

# TECHNY DRAIN STORMWATER DETENTION VILLAGE OF NORTHBROOK, ILLINOIS



## CHALLENGE

*To cost effectively reduce flooding problems in Techny Drain as part of a continuing Stormwater Flood Control Project.*

Techny Drain is a watercourse located in the Village of Northbrook. The watercourse drains primarily from residential areas in the upper reaches and industrial in the lower reaches near its outfall to the West Fork North Branch of the Chicago River.

The Village of Northbrook contacted HLR to develop an overall Stormwater Flood Control Project and design of the stormwater detention facility located adjacent to the Glenbrook North High School.

## SOLUTION

HLR began studying a preliminary overall stormwater flood control project that included an overflow pipe and a stormwater detention facility to reduce flooding levels. Detailed hydrologic and hydraulic analyses were performed to ensure maximum flood reduction benefits from the construction of the stormwater detention facility. Phase II included detailed engineering plans, specifications, and estimates. To gain approval for the project, HLR coordinated with the following:

- U.S. Army Corps of Engineers for wetland and Waters of the US issues.
- Illinois Department of Natural Resources for floodway construction, dam safety permitting, and biological and natural resources issues.
- North Cook Soil and Water Conservation District for soil erosion and sedimentation control.
- Illinois Environmental Protection Agency for State 401 water quality certification.
- Illinois Natural Preserve Commission for agreement to the project since a native prairie site was adjacent to the stormwater detention facility.
- Glenbrook North High School for haul road and grading of excavated soil toward joint improvement of the athletic fields.

HLR also provided Phase III construction observation for the project. The construction observation included coordination with the Village of Northbrook and Glenbrook North High School.

*Improvements designed include:*

- A regional stormwater detention facility.
- Enhanced landscaping including Native prairie plantings and restoration.
- Wetland mitigation.

## RESULTS

*Construction of the stormwater detention facility was complete in 2005.*

Benefits of the proposed project will include:

- Stormwater storage to aid in flood reduction
- Enhanced landscaping
- Enhanced adjacent native prairie

CONSTRUCTION BUDGET  
\$785,000



DIVERSION CHANNEL WITH RIFFLES AND POOLS AND NATIVE PLANTINGS.