Plan sheets can be very large; therefore, plan sheets are organized in a specific manner. This organization places related information together so it is not scattered throughout the plans, for example: typical cross sections are contained in the B sheets; estimated quantities are contained in the C sheets; mainline plan and profile information is contained in the D sheets; side road plan and profile information is contained in the E sheets; detour plan and profile information is contained in the F sheets; and so on. Organizing plans in this manner helps with the plan development process. In addition, it allows both designers and contractors to quickly locate information. Plan organization also assists in the printing process. Some sheets are printed in color, and others are not. Grouping sheets together reduces the number of files sent to the color printer. It also helps to standardize which types of sheets are printed in color.

Plan Organization

Plan sheets should be numbered as follows:

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| A.1, A.2, ... | Title Sheets  
(Include listed items in order shown and number sequentially.) |
| B.1, B.2, ... | Typical Cross Sections and Details (including as-built typical cross sections) |
| C.1, C.2, ... | Quantities and General Information  
(Include listed items in order shown and number sequentially.) |
| CD.1, CD.2, ... | Drainage Structure Quantities Tabulations |
| CS.1, CS.2, ... | Geotechnical Quantities Tabulations  
103 series of tabulations |
| D.1, D.2, ... | Mainline Plan and Profile Sheets  
plan and profile legend and symbol information sheet  
mainline plan and profile sheets  
as-built plans may be used as plan sheets (if both proposed and as-built are included, place the as-builds at the end of the D sheets) |
| E.1, E.2, ... | Side Road Plan and Profile Sheets |
| ED.1, ED.2 ... | Drainage channel and dike plan and profile sheets |
| F.1, F.2, ... | Detour Pavement, Temporary Pavement Sheets  
detour plan and profile sheets |
<table>
<thead>
<tr>
<th>Page Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| G.1, G.2, ... | Survey Sheets  
reference ties and bench marks  
horizontal control and superelevation tabulations for all alignments  
alignment graphic layouts |
| H.1, H.2, ...  
HE.1, HE.2, ... | Right-of-Way Sheets  
mainline right-of-way sheets  
side road right-of-way sheets |
| J.1, J.2, ... | Traffic Control and Staging Sheets  
traffic control plan  
staging notes  
modified TC standard road plans  
traffic control and staging legend and symbol information sheet  
staging typical cross sections  
staging and traffic control sheets  
temporary pavement markings and temporary signing graphic layouts  
detour maps |
| K.1, K.2, ... | Interchange Sheets  
interchange layout sheets  
ramp plan and profile sheets |
| L.1, L.2, ... | Geometric, Staking, and Jointing Sheets  
geometrics and staking  
island geometrics tabulations  
edge profiles  
jointing |
| M.1, M.2, ... | Storm Sewer Sheets  
storm sewer legend and symbol information sheet  
storm sewer tabulations  
storm sewer plan and profile sheets |
| MSA.1, MSA.2, ... | Sanitary Sewer Sheets  
sanitary sewer legend and symbol information sheet  
sanitary sewer tabulations  
sanitary sewer plan and profile sheets |
| MWM.1, MWM.2, ... | Water Main Sheets  
water main legend and symbol information sheet  
water main tabulations  
water main plan and profile sheets |
| MIT.1, MIT.2 | Wetland Sheets |
| N.1, N.2, ... | Traffic Signal Sheets |
| P.1, P.2, ... | Lighting Layout Sheets |
| Q.1, Q.2, ... | Soils Sheets  
soils legend and symbol information sheet  
soils plan and profile sheets  
soils detail sheets |
| QR.1, QR.2, ... | Soils Borrow Sheets |
| RC.1, RC.2, ... | Sediment Control Quantities Tabulations  
pollution prevention plan (PPP)  
erosion control tabulations |
<table>
<thead>
<tr>
<th>Page Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| RR.1, RR.2, ... | Erosion Control Plan Sheets  
erosion control legend and symbol information sheet  
drainage basin plan sheets  
erosion control device placement plan sheets |
| RU.1, RU.2, ... | Erosion Control Detail Sheets |
| S.1, S.2, ... | Sidewalk Sheets  
sidewalk legend and symbol information sheet  
sidewalk plan sheets  
sidewalk tabulations |
| SPS.1, SPS.2, ... | Bridge Plan Soils Sheets |
| T.1, T.2, ... | Earthwork Quantity Sheets  
legend  
tabulations |
| U.1, U.2, ... | 500 Series Design Detail Sheets, Modified Standards, and Detail Sheets |
| V.1, V.2, ... | Bridge and Culvert Situation Plans  
Retaining Wall Plans  
plan and profile sheets  
retaining wall notes  
Other Bridge Design Details |
| W.1, W.2, ... | Mainline Cross Sections |
| X.1, X.2, ... | Side Road Cross Sections |
| Y.1, Y.2, ... | Ramp Cross Sections |
| Z.1, Z.2, ... | Detour Cross Sections |

**Plan Sheet Basics**

Information contained varies from sheet to sheet; however, the following information is to be on the bottom of every plan sheet:

- Design Team.
- County(s).
- Project Number.
- Sheet Number.
- Current date stamp, directory, and file name.

When developing plan sheets, keep the following in mind:

- Every sheet needs to be covered by an engineer's signature.
- To the extent possible, avoid repeating information within the plan. Say it once and say it right. This reduces the possibility of conflicts within a plan.
- Check information to determine if it over-rides, duplicates, or conflicts with other contract documents. Eliminate duplication where possible and resolve conflicts. Investigate the impact over-riding one contract document will have on other contract documents. A hierarchy of documents is listed in Section 1105 of the Specifications.
- Place information so it is easy for the contractor and inspector to find. Special notes shown on plan or profile views should be referenced from the C sheets, usually in a tabulation or Estimate Reference Note.
- Provide sufficient information so that the contractor can construct the project, but don’t overwhelm the contractor with information. In essence, do not include information just because you can – include information that will be of value to the contractor.
- Special notes and drawings should only be used for unique situations and used only when they are absolutely necessary. Just because you can change something doesn’t mean you should.
• If a color standard road plan needs to be modified, include it in the U sheets as a black and white sheet per Section 21E.4. This excludes any modified TC Series Standard Road Plans as outlined in Section 1F-10.
• If adding labels, use the naming conventions from the specifications.
• Something that is clear to you is not necessarily clear to the contractor. Similarly, something that is confusing to you may not be confusing to the contractor.
• Each bid item requires an associated specification, standard, detail, or plan note.

Sheet and Text Scales

The designer must select an appropriate plan scale for the project and type of sheet. For most rural projects, the plan and profile sheets will be 100 scale. However, 50 scale may be used in rural areas where the complexity of the project requires greater detail. For urban projects, the designer may choose between 20 scale and 50 scale depending on the level of detail necessary. Geometric, Staking, and Jointing Sheets sheets are typically 20 scale. Sidewalk sheets are typically 10 scale. For information on cross section sheet scales, refer to Section 1F-23a.

When using Plan View Labeler and Profile Labeler, it is important to set the text attributes appropriately with respect to the sheet scale that has been selected. Table 1, below, shows the relationship between sheet scale and text parameters. Figure 1 shows an example of text parameters for a 100 scale sheet. After setting the desired text parameters, set the symbology for the shape and leader tabs to match the parameters tab by selecting Set All Parameters as shown in Figure 1.

<table>
<thead>
<tr>
<th>Sheet Scale</th>
<th>Sheet Length</th>
<th>Th</th>
<th>Tw</th>
<th>Justification</th>
<th>Font</th>
<th>Line Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>300 FT</td>
<td>1.30</td>
<td>1.30</td>
<td>Left</td>
<td>36 ROAD_DESIGN_GENERAL</td>
<td>0.65</td>
</tr>
<tr>
<td>20</td>
<td>600 FT</td>
<td>2.60</td>
<td>2.60</td>
<td>Left</td>
<td>36 ROAD_DESIGN_GENERAL</td>
<td>1.30</td>
</tr>
<tr>
<td>50</td>
<td>1500 FT</td>
<td>6.50</td>
<td>6.50</td>
<td>Left</td>
<td>36 ROAD_DESIGN_GENERAL</td>
<td>3.25</td>
</tr>
<tr>
<td>100</td>
<td>3000 FT</td>
<td>13.00</td>
<td>13.00</td>
<td>Left</td>
<td>36 ROAD_DESIGN_GENERAL</td>
<td>6.50</td>
</tr>
</tbody>
</table>

Figure 1: Text Parameter Settings
Plan Quality Checklist

- Is Design Team information correct and at the bottom of each sheet?
- Is the County(s) included at the bottom of each sheet?
- Is the project number correct and at the bottom of each sheet?
- Are sheet numbers at the bottom of each page? Are sheets numbered sequentially in black text?
- Are the current date stamp, directory, and file name at the bottom of each sheet?
- Is information located on appropriate sheets?
- Are sheets legible?
- Have plan sheets prepared by other offices been appropriately incorporated into the plan set?
- Is color use appropriate according to Section 21E-4?
- For a D4 Submittal, have the following items been included:
  - Road Design Engineer’s seal on the first Road Design Sheet
  - Sheet block for bridge projects with design and file numbers on all sheets
Chronology of Changes to Design Manual Section:

**001F-001 Plan Sheets - General Information**

4/29/2019 Revised
Updated sheet series CE to RC. Added sheet series RR, RU, and QR. Updated broken Links.

6/12/2018 Revised
Corrected header and fixed broken hyperlinks.

2/10/2012 Revised
Added reference to Section 1F-10 for details sheets of modified TC Series Standard Road Plans. Added 'Sheet and Text Scale' information from Section 1F-5b. Added 10 scale to Table 1, information on S sheet scale, and L sheet scale. Added link to Section 1F-23a. Added items to the Plan Quality Checklist for D4 Submittals.

7/29/2011 Revised
Incorporated 1E-2 (Plan Organization) into this section. Changed Wetland Sheets to "MIT" sheets and made Sidewalk Sheets "S" sheets. Moved all geometrics and staking, edge profiles, and jointing layouts to L sheets.

2/4/2011 Revised
Renamed and updated with new material.