306 Typical Sections

306.1 General

Typical Section sheets provide detailed cross section depictions of the principal roadway elements that are standard between certain station or milepost limits. These sections are the basis for construction details and information shown on the plan sheets.

306.2 Typical Section Sheet

Typical sections should only show typical conditions that are found within the limits applicable to that section. Non-standard conditions that prevail for short distances should not be shown. Typical sections are to show existing elements that are to be incorporated into the final roadway section, along with the proposed elements.

Show the station limits or milepost of each section below the typical section title. Typical section stationing must cover the entire project. Include transitions from one typical to another in the stationing of one or the other typical section. Sheets that feature more than one typical section should read from the top down, with the sections in the order in which they occur within the project.

Place Typical Section sheets in the plans in the following order:

(1) Project mainline
(2) Ramps and service roads (for projects which include an interchange)
(3) Crossing side roads
(4) Minor side streets

The FDOT CADD Software contains a number of typical sections that can be used and adjusted to suit the conditions of a particular project. Usually, typical sections are not created to scale, but the horizontal dimensions should be proportionate.

For illustrations of various typical sections, see Exhibits 306-1 through 306-11.

306.2.1 Half Sections and Details

Half sections and details supplement or support typical sections. They should be placed on the same sheet as the typical section to which they apply. In the event that this is not
possible, additional sheets for details should be placed behind the typical section sheet(s).

Half sections are necessary when changes occur that affect several typical section elements (e.g., number of lanes, border width, ditch, or drainage features, clearing and grubbing, R/W width).

Details and partial sections are necessary for the clarification of construction techniques or sequence and to show alternates (e.g., the placement of shoulder gutter in high fill areas, changes in sidewalk location). Judgment is necessary in making decisions about when and where details should be shown.

\subsection*{306.3 Typical Section Information}

Include the following information on the typical sections:

\begin{enumerate}

\item Cross Slopes
  \begin{enumerate}
  \item Express cross slopes of roadway pavement, shoulder surfaces, sidewalks, 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 used when required.
  \item Show median and outer slopes by ratio, vertical to horizontal, i.e., 1:4, 1:2.
  \item Include either feathering details or notes (or both) when resurfacing without milling in urban curb and gutter sections is specified or when milling depth is less than the overlay thickness.
  \item When cross slope correction is necessary, include special milling and layering details showing the method of correction in the plans.
  \end{enumerate}

\item Location of profile grade point.

\item Depict pavement construction in a clear, precise manner by indicating the LBR requirement and the thickness of the subgrade stabilization, subbase, or base, as well as thickness for structural course, friction course and shoulder pavement. Use 4 inches for both base extension on rural sections and for stabilization extension on curbed sections.

\item Limits of grassing.

\item Sidewalk location and width.

\item Curb and gutter location and type (show Type E or F, not the dimension).

\end{enumerate}
(a) On new construction curb and gutter projects which include Asphalt Base, Type B-12.5 only, indicate the asphalt curb pad on the typical section and provide a detail.

(7) Limits of standard clearing and grubbing unless selective clearing and grubbing is present.

(8) R/W line and limits of construction.

(9) Pavement dimensions.

(10) For widening projects, provide a dimension for total pavement width (existing and proposed). Show the pavement widening width with an asterisk. Show Note 3 of FDM 306.5, as near to this noted asterisk as possible.

(11) Shoulder dimensions; paved and total width

(12) Label shoulder treatment on RRR projects (See FDM 210.4.4)

306.4 Required Data

Include the following data for each typical section:

(1) Traffic data (as identified in FDM 120.2.2) consistent with the data used for pavement design.

(a) Current Year and AADT
(b) Estimated Opening Year and AADT
(c) Estimated Design Year and AADT
(d) K, D, T (24 hour) and T (Design Hour) factors.
(e) Design Speed: The estimated opening and design year traffic data is not required for skid hazard projects.
(f) Context Classification

(2) Approved pavement designs described in the order of construction:

(a) For new construction start with Option Base Group and end with friction course.
(b) For resurfacing projects start with milling depth, then list the structural courses and end with friction course.

(3) Standard notes. Refer to FDM 306.5 for standard notes for typical sections.

(4) Template dimensions:
For widening projects, show the existing pavement width as a ± dimension, and show the base widening width with an asterisk. Show Note 3, of *FDM 306.5*, as near to this noted asterisk as possible.

**NOTE:** For typical sections with varying dimensions, clearly indicate the dimensions on the plan-profile sheets.

(5) Identify shoulder treatment where applicable on RRR projects (See *FDM 210.4.4*)

### 306.5 Standard Notes for Typical Section Sheets

Show the following standard notes on typical section sheets as applicable:

1. For details and limits of selective clearing and grubbing see ______.
2. (Under paved shoulders):
   
   This area may be constructed of base material at no additional compensation.
3. (On widening projects):
   
   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.
TYPICAL SECTION
I-10 (SR 8)
STA. 567+25.67 TO STA. 1056+84.35

TRAFFIC DATA
CURRENT YEAR = 2018 AADT = 22300
ESTIMATED OPENING YEAR = 2020 AADT = 33300
ESTIMATED DESIGN YEAR = 2040 AADT = 37500
K = 9 %  D = 36 %  T = 10 % (24 HOUR)
DESIGN SPEED = 70 MPH
CONTEXT CLASSIFICATION = N/A

TRAVEL LANES
OPTIONAL BASE GROUP 9
TYPE SP STRUCTURAL COURSE (TRAFFIC E) (2 1/2") (PG 76-22)
FRICITION COURSE FC-5 (1") (PG 76-22)
SHOULDER PAVEMENT
OPTIONAL BASE GROUP 1
TYPE SP STRUCTURAL COURSE (TRAFFIC E) (1 1/2") (PG 76-22)

SHOULDER PAVEMENT DETAIL
THIS AREA MAY BE CONSTRUCTED
OF OPTIONAL BASE MATERIAL (GRANULAR ONLY)
AT NO ADDITIONAL COMPENSATION

Exhibit 306-1
Limited Access Facility
Date: 1/1/22
TYPICAL SECTION
RAMP "C"
STA. 623+28.64 TO STA. 629+13.78

TRAFFIC DATA
CURRENT YEAR = 2018 AADT = 8,000
ESTIMATED OPENING YEAR = 2020 AADT = 8,800
ESTIMATED DESIGN YEAR = 2040 AADT = 12,000

DESIGN SPEED = 30 MPH
K = 10%  D = 100%  T = 8% (24 HOUR)

DESCRIPTION DATE
CONTEXT CLASSIFICATION = N/A

SHOULDER PAVEMENT DETAIL

Exhibit 306-3
Ramp
Date: 1/1/22
TYPICAL SECTION

SR 22
STA. 98+40.00 TO STA. 202+33.00

TRAVEL AND BIKE LANES

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY)

TYPE 5P STRUCTURAL COURSE (TRAFFIC C) (2")

FRICTION COURSE FC-12.5 (TRAFFIC C) (1 ½") (PG 76-22)

DETAIL OF ASPHALT BASE CURB PAD

Exhibit 306-4
4-Lane Curbed
Date: 1/1/22
TYPICAL SECTION

SR 22
STA. 202+33.00 TO STA. 560+50.00

TRAVEL AND BIKE LANES

OPTIONAL BASE GROUP 9
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 ½")
FRICITION COURSE FC-12.5 (TRAFFIC B) (1 ½") (PG 76-22)
TYPICAL SECTION
SR 22
STA. 560+50.00 TO STA. 882+25.00
TRAVEL LANES AND SHOULDER PAVEMENT
OPTIONAL BASE GROUP 9
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2 1/2")
FRICION COURSE FC-12.5 (TRAFFIC B) (1 1/2") (PG 76-22)
Exhibit 306-6
4-Lane High Speed Curbed
Date: 1/1/22
TYPICAL SECTION

SR 22
STA. 10+00.00 TO STA. 98+40.00

TRAFFIC DATA

CURRENT YEAR = 2018 AADT = 6800
ESTIMATED OPENING YEAR = 2020 AADT = 7600
ESTIMATED DESIGN YEAR = 2040 AADT = 12000

FRICTION COURSE FC-12.5 (TRAFFIC C) (1 1/2") (PG 76-22)

OPTIONAL BASE GROUP 8
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2")

SHOULDER PAVEMENT
OPTIONAL BASE GROUP 1
FRICTION COURSE FC-12.5 (TRAFFIC C) (1 1/2") (PG 76-22)

TURF
SHOULDER

PROFILE
GRADE
POINT

TYPE B STABILIZATION
LBR 40

SEE SHOULDER PAVEMENT DETAIL.

TALLAHASSEE, FL 32301
123 MAIN STREET
ROADWAY ENGINEERS, INC.
P.E. NO.: 99991
LUKE S. WALKER, P.E.

$DATE$
$TIME$
123456-1-52-01
BAY
SR 22
ROAD NO.
COUNTY
FINANCIAL PROJECT ID
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
TYPICAL SECTION

DATE
DESCRIPTION
DATE
DESCRIPTION

EXHIBIT 306-7
2-Lane Flush Shoulder
Date: 1/1/22
**TYPICAL SECTION**

**SR 22**

STA. 101+21.00 TO STA. 221+44.00

**TRAFFIC DATA**

- **CURRENT YEAR** = 2018 AADT = 22800
- **ESTIMATED OPENING YEAR** = 2020 AADT = 25800
- **ESTIMATED DESIGN YEAR** = 2040 AADT = 30600
- **K = 6%**  **D = 55%**  **T = 2%**
- **DESIGN HOUR T = 1%**
- **DESIGN SPEED = 45 MPH**
- **CONTEXT CLASSIFICATION = C3**

**TRAVEL AND BIKE LINES**

MILL EXISTING ASPHALT PAVEMENT (1 ½" AVG. DEPTH)

FRICION COURSE FC-12.5 (TRAFFIC C) (1 ½") (PG 76-22)

**Tallahassee, FL 32301**

**Date:** 1/1/22

**Exhibit 306-9**

6-Lane Curbed

**Date:** 1/1/22

**STATE OF FLORIDA**

DEPARTMENT OF TRANSPORTATION

**Road No.:** SR 22

**County:** BAY

**Financial Project ID:** 123456-52-01

**Sheets:**

**Title:** TYPICAL SECTION

**Date:** 1/1/22
**OVERBUILD DETAILS**

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<th>SEASON</th>
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<th>PROPOSED SLOPE (%)</th>
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<th>WIDTH OVERBUILD (FT.)</th>
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**Include the subtotals in the Summary of Pavement sheet as a line item named “Summary of Overbuild”. Do not include contingency quantities associated with overbuild.**

**Exhibit 306-10B**

Overbuild Details

Date: 1/1/22
TYPICAL SECTION
SR 22 (WILLOW BEND WAY)
STA. 122+00.000 TO STA. 210+65.000

SHARED USE PATH
OPTIONAL BASE GROUP 1
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 1/2")

LIMITS OF CONSTRUCTION

 measures:

TYPICAL SECTION
SR 22 (WILLLOW BEND WAY)
STA. 210+65.000 TO STA. 305+15.000

SHARED USE PATH
OPTIONAL BASE GROUP 1
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 1/2")

measures:

Exhibit 306.11
Shared Use Path
Date: 1/1/22
TYPICAL SECTION

MP 2.251 SR 22 = Q. ALDERAAN RD.

TRAFFIC DATA
CURRENT YEAR = 2018 AADT = 22800
ESTIMATED OPENING YEAR = 2020 AADT = 25800
ESTIMATED DESIGN YEAR = 2040 AADT = 30600
K = 6%  D = 55%  T = 2% (24 HOUR)
DESIGN HOUR T = 1%
CONTEXT CLASSIFICATION = N/A

CIRCULATORY ROADWAY
OPTIONAL BASE GROUP 9
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (1'')
FRICTION COURSE FC-9.5 (TRAFFIC C) (2'')