

CEAO County Safety Study Projects

The goal of this project is to give County Engineers the information they need to bring their county roads and all related roadway aspects up to current standards. The studies available to the County Engineers are:

NO PASSING ZONE STUDY

- Establish no passing zones in accordance with Chapter 3B.02 of the OMUTCD and any County-specific requirements
- Provide data that is compatible with County's current software or provide software for viewing and maintaining data
- Prepare a graphic roadlog to use for T-marking prior to striping, if requested by County
- (Optional) Provide GIS Layer compatible with County's current GIS software

SIGN INVENTORY

- Prepare a detailed inventory of existing signs
- Determine what additional signs are needed to bring the roadway into compliance with the OMUTCD
- Perform a visual inspection of signs to ensure that they are properly maintained and aligned
- Check the signs for compliance with OMUTCD standards including size, height, placement, etc.
- Log the sheeting and blank type of the sign
- Log the post and breakaway type
- Perform a visual inspection of the sign, the post, and the breakaway
- Log any problems
- Log the number of signs mounted on the post
- Log the road, log point, side of the road the sign is on, and the direction it faces
- (Optional) Take digital photographs of signs and/or sign maintenance issues
- (Optional) Shoot the retroreflectivity of legend (where applicable) and background
- (Optional) Provide GIS Layer compatible with County's current GIS software

SIGN COMPLIANCE

- Log signs and sign placements that do not conform to the OMUTCD including:
 - School Zone signage
 - Speed Zone signage
 - Bridge signage (one lane, narrow, & end markers)
 - Stop Ahead and Yield Ahead placement
 - Warning signs too close together
 - Low Clearance Underpass signage
 - T and Y Intersection signage
 - Advance Railroad Crossing signage
 - Other situations where additional signage may be helpful or existing signage may be a hindrance

GUARDRAIL LOCATION INVENTORY AND INSPECTION

- Inventory existing guardrail
- Measure guardrail assemblies
- Inspect guardrail
- Identify unneeded guardrail
- Recommend additions to existing guardrail installations
- Develop a comprehensive guardrail plan
- Provide data that is compatible with County's current software or provide software for viewing and maintaining data
- (Optional) Provide GIS Layer compatible with County's current GIS software

PAVEMENT MARKING INVENTORY

- Perform an inventory of every pavement marking including stop bars, crosswalks, transitional line, edge line, railroad and school markings, turn arrows, ONLY markings, channel lines, and others as requested by the County Engineer
- Total all lengths of line
- Provide field hand drawings and/or CAD drawings
- Develop a pavement marking plan
- Provide data that is compatible with County's current software or provide software for viewing and maintaining data
- (Optional) Provide GIS Layer compatible with County's current GIS software

BALL BANK (CURVE SAFE SPEED) STUDY

- Follow procedure as outlined in Chapter 2C of the OMUTCD
- Determine beginning and end of every curve in relation to control point data
- Log curve related signs and assign them to their respective curve
- Drive successive passes on the curve to determine safe speed
- Ensure existing warning signs are correct and at the proper distance from the curve
- Determine corrective measures
- Provide data that is compatible with County's current software or provide software for viewing and maintaining data
- (Optional) Provide GIS Layer compatible with County's current GIS software

ROADSIDE HAZARD INVENTORY

- Drive each route and locate all items that interfere with the specified Clear Zone
- Make recommendations to correct the problems (obstruction removal/relocation, barrier installation, etc.)
- Provide data that is compatible with County's current software or provide software for viewing and maintaining data
- (Optional) Provide GIS Layer compatible with County's current GIS software

SPEED ZONE STUDY

- Set counters on the road to gather ADT, 85th percentile, and Pace speeds
- Gather profile on the road showing driveways, business entrances, intersections, horizontal and vertical curves, signs, existing striping, etc.
- Acquire crash data for the latest 3 years for the section of road involved
- Take digital photos of the zone
- Data is input into ODOT's formula
- County will obtain ODOT approval for the speed zone, if one is needed
- County will post lowered speed limit, if needed (signs are not included as part of the study)

TRAFFIC SIGNAL WARRANTS

- Follow procedure as outlined in Chapter 4C of the OMUTCD
- Determine if location meets one of the eight possible warrants
- Determine if the installation of the signal will improve the overall safety and/or operation of the intersection
- Determine if control signal will seriously disrupt progressive traffic flow
- County will install signal only if warrant is met, safety and/or operation will be improved, and traffic flow is not seriously disrupted (signal and installation are not included as part of the study)

SAFETY STUDY

- Follow procedure as outlined in ODOT Safety Study Guidelines
- Document history of problems or crashes at location and reason for the study
- Prepare a condition diagram
- Prepare a collision diagram
- Compile crash data
- Analyze crash data
- Take digital photos of location
- Identify possible causes or deficiencies in the roadway through analysis of crash patterns, roadway conditions, traffic control, traffic volumes, vehicle speeds, etc.
- Recommend countermeasure, rate of return, and cost