

# BUTTERFIELD ROAD (US 45 TO ARMOUR BOULEVARD) LAKE COUNTY DIVISION OF TRANSPORTATION

## CHALLENGE

*Reducing traffic congestion and long delays in a high-volume traffic corridor.*

Butterfield Road, near Mundelein and Vernon Hills, was a heavily traveled two-lane arterial route.

As new home construction and population increased, the growth of traffic overloaded the formerly rural-type road. Drivers using Butterfield Road found long delays during morning and evening rush hours.

The Lake County Division of Transportation called on HLR to develop a plan to improve traffic flow and safety through this area. The project included the intersection of Butterfield Road and US 45, as well as Butterfield Road north to Armour Boulevard. (Armour Boulevard was the south limit of an earlier Butterfield Road improvement designed by HLR.)

## RESULTS

*The project started in fall 2005 and will be completed in summer 2007.*

Benefits of the proposed project will include:

- Enhanced traffic flow
- Reduced delays
- Improved traffic & pedestrian safety

CONSTRUCTION BUDGET  
\$2.2 MILLION

## SOLUTION

HLR prepared the Phase 1 analyses and engineering design for additional lanes and intersection improvements. This included a traffic flow and intersection traffic capacity analysis and a stormwater management engineering analysis and design. Preliminary work also included an environmental analysis, a public hearing and coordination meetings with Mundelein and Vernon Hills.

To gain project approval, HLR worked with regulatory agencies including:

- IDOT for state route involvements
- Lake County Stormwater Management Commission for stormwater drainage issues
- US Army Corps of Engineers for wetland and Waters of the US issues
- Illinois Department of Natural Resources for biological and natural resource issues

HLR also provided Phase II detailed engineering design for the project. Plans, specifications and estimates included a detailed traffic management plan to keep traffic lanes open during construction.

*Improvements designed include:*

- Additional through-traffic lanes from U.S. 45 to Armour Boulevard
- Traffic signal modernization at U.S. 45
- Improvement of stormwater drainage management
- Crosswalk safety enhancement using in-pavement lights with automatic pedestrian detection



BUTTERFIELD ROAD BUILT FOR FUTURE EXPANSION WITH DUAL LEFT TURNS.