

6.0 Details

6.1 Control

Standard drawings and standard details are used to prepare contract plans and avoid duplication of design and drafting efforts. Each can be accessed from its own central location.

Standard Drawings

ODOT's standard drawings have been published in the *English Standard Drawings* book, available from ODOT. Access to standard drawings is controlled by ODOT's Roadway Engineering, Standards Engineer. These drawings are available only as non-modifiable form.

Standard drawings used within contract plans shall be listed or indexed on the title sheet continuation sheet. References to the drawings are given in the construction notes the first time they appear, as well as on the first page of traffic control, striping, and erosion plans.

Standard Details

Hard copies of ODOT's standard details have been published in the *Standard Details* book, available from ODOT. Updating standard details is controlled by ODOT's Roadway Engineering, Standards Engineer.

Standard details used in preparation of contract plans shall be included, as detail sheets, in the front of the plans. They can be modified at will to fit the needs of the particular project, but must be approved by either the Project Engineer or the Standards Engineer prior to finalization of contract plans. They must also maintain adherence to standards for fonts, line weights, line styles, etc.

6.2 Development

In developing details for contract plans, the project designer should determine a need for specific details. The designer can then select a detail from the Standard Details book and modify it to suit the project. CAD files for these details are available from the Internet at:

http://egov.oregon.gov/ODOT/HWY/ENGSERVICES/standard_drawings_home.shtml

and can be copied and modified as needed.

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Note: For information on seed files, see Section 2.6, Volume 1.

Tip

Step 3 may have been completed as part of another section of the contract plans. If it has, use it here and go on to Step 4.

Note: For information about title block text, see Section 2.9, Volume 1.

Note: For additional information about title specifications, see Section 2.9, Volume 1.

6.2.1 Sheet Setup

Set up the detail sheets as described in steps 1–8. General information to help you create and modify details follows the steps.

Step 1 — Create an “Active File”

Create a new MicroStation™ file from the seed file named SEED2D.DGN found at:

Internal ODOT staff	http://SCDATA3\ODOT_space\standards\seed
External	ftp://ftp.odot.state.or.us/isb/appeng/Microstation/Version8/

and name it KEYNUF.DT1, where “KEYNU” represents your project key number assigned by ODOT (to be filled in by you), “F” represents that this file is part of the final contract plans, and “DT1” is the appropriate extension for the first file of the Detail sheets. Subsequent files of Details shall have extensions “DT2”, “DT3,” etc. This is your **active file**.

Step 2 — Add sheet borders

Enter ODOT’s proprietary software, “Plotypus,” to automatically place borders (*File/Plotypus*). “Plotypus” automatically creates the borders at a pre-designated location in the design file. Choose the intended scale and sheet size, placing up to ten borders per design file. See Appendix D, “A Quickguide To Plotypus,” for more information on placing borders.

Step 3 — Create the Project Title and “V” Number Reference File

Create a new MicroStation™ file from the seed file named SEEDV8.NAM found at:

Internal ODOT staff	http://SCDATA3\ODOT_space\standards\seed
External	ftp://ftp.odot.state.or.us/isb/appeng/Microstation/Version8/

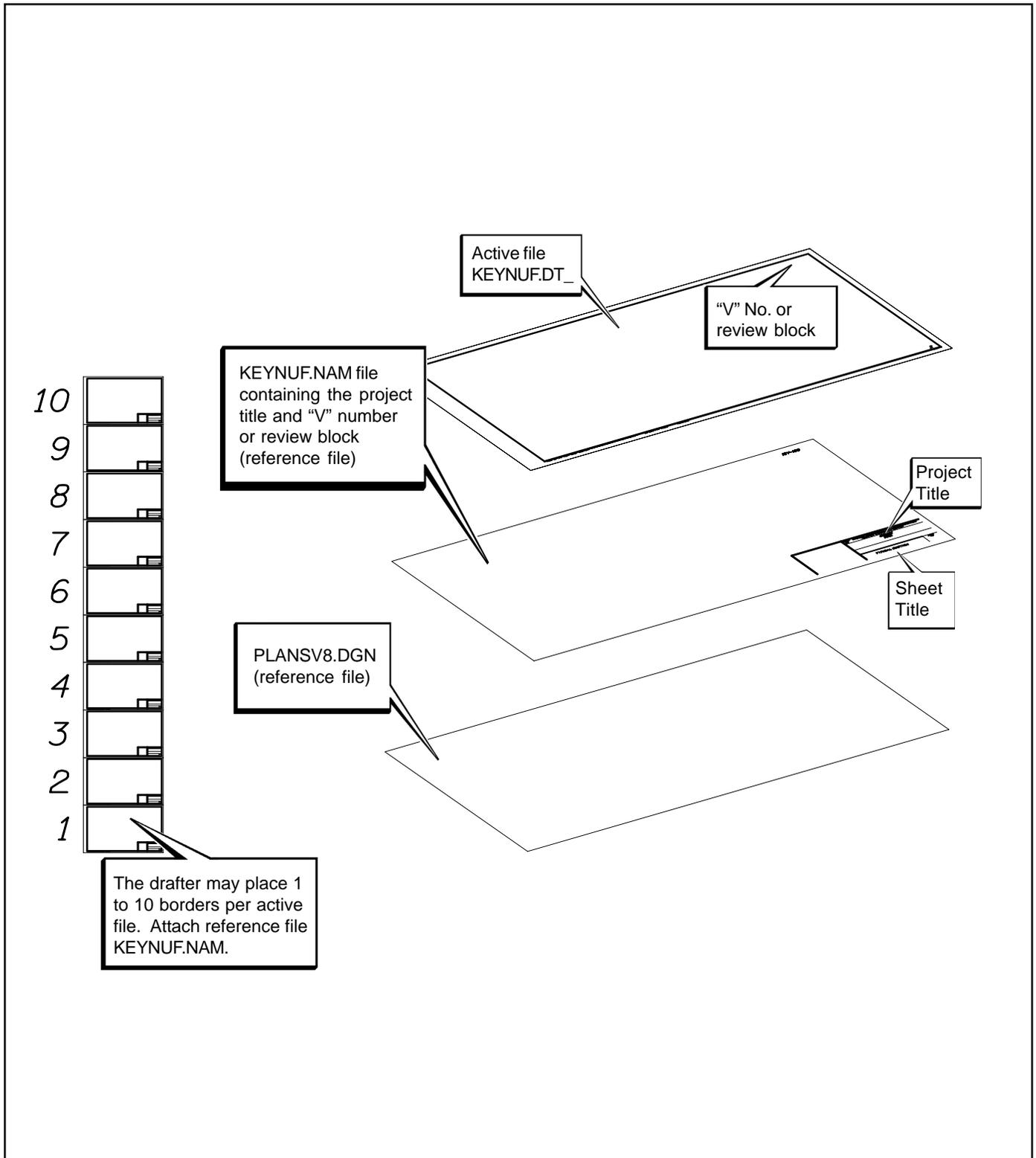
and name it KEYNUF.NAM, where “KEYNU” represents your project key number (to be filled in by you), “F” represents that this file is part of the final contract plans, and “NAM” represents that this generic file is for the project title information. For example, a new file name might be 01234F.NAM.

Title block text is provided in two scales within SEEDV8.NAM for convenient editing.

Edit the project title text in the appropriate place within the title block. When the contract plans are complete and ready to be advertised for bid, the “V” number will be added to this file in the upper right hand corner of each plan sheet. For preliminary, advance and final review submittals, the appropriate block shall be placed here rather than the “V” number (from the cell library ODOT.cel).

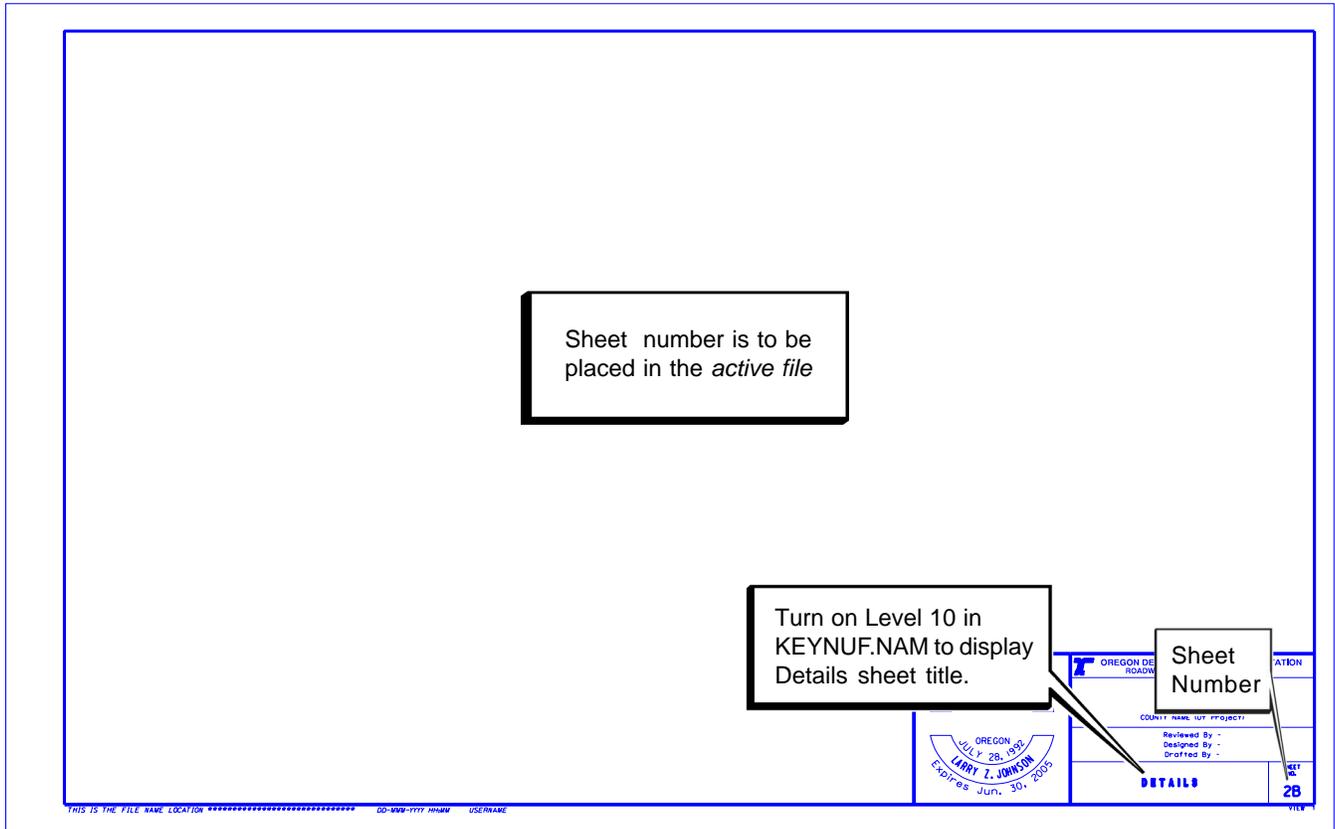
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Figure 6-1 Reference Files - Details



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Figure 6-2 Sheet Titles - Details



6.2.1 Sheet Setup (Cont'd)

Step 4 — Attach Reference Files

Open the new Detail Sheet active file created in Step 1. Attach KEYNUF.NAM as a reference file and assign a logical name as appropriate for your plan sheet. The active file should now have blank plan sheets with the title blocks filled in.

Step 5 — Add Sheet Titles and Numbers

While in the *active file*, add the title “DETAILS” in the title block by turning on Level 10 in the KEYNUF.NAM reference file created in Step 3. See Figure 2-7 for a listing of the sheet titles and the levels on which they can be found.

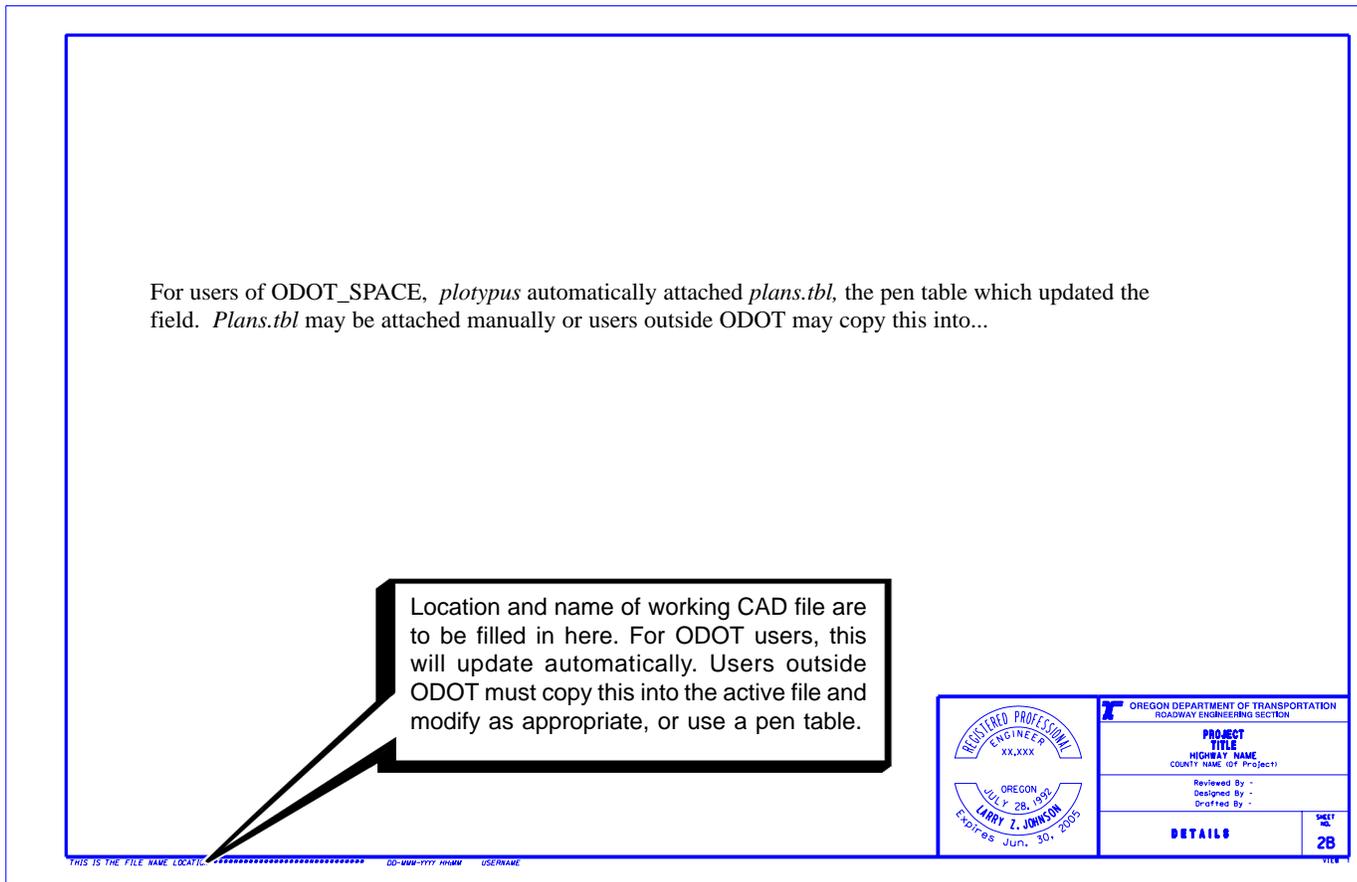
While in the *active file*, add the appropriate sheet numbers, snapping to the point provided in the space.

Step 6 — Add Professional Engineer Stamp

While in the *active file*, add the Professional Engineer’s Stamp cell for the appropriate person signing the plans, snapping the cell to the point provided.

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Figure 6-3 File Information - Details



6.2.1 Sheet Setup (Cont'd)

Step 7 — Sheet Information

The location, name and date of the *active file* are to appear in the lower left corner of the sheet as shown in Figure 6-4. For ODOT users, this will update automatically. Users outside ODOT must use an appropriate pen table.

Step 8 — Add Items

Many details are available in ODOT's *Standard Details* book. CAD files for each of these are available from the Internet at:

http://egov.oregon.gov/ODOT/HWY/ENGSERVICES/standard_drawings_home.shtml

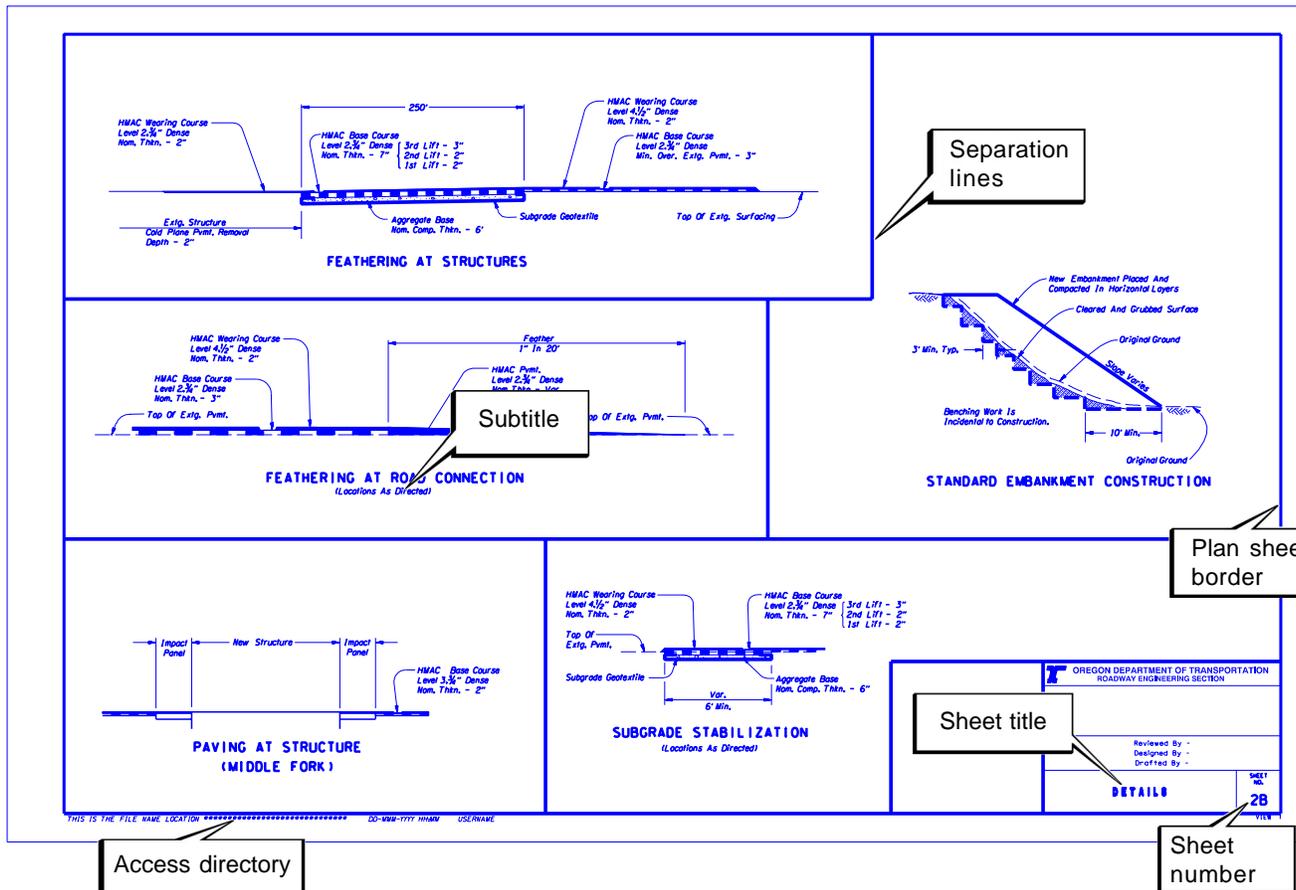
and can be copied and modified as necessary to fit your project. To do this, simply copy the file you need to a local directory you can access. Open the *active file* and attach the detail as a reference file. Fence copy the elements you need from the detail reference file. Detach the reference file. Modify details as necessary. See the check list at the end of this section for a complete listing of required and suggested items.

Note: For text standards within the contract plans, see Table 2-2, Volume 1. For examples with specific text call-outs, see Section 6, Volume 2.

Note: For specific information about separating details, see Section 6, Volume 2.

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Figure 6-4 Sheet Format - Details



Note: For detail sheet subtitle examples and text information, see Section 6, Volume 2.

6.2.2 General Information

Text

Use ODOT standard text fonts and sizes to maintain the look and consistency of the plans. Use the same text fonts and sizes for creation of detail sheets that are generally used for the rest of the road construction contract plan set.

Scale

Details should be drawn to an appropriate scale that can be easily used on the plotted plan sheet, although scale is not noted on detail sheets.

Separating Details

If different types of details are shown on a given detail plan sheet, they should be separated by a heavy line (WT=5). There is no limit to the number of details which can be added to a sheet, but the sheet must be legible and adhere to all other standards. Include similar types of details on the same sheet, as space permits. For example, show drainage details on one sheet and pavement

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6.2.2 General Information (Cont'd)

treatment on another detail sheet. If there are not many details for the project, you may include these details on the same sheet.

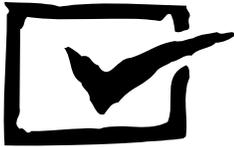
Subtitles

Each detail on the detail sheet is given a specific title, which is considered a subtitle for the sheet. Since the sheet title is already defined as “DETAILS”, it is not necessary to duplicate the word “details” in the specific detail subtitle. Many details require more than one subtitle for labeling multiple views. Subtitles are subordinated in text size with one “drop” in text size for each level of subordination.

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6.3 Checklist

While standard details are intended to be modified to suit a particular project, they must be placed on the detail sheet in a consistent manner. The detail sheets that are included in the contract plan documents should show any or all of the following:



- Sheet title, sheet number and “V” number
- Plan sheet Border
- ODOT logo
- General Notes in lower right corner
- Separation lines between details on any given sheet (when necessary)
- Tables to clearly indicate tapers, sizes, or other information which cannot be properly shown within the detail (only when necessary)