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Sent: Friday, December 27, 2002 3:46 PM

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Subject: Design Cross-Section SOE files - Consultants

Importance: High

Beginning January 1, 2003 Roadway Design Division's Designers (including consultants) shall produce and make available ASCII files containing Station, Offset, Elevation (SOE) of each break point of the Design Subgrade Cross-Sections for all projects that have over 200,000 CY of Total Earthwork. This is being done at the request of Construction Division to aid the Project Offices in their Final Earthwork calculations.

Note: This has been a requirement as stated in the "Overview for Consultants" chapter of the CADD Manual since 1999 for consultants who do not use GeoPak software. This process has changed slightly and the revised chapter is attached(CADDCONS.DOC). Also, for consultants who use GeoPak, the revised XSAPPS chapter of the GeoPak User's Guide is attached and it discusses the process of generating these SOE files.

These files are due at the time Final Plans are submitted along with all the electronic files of a project as stated below.

1. For projects whose Total Earthwork Volume is greater than 200,000 CY, SOE files will be generated for the Mainline, Interchange Ramps, Loops, Major Crossroads, etc. (The roads that contain the major earthwork for a project). SOE files will not be generated for Local Roads unless a major amount of earthwork is involved for a particular Local Road.

2. The format for these SOE files is either GeoPak's .GEN format which is generated by GeoPak's MULTI Cross-Section Report application as stated in the recently revised XS APPS chapter of the GeoPak User's Guide or the SOE format, both of which are shown below.

.GEN Format

GROUND MULTILINE DATA LINE TYPE *

XS 245+00.000 R 1 -62.70 232.94 -42.00 238.12 -29.14 240.26 -14.00 240.56 -12.00 240.60

0.00 240.84 12.00 240.60 14.00 240.56 28.27 240.28 43.00 237.82 45.42 238.63

XS 246+00.000 R 1 etc.

SOE Format

245+00 -62.70 232.94

245+00 -42.00 238.12

245+00 -29.14 240.26

245+00 -14.00 240.56

245+00 -12.00 240.60

245+00 0.00 240.84

245+00 12.00 240.60

245+00 14.00 240.56

245+00 28.27 240.28

245+00 43.00 237.82

245+00 45.42 238.63

246+00 etc.

3. The file(s) will be placed in a sub-directory called \FinalSOE under the Project Directory.
4. The filename will be XSroute-des.gen or XSroute-des.soe (i.e. xs471-des.gen)
5. If revisions are made to the Cross-Sections after these files have been created, new SOE files will have to be generated and the filename of these will include the revision date (Xsroute-des-date.gen) Original or revised files do not need to be replaced.
6. If Select Fill is present, SOE files need to be generated for this surface also. The filename of these will be XSroute-des1.gen or XSroute-des1.dgn.

XS 245+00.000 R 1 -47.54 236.73 0.00 237.84 43.00 236.82 44.50 238.32

If you have any questions, please contact Keith Boteler(359-7290).

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