How Can Local Agencies Help Address Roadway Fatalities? Efforts In Iowa

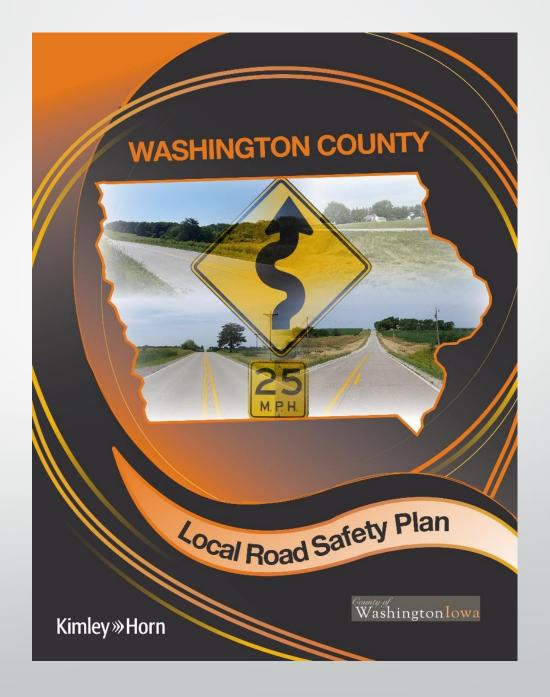
Jacob Thorius, P.E.
Washington County Engineer
NACE South Central Vice President

Iowa Efforts

Local Road Safety Plans

Funding Opportunities

Washington County Specific



What is an LRSP and its Purpose?

- A document that analyzes the roads system and provides a basis for installing proactive safety improvements
- Defines a locally focused plan to help local officials make informed & prioritized safety decisions
 - Produces a prioritized list of safety improvement projects
 - Focused on proactive improvements versus reactionary analysis
 - Beyond chasing the "black spots"

Benefits of a LRSP

- Coordination between various agencies within the county
- Use of the results of the analysis to leverage and apply for funding
- Focus on all the five E's of safety
 - Engineering,
 - Emergency response,
 - Education,
 - Enforcement, and
 - Everyone





- Over 50% fatal and serious injury crashes occur on the local system
- County roads are less "forgiving"
 - Narrow pavement

Sheldor

- Steep side slopes
- Less clear zone area
- Iowa learned about LRSPs at a Peer Exchange in Minnesota in 2013

Altoona

- Used state and federal safety funds to develop LRSPs
 - No cost to participate
 - Involved in development and review with consultant Kimley Horn & Iowa DOT

Knoxville Oskaloosa

Phase 4 Counties (12)

Phase 4 Cities (7)

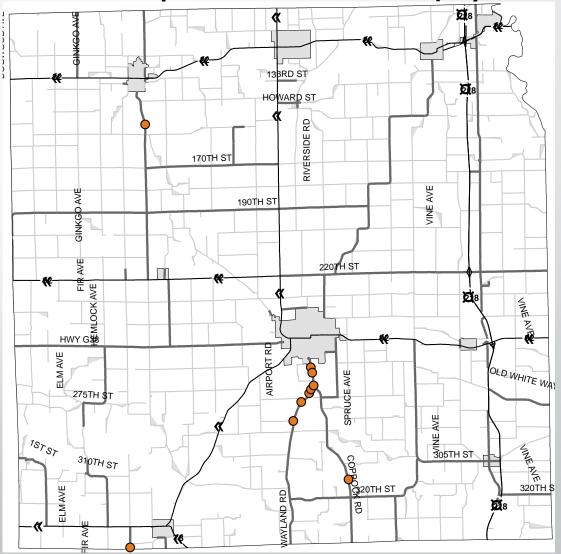
Legend

County LRSP Stats

- Each county had a project sheet prepared for 10 segments, 10 intersections and 10 curves
 - Over 1,800 project sheets
 - Analyzed over:
 - 10,500 miles of paved roads
 - 17,100 intersections
 - 6,000 curves
 - At least \$1M in improvements identified for each county

Washington County LRSP completed in 2016/17

- 13 Segments ~\$6,700,000 estimated project costs
- 11 Intersections ~ \$1,350,000 estimated project costs
- 10 Curves ~ \$177,000 estimated project costs



Iowa Safety Funding Opportunities

- Highway Safety Improvement Program Secondary \$2.0 million/year Federal
 - Established to fund low-cost, systemic safety improvements on rural roads
 - On Secondary Roads with current crash history or at-risk characteristics
 - Projects cost approximately \$10,000/mile and along corridors
- Traffic Safety Improvement Program

\$8.0 million/year - State

- Provides funding for traffic safety improvements or studies on any public road
 - Site-specific Improvements: projects intended to increase traffic safety at a specific site
 - Traffic Control Device: purchase materials for new installation or replacement of obsolete devices
 - Studies and outreach: transportation safety research, studies or initiatives

Iowa Safety Funding Opportunities cont.

- County-State Traffic Engineering Program
 - Solve traffic operation and safety problems at intersections of county and state roads
 - Spot improvements limited to a single location, County/State split 45/55
 - Linear improvements for locations where spot improvement is inadequate, County/State split 70/30 or 40/60
- Traffic Engineering Assistance Program
 - Provides traffic engineering expertise to local governments
 - Identifies cost-effective traffic safety & operational improvements
 - Identifies potential funding sources to implement recommendations
 - No match required, but will need to assist in data collection

Washington County Specific Efforts

- Paved Shoulders \$2.245 Million in TSIP funds
 - Pave 4 foot wide
 - Install Rumble strips
- Centerline Rumble Strips— \$88,000 in HSIP Funds
- Upgrade Traffic Signs \$70,000 in Sign Replacement Program Funds
 - Upgrade chevrons & curve warning signs along paved roads
 - Replace signs to meet retroreflectivity requirements



Washington County Specific Efforts

- Overpass with on/off ramp installed at intersection with divided four lane highway
 - Joint project with Iowa DOT
 - Utilized \$500,000 in High Risk Rural Roads funding
- Pavement markings
 - Centerline every other year
 - Half of edge line every other year

Washington County Specific Efforts

- Portable Traffic Lights
 - Reduce need for flaggers in work zones
 - Easier for traveling public to understand
- Older pavements steep foreslopes
 - Flatten slopes with material from ditching projects
- Newer pavements 10 foot wide rock shoulders
 - Room for slow moving farm traffic to get off road
 - "Recovery" area for traffic veering off road



Contact Information

Jacob Thorius, P.E. Washington County Engineer NACE South Central Vice President

thorius@co.washington.ia.us 319-653-7731