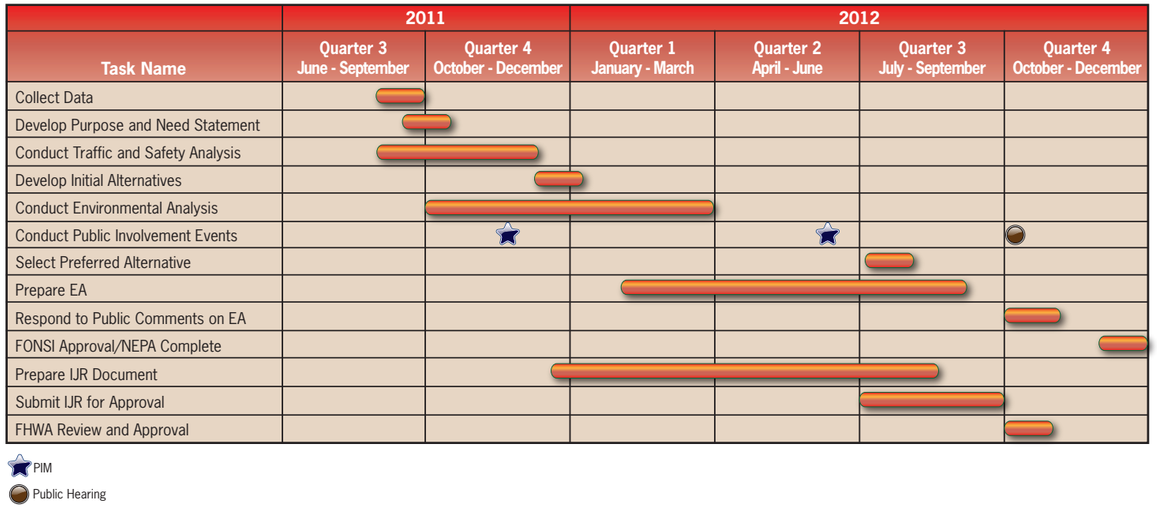
Tower Terrace

June 2012

Schedule and Next Steps



Factors in Developing Preferred Alternative

Each of the four concepts will be evaluated based on the following factors:

- Ability to alleviate congestion at adjacent interchanges
- Ability to handle traffic at the proposed Tower Terrace interchange
- Ability to handle future traffic at nearby intersections
- Cost
- Right of way impacts
- Constructability
- Impacts to the natural and built environment
- Ability to support planned economic development

Contact Information

If you have additional questions or comments please contact:

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Overview of the Study

Since last summer, the Iowa Department of Transportation has been studying the Tower Terrace interchange and I-380 area to determine what type of future transportation improvements are needed. They are conducting two separate, but concurrent and complementary studies—an Interchange Justification Report (IJR) and an Environmental Assessment. Both studies are needed to determine what the future transportation needs of the area are and what impacts any proposed improvements may have. The goals of the study are:

- Determine what future transportation improvements, if any, in the vicinity of Tower Terrace Road and I-380 are needed.
- Evaluate the proposed improvements for environmental impacts, including natural resource, social and economic impacts.
- Coordinate any proposed improvements with local, regional and state long-range plans.

The Iowa DOT has previously conducted studies of this area, but conditions have changed and now improvements to the area may be needed. The previous studies have given the following recommendations:

I-380 Urban Corridor Feasibility Study—this study is ongoing and is addressing the feasibility of improvements to I-380 throughout the Cedar Rapids urban area.

Tower Terrace Road Corridor Management Plan (2010)—this study suggested corridor preservation and an upgrade of Tower Terrace Road to a 5-lane arterial with a speed limit of 35 or 40 mph in the vicinity of I-380.

I-380 Tower Terrace and Boyson Road Interchange Justification Report (2006)— this study approved improvements to the Boyson Road interchange, but determined a new interchange at Tower Terrace and I-380 was not warranted at the time.

Corridor MPO

Iowa Department of Transportation

Purpose of the Public Meeting

The public meeting will update those in attendance on the study progress, show concepts for the Tower Terrace interchange and gather feedback on the concepts. Any comments or questions regarding the study can be answered by the study team members during the meeting.

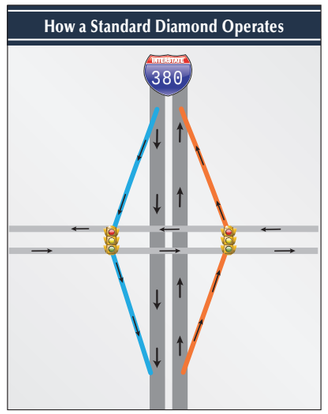
Concepts for Review

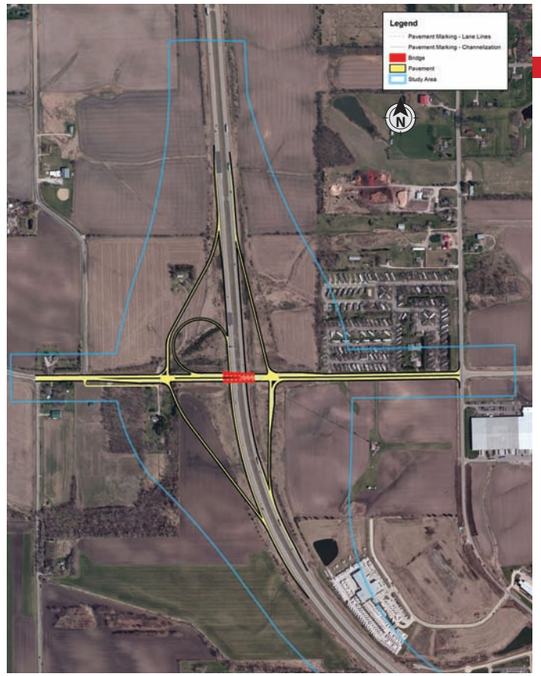
The Iowa DOT has developed four interchange concepts for review. The interchange concepts are displayed on the next two pages.

Concept 1 – Standard Diamond Interchange

The benefits to this interchange include:

- Most basic interchange configuration
- Most common interchange in Iowa

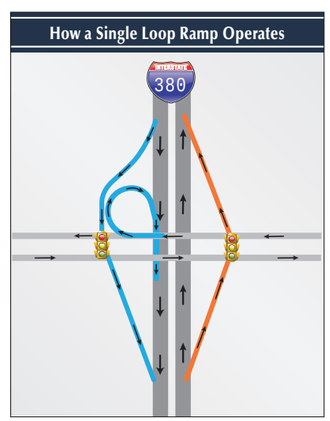




Concept 2 – Single Loop Ramp Interchange

The benefits to this interchange include:

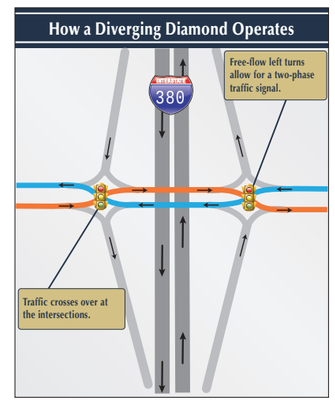
- Same as diamond interchange
- Includes dedicated loop ramp for high-volume turns
- In this case, the loop ramp replaces left turn lane and will handle high-volumes of westbound to southbound traffic
- The left turn loop ramp reduces conflict for left turns providing congestion relief and crash reduction



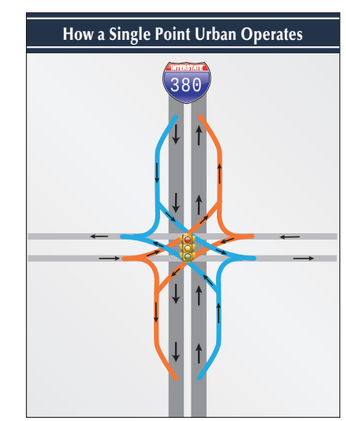
Concept 3 – Diverging Diamond Interchange (DDI)

The benefits to this interchange include:

- Accommodates higher left-turning movements both onto and off of I-380 thereby improving the efficiency of the interchange
- Reduces the total conflict points inherent to a traditional diamond interchange and increases safety
- Shortens the overall traffic signal cycle length reducing delays and increasing safety and capacity
- Reduces the construction cost and construction time by reducing the width of the bridge needed to accommodate left turns



Concept 4 – Single Point Urban Interchange (SPUI)

A SPUI has a single traffic signal at the center of the interchange to control turning movements. A SPUI can handle large volumes of traffic. Benefits to this interchange include:

- Less right of way needed; ideal for urban areas
- More vehicles can make turns and clear the intersections during one cycle
- Allows long, gradual turns for larger vehicles