Freeway System Interchange Study

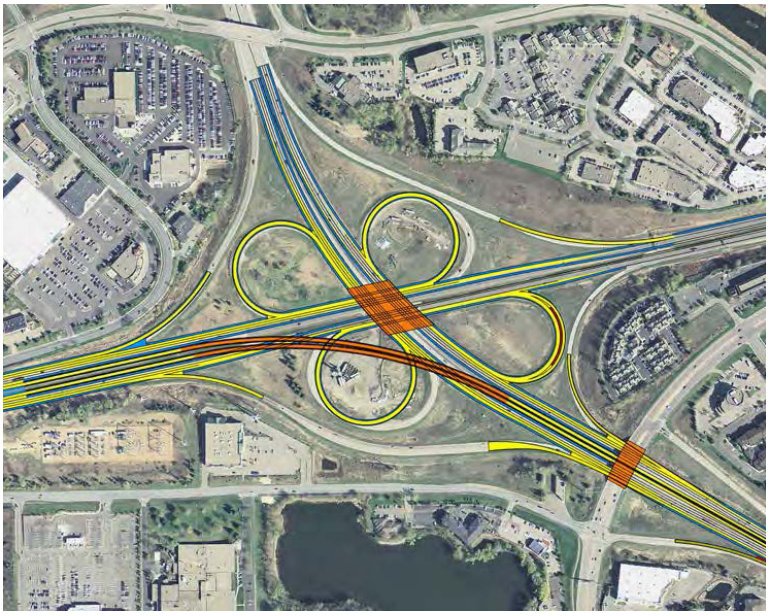
Metropolitan Council and MnDOT

Project Overview

Whether driving, using public transit, or carrying freight, freeway system interchanges are an important part of a safe and efficient transportation system. The Minnesota Department of Transportation (MnDOT) and the Metropolitan Council have observed concentrations of congestion and crashes at metro area freeway system interchanges. There are numerous identified needs for improvement across the freeway system. While there have been recent major investments to freeway system interchanges (e.g., US 169/I-494, I-35E/I-694), these locations were evaluated and selected independent from a highway system-level review. **This study takes a systematic approach to evaluating system interchange deficiencies and identifying cost-effective improvements to inform future regional investment opportunities.**

Evaluating Where Freeways Cross

MnDOT and the Met Council conducted a Freeway System Interchange Study of all locations in the Twin Cities where two or more existing or planned freeways meet. The outcomes of this study address concentrations of congestion and crashes at interchanges in the Twin Cities Metropolitan Area.



Purpose

- Systematically evaluate freeway-to-freeway interchanges throughout the region
- Identify freeway system interchange investment opportunities for the region's metropolitan transportation plan, the 2040 Transportation Policy Plan (TPP)
- Balance regional investments with "right-sized" improvement solutions

Goals

- Research the level of congestion, travel time reliability, crashes, freight, and transit
- Identify high priority freeway system interchanges for further analysis
- Address concentration of congestion and crashes at system interchanges
- Consider a range of design concepts at each location
- Evaluate benefits and cost of design concepts

Outcome

- Identify cost-effective freeway system interchange improvement opportunities for consideration in the Twin Cities region's TPP. Improvement of these freeway system interchanges will support economic vitality and quality of life in our region.

Sponsored by MnDOT and Metropolitan Council, the Freeway System Interchange Study was performed by a consultant team that included:

- SRF Consulting Group
- Sambatek
- Kimley-Horn & Associates
- Associated Consulting Services

The study process used stakeholder input and technical analysis to identify and screen freeway system interchanges, develop right-sized solutions, and find regional opportunities.

Freeway System Interchange Study Process Summary

Phase 1: Study Interchanges

The first phase identified all potential freeway system interchanges in the Twin Cities and filtered the interchanges to those locations.

Phase 2: Focus Locations

The second phase screened the study interchanges to focus locations utilizing performance measures.

Phase 3: Solution Locations

The purpose of this phase was to identify locations where the problems identified where due to the system interchange design and not mainline or downstream deficiencies.

Phase 4: Right-Sized Solutions

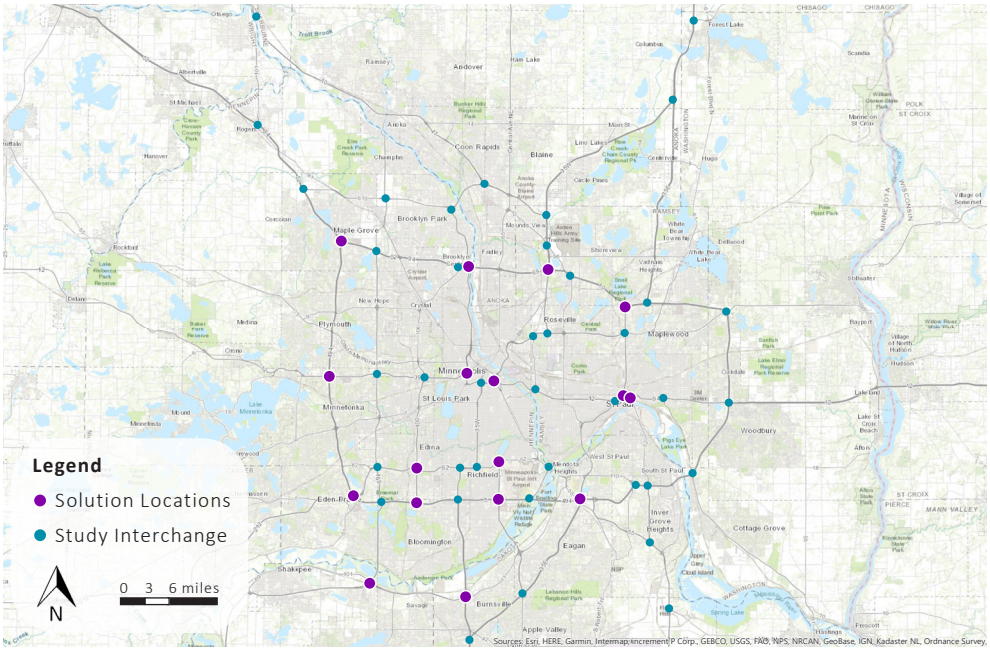
The fourth phase process developed and evaluated a range of solutions for the solution locations.

Phase 5: Identify Regional Opportunities

This phase of the study adds context to the right-sized solutions by considering nearby planned investments and the right-sized solution portfolio at each location. Regional Opportunity categories were developed to inform project scoping and future funding decisions. Regional opportunities reflect the right-sized solution portfolio and nearby planned investments at each location.

Study Location Map

The Freeway System Interchange Study evaluated 56 freeway-to-freeway interchanges for existing safety and mobility performance. After several rounds of screening and solution development, cost-effective solutions were defined for 30 approaches across 17 interchanges.



Conclusion

The freeway system interchange improvements identified in this study will help the state and region advance the Thrive MSP 2040 outcomes: stewardship, prosperity, equity, livability, and sustainability.

The opportunities and evaluation processes identified in this study should be used by project sponsors for consideration in MnDOT's investment plans and the Metropolitan Council's regional Transportation Policy Plan (TPP). MnDOT, the Metropolitan Council and it's Transportation Advisory Board will develop funding plans, funding decisions, and project priorities separate from this study process.

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