900 Production of NexGen Plans

900.1 General

The requirements provided in the ***FDM 900 series*** and the ***FDOT CADD Manual*** form the basis for format and assembly of the Contract Plans Set.

The ***FDM 900 series*** is used when Building Information Model (BIM) files are signed and sealed, and the use of automated machine guidance (AMG) construction methods are anticipated. If an ***FDM 900 series*** chapter is shown as "under development" for a required sheet, use the corresponding ***FDM 300 series*** chapter.

The ***FDM 900 series*** is divided into three sections:

(1) Plans Production – This section provides general plans production information, and requirements for documents that are not delivered within a Contract Plans Set.

(2) Roadway Plans Set – This section provides specific information concerning the content of each required sheet delivered within the Roadway Plans Set.

(3) Component Plans Set – This section provides supplemental information concerning the content of a Component Plans Set.

900.1.1 Exhibits

Many chapters contain "generic" exhibits that provide examples of the plan sheets covered by that chapter. These exhibits were developed using criteria and standards in force at the time of their creation. These exhibits are not to be used as a source for criteria unless specified as such within the ***FDM*** chapter.

900.1.2 Symbols and Abbreviations

Standard symbols for Roadway Design are shown in the CADD Symbol Cell Library.

Abbreviations may be used to save space. A list of standard abbreviations is contained in the ***Standard Plans***. Minor deviations from these standard abbreviations are allowed, provided that the abbreviation used is clear and easily understood.

900.1.3 Photography

Plan sheets may use photography (aerial or other) when appropriate (e.g., for Drainage Maps, SWPPP supplemental site maps, bridge repair plans).

900.2 Labeling and Dimensioning Requirements

Orient horizontal and diagonal text to read left to right. Orient vertical text to read bottom to top.

Display information and data in accordance with the following:

- **Typical Section Elements** (e.g., lane widths, shoulder widths) - in feet, typically as a whole number.
- **Cross Slopes** (e.g., pavement, shoulder surfaces, sidewalks, bridge decks) - as a decimal part of a foot vertical per foot horizontal. These cross slopes are typically

rounded to two decimal places (i.e., 0.02, 0.06) but may be shown to three decimal places when required.

- **Horizontal Control Points** (e.g., survey centerline, baseline, intersections and alignment) - in feet to 2 decimal places.
- **Vertical Control Points** (e.g., PVC, PVI, PVT) - in feet to 2 decimal places.
- **Profile Grade Elevations** - in feet to 2 decimal places.
- **Profile Grade Slope** - in percent to 3 decimal places.
- **Flow Line Elevations** - in feet to 2 decimal places.
- **Drainage Structure Elevations** (e.g., manhole tops, grate elevations) - in feet to 2 decimal places.
- **Ditch Elevations** - in feet to 1 decimal place (to nearest 0.05 when controlled by percent of grade).
- **Box or Three-sided Culvert Spans and Heights** - Show inside dimensions using "span by height" format (10 x 6 means the span is 10 feet and the height is 6 feet). In feet as a whole number for new construction; in feet to 2 decimal places for extensions of existing box culverts.
- **Alignment Bearings, Degree of Curve and Delta Angles** - in degrees, minutes and seconds, rounded to the nearest second.
- **Slope Ratios** - in vertical to horizontal (V:H) format; e.g., 1:6, 1:4.

900.3 Project Information Block

All plan sheet formats are contained in the FDOT CADD Software. Sheet borders include information blocks in the lower right corner. Enter the following information into the information box:

(1) Sheet Number (far right corner) – Number plan sheets in sequential order as shown in the Index of Plans Sheets that is placed on the Key Sheet.

(2) Sheet Title (immediately left of the sheet number) – This should be the same title that is shown in the Index of Plans Sheets that is placed on the Key Sheet.

(3) Project Information (immediately left of the sheet title) - This should be the same information that is shown on the Key Sheet.

  (a) State Road Number – Place the prefix "SR" before the number for clarification. When a county road is shown in the box use the prefix "CR". The box should remain blank when the facility is neither a state nor county road.

  (b) County

  (c) Financial Project ID - On projects which have multiple Financial Project IDs, show only the lead Financial Project ID

(4) Designer Information (immediately left of the project information) – provide information for the Professional of Record that Signs and Seals the sheet, as discussed in ***FDM 130***.

900.4 Revision Block

11x17 sheet borders include revision blocks along the bottom of the sheet.

The Key Sheet and large format plan sheets require the placement of a revision block cell on the sheet when a revision to that sheet is necessary. Place the revision block at

the bottom center on the Key Sheet. Place the revision block at the far right on large format plan sheets, as close to the project information block as possible.

See ***FDM 132*** for required information to be placed in the revision block.