



Traffic Guidelines Manual

ORIGINATOR State Traffic Engineer	2-15-12
CHAPTER 2	Signs
SECTION 15	Comprehensive Policies
SUBJECT 12	Wrong-Way Prevention

A. Purpose

Prevention of wrong-way movement is a concern wherever an entire roadway is dedicated to one-way traffic. Wrong-way prevention signing consists of the appropriate use and placement of Turn Prohibition signs, Keep Right signs, DO NOT ENTER signs, WRONG WAY signs, ONE WAY signs and Divided Highway Crossing signs.

The need for wrong-way prevention signing in any situation is determined by the complexity of the situation requiring positive guidance, and the consequence of error. The following guidance and details are intended to define the typical amount of signing for the various applications.

B. Applications

DIVIDED HIGHWAY WITH WIDE MEDIAN intersection with TWO-WAY CROSS STREET (See Figure 1)

This typical signing plan *should* be sufficient for most intersections of this type.

The Wisconsin Supplement to the MUTCD amends the 2009 FHWA MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG WAY SIGNS. Where the median width is 30 feet or greater, the signs *should* be installed on the median side.

DIVIDED HIGHWAY WITH NARROW MEDIAN intersection with TWO-WAY CROSS STREET (See Figure 2)

This typical signing plan *should* be sufficient for most intersections of this type. Additional needs *may* be met by installing additional signs as shown in 2009 Federal MUTCD Figure 2B-15.

The Wisconsin Supplement to the MUTCD amends the 2009 Federal MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG

WAY SIGNS. Where the median width is less than 30', the signs *should* be installed on the outer side.

DIVIDED HIGHWAY WITH WIDE MEDIAN intersection with INTERCHANGE RAMPS
(See Figure 3)

This typical signing plan *should* be sufficient for most intersections of this type. It combines the typical signing requirements from **Figure 1** with the Standards, Guidance and Options in the 2009 MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the last Option paragraph in the 2009 MUTCD Section 2B.18.

DIVIDED HIGHWAY WITH NARROW MEDIAN intersection with INTERCHANGE RAMPS
(See Figure 4)

This typical signing plan *should* be sufficient for most intersections of this type. It combines the typical signing requirements from **Figure 2** with the Standards, Guidance and Options in the 2009 MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the second to last Option paragraph in the 2009 MUTCD Section 2B.18.

TWO-WAY UNDIVIDED HIGHWAY intersection with INTERCHANGE RAMPS (See Figure 5)

This typical signing plan *should* be sufficient for most intersections of this type. It reflects the Standards, Guidance and Options in the 2009 MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the second to last Option paragraph in the 2009 MUTCD Section 2B.18.

TRANSITION FROM TWO-WAY UNDIVIDED HIGHWAY TO DIVIDED HIGHWAY (See Figure 6)

This typical signing plan *should* be sufficient to prevent wrong-way movements in these transition areas. TGM Subject 2-15-11 illustrates the overall signing and pavement marking requirements in greater detail.

DIVIDED HIGHWAY WITH INTERSECTING SIDEROAD (See Figures 7 and 8)

These typical signing plans should be sufficient for most side roads of these types. Additional needs may be met by installing additional signs as shown in the 2009 Federal MUTCD, Figure 2B-15.

The Wisconsin Supplement to the MUTCD amends the Federal MUTCD Section 2B.37 and Figure 2B-12 to allow for the single installation of the DO NOT ENTER and WRONG WAY signs. Where the median width is less than 30', the signs should be installed on the outer side.

DIVIDED HIGHWAY WITH NARROW OR WIDE MEDIAN DRIVEWAY (See Figures 9,

10 ,11, 12 and 13)

These typical signing plans should be sufficient for most driveways of these types. Additional needs may be met by installing additional signs as shown in the 2009 Federal MUTCD, Figure 2B-15.

The Wisconsin Supplement to the MUTCD amends the Federal MUTCD Section 2B.37 and Figure 2B-12 to allow for the single installation of the DO NOT ENTER and WRONG WAY signs. Where the median width is less than 30', the signs should be installed on the outer side.

ROUNDBABOUTS (See Figure 14)

This typical signing plan should be sufficient for the prevention of wrong way movements on roundabouts with single and multiple approach lanes and interchange off-ramps.

DIVIDED HIGHWAY WITH SIGNALIZED WIDE MEDIAN INTERSECTION (See Figure 16)

This typical signing plan *should* be sufficient for most intersections of this type.

The Wisconsin Supplement to the MUTCD amends the 2009 Federal MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG WAY SIGNS. Where the median width is 30 feet or greater, the signs *should* be installed on the median side.

DIVIDED HIGHWAY WITH SIGNALIZED NARROW MEDAN INTERSECTION (See Figure 17)

This typical signing plan *should* be sufficient for most intersections of this type. Additional needs *may* be met by installing additional signs as shown in 2009 Federal MUTCD Figure 2B-16.

The Wisconsin Supplement to the MUTCD amends the 2009 Federal MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG WAY SIGNS. Where the median width is less than 30', the signs *should* be installed on the outer side.

C. Policy

At approaches to multi-lane roadways with median widths less than 30', the R6-1 ONE WAY sign **shall** be installed at the near right installation above the STOP or YIELD sign. At approaches to multi-lane roadways with median widths 30' or greater, two R6-1 ONE WAY signs **shall** be installed back to back at the near right installation above the STOP or Yield sign. The R6-1 ONE WAY sign shall be used at "T" intersections with divided highways or above the roundabout directional arrow (R6-4b) sign.

At divided highways with wide medians that have a STOP or Yield sign in the median, a

R6-1 ONE WAY sign **shall** be installed back to back above the STOP or Yield sign (See Figure 15).

The R6-2 ONE WAY sign **shall** be used for all other locations on the STH system.

The DO NOT ENTER sign **shall** be installed where it does not obscure the outline or shape of STOP or YIELD signs. If space does not permit, it is permissible to trim the DO NOT ENTER sign into an octagon shape, however the preference is to install the DO NOT ENTER sign on a separate post, next to the STOP sign.

D. Guidelines

Short divided sections with low traffic volumes and a posted speed of 40 mph or less *may* not need the DO NOT ENTER and WRONG WAY signs.

An urban boulevard with frequent cross streets and median openings *should* not need repeated DO NOT ENTER and WRONG WAY signs.

A history of wrong way movements and/or related crashes *may* warrant further measures. If visibility of the far roadway from the side street or ramp is obscured by geometrics or cross section, additional ONE WAY signs *may* be necessary and positioned as shown in the 2009 MUTCD Figure 2B-15.

Highway lighting *may* be a solution to visibility problems, eliminating the need for extra signing.

Pavement marking arrows *may* be used to supplement signing and reinforce the wrong way prevention message, especially on exit ramps.

Freeway ramps *may* warrant additional signing and marking strategies to help prevent wrong way movements. The following strategies *may* be used at freeway ramp locations that have exhibited problems with wrong way drivers entering the freeway:

- Upsizing of DO NOT ENTER and WRONG WAY signs
- Stop bars and type 4 pavement marking arrows
- Dotted pavement marking line extensions through the intersection

The following strategies *may* be used in addition to the ones above or on their own. All of the following strategies are optional, and **shall** only be used at side by side ramp locations that have exhibited problems with wrong way drivers entering the freeway:

- Additional WRONG WAY signs mounted below the DO NOT ENTER signs at a 3 foot mounting height as measured vertically from the bottom of the sign to the top of the near edge of pavement.
- Reflective strips on WRONG WAY and DO NOT ENTER sign posts. These strips **shall** be 2 inches wide, composed of red Type H sheeting on 0.040 inch sheet aluminum, and **shall** run from the bottom of the sign to within 2 feet above the edge of pavement.
- A FREEWAY ENTRANCE sign placed at the entrance to the on ramp
- Dynamic (flashing) WRONG WAY signs

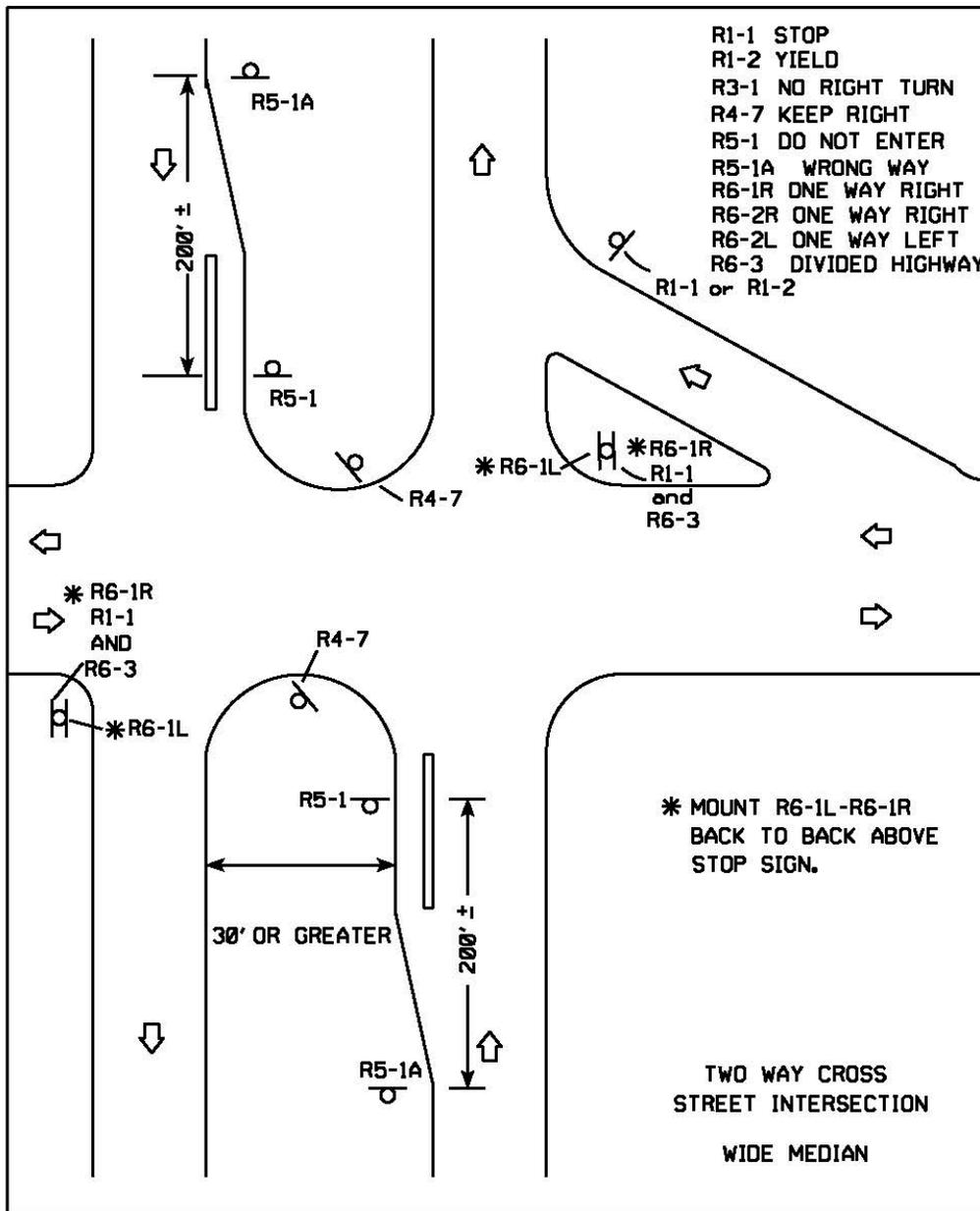


FIG.1 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

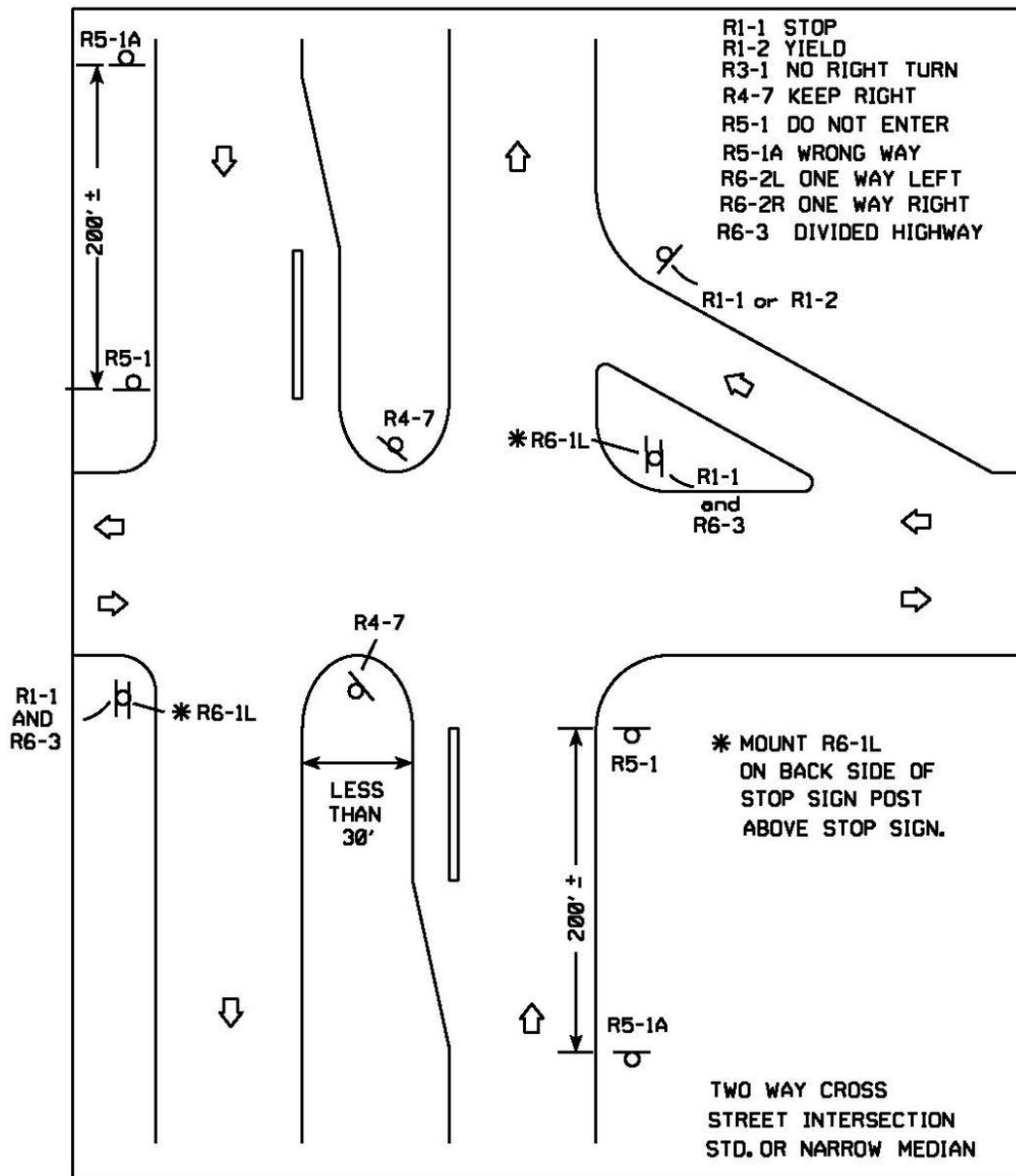


FIG. 2 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

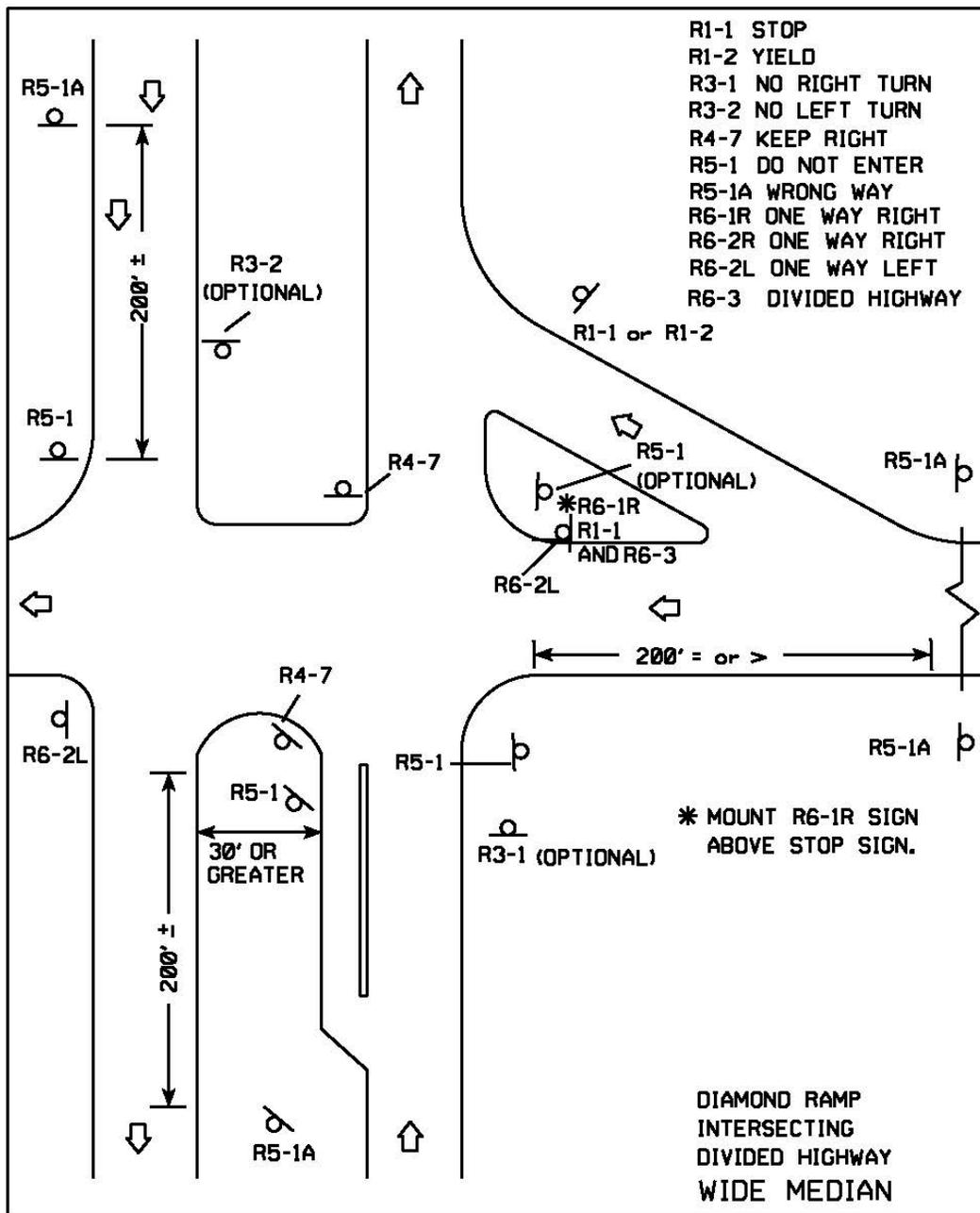


FIG. 3 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

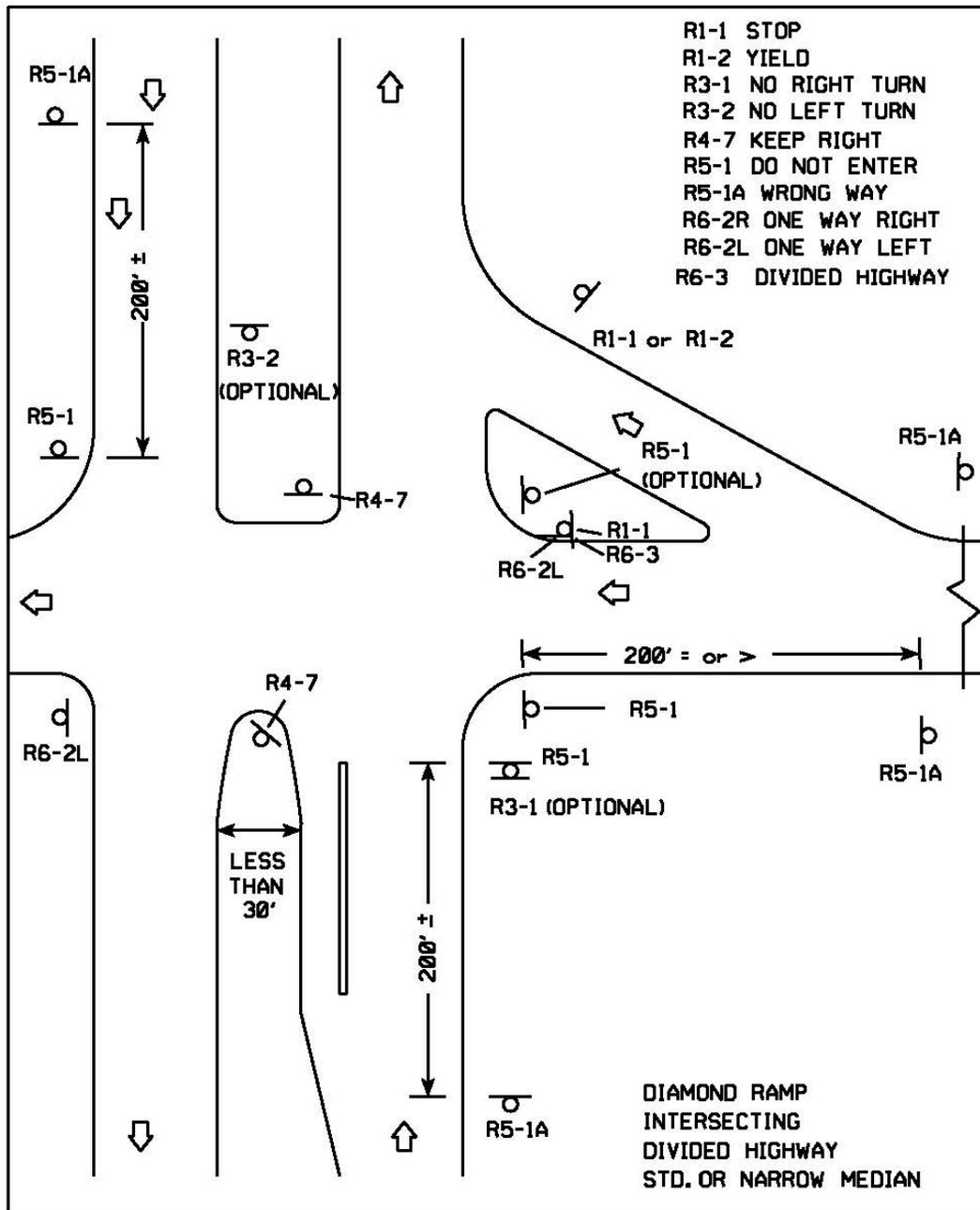


FIG. 4 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

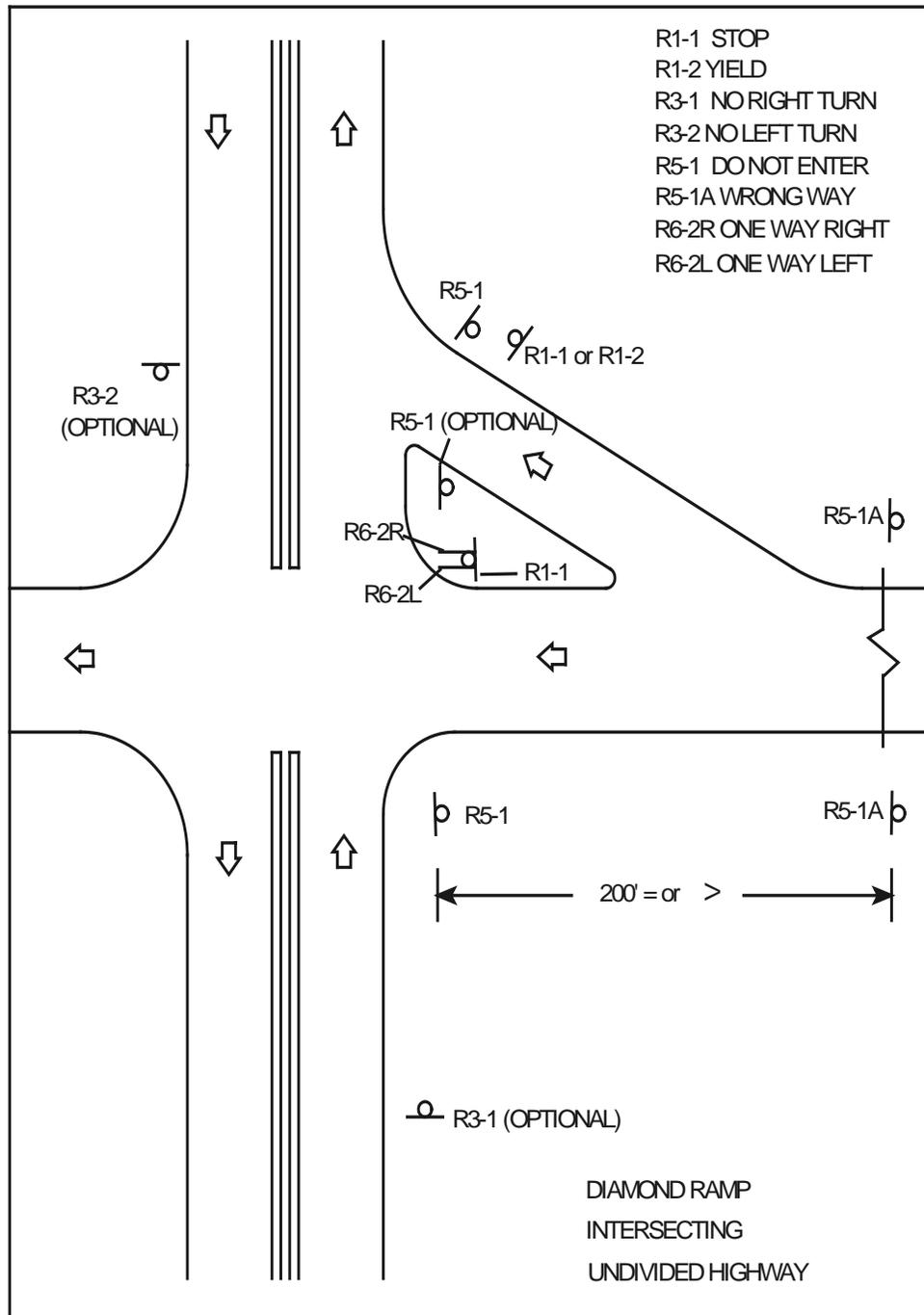


FIG. 5 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

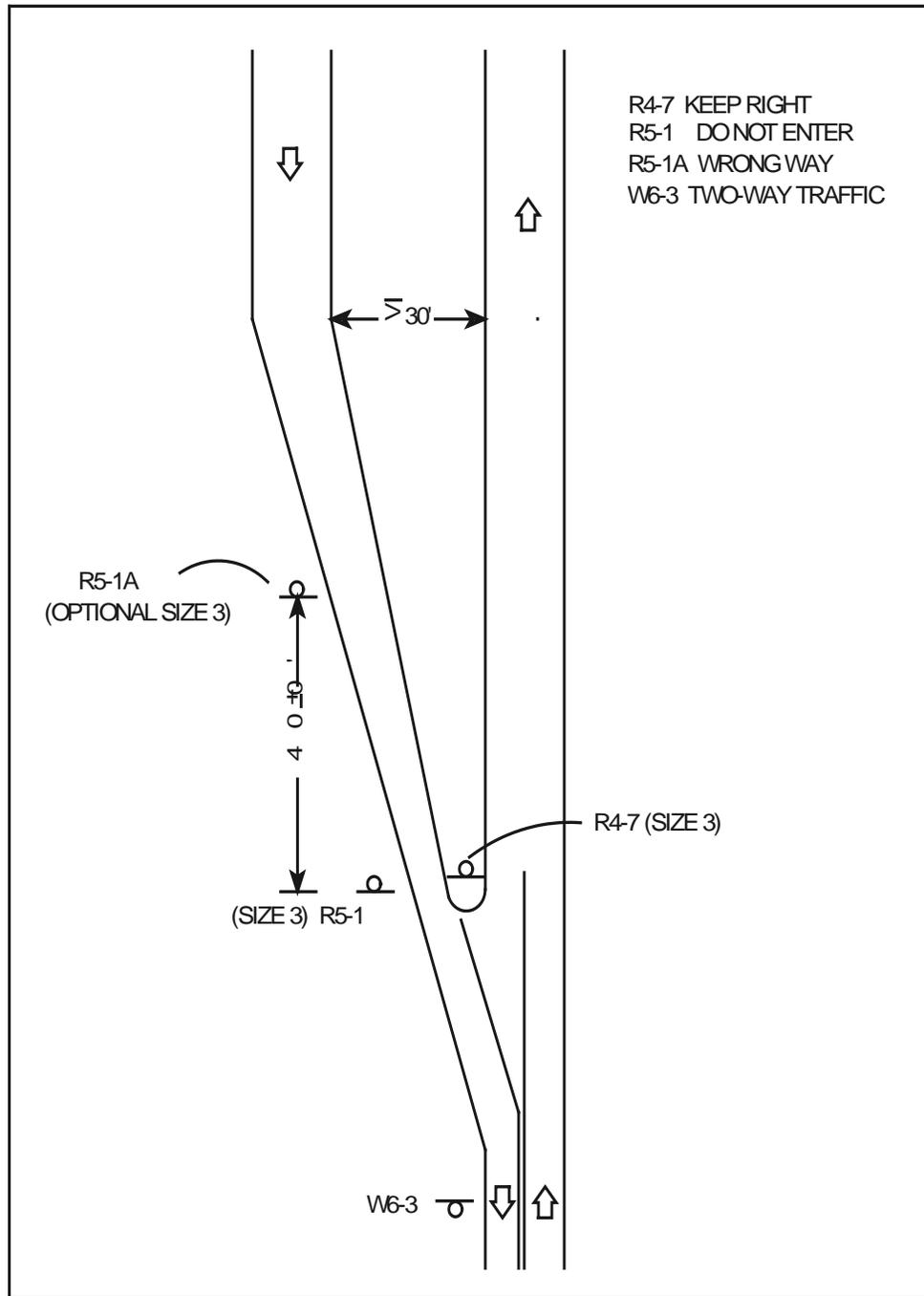


FIG. 6 TRANSITION FROM TWO-WAY UNDIVIDED HIGHWAY TO DIVIDED HIGHWAY

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

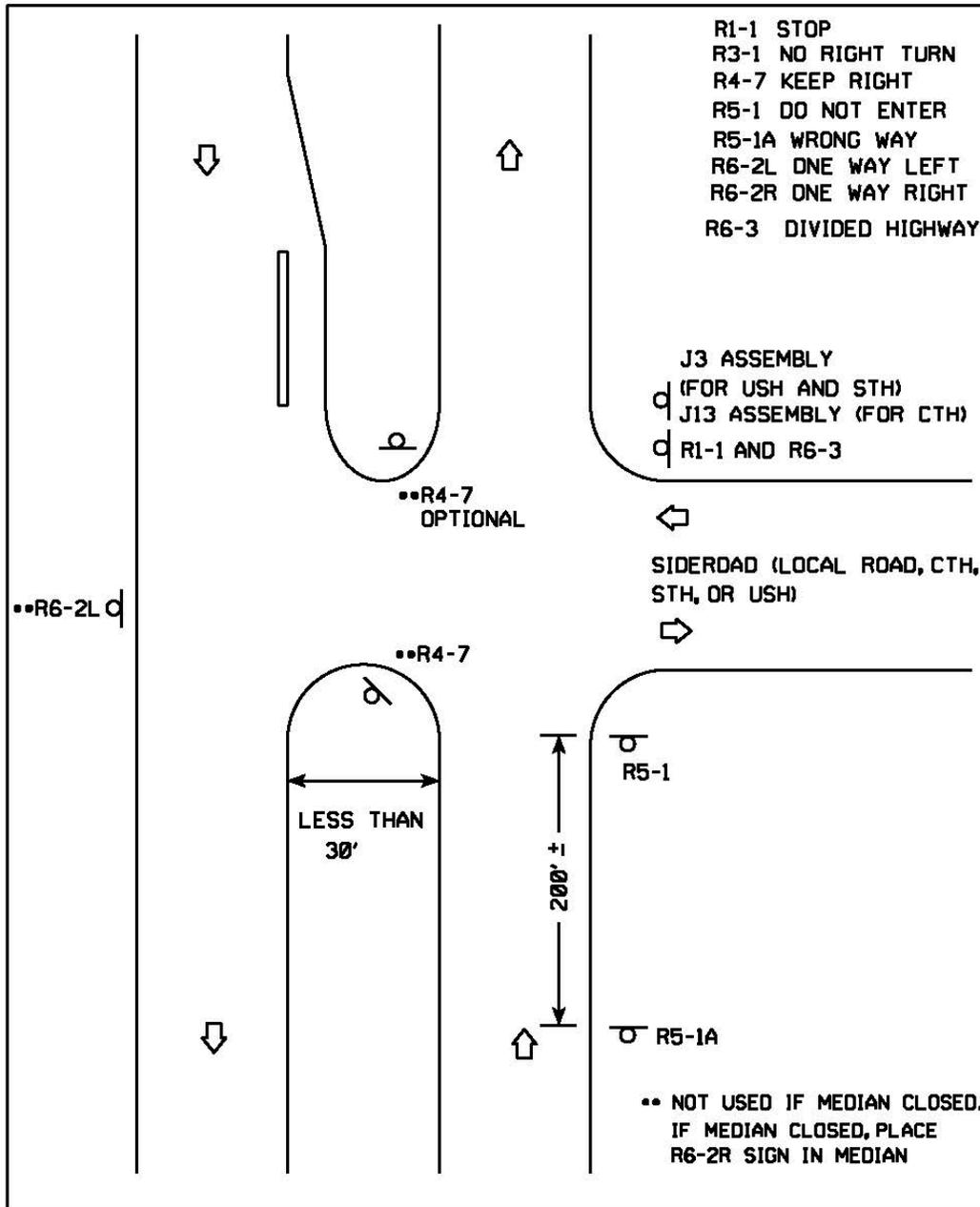


FIG. 7 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

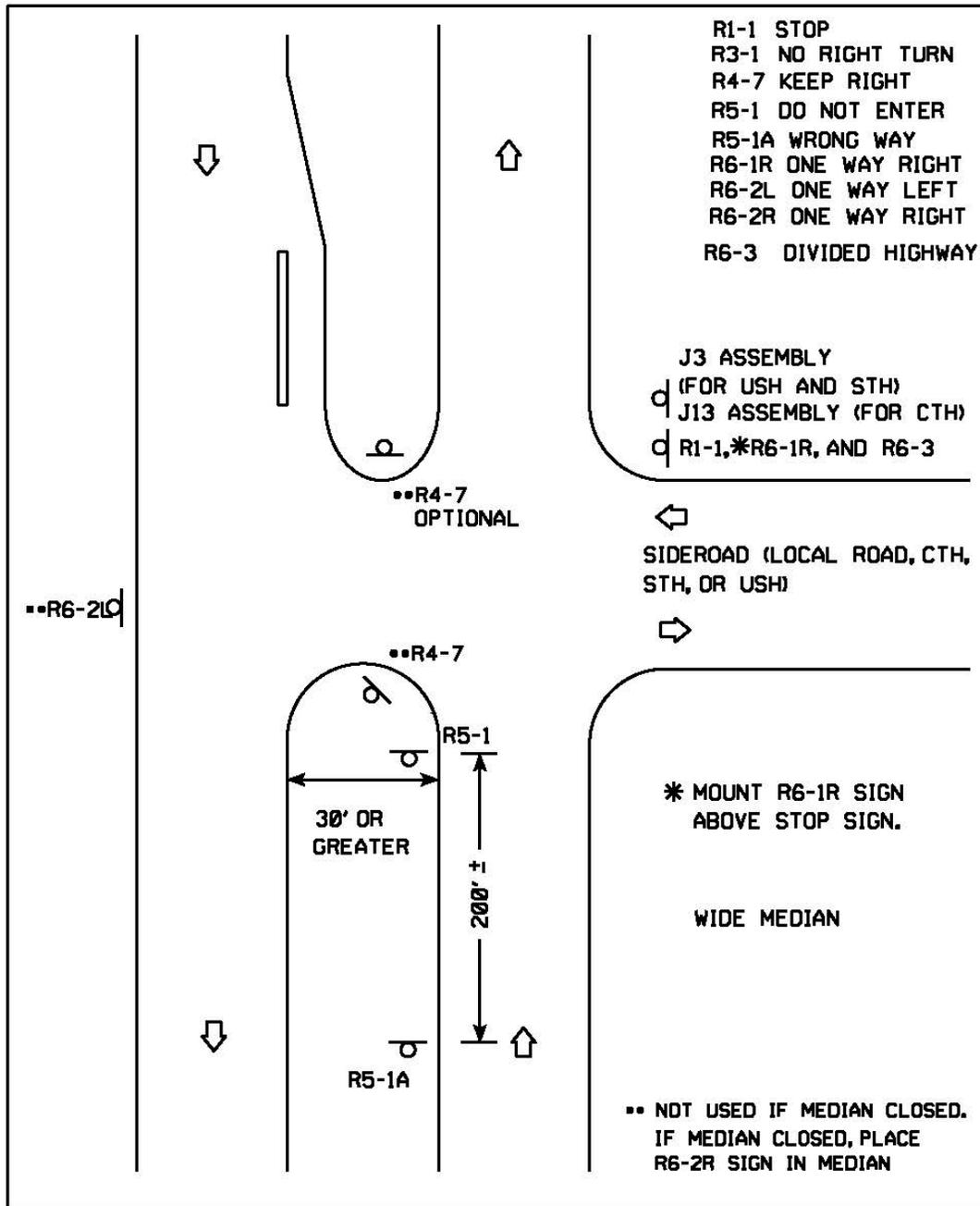


FIG. 8 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

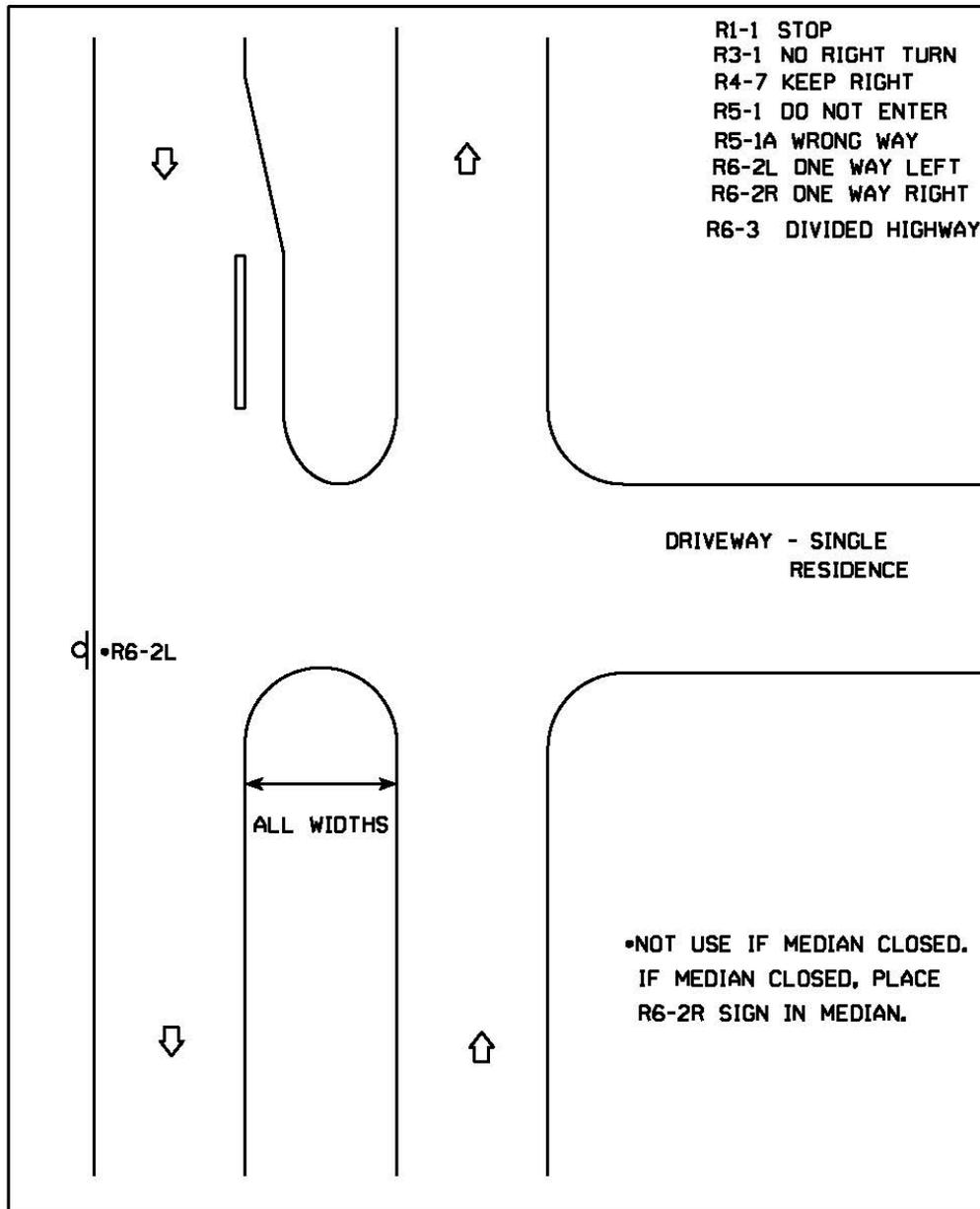


FIG. 9 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

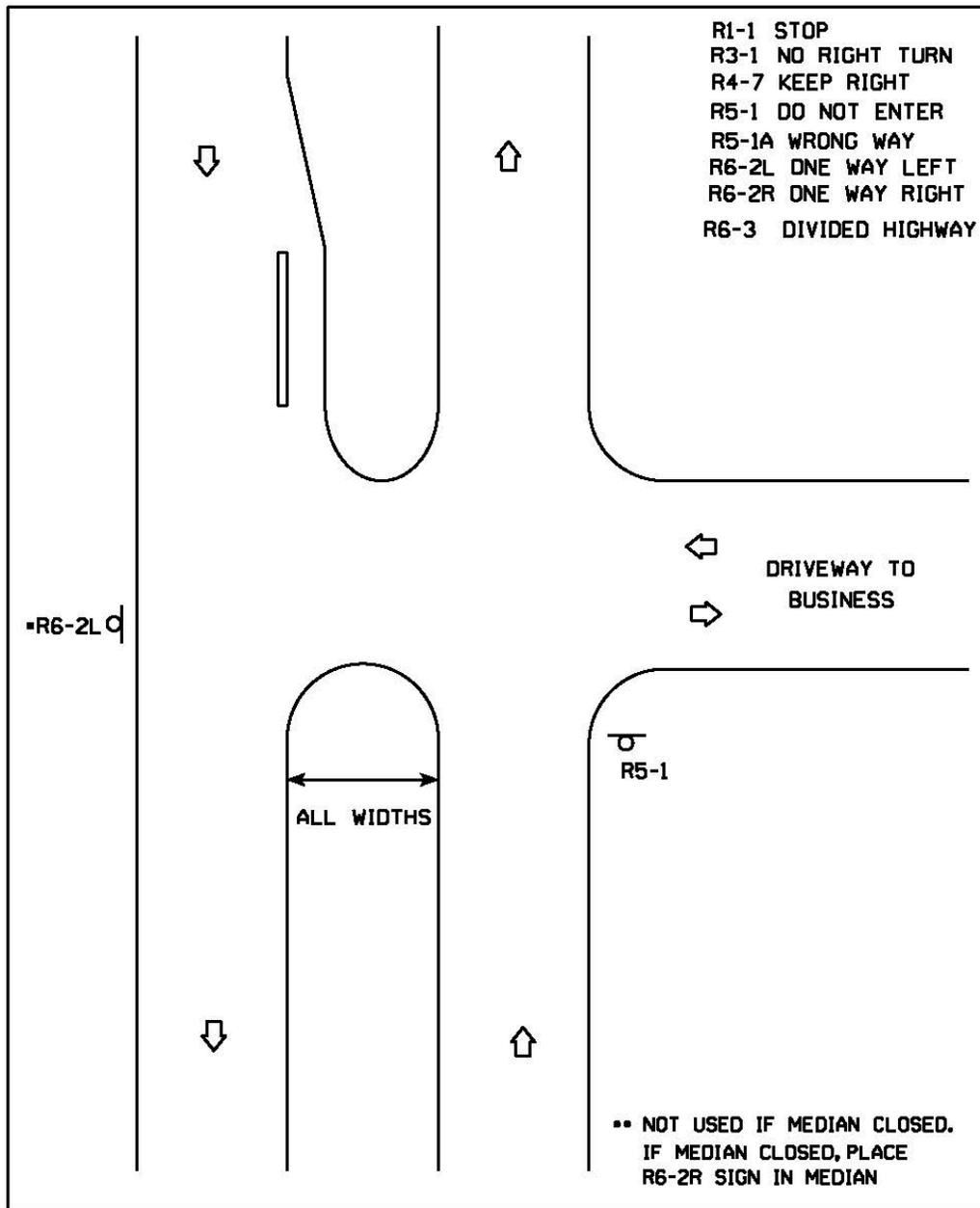


FIG. 10 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

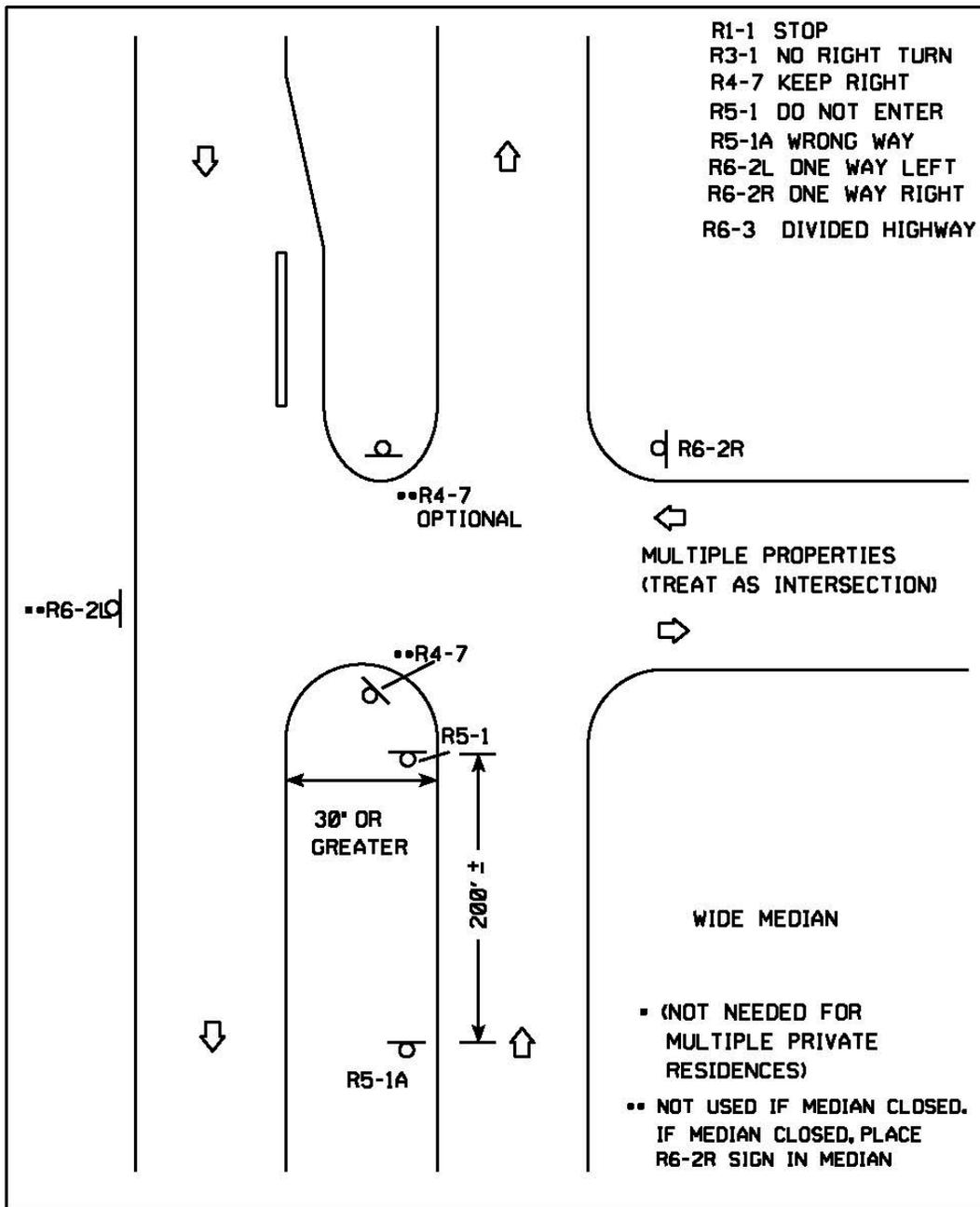


FIG. 11 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

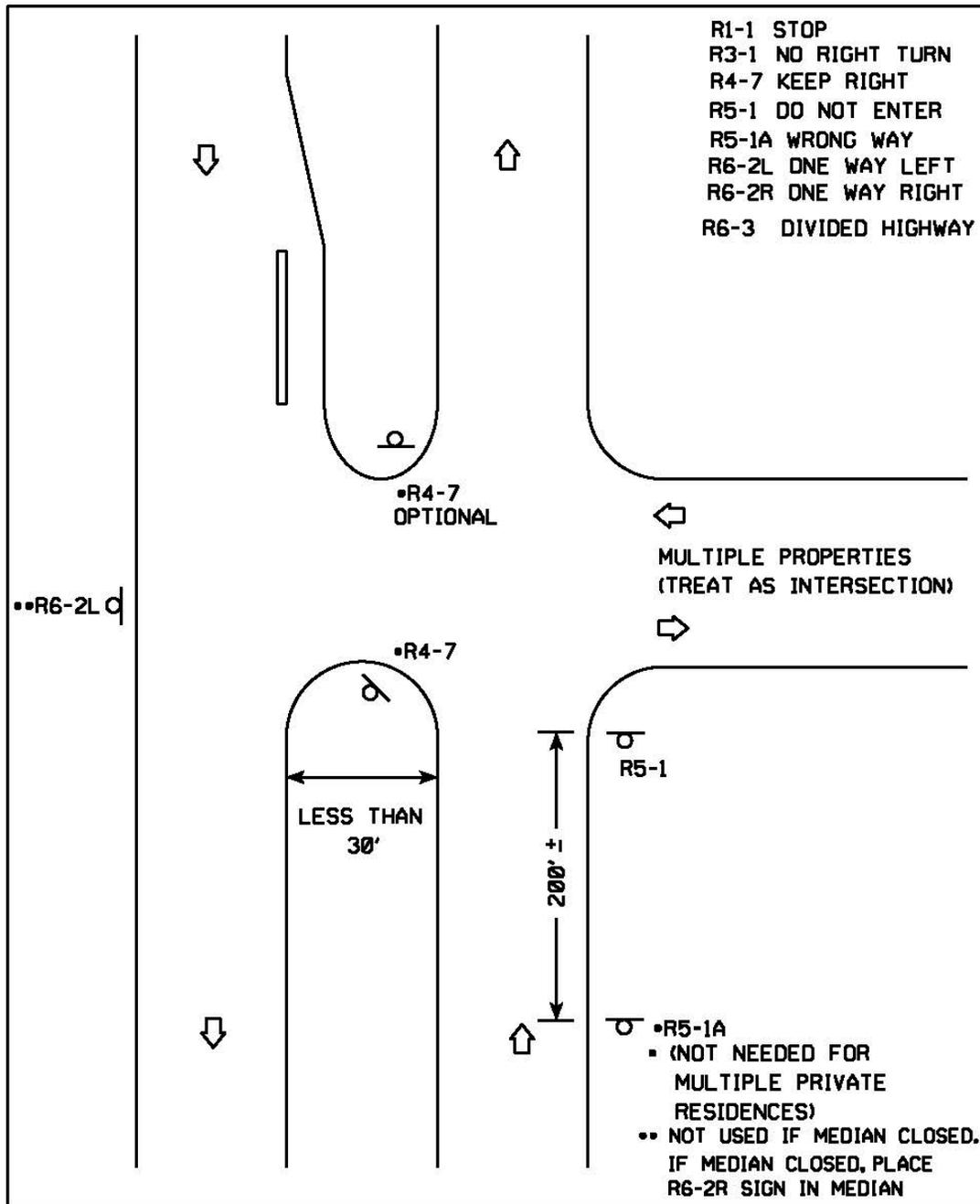


FIG. 12 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

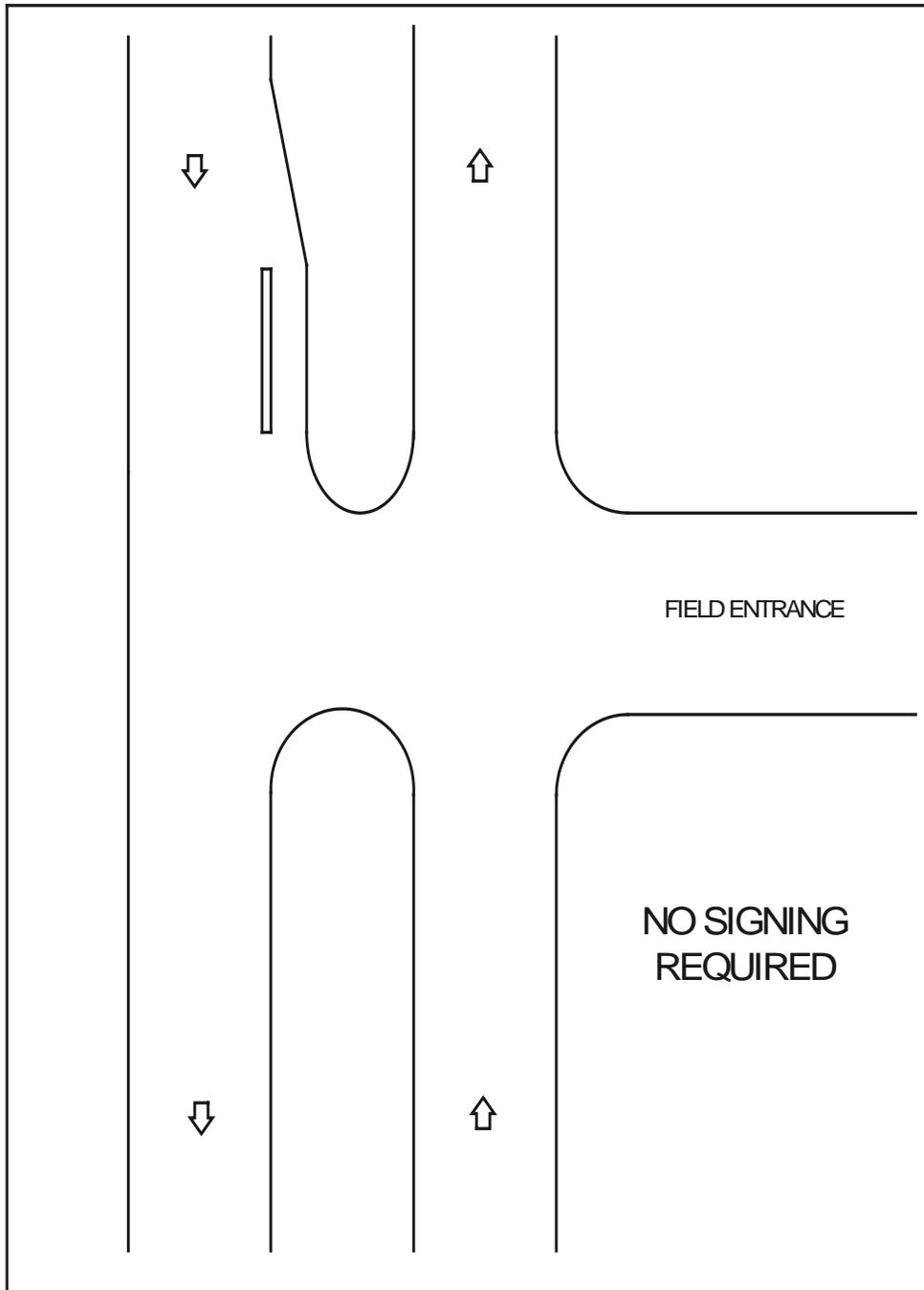


FIG. 13 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
FIELD CONDITIONS MAY DICTATE CHANGES IN
SIGN PLACEMENT.

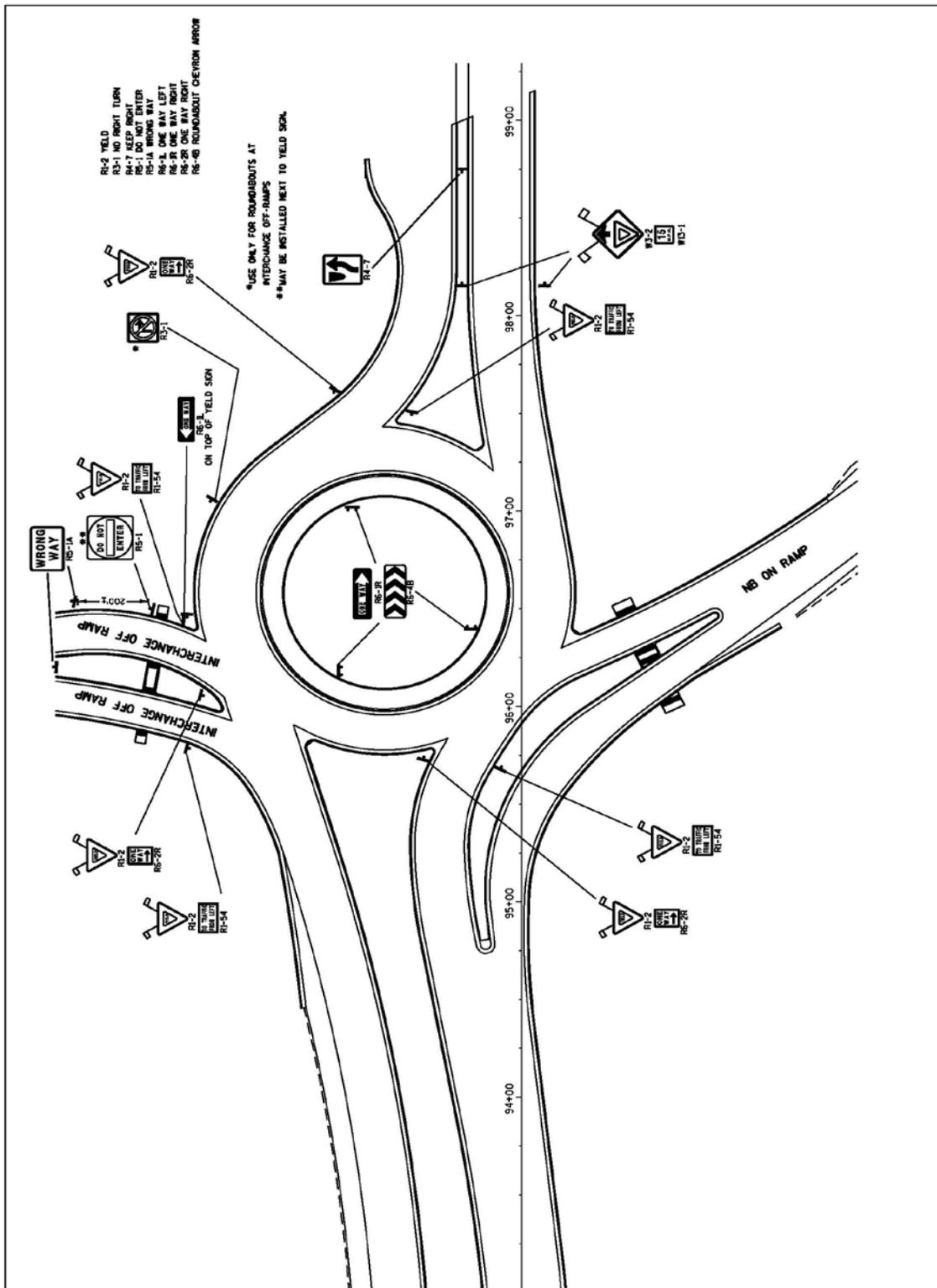


FIG. 14 WRONG WAY SIGNING RELATIVE TO ROUNDABOUT

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT

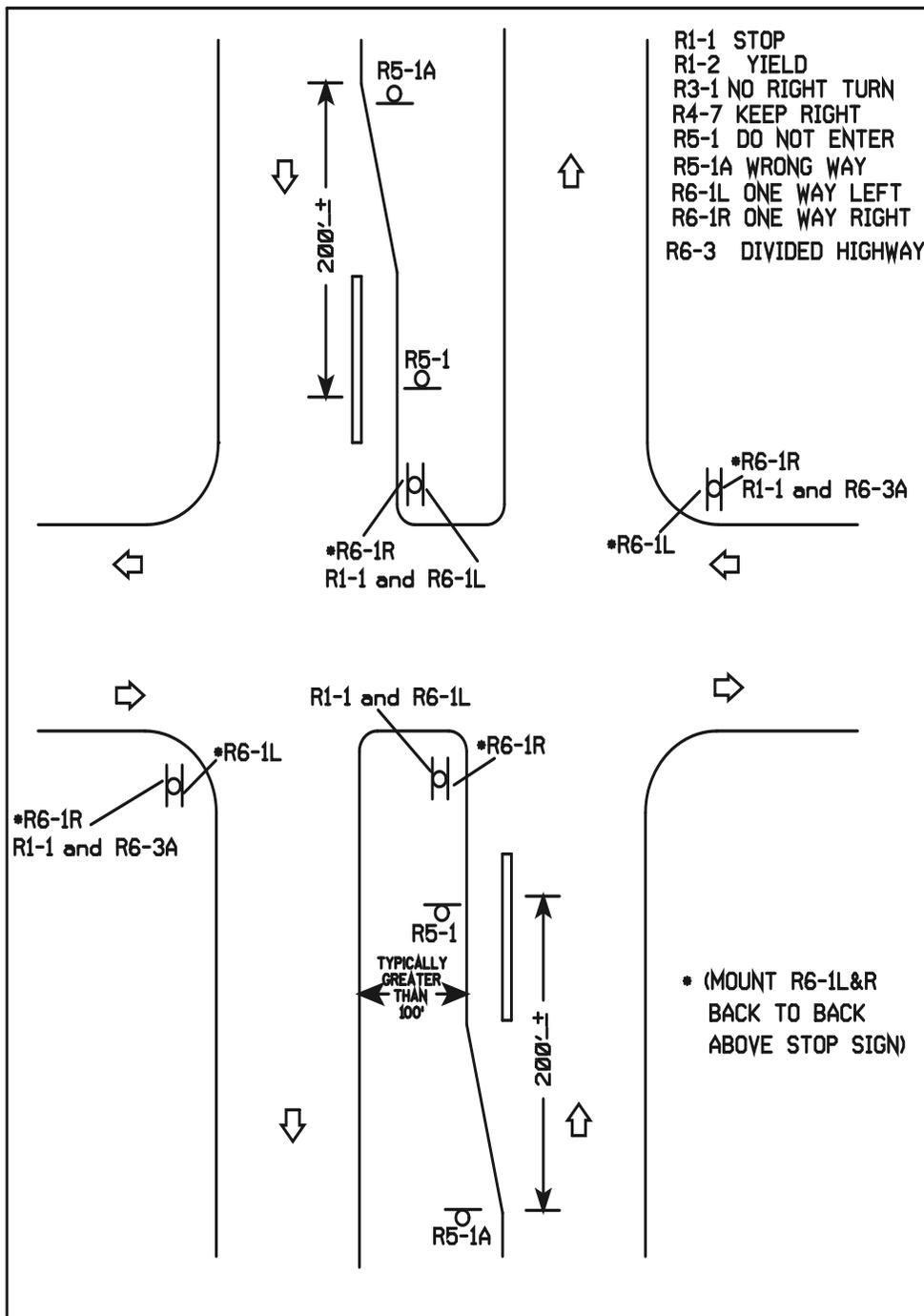


FIG. 15 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

(WIDE MEDIAN WITH STOP OR YIELD SIGN IN MEDIAN)

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.

FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

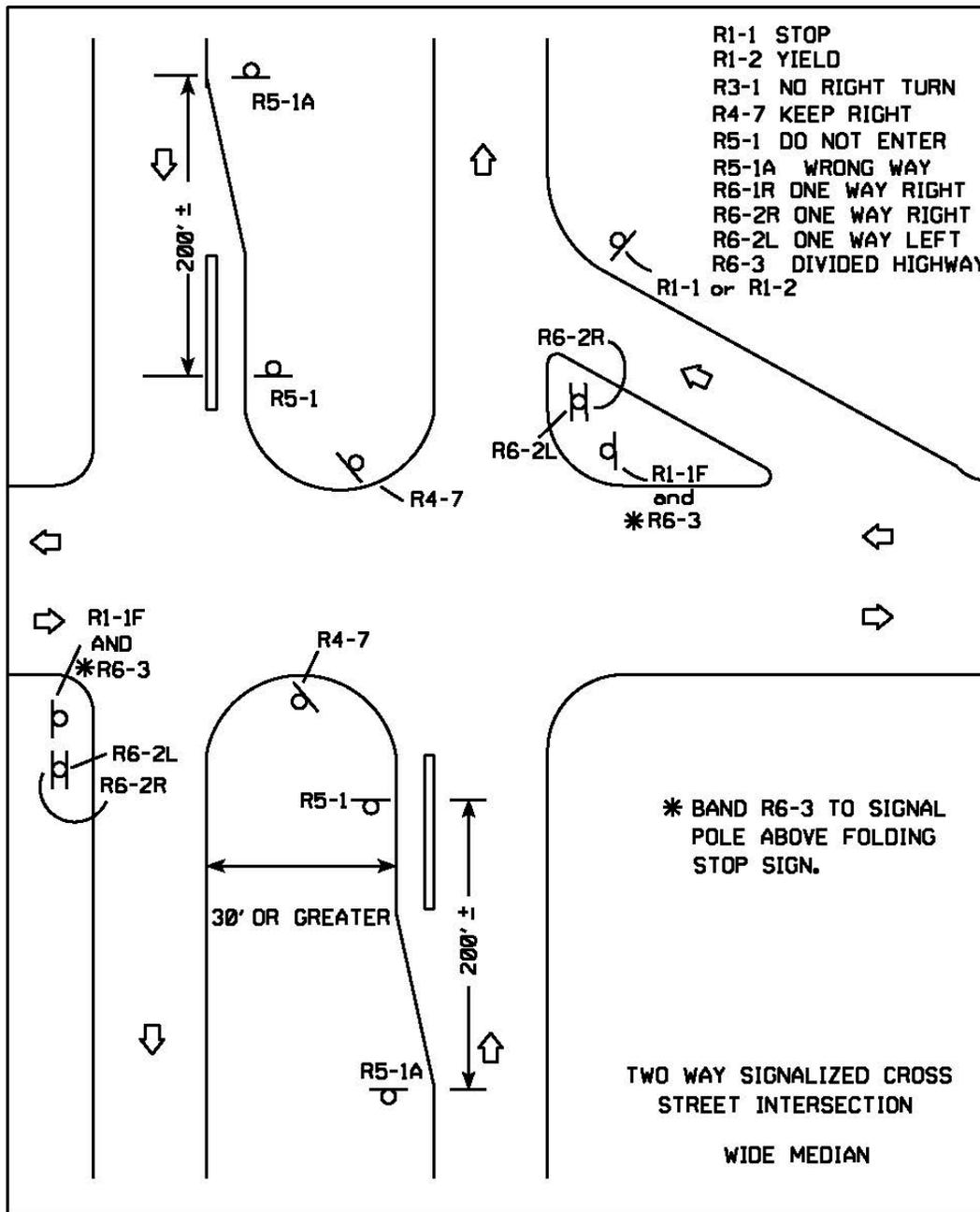


FIG. 16 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.

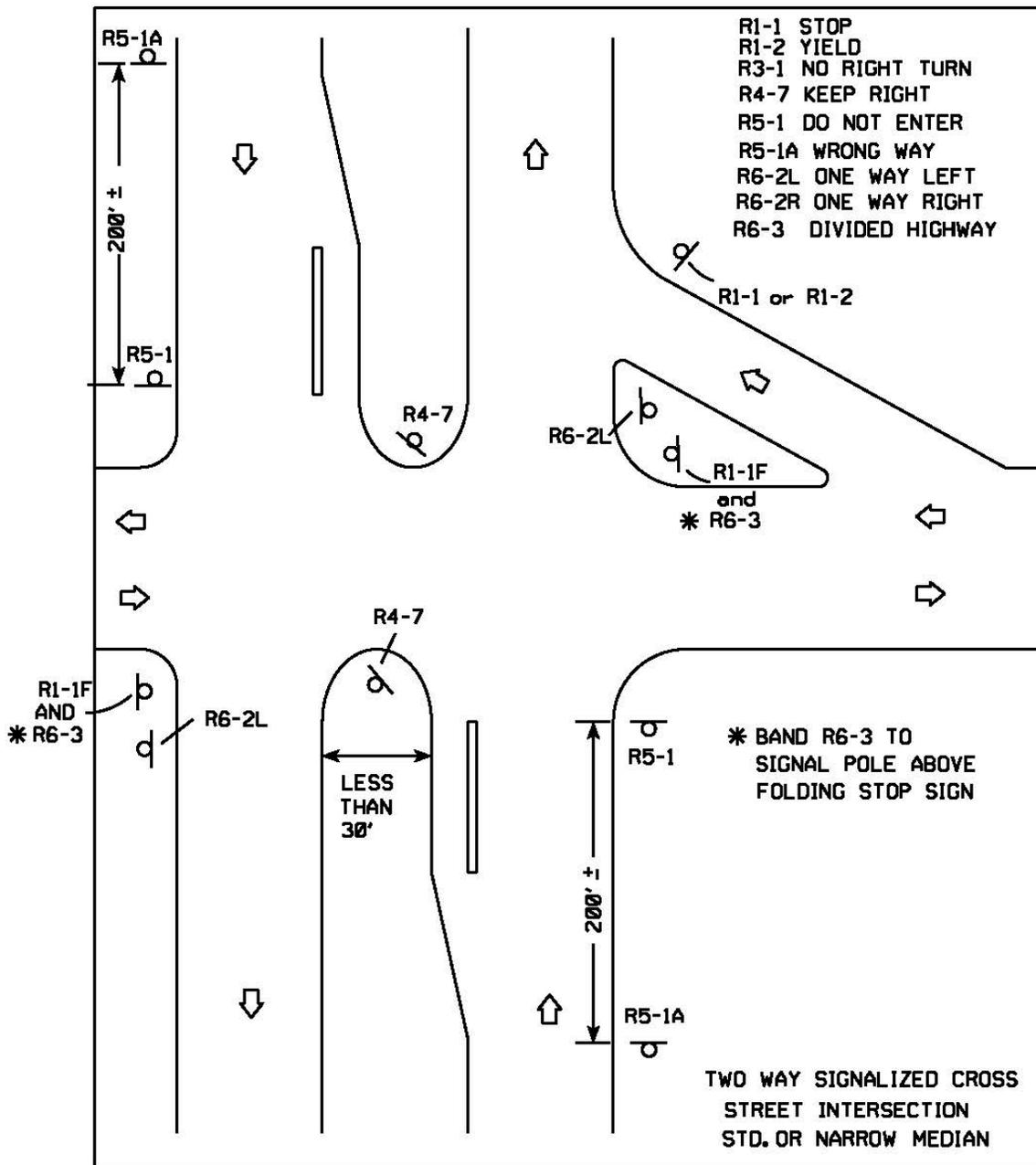


FIG. 17 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT.
 FIELD CONDITIONS MAY DICTATE CHANGES IN
 SIGN PLACEMENT.