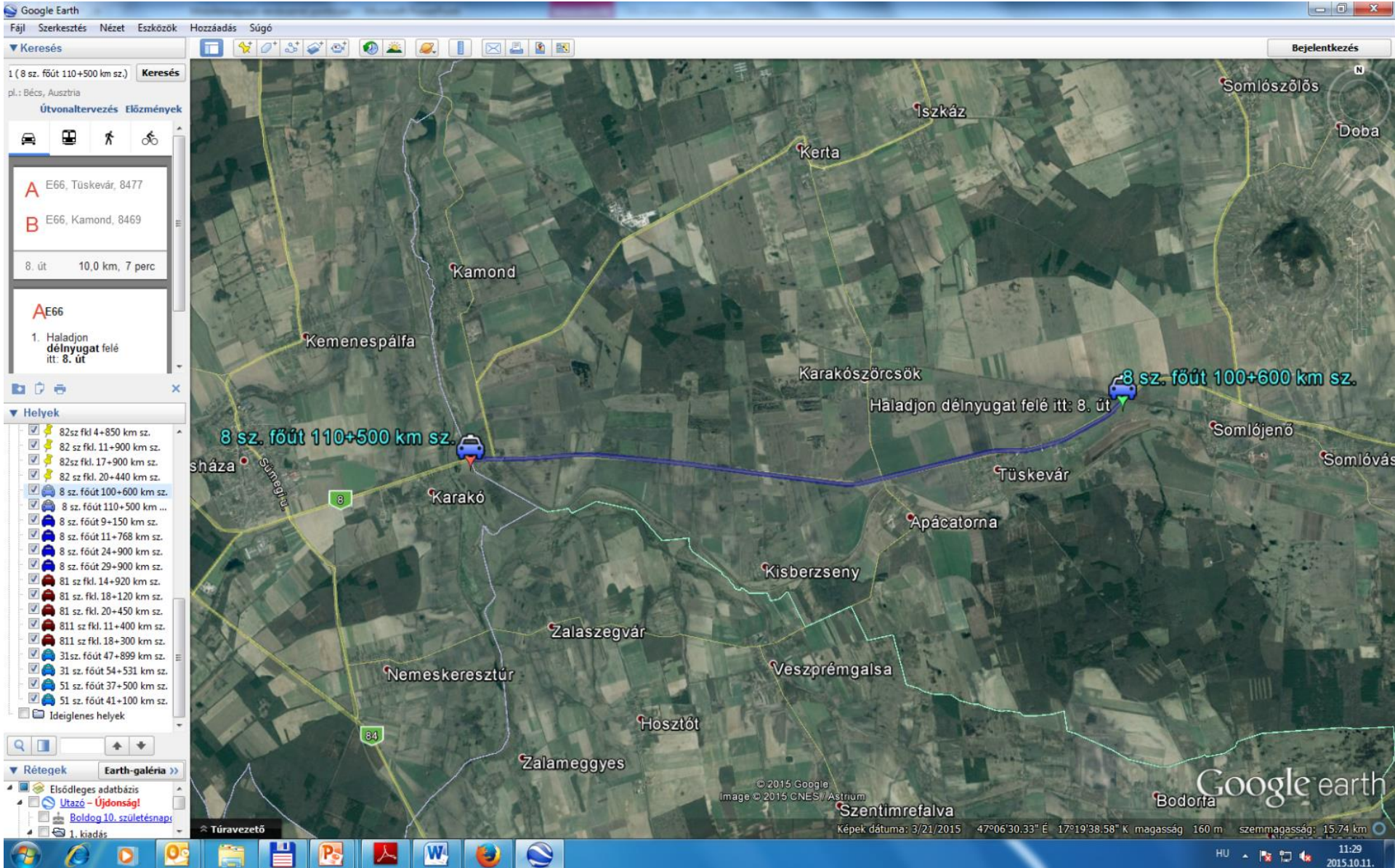




# Modern technológiák alkalmazása a sajátos célú geodéziai feladatokban

Borbás Tibor - Kunfalvi  
Péter



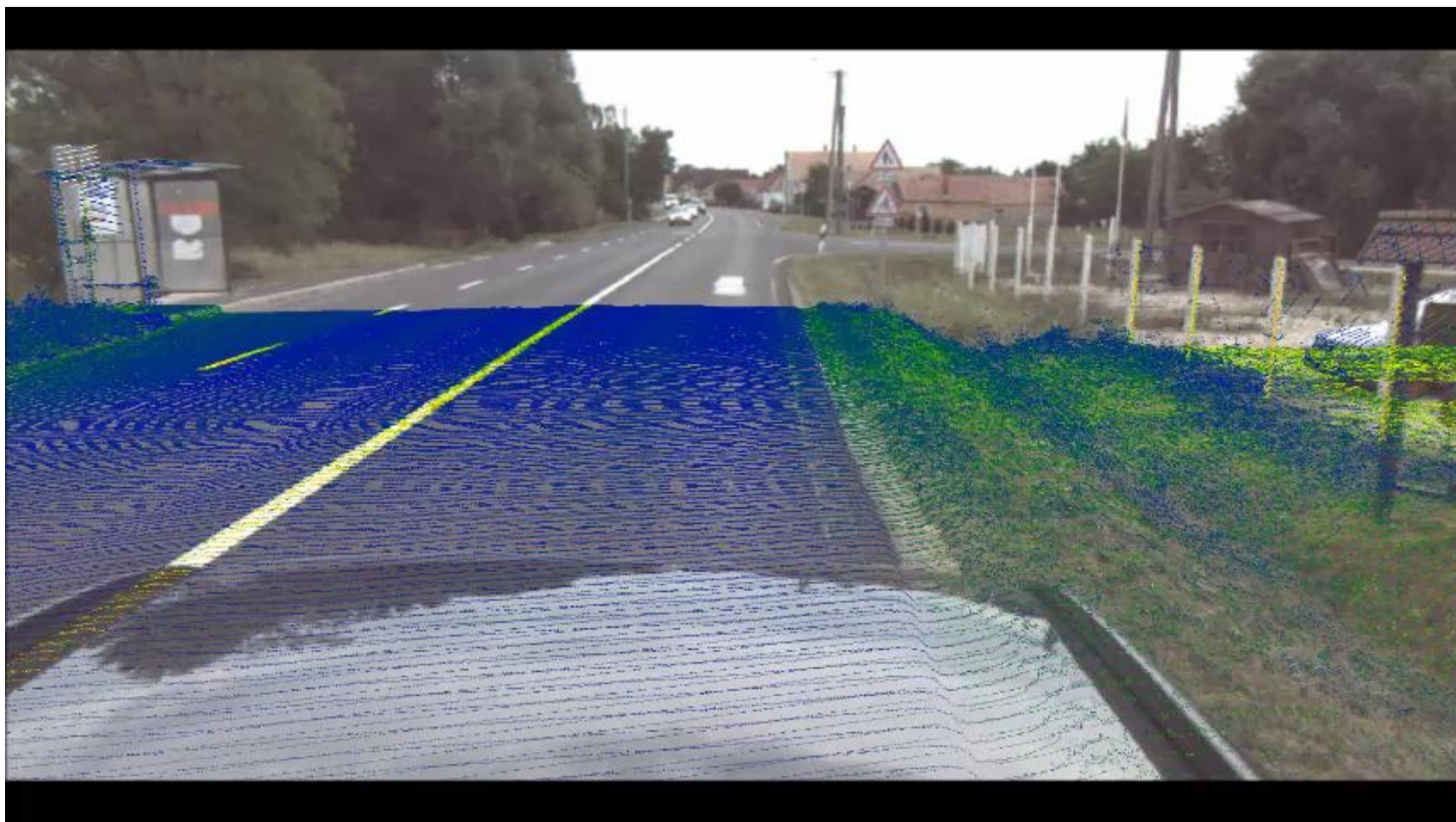


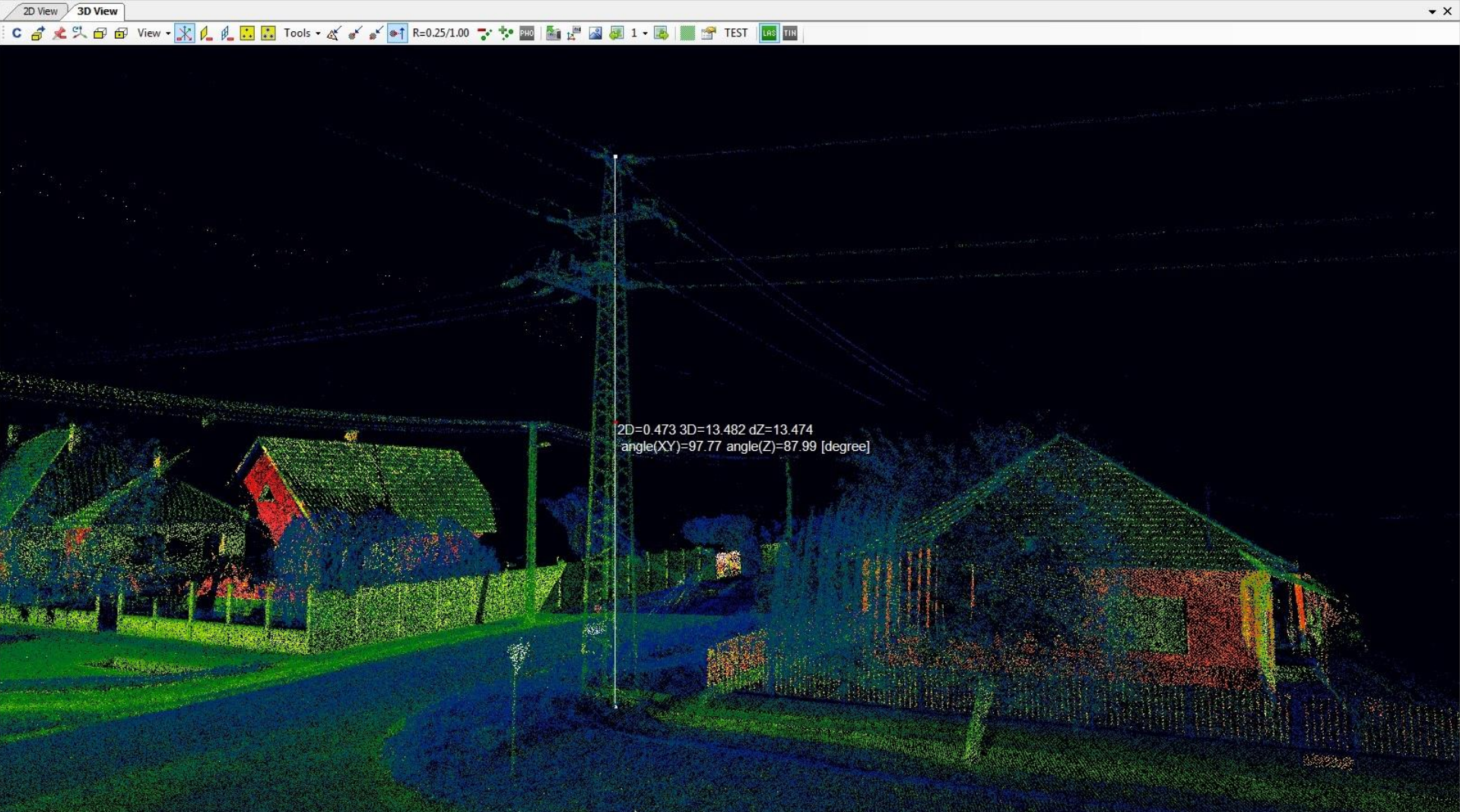
## Pontosságot befolyásoló tényezők

- Kalibrált rendszer
- Útvonaltervezés
- Inicializálás
- Helyzeti adatok (GNSS/IMU) utófeldolgozása
- Ellenőrző pontok (illesztő pontok) bevonása

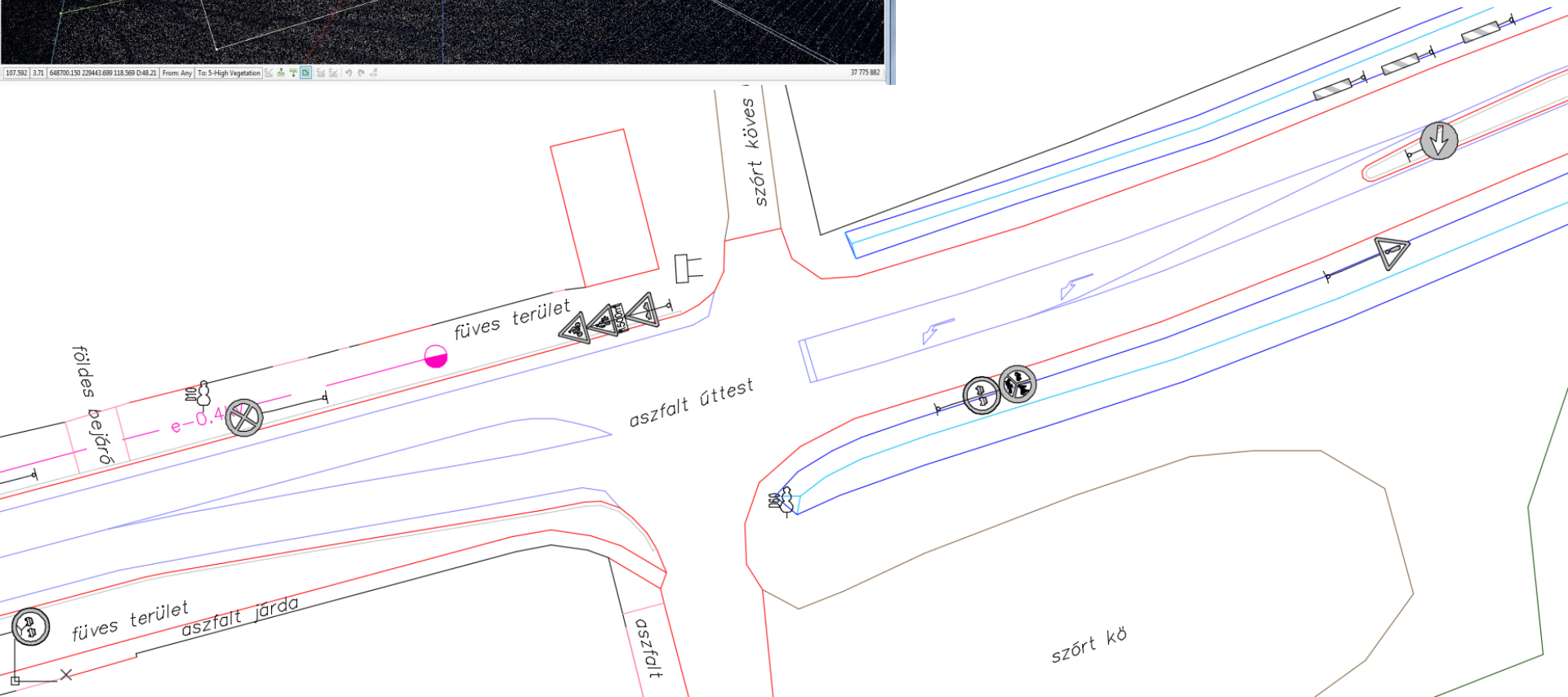
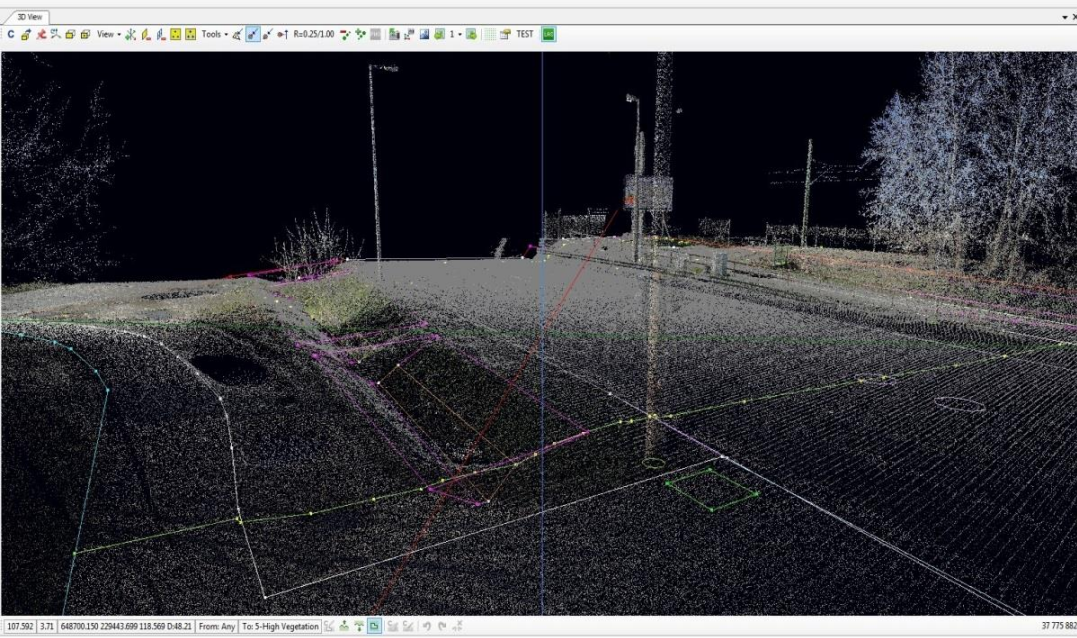








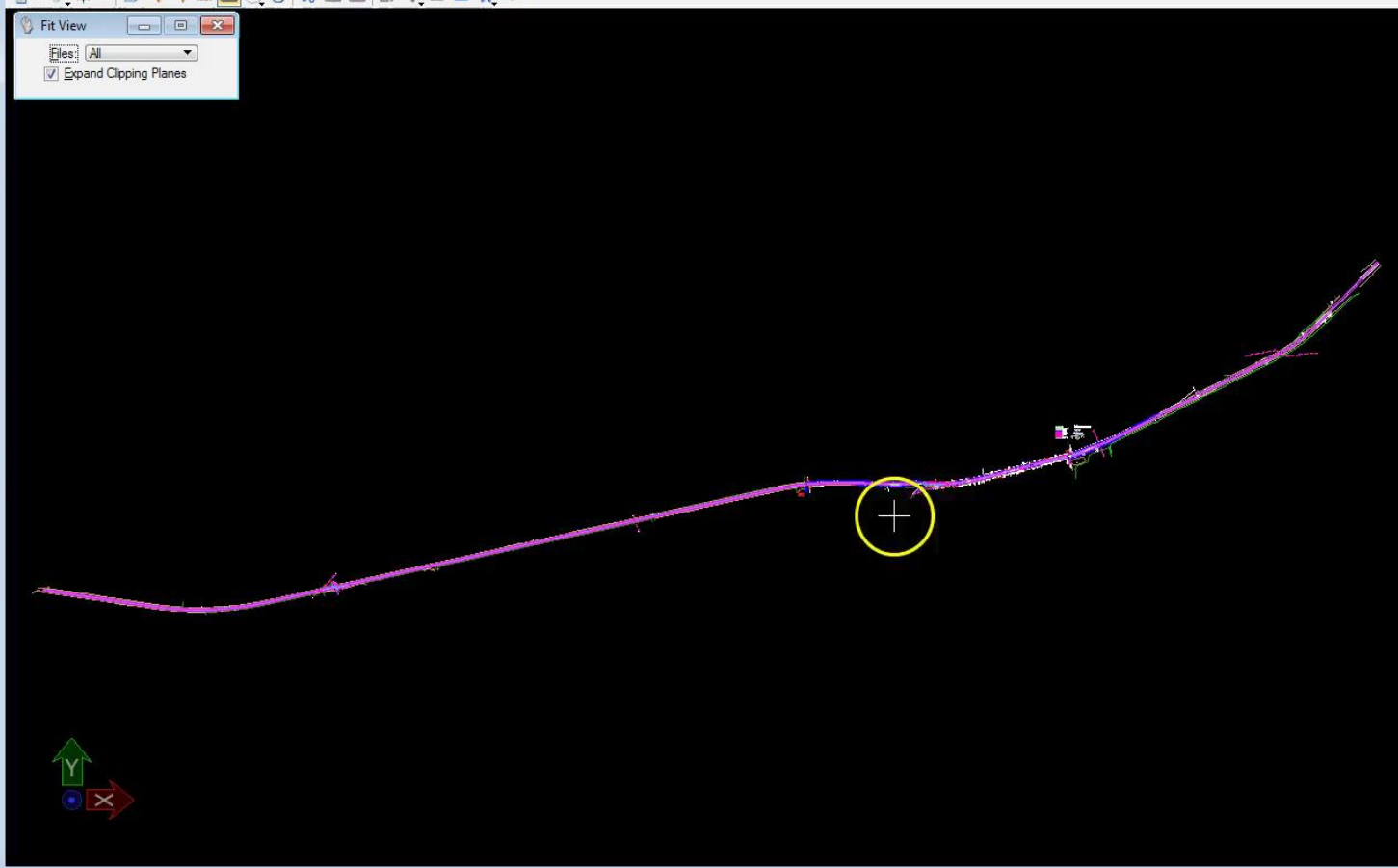




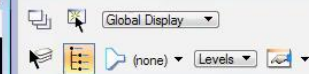
| Pontszám | Y          | X          | Balti_M | Pontfelhő_M | ΔM     |
|----------|------------|------------|---------|-------------|--------|
| 1        | 514742,238 | 198681,524 | 138,552 | 138,542     | -0,010 |
| 2        | 514863,081 | 198663,374 | 138,641 | 138,629     | -0,012 |
| 3        | 514964,031 | 198648,162 | 138,688 | 138,698     | 0,010  |
| 4        | 515061,417 | 198633,481 | 138,713 | 138,734     | 0,021  |
| 5        | 515140,988 | 198621,617 | 138,768 | 138,790     | 0,022  |
| 6        | 515235,897 | 198607,361 | 138,795 | 138,811     | 0,016  |
| 7        | 515336,869 | 198592,244 | 138,874 | 138,908     | 0,034  |
| 8        | 515435,276 | 198577,496 | 138,917 | 138,971     | 0,054  |
| 9        | 515535,963 | 198562,309 | 139,013 | 139,044     | 0,031  |
| 10       | 515634,937 | 198547,486 | 139,090 | 139,113     | 0,023  |
| 11       | 515736,227 | 198532,293 | 139,199 | 139,212     | 0,013  |
| 12       | 515829,944 | 198518,232 | 139,307 | 139,344     | 0,037  |
| 13       | 515928,969 | 198503,316 | 139,408 | 139,459     | 0,051  |
| 14       | 516052,218 | 198489,178 | 139,548 | 139,584     | 0,036  |
| 15       | 516176,947 | 198488,531 | 139,694 | 139,706     | 0,012  |
| 16       | 516279,439 | 198498,819 | 139,801 | 139,837     | 0,036  |
| 17       | 516374,255 | 198517,032 | 139,894 | 139,921     | 0,027  |
| 18       | 516473,659 | 198539,040 | 139,952 | 139,947     | -0,005 |
| 19       | 516570,366 | 198560,573 | 139,942 | 139,926     | -0,016 |
| 20       | 516605,028 | 198568,243 | 139,954 | 139,944     | -0,010 |
| 21       | 516667,786 | 198582,186 | 140,112 | 140,111     | -0,001 |
| 22       | 516767,053 | 198604,217 | 140,393 | 140,408     | 0,015  |
| 23       | 516864,464 | 198625,781 | 140,685 | 140,693     | 0,008  |
| 24       | 516962,204 | 198647,442 | 141,031 | 141,021     | -0,010 |
| 25       | 517058,336 | 198668,839 | 141,322 | 141,329     | 0,007  |
| 26       | 517156,656 | 198690,734 | 141,547 | 141,565     | 0,018  |
| 27       | 517251,838 | 198711,858 | 141,656 | 141,656     | 0,000  |
| 28       | 517350,830 | 198733,876 | 141,793 | 141,806     | 0,013  |
| 29       | 517449,378 | 198755,702 | 141,973 | 141,999     | 0,026  |
| 30       | 517546,244 | 198777,229 | 142,091 | 142,102     | 0,011  |
| 31       | 517644,262 | 198798,955 | 142,237 | 142,252     | 0,015  |
| 32       | 517736,700 | 198819,474 | 142,378 | 142,408     | 0,030  |
| 33       | 517838,721 | 198842,272 | 142,498 | 142,530     | 0,032  |
| 34       | 517935,171 | 198863,690 | 142,711 | 142,736     | 0,025  |
| 35       | 518030,508 | 198884,827 | 142,845 | 142,866     | 0,021  |



View 1 - Top, Model



Level Display - View 1



Karakó\_Tuskevár\_20150812.dgn, Model

- | Name                       | U |
|----------------------------|---|
| 0                          |   |
| 0csapadek                  |   |
| 000nemkeltengely           |   |
| 0ablak                     |   |
| 0uterv                     |   |
| 0utervszoveg               |   |
| 1burkjel                   |   |
| 1burkolat                  |   |
| 1fa                        |   |
| 1geodezia                  |   |
| 1kerites                   |   |
| 1kozmujelek                |   |
| 1szegely-k                 |   |
| 1szegely-kiemelt           |   |
| arok_alj                   |   |
| arok_burkolt_alj           |   |
| arok_burkolt_tet6          |   |
| arok_tet6                  |   |
| ateresz                    |   |
| bokorsor                   |   |
| burkolat_kontur            |   |
| C-FELIRAT                  |   |
| C-TELEK-FELIRAT            |   |
| C-TELEK-VONAL-FELIRAT      |   |
| C-TENGELY                  |   |
| C-TENGELY-FELIRAT          |   |
| C-TENGELY-HSZELV-CIM       |   |
| C-TENGELY-HSZELV-FELIRAT   |   |
| C-TENGELY-HSZELV-HALO      |   |
| C-TENGELY-HSZELV-HALO-AL   |   |
| C-TENGELY-HSZELV-HALO-FO   |   |
| C-TENGELY-HSZELV-HALO-GEOM |   |

Level Display - View 1 Element Information

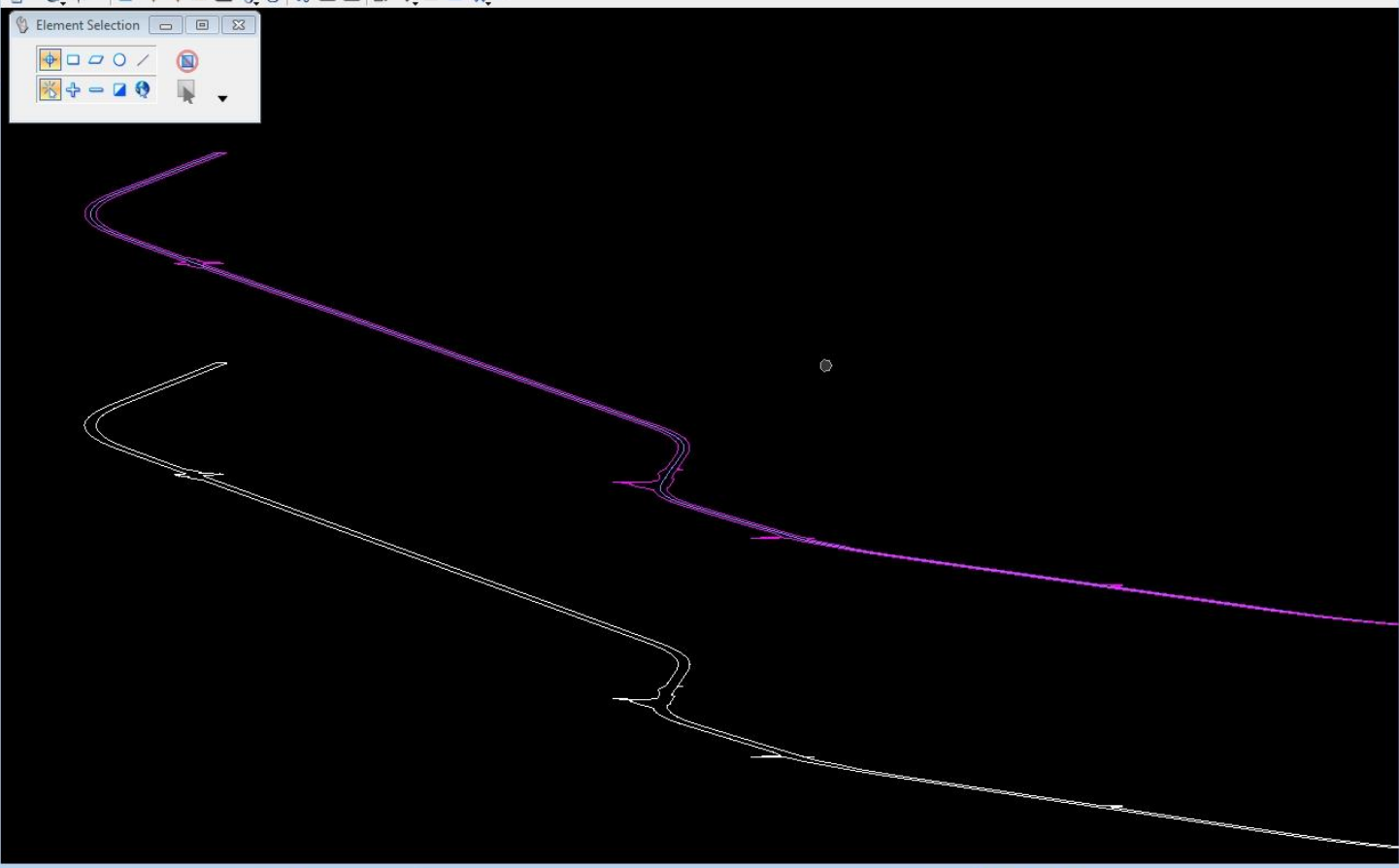


burkolat\_szelv.dgn [3D - V8 DGN] - MicroStation V8i (SELECTseries 3)

File Edit Element Settings Tools Utilities Workspace Window Help



View 1, Model



Level Display - View 1

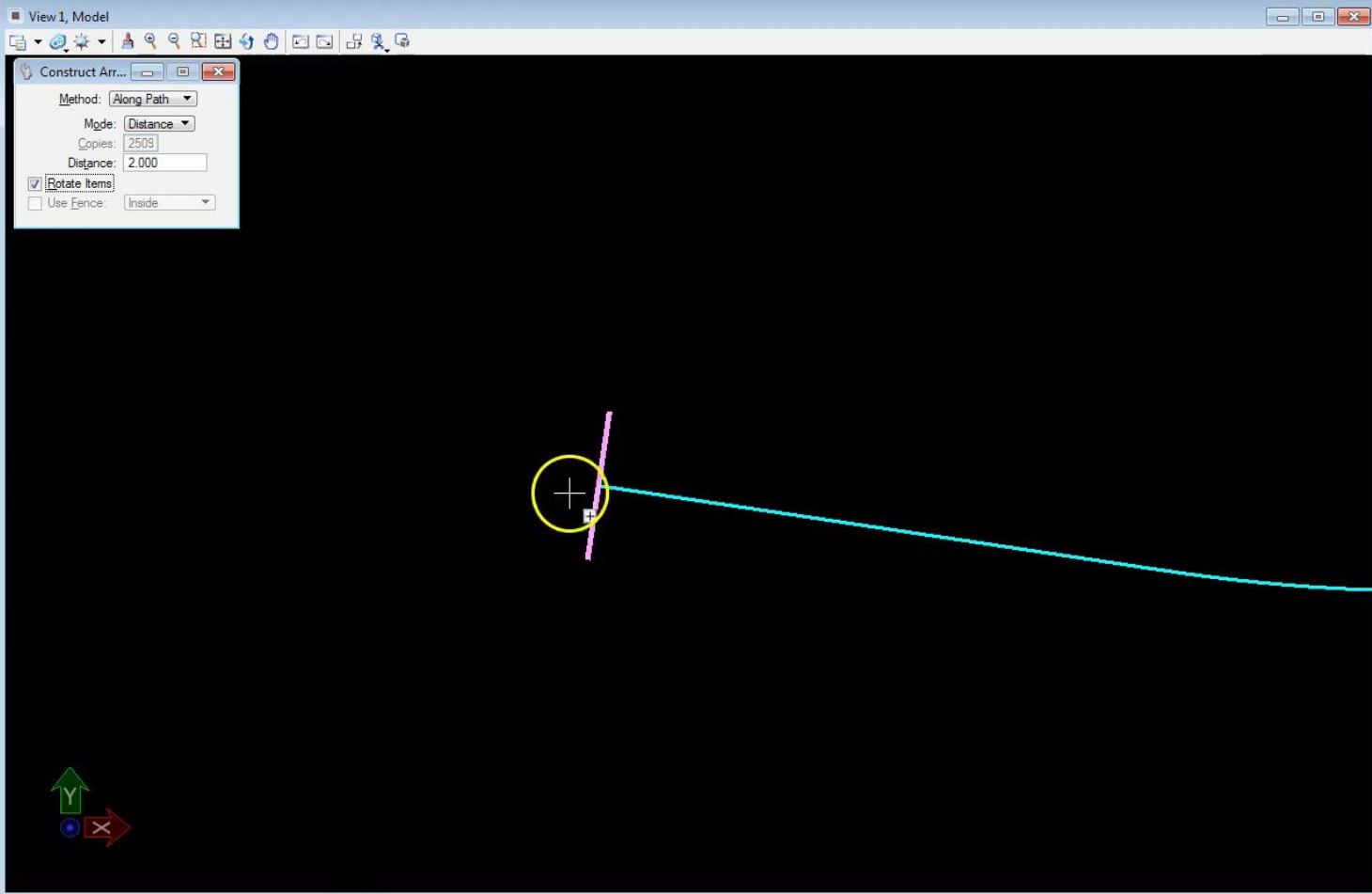


burkolat\_szelv.dgn

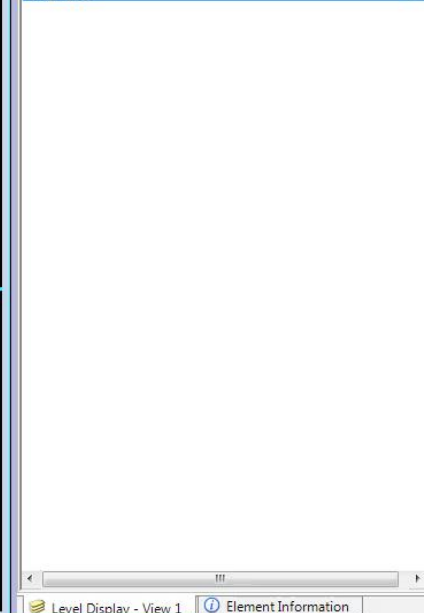
| Name            | Used |
|-----------------|------|
| 0               |      |
| burkolat_kontúr | •    |
| tengely         | •    |
| vágóvonal       | •    |

Level Display - View 1 Element Information

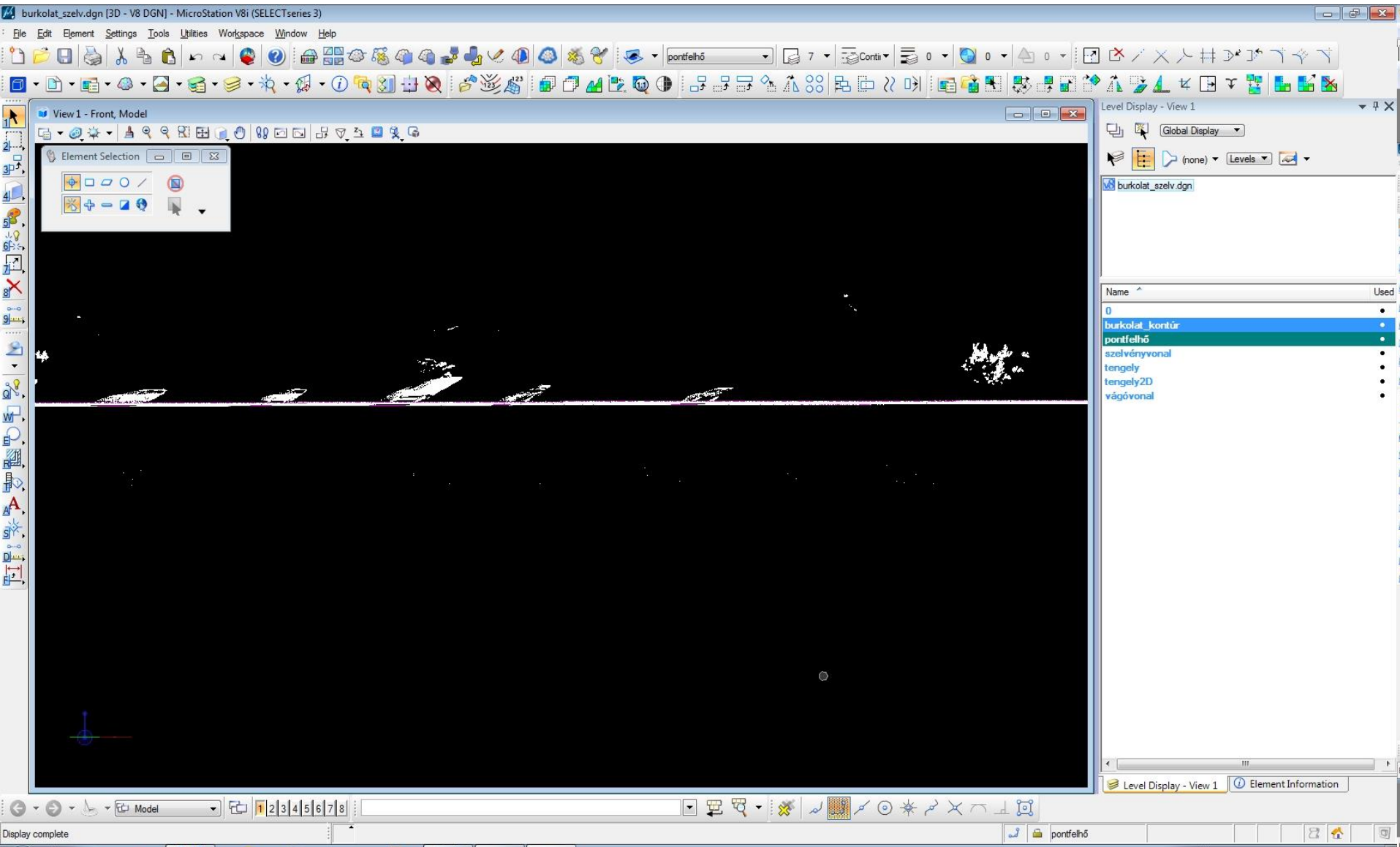
Element Selection > Identify element to add to set



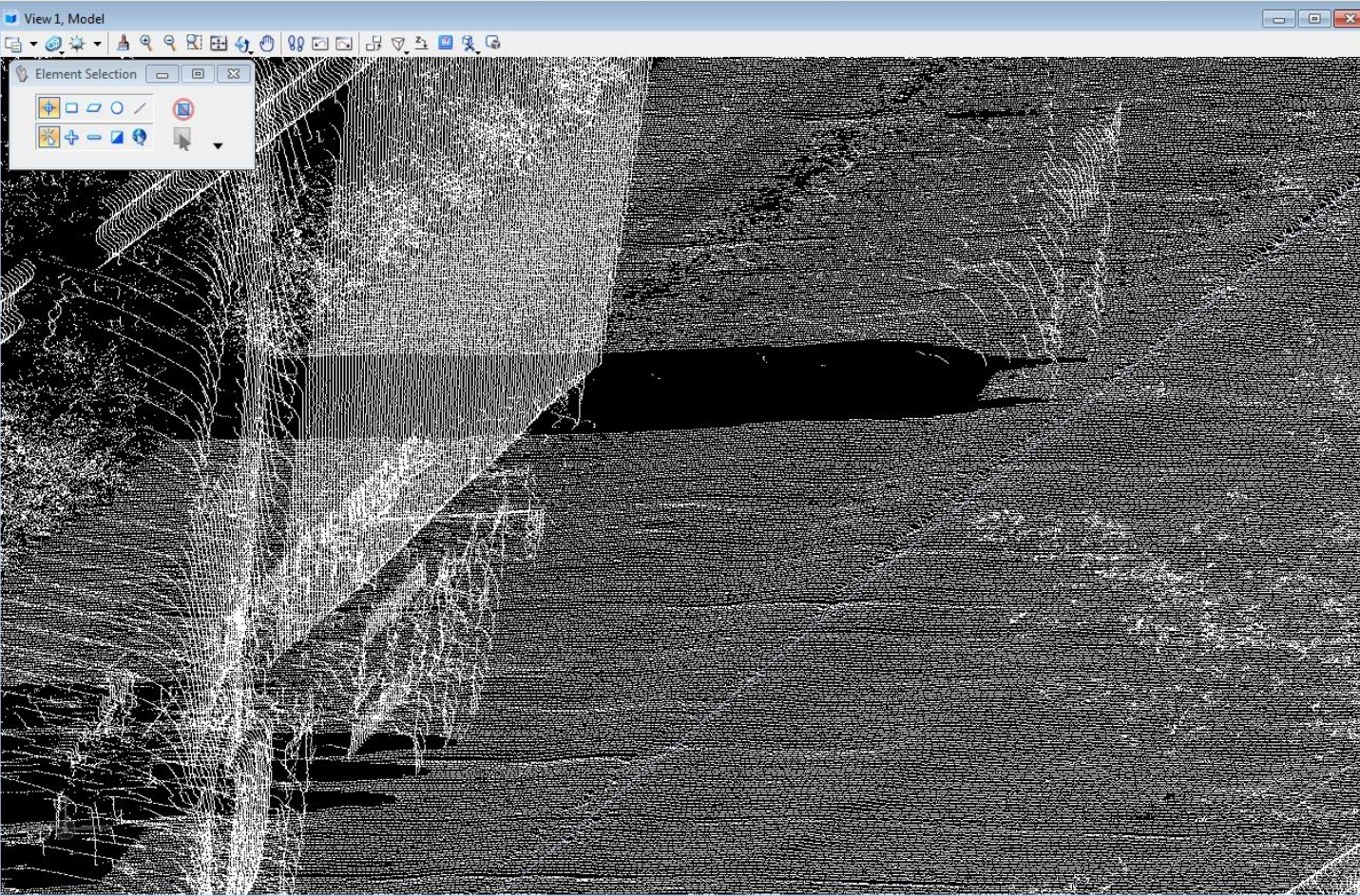
| Name          | Used |
|---------------|------|
| 0             |      |
| szelvényvonal | •    |
| tengely2D     | •    |











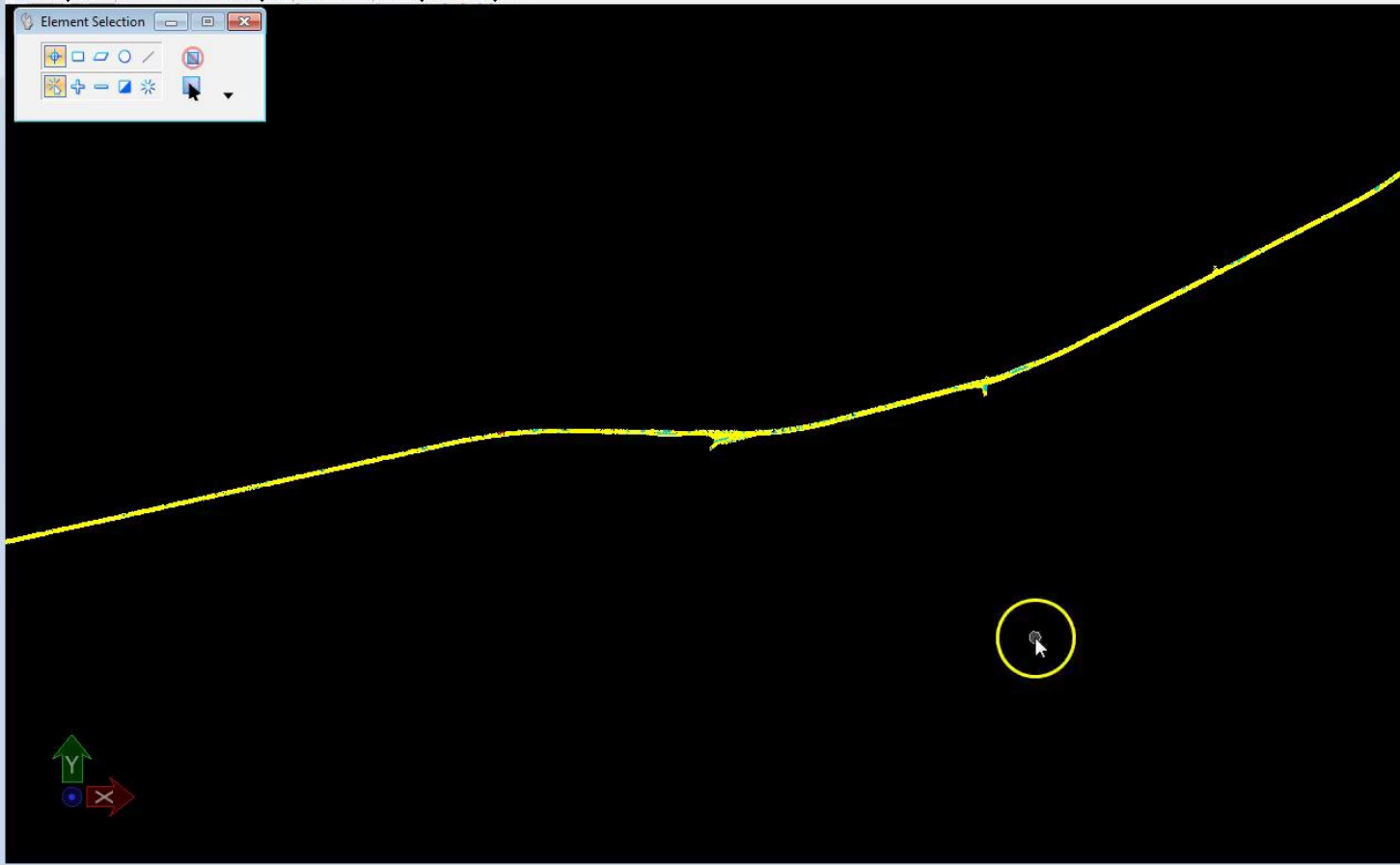
burkolat\_szelv.dgn

| Name            | Used |
|-----------------|------|
| 0               |      |
| burkolat_kontúr |      |
| pontfelhő       |      |
| tengely         |      |
| vágóvonal       |      |

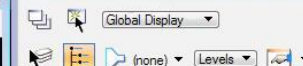




View 1 - Top, Model



Level Display - View 1

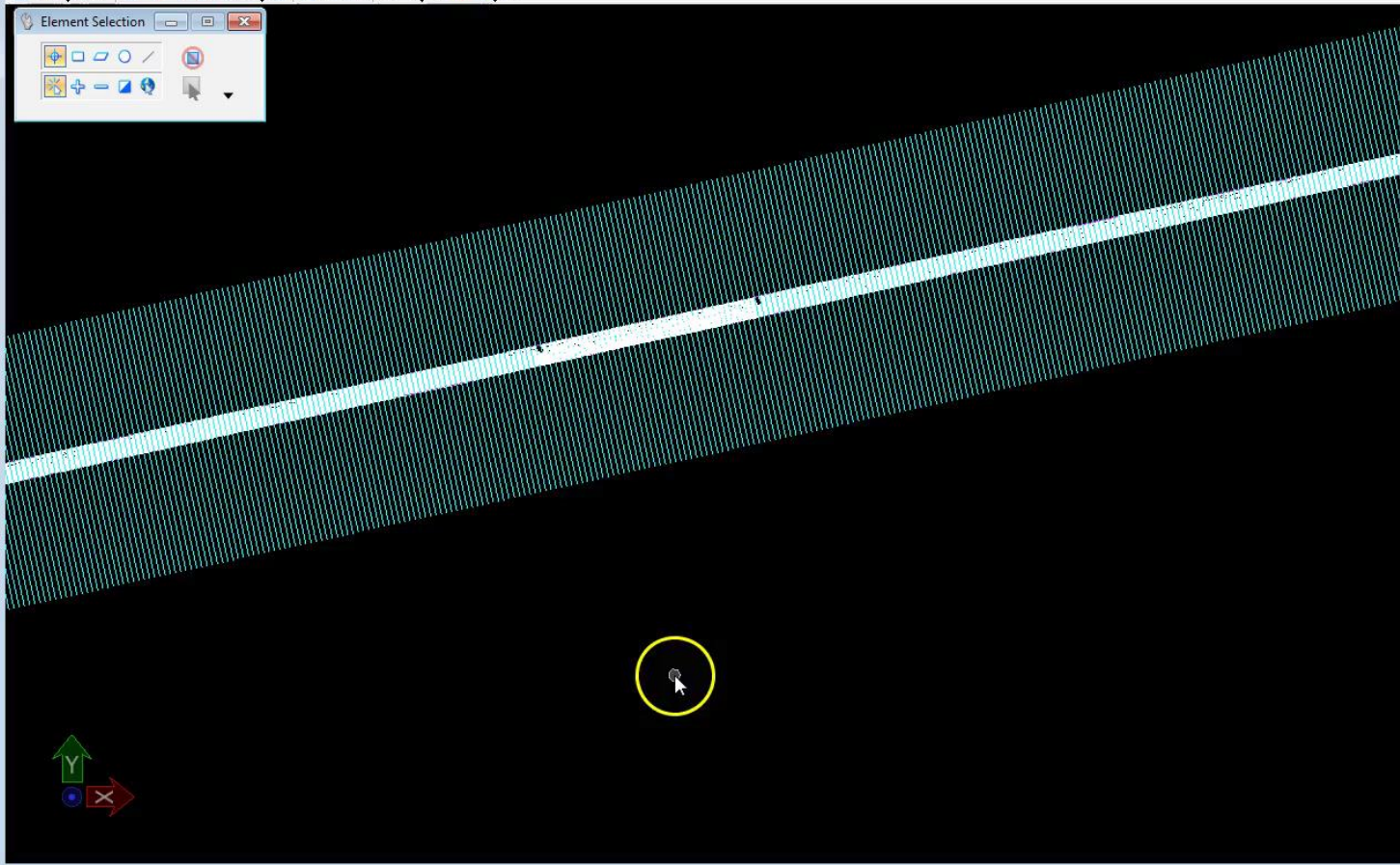


burkolat\_szelv.dgn

| Name             | Used |
|------------------|------|
| 0                | •    |
| burkolat_kontúr  | •    |
| <b>pontfelhő</b> | •    |
| szelvényvonal    | •    |
| tengely          | •    |
| tengely2D        | •    |
| vágóvonal        | •    |



View 1 - Top, Model



Level Display - View 1

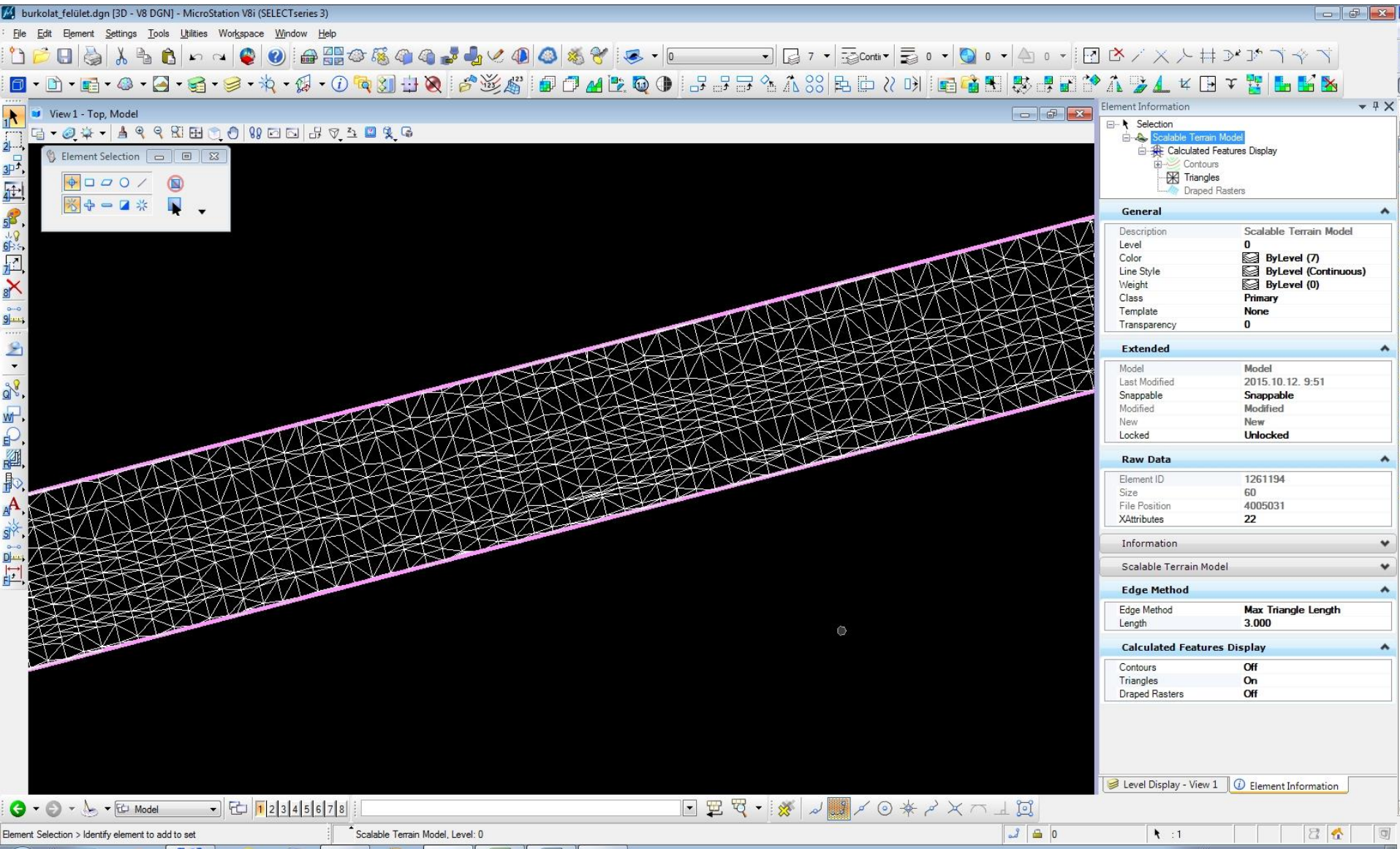


burkolat\_szelv.dgn

| Name            | Used |
|-----------------|------|
| 0               | •    |
| burkolat_kontúr | •    |
| pontfelhő       | •    |
| szelevnyvonal   | •    |
| tengely         | •    |
| tengely2D       | •    |
| vágóvonal       | •    |

Level Display - View 1 Element Information





| Mobil térképezés                                            | Hagyományos térképezés    |
|-------------------------------------------------------------|---------------------------|
| Speciális eszköz, speciális szoftverek, speciális szaktudás | Nagyobb költség           |
| Nagyságrendekkel több adat                                  | Szelektált adatok         |
| Adatgyűjtés az irodában                                     | Terepen töltött idő       |
| Szervezhető, tervezhető                                     | Időjárás és forgalomfüggő |
| Elegendő a pontfelhőt újra megnyitni                        | Terepi pótmérés           |







# Köszönöm a

# figyeelmet!

