



MagnumStone Blocks Build Legacy Project at Miner Memorial

This remarkable Miner Memorial project in Frostburg, MD, pays tribute to those who passed away in the historic coal mines of its surrounding region.

Its initial plans grew from a commemorative statue and plaques to include a life-like coal mine built with MagnumStone blocks.

To memorialize the community's mining history, extensive detail was put into this memorial monument's expanded design.

Total Block Installed	2,065 sq. ft. (192 sq. m.)
Maximum Height	8 ft. (2.44 m.)
MagnumStone Manufacturer	<u>York Building Products</u>
Contractor	<u>Lashley Construction Co.</u>
Engineer	<u>Bennett, Brewer & Associates</u>

MAGNUMSTONE BLOCKS BUILD LEGACY PROJECT AT MINER MEMORIAL

Frostburg, Maryland, USA



■ CHALLENGES & SOLUTION: MAGNUMSTONE WALLS BUILD COAL MINE TRIBUTE

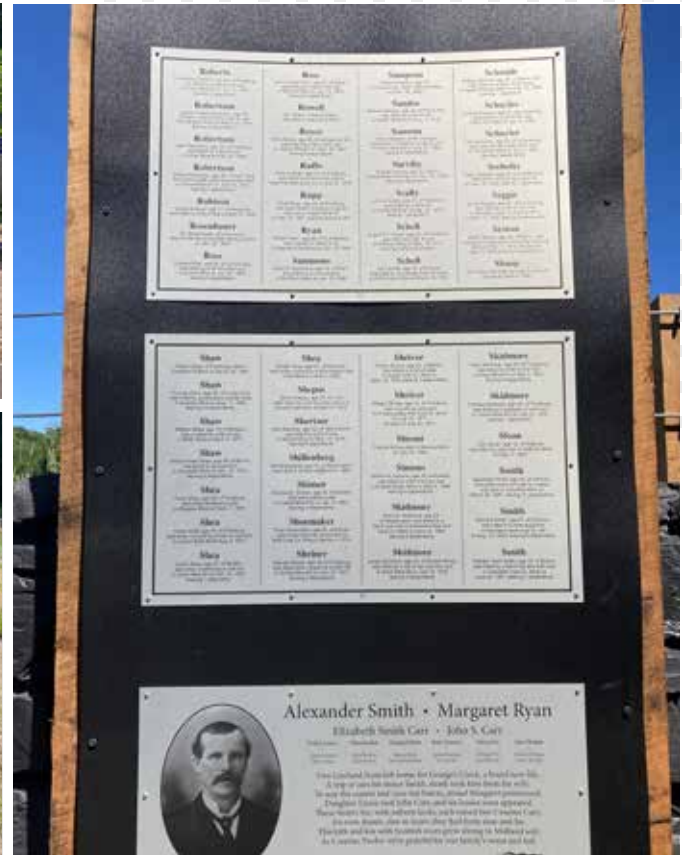
As part of the installation, a simulated coal mine offers visitors a life-size demonstration of the miners' confined workspace conditions. The Miner Memorial's projects goals were to:

- Honor the legacy of coal miners who lost their lives in local mines
- Construct a pathway lined with vertical retaining wall designs at memorial site
- Create a realistic, detailed coal mine replica to enhance visitor experience

The memorial site's trenched pathway retaining walls are manufactured with no setback for more authentic coal mine walls. MagnumStone's textured blocks are built into the natural slope and capture the look and feel of a mine's rugged terrain. To neatly finish the project, boulders were fixed atop the walls and a dark, coal-colored stain was applied after construction.

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PROJECT OVERVIEW: PRESERVING COAL MINING HERITAGE WITH MAGNUMSTONE

The Miner Memorial is built to honor hundreds of miners who lost their lives in nearby coal mines since 1867. In tandem with a bronze statue and plaques storying the miners, three ruggedly textured MagnumStone retaining walls built an accessible coal mine tunnel simulation to [recognize the miners and their legacy](#).

The region's deep coal mining history greatly contributed to America's successful steel, railroad and energy industries throughout the past centuries. The coal mines lead to large-scale development, impacting towns and cities from coast to coast. Their work fueled locomotive

transportation, heated homes and businesses, and helped drive production at Pittsburgh's renowned steel mills.

Unfortunately, this extremely dangerous line of work put thousands of coal miners' lives at risk in hazardous work conditions. Use of explosives, collapsed mineshafts and coal dust exposure lead to severe illnesses, injuries and frequent miner casualties. Allegheny County Board approved the Miner Memorial, with overwhelming community support, to honor all those who perished in the mines.

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■ WALL DESIGN: ENGINEERED PRECAST WALLS' DIVERSE APPLICATIONS

MagnumStone retaining walls deliver trusted durability to the Miner Memorial's installation and terrain that overlook Great Allegheny Passage's trailhead. The [geogrid retaining walls](#) are designed to enhance and reinforced wall strength to provide slope stability. The engineered trenched pathway is complemented by timber sets, to simulate tunnels' roof support systems that served to prevent collapses.

[Bennett, Brewer & Associates'](#) extensive retaining wall design details create an authentic coal mine experience that's consistent throughout the memorial. Although MagnumStone blocks typically have a standard 2.4° setback, blocks

for this monument have a vertical 0° setback, as requested by the designers. Local MagnumStone manufacturer, [York Building Products](#), accommodated this request to portray a more accurate depiction of the coal mine shaft.

MagnumStone's precast retaining wall system offers the memorial a strong, weather-resistant solution that requires minimal future maintenance or repairs. The hollow core blocks are filled with drainage gravel to improve water removal efficiency and add supplemental wall mass. This allows water to safely escape from behind the wall and helps preserve the Miner Memorial's resilient design for future generations.

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■ INSTALLATION: HOW MAGNUMSTONE EXCELS IN COMPACT WORKSITES

The memorial is comprised of three MagnumStone walls, two along the tunnel and a smaller wall near the plaque displays. Reaching 8 ft. high with embedment (2.44 m.), the tunnel's curves line an accessible route for the site's visitors. Capable of a 12 ft. (3.66 m.) minimum curve radius, MagnumStone easily adapted to the site's winding trenched pathway design.

Since MagnumStone blocks use less concrete than solid blocks, smaller installation equipment can efficiently handle and lift units into place. Furthermore, the compact equipment could fit into tighter areas. With that, the crew from Lashley Construction [installed blocks](#) for the coal mine tunnel from within the narrow pathway. Each MagnumStone block covers 8 sq. ft. (0.74 m.) of facing, which streamlined construction by reducing

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■ BLOCK AESTHETICS: MAGNUMSTONE'S RUGGEDLY NATURAL LOOK AND FEEL

MagnumStone's ruggedly textured, natural stone look was an exceptional fit for the Miner Memorial's retaining walls. With MagnumStone's assorted facings, the blocks were intentionally installed in a mixed sequence to avoid repetitive patterns. Once a dark stain was applied after installation, the walls showcased an impressively authentic coal-like appearance.

The top blocks' hollow cores allowed more creative freedom to replicate piles of coal as top of wall details. Large boulders were strategically secured atop the wall as an excellent finishing feature by the installation experts at Lashley Construction. Triple-sided MagnumStone blocks bookend the larger walls, to better represent and simulate coal mine entrances.

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PROJECT OVERVIEW: MAGNUMSTONE MEMORIALIZES A COAL MINING LEGACY

MagnumStone retaining walls were installed to mimic a rugged coal mine installation for the Miner Memorial in Frostburg, MD. The monument is a tribute to local coal miners who lost their lives in the mines since 1867. MagnumStone's precast blocks, versatile design solutions, efficient construction and natural stone aesthetics were a perfect fit for the project. Coal-colored stain was applied to the textured blocks post-installation. Timber sets complete the display to enhance the scene's authenticity, allowing visitors to better understand the harsh conditions miners faced.

The site's three curved MagnumStone retaining walls guide an accessible pathway to give visitors an engaging, life-like coal mine experience. Geogrid reinforced walls are built into the land's natural slope and reach 8 ft. (2.44 m.) tall with embedment. This memorial not only commemorates the miners' sacrifices, but it also highlights their critical role in powering America's steel, railroad, and energy industries.

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Plan distinctively creative projects like this with MagnumStone's natural stone looks and diverse range of durable wall solutions. Explore your future retaining wall projects' design potential with MagnumStone's [Retaining Wall Design & Analysis Software](#).

For further details and pricing information about MagnumStone's precast retaining wall system, [contact your local block supplier today](#).

This project was successfully completed thanks to [York Building Products](#) (MagnumStone Producer), Lashley Construction Co. (Contractor) and [Bennett, Brewer & Associates](#) (Engineer).

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