

Johnstown Inclined Plane
West side Stony Creek, .4 mile S of
Little Conemaugh River
Johnstown
Cambria County
Pennsylvania

HAER No. PA-234

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD

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JOHNSTOWN INCLINED PLANE

HAER No. PA-234

Location: West side Stony Creek, .4 mile S of Little Conemaugh River,
Johnstown, Cambria County, Pennsylvania

USGS Quad: Johnstown, Pennsylvania (1:24000)

UTM: 17 E.675080 N.4465760

Date of Construction: 1890

Builder: Samuel Diescher, engineer

Present Owner: Cambria County Transit Authority

Present Use: Inclined Plane

Significance: Built after the horrific flood of 1889, this inclined plane carried wagons and pedestrians up to Westmont from Johnstown. It is reportedly the world's steepest inclined plane constructed to transport vehicles.

Project Information: In February 1987, the Historic American Engineering Record (HAER) and the Historic American Buildings Survey (HABS) began a multi-year historical and architectural documentation project in southwestern Pennsylvania. Carried out in conjunction with America's Industrial Heritage Project (AIHP), HAER undertook a comprehensive inventory of Blair and Cambria counties as the first step in identifying the region's surviving historic engineering works and industrial resources.

The results of this project have been published in Blair County and Cambria County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites (1990), edited by Gray Fitzsimons and produced by HABS/HAER for the National Park Service.

Compiler: Peter Stott, Historian
Gray Fitzsimons, Editor

History:

One result of the disastrous Johnstown Flood of May 1889 was the construction of an inclined plane for use as an escape route in the event of future flooding. Engineer Samuel Diescher of Pittsburgh, designed the inclined plane to transport people and wagons, in cars with a horizontal orientation, to the new hilltop community of Westmont in September 1889. However, the actual construction, financed by the Cambria Iron Company, did not begin until 1890.

At the same time a pin-connected Pennsylvania through-truss bridge was constructed to connect the base of the incline (on the west side of the Stony Creek River), with Johnstown on the opposite side. The single span bridge, which is 225' in length and rests on stone piers, was designed to carry both vehicular and pedestrian traffic.

Service was initiated on 1 June 1891. Throughout the 1890s well-to-do residents of the region constructed new homes on this hill overlooking Johnstown. Several of the largest homes were built by presidents and managers of the Cambria Iron Company. The incline was electrified in 1911 and a 300 horsepower motor was installed to replace the original steam engine. In 1935 the Bethlehem Steel Company, the successor to the Cambria Iron Company, sold the incline to Westmont Borough for one dollar. The inclined plane and bridge are credited with transporting 4,000 persons to safety during the Flood of 1936.

Management of the incline was transferred to the Cambria County Tourist Council by a lease arrangement after the borough ceased operating it as a commuter service in January 1962. The tourist council's refurbishment of the plane, included an upgrade to a 400 horsepower motor. The plane reopened for service in July 1962. The Johnstown Inclined (Plane) Railway was listed on the National Register of Historic Places in June 1973. It is now owned and operated by the Cambria County Transit Authority, which rehabilitated it at a cost of \$3.2 million in 1983. It has become one of the area's most important tourist attractions, as well as remaining in commuter service.

The inclined plane consists of two cars running on a pair of sloped tracks. Two steel cables, one pulling cable and one safety cable capable of supporting 165 tons, are wound around a cast iron drum 16' in diameter at the top of the plane to pull and lower the cars over the 71 percent grade. With a length of 896.5' and a slope of 35 degrees, it is reputedly the steepest vehicular incline in the world.

Sources:

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- Siehl, James. "City Gets Old Plane Sketches," Johnstown Tribune-Democrat, 12 August 1983.
- Swetnam, George and Smith, Helene. A Guide Book to Historic Western Pennsylvania. Pittsburgh: *University of Pittsburgh Press, 1976.