# Biennial Report to the

# Montana Preservation Review Board

on the Stewardship, Status and Maintenance Needs of the Heritage Properties of Montana State University

For the Reporting Cycle 2020 – 2021

March 9, 2022







In Compliance with Montana Code Annotated 22-3-424 (4) Montana State Antiquities Act

Submitted by:

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# **EXECUTIVE SUMMARY**

# Stewardship Efforts

Montana State University is the steward for nearly 90 designated heritage buildings, for which biennial reporting is required in accordance with the state's MCA 22-3-422 (6). This report for the calendar years 2020 and 2021 demonstrates MSU's commitment to their heritage properties and documents the properties' standings in terms of integrity, status, condition, and funding.

Since the last report greater clarity regarding the agricultural experimentation sites (MAES) has led to adjustment of the overall number of heritage properties and broadened the reporting to more accurately reflect the resources at CARC (Central Agricultural Research Center), SARC (Southern Agricultural Research Center) and WARC (Western Agricultural Research Center). The corrected number of resources is provided in the inset to the right.

This report documents efforts to preserve the places that matter and to publicize these efforts. MSU has seventeen established **heritage** properties (this includes ten individual buildings and seven historic districts each with a number of buildings, sites, structures, and objects). MSU's flagship Bozeman campus has thirty designated heritage buildings, five sites, and three objects within the historic district, and one heritage building – the Brick Breeden Fieldhouse – outside the historic district. The MSU-Billings campus has four individual heritage buildings. MSU-Northern in Havre has three designated heritage buildings.

MSU also has five Agricultural Research Center sites managed by MAES and dispersed throughout the state. Of these sites, two are located on the sites of forts that used to protect the adjacent cities (among other functions) and were thus well poised to house agriculture experiment stations when the forts were decommissioned. The first MAES site is at Fort Ellis east of Bozeman, with thirteen heritage buildings, fourteen structures, and one archeological site. The second MAES site is at Fort Assinniboine six miles south of Havre, with twenty heritage buildings, fourteen sites, five structures, and three objects in a National Register Historic District nominated for its national significance (all under the umbrella of one Smithsonian number).

MSU's total stewardship efforts during this reporting period cost \$12,635,098.90 (see Appendix A). Unlike other phases, a good percentage of the administrative/operations expenditures were related

# MSU'S HERITAGE BY THE NUMBER

# 7 Historic Districts, which include:

- 77 Buildings
- 19 Sites
- 19 Structures
- 6 Objects

40 Individual Heritage Buildings (each has their own Smithsonian Number, including the 30 numbered buildings in the MSU-Bozeman Historic District) to adjustments required to prevent the spread of Covid-19, the pandemic that swept the world during 2020 and 2021.

MSU has identified nearly \$58,325,000 in specific preservation projects and maintenance needs for our heritage buildings. An additional \$10,295,000 has been identified for specific maintenance and rehabilitation projects for buildings which are older than fifty years old and might be considered eligible for listing in the National Register of Historic Places.

# Heritage Determination and Consultation with SHPO

All the Montana University System entities are required to report on their heritage properties (which have been assigned Smithsonian numbers) and to consult with the State Historic Preservation Office (SHPO) for projects proposed for all buildings older than fifty years. (See Appendix B for a listing of all MSU properties equal to or greater than fifty years old.) Per MCA 22-3-424, Duties of State Agencies (2) agencies are to "identify and develop, in consultation with the historic preservation officer, methods and procedures to ensure that the identification and protection of heritage properties and paleontological remains on lands owned by the state are given appropriate consideration in state agency decision making." This applies to all the campuses and to all proposed construction – whether managed by MSU Campus Planning Design & Construction (CPDC) or the State's Architecture & Engineering (A&E) Division of the Department of Administration.



Figure 1: The Brick Breeden Fieldhouse at MSU-Bozeman. Frank Jay Haynes Family Photographs & Papers, #1507-000691, Burlingame Special Collections, c. 1957. Facing southeast.

During the 2020-2021 reporting period, four additional MSU buildings have been determined eligible for listing in the National Register of

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<sup>&</sup>lt;sup>1</sup> Determination of the full cost and percentage of funding is beyond the scope of this report.

Historic Places. The status has been confirmed by SHPO and Smithsonian numbers assigned (date is when the form was completed):

- 1. Thackeray Ranch Barn #5447 (NARC), September 2020
- 2. Brick Breeden Fieldhouse (MSU-Bozeman), October 2020
- 3. Miller Livestock Pavilion (HORT), December 2020
- 4. Donaldson Hall (MSU-Northern), May 2021

In addition, MSU has entered into a Memorandum of Agreement with MT SHPO regarding the Southern Agricultural Research Center (SARC).

# Acknowledgments

Gilmore Franzen Consulting LLC (GFC) has relied upon the facilities personnel at MSU's various campuses to compile the information required for this report. The following individuals, listed alphabetically, have been helpful in providing the data and insights needed to prepare this report:

- John Boughton, National Register Coordinator Montana Historical Society (MHS)
- ~ Peter Brown, State Historic Preservation Officer MHS
- Madison Graff, Campus Planner Campus Planning, Design & Construction (CPDC)
- ~ Eric Newcombe, MA, Historic Architecture Specialist MHS
- ~ Richard Rudnicki, Planning Manager CPDC
- Michael Swavely, Facilities Services Interim Director MSU-Billings
- ~ Dan Ulmen, Facilities Services Director MSU-Northern



Figure 2: MSU-Northern's Donaldson Hall, north elevation. Photograph by Becki D. Miller, 07 April 2021.

# INTRODUCTION

# General

Montana State University (MSU) submits this report in accordance with the Montana Antiquities Act (MCA 22-3-421 to 22-3-442) requirement for reporting on the stewardship of heritage properties owned by the state.

Section 22-3-421 defines heritage property "as any district, site, building, structure, or object located upon or beneath the earth or under water that is significant in American history, architecture, archaeology, or culture." These are properties for which both MSU and the State Historic Preservation Office concur are heritage. When not in agreement as to the heritage status of the property, it is considered "unresolved."

# Methodology

MSU-Bozeman engaged Gilmore Franzen Consulting LLC (GFC) to prepare this biennial report for the 2020-2021 cycle. MSU Campus Planning, Design & Construction (CPDC) staff has shared records with GFC, given them access to the facilities planners at MSU-Billings and MSU-Northern, and provided project costs. GFC did not visit any of the sites outside of Bozeman this reporting period.

SHPO graciously provided national register nominations and eligibility paperwork for heritage buildings on all campuses and agriculture stations. GFC has coordinated with SHPO, to ascertain project consultations. No Property Record Forms have been updated for this reporting cycle, yet forms for newly identified eligible buildings have been included (see Appendix).

This report follows the order and content stated in the MCA 22-3-424 (4) (A, B, C, D, E) and has been reviewed by MSU's department of Campus Planning, Design & Construction.

# MSU-Bozeman's Stewardship Process

MSU-Bozeman has an established procedure for reviewing the condition of their properties. The process is integral to their regular building assessments. Trained staff see all the buildings on a three-year cycle, by inspecting two buildings on campus each month. The university's consistent Facility Condition Inventory (FCI) guides the process. The inspection includes the trades groups, planning staff, and construction manager, who documents the findings in a written report.

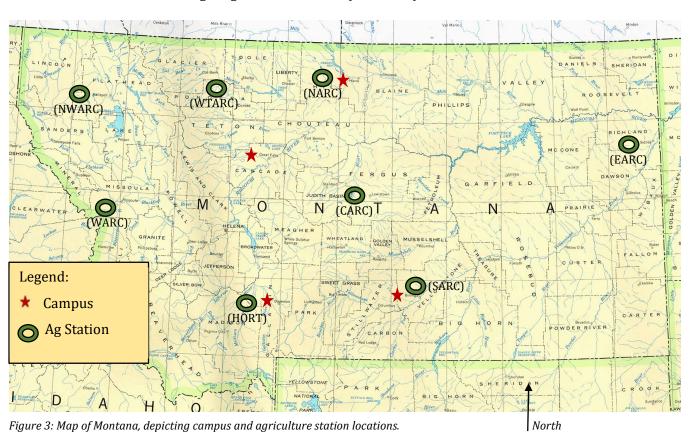
The other MSU campuses and MAES similarly ask staff to examine their buildings, both heritage and non. The reports are reflected are used to generate requests for needed funding.

# MONTANA STATE UNIVERSITY RESOURCES

## General

Montana State University is comprised of four main campuses – at Bozeman, Billings, Great Falls College, and Havre (Northern) – and the following research centers, listed here to increase familiarity with them. These centers are referred to as "ag stations" that are part of the College of Agriculture and Montana Agricultural Experiment Station (MAES):

- CARC: Central Ag Research Center (in Moccasin)
- ~ EARC: Eastern Ag Research Center (in Sidney)
- ~ Fort Ellis, approximately 3.5 miles east of Bozeman
- HORT: Bozeman Horticulture Center at Bozeman Agricultural Research and Teaching Farm (BART)
- LUTZ: Lutz Farm (11 miles northeast of Bozeman)
- NARC: Northern Ag Research Center (at Fort Assinniboine in Havre)
- ~ NWARC: Northwestern Ag Research Center (in Kalispell)
- ~ SARC: Southern Ag Research Center (in Huntley)
- ~ VET: Bozeman Veterinary
- ~ WARC: Western Ag Research Center (in Corvallis)
- ~ WTARC: Western Triangle Ag Research Center (in Conrad)



The research centers are an integral part of the origin and definition of this land grant institution, in fulfilling the agricultural research component explicitly stated in the establishment of (what became known as) MSU in 1893. Some of the centers are located on old private ranchland, two on old forts, and one (SARC) is an old BLM demonstration farm.

Table 1 on the following page contains the Smithsonian Trinomial reference number, building or site name, and date of construction of all documented heritage properties on the MSU campuses. These same properties are included – in the same order, yet more comprehensive in scope – in Appendix A: Condition and Stewardship Spreadsheet. Table 1 has been altered to reflect the following:

- 1. MSU-Bozeman: 2020 determination of Brick Breeden Fieldhouse as a heritage building.
- 2. MAES HORT: 2020 determination of Miller Livestock Pavilion as a heritage building.
- 3. MSU-Northern: 2021 determination of Donaldson Hall as a heritage building.
- 5. MAES NARC: 2020 determination of Thackeray Ranch Barn #5447 as a heritage building.
- 6. Red Bluff Stage Stop: removal to reflect 2006 destruction by fire.

#### LEGEND FOR TABLE ON THE FOLLOWING TWO PAGES

MSU-Bozeman Historic District
MAES Properties
MSU-Northern
MSU-Billings

Great Falls College MSU has no heritage properties to report upon, since no construction began at this two-year vocational technical center until 1975. The University of Great Falls is not part of the Montana University System; it is a Catholic non-profit four-year school.

TABLE 1: Heritage Properties on MSU Campuses & MAES

Smithsonian	Building Name	Construction/Occupancy
Number		Date
24GA1893	MSU Historic District (Bozeman)	1893-1967
	MSU Campus Cultural Landscape (site)	1893-1967
	Danforth Park Iris Garden (site)	1926; 1952
	Lewis & Clark Field (site)	1915
	Harrington Park Duck Pond (site)	1914
	Romney Green/Romney Oval (site)	1920
	"Untitled" bronze sculpture (object)	1960
	Gatton Field Gate (object)	1930
	Territory-State Dedication Marker (obj.)	1914
24GA0336	MSU Bozeman - Hapner Hall	1959
24GA1629	MSU Bozeman - Heating Plant	1922
24GA1681	MSU Bozeman - AJM Johnson Hall	1954
24GA1763	MSU Bozeman - Strand Union Building	1939;1957;1967; etc.
24GA1795	MSU Bozeman – Brick Breeden Fieldhouse	1958
24GA1796	MSU Bozeman - Danforth Chapel	1952
24GA1797	MSU Bozeman - Langford Hall	1960
24GA1798	MSU Bozeman - Reid Hall	1959
24GA1799	MSU Bozeman - McCall Hall	1952
24GA1871	MSU Bozeman - Hamilton Hall	1910
24GA1872	MSU Bozeman - Hannon Hall	1955
24GA1873	MSU Bozeman - Hedges Complex	1965-1967
24GA1874	MSU Bozeman - Herrick Hall	1926
24GA1876	MSU Bozeman - Johnstone Center	1955
24GA1877	MSU Bozeman - Lewis Hall	1923
24GA1878	MSU Bozeman - Linfield Hall	1909;1953
24GA1879	MSU Bozeman - Montana Hall	1898
24GA1880	MSU Bozeman - Plew Building	1952
24GA1881	MSU Bozeman - Atkinson Quadrangle	1934
24GA1882	MSU Bozeman - Renne Library	1949;1960
24GA1883	MSU Bozeman - Roberts Hall	1922
24GA1884	MSU Bozeman - Romney Hall	1922
24GA1885	MSU Bozeman - Roskie Hall	1967
24GA1887	MSU Bozeman - Taylor Hall	1894
24GA1889	MSU Bozeman - Traphagen Hall	1919
24GA1892	MSU Bozeman - Wool Laboratory	1947
24GA1894	Ft. Ellis MT Ag Experiment Station	1930
24GA1894 24GA0352	Ft. Ellis Military Site - Archaeological	1867-1886
24GA2011	HORT Farm Miller Livestock Pavilion	1968
24HL0329	Fort Assinniboine/NARC	1879-1967
24HL1679	NARC – Thackeray Ranch Barn	c.1928
		1907
24JT0162	Central MT Agricultural Experiment Stn	
24RA0239	Western MT Agricultural Experiment Stn.	1910-1970
24HL1382	MSU Northern - Gymnasium	1955
24HL1654	MSU Northern - Pershing Hall	1932
24HL1693	MSU Northern – Donaldson Hall	1936
24YL1860	MSU Billings - Apsaruke Hall	1957

TABLE 1: Heritage Properties on MSU Campuses & MAES

24YL1861	MSU Billings - P.E. Building (Alterowitz)	1961
24YL2054	MSU Billings - McMullen Hall	1935
24YL2220	MSU Billings – Science Building	1947

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# PROPERTY STATUS AND CONDITION

# General

The status and condition of each of the properties with Smithsonian numbers is included in the table in Appendix A: Condition and Stewardship Spreadsheet.

Montana State University maintains databases to track work required and work completed on properties. They have a substantial department of in-house expertise to work on all the buildings of the main campuses. As a result, the buildings are generally in good condition. We have used the condition definitions – for excellent, good, etc. – as defined by SHPO in "Montana State-Owned Heritage Property Reporting Form Instructions and Definitions." While MSU dedicates a lot of time and energy to routine maintenance of their buildings, few are considered to be in "excellent" condition, since this would imply that no maintenance is required.

#### MSU-Bozeman

## Condition & Integrity

The integrity, status, and condition of the MSU-Bozeman buildings is similar to those listed in the prior reporting cycle. One modification has been made to reflect current conditions: the downgrading of integrity for Romney Hall.

Romney Hall (24GA1884) has been gutted and fully renovated. The exterior generally remains intact, and the original north three-story stair/entry hall has been restored. A glazed entry/stair addition to the streetside of the now-classroom building was designed to be sensitive to the original building. While SHPO's preservation specialist attended some of the preliminary design meetings, MSU/State A&E did not enter formal consultation with SHPO and completed the design and construction of the building without SHPO involvement.

#### **Status**

The status of Romney Hall is the "no comment" SHPO documented for lack of complete consultation.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> EN Reviews of MSU projects presented in jpeg "EN Reviews\_2," and accompanying email from Eric Newcombe (SHPO) to GFC, 15 September 2021.

#### **Adverse Effects**

There are no adverse effects to report for MSU-Bozeman.

# **MSU-MAES**

# Condition, Integrity & Status

The integrity, status, and condition of the agriculture buildings at all but one of the MAES sites remains unchanged since the last reporting cycle. Proposed demolition of five buildings at SARC prompted consultation with SHPO and the signing of a Memorandum of Agreement (MOA).

# Southern Agricultural Research Center

According to the Montana State Historic Preservation Office, SARC has been deemed significant for its "...association with the Huntley Irrigation Project, its establishment as a demonstration farm by the U.S. Bureau of Reclamation in 1907, and the establishment of the facility as a Field Station for the USDA Agricultural Research Service in 1910...The history of scientific development in agriculture was one of the major driving factors that enabled settlement in the state of Montana and SHPO believes that history is on display at SARC. The sustained use of SARC as an agricultural experiment station throughout the twentieth century and into the present day continues to illustrate this significance." SHPO also asserts that "...SARC retains good historic integrity in terms of location,



Figure 4: SARC Dairy Barn #3421, before 2021 demolition. Photograph courtesy of SARC.

setting, design, materials, and workmanship. This integrity enables the site to convey its historic significance and its historic association with agriculture and science remains largely unchanged allowing the site to

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<sup>&</sup>lt;sup>3</sup> Eric Newcombe, SHPO Historic Architecture Specialist, letter to Candace Mastel at MSU, dated 1 October 2020, page 1.

relay its historic significance."4

The MOA is based on the premise that the demolition of five agricultural building at SARC is considered to have an adverse effect on the status and integrity of the entire station. The five subject buildings (that have been demolished) are:

- 1. Dairy Barn Complex (24YL2248)
- 2. Cereal Lab Building (24YL2249)
- 3. Horse Barn/Machine Shed #2 (24YL2250)
- 4. West Annex (24YL2251)
- 5. East Annex (24YL2252)

They have been deemed eligible for listing in the National Register of Historic Places and have been assigned Smithsonian numbers accordingly (in parenthesis above).

The MOA established the following stipulations that MSU has five years to comply with (by January 2026):

"MSU shall ensure that the following measures are carried out in order to mitigate the adverse effects on historic properties:

- A. Provide a history of the aforementioned buildings [3421, 3433, 3438, 3466, and 3467) at the Southern Agricultural Research Center (SARC) through an online webpage, available to the public free of charge, via the MSU website.
- B. Provide an electronic display of historical information, research, and pictures at the existing Huntley Project Museum in Huntley, Montana. The electronic display will contain images (accessed manually and/or random display sampling) and descriptions of the five (5) demolished buildings, with a special focus on the Dairy Barn."5

During negotiations for the SARC MOA, SHPO identified an additional twelve buildings on site that they deemed eligible for listing. MSU had deemed the buildings "not eligible," thus will choose one of the three options presented by SHPO:

- 1. Leave the status "unresolved" until MSU plans an undertaking for one (or all) of them. Then the status will need to be resolved.
- 2. Concur with SHPO that some or all of the buildings are eligible.
- 3. Conduct additional research to refute SHPO's judgment that one or all of the buildings are eligible.<sup>6</sup>

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<sup>&</sup>lt;sup>4</sup> Ibid., page 1.

<sup>&</sup>lt;sup>5</sup> Memorandum of Agreement between Montana State University and the Montana State Historic Preservation Office regarding the Southern Agricultural Research Center in Huntley, Montana, signed by MSU and SHPO, January 2021.

<sup>&</sup>lt;sup>6</sup> Eric Newcombe to Candace Mastel (Campus Planner) at MSU, 1 October 2020.

# Discovery of Buildings Deemed Eligible

During the course of this reporting, it was confirmed that seven buildings at the Western Agricultural Research Center (WARC) were included as contributing resources on a National Register Nomination Form for the Western Montana Agricultural Experiment Station. These buildings were already on the list of buildings more than fifty years old in Appendix B; their entries have been modified to reflect their contributing status.



Figure 5: Barn #7403 used as an office at WARC. Photograph courtesy of WARC. The barn is considered a historic resource of the Western Montana Agricultural Experiment Station historic district.

# MSU-Northern

#### General

The State of Montana legislature established MSU-Northern as the Northern Montana Agriculture and Manual Training School in 1913, although money was not authorized for operation until 1929. Soon after, in 1931, the Northern Montana College was opened in a renovated pumping station (renamed East Hall, which was demolished in 1979) on land set aside for the campus. The site is distinguished by rolling hills – which the siting of the buildings responds to - and handsome masonry buildings that have come to define the school. The iconic buildings on campus are as follows:

- Pershing Hall (completed in 1934; constructed of bricks salvaged from Fort Assinniboine)
- ~ Donaldson Hall (completed in 1936)
- Cowan Hall (completed in 1953)

Armory Gymnasium (completed in 1956, from Ozzie Berg design)

The rest of the campus has been infilled with mostly red brick buildings to match those of the earlier construction, with the exception of the concrete Metals Technology building of 1945.

MSU-Northern's website demonstrates the pride in their buildings. A historic timeline depicts the origin and growth of this strong technical school. Historic images of the buildings support the succinct history provided. Nearly every building has an individual page explaining its specific history, use, and design. In addition to the classroom buildings, dormitories and staff housing are more than fifty years old, with some moved from Chester, and others design by Ozzie Berg and built by students. The rich history of these buildings is buttressed by their excellent integrity and good condition.

The campus is well cared for, despite having a small facilities staff.

MSU-Northern has three documented heritage buildings and has been encouraged to consult with SHPO when planning work on any building on campus, as most are at least fifty years old. (See list in Appendix B.)

#### Condition

MSU-Northern's gymnasium is in good condition. The gym's roof has been repaired yet needs to be replaced. The wood at the south wood curtain wall is becoming degraded in response to heavily worn paint; some of the wood is rotting. Pershing Hall is in fair condition; exterior preservation work was completed in November 2020. This work consisted of masonry repairs, and replacement of downspouts and gutters.

Donaldson Hall has been slated for code-upgrades and rehabilitation since 2008. In 2009 it was listed on the endangered building list of the Montana Preservation Alliance. Funding for various projects at Donaldson Hall have been included in the state's Long Range Building Plan. Hopefully funding will be forthcoming, as the building remains vacant.

#### Integrity

The integrity of the gymnasium, Pershing Hall, and Donaldson Hall is good.

#### Status

The status of the gymnasium remains satisfactory. Pershing Hall status is now satisfactory. Donaldson Hall should be watched to prevent deterioration.

## **Adverse Effects**

There are no adverse effects to report for MSU-Northern.

# **MSU-Billings**

# Condition, Integrity & Status

The integrity, status, and condition of the MSU-Billings' buildings remain consistent with the last reporting cycle.

**Adverse Effects** 

None.

22-3-424 (4)(C)

# HERITAGE SITE STEWARDSHIP EFFORTS

## General

Montana State University is a collection of state-owned buildings on campuses that are similar to towns and cities, in that they operate and maintain infrastructure. In addition to the typical infrastructure of refuse collection and recycling, parking and transportation systems and facilities, performance venues, heating and cooling, sewer and water, irrigation, tree maintenance, snow removal, outdoor public art and memorials, this includes generation and distribution of power. It is all encompassing and requires dedicated and trained design, facilities, planning, and maintenance staff.

MSU's maintenance philosophy is directed at preventing unexpected and catastrophic failure of building systems and components. Therefore, approximately half of the annual maintenance budget is comprised of preventive and corrective scheduled and major maintenance. The balance combines custodial (the day-to-day cleaning) and infrastructure and ground maintenance. University Services' mission is to keep the institution operational, comfortable, safe, and aesthetically appealing.

Stewardship efforts undertaken by the University to improve the status of state-owned heritage properties is demonstrated by the \$12,635,098.90 expended in managing the historic integrity and condition of the buildings (\$1,466,002.46 for administration and operations; \$8,016,365.98 for heritage rehabilitation; \$780 for heritage reporting efforts; and \$3,151,950.46 for routine maintenance). All stewardship efforts increase the value of heritage properties by insuring continued safe and comfortable use of the buildings. This is often a delicate balance between embracing the historic significance of the building and providing sufficient code compliance. MSU has the good fortune of an expanding student population and the concomitant continued need for these public buildings it is entrusted with.

# 22-3-424 (4)(D)

# MAINTENANCE NEEDS

# General

MSU is a dynamic and expanding institution of higher education. The four campuses and MAES operations form one university, but each entity has some autonomy in managing their operational responsibilities. The institution's mission is the same for all campuses: to educate students, create knowledge and art, and serve communities by integrating learning, discovery and engagement. Stewardship of buildings, and by extension, preservation of facilities, is included in the University's missions, goals, and strategies.

MSU systematically tracks maintenance needs using MSU's FCI (Facilities Condition Inventory), a desktop computer application for collecting and tracking observable deferred maintenance needs. As a cyclical process, data is available on all state-funded buildings relative to their condition as well as the system and building components that require repair or replacement. Additionally, MSU-Bozeman's Campus Planning, Design and Construction (CPDC) department maintains a Capital Project List that collects information on major maintenance projects such as roof replacements, building mechanical systems, as well as architectural preservation. All of this data is valuable and useful in preparing lists of priority projects for the Long Range Building Program (LRBP) reviewed by the State Legislature.



Figure 6: Physical Education Building (Alterowitz) at MSU-Billings. January 2020.

# **MSU-Campuses & MAES**

Project estimates for prioritized maintenance and stewardship needs are on the Condition and Stewardship Spreadsheet (Appendix A) – for the heritage buildings on the stated campuses and agricultural stations. The projects that are included in Appendix A and listed below are listed as high priorities in the Long Range Building Program submitted for Legislative review as part of the governor's budget.

Additional projects are listed below for non-heritage buildings that are more than fifty years old and have not had a Determination of Eligibility (DOE) prepared yet. Those that require a DOE are indicated below. Many of the projects have a code-compliance component. None of these buildings are endangered and the status of all are ranked "satisfactory." In descending order of priority, the projects are as follows:

# CAPITAL DEVELOPMENT PROJECTS

Montana State University - Bozeman
 Lewis Hall ADA, Fire/Life-Safety & Instructional Renovations
 Renovate Lewis Hall and prioritize critical upgrades to ADA, fire/life safety and instructional space by constructing an elevator that
 serves all levels of Lewis Hall, upgrading major fire monitoring and
 suppression systems, and renovating instructional spaces into safe
 and modern teaching/learning environments. This is project will be
 MSU's top priority if Gallatin College's new facility is funded by
 ARPA.

Requested funding: \$31,500,000

2. MSU Montana Agricultural Experiment Stations WARC Shop Facility

Replace the old, unsafe, and undersized WARC tractor storage/machine shop with a new facility that provides ample space to repair WARC's research and agricultural equipment.

Requested funding: \$2,000,000

Note: This project will require consultation to address the demolition of buildings #7405, 7406, and 7401, all of which are considered contributing to the WARC historic district.

3. Montana State University - Northern

Hagener Science Center Lab & Classroom Renovation Modernize existing instructional labs in Hagener Hall, and address needed upgrades to critical MEP and fire/life-safety systems. Requested funding: \$3,100,000

Note: This project will require a Determination of Eligibility for this building built in 1966 per the design of Page & Werner.

4. Montana State University - Northern
Donaldson Hall Renovation
Renovate Donaldson Hall to improve the overall accessibility,
provide energy efficient heating, cooling, lighting and, in return,
improved utilization of the facility.

# MAJOR REPAIR PROJECTS

5. Montana State University - Bozeman Cobleigh Hall Parapet Structural Repair Requested funding: \$2,150,000

Requested funding: \$6,400,000

Note: Will require a Determination of Eligibility

- 6. Montana State University Billings & City College Physical Education Building Roof Replacement Requested funding: \$2,400,000
- 7. MSU Montana Agricultural Experiment Stations
  BART Demolition Project for 3 buildings, one of which (#455) was
  built in 1968 hence Determination of Eligibility will be required. The
  other two buildings remain less than fifty years old.
  Requested funding: \$350,000
- 8. Montana State University Bozeman Campus Heating Plant Boiler Controls Replacement and Upgrade Requested funding: \$1,850,000
- 9. Montana State University Bozeman Lewis Hall ADA Upgrades - Elevator Addition Requested funding: \$1,800,000
- 10. MSU Montana Agricultural Experiment Stations WARC Machine Shop Building #7409 Renovation & Safety Upgrades

Requested funding: \$450,000

Note: Will require a Determination of Eligibility

11. MSU - Montana Agricultural Experiment Stations
Red Bluff Lambing Barn Renovation & Safety Upgrades
Requested funding: \$1,500,000
Note: This project will likely need a Determination of Eligibility; the date of construction appears unknown.

12. Montana State University - Bozeman Hamilton Hall Egress Improvements & Fire Suppression System Expansion Requested funding: \$2,100,000

# 13. Montana State University - Northern

Pershing Hall Renovation

Requested funding: \$2,150,000

# 14. MSU - Montana Agricultural Experiment Stations

WARC Building Renovation Project: If new building (item #2 above) is funded, then WARC hopes to repurpose #7405, 7406, 7401, & 7415 into residential units (only #7415 is not considered heritage).

Requested funding: \$1,230,000

# 15. Montana State University - Northern

Cowan Hall Roof Project

Requested funding: \$545,000

Note: Will require a Determination of Eligibility

#### 16. Montana State University - Bozeman

Herrick Hall Roof Replacement

Requested funding: \$1,700,000

## 17. Montana State University - Billings & City College

Cisel Hall HVAC Upgrades

Requested funding: \$2,000,000

Note: Will require a Determination of Eligibility

## 18. MSU - Montana Agricultural Experiment Stations

Fort Ellis Historic House Renovation - Building #721

(1931 Residence #1)

Requested funding: \$900,000

## 19. MSU - Montana Agricultural Experiment Stations

NARC Thackeray Home and Ranch Historic Barn Re-Roof & Safety

**Upgrades** 

Requested funding: \$350,000

## 20. Montana State University - Bozeman

Traphagen Hall Roof Replacement

Requested funding: \$1,600,000

## 21. Montana State University - Billings & City College

Cisel Hall Window Replacement

Requested funding: \$1,000,000

Note: Will require a Determination of Eligibility

#### 22. Montana State University - Bozeman

Roberts Hall Fire Suppression, Alarm & ADA Upgrades

Requested funding: \$2,300,000

# 22-3-424 (4)(E)

# AGENCY COMPLIANCE / HERITAGE RESOURCE MANAGEMENT

#### General

Despite personnel turnover at MSU-Bozeman, current staff has strived over the last two years to work with SHPO to understand and comply with the consultation process. This relationship building is ongoing.

MSU-Northern's Director of Facilities engaged in SHPO review for Pershing Hall's exterior preservation.

# MSU's Heritage Building and Site Policy; Board of Regents Policy

#### Status

MSU's two documented policies relating to treatment of heritage properties have not been updated.

#### Recommendation

MSU's Heritage Building and Site Policy, and the Board of Regents' Policy 1003.5 should be updated to prevent misunderstandings related to projects planned for heritage properties on all MSU campuses. The Board of Regents oversees the entire Montana University System (MUS) in an autonomous manner. MSU's CPD&C, and the facilities departments of the other MUS institutions, has no ability to promote or enact modifications to BOR policies. Suggestions for changes in BOR policy might be better received and enacted upon if they originated from the SHPO's office.

A broader MOA (Memorandum of Agreement) that encompasses the entire MUS system, in consort with SHPO and the State A&E Division, would be an ideal vehicle to formalize a compliant procedure for all MSU campuses and MAES buildings. Emphasis should be placed on training the appropriate facilities managers at all campuses, to ensure timely and beneficial consultation with SHPO.

# **SHPO Consultations**

#### Genera

Eric Newcombe of the MT SHPO confirmed the occurrence of the following consultations for which "no adverse effect" was determined.<sup>7</sup>

# Consultations

MSU-Bozeman

- 1. Romney Oval
- 2. Hamilton Hall Fire Escape and Reroof
- 3. Montana Hall Fire Escape

<sup>&</sup>lt;sup>7</sup> Eric Newcombe, email to Lesley Gilmore, 15 September 2021.

- 4. Brick Breeden (Roofing)
- 5. Johnstone Center Paint
- 6. Renne Library Loading Dock
- 7. Gatton Gate

#### MAES

- 1. Fort Assinniboine Chimney
- 2. HORT Miller Pavilion Rehabilitation
- 3. CARC project not specified

#### MSU-Northern

1. Pershing Hall Rehabilitation

# Efforts to Identify Potential Heritage Properties

Buildings older than fifty years old are identified through MSU's database and other research repositories.

# Heritage Property Management Training

MSU does not provide heritage property management training. This is one of the major challenges in identifying, evaluating, reporting, and protecting our state-owned heritage properties. Funding for such a position has not been available to MSU, given the many demands upon their professional staff.

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# **APPENDICES**

A: MSU Heritage Property Condition and Stewardship Spreadsheet

B: List of MSU Buildings 50 Years of Age and Older

C: SARC MOA

# D: Individual Heritage Property Forms

- 1. Miller Livestock Pavilion
- 2. Thackeray Ranch Barn
- 3. MUSN Donaldson Hall
- 4. WARC Corvallis
- 5. Brick Breeden is available on request (size limitation)

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# MSU HERITAGE PROPERTIES REPORT 2022 Appendix A CONDITION AND STEWARDSHIP SPREADSHEFT

# CONDITION AND STEWARDSHIP SPREADSHEET MONTANA STATE UNIVERSITY

					Condition, Integrity and State	us				Stewardship Effort and	Cost					
Smith. Trinomial Number	City in Montana	Building or Site Name	Gross Square Feet	Historic Use	Current Use	NHL or NRHP Status	Property Integrity	Property Status	Property Condition	Property Administration/ Operations (property specific)	Heritage Restoration, Rehabilitation/ Repair Project Activity (SOI Standards)	Heritage Preservation Protection Project Activity	Heritage // Research/ Documentati on Project Activity	Regular / Routine Maintenance		Prioritized maintenance stewardship ranking (1- Highest to 5- Lowest)
24GA0336	Bozeman	Hapner Hall	95,358	8 Woman's Residence Hall	Woman's Residence Hall	NRHP	Good	Satisfactory	Good	\$4,443.2	1			\$111,559.32		5
24GA0352	Bozeman	Ft. Ellis Military Site - Archaeological	N/A	A Federal Military Fort	Archeological Site	NRHP	Fair	Unk	Unk							2
24GA1629	Bozeman	Heating Plant		Heating Plant for Campus	Heating Plant for Campus	NRHP	Good	Satisfactory	Good	\$3,518.9	\$4,009.22	2		\$541,274.62	\$1,850,000	5
24GA1681	Bozeman	AJM Johnson Hall		8 Academic Labs and Classrooms	Academic Labs and Classrooms	NRHP	Fair	Satisfactory	Good	\$5,273.3	\$6,745.56	5		\$93,017.84		3
24GA1763	Bozeman	Strand Union Building		8 College Student Union	College Student Union	NRHP	Fair	Improving	Good	\$35,180.3	\$1,363.90	0		\$325,565.34		5
24GA1795	Bozeman	Brick Breeden Fieldhouse		Field House	Field House	NRHP Eligible	Good	Satisfactory	Good	\$84,179.1	\$1,656,698.73	3		\$223,808.13		5
24GA1796	Bozeman	Danforth Chapel		Chapel	Non-Denominational Sacred Place	NRHP	Good	Satisfactory	Fair	\$270.3	)			\$942.85		5
24GA1797	Bozeman	Langford Hall	_	Men's Residence Hall	Men's Residence Hall	NRHP	Fair	Satisfactory	Good	\$4,009.7	L		-	\$60,524.87		5
24GA1798	Bozeman	Reid Hall		2 Academic Classrooms and Offices	Academic Classrooms and Offices	NRHP	Excellent	Satisfactory	Good	\$11,431.9	\$914,023.43	1		\$106,874.63		2
24GA1799	Bozeman Bozeman	McCall Hall Hamilton Hall		1 Academic Labs and Offices 2 Woman's Residence Hall	State Agency Labs and Offices	NRHP NRHP	Excellent Good	Satisfactory Satisfactory	Good Good	\$3,798.2	\$5,491.23	1		\$15,965.17 \$24,758.43	\$2,100,000	5
24GA1871					Academic Classrooms and Offices	NRHP	_			\$3,518.6	\$826,000.05	5		\$24,758.43	\$2,100,000	5
24GA1872 24GA1873	Bozeman Bozeman	Hannon Hall Hedges Complex		Woman's Residence Hall     Residence Hall, Dining Hall and Auxiliaries Administration	Woman's Residence Hall  Residence Hall, Dining Hall & Auxiliaries Administration	NRHP	Excellent Fair	Satisfactory	Good Good	\$2,710.9 \$6,516.6	\$1,136,808.42	2		\$284,901.48		5
24GA1873	bozeman	neuges complex	202,70.	Offices	Offices	INKEP	Fall	Improving	Good	\$6,510.00				\$284,901.46		3
24GA1874	Bozeman	Herrick Hall	41,28	5 Academic Classrooms, Labs and Offices	Academic Classrooms, Labs and Offices	NRHP	Excellent	Satisfactory	Good	\$4,602.1	\$66.874.77	7		\$128,846.48	\$1,700,000	3
24GA1876	Bozeman	Johnstone Center		4 Residence Hall and Dining Hall	Residence Hall. Dining Hall, Academic Offices and Post	NRHP	Good	Satisfactory	Good	Ş-1,002.1º	200,074.77	†		\$184,225.97	· ·	3
					Office					\$59,965.1	\$885,826.88	8				
24GA1877	Bozeman	Lewis Hall	46,23	Academic Labs, Classrooms and Offices	Academic Labs, Classrooms and Offices	NRHP	Good	Satisfactory	Good	\$11,642.4	\$24,379.94	4		\$82,245.67	\$33,300,000	4
24GA1878	Bozeman	Linfield Hall	82,998	8 Academic Labs, Classrooms and Offices	Academic Labs, Classrooms and Offices	NRHP	Good	Satisfactory	Good	\$4,724.7	\$646,249.34	4		\$127,856.43		4
24GA1879	Bozeman	Montana Hall	39,65	First Classrooms, Labs, Library and Admin Offices	Executive Admin and Finance Offices, Registrar	NRHP	Good	Unresolved	Good							2
24GA1880	Bozeman	Plew Building	18,086	6 Physical Plant Administration Offices and Utilitarian Shop	Facilities Services Administration Offices	NRHP	Good	Satisfactory	Good	\$32,837.3	\$117,525.18	3		\$151,223.60		4
24GA1881	Bozeman	Atkinson Quadrangle	42.68	2 Woman's Residence Hall	Residence Hall	NRHP	Excellent	Satisfactory	Good	\$22,524.4	\$50,062.87	,		\$9,832.91 \$46,389.51		5
24GA1882	Bozeman	Renne Library		5 Academic Library	Academic Library	NRHP	Good	Satisfactory	Good	\$22,078.09				\$201,132.67		3
24GA1883	Bozeman	Roberts Hall		7 Academic Labs, Classrooms and Offices	Academic Library Academic Labs, Classrooms and Offices	NRHP	Good	Satisfactory	Good	\$35,171.8	\$440,958.53	3		_	\$2,300,000	3
24GA1884	Bozeman	Romney Hall	_	9 Gymnasium	Academic Classrooms and Offices	NRHP	Fair**	No Comment**	Good**	\$27,024.2 \$129,104.0	\$100,727.78 No SHPO consultation			\$73,703.51	\$2,300,000	1
24GA1885	Bozeman	Roskie Hall		2 Residence Hall	Residence Hall	NRHP	Fair	Satisfactory	Good		No SHPO consultation	n e		4446.077.00		5
24GA1887	Bozeman	Taylor Hall		6 Academic Labs, Classrooms, Offices and Residence	Academic Offices	NRHP	Good	Satisfactory	Good	\$21,013.10 \$2,052.6	7			\$116,077.93 \$13,411.54		4
24GA1889	Bozeman	Traphagen Hall	37,234	4 Academic Labs, Classrooms and Offices	Academic Labs, Classrooms and Offices	NRHP	Excellent	Satisfactory	Good	\$8,250.8	\$188,453.29	9		\$44,150.34	\$1,600,000	3
24GA1892	Bozeman	Wool Laboratory		Academic Labs and Offices	Academic Labs and Offices	NRHP	Excellent	Satisfactory	Good	38,230.6.	7188,453.23	7		\$2.663.19		1
24GA1894	Bozeman	Ft. Ellis MT Ag Experiment Station	Uni	k Academic Agricultural Research	Academic Agricultural Research	NRHP Eligible	Fair	Improving	Fair					\$2,005.15	\$900,000	4
24GA2011	Bozeman/BART	Miller Livestock Pavilion #432	22,70:	1 Livestock Pavilion	Livestock Pavilion	NRHP Eligible	Good	Satisfactory	Good	\$540.6	\$385,956.0	2		\$12,465.61		5
24HL0329	Havre	Fort Assiniboine/ NARC	Uni	k Federal Military Fort	Academic Agricultural Research and Museum	NRHP	Fair	Endangered	Fair	77.535	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, , , , , , , , , , , , , , , , , , ,		3
24HL1382	Havre	MSU Northern Gymnasium	58,028	B Armory and Gymnasium	Gymnasium & Athletics	NRHP indiv. Eligible	Good	Satisfactory	Good	\$14,022.9	\$200,051.22	2	\$780.0	940,019.06		2
24HL1654	Havre	MSU Northern Pershing Hall	approx 30,000	c. Laboraties and Classrooms, with outdoor amphiteatre	Classrooms	NRHP indiv. Eligible	Good	Satisfactory**	Fair	\$2,294.8	\$138,590.04	4		\$7,317.15	\$2,150,000	2
24HL1679	Havre	Barn #5447 at Thackeray Ranch/NARC		D Barn	Barn	NRHP Eligible	Good	Watch***	Poor						\$350,000	1
24HL1693	Havre	Donaldson Hall		5 Classrooms	Classrooms	NRHP Eligible	Good	Watch***	Fair	\$3,598.0	1			\$78.73		1
24JT0162	Moccasin	Central MT Agricultural Exp Station MAES		k Farmstead	Academic Agricultural Research	NRHP Eligible	Fair	Unresolved	Good							3
24MA0262	Norris	Red Bluff Stage Stop (Isaacs/Wann Res.)		A Stage Stop and Residence	Commemorative Site	NRHP Eligible	Failed	Failed	Failed							3
24RA0239	Corvallis/WARC	Western Agricultural Station		s Agriculture Station	Agriculture Station	NRHP Eligible	Good	Satisfactory	Good						\$3,275,000	5
24YL1860	Billings	Apsaruke Hall		4 Men's Residence Hall	Academic Labs, Classrooms and Offices (Nursing School)		Excellent	Satisfactory	Good	\$4,011.7	7 \$1,583.45	5 \$0.0	\$0.0	0 \$193.79		2
24YL1861	Billings	Physical Education Building	112,99	Physical Education	Physical Education	NRHP Eligible	Excellent	Satisfactory	Good	\$32,859.4	\$0.00	0 \$0.0	0.0 \$0.0	0 \$0.00	\$2,400,000	4
24YL2220	Billings	Science Building	54,31	1 Classrooms & Laboratories	Classrooms & Laboratories	NRHP Eligible	Good	Endangered	Good	\$2,499.7	\$0.00	\$0.0	0.0\$	0 \$0.00		4
24YL2054	Billings	McMullen Hall	55,026	6 Academic Classrooms and Offices	Administration Offices & Academic Classrooms	NRHP	Good	Satisfactory	Good	\$860,332.3	\$149,518.5	7 \$0.0	\$0.0	0 \$40,018.13		3
24YL2248	Huntley/SARC	Dairy Barn Comples - Building 3421	4,493	B Dairy Barn	Inactive	NRHP Eligible	Failed	Failed	Failed	Probably demo'd 2021*	n/a	n/a	n/a	n/a	n/a	n/a
24YL2249	Huntley/SARC	Cereal Lab - Building 3433		D Cereal Lab (Area appears to be wrong)	Cereal/Crops Lab	NRHP Eligible	Failed	Failed	Failed	Probably demo'd 2021*	n/a	n/a	n/a	n/a	n/a	n/a
24YL2250	Huntley/SARC	Horse Barn - Building 3438	3,73	7 Old Horse Barn and Machine Shed	Inactive	NRHP Eligible	Failed	Failed	Failed	Probably demo'd 2021*	n/a	n/a	n/a	n/a	n/a	n/a
24YL2251	Huntley/SARC	Western Annex - Building 3466		Dairy Barn	Western Annex Barn	NRHP Eligible	Failed	Failed	Failed	Probably demo'd 2021*	n/a	n/a	n/a	n/a	n/a	n/a
24YL2252	Huntley/SARC	Drying Rm East Barn - Bldg 3467	823	B Dairy Barn Drying Room	Drying Room	NRHP Eligible	Failed	Failed	Failed	Probably demo'd 2021*	n/a	n/a	n/a	n/a	n/a	n/a
	nicki email 3 Febru ly needs funding.	uary 2022 to Gilmore Franzen Consu	Ilting LLC.	**Indicates that current status differs from 2	2020. ***Watch indicates that building has	been vacant		Restoration / Rehabilita ocumentation Project TOTAL		\$1,466,002.4	\$8,016,365.9	8 \$0.0	\$780.0	0 \$3,151,950.46	\$58,325,000	
								p, Administration, Ope aintenance Expenditure		¢ \$12,635,098.9	)					

	Montana State University Buildings						
	Greater Than or Equal to	50 Years Old					
Smith. Number	Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)			
MSU - Bozem	an <sup>1</sup>						
24GA1893	MSU Historic District	1893-1967					
	MSU Campus Cultural Landscape (site)	1893-1967					
	Danforth Park Iris Garden (site)	1926; 1952					
	Lewis & Clark Field (site)	1915					
	Harrington Park Duck Pond (site)	1914					
	Romney Green/Romney Oval (site)	1920					
	"Untitled" bronze sculpture (object)	1960					
	Gatton Field Gate (object)	1930					
	Territory-State Dedication Marker (object)	1914					
24GA0336	Hapner Hall	1959	336	95,524			
24GA1629	Heating Plant	1922	303	11,616			
24GA1681	AJM Johnson Hall	1954	113	41,622			
24GA1763	Strand Union Building	1939;1957;1967;	304	191,407			
		etc.					
24GA1796	Danforth Chapel	1952	313	1,560			
24GA1797	Langford Hall	1960	338	104,301			
24GA1798	Reid Hall	1959	115	90,982			
24GA1799	McCall Hall	1952	112	10,528			
24GA1871	Hamilton Hall	1910	301	28,013			
24GA1872	Hannon Hall	1955	331	90,748			
24GA1873	Hedges Complex	1965-1967					
24GA1874	Herrick Hall	1926	109	41,286			
24GA1876	Johnstone Center	1955	330	136,204			
24GA1877	Lewis Hall	1923	103	44,188			
24GA1878	Linfield Hall	1909;1953	104	69,938			
24GA1879	Montana Hall	1898	101	35,595			
24GA1880	Plew Building	1952	316	18,086			
24GA1881	Atkinson Quadrangle	1934	310	10,000			
210111001	Quad A Residence Hall	1934	370	6,866			
	Quad B Residence Hall	1934	371	6,937			
	Quad C Residence Hall	1934	372	7,381			
	Quad D Residence Hall	1934	373	7,381			
	Quad E Residence Hall	1934	374	7,400			
	Quad F Residence Hall	1934	375	6,989			
24GA1882	Renne Library	1949;1960	111	158,895			
24GA1883	Roberts Library	1949,1900	107	49,717			
24GA1884	Romney Hall	1922	107	57,560			
24GA1885	Roskie Hall	1967	344	92,663			

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<sup>&</sup>lt;sup>1</sup> Smithsonian number provided for buildings with individual Property Record Forms, listed in ascending number order. Those buildings without Smithsonian numbers are listed alphabetically.

	Montana State Universit	•		
	Greater Than or Equal to		T	
Smith.	Building Name	Construction/	Building	Gross
Number		Occupancy Date	Number	Area
24GA1887	Taylor Hall	1894	108	(s.f.) 9,938
24GA1889		1919	108	
24GA1889 24GA1892	Traphagen Hall Wool Laboratory	1919	405	37,433
24GA1692	1605 South 5th	1957	538	7,450
	1102 South 6th	1950	538	1,043
	1102 South 6th	1950	527	4,411 1,854
		1968		1,854
	Ag Artificial Insemination & Classroom		430	
	Ag Calving Building #1	1968	428 453	
	Ag Calving Building #2	1968	453	
	Ag Horse Barn	1969		
	Ab Little Working Facility	1968	429	1.460
24641705	Agronomy Field House	1934	610	1,468
24GA1795	Brick Breeden Fieldhouse (individual)	1958	114	184,452
	Brick Breeden Fieldhouse Storage Building	1967	345	
	Cobleigh Hall	1970	119	6760
	Deer Street	1957	562	6,760
	Facilities Butler Building	1958	319	4,328
	Facilities Carpenter Shop	1969	442	0.71
	Facilities Conference Room Quonset	1946	328	971
	Facilities Custodial Lamp Storage	1951	349	971
	Facilities Custodial Quonset	1946	326	1,050
	Facilities Custodial Storage Quonset	1946	327	971
	Facilities Electricians' Quonset	1946	322	2,009
	Facilities Equipment Garage	1947	348	4,954
	Facilities Grounds North Storage	1959	420	384
	Facilities Grounds Shop	1960	339	2,406
	Facilities Grounds South Storage	1961	427	500
	Facilities Heat Plant Storage Quonset	1950	312	1,923
	Facilities Laborers' Quonset	1946	324	2,009
	Facilities Motor Pool Garage	1952	314	6,715
	Facilities Paint Booth/Shop	1947	309	2,399
	Facilities Plumbers' Quonset	1946	323	2,009
	Facilities Preventive Maintenance Quonset	1946	325	2,009
	Facilities Refrigeration Quonset	1946	321	2,009
	Facilities Storage Quonset	1951	350	971
	21 Faculty Court	1957	533	1,043
	22 Faculty Court	1957	534	1,043
	23 Faculty Court	1957	535	1,043
	24 Faculty Court	1957	536	1,043
	25 Faculty Court	1957	537	1,043
	Family Housing Office Building	1968	524	
	Feed Lot Pole Barn	1968	466	

	Montana State Universit	•		
Smith.	Greater Than or Equal to Building Name	<b>50 Years Old</b> Construction/	Building	Gross
Number		Occupancy Date	Number	Area (s.f.)
	Fox Street Houses (23)	1957	564	15,548
	Glacier Court Houses (42)	1957	563	28,392
	Gopher Street Houses (7)	1957	567	4,732
	Grain Bin in front Horse Barn	1969	697	
	Hay Shed Pole Barn	1968	455	
	North Hedges Residence Hall	1965	343	144,080
	South Hedges Residence Hall	1965	340	137,700
	Roy E. Huffman Building	1969	441	
	Jefferson Court	1957	560	14,196
	Kellogg Center	1944	630	3,704
	Peter Koch Tower Apartments	1968	520	
	Marsh Laboratory	1961	116	31,018
	101 East Julia Martin Drive Apartments	1968	523101 - 523111	
	Melvin Graduate Arts Studios	1968	433	
	Miller Dining Hall	1964	341	46,624
	Poultry Barn - Vacant	1943	631	6,837
	South 15th Street Houses (10)	1957	566	6,760
	SOB Barn	1924	608	10,919
	Nelson Story Tower Apartments	1968	521	
	Swingle Health Center	1957	346	22,213
	Oscar Thomas Nutrition Center	1968	434	
	Oscar Thomas Nutrition Center Grow Safe Equip	1968	431	
	Oscar Thomas Nutrition Ctr Open Hay Shed	1968	454	
	Oscar Thomas Nutrition Ctr Feed Tanks (6)	1968	461	
	West Garfield Street Houses (2)	1957	565	1,352
MSU - North				
24HL1382	MSU Northern Gymnasium	1955	11	58,028
	Cowan Hall	1949	10	67,801
24HL1693	Donaldson Hall	1936	3	32,745
	Hagener Science Center by Page and Werner	1966	29	41,971
	Metals Technology	1945	5	11,211
24HL1654	Pershing Hall	1932	2	14,360
	Morgan Hall by Oswald Berg	1957		
	Student Union Building by Max Kuhr	1958		
	Advanced Fuels	1951		
	New Physical Plant by Max Kuhr	1966	28	
	Electronics Building by Kuhr and Davidson	1968	30	
	MacKenzie Hall - Women's dorm by Kuhr & Davidson	1971		

	Montana State Universi	•		
Smith. Number	Greater Than or Equal to Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)
	7 temporary single-story frame residences	Pre-1957		
	(Moved from Chester)	(c.1947)		
	2 campus houses designed by O. Berg, built by students (on Buttrey Drive)	1957-1960		
	Married student housing - 2	1960		
	Married student housing - 3	1961		
	Engineering Technology & Industrial Arts Building (Brockmann Center) by Page & Werner	1970		
MSU - Billing	įS		<u>.                                      </u>	•
24YL2054	McMullen Hall	1935	1	55,026
24YL1860	Apsaruke Hall	1957	7	20,25
24YL1861	P.E. Building (Alterowitz)	1961	8	112,99
24YL1859	Academic Support Center <sup>2</sup>	<del>1955</del>	6	12,96
	Cisel Hall / Music	1951	4	40,52
	Petro Hall	1966		147,66
	Rimrock Hall	1962	14	91,762
24YL2220	Science Building	1947	3	54,31
	Liberal Arts Building	1969-1970		97,749
	Library	1968		?
	College of Education Building	1950		?
	McDonald Hall at 1242 N. 28th	19523		32,94
	Alumni/Guest House at 2712 Normal	1930		2,179
	William R. Lowe Daycare and Enrichment Center at 2630 Normal	1936		3,069
	Foundation House at 2615 Virginia Lane	1948		4,90
	Chancellor's Residence at 432 Silver	1968		
	KEMC Radio Stn at 406 Marbara Lane	1970		
	Townhomes (stdt hous'g) at 32 Mtn View	1970		
MSU – Great	, , , , , , , , , , , , , , , , , , , ,	'	•	<u>'</u>
MAES (Agric	ulture & Experiment Stations)			
24JT0162	Central MT Ag Experiment Station, Moccasin	1907		
	CARC Analytical Research Lab	1922	4413	1,20
	CARC Fertilizer Shed	1922	4417	20
	CARC Grain Bins Three 2800 Bu Butler	1965	4424	1,14
	CARC Grain Bins Three 1-100 BU	1967	4423	
	CARC Greenhouse	1968	4421	
	CARC House	1908	4403	1,02

 <sup>&</sup>lt;sup>2</sup> The Academic Support Center has been demolished since the last reporting cycle.
 <sup>3</sup> Construction date from Montana Cadastral for building at 1242 North 28<sup>th</sup> Street, Billings, MT.

	Montana State Universit	•		
Smith. Number	Greater Than or Equal to Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)
	CARC Implement Shed	1921	4414	3,680
	CARC Seed Lab	1911	4409	1,344
	CARC Seed Plant	1969	4422	<u> </u>
	CARC Storage Shed/Car Garage	1918	4406	480
	CARC Well House	1915	4405	80
	EARC Cold Storage	1951	8402	1,008
	EARC Foreman Residence	1970	8403	
	EARC Granary/Grinding/Drying Lab	1963	8406	2,560
	EARC Laboratory	1955	8404	1,586
	EARC Machinery Shed	1957	8410	3,200
	EARC Machine Storage Shed	1935	8409	492
	EARC Superintendent Residence	1950	8401	1,037
24GA0352	Ft. Ellis Military Site - Archaeological	1867-1886		
24GA1894	Ft. Ellis MT Ag Experiment Station	1930	See individual	lual bldgs.
	Ft. Ellis East Well (Rec. Map No. S02) <sup>4</sup>	c.1950		Unk.
	Ft. Ellis Garage (Rec. Map No. B04)	1933	728	Unk.
	Ft. Ellis Hay Shelter – West (Rec. Map No. S14)	1933	735	2,400
	Ft. Ellis Horse Barn/Lab (Rec. Map No. B05)	1931	722	2,232
	Ft. Ellis Loading Ramp (Rec. Map No. S12)	c.1950		
	Ft. Ellis North Well & Water Storage Tank (Rec. Map No. S01)	c.1931		50
	Ft. Ellis Oil Shed (Rec. Map No. B09)	1933	740	100
	Ft. Ellis Outhouse (Rec. Map No. B03)	c.1933		18
	Ft. Ellis Post-and-Beam Pulley Structure (Rec. Map No. S04)	c.1950		Unk.
	Ft. Ellis Pump House (Rec. Map No. S07)	1931	743	75
	Ft. Ellis Ram Test Shed (Rec. Map No. B10)	1933	737	5,220
	Ft. Ellis Residence #1 (Rec. Map No. B01)	1931	721	2,129
	Ft. Ellis Residence #2 (Rec. Map No. B02)	1933	732	1,100
	Ft. Ellis Research Sheep Shed & Shop (Rec. Map No. B11)	1931	730	8,249
	Ft. Ellis Shearing/Working Facility (Rec. Map No. B12)	1933	729	2,988
	Ft. Ellis Implement & Cow Shed/Storage (Rec. Map No. B07)	1933	739	2,592
	Ft. Ellis Storage (Was Granary) (Rec. Map No. B06)	c.1910	723	3,301
	Ft. Ellis Store House (Rec. Map No. B08)	1933	731	120

<sup>&</sup>lt;sup>4</sup> "Rec." indicates Montana Historic Property Record prepared by Jessie Nunn, dated December 1, 2013.

	Montana State Universi	ty Buildings		
	Greater Than or Equal to	50 Years Old		
Smith. Number	Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)
24MA0262	Red Bluff Stage Stop (Isaacs/Wann	1880		
	Residence)	(burned 2006)		
	GIRVIN Farm Barn	c.1890 /1958	679	1,357
	GIRVIN Farm Granary	c.1890 /1958	681	614
	GIRVIN Farm Residence	c.1890 / 1958	676	2,399
	GIRVIN Residence 2-Car Garage	c.1920s/1958	675	857
	HARTMANN Log Bunk House	1929	2601	306
	HARTMANN Main House	1904	2605	2,400
	HARTMANN Ranch Frame Barn	1914	2602	3,200
	HARTMANN Ranch Pump	1965	2603	32
	HARTMANN Ranch Shop Shed	1927	2604	14,000
	Horticulture Farm Wood Office	1954	691	205
24GA2011	HORT Farm Miller Livestock Pavilion	1968	432	23,286
	Horticulture Pump House	1954	624	152
	LUTZ Farm New Garage	1951	813	545
	Post Farm Pump House - East	1968	716	
	Post Farm Seed Plant	1967	709	
24HL0329	Fort Assinniboine/NARC5	1879-1967		
С	Circulation			
С	NARC Six-Unit Apt-Staff Housing (Bachelor Officer Qtrs – Res. 1) <sup>6</sup>	1880	5403	18,525
С	NARC N. Duplex Apt 7 & 8 (Duplex Officers Qtrs – Res. 2)	1879	5402	5,810
С	NARC Living Quarters Apt. 9 Stn. Mgr. (Non-commissioned Officers Qtrs - Res.3)	1905	5401	2,052
С	NARC Office Bldg. (Post Library - Res. 4)	1889	5406	2,834
С	NARC Guard House (Guard House –Res. 5)	1905	5405	7,819
С	NARC Garage #1 (Officers Amusement Hall – Res. 6)	1886	5409	3,530
C/NC	NARC Soils Lab (Post Exchange – Res. 7)	1879	5404	5,214
C	NARC Warehouse (Ordinance House–Res. 8)	1884	5415	1,500
С	NARC Rec Building (Stable #4 Rec Hall – Res. 9)	1906	5414	7,922
С	NARC East Guard House (Dbl. Calvary Stable Guard/Shop – Res. 10)	1905	5418	1,749

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<sup>&</sup>lt;sup>5</sup> NARC includes historic Fort Assinniboine. The buildings, sites, structures, and objects listed as contributing to the historic district are identified with "C" in left-hand column. The resources without individual Smithsonian numbers are listed in numerical order of the Resource (Res.) listing.

<sup>&</sup>lt;sup>6</sup> "Res." Indicates resource number from the Fort Assinniboine (Boundary Increase and Additional Documentation) National Register Form listed on April 2, 2018. The list above includes all resources identified in the National Register nomination; the building names have been supplemented to include their historic names.

	Montana State University Buildings						
Greater Than or Equal to 50 Years Old							
Smith. Number	Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)			
С	NARC - Dbl. Calvary Stable Guard/Shop – Res. 11						
С	NARC West Guard House (Dbl. Calvary Stable Guard/Shop – Res. 12)	1905	5420	1,749			
С	NARC Field Officers' Stable (Res. 13)	1880					
С	NARC Field Officers' Stable (Res. 14)	1880					
С	NARC Commissary Root Cellar (Res. 15)	1902					
С	NARC Commissary Root Cellar (Res. 16)	1902					
С	NARC Commissary Root Cellar (Res. 17)	1902					
С	NARC Ice House (Res. 18) – Steer Barn	1904-1905					
С	NARC Flag Staff (Res. 19)	1890					
С	NARC Fort Assinniboine Monument (Res. 20)	1880					
С	NARC Daughters of the American Revolution Marker (Res. 21)	1958					
	NARC – No Resource 22 in NR nomination						
С	NARC Cattle Feeding Shed/Hay Storage Barn (Res. 23)	1934/1938					
С	NARC Machine Shed & Old Shop (Res. 24)	1938	5411	6,040			
	NARC - No Res. 25 in NR nomination						
С	NARC Pump House (Res. 26)	1927	5413	312			
С	NARC Garage #2 (2-Car – Res. 27)	1927	5422	420			
С	NARC Valve House (Res. 28)	1923	5424	90			
	NARC - No Resource 29 in NR nomination						
NC	NARC Resources 30 - 34	1981 - 2010					
С	NARC Weather Station (Res. 35)	1915					
С	NARC – various ruins/fdtns (Res. 36 – 48)	1879-1894					
С	NARC Cemetery (Res. 49)	1879-1911					
	NARC Research Barn	1927	5410	8,976			
24HL1679	NARC - Thackeray Ranch Barn	c.1928	5447	3,500			
	NWARC Behlen Grain Tank 1000BU	1970	6423				
	NWARC Crops Res/Office/Wet Lab	1957	6408	2,560			
	NWARC Foreman's Residence	1925	6401	1,600			
	NWARC Garage/Two Wet Labs	1963	6410	1,728			
	NWARC Misc. Storage	1955	6413	100			
	NWARC Residence	1925	6402	1,000			
	NWARC Shop	1963	6411	2,304			
	NWARC Truck Scale	1967	6415				
	Red Bluff Bottom Hopper Bin	1928	2419	240			
	Red Bluff Cow Barn (Stone)	1880	2426	1,000			
	Red Bluff Lumber Shed	1961	2423	656			
	Red Bluff Sheep Office	1930	2438	600			

Montana State University Buildings						
Smith. Number	Greater Than or Equal to Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)		
24YL2248	SARC Barn Ctr. Condemned Section	<del>1916</del>	3421	4,493		
211112210	SARC Lg. Bushel Bins (3)	1950	3456	11,400		
	SARC Sm. bushel bins (3)	1950	3455	1,050		
24YL2249	SARC Cereal/Crops Lab	1928	3433	760		
24YL2252	SARC Drying Rm East Barn Complex	<del>1916</del>	3467	823		
21122202	SARC Feed Mill	1950	3457	240		
Unresolved <sup>7</sup>	SARC Homesteader Hall (Leased)	1928	3411	3,200		
24YL2250	SARC Horse Barn/Machine Shed	<del>1959</del>	3438	3,737		
Unresolved	SARC Irrigation Pump Well House	1951	3420	48		
Unresolved	SARC Machine Shed #1	1916	3419	2,852		
Unresolved	SARC Machine Shed #1	1920	3464	4,500		
Ulliesolveu	SARC Machine Shed #2	1948	3425	5,040		
Unresolved	SARC Well Pump House #1 (Domestic)	1928	3409	189		
Unresolved	SARC Weil Fullip House #1 (Dolliestic)	1928	3403	1,784		
Unresolved	SARC Residence #4	1917	3404	2,182		
Unresolved	SARC East Residence Garage	1920	3423	672		
Unresolved	SARC West Residence Garage	1917	3424	620		
Unresolved	SARC Seed Shop	1920	3415	2,200		
Unresolved	SARC Southern Annex Dairy Barn Complex	1916	3465	4,125		
Unresolved	SARC Truck Scale House & Scale	1960	3444	160		
24YL2251	SARC Western Annex Barn Complex	<del>1916</del>	3466	<del>1,706</del>		
	VET Clinic Building	1960	426	2,527		
	Veterinary Equipment Shed	1960	421	3,600		
	Veterinary Loafing Shed	1960	422	3,600		
	VET Quonset Livestock Shelter	1950	409	1,004		
	VET Quonset Livestock Shelter	1950	410	1,970		
	VET Shop Quonset	1953	413	960		
	VET Storage Building	1941	627	1,000		
24RA0239	Western MT Agricultural Experiment Stn.	1910-1970				
С	WARC Bio Laboratory (East Cottage)	1910	7401	1,319		
С	WARC Garden Tool House (Garage & Machine Storage)	1925	7404	660		
С	WARC Grind Rm/ Greenhouse	1926	7405	1,383		
С	WARC Horticulture & Soils Lab (Office)	1926	7406	2,200		
С	WARC Main Office	1911	7403	2,304		
	WARC Tractor Shed & Machine Shop	1935	7409	2,520		
С	WARC Well/Pump House	1935	7412	120		
C	WARC West Residence	1921	7402	1,640		
	WTARC – none (established 1977; housed in		<u> </u>	2,010		

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<sup>&</sup>lt;sup>7</sup> Where listed as "unresolved" for listing in the National Register of Historic Places, this default ruling is in response to a judgement of "eligible" by the State Historic Preservation Office for a building previously deemed ineligible by MSU.

Montana State University Heritage Properties Report 2022 Appendix B

Montana State University Buildings Greater Than or Equal to 50 Years Old						
Smith. Number	Building Name	Construction/ Occupancy Date	Building Number	Gross Area (s.f.)		
	Miscellaneous Buildings					
	Cold Storage Quonset	1949	612	700		
	Poultry Barn -Vacant	1943	631	6,837		
	Swine Center Shed	1958	683	255		

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# MEMORANDUM OF AGREEMENT BETWEEN MONTANA STATE UNIVERSITY (MSU) AND THE

# MONTANA STATE HISTORIC PRESERVATION OFFICE (MTSHPO) REGARDING THE SOUTHERN AGRICULTURAL RESEARCH CENTER (SARC) IN HUNTLEY, MONTANA

WHEREAS, Montana State University (MSU) plans to demolish five (5) historic buildings at the Southern Agricultural Research Center in Huntley, Montana, pursuant to the Montana State Antiquities Act; and

WHEREAS, the undertaking consists of the demolition of five (5) agricultural buildings including the Dairy Barn Complex (3421), the Cereal Lab Building (3433), the Horse Barn/Machine Shed #2 (3438), the West Annex (3466), and East Annex (3467); and

WHEREAS, MSU has defined the undertaking's Area of Potential Effects (APE) as the five historical buildings, their immediate surroundings, and the adjacent construction staging area. The attached map (Appendix A) illustrates the undertaking's APE; and

WHEREAS, MSU has determined that the undertaking has an adverse effect on the heritage status and integrity of the entire station, including buildings referred to as Dairy Barn Complex (24YL2248), Cereal Lab Building (24YL2249), Horse Barn/Machine Shed #2 (24YL2250), West Annex (24YL2251), and East Annex (24YL2252), which are eligible for listing in the National Register of Historic Places, and MSU has consulted with the MTSHPO regarding the undertakings effects and the site's eligibility status.

WHEREAS, MSU has consulted with the MTSHPO, for which the Southern Agricultural Research Center has cultural significance; and

NOW, THEREFORE, MSU and the MTSHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on heritage properties.

#### **STIPULATIONS**

- I. MSU shall ensure that the following measures are carried out in order to mitigate the adverse effects on historic properties:
  - A. Provide a history of the aforementioned buildings at the Southern Agricultural Research Center (SARC) through an online webpage, available to the public free of charge, via the MSU website.
  - B. Provide an electronic display of historical information, research, and pictures at the existing Huntley Project Museum in Huntley, Montana. The electronic display will contain images (accessed manually and/or random display sampling) and descriptions of the five (5) demolished buildings, with a special focus on the Dairy Barn.

#### II. DURATION

This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, MSU may consult signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VI below.

#### III. POST-REVIEW DISCOVERIES

If properties are discovered that may be historically significant or unanticipated effects on historic properties found, MSU will cease work at that location and contact the MTSHPO immediately.

#### IV. MONITORING AND REPORTING

Prior to the expiration of this agreement and after all stipulations have been met, MSU shall provide the MTSHPO a summary of efforts to accomplish the stipulations, which will include a link to the webpage that is created.

#### V. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed, or the manner in which the terms of this MOA are implemented, MSU shall consult with such party to resolve the objection.

#### VI. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the MTSHPO.

#### VII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories in an attempt to develop an amendment per Stipulation VI, above. If an amendment cannot be reached within thirty (30) days, or another time period agreed to by all signatories, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, MSU must restart consultation with the MTSHPO for this undertaking pursuant to MCA 22-3-433(2).

Execution and implementation of this MOA and its terms by MSU and the MTSHPO establishes evidence that MSU has taken into account the effects of this undertaking on Heritage properties.

1/7/2021 | 12:09 PM\_MST **Date** 

**SIGNATORIES:** 

# Montana State University | Dan Structon | | BCFBEBCEE686C44A | | 1/5/2021 | 9:55 AM MST | | Date | Southern Agricultural Research Station (SARC) | | Learne Ta Leophalt 5/2021 | 12:48 PM MST | | 1/5/2021 | 11:53 AM MST | | Date | State Historic Preservation Office (SHPO) | | Pub Brown | | F128C00BCB194A3 | | F128C00BCB194A3 | | Date

# APPENDIX A: AREA OF POTENTIAL EFFECTS MAP



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 8<sup>th</sup> Ave Helena, MT 59620-1202

Property Address: <b>2730 West Garfield Street</b> Historic Address (if applicable):	Site Number: <b>24GA2011</b> (An historic district number may also apply.)	
City/Town: Bozeman, Montana	County: Gallatin	
Historic Name: Miller Livestock Pavilion	Legal Location	
Original Owner(s): Montana State College	PM: Montana Township: 2S Range: 5E	
Current Ownership 🔲 Private 🔀 Public	<sup>1</sup> / <sub>4</sub>	
Current Property Name: Miller Livestock Pavilion	Lot(s):	
Owner(s): MAES at Montana State University	Block(s):	
Owner Address: 202 Linfield Hall, P.O. Box 172860	Addition: Year of Addition:	
Bozeman, Montana 59717-2860  Phone: 406-994-3681	USGS Quad Name: <b>Bozeman</b> Year: <b>1987</b>	
Historic Use: Equitation/Equestrian Education	UTM Reference www.nris.mt.gov	
Current Use: Equitation/Equestrian Education	□ NAD 27 or ⊠ NAD 83( <b>preferred</b> )	
Construction Date: 1968   Estimated   Actual	Zone: <b>12</b> Easting: <b>494307</b> Northing: <b>5056720</b>	
☑ Original Location ☐ Moved Date Moved:		
National Register of Historic Places	Date of this document: <b>December 17, 2020</b>	
NRHP Listing Date:	Form Prepared by: Candace Mastel, Campus Planner	
Historic District:	Address: P.O. Box 172760, Bozeman, Montana, 59717-	
NRHP Eligible: 🛛 Yes 🗌 No	2760  Daytime Phone: 406-994-7457	
MT SHPO USE ONLY Eligible for NRHP: □ yes □ no Criteria: □ A □ B □ C □ D Date: Evaluator:	Comments:	

PAGE 2 Architectural Description

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

#### ARCHITECTURAL DESCRIPTION

Architectural Style: **Other:** If Other, specify: **Modern** Property Type: **Agriculture** Specific Property Type:

Architect: Drake, Gustafson & Associates Architectural Firm/City/State: Billings, Montana

Builder/Contractor: Emil Martel and Son Company/City/State: Bozeman, Montana

Source of Information: University Records, Montana State University

#### Background

The Miller Livestock Pavilion is located on West Lincoln Street just west of the north-west oriented gravel farm road. It is situated on the north side of West Lincoln Street and the axis of the building runs east-west. The pavilion is generally situated at the southern, center part of a larger area, featuring approximately two (2) acres of fenced corrals and containment areas for livestock. The main entry to the pavilion is on the south side of the building and has adjacent parking for vehicles and a larger parking yard for utility vehicles and trailers.

The pavilion provides indoor and outdoor facilities for MSU's Equine program. It is also home to the MSU Youth Horsemanship School in the summer. The use of the pavilion is centered on teaching programs and student activities. Occasionally, the Department of Animal and Range Sciences rents the facility to other community organizations as a public service. The Range Management Club, a student organization, regularly uses the grass field to the east of the building for its annual Christmas tree sales event.

The Miller Livestock Pavilion is one of the eight agricultural field buildings designed by Drake, Gustafson & Associates and constructed by Emil Martel and Son (currently known as Martel Construction) in 1968. Due to its public function, the pavilion is one of the few buildings on the BART Farm that expresses a distinct style. Although largely a utilitarian building, its window-wall main entrance and elongated zigzag awning provides an undeniable link to the 1960s Mid-Century Modern style of design.

#### **Exterior**

The pavilion is a one-story building, constructed as a rigid metal frame building with a low-pitched gable roof and a concrete slab foundation. Its rectangular footprint measures approximately 225 feet by 100 feet, with the long eave sides running east/west and the shorter gable ends running north/south. The exterior walls are clad in light green, corrugated "steel sandwich panels" and the building has a standing seam metal roof. The ridges of the corrugated metal have a vertical orientation. On all building elevations, the roof has exaggerated overhanging eaves with a metal fascia covering but no soffit, leaving the large steel rafters exposed. Larger overhead doors exist on both the east and west ends. These provide access for livestock and tractors. Several man doors exist around the perimeter of the building.

The pavilion's main entrance is protected by an 80-foot-long zigzag corrugated metal awning that projects approximately 12 feet from the building. The awning consists of four consecutive 20-foot-wide "V"-shaped awning structures with the entrance filling all but the outer few feet of the central peak. Heavy, "Y"-shaped metal posts with tapered bottoms and cylindrical concrete bases support the awning. A wooden sign reading "Bob Miller Pavilion" hangs on the central peak, marking the main entrance. A concrete walk leads to the entrance from the east/west drive and the parking area. The main entrance consists of double solid wooden

PAGE 3 Architectural Description

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

doors in a peaked window-wall with wood framing. Paired sidelights are found on either side of the double doors and there is a transom light above all six vertical units. The sidelights consist of a long upper glass pane above a slender "strip" of glass and a shorter pane, while the transom lights are single panes of glass with slanted tops. In contrast with the green building, the awning, doors and window-wall framing are white. Paved patios flank the entrance under the awning. Outside of the entrance, fenestration on the façade is limited to two metal sliding windows located under the outer peaks of the awning. A "string" of branding symbols are highlighted, constructed in metal, hanging from the vertical structural supports of the front awning, providing a playful context for the front entry.

The east gable-end elevation contains three entrances, including a sliding metal door and a man door on the south end and an oversized garage door on the north end. The sliding door is clad with corrugated metal siding with horizontal ridges. It hangs from an overhead metal track. A single solid metal man door is located immediately to the north of the sliding door. The overhead garage door on the north end of this elevation provides access to the pavilion's indoor dirt riding area for vehicles and machinery. This northern door is newer and was replaced in 2019 as part of modifications to allow better access to the interior. Modern style circular lights with metal brackets flank the garage door and are centered above both the walk-in door and the sliding door. The other gable end at the west elevation has two sliding metal doors on its south end and a sliding door and a small overhead door on its north end. Each sliding door is clad in corrugated siding with horizontal ridges and hangs from a metal overhead track. Lights identical to those found on the east elevation are located above each of the sliding doors and to the south of the overhead door.

Various exterior chutes lead livestock through the northern doors to interior holding pens. The southernmost door opens to a concrete floor outside the pavilion's interior dirt riding area. Between the south doors stands a hopper-type corrugated metal grain bin with a conical roof and an approximately eight (8) feet in diameter. The north elevation has only one opening: a single, solid metal man door that is slightly offset to west. A light fixture, identical to those found on the side elevations, is centered above the door.

#### Interior

The interior of the Miller Livestock Pavilion, much of which is original, contains a large dirt riding arena on its northern two- thirds and bleachers and other public space in its southern one-third. Upon entering the main entrance on the south elevation, there is a small lobby area with concrete block walls that lead to the bleachers. Men's and women's restrooms are located to the left and right of the lobby under the bleachers. Three rows of wood bench bleachers with interesting white metal bracket supports sit atop flat concrete terraces on either side of the entrance. A short flight of wood stairs on the west end of the west bleachers leads to a storage area above the bleachers that contains a row of oversized lockers on its north wall. Tubular metal railings, painted white, line the front and sides of the bleacher area. Large open spaces flank the lobby/bleacher structure. Also, visible on the interior is the building's open metal roof structure and tapered vertical metal supports.

PAGE 4 History of Property

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

#### HISTORY OF PROPERTY

## Introduction

The Miller Livestock Pavilion is located on the Bozeman Area Research and Teaching Farm (the BART Farm), a division of the Montana Agricultural Experiment Station (MAES). It is located 1.5 miles west of Montana State University's (MSU) campus core. MSU's campus sits at the northwest edge of Bozeman, the county seat of Gallatin County, Montana. Commercial development along Huffine Lane (US 191) and College Street bounds the farm to the north. Also, to the north, between Huffine Lane and Garfield Street, are the remnants of the Nelson Dairy Center, a former division of the farm. The MSU Veterinary Center, including the Marsh Laboratory, is located immediately to the east of the farm along Lincoln Street. Farther east is South 19th Avenue, which is characterized by a mixture of commercial, residential and public (including other university buildings) development. More recently commercial and higher density residential development has replaced agricultural fields to the southeast.

The BART Farm encompasses 474 non-contiguous acres, which includes the former Towne and Girven Farms, the MSU Veterinary Center immediately to the east and the Boldt Farm located farther to the west. This document, for purposes of highlighting the Miller Livestock Pavilion, focuses on the 135-acre core area on the former Towne and Girven Farms, all of which is located in Section 14, Township 2 South, Range 5 East. This core stretches along a 0.8-mile, gravel-surfaced, north/south drive between Garfield Street to the north and Stucky Road to the south. A gravel-surfaced east/west drive, which aligns with West Lincoln Street, intersects the main drive about 0.2 miles from its north end. The farm includes 29 buildings, 31 structures, several corrals, and a number of other small-scale features. These resources are arranged in clusters along the main drives with livestock-related resources located to the west and the Horticulture Farm located to the east. Moving from the north to south on the west side of the drive clusters included: Swine Center, Horse Center, Nutrition Center, Feed Mill, Farm Shop & Headquarters and the Beef Center. The historic Stucky-Girven Farmstead is situated at the south end of the property. Most farm buildings and structures date from the 1960s or later, while the Stucky-Girven Farm was built in the late 19th and early 20th centuries. The Miller Livestock Pavilion is located on West Lincoln Street just west of the gravel farm road. It is situated on the north side of the street and the axis of the building runs east-west. The main entry to the pavilion is on the south side of the building and has adjacent parking for vehicles and a larger parking yard for utility vehicles and trailers. The pavilion is generally part of a larger staging area, approximately two acres of fenced corrals and containment areas for livestock.

#### Natural Systems and Features

The fertile Gallatin Valley stretches about 25 miles along the Gallatin River, with Bozeman sitting near its southeast corner and Three Forks at its northwest corner. The Gallatin River enters the valley from its mountain canyon near Gallatin Gateway, about 15 miles southwest of Bozeman. It then runs north by northwest before reaching Three Forks, where it joins the Jefferson and Madison Rivers to create the Missouri River. The East Gallatin River, which runs north of Bozeman, meets the main branch of the river to the north of the town of Manhattan. The Gallatin Valley is bound by the Bridger Range to the northeast, the Gallatin Range to the southeast and the Madison Range to the south, with the lower Horseshoe Hills to north. The mountains provide dramatic views from the BART Farm and across the Gallatin Valley. As these mountains were forming

PAGE 5 History of Property

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

40 to 136 million years ago, a vast inland sea began to recede, depositing a thick layer of loam. It is this soil that makes the valley so agriculturally productive.

The area between Bozeman and the Gallatin River drops gradually from the foot of the Gallatin Range at about 5,400 feet in elevation to 4,860 feet near the BART Farm's north boundary. A ridge lining the east side of the Gallatin River divides its watershed from its main tributary, the East Gallatin River. As such the major stream to the east of Bozeman, Hyalite Creek (or Middle Creek) runs almost due north, emptying into the East Gallatin River near the town of Belgrade. Numerous irrigation canals carry water east across the landscape, creating a crisscross pattern with the north-flowing tributaries of Hyalite Creek and the East Gallatin River. On a smaller scale, an unnamed tributary of the East Gallatin River runs through the west side of Section 14 (the location of the BART Farm), with the Farmer's Canal running east through the north end of the section.

#### <u>Cultural Landscape Features</u>

The core building area of the BART Farm can be divided into three major units: The Horticulture Farm to the east of the main north/south drive, the Livestock Unit to the west of the drive and the Stucky-Girven Farmstead at the south end of the property. The Livestock Unit is further divided into six clusters that are defined by their arrangement and historic/current use: Swine Center, Horse Center, Nutrition Center, Feed Mill, Farm Shop & Headquarters and Beef Center. The units are arranged around circulation systems that include a primary north/south and east/west drive, as well as a number of secondary drives. The Swine Center, Horse Center and Horticulture Farm are arranged along the east/west drive, while the remaining clusters of the Livestock Unit line the west side of the north/south drive. The Miller Livestock Pavilion is part of the Livestock Unit.

Within the Livestock Unit, there are several smaller "interior" pastures located inside the farm's main circulation system. These include a pasture south of the Swine Center and Horse Center, two pastures west of the Feed Mill, Farm Shop and north half of the Beef Center, a pasture west of the south half of the Beef Center and a pasture between the Beef Center and the Stucky-Girven Farmstead. Larger "exterior" pastures are found to the west of Livestock Unit. Cultivated agricultural fields are found to the north and east of the farm's core building area. To the north of the Livestock Unit are larger fields, while there are "strip" experimental plots to the north of the Horticulture Farm. A single elongated field stretches along the east side of the property, south of the farm's main east/west drive.

Small-scale features abound on the BART Farm. There are the various fences that create the farm's livestock corrals, pens and pastures. Interior pens are typically created with metal or wood panels, while exterior pastures and fields are fenced with barbed wire or woven wire. Systems for feed and watering livestock are another significant small-scale feature. These include individual water tanks and feeders in small pens, long concrete feed bunks that serve interior pastures and metal grain bins attached to buildings. Purposefully planted trees also play a significant role on the farm. A long row of pine trees lines the east side of north/south drive at the Horse Center and a windbreak of deciduous trees protects the Stucky-Girven Farmstead on its east side.

The Livestock Unit is anchored by eight large metal buildings constructed in 1968 to replace the Experiment Station's original livestock-related buildings located immediately across South 11th Avenue from MSU's main campus. Collectively known as the "agricultural field buildings," they were designed by the architectural firm,

PAGE 6 History of Property

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

Drake, Gustafson & Associates and built by general contractor, Emil Martel & Son, both of Bozeman. With the exception of the Feed Mill and Farm Shop & Headquarters, which are centered on more recent buildings, each cluster in the Livestock Unit contains at least one original agricultural field building. This includes the Perry Swine Center in the Swine Center, the Miller Livestock Pavilion, the Oscar Thomas Nutrition Center and Grow Safe Equipment Building in the Nutrition Center, and the A.I. Building (Bull Shed), Little Working Facility (Scale House) and Calving Shed Nos. 1 and 2 in the Beef Center. Support buildings and structures surround each of these main buildings. For the most part these are corrals, pole barns, animal shelters, and small sheds, but there are a few significant exceptions, including the Horse Barn, Horseshoeing Building and Large Working Facility.

The agricultural field buildings are arranged rationally with their longer elevations running perpendicular to the north/south drive and, where appropriate, their open ends facing south. All agricultural field buildings are steel-framed structures under overhanging eaves with exposed steel rafter tails. With the exception of the recently renovated Perry Swine Center and the massive Miller Livestock Pavilion, all are clad in beige-colored corrugated metal with vertical ribbing. The long zigzag awning on the south façade of the Miller Livestock Pavilion and the concrete block ornamentation on the Oscar Thomas Nutrition Center are clear examples of late Mid-Century Modern architecture.

#### A Brief History of the Experiment Station

The Montana Agricultural Experiment Station (MAES or the Experiment Station) and the Agricultural State College of Montana (MSU) were authorized alongside each other by the State Legislature on February 16, 1893. As a land grant institution, the new College had access to \$15,000 in annual federal funding available through the 1887 Hatch Act for the creation of an agricultural experiment station. Agricultural education and extension in Montana would develop quickly over the next few decades from its base in Bozeman, as explained by historian Merrill G. Burlingame in 1968:

When Montana State opened in 1893, the teaching mission was only one of its interests. Another was that of agricultural research, and the Experiment Station began operations at the same time. The influence of the nationwide Farmer's Institutes soon led to the Smith-Lever Act of 1914, which established the Extension Service, and the land-grant educational pattern was complete.

Of course, there was much work to be done before reaching that point of relative maturity. Montana stood to benefit greatly from the work of its Agricultural Experiment Station, but beyond authorizing its creation, it did little to support the institution during its formative years. The Experiment Station began operations on a donated 160-acre farm immediately west of the MSU campus, which included 80 acres from the City of Bozeman and what had been the Gallatin County Poor Farm. It depended upon the \$15,000 Hatch Act appropriation for survival.

Montana's Agricultural Experiment Station expanded quickly over the next fifteen years, both in the breadth of its studies and in its physical presence across the State. This was largely due to more funding, which came from increasing State support, beginning in 1903 and with the passage of the Adams Act in 1906. The Adams Act offered an additional \$15,000 annually in federal monies for research. Money also came in from private donors, including the Northern Pacific, Great Northern and Chicago, Milwaukee and St. Paul Railroads, who

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Property Name: Miller Livestock Pavilion Site Number: 24GA2011

had a substantial financial interest in agricultural development along their routes through Montana. The Experiment Station also improved and expanded its Home Station in Bozeman, with the acquisition of 160 acres and two city blocks for the College Farm (1909), the addition of 600 acres at the former Fort Ellis Military Reservation located three miles east of the main campus (also in 1909) and the creation of the Montana Grain Laboratory (1913).

Agricultural development in Montana surged during the Experiment Station's first twenty-five years, but the crash in agricultural prices that followed WWI marked the beginning of a tumultuous period that would not end until the close of the Second World War. The Experiment Station continued to grow during the interwar period as it worked to meet the challenges of agricultural depression and wartime production. World War II brought a rebound in agriculture prices, but also necessitated increased production.

Further expansion occurred in 1955 when MSU purchased the 160-acre Towne Farm about one mile west of campus, adding the adjacent Girven Farm, also a quarter-section, two years later. The Experiment Station established a Dairy Center and an Experimental Beef Feeding Center at this location, but it would be another decade before the property was to be fully developed.

At the onset of the 1960s, Montana's political climate shifted with the election of Governor Donald Nutter. Under the Nutter Administration (1961-1962), the budgets of the Montana Agricultural Experiment Station and its companion organization, the Montana Agricultural Extension Service, were cut by 34% and 51%, respectively. A new administration following Nutter's tragic death in a plane crash brought less severe cuts, but the 1960s remained a difficult period for all of higher education in Montana. Even so, in the late 1960s the Experiment Station was able to shift its operations from the original "Home Station" immediately adjacent to campus to their properties on the western edge of town. At the former Towne and Girven Farms, the Experiment Station further developed their livestock operations with the construction of new metal "field buildings" and the Miller Livestock Pavilion in 1968.

The Experiment Station was able to thrive during the latter decades of the 20th century and into the 21st century, despite occasional cuts in funding. In partnership with the MSU College of Agriculture, the Experiment Station now includes six departments: agricultural economics, agricultural education, animal and range sciences, immunology and infectious diseases, land resources and environmental sciences, and plant sciences and pathology. It is also affiliated with seven Institutes, including the Agricultural Marketing Policy Center and the Center for Invasive Plant Management.

#### A Brief History of the BART Farm

When farmers began settling the land west of Bozeman in the 1860s and 1870s, they could not have imagined it would someday be home to an agricultural experiment station. Although the fertile Gallatin Valley certainly held agricultural promise—that was why they were there in the first place—it would be at least another decade before the Agricultural State College of Montana (MSU) and the Montana Agricultural Experiment Station (MAES) were established simultaneously in 1893. Over the next few decades, however, the College and its Experiment Station expanded rapidly, both in terms of influence and physical size.

During the agricultural settlement of the Gallatin Valley, the area between Bozeman and the Gallatin River held

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Property Name: Miller Livestock Pavilion Site Number: 24GA2011

particular promise because it could be easily irrigated. Section 14, T2S, R5E, the future location of the BART Farm, sits at the northwestern edge of the area served by the Middle Creek Ditch. The larger area of the BART Farm, aforementioned, included several smaller aggregate farms and homesteads, including that of the Stucky-Girven and the Towne Farm, whose establishment helped define the agricultural uses in the area and thus the future of the land as utilized by MSU for teaching and research. From the late 1890s to the 1950s the farms passed through many hands and saw much change. Much of the smaller out buildings on the Stucky-Girven farm have been demolished during this time, however the farmhouse, barn, granary, one loafing shed, the garage and the windbreak all remain intact at the south end of the BART Farm's main drive.

When MSU President Ronald R. Renne secured purchase of the Towne and Stucky-Girven Farms in the 1950s, it was in anticipation of moving the Experiment Station's livestock-related research away from the original buildings located immediately across South 11th Avenue from the main campus. In addition to Renne's desire to address deferred maintenance and to provide more appropriate facilities for the mission, a modern facility removed from the hustle-and-bustle of campus, it was felt, would better facilitate research staff, teachers and students.

Despite the great need to find the Animal Sciences Department a new home, it took several years following the purchase of the Towne and Stucky-Girven Farms to secure funding for new buildings. In 1964, they proposed to the Montana Board of Regents that the original livestock buildings be, "replaced with new facilities," to be constructed as cheaply as possible with, "low cost steel," and concrete block. In 1965, the Montana State Legislature heard MSU's request, allocating some \$364,000 for the construction of agricultural field buildings. The following year, MSU and the Experiment Station solidified their building plan. Drake, Gustafson & Associates was selected to design the buildings, which were to include an Experimental Steer Barn, Horse Center, Livestock Pavilion (later named the Miller Livestock Pavilion), Swine Center, Bull Indexing Building, Cow / Calving Sheds, Feed Storage Building, and a Scale House.

During the bidding process, some bids came back too high, necessitating the trimming of the scope for the larger building project. On March 8, 1967, the State Division of Architecture and Engineering approved the bids of Emil Martel & Son for the general contract, Safe-Way Plumbing, Heating & Refrigeration for the mechanical contract and Coast-to-Coast Store for the Electrical Contract.

Construction began soon after bids were awarded in the spring of 1967 and by February of 1968, construction was complete. One of the first events to be held in the new complex was the annual Little International Livestock Show, which was held in conjunction with the MSU Feeders' Day.

The new agricultural field buildings completed were low-cost steel construction with little architectural flair but lived up to the following five basic guidelines for design and construction: 1) adequate drainage; 2) easy access; 3) public buildings are easily reached; 4) buildings with obvious relationships should be grouped; 5) "buildings which tend to produce objectionable odors shall be located as to minimize this facet of the complex.

The Miller Livestock Pavilion is perhaps the most elaborately designed of all the buildings constructed during this campaign. It was intended to provide facilities for the Little International Livestock Show, animal judging, undergraduate studies and rodeo activities. The building was designed to "have and attractive entrance and be located so that it is easy to reach by the public," while also including "ample parking space."

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Property Name: Miller Livestock Pavilion Site Number: 24GA2011

#### Farm Reorganization and Change

The late 1970s saw challenges and opportunities for the Experiment Station's Bozeman-area operations, which by this time included the Animal Science Farm (BART Farm), Agronomy Farm (Post Farm), Red Bluff Ranch, Fort Ellis and the Huidekoper Ranch near Big Timber. It was observed that there was a declining condition of the farm facilities during this time that was concerning. The declining condition of the farm was evident in a 1978 memo from MSU President, William J. Tietz, to J. A. Asleson, Director of the Experiment Station. Tietz acknowledged the well-kept grounds surrounding the Swine Center, Horse Center and Miller Livestock Pavilion, but found conditions at the beef and dairy operations "deplorable," and the farm's fences, "badly maintained."

The Experiment Station found it necessary to overhaul farm operations and reassign duties to different entities to improve the conditions at the farm. Despite this exhausting process, they benefited greatly in that there was the opportunity to improve efficiency and re-affirm their mission.

The 1980s brought further change to the farm. Some livestock and operations were relocated or rearranged in order to improve efficiency and function. The Dairy Center was closed in 1984 and the herd was transferred to the Montana State Prison Farm in Deer Lodge. At the same time, the termination of swine-related activities at the Livestock Experiment Station in Miles City brought more activity to Bozeman's Swine Center. The Experiment Station's feedlot activities shifted away from the Bozeman farm to the research center at Huntley Project near Huntley, Montana (the current site of the Southern Agricultural Research Center). Livestock-related research during this period focused on breeding and genetics, nutrition, range science and reproductive physiology. New buildings were also planned for the Bozeman-area Experiment Station, while other buildings were slated for rehabilitation. These plans included a new "teaching and research building," (never built), a new shop (finally built in 2008), an expansion of the Feed Mill to include a pellet mill, and the remodeling of the Nutrition Center.

During this period, the Horticulture Farm also took shape to the east of the Livestock Experiment Station. Administered by the MSU Department of Plant Sciences, the 10-acre Horticulture Farm provides facilities for research in gardening, sustainability and even beekeeping. While the exact date of the farm's establishment is unclear, by the 1990s it included two Quonsets, a storage shed and a pump house, in addition to its garden plots and orchard. With the exception of the pump house, those buildings were replaced in the early 2000s with small pre-fabricated or moved buildings. A large Horticulture Storage Barn was also constructed in 2012.

#### The Architect: Drake, Gustafson & Associates

Vernon Leslie Drake was born in Billings, Montana in 1922. At Montana State College, he received a Bachelor of Science degree in Architecture in 1948. He worked for Billings architect Chandler C. Cohagen as a draftsman from 1946 to 1949. He partnered in the firm Osness & Drake Architects from 1952 to 1954. After this association, he established his own firm, where he designed a number of institutional structures. He became a partner in Drake, Gustafson & Associates in 1956.

F. (Francis) Wayne Gustafson was born in Chinook, Montana in 1927. He attended Montana State College in Bozeman, where he received a Bachelor of Science degree in Architecture in 1950. At that time, he worked as

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Property Name: Miller Livestock Pavilion Site Number: 24GA2011

a draftsman for Chandler C. Cohagen. He later worked for the prominent Billings firm of Cushing & Terrell. In 1956, he became associated with Vernon Drake and they formed the firm Drake, Gustafson & Associates. The firm was sold to junior partners in 1988 due to Drake's declining health. Drake died on January 16, 2004.

PAGE 11 Information Sources/Bibliography

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

#### INFORMATION SOURCES/BIBLIOGRAPHY

Knight, James E. "Animal and Range Sciences Department History 1893-2016." *Montana State University*, 2016, https://animalrange.montana.edu/ANRS\_history\_page.html.

Nunn, Jessie. Montana Historic Property Record: Animal Sciences Farm. 2014.

PAGE 12 Statement of Significance

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

NRHP Listing Date: <b>N/A</b>	
NRHP Eligibility: X Yes No Individually Contributing to	o Historic District
NRHP Criteria: A B C D	-
Area of Significance: Agriculture, Education and Architecture	Period of Significance: 1945-1969

#### STATEMENT OF SIGNIFICANCE

NATIONAL REGISTER OF HISTORIC PLACES

The larger Bozeman Area Research and Teaching (BART) Farm is not currently eligible for listing in the National Register of Historic Places (NRHP) as a district, because most of its buildings were constructed less than 50 years ago. However, the Miller Livestock Pavilion is older than 50 years and is thus eligible for listing in the NRHP as in individual building. The building has not been significantly altered since its original construction in 1968. There has been recent work on the building during the summer of 2019, which included replacement of the roof with the same design and materials as the original roof. In the investigation into the condition of the roof during that work it was discovered that the existing, original structural roof members could not support an increased load for ventilation. A future project to improve ventilation via mechanical means was delayed due to issues brought on in the spring of 2020 because of the global pandemic. It is the intent to revisit this ventilation issue at a future time. Currently, the building management relies on opening overhead doors to allow moisture to escape. Moisture is an issue because the dirt in the arena is routinely wetted in order to prevent dust. This issue needs to be addressed long-term to protect the interior of the structure from further damage due to moisture and condensation.

In addition to the re-roofing of the pavilion, the facility had some upgrades to operational equipment, such as the replacement of 50-year-old bucking chutes that did not meet modern safety standards. The original chutes were replaced with new Preifert brand bucking chutes, the same used in the Brick Breeden Fieldhouse for rodeos. The arena footing was also replaced, featuring a new material that is designed to need less moisture and produce less dust particles.

Currently the larger BART Farm does not meet the requirements for "exception significance" under Criterion Consideration G for properties under 50 years of age. However, because the Miller Livestock Pavilion is more than 50 years old, it does meet the requirements for significance in the areas of education and agriculture. Reassessment of other buildings should also take place in the future once the buildings constructed after the 1970s reach the 50-year age mark. The future eligibility of the larger farm or said buildings will depend on its future historic integrity. Some of the buildings, like the Swine Center, a major component of the farm, have already been altered so significantly it no longer contributes to the potential historic and architectural significance of the farm, while new buildings and structures are added regularly. Aforementioned, the Miller Livestock Pavilion is over 50 years old and can be considered for listing on the National Register based on Criteria for Evaluation (A, B, C and D).

#### Criterion A: Event

Aforementioned, the events that proceeded the construction of the pavilion set in motion a series of historical trends and transactions of homesteading and land purchases that established the contiguous land base that became the Bart Farm and the surrounding agricultural lands owned by the state and used by the university for agricultural education and research. These events ensured that for future generations the land would be held into perpetuity for the use by the young minds of the state to become familiar with traditional farming and agricultural operations and provided the support of a realistic environment to learn and practice in order to prepare for future careers in their respective fields.

PAGE 13 Statement of Significance

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

#### Criterion B: Person

The pavilion was planned during the tenure and by Robert W. "Bob" Miller. Miller was a professor from 1958 until his death in 1974. He was an esteemed member of the academic staff that provided instruction and guidance in the development of the highly regarded horse program. He helped establish the farrier school. In addition to his academic role, he also served as the president of the National Intercollegiate Rodeo Association and as a coach and advisor to the MSU Rodeo Team. The pavilion was planned by him to be suitable for horsemanship classes and Rodeo Club practice and other animal science programming. Miller was a significant force in the establishment of the pavilion and cutting-edge practices at the university that served the student body well in preparing them for careers in equine and equestrian related trades and certainly for the larger agricultural/livestock industries.

#### Criterion C: Design/Construction

Aforementioned, the pavilion exhibits the characteristics of Mid-Century Modern architecture and is a significant demonstration of the melding of agricultural utility with design articulation in the Montana landscape. The construction is durable and renewable and has served the use of the pavilion very well despite a few drawbacks, ventilation and air exchange being the main one. Despite the pavilion serving as an example of Mid-Century Modern architecture, and being professionally designed by an established architecture firm, there might be a debate on whether it truly encapsulates the style and contributes extensively to a reinforcement of the design style so far detached from other buildings of a similar style and given its agricultural setting. However, the design was planned and the features prominently displayed on its front façade are not an afterthought as they were intentionally designed and constructed from the beginning of the building's planning.

#### Criterion D: Informational Potential

The pavilion has played an important role in the continued development of the Animal & Range Sciences Department at Montana State University and the Montana Agricultural Experiment Station as well as community outreach. The overall plan of the farm is also significant for its rational and efficient design, which continues to follow guidelines established in the 1966 Building Program.

Over the years, the Miller Livestock Pavilion has hosted countless public and University events, including the Little International Livestock Show, livestock judging clinics and MSU rodeo activities. Therefore, in addition to its significance in agriculture and education, the building is also significant in the area of recreation/entertainment.

#### Summarv

In consideration of the information provided above it can be concluded that the only significance lies in the design and construction of the building. It could be considered for eligibility for the National Register based on its relation to the areas of agriculture, education, recreation/entertainment and architecture. Under the Criterion C, the building is the largest and most significant metal "field building" constructed during the 1968 building campaign. It also exhibits characteristics of Mid-Century Modern architecture, particularly in its window-wall entrance and zigzag awning. Stylistic elements were originally included because of its public use.

PAGE 14 Integrity

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

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

Location – Aforementioned, the larger BART Farm facility is located west of South 19<sup>th</sup> Avenue and west of the main Bozeman campus, in an area largely still used for agriculture or small-scale farming operations. To the south there has been the more recent development of larger parcels for residential properties but these mostly remain low density and some have a hobby farm appeal, where the property owners raise chickens, goats, and alpaca. To the north, between South 29<sup>th</sup> Avenue and South Fowler Avenue, commercial development has largely dominated the area north of Garfield Street. This has come with some drawbacks, including increased traffic and noise and expansion of roads near the farm. The farm is more exposed visually to vehicular traffic, and this may be a good thing, as it allows people to see what is going on and to still have the experience of "old Bozeman" when the land surrounding the smaller city center was predominantly used for agricultural production. Very little of the surrounding area will likely remain in agricultural production or farming. The land values adjacent to the city of Bozeman's jurisdictional boundary is in high demand for commercial and residential development and the land values are high. The recent influx of new residents and jobs to the area only further pressures agricultural uses further to the outskirts of the areas surrounding the city of Bozeman.

Design – The design of the Miller Livestock Pavilion, as mentioned earlier in this document, aligns most with the Mid-Century Modern style, with an obvious utilitarian or agricultural twist. The building is basically one-story and low slung in the landscape. It is situated on an open landscape with adjoining corrals and pens that register a very agricultural or livestock characteristic. The most unique aspect of the design is the main entry feature, which is highlighted by the quirky but not foreign (for the period) zigzag corrugated metal awning. The design of the rest of the exterior is a plain box clad in vertical metal siding. Large, exterior grade doors are used to access the interior with tractors, animals and trucks. Several "man doors" are located around the façade, allowing access to the main entry and staff to access work areas.

Setting – The Miller Livestock Pavilion is situated on flat ground adjacent to other utilitarian buildings used for similar agricultural teaching or research. The setting is not natural in the sense of a "wildness" but is appropriately situated in a landscape long used for agricultural production, grazing, livestock tending, and traditional Montana ways of life. The setting is as relevant today, as it was during construction in 1968, because the larger farm remains intact and the building and lands surrounding the pavilion are still used for agricultural purposes.

Materials – The materials of construction are not only representative of agricultural buildings of this type and from this era but also are similar to those structures built for similar uses in current construction on other MAES facilities, and certainly farms and ranches, throughout the state. The majority of materials used in the original construction are still present on the exterior even to this day. The Bart Farm operates on a tight budget and most maintenance or upgrades involve using similar materials with a longevity and appropriateness to the use intended, i.e. agriculture.

Workmanship – The workmanship, upon examination, is quite good considering the wear and tear seen by a facility such as the Miller Livestock Pavilion. The exterior has been well maintained and the finishes on the metal siding are very acceptable. The interior has seen more wear and tear and certainly the areas near the overhead doors, where animals are routinely moved in and out, have taken a beating. The interior has been constructed of durable materials like concrete, wood and steel. The surfaces are experiencing condensation and accumulation/growth of algae due to the very humid conditions. This situation is planned to be remedied in the future with the addition of a modern mechanical air exchange devices.

Feeling – The agricultural, livestock and equine trades are infused heavily in the academic facility of the Miller Livestock Pavilion. Besides the architectural details that set it apart from other traditional agricultural buildings

PAGE 15 Integrity

Property Name: Miller Livestock Pavilion Site Number: 24GA2011

west of South 19th Avenue, stepping into the pavilion and setting foot near the arena brings even the casual observer into a different realm, one that provides a sense of tradition, pride and history rooted in the care and culturing of animal and human relationships. The current foreman of the building, Alison Reck, has a deep appreciation for the work being done to educate the next generation of young people in all aspects of the curriculum. Instructors like Andi Shockley, a professor who teaches Horsemanship and Equitation, teaches five or six classes in the pavilion arena. In the evening, the arena is used by the Rodeo Club or other organizations to practice and prepare for local and regional events around the state. The faculty, staff and students who use this facility know that they are perpetuating a time-held tradition of horsemanship that historically preserves traditions long held in Montana and the region.

Association - The pavilion was named in honor of a former instructor that helped to plan its development during his tenure at the university. Robert W. "Bob" Miller served as an instructor in the Animal Sciences department from 1957 until his death in 1974. In addition to being an instructor in Beef Production and Animal Genetics, he was also the founding force behind the MSU Horshoeing School. In addition to being an instructor he was also the President of the National Intercollegiate Rodeo Association and a coach and advisor to the Rodeo Club. Miller was a nationally recognized authority on horses and served as a staff member of Dr. E.M. Ensminger's Horse Science School. Miller also authored a university text, "Horse Behavior and Training and Guide to Using Horses in Mountain Country." He was awarded the Outstanding Teacher in Agriculture Award in 1974. There is a plaque and framed photo in the entry of the pavilion, highlighting Miller's contributions to the university and the equine program. The Livestock Pavilion was renamed in 1979 in honor of Miller after his death in 1974 from a horse riding accident. (Knight, 2020).

Overall, the larger BART Farm retains sufficient importance in the areas of agriculture, education and architecture. On a smaller scale, the Miller Livestock Pavilion also retains sufficient integrity in the areas of design, setting, and association. The current quality of the building maintains the same integrity to the original design and construction of 1968 during the period of significance. When considered together, the larger farm, the landscape features, and the pavilion create an easy association with livestock-related research and teaching through the aggregation of many smaller facilities. It still exemplifies the 130-year time-held tradition of working the land and animal husbandry that the original settlers who founded the farms began.

PAGE 16 Photographs

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



Feature: 1 Facing: Northeast

Description: Front facade of pavilion showing zigzag awning



Feature: 2

Facing: North Description: Front entry to building

PAGE 17 Photographs

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



Feature: 3 Facing: East

Description: West façade showing sliding door



Feature: 4

Facing: Northwest Description: Detail of metal siding

PAGE 18 Photographs

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



Feature: 5
Facing: West

Description: East façade



Feature: 6
Facing: Northeast

Description: Detail of entry awning

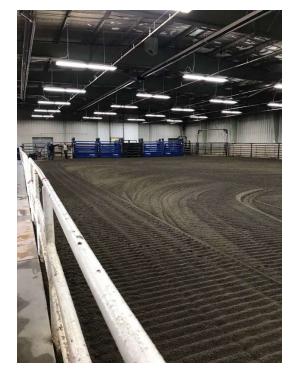
PAGE 19 Photographs

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



Feature: 7
Facing: West

Description: Bleachers on interior



Feature: 8 Facing: West

Description: Interior riding arena with bucking chutes

PAGE 20 Photographs

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



Feature: 9 Facing: West

Description: Metal tubular railing on west end of interior

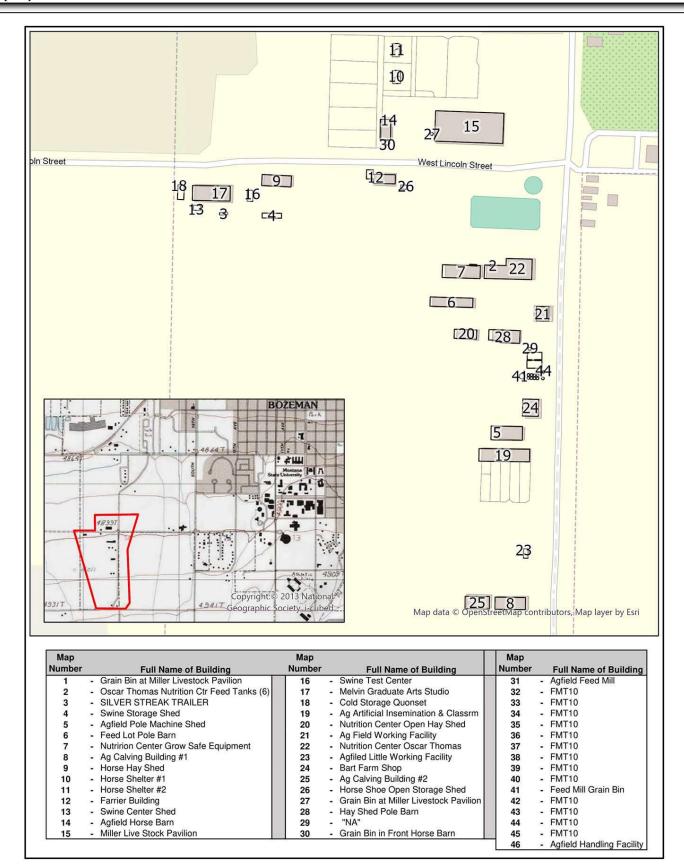


Feature: 10 Facing: South

Description: Vertical steel supports on interior

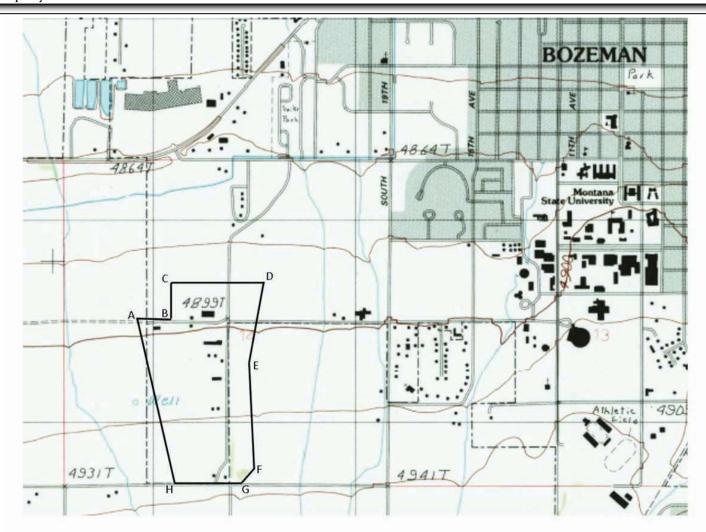
PAGE 21 Site Map

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



PAGE 22 Topographic Map

Property Name: Miller Livestock Pavilion Site Number: 24GA2011



BART Farm—Core Building Area (135 acres)
USGS Quadrangle: Bozeman, 1987

Section 14, Township 2 South, Range 5 East

**UTM Coordinates: Zone 12** 

A: E494066, N5056851

B: E494310, N5056851

C: E494310, N5056930

D: E494477, N5056930

E: E494408, N5056482

F: E494457, N5056001

G: E494415, N5055905

H: E493910, N5055905

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 8<sup>th</sup> Ave Helena, MT 59620-1202

Property Address: <b>12094 Bullhook Road</b> Historic Address (if applicable): City/Town: <b>Havre, MT</b>	Site Number: 24HL1679 (An historic district number may also apply.)  County: Hill	
Historic Name: Barn #5447	Legal Location	
Original Owner(s): Jack and Lena Thackeray	PM: Montana Township: 30 N Range: 16 E	
Current Ownership  Private  Public	<sup>1</sup> / <sub>4</sub>	
Current Property Name: Thackeray Research Ranch	Lot(s):	
Owner(s): Northern Ag Research Center	Block(s):	
Owner Address: 3848 Fort Circle Havre, MT 59501	Addition: Year of Addition:	
Phone: 406-265-6115	USGS Quad Name: <b>Shambo</b> Year:	
Historic Use: Barn	UTM Reference www.nris.mt.gov	
Current Use: Barn	□ NAD 27 or ⊠ NAD 83( <b>preferred</b> )	
Construction Date: 1928  Estimated  Actual	Zone: <b>12</b> Easting: <b>604106</b> Northing: <b>5357426</b>	
☐ Original Location ☐ Moved Date Moved:		
National Register of Historic Places	Date of this document: <b>9.17.20</b>	
NRHP Listing Date:	Form Prepared by: <b>Becki D. Miller</b>	
Historic District:	Address: PO Box 214 Gildford, MT 59525	
NRHP Eligible: Yes No	Daytime Phone: <b>406-376-3230</b>	
MT SHPO USE ONLY Eligible for NRHP: □ yes □ no Criteria: □ A □ B □ C □ D Date: Evaluator:	Comments:	

PAGE 2 Architectural Description

Property Name: Barn #5447 Site Number:

#### ARCHITECTURAL DESCRIPTION

Architectural Style: **Other:** If Other, specify: **Vernacular** Property Type: **Agriculture** Specific Property Type: **Barn** 

Architect: Architectural Firm/City/State:

Builder/Contractor: Albert Braun Company/City/State: Kansas, MO

Source of Information: Oral interview (Bibliography #3), Montana Cadastral-Date

The Prairie style barn measures 50'x48' including the lean to on the northside. The wood framed walls have tongue and groove siding, painted iconic red. The gambrel roof has wood shakes, some metal corrugated roofing panels had been added but only remain on the north side now. The foundation is formed with local field stone and concrete. The interior of the barn includes a tack room, stalls and an open area all on the main floor. There is a central alley that leads to the hayloft ladder. The south interior of the barn is an open area used for working livestock. There are several smaller windows located on the main floor along with sliding and swing doors. On the east façade there is a hay loft door located with a large hay mow door, where the swing was located. Scott and Web Thackeray painted and installed new roofing in 1985 (3).

PAGE 3 History of Property

Property Name: Barn #5447 Site Number:

#### HISTORY OF PROPERTY

William Webster Thackeray and Barbara (MacCormick) were married in the early 1870's. The Thackeray family were English but lived in Chatham, Ontario and Michigan. Due to Mrs. Thackeray's lung fever, the couple and their children headed west. They traveled in a prairie schooner and arrived at Fort Assiniboinne in 1889 (1). They had eight children: Will, John (referred to as Jack), Archie, Agnes, Ann, Jessie, Rose, Harriet. The boys, when old enough, set up homesteads near Havre. In April 1900, Will filed a homestead claim 10 miles west of Havre near the Milk River (2), his two brother helped. Then around 1905, Jack and Archie staked their claim 20 miles from Havre in the eastern part of the Bears Paw Mountains on Bull Hook (2). Archie's homestead was located near the present day Thackeray Ranch yard, while Jack's was located to the west, near a creek and a waterfall. Remnants of the two original homestead cabins exist west of the ranch vard about one half mile and one mile. At some point, the two brothers decided to switch claims (3). Perhaps Archie, who was a bachelor, liked the more isolated location. Jack married Lena Ledig. Lena obtained her teaching degree in Chicago and had come out to Montana to be a teacher. She taught at a school in the Bears Paws, prior to meeting and marrying Jack. To this union they had five children: Fred, John, Leonard, Webster and Raymond. Their first residence (#0) was located west of the current house location. The two-roomed house had a lean to located to the south which was used to store wood and coal. Some of the first buildings constructed on the ranch were the Machine Shed (#5454), which was also their root cellar and the Old Stock Shed (#5450), which was used as a barn. A family friend from Kansas, Albert Braun, was a carpenter. He, his wife and children came out and built the Barn (#5447) in the summer 1929 (cadastral records state 1928). Ray told a story about how he took an umbrella and opened the hay loft door and jumped out, all went well so he decide to climb to the higher hay loft door, where the sling was located and try again, luckily his father Jack caught him in time. The following summer the Farmhouse (#5440) was constructed, 1930. Lena's father financed both Depression Era buildings. The house location, at the highest point in the yard, was selected by Lena. This location allowed her a birdeye's view of those entering the ranch, including the 'Grub Riders'. 'Grub Riders' were unemployed men during the Depression, who rode from ranch to ranch in search of a little work, food to eat and a bed for the night. Ray remembers them chopping wood on the ranch to earn their keep. The house had many amenities like a flush toilet and running water. The water, supplied by the spring, was the first one developed on Bull Hook, according to Ray. There was a hydraulic pump with a large holding tank upstairs. Next to the wood stove in the kitchen, there was a tank to heat the water. There were four bedrooms in the house. The ranch ran about 150-200 head of cattle. They always had chickens and a milk cow. No crops, other than hay to feed the livestock were grown. Nearby ranches included: Waid's, John Lawlor's, Duke Place, Herrin homestead, Fredrickson Family, and Manual Homestead. The neighbors gathered for barn dances and picnics. Denny Rehberg's great grandfather homesteaded just up the coulee less than a 1/4 mile from the Lawlor schoolhouse (3). This Rehberg ranch location was prior to the ranch located outside of Billings, MT in 1933. Dennis Rehberg served as Lt. Governor of Montana from 1991-97 and a U.S. Representative from 2001-13 (4). Ray attended the Lawlor school located one mile south and one mile east of the Thackeray Ranch. This schoolhouse was struck by lightning and burned down in the late 1970's or early 1980's. No one was aware of the fire; one day it was standing and the next day it was just a pile of ashes beside the road (3). The older Thackeray boys attended a schoolhouse located to the west of the Thackeray Ranch. After the war Web, returned to the farm, as his parents were ready to retire. Ray also helped on the farm but left shortly after being married to Betty Trump on October 16, 1953. On August 5, 1957 Web married Charlotte J. O'Brien and they continued to live and manage the ranch. Web had a large garden located to the south and west of the Farmhouse. On Friday, Charlotte would go to Havre and sell eggs, with this money she would go buy groceries. Scott remembers Web washing the farm vehicles once a year and the spring had very soft water. Also, Web was very particular about parking vehicles inside every night, no machinery was left outside (3). In 1977, Web leased the grass to MSU Ag Experiment Station. They ran about 200 head of cattle and this became their summer grazing location. This agreement was in place for 17 years. Web continued to run about 40 head of cattle while being retired, as he and Charlotte continued to live at the ranch. In 1994, Web and Charlotte sold the ranch to MSU Ag Experiment Station. They both reside in Sidney. Ray, Betty and their son Scott Thackeray all live in Havre. Web and Ray are in their 90's and the only two surviving children of Jack and Lena Thackeray (3).

PAGE 4 History of Property

Property Name: Barn #5447 Site Number:

Fort Assinniboine was established in 1879 south of present day Havre, MT. The purpose of the military fort was to secure an international border with Canada and provide intimidation and containment of the Native Americans. This massive fort contained 220,000 acres (5), including the Bear Paw Mountains. The containment of the Native Americans and the end of the Spanish-American War resulted in several de-commissioned forts. In 1911, the United States military abandoned Fort Assigniboine and transferred it to the Department of the Interior. The first Ag Experiment Station was located in Bozeman in 1893, it later was affiliated with Montana State University. Initially, its primary focus was on irrigated farm practices. After the appointment of Frederick B. Linfield he realized that in order for the state to achieve its agricultural potential all aspects of farming needed to be researched and managed properly. His vision was to use the experiment station for research and rely on the agricultural college and extension service to dispense the information (6). In 1913, the Montana Legislature appropriated funding to buy 2,000 acres of Fort Assinniboine, this acquisition called the Northern Montana sub-station provided Linfield one of three field crop stations. The new experiment station, named North Montana Branch Station had over 100 military buildings. George Morgan supervised the new station. The early research focused on improving dry-land farming techniques. This entailed observing and recording climate, rainfall, soil moisture, practicing crop rotation and new tillage methods. Morgan's own research in identifying patterns of drought and climate changes through the study of tree rings, proved valuable (7). The introduction of cattle to the Northern Ag Research Station (NARC) began in 1917, with 30 head of yearling heifers purchased form V.F. Blankenbaker of Virgelle, MT. They were trailed to the experiment station located south of Havre. A Bull from Bozeman transported to Harve to use in breeding the heifers. Thus was the start of the cattle operation for the NARC. Other livestock were also studied: hogs, milk cows and sheep, up until 1933. In 1946, Hereford breeding line research began, cow inventory was 250 head (8). As mentioned the Thackeray Ranch was leased in 1977 (9), prior to this grassland leases included Rocky Boy and Fort Belknap Reservation land. In later years, Herefords were cross breed with Simmentals, Tarentaise, Angus, Charolais, Salers, Piedmontese (8). NARC purchased the Thackeray Ranch from Webster and Charlotte Thackeray in 1994 (9). NARC currently has 3,000 acres located south of Havre where the office and station headquarters reside. Additionally, 3,960 acres of grazing land are located in the Bear Paw Mountains. Normally 350 cows and 300 calves are used in different projects. The cattle research includes: genetics, variety and breeding line evaluation (7).

PAGE 5 Information Sources/Bibliography

Property Name: Barn #5447 Site Number:

#### INFORMATION SOURCES/BIBLIOGRAPHY

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- 9. Carlson, Gregg R.; *Northern Agricultural Research Center: past, present and future*; March 20, 2008; retrieved from <a href="http://havrehill.advantage-preservation.com/">http://havrehill.advantage-preservation.com/</a>; pg. A1-2.

PAGE 6 Statement of Significance

Property Name: Barn #5447 Site Number:

NRHP Listing Date:	
NRHP Eligibility: X Yes No X Individually Contributing to Historic District Noncon	tributing to Historic District
NRHP Criteria: A B C D	
Area of Significance: Ranch Period of Significance: 1928	

#### STATEMENT OF SIGNIFICANCE

NATIONAL REGISTER OF HISTORIC PLACES

The Barn has a strong integrity in association with ranching in the Bears Paw Mountains and the agricultural history of Montana in the 1930's. This along with its location, time of construction and iconic symbolism to the ranch. The Barn, along with the Farmhouse were constructed by Albert Braun, a family friend from Kansas (3). This building was constructed prior to the current Farmhouse. The Barn's location denotes it as the heart of the ranch. The gambrel roofed barn is in the Prairie style. This was the first large scale building constructed on the ranch, its size and location signify its importance to the ranch. This Barn allowed for ample hay storage in the loft to ensure feed for livestock through the long winters. The iconic gambrel barn signifies a history rich in agriculture. Ray and Scott Thackeray stated that the Barn was built in 1929 (3), while the Montana Cadastral notes 1928. This Depression Era building was financed by Lena Thackeray's father (3). The individual stalls located on the main level, the central alley and tack room are evident of the purposes it served. Very few modifications have been done to the structure. Scott and Web Thackeray painted and reroofed the barn in 1985. The interior of the barn has many features intact including the individual stalls, tack room, central alley, open area pen and massive hay loft above.

PAGE 7 Integrity

Property Name: Barn #5447 Site Number:

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

Location: The centrally located Barn is fully incorporated into the corral system, with the Stock Shed located a few feet away to the south.

Design: The gambrel roofed barn is in the Prairie style. The main level consists of a tack room, stalls and an open area. There is a central alley that leads to the hayloft ladder. The hayloft is massive. There are several smaller windows located on the main floor along with sliding and swing doors. On the east façade there is a hay loft door located with a large hay mow door, where the swing was located.

Setting: The Barn is centrally located in the heart of the farmyard. The spring runs west of the barn thru the corrals behind.

Materials: The building wood framed building has tongue and groove siding on the exterior. The roof originally had wood shakes, but was covered with corrugated metal panels in recent years. The building foundation is concrete with local field stone.

Workmanship: The Barn, along with the Farmhouse were constructed by Albert Braun, a family friend from Kansas (3). This building was constructed prior to the current Farmhouse.

Feeling: The Barn's location denotes it as the heart of the ranch. This was the first large scale building constructed on the ranch, its size and location signify its importance to the ranch. This Barn allowed for ample hay storage in the loft to ensure feed for livestock through the long winters.

Association: The iconic gambrel barn signifies a history rich in agriculture. Ray and Scott Thackeray stated that the Barn was built in 1929 (3), while the Montana Cadastral notes 1928. This Depression Era building was financed by Lena Thackeray's father (3). The individual stalls located on the main level, the central alley and tack room are evident of the purposes it served. Very few modifications have been done to the structure. Scott and Web Thackeray painted and reroofed the barn in 1985. Now the faded red tongue and groove siding, especially on the west façade, are in poor condition. There were originally wood shakes on the roof, but new corrugated metal roofing panels that were applied later date, do little to protect the large hay mow from moisture and pigeons as most have been blown off by the wind. The interior of the barn has many features intact including the individual stalls, tack room, central alley, open area pen and massive hay loft above.

PAGE 8 Photographs



EAST ELEVATION 8.27.20



NORTH ELEVATION 8.27.20

PAGE 9 Photographs



WEST ELEVATION (STOCK SHED ON RIGHT) 8.27.20



SOUTH ELEVATION (STOCK SHED ON RIGHT) 8.27.20

PAGE 10 Photographs



**INTERIOR LOOKING WEST, STALL 8.27.20** 



**INTERIOR LOOKING NORTH, TACK ROOM 8.27.20** 

PAGE 11 Photographs



CENTRAL ALLEY LOOKING NORTH, RUNS NORTH/SOUTH, HAY LOFT LADDER BEYOND 8.27.20



HAY LOFT, LOOKING WEST 8.27.20

PAGE 12 Photographs



FIRST HOUSE (LEFT), FARMHOUSE (CENTRAL), BARN (RIGHT), CIRCA 1970-80'S LOOKING NORTHWEST, PROVIDED BY SCOTT THACKERAY



OVERALL VIEW OF THACKERAY RANCH, CIRCA 1970-80'S LOOKING NORTH, PROVIDED BY SCOTT THACKERAY

PAGE 13 Photographs



OVERALL VIEW OF THACKERAY RANCH, CIRCA 1970-80'S LOOKING WEST, PROVIDED BY SCOTT THACKERAY



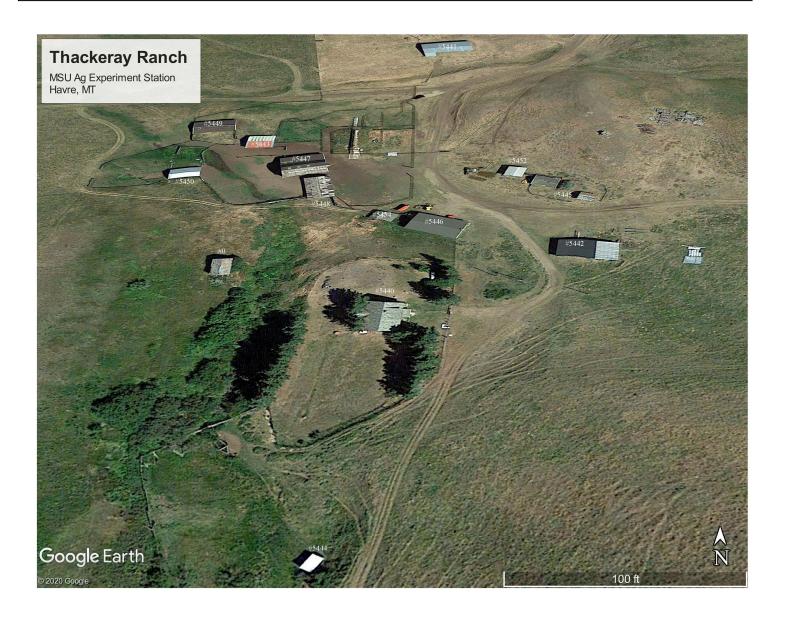
BARN, PAINT AND RE-ROOFING BY WEB & SCOTT THACKERAY, 1985 LOOKING NORTHEAST, PROVIDED BY SCOTT THACKERAY

PAGE 14 Photographs



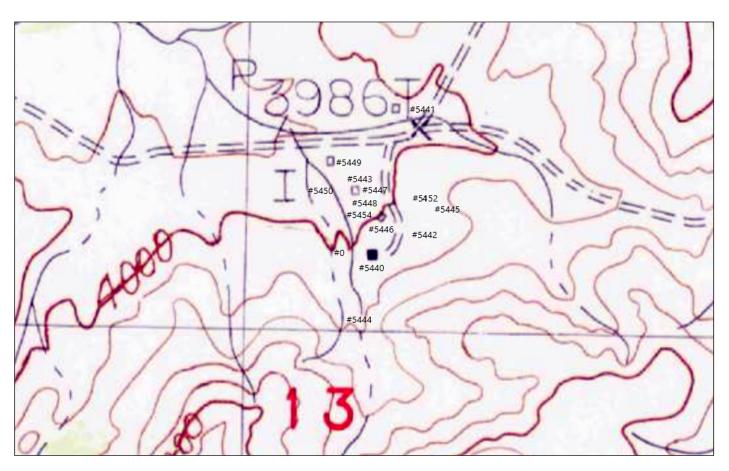
BARN, CIRCA 1970-80'S, LOOKING NORTHWEST, PROVIDED BY SCOTT THACKERAY

PAGE 15 Site Map



PAGE 16 Topographic Map

Property Name: **Barn #5447** Site Number:



Map created using the Digtal Atlas September 2, 2020 http://msl.mt.gov/GIS/Atlas

Montana State Libary - Digital Library (406) 444-5354 | geoinfo@mt.gov | http://msl.mt.gov

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 8<sup>th</sup> Ave Helena, MT 59620-1202

Property Address: <b>300 West 11<sup>th</sup> Street</b> Historic Address (if applicable): City/Town: <b>Havre, MT 59501</b>	Site Number: <b>24HL1693</b> (An historic district number may also apply.)  County: <b>HILL</b>
Historic Name: Girl's Residence Hall and Student's Union  Original Owner(s): Northern Montana College  Current Ownership Private X Public  Current Property Name: Donaldson Hall  Owner(s): MONTANA STATE UNIVERSITY-NORTHERN  Owner Address: PO BOX 7751 HAVRE, MT 59501  Phone: 406-265-3700	Legal Location  PM: Montana Township: 32N Range: 16E  NE 1/4 SW 1/4 SW 1/4 of Section: 8  Lot(s):  Block(s):  Addition: Year of Addition:  USGS Quad Name: Year:
Historic Use: Residence Hall, more recently office space and storage Current Use: vacant  Construction Date: 1936  Estimated x Actual  X Original Location  Moved Date Moved:	UTM Reference <a href="www.nris.mt.gov/topofinder2">www.nris.mt.gov/topofinder2</a> <a< td=""></a<>
National Register of Historic Places  NRHP Listing Date:  Historic District:  NRHP Eligible:  Yes No	Date of this document: May 2021  Form Prepared by: Gary Wilson, Jillian Allen, Becki Miller  Address: H/HCHPC, PO BOX 324, HAVRE, MT 59501  Daytime Phone: 406-376-3230
MT SHPO USE ONLY Eligible for NRHP: □ yes □ no Criteria: □ A □ B □ C □ D Date: Evaluator:	Comments:

PAGE 2 Architectural Description

Property Name: Site Number 24

#### ARCHITECTURAL DESCRIPTION

Architectural Style: Gothic Revival If Other, specify: Property Type: Specific Property Type:

Architect: Frank Bossuot Architectural Firm/City/State: Havre, MT

Builder/Contractor: Company/City/State:

Source of Information:

Donaldson Hall is an example of the Gothic Revival style. The style is conveyed in the following elements: oriel bay windows on the east and west elevations; steeply pitched gabled roof running east and west with a perpendicular gable running to the north which signifies the main entrance to the building; decorative pinnacle accents are present at the end of each gabled roof end; the chimneys are grouped on both the north and south side of the main ridge; and battlements and shaped parapet walls run around the perimeter of the roof edge. The building consists of three stories plus a basement. The walls are constructed out of structural block and faced with tapestry red brick. Divided light windows are predominately located on the north and south elevations. The layout and spacing provides a uniform, organized look. The northern entrance is clad in large rectangular granite stones with a massive inlay arched doorway. The door, transom and sidelights are constructed of wood. The east and west elevations both have a three-story oriel bay window which is accented by the patina copper casing. The steeply pitched gabled roof is topped with decorative pinnacle accents at each end. The roof is covered with green asphalt shingles with an incorporated roof drainage system hidden behind the battlements and shaped parapet walls.

The interior has terrazzo floors in the hallways, stairways, and common bathrooms. There is a main hall located on the west side of the first floor which includes a wood burning fireplace. Originally, the kitchen was located in the basement but is now located adjacent to the main hall following renovations in 1984. The basement was also modified and turned into office spaces. The second and third floors were most recently used as residences for students. Each room has two closets with a sink located between them. The floors, doors and windows are constructed of wood with metal casing and wall base. There is a shared common bathroom on each floor. White subway tiles line the walls. The two-pipe system heating system with gas boiler was used to heat the building, but has since fallen into disrepair. The interior roof drainage system caused damage to the interior. Repairs were made in 2004 to mitigate the water damage.

PAGE 3 History of Property

Property Name: Site Number

#### HISTORY OF PROPERTY

Havre, Montana is the county seat of Hill County and sub-regional service center serving the Hi-Line area of Northern Montana. With a 2010 population of 9,621, (1) Havre provides a variety of retail and financial services in support of the surrounding agricultural region, Burlington Northern Montana College.

Havre's beginning is attributed to the arrival of the Great Northern Railroad in 1887. Prior to that time, Fort Assinniboine, once the largest military installation in the nation, was established in 1878 at a location eight miles south of Havre. The fort was established to patrol the Canadian border in the era following Custer's Last Stand. In 1887, the Great Northern Railroad reached Fort Assinniboine. In 1890 James J. Hill moved his railroad center from the fort to Bull Hook Bottoms on the main line, which was under construction in its westward expansion. Pioneer cattlemen and businessman Ed Broadwater and Simon Pepin donated land to Hill with the understanding that the town would serve as divisional headquarters. Hill, who felt that the name was not well suited to attracting homesteaders, suggested a new name. Havre was the new name, chosen in honor of Le Havre, France. (2)

Fort Assinniboine was vacated in 1911, and the post transferred to the U.S. Department of the Interior. The fort was disassembled, and the state of Montana purchased 2,000 acres and the fort buildings with plans to open a college and agricultural station. (3)

Less than five miles to the northeast of the Fort Assinniboine site lay the burgeoning 18-year-old town of Havre. The town had developed as a result of the establishment of the Fort and the subsequent railroad connection to it. In its early days, the town was almost wholly dependent upon the needs of the Fort and its occupants for its business and existence. With the extension of the railroad to both the south and west of the community, Havre had become a major business and distribution center. It was only natural that the businessmen and residents of the community felt a deep involvement with the Fort. From a business, practical, and even sentimental point of view, they were concerned with the use of the land and buildings. They were also concerned with education.

The population of the area had grown rapidly since the establishment of the Fort in 1879. The homestead rush had barely begun. Transportation to other areas of the state was difficult and public transportation of any kind virtually nonexistent. Costs were high. It was clearly evident that a booming population would require additional educational facilities. Since there were no institutions of higher education anywhere in the northern reaches of the state, a college had special appeal. Whether initiators of the action to acquire the Fort actually saw the Fort location as the site for the college is subject to dispute. Some insist that the move to purchase was one of expediency to secure the land and buildings as a source of revenue for the future development of the college in the town itself. Details have been lost over the years, through the latter arguments may cast some light on the subsequent history of the college.

In 1913 the newly created County of Hill sent Florian Carnal as its first elected representative to the state legislature. Representative Carnal introduced a bill into the Montana House of Representatives to establish "Northern Montana Agricultural and Manual Training School" to be located at Fort Assinniboine and authorized the state to purchase 2,000 acres of land at \$2.50 an acre. It also authorized the establishment of an agricultural experiment station at the site.

Hill County Senator Dr. D. S. MacKenzie simultaneously introduced a lengthy bill into the Senate asking approval of the sale and detailing the use of the land and buildings. After considerable argument, the bill was passed by one vote on March 8, 1913.

The lengthy detail of the bill became a major source of dispute in the years preceding the actual establishment of the college. There was objection to the inclusion of an agricultural experiment station. One argument said the school and experiment station were not compatible; another felt the bill took authority away from the State Board of Education by specifying the courses to be offered.

Every legislative session between 1913 and 1927 saw bills introduced by local legislators to establish the college. And every year brought new objections and obstacles to prevent it.

The experiment station phase of the original bill received both funding and approval in 1915 but nothing was forthcoming for the school itself. The rapid approval of the experiment station was consistent with the homestead era and the emphasis on farming at that time. (4)

In a desperate attempt to provide some source of funding, Representative Tom Troy of Havre introduced a bill into the legislature in 1925 to reestablish the college and to authorize the sale of materials from several of the buildings. Money raised from this source was supposed to be used to rebuild other buildings, or at least provide operational funding for the college. The bill passed. Appraisers from the state came to assess the value of materials to be salvaged from the demolition of 36 buildings. A ready market for the

PAGE 4 History of Property

Property Name: Site Number

material was no problem in an area perpetually hungry for building materials. James Holland Sr. was awarded the government contract to demolish the buildings and sell the salvageable materials. (5)

Money derived from this source was duly deposited with the Montana State Treasurer. Though supposedly earmarked for the use of the school, the funds disappeared into the amorphous maw of the general fund and were never available for any development of the college. Bills introduced authorizing the reimbursement of those funds to the college once passed both the House and the Senate but died with a gubernatorial veto. The community felt deceived, frustrated, and angry.

The 1925 legislative session saw a flurry of activity on behalf of the Assinniboine school. Assorted bills were introduced and passed again authorizing the existence of the school, but operational funding still did not materialize.

On January 30, 1927, the headlines of the Havre Daily News Promoter screamed "Assinniboine School Bill Passes 75 to 12." The following article noted that the bill creating Northern Montana Agricultural and Manual Training School and Eastern Montana Normal School at Billings as parts of the University System of Montana had passed the House.

On February 10, Senator W.T. Cowan of Hill County introduced a bill to organize the establishment of the Assinniboine School within 30 days. Ten days later the Senate passed the bill creating an Executive Board for the Northern Montana Agricultural School at Fort Assinniboine and providing for the use of facilities at Havre if necessary.

The Governor promptly appointed F.F. Bossout and Dr. D. S. MacKenzie to the Board of Control of the again created school. Appropriations bills were in the hopper, and all seemed well. The final legislative day, however, saw the elimination of most of the money for the operation of the school. The Billings Normal School was given an appropriation for operation of the school, but not for buildings; the Assinniboine School had dilapidated buildings, but no operational funding. Both were dubiously, but nevertheless officially, recognized as units of the greater University System.

Representatives T.J. Troy and G.J. Bonine, and Senator W.T. Cowan, came home in triumph carrying the pens with which the bills had been passed. They had accomplished the inclusion of the school within the University System; established that the 1931 legislature would allow a share of money for the school; allowed for the school to be moved so Havre; sought reimbursement for building materials sold; provided for an annual allowance of \$5,000 for two years for building repair; and provided \$5,000 annually for two years to be used for a summer school.

The community rejoiced in their accomplishments, but the rejoicing was short-lived. On March 17, Governor Ericson vetoed the bills providing reimbursement of the funds earned by the sale of building materials and for the repair of buildings. This left the Assinniboine School still a part of the University System with the possibility of moving it to Havre, and with the magnificent sum of \$5,000 for the establishment and operation of a summer normal school. (6) The again created college still existed in name only. It had only badly deteriorated buildings at the Fort and roughly \$5,000 still allowed for a summer normal school and camp. It was hardly an auspicious beginning. Not even money for the school, earlier deposited in the general fund from the sale of building materials from the Fort, was permitted to be reimbursed to develop the school. (7)

A bitter newspaper editorial on March 20, 1927, named Governor Ericson as an enemy of northern Montana. It pointed out that the Governor felt he could award \$140,000 for the establishment of a normal teacher training school at Billings, but not the paltry comparative sum of \$27,000 to begin operations at the Assinniboine School. The unexpected defeat during triumph was painful and bitter; indeed, another blow was yet to come.

Back in 1926 the State Board of Education had authorized three summer normal schools within the state. Havre qualified as one of the locations for a school. The catch was that each community had to put up money estimated at \$2,500 to finance a portion of the school expense. The time allotted for the raising of the money was amazingly short in Havre's case. James Holland, Sr. wrote his personal check for that amount as a guarantee of the community's willingness and ability to sponsor the normal school. Just one year later, when the school was due to be held, the ante for the sponsoring community inexplicably was raised to \$3,600.

Shocked local legislators demanded that a portion of the \$5,000 allotted by the Legislature for the normal school at Assinniboine be used for the normal school in Havre. The question was bandied about for some time and finally referred to the Montana attorney general for an opinion. His opinion held that it "...was within the province of the Board of the school...to provide for the holding of a summer school in Havre included in which may be a course covering the requirements of the State Board of Education...".

PAGE 5 History of Property

Property Name: Site Number

The opinion was heralded as the first step in permitting the Northern Montana School to function. The heralding was premature as the State Board of Education failed to authorize the normal course as a function of the fledgling school. Local businessmen dug into their pockets to finance the operation for the summer school. Since the buildings at the Fort were now totally unsuited for classroom use, permission was granted for use of facilities in Havre. (8)

Classes opened in the Havre High School building under the direction of then Superintendent of Public Schools W. I. Shirley on June 23, 1927, with 117 registrants. The school functioned again in the summer of 1928. By 1929 the authorization of Northern Montana School had finally been achieved, but funding for the summer normal school was lost somewhere in the writing of the bill. The upshot of the matter was that the local businessmen again searched their pockets for the money to fund the summer school.

In theory, they were supposed to have been refunded their money after registration fees were collected and expenses paid. In fact, the businessmen seldom received a return of even half of the money invested in this venture in higher education. Their supports, however, gave tangible proof of community support for the school and certainly whet the appetite for its continuation on a more extensive basis. Though the summer normal school was never recognized as the predecessor of the college, it played an important part in solidifying community opinion and determination to get the school of higher education they had been promised for so long. (9)

When the college opened its doors on September 14, 1929, it was in quarters leased from School District 16 A. The space leased consisted of all three floors of the west section of the then high school building located between 4th and 5th Avenues and 7th and 8th Streets. This west wing had been constructed nine years earlier for use as a junior high school. Giving up the space was a hardship for the school district, but concern for the development of the college was so great that the sacrifice was readily made. Though the lease was supposed to be only temporary, the college occupied this space for over 20 years.

A gentleman's agreement existed regarding the maintenance and care of the building. Other details of the lease were modified several times as space was gradually reclaimed by the school district. By 1948 the pressure of the WWII baby boom forced the school district to give advance notice of the termination of the lease. The college was then under immediate pressure to seek whatever space was available on campus.

The move from the high school quarters was accomplished in 1952. Administrative offices were squeezed into East Hall and classes were wedged into other existing buildings including the dormitories. The library was left stranded in the basement of the Presbyterian Church six to ten blocks from the campus buildings.

The college continued to use the high school gymnasium for athletics and other major events until 1956 when the Armory Gymnasium was completed. Twenty-seven years after its creation the school was finally able to incorporate all of its functions within its own buildings on its own campus. (<a href="http://msun.edu/aboutmsun/history/buildings.htm">http://msun.edu/aboutmsun/history/buildings.htm</a>).

Early in 1929 the community began marshalling its forces to get more than paper approval for the school. Newspaper articles regularly espoused the need and benefits of the school, and the Havre Chamber of Commerce organized a 'Board of Strategy' for the school sending a delegation to the Legislature and to the State Board of Education demanding action. An appropriation measure for \$40,500 was passed, finally, after 16 years of struggle.

Within a month Dr. G. H. Vande Bogart of Hibbing, Minnesota was named president and the first courses outlined. Kendrick Clarke was employed as registrar and business manager; Elizabeth McCoy, librarian; and Marie Phillips, secretary.

Though these normal school sessions were never officially sanctioned as a part of the function of the Northern Montana School, they established proof of need, and community determination to gain an actual institution of higher education.

The Northern Montana School officially opened its doors to students on September 14, 1929. The formal opening of the ceremony was on October 1, 1929. Speakers at that opening ceremony included: Governor John S. Ericson; Chancellor of the Greater University System, Melvin C. Brannan; Senators W.T. Cowan of Box Elder and S.D. Porter of Big Sandy; and President G.H. Vande Bogart.

The school was established as a two-year liberal arts school with courses offered in professional and pre-professional subjects. It opened in quarters leased form the local school district in the west wing of the high school then located between Third and Fourth Avenues and Seventh and Eighth Streets. The college was to occupy this space for over 20 years. Part-time use of the high school gymnasium and auditorium was included in the lease.

PAGE 6 History of Property

Property Name: Site Number

Five professors were on the initial staff: Dr. G. H. Vande Bogart, president and professor of chemistry; William I. Foster, mathematics; Marion Leeper, English; Charles H. Scherf, history and political science; and Anna Von Tobel, French and Spanish. Enrollment the fall of 1929 was 80 students. The first graduation ceremony was in 1931 with 23 candidates completing requirements.

In 1931, with the issuance of the third catalog, the word 'College' was substituted for school bringing into common usage the title of 'Northern Montana College.'

The struggle for the college was not over, however. Sufficient funds for buildings were unavailable for one reason or another until the post-World War II boom in 1950's. In 1933 a bill was introduced into the legislature to abolish the college.

The community rose en masse to the challenge. Newspaper editorials explained in detail that the area was entitled to a college if for no other reason than it was the only institution of higher education in the entire northeast portion of the state comprising three quarters of the land area of the state and supplying an equitable percentage of the taxes. The Havre Women's Club, in a rare display of feminine political power —with no funds, bad roads and disagreeable weather — traveled the Hi-Line in both directions circulating petitions and blanketing the state with letters of support for the college. The bill went down in quick defeat. The college was not again threatened with closure until 1973 though struggles for every improvement, both for buildings and curriculum, were constant. Bills to obtain a land grant, income from which could be used to defray operational expenses were never successful.

From the beginning the college took pride in its economy for students. The Chamber of Commerce assisted in the publication of a bulletin entitled "Cutting College Costs" for several years. The college also took pride in its personal approach and contact with students using a conference method of teaching far in advance of the time. A special effort was made to assist the student in choosing and preparing for his or her life work. The college was first accredited by the Northwest Accrediting Association in 1932.

The community was frequently asked for help for housing for students, assorted kinds of financial assistance, and even for buildings, equipment, and landscaping materials. The community never failed to respond. The first scholarship funds annotated in the 1929 catalog were: the High School Scholarships, the Agricultural Club Scholarships, and the Montana Federation of Women's Club Scholarship. In addition to those scholarships, the third catalog noted loan funds established by AAUW, PEO, The American Legion Auxiliary, Kiwanis and Rotary, and the Masonic Welfare Association.

The Northern Montana College campus came into being the spring of 1929 with the offer of 60 acres of land by the City of Havre on the south and west edge of town. Money was later contributed by Mrs. F. A. Buttrey and Mrs. G. H. Bonine to purchase additional acreage to bring the present land area to 106 acres. Ambitious plans were drawn up by a professional landscaping firm as early as 1931.

The first commencement at Northern was held on Tuesday, June 9, 1931 at eight o'clock in the school auditorium. Curriculum at the college has grown considerably from its original two year-junior college emphasis providing pre-professional courses, two-year elementary certification and the first two years of secondary education preparation. In 1940 the college was authorized to offer a three-year course in elementary education and a three-year terminal course for medical secretaries. (10)

# HISTORY OF DONALDSON HALL

☐ See Additional

The third building constructed on the campus was a women's residence hall. Situated atop the hill overlooking Pershing Hall, East Hall and the athletic fields, it was an imposing structure. This was the first really 'new' building on campus. (11) Later, in 1949, it was renamed Donaldson Hall in honor of a deceased NMC English teacher.

It was designed and constructed under a Public Works Administration self-liquidating load fund. Furnished and occupied in 1936, it provided rooms for 116 women, and was a social and elegant setting for college dances and receptions. The living room, Donaldson Commons, was complete with a fireplace and attractive furnishings. The entry hall of the building was always without lights and was mysteriously known as the "Passion Pit."

Frank F. Bossout, local architect and NMC Executive Board member, contributed his services to design the building. "That the new residence hall for women will be ready for occupancy by the first of next quarter now seems more than likely according to Miss Viola Beery, director of the hall, and Dr. Vande Bogart, president of the college. Workmen are busy inside the building laying floors, tinting walls and installing plumbing and lighting fixtures, Requisitions for kitchen furnishings have been made so that bids may be opened

PAGE 7 History of Property

Property Name: Site Number

on November 25. According to Miss Beery these specifications will give the new dorm an unusually well-equipped kitchen, including the latest and most efficient type of labor saving devices on the market.

The building will house approximately one hundred women and will provide a center for the social life of the campus. Suites of rooms have been provided for Miss Clara Brian, dean of women, and Miss Viola Beery, house director. A large room on the ground floor will be equipped as a recreation room with an adjoining kitchenette, where small groups of the house may hold impromptu parties. The dining room is on the east end of the first floor and overlooks the women's athletic field opening upon a terrace on the east. A private dining room on this floor affords an opportunity for small groups of faculty of students to give private parties. The large living room on the main floor will be beautifully furnished and will serve as a social center for the entire college.

The second floor is equipped with a pressing room for the convenience of the women. Each student room accommodates two women and will be furnished with two beds, two desks with chairs, a chest of drawers, an easy chair, a lavatory, and a medicine cabinet. There are two closets in each room.

The style of architecture is very attractive and is well suited to hill-top construction. Work on the terrace is nearing completion and one can easily visualize the wide, green lawns which will soon surround the hall.

According to Miss Beery, who is a specialist in institutional management and is acquainted with many dormitories, this building is one of the best organized and planned of any she had visited, and the details are worked out extremely well. Requests for room reservations are already being received." (12)

The building cost \$178,398.08. Gracious in appearance, pictures of Donaldson Hall were used in the NoMoCo student newspaper masthead for many years. Poor materials and construction methods caused problems with the building almost from the beginning. After construction of a new residence hall in 1971, Donaldson Hall was unused for residence space. The lower floors were rented to School District 16-A and other organizations.

In 1984, under the leadership of chairman Leonard Severson, the Alumni Association began work to remodel and restore the building. The association began a capital campaign to finance the project and solicited gifts from members during their annual phone-a-thon and from their fall social and auction. They also borrowed funds from the Foundation. Students were hired to do much of the restoration work and a professional interior design firm recommended furnishings and window coverings that would recall the room's former splendor. Work on the kitchen area was completed the following year. Offices for the Foundation and University Relations Office were moved to Donaldson Hall shortly after the Commons restoration was completed. A few years later the offices for Northern's Cooperative Education Program and Career Planning and Placement Center were moved to the main floor of Donaldson Hall. Future plans for the upper floors of the building are on hold due to lack of funds and the major reconstruction that would be needed under current building codes. The upper floors are currently used for storage. The basement level of Donaldson was remodeled in the mid-1980's for use as a dorm for junior and senior students. The space was no longer needed when enrollments dropped in the early 1990's, and was used for overnight guests visiting campus and occasionally by athletes who arrived on campus before the dorms opened for Fall Semester. When Morgan Hall closed in the fall of 2000, the Donaldson Hall dorm space again provided much needed housing for on-campus students.

Donaldson as a residence hall was not needed for long, however. Renovations were finished on Morgan Hall, and students once again were housed there. Due to the expense to repair problems in the building, as well as a desire to group offices with similar functions together, a decision to move offices out of the building was arrived at. Northern Interim Chancellor Rolf Groseth said he wants to find ways to continue to use some rooms in the building, especially the elegant Donaldson Commons, which has hosted campus and community events, meetings of the Board of Regents and with Montana governors and even housed a meeting for former President Bill Clinton when he was in Havre in April 2008. "It certainly is the nicest room on our campus and, I think, one of the nicest rooms in the university system," Groseth said. (13)

Unfortunately, these uses did not generate sufficient funds for the building's upkeep, including heating and repair. As a result, the university shut down the building in 2008. The Chancellor, together with the alumni association and community are hopeful that the building will be rehabilitated and brought into new use. Donaldson Hall was placed on the Montana Preservation Alliance's "Most Endangered" list in 2009. (14)

PAGE 8 History of Property

PAGE 9 Information Sources/Bibliography

Property Name: Site Number 24

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PAGE 10 Statement of Significance

Property Name:	Site Number
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NRHP Listing Date:
NRHP Eligibility: X Yes No X Individually Contributing to Historic District Noncontributing to Historic District
NRHP Criteria: A B X C D
Area of Significance: Design/Construction Period of Significance: 1930'S

#### STATEMENT OF SIGNIFICANCE

NATIONAL REGISTER OF HISTORIC PLACES

Donaldson Hall is historically significant locally and to the State of Montana because of its architectural style and importance to MSU-N campus. The Gothic Revival style integrity is virtually untouched. Many of the style elements remain, including oriel bay windows on the east and west elevations; steeply pitched gabled roof running east and west with a perpendicular gable running to the north which signifies the main entrance to the building; decorative pinnacle accents are present at the end of each gabled roof end; chimneys are grouped on both the north and south side of the main ridge; and battlements and shaped parapet walls run around the perimeter of the roof edge.

Donaldson Hall represented the college's first 'real' building constructed on campus. Two previous buildings preceded Donaldson: East Hall (which was originally a Park Pumping Station and was renovated for classroom space) and Pershing Hall (which was constructed with brick from Fort Assinniboine). It is apparent that the location, setting, workmanship and feeling on which Donaldson was constructed conveyed the pride and importance of this building to this college campus. While modifications have been made to the main hall and basement, this building is still admired by MSU-N. Former President Bill Clinton visited the building in 2008, thus making it nationally significant.

In conclusion, Donaldson Hall exemplifies architectural design and construction with care taken to accentuate the Gothic Revival style as well as placement in a setting that reinforces its distinctive characteristics and presence in the institutional environment of MSU's Northern campus. The building may be a good candidate for individual listing on the National Register, or as part of a district including other buildings on the MSU-N campus.

PAGE 11 Integrity

Property Name: Site Number 24

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

Location: Donaldson Hall is located on the northern edge of the Montana State University Northern campus between Cowan Hall (to the west) and the Student Union Building (to the east). Pershing Hall is located below Donaldson Hall to the south.

Design: The Gothic Revival style of Donaldson Hall is conveyed in the following elements: oriel bay windows on the east and west elevations, steeply pitched gabled roof running east and west with a perpendicular gable running to the north which signifies the main entrance to the building, decorative pinnacle accents are present at the end of each gabled roof end, the chimneys are grouped on both the north and south side of the main ridge, battlements and shaped parapet walls run around the perimeter of the roof edge. Divided light windows are predominately located on the north and south elevations. The layout and spacing provides a uniform organized look. The interior main hall located on the west side of the first floor was used for large gatherings.

Setting: Donaldson Hall sits prominently on top of a hill, the jewel of the MSU-N campus. It is located next to Cowan Hall, the Student Union Building and Pershing Hall.

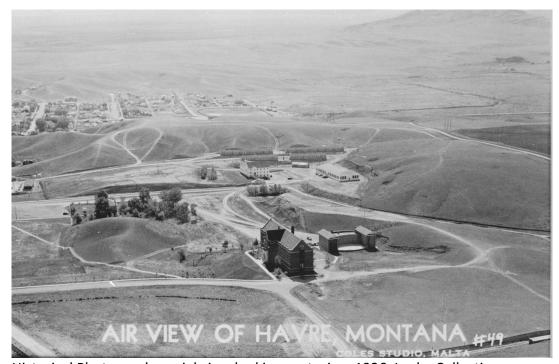
Materials: The striking red masonry walls with almost white granite stone accents further enhance the visual effect of the four-story structure. The northern entrance is clad in large rectangular granite stones with a massive inlay arched doorway. The door, transom and sidelights are constructed of wood. The east and west elevations both have a three-story oriel bay window which is accented by the patina copper casing. The steeply pitched gabled roof are topped with decorative pinnacle accents at each end. The roof is covered with green asphalt shingles with an incorporated roof drainage system hidden behind the battlements and shaped parapet walls.

Workmanship: Donaldson was a well-planned structure, modern for its time period. The east and west oriel windows were carefully designed and crafted out of copper and today display a rich patina. The masonry work remains in good condition due to the high quality of brick used for the project. The cut granite that accents the windows and mainly the front entrance show carefully crafted work. Detailed sunrise engravings further accent the main entrance.

Feeling: Donaldson Hall's massive size, setting on top of a hill and Gothic Revival architectural style give a presence of pride and importance for the MSU-N campus. Donaldson was the first 'real' building constructed and its design, workmanship and setting convey the importance of its construction and future for the college when it was constructed in the 1930's.

Association: Donaldson Hall has a strong historical integrity, especially from the exterior. Very little of the Gothic Revival elements have changed or been modified over the years. The interior of the main floor was remodeled in the 1980's. The basement floor also has been modified. However, the second and third story dorm floors are virtually untouched and maintain strong historical integrity. Donaldson represented the college's first 'real' building constructed on campus. Two previous buildings preceded Donaldson: East Hall (which was originally a Park Pumping Station and was renovated for classroom space) and Pershing Hall (which was constructed with brick from Fort Assinniboine). Former President Bill Clinton visited the building in 2008 and was entertained in the main hall.

PAGE 12 Photographs

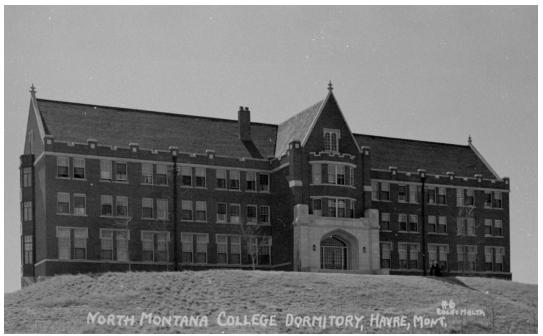


Historical Photograph, aerial view looking east, circa 1936, Lucke Collection.



Historical Photograph, south elevation looking north, circa 1936, Lucke Collection.

PAGE 13 Photographs



Historical Photograph, north elevation looking south, circa 1936, Lucke Collection.



North elevation looking south, April 7, 2021, Becki D. Miller.

PAGE 14 Photographs



East elevation looking west, April 7, 2021, Becki D. Miller.



South elevation looking north, April 7, 2021, Becki D. Miller.

PAGE 15 Photographs



West elevation looking east, April 7, 2021, Becki D. Miller.

PAGE 16 Photographs



Overall view, looking southwest, April 7, 2021, Becki D. Miller.



Interior Bathroom view, May 26, 2021, Becki D. Miller.

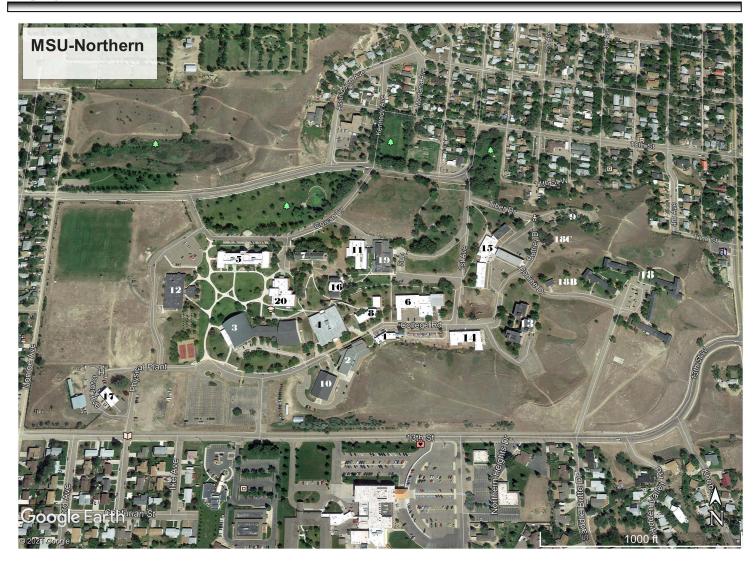
PAGE 17 Photographs



Interior Main Hall, looking west, May 26, 2021, Becki D. Miller.

PAGE 18 Topographic Map

Property Name: Site Number



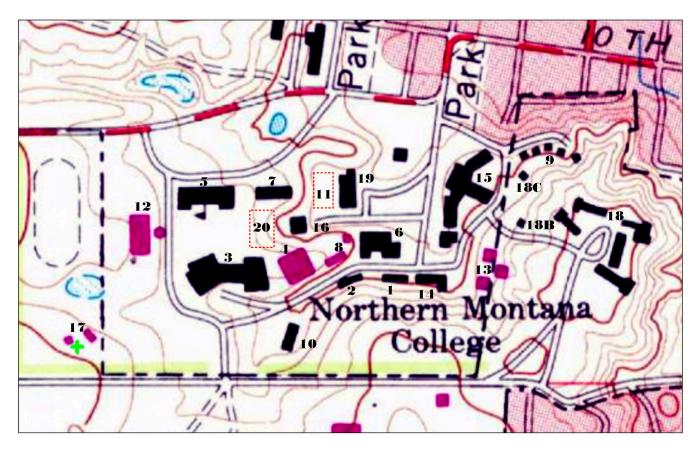
#### MSU-N DISTRICT BUILDINGS

- 1. ADVANCED FUELS
- 2. APPLIED TECHNOLOGY CENTER
- 3. ARMORY GYM
- 4. BROCKMANN CENTER
- 5. COWAN HALL
- 6. DIESEL TECHNOLOGY CENTER
- 7. DONALDSON HALL
- 8. ELECTRONICS
- 9. FACULTY/STAFF HOUSING
- 10. FARM MECHANICS
- 11. FOOD SERVICES
- 12. HAGENER SCIENCE CENTER
- 13. MACKENZIE HALL
- 14. METALS TECHNOLOGY

- 15. MORGAN HALL
- 16. PERSHING HALL
- 17. PHYSICAL PLANT
- 18. STUDENT FAMILY HOUSING
- 18B. SINGLE RESIDENCE
- 18C. SINGLE RESIDENCE
- 19. STUDENT UNION BUILDING
- 20. VANDE BOGART LIBRARY

PAGE 19 Topographic Map

Property Name: Site Number



Map created using the Digtal Atlas February 23, 2021 http://msl.mt.gov/GIS/Atlas

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#### MSU-N DISTRICT BUILDINGS

- 1. ADVANCED FUELS
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- 19. STUDENT UNION BUILDING
- 20. VANDE BOGART LIBRARY

United States Department of the Interior Heritage Conservation and Recreation Service

# National Register of Historic Places Inventory—Nomination Form

See instructions in How to Complete National Register Forms
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4. Own	er of Proper	ty		
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city, town	Bozeman	vicinity of	state	Montana
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# 7. Description

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# Describe the present and original (if known) physical appearance

The Western Agricultural Research Center is situated on a gently sloping bench on the east side of the Bitterroot Valley. The view to the west is across open farm land to the steep face of the Bitterroot Mountains. Because of its role as a horticultural experimen station, the grounds of the station are dotted with a variety of trees and shrubs.

Two staff residences face the country road that runs along the south boundary of the center; to their north is a cluster of offices, research and storage buildings. The buildings in the historic district all date from the era of the growth and decline of the Bitterroot Valley apple industry. All appear essentially as they did at the time of their construction. Significant changes are noted in the individual descriptions found below.

(The following descriptions are keyed to the accompanying sketch map.)

- 1. "East Cottage": built 1910. 28x28 with 10x25 (1925) and 12x16 (1940) additions. One story, frame, craftsman style. Gable roof with shake siding in gables. Gabled dormer on front facade. Asbestos shingle siding covers original wood siding. Fair condition.
- 2. Storage Barn: built 1911, formerly horse barn, 33x36, 30° high. Frame, two stories. Gambrel roof. No eaves, roof ends flush with exterior walls. Cedar shingle roof, matching cedar shingles on gabled ends. Four shed roofed dormers. Fair condition.
- 3. West Cottage: built in 1921, 30x41, frame one story, asbestos shingle siding (not original). Roof gabled at south end, hipped at north end on small addition. Cedar shake siding in front facade gable. Extensive remoduling.
- 4. Garage and Machine Storage: built in 1925, 21x32, frame with ship-lap siding, one story. Gabled roof.
- 5. Office Building: built in 1926, 24x40, plus 14x15. Frame one story. Gabled roof, 14x15 section on rear is a small greenhouse.
- 6. Shop and Greenhouse: built in 1926, 3 sections, "L" shaped.18x31, 15' high one story frame, gable roof. 16x18, 10' high, frame, pitched roof. 22x34, 12' high (Greenhouse), frame with fiberglass and glass exterior.
- 7. Pumphouse: built in 1935, 11x13, 12' high frame one story.

The Historic District is a 450'x350' rectangle; the boundary is drawn to include all buildings dating from the first 25 years of the center's history.

# 8. Significance

Period Areas of S  prehistoric archeo 1400–1499 archeo 1500–1599 argricul 1600–1699 archite 1700–1799 art 1800–1899 comme X 1900– comme	re economics literature sculpture re education military social/ engineering music humanitarian exploration/settlement philosophy
Specific dates 1910	Builder/Architect

# Statement of Significance (in one paragraph)

The Western Agricultural Research Center, established in the Bitter Root Walley in 1907, is significant for its historic associations with the promotion of the valley as a future apple growing center of national importance. The ambitious land development scheme resulted in economic hardship for many local and eastern land buyers, and left a legacy of abandoned apple orchards scattered through the valley.

During the first two decades of the 20th century, Montana "boosters" spoke with what often proved to be unwarranted optimism about the state's agricultural potential. In the field of horticulture this optimism was embodied by the Montana Horticultural Society, an active group that included prominent businessmen, educators, politicians and agriculturalists from across the state. The focus of much of the Horticultural Society's optimism was western Montana's Bitterroot Valley, which had supported a small scale apple industry since 1870.

In 1905 a group of Bitter Root Valley residents combined with Chicago financiers to form the Bitter Root Irrigation Company and began digging a 75 mile long irrigation ditch along the east side of the valley. The "Big Ditch" served the thousands of acres of company owned land, which were divided into small parcels and marketed by the company as prime, irrigated orchard sites.

Irrigation Company officials, as well as other boosters of the Bitter Root's apple industry lobbied the 1907 legislature to establish a horticultural sub-station in the valley. Its advocates claimed that the demonstrations and experiments at the sub-station, sited on land owned by the state and operated by horticulturalists from the state's main agricultural experiment station in Bozeman, would enable the valley to "step into the ranks of the apple producing valleys of the world." State representative Fred Whiteside, a former acting president of the Horticultural Society, introduced the bill to authorize and fund the sub-station. It passed easily. The Irrigation Company donated 20 acres of its own land, complete with water rights, to the state as a site for the sub-station.

Professor R.W. Fisher, horticulturalist at the Bozeman experiment station, initiated the research program at the sub-station in 1908. However, Fisher quit his post the following year to become manager of the Irrigation Company's "Thousand Acre Ranch", an established orchard that was used as a show place for prospective land buyers. Fisher's replacement, Professor D.B. Whipple, continued the sub-station's experiments and oversaw the construction of the station's first two major buildings, a residence (1910) and a barn(1911).

(See continuation sheet)

United States Department of the Interior Heritage Conservation and Recreation Service

# National Register of Historic Places Inventory—Nomination Form

For HCRS use only received date entered

Continuation sheet

Item number

8

Page 1

In 1910 the Irrigation Company began promoting its properties across Montana and at fairs in the East. The company referred to the sub-station in its promotional literature, claiming that the sub-station was on company lands and that the services of its former director were available to anyone purchasing company land. A number of well-known figures of the time were among the thousands of easterners convinced to invest in or settle on company lands.

For a few years it appeared that the dreams the company had marketed would be realized. The apple orchards flourished through 1916. The number of apple trees in the valley increased from 450,000 to one million between 1907 and 1920. But beginning in 1917 the yield per tree and size and quality of the apples declined. There were numerous reasons: depletion of nitrogen in the soil, inadequate supplies of water from the "Big Ditch", disease, insects and frequent hailstorms and frosts. In addition, many of the sites were unsuited for apple production; by 1920, over 750,000 of the one million trees in the valley were abandoned.

The Horticultural sub-station and its various superintendents were frustrated witnesses of the industry's decline. H. Thornber, superintendent from 1917-1923, complained of the thousands of tracts "unloaded" on would-be apple growers who were then unable to make a living. Compounding the problem, according to Thornber, was the sub-station's inability to convince orchard owners to employ methods recommended by the sub-station staff. However, the station expanded during this period of the industry's decline, and several additional buildings, including a greenhouse, a residence, and an office, were constructed. However, by 1930, the nationwide depression had so weakened the apple market that the valley's apple industry was virtually finished. Still responding to the needs of its constituency, the sub-station then published an extension bulletin on "How to Remove Apple Orchards".

Today there are only a few small commercial apple orchards in the Valley. Although the demands placed on the sub-station changed with the passing of the apple industry, its emphasis is still on horticulture. Most of its buildings, and one small orchard, date back to the years when apples dominated the Bitter Root Valley's agriculture. The sub-station buildings and its role as the state's center for horticultural experiments are reminders of an exciting but disappointing chapter in the valley's history.

9. Major Biblio	graphic	al Referen	ces	
Stevensville Historical S Missoula, Montana.	The second second	ACCUMANT OF THE PARTY OF THE PA		ess Publishing,
Montana Agricultural Expe (See continuation sheet)	riment Stati	on Annual Reports	; 1907-1912,	Montana Historical Soc
10. Geographic	cal Data			
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For HCRS use only I hereby certify that this proper	rty is included in	the National Register	date	to the description of the
Keeper of the National Register			date	7.4.4
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FHR-8-300 (11-78)

United States Department of the Interior Heritage Conservation and Recreation Service

# National Register of Historic Places Inventory—Nomination Form

For HCRS use only received date entered

Continuation sheet

Item number

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Reports of the Proceedings of the Annual Sessions of the Montana Horticultural Society, 1906-1914, Montana Historical Society, Helena, Mt.

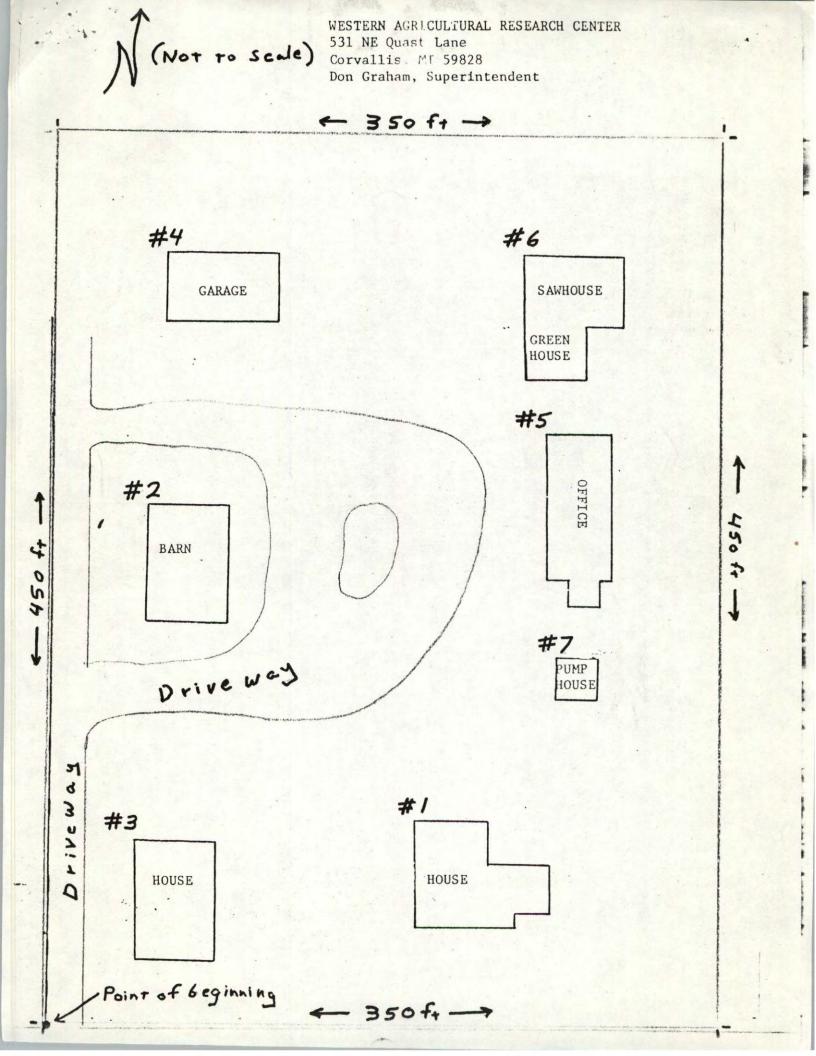
Speech by F.B. Linfield to the Bitter Root Valley Horticultural Society, 1928: copies available at Western Montana Agricultural Research Center, Corvallis, Mt.

News Release by Don Graham, Superintendent of Western Agricultural Research Center, Corvallis, Mt. Available at the Center.

Western News, Hamilton, Mt., March 13, 1907, Vol. 27 number 21, Pg.1.

Unpublished paper on history of the apple industry in the Bitter Root, by Don Graham, Superintendent of Western Agricultural Research Center, Corvallis, Mt. Paper available at the Center.

Hamilton Montana Chamber of Commerce; "The Greater Bitter Rooter". Nov. 1910. University of Montana Archives, Missoula, Montana.



IT IS A PLEASURE TO BE HERE AND PARTICIPATE IN THE CELEBRATION OF THE 75TH ANNIVERSARY OF THE ESTABLISHMENT OF WHAT IS NOW KNOWN AS THE WESTERN AGRICULTURAL RESEARCH CENTER OR, TO US NATIVES, THE EXPERIMENT STATION.

IN FACT, IN DOING PART OF THE RESEARCH FOR THIS PARTICULAR ASSIGN-MENT, IT HAS BROUGHT BACK MANY MEMORIES OF ASSOCIATIONS THAT HAVE BEEN IMPORTANT EVENTS IN MY LIFE!

CHRONOLOGICALLY, THE FIRST ASSOCIATION WAS WITH REVEREND WILLIAM

COBLEIGH. REVEREND COBLEIGH WAS THE PASTOR OF MY FOLKS' CHURCH AT

CORVALLIS, AND THE FATHER OF W. A. COBLEIGH, OR "BILLY COBLEIGH," AS

MY FOLKS KNEW HIM. PROFESSOR COBLEIGH HAD STARTED TEACHING AT THE

COLLEGE IN STEVENSVILLE AND TRANSFERRED TO MONTANA STATE WHEN THE

SCHOOLS WERE COMBINED IN 1894. HIS FIRST ASSIGNMENT WAS PROFESSOR OF

CHEMISTRY. PROF COBLEIGH, PROF COOLEY, AND PROF SWINGLE WERE NOT ONLY

IMPORTANT IN LAYING THE GROUND WORK FOR THE STATION AT CORVALLIS,

HAVING SPENT CONSIDERABLE TIME LOOKING INTO THE NEED AND FEASIBILITY

OF THE STATION, BUT THEY ALSO WERE VERY MUCH A PART OF MY HIGHER EDUCATION.

YOU CAN IMAGINE, I AM SURE, MY SURPRISE AND CHAGRIN, WHEN AS A GREEN FRESHMAN, FRESH OUT OF CORVALLIS HIGH SCHOOL, I ATTENDED MY FIRST CHEMISTRY CLASS AT MONTANA STATE. AT THAT TIME EVERYONE WHO WAS TAKING FRESHMAN CHEMISTRY ATTENDED THE SAME LECTURE CLASS. THIS AMOUNTED TO APPROXIMATELY ONE-THIRD OF THE ENTIRE STUDENT BODY, OR ABOUT 300 STUDENTS. PROFESSOR COBLEIGH AS HEAD OF THE CHEMISTRY DEPARTMENT CONDUCTED THE LECTURE CLASSES AND PRIDED HIMSELF ON KNOWING ALL OF HIS STUDENTS BY NAME. TO ACHIEVE THIS HE CALLED ROLL SO HE WOULD BECOME ACQUAINTED WITH THE NAMES AND FACES. THAT FIRST DAY WHEN PROF COBLEIGH GOT TO MY NAME, HE STOPPED AND SAID, "WOULD POPHAM PLEASE STAND UP." THEN HE GOES INTO HOW HE KNEW THE FOLKS AS FRIENDS AND ME AS BEING JUST A BABE IN ARMS.

SO MUCH FOR THE EMBARRASSMENT. HOWEVER, THE ASSOCIATION WITH THE DIFFERENT ONES CONNECTED WITH THE COLLEGE AND THE EXPERIMENT STATION -- DR. SWINGLE AS MY BOTANY TEACHER; PROF COOLEY IN THE ENTOMOLOGY DEPT.; FRANK HARRINGTON, MY INSTRUCTOR IN HORTICULTURE; ROLLY RENNE, PROF OF PRODUCTION ECON; A. H. POST IN AGRONOMY AND SOILS; WERE JUST A FEW OF THE OTHERS THAT WERE ACTIVE AND INSTRUMENTAL IN THE GROWTH AND SUCCESS OF THE STATION. THE VARIOUS PROGRAMS THAT HAVE BEEN DEVELOPED, BOTH ON AND OFF THE STATION, HAVE ALSO PLAYED A PART IN MY EDUCATION.

OTHERS SUCH AS JOE ASELESON MAY HAVE DONE MORE AND INVOLVED MORE LOCAL PEOPLE, BUT THAT IS A STORY IN ITSELF.

TO GET BACK TO THE MATTER AT HAND---THE EVENTS THAT LED UP TO THE ESTABLISHMENT OF AN EXPERIMENTAL STATION AT CORVALLIS IN THE BITTER ROOT VALLEY IS PART OF THE HISTORY OF THE VALLEY.

FROM THE TIME THE INDIANS FIRST DECIDED THAT THE BLACK ROBES SHOULD BE INVITED TO COME TO THIS AREA, THE DIE WAS CAST THAT NOT ONLY SHOULD THIS BE THE CRADLE OF RELIGION FOR THE NORTHWEST, BUT ALSO THE CRADLE OF AGRICULTURE AND IRRIGATION. FATHER DE SMET, FATHER RAVALLI AND MAJOR OWEN ALL WERE ORIENTED TO THE GROWING AND PROCESSING OF CROPS. SOON AFTERWARD, AS THE EARLY SETTLERS ARRIVED, FRUIT PRODUCTION WAS TRIED. THOMAS HARRIS AND W. N. SMITH WERE THE FIRST TO TRY, BUT, W. E. BASS, ARRIVING IN THE BITTER ROOT IN 1864, WAS THE REAL PIONEER IN THE FRUIT INDUSTRY. HE EXPERIMENTED WITH DIFFERENT VARIETIES, ETC. FOR AT LEAST 20 YEARS. BY 1893, IT WAS FELT THERE WERE ENOUGH VARIETIES AND LARGE ENOUGH OUANTITIES THAT FRUIT GROWING WOULD BE A LEGITIMATE AND PROFITABLE BUSINESS IN THE BITTER ROOT. THAT YEAR THE FIRST FRUIT FAIR IN THE BITTER ROOT WAS HELD AT STEVENSVILLE. IT WAS IMPRESSIVE.! THE FAIR EXHIBIT WAS TAKEN TO BUTTE, HELENA AND EASTERN CITIES. THOUSANDS OF PEOPLE VIEWED THE EXHIBIT AND BECAME BELIEVERS IN THE ABILITY OF THE BITTER ROOT TO PRODUCE APPLES PROFITABLY.

EVERYONE PLANTED AN ORCHARD AND THE FIRST APPLE BOOM IN BITTER ROOT

BEGAN TO DEVELOP. ALTHOUGH THE WINTER OF 1898 KILLED ABOUT TWO-THIRDS

OF THE TREES, THE SETBACK WAS ONLY TEMPORARY.

THE ABILITY OF THE AREA TO GROW HIGH QUALITY FRUIT WAS A COMPELLING REASON FOR MORE ORCHARDS TO BE PLANTED, BUT COPING WITH THE RIGORS OF CLIMATE, THE CHANGING EMPHASIS IN AGRICULTURE AND ECONOMIC CONDITIONS POINTED UP THE NEED OF EXPERIMENTAL STUDIES OF HORTICULTURE CROPS AND MARKETING TO HELP THESE NEOPHYTE ORCHARDISTS.

FORTUNATELY, IN 1893, THE NEW STATE OF MONTANA ESTABLISHED AN AGRICULTURAL COLLEGE AND EXPERIMENTAL STATION IN BOZEMAN. PROFESSOR S. M. EMERY, THE FIRST DIRECTOR OF THE STATION AT BOZEMAN WAS A POMOLOGIST AND RECOGNIZED THE NEED FOR THESE EXPERIMENTAL STUDIES AND (QUOTE)

"PROMPTLY STARTED EXTENSIVE VARIETY TRIALS OF SMALL FRUITS AND TREE

FRUITS" (UNQUOTE) WITH DETAILED INFORMATION ON SURVIVAL AND PERFORMANCE.

THE PERIOD OF THESE STUDIES INCLUDED TEMPERATURES AND SURVIVAL DURING

THE WINTER OF 1898 - 1899 WHEN THE TEMPERATURE DROPPED TO 45 BELOW ZERO

IN THE BITTER ROOT VALLEY. DR. EMERY RESIGNED IN 1900, BUT HE HAD

ESTABLISHED A BASIS OF NEED FOR A SUB STATION IN THE BITTER ROOT WHERE

HISTORY AND DEMONSTRATION HAD ENCOURAGED MANY PEOPLE TO PLUNGE INTO

FRUIT PRODUCTION, MOST OF THEM WITHOUT ANY PREVIOUS EXPERIENCE OR BACKGROUND.

R. W. FISHER BECAME HEAD OF THE DEPT OF HORTICULTURE IN 1902.

EMERY'S STUDIES HAD BEEN CARRIED ON DURING THE INTERIM BY THE GARDENER

AT THE STATION, SO PROF FISHER WAS ABLE TO PUBLISH NUMEROUS BULLETINS

AND REPORTS ON HARDY VARIETIES OF APPLES. SOME OF THESE VARIETIES ARE

STILL ALIVE AND PRODUCING ON ORCHARDS PLANTED BEFORE THE TURN OF THE

CENTURY. AMONG THE VARIETIES MENTIONED ARE DUCHESS, HIBERNAL, WEALTHY

AND YELLOW TRANSPARENT.

THE PERIOD OF 1902 1909, OR DURING THE TIME THAT PROF FISHER
WAS HEAD OF THE DEPARTMENT, NOT ONLY WERE THERE MORE AND MORE ORCHARDS
BEING PLANTED, BUT SAMUEL DINSMORE PROMOTED AN IRRIGATION COMPANY,
BUYING UP LAND, BUILDING A RESERVOIR AT LAKE COMO AND BUILDING A DITCH
TO IRRIGATE 18,000 ACRES ON THE EAST BENCHLAND.

THE LAND WAS PURCHASED AND SUBDIVIDED BY NUMEROUS DEVELOPERS WHO

PURCHASED LAND FOR DEVELOPMENT OF ORCHARDS AND SMALL FRUIT PRODUCTION 
OR JUST FOR RESALE.

IN 1908, DURING PROF FISHER'S TENURE AND UNDER HIS LEADERSHIP,
AND WITH A DONATION OF LAND FROM THE BITTER ROOT VALLEY IRRIGATION
COMPANY, THE HORTICULTURAL BRANCH STATION WAS ESTABLISHED HERE WHERE
WE ARE NOW CELEBRATING ITS 75TH BIRTHDAY.

THE NORTHWEST TRIBUNE OF STEVENSVILLE ON MARCH 20, 1908 ANNOUNCED THAT PROF FISHER (QUOTE) "SPENT SEVERAL DAYS IN THE VALLEY LAST WEEK AND MADE ARRANGEMENTS TO LOCATE THE STATION NEAR CORVALLIS." (UNQUOTE) THE DONATION OF LAND AND APPROPRIATION BY THE LAST SESSION OF THE LEGISLATURE HAD MADE THE ESTABLISHMENT OF THE STATION A REALITY.

I KNOW YOU ALL PUT YOUR TONGUE IN YOUR CHEEK WHEN I MENTIONED

TREES THAT ARE STILL PRODUCING THAT WERE PLANTED BEFORE 1900, BUT I HAVE

A SHOULDER THAT REMINDS ME EVERY TIME A STORM IS COMING THAT WAS CAUSED

BY MY TRYING TO REACH SOME WEALTHY APPLES AT THE TOP OF A TREE PLANTED

BY MY FATHER BEFORE 1900. THE RANCH CELEBRATED ITS 100TH BIRTHDAY

LAST YEAR.

I HAVE ALWAYS HAD TROUBLE CONVINCING MY WIFE THAT WEALTHYS ARE GOOD APPLES. (YOU SEE, SHE WAS BORN AND RAISED WHERE THEY HAVE A McINTOSH ORCHARD PLANTED IN 1909), SO EACH FALL I HAVE TO CLIMB THE TREE, GET A TALL LADDER OR FIGURE OUT SOME OTHER WAY TO GET ENOUGH OF THOSE WEALTHYS TO GET HER TO MAKE ME SOME APPLESAUCE. THIS PARTICULAR YEAR, I HAD LEFT THE PICKUP OUT ALL NIGHT, THE FROST HAD GATHERED ON

THE TOP OF THE CAB, BUT I WAS IN A HURRY TO GET THE APPLES PICKED
BEFORE LEAVING FOR THE BANK, SO I DROVE OUT UNDER THE TREE? CLIMBED IN
THE BACK TO PICK SOME APPLES. THE ONLY THING WAS THE APPLES WERE SO
MUCH BIGGER AND BETTER ABOUT FIVE FEET HIGHER, SO I DECIDED TO CLIMB
ON TOP OF THE CAB TO REACH THEM. THEY WERE NICER UP THERE AND ALTHOUGH
I HAD MY BUCKET ALMOST FULL, I HAD TO REACH A LITTLE FARTHER --MY FEET WENT OUT FROM UNDER ME AND I LANDED ON MY SHOULDER IN THE BED
OF THE PICKUP. AS I SAID BEFORE, I STILL FEEL IT, BUT THE TREE IS NO
LONGER THAT TALL, I MADE SURE WHEN I PRUNED IT THAT THE TRUCK WAS DRY.—
I HAVE PRUNED IT A COUPLE OF TIMES SINCE AND IT IS STILL PRODUCING.

SO FAR, THINGS THAT I HAVE TALKED ABOUT MAY SEEM PRETTY DISCONNECTED TO YOU, BUT IT INCLUDES ALL THE THINGS THAT COME TO MIND WHICH OCCURRED IN THE CONCEPTION AND BIRTH OF THE STATION.

ONE OF THE THINGS THAT IS SO EASY TO LOSE SIGHT OF WHEN TALKING ABOUT OUR RESEARCH CENTER AND I SAY "OUR" CENTER ADVISEDLY, IS THAT WE DO FEEL AS THOUGH IT BELONGS TO US HERE IN THE BITTER ROOT. NOT ONLY IS IT OURS FOR THE BRAGGING RIGHTS FOR WHAT IT HAS ACCOMPLISHED, BUT IT IS OURS BECAUSE WE HAVE FOUGHT TO RETAIN IT, TO FUND IT, AND ALSO TO MAKE FUN OF IT WHEN IT SEEMED IT WAS DOING SOMETHING NOT WORTHWHILE. NOT ONLY THAT, MANY TIMES WE HAVE WRACKED OUR BRAINS FOR THINGS FOR THE STATION TO DO -- CHANGES NEEDED TO TAKE CARE OF THE CHANGES IN AGRICULTURE, THE CHANGES IN LIFE STYLES OF THE PEOPLE, THE CHANGES IN CROPS, FERTILIZATION AND CLIMATE. (HOWEVER, WE HAVEN'T HAD 45° BELOW FOR A FEW YEARS.)

GETTING BACK TO THE PEOPLE WHO CONTRIBUTED TO THE SUCCESS OF THE STATION AND MY MEMORIES OF HOW THEY FIT INTO THE ESTABLISHMENT, I CANNOT EMPHASIZE TOO MUCH PROF FISHER'S PART IN ESTABLISHING THE APPLE INDUSTRY IN THE BITTER ROOT. PROF FISHER BECAME HEAD OF THE HORTICULTURE DEPT AT MONTANA STATE IN 1902, NOT ONLY WAS HE HEAD OF THE DEPARTMENT, BUT

WAS THE SOLE MEMBER OF THE STAFF. HE TAUGHT HORTICULTURE, HE CARRIED ON THE WORK STARTED BY DIRECTOR EMERY, HAD SEVEN PUBLICATIONS, BUT ALSO MADE NUMEROUS TRIPS FROM BOZEMAN TO THE BITTER ROOT BY TRAIN -- (REMEMBER THIS WAS THE HORSE AND BUGGY DAYS).

THE DEMANDS FOR INFORMATION FROM INDIVIDUAL ORCHARDISTS, COMPANY
AND CORPORATE ORCHARD OWNERS AND THE EXPERIMENTAL ORCHARDS TO BE

PLANTED AT THE STATION WERE ALL ADDED TO THE MANY DUTIES THAT PROF
FISHER HAD ACQUIRED BY BECOMING DIRECTOR AND SUPERINTENDENT OF THE

EXPERIMENTAL STATIONS. THE NEW STATION AT CORVALLIS DID HAVE A FOREMAN
DURING THIS TIME BY THE NAME OF JOHN ASHBY. ASHBY WAS IN CHARGE OF
ACTUAL PLANTING AND IMPROVEMENTS AT THE STATION DURING THE TIME FISHER
WAS SUPERVISING THE STATION. ASHBY HAD TRAINING AS A HORTICULTURIST
AND WAS ABLE TO CARRY ON THE ACTIVITIES AT THE STATION FOR A NUMBER OF
YEARS UNDER FISHER AND PROFESSOR O. B. WHIPPLE. WHIPPLE HAD BECOME
HEAD OF THE DEPARTMENT OF HORTICULTURE UPON THE RESIGNATION OF FISHER
IN 1909.

I KNOW THAT MEMORIES MANY TIMES ARE THINGS THAT SHOULDN'T BE REMEMBERED OR EVEN PASSED ON WHEN SEEN THROUGH THE EYES OF A CHILD, BUT MAYBE I'LL BE FORGIVEN FOR TELLING THIS. JOHN ASHBY ATTENDED CHURCH AT CORVALLIS AND SANG IN THE CHOIR. ALL RIGHT SO FAR, BUT JOHN ASHBY WAS ALSO BALD AND WOULD LIKE TO HIDE IT BY GROWING HAIR LONG ENOUGH ON ONE SIDE TO COMB OVER THE TOP OF HIS HEAD TO HIDE THE BALDNESS. THIS IT DID VERY WELL, UNTIL HE CAME TO A PARTICULARLY DIFFICULT PASSAGE, THEN THE HAIR, MUCH TO ASHBY'S EMBARRASSMENT, WOULD END UP COVERING HIS FACE. AT LEAST, HE HAD MORE HAIR THAN I HAVE.

AS I MENTIONED BEFORE, IRRIGATION WAS VERY IMPORTANT TO THE DEVELOP-MENT OF ORCHARDS IN THE BITTER ROOT. ALTHOUGH MANY ORCHARDS WERE PLANTED BEFORE AN IRRIGATION SYSTEM HAD BEEN PROVIDED, THE BITTER ROOT VALLEY IRRIGATION DISTRICT WAS PARTIALLY COMPLETED AND MANY COMPANIES WERE PLANTING THOUSANDS OF ACRES OF ORCHARDS THAT WOULD BE IRRIGATED FROM THAT SYSTEM. THE THOUSAND ACRES ORCHARD COMPANY, WITH THE THATCHER FAMILY AS THE MAJORITY STOCKHOLDERS, WAS ONE OF THESE COMPANIES AND WAS THE ONE THAT I WAS BEST ACQUAINTED WITH. ALSO, THIS IS THE COMPANY WHO LURED PROF FISHER AWAY FROM THE STATE COLLEGE IN 1909 TO BECOME THE COMPANY HORTICULTURIST. THE FISHERS LIVED ON THE THOUSAND ACRES RANCH UNTIL 1915 AT WHICH TIME FISHER BECAME COUNTY AGENT FOR RAVALLI COUNTY. AFTER A SHORT PERIOD AS AGENT, MR. FISHER WAS EMPLOYED BY THE FARMERS STATE BANK AT VICTOR. HE WAS EMPLOYED THERE UNTIL THE TIME OF HIS DEATH IN 1924.

THE NOTORIOUS LAND BOOM IN THE BITTER ROOT REVOLVED AROUND THE UNSCRUPULOUS PROMOTION OF THE VALLEY AS A PARADISE FOR THE McINTOSH APPLE AND THE SUB-DIVIDING INTO ORCHARD TRACTS WITH AGGRESSIVE ADVERTISING CAMPAIGNS. CLEVER REAL ESTATE AGENTS AND HOME SEEKERS EXCURSIONS WERE THE FORERUNNERS OF THE SECOND APPLE BOOM IN THE BITTER ROOT.

DURING THIS TIME PROFESSOR WHIPPLE AS HEAD OF THE DEPARTMENT AND ALSO THE STATION, EMPHASIZED EVEN MORE THE STUDIES AND EXPERIMENTS WITH THE PROBLEMS OF GROWING FRUIT IN MONTANA. THIS PERIOD WAS WHEN THE STATION WAS TRULY THE HORTICULTURAL EXPERIMENT STATION FOR MONTANA. HARVEY THORNBER, A HORTICULTURIST, WAS APPOINTED RESIDENT SUPERINTENDENT OF THE STATION IN 1916. BY THAT TIME MOST COMMERCIAL ORCHARDS THAT WOULD BE PLANTED WERE IN AND SOME ORCHARDS ON MARGINAL LAND WERE BEING ABANDONED.

THIS WAS THE HEYDAY OF THE APPLES IN THE BITTER ROOT WITH YIELDS UP TO 230 BOXES PER ACRE AND A PEAK OF 637 CAR LOADS OF APPLES BEING SENT OUT IN 1921. HOWEVER, QUALITY AND SIZE WERE BEGINNING TO SUFFER, COMPANIES THAT HAD BEEN MANAGING MANY ORCHARDS FOR ABSENTEE OWNERS WERE TURNING THE GROUND OVER TO THE OWNERS. HAIL STORMS, FROSTS AND FREEZES

AND SHORTAGES OF WATER CHANGED THE WHOLE PICTURE OF APPLE PRODUCTION
IN THE VALLEY. BY THIS TIME, THE IRRIGATION COMPANY, PROMOTED BY
SAMUEL DINSMORE, WAS BROKE AND ALL ASSETS WERE SOLD IN A RECEIVERS SALE.
HOWEVER, THE COMPANY DID HAVE 16,000 ACRES UNDER IRRIGATION BY THE
PROJECT. FINALLY, IN 1920 THE BITTER ROOT IRRIGATION DISTRICT WAS
FORMED BY THE LAND OWNERS, AND THEY TOOK OVER THE PROJECTS, BUT THEY
WERE SOON IN TROUBLE. THE ENGINEERING ON THE DITCH, ALTHOUGH BASICALLY
SOUND AS FAR AS LOCATION, LEFT MUCH TO BE DESIRED AS TO THE FEASIBILITY
OF A FISCALLY SOUND OPERATION. WOODEN FLUMES OVER ALMOST ONE-THIRD OF
THE DITCH, HEADGATES AND LATERALS MAINTAINED BY THE COMPANY ALL BEGAN
TO GO BAD. THE APPLE INDUSTRY WAS RAPIDLY DETERIORATING, ORCHARDS HAD
TO BE ELIMINATED BEFORE THE LAND COULD BE PUT TO OTHER USES. ACTUALLY
BITTER ROOT GROWERS LEARNED TO SURVIVE A DEPRESSION BEFORE THE '30s.

I BELIEVE THAT HARVEY THORNBER PUT IT IN THE PROPER PERSPECTIVE
BY HIS SUMMATION WHICH I WILL QUOTE: "WE CAN ALL REMEMBER HOW, A FEW
YEARS AGO, THOUSANDS OF SMALL TRACTS OF LAND CONTAINING FROM FIVE TO
TWENTY ACRES WERE UNLOADED (AND I USE THAT WORD ADVISEDLY) ON PROSPECTIVE
FRUIT GROWERS. JUST HOW MANY THOUSANDS OF TRACTS WERE SOLD IS OF LITTLE
IMPORTANCE. THE THING THAT CONCERNS US IS THE FACT THAT THERE ARE
HUNDREDS OF THOSE 'WOULD BE' FRUIT GROWERS IN EVERY SECTION THAT ARE
TODAY LIVING DISCONTENTED LIVES BECAUSE THEY CANNOT MAKE A COMFORTABLE
LIVING FROM THEIR SMALL HOLDINGS. PIONEERING IN THE FRUIT GAME WAS
FOUND TO BE NOT UNLIKE PIONEERING IN MANY OTHER OCCUPATIONS. AFTER THE
GRAND RUSH WAS OVER A FEW WERE FOUND TO BE SUCCESSFUL AND MADE MONEY;
A FEW MORE HAD MADE A GOOD LIVING: MANY MORE HAD PASSED ON TO OTHER
FIELDS; BUT A LARGE PERCENTAGE, FOR VARIOUS REASONS, WERE COMPELLED TO
REMAIN ON THEIR TRACTS AND DO OTHER WORK FOR A LIVING." (END OF QUOTE)

WHETHER THE CULMINATION OF PROF WHIPPLE'S LEAVING AS HEAD OF THE DEPARTMENT, THE INCREASE IN THE NUMBER OF INSECT PESTS, THE INCREASING DIFFICULTIES WITH IRRIGATION WATER AS WELL AS THE DISCONTENT AMONG THE ORCHARDISTS LED TO THE RESIGNATION OF THORNBER, IS REALLY IMMATERIAL, BUT ALL OF IT TOGETHER PROBABLY MADE HIM FEEL WELL QUALIFIED TO BE A COUNTY COMMISSIONER. HARVEY SERVED FOR 6 YEARS ON THE BOARD AFTER HE LEFT THE STATION.

ALTHOUGH THE HEAD OF THE HORTICULTURE DEPARTMENT WAS NOT REPLACED FOR TWO YEARS AFTER PROF WHIPPLE LEFT, A NEW SUPERINTENDENT OF THE STATION WAS APPOINTED IMMEDIATELY, SO THERE WAS A CONTINUITY IN THE WORK OF THE STATION: WARREN POLLINGER TOOK OVER AS SUPERINTENDENT FROM THORNBER. AT APPROXIMATELY THE SAME TIME FRANK HARRINGTON WAS MADE HEAD OF THE HORTICULTURE DEPARTMENT.

WITH THE DECLINE OF APPLE ORCHARDING, THERE BEGAN TO BE CONSIDERABLE QUESTIONING OF THE NEED AND FEASIBILITY OF THE HORTICULTURAL STATION.

NOT ONLY WAS THE ADMINISTRATION AT THE COLLEGE AND THE LEGISLATURE QUESTIONING ITS IMPORTANCE, BUT LOCAL PEOPLE WERE ALSO MAKING REMARKS AS TO THE NEED FOR A STATION THAT DID NOT FIT WHAT PEOPLE HAD TO DO TO MAKE A LIVING.

THORNBER AND POLLINGER HAD DEVOTED CONSIDERABLE ATTENTION TO ORCHARD CULTURAL PRACTICES, WITH COOPERATION OF THE MAIN STATION.

HOWEVER, THE DECLINE OF APPLE ORCHARDING CHANGED THE EMPHASIS TO SMALL FRUITS AND SWEET CHERRIES UP THE FLATHEAD AS FAR AS FRUIT PRODUCTION.

BUT THIS WAS HARDLY JUSTIFICATION FOR A HORTICULTURAL EXPERIMENTAL STATION AT CORVALLIS, UNLESS THE EMPHASIS WAS SHIFTED TO OTHER CROPS.

MANY MEETINGS WITH FARMERS, MERCHANTS, HOUSEWIVES AND THE AGric INDUSTRY WERE HELD. MANY OF THESE DISCUSSIONS CONCERNED ALTERNATE CROPS, FERTILIZER EXPERIMENTS, ASSISTANCE TO THE LIVESTOCK PRODUCERS.

IN FACT, I CAN REMEMBER ONE FIELD DAY AT THE STATION WHEN MILK FEEDING OF TOMATOES, THE IRIS GARDEN AND TRIMMING OF EVERGREENS WERE THE MAIN TOPICS DISCUSSED. YOU CAN IMAGINE, I AM SURE, MY EXASPERATION AT THE LOSS OF TIME IN THE FIELD TO LISTEN TO THIS, ESPECIALLY WHEN WE NEEDED SO MUCH HELP WITH OUR IRRIGATION PROBLEMS, VARIETIES, WEED CONTROL AND FERTILIZATION PROGRAMS. IT MUST HAVE BEEN TERRIBLY FRUSTRATING TO WARREN POLLINGER, A HORTICULTURIST, WHO LOVED THE APPLE BUSINESS ENOUGH TO GET HIS TRAINING AND RETURN TO THE BITTER ROOT TO WORK WITH IT TO SEE THE APPLE INDUSTRY DYING. ALTHOUGH WARREN POLLINGER TURNED OVER THE SUPERINTENDENCY TO AL RICHARDSON IN 1946, HE MADE MANY CONTRIBUTIONS TO THE ORCHARD INDUSTRY EVEN THOUGH IT WAS ON THE DECLINE. DURING HIS TENURE, FERTILIZER AND DISEASE CONTROL WAS PROMULGATED THAT HELPED THE ORCHARDS, THAT WERE STILL IN PRODUCTION, TO SURVIVE.

THE LACK OF DIRECTION AND THE INDECISIVENESS AS TO THE PROGRAM

FOR THE STATION WAS FELT FOR MANY YEARS. I KNOW THAT MUCH CONSIDERATION

WAS GIVEN TO ITS ABANDONMENT. THE ADMINISTRATION AT THE COLLEGE WAS

UNSURE WHAT SHOULD BE DONE WITH IT AND EVEN WENT SO FAR AS TO RECOMMEND

THAT THE FUNDING BE TRANSFERRED SOMEWHERE ELSE. IT MIGHT HAVE BEEN DONE

IF IT HAD NOT BEEN FOR SOME STRONG REPRESENTATION IN THE LEGISLATURE

FROM RAVALLI COUNTY THAT FELT THE STATION SHOULD BE CONTINUED. THE BILL

TO ELIMINATE THE STATION DIDN'T GET OUT OF "NICK'S" POCKET.

DURING THIS TIME OF FLUX AS TO WHAT WOULD HAPPEN TO THE STATION,

MANY PROPOSALS WERE MADE TO CHANGE THE STATION. ONE THAT WAS PROPOSED

BY DR. RENNE WAS THE STATION BE CONVERTED TO GARDEN VEGETABLES, SMALL

FRUITS AND DECORATIVE PLANTINGS, INCLUDING FLOWERS AND SHADE TREES.

HIS ANALYSIS WAS THAT A STATION SHOULD NOT BE JUST FOR FARMERS BUT

SHOULD ALSO BE WORKING IN AREAS THAT WOULD HELP THE URBAN RESIDENTS OF THE

STATE --- AFTER ALL THERE WERE MORE VOTES THERE. THIS DID MUCH TO

ENCOURAGE CONTINUANCE OF THE IRIS BEDS, THE EVERGREEN PLANTINGS AND OTHER TREES THAT HAVE BEEN PLANTED AND TORN OUT TIME AND AGAIN.

PERHAPS A LITTLE RAMBLING ON WHAT THE STATION HAS DONE FOR ME MIGHT HELP GET A PERSPECTIVE OF WHAT HAS HAPPENED SINCE THE ACCENT ON APPLE PRODUCUTION SHIFTED.

I RECEIVED MY FIRST IRIS PLANTINGS FROM POLLINGER WHEN THE FIRST BEDS WERE DESTROYED. I LEARNED ABOUT THE FERTILIZATION OF TOMATOES AND PRUNING OF RASPBERRIES FROM HARRINGTON. I LEARNED ABOUT A PLASTIC MULCH AND THE MODIFIED HILL FOR RASPBERRIES FROM AL RICHARDSON. DON MERKELEY TAUGHT ME ABOUT SPRAYING EVERGREENS AND LILACS, ALSO, SYSTEMICS FOR MY SPLIT LEAF BIRCH.

DR. POST STARTED US ON A FERTILIZER PROGRAM ON BEETS THAT TOOK US

ONE STEP BEYOND THE SUGAR COMPANY. BOB HUNT HELPED US IN CONTROLLING
WEB WORMS AND OTHER PESTS ON SUGAR BEETS. DON GRAHAM DID A LOT OF WORK
ON MICRO NUTRIENTS THAT CHANGED OUR FERTILIZER PROGRAM. JIM STORY WAS been
WORKING WITH BIOLOGICAL WEED CONTROL ON MUSK THISTLE AND KNAPWEED.

ALSO NANCY CALLEN PROVIDED SOME IRON SULPHATE FOR MY ALKALI, ASSI SOME

JERUSALEM ARTICHOKES WHICH I MAY GIVE BACK TO HER IF I CAN FIND THEM ALL.

Over the years THE STATION HAS PROVIDED WORK FOR MANY YOUNG PEOPLE DURING THE

SUMMER MONTHS THAT HELPED SHAPE THEIR THINKING AND PROVIDED BACKGROUND

FOR THEIR EDUCATION. OUR DAUGHTER PROFITED FROM THAT AND ASSISTED THE

STAFF IN HARVESTING AND DOCUMENTING EXPERIMENTS WHICH AIDED HER IN HER

STUDIES.

AND THEN THERE WAS EDDIE SAGER. HE RAN THE STATION FOR A NUMBER OF YEARS. ONCE IN A WHILE IT SEEMED HE HELD IT TOGETHER. I WASN'T ALWAYS SURE WHICH WERE HIS EXPERIMENTS. HE WASN'T THERE FOR 75 YEARS, BUT UP UNTIL HE LEFT A FEW YEARS AGO, I'M NOT SURE BUT WHAT MANY THOUGHT HE HAD BEEN THERE SINCE THE STATION STARTED.

ONE EXPERIMENT THAT ED HAD THAT PROBABLY NEEDED MORE DEVELOPMENT AND THOUGHT ON WAS THE ONE ON SOY BEANS. EXCEPT AGAIN, WHAT IF IT HAD WORKED? WOULD ANYONE GROW THEM ON TEN ACRES? MAYBE IF HE HAD BEEN WORKING ON CHICK PEAS OR GARBANZO BEANS, WE WOULD HAVE HAD A GOING INDUSTRY, SEEING HOW SO MANY ARE USING IT ON THEIR SALAD BARS.

LOCAL PEOPLE ARE STILL REAPING THE BENEFIT FROM THE WORK WITH STRAWBERRIES, RASPBERRIES, APPLES AND CHERRIES. THE STATION HAS LED THE WAY FOR THE STATE TO BE AT LEAST SOMEWHAT SELF-SUFFICIENT IN SMALL FRUITS, ALTHOUGH THAT IS NOT OF IMPORTANCE ANY LONGER EXCEPT TO THE ONES WHO WANT TO PRODUCE THEIR OWN FRUITS AND A FEW SMALL COMMERCIAL GROWERS.

I WANT TO EMPHASIZE AGAIN THE MANY VARIED FEELINGS THAT WERE ENGENDERED BY THE STATION IN THE MINDS OF THE NEIGHBORS AND RESIDENTS OF RAVALLI COUNTY. I AM SURE THAT THE CHANGE IN EMPHASIS AS WELL AS THE CHANGE IN NAME DID MUCH TO CHANGE THE IMAGE FOR THE BETTER.

IF IT HADN'T BEEN FOR THE SUPPORT AND ASSISTANCE OF NEIGHBORS LIKE THE HOLLORONS, BAILEYS AND QUASTS, TO NAME OTHERS WHO HAVE LIVED WITH, WATCHED OVER, AND GIVEN COMPETITION TO THE STATION, THERE WOULD HAVE BEEN NO WAY IT COULD HAVE SURVIVED. THEIR ENCOURAGEMENT AND ASSISTANCE IN HELPING A. H. POST, VERN STEWART FROM CRESTON, AND DON GRAHAM, IN SETTING UP A PATTERN OF VARIETY AND FERTILIZATION EXPERIMENTS FOR OFF STATION WORK, HAS DONE MORE TO MAKE THE STATION AND THE UNIVERSITY MORE ACCEPTABLE THAN ALMOST ANY OTHER PUBLIC RELATIONS APPROACH THAT COULD HAVE BEEN MADE.

HOWEVER, I DO NOT WISH TO DOWNPLAY THE OFF-STATION WORK DONE BY
PEOPLE LIKE FRANK HARRINGTON, WARREN POLLINGER AND AL RICHARDSON WITH
HORTICULTURAL CROPS NOR THAT OF BOB HUNT, DON MERKELY AND OTHERS IN
INSECT AND PEST CONTROL. IN FACT, THEIR WORK ALSO ACCENTED THE VERY
IMPORTANT WORK OF THE STATION.

THE CHANGING FACE OF THE STATION IS ALSO REFLECTED IN THAT NO LONGER DO WE HAVE A POMOLOGIST OR EVEN A HORTICULTURIST AS SUPERINTENDENT OF THE STATION. A SOIL SCIENTIST HAS TAKEN OVER THE POST. OUR HORTICULTURIST HAS EVEN CHANGED GENDER. I LIKE THE CHANGE, BUT BELIEVE THAT SHE SHOULD DO MORE OFF-STATION WORK HERE IN THE BITTER ROOT. NANCY, I WANT YOU TO CHECK ON THOSE JERUSALEM ARTICHOKES AS WELL AS THE RASPBERRIES.

SPEAKING OF THIS, REMINDS ME OF THE EVER CONTINUING ARGUMENT AS

TO WHAT SHOULD THE FUNCTION OF AN EXPERIMENT STATION CONSIST OF.

SHOULD IT BE BASIC RESEARCH, OR SHOULD THE STATION BE USED AS A DEMONSTRATION? SHOULD THE SCIENTISTS BE ALLOWED TO PROCEED ON BASIC RESEARCH
WITHOUT ANY REPORT UNTIL THE PARTICULAR PROJECT IS COMPLETED, OR SHOULD
WE EXPECT THEM TO WORK OPENLY WITH THE EXPERIMENTS THAT THE PRODUCER
FEELS THAT HE NEEDS?

WHAT SHOULD BE THE GOALS FOR THIS STATION? I WONDER IF MAYBE WHAT
WE NEED ISN'T AN EVEN BETTER TEAM APPROACH BETWEEN THE FARMERS AND THE
SCIENTISTS? MOST PRODUCERS CAN SEE IT IF THEY HAVE A PROBLEM. THEY
WOULD LOVE TO WORK WITH A SCIENTIST IN BASIC RESEARCH ON THAT PROBLEM.

I HAD THE PLEASURE OF BEING PART OF SUCH A PROGRAM ONCE. DOCTOR HEHN
SUGGESTED IT AND IT WAS SOMETHING I WANTED TO DO. IT CONCERNED CORN
SILAGE. I HAD BEEN GROWING SILAGE FOR YEARS, BUT THERE WAS A NAGGING
QUESTION IN MY MIND AS TO WHAT I SHOULD TRY TO ACHIEVE IN THE WAY OF
MATURITY. WHENEVER WE GOT THE CORN TO THE DOUGH STAGE, OUR TONS PER
ACRE HAD BEEN REDUCED QUITE DRASTICALLY FROM WHEN WE HARVESTED AT THE
EARLY MILK STAGE. I WAS FEEDING A HIGH CONCENTRATION OF GRAIN, SO I
FELT THAT I DIDN'T NEED MATURE CORN. DR. HEHN FELT THE SAME AS I DID
AND SET UP AN EXPERIMENT. WE PLANTED CORN THAT WOULD MATURE IN 140
DAYS ON ONE HALF OF THE FIELD AND CORN THAT WOULD MATURE IN ABOUT 90

DAYS ON HALF OF THE FIELD. THE CORN WAS HARVESTED AT THE SAME TIME WITH THE 140-DAY CORN MAKING ABOUT 40 TON PER ACRE, THE OTHER ABOUT 18 TON PER ACRE. THE CATTLE IN THE FEED LOT WERE DIVIDED INTO TWO PENS BY WEIGHT AND SIZE AS EVENLY AS POSSIBLE. ONE BUNCH WAS FED MATURE CORN....THE OTHER FED IMMATURE CORN. EACH PEN WAS GIVEN ALL THE GRAIN THEY WOULD EAT AND THE CATTLE WERE WEIGHED EVERY WEEK. BUT AFTER THE SECOND MONTH, THE EXPERIMENT CAME TO AN END, NOT BECAUSE THE ANSWERS WERE COMPLETE, BUT BECAUSE I WAS LOSING ABOUT ONE AND ONE HALF POUNDS PER DAY PER ANIMAL ON THE AMOUNT OF GAIN ON THE ONES ON THE IMMATURE CORN. THAT WAS COMING OUT OF MY POCKET. IF IT HAD BEEN BASIC RESEARCH IT WOULD HAVE CONTINUED UNTIL THE CATTLE WERE SOLD. IN MY MIND, THAT PART OF THE EXPERIMENT WAS DONE AND DID NOT NEED TO GO FURTHER. MY MISTAKE AND DR. HEHN'S MISTAKE WAS THAT WE DIDN'T KEEP ON WITH OTHER FACETS. AT WHAT STAGE SHOULD CORN BE CUT FOR THE OPTIMUM RETURN? WOULD A DIFFERENT CLASS OF CATTLE BEEN ABLE TO UTILIZE IMMATURE CORN BETTER? ACTUALLY, AT THE TIME, I WAS WELL EQUIPPED TO CONTINUE WITH DR. HEHN'S GUIDANCE. HOWEVER, ONE THING THAT I DID WRONG ---INSTEAD OF ENCOURAGING HIM WHOLE-HEARTEDLY TO TRY IT ANOTHER YEAR FOR DAIRY COWS, OR ANOTHER YEAR WITH CORN THAT HAD 120-DAY MATURITY, I HAD A TENDENCY TO TEASE HIM ABOUT THE OUTCOME. THAT ALONG WITH HIS FEELING BADLY ABOUT MY MONETARY LOSS AND THE FACT THAT I QUIT THE EXPERIMENT BEFORE IT WAS DONE, COOLED THINGS OFF TO WHERE WE DIDN'T TRY IT AGAIN. I WISH WE HAD CONTINUED AND I AM SURE THERE ARE MANY FARMERS NOW WHO WOULD BE HAPPY TO SIT DOWN AND PLAN WITH THE SCIENTISTS THE SAME TYPE OF EXPERIMENTS, AS LONG AS THEY KNOW WHAT THEY ARE FACED WITH AND THE SCIENTISTS ARE WILLING TO TERMINATE IT BEFORE COMPLETION IF THERE IS AN OBVIOUS LOSS SHOWING UP. HOWEVER, IT SHOULD BE UNDERSTOOD THE PROJECT SHOULD NOT BE SHUT OFF AFTER ONE YEAR. OTHER AREAS SHOULD BE EXAMINED IN AN ATTEMPT TO GET THE ANSWERS, EVEN IF IT TAKES A NUMBER OF YEARS.

YOU KNOW, IT IS RATHER FUN TO STAND UP HERE AND TELL YOU HOW TO RUN THE STATION, HOW YOU CAN KEEP YOUR BOSSES (THE PEOPLE) HAPPY. SO HERE GOES FOR SOME MORE. WE NOW HAVE A SOILS DEPARTMENT, THE HORTICULTURE DEPARTMENT AND THE ENTOMOLOGY DEPARTMENT, ALL REPRESENTED, BUT WHAT ABOUT ECONOMICS OF WHAT YOU ARE DOING WHEN WE APPLY IT TO OUR FARM, OUR ORCHARD OR OUR IRIS GARDEN?

MANY PEOPLE COMING TO THE BITTER ROOT TO LIVE ARE BUYING SMALL ACREAGES. WHAT ARE THE ECONOMICS OF SMALL FRUIT AS A CROP TO ASSIST THE PEOPLE IN KEEPING THEIR ACREAGE CLEAN AND PAY THE TAXES? SHOULD A NEW ORCHARD BE CONSIDERED AS AN ECONOMICALLY FEASIBLE PROJECT? ARE THERE OTHER CROPS THAT WOULD FIT BETTER ECONOMICALLY ON SMALL ACREAGES?

IS IT PRACTICAL FOR SOMEONE WITH TWO TO TWENTY ACRES TO PLANT AN ORCHARD AND HIRE SOMEONE TO RUN IT FOR THEM?

HOW ABOUT A HYDRAULIC ENGINEER AT THE STATION TO DO SOME BASIC RESEARCH AS TO THE AQUIFERS THAT FEED OUR WELLS? AS THE INFLUX OF PEOPLE BECOMES GREATER AND THEY MOVE HIGHER ON THE BENCHES WITH MORE AND MORE SUBDIVISION, WILL WE EXPERIENCE A LOWERING OF WATER TABLES, MORE POLLUTION AND OTHER PROBLEMS CONNECTED WITH MORE URBAN AREAS? PERHAPS WITH STUDY SOME OF THE PROBLEMS COULD BE PREVENTED.

PERHAPS FROM ANOTHER ANGLE, COULD THE STATION HELP ESTABLISH THE
FEASIBILITY OF TAKING ON THE MANAGEMENT OR OPERATION OF TRACTS FOR
ABSENTEE OWNERS OR OTHERS? COULD YOUNG PEOPLE BE ENCOURAGED TO DO THIS
AS SOMETHING THAT WOULD HELP THEM START A BUSINESS?

MANY THINGS NEED RESEARCH AND EXPERIMENTAL WORK SO THAT ANSWERS

CAN HELP PEOPLE HERE TO USE SMALL ACREAGES TO THE BEST ADVANTAGE.

WHERE ELSE SHOULD WE LOOK OTHER THAN THE AGRICULTURAL RESEARCH CENTER?

THE ORCHARD AND LAND BOOM CAN HAPPEN AGAIN, IN FACT, IT HAS
ALREADY STARTED. BUT IF WE HAVE A GOOD PROGRAM AND SOUND MANAGEMENT,
AND THE UNIVERSITY, THE LEGISLATURE AND THE PEOPLE WANT OUR STATION
TO CONTINUE, IT WON'T BE NECESSARY TO START A NEW STATION AND ANSWERS.
WILL BE READY AHEAD OF TIME INSTEAD OF AFTER THE FACT.

IT HAS BEEN A PLEASURE TO TALK ABOUT THE THINGS I GREW UP WITH AND WORKED WITH AS I GOT OLDER, BUT IT HAS BEEN MORE FUN TO TELL YOU WHAT YOU SHOULD DO FROM NOW ON, EVEN IF YOU DON'T PAY ANY ATTENTION TO ME.

Don Graham Western Research Center Agricultural Experiment Station Corvallis, Montana

#### NEWS RELEASE

Irrigators used to talk about running water up hill. It may seem difficult, but compared to the other problems of early day irrigators of the Bitter Root Valley, this was a cinch.

Early pioneers saw the possibilities of irrigated agriculture from the time the first Jesuit priests diverted the water onto the land from Burnt Creek near Stevensville in about 1842. Their problems had just begun.

Marcus Daly's dream for a huge irrigation system on the Bitter Root Valley failed to come true during his lifetime. However, an irrigation company promoter named Samuel Dinsmore took over the project and with three million dollars of Chicago capital, the project was began. Ten years later, money gone, the company was sold in a receiver's sale. By that time, water was available for only 16,000 acres. In 1920, the Bitter Root Irrigation District was organized to take over the assets of the company. It, too, got into financial trouble and received federal aid in 1931.

Records of H. Thornber, superintendent of the Corvallis Horticultural Substation of Montana State College from 1917 to 1923, revealed some of the problems:

- 1918—"At this time it might be in order to mention the difficulty we had to secure sufficient water at the proper time for irrigation during the past summer. The ditch company was in bad condition and no water was turned into the main ditch until after June 1. As everything was very dry, especially the hay fields, everyone wanted water at once and as a result, those on the lower end of the ditch waited longest for it. Before we got any water the soil was very dry to a depth of 4 inches and the clover that was 6 to 8 inches high in May wilted down and was in some cases dry enough to burn before it received water in June. During the entire summer we never caught up with the irrigation and one crop would always be suffering before another was finished".
- 1919-"The water situation was not much more satisfactory than in 1918. While we had water nearly three weeks earlier (May 15), the supply was limited at all times during the summer".
- 1921-"The water situation was more satisfactory than in any previous years since I came here excepting 1917. While the water was not available as early as in 1920, we did not need it as we had considerable moisture from showers and had a very heavy rain late in May. Irrigation started in earnest on June 20

and as the schedule gave us a flow of 19 2/5 miners inches every other week during the summer, we got along very well. This flow of water is sufficient to give the entire substation about 6 acre inches every month. As it was, we planned on irrigating from 13 to 15 acres every other week and the vegetables got water every 2 weeks. The main objection I have to this system is that it is expensive. If one is to get over the desired area, it is necessary to keep one man with the water all the time. This makes it cost about \$20 for labor to irrigate 15 acres at once. We were never off schedule once during the entire season although several times we would have missed irrigation on some particular area if a rain had prevented putting up hay when it was ready".

Thornber also mentioned in another part of the 1921 report that the irrigator only worked from 7:00 a.m. to 6:00 p.m. and after that the responsibility for the irrigation was his. During the 30's the problems continued:

1932-"The flow of irrigation water was not entirely satisfactory this season as the following notes show:

May 19 Break in main canal; water off 1 week

June 16 Cloudburst broke main canal and filled or washed out main lateral; water off from Thurs to Mon

July 26 Flume washed out in main lateral; water off from Wed to Fri

July 29 Slide in main canal; water off Sat to Mon

Sept 1 Water turned out of main canal; water off one week"

1933-"The flow of irrigation water was very irregular during the entire season. This was caused by new construction work on the main canal and the unusual demand for water because of the hot weather.

April 24-28 Good flow

April 29-May 15 Water off; repairs on main canal

May 16-21 Good flow

May 22-25

May 26-June 24

Break in main canal and lateral
Irregular flow; off and on

June 25-27 Break in main canal

June 28-July 8 Good flow

July 9-20 Break in main canal

July 21-August 11 Good flow

August 12-18 Break in main canal

August 18-season end Regular flow cut to one-third"

Times have improved. When the aquiduct over the river broke last summer, it would have been a major disaster in years past. This time most irrigators were out of water less than one week. Drastic improvements in irrigation management also have been made. Increasing acreages are going under sprinkler irrigation including several large multi-farm gravity systems. Although there will always be problems when man tries to push water around, it is doubtful that very many irrigators wish to return to the good old days!





Storage Barn, 1911

#### CORVALLIS AGRICULTURAL EXPERIMENT SUBSTATION

## General Comments:

Well-written and documented.

### Specific Comments:

# "7. Description"

Building no. 3 West Cottage (1921). This building seems to have been extensively remodeled from its 1921 appearance, yet no mention is made of any alterations.





West Cottage, 1921 (remodelled)

This bill was received by the Governor this 1th day of March, 1907 at soy pu House Diel No. 170 G Wiel aix an ach to authorize and lirech The Executive Doard of the Moutana agricultural relege to Establish a Subtation for the Gurpose L Carrying on Experiments a Hosti Gulture and to Filed March 7, 1907 at 8:40 ppropriate Money Therefor. O.W. Meh 7. 1907 Secretary of State IKTORELO Lawonnos t hereby certific that - within Will origina -Linghin House O Max Dejah

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