

I-494 Reconstruction

From I-394 to the Minnesota River



I-494 AND I-35W INTERCHANGE RECONSTRUCTION

Traffic congestion on the Twin Cities' freeways is growing at the nation's second fastest rate. The 494/35W interchange is one of the critical areas of growing concern. When first opened in 1960, the interchange easily handled the daily demand of 46,500 vehicles. By the year 2000, traffic volume had quintupled

to more than 265,500 vehicles per day. As traffic volumes continue to grow, the ailments of this aging interchange will become more pronounced. Mn/DOT has proposed a plan that resolves the current problems and provides sound solutions to serve the public well into the future.

CONGESTION

STOP AND GO TRAFFIC AND BACKED-UP LOOP RAMP

PROBLEM: Heavy traffic in this area occurs daily, resulting in frequent "stop and go or slow and go" conditions that delay drivers and increase user costs. The capacity at this interchange is insufficient for today's travel demands. Likewise, traffic demands for this stretch of I-494 far exceed the capacity of its three lanes. Furthermore, vehicles changing direction here must contend with a full cloverleaf interchange that is inadequate and causes vehicles to dramatically slow down when they are using the loops.

PROJECT GOAL: The reconstruction of 494/35W will make it possible for more vehicles to move quickly and safely through the area. Construction of additional lanes, directional ramps, and collector-distributor roadways will increase roadway and interchange capacity. Proposed improvements will save users significant amounts of time and money by reducing travel times, fuel usage, unexpected delays and vehicle wear and tear. In addition to solving today's traffic jams, 494/35W will allow flexibility for tomorrow's traffic needs by reserving space in the I-494 median for future transportation use.

■ Highest volume of any cloverleaf interchange in the state at 265,500 vehicles per day.



■ Second highest volume of any interchange in the metro area, second only to the downtown Minneapolis, 35 W / 94 common interchange section.



■ Average vehicle speeds are far below the posted speed limit for more than 10 hours per day.



SAFETY

ACCIDENT RATES AND INTERCHANGE SPACING

PROBLEM: Studies have confirmed the direct correlation between the amount of congestion and the number of crashes. All four legs of 494/35W lack sufficient space for safe vehicle maneuvering between interchanges and create significant weaving problems between freeway entrances and exits.

PROJECT GOAL: 494/35W will increase capacity, improve safety and alleviate weaving problems caused by deficient interchange spacing. Two high volume loops will be replaced with flyover ramps and a new collector-distributor road system will eliminate all mainline weaving at 494/35W and expedite strong directional movements. 494/35W will separate through traffic from diverging vehicles by providing high-speed exits from the mainline.

■ Highest crash rate of any interstate interchange on the 494/694 beltway.

■ 432 accidents were reported during a 3-year period, 170 more than the next highest interstate-to-interstate interchange on the beltway.

■ Accidents at 494/35W cost Minnesotans over \$2.6 million a year in personal injury and property damage, not including delay costs associated with incident caused traffic back-ups.



BOTTLENECKS

SYSTEM CAPACITY AND REGIONAL SIGNIFICANCE

PROBLEM: I-494 contributes to our local and national economic vitality by facilitating the movement of goods and people. Freeway capacity and interchanges along the corridor were designed in the 1950's to handle a fraction of the current traffic volumes. Drivers using 494/35W as a through route compete for space with those drivers whose destinations are along the corridor, creating bottlenecks and delays.



PROJECT GOAL: Bottlenecks along the I-494 corridor need to be eliminated to reduce delays. Improvements are currently being made on I-494 on both sides of 494/35W [in the west from I-394 through Highway 100, (I-394 to Highway 5 design/build and Highway 5 to Highway 100 3rd lane addition) and in the east at the Wakota Bridge near Highway 61]. Mn/DOT proposes to improve 494/35W by adding up to 12 lanes of travel, including the collector-distributor system and ramp connections. Adjacent cities are working to improve the local parallel arterial reliever route along the corridor to minimize the short and mid-range trip takers' use of the highways.



- 494/35W has the highest volume of heavy commercial vehicles of any interchange in the metro area at 14,080 vehicles per day.

- 494/35W provides access to many of Minnesota's important economic and entertainment destinations, including:



- Minneapolis-St. Paul International Airport is the 16th busiest airport in the world and a hub for the upper Midwest. Ongoing expansion of the airport continues to increase the amount of vehicle trips on the corridor.

- Mall of America, with more than 520 stores the nation's largest retail and entertainment complex. Mall of America's Phase II expansion is slated to build on 42 acres north of the current site, and is sure to bring even more traffic to the area.

- More than 240,000 people contend with 494/35W in their daily commute to reach employers within the I-494 business community, including the headquarters of multiple Fortune 500 companies.



Future 494/35W Visualization

SUMMARY

A highway expansion project of this scale, located in an urban area, is a challenge to design, construct and fund. Mn/DOT's plan improves the problems we now face by doubling the number of through lanes and replacing an outdated, over burdened interchange, with a high capacity, modern interchange. Mn/DOT's plan also prepares for the future by reserving space in the median for future transportation uses.

To properly address all of the problems in the interchange and surrounding area, major reconstruction of I-494 from Penn to Lyndale and I-35W from 76th Street to 90th Street is required. In 2002, the estimated construction costs for the interchange portion was \$143 million. While addressing the interchange area eliminates a large part of the bottleneck in the I-494 reconstruction area, two other projects are required to complete the corridor: I-494 from Penn Avenue to Highway 100 (2002 estimated construction costs, \$121 million) and I-494 from Lyndale to Highway 77 (2002 estimated construction costs, \$116 million). Total 2002 estimated construction costs for the I-494 reconstruction, \$380 million.

The state's economic vitality is dependent upon a highway system that moves people and products quickly and efficiently. Each day that passes makes this problem bigger and more expensive to fix. Without funding, this 1950's, obsolete highway/interchange system will continue to cause congestion, crashes and bottlenecks.

Planning began in the early 1990's for the I-494 reconstruction project. Funding is needed to get the project started and keep this vital section of roadway running safely and smoothly.



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Cited statistical data, sources and additional traffic statistics are available at the project website below.