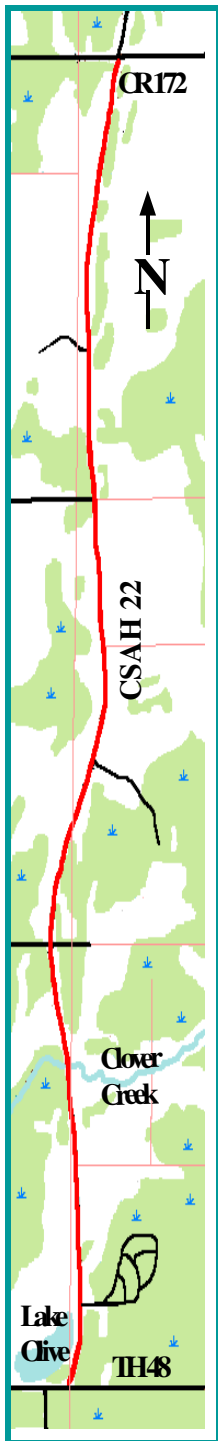


Pine County State Aid Highway 22



The Pine County Highway Department selected Progressive Consulting Engineers, Inc. (PCE) to provide construction plans for grading, aggregate base, and bituminous surfacing for 3.0 miles of CSAH 22.

CSAH 22 is located 15 miles east of Hinckley, just north of the St. Croix State Park and Game Refuge. PCE's design included the portion of CSAH 22 from TH 48 to Pine County Road 172.

PCE designed CSAH 22 to meet current State Aid Standards for a two lane rural road with two 12' wide drive lanes, 4' paved shoulders, and a design speed of 55 mph. PCE utilized the Eagle Point© RoadCalc program to analyze horizontal and vertical curves, drainage design, and earthwork computations. Using this program, we balanced cuts and fills to minimize the cost of moving dirt on the project.

Many wetland areas, including Clover Creek, are present along this stretch of CSAH 22. PCE provided the hydraulic analysis necessary to determine the required culvert size for replacement of an existing 6' culvert for Clover Creek. Working with State and local agencies, PCE provided documents for permitting work in the wetlands along this road.

The Clover Creek Culvert was installed by Pine County in 2002. Road construction and future paving has been deferred for a future letting.

Client: Pine County Highway Department
Client Contact: Mark LeBrun, County Engineer
Construction Year: Partially completed in 2002, Road Improvements have not been funded for construction.
Project Cost: \$980,000 (Based on State Aid Needs Estimates)



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