

Signing and Delineation Unit

Design Guidelines

25% Submittal (Signing Concept)

The 25% submittal shall consist of:

- A strip map, showing the preliminary signing concept, including existing signs, of all Type “A” and “B” ground mounted and overhead mounted sign messages and locations. If it makes the strip map easier to read, existing signs may be shown on a separate strip map.

50% Submittal (Preliminary Plans)

The 50% submittal shall consist of:

- An approved strip map (of signing concept) as required above, including proposed pavement markings
 - Pavement markings do not need to be referenced.
- One (1) half size hard copy and pdf of:
 - Preliminary signing plan, including notes, sign and support designs, and list of guardrail/barrier locations, and
 - Preliminary pavement marking plan, including notes, pavement marking references, and proposed curb ramp locations.

Note: The approved 50% submittal will be distributed to the local Division Office and Regional Traffic Engineer for review and comment.

90% Submittal (Final Plans)

The 90% submittal shall consist of:

- A PDF of the approved strip map, showing all proposed signs and pavement markings;
- One (1) half size hard copy and pdf of:
 - Proposed signing plan (with comments from field staff incorporated), and
 - Proposed pavement marking plan (with comments from field staff incorporated).
- A hard copy of the quantity estimate for signing and pavement marking items, including supporting documentation and computations;
- A hard copy of approved sign and support designs (if revisions were made); and,
- A draft hard copy of any required Project Special Provisions.

100% Submittal (PS&E)

The 100% submittal shall consist of:

- *One (1) full size, sealed hard copy of final plans for both signing and pavement marking;
- *A sealed hard copy and pdf of final Project Special provisions (if required);
- *An electronic submittal of final plans (in both DGN and PDF format) and sign designs;
- Electronic submittal of final quantity estimates for signing and pavement marking items, including CSV file for pay items;
- Electronically sealed PDFs, using DocuSign (or other e-signatures tool acceptable to the NC Board of Examiners for Engineers and Surveyors)
 - Use approved naming convention and PDF formatting for all sheets (see **appendix A**).

Note: The PDFs will be placed in the designated area in Project Store.

*No longer necessary effective August 1, 2014.

PDF Naming Conventions

Your unit already has a naming convention for its CADD files. When you create PDF files from the CADD files, you will add a new required prefix to the name to assure that it appears in the correct order in the Let plans and that spaces are left for potential future sheet additions.

The new required prefix will take the following form (shown in **blue** below). These files will be placed in the Final Plans structure following the new naming convention. After the initial prefix, you may use your normal unit conventions for the remainder of the name.

The new required prefix consists of two parts:

- **3 digit folder #:** This is the number of the folder where the files will go in the Final Plans structure, for example “210” for Pavement Marking Plans or “250” for Signing Plans.
- **3 digit sequence #:** This is a sequence number assigned to keep the pages in the correct order. Space should be left in the sequence in case plan sheets may need to be added by a future construction revision. Examples: 001, 010, 020, 030.**Error! Reference source not found.****Error! Reference source not found.**

Model format:

3digitFolder#_3digitSequence#_TIP#_Unit_ Submittal Type_Sheet Name_Date.pdf

(Date will be the Letting Date in YYMMDD format unless it is a construction revision).

Example: **250_020_B4475_Sgn_Let_Sgn01_141118**

Each unit will be placing plan sheets in their individual folders but note that plan sheets from multiple folders will be assembled into larger files. Following the above conventions, in which the 3 digit folder number under Final Plans is used as well as a sequence number, will ensure that even removed from the folder structure, the files will be ordered correctly.

Why can't we just use the numbering scheme we used before? We have discovered that the ordering in Windows (that you see when you navigate to the files in Project Store) is not always the same order that Adobe uses when a portfolio of PDFs is being built or printed. This new convention will assure that the files are always in the correct order.

PDF Formatting Guidelines

- Remove any content that should not be included in final output
 - Ex. Roadway is required to remove Rock line
- Include image of professional seal, if document is to be sealed
- Use landscape layout (rotation 0 degrees)
- Ensure PDFs are text searchable where possible
- Create PDFs directly from CADD rather than printing and scanning back in
- One plan page per PDF unless multiple sheets will always be modified together (plan PDF should be smallest revisable unit)
- Format the design at full size (22x34" size)*
 - * Except for Interchange plans and plans normally provided in 11x17" size only (e.g. Geotech subsurface plans, cross-sections when > 30 sheets)
- Ensure PDFs are printable at the appropriate scale
- Ensure sheets print correctly if printed on either 22x34" or 11x17" size paper