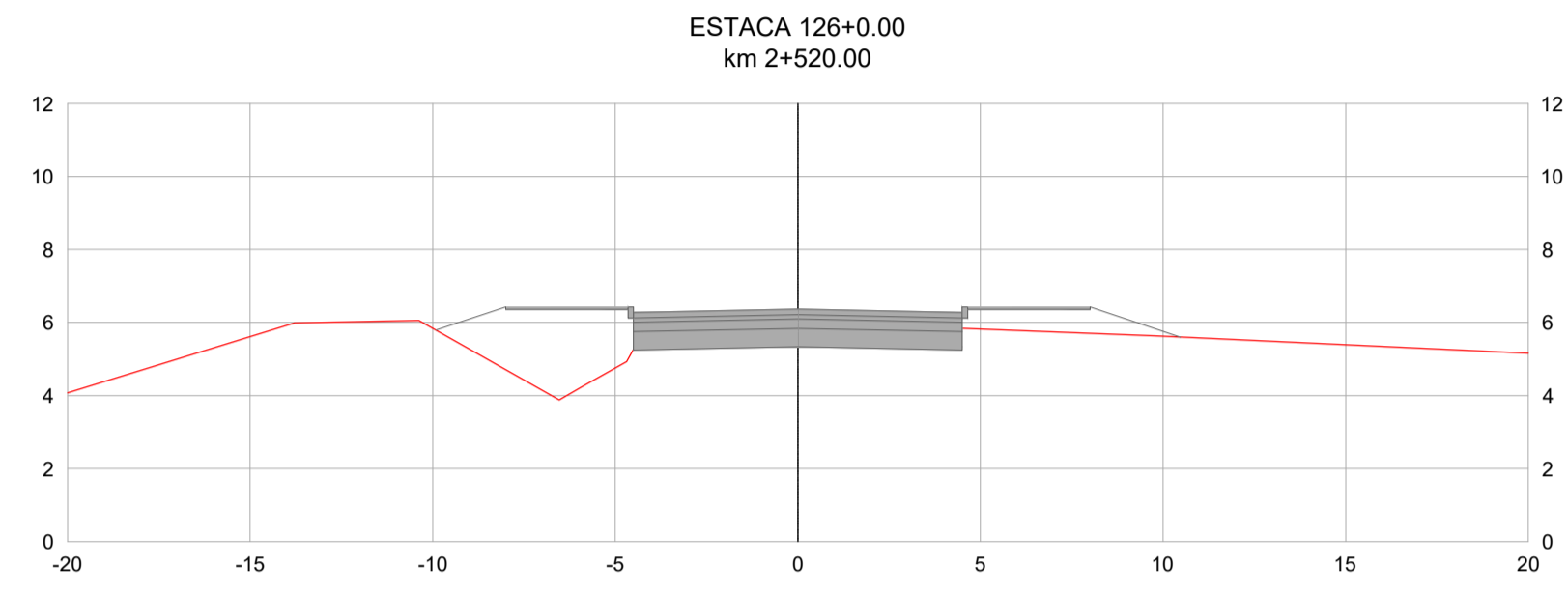
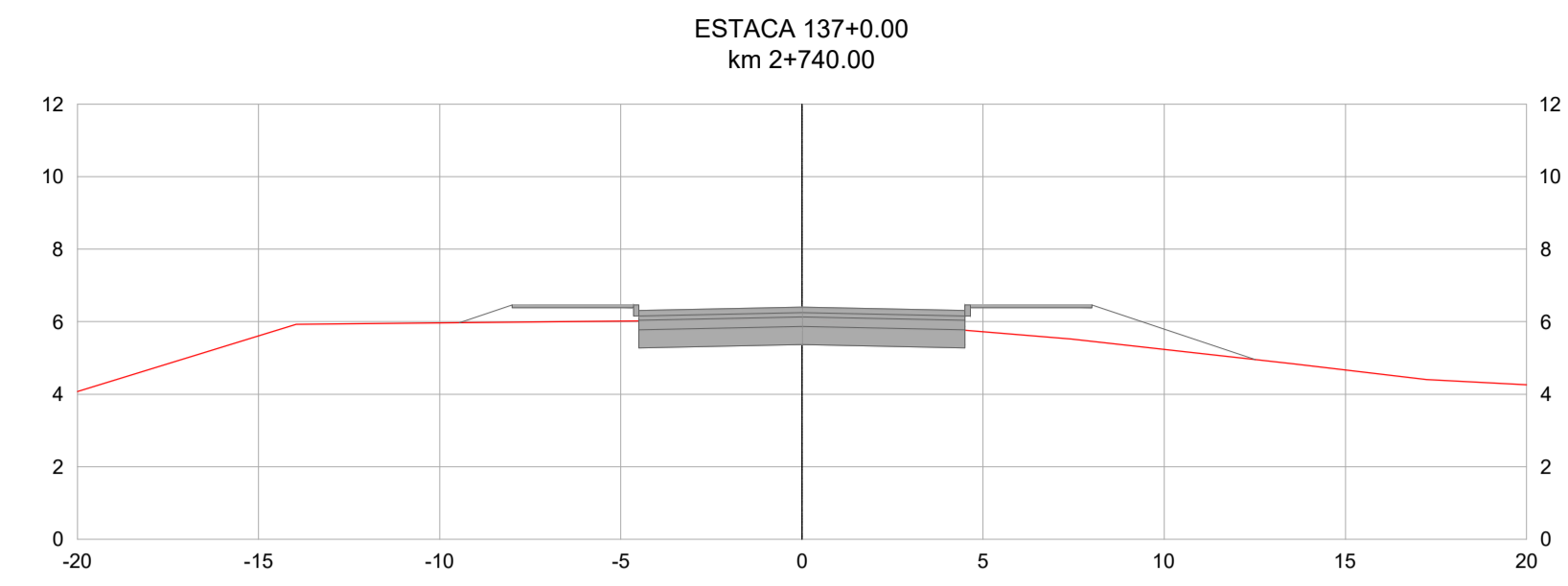
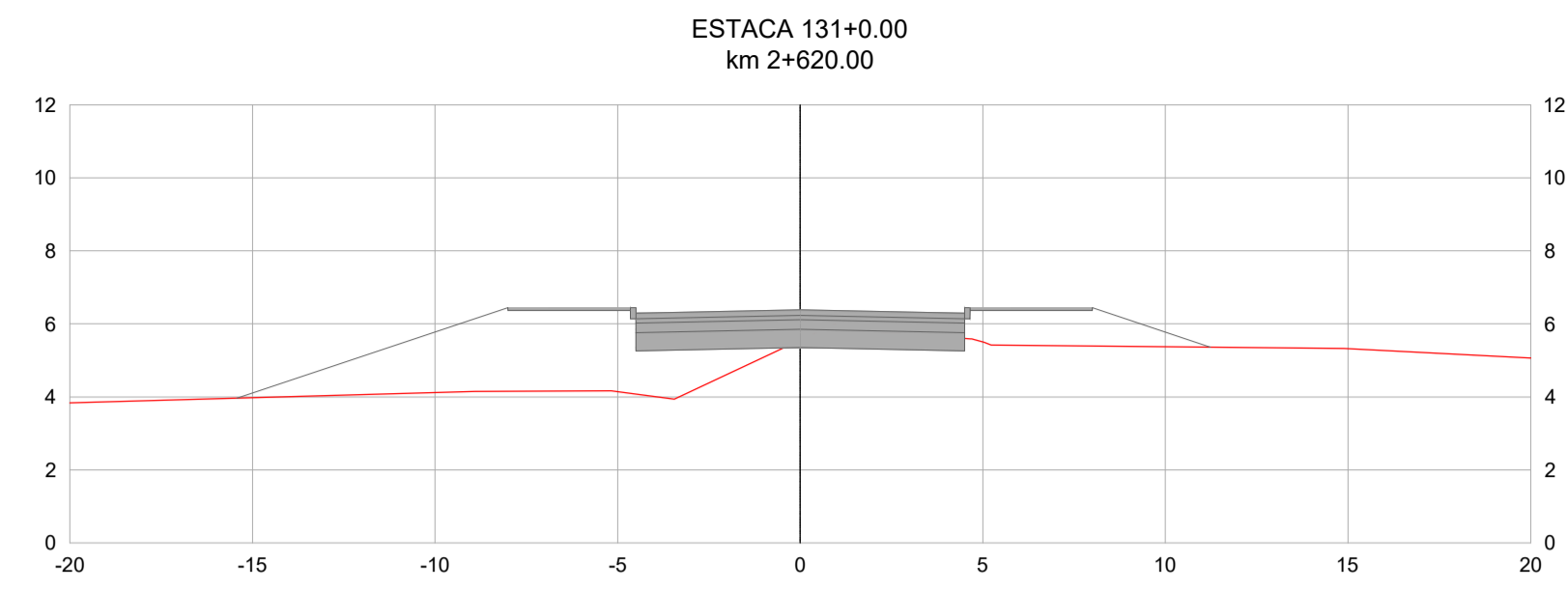
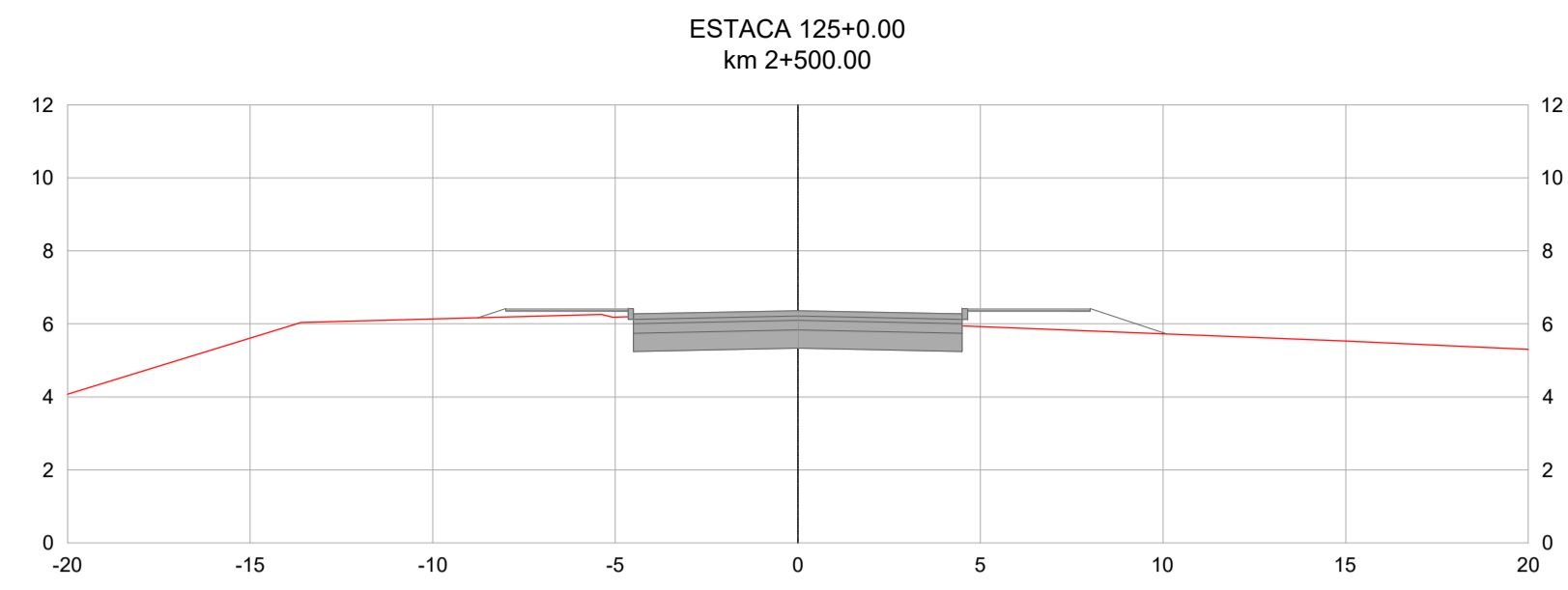



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| RESPONSÁVEL TÉCNICO: <small>Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</small> | |
| ESCALA: 1:200 | ÁREA: - |
| DESENHO: Eng. Elen | DATA: JUNHO/2022 |
| 15/20 | |



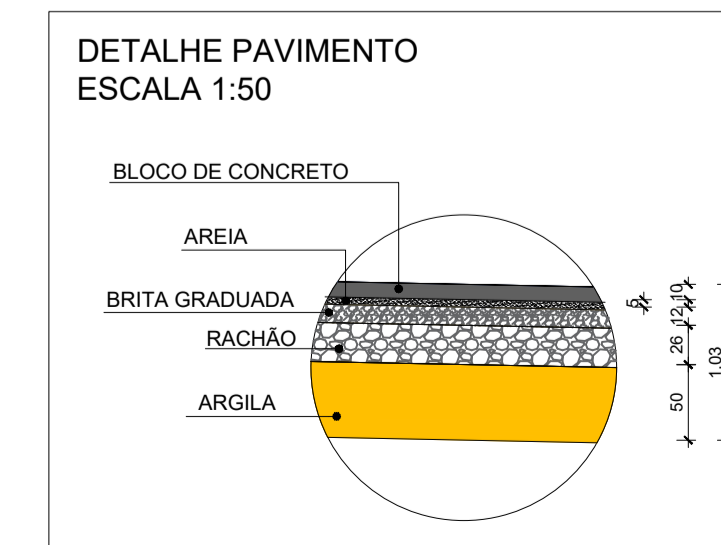
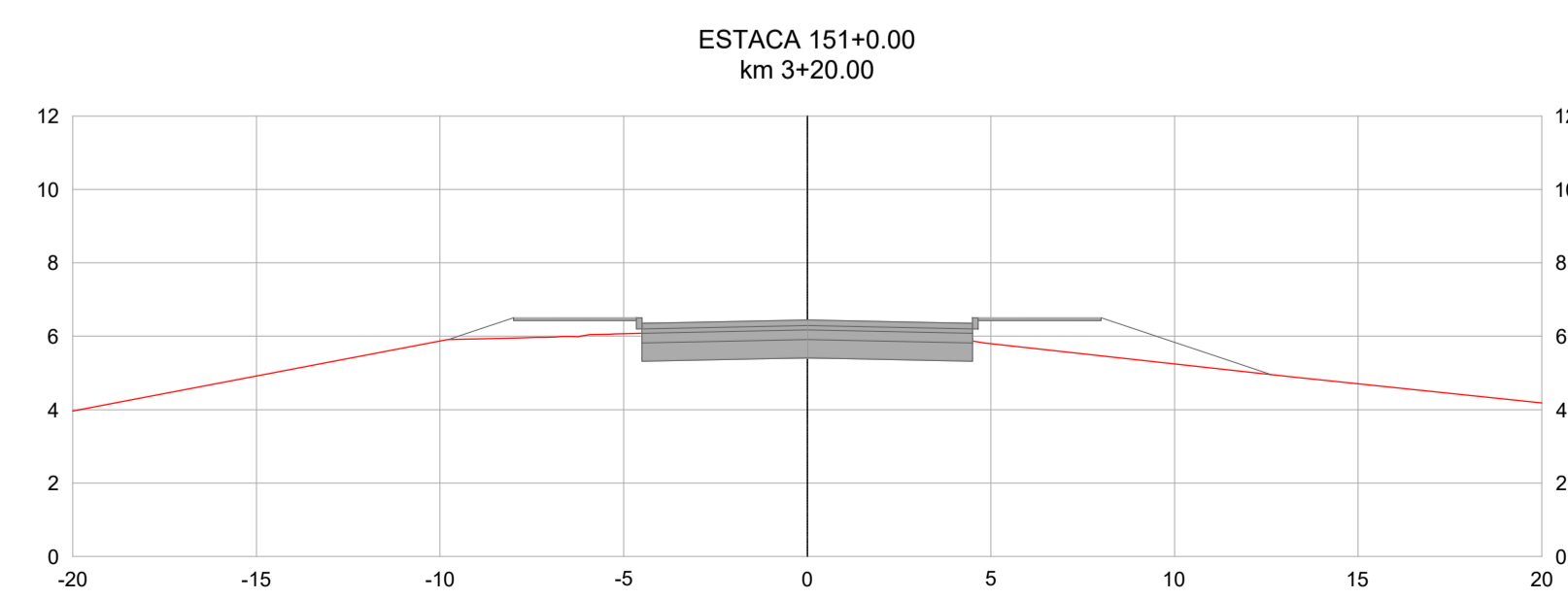
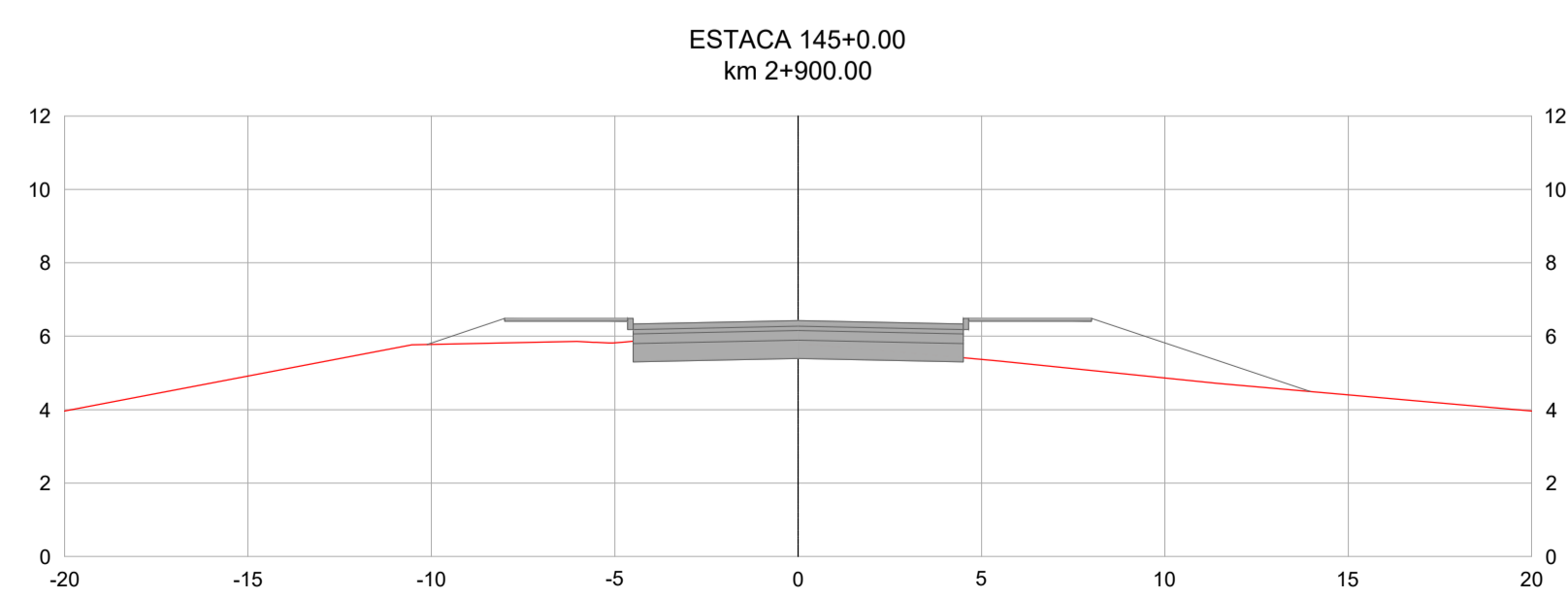
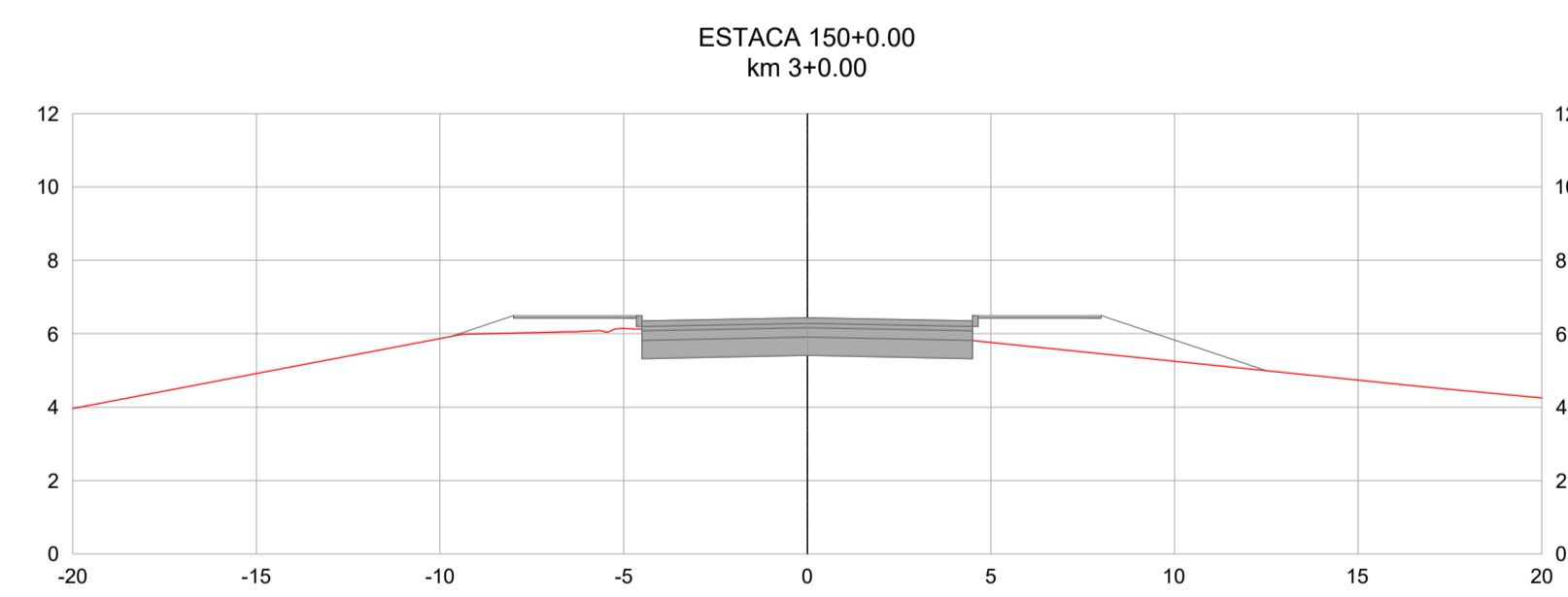
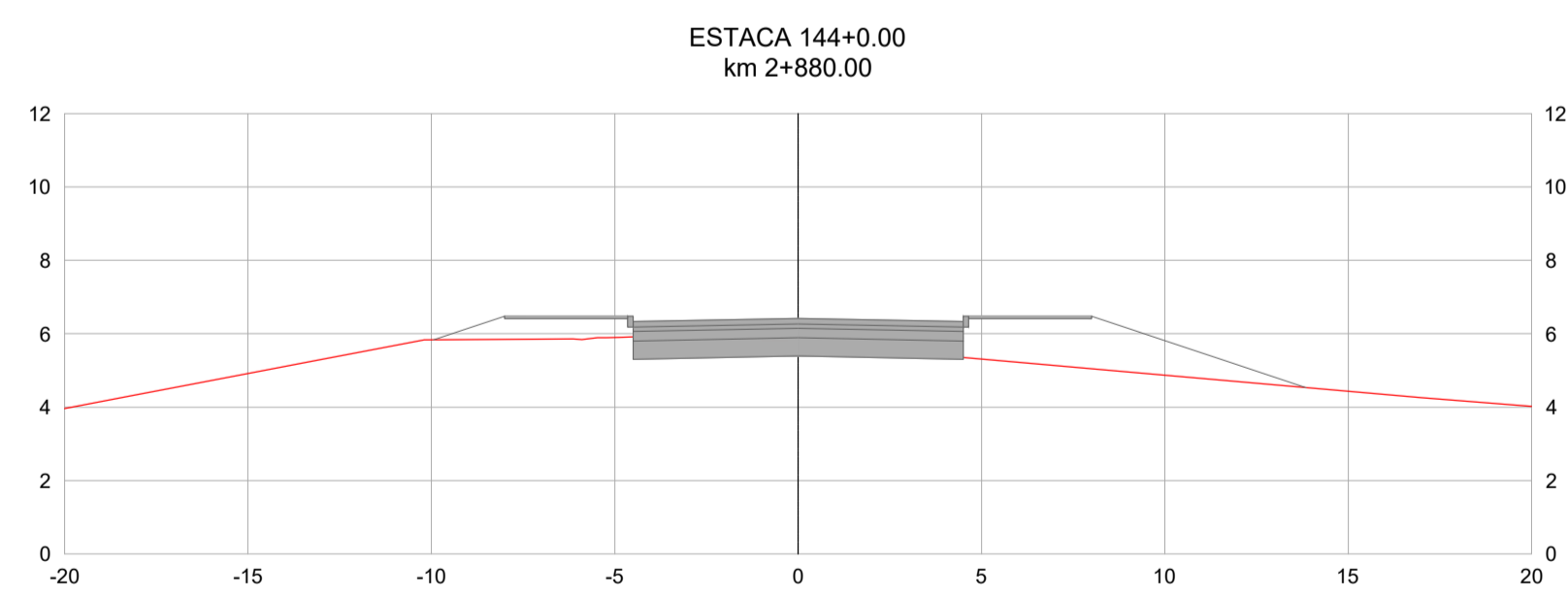
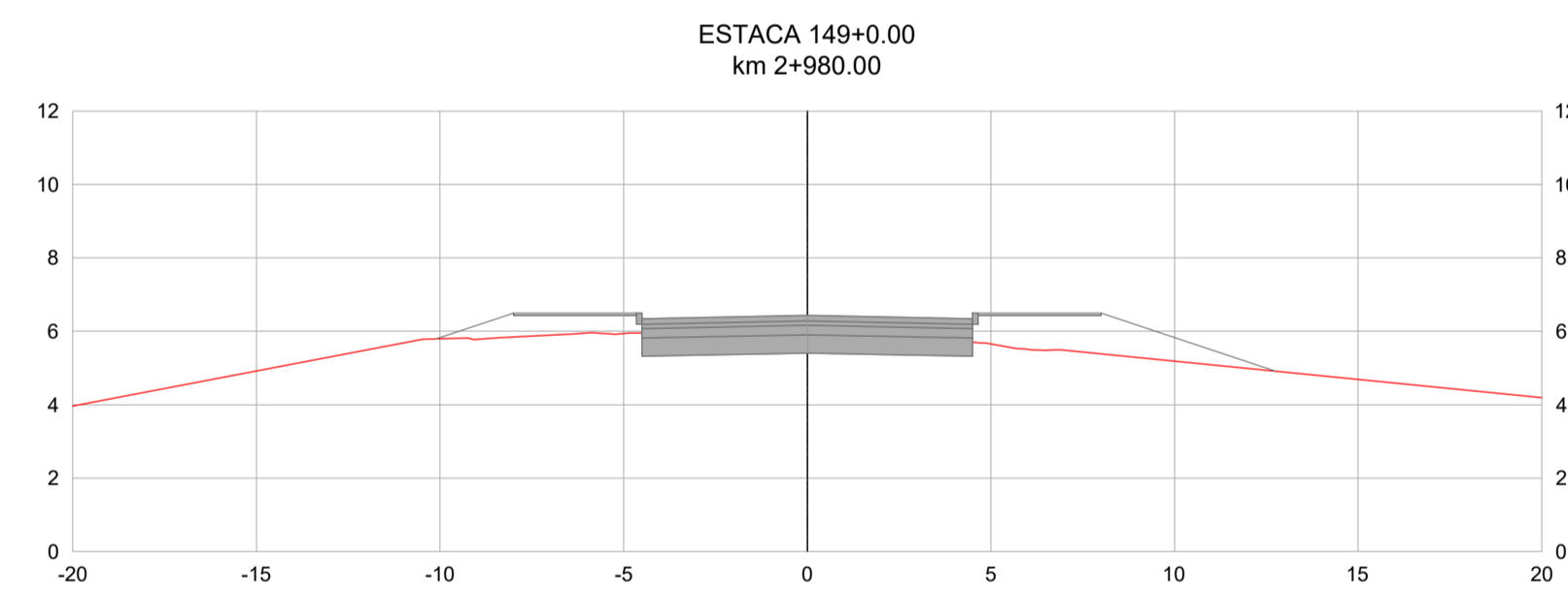
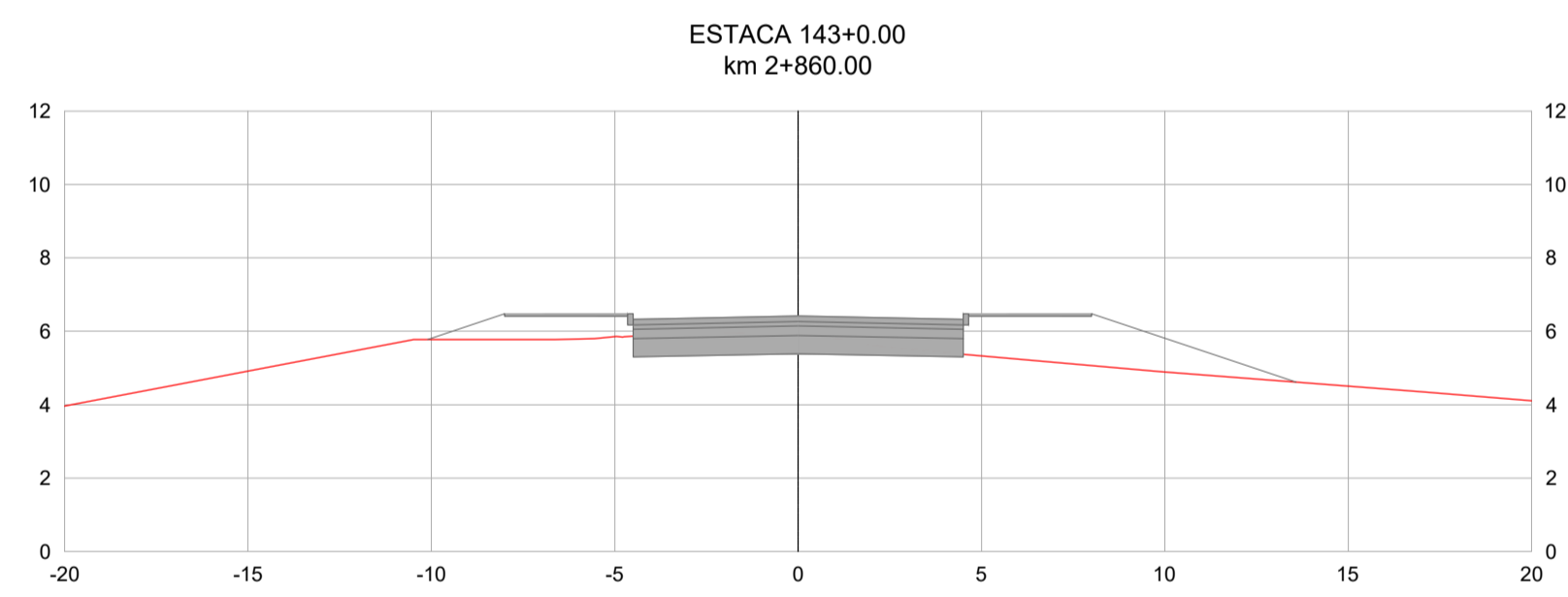
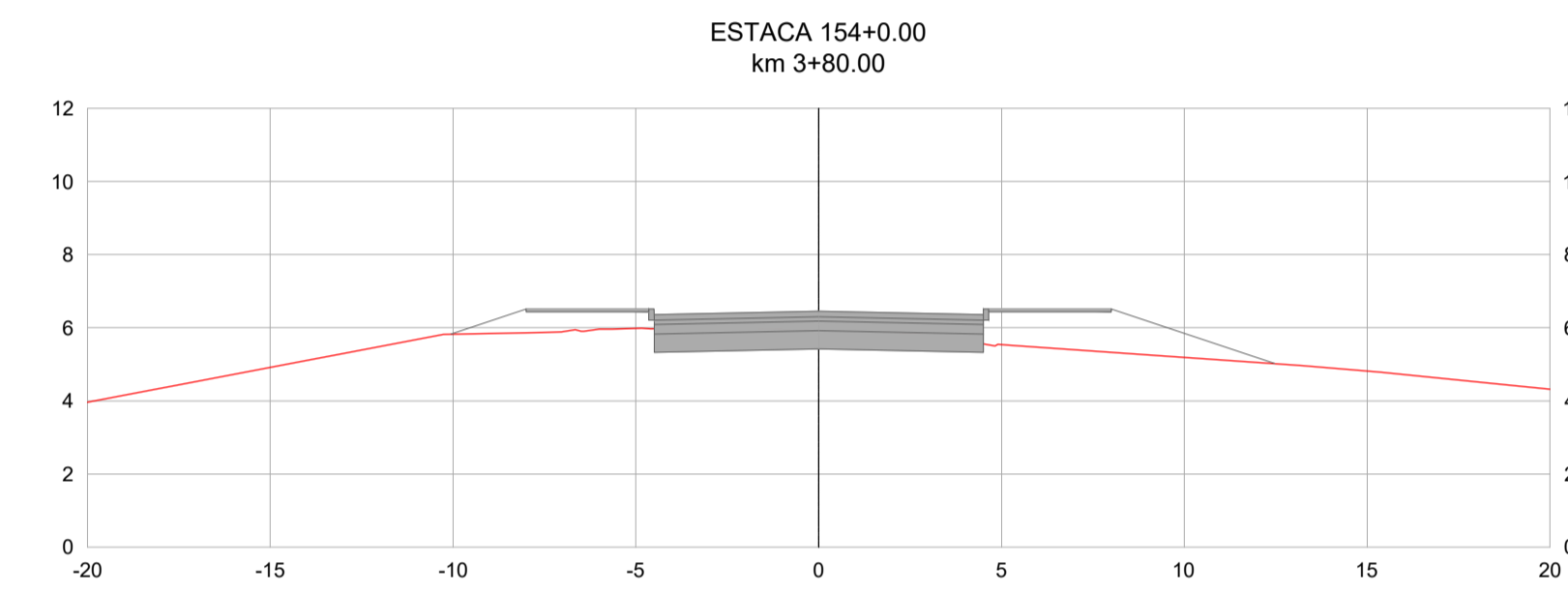
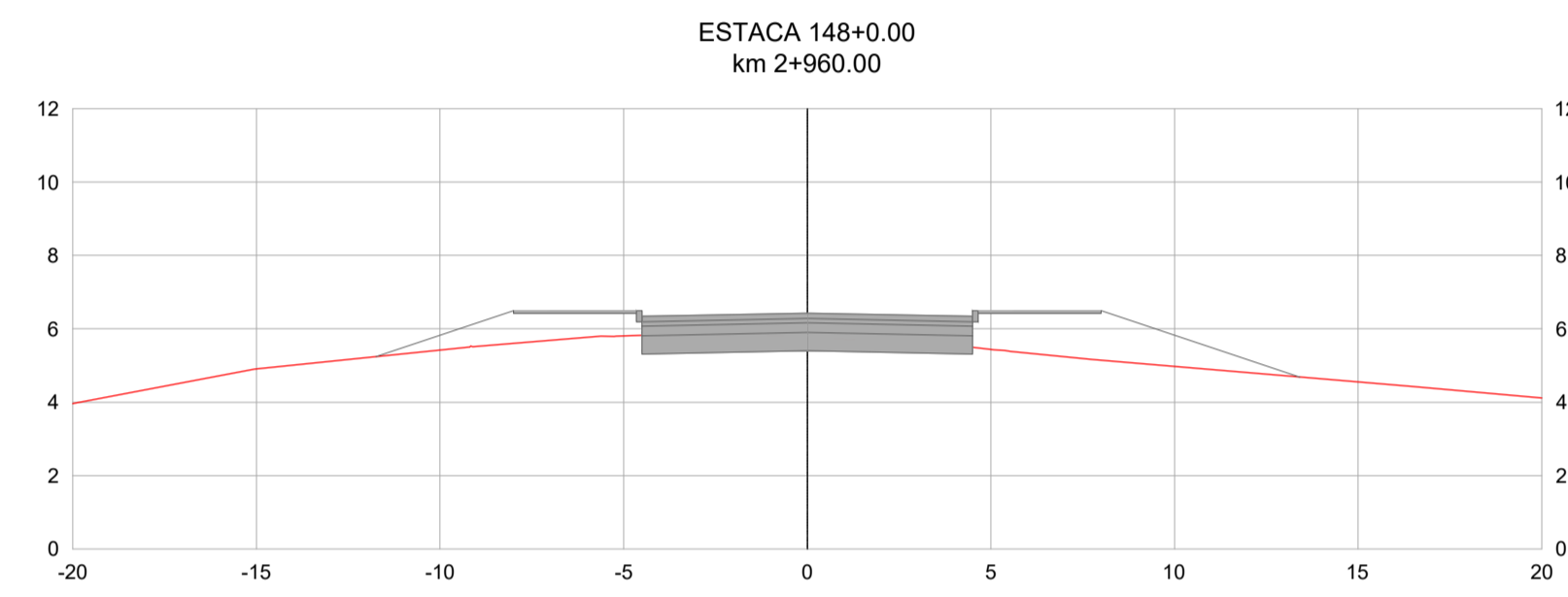
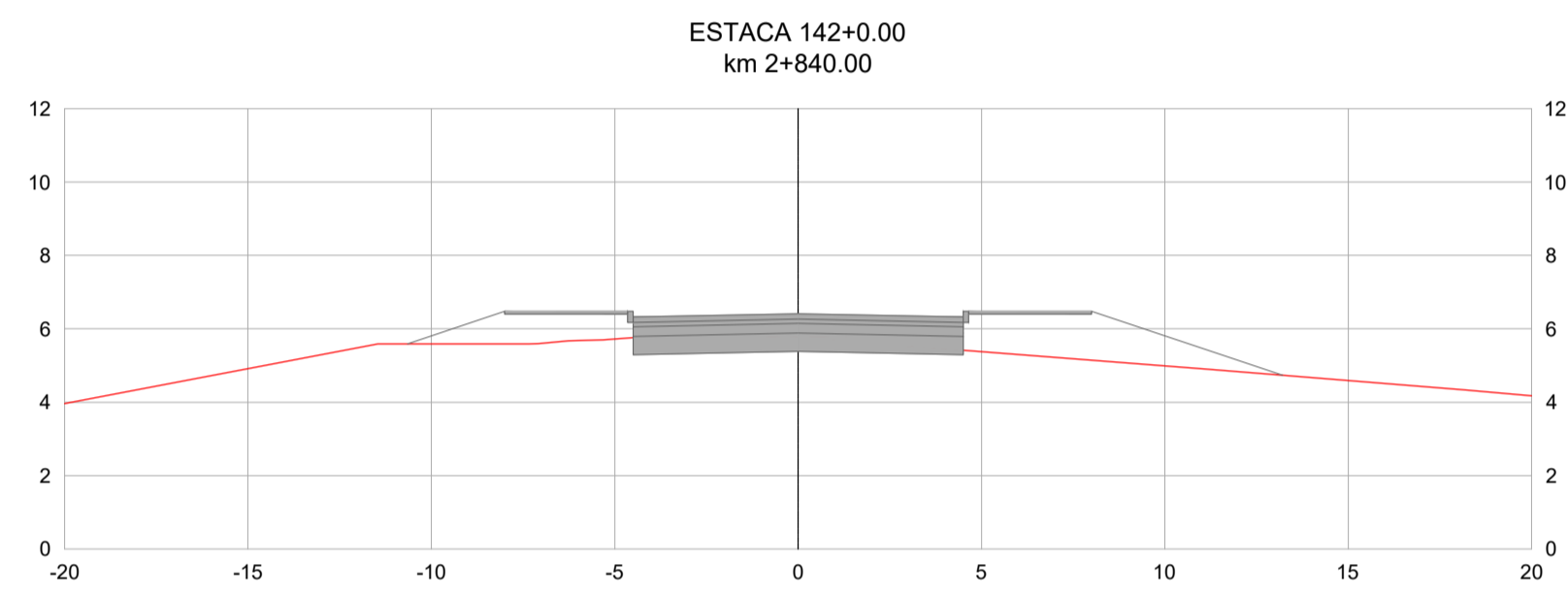
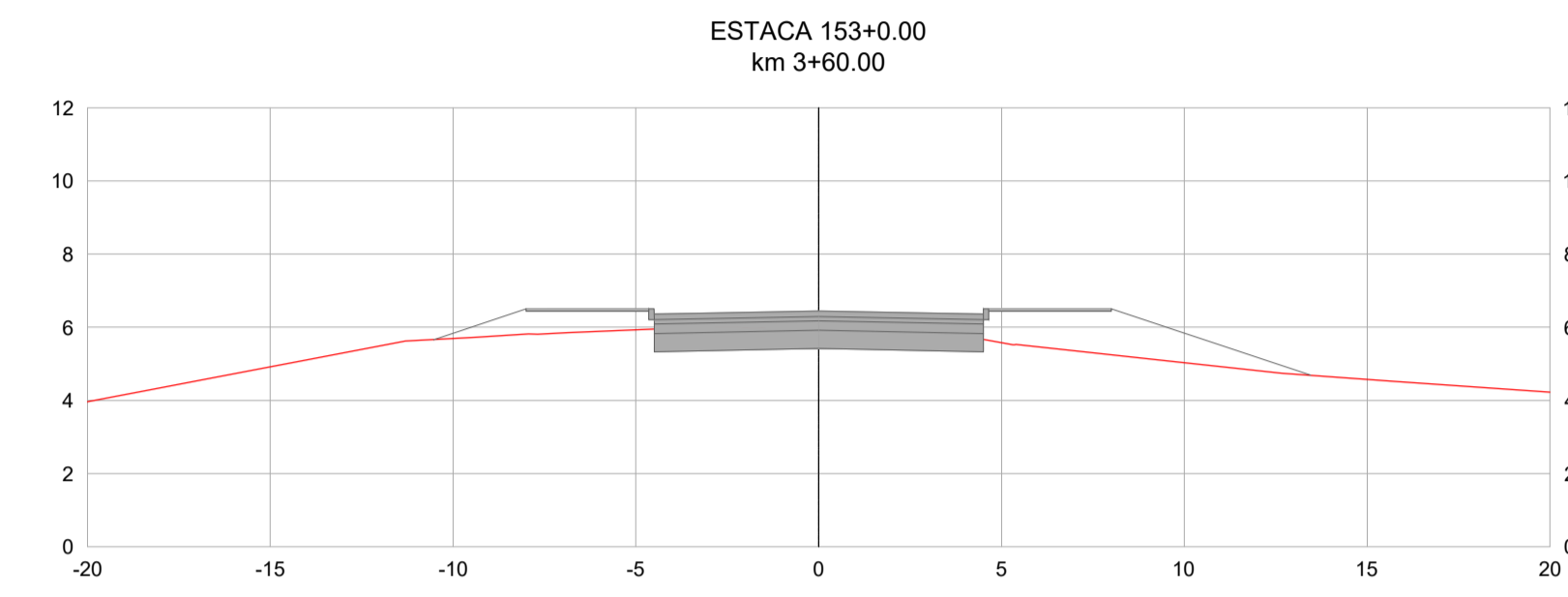
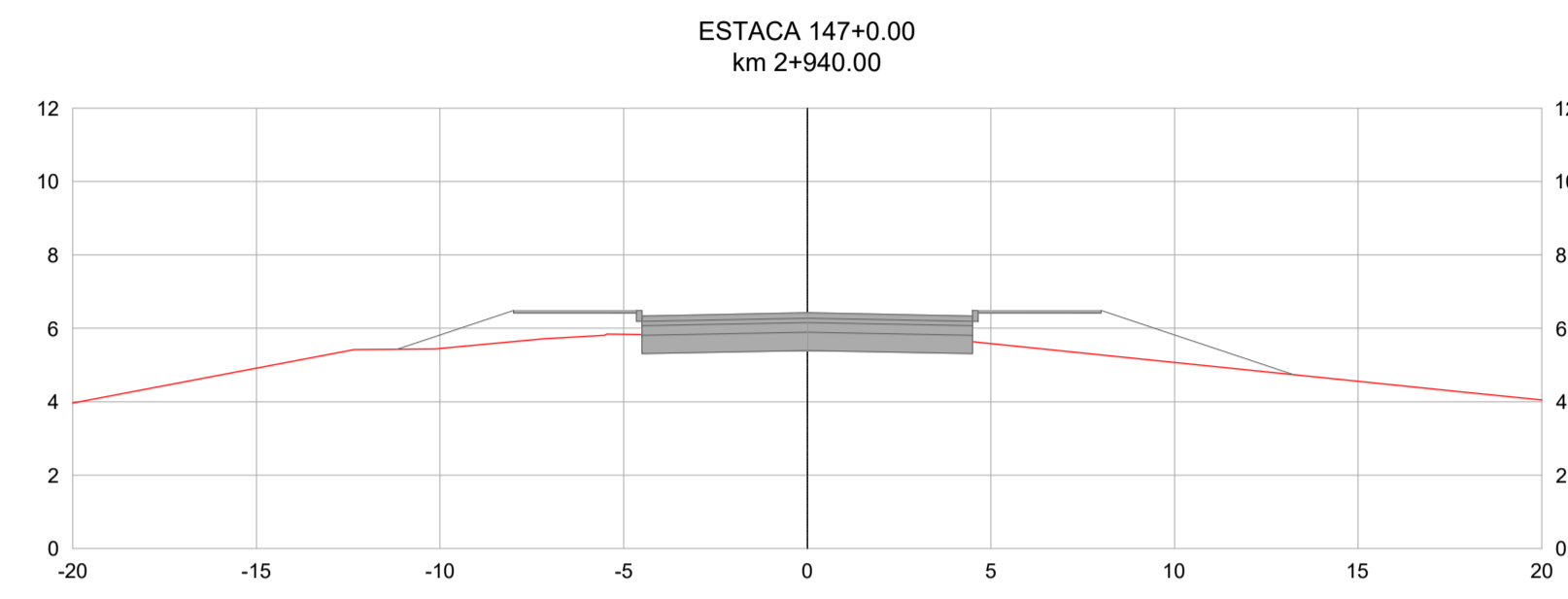
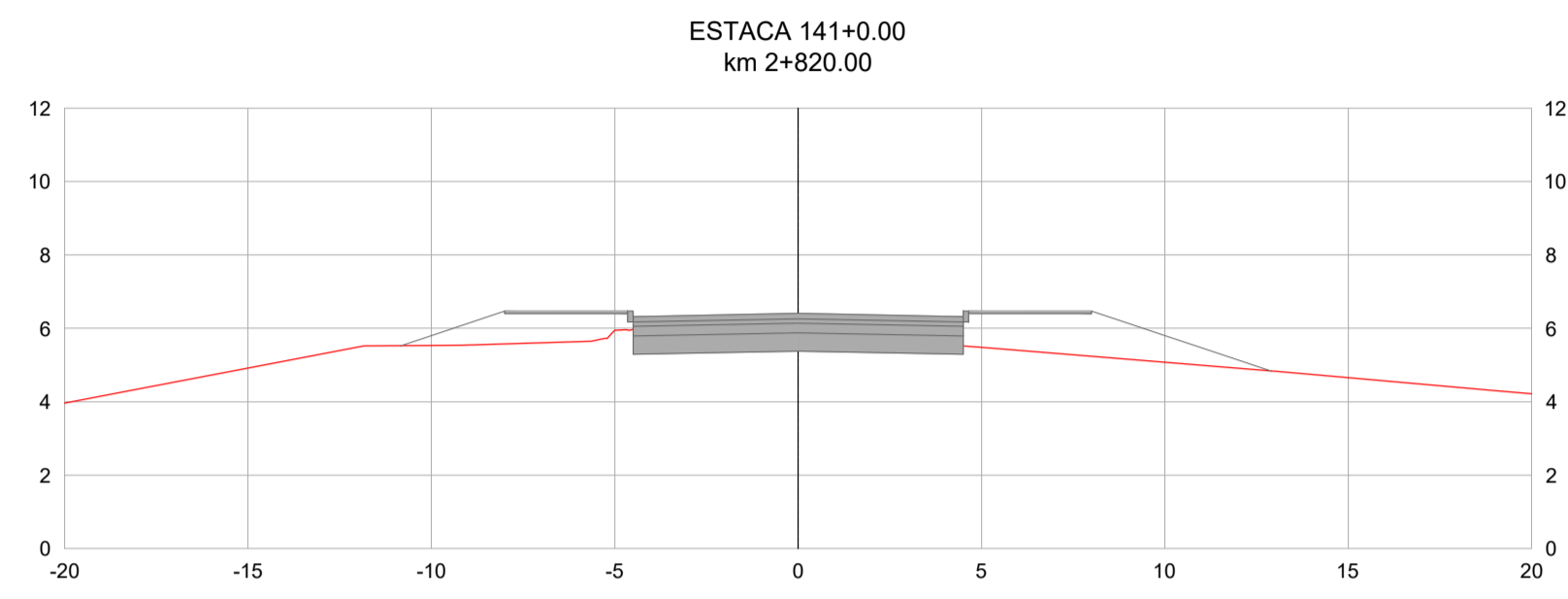
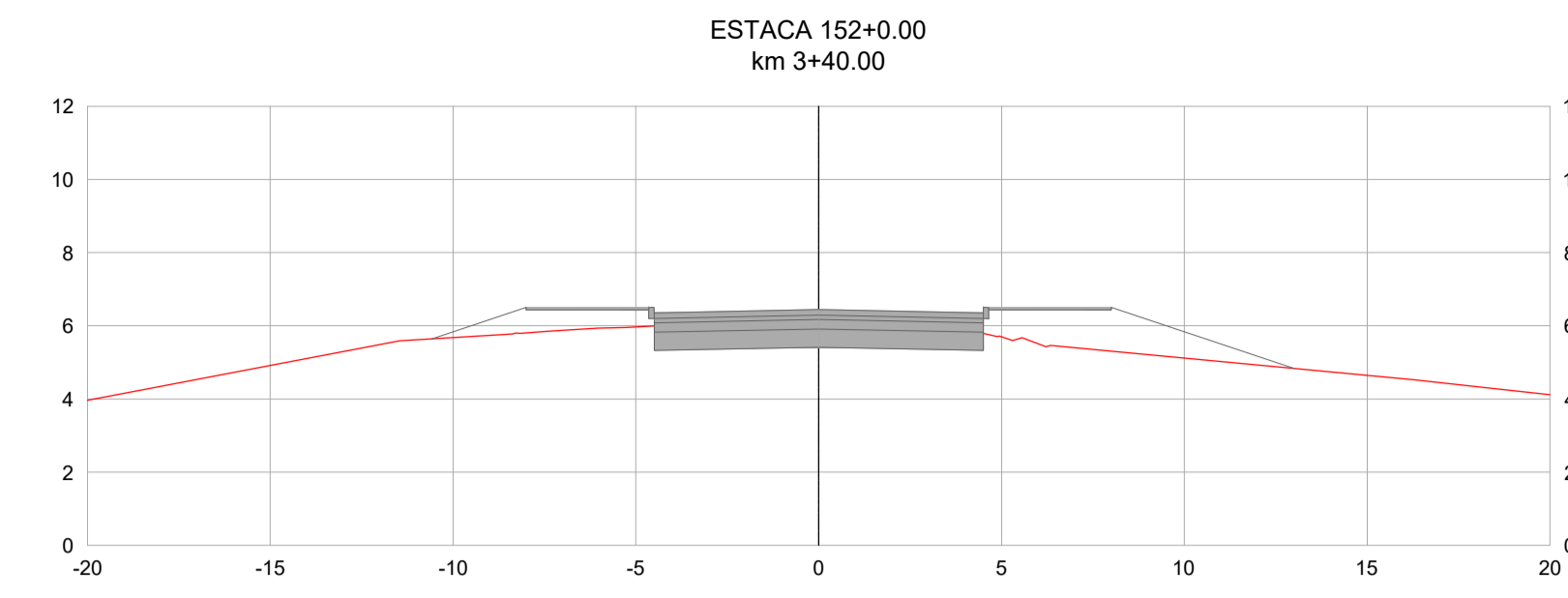
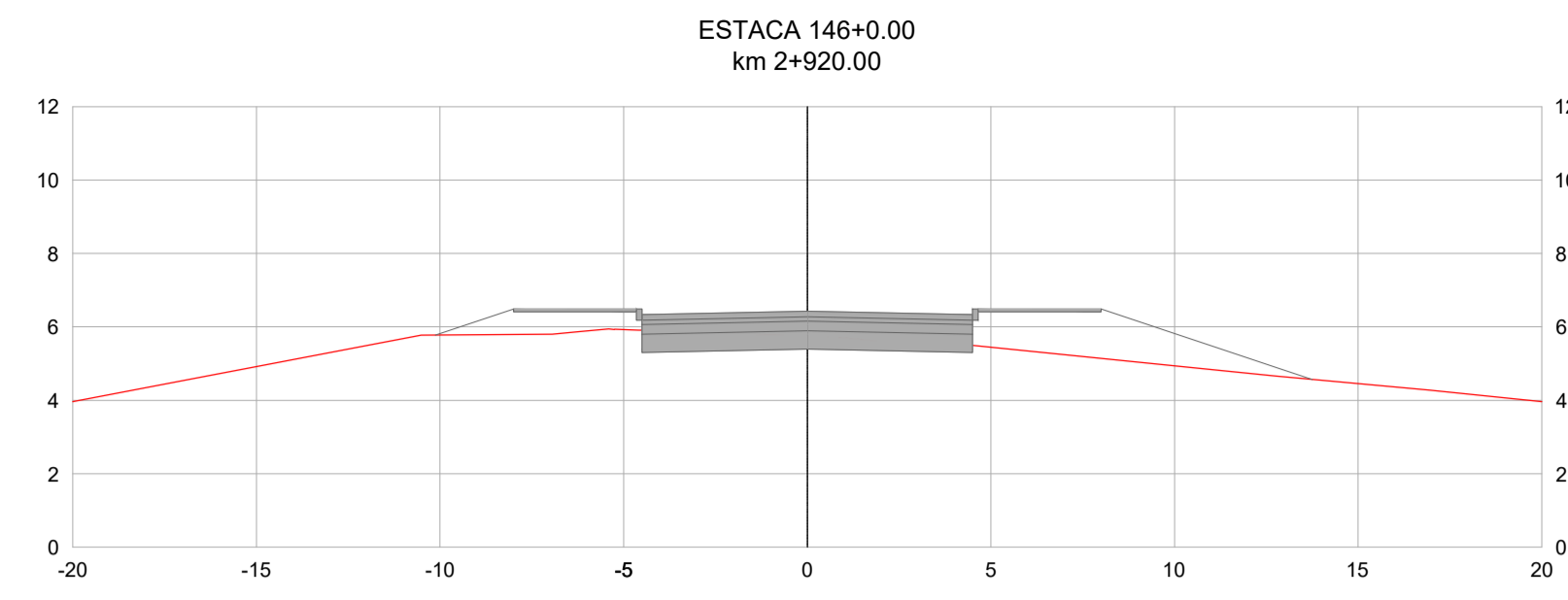
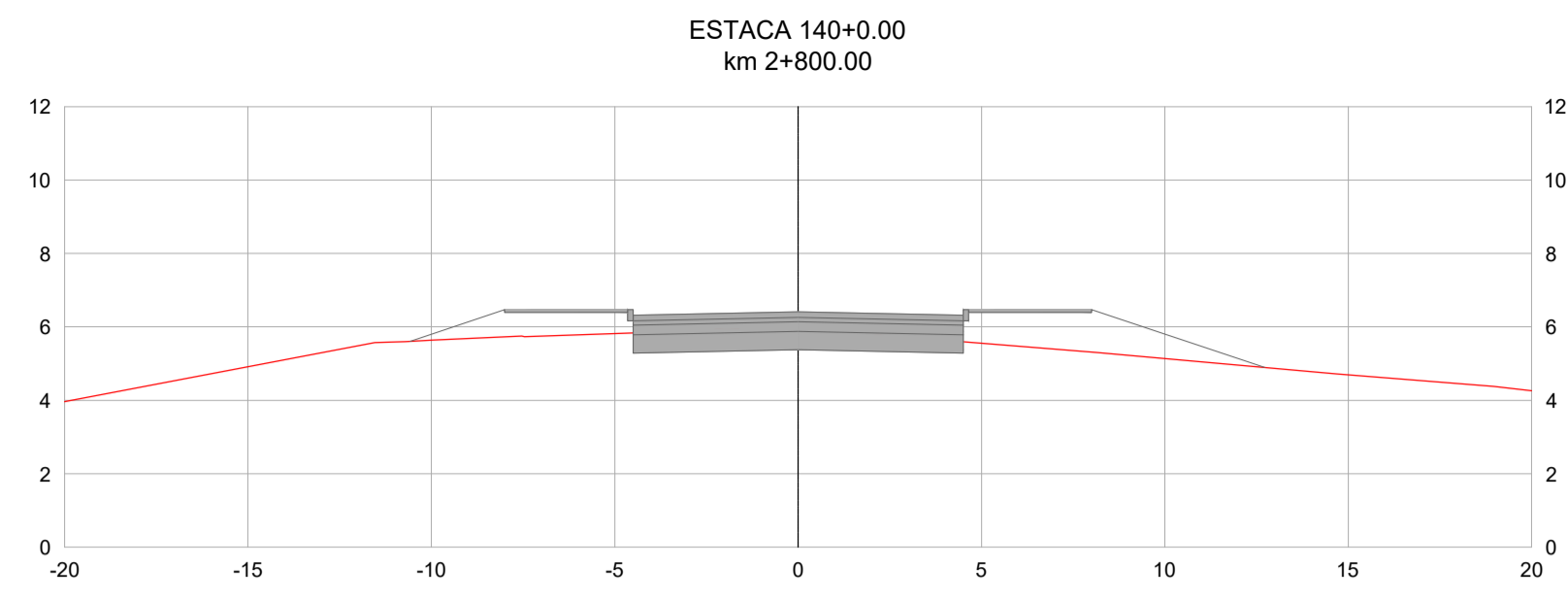



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| ESCALA: 1:200 | ÁREA: - |
| DESENHO: Eng. Elen | DATA: JUNHO/2022 |
|  16/20 | |

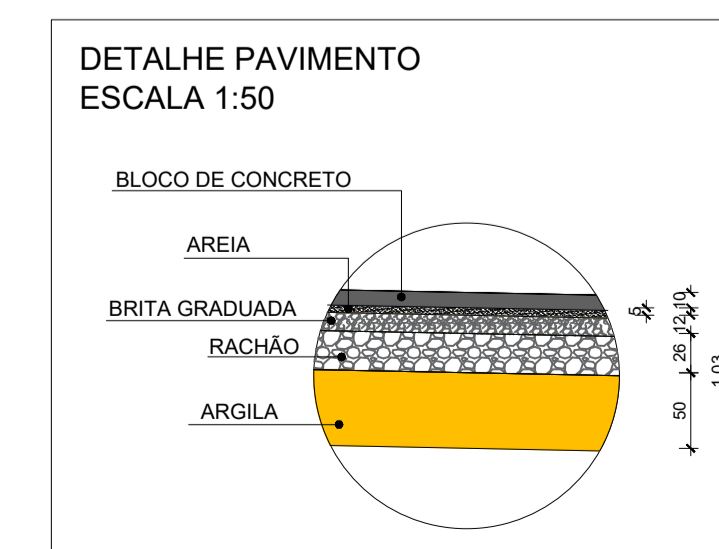
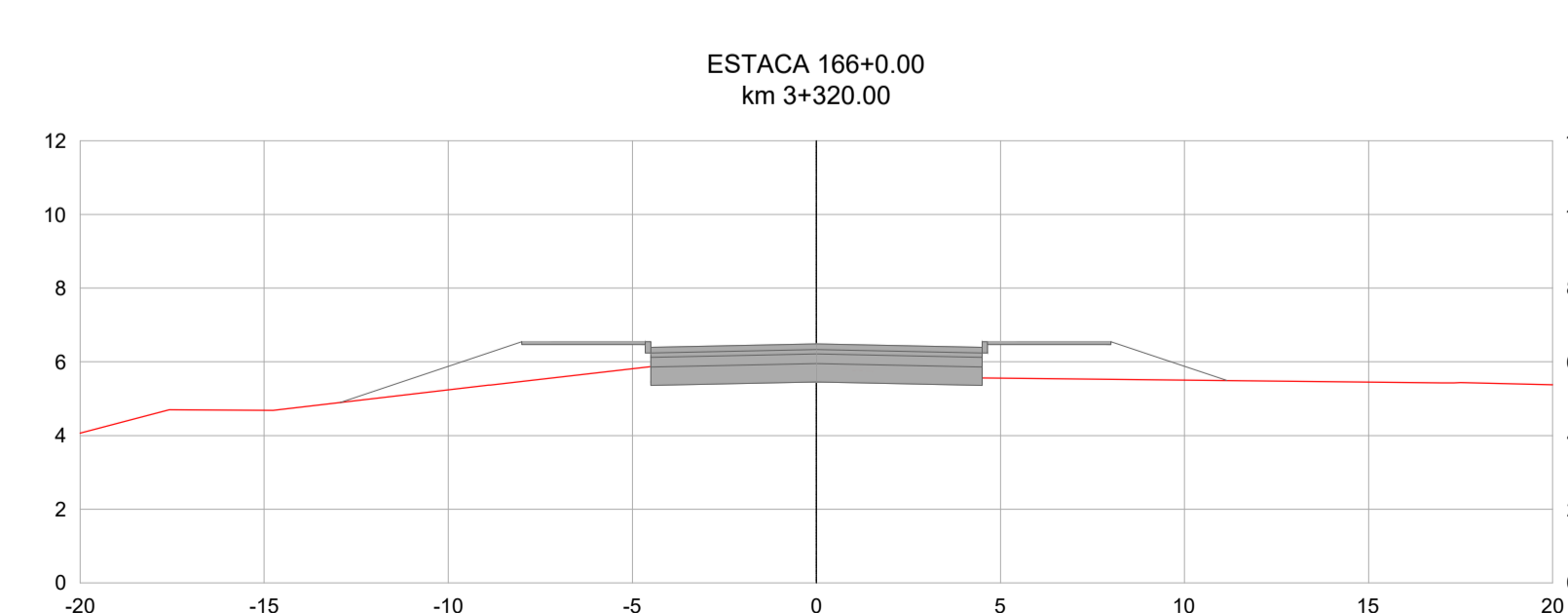
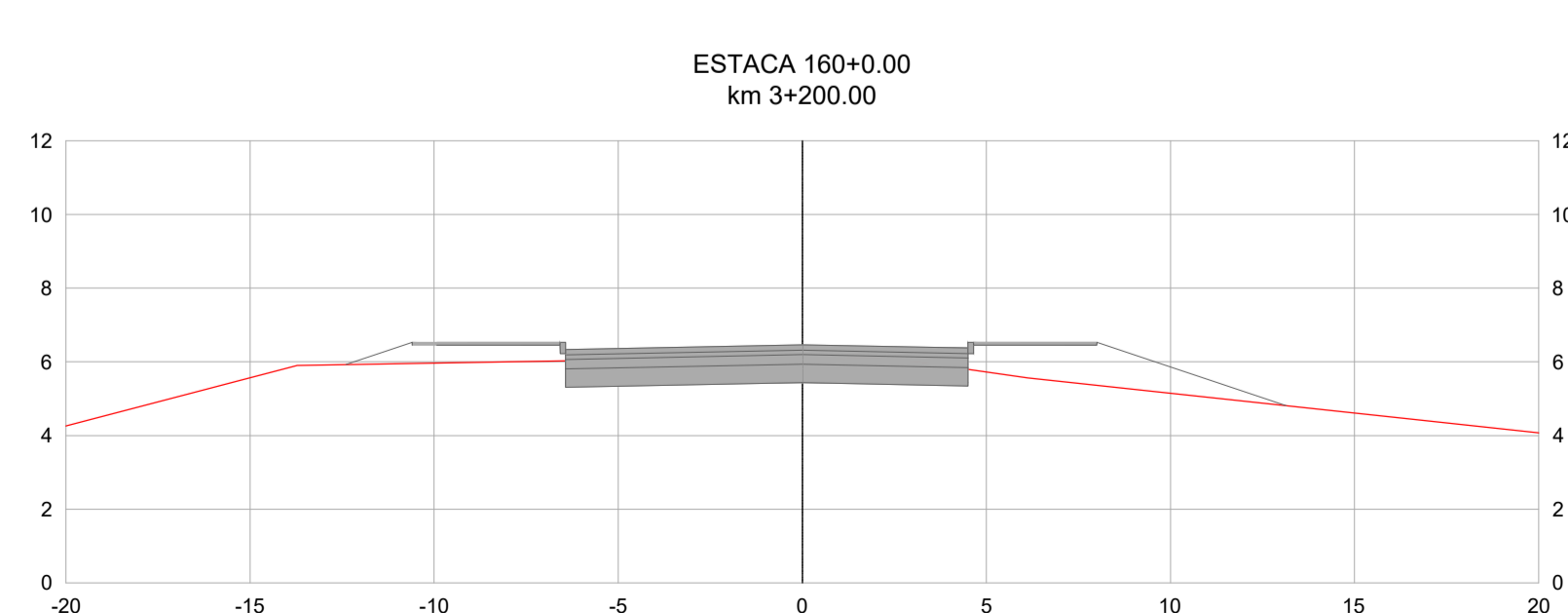
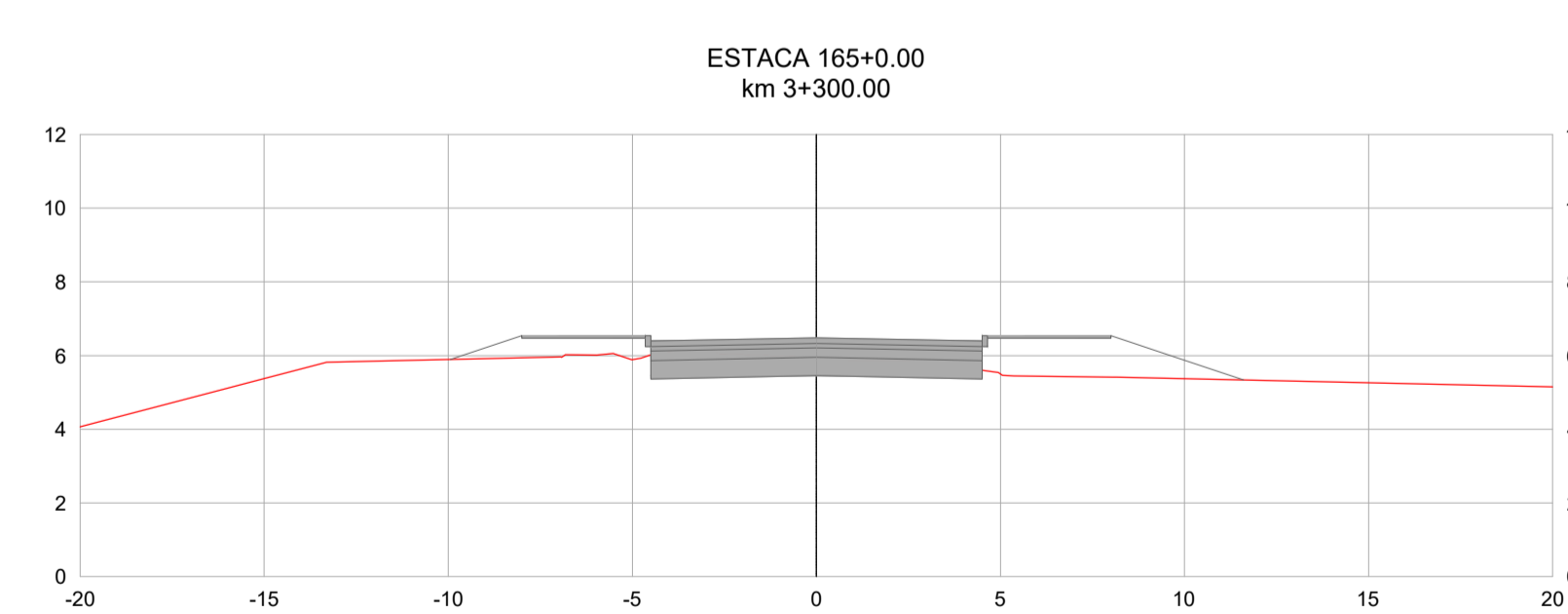
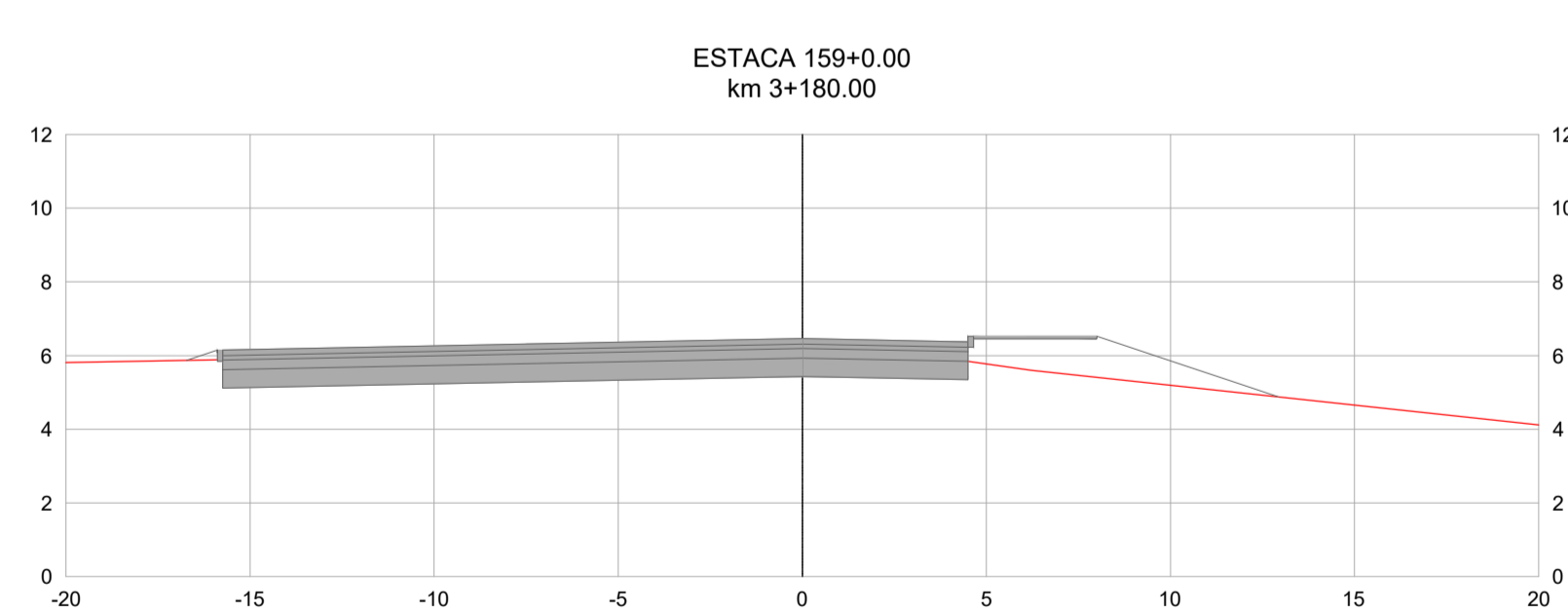
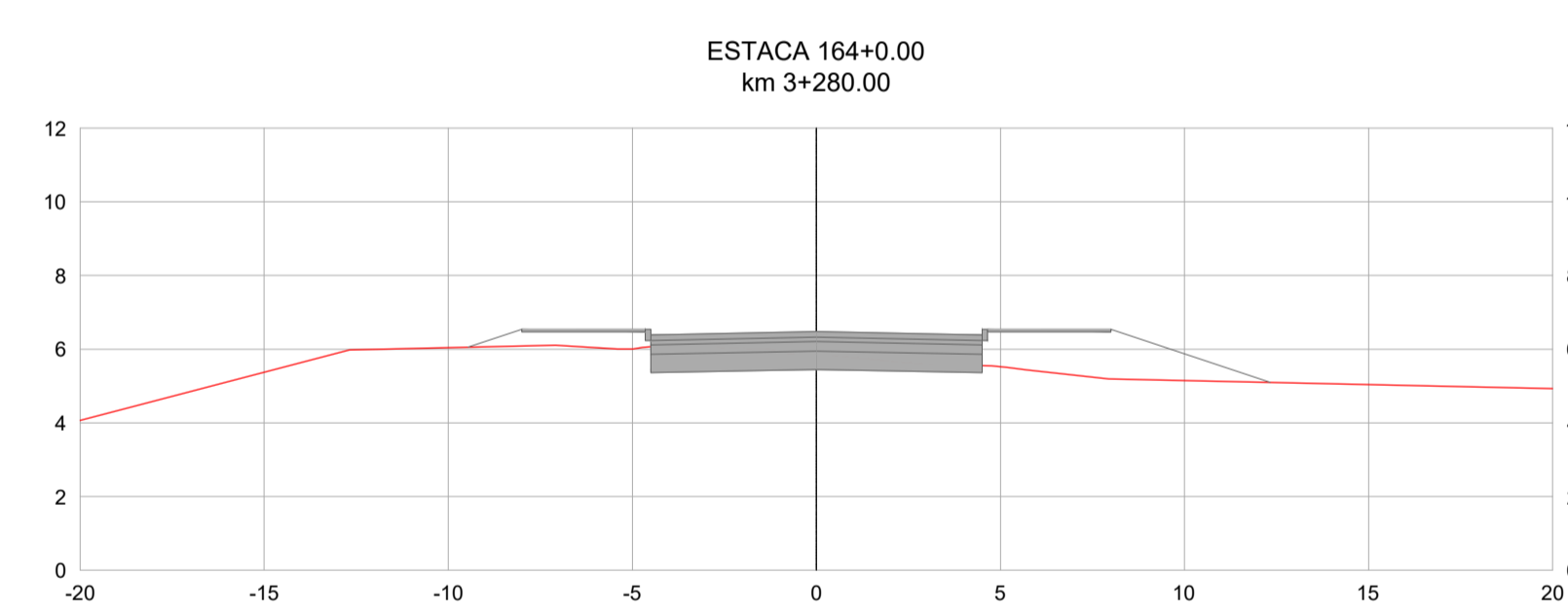
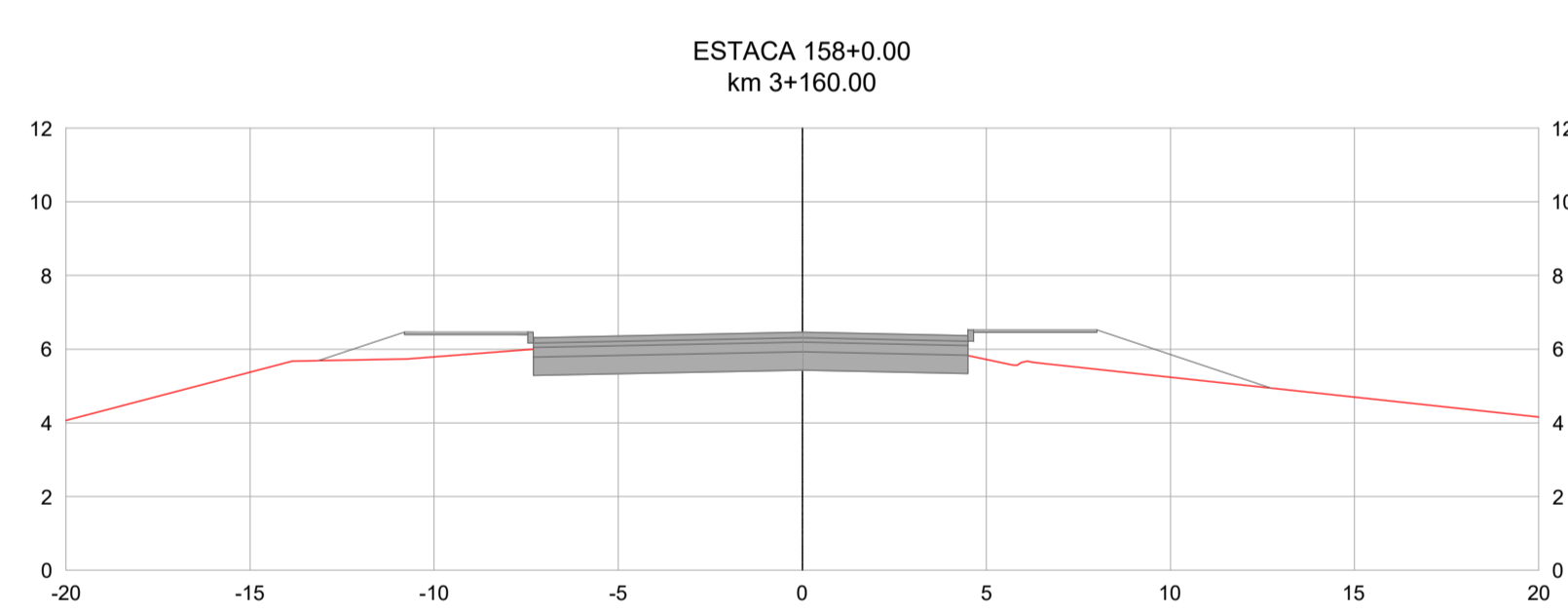
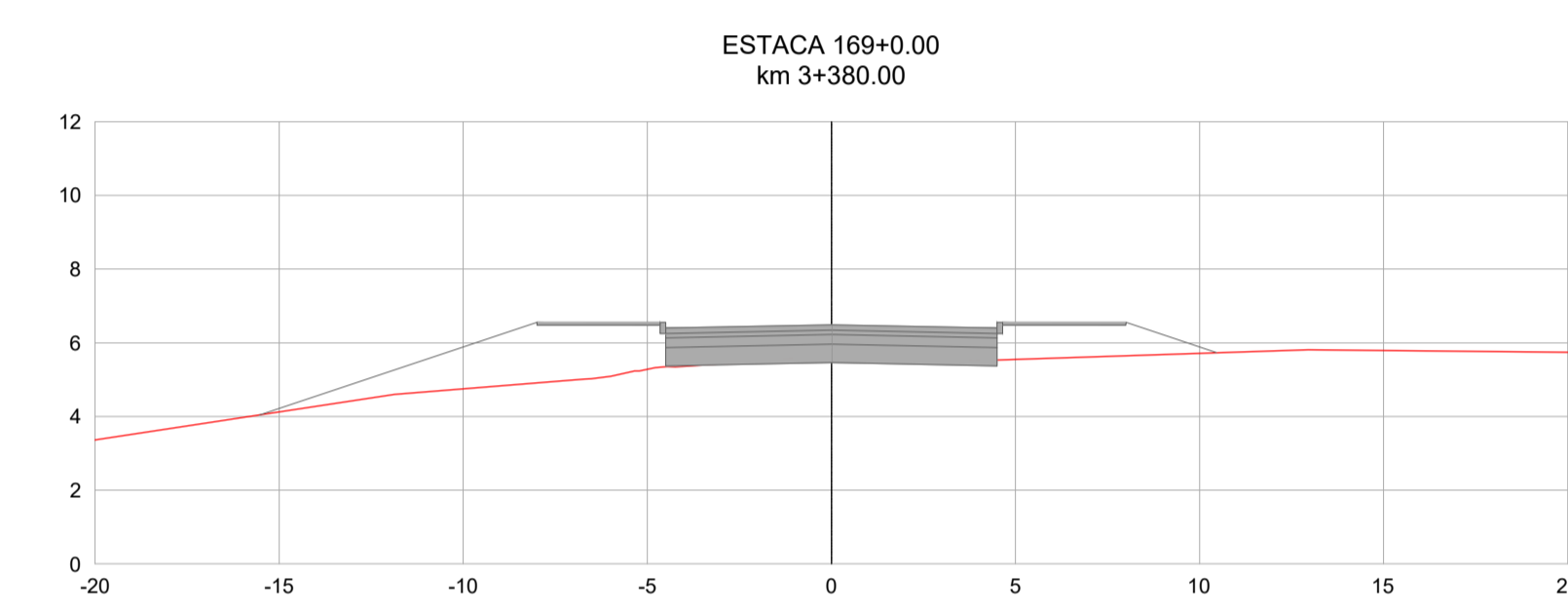
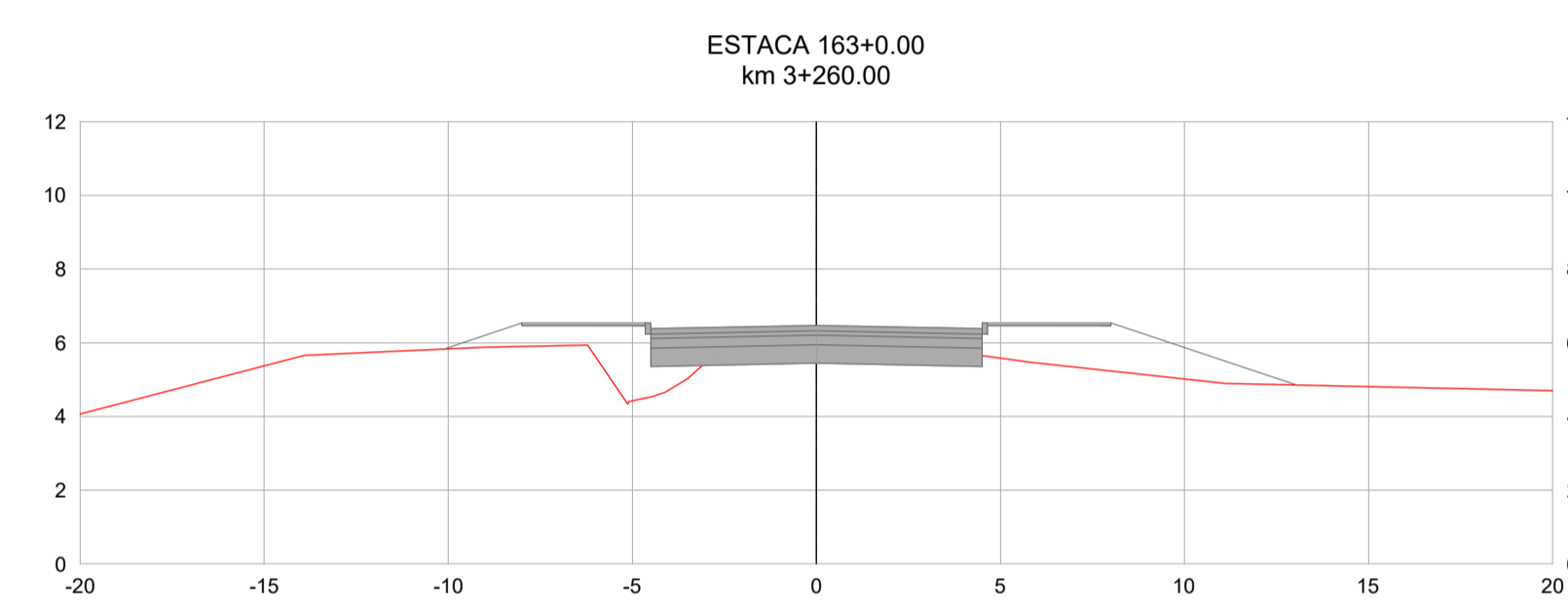
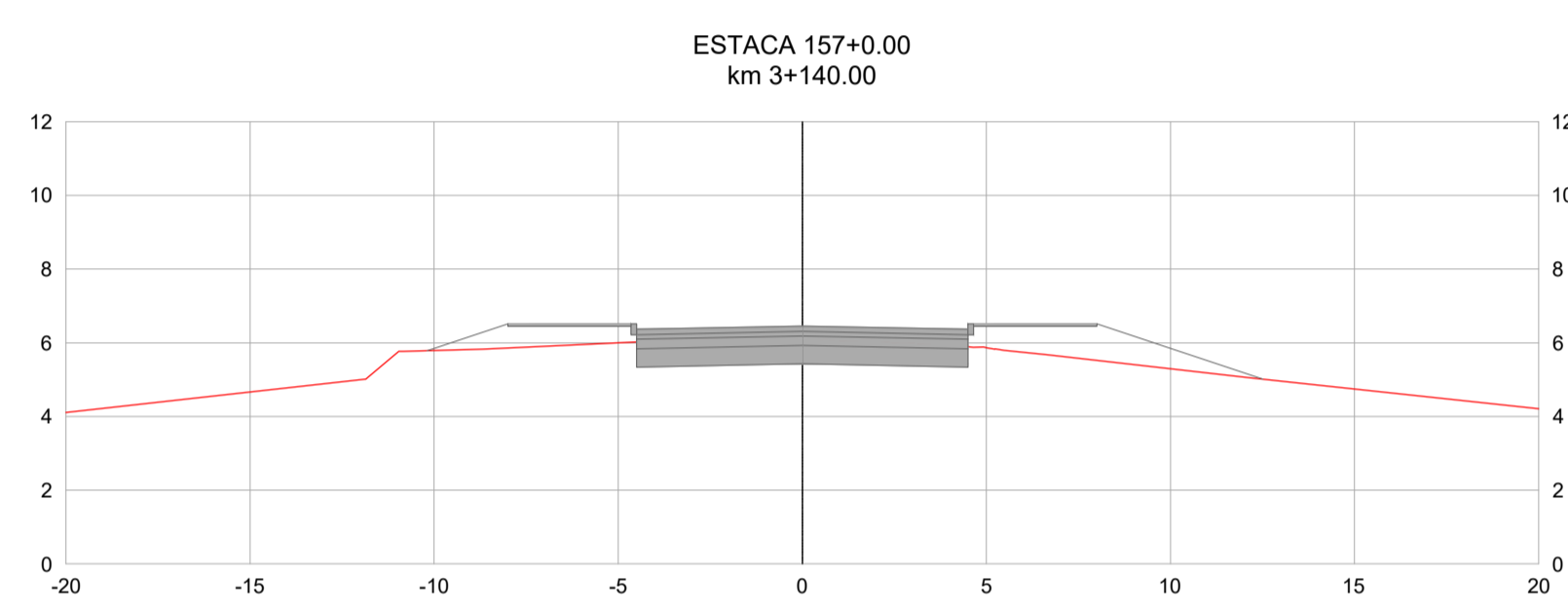
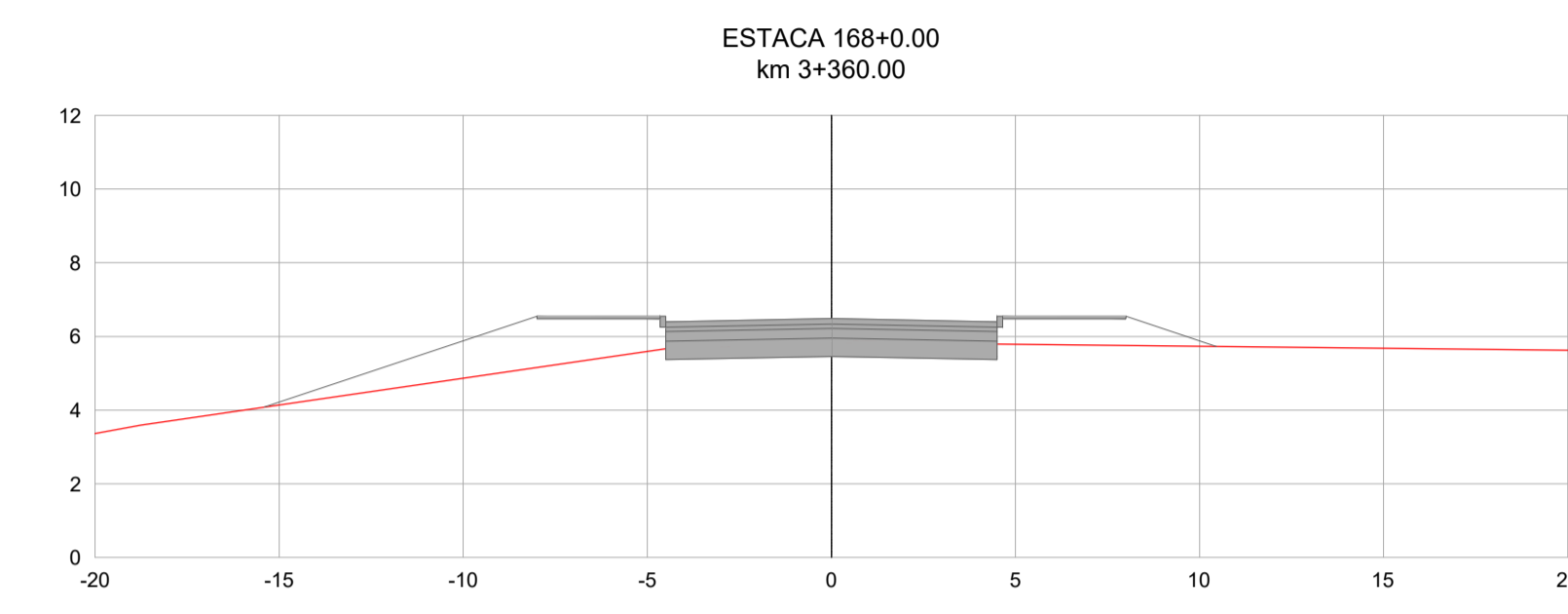
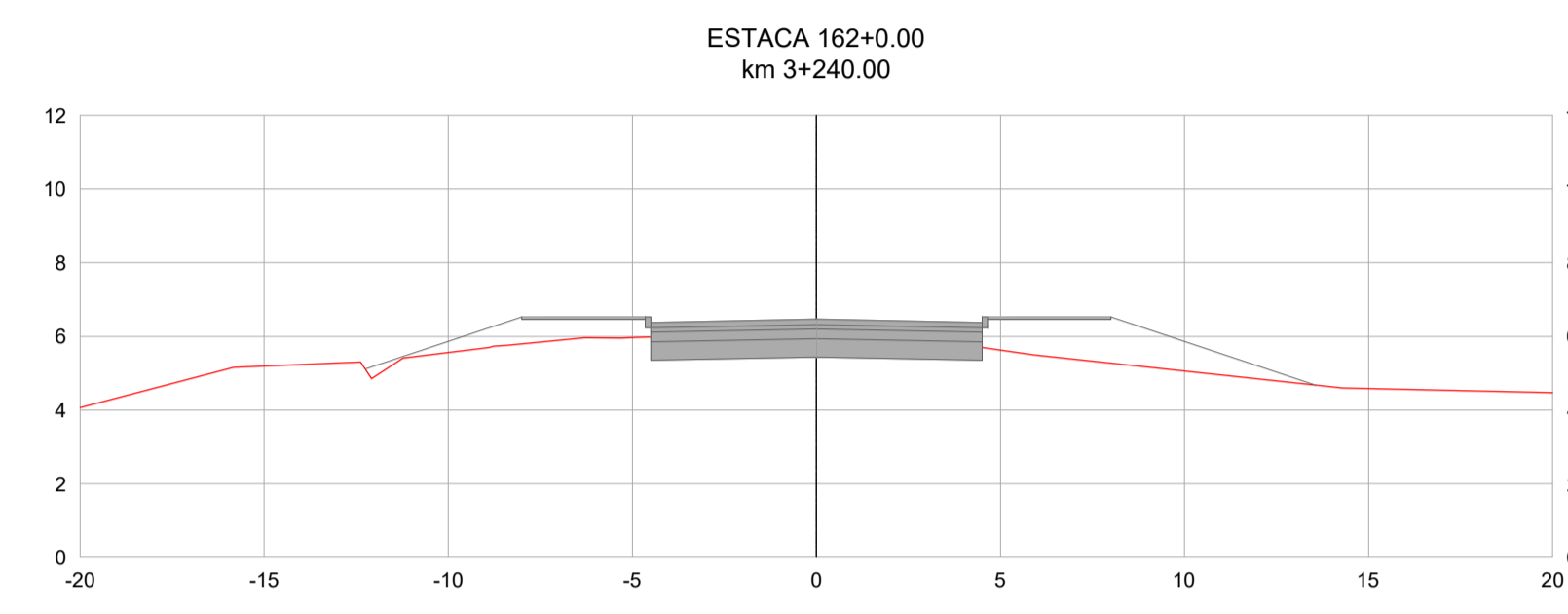
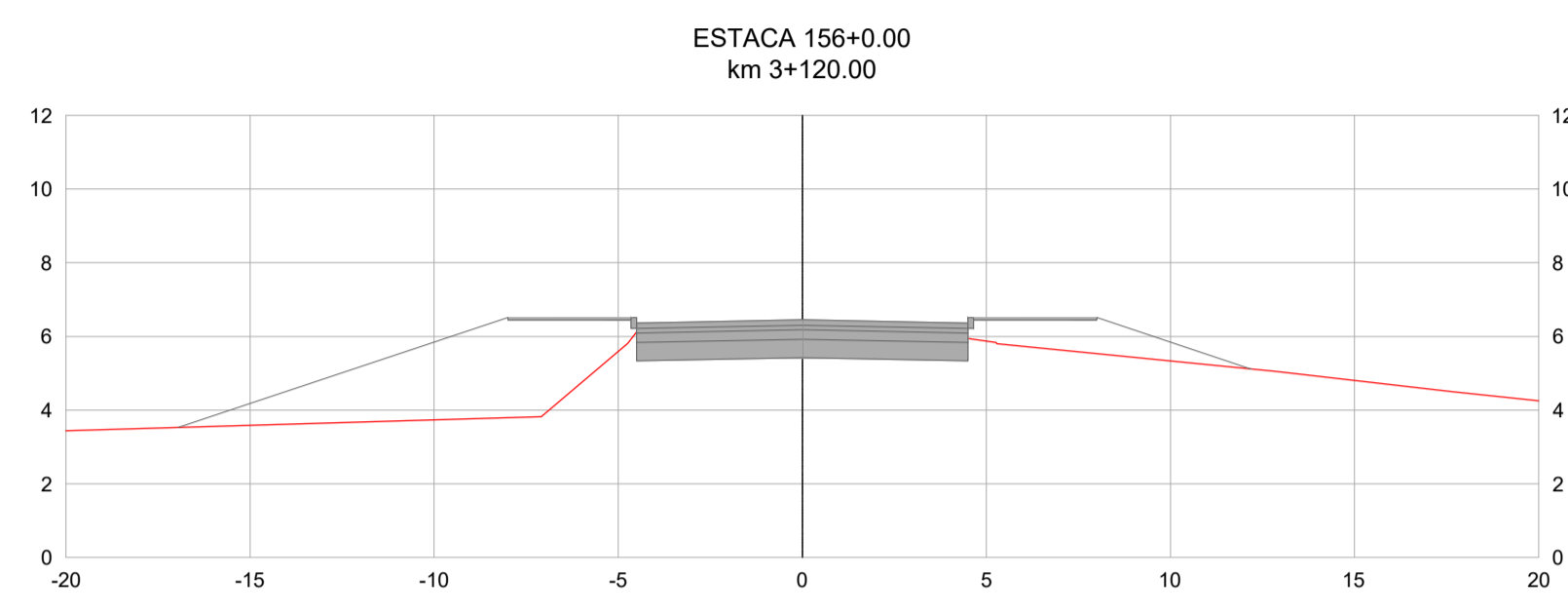
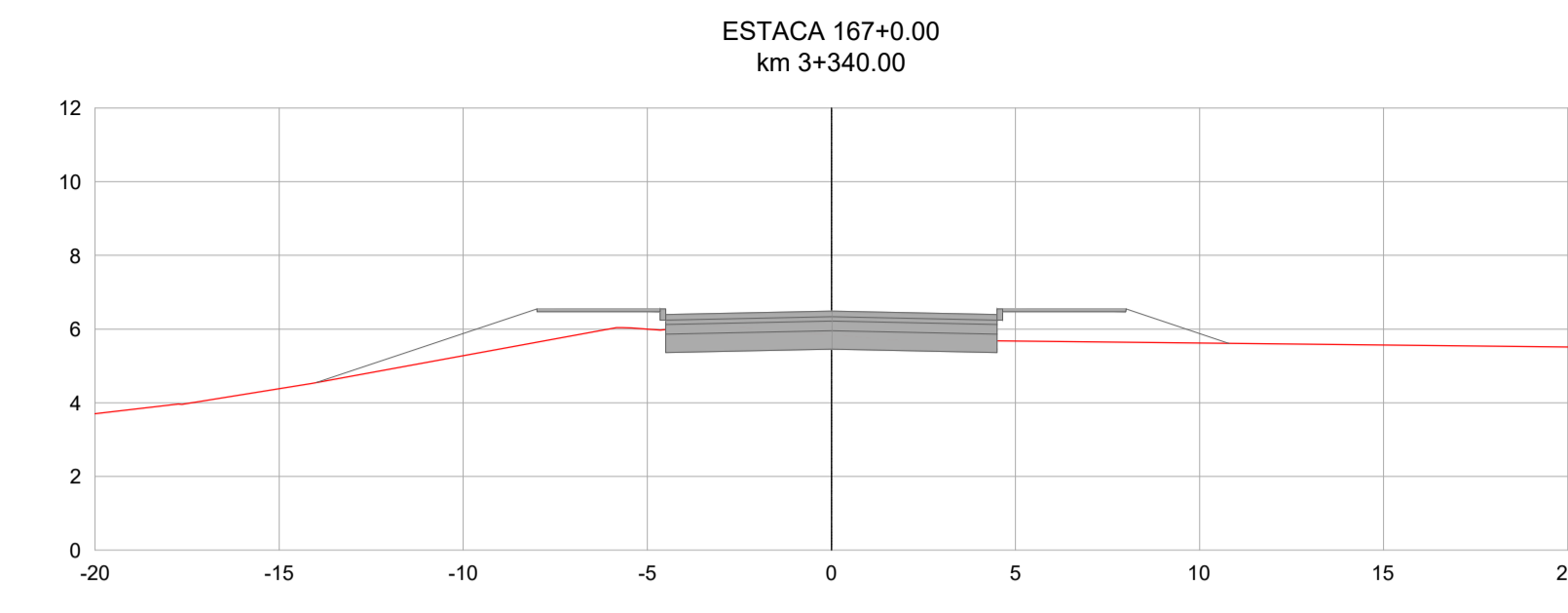
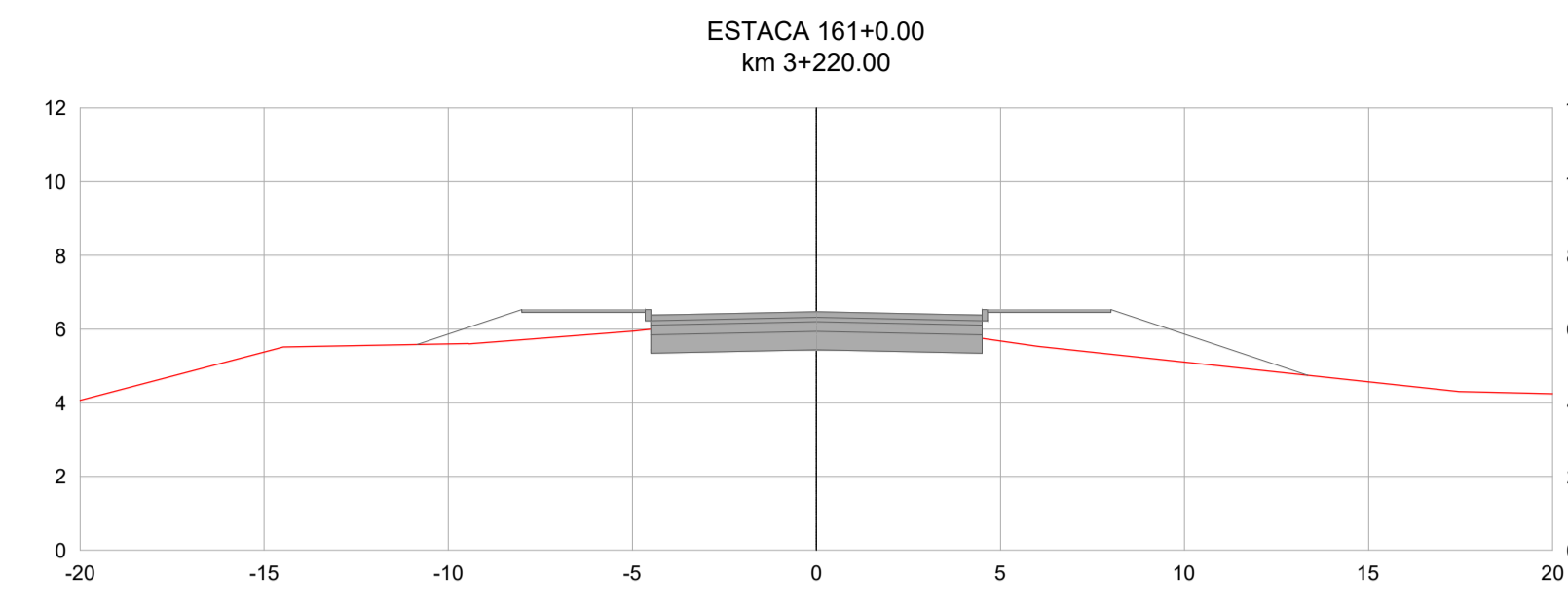
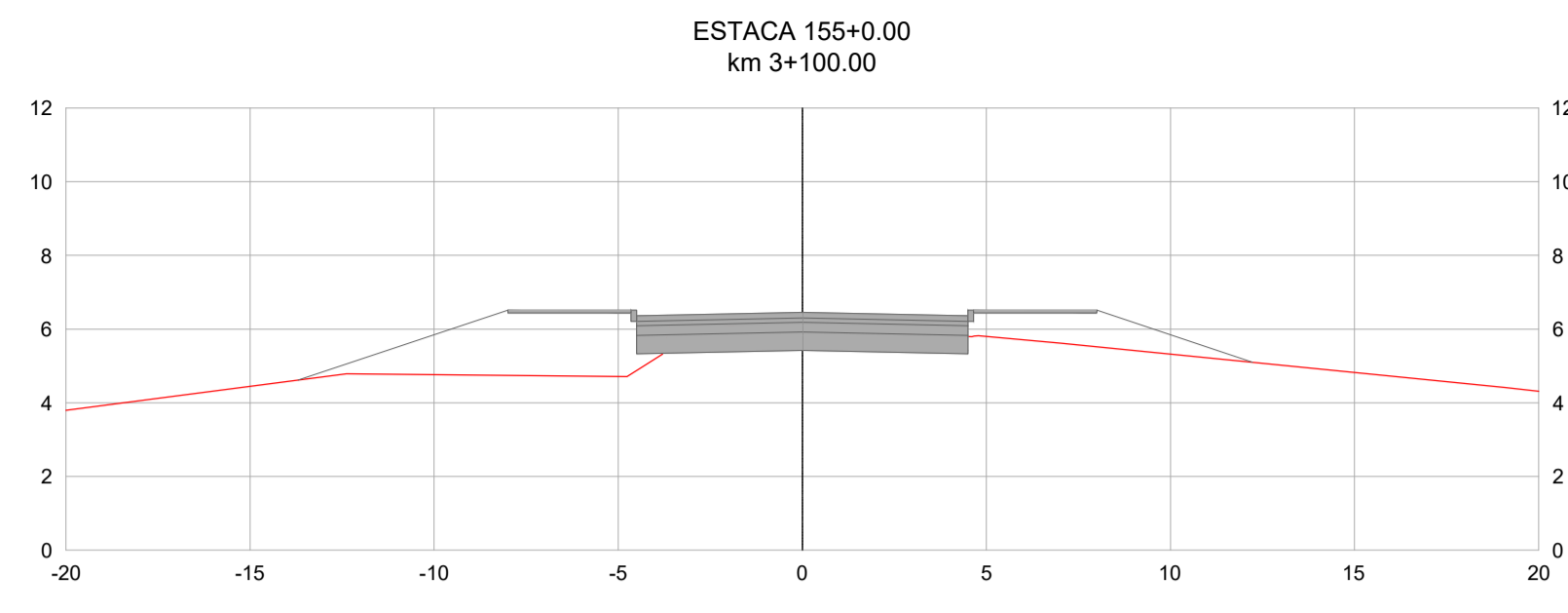


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| ESCALA: 1:200 | ÁREA: - |
| DESENHO: Eng. Elen | DATA: JUNHO/2022 |
| 17/20 | |





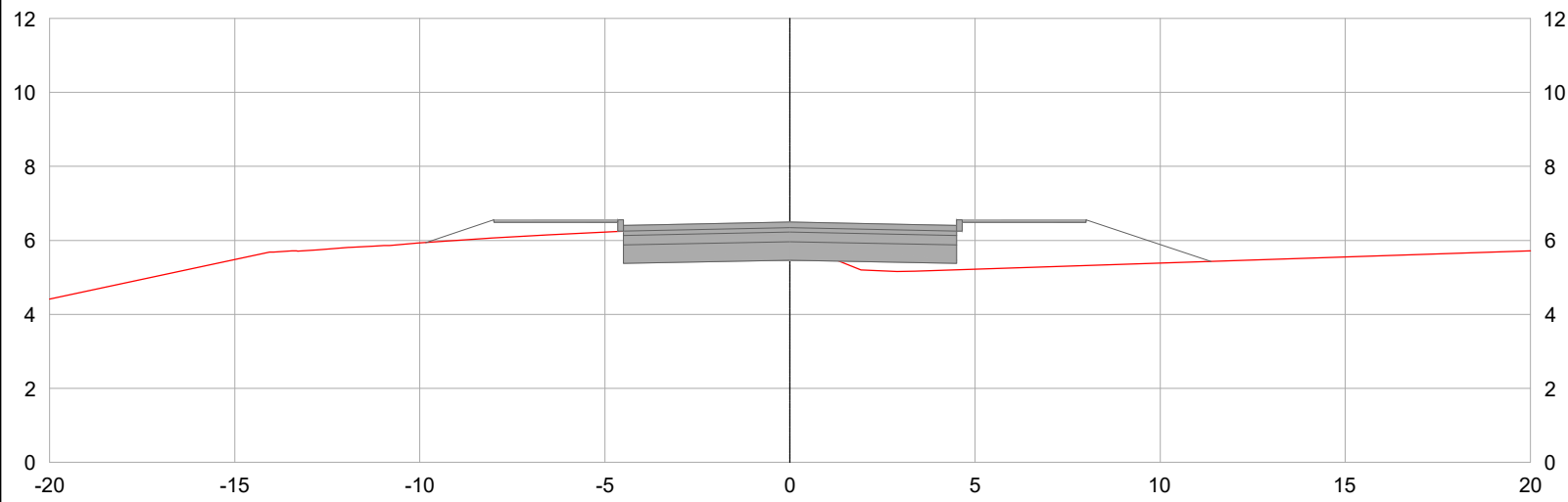
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| <p>18/20</p> | |



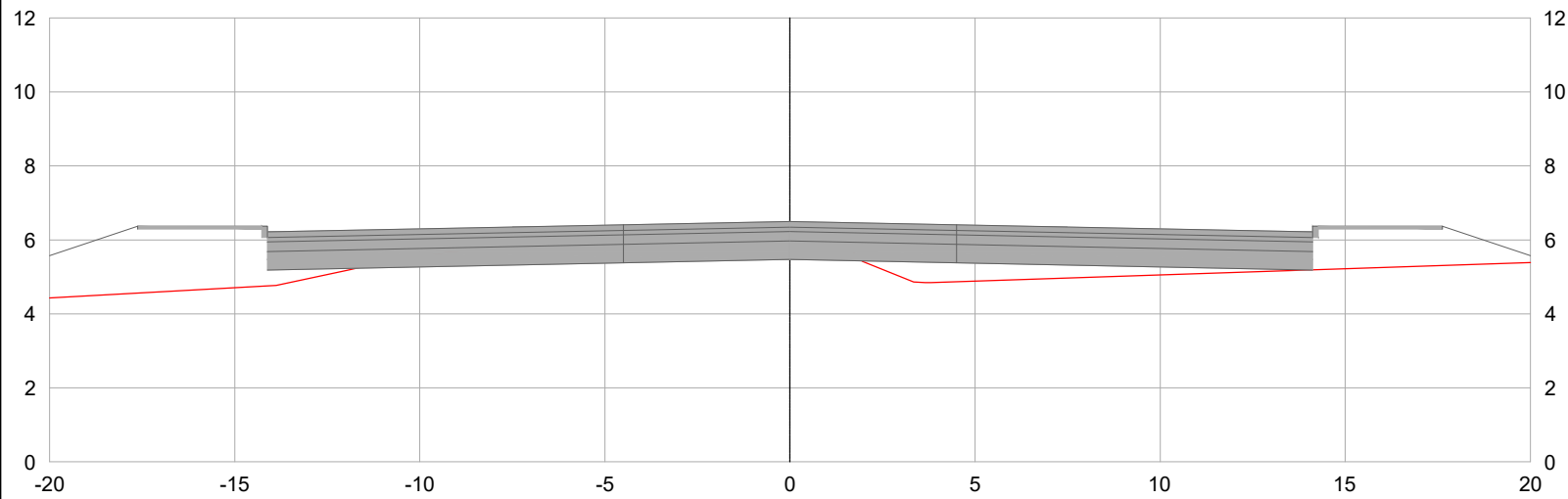
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| 19/20 | |



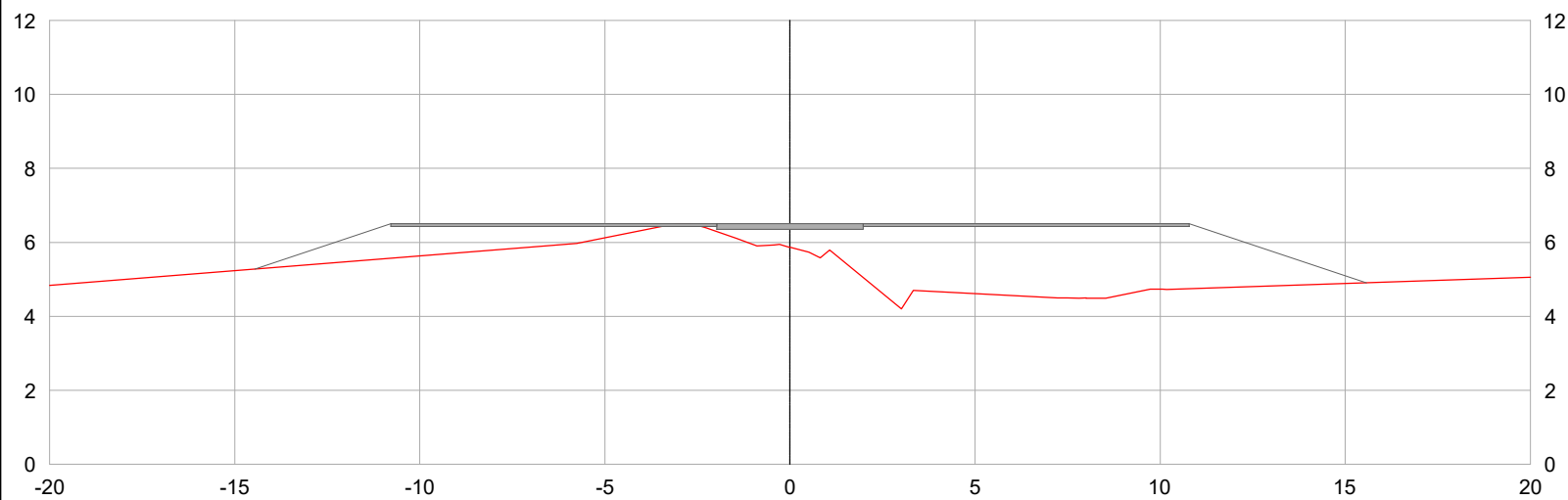
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km 3+400.00



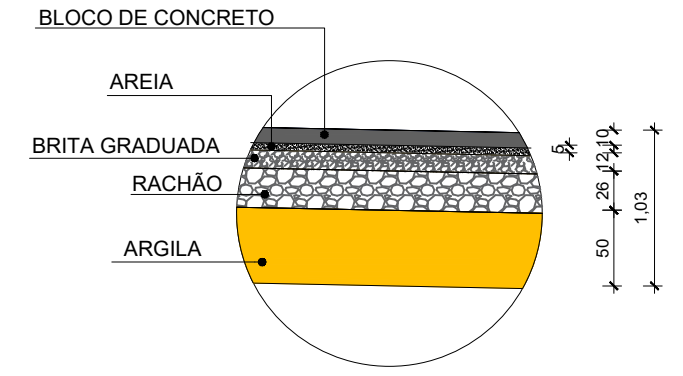
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km 3+420.00



ESTACA 172+0.00
km 3+440.00



DETALHE PAVIMENTO
ESCALA 1:50



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

EMPREENDIMENTO: **URBANIZAÇÃO DA RUA GRAVATAÍ**

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

PROJETO: **PAVIMENTAÇÃO**

DISCRIMINAÇÃO DA PRANCHA:
SEÇÕES TRANSVERSAIS

RESPONSÁVEL TÉCNICO:
Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984



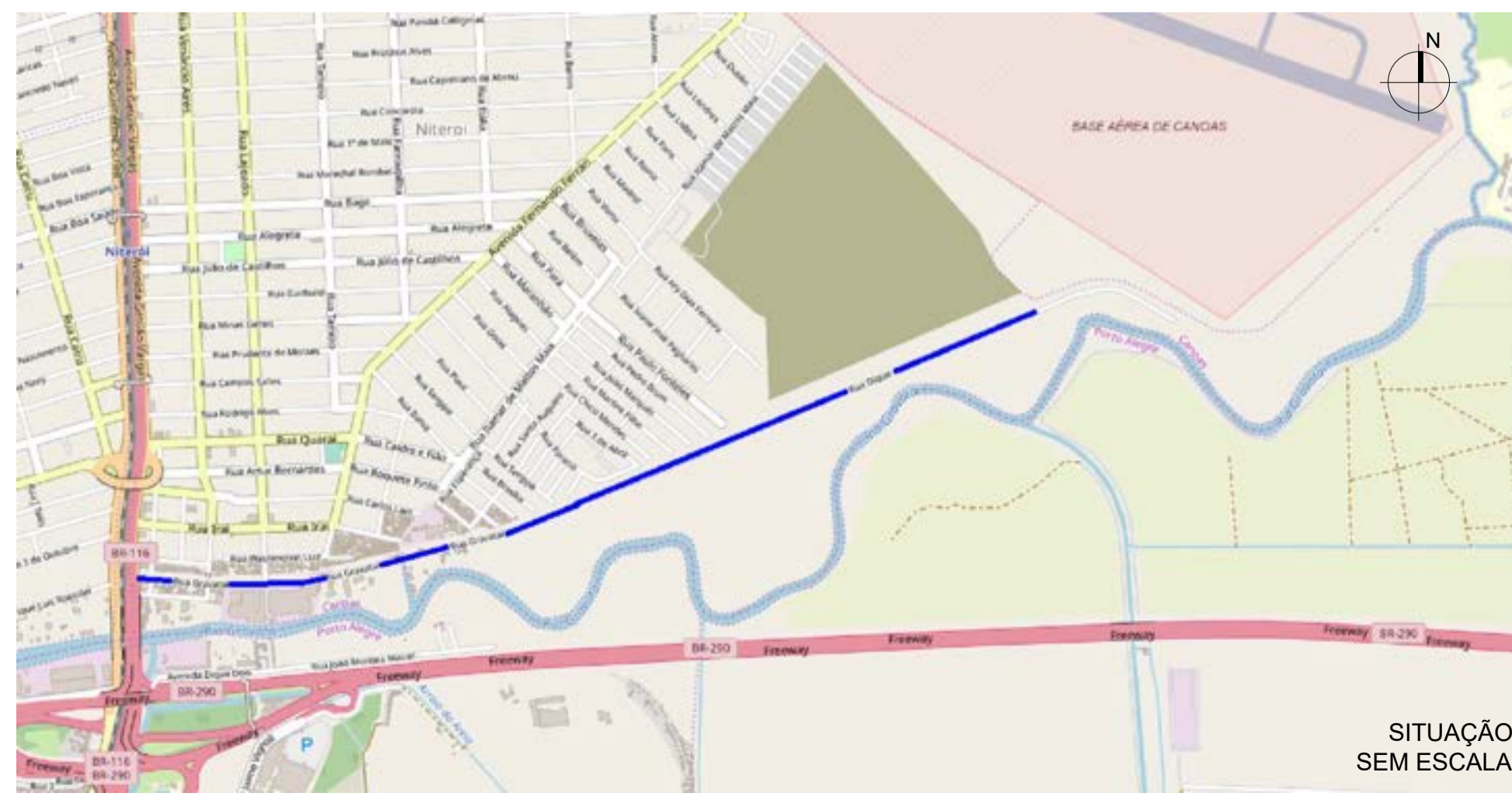
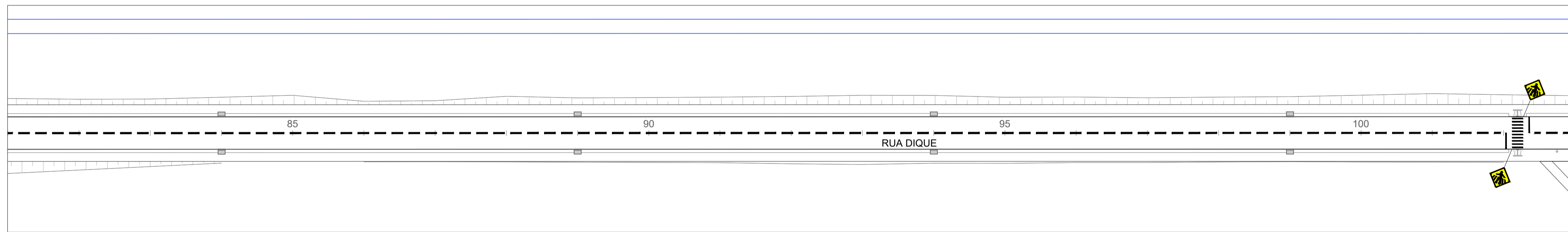
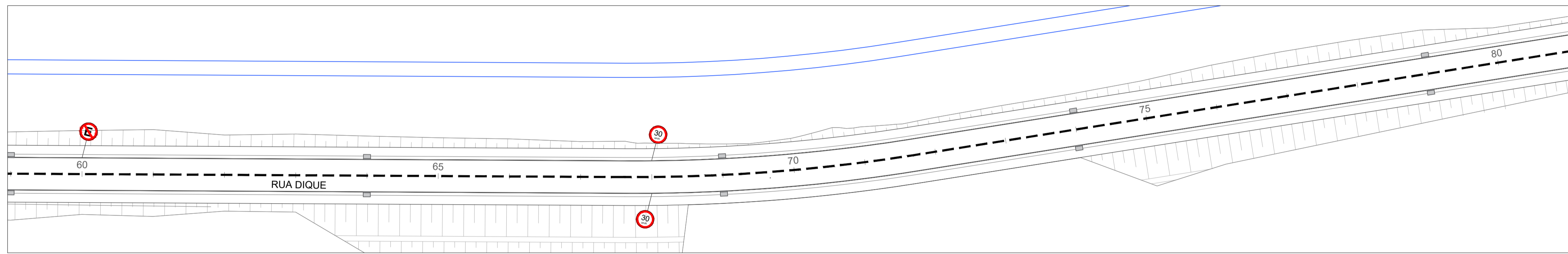
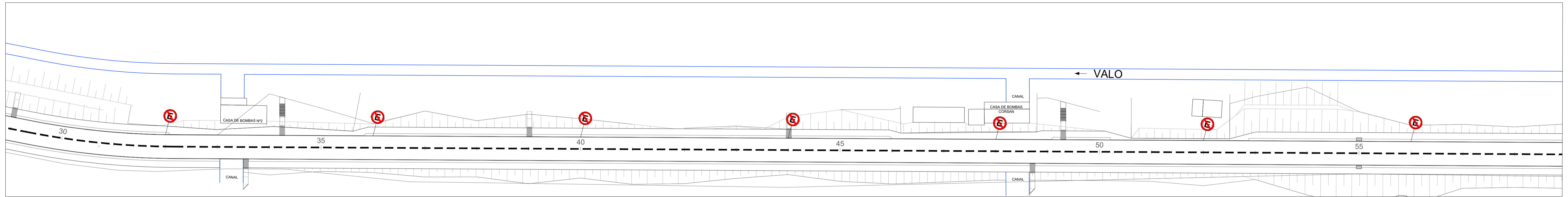
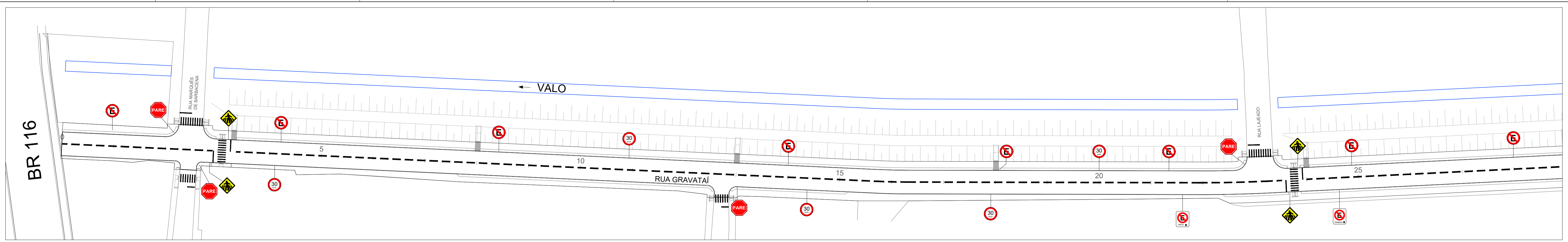
ESCALA:
1:200

ÁREA:
-

DESENHO:
Eng. Elen

DATA:
JUNHO/2022

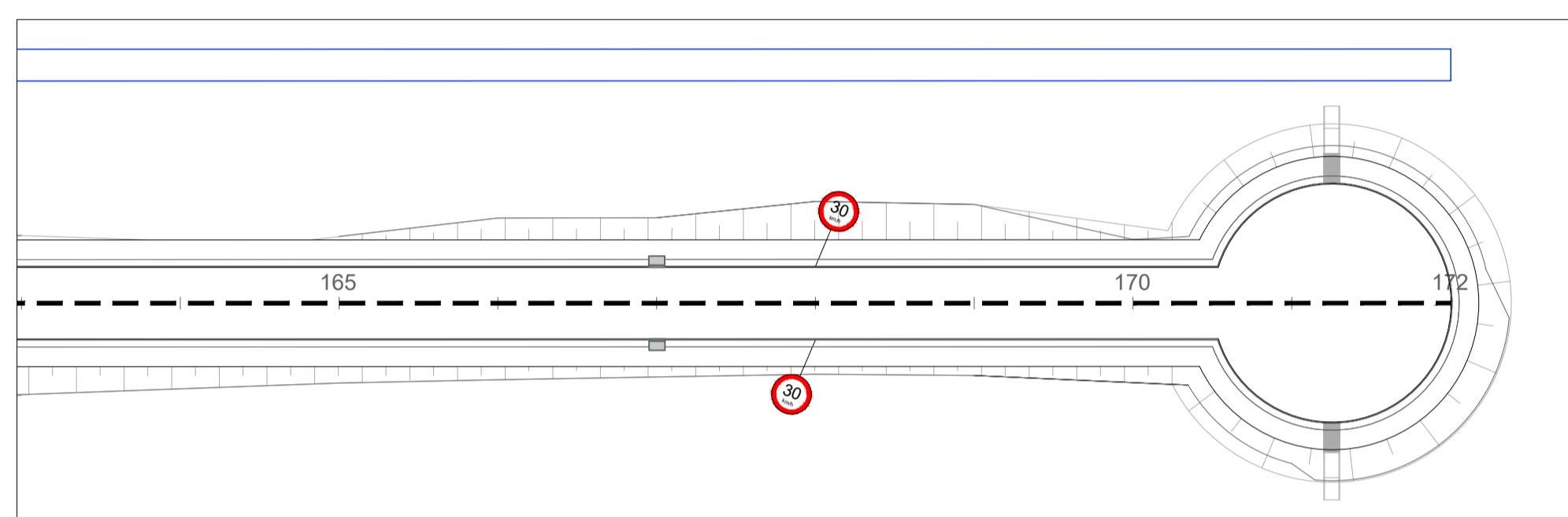
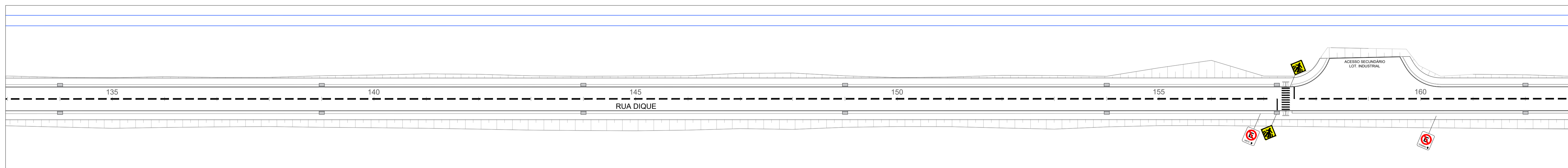
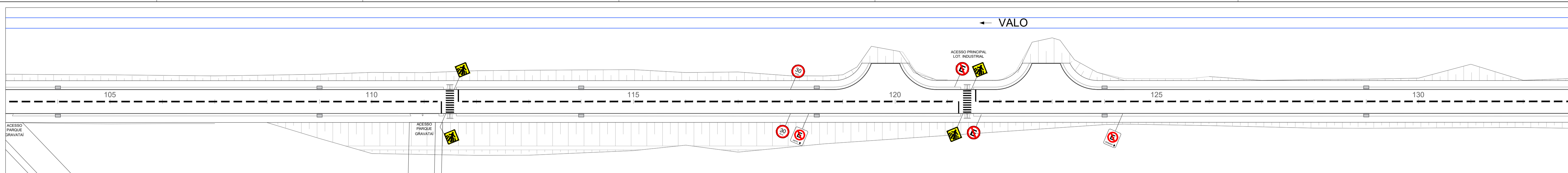
20/20



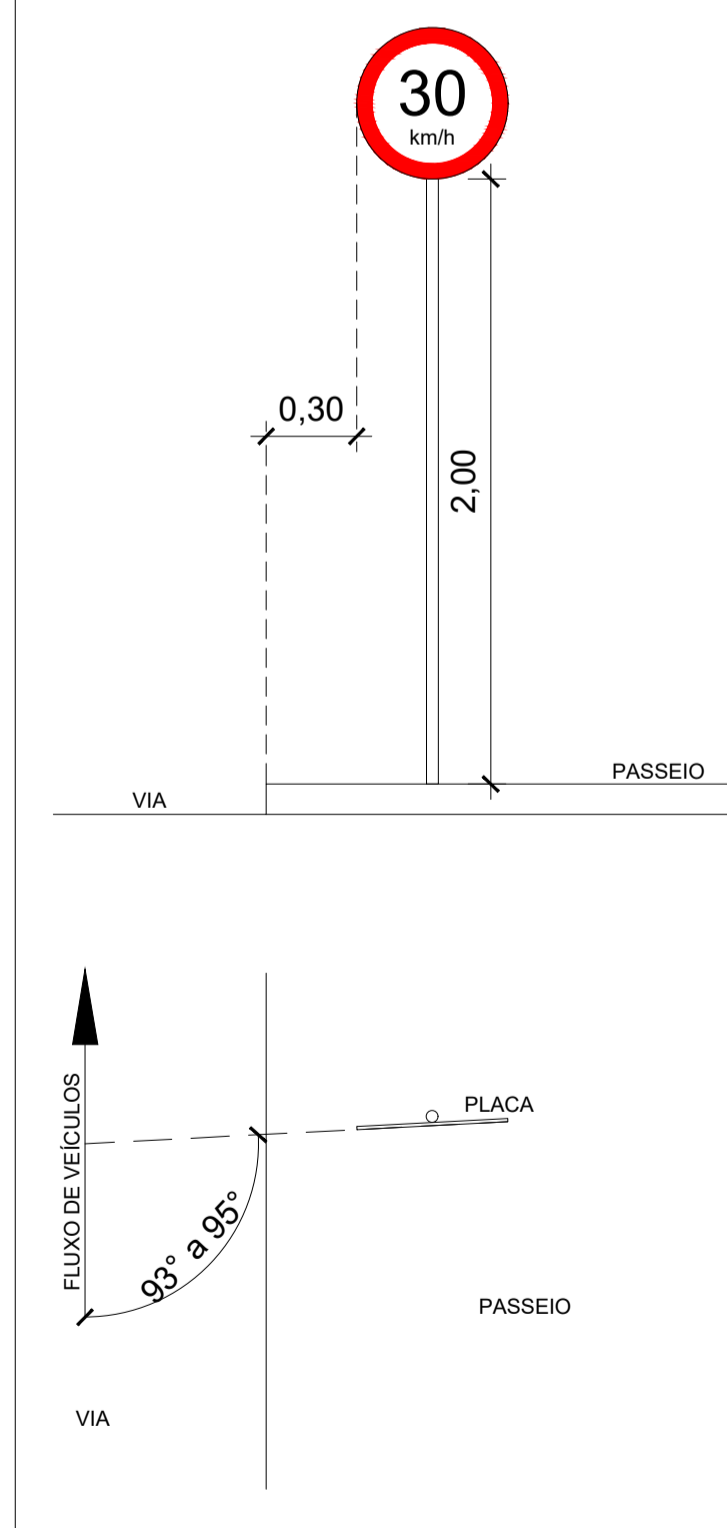
SITUAÇÃO SEM ESCALA

| PLACA | DESCRIÇÃO | QUANT. |
|-------|---|--------|
| | PLACA DE VELOCIDADE | 11 |
| | PLACA DE PARE | 4 |
| | PLACA DE PARE | 12 |
| | PLACA DE PROIBIDO ESTACIONAR | 18 |
| | PLACA DE INÍCIO DA PROIBIÇÃO DE ESTACIONAR | 3 |
| | PLACA DE TÉRMINO DA PROIBIÇÃO DE ESTACIONAR | 3 |

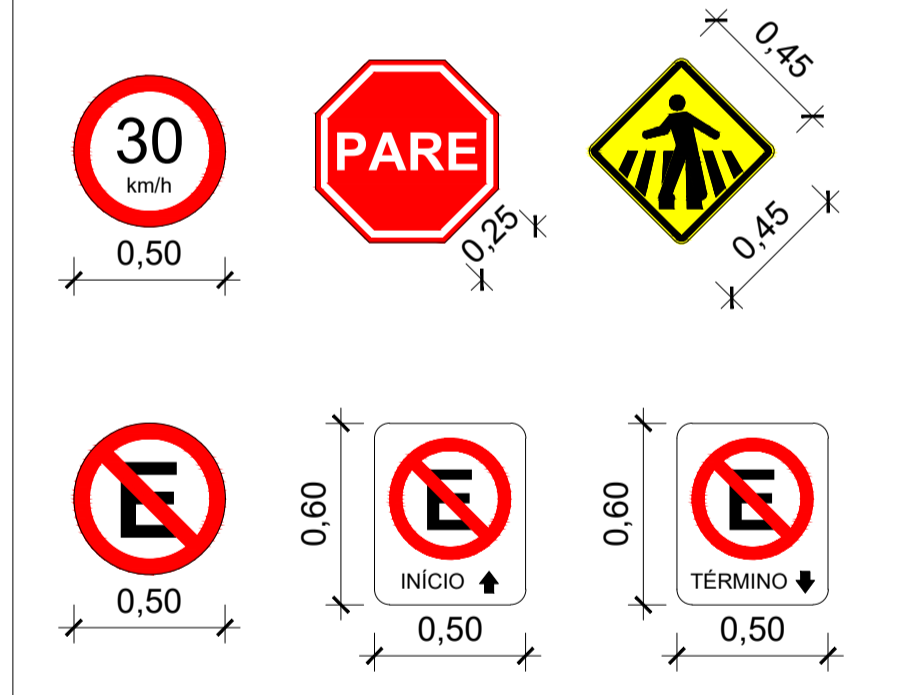
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|--|---------|--|------------------|
| | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565 | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | | | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: SINALIZAÇÃO VIÁRIA | | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:750 | ÁREA: - | DESENHO: Eng. Elen | DATA: JUNHO/2022 |
| | | | 01/02 |



DETALHE INSTALAÇÃO PLACAS
ESCALA 1:25

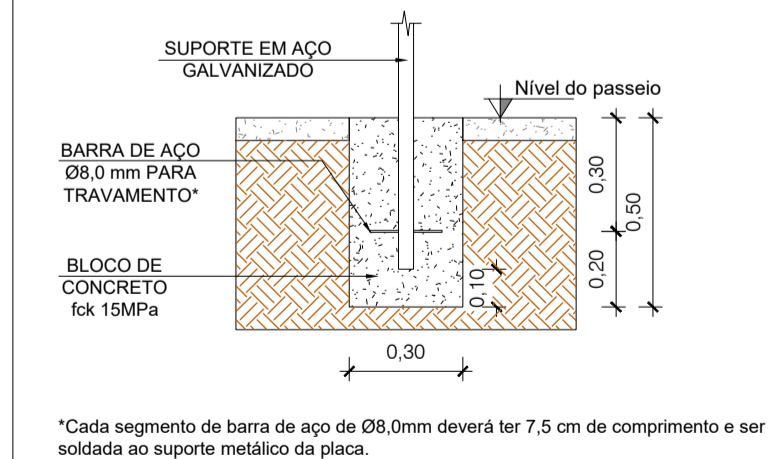


DETALHE PLACAS
ESCALA 1:25



| PLACA | DESCRIÇÃO | QUANT. |
|-------|---|--------|
| | PLACA DE VELOCIDADE | 11 |
| | PLACA DE PARE | 4 |
| | PLACA DE PARE | 12 |
| | PLACA DE PROIBIDO ESTACIONAR | 18 |
| | PLACA DE INÍCIO DA PROIBIÇÃO DE ESTACIONAR | 3 |
| | PLACA DE TÉRMINO DA PROIBIÇÃO DE ESTACIONAR | 3 |

DETALHE FIXAÇÃO SUPORTE PLACAS
ESCALA 1:20

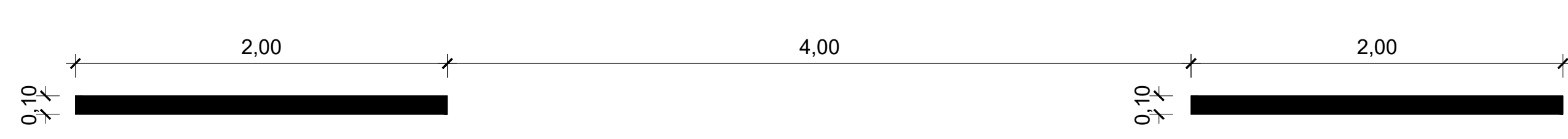


*Cada segmento de barra de aço de Ø8,0mm deverá ter 7,5 cm de comprimento e ser soldada ao suporte metálico da placa.

OBSERVAÇÕES:

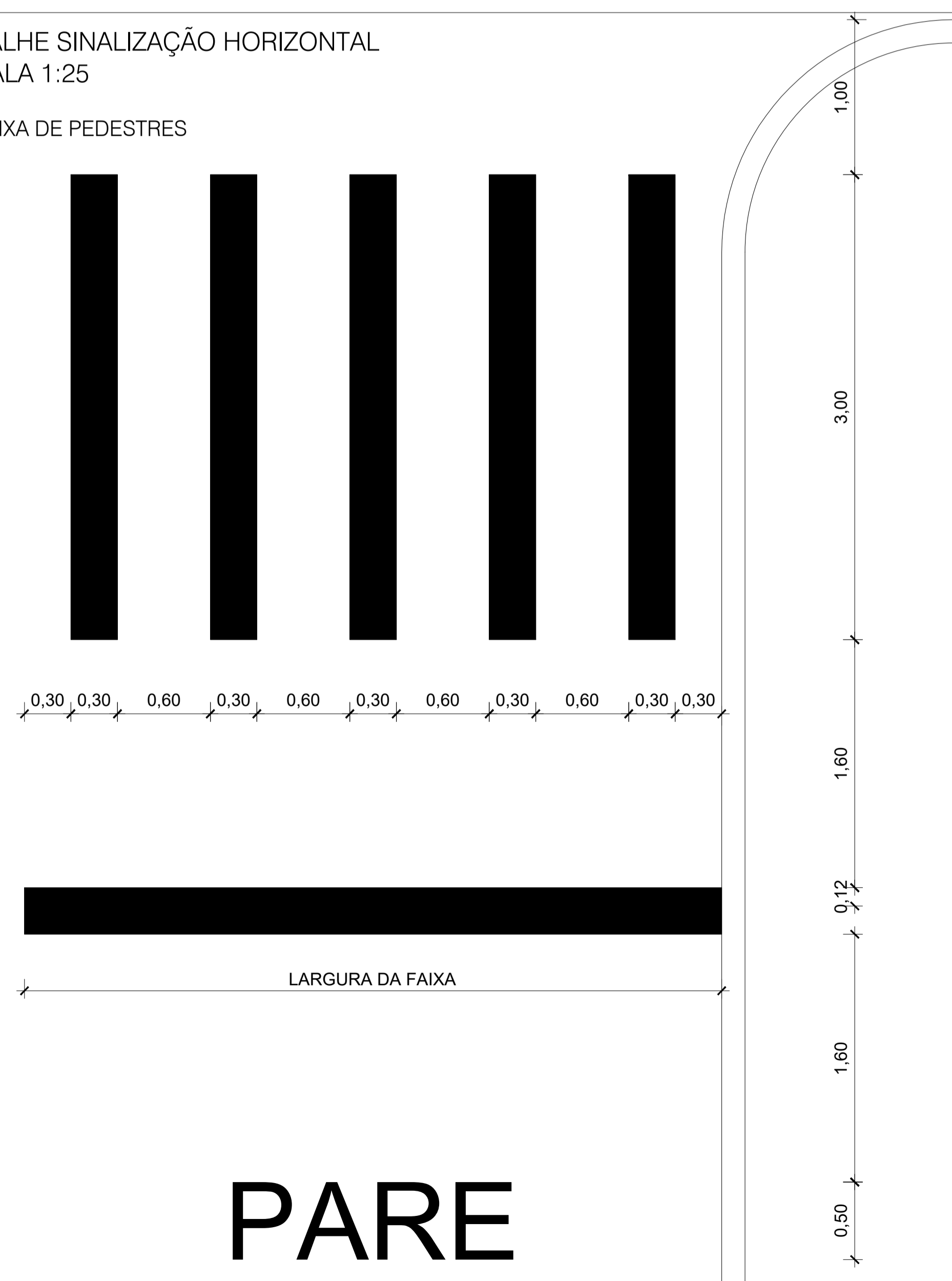
- AS PLACAS DE INDICAÇÃO DE VELOCIDADE DEVERÃO ESTAR DISTANTES NO MÁXIMO 1Km;
- AS PLACAS DE PROIBIDO ESTACIONAR DEVERÃO DISTAR NO MÍNIMO 5 m E NO MÁXIMO 30 m DO PROLONGAMENTO DO MEIO FIO DA VIA TRANSVERSAL;
- A DISTÂNCIA MÁXIMA ENTRE PLACAS DE PROIBIDO ESTACIONAR CONSECUTIVAS DEVERÁ SER DE 80 m.

LINHA DE DIVISÃO DE FLUXOS OPOSTOS (LOF)

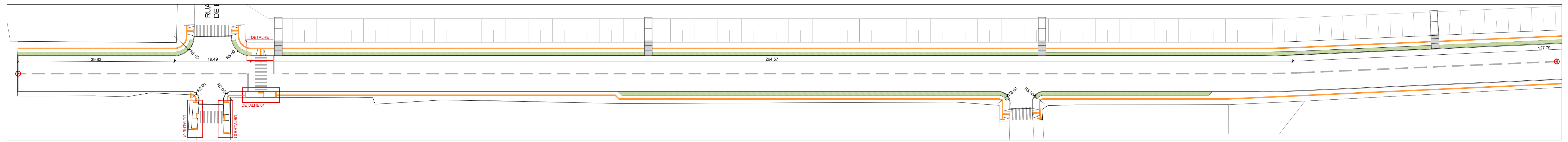


DETALHE SINALIZAÇÃO HORIZONTAL
ESCALA 1:25

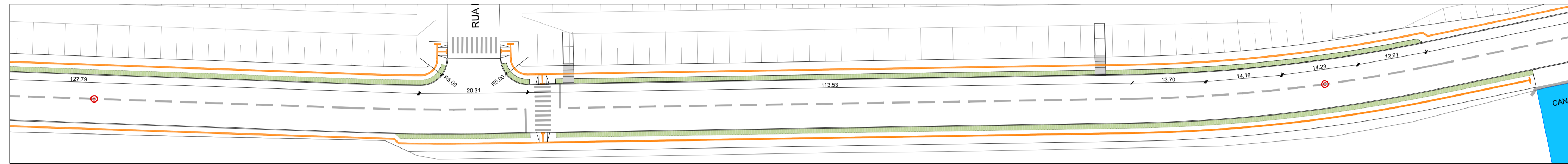
FAIXA DE PEDESTRES



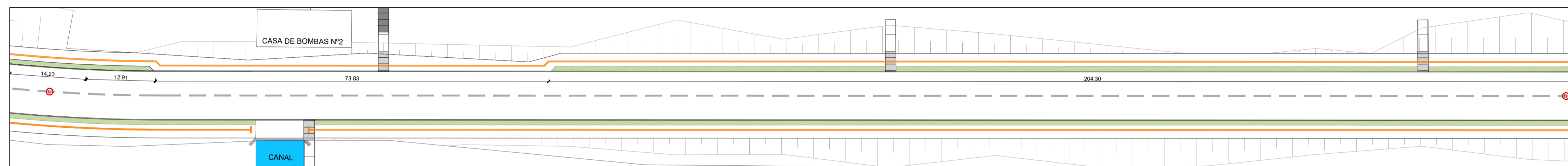
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|--|--|--|--|
| | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565 | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | | | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: SINALIZAÇÃO VIÁRIA | | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:750 | | DATA: JUNHO/2022 | |
| ÁREA: - | | DESENHO: Eng. Elen | |
| | | | |
| | | 02/02 | |



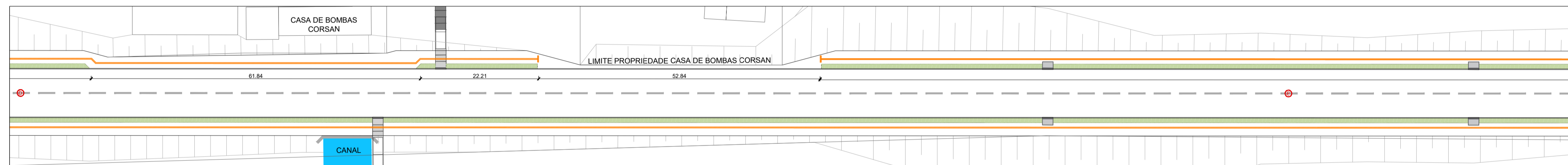
ACESSIBILIDADE - TRECHO AB
ESC.: 1/500



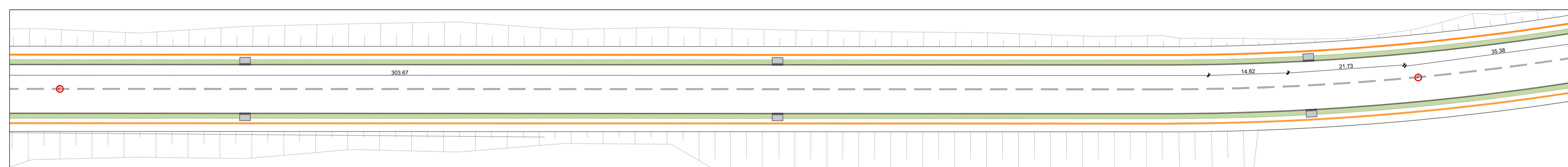
ACESSIBILIDADE - TRECHO BC
ESC.: 1/500



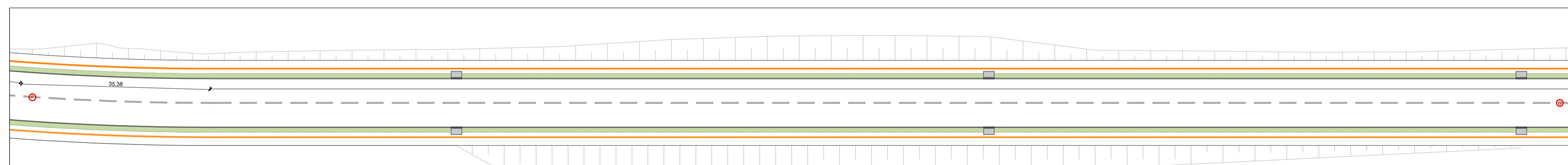
ACESSIBILIDADE - TRECHO CD
ESC.: 1/500



ACESSIBILIDADE - TRECHO DE
ESC.: 1/500



ACESSIBILIDADE - TRECHO EF
ESC.: 1/500

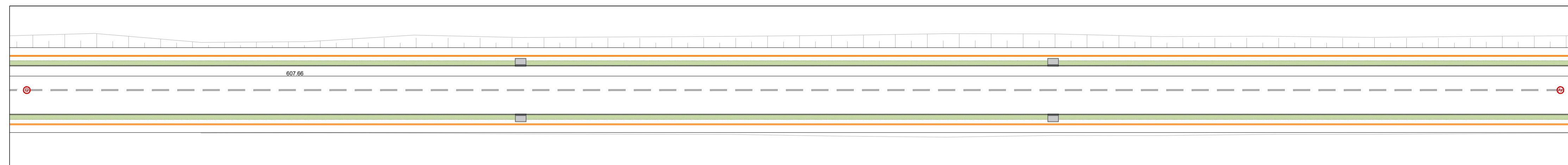


ACESSIBILIDADE - TRECHO FG
ESC.: 1/500

| LEGENDA | |
|---------|--|
| | PASSEIO CONCRETO COMUM A= 16.749,17 m ² |
| | TRECHO PERMEÁVEL A= 5.544,05 m ² |
| | PISO TÁTIL Alerta - D= 140,00m linear Direcional - D= 6.795,55m linear |

| | | | |
|--|-------------------|--|----------------------------|
| | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565 | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | | | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: PROJETO DE ACESSIBILIDADE | | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:500 | ÁREA: - | DESENHO: Equipe Urbana | DATA: JUNHO/2022 |
| | | | 01/03 |

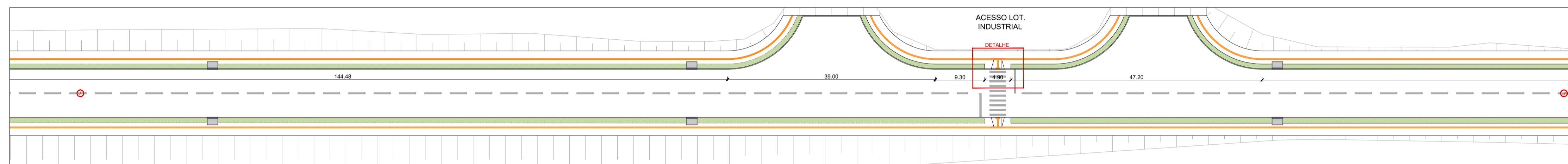




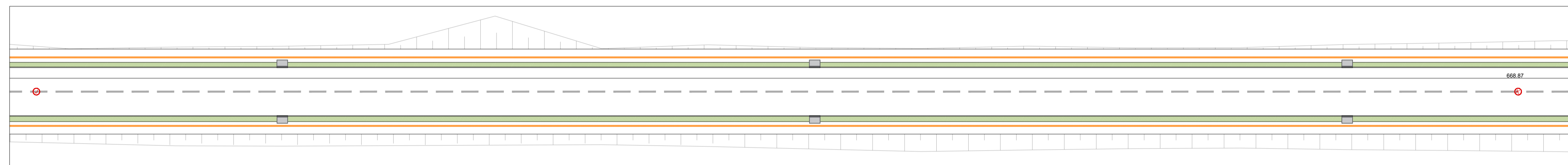
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ESC.: 1/500



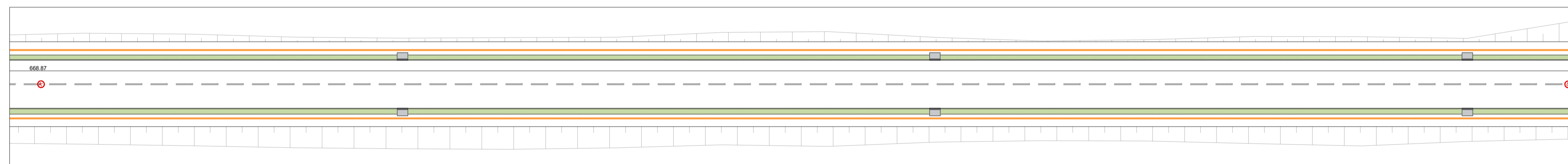
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ESC.: 1/500



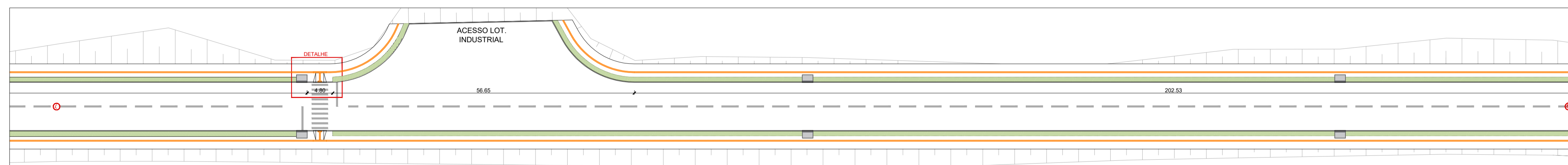
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ESC.: 1/500



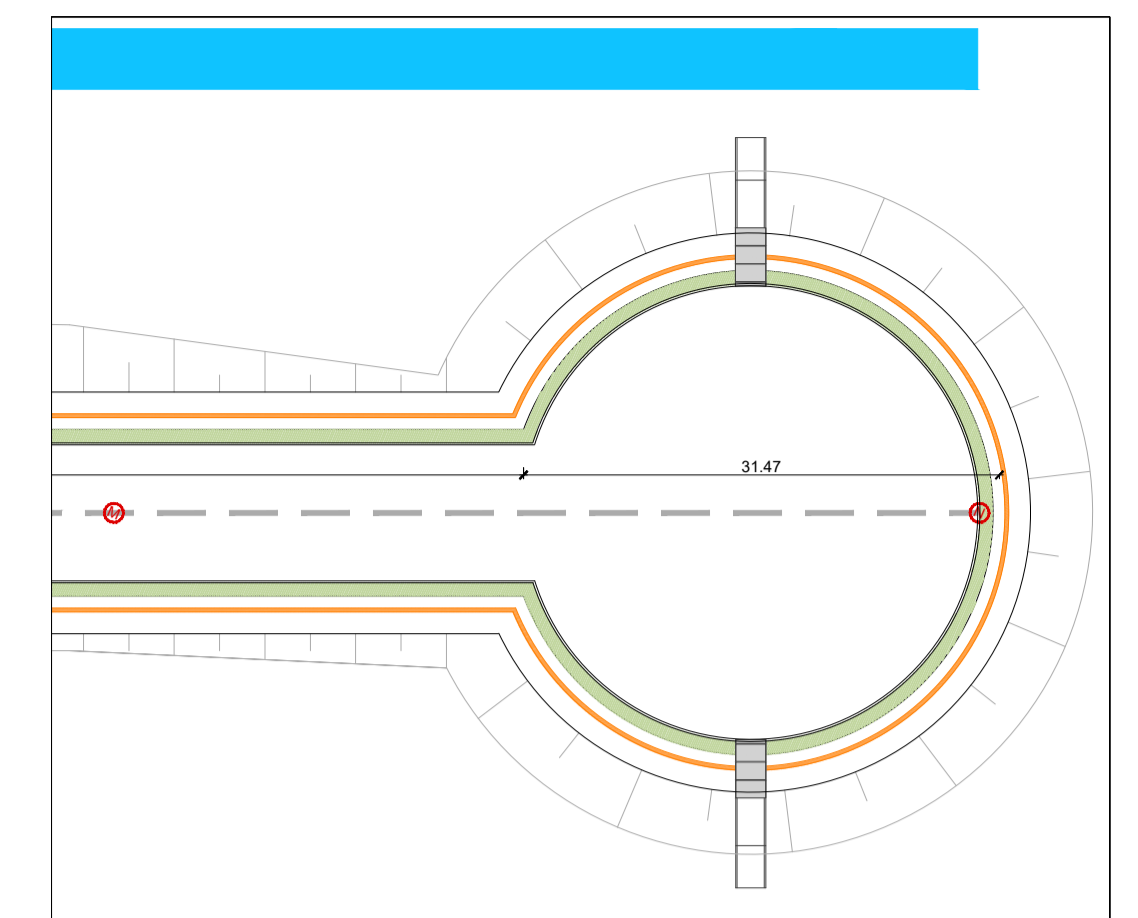
ACESSIBILIDADE - TRECHO JK
ESC.: 1/500



ACESSIBILIDADE - TRECHO KL
ESC.: 1/500





ACESSIBILIDADE - TRECHO LM
ESC.: 1/500



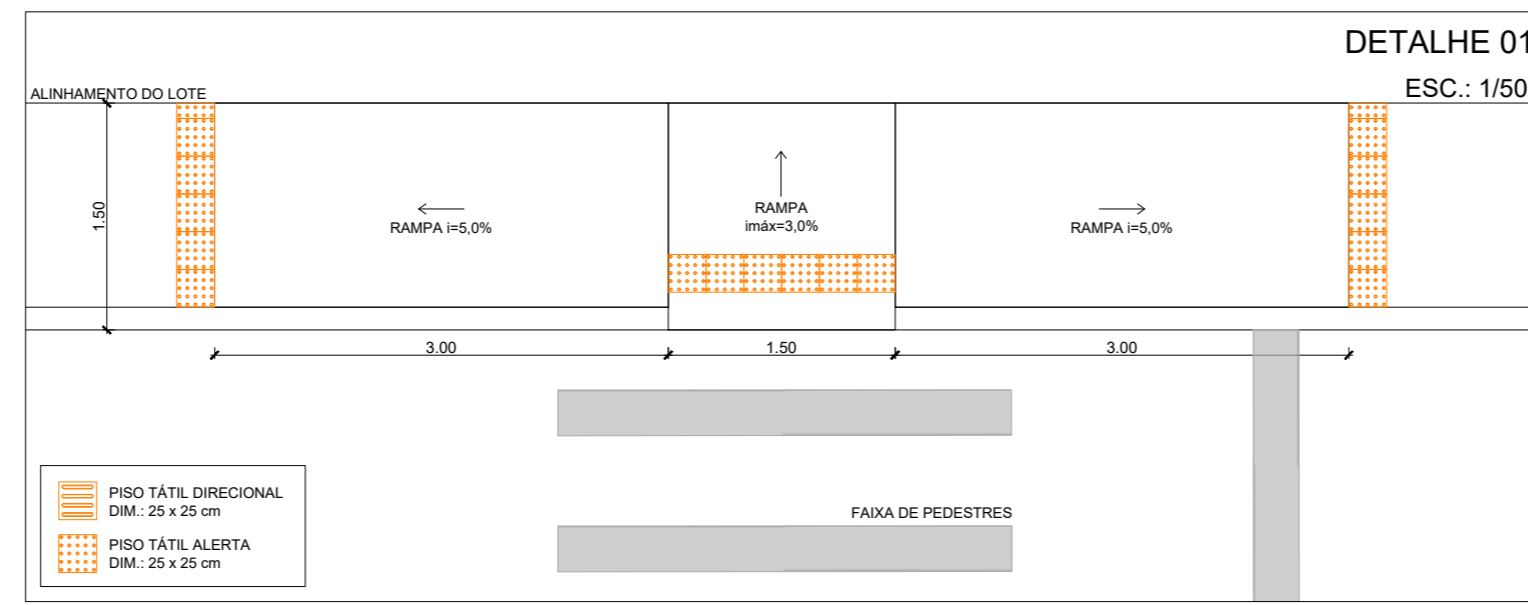
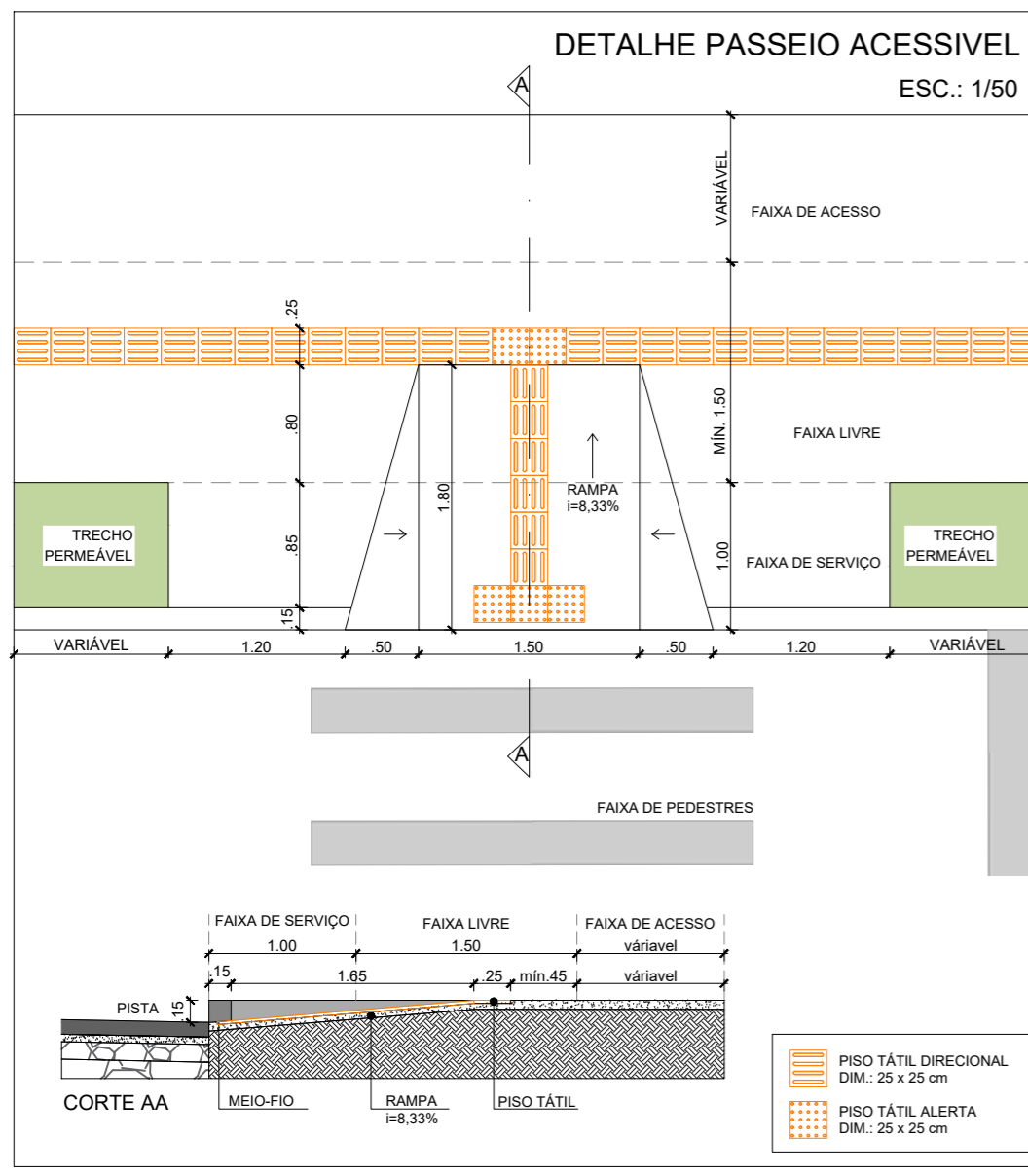
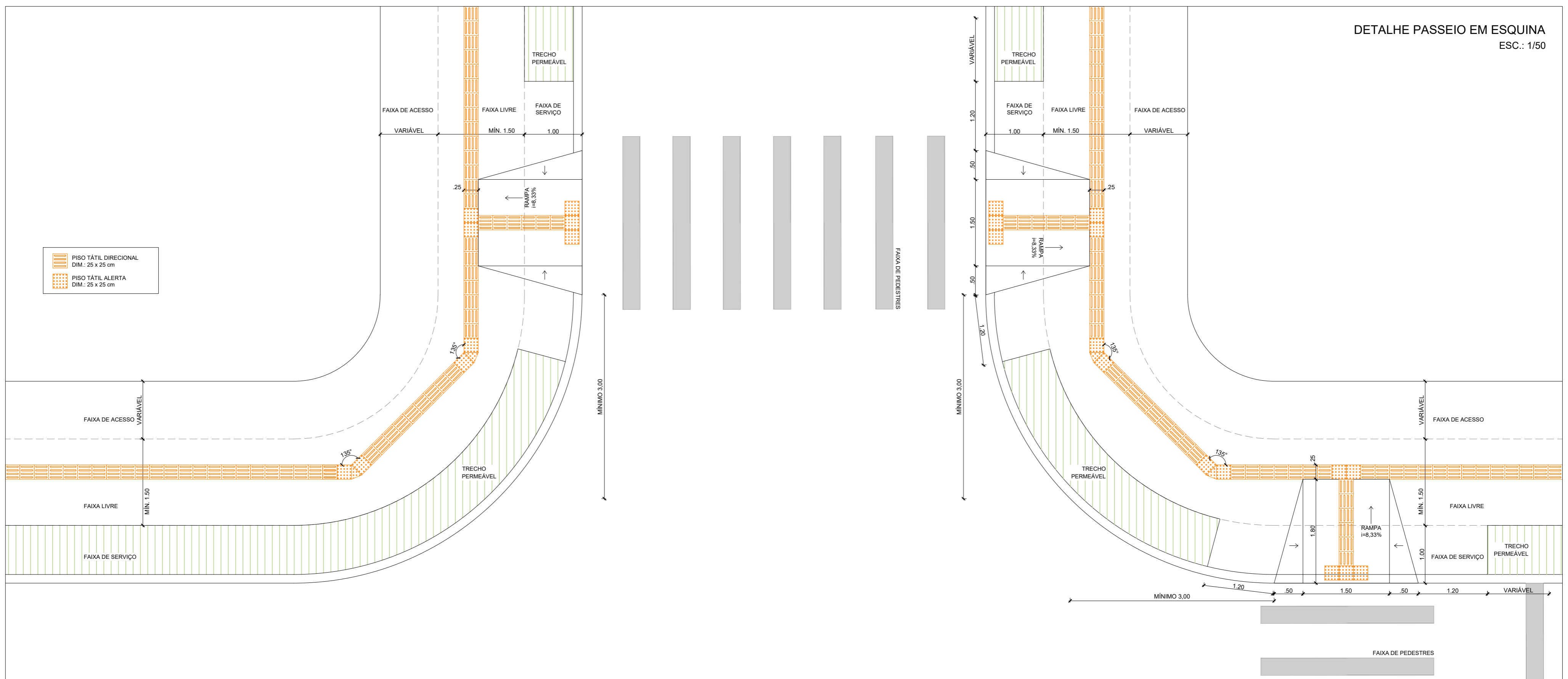
ACESSIBILIDADE - TRECHO MN
ESC.: 1/500


LEGENDA

| | |
|--|--|
| | PASSEIO CONCRETO COMUM A= 16.749,17 m² |
| | TRECHO PERMEÁVEL A= 5.544,05 m² |
| | PISO TÁTIL Alerta - D= 140,00m linear Direcional - D= 6.795,55m linear |

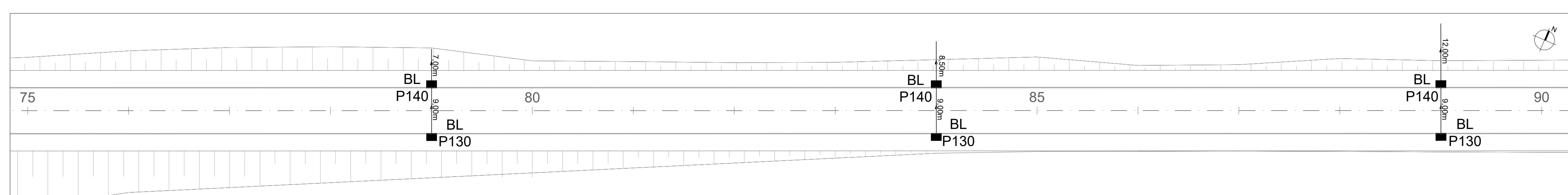
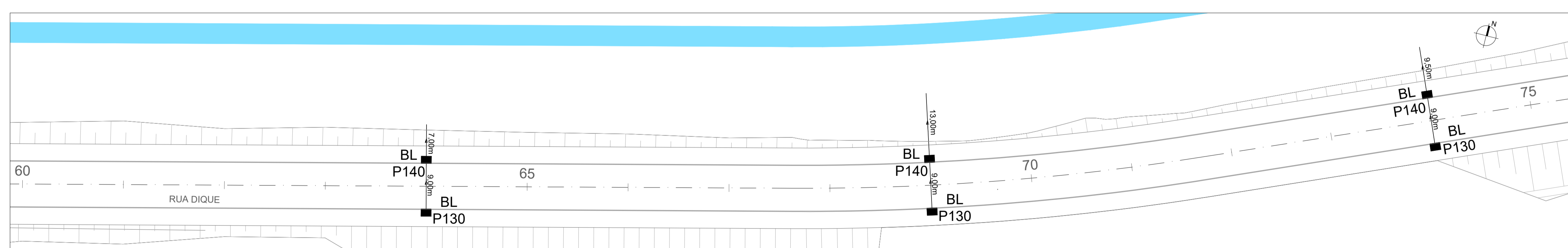
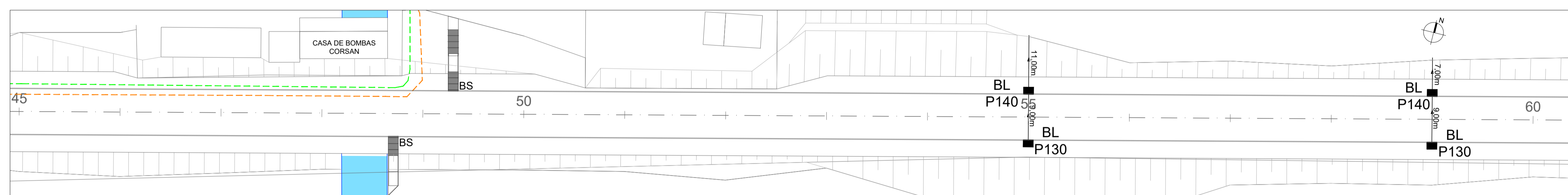
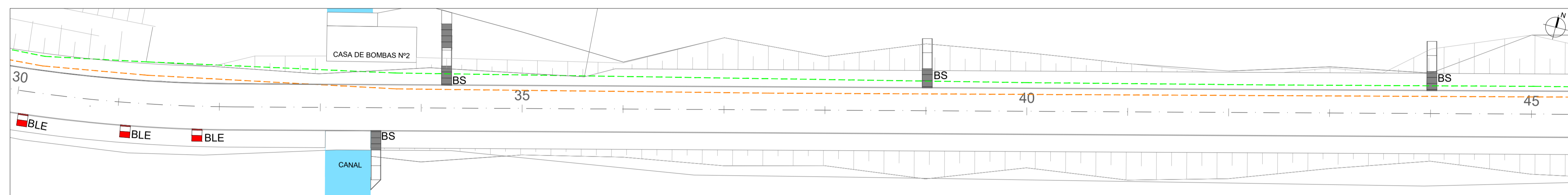
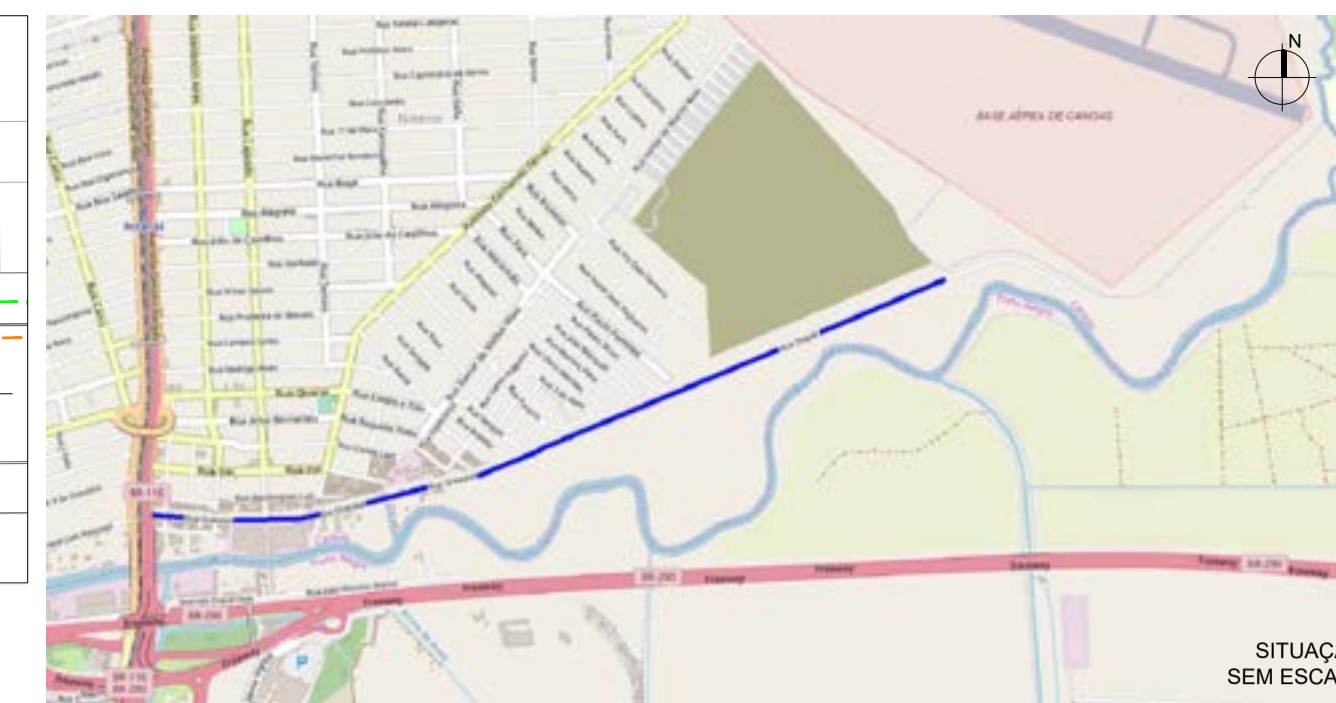
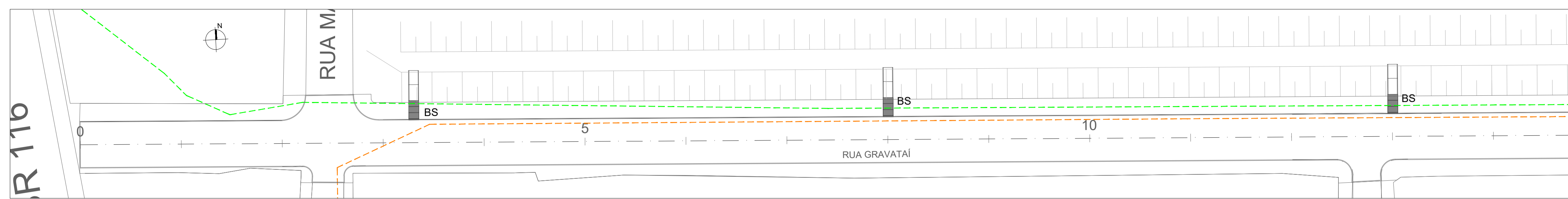
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|--|---|
|  PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | |
| PROJETO: PROJETO DE ACESSIBILIDADE | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | |
| ESCALA: 1:500 | DATA: JUNHO/2022 |
| ÁREA: - | DESENHO: Equipe Urbana |
|  02/03 | |

DETALHE PASSEIO EM ESQUINA
ESC.: 1/50



| | |
|---|--|
|  PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565 | |
| EMPREENDIMENTO: <p style="text-align: center;">URBANIZAÇÃO DA RUA GRAVATAÍ</p> ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS | |
| PROJETO: <p style="text-align: center;">PROJETO DE ACESSIBILIDADE</p> | DISCRIMINAÇÃO DA PRANCHA: <p style="text-align: center;">DETALHES PASSEIOS</p> |
| RESPONSÁVEL TÉCNICO: <p style="text-align: center;">Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| ESCALA: <p style="text-align: center;">1:50</p> | ÁREA: <p style="text-align: center;">-</p> |
| DESENHO: <p style="text-align: center;">Equipe Urbana</p> | DATA: <p style="text-align: center;">JUNHO/2022</p> |
| 03/03 | |





LEGENDA

- BOCA DE SAÍDA (BS)
- BOCA DE LOBO (BL)
 - BL P130 (PROFUNDIDADE DE 130 cm)
 - BL P140 (PROFUNDIDADE DE 140 cm)
- BOCA DE LOBO EXISTENTE (BLE) A SER PROLONGADA

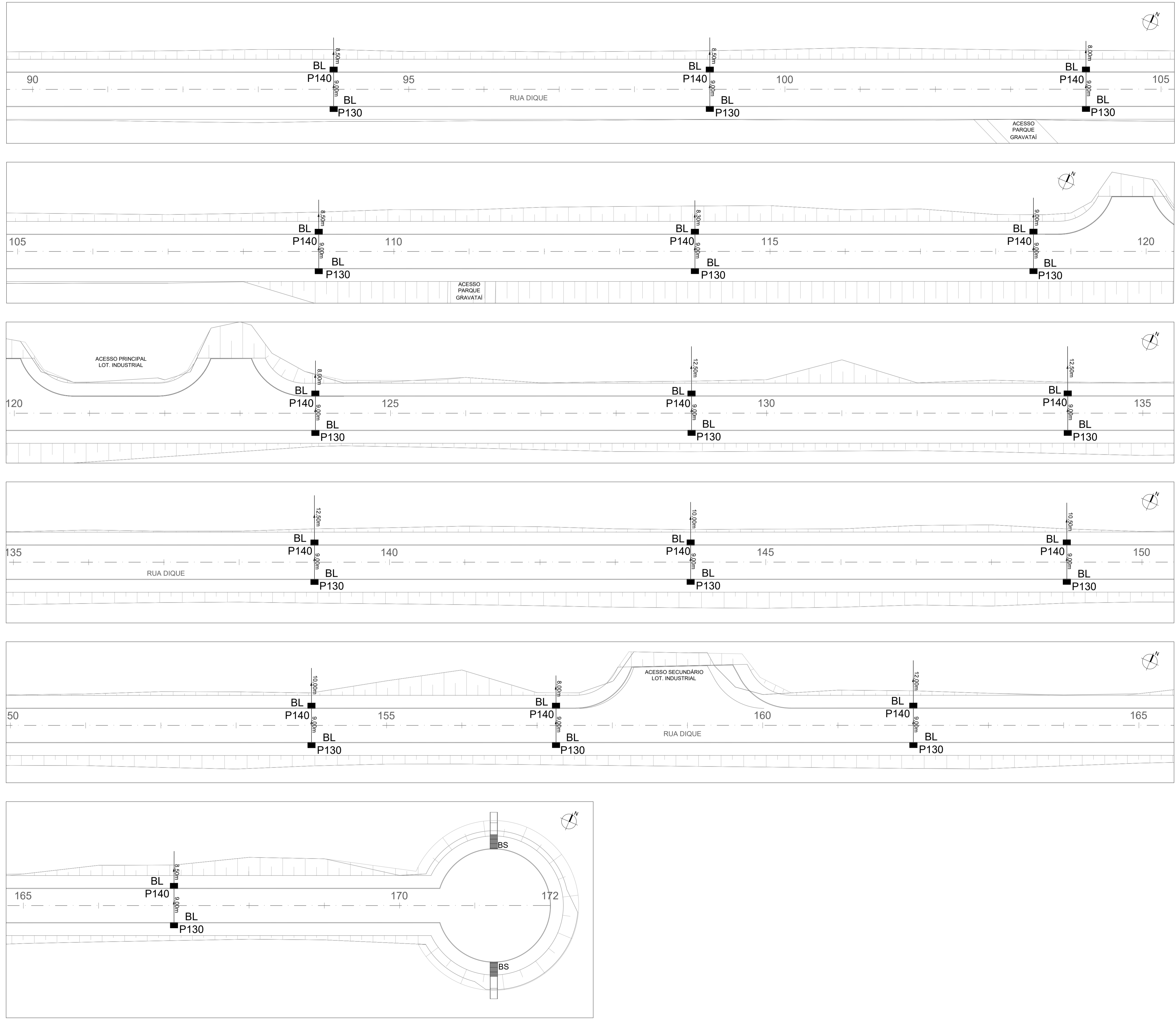
BL P140 $\xrightarrow{9,00m}$ BL P130
 SENTIDO DO FLUXO

OBSERVAÇÕES:

- TUBULAÇÃO SERÁ TIPO PONTA E BOLSA COM DIÂMETRO DN 300mm;
- INCLINAÇÃO MÍNIMA 0,5%;

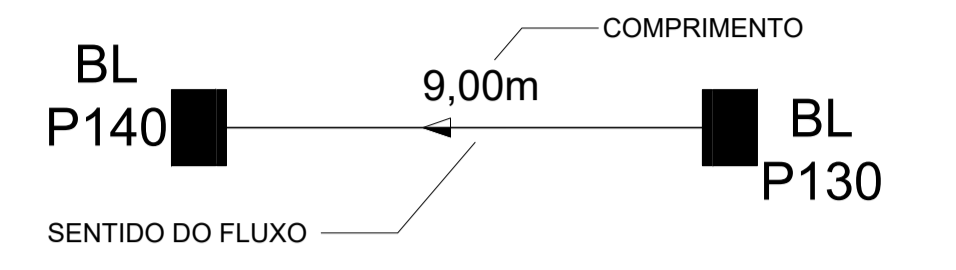
- OLEODUTO ORNIT 6"
- GASODUTO 16"

| | | | |
|--|----------------|---|-------------------------|
| | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | | | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: DRENAGEM | | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:750 | ÁREA: - | DESENHO: Eng. Elen | DATA: JUNHO/2022 |
| | | | 01/08 |



LEGENDA

- BOCA DE SAÍDA (BS)
- BOCA DE LOBO (BL)
 - BL P130 (PROFUNDIDADE DE 130 cm)
 - BL P140 (PROFUNDIDADE DE 140 cm)
- BOCA DE LOBO EXISTENTE (BLE) A SER PROLONGADA



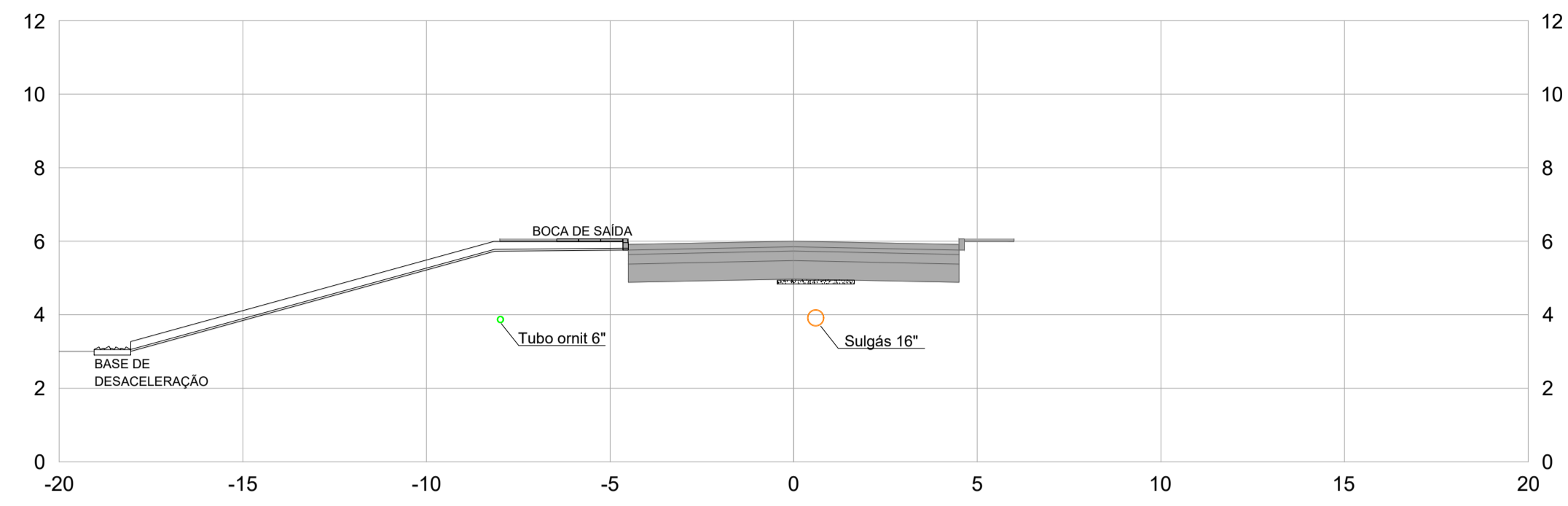
OBSERVAÇÕES:
 - TUBULAÇÃO SERÁ TIPO PONTA E BOLSA COM DIÂMETRO DN 300mm;
 - INCLINAÇÃO MÍNIMA 0,5%;

- OLEODUTO ORNIT 6"
- GASODUTO 16"

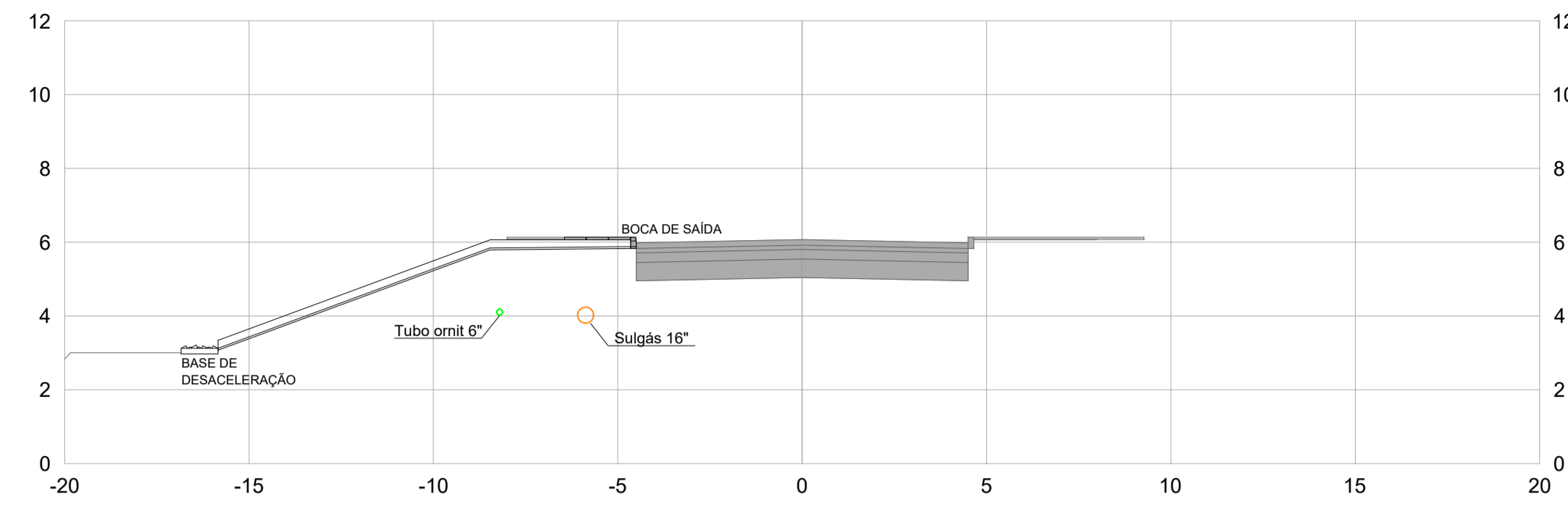
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|--|---|---|-------------------------|
| | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | |
| EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ | | | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: DRENAGEM | DISCRIMINAÇÃO DA PRANCHA: PLANTA BAIXA | | |
| RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: 1:750 | ÁREA: - | DESENHO: Eng. Elen | DATA: JUNHO/2022 |
| | | | 02/08 |



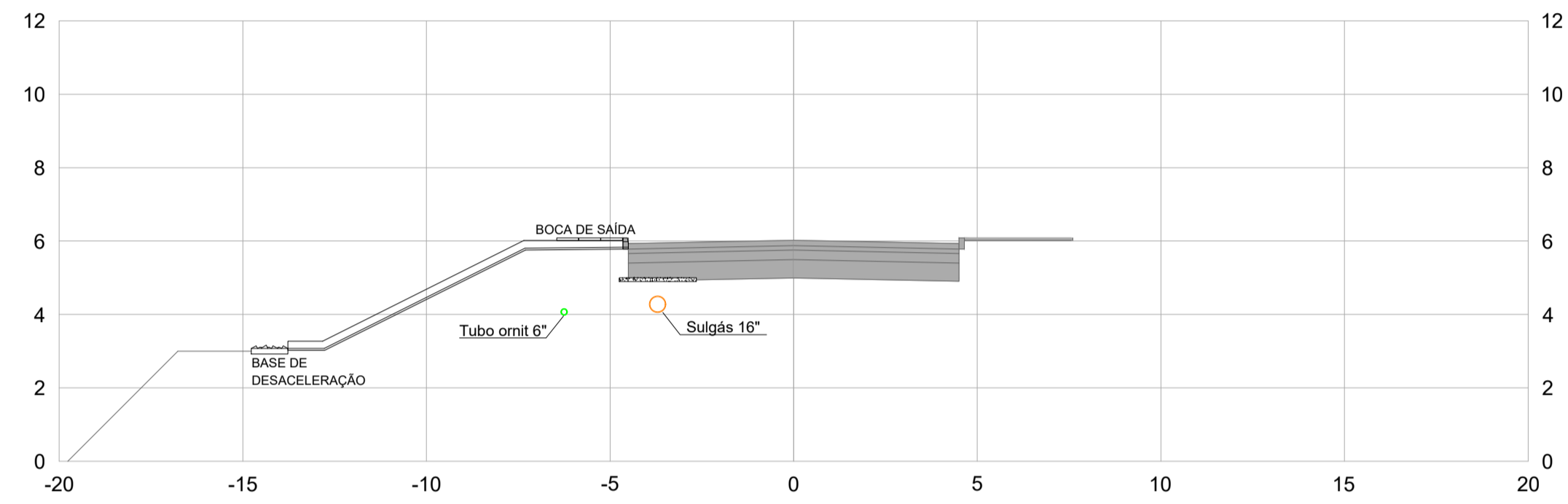
ESTACA 3+6.00
km 0+66.00



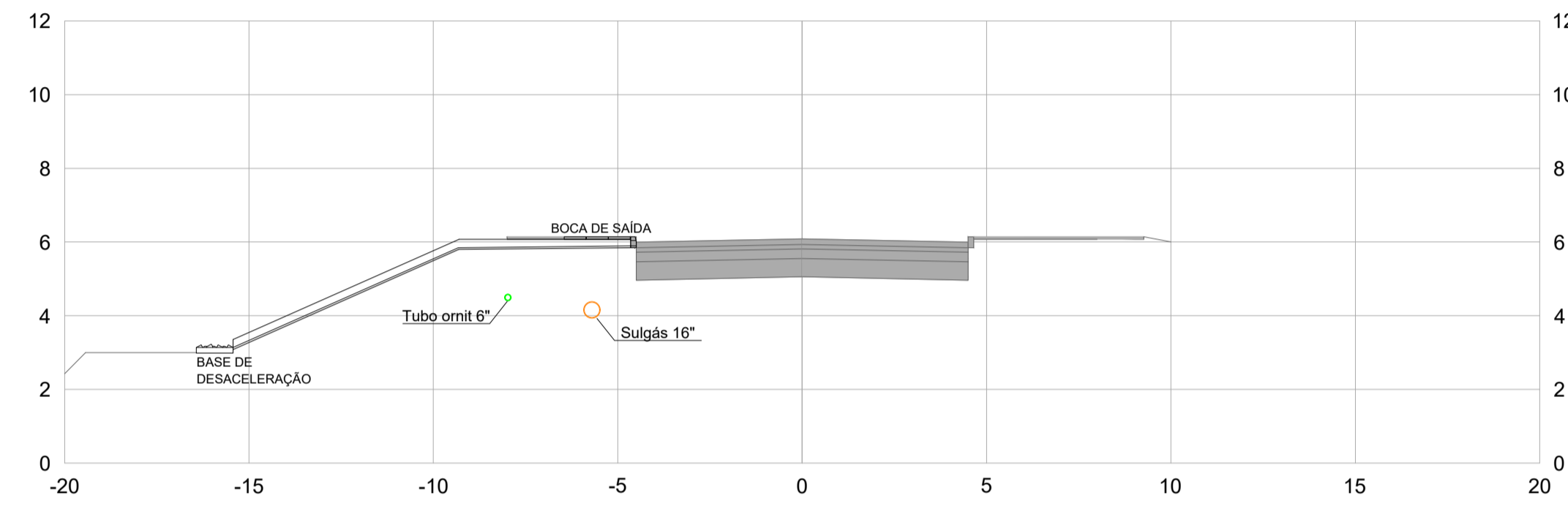
ESTACA 24+0.00
km 0+480.00



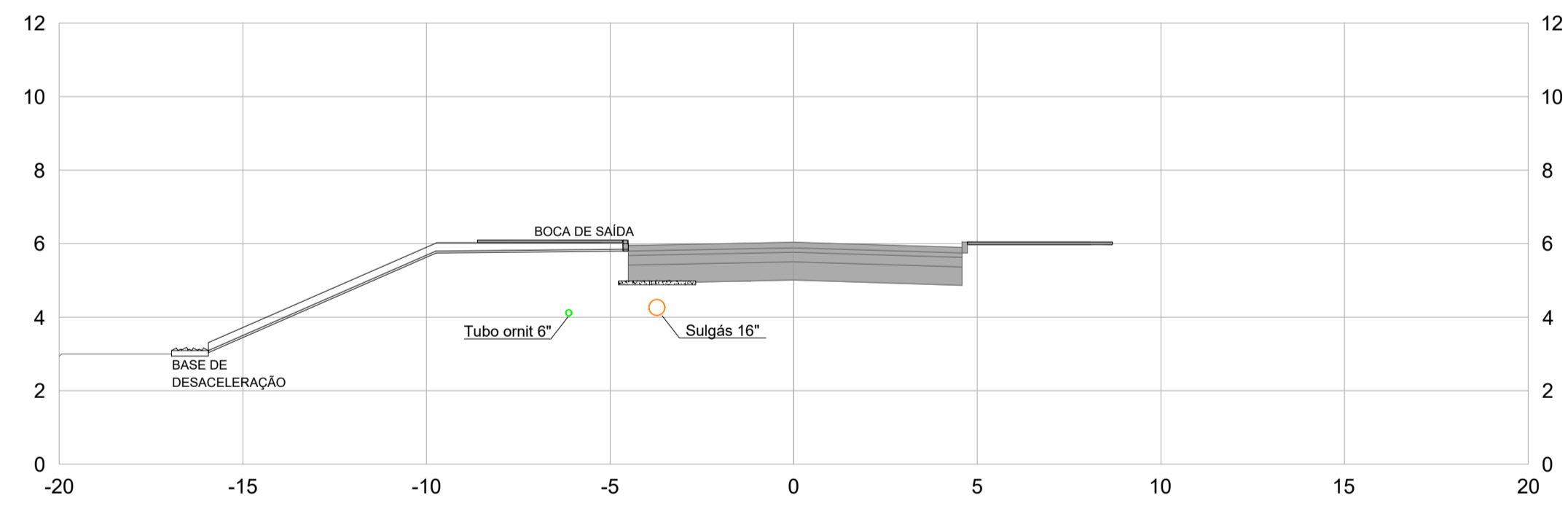
ESTACA 8+0.00
km 0+160.00



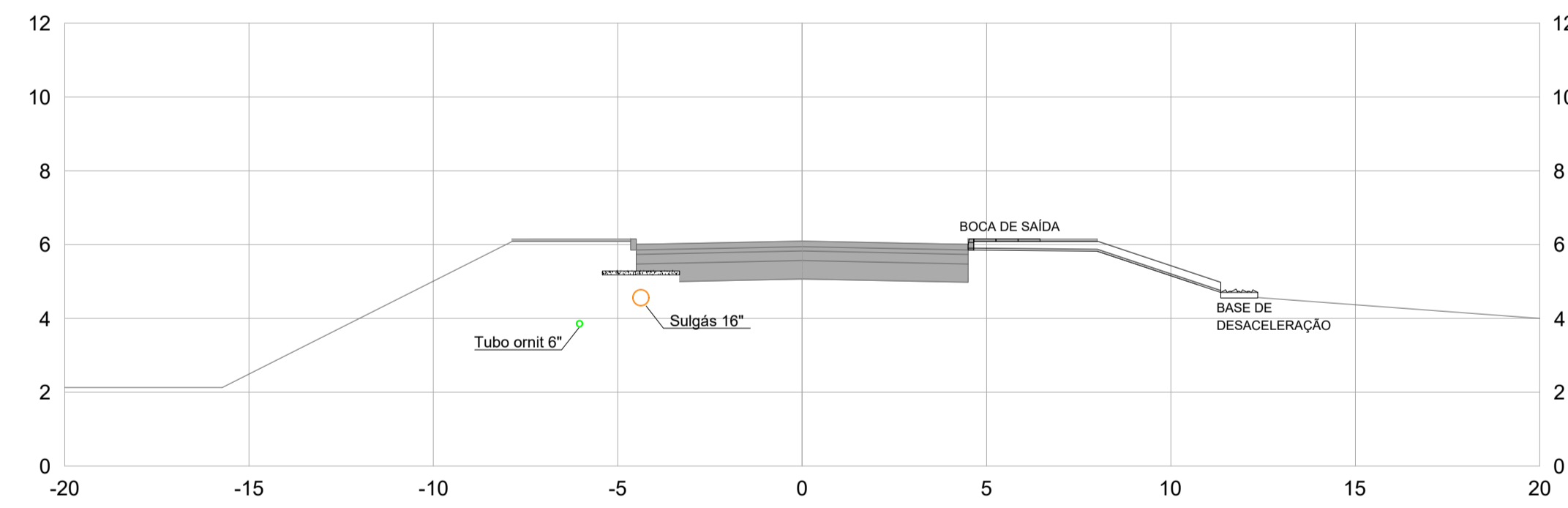
ESTACA 29+0.00
km 0+580.00



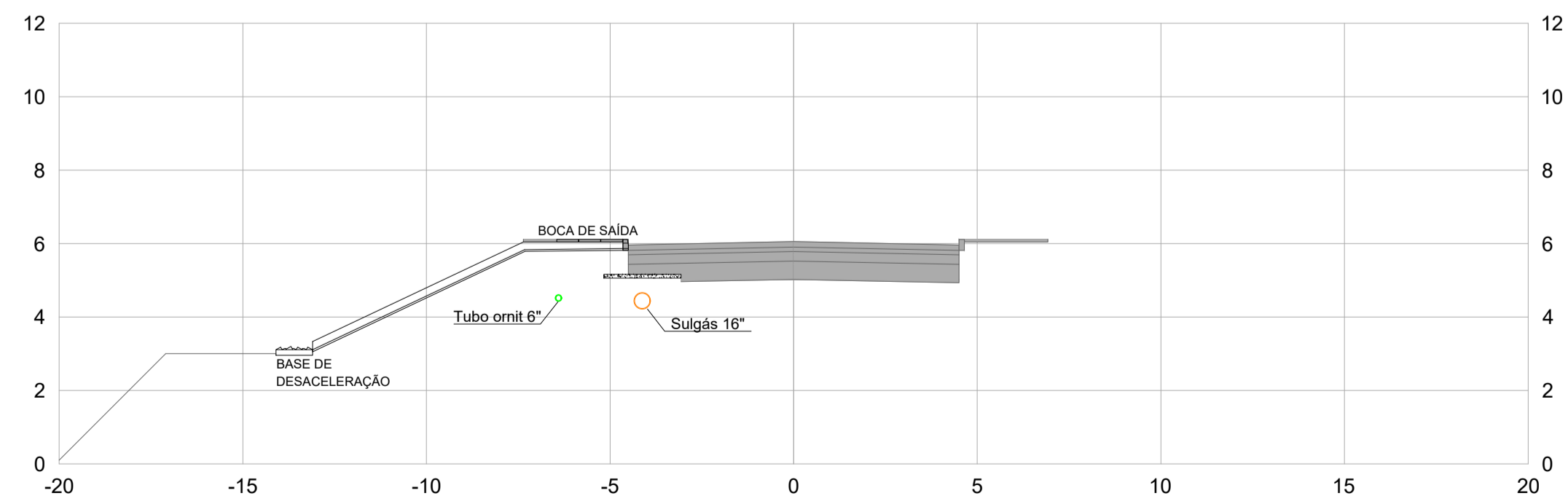
ESTACA 13+0.00
km 0+260.00



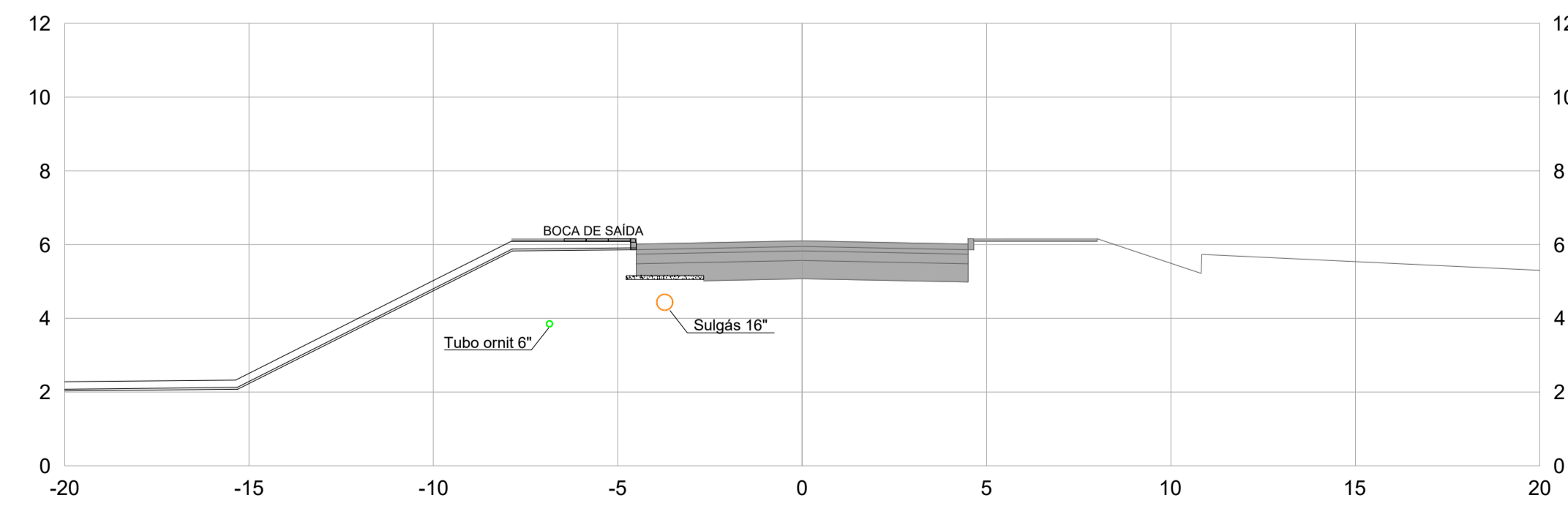
ESTACA 33+11.80
km 0+671.80




ESTACA 18+0.00
km 0+360.00

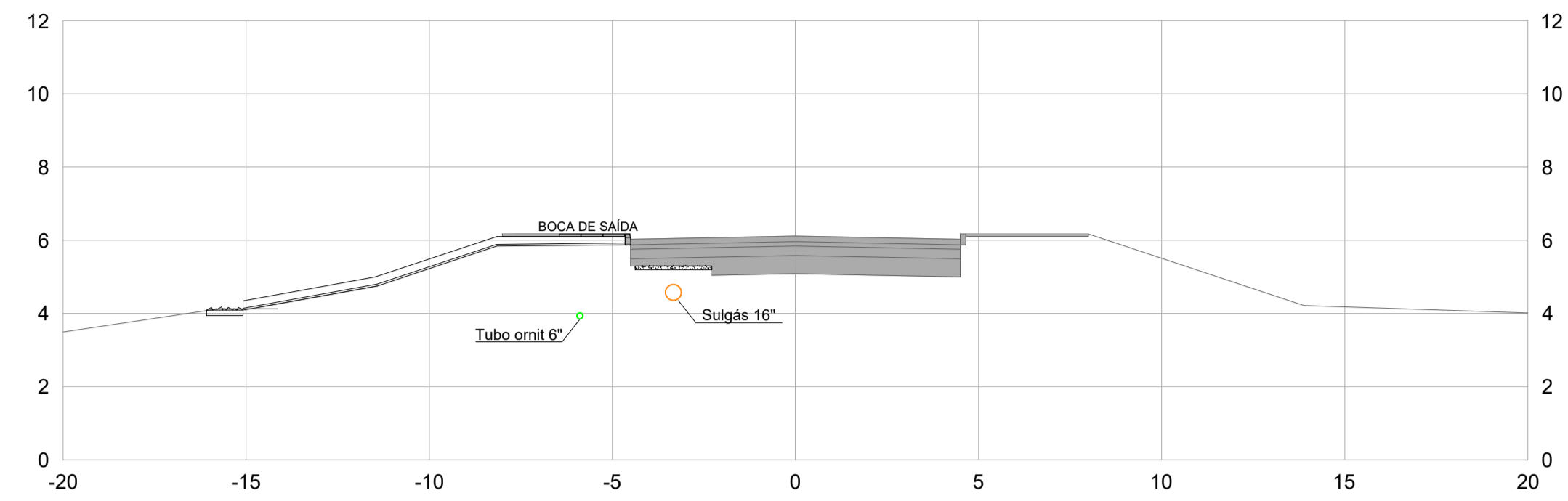


ESTACA 34+5.00
km 0+685.00

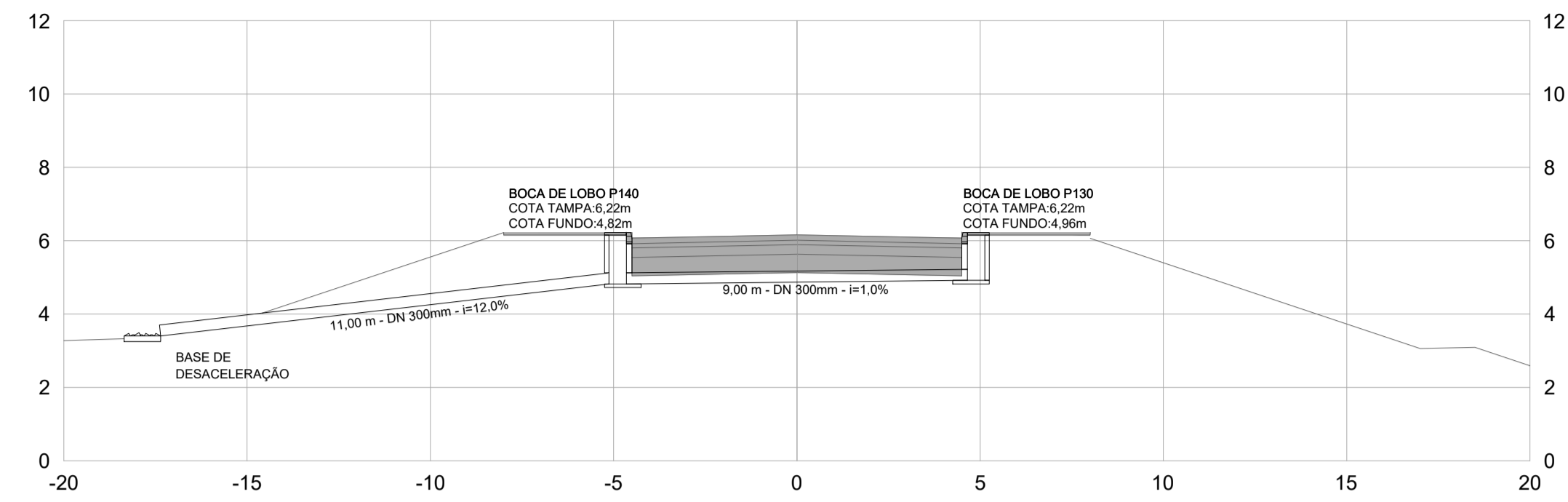


| | |
|--|---|
|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | |
| <p>EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ</p> | |
| <p>ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS</p> | |
| <p>PROJETO: DRENAGEM</p> | <p>DISCRIMINAÇÃO DA FRANCHA: PERFIL BOCAS DE SAÍDA E DE LOBO</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:150</p> | <p>ÁREA: -</p> |
| <p>DESENHO: Eng. Elen</p> | <p>DATA: JUNHO/2022</p> |
| <p>03/08</p> | |

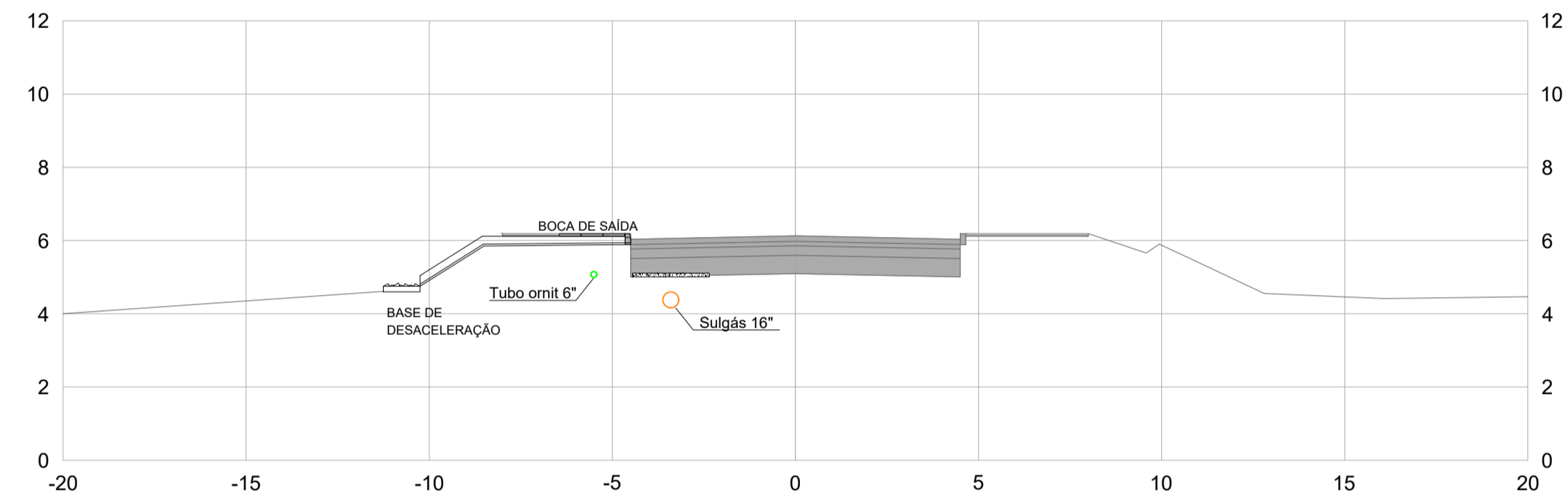
ESTACA 39+0.00
km 0+780.00



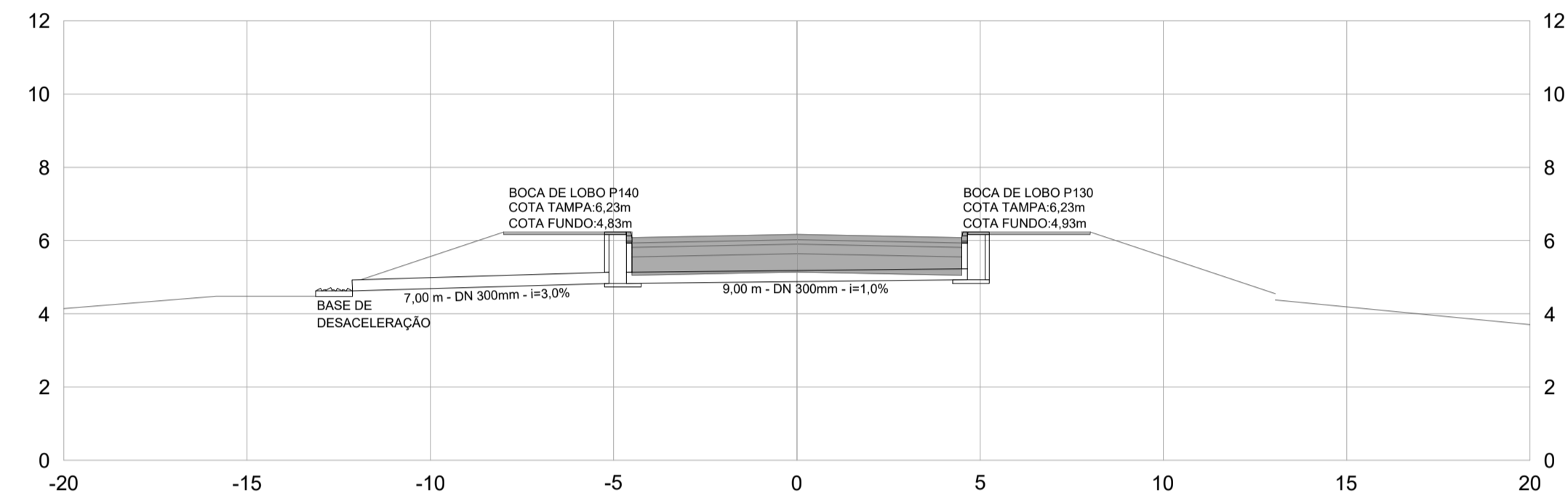
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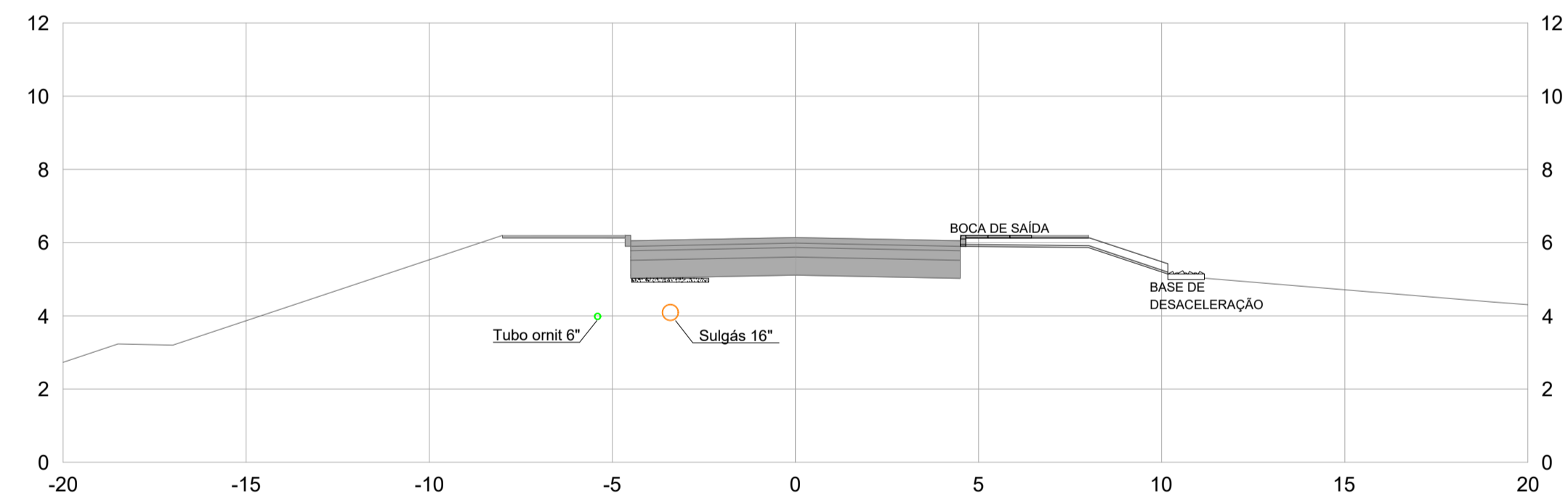
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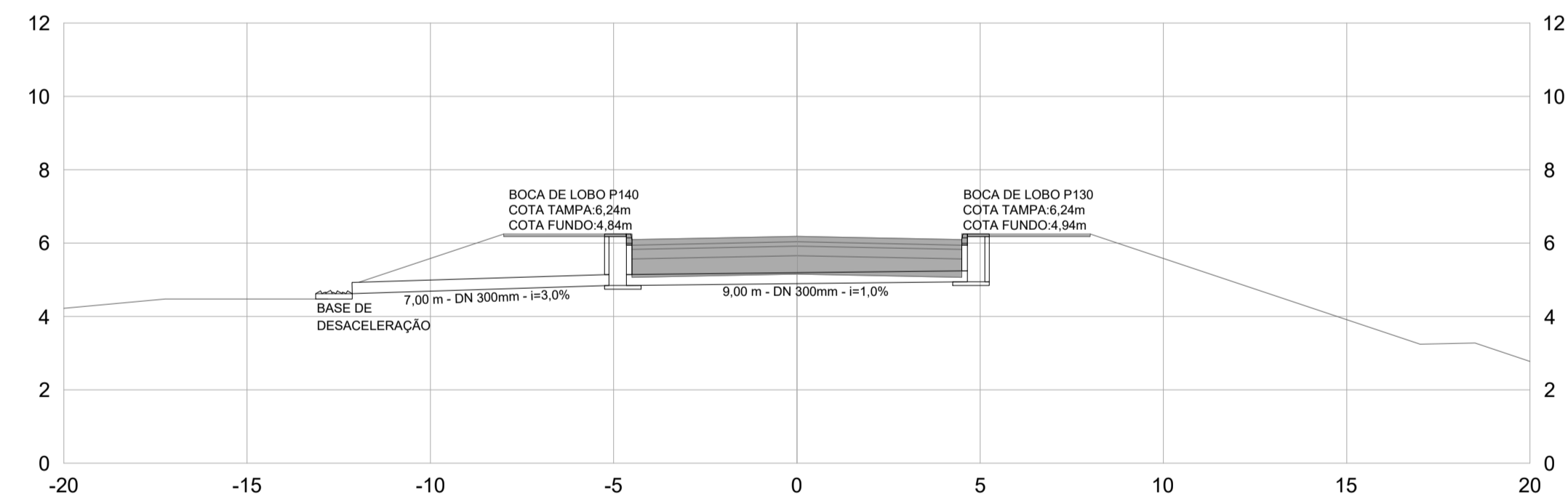
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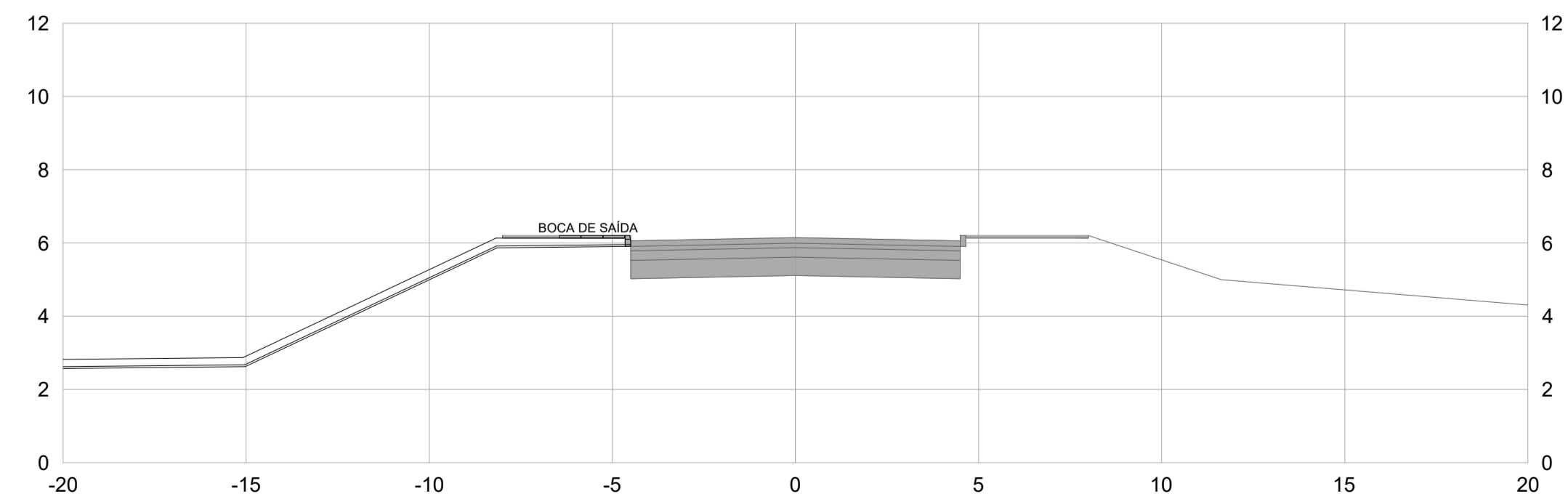
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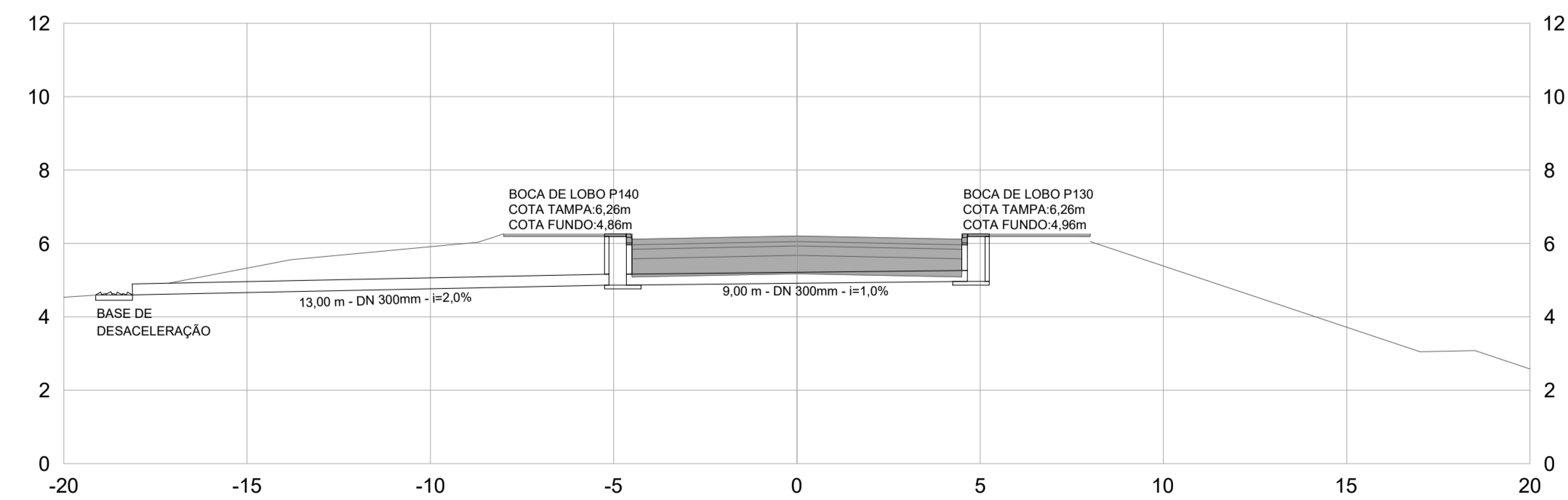
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km 1+280.00




ESTACA 49+6.00
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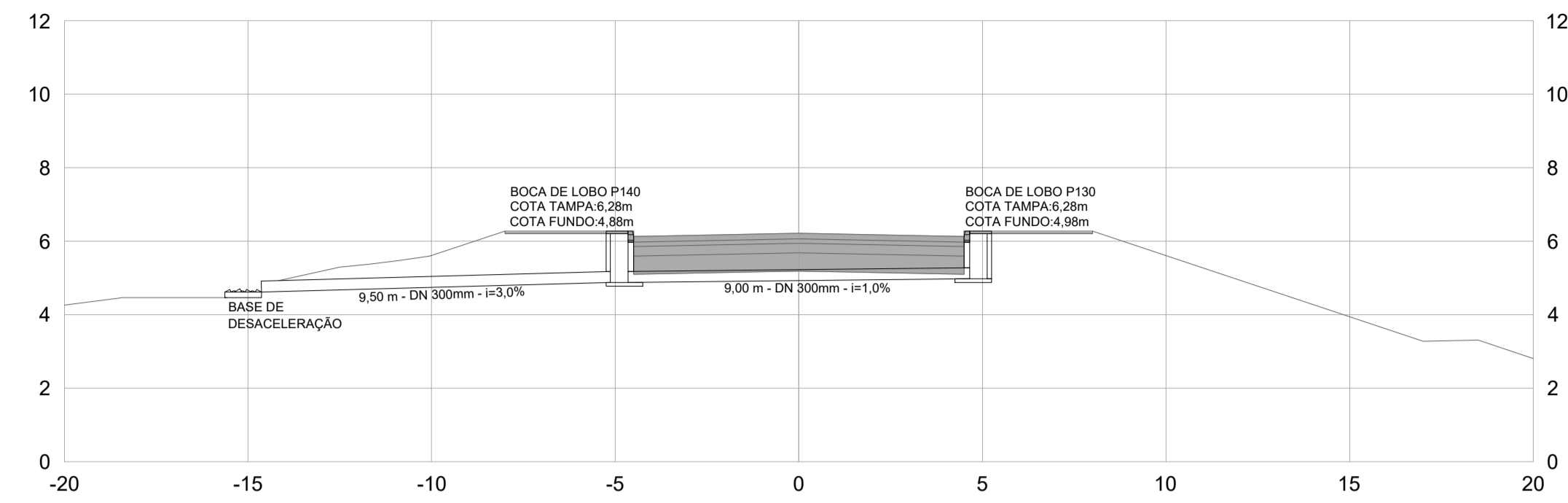


ESTACA 69+0.00
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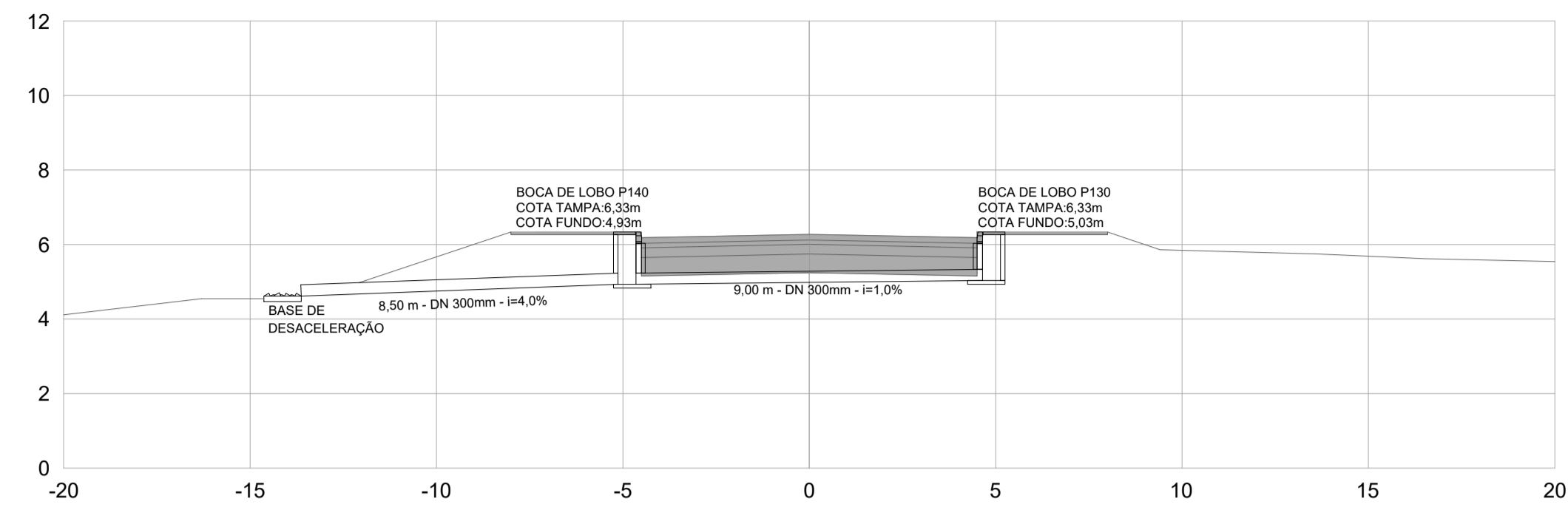


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|--|-----------------|------------------------------------|---------------------------------|
|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | | | |
| EMPREENDIMENTO: | | URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | | |
| PROJETO: | DRENAGEM | DISCRIMINAÇÃO DA FRANCHA: | PERFIL BOCAS DE SAÍDA E DE LOBO |
| RESPONSÁVEL TÉCNICO: | | | |
| Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: | ÁREA: | DESENHO: | DATA: |
| 1:150 | - | Eng. Elen | JUNHO/2022 |
| | | | 04/08 |

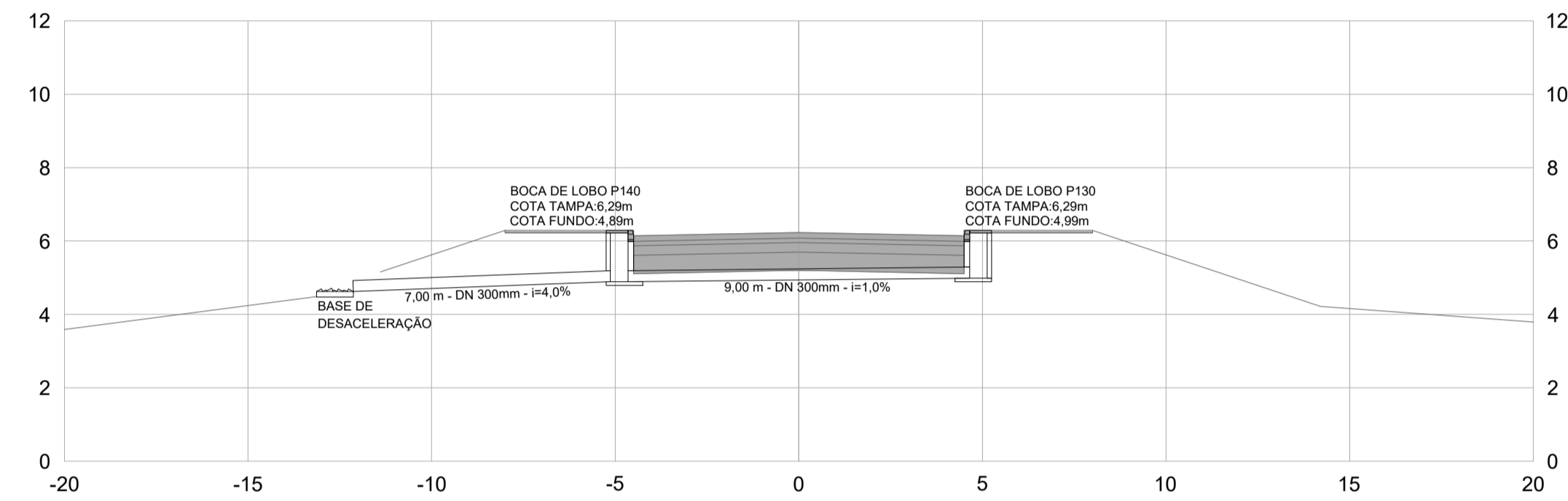
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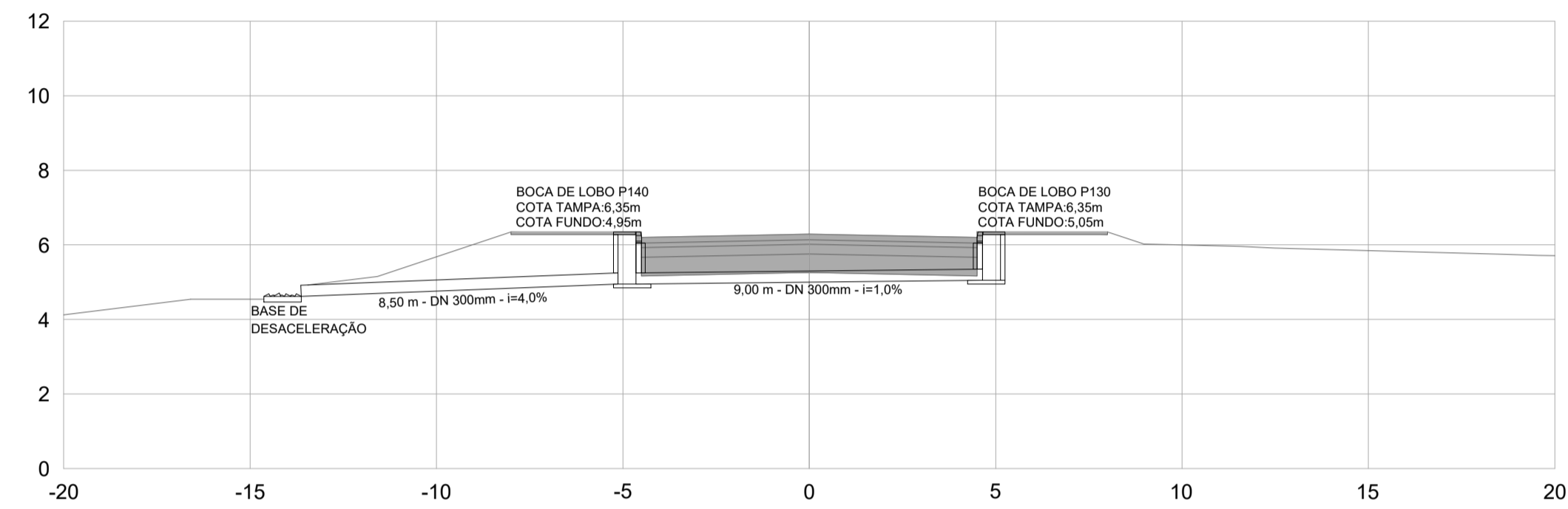
ESTACA 94+0.00
km 1+880.00



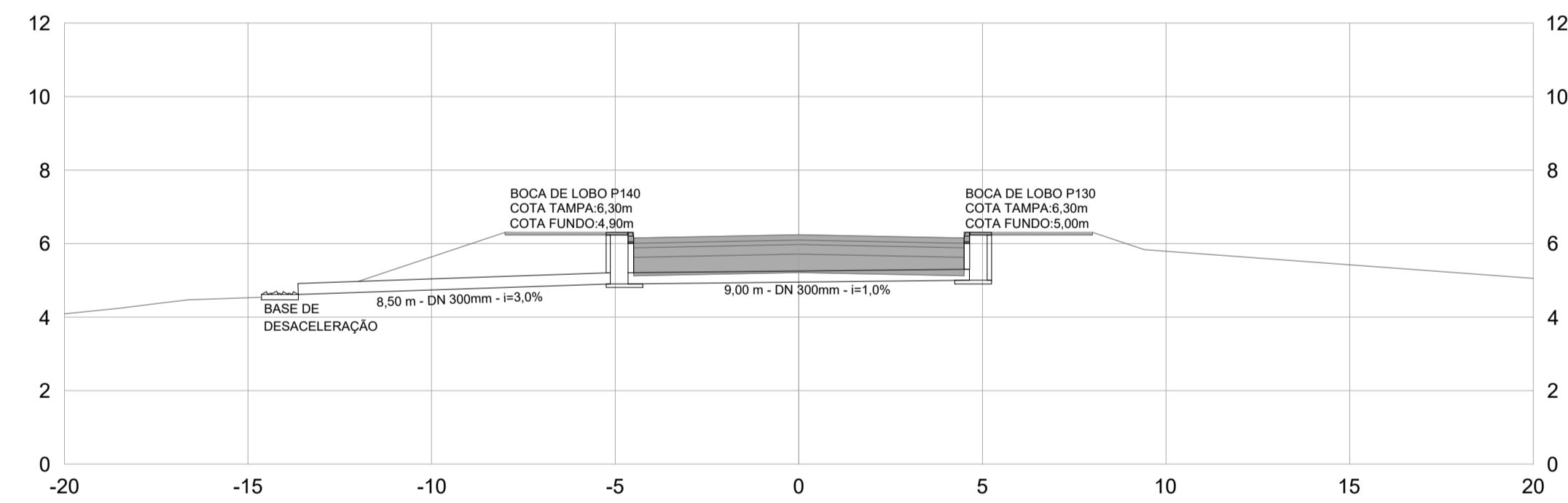
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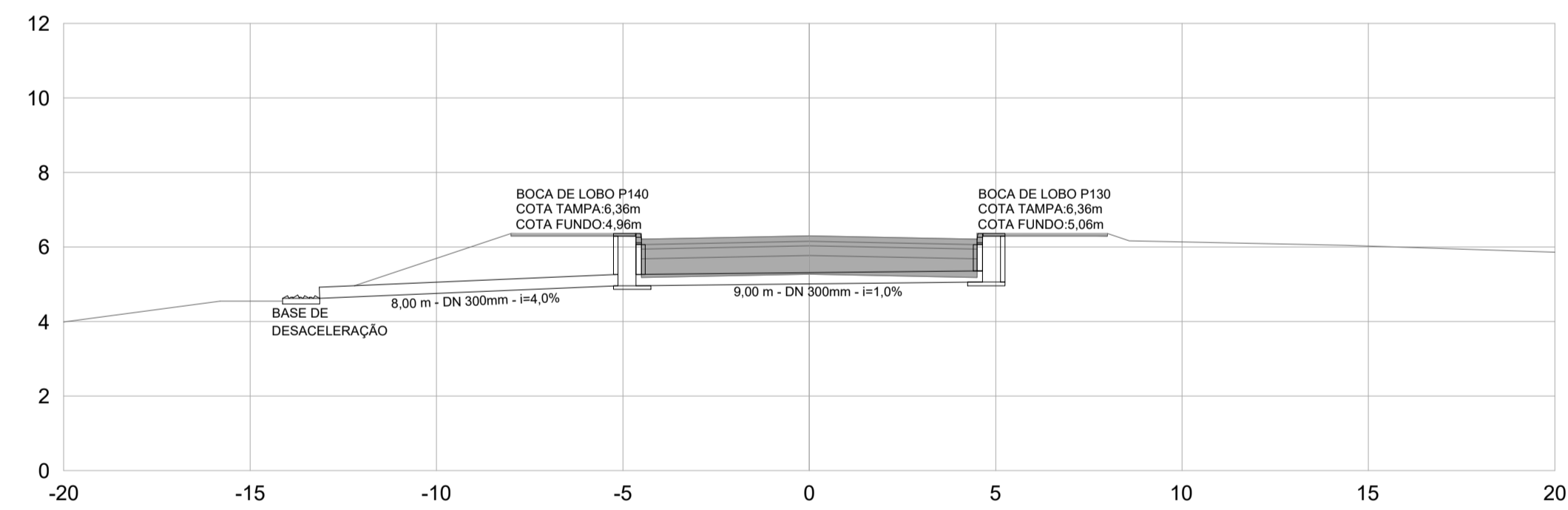
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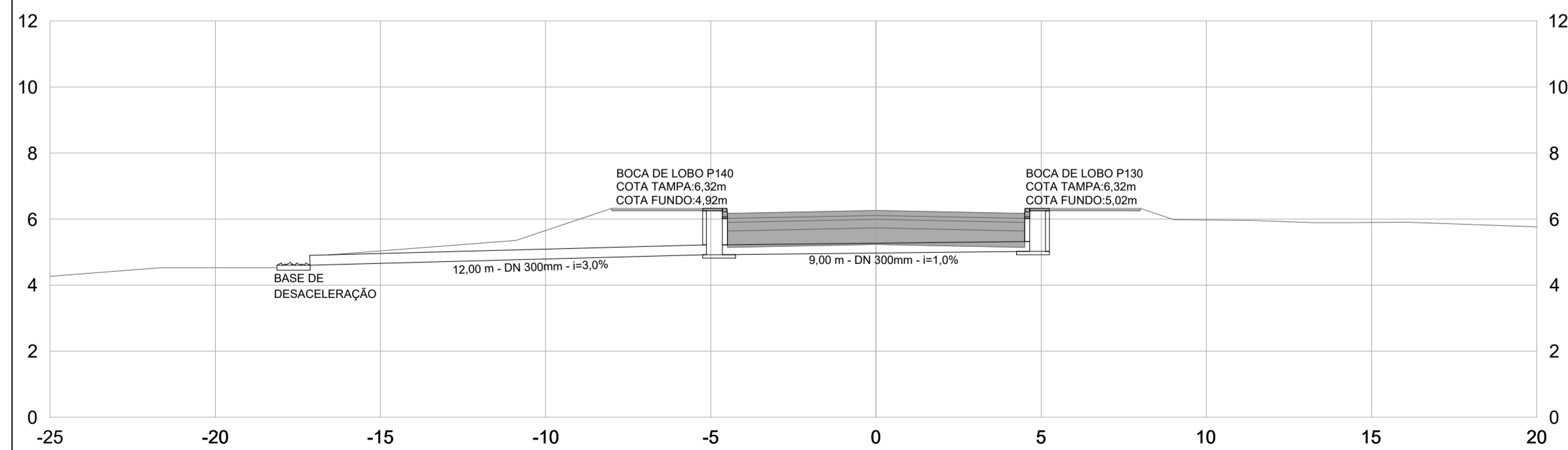
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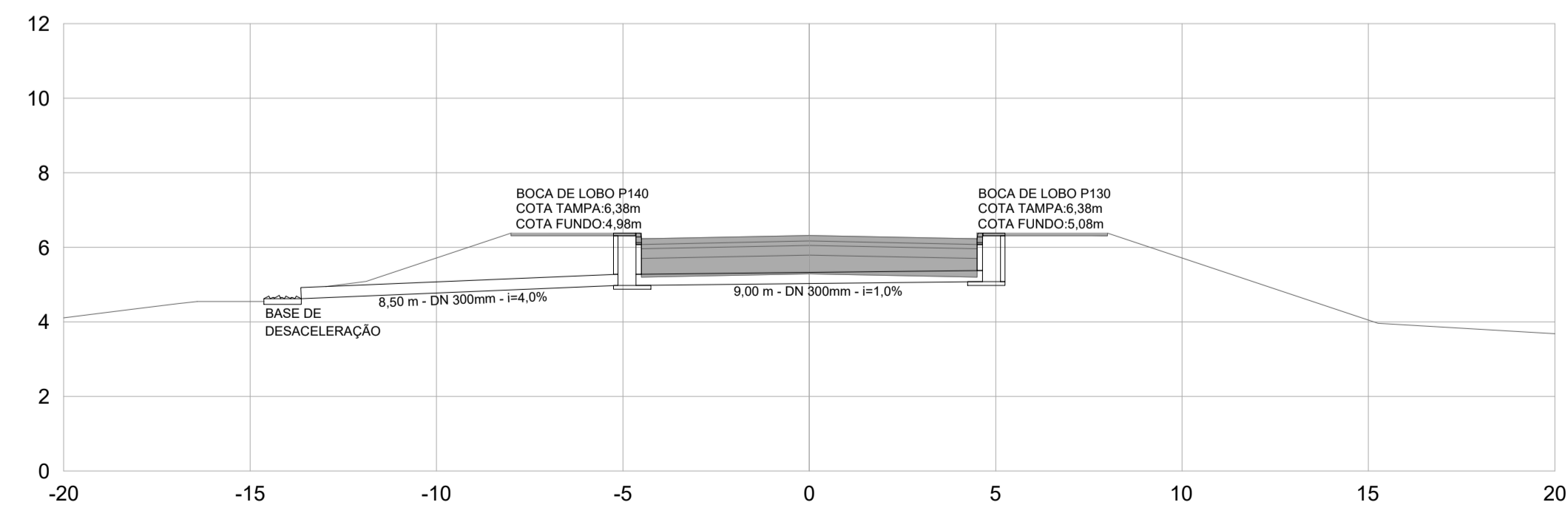
ESTACA 104+0.00
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ESTACA 89+0.00
km 1+780.00

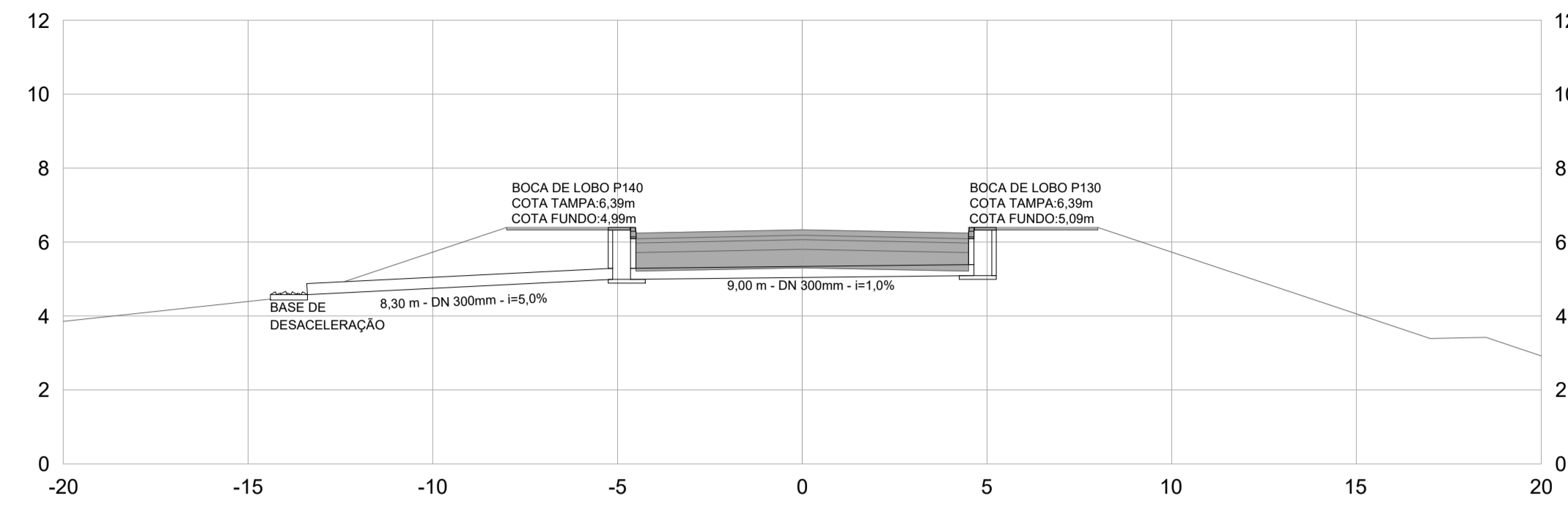


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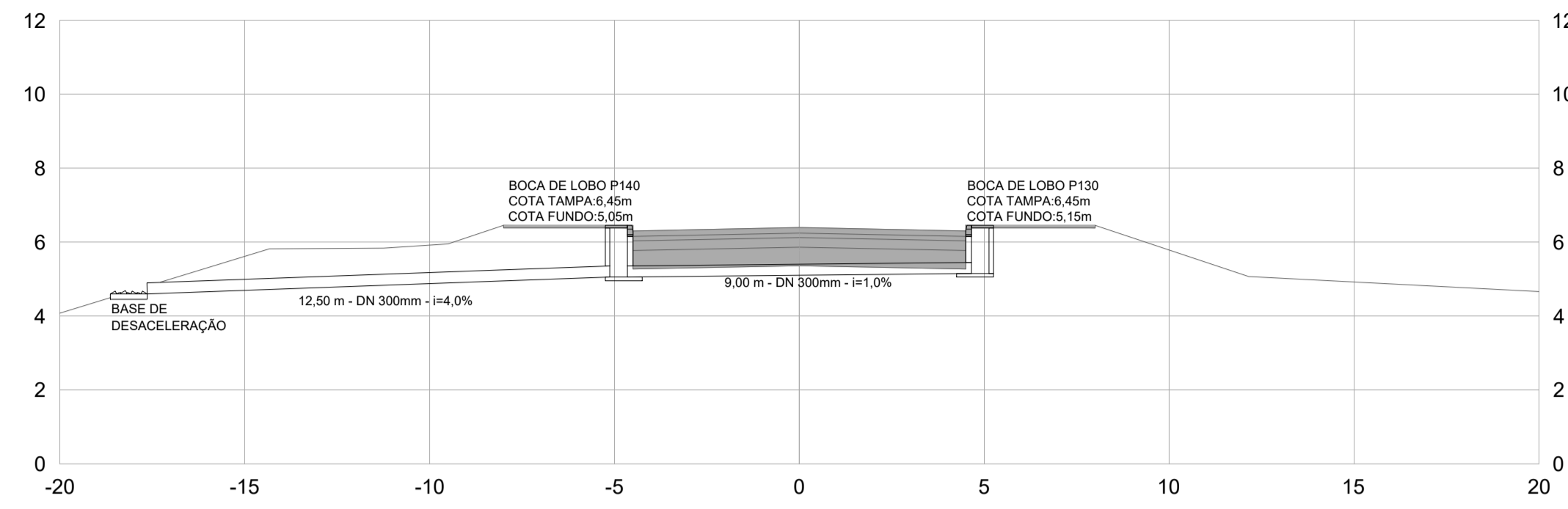


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|--|-------|--|------------|
|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | | | |
| EMPREENDIMENTO: | | URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | DISCRIMINAÇÃO DA FRANCHA: | |
| DRENAGEM | | PERFIL BOCAS DE SAÍDA E DE LOBO | |
| RESPONSÁVEL TÉCNICO: | | | |
| Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
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| 1:150 | - | Eng. Elen | JUNHO/2022 |
| | | | 05/08 |

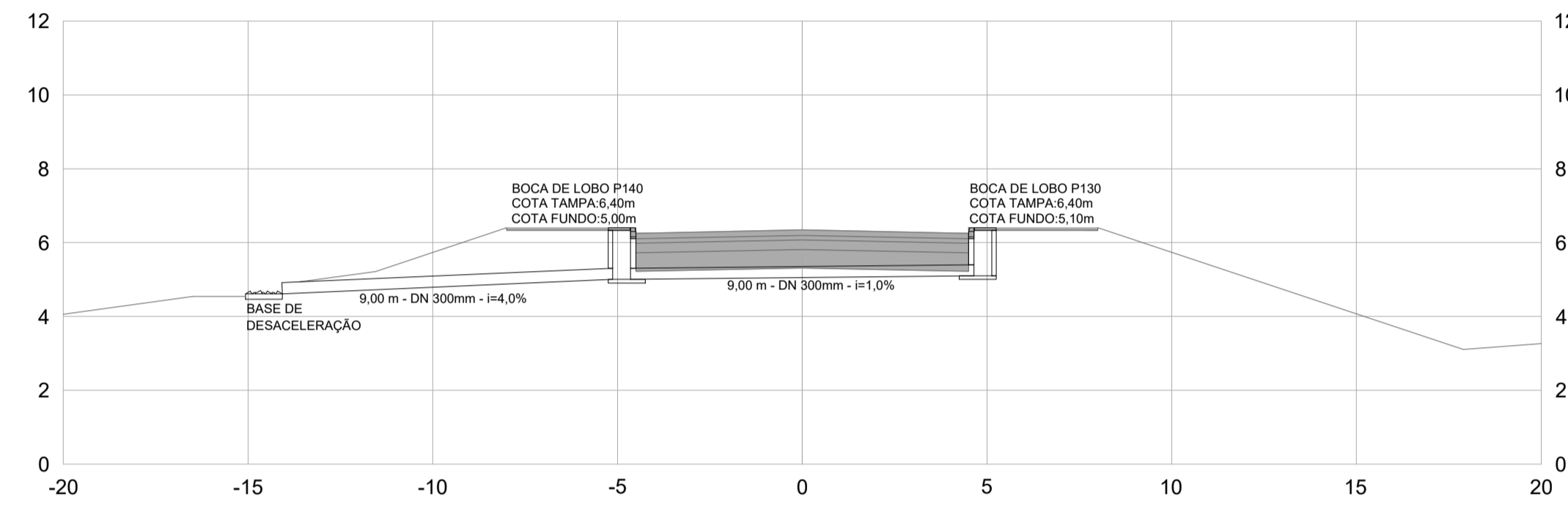
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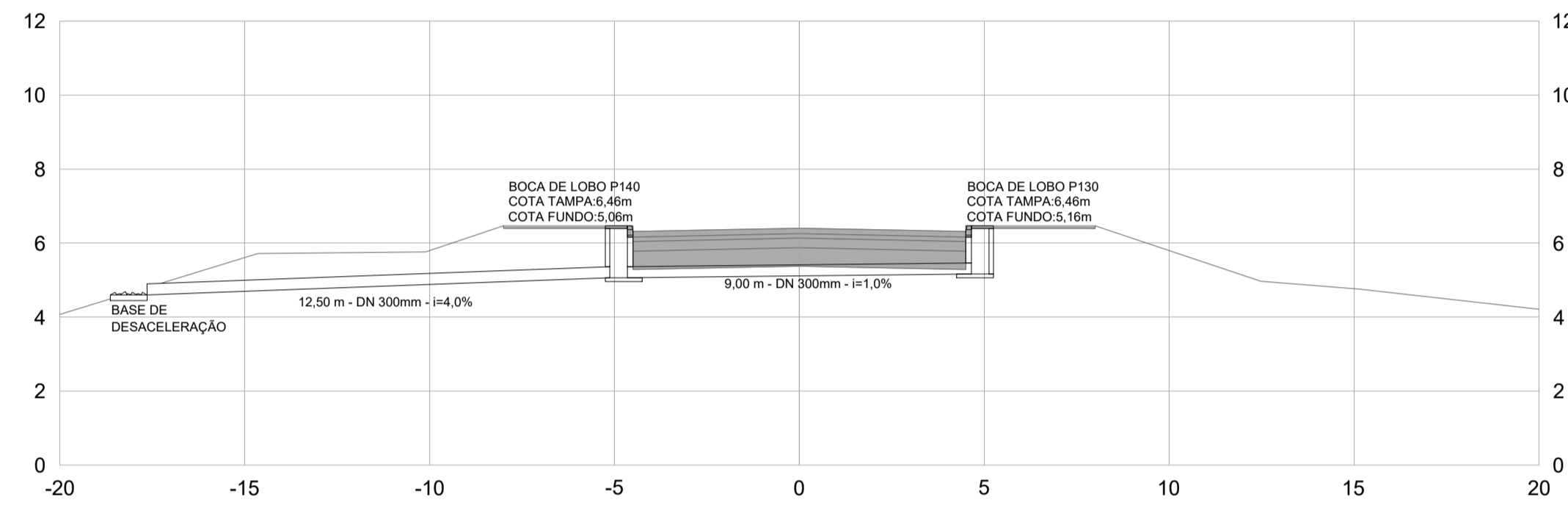
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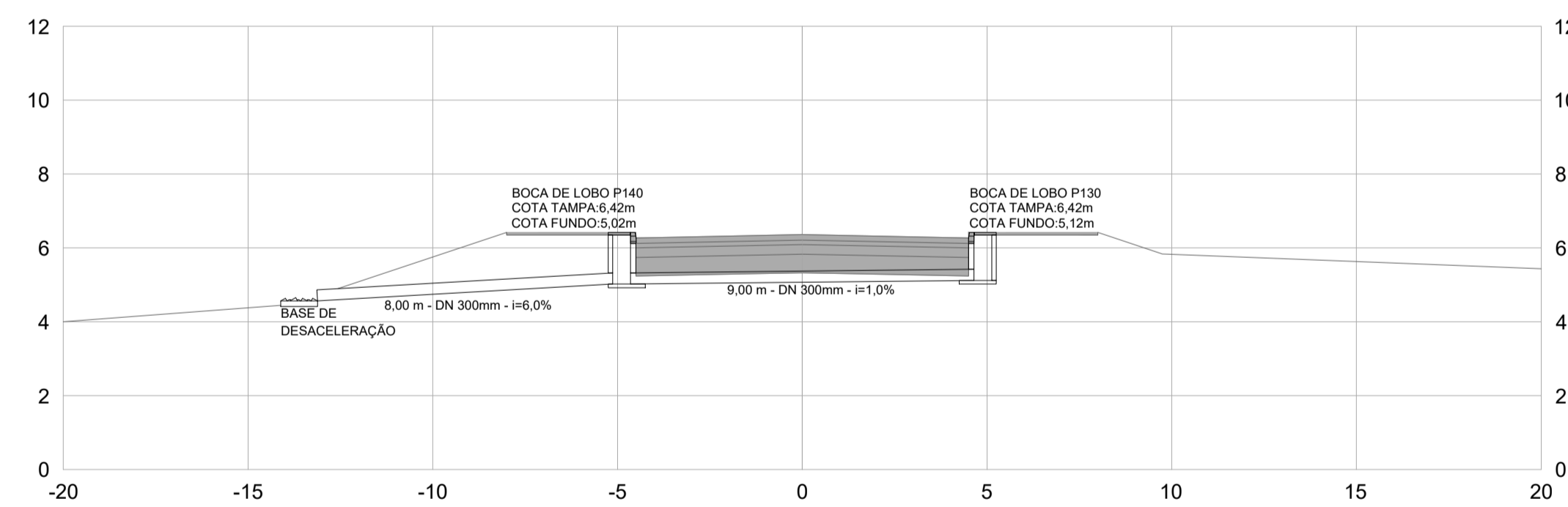
ESTACA 118+11.20
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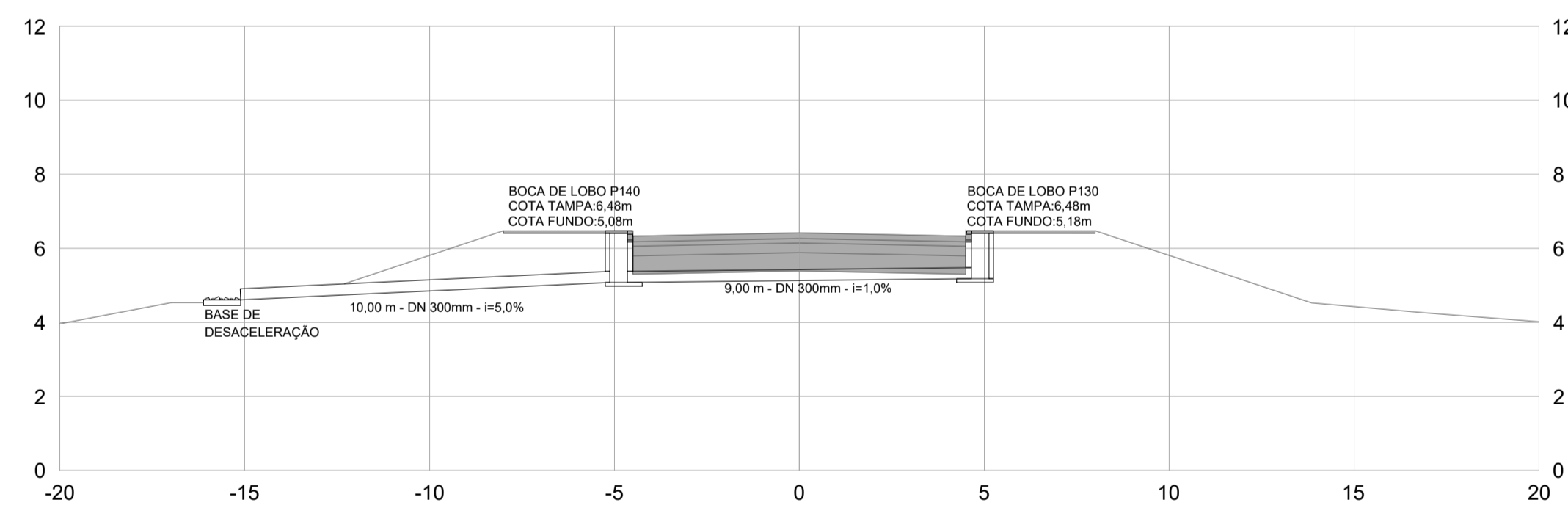
ESTACA 139+0.00
km 2+780.00



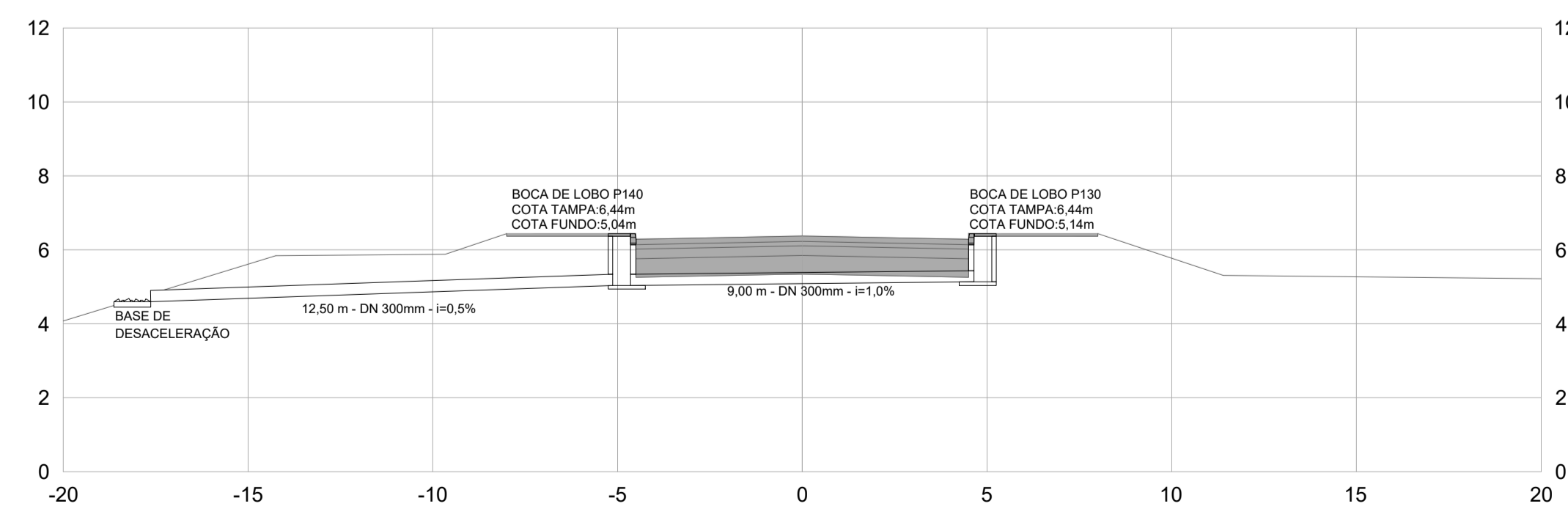
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km 2+480.00



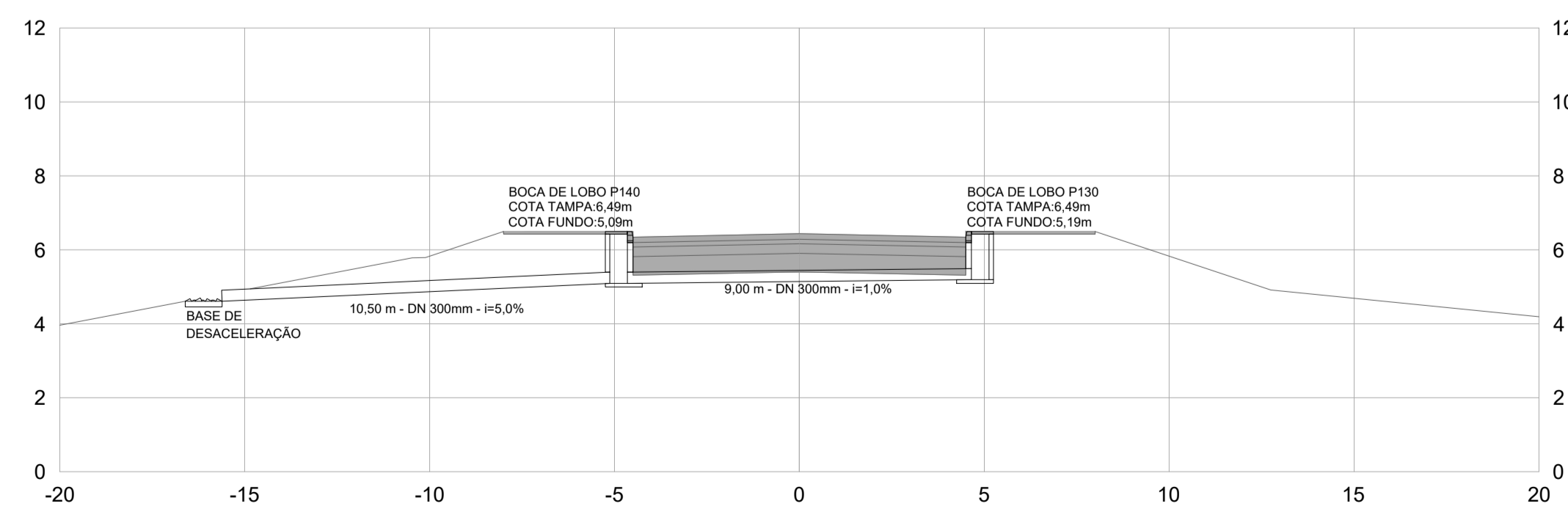
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ESTACA 129+0.00
km 2+580.00



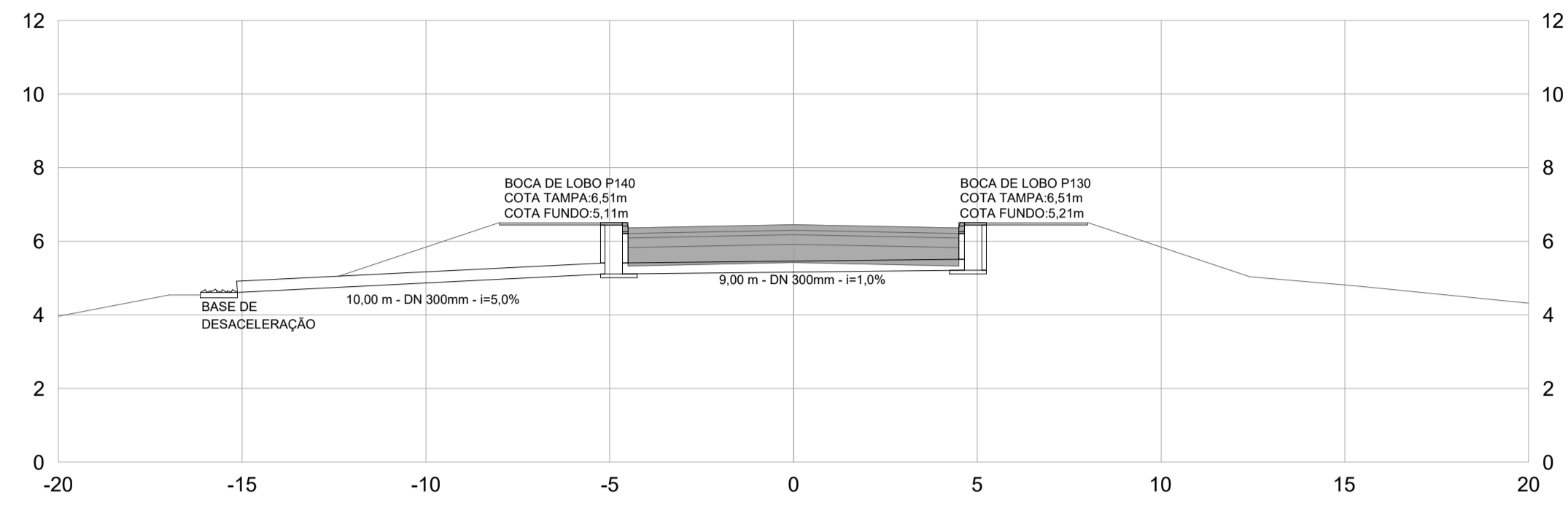
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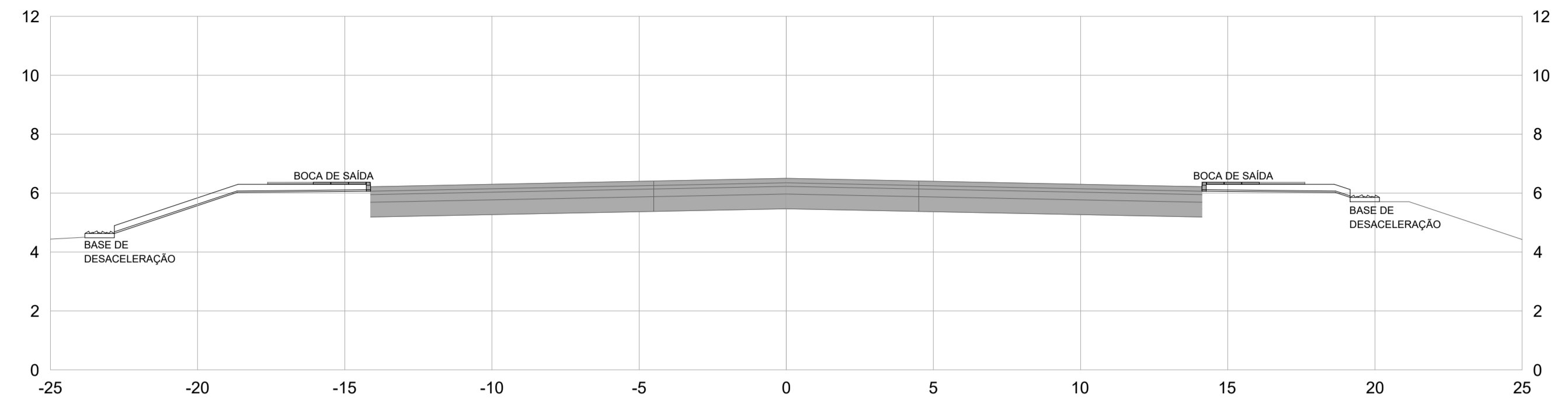
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|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | | | |
| EMPREENDIMENTO: | | URBANIZAÇÃO DA RUA GRAVATAÍ | |
| ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS | | DISCRIMINAÇÃO DA FRANCHA: PERFIL BOCAS DE SAÍDA E DE LOBO | |
| PROJETO: | DRENAGEM | | |
| RESPONSÁVEL TÉCNICO: | | | |
| Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: | ÁREA: | DESENHO: | DATA: |
| 1:150 | - | Eng. Elen | JUNHO/2022 |
| | | | 06/08 |



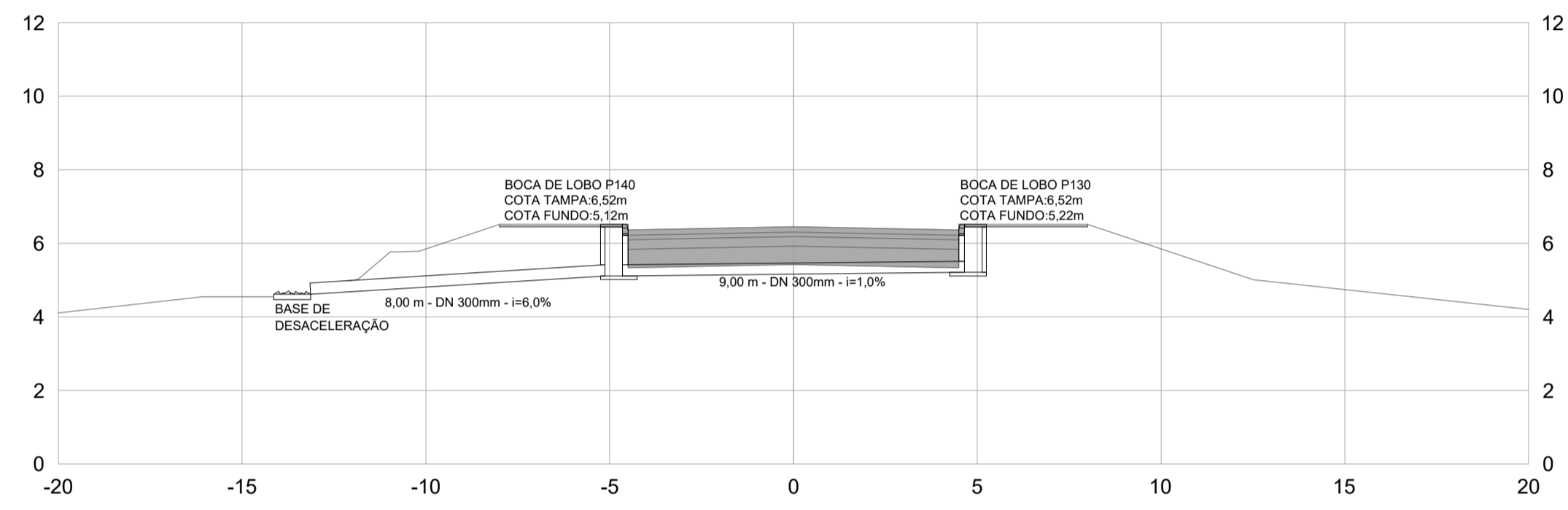
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km 3+080.00



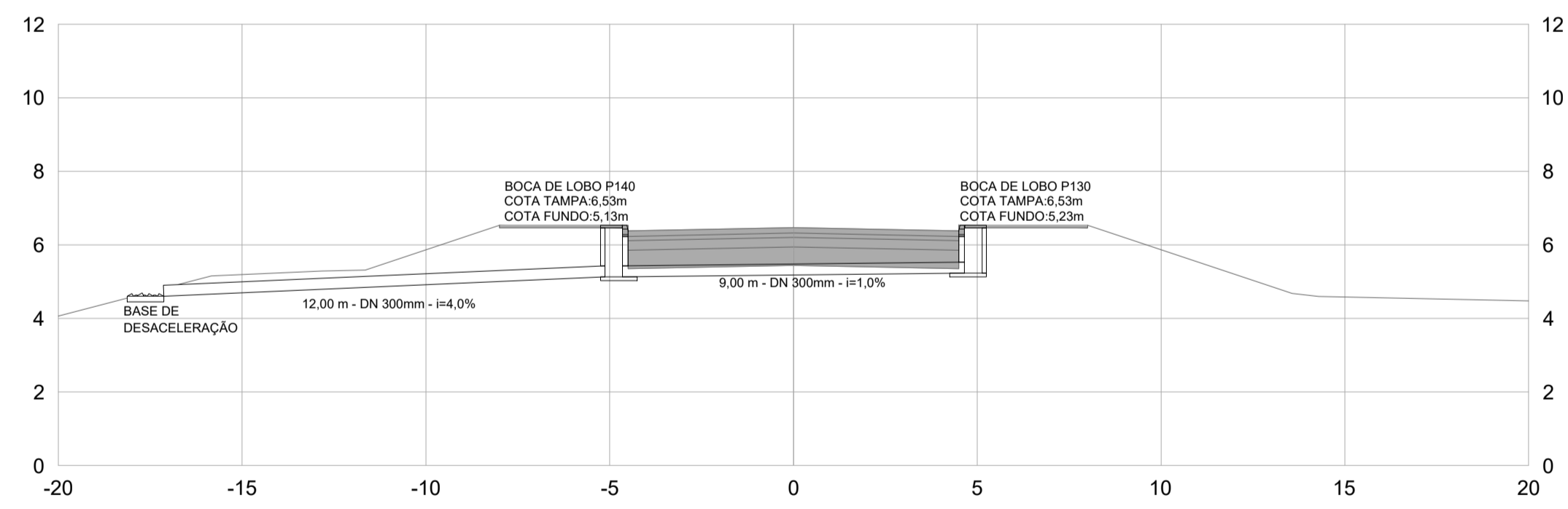
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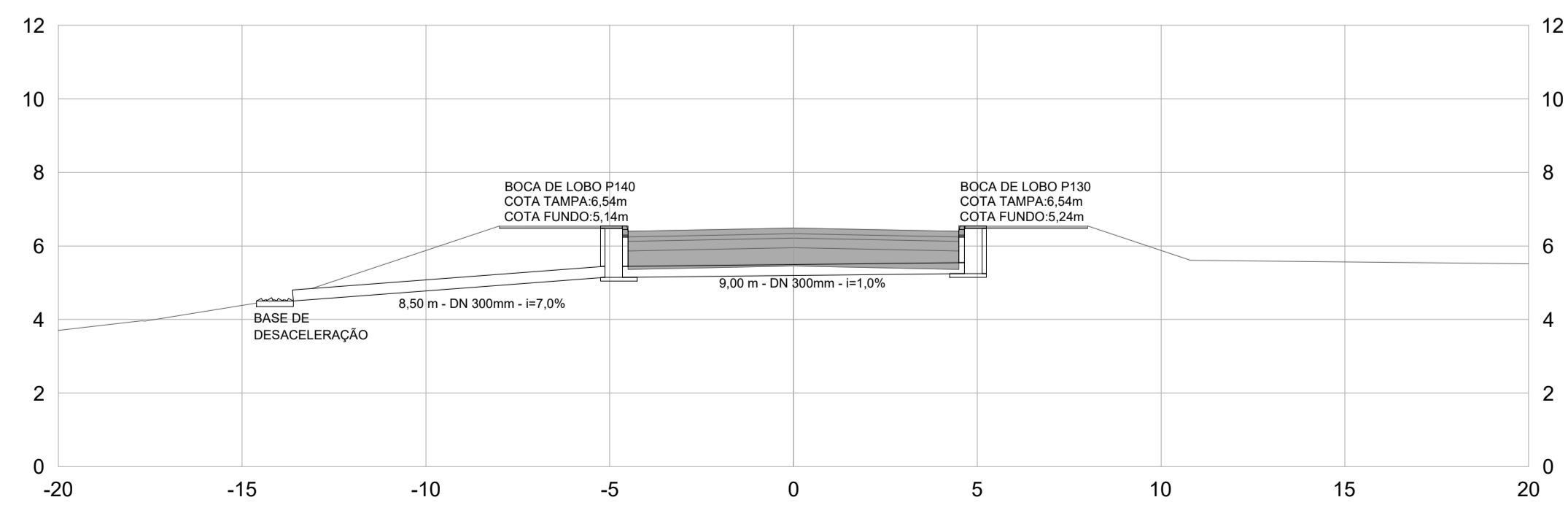
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km 3+240.00

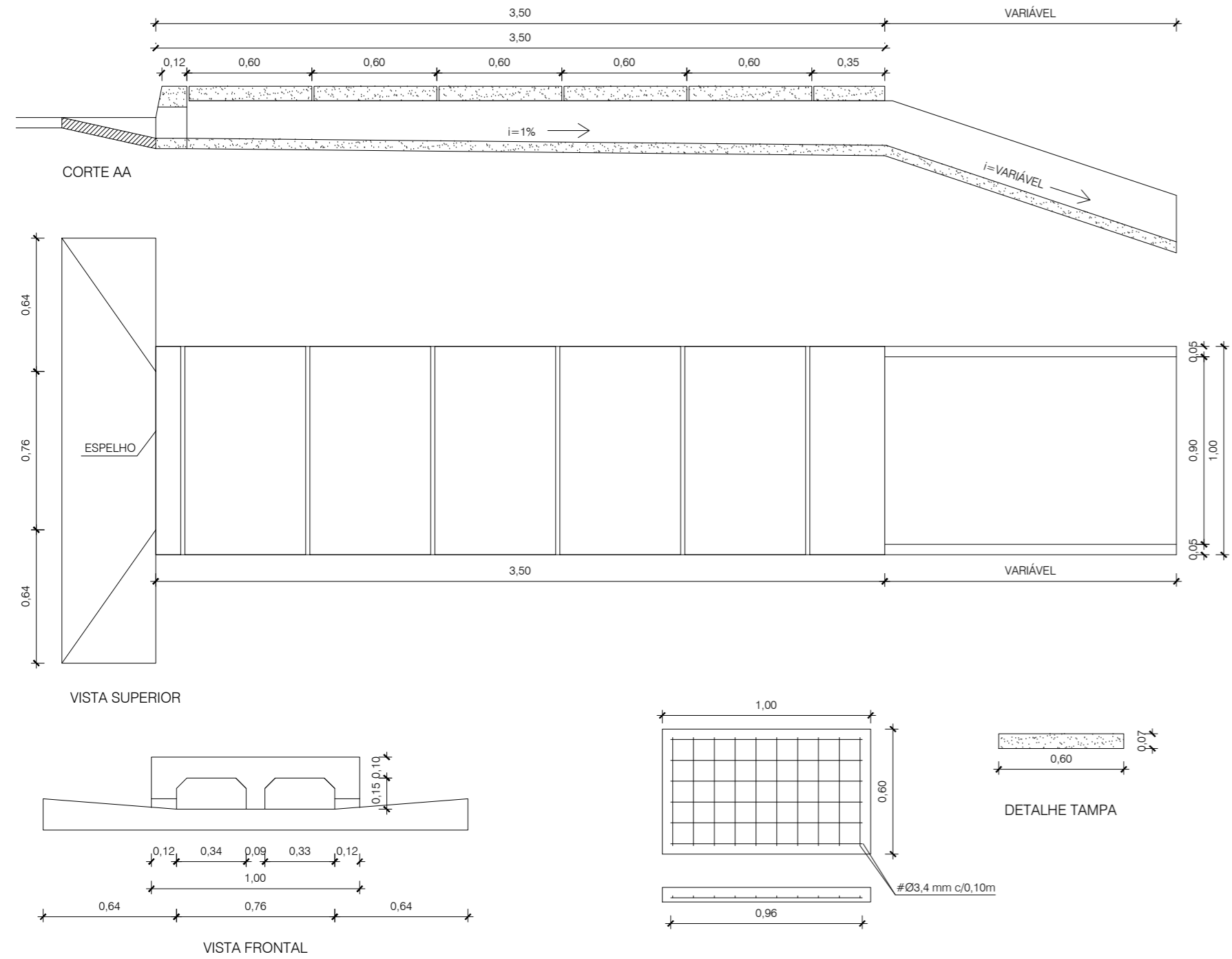


ESTACA 167+0.00
km 3+340.00

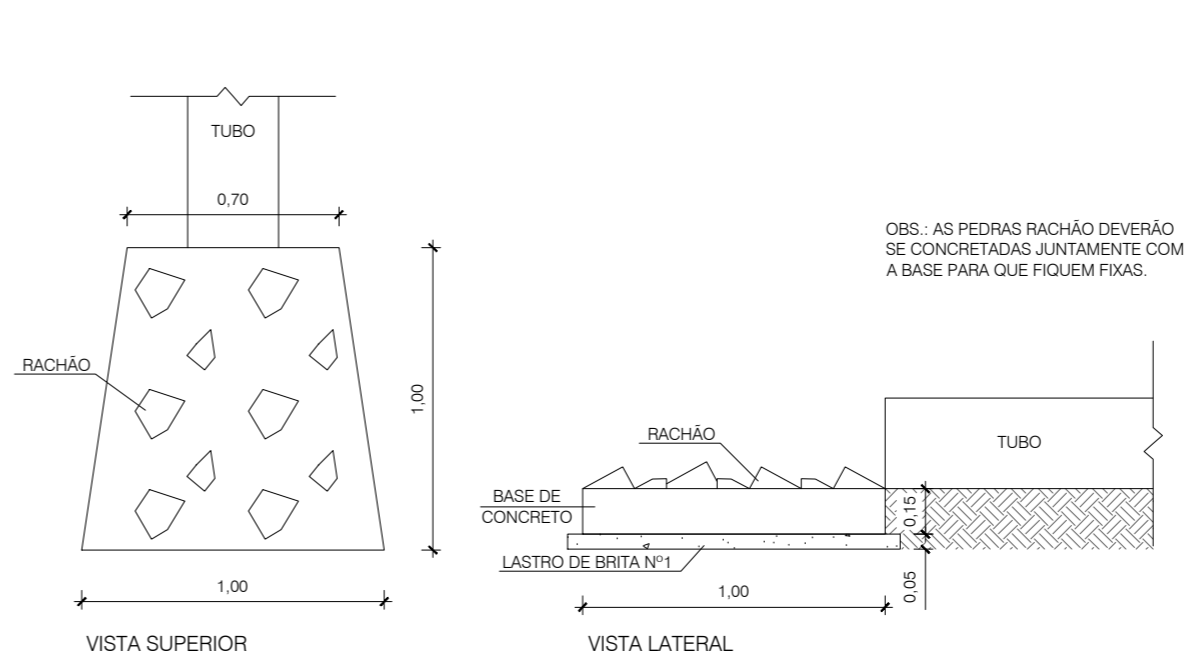


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|--|---|
|  <p>PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS</p> <p>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</p> | |
| <p>EMPREENDIMENTO: URBANIZAÇÃO DA RUA GRAVATAÍ</p> | |
| <p>ENDEREÇO: Rua Gravataí, s/nº - Bairro Niterói, Canoas/RS</p> | |
| <p>PROJETO: DRENAGEM</p> | <p>DISCRIMINAÇÃO DA PRANCHA: PERFIL BOCAS DE SAÍDA E DE LOBO</p> |
| <p>RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</p> | |
| <p>ESCALA: 1:150</p> | <p>ÁREA: -</p> |
| <p>DESENHO: Eng. Elen</p> | <p>DATA: JUNHO/2022</p> |
| <p>07/08</p> | |

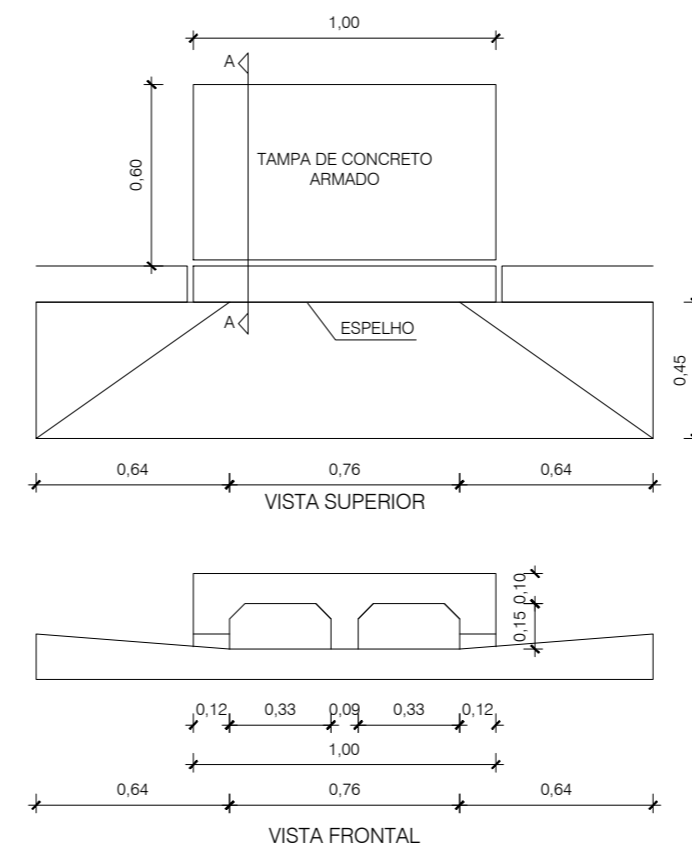
DETALHE BOCA DE SAÍDA (BS)



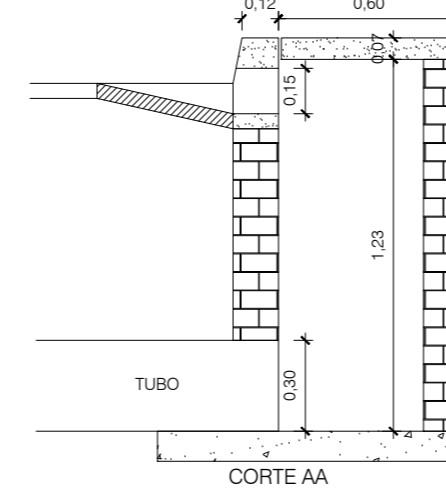
DETALHE BASE DE DESACELERAÇÃO



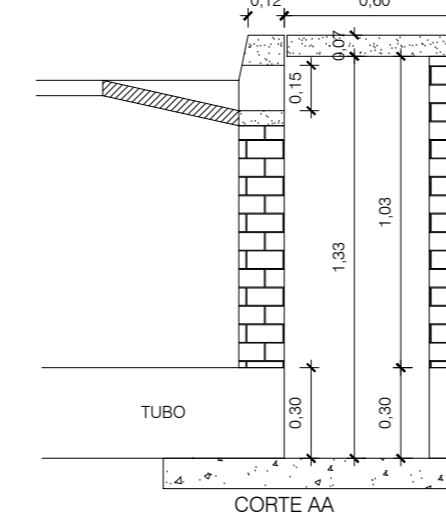
DETALHE BOCA DE LOBO (BL)



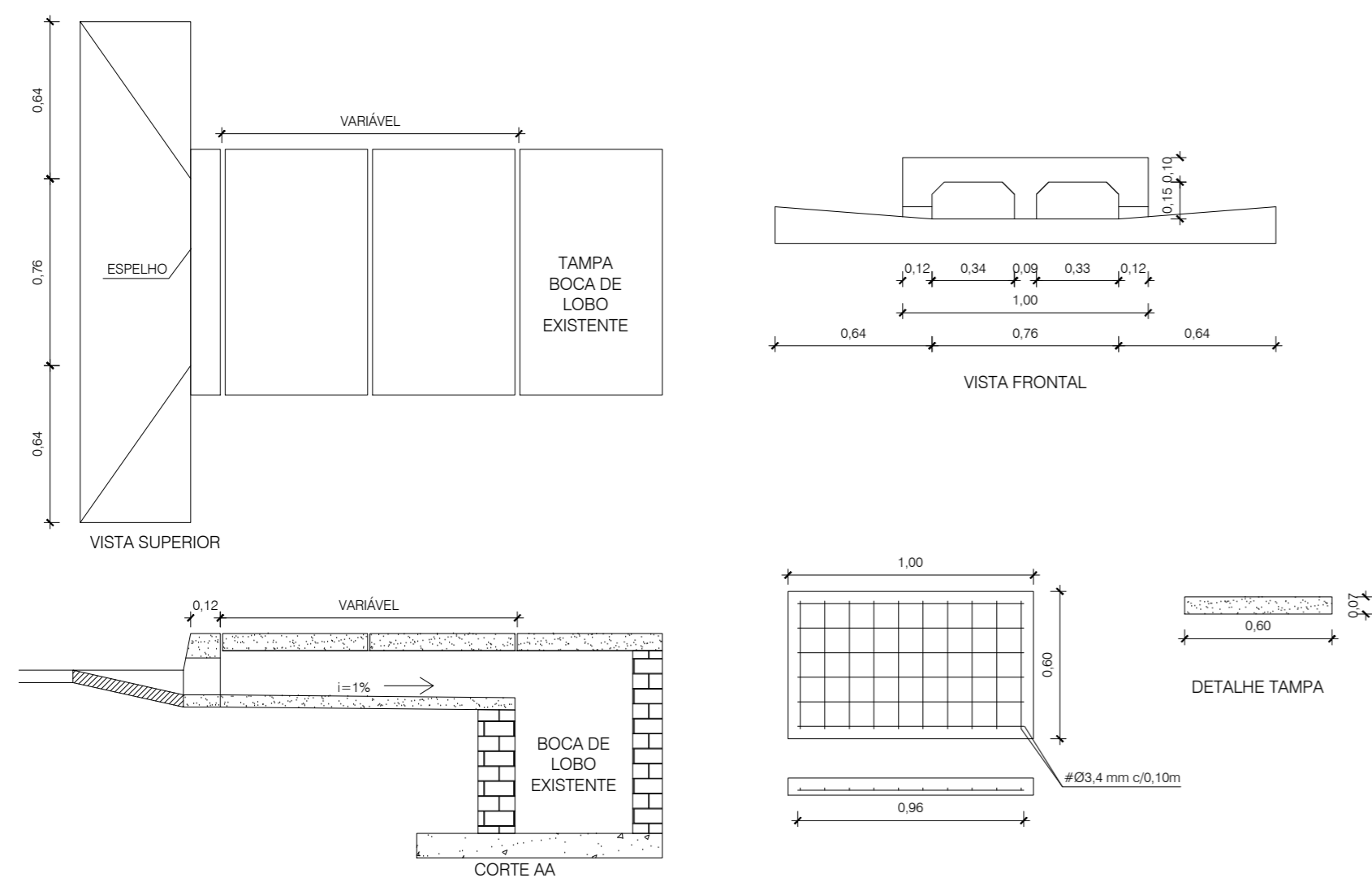
BL P130



BL P140



DETALHE PROLONGAMENTO DE BOCA DE LOBO EXISTENTE (BLE)



PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS

Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

EMPREENDIMENTO:

URBANIZAÇÃO DA RUA GRAVATAÍ

ENDEREÇO: Rua Gravataí, s/ nº - Bairro Niterói, Canoas/RS

PROJETO:

DRENAGEM

DISCRIMINAÇÃO DA PRANCHA:

DETALHES

RESPONSÁVEL TÉCNICO:

Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984



ESCALA:

1:25

ÁREA:

-

DESENHO:

Eng. Elen

DATA:

JUNHO/2022

08/08

DECLARAÇÃO DE ILUMINAÇÃO PÚBLICA

Informamos, por meio deste, que a Prefeitura Municipal de Canoas/RS se responsabiliza pelo consumo de energia elétrica gerado através da implantação de **64 luminárias no trecho novo da Rua Gravataí/Dique e 33 luminárias no trecho de reforma da rua**, constante no projeto de implantação de rede elétrica de distribuição, conforme descrição abaixo:

DADOS TÉCNICOS PARA CADASTRO:

- Município Solicitante: Canoas/RS
- Obra: Pavimentação da Rua Gravataí/Dique
- Endereço: Rua Gravataí/Dique, Bairro Niterói
- Número de pontos: 33 pontos no trecho de reforma e 64 pontos no trecho novo do projeto elétrico da Rua Gravataí/Dique.
- Tipo de luminária: LED branca, com potência máxima de 150 W.
- Acionamento/comando: sistema de acionamento (driver) integrado ao corpo da luminária.
- Tipo de condutor: Cabo de conexão com a rede BT em cobre flexível isolamento PVC 70°C, 0,6/1kV, seção mínima 2x1,5mm².
- Tipo de braço: Braços em tubo de aço carbono de diâmetro externo de 60,3 mm, projeção horizontal de 2350 mm e a vertical de 1750mm; Base (sapata) em aço carbono, em forma de perfil ou chapa dobrada, espessura de 5 mm; Aleta de fixação do tubo à base em aço carbono, espessura mínima de 5 mm.

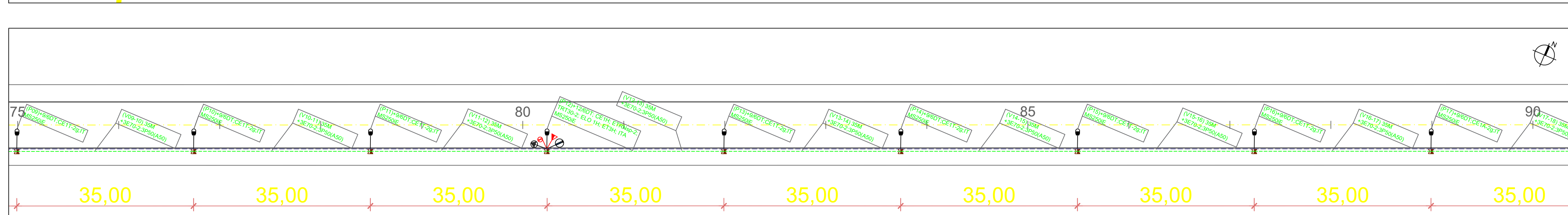
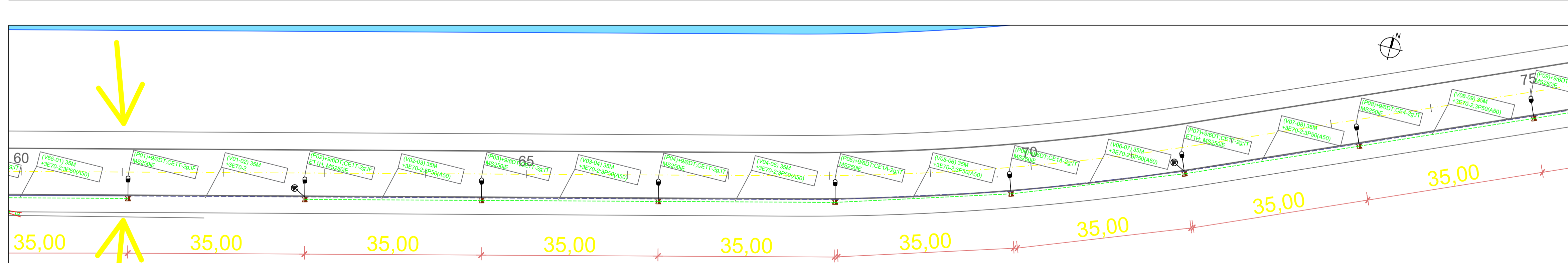
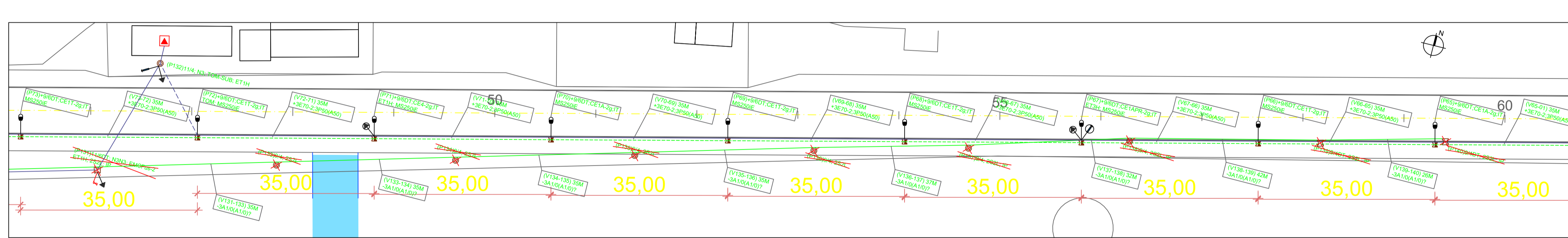
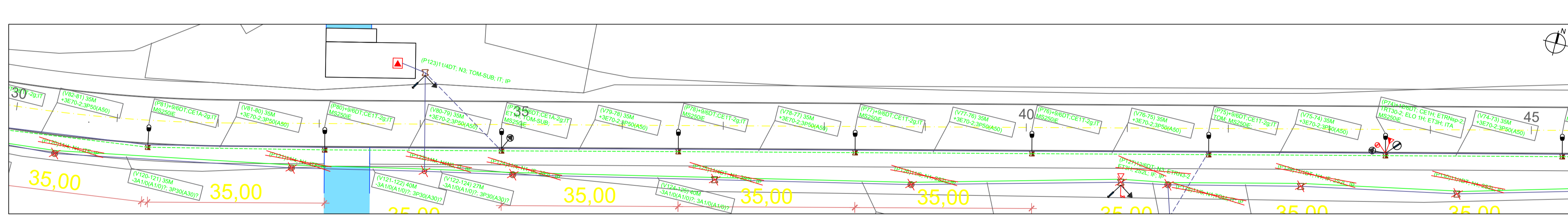
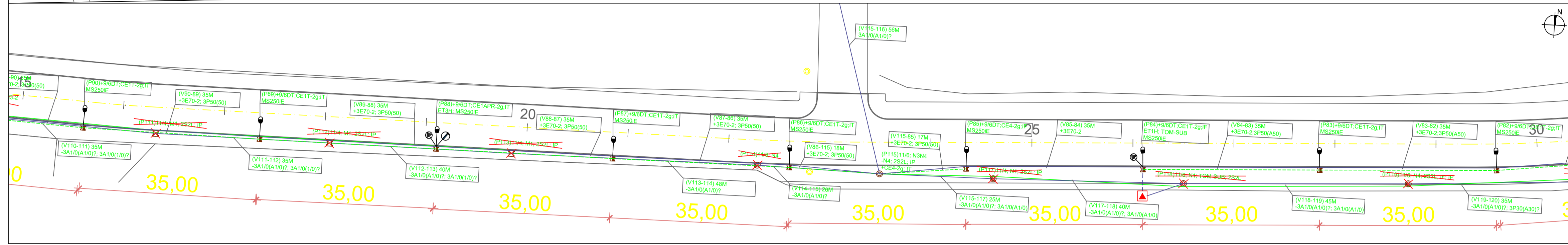
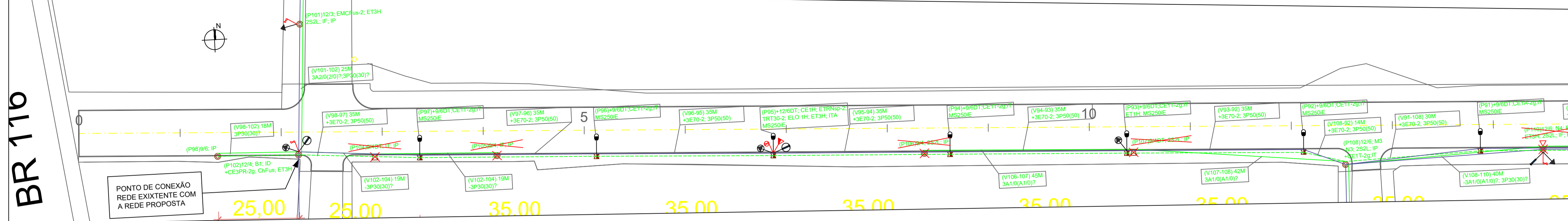
Responsável Técnico:

Eng. Eletricista Tiago Ortiz de Oliveira

Ciente/Aprovado:

Prefeitura Municipal de Canoas/RS

BR 110



LEGENDA

- ⊙ Poste de Concreto Circular - Proposto
- ⊙ Poste de Concreto Circular - Existente
- ⊠ Poste de Concreto Duplo T - Proposto
- ⊠ Poste de Concreto Duplo T - Existente
- ⊠ Poste de Madeira - Proposto
- ⊠ Poste de Madeira - Existente
- ⊠ Poste de Concreto Quadrado - Proposto
- ⊠ Poste de Concreto Quadrado - Existente
- ⊠ Poste de Aço Treliça - Proposto
- ⊠ Poste de Aço Treliça - Existente
- ⚡ Transformador em Poste - Existente
- ⚡ Transformador em Poste - Proposto
- ⚡ Chave Fusível Aéreo NF - Proposto
- ⚡ Chave Fusível Aéreo NF - Existente
- ⚡ Para-raios 21kV - Proposto
- ⚡ Para-raios 21kV - Existente
- ⚡ Elemento Terra - Proposto
- ⚡ Elemento Terra - Existente
- ⚡ Iluminação Pública - Proposto
- ⚡ Iluminação Pública Desconhecida - Existente
- Rede Primária - Existente
- Rede Primária - Proposto
- Rede Secundária - Existente
- Rede Secundária - Proposto

PREFEITURA MUNICIPAL DE CANOAS
SECRETARIA MUNICIPAL DE OBRAS
Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565

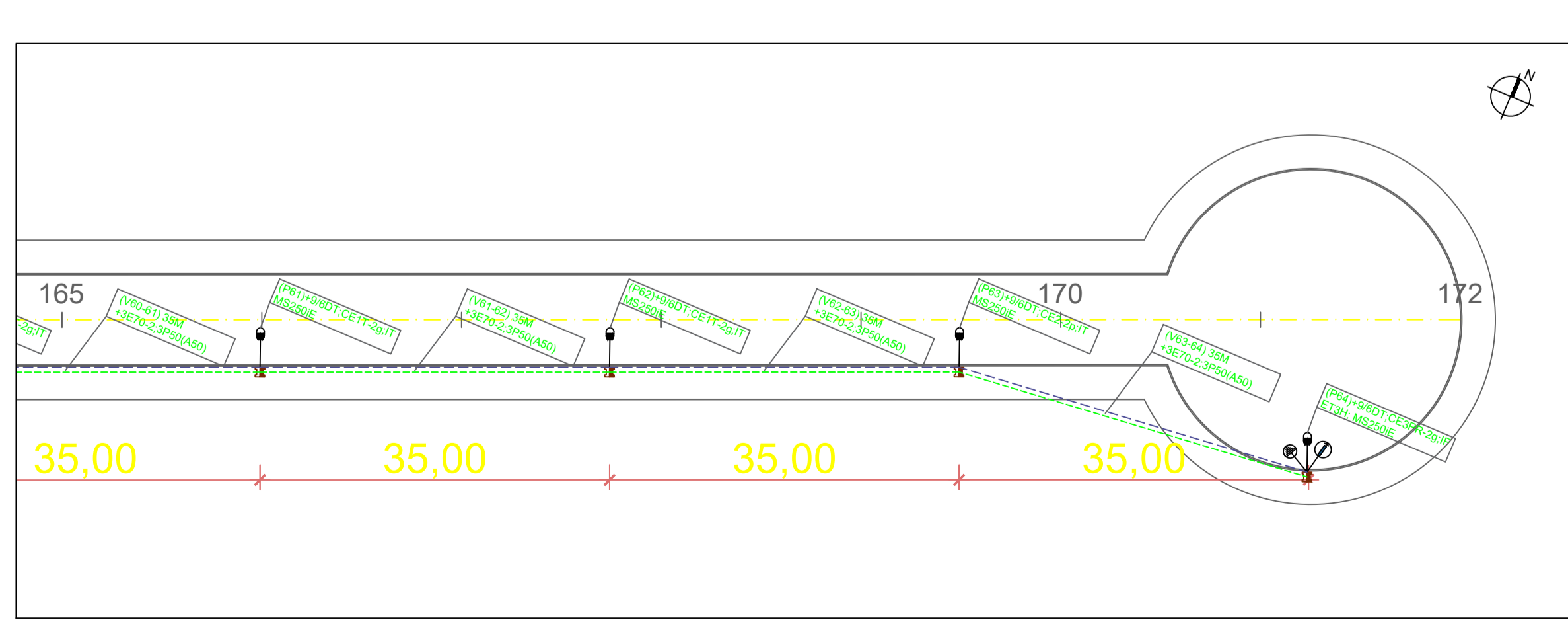
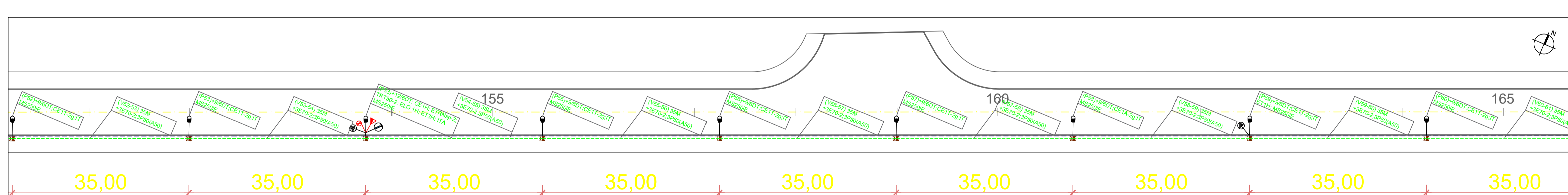
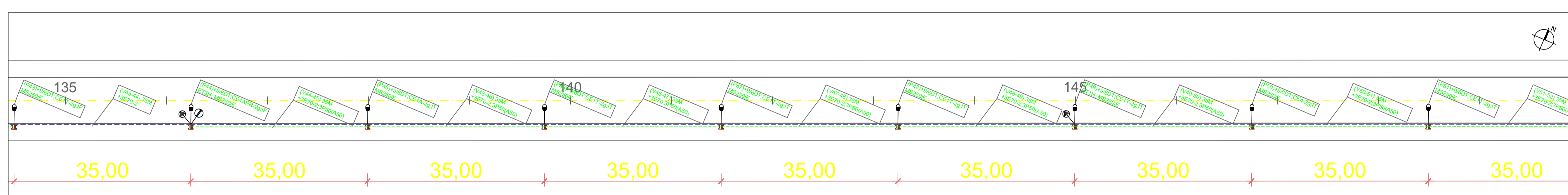
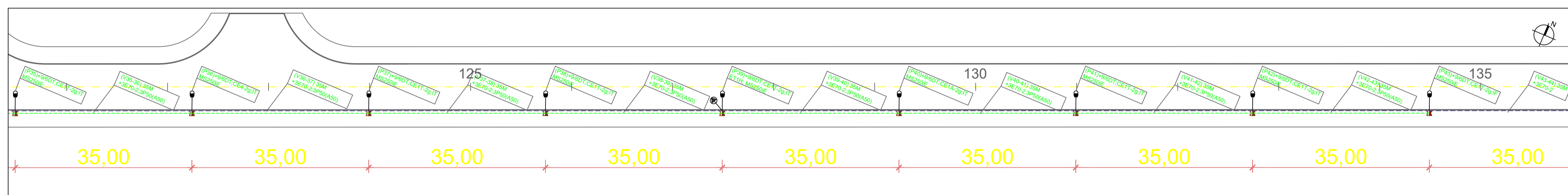
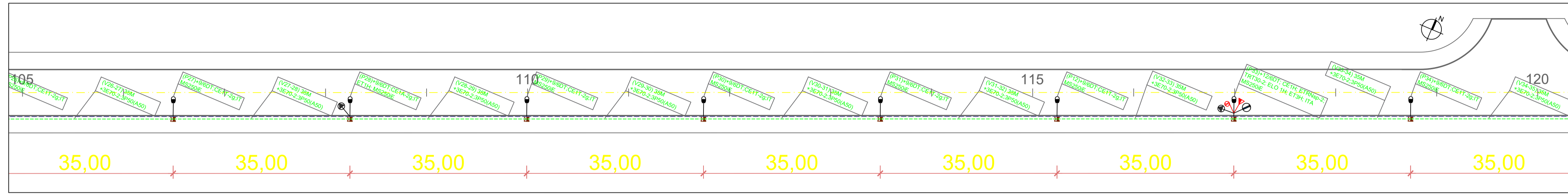
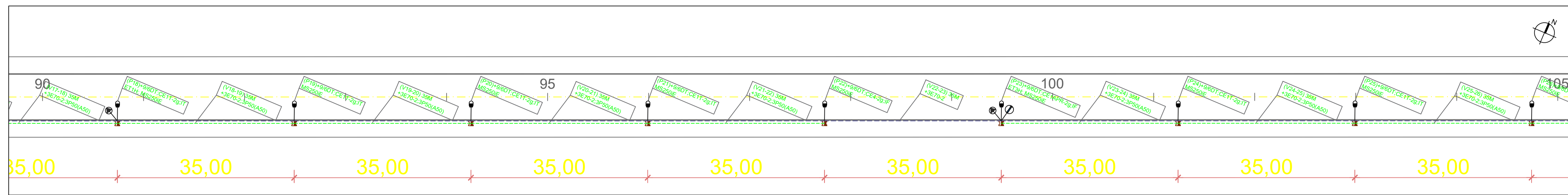
EMPREENDIMENTO: RUA GRAVATAÍ/DIQUE

ENDEREÇO: Ruas Conde d'Eu e Mauá - Bairro Rio Branco

PROJETO: ILUMINAÇÃO PÚBLICA DISCRIMINAÇÃO DA FRANCHA: PLANTA BAIXA

RESPONSÁVEL TÉCNICO: Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984

ESCALA: 1:750 ÁREA: DESENHO: Eng. Pedro DATA: AGOSTO/2022 **01/03**

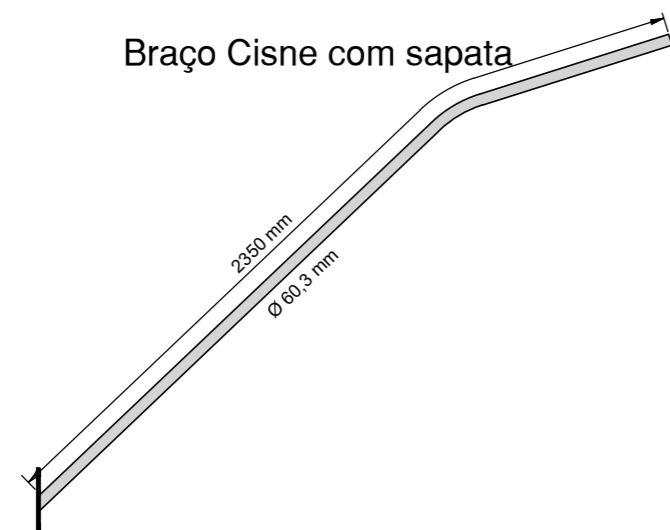


LEGENDA

- Poste de Concreto Circular - Proposto
- Poste de Concreto Circular - Existente
- Poste de Concreto Duplo T - Proposto
- Poste de Concreto Duplo T - Existente
- Poste de Madeira - Proposto
- Poste de Madeira - Existente
- Poste de Concreto Quadrado - Proposto
- Poste de Concreto Quadrado - Existente
- Poste de Aço Treliça - Proposto
- Poste de Aço Treliça - Existente
- Transformador em Poste - Existente
- Transformador em Poste - Proposto
- Chave Fusível Aéreo NF - Proposto
- Chave Fusível Aéreo NF - Existente
- Para-raios 21kV - Proposto
- Para-raios 21kV - Existente
- Elemento Terra - Proposto
- Elemento Terra - Existente
- Iluminação Pública - Proposto
- Iluminação Pública Desconhecida - Existente
- Rede Primária - Existente
- Rede Primária - Proposto
- Rede Secundária - Existente
- Rede Secundária - Proposto

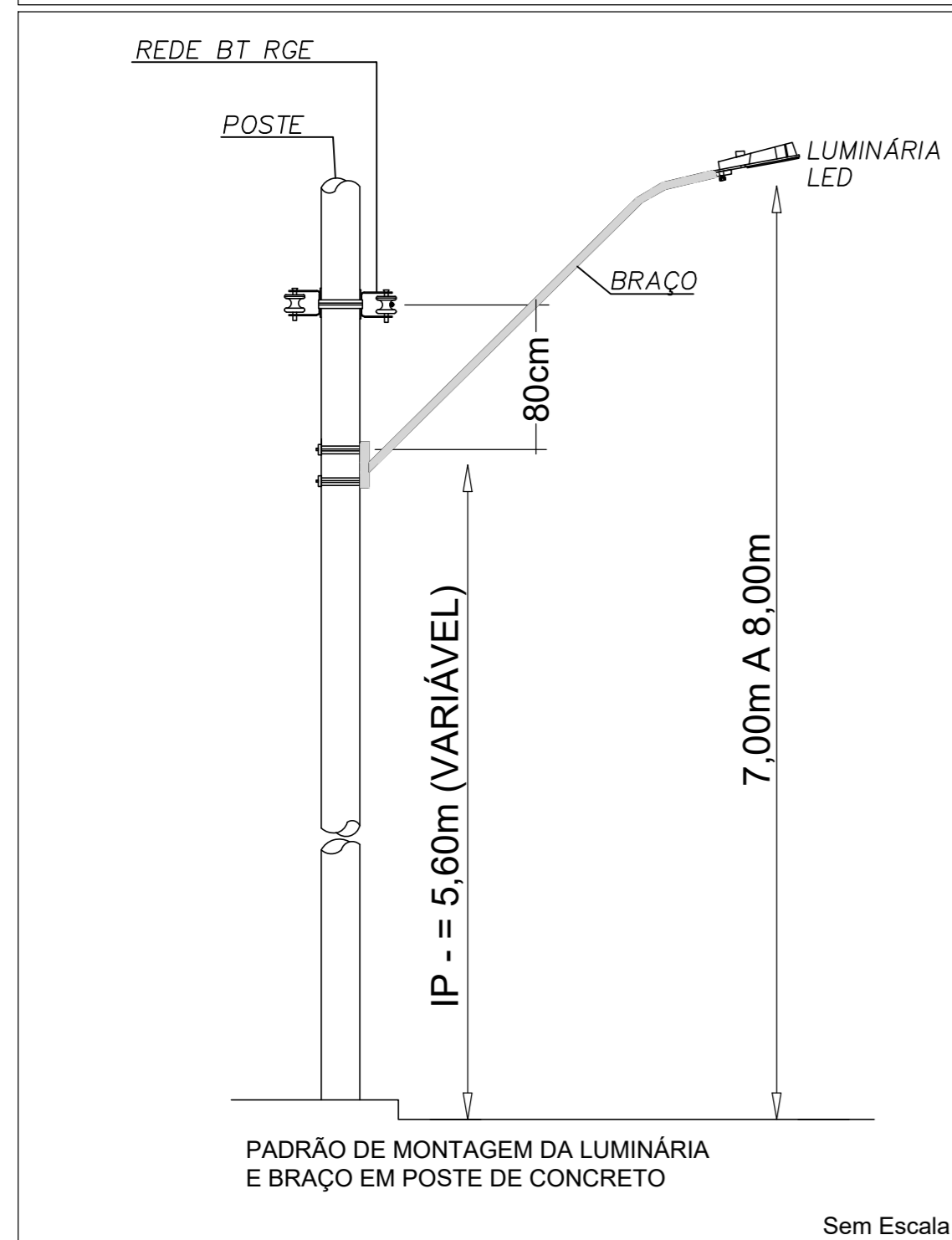
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|---|---|------------------------|----------------------|
| PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS <small>Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565</small> | | | |
| EMPREENDIMENTO: RUA GRAVATAÍ/DIQUE | | | |
| ENDEREÇO: Ruas Conde d'Eu e Mauá - Bairro Rio Branco | | | |
| PROJETO: ILUMINAÇÃO PÚBLICA | DISCRIMINAÇÃO DA FRANCHA: PLANTA BAIXA | | |
| RESPONSÁVEL TÉCNICO: <small>Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984</small> | | | |
| ESCALA: 1:750 | ÁREA: - | DESENHO: Eng. Pedro | DATA: AGOSTO/2022 |
| 02/03 | | | |

BRAÇOS

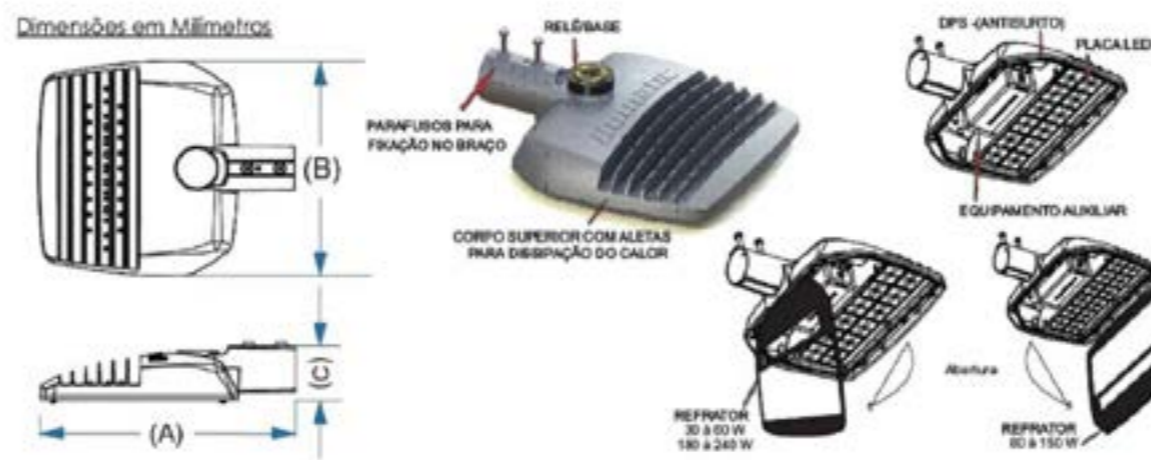


Braços em tubo de aço carbono de diâmetro externo de 60,3 mm, projeção horizontal de 2350 mm e a vertical de 1750mm;
Base (sapata) em aço carbono, em forma de perfil ou chapa dobrada, espessura de 5 mm;
Aleta de fixação do tubo à base em aço carbono, espessura mínima de 5 mm .
Fabricante: Eletrotubos Iluminação ou similar

DETALHE ILUMINAÇÃO PÚBLICA



LUMINÁRIA



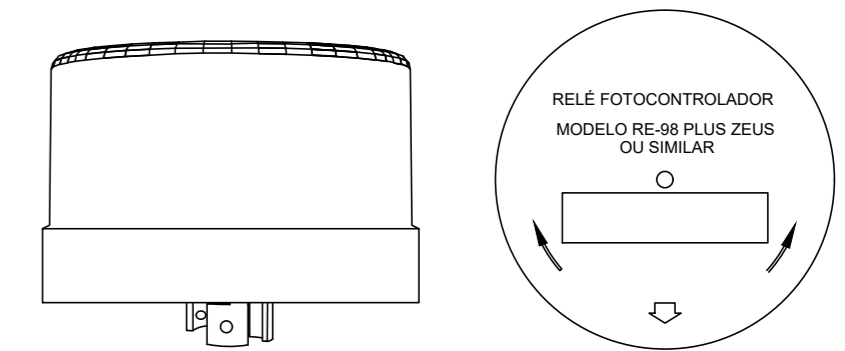
MODELO DA LUMIÁRIA

- Ares Midi 120, fabricante Ilumatic Soluções em Iluminação ou similar

DADOS TÉCNICOS E OBSERVAÇÕES:



- Número de pontos: 33 pontos no trecho de reforma e 64 pontos no trecho novo do projeto elétrico da Rua Gravataí/Dique.
- Tipo de luminária: LED branca, com potência máxima de 150 W.
- Acionamento/comando: sistema de acionamento (driver) integrado ao corpo da luminária (relé).
- Tipo de condutor: Cabo de conexão com a rede BT em cobre flexível isolamento PVC 70°C, 0,6/1kV, seção mínima 2x1,5mm²;
- Índice de Reprodução de Cores: IRC>=70;
- Fluxo luminoso: Mínimo inicial 12000 lm;
- Vida útil mínima dos módulos de LED: 50.000h (L70);
- A disposição das luminárias com a indicação das potências na vida deve ser verificada na planta construtiva específica;
- O ângulo de instalação das luminárias não deve ser superior a 5°.

RELÉ FOTOELETRÔNICO



RELÉ FOTOELETRÔNICO RE-98 PLUS ZEUS OU SIMILAR

- Tensão e corrente de operação: 105 a 305V automático; corrente máxima de 10 A
- Máxima potência de comando: 1000W ou 1800VA
- Consumo máximo: 0,92W em 220V
- Temperatura de trabalho: -5°C a + 50°C
- Tempo de resposta: 3 ± 0,5 segundos
- Grau de proteção: IP67 -
- Peso: 0,084 kg
- FABRICANTE: ILUMATIC SOLUÇÕES EM ILUMINAÇÃO OU SIMILAR.

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|---|--------------------|---|--------------|
|  | | PREFEITURA MUNICIPAL DE CANOAS SECRETARIA MUNICIPAL DE OBRAS Rua Quinze de Janeiro, 11 - Centro, Canoas/RS - Telefone: (51) 3462-1565 | |
| EMPREENDIMENTO: | | RUA GRAVATAÍ/DIQUE | |
| ENDEREÇO: Ruas Conde d'Eu e Mauá - Bairro Rio Branco | | | |
| PROJETO: | ILUMINAÇÃO PÚBLICA | DISCRIMINAÇÃO DA PRANCHA: | DETALHAMENTO |
| RESPONSÁVEL TÉCNICO: | |  | |
| Eng. Civil Eduardo Wegner Vargas - CREA/RS 159.984 | | | |
| ESCALA: | ÁREA: | DESENHO: | DATA: |
| 1:750 | - | Eng. Pedro | AGOSTO/2022 |
| | | | 03/03 |