

Cultural Resources Assessment for the Proposed South Avenue
Bridge Crossing, Missoula, Montana

Submitted to:
HDR, Inc.
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HISTORICAL
RESEARCH
ASSOCIATES, INC.

This report was prepared by HRA Principal Investigator Chrisanne Beckner, MS, who meets the Secretary of the Interior's professional qualifications for architectural history, and Brian Herbel, MA, who meets the Secretary of the Interior's professional qualifications for archaeology. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to archaeological resources based on the results of HRA's investigation. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

Executive Summary

HDR, Inc. (HDR), contracted Historical Research Associates, Inc. (HRA), to provide cultural resources services for the proposed South Avenue Bridge Crossing, in Missoula County, Montana (Project). Missoula County is proposing to construct a new bridge over the Bitterroot River as the preferred alternative from a planning study completed by Robert Peccia & Associates in 2013. The preferred alternative addresses irreparable deficiencies in the extant Maclay Bridge crossing at North Avenue West and River Pines Road, which the preferred alternative slates for decommissioning to vehicular traffic. The proposed new bridge would be an extension of existing South Avenue and would connect South Avenue and River Pines Road.

The Federal Highway Administration (FHWA) is the lead federal agency for this Project. Projects that are funded, permitted, licensed, or approved by a federal agency are considered “federal undertakings.” This project qualifies as a federal undertaking, and Missoula County, prior to construction, must consider the Project’s potential effects upon historic properties in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 2006) and other applicable federal historic preservation legislation and regulations.

The proposed conceptual alignment of the Area of Potential Effects (APE) is located in Sections 26, 27, 34 and 35 of Township 13 North, Range 20 West, Montana Meridian. The APE includes a 300-foot-wide area surrounding the conceptual bridge alignment (150’ either side of the conceptual centerline) as well as an area encompassing the conceptual realignment of River Pines Road on the west side of the river. HRA recommends the indirect effects APE comprises the conceptual alignment provided by HDR plus one tax parcel on either side of the right-of-way.

HRA did not have access to private land within the APE and was able to conduct the architectural survey from the vantage of the existing public right-of-way only. As such, the architectural survey and the archaeological inventory will be completed in phases. The APE also takes into consideration potential indirect effects on historic-era (50 years old or older) aboveground buildings, structures, and objects immediately adjacent to (approximately one tax parcel off, or 150 feet off the centerline, whichever is larger) the right-of-way. This report also documents the extant Maclay Bridge, which was determined eligible for the National Register of Historic Places (NRHP) (Axline 2012; MT SHPO 2012). The Maclay Bridge is outside of the recommended APE, and anticipated effects to the bridge under the preferred alternative are currently unknown (though removal of the bridge is considered as one possible alternative); however, as deficiencies in the Maclay Bridge warrant construction of a new bridge, it is considered part of the Project and was documented as part of this

report. A separate addendum report will consider the Project's potential effects on archaeological resources once access is afforded to the portions of the APE that are private lands.

Three parcels with historic era buildings, structures, or objects were identified within the APE prior to the 2015 reconnaissance-level architectural survey. These parcels consist of 296/298 Big Flat Road (the Maclay House, previously recorded site 24MO0519), 4740 South Avenue West, and 4815 South Avenue West.

HRA recommends that one resource within the APE, Site 24MO0519 (the Maclay House), is eligible for listing in the NRHP under Criteria A and C. HRA further recommends that as the Project will have no effect on the house itself, and minimal effect on surrounding resources like roadways, the Project has no potential to adversely affect Site 24MO0519.

HRA completed documentation of the Maclay Bridge following Historic American Engineering Record (HAER) Level II standards. The HAER approach provides a ready documentation framework that is recognized and accepted on both federal and state levels, and ensures a comprehensive recordation process that includes historic context, mapping, digital photography, and drawings.

While actions resulting from the Project to the Maclay Bridge are as yet unknown, the results of this documentation process provides information that can be used to make informed decisions, and/or provide mitigation or content for other forms of mitigation (e.g., interpretive signs, brochures, or web or app content), should an adverse effect result from project actions. Again, actions anticipated for the bridge are unknown at this time.

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1. Introduction

HDR, Inc. (HDR), contracted Historical Research Associates, Inc. (HRA), to provide cultural resources services for the proposed South Avenue Bridge Crossing, in Missoula County, Montana (Project). Missoula County is proposing to construct a new bridge over the Bitterroot River as the preferred alternative from a planning study completed by Robert Peccia & Associates in 2013. The preferred alternative addresses irreparable deficiencies in the extant Maclay Bridge crossing at North Avenue West and River Pines Road, which the preferred alternative slates for decommissioning to vehicular traffic. The proposed new bridge would be an extension of existing South Avenue and would connect South Avenue and River Pines Road.

1.1 Regulatory Context

The Federal Highway Administration (FHWA) is the lead federal agency for this Project. Projects that are funded, permitted, licensed, or approved by a federal agency are considered “federal undertakings.” This project qualifies as a federal undertaking, and Missoula County, prior to construction, must consider the Project’s potential effects upon historic properties in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 2006) and other applicable federal historic preservation legislation and regulations.

1.2 Recommended Area of Potential Effects

The proposed conceptual alignment of the Area of Potential Effects (APE) is located in Sections 26, 27, 34 and 35 of Township 13 North, Range 20 West, Montana Meridian. The APE includes a 300-foot-wide area surrounding the conceptual bridge alignment (150’ either side of the conceptual centerline) as well as an area encompassing the conceptual realignment of River Pines Road on the west side of the river. HRA recommends the indirect effects APE comprises the conceptual alignment provided by HDR plus one tax parcel on either side of the right-of-way (Figure 1-1).

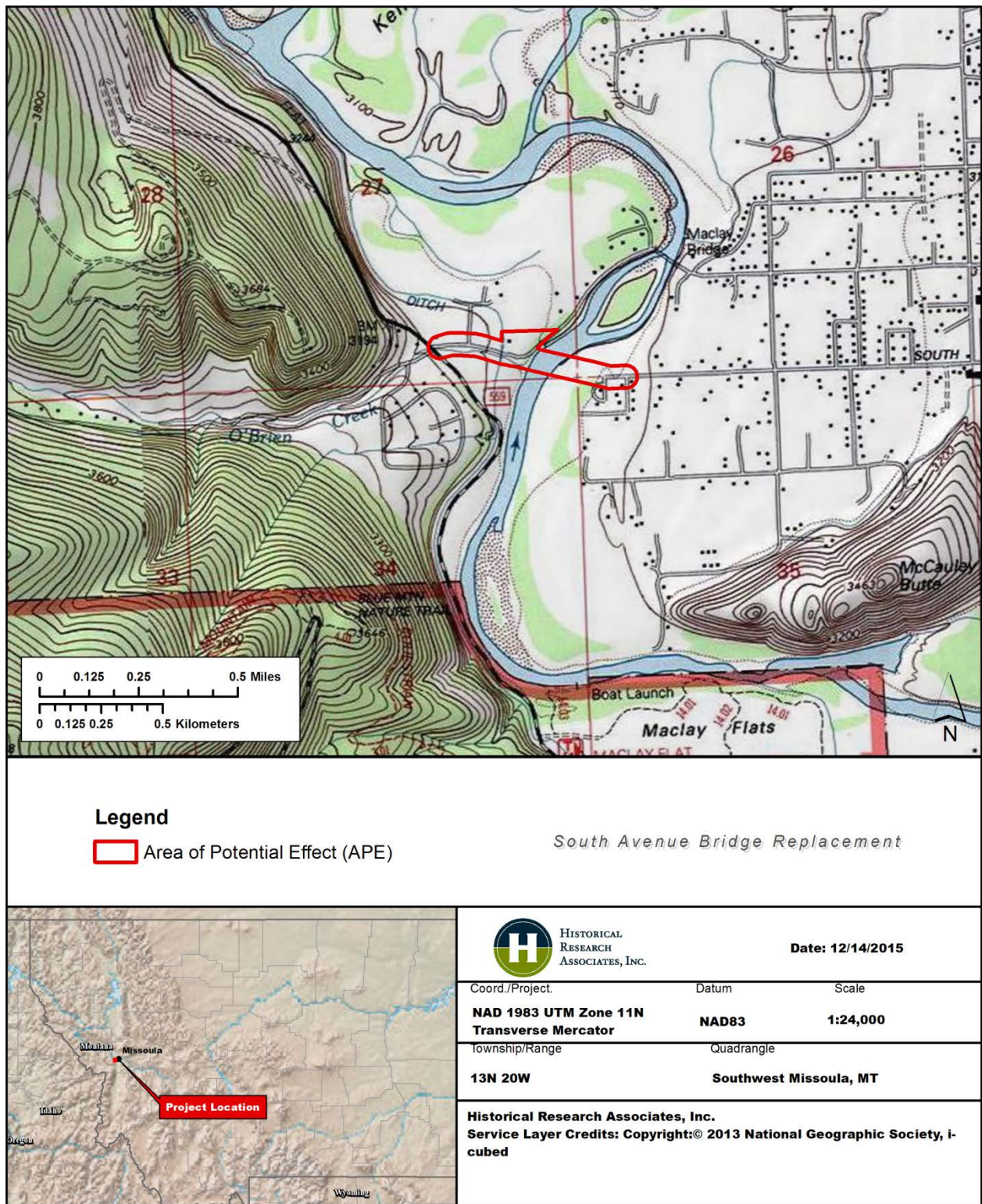


Figure 1-1. Map depicting the proposed Project APE.

1.3 Purpose and Extent of this Report

HDR contracted HRA to conduct a Class III cultural resources survey to determine potential effects to previously recorded archaeological and historic sites, as well as to identify previously unidentified resources present in the project area, evaluate their eligibility for inclusion in the National Register of Historic Places (NRHP), and assess potential Project effects. This survey is intended to provide Missoula County the cultural resource information necessary to provide recommendations for potential adverse effects to historic properties that the Project might cause. HRA is not a participant in, or responsible for, Tribal consultation as part of this Project.

At the time of survey, HRA did not have access to private land within the APE. As such, the architectural survey and the archaeological inventory will be completed in phases pending access to private lands. To expedite review, this report includes the architectural survey only and describes the Project's background, physical and cultural contexts, and potential effect on historic architectural resources within the recommended APE. HRA completed a reconnaissance-level architectural survey from the vantage of the existing public right-of-way. A separate addendum report will consider the Project's potential effects on archaeological resources once access is afforded to the portions of the APE that are private lands.

This report also documents the extant Maclay Bridge, which was determined eligible for the NRHP (Axline 2012; MT SHPO 2012). The Maclay Bridge is outside of the conceptual alignment APE, and anticipated effects to the bridge under the preferred alternative are currently unknown (though removal of the bridge is considered as one possible alternative); however, as deficiencies in the Maclay Bridge warrant construction of a new bridge, it is considered part of the Project and was documented as part of this report. HRA documented the Maclay Bridge to Historic American Engineering Record (HAER) Level II standards.

HRA investigated the project APE to identify cultural resources by reviewing available literature, analyzing topographic and historic maps, and conducting an architectural field survey. This report describes the methods and findings of the survey for the Project. The following sections describe the environmental, prehistoric, and historical contexts of the project vicinity. The results of the background research are discussed, followed by a summary of the methods HRA used to conduct the fieldwork. The report concludes with the architectural survey results, documentation of the Maclay Bridge, and recommendations. Montana State Historic Property Record forms for identified resources are presented in Appendix A.

2. Physical Environment and Cultural History of the Project Area

The following chapter is divided into two sections. The first section includes descriptive information regarding the physical environment of the project area, including climate, geology, soils, vegetation, and wildlife that are relevant to assessing a location's cultural resources sensitivity. The second section contains an overview of the patterns of prehistoric and historic activity in the project vicinity. This information provides context for site type expectations of the fieldwork and for assessing the significance of any resources that may be found.

2.1 Physical Environment

The general project area occupies the western extent of the Missoula Valley approximately 3 miles south of the confluence of the Bitterroot and Clark Fork Rivers. The general region features rolling to steep foothills, low elevation mountain peaks of the Bitterroot Mountains, and meandering streambeds that feed the Bitterroot River. The Bitterroot Mountains to the west are composed of granite formed during the Cretaceous period, and are part of the Idaho Batholith (Lewis 1998). The alluvial terraces of the modern Bitterroot River floodplain represent the most recent landforms; sediments consist of well-rounded gravel and sand, with smaller amounts of silt and clay. Semi-rural residential and light agricultural endeavors dominate the immediate area, affecting the local landscape. Irrigation systems are also common throughout the county. In regard to this specific project, land ownership/management, physical resources, and biological resources (beyond what are noted here in this report) are summarized by Robert Peccia & Associates (2013:Appendix B).

2.1.1 *Climate*

The climate of southwestern Montana is semiarid and dominated by weather systems flowing from the north Pacific (Knight 1989:34). The average high temperatures in the project area hover near 80 degrees Fahrenheit in the summer, and average lows in winter are usually in the teens. Extreme temperatures in the area are common, but only last for brief intervals before the temperatures return to normal. Precipitation varies greatly across the general region, with averages ranging between 10 and 30 inches annually, depending mostly upon elevation and micro-climatic tendencies. Average yearly precipitation within the project area is between 16 and 18 inches (Ross and Hunter 1976:55). This precipitation comes mostly as spring snow or early summer rain, with May and June accounting for an average of 3 1/2 inches of precipitation yearly. Snow pack is variable in winter, and can range

from sparse ground cover to several inches of snow. July and August are the usual drought months. The average frost-free season is approximately 100 days, with the higher elevations averaging about ten to twenty days fewer (Knight 1989:34; Montagne et al. 1982:19). Winds tend to be westerly or northwesterly throughout the year, with warm, thawing “Chinook” winds common during the winter months.

2.1.2 Geology

The geology of the project area includes areas of hard rock sediments, shales, and tertiary valley fill. The hard rock sediments found throughout the region include both metamorphic and igneous rocks (Belt Series Hard Fine-grained Metasediments and Fine-grained Volcanic Rocks), limestone and dolomite with interbedded shales, and areas of Soft Tertiary Valley Fill (Montagne et al. 1982:Figures 2–4; Montagne 1982). Belt rocks are the primary geologic features underlying the region; the Belt Series is the result of metamorphic sedimentation formed by shallow seas during Precambrian times (Alt and Hyndman 1986:6). The Precambrian belt series metasediments are located primarily near the northern edge of the project area, and date to the Late Precambrian. Belt group mineralogy includes argillites, quartzites, and some carbonates (MSEO 1960). Belt series sediments are resistant to weathering and erosion, and, as a result, the topography of areas underlain by the Belt series are often steep, rounded slopes that are skirted with talus (MSEO 1950).

2.1.3 Vegetation

The local vegetation zones are primarily described as Western Larch-Douglas Fir Forest and Western Montana Ponderosa Pine Forest. At lower elevations, and along streams, the primary vegetation zone is Intermountain Valley Grassland and Meadow, combined with Foothills Sagebrush (Payne 1973). The forested areas eventually give way to foothills dominated by cheatgrass and sagebrush. High percentages of sagebrush most likely indicate extensive use of the areas for livestock grazing.

2.1.4 Native Fauna

The varied topographic and vegetation areas provide diverse habitat for an abundance of wildlife (Chatters 1998:37–38). Common mammals to the area are moose (*Alces alces*), elk (*Cervus elaphus*), white-tailed deer (*Odocoileus virginianus*), mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), coyote (*Canis latrans*), mountain lion (*Felis concolor*), and beaver (*Castor canadensis*). Less common mammals include mountain sheep (*Ovis canadensis*), mountain goat (*Oreamnos americanus*), grizzly bear (*Ursus horribilis*), lynx (*F. canadensis*), bobcat (*F. rufus*), and gray wolf (*Canis lupus*). Commonly observed species in the project area include osprey (*Pandion haliaetus*), bald eagle (*Haliaeetus leucocephalus*), wild turkey (*Meleagris gallopavo*), great blue heron (*Ardea herodias*), black-capped chickadee

(*Poecile atricapillus*), red-tailed hawk (*Buteo jamaicensis*), western meadowlark (*Sternella neglecta*), Lewis woodpecker (*Melanerpes lewis*), numerous duck species, Canada goose (*Branta canadensis*), and trumpeter swan (*Cygnus buccinator*). Rivers and streams of the area support trout, whitefish, and suckers (Chatters 1998:39–40).

2.2 Prehistoric Overview

Early Prehistoric peoples occupying the foothills of the Rocky Mountains lived in a climate of cool and wet weather, following the retreat of the last major glacial ice advance. The Early Prehistoric Tradition can be loosely divided into early and late halves, largely marked by changes in projectile point shapes, hafting technologies, and subsistence patterns (Frison 1991).

2.2.1 Early Prehistoric

In Western Montana, the earliest human occupation was likely during the Early Prehistoric Period (before 10,000 to 7,000 years before present [B.P.]). The Paleoindian fluted and/or large lanceolate spear points common in the Northern Plains region are rare. Clovis fluted points also occur in the Columbia Basin, where they are followed by large stemmed or lanceolate projectiles of the Windust Phase. While excavated sites with preserved material are lacking in western Montana, it is assumed that the human occupants followed a seasonal settlement and subsistence pattern based primarily on available plant and animal resources (MacDonald 2012).

Montana Clovis and Folsom occupations include the Anzick Site (a disturbed, potential Clovis burial) north of Livingston, the MacHaffie Site (which has an undated Folsom component with utilized bison remains), and the Indian Creek Site (with both Clovis and Folsom occupations and butchered bone). Later phases of the Paleoindian period demonstrate that, through the presence of Scottsbluff points at MacHaffie and early prehistoric at Indian Creek, locally adapted populations continued to use desired locations throughout the entire period (Deaver and Deaver 1986:86). Another later Paleoindian site is the Myers-Hindman site in the Upper Yellowstone Valley of southern Montana, which contained Scottsbluff and other similar point styles.

2.2.2 Middle Prehistoric

The Middle Prehistoric Period (7000 to 1500 B.P.) is sub-divided into the early Middle Prehistoric (7000 to 4500 B.P.) and the late Middle Prehistoric periods (4500 to 1500 B.P.). Diagnostic projectile points recovered from sites and isolated finds in the region include Bitterroot (also known as Salmon River or Mummy Cave) side-notched, Cascade lanceolate, Oxbow side-notched, and Cold Springs side-notched. Human settlement and resource exploitation patterns apparently focused in and around grassland areas, both in valley bottoms and mountainside exposures. Overall, the Middle

Prehistoric subsistence economy is hypothesized as a broadening of the resource base. This was brought on mostly by the extinction of mega-fauna from the Early Prehistoric period as a result of climate change, and possibly over-hunting (Roll and Hackenberger 1998).

The late Middle Prehistoric period is believed by some to represent a dramatic increase in human population, as indicated by an increase in representative sites. Represented predominantly by corner-notched Pelican Lake points, settlement patterns and subsistence strategy are much more discernable beginning with this period of human prehistory. Researchers have identified a variety of campsites, kill sites, processing sites, and lithic quarries with late Middle Prehistoric period materials (Deaver and Deaver 1986).

Near the end of the late Middle Prehistoric period, a new projectile point style, the Besant point, appears on the Northwestern Plains. Some researchers have interpreted the introduction of this new point style to represent a new culture moving into the area; Reeves (1969) terms this culture Napikwan. Besant points have been attributed to either the late Middle Prehistoric period (Greiser 1984) or to the initial stages of the Late Prehistoric period (Deaver and Deaver 1986).

2.2.3 Late Prehistoric

The beginning of the Late Prehistoric Period (1500 to 250 B.P.) is marked by the appearance of small side- and corner-notched projectile points, marking the introduction of the bow and arrow, as well as the first appearance of pottery. The subsistence base during this time period included substantial quantities of deer, with varying quantities of bison at a few sites. Fish resources likely continued to gain importance during this period, as did plant resources, including camas (MacDonald 2012).

Beginning around A.D. 400, Besant and some smaller Pelican Lake-style continue to persevere through the initial stages of the period, but these are soon replaced by a number of smaller arrow point styles. Arrow points include Avonlea, Prairie Side-Notched and Corner-Notched, Late Plains Tri-Notched (Intermountain Tradition), and Late Plains Side-Notched (Old Woman's Phase) (Greiser 1984:47).

Throughout the Late Prehistoric period, evidence supports both the continued use of the region by indigenous populations and by intrusions of later Woodland/Mississippian peoples from the eastern fringes of the Plains, and by Shoshone from the southwest (Greiser 1984:54–55). Overall, the Late Prehistoric period is characterized by increasing contact between groups from the Plains, Woodlands, Great Basin, and Plateau (Duke and Wilson 1994:70). General site types documented from this period include campsites, kill sites, quarry sites, and stone features.

2.2.4 *Protohistoric*

Very few European trade items appear in the archaeological record of Montana prior to the initiation of the Historic Period. The introduction of the horse, however, during this period surely constitutes a significant event, fostering changes in the cultural patterns of indigenous people. Protohistoric sites are easily confused with Late Prehistoric sites if they lack horse bone, trade beads, metal tools, arrowheads, and knives (Greiser 1984:48; MacDonald 2012). Overall, Late Prehistoric projectile points continue to appear in the archaeological record throughout the Protohistoric period.

2.3 **Ethnographic Context**

The Flathead Salish are widely accepted as the primary prehistoric occupants of the area east and west of the Continental Divide. Also prominent were the Blackfeet, who sought to extend their territory to the south. The Flathead Salish area included the Mission Valley, the Missoula Valley, and the Clark Fork River and its tributaries, from at least the Idaho line to the headwaters. Other groups known to have occupied the western area include the Kalispel (Lower Pend d'Oreille), the Upper Pend d'Oreille, the Coeur d'Alene, and the Kootenai (Malouf 1998; McLeod and Melton 1986). Plateau and Basin influences are present during the Protohistoric transition period, with members of the Nez Perce, Palouse, and Shoshone present, in varying degrees, to trade or raid. The Blackfeet maintained a presence in the eastern areas of the region from the mid-1700s through the mid-1800s (Duke and Wilson 1994).

The Flathead who were living on the Plains east of the Continental Divide hunted bison. Prior to the acquisition of the horse, bison hunting involved the use of drive lanes along with jumps or corrals to retain the bison where they could be killed. Similar methods were used in the mountain regions for antelope and deer. The Flathead acquired the horse around 1730. Prior to the acquisition of the horse, dogs were the primary pack animal, although they were also trained for tracking game. The horse made use of drive lanes obsolete, providing for more direct approaches to the herds via horseback. The Flathead took advantage of a wide range of resources, including plains, mountains, and riverine resources. Reliable transportation was of particular necessity in order to access and exploit resources. The groups relied on a known and maintained travel network of trail systems which provided access to a wide range of environments and natural resources. The trails systems were developed first by migrating animals which instinctively followed the path of least resistance through the mountain valleys and passes (Schwab et al. 2008:2). The trails have been used for thousands of years, and were the main travel corridors through the river valleys.

Other game sought included moose, rabbits, ground hogs, mountain goats, and bears, which were hunted using nets, snares, and deadfalls. Fish were an important resource as well; this was less so for

more Plains-oriented groups (Malouf 1998). Fish, which was not a common staple among the Plains tribes, was an important staple of the Flathead diet, particularly among the bands living along the rivers. Technologies for fishing, primarily made use of traps and weirs, although fishing lines were used as well (Turney-High 1941).

Utilized plant foods played an important role in their diet, shelter, and tools. Bitterroot was one of the most important utilized plants, serving as a dietary staple. Serviceberries, elderberries, chokecherries, and huckleberries were also eaten; often dried and pounded into cakes. Berries did not tend to be combined with meats as they were with many of the Plains tribes (Brunton 1998). Camas bulbs were also collected; although, this was more common among the lower groups whose territory had a more abundant supply than did the northern groups (Turney-High 1941).

Their traditional territory allowed the groups access to a variety of different resources, either by direct access or through trade. Plains resources, particularly bison, were acquired during seasonal hunts, while goods such as abalone and olivella shells were acquired through trade with coastal groups living to the west. Direct access to resources in the forests along the mountain ranges provided enough wood for constructing shelters; although, sometimes cave and rockshelters were also used. Lodge pole structures were typically conical-shaped tepees that would be covered with brush, or sometimes animal hides. After trade with Europeans and Euroamericans had been established, canvas was often used as a covering. Plant materials and animal skins were also used to make containers used for carrying goods or for cooking. Other animal remains, particularly bones, were used to create a variety of tools including awls, scrapers, punches, needles, and even flutes and whistles (Brunton 1998).

By the late 1600s, the influence of Europeans in North America was being felt by local populations. Neighboring tribes on all sides exchanged Euroamerican trade goods even before Lewis and Clark made their historic transcontinental trek in the first decade of the 1800s. European influence was felt in the transmission of metal implements, firearms, diseases, and religion, and in the competition for local resources.

The Protohistoric Transition is a time of drastic changes in the cultures of Native American populations, including western Montana. The extent of the change is a marked decrease in population and a weakening of tribal systems due to disease, as well as the increasing or decreasing political power of the various groups. Generally, both the social and political systems observed, by ethnographers like Teit (1930) and Turney-High (1935), among the Flathead Salish were likely highly transfigured from those of the populations' prehistoric ancestors.

2.4 Historic Context

Americans first explored present-day Montana in 1805. Meriwether Lewis and William Clark passed through the region with the Corps of Discovery as they headed west, hunting for a cross-country river route to the Pacific Ocean. Lewis and Clark returned in 1806, heading east, and traveled a portion of the Bitterroot River toward the current site of Missoula, passing through the APE in July of that year (Koelbel 1972:3; WPA 1939:173).

By the early 1830s, missionaries were traveling throughout the west, converting members of local tribes to Christianity. In 1831, a party of Salish and Nez Perce made the first of many trips to St. Louis to request that Christian missionaries visit their own homelands in what would become Montana. In 1840, Father Pierre-Jean De Smet traveled with an Iroquois guide and laid the groundwork for a future mission. He returned in 1841 and established the St. Mary's Mission near Stevensville, roughly 30 miles south of Missoula, the first permanent Euroamerican settlement in the region. With Native help, the missionaries constructed a small chapel. Within the first two years, it had to be expanded. The missionaries first farmed potatoes and wheat on their lands, adding these foods to their diet of dried meats, roots, berries and other tribal staples. Father Anthony Ravalli added irrigation and a grist mill to the mission in 1846. In 1850, as tensions increased with the Blackfeet tribe, the mission at St. Mary's was abandoned. The mission's goods were sold to Major John Owen, who remained and began to trade in the area. The Jesuits went on to establish a new mission at St. Ignatius in 1851 (Beery et al. 2003:11; Koelbel 1972:9; Leeson 1885:349, 841).

In 1853, Isaac A. Stevens was named governor of the new Washington Territory, established March 2. On his way to his new post in Olympia, Stevens brought a team of surveyors through present-day Montana to help research a possible railroad route to the Pacific Ocean. His team, which included wagon-master Captain C. P. Higgins, one of the future founders of Missoula, explored what became the northern route of the Northern Pacific Railroad (Stevens 1900:307; WPA 1939:174). The possibility of a new railroad inspired increasing exploration and settlement, a trend that ignited conflict between local Native tribes and western pioneers. In 1855, Stevens negotiated the Hellgate Treaty, opening up present-day Montana to Euroamerican settlement and establishing the Flathead Reservation for Native tribes including the Salish, Kootenais, and Upper Pend d'Oreilles. The treaty was one of many that set up decades of conflict between Native tribal members who resisted resettlement and Euroamerican settlers wishing to claim lands in Montana (Stevens 1859). Newspapers from the turn of the century noted that farmers and homesteaders were spreading through the Bitterroot Valley by the mid-1850s.

While there was a few scattering of white people through the county as early as 1840, it was not until about 1856 that they commenced to come in any considerable number. A trading post was erected at Hell's Gate in 1857, and several men arrived from the east locating at various points along the Bitter Root river. They year 1858 brought quite a large addition to the few settlers in this section, among them being several whose names were given to local tributary streams. [*Missoulian* 1902]

This is further corroborated by Judge Frank H. Woody, who himself arrived in 1856. Woody noted that in the fall of that year, several Euroamerican traders took up fall residence in present-day Missoula County: Van Etten, George Goodwin, James Brown, Bill Madison, “Hooper & Williams’ outfit,” George and Frank Knowlton, and Arch and Alma Williams, among others. When they arrived, the parties found families who’d been driven out of the Nez Perces’ country by the Indian wars of 1855–1856. “These parties,” wrote Woody, “with the Fathers and Lay Brothers of the St. Ignatius Mission, constituted the entire white population of the country now known as Missoula County” (Historical Society of Montana 1896:97). The trading parties wintered in the region and then disbursed in the spring, leaving only a small number of people in the valley before the arrival, in 1860, of Frank L. Worden and C. P. Higgins, who brought a store of goods to Hells Gate Ronde, just west of Missoula, and opened shop (Historical Society of Montana 1896:99).

In the 1860s, Stevens’ survey helped establish the route of the Mulan Military Road, which was officially constructed through Hell’s Gate on its way to forging a permanent wagon road between Fort Walla Walla in Washington and Fort Benton in Montana (Johnson 1995). By 1863, hundreds of would-be gold miners had traveled the new road from Idaho to Alder Gulch in Montana, following rumors of gold. According to the *Missoulian*, when mining played out in the area, “newcomers to the district commenced taking up claims and engaging in the farming business. From that time until the present the chief industries of the county have been principally agricultural, lumbering and stock raising” (*Missoulian* 1902).

In 1865, Worden and Higgins built saw and grist mills on the Clark Fork River, east of their trading post, at the site of present day Missoula. They then moved their stores to that spot. As trade increased, their neighbors from Hell’s Gate Ronde picked up and moved east as well, settling at “Missoula Mills,” which later became known simply as “Missoula” (WPA 1939:174).

David O’Brien, one of the first homesteaders in the APE, is believed to have been farming on the west bank of the Bitterroot River as early as 1869. O’Brien Creek, which was named after him, still flows into the Bitterroot River near the APE today (Omundson 1961:110). O’Brien was one of a number of early homesteaders who were dispersed over farming and ranching lands in the region as the United States government struggled to contain Native tribes in the western territories in the 1860s. By the end of the decade, Missoula residents were asking for military support in case of retaliation or attack. They continued to request support until 1877, when Captains Rawn and Logan came to the region to found Fort Missoula, an unenclosed fort constructed roughly two miles east of the APE. The fort and its first battalions were not used during the final battles with Native tribal members, but remained an asset to Missoula as the town grew, providing an early sense of protection to new settlers (Leeson 1885:871).

Missoula continued to grow, and in the early 1880s, the city leaders offered up private lands in negotiations with the Northern Pacific in order to bring the railroad through their town. In 1883, the

same years Missoula was first incorporated, the Northern Pacific arrived, securing the city's position as a local transportation hub and providing transportation for the region's agricultural goods. The Northern Pacific, provided with the largest land grant ever offered to a railroad, was able to sell its lands to farmers and ranchers wishing to locate along the route. The population of Missoula swelled as workers, including Chinese and European immigrants, arrived to construct the road, and businessmen went into the lumber business to provide the railroad with the materials it needed to complete construction (Beery et al. 2003:13; Koelbel 1972:57).

Farming and ranching were common practices southwest of the growing city of Missoula, and throughout the 1870s and 1880s, homesteaders arrived and claimed lands along the Bitterroot River. Thomas Foley claimed lands on the east bank of the Bitterroot in the APE in the 1870s (GLO 1877). He was joined by O'Brien, who officially claimed 160 acres west of the Bitterroot in the APE in 1888 (GLO 1888). However, O'Brien is believed to have either lost or sold his lands to Carl Denis that same year (HRA 1993).

With the coming of the railroad, the city itself started to grow, adding the Knowles Addition in 1891 and expanding existing neighborhoods in the Lower Rattlesnake area (Beery et al. 2003:13). That same year, Missoula County granted William P. Maclay an easement across the Bitterroot River at the location of the current Maclay Bridge. The earliest bridge, which occasionally washed out in bad weather, was a link between the farm lands west of the river and the growing city of Missoula, east of the river (Berens 1996:1). In 1892, W. P. Maclay purchased O'Brien's lands from Denis, eventually expanding his holdings in the area to 1,200 acres (HRA 1993).

Although the 1890s were marked by economic depression, brought on by economic collapse in 1893, the region was supported by a growing number of farmers as large tracks were divided, cultivated, and diversified. Over the decade of the 1890s, Missoula's population expanded by one-third to 4,356 (Beery et al. 2003:13). Missoula owed much of its early farming success to irrigation districts that diverted the water from the region's rivers to orchards and farms. By 1900, according to a local newspaper supplement heavily promoting Missoula's agricultural opportunities, there were "615 farms in Missoula County containing 148,666 acres of which 47,982 acres is improved." Almost sixty percent of those farms were under irrigation (*Missoulian* 1902:11–12). A small farms movement was underway in the region:

About eight years ago some energetic, active business men of Missoula, who were believers in the small farm proposition, purchased of H. C. Hollenbeck and Ferd Kennett two hundred and forty acres of land in the Rattlesnake Valley, about two and one-half miles from Missoula, and after constructing irrigation ditches to this ground, platted the same into five and ten acre tracts and sold them out... Many homes were built on these tracts, much small fruit was planted and grown, while nearly all of the purchasers planted the land into orchards. [*Missoulian* 1902:12]

The first small farms sold well enough that the trend continued. The Higgins Ranch, 400 acres southwest of Missoula, was purchased and subdivided into five-acre lots as the first "Orchard

Homes” addition (*Missoulian* 1902:12). The Douglas farm of 169 acres, the Cook family’s 80 acres, the Miller and Spurgin farms equaling 700 acres (the second Orchard Homes addition), and the Garrett, Foley, McGraw, and Williams’ farm, consisting of 980 acres, followed. They too were divided and sold as small farms and orchards (*Missoulian* 1902:13).

At the turn of the century, the region’s growth was further supported by the presence of the Northern Pacific; the founding of the University of Montana (1895); the region’s proximity to mining in the Silver Valley in Idaho; an increased demand for lumber; and the availability of new lands for homesteading in the former Flathead Reservation (Beery et al. 2003:13; WPA 1939:174). To serve its growing population, in 1903 and 1904, a total of 20 new schools were constructed in Missoula County. In 1907, the Target Range Elementary School was built within a mile of the APE to serve new residents in the Target Range neighborhood and an increasing number of families at Fort Missoula (Brown 2010). By 1909, the Chicago, Milwaukee & St. Paul railroad was running steam-powered locomotives through Missoula, further expanding the region’s transportation options (WPA 1939:174).

World War I inspired many young men to go to war. It depleted the student population at the University of Montana, as Fort Missoula was transformed into a school for mechanics (Koelbel 1972:85). According to historian Lenora Koelbel, Montana suffered the highest per capita loss of soldiers anywhere in the country (Koelbel 1972:116). During the 1920s, Montana farmers were crippled by drought, but the situation was far worse for those in the Dust Bowl states. As migrants began to leave their lands, some migrated to the irrigable farms of western Montana. According to the WPA guide book, “in 1936 and 1937 Missoula grew rapidly... the largest single factor in this growth was perhaps the westward movement of thousands of people from the eastern drought areas” (Beery et al. 2003:14; WPA 1939:175). The region was further supported during the Great Depression by an influx of federal funds and the establishment of the regional headquarters for the Civilian Conservation Corps at Fort Missoula (Beery et al. 2003:15).

World War II once again saw the reinvention of Fort Missoula, which was used to house as many as 1,200 interned Italian men who had either been captured off merchant or luxury ships sailing into America’s harbors. In December 1941, these detainees were joined by Japanese-born internees (Hall 2008:6). The region experienced another great building boom soon after World War II, as service men returned home, needing housing. The agricultural lands on the periphery of the city were further divided as subdivisions grew up along former agricultural land and the remaining farms diversified, adding truck farming, dairies, and other ranching activities (Beery et al. 2003:15).

3. Background Research and Methodology

3.1 Background Research

Prior to fieldwork, HRA staff worked with Montana's State Historic Preservation Office (SHPO) to identify cultural resource survey reports, archaeological site records, cemetery records, and NRHP-listed and -eligible resources. Background research was conducted using an approximate 1-mile (mi) research radius from the project area.

HRA's in-house library was used to obtain information on the environmental, archaeological, and historical context of the Project area. HRA research staff also examined General Land Office (GLO) plats, available online through the Bureau of Land Management (BLM) website, to locate potential historical features. These nineteenth-century maps, arranged by township and range, indicate locations of then extant historical structures, trails, and features. Although most of these structures are no longer extant, the maps indicate where historic period cultural resources could be encountered. Researchers reviewed additional historic maps (e.g., U.S. Geological Survey [USGS] maps, Montana State Engineer's Office [MSEO] water resource survey maps, and County atlases) available through online resources and local archives. Based on environmental characteristics, ethnographic data, and the distribution of previously recorded cultural resources, HRA formulated initial expectations about the sensitivity of the project APE for containing archaeological remains.

HRA conducted further research through the University of Montana's Maureen and Mike Mansfield Library, through the Missoula Public Library, and through online and newspaper archives to build a historic context for the project area that identifies historic trends, historic people, and historic events that may have altered or enhanced the built environment.

3.1.1 *Previous Cultural Resource Investigations*

A total of 16 previous archeological studies have been conducted within a 1 mi radius of the proposed Project APE (Table 3-1). Archaeological research in the vicinity of the APE has fallen almost exclusively under the domain of cultural resources management (CRM) work. There are no previous investigations within the proposed project APE that have occurred within the last 10 years (previous surveys older than 10 years are considered antiquated by the MT SHPO).

Table 3-1. Previous Cultural Resource Investigations within 1 mi of the APE.

Author	Date	Title	MT SHPO Report #
Till	1978	Archaeological Survey at Kelly Island	6202
McDonald	1983	Fort Missoula Historic Resources	20985
Kingsbury	1987	BLM City Lot Clean-up and Future Sale	6153
McLeod	1987	Blue Mountain Recreation Area: Maclay Flats	6108
Taylor	1989	Inventory and Evaluation of Archaeological Resources within the Fort Missoula Historic District, Montana	12732
Caywood	1993	Phase II CRI of the Maclay Bridge Project Area	15672
Thompson	1994	Addendum to the Phase II CRI of the Maclay Bridge Project Area	15808
Passmann	1996	Kelly Island Exchange	17931
Whisennand	1998	Lolo Forest Annual Report 1997	20165
Light	2000	Class III Cultural Resource Inventory and Archaeological Monitor of Construction Activities for the Mountain Water Company, Fort Missoula Water Main Project, Missoula County, Montana	25075
Hall	2003	Results of Preliminary Historical Archaeological Investigations, Fort Missoula, Missoula County, Montana	25382
Beery and Herbel	2006	Cultural Resource Inventory for the Montana Department of Transportation Projects STPHS 32(47) Safety Improvements Southwest of Missoula	28802
Kinser	2008	Survey and Testing Report: Proposed Road Paving, Fence, and Parking Lots. Geology and Field Research Buildings, Fort Missoula, Missoula, Montana	30215
Ogbourne	2008	Fort Missoula Data Recovery Excavations, Missoula, Montana	30152
Frigbaum	2010	Cultural Resource Investigations of a Former State Army Guard Training Site and Landfill Located at Fort Missoula, Montana	32134

Table 3-1. Previous Cultural Resource Investigations within 1 mi of the APE.

Author	Date	Title	MT SHPO Report #
Wendel	2014	A Class III Cultural Resource Inventory of the Proposed Kelly Island Fishing Access Site, Missoula County, Montana	37409

3.1.2 Previously Recorded Archaeological/Architectural Sites

A total of ten archaeological sites have been documented within a 1 mi radius of the APE (Table 3-2, Figure 3-1) of which two (24MO0519, the Maclay House, and 24MO0587, the Big Flat Ditch) are located within the APE. Site 24MO0519 is addressed as part of this report; however, Site 24MO0587 (the Big Flat Ditch) will be addressed as part of the archaeological survey that has yet to occur and will be described in a forthcoming addendum report.

Site 24MO0521 is the Maclay Bridge, located outside of the APE but documented as part of this report. The Maclay House (24MO0519), the Big Flat Ditch (24MO0587), and the Maclay Bridge (24MO0521) were determined eligible for inclusion in the NRHP by the MT SHPO (see Table 3-2) and are addressed in Sections 4.2 and 5.0, respectively.

Table 3-2. Previously recorded resources within 1-mile of the APE.

Resource	Site Type	NRHP Status	Relationship to APE
24MO0209	Lithic Concentration	Undetermined	Outside
24MO0516	Historic Residence – Stetler Property	Not Eligible	Outside
24MO0517	Historic Residence – Rice Property	Eligible – CD*	Outside
24MO0518	Historic Residence – Maxwell Property	Not Eligible	Outside
24MO0519	Historic Residence – Maclay Property	Eligible – CD*	Inside (see Section 4.2.1 of this report)
24MO0520	Historic Irrigation – Missoula Irrigation District Canal	Eligible – CD*	Outside
24MO0521	Historic Bridge – Maclay Bridge	Eligible – CD*	Outside (see Section 5.0 of this report)

Table 3-2. Previously recorded resources within 1-mile of the APE.

Resource	Site Type	NRHP Status	Relationship to APE
24MO0587	Historic Irrigation – Big Flat Ditch	Eligible – CD*	Inside
24MO0589	Historic School – Target Range School	Eligible – CD*; NRHP Listed	Outside
24MO0954	Historic Irrigation – Maclay Ditch	Not Eligible	Outside

*Consensus Determination of eligibility by the MT SHPO

3.1.3 *Historic-era Architectural Resources and National Register Properties*

There is one National Register-listed historic resource within 1 mi of the APE (see Table 3-2, Figure 3-1). The Target Range Elementary School (24MO0589) was listed in the NRHP in 2011 (NPS 2015). It is located at the southwest corner of South Avenue and Clements Road and was built in 1907 to serve the growing communities of Orchard Homes and Target Range. The school and the surrounding neighborhood were named after their location near a former firing range used by Fort Missoula soldiers (Brown 2010). Other historic resources located on the outskirts of the 1 mi buffer include the Fort Missoula National Register Historic District, located roughly 2 mi east of the APE and significant as an 1877 military fort designed to protect the growing town of Missoula.

There are two NRHP-eligible resources within 1 mi of the APE (see Table 3-2, Figure 3-1). The first is the Maclay Bridge (24MO0521) itself, which was recommended eligible for listing in the NRHP in 2012. SHPO concurred in April of that year (MT SHPO 2012). The second is the Maclay House (24MO0519) at 298 Big Flat Road. The buildings associated with the Maclay family homestead were recommended eligible for listing in the NRHP under Criteria A and C in 1993. SHPO concurred with that recommendation in April 1994 (John Boughton, personal communication 2015.) The City of Missoula does not maintain a local register of historic places at this time (Leslie Schwab, personal communication 2015).

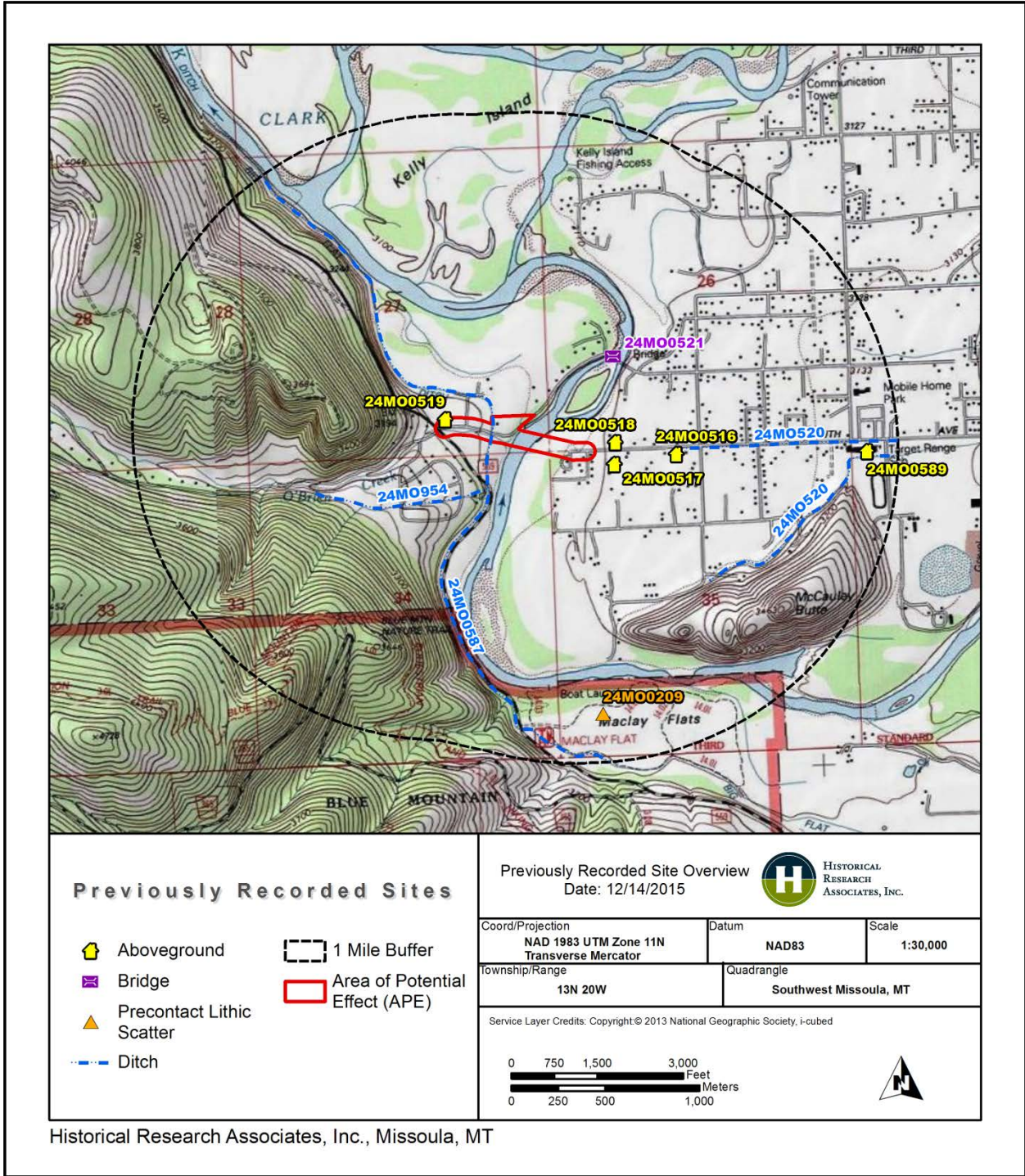


Figure 3-1. Previously recorded cultural resources within 1 mile of the proposed project APE.

3.1.4 *Historic Map Research*

The 1870 GLO survey plat for Township 25 North, Range 42 East, Montana Meridian, shows a small number of disconnected trails or paths leading short distances to and from the eastern bank of the Bitterroot River within the APE, and one such path on the western bank, seemingly connecting the Maclay property with the Bitterroot River (United States Surveyor General [USSG] 1870). By 1912, topographical maps of the area show extant roads running through the APE on both banks of the Bitterroot River, along with a bridge at the site of the Maclay Bridge, and structures located along South Avenue in the APE and on the Maclay property. A logging railroad runs along O'Brien Creek and then veers south, connecting with the Bitterroot Branch of the Northern Pacific railroad. Also noted are the Target Range School, McCauley Butte, and Fort Missoula (USGS 1912). By 1965, the Maclay Bridge is named, and there is no indication of the railroad along O'Brien Creek (USGS 1965). Sanborn Fire Insurance maps were produced for this area between 1884 and 1958. However, the maps terminate east of the APE (Sanborn 1958). Montana State Engineer's Office (MSEO) water resource maps show irrigation resources present on both sides of the river, including the NRHP-eligible Big Flat Irrigation Ditch (24MO0587) to the west and the Miller-Kelley and Cave-Gannon lateral ditches (24MO0520) related to the Missoula Irrigation District to the east (MSEO 1960:17).

3.2 **Expectations for Precontact, Ethnographic Period, Historic Native American, and Historic Euroamerican Archaeological Resources**

Prior to fieldwork, HRA formulated expectations for the architectural and archaeological sensitivity of the project APE. HRA based these expectations on a review of the background information presented above, including the geomorphology and hydrology of the area; the prehistoric and historic context of the vicinity, and with information on the types, ages, and contents of previously recorded sites.

HRA determined the project APE to have a moderate to high probability for precontact, ethnographic, and historic Native American archaeological resources that may be eligible for listing in the NRHP and a moderate to high probability for historic Euroamerican archaeological resources.

Resources known or anticipated for the region including the project APE could include cultural materials associated with hunter-fisher-gatherer, ethnographic, or historic Native American hunting groups. These may be stone or bone tools, hearths from camping, and animal bone from processing or butchering. In addition to those resources, ethnographic and historic Native American groups may have possessed metal implements, trade beads, and ammunition. Cultural materials related to historic Euroamerican use of the project APE would likely be domestic items, related to irrigation

and farming practices (including personal items and metal fragments or machinery pieces), or perhaps related to early industry in the area (including, again, personal items and metal fragments).

3.3 Survey Methods

3.3.1 Archaeological Survey

Archaeological survey is pending access to private lands and will take place at a future time, the results of which will be presented as an addendum to this report.

3.3.2 Architectural Survey

Prior to field investigations, HRA’s architectural historian reviewed aerial photography, historic maps, and the Missoula County Assessor’s records to identify properties within the proposed APE that met the age criteria for eligibility to the NRHP (i.e., are at least 50 years old) but had not yet been assessed, or had not been assessed within the last five years.

Table 3.3 provides all parcels within the proposed APE, along with dates of construction for buildings, structures, or objects (BSOs). From this data, HRA identified three parcels within the proposed APE that held buildings or structures 50 years old or older that needed to be assessed for NRHP eligibility.

Table 3.3. Parcels Located within the Proposed APE.

Address or Parcel #	Description	Date of Construction	Historic-era Component
221 Blue Heron Ln	Single Family Residence (SFR) + outbuilding	2013	No
330 Blue Heron Ln	SFR + outbuilding	SFR = 1992; 1998	No
2327 Blue Mountain	vacant		No
2345 Blue Mountain	SFR + 4 outbuildings (residential)	2003; 2 outbuildings = 2004	No
2363 Blue Mountain	vacant		No
2381 Blue Mountain	SFR + 5 outbuildings	2002; 4 outbuildings = 2004	No
2400 Hanson	Doublewide + garage	1983; garage = 1977	No

Table 3.3. Parcels Located within the Proposed APE.

Address or Parcel #	Description	Date of Construction	Historic-era Component
2401 Hanson	1 outbuilding residential	1989	No
4740 South Ave W	3 SFR	1993, 1919, 1919 (1919s effective 1960)	Yes
4815 South Ave W	Garage (1975) Concrete drive or pad (1901) Mobile home park (1970)	1975; 1901 ; 1970	Yes
0001335300	SFR	1892 , effective 1960; remodeled 2003	Yes – 24MO0519
0001715308	vacant		No
0003132300	vacant		No
0003213409	vacant		No
0004206983	SFR + 1 residential outbuilding	2008	No
0004307185	vacant		No
0004207283	vacant		No

To assess NRHP eligibility, HRA’s architectural historian Chrisanne Beckner performed an architectural field survey from the public right-of-way on July 22, 2015. For two parcels, results were recorded on Montana historic site forms, as per guidance from the MT SHPO. The third parcel no longer retains any resources constructed during the historic period and was therefore not documented on a historic site form.

4. Field Research and Results

4.1 Research Results

Three parcels (Figure 4-1) with historic-era BSOs were identified within the APE prior to the 2015 reconnaissance-level architectural survey. These parcels consist of 296/298 Big Flat Road (the Maclay House, previously recorded site 24MO0519 [HRA 1993]), 4740 South Avenue West, and 4815 South Avenue West. The results of the field survey, along with NRHP eligibility recommendations for, and potential adverse effects to, each of these resources are presented below.

4.2 Architectural Resources

4.2.1 *24MO0519 - The Maclay House - 296–298 Big Flat Rd (parcel #0001335300)*

The single-family residence sits on a 1.58-acre parcel at the northeast corner of Big Flat Road and River Pines Road near the eastern bank of the Bitterroot River and O'Brien Creek.

Although the property once included additional acreage and outbuildings, property subdivisions have left the remaining parcel with a single residential building and associated orchard trees. A split-rail fence defines the parcel's southern and eastern borders. The parcel includes a driveway off Big Flat Road that approaches the house's east elevation and includes a gravel pad used for parking. The parcel is now part of River Pines Estates, a 2007 subdivision that includes large houses located north and east of the Maclay House (Mostad Construction 2015). Although the majority of the parcel is covered in grasses, a small number of orchard trees, primarily apple, remain, distributed in an uneven pattern to the east of the house. Two large trees are located along the property border south of the house. These may have originally flanked an opening in the fence or some other approach to the house's primary south-facing facade.

The house is 2.5 stories tall (Figure 4-2), and is cross-shaped in plan. The building's foundation was not visible from the public right-of-way but has been identified during previous surveys as a stone pier foundation enclosed in 12-inch horizontal boards (HRA 1993). Board skirting is observable on the east elevation. The building is clad in lapped, horizontal wood boards with corner boards and some horizontal boards (a belt course) delineating each separate story. The building is topped by a steep-pitch compositional roof with three brick chimneys near the ridge. The building's primary façade faces south. It is asymmetrical, with a recessed entry on the east that shelters under a catslide

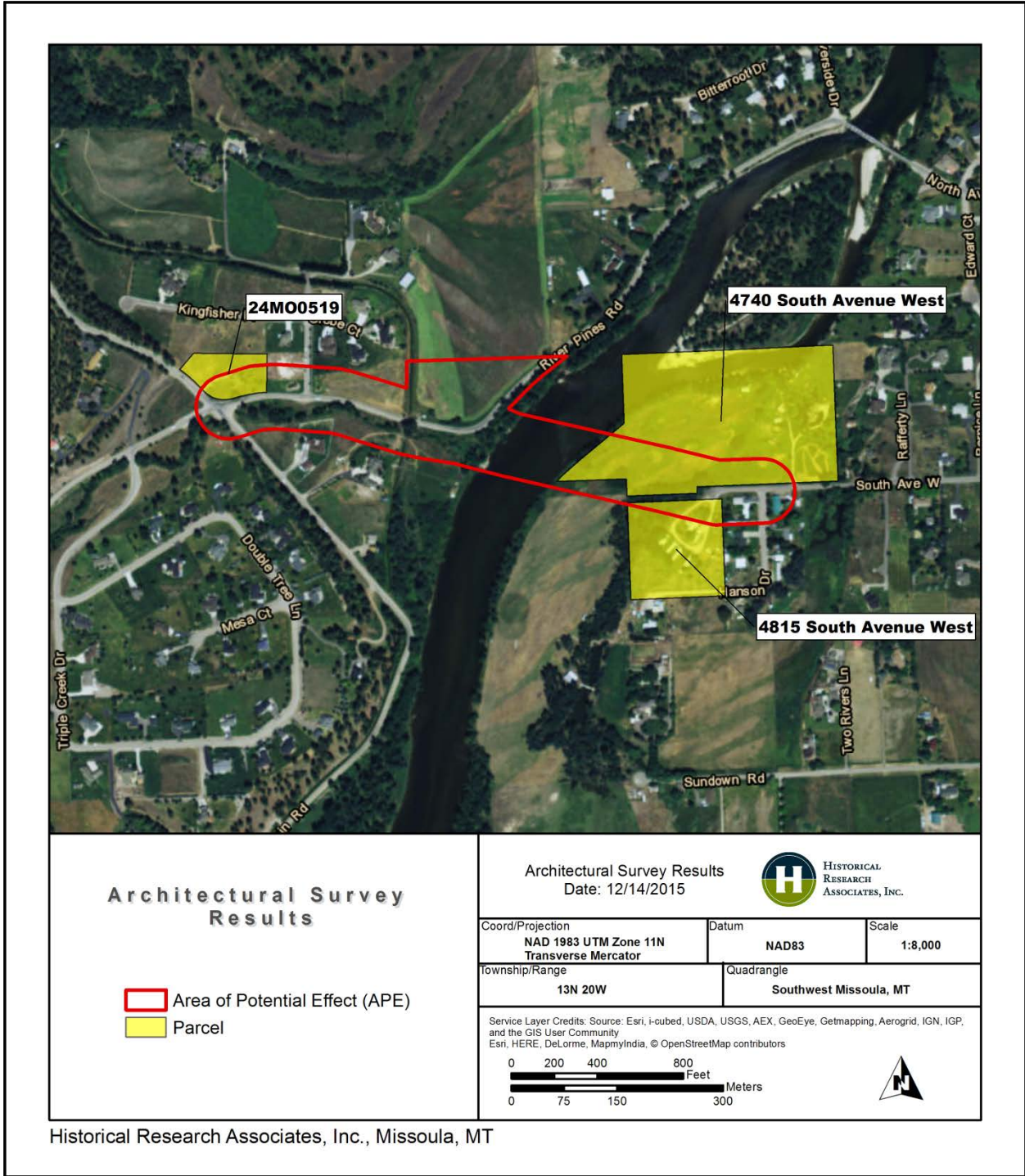


Figure 4-1. Parcels with historic-era resources identified as a result of the architectural survey.

roof that extends to the east. The entry door includes divided lights in the upper panel and is trimmed with a prominent wood lintel; it includes a decorative wood screen door. The entry is paired with a projection on the west that includes a wide bay window on the first floor. The three-part window is composed of wood-framed, one-over-one, double-hung windows flanking a large picture window topped by a fixed window of 44 divided lights. The primary facade includes a projecting single-story porch with plank floors, turned porch posts, a wood railing in an asymmetrical pattern, and simple, square spandrels in the frieze. The porch's compositional roof is hipped. Above the porch, the second story includes a pair of wood-framed, one-over-one, double-hung windows with brackets for storm windows. The top half-story includes a single four-light, wood-framed, casement window. The building's compositional roof is steeply pitched with deep eaves and barge boards in the gable.



Figure 4-2. 24MO0519, the Maclay House, south elevation, view to the north.

The building's west elevation (Figure 4-3) includes a central projection and a single-story porch and secondary entry at the northwest corner. The side porch matches the front porch in style, including asymmetrical rails, simple spandrels in the frieze, and a plank floor. Porch posts are simple square posts. The secondary entry door, which shelters under the hipped porch roof, is wood with a light in the upper panel. It is trimmed in wood with a prominent lintel. Windows, of which there are four on the first floor, are one-over-one or one-over-two wood-framed, double-hung windows. Windows on the upper floor, of which there are two, are one-over-one, double-hung, wood sash windows. The upper half story includes a four-light casement window in the gable. As on the primary façade, the gables include decorative bargeboards and the elevation includes corner boards.



Figure 4-3. 24MO0519, the Maclay House, west elevation, view to the east.

The building's north elevation is similar in style, including two one-over-one, double-hung, wood sash windows, one on each floor. The building's east elevation is also similar in style, including wood-trimmed, double-hung, one-over-one windows and a casement in the gable. However, the first floor includes a bay window made up of one-over-one, wood-framed, double-hung windows, although this is obscured by mature foliage. The bay window is paired with a round window further to the south.

4.2.2 4815 South Avenue W (parcel #0001715400)

No historic resources are visible at this location. The site includes a mobile home park identified by a sign as the "Lois Lane Trailer Court," which dates to 1970, and a detached garage constructed in 1975, according to the Missoula County Assessor records (Missoula County Assessor 2015). Assessor's records also note that the parcel includes a historic-era driveway or other concrete resource of 144 square feet.

The parcel is located south of South Avenue W and is the last parcel at the western end of the road near the eastern bank of the Bitterroot River. Field survey confirmed that the parcel consists of a private triangular drive that leads south from South Avenue W and provides vehicle access to trailers on its periphery south of the roadway. Visible trailers appear to date from outside the historic period. No concrete resource dating from 1901 was identified. Informal conversations with residents

also failed to identify any resource of that description on the property. HRA concludes that there are no historic-era resources extant on the parcel.

4.2.3 4740 South Avenue W (parcel #0001715400)

The parcel is located north of South Avenue W near its western end on the banks of the Bitterroot River (Missoula County Assessor 2015). The parcel includes three residential buildings and two storage sheds or barns, all of which are partially visible from the public right-of-way but located far north of the roadway and obscured by mature foliage. The parcel includes fenced-in pasture land along the roadway and a single driveway that leads north through the property, with the primary residence to the east and the barns and associated residences to the west. HRA was not granted permission to enter the property. Therefore, all evaluations took place from the public right-of-way (Figure 4-4).



Figure 4-4. Overview of 4740 South Ave West from the public right-of-way showing from left to the right, barn/shed #2 and the primary residence, view to the northwest.

Primary Residence

The primary residence was constructed in 1993, outside the historic period. It equals 2,504 square feet (Missoula County Assessor 2015). Minimally visible, it appears to be an irregularly shaped,

1.5-story residence clad in horizontal wood boards. Vinyl-framed casement windows are visible on the southern elevation, but all other elevations are obscured. The building is topped by a standing-seam metal roof with moderate eaves. Aerial photos suggest that the building includes an attached garage to the north.

Associated Residential Unit #1

West of the primary residence are two small residential units, both constructed in 1919 and roughly 500 square feet each. Associated residential unit #1 is located to the north of associated residential unit #2. Unit #1 appears to be constructed on piers, presumably to protect against flooding, as the unit is located near the eastern bank of the Bitterroot River. It is rectangular in plan, side-gabled, clad in horizontal wood boards, and topped by a standing-seam metal roof with moderate eaves. Visible windows include three-over-one, double-hung windows with fixed three-light windows in the gables. Windows are trimmed in wood. Knee braces are visible under the eaves. A wood deck and stair lead to the primary entrance on the south elevation. The entrance is obscured by mature foliage.

Associated Residential Unit #2

West of the primary residence and south of Unit #1 is associated residential unit #2. Constructed in 1919, the rectangular, front-gabled building is constructed on piers. It is clad in horizontal wood boards and is topped by a standing-seam metal roof with skylights on the south elevation and moderate eaves. The building includes no visible windows on its south elevation. The building's entrance, along with a wood deck and stair, is located on the west elevation, which was not visible from the public right-of-way.

Barn or Storage Shed #1

Barn #1 is located northwest of the residential units. It is a wood-framed, rectangular shed with a side-gabled, standing-seam metal roof (Figure 4-5). The barn is open to the south with visible wood posts that divide the barn into three bays. The building is located on fenced pasture land.

Barn or Storage Shed #2

The building is rectangular in plan, clad in vertical boards, and topped by a shed-style, standing-seam metal roof with minimal eave. The south elevation is closed and includes a single plywood door and no windows (Figure 4-6).



Figure 4-5. Overview of barn or storage shed #1, south elevation, view to the north.



Figure 4-6. Overview of barn or storage shed #2, south elevation, view to the north.

4.3 Evaluation of Architectural Resources

4.3.1 *National Register of Historic Places Criteria*

The criteria for listing a resource in the NRHP require that, in addition to a resource generally being over 50 years of age and possessing integrity, it must meet at least one of the following criteria, outlined in 36 CFR 60.4 (NPS 2002):

- A. Resource is associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Resource is associated with the lives of persons significant in our past; or
- C. Resource 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; or
- D. Resource has yielded, or is likely to yield, information important in prehistory or history (NPS 2002).

4.3.2 *Integrity*

Integrity is related to how a property's physical features are tied to and convey its significance. It is based on "why, where and when a property is important" (NPS 2002). In order to retain integrity, a property must retain most of the seven aspects of integrity, which are as follows:

- Location: the place where the property was constructed or the place where the historic event occurred.
- Design: the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting: the physical environment of a historic property.
- Materials: the physical elements that were combined or deposited during a particular period of time, and in a particular pattern or configuration, to form a historic property.
- Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling: a property's expression of the aesthetic or historic sense of a particular period of time.
- Association: the direct link between an important historic event or person and a historic property (NPS 2002).

4.4 Statements of Significance and Eligibility Determinations

4.4.1 24MO0519 - *The Maclay House*

The Maclay House (24MO0519) is one of the last remaining resources associated with a prominent farm and ranch owned by the Maclay family, who built the house upon purchasing the original 160-acre O'Brien homestead in 1892. The house represents a nearly intact example of a modest farmhouse expressing elements of the Queen Anne style. The house is located near O'Brien Creek, and near the bank of the Bitterroot River, an ideal location for irrigating associated farming or ranching land. The parcel also retains some of its fruit trees, which appear to represent the remnants of an orchard. Many early settlers in the region cultivated orchards and farms.

The Maclay property (24MO0519), which encompassed more than 101 acres in 1993, was evaluated by HRA at that time and recommended eligible under Criterion A as a representative of "Pacific Northwest homesteading and the agricultural development that largely accompanied it," and under Criterion C as a largely unaltered example of Queen Anne style. HRA recommends that the Maclay House remains eligible under Criterion A today for its strong associations with early ranching and farming history in the Bitterroot Valley southwest of the growing city of Missoula. HRA further recommends that the Maclay House remains eligible for listing in the NRHP under Criterion C. The house is an excellent, nearly intact example of a modest Queen Anne farmhouse, employing an irregular plan with crossing gables, front and side porches, and an asymmetrical façade with decorative woodwork. Although the house does not feature some of the hallmark examples of a fully expressed Queen Anne, including decorative scroll work, a tower, or bands of shingles, it represents the more modest farmhouse variation commonly found in the rural west. It features two porches, one stretching the length of the primary façade, with decorative, asymmetrical porch rails, turned posts, and delicate friezes. This "accentuates the asymmetry of the façade" (McAlester 2013). Doors and windows include simple surrounds, as is common in Queen Anne homes, and one-over-one windows. The house also employs decorative corner boards and bands at each story to vary the wall treatment. It is an excellent example of an early farmhouse and remains virtually unchanged from 1994, when it was determined eligible for listing in the NRHP under Criteria A and C (Caywood 1993).

For a resource to be eligible for listing in the NRHP, it must be also retain sufficient integrity. HRA recommends that the Maclay House retains sufficient integrity to be eligible for listing in the NRHP under Criteria A and C.

Location: The house remains in its original location and retains integrity of location.

Design: In its 1993 evaluation, HRA describes a 1985 renovation that replaced siding, flooring, and insulation in-kind and removed original porch ornament, made repairs to porch flooring and railing

where needed, and then reapplied the original porch ornament (HRA 1993). Repair, replacement in-kind, and upgrades like the addition of indoor plumbing and a gas furnace, do not diminish the integrity of the house's design. The house retains integrity of design.

Setting: The original property has been divided and the house now sits on a 1.58 acre parcel. Although the house is no longer associated with hundreds of acres of farmland, it does retain its proximity to the Bitterroot River, O'Brien Creek, an irrigation ditch, and associated orchard trees. However, as the building is now part of a residential subdivision and is surrounded by modern houses, it no longer tells the story of its original association to its surrounding landscape. The house has lost integrity of setting.

Materials: In 1993, HRA learned through personal interviews that the house had received few alterations to its materials. It does appear that the house may have included a shake roof at one time, and that has since been replaced with a compositional roof. Minor repair and upgrades have not diminished the house's integrity of materials.

Workmanship: The careful treatment of original materials has ensured that the house retains integrity of workmanship.

Feeling: The house has been separated from its associated lands and cannot be said to retain integrity of feeling.

Association: Associated with remnants of its original orchards, irrigation system, land, the Bitterroot River, and other associated features, the building retains integrity of association.

HRA recommends that the house (24MO0519), although it lacks integrity of setting and feeling, retains sufficient integrity of location, design, materials, workmanship, and association to be eligible for listing in the NRHP under Criteria A and C.

4.4.2 4815 South Avenue W

No historic-era resources were identified on site. Helen Greenberg of the Missoula County Assessor's office (personal communication 2015) reviewed the record and provided some background, noting that the date "1900" or "1901" was often used after 1980 as a stand-in when the actual date of construction was not available. The only drive visible from the public right-of-way appears to have been constructed specifically for the mobile home park, which dates from 1970, as it provides automobile access to each mobile home on site. Therefore, HRA concludes that the 1901 date is in error and that there are no historic-era resources extant on this parcel.

HRA recommends that as the parcel includes no resources 50 years old or older, no resources at this location are eligible for listing in the NRHP. Although the NRHP allows resources of exceptional character to be eligible for listing even if they do not meet the 50-year mark, HRA recommends that

the mobile homes and garage at this location are not sufficiently distinct to qualify for the NRHP under Criterion Consideration G.

4.4.3 4740 South Avenue W

Five buildings remain on this parcel and date from between 1919 and 1993. The site has a long history as a farm, claimed first by Thomas Foley in the 1870s. However, nothing appears to remain on site from the period before Foley's farm was divided into 5-acre parcels as part of the Orchard Homes Subdivision #6 in 1906.

The parcel's primary residence, constructed in 1993, was built outside the historic period and does not appear to be sufficiently distinct to meet NRHP Criteria Consideration G, the only consideration under which a resource may be eligible for listing before it is 50 years old.¹ HRA recommends that the building is not eligible for listing in the NRHP under Criteria A, B, C, or D.

Two residential buildings were constructed in 1919, and were likely constructed in service of the truck farm owned and operated by John Pomajevich. Although these two residences date from the historic period, they are not associated with the earliest settlement of the region, nor are they associated with early pioneers, nor are they associated with the early division of Orchard Homes, which took place in 1902. The buildings resemble a great number of other residences and farm buildings and do not rise to the level of significance needed to qualify for listing in the NRHP under Criterion A for their associations with important historic events or trends.

These buildings may have been constructed by the Pomajevich family, a farming family that amassed a large farm in southwest Missoula that included this parcel. However, these small buildings do not appear to be primary residences and are not known to be strongly associated with the family. HRA recommends that these residential buildings are not eligible for listing in the NRHP under Criterion B.

Both buildings are small and minimally ornamented. They are not the works of a master and do not express high artistic values. HRA recommends that the two buildings are not eligible for listing in the NRHP under Criterion C.

The buildings are not expected to yield information about history or pre-history and are not eligible under Criterion D.

The remaining two buildings are either barns or storage sheds associated with stock raising or other farming activities. They appear to be of newer construction, employing materials like plywood and

¹ Only having already been determined eligible under NRHP Criteria A, B, C, or D.

standing-seam metal roofs. HRA recommends that the buildings are not distinct enough to be eligible under Criteria A, B, C, or D.

Furthermore, the site retains integrity of location and setting, but does not retain integrity of design, materials, workmanship, feeling, or association. Primary buildings appear to have been removed, leaving only secondary structures from 1919 and later. Although the land was once part of a larger, active truck farm the parcel no longer tells the story of its history (Missoula County Assessor 2015). The primary residence is of fairly new construction (1993); the oldest residences have been incompatibly renovated with the addition of standing seam metal roofs, skylights, and new porches, and the land appears to have been split from other portions of the original farm, including lands to the south of South Avenue W. Presently, the parcel appears to feature a non-historic single-family residence with recently renovated secondary structures.

HRA recommends that none of the individual or collective resources are eligible for listing in the NRHP under any applicable criteria.

4.5 Determination of Effects to Historic Properties during Construction and Operation

HRA recommends that one resource, the Maclay House, is eligible for listing in the NRHP. Significant under Criteria A and C, the Maclay House is an excellent example of a modest Queen Anne farmhouse associated with early ranching and farming practices in the region.

The Project proposes to construct a new bridge over the Bitterroot River, extending South Avenue W over the river and connecting it to River Pines Road. Although the details of the Project have not yet been decided, it is likely that road widening or other road improvements will take place along River Pines Road, which forms the southern border of the Maclay property.

The Maclay property currently encompasses less than 2 acres and no longer includes the lands, outbuildings, or other features once associated with the house. As such, the setting of the Maclay House no longer retains integrity. Further alterations to the roadway will not likely affect the integrity or the eligibility of the Maclay House.

HRA recommends that the Project will have no adverse effect on the Maclay House.

5. Maclay Bridge (24MO0521)

Site Number: 24MO0521

Site Type: Historic Bridge

Ownership/Occupant: Missoula County

Present Use: The Bridge is used for transportation purposes, specifically vehicular and pedestrian traffic.

Site Location: T13N, R20W, Sec 26 SENWSW / UTM 721251E, 5192903N, Zone 11

NRHP Status: Eligible, Criterion C – MT SHPO concurrence April 23, 2012

The Maclay Bridge, 24MO0521, is situated on a meandering section of the Bitterroot River, approximately 2.75 miles west of the City of Missoula. The bridge connects North Avenue W, on the Bitterroot's east bank, to River Pines Road, on the river's west bank. Although the bridge displays three structural elements, the most significant portion of the bridge is the Parker-through truss. The bridge is a good example of a simple-riveted Parker through truss built by the Federal Bureau of Public Roads (BPR) in the 1920s and 1930s. This truss retains all of its character-defining features, including superstructure and substructure. Despite the fact that this truss segment was relocated in 1953 to its current location, its function and purpose were retained. Furthermore, relocating bridges during this time period was common throughout Montana. The alterations to the bridge are minimal and in-kind, including replacement of wood decking with corrugated steel overlaid with asphalt (Axline 2012:4). Additions to the bridge include new wheel guards and approach guard rails. The bridge has been determined eligible for inclusion in the NRHP under Criterion C (MT SHPO 2012).

5.1 Historic Context

This section provides a general overview of historical developments associated with the Maclay Bridge. Because the bridge and its previous iterations originate from a period of Euroamerican settlement in the area (see Section 2.4) at the turn of the twentieth century, this context focuses on developments of land settlement, transportation, and bridge engineering associated with the Maclay Bridge from the early 1800s through the 1960s.

5.1.1 Bridge Building in Montana

Most of the information in this section is derived from the book *Conveniences Sorely Needed: Montana's Historic Highway Bridges 1860–1956* by Jon Axline (2005).

The development of bridges in the United States goes hand-in-hand with the continued expansion of railroads, as new and more robust bridges were required to support the expanding rail network of the mid-1800s. This nationwide effort was no different for towns, communities, rivers, and ravines of Montana, where bridges started to connect the growing territory. The first steel bridge in Montana was completed in 1888. Crossing the Missouri River, the Fort Benton Bridge connected the St. Paul, Minneapolis and Manitoba Railroad in Fort Benton to the Judith Basin, an area rich with cattle and agriculture. The expanding rail network also supplied Montana with a reliable source of economically priced steel-bridge components from eastern plants (Axline 2005:23).

As with the Maclay Bridge, the responsibility of building bridges fell to the counties during this period. This created a somewhat haphazard building environment, where counties depended on both the reliability of the bridge manufacturers and bridge builders. Before the establishment of the Montana State Highway Commission in 1913, the process to propose, design, fund, and construct a bridge was similar throughout Montana: generally, residents requested or petitioned county commissioners for new roads and bridges. If enough signatures signed the petition or request, the commission would send a representative to inspect the proposed route or bridge site, and make a determination of its overall benefit to the area and county. If recommended for approval, the commission would then agree to fund it from a pool of money specifically earmarked for bridge maintenance and construction. If the bridge required greater funding than available, counties called for bond elections to raise money for the project (Axline 2005:30–32).

If the funds were available, the county surveyor choose an appropriate bridge design from bridge company catalogues, and the bridge company agents worked out the actual structural designs. In Montana, typically around ten companies bid on major county projects. Records indicate that companies were somewhat territorial, with specific companies or builders awarded projects in certain counties. For example, O. E. Peppard, the contractor of the 1899 repairs to the Maclay Bridge, was the chief bridge builder in Missoula during this period. To ensure fair division of the work and guarantee a profitable market, companies, through a gentlemen's agreement, divided Montana in specific geographic areas. Called "pooling," the practice lasted until 1915, when the highway commission ended it (Axline 2005:31–34).

The creation of the State Highway Commission in March 1913 reformed bridge building processes, with more stringent procedures at the state level. By 1915, all bridges costing in excess of \$500 required standard plans and specifications. The highway commission formed a bridge department that standardized 13 steel-truss bridge designs for utilization by counties. The counties remained responsible for contracts and payment, but the state supervised and inspected bridges before payment was authorized (Axline 2005:59–62). As 1915 ended, the newly formed bridge department oversaw the construction of almost 70 steel bridges.

In 1917, the state legislation reorganized the highway commission to manage the state's share of the first Federal Aid Highway Act. This restructuring mostly affected the commission's road building efforts. Just two years later, in 1919, the Montana Highway Department was formed. Under this new arrangement the highway commission was tasked with the political agenda of awarding contracts, managing the department's budget setting policies, and working with the BPR, while the highway department took on the responsibility of the actual design, construction, and maintenance of roads and bridges. The state gradually took greater control over the bridge building process, reduced counties shares of matching funds, and assumed control of the preconstruction and construction process (Axline 2005:68–70). It was under this context that the Nine Mile Prairie Bridge was constructed in the 1920s or 1930s by bridge contractor H. B. Berky & Son on behalf of the BPR.

This era of bridge building, which was sustained in part due to Montana's homestead boom of the early 1900s, slowed with the United States' entry into World War I. Montana's foundries and other manufacturers turned to support the war production, reducing materials, and in particular steel, available for bridges (Axline 2005:56–57).

The Great Depression would mark yet another road and bridge building era in the state. Franklin Delano Roosevelt's New Deal put Montanans to work on public works projects, including bridges. The program transformed Montana's transportation systems from one of the worst in the United States to one of the finest. Between 1930 to 1941, the Montana Highway Department built 1,213 bridges, compared to under 400 in the 1920s (Axline 2005:81, 83). It should be noted that during this prolific bridge building period, steel-truss bridges were not the primary type of bridge. Reserved for longer spans, steel-truss bridge types were passed over in favor of steel stringer and girder types and timber bridges. The vast majority were timber bridges, which contributed to the federal government's economic goals of putting as many laborers to work as possible (Axline 2005:85–87).

In response to the increased workload from the Emergency Relief Act of 1935, which implemented the Works Progress Grade Crossing Highway Program (WPGCH), state commissioners reorganized the bridge department and hired more engineers and designers. To house the nearly 100 staff members, the State Highway Commission building was completed in 1936 in Helena (Axline 2005:88–89).

With World War II looming, and with the urging of the BPR, the priorities of the state highway commission shifted to integrating Montana's road network into a national military strategic highway. This shift in priorities limited supplies, as steel and oil were redirected to military industries and the needs of the strategic highway system. Compounded by the start of World War II, many bridge projects were delayed or impacted because of shortages of supplies and skilled laborers (Axline 2005:107, 109). The Federal Highway Act of 1944 created a National System of Interstate and Defense Highways, and placed important roads and bridges within urban areas and secondary highways. The act also directed Montana to create the Montana Highway Planning Committee to

study the state's highway needs (Axline 2005:116). With this emphasis, many older bridges and roads were bypassed or replaced, which left numerous abandoned segments. Such was the case for the aforementioned Nine Mile Prairie Bridge, which was bypassed by Montana Highway 200 in 1946 (Axline 2012:3).

Bridge relocation became common practice, as exemplified by the relocation of the Nine Mile Prairie Bridge, which replaced the west span of the damaged Maclay Bridge in 1953. By 1955, an official policy regarding the disposition of bridges was adopted. "The state would decide whether structures built with county and state funds could become the property of the counties. All other structures, it resolved, would be disposed of at the discretion of the highway commission. It would prioritize request for a given structure, and if no other agency or county wanted a structure, it would be sold at public auction" (Axline 2005:127).

5.1.2 Bridge Technology

The multiple iterations of the Maclay Bridge not only represent the manifestation of legislative and procedural directives at the local, state, and federal levels from the early 1900s to the Cold War, but also advances in structural engineering and the utilization of new technologies. The current Maclay Bridge displays three distinct structural engineering components: the Parker truss, Warren truss, and concrete T-Beam.

Parker Truss

Charles H. Parker, a mechanical engineer with the National Bridge and Iron Works of Boston, Massachusetts, patented what was essentially a Pratt truss with polygonal or inclined top chord in 1877. The Parker truss uses less metal than a parallel chord Pratt truss of equal length; however, the Parker truss required different length vertical and diagonals at each panel, which increased the fabrication and erection cost. The Parker truss superseded the Pratt truss for longer spans at the turn of the century, as less materials were needed in their construction (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-34). The Parker and Pratt trusses remained popular in Montana in the late 1800s and early 1900s, until the Montana Highway Commission abandoned the design in favor of the Warren truss in 1931 (Axline 1999:9). The Parker truss section of the Maclay Bridge, built as the Nine Mile Prairie Bridge sometime in 1920s or 1930s, was moved to its current location in 1953.

Warren Truss

Developed in Great Britain in 1848 by Captain James Warren and Theobald Willoughby from a design by a Belgian engineer named Nelville, the Warren truss is easily recognizable by the "W" configuration of its diagonal members. Steel, field-riveted or bolted Warren pony trusses were built

by counties in the 1890s, state highway departments in the 1920s and 1930s, and railroads into the 1930s (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-39). In Montana, the first known Warren truss bridge was built around 1895, and by 1916, the Montana Highway Commission developed a standardized Warren truss design for use. “Between 1916 and 1947, sixty-one Warren through-deck, and pony bridges were constructed under the auspices of the Montana Highway Commission. The last Warren through truss built by the State Highway Commission in Montana was constructed in 1948” (Axline 1999:14–15). The Warren truss section of the Maclay Bridge, built as the Nine Mile Prairie Bridge sometime in 1920s or 1930s, was moved to its current location in 1953.

Prestressed Concrete T-Beam

Reinforced concrete T-beams are ubiquitous to highways and bridges in the United States, as thousands were constructed from the early twentieth century through the 1960s (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-88). When viewed through cross-section, the beams appear as a capital “T”, with steel set into the bottom of the stem or lower section to address tension (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-88). The Montana Highway Commission built concrete slab bridges from 1920 to 1931, until reinforced T-beam bridges were favored. The design and practicality of the T-beams was ideal for rapidly expanding highway system in Montana (Axline 2005:86). The T-beam section of the Maclay Bridge was built in 1964.

5.2 Construction and Maintenance

The first bridge in approximately the same location was constructed sometime in the early 1890s. The materials and design of the original bridge are not known, nor is the architect or engineer (Axline 2012:3).² The need to protect such bridges along the Bitterroot River, however, was documented early in the area’s history. “Wherever there is liable to be any serious damage done to bridges by high water, men are at work protecting the piers by rip-rapping. William Maclay has the contract for doing this work on the Maclay Bridge...and watchmen are to be employed on the more important bridges as soon as the water begins to reach a point that is considered dangerous” (*Anaconda Standard* 1899a). Despite these preemptive efforts by Missoula County, the original Maclay Bridge was damaged during a washout in the spring of 1899, when floods waters took out the bridge’s west span and pier (*Anaconda Standard* 1899b).

² Axline (2005) cites the builder as William Plunket (Mcclay?), though little is known or conformed of Plunket. He was purportedly hired by William S. O’Brien, owner of the land that encompassed this original bridge, in 1893 to construct a bridge over the Bitterroot River to provide access to Missoula. William Plunket was a contractor from Sprague, Washington. (Axline 2005). This information was not confirmed through primary sources.

The pier and span were repaired in the winter of 1899 by bridge contractor O. E. Peppard (*Anaconda Standard* 1899c). Born in December 1855, in Lansing, Michigan, Peppard was the son of a bridge builder. In the 1870s, his family moved to Red Field, Iowa, where he learned the family business. By 1882, Peppard took the position as the Northern Pacific Railway's supervisor of bridges and buildings in its Missoula Division; as supervisor he directed the construction of rail bridges on the Philipsburg and Bitterroot lines. By 1889, Peppard started his own bridge building company; before his death in 1929, his company built at least 30 steel bridges throughout Montana, including repairs on the Maclay Bridge in 1899 (*Anaconda Standard* 1899c). O. E. Peppard is credited as one of the most prolific bridge builders in Missoula County in the early twentieth century (Axline 2005:37–39).

The design and configuration of the 1899 repaired/rebuilt bridge is unknown. In 1922, the bridge was replaced with a steel bridge comprising two steel Pratt through-trusses of differing lengths. The bridge was supported on the west and east banks by wood piers driven into the banks, and a concrete pier near the center of the river (Figures 5-1 and 5-2). The west span of the bridge was 160 feet long with eight equal 20-foot panels, while the east span was 120 feet long with seven equal 17-foot, 1.75-inch panels (Commissioners of Missoula County 1922; Figure 5-3). Constructed by J. F. Harrington, the bridge was inspected and accepted for traffic on July 5, 1922 (Berens 1996:1).³

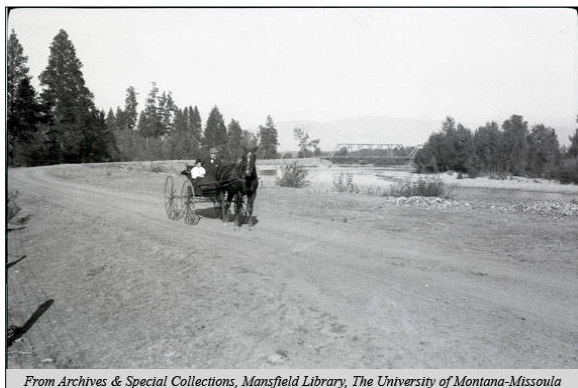


Figure 5-1. 1920s photo of horse and buggy with the ca. 1922 bridge in the background spanning the Bitterroot River.



Figure 5-2. 1930s photo of the ca. 1920 bridge spanning the Bitterroot River.

³ Born in 1867 in Massachusetts, J. F. Harrington is recorded as early as 1904 bidding on a variety of construction projects in Montana (United States Bureau of the Census 1930). In 1922, Harrington was awarded the contract to build the new Maclay Bridge (Berens 1996:1).

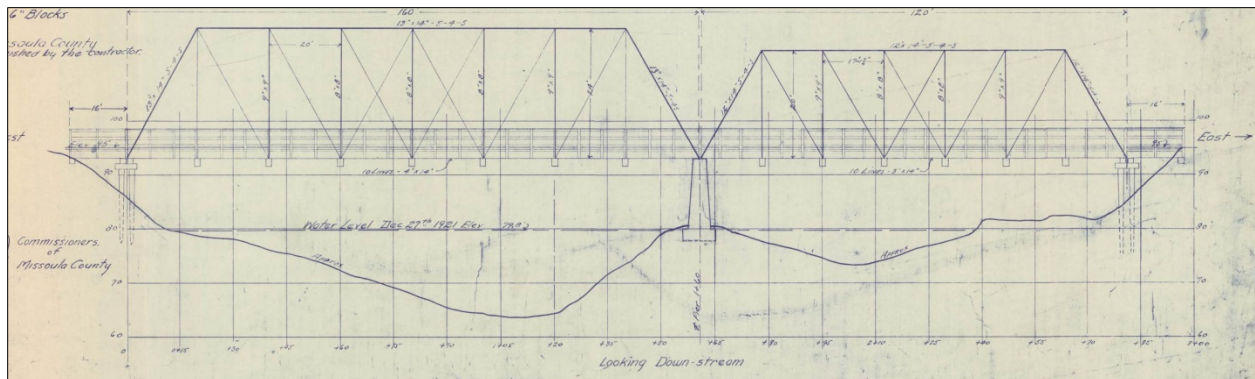


Figure 5-3. 1922 plans of replacement bridge. Note the two steel-Pratt-through trusses.

In spring 1948, the Bitterroot River again flooded and caused severe damage to the Maclay Bridge. “Most costly to the county was the loss of the Maclay Bridge, the west span of which went out Monday night. The structure, said by County Surveyor R.J. Hale to be about 28 years old, would cost approximately \$350,000 to replace” (*The Spokesman Review* 1948). In August of that year, the Board of County Commissioners of Missoula County contracted H. B. Berky and Son to complete emergency repairs to the concrete pier, abutment, and bridge (Missoula County Commissioners Journals 1948:2).

Born in Billings, Montana, in 1899 or 1900, Henry Berky worked on and supervised the construction of numerous bridges in Carbon County, Montana. After serving in the U.S. Army during World War I, Berky moved to Red Lodge, Montana, where he is listed in census records as being a bridge contractor. Berky moved to Missoula in 1931 and worked as a concrete contractor. He worked for the Montana Highway Department between 1940 and 1952 as a carpenter and bridge supervisor (Axline 2012:5). Berky died in Missoula County in 1964 (Montana Death Index 2011)

In October 1948, work to replace the west span of the bridge with an unused county bridge near Greenough was stopped by a court order that stated the county improperly entered into the contract. In 1952, almost four years after the west span of the bridge washed out, construction again proceeded after a ruling that the county could use accumulated money in the county’s bridge fund to rebuild the bridge (*The Spokesman Review* 1952).

With a restrictive budget of only \$20,000, the county relocated the recently bypassed Nine Mile Prairie Bridge from nearby Greenough, Montana (Axline 2012:3). The relocated Nine Mile Prairie Bridge was constructed in the 1920s or 1930s, also by bridge contractor Henry Berky on behalf of the Federal Bureau of Public Roads (Axline 2012:3). It included two spans, one 180 feet long and the other 39 feet long (*The Spokesman Review* 1952). The longer span consists of a riveted-Parker-through truss, while the shorter section was a riveted-Warren-pony truss (Figure 5-4).

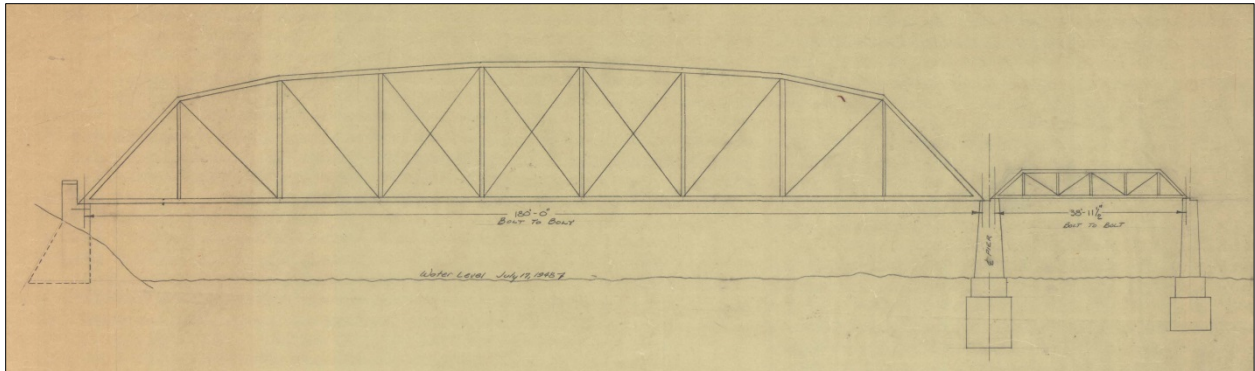


Figure 5-4. 1948 plans of the relocated-replacement trusses from the Nine Mile Prairie Bridge near Greenough, Montana.

After initial bids responding to Missoula County’s advertisement to relocate the bridge were deemed too high and rejected, Missoula County re-advertised for bids on October 1952. The county received two bids, one from H. B. Berky & Son and the other from Spokane-based Hansen and Parr Construction Company. Berky’s bid of \$19,500 was accepted (Axline 2012:5). The bridge was opened to traffic on March 31, 1953, over four years after flooding washed out the previous bridge’s west span (*The Spokesman Review* 1953).

After flooding again damaged the bridge in the spring of 1964, a new east approach span was installed (Axline 2012:5). The bridge was designed by Anderson, Birkeland, Anderson of Tacoma, Washington (now BergerABAM), and installed by Missoula firm Pew Construction (Pew 2015). Begun in 1951 as a sister company to the Concrete Engineering Company (now Concrete Technology Corporation), Anderson and Anderson Consulting Engineers was founded by engineer brothers Art and Tom Anderson. In 1957, they invited Halvard Birkeland to join the firm, and renamed the company Anderson, Birkeland, Anderson. (Lightbourne 2009:7, 14). The company specialized in concrete engineering, specifically prestressed concrete for a variety of applications, including bridges. By 1963, the company changed names again to Anderson, Birkeland, Anderson, and Mast, when Bob Mast, hired in 1959, became a partner. The name was shortened to ABAM in 1966 (Lightbourne 2009:32). During the 1960s, the company continued to innovate prestressed concrete designs, including advancements in precast bridge girders that minimized the amount of onsite construction work. In 1988, ABAM merged with the Louis Berger Group to become Berger/ABAM (Lightbourne 2009:181). The firm currently provides services in program management, civil and structural engineering, and planning and environmental services.

The 1964 iteration of the Maclay Bridge utilized precast concrete girders for its T-beams. The east span included two precast spans, each 61 feet long. Each span consisted of four prestressed T-beams supported by a retrofitted existing pier to the west, and new concrete piers at the center and

east bank (Figure 5-5). The prestressed T-beams were manufactured by United Prestress, Inc., of Great Falls, Montana (Anderson-Birkeland-Anderson Consulting Engineers 1964).

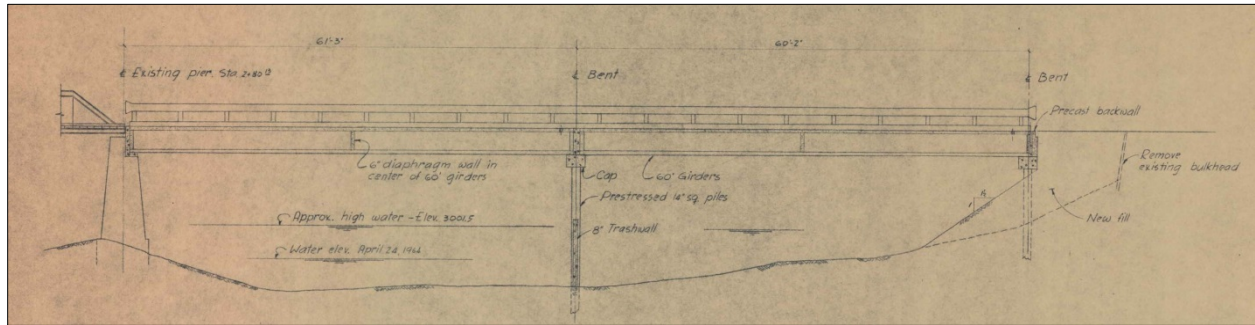


Figure 5-5. 1964 plans of new approach span. The existing pier and relocated 1953 section of the bridge are to the left.

5.3 Physical Description

Most of the land parcels abutting the roads that lead to the Maclay Bridge, and those in the vicinity along the Bitterroot River, are privately owned, with the exception of the Kelly Island Fishing Access Site, which is located at the confluence of the Clark Ford and Bitterroot Rivers northwest of the bridge. The properties near the bridge are a combination of suburban and rural in character, with residential properties intermixed with few commercial lots and recreational/open spaces (Robert Peccia & Associates 2013:41).

The current iteration of the Maclay Bridge is the work of multiple engineers and designers. The bridge is utilitarian in character and reflects bridge building trends in Montana from its first construction in the 1890s through the mid-1960s. The three different superstructure segments (Parker, Warren, T-beam) are indicative of the wider engineering movements and advancements at the time of their respective construction. The Maclay Bridge is comprised of three structural systems: a riveted-Parker-through truss, a riveted-subdivided-Warren-pony truss, and a pre-stressed concrete T-beam span. The three-part superstructure is supported by a substructure comprised of four concrete piers and a concrete abutment. The bridge is approximately 346 feet long and 16 feet wide, with an average roadway width of 14 feet.

The bridge substructure consists of five individual supports:

- Constructed in 1964, supporting the eastern most side of the T-beam-bridge section are three precast and pre-stressed square piles. The sloping-river embankment sits just below the horizontally running, cast-in-place, pile cap. The T-beams sit on the pile cap.

- Constructed in 1964, the central support for the T-beam section consists of three precast and prestressed-square piles that were driven into the river bed. A cast-in-place trashwall or web wall connects the piles. A cast-in-place, pile cap runs horizontally between the top of the piles. The T-beams sit on top of the pile cap.
- Constructed in 1922, the third support from the river's east bank supports the connection of the west end of the T-beam bridge section and east end of the Warren truss bridge section. The concrete pier features a footing set into the river bed. The footing supports a pier that tapers at the top. The upstream side (north) of the pier is flat, while the downstream side (south) is pointed. The portion of the pier supporting the T-beams was notched to accommodate the greater T-beam depth. The Warren truss section sits on top of the pier.
- Constructed in 1953, the fourth support from the river's east bank supports the connection of the west end of the Warren truss and the east end of the Parker truss bridge sections. The pier sits on a concrete footing set into the river bed. The upstream side (north) of the pier is curved, while the downstream (south) is pointed. The pier features a cap that was purposely notched to accommodate the Parker truss bridge sections.
- Constructed in 1953, the fifth support from the river's east bank is the abutment on river's west bank that supports the western most side of the Parker truss. The reinforced poured concrete abutment's front face parallels the river while two wings are angles into the embankment. The top portion of the paralleling section is notched to accommodate the west end of the Parker bridge section.

The following description of the superstructure of the Maclay Bridge comes from the 2012 Montana Historic Property Record by Jon Axline of the Montana Department of Transportation (Axline 2012). The description was confirmed in a field survey and through photographic analysis:



Figure 5-6. Parker truss segment of the Maclay Bridge.

The riveted Parker camelback through truss span is 180 feet in length, 16 feet wide and has a roadway width of 14 feet. The truss consists of nine 20-foot panels. The upper chords are paired laced channel sections with batten plates. A continuous steel plate is riveted to the top flanges of the chords. The lower chords are paired eyebars. Verticals are laced angle sections with batten plates. The diagonals are paired eyebars and the counters are eyebars with turnbuckles. Portal struts are angle sections with the top struts consisting of laced angle sections; the mid struts are angle sections. Top lateral and sway bracing are eyebars and eyebars with turnbuckles. The deck is supported by eight steel I-beam floor beams and eight lines of steel I-beam stringers. Additional support is provided by eyebar bottom lateral braces. The stringers support a corrugated metal deck that was installed in 2003; it has a bituminous asphalt overlay. The deck is flanked by angle section guardrails and modern channel section wheelguards.



Figure 5-7. Warren truss section of the Maclay Bridge.

The sub-divided Warren pony truss is attached to the southeast end of the main span. It is 39 feet long and 16 feet wide with a 14-foot roadway width. The trusses consist of six 6½-foot panels. The upper chords are paired channel sections with batten plates and a continuous steel plate riveted to the top flanges. The lower chords are channel sections. The verticals are paired angle sections with batten plates, while the subdivided verticals are simple angle sections. The diagonals are angle sections. Gusset plates are riveted at the panel points. The trusses are further supported by angle section knee brackets. The deck is supported by two steel I-beam floor beams and seven lines of steel I-beam stringers; additional support is provided by eyebar bottom lateral braces. The deck of the structure is corrugated metal with a bituminous asphalt overlay.



Figure 5-8. Prestressed concrete segment of Maclay Bridge.

The two prestressed concrete approach spans are on the southeast end of the structure and are each 61 feet in length. They are 16 feet wide and have a roadway width of 14 feet. The approach spans were added to the structure after severe flooding eroded the east river bank away in 1964. Each span has four lines of girders. The deck is flanked by high steel guardrails mounted on steel I-beam posts. The handrail is steel pipe. Steel ribbon-style guardrails are bolted midway on the posts between the handrail and the wood curbs.

Overall, the bridge appears to be in good to average condition with normal weathering apparent on the concrete and steel elements. Much of the steel portions of the bridge show signs of weathering and rusting, with chipped paint exposing the steel to the elements. There is also greater weathering and rusting in areas where the bridge's steel superstructure connects to the substructure. The concrete portions of the bridge, including the T-beams, support piers, abutment, and other features also are weathering and cracking. Water appears to be penetrating the cracked portions of the concrete. Additionally, there is some damage to the wheel guard and guard rails, normal to vehicular traffic.

6. Conclusions and Recommendations

HRA recommends (Table 6-1) that one resource within the APE, 24MO0519 (the Maclay House), is eligible for listing in the NRHP under Criteria A and C. HRA further recommends that as the Project will have no effect on the house itself, and minimal effect on surrounding resources like roadways, the Project has no potential to adversely affect 24MO0519.

Table 6-1. NRHP Eligibility Recommendations and Potential Adverse Effects to Historic Architectural Resources.

	Site / Address	Resource Type	Date of Construction	Eligibility Recommendation	Management Recommendation	Potential Adverse Effects
1	24MO0519: 296–298 Big Flat Road	Single-family residence	1898	Eligible	No further research is needed	No adverse effect
2	4815 South Avenue W	No historic resources identified on site	1974	Not Eligible	No further research is needed	No effect
3	4740 South Avenue W	3 single-family residences; 2 barns or outbuildings	1919–1993	Not Eligible	No further research is needed	No effect

Recommendations of eligibility described above are subject to review by the MT SHPO, which will provide formal determinations regarding eligibility and, subsequently, effects.

6.1 Maclay Bridge

HRA completed documentation of the Maclay Bridge following HAER Level II standards. The HAER approach provides a ready documentation framework that is recognized and accepted on both federal and state levels, and ensures a comprehensive recordation process that includes historic context, mapping, digital photography, and drawings.

While actions resulting from the Project to the Maclay Bridge are as yet unknown, the results of this documentation process provides information that can be used to make informed decisions, and/or provide mitigation or content for other forms of mitigation (e.g., interpretive signs, brochures, or web or app content) should an adverse effect result from project actions. Again, actions anticipated for the bridge are unknown at this time.

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Appendix A. Montana Historic Property Records

MONTANA HISTORIC PROPERTY RECORD

For the Montana National Register of Historic Places Program and State Antiquities Database

Montana State Historic Preservation Office
Montana Historical Society
PO Box 201202, 1410 8th Ave
Helena, MT 59620-1202

Property Address: **296-298 Big Flat Road
Missoula, MT 59804**

Historic Address (if applicable):

City/Town: **Missoula**

Site Number: **24MO0519**

(An historic district number may also apply.)

County: **Missoula**

Historic Name: **Maclay Property**

Original Owner(s): **William P. Maclay**

Current Ownership Private Public

Current Property Name: **Maclay Property**

Owner(s): **Walter B. Maclay**

Owner Address: **6238 Windfresh Dr
Las Vegas, NV 89148-4705**

Phone:

Legal Location

PM: **Montana** Township: **13N** Range: **20W**

SE ¼ SW ¼ SE ¼ of Section: **27**

Lot(s):

Block(s):

Addition: Year of Addition:

USGS Quad Name: **Southwest Missoula** Year:

Historic Use: **Ranch**

Current Use: **Single-family residence**

Construction Date: **1892** Estimated Actual

Original Location Moved Date Moved:

UTM Reference www.nris.mt.gov

NAD 27 or NAD 83(preferred)

Zone: **11** Easting: **720400** Northing: **5192400**

National Register of Historic Places

NRHP Listing Date:

Historic District:

NRHP Eligible: Yes No

Date of this document: **September 22, 2015**

Form Prepared by: **HRA: Chrisanne Beckner**

Address: **203 4th Ave E, Suite 506, Olympia, WA 98501**

Daytime Phone: **360.943.9241**

MT SHPO USE ONLY

Eligible for NRHP: yes no

Criteria: A B C D

Date:

Evaluator:

Comments:

MONTANA HISTORIC PROPERTY RECORD

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Architectural Description

Property Name: **Maclay Property**

Site Number: **24MO0519**

ARCHITECTURAL DESCRIPTION

Architectural Style: **Queen Anne** If Other, specify:

Property Type: **Residential** Specific Property Type: **Single-family residence**

Architect: **Unknown** Architectural Firm/City/State: **Unknown**

Builder/Contractor: **Unknown** Company/City/State: **Unknown**

Source of Information:

Physical description: The single-family residence sits on a 1.58-acre parcel at the NE corner of Big Flat Road and River Pines Road near the eastern bank of the Bitterroot River and O'Brien Creek.

Although the property used to include additional acreage and outbuildings, subdivisions have left the remaining lot with a single residential building and associated orchard trees. The parcel is bound by a split rail fence on the south and east border and includes a driveway off Big Flat Road to the east of the residence. The driveway approaches the house's east elevation and includes a gravel pad used for parking. The parcel is now part of River Pines Estates, a 2007 subdivision that includes large houses located north and west of the Maclay House. Although the majority of the parcel is covered in grass, a small number of orchard trees, primarily apple, remain in an uneven pattern to the west of the house. Two large trees are located along the property border south of the house. These may have originally flanked an opening in the fence or some other approach to the house's primary south-facing facade.

The house is 2.5 stories tall, and is cross-shaped in plan. The building's foundation was not visible from the public right-of-way but has been identified during previous surveys as a stone pier foundation enclosed in 12-inch horizontal boards (HRA 1993). These are observable on the east elevation. The building is clad in lapped, horizontal wood boards with corner boards and some horizontal members delineating each separate story. The building is topped by a compositional roof with steep pitch and two central, brick chimneys. The building's primary façade faces south. It is asymmetrical, with a recessed entry on the east that shelters under a catslide roof that extends to the east. The entry door includes divided lights in the upper panel and is trimmed with wood with a prominent lintel. It includes a decorative wood screen door. The entry is paired with a projection on the west that includes a wide bay window on the first floor. The three-part window is composed of wood-framed, one-over-one, double-hung windows flanking a large picture window topped by a fixed window of 44 divided lights. The primary facade includes a projecting single-story porch with plank floors, turned porch posts, a wood railing in an asymmetrical pattern, and simple, square spandrels. The porch's compositional roof is hipped. Above the porch, the second story includes a pair of wood-framed, one-over-one, double-hung windows with brackets for storm windows. The top half-story includes a single four-light, wood-framed, casement window. The building's compositional roof is steeply pitched with deep eaves and barge boards in the gable.

The building's west elevation includes a central projection and a single-story porch and secondary entry at the northwest corner. The side porch matches the front porch in style, including asymmetrical rails, simple spandrels, and a plank floor. Porch posts are simple square posts, however. The secondary entry door, which shelters under the hipped porch roof is wood with a light in the upper panel. It is trimmed in wood with a prominent lintel. Windows, of which there are four on the first floor, are one-over-one, or one-over-two, wood-framed, double-hung windows. Windows on the upper floor, of which there are two, include one-over-one, double-hung, wood sash windows. The second story window in the projecting cross includes an air conditioning unit in the bottom sash. The upper half story includes a four-light casement window. As on the primary façade, the gables include decorative bargeboards and the elevation includes corner boards.

The building's north elevation is similar in style, including two one-over-one, double-hung, wood sash windows, one on each floor.

The building's east elevation is similar in style, including wood-trimmed, double-hung, one-over-one windows and a casement in the gable. However, the first floor includes a bay window made up of one-over-one, wood-framed, double-hung windows, although this is obscured by mature foliage. The bay window is paired with a round window further to the south.

MONTANA HISTORIC PROPERTY RECORD

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Information Sources/Bibliography

Property Name: **Maclay Property**

Site Number: **24MO0519**

HISTORY OF PROPERTY

In 1853, Isaac A. Stevens was named governor of the new Washington Territory, established March 2. On his way to his new post in Olympia, Stevens brought a team of surveyors through present-day Montana to help research a possible railroad route to the Pacific Ocean. His team, which included wagon-master Captain C. P. Higgins, one of the future founders of Missoula, explored what became the northern route of the Northern Pacific Railroad (Lewis 1912:187; Stevens 1900:307; WPA 1939:174;). The possibility of a new railroad inspired increasing exploration and settlement, a trend that ignited conflict between local Native tribes and western pioneers. Newspapers from the turn of the century noted that farmers and homesteaders were spreading through the Bitterroot Valley by the mid-1850s.

While there was a few scattering of white people through the county as early as 1840, it was not until about 1856 that they commenced to come in any considerable number. A trading post was erected at Hell's Gate in 1857, and several men arrived from the east locating at various points along the Bitter Root river. They year 1858 brought quite a large addition to the few settlers in this section, among them being several whose names were given to local tributary streams (*Missoulian*, 1902).

This is further corroborated by Judge Frank H. Woody, who himself arrived in 1856. Woody noted that in the fall of that year, several Euroamerican traders took up fall residence in present-day Missoula County: Van Etten, George Goodwin, James Brown, Bill Madison, "Hooper & Williams' outfit," George and Frank Knowlton, and Arch and Alma Williams, among others. When they arrived, the parties found families who'd been driven out of the Nez Percés' country by the Indian wars of 1855–56. "These parties," wrote Woody, "with the Fathers and Lay Brothers of the St. Ignatius Mission, constituted the entire white population of the country now known as Missoula County" (Historical Society of Montana 1896:97). The trading parties wintered in the region and then disbursed in the spring, leaving only a small number of people in the valley before the arrival, in 1860, of Frank L. Worden and C. P. Higgins, who brought a store of goods to Hells Gate Ronde, just west of Missoula, and opened shop (Historical Society of Montana 1896:99).

In the 1860s, Stevens' survey helped establish the route of the Mulan Military Road, which was officially constructed through Hell's Gate on its way to forging a permanent wagon road between Fort Walla Walla in Washington and Fort Benton in Montana (Johnson 1995). By 1863, hundreds of would-be gold miners had traveled the new road from Idaho to Alder Gulch in Montana, following rumors of gold. According to the *Missoulian*, when mining played out in the area, "newcomers to the district commenced taking up claims and engaging in the farming business. From that time until the present the chief industries of the county have been principally agricultural, lumbering and stock raising" (*Missoulian*, 1902).

In 1865, Worden and Higgins built saw and grist mills on the Clark Fork River, east of their trading post, at the site of present day Missoula. They then moved their stores to that spot. As trade increased, their neighbors from Hell's Gate Ronde picked up and moved east as well, settling at "Missoula Mills," which later became known simply as "Missoula" (WPA 1939:174).

David O'Brien, one of the first homesteaders in the valley southwest of Missoula, is believed to have been farming on the west bank of the Bitterroot River as early as 1869. O'Brien Creek, which was named after him, still flows into the Bitterroot River today (Omundson 1961:110). O'Brien was one of a number of early homesteaders who were dispersed over farming and ranching lands in the region as the United States government struggled to contain Native tribes in the western territories in the 1860s. By the end of the decade, Missoula residents were asking for military support in case of retaliation or attack. They continued to request support until 1877, when Captains Rawn and Logan came to the region to found Fort Missoula, an unenclosed fort constructed roughly two miles east of the Maclay property. The fort and its first battalions were not used during the final battles with Native tribal members, but remained an asset to Missoula as the town grew, providing an early sense of protection to new settlers (Leeson 1885:871).

Missoula continued to grow, and in the early 1880s, the city leaders offered up private lands in negotiations with the Northern Pacific in order to bring the railroad through their town. In 1883, the same years Missoula was first incorporated, the Northern Pacific arrived, securing the city's position as a local transportation hub and providing transportation for the region's agricultural goods. (HRA 2003:13; Koelbel 1972:57).

Farming and ranching were common practices southwest of the growing city of Missoula, and throughout the 1870s and 1880s, homesteaders arrived and claimed lands along the Bitterroot River. Tomas Foley claimed lands on the east bank of the Bitterroot in the APE in the 1870s (US BLM GLO 2015a). He was joined by O'Brien, who officially claimed 160 acres west of the Bitterroot in the

MONTANA HISTORIC PROPERTY RECORD

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Information Sources/Bibliography

Property Name: **Maclay Property**

Site Number: **24MO0519**

APE in 1888 (US BLM GLO 2015b). However, O'Brien is believed to have either lost or sold his lands to Carl Denis that same year (HRA 1993).

With the coming of the railroad, the city itself started to grow, adding the Knowles Addition in 1891 and expanding existing neighborhoods in the Lower Rattlesnake area (Beery 2003:13). That same year, Missoula County granted William P. Maclay an easement across the Bitterroot River at the location of the current Maclay Bridge. The earliest bridge, which occasionally washed out in bad weather, was a link between the farm lands west of the river and the growing city of Missoula, east of the river (Berens 1996:1). In 1892, W. P. Maclay purchased O'Brien's lands from Denis, eventually expanding his holdings in the area to 1,200 acres (HRA 1993).

Although the 1890s were marked by economic depression, brought on by economic collapse in 1893, the region was supported by a growing number of farmers as large tracks were divided, cultivated, and diversified. Over the decade of the 1890s, Missoula's population expanded by one-third to 4,356 (Beery 2003:13). Missoula owed much of its early farming success to irrigation districts that diverted the water from the region's rivers to orchards and farms. By 1900, according to a local newspaper supplement heavily promoting Missoula's agricultural opportunities, there were "615 farms in Missoula County containing 148,666 acres of which 47,982 acres is improved." Almost sixty percent of those farms were under irrigation (Missoulian 1902: 11–12). A small farms movement was underway in the region:

About eight years ago some energetic, active business men of Missoula, who were believers in the small farm proposition, purchased of H. C. Hollenbeck and Ferd Kennett two hundred and forty acres of land in the Rattlesnake Valley, about two and one-half miles from Missoula, and after constructing irrigation ditches to this ground, platted the same into five and ten acre tracts and sold them out... Many homes were built on these tracts, much small fruit was planted and grown, while nearly all of the purchasers planted the land into orchards (Missoulian 1902:12).

The first small farms sold well enough that the trend continued. The Higgins Ranch, 400 acres southwest of Missoula, was purchased and subdivided into five-acre lots as the first "Orchard Homes" addition (Missoulian 1902:12). The Douglas farm of 169 acres, the Cook family's 80 acres, the Miller and Spurgin farms equaling 700 acres (the second Orchard Homes addition), and the Garrett, Foley, McGraw, and Williams' farm, consisting of 980 acres, followed. They too were divided and sold as small farms and orchards (Missoulian 1902:13).

At the turn of the century, the region's growth was further supported by the presence of the Northern Pacific; the founding of the University of Montana (1895); the region's proximity to mining in the Silver Valley in Idaho; an increased demand for lumber; and the availability of new lands for homesteading in the former Flathead Reservation (Beery 2003:13; WPA 1939:174). To serve its growing population, in 1903 and 1904, a total of 20 new schools were constructed in Missoula County. In 1907, the Target Range Elementary School was built within a mile of the Maclay property to serve new residents in the Target Range neighborhood and an increasing number of families at Fort Missoula (Brown 2010). By 1909, the Chicago, Milwaukee & St. Paul railroad was running steam-powered locomotives through Missoula, further expanding the region's transportation options (WPA 1939:174).

During the 1920s, Montana farmers were crippled by drought, but the situation was far worse for those in the Dust Bowl states. As migrants began to leave their lands, some migrated to the irrigable farms of western Montana. According to the WPA guide book, "in 1936 and 1937 Missoula grew rapidly... the largest single factor in this growth was perhaps the westward movement of thousands of people from the eastern drought areas (WPA Beery 2003:14; WPA 1939:175). The region was further supported during the Great Depression by an influx of federal funds and the establishment of the regional headquarters for the Civilian Conservation Corps at Fort Missoula (Beery 2003:15).

World War II once again saw the reinvention of Fort Missoula, which was used to house as many as 1,200 interned Italian men who had either been captured off merchant or luxury ships sailing into America's harbors. In December 1941, these detainees were joined by Japanese-born internees (Hall 2008:6). The region experienced another great building boom soon after World War II, as service men returned home, needing housing. The agricultural lands on the periphery of the city were further divided as subdivisions grew up along former agricultural land and the remaining farms diversified, adding truck farming, dairies, and other ranching activities (Beery 2003:15).

David O'Brien, one of the first homesteaders west of the Bitterroot River near Missoula, is believed to have been farming on the west bank of the river as early as 1869. O'Brien Creek, which was named after him, still flows into the Bitterroot River near the Maclay

MONTANA HISTORIC PROPERTY RECORD

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Information Sources/Bibliography

Property Name: **Maclay Property**

Site Number: **24MO0519**

House today (Omundson 1961:110). O'Brien officially claimed 160 acres west of the Bitterroot River in 1888 (US BLM GLO 2015b). However, O'Brien is believed to have either lost or sold his lands to Carl Denis that same year (HRA 1993). In 1892, W. P. Maclay purchased O'Brien's lands from Denis, expanding his holdings in the area to 1,200 acres by 1929 (HRA 1993). The land was passed from W. P. Maclay to his son, Clyde Maclay (date), and then to Clyde's son, William, with his wife Fleta (Betty).

Originally, seven buildings were included on the property: the existing house, which dates to 1892, two bunkhouses, a shed, a blacksmith's shop, a barn, and a pump house (HRA 1993). The land has since been divided. The most recent subdivision dates to 2007, with the platting of the River Pines Estates. The remaining parcel, at 1.58 acres, remained in the Maclay family for many years and includes the residence, but no associated buildings and structures. Other resources once associated with the family, including the irrigation ditch, which dates to the mid-1920s, remain in place.

A survey completed by HRA in 1993 traced the history of the house's construction and alteration. The house was constructed in 1892, according to Assessor's records, and received a series of additions. HRA identified a central addition that dates from before 1965, a southern addition from 1973, and a western addition dating to 1985 (HRA 1993). However, this appears to conflict from the narrative history, which suggests that the only known alterations were minor and took place in 1985. (CAN KRIS HELP CONFIRM THIS?)

The house was surveyed by HRA Inc. in 1993 and recommended eligible, although at that time, the parcel on which the house sat included 101.58 acres of land and associated buildings including a barn and two sheds. SHPO concurred with HRA's recommendation and found the resources eligible under criteria A and C on April 14, 1994 (John Boughton, personal communication, 2015).

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Missoulian

MONTANA HISTORIC PROPERTY RECORD

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MONTANA HISTORIC PROPERTY RECORD

PAGE 7
Statement of Significance

Property Name: **Maclay Property**

Site Number: **24MO0519**

NATIONAL REGISTER OF HISTORIC PLACES

NRHP Listing Date:

NRHP Eligibility: Yes No Individually Contributing to Historic District Noncontributing to Historic District

NRHP Criteria: A B C D

Area of Significance: **Agriculture; Architecture** Period of Significance: **1892**

STATEMENT OF SIGNIFICANCE

For a resource to be eligible for listing in the NRHP, it must be significant under at least one of four criteria. It must be strongly associated with events or trends in local, state, or national history (Criterion A), and/or it must be strongly associated with people important to our history (Criterion B), and/or it must be significant for its architectural or engineering qualities (Criterion C); and/or it must be significant for its ability to tell us something new about history or pre-history (Criterion D). HRA recommends that the Maclay House, along with its associated orchard trees, is eligible for listing in the NRHP under Criteria A and C.

The Maclay house is one of the last remaining resources associated with a prominent farm and ranch owned by the Maclay family, who built the house upon purchasing the original 160-acre O'Brien homestead in 1892. The house represents a nearly intact example of a modest farmhouse expressing elements of the Queen Anne style. The house is located near the O'Brien Creek, and near the bank of the Bitterroot River, an ideal location for irrigating associated farming or ranching land. The parcel also retains some of its fruit trees, which appear to represent the remnants of an orchard. Many early settlers in the region cultivated orchards and farms.

The Maclay property, which encompassed more than 101 acres in 1993, was evaluated by HRA at that time and recommended eligible under Criteria A as a representative of "Pacific Northwest homesteading and the agricultural development that largely accompanied it," and under Criterion C as a largely unaltered example of Queen Anne style. HRA recommends that the Maclay house remains eligible under Criterion A today for its strong associations with early ranching and farming history in the Bitterroot Valley southwest of the growing city of Missoula. HRA further recommends that the Maclay house remains eligible for listing in the NRHP under Criterion C. The house is an excellent, nearly intact example of a modest Queen Anne farmhouse, employing an irregular plan with crossing gables, front and side porches, and an asymmetrical façade with decorative woodwork. Although the house does not feature some of the hallmark examples of a fully expressed Queen Anne, including decorative scroll work, a tower, or bands of shingles, it represents the more modest farmhouse variation commonly found in the rural west. It features two porches, one stretching the length of the primary façade, with decorative, asymmetrical porch rails, turned posts, and delicate friezes. This "accentuates the asymmetry of the façade" (McAlester 2014). Doors and windows include simple surrounds, as is common in Queen Anne homes, and one-over-one windows. The house also employs decorative cornerboards and bands at each story to vary the wall treatment. It is an excellent example of an early farmhouse and remains virtually unchanged from 1994, when it was found eligible for listing in the NRHP under Criteria A and C.

MONTANA HISTORIC PROPERTY RECORD

PAGE 8
Integrity

Property Name: **Maclay Property**

Site Number: **24MO0519**

INTEGRITY (location, design, setting, materials, workmanship, feeling, association)

For a resource to be eligible for listing in the NRHP, it must be able to retain sufficient integrity. HRA recommends that the Maclay House retains sufficient integrity to be eligible for listing in the NRHP under Criteria A and C.

Location: The house remains in its original location and retains integrity of location.

Design: In its 1993 evaluation, HRA describes a 1985 renovation that replaced siding, flooring and insulation in-kind and removed original porch ornament, made repairs to porch flooring and railing where needed, and then reapplied the original porch ornament (HRA 1993). Repair, replacement in-kind, and upgrades like the addition of indoor plumbing and a gas furnace, do not diminish the integrity of the house's design. The house retains integrity of design.

Setting: The original property has been divided and the house now sits on a 1.58 acre parcel. Although the house is no longer associated with hundreds of acres of farmland, it does retain its proximity to the Bitterroot River, O'Brien Creek, an irrigation ditch, and associated orchard trees. However, as the building is now part of a residential subdivision and is surrounded by modern houses, it no longer tells the story of its original association to its surrounding landscape. The house has lost integrity of setting.

Materials: In 1993, HRA learned through personal interviews that the house had received few alterations to its materials. It does appear that the house may have included a shake roof at one time, and that has since been replaced with a compositional roof. Minor repair and upgrades have not diminished the house's integrity of materials.

Workmanship: The careful treatment of original materials has ensured that the house retains integrity of workmanship.

Feeling: The house has been separated from its associated lands and cannot be said to retain integrity of feeling.

Association: Associated with remnants of its original orchards, irrigation system, land, the Bitterroot River, and other associated features, the building retains integrity of association.

HRA recommends that the house, although it lacks integrity of setting and feeling, retains sufficient integrity of location, design, materials, workmanship, and association to be eligible for listing in the NRHP under Criteria A and C.

Attached photos are from the public right-of-way only and are not comprehensive.

MONTANA HISTORIC PROPERTY RECORD

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Photographs

Property Name: **Maclay Property**

Site Number: **24MO0519**



24MO0519, the Maclay House, south elevation, view to the north.



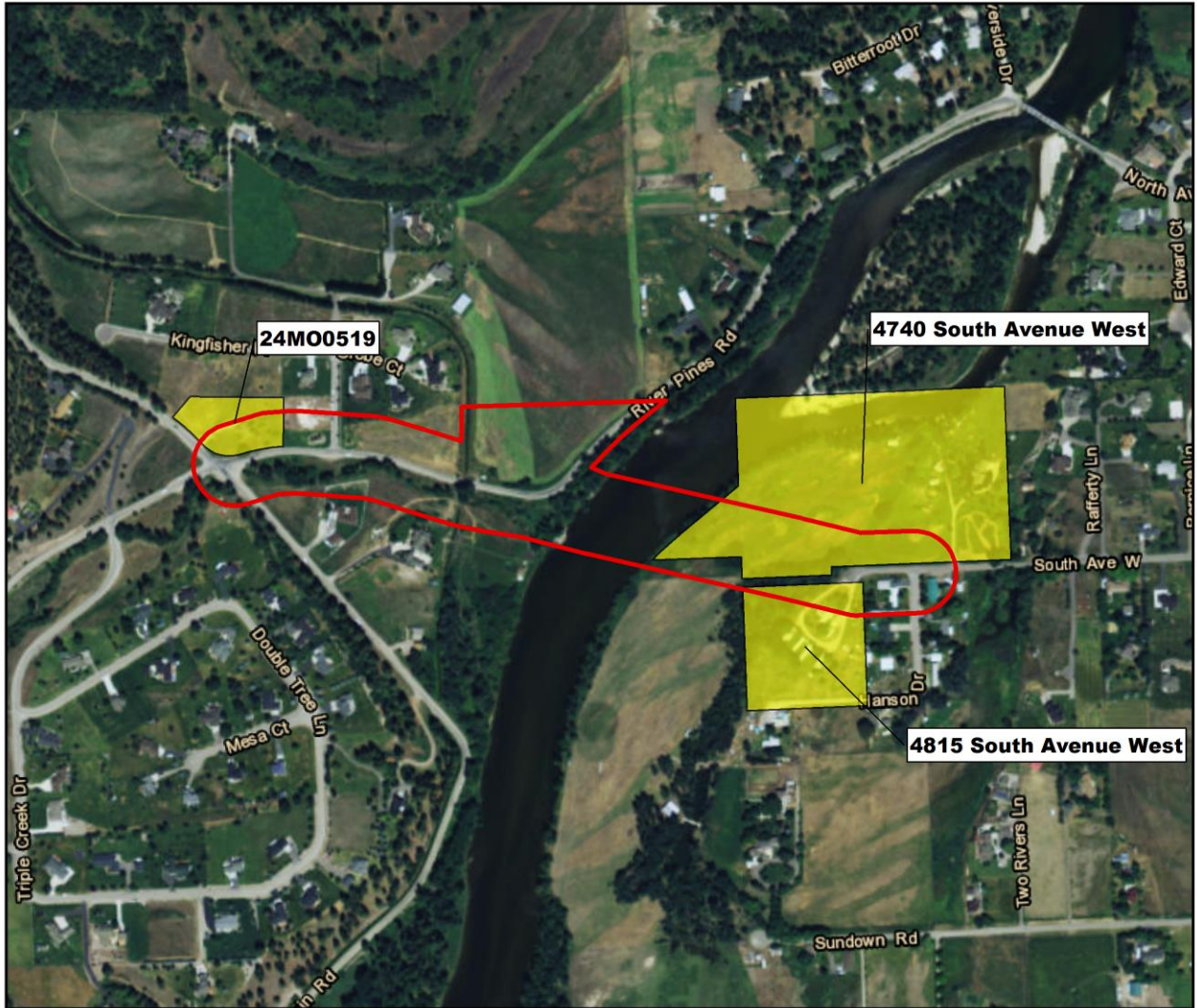
24MO0519, the Maclay House, west elevation, view to the east.

MONTANA HISTORIC PROPERTY RECORD

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Site Map

Property Name: **Maclay Property**

Site Number: **24MO0519**



Architectural Survey Results

- Area of Potential Effect (APE)
- Parcel

Architectural Survey Results
Date: 12/14/2015



Coord/Projection NAD 1983 UTM Zone 11N Transverse Mercator	Datum NAD83	Scale 1:8,000
Township/Range 13N 20W	Quadrangle Southwest Missoula, MT	

Service Layer Credits: Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors



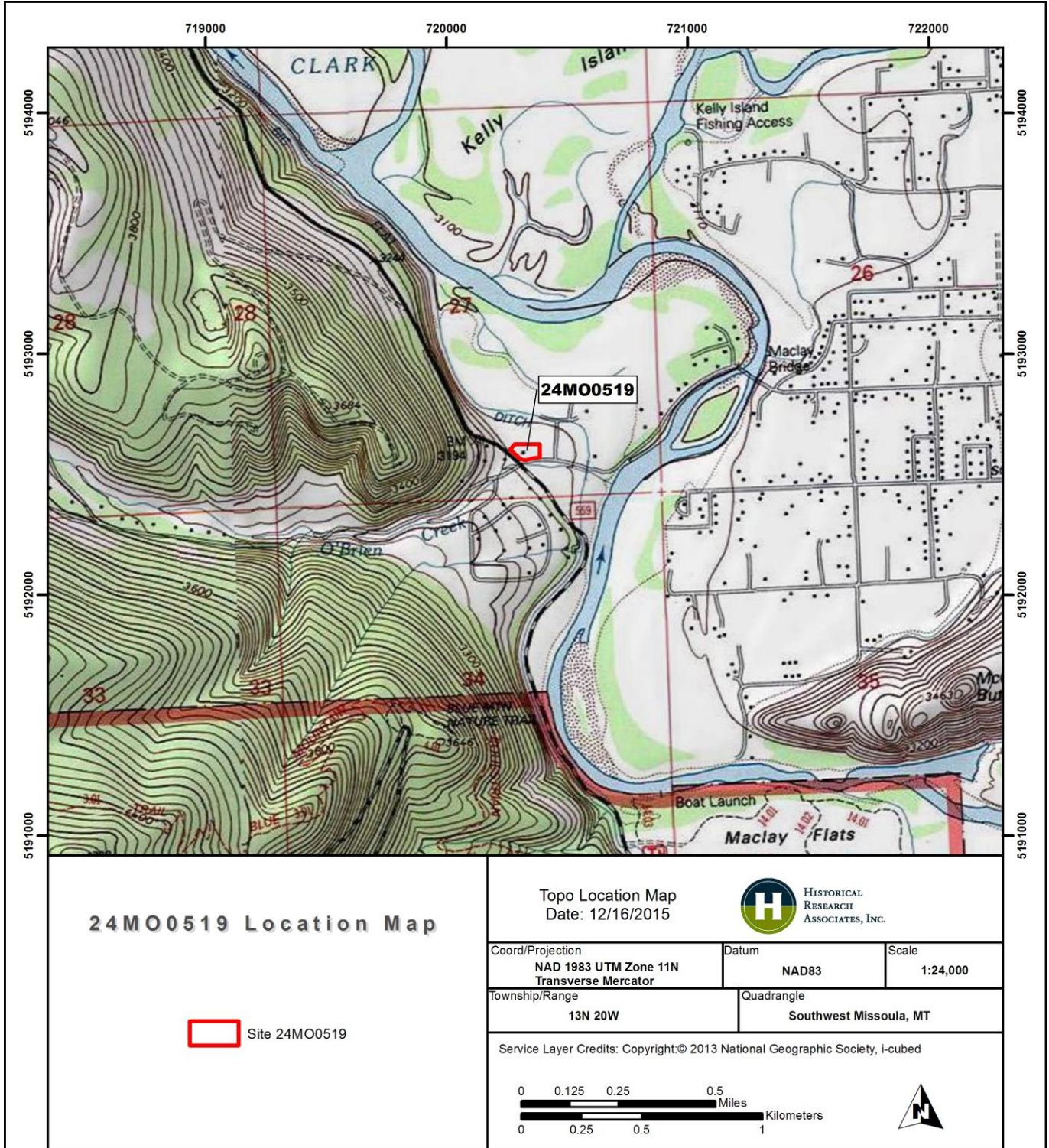
Historical Research Associates, Inc., Missoula, MT

MONTANA HISTORIC PROPERTY RECORD

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Topographic Map

Property Name: **Maclay Property**

Site Number: **24MO0519**



24MO0519 Location Map

 Site 24MO0519

Topo Location Map
Date: 12/16/2015



Coord/Projection NAD 1983 UTM Zone 11N Transverse Mercator	Datum NAD83	Scale 1:24,000
Township/Range 13N 20W		Quadrangle Southwest Missoula, MT

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed



MONTANA HISTORIC PROPERTY RECORD

For the Montana National Register of Historic Places Program and State Antiquities Database

Montana State Historic Preservation Office
Montana Historical Society
PO Box 201202, 1410 8th Ave
Helena, MT 59620-1202

Property Address: **4740 South Ave W
Missoula, MT 59804**

Historic Address (if applicable):

City/Town: **Missoula**

Site Number: **4740 S Ave W**

(An historic district number may also apply.)

County: **Missoula**

Historic Name: **Foley property**

Original Owner(s): **Thomas Foley**

Current Ownership Private Public

Current Property Name: **Lawrence residence**

Owner(s): **Martin K. Lawrence and Dana Headapohl**

Owner Address: **4740 South Ave W
Missoula, MT 59804**

Phone:

Legal Location

PM: **Montana** Township: **13N** Range: **20W**

SE ¼ SW ¼ SE ¼ of Section: **26**

Lot(s): **77, 78, 79**

Block(s): **7**

Addition: **Orchard Homes Co 6** Year of Addition:
1906

USGS Quad Name: **Southwest Missoula** Year: **1978**

Historic Use: **Farm**

Current Use: **Rural residential**

Construction Date: **1919; 1993** Estimated Actual

Original Location Moved Date Moved:

UTM Reference www.nris.mt.gov

NAD 27 or NAD 83(preferred)

Zone: **11** Easting: **721022** Northing: **5192514**

National Register of Historic Places

NRHP Listing Date:

Historic District:

NRHP Eligible: Yes No

Date of this document: **October 1, 2015**

Form Prepared by: **HRA: Chrisanne Beckner**

Address: **203 4th Ave E, Suite 506, Olympia, WA 98501**

Daytime Phone: **360.943.9241**

MT SHPO USE ONLY

Eligible for NRHP: yes no

Criteria: A B C D

Date:

Evaluator:

Comments:

MONTANA HISTORIC PROPERTY RECORD

PAGE 2

Architectural Description

Property Name: **Foley property**

Site Number: **4740 S Ave W**

ARCHITECTURAL DESCRIPTION

Architectural Style: **Other:** If Other, specify:

Property Type: **Residential** Specific Property Type: **Single-family residence**

Architect: **Unknown** Architectural Firm/City/State: **Unknown**

Builder/Contractor: **Unknown** Company/City/State: **Unknown**

Source of Information:

MONTANA HISTORIC PROPERTY RECORD

PAGE 3

Information Sources/Bibliography

Property Name: **Foley property**

Site Number: **4740 S Ave W**

Physical description: The parcel includes three residential buildings and two storage sheds or barns, all of which are partially visible from the public right-of-way but located far north of the roadway and partially obscured by mature foliage. The parcel includes fenced-in pasture land along the roadway and a single driveway that leads north through the property, with the primary residence to the east and the barns and associated residences to the west. HRA was not granted permission to enter the property. Therefore, all evaluations took place from the public right-of-way.

Primary Residence: The primary residence was constructed in 1993, outside the historic period. It equals 2,504 square feet (Missoula County Assessor 2015). Minimally visible, it appears to be an irregularly-shaped, 1.5 story residence clad in horizontal wood boards. Vinyl-framed casement windows are visible on the southern elevation, but all other elevations are obscured. The building is topped by a standing-seam metal roof with moderate eaves. Aerial photos suggest that the building includes an attached garage to the north.

Associated Residential Unit #1: West of the primary residence are two small residential units, both constructed in 1919 and roughly 500 square feet each. Associated residential unit #1 is located to the north of associated residential unit #2. Unit #1 appears to be constructed on piers, presumably to protect against flooding, as the unit is located near the eastern bank of the Bitterroot River. It is rectangular in plan, side-gabled, clad in horizontal wood boards, and topped by a standing-seam metal roof with moderate eaves. Visible windows include three-over-one, double-hung windows with fixed three-light windows in the gables. Windows are trimmed in wood. Knee braces are visible under the eaves. A wood deck and stair lead to the primary entrance on the south elevation. The entrance is obscured by mature foliage.

Associated Residential Unit #2: West of the primary residence and south of Unit #1 is associated residential unit #2. Constructed in 1919, the rectangular, front-gabled building is constructed on piers. It is clad in horizontal wood boards and is topped by a standing-seam metal roof with skylights on the south elevation and moderate eaves. The building includes no visible windows on its south elevation. The building's entrance, along with a wood deck and stair, is located on the west elevation, which was not visible from the public right-of-way.

Barn or Storage Shed #1

Barn #1 is located northwest of the residential units. It is a wood-framed, rectangular shed with a side-gabled, standing-seam metal roof. The barn is open to the south with visible wood posts that divide the barn into bays. The building is located in fenced pasture land.

Barn or Storage Shed #2: The building is rectangular in plan, clad in vertical boards, and topped by a shed-style, standing-seam metal roof with minimal eave. The south elevation is closed and includes a single plywood door and no windows.

MONTANA HISTORIC PROPERTY RECORD

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Information Sources/Bibliography

Property Name: **Foley property**

Site Number: **4740 S Ave W**

HISTORY OF PROPERTY

4740 South Ave W

In 1872, Thomas Foley claimed 160 acres south of South Ave W. And in 1877, he expanded his holdings north of South Ave W. Foley, like his neighbors, farmed and ranched in the area beginning in the 1860s (Leeson 1885:1307; US BLM GLO 2015a). Early histories notes that he farmed grain and vegetables, which he sold to mining camps in the mid-1860s. By the 1890s, he was raising stock on his expanded lands (Miller 1894:725). In 1902, his lands were subdivided during the local craze for five-acre farms. As part of Orchard Homes Addition No 6, the property became part of the farm and orchard lands now known as Orchard Homes.

Public records, including Sanborn maps, city directories, and local maps often did not cover the rural lands southwest of Missoula. However, recent stories in the Missoulian show that the John Pomajevich family held the land and farmed in this area since at least the 1920s (Missoulian 2013). However, John Pomajevich, a gardener, only appears in city directories at the last address along South Ave W in the mid-century, apparently because of variations in street names and addresses.

The property was claimed as a homestead by Lawrence K. Martin and Dana Headapohl in 2004 (Martin and Headapohl 2004).

MONTANA HISTORIC PROPERTY RECORD

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Information Sources/Bibliography

Property Name: **Foley property**

Site Number: **4740 S Ave W**

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MONTANA HISTORIC PROPERTY RECORD

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Statement of Significance

Property Name: **Foley property**

Site Number: **4740 S Ave W**

NATIONAL REGISTER OF HISTORIC PLACES

NRHP Listing Date:

NRHP Eligibility: Yes No Individually Contributing to Historic District Noncontributing to Historic District

NRHP Criteria: A B C D

Area of Significance: _____ Period of Significance: _____

STATEMENT OF SIGNIFICANCE

Five buildings remain on this parcel and date from between 1919 and 1993. The site has a long history as a farm, claimed first by Thomas Foley in the 1870s. However, nothing appears to remain on site from the period before Foley's farm was divided into 5-acre parcels as part of the Orchard Homes Subdivision #6 in 1906.

The parcel's primary residence, constructed in 1993, was built outside the historic period and does not appear to be sufficiently distinct to meet NRHP Criteria Consideration G, the only consideration under which a resource may be eligible for listing before it is 50 years old.¹ HRA recommends that the building is not eligible for listing in the NRHP under Criteria A, B, C, or D.

Two residential buildings were constructed in 1919, and were likely constructed in service of the truck farm owned and operated by John Pomajevich. Although these two residences date from the historic period, they are not associated with the earliest settlement of the region, nor are they associated with early pioneers, nor are they associated with the early division of Orchard Homes, which took place in 1902. The buildings resemble a great number of other residences and farm buildings and do not rise to the level of significance needed to qualify for listing in the NRHP under Criterion A for their associations with important historic events or trends.

These buildings may have been constructed by the Pomajevich family, a farming family that amassed a large farm in southwest Missoula that included this parcel. However, these small buildings do not appear to be primary residences and are not known to be strongly associated with the family. HRA recommends that these residential buildings are not eligible for listing in the NRHP under Criterion B.

Both buildings are small and minimally ornamented. They are not the works of a master and do not express high artistic values. HRA recommends that the two buildings are not eligible for listing in the NRHP under Criterion C.

The buildings are not expected to yield information about history or pre-history and are not eligible under Criterion D.

The remaining two buildings are either barns or storage sheds associated with stock raising or other farming activities. They appear to be of newer construction, employing materials like plywood and standing-seam metal roofs. HRA recommends that the buildings are not distinct enough to be eligible under Criteria A, B, C, or D.

Furthermore, the site retains integrity of location and setting, but does not retain integrity of design, materials, workmanship, feeling, or association. Primary buildings appear to have been removed, leaving only secondary structures from 1919 and later. Although the land was once part of a larger, active truck farm the parcel no longer

¹ Only having already been determined eligible under NRHP Criteria A, B, C, or D.

MONTANA HISTORIC PROPERTY RECORD

PAGE 7
Integrity

Property Name: **Foley property**

Site Number: **4740 S Ave W**

tells the story of its history (Missoula County Assessor 2015). The primary residence is of fairly new construction (1993); the oldest residences have been incompatibly renovated with the addition of standing seam metal roofs, skylights, and new porches, and the land appears to have been split from other portions of the original farm, including lands to the south of South Avenue W. Presently, the parcel appears to feature a non-historic single-family residence with recently renovated secondary structures.

HRA recommends that none of the individual or collective resources are eligible for listing in the NRHP under any applicable criteria.

Attached photos are from the public right-of-way only and are not comprehensive.

MONTANA HISTORIC PROPERTY RECORD

PAGE 8
Photographs

Property Name: **Foley property**

Site Number: **4740 S Ave W**



Overview of 4740 South Ave West from the public right-of-way showing from left to the right, barn/shed #2 and the primary residence, view to the northwest.

MONTANA HISTORIC PROPERTY RECORD

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Photographs

Property Name: **Foley property**

Site Number: **4740 S Ave W**



Overview of barn or storage shed #1, south elevation, view to the north.

MONTANA HISTORIC PROPERTY RECORD

PAGE 10
Photographs

Property Name: **Foley property**

Site Number: **4740 S Ave W**



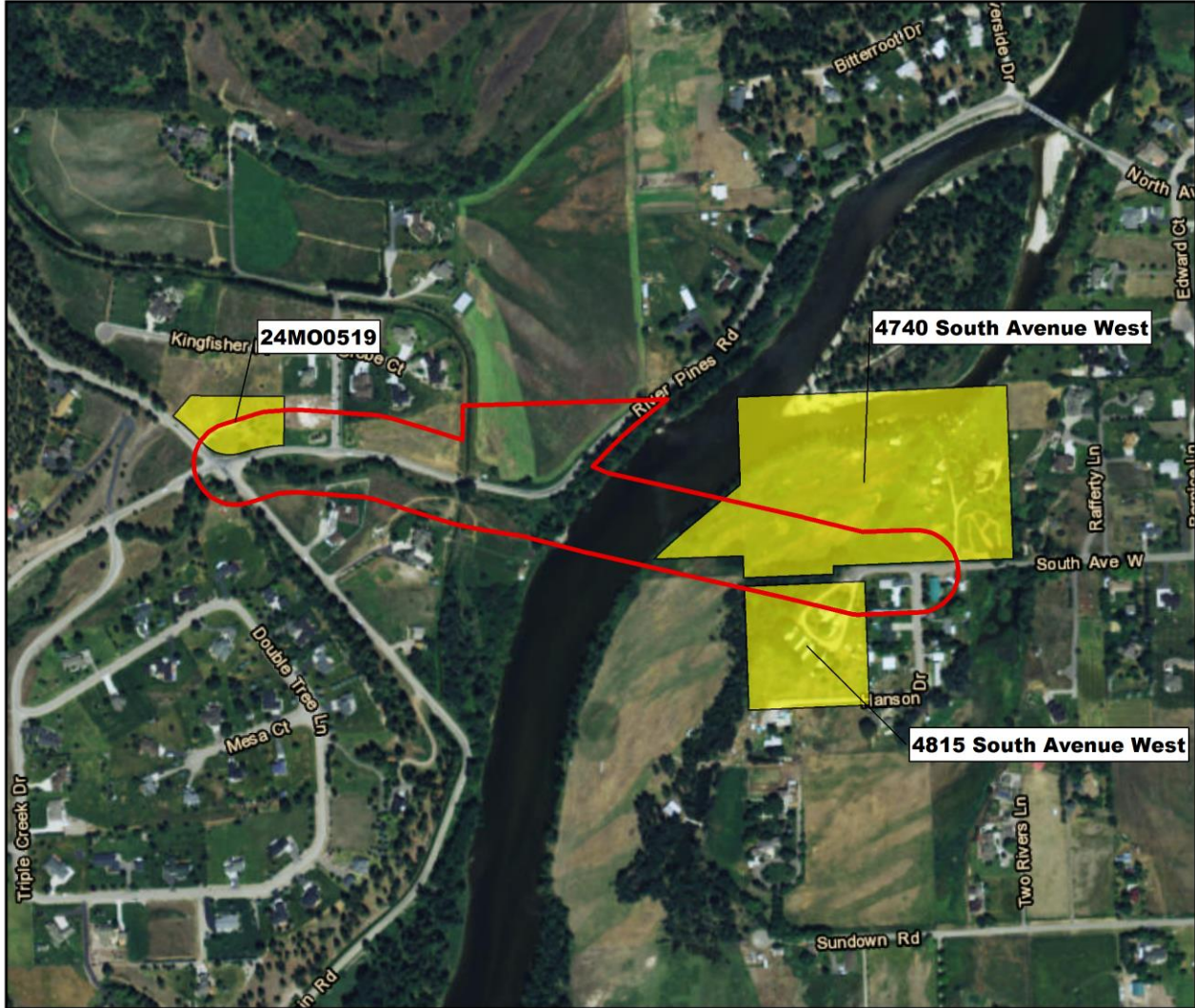
Overview of barn or storage shed #2, south elevation, view to the north.

MONTANA HISTORIC PROPERTY RECORD

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Site Map

Property Name: **Foley property**

Site Number: **4740 S Ave W**



Architectural Survey Results

- Area of Potential Effect (APE)
- Parcel

Architectural Survey Results
Date: 12/14/2015



Coord/Projection NAD 1983 UTM Zone 11N Transverse Mercator	Datum NAD83	Scale 1:8,000
Township/Range 13N 20W	Quadrangle Southwest Missoula, MT	

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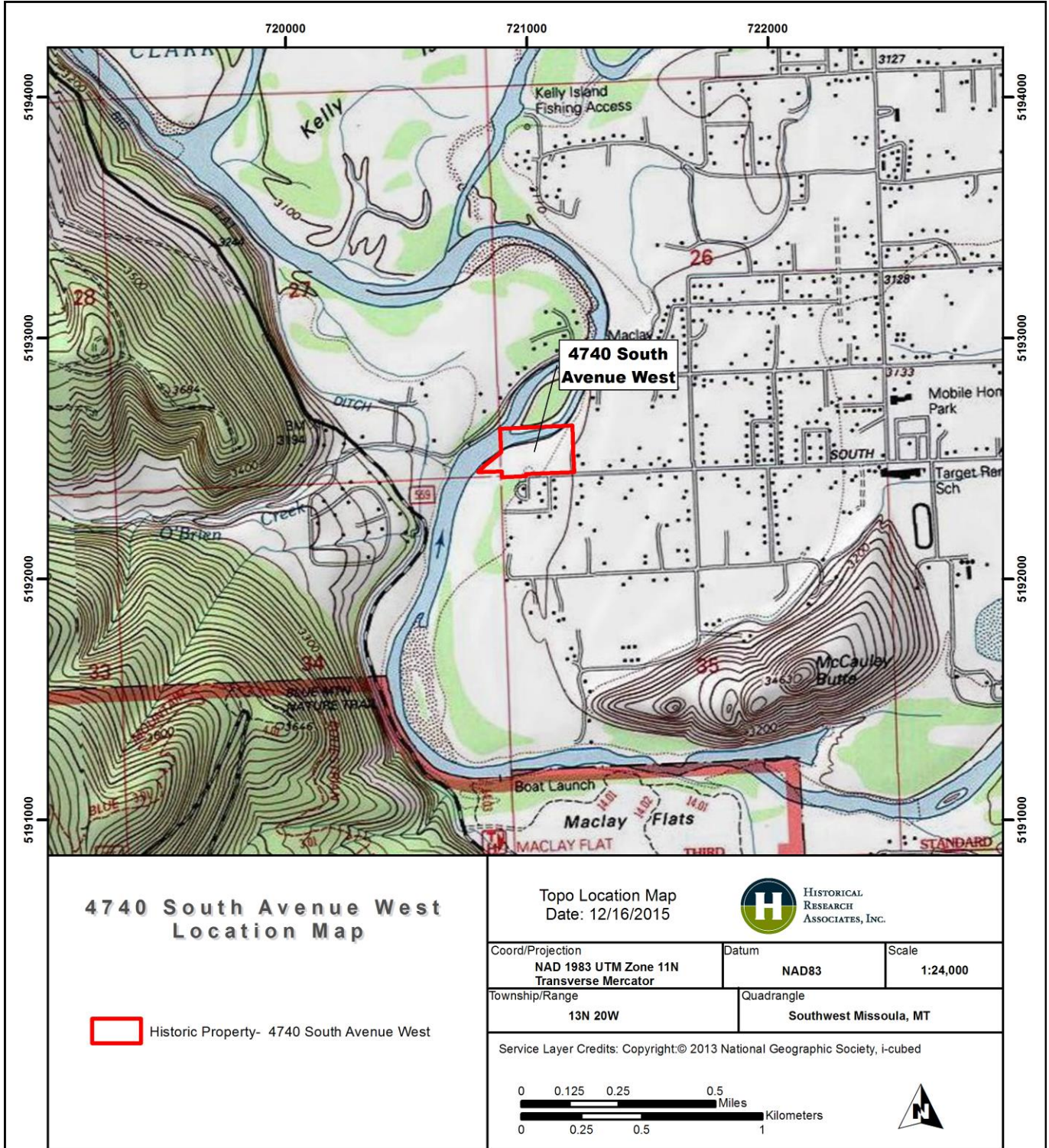
Historical Research Associates, Inc., Missoula, MT

MONTANA HISTORIC PROPERTY RECORD

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Topographic Map

Property Name: **Foley property**

Site Number: **4740 S Ave W**



4740 South Avenue West Location Map

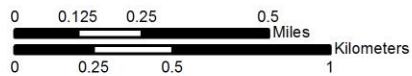
 Historic Property- 4740 South Avenue West

Topo Location Map
Date: 12/16/2015



Coord/Projection NAD 1983 UTM Zone 11N Transverse Mercator	Datum NAD83	Scale 1:24,000
Township/Range 13N 20W		Quadrangle Southwest Missoula, MT

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