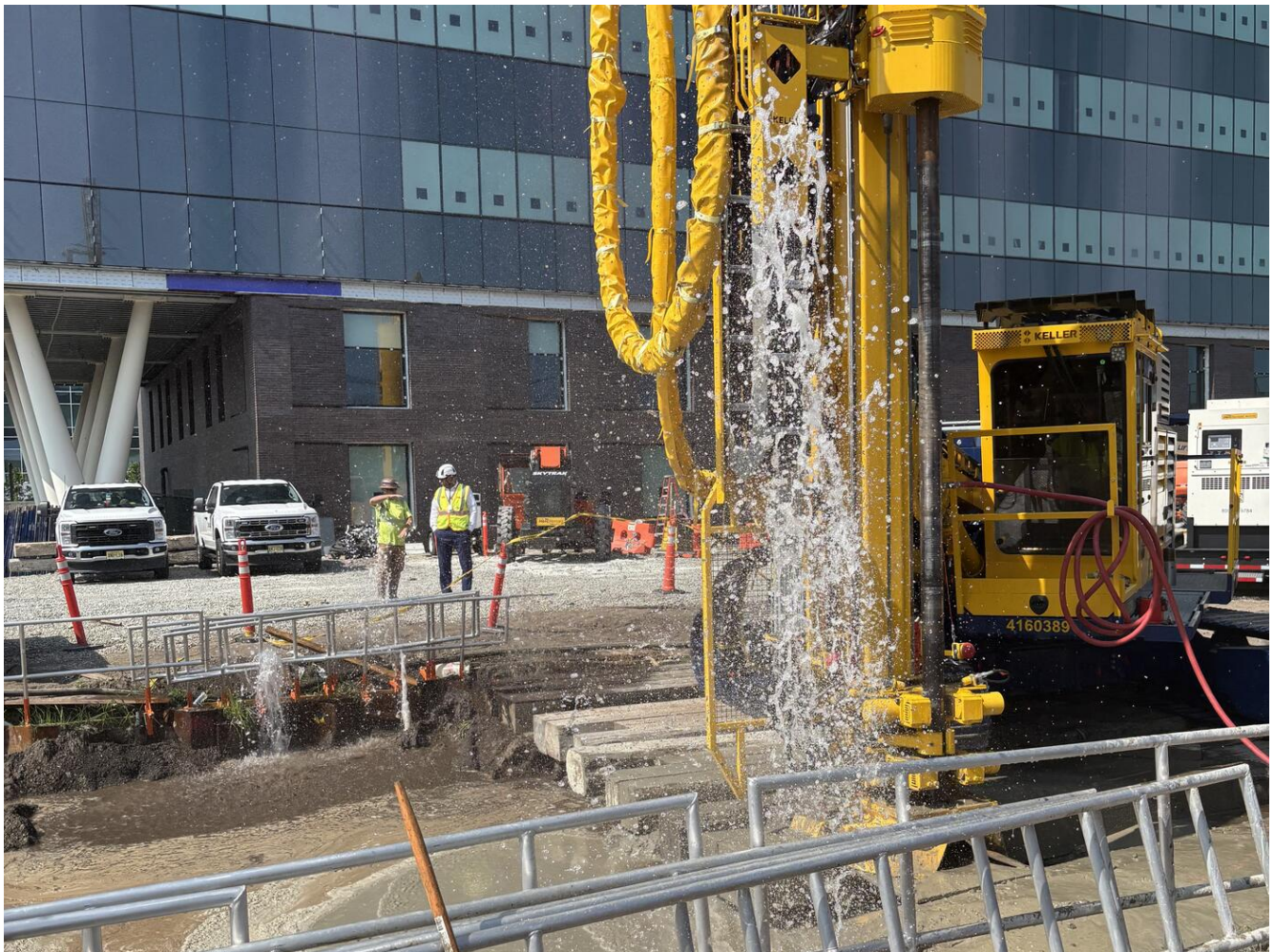




## South Shore University Hospital

Bay Shore, Long Island, New York

Keller installed two jet grout bottom seals to keep a dry excavation for underground fuel storage tanks and a pump station at Northwell Health's Bay Shore campus expansion



## The project

To increase capacity and enhance the programs available to their community, South Shore University Hospital constructed a 190,000 SF pavilion. To maximize the available space, two 20,000-gallon fuel storage tanks and a water pumping station were constructed below-grade.

The geotechnical engineer recommended 60 ft-long sheet piles to support the 12 ft and 18 ft excavations, reaching a supporting clay layer that would seat the cofferdam. However, due to the high water table, a groundwater cutoff solution was required to keep the excavation dry.

To provide the groundwater cut-off, Keller installed jet grout columns to create two bottom seals for the tank location and the pumping station. In total, 60 6-ft-diameter and 26 10-ft-diameter jet grout columns were created to seal the excavations.

## Project facts

**Owner(s)**

Northwell Health

**Keller business unit(s)**

Keller

**Main contractor(s)**

Darcon Construction

**Engineer(s)**

Keller

**Solutions**

Groundwater control and dewatering  
Support of excavation

**Markets**

Institutional  
Healthcare

**Techniques**

Jet grouting

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