



Traffic Guidelines Manual

ORIGINATOR State Traffic Engineer	2-15-56
CHAPTER 2	Signs
SECTION 15	Comprehensive Policies
SUBJECT 56	Signing for Diverging Diamond Interchanges

A. Background

The usage of the Diverging Diamond Interchange (DDI) is a relatively new development in highway design in the United States. DDIs allow free-flow left turns from the crossroad to the freeway on-ramps. This is accomplished by crossing traffic on the crossroad from the right-hand side to the left-hand side through the interchange area.

Several advantages in the DDI concept over traditional diamond interchanges include increased safety, increased capacity of left turn movements, and less right-of-way impacts.

B. Purpose

Currently the Federal MUTCD does not contain guidance on the signing of DDIs. As the construction of DDIs increases, it is critical to have a consistent signing practice for motorist expectations. The signing can be accomplished utilizing traditional regulatory, warning and guide signs outlined in the MUTCD.

Below are guidelines that should be followed for the signing of DDIs:

C. Guidelines

The attached typical signing plans *should* be sufficient for most interchanges of this type. Figure 1 shows a DDI with the crossroad over the freeway, and Figure 2 shows a DDI with the freeway over the crossroad.

Field review of signing is critical before opening the DDI to traffic. Signing *should* be adjusted to ensure that wrong way prevention signs (Do Not Enter, No Left/Right/U-turns) are positioned to minimize the possibility of confusion for drivers.

Single-lane Crossroad Approach to DDI

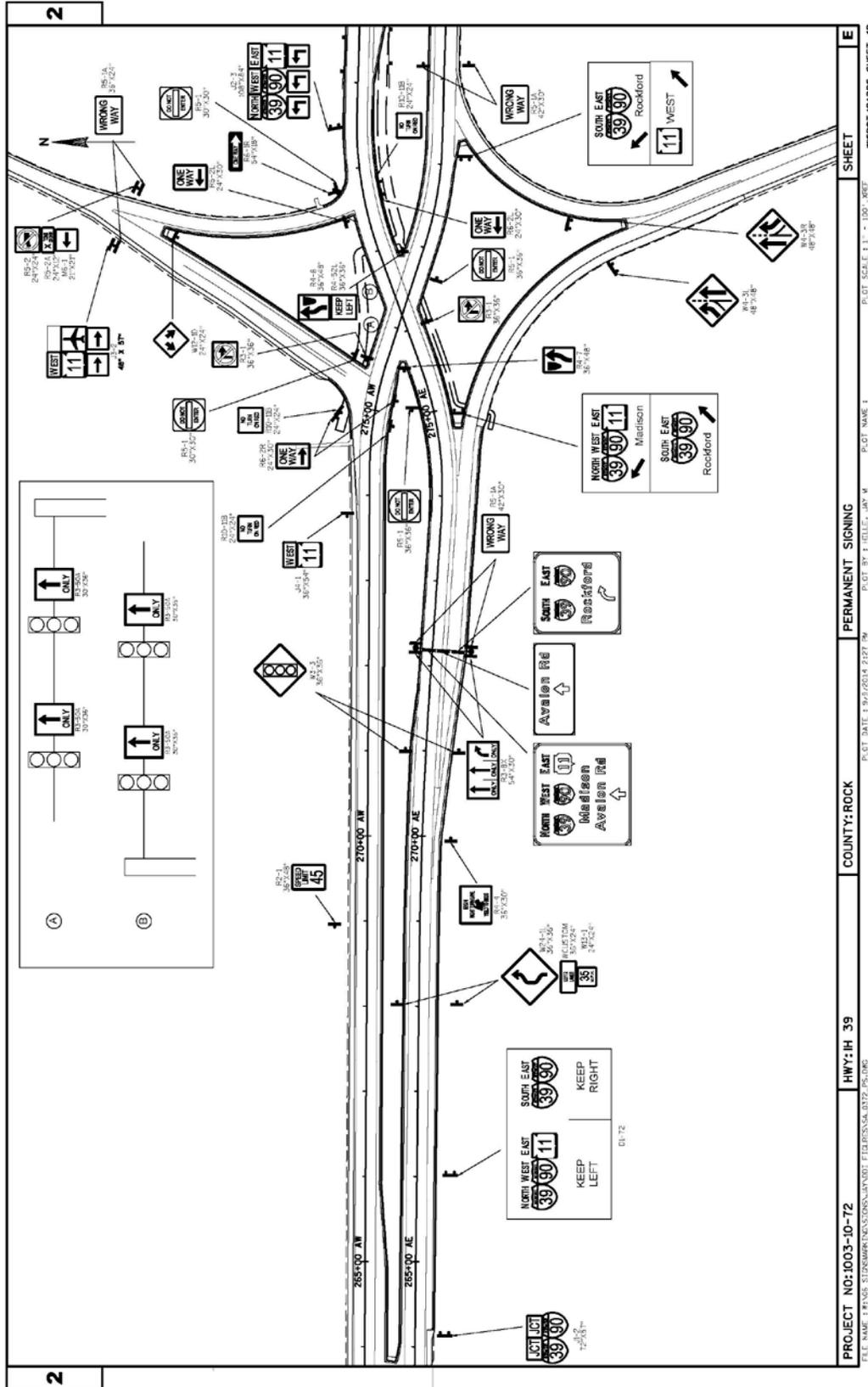
1. The double reverse curve warning sign (W24-1) *should* be used on all approaches to DDIs. The W24-1 sign **shall** be used on approaches to DDIs with

safe operating speed less than posted/statutory speed of the roadway.

2. R3-50A signs *should* be installed above all through lanes on the signal mast arms within the DDI.
3. TGM 2-15-12 **shall** be followed for placement of Wrong Way signing. Sign plate R3-4R (reverse no U-turn) has been developed for use at the signals within the DDI.
4. TGM 2-4-44 *should* be followed for placement of guide signs.

Mult-Lane Crossroad Approach to DDI

1. The double reverse curve warning sign (W24-1L) *should* be used on all approaches to DDIs. The W24-1L with an advisory speed sign (W13-1P) **shall** be used on approaches to DDIs with safe operating speed 10 mph or more less than posted/statutory speed of the roadway. When a W24-1 is used, an appropriate supplementary plaque (“All Lanes”, “Left 2 Lanes”, etc.) **shall** be placed below the W24-1L.
2. R3-50A signs **shall** be installed above all through lanes on the signal mast arms within the DDI.
3. TGM 2-15-12 **shall** be followed for placement of Wrong Way signing. Sign plate R3-4R (reverse no U-turn) has been developed for use at the signals within the DDI.
4. Approaching the DDI, advance overhead lane selection guide signs (E6 series) **shall** be used.
5. For DDIs with the crossroad over the freeway, J2 and D1-7x series signs *should* be used within the DDI. For DDIs with the freeway over the crossroad, overhead guide signs **shall** be used in place of the J2 series signs.
6. If overhead guide signs are used within the DDI, D1 or J3 series signs *may* be used at the on-ramp terminal within the DDI.



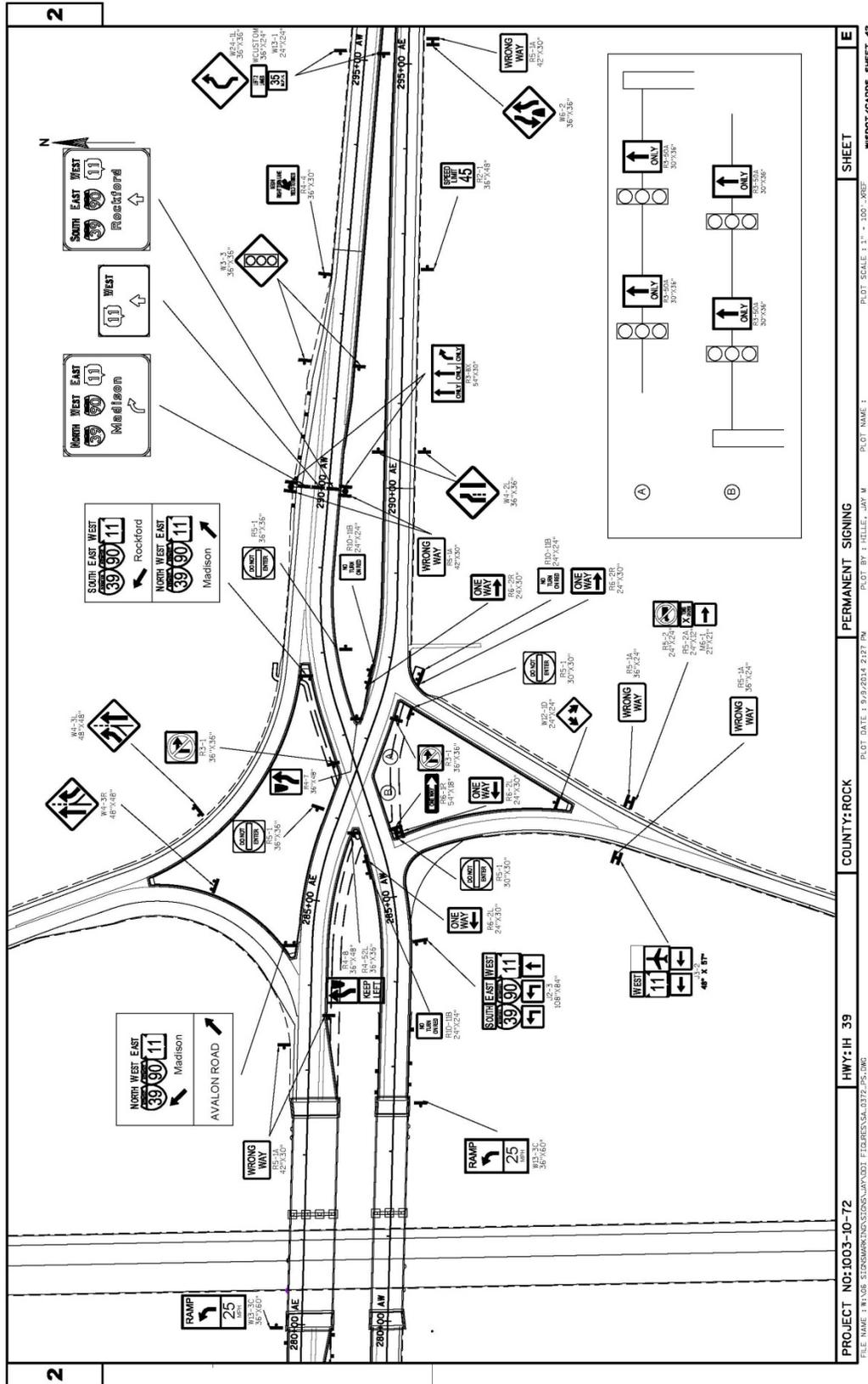


FIGURE 1 Continued

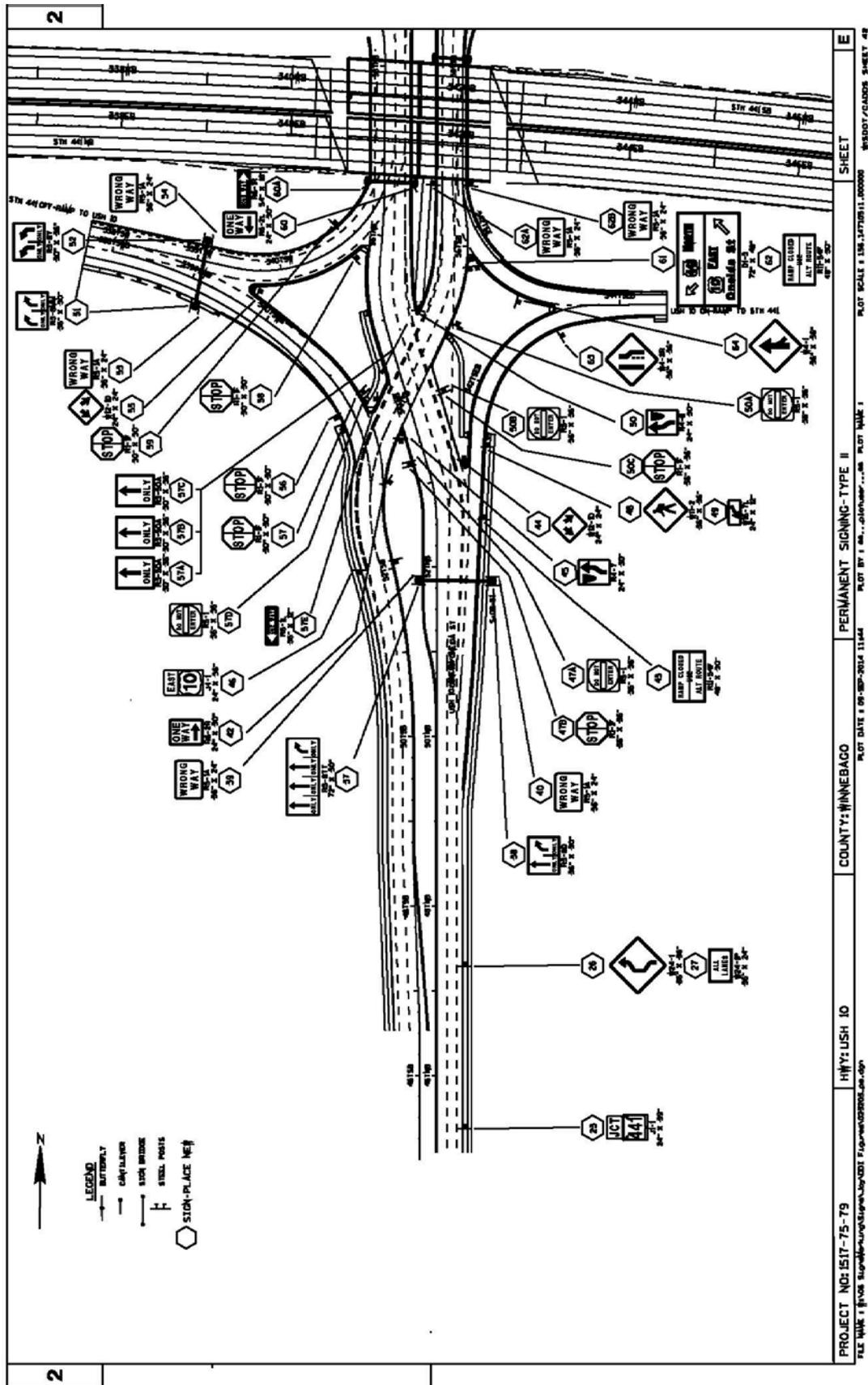


FIGURE 2 Continued

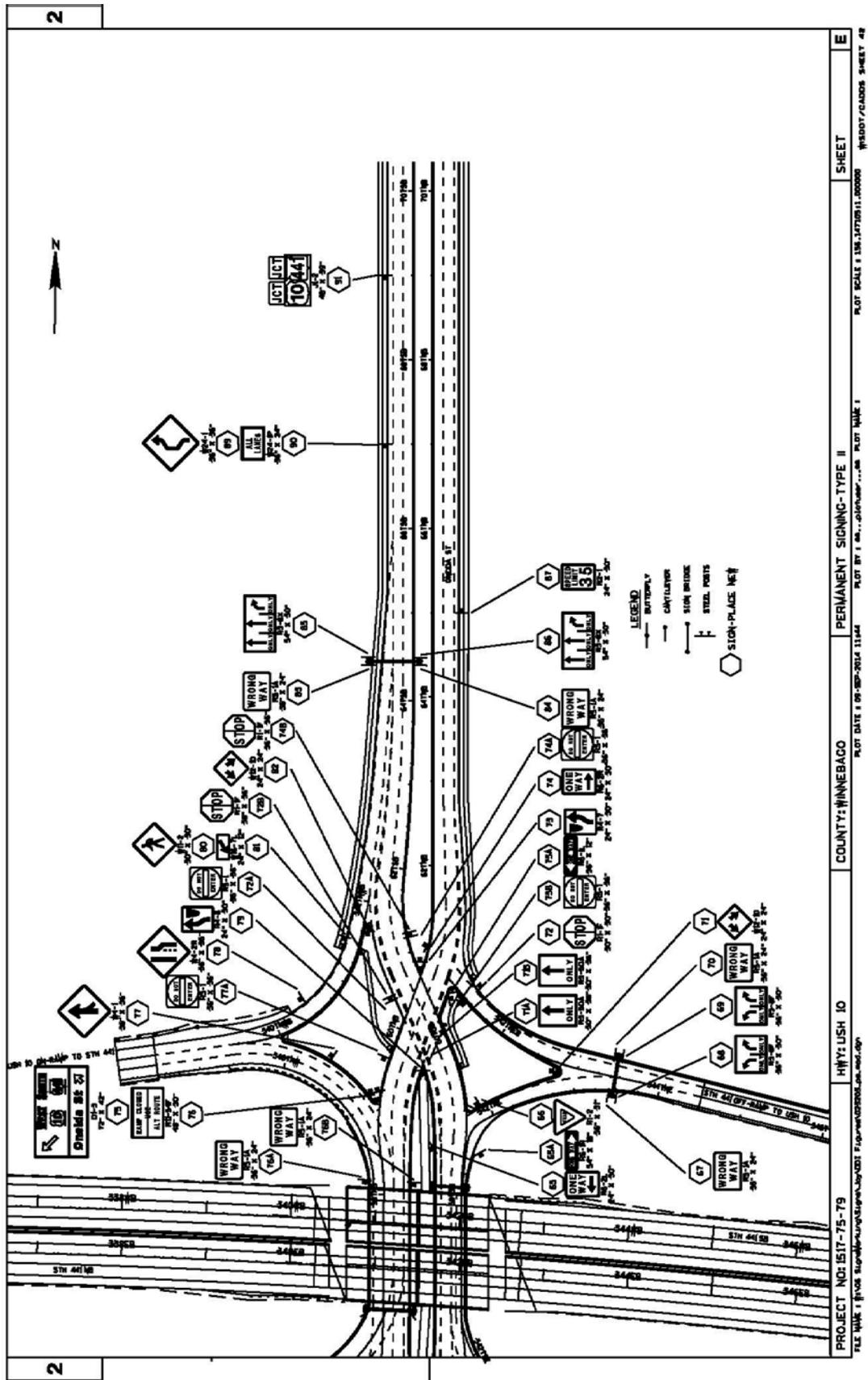


FIGURE 2 Continued