913 Typical Sections

913.1 General

The primary purpose of Typical Section sheets is to provide sectional depictions of the roadway, bridge, and toll site elements that illustrate “typical” conditions between specified station or milepost limits. Typical Section sheets also provide the traffic data and pavement design associated with the typical section being displayed.

The typical section design files used to create the Typical Section Package (see ***FDM 120***) should be used to prepare the Typical Section sheets.

For illustrations of various typical sections, see ***Exhibits 913-1*** through ***913-13***.

913.2 Typical Sections

Typical sections must cover the entire project limits; i.e., omit only Project Exceptions. Include the limits of typical section transitions with the typical section that begins the transition. Conditions such as turn lanes that occur for short distances should not be shown as separate typical sections.

Include typical sections for each proposed toll site. These typical sections must represent the required 100 feet of loop pavement underneath the toll gantry, tolling equipment building, gantry, and foundation outlines.

To aid in the development of typical section depictions, the FDOT CADD Software contains templates for generic typical sections that can be modified to reflect project conditions.

Typical Section sheets should contain only one typical section. Place Typical Section sheets in the plans in the following order:

(1) Roadway mainline

(2) Bridges for projects with bridges (new or widened)

(3) Toll sites

(4) Ramps and service roads for projects which include an interchange

(5) Intersecting roadways when significant work length is required

(6) Sideroads or streets when significant work length is required

913.2.1 Required Information

Show the road name and station (or milepost) limits below the TYPICAL SECTION header.

Typical sections are typically not drawn to scale, but the horizontal distances and slope angles shown must be proportionate. Existing typical section elements are shown as dashed lines and proposed as solid lines. Typical sections must label and dimension the following information, as applicable:

(1) Centerline or baseline of construction.

(2) Natural ground.

(3) Profile grade point.

(4) R/W or easements, and limits of construction.

(5) Limits of Clearing and Grubbing (Standard and Selective).

(6) Limits of sod and turf.

(7) Total shoulder widths and paved shoulder widths. Label shoulder treatments on RRR projects.

(8) Travel lane widths (total and individual lanes) and limits of friction course.

(9) Show median or roadside barriers when continuous (or mostly continuous) through the typical section limits.

(10) Bicycle lanes.

(11) Indicate the widths of existing pavement and proposed pavement on widening projects.

(12) Curb locations and types (show Type E or F Curb, not the dimension).

(13) Sidewalk, shared use path, and Urban Side Path locations and widths.

(14) Cross slopes of roadway pavements, shoulder surfaces, sidewalks, shared use paths, Urban Side Paths, and bridge decks as a decimal part of a foot vertical per foot horizontal. These cross slopes should be rounded to two decimal places, i.e., 0.02, 0.06. Three decimal places may be required for pavement cross slopes.

(15) Bridge traffic railings and parapets.

(16) Median width and type, show slopes by ratio, vertical to horizontal, i.e., 1:4, 1:2.

(17) Roadside slopes and ditches, show slopes by ratio, vertical to horizontal.

(18) Depict pavement construction by indicating the LBR requirement and the thickness of the subgrade stabilization, subbase, or base, as well as the thickness of the structural course, friction course and shoulder pavement. Use 4 inches for both the base extension on rural sections and the stabilization extension on curbed sections. For mainline travel lanes on non-Limited Access roadways with design speeds of 55 mph and higher and project length of 0.5 miles or greater, obtain the Smoothness Class (associated with ***Standard Specification 330***) from the State Materials Office (SM-LaserAcceptance@dot.state.fl.us). Include the Smoothness Class on the applicable Typical Section sheet (see ***Exhibit 913-1*** for an example).

(19) Toll equipment building, gantry and foundation outlines.

(20) For Turnpike projects only, show and label Florida Gas Transmission (FGT) facilities. Dimension the location to the center of the utility from the construction centerline or baseline.

913.2.2 Required Notes and Details

Show the following notes and details on Typical Section sheets as applicable:

(1) For projects using Selective Clearing and Grubbing, include the following note:

See the Selective Clearing and Grubbing sheets for details and limits of selective clearing and grubbing.

(2) For new construction flush shoulder projects, include a shoulder pavement detail (shown on ***Exhibit 913-1***) with the following note:

This area may be constructed of base material (granular only) at no additional compensation.

(3) For widening projects, include the following note:

Actual width of base widening may vary due to actual existing pavement width. A uniform width base widening strip may be constructed at no additional compensation.

(4) For projects constructing ditches, include the following note:

Depth and bottom width of ditch may vary.

(5) For new construction curbed roadway projects with asphalt base course Type B-12.5 only, indicate the asphalt curb pad on the typical section and include an asphalt base curb pad detail.

(6) For resurfacing projects on curbed roadways where the milling depth is less than the overlay thickness, include a feathering detail with notes.

913.2.3 Partial Sections

Partial sections are used to illustrate a changed condition (e.g., ditch or drainage features, bicycle or pedestrian features, longitudinal barriers) that occur for significant limits with the typical section being shown. ***Exhibit 913-4*** demonstrates the use of a partial section.

Place partial sections on the same sheet as the typical section to which they apply.

913.3 Traffic Data

Traffic data is required only for mainline roadways and bridges and for ramps. Show the following traffic data (consistent with the data used for the pavement design) below and to the left of the typical section:

(1) Current Year and AADT

(2) Estimated Opening Year and AADT (not required for skid hazard projects)

(3) Estimated Design Year and AADT (not required for skid hazard projects)

(4) K, D, T (24 hour) and T (Design Hour) factors

(5) Design Speed (do not show Posted Speed or Target Speed)

(6) Context Classification

913.4 Pavement Design

Show the approved pavement design directly below the typical section, in the order of construction as follows:

- For new construction, start with the optional base group and end with the friction course.
- For resurfacing projects, start with the milling depth, then list the structural courses and end with the friction course.

913.5 Cross Slope Correction Details

When cross slope correction is necessary, include special milling and layering details showing the method of correction in the plans.

Exhibit 913-13 provides an example of overbuild details.

Exhibit 913-1: 2-Lane Flush Shoulder

Exhibit 913-2: 4-Lane Flush Shoulder

Exhibit 913-3: 4-Lane Flush Shoulder Resurfacing

Exhibit 913-4: 4-Lane Curbed

Exhibit 913-5: 4-Lane High-Speed Curbed

Exhibit 913-6: 4-Lane Limited Access Facility

Exhibit 913-7: 6-Lane Limited Access Facility

Exhibit 913-8: Ramp

Exhibit 913-9: Shared Use Path

Exhibit 913-10: Roundabout

Exhibit 913-11: Mainline Toll Gantry

Exhibit 913-12: Ramp Toll Gantry

Exhibit 913-13: Overbuild Details