

15.0 Preservation Plans

15.1 Control

Preservation projects are determined through preservation project funding. The purpose of these projects is to preserve and extend the service life of the existing highways and structures, and return them to a condition of functional adequacy, while implementing cost effective solutions.

Preservation projects include but are not limited to the following types of work: minor non-structural overlays without widening, chip seals, recycle in place, Latex Modified Concrete (LMC) overlays, crack sealing, bridge and rockfall screening, detector loop repairs, and drainage enhancements. Not included are projects that require any changes in right-of-way, horizontal alignment or profile grade.

The development of the preservation and straight-line drawings requires communication between the designer and the drafter. It is the responsibility of the designer to provide redlined or sketched information to the drafter. Throughout the development of the project, it is the responsibility of the drafter to maintain ODOT drafting standards as set forth here in the *Contract Plans Development (CPD) Guide*.

Because the preservation projects are small projects that do not require the normal detail required in contract plans, there is usually only a final submittal. The preservation project submittal typically includes the specifications and special provisions with 8 1/2" x 11" plan sheets or 11" x 17" straight-line plan sheets, attached at the back of the special provisions. A registration seal is to be placed in the block provided on the first 8 1/2" x 11" plan sheet and signed by the Roadway Engineer responsible for the design.

15.2 Development

The preservation project 8 1/2" x 11" drawings and the 11" x 17" straight-line drawings are addressed separately in this section and are developed differently.

15.2.1 Sheet Setup - Preservation Plans

Set up the **preservation plan sheets** as described in steps 1–9.

Step 1 — Create an “Active File”

Copy the MicroStation™ seed file, **seed811tse.dgn** or **see811tsm.dgn** from the ODOT Workspace:

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

Assign this new file a name which is appropriate for the preservation project drawings being created. This is your **active file**.

Reference

For more information on ODOT project categories, see the ODOT “English Highway Design Manual”, Section 4.3.

Note: For information on seed files, see Section 2.5, Volume 1.

Note: For file naming conventions, see Section 2.4, Volume 1.

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15.2.1 Sheet Setup - Preservation Plans (Cont'd)

Step 2 — Edit the Project Title and Sheet Title

When you open this new file, you will find two borders representing the first two sheets of the project. See Figure 15-1. The included text should be edited for your particular project.

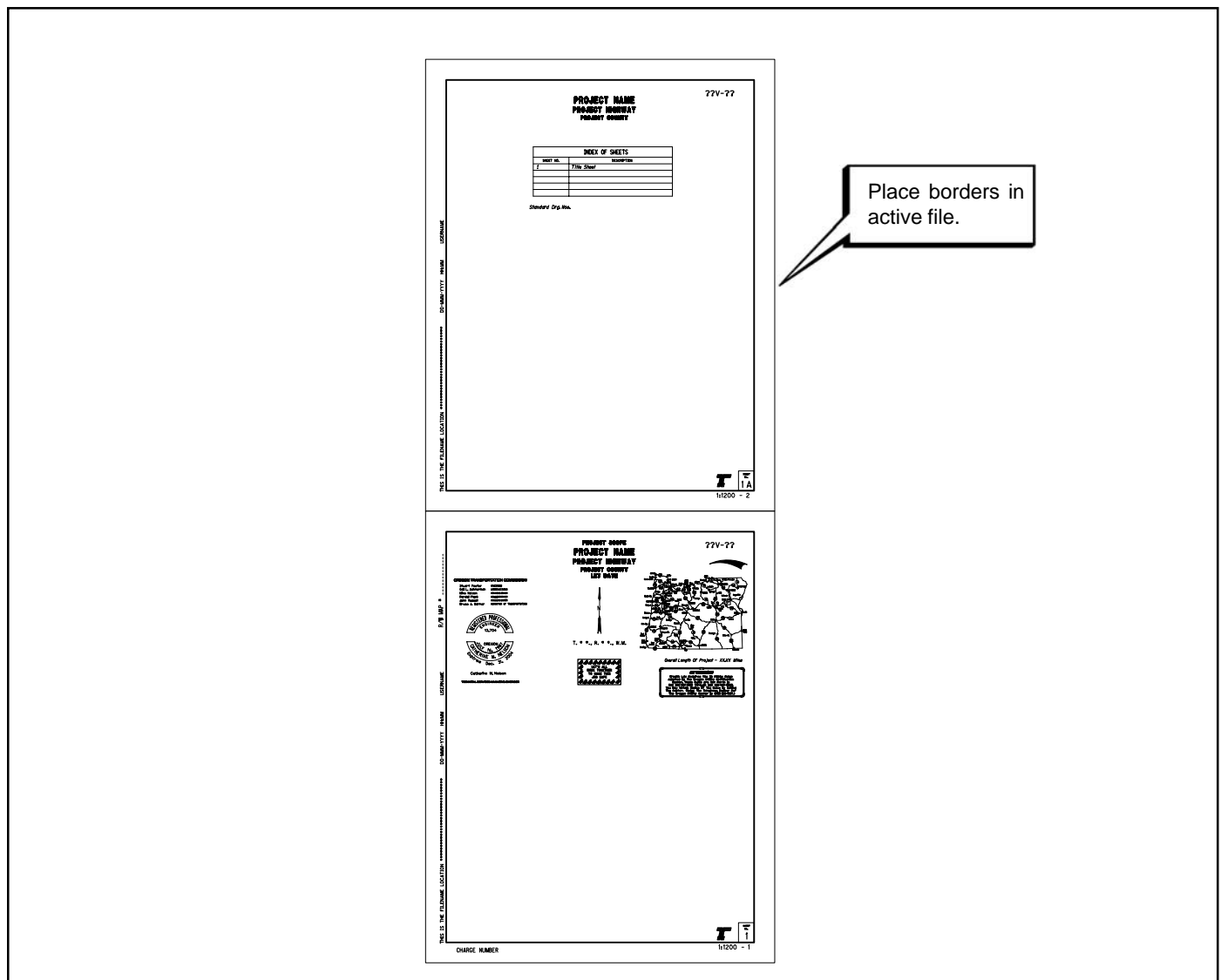
Tip

The default scale of the borders found in SEED811.DGN is 1"=100'.

Step 3 — 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.

Figure 15-1 Preservation Seed and Reference File



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15.2.1 Sheet Setup - Preservation Plans (Cont'd)

Step 4 — Add a Sheet Number

Add a sheet number to the bottom right hand corner of the sheet. The sheet numbering format is the same as for a normal contract plan set (i.e. the first typical section sheet number is 2, the second is 2A, then 2A-2, etc.

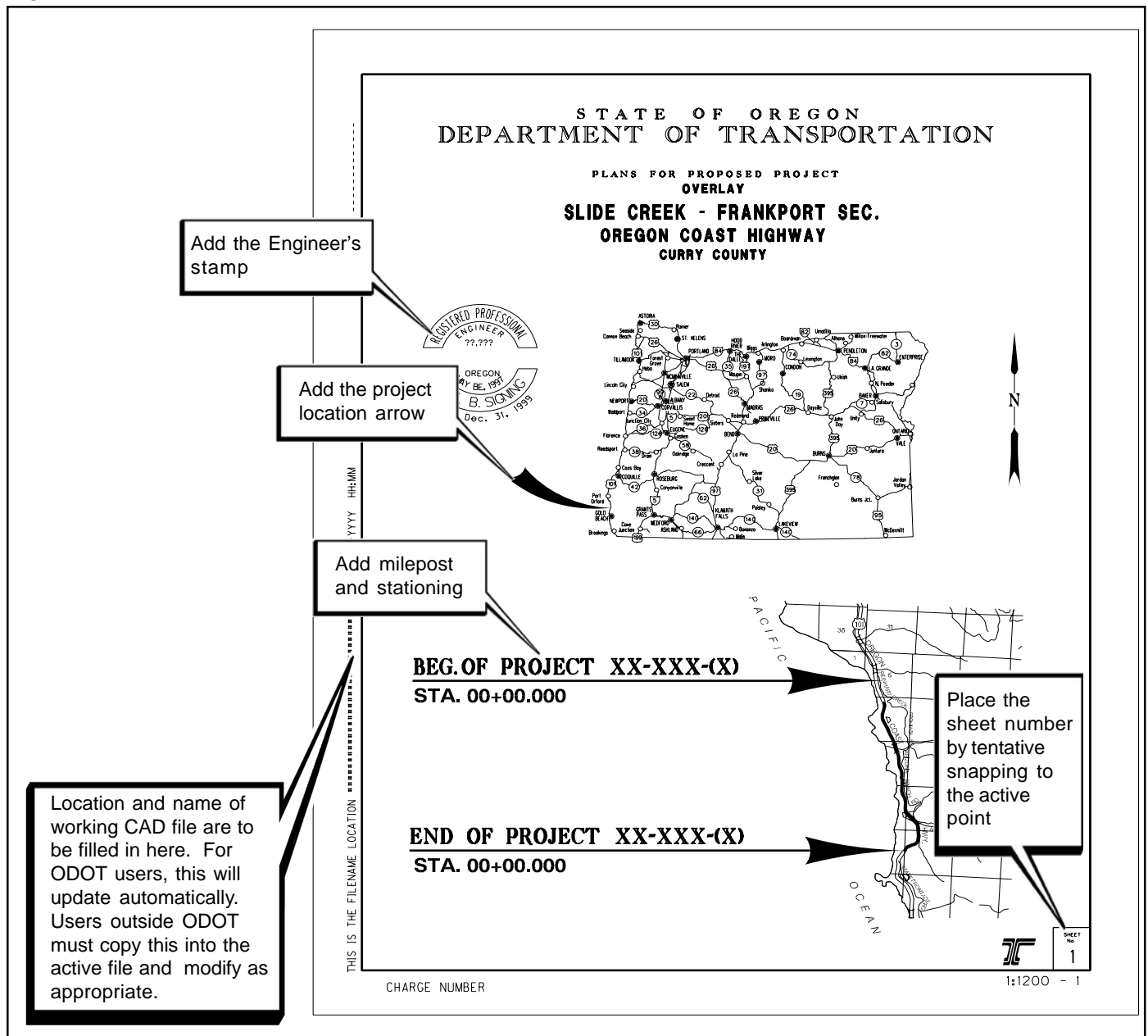
Tip

Clip masking and rotated views should be avoided.

Step 5 — Add an Engineers Stamp

Add the engineers stamp cell for the appropriate person signing the plans, in the approximate location as shown in Figure 15-2.

Figure 15-2 Title Sheet - Preservation Plans



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Note: For more information on creating details, see Section 6.0, Volume 1.

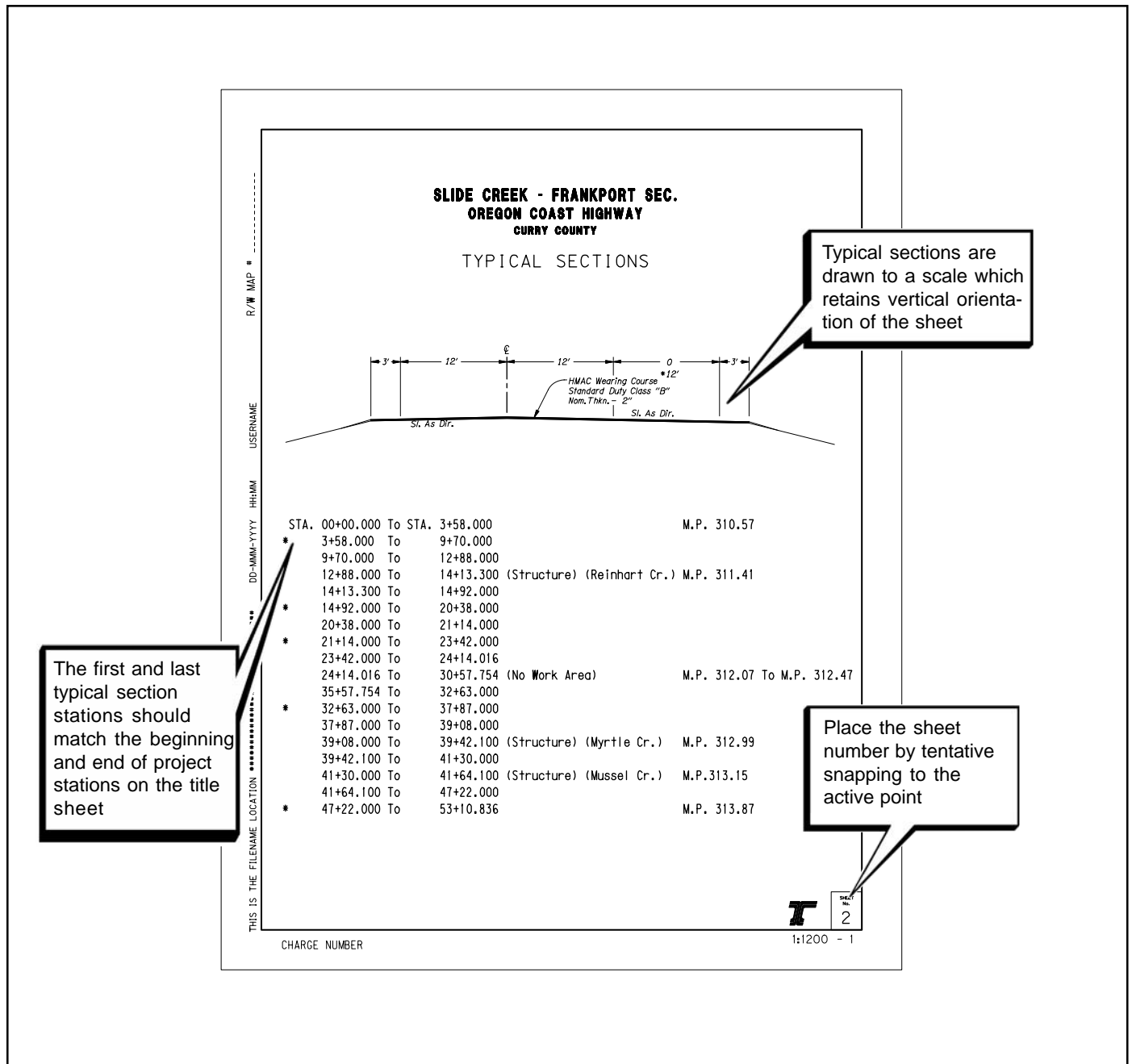
Note: For information about the Cache, see Appendix "B", Volume 1.

15.2.1 Sheet Setup - Preservation Plans (Cont'd)

Step 6 — Complete the Title Sheet

Add the rest of the information to the cover sheet, including the project location arrow, the project limits, and vicinity map, see Figure 15-2.

Figure 15-3 Typical Sections



Typical sections are drawn to a scale which retains vertical orientation of the sheet

The first and last typical section stations should match the beginning and end of project stations on the title sheet

Place the sheet number by tentative snapping to the active point

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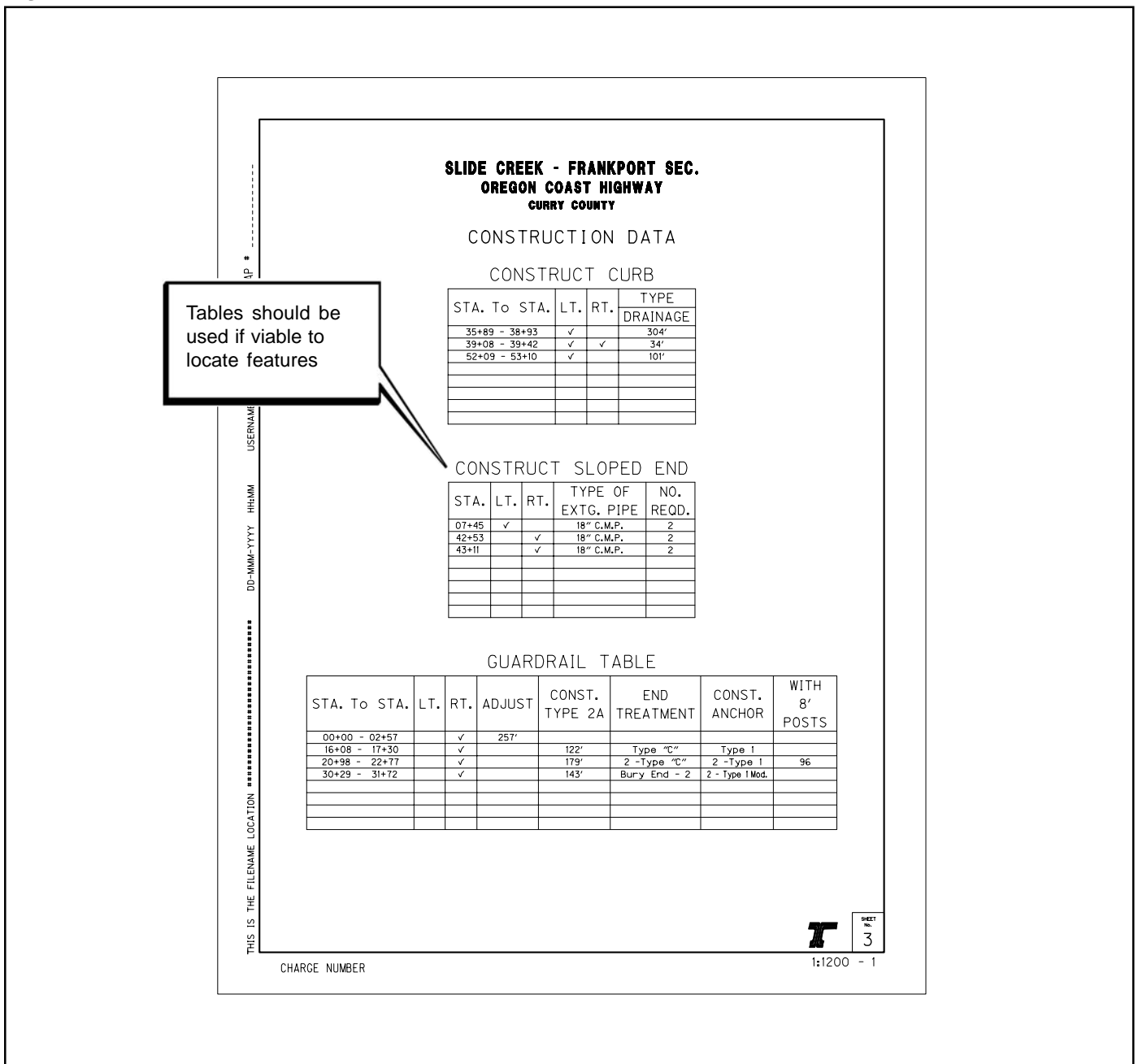
15.2.1 Sheet Setup - Preservation Plans (Cont'd)

Step 7 — Add the Typical Sections

Add the project typical sections to scale, using simple linework and retaining the vertical “portrait” sheet orientation. Many of the typical section elements are available in the “Cache”, from PLANSV8.DGN. Add text and other items as necessary. See Figure 15-3.

Note: For more information on creating typical sections, see Section 5.0, Volume 1.

Figure 15-4 Construction Data



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15.2.2 Sheet Setup - Preservation Plans (Cont'd)

Step 8 — Add Details

Provide 8 1/2" x 11" detail sheets with the title of “Details” for any project specific details that are necessary for clarification of the project.

Step 9 — Add Construction Data

Add the specific project construction data to the sheet(s) you assign the title of Construction Data. This should be accomplished in a “table” format, as much as possible, as shown in Figure 15-4.

Note: For a detailed list of element attributes and levels, see the English Level Standards, Table 2-3, Volume 1.

15.2.2 Sheet Setup - Straight-Line Drawings

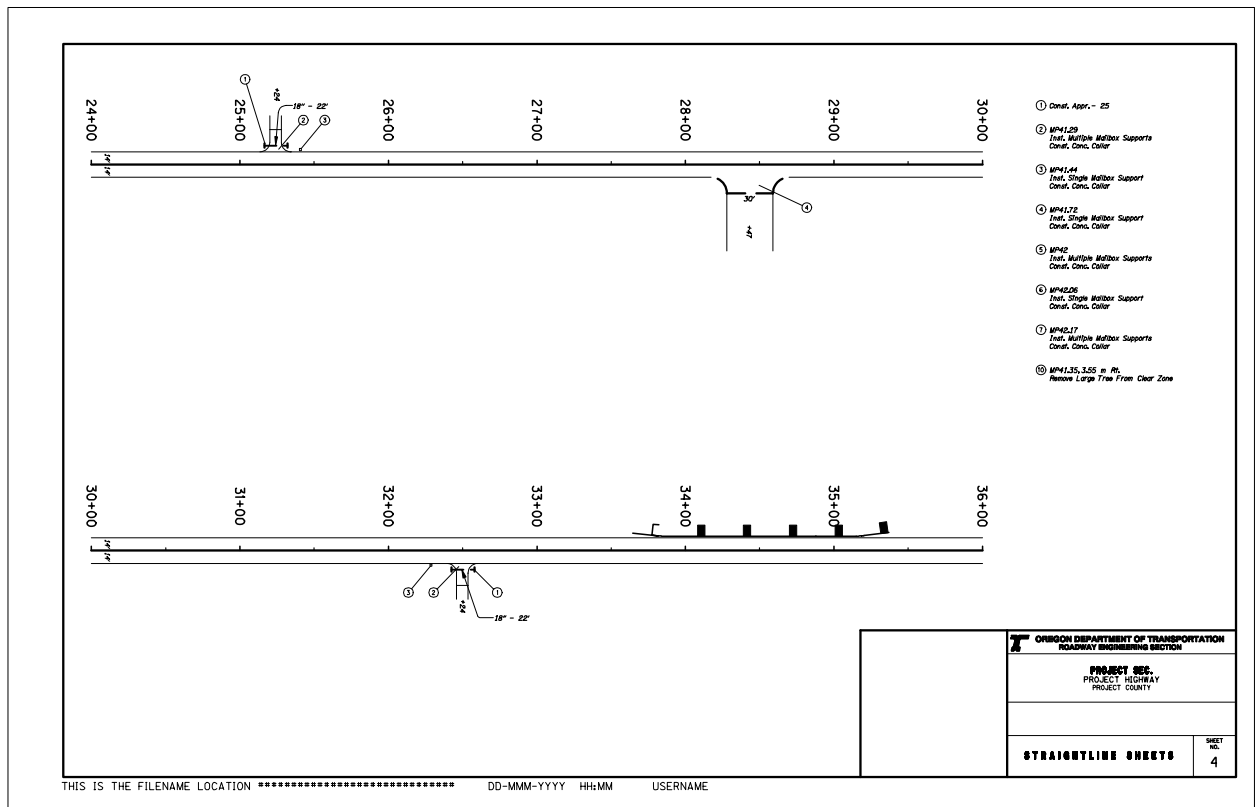
The purpose of the **straight-line drawings** is to graphically display topography by station location for preservation projects. No curve data or control points are shown. Set up the straight-line drawings as described in steps 1–4.

Step 1 — Create an “Active File”

Copy the MicroStation™ seed file, SEED2D.DGN, from the ODOT Workspace:

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

Figure 15-5 Straight-Line Plans



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Note: For information about the ODOT Menu, see Appendix “C”, Volume 1.

15.2.2 Sheet Setup - Straight-Line Drawings (Cont'd)

or contact the Transportation Application Development Section for the latest version. Assign this new file a name, KEYNUF.PL1, where “KEYNU” represents the key number assigned to the project by ODOT, “F” represents that this file is a part of the final contract plans, and “PL1” is the appropriate extension for the first file of plan sheets. Subsequent files shall have extensions “PL2,” “PL3,” 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 — Add a Project Title and Sheet Number

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 final review submittals, the “V” number shall be placed here.

Step 4 — Add Items

Begin adding the items to the *active file* to create the straight-line plans including construction notes and bubbles. Use the ODOT Menu to maintain consistent symbology. Since basemap reference files are not used with straight-line plans, **all** elements are added directly to the *active file*, see Figure 15-5.

The scale for the 11" x 17" straight-line plans you are producing will be 1"=200'.

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15.3 Checklist

The Preservation or Straight-Line plan sheets should show any or all of the following:

Preservation Sheets

- Project name, highway name, county, sheet title, and sheet number
- North arrow
- ODOT title block
- Engineer's registration seal with signature (first sheet only)
- CAD file name and path
- Project location arrow (first sheet only)
- Beginning and End of Project limit flags and information (first sheet only)
- Typical section with dimensions
- Typical section station limits
- Details
- Construction Data Tables

Straight-Line Sheets

- Project name, highway name, county, and sheet number
- North arrow
- ODOT title block
- CAD file name and path
- Beginning and End of Project flags and information
- "Straight-line" centerline and stations
- Dimensioned travel lanes with edge of pavement
- Construction Notes and bubbles
- Applicable topography

