

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

**National Register of Historic Places
Inventory—Nomination Form**

For HCPS use only
received
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic JOANNA FURNACE COMPLEX

and/or common

2. Location

street & number Northwest side of junction L.R. 244 not for publication

city, town Robeson Township vicinity of congressional district 6

state Pennsylvania code 42 county Berks code 011

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 checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input 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 checked="" type="checkbox"/> other:

4. Owner of Property

name Hay Creek Valley Historical Association

street & number Box 36

city, town Geigertown vicinity of state Pennsylvania 19523

5. Location of Legal Description

courthouse, registry of deeds, etc. Berks County Courthouse

street & number 33 North 6th Street

city, town Reading state Pennsylvania

6. Representation in Existing Surveys

title Pennsylvania Inventory of Historic Places has this property been determined eligible? yes no

date 11/79 federal state county local

depository for survey records Pennsylvania Historical and Museum Commission

city, town Harrisburg state Pennsylvania

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input checked="" type="checkbox"/> good	<input checked="" type="checkbox"/> ruins	<input checked="" 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

From the end of the 18th century and completely throughout the 19th century, the Joanna Furnace Complex was a community of its own with, not only the Furnace itself, but with a store/office, charcoal house, blower/engine house, 15 tenant houses, barns, stables, blacksmith shop, carriage shop and the ironmasters' mansion. By the 1870's nearly 6000 acres of land was connected with the furnace lying together in a great, irregular tract and situated in Robeson, Gaernarvon and Brecknock Townships.

At present, the original furnace stack survives along with a large percentage of the raceway, with the blower/engine house and with the store/office building. Also still remaining are the walls and foundations of the charcoal storage building, the casting house and the blacksmith shop. The mansion and the barn are now just foundations and are present across the road off of the property.

The furnace was built in 1792 by Samuel Potts and Thomas Rutter III along the Hay Creek. Exhibiting magnificent masonry, the furnace stands 40' high from a 28' square base. Facing the southeast is the blowing entrance which is surmounted with a huge stone arch. Around the corner to the northeast side, the bosh opens through a smaller stone arch and pyramidal cutout to the remains of the 30' x 40' casting house. The bosh remains intact with little significant damage since its last blast in 1897. To the northwest and the uphill side of the furnace are the remains of a hydraulic elevator that was used to lift ore to the top of the bosh. The furnace was rebuilt in 1847 from the original 28' height to 40' and was at this time believed to have been converted from a cold blast to a hot blast. On top of the furnace stack still remains the mechanical gate to cap the bosh. On the southwest side of the furnace lies the remains of some of the hot blast and water wheel structures. The raceway is visible 60' to 70' from this side and extends out through the property almost to the point where Route 10 crosses the Hay Creek.

Further uphill from the furnace lies only the walls of the great charcoal storage building. Again made of sandstone masonry, this structure measures approximately 36' x 62' with walls extending 25' to 30' in height. The huge wall facing the furnace is supported by two large stone buttresses that flank a large 10' wide arched doorway that once led to the now vanished covered walkway to the furnace. Both ends of the charcoal house have arched window holes near the peak. The uphill side wall is now collapsed in the middle.

Southwest of the charcoal house remains the ice house which is now basically a hole in the hill.

Directly in front and to the southeast of the furnace stands the blower/engine house that is believed to have been erected by William Darling and Levi B. Smith around the time the furnace was rebuilt in 1847. This rectangular building is also basically made of native sandstone and measures 16' x 25' and is approximately 1½ stories in height with a hip roof surmounted with the ruins of a cupola. All of the walls are of 20" thick sandstone except the wall facing the furnace which is brick. This wall was a common wall with the structure that housed the hot blast machinery. On the northeast side there is a beautiful gothic arched doorway with two six lite sash separated in the middle. Below the sash there once was two finely paneled doors. Just to the left of the door is a window with a 4/4 sash surmounted by a paneled gothic arch. Above this window and the doorway are also gothic windows with 4/4 sash arched at the top. The southeast side too has at ground level and above gothic windows with 4/4 sash surmounted respectively by a paneled arch and an arched sash. The southwest side has only one window again of gothic lancet design but a little larger. The interior is just one large room from floor to roof and the stuccoed walls have 3 inset closets and paneling up to the chair rail. In the center of the floor are the original support rods that held the steam engine that ran the blowing bellows during the last quarter of the 19th century.

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

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DATE ENTERED

*JOANNA FURNACE COMPLEX
Berks County*

CONTINUATION SHEET

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Outside between the blower/engine house and the furnace are the remains of the hot-blast machinery and structures.

Southe of the blower/engine house towards the Hay Creek are the remains of the blacksmith shop. All that exists now is the foundations walls and the base of the forge. The building was approximately 16' x 24'.

Three hundred feet up the hillside overlooking the furnace and blower/engine house is the office/store building. Measuring 27' x 17', this 1½ story rectangular structure exhibits finely made sandstone walls and a slate gable roof with a wide overhung cornice decorated with a row of tulips. At the gable ends, the face boards are cut in a series of ogee curves and C scrolls terminated with a couple of pedals at the peak. On the south side are two doors, one at ground level, that leads into the celler, and the other at the main floor level. To the right of the doors are 4 windows two at ground level and two on the main floor level. All four windows have 2 over 2 sash. The end that faces the road has only one small one lite window to vent the attic. On the opposite end facing the west along with a small one lite attic window are two windows on the main level of which one has a 2/2 sash and the other has a 6/6 sash. Facing the north side is the main doorway alone with no windows. It is a simple doorway with no moldings but just a beveled frame. The door which has long vanished was a paneled one. The interior has two rooms. One room to the east and it has two windows and measures approximately 14' x 14' and has wood paneling up to the chair rail. The other room to the west has a doorway, which opens to the south, and two windows to the west. The walls and ceilings are plastered.

Further up hill from the store/office is the foundations of the original homestead that was built in the late 18th century. This structure was demolished in the early 1960's as was the ironmasters mansion across the road to the east of the store/office.

The furnace, store/office and blower/engine house are basically intact but need repair. The other structures retain most all of the stonework but lack the wooden structures.

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 checked="" 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 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 checked="" type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input 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 type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates 1792

Builder/Architect Samuel Potts & Thomas Rutter

Statement of Significance (in one paragraph)

Joanna Furnace was started in 1792 by Samuel Potts, whose wife's name it bears, and Thomas Rutter III, grandson of the builder of Pennsylvania's first iron works, Rutter's Forge, and its first furnace, Colebrookdale Iron Works in Berks County. First operated under the name S. Potts and Co., Joanna's subsequent companies were known as Thomas Bull & Co.; Thomas B. Smith & Co.; Darling & Smith Co.; and Levi B. Smith & Sons.

The furnace gained prominence primarily under the Smith family beginning when John Smith, who had managed the Warwick Furnace in Chester County and in 1790 owned Dale Forge in Berks County, joined in a full partnership with Legislator Co. Thomas Bull and Thomas May. Smith's sons Thomas B. and Levi B. carried on the business. It was during Levi's partnership with his brother-in-law, an attorney and associate judge, William Darling that the manufacture of the company's iron wood-burning ten plate stoves became well known. Levi B. Smith left a long record of accomplishments and honors in Berks County as a community-minded man, always supporting cultural and social betterment programs; popular politically while serving at national, state, and local levels; and as one of the founders of the First National Bank of Reading. Ownership of the furnace passed on to his son, Col. L. Heber Smith, a commander during the Civil War. Rebuilt in 1847, the furnace closed in 1901.

Joanna Furnace was built in an area rich with ore, swift water power, and 4000 acres of woodland. In 1830 it was one of 11 furnaces and 31 bloomeries, forges and rolling mills producing cast iron and bar iron in Berks County, then the industrial leader in America. Employing 168 workmen and providing for 1358 dependent farmers, butchers, grist mill workers, and others nearby, it played a major role in the development of Robeson Township. Originally a cold blast furnace, the present 13.818 acres includes the raceway, the furnace stack (28 x 7½) the blowing/engine house, the office/store, and ruins of the casting house, blacksmith shop, charcoal storage building and ice house, and the hotblast section.

The industrial features of this furnace, one of the very few still existing that was erected by the Potts & Rutter families, is still largely intact. With its accompanying buildings, this furnace complex must be counted as one of the most industrially significant sites of Berks County.

APPROVED FOR THE NATIONAL REGISTER OF HISTORIC PLACES

9. Major Bibliographical Reference

p.40
p.17

Bining, Arthur Cecil. *Pa. Iron Manufacture in the 18th Century*, Harrisburg, PA, PHMC, 1973 2nd edition
Montgomery, Morton L. *History of Berks County*. Philadelphia, Everts, Peck & Richards. 1886 p. 94, p. 98-100, p. 550, p. 1150, p. 1154-55. *Joanna Furnace Acct. Books 1792-1826*. Thom. Bull Esq. Book Jan. 1, 1800
Forge Acct. Book featuring record of Joanna Furnace 1792-1826. Historical Society of Berks County.
Joanna Furnace Ledgers & Acct. Books 22 vols. on microfilms #126-131. Hist. Soc. of Berks County.

10. Geographical Data

Acreeage of nominated property 13.818
Quadrangle name Morgantown, PA

Quadrangle scale 1:24,000

UMT References

A	1 8	4 2 4 4 8 0	4 4 4 9 2 0 0
	Zone	Easting	Northing
C	1 8	4 2 4 0 2 0	4 4 4 9 2 9 0
E			
G			

B	1 8	4 2 4 3 4 0	4 4 4 8 9 3 0
	Zone	Easting	Northing
D			
F			
H			

Verbal boundary description and justification

SEE CONTINUATION SHEET

List all states and counties for properties overlapping state or county boundaries

state	code	county	code

11. Form Prepared By

name/title Charles H. Jacob

organization Haycreek Valley Historical Association date November 2, 1979

street & number Box 130-A telephone 215-469-9530

city or town Saint Peters state Pennsylvania 19470

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

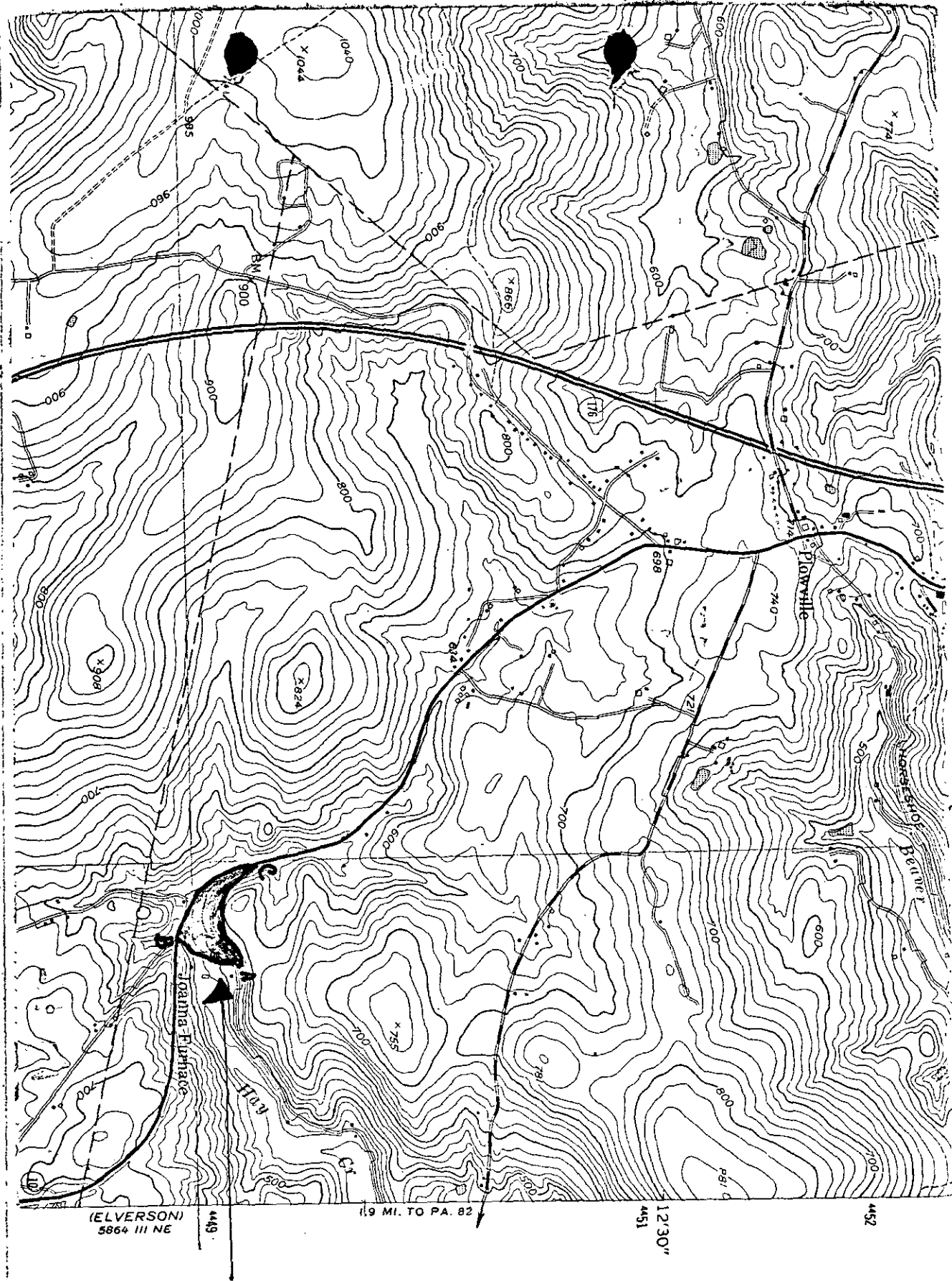
national state local

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 Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature
Ed Weintraub, Director
title Office of Historic Preservation date

For HCERS use only
I hereby certify that this property is included in the National Register
date

Keeper of the National Register
Attest: _____ date
Chief of Registration



Joanna Furnace Complex
Berks County

Zone 18	A	E424480	N4449200
	B	E424340	N4448930
	C	E424020	N4449290