

# Plans Production

## Florida Department of Transportation State Kit for Civil 3D 2012



### Mary Ann Peterman

#### Biography Summary

*Mary Peterman is a CADD Development Support Applications Specialist with Florida Department of Transportation Engineering/CADD Systems Office where she is working on the implementation of Civil 3D as part of the state's adopt platform adoption of Civil 3D.*

*Prior to joining FDOT, she worked with CADD Centers of Florida, the oldest Autodesk reseller, providing technical support and taught hundreds Civil 3D and AutoCAD. As a consultant with CAD360, she developed an integrated streamlined implementation and custom training approach to fast track Civil implementation. Her background includes 26 years of drafting/design and CAD management experience and is currently providing expert level AEC civil technical services and consulting. Her experience covers civil site planning and roadway design, mechanical design for manufacturing, CAD resources management, AutoCAD customization solutions and conceptual visualization. She has wealth of experience in implementing CAD standards into real world production.*

- Over twenty six years of extensive CAD experience, including 20 years of Autodesk Products.
  - Sept 2011 – present: FDOT CADD Development Specialist – Civil 3D Implementation Support Team.
  - Jan 2008 – July 2011: Autodesk Applications Specialist / Instructor, CADD Centers of Florida, Fort Lauderdale, FL
  - Feb 2003 - Nov 2007: CAD Manager & Applications Specialist, Permasteelisa Corporation, Mendota Heights, MN
  - 1993 –2003: CAD Site Designer, Transdevelopment Corporation, Atlanta, GA
  - 1983 – 1992 Pre-historic CAD Era - CAD Drafting and Design positions.
- Autodesk Certified Instructor, Associate and Professionally Certified for AutoCAD and Civil 3D



## Contact Information:

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## Getting Started

1. Setup a Project
2. Setup Project .DST from FDOT MASTER SET UP TEMPLATE.DST



## FDOT Project Structure

**\_shortcuts**  
*(who doesn't **love** a shortcut)*

**data**  
*contains FDOT Master Sheet Set Template.dst*

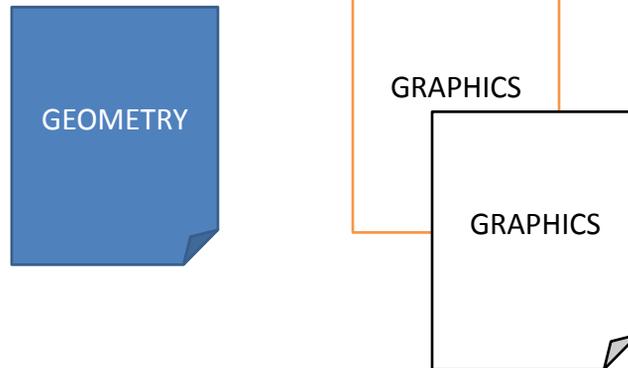


## Civil 3D Reference Types

- **External References**
  - **Graphics Shared**
    - Each drawing can be modified for different graphic settings by layer.
    - Can share BOTH AutoCAD Entities and Civil 3D Objects for Annotation
    - Visretain = 1. Save Layer States
- **Data References**
  - **Geometry Shared**
    - Civil 3D Objects – Surfaces, Alignments (horizontal and vertical), Pipe Networks, View Frame Groups
    - Styles set Graphic settings of the Objects



## Differences and Combos



## Guidelines for XRefs

- Using references as overlays prevents circular references. When AutoCAD reads the file on insert, it ignores all references listed which were overlays. It is preferable to add external references as **OVERLAYS**.  
Insert External References into Miscellaneous layer(s). This way you can easily turn off any XREF.
- MOTIF FILES > Attached Motif drawings into *other* files as **OVERLAYS**. This will insure that the MOTIF cannot be nested in any other file. It only goes one level.
- Create the motif drawing with references as **ATTACHMENTS**. This bundles the references together.

This is how motif's should be added to any drawing that requires common underlays.

Reference Name	Status	Size	Type	Date	Saved Path
dsgnsg01	Opened	619 KB	Current	4/27/2012 9:00:50 AM	
mtplsg01	Loaded	872 KB	Overlay	4/27/2012 8:44:24 AM	..\mtplsg01.dwg
SHARED_DSGNRD02	Loaded	1.36 MB	Attach	3/7/2012 10:37:06 AM	..\roadway\SHARED_DSGNRD02.DWG
TOPORD03	Loaded	9.51 MB	Attach	4/27/2012 10:24:56 AM	..\roadway\TOPORD03.dwg
UTEXRD02	Loaded	2.09 MB	Attach	3/27/2012 2:23:18 PM	..\roadway\UTEXRD02.DWG
UTEXRD03	Loaded	828 KB	Attach	4/26/2012 6:10:33 PM	..\roadway\UTEXRD03.DWG



## Reference Loading Results

➤ Insert MOTIF into design files as an **OVERLAY** .

AutoCAD loads ALL the drawings in the motif drawing because they were attachments.

➤ If the Design File is inserted into other files the MOTIF nested references will NOT be loaded.

DESIGN FILES requiring no other references >

The **dsgnsg01** is loaded into another design file as an OVERLAY; no other files from the MOTIF are loaded by AutoCAD.

Reference Name	Status	Size	Type	Date	Saved Path
DSGNRD02*	Opened	3.79 MB	Current	4/27/2012 1:25:44 PM	
ALGNRD04	Loaded	2.24 MB	Overlay	4/27/2012 12:05:58 PM	.\ALGNRD04.DWG
DRPRRD01	Loaded	4.76 MB	Overlay	4/25/2012 3:09:36 PM	.\DRPRRD01.DWG
dsgnsg01	Loaded	619 KB	Overlay	4/27/2012 9:00:50 AM	.\signals\dsgnsg01.dwg
DSPFRD01	Loaded	779 KB	Overlay	4/27/2012 1:02:54 PM	.\DSPFRD01.DWG
PDPLRD01	Loaded	3.71 MB	Overlay	4/27/2012 1:13:43 PM	.\PDPLRD01.DWG
i110639_design	Loaded	579 KB	Overlay	3/26/2012 5:52:46 PM	.\i110639_design.DWG
TOPORD01	Loaded	10.9 MB	Overlay	1/31/2012 4:20:30 PM	.\survey\TOPORD01.DWG
TOPORD03	Loaded	9.51 MB	Overlay	4/27/2012 10:24:56 AM	.\TOPORD03.dwg



## Create sheets

Manual (Example Key Sheet or Typical Sections)

1. Create File
2. Attach References



## Create sheets

### *Automatic – Plans Production Wizard*

1. Create View Frames (Clip Borders)
2. Data Reference View Frames to the project
3. Create a Base Plan
4. Attach References
5. Run Create Sheets Wizard



## Finish up in Sheet Set Organizer (SSO)

- Open Project in SSO
- Edit Layouts/Sheet Titleblock Information Fields
- Plot to PDF
- Create Indexes

**READY FOR ELECTRONIC DELIVERY !**



## Summary review

1. Setup a Project
2. Setup Project .DST
3. Create Sheets
4. Add to .DST
5. Open in SSO for project organization, create project index, electronic delivery and printing.

