Signing Plan Assembly steps Revised 11-05-2015

References:

"Minnesota Manual on Uniform Traffic Control Devices" (MnMUTCD)
MnDOT "Traffic Engineering Manual" (TEM)
MnDOT "Standard Signs Manual"
MnDOT "Standard Sign Summary"
MnDOT "Sample Signing Plan"
MnDOT "Traffic Guide Sign Design Manual"
The Sample Signing Plans have been organized to follow an established format. As a designer progresses through the following numbered sequential steps in assembling a complete signing plan, refer to the appropriate sheets in the Sample Plan for clarification. The Sample Signing Plans may be downloaded from the MnDOT OTST Signing Section Website.

1. Begin with a Microstation seed file.
   For seed files, cell libraries, CADD standards and file naming conventions see MnDOT web site: http://www.dot.state.mn.us/caes/cadd/

   Name the file (see MNDOT-CDStds-a4-FILENM.PDF for naming conventions)

   Example CT2785-459_ps.dgn (Consultant Signing plan for SP 2785-459)

2. Attach coordinate correct reference files (roadway mapping and alignments)

3. Place all signs on roadway plan sheet for each direction of travel. Orient the sign cells so they face the appropriate direction of traffic (see sample plans)
   - See MUTCD and TEM for placement and spacing of signs
   - Design all necessary guide signs in SignCAD. Refer to MnDOT "Traffic Guide Sign Design Manual" for standards, policies and procedures.

   NOTE: For signing plans involving replacement of existing signs, a complete field review is required to document sign legends, sign sizes and existing sign structures.

4. Label signs in an orderly fashion beginning at the left edge of the first sheet and progressing through the last roadway sheet. It is acceptable to have minor disruptions in the orderly labeling sequence.

   NOTE: refer to the TEM Chapter 6 section 6-4 for information on how MnDOT classifies signs by design type (A, C, D, EA, EO and OH).

- New A signs are labeled with a unique sequential number which includes the type and number of the roadway they will be installed on (similar to an OH sign)
- New C and D signs get labeled by their sign type and a sequential number beginning with 1.

EXAMPLE: A I94-504, A I94-505, A MN36-127 etc. for new A signs.

C-1, C-2, C-3 etc. for new C signs. D-1, D-2, for new D signs

- Existing A signs being removed are identified by their unique A sign number.
- Existing D signs being removed are labeled with a number beginning with 101.
- Existing Type C signs, Delineators and Markers being removed, *see note below.

EXAMPLE: A I94-121, A I94-217, A MN36-024 etc. for Type A signs being removed. D-101, D-102, for Type D signs being removed.

* C signs, Delineators & Markers being removed DO NOT NEED TO BE LABELED THIS WAY. C signs are shown on the roadway with a REMOVE SIGN TYPE C note, and totaled in the Statement of Estimated quantities, but do not need to be labeled C-101, C102 on the roadway layout. Delineators & Markers being removed can be shown on the roadway layout with a REMOVE note or simply removed with a general note. (see EXIT gore areas in the Sample signing plan)

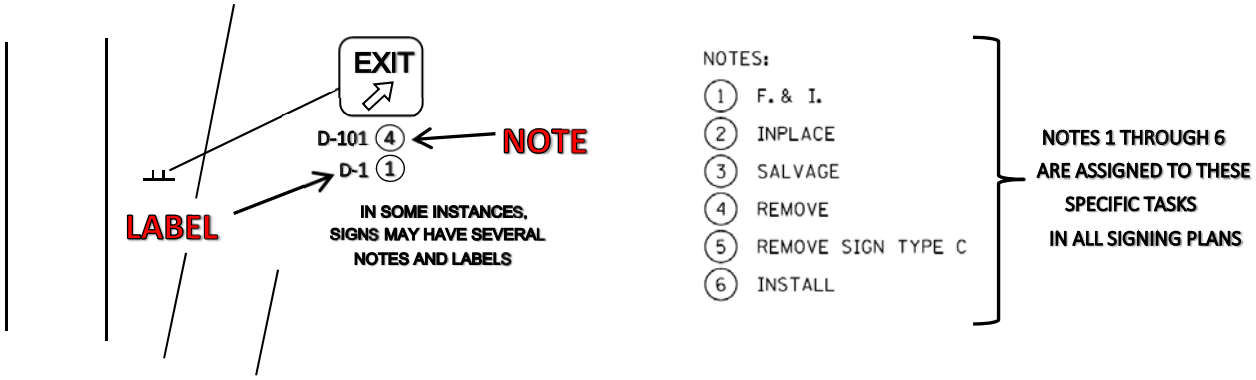
- Existing A signs being salvaged are labeled with their unique A sign number
- Existing C and D signs being Salvaged are labeled with their sign type and a sequential number beginning with 201

EXAMPLE: A I94-355, A US14-068. C-201, C-202, D-201 etc.

All completely identical Type C, D, EA, and EO signs receive the same label throughout the plan.

NOTE: Different labels are required if the signs have differences in mounting, size, etc. (for example, a 36” x 36” STOP sign needs a different label than a 48” x 48” STOP sign, or a 36” x 36” R5-1 sign mounted on U posts in dirt would get a different label than a 36” x 36” R5-1 mounted on a square tube post in concrete)

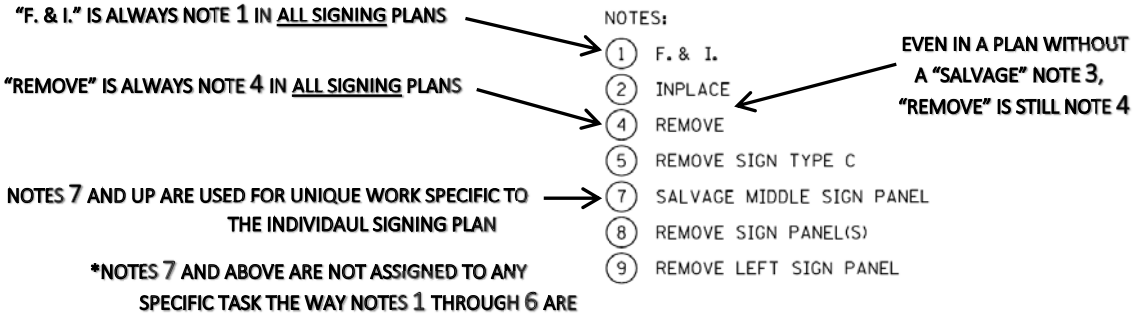
- Circled numbers (notes) describing the work to be done to the sign follow the label



Notes 1 through 6 describe common signing situations or tasks and are consistent in all signing plans.

Notes 7 and beyond will vary by plan depending on the work required in the individual signing plan

EXAMPLE



Type OH signs have a unique numbers assigned to them. Contact the OTST Signing Unit to obtain new OH sign numbers (Rick Sunstrom 651-234-7381 or Brian Barrett 651-234-7374)

5. Show appropriate delineation and markers. See TEM Chapter 6 for details. A note may be used to indicate standard delineation at standard exit ramp/loops. See sample Signing plans.

6. Organize roadway into plan sheets:
    - Begin with mainline roadway from start to finish of the project.
    - Stationing generally increasing from left to right
    - Interchange/intersections follow mainline roadway
    - Label all roadways, cross streets and bridges
    - Place "north" arrow and scale on all sheets
    - Eliminate all unnecessary elements in the file

When all the sign panels, delineators and markers are placed on the roadway layouts, with labels and notes, and the roadway layouts are organized into plan sheets, the plan is considered 60% complete. It is ready for initial review. Print outs of these roadway layouts, and Type A, D, EA, EO and OH panel designs should be submitted to MnDOT for review.

7. Utilities: Compile a list of the utility companies within the project limits for inclusion in the plan.
8. Design Type A and OH sign structures following the cross section format in the sample plan.
9. Create estimated quantities tabulation and appropriate data boxes for each sign type and the work being done to the sign. See Master tabs and sample plan.
10. Assemble all necessary structural and detail sheets.
11. Complete the title sheet (if signing plan is not part of a larger construction project)
12. Assemble all plan sheets in their proper order (see sample plan)
13. Number all plan sheets
14. Verify all cross sheet referencing in the plan.