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CALCULS TOPOMETRIQUES - CALCUL DE CHEMINEMENTS POLYGONAUX

Calcul du cheminement encadré prin.1 (fermé)

Résultats du calcul brut

| | | | | | | | | | |
|--------------|------|------|-----------|------|-----------|------|----------|------|----------|
| ST: | c25b | X = | 2000.000, | Y = | 1000.000, | Z = | 100.000, | V0 = | 0.0000 |
| Av: | c22n | AH = | 108.4325, | DH = | 242.182, | dZ = | 1.368 | | |
| | | Gi = | 108.4325, | DH = | 242.177, | dZ = | 1.361 | | |
| Ar: | c25b | AH = | 299.0893, | DH = | 242.171, | dZ = | -1.354 | | |
| ST: | c22n | X = | 2240.055, | Y = | 968.016, | Z = | 101.361, | V0 = | 9.3432 |
| Av: | c23n | AH = | 1.1361, | DH = | 73.064, | dZ = | -6.719 | | |
| | | Gi = | 10.4793, | DH = | 73.061, | dZ = | -6.720 | | |
| Ar: | c22n | AH = | 367.0145, | DH = | 73.058, | dZ = | 6.721 | | |
| ST: | c23n | X = | 2252.027, | Y = | 1040.089, | Z = | 94.641, | V0 = | 243.4648 |
| Av: | 3 | AH = | 54.1540, | DH = | 38.941, | dZ = | 2.339 | | |
| | | Gi = | 297.6188, | DH = | 38.938, | dZ = | 2.337 | | |
| Ar: | c23n | AH = | 129.7158, | DH = | 38.935, | dZ = | -2.336 | | |
| ST: | 3 | X = | 2213.117, | Y = | 1038.633, | Z = | 96.979, | V0 = | 367.9030 |
| Av: | 4 | AH = | 347.0334, | DH = | 56.759, | dZ = | -1.756 | | |
| | | Gi = | 314.9364, | DH = | 56.757, | dZ = | -1.757 | | |
| Ar: | 3 | AH = | 173.0627, | DH = | 56.755, | dZ = | 1.757 | | |
| ST: | 4 | X = | 2157.915, | Y = | 1051.827, | Z = | 95.222, | V0 = | 341.8737 |
| Av: | 5 | AH = | 356.7912, | DH = | 40.025, | dZ = | -0.517 | | |
| | | Gi = | 298.6649, | DH = | 40.023, | dZ = | -0.520 | | |
| Ar: | 4 | AH = | 229.0239, | DH = | 40.021, | dZ = | 0.524 | | |
| ST: | 5 | X = | 2117.901, | Y = | 1050.988, | Z = | 94.702, | V0 = | 269.6410 |
| Av: | 6 | AH = | 55.2231, | DH = | 55.595, | dZ = | -1.766 | | |
| | | Gi = | 324.8641, | DH = | 55.591, | dZ = | -1.773 | | |
| Ar: | 5 | AH = | 88.0780, | DH = | 55.588, | dZ = | 1.780 | | |
| ST: | 6 | X = | 2066.495, | Y = | 1072.152, | Z = | 92.929, | V0 = | 36.7861 |
| Av: | 24 | AH = | 272.3070, | DH = | 58.165, | dZ = | 1.405 | | |
| | | Gi = | 309.0931, | DH = | 58.169, | dZ = | 1.400 | | |
| Ar: | 6 | AH = | 9.6678, | DH = | 58.173, | dZ = | -1.395 | | |
| ST: | 24 | X = | 2008.919, | Y = | 1080.433, | Z = | 94.328, | V0 = | 99.4253 |
| Av: | c25b | AH = | 107.5777, | DH = | 80.930, | dZ = | 5.697 | | |
| | | Gi = | 207.0030, | DH = | 80.929, | dZ = | 5.695 | | |
| Ar: | 24 | AH = | 7.0305, | DH = | 80.928, | dZ = | -5.693 | | |
| ST: | c25b | X = | 2000.034, | Y = | 999.993, | Z = | 100.023, | V0 = | 399.9725 |
| ST: | c25b | X = | 2000.000, | Y = | 1000.000, | Z = | 100.000, | V0 = | 0.0000 |
| Fermetures : | | Fx = | -0.020, | Fy = | -0.043, | Fz = | -0.023, | Fa = | 0.0275 |

DOCUMENT 2A

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Calcul en angles compensés

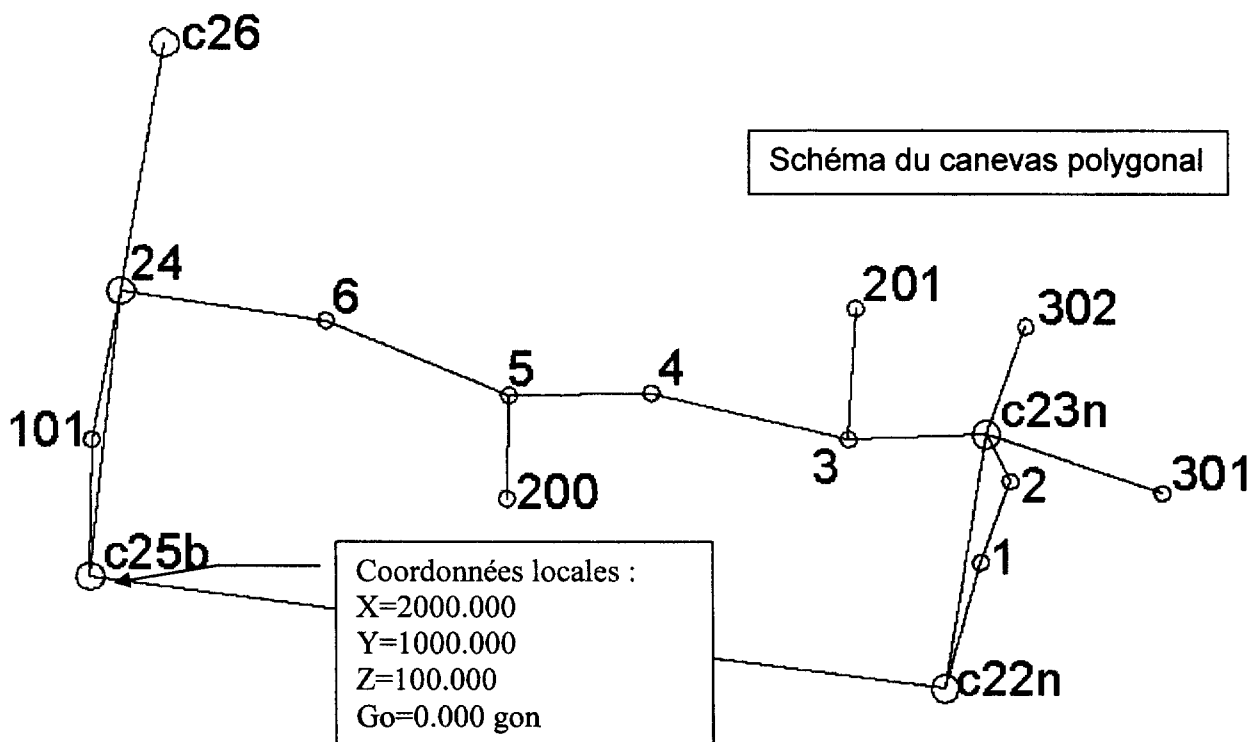
| Station | X | Y | Gi | V0 |
|---------|----------|----------|----------|----------|
| c25b | 2000.000 | 1000.000 | | 0.0000 |
| c22n | 2240.054 | 968.004 | 108.4356 | 9.3463 |
| c23n | 2252.033 | 1040.076 | 10.4854 | 243.4709 |
| 3 | 2213.122 | 1038.626 | 297.6280 | 367.9122 |
| 4 | 2157.922 | 1051.831 | 314.9486 | 341.8859 |
| 5 | 2117.908 | 1051.001 | 298.6802 | 269.6563 |
| 6 | 2066.509 | 1072.180 | 324.8824 | 36.8044 |
| 24 | 2008.935 | 1080.480 | 309.1145 | 99.4467 |
| c25b | 2000.020 | 1000.043 | 207.0274 | 0.0000 |

Compensation des coordonnées

| Station | X | Y | Z |
|---------|----------|----------|---------|
| c25b | 2000.000 | 1000.000 | 100.000 |
| c22n | 2240.046 | 967.988 | 101.352 |
| c23n | 2252.023 | 1040.055 | 94.630 |
| 3 | 2213.111 | 1038.602 | 96.966 |
| 4 | 2157.910 | 1051.803 | 95.207 |
| 5 | 2117.894 | 1050.971 | 94.685 |
| 6 | 2066.493 | 1072.146 | 92.910 |
| 24 | 2008.918 | 1080.442 | 94.308 |
| c25b | 2000.000 | 1000.000 | 100.000 |

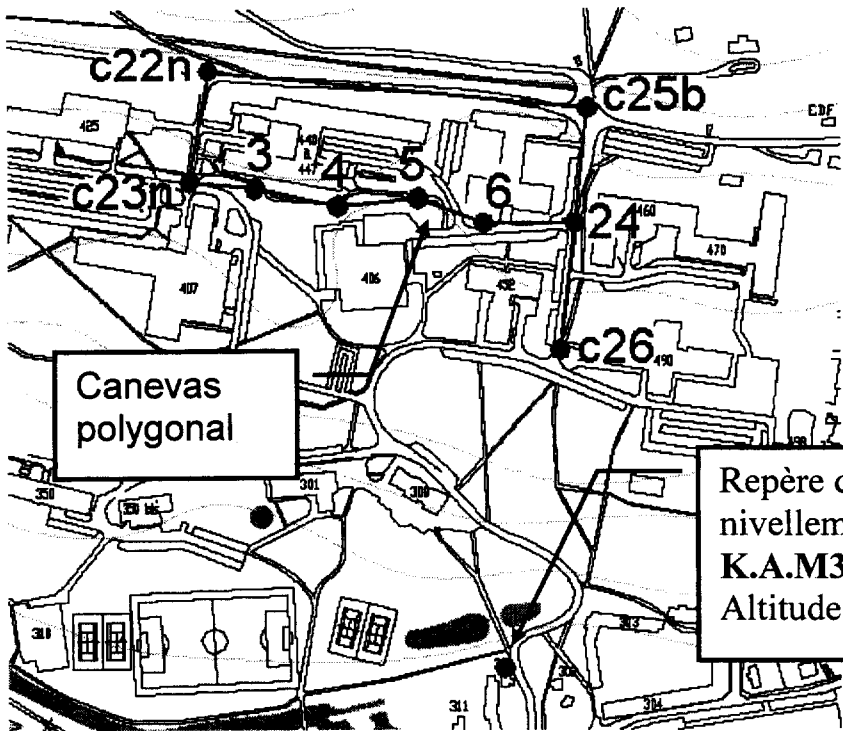
Récapitulatif des fermetures et tolérances

| Type de fermeture | Ferm. | Tol. | ST début | ST fin |
|--------------------|---------|---------|----------|--------|
| Planimétrique (cm) | 4.7611 | 32.1506 | | |
| Angulaire (mgon) | 27.5000 | 28.2843 | | |
| Altimétrique (cm) | -2.3182 | 5.9599 | 25 | 25 |



DOCUMENT 2B

Document n°3

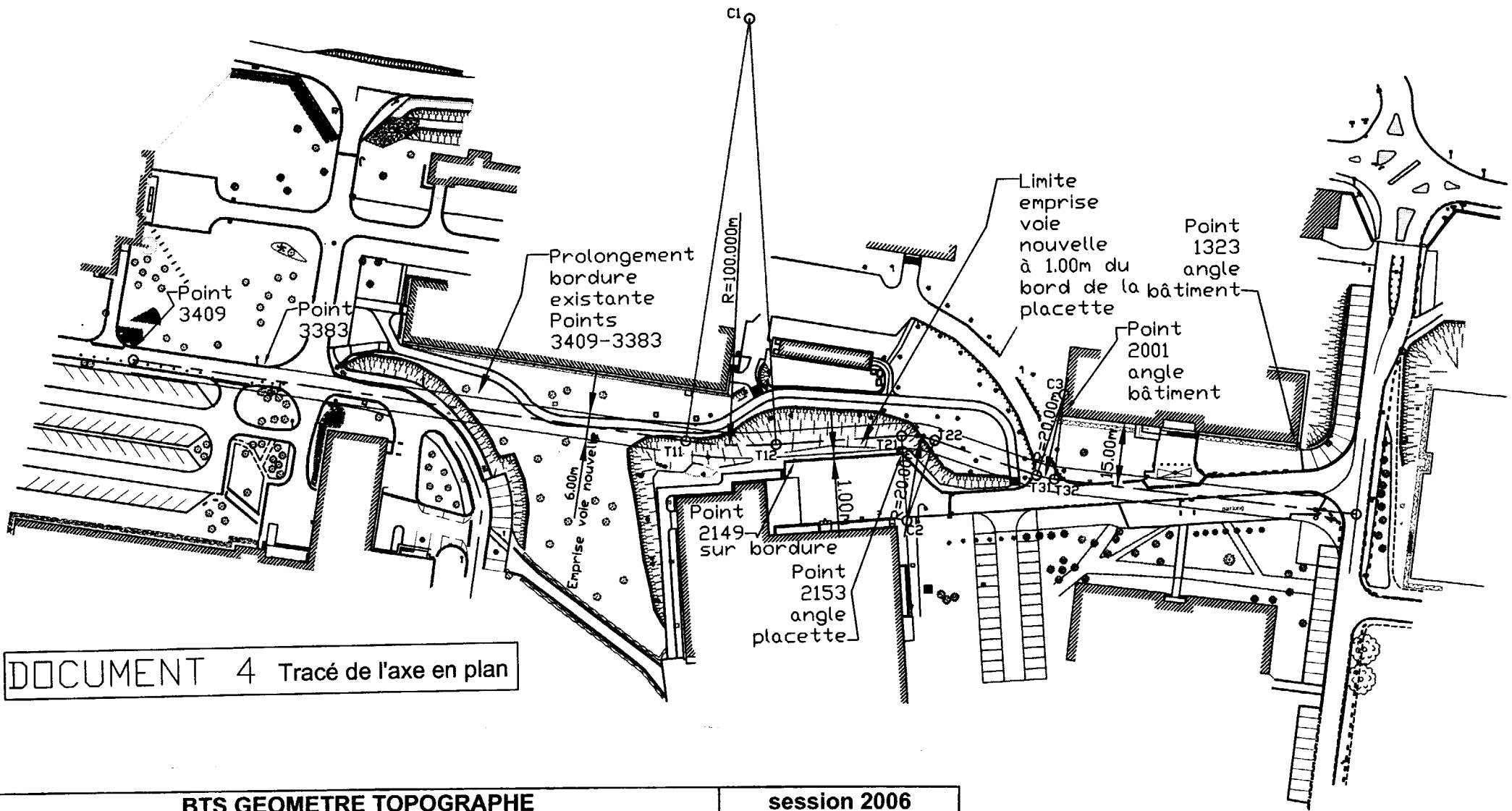


Canevas polygonal

Repère de nivellement
K.A.M3-38
 Altitude : 58.133m

| N° | Cheminement de gauche | | | | Cheminement de droite | | | | Contrôle de marche | | Altitudes m |
|----|-----------------------|---------------|--------------|-------------|-----------------------|---------------|--------------|-------------|--------------------|------------|----------------|
| | Point Visé | Lec arr. m | Lec av. m | Déniv. m | Point Visé | Lec arr. m | Lec av. m | Déniv. m | arrière m | avant m | |
| 1 | K.A.M3-38 | 3.652 | | | K.A.M3-38 | 3.652 | | | | | 58.133 |
| 2 | - | 3.723 | 0.521 | 3.131 | - | 3.808 | 0.605 | 3.047 | -0.085 | -0.084 | |
| 3 | - | 3.652 | 0.624 | 3.099 | - | 3.729 | 0.700 | 3.108 | -0.077 | -0.076 | |
| 4 | - | 3.521 | 0.825 | 2.827 | - | 3.397 | 0.700 | 3.029 | 0.124 | 0.125 | |
| 5 | - | 3.657 | 0.620 | 2.901 | - | 3.720 | 0.681 | 2.716 | -0.063 | -0.061 | |
| 6 | - | 2.725 | 0.277 | 3.380 | - | 2.752 | 0.303 | 3.417 | -0.027 | -0.026 | |
| 7 | - | 2.856 | 0.356 | 2.369 | - | 2.789 | 0.425 | 2.327 | -0.067 | -0.069 | |
| 8 | - | 2.987 | 0.524 | 2.332 | - | 2.621 | 0.159 | 2.630 | 0.366 | 0.365 | |
| 9 | c26 | | 0.637 | 2.350 | c26 | | 0.637 | 1.984 | | | |
| | | | | 22.389 | | | | 22.258 | | | |

Σ des dénivelées



DOCUMENT 4 Tracé de l'axe en plan

| | | |
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E=639600

E=639650

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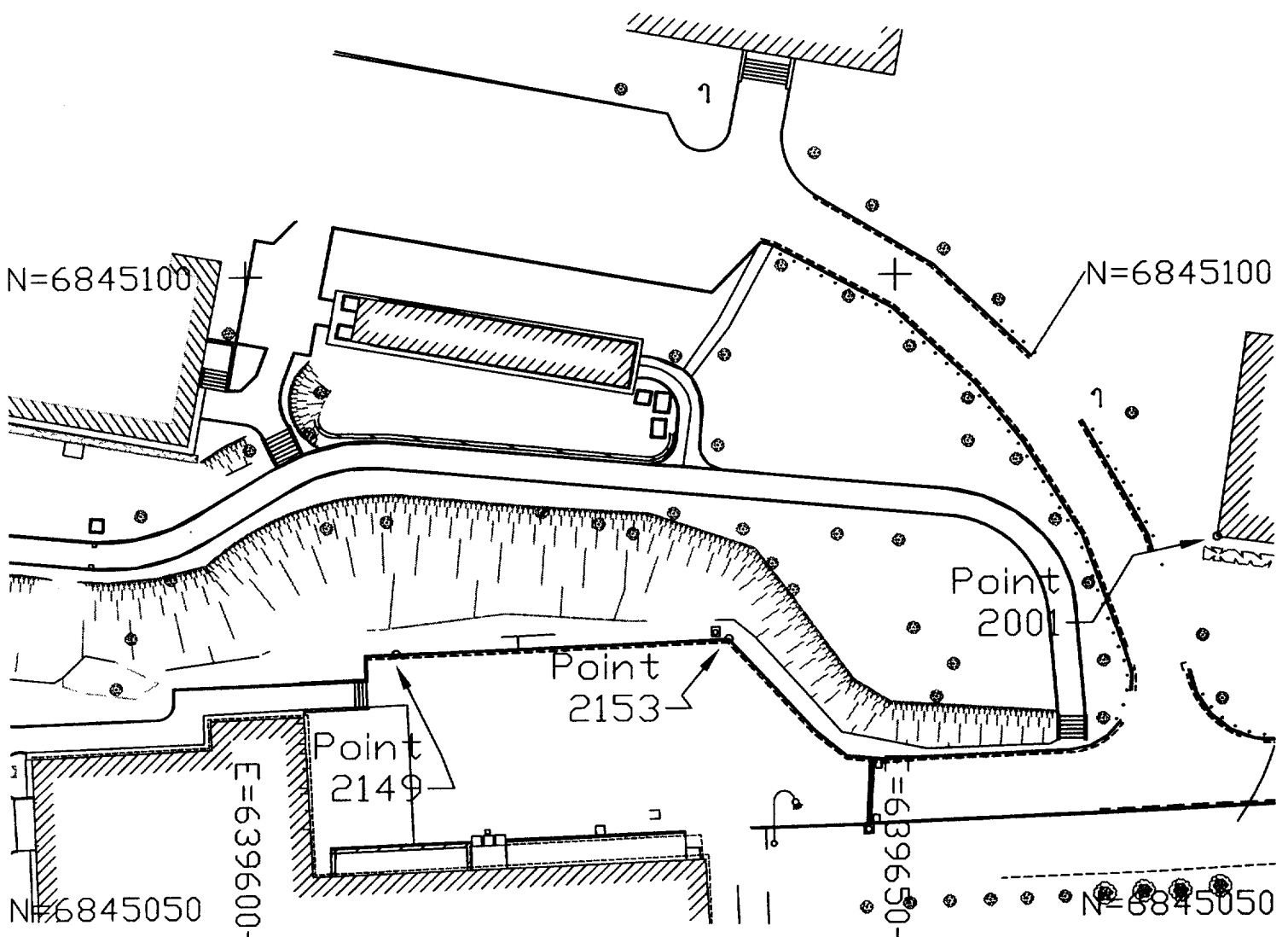
N=6845150 +

+

N=6845150

DOCUMENT 5

A compléter et à rendre avec la copie
Echelle 1/500

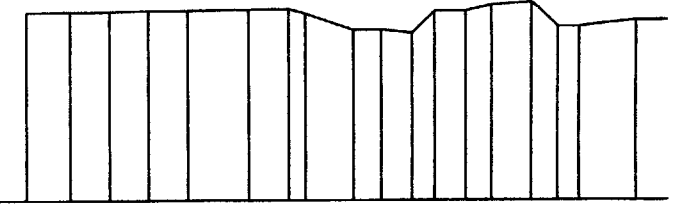


DOCUMENT 7

Profil en long

Profil en long n°1

Echelle horizontale : 500
 Echelle verticale : 200
 Plan de comparaison : 79



| | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Numéros de profils en travers | P.1 | | | | | | | | | | | | | | | | | |
| Altitudes T.N. | 83.96 | 83.98 | 83.98 | 84.00 | 84.01 | 84.03 | 84.05 | 83.92 | 83.49 | 83.50 | 83.40 | 83.99 | 84.00 | 84.14 | 84.22 | 83.58 | 83.58 | 83.75 |
| Altitudes projet | | | | | | | | | | | | | | | | | | |
| Ecart T.N. - projet | | | | | | | | | | | | | | | | | | |
| Distances partielles T.N. | | 17.59 | | | | | | 4.28 | 1.83 | 2.03 | | 7.94 | 1.70 | 5.24 | | | | |
| Distances cumulées T.N. | 0.00 | | | | | | 17.59 | 21.87 | 23.69 | 25.73 | | | | 33.67 | 35.36 | 40.60 | | |
| Distances partielles projet | | | | | | | | | | | | | | | | | | |
| Distances cumulées projet | | | | | | | | | | | | | | | | | | |
| Pentes et rampes | | | | | | | | | | | | | | | | | | |
| Alignements droits et courbes | 0.00 | | | | | | | | | | | | | | | | | |