
TH 212 DESIGN-BUILD PROJECT

Hennepin and Carver Counties, Minnesota



The TH 212 design-build project is a new freeway corridor, cutting a path through three suburban communities. The existing highway was a mix of 2-lane interrupted rural and urban roadways. When completed the new highway will be a 4-lane freeway, approximately 12 miles long.

The project includes constructing 6 full interchanges and 1 partial interchange; 29 bridges, including 23 roadway, 2 box culvert, 2 arch, and 2 pedestrian bridges; reconstructing cross streets; new construction of cross streets and side roads; closures and construction of cul-de-sacs; environmental compliance and mitigation; replacement, relocation, and new construction of utilities; drainage systems, including construction of storm drainage structures, inlets, pipes, storm water treatment facilities, and rate control ponds; new and revised traffic signals; intelligent transportation systems; new signing and striping; new lighting at interchanges and Type 1 bridges; noise walls and berms; screening berms as material and right-of-way constraints allow; retaining walls; pedestrian and bicycle facilities.

An important concept of the design-build, best value process is innovative engineering through alternative

technical concepts (ATCs). Of over 60 ATCs introduced, 23 were used for a project savings of \$20 million.

TH 212 had several critical elements driving the project schedule, including geotechnical issues with compressible soils, right-of-way acquisition, utility relocations, earthwork phasing and construction phasing. Several areas of compressible materials were excavated and replaced with granular backfill. This eliminated the time for embankment settlement and allowed pavement construction a year early. The compressible soils were used to replace granular borrow at the gravel mining operation returning the site to environmentally acceptable fields.

The corridor is an environmentally sensitive area. A detailed Environmental Management Plan was developed that aided in permitting and assured construction with minimal environmental impact. A Context Sensitive Design process was followed to assure that MNDOT and public environmental expectations were met.



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Client Minnesota Department of Transportation (MNDOT)

Design-Build Team Ames Construction, Inc., Fluor Corporation, Edward Kraemer & Sons
(Zumbro River Constructors, LLC.)

Design Engineer HDR, Inc.

Contract Value \$237, 893,000

Start Date April 2005

**Planned Completion
Date** September 2008

Ames Scope Details

- 10,200,000 cubic yards of earthwork
- 460,000 tons of aggregate processing and placement
- 50,100 linear feet of 6" to 24" water and sewer pipe
- 136,000 linear feet of 12" to 60" storm water pipe
- 62,000 cubic yards of structural concrete
- 4,860,500 tons of structural steel
- 50,000 square feet of retaining walls
- 241,000 of sound and noise walls
- 4,200 tons of structural steel
- 220,000 tons of asphalt paving
- 475,000 cubic yards of concrete paving