

- IA 14 & 300<sup>th</sup> St., 0.21 crashes per MEV
- IA 14 & 290<sup>th</sup> St. (S Jct. E63), 0.37 crashes per MEV
- IA 14 & 280<sup>th</sup> St. (N Jct. E63), 0.14 crashes per MEV
- IA 14 & 255<sup>th</sup> St., 0.35 crashes per MEV
- IA 14 & 250<sup>th</sup> St., 0.13 crashes per MEV

Turn lane warrants were reviewed for these 3 intersections:

- 290<sup>th</sup> Street (South Junction County Road E63) - Paved  
There is an existing northbound major right turn lane. A southbound passing lane develops just north of 290<sup>th</sup> Street such that it is a quasi left turn lane. The turn lane warrants were met for northbound minor right and southbound left. The northbound right will remain. The southbound climbing lane will be evaluated for possible lengthening to develop a longer deceleration length for left turners. Survey will be obtained for about 500 feet in this location.
- 280<sup>th</sup> Street (North Junction County Road E63) - Paved  
There is an existing southbound major right turn lane. The turn lane warrant was met for southbound right. No turn lanes will be added or modified with this project.
- 260<sup>th</sup> Street - Unpaved  
There are currently no turn lanes at this intersection. The turn lane warrant was met for southbound left, but will not be added since there have been no crashes here during the 5 year evaluation period.

Paved shoulders and shoulder rumble strips will be added on this project since the route is on the National Highway System.

Full width paved shoulders (8 feet wide) will be added to the inside of the 435+80 PI curve. The shoulder will tie into the paved shoulder required for the guardrail at the bridge over Timber Creek. This will alleviate shoulder maintenance and erosion concerns in this area.

**Other Considerations:**

There is currently 40% sub-drain coverage along this route according to as-built plans. Soils Design recommends addition sub-drains only if the sub-drains are trenched thru the 1985 widening unit. Since the district does not wish to trench thru the widening unit, additional sub-drains will not be added with this project.

Maintenance will review other culverts along this route in spring 2013 to determine if other culvert repairs are necessary.