

**COURSE NUMBER**

FHWA-NHI-380109

**COURSE TITLE****Alternative Intersections and Interchanges**

Transportation professionals are continually challenged with finding improved ways for satisfying the mobility needs of an increasing population. Highway intersections pose particular challenges with regard to safety and mobility as traffic volumes and congestion levels continue to increase. As a result, drivers, pedestrians, and bicyclists experience longer delays and greater exposure to safety risks. Today's traffic and safety problems are becoming increasingly more complex, and conventional intersections and interchange designs are sometimes found to be insufficient to mitigate transportation problems. Consequently, many engineers are investigating and implementing innovative treatments in an attempt to alleviate these issues.

This course provides participants with an overview of various non-traditional intersection concepts that may offer advantages compared to conventional at-grade intersections and grade-separated interchanges. The training presents the salient geometric, operational, and safety features associated with the alternative design concepts, and will illustrate how intersections are selected using an analysis tool. It also will identify potential advantages and disadvantages of each design.

**OUTCOMES**

Upon completion of the course, participants will be able to:

- Describe key design and operation features of the six non-traditional intersections and interchanges: 1. Displaced Left-Turn Intersections; 2. Median U-turn Intersection; 3. Restricted Crossing U-Turn Intersection; 4. Quadrant Roadway Intersection; 5. Double Crossover Diamond Interchange (Diverging Diamond); 6. Displaced Left Turn Diamond Interchange
- List the advantages and disadvantages of their use
- Describe where they are best suited for existing and planned conditions
- Identify resources to acquire additional information on these designs and their implementations

**TARGET AUDIENCE**

Federal, State, and local transportation traffic and safety engineers, and planners involved in improving the performance of intersections.

**TRAINING LEVEL:** Intermediate

**FEE:** 2016: \$300 Per Person; 2017: \$300 Per Person

**LENGTH:** 1 DAYS (CEU: .6 UNITS)

**CLASS SIZE:** MINIMUM: 20; MAXIMUM: 30

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