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Chapter 16 - Highway Lighting Standards

CADD Production Criteria Handbook

16.1 GENERAL

Highway Lighting Plans are usually a component set of plans (see CPCH Chapter 13, Section 13.1). However, if the Highway Lighting Plans are the lead plan set, then the standards set in Chapter 13, Roadway Standards, pertaining to elements that are specific to the lead plan set shall apply to the Highway Lighting plan set (i.e., Traffic Control files and elements, preliminary estimate sheets, etc.) When prepared as component plans, Highway Lighting Plans shall be assembled as a separate plan set complete with a key sheet, tabulation of quantities and all other relevant signing and pavement marking sheets. The sheets shall be numbered consecutively, with sheet numbers prefixed by the letter “L”

16.2 STANDARD FILE NAMES

Florida Department of Transportation (FDOT) utilizes standard naming conventions for all of its files. Some of the automation implemented in various tools provided by FDOT depends on naming conventions being met. More importantly, the naming convention confers information to the downstream customer of the data.

Standard file names should follow this format: AAAABB##.ext

Where **AAAA** = *abbreviated file description*, **BB** = *Discipline Denotation*, **##** = *Sequence number*.

Note Please see CADD Production Criteria Handbook (CPCH) Chapter 4 for more information.

The following table defines the Lighting File Name Standards in regards to FDOT Projects with the understanding that each file name will include sequence numbering. If the need arises to create a file type defined by another discipline, use the first 4 characters of the standard file name and append the Lighting filename designation (LT) as the fifth and sixth characters, followed by the file sequence numbers. An example is topolt01.dgn.

File Type	File Name	Model Name	File Description	Rule File	Seed File	Critical File
Borders & Sheets	BDPLLT.dgn	Default	Border Sheet Plan	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Borders & Sheets	GNNTLT.dgn	Default	General Notes Sheet	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Borders & Sheets	PLANLT.dgn	Default	Lighting Plan Sheet	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Clip Borders	CLIPLT.dgn	Default	Clip Borders	cliprd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Clipping	MTPLLT.dgn	Default	Motif files for plan sheets	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Clipping	MTPRLT.dgn	Default	Motif files for profile sheets	plprrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Existing Topography	TOPOLT.dgn	Default	Topography – Existing	topord.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Key Sheets	KEYSLT.dgn	Default	Key Sheet	keysht.rul	\$(MX_SEEDIR)fdotseedkeymap.dgn	
Proposed Design	DSGNLT.dgn	Default	Proposed Design	dsgnlt.rul	\$(MX_SEEDIR)fdotseed2d.dgn	X

File Type	File Name	Model Name	File Description	Rule File	Seed File	Critical File
Proposed Design	TEXTLT.dgn	Default	Text Label and Misc Description	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Special Details	CNPLLT.dgn	Default	Special Pole Detail Sheets (All Types)	dsgnlt.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Special Details	JCDTLT.dgn	Default	Jacking Detail Sheet	spdtrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Special Details	LUDTLT.dgn	Default	Luminaries and Foundation Detail Sheet (All Types)	dsgnlt.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Special Details	SRPTLT.dgn	Default	Service Point Detail Sheets	spdtrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Summary Boxes/Tables	CESSLT.dgn	Default	Summary of Pay Item Sheets	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Summary Boxes/Tables	PLDTLT.dgn	Default	Pole Data Sheets	spdtrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	
Summary Boxes/Tables	TABQLT.dgn	Default	Tabulation of Quantity Sheet	planrd.rul	\$(MX_SEEDIR)fdotseed2d.dgn	

16.3 RESOURCE FILES

Engineering/CADD Systems Office (ECSO) provides standard resource files for Computer Aided Design and Drafting (CADD) Lighting Plans, which use MicroStation and GEOPAK to produce an electronic project data delivery. If a custom line style or font is needed, it must either be embedded in the active design file or the corresponding resource file must be copied to the \SYMB sub-directory of the FDOT project directory structure and included as part of the electronic delivery of the project. The justification for the non-standard line style or font must be noted in the journal file.

16.4 ENGINEERING DATA

The Lighting discipline directory contains an additional sub-directory named **leng_data**. This sub-directory is designated to contain the following:

- PostScript image files of the Lighting plan sheets
- Quality Control Reports
- ASCII Engineering Data output files
- All computer input and output files (PostScript and Native File Formats) used for structural design of the lighting structures
- All supplemental hand calculations (scanned and saved in PDF and PostScript Formats)
- Other data pertinent to the overall lighting design

16.5 PROFESSIONALS' ELECTRONIC DATA DELIVERY SYSTEM (PEDDS)

PEDDS shall be used to Secure and Authenticate project data. When projects are received, the FDOT authenticates the data on the delivered CD. Each time data is transmitted to or received by FDOT the data shall be secured and authenticated. PEDDS shall also be used to authenticate any project specific data received as part of a delivery from an outside source or discipline. For example, an electronic delivery to Roadway from Survey or EMO should be secured and authenticated. Roadway shall electronically secure all files for delivery.

16.6 SYMBOLOGY STANDARDS

Symbology Standards that apply to FDOT Projects are set up under a listing of Standard Level Names with specific ByLevel Color, Style and Weight attributes. These levels are grouped under specific Rule Files which are associated to each valid Standard Filename of each Discipline for the purpose of performing the Quality Control check for FDOT Standard compliancy of each FDOT project design file. Section 16.2 of this chapter provides for the complete Standard File Name listing with associated Rule File.

Note Refer to Chapter 3 FDOT Resource and Support Files to review the Level names listing for each associated Rule File.

The following are the basic level naming convention rules to follow to always know what level an element should be placed on:

- 1) Level Names have 18 maximum characters.
- 2) The format of the name is: **object_sv**

object (represents element type)	s (represents state)	v (represents view)
	<u>states</u>	<u>views</u>
	p (proposed)	x (cross section)
	d (drafting element)	r (profile)
	e (existing)	p (plan) (DTM is the same as plan)

Note Level Names without including the “_sv” portion in the name are assumed proposed plan view elements.

Example: With this information one can determine the following about the Level names below:

gas	- Proposed Plan view elements for “gas” related items
gas_ep	- Existing Plan view elements
gas_px	- Proposed cross section view elements

16.7 AGI32 LIGHTING SOFTWARE

FDOT has adopted and recommends the AGI32 Lighting Software as the standard Lighting Design software. However, using AGI32 is not required. Lighting Design Programs available in the industry may be used for FDOT Lighting Design. If AGI32 is not used, FDOT Symbology Standards shall still be met to be compliant with QC Rule Files and Electronic Plans Delivery.

