



Transportation

Client

Wisconsin Department of
Transportation

Location

Southeast Wisconsin

Southeast Wisconsin Freeway System Improvements

CH2M HILL has a long and successful record of service and performance on Wisconsin Department of Transportation (WisDOT) freeway reconstruction and modernization projects over a 25-year period. We have provided planning, design and construction inspection services for more than \$3 billion in freeway, ramp, frontage road, side road, bridge, retaining wall, and tunnel elements of freeway reconstruction projects on some of the busiest facilities throughout the entire state of Wisconsin.

In particular, we provide innovative project delivery and integrated planning, design and construction services teams to meet the project challenges of the urban freeways in the highly populated areas of southeast Wisconsin. These projects include the following:

Marquette Interchange Reconstruction, Milwaukee

The Marquette Interchange reconstruction project replaced and modernized an existing four-level system interchange in downtown Milwaukee with a five-level interchange at the junction of I-94, I-43, and I-794. As the joint venture partner managing Milwaukee Transportation Partners, CH2M HILL was responsible for bridge, roadway, and retaining wall design; maintenance of traffic during construction; plan preparation; and public involvement. We also provided construction staging and scheduling and overall project management and quality control.

The project encompassed 12 miles of urban freeways, design of 50 ramps, and construction of more than 180 structures. The project proved to be a strong partnership between the WisDOT, the project team, and the public, bringing great success to the community. Milwaukee Transportation Partners exceeded WisDOT expectations, meeting unique and complex challenges while completing the project 3 months early and \$15 million under budget. In addition, downtown Milwaukee remained “open for business” during construction of this new interchange.

The project has enjoyed additional successes. Cost and schedule control were key elements throughout the project life with the project team saving \$100 million through innovative utility mitigation measures and \$14 million through robust geotechnical testing that included a pile load test program. ROADS & BRIDGES ranked it the nation’s Number 1 road project for 2004, and the Wisconsin chapter of ACEC gave it the Grand Award in the 2006 Engineering Excellence Awards competition for the West Leg part of the project. The project received an AASHTO award for on-time delivery and the ARTBA Globe award for public involvement. In addition, the project was named an Honor Award winner in ACEC’s national 2010 Engineering Excellence Awards competition.

I-94 North/South Project, Milwaukee

CH2M HILL, again as managing partner of Milwaukee Transportation Partners, is providing planning, design, and post-design services for improvements to the I-94 North/South corridor in southeast Wisconsin. The I-94 North/South project will reconstruct I-94 from the Wisconsin state line with Illinois to Milwaukee.

The work supports the \$1.9-billion transportation program, which consists of 34 miles of interstate freeway reconstruction and capacity expansion. Two system interchanges will also be reconfigured to modern design standards. Construction will be completed in 2016. Fifteen service interchanges will be reconfigured as part of the project and a new service interchange will be added to the system. A new system interchange will be constructed with the freeway spur to Mitchell International Airport along with the reconfiguration of the Mitchell Interchange (I-94/I-43/I-894).

The project includes an extensive public outreach plan, and preparation of an Environmental Impact Statement (EIS). Roadway and structure preliminary design, right-of-way plats, geotechnical investigations, and real estate acquisition were also included within the project scope.

The project is being executed with an innovative delivery system. A public/private delivery model is being used with MTP and WisDOT staff collocated in a single program office. An integrated project staff is being used to deliver the overall program.

Zoo Interchange, Milwaukee

A CH2M HILL joint venture is delivering the Zoo Interchange corridor study for WisDOT.

The scope includes the preparation of Draft and Final Environmental Impact Statements, development of alternatives, agency coordination, a wide-ranging public involvement program, and conceptual design for 7 miles of freeway (I-94, I-894, and USH 45), the main system interchange between the routes, and five service interchanges on the various approach legs. The Zoo Interchange is the busiest interchange in the state of Wisconsin, handling nearly 350,000 vehicles per day.

The \$2-billion project will involve the eventual replacement and modernization of numerous interchange structures. However, structural conditions on bridges within the main interchange have deteriorated to the point where they will not function adequately. CH2M HILL was called on to design replacement parallel bridges and approach roadways, next to the existing structures. For this effort, the team quickly mobilized to develop roadway and bridge design plans and construction staging concepts. CH2M HILL also provided construction oversight and maintenance of traffic for these emergency repairs.

A combination of outstanding performance, a subsequent full-time closure of one of the bridges in question, and good weather allowed the contractor 24/7 access to the adjacent area, permitting the deck pour and approach work to be completed in 1 week's time following the bridge's full closure during a Wisconsin winter. The rest of the emergency repairs were completed several weeks in advance of the targeted completion date, at a cost below planned levels.

Work on the corridor study and conceptual design for the full reconstruction continues, with construction anticipated in the 2015 to 2020 timeframe.

About CH2M HILL

Headquartered near Denver, Colorado, USA, employee-owned CH2M HILL is a global leader in consulting, design, design-build, operations, and program management for government, civil, industrial and energy clients. The firm's work is concentrated in the areas of water, transportation, environmental, energy, facilities and resources. With US\$6.3 billion in revenue and 23,000 employees, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by Engineering News-Record and named a leader in sustainable engineering by Verdantix. The firm has been named a FORTUNE 100 Best Companies to Work for five times. Visit us at www.ch2mhill.com, twitter.com/ch2mhill and facebook.com/ch2mhill.