

United States Department of the Interior  
National Park Service

56-1898

# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

## 1. Name of Property

Historic name: The Grant-Marshall Lime Kiln Historic District

Other names/site number: Castle Lime Kiln/24JF2035

Name of related multiple property listing:

N/A

(Enter "N/A" if property is not part of a multiple property listing)



## 2. Location

Street & number: 1,000 ft. South of the South End of Crystal Drive

City or town: Helena State: MT County: Jefferson

Not For Publication:  Vicinity:

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

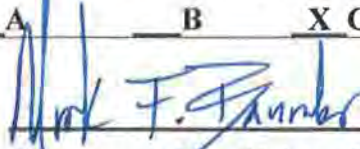
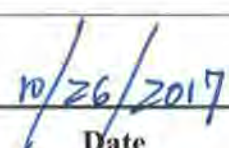
I hereby certify that this x nomination     request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property x meets     does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

    national     statewide   X   local

Applicable National Register Criteria:

X A     B   X   C     D

 Signature of certifying official/Title:	 Date
<u>MONTANA STATE HISTORIC PRESERVATION OFFICE</u> State or Federal agency/bureau or Tribal Government	

In my opinion, the property <u>   </u> meets <u>   </u> does not meet the National Register criteria.	
Signature of commenting official:	Date
Title : <span style="float: right;">State or Federal agency/bureau or Tribal Government</span>	

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

**4. National Park Service Certification**

I hereby certify that this property is: X

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)

*For Edson H. Beall*  
Signature of the Keeper

12 14 17  
Date of Action

**5. Classification**

**Ownership of Property**

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

**Category of Property**

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

The Grant-Marshall Lime Kiln Historic District  
 Name of Property

Jefferson, MT  
 County and State

**Number of Resources within Property**

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
_____ 2 _____	_____ 1 _____	structures
_____ 2 _____	_____	objects
_____	_____	
_____ 4 _____	_____ 1 _____	Total

Number of contributing resources previously listed in the National Register     N/A    

**6. Function or Use**

**Historic Functions**

(Enter categories from instructions.)

INDUSTRY/PROCESSING/EXTRACTION/Processing site = Lime kiln

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Current Functions**

(Enter categories from instructions.)

VACANT/NOT IN USE

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

---

## 7. Description

### Architectural Classification

(Enter categories from instructions.)

NO STYLE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Materials:** (enter categories from instructions.)

Principal exterior materials of the property:

STONE  
BRICK  
WOOD

### Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

---

#### Summary Paragraph

The Grant-Marshall Lime Kiln Historic District is located in a narrow north-south trending unnamed gulch on Helena's upper eastside. The property sits approximately 900 ft. south of the south end of Crystal Drive in Jefferson County (a few yards south of the Lewis and Clark County/Jefferson County line). The site of the Humboldt Lode Mine (24LC0543) is located on a mountain top about 700 ft. west of the lime kiln.<sup>1</sup> The access road leading to the kiln property was discernable at the bottom of the gulch prior to residential development in the area beginning in the 1970s. The old access road has since been transformed into the City of Helena's Far East Trail 2 recreational trail.

The Grant-Marshall Lime Kiln Historic District consists of a lime kiln (built ca. 1889), an earlier pit kiln (ca. 1884), a staging area, and a limestone quarry. The property has been abandoned since at least 1903. Builders in Helena and the surrounding area utilized lime produced there, including at the Helena High School (1890-1892) and the nearby Lenox Subdivision (established 1890). The pit kiln's operators in

---

<sup>1</sup> The lime kiln was located on unclaimed land between the Humboldt Lode (1868-ca. 1910) and Red Letter mining claims. The Red Letter claim (1888-1891) was located to the east of the kiln. Both were silver mines.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

1884 sold lime to customers at various retailers around Helena and probably in bulk to individual contractors. The lime produced at the kiln from 1889 to 1892 was used primarily for the construction of the new city high school. The property is associated with the lime burning industry in Helena and the city's expansion in the wake of the arrival of the Northern Pacific Railway in 1883. The lime kiln is similar in design, materials, and function to the Grizzly Gulch lime kilns listed in the National Register as part of the Helena West Main Street Historic District (listed February 22, 1996, NR #96000119).

The Grant-Marshall Lime Kiln Historic District is located on the east flank of the gulch and is surrounded by pine trees. A recent power line traverses the gulch from north to south. The staging area lays about 50 ft. southeast of the kiln, and the limestone quarry is carved into the hillside about 150 ft. east of the kiln and at a slightly higher elevation. The smaller and older circular pit kiln sits about 6 ft. north of the lime kiln. The hillside north of the pit kiln is veneered in small chunks of lime and pulverized lime; the pit kiln is filled with lime blocks. The Grant-Marshall Lime Kiln Historic District encompasses approximately three acres and is owned by the City of Helena and a private party.

---

### **Narrative Description**

The Grant-Marshall Lime Kiln Historic District consists of a lime kiln, staging area, limestone quarry, and older lime burning pit. All contribute to the historic significance of the site. The property is perched on a hillside in a narrow tree-lined gulch within the Boulder Mountains on Helena's upper eastside. The district is accessed from the cul-de-sac at the south end of Crystal Drive along the Far East Trail 2 recreational trail, which originated as the historic access road to the lime burning operation. The kiln faces west onto the gulch and is built into the hillside. The staging area and an access road that leads to the property are located adjacent to the kiln to the northeast and the quarry cuts into the hillside about 100 ft. east of the kiln. The older (earlier) lime burning pit sits 6 ft. north of the kiln. Based on the available historic record, the quarry and lime burning pit may have been established by William Leek and brothers Abel and Charles Newberry in 1884. The tower-type kiln was likely constructed and operated by James S. Grant, John Marshall, and Stephen S. Whalen from 1889 to 1892. The operation, quarry and kiln, was abandoned by 1903. The lime produced at the site was utilized by the operators and by contractors in Helena and the surrounding area. Lime produced there was probably used in the construction of the high school building in Helena from 1890 to 1892 and, possibly, in the construction and finishing of residences in the nearby Lenox Addition of Helena beginning in 1890.

**Lime Kiln (one contributing structure).** The lime kiln consists of the tower type kiln and an attached cooling shed. The kiln measures 31 ft. x 18 ft. at the base and tapers at the top. It stands approximately 25 ft. in height. Built of rubblestone quarried in the surrounding hills and mortared with cement scored to resemble blocks, the kiln walls measure approximately 9 ft. thick. The kiln's interior is lined by two layers of fire brick manufactured by the Evens & Howard Fire Brick Company of St. Louis, Missouri.<sup>2</sup> Fire/stoke holes appear at ground level on the north and south sides of the kiln.<sup>3</sup> The holes have grown

---

<sup>2</sup> The company was in operation from 1867 to 1930. Fire bricks are scattered across the site.

<sup>3</sup> The fire holes are where the kiln workers stoked the fire baking the limestone blocks. Pine wood was probably used as fuel for this kiln as there is no evidence of coal in or around the site.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

much larger over the years because of weathering and vandalism.<sup>4</sup> Arched fire brick flues leading into the interior are partially buried by debris from the kiln. The top of the kiln features a circular opening roughly 7 ft. in diameter.

The centrally located clean-out hole occurs at the base of the kiln's west-facing façade. It measures 7 ft. wide and 7 ft. in height and is recessed 9 ft. into the side of the kiln; it is partially filled in with baked limestone blocks and dirt. The top of the feature displays a five-layered arched header-coursed brick lintel. Blond fire brick was placed in the interior of the clean-out hole. The top of the clean-out hole is braced with steel railroad rails salvaged from alternate sites. The exterior rail is stamped "Barrow Steel 3 M<sup>e</sup> 1887," indicating that it was manufactured in 1887 by the Barrow Steel Company of Cumbria, England.<sup>5</sup> A railroad rail placed further back in the clean out hole appears to have been manufactured by the Lackawanna Iron & Coal Company of Scranton, Pennsylvania. The company was in operation in Scranton from 1840 to 1922. A 2 ft. 6-in. wide walkway parallels the front of the kiln and provided access to the clean-out hole. The walkway is now elevated about 4 ft. above the floor of the cooling shed. A rubblestone retaining wall extends 10 ft. to the south and is 3 ft. in height.

The cooling shed attaches to the kiln on the west. It measures 31 ft. x 15 ft. and is situated somewhat below the kiln (the clean-out hole would have been covered by the cooling shed's roof) at the bottom of the gulch. The walls of the shed are rubblestone and an indentation on the façade of the kiln indicates a gable roof once covered the shed, an observation consistent with the lime kilns on Grizzly Gulch (24LC1270) south of Helena. The shed's walls measure 18 in. thick and 10 ft. in height. Entry into the shed occurred through doorways (now heavily deteriorated) on the north and south walls adjacent to the kiln, and through a central doorway on the west façade of the shed. A milled wood lintel remains above the central doorway, though a portion of the wall over the lintel has recently fallen away. The interior of the shed is strewn with rubblestone and wood debris that likely came from the roof when it collapsed and by the continued deterioration of the walls.

**Staging Area (one contributing site).** The staging area consists of a leveled area that possibly served as the location of the living quarters/office of the operation's foreman. It is located about 50 ft. southeast of the kiln on the hillside and adjacent to the limestone quarry.<sup>6</sup> The staging area measures approximately 13 ft. x 25 ft. Previous visits to the property identified artifacts indicating that either a small building or a wall tent once occupied the site. A fire ring presently located on the leveled area is not historic. The

---

<sup>4</sup> The author lived in the vicinity of the lime kiln from 1968 to 1978. In the late 1960s, the author, as a preteen, had to crawl through the fire holes into the kiln's interior. The now late middle-aged author can walk into the kiln's interior through the openings.

<sup>5</sup> The presence of the rail supports a post-1887 construction date for the tower kiln. The rail may have been salvaged from the adjacent Red Letter or Humboldt Lode mines, which were located near the summits of the hills bordering the gulch on the east and west.

<sup>6</sup> The staging area is roughly at the same level as the top of the kiln, but is separated from it by a 40-ft. gap. Based on historic photographs of the Grizzly Gulch lime kilns, the staging area was probably connected to the top of the kiln by a wood ramp. Workers used handcarts to haul the limestone to the top of the kiln where it was dumped in for baking. No trace of the ramp remains on the hillside below the staging area.

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

staging area was accessed from the gulch by a 6-ft. wide road partially cut into the side of the gulch. Artifacts once observed at the staging area include an iron bedstead and a mule shoe.

**Limestone Quarry (one contributing site).** The limestone quarry was dug into the hillside about 150 ft. above and east of the lime kiln. The quarry material consists of Madison limestone that formed about 350 million years ago. A band of Madison limestone outcrops runs along the fringes of the Boulder Batholith on the south side of Helena and was mined for lime beginning in the 1870s. Quarrying appears to have occurred in different places on the face of the outcrop and piles of quarried limestone remain strewn about the quarry. No artifacts associated with the quarrying operation were observed. The likely approach to the ramp between the quarry and the kiln lays directly east of the kiln. No trace of the ramp remains between the approach and the top of the kiln.

**Pit Kiln (one contributing structure)** is located about 6 ft. north of the lime kiln. The pit consists of a 6-ft. diameter round hole lined by dolomite blocks and is filled with processed limestone chunks. Pulverized lime and small chunks of lime veneer a small promontory about 10 ft. east of the pit kiln. The kiln processed limestone by the open pit method and it predates the tower lime kiln. The pit kiln was likely established by Abel and Charles Newberry and William Leek in about 1884.

**Power Line (one noncontributing structure)**

A north-south running modern power line cuts through the west portion of the property; however, only one power pole is actually installed within the boundary of the Grant-Marshall Lime Kiln Historic District. The standardized pole measures approximately 12 inches in diameter, stands about 20 ft. tall and supports four power lines. The line was constructed in the early 1980 to supply electricity to residences south of the lime kiln.

**Integrity**

Integrity of location remains exceptionally strong. All the features remain in their original locations. A lime kiln was first situated at this site in about 1884; the site was abandoned by 1903. The operation's owners located the kiln adjacent to a readily accessible outcrop of Madison Limestone, which provided the material for the kiln. The quarry is still easily seen dug into the hillside east of the kiln. The different aspects of the kiln's operation remain present, including the quarry, staging area, and lime kiln with associated cooling shed. The earlier lime pit kiln (burning pit) immediately north of the standing kiln provides earlier evidence of lime production at the site, adding an additional layer of lime processing history to the property.

The original design of the kiln (which displays how it operated) remains apparent as do the other features associated with it. Little change to the kiln has occurred with the result that design integrity of the feature remains high; although deterioration of the associated cooling shed has occurred, including the collapse of the roof, enough remains to convey the original use and function.

Integrity of setting remains mostly intact, although late twentieth century intrusions are present, including an electric power line and the presence of non-historic residences in the vicinity of the kiln site; the

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

residences, however, are not visible from the kiln area. The historic access road to the Grant-Marshall Lime Kiln Historic District remains, but presently serves as a recreational trail.

The site retains integrity of materials (rubblestone construction with firebrick inside the kiln), workmanship, feeling, and association with the late nineteenth lime burning industry in the Helena, Montana area. Indeed, the design of the kiln is nearly identical to the Grizzly Gulch lime kilns (24LC1270). The design, moreover, is indicative of how the production of lime occurred in the late nineteenth century, including the quarrying of limestone, loading the lime kiln, and the process of lime burning. The presence of the lime burning pit provides a glimpse into the earlier process prior to the construction and establishment of the slightly later, more substantial operation; together, the two relate the story of lime burning from around 1884 to the early twentieth century on this property.



The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

---

## 8. Statement of Significance

### Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

### Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

**Areas of Significance**

(Enter categories from instructions.)

ENGINEERING

INDUSTRY

**Period of Significance**

1884-1893

\_\_\_\_\_

**Significant Dates**

1884, 1889

\_\_\_\_\_

**Significant Person**

(Complete only if Criterion B is marked above.)

\_\_\_\_\_

**Cultural Affiliation**

\_\_\_\_\_

**Architect/Builder**

Abel and Charles Newberry,

William Leek, James S. Grant,

John W. Marshall

**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Grant-Marshall Lime Kiln Historic District is a representative example of the lime burning industry in Helena, Montana, during the late nineteenth and early twentieth centuries. Lime burning was significant to the development of Helena, from its time as a ramshackle, impermanent mining camp to a substantial modern city after the arrival of the Northern Pacific and Montana Central railroads in the 1880s. Lime produced from the Grant-Marshall Lime Kiln Historic District is known to be utilized for the construction of the Helena High School building and the construction of substantial residences in the nearby Lenox Addition to Helena, beginning in 1890; it is possible other buildings also utilized lime from the district. All aspects of the lime burning industry in the Grant-Marshall Lime Kiln Historic District are well-represented by features at the property, including an early pit kiln and tower kiln (with associated cooling shed), a staging area, and the adjacent limestone quarry. Although abandoned around 1903, the period of significance for the property ends in 1893 when much of the lime production shifted to nearby

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

Powell County. The features continue to display ample integrity, conveying the process and importance of the industry. The Grant-Marshall Lime Kiln Historic District is eligible for listing in the National Register of Historic Places under criteria A and C.

---

**Narrative Statement of Significance** (Provide at least **one** paragraph for each area of significance.)

The lime burning industry is an important, but overlooked, aspect of the historical development of Helena, Montana, in the late nineteenth and early twentieth centuries. Helena's fortunate proximity to outcrops of limestone made it convenient to establish quarries to mine the rock and build kilns to process the material into a form used for mortar, plaster, whitewash, and stucco. The arrival of the Northern Pacific and Montana Central railroads in the 1880s sparked a building boom in Montana's capital city that continued until a national economic depression ended the boom in 1893. Lime kilns were critical to the building boom to provide material needed for the construction of brick and masonry buildings and for the finishing of their interiors. The Grant-Marshall Lime Kiln Historic District represents that industry and the various aspects of it, including the presence of a simple pit kiln, the limestone quarry, staging area, and later tower kiln. Although the Grant-Marshall Lime Kiln represents a small, short-term enterprise, its operation proved important to at least one major construction project in Helena, the Helena High School. The development of the nearby Lenox Addition also benefited from its proximity to the operation of the Grant-Marshall Lime Kiln; buildings in the subdivision were dominated by brick and masonry homes. The kiln, moreover, appears to have been abandoned at the beginning of the Panic of 1893, an event that had a lasting impact on Helena. The Grant-Marshall Lime Kiln Historic District is eligible for the National Register of Historic Places at a local level of significance under Criterion A.

Although abandoned since near the turn-of-the-twentieth century, the Grant-Marshall Lime Kiln Historic District displays good integrity, representing all aspects of the lime burning industry at the time. Located at its original site adjacent to a productive outcrop of limestone, the layout of the features continues to impart the story of the industry on the property. The original pit kiln constructed on-site remains, and the tower kiln and cooling shed are mostly intact, although deteriorated (the kilns have not been actively maintained in well over a century). The construction features, including the fire holes and clean out hole, associated with the tower kiln are present, if somewhat degraded by time. Materials associated with its operation, i.e. fire brick, are present. The quarry, while long abandoned, is readily identifiable as such, and the staging area is still present. The Grant-Marshall Lime Kiln Historic District is eligible for listing in the National Register at a local level of significance under Criterion C.

**Helena History**

The Grant-Marshall Lime Kiln Historic District is located in the mountains bordering the south city limits of Helena, Montana. The Boulder Mountains contain a rich and varied geology that includes the mineral rich Boulder batholith and outcrops of dolomite, a hard, sedimentary carbonate rock formed approximately 520 million years ago. Significant outcrops of Madison Limestone are also present in the mountains in proximity to Helena and were important to the development of the city in the late nineteenth century. About 350 million years ago, much of Montana was submerged under a shallow sea. Billions of tiny marine creatures thrived in the water and when they died their bodies settled into the muck on the sea

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

bed. After hundreds of millions of years of accumulation and many more millions of years of geological heat and pressure, the muck metamorphosed into the pale gray rocks that are known today as Madison Limestone. The limestone is common throughout western and southwestern Montana, eastern Idaho, northern Wyoming, and in the Dakotas. In Montana, the limestone beds range from 1,000 to 2,000 ft. thick in places; in Helena, the bed outcrops all along the south border of the valley at the base of the Boulder Batholith.<sup>7</sup>

Meriwether Lewis provided the first written description of the Helena valley on July 21, 1805, when he called it “a handsome and an extensive valley.” Undoubtedly a few Euro-American fur trappers and traders were familiar with the valley in the decades following the Lewis and Clark Expedition. In the 1850s, Lieutenant John Mullan of the US Corps of Topographical Engineers skirted the valley several times while in search of a route for both a transcontinental railroad and wagon road in the northern Rocky Mountains and Pacific Northwest. In 1860, he completed construction of the wagon road between Walla Walla, Washington and Fort Benton on the upper Missouri River. The road went around the valley to the west, but Mullan had great hopes for the future development of the valley as more Euro-Americans entered the area. In 1863, he reported that in the Helena Valley “will be found several small and choice localities for farms, and if the mines on the eastern slope prove successful, I look forward to much hope to see all these creeks settled and fine farms development under the hand of the Rocky Mountain farmer.”<sup>8</sup>

In July 1862, prospectors discovered rich placer gold deposits on Grasshopper Creek in southwestern Montana about 150 miles south of Helena. The discovery caused a stampede to the new diggings and spawned the founding of Bannack on the bench adjacent to the creek. Word of the discovery came at just the right time. The placer mines in Colorado and Idaho had about “played out,” with the result that large numbers of transient men were in the region searching for new gold strikes with no real desire to return to the “States,” then embroiled in the Civil War. As the good claims on Grasshopper Creek were taken, prospectors fanned out across the region in search of new bonanzas. Prospectors made even richer gold discoveries on Alder Creek in 1863 and Last Chance and Confederate gulches in 1864. The ensuing stampedes resulted in the establishment of Virginia City, Helena, and Diamond City.<sup>9</sup>

In late July 1864, four prospectors, erroneously called the Four Georgians, discovered extraordinarily rich gold placers on Last Chance Gulch about 1½ miles west of the Grant-Marshall Lime Kiln Historic District. The discovery generated a stampede to the new diggings and, by late 1864, hundreds of miners worked the winding gulch in search of gold. A mining camp was built to the south of the mines and on the benches on both sides of the gulch. At a meeting of the Miners’ Court in October 1864, residents of the mining camp christened the new camp “Helena.” Unlike remote Virginia City and Bannack, Helena

---

<sup>7</sup> David Alt and Donald W. Hyndman, *Roadside Geology of Montana*, (Missoula: Mountain Press Publishing, 1986), 272-73.

<sup>8</sup> Gary E. Moulton, ed., *The Definitive Journals of Lewis and Clark: From Fort Mandan to Three Forks*, (Lincoln: University of Nebraska Press, 2002), 412; John Mullan, *Report of the Construction of a Military Road from Fort Walla-Walla to Fort Benton*, (Washington DC: Government Printing Office, 1863), 42-43, 143.

<sup>9</sup> Merrill G. Burlingame, *The Montana Frontier*, (Helena: State Publishing Co, 1942), 85, 87-88, 90-91; Michael P. Malone, Richard B. Roeder and William L. Lang, *Montana: A History of Two Centuries*, rev. ed. (Seattle: University of Washington Press, 1991), 65, 67, 233.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

was strategically located near the Mullan Road and the road between Fort Benton and Alder Gulch. It was also located very near two already established mining camps, Montana City and Silver City. The richness of the mines in the Helena area contributed to the establishment of new roads to Virginia City, Bannack, Butte, the Gallatin Valley, and, after December 1864, Confederate Gulch in the nearby Big Belt Mountains. Helena's central location on the territory's transportation network, proximity to good agricultural land in the adjacent Helena Valley and to other mining districts made it the preeminent settlement in Montana Territory by the early 1870s. In recognition of its ascendancy in the territory, the 1874 Montana legislature designated Helena the territorial capital and relocated it from Virginia City, whose fortunes had been on the decline for several years.<sup>10</sup>

As with other mining camps in Montana, fire was an ever-present danger to Helena. Conflagrations periodically decimated the city in the 1860s and 1870s. Each time the camp rebuilt, oftentimes replacing the flimsy wooden buildings with more substantial structures built of stone or brick. The arrival of the Northern Pacific Railway in Helena in June 1883 sparked an economic boom in the city that continued until 1892. During that period, Helena transformed from a shabby-looking settlement of wooden commercial buildings, shacks, and log cabins, to a modern late nineteenth century metropolis. Locally quarried stone and manufactured brick replaced wood in both the commercial and residential areas of Helena. Brick and stone walls also required lime for mortar. The masonry buildings required more substantial interior finishes that required the use of lime for plaster and ceiling finishes. Smelters utilized lime for flux in the smelting process. Consequently, the lime manufacturing industry flourished in Helena beginning about 1879. The building boom came to an end in 1893 when a nationwide economic depression ended most construction in Helena.<sup>11</sup>

Even with the economic depression, construction continued on a much-reduced scale in the Queen City. In 1890, real estate developer Peter Winne created the Lenox Addition "to build homes to rival any of the fine homes" on Helena west side. The addition was located about one mile east of downtown Helena and about a half-mile north of the Boulder Mountains. Over the course of 20 years, from 1890 to 1910, the real estate firm of Wallace and Thornburgh sold lots for 20 residences in the addition. The Grant-Marshall Lime Kiln was located a little over a mile southeast of the addition. In 1892, Congress designated Helena the site of a new military post, Fort William Henry Harrison (24LC0123). Construction at the fort from 1894 to 1909 consisted of brick buildings with finished interiors, all of which required lime.<sup>12</sup>

The Panic of 1893 soundly ended the building boom Helena enjoyed since 1883. Other than at Fort Harrison, little significant construction occurred in the Queen City until around 1900 when the depression

---

<sup>10</sup> Burlingame, *The Montana Frontier*, 387; Muriel Sibell Wolle, *Montana Pay Dirt*, (Athens, OH: Sage Books, 1963), 82; Ellen Baumler, *Helena, The Town That Gold Built: The First 150 Years*, (San Antonio: HPHBooks, 2014), 7-9.

<sup>11</sup> Malone, et al, *Montana*, 215, 217; Baumler, *Helena*, 18.

<sup>12</sup> Harriet C. Meloy, "Lenox, Exclusive East-side Subdivision," in Jon Axline, et al., *More from the Quarries of Last Chance Gulch*, (Helena: Independent Record, 1995), 90-93; Fort Harrison VA Hospital Historic District, National Register of Historic Places Nomination, listed 20 December 2016 (#16000874). Nomination on file at the Montana State Historic Preservation Office. Helena, Montana.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

finally ended. As Montana's capital city, Helena's development remained steady until economic depression and war caused a curtailment in the city's prosperity. Helena again boomed following World War II with the expansion of state government, the presence of the Veterans Administration hospital at Fort Harrison, increased military spending, and the construction of Canyon Ferry Dam. Residential growth moved away from the downtown area to the east of the city; the Lenox Addition became integrated with the city as modern residences infilled the formerly remote addition. State government has ensured Helena of a stable economy and contributed to additional residential growth into the area surrounding the Grant-Marshall Lime Kiln. While somewhat isolated from the city during its years of operation, the kiln has been the site of considerable recreational activity since the late 1960s.

### **The Limestone Industry in Helena, c. 1870-1893**

The use of limestone for various purposes has occurred for thousands of years. The processing of limestone into lime originated some 7,000 years ago in present-day Turkey. Used primarily for mortar in building construction, farmers eventually learned that lime could also be worked into the soil to neutralize acidic soils. The Romans mixed lime with volcanic ash to create a type of cement used in construction.

The presence of limestone in what would become Montana was first noted by the Lewis and Clark Expedition in 1805. With the discovery of gold on Grasshopper Creek and Alder Gulch in the early 1860s, newspaper editors and promoters commented on the abundance of limestone in the territory. They were, however, more far more concerned about limestone in proximity to mining operations for use in the smelting process than for use as a building material. It wasn't until 1875 that the first references to lime burning appeared in the territorial newspapers.<sup>13</sup>

Since at least the seventeenth century, lime kilns assumed the basic design as that of the Grant-Marshall kiln: built into the hillside to allow the easy transport and deposit of limestone into the open top of the kiln. Operators of early kilns placed the fuel for its firing at the base of the kiln and pulled the baked limestone out through holes in the front of the kilns, reflected by the Grant-Marshall tower kiln. Locating and developing a lime kiln extended beyond the functional placement of the kiln near the limestone and fuel source, placement was also predicated upon the need to situate them away from populated areas "as they gave off noxious and potentially lethal gases." The development of the Grant-Marshall kiln reflected the logical placement far enough away from populated areas to avoid issues with potential off-gassing from the operation, yet close enough to serve potential customers in a practical and efficient manner. The Grant-Marshall kiln, like most kilns in the late nineteenth century in the United States, represented a minimal capital investment, a low cost of operation, and good flexibility of operations.<sup>14</sup>

Helena's boosters early on recognized the benefits of the proximity of large outcrops of Madison Limestone to Helena. The Helena Board of Trade wrote in its 1887 report on business conditions in Helena that:

---

<sup>13</sup> "The New Agency," *The Bozeman Avant Courier*, 30 July 1875.

<sup>14</sup> Brian Kaller, "Burning the Bones of the Earth: Lime Kilns," *Low-Tech Magazine*, viewed at <http://www.low-techmagazine.com/2013/09/lime-kilns.html>; P. C. Okonkwo and S. S. Adefile, "Strategies for Operations of Vertical Shaft Kilns," *International Journal of Applied Science and Technology*, vo. 2, no. 2 (February 2012), np.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

Then comes our renowned lime rock, which is found in the city limits quarried from excavations, and towers above us from the crowning bluffs of Mount Helena in quantities that would furnish a hundred Londons, which burned into lime and mixed with our decomposed granite sand forms a cement that hardens as adamant when worked with brick and stone.<sup>15</sup>

Helena's fortunate proximity to extensive limestone outcrops was a recurring theme in promotional literature published about the Queen City. In 1890, the Board of Trade wrote that "no city in the world is so abundantly supplied with building stone as Helena. Granite, sandstone, marble, porphyry, flag rock and lime rock are near our doors."<sup>16</sup>

One of the larger and noteworthy operations in the Helena area began in 1879, when Joseph O'Neill hired D. B. L. Cullough to construct a lime kiln on Grizzly Gulch for \$2,500. A native of Massachusetts, Joseph O'Neill arrived in Helena in 1865 from Alder Gulch and operated a freighting business and livery stable on South Main Street. In 1867, he added lime burning to his many business ventures in the city. The kiln constructed by Cullough was the first built and operated under a patent Cullough obtained for the process in 1875. O'Neill's kiln produced around 250 bushels of lime every 24 hours and burned about three cords of wood every day.<sup>17</sup> The *Helena Independent* newspaper sent a reporter to the kiln. His subsequent article described the lime burning process in Helena:

The kiln is built on a hillside, is about 30 feet high, is of solid granite walls and lined with fire brick. It is divided into three departments or stories. The lowest apartment is level with the bottom of the gulch and is enclosed within a large frame building, large enough to store many hundred bushels of lime. The opening of a large iron door in the kiln permits the dropping down, almost without assistance, of the lime which has been burned. In the second store, which is easily reached from the hillside, are three distinct furnaces – two which are in one side, and the third in the opposite side. The heat of these three furnaces is conducted in the center of the kiln, which chamber receives the lime rock at the top. The heat of the furnaces is very great; sufficient, it is thought, to melt readily ordinary ores.

By 1884, O'Neill operated two kilns on Grizzly Gulch with a third under construction. The building boom then sweeping Helena meant that the two completed kilns operated at full capacity. Unlike O'Neill's first kiln, the more recent kilns structures included rubblestone cooling sheds in their construction. The limestone quarry that supplied the kilns was on the hillside above all three kilns, similar to the later-constructed Grant-Marshall kiln. Prior to the construction of the tower kilns, it appears likely O'Neill operated pit kilns on the northwest side of Grizzly Gulch Road, opposite the later tower kilns. While more expedient to construct, pit kilns proved to be less efficient in their ability to produce

<sup>15</sup> Robert C. Walker, *Helena Board of Trade Report for 1887*, (Helena: Helena Board of Trade, 1887), 52.

<sup>16</sup> "Building Material." *The Helena Weekly Herald*, 25 August 1887; Helena Board of Trade, *Helena Illustrated*, (Minneapolis: Frank L. Thresher, Publisher, 1890), 10; W. E. Cox, *Helena, Montana*, (Helena: The Author, 1890), 4.

<sup>17</sup> "Patent Lime Kilns," *The Helena Independent*, 26 June 1879.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

lime compared to the tower style kilns; the pit kilns had been “excavated in the soft earth at the sides of the gulch long ago and . . . were not designed to be of lasting character.”<sup>18</sup>

O’Neill operated the kilns until the onset of the Panic of 1893 when he leased them to James Kerwin and James McKelvey (a former O’Neill employee).<sup>19</sup> In the late 1890s, the lease fell to McKelvey alone. The operation prospered until 1905 when competition from the Elliston Lime Company, 20 miles west of Helena, forced McKelvey to shutter his operation.<sup>20</sup> While perhaps the best known, the O’Neill and Kerwin lime kilns weren’t the only kilns operating in the Helena vicinity. Kilns were located on Lime Kiln and Oro Fino gulches near Grizzly Gulch, and near the Adams Street water reservoir east of Grizzly Gulch.<sup>21</sup>

### **The Grant-Marshall Lime Kiln Historic District**

While not as well documented as the O’Neill operations, the Grant-Marshall Lime Kiln provides an interesting story of a small and short-term operation. The property, located between two mining claims, the Red Letter and the Humboldt Lode, dates from approximately the time both were established. Brothers Abel and Charles Newberry and William Leek appear to be the first to develop the property, circa 1884, with the construction of the earlier pit kiln. Advertisements in summer issues of the 1884 *Helena Independent* stated the availability of “Fresh lime at East Side Lime Kiln.” The lime kiln was reported to be located in the “vicinity” of the old Catholic Cemetery (on Townsend Street) in the Helena Valley. Although the old Catholic Cemetery lays about two miles north of the location of the Grant-Marshall Lime Kiln Historic District, it quite likely the advertisement refers to Newberrys’ and Leek’s pit kiln as no limestone outcrops occur in the immediate vicinity of the cemetery, and no other lime operations are known to have existed in this area at the time. By 1900, Abel disappeared from the city directories, while Charles continued to work as a carpenter in Helena.<sup>22</sup>

Lime operations picked up speed in the Helena area by the late 1880s based on advertisements for lime manufacturers, the first appearing in the 1889 *Ide’s Helena City Directory* continuing until 1901 with space in the Polk Directory for Helena. Joseph O’Neill and James Kervin’s lime kilns on Grizzly Gulch appear in the directories from 1889 until 1901. W. W. Winkleman operated a lime kiln near his residence on Hillsdale Avenue for a short time in the 1890s. Winkleman went on to do the initial development work on the limestone quarry and kilns near Elliston 20 miles west of Helena. Other advertisements for

---

<sup>18</sup> The earlier pot kilns are still discernable on the northwest side of Grizzly Gulch Road near its intersection with Oro Fino Gulch Road. Grizzly Gulch Lime Kilns. Architectural Inventory Form, Helena West Main Street Historic District (listed February 22, 1996, NR # 96000119). Form on file at the Montana State Historic Preservation Office, Helena, Montana; “Lime Burning,” *The Helena Independent*, 14 June 1884.

<sup>19</sup> The kilns are still owned by McKelvey’s descendants.

<sup>20</sup> McKelvey eventually assumed ownership of the Grizzly Gulch lime kilns. His family still owns the kilns. Grizzly Gulch Lime Kilns. Architectural Inventory Form, Helena West Main Street Historic District (listed February 22, 1996, NR # 96000119); Clyde Reichelt, “Lime Quarried, Processed at Elliston,” *The Great Falls Tribune*, 8 December 1963.

<sup>21</sup> Jon Axline, “Lime Kilns Crucial in Helena’s Development,” in Axline, et al., *More from the Quarries of Last Chance Gulch*, 94-97.

<sup>22</sup> “Board and Rooms,” *The Helena Independent*, 18 July 1884; R. L. Polk & Co., *Helena City Directory*. (Salt Lake City: R.L. Polk & Co., Publishers, 1900).



The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

lime manufacturers included one by two men, James S. Grant and John W. Marshall who operated a lime kiln “east city limits south of Eighth Avenue.” Evidence strongly suggests this references the Grant-Marshall Lime Kiln Historic District.<sup>23</sup>

James S. Grant arrived in Helena about 1888 and listed his occupation in the city directory as a contractor.<sup>24</sup> John W. Marshall listed his occupation as a carpenter. The two went into business together in 1889. It appears that the men either purchased or acquired the business in some other manner from the Newberry brothers and Mr. Leek, and probably built the tower kiln in 1889 utilizing mine rails acquired from the adjacent Red Letter or Humboldt Lode mines or purchased at one of Helena’s hardware stores. Once the operation was up and running, Grant partnered with contractor Stephen F. Whalen in 1890; the two bid for the contract to construct the second Helena High School near the intersection of Lawrence Avenue and North Warren Street. The City of Helena awarded the men the contract to build the Romanesque-style granite building, which was completed in 1892. Enormous amounts of lime would have been needed for mortar and the interior plastering. The men dissolved their business partnership in 1892 upon completion of the high school and left Helena. Whalen disappeared into history, but Grant went to work as a foreman and mason at the Montana Sandstone Company in Columbus, Montana.<sup>25</sup> It also remains unknown what happened to James Marshall.

The dissolution of the Grant and Whalen partnership in 1892 corresponds to the disappearance of advertisements for the lime operation from the Polk directory after that date providing a strong end date for the cessation of operations at the Grant-Marshall Lime Kiln Historic District. Based on James S. Grant’s time in Helena, lime produced at the kiln was likely used chiefly for the construction of the high school from 1890 to 1892, with lesser amounts used for the construction and finishing of residences at the nearby Lenox Addition. One last likely reference to the kiln occurred in the May 1903 *Lenox Lance*, a newsletter produced by the residents of the addition. The author of the newsletter wrote that “The picnic season opened Thursday, April 9<sup>th</sup>, when the Lenox school and its guests went on a days [sic] outing in the hills near Smithers’ lime kiln.” Samuel L. Smithers owned a shoe store on Last Chance Gulch and lived in a substantial home on Helena’s west side. No other Smithers are listed in the Helena city directories; while uncertain, it seems quite likely, based on the proximity of the Lenox Addition to the Grant-Marshall Lime Kiln Historic District, that the “Smithers’ Lime Kiln” is one and the same as Grant-Marshall Lime Kiln Historic District kiln.<sup>26</sup>

---

<sup>23</sup> C. C. Beckwith, comp., *Ide’s Helena City Directory*, (Helena: A. W. Ide, Publisher, 1889); R. L. Polk & Co., *Helena City Directory*. (Salt Lake City: R.L. Polk & Co., Publishers, 1890-1901); Reichelt, “Lime Quarried.”

<sup>24</sup> Grant listed his occupation as a mason in the 1890 Polk Directory.

<sup>25</sup> The high school building was demolished in 1976 as part of Helena’s urban renewal program. Beckwith, *Ide’s Helena City Directory*; R. L. Polk & Co., *Helena City Directory*; “New High School,” *The Helena Independent*, 25 October 1890; “Notice of Dissolution,” *The Helena Independent*, 13 April 1892; Ellen Baumler and Dave Shors, *Lost Places, Hidden Treasures: Rare Photographs of Helena*, (Helena: Far Country Press, 2002), 67; US Census Records.

<sup>26</sup> One thing to consider is that it may have been the name given to the kiln by local residents for an unknown reason. Indeed, the kiln was simply known as “The Castle” by residents in the upper eastside neighborhoods in the 1960s and 1970s. In any case, Samuel Smithers had nothing to do with the operation of the kiln; *Helena City Directories*; *The Lenox Lance*, vol. 1, no. 2 (May 1903), 2.

The Grant-Marshall Lime Kiln Historic District

Name of Property

Jefferson, MT

County and State

In June 1913, Joseph Martinz filed a 338-acre homestead claim, which included the property encompassing the kiln. He obtained the patent to the property in July 1919. Born in the Austro-Hungarian Empire in 1869, Martinz immigrated to the United States in 1893 and worked for the Northern Pacific Railway in the Deer Lodge area until 1900, returning to the empire to marry his wife, Ursula. The couple returned to Montana, settling in Helena in 1905. He worked as a laborer for the City of Helena until 1913 when he filed for his homestead south of the city. Martinz farmed and ranched his property until January 1948 when he sold it to William T. McCullough, the manager of the Montana Powder & Equipment Company.<sup>27</sup> McCullough sold the property to Helena area rancher George Diehl in November 1955. He transferred ownership of it to the Diehl Ranch Company in December 1959. It retained ownership of the kiln site until 1985. The company developed the area as a residential subdivision beginning about 1973. The City of Helena purchased the property as part of its Open Spaces program in July 2009.<sup>28</sup>

### **Lime Processing**

The lime kilns in the Helena area are classified as dead kilns because they did not operate continuously when in use. Instead, they burned limestone for a specific period of time, usually 24 to 48 hours, and then were shut down and allowed to cool before the limestone was pulled from the clean out hole and pulverized into lime.

Although great amounts of heat were required to produce the lime, making lime from limestone was relatively low tech. The kilns were situated next to and below the limestone quarries in locations where the limestone proved easy to extract. Extraction consisted either of the use of quarrymen prying loose the stone or blasting it away from the hillsides. They then conveyed the limestone by hand cars along a graded track or a ramp and dumped the material into the top of the kiln. From fire holes in the sides of the kiln, they heated the rock to 1,648° F and baked it for 48 hours. Fuel for the kilns was pine wood cut in the surrounding hills. A kiln generally used three cords of wood every 24 hours and typically ran day and night for several days. At the end of that time, the fires were allowed to go out and the limestone cooled and contracted, falling into the clean out holes in the front of the kilns. The kiln's operators then pulled the limestone into the cooling shed from the clean out hole. They stacked the material and then pulverized the now brittle limestone to a fine powder. Running day and night, a kiln could produce up to three tons of lime every day. Horse or mule-drawn wagons then hauled the lime to the construction site, where it was slaked with water and mixed with sand for mortar and stucco.<sup>29</sup>

---

<sup>27</sup> "Notice of Publication," *The Helena Independent*, 15 January 1919; General Land Office Records, viewed at [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov); US Census Records; "Joseph Martinz, 83, Mount Ascension Area Rancher, Dies," *The Helena Independent Record*, 20 March 1953; Deed Book 70, p. 169, Clerk and Records Office, Jefferson County Courthouse, Boulder, Montana.

<sup>28</sup> Deed Book 78, p. 124; Ibid, book 82, p. 319; Ibid, book 112, p. 267; Document No. 234238, Clerk and Records Office, Jefferson County Courthouse, Boulder, Montana.

<sup>29</sup> Axline, "Lime Kilns Crucial in Helena's Development," 94-95; Jim Warner, "Industrial Archaeology in the Classroom: Lime Kilns," Manuscript on file at the Montana Historical Society Research Center. Helena, Montana, p. 2.

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

---

## 9. Major Bibliographical References

### Bibliography (Cite the books, articles, and other sources used in preparing this form.)

- Advertisement: Newberry & Leek. *The Helena Independent*, 18 July 1884.
- Axline, Jon, et. al. *More from the Quarries of Last Chance Gulch*. Helena: Helena Independent Record, 1995.
- Baucus, Jean. *Helena: Her Historic Homes*. Vol. 2. Helena: Bar Wineglass Publishing Co., 1979.
- Baumler, Ellen. *Helena, The Town That Gold Built: The First 150 Years*. San Antonio: HPNBooks, 2014.
- Beckwith, C. C., comp. *Ide's Helena City Directory*. Helena: A. W. Ide, Publisher, 1888, 1889.
- "Building Material." *The Helena Weekly Herald*, 25 August 1887.
- Burlingame, Merrill G. *The Montana Frontier*. Helena: State Publishing Co., 1942.
- Cox, W. E. *Helena, Montana*. Helena: The Author, 1890.
- "Eleventh Avenue Improvement." *The Helena Independent*, 5 August 1918.
- "For Assessment Work." *The Helena Independent*, 2 June 1892.
- General Land Office Records. Viewed at [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov).
- Gilman, Daniel Coit, ed. "Kiln" in *The New International Encyclopedia*. New York: Dodd, Mead and Company, 1904.
- "Helena as She Was, Images of Montana's Capital City," [http://www.lifelikecharm.com/buildings\\_of\\_note.htm](http://www.lifelikecharm.com/buildings_of_note.htm), downloaded November 11, 2009.
- Helena Board of Trade. *Helena Illustrated*. Minneapolis: Frank L. Thresher, Publisher, 1890.
- "Joseph Martinz, 83, Mount Ascension Area Rancher Dies." *The Helena Independent Record*, 20 March 1953.
- Kaller, Brian. "Burning the Bones of the Earth: Lime Kilns." *Low-Tech Magazine*. Retrieved 13 January 2017. <http://www.lowtechmagazine.com/2013/09/lime-kilns.html>.
- The Lenox Lance*. Newsletter. Published 1903. Lenox Addition vertical file. Montana Historical Society Research Center. Helena. Montana.
- "Lime Burning." *The Helena Independent*, 14 June 1884.

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

Humboldt Lode (24LC0543). Montana Cultural Resources Information System (CRIS) Form prepared by Ken Dickerson for the Montana Department of Environmental Quality. Helena, Montana.

Malone, Michael P., Richard B. Roeder, and William L. Lang. *Montana: A History of Two Centuries*. Rev. ed (Seattle: University of Washington Press, 1991).

“New High School.” *The Helena Independent*, 25 October 1890.

“Notice of Dissolution.” *The Helena Independent*, 13 April 1892.

“Notice of Publication.” *The Helena Independent*, 15 January 1919.

Okonkwo, P.C. and S. S. Adefile. “Strategies for Operations of Vertical Shaft Kilns.” *International Journal of Applied Science and Technology*, vo. 2, no. 2 (February 2012).

Paladin, Vivian and Jean Baucus, *Helena: An Illustrated History*. Helena, MT: Montana Historical Society Press, 1996(1983).

“Patent Lime Kiln.” *The Helena Independent*, 26 June 1879.

R. L. Polk & Co., *Helena City Directory*. Salt Lake City: R.L. Polk & Co., Publishers, 1890-1917.

Raleigh, A. D. *Twentieth Century Souvenir: Lewis and Clarke County*. Helena: The Author, 1901.

Reichelt, Clyde. “Lime Quarried, Processed at Elliston.” *The Great Falls Tribune*, 8 December 1963.

Sanborn Fire Insurance maps, 1930; 1930 updated to 1951; 1930 updated to 1958.

Schulz, James G. “The Geology of the Architecture of Historical Buildings in Helena, Montana.” Master of Science Thesis. Northern Arizona University, August 1998.

“Sheriff’s Sale.” *The Helena Independent*, 27 June 1892.

United States Census Records. Viewed at [www.ancestry.com](http://www.ancestry.com).

Walker, Robert C. *Helena Board of Trade Report for 1887*. Helena: Helena Board of Trade, 1887.

Walsh, Caryn Jean. “Business on the Upper Gulch: Helena, 1870-1890. Montana State University, Bozeman. Spring Quarter 1981.

Warner, Jim. “Industrial Archaeology in the Classroom: Lime Kilns.” August 1992. Manuscript on file at the Montana Historical Society Research Center. Helena, Montana.

Witteman, A. *Souvenir of Helena, Montana in Photogravure from Recent Negatives*. New York: The Albertype Co., 1892.

Wolle, Muriel Sibell. *Montana Pay Dirt*. Athens, OH: Sage Books, 1963.

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

**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 # \_\_\_\_\_
- recorded by Historic American Landscape Survey # \_\_\_\_\_

**Primary location of additional data:**

- State Historic Preservation Office
  - Other State agency
  - Federal agency
  - Local government
  - University
  - Other
- Name of repository: Montana Department of Transportation

**Historic Resources Survey Number (if assigned):** \_\_\_\_\_

---

**10. Geographical Data**

**Acreage of Property**        @ 1.4

Use either the UTM system or latitude/longitude coordinates

**Latitude/Longitude Coordinates**

Datum if other than WGS84: \_\_\_\_\_

(enter coordinates to 6 decimal places)

- |                        |                        |
|------------------------|------------------------|
| 1. Latitude: 46.568460 | Longitude: -111.996280 |
| 2. Latitude:           | Longitude:             |
| 3. Latitude:           | Longitude:             |
| 4. Latitude:           | Longitude:             |

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

**Verbal Boundary Description** (Describe the boundaries of the property.)

The Grant-Marshall Lime Kiln Site is located in Jefferson County, Montana at Latitude 46.568460, Longitude -111.996280 (SW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> of Section 4, T9N, R3W). The property is situated along the side of an unnamed gulch off Helena's upper east side. The district occupies a less-than two-acre forested parcel owned by the City of Helena and a private party. The district includes the features associated with the operation of the lime kiln from 1889 to 1903.

**Boundary Justification** (Explain why the boundaries were selected.)

The boundary is drawn to encompass the lime kiln, staging area, quarry, and pit kiln associated with the operation of the kiln.

---

**11. Form Prepared By**

name/title: Jon Axline/Historian  
organization: \_\_\_\_\_  
street & number: 448 Parriman Street  
city or town: Helena state: MT zip code: 59602  
e-mail [jaxline@mt.gov](mailto:jaxline@mt.gov)  
telephone: 406-422-2111  
date: April 10, 2017

---

The Grant-Marshall Lime Kiln Historic District  
Name of Property

Jefferson, MT  
County and State

### Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.  
**Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

---

### Property Owner:

(Complete this item at the request of the SHPO or FPO.)

---

name City of Helena

street & number 316 North Park Avenue telephone (406) 447-8000

city or town Helena state MT zip code 59623

---

name Thomas and Linda Zderick

street & number P.O. Box 7237 telephone \_\_\_\_\_

city or town Helena state MT zip code 59604

---

### Photographs

#### Photo Log, All Photographs:

Name of Property: The Grant-Marshall Lime Kiln Historic District

City or Vicinity: Helena vicinity

County: Jefferson State: MT

Photographer: Jon Axline and Pam Attardo

Date Photographed: April 4, 2017

Please See Continuation Sheets

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

The Grant-Marshall Lime Kiln Historic  
District

Name of Property

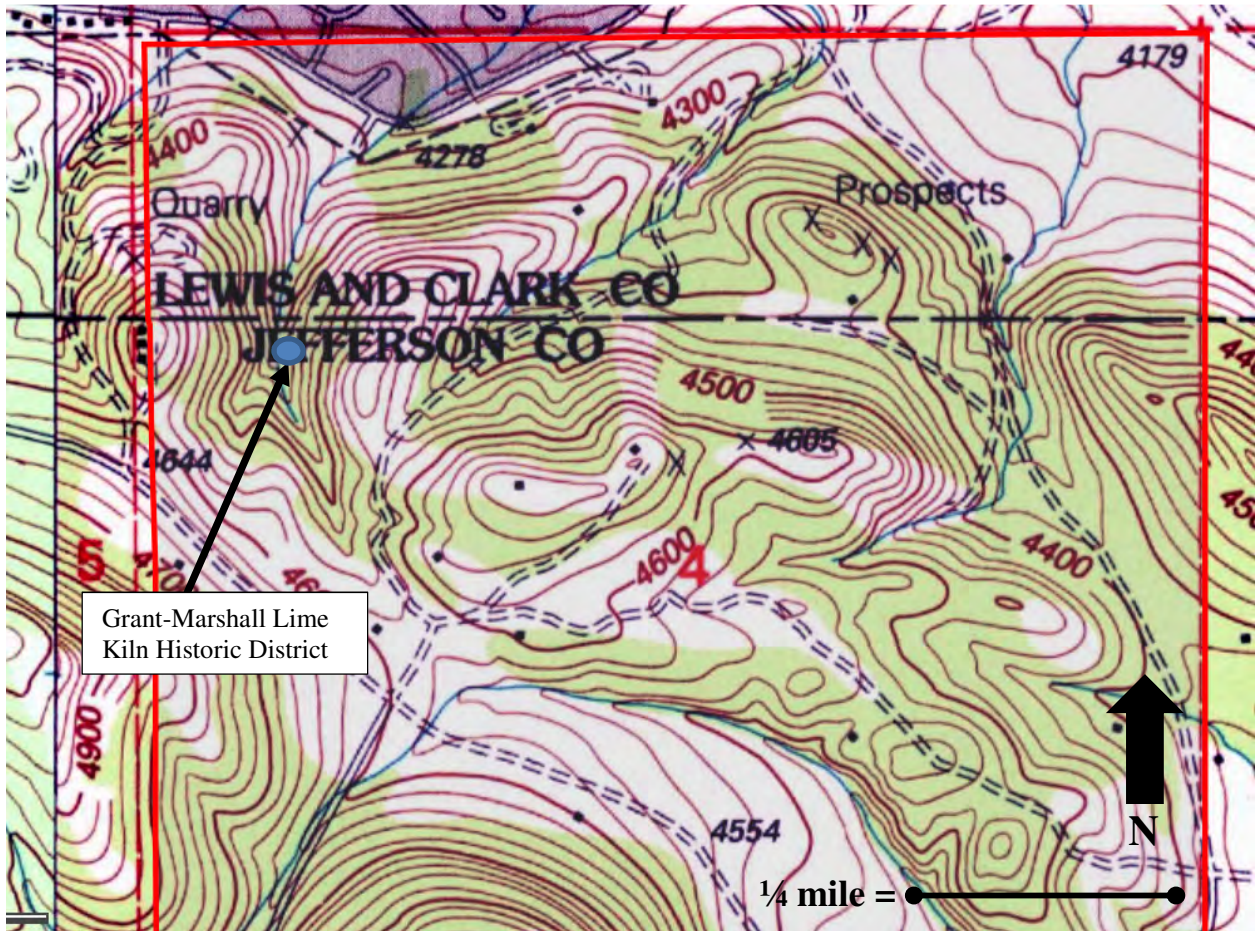
Jefferson, MT

County and State

Name of multiple listing (if applicable)

Section number Maps and Additional Documentation

Page 24



Location of Grant-Marshall Lime Kiln Historic District. Found on the East Helena, Montana, 7.5 ' Provisional Edition topographic map, 1985.



United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

The Grant-Marshall Lime Kiln Historic  
District

Name of Property

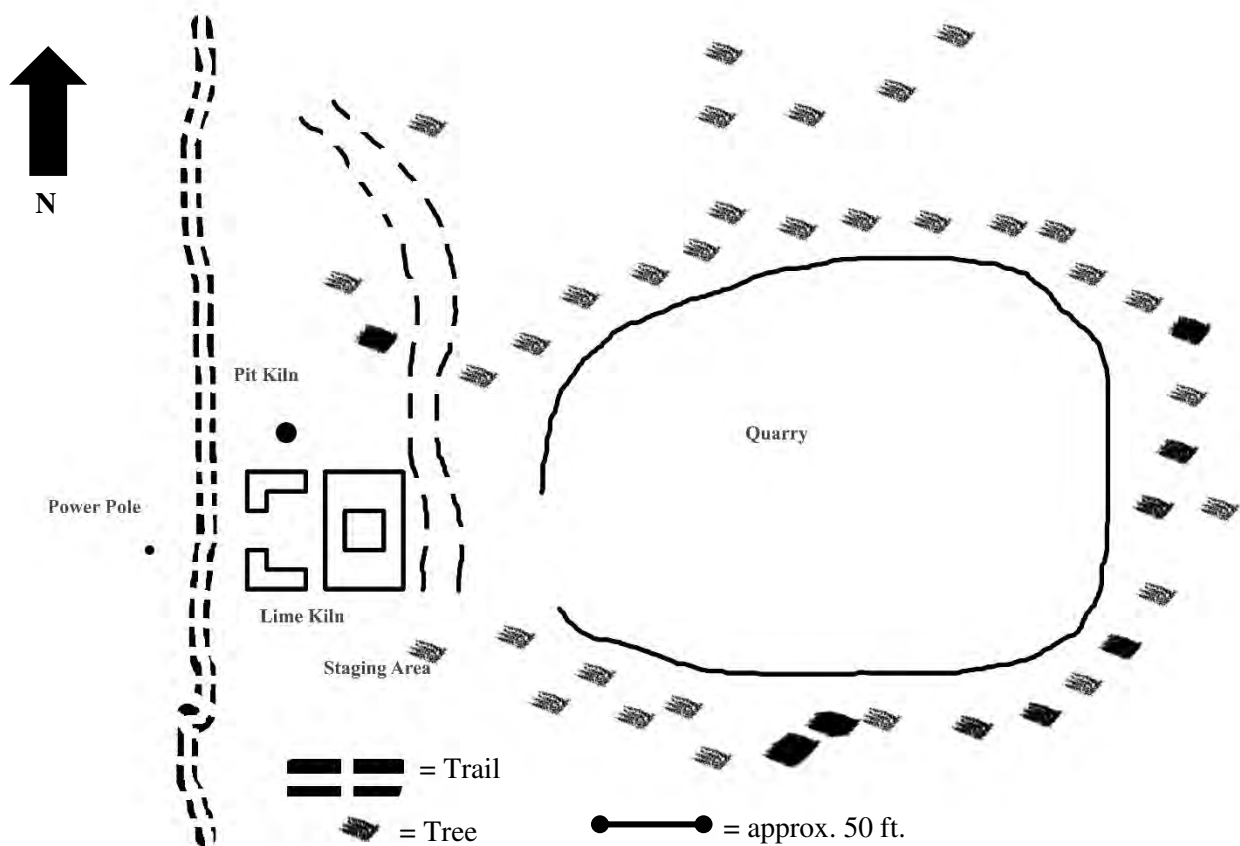
Jefferson, MT

County and State

Name of multiple listing (if applicable)

Section number Maps and Additional Documentation

Page 25



Sketch Map of the Grant-Marshall Lime Kiln Historic District

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

The Grant-Marshall Lime Kiln Historic  
District

-----  
Name of Property

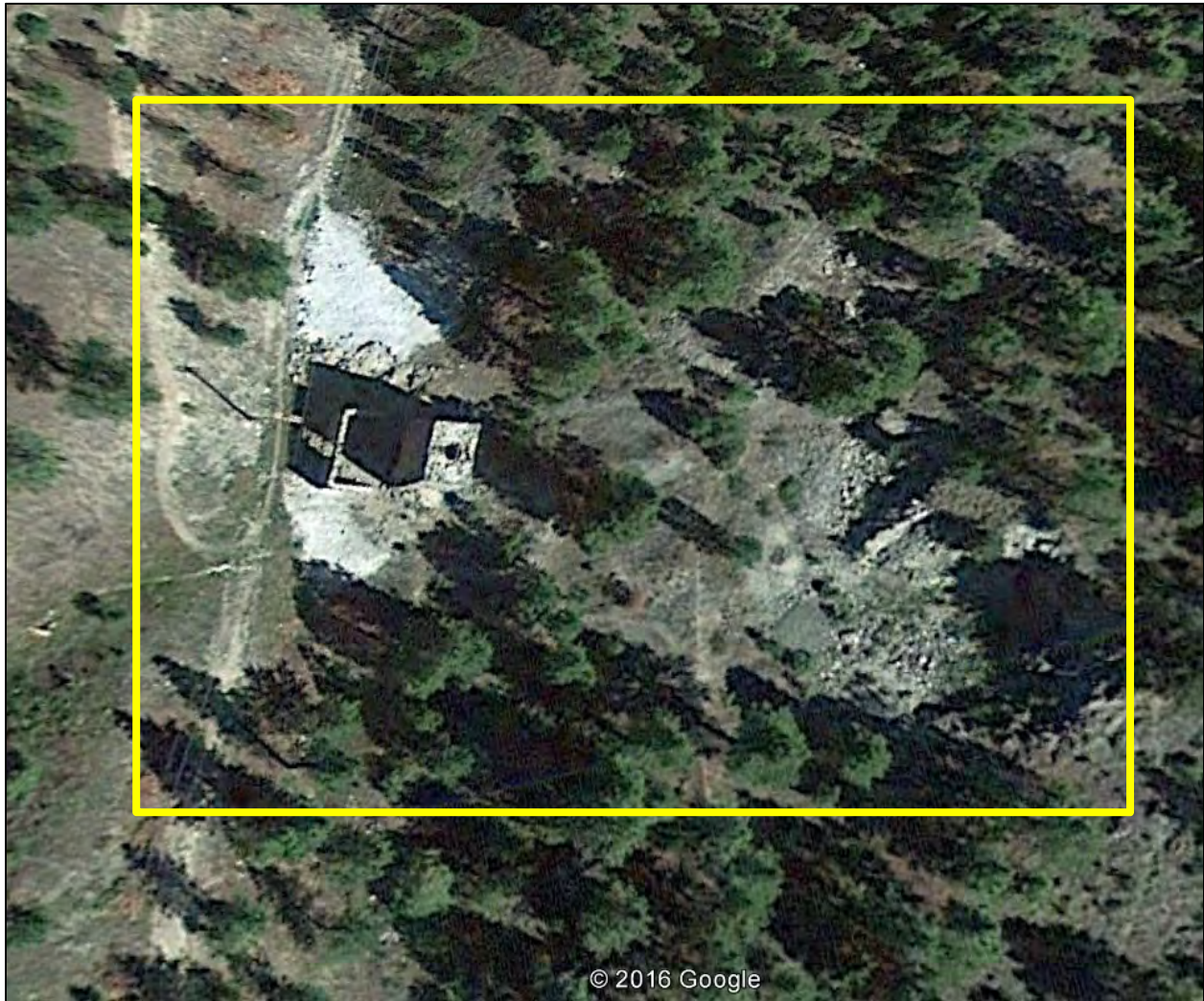
Jefferson, MT

-----  
County and State

-----  
Name of multiple listing (if applicable)

Section number Maps and Additional Documentation

Page 26



**Aerial Photograph of the Grant-Marshall Lime Kiln Historic District**

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

The Grant-Marshall Lime Kiln Historic  
District

Name of Property

Jefferson, MT

County and State

Name of multiple listing (if applicable)

Section number Maps and Additional Documentation

Page 27



Lime kiln on Grizzly Gulch south of Helena, Montana, circa 1885. The Grant-Marshall Lime Kiln operation probably looked much like this kiln. E. H. Train photograph. Montana Historical Society. Helena, MT.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 28



**Photo #0001: The Grant-Marshall Lime Kiln Historic District. Overview. View to the south. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 29



**Photo #0002: The Grant-Marshall Lime Kiln Historic District. Lime Kiln. View to the northeast. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 30



**Photo #0003: The Grant-Marshall Lime Kiln Historic District. West side of Lime Kiln. View to east. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 31



**Photo #0004: The Grant-Marshall Lime Kiln Historic District. West side of lime kiln. View to East. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 32



**Photo #0005: The Grant-Marshall Lime Kiln Historic District. North wall Kiln clean-out. View to Southwest. Photo date: April 4, 2017.**



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 33



**Photo #0006: The Grant-Marshall Lime Kiln Historic District. Cooling shed. View to the southwest. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 34



**Photo #0007: The Grant-Marshall Lime Kiln Historic District's cooling shed. View to the Southwest. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 35



**Photo #0008: The Grant-Marshall Lime Kiln Historic District. Rear of kiln from approach to loading ramp. View to the west. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 36



**Photo #0009: The Grant-Marshall Lime Kiln Historic District. Limestone quarry. View to the north. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 37



**Photo #0010: The Grant-Marshall Lime Kiln Historic District. Quarry. View to the southeast. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 38



**Photo #0011: The Grant-Marshall Lime Kiln Historic District. Staging Area. View to the south. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 39



**Photo #0012: The Grant-Marshall Lime Kiln Historic District. Staging Area. View to the north. Photo date: April 4, 2017.**

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 40



**Photo #0013: The Grant-Marshall Lime Kiln Historic District. Pit Kiln. View to the north.  
Photo date: April 4, 2017.**



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Grant-Marshall Lime Kiln Historic  
District

Name of Property  
Jefferson County, MT  
County and State

Name of multiple listing (if applicable)

Section number National Register Photographs

Page 41



**Photo #0014: The Grant-Marshall Lime Kiln Historic District. Pit Kiln. View to the northeast. Photo date: April 4, 2017.**































UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
EVALUATION/RETURN SHEET

Requested Action:

Property Name:

Multiple Name:

State & County:

Date Received: 10/30/2017      Date of Pending List: 11/27/2017      Date of 16th Day: 12/12/2017      Date of 45th Day: 12/14/2017      Date of Weekly List: 12/14/2017

Reference number:

Nominator:

Reason For Review:

- |                                       |  |   |
|---------------------------------------|--|---|
| <input type="checkbox"/> Appeal       | <input type="checkbox"/> PDIL            | <input type="checkbox"/> Text/Data Issue    |
| <input type="checkbox"/> SHPO Request | <input type="checkbox"/> Landscape       | <input type="checkbox"/> Photo              |
| <input type="checkbox"/> Waiver       | <input type="checkbox"/> National        | <input type="checkbox"/> Map/Boundary       |
| <input type="checkbox"/> Resubmission | <input type="checkbox"/> Mobile Resource | <input type="checkbox"/> Period             |
| <input type="checkbox"/> Other        | <input type="checkbox"/> TCP             | <input type="checkbox"/> Less than 50 years |
|                                       | <input checked="" type="checkbox"/> CLG  |   |

Accept       Return       Reject      12/14/2017 Date

Abstract/Summary Comments:

Recommendation/ Criteria

Reviewer Edson Beall      Discipline Historian

Telephone \_\_\_\_\_      Date \_\_\_\_\_

DOCUMENTATION:    see attached comments : No    see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.



October 26, 2017

J. Paul Loether, Keeper, National Register and National Historic Landmark Programs  
National Park Service  
National Register of Historic Places  
1849 C St., NW - Mail Stop 7228  
Washington, DC 20240

Dear Mr. Loether,

Enclosed please find the following nominations for your consideration for listing in the National Register of Historic Places:

**DeSmet (boat)** **Flathead County, Montana**  
Listed under the Glacier National Park Multiple Property Listing Amended (2016)

**Little Chief (boat)** **Glacier County, Montana**  
Listed under the Glacier National Park Multiple Property Listing Amended (2016)

**Grant-Marshall Lime Kiln Historic District** **Lewis and Clark County, Montana**

**Draft Horse Barn (Fergus County Fairgrounds)** **Fergus County, Montana**

**The enclosed disks contain the true and correct copies of the National Register nominations for the *DeSmet*, *Little Chief*, Grant-Marshall Lime Kiln Historic District, and the Draft Horse Barn (Fergus County Fairgrounds) to the National Register of Historic Places.**

Owners and public officials were notified in excess of 30 days prior to the Preservation Review Board meeting. In addition, a courtesy notification was provided to Glacier National Park (who waived their right to comment) regarding the potential listing of the *DeSmet* and *Little Chief*. The Lewis and Clark County CLG concurred with listing the Grant-Marshall Lime Kiln Historic District in the National Register. The Review Board unanimously recommended that these properties be nominated and I concur with its recommendations.

Thank you for your consideration.

Sincerely,



Mark Baumler, PhD  
State Historic Preservation Officer

Enclosure

225 North Roberts Street  
P.O. Box 201201  
Helena, MT 59620-1201  
(406) 444-2694  
(406) 444-2696 FAX  
montanahistoricalsociety.org