

Minnesota Bridge Inventory 1955-1970

Bridge Number: SHPO Inventory Number: Bridge Name:

Location Data:

Mn/DOT District: County: Bridge Owner:

Feature Intersected: Facility Carried: Location:

USGS Quadrangle: UTM_Zone: UTM_Easting: UTM_Northing:

Township: Range: Section: QTR: QTR-QTR:

Structural Data:

Bridge Type: Mn/DOT Main Span Type Code:

Maximum Span Length (feet): Number of Main Spans: Structure Length (feet):

Year Built: Skew (degrees): Number of Approach Spans:

Design and Construction Data:

Engineering Firm: Engineer:

Fabricator: Contractor:

Architectural Treatments:

Alterations and Integrity:

Additional Bridge Details:

Bridge is component of the Erie Mining Company Diversion Works, a system that also includes the gate house, pump house, spillway, Whitewater Reservoir and Colby Lake, that was the water source for the Erie Mining Company Taconite Concentration Plant. The property is now owned by Minnesota Power and is part of the Laskin Energy Center.

Bridge Plaque:

No bridge plate.

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National Register of Historic Places Evaluation:

Statement of Significance: The Erie Mining Company Diversion Works was evaluated for National Register eligibility under Criterion A: Industry and Engineering and Criterion C: Engineering. The Erie Mining Company Diversion Works was evaluated under Criterion A: Industry and Engineering. The Diversion Works is significant for its key role in facilitating the operation of the Erie Mining Company Taconite Concentration Plant. The Erie Mining Company Taconite Concentration Plant, which opened in 1957, is significant as the second large-scale taconite processing plant in Minnesota and, specifically, on the Mesabi Iron Range. The continuous supply of enormous amounts of water was essential to the operation of the plant and the concentration process. The Diversion Works was designed and constructed to maintain the required level of water in Colby Lake, the water source directly accessed by Erie Mining's concentration plant for processing the taconite from the nearby mine. The Diversion Works maintained the water level by employing the equipment in the gate house, pump house, and spillway to manage water flows to and from Colby Lake and Whitewater Reservoir. The development of the Diversion Works also accommodated CSAH 110 with the construction of a concrete-beam bridge over the spillway. In addition to maintaining the water source for the entire taconite processing operation, the lake and reservoir also served, and continue to serve, as the water source for the steam-powered electrical generating plant at Laskin Energy Center and for the City of Hoyt Lakes. These are secondary functions but directly related to the taconite plant because the electrical generating plant was built as the back-up power supply for the plant, and the City of Hoyt Lakes was established to house workers at the plant. The Diversion Works buildings (pump house and gate house) and spillway, including the structurally integrated Bridge 7771 and the adjacent Whitewater Reservoir and earthen dams, are significant under Criterion A: Industry and Engineering. The property includes buildings, structures, and machinery that date to original construction and retain a very high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. The transfer of ownership from the mining company to Minnesota Power does not affect the integrity of the site. The Erie Mining Company Diversion Works was evaluated under Criterion C: Engineering. To be considered significant under Criterion C: Engineering the property must be an example of a significant type or method of construction, possess high artistic value, demonstrate a particular innovation, exemplify an evolution in building methods, or serve as an important example of building practices during its period of construction. The Diversion Works buildings are utilitarian structures, typical of mid-1950s utilitarian design and construction, intended to house machinery and provide a platform for gate and pump equipment installations. The equipment is typical and standard for the mid-1950s and continues to be typical in 2012. Research found no evidence indicating that the spillway, bridge, associated buildings (pump house and gate house), or earthen dams represent important examples of industrial architecture, bridge design, or mechanical or technical significance or innovation for the period. Therefore, the site does not possess significance under Criterion C: Engineering. See the Phase II Report for more information about the Erie Mining Company Diversion Works.

National Register Property Category: National Register Property Subcategory:
Historic Context: Level of Significance:
National Register Determination: National Register Determination Date:
Surveyor: Date Surveyed:

Sources: Bloomberg, Britta L., Deputy State Historic Preservation Officer, letter to Robert Whiting, U.S. Army Corps of Engineers, St. Paul District, 12 February 2009. Original in file for SHPO Number 2005-2070, MnSHPO, Minnesota Historical Society.

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Erie Mining Company. *Erie Taconite: Iron Ore Pellets from Taconite—a Vast New Supply for the Iron and Steel Industry*. Hoyt Lakes, Minn.: Erie Mining Co., 1957 or 1958. Copy in Minnesota Historical Society.

Hughes, David. Telephone interview by Bob Frame, Mead & Hunt, Inc., 18 April 2012.

Mead & Hunt, Inc. "Minnesota Bridges: 1956-1970: Politics, Policies, Technology and Design historic context" in *Minnesota Bridges, 1955-1970*. Prepared for Minnesota Department of Transportation. 2011.

"Mining Development on the Mesabi Iron Range, 1892-1954," in "Mesabi Iron Range Historic Contexts," Itasca and St. Louis Counties, Minnesota, Phase III Mitigation Study TH 169, S.P. 3116-106, Mn/DOT Agreement No. 86792. Prepared by Carole Zellie, Landscape Research LLC, for Minnesota Department of Transportation and Federal Highway Administration, 2005, 2-12

Minnesota Department of Natural Resources and U.S. Army Corps of Engineers St. Paul District. "NorthMet Project; Complete Preliminary Draft Environmental Impact Statement [CPDEIS], December 2008." Available at http://www.friends-bwca.org/wp-content/uploads/polymet_cpdeis_12-20-08.pdf (accessed 3 May 2012).

Minnesota Department of Transportation. *Bridge Inventory Database*. June 2009.

Minnesota Department of Transportation. *Bridge Inspection File Records*. Located at Mn/DOT Bridge Office.

"Phase I Evaluation and Historic Context Study; Polymet Mining Corporation NorthMet Project, Hoyt Lakes, St. Louis County, Minnesota." Final Report. Submitted to Barr Engineering by Landscape Research LLC, December 1907.

Parsons Brinckerhoff and Engineering and Industrial Heritage. *A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15*. [Washington, D.C.]: National Cooperative Highway Research Program, Transportation Research Board, October 2005.

Plan sheets provided by St. Louis County Highway Engineer's office (PDF format). Four sheets: TG-150, TG-151, unknown, and TG-G-130.

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Ramsey, R.H. "Teamwork on Taconite: The Story of Erie Mining Co.'s Commercial Taconite Project." Reprinted from *Engineering and Mining Journal* 156 (March 1955). Copy in Minnesota Historical Society.

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Photographs:

