

UNITED STATES DEPARTMENT OF THE INTERIOR
 HERITAGE CONSERVATION AND RECREATION SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
 INVENTORY-NOMINATION FORM**

FOR HCRS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
 TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Peavey-Haglin Experimental Concrete Grain Elevator

AND/OR COMMON

Nordic-Ware Tower

2 LOCATION

STREET & NUMBER (SE 1/4 of NW 1/4, sec. 6 T26 R 24)
 Highway 7 and 100, southeast corner

NOT FOR PUBLICATION

CITY, TOWN

CONGRESSIONAL DISTRICT

St. Louis Park

VICINITY OF

5

STATE

CODE

COUNTY

CODE

Minnesota

22

Hennepin

053

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input checked="" type="checkbox"/> PRIVATE	<input checked="" type="checkbox"/> UNOCCUPIED	<input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input checked="" type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input checked="" type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 OWNER OF PROPERTY

NAME H. David Dalquist, President

Northland Aluminum Products Inc.

STREET & NUMBER

Highway 7 at 100

CITY, TOWN

STATE

St. Louis Park

VICINITY OF

Minnesota 55416

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE.
 REGISTRY OF DEEDS, ETC. Hennepin County Courthouse

STREET & NUMBER

6th Street at 3rd Avenue South

CITY, TOWN

STATE

Minneapolis

Minnesota

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
 Minnesota Inventory of Historic Sites - National Register of Historic Places- 1976

DATE
 1976

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR
 SURVEY RECORDS Minnesota Historical Society, Ft. Snelling, Bldg. 25.

CITY, TOWN
 St. Paul

STATE
 Minnesota

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input checked="" type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input checked="" type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Peavy-Haglin Experimental Grain Elevator is a single, reinforced concrete cylinder (believed to be reinforced with brass rods). It is 125 feet high with an inside diameter of 20 feet. The walls are 12 inches thick at the base, tapering to eight inches at the top. It was first built to a height of 68 feet in the summer of 1899 and completed to its present height in 1900. It has a grain storage capacity of 30,000 bushels.

Construction was accomplished using round wooden forms braced with steel hoops. Concrete was poured into the forms. As the concrete dried the forms were pulled up, braced, and another layer was poured.

The structure is unaltered. The present owner has, however, painted advertising on one side of the structure. About 1970 engineers discovered that the elevator's timber foundation was deteriorating. The foundation was replaced with steel reinforced concrete to a depth of ten feet. The structure is well maintained and is not used for grain storage.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input checked="" type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES 1889

BUILDER/ARCHITECT Charles F. Haglin

STATEMENT OF SIGNIFICANCE

Summary

The Peavy-Haglin experimental grain elevator was constructed by Frank H. Peavy, a Minnesota entrepreneur, and Charles F. Haglin, a civil engineer and contractor, on the outskirts of Minneapolis, Minnesota's grain metropolis, in 1899-1900. The elevator, the first circular reinforced concrete grain elevator constructed in the United States and possibly in the world, is significant as an example of the creative ingenuity of the American building arts. It is the prototype for a type of structure that is now ubiquitous throughout the grain growing regions of North America.

History

When in 1899 Frank H. Peavy (1850-1901) decided to hire a local civil engineer named Charles F. Haglin to design and build the first circular reinforced concrete grain elevator, he had no idea that such a structure would one day dominate the man built landscape throughout the grain growing regions of North America. Peavy was no stranger to grain elevators or the grain trade. Beginning in Sioux City, Iowa in the 1870s he had by the turn of the century established an extensive business of buying grain from the region's farmers, storing it in his country elevators, and moving it to the four mills. In Minnesota, where he moved the center of his operations in 1881, Peavy was known as the "Elevator King."* He owned elevators throughout Minnesota and Iowa and was extending his business into North and South Dakota.

* "Frank Hutchison Peavy," Dictionary of American Biography vol. 14 (New York, 1934), p. 371.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

(see continuation sheet)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than one acre

UTM REFERENCES see National Register of Historic Places state nomination form

A	<input type="text"/>	<input type="text"/>	<input type="text"/>
	ZONE	EASTING	NORTHING

B	<input type="text"/>	<input type="text"/>	<input type="text"/>
	ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION

(see continuation sheet)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

James H. Shiere, Historian

5/23/81

ORGANIZATION

Heritage Conservation and Recreation Service, Department of the Interior, N.R.

DATE

STREET & NUMBER

440 G Street NW., Pension Building

TELEPHONE

343-6401

CITY OR TOWN

Washington,

STATE

D.C. 20243

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

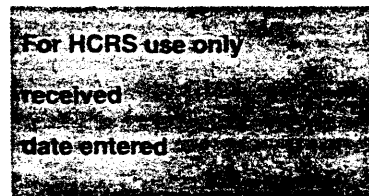
DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

**United States Department of the Interior
Heritage Conservation and Recreation Service**

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Peavy's experience in the grain trade had taught him that an elevator should meet two basic requirements. First, it had to be large enough to contain large quantities of grain. Such a structure was especially desirable at those points where the grain collected throughout the country side was assembled either to be milled into flour or to be shipped elsewhere such as overseas. Second, the structure should be fireproof. In the past the largest single danger to elevators came from fires caused by sparks from the steam driven locomotives that pulled the trains that carried wheat. Peavy saw his problem as applying the latest techniques and innovations in the building arts to the functional requirements of his business.

Peavy and Haglin turned to reinforced concrete as their building material. They were not the first to use the material, but their application of it in building their elevator represented a significant extension of concrete's functional utility.

The rise of concrete to dominance as the world's leading building material began in the middle of the 19th century. It was not, however, until the development of Portland cement in 1871 and the introduction of reinforcing rods in the 1880s that concrete's full potential was realized. The material's physical characteristics of comprehensive strength, durability, and plasticity when combined with its low cost made its potential application almost unlimited.

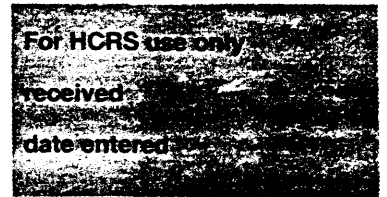
First used in bridges and dams, reinforced concrete ultimately found application in the construction of almost all types of structures. The building material is limited only by the structural viability of the form into which it is poured.¹

Before beginning work, Peavy sent Haglin to Europe to examine the best in European elevator construction. Returning home Haglin reported that the European engineers and builders were not more advanced than their American counterparts. It was probably Haglin that recommended that they proceed with the construction of the present structure. When the first stage of the work was completed in 1899, the grain trade in general and also the "New York Times," always alert to new technological developments, were highly skeptical. "Peavy's Folly," they called it, and they expected it to collapse as soon as the first kernels of grain entered.² They were wrong. The elevator held and released grain without any sign of structural weakening, let alone collapse.

Although it was more expensive to build than the traditional wooden elevator, the concrete elevator spread quickly throughout the grain growing states. It did not, however, completely replace the wooden, "crib" country elevator. This structure, often clad in aluminum or sheet metal siding, continues to be a fixture on the western plains. Instead the concrete elevator found its greatest use at flour mills and at locations such as port terminals and other shipping points. In more recent times the concrete elevator has played a major role in storing the large quantities of government owned surplus wheat.

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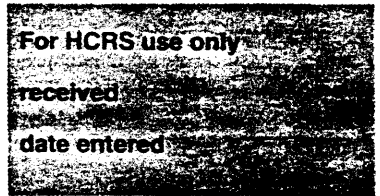
The circular reinforced concrete elevator is admired not only for its functional utility, but also for the honesty of its form. The elevator's form is said to have influenced no less an architect than LeCorbusier. In formulating his famous "matching age" aesthetic, LeCorbusier was influenced by the North American concrete grain elevators. He believed that they embodied and symbolized a rhythmic organization which promised to guarantee harmonic relationships in an industrial age. "Thus we have the American grain elevators and factories, "he wrote in 1923," the magnificent first fruits of the new age."⁵

The concrete grain elevator finds its admirers not only among architects and students of the American building arts. Historians and antiquarians also admire it as a symbol of time and place. The grain elevator rising from an often flat landscape reveals and symbolizes the presence of productive agriculture. For many the elevator is a cultural symbol of an agrarian society with its rural values, customs, and slow paced way of living.

Today the Peavy-Haglin experimental grain elevator stands at the intersection of two busy Minneapolis suburban expressways. Most commuters probably view it as an unusual silo advertising a local cooking ware manufacturer. A few, perhaps, know that the structure is the model of a building type that changed the economics of grain growing and altered the landscape throughout the Great Plains. The Peavy-Haglin concrete experimental grain elevator is a building type that illustrates an innovative industrial and engineering design that had a pivotal influence on the building of grain elevators throughout the United States and indeed the world. (National Historic Landmarks Criterion 2-a,h,l).

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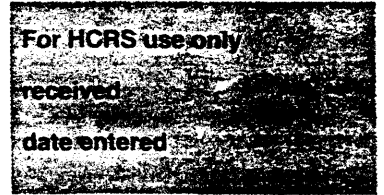
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Footnotes

1. Carl W. Condit, American Building, (Chicago, 1968), p. 240.
2. Robert B. Riley, "Grain Elevators: Symbols of Time, Place, and Honest Building," AIA Journal, 66, No. 12 (November 1977), p. 52.
3. As quoted in William H. Jorday, American Buildings and Their Architects, (New York, 1926), p. 127.

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Bibliography

Condit, Carl W.. American Building. (Chicago: University of Chicago Press, 1968).

Hefflinger, Ruth J.. "Experiment in Concrete: A Pioneer Venture in Grain Storage." "Minnesota History." 37 (1960).

Hitchcock, Henry Russell. The Pelican History of Art and Architecture: Nineteenth and Twentieth Centuries. (Baltimore: Penguin Books, 1971).

Jorday, William H. American Buildings and Their Architects. (Chicago: University of Chicago Press, 1976).

"Peavy, Frank Hutchinson," Dictionary of American Biography, 14, (New York: Charles Scribners and Sons, 1934).

Riley, Robert B. "Grain Elevators: Symbols of Time, Place, and Honest Building," "AIA Journal." (November 1977), 66, no. 12.

Rollins, E.S. "A Revolution in the Elevator Business," "Northwestern Miller." 53 (April 23, 1902).

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date entered

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Boundary

Beginning at the northwest corner of the Northland Aluminum Products factory building proceed in a southerly direction circa 100' to the railroad right-a-way to a point, thence in a westerly direction along the right-a-way circa 100' to a point, thence in northerly direction circa 100' to a point, thence in an easterly direction circa 100' to a point, the point of beginning.

Boundary Justification

The boundary encloses an area of less than one acre and includes only the Peavy-Haglin elevator and its immediate setting. A modern factory building, a driveway and parking lot, and other modern developments around the elevator were not a part of the scene, when the elevator was constructed. They are excluded from the boundary of the resource. The small amount of land within the boundary is planted in grass.