

United States Department of the Interior
National Park Service

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National Register of Historic Places
Registration Form

MAR 16 1988

NATIONAL
REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Prison Brickyard Historic District
other names/site number 24PW360

2. Location

street & number 1/4 mile south on county road not for publication
city, town Deer Lodge vicinity
state Montana code 030 county Powell code 077 zip code 59722

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input checked="" type="checkbox"/> district	<u>3</u>	<u> </u> buildings
<input checked="" type="checkbox"/> public-State	<input type="checkbox"/> site	<u>2</u>	<u> </u> sites
<input type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>3</u>	<u> </u> structures
	<input type="checkbox"/> object	<u> </u>	<u> </u> objects
		<u>8</u>	<u> </u> Total

Name of related multiple property listing: _____

Number of contributing resources previously listed in the National Register none

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official Marcella Shuff SHPO Date 3-11-88
State or Federal agency and bureau Montana Historical Society

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official _____ Date _____
State or Federal agency and bureau _____

5. National Park Service Certification

I, hereby, certify that this property is:

entered in the National Register. See continuation sheet. Entered in the National Register 4-14-88

determined eligible for the National Register. See continuation sheet.

determined not eligible for the National Register.

removed from the National Register.

other, (explain:)

Signature of the Keeper _____ Date of Action _____

6. Function or Use

Historic Functions (enter categories from instructions)

Domestic: residencesIndustry: Brickmaking kilns

Current Functions (enter categories from instructions)

vacant/not used

7. Description

Architectural Classification

(enter categories from instructions)

no style

Materials (enter categories from instructions)

foundation concretewalls brick

roof wood shingleother kiln interiors and fire brick

Describe present and historic physical appearance.

The Prison Brickyard Historic District is located in an open field approximately 1/4 mile south of the town of Deer Lodge and 1/2 mile from the historic State Penitentiary complex. The brickyard consists of 2 ruined scove kilns, 2 beehive kilns, 1 smoke stack with underground flues, and a workshop/warehouse. The brickyard superintendent's house and a small worker's cottage are located across the road from the yard to the east, and are included within the boundaries of the historic district. The clay deposits exploited for use at the prison brickyard were located nearby and contained a high percentage of iron, which gave the brick a red color. The clay was mined by the prisoners with pick and shovel from open cuts in the bank. A track ran into each cut and cars were used to haul the clay back to the brickyard by mules. All of the buildings and structures encompassed within the boundaries of this nomination make a positive contribution to the historical character and significance of the district.

Scove Kilns: The two scove kilns date to 1915 and are now represented by the remains of the thick, red brick bearing walls, which indicate that these kilns were approximately 70' long by 28' wide. These structures were about two stories in height and did not have roofs when constructed. Scove kilns were generally less efficient heat circulators than the later beehive kilns and produced an inferior quality of brick that primarily was used on the protected interior walls of buildings. Typically in a scove kiln, about 20% of each batch of brick was either under- or over-fired.

Two of the brick walls of one scove kiln remain standing, while only one wall of the other yet stands. These walls clearly exhibit the historic construction details. On the outside along the bottom of the walls are double rows of 20 regularly spaced arched openings to the fire boxes, which are lined with white fire brick. Pipe ends protrude above the arched portals to provide combustion air for the fires. Above the arched openings on the inside wall are carbon stains and some of the interior brick shows signs of having melted. The firing temperatures of the scove kiln customarily reached 2200 degrees centigrade.

The brick walls were the only permanent parts of the structure and were used to contain a batch of brick as it was being fired. The scove kilns each had a capacity of about 155,000 bricks, which were stacked in such a way that they created a vaulted roof over the open kiln, with spaces between the stacks so that hot gases could pass between for firing. The exterior walls of the scove kilns were shored up to counteract the outward thrust of the stacked brick by a series

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of corbelled piers that take form above the fire boxes and extend the height of the walls.

Workshop and Warehouse: The clay was crushed, mixed, formed, and dried in the workshop before firing. This building appears to have been constructed in four sections, the western two sections of brick and the eastern two of timber frame construction, measuring 246' x 28'; 30' x 37'; 16' x 10'; and 8' x 8', respectively. Several windows have been boarded over or bricked in. Indications are that the western portion of the structure was built in 1915 and the last addition probably occurred in 1922. The building has a concrete foundation and a gable roof covered with thick rolled asphalt.

The clay was first sent through the crusher, where it was ground to a fine powder between two, conical-shaped, steel rollers, and then forced into a brick press. The clay was exuded from the press in a continuous column measuring 8-3/4 by 2-1/2 inches, which was cut by wires into the proper width. No extra water was used in molding the brick. Then, prisoners stacked the wet bricks in the drying rooms in a series of six long tunnels that were heated by 4,000 feet of steam pipe. The steam for drying was supplied from two, 100-horse power boilers. The tall, tapered, round smokestack situated in the northwest corner of the building vented these boilers. The brick making machinery has been removed from the building.

Beehive Kilns: The two, domed beehive kilns were built ca. 1918 to produce a higher quality of brick than that achieved through firing in the scove kilns. The beehive kilns remain essentially intact, although in a deteriorated condition. Due to the efficient circulation of heat achieved in these kilns, a high quality product would usually result after firings. Hot combustion gases rose up the sides of the kilns and along the domed ceilings and then were drawn down through the mass of brick to the floor grate by the draft induced by the stack, which is adjacent to the kilns and connected by a flue. Arched openings of about 6' in height provided access for loading and unloading the kiln. Bricks would be stacked to seal these openings when the kiln was firing. A series of arched portals to the fire boxes are regularly spaced along the exterior walls. The kilns measure 30' in diameter and are constructed of two types of brick. The predominant brick used was common red to fashion the multi-layered round walls. A light colored fire brick was used to form the domed roofs, to surround many of the arched wall openings, and to line the interior of the kiln. A small opening is found the center of the dome that allowed some fresh air into the kiln during firings. Three large metal bands encircle the upper third of each kiln. Some deterioration has occurred around the arched openings where bricks have fallen from the walls. Some brick has been lost; layers of brick have fallen off the inside and outside of the walls. A raised wooden platform was built over the dirt floors after the kilns ceased to be used for firing bricks and became storage units.

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Smokestack: The smokestack adjacent to the beehive kilns is in excellent condition and also was built ca. 1918. The square, red brick stack measures about 5' on each side at the base and tapers as it rises. It is reinforced with a series of narrow metal bands that gird it at regular intervals from bottom to top. The brick flues between the beehive kilns and stack also remain intact. The stack, with its subsurface flues, was used to create a down draft of hot gas and air within the kilns in order to more evenly bake the bricks.

Superintendent's House: The brickyard superintendent's house is located across the road from the brickyard to the east. The residence was built in 1918 and is in fair condition. It is one story in height, with a basement and a concrete foundation. The walls are bearing red brick covered with a veneer of stucco, and the interior is finished with lath and plaster and has hard wood floors. The building is painted white with a green painted, wood shingled roof. There appear to have been two additions: a small enclosure at the primary entrance and a concrete masonry unit bathroom that was built on the east end ca. 1950. There are windows on all sides of the house, and in some instances the original 2-over-2 double hung units have been replaced with modern units. A 2 1/2-foot rock retaining wall runs the entire length of the house on the west side.

Worker's Cottage: This 10' x 14' dwelling was known as the "bachelor's quarters" and is located to the south of the superintendent's residence. The cottage was constructed ca. 1920 of brick covered with a stucco covering. There are no windows in the building and a door on the north elevation. The interior contained minimal kitchen facilities and a sleeping room. This tiny residence has been altered by the addition of a carport.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

politics/government
industry
social history

Period of Significance

1915-1926

Significant Dates

1915, 1916

1918

Cultural Affiliation

n/a

Significant Person

n/a

Architect/Builder

convict laborers

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Prison Brickyard Historic District is significant as the best surviving representation of the importance of brick making as a prison industry and because it reflects the historic management goal to achieve prison self-sufficiency. As a relatively intact industrial complex that manufactured brick to be used in a number of important State construction projects from 1915-1926, the brickyard gains additional significance for the role it played in shaping the appearance of Montana's historic institutional buildings of the period.

From the beginning, prison management determined to make the State Penitentiary at Deer Lodge as self-supporting as possible, using prison labor to accomplish this end. Frank Conley and Thomas McTague oversaw the operation of the prison from 1890-1908 under a contract with the State at a payment of \$.70 for each prisoner per day. Convict labor was first used in the reconstruction of the prison buildings during the 1890's, and, with the support of the Board of Prison Commissioners, Frank Conley ignored the concerns of organized labor and the opposition of the press as he institutionalized convict labor as a means to alleviate perpetual overcrowding and to reach self-sufficiency. When the State took direct control of the prison in 1908, Conley was appointed as the first warden, a position he retained until 1921. The State Legislative Assembly affirmed the labor practices at the penitentiary on March 6, 1909 by granting legal authority to the warden to employ convict labor if it did not interfere with organized labor. Conley maintained that it was the prison's responsibility to teach prisoners a trade so that when released they would have skills with which to earn an honest living. For the years of Conley's administration, convict labor and prisoner rehabilitation became synonymous.

To implement his goals, Conley developed numerous prison industries during the 31 years of his administration. Evidence suggests that brick making had been underway at the prison since about 1896. At least two other prisoner-operated brickyards are documented in the literature, although it appears that none of these operated simultaneously. Most of the bricks produced by the two earlier yards were used in the reconstruction of the prison itself. The prison brickyard included in this nomination was built in 1915, apparently to replace the earlier

See continuation sheet

9. Major Bibliographical References

The Silver State, Deer Lodge, Montana, August 19, 1915
Report of the State Board of Prisons; Comments to the Governor and the 12th Legislative Assembly, January 2, 1911, Montana Historical Society, Helena (MHS)
Annual Warden's Reports, 1st - 21st reports, 1891-1918. (MHS)
Biennial Warden's Reports, 22nd - 28th reports, 1920-1932. (MHS)
McDonald, James, Historic Structures Report: Montana State Prison, Powell County Museum and Arts Foundation, Deer Lodge, Montana, 1981. Copy available at the State Historic Preservation Office (SHPO)
Quivik, Fred, The Western Clay Manufacturing Company: An Historical Analysis of the Plant and Its Development, RTI, Butte, Montana, February, 1985. (SHPO)
Jim Blodget, telephone conversation with Dori Passman, October 26, 1986.
Mary Horseman, telephone conversation with Dori Passman, October 26, 1986.
Elaine Way and Steve Owens, Powell County Museum and Arts Foundation, correspondence with Dori Passman, 1985-1986.

See continuation sheet

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository: _____

10. Geographical Data

Acreage of property approximately 7 acres

UTM References

A 12 367220 5138250
Zone Easting Northing

C _____

B _____
Zone Easting Northing

D _____

See continuation sheet

Verbal Boundary Description

Beginning at SE 1/4 of NW 1/4 of SE 1/4 of Section 4, T7N;R9W and running thence 385' North; then 369' East; then 247' South; then, 138' West; then, 131' South; then 367' west to the point of beginning.

NW 1/4 SE 1/4 Section 4; T7N;R9W.

See continuation sheet

Boundary Justification

Boundary selection is based on readily identifiable features. There is a road separating the brickyard and the residence, this road serves as a common starting point thereafter fences were used to delineate boundaries.

See continuation sheet

11. Form Prepared By

name/title Dori Passmann
organization Montana Department of State Lands date February, 1988
street & number 1625 Eleventh Avenue telephone (406) 444-2074
city or town Helena state Montana zip code 59620

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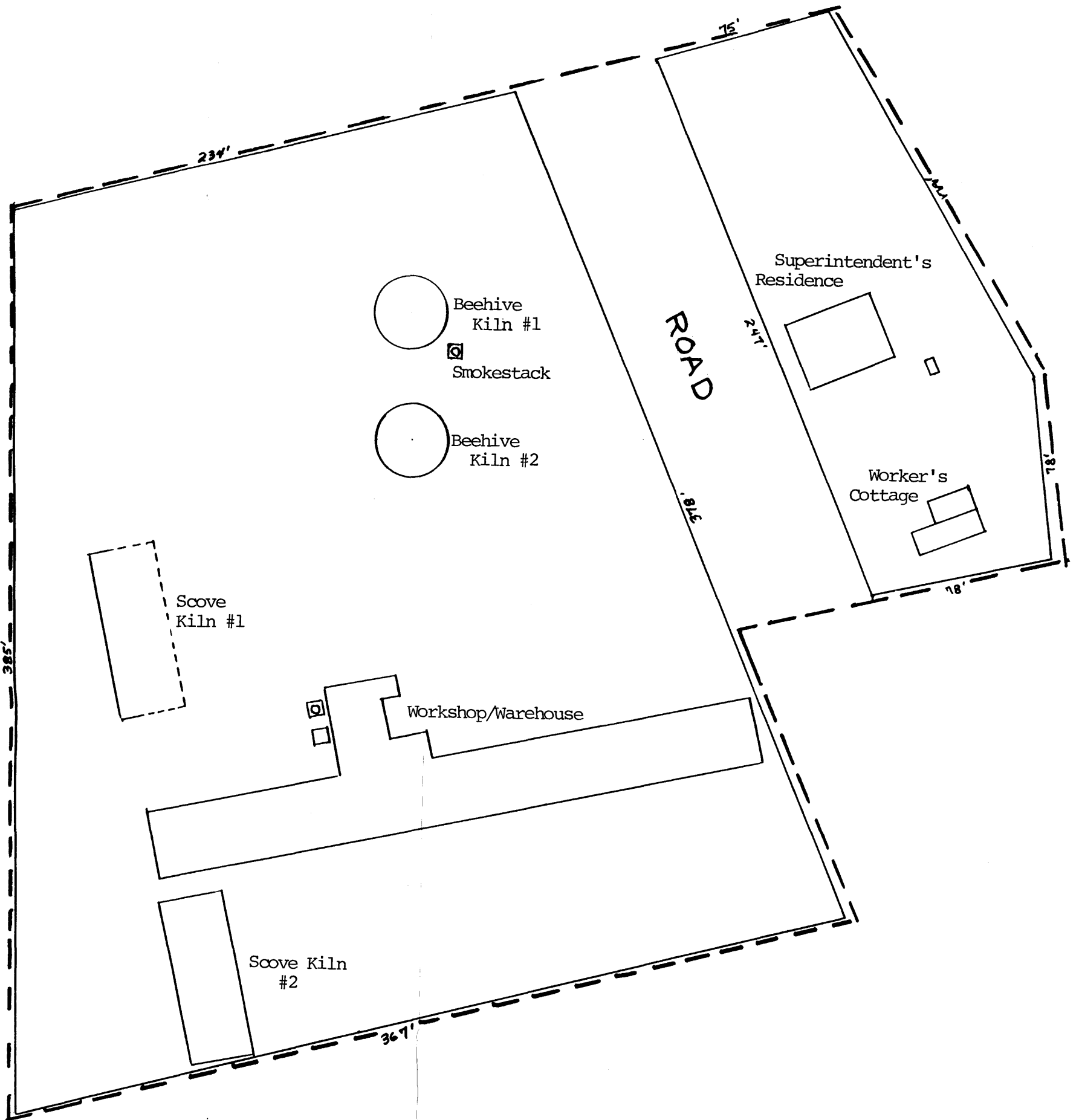
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facilities. Brick making, road building, farming and ranching were the earliest and longest surviving industries at the prison. At the prison brickyard, one guard would oversee the work of 50 prisoners, which testified to the success of Warden Conley's honor system. With the prison-made bricks and convict construction crews, the prison system was able to save the State a considerable amount of money and go a long way toward recouping the prisoners' keep.

Bricks made at the Prison Brickyard Historic District were used in the building of numerous State institutional buildings during the Progressive Era construction boom. The fact that these bricks were available to the State at \$3.00 per thousand, a savings of \$7.50 per thousand below the prevailing market rate, was no doubt a deciding factor in making brick the material of choice for State construction projects during the 1910's and 1920's. "At the present time," Warden Conley reported in 1916, "about fifty percent of the inmates are working outside the penitentiary, building roads and bridges in widely separated counties of our State, and erecting public buildings at various state institutions." Without access to this source of inexpensive building material and labor, it is likely that the appearance of State institutional buildings would have been quite different. The following substantial, State-owned buildings were erected using both prisoner-produced brick and convict labor from 1915-1919: the sleeping pavilion, kitchen, dairy barn, and power house at the State Tuberculosis Sanitarium at Galen; the women's and men's dormitories, the dining room, store building, hospital, administration building, and kitchen at the Institution for the Insane at Warm Springs State; the dormitories at the Vocational School in Helena; the brick silos at the prison's Bratten Ranch; the superintendent's residence at the prison's Valiton Ranch; the superintendent's residence at the prison brickyard in 1918; and the kitchen, theater, and a number of other buildings within the prison complex itself. Attached to this nomination are copies of photographs of some of these buildings taken from the Annual Warden's Reports.

Prison-made bricks were also sold to cities, counties, and individuals, bringing in much needed prison operating revenue, but at a rate closer to that of the private manufacturers so as not to support unfair competition, an issue that continued to plague all of the prison industries through the years. However, the overall decline in the demand for brick during the statewide depression following the First World War appears to have brought about the close of the prison brickyard in 1926, although warehoused bricks continued to be sold into the early 1930's. The closing of the brickyard had a minimal impact upon prison industrial and labor programs. It was not until the mid-1930's that the State curtailed the use of outside convict labor and cut back its funding for the development of new prison industries.

PRISON BRICK YARD DEER LODGE MONTANA



--- Historic district boundary

SCALE : 1 INCH EQUALS 50 FEET