

**Project 11
Northbrook East
(Midway Road/Whitfield Road South Intersection)**



Midway and Whitfield Intersection



Nearby Flooded Property



1100 Block of Dell Road

PROJECT 11
NORTHBROOK EAST
(Midway Road/Whitfield Road South Intersection)

Statement of Conditions:

The area is served by a 40-50 year old drainage system which was intended to carry low flows based upon older, less stringent design standards. The storm sewer that drains the southerly Midway/Whitfield intersection is located within side yard easements between 3 pairs of closely spaced homes and outlets to an old railroad ditch. During storm events that exceed the capacity of the low flow system, ponding and structure flooding can occur. The level of ponding and flooding is controlled by the overland flow path between those closely spaced structures. The outlet from the old railroad ditch is sensitive to any increase in flow rates or flooding levels.

Problem identification:

Structure, rear yard, front yard and street flooding

Recommended Plan:

- Install inlets to improve inlet capacity on Midway, Whitfield and Dell Roads
- Construct a new storm sewer system within the existing right of way from the southerly Midway/Whitfield intersection to the old railroad ditch
- In the event either 1141 or 1145 Dell Road property can be acquired, align storm sewer to traverse acquired property
- Construct 3.5± acre-foot stormwater detention facility on Village-owned property (abandoned railroad right of way)
- Determine whether any easements exist on properties located along old abandoned railroad right of way. If none exist, attempt to acquire additional drainage easements.

Estimated Total Cost	Construction Cost	Property Cost	Engineering Cost	B/C Ratio	Optimum Protection
\$718,000	\$624,000	N/A	\$94,000	2.18	50-yr*

Note: Downstream outlet needs to be evaluated to ensure optimum protection.

