

FORENSIC ENGINEERING — BENLD ELEMENTARY SCHOOL ILLINOIS DEPARTMENT OF NATURAL RESOURCES



CHALLENGE

In March 2009, a failure in the coal mine below allowed soil supporting the Benld Elementary School to begin to subside. After two days of movement the Illinois Department of Natural Resources (IDNR) called HLR to assist them in the an ongoing assessment of structural yielding and the life safety concerns of the occupants.

SOLUTION

HLR provided and is continuing to provide assistance to IDNR by assessing the movement of the facility versus the structural risks of the facility.

“The number one goal is to provide a safe environment for temporary workers while vacating the facility.”

RESULTS

- *HLR provided a safe environment by making recommendations to IDNR for immediate bracing, repairs and/or partial removals.*
- *After one month of subsidence, the south end of the school has subsided nearly 30”.*
- *The school has been classified as a total loss.*

Project highlights:

- HLR worked with the Illinois Department of Natural Resources – Division of Mines as a structural consultant assisting them on predicting the structural response of the impending movement and to identify the associated structural risks and life safety concerns of the said movement.
- HLR continues to provide assistance to the IDNR via periodic walk through observations and assessments.



CHANGES IN THE FLOOR SURFACE - BENLD, IL



FLOOR AND WALL CRACKING - BENLD, IL