

St. Croix River Crossing Project Purpose and Need – 11/5/03

PURPOSE AND NEED

A. INTRODUCTION

Departments of Transportation are responsible for providing mobility in a safe, reliable and cost-efficient manner and for integrating environmental, cultural, economic, and social considerations into transportation solutions. While this integration is always a necessary part of the DOTs' work, it is of particular importance and sensitivity as the DOTs in Wisconsin and Minnesota contemplate improving mobility and safety between the two states in the area of the existing crossing between Washington County, Minnesota and St. Croix County, Wisconsin.

The goal is to manage congestion and improve mobility in a reliable, safe and cost-efficient manner as part of a broader program of regional transportation improvements while avoiding (and when unavoidable, minimizing and mitigating for) impacts to the area's social, economic, cultural and environmental needs and objectives. A detailed discussion of the purpose of and need for the project is presented in Appendix C.

Underlying Transportation Problem: Impaired mobility and safety concerns in the TH 36/STH 64 corridor between TH 5 in Minnesota and 150th Avenue in St. Croix County, Wisconsin.

B. TRANSPORTATION

MOBILITY

- The estimated (congestion-free) vehicle capacity for the current river crossing and arterial approaches is 11,200 vehicles a day. The 2002 Average Annual Daily Traffic (AADT) volumes on the river crossing are 16,300 vehicles per day and can exceed 19,000 on a summer weekday. This constraint leads to periodic daily vehicular congestion in downtown Stillwater and on the Wisconsin approach to the bridge.
- The current Metropolitan Council/Mn/DOT travel demand model¹ forecasts average daily vehicle traffic on the river crossing of 23,100 at an average vehicle occupancy of 1.30 persons per vehicle by the year 2030 if no new St. Croix River crossing is built, no cross-river modal alternatives are established, and Minnesota and Wisconsin projected development and programmed roadway improvements occur as planned. This predicted increase in vehicular traffic volume, if realized, will degrade traffic operations and safety in downtown Stillwater, on the river crossing and arterial

¹ Current Metropolitan Council/Mn/DOT model as modified to include the project study area.

approaches, and will increase average delay, queue lengths and daily hours of congestion by 50 percent by the year 2030.

- Analysis of existing signalized intersections in downtown Stillwater indicates approximately 120-130 seconds of average delay per vehicle during peak hour and levels of service² (LOS) D-F in 1999. These delays are affected by close intersection spacing, restricted geometrics and delays due to the bridge raising. For a regular peak hour commuter, this delay results in 16 hours in total delay over the course of a year.
- Geometric and physical restrictions in downtown Stillwater limit the opportunities to improve transportation operations and management.
- The river crossing is susceptible to closures due to flooding, maintenance activities and vehicle incidents that disrupt system connections several times per year.

SAFETY

Crash rates on two segments (one in Minnesota and one in Wisconsin) exceed the statewide averages. The severity rate³ for one segment in Minnesota is nearly double the statewide average. The non-fatal injury crash rate for the Wisconsin segment is 60 percent greater than the statewide average.

C. ENVIRONMENTAL, CULTURAL, ECONOMIC AND SOCIAL CONSIDERATIONS

- The area where transportation mobility and safety improvements are contemplated includes the Lower St. Croix National Scenic Riverway (the Riverway); therefore, it is necessary to protect the Riverway's Outstandingly Remarkable Values – scenic, recreational, and geologic – as guided by the Cooperative Management Plan for the lower St. Croix National Scenic Riverway.
- It is necessary to avoid and, if unavoidable, to minimize impacts to the Riverway's channel, shoreline, bluffs, air quality and water quality.
- It is important to respect the cultural value and historic significance of the Stillwater Lift Bridge, a structure that is listed on the National Register of Historic Places.
- It is important to respect the integrity of the Stillwater Commercial Historic District and the Stillwater Cultural Landscape District: The visual/aesthetic quality,

² Level of service (LOS) is an indicator of intersection operations as measured in average delay per vehicle. Six LOSs are defined by facility type with the letters A-F designating each level, with LOS A representing the best operating conditions, and LOS F the worst. Each LOS represents a range of operating conditions and the drivers' perception of those conditions.

³ Severity rate is a weighted average taking into account fatal crashes, personal injury crashes, and property damage crashes.

economic viability and physical integrity of these districts are critical to the preservation of these resources and to the protection of the cultural landscape and the community character.

- It is necessary to avoid, and if unavoidable, to minimize impacts to area parklands, cultural resources, threatened and endangered species and wetlands, and if impacted, provide mitigation/compensation for the adverse impacts.
- It is necessary to examine the interaction of land use and transportation, and consider the secondary and cumulative impacts of alternative methods of addressing the transportation needs (and the full impact of failing to address the transportation needs) expressed above.
- It is necessary to avoid and, if unavoidable, minimize impacts to business and property owners, residents and visitors throughout the project area.