



## Schoharie County Office Complex

Schoharie, New York

A cutoff wall was constructed to reduce the impact of flooding to the Schoharie County Office Complex. The office serves as the Courthouse, DMV, and County Office building.



### The project

The existing Schoharie County office complex lies in a flood-prone area. The owner sought a solution to prevent damage from future flooding events. A flood wall and a subsurface cutoff wall were designed and constructed by Keller to control the floodwater.

## The challenge

The subsurface investigation showed the presence of high permeability soils. These soils would allow for floodwaters to quickly enter the facility. Water entering into the facility resulted in damage to the facility during high water events.

## The solution

For the flood wall to be effective, the permeability of the subsurface soils had to be reduced. Improvement of the near-surface fill layer was also desired. Several techniques were considered, but chemical grouting was ultimately chosen.

Keller initially planned to use chemical grout to construct the cutoff wall. During construction, open-graded gravels were found below grade. Keller determined that permeation grouting with cement-bentonite in addition to the chemical grout would reduce the cost and schedule of the project. Using this combination of grouting, the cutoff wall was successfully constructed. Keller also minimized the number of spoils produced and the area impacted by construction, which was the owner's main concern.

## Project facts

### Owner(s)

Schoharie County

### Keller business unit(s)

Keller

### Main contractor(s)

WM. J Keller and Sons Construction

### Engineer(s)

Dente Engineering

### Solutions

Groundwater control and dewatering

### Markets

Institutional

Government and defense

### Techniques

Permeation (chemical) grouting

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