314 WRONG WAY SIGNING

314.1 INTRODUCTION

The Wrong Way sign (R5-1a) should be used as a supplement to the Do Not Enter sign (R5-1) where experience indicates the need for such a sign on the basis of wrong way movements, or where an engineering evaluation indicates that it is desirable to install such signs because geometrics are conducive to wrong way entry. Locations where Wrong Way signs may be warranted include:

- 1. Where an exit ramp intersects a two-way crossroad or frontage road.
- 2. Where a one-way, right-turning roadway joins a two-way, undivided roadway.
- 3. At a divided roadway intersection where traffic from the crossroad may tend to enter the wrong side of the divided road.
- 4. Where direct access from abutting property to an exit ramp is permitted.
- 5. Where a one-way roadway becomes two-way.

Wrong Way signs shall not be installed in lieu of the standard regulatory and guide signs at freeway interchanges. These signs are used only to supplement the standard signing when an engineering evaluation indicates the supplementary signing to be desirable.

Approval for use of Wrong Way signs is not required for use on freeway exit ramps or similarly designed traffic intersections. The use of Wrong Way signs at other locations shall be approved by the Regional Traffic Engineer before they are installed.

At interchange exit ramp terminals where an exit ramp departing a freeway or highway intersects a crossroad in such a manner that wrong-way entry could inadvertently be made, DO NOT ENTER (R5-1) and WRONG WAY (R5-1a) signs are installed to inform road users and discourage wrong-way travel.

314.2 SIGN SIZE AND MOUNTING

For conventional roadways and expressways, sign sizes and mounting should be in accordance with the regulatory signs chapter of the MUTCD.

For new and reconstructed freeway traffic interchanges, or at freeway traffic interchanges where a sign rehabilitation or replacement project is replacing existing signs, the following signs or sign assemblies should be used:

A. DO NOT ENTER / WRONG WAY sign assembly: this consists of a 48" x 48" R5-1 DO NOT ENTER sign placed above a 48" x 36" R5-1a WRONG WAY sign. The assembly should be installed at a minimum mounting height of 3 feet, measured vertically from the bottom of the WRONG WAY sign to the elevation of the near edge of the pavement. This sign assembly typically uses two 2 1/2T posts and foundations, with slip bases as appropriate, unless

mounted on a signal pole or other support. Strips of red retroreflective sheeting may optionally be placed facing wrong-way traffic on the sign posts from the bottom of the sign to near the top of the foundation or slip base. See Figure 314-A for an illustration of the sign assembly, and the following sections and Figures 314-D through 314-H for examples of placement of this sign assembly.

- B. Supplemental WRONG WAY sign (post mount): This consists of a 48" x 36" R5-1a WRONG WAY sign at a minimum mounting height of 3 feet, measured vertically from the bottom of the bottom of the WRONG WAY sign to the elevation of the near edge of the pavement. This may be placed back to back with existing signs on a ramp. This sign is typically placed on each side of the exit ramp facing wrong-way traffic either approximately 250 feet upstream from the intersection, or on or at the lane control sign structure if one is present. Additional signs may be placed facing wrong-way traffic along the ramp based on engineering judgment. This sign assembly typically uses one 2 1/2S or 2 1/2T post and foundation with slip bases as appropriate. A strip of red retroreflective sheeting may optionally be placed facing wrong-way traffic on the sign post from the bottom of the sign to near the top of the foundation or slip base. If this sign is not placed back to back with other signs on the ramp, an OM2 series object marker may be installed facing traffic on the post or back of the sign panel along the inside edge of the panel. The lateral offset of these signs may be adjusted to improve visibility to wrong-way traffic or to not obstruct other signs along the ramp. See Figure 314-B for an illustration of the sign assembly.
- C. Supplemental WRONG WAY sign (overhead mount): This consists of a 72" x 48" R5-1a WRONG WAY sign placed facing wrong-way traffic on a lane control sign structure or other overhead sign structure. For ramps with two or three lanes at the sign structure location, typically only one sign is used, but two signs may optionally be used at ramps with four or more lanes. See Figure 314-C for an example of this type of signing.

Signs mounted at a 3 foot mounting height should not be placed where they will obstruct a pedestrian path, or in locations where on-roadway parking is expected. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

Although historical practice was to place the DO NOT ENTER sign back-to-back with a STOP sign where stop control was in place for the exit ramp, this practice is not encouraged for large DO NOT ENTER / WRONG WAY assemblies, as the optimum mounting angle for the DO NOT ENTER / WRONG WAY sign assembly may not be the same optimum angle for the STOP sign, and because the STOP sign cannot be larger than the entire reverse side of the DO NOT ENTER / WRONG WAY assembly as recommended in the Regulatory Signs chapter of the MUTCD.

Existing DO NOT ENTER and WRONG WAY signs in conformance with the Regulatory Signs chapter of the MUTCD may remain in place for the remainder of their service lives. If a single sign or assembly at a traffic interchange is damaged or needs replacement, it may be replaced by a sign similar to the existing or previous sign, or by a sign or signs as described in this document.

R5-1 DO NOT ENTER
48" x 48"

WRONG
WAY

Optional red retroreflective strips on sign posts

Figure 314-A. DO NOT ENTER / WRONG WAY Sign Assembly

Figure 314-B. Supplemental WRONG WAY Sign (Post Mount)

Side facing wrong-way traffic

Side facing ramp traffic

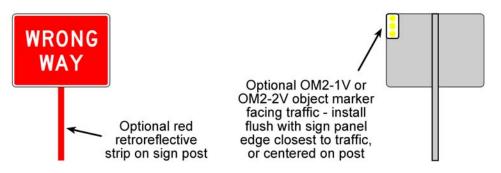
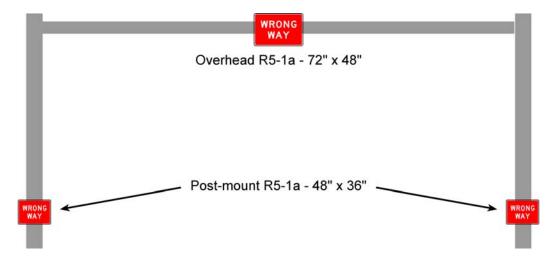


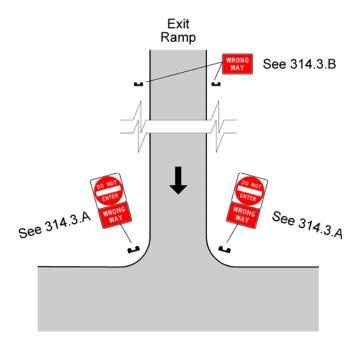
Figure 314-C. Supplemental WRONG WAY Sign (Post and Overhead Mount)



314.3 DIAMOND INTERCHANGE OR ONE-WAY EXIT RAMP TERMINAL

- A. DO NOT ENTER / WRONG WAY assemblies should be installed adjacent to the left and right-hand sides of the exit ramp at or near the intersection of the crossroad. The sign assemblies should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning traffic (see Figure 314-D). The appropriate orientation angle for each sign assembly should be determined and verified through field inspection.
- B. Additional WRONG WAY signs should be installed to the left and right-hand sides of the exit ramp upstream of the intersection in accordance with 314.2.B. If an overhead sign structure is present, overhead WRONG WAY signs should be installed in accordance with 314.2.C.
- C. Sign assemblies should be installed so that they do not obstruct the view of other signs or traffic signals at the intersection. Sign assemblies may be installed back to back with traffic signal assemblies on a traffic signal pole, but should not obstruct the signal indication or any pedestrian path. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

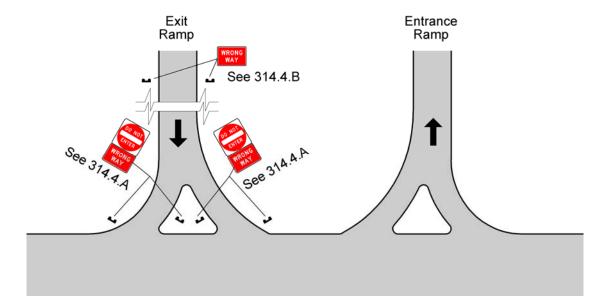
Figure 314-D. Wrong Way Signing at Diamond Traffic Interchange or One-Way Exit Ramp Terminal (other signs and devices at interchange omitted for clarity)



314.4 <u>SINGLE-POINT DIAMOND INTERCHANGE (WITH NO THROUGH</u> FRONTAGE ROAD)

- A. DO NOT ENTER / WRONG WAY assemblies should be installed to the left and right-hand sides of each exit ramp at or near the intersection of the crossroad. The sign assemblies should be oriented to be approximately perpendicular to the centerline of the adjacent ramp (see Figure 314-E).
- B. Additional WRONG WAY signs should be installed to the left and right-hand sides of the ramp upstream of the intersection in accordance with 314.2.B. If an overhead sign structure is present, overhead WRONG WAY signs should be installed in accordance with 314.2.C.
- C. Sign assemblies should be installed so that they do not obstruct the view of other signs or traffic signals at the intersection. Sign assemblies may be installed back to back with traffic signal assemblies on a traffic signal pole, but should not obstruct the signal indication or any pedestrian path. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

Figure 314-E. Wrong Way Signing at Single-Point Diamond
Traffic Interchange (with no through frontage roads)
(other signs and devices at interchange omitted for clarity)

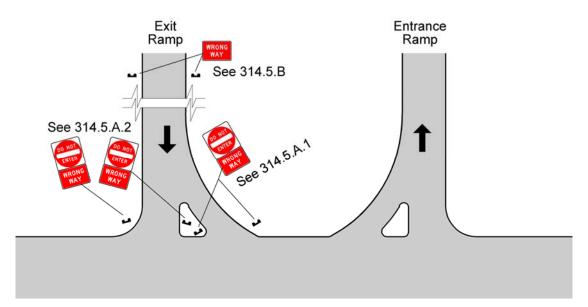


314.5 <u>SINGLE-POINT DIAMOND INTERCHANGE (WITH THROUGH</u> FRONTAGE ROAD)

- A. DO NOT ENTER / WRONG WAY assemblies should be installed to the left and right-hand sides of each exit ramp at or near the intersection of the crossroad.
 - 1. The sign assemblies adjacent to the ramp for left turn movements should be oriented to be approximately perpendicular to the centerline of the ramp (see Figure 314-F).
 - 2. The sign assemblies adjacent to the ramp for through and right turn movements should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning traffic (see Figure 314-F). The appropriate orientation angle for each sign assembly should be determined and verified through field inspection.
- B. Additional WRONG WAY signs should be installed to the left and right-hand sides of the ramp upstream of the intersection in accordance with 314.2.B. If an overhead sign structure is present, overhead WRONG WAY signs should be installed in accordance with 314.2.C.
- C. Sign assemblies should be installed so that they do not obstruct the view of other signs or traffic signals at the intersection. Sign assemblies may be installed back to back with traffic signal assemblies on a traffic signal pole, but should not obstruct the signal indication or any pedestrian path. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

Figure 314-F. Wrong Way Signing at Single-Point Diamond Traffic Interchange (with through frontage roads)

(other signs and devices at interchange omitted for clarity)



314.6 PARTIAL CLOVERLEAF OR LOOP RAMP INTERCHANGE (WITHOUT RIGHT TURN ISLAND)

- A. A 48" x 60" R4-7b KEEP RIGHT sign with diagonal arrow should be installed in the median between the exit and entrance ramps.
- B. DO NOT ENTER / WRONG WAY assemblies should be installed adjacent to the left and right-hand sides of the exit ramp.
 - 1. The sign adjacent to the outside (non-median) edge of the ramp should be installed a short distance upstream from the upstream edge of the right turn island, but in a position that is readily visible to turning traffic. The sign assembly should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning and entering traffic (see Figure 314-G). The appropriate orientation angle for each sign assembly should be determined and verified through field inspection.
 - 2. The sign adjacent to the median-side edge of the ramp should be installed a short distance upstream from where the alignment of the exit ramp diverges from the entrance ramp. The sign assembly should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning and entering traffic (see Figure 314-G). The appropriate orientation angle for the sign assembly should be determined and verified through field inspection. The sign assembly should be placed so that it is not readily visible to traffic on the entrance ramp, as unpredictable behavior may result.
- C. Additional WRONG WAY signs should be installed to the left and right-hand sides of the ramp upstream of the intersection in accordance with 314.2.B. If an overhead sign structure is present, overhead WRONG WAY signs should be installed in accordance with 314.2.C.
- D. Sign assemblies should be installed so that they do not obstruct the view of other signs or traffic signals at the intersection. Sign assemblies may be installed back to back with traffic signal assemblies on a traffic signal pole, but should not obstruct the signal indication or any pedestrian path. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

314.7 PARTIAL CLOVERLEAF OR LOOP RAMP INTERCHANGE (WITH RIGHT TURN ISLAND)

- A. A 48" x 60" R4-7b KEEP RIGHT sign with diagonal arrow should be installed in the median between the exit and entrance ramps.
- B. DO NOT ENTER / WRONG WAY assemblies should be installed adjacent to the left and right-hand sides of the exit ramp and the right turn ramp.
 - 1. The sign adjacent to the outside (non-median) edge of the ramp should be installed a short distance upstream from the upstream edge of the right turn island, but in a position that is readily visible to turning traffic. The sign assembly should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning and entering traffic (see Figure 314-H). The appropriate orientation angle for each sign assembly should be determined and verified through field inspection.
 - 2. The sign adjacent to the median-side edge of the ramp should be installed a short distance upstream from where the alignment of the exit ramp diverges from the entrance ramp. The sign assembly should be oriented at an angle to the centerline of the ramp so the sign faces inward toward the ramp to improve visibility to turning and entering traffic (see Figure 314-H). The appropriate orientation angle for the sign assembly should be determined and verified through field inspection. The sign assembly should be placed so that it is not readily visible to traffic on the entrance ramp, as unpredictable behavior may result.
- C. The sign assemblies adjacent to the ramp for the right turn movement should be oriented to be approximately perpendicular to the centerline of the ramp (see Figure 314-H).
- D. Additional WRONG WAY signs should be installed to the left and right-hand sides of the ramp upstream of the intersection in accordance with 314.2.B. If an overhead sign structure is present, overhead WRONG WAY signs should be installed in accordance with 314.2.C.
- E. Sign assemblies should be installed so that they do not obstruct the view of other signs or traffic signals at the intersection. Sign assemblies may be installed back to back with traffic signal assemblies on a traffic signal pole, but should not obstruct the signal indication or any pedestrian path. If it is impractical to place a sign assembly at the recommended location, it may be relocated or omitted.

Figure 314-G. Wrong Way Signing at Partial Cloverleaf Traffic Interchange (other signs and devices at interchange omitted for clarity)

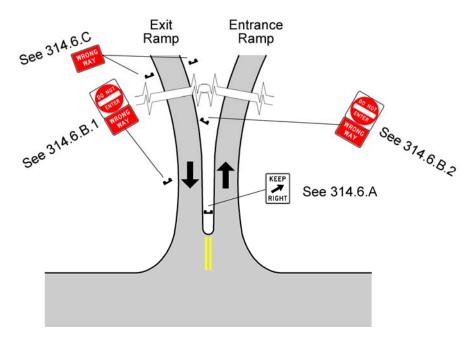


Figure 314-H. Wrong Way Signing at Partial Cloverleaf Traffic Interchange (with right turn island)

(other signs and devices at interchange omitted for clarity)

