

## Index 519 Rumble Striping

### Design Criteria

*FDOT Plans Preparation Manual (PPM)* Volume 1, Chapter 7

### Design Assumptions and Limitations

**Design Standards** Index 519 is only applicable for projects with dense graded friction course. For projects with open graded friction course use **Developmental Design Standards** Index D519.

Rumble Striping is a specific type of audible & vibratory marking and the usage criteria is specified in the **PPM**, Volume 1, Chapter 7.

Rumble strip grinding equipment is not designed for installing rumble strips on tapers and returns; therefore, they should not be installed in median opening returns, left turn lanes or right turn lanes as shown in the Figures below.

### Plan Content Requirements

In the Signing & Pavement Marking Plans:

Label the Rumble Striping on the Plan sheets and show the limits of the striping following the examples shown in the Figures below.

*Commentary: Since the drawings need to depict the pavement marking configuration, a visible line style for the continuous array rumble strip could not be used. Center Line markings for two lane roadways where the continuous array is used have a hidden line style for purposes of calculating the rumble strip quantity in GEOPAK. The CADD Office MR3 release will include the line style requirements and pay item information associated with GEOPAK Computation Manager and plans production. This has been revised from the MR2 release which used per mile instead of gross mile.*

Summarize quantities for each rumble striping component (i.e., ground-in rumble strip and pavement marking) separately on Tabulation of Quantities Sheet. For rumble striping, an extra application of paint in addition to final surface paint (pay item 710-90) will be required. Payment for the extra application of paint is not included in pay item 710-90 and will be paid for under the appropriate 710 pay item structure [i.e., 710- 11-111 (white solid), 710- 11-211 (yellow solid), or 710- 11-231 (yellow skip)].

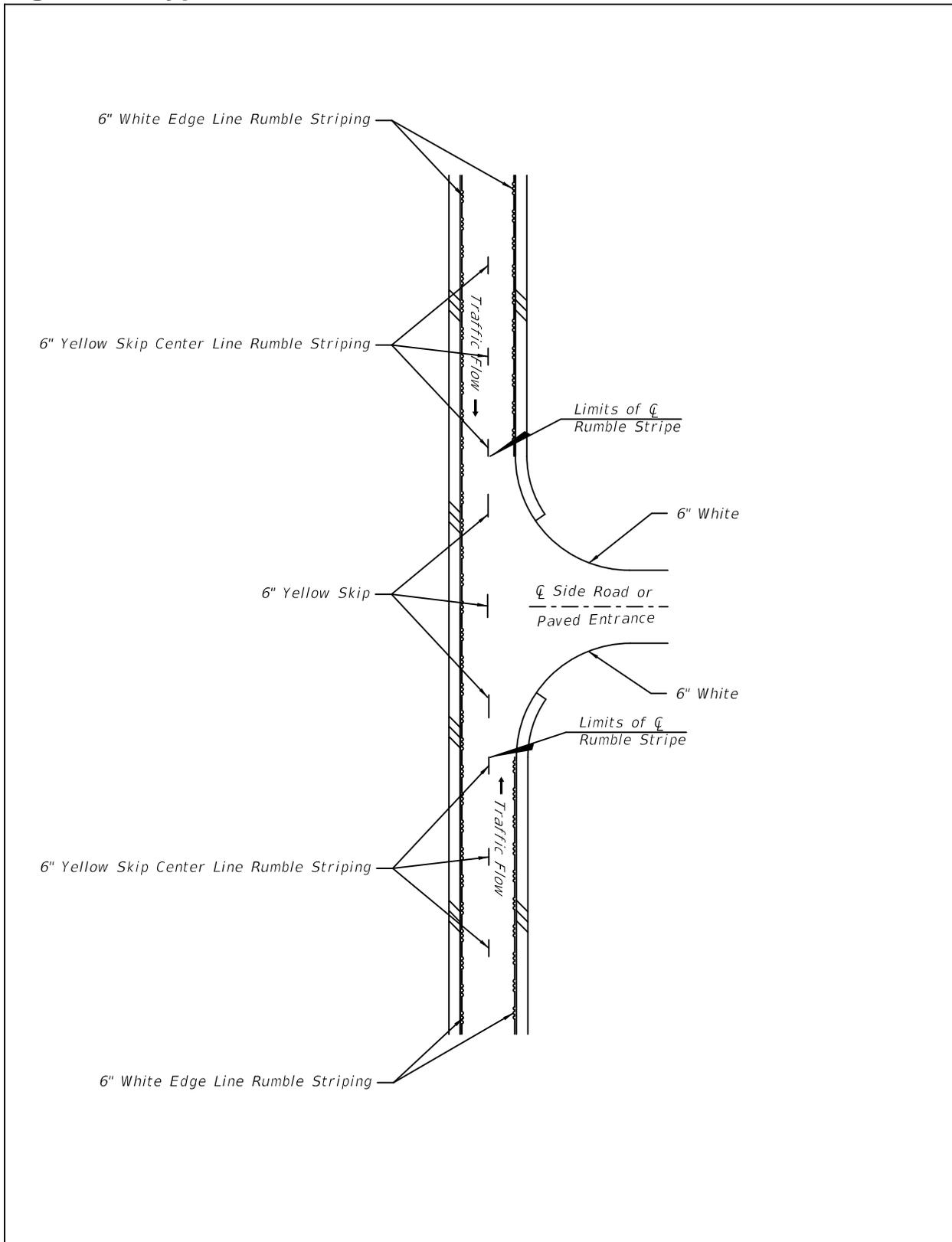
## Payment

There is no pay item for "Rumble Striping"; therefore, the payment will be made separately for each rumble striping component (i.e., ground-in rumble strip and pavement marking).

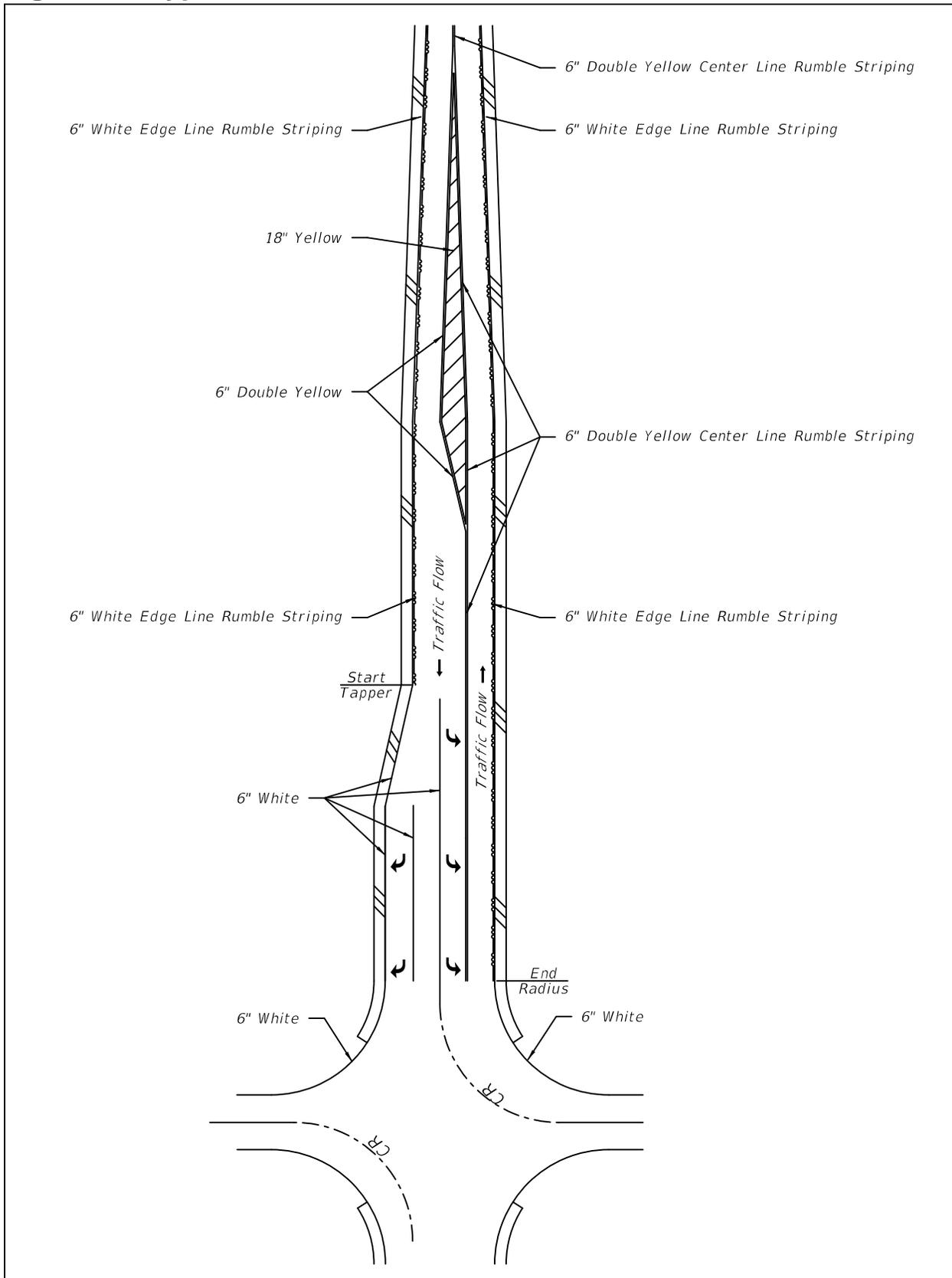
<b>Item number</b>	<b>Item description</b>	<b>Unit Measure</b>
546- 72- 52	Rumble Strips, Ground-In, 16" Center Line	GM
546- 72- 53	Rumble Strips, Ground-In, 8" Edge Line	GM
710-90	Painted Pavement Markings - Final Surface	LS
711- 1A-BCD*	Thermoplastic Pavement Markings*	GM

\* Include the Permanent Markings Pay Item only when permanent markings are installed within the construction contract.

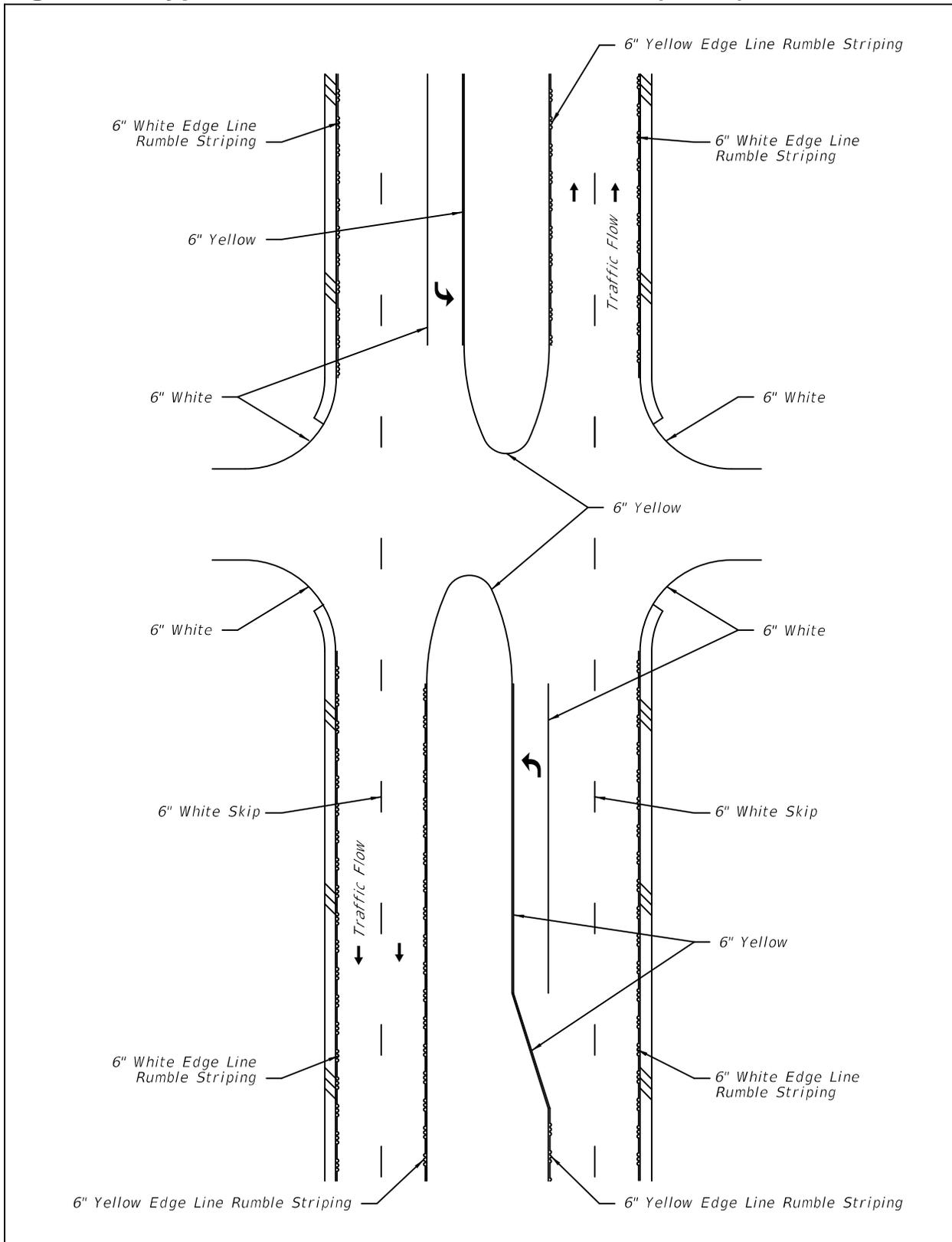
**Figure 1 Typical Rural Two-Lane Intersection without Turn Lanes**



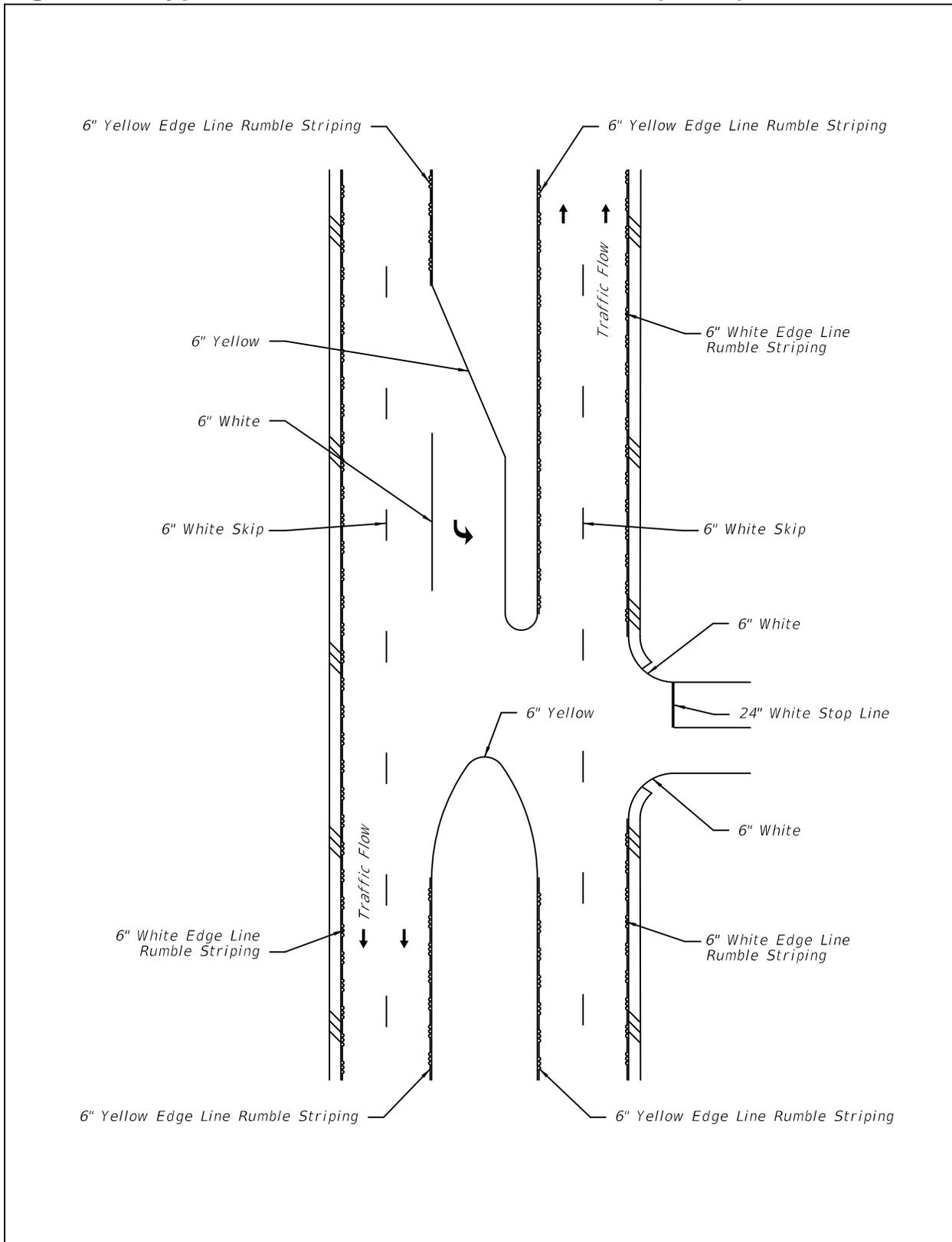
**Figure 2 Typical Rural Two-Lane Intersection with Turn Lanes**



**Figure 3 Typical Rural Multi-Lane Intersection (1 of 2)**



**Figure 4 Typical Rural Multi-Lane Intersection (2 of 2)**



**Figure 5 Typical Rural Multi-Lane Roadway**

