

| ROUTE 117 CL |                            |                         |   |  |                                  |  |               |
|--------------|----------------------------|-------------------------|---|--|----------------------------------|--|---------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                          | PI<br>OR/OU<br>A                 | END<br>STATION<br>FIN                              | Δ             |
| CURVE 15     | 178.804                    | 250.0                   | 344° 14' 14.95"   | STA: 8+254.625<br>E: 2615780.291<br>N: 7536114.240 | E: 2615813.470<br>N: 7536411.711 | STA: 8+433.429<br>E: 2615742.747<br>N: 7536482.676 | 40° 58' 43.9" |
| SPIRAL 26    | 62.500                     |                         |   |  | A: 125.000                       |  |               |
| TANGENT 16   | 43.207                     |                         | 316° 35' 09.88"   | STA: 8+495.929<br>E: 2615701.750<br>N: 7536529.794 |                                  | STA: 8+539.137<br>E: 2615701.750<br>N: 7536561.180 |               |
| SPIRAL 27    | 45.000                     |                         |   |  | A: 284.605                       |  |               |
| CURVE 16     | 59.343                     | 1800.0                  | 318° 14' 48.28"   | STA: 8+584.137<br>E: 2615641.265<br>N: 7536593.997 | E: 2615620.725<br>N: 7536615.433 | STA: 8+643.479<br>E: 2615601.749<br>N: 7536638.255 | 1° 53' 20.2"  |
| SPIRAL 28    | 45.000                     |                         |   |  | A: 284.605                       |  |               |
| TANGENT 17   | 127.964                    |                         | 319° 54' 26.68"   | STA: 8+688.478<br>E: 2615572.625<br>N: 7536672.569 |                                  | STA: 8+816.443<br>E: 2615572.625<br>N: 7536770.463 |               |
| SPIRAL 29    | 50.000                     |                         |   |  | A: 165.831                       |  |               |
| CURVE 17     | 84.082                     | 550.0                   | 326° 53' 28.87"   | STA: 8+866.443<br>E: 2615458.598<br>N: 7536809.193 | E: 2615430.707<br>N: 7536841.146 | STA: 8+950.525<br>E: 2615412.714<br>N: 7536879.525 | 8° 45' 33.0"  |
| SPIRAL 30    | 50.000                     |                         |   |  | A: 165.831                       |  |               |
| TANGENT 18   | 73.581                     |                         | 333° 52' 31.06"   | STA: 9+000.525<br>E: 2615390.022<br>N: 7536924.103 |                                  | STA: 9+074.106<br>E: 2615390.022<br>N: 7536990.167 |               |
| SPIRAL 31    | 50.000                     |                         |   |  | A: 207.364                       |  |               |
| CURVE 18     | 96.838                     | 860.0                   | 338° 46' 00.07"   | STA: 9+124.106<br>E: 2615336.043<br>N: 7537035.268 | E: 2615314.203<br>N: 7537078.701 | STA: 9+220.944<br>E: 2615300.990<br>N: 7537125.485 | 6° 27' 05.9"  |
| SPIRAL 32    | 50.000                     |                         |   |  | A: 207.364                       |  |               |
| TANGENT 19   | 102.589                    |                         | 343° 39' 29.08"   | STA: 9+270.944<br>E: 2615286.458<br>N: 7537173.324 |                                  | STA: 9+373.533<br>E: 2615286.458<br>N: 7537271.768 |               |
| SPIRAL 33    | 45.000                     |                         |   |  | A: 255.441                       |  |               |
| CURVE 19     | 86.384                     | 1450.0                  | 346° 15' 13.89"   | STA: 9+418.533<br>E: 2615245.155<br>N: 7537315.015 | E: 2615232.765<br>N: 7537358.443 | STA: 9+504.917<br>E: 2615224.631<br>N: 7537398.913 | 3° 24' 48.3"  |
| SPIRAL 34    | 45.000                     |                         |   |  | A: 255.441                       |  |               |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 15                                      | RADIUS/RAYON = 250.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 8+147.73   | -0.030                      | 8.417     | -0.030                       | NORMAL CROWN             |
| 8+192.13   | -0.030                      | 7.463     | 0.000                        | LEVEL CROWN              |
| 8+223.38   | -0.030                      | 6.731     | 0.030                        | REVERSE CROWN            |
| 8+254.63   | -0.060                      | 6.076     | 0.060                        | BEGIN FULL SUPER         |
| 8+433.43   | -0.060                      | 6.997     | 0.060                        | END FULL SUPER           |
| 8+464.68   | -0.030                      | 7.418     | 0.030                        | REVERSE CROWN            |
| 8+494.14   | -0.030                      | 7.816     | 0.002                        | LEVEL CROWN              |
| 8+495.93   | -0.029                      | 7.840     | 0.000                        | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 16                                      | RADIUS/RAYON = 1800.0       |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 8+539.14   | -0.001                      | 8.422     | -0.029                       | NORMAL CROWN             |
| 8+540.93   | 0.000                       | 8.446     | -0.030                       | LEVEL CROWN              |
| 8+584.14   | 0.030                       | 9.029     | -0.030                       | REVERSE CROWN            |
| 8+584.14   | 0.030                       | 9.029     | -0.030                       | BEGIN FULL SUPER         |
| 8+643.48   | 0.030                       | 9.829     | -0.030                       | END FULL SUPER           |
| 8+643.48   | 0.030                       | 9.829     | -0.030                       | REVERSE CROWN            |
| 8+688.48   | 0.000                       | 10.409    | -0.030                       | LEVEL CROWN              |
| 8+732.88   | -0.030                      | 10.900    | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 17                                      | RADIUS/RAYON = 550.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 8+772.04   | -0.030                      | 11.265    | -0.030                       | NORMAL CROWN             |
| 8+816.44   | 0.000                       | 11.602    | -0.030                       | LEVEL CROWN              |
| 8+849.05   | 0.030                       | 11.797    | -0.030                       | REVERSE CROWN            |
| 8+866.44   | 0.046                       | 11.883    | -0.046                       | BEGIN FULL SUPER         |
| 8+950.53   | 0.046                       | 12.119    | -0.046                       | END FULL SUPER           |
| 8+967.92   | 0.030                       | 12.131    | -0.030                       | REVERSE CROWN            |
| 9+000.53   | 0.030                       | 12.127    | -0.030                       | LEVEL CROWN              |
| 9+032.25   | 0.030                       | 12.121    | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 18                                      | RADIUS/RAYON = 860.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 9+041.73   | 0.030                       | 12.119    | -0.030                       | NORMAL CROWN             |
| 9+074.11   | 0.030                       | 12.112    | -0.030                       | LEVEL CROWN              |
| 9+115.77   | 0.030                       | 12.103    | -0.030                       | REVERSE CROWN            |
| 9+124.11   | 0.036                       | 12.101    | -0.036                       | BEGIN FULL SUPER         |
| 9+220.94   | 0.036                       | 12.080    | -0.036                       | END FULL SUPER           |
| 9+229.28   | 0.030                       | 12.078    | -0.030                       | REVERSE CROWN            |
| 9+270.94   | 0.000                       | 12.070    | -0.030                       | LEVEL CROWN              |
| 9+315.34   | -0.030                      | 12.060    | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 19                                      | RADIUS/RAYON = 1450.0       |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 9+329.13   | -0.030                      | 12.057    | -0.030                       | NORMAL CROWN             |
| 9+373.53   | 0.000                       | 12.048    | -0.030                       | LEVEL CROWN              |
| 9+418.53   | 0.030                       | 12.038    | -0.030                       | REVERSE CROWN            |
| 9+418.53   | 0.036                       | 12.038    | -0.036                       | BEGIN FULL SUPER         |
| 9+504.92   | 0.036                       | 12.019    | -0.036                       | END FULL SUPER           |
| 9+504.92   | 0.030                       | 12.019    | -0.030                       | REVERSE CROWN            |
| 9+537.20   | 0.009                       | 12.005    | -0.030                       | LEVEL CROWN              |
| 9+549.92   | 0.000                       | 11.987    | -0.022                       | NORMAL CROWN             |

| ROUTE 117 CL |                            |                         |   |   |                                  |   |               |
|--------------|----------------------------|-------------------------|---|---|----------------------------------|---|---------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                           | PI<br>OR/OU<br>A                 | END<br>STATION<br>FIN                               | Δ             |
| TANGENT 20   | 32.285                     |                         | 348° 50' 58.70"   | STA: 9+549.917<br>E: 2615215.701<br>N: 7537443.017  |                                  | STA: 9+582.202<br>E: 2615215.701<br>N: 7537474.692  |               |
| SPIRAL 35    | 45.000                     |                         |   |   | A: 204.573                       |   |               |
| CURVE 20     | 121.733                    | 930.0                   | 343° 42' 48.79"   | STA: 9+627.202<br>E: 2615200.400<br>N: 7537578.790  |                                  | STA: 9+748.935<br>E: 2615166.285<br>N: 7537635.535  | 7° 29' 59.3"  |
| SPIRAL 36    | 45.000                     |                         |   |   | A: 204.573                       |   |               |
| CURVE 21     | 251.608                    |                         | 338° 34' 38.88"   | STA: 9+793.935<br>E: 2615150.188<br>N: 7537677.556  |                                  | STA: 10+045.542<br>E: 2615150.188<br>N: 7537911.780 |               |
| TANGENT 21   | 52.000                     |                         |   |   | A: 180.278                       |   |               |
| CURVE 21     | 258.202                    | 625.0                   | 352° 47' 45.82"   | STA: 10+097.542<br>E: 2615039.973<br>N: 7537960.442 | E: 2614990.937<br>N: 7538083.449 | STA: 10+355.743<br>E: 2615007.823<br>N: 7538214.788 | 23° 40' 12.6" |
| SPIRAL 38    | 52.000                     |                         |   |   | A: 180.278                       |   |               |
| TANGENT 22   | 159.411                    |                         | 7° 00' 52.75"   | STA: 10+407.743<br>E: 2615013.457<br>N: 7538266.478 |                                  | STA: 10+567.154<br>E: 2615013.457<br>N: 7538424.696 |               |
| SPIRAL 39    | 50.000                     |                         |   |   | A: 187.083                       |   |               |
| CURVE 22     | 120.397                    | 700.0                   | 0° 02' 27.80"   | STA: 10+617.154<br>E: 2615036.440<br>N: 7538474.388 | E: 2615046.437<br>N: 7538534.506 | STA: 10+737.551<br>E: 2615038.526<br>N: 7538594.636 | 9° 51' 16.7"  |
| SPIRAL 40    | 50.000                     |                         |   |   | A: 187.083                       |   |               |
| TANGENT 23   | 298.819                    |                         | 353° 04' 02.86"   | STA: 10+787.551<br>E: 2615033.082<br>N: 7538644.338 |                                  | STA: 11+086.371<br>E: 2615033.082<br>N: 7538940.971 |               |
| SPIRAL 41    | 62.500                     |                         |   |   | A: 135.324                       |   |               |
| CURVE 23     | 318.661                    | 293.0                   | 30° 20' 06.91"  | STA: 11+148.871<br>E: 2614991.683<br>N: 7539033.212 | E: 2614966.283<br>N: 7539193.716 | STA: 11+467.532<br>E: 2615144.810<br>N: 7539264.887 | 62° 18' 49.6" |
| SPIRAL 42    | 62.500                     |                         |   |   | A: 135.324                       |   |               |
| TANGENT 24   | 79.538                     |                         | 67° 36' 10.96"  | STA: 11+530.032<br>E: 2615201.684<br>N: 7539280.727 |                                  | STA: 11+609.570<br>E: 2615201.684<br>N: 7539321.033 |               |
| SPIRAL 43    | 45.000                     |                         |   |   | A: 259.808                       |   |               |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 20                                      | RADIUS/RAYON = 930.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 9+582.20   | -0.022                      | 11.905    | 0.000                        | NORMAL CROWN             |
| 9+594.92   | -0.030                      | 11.859    | 0.010                        | LEVEL CROWN              |
| 9+621.91   | -0.030                      | 11.733    | 0.030                        | REVERSE CROWN            |
| 9+627.20   | -0.034                      | 11.705    | 0.034                        | BEGIN FULL SUPER         |
| 9+748.94   | -0.034                      | 10.653    | 0.034                        | END FULL SUPER           |
| 9+754.23   | -0.030                      | 10.591    | 0.030                        | REVERSE CROWN            |
| 9+793.94   | -0.030                      | 10.077    | 0.000                        | LEVEL CROWN              |
| 9+838.34   | -0.030                      | 9.409     | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 21                                      | RADIUS/RAYON = 625.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 10+001.14  | -0.030                      | 6.512     | -0.030                       | NORMAL CROWN             |
| 10+045.54  | 0.000                       | 5.762     | -0.030                       | LEVEL CROWN              |
| 10+082.68  | 0.030                       | 5.494     | -0.030                       | REVERSE CROWN            |
| 10+097.54  | 0.042                       | 5.482     | -0.042                       | BEGIN FULL SUPER         |
| 10+355.74  | 0.042                       | 10.270    | -0.042                       | END FULL SUPER           |
| 10+370.60  | 0.030                       | 10.500    | -0.030                       | REVERSE CROWN            |
| 10+407.74  | 0.000                       | 10.994    | -0.030                       | LEVEL CROWN              |
| 10+452.14  | -0.030                      | 11.439    | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 22                                      | RADIUS/RAYON = 700.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 10+522.75  | -0.030                      | 11.815    | -0.030                       | NORMAL CROWN             |
| 10+567.15  | -0.030                      | 11.845    | 0.010                        | LEVEL CROWN              |
| 10+605.62  | -0.030                      | 11.741    | 0.030                        | REVERSE CROWN            |
| 10+617.15  | -0.039                      | 11.685    | 0.039                        | BEGIN FULL SUPER         |
| 10+737.55  | -0.039                      | 10.417    | 0.039                        | END FULL SUPER           |
| 10+749.09  | -0.030                      | 10.238    | 0.030                        | REVERSE CROWN            |
| 10+787.55  | -0.030                      | 9.644     | 0.000                        | LEVEL CROWN              |
| 10+831.95  | -0.030                      | 8.957     | -0.030                       | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU DÉVERS |                             |           |                              |                          |
|--|-----------------------------|-----------|------------------------------|--------------------------|
| CURVE/COURBE 23                                      | RADIUS/RAYON = 293.0        |           |                              | E <sub>max</sub> = 0.060 |
| STATION/CHAINAGE                                     | LEFT LANE/VOIE<br>DE GAUCHE | CL. ELEV. | RIGHT LANE/VOIE<br>DE DROITE | DESCRIPTION              |
| 11+041.97  | -0.030                      | 8.776     | -0.030                       | NORMAL CROWN             |
| 11+086.37  | 0.000                       | 9.187     | -0.030                       | LEVEL CROWN              |
| 11+117.62  | 0.030                       | 9.476     | -0.030                       | REVERSE CROWN            |
| 11+148.87  | 0.060                       | 9.766     | -0.060                       | BEGIN FULL SUPER         |
| 11+467.53  | 0.060                       | 6.448     | -0.060                       | END FULL SUPER           |
| 11+498.78  | 0.030                       | 6.007     | -0.030                       | REVERSE CROWN            |
| 11+530.03  | 0.000                       | 5.847     | -0.030                       | LEVEL CROWN              |
| 11+564.57  | -0.023                      | 5.996     | -0.030                       | NORMAL CROWN             |

| ROUTE 117 CL |                            |                         |   |   |                                  |   |               |
|--------------|----------------------------|-------------------------|---|---|----------------------------------|---|---------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                           | PI<br>OR/OU<br>A                 | END<br>STATION<br>FIN                               | Δ             |
| CURVE 24     | 206.370                    | 1500.0                  | 62° 48' 08.01"  | STA: 11+654.570<br>E: 2615316.741<br>N: 7539338.386 | E: 2615412.506<br>N: 7539377.608 | STA: 11+860.941<br>E: 2615500.149<br>N: 7539432.636 | 7° 52' 58.0"  |
| SPIRAL 44    | 45.000                     |                         |   |   | A: 259.808                       |   |               |
| TANGENT 25   | 108.917                    |                         | 58° 00' 05.05"  | STA: 11+905.941<br>E: 2615538.430<br>N: 7539456.290 |                                  | STA: 12+014.857<br>E: 2615538.430<br>N: 7539514.005 |               |
| SPIRAL 45    | 45.000                     |                         |   |   | A: 284.605                       |   |               |
| CURVE 25     | 118.825                    | 1800.0                  | 60° 36' 31.56"  | STA: 12+059.857<br>E: 2615669.060<br>N: 7539537.691 | E: 2615719.396<br>N: 7539569.364 | STA: 12+178.683<br>E: 2615772.572<br>N: 7539595.996 | 3° 46' 56.4"  |
| SPIRAL 46    | 45.000                     |                         |   |   | A: 284.605                       |   |               |
| TANGENT 26   | 195.591                    |                         | 63° 12' 58.07"  | STA: 12+223.683<br>E: 2615812.659<br>N: 7539616.442 |                                  | STA: 12+419.273<br>E: 2615812.659<br>N: 7539704.580 |               |
| CURVE 26     | 241.912                    | 20000.0                 | 63° 33' 45.52"  | STA: 12+419.273<br>E: 2615987.266<br>N: 7539704.580 | E: 2616095.246<br>N: 7539759.087 | STA: 12+661.186<br>E: 2616203.878<br>N: 7539812.283 | 0° 41' 34.9"  |
| TANGENT 27   | 177.507                    |                         | 63° 54' 32.97"  | STA: 12+661.186<br>E: 2616203.878<br>N: 7539812.283 |                                  | STA: 12+838.693<br>E: 2616203.878<br>N: 7539890.350 |               |
| CURVE 27     | 177.584                    | 3000.0                  | 62° 12' 48.10"  | STA: 12+838.693<br>E: 2616353.097<br>N: 7539890.350 | E: 2616443.064<br>N: 7539929.412 | STA: 13+016.276<br>E: 2616503.380<br>N: 7539973.124 | 3° 23' 29.7"  |
| TANGENT 28   | 160.198                    |                         | 60° 31' 03.22"  | STA: 13+016.276<br>E: 2616520.380<br>N: 7539973.124 |                                  | STA: 13+176.474<br>E: 2616520.380<br>N: 7540051.967 |               |
| SPIRAL 47    | 45.000                     |                         |   |   | A: 241.868                       |   |               |
| CURVE 28     | 130.614                    | 1300.0                  | 64° 23' 15.18"  | STA: 13+221.474<br>E: 2616699.133<br>N: 7540106.323 | E: 2616755.977<br>N: 7540159.319 | STA: 13+352.089<br>E: 2616816.863<br>N: 7540130.325 | 5° 45' 24.0"  |
| SPIRAL 48    | 45.000                     |                         |   |   | A: 241.868                       |   |               |
| TANGENT 29   | 32.620                     |                         | 68° 15' 27.13"  | STA: 13+397.089<br>E: 2616858.564<br>N: 7540147.236 |                                  | STA: 13+429.709<br>E: 2616858.564<br>N: 7540159.319 |               |
| SPIRAL 49    | 55.000                     |                         |   |   | A: 131.624                       |   |               |
| CURVE 29     | 141.562                    | 315.0                   | 50° 22' 51.89"  | STA: 13+484.709<br>E: 2616939.320<br>N: 7540181.164 | E: 2617008.892<br>N: 7540207.187 | STA: 13+626.271<br>E: 2617047.450<br>N: 7540207.677 | 25° 44' 56.0" |
| SPIRAL 50    | 55.000                     |                         |   |   | A: 131.624                       |   |               |