

Plan Coordination Recommendations for Hydraulics

Guidelines

DRAINAGE Folder / DRN file

A new DRAINAGE folder has been added to the standard TIP structure , with read/write permissions set to include Hydro and Roadway.

When a new TIP folder is created, an empty DRN file will be placed automatically in the DRAINAGE folder.

When drainage design is completed, the DRN file will be replaced by Hydro - after turning off levels 21-63 and saving settings.

Roadway will not copy the DRN to their folders but will reference the DRN file from the DRAINAGE folder. Revisions to the DRN file by Roadway, will be made in the DRAINAGE folder.

Roadway will include the \DRAINAGE\DRN file when creating the project IPS files, making sure levels 21 through 63 are turned off.

DITCHES

Lateral and Berm Ditches

Lateral drainage ditches and berm ditches (with typical geometry) will be placed by Roadway in the \DRAINAGE\DRN file.

The DDE criteria has been revised to draw ditches into the plan view automatically at the same time cross sections are processed.

To avoid confusion and conflict, when Hydro draws lateral ditches for design purposes, it will be on level 48.

Meandering Ditches

Natural stream design (meandering ditches) cross sections will be created by Hydro in a new cross section file (or added to a copy of Roadway's cross sections.) The COGO chain data will be made available to Roadway for merging into the RDY GPK file.

Berm Ditches

Hydro will provide a COGO profile for berm ditches that do not follow natural downhill contours.

When necessary, Roadway will add the back slope stake of berm ditches to the DRN file for setting ROW limits.

Roadway CADD support has developed berm ditch criteria to automate these processes. (See Roadway Web site updates of March 21.)

Head/Tail Ditches Hydro will make sure head and tail ditches are drawn to scale and cut cross sections when necessary.

DETAILS

Ditch details will be placed, stationed, and numbered (or lettered) by Hydro, but can be shifted anywhere on the plan sheet by Roadway, or moved to a separate ditch detail sheet by Roadway, which will reside in the DRN file.

Hydro will place all details on a "ditch detail" level as specified in the Leveling chart.

QUANTITIES

Hydro will provide text quantities for special rip rapped items and DDE for Head and Tail ditches.

Roadway will provide DDE for lateral ditches.

LEVELING

The D&C Alignment DDB will be revised to place alignment control labels on different levels as needed by Hydro for permits.

Level usage by Roadway is restricted to 11 through 20 of the DRN file This will facilitate Hydro's permitting and redline plotting. Quantity text for stone and fabric (at end of pipes) will be on level 20.

To include buffer zones (1&2) in the final plans, Level 7 of the DRN file should be turned on within the project IPS files.

CAMA information will be put on level 51

Wetland and Stream Impacts will be put on level 53

Buffer Impacts will be put on level 54.

All permit related legends and such will be on levels 51,53 and 54.

Leveling charts on the Roadway Design web site have been revised to reflect these changes.