pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Active and Abandoned Mine Operations

435 FOOTE AVENUE SUBSIDENCE
Abandoned Mine Reclamation Project
Contract No. OSM 40(2237)102.1 EMER

Bureau of Abandoned Mine Reclamation
2 Public Square, 5th Floor
Wilkes-Barre, PA 18701-1915

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ACTIVE AND ABANDONED MINE OPERATIONS
BUREAU OF ABANDONED MINE RECLAMATION

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FACT SHEET

Location:	The project is located on Foote Avenue, just off Route 11 in Duryea Borough, Luzerne County. The site can be accessed from I-81N by taking exit 175 toward PA 315-N. Follow 315-N for 1.8 mi. Turn left on Main Street for 0.7 mi. Continue onto McAlpine Street. In 1.3 mi, turn right onto Foote Avenue.
Watershed:	Susquehanna River
Official Start Date:	September 22, 2020
Contract Completion Date:	October 30, 2020
Contractor:	Nick's Excavating & Construction of Carbondale, PA
Property Owners:	Timothy Finch, 435 Foote Ave Ronald and Norma Kedulick, 431 Foote Ave
Project Cost:	$97,349.13 (Final Amount) $92,750.00 (Bid amount)
Project Area:	0.2 acres
Purpose:	To eliminate a health and safety hazard on abandoned mine land in a residential area.
Description:	This section of Foote Avenue experienced several mine related incidents resulting in various AML reclamation projects. Lehigh Valley Coal Company last mined this area in 1960. The depth to mining of the underlying Pittston Bed is shallow, ranging between 23 feet and 30 feet below the surface. The subsidence created a new Priority 1 feature, 2237-10 VO, in the southwest corner of the unoccupied home. The subsidence was a funnel shaped "throated-sinkhole" approximately ten (10) feet in diameter at the basement floor and collapsing three (3) feet below the basement elevation. The depth of the throat of the subsidence was unknown; however, depth to mining was estimated between 23 feet and 30 feet.

The project also included the installation a 40-foot-long W8 x 24 steel I-beam under the house to stabilize the structure before proceeding with subsidence backfill work. A W8 × 24 I-beam has a depth of 8 inches and weighs 24 pounds per foot. A wooden deck at the rear of the property was permanently removed and a portion of the chain link fence was temporarily removed to gain access for the beam installation and drilling of boreholes. Nine vertical boreholes and one angular borehole were drilled to determine if voids existed near and surrounding the subsidence area, Abandoned Mine Lands (AML) feature 2237-10 (VO), which is a vertical opening located in the former Seneca Colliery. Mine openings were discovered in three of the vertical boreholes, and six (6) inch casing was installed. A total of 29.5 cubic yards of concrete material and 102.5 cubic yards of flowable fill material was injected into the boreholes and placed atop the subsidence area in the basement. Upon completion, all boreholes were sealed, the chain link fence was replaced, topsoil and a grass seed mixture were used to restore the affected lawn area of the backyard, and modified stone was placed and compacted to restore the driveway. The steel beam remains in place.

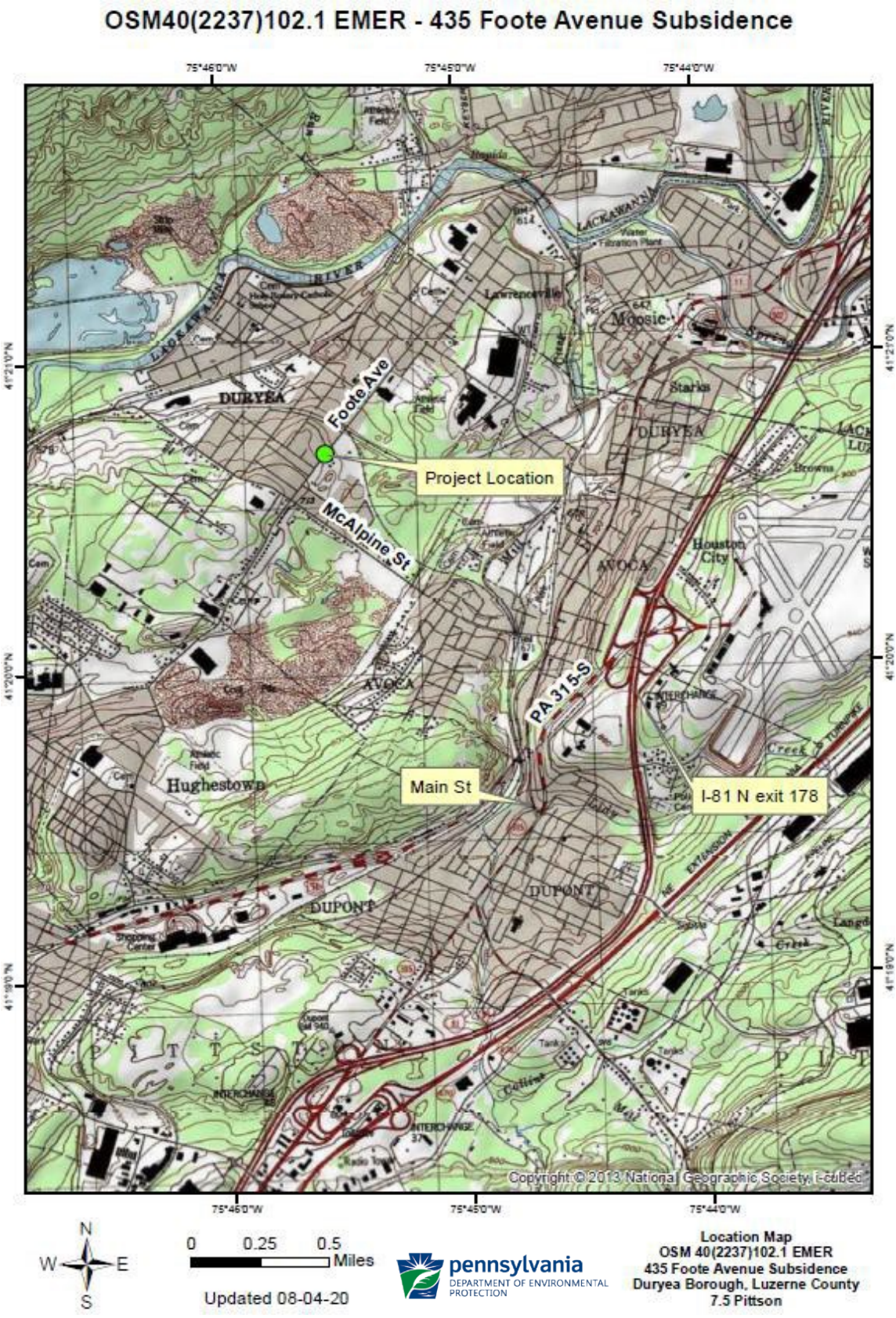
Funding:

The project was funded by the Abandoned Mine Reclamation Fund, which is subsidized by the coal industry via fees paid on each ton of coal mined.

Project Management

Bureau of Abandoned Mine Reclamation
Wilkes-Barre District Office
570.826.2371

Location Map



Pre-Construction

AMLF 2237-10 (VO): Looking northeast, approximately five (5) feet of the foundation wall and approximately ten (10) feet of the adjacent foundation wall collapsed into the subsidence.

AMLF 2237-10 (VO): In the southwest corner of the basement, the subsidence appears to be choked off by foundation material and soil with no venting observed.

During Construction

Installation of a 40-foot-long steel I-beam under the home.

Drilling exploratory borehole in backyard

During Construction

Backfilling subsidence in basement with concrete material

Fill material injection of borehole

Post-Construction

Backyard restored; steel beam remains in place

Driveway restored with 2A modified stone