Plan Coordination Recommendations for Geotech

PURPOSE

This **guideline** is established in order to better transmit usable data to the Geotechnical Unit. It is intended only as a guide due to variances in project characteristics. Although this guide is specific in nature, it should accommodate the majority of projects transmitted from Roadway Design. Below is an outline of the data desired by Geotechnical, and the necessary procedures for the Roadway user to generate this data. Notice that when possible, a single file is produced for Geotechnical in order that the number of files be kept to a minimum for transmittal.

PROCEDURE

1. The GEOPAK Ascii Alignment File - The user should enter the coordinate geometry dialog either from graphics or from cogocrt. The user then keys in

DES CHA *

When this is complete, the user should execute an "OUT" command and save the output to a file with an appropriate name. **(It is important that the output contain nothing more than "DES CHA *".)** This will create one file containing all alignments for the proposed project.

2. **The GEOPAK As Designed Cross Section Report -** The user should generate an "As Designed Cross Section Report" for each alignment contained in the job file. This process can be run using the GEOINP program (available from CADD support), or it can be run from MicroStation using the Geopak Cross-Section Reports utility. Individual "As Design Cross Section Reports" should be appended together to create one file.

3. **A DTM of the Existing Ground Surface -** The DTM's provided to Roadway by Photogrammetry and the Location and Surveys Unit should be transmitted to Geotechnical without any modifications. For projects that are entirely conventional cross sections, a 3D file should be created to plot points generated from .xyz files. To do this enter the GEOPAK Survey Manager and select the PROCESS option. (Ref: Part III GEOPAK Manual) (**It is important that location.sdb be the current database. This is located in /usr/stdrd/geopak/db)** Once this is done, select the proper .xyz file and set the delimiter to represent the separation of text in the file (SPACE). When the file displays in the view box, tag one of the lines with the cursor. Next set the appropriate values in the boxes under each piece of displayed text. **(Be sure to set the "S" field to PCODE).** Once this is complete, toggle the DRAW box on , as well as the CELL option. Be sure that **misc.cel** is the active cell library also. When this is completed select the APPLY bar at the bottom of the dialog.

All other xyz files may be plotted into the same 3D file so as to create a single DTM file for Geotechnical. Most of the other xyz files will be either Y line or T line cross-section files.

The final product that is transmitted to the Geotechnical Unit should consist of:

1. Any and all DTM files from sources before Roadway Design,

2. A Geopak "describe alignment" file,

3. An "As Designed Cross-Section Report",

4. A 3d Proposed DTM made from conventional cross-section,

5. All files required to compose plan sheets. This would be the psh files and all files referenced to them.