EXECUTIVE SUMMARY

HISTORIC PRESERVATION PERMIT REVIEW — MARCH 31, 2023

FORT MISSOULA COMMONS – GARAGE DEMOLITION PRELIMINARY APPLICATION CONSIDERATION

CASE PLANNER:	Elizabeth Johnson, Historic Preservation Officer
REVIEWED AND APPROVED BY:	Laval Means, Community Planning Section Manager, CPDI Department
REVIEW ITEM:	Agenda Item 5.1 - Fort Missoula Commons (Post Hospital)– Garage Demolition Preliminary Application Consideration
APPLICANT:	FAE Missoula Hospital, LLC 4751 Broadway, Denver, CO 80216 720.220.4825
APPLICANT'S REPRESENTATIVE:	David V. Gray (DVG Architecture and Planning, P.C.)
LOCATION OF REQUEST:	3255 Lt. Moss Road, Missoula, MT 59804 Fort Missoula Historic District Legally described as: S31, T13 N, R19 W, C.O.S. 5112, Parcel 2 Geocode: 04-2200-31-3-21-10-0000
LEGAL NOTIFICATION:	A legal ad appeared in the *Missoulian* on March 19th, 2023, and March 26th, 2023, on-site posting occurred 15 days prior to the public hearing, and affected property owners were notified via first-class mail 15 days prior to the public hearing.
PUBLIC HEARING:	April 5, 2023
ZONING:	OP-3/NC-HFM
GROWTH POLICY:	The *2035 City of Missoula Growth Policy* and 1993 Fort Missoula Plan (attachment to the Growth Policy)
SURROUNDING LAND USE:	Adjacent (North): OP3/NC-HFM Overlay Adjacent (East): OP3/NC-HFM Overlay Adjacent (South): Unzoned/NC-HFM Overlay Adjacent (West): OP3/NC-HFM Overlay

FORT MISSOULA COMMONS – GARAGE DEMOLITION PRELIMINARY APPLICATION CONSIDERATION

FAE Missoula Hospital, LLC
4751 Broadway
Denver, CO 80216

STAFF DETERMINATION

PRELIMINARILY APPROVE the application

I. RECOMMENDED ACTION

THAT the Historic Preservation Permit (HPP) for the **Demolition of the Garage** at 3255 Lt. Moss Road be **PRELIMINARILY APPROVED** by the Missoula Historic Preservation Commission, based on the findings and conclusions in the staff report.

II. INTRODUCTION

The City of Missoula received a complete and sufficient application for a Demolition Historic Preservation Permit from DVG Architecture and Planning, P.C. (applicant's representative) on behalf of FAE Missoula Hospital, LLC (applicant) for the demolition of the garage structure located at 3255 Lt. Moss Road, Missoula.

The application was included as part of the overall application for a broader project referred to as Fort Missoula Commons. The Fort Missoula Commons application for an Historic Preservation Permit for Exterior Alterations and New Construction is considered a separate action with a separate staff report, also attached to the agenda. The application was reviewed for completeness based on the application filing requirements established in Section 20.85.085.J.10 (Application Requirements for Preliminary Application Review) of the Missoula Municipal Code. The application was deemed complete and sufficient by the Historic Preservation Officer (HPO) on March 14, 2023, and notification was sent to the applicant's representative.

Demolitions, by ordinance, must be in accordance with the Criteria and Procedure for Review of Relocation and Demolition of Historic Resources – Historic Demolition/Relocation Permit established in Title 20.85.085.J of the Missoula Municipal Code. The location for this proposed project is within the Fort Missoula Historic District, which is listed in the National Register of Historic Places, is included in the Historic Fort Missoula Neighborhood Character Overlay (/NC-HFM), and is subject to the review procedures established in the Missoula historic preservation ordinance requirements of Title 20.85.085 of the Missoula Municipal Code, Title 20.25.070 of the Missoula Municipal Code, and the Development Guidelines and Standards for the Fort Missoula Historic District.

The applicant's representatives engaged in counsel with the HPO and provided special presentations to the HPC on the broader Fort Missoula Commons project, which includes this proposed demolition, during the regularly scheduled HPC meetings on February 3, 2021; April 7, 2021; June 2, 2021; and May 4, 2022.

The proposed work includes (See Appendix A, HPP Application for details):

- Demolish the historic garage structure located behind the Post Hospital building at 3255 Lt. Moss Rd., with option to donate a component from the shed to the Fort Missoula Museum, if interested, and repurpose salvageable materials into the broader Fort Missoula Commons development as is feasible.

SITE HISTORY & DESCRIPTION

Fort Missoula was founded in 1877 in response to perceived threats from indigenous Indian tribes. The efforts of Congressman Joseph Dixon of Missoula led to the appropriation of $1 million in 1904 to remodel Fort Missoula.

Reconstruction began in 1906 and continued through 1912. During this time, new cast concrete buildings were erected in a curved row only a few hundred feet to the northeast of the original parade ground, including a new Post Headquarters, seven cast concrete 2 ½ story buildings forming Officer's Row, two large 2 ½ story Company Barracks buildings, two Non-Commissioned Officers' Quarters, the Post Bakery, the Quartermaster's Storehouse and root cellar, a water tower, and the Post Hospital which was completed ca. 1911. The fort was used as a military training center during World War I and was nearly abandoned by 1921. In 1933, it was designated as the Northwest Regional Headquarters for the Civilian Conservation Corps.

The entire Fort Missoula Historic District clearly represents five relatively distinct periods of construction. The first four periods are associated with the actual operation of the military Fort and the fifth period reflects new infill construction after parcels of land were leased or sold by the Department of the Army to other entities. The five periods of building activity are: 1.) Original Fort Missoula (1877 – 1900); 2.) Fort Reconstruction (1900 – 1912); 3.) Civilian Conservation Corps (1933 – 1941); 4.) World War II Prison Camp (1941 – 1944); 5.) Contemporary Development (1970 – Present).

During the second period of Fort construction, from 1900 – 1912, buildings designed in the Mission style of architecture were most commonly built. Reinforced concrete was used as the major building material. These structures were built to the east of the original Fort and were part of the reconstruction and reorientation of the Fort around a new parade ground. Color and texture are provided in the broad, red-tiled hipped roofs of the buildings of this period. Roof eaves with exposed rafters extend well beyond the walls of many of the buildings. On some buildings, the plain wall surfaces continue upward forming stepped parapets. Minimal surface ornamentation was used, consisting primarily of plain string courses that outline gables, balconies, and windows. This style is seen in the Post Hospital, Officers' Row, the barracks buildings, the Quartermaster's stables, and the new Post Headquarters. Other structures constructed during this period are the Quartermaster's root cellar, the water tower, the Post Bakery, and two Non-Commissioned Officers' quarters. These structures retain excellent historic architectural integrity and are the basis for the military Fort as it is seen today.

A number of buildings and structures associated with the Civilian Conservation Corps (CCC) use of the property remain in existence today: the CCC administration building (#316), two residential buildings (#12, #214), two warehouses (#203, #312), the motor pool shop (#328), a storage building (#327) and the monument located at the entrance to the Fort on Reserve Street. Also, during this period, the Army made improvements at the Fort and constructed a new administration building (#1) and the fire station/guard house (#46). Residential building #12, constructed by the CCC in 1938 and sited to the east of the Post Hospital, is commonly referred to as the Nurse's Quarter's building. Another CCC constructed structure is the circa 1938 one-story balloon frame garage to the southeast of the Post Hospital. The garage features a hipped roof with rolled asphalt roofing, traditional wall cladding using horizontal wood boards in a simple drop style. It has open eaves with exposed rafters, one single pane wood frame window on both the east and west elevations, and six sets of double doors on the north elevation.

Modern development has occurred at the Fort and can be broken down into two separate phases. The first consists of contemporary structures that were built on lands sold to private or public groups, i.e., the Community Hospital, Missoula County, and private developers. These structures are primarily located on properties near Reserve Street and South Avenue and encroach upon the original entrance road. The new structures by and large are not designed in a fashion that achieves compatibility with the overall scale and massing of the structures within the original Fort. Because they are located some distance from the Fort structures, however, these newer buildings do not seriously undermine the visual integrity of the original Fort complex. Another aspect of development that occurred within the original Fort area was the importation of several historic buildings at the northwestern end of the complex by the Historical Museum at Fort Missoula. These structures do not relate to the history of the Fort, but, due to their placement away from the present parade ground, they do not interfere in any important way with the interpretation of the various periods of Fort Missoula's history.
Additionally, the Bureau of Land Management constructed a building within the boundaries of the historic district located near the fire station/guard house at the back end of Officers' Row. Careful attention was given to the design of this building

to minimize its impact upon the architectural integrity of the historic district. The BLM office building keeps the appearance of the Mission style of architecture. Even though the building is only one story, the white, stucco wall material and red tile, hipped roof tie in with the Fort structures and lend the building a fair degree of compatibility.

The district retains a high degree of historic architectural integrity, with the portion of the Historic District in the immediate vicinity of the 20th century parade ground noted in the National Register of Historic Places Fort Missoula Historic District Addendum and Boundary Increase as having retained the highest degree of historic architectural integrity. Although modern development has occurred on three sides of the present Fort complex, the cluster of historic Fort buildings, roadways, cemetery, and two separate parade grounds remain intact and accurately convey the historical development of the military post during the historic period from 1877 – 1944.

III. APPLICABLE ZONING REGULATIONS

Title 20 Zoning Ordinance, Section 20.85.085.J outlines the criteria for review of historic preservation permit applications for demolition. Title 20.25.070 outlines the Historic Fort Missoula Neighborhood Character Overlay; Title 20.25.070 – Appendix A outlines the Development Guidelines and Standards for the Fort Missoula Historic District.

The circa 1938 one-story balloon frame garage is a contributing structure within the Fort Missoula Historic District and is included in the Historic Fort Missoula Neighborhood Character Overlay (Title 20.25.070). A Building Permit is required for demolition, which triggers the Historic Preservation Permit process and preliminary review by the Historic Preservation Commission. Title 20 Zoning Ordinance, Section 20.85.085.J.9 outlines the process for review by the Historic Preservation Commission for historic preservation permits for demolition.

The review process for the permit application is comprised of two stages: the first stage is preliminary application review and requires action by the Historic Preservation Commission during a public hearing in the form of preliminary approval, preliminary approval with conditions, or denial of the permit. If the permit is preliminarily approved or preliminarily approved with conditions in stage one, then the application proceeds to the final approval review, which requires submittal of mitigation efforts including a documentation plan, mitigation plan, redevelopment plan, and deconstruction plan, and may consider advice from the Historic Preservation Commission. The historic preservation officer either finally approves or denies the permit.

IV. REQUEST FOR HISTORIC PRESERVATION OFFICER/COMMISSION APPROVAL

REVIEW CRITERIA

The Fort Missoula Commons (Post Hospital) proposed demolition of the garage structure is reviewed pursuant to the criteria for review listed in Title 20 Zoning Ordinance, *Section 20.85.085.J. (Review Criteria in italics,* Staff Findings and Conclusions follows).

SECTION 20.85.085.J.9 REVIEW CRITERIA:

The following must be considered in reviewing and making decisions on demolition/relocation permit applications:

9-a/b) *"Whether the structure still maintains viable economic life" and "whether the structure is capable of generating a reasonable economic return if preserved, restored, or rehabilitated."*

STAFF FINDINGS: The garage structure in its current form is severely deteriorated due to the lack of foundation and exposure to the elements, and as a result features poor overall structural integrity. The Analytical Results Report for Phase II Environmental Site Assessment conducted by URS Operating Services, Inc., the structural integrity analysis conducted by APEX Engineering, and the economic analysis conducted by Thomas G. Stevens, MAI, SRA of Stevens and Company indicate that the costs of environmental hazard remediation and rehabilitation would be substantially greater than the possible economic return for the structure.

STAFF CONCLUSION: The garage structure's economic viability is severely impacted by the remediation and rehabilitation costs that would be incurred to adaptively reuse the structure and would not be capable of generating a reasonable economic return if rehabilitated. Bringing the structure to an occupiable condition is unreasonable. Meets the criterion.

9-c.) *"Whether the applicant has made a bona fide effort to find a reasonable alternative that would result in the preservation, renovation or rehabilitation of the structure."*

STAFF FINDINGS: The garage was initially listed for sale with the stipulation that it be relocated from the property on January 19, 2022, with no showings or offers received from that listing. It was relisted on December 9, 2022, with the same conditions. Additionally, it was listed on the Circa Old Houses website on December 13, 2022. Both listings remained up for the required 90 days and no offers were received. Environmental, economic, and structural analyses were conducted to explore the feasibility of preserving the structure. Additionally, the property owner is willing to donate a component of the shed to the Fort Missoula Historical Museum if they wish to have or preserve a component of the garage.

STAFF CONCLUSION: The applicant has made a bona fide effort to find a reasonable alternative that would result in the preservation, renovation, or rehabilitation of the structure. Meets the criterion.

9-d.) *"The historic preservation officer must consider whether sufficient mitigation efforts have been met, including but not limited to, documentation, mitigation, redevelopment and deconstruction."*

STAFF FINDINGS: The application requirements for final approval review stipulate that "the applicant shall present the proposed mitigation efforts (including documentation, mitigation, deconstruction and redevelopment) for final approval review to the Historic Preservation Commission during an advisory presentation, and the Historic Preservation Commission may provide input as to recommendations for final approval, to be considered by the historic preservation officer."

STAFF CONCLUSION: The application requirements for final approval review require that all historic resources preliminarily approved for demolition be fully documented using Historic American Building Survey (HABS) or HABS-quality procedure prior to the final demolition permit being issued. Additionally, a mitigation plan, redevelopment plan, and deconstruction plan will be required prior to final approval. Meets the criterion.

9-e.) *"For a proposed relocation, the Historic Preservation Commission and historic preservation officer shall consider setting, location, feeling, and association as it applies to its National Register nomination, whether the structure will maintain its historic significance and integrity having been relocated, and the economic and physical feasibility associated with relocating the structure."*

STAFF FINDINGS: No historic structures are being proposed for relocation.

STAFF CONCLUSION: N/A

SECTION 20.85.085.J.10 APPLICATION REQUIREMENTS FOR PRELIMINARY APPLICATION REVIEW:

After the completion of the pre-application requirements, the following application information must be submitted as evidence and considered to address the review criteria:

10-a.) **Certificate of Economic Hardship (CEH)** to provide information as to whether the structure still maintains viable economic life, submitted in written form, and including the following: assessed value of the land, property taxes for previous two years; all appraisals obtained in last five years; any listing of the property, price asked and offers received in past five years; any environmental assessments or knowledge of environmental hazards associated with the property; any consideration of profitable adaptive reuse.

STAFF FINDINGS: The materials required for the Certificate of Economic Hardship (CEH) were submitted within the HPP application and include all property assessments, tax records, property listing, and statement of no offers received, as well as environmental assessment reports indicating all known environmental hazards, including a report that indicates the window trims and siding may have lead-based paint. An appraisal was not provided.

STAFF CONCLUSION: The remediation of known environmental hazards coupled with the severe deterioration of existing historic materials, indicate the structure maintains little-to-no economic viability. Meets the criterion.

10-b.) **Feasibility Study/Economic Analysis Return** to provide information as to whether the structure is capable of generating a reasonable economic return if preserved, restored or rehabilitated. The feasibility study must be completed by a third party and include a written statement and itemized cost lists from a licensed engineer/architect with experience in preservation as to the structural soundness of the structure and its suitability for continued use, renovation, restoration, or rehabilitation. Additionally, a written statement and itemized cost list from a land-use professional as to the economic feasibility of preservation, restoration, renovation, or rehabilitation of existing historic structures.

STAFF FINDINGS: There are two possible avenues for the garage structure generating a reasonable economic return. The first is through the sale and relocation of the structure. The garage building has been listed for sale for the required duration of time with no interested parties stepping forward to purchase and relocate the structure. The second is rehabilitate the structure for adaptive reuse. The economic analysis contained within the HPP application indicates that the relocation and rehabilitation of the structure will be unable to generate a reasonable return on investment. The structural analysis conducted by Apex Engineering Services, Inc. explores the possibility of rehabilitating the structure in place but found that "the amount of issues is substantial with most areas of the building compromised" and "to safely upgrade and utilize this structure will likely cost substantially more than rebuilding a similar structure from new."

STAFF CONCLUSION: Both analyses indicate that the only viable commercial option is the demolition of the existing structure. Meets the criterion.

10-c.) **Bona fide attempt to rent, sell, or relocate resource** by advertising the historic resource for sale using a licensed real estate broker on a Multiple Listing Service and the National Trust for Historic Preservation online real estate page for a period of at least 90 days within the past six months prior to submitting an application.

STAFF FINDINGS: The garage structure was listed for sale on a multiple listing service by licensed real estate broker Erin Pelger of Soula Realty for an asking price of $40,000 with the stipulation that the structure would need to be relocated off the current property. The structure was listed once on January 19, 2022, and then again on December 9, 2022. The structure was listed on the Circa Old Houses website on December 13, 2022. It remained on both listing services for at least 90 days. No interested parties have requested a showing or made an offer on the property.

STAFF CONCLUSION: Meets the criterion.

VI. PUBLIC COMMENT

All public and agency comments received as of March 28th are included in Appendix B – Public and Agency Comments in combination with comments related to Agenda Item 5.2.

VII. STAFF CONCLUSIONS AND RECOMMENDATIONS

CONCLUSION:

The historic preservation permit preliminary application for the **Demolition of the Garage** meets the review criteria set forth in Title 20.85.085.J.

RECOMMENDED MOTION:

THAT the preliminary application for a Historic Preservation Permit (HPP) for the **Demolition of the Garage** at 3255 Lt. Moss Road be **PRELIMINARILY APPROVED** by the Missoula Historic Preservation Commission, based on the findings of fact in the staff report.

VIII. ATTACHMENTS

APPENDIX A - HISTORIC PRESERVATION PERMIT APPLICATION

APPENDIX B – PUBLIC AND AGENCY COMMENTS

EXECUTIVE SUMMARY

HISTORIC PRESERVATION PERMIT REVIEW — MARCH 31, 2023

FORT MISSOULA COMMONS (POST HOSPITAL) - EXTERIOR ALTERATIONS AND NEW CONSTRUCTION

CASE PLANNER:	Elizabeth Johnson, Historic Preservation Officer
REVIEWED AND APPROVED BY:	Laval Means, Community Planning Section Manager, CPDI Department
REVIEW ITEM:	Agenda Item 5.2 - Fort Missoula Commons (Post Hospital) – Exterior Alterations and New Construction
APPLICANT:	FAE Missoula Hospital, LLC 4751 Broadway, Denver, CO 80216 406.728.3476
APPLICANT'S REPRESENTATIVE:	David V. Gray (DVG Architecture and Planning, P.C.)
LOCATION OF REQUEST:	3255 Lt. Moss Road, Missoula, MT 59804 Fort Missoula Historic District Legally described as: S31, T13 N, R19 W, C.O.S. 5112, Parcel 2 Geocode: 04-2200-31-3-21-10-0000
LEGAL NOTIFICATION:	A legal ad appeared in the *Missoulian* on March 19th, 2023, and March 26th, 2023, on-site posting occurred 15 days prior to the public hearing, and affected property owners were notified via first-class mail 15 days prior to the public hearing.
PUBLIC HEARING:	April 5, 2023
ZONING:	OP-3/NC-HFM
GROWTH POLICY:	The *2035 City of Missoula Growth Policy* and 1993 Fort Missoula Plan (attachment to the Growth Policy)
SURROUNDING LAND USE:	Adjacent (North): OP3/NC-HFM Overlay Adjacent (East): OP3/NC-HFM Overlay Adjacent (South): Unzoned/NC-HFM Overlay Adjacent (West): OP3/NC-HFM Overlay

PRESERVATION PERMIT REVIEW

FORT MISSOULA COMMONS (POST HOSPITAL) - EXTERIOR ALTERATIONS AND NEW CONSTRUCTION

FAE Missoula Hospital, LLC
4751 Broadway
Denver, CO 80216

STAFF RECOMMENDATION

DENY the application

I. RECOMMENDED ACTION

If the Historic Preservation Commission deems it appropriate, staff recommends the following action:

THAT the Historic Preservation Permit (HPP) for the **Fort Missoula Commons (Post Hospital) Exterior Alterations and New Construction** at 3255 Lt. Moss Road, be **DENIED** by the Missoula Historic Preservation Commission, based on the findings and conclusions in the staff report.

Proposed Alternate Action:

If the Historic Preservation Commission deems it appropriate and makes findings that the proposed project is consistent with the *Secretary of the Interior's Standards*, the historic preservation ordinance requirements of Title 20.85.085 of the Missoula Municipal Code, and all applicable design guidelines established in Title 20.25.070 of the Missoula Municipal Code – Appendix A Development Guidelines and Standards for the Fort Missoula Historic District, and desires to approve the application as-is or with modifications, then the following action is provided:

THAT the Historic Preservation Permit (HPP) for the **Fort Missoula Commons (Post Hospital) Exterior Alterations and New Construction** at 3255 Lt. Moss Road, be **(APPROVED)** or **(APPROVED WITH CONDITIONS)** according to the findings of fact provided by the HPC in the public hearing(s) for the Fort Missoula Commons project.

II. INTRODUCTION

The City of Missoula received a complete and sufficient application for an Historic Preservation Permit from DVG Architecture and Planning, P.C. (applicant's representative) on behalf of FAE Missoula Hospital, LLC (applicant) for the exterior alterations to the Post Hospital building and new construction on the parcel located at 3255 Lt. Moss Road, Missoula, in the vicinity of Lt. Moss Road and Sgt. Sanders St., across from the Fort Missoula Parade Ground. The application was reviewed for completeness based on the application filing criteria established in Section 20.85.085.D (Application Filing) of the Missoula Municipal Code. The application was deemed complete by the Historic Preservation Officer (HPO) on March 14, 2023, and notification was sent to the applicant's representative.

Alterations and new construction, by ordinance, must be in accordance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. The location for this proposed project is within the Fort Missoula Historic District, which is listed in the National Register of Historic Places, is included in the Historic Fort Missoula Neighborhood Character Overlay (/NC-HFM), and is subject to the review procedures established in the Missoula historic preservation ordinance requirements of Title 20.85.085 of the Missoula Municipal Code, and all applicable design guidelines established in Title 20.25.070 of the Missoula Municipal Code – Appendix A Development Guidelines and Standards for the Fort Missoula Historic District. The Fort Missoula Plan and the National Register of Historic Places nomination form provide additional information about the nature of the site and buildings in the area.

The applicant's representatives engaged in consultation with the HPO and provided special presentations to the HPC on the Fort Missoula Commons project, which includes exterior alterations to the Post Hospital and new construction, during the regularly scheduled HPC meetings on February 3, 2021; April 7, 2021; June 2, 2021; and May 4, 2022.

The proposed work includes (See Appendix A, HPP Application for details):

1. Post Hospital Exterior Alterations
    a. Power wash existing Stucco, repair where needed, and paint.
    b. Construct an elevator addition on the west elevation using direct applied thin Stucco finish over concrete board with texture to match the existing. Windows on the elevator addition will match the existing in style, finish, and color.
    c. Remove and salvage roof tiles for reinstallation. Reconstruct roof sections that have fallen off the building. Repair water damage to roof structure and sheathing.
    d. Refurbish fascia, eave, exposed rafter tails, exposed soffit sheathing, and trim. Historic materials will be replaced in-kind where refurbishment is not possible.
    e. Replace windows that are damaged or contain lead-based paint with metal clad wood windows with historical sticking and screens on all operable units.
    f. Repair damaged concrete and railings on entry stairs.
    g. Repair damaged concrete and finishes throughout exterior.
    h. Restore coping caps.
    i. Refurbish entry and replace current door with historic style door.
    j. Install infill guards with glazing panels to meet code.
2. New Construction
    a. Building #1
        i. One of two buildings proposed for construction to the northwest of the Post Hospital building. The footprint is approximately 120 feet long, 48 feet wide, and 25 feet 4 inches tall.
        ii. The materials for this proposed new construction include horizontal siding with medium exposure with a woodgrain texture, with a hip roof and asphalt architectural shingle roofing on a below grade foundation.
        iii. The north elevation features an entry ramp with handrail, an open front porch with box columns, three entry doors with transoms flanked by one over one fiberglass windows. Four additional sets of one over one windows are asymmetrically situated on the north elevation. The south elevation largely matches the north with entry stairs and handrails, three entry doors with transoms, and asymmetrical window placement.
    b. Building #2
        i. The second of two buildings proposed for construction to the northwest of the Post Hospital building. The footprint is approximately 70 feet long, 94 feet deep and 31 feet 4 inches tall.
        ii. The materials for this proposed new construction include horizontal siding with medium exposure with a woodgrain texture, hip roof with dormer, asphalt architectural shingle roofing on an exposed plinth foundation. An entry stair and handrails lead to a main entrance door with an 8-light transom; seven 32-light fixed windows on the main floor of the north elevation (four to the west of the front entrance and three to the east of the entrance); a dormer with two 15-light fixed windows flanking an 18-light fixed window. The north elevation features an open front porch with Doric columns to ease the transition between private and public space. The south elevation largely matches the north with exposed rafter tails, dormers, and asymmetrical window placement flanking an entrance door. The south elevation will feature two windows to the west and three windows to the east of the entrance. An accessibility ramp and handrail will also be installed.
    c. Building #3 - #6

i. Construct four buildings to the southeast and southwest of the Post Hospital building. Residential Buildings #1 and #2" are approximately 72 feet long, 75 feet wide, and 32 ½ feet tall. Residential Building #3 is approximately 96 feet long, 111 feet wide, and 32 ½ feet tall. Residential building #4 is proposed to be 120 feet long, 57 feet wide, and 30 ½ feet tall.

ii. The materials for this proposed construction include vertical channel or shiplap siding with a woodgrain texture, asphalt architectural shingle roofing, one over one fiberglass windows with Low E glazing and screens on operable units. On the north elevation, each unit features an entry stoop with covered entry, historic trimmed garage door, and a pair of matching one over one fiberglass windows on the second floor. The south elevations all feature private patios and balconies with private doors. A mix of window styles will be used on all four elevations of each building. Buildings three (furthest west) and four feature three units with associated gable roofs, overhangs along the rake, and no eave overhang. Building five features four units and building 6 (furthest east) features six units also with associated gable roofs, overhangs along the rake, and no eave overhang, with each unit having the elements listed above.

d. Building #7 (Community Center)

i. Construction of a 60-foot by 20-foot community center south of the Post Hospital with horizontal sizing, asphalt architectural shingle roofing, hip roof, and no porch but featuring a large entry plaza.

3. Nurse's Quarters
    a. Addition of accessibility features on the rear (south) elevation, including construction of new back stoop with concrete steps and ramp. No changes will be made to the primary elevation.
4. Landscaping
    a. Based on assessment done by an ISA Certified Arborist, dead and diseased trees will be replaced with a greater variety of species to minimize susceptibility to disease and increase the age diversity of trees. The removal of trees will be done in stages, with the first stage removing trees that pose a safety risk.
    b. Planting street trees at regular intervals to create a consistent pattern along the streets.
    c. Foundation plantings at the base of buildings including shrubs and perennials found throughout Fort Missoula.
    d. Planting native plants along portions of the southern property boundary in areas not interrupted by private patios and swale to protect the adjacent bank and enhance the existing vegetation and wildlife corridor.
    e. Creation of a plaza between "Commercial Building #1" and "Commercial Building # 2" that provides a visual break and an extension of the viewshed through the property from Mo Road.
    f. Construction of a paved parking lot situated between the "commercial buildings" and "residential buildings" and new entry driveway at the northwest corner of the parcel.
    g. Installation of site features including bike racks, benches, bear-proof trash receptacles, and split-rail fencing.
    h. Installation of a fire lane using concrete turf pavers to provide emergency access to the Post Hospital.
    i. Installation of concrete paver patios on the four buildings to the southwest and southeast of the Post Hospital to allow storm water infiltration on the site.
    j. A swale will be provided along the southern property line to minimize storm water runoff.

PROJECT BACKGROUND/STATUTORY REGULATIONS

1. The applicant's representatives (Tres Birds) met with City staff on January 5th 2022, where staff raised concerns regarding "how dense the proposal is." Additionally, staff informed Tres Birds that "other potential concerns may be that the hospital is being swallowed up by an architectural style that the hospital is not. Staff suggest[ed] Tres Birds use the 1910 – 1912 architectural period for visual continuity" and encouraged incorporating architectural details from the Post Hospital structure in the new construction. Tres Birds indicated that the four buildings along the southern property line would be two story front gabled buildings with simple massing. Further recommendations from staff included incorporating colors and textures from the Post Hospital and other historic resources in the historic district and following the existing setbacks of the buildings on the adjacent parcel to ensure visual continuity

throughout the area. Minutes from this meeting were provided to the applicant's representatives on January 26th, 2022.

2. The applicant's representative also updated the HPC on May 4th, 2022, where commission members raised concerns about the pattern of development and suggested incorporating a basic pattern of development, massing, and ground coverage that was more compatible with the Fort. Additional comments from the commission centered around exploring grants and historic preservation tax credits to offset the cost of rehabilitation, including one state grant that is available for amounts up to $500,000.

3. Additional feedback regarding design elements was provided to the applicant's representative (David V. Gray) on July 1st, 2022, clarifying that "the new construction should be compatible with the immediate area (1910 – 1912 revival area). Incorporating the prominent design elements (materials, scale, texture, patterns, roof shapes, color, etc.) of the historic fort is critical to maintaining the visual continuity and historic character of the Fort Missoula Historic District." Despite these recommendations by both staff and the historic preservation commission, the design remained largely unchanged.

4. Per Title 20.85.085.G.2.b, an HPP application can only be approved with conditions if "only minor modifications to the plans for the proposed actions subject to review are required to bring it into compliance."

SITE HISTORY & DESCRIPTION

Fort Missoula was founded in 1877 in response to perceived threats from indigenous Indian tribes. The efforts of Congressman Joseph Dixon of Missoula led to the appropriation of $1 million in 1904 to remodel Fort Missoula. Reconstruction began in 1906 and continued through 1912. During this time, new cast concrete buildings were erected in a curved row only a few hundred feet to the northeast of the original parade ground. Construction included a new Post Headquarters, seven cast concrete 2 ½ story buildings forming Officer's Row, two large 2 ½ story Company Barracks buildings, two Non-Commissioned Officers' Quarters, the Post Bakery, the Quartermaster's Storehouse and root cellar, a water tower, and the Post Hospital which was completed ca. 1911. The fort was used as a military training center during World War I and was nearly abandoned by 1921. In 1933, it was designated as the Northwest Regional Headquarters for the Civilian Conservation Corps.

The entire Fort Missoula Historic District clearly represents five relatively distinct periods of construction. The first four periods are associated with the actual operation of the military Fort and the fifth period reflects new infill construction after parcels of land were leased or sold by the Department of the Army to other entities. The five periods of building activity are: 1.) Original Fort Missoula (1877 – 1900); 2.) Fort Reconstruction (1900 – 1912); 3.) Civilian Conservation Corps (1933 – 1941); 4.) World War II Prison Camp (1941 – 1944); 5.) Contemporary Development (1970 – Present).

During the second period of Fort construction, from 1900 – 1912, buildings designed in the Mission style of architecture were most commonly built. Reinforced concrete was used as the major building material. These structures were built to the east of the original Fort and were part of the reconstruction and reorientation of the Fort around a new parade ground. Color and texture are provided in the broad, red-tiled hipped roofs of the buildings of this period. Roof eaves with exposed rafters extend well beyond the walls of many of the buildings. On some buildings, the plain wall surfaces continue upward forming stepped parapets. Minimal surface ornamentation was used, consisting primarily of plain string courses that outline gables, balconies, and windows. This style is seen in the Post Hospital, Officers' Row, the barracks buildings, the Quartermaster's stables, and the new Post Headquarters. Other structures constructed during this period are the Quartermaster's root cellar, the water tower, the Post Bakery, and two Non-Commissioned Officers' quarters. These structures retain excellent historic architectural integrity and are the basis for the military Fort as it is seen today.

Modern development has occurred at the Fort and can be broken down into two separate phases. The first consists of contemporary structures that were built on lands sold to private or public groups, i.e., the Community Hospital, Missoula

County, and private developers. These structures are primarily located on properties near Reserve Street and South Avenue and encroach upon the original entrance road. The new structures by and large are not designed in a fashion that achieves compatibility with the overall scale and massing of the structures within the original Fort. Because they are located some distance from the Fort structures, however, these newer buildings do not seriously undermine the visual integrity of the original Fort complex. Another aspect of development that occurred within the original Fort area was the importation of several historic buildings at the northwestern end of the complex by the Historical Museum at Fort Missoula. These structures do not relate to the history of the Fort, but, due to their placement away from the present parade ground, they do not interfere in any important way with the interpretation of the various periods of Fort Missoula's history.

Additionally, the Bureau of Land Management constructed a building within the boundaries of the historic district located near the fire station/guard house at the back end of Officers' Row. Careful attention was given to the design of this building to minimize its impact upon the architectural integrity of the historic district. The BLM office building keeps the appearance of the Mission style of architecture. Even though the building is only one story, the white, stucco wall material and red tile, hipped roof tie in with the Fort structures and lend the building a fair degree of compatibility.

When the Fort Missoula Historic District was formally listed in the National Register of Historic Places in 1987, the historic landscape was not included. A cultural landscape is produced when human interaction with the land leaves traces of historically significant use. A key component of a cultural landscape is its visual character. Analyzing the visual character of a cultural landscape includes identifying the area's original configuration, significant changes that have occurred through time, and current condition.

The visual character of any historic district is determined by three fundamental factors including the site configuration of the natural or manmade topography and vegetation, the layout or the way in which the travel routes are laid out and property parcels are arranged, and the architecture, specifically, the design of the buildings, structures, and objects.

In addition to site configuration, layout, and architecture, the extended viewshed of a historic property provides its larger visual context, how the property fits into its surroundings. Viewsheds are determined from and towards a central point of focus that include the significant elements of a project area and its surrounding landscape. The primary point of focus at Fort Missoula is the second parade ground. This area is centrally located within the Fort Historic District and has been in use since the reconstruction of the original post in 1908.

The historic district's cultural landscape generally reflects two significant periods within the context of Fort Missoula history. The first consists of an attempt to "beautify" the area following a national trend during the late 1800s and early 1900s. The second period consists of the landscaping conducted by the Civilian Conservation Corps (CCC) in the 1930s and early 1940s.

With the arrival of the military, the landscape of the area began to change. The first significant period reflecting the fort's landscape development resulted from the "City Beautiful" movement which swept the nation in the late 1800s and early 1900s. This movement attempted to fashion American cities into beautiful functional places that would inspire civic pride and moral responsibility. The ideal found physical expression in urban design, with public and semi-public buildings, and park and boulevard systems. These tokens of improvement were also found in ordinary street improvements, including "good pavement, attractive fixtures such as lampposts, and carefully selected and maintained trees."

The landscape at Fort Missoula reflects the City Beautiful movement in several ways. Examples from the fort landscape are evident in the very design of the fort complex as well as elements like the widened boulevard system, the careful selection and planting of ornamental shrubs and trees, and the addition of wrought iron fences, concrete sidewalks, raised boardwalks, raised planter flower boxes along the sidewalks on Officers Row, seeded grass lawns, and decorative fire hydrants and lampposts.

The military post at Missoula, which had an "open design" from the beginning, also followed the City Beautiful movement during the renovation of the fort complex between 1908 and 1912 (Flaherty 1978:15-16). During the renovation of the fort, tokens of improvement following the City Beautiful ideals were incorporated in the street and landscaping design. These included wider transportation routes around the new parade ground, street trees, lampposts, sidewalks, and low wrought-iron fencing to protect the new lawns seeded in front of the new officers' quarters. The sidewalks delineating the seeded lawns and new trees around the Post Hospital during this time were of a raised wooden plank construction, a unique system at Fort Missoula. Other landscaping improvements included raised flower boxes lining the sidewalks along Officers Row. These tokens of improvements, including the open interior views, delineated and cultivated lawns and street trees, and widened boulevards, helped craft a distinctive cultural landscape at Fort Missoula. As with the Presidio in San Francisco, Fort Missoula became both a park and a small military community within the larger and continually growing urban community of Missoula (Benton-Short 1998:39).

The second significant period of the fort's landscape configuration reflected the efforts of the Civilian Conservation Corps (CCC). Between 1933 and 1942 Fort Missoula served as a regional headquarters for the Corps. During the CCC's presence at the fort, the Corps conducted numerous landscaping projects including the planting of boulevard trees along the original entrance road and other areas of the fort.

The visual character of the reconstruction period, which occurred during the height of the City Beautiful movement nationwide, is the strongest presence within the fort complex. The Fort Hospital building, the buildings along Officers' Row, the large barracks buildings, the post-exchange and headquarters buildings, additional transportation routes, and the still undeveloped second parade grounds, all remain from the reconstruction period. The lawns and street trees, first added during this time and further improved upon during the landscaping efforts of the CCC, also serve as visual reminders of the fort's early history.

The district retains a high degree of historic architectural integrity, with the portion of the Historic District in the immediate vicinity of the 20th century parade ground noted in the National Register of Historic Places Fort Missoula Historic District Addendum and Boundary Increase as having retained the highest degree of historic architectural integrity. Although modern development has occurred on three sides of the present Fort complex, the cluster of historic Fort buildings, roadways, cemetery, and two separate parade grounds remain intact and accurately convey the historical development of the military post during the historic period from 1877 – 1944.

III. APPLICABLE ZONING REGULATIONS

Title 20 Zoning Ordinance, Section 20.85.085.H outlines the criteria for review of historic preservation permit applications. Title 20.25.070 outlines the Historic Fort Missoula Neighborhood Character Overlay; Title 20.25.070 – Appendix A outlines the Development Guidelines and Standards for the Fort Missoula Historic District. Regarding OP-3/NC-HFM permitted uses and compliance with parcel and building standards, the uses and setbacks proposed in this HPP application will require approval of a Planned Unit Development (PUD) rezone that will be considered under a separate process. An approved Historic Preservation Permit is required in order to proceed with the request to rezone the subject property from OP3/NC-HFM per Sections 20.25.030 (Planned Unit Development Overlay) and 20.85.060 (Planned Unit Developments).

IV. REQUEST FOR HISTORIC PRESERVATION OFFICER/COMMISSION APPROVAL

Except as otherwise approved in Chapter 20.30, Missoula Municipal Code, the characteristics of an historic resource that qualify it for designation shall be preserved and existing setbacks illustrating historic patterns of development shall be retained. Before issuing an HPP for alterations or new construction, the Historic Preservation Officer shall consider the cumulative effects on the integrity of the city's historic resources resulting from the requested HPP, any other pending HPP applications, and any previously issued HPPs. The Historic Preservation Officer shall also review the HPP application for

compliance with the *Secretary of the Interior's Standards for Rehabilitation* and/or any applicable design guidelines with the following criteria:

REVIEW CRITERIA

The Fort Missoula Commons (Post Hospital) Exterior Alterations and New Construction project is reviewed pursuant to the criteria for review listed in Title 20, *Section 20.85.085.H*, MMC, the Historic Fort Missoula Neighborhood Character Overlay, and all applicable design guidelines established in *Section 20.25.070 – Development Guidelines and Standards for the Fort Missoula Historic District (Appendix A)*, and the *Secretary of the Interior's Standards. (Standard in italics,* Findings and Staff Conclusions follows).

COMPLIANCE WITH MMC SECTION 20.85.085H:

H1.) *Alterations shall be compatible with the relevant characteristics or character defining features that qualify the Historic resource for designation and shall not diminish, eliminate, or adversely affect the historic character of the Historic resource. Consideration shall include, but not be limited to, elements of: Size, Scale, Lot coverage, Massing, Proportion, Architectural style, Orientation, Surface textures and patterns, Details and embellishments, Relationship of these elements to one another.*

APPLICANT'S RESPONSE TO CRITERIA:

"Size – An elevator for accessibility is the only building expansion planned for the Old Post Hospital. The footprint of the expansion has been kept as minimal as possible."

"Scale – The scale of the elevator addition has been kept to a minimum as not to compete with the existing OPH building."

"Parcel coverage – The coverage of the elevator had been kept as a minimum."

"Massing – The massing of the elevator has been kept to a minimum."

"Proportion – The proportions of the elevator has been kept narrow to maintain the verticality of the Hospital wings."

"Architectural style – The elevator has kept the architectural style of the building as requested by SHPO."

"Orientation – The orientation of the addition has kept the rectilinear modulation of the building's plan."

"Surface textures and patterns – The surface texture will try to be kept similar but will not be an exact match so it is not trying to create a false sense of history."

"Details and Embellishments – The architectural details of the eaves and windows shall be maintained."

"Relation of these elements to one another – The relationship of the new architectural elements on the addition have been designed to be sympathetic to the original building."

STAFF'S FINDINGS:

The Fort Missoula Historic District National Register of Historic Places (NRHP) nomination establishes that the Fort is eligible for listing under Criterion A (association with events that have made a significant contribution to the broad patterns of history) and Criterion C (embodying the distinctive characteristics of a type, period, or method of construction) and lists three buildings and one site that are associated with this proposed project as contributing to the district's significance for designation: the 3 ½ story concrete Post Hospital Building constructed in 1911, the one-story frame Hospital Staff Quarters constructed by the Civilian Conservation Corps (CCC) in 1938, the adjacent garage constructed by the CCC circa 1938, and the Fort Missoula Historic Landscape, which includes the site configuration, extended viewshed, and visual continuity provided through the predominantly Mission Revival architecture around the second parade grounds. According to the NRHP nomination, "the visual character of the reconstruction period…is the strongest presence within the fort complex" (p. 16) and "the historic landscape retains

a high degree of integrity representing the use of an area for specific purposes while integrating the natural environment. While undergoing some changes, the landscape still strongly reflects the rural setting of the original Fort." (p. 17)

STAFF CONCLUSION: Does not meet the criterion.

The proposed alterations to the Post Hospital generally meet the criterion. The character defining features of the Post Hospital will be preserved. Where historic materials cannot be repaired, they will be replaced in kind when possible, allowing the hospital to maintain the visual characteristics that qualify it for designation. However, the proposed window treatments would remove and not replace in-kind the historic window materials, opting for use of metal clad window replacements. The elevator addition is compatible with the Post Hospital with regards to size, scale, massing, architectural style, surface textures, details, and embellishments, but would result in a less significant impact to the historic district if the proposed location on the South elevation of the Post Hospital were used.

The proposed alterations to the site through construction of seven new buildings will adversely affect the visual character of the Fort Missoula Cultural Landscape due to significant alterations to the site configuration, extended viewshed, and the inclusion of contemporary design and materials proposed for the structures on the southern portion of the parcel. The size and massing of the proposed new construction are similar to that of the Post Hospital and would significantly diminish the primacy of the historic resources on the parcel. The Fort landscaping and use of an open landscape design reflect the historic development of the Fort during the renovation period of 1908 – 1912 and the Civilian Conservation Corps (CCC) improvements completed between 1933 and 1942. Through decades of change around the historic core of Fort Missoula, the historically open prairie surrounding the Post Hospital has allowed the hospital to retain its visual primacy. The proposed new construction, though slightly smaller than the Post Hospital in height, will ultimately detract from the Post Hospital by surrounding it with new development, removing the pedestrian view of the Post Hospital from northwest pedestrian viewpoints, and incorporating contemporary architectural style and materials that are inconsistent with the character of the Fort. This use of contemporary design elements and the overall reduction in the open setting through encroachment and modification of site features would have a significantly negative impact on the high degree of integrity noted in the NRHP nomination.

H2.) *New construction in historic overlay districts is not required to conform to specific architectural styles. Design of new construction shall be compatible with the character of historic resources in the immediate area but shall distinguish itself from historic resources and not create a false sense of history.*

APPLICANT'S RESPONSE TO CRITERIA:

"The design of the new construction on the parcel has been designed to be sympathetic to the historic character of the district while maintaining the change in architectural style of the district over time. The commercial buildings maintain a historic style while not matching the Mission Revival style of the primary district structures. The residential buildings change architectural style to maintain a progression of time in architectural styles within the district. These more modern structures are held back from the streets and are buffered by the commercial buildings from direct view. We felt this layering of architectural styles was more appropriate than the pre-engineered metal clad buildings of the late 20th century placed immediately adjacent to the Historic roads. Primary visible entrances to all new buildings were desired for a welcoming pedestrian interface which is the norm of the more historic buildings in the district."

STAFF'S FINDINGS:

Seven new buildings are proposed for construction. The two buildings to the northwest of the Post Hospital incorporate elements of CCC design seen in the CCC-era Nurses Quarters on the parcel, including horizontal orientation and horizontal siding. Further design elements were incorporated from Officer's Row, including the use of box and Doric columns, pronounced porches, roof style and pitches lending the buildings a relatively high degree of compatibility with the broader Fort Missoula Historic District. Four of the buildings to the south of the Post

Hospital propose to use vertical woodgrain siding, one-over-one window design, and front gable roofs in a contemporary style.

STAFF CONCLUSION: Does not meet the criterion.

Overall, multiple elements of the design of the new construction on the parcel are incompatible with the historic character of the Post Hospital and the broader Fort Missoula Historic District. While the proposed new construction would be differentiated from the old, it would accomplish this differentiation in such a way that would draw increased attention to the new buildings rather than working to create a harmonious connection to the broader ensemble of buildings. In an attempt to not mimic history or establish conjectural features, the new construction provides an array of styles that is contrary to compatibility with the historic district and diminishes the integrity of the site. The contemporary design and materials, including the use of vertical siding, gable end roofs, and asymmetrical window arrangements, are not compatible with the early twentieth century Mission Revival architecture that characterize the historic core of the Fort. Additionally, the prairie-like setting of the Post Hospital would be drastically reduced by the new construction that will effectively surround the existing historic resource resulting in a cumulative impact that would be in conflict with the National Register of Historic Places nomination and detract from the historic resources of historic Fort Missoula. Although the National Register of Historic Places listing speaks to new construction, it generally cites situations far removed from the historic core. In the example of the new BLM building, the listing determines the construction to be generally compatible with the Fort because of the contemporary interpretation of the Mission Revival style. This proposal with varying styles is within the historic core where contemporary, non-reflective styles are not compatible and will significantly diminish the integrity of the Post Hospital and the broader Fort Missoula Historic District.

H3.) *Alternative materials may be substituted for original materials when they have the same dimensions and form as original materials.*

APPLICANT'S RESPONSE TO CRITERIA:

"Newer technologies for stucco will be used on the elevator addition for longevity of material and maintenance. We will NOT be using EIFS on the addition. Manufactured trims may be used in place of sawn lumber but the dimension, form, and texture of the original trim shall be maintained. Manufactured trims are more dimensionally stable than sawn lumber and will perform better over time. The new buildings will have alternative materials to what was used on the CCC area [sic] and Mission Revival buildings but the historical proportions of the siding to the mass of the buildings will be maintained."

STAFF'S FINDINGS:

Restoration efforts on the Post Hospital will include repairing original materials where possible. When deterioration is severe, original materials will be replaced in-kind. Newer alternatives for stucco will be used on the elevator addition and will have the same form as the existing materials. The primary change to original materials involves the replacement of historic windows with metal clad traditional sticking windows.

STAFF CONCLUSION: Generally meets the criterion.

H4.) *Photovoltaic and solar hot water equipment are permitted and are not subject to this ordinance.*

STAFF CONCLUSION: N/A

COMPLIANCE WITH MISSOULA MUNICIPAL CODE SECTION 20.85.085H - STAFF CONCLUSIONS:

The proposed exterior alterations to the Post Hospital building would have a minimal effect on the integrity of the Post Hospital building and would result in the continued use and appreciation of the overall site. The addition for the elevator will allow for greater access to the building and has been designed in a manner that is both sensitive to, and compatible with, the historic Post Hospital building, especially if placed on the south elevation. This portion of

the project meets the criteria.

However, the proposed new construction would adversely affect the integrity of design, materials, and feeling of the Post Hospital and broader Fort Missoula Historic District. The integrity of setting encompasses an historic resource's physical environment and the historical relationship to its surroundings. Alterations to the cultural and natural landscape through incompatible new construction densely configured negatively impacts an historic district and diminishes an historic resource's ability to convey its historic significance.

Any new construction within the Fort Missoula Historic District should blend harmoniously with the existing built environment so that when taken in as a whole, the construction does not negatively impact the physical features that convey the district's historic character. The proposed new construction would contrast with the district through the use of modern design elements, building forms, and materials, drawing increased attention to the new construction, reducing the Post Hospital's primary focus on the parcel, and having an adverse effect on the overall integrity of Fort Missoula.

Project generally DOES NOT MEETS CRITERIA established in Section 20.85.085H.

COMPLIANCE WITH THE HISTORIC FORT MISSOULA NEIGHBORHOOD CHARACTER OVERLAY, 20.25.070 – APPENDIX A

Guideline Intentions. It is the intentions of these guidelines to:

1. Reinforce the character of the historic Fort area, and to protect its visual aspects;
2. Improve the quality of growth and development;
3. Protect the value of public and private investment which might otherwise be threatened by the undesirable consequences of poorly managed growth;
4. Provide an objective basis for the decisions of a design review board; and
5. Provide a tool for designers and their clients to use in making preliminary design decisions.

The guidelines are not intended to limit growth, or regulate where growth and development take place. They address only the visual impact of growth.

APPLICANT'S RESPONSE TO CRITERIA:

"As the guidelines are not intended to limit growth or regulate where growth and development takes place, we have studied the development patterns of the remaining historical buildings and campus of the district to determine what would be the most appropriate pattern of development. Parcels to the East and West of this project have covered more of their lots with buildings and surface parking. We have maintained the visual balance of the main thoroughfare and buildings creating a street defining wall of facades with porches. We studied buildings that have been lost to time and how they created additional density on what is currently open space. The review of the past development practices helped us determine a reasonable development pattern that preserved historic open space. Buildings and parking lots existed to the West and South of the Old Post Hospital. We have kept our development to the West and South of the Old Post Hospital to follow historic development practices on the site."

STAFF'S FINDINGS AND CONCLUSIONS:

While the guidelines are not intended to limit growth, or regulate where growth and development take place, they are intended to address the visual impact of any proposed growth. Visually, this proposal will drastically alter the Post Hospital parcel. The proposed development would change the parcel from one with a generally open layout and a single dominant building with two accessory buildings with smaller scale and smaller footprints to a crowded parcel with six new large buildings and a new accessory structure (community building). These large new buildings will fill the open space to the south and northwest of the Post Hospital, reducing the primacy of the Post Hospital at the southern end of the historic core of Fort Missoula, which is the most visually intact portion of the Fort remaining today. This will adversely impact the character of the historic Fort area and detract from its existing visual aspects. Additional elements adversely affecting the character of the Fort area include the use of incompatible contemporary

design elements and materials on the buildings along the southern and southeastern property line. Vertical siding is not found anywhere else in the historic resources of this section of Fort Missoula and the roofing style drastically differs from the Post Hospital lending a high degree of incompatibility to those buildings. The two buildings to the northwest of the Post Hospital generally incorporate design elements found throughout Fort Missoula. The large footprint of the buildings, however, serves to diminish the centrality of the Post Hospital on its parcel.

General Development Guidelines: Fort Missoula, which was placed on the National Register of Historic Places in 1987, retains the highest degree of historic architectural integrity in the portion of the historic district in the immediate vicinity of the 20th century parade ground. This area was developed between 1900 and 1912 and is characterized by the primarily Mission Revival architecture of the buildings that face the parade ground.

These structures are made of reinforced concrete, with the color and texture provided by the broad red tiled hipped roofs. The roof eaves exhibit exposed rafters well beyond the walls of the buildings, and the walls of the structures continue upwards in places forming step parapets and evidence minimal surface ornamentation, such ornamentation consisting primarily of plain string courses that outline gables, balconies, and windows. The architecture of these structures finds its source in the design of Fort Hauchuca which was constructed at the same time near Tucson, and as such is unique to this region, as Mission Revival architecture had little, if any, precedent in the Northern Rockies at the time of the Fort's construction.

Therefore, the development standards for this district have been established according to the principle that the Fort's architecture should not be challenged in its uniqueness. Genuinely historic structures are irreplaceable. Any attempts to duplicate or imitate them with new construction would lessen our understanding of the historic context of the Fort's architecture, diminish the original architectural statement, and would be a poor tribute to their value. Instead of pseudo-old buildings that falsify or confuse the historic record of the Fort's architecture, development standards will require that they control design without legislating taste or unduly constraining creativity. While it is the standards' intent to encourage the development of an architecture that employs major elements that characterize those structures created between 1910 and 1912 in the Fort, they are not intended to result in slavish imitations of this architecture or in the creation of pseudo-old buildings.

APPLICANT'S RESPONSE TO CRITERIA:

"We have tried to not mimic and dishonor the Mission Revival architecture of the 1910-1912 era of the Fort. We have kept an architectural style that is sympathetic to the history of the Fort as it would impact or take away from the views from the parade grounds or streets into the site. We have kept a sense of development over time within the site so the new development doesn't have a single style that could dominate or diminish Contributing buildings on the site. We have stayed aways from an ultra-modern clean style of development but maintained a minimalist trim language that is present on the Old Post Hospital. We maintained a vertical proportion to windows in primary facades to keep in harmony with the Old Post Hospital and adjacent buildings to the site. We have some diversity in fenestration the new development but not to the extent it would dominate a particular view around the site."

STAFF'S FINDINGS AND CONCLUSIONS:

The structures in the vicinity of the 20th century parade ground are characterized primarily by Mission Revival architecture with reinforced concrete and broad red tiled hipped roofs and represents one of the earliest uses of Mission Revival architecture in the Northern Rockies. The guidelines are intended to control design and encourage the development of architecture that incorporates major elements that characterize the buildings of the second reconstruction period (1910 – 1912). New construction can incorporate the characteristic design elements into a simpler design that clearly differentiates the old from the new, while still remaining compatible and visually consistent with the surrounding historic resources. The new construction does not incorporate enough of the characteristic design elements to conclude that the new construction is compatible with the development standards. Additionally, the approach of designing with a sense of development over time is not guided by these standards. The proposed contemporary style for four of the seven new buildings will detract from, and challenge, the uniqueness of the Mission Revival style as it would become the new dominant architectural style of this portion of the historic district.

A genuinely historic building is a very real, valuable, and irreplaceable document from the past, and imitation is merely a forgery that lessens the worth of the original document and warps our understanding of our heritage. History is a record of change, and modern imitations of historic building styles falsify the record. The original Fort architecture contains buildings from a period that represents a history that would be less vital if its architecture were to be mimicked.

General Site Development Standards. While imitation of the architecture of the buildings at the historic Fort will be discouraged, the replication of major site development design aspects as observed in the Fort area will be encouraged, so that new development will employ the existing pattern of regularity in the placement of structures; the spaces between them; front yard setbacks; and type, placement and size of landscape elements. All of these different elements need to be developed in place with a sense of alignment, relationship, and continuity, so that there finally is a sense of unity among all elements, sites, and structures.

Particular attention should be paid to the appearance of any new development as it is seen by pedestrians so that there will be encouraged a sense of scale appropriate and inviting to the pedestrian; all buildings should have some entry statement visible from the street, not the least of which would be porches. All on-site parking should be located out of public view as much as possible and should not be at the expense of public on-street parking.

APPLICANT'S RESPONSE TO CRITERIA:

"Commercial buildings #1 and #2 maintain the front porch in close proximity to the sidewalks with boulevards and defined entries facing the street. The residential buildings do not front the street but they still maintain a stoop and covered entry."

STAFF'S FINDINGS AND CONCLUSIONS:

The design guidelines state that imitation of the architecture at the Fort will be discouraged, but the replication of major site development aspects will be encouraged, including the existing pattern of placement of structures, the spaces between them, front yard setbacks, and type, placement, and size of landscape elements. While the new construction abutting the sidewalk will feature the requisite entry statement visible from the street, including front porches, the front setback is significantly less than that of other contributing historic structures around the parade ground because the porches encroach into the consistent boulevard surrounding the parade ground. Buildings such as the barracks and those comprising Officer's Row feature porches that work congruently with the City Beautiful movement inspiration for landscaping at the Fort by maintaining open green space on both sides of the public sidewalk. The new construction is proposed to be sited within the area that is traditionally open green space throughout the Fort, resulting in buildings that are much closer in proximity to the sidewalk than is seen elsewhere in the Fort. Furthermore, the pattern of building placement and spaces between the buildings in the proposed new construction along the southern property line varies significantly from the pattern of development seen throughout Fort Missoula. This proposed design is inconsistent with the existing building setbacks that characterize the Fort diminishing the visual continuity and unity of the historic district.

General Building Design Standards: It is the intent of the design standards that they control design without legislating taste or unduly constraining creativity. It is the standards intent to encourage the development of an architecture that employs major elements that characterize the historic Fort structures, while not copying them. The existing structures should provide a point of departure and reference for the design of new structures and development within the project area. The existing historic style should provide the framework to define new construction in terms of height, scale, setback, rhythm, materials, patterns, textures, details, roof shapes, color, and other elements that help define the distinct character of what already exists. The final result should evidence the use of new and creative interpretations of past styles to service contemporary needs. Use of materials should be similar in scale and texture to those used already, and the employment of new and creative interpretations of details is to be encouraged.

APPLICANT'S RESPONSE TO CRITERIA:

"Commercial buildings #1, #2 and the Community building keep the hip roofs, historically sympathetic styles, and patterns of the district. The Commercial buildings keep a plinth for the buildings to rest on with the 1st floor above grade. Steeper roof pitches and exposed rafter tails, at times, were employed. The Community building scale is

sympathetic to the CCC constructed building to the West of the site. The Residential and Commercial buildings have a vertical proportion to their design which is closer to those of the Old Post Hospital."

STAFF'S FINDINGS AND CONCLUSIONS:

The buildings known as "Commercial buildings #1 and #2" generally employ elements that are found throughout the Fort Missoula Historic District but are combined in a way that is not evidenced elsewhere in the historic district. The design elements incorporated into the four two-story buildings draw minimal reference to the surrounding historic buildings in style, materials, patterns, textures, color, or setbacks. Additionally, the roof forms of the four buildings along the southern and southeastern property lines are not compatible with the framework of the existing historic style found in the contributing structures within the historic core of the Fort Missoula Historic District. The final result is a development that is largely incompatible with the Fort because the majority (four of seven) of the buildings proposed for construction do not represent creative interpretations of past styles, instead speaking to contemporary styles and materials designed to service contemporary needs in a manner that will not blend harmoniously with the historic character of the Fort.

The foundation of the intent of the district's development standards is to be concerned not specifically with styles, periods, or architectural themes, but with relationships of spaces, building details, and street scape. The final result of development within the district is to represent the construction of buildings that, while modern and contemporary, retain reference and regard for the context within which they are placed. The goal, finally, is the creation of strong visual continuity within the context of contemporary design solutions, playing upon and within historic themes, so that ultimately the development is recognized as a product of the present and not a false product of the past.

Four terms will be very useful to identify basic relationships among buildings and spaces without specific references to styles of architecture. These terms are pattern, alignment, size, and shape… Finally, what needs to be recognized is that what is of most concern is not style, periods, or architectural themes, but relationships of spaces, buildings, building details, and building materials.

APPLICANT'S RESPONSE TO CRITERIA:

"The Commercial Buildings #1 and #2 maintain the street development pattern and alignment with the street edge, though the property line of this parcel is the street edge which is different than the rest of the district. We are proposing installing the boulevard and sidewalks within the property to preserve the historic street curb location and character to the East and North."

"The footprints of each of the buildings are not smaller nor larger than what is existing in the district. Tall dominant ceilings are planned for the commercial building interiors which will be evident in the size and massing of the buildings similar to the historic buildings in the district. Columns along the front porches maintain particular patterns of the main streets."

"The shape of the new buildings are simple rectilinear forms prominent within the district without oblique angles or large curved protrusions preserving the development pattern. We have sidewalks and pathways connecting all buildings on the site as they meander whilst connecting unimproved dirt paths on adjacent parcels. We also maintained the open space fronting the major streets in front of the Old Post Hospital preserving its historic vista."

"This development will create similar relationships of exterior space, places to gather and building details of the district. Material aesthetics shall be maintained for a cohesive language of the district."

STAFF'S FINDINGS AND CONCLUSIONS:

The most common pattern types identifiable in any historic district are found in building materials, and the pattern formed by repeating building materials throughout a historic district contributes to its overall sense of cohesiveness. Landscape elements also contribute to a sense of pattern and continuity. The diversity of proposed contemporary materials, colors, and design of the new construction will detract from the visual continuity of the historic core of

the Fort as it is not in keeping with the dominant design style, patterns, textures, or colors that characterize the district. While the footprints of the two northernmost buildings are relatively consistent with the overall pattern found at Fort Missoula, the concentration of large buildings around the Post Hospital will relegate it to a secondary position on the parcel as the new construction would overwhelm the historic building, eliminating pedestrian viewpoints to the hospital from the northwest.

Alignment is equally important in identifying relationships among buildings and spaces and is one of the most effective ways to create a sense of relationship and unity among elements. Building setbacks relate to alignment if buildings are consistent in their setback, lending to a sense of continuity. The building setbacks proposed are not in alignment with existing buildings and detract from the regularity and pattern that existing setbacks at the Fort create. On the north end of the property, the new buildings are not consistent with setbacks of the barracks buildings or those of Officer's Row where the City Beautiful design elements strongly contribute to the overall character of the Fort. Additionally, they are not consistent with the setbacks seen on the CCC-style buildings on the parcel to the west and would detract from the district's visual continuity as it removes the transitionary buffer between parcels that is characteristic throughout the Fort.

The size and shape of the proposed construction on the northern property line are generally consistent with the size of other buildings found throughout the Fort, but the similarity of footprint size of these buildings to that of the Post Hospital create an imposing and distracting emphasis on the new construction. Additionally, the other new buildings are far more densely located and this creates a dissonance between the pattern, alignment and size of the buildings found throughout the historic district. While specific architectural style is not the primary concern of the development guidelines, relationships of spaces, building details, and building materials is of primary concern. The proposed project pulls certain elements from other buildings throughout the historic core but taken as a whole the proposal is inconsistent with the character, materials, textures, colors, and relationship of spaces that contribute to the Post Hospital and Fort Missoula's historic significance and would have a cumulatively adverse effect on the historic district.

COMPLIANCE WITH MISSOULA MUNICIPAL CODE SECTION 20.25.070 - STAFF CONCLUSIONS:

Project DOES NOT MEET THE INTENT of the Historic Fort Missoula Neighborhood Character Overlay, Development Guidelines and Standards.

COMPLIANCE WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES:

The *Secretary of the Interior's Standards* are ten basic principles created to help preserve the distinctive character of a historic building and its site.

The Standards (36 CFR PART 67) apply to historic buildings of all periods, styles, types, materials, and sizes, and to both the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building's site and environment as well as attached, adjacent, or related new construction.

The Standards are applied to projects in a reasonable manner, taking into consideration economic and technical feasibility.

Standard #1) *A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.*

APPLICANT'S RESPONSE TO CRITERIA:

"The Old Post Hospital will have new uses in it that are compatible with the building. Required Building Code upgrades are the intended primary modification to the building other than restoration efforts. The Nurses Quarters will remain as an office use but accessibility improvements shall be made to it. Unfortunately, the garage/shed has fallen into a state of disrepair that it is fiscally unviable to restore and it will be removed. The site will have new

buildings that conforms with historical context, architectural elements, scale, and relationships to landscape. The site has contained other buildings and improvements (refer to Archeological Report) so it has not been historically an open space. It is open now due to the loss of the buildings and improvements. Onsite parking shall be located discreetly out of direct view of public as much as possible. The site was historically commercial with residential structures and will maintain that with this project."

STAFF'S FINDINGS:

The renovation of the Post Hospital building will allow it to be placed in a new use requiring minimal change to the defining characteristics of the building. The Nurse's Quarters will remain in its current use as office space, requiring only minimal alterations in the form of accessibility improvements.

The construction of new buildings will bring the site into a new use that requires significant alterations to Fort Missoula Historic District's historical context, architectural elements, and relationships to the landscape. Currently, the Post Hospital parcel is comprised of approximately 95% open space and 5% building coverage, which contributes to the open space that characterizes Fort Missoula through the cultural landscape, which is a contributing element to the Fort Missoula Historic District. The proposed project would increase the buildings and supporting improvements to 44%. Additionally, the architectural styles, elements, materials, textures, colors, and roof forms of the proposed new construction are generally inconsistent with the surrounding buildings. Thus, the proposed placement, configuration, and architectural elements of the new buildings substantially impact and modify the site characteristics and environment critical to the National Register of Historic Places criteria cited in the nomination.

Standard #2) *The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features, spaces, and spatial relationships that characterize a property shall be avoided.*

APPLICANT'S RESPONSE TO CRITERIA:

"The historical character of the property will be preserved; improvements to existing buildings include: Life Safety improvement, revegetation, Electrical systems, Mechanical systems, plumbing systems, window replacement, energy upgrades, exterior restoration, and reuse of clay roof tiles wherever possible. The open greenspace around the North and East sides of the original Old Post Hospital property shall be preserved. The Mission style architecture will not be changed. The elevator addition shall maintain the Mission style architecture of the hospital as requested by SHPO."

STAFF'S FINDINGS:

The Post Hospital building will undergo necessary rehabilitative changes, including replacing in-kind damaged section of the tile roof, replacing windows, and repairing damaged architectural details throughout the building. Historic windows will be replaced with metal clad traditional sticking windows. For all other repairs, historic materials will be repaired rather than replaced where possible. The proposed elevator addition will be compatible with the design, materials, and appearance of the Post Hospital, while being differentiated as a new addition to the building, though the impact to the historic character of the Post Hospital could be greatly reduced by constructing the addition on the south side of the building, out of view from the primary elevation.

Additional changes are proposed on the parcel in the form of constructing seven new buildings, for a total of nine buildings on a parcel which currently features three. This increase in building coverage from 5% to 44% of the parcel would unequivocally alter the space, visual character, historic landscape, and spatial relationships within the site that define the Post Hospital and the Fort Missoula Historic District.

Standard #3) *Each property shall be recognized as a physical record of its time, place, and use. Changes that create* a *false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.*

APPLICANT'S RESPONSE TO CRITERIA:

"To preserve decades of changing architectural style at the Fort, the new buildings will retain a historical style of architecture but not copy the original mission style or try to create a false sense of history. The architectural style will vary over the site to maintain the physical record of time. The Fort does not have one style of architecture, its campus contains mission style, bungalow, contemporary, and pre-engineered metal buildings. The elevator added to the Old Post Hospital will match the character of the building, but we will not embellish the original building with elements so as to create conjectural features."

STAFF'S FINDINGS:

The elevator addition to the Post Hospital building will be consistent with the character of the main building but will be differentiated from the old so as not to create a false sense of historical development. Conjectural features of false history will not be added. The Post Hospital and extant accessory buildings are physical records of their time, place, and use and all structures historically constructed near the Post Hospital have served to support the hospital's operations (both the Nurse's Quarters and the garage were constructed in 1938). Any alterations to the buildings or site need to strike a balance between compatibility with the existing building styles and uses and the physical historical record that the hospital conveys. The historic purpose and character of the Post Hospital are uniquely visible to visitors through its largely isolated nature, depicting the reality that the hospital was central to public health management and a component of the larger internment camp operations throughout the Fort. New construction must not challenge the hospital's ability to convey its historical significance. Furthermore, while CCC-style architecture is found on the parcel through the Nurse's Quarters and garage, the Mission Revival style needs to remain the primary architectural style of the parcel so as not to detract from the Hospital's ability to convey its historic association with the 1910 – 1912 period of significance under which it was listed in the National Register of Historic Places or its association with the military operation of the Fort. The new construction found along the southern property line would employ contemporary architectural styles that are in contrast to the established pattern and architectural styles found both on this parcel and throughout the broader Fort Missoula historic core.

Standard #4) *Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.*

APPLICANT'S RESPONSE TO CRITERIA:

"The open greenspace on the Northeast corner of the hospital will be preserved and maintained. Open space preserving the view of the hospital from the Northwest shall be maintained. The West and South portions of the parcel have had other buildings and improvements on them over the decades. Although those improvements have been lost the new development will the historic development nature of the site."

STAFF'S FINDINGS:

Although the Post Hospital once featured accessory structures to the south of it, those buildings were constructed to support the ongoing operations of Fort Missoula and the Post Hospital and were removed from the landscape by 1944. The open space landscape that characterizes the Post Hospital today represents the historic character of the property since at least 1944 and has thus gained significance in its own right as conveyed through the National Register of Historic Places listing. This project proposes to alter site features, historic landscape, and spatial relationships within the Fort that have gained significance in their own right.

Standard #5) *Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.*

APPLICANT'S RESPONSE TO CRITERIA:

"Historical details and features will be preserved and replicated in kind where applicable in the reconstruction and restoration process. The Old Post Hospital has lost sections of roof on the South façade that will need to be

replicated. Dry wrought and damaged architectural details shall be repaired and/or replaced to match. The parapets and caps shall not be replaced with break metal but repaired in place and liquid waterproofing applied to them as requested by SHPO."

STAFF'S FINDINGS:

Distinctive features of the existing Post Hospital building will be preserved or replaced in-kind where deterioration is severe. Damaged roof tiles and exterior architectural details will be repaired or replaced to match. SHPO recommendations for treatment of the parapets and caps will be followed. The primary distinctive features that characterize the Post Hospital that will not be preserved are the original windows, which are proposed to be replaced with metal clad, insulated glazed units with matching traditional mullion profiles. The application makes no reference to exploring restoration rather than replacement of the original windows despite restoration and continual upkeep providing the same longevity as the proposed metal cladding. Despite the proposed window changes, overall, the proposed exterior alterations to the Post Hospital serve to preserve the distinctive features, finishes, and construction techniques that characterize the Post Hospital.

Standard #6) *Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.*

APPLICANT'S RESPONSE TO CRITERIA:

"Historic features will be repaired rather than replaced when possible. The replaced features shall be replaced with in kind materials. The windows shall be replaced with traditional sticking and profiles custom made for each opening. The windows will be metal clad, insulated glaze units with matching traditional mullion profiles. The window cladding being the predominant difference in the window materials, but the longevity of the units must also be taken into consideration. Any restoration of historic exterior architecture will preserve the original integrity of the building, texture, form, and appearance."

STAFF'S FINDINGS:

Deteriorated features will be repaired where possible and replaced in-kind where warranted. The primary replacement of materials on the Post Hospital building that will not be done in-kind is the removal of the existing windows and replacement with metal clad, insulated glazed windows. There are numerous photos of the Post Hospital building across several decades that can guide the restoration efforts, ensuring that any new materials used will match the old in design, profile, color, texture, and other visible qualities.

Standard #7) *Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible*.

APPLICANT'S RESPONSE TO CRITERIA:

"Restoration measures will be sensitive to the material. Sandblasting of exterior surfaces are not anticipated except potentially at window openings to remove sealants and paint from the rough opening. Corn cob and nut shells shall also be investigated for use in these areas as the abrasive."

STAFF'S FINDINGS:

No chemical treatments are currently planned for the project. Physical treatment (sandblasting) is not anticipated, but if it deemed necessary, sandblasting (or a corn cob/nut shell alternative) may be used at window openings to remove sealants and paint. The Post Hospital building will be power washed prior to painting.

Standard #8) *Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.*

APPLICANT'S RESPONSE TO CRITERIA:

"An Archaeologists has compiled a report which states the site has been too disturbed to gather scientifically viable artifacts. With that, if any artifacts or remains are discovered on the site during construction the means and methods listed in the report shall be used to preserve and/or study the site. The extent of utility, roads, parking lots, military procedure and irrigation on the site has disturbed much of the surface of the site. These disturbances could have moved or added artifacts to the site taking away their scientific significance. Mitigation measures shall be taken if archaeological resources are discovered and must be removed or disturbed. Some fence post fill and post bases of a guard tower have been located. The post bases will be removed as they are within the footprint of Commercial Building #2. Some of the fence post fill elements may be able to be preserved in place. Signage as a mitigation could be provided to explain what was found and documented. The post bases and fence post fill that will be removed could be donated to the Fort Museum if they would like them."

STAFF'S FINDINGS:

The applicant provided an archaeological report marking the locations of any objects found during a Phase I survey which included metal detection over the parcel. The report indicated that some potential fence post fill and post bases of a guard tower have been located. Excavation across the site will need to be monitored, and mitigation will be completed for any objects discovered. The applicant has offered interpretive signage to mitigate the removal of known archaeological findings, including the fence post fill elements.

Standard #9) *New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.*

APPLICANT'S RESPONSE TO CRITERIA:

"The addition of an elevator to the Old Post Hospital will be done with care as to not destroy the historic character of the building. Expansion joints will be added between the new and old sidings to help differentiate the addition from the original architecture. The elevator will be located on the West or South side of the building to minimize the impact to the building. The West side currently appears to be the most beneficial location as it can serve all stories with the least amount of exterior or interior impact. The South location could work to access portions of the building but not all of the building. Locating an elevator within the existing envelope has not been found to be viable as a tower would need to be added above the existing roof due to lower ceiling heights. New windows shall maintain historical proportions and style."

"The new buildings and supporting improvements on the Site are within the density ratios of the surrounding parcels. 44% of this projects parcel will be buildings and supporting improvements which matches the Childhood Development Center density. The Forest Service parcel to the East is 59% buildings and supporting improvements. The Parcel to the North (Northern Rockies Heritage Center) is 23% developed but improvements have been lost to fire and age on that parcel. The commercial buildings fronting Lt. Moss Road follow a similar pattern as the other buildings along the street with boulevards, sidewalk and building setbacks. Front Porches are included on the commercial buildings to maintain the architectural language of the main streets. The original views into and of the Old Post Hospital have been maintained by preserved open space and strategically placing new buildings."

"The new commercial buildings have a historic architectural language with borrowed elements used on the Lt. Moss Road including: front porches, columns on the porches, raised plinths for the buildings, vertically oriented window proportions and hip roof forms. The style is not matching the Mission style of the Old Post Hospital, so as to not provide a false sense of history, yet still be sensitive to the historic ambiance of Lt. Moss Road. The residential structures have a more contemporary feel to represent the changing styles of architecture at the Fort and are buffered from the main drives by other buildings and site amenities. This way they work with the evolving history of the campus but are diminutive of the overall architectural styles present at the fort."

STAFF'S FINDINGS:

The new elevator addition to the Post Hospital will not destroy historic materials that characterize the property. The design has been proposed to be as unobtrusive as possible and will result in minimal effect to the character defining features of the Post Hospital. Though the design of the elevator addition is largely compatible with that of the Post Hospital and would clearly be differentiated from the old, there would be a less significant impact on the Post Hospital if the proposed location on the South elevation of the Post Hospital were used as it would be on a non-primary elevation, so as to minimally impact the exterior appearance from the hospital's primary (north) elevation. The new construction will be significantly differentiated from the old through design features, materials, textures, configuration, massing, and size in such a way that will adversely effect the historic integrity of the property and its environment due to the contemporary feel and uncharacteristic mix of architectural styles.

Standard #10) *New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

APPLICANT'S RESPONSE TO CRITERIA:

"The addition of an elevator is planned to be the least harmful to the building over time. The West location appears to provide the limited impacts required by this section. Particularly as the elevator would affect the long-term circulation of the building to a very limited extent. The exterior walls would only be impacted at windows sills except for the basement level. The wood framed roof would also be relatively simple to repair. If the elevator was removed at a later date minor repairs would be needed to erase its existence from the original building."

"The other buildings added to the site could be removed and the area brought back to original grade and landscaping. Multiple other improvements have been on the site over time from barracks, possibly a caretaker residence, guard towers, roads, parking lots and fencing. When most of them were removed no trace of them is formally known to be on the site. The removal of new improvements would be in line with the other improvement the site used to contain."

"A forester has completed an assessment of the treescape on the site. From historic photos we know the site was devoid of trees and was in a prairie valley. Trees were planted on the site over many decades to beautify the property. Those trees are now dying, have died, have had storm damage making them a hazard or have been unmaintained for so long that they are in poor health. The majority of the trees on the site have been deemed by the forester as needing to be removed. Some imminently and others maybe over the course of several years. The Landscape Architect has addressed the replacement of the treescape to provide a transitional period with a less significant abrupt replacement of trees."

STAFF'S FINDINGS:

If the elevator addition were removed in the future, the existing Post Hospital building could be restored. The new construction could be removed and the landscape returned to its current condition.

COMPLIANCE WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES - STAFF CONCLUSIONS:

In determining a project's compatibility with its historic setting, the cumulative effect should be examined with regards to the degree of change required to the historic building or district's character defining features, including but not limited to its setting and architectural styles.

The historic character of the property includes both the Post Hospital and the broader Fort Missoula Historic District. The site, landscape, and setting of an historic building are critical components of its historic character. The Secretary of the Interior's Standards require that rehabilitation and new construction projects maintain compatibility with their historic setting and involve minimal changes to the character defining features of a building/district, including its setting and architecture. The Post Hospital has historically been characterized as a Mission Revival building on a spacious lot. The

restoration work proposed for the Post Hospital building is largely in keeping with the Secretary of the Interior's Standards for Rehabilitation. Where repair is possible, historic materials will be repaired with the exception of the original windows, which should be restored and reused if possible. Where deterioration is severe, replacement materials will match the original in design and appearance. While accessory structures to the Post Hospital have previously existed on the parcel, the historic significance of the Post Hospital standing on open space with two small accessory structures (the garage and Nurse's Quarters) adds to the overall character of the Fort Missoula Historic District as defined at the time of listing in 1987 and the boundary increase nomination form of 2012, when the Post Hospital parcel featured only the three structures that exist on it today. The hospital's surrounding open space remains a key component of its historic significance, which passes the industry test of having gained significance in its own right.

The Secretary of the Interior's Standards are also applied to new construction. Standards 1 and 2 recommend that historic properties be adaptively reused in ways that require minimal changes to the distinctive materials, spaces, and spatial relationships in order to retain historic character and not detract from the historic significance. According to the National Register of Historic Places nomination, "one of the most compelling physical features of the district is the historic landscape. The historic landscape retains a high degree of integrity representing the use of an area for specific purposes while integrating the natural environment. While undergoing some changes, the landscape still strongly reflects the rural setting of the original Fort." Maintaining the visual character of the Fort is the only way to preserve this significant historic landscape and "the visual character of the reconstruction period…is the strongest presence within the fort complex," as seen through the Post Hospital, Officer's Row, and the Second Parade Grounds. The addition of seven new buildings would significantly alter the historic setting of the hospital, downgrading it from the central, primary feature of the site to just one element in a larger configuration of new construction that bears little relationship to the historic context of the district. In addition to the effects on the Fort's historic setting, the majority of the architecture proposed (four of the seven buildings) bear little relationship to the historic architecture at the Fort in materials, texture, or style. As a part of the historic core of the Fort Missoula Historic District, the Post Hospital and adjacent contributing structures are predominantly in the Mission Revival style with characteristic white concrete and red tile roofs. Additionally, the massing and proximity of the new construction detract from the Post Hospital's ability to convey its historic significance as it would be surrounded largely by an incompatible architectural style and site configuration. As such, the proposed changes to the historic landscape of Fort Missoula would significantly diminish the historic visual character of both the Post Hospital and the broader Fort Missoula Historic District.

Standards 3 and 4 require recognition that historic properties change over time and that individual properties and broader historic districts serve as a physical record of their time, place, and use. As such, both original materials and features of the site/building and those changes which have gained significance in their own right are to be preserved. Any changes that propose to remove or significantly alter those elements are to be avoided. While the Post Hospital at various points in its history has had a mix of accessory buildings located on the parcel with it, those buildings represented the historic use of the hospital and their removal in the past is now a change which has gained significance in its own right. At the time of listing in the National Register of Historic Places, the Post Hospital, Nurse's Quarters, and Garage were the three buildings that were determined contributing to the historic district. Justifying additional construction on the basis of previously existing development on the parcel is creating a false sense of development that is in extreme contrast to the historic conditions of the Post Hospital and would result in an adverse effect to the historic district.

Similarly, the Secretary of the Interior's Standards related to new construction indicate that they can be in any architectural style—traditional, contemporary, or a simplified version of the historic building, but notes that "there must be a balance between differentiation and compatibility to maintain the historic character and the identity of the building." This balance is not found in the submitted proposal. While the Standards and the related Development Guidelines for Fort Missoula stress the importance of not creating a false sense of history through mimicry of the existing buildings, the proposal presents a plan for new construction that is in extreme contrast to the existing conditions at the Fort. New construction adjacent to an historic building should match the scale, materials, and textures, of the existing historic building and be located at an appropriate distance from the historic building to maintain its historic character.

This proposal does not strike the required balance between compatibility and preservation of the Post Hospital and Fort Missoula's historic character. The new construction would largely diminish the centrality of the Post Hospital on its parcel, negatively affecting the hospital's ability to convey its historic significance and would fundamentally alter the character of the Fort Missoula Historic District and as such does not meet the Secretary of the Interior's Standards & Guidelines.

Integrity is a property or district's ability to convey its historic identity, most commonly determined through the degree to which the physical characteristics of the property during its period of significance have survived. As previously noted, the National Register of Historic Places nomination indicates that the Fort Missoula Historic District retains the highest degree of integrity in the parcels surrounding the second parade grounds, including the Post Hospital. The easiest way to determine the integrity of an historic site is to determine what degree of the historic site's significant materials, features, and characteristics are still evident today. Preservation efforts often focus primarily on preserving a site or building's historic fabric. The historic fabric would be greatly reduced by the proposed project's significant changes to the site, setting, and landscape of the Post Hospital and Fort Missoula through overcrowding of an historically open space, use of contemporary design and materials with little reference to the historic characteristics of the Fort that qualified it for listing in the National Register of Historic Places.

Project DOES NOT MEET the Secretary of the Interior's Standards for Rehabilitation.

VI. PUBLIC COMMENT

All public and agency comments received as of March 28th are included in Appendix B – Public and Agency Comments in combination with comments related to Agenda Item 5.1.

VII. STAFF CONCLUSIONS AND RECOMMENDATIONS

CONCLUSION:

As discussed above, the major historical architectural features, landscape, and site characteristics that distinguish Fort Missoula will be adversely affected by this proposal. The proposed new construction generally does not fit within the context of the existing site and would exist in stark contrast to the site's historic fabric and would have a cumulatively adverse effect on the site's integrity.

RECOMMENDED MOTION:

THAT the Historic Preservation Permit (HPP) for the Fort Missoula Commons (Post Hospital) Exterior Alterations and New Construction at 3255 Lt. Moss Road, be DENIED.

STAFF RECOMMENDATIONS TO APPLICANT: Staff continues to encourage the applicant to reconsider the design of the new construction to better incorporate the primary design elements and materials that characterize the Fort Missoula Historic District. The design should look to minimize adverse impacts to the Post Hospital and broader Fort Missoula Historic District through subordinate massing, consistent setbacks, and similar materials to that of the Fort's second reconstruction period. The use of compatible design and materials for all new construction, including but not limited to modern and/or contemporary interpretations of the Mission Revival style with concrete and tiled roofs would allow the new construction to blend more seamlessly into the existing fabric of Fort Missoula. Additionally, staff recommends reorganizing the site layout to comply with the open landscape concept and reduce the intrusion of new construction on the historic post hospital.

VIII. ATTACHMENTS

APPENDIX A - HISTORIC PRESERVATION PERMIT APPLICATION

APPENDIX B – PUBLIC AND AGENCY COMMENTS

FORT MISSOULA COMMONS

HISTORIC PRESERVATION APPLICATION

D V G
Architecture
and Planning P.C.

DVG Architecture and Planning, P.C.
1.16.2023

Design Team Information

FAE Missoula Hospital, LLC

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www.fortmissoulacommons.com

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TABLE OF CONTENTS

01 COVER

02 DESIGN TEAM INFORMATION

03 TABLE OF CONTENTS

04 HISTORIC PRESERVATION PERMIT APPLICATION

05 PROJECT NARRATIVE

- DECONSTRUCTION OF GARAGE / SHED STRUCTURE
- CERTIFICATE OF ECONOMIC HARDSHIP GARAGE / SHED STRUCTURE
- PROPERTY RECORD CARD
- MISSOULA COUNTY TAX RECORDS 2021
- MISSOULA COUNTY TAX RECORDS 2022
- PHASE II ENVIRONMENTAL SITE ASSESSMENT 2021
- LISTING OF PROPERTY FOR SALE
- NATIONAL TRUST FOR HISTORIC PRESERVATION LISTING
- FEASIBILITY STUDY/ECONOMIC ASALYSIS RETURN
- STRUCTURAL ASSESSMENT

182 EXHIBIT A: SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION

188 EXHIBIT B: GOALS OF THE 1993 FORT MISSOULA PLAN & TITLE 20.85.085H COMPLIANCE

196 EXHIBIT C: HISTORIC PHOTOGRAPHS

207 EXHIBIT D: ARCHAEOLOGICAL REPORT / SURVEY STEP 1

275 EXHIBIT E: LANDSCAPE ARCHITECT REPORT

279 EXHIBIT F: ARBORIST ASSESSMENT

284 EXHIBIT G: CONTACTS/CIRRICULA VITARUM

292 EXHIBIT H: NATIONAL REGISTER NOMINATION FORM

532 EXHIBIT I: APPENDIX A – DEVELOPMENT GUIDELINES AND STANDARDS

538 EXHIBIT J: EXTERIOR FINISH SPECIFICATION

EXHIBIT K: DETAILED PROJECT SITGE PLAN SUPPORTING DOCUMENTS

(SEPARATE ATTACHMENT 60 PAGES)

SITE PLANS **FLOOR PLANS**

LANDSCAPE PLANS **ELEVATIONS**



COMMUNITY PLANNING, DEVELOPMENT, & INNOVATION
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HISTORIC PRESERVATION PERMIT APPLICATION HPP

FOR ALTERATIONS

GENERAL INFORMATION

Name of Property (*if applicable*): **FORT MISSOULA COMMONS**

Property Address: **3255 Lt. Moss Rd. Missoula, MT 59804**

Property Owner Name: **FAE Missoula Hospital, LLC**

Address: **4751 Broadway Denver, CO 80216**

Phone: **720.220.4825**

Applicant (*ex. Architect*): **DVG Architecture and Planning, P.C.**

Address: **111 N. Higgins Ave #420 Missoula, MT 59802**

Phone: **406.241.7707**

SITE INFORMATION

Legal Description

Lot(s): _____ Block(s): _____

Subdivision: _____ Township: **T13N**

C.O.S. 6792, Parcel 2 A, incl. Portion A

Range: **R19W** Section: **S31**

Zoning: **OP3 / NC-HFM** Sq. Footage: **208,216.80**

APPLICATION CHECKLIST

Please provide one (1) electronic copy (PDF format) of each of the following, and attach all required supporting information to this application:

- [X] HPP Application
- [X] Project Narrative
- [X] National Register Nomination
- [X] Historic Photographs
- [X] Detailed Project Site Map and/or Site Plan
- [X] Exterior Elevations with Descriptions
- [X] Contemporary Photographs

I hereby attest that the information on this form is accurate and complete.

Applicant Signature:

X. David V. Gray Date: 10-14-22

Owner Signature:

X. _____ Date: 10-14-22

THIS PLACE MATTERS
MISSOULA HISTORIC PRESERVATION

January 18, 2023

Elizabeth Johnson
Historic Preservation Officer
Development Services
435 Ryman Street
Missoula, MT 59802

Re: Fort Missoula Commons

Dear Ms. Johnson:

By way of introduction, Fort Missoula was established in 1877, providing the only permanent military post west of the Continental Divide. In its glory, the Fort served as a technical training center during WWI, and between 1933-1941 it became the nation's largest regional headquarters for the Civilian Conservation Corps. The Fort has been prized as the longest serving military facility until it finally closed in 1948.

Fort Missoula has adapted over its history to meet the needs of the community. Today, Missoula's population is well over three times that of when the Military Fort closed, and the city faces new challenges around housing, access to public space, and the continued need for public services within a growing city. The draw of Missoula's beauty, culture, and opportunity is highlighting the need for further creativity in developments to preserve the livelihood of Missoulians. In the face of Missoula's mounting challenges, The Old Post Hospital grounds at Fort Missoula is a rare parcel of land that could assist in meeting today's needs and provide services to the Fort, all while honoring the history of this land and architecture. As such, there is an emerging community effort to preserve, steward, and bring vitality to the Fort by creating a regional destination of public open space and eclectic amenities within a historic context. Our teams vision includes providing amenities not currently provided in the area, preserving existing green space in front of the Old Post Hospital, introducing a play-space and public access throughout the grounds. This open space will welcome all Missoulians and provide a much-needed respite from the continued densification of the Missoula valley.

Many contemporary structures which have been erected at the Fort beginning in the 1960's - 2000 have neither complimented nor recognized the Fort's historical character. With over 100 employees who work at Fort Missoula, along with visitors frequenting the Fort Missoula Museum, and the Regional Park ballfields, the Fort is lacking in services and opportunities for funding restoration efforts. Presently citizens using the area must leave the Fort to acquire needed services. Nonprofit and government offices occupy the buildings but do not fund tax growth needed for city investment of infrastructure. The current proposal aims to carefully introduce new services that support the current visual context, planning, and views at the Fort, while taking note of historic significance and architectural features of the original complex.

Items of significance for the development include:

- Maintaining the architectural integrity of the historic district,
- The pursuit to distinguish old buildings from new and not creating a false sense of history,
- Knitting the campus of structures together
- Providing a landscape within a common architectural language.

Achieving a harmonious campus requires care, sensitivity, and attention to detail, and will be a defining feature of this development.

DVG Architecture and Planning, P.C. and WGM are pleased to present a proposal for the development of a 4.78-acre parcel of land within the Historic Fort Missoula Development District. The privately owned parcel (since 1963) includes the land from Lt. Moss Road to the University property along the Bitterroot River, extending east to Sgt. Sanders Street, and west to the new property line of the Childhood Development Center. The parcel includes three existing structures: The contributing buildings of the Historic District are the Old Post Hospital, and the Nurse's Quarters. The Garage/shed which sits behind the nurse's quarters constructed by the CCC, was listed as "N/A" to the original district nomination and contributing in the amended nomination. We have found potential fence post fill materials, which are below grade, to the Northwest of the Old Post Hospital. It is possible that this fill material could have been a part of the Internment era fencing as its location appears to be in proximity of what is document in Army Maps of the Fort. The wood fence posts are not apparent in the fill material just a visible square hole at grade. The fill material found may be affiliated with a removed Guard tower noted as T-8 in the 1944 Base map in Exhibit D Archaeological Report. A handful of fill locations were found and are marked on a survey for the Archaeologist to address. The fill in the areas to be developed will be removed. The owner will donate the fill material and post bases to the Fort Missoula Museum if they would like them or will dispose of them if the Museum is not interested in these items. The owner is willing to provide interpretive signage in the approximate area the fill was located telling about what was once located there if the Historic Commission felt it was appropriate remediation. No other fence post fill was documented at grade around the Old Post Hospital.

Central to this development is the preservation and restoration of the Old Post Hospital, which is one of the grandest structures at the Fort but has fallen into significant disrepair over the decades. Repairs to this building will adhere to the 1910-1912 Mission Revival architectural style. The windows will be replaced as many of them have been damaged by vandals, painted shut with lead-based paint and built up significant water/ice damaging the interior finishes in the building. The Nurses Quarters is currently occupied by a professional office and does not require major restoration efforts. The shed/garage will be demolished as it is not financially

feasible to preserve it on the site. Restoration, reconstruction, and maintenance of the Old Post Hospital will be achieved through additional development on the site, as leasing the structures will not provide enough funding to cover the costs of the work. This development is not designed to detract from the character of the original structures or campus. It is intended to improve the diversity and amenities at the site with new commercial space with broader allowed uses, new housing for multiple income levels of citizens, community gathering space, and maintaining the abundance of outdoor greenspace. By revitalizing the hospital alongside new buildings, Missoulians will be drawn to experience the legacy of the Fort, and its surrounding natural beauty as this development will provide more reasons to visit. Between soccer games one could get a coffee from a coffee shop, take a yoga break during lunch, or have a place to eat, other than chicken from the local grocery store, to name a few. This development proposes a strong streetscape which is present along Officer Row and H Road which will act as the "connective tissue" for the Fort, tying together architectural styles from the various eras. Providing diverse architectural styles within the development will maintain the diversity in architecture of the Fort Historic District. Current views and vistas will be maintained for future generations.

The site will be developed in phases and the phases may overlap and not wait for one to finish prior to the next starting. The 1st phase will include the reconstruction and restoration of the Old Post Hospital building. The Elevator may be in this phase or a following phase and is dependent on the uses that will be going into the building as different rules will apply. If the building remains office as defined under Title 20 the elevator may not be required immediately. If the building includes additional uses in its redevelopment the elevator may be needed as a part of that work. The second phase will be the commercial buildings, associated utility and site improvements necessary for effective development of the entire site. The third phase will include the residential structures and improvements necessary for their completion not included in other phases of work. The proposed Community Building is an homage to the demolished garage/shed and is intended to provide additional community benefits to the overall development but, its construction is dependent on its financial feasibility. This structure would be a wonderful wedding or outdoor gather support facility to the provided open spaces being preserved and maintained around the Old Post Hospital. Due to the requirements of the Fire department, Planning department and other outside forces we cannot guarantee the ability to provide this amenity unconditionally. We are proposing the facility as it may be feasible at some point in the future and should be considered by the HPC as a part of the development package.

The Old Post Hospital grounds hold value to the community, for its architecture, original green space, and colorful history. The buildings on the site though have fallen into disrepair which has been documented over decades. The Hospital building was vacant from 1947-1963, is on "Missoula's Most Endangered Historic Sites" since 2008 in which it noted the roof was failing. Those roof repairs have not been completely repaired to this day. The Nurses quarters are in the best shape. There is an opportunity at hand to preserve these buildings, while breathing new life into the Fort through revitalization and restoration. The owner of the property has put together an exceptional team of professionals to assist in that goal. All members of this team have significant experience in historic restoration and revitalization. The Fort has fallen into various levels of disrepair over the decades with some restoration but as a whole it is still in decline from its Period of Significance from 1877-1947. The roads are falling apart, peeling paint is a feature of many structures, boarded up windows exist on more than one building and

site. This project could be the spark that brings the community back to the Fort to support revitalization, embrace its potential and history with the only thing lost being its previous decline.

Sincerely,

David V. Gray LEED Green Associate
Principal Architect / Owner
david.dvgarchitects.com.
http://www.dvgarchitects.com/

cc: Ken Wolf, Max Wolf, Jim Pelger, Jeff Smith, Jamie Erbacher, Kate Dinsmore

D V G
Architecture
and Planning P.C.

January 18, 2023

Elizabeth Johnson
Historic Preservation Officer
Development Services
435 Ryman Street
Missoula, MT 59802

Re: Fort Missoula Commons – Deconstruction of Garage / Shed Structure

Dear Ms. Johnson:

The owner has looked at the Viability of preserving the Garage / Shed building in its current location and has found it infeasible. The Structure does not have a foundation and is sitting on the dirt with untreated wood sills. The structure's integrity is failing as it is not framed to any relevant code, has significant settlement, deterioration of the load bearing members and over stressed roof bearing members. The roof has been leaking for so long that the lines between the roof boards are visible as small linear trenches inside the building on the dirt floor.

The roofing for the structure has been lost to storms, while the exterior of the building has not been maintained in what appears to be several decades. An older environmental report notes that the siding or window trims may be painted with lead-based paint.

There is no proof that the structure has not been moved from its original location, but it does appear that it is close to its original location from photographs.

The owner has listed the building for sale for over 151 days in the MLA and since 12/13/22 on a national site, with no parties interested in purchasing it and relocating it at their own expense. See attached listing.

The cost to move and rehabilitate the structure is just not financially feasible as addressed in the "Economic Analysis Storage/Garage Building Old Fort Hospital

Historic Fort Missoula, Missoula, MT.” by Thomas G. Stevens, MAI, SRA of Stevens and Company, a Real estate appraising and Consulting Group. His analysis follows this letter.

The structural integrity of the garage is addressed by a structural consulting engineer following the analysis.

If the Fort Missoula Museum would like a component from the shed the owner is willing to donate it. If salvageable components are useable they will be incorporated into the final project as applicable.

Sincerely,

David V. Gray LEED Green Associate
Principal Architect / Owner
david.dvgarchitects.com
http://www.dvgarchitects.com/

cc: Ken Wolf, Max Wolf, Jim Pelger, Jeff Smith, Jamie Erbacher, Kate Dinsmore

D V G
Architecture
and Planning P.C.

January 18, 2023

Elizabeth Johnson
Historic Preservation Officer
Development Services
435 Ryman Street
Missoula, MT 59802

Re: Fort Missoula Commons - Certificate of Economic Hardship

Dear Ms. Johnson:

Per 20.85.085J.10 I am submitting this Certificate of Economic Hardship.

(1) I have attached the Assessed value of the land and improvements from Municipal records.
(2) I have attached the property Taxes from the previous two years.
(3) We do not have knowledge of an appraisal for the property from the last five years.
(4) I have attached the listing for the property's sale. Two listings
(5) I have attached the environmental assessments and knowledge of environmental hazards associated with the property.
(6) The owner was hoping to preserve and relocate the structure initially, but through further assessment of the building it is not viable and the degradation of the building is to great to overcome. There is no return on investment as shown in the "Feasibility Study/Economic Analysis Return". The structure does not meet Building Code, would be extraordinarily expensive to try to save, bring up to current code and retrofit to be functional for any use with enough income to cover its reconstruction cost. The building may have lead based paint on the interior and exterior surfaces of the lumber which is making it too expensive to remediate.
(7) Concerning requirements for Income producing properties: The Garage/shed hasn't provided any income since it was purchased as it is uninhabitable in the state it was acquired and remains, to this day. (I do not believe the rest of this section would apply but I have done my best to address requirements a-e the best I can.)
    a. Gross income: I have attached the financial information for the parcel
    b. Itemized operating Maintenance expenses: I have attached the financial information for the parcel

c. Annual Cash flow: I have attached the financial information for the parcel
d. Rent Charges: I have attached the financial information for the parcel
e. A comparative economic assessment: The property is not in an Urban Renewal District, so the Missoula Redevelopment Agency doesn't have jurisdiction over this land. Concerning grants: The parcel has opportunities to generate income outside of the leasing the Nurses Quarters and Old Post Hospital, once it is made rentable. It would be a disservice to take away the limited grant opportunities for all other Historic properties in the State that have no means of generating additional income to restore their Historic Buildings or property. A building in downtown White Sulfur Springs or other small town which is landlocked by other buildings should be the beneficiaries of State or Federal Grants over this parcel.

My Regards,

David V. Gray LEED Green Associate
Principal Architect / Owner
david.dvgarchitects.com.
http://www.dvgarchitects.com/

cc: Ken Wolf, Max Wolf, Jim Pelger, Jeff Smith, Jamie Erbacher, Kate Dinsmore

Property Record Card

Summary

Primary Information

Property Category: RP
Subcategory: Commercial Property
Geocode: 04-2200-31-3-21-10-0000
Assessment Code: 0005905605
Primary Owner:
FAE MISSOULA HOSPITAL LLC
4751 BROADWAY
DENVER, CO 80216-2711
PropertyAddress: 9 FORT MISSOULA RD
MISSOULA, MT 59804
COS Parcel: 2 A
NOTE: See the Owner tab for all owner information
Certificate of Survey: 6792
Subdivision:
Legal Description:
S31, T13 N, R19 W, C.O.S. 6792, PARCEL 2 A, INCL PORTION A
Last Modified: 10/4/2022 8:24:02 PM

General Property Information

Neighborhood: 204.808
Property Type: IMP_U - Improved Property - Urban
Living Units: 0
Levy District: 04-0593-23-1
Zoning:
Ownership %: 100
Linked Property:
No linked properties exist for this property
Exemptions:
No exemptions exist for this property
Condo Ownership:
General: 0
Limited: 0

Property Factors

Topography:
Fronting:
Utilities:
Parking Type:
Access:
Parking Quantity:
Location:
Parking Proximity:

Land Summary

Land Type	Acres	Value
Grazing	0.000	00.00
Fallow	0.000	00.00
Irrigated	0.000	00.00
Continuous Crop	0.000	00.00
Wild Hay	0.000	00.00
Farmsite	0.000	00.00
ROW	0.000	00.00
NonQual Land	0.000	00.00
Total Ag Land	0.000	00.00
Total Forest Land	0.000	00.00
Total Market Land	4.780	884,304.00

Deed Information:

Deed Date	Book	Page	Recorded Date	Document Number	Document Type
7/15/2020	1047	164	1/6/2021		Warranty Deed
9/11/2019	1018	753	9/12/2019		Warranty Deed
11/19/1996	0491	00119			

Owners

Party #1

Default Information: FAE MISSOULA HOSPITAL LLC
4751 BROADWAY
Ownership %: 100
Primary Owner: "Yes"
Interest Type: Conversion
Last Modified: 8/13/2021 8:03:51 AM

Other Names

Name **Type**

Other Addresses

Appraisals

Appraisal History

Tax Year	Land Value	Building Value	Total Value	Method
2022	884304	553396	1437700	INCOME
2021	728376	709324	1437700	INCOME
2020	692916	662184	1355100	INCOME

Market Land

Market Land Item #1

Method: Acre **Type:** Primary Site
Width: **Depth:**
Square Feet: 00 **Acres:** 4.78

Valuation

Class Code: 2207 **Value:** 884304

Dwellings

Existing Dwellings

No dwellings exist for this parcel

Other Buildings/Improvements

Outbuilding/Yard Improvement #1

Type: Commercial **Description:** CGF5 - Garage, detached, frame, unfinished - average
Quantity: 1 **Year Built:** 1930 **Grade:**
Condition: **Functional:** 1-Poor **Class Code:** 3507

Dimensions

Width/Diameter: 20 **Length:** 60 **Size/Area:** 1200
Height: **Bushels:** **Circumference:**

Commercial

Existing Commercial Buildings

Building Number	Building Name	Structure Type	Units/Bldg	YearBuilt	
1		349 - Medical Office Building	1	1930	View
2		349 - Medical Office Building	1	1930	View

General Building Information

Building Number: 1 **Building Name:** **Structure Type:** 349 - Medical Office Building
Units/Building: 1 **Identical Units:** 1
Grade: A **Year Built:** 1930 **Year Remodeled:** 0
Class Code: 3507 **Effective Year:** 1970 **Percent Complete:** 0

Interior/Exterior Data Section #1

Level From: B1 **Level To:** B1 **Use Type:** 086 - Support Area

Dimensions

Area: 5,286 **Use SK Area:** 0
Perimeter: 396 **Wall Height:** 12

Features

Exterior Wall Desc: 00 - None **Construction:** 2-Fire Resistant **Economic Life:** 45
% Interior Finished: 0 **Partitions:** 2-Normal **Heat Type:** 2-Hot Water or Steam
AC Type: 0-None **Plumbing:** 1-Below Normal
Physical Condition: 3-Normal **Functional Utility:** 3-Normal

Building Other Features

No other features exist for this interior/exterior detail

Interior/Exterior Data Section #2

Level From: 01 **Level To:** 01 **Use Type:** 053 - Office

Dimensions

Area: 5,286 **Use SK Area:** 0
Perimeter: 396 **Wall Height:** 12

Features

Exterior Wall Desc: 09 - Concrete, Load Bearing **Construction:** 1-Wood Frame/Joist/Beam **Economic Life:** 35
% Interior Finished: 100 **Partitions:** 2-Normal **Heat Type:** 2-Hot Water or Steam
AC Type: 0-None **Plumbing:** 2-Normal
Physical Condition: 3-Normal **Functional Utility:** 3-Normal

Building Other Features

Description	Qty	Width	Length	Height	Area	Calculated Value	Unadjusted Value
PP1 - Porch, open	1	08	26	0	00	4721.6	4722
PP1 - Porch, open	1	10	45	0	00	10215	10215
PP2 - Porch, screened	2	07	12	0	00	2657.76	5316

Interior/Exterior Data Section #3

Level From: 02 **Level To:** 02 **Use Type:** 086 - Support Area

Dimensions

Area: 5,190 **Use SK Area:** 0
Perimeter: 396 **Wall Height:** 12

Features

Exterior Wall Desc: 09 - Concrete, Load Bearing **Construction:** 1-Wood Frame/Joist/Beam **Economic Life:** 35
% Interior Finished: 0 **Partitions:** 2-Normal **Heat Type:** 0-None
AC Type: 0-None **Plumbing:** 0-None
Physical Condition: 1-Poor **Functional Utility:** 3-Normal

Building Other Features

No other features exist for this interior/exterior detail

Interior/Exterior Data Section #4

Level From: 03 **Level To:** 03 **Use Type:** 086 - Support Area

Dimensions

Area: 5,060 **Use SK Area:** 0
Perimeter: 344 **Wall Height:** 10

Features

Exterior Wall Desc: 09 - Concrete, Load Bearing **Construction:** 1-Wood Frame/Joist/Beam **Economic Life:** 35
% Interior Finished: 0 **Partitions:** 2-Normal **Heat Type:** 0-

None

AC Type: 0-None
Physical Condition: 1-Poor
Plumbing: 0-None
Functional Utility: 3-Normal

Building Other Features

No other features exist for this interior/exterior detail

Interior/Exterior Data Section #5

Level From: B1 **Level To:** B1 **Use Type:** 086 - Support Area

Dimensions

Area: 1,128
Perimeter: 140
Use SK Area: 1
Wall Height: 10

Features

Exterior Wall Desc: 00 - None
% Interior Finished: 0
AC Type: 0-None
Physical Condition: 3-Normal
Construction: 2-Fire Resistant
Partitions: 2-Normal
Plumbing: 1-Below Normal
Functional Utility: 1-Poor
Economic Life: 45
Heat Type: 0-None

Building Other Features

No other features exist for this interior/exterior detail

Interior/Exterior Data Section #6

Level From: 01 **Level To:** 01 **Use Type:** 025 - Dwelling, Conversion - Office

Dimensions

Area: 1,464
Perimeter: 164
Use SK Area: 1
Wall Height: 8

Features

Exterior Wall Desc: 02 - Frame
% Interior Finished: 100
AC Type: 0-None
Physical Condition: 4-Good
Construction: 1-Wood Frame/Joist/Beam
Partitions: 2-Normal
Plumbing: 2-Normal
Functional Utility: 2-Fair
Economic Life: 35
Heat Type: 1-Hot Air

Building Other Features

No other features exist for this interior/exterior detail

Elevators and Escalators

No elevators or escalators exist for this building

Ag/Forest Land

Ag/Forest Land

No ag/forest land exists for this parcel



Shopping Cart: 0 items [$0.00]

New Search | History | Help

Parcel Number: 5905605

Status: Current

Type: RE

Owner: FAE MISSOULA HOSPITAL LLC

Tax Breakdown:

Year	Parcel Number	Statement#	Levy Dist	Description	1st Half	2nd Half
2021	5905605	48564	23.1	WQD: WQD WATER QUAL DIST.	$23.96	$0.00
2021	5905605	48564	23.1	FMRP: FT MSLA PARKS OPEN SPACE	$136.68	$136.67
2021	5905605	48564	23.1	SOC: SOC SOIL CONSERV. DIST.	$20.62	$20.61
2021	5905605	48564	23.1	Levied Taxes	$10,944.75	$10,944.74
2021	5905605	48564	23.1	CPRK: CPRK CITY PARK DIST.	$277.00	$277.00
2021	5905605	48564	23.1	CRD: CRD CITY ROAD DIST.	$475.00	$475.00
2021	5905605	48564	23.1	ROSP: ROSP COUNTY OPEN SPACE	$30.84	$30.84

1st Half Total:	$11,908.85
2nd Half Total:	$11,884.86
Total Tax:	**$23,793.71**

Note: The accuracy of this data is not guaranteed. Property Tax data was last updated 11/22/2022 09:00 AM.

If you are sending your payments in by mail, address them To:

Missoula County
200 W Broadway
Missoula, MT 59802

Include Taxpayer ID with payments.

tyler technologies

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Shopping Cart: 0 items [$0.00]

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Parcel Number: 5905605

Status: Current

Receipt: 47456

2022 Owner(s):
FAE MISSOULA HOSPITAL LLC

Mailing Address:
4751 BROADWAY
DENVER, CO 802162711

Levy District:
23.1, CITY, TARGET RANGE, TRANS

2022 Value:

Market:	$1,437,700
Taxable:	$27,172

Detail

2022 Taxes: View Pie Charts

First Half:	$12,662.83	**Due:**	11/30/2022
Second Half:	$12,638.84	**Due:**	5/31/2023
Total:	$25,301.67		

Show Current Tax Bill

Detail

2022 Payments:

First Half:	$12,662.83
Second Half:	$0.00
Total:	$12,662.83

(May include penalty & interest)

2022 Legal Records:

Geo Code: 04-2200-31-3-21-10-0000 **Deed Book:** 1047 **Page:** 164 **Date:** 2020-07-15

Property address: 9 FORT MISSOULA RD, MISSOULA MT 59804
TRS: T13 N, R19 W, Sec. 31
Legal: S31, T13 N, R19 W, C.O.S. 6792, PARCEL 2 A, INCL PORTION A

Note: The accuracy of this data is not guaranteed. Property Tax data was last updated 11/22/2022 09:00 AM.

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Missoula County
200 W Broadway
Missoula, MT 59802

Include Taxpayer ID with payments.

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Shopping Cart: 0 items [$0.00]

New Search | Detail | View Pie Charts | Help

Tax Year: 2022 **Parcel Number:** 5905605

Status: Current

Type: RE

Owner: FAE MISSOULA HOSPITAL LLC

2022 Tax Breakdown:

Stat#	Kind	Description	1st Half	2nd Half
47456	City	CITY OF MSLA GEN FUND	$3,265.80	$3,265.80
47456	City	CPRK CITY PARK DIST.	$585.50	$585.50
47456	City	CRD CITY ROAD DIST.	$559.50	$559.50
47456	County	FT MSLA PARKS OPEN SPACE	$129.48	$129.47
47456	County	ROSP COUNTY OPEN SPACE	$36.68	$36.68
47456	County	CO. WEED CONTROL	$29.89	$29.89
47456	County	CO. AGING SERVICES	$67.93	$67.93
47456	County	COUNTY PUBLIC WORKS BRIDGES	$46.46	$46.46
47456	County	CAPITAL IMPROVEMENTS	$120.78	$120.78
47456	County	COUNTY SEARCH & RESCUE	$3.81	$3.81
47456	County	CO. SUBSTANCE ABUSE PREVENT	$17.80	$17.80
47456	County	COUNTY TECH FUND	$64.40	$64.40
47456	County	COMMUNITY & PLANNING SVC	$50.54	$50.54
47456	County	COMMUNITY ASSISTANCE FUND	$40.35	$40.35
47456	County	COUNTY COMMUNITY DAYCARE	$3.26	$3.26
47456	County	DETENTION CENTER	$422.93	$422.93
47456	County	DISTRICT COURT	$32.88	$32.88
47456	County	ELECTIONS CENTER	$22.69	$22.69
47456	County	COUNTY EXTENSION SERVICE	$25.41	$25.41
47456	County	COUNTY FAIR	$32.88	$32.88
47456	County	COUNTY GENERAL FUND	$767.07	$767.06
47456	County	GRANTS AND COMMUNITY SERVICES	$32.33	$32.33
47456	County	JUDGEMENT LEVY 2019	$12.63	$12.63
47456	County	JUDGEMENT LEVY 2022	$38.45	$38.45
47456	County	COUNTY LIBRARY	$136.13	$136.13
47456	County	LIBRARY GO BONDS	$99.72	$99.72
47456	County	LTGO 2017 BONDS	$10.32	$10.32
47456	County	COUNTY MENTAL HEALTH TREAT.	$5.30	$5.30
47456	County	COUNTY HISTORICAL MUSEUM	$27.31	$27.31

47456	County	COUNTY PARKS & REC	$48.09	$48.09
47456	County	CO.PERMISSIVE MEDICAL LEVY	$193.46	$193.46
47456	County	COUNTY/CITY PLANNING	$33.29	$33.29
47456	County	COUNTY PROP & LIAB. INS.	$53.94	$53.94
47456	County	COUNTY PUBLIC SAFETY FUND	$366.41	$366.41
47456	County	RELATIONSHIP VIOLENCE SERVICES	$16.85	$16.85
47456	Local School	RETIREMENT-ELEMENTARY	$311.66	$311.66
47456	Local School	RETIREMENT-HIGH SCHOOL	$177.30	$177.30
47456	Local School	101 TARGET RNG ELEM GEN	$907.68	$907.68
47456	Local School	110 TAR RANGE ELEM TRANS	$367.91	$367.91
47456	Local School	113 TAR RANGE ELEM TUITION	$152.57	$152.57
47456	Local School	128 TAR RANGE ELEM TECH	$20.38	$20.38
47456	Local School	161 TAR RANGE ELEM BUILD RES	$38.99	$38.99
47456	Local School	201 MCHS GEN FUND	$574.28	$574.28
47456	Local School	210 MCHS TRANSPORTATION	$111.27	$111.27
47456	Local School	213 MCHS TUITION	$33.15	$33.15
47456	Local School	217 MCHS ADULT ED	$25.81	$25.81
47456	Local School	228 MCHS TECHNOLOGY	$38.86	$38.86
47456	Local School	250 MCHS DEBT SERVICE	$249.85	$249.85
47456	Local School	261 MCHS BUILDING RESERVE	$15.35	$15.35
47456	Local School	TRANSPORTATION-HS/ELEMENTARY	$18.20	$18.20
47456	Special Districts	SOC SOIL CONSERV. DIST.	$20.62	$20.61
47456	Special Districts	WQD WATER QUAL DIST.	$23.96	$0.00
47456	Special Districts	MSLA URBAN TRANS DIST	$782.15	$782.15
47456	State School	STATE HS EQUALIZATION	$298.89	$298.89
47456	State School	STATE ELEM EQUALIZATION	$448.34	$448.34
47456	State School	STATE UNIVERSITY MILLAGE	$81.52	$81.52
47456	State School	STATE VO-TECH MILLAGE	$20.38	$20.38
47456	State School	STATE SCHOOL FOUNDATION EQUAL.	$543.44	$543.44

1st Half Total:	$12,662.83
2nd Half Total:	$12,638.84
Total Tax:	**$25,301.67**

Note: The accuracy of this data is not guaranteed. Property Tax data was last updated 11/22/2022 09:00 AM.

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Missoula County
200 W Broadway
Missoula, MT 59802

Include Taxpayer ID with payments.

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START 3

Superfund Technical Assessment and Response Team 3 - Region 8

United States
Environmental Protection Agency
Contract No. EP-W-05-050

ANALYTICAL RESULTS REPORT
For PHASE II ENVIRONMENTAL SITE ASSESSMENT

WESTERN MONTANA MENTAL HEALTH CENTER

City and County of Missoula, Montana

TDD No. 1102-01

April 15, 2011

URS
OPERATING SERVICES, INC.

In association with:
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April 15, 2011

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SUBJECT: START 3, EPA Region 8, Contract No. EP-W-05-050, TDD No. 1102-01
Phase II Analytical Results Report for Targeted Brownfields Assessment for the Western Montana Mental Health Center

Dear Ted:

Attached is an electronic copy of the final Phase II Analytical Results Report for Targeted Brownfields Assessment at the Western Montana Mental Health Center in the City and County of Missoula, Montana. This document has incorporated an updated cost estimate based on the additional investigation into lead contamination in the surrounding soils of the WMMHC.

If you have any questions, please call me at 303-291-8202.

Sincerely,

URS OPERATING SERVICES, INC.

Steve Norris
Project Manager

Attachment

cc: C. W. Baker w/o attachments
File/UOS

PHASE II ANALYTICAL RESULTS REPORT
for
TARGETED BROWNFIELDS ASSESSMENT

WESTERN MONTANA MEDICAL HEALTH CENTER
City and County of Missoula, Montana

EPA Contract No. EP-W-05-050
TDD No. 1102-01

Prepared By:
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Steve Norris, Environmental Scientist, UOS

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URS OPERATING SERVICES, INC.

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ANALYTICAL RESULTS REPORT
for
PHASE II ENVIRONMENTAL SITE ASSESSMENT

WESTERN MONTANA MENTAL HEALTH CENTER
TARGETED BROWNFIELDS ASSESSMENT
City and County of Missoula, Montana

TABLE OF CONTENTS

		PAGE #
SIGNATURE PAGE		**i**
DISTRIBUTION LIST		**ii**
TABLE OF CONTENTS		**iii**
EXECUTIVE SUMMARY		**1**
1.0	**INTRODUCTION**	**3**
1.1	Objectives	
1.2	Detailed Scope of Services	
1.3	Significant Assumptions, Limitations, and Exceptions	
2.0	**BACKGROUND INFORMATION**	**4**
2.1	Location and Legal Description	
2.2	Property History and Land Use	
2.3	Current and Future Property Use	
2.4	Surrounding Properties	
2.5	Previous Assessments	
3.0	**PROJECT DATA QUALITY OBJECTIVES**	**6**
4.0	**SAMPLING ACTIVITIES AND LOCATIONS**	**7**
4.1	Asbestos Characterization of Building Structure	
4.2	Asbestos Soil Survey	
4.3	Lead-Based Paint Survey of Building Structure	
4.4	Lead-Based Paint Soil Survey	
5.0	**ANALYTICAL RESULTS**	**11**
5.1	Asbestos Characterization of Building Structure	
5.2	Asbestos Soil Survey	
5.3	Lead-Based Paint Survey of Building Structure	
5.4	Lead-Based Paint Soil Survey	
6.0	**DATA QUALITY ASSESSMENT**	**14**
7.0	**CONCLUSIONS**	**15**
8.0	**RECOMMENDATIONS**	**15**
8.1	Cleanup Considerations	
8.1.1	Asbestos-Containing Material Abatement	
8.1.2	Lead-Based Paint Abatement	
8.1.3	Lead-Containing Soils	

8.2 Cleanup Cost Estimation
8.2.1 Asbestos Abatement
8.2.2 Lead-Based Paint Abatement
8.2.3 Lead-Contaminated Soil Removal
8.3 Cost Estimate Assumptions

9.0 LIST OF REFERENCES **20**

10.0 ENVIRONMENTAL PROFESSIONAL'S QUALIFICATIONS, STATEMENT, AND SIGNATURES **22**

FIGURES

Figure 1 Property Location Map
Figure 2 Asbestos-Containing Material Sample Location Map – First Floor
Figure 3 Asbestos-Containing Material Sample Location Map – Second Floor
Figure 4 Asbestos-Containing Material Sample Location Map – Attic Floor
Figure 5 Asbestos-Containing Material Sample Location Map – Basement Floor
Figure 6 Lead-Based Paint Nomenclature Map – First Floor
Figure 7 Lead-Based Paint Nomenclature Map – Second Floor
Figure 8 Lead-Based Paint Nomenclature Map – Attic Floor
Figure 9 Lead-Based Paint Nomenclature Map – Basement Floor
Figure 10 Lead in Soil Results Map

TABLES

Table A Positive ACM and Quantities
Table B Building Element Designations

Table 1 Sample Locations and Rationale
Table 2 Analytical Results for Asbestos in Building Materials
Table 3 Analytical Results for Asbestos Soil Samples
Table 4 Analytical Results for Confirmation Paint Chip Samples
Table 5 XRF In situ Results
Table 6 Analytical Results for Lead in Soil Samples
Table 7 Laboratory Adjusted In situ Results
Table 8 Cost Estimate for the Western Montana Mental Health Center

APPENDICES

Appendix A Site Photolog
Appendix B Laboratory Data Sheets
Appendix C Data Quality Assessment

EXECUTIVE SUMMARY

This Phase II Report includes analytical results from an environmental investigation conducted at the Western Montana Mental Health Center (WMMHC) property to characterize, delineate, and identify asbestos-containing material (ACM), potential lead-based paint (LBP), and lead and asbestos contamination in soils. This report also provides cleanup options and associated costs for ACM and LBP abatement and contaminated soil removal. The assessment took place on March 8, 9, and 29, 2011, and included the collection of 74 potential ACM samples, 434 X-ray Fluorescence (XRF) LBP readings, 14 potential ACM soil samples, 81 XRF lead in soil readings, and 24 potential lead soil samples. The assessment was based on a 1992 limited Phase II investigation performed by MCS Environmental.

Suspect ACM samples were analyzed using Polarized Light Microscopy (PLM) to determine the percentage and mineral type of asbestos present in the sample. Samples determined to be asbestiform material in concentrations of 1 percent or greater are considered positive, per State of Montana asbestos regulations. Out of the 22 potential ACM material types collected, 16 materials had positive results for asbestos (Table 2). The materials identified in the WMMHC building as ACM include mudded joints, window caulking, debris, vinyl floor tile, roof flashing, tank insulation, and pipe insulation (see Table A). ACM locations were present throughout the interior and exterior of the building, with the majority located in the basement. A significant amount of the ACM in the building was friable (capable of being made into a powder with hand pressure) and damaged, which creates a situation where asbestos exposure is more likely because the asbestos can readily become airborne. The greatest amount of damaged, friable ACM was located in the boiler room of the basement.

The interior and exterior of the building were screened with a handheld Alpha XRF to determine whether LBP was present on the building elements contained in the structure. Personnel took 434 readings, of which the XRF confirmed LBP in 300 of the readings (Table 5). All rooms and most building elements were positive for LBP. When XRF readings were questionable, personnel collected a paint chip sample to determine whether the paint contained regulated amounts of lead. Of the six questionable samples submitted for laboratory analysis, four results were confirmed as positive and two as negative for regulated amounts of lead (Table 4).

During the first sampling event, fourteen soil samples were collected around the perimeter of the building's exterior walls and analyzed for asbestos and lead. Lead results for the soils were above the EPA residential guidance level of 400 milligrams per kilogram (mg/kg) for 10 of 14 samples (Table 6). Based on these initial results, additional investigation of the soils was warranted, as common background

levels for lead in soils of the Missoula area average less than 10 mg/kg (USGS 1984). All soil sample results were negative for asbestos (Table 3).

An additional sampling event was required to properly identify and delineate the extent of lead contamination present around the exterior walls of the WMMHC. A handheld Omega XRF was used to obtain 81 preliminary lead readings from the surrounding soils. Of these 81 readings, 20 laboratory-corrected readings were found to be above the EPA residential guidance level of 400 mg/kg. The observed range of lead in soils was less substantial than the results from the initial sampling event. Only 3 laboratory-corrected results were found to be above the 1,000 mg/kg with a maximum value of 1,138 mg/kg.

Based on the findings and proposed use of the structure as an inpatient treatment center, cleanup of LBP and ACM is strongly recommended before renovation activities begin. Failure to address these environmental concerns could result in exposure to potential site workers and future occupants. Table 8 contains a cost estimate for cleanup of LBP and ACM.

The cost estimates created for the property includes abatement of the ACM and LBP present at the WMMHC building, and a small-scale soil removal for lead-contaminated soils. Table 8 provides a detailed breakdown of how estimates were calculated. With the exception of the interior walls that are assumed to be covered with drywall, all ACM and LBP have been selected for removal, including lead contaminated soil around the perimeter of the building. Estimated cleanup costs are as follows:

- Abatement of asbestos containing materials in the interior and exterior of building: $99,760
- Abatement of lead-based paint: $155,786
- Removal and disposal of 186 cubic yards of lead contaminated soil, and replacement with clean fill: $2,991
- Total estimated cost: $258,537

All cost estimates include a 20 percent contingency. Regardless, prospective contractors and their respective bids should be solicited for exact costs and specifications.

1.0 INTRODUCTION

This document is submitted in accordance with the task elements specified in Technical Direction Document (TDD) 1102-01 dated February 9, 2011, issued to URS Operating Services, Inc. (UOS) START in Region 8 of the U.S. Environmental Protection Agency (EPA). The purpose of this TDD is to perform a Targeted Brownfields Assessment (TBA) at the Western Montana Mental Health Center (WMMHC) in the City and County of Missoula, Montana. The scope of services is to perform a Phase II Environmental Site Assessment (ESA), provide cost estimates for abatement activities, and to submit a property profile form.

This document contains the laboratory results from field sampling which occurred on the WMMHC property on March 8, 9, and 29, 2011 and provides cleanup options and cost estimates.

The Missoula Area Economic Development Corporation (MAEDC) has requested assistance from EPA with characterizing environmental conditions for the WMMHC property in Missoula, Montana (Figure 1). The MAEDC intends to aid the WMMHC group with the redevelopment of the property into an inpatient center for addiction treatment, which will be the only clinic located in and servicing the western Montana region (MAEDC 2011a). The structure will include up to 44 beds, dining areas, recreation and meeting rooms, and offices (MAEDC 2011b).

Field samples collected from the WMMHC property included in situ X-ray Fluorescence (XRF) readings, paint chip samples, suspect asbestos-containing material (ACM) samples, and soil samples for lead and asbestos analyses.

1.1 OBJECTIVES

The specific objectives of this Phase II field sampling event are to:

- Identify and evaluate ACM and LBP contamination present at the WMMHC property; and,
- Develop detailed cleanup options with accurate cost estimates to assist the WMMHC and MAEDC in making informed decisions regarding future cleanup activities.

1.2 DETAILED SCOPE OF SERVICES

The scope of services for this Phase II investigation includes environmental sampling and analysis of ACM, LBP, and lead and asbestos in soil at the WMMHC property.

The scope of services for this Phase II ESA is in compliance with ASTM International (ASTM) E1903-97, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM 2002). This scope of services may be modified by EPA as more information regarding property conditions becomes available.

1.3 SIGNIFICANT ASSUMPTIONS, LIMITATIONS, AND EXCEPTIONS

START prepared the Phase II sampling plan for this property based on information provided by representatives of the WMMHC group, the 1992 Phase II by MCS Environmental (MCS), and the TBA applicant, MAEDC.

Because the WMMHC property is listed on the U.S. Park Service's National Registry of Historic Places, historical elements are assumed as needing to be retained during redevelopment. Assumptions for elements in this report include the brick-encased boiler, windows, and balustrades.

2.0 BACKGROUND INFORMATION

2.1 LOCATION AND LEGAL DESCRIPTION

The WMMHC property is located 3.25 miles southwest from downtown Missoula along the north bank of the Bitterroot River. The property covers 4.88 acres, and its improvements consist of one 16,750-square foot (sq. ft.) structure with two full floors, an attic, and a basement, and a paved parking lot located on the north side of the building (MAEDC 2011a). The address for the WMMHC is Building T-9, Fort Missoula, Missoula, Montana, 59804. It is bordered by Fort Missoula Road on the north and east sides of the property (Figure 1). The legal description of the property is plat 1, parcel 10B, COS 5112, Tract 2 in Section 31, T. 13 N., R. 19 W. (Missoula County Property Information System 2011). The geographic coordinates of the property are -114.058921° west longitude and 46.839851° north latitude.

2.2 PROPERTY HISTORY AND LAND USE

The WMMHC property is located on the historic Fort Missoula campus and was originally used as an Army hospital prior to its closure in 1994, 50 years after construction (Missoula County 2010; Bechtle Architects 2010).

2.3 CURRENT AND FUTURE PROPERTY USE

Currently, the WMMHC property uses the first floor for administrative purposes, while the remaining floors are used for storage and are controlled due to the potential health risks caused by friable ACM (MAEDC 2011a). The access limitations for the basement and upper floors were put in place based on the results from the limited ACM and LBP survey performed in 1992 by MCS Environmental. During sampling operations, the investigators observed an occupied janitor's office adjacent to the boiler room.

Future use of the structure includes redeveloping the property into an inpatient center for addiction treatment, which will be the only clinic servicing the western Montana region (MAEDC 2011a). The structure will include up to 44 beds, dining areas, recreation and meeting rooms, and offices (MAEDC 2011b). Renovation activities will attempt to preserve the historic integrity of the structure by using abatement activities that will not remove or destroy historical elements such as the exterior, the windows, wood floors, and the interior staircase (Bechtle Architects 2010).

2.4 SURROUNDING PROPERTIES

The surrounding properties include open space and light commercial property. Starting from the north and working clockwise, the surrounding property descriptions and approximate distances are as follows (Bechtle Architects 2010; Missoula County Property Information System 2011; Northern Rockies Heritage Center [NRHC] 2011):

- North: Open space and parking lot (500 ft.) for the NRHC (900 ft.);
- Northeast: Small commercial buildings including the Lolo National Forrest office and US Army offices (400 ft.);
- East: Small residential building for the Fort Missoula Family Services (40 ft.); open space beyond (100 ft.);
- Southeast: Small residence used for WMMHC offices (50 ft.); open space beyond (100 ft.);
- South: Open space (50 ft.); followed by the Bitterroot River wetlands (150 ft.);
- Southwest: Open space (50 ft.); followed by the Bitterroot River wetlands (150 ft.);
- West: Open space (75 ft.); followed by the Bitterroot River wetlands (200 ft.); and

- Northwest: Open space (50 ft.); followed by the Respite House and Centers for Disease Control offices (750 ft.).

2.5 PREVIOUS ASSESSMENTS

A limited Phase II survey was performed in 1992 by MCS Environmental for the WMMHC property, looking only for friable ACM and LBP. A total of 24 bulk samples, 3 dust samples, and 7 air samples were collected for asbestos analyses. Sample results for asbestos in air were all non-detect. The dust sample results indicate moderate to heavy concentrations of asbestos-containing dust. Eighteen bulk samples were returned with positive detections for either chrysotile and/or amosite asbestos materials. Asbestos detections were primarily found in the thermal insulation system throughout the basement and second floor of the building. The survey was limited in scope, as no attempt was made to quantify non-friable ACM in the building (MCS 1992). No record of abatement has been found for the property.

Twenty-six lead swab samples and six bulk samples were collected from the WMMHC building for lead paint analysis. Lead detections were found in decorative materials throughout the structure. Paint located on the second and third floors was noted to be in poor or extremely poor condition (MCS 1992). A copy of the limited Phase II assessment is included in Appendix C of the Field Sampling Plan (FSP).

3.0 PROJECT DATA QUALITY OBJECTIVES

The EPA Data Quality Objectives (DQO) process is a seven-step systematic planning approach to develop acceptance or performance criteria for EPA-funded projects. The seven steps of the DQO process are:

Step 1 The Problem Statement;

Step 2 Identifying the Decision;

Step 3 Identifying the Decision Inputs;

Step 4 Defining the Study Boundaries;

Step 5 Developing a Decision Rule;

Step 6 Defining Tolerance Limits on Decision Errors; and

Step 7 Optimizing the Sample Design.

UOS developed these DQOs based on information provided by the TBA applicant and the WMMHC group. A complete step-by-step explanation of the DQO process for this property is provided in the approved FSP (UOS 2011).

The three questions identified in the DQO process to be answered by this investigation were:

1. How contaminated is the WMMHC property with ACM and LBP?
2. If contamination is detected, is abatement required for redeveloping the WMMHC property?
3. What are the remediation options and estimated costs for ACM and LBP abatement?

Data supporting the DQOs for this assessment are located in Appendix C.

4.0 SAMPLING ACTIVITIES AND LOCATIONS

Sampling activities were conducted on March 8, 9, and 29, 2011. All sampling activities were conducted in accordance with the approved FSP except as indicated in the appropriate sections below.

4.1 ASBESTOS CHARACTERIZATION OF BUILDING STRUCTURE

The building inspector collecting asbestos characterization samples is certified by the Asbestos Hazard Emergency Response Act (AHERA) - and Montana Department of Environmental Quality (MDEQ) as required by State regulations.

START personnel wore personal protective equipment (PPE) appropriate to the hazard present at the time, adopting the following guidelines: When disturbing friable material, when in an isolated area that is contaminated with friable asbestos, or in a sampling situation that would generate significant quantities of dust, personnel wore gloves and high-efficiency particulate air (HEPA) respiratory protection. Sampling of non-friable materials did not require PPE, provided that the sampling process did not generate dust. Sampling personnel wore respiratory protection during the inspection of the second floor due to the large amounts of dust generated by walking on the insulation (fiberglass batts) that had been laid on the floor. The remaining floors did not contain dust in large amounts, as mentioned in the 1992 MCS inspection; therefore, START did not collect air filter samples from the inspectors' breathing zones.

Bulk samples for asbestos analysis were collected in a random and representative manner based on the EPA publication "Asbestos in Buildings: Simplified Sampling Scheme for Friable

Surfacing Materials" (EPA 1985). Sampling personnel collected 74 suspect ACM samples during the inspection of the property. Seven samples included multiple layers for a total of 83 materials collected and analyzed.

Personnel placed all ACM samples into seal-top poly bags labeled with sample ID, date, and time and sent them via FedEx to International Asbestos Testing Laboratories (IATL) in Mt. Laurel, New Jersey under chain-of-custody (COC) procedures.

Table 1 summarizes sampling locations and rationale and Table 2 lists sample results, descriptions, and locations. Appendix A contains photographs of sample locations, and Appendix B contains laboratory data forms.

Deviations from the sampling plan include not placing plastic sheeting or any other barrier between the stairwells leading to the first floor. This action was not taken due to exterior stairwells providing access to both the basement and upper floors. Actions were taken to limit the amount of dust tracked through the building by donning disposable PPE. All PPE was bagged and disposed of in accordance with the approved FSP.

Additional deviations include removing the floor number from sample nomenclature. The decision was made to employ a "positive-stop" analysis requirement with the laboratory. These changes had no effect on the sample collection methodology or the sample results.

4.2 ASBESTOS SOIL SURVEY

Asbestos soil samples were collected in conjunction with the lead soil samples (Section 5.4). Because window caulking was the most significant source of possible asbestos on the exterior of the building, sample locations were field located under the windows to best capture any contamination present in the soils.

In total, 14 soil samples were collected and placed in seal-top poly bags for asbestos analysis. Samples were labeled with a sample ID, date, and time. The collected soil samples were submitted to IATL under COC procedures. Sample results are available in Table 3.

Deviations from the FSP include collecting samples in spots with patchy grass areas. Samples were taken from areas with the least amount of vegetation approximately 8 inches from the

exterior walls. This deviation had no effect on the sample collection methodology or sample results.

4.3 LEAD-BASED PAINT SURVEY OF BUILDING STRUCTURE

This Phase II investigation involved the collection of 434 XRF readings for lead using a handheld XRF instrument to analyze painted and coated exterior and interior surfaces of the WMMHC building. These readings included one reading of the paint on each wall, one reading of the paint on the ceiling (where accessible and not obstructed by drop ceiling), and as many as four other painted surfaces in each room or building exterior. XRF readings were obtained for each of the following in each section of the building:

- One on each wall of each room or room equivalent;
- One on the ceiling in each room with a painted or coated ceiling; and
- One on each of the following building elements in each room, if present:
    - Window casings, stops, jambs, and aprons;
    - Interior window mullions and window sashes;
    - Door jambs, stops, transoms, casings, and other door frame parts;
    - Door stiles, rails, panels, mullions, and other door parts;
    - Baseboards and associated trim (such as quarter-round or other caps); and
    - Built-in or attached furniture such as bookcases, shelving, and chalk trays.

Twenty-six paint chip samples were collected in accordance with "ASTM E1729-05 Standard Practice for the Field Collection of Dried Paint Samples for Subsequent Lead Determination" (ASTM 2005) to provide quality assurance (QA) (EPA 1995). Paint chip sample were typically collected from a 4-square inch (25-square centimeter) area, and included all paint layers down to the substrate layer.

All paint chip samples were collected and placed into seal-top poly bags labeled with a sample ID, date, and time. The samples were sent with the other samples to IATL under COC procedures.

Sampling locations and rationale are summarized in Table 1. XRF sample results are provided in Table 5.

Only one deviation from the FSP occurred during the LBP analysis. In the sample nomenclature, a one-letter identifier was added to designate a floor number. The change had no effect on the sample collection methodology or the sample results.

4.4 LEAD-BASED PAINT SOIL SURVEY

The WMMHC structure's exterior was primarily surrounded by grass with some walls bordered by concrete walkways and stairs. During the first sampling event, XRF analysis detected no LBP on the exterior walls due to abatement around 1999 (WMMHC 2011). XRF analysis identified LBP on the windows and doors above regulated concentrations; therefore, START collected soil samples 8 inches away from each available wall to quantify potential contamination. Sampling personnel took additional samples from larger walls to more accurately quantify the larger areas.

Fourteen soil samples were collected and placed in seal-top poly bags for lead analysis during the first sampling event. Samples were labeled with a sample ID, date, and time. The collected soil samples were submitted to IATL under COC procedures. Soil sample results are available in Table 6.

Deviations from the FSP include collecting samples in spots with patchy grass areas. Samples were taken from areas with the least amount of vegetation approximately 8 inches from the exterior walls. This deviation had no effect on the sample collection methodology or sample results.

Based on the results from the first sampling event, a subsequent sampling event was required to properly delineate the high concentrations of lead in soil. A handheld Omega XRF was used to screen 81 soil locations and depths for lead. Based on observed conditions, starting sample points were chosen both 3 and 6 feet from the exterior wall. Some sample locations required additional sample points out to a maximum of 21 feet (Figure 10). Once START determined the horizontal delineation of the lead, vertical delineation was determined using 4-inch intervals at sample points with readings greater than 250 mg/kg. START also collected two additional samples 8-inches from the east and north wall to compare to previously collected samples.

Ten soil samples were collected and placed in seal-top poly bags for lead analysis during the second sampling event. Samples were labeled with a sample ID, date, and time (Table 6). The collected soil samples were submitted to Reservoirs Environmental in Denver, CO under COC procedures. Soil sample results are available in Table 6 and were used in developing a correlation

curve for the laboratory-corrected in situ XRF readings in Table 7. An expanded narration of the procedure can be found in Appendix C. Since this sampling event was not anticipated, the sampling design was not included in the FSP.

5.0 ANALYTICAL RESULTS

Analytical results are presented in Tables 2 through 7. The laboratory asbestos results are provided in Tables 2 and 3. Lead confirmation paint chip sample results are provided in Table 4, XRF in situ results in Table 5, and lead soil results in Tables 6 and 7.

The analytical methods used for the analyses are as follows:

- Asbestos in Building Material and Soil – Polarized Light Microscopy (PLM);
- Lead in Paint – EPA Method 6010; and
- Lead in Soils – EPA Method 7420.

5.1 ASBESTOS CHARACTERIZATION OF BUILDING STRUCTURE

Seventy-four suspect ACM samples were collected during the inspection of the WMMHC property. Seven samples include multiple layers for a total of 83 samples collected and analyzed. ACM is identified as material containing greater than 1 percent asbestos (40-CFR-763 & 17.74.352(2), MCA). The laboratory identified asbestos at concentrations greater than 1 percent in 16 of the building materials sampled. The materials identified as asbestos-containing are quantified and identified below in Table A.

Table A
Positive ACM and Quantities

Material	Quantity
Window caulking	4,430 linear feet (lf)
Vinyl floor tile	20 square feet (sq. ft.)
Large tank insulation	250 sq. ft.
Small tank insulation	200 sq. ft.
Transite panels	900 sq. ft.
Soil debris in storage room	7.5 cubic feet (cu. ft.)
Soil debris in hallway	7.5 cu. ft.
Roof flashing	1,400 sq. ft.

Table A
Positive ACM and Quantities

Material	Quantity
3-inch pipe insulation	491 lf
3-inch mudded joints	62
6-inch air cell insulation	230 lf
6-inch air cell mudded joints	23
6-inch pipe insulation	201 lf
6-inch mudded joints	51
8-inch pipe insulation	318 lf
14-inch pipe insulation	85 lf

*See Table 2 for complete sample attributes

Samples were grouped as like materials and by type throughout the sampling event. Once collected, the samples were then submitted to the laboratory with a positive stop methodology. In the positive stop method, the laboratory analyzes the samples by grouping material types together and continues until a positive result for asbestos is encountered. If one sample of the group is found to be positive for asbestos, the remaining samples are considered as positive and not analyzed. Due to the positive stop methodology employed during the sample analysis, 32 collected samples were not analyzed.

The laboratory results summary for the asbestos analysis with sample descriptions and locations is included in Table 2. Visual representation of ACM locations can be found in Figures 2 through 5.

5.2 ASBESTOS SOIL SURVEY

Fourteen grab soil samples were collected along the perimeter walls of the WMMHC building for asbestos analysis. Laboratory results for asbestos in soil samples are available in Table 3. No detections for asbestos were observed in the sample results.

5.3 LEAD-BASED PAINT SURVEY OF BUILDING STRUCTURE

Four hundred thirty-four in situ readings were taken at the WMMHC property for LBP using an Innov-X A-4000 handheld XRF instrument. LBP is defined as paint with a lead concentration greater than or equal to 1 milligram per square centimeter (mg/cm^2) or 0.5 percent (5,000

milligrams per kilogram [mg/kg]) (U.S. Department of Housing and Urban Development [HUD] 1997). XRF results of exactly 1 mg/cm^2 are considered ambiguous readings and must be verified by confirmation paint chip samples. Paint chip samples were also collected from the WMMHC property for Quality Control (QC). Laboratory results for the paint chip samples are listed in Table 4. The laboratory results for lead concentration are given as a percent, which cannot be directly converted to the XRF results which are given in mg/cm^2. The XRF results can be found in Table 5.

Of the 434 in situ samples analyzed at the WMMHC property, 300 samples (69.1 percent) were identified as containing LBP in concentrations equal to or greater than 1 mg/cm^2 (Table 5). Based on the in situ results, 15 positive (greater than 1 mg/cm^2), 6 ambiguous (equal to 1 mg/cm^2), and 5 negative (less than 1 mg/cm^2) paint chip samples were collected from the interior of the building and shipped via FedEx to IATL on March 9, 2011 for confirmation analysis. Duplicates were sent for three positive samples.

Of the six ambiguous laboratory-analyzed samples, the results were determined to be split between four positive and two negative samples. One sample result was reversed, having been a positive in situ XRF reading of 2.55 mg/cm^2 and a negative laboratory result of 0.28 percent. Although not directly comparable, 2.55 mg/cm^2 is considered positive for the XRF method, whereas a value of 0.5 percent or greater is considered positive by the laboratory method. This result is considered an anomaly as it is the only result during the sampling event to have a reversed reading. All of the other submitted samples were confirmed as either positive or negative for lead in paint.

Laboratory results were used for data correlation, usability, and QA. These results are discussed in detail and summarized in Appendix C. For a visual representation and nomenclature of LBP locations, Figures 6 through 9 provide all room numbers and wall letters to be used in conjunction with the building element table below.

Table B
Building Element Designations

Number	Material Element
01	Walls
02	Window casing, stops, jambs, and aprons
03	Interior window mullions and window sashes

04	Exterior window mullions and window sashes
05	Door jambs, stops, transoms, casings, and other door frame parts
06	Door stiles, rails, panels, mullions, and other door parts;
07	Baseboards and associated trim (such as quarter-round or other caps)
08	Ceiling
09	Floor
10	Attached or built-in furniture

*To be used in conjunction with Figures 6 through 9

5.4 LEAD-BASED PAINT SOIL SURVEY

During the sampling events, 24 soil samples, including one duplicate, and 81 XRF readings were collected along the perimeter of the building for lead analysis. Results indicate lead contamination primarily along the eastern and southern exterior walls of the WMMHC (Figure 10).

Results from the initial soil sampling event include 10 of the 14 samples at or above the EPA residential guidance level of 400 mg/kg in soils, with 7 samples exceeding the 1,000 mg/kg and 2 additional samples close to the EPA guidance level at 370 and 380 mg/kg. Based on these results, an additional sampling event occurred to properly delineate and quantify lead contamination present in the soils.

The second round of sampling was conducted with an XRF designed for soils analysis. START personnel collected 81 in situ lead measurements and 10 soil samples for conformational analysis. Laboratory-corrected in situ readings ranged from 4 mg/kg to 1,138 mg/kg. Twenty results were above the EPA residential guidance level of 400 mg/kg with three being above 1,000 mg/kg (Table 7). Fourteen additional samples were found to be within 300 to 400 mg/kg.

The depths of lead contamination remained shallow in most sample locations. Personnel observed concentrations above EPA residential guidance levels in the pits to a maximum depth of 8 inches (Figure 10).

6.0 DATA QUALITY ASSESSMENT

All applicable Technical Standard Operating Procedures (TSOPs) were followed as prescribed in the approved Field Sampling Plan (FSP) except for those outlined in the appropriate sampling activities in

Section 4. The data quality objectives for this project have been met and are summarized in the Data Quality Assessment located in Appendix C.

7.0 CONCLUSIONS

This Phase II investigation has characterized, delineated, and identified ACM, LBP, and lead-containing soils on the WMMHC property. ACM was observed at concentrations greater than the MDEQ standard of 1 percent. LBP was identified in concentrations exceeding the permissible EPA and HUD levels of 1 mg/cm^2 of surface area or 0.5 percent by weight. Approximately 25% of lead results for soils around the exterior perimeter of the building were above the EPA residential guidance level of 400 mg/kg.

Asbestos was identified in 16 materials at concentrations greater than 1 percent in materials present throughout the WMMHC property. The materials that contain asbestos include mudded joints, window caulking, debris, vinyl floor tile, roof flashing, tank insulation, and pipe insulation (see Table A for material and quantity breakdowns). During the sampling event, a significant amount of friable ACM was observed to be damaged, with the greatest amount of damaged, friable ACM being located throughout the basement. Damaged, friable ACM creates a situation where an asbestos exposure is more likely because the asbestos can readily become airborne. All materials except the roof flashing and floor tile are considered friable and should be abated before renovation activities begin. The floor tile and roof flashing are considered non-friable unless renovation activities cause materials to become friable.

LBP was identified in 300 of the in situ XRF samples. Detections for LBP were found in all interior rooms and on some exterior elements of the building. Because the paint is expected to be covered with a drywall layer, concern is given only to elements that will be retained and exposed, such as the balustrades and windows.

Lead in soil results for the perimeter of the structure ranged from 4 to 1,138 mg/kg. Twenty of 81 samples had results above the EPA residential guidance level of 400 mg/kg. Eight additional samples were approaching the EPA guidance levels with results between 350 and 400 mg/kg.

8.0 RECOMMENDATIONS

Based on the findings of this Phase II report and the proposed future use of the property, ACM and LBP cleanup and removal of the lead-contaminated soils is strongly recommended before renovation activities begin. Cleanup options and cost estimates for ACM, LBP, and lead-contaminated soils found on the WMMHC property are summarized below. These preliminary cost estimates were tabulated using

quantified values from the March 8,9, and 29, 2011, START field sampling events in conjunction with the 2011 RSMeans Building Construction Cost Data manual and the RSMeans Environmental Remediation Estimating Methods 69th Edition (RSMeans 2010). The cost estimate for ACM and LBP abatement and lead-contaminated soil removal is explained in detail in the sections below and in Table 8.

It is important to note that a meeting and property walkthrough with the State of Montana Historic Preservation Office (SHPO) should be arranged before soliciting bids from prospective contractors. The outcome of the meeting will influence abatement activities at the property and provide requirements to maintain the buildings status on the National Registry of Historic Places.

8.1 CLEANUP CONSIDERATIONS

8.1.1 Asbestos-Containing Material Abatement

Based on the proposed renovations and future reuse, the cost estimate assumes all ACM will need to be removed. The majority of the observed ACM was located in the basement of the WMMHC building. The proposed plans provided by the WMMHC group list meeting and recreation rooms, storage, and facility rooms as the uses for the basement floor (Bechtle Architects 2011). The remaining floors have pipe insulation wrapped around the risers leading to the third floor. These risers will also be abated and removed due to the future use as patient rooms.

All pipe insulation, boiler insulation, floor tile, and window caulking removal operations are tabulated in the respective line items of Table 8. All friable ACM removal will require air filtration, negative pressure conditions, containment barriers, air monitoring, and decontamination units based on regulatory requirements. The disposal of these materials at a landfill will be classified as friable ACM.

Floor tile removal can be performed by hand removing the tile and bagging the waste. The materials created are expected to be non-friable and may not require containment or monitoring. The disposal of these materials will be classified as non-friable ACM.

The windows are considered to be original and will likely need to be kept during renovation so the building retains its Historical Registry designation. Due to this likely requirement, the removal of ACM window caulking is assumed to be performed during the LBP abatement of the windows.

8.1.2 Lead-Based Paint Abatement

The abatement of identified LBP is recommended and may be required depending on selected renovation activities. As the WMMHC is aware, the LBP may be left in place and sealed off behind a new layer of drywall. By doing so, the cost estimate is significantly reduced due to the large amounts of LBP that will be left in the building. Likewise, if the WMMHC decides to keep some or all walls visible and remove the LBP, the associated costs will increase significantly. The cost estimate found in Table 8 assumes all walls and ceilings will be covered with a layer of drywall.

LBP was also identified on window frames, doors, and door jambs in the WMMHC building. When left in place, windows, doors, and door jambs can either be stripped of LBP using a chemical process or have the LBP encapsulated by repainting. Removing LBP from these materials is preferred over encapsulation with new paint because moving and friction on these surfaces will likely cause the paint to become worn and exposed and release lead dust with movement. Alternatively, the windows, doors, and door jambs can also be removed and replaced, although it is strongly recommended that this action be discussed with the state historic preservation office prior to any action.

8.1.3 Lead-Containing Soils

Due to the high concentrations of lead present in the surface soils surrounding the perimeter of the WMMHC building, removal of these soils is strongly recommended. START conducted an additional sampling event and determined the location of lead contamination in the soil surrounding the WMMHC (Figure 10). Soils with lead contamination approaching, but below the EPA residential guidance level are not included in the cost estimate as needing to be removed. If a decision is made to include these locations, the cost will be dependent on the additional amount of soil to be removed.

As is the case with lead abatement activities, removal operations will require a monitoring plan to ensure the safety of personnel working on-site.

8.2 CLEANUP COST ESTIMATION

All cleanup cost estimates and line items can be found in Table 7. Table 7 also includes detailed line items for the mobilization of equipment and site preparation prior to the beginning of abatement activities.

8.2.1 Asbestos Abatement

Seventy-four suspect ACM samples were collected at the WMMHC property and analyzed for asbestos by PLM analysis, of which 16 tested positive for asbestos and 32 are assumed to be positive due to positive stop methodology. Approximately 2,770 sq. ft. of flooring tile, transite panels, tank insulation, and roof flashing, 5,750 lf of window caulking and pipe insulation, 15 cu. ft. of debris, and 136 mudded joints were characterized and identified as ACM on the WMMHC property.

One preliminary cost estimate was completed for this recognized environmental hazard. The cost for abatement of the all ACM on both the interior and exterior of the WMMHC building is $99,760 (Table 8).

8.2.2 Lead-Based Paint Abatement

Three hundred XRF readings and 19 LBP paint chip samples tested positive for lead by HUD regulations for residential properties. Since walls will be covered with new drywall, only quantities of LBP on windows and balustrades were quantified for LBP abatement. The approximate total quantity of surfaces on the WMMHC property covered with LBP is 112 windows of varying sizes and 360 sq. ft. of balustrade. The estimated cost of abatement of LBP is $155,786 (Table 8).

8.2.3 Lead-Contaminated Soil Removal

START personnel screened 81 soil samples from the perimeter of the WMMHC building, 20 of which had results above the EPA residential guidance level of 400 mg/kg. Approximately 18 cubic yards are assumed as being removed with an estimated cost of $2,991 (Table 8).

8.3 COST ESTIMATE ASSUMPTIONS

This cost estimate has been prepared based on certain assumptions made by UOS that substantially affect the conclusions and recommendations of this report. These assumptions below, although thought to be reasonable and appropriate, may not prove to be true in the future. The conclusions and recommendations of UOS are conditional upon these assumptions.

The cost estimates provided in Table 8 were tailored based on proposed plans for the renovation of the WMMHC building. All cost estimates include a 20 percent contingency. Regardless, prospective contractors and their respective bids should be solicited for exact costs and specifications. As mentioned above, a property walkthrough with the SHPO is recommended to determine requirements to maintain the property's designation on the National Registry of Historic Places. The cost estimate provided in this report assumes the windows, brick-encased boiler, and balustrades will remain in place.

Research conducted to compile this cost estimate was aided by the RSMeans Building Construction Cost Data manual to more accurately quantify expenses as they relate to the WMMHC property. The following assumptions were used in developing the cost estimate:

- All doors in the building will be removed and replaced during renovation.
- Abatement activities are expected to take 14 days with a work week of 6 days a week.
- Newly installed drywall will cover all walls and ceilings with LBP.
- All ACM will be removed from the building.
- Each window component will be removed and renovated for LBP and ACM caulking.
- Caulking will be removed during LBP stripping of the windows.
- Each window frame and sash is built into the per window quote.
- The amount of tile removed is expected to be approximately 1 cu. yd.
- Chemical paint stripping will be used for all LBP on windows and balustrades.
- A swell factor of 1.2 was used to obtain loose cubic yards (LCY).
- A contingency of 20 percent is used.

Based on the assumptions listed above, the estimated cost for the entire ACM and LBP abatement and lead in soils removal is $258,537.

9.0 LIST OF REFERENCES

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10.0 ENVIRONMENTAL PROFESSIONAL'S QUALIFICATIONS, STATEMENT, AND SIGNATURES

This work was conducted by an environmental professional as specified in Section 7.5.1 of E 1527-05 and defined pursuant to 40 CFR.10 (ASTM 2005).

Tim Bosco has a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering and the equivalent of 25 years of full-time relevant experience. Mr. Bosco is also an AHERA- and MDEQ- certified asbestos building inspector.

Under the supervision of the environmental professional, Steve Norris assisted in the conduct of this all appropriate inquiry.

Steven Norris has a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of science and the equivalent of 3.5 years of full-time relevant experience.

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

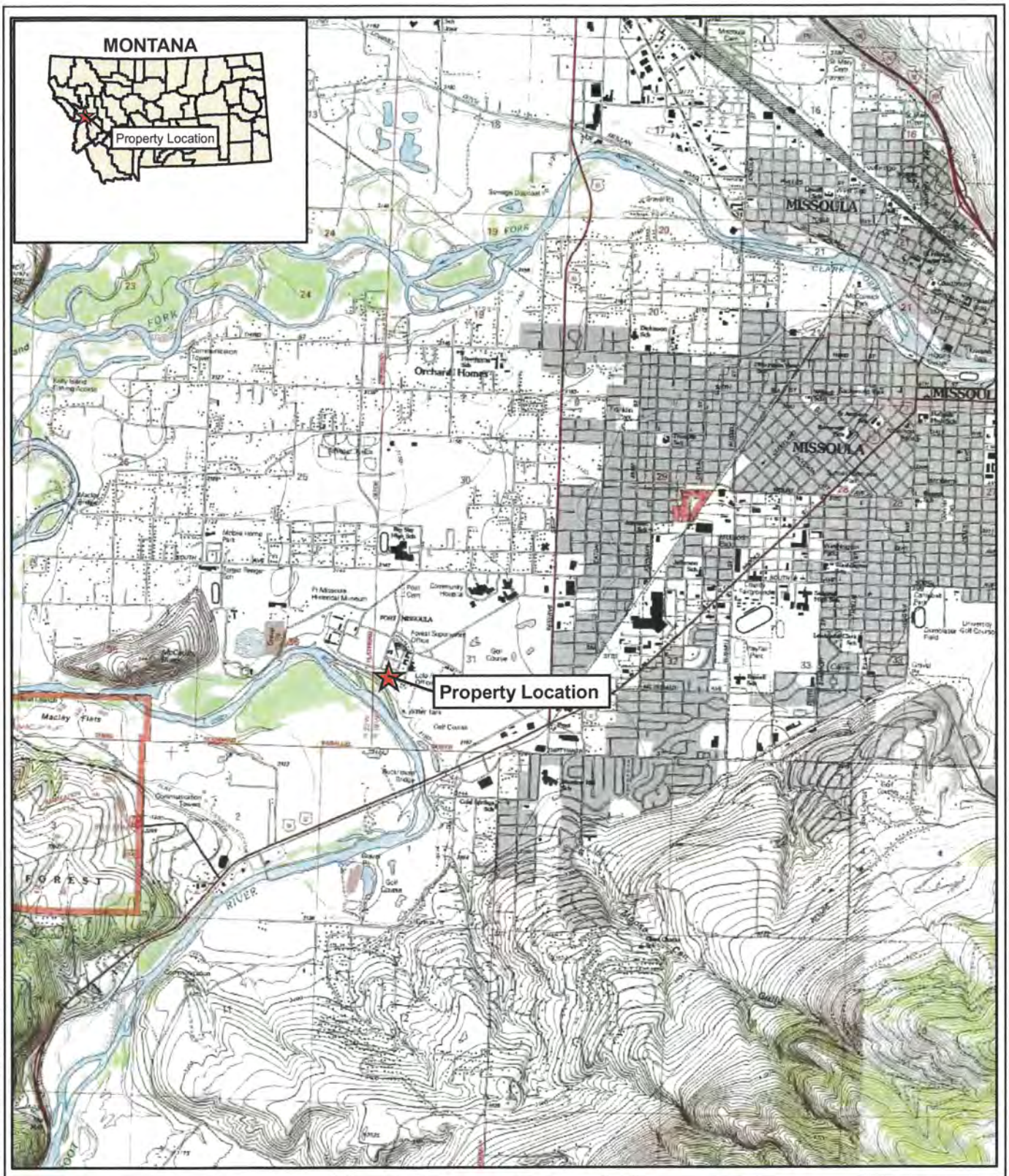
_____ Date: _____

Tim Bosco, P.E., Senior Environmental Scientist

_____ Date: _____

Steve Norris, Project Manager, Environmental Scientist

Figure 1 Property Location Map



Projection System:
Universal Transverse
Mercator Zone 12 North
North American Datum 1983

0 0.75 1.5
Miles

Page Size: 8.5 x 11

TDD Title: **Western Montana Mental Health Center**

Figure: 1

Figure Title: Property Location Map

TDD County: MISSOULA TDD: 1102-01

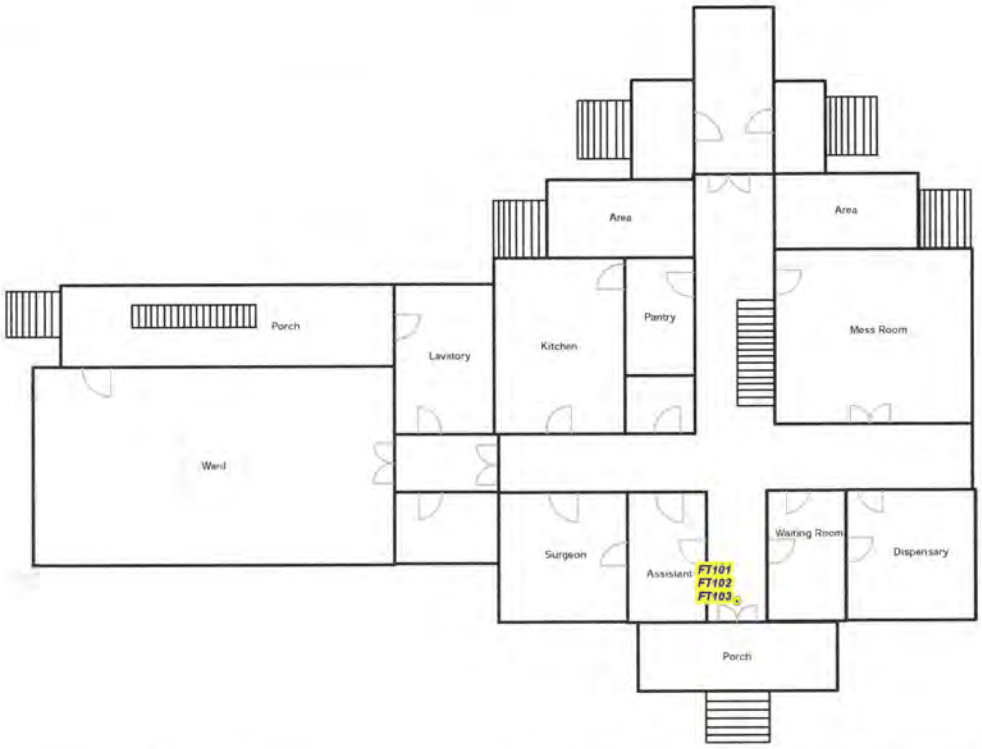
TDD State: MT Date: 04/2011

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OPERATING SERVICES

Sources:
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Figure 2 Asbestos-Containing Material Results Map – First Floor



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 2

Figure Title: Asbestos Containing Material Sample Location Map - First Floor

TDD County: MISSOULA

TDD State: MT

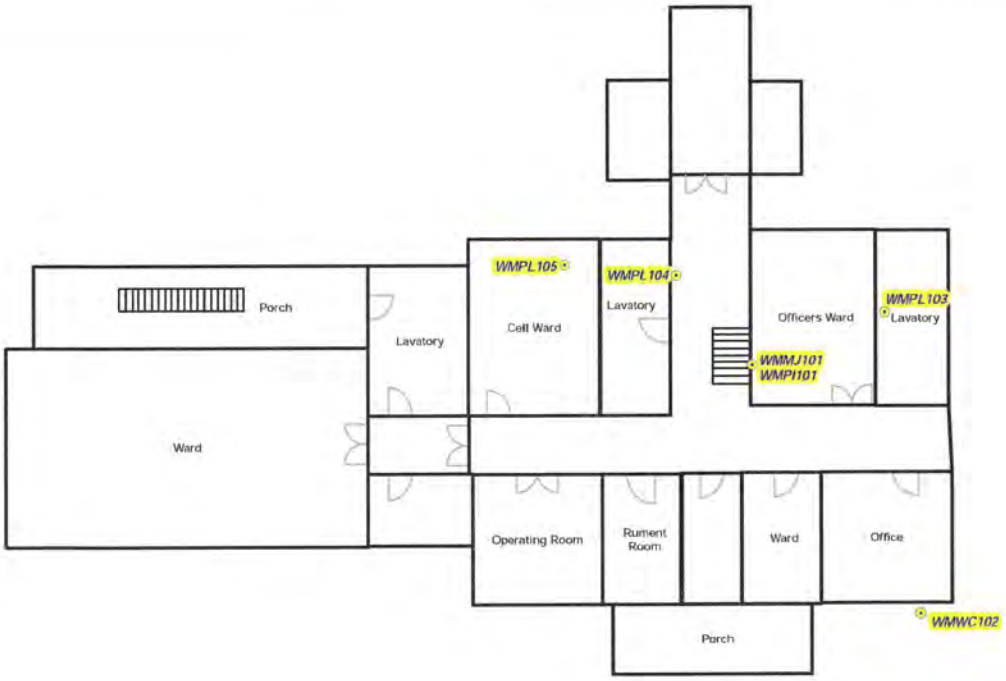
TDD: 1102-01

Date: 04/2011

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Figure 3 Asbestos-Containing Material Results Map – Second Floor



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 3

Figure Title: Asbestos Containing Material Sample Location Map - Second Floor

TDD County: MISSOULA

TDD State: MT

TDD: 1102-01

Date: 04/2011

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Figure 4 Asbestos-Containing Material Results Map – Attic



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 4

Figure Title: Asbestos Containing Materials Sample Location Map - Attic Floor

TDD County: MISSOULA

TDD: 1102-01

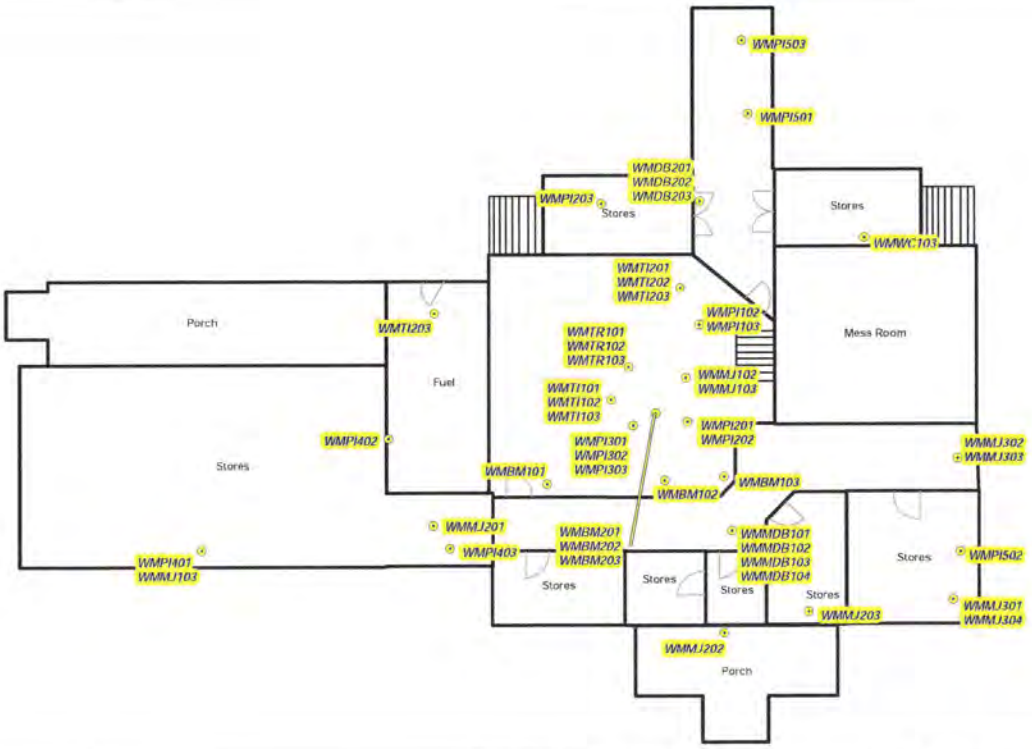
TDD State: MT

Date: 04/2011

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Figure 5 Asbestos-Containing Material Results Map – Basement



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 5

Figure Title: Asbestos Containing Material Sample Location Map - Basement Floor

TDD County: MISSOULA

TDD: 1102-01

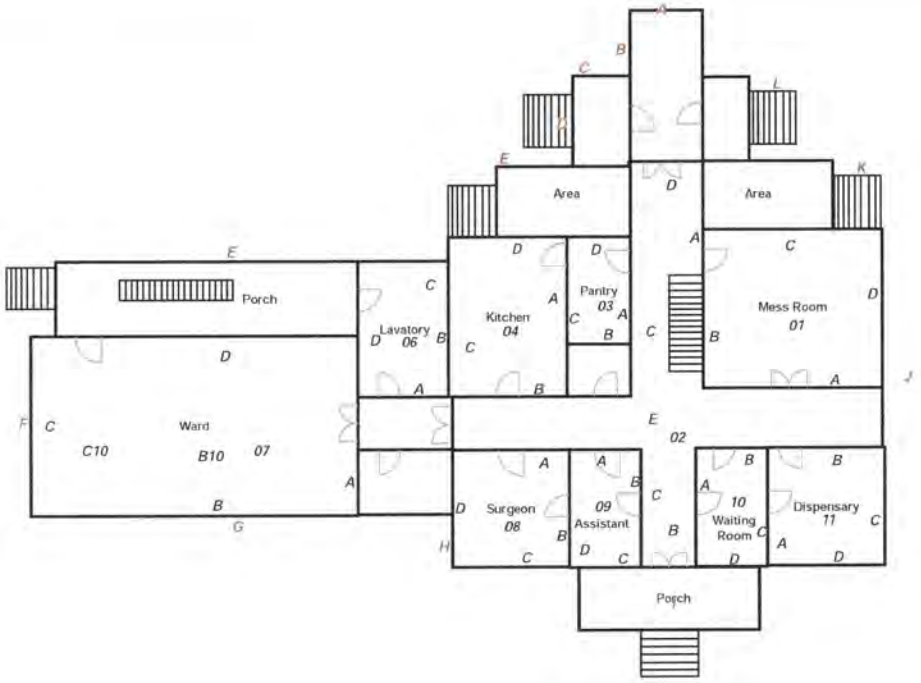
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Date: 04/2011

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Figure 6 Lead-Based Paint Nomenclature Map – First Floor



A = Interior Sample Location
A = Exterior Sample Location

Note: Not to scale.

Sources:
MGS Inc., Mountain Laboratories 1992

TDD Title: Western Montana Mental Health Center

Figure: 6

Figure Title: Lead based Paint Nomenclature Map - First Floor

TDD County: MISSOULA

TDD State: MT

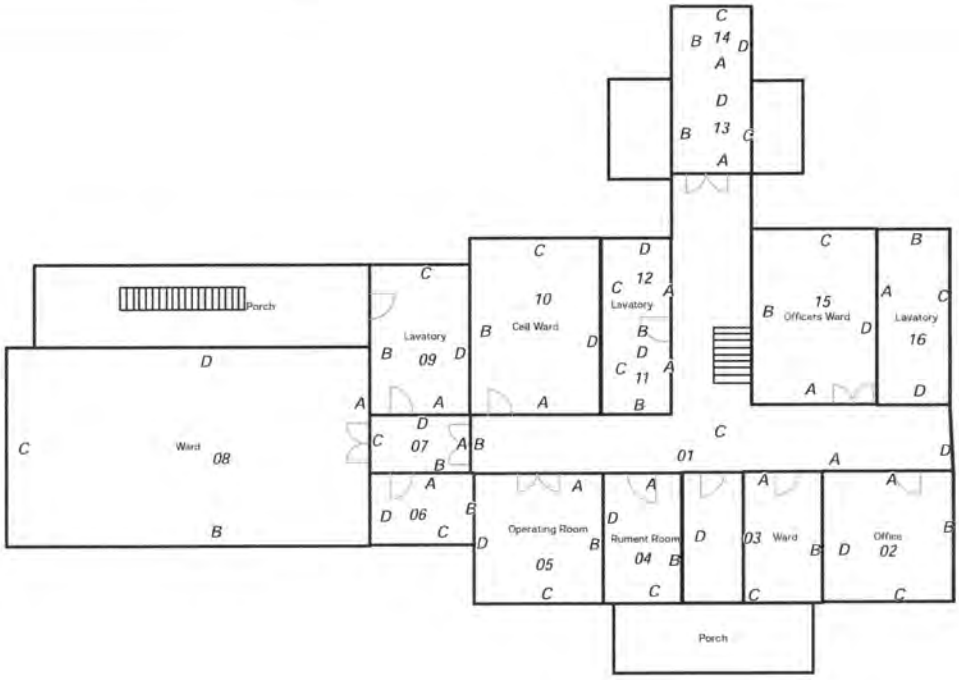
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Date: 04/2011

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Figure 7 Lead-Based Paint Nomenclature Map – Second Floor



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 7

Figure Title: Lead Based Paint Nomenclature Map - Second Floor

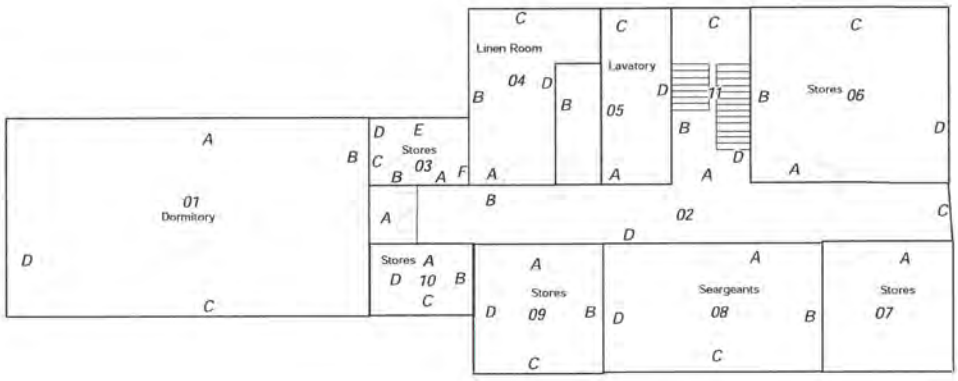
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TDD State: MT Date: 04/2011

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Figure 8 Lead-Based Paint Nomenclature Map – Attic Floor



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 8

Figure Title: Lead Based Paint Nomenclature Map - Attic Floor

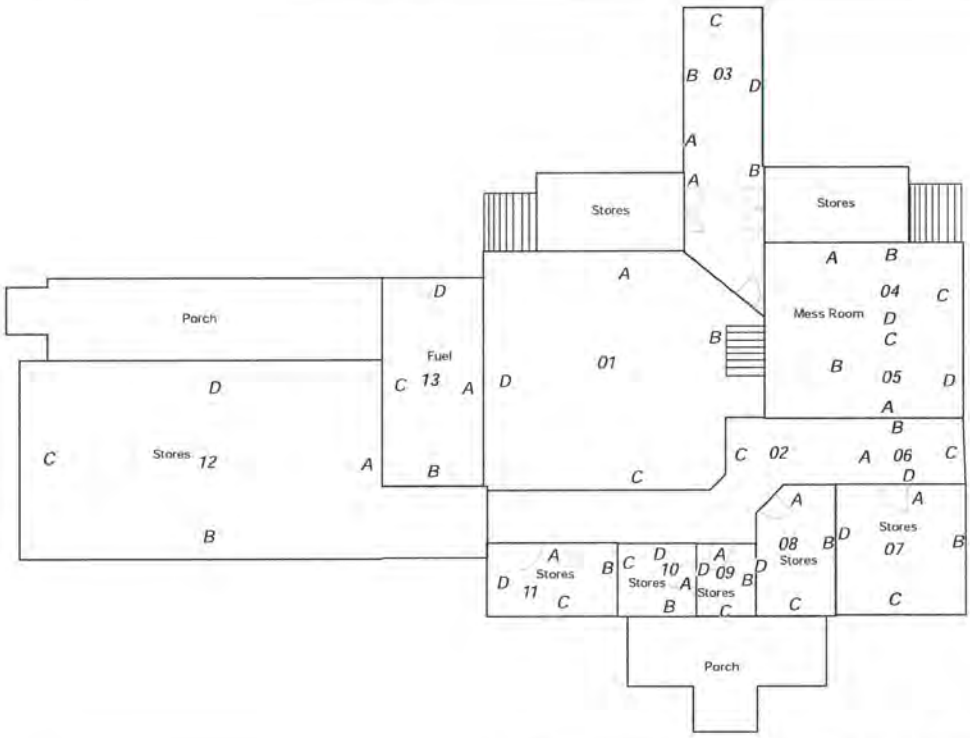
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TDD State: MT Date: 04/2011

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Figure 9 Lead-Based Paint Nomenclature Map – Basement Floor



Sources:
MGS Inc., Mountain Laboratories 1992

Note: Not to scale.

TDD Title: Western Montana Mental Health Center

Figure: 9

Figure Title: Lead Based Paint Nomenclature Map - Basement Floor

TDD County: MISSOULA

TDD State: MT

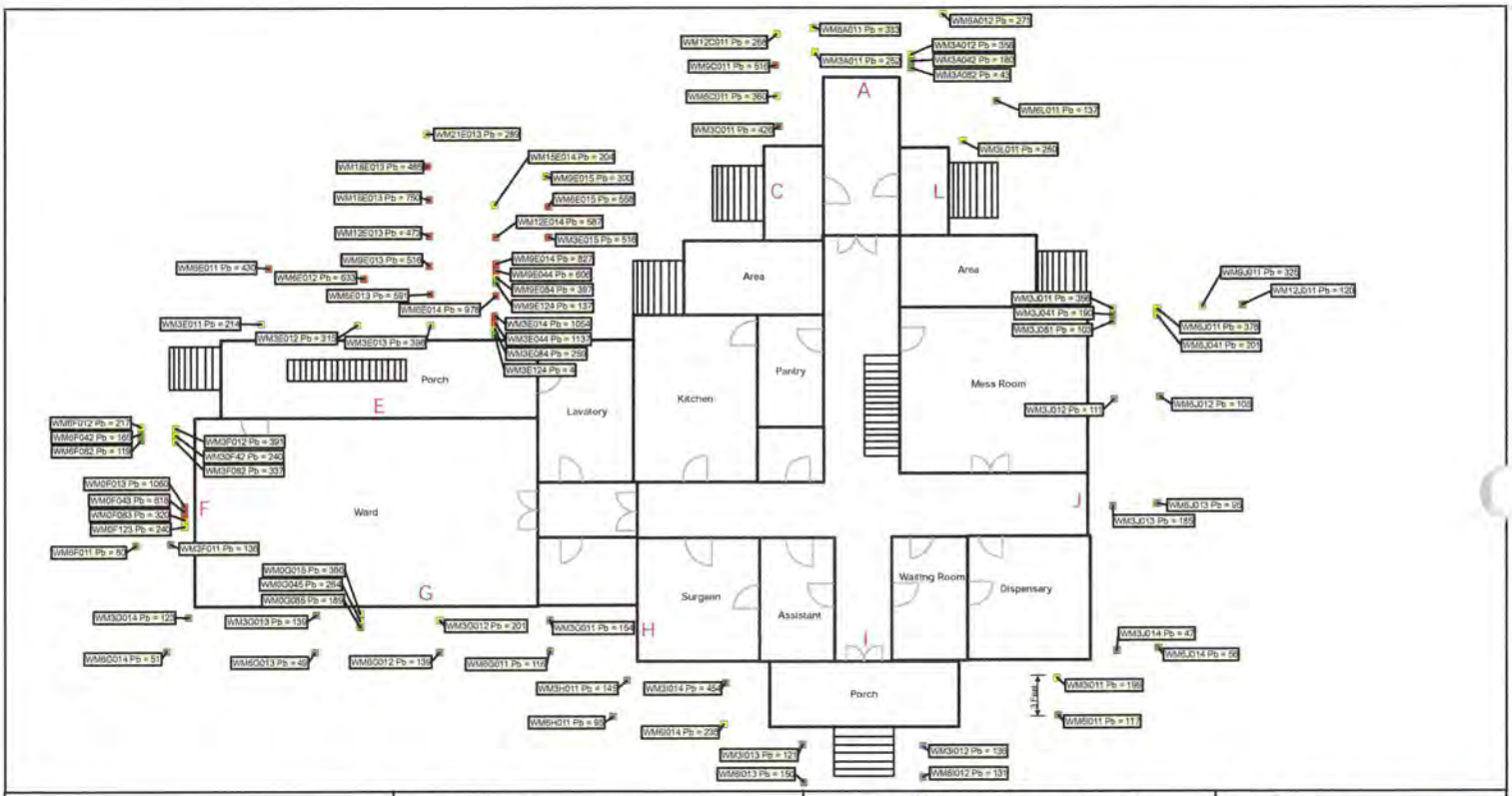
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Figure 10 Lead in Soil Results Map



Legend

Soil Sample Lead (Pb) Results

- 0 - 200 ppm
- 201 - 399 ppm
- > 400 ppm

1"
4"
8"
12"

WM | # | X | ## | #

- Sample #
- Sample Depth (inches)
- Wall Letter
- Feet from wall

*Note: Figure is not to scale
**Note: All soil results for lead are in parts per million (ppm; or milligrams per kilogram)

TDD Title: Western Montana Mental Health Center

Figure: 10

Figure Title: Lead in Soil Results Map

TDD County: MISSOULA

TDD State: MT

TDD: 1102-01

Date: 04/2011

URS OPERATING SERVICES

Sources:
MGS Inc., Mountain Laboratories 1992

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TABLE 1
Sample Locations and Rationale

Sample Matrix	Sample ID	Location	Rationale
Paint	WM##X##	Interior lead paint samples	To determine if LBP is present in WMMHC building
Paint	WMX##	Exterior lead paint samples	To determine if LBP is present in WMMHC building
Soil	WMSOX##	Soil sample from vicinity of building	To determine if LBP has contaminated soil surrounding the WMMHC building
Soil	WMSOX##	Soil sample from vicinity of building	To determine if asbestos has contaminated soil surrounding the WMMHC building
Soil	WM#X###	Soil reading locations from vicinity of building	XRF readings to determine lead concentrations in the soils surrounding the WMMHC building
Building Material	WMXX###	Asbestos samples	To determine if ACM is present in WMMHC building

ACM Asbestos-containing materials
LBP Lead-based paint
XRF X-ray fluorescence

TABLE 2
Analytical Results for Asbestos in Building Material Samples

Sample ID	Lab ID	Sample Date	Floor	Sample Location	Sample Matrix	Matrix Material Location	Matrix Material Description	Matrix Quantity Present	Unit	Visual Est. (%)	Asbestos Mineral ID
WMPL101	4241023	03/08/11	Attic	Next to exterior stairwell door in main room	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL102	4241024	03/08/11	Attic	Lavatory in corner	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL103	4241025	03/08/11	2nd	Lavatory in officers room	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL104	4241026	03/08/11	2nd	South hallway below landing	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL105	4241027	03/08/11	2nd	Window in cell ward room	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL106	4241028	03/08/11	Attic	Outside storage room on N wall	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL107	4241029	03/08/11	Attic	East end next to window	Wall Plaster	All walls and ceilings except hallway	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL201	4241030	03/08/11	Attic	East end of hallway	Wall Plaster	Hallway of attic	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL202	4241031	03/08/11	Attic	Center of hallway	Wall Plaster	Hallway of attic	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMPL203	4241032	03/08/11	Attic	West end of hallway	Wall Plaster	Hallway of attic	1/4" plaster; white finish coat over grey base coat	-	-	None	N/A
WMSF101	4241033	03/08/11	Attic	Center of main room	Flooring	Hallway and stairwell	Brown sheet flooring, pre-linoleum	-	-	None	N/A
WMSF102	4241034	03/08/11	Attic	Each end below window	Flooring	Hallway and stairwell	Brown sheet flooring, pre-linoleum	-	-	None	N/A
WMSF102	4241034	03/08/11	Attic	Each end below window	Flooring	Hallway and stairwell	Brown Mastic	-	-	None	N/A
WMSF103	4241035	03/08/11	Attic	Stairwell before steps	Flooring	Hallway and stairwell	Brown sheet flooring, pre-linoleum	-	-	None	N/A
WMSF103	4241035	03/08/11	Attic	Stairwell before steps	Flooring	Hallway and stairwell	Brown Mastic	-	-	None	N/A
WMSF104	4241036	03/08/11	Attic	Center of main room	Flooring	Hallway and stairwell	Brown sheet flooring, pre-linoleum	-	-	None	N/A
WMWC101	4241037	03/08/11	Attic	Window next to exterior door	Caulking	All windows	Gray, hardened window caulking	4430	LF	1.3	Chrysotile
WMWC102	4241038	03/08/11	2nd	Window in office area	Caulking	All windows	Gray, hardened window caulking	4430	LF	N/A	N/A
WMWC103	4241039	03/08/11	Basement	Southwest window in exterior stairwell	Caulking	All windows	Gray, hardened window caulking	4430	LF	N/A	N/A
WMPI101	4241040	03/08/11	2nd	Office room	Insulation	All floors	6 inch air cell insulation	230	LF	60	Chrysotile
WMPI102	4241041	03/08/11	Basement	Boiler room next to large tank	Insulation	All floors	6 inch air cell insulation	230	LF	N/A	N/A
WMPI103	4241042	03/08/11	Basement	Boiler room next to large tank	Insulation	All floors	6 inch air cell insulation	230	LF	N/A	N/A
WMMJ101	4241043	03/08/11	2nd	Officers room	Insulation	All floors	6 inch air cell Mudded joint	23	each	70	Chrysotile
WMMJ102	4241044	03/08/11	Basement	Ceiling above open floor	Insulation	All floors	6 inch air cell Mudded joint	23	each	N/A	N/A
WMMJ103	4241045	03/08/11	Basement	Main room of basement	Insulation	All floors	6 inch air cell Mudded joint	23	each	N/A	N/A
WMTI101	4241046	03/08/11	Basement	Insulation on large tank, top side	Insulation	Boiler room	White coating on exterior of tank	250	ft^2	25	Chrysotile
WMTI102	4241047	03/08/11	Basement	Insulation on large tank, middle	Insulation	Boiler room	White coating on exterior of tank	250	ft^2	N/A	N/A
WMTI103	4241048	03/08/11	Basement	Insulation on large tank, West end	Insulation	Boiler room	White coating on exterior of tank	250	ft^2	N/A	N/A
WMTR101	4241049	03/08/11	Basement	Ceiling above large tank	Transite	Boiler room	Transite panels on boiler room ceiling	900	ft^2	15	Chrysotile
WMTR102	4241050	03/08/11	Basement	Ceiling above large tank	Transite	Boiler room	Transite panels on boiler room ceiling	900	ft^2	N/A	N/A

TABLE 2
Analytical Results for Asbestos in Building Material Samples

Sample ID	Lab ID	Sample Date	Floor	Sample Location	Sample Matrix	Matrix Material Location	Matrix Material Description	Matrix Quantity Present	Unit	Visual Est. (%)	Asbestos Mineral ID
WMTR103	4241051	03/08/11	Basement	Ceiling above open floor	Transite	Boiler room	Transite panels on boiler room ceiling	900	ft^2	N/A	N/A
WMTI201	4241052	03/08/11	Basement	Southeast corner of basement	Insulation	Boiler room	White mag-block insulation on small tank	200	ft^2	30	Chrysotile
WMTI202	4241053	03/08/11	Basement	Southeast corner of basement	Insulation	Boiler room	White mag-block insulation on small tank	200	ft^2	N/A	N/A
WMTI203	4241054	03/08/11	Basement	Southeast corner of basement	Insulation	Boiler room	White mag-block insulation on small tank	200	ft^2	N/A	N/A
WMPI201	4241055	03/08/11	Basement	Ceiling above open floor	Insulation	Throughout basement	6 inch pipe insulation	201	LF	20	Chrysotile
WMPI202	4241056	03/08/11	Basement	Ceiling above open floor	Insulation	Throughout basement	6 inch pipe insulation	201	LF	N/A	N/A
WMPI203	4241057	03/08/11	Basement	Janitors office	Insulation	Throughout basement	6 inch pipe insulation	201	LF	N/A	N/A
WMPI301	4241058	03/08/11	Basement	Ceiling above open floor	Insulation	Throughout basement	14 inch pipe insulation	85	LF	20	Chrysotile
WMPI302	4241059	03/08/11	Basement	Ceiling above open floor	Insulation	Throughout basement	14 inch pipe insulation	85	LF	N/A	N/A
WMPI303	4241060	03/08/11	Basement	Ceiling above open floor	Insulation	Throughout basement	14 inch pipe insulation	85	LF	N/A	N/A
WMDB101	4241061	03/08/11	Basement	Subsurface channel west of boiler room	Debris	Channel west of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	1.9	Chrysotile
WMDB102	4241062	03/08/11	Basement	Subsurface channel west of boiler room	Debris	Channel west of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	N/A	N/A
WMDB103	4241063	03/08/11	Basement	Subsurface channel west of boiler room	Debris	Channel west of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	N/A	N/A
WMDB104	4241064	03/08/11	Basement	Subsurface channel west of boiler room	Debris	Channel west of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	N/A	N/A
WMPI401	4241065	03/08/11	Basement	Main room of basement	Insulation	Throughout basement	8 inch pipe insulation	318	LF	20	Chrysotile
WMPI402	4241066	03/08/11	Basement	Main room of basement	Insulation	Throughout basement	8 inch pipe insulation	318	LF	N/A	N/A
WMPI403	4241067	03/08/11	Basement	Hallway to main room	Insulation	Throughout basement	8 inch pipe insulation	318	LF	N/A	N/A
WMMJ201	4241068	03/08/11	Basement	Hallway to main room	Insulation	Throughout basement	6 inch mudded joints	51	each	30	Chrysotile
WMMJ202	4241069	03/08/11	Basement	Storage room w/ underground pipe	Insulation	Throughout basement	6 inch mudded joints	51	each	N/A	N/A
WMMJ203	4241070	03/08/11	Basement	Pipe next to underground pipe chamber	Insulation	Throughout basement	6 inch mudded joints	51	each	N/A	N/A
WMPI501	4241071	03/08/11	Basement	Storage room next to south side of boiler	Insulation	Throughout basement	3 inch wrapped pipe insulation	491	LF	4.9	Chrysotile
WMPI502	4241072	03/08/11	Basement	Storage area in northwest corner	Insulation	Throughout basement	3 inch wrapped pipe insulation	491	LF	N/A	N/A
WMPI503	4241073	03/08/11	Basement	Storage room next to south side of boiler	Insulation	Throughout basement	3 inch wrapped pipe insulation	491	LF	N/A	N/A
WMMJ301	4241074	03/08/11	Basement	Storage area in northwest corner	Insulation	Throughout basement	3 inch mudded joints	62	each	30	Chrysotile
WMMJ302	4241075	03/08/11	Basement	Hallway next to storage room on west side	Insulation	Throughout basement	3 inch mudded joints	62	each	N/A	N/A
WMMJ303	4241076	03/08/11	Basement	Hallway next to storage room on west side	Insulation	Throughout basement	3 inch mudded joints	62	each	N/A	N/A
WMMJ304	4241077	03/08/11	Basement	Storage area in northwest corner	Insulation	Throughout basement	3 inch mudded joints	62	each	N/A	N/A
WMDB201	4241078	03/09/11	Basement	Subsurface channel south of boiler room	Debris	Channel south of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	30	Chrysotile
WMDB202	4241079	03/09/11	Basement	Subsurface channel south of boiler room	Debris	Channel south of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	N/A	N/A
WMDB203	4241080	03/09/11	Basement	Subsurface channel south of boiler room	Debris	Channel south of boiler room	Soil/debris in subsurface pipe channels	7.5	ft^3	N/A	N/A

TABLE 2
Analytical Results for Asbestos in Building Material Samples

Sample ID	Lab ID	Sample Date	Floor	Sample Location	Sample Matrix	Matrix Material Location	Matrix Material Description	Matrix Quantity Present	Unit	Visual Est. (%)	Asbestos Mineral ID
WMBM101	4241081	03/09/11	Basement	Front of boiler	Mortar	Exterior of boiler	Mortar used on exterior brick	-	-	None	N/A
WMBM102	4241082	03/09/11	Basement	Rear of boiler	Mortar	Exterior of boiler	Mortar used on exterior brick	-	-	None	N/A
WMBM103	4241083	03/09/11	Basement	Center of boiler	Mortar	Exterior of boiler	Mortar used on exterior brick	-	-	None	N/A
WMBM201	4241084	03/09/11	Basement	Front of boiler	Mortar	Interior of boiler	Mortar used on interior brick	-	-	Trace	Chrysotile
WMBM202	4241085	03/09/11	Basement	Front of boiler	Mortar	Interior of boiler	Mortar used on interior brick	-	-	None	N/A
WMBM203	4241086	03/09/11	Basement	Front of boiler	Mortar	Interior of boiler	Mortar used on interior brick	-	-	None	N/A
WMFT101	4241087	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Green floor tile	20	ft^2	2.1	Chrysotile
WMFT101	4241087	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Tan vinyl floor tile	20	ft^2	None	N/A
WMFT101	4241087	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Brown floor tile	20	ft^2	None	N/A
WMFT102	4241088	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Black mastic	20	ft^2	None	N/A
WMFT102	4241088	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Tan vinyl floor tile	20	ft^2	None	N/A
WMFT102	4241088	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Brown floor tile	20	ft^2	None	N/A
WMFT103	4241089	03/09/11	1st	Entryway to building	Flooring	Entryway on 1st floor	Tan vinyl floor tile	20	ft^2	None	N/A
WMRF101	4241090	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Rolled roofing material w/ tar paper	-	-	None	N/A
WMRF101	4241090	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Black tar paper	-	-	None	N/A
WMRF102	4241091	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Rolled roofing material w/ tar paper	-	-	None	N/A
WMRF102	4241091	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Black tar paper	-	-	None	N/A
WMRF103	4241092	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Rolled roofing material w/ tar paper	-	-	None	N/A
WMRF103	4241092	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Entire roof	Black tar paper	-	-	None	N/A
WMFL101	4241093	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Outlets present on roof	Flashing around roof penetrations	1400	ft^2	5.2	Chrysotile
WMFL102	4241094	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Outlets present on roof	Flashing around roof penetrations	1400	ft^2	N/A	N/A
WMFL103	4241095	03/09/11	Roof	Roofing on west side of 3rd floor landing	Roofing	Outlets present on roof	Flashing around roof penetrations	1400	ft^2	N/A	N/A

###	Asbestos material detected
%	Percent
N/A	Not Analyzed
LF	Linear Feet
Ft2	Square Feet
Ft3	Cubic Feet

TABLE 3
Analytical Results for Asbestos Soil Samples

Sample ID	Lab ID	Sample Location	Visual Estimate (%)	Asbestos Mineral ID
WMSOE01	4241096	Wall E (see paint sampling map)	None	Not Applicable
WMSOE02	4241097	Wall E (see paint sampling map)	None	Not Applicable
WMSOF01	4241098	Wall F (see paint sampling map)	None	Not Applicable
WMSOF02	4241099	Wall F (see paint sampling map)	None	Not Applicable
WMSOG01	4241100	Wall G (see paint sampling map)	None	Not Applicable
WMSOA01	4241101	Wall A (see paint sampling map)	None	Not Applicable
WMSOB01	4241102	Wall B (see paint sampling map)	None	Not Applicable
WMSOC01	4241103	Wall C (see paint sampling map)	None	Not Applicable
WMSOH01	4241104	Wall H (see paint sampling map)	None	Not Applicable
WMSOI01	4241105	Wall I (see paint sampling map)	None	Not Applicable
WMSOI02	4241106	Wall I (see paint sampling map)	None	Not Applicable
WMSOJ01	4241107	Wall J (see paint sampling map)	None	Not Applicable
WMSOJ02	4241108	Wall J (see paint sampling map)	None	Not Applicable
WMSOL01	4241109	Wall L (see paint sampling map)	None	Not Applicable

% Percent

TABLE 4
Analytical Results for Confirmation Paint Chip Samples

Sample ID	Laboratory ID	Color	Substrate	Lead (%)
WMA0108	**4240900**	**Cream**	**Plaster**	**45**
WMA05B01	**4240901**	**Black**	**Plaster**	**12**
WMA02B01	4240902	Cream	Plaster	0.013*
WMA08A01	4240903	Light Blue	Plaster	0.010*
WM211A01	**4240904**	**Gray**	**Plaster**	**0.57**
WM213D01	**4240905**	**Blue**	**Plaster**	**43**
WM214D0101	**4240906**	**Green**	**Plaster**	**41**
WM214D0102	**4240907**	**Green**	**Plaster**	**43**
WM213B10	**4240908**	**White**	**Wood**	**18**
WM209D01	**4240909**	**Gray**	**Plaster**	**4.5**
WM208B0101	**4240910**	**Blue**	**Plaster**	**37**
WM208B0102	**4240911**	**Blue**	**Plaster**	**38**
WM201D02	**4240912**	**White**	**Wood**	**31**
WMB11C02	**4240913**	**Blue**	**Wood**	**44**
WMB12B01	**4240914**	**Green**	**Concrete**	**1.7***
WMB07B01	**4240915**	**Cream**	**Plaster**	**0.62***
WMB03C01	**4240916**	**Cream**	**Concrete**	**0.71**
WMB02A01	**4240917**	**Orange**	**Plaster**	**18***
WMEE0601	4240918	White	Wood	0.28
WMEE0602	4240919	White	Wood	0.19
WMAD08	**4240920**	**Cream**	**Plaster**	**45**
WMEEA01	4240921	White	Concrete	0.036
WMEE08	**4240922**	**Green**	**Wood**	**15***
WMEE103	4240923	Green	Concrete	<0.0046*
WMB1409	**4240924**	**Red**	**Concrete**	**7.7**
WMEK02	**4240925**	**Green**	**Wood**	**27***

BOLD Lead > 0.5% by weight / HUD Action level
% Percent
* Matrix/substrate interference possible

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WMA01A01	**3/8/2011**	**Attic**	**N wall, dormitory**	**Cream paint on plaster**	**4.94**	**0.31**
WMA01A02	**3/8/2011**	**Attic**	**Window casing on N wall, dormitory**	**Cream paint on wood**	**5**	**0.81**
WMA01A03	**3/8/2011**	**Attic**	**Window mullion on N wall, dormitory**	**Cream paint on wood**	**5**	**0.52**
WMA01A07	**3/8/2011**	**Attic**	**Baseboard on N wall, dormitory**	**Brown paint on wood**	**5**	**0.43**
WMA01B01	**3/8/2011**	**Attic**	**E wall, dormitory**	**Cream paint on plaster**	**5**	**0.44**
WMA01B05	**3/8/2011**	**Attic**	**Door jamb on E wall, dormitory**	**Cream paint on wood**	**5**	**0.66**
WMA01C01	**3/8/2011**	**Attic**	**S wall, dormitory**	**Cream paint on plaster**	**5**	**0.38**
WMA0108	**3/8/2011**	**Attic**	**Ceiling, dormitory**	**Cream paint on plaster**	**5**	**0.6**
WMA01D01	**3/8/2011**	**Attic**	**W wall, dormitory**	**Cream paint on plaster**	**5**	**0.7**
WMA02A01	3/8/2011	Attic	W wall, hallway	Cream paint on plaster	0	0
WMA02B01	3/8/2011	Attic	N wall, hallway	Cream paint on plaster	0	0
WMA02C01	3/8/2011	Attic	E wall, hallway	Cream paint on plaster	0.02	0.02
WMA02D07	**3/8/2011**	**Attic**	**Baseboard on S wall, hallway**	**Brown paint on wood**	**1.57**	**0.12**
WMA02D01	3/8/2011	Attic	S wall, hallway	Cream paint on plaster	0	0
WMA03A01	3/8/2011	Attic	S wall, storage room 03	Cream paint on plaster	0.01	0.01
WMA0306	**3/8/2011**	**Attic**	**Door, storage room 03**	**Cream paint on wood**	**5**	**0.81**
WMA03B01	3/8/2011	Attic	Immediate W wall upon entry , storage room 03	Cream paint on plaster	0	0.01
WMA03C01	3/8/2011	Attic	S wall adjacent to westernmost wall, storage room 03	Cream paint on plaster	0.01	0.01
WMA03D01	3/8/2011	Attic	Westernmost wall, storage room 03	Cream paint on plaster	0.01	0.01
WMA03E01	3/8/2011	Attic	N wall, storage room 03	Cream paint on plaster	0.03	0.02
WMA03E07	**3/8/2011**	**Attic**	**Baseboard on N wall, storage room 03**	**Brown paint on wood**	**5**	**0.59**
WMA03E03	**3/8/2011**	**Attic**	**Window mullion on N wall, storage room 03**	**Cream paint on wood**	**5**	**0.71**
WMA03F01	3/8/2011	Attic	E wall, storage room 03	Cream paint on plaster	0	0
WMA0308	3/8/2011	Attic	Ceiling, storage room 03	Cream paint on plaster	0	0
WMA03A05	**3/8/2011**	**Attic**	**Door jamb on S wall, storage room 03**	**Cream paint on wood**	**5**	**0.75**
WMA04A01	3/8/2011	Attic	S wall, linen room	White paint on plaster	0	0
WMA04A05	**3/8/2011**	**Attic**	**Door jamb on S wall, linen room**	**Cream paint on wood**	**5**	**0.64**
WMA04A06	**3/8/2011**	**Attic**	**Door on S wall, linen room**	**Cream paint on wood**	**5**	**0.78**
WMA04B01	3/8/2011	Attic	W wall, linen room	White paint on plaster	0	0
WMA04C01	3/8/2011	Attic	N wall, linen room	White paint on plaster	0	0.01
WMA04C03	**3/8/2011**	**Attic**	**Window mullion on N wall, linen room**	**White paint on wood**	**5**	**0.78**
WMA04C07	**3/8/2011**	**Attic**	**Baseboard on N wall, linen room**	**Brown paint on wood**	**5**	**0.56**
WMA0408	3/8/2011	Attic	Ceiling, linen room	Cream paint on plaster	0	0
WMA04D01	3/8/2011	Attic	E wall, linen room	Cream paint on plaster	0	0
WMA05A01	**3/8/2011**	**Attic**	**S wall, lavatory**	**Cream paint on plaster**	**2.17**	**0.16**
WMA05A05	**3/8/2011**	**Attic**	**Door jamb on S wall, lavatory**	**Cream paint on wood**	**5**	**0.75**
WMA05B01	**3/8/2011**	**Attic**	**W wall, lavatory**	**Cream paint on plaster**	**2.51**	**0.19**
WMA05B0102	**3/8/2011**	**Attic**	**W wall of shower stall, lavatory**	**Black paint on plaster**	**5**	**0.37**
WMA05B0102 D	**3/8/2011**	**Attic**	**W wall of shower stall, lavatory**	**Black paint on plaster**	**5**	**0.54**
WMA05C01	**3/8/2011**	**Attic**	**N wall, lavatory**	**Cream paint on plaster**	**2.71**	**0.2**
WMA05C01D	**3/8/2011**	**Attic**	**N wall, lavatory**	**Cream paint on plaster**	**2.34**	**0.17**
WMA05C02	**3/8/2011**	**Attic**	**Window casing on N wall, lavatory**	**Cream paint on wood**	**5**	**0.46**
WMA05D01	**3/8/2011**	**Attic**	**E wall, lavatory**	**Cream paint on plaster**	**2.84**	**0.21**
WMA05D10	**3/8/2011**	**Attic**	**Mirror frame on E wall, lavatory**	**Cream paint on wood**	**1.76**	**0.15**
WMA05A10	**3/8/2011**	**Attic**	**Bathroom stall built onto S wall, lavatory**	**White paint on plaster**	**1.3**	**0.11**
WMA0510	**3/8/2011**	**Attic**	**Attic hatch, lavatory**	**Green paint on wood**	**1.02**	**0.04**
WMA06A01	3/8/2011	Attic	S wall, storage room 06	Cream paint on plaster	0	0
WMA06A06	**3/8/2011**	**Attic**	**Door on S wall, storage room 06**	**Cream paint on wood**	**5**	**0.67**
WMA06A05	**3/8/2011**	**Attic**	**Door jamb on S wall, storage room 06**	**Cream paint on wood**	**5**	**0.61**
WMA06B01	3/8/2011	Attic	W wall, storage room 06	Cream paint on plaster	0	0.01
WMA06C01	3/8/2011	Attic	N wall, storage room 06	Cream paint on plaster	0	0.01
WMA0608	3/8/2011	Attic	Ceiling, storage room 06	Cream paint on plaster	0.01	0.01
WMA06D01	3/8/2011	Attic	E wall, storage room 06	Cream paint on plaster	0	0.01
WMA06D07	**3/8/2011**	**Attic**	**Baseboard on E wall, storage room 06**	**Brown paint on wood**	**5**	**0.55**

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WMA0609	3/8/2011	Attic	Floor, storage room 06	Brown paint on wood	0.05	0.02
WMA07A05	**3/8/2011**	**Attic**	**Door jamb on N wall, storage room 07**	**Blue paint on wood**	**5**	**0.78**
WMA07A0502	**3/8/2011**	**Attic**	**Door jamb on N wall, storage room 07**	**Cream paint on wood**	**5**	**0.71**
WMA0709	3/8/2011	Attic	Floor, storage room 07	Brown paint on wood	0.03	0.02
WMA08A01	3/8/2011	Attic	N wall, sergeants room	Blue paint on plaster	0	0
WMA08A05	**3/8/2011**	**Attic**	**Door jamb on N wall, sergeants room**	**White paint on wood**	**5**	**0.79**
WMA08B01	3/8/2011	Attic	E wall, sergeants room	Blue paint on plaster	0	0
WMA08C02	**3/8/2011**	**Attic**	**Window casing on S wall, sergeants room**	**White paint on wood**	**5**	**0.69**
WMA08C02D	**3/8/2011**	**Attic**	**Window casing on S wall, sergeants room**	**White paint on wood**	**5**	**0.94**
WMA08C01	3/8/2011	Attic	S wall, sergeants room	Blue paint on plaster	0	0
WMA08C07	**3/8/2011**	**Attic**	**Baseboard on S wall, sergeants room**	**Brown paint on wood**	**5**	**0.52**
WMA0809	3/8/2011	Attic	Ceiling, sergeants room	Blue paint on plaster	0	0
WMA08D01	3/8/2011	Attic	W wall, sergeants room	Blue paint on plaster	0	0
WMA09A01	**3/8/2011**	**Attic**	**N wall, storage room 09**	**Green paint on plaster**	**5**	**0.73**
WMA09A06	**3/8/2011**	**Attic**	**Door on N wall, storage room 09**	**Cream paint on wood**	**5**	**0.54**
WMA09B01	**3/8/2011**	**Attic**	**E wall, storage room 09**	**Green paint on plaster**	**5**	**0.6**
WMA09B07	**3/8/2011**	**Attic**	**Baseboard on E wall, storage room 09**	**Blue paint on wood**	**5**	**0.64**
WMA0908	**3/8/2011**	**Attic**	**Ceiling, storage room 09**	**Green paint on plaster**	**5**	**0.61**
WMA09C01	**3/8/2011**	**Attic**	**S wall, storage room 09**	**Green paint on plaster**	**5**	**0.62**
WMA09D01	**3/8/2011**	**Attic**	**W wall, storage room 09**	**Green paint on plaster**	**5**	**0.71**
WMA10A01	3/8/2011	Attic	N wall, storage room 10	Cream paint on plaster	0.01	0.01
WMA10A05	**3/8/2011**	**Attic**	**Door on N wall, storage room 10**	**Cream paint on wood**	**5**	**0.72**
WMA10B01	3/8/2011	Attic	E wall, storage room 10	Cream paint on plaster	0.01	0.02
WMA1008	3/8/2011	Attic	Ceiling, storage room 10	Cream paint on plaster	0	0
WMA10C01	3/8/2011	Attic	S wall, storage room 10	Cream paint on plaster	0.01	0.02
WMA10C07	**3/8/2011**	**Attic**	**Baseboard on S wall, storage room 10**	**Cream paint on wood**	**5**	**0.59**
WMA10C07D	**3/8/2011**	**Attic**	**Baseboard on S wall, storage room 10**	**Cream paint on wood**	**5**	**0.54**
WMA10D01	3/8/2011	Attic	W wall, storage room 10	Cream paint on plaster	0	0.01
WMA11A06	**3/8/2011**	**Attic**	**Door on S wall, stairwell**	**White paint on wood**	**5**	**0.72**
WMA11A01	3/8/2011	Attic	S wall, stairwell	Beige paint on plaster	0.02	0.02
WMA11B01	3/8/2011	Attic	W wall, stairwell	White paint on plaster	0	0
WMA1110	**3/8/2011**	**Attic**	**Stair balustrade, stairwell**	**White paint on wood**	**5**	**0.67**
WMA11C03	**3/8/2011**	**Attic**	**Window mullion on N wall, stairwell**	**White paint on wood**	**5**	**0.65**
WMA11C01	3/8/2011	Attic	N wall, stairwell	White paint on plaster	0	0
WMA11D01	3/8/2011	Attic	E wall, stairwell	Beige paint on plaster	0	0
WMA1110B	**3/8/2011**	**Attic**	**Stairs, stairwell**	**Brown paint on wood**	**5**	**0.54**
WM201A01	3/8/2011	Second	S wall, hallway	White paint on plaster	0.01	0.01
WM201B01	3/8/2011	Second	W wall, hallway	Cream paint on plaster	0.06	0.04
WM201B05	**3/8/2011**	**Second**	**Door jamb on W wall, hallway**	**Cream paint on wood**	**5**	**0.89**
WM201C01	3/8/2011	Second	N wall, hallway	Cream paint on plaster	0.07	0.02
WM201D01	3/8/2011	Second	E wall, hallway	Cream paint on plaster	0.03	0.03
WM201D03	**3/8/2011**	**Second**	**Window mullion on E wall, hallway**	**White paint on wood**	**5**	**0.58**
WM201C07	**3/8/2011**	**Second**	**Baseboard on N wall, hallway**	**Brown paint on wood**	**5**	**0.51**
WM202A01	**3/8/2011**	**Second**	**N wall, office**	**Beige paint on plaster**	**5**	**0.51**
WM202A06	**3/8/2011**	**Second**	**Door on N wall, office**	**White paint on wood**	**5**	**0.8**
WM202B01	**3/8/2011**	**Second**	**E wall, office**	**Beige paint on plaster**	**5**	**0.53**
WM202B02	**3/8/2011**	**Second**	**Window casing on E wall, office**	**White paint on wood**	**5**	**0.82**
WM202B02D	**3/8/2011**	**Second**	**Window casing on E wall, office**	**White paint on wood**	**5**	**0.85**
WM202C01	**3/8/2011**	**Second**	**S wall, office**	**Beige paint on plaster**	**5**	**0.59**
WM202C03	**3/8/2011**	**Second**	**Window mullion on S wall, office**	**White paint on wood**	**5**	**0.84**
WM202D01	**3/8/2011**	**Second**	**W wall, office**	**Beige paint on plaster**	**5**	**0.53**
WM202D07	**3/8/2011**	**Second**	**Baseboard on W wall, office**	**Brown paint on wood**	**3.56**	**0.3**
WM203A01	3/8/2011	Second	N wall, ward room 03	White paint on plaster	0.02	0.03
WM203A05	**3/8/2011**	**Second**	**Door jamb on N wall, ward room 03**	**White paint on wood**	**5**	**0.6**
WM203B01	3/8/2011	Second	E wall, ward room 03	White paint on plaster	0	0

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WM203C01	3/8/2011	Second	S wall, ward room 03	White paint on plaster	0.03	0.02
WM203C02	**3/8/2011**	**Second**	**Window casing on S wall, ward room 03**	**White paint on wood**	**5**	**0.62**
WM203D01	3/8/2011	Second	W wall, ward room 03	White paint on plaster	0.03	0.02
WM203D07	**3/8/2011**	**Second**	**Baseboard on W wall, ward room 03**	**Brown paint on wood**	**5**	**0.67**
WM204A01	3/8/2011	Second	N wall, instrument room	White paint on plaster	0.02	0.02
WM204A05	**3/8/2011**	**Second**	**Door jamb on N wall, instrument room**	**White paint on wood**	**5**	**0.63**
WM204B01	3/8/2011	Second	E wall, instrument room	White paint on plaster	0.03	0.02
WM204C01	3/8/2011	Second	S wall, instrument room	White paint on plaster	0.01	0.01
WM204C02	**3/8/2011**	**Second**	**Window casing on S wall, instrument room**	**White paint on wood**	**5**	**0.65**
WM204D01	3/8/2011	Second	W wall, instrument room	White paint on plaster	0.01	0.01
WM204D06	**3/8/2011**	**Second**	**Door on W wall, instrument room**	**White paint on wood**	**5**	**0.4**
WM205A01	**3/8/2011**	**Second**	**N wall, operating room**	**Blue paint on plaster**	**5**	**0.42**
WM205A05	**3/8/2011**	**Second**	**Door jamb on N wall, operating room**	**White paint on wood**	**5**	**0.71**
WM205B01	**3/8/2011**	**Second**	**E wall, operating room**	**Blue paint on plaster**	**5**	**0.46**
WM205C01	**3/8/2011**	**Second**	**S wall, operating room**	**Blue paint on plaster**	**5**	**0.5**
WM205C01D	**3/8/2011**	**Second**	**S wall, operating room**	**Blue paint on plaster**	**5**	**0.48**
WM205C03	**3/8/2011**	**Second**	**Window mullion on S wall, operating room**	**White paint on wood**	**5**	**0.64**
WM205D01	**3/8/2011**	**Second**	**W wall, operating room**	**Blue paint on plaster**	**5**	**0.43**
WM206A06	**3/8/2011**	**Second**	**Door on N wall, storage room 06**	**White paint on wood**	**5**	**0.87**
WM206A01	**3/8/2011**	**Second**	**N wall, storage room 06**	**Green paint on plaster**	**5**	**0.6**
WM206A10	**3/8/2011**	**Second**	**Storage shelf on N wall, storage room 06**	**White paint on wood**	**3.18**	**0.32**
WM206B01	**3/8/2011**	**Second**	**E wall, storage room 06**	**Green paint on plaster**	**5**	**0.62**
WM206C01	**3/8/2011**	**Second**	**S wall, storage room 06**	**Green paint on plaster**	**5**	**0.67**
WM206C07	**3/8/2011**	**Second**	**Baseboard on S wall, storage room 06**	**Brown paint on wood**	**5**	**0.36**
WM206C02	**3/8/2011**	**Second**	**Window casing on S wall, storage room 06**	**White paint on wood**	**5**	**0.58**
WM206D01	**3/8/2011**	**Second**	**W wall, storage room 06**	**Green paint on plaster**	**5**	**0.64**
WM207A01	**3/8/2011**	**Second**	**E wall, hallway extension**	**Cream paint on plaster**	**5**	**0.59**
WM207B01	**3/8/2011**	**Second**	**S wall, hallway extension**	**Cream paint on plaster**	**5**	**0.57**
WM207C01	**3/8/2011**	**Second**	**W wall, hallway extension**	**Cream paint on plaster**	**5**	**0.6**
WM207D01	**3/8/2011**	**Second**	**N wall, hallway extension**	**Cream paint on plaster**	**5**	**0.63**
WM207D07	**3/8/2011**	**Second**	**Baseboard on N wall, hallway extension**	**Brown paint on wood**	**5**	**0.46**
WM208A01	**3/8/2011**	**Second**	**E wall, ward room 08**	**Blue paint on plaster**	**5**	**0.62**
WM208B01	**3/8/2011**	**Second**	**S wall, ward room 08**	**Blue paint on plaster**	**5**	**0.69**
WM208B02	**3/8/2011**	**Second**	**Window casing on S wall, ward room 08**	**White paint on wood**	**5**	**0.75**
WM208C01	**3/8/2011**	**Second**	**W wall, ward room 08**	**Blue paint on plaster**	**5**	**0.55**
WM208C01D	**3/8/2011**	**Second**	**W wall, ward room 08**	**Blue paint on plaster**	**5**	**0.7**
WM208C03	**3/8/2011**	**Second**	**Window mullion on W wall, ward room 08**	**White paint on wood**	**5**	**0.67**
WM208D01	**3/8/2011**	**Second**	**N wall, ward room 08**	**Blue paint on plaster**	**5**	**0.55**
WM208D07	**3/8/2011**	**Second**	**Baseboard on N wall, ward room 08**	**Beige paint on plaster**	**5**	**0.66**
WM208A06	**3/8/2011**	**Second**	**Door on E wall, ward room 08**	**White paint on wood**	**5**	**0.71**
WM209A01	**3/8/2011**	**Second**	**S wall, lavatory room 09**	**Beige paint on plaster**	**3.44**	**0.34**
WM209A10	**3/8/2011**	**Second**	**Built-in stall on S wall, lavatory room 09**	**Blue paint on plaster**	**4.94**	**0.38**
WM209A05	**3/8/2011**	**Second**	**Door jamb on S wall, lavatory room 09**	**White paint on wood**	**5**	**0.89**
WM209B01	**3/8/2011**	**Second**	**W wall, lavatory room 09**	**Blue paint on plaster**	**5**	**0.67**
WM209B06	**3/8/2011**	**Second**	**Door on W wall, lavatory room 09**	**White paint on wood**	**5**	**0.49**
WM209C01	**3/8/2011**	**Second**	**N wall, lavatory room 09**	**Blue paint on plaster**	**5**	**0.66**
WM209D01	**3/8/2011**	**Second**	**E wall, lavatory room 09**	**Blue paint on plaster**	**1**	**0.09**
WM209D01D	**3/8/2011**	**Second**	**E wall, lavatory room 09**	**Blue paint on plaster**	**1**	**0.08**
WM210A01	3/8/2011	Second	S wall, cell ward	White paint on plaster	0.02	0.01
WM210A06	**3/8/2011**	**Second**	**Door on S wall, cell ward**	**White paint on metal**	**5**	**0.68**
WM210B01	3/8/2011	Second	W wall, cell ward	White paint on plaster	0.03	0.02
WM210B10	3/8/2011	Second	Built-in platform on W wall, cell ward	White paint on wood	0.02	0.02
WM210C01	3/8/2011	Second	N wall, cell ward	White paint on plaster	0.03	0.01
WM210C02	**3/8/2011**	**Second**	**Window casing on N wall, cell ward**	**White paint on wood**	**5**	**0.77**
WM210C07	**3/8/2011**	**Second**	**Baseboard on N wall, cell ward**	**Brown paint on wood**	**5**	**0.69**

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WM210D01	3/8/2011	Second	E wall, cell ward	White paint on plaster	0.04	0.02
WM211A01	**3/8/2011**	**Second**	**E wall, lavatory room 11**	**Grey paint on plaster**	**1**	**0.02**
WM211A01D	**3/8/2011**	**Second**	**E wall, lavatory room 11**	**Grey paint on plaster**	**1**	**0.03**
WM211A05	**3/8/2011**	**Second**	**Door jamb, lavatory room 11**	**Cream paint on wood**	**5**	**0.55**
WM211B01	3/8/2011	Second	S wall, lavatory room 11	Grey paint on plaster	0.12	0.03
WM211C01	**3/8/2011**	**Second**	**W wall, lavatory room 11**	**Cream paint on plaster**	**2.93**	**0.21**
WM211D01	**3/8/2011**	**Second**	**N wall, lavatory room 11**	**Grey paint on plaster**	**1**	**0.04**
WM212A01	**3/8/2011**	**Second**	**E wall, lavatory room 12**	**Beige paint on plaster**	**5**	**0.46**
WM212A06	**3/8/2011**	**Second**	**Door on E wall, lavatory room 12**	**White paint on wood**	**5**	**0.79**
WM212B01	**3/8/2011**	**Second**	**S wall, lavatory room 12**	**White paint on plaster**	**5**	**0.81**
WM212B02	**3/8/2011**	**Second**	**Window casing on S wall, lavatory room 12**	**White paint on wood**	**5**	**0.56**
WM212C01	**3/8/2011**	**Second**	**W wall, lavatory room 12**	**Beige paint on plaster**	**5**	**0.51**
WM212C10	**3/8/2011**	**Second**	**Built-in stall on W wall, lavatory room 12**	**White paint on wood**	**5**	**0.58**
WM212D01	**3/8/2011**	**Second**	**N wall, lavatory room 12**	**Beige paint on plaster**	**5**	**0.52**
WM212D03	**3/8/2011**	**Second**	**Window mullion on N wall, lavatory room 12**	**White paint on wood**	**5**	**0.74**
WM213A06	**3/8/2011**	**Second**	**Door on S wall, pharmacy room 13**	**White paint on wood**	**5**	**0.62**
WM213A01	**3/8/2011**	**Second**	**S wall, pharmacy room 13**	**Blue paint on plaster**	**5**	**0.82**
WM213B10	**3/8/2011**	**Second**	**Built-in shelf on W wall, pharmacy room 13**	**White paint on wood**	**5**	**0.78**
WM213B01	**3/8/2011**	**Second**	**W wall, pharmacy room 13**	**Blue paint on plaster**	**5**	**0.65**
WM213B03	**3/8/2011**	**Second**	**Window mullion, pharmacy room 13**	**Peach paint on wood**	**5**	**0.64**
WM213C01	**3/8/2011**	**Second**	**N wall, pharmacy room 13**	**Blue paint on plaster**	**5**	**0.51**
WM213C05	**3/8/2011**	**Second**	**Door jamb on N wall, pharmacy room 13**	**Peach paint on wood**	**5**	**0.73**
WM213D01	**3/8/2011**	**Second**	**E wall, pharmacy room 13**	**Blue paint on plaster**	**5**	**0.63**
WM213D07	**3/8/2011**	**Second**	**Baseboard on E wall, pharmacy room 13**	**Brown paint on wood**	**5**	**0.87**
WM214A01	**3/8/2011**	**Second**	**S wall, pharmacy room 14**	**Green paint on plaster**	**5**	**0.6**
WM214B10	**3/8/2011**	**Second**	**Built-in shelf on W wall, pharmacy room 14**	**White paint on wood**	**5**	**1.15**
WM214B01	**3/8/2011**	**Second**	**W wall, pharmacy room 14**	**Green paint on plaster**	**5**	**0.64**
WM214C01	**3/8/2011**	**Second**	**N wall, pharmacy room 14**	**Green paint on plaster**	**5**	**0.69**
WM214C02	**3/8/2011**	**Second**	**Window casing on N wall, pharmacy room 14**	**Peach paint on wood**	**5**	**0.6**
WM214D01	**3/8/2011**	**Second**	**E wall, pharmacy room 14**	**Green paint on plaster**	**5**	**0.63**
WM215A01	**3/8/2011**	**Second**	**S wall, officers ward**	**Cream paint on plaster**	**5**	**0.64**
WM215A06	**3/8/2011**	**Second**	**Door on S wall, officers ward**	**Brown paint on wood**	**5**	**0.56**
WM215B01	**3/8/2011**	**Second**	**W wall, officers ward**	**Cream paint on plaster**	**5**	**0.65**
WM215C07	**3/8/2011**	**Second**	**Baseboard on N wall, officers ward**	**Brown paint on wood**	**5**	**0.72**
WM215C07D	**3/8/2011**	**Second**	**Baseboard on N wall, officers ward**	**Brown paint on wood**	**5**	**0.63**
WM215C01	**3/8/2011**	**Second**	**N wall, officers ward**	**Cream paint on plaster**	**5**	**0.63**
WM215C01D	**3/8/2011**	**Second**	**N wall, officers ward**	**Cream paint on plaster**	**5**	**0.68**
WM215C03	**3/8/2011**	**Second**	**Window mullion on N wall, officers ward**	**Brown paint on wood**	**5**	**0.66**
WM215D01	**3/8/2011**	**Second**	**E wall, officers ward**	**Cream paint on plaster**	**5**	**0.47**
WM215D05	**3/8/2011**	**Second**	**Door jamb on E wall, officers ward**	**Peach paint on wood**	**5**	**0.46**
WM216A01	**3/8/2011**	**Second**	**W wall, lavatory room 16**	**Blue paint on plaster**	**5**	**0.54**
WM216A06	**3/8/2011**	**Second**	**Door on W wall, lavatory room 16**	**White paint on wood**	**5**	**0.47**
WM216B01	**3/8/2011**	**Second**	**N wall, lavatory room 16**	**Blue paint on plaster**	**5**	**0.58**
WM216B03	**3/8/2011**	**Second**	**Window mullion on N wall, lavatory room 16**	**White paint on wood**	**5**	**0.59**
WM216C01	**3/8/2011**	**Second**	**E wall, lavatory room 16**	**Blue paint on plaster**	**5**	**0.62**
WM216D10	**3/8/2011**	**Second**	**Built-in cabinet on S wall, lavatory room 16**	**White paint on wood**	**5**	**0.64**
WM216D01	**3/8/2011**	**Second**	**S wall, lavatory room 16**	**Blue paint on plaster**	**5**	**0.64**
WM216A07	**3/8/2011**	**Second**	**Baseboard on E wall, room 16**	**White paint on wood**	**5**	**0.57**
WM216A07D	**3/8/2011**	**Second**	**Baseboard on E wall, room 16**	**White paint on wood**	**5**	**0.58**
WMB01A01	3/8/2011	Basement	N wall, boiler room	Beige paint on concrete	0.01	0.02
WMB01A06	**3/8/2011**	**Basement**	**Door on N wall, boiler room**	**White paint on wood**	**5**	**0.93**
WMB01A10	**3/8/2011**	**Basement**	**Stairs on N wall, boiler room**	**Grey paint on wood**	**1.71**	**0.15**
WMB01B01	3/8/2011	Basement	E wall, boiler room	Beige paint on concrete	0.1	0.15
WMB01C01	**3/8/2011**	**Basement**	**S wall, boiler room**	**Beige paint on concrete**	**1**	**0.02**
WMB01C01D	3/8/2011	Basement	S wall, boiler room	Beige paint on concrete	0.04	0.03

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WMB01C01D2	**3/8/2011**	**Basement**	**S wall, boiler room**	**Beige paint on concrete**	**1**	**0.17**
WMB01D01	**3/8/2011**	**Basement**	**W wall, boiler room**	**White paint on concrete**	**3.72**	**0.3**
WMB01D10	**3/8/2011**	**Basement**	**Wooden built-in structure, boiler room**	**Beige paint on wood**	**5**	**0.52**
WMB01C06	**3/8/2011**	**Basement**	**Door on S wall, boiler room**	**Beige paint on wood**	**5**	**0.5**
WMB0109	3/8/2011	Basement	Floor, boiler room	Grey paint on concrete	0.04	0.02
WMB01C10	3/8/2011	Basement	Boiler housing, boiler room	Black paint on metal	0.04	0.02
WMB02A01	**3/8/2011**	**Basement**	**W wall, hallway**	**Yellow paint on concrete**	**5**	**0.36**
WMB02A05	**3/8/2011**	**Basement**	**Door jamb on W wall, hallway**	**White paint on wood**	**5**	**0.7**
WMB02B01	**3/8/2011**	**Basement**	**N wall, hallway**	**Orange paint on concrete**	**3.99**	**0.32**
WMB02C01	**3/8/2011**	**Basement**	**W wall near stairs to first floor, hallway**	**White paint on concrete**	**5**	**0.38**
WMB02C10	**3/8/2011**	**Basement**	**Stairs to first floor, hallway**	**Red paint on concrete**	**4.91**	**0.51**
WMB0209	3/8/2011	Basement	Floor, hallway	Grey paint on concrete	0.01	0.01
WMB020910	3/8/2011	Basement	Built-in metal slab on floor, hallway	Red paint on metal	0.01	0.01
WMB03A01	3/8/2011	Basement	S wall, storage room 03	Cream paint on wood	0.26	0.05
WMB03A06	**3/8/2011**	**Basement**	**Door on S wall, storage room 03**	**Green paint on wood**	**5**	**0.76**
WMB03B02	**3/8/2011**	**Basement**	**Window casing on W wall, storage room 03**	**Cream paint on wood**	**5**	**0.71**
WMB03B01	**3/8/2011**	**Basement**	**W wall, storage room 03**	**Cream paint on concrete**	**5**	**0.63**
WMB03C01	3/8/2011	Basement	N wall, storage room 03	Cream paint on concrete	0.44	0.07
WMB03C01D	3/8/2011	Basement	N wall, storage room 03	Cream paint on concrete	0.33	0.07
WMB03D01	3/8/2011	Basement	W wall, storage room 03	Cream paint on concrete	0.21	0.05
WMB03D10	**3/8/2011**	**Basement**	**Built-in shelf on W wall, storage room 03**	**Cream paint on wood**	**2.99**	**0.35**
WMB04A01	**3/8/2011**	**Basement**	**W wall, storage room 04**	**Green paint on concrete**	**5**	**0.8**
WMB04A05	**3/8/2011**	**Basement**	**Door jamb on W wall, storage room 04**	**Cream paint on wood**	**5**	**0.78**
WMB04B01	**3/8/2011**	**Basement**	**N wall, storage room 04**	**Green paint on concrete**	**5**	**0.94**
WMB04B02	**3/8/2011**	**Basement**	**Window casing on N wall, storage room 04**	**Green paint on wood**	**5**	**0.6**
WMB04C10	3/8/2011	Basement	Built-in cabinet on E wall, storage room 04	Green paint on wood	0.04	0.04
WMB04C10D	3/8/2011	Basement	Built-in cabinet on E wall, storage room 04	Green paint on wood	0.05	0.03
WMB04C01	**3/8/2011**	**Basement**	**E wall, storage room 04**	**Green paint on concrete**	**5**	**0.87**
WMB04D10	3/8/2011	Basement	Built-in cabinet on E wall, storage room 04	Green paint on wood	0.03	0.03
WMB04D01	**3/8/2011**	**Basement**	**W wall, storage room 04**	**Green paint on concrete**	**5**	**0.65**
WMB05A01	**3/9/2011**	**Basement**	**S wall, storage room 05**	**Pink paint on drywall**	**5**	**0.44**
WMB05A05	**3/9/2011**	**Basement**	**Door jamb on S wall, storage room 05**	**Grey paint on wood**	**2.95**	**0.22**
WMB05B01	**3/9/2011**	**Basement**	**W wall, storage room 05**	**Blue paint on concrete**	**5**	**0.43**
WMB05C01	**3/9/2011**	**Basement**	**N wall, storage room 05**	**Blue paint on concrete**	**5**	**0.48**
WMB05D10	**3/9/2011**	**Basement**	**Built-in shelf on E wall, storage room 05**	**Blue paint on wood**	**4.46**	**0.34**
WMB05D01	**3/9/2011**	**Basement**	**E wall, storage room 05**	**Blue paint on concrete**	**5**	**0.52**
WMB06A05	3/8/2011	Basement	Door jamb on W wall, closet	Cream paint on wood	0.11	0.04
WMB06B01	**3/8/2011**	**Basement**	**N wall, closet**	**Cream paint on plaster**	**2.5**	**0.23**
WMB06C01	**3/8/2011**	**Basement**	**E wall, closet**	**Cream paint on plaster**	**1**	**0.03**
WMB06C01D	**3/8/2011**	**Basement**	**E wall, closet**	**Cream paint on plaster**	**2.57**	**0.2**
WMB06D01	**3/8/2011**	**Basement**	**S wall, closet**	**Cream paint on plaster**	**2.22**	**0.17**
WMB07A01	3/8/2011	Basement	N wall, storage room 07	Cream paint on plaster	0.4	0.06
WMB07A06	**3/8/2011**	**Basement**	**Door on N wall, storage room 07**	**Cream paint on wood**	**5**	**0.48**
WMB07B01	**3/8/2011**	**Basement**	**E wall, storage room 07**	**Cream paint on plaster**	**1**	**0.05**
WMB07B01D	**3/8/2011**	**Basement**	**E wall, storage room 07**	**Cream paint on plaster**	**1**	**0.05**
WMB07C01	3/8/2011	Basement	S wall, storage room 07	Cream paint on plaster	0.09	0.03
WMB07C02	**3/8/2011**	**Basement**	**Window casing on S wall, storage room 07**	**Cream paint on wood**	**5**	**0.5**
WMB07D01	3/8/2011	Basement	W wall, storage room 07	Cream paint on plaster	0.4	0.06
WMB08A01	3/8/2011	Basement	N wall, storage room 08	Green paint on concrete	0	0
WMB08A06	**3/8/2011**	**Basement**	**Door on N wall, storage room 08**	**Green paint on wood**	**4.28**	**0.27**
WMB08B01	3/8/2011	Basement	E wall, storage room 08	Green paint on concrete	0.12	0.03
WMB08C01	3/8/2011	Basement	S wall, storage room 08	Green paint on concrete	0.68	0.08
WMB08C02	**3/8/2011**	**Basement**	**Window casing, storage room 08**	**Green paint on wood**	**5**	**0.37**
WMB08D01	3/8/2011	Basement	W wall, storage room 08	Green paint on concrete	0	0
WMB09A01	3/8/2011	Basement	N wall, storage room 09	Green paint on concrete	0.15	0.05

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WMB09A05	**3/8/2011**	**Basement**	**Door jamb on N wall, storage room 09**	**Cream paint on wood**	**5**	**0.73**
WMB09B10	**3/8/2011**	**Basement**	**Built-in shelf on E wall, storage room 09**	**Cream paint on wood**	**5**	**0.99**
WMB09C01	3/8/2011	Basement	S wall, storage room 09	Green paint on concrete	0.11	0.04
WMB09C02	**3/8/2011**	**Basement**	**Window casing on S wall, storage room 09**	**Cream paint on wood**	**5**	**0.62**
WMB09D01	3/8/2011	Basement	W wall, storage room 09	Green paint on concrete	0.04	0.02
WMB09D10	3/8/2011	Basement	Metal bars on cell, storage room 09	Silver paint on metal	0.04	0.02
WMB10A06	**3/9/2011**	**Basement**	**Door on E wall, storage room 10**	**Beige paint on wood**	**4.52**	**0.62**
WMB10A01	3/9/2011	Basement	E wall, storage room 10	Green paint on concrete	0.07	0.03
WMB10B01	3/9/2011	Basement	S wall, storage room 10	Green paint on concrete	0.16	0.04
WMB10B02	**3/9/2011**	**Basement**	**Window casing on S wall, storage room 10**	**Grey paint on wood**	**4.54**	**0.3**
WMB10C10	**3/9/2011**	**Basement**	**Built-in shelf on W wall, storage room 10**	**Grey paint on wood**	**5**	**0.48**
WMB10C01	3/9/2011	Basement	W wall, storage room 10	Green paint on concrete	0.03	0.02
WMB10D01	3/9/2011	Basement	N wall, storage room 10	Green paint on concrete	0.14	0.04
WMB11A01	**3/8/2011**	**Basement**	**N wall, storage room 11**	**Blue paint on wood**	**5**	**0.54**
WMB11B01	**3/8/2011**	**Basement**	**E wall, storage room 11**	**Blue paint on wood**	**5**	**0.61**
WMB11C01	**3/8/2011**	**Basement**	**S wall, storage room 11**	**Blue paint on wood**	**5**	**0.59**
WMB11C10	**3/8/2011**	**Basement**	**Built-in shelf on S wall, storage room 11**	**Blue paint on wood**	**5**	**0.66**
WMB11C10D	**3/8/2011**	**Basement**	**Built-in shelf on S wall, storage room 11**	**Blue paint on wood**	**5**	**0.73**
WMB11C02	**3/8/2011**	**Basement**	**Window casing on S wall, storage room 11**	**Blue paint on wood**	**5**	**0.53**
WMB11D01	**3/8/2011**	**Basement**	**W wall, storage room 11**	**Blue paint on wood**	**5**	**0.55**
WMB11A06	**3/8/2011**	**Basement**	**Door on N wall, storage room 11**	**Cream paint on wood**	**5**	**0.58**
WMB12A01	**3/8/2011**	**Basement**	**E wall, storage room 12**	**Green paint on concrete**	**1.16**	**0.07**
WMB12A01D	**3/8/2011**	**Basement**	**E wall, storage room 12**	**Green paint on concrete**	**1**	**0.07**
WMB12A06	**3/8/2011**	**Basement**	**Door on E wall, storage room 12**	**Green paint on wood**	**5**	**0.48**
WMB12B01	**3/8/2011**	**Basement**	**S wall, storage room 12**	**Green paint on concrete**	**1.04**	**0.05**
WMB12B02	**3/8/2011**	**Basement**	**Window casing on S wall, storage room 12**	**Green paint on wood**	**5**	**0.65**
WMB12C01	3/8/2011	Basement	W wall, storage room 12	Green paint on concrete	0.62	0.08
WMB12D01	3/8/2011	Basement	N wall, storage room 12	Green paint on concrete	0.88	0.05
WMB1209	**3/8/2011**	**Basement**	**Floor, storage room 12**	**Brown paint on concrete**	**1**	**0.02**
WMB1209D	3/8/2011	Basement	Floor, storage room 12	Brown paint on concrete	0.01	0.01
WMB1209D2	3/8/2011	Basement	Floor, storage room 12	Brown paint on concrete	0.01	0.01
WMB1208	3/8/2011	Basement	Ceiling, storage room 12	White paint on drywall	0.97	0.04
WMB1208D	**3/8/2011**	**Basement**	**Ceiling, storage room 12**	**White paint on drywall**	**1**	**0.04**
WMB1309	3/8/2011	Basement	Floor, office	Red paint on concrete	0	0
WMB13A06	**3/8/2011**	**Basement**	**Door on E wall, office**	**White paint on wood**	**5**	**0.4**
WMB14A06	**3/9/2011**	**Basement**	**Door on N wall, lavatory**	**White paint on wood**	**5**	**0.73**
WMB14A01	**3/9/2011**	**Basement**	**N wall, lavatory**	**Cream paint on concrete**	**5**	**0.59**
WMB14B01	**3/9/2011**	**Basement**	**E wall, lavatory**	**Cream paint on concrete**	**5**	**0.51**
WMB14C01	**3/9/2011**	**Basement**	**S wall, lavatory**	**Cream paint on concrete**	**5**	**0.36**
WMB14D01	**3/9/2011**	**Basement**	**W wall, lavatory**	**Cream paint on concrete**	**4.43**	**0.29**
WMB1409	**3/9/2011**	**Basement**	**Floor, lavatory**	**Red paint on concrete**	**1**	**0.02**
WMB1409D	3/9/2011	Basement	Floor, lavatory	Red paint on concrete	0.03	0.01
WMB1409D2	**3/9/2011**	**Basement**	**Floor, lavatory**	**Red paint on concrete**	**1**	**0.02**
WM101A01	**3/8/2011**	**First**	**S wall, mess room**	**Tan paint on plaster**	**5**	**1.25**
WM101A06	**3/8/2011**	**First**	**Door on S wall, mess room**	**White paint on wood**	**5**	**1.18**
WM101B01	**3/8/2011**	**First**	**W wall, mess room**	**Tan paint on plaster**	**5**	**0.99**
WM101B07	**3/8/2011**	**First**	**Baseboard on W wall, mess room**	**White paint on wood**	**5**	**1.26**
WM101C02	**3/8/2011**	**First**	**Window casing on N wall, mess room**	**Cream paint on wood**	**5**	**1.35**
WM101C01	3/8/2011	First	N wall, mess room	Tan paint on plaster	0.07	0.08
WM101C01D	3/8/2011	First	N wall, mess room	Tan paint on plaster	0	0
WM101D01	**3/8/2011**	**First**	**E wall, mess room**	**Tan paint on plaster**	**5**	**1.62**
WM102A01	**3/8/2011**	**First**	**E wall, hallway**	**White paint on plaster**	**5**	**0.74**
WM102B01P	3/8/2011	First	S wall at entryway, hallway	White paint on wood panel	0	0
WM102B01	**3/8/2011**	**First**	**S wall at entryway, hallway**	**White paint on plaster**	**5**	**1.34**
WM102C01	3/8/2011	First	W wall, hallway	White paint on plaster	0	0

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WM102C01D	3/8/2011	First	W wall, hallway	White paint on plaster	0.47	0.14
WM102C01D2	**3/8/2011**	**First**	**W wall, hallway**	**White paint on plaster**	**5**	**0.51**
WM102D01	3/8/2011	First	N wall at entryway, hallway	White paint on plaster	0.39	0.13
WM102D06	**3/8/2011**	**First**	**Door on N wall, hallway**	**White paint on wood**	**5**	**1.36**
WM102E01	**3/8/2011**	**First**	**S wall, hallway**	**Green paint on plaster**	**5**	**0.49**
WM102E07	**3/8/2011**	**First**	**Baseboard on S wall, hallway**	**Green paint on wood**	**5**	**0.67**
WM102F01	3/8/2011	First	N wall, hallway	Green paint on wood paneling	0.03	0.06
WM103A01	**3/8/2011**	**First**	**E wall, pantry**	**White paint on plaster**	**4.17**	**0.37**
WM103A05	**3/8/2011**	**First**	**Door jamb on E wall, pantry**	**White paint on wood**	**5**	**1.26**
WM103C01	**3/8/2011**	**First**	**W wall, pantry**	**White paint on plaster**	**1**	**0.02**
WM103C01D	3/8/2011	First	W wall, pantry	White paint on plaster	0.02	0.02
WM103D01	**3/8/2011**	**First**	**N wall, pantry**	**White paint on plaster**	**4.84**	**0.4**
WM103D02	**3/8/2011**	**First**	**Window casing on N wall, pantry**	**White paint on wood**	**5**	**0.86**
WM103D07	**3/8/2011**	**First**	**Baseboard on N wall, pantry**	**White paint on wood**	**5**	**0.71**
WM104A01	**3/8/2011**	**First**	**E wall, kitchen**	**White paint on plaster**	**5**	**2.08**
WM104A05	3/8/2011	First	Door jamb on E wall, kitchen	White paint on wood	0.01	0.01
WM104B01	**3/8/2011**	**First**	**S wall, kitchen**	**White paint on plaster**	**5**	**2.36**
WM104C01	**3/8/2011**	**First**	**W wall, kitchen**	**White paint on plaster**	**1**	**0.1**
WM104C01D	**3/8/2011**	**First**	**W wall, kitchen**	**White paint on plaster**	**5**	**1.22**
WM104C10	3/8/2011	First	Built-in cabinet on W wall, kitchen	White paint on wood	0.18	0.05
WM104D02	**3/8/2011**	**First**	**Window casing on N wall, kitchen**	**White paint on wood**	**5**	**1.06**
WM104D01	**3/8/2011**	**First**	**N wall, kitchen**	**White paint on plaster**	**5**	**1.28**
WM105A01	**3/8/2011**	**First**	**S wall, lavatory room 05**	**White paint on plaster**	**5**	**0.83**
WM105A05	**3/8/2011**	**First**	**Door jamb on S wall, lavatory room 05**	**White paint on wood**	**5**	**0.78**
WM105B01	3/8/2011	First	W wall, lavatory room 05	White paint on drywall	0	0
WM105C01	3/8/2011	First	N wall, lavatory room 05	White paint on drywall	0	0.01
WM105C07	3/8/2011	First	Baseboard on N wall, lavatory room 05	White paint on wood	0	0
WM105D01	**3/8/2011**	**First**	**E wall, lavatory room 05**	**White paint on plaster**	**2.57**	**0.31**
WM106A01	3/8/2011	First	S wall, lavatory room 06	Yellow paint on drywall	0.14	0.06
WM106A06	**3/8/2011**	**First**	**Door on S wall, lavatory room 06**	**White paint on wood**	**5**	**0.78**
WM106B01	3/8/2011	First	E wall, lavatory room 06	White paint on plaster	0.04	0.05
WM106C02	**3/8/2011**	**First**	**Window casing on N wall, lavatory room 06**	**White paint on wood**	**5**	**1.52**
WM106C01	**3/8/2011**	**First**	**N wall, lavatory room 06**	**Yellow paint on plaster**	**5**	**1.52**
WM106D01	**3/8/2011**	**First**	**W wall, lavatory room 06**	**White paint on plaster**	**5**	**2.61**
WM106D10	3/8/2011	First	Partition on W wall, lavatory room 06	White paint on wood	0.04	0.04
WM107A01	**3/8/2011**	**First**	**E wall, ward/office space**	**Blue paint on plaster**	**5**	**1.33**
WM107B01	**3/8/2011**	**First**	**S wall, ward/office space**	**White paint on plaster**	**5**	**1.59**
WM107B07	**3/8/2011**	**First**	**Baseboard on S wall, ward/office space**	**Blue paint on wood**	**5**	**1.4**
WM107B02	**3/8/2011**	**First**	**Window casing on S wall, ward/office space**	**White paint on wood**	**5**	**1.29**
WM107B02D	**3/8/2011**	**First**	**Window casing on S wall, ward/office space**	**White paint on wood**	**5**	**1.15**
WM107B10	3/8/2011	First	Built-in office wall, ward/office space	White paint on wood paneling	0	0
WM107C10	3/8/2011	First	Built-in office wall, ward/office space	Salmon paint on wood paneling	0	0
WM107B01Y	**3/8/2011**	**First**	**S wall, ward/office space**	**Yellow paint on plaster**	**5**	**1.43**
WM107C01	**3/8/2011**	**First**	**W wall, ward/office space**	**Blue paint on plaster**	**5**	**1.15**
WM107D01	**3/8/2011**	**First**	**N wall, ward/office space**	**Dark blue paint on plaster**	**5**	**1.4**
WM107D05	3/8/2011	First	Door jamb on built-in offices, ward/office space	Brown paint on wood	0.03	0.02
WM108A05	**3/8/2011**	**First**	**Door jamb on N wall, surgeons room**	**White paint on wood**	**5**	**0.67**
WM108A01	**3/8/2011**	**First**	**N wall, surgeon's room**	**White paint on plaster**	**5**	**1.77**
WM108C01	3/8/2011	First	S wall, surgeon's room	White paint on plaster	0.19	0.06
WM108D01	**3/8/2011**	**First**	**W wall, surgeon's room**	**White paint on plaster**	**5**	**0.83**
WM108D03	**3/8/2011**	**First**	**Window mullion, surgeon's room**	**White paint on wood**	**5**	**1.12**
WM109A01	**3/8/2011**	**First**	**N wall, assistant's room**	**White paint on plaster**	**5**	**1.21**
WM109A06	**3/8/2011**	**First**	**Door on N wall, assistant's room**	**White paint on wood**	**5**	**1.21**

TABLE 5
Western Montana Mental Health Center LBP Survey XRF Results

Sample ID	Date	Floor	Sample Location	Sample Material	Lead (mg/cm^2)	Error (+/-)
WM109B01	**3/8/2011**	**First**	**E wall, assistant's room**	**White paint on plaster**	**5**	**1.22**
WM109B07	**3/8/2011**	**First**	**Baseboard on E wall, assistant's room**	**White paint on wood**	**5**	**0.87**
WM109C01	**3/8/2011**	**First**	**S wall, assistant's room**	**White paint on plaster**	**5**	**6.49**
WM109C02	**3/8/2011**	**First**	**Window casing, assistant's room**	**White paint on wood**	**5**	**2.74**
WM109C02D	**3/8/2011**	**First**	**Window casing, assistant's room**	**White paint on wood**	**5**	**1.89**
WM110A01	**3/8/2011**	**First**	**W wall, waiting room**	**White paint on plaster**	**2.63**	**0.49**
WM110C01	**3/8/2011**	**First**	**E wall, waiting room**	**White paint on plaster**	**5**	**1.68**
WM110C05	3/8/2011	First	Door jamb on E wall, waiting room	White paint on wood	0.07	0.12
WM110D01	3/8/2011	First	S wall, waiting room	White paint on plaster	0.02	0.01
WM111A01	**3/8/2011**	**First**	**W wall, dispensary**	**White paint on plaster**	**5**	**1.37**
WM111B01	**3/8/2011**	**First**	**N wall, dispensary**	**White paint on plaster**	**5**	**1.59**
WM111C01	**3/8/2011**	**First**	**E wall, dispensary**	**White paint on plaster**	**2.67**	**0.83**
WM111C07	**3/8/2011**	**First**	**Baseboard on E wall, dispensary**	**White paint on wood**	**2.53**	**0.19**
WM111C07D	**3/8/2011**	**First**	**Baseboard on E wall, dispensary**	**White paint on wood**	**2.78**	**0.23**
WM111D01	**3/8/2011**	**First**	**S wall, dispensary**	**White paint on plaster**	**5**	**2.2**
WM111D02	**3/8/2011**	**First**	**Window casing on S wall, dispensary**	**White paint on wood**	**5**	**1.04**
WMEA01	3/9/2011	Exterior	Exterior wall, N side of pharmacy room	Green paint on concrete	0	0
WMEB01	3/9/2011	Exterior	Exterior wall, W side of pharmacy room	Cream paint on concrete	0.05	0.03
WMEB02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, W side of pharmacy room**	**Green paint on wood**	**5**	**0.8**
WMEC02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, N side of pharmacy entryway**	**White paint on wood**	**1.19**	**0.09**
WMEC02D	**3/9/2011**	**Exterior**	**Window casing on exterior wall, N side of pharmacy entryway**	**White paint on wood**	**5**	**0.89**
WMEC01	3/9/2011	Exterior	Exterior wall, N side of pharmacy entryway	Green paint on concrete	0	0.01
WMED01	3/9/2011	Exterior	Exterior wall, W side of pharmacy entryway	Cream paint on concrete	0	0
WMED06	**3/9/2011**	**Exterior**	**Door on exterior wall, W side of pharmacy entryway**	**White paint on wood**	**5**	**0.83**
WMED03	**3/9/2011**	**Exterior**	**Window mullion on exterior wall, W side of pharmacy entryway**	**White paint on wood**	**5**	**0.9**
WMEE01	3/9/2011	Exterior	Exterior wall, N side of ward	White paint on concrete	0	0
WMEE02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, N side of ward**	**Green paint on wood**	**2.03**	**0.16**
WMEE06	**3/9/2011**	**Exterior**	**Door on exterior wall, N side of ward**	**White paint on wood**	**2.55**	**0.38**
WMEE10	3/9/2011	Exterior	Built-in wood square on exterior wall, N side of ward	White paint on wood	0	0
WMEE102	3/9/2011	Exterior	Stairs to second floor, N side of ward	White paint on concrete	0	0
WMEE202	**3/9/2011**	**Exterior**	**Window casing on second floor of exterior wall, N side of ward**	**White paint on wood**	**5**	**0.76**
WMEE206	**3/9/2011**	**Exterior**	**Door on second floor of exterior wall, N side of ward**	**White paint on wood**	**5**	**0.71**
WMEE210	3/9/2011	Exterior	Column on second floor, N side of ward	White paint on concrete	0	0
WMEEA06	3/9/2011	Exterior	Door on attic floor of exterior wall, N side of ward	White paint on wood	0.08	0.03
WMEEA08	3/9/2011	Exterior	Awning on attic floor of exterior wall, N side of ward	Green paint on wood	0.08	0.09
WMEEA08D	**3/9/2011**	**Exterior**	**Awning on attic floor of exterior wall, N side of ward**	**Green paint on wood**	**1.68**	**0.14**
WMEEA08D2	**3/9/2011**	**Exterior**	**Awning on attic floor of exterior wall, N side of ward**	**Green paint on wood**	**4.76**	**0.45**
WMEEA01	3/9/2011	Exterior	Exterior wall on attic floor, N side of ward	White paint on concrete	0	0
WMEF01	3/9/2011	Exterior	Exterior wall, W side of ward	Green paint on concrete	0.03	0.03
WMEF02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, W side of ward**	**Green paint on wood**	**5**	**0.61**
WMEG01	3/9/2011	Exterior	Exterior wall, S side of ward	White paint on concrete	0	0
WMEH01	3/9/2011	Exterior	Exterior wall, W side of surgeon's room	Green paint on concrete	0.03	0.03
WMEI01	3/9/2011	Exterior	Exterior wall, S side of front façade	White paint on concrete	0	0
WMEI05	3/9/2011	Exterior	Door jamb on exterior wall, S side of front façade	White paint on wood	0	0
WMEI02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, S side of front façade**	**White paint on wood**	**5**	**1.87**
WMEI022	**3/9/2011**	**Exterior**	**Window casing on exterior wall, S side of front façade**	**Green paint on wood**	**4.29**	**0.51**
WMEJ01	3/9/2011	Exterior	Exterior wall, E side of mess room/dispensary	Green paint on concrete	0	0
WMEK01	3/9/2011	Exterior	Exterior wall, N side of mess room	Green paint on concrete	0.02	0.02
WMEK02	**3/9/2011**	**Exterior**	**Window casing on exterior wall, N side of mess room**	**Green paint on wood**	**5**	**0.91**
WMEL06	**3/9/2011**	**Exterior**	**Door on exterior wall, E side of pharmacy**	**Green paint on wood**	**5**	**0.75**
WMEL03	**3/9/2011**	**Exterior**	**Window mullion on exterior wall, E side of pharmacy**	**White paint on wood**	**5**	**0.99**
WMEL01	3/9/2011	Exterior	Exterior wall, E side of pharmacy	White paint on concrete	0.02	0.02

mg/cm^2	milligrams per square centimeter
XRF	X-ray fluorescence
W	West
S	South
E	East
N	North
BOLD	Regulated amounts of lead detected

TABLE 6
Analytical Results for Lead in Soil Samples

Sample ID	Date Collected	Lab ID	Lead Concentration (mg/kg)
WMSOE01	3/9/11	4240926	280
WMSOE02	**3/9/11**	**4240927**	**1,800**
WMSOF01	**3/9/11**	**4240930**	**1,100**
WMSOF02	**3/9/11**	**4240931**	**1,100**
WMSOG01	**3/9/11**	**4240933**	**530**
WMSOA01	**3/9/11**	**4240932**	**2,500**
WMSOB01	**3/9/11**	**4240929**	**3,600**
WMSOC01	**3/9/11**	**4240928**	**8,000**
WMSOJ01	3/9/11	4240935	380
WMSOJ02	3/9/11	4240936	180
WMSOL01	**3/9/11**	**4240934**	**2,600**
WMSOI01	**3/9/11**	**4240937**	**400**
WMSOI02	3/9/11	4240938	370
WMSOH01	**3/9/11**	**4240939**	**550**
WM0G085	3/29/11	EM 721550	155.9
WM3F082	3/29/11	EM 721551	349.1
WM3E044	**3/29/11**	**EM 721552**	**1,168**
WM9E044	**3/29/11**	**EM 721553**	**549.1**
WM9E084	3/29/11	EM 721554	292.0
WM0F043	**3/29/11**	**EM 721555**	**617.2**
WM0F083	3/29/11	EM 721556	351.6
WM0F123	3/29/11	EM 721557	332.8
WM3J081	3/29/11	EM 721558	71.7
WM6J041	3/29/11	EM 721559	163.3

BOLD Lead > 400 mg/kg EPA residential soil guidance level
mg/kg Milligrams per kilogram

TABLE 7
Laboratory Adjusted In situ Results

Sample ID	In situ Reading	Lab Adjusted Value	Color Coding
WM3E124	23	4	
WM3A082	53	43	
WM3J014	56	47	
WM6G013	57	49	
WM6G014	59	51	
WM6J014	63	56	
WM6F011	81	80	
WM6H011	92	95	
WM6J013	92	95	
WM3J081	98	103	
WM6J012	102	108	
WM3J012	104	111	
WM6G011	108	116	
WM6I011	109	117	
WM6F082	110	119	
WM12J011	111	120	
WM3I013	112	121	
WM3G014	113	123	
WM6I012	119	131	
WM3F011	123	136	
WM3I012	123	136	
WM9E124	124	137	
WM3G013	125	139	
WM6G012	125	139	
WM3H011	130	145	
WM6I013	134	150	
WM3G011	137	154	
WM6F042	145	165	
WM3A042	156	180	
WM3J013	160	185	
WM0G085	163	189	
WM3J041	164	190	
WM3I011	171	199	
WM3G012	172	201	
WM6J041	172	201	
WM15E014	175	205	
WM3E011	182	214	
WM6F012	184	217	
WM6I014	200	238	
WM0F123	202	240	
WM3F042	202	240	
WM6A011	211	252	
WM3E084	216	259	
WM0G045	220	264	
WM12C011	223	268	
WM6A012	225	271	
WM21E013	239	289	
WM9E015	247	300	
WM3E012	258	315	
WM0F083	262	320	
WM9J011	266	325	
WM3A011	272	333	
WM3F082	275	337	
WM3J011	289	356	
WM3A012	291	358	
WM6C011	292	360	
WM0G015	297	366	
WM6J011	306	378	
WM3F012	316	391	
WM9E084	320	397	
WM3E013	321	398	
WM3C011	**342**	**426**	
WM6E011	**345**	**430**	
WM3I014	**363**	**454**	
WM12E013	**378**	**473**	
WM18E013	**387**	**485**	
WM3E015	**410**	**516**	
WM9C011	**410**	**516**	
WM9E013	**410**	**516**	
WM6E015	**442**	**558**	
WM12E014	**464**	**587**	
WM6E013	**467**	**591**	
WM9E044	**478**	**606**	
WM0F043	**487**	**618**	
WM6E012	**499**	**633**	
WM15E013	**587**	**750**	
WM9E014	**645**	**827**	
WM6E014	**759**	**978**	
WM3E014	**817**	**1054**	
WM0F013	**821**	**1060**	
WM3E044	**880**	**1138**	

*All results are in milligrams per kilogram (mg/kg); to be used in conjunction with Figure 10

Lead concentrations less than 200 mg/kg
Lead concentrations between 201 and 399 mg/kg
Lead concentrations greater than 400 mg/kg

TABLE 8
Western Montana Mental Health Center Cost Estimate

Line Item (RS Means)	Item Description	Quantity	Unit	Crew	Daily Output	Hours	Factor	Unit Costs In Dollars Labor	Equip	Mtrls	Total	Total w/ O&P	Item Total
	MOBILIZATION AND SITE PREPARATION (Asbestos)												
02.82.13.41.0350	Light Stand, 500 Watt	4	each	-	-	-	1	-	-	$52.00	$52.00	$57.50	**$230.00**
02.82.13.41.0460	Respirator, P.A.P.R., full face	2	each	-	-	-	1	-	-	$195.00	$195.00	$215.00	**$430.00**
02.82.13.41.1500	Power Panel, 20 Unit, incl. GFI	1	each	-	-	-	1	-	-	$570.00	$570.00	$625.00	**$625.00**
02.82.13.41.0500	Personnel sampling pump, minimum	3	each	-	-	-	1	-	-	$221.00	$221.00	$244.00	**$732.00**
02.82.13.41.1750	Vacuum cleaner, HEPA, 16 gallon	1	each	-	-	-	1	-	-	$1,050.00	$1,050.00	$1,150.00	**$1,150.00**
02.82.13.41.2000	Worker protection, whole body, foot, head cover & gloves, plastic	60	each	-	-	-	1	-	-	$8.70	$8.70	$9.60	**$576.00**
02.82.13.41.2550	Cartridge for respirator	30	each	-	-	-	1	-	-	$6.90	$6.90	$7.60	**$228.00**
02.82.13.41.6000	Disposable polyethylene bags, 3 CF	50	each	-	-	-	1	-	-	$2.26	$2.26	$2.49	**$124.50**
02.82.13.41.6500	Negative air machine, 1800 C.F.M.	2	each	-	-	-	1	-	-	$820.00	$820.00	$905.00	**$1,810.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$1,181.10**
													$7,086.60
	PREPARATION OF ASBESTOS CONTAINMENT AREA												
02.82.13.42.0010	Pre-cleaning, HEPA vacuum and wet wipe, flat surfaces	3530	SF	A-9	12000	-	1	0.25	-	0.02	0.27	0.41	**$1,447.30**
02.82.13.42.0400	Personnel decon chamber, 2" x 4" studs @ 16 ", 3/4 ply each side	50	SF	2 Carp	280	0.057	1	2.46	-	4	6.46	8.15	**$407.50**
02.82.13.42.0450	Waste decon chamber, 2" x 4" studs @ 16 ", 3/4 ply each side	50	SF	2 Carp	360	0.044	1	1.91	-	4	5.91	7.35	**$367.50**
02.82.13.42.0550	Floors, each layer, 6 mil	3530	SF	A-9	8000	0.008	2	0.38	-	0.05	0.43	0.64	**$4,518.40**
02.82.13.42.0550	Walls, each layer, 4 mil	9516	SF	A-9	7000	0.009	1	0.43	-	0.04	0.47	0.7	**$6,661.20**
02.82.13.42.0900	Set up neg. air machine, 1-2k C.F.M./25 M.C.F. volume	6	each	1 Asbe	4.3	1.86	1	87.5	-	-	87.5	135	**$810.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$2,842.38**
													$17,054.28
	ASBESTOS ABATEMENT												
02.82.13.43.0300	Boiler breeching or flue insulation (assume for tank insulation)	450	SF	A-9	520	0.123	1	$5.80	-	$0.37	$6.17	$9.35	**$4,207.50**
02.82.13.43.0600	Pipe insulation, up to 4" diameter pipe	491	LF	A-9	900	0.071	1	$3.34	-	$0.22	$3.56	$5.40	**$2,651.40**
02.82.13.43.0610	Pipe insulation, 4" to 8" diameter pipe	749	LF	A-9	800	0.08	1	$3.76	-	$0.24	$4.00	$6.05	**$4,531.45**
02.82.13.43.0630	Pipe insulation, 14" to 16" diameter pipe	85	LF	A-9	550	0.116	1	$5.45	-	$0.35	$5.80	$8.85	**$752.25**
02.82.13.43.1000	Pipe fitting insulation, up to 4" diameter pipe	62	each	A-9	320	0.2	1	$9.40	-	$0.61	$10.01	$15.15	**$939.30**
02.82.13.43.1100	Pipe fitting insulation, 6" to 8" diameter pipe	74	each	A-9	304	0.211	1	$9.90	-	$0.64	$10.54	$16.00	**$1,184.00**
02.82.13.43.1120	Pipe fitting insulation, 14" to 16" diameter pipe	4	each	A-9	192	0.333	1	$15.65	-	$1.01	$16.66	$25.00	**$100.00**
02.82.13.43.5000	Remove Vinyl Asbestos Tile (VAT) from floor by hand	20	SF	A-9	2400	0.027	1	$1.22	-	$0.08	$1.30	$1.98	**$39.60**
02.82.13.43.6000	Remove contaminated soil from crawl space by hand	8	CF	A-9	400	0.16	1	$7.50	-	$0.49	$7.99	$12.15	**$97.20**
02.82.13.43.8000	Cement-asbestos transite board	900	SF	2 Asbe	1000	0.016	1	$0.75	-	$0.14	$0.89	$1.31	**$1,179.00**

TABLE 8
Western Montana Mental Health Center Cost Estimate

Line Item (RS Means)	Item Description	Quantity	Unit	Crew	Daily Output	Hours	Factor	Unit Costs In Dollars			Total	Total w/ O&P	Item Total
								Labor	Equip	Mtrls			
02.82.13.43.8260	Bituminous flashing	1400	SF	1 Rofc	300	0.027	1	$0.97	-	$0.08	$1.05	$1.71	**$2,394.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$3,615,14**
													$21,690.84
	OSHA TESTING												
02.82.13.45.0110	Certified technician, maximum	14	Day	-	-	-	1	-	-	-	300	330	**$4,620.00**
02.82.13.45.0210	Asbestos sampling and PCM analysis, NIOSH 7400, maximum	14	each	1 Asbe	4	2	1	94	-	3	97	148	**$2,072.00**
02.82.13.45.0200	Cleaned area samples, PCM analysis, NIOSH 7400, max	14	each	1 Asbe	4	2	1	94	-	3.2	97.2	149	**$2,086.00**
01.31.13.20.0200	Project manager, average	2	week	-	-	-	1	2075	-	-	2075	3175	**$6,350.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$3,025.60**
													$18,153.60
	DECON. OF ASBESTOS CONTAINMENT AREA												
02.82.13.46.1000	Spray encapsulant polyethylene sheeting	13046	SF	A-9	8000	0.008	0.2	0.38	-	0.31	0.69	0.92	**$2,400.46**
02.82.13.46.1100	Roll down polyethylene sheeting	13046	SF	A-9	8000	0.008	0.2	0.38	-	-	0.38	0.58	**$1,513.34**
02.82.13.46.1500	Bag polyethylene sheeting	50	each	A-9	400	0.16	1	7.5	-	0.77	8.27	12.45	**$622.50**
02.82.13.46.1500	Remove custom decon facility	2	each	A-10A	8	3	1	141	-	15	156	235	**$470.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$1,001.26**
													$6,007.56
	ASBESTOS WASTE PKG., HANDLING, AND DISP.												
02.82.13.47.0100	Collect and bag bulk material, 3 CF bags by hand	150	each	A-9	400	0.16	1	$7.30	-	$2.26	$9.56	$13.85	**$2,077.50**
02.82.13.47.1000	Double bag and decontaminate	150	each	A-9	960	0.067	1	$3.04	-	$2.26	$5.30	$7.20	**$1,080.00**
02.82.13.47.3000	Cart bags 50 feet to dumpster	150	each	2 Asb	400	0.04	1	$1.82	-	-	$1.82	$1.82	**$273.00**
31.23.23.20.9070	Hauling 35 MPH, cycle 30 miles, 18 CY truck	150	CY	-	-	-	1	-	-	-	$8.75	$10.50	**$1,575.00**
02.82.13.47.5000	Disposal charges for non-friable asbestos material (VAT, decon)	50	CY	-	-	-	1	-	-	-	$60.00	$66.00	**$3,300.00**
02.82.13.47.5000	Disposal charges for friable asbestos (insulation)	100	CY	-	-	-	1	-	-	-	$150.00	$165.00	**$16,500.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$4,961.10**
													$29,766.60
	LEAD-BASED PAINT ABATEMENT												
02.83.19.26.0200*	Balustrades, one side (Attic)	120	SF	1 Pord	28	0.286	0.75	10.75	-	1.32	$12.07	$17.35	**$1,561.50**
02.83.19.26.0200*	Balustrades, one side (First Floor)	80	SF	1 Pord	28	0.286	0.75	10.75	-	1.32	$12.07	$17.35	**$1,041.00**
02.83.19.26.0200*	Balustrades, one side (Second Floor)	160	SF	1 Pord	28	0.286	0.75	10.75	-	1.32	$12.07	$17.35	**$2,082.00**
02.83.19.26.6200*	Windows, one side, double hung 1/1, 24"x 48"	1	each	1 Pord	4	2	2	150	-	51	$201.00	$278.00	**$278.00**
02.83.19.26.6400*	Windows, Colonial, one side, double hung 6/6, 24" x 48"	3	each	1 Pord	4	2	2	300	-	102	$402.00	$560.00	**$1,680.00**

TABLE 8
Western Montana Mental Health Center Cost Estimate

Line Item (RS Means)	Item Description	Quantity	Unit	Crew	Daily Output	Hours	Factor	Unit Costs In Dollars			Total	Total w/ O&P	Item Total
								Labor	Equip	Mtrls			
02.83.19.26.6420*	Windows, Colonial, one side, double hung 6/6, 30" x 60"	4	each	1 Pord	1.5	5.33	2	400	-	136	$536.00	$740.00	**$2,960.00**
02.83.19.26.6440*	Windows, Colonial, one side, double hung 6/6, 36" x 72"	42	each	1 Pord	1	8	2	600	-	204	$804.00	$1110.00	**$46,620.00**
02.83.19.26.6480*	Windows, Colonial, one side, double hung 6/6, 40" x 80"	55	each	1 Pord	1	8	2	600	-	204	$804.00	$1110.00	**$61,050.00**
02.83.19.26.6620*	Windows, Colonial, one side, double hung 8/8, 40" x 80"	6	each	1 Pord	1	8	2	600	-	204	$804.00	$1110.00	**$6,660.00**
02.83.19.26.6820*	Windows, Colonial, one side, double hung 12/12, 40" x 80"	4	each	1 Pord	0.75	10.667	2	800	-	272	$1072.00	$1490.00	**$5,960.00**
	55-gallon drum to contain waste	6	each	-	-	-	1	-	-	-	$75.00	$75.00	**$450.00**
	Toxicity Characteristic Leaching Procedure test on paint waste	2	each	-	-	-	1	-	-	-	$200.00	$200.00	**$400.00**
	Disposal of lead paint waste	6	each	-	-	-	1	-	-	-	$569.00	$569.00	**$3,414.00**
	Permitting	1	job	-	-	-	1	-	-	-	$350.00	$350.00	**$350.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$25,964.40**
													$155,786.40
	LEAD CONTAMINATED SOIL REMOVAL												
1.54.36.50.0020	Mobilization of Backhoe 70-150 Horse Power	1	each	B-34N	4	2	1	$66.50	$136.00	N/A	$202.50	$251.00	**$251.00**
31.23.16.13.0050	Excavate area from 1 to 4 feet with backhoe	18	BCY	B-11C	150	0.107	1	$4.06	$2.25	-	$6.31	$8.65	**$155.70**
31.23.23.20.1069	Hauling 35 MPH, cycle 30 miles	22	LCY	B-34B	84	0.095	1	$3.28	$6.00	-	$9.28	$11.65	**$256.30**
	Soil disposal (not hazardous waste)	22	LCY	-	-	-	1	-	-	-	$20.00	$22.00	**$484.00**
31.23.23.13.0300	Backfill, compaction in 6 inch layers by hand with roller	18	BCY	B-10A	100	0.12	1	$4.76	$1.50	-	$6.26	$8.85	**$159.30**
32.92.23.10.0300	Replace sod for area, 1,000 square feet, level ground, 1 inch deep	1	MSF	B-63	13.5	2.963	1	$103.00	$11.95	$297.00	$411.95	$495.00	**$495.00**
	Fill material, sand, dead, or bank	22	LCY	N/A	150	N/A	1	N/A	N/A	$18.00	$18.00	$20.00	**$440.00**
1.54.36.50.0020	Demobilization of Backhoe, Loader, 70-150 Horse Power	1	each	B-34N	4	2	1	$66.50	$136.00	N/A	$202.50	$251.00	**$251.00**
	Contingency (20%)	-	-	-	-	-	1.2	-	-	-	-	-	**$498.46**
													$2,990.76
	CLEANUP SUMMARY												
	Asbestos Abatement												$99,759.48
	LBP Abatement												$155,786.40
	Soil Removal												$2,990.76
PROPERTY TOTAL													**$258,536.64**

Source: RSMeans, 2010. Building Construction Cost Data 2011. 69th Edition. Catalog # 60011.
Please see Section 9 for explanations and assumptions used in calculations
*Windows and balustrades are classed to closest available line item
Disclaimer: This is only an estimate, actual costs may vary

MSF One thousand square feet
CY Cubic yards
LCY Loose cubic yards
BCY Bank cubic yards
SF Square feet
CF Cubic feet

APPENDIX A

Photolog



Photo 1: Attic hallway showing latex paint. View facing E.



Photo 2: Attic lavatory. View facing SW.



Photo 3: Second floor, ward room 03. View facing NW.



Photo 4: Second floor, stairwell. View facing N.

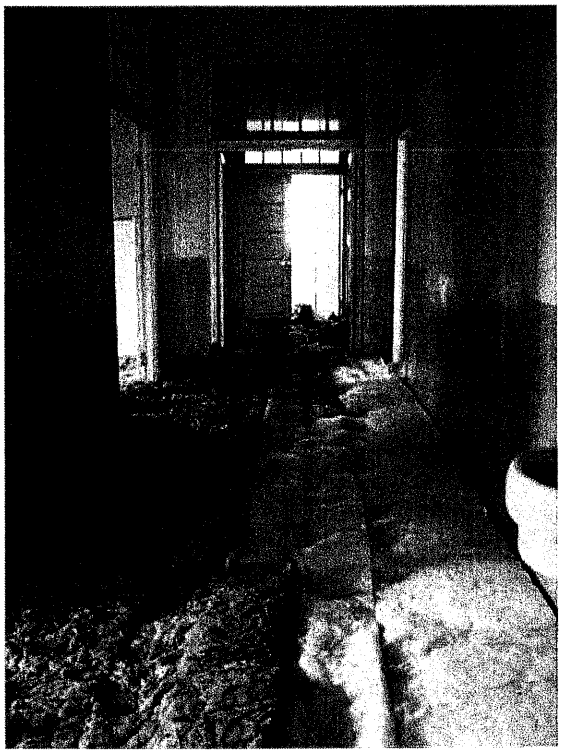


Photo 5: Second floor hallway. View facing W.

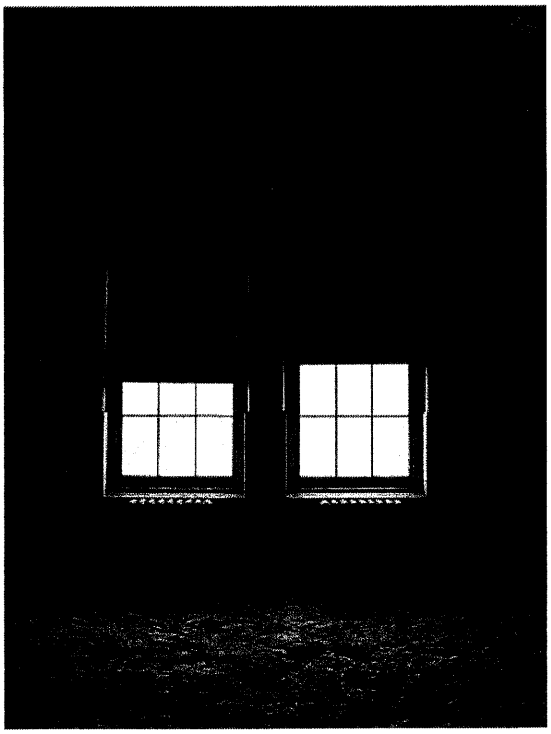


Photo 6: Second floor, operating room. View facing S.

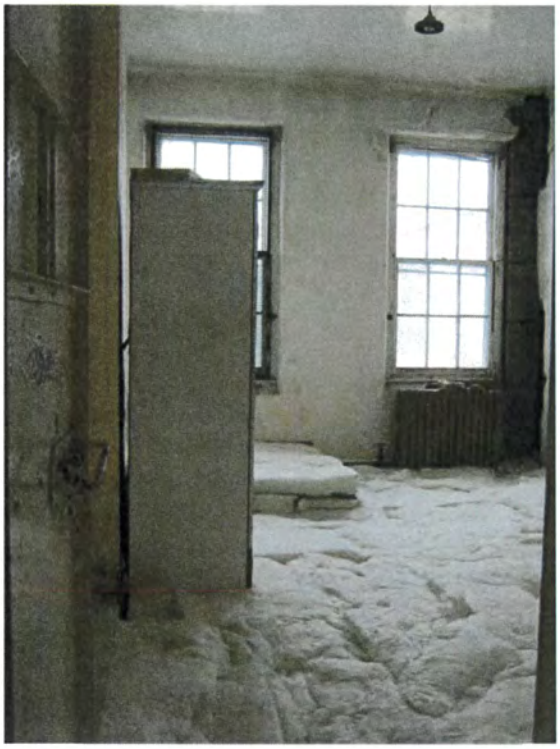


Photo 7: Second floor, cell ward. View facing N.



Photo 8: First floor, kitchen. View facing W, showing exposed insulation.



Photo 9: First floor, hallway. View facing W.



Photo 10: Basement, boiler room. View facing SW.



Photo 11: Basement hallway. View facing N.

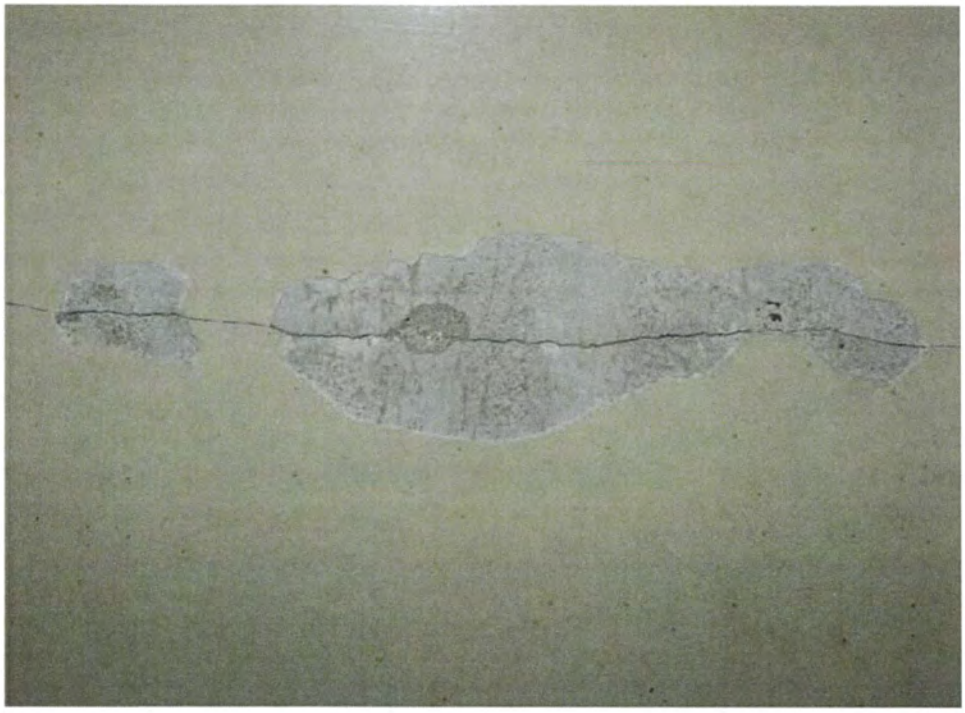


Photo 12: Plaster sample taken from attic hallway.



Photo 13: Sample from air core in officer's ward of second floor.



Photo 14: Insulation on small boiler in basement.



Photo 15: Piping insulation in basement.



Photo 16: Basement hallway showing exposed insulation. View facing E.

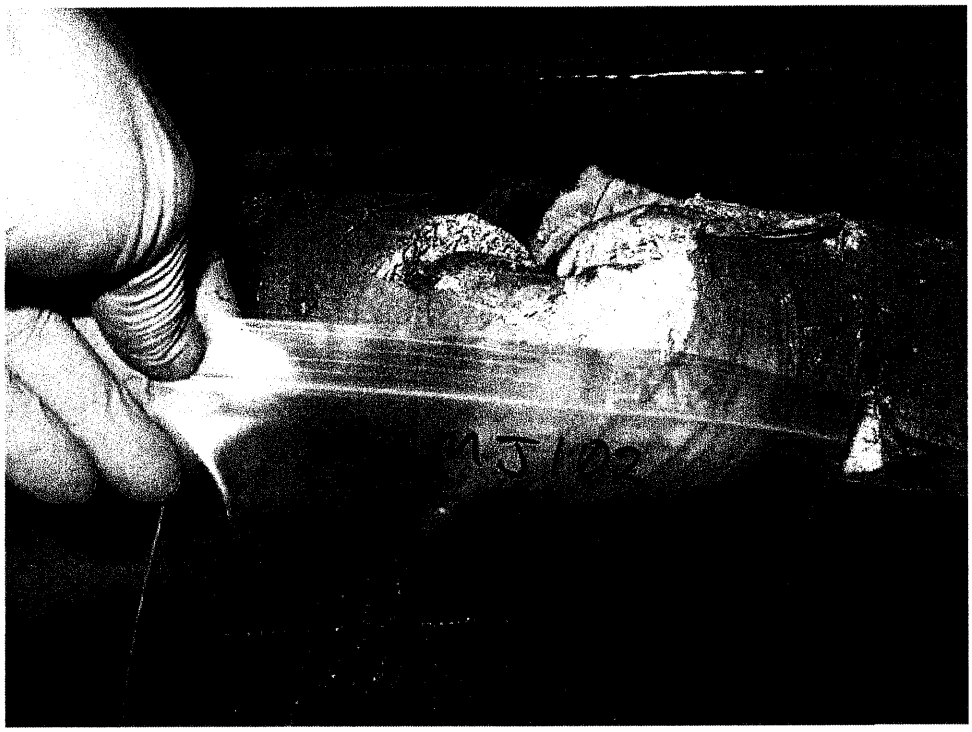


Photo 17: Mud joint sampling location in basement.

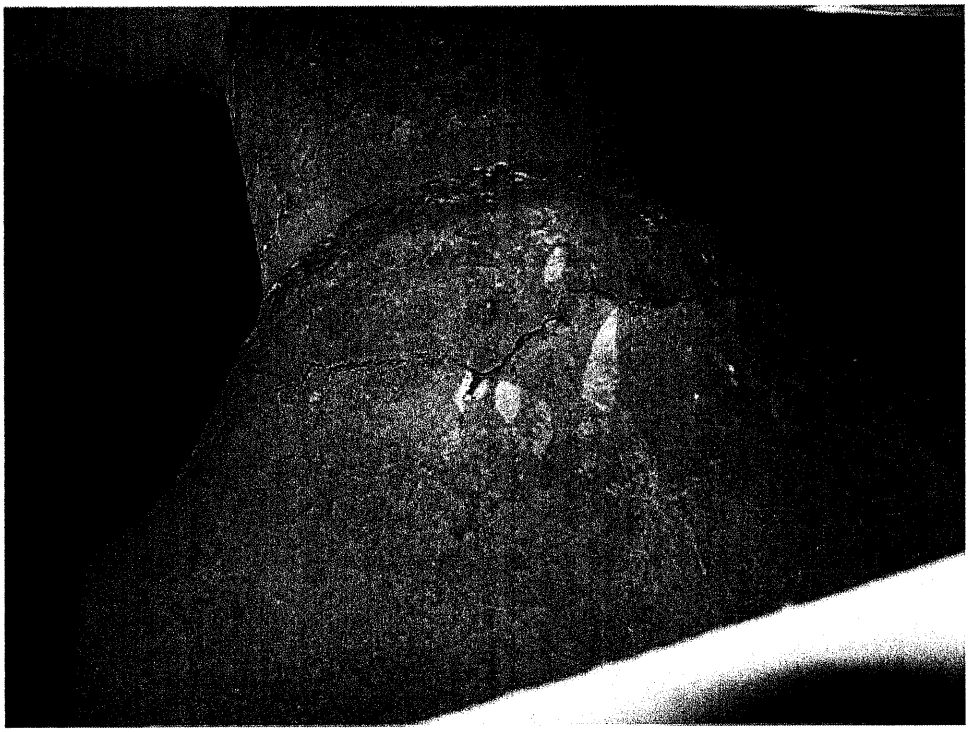


Photo 18: Joint for large pipe of boiler.



Photo 19: Underground pipe in basement (storage room 09) with debris.



Photo 20: Exposed insulation in basement (storage room 03).

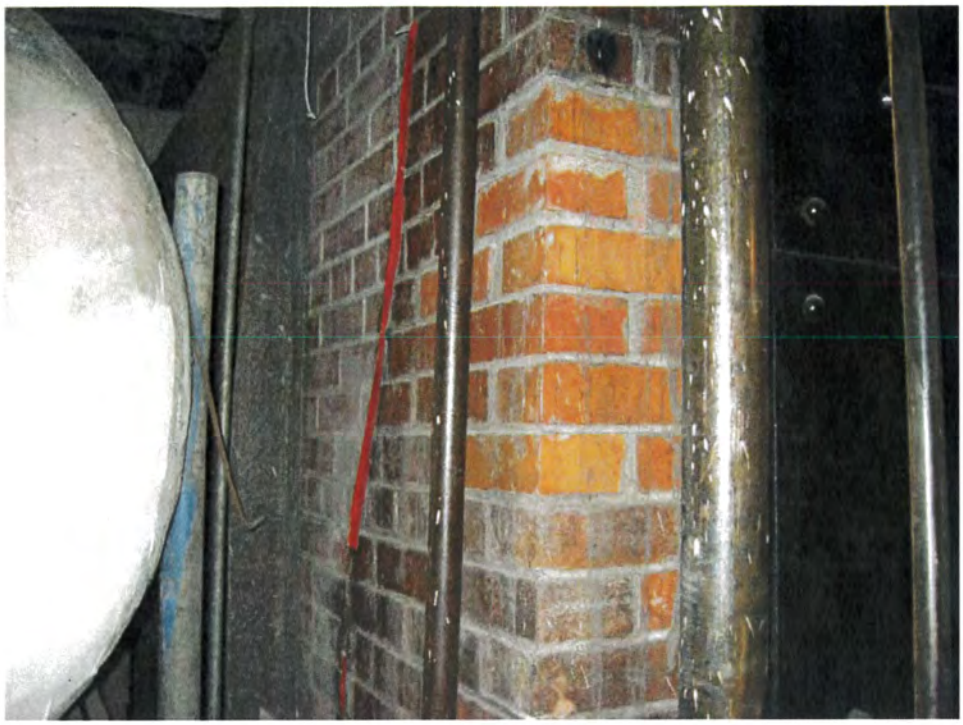


Photo 21: Exterior brick in basement boiler room.



Photo 22: Inside of boiler.



Photo 23: Subterrainean pipe with debris, in basement.



Photo 24: Transite roofing in boiler room of basement.

APPENDIX B

Laboratory Data

iATL
INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Ste B
Mount Laurel, NJ 08054
Toll free: 877 428-4285
Local: 856-231-9449
Fax: 856-231-9818
info@iatl.com

PRELIMINARY RESULTS

Deliver Promptly To: URS Operating Svcs.

Company:

Fax/Email: Steve_Norris@urscorp.com

From:

Date: 3-14-11

Number of Pages Including This Page:

Message: PLM Results

iATL provides our clients with several means of receiving their analytical results (preliminary results FAXed and/or emailed). We also recommend that you apply for a Client Portal account so that you can track your samples and access your secure data. Details can be attained at www.iatl.com.

○ For bulk asbestos analysis, if you require that certain samples move forward to gravimetric reduction TEM analysis (ex. TEM-NOB by ELAP 198.4 or equivalent), please look over your PLM bulk asbestos results, circle or highlight any samples/layers that require additional analysis, and submit to us as soon-as possible. FAX 856-231-9818, info@iatl.com.

○ For airborne fiber counts by PCM 7400, if you require that certain samples move forward to airborne TEM analysis (ex. TEM-NIOSH 7402 or equivalent), please look over your PCM results, circle or highlight any samples that require additional analysis, and submit to us as soon as possible. FAX 856-231-9818, info@iatl.com.

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IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241023 **Description / Location:** White/Grey Plaster
Client No.: WMPL101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241024 **Description / Location:** White/Grey Plaster
Client No.: WMPL102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241025 **Description / Location:** White/Grey Plaster
Client No.: WMPL103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241026 **Description / Location:** White/Grey Plaster
Client No.: WMPL104

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Approved By:

Date: 3/14/2011

Frank E. Ehrenfeld, III
Laboratory Director

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241027 **Description / Location:** White/Grey Plaster
Client No.: WMPL105

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241028 **Description / Location:** White/Grey Plaster
Client No.: WMPL106

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241029 **Description / Location:** White/Grey Plaster
Client No.: WMPL107

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241030 **Description / Location:** White/Grey Plaster
Client No.: WMPL201

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241031 **Description / Location:** White/Grey Plaster
Client No.: WMPL202

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241032 **Description / Location:** White/Grey Plaster
Client No.: WMPL203

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Hair	100

Lab No.: 4241033 **Description / Location:** Brown Vinyl Sheet Flooring
Client No.: WMSF101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	20	Cellulose	80

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241034 **Description / Location:** Brown Vinyl Sheet Flooring
Client No.: WMSF102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	30	Cellulose	70

Lab No.: 4241034 **Description / Location:** Brown Mastic **Layer No.:** 2
Client No.: WMSF102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241035 **Description / Location:** Brown Vinyl Sheet Flooring
Client No.: WMSF103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	20	Cellulose	80

Lab No.: 4241035 **Description / Location:** Brown Mastic **Layer No.:** 2
Client No.: WMSF103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241036 **Description / Location:** Brown Vinyl Sheet Flooring
Client No.: WMSF104

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	20	Cellulose	80

Lab No.: 4241037 **Description / Location:** Grey Glazing
Client No.: WMWC101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 1.3	Chrysotile	None Detected	None Detected	PC 98.7

Lab No.: 4241038 **Description / Location:** Sample Not Analyzed
Client No.: WMWC102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241039 **Description / Location:** Sample Not Analyzed
Client No.: WMWC103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241040 **Description / Location:** Grey Insulation
Client No.: WMPI101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
60	Chrysotile	10	Cellulose	30

Lab No.: 4241041 **Description / Location:** Sample Not Analyzed
Client No.: WMPI102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241042 **Description / Location:** Sample Not Analyzed
Client No.: WMPI103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241043 **Description / Location:** Grey Insulation
Client No.: WMMJ101 Mud Joint

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
70	Chrysotile	None Detected	None Detected	30

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Report Date: 3/14/2011
Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241044 **Description / Location:** Sample Not Analyzed
Client No.: WMMJ102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241045 **Description / Location:** Sample Not Analyzed
Client No.: WMMJ103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analzyed		

Lab No.: 4241046 **Description / Location:** White Insulation Tank
Client No.: WMTI101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
25	Chrysotile	None Detected	None Detected	75

Lab No.: 4241047 **Description / Location:** Sample Not Analyzed
Client No.: WMTI102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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Analysis Performed By: L. Solebello

Date: 3/14/2011

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Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241048 **Description / Location:** Sample Not Analyzed
Client No.: WMTI103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241049 **Description / Location:** Grey Transite
Client No.: WMTR101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
15	Chrysotile	None Detected	None Detected	85

Lab No.: 4241050 **Description / Location:** Sample Not Analyzed
Client No.: WMTR102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241051 **Description / Location:** Sample Not Analyzed
Client No.: WMTR103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241052
Client No.: WMTI201
Description / Location: White Insulation Tank

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
30	Chrysotile	None Detected	None Detected	70

Lab No.: 4241053
Client No.: WMTI202
Description / Location: Sample Not Analyzed

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241054
Client No.: WMTI203
Description / Location: Sample Not Analyzed

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241055
Client No.: WMPI201
Description / Location: White Insulation Pipe

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
20	Chrysotile	None Detected	None Detected	80

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241056 **Description / Location:** Sample Not Analyzed
Client No.: WMPI202

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241057 **Description / Location:** Sample Not Analyzed
Client No.: WMPI203

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241058 **Description / Location:** Tan/White Wrap/Insulation
Client No.: WMPI301

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
20	Chrysotile	10	Cellulose	70

Lab No.: 4241059 **Description / Location:** Sample Not Analyzed
Client No.: WMPI302

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241060 Description / Location: Sample Not Analyzed
Client No.: WMPI303

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241061 Description / Location: Grey Debris
Client No.: WMDB101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 1.9	Chrysotile	Trace	Cellulose	PC 98.1

Note: Not building material. 1% threshold may not apply.

Lab No.: 4241062 Description / Location: Sample Not Analyzed
Client No.: WMDB102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241063 Description / Location: Sample Not Analyzed
Client No.: WMDB103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241064 **Description / Location:** Sample Not Analyzed
Client No.: WMDB104

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241065 **Description / Location:** White Insulation Pipe
Client No.: WMPI401

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
20	Chrysotile	Trace	Cellulose	80

Lab No.: 4241066 **Description / Location:** Sample Not Analyzed
Client No.: WMPI402

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241067 **Description / Location:** Sample Not Analyzed
Client No.: WMPI403

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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Analysis Performed By: L. Solebello

Date: 3/14/2011

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241068 Description / Location: Grey Insulation
Client No.: WMMJ201 Mud Joint

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
30	Chrysotile	None Detected	None Detected	70

Lab No.: 4241069 Description / Location: Sample Not Analyzed
Client No.: WMMJ202

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241070 Description / Location: Sample Not Analyzed
Client No.: WMMJ203

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241071 Description / Location: Tan/Brown/Grey Insulation
Client No.: WMPI501 Pipe

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 4.9	Chrysotile	75	Cellulose	PC 10.1
		10	Hair	

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241072
Client No.: WMPI502
Description / Location: Sample Not Analyzed

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241073
Client No.: WMPI503
Description / Location: Sample Not Analyzed

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241074
Client No.: WMMJ301
Description / Location: Off-White Insulation Mud Joint

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
30	Chrysotile	None Detected	None Detected	70

Lab No.: 4241075
Client No.: WMMJ302
Description / Location: Sample Not Analyzed

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241076 **Description / Location:** Sample Not Analyzed
Client No.: WMMJ303

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241077 **Description / Location:** Sample Not Analyzed
Client No.: WMMJ304

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241078 **Description / Location:** Grey/Tan Insulation/Debris
Client No.: WMDB201

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
30	Chrysotile	None Detected	None Detected	70

Note: Not building material. 1% threshold may not apply.

Lab No.: 4241079 **Description / Location:** Sample Not Analyzed
Client No.: WMDB202

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241080 **Description / Location:** Sample Not Analyzed
Client No.: WMDB203

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241081 **Description / Location:** Grey Mortar
Client No.: WMBM101 Exterior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241082 **Description / Location:** Grey Mortar
Client No.: WMBM102 Exterior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241083 **Description / Location:** Grey Mortar
Client No.: WMBM103 Exterior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241084
Client No.: WMBM201
Description / Location: Grey Mortar, Interior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC Trace	Chrysotile	None Detected	None Detected	100

Lab No.: 4241085
Client No.: WMBM202
Description / Location: Grey Mortar, Interior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241086
Client No.: WMBM203
Description / Location: Grey Mortar, Interior Boiler

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241087 **Description / Location:** Green Floor Tile
Client No.: WMFT101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 2.1	Chrysotile	None Detected	None Detected	PC 97.9

Lab No.: 4241087 **Description / Location:** Tan Floor Tile **Layer No.:** 2
Client No.: WMFT101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241087 **Description / Location:** Brown Floor Tile **Layer No.:** 3
Client No.: WMFT101

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241088 Description / Location: Black Mastic
Client No.: WMFT102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Synthetic	100

Lab No.: 4241088 Description / Location: Tan Floor Tile Layer No.: 2
Client No.: WMFT102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 4241088 Description / Location: Brown Floor Tile Layer No.: 3
Client No.: WMFT102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Lab No.: 4241089 Description / Location: Tan Floor Tile
Client No.: WMFT103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241090
Client No.: WMRF101
Description / Location: Grey/Tan/Black Shingle

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	30	Cellulose	70

Lab No.: 4241090
Client No.: WMRF101
Description / Location: Black Tar Paper
Layer No.: 2

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	70	Cellulose	30

Lab No.: 4241091
Client No.: WMRF102
Description / Location: White/Black Shingle

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	30	Cellulose	70

Lab No.: 4241091
Client No.: WMRF102
Description / Location: Black Tar Paper
Layer No.: 2

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	75	Cellulose	25

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241092 Description / Location: White/Black Shingle
Client No.: WMRF103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	30	Cellulose	70

Lab No.: 4241092 Description / Location: Black Tar Paper Layer No.: 2
Client No.: WMRF103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	70	Cellulose	30

Lab No.: 4241093 Description / Location: Black Tar Paper
Client No.: WMFL101 Flashing Material

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 5.2	Chrysotile	None Detected	None Detected	PC 94.8

Lab No.: 4241094 Description / Location: Sample Not Analyzed
Client No.: WMFL102

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

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Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241095 **Description / Location:** Sample Not Analyzed
Client No.: WMFL103

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 4241096 **Description / Location:** Tan/Grey Soil
Client No.: WMSOE01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100
		Trace	Fibrous Glass	

Note: Not building material. 1% threshold may not apply.

Lab No.: 4241097 **Description / Location:** Dark Brown Soil
Client No.: WMSOE02

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241098 **Description / Location:** Dark Brown Soil
Client No.: WMSOF01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241099 **Description / Location:** Dark Brown Soil
Client No.: WMSOF02

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241100 **Description / Location:** Dark Brown Soil
Client No.: WMSOG01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241101 **Description / Location:** Brown Soil
Client No.: WMSOA01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	3	Cellulose	97

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241102 **Description / Location:** Dark Brown Soil
Client No.: WMSOB01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Lab No.: 4241103 **Description / Location:** Dark Brown Soil
Client No.: WMSOC01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. This report shall not be reproduced except in full, without written approval of the laboratory.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Solebello

Date: 3/14/2011

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241104 Description / Location: Dark Brown Soil
Client No.: WMSOH01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241105 Description / Location: Dark Brown Soil
Client No.: WMSOI01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241106 Description / Location: Dark Brown Soil
Client No.: WMSOI02

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Solebello

Date: 3/14/2011

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Project:
Project No.: 36549063

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4241107 **Description / Location:** Dark Brown Soil
Client No.: WMSOJ01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241108 **Description / Location:** Dark Brown Soil
Client No.: WMSOJ02

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

Lab No.: 4241109 **Description / Location:** Dark Brown Soil
Client No.: WMSOL01

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	Trace	Cellulose	100

Note: Not building material. 1% threshold may not apply.

Note: Recommend TEM-NOB analysis as per EPA recommendations.

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method, (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Solebello

Date: 3/14/2011

Chain of Custody / Sample Log
Bulk Asbestos

9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
www.iatl.com

Client: URS Operating Services
1099 18th Street, Suite 710
Denver, CO 80126

Project Name: 36549063
Project No.: 36549063

Office Phone: 720-810-0771
Cell Phone: Same
FAX / Email 1: 303-291-8296

Contact 1: Steve Norris
Contact 2:
FAX / Email 2 steve_norris@urscorp.com

Special Instructions: Positive Stop by material type; Analyze and report all separable layers

Matrix:
- [ ] Air
- [ ] Water
- [✓] Soil
- [ ] Paint
- [✓] Bulk
- [ ] Surface Dust / Wipe
- [ ] Other

Analysis Method:

- [ ] PLM : Bulk Asbestos Building Materials EPA 600 / R 93-116

- [ ] PLM : Point Counting
  - [ ] PC : via ELAP 198.1
  - [ ] PC : 400 Points
  - [ ] PC : 800 Points *
  - [ ] PC : other _____ Points *

- [ ] PLM : Gravimetric Reduction
  - [ ] PLM : NOB via 198.6
  - [ ] PLM : Friable via EPA 600 2.3
  - [ ] If <1% by PLM, to TEM via 198.4 *
  - [ ] If <1% by PLM, Hold for Instructions

- [✓] PLM : Analyze Until Positive (Positive Stop)
  - [ ] AUP : by Homogenous Area as Noted
  - [✓] AUP : by Material Type as Noted

- [✓] PLM : Non-Building Material *, **(Dust, Wipe, Tape, Soil)
  - [✓] Soil or Vermiculite Analysis *, **

- [✓] PLM: Instructions for Multi-Layered Samples
  - [✓] Analyze and Report All Separable Layers per EPA 600
  - [ ] Report Composite for Drywall Systems per NESHAP
  - [ ] Report All Layers and Composite Where Applicable
  - [ ] Only Analyze and Report Specifically Noted Layer

* Additional charge and turnaround may be required. ** Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory.

Turnaround Time: Preliminary Results Requested By... 3/11/11 @ 12:00 (date / time) ☐ Verbals ☐ FAX ■ Email

- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [✓] 2 Day
- [ ] 1 Day*
- [ ] 12 Hour**
- [ ] 6 Hour**
- [ ] RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. Please notify the lab before shipping.

Sample Numbers: See attached.
Client #(s): _____ (start) - _____ (end) iATL#(s): _____ (start) - _____ (end) Total: _____
Please use your sample log to supply sampling information (ex. Volumes, areas, descriptions, locations, etc.) or download forms at iatl.com

Chain of Custody:
Relinquished (Name / Organization): Steve Norris
Received (Name / iATL): _____
Sample Login (Name / iATL): DNA 3/10/11
Sample Prep (Name / iATL): _____
Analysis(Name(s) / iATL): CS 3/14/11
QA/QC Review (Name / iATL): _____
Archived / Released: _____ QA/QC InterLAB Use: _____

RECEIVED
MAR 10 2011
iATL

Date: 3/9/11 Time: 13:30
Date: _____ Time: _____
Date: _____ Time: _____
Date: _____ Time: _____
Date: _____ Time: _____
Date: _____ Time: _____
Date: _____ Time: _____

Chain of Custody / Sample Log
Bulk Asbestos

9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285

www.iatl.com

Client: URS Operating Services

Project Name: 36549063
Project No.: 36549063

Sampling Date: 3/8/11

Client Sample ID:	iATL Sample ID:	Sample Description / Location	Notes
WMPL101	4241023	PLASTER	9:40
WMPL102	4241024	"	"
WMPL103	4241025	"	"
WMPL104	4241026	"	"
WMPL105	4241027	"	"
WMPL106	4241028	"	"
WMPL107	4241029	"	"
WMPL201	4241030	PLASTER	10:00
WMPL202	4241031	"	"
WMPL203	4241032	"	"
WMSF101	4241033	SHEET FLOORING	10:30
WMSF102	4241034	"	"
WMSF103	4241035	"	"
WMSF104	4241036	"	"
WMWC101	4241037	WINDOW CAULKING	11:00
WMWC102	4241038	"	"
WMWC103	4241039	"	"
WMPI101	4241040	PIPE INSULATION	11:15
WMPI102	4241041	"	"
WMPI103	4241042	"	"
WMMJ101	4241043	MUD JOINT	11:30
WMMJ102	4241044	" LG 3/14/11	"
WMMJ103	4241045	"	"
WMTI101	4241046	TANK INSULATION	12:00
WMTI102	4241047	"	"
WMTI103	4241048	"	"
WMTR101	4241049	TRANSITE	12:45
WMTR102	4241050	"	"

Chain of Custody / Sample Log
Bulk Asbestos

9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285

www.Jatl.com

Client: URS Operating Servies

Project Name: 36549063
Project No.: 36549063

Client Sample ID:	iATL Sample ID:	Sample Description / Location	Notes
WMTR103	4241051	TRANSITE	12:45
WMTI201	4241052	TANK INSULATION	12:30
WMTI202	4241053	"	"
WMTI203	4241054	"	"
WMPI201	4241055	PIPE INSULATION	15:15
WMPI202	4241056	"	"
WMPI203	4241057	"	"
WMPI301	4241058	PIPE INSULATION	15:30
WMPI302	4241059	"	"
WMPI303	4241060	"	"
WMDB101	4241061	DEBRIS	15:50
WMDB102	4241062	"	"
WMDB103	4241063	"	"
WMDB104	4241064	"	"
WMPI401	4241065	PIPE INSULATION	16:30
WMPI402	4241066	"	"
WMPI403	4241067	"	"
WMMJ201	4241068	MUD JOINT	19:20
WMMJ202	4241069	"	"
WMMJ203	4241070	" LS 3/14/11	"
WMPI501	4241071	PIPE INSULATION	17:40
WMPI502	4241072	"	"
WMPI503	4241073	"	"
WMMJ301	4241074	MUD JOINT	18:00
WMMJ302	4241075	"	"
WMMJ303	4241076	"	"
WMMJ304	4241077	"	"
WMDB201	4241078	DEBRIS (SAMPLE DATES BELOW: 3/9/11)	09:30

Please Make Additional Copies As Needed

eMail to: STEVE_NORRIS@URSCORP.COM

Chain of Custody / Sample Log
Bulk Asbestos

9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285

www.iatl.com

Client: URS Operating Services

Project Name: 36549063
Project No.: 36549063

Client Sample ID:	iATL Sample ID:	Sample Description / Location	Notes
WMDB202	4241079	DEBRIS	9:30
WMDB203	4241080	"	"
WMBM101	4241081	EXTERIOR BOILER MORTAR	9:00
WMBM102	4241082	"	"
WMBM103	4241083	"	"
WMBM201	4241084	INTERIOR BOILER MORTAR	9:15
WMBM202	4241085	"	"
WMBM203	4241086	"	"
WMFT101	4241087	FLOOR TILE	9:45
WMFT102	4241088	"	"
WMFT103	4241089	"	"
WMRF101	4241090	ROOFING MATERIAL	10:00
WMRF102	4241091	"	"
WMRF103	4241092	"	"
WMFL101	4241093	FLASHING MATERIAL	10:15
WMFL102	4241094	"	"
WMFL103	4241095	"	"
WMSOE01	4241096	SOIL (NO POSITIVE STOP)	11:05
WMSOE02	4241097	"	"
WMSOF01	4241098	"	11:15
WMSOF02	4241099	" LS 3/11/11	"
WMSOG01	4241100	"	11:20
WMSOA01	4241101	"	11:19
WMSOB01	4241102	"	11:13
WMSOC01	4241103	"	11:08
WMSOH01	4241104	"	11:40
WMSOI01	4241105	"	11:33
WMSOI02	4241106	"	11:37

Please Make Additional Copies As Needed

eMail to:

Chain of Custody / Sample Log
Bulk Asbestos

9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285

www.iatl.com

Client: URS Operating Services

Project Name: 36549063
Project No.: 36549063

Client Sample ID:	iATL Sample ID:	Sample Description / Location	Notes
WMSOJ01	4241107	SOIL (NO POSITIVE STOP)	11:28
WMSOJ02	4241108	"	11:30
WMSOL01	4241109	"	11:25
		LS 3/14/11	

Please Make Additional Copies As Needed

eMail to: Steve_norris@urscorp.com

iATL
INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Ste B
Mount Laurel, NJ 08054
Toll free: 877 428-4285
Local: 856-231-9449
Fax: 856-231-9818
info@iatl.com

PRELIMINARY RESULTS

Deliver Promptly To: _____

Company: _____

Fax/Email: _____

From: _____

Date: _____

Number of Pages Including This Page: _____

Message: LEAD RESULTS

iATL provides our clients with several means of receiving their analytical results (preliminary results FAXed and/or emailed). We also recommend that you apply for a Client Portal account so that you can track your samples and access your secure data. Details can be attained at www.iatl.com.

○ For bulk asbestos analysis, if you require that certain samples move forward to gravimetric reduction TEM analysis (ex. TEM-NOB by ELAP 198.4 or equivalent), please look over your PLM bulk asbestos results, circle or highlight any samples/layers that require additional analysis, and submit to us as soon-as possible. FAX 856-231-9818, info@iatl.com.

○ For airborne fiber counts by PCM 7400, if you require that certain samples move forward to airborne TEM analysis (ex. TEM-NIOSH 7402 or equivalent), please look over your PCM results, circle or highlight any samples that require additional analysis, and submit to us as soon as possible. FAX 856-231-9818, info@iatl.com.

Preliminary results are issued by IATL to expedite client decision making.
There are several factors that limit these results: sampling methods, sampling data, packaging and handling.

These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COA is considered the official results.

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IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Report Number: 0311004226
Project: 03/08-09/2011
Project No.: 36549063

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location / Description	Concentration Lead By Weight (%)
4240900	WMA0108	Lead Paint	45
4240901	WMA05B01	Lead Paint	12
4240902	WMA02B01	Lead Paint	0.013***
4240903	WMA08A01	Lead Paint	0.01***
4240904	WM211A01	Lead Paint	0.57
4240905	WM213D01	Lead Paint	43
4240906	WM214D0101	Lead Paint	41
4240907	WM214D0102	Lead Paint	43
4240908	WM213B10	Lead Paint	18
4240909	WM298D01	Lead Paint	4.5

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA No. 100188 / NYSDOH-ELAP No. 11021

Analysis Methods: ASTM D3335-85A "Standard Method To Test For Low Concentrations Of Lead In Paint By Atomic Absorption Spectrophotometry"
EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges and Sediments By AAS"

Comments: Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation. All results are based on the samples as received at the lab. IATL assumes that appropriate sampling methods have been used and the data upon which these results are based have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Apendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies. LSD=0.2 ppm MDL=0.0024% by weight. RL= 0.010% by weight (based upon 100 mg sampled). * Insufficient sample provided to perform QC reanalysis (<200 mg) ** Not enough sample provided to analyze (<50 mg) *** Matrix / substrate interference possible. Sample results are not corrected for contamination by field or analytical blanks. This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any government agency. This report shall not be reproduced except in full, without written approval of the laboratory.

Date Received: 3/10/2011

Date Analyzed: 3/14/2011

Analyst: C. Shaffer

Approved By: _____

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Report Number: 0311004226
Project: 03/08-09/2011
Project No.: 36549063

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location / Description	Concentration Lead By Weight (%)
4240910	WM208B0101	Lead Paint	37
4240911	WM208B0102	Lead Paint	38
4240912	WM201D02	Lead Paint	31
4240913	WMB11C02	Lead Paint	44
4240914	WMB12B01	Lead Paint	1.7***
4240915	WMB07B01	Lead Paint	0.62***
4240916	WMB03C01	Lead Paint	0.71
4240917	WMB02A01	Lead Paint	18***
4240918	WMEE0601	Lead Paint	0.28
4240919	WMEE0602	Lead Paint	0.19

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA No. 100188 / NYSDOH-ELAP No. 11021

Analysis Methods: ASTM D3335-85A "Standard Method To Test For Low Concentrations Of Lead In Paint By Atomic Absorption Spectrophotometry"
EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges and Sediments By AAS"

Comments: Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation. All results are based on the samples as received at the lab. IATL assumes that appropriate sampling methods have been used and the data upon which these results are based have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Apendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies. LSD=0.2 ppm MDL=0.0024% by weight. RL=0.010% by weight (based upon 100 mg sampled). * Insufficient sample provided to perform QC reanalysis (<200 mg) ** Not enough sample provided to analyze (<50 mg) *** Matrix / substrate interference possible. Sample results are not corrected for contamination by field or analytical blanks. This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any government agency. This report shall not be reproduced except in full, without written approval of the laboratory.

Date Received: 3/10/2011

Date Analyzed: 3/14/2011

Analyst: C. Shaffer

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: URS Operating Services, Inc.
1099 18th Street; Suite 710
Denver, CO 80202

Report Date: 3/14/2011
Report Number: 0311004226
Project: 03/08-09/2011
Project No.: 36549063

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location / Description	Concentration Lead By Weight (%)
4240920	WMAD08	Lead Paint	45
4240921	WMEEA01	Lead Paint	0.036
4240922	WMEE08	Lead Paint	15***
4240923	WMEE103	Lead Paint	<0.0046***
4240924	WMB1409	Lead Paint	7.7
4240925	WMEL02	Lead Paint	27***

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA No. 100188 / NYSDOH-ELAP No. 11021

Analysis Methods: ASTM D3335-85A "Standard Method To Test For Low Concentrations Of Lead In Paint By Atomic Absorption Spectrophotometry"
EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges and Sediments By AAS"

Comments: Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation. All results are based on the samples as received at the lab. IATL assumes that appropriate sampling methods have been used and the data upon which these results are based have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Apendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies. LSD=0.2 ppm MDL=0.0024% by weight. RL= 0.010% by weight (based upon 100 mg sampled). * Insufficient sample provided to perform QC reanalysis (<200 mg). ** Not enough sample provided to analyze (<50 mg) *** Matrix / substrate interference possible. Sample results are not corrected for contamination by field or analytical blanks. This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any government agency. This report shall not be reproduced except in full, without written approval of the laboratory.

Date Received: 3/10/2011

Date Analyzed: 3/14/2011

Analyst: C. Shaffer

Parkway
Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS
UKS
Denver

Facility: 303 291 8343

Instructions:

Analysis:
- X Atomic Absorption Spectroscopy (Flame)
- ___ Atomic Absorption Spectroscopy (Furnace)
- ___ ASTM (Paint, Wipe)

Method:
- ___ NIOSH 7082 (Air)
- X EPA SW846 (Soil)

Project No.: 36549063

Client Contact: Steve Norris
Telephone: 720 810 0771
Fax: 303 291 8296
Cell:

Lab Contact: Shirley Clark / Ray Sankey

Lab Director: Frank Ehrenfeld

Turn Around: ☐ 5 Day, ☐ 3 Day, ☑ 2 Day, ☐ Next Day, ☐ Same Day

Samples Relinquished:	Date: 03/09/2011	Time: 15:00
Samples Received:	Date:	Time:
Sample Prep/Analysis: 03/14/11	Date:	Time:
Prelim. Results Released:	Date:	Time:

RECEIVED
MAR 10 2011
IATL - EP

Summary Data

Client Sample #	IATL #	Location / Description	Flow Rate	Start	End	Sampling time (min)	Area / Volume (L)	Pb Results
WMA0108	[redacted]	03/08/2011				15:01		4240900
WMA05B01	[redacted]	03/08/2011				15:05		4240901
WMA02B01	[redacted]	03/08/2011				15:10		4240902
WMA08A01	4240903	03/08/2011				15:17		
WM211A01	4240904	03/08/2011				15:25		
WM213D01	4240905	03/08/2011				15:27		
WM214D0101	4240906	03/08/2011				15:30		
WM214D0102	4240907	03/08/2011				15:30		
WM213B10	4240908	03/08/2011				15:33		
WM209D01	4240909	03/08/2011				15:39		
WM208B0101	4240910	03/08/2011				15:41		

* = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)
** = Insufficient Sample Provided to Analyze (<50mg)
***= Matrix / Substrate Interference Possible
FB = Method Requires the submittal of blank(s).
ML = Multi Layered Sample. May result in inconsistent results.

DRO * 3/10/11

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.

Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
info@iatl.com
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS **Project #:** 36549063

Summary Data (continued)

Client Sample #	IATL #	Location / Description	Flow Rate	Start / End	Sampling time (min)	Area (ft²) Volume (L)	AAS Results ( )
WM208B0102	4240911	03/08/2011			15:41		
WM201D02	4240912	03/08/2011			15:55		
WMB11C02	4240913	03/08/2011			18:08		
WMB12B01	4240914	03/08/2011			18:10		
WMB07B01	4240915	03/08/2011			18:15		
WMB03C01	4240916	03/08/2011			18:23		
WMB02A01	4240917	03/08/2011			18:33		
WMEE0601	4240918	03/09/2011			10:30		
WMEE0602	4240919	03/09/2011			10:30		
WMAD08	4240920	03/09/2011			10:37		
WMEEA01	4240921	03/09/2011			10:40		
WMEE08	4240922	03/09/2011			10:43		
WMEE103	4240923	03/09/2011			10:47		
WMB1409	4240924	03/09/2011			10:51		
WMEL02	4240925	03/09/2011			10:51		
WMSOE01	4240926	03/09/2011			11:05		
WMSOE02	4240927	03/09/2011			11:05		
WMSOC01	4240928	03/09/2011			11:08		
WMSOB01	4240929	03/09/2011			11:13		
WMSOF01	4240930	03/09/2011			11:15		
WMSOF02	4240931	03/09/2011			11:15		
WMSOA01	4240932	03/09/2011			11:19		
WMSOG01	4240933	03/09/2011			11:20		
WMSOL01	4240934	03/09/2011			11:25		

See Page 1 for Disclaimer, key, and Chain of Custody Information.

* = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)
** = Insufficient Sample Provided to Analyze (<50mg)
***= Matrix / Substrate Interference Possible
FB = Method Requires the submittal of blank(s).

email to

Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS

Project #: 36549063

Summary Data (continued)

Client Sample #	IATL #	Location / Description	Flow Rate	Start / End	Sampling time (min)	Area (ft²) Volume (L)	AAS Results ( )
WMSOJ01	4240935	03/09/2011			11:28		
WMSOJO2	4240936	03/09/2011			11:30		
WMSOI01	4240937	03/09/2011			11:33		
WMSOI02	4240938	03/09/2011			11:37		
WMSOH01	4240939	03/09/2011			11:40		

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FB = Method Requires the submittal of blank(s).

email to

IATL International Asbestos Testing Laboratories

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client:	URS Operating Services, Inc.	**Report Date:**	3/14/2011
	1099 18th Street; Suite 710	**Report Number:**	0311004227
	Denver, CO 80202	**Project:**	03/09/2011
		Project No.:	36549063

LEAD SOIL SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location / Description	Lead Concentration (mg/kg)
4240926	WMSOE01	Lead Soil	280
4240927	WMSOE02	Lead Soil	1800
4240928	WMSOC01	Lead Soil	8000
4240929	WMSOB01	Lead Soil	3600
4240930	WMSOF01	Lead Soil	1100
4240931	WMSOF02	Lead Soil	1100
4240932	WMSOA01	Lead Soil	2500
4240933	WMSOG01	Lead Soil	530
4240934	WMSOL01	Lead Soil	2600
4240935	WMSOJ01	Lead Soil	380

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA No. 100188 / NYSDOH-ELAP No. 11021

Analysis Method: EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges And Sediments By AAS"

Comments: IATL assumes that all of the sampling methods and data upon which these results are based, have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40 CFR Part 136 Appendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies. LSD=0.2 ppm MDL=2.9 mg/kg RL=10 mg/kg (based upon 1000 mg sampled). Mg/kg=ppm Sample results are not corrected for contamination by field or analytical blanks.

Date Received: 3/10/2011

Date Analyzed: 3/14/2011

Analyst: C. Shaffer

Approved By: _____

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos Testing Laboratories
9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client:	URS Operating Services, Inc.	**Report Date:**	3/14/2011
	1099 18th Street, Suite 710	**Report Number:**	0311004227
	Denver, CO 80202	**Project:**	03/09/2011
		Project No.:	36549063

LEAD SOIL SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location / Description	Lead Concentration (mg/kg)
4240936	WMSOJ02	Lead Soil	180
4240937	WMSOI01	Lead Soil	400
4240938	WMSOI02	Lead Soil	370
4240939	WMSOH01	Lead Soil	550

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA No. 100188 / NYSDOH-ELAP No. 11021

Analysis Method: EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges And Sediments By AAS"

Comments: IATL assumes that all of the sampling methods and data upon which these results are based, have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40 CFR Part 136 Appendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies. LSD=0.2 ppm MDL=2.9 mg/kg RL=10 mg/kg (based upon 1000 mg sampled). Mg/kg=ppm Sample results are not corrected for contamination by field or analytical blanks.

Date Received: 3/10/2011

Date Analyzed: 3/14/2011

Analyst: C. Shaffer

Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS
UKS
Denver

Facility: 303 291 8343

Instructions:

Analysis:
- X Atomic Absorption Spectroscopy (Flame)
- ___ Atomic Absorption Spectroscopy (Furnace)
- ___ ASTM (Paint, Wipe)

Method:
- ___ NIOSH 7082 (Air)
- X EPA SW846 (Soil)

Project No.: 36549063

Client Contact: Steve Norris
Telephone: 720 810 0771
Fax: 303 291 8296
Cell:

Lab Contact: Shirley Clark / Ray Sankey

Lab Director: Frank Ehrenfeld

Turn Around: ☐ 5 Day, ☐ 3 Day, ☑ 2 Day, ☐ Next Day, ☐ Same Day

Samples Relinquished:	Date: 03/09/2011	Time: 15:00
Samples Received:	Date:	Time:
Sample Prep/Analysis: 03/14/11	Date:	Time:
Prelim. Results Released:	Date:	Time:

RECEIVED
MAR 10 2011
IATL - DEN

Summary Data

Client Sample #	IATL #	Location / Description	Flow Rate	Start / End	Sampling time (min)	Area (ft²) / Volume (L)	Prep Results
WMA0108	[redacted]	03/08/2011			15:01		4240900
WMA05B01	[redacted]	03/08/2011			15:05		4240901
WMA02B01	[redacted]	03/08/2011			15:10		4240902
WMA08A01	4240903	03/08/2011			15:17		
WM211A01	4240904	03/08/2011			15:25		
WM213D01	4240905	03/08/2011			15:27		
WM214D0101	4240906	03/08/2011			15:30		
WM214D0102	4240907	03/08/2011			15:30		
WM213B10	4240908	03/08/2011			15:33		
WM209D01	4240909	03/08/2011			15:39		
WM208B0101	4240910	03/08/2011			15:41		

* = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)
** = Insufficient Sample Provided to Analyze (<50mg)
*** = Matrix / Substrate Interference Possible
FB = Method Requires the submittal of blank(s).
ML = Multi Layered Sample. May result in inconsistent results.

DRO 3/10/11

These preliminary results are issued by IATL to expedite procedures by clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.

Suite B
Mt. Laurel, NJ 08054
Toll Free: 877 428-4285
info@iatl.com
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS Project #: 36549063

Summary Data (continued)

Client Sample #	IATL #	Location / Description	Flow Rate	Start / End	Sampling time (min)	Area (ft²) Volume (L)	AAS Results ( )
WM208B0102	4240911	03/08/2011			15:41		
WM201D02	4240912	03/08/2011			15:55		
WMB11C02	4240913	03/08/2011			18:08		
WMB12B01	4240914	03/08/2011			18:10		
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WMB03C01	4240916	03/08/2011			18:23		
WMB02A01	4240917	03/08/2011			18:33		
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WMEEA01	4240921	03/09/2011			10:40		
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WMSOE01	4240926	03/09/2011			11:05		
WMSOE02	4240927	03/09/2011			11:05		
WMSOC01	4240928	03/09/2011			11:08		
WMSOB01	4240929	03/09/2011			11:13		
WMSOF01	4240930	03/09/2011			11:15		
WMSOF02	4240931	03/09/2011			11:15		
WMSOA01	4240932	03/09/2011			11:19		
WMSOG01	4240933	03/09/2011			11:20		
WMSOL01	4240934	03/09/2011			11:25		

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email to IATL

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Toll Free: 877 428-4285
www.iatl.com

Chain of Custody – Sample Log

Environmental Lead

Client: UOS Project #: 36549063

Summary Data (continued)

Client Sample #	IATL #	Location / Description	Flow Rate	Start / End	Sampling time (min)	Area (ft²) Volume (L)	AAS Results ( )
WMSOJ01	4240935	03/09/2011			11:28		
WMSOJO2	4240936	03/09/2011			11:30		
WMSOI01	4240937	03/09/2011			11:33		
WMSOI02	4240938	03/09/2011			11:37		
WMSOH01	4240939	03/09/2011			11:40		

See Page 1 for Disclaimer, key, and Chain of Custody Information.

* = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

** = Insufficient Sample Provided to Analyze (<50mg)

***= Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s).

email to IATL

REI LAB Reservoirs Environmental, Inc.

April 8, 2011

Laboratory Code:	**RES**
Subcontract Number:	**NA**
Laboratory Report:	**RES 210826-1**
Project # / PO #:	**TO 1102-01, LR 0197**
Project Description:	**None Given**

URS Operating Services
1099 18th St. #710
Denver CO 80202

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the American Industrial Hygiene Association, Lab ID 101533 - Accreditation Certificate #480. The laboratory is currently proficient in both PAT & ELPAT programs respectively.

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy - Inductively Coupled Plasma (AES-ICP) per your request. Reported sample results were not blank corrected. The analysis has been completed in general accordance with the appropriate methodology as stated in the analysis table. Results have been sent to your office.

RES 210826-1 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those authorized by the client. The results described in this report only apply to the samples analyzed. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you should have any questions about this report, please feel free to call me at 303-964-1986.

Sincerely,

Jeanne Spencer Orr
President

RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100
Denver CO 80216

TABLE ANALYSIS: LEAD IN SOIL

RES Job Number:	**RES 210826-1**
Client:	**URS Operating Services**
Client Project Number / P.O.:	**TO 1102-01, LR 0197**
Client Project Description:	**None Given**
Date Samples Received:	**April 6, 2011**
Analysis Type:	**USEPA SW846 3050B / AA (7420)**
Turnaround:	**48 Hour**
Date Samples Analyzed:	**April 7, 2011**

Client ID Number	Lab ID Number	Reporting Limit (mg/kg)	LEAD CONCENTRATION (mg/kg)
WM0G085	EM 721550	22.7	155.9
WM3F082	EM 721551	18.4	349.1
WM3E044	EM 721552	20.7	1,168
WM9E044	EM 721553	18.4	549.1
WM9E084	EM 721554	21.9	292.0
WM0F043	EM 721555	13.1	617.2
WM0F083	EM 721556	21.4	351.6
WM0F123	EM 721557	14.8	332.8
WM3J081	EM 721558	18.9	71.7
WM6J041	EM 721559	18.3	163.3

*** Unless otherwise noted all quality control samples performed within specifications established by the laboratory.**

BRL = Below Reporting Limit

Data Qa _____

Due Date: 4/11

Due Time: 3pm

Job # 36545

RES 210826

Reservoirs Environmental, Inc.

REI LAB

5801 Logan St. Denver, CO 80216 • Ph: 303 964-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV

SUBMITTED BY:		INVOICE TO: (IF DIFFERENT)		CONTACT INFORMATION:	
Company:	URS Operating Services	Company:	Same, but attn to Jim Park	Contact:	Steve Norris
Address:	1099 18th St, ste 710	Address:		Phone:	720-810-0771
	Denver, CO 80202			Fax	303-291-8296
				Cell/pager:	
Project Number and/or P.O. #:	TO 1102-01, LR 0197			Final Data Deliverable Email Address:	
Project Description/Location:				steve.norris@urscorp.com	

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm

PLM / PCM / TEM ____ RUSH (Same Day) ___ PRIORITY (Next Day) ___STANDARD
(Rush PCM = 2hr, TEM = 6hr.)

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Metal(s) / Dust ___ RUSH ___ 24 hr. ___3-5 Day 48hr TAT

RCRA 8 / Metals & Welding Fume Scan / TCLP ___ RUSH ___ 5 day ___10 day ****Prior notification is required for RUSH turnarounds.****

Organics ___ 24 hr. ___ 3 day ___5 Day

Turnaround times establish a laboratory priority, subject to laboratory volume, and are not guaranteed. Additional fees apply for after hours, weekends and holidays.

Special Instructions: 48-hr TAT

REQUESTED ANALYSIS

Client sample ID number (Sample IDs must be unique)	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) Pb by AAS RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	LAB NUMBER (Laboratory Use Only)
1 WM0G085					X				S	1	3/29/2011	1010	721550
2 WM3F082					X				S	1	3/29/2011	1050	51
3 WM3E044					X				S	1	3/29/2011	1100	52
4 WM9E044					X				S	1	3/29/2011	1107	53
5 WM9E084					X				S	1	3/29/2011	1110	54
6 WM0F043					X				S	1	3/29/2011	1150	55
7 WM0F083					X				S	1	3/29/2011	1155	56
8 WM0F123					X				S	1	3/29/2011	1200	57
9 WM3J081					X				S	1	3/29/2011	1220	58
10 WM6J041					X				S	1	3/29/2011	1230	59
11													
12													
13													

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Paint = P
Soil = S	Wipe = W
Drinking Water = DW	
Waste Water = WW	
Other = O	

****ASTM E1792 approved wipe media only****

LAB NOTES

Number of samples received: 10 (Additional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Date/Time: 4/6/11 113

Laboratory Use Only
Received By: Date/Time: 4.6.11 110 Carrier: Hand

Sample Condition: Temp. (F°) _____ Sealed Y/N Intact Y/N

Results:	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Time	Initials
	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Time	Initials

APPENDIX C

Data Quality Assessment

APPENDIX C
DATA QUALITY OBJECTIVES

WESTERN MONTANA MENTAL HEALTH CENTER
TARGETED BROWNFIELDS ASSESSMENT
City and County of Missoula, Montana

TABLE OF CONTENTS

		PAGE #
1.0	**DATA QUALITY ASSESSMENT**	**1**
1.1	Field Data Quality Assessment	1
1.2	Data Quality Indicators	1
1.2.1	Bias	1
1.2.2	Sensitivity	2
1.2.3	Precision	2
1.2.4	Representativeness	3
1.2.5	Completeness	4
1.2.6	Comparability	4

TABLES

Figure C-1 Laboratory Correlation Study

Table C-1 Relative Percent Difference for XRF Replicates
Table C-2 Relative Percent Difference for Confirmation Paint Chip Sample Replicates
Table C-3 Relative Percent Difference for Lead Soil Sample Replicates
Table C-4 Relative Percent Difference for In situ Soil Replicates

1.0 DATA QUALITY ASSESSMENT

1.1 FIELD DATA QUALITY ASSESSMENT

All applicable Technical Standard Operating Procedures (TSOPs) were followed as prescribed in the approved Field Sampling Plan (FSP) except for those outlined in the appropriate sampling activities in Section 5 of this report.

All appropriate documentation procedures, including the logbook, photo documentation, sample locations, sample handling, and chain-of-custody, were followed in the field. All field tools were decontaminated according to the applicable TSOPs. A QA/QC review of field-generated data and observations was performed, and all data were determined to be useable. All TSOPs for field activities as specified in the approved FSP were followed, thus maintaining comparability in the data set. XRF field instrumentation was calibrated according to manufacturer's instructions and functioned correctly in the field.

1.2 DATA QUALITY INDICATORS

A data quality review for project data was conducted by the project manager to determine data quality and usability. Additionally, all analytical data were reviewed by a UOS chemist. The project data quality review included:

- QA/QC review of field-generated data and observations;
- Evaluation of field replicate samples to assess the quality of the field activities and laboratory procedures;
- Assessment of the quality of data measured and generated in terms of accuracy, precision, and representativeness; and
- Assessment of completeness of collected asbestos samples with the State of Montana Department of Environmental Quality (MDEQ) "Asbestos Work Practices and Procedures Manual".

1.2.1 Bias

Bias is systematic or persistent distortion of a measurement process that causes errors in one direction. The extent of bias is determined by an evaluation of laboratory initial calibration/continuing calibration verification, laboratory control spike/laboratory control

spike duplicates, blank spikes, matrix spike/matrix spike duplicate (MS/MSD), and method blanks. All QC samples performed within specifications established by the laboratory.

No bias was found in the XRF LBP data set, though 8 of the 26 laboratory paint chip samples analyzed were flagged for possible matrix (substrate) interference. These samples were all conclusive as either very high or very low concentrations of lead, and were consistent with field XRF results. This data remains useable.

Negative bias was observed in the in situ XRF measurements for lead in soil. The bias is attributed to the high moisture content in the tested soils. The dampness will cause the XRF to give a reading lower than would be expected if the soils were dry. In situ readings were corrected based on a correlation study of laboratory results for the soils submitted in the second sampling event (Figure C-1). Preparation of the laboratory samples includes drying the soils, therefore this bias is expected to be negated by the inclusion of the correlation study.

Asbestos replicate bias in the bulk samples could not be determined. Although replicates were taken in a 1 to 20 ratio as required, only 1 of 3 replicate samples was analyzed due to the positive stop methodology. All samples and their respective duplicates are assumed as confirmed ACM due to the positive results.

1.2.2 Sensitivity

Sensitivity generally refers to the capability of a method or instrument to discriminate between small differences in analyte concentration and is generally discussed as detection limits. The detection limits of the field and laboratory methods were within the range of the benchmarks that were used to evaluate this property.

1.2.3 Precision

Precision is the measure of agreement among repeated measurements of the same property under identical, or substantially similar, conditions and is expressed as the relative percent difference (RPD) between the sample pairs. Twenty duplicate XRF field readings were taken, one duplicate soil for both lead and asbestos, one XRF in situ soil duplicate, and three duplicate paint chip samples were collected and submitted for

analysis in order to determine precision. The laboratory also conducts duplicate analysis on select samples. RPD results can be viewed in Table C-1 for XRF replicates, Table C-2 for paint chip replicates, Table C-3 for lead in soil sample replicates, and Table C-4 for in situ soil replicates.

RPD results analysis indicates acceptable quality overall. The RPDs of all XRF field replicates and most laboratory replicates were below the 35 percent set by the National Functional Guidelines (NFG) for data review except for the laboratory results of samples WMEE0601 and WMEE0602. Samples WMEE0601 and WMEE0602 had the same surface paint and substrate as sample WMEE06, which had a highly variable LBP concentration. All three samples had lead present in the paint at levels below regulated amounts and, therefore, due to the consistency, these data remain useable. RPDs for XRF field duplicate and laboratory paint chip analysis are presented in Tables C-1 and C-2, respectively.

Soil on south side of the property is comprised of several different fill types. START repeatedly observed readings fluctuate from high to low; therefore, the lack of homogeneity is likely to have affected the overall precision of the measurements for XRF readings on the south side of the property.

1.2.4 Representativeness

Representativeness is the measure of the degree to which data accurately and precisely represent a characteristic of a population parameter, variations at a sampling point, a process condition, or an environmental condition. Representativeness encompasses both the degree to which measurements reflect the actual concentration and the degree to which sampling units reflect the population they represent. Representativeness was addressed by adherence to TSOPs for sampling procedures, field and laboratory QA/QC procedures, collecting appropriate sample material, homogenization methods, analytical methods, and sample preparation.

Asbestos sample collection was conducted in accordance with the MDEQ asbestos regulations which state:

- If the area of the homogeneous suspected ACM is less than 1,000 linear feet (lf) or 1,000 sq. ft.., at least three bulk samples will be collected from each area;

- If the area of homogeneous suspect ACM is at least 1,000 lf or 1,000 sq. ft. but less than 5,000 lf or 5,000 sq. ft., at least five bulk samples will be collected from each area;
- If the area of homogeneous suspect ACM is at least 5,000 lf or 5,000 sq. ft., at least seven bulk samples must be collected from each area;
- At least one bulk sample will be collected from each area of patched thermal system insulation that is not assumed to be ACM and is 6 lf or 6 sq. ft. or less;
- At least three bulk samples will be collected in a randomly distributed manner from each type of thermal system insulation that is not assumed to be ACM;
- At least three bulk samples will be collected in a randomly distributed manner from each insulated mechanical system where cement or plaster is used on fittings;
- For miscellaneous materials ACM, at least three samples will be collected for each type in a randomly distributed manner; and
- If any type of suspect non-friable ACM is encountered, at least three bulk samples will be collected (MDEQ 2005).

1.2.5 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system. The actual percentage of completeness is less important than the effect of completeness on the data set. Deviations from the FSP were made based on field observations and are detailed in the appropriate sampling methods discussion located in Section 5 of the report.

1.2.6 Comparability

Comparability is the qualitative term that expresses the confidence that two data sets can contribute to common interpretation and analysis and is used to describe how well samples within a data set, as well as two independent data sets, are interchangeable. Comparability was addressed by a data usability review comparing the results of field observations and laboratory analyses.

Lead data for the soils analysis was found to be comparable across both the in situ and laboratory data sets. A correlation curve was developed to adjust the in situ XRF readings

to the laboratory confirmed analytical results. The linear correlation curve was constructed with an R-squared value of 0.9559 or 95.59%. The formula used to adjust the in situ readings is: $y = 1.3234x - 26.893$.

Although no correlation curve could be constructed for comparison of the LBP laboratory and field XRF analytical results due to incomparability of result units, the data correspond with conclusive positive and negative results. Samples analyzed by XRF as ambiguous (exactly 1 mg/cm^2, with ambiguous uncertainty values) were laboratory confirmed and determined to be split between four positive results and two negative results. These data remain useable.

FIGURE C-1

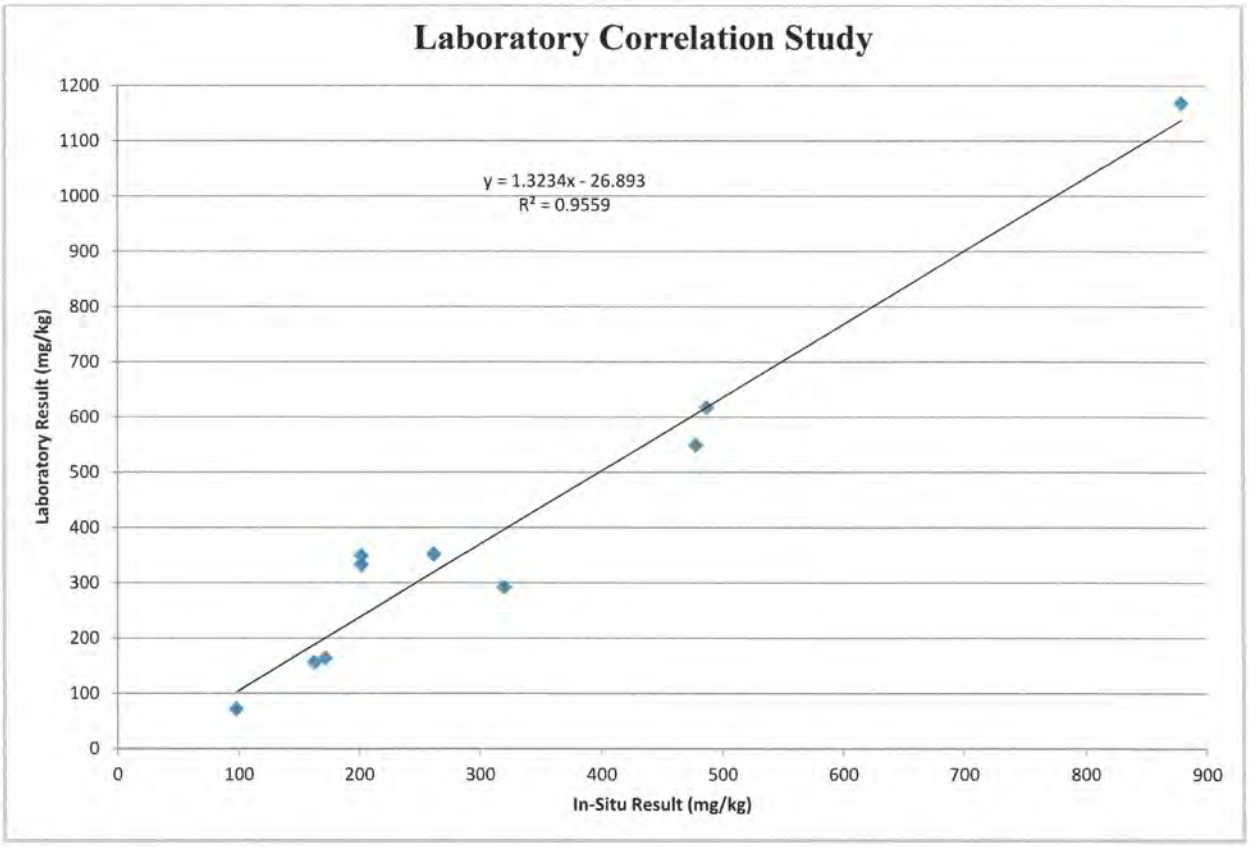

Laboratory Correlation Study
y = 1.3234x - 26.893
R² = 0.9559
Laboratory Result (mg/kg)
In-Situ Result (mg/kg)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

TABLE C-1
Relative Percent Difference for XRF Replicates

Sample ID	XRF Lead Concentration (mg/cm^2)
WMA05B0102	5
WMA05B0102D	5
RPD	**0 %**
WMA05C01	2.71
WMA05C01D	2.34
RPD	**14.7 %**
WMA08C02	5
WMA08C02D	5
RPD	**0 %**
WMA10C07	5
WMA10C07D	5
RPD	**0 %**
WM205C01	5
WM205C01D	5
RPD	**0 %**
WM202B02	5
WM202B02D	5
RPD	**0 %**
WM208C01	5
WM208C01D	5
RPD	**0 %**
WM209D01	1
WM209D01D	1
RPD	**0 %**
WM211A01	1
WM211A01D	1
RPD	**0 %**
WM215C07	5
WM215C07D	5
RPD	**0 %**
WM215C01	5
WM215C01D	5
RPD	**0 %**

TABLE C-1
Relative Percent Difference for XRF Replicates

Sample ID	XRF Lead Concentration (mg/cm^2)
WM216A07	5
WM216A07D	5
RPD	**0 %**
WMB03C01	0.44
WMB03C01D	0.33
RPD	**28.57 %**
WMB07B01	1
WMB07B01D	1
RPD	**0 %**
WMB11C10	5
WMB11C10D	5
RPD	**0 %**
WMB12A01	1.16
WMB12A01D	1
RPD	**14.81 %**
WMB1208	0.97
WMB1208D	1
RPD	**3.05 %**
WM107B02	5
WM107B02D	5
RPD	**0 %**
WM109C02	5
WM109C02D	5
RPD	**0 %**
WM111C07	2.53
WM111C07D	2.78
RPD	**9.42 %**

RPD Relative Percent Difference
XRF X-Ray Fluorescence
mg/cm^2 milligrams per square centimeter
% Percent
Formula $\frac{|x_1-x_2|}{(x_1+x_2)/2} * 100$ = Relative Percent Difference

TABLE C-2
Relative Percent Difference for Confirmation Paint Chip Sample Replicates

Sample ID	Laboratory Lead Concentration (%)
WMEE0601	0.28
WMEE0602	0.19
RPD	**38.30 %**
WM214D0101	41
WM214D0102	43
RPD	**4.76 %**
WM208B0101	37
WM208B0102	38
RPD	**2.67 %**

RPD Relative Percent Difference
% Percent
Formula $\frac{|x_1-x_2|}{(x_1+x_2)/2} * 100$ = Relative Percent Difference

TABLE C-3
Relative Percent Difference for Lead Soil Sample Replicates

Sample ID	Laboratory Lead Concentration (mg/kg)
WMSOF01	1,100
WMSOF02	1,100
RPD	**0 %**

RPD Relative Percent Difference
mg/kg milligrams per kilogram
% Percent
Formula $\frac{|x_1-x_2|}{(x_1+x_2)/2} * 100$ = Relative Percent Difference

TABLE C-4
Relative Percent Difference for In situ Soil Replicates

Sample ID	XRF Lead Concentration (mg/kg)
WM3F082	349
WM3F082	262
RPD	**28.48 %**

RPD Relative Percent Difference
mg/kg milligrams per kilogram
% Percent
Formula $\frac{|x_1-x_2|}{(x_1+x_2)/2} * 100$ = Relative Percent Difference

Erin Pelger
Broker, Soula Realty
2825 Stockyard Unit A-10
Missoula, MT 59808
(406)543-0320
erinpelger@gmail.com

January 16, 2023

Dear Mr. Gray,

At the request of the development team for the Fort Missoula Commons Project, I listed the Shed behind the Nurse's Quarters at the Fort Hospital at 3255 Lt. Moss Rd. I originally listed the structure for sale with no real property with the stipulation that the shed would need to be removed from the property on January 19, 2022. The property was an active listing on the MLS for 151 days at the price of $40,000. I had a handful of calls requesting additional information but no showings and no offers. I re-listed the property on the MLS on 12-09-22 with the same terms.. I also listed the property on the Circa Old Houses website and that listing went live on 12-13-22. To date, I have had no interested parties contact me from either listing.

Please let me know if you have any questions. I have attached a copy of both listings for your records.

Sincerely,

Erin Pelger

Soula Realty

RRE-BRO-99056

3255 Lt Moss Road, Missoula, MT 59804 **22216700** Misc. Property Active **$40,000**



Provided as a courtesy of
Erin Pelger
Soula Realty
2825 Stockyard Unit A-10
Missoula, MT 59808
Mobile - (406) 543-0320
erinpelger@gmail.com

License #: RRE-BRO-99056



Property Sub-Type:	Mobile Homes	**List Price/SqFt:**	37.74	**Selling Office Comm.:**	2.50
Agent Owned:	No	**REO/Bank Owned:**	No		
Potential Short Sale:	No				
Fin. Sq. Ft. Est.:	Under 600	**Total Sq. Ft.:**	1,060	**Sq Ft Basement (B):**	
Sq Ft Lower Lvl. (L):		**Sq Ft Main Level (M):**		**Sq Ft 2nd Level (2):**	
Sq Ft 3rd Level (3):		**Sq. Ft. Source:**		**Year Built:**	
Style:		**Lot Size Estimate:**		**Lot Acres:**	
Stories:		**Total Rooms:**		**Total Bedrooms:**	0
Total Bathrooms:	0	**Total Full Baths:**	0	**Total 3/4 Baths:**	0
Total Half Baths:	0	**Garage Stall:**	0	**Garage Type:**	None
Garage Description:		**Waterfront:**	None	**Waterfront Name:**	
Waterfront Footage:					
Covenant:	No	**Zoning:**		**Taxes:**	0
Tax Year:	2022	**Tax Remarks:**		**Subdivision:**	
Assessor Number:		**Legal:**	no legal description	**School District:**	
County:	Missoula	**Directions:**	Located behind the nurses quarters at fort Missoula Hospital at 3255 Lt. Moss Road. Call listing agent at 406-543-0320 for more information.		

Seller's Concessions:
Public Remarks: Historic Shed behind Nurses Quarters at Fort Missoula Hospital. Needs to be removed from property by buyer. NO LAND is part of this sale. Sale and timeline Contingent upon approval of Zoning Change to PUD by Missoula City Zoning Department. Structure is not habitable.

Foundation: Unknown					
Listing Date:	12/09/2022	**Days On Market:**	38	**List Price:**	40,000

LO: Soula Realty; 2825 Stockyard Unit A-10
Missoula, MT 59808; info@soularealty.com

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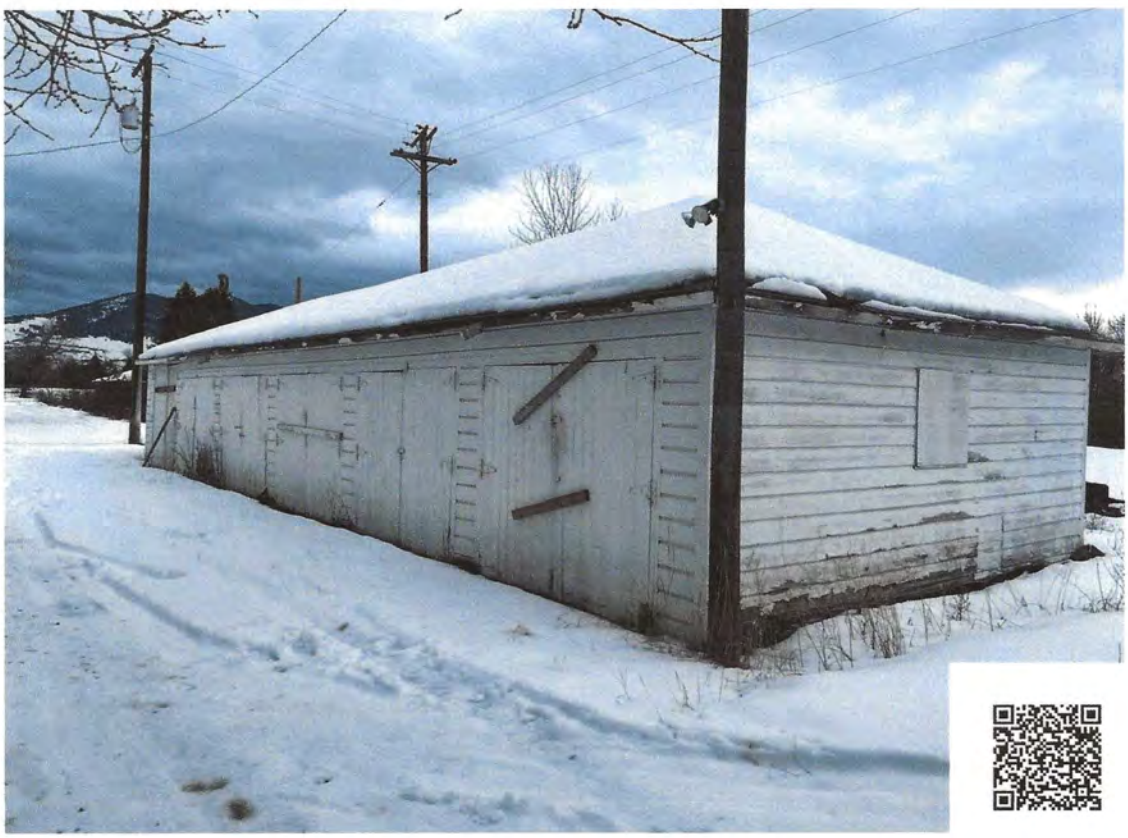
CIRCA

Old Houses For Sale and Historic Real Estate Listings

Must Be Moved: Historic Shed Behind Fort Missoula Hospital

$40,000

Fort Missoula Road, Two Rivers, Missoula, Missoula County, Montana, 59803, United States



Contact Information

Erin Pelger
(406) 543-0320
erinpelger@gmail.com

Description

Historic Shed behind Nurses Quarters at Fort Missoula Hospital. Needs to be removed from property by buyer. NO LAND is part of this sale. Sale and timeline Contingent upon approval of Zoning Change to PUD by Missoula City Zoning Department. Structure is not habitable.

Detail

Property ID:452937

Price:$40,000

Square Footage:1060

Year Built:1910

Property Type: Single-Family

Property Status: For Sale

Features

Property images



Gmail

CIRCA Old Houses listing

Alix Adams <alix@circaoldhouses.com> Tue, Dec 13, 2022 at 7:16 AM
To: Erin Pelger <erinpelger@gmail.com>

Perfect. The listing is live on our homepage: https://circaoldhouses.com/property/must-be-moved-historic-shed-behind-fort-missoula-hospital/

Thank you!
Alix Adams
Director of Content
CIRCA Old Houses

CIRCA

Gmail

Your CIRCA Old Houses LLC receipt [#1304-6153]

CIRCA Old Houses LLC <receipts+acct_1MCiZrKvBhG6a1z3@stripe.com> Fri, Dec 9, 2022 at 4:20 PM
Reply-To: CIRCA Old Houses LLC <letters@circaoldhouses.com>
To: erinpelger@gmail.com

C

Receipt from CIRCA Old Houses LLC

$65.00 Dec 9, 2022, 6:20:21 PM **VISA** - 5970

SUMMARY

(1) 90-Day Listing $55 + Concierge Fee $10 x $ 65.00	$65.00
Amount charged	**$65.00**

STEVENS & CO.

A REAL ESTATE APPRAISING & CONSULTING GROUP

December 29, 2022

Mr. Jim Pelger
Rattlesnake Electric
1201 S. 6th St. W, Suite 102
Missoula, MT

RE: Economic Analysis
Storage/Garage Building
Old Fort Hospital
Historic Fort Missoula
Missoula, MT

Mr. Pelger:

At your request, I have viewed the storage/garage building located behind the nurses' quarters and located direct east of the Old Fort Hospital on the grounds of historic Fort Missoula, in Missoula, MT. I have also reviewed the information contained in the Historic Preservation Application for Fort Missoula Commons as well as the information provided by DVG Architects and the information which you provided regarding the cost of relocating and rehabilitating the building and the demolition costs for the structure.

The purpose of this exercise is to discuss the economic viability of relocating and rehabilitating the structure into a community center for the residential and commercial condominiums to be constructed at the Old Fort Hospital and named Fort Missoula

Commons. This report will also put forward a course action and recommendations for the structure based on the economic viability in two different scenarios.

The first scenario to be examined is the relocation of the building to the area indicated on the conceptual plans; and a complete renovation of the structure for use as a community center. The information which you supplied to me indicates this cost will be approximately $774,000 before any developer's entrepreneurial incentive. An acceptable entrepreneurial incentive in today's economic climate ranges from 15% to has high as 25% based on actual cost of a project, and due to the lower risk involved with this project a lower rate will be employed. Using the 15% rate increases the overall cost to $890,000 for relocation and renovation/restoration of the building.

This $890,000 cost figure is verified by another project on the Fort which in the final stages of fundraising. This is a barracks restoration project which will convert an old wood frame barracks structure into a museum. The anticipated cost of approximately $800,000, which will surely be higher once the construction starts in 2023. This cost verifies your estimated cost for the project in this scenario.

Be that as it may, the analysis now starts with a cost estimate of $890,000, which is assumed to be paid all in cash. For the economic analysis to work properly, a rate of return on the investment dollars, needs to be estimated and applied. This requires and estimate of a return on investment capital, and a return of the investment capital along with a risk factor associated with real estate. These numbers are as follows, based on the best information available.

Return on investment	8.00%	
Return of Investment	3.33%	Based on a 30 yr. life expectancy
Risk Factor	4.00%	Due to the illiquidity of real estate
Total	15.33%	or 15.00% (R)

Rate of Return on investment rounded to 15.00% (ROI)

Calculations on annual revenue need to support the project:

$890,000 total anticipated cost
x 0.15 ROI
$133,500 annual revenue needed

This annual revenue equates to a rental rate of $121.80 per square foot or in more general terms a monthly rental of $11,125 per month on an absolute net basis which requires the lessee to also to pay all expenses on the property to include taxes, insurance, utilities and maintenance. The expenses will generally be an additional $5.00 to $8.00 per square foot.

The rental amount which has now increased to $126.80 per square foot per year and needs to be seen in relation to the highest-Class AA office rent and other similar uses in Missoula. This rental amount is now approximately $30.00 per square foot per year for Class AA office rents with restaurant and lounge/casino occupancies at $40.00 per square foot per year.

There is a stark contrast between market rents which are approximately $86.80 and $96.80 respectively. These rates are much lower than the required rental rate for the subject, which indicates the demand for the subject property as an investment will be nil.

In this same situation the investment can be viewed as an actual return to the owner/developer using the highest market rent of $40.00 per square foot per year.

1,060sf x $40.00/sf/yr = $42,400 Gross Potential Rents per year

Assuming there will not be a vacancy or credit loss, nor a management fee the analysis can proceed directly to the calculation:

$ 42,400 Gross Rents
$890,000 Total Costs = .0476 or 4.80% ROI

This 4.80%+/- return on the investment is insufficient to attract investor capital.

The second scenario will be an analysis of demolishing the existing structure and constructing a new facility to meet the same needs.

Marshall Valuation Cost Manual indicates a replacement cost for a similar structure should be:

Base Cost	$148.50/sf
Fire Sprinkler	$ 5.28/sf
Total Raw Cost	$153.78/sf

1,096sf x $153.78/sf =	$168,543
Add:	
Cost to demolish old Structure	$ 38,000
Adjusted Cost	$ 206,543
Add:	
Entrepreneurial Incentive	$ 30,981
Total Cost	$237,524

Calculations:

1,060 sf x $40/sf = $42,400 Potential Gross Rents per year

Assuming there will not be a vacancy or credit loss, nor a management fee the analysis can proceed directly to the calculation:

$ 42,400 Gross Rents
$ 237,524 Total Costs = .1785 ROI or 18% ROI

This 18.00%+/- return on the investment is sufficient to attract investor capital.

Conclusion:

If in the development of the Fort Missoula Commons you are required to include a community center as shown on the plat, it does not make economic sense to relocate and restore/rehabilitate the old storage/garage structure for that purpose, due to the costs involved. The prudent course of action is to demolish the old structure and build a new building of identical or larger size that will offer greater functional utility and will be less costly for maintenance and utility costs. Additionally, a new structure will have both a longer economic life as well as longer physical life.

I trust this information will be of benefit to you. Please feel free to contact me if you have and questions.

Sincerely,



Thomas G. Stevens, MAI, SRA
REA-RAG-LIC-151

January 12, 2023

Jim Pelger

Re: Review of Fort Missoula Common Garage/Shed

Per your request, I have documented and analyzed structure of the existing shed on the old Hospital site.

The basic structure is a simple site framed building, as documented in Sketch 1 attached to this report. The general wall framing is 2x4s with ship lap type siding directly nailed to the studs. These walls support a site constructed 2x4 roof structure. There are a mix of bottom chords and collar ties at random spacings, leaving some rafter pairs supported only on the ridge plate and wall. There is 1x sheathing covering the roof. The walls bear on a timber sill plate and there appears to be no consistent foundation. There are small blocks of concrete at several door openings and at random spacings, but generally the timber sill appears to be unsupported. The front wall is a series of 8' door openings, with 2 – 2x8s framed as a header at each opening.

I analyzed all primary framing members. Three different noted truss configurations were modeled and analyzed, although there is minimal repetition to the actual framing.

The overall condition of the structure is considered compromised and poor. There are areas of localized failure in individual members and wall sections. A list of conditions is as noted:

1. Foundation – no consistent foundation. The typical bearing is a 6x6 timber plate. There are varying degrees of rot in this plate. While the plate probably has adequate bearing area for the lightly loaded structure, it sits at or near the surface. This makes it susceptible to frost heave, moisture intrusion, and other forces that have created movement and displacement. There is also no consistent perimeter or method of transferring wind or seismic loads. At the small walls between doors at the front wall, multiple area appear to have little to no bearing as sections have moved or failed. Along the rear wall there are multiple sections where studs have displaced off the timber and have little to no bearing.
2. Wall framing – generally the wall framing is not a primary area of concern. The biggest issue with walls is lack of adequate support at the base, creating areas with significant displacement or no support. The headers over the 8' door openings are overstressed depending on the grade of material used for analysis and in some locations are visibly sagging.
3. Roof framing – the roof framing is fully inadequate and based on analysis I am surprised there are not larger areas of localized failure or areas of complete roof failure. The various truss configurations modeled showed overstress conditions from 150% to 1500% above allowable design stresses. Connections are generally inadequate to transfer calculated loads.

4. Lateral Design – The building could be shown to be adequate in the long direction even utilizing the lo values of 1x sheathing. This analysis would break down at the foundation as there is no adequate tie or transfer to the timber plate or bearing below. The building has very marginal lateral capacity in the short direction due to diaphragm limitations of the 1x sheathing. Again, the analysis breaks down as there is no adequate transfer to a foundation to resolve the loads.

To utilize this building in a safe manner to meet current codes significant upgrades will be required. A partial list includes:

1. Brace and stabilize the building to allow it to be jacked into the air so a permanent foundation to be constructed. This could be stem walls to frost depth or a monolithic slab with turned down edges.
2. Add a sill plate and positively attach all wall studs to the plate.
3. Repair, replace wall studs at localized areas of damaged framing. Add selective shear panels using bracing or sheathing. This could be accomplished from the interior.
4. Reinforce existing door headers.
5. Reinforce/rebuild existing roof structure. This would be possible to accomplish in place, but will require reinforcing almost every rafter member and site building an adequate truss or beam structure. This work would be extensive. All roof structure would also need to be adequately tied to walls.
6. Replace existing roof sheathing or add a new layer of sheathing above to create a better diaphragm and to span over areas of localized damage and failure.

In summary to safely upgrade and utilize this structure will likely cost substantially more than rebuilding a similar structure from new. The amount of issues is substantial with most areas of the building compromised.

If you have questions or need any further information, feel free to contact me at any time

Sincerely,

J. David Roberts, P.E., LEED AP BD+C
Apex Engineering Services



1.12.23

Project Name: FORT MISSOULA SHED Page: ___ of ___

Project No.: 23-004 By: JDR Date: ___/___/___

Subject: SKETCH 1

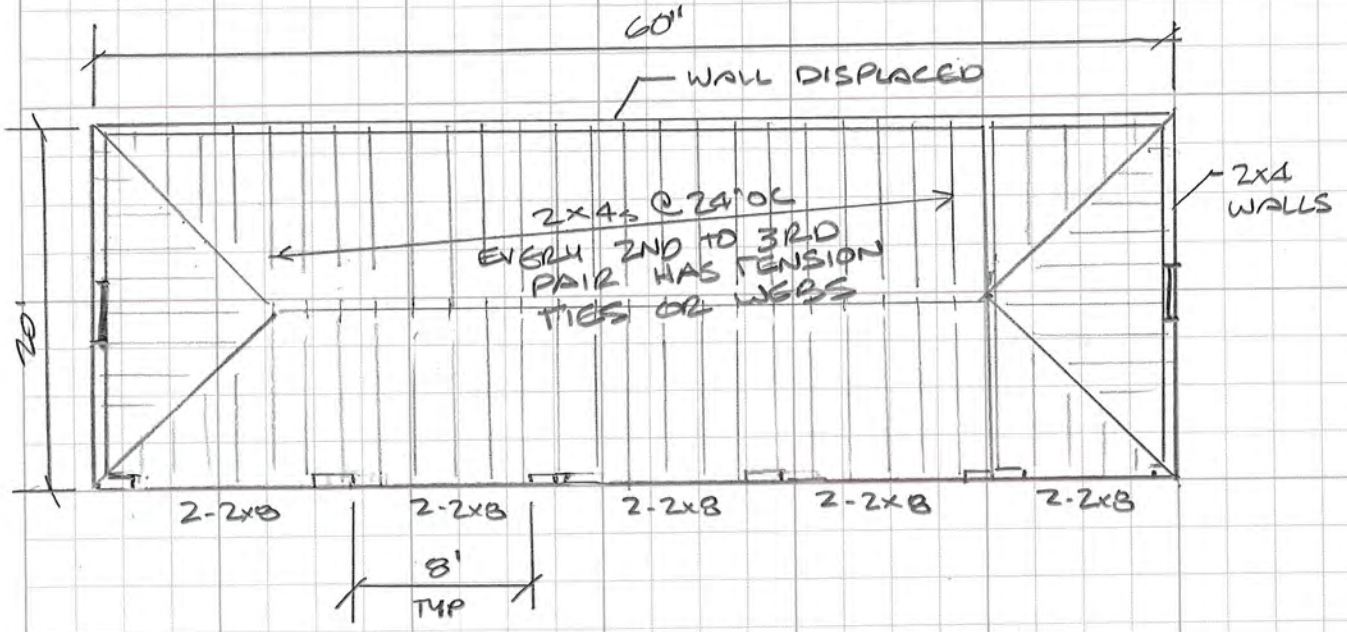




Figure 1: Entry Door: Some concrete foundation visible. Appears to be very shallow. No positive attachment of framing to foundation could be located.



Figure 2: Rear Foundation Timber: Note studs with almost no bearing, displaced over 1 ½" from original position. No positive attachment.



Figure 3: Rear Foundation Timber: Note shadow line in dust – seems to indicate more recent displacement in some locations.



Figure 4: Roof Structure. Note multiple configurations that appear to indicate various reinforcing added over time. Some bottom chords are spliced, other single members. Some reinforcing pieces appear to be plywood strips or 1x material.



Figure 5: Roof Structure. Note multiple configurations. Some areas of roof sheathing show areas of rot and splits.

EXHIBIT A

SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION

DVG Architecture and Planning, P.C.
10.14.2022

D V G
Architecture
and Planning P.C.

Secretary of Interior's Standards for Rehabilitation:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

Response: The Old Post Hospital will have new uses in it that are compatible with the building. Required Building Code upgrades are the intended primary modification to the building other than restoration efforts. The Nurses Quarters will remain as an office use but accessibility improvements shall be made to it. Unfortunately, the garage/shed has fallen into a state of disrepair that it is fiscally unviable to restore and it will be removed. The site will have new buildings that conforms with historical context, architectural elements, scale, and relationships to landscape. The site has contained other buildings and improvements (refer to Archeological report,) so it has not been historically an open space. It is open now due to the loss of the buildings and improvements. Onsite parking shall be located discreetly out or direct view of public as much as possible. The site was historically commercial with residential structures and will maintain that with this project.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Response: The historical character of the property will be preserved; improvements to existing buildings include: Life Safety improvement, revegetation, Electrical systems, Mechanical systems, plumbing systems, window replacement, energy upgrades, exterior restoration, and reuse of clay roof tiles wherever possible. The open greenspace around the North and East sides of the original Old Post Hospital property shall be preserved. The Mission style of the hospital will not be changed. The Elevator addition shall maintain the Mission style architecture of the hospital as requested by SHPO.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

Response: To preserve decades of changing architectural style at the Fort, the new buildings will retain a historical style of Architecture but not copy the original mission style or try to create a false sense of history. The architectural style will vary over the site to maintain the physical record of time. The Fort does not have one style of architecture, its campus contains mission style, bungalow, contemporary, and pre-engineered metal buildings. The elevator added to the Old Post Hospital will match the character of the building, but we will not embellish the original building with elements so as to create conjectural features.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

Response: The open greenspace on the Northeast corner of the hospital will be preserved and maintained. Open space preserving the view of the hospital from the Northwest shall be maintained. The West and South portions of the parcel have had other buildings and improvements on them over the decades. Although those improvements have been lost the new development will take their place keeping with the historic development nature of the site.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

Response: Historical details and features will be preserved and replicated in kind where applicable in the reconstruction and restoration process. The Old Post Hospital has lost sections of roof on the South façade that will need to be replicated. Dry wrought and damaged architectural details shall be repaired and/or replaced to match. The parapets and caps shall not be replaced with break metal but repaired in place and liquid waterproofing applied to them as requested by SHPO.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

Response: Historic features will be repaired rather than replaced when possible. The replaced features shall be replaced with in kind materials. The windows shall be replaced with traditional sticking and profiles custom made for each opening. The windows will be metal clad, insulated glaze units with matching traditional mullion profiles. The window cladding being the predominant difference in the window material, but the longevity of the units must also be taken into consideration. Any restoration of historic

exterior architecture will preserve the original integrity of the building, texture, form, and appearance.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

Response: Restoration measures will be sensitive to the material. Sandblasting of exterior surfaces are not anticipated except potentially at window openings to remove sealants and paint from the rough opening. Corn cob and nut shells shall also be investigated for use in these areas as the abrasive.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

Response: An Archaeologists has compiled a report which states the site has been too disturbed to gather scientifically viable artifacts. With that, if any artifacts or remains are discovered on the site during construction the means and methods listed in the report shall be used to preserve and/or study the site. The extent of utility, roads, parking lots, military procedure and irrigation on the site has disturbed much of the surface of the site. These disturbances could have moved or added artifacts to the site taking away their scientific significance. Mitigation measures shall be taken if archaeological resources are discovered and must be removed or disturbed. Some fence post fill and post bases of a guard tower have been located. The post bases will be removed as they are within the footprint of Commercial Building #2. Some of the fence post fill elements may be able to be preserved in place. Signage as a mitigation could be provided to explain what was found and documented. The post bases and fence post fill that will be removed could be donated to the Fort Museum if they would like them.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

Response: The addition of an elevator to the Old Post Hospital will be done with care as to not destroy the historic character of the building. Expansion joints will be added between the new and old sidings to help differentiate the addition from the original architecture. The elevator will be located on the West or South side of the building to minimize the impact to the building. The West side currently appears to be the most beneficial location as it can serve all stories with the least amount of exterior or interior impact. The South location could work to access portions of the building but not all of the building. Locating an elevator within the existing envelope has not been found to be viable as a tower would need to be added above the

existing roof due to lower ceiling heights. New Windows shall maintain historical proportions and style.

The new buildings and supporting improvements on the Site are within the density ratios of the surrounding parcels. 44% of this projects parcel will be buildings and supporting improvements which matches the Childhood Development Center density. The Forest Service parcel to the East is 59% buildings and supporting improvements. The Parcel to the North (Northern Rockies Heritage Center) is 23% developed but improvements have been lost to fire and age on that parcel. The commercial buildings fronting Lt Moss Road follow a similar pattern as the other buildings along the street with boulevards, sidewalk and building setbacks. Front Porches are included on the commercial buildings to maintain the architectural language of the main streets. The original views into and of the Old Post Hospital have been maintained by preserved open space and strategically placing new buildings.

The new commercial buildings have a historic architectural language with borrowed elements used on the Lt. Moss Road including: front porches, columns on the porches, raised plinths for the buildings, vertically oriented window proportions and hip roof forms. The style is not matching the Mission style of the Old Post Hospital, so as to not provide a false sense of history, yet still be sensitive to the historic ambiance of Lt. Moss Road. The Residential structures have a more contemporary feel to represent the changing styles of architecture at the Fort and are buffered from the main drives by other buildings and site amenities. This way they work with the evolving history of the campus but are diminutive of the overall architectural styles present at the fort.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Response: The addition of an elevator is planned to be the least harmful to the building over time. The West location appears to provide the limited impacts required by this section. Particularly as the elevator would affect the long-term circulation of the building to a very limited extent. The exterior walls would only be impacted at windows sills except for the basement level. The wood framed roof would also be relatively simple to repair. If the elevator was removed at a later date minor repairs would be needed to erase its existence from the original building.

The other buildings added to the site could be removed and the area brought back to original grade and landscaping. Multiple other improvements have been on the site over time from barracks, possibly a caretaker residence, guard towers, roads, parking lots and fencing. When most of them were removed no trace of them is formally known to be on the site. The removal of new improvements would be in line with the other improvement the site used to contain.

A forester has completed an assessment of the treescape on the site. From Historic photos we know the site was devoid of trees and was in a prairie valley. Trees were planted on the site over many decades to beautify the property. Those trees are now dying, have died, have had storm damage making them a hazard or have been unmaintained for so long that they are in poor health. The majority of the trees on the site have been deemed by the forester as needing to be removed. Some imminently and others maybe over the course of several years. The Landscape Architect has addressed the replacement of the treescape to provide a transitional period with a less significant abrupt replacement of trees.

EXHIBIT B

GOALS OF THE 1993 FORT MISSOULA PLAN

Title 20.85.085H Compliance

DVG Architecture and Planning, P.C.
10.14.2022

January 13, 2023

The goals of the 1993 Fort Missoula Plan include:

1. Protection, preservation, and enhancement of the historical and cultural value inherent to the Fort area

   Response: The Old Post Hospital and Garage/Shed are in a state of advanced decline. The Old Post Hospital has had a leaking roof for decades leading to the deterioration of the interior of the upper floors and possibly the wood structure of the roof and floors. The Garage/Shed has had a patchwork of roofing repairs which have been lost with the latest wind events at the site. The building lacks a foundation and is resting on dirt without positive drainage away from the building. The structure has not been maintained in decades. The development intends to restore, preserve, and reconstruct damaged components of the Old Post Hospital with upgrades to meet Life Safety and Building Codes. The Garage/Shed has been found to be not viable for restoration and will be removed. The preservation work shall be extensive for the Old Post Hospital building. The Hospital will need the roof removed, repaired, and reinstalled. Some of the roof structure is likely going to have to be replaced due to water damage. Some of the interior finishes have collapsed or failed in some manner due to water damage over the years. 1970 era renovation work has occurred that is not in character with the style of the building that will need to be corrected. The Mechanical, Plumbing and Electrical systems throughout the building will need to be replaced.

   The Garage/Shed has been listed for sale for over 90 days with no real interest from buyers. A Feasibility Study/Economic Analysis Return has been performed on the building and found it to be infeasible for further economic invest.

   The preservation of the Old Post Hospital and Greenspace will protect, preservation, and enhance the historical and cultural value inherent to the Fort area

2. Conservation, preservation, and restoration of significant ecological features of the Fort area

   Response: The western half of the Parcel to be developed has not been restored as a Prairie or maintained other than vegetation height for fire safety for

years. With this development the landscape shall be maintained, and the greenspace conserved. We are not developing in a Riparian area; and an Area of Riparian Resource is not located on the property. We are preserving pedestrian access routes through the site that will connect to existing unimproved pathways to the South and East of the property. The Sod along the South property line will be removed, and Native landscaping will be installed to help support the plant and wildlife habits on the adjacent property as shown on the Landscaping plan. This project was presented to the Missoula Conservation District on December 12, 22 where they determined they would not have jurisdiction due to the distance to the "Erosion Hazard Area" zone (yellow) and "Channel" zones (blue) maps. Both zones are outside of the property a significant distance. The site is also a significant elevation above the river channel creating greater separations from the river zones. We made it clear that the Stormwater from the site would be contained on site and not drained into the slough. A stormwater collection system will be provided along the South property line to manage stormwater on site. See attached river channel exhibits at the end of this section.

3. Maintenance, enhancement, and integration of the distinctive mix of open space elements in the Fort Missoula area

   Response: The treed greenspace on the Northeast corner of the parcel will be preserved and maintained with the development. The greenspace and viewshed from Lt. Moss Rd. of the Old Post Hospital will be preserved and maintained. The view of the Bitterroot River Island tree canopy will be enhanced from the intersection of Lt. Moss Rd and Mo Place with a community plaza and viewshed through the site. Architectural features and landscaping will help direct the public view to this viewshed. The internal layout within of the site creates community grounds of a scale appropriate to its land area which is common around the Fort, and Regional Park. An arborist has inventoried and recommend improvements to the Trees on the Site. The majority of the trees are Dead, Dying, or create a Hazardous condition. The Landscape Architect has developed a plan to replace and improve the tree inventory for the overall health of the site. Hazardous and dead trees shall be removed and dying trees shall be removed over time to allow for new trees to infill the area over several phases. See Tree Assessment section of the application.

4. Ensuring that any new development and use responds to significant community needs, involves a site uniquely suited for meeting those needs, and respects the distinctiveness and harmonizes with the character of the Fort; and

   Response: The Fort lacks services to support the employees that work in the Historic buildings or patrons of the Regional Park. Childcare, Personal improvement services, Restaurant or Food services, Salons, professional services, Artist work and sales space, residential support services, residential uses are being proposed. The housing is being proposed to help with the housing crisis in the city. You can get a bag of fried donuts as lunch between soccer or baseball games but not a healthy meal for

your family at the Fort. Being allowed to have a yoga class during lunch of after work would be a wonderful reprieve for the office staff in the Fort or at Community Hospital. Site seers, joggers and pet walkers would maintain access through the site on an interconnected route of sidewalks at the street and to trails adjacent to the site. The new access routes would be accessible which they are not currently. The location of this site is adjacent to the Bitterroot River and Montana Natural History Gardens which is a very inviting setting for residential dwellings. Plentiful public open space in the Fort would also be a strong draw for citizens looking for a place to raise their children.

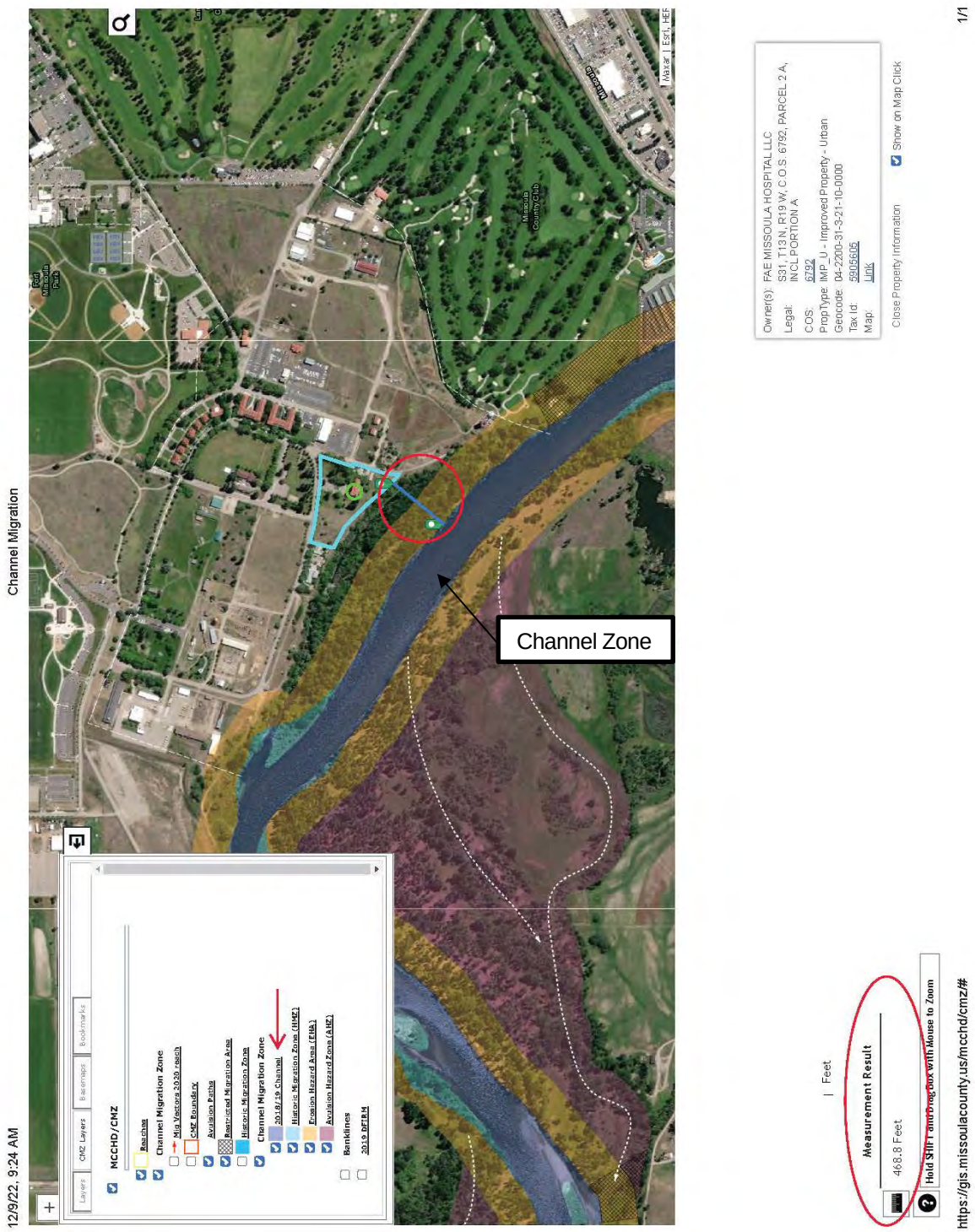
5. Coordinates planning and development of buildings and site layouts to maximize joint use and create a functional integrated system.

   Response: The planning of the site creates gather space, greenspace, community spaces and private spaces. The Commercial uses face the streets with public pedestrian access. Front porches of the new commercial buildings maintain the transitional space between the public and private which is a common architectural language of the primary streets. The site is expanding its joint use character with additional proposed uses. New vehicle parking is screened by the commercial buildings. New Residential units are located in the least public area of the site along the South Property lines. The pedestrian and vehicle routes through the site provide an integrated system for all modes of traffic. Bicycle parking is also provided to encourage multi-model transportation.

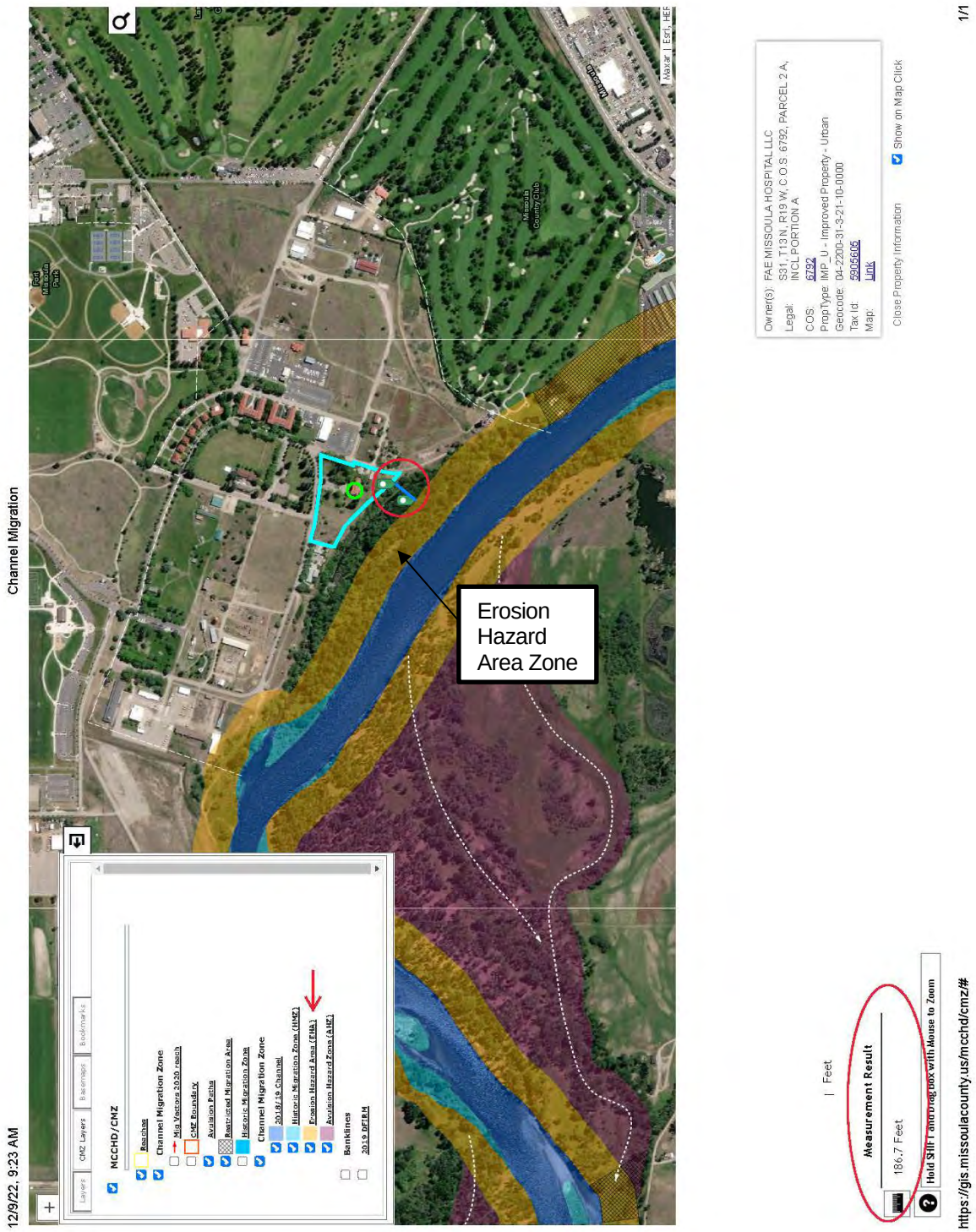
Supporting these official goals, several stakeholders and adjacent property owners expressed there is an emerging need for municipal and community goals to secure, maintain, and enhance the area around the Fort to create a regional public open space and a “blue way” network along the Bitterroot River. In support of this goal, the city recently completed and opened the Regional Park ballfields to the public and acquired the Knife River Ponds to create an ecological sanctuary and recreational amenity. Similarly, the University of Montana has committed to the maintenance of the old growth forests on its properties to the South of the historic Fort Missoula core, including connections to the larger regional trail systems. Further down river, McCauley Butte currently includes a larger conservation easement and MacClay Flats serve as a regional entry point to the Bitterroot trail network and Lolo National Forest.

Fort Missoula is considered one of Missoula’s primary open spaces. This development seeks to maintain and improve upon the existing open space and public feel of the Fort. The character of the Fort is unique, as is the architectural history which spans almost 130 years. The new development will remain secondary to the contributing historic buildings, and match the character in siting, scale, and form without architectural mimicry. Visitors to the Fort will recognize them as new buildings without feeling that they are disrupting the existing fabric. A goal of the growth policy’s chapter on Community Design is to “Protect and enhance Missoula’s strong sense of place by connecting, supporting and protecting the community’s existing distinctive qualities including natural resources, the vibrant diverse community, distinct neighborhoods, and downtown.” This proposal intends to enhance the sense of place at Fort Missoula, making it a place to live, work, and recreate, as well as visit for its historical and cultural significance.

Missoula Conservation District Map #1



Missoula Conservation District Map #2



Title 20.85.085H Compliance:

1.Alterations shall be compatible with the relevant characteristics or character defining features that qualify the Historic resource for designation and shall not diminish, eliminate, or adversely affect the historic character of the Historic resource. Consideration shall include, but not be limited to, elements of:

a. Size; **An elevator for accessibility is the only building expansion planned for the Old Post Hospital. The footprint of the expansion has been kept as minimal as possible.**

b. Scale; **The scale of the elevator addition has been kept to a minimum as not to compete with the existing OPH building.**

c. Parcel coverage; **The coverage of the elevator had been kept as a minimum.**

d. Massing; **The massing of the elevator has been kept to a minimum.**

e. Proportion; **The proportions of the elevator has been kept narrow to maintain the verticality of the Hospital wings.**

f. Architectural style; **The elevator has kept the architectural style of the building as requested by SHPO.**

g. Orientation; **The orientation of the addition has kept the rectilinear modulation of the building's plan.**

h. Surface textures and patterns; **The surface texture will try to be kept similar but will not be an exact match so it is not trying to create a false sense of history.**

i. Details and embellishments; **The architectural details of the eaves and windows shall be maintained.**

j. Relation of these elements to one another. **The relationship of the new architectural elements on the addition have been designed to be sympathetic to the original building.**

2. New construction in historic overlay districts is not required to conform to specific architectural styles. Design of new construction shall be compatible with the character of historic resources in the immediate area but shall distinguish itself from Historic resources and not create a false sense of history.

The design of the new construction on the parcel has been designed to be sympathetic to the historic character of the district while maintaining the change in architectural style of the district over time. The commercial buildings maintain a historic style while not matching the Mission Revival style of the primary district structures. The residential buildings change architectural style to maintain a progression of time in architectural styles withing the district. These more modern structures are held back from the streets and are buffered by the commercial buildings from direct view. We felt this layering of architectural styles was more appropriate then the pre-engineered metal clad buildings of the late 20th century placed immediately adjacent to the Historic roads. Primary visible

entrances to all new buildings were desired for a welcoming pedestrian interface which is the norm of the more historic buildings in the district.

3.Alternative materials may be substituted for original materials when they have the same dimensions and form as original materials.

Newer technologies for stucco will be used on the elevator addition for longevity of material and maintenance. We will NOT be using EIFS on the addition. Manufactured trims may be used in place of sawn lumber but the dimension form and texture of the original trim shall be maintained. Manufactured trims are more dimensionally stable than sawn lumber and will perform better over time. The new buildings will have alternative materials to what was used on the CCC area and Mission Revival buildings but the Historical proportions of the siding to the mass of the buildings will be maintained.

EXHIBIT C

HISTORIC PHOTOGRAPHS

D V G
Architecture
and Planning P.C.

January 14, 2023

Historic Photos

Condition of the Old Post Hospital:



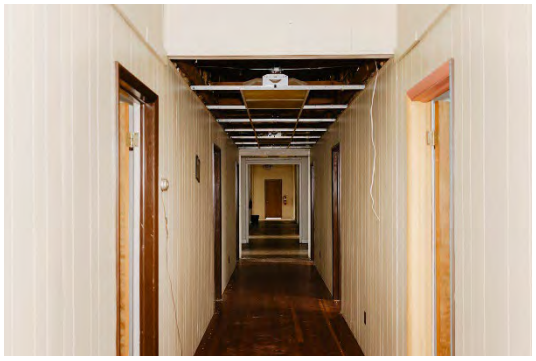
Deteriorated Concrete and Stucco



Roof collapse and broken windows

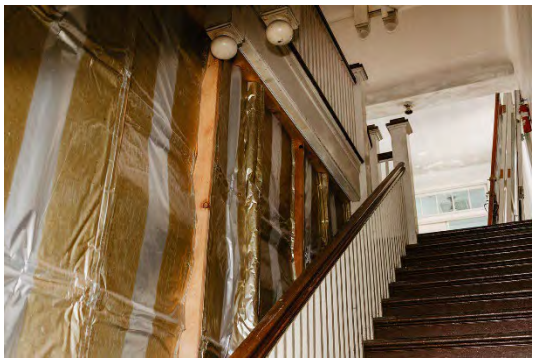


70's Era renovations



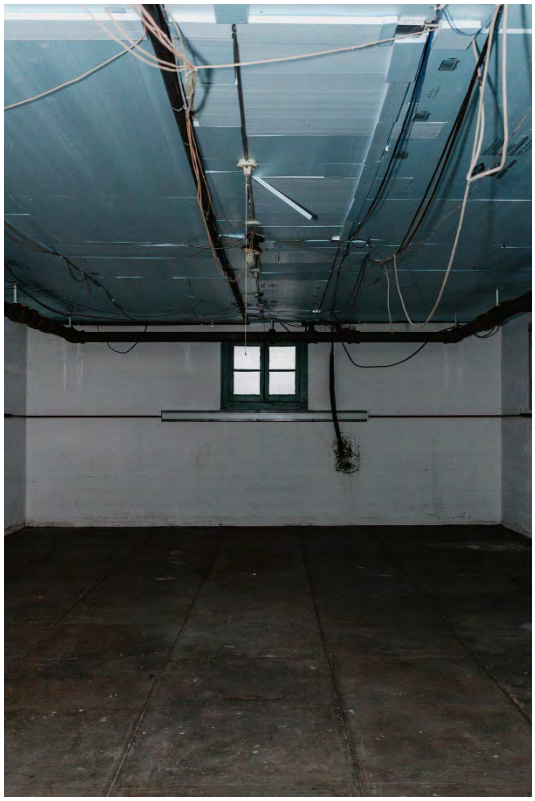
70 Era renovations

111 N. Higgins Ave # 420 Missoula, MT 59802 406-241-7707


Walled off portions of building


Questionable wiring, failed finishes


Water Damaged finishes


Flammable exposed insulation



Antiquated Heating System



Failing Finishes due to water leaks.



Extensive Water Damage



Extensive Water Damage



Extensive Water Damage



Kicked in and damaged doors

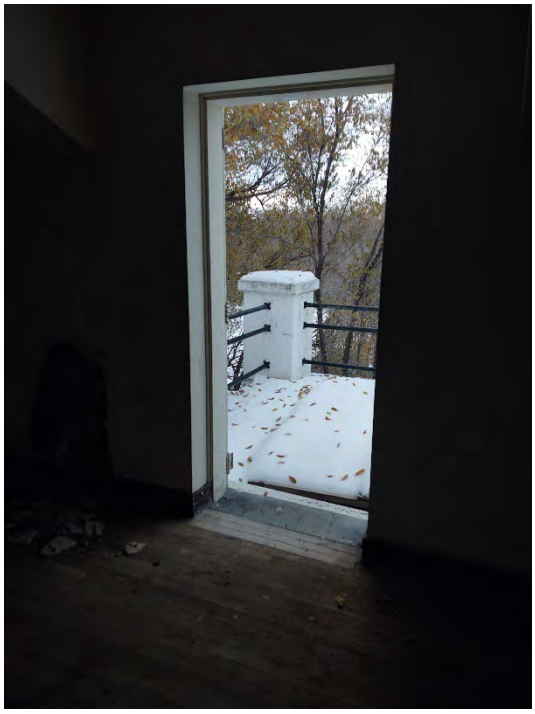


Vandalized windows & lead based paint


Vandalized windows & lead based paint


Vandalized windows & lead based paint


Vandalized windows & lead based paint


Kicked in door



Water Damage from single pane glazing. Window painted shut with Lead based paint



Vandalized windows & lead based paint



Kicked in doors

Condition of the Garage / Shed:



Boarded over Window



Missing windows and failing roof



North Elevations with failing roof and operable doors



South Elevation, failing roof and broken out windows. Shed to be relocated and preserved.



Current relationship of Old Post Hospital and Garage/Shed

Concrete fill material found on Site



Fence Post Fill



Guard Tower post base



Fence post fill and Possible Guard Tower post base



Fence Post Fill



Guard Tower post base



Fence Post Fill (No Post found)

EXHIBIT D

ARCHAEOLOGICAL REPORT

DVG Architecture and Planning, P.C.
10.14.2022

Historical Review & Proposal for Archaeological Survey for Fort Missoula Commons Project.

This document constitutes Phase 1 summary of information on property history and outline of a proposal for archaeological survey of parcel grounds.

Table of Contents

History of Fort Missoula

History of Post Hospital

Description of Structures Now Absent from Parcel

Description of Location and Landscape

Description and History of Installation of Utilities

Archaeology of Missoula

Archaeology at Fort Missoula

Federal, State, and City Historic Preservation Codes

Outline of Proposed Phase 1 Archaeological Survey Plan

References

Annotated List of Selected Links to Federal, State, and Municipal Resources

Maps

Photographs

History of Fort Missoula

Fort Missoula was established in 1877 by the 7th U.S. Infantry of the United States. Beginning in 1880, the fort served as a base for the 24th and 25th Black Infantry Regiments. It was continuously garrisoned until1898, when the 25th Infantry was dispatched to Cuba to serve in the Spanish-American War. After the departure of the 25th Infantry, the fort was only sporadically garrisoned until the commencement of United States participation in the First World War. A second period of construction and structural updates were undertaken on the fort grounds between 1900 and 1912, including the construction of the row of officers' quarters and the post hospital that remain as significant architectural features of the fort grounds in the present day (McDonald, Long, & Hardin, 1984). Following the end of World War I, fort grounds again fell into sporadic military use. In 1933, the post was designated the Northwest Regional Headquarters for the Civilian Conservation Corps.

During World War II, activity was once again revived as the fort grounds underwent another major expansion of facilities in April 1941 in consequence of the United States War Department issuance of a five-year permit to the Department of Justice for the use of Fort Missoula as an alien detention center for more than two thousand Italian and Japanese nationals. The employment of the post as an internment center resulted in the construction of two permanent double barracks, followed by the installation of 30 prefabricated barracks buildings located behind the two permanent barracks buildings. These structures were located nearby the hospital to the east of the building (These barracks are illustrated in maps from 1944 and 1947).

After the end of World War II, the fort barracks were used for the detainment of military personnel awaiting hearings on charges of military crimes. In 1947, the fort was officially decommissioned by the United States Government but continued to serve as a base for the Army National Guard, Naval Reserve, and other government agencies and civilian organizations. Between the time of the fort's decommission and the present day, most of the temporary buildings, such as the internment barracks were removed from the grounds. However, as noted above, some of the permanent structures built during the renovations of the early 20th century still remain, including the post hospital.

History of Post Hospital

Construction of the Post Hospital (designated T-9 in maps) was completed in 1911. Like other new permanent buildings built in this same period of development on the fort, the 3-story, 16, 000 sq ft. hospital is in the Spanish Mission style. The hospital was originally intended to be constructed with 2 ward wings capable of housing 60 patients, a rear annex, and quarters for 22 hospital corps privates and 5 officers. The full plans did not come to fruition and only one wing and an administrative facility were built (McDonald, Long, & Hardin, 1984, p. 89). Sometime after 1932, house-style structure referred to as the nurses' quarters (labeled T-8/T-12 on maps) was built on the east side of the hospital. This building remains on the parcel today.

From the time of its opening until the beginning of WWII, the hospital served as the main medical facility for resident military personnel and their families (Glynn 2013). In 1941, the building sustained fire damage, was repaired in December of that year, and shortly after was used as the hospital for the alien detention barracks established at the fort during World War II. In 1947, the hospital was deactivated with the decommission of the Fort

Missoula and remained vacant until 1962. During this time, the grounds and its structures were declared federal surplus property. In 1963, ownership of the property and buildings were transferred to the Western Montana Youth Guidance Corporation and served as the administration center for the Western Montana Mental Health Center for more than 50 years (Glynn 2013, pg. 118).

Western Montana Mental Health Center is listed in the Missoula City directory for 9 Fort Missoula Rd. from 1995 to 2010. Western Montana Community Mental Health and Garden City Community Housing are also listed at this address during this period. The grounds of the hospital building, nurses' quarters, and storage building were owned by Western Montana Regional Community Mental Health Center until 2019. The property was categorized as commercial property at the time of purchase for development of the Fort Missoula Commons project.

From the year 1911 on, several structures were erected in the immediate vicinity of the hospital building, including some that are absent today.

Description of Structures Now Absent from Parcel

As described above, during the period immediately preceding and during World War II, several structures were built in the immediate vicinity of the hospital, some that lay within the boundaries of the current property. These include the nurses' quarters and storage shed that still stands today, along with some that no longer remain. These now-absent features include the 10-foot cyclone fencing surrounding the hospital, a road that ran behind the hospital, two buildings behind the hospital, a garden, and a parking lot on the west side of the hospital.

Fence: 10-feet Double cyclone and barbed-wire fencing surrounded the hospital from 1941-1947 (Glynn 2013, pg. 118). This fencing can be seen in the map from 1944. This

fencing was installed at the same time that the internment barracks were erected on the fort grounds.

Larger building: Structures previously located on the current property that can be seen in the map from 3 October 1944 are two buildings located to the south of the hospital. The larger building is labeled "attendant qtrs" in the map of 3 October 1944 and can be seen in the photos from 1940 and 1941. Although the building is labeled as attendant quarters in the 3 October 1944 map, this structure is no longer depicted in maps of 16 October 1944, and 1946. The larger rectangular building at the rear of the hospital on the west side does not appear in photos from 1932, nor the photo from 1937, but does appear in the photo dated simply to the 1930s and the aerial photos from 1940s, 1940, and 1941. It is suggested to be a temporary building erected by the CCC, but the purpose and use is unknown (M. Lautzenheiser, pers comm., 20 September 2022; T. Jones, pers comm, 20 September 2022).

Smaller building: The smaller building indicated in the map of 3 October 1944 is not labeled. The earliest photo in which this structure appears is dates to the 1932 and can be seen behind the hospital in the photo from top of water tower from 18 March 1937, and the aerial views from 1940s, 1940, and 1941. The smaller building is square-shaped with a four-sided roof. This building is not depicted in the map from 10 October 1944 and is no longer present in future maps or photographs after this date. The photo from 1941 appears to show that the smaller building had a fence- or shrub-enclosed garden behind it. *The Phase 1 Environmental Site Assessment* report (2019) states that this building is presumed to be the original post hospital, but this claim is inconsistent with a photo dated to c.1900 (Jones 2013) of the post hospital showing a different type of building and is noted in Glynn (2013; pg. 118) to have been located west of the current headquarters of the Lolo National Forest. Discussions with Ft. Missoula Museum executive director and a local scholar on Ft. Missoula history turned up no definitive information on the history of use of this structure (M. Lautzenheiser, pers comm. 20 September 2022; Tate Jones, pers comm., 20 September 2022).

No structural foundations of these two buildings are evident on the grounds today, although a two-tiered concrete slab is located south of the hospital building near to where the smaller building once stood.

Parking lot: Another feature that is presently absent from the property, but that is clearly visible in photos from 1932, 1937, the 1930s, 1940s,1940, and 1941 is a parking lot on the west side of the hospital building. This parking lot is not indicated on the maps of 1944 but can possibly be seen in a photo from 1961. It is unclear exactly when the parking lot was installed and when it was removed.

Road: Yet another feature now absent is a road that ran south of the hospital building in an east-west direction behind hospital. This road connected St. Andrews Street (now Sgt. Sanders Street) to the east of the hospital to Lt. Moss Road on the northwest. It originally ran between the now absent buildings and the hospital. This road first appears in a photo from 1932 and appears to have been paved at this time (see photos from 1932, 1941, and 1954). The road is wider in the aerial photo from 1976 but is no longer present in aerial photo from 1983. It is suggested that the road was used as a route to a dumping site into the Bitterroot River southeast of the property (T. Jones, pers comm., 20 September 2022).

Front Drive: A feature not depicted on maps predating 1930 but that exists today is the circular drive leading to the front face of the hospital building. This drive is shown in maps dating to 1940 and 1941. Currently the drive is pavement, and according to the evidence visible on historic maps, has been paved since at least 1940. The drive is presumed by local scholar on Ft. Missoula to have been expanded to its present dimensions in the 1930s (T. Jones, pers comm., 20 September 2022).

Other features the installations of which date after the construction of the hospital building and lay within the boundaries of the current property are described in a separate section below. These features include underground utilities equipment. These features are of great importance because they bear on the significance of archaeological investigation of the property due to the nature of their installation, which necessitates extreme disruption of the subsurface stratigraphy of soil, which is integral to the process of archaeological inference, interpretation, and accurate reconstruction of the past. The extent of this disruption renders the discernment of provenance (location of origin of deposition) of any recovered artifact obscure if not unascertainable without sophisticated and expensive assay techniques (i.e., radiometry, etc.). In these cases, the relevance of recovered material for reconstruction of site history is moot. The following section provides a detailed description of the location and current geophysical landscape of the property.

Description of Location and Landscape

The subject property address is currently 3255 Lt. Moss Road (formerly 9 Missoula Rd. In City Directories and Property Record cards) and consists of a parcel of land developed with the hospital building, former nurses' quarters, and a storage garage.

The Public Land Survey System (PLSS) description for the site is the NW 1/4 of the SW 1/4 of Section 31, Township 13 North, Range 19 West, in Missoula County, Montana. Additional information recorded for the subject property on the State of Montana's Computer Assisted Mass Appraisal data are as follows (from ESA report 2019):

Geocodes: 04-2200-31-3-21-10-0000; parcel size: 3.32 acres; Legal Description: S31, T13 N, R19 W, C.O.S. 5112, PARCEL 2

COORDINATES

Latitude (North): 46.8399220 - 46˚50’ 23.71’’

Longitude (West): 114.0587380 - 114˚3’ 31.45’’

Universal Transverse Mercator: Zone 11

UTM X (Meters): 724278.8

UTM Y (Meters): 5191358.0

Elevation: 3154 ft. above sea level

Information about the site topography and soils were obtained and summarized from the USGS Southwest Missoula Quadrangle 7.5-minute topographic base map, and on-site observations. The site’s topography is relatively flat with a minimal slope to the south towards the Bitterroot River. The approximate elevation of the property is 3,155 feet above mean sea level. The soils on the property are gravely loams with increasing gravel and cobble at depth and consist of Quaternary alluvial deposits of the Pleistocene and Holocene (EAS report, 2019). Detailed information on recognized environmental conditions can be found in the *Phase 1 Environmental Site Assessment* report (2019) for the property.

Comparisons between survey maps and documentation from the latter half of the 19th century and the present show rapid and dramatic changes to local flora as a result of human activity. Beginning in the middle of the 1800’s, European settlers began to move into the Missoula Valley and aggressively consume and export natural resources of the valley by farming, ranching, mining, logging, and constructing irrigation ditches over the span of a few decades. This led to a drastic and permanent conversion of vegetation, and significant alteration of large swaths of the geophysical landscape (Bobbitt, 2011).

Although the superficial surface composition of the parcel grounds is consistent with general geological composition of the surrounding riverside vicinity, the stratigraphy of

subsurface soil of the property cannot be taken to reflect natural stratigraphic orientation in consequence of consistent anthropogenic disruption of subsurface layers due to construction, demolition, and underground utilities installation. The history of architectural structures on the parcel has been presented above. A description of utilities installation on the property is presented in the next section.

Description and History of Installation of Utilities

As described below, and as illustrated in the property maps, the parcel contains a number of underground utilities transecting much of the property that were installed at various times over the course of the fort's history (see map 2020).

Sewer- The subject property is connected to the Missoula city sewer system. A 20-foot-wide sewer line easement runs in a northwest-southeast direction south of the hospital building, with a maintenance hole (manhole) located in the southwest area of the parcel (see Map 2000). Force main for the city sewer service is listed as being constructed by the army in 1975 and was turned over to the city in 1997 (pers. comm. Collections Manager, City of Missoula Waste Water Division, 20 September 2022). Sewer mains are required by the City of Missoula to be a minimum of 4 feet deep from top of pipe to surface grade, with a minimum horizontal clearance of 6 feet. (Per *Missoula City Public Works Standards and Specifications Manual*). Record of repair for the sanitary sewer system from 2002 shows a total depth of 9 feet for the portion of the force main repaired on the property). Post sewer lines also run north to south on the west side of the property, and southwest to northeast across the south portion of the property (see map 1947). Other lines in the area appear to have been constructed of vitrified clay and do not have a recorded year of construction (EAS

report, 2019). It is not known when the older sanitary sewer lines were installed and the location of sewer discharge prior to the 1940s, and their current depth is unknown. Between the 1940s and 1964 the main sewer line for Fort Missoula discharged directly to the Bitterroot River near the location of the current pump station. This system was modified to discharge to a leach field in 1964, and then connected to the City of Missoula's sanitary sewer in the 1980s.

Fresh water- Utilities map from 1947 shows underground water system pipes originating from the site of the water tank (labeled 51 on map 16 October 1944) and transecting the property southeast to northwest in front of the hospital along the northern portion of the parcel. Drinking water is currently supplied by Missoula City Water. Operational water lines also transect the parcel (see Utilities Map). All water lines are required by the city to be a minimum depth of 6 feet below grade with a minimum horizontal clearance of 10 feet (Per *Missoula City Public Works Standards and Specifications Manual*). A water well was dug in 1993 nearby to the hospital on the building's south side (EAS report, 2019). A submersible pump system and sprinkler irrigation system was installed on the property in 2001. The system is a network of in-ground sprinkler heads fed by underground lines. Standard installation depth of underground irrigation lines measures 8 to 12 inches below ground surface level.

Electric- Underground electrical lines are also indicated on the map of utilities from 2020. Buried electrical lines are required by Missoula to be installed at least 6 feet deep below finished grade, with minimum 5 feet of horizontal clearance (Per *Missoula City Public Works Standards and Specifications Manual*).

There are no available records of archaeological excavation prior to installation on the property grounds of any underground public or private utilities.

The existence of these underground utilities and the absence of archaeological surveys prior to their installation means that the ground has been disturbed extensively and repeated over the course of more than a century in ways that are undocumented, thereby precluding the characterization of the majority of the area of the site as potentially yielding significant opportunities for scientifically valid and meaningful chronological reconstruction of prehistoric and historic activity in this area via systematic archaeological excavation. In cases such as this, the most that can be expected from archaeological investigation is recovery of artifacts and other materials out of their original provenance, and hence divorced from historical context. Artifacts and remains recovered out of provenance are not regarded as legitimate data for historic reconstructions.

The last statement is crucial here. Archaeologists are not simply relic-hunters. The primary purpose of archaeological research is not the mere recovery of materials from the past, but the reconstruction and interpretation of the past via materials produced by past human behavior. Materials recovered from, or taken out of, their original context cannot be used to reconstruct location-specific patterns of history. Thus, recommendations for archaeological survey must involve recognition of the extensive, intensive, and repeated subsurface disruption of the property grounds. The next section describes previous archaeological surveys conducted at Fort Missoula, which provides additional information relevant to the archaeological plan proposed in this report.

Archaeology of Missoula

Paleoindian sites are relatively rare in Montana. Notable sites include the Late Pleistocene Clovis-era Anzick site in Park County (Jones, 1997; Lahren and Bonnichsen, 1974), and the Goshen culture Mill Iron site near Ekalaka dated to ~12, 500 years B.P.

(Waters and Stafford, 2014; see also Davis, 2019). With respect to the Missoula valley, review of the available records from the University of Montana Anthropological Curation Facility and the State Historic Preservation Office's Cultural Resource Database show that historic archaeological sites dated from the mid-19th century onward are numerous, while prehistoric archaeological sites are few. Indeed, in the Township containing Fort Missoula, only 4 prehistoric lithic sites have been identified, none of which can be accurately dated (Bobbitt, 2011).

Archaeology at Fort Missoula

Very few records exist of previous archaeological surveys on the grounds of Fort Missoula. Only 4 records of historic military sites in Fort Missoula's township are to be found in the curation databases. An additional excavation not recorded in the SHPO database was conducted in 2014 by a team of students and archaeologists from the University of Montana who excavated a midden deposit on the fort grounds. This excavation yielded numerous artifacts dating to the late 19th century; however, it was also noted in a newspaper article in the *Missoulian* (Kidston, 2014) that artifacts of daily life recovered outside of the context of trash dumps are extremely rare, as the fort grounds were kept in meticulous condition during its time of use as a military base.

The aforementioned installation of the underground utilities on the property of the proposed project necessitated extreme disruption of the subsurface stratigraphy of soil, which, as described above, is integral to the process of archaeological inference, interpretation, and accurate reconstruction of the past. The extent of this disruption renders the discernment of provenance (location of origin of deposition) of any recovered artifact obscure if not unascertainable without sophisticated specialized assay techniques under ideal

conditions that are very seldom met. As noted above, in these cases the relevance of recovered material for reconstruction of site history is not determinable. In the case of recovery of mass-produced objects (such as bullets, button, containers, etc. from historical eras, intact natural stratigraphy is especially crucial for relative dating methods and reconstructions of fine-grained temporal sequences of past activity on a site (see e.g., Michaels, 1996; Harris, 1989, Harris, 1996; Mandel et al., 2017). In addition, accuracy of results from methods of absolute dating, such as the use of radiocarbon dating, can be compromised by stratigraphic mixing (Davis, 2019). Here we are not concerned with materials the age of which can be confidently estimated using obvious features of the artifact itself. For example, a coin with a stamped date can be reasonably inferred to be no older than the date stamped on it (although in this case, the artifact found out of provenance says nothing more about the history of the place in which it was found beyond that fact that it was found there.

These facts therefore play a critical role in the development of recommendations for archaeological survey methods and techniques. Another consideration influencing plan formulation includes the paucity of recovered materials during previous archaeological excavations outside of the trash pit areas of Fort Missoula. A third consideration involves the geophysical and biotic changes of the area in the recent past (i.e., natural, and man-made changes to the course of the Bitterroot River; anthropogenic changes to flora) (see Bobbitt, 2011 and references therein). The final section of this document describes recommendations for a plan of archaeological survey based on these considerations.

Federal, State, and City Historic Preservation Codes

The current property and plans for development and rehabilitation of existing structures of the parcel do not fall under the regulations and protocols of the National Historic Preservation Act (NHPA- Title 54 of United States Code [previously Title 16]), Montana State Antiquities Act (MSAA) (1995) for new construction, development, or modification to existing structures. It is not subject to the mandates of any federal or state governmental bodies regarding historic or cultural preservation.

The National Historic Preservation Act sets federal policy for historic preservation, while Title 36 of the United States Code of Federal Regulations lays out regulations regarding execution of NHPA policy. Section 54 USC 306108 (previously, and sometimes still referred to as Section 106) of the NHPA grants legal status to historic preservation in federal planning, decision-making, and project execution. *Section 106 applies when two thresholds are met: 1) there is a Federal or federally licensed action, including grants, licenses, and permits; and 2) that action has the potential to affect properties listed in or eligible for listing in the National Register of Historic Places* (https://ncshpo.org/resources/section-106/). Thus, the proposed plans for development to occur on privately owned land is not subject to the "section 106" review process, nor assessment from the Advisory Council on Historic Preservation according to 36 CFR Part 800 (https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf).

State agencies in Montana are required to consult with the State Historic Preservation Office (SHPO) according to rules developed under the MSAA (22-3-421 to 442) and the Montana Environmental Protection Act (MEPA - Environmental Impact Statements, Title 75, ch.1, part 2), concerning the identification and preservation of Heritage Properties. Under the MSAA, *state agencies* are required to consult with the SHPO regarding efforts "to avoid, whenever feasible, state actions or state assisted or licensed actions that substantially alter heritage properties…*on lands owned by the state*…" (Montana Codes Annotated 22-3-

424). The MSAA applies to projects on state owned property or projects using state funds only, and thus the proposed project under consideration does not require a consultation with Montana SHPO for section 54 (previously section 106) compliance, the conducting of a Cultural Resources Review, or submission of a Cultural Site/Engineering Record to the Montana Historical Society.

The Title 20 Zoning Ordinance of The City of Missoula (20.25.070), Montana lays out regulations regarding the Historic Fort Missoula Neighborhood Character Overlay District (/NC-HFM). Its stated purpose is to "protect buildings and grounds in the Fort Missoula area from modifications that obscure or eradicate significant features of their historic character; to promote restoration and continued maintenance, and to protect the district from the effects of incompatible development" (Missoula Zoning Ordinance 20.25-17). Some development projects in this overlay district require a Historic Preservation Permit. A historic preservation permit is required for any activity that requires a zoning compliance permit. Section 2 of 20.25.070 lists the documentation that must be submitted in an application for an Historic Preservation Permit:

(1) Completed application form provided by Development Services. (2) One current picture of each elevation of each structure planned to be altered and such additional pictures of the specific elements of the structure or property to be altered that will clearly express the nature and extent of change planned. Except when otherwise recommended, no more than eight pictures should be submitted and all pictures must be mounted on letter-size sheets and clearly annotated with the property address, elevation direction and relevant information. (3) Site sketch (oriented with north at the top of the page and approximately to scale) showing site boundaries, street and alley frontages and names, and location of all structures and distances (to the nearest foot) between buildings and from buildings to property lines. (4) Historical information, including available data such as pictures, plans, authenticated

verbal records and similar research documentation that may be relevant to the planned alteration.
(5) Plans, sketches, pictures, specifications, and other data that clearly express the applicant's proposed alterations. (6) A schedule of planned actions that will lead to the completed alterations. (7) Such other information as may be required by Development Services in order to ensure a complete and competent review of the proposal (Missoula Zoning Ordinance 20.25-20).

An archaeological survey and submission of a site record to the SHPO are not requirements (D. Murdo, Cultural Records Manager, Montana State Historic Preservation Office, pers comm., 20 September 2022).

None of the three levels of statutes pertaining to historic preservation and antiquities mentioned above that would involve a mandatory archaeological survey are not strictly apposite to the project under consideration herein because the land is not owned by the federal government, the state of Montana, nor the city of Missoula; and neither federal, state, nor city funds have been granted to, or are being expended in, the project's execution. However, if the Historic Preservation Commission deems it *necessary*, we herein propose a plan of archaeological survey to be conducted prior to commencement of the current project.

Outline of Proposed Phase 1 Archaeological Survey Plan

The survey plan for the current project focuses on the areas of the parcel that have evidently been relatively undisturbed over the recorded course of the property's history. Per the aims of the NHPA and MSAA, this survey plan is intended to protect the former fort grounds from any adverse effects on possible significant historic cultural resources in

consequence of new construction on the property. Consistent with the intentions of the Historic Fort Missoula Neighborhood Character Overlay District's intention to "protect buildings and grounds in the Fort Missoula area from modifications that obscure or eradicate significant features of their historic character," the scope of our proposed archaeological survey is aimed at discovery of features and artifacts from the historical period dating from the founding of Fort Missoula in 1877.

Some reasons for eschewing survey or physical excavation of much of the property have been detailed above, and two considerations obviate the necessity of some non-invasive survey techniques. First, noninvasive remote sensing survey methods such as soil resistivity testing are uninformative when used to assay artificially disturbed and compacted soil. Second, aerial infrared photography is unnecessary here because of the existence of written, illustrated, and photographic evidence of the architectural features and land-use of the parcel over much of its history since 1877.

Our proposed Phase 1 archaeological survey involves 3 steps. These steps are outlined below:

Step 1: Ground survey of the parcel using very low frequency (VLF) metal detector to locate presence of any metal features or artifacts at the ground and subsurface level. Presence of detected features and objects will be marked on the ground, their locations recorded and documented in a 5m x 5m grid overlay map of the parcel.

Step 2: Subsurface soil cores of 1-inch diameter and 30 cm depth will be manually extracted from those areas of the parcel for which there is no evidence from the historical photographs and maps of previously extant architectural features or installations of underground utilities and will be taken at 5m intervals at the center of each square on the

5m grid overlay of the parcel. Soil cores will be sampled from known locations of previous extensive subsurface disturbance for comparison with cores extracted from suspected undisturbed locations to verify predicted differences between disturbed and undisturbed sediment stratigraphy. These cores will allow assessment of the stratigraphic sequence consistency and integrity of subsurface material across the area of the parcel. Soil coring will further enable estimation of potential undetected feature depth and content and provide limited determination of the presence of geophysical anomalies.

Step 3: Results from the VLF metal detector assay will be combined with data from soil core samples to determine candidate shovel test pit locations. Soil cores indicating minimally undisturbed subsurface stratigraphy within 2.5m proximity to detected features will be candidate locations of shovel test pits (i.e., those 5m grid squares containing undisturbed stratigraphy and detected subsurface features). Final determination of location of test pits will depend on number of detected features and artifacts that cluster within 2.5m of soil core extraction sites. Three 5m x 5m squares on the grid overlay with the highest number of detected subsurface features/artifacts and intact stratigraphic profile will be selected from among the candidate locations. If candidate locations cannot be ranked according to these criteria, three non-adjacent grid squares that meet the criteria will be chosen at random. Test pits are to be square, measuring 1m x 1m, and to an initial depth of 30cm. Test pit locations are to be a minimum of 5m apart. Spit depth increments will be determined by the depth of subsurface strata as revealed by soil core samples. Soil type and sequence will be recorded for each spit and extracted soil sifted using standard screening methods using 1/8-inch mesh. A shovel test pit excavation is a standard method of Phase 1 archaeological survey used in Conservation Resource Management and is an appropriate method of survey in the present case for recovery of detected materials and discovery of associated non-metallic materials. Shovel Test Pits will assist in determining the locations of

sites on the parcel which may necessitate more intensive investigation and additional survey methods.

All materials recovered during the archaeological survey will be documented in a site report, and consultation with the Montana State Archaeologist will be initiated for counsel on transfer of possession and curation of materials. Documentation of methods and results of this archaeological survey will adhere closely to the Archeological Documentation Standards as set forth in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

A complete record of the site report will be submitted to the State Historic Preservation Office and the Montana Historical Society for entry into the Montana Cultural Resources Database and Geographic Information System, and to the University of Montana Department of Anthropology for documentation in the Anthropological Curation Facility.

Any discovery of human remains resulting from the archaeological survey will to be addressed in accordance with protocols set forth in the Unmarked Burial Act (Montana Codes Annotated 22-3-801 through 811) and the Native American Graves Protection and Repatriation Act (25 USC 3001 et seq., 104 Stat. 3048).

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Annotated List of Selected Links to Federal, State, and Municipal Statutes and Guidelines Concerning Historic Preservation, Antiquities, Archaeological Resources, and Zoning Regulations

https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf

Text of the National Historic Preservation Act (NHPA).

https://www.ecfr.gov/current/title-36/chapter-I/part-61#p-61.4(e)(2)

Part 61 of the Code of Federal Regulations covering procedures for historic preservation programs per the NHPA.

https://ncshpo.org/resources/section-106/

National Conference of State Historic Preservation Officers webpage on "Section 106"

https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf

36 CFR PART 800 -- Protection Of Historic Properties covering the “Section 106” process.

http://npshistory.com/publications/archeology/state-statutes.pdf

A survey of state statutes regarding archaeological resources. See page 36 for list of Montana state statutes.

https://mhs.mt.gov/Shpo/docs/S106_onepageguide.pdf

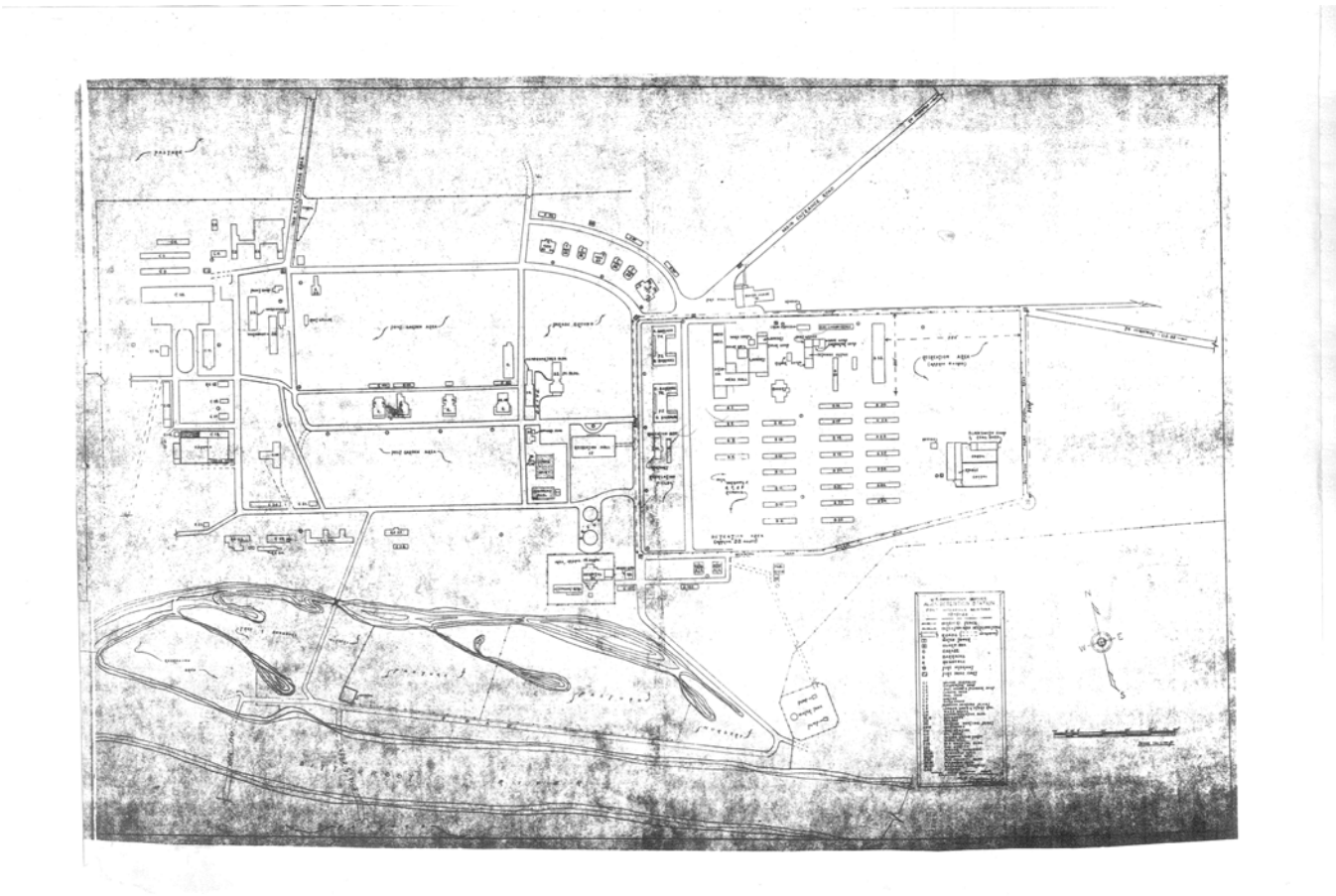
Montana State Historic Preservation Office guidelines for projects that fall under the NHPA and Montana State Antiquities Act.

https://library.municode.com/mt/missoula/codes/municipal_code?nodeId=TIT20ZO_CH20.30HIPR

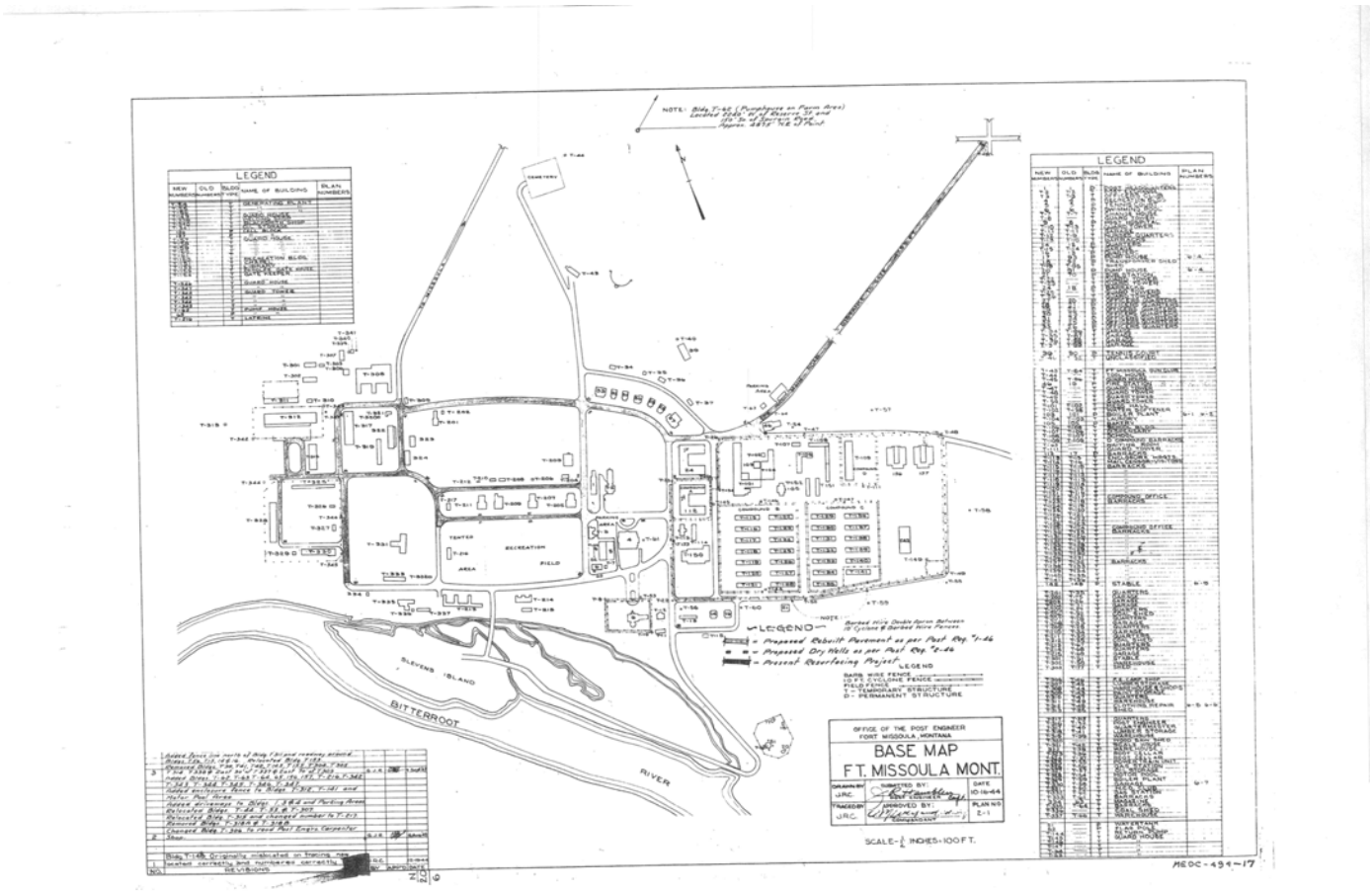
Title 20 zoning regulations from Missoula Municipal Code (Chapter 20.30).

Maps and Photographs

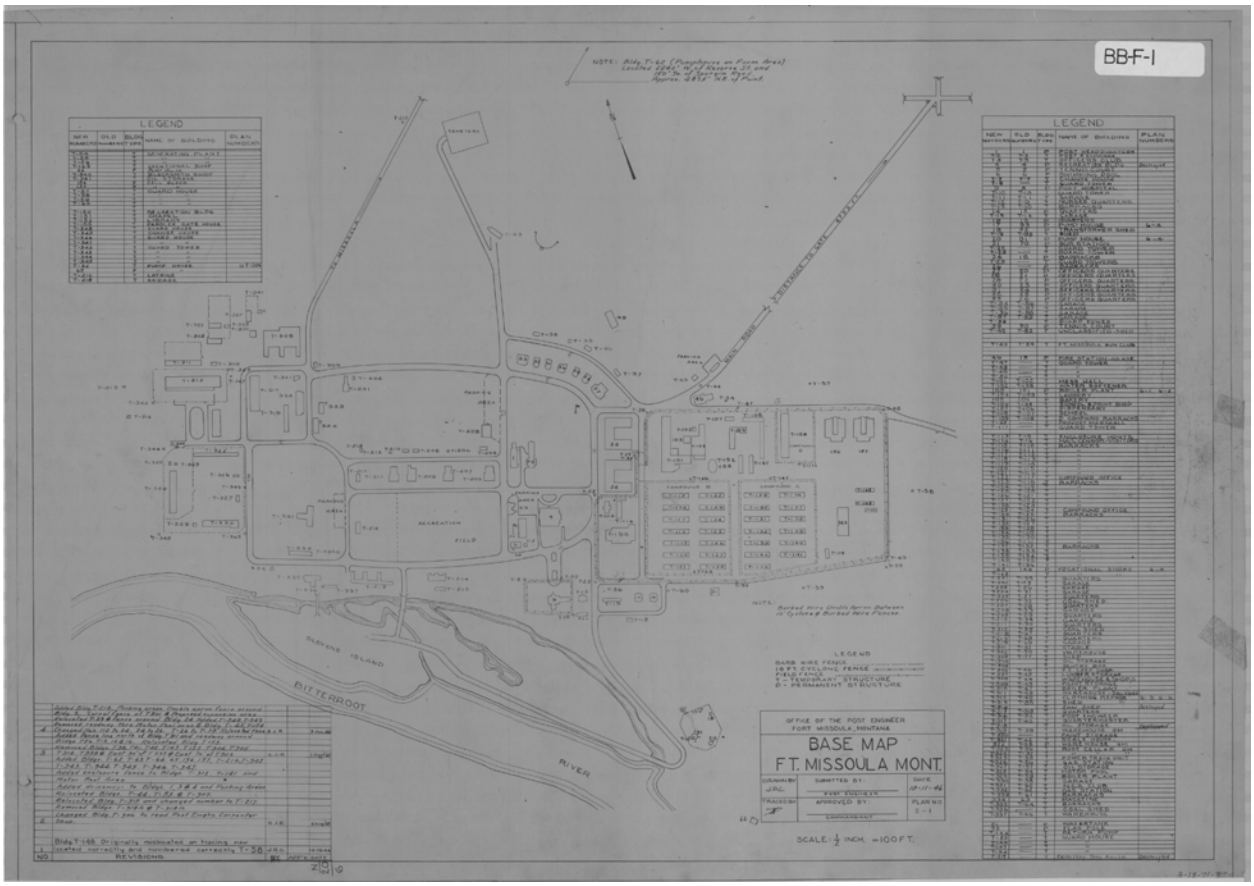
Below are maps and photographs referred to in this report. Each of the maps and photographs is labeled with a date as referenced in the text.



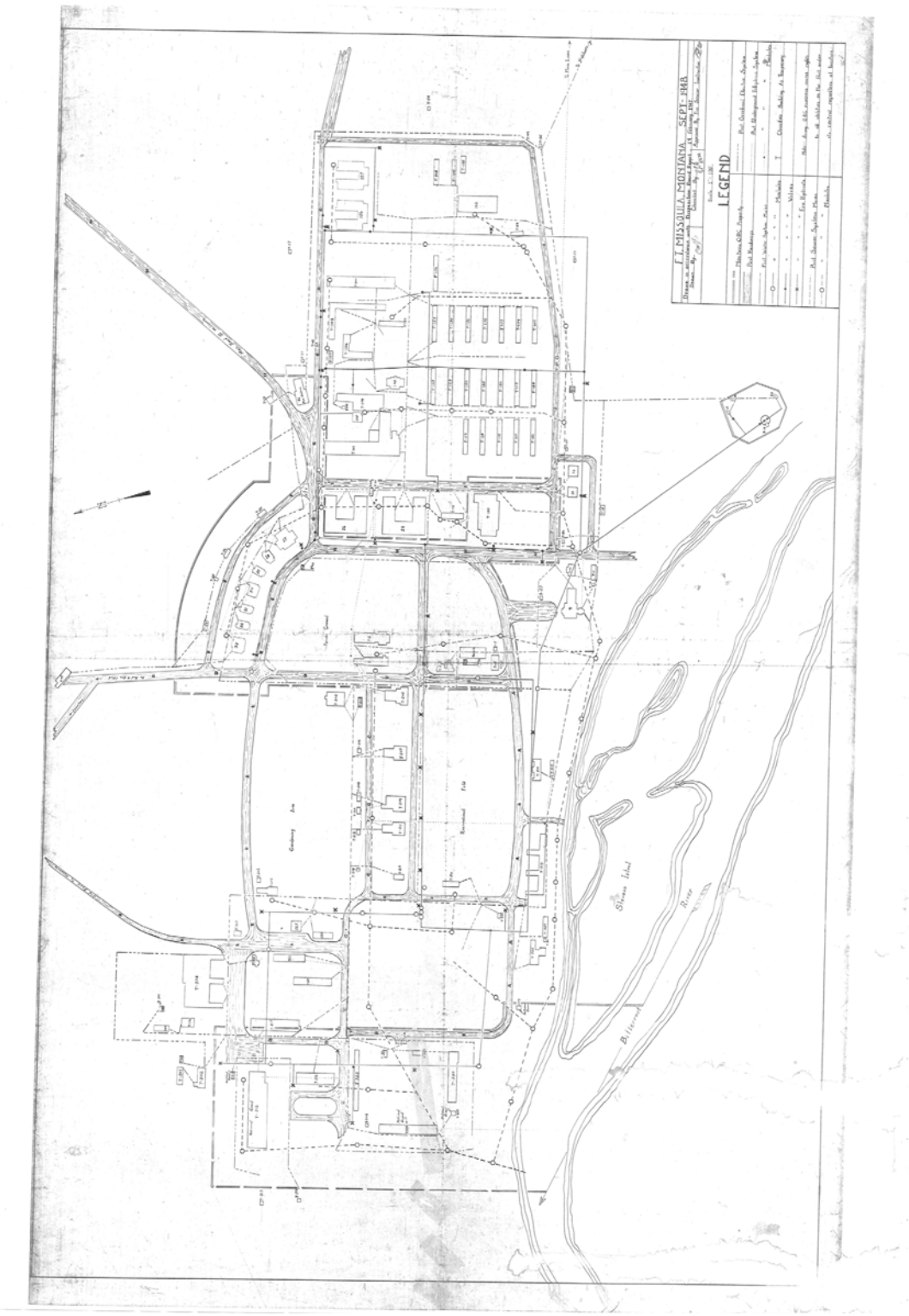
3 October 1944 Base map of Fort Missoula. This map shows location of now-absent buildings behind hospital building.



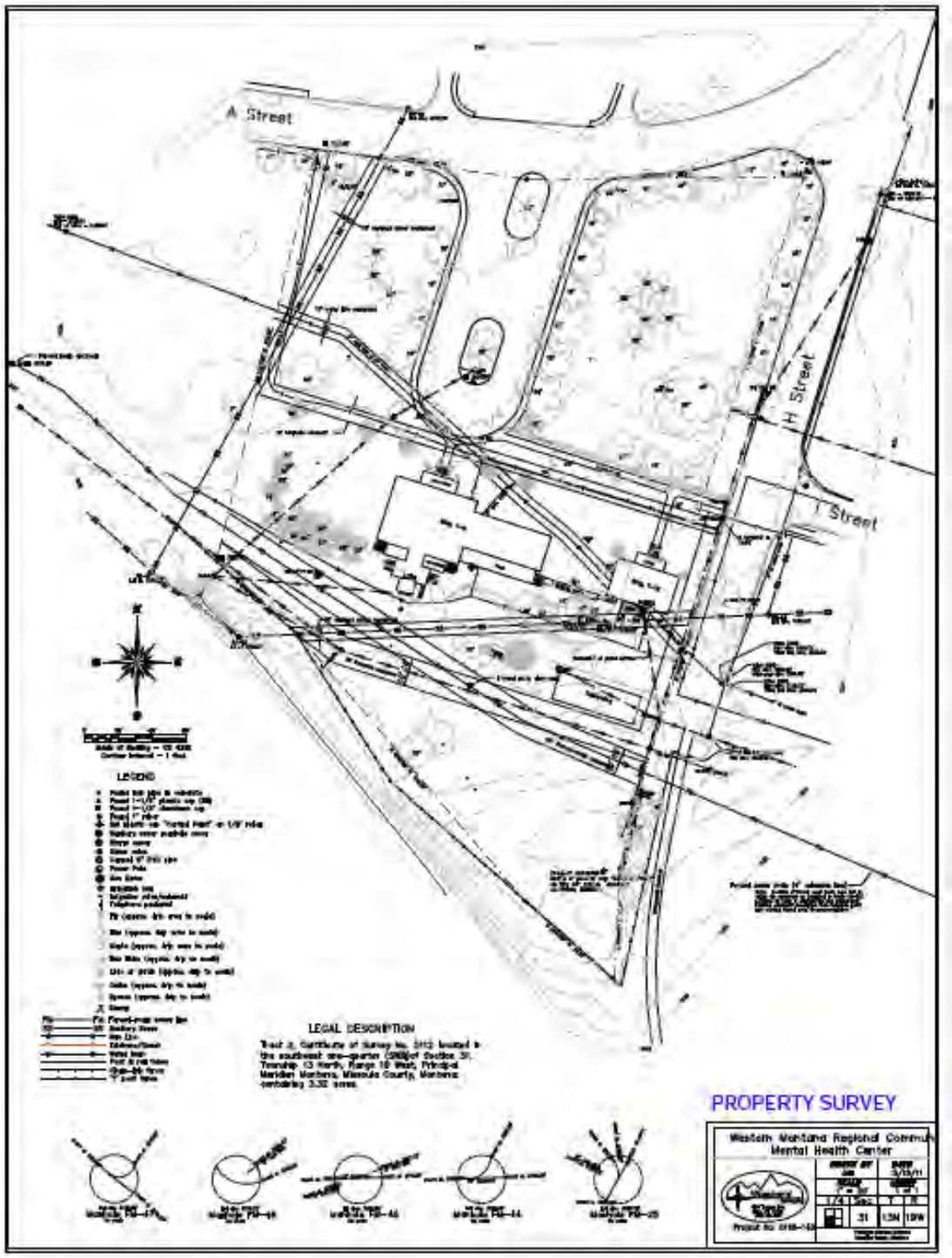
16 October 1944 Base Map of Fort Missoula. In this map, the two buildings behind the hospital are not depicted.



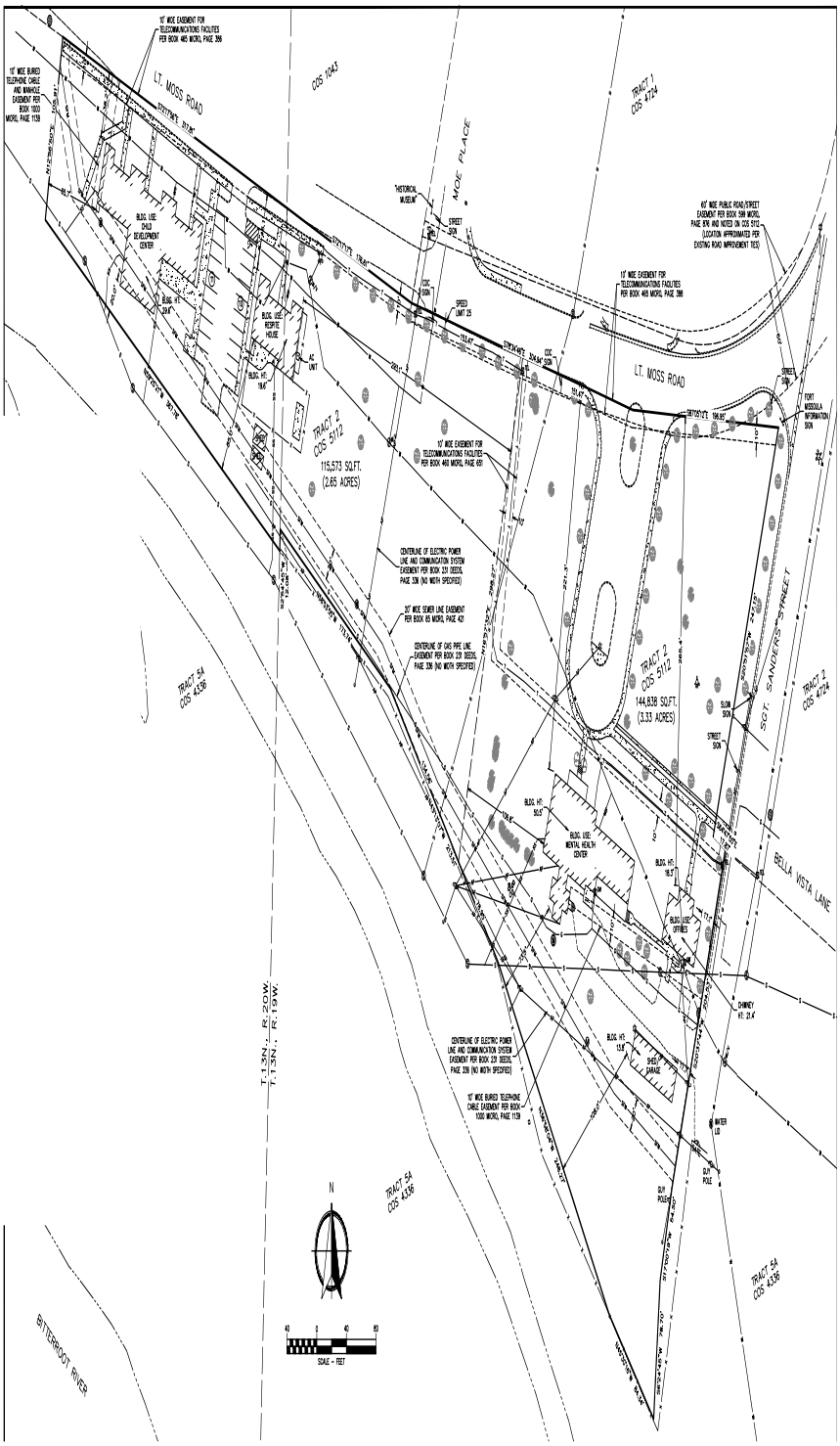
1946 Base Map of Fort Missoula.



1947 Base Map of Fort Missoula showing location of underground water and sewer utilities, as well as location of internment barracks east of hospital.



2011 Property Survey Record showing location of underground utilities. Prepared for Western Montana Regional Community Mental Health Center.



Utilities Map 2020. This map shows the location of underground utilities.



Photo from 1930s. This photo shows the hospital building and the larger building at the rear west side of the hospital.



Photo from 1932. This photo shows the hospital building and the smaller building to its south. Also visible is the road running behind the hospital, and the parking lot on the west side of the hospital.



1935 Aerial Photograph of Fort Missoula. Note that the location of the roads is not the same as current road runs. The nurses' quarters and larger buildings are absent. The north and west sides of the hospital grounds appear to be paved.



Photo from 18 March 1937. In this photograph, the smaller building can be seen behind the hospital. Note the road running east-west between the hospital and smaller building. This photo is taken from almost the exact same angle as the aerial photo from 1932, but in this photograph it appears the ground west of the smaller building has been cleared (perhaps for the installation of the larger building).



Aerial photograph claimed to be from 1910s (reproduced from Jones, 2013). This photo is the same as the photo dated to 18 March 1937.



Aerial photo from 1940s of Fort Missoula Grounds. The grounds on the north and west sides of the building appear to be paved. The larger building is now present. Nurses' quarters are absent.



Aerial Photograph from 1940s. (ESA report, 2019, appendix A).



Aerial photograph of 1941 (McKay). On the left near the river are the hospital, nurses' quarters, storage shed, and two now-absent buildings located south of the hospital building. (K. Ross Toole Archives, University of Montana, 94-295, McKay Collection).



Aerial photograph from 1976 showing enlarged road running east-west behind hospital building. (ESA report, 2019, appendix A).



Aerial photograph from 1983 showing the absence of the road that formerly ran east-west behind the hospital building. (ESA report, 2019, appendix A).



Aerial photograph from 2017. (ESA report, 2019, appendix A).

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Ph.D. Anthropology
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Positions

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2014-2018. Adjunct Assistant Professor. Department of Anthropology and Sociology, Webster University.

2015. Instructor. Department of Anthropology, University of Missouri.

2008-2014. Graduate Instructor and Assistant. Department of Anthropology, University of Missouri.

2008-2009. Staff. Museum of Anthropology. American Archaeology Division. University of Missouri.

2008. Laboratory Research Assistant. Bond Life Sciences Center, University of Missouri.

Courses Taught

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Spring 2020- Instructor. UI415: Science and Religion. Department of History and Anthropology, Southeast Missouri State University.

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Spring 2012- Instructor. Anthropology 1000: General Anthropology. Department of Anthropology, University of Missouri.

Fall 2011- Instructor. Anthropology 1300: Multiculturalism. Department of Anthropology, University of Missouri.

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Spring 2010- Teaching Assistant (Deborah Pearsall). Anthropology 4990: Senior Capstone Seminar in Anthropology. Department of Anthropology. University of Missouri.

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Fall 2008- Teaching Assistant. Anthropology 1000: General Anthropology. Department of Anthropology. University of Missouri.

Research Grants

University of Missouri Research Board Grant. Alloparental Kin Investment and Female Reproductive Strategies (Brazil). (With Robert Walker) $34,000.

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2008. Paleoindian Archaeology: Clovis Stone Tools. http://anthromuseum.missouri.edu/minigalleries/clovistools/intro.shtml

2009. Paleolithic Archaeology: Oldowan & Acheulean Stone Tools. http://anthromuseum.missouri.edu/minigalleries/handaxes/intro.shtml

MA Thesis

Evolution and Religion: Theory, Definitions, and the Natural Selection of Religious Behavior (May, 2009).

PhD Dissertation

Partible Paternity and Human Reproductive Behavior (December, 2014)

PhD Advisor

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Robert S. Walker. Assistant Professor, Department of Anthropology. 107 Swallow Hall, University of Missouri. (Committee Chair)

Report of Archaeological Survey, Step 1: Fort Missoula Commons Project

This report presents the purpose, scope, methods, and results of the remote-sensing survey as laid out in Step 1 *of the* Historical Review and Proposal for Archaeological Survey for Fort Missoula Commons Project*. This survey was conducted on January 2nd and 3rd, 2023.*

Purpose of Survey

The purpose of this remote-sensing survey is to complete Step 1 of the proposed archaeological investigation of the parcel addressed 3255 Lt. Moss Rd., Fort Missoula, MT. This property encompasses Tract 2A (hereafter referred to as 'the parcel'), which is located at Southwest one-quarter of Section 31 Township 13 North Range 19 West. This step is aimed at identification of surface and subsurface metallic objects within the parcel boundaries. This survey satisfies the request made by the Montana State Historic Preservation Office for preliminary physical investigation of the parcel grounds for potential historic resources located on the parcel prior to the initiation of construction of new structures on the grounds.

Scope of Survey

This survey was designed to detect the potential presence of surface and subsurface metallic features that lay within the detection limits of a VLF metal detecting instrument on the grounds of the parcel. The use of this remote-sensing technique confines the scope of the survey to the historical period beginning with the establishment of Fort Missoula in 1877 up to the present day. The scope of this survey is restricted to the remote detection and mapping of surface and subsurface metallic features, and is not designed to detect non-metallic features, such as lithics and pottery.

Survey Method

Survey Instrument

The remote-sensing survey utilized a very-low frequency (VLF) metal detector to locate surface and subsurface metallic objects on the parcel grounds. VLF metal detectors operate by transmitting constant frequency electromagnetic sine waves via a transmitter coil toward and through the ground surface. When metallic objects intercept the electromagnetic field from the device's transmitter, the metallic object generates its own magnetic field in response. The receiver on the device detects this and interprets the received signal. Computer processors analyze and interpret the received phase-shift signals to provide information for the user as to the possible composition of the surface or subsurface object detected.

Use of VLF metal detector devices affords advantages over alternative metallic-sensing technologies. One of the advantages that proved of great use in the present survey is the ability of VLF devices to work in wet and snow-covered contexts. Ambient conditions and soil composition can significantly affect the performance of remote-sensing devices such as metal detectors. Soil mineralization and moisture content can interfere with a detector's ability to locate and discriminate metallic objects. VLF detection technology was chosen because of this technology's superior potential, compared to other metallic-sensing methods, to operate properly within a wide range of fluctuations in these parameters (soil mineralization and moisture). This was important, as the conditions of the survey involved snow-covered ground in most of the surveyed area, reaching maximum depth of 17cm. While snow does not affect the

functioning of the VLF detector, it does necessitate increased distance between the transmission and receiver coils of the device and the ground surface.

VLF technology allows relatively deep detection of metallic objects, as well as the ability to compute the received signal and provide an interpretation of the potential composition of the detected object. Maximum depth of subsurface metallic objects for VLF devices is ~45cm; however, average detection depths are between surface and 30cm. Maximum depth detection is possible for large objects of low conductivity (metallic objects with a high ferrous content); while smaller objects composed of metals of higher conductivity are only detectable at shallower subsurface depths (10-20cm).

Another advantage of using a VLF metal detector is that it provides the user with information regarding the likely composition of the detected metallic object. This information is presented as a numerical value ranging from 00 - 99, a scale known as the Visual Discrimination Indicator (VDI). Numeric values on this scale correspond to the conductivity of detected metallic objects. Table 1 presents the VDI scale for the detector used in the present survey, with representative objects and metals indicated by ranges of values.

A disadvantage of VLF detection technology is that it is unable to provide information about the absolute size and depth of the detected objects, although inferences can be made based on the following facts: 1) larger objects, or objects presenting a larger surface area perpendicular to the transmission signals, can be detected at deeper depths than smaller objects; 2) metals of lower conductivity (i.e., ferrous metals [iron, or iron-containing alloys]) are detectable at smaller sizes and deeper depths than metals of higher conductivity (e.g., aluminum, copper, nickel).

TABLE 1

VDI RANGE	REPRESENTATIVE OBJECT, EXAMPLE METAL
00 – 10	Rebar, Iron
11 – 20	Nickel (5 cent coin), Copper
21 – 40	Beverage can or pull tab therefrom, Aluminum
41 – 60	Penny (1 cent coin), Zinc
61 – 75	Dime (10 cent coin), Nickel
76 – 99	Quarter (25 cent coin), Brass

Survey Technique

A handheld VLF metal detector operating at frequencies below 30kHz was employed to conduct the present remote-sensing survey. In order to detect the greatest number of targets possible, the instrument was turned to its highest sensitivity level, and calibrated to detect all possible metallic elements (all discrimination settings deactivated). This maximizes the probability of false positive detections (detection indication due to device error as a result of soil mineralization or nearby above-ground metallic objects or objects receiving or transmitting electromagnetic radiation by design) but minimizes the probability of failing to detect smaller or more deeply buried metallic objects.

Starting at the far southeast corner of the parcel, alternating east-west, west-east sweeps were made from the south boundary northward. A buffer space of 60.96cm (2 feet) from the perimeter of the parcel boundaries was omitted from the surveyed area as a result of determination of false readings from the detector due to proximity to the galvanized fence enclosing the parcel grounds.

During this survey, particular attention was focused on the areas of the parcel assigned as areas of future development; namely, those areas on the accompanying map showing the locations of proposed structures comprising the Fort Missoula Commons buildings, as well as those areas scheduled for removal of existing trees and planting of new trees.

Finds recorded on the VLF detector were verified via a 7-step repetition test (minimum of 4 positive detections out of 7 sweeps over the area after initial indication of a find). Location of verified finds were marked with survey flags, numbered, and the VDI readings provided by the VLF device were recorded.

After the detection process was completed, the archaeologist worked with a land surveyor to plot the locations of all finds. This resulted in the map included in this report and referenced in the sections below.

Results of Survey

In all, 23 potential finds are recorded. These are indicated on the map and labeled as PF (#). PF numbers range from 4 to 27. PF1 through PF3 are omitted because they were determined to be false positives due to interference from the galvanized fence; PF10 and PF11

are omitted due to verification failure. Table 2 presents these finds, the range of VDI values registered for each find, and the likely composition of each find based on the VDI values registered.

The find on the map labeled “possible post” shows the estimated location of a potential metal post as suggested in a video comprising part of a virtual tour.

TABLE 2

FIND DESIGNATION	VDI VALUES RANGE DETECTED	LIKELY COMPOSITION
PF4	00	Iron
PF5	00-06	Iron
PF6	36-54	Aluminum, Zinc
PF7	00	Iron
PF8	00	Iron
PF9	21-40	Aluminum
PF12	35-38	Aluminum
PF13	00	Iron
PF14	24-28	Aluminum
PF15	00-26	Iron, Aluminum
PF16	20-28	Copper, Aluminum

TABLE 2 (continued)

FIND DESIGNATION	VDI VALUES RANGE DETECTED	LIKELY COMPOSITION
PF17	00	Iron
PF18	41-74	Zinc, Nickel
PF19	00-21	Iron, Aluminum, Bronze
PF20	14-39	Cooper, Aluminum
PF21	92-99	Silver, Brass
PF22	00	Iron
PF23	00	Iron
PF24	00	Iron
PF25	00	Iron
PF26	19-67	Cooper, Aluminum, Zinc, Nickel
PF27	37-48	Aluminum, Zinc
Marker (No	00	Iron

As can be seen in Table 2, the finds recorded on the parcel range in VDI values from 00 to 99. Although the recorded range of VDI values gives an assessment of the likely metallic composition of the finds, the compositions suggested by these values should not be taken as definitive, but rather as what they are—software-generated estimations. However, given the

operating parameters of VLF detectors, the conditions under which the survey was conducted, and historical records of the parcel's occupation, some informed observations can be offered.

First, note that 13 of the 23 finds (57%) lay within areas designated for future development on the parcel (PF9, PF12, PF13, PF15, PF17, PF18, PF19, PF20, PF21, PF22, PF23, PF24, and Marker (No). Of these 13 finds, 8 (62%) are indicated as iron (or highly ferrous) objects, while 5 (38%) are indicated as objects composed of metals of higher conductivity.

The finds numbered PF9, PF15, PF16, PF19, and PF20 in the southwest portion of the parcel were detected in snow-covered ground that reached a maximum of 17cm. Those finds in this grouping with a recorded VDI value range falling above 21 are assessed as non-ferrous (PF9, PF16, PF20) and therefore, given the snow-depth, are highly likely to be not more than ~3cm below ground surface. Finds indicating a VDI value range that overlaps iron and non-ferrous metals (PF15, PF19) are likely to be not more than 28cm below ground surface.

Second, the finds labeled PF22, PF23, and PF24 are candidates for the supportive post bases of the guard tower which was constructed at the time that the fort grounds served as an internment facility during WWII. The location of these finds corresponds to the location of a tower as indicated on the base map of the fort grounds from 1944. However, no tower can be seen in any of the available photographs from this time period.

Third, 10 of the 23 finds (43%) recorded VDI values indicating that the objects detected are potentially composed of aluminum. Most excavated aluminum objects are beverage containers and their pull tabs. Aluminum beverage containers were introduced in the 1960s, and thus are not to be regarded as historical artifacts capable of informing reconstructions of the history of the site before the fort was officially decommissioned.

Archaeological Significance of Recovered Material on the Parcel Grounds

The recovery of artifacts is not the goal of anthropological archaeology. This is not an academic discipline dedicated to the collecting of curiosities to display in museum exhibits. Rather, artifact location and recovery are part of the *methodology* of this science, used to make empirically derived inferences that inform the *reconstruction of past patterns of human behavior*. As has been discussed in the Phase 1 report, intensive and extensive disruption of subsurface soil on the parcel grounds from 1877 to the present as a result of erection and demolition of structures, and the installation of underground utilities, imposes severe limitations on the significance of any recovered artifacts for archaeological reconstructions of the site's history. As a result of this subsurface disruption, soil stratigraphy is not likely to be intact, and any artifact is unlikely to be recovered in its original provenance. Artifacts recovered in disturbed subsurface context cannot provide data useful in formulating a fine-grained temporal sequence of site occupation.

It should be recognized that those areas designated for proposed development are also those areas that have been repeatedly disturbed by sequential installations of various underground utilities as well as construction and demolition of buildings, parking lots, roads, fences, and guard towers. Therefore, any artifacts detected in the present survey and subsequently recovered are of dubious significance for archaeological inference.

Additionally, given the thorough documentation of the history of use of this site in written, photographic, and cartographic media, it is unlikely that the recovery of artifacts which may have been detected in the present survey could make meaningful and substantial

contributions to a greater understanding of the history of site occupation over the past 145 years.

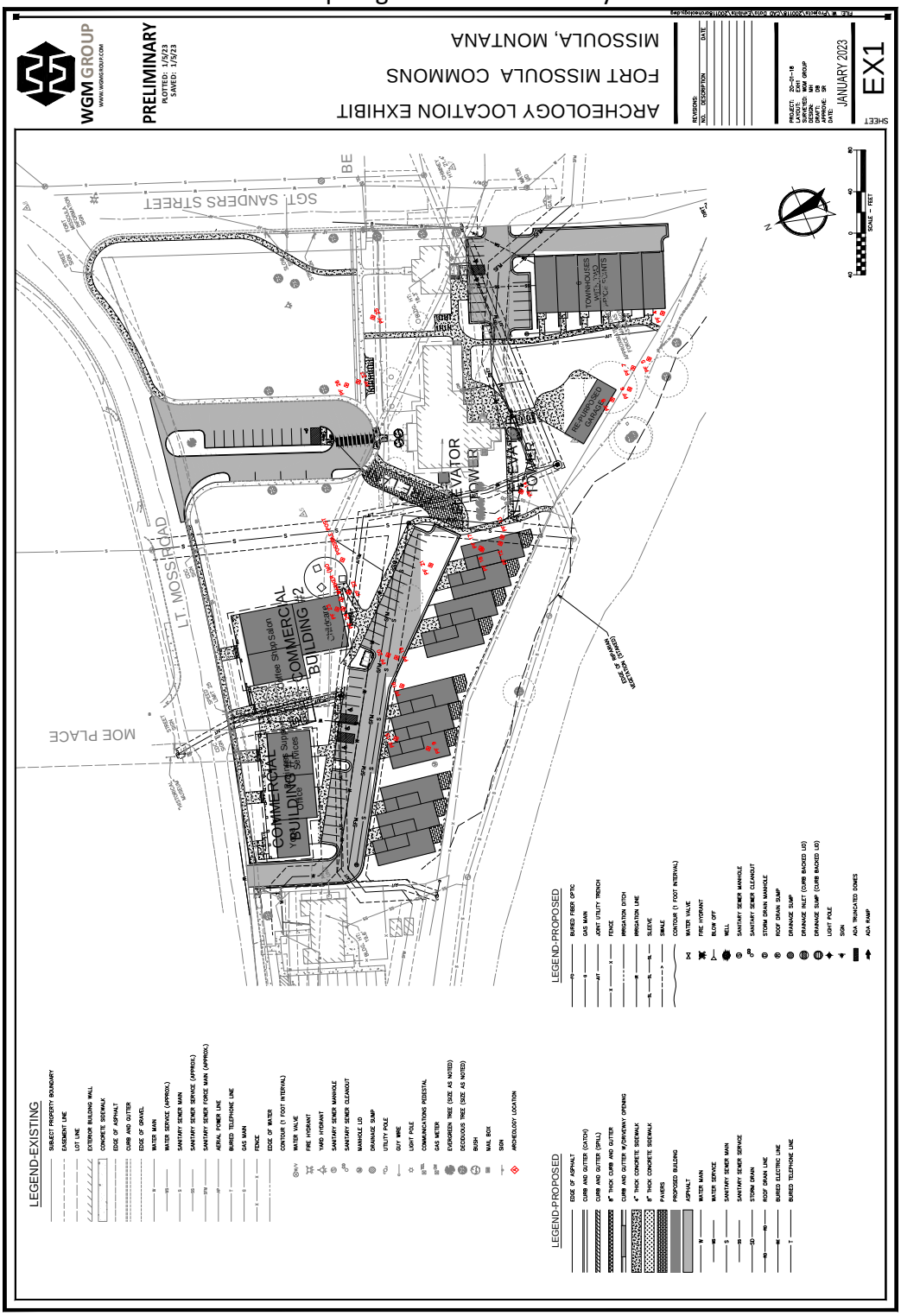
It is recommended that the finds identified in this survey be excavated prior to the commencement of new construction of structures on the parcel in order to recover, catalogue, and analyze any artifacts that may be of historical import and public interest. However, it is determined that the future development of the Fort Missoula Commons project will not compromise the integrity of the parcel's historic significance.

Proposal for Documentation and Curation of Recovered Artifacts

Given existing information on the location of the previously existing guard tower to the west of the Post Hospital, it is possible that PF22, PF23, and/or PF24 could be remnants of supporting bases of this this tower. Therefore, we propose that the staff of the Historical Museum at Fort Missoula submit advice for the curation of these objects. Two alternatives present themselves: 1) These objects can be excavated, identified, and given to the museum; 2) The objects that fall within the boundaries and immediate proximity of the future building—labeled "Commercial Building #2" on the map accompanying this report—can be excavated and displayed on the grounds of Fort Missoula Commons along with an informational placard.

All other artifacts that may be recovered in future excavation will be properly documented and donated to the Historical Museum at Fort Missoula for curation and public education.

Excavation reports will be submitted to the Montana State Historic Preservation Office and Montana Historical Society for entry into the Montana Cultural Resources Database and Geographic Information System, and to the University of Montana Department of Anthropology for documentation in in the Anthropological Curation Facility.





Photograph showing locations of PF4, PF5, and PF7.



Photograph showing locations of PF6, PF7, and PF8.



Photograph showing locations of PF12, PF13, PF17, and PF18.



Photograph showing locations of PF15, PF16, PF19, and PF20.



Photograph showing locations of PF22, PF23, PF24, Marker (No, and Possible Post.



Photograph showing location of PF25.



Photograph showing locations of PF26 and PF27.

EXHIBIT E

LANDSCAPE ARCHITECT REPORT

DVG Architecture and Planning, P.C.
10.14.2022

January 17, 2023

Elizabeth Johnson
Historic Preservation Officer
Development Services
435 Ryman Street
Missoula, MT 59802

Re: Fort Missoula Commons - Existing Trees and Landscaping

Dear Ms. Johnson:

The existing trees on the Fort Missoula Commons site were inventoried and assessed by an ISA Certified Arborist to determine the condition of the trees (see Treasure State Tree Service Assessment and Estimate). This assessment is the basis for determining the proposed action for each tree. The proposed actions include protect and retain (prune as needed), remove for safety, remove, and stump removal and are shown on the Existing Trees Exhibit. The proposed actions are consistent with the recommendations of the arborist, with the exception of the removal of an additional three Douglas Fir (# 37-39 on Existing Trees Exhibit) trees and one lilac (#46 on the Existing Trees Exhibit). These are being proposed for removal to accommodate circulation and connectivity throughout the site.

The proposed actions for the existing trees are recommended to improve the overall health of the vegetation and to minimize safety risks on the site. This includes removing dead and diseased trees and replacing the trees with a larger variety of tree species to minimize susceptibility to a disease and increase the age diversity of the trees. The diversity of age and species helps to provide a tree canopy that is resilient and reduces the risk of a large loss of trees at generally the same time. Of the 100 trees on site, 57 of the trees are Siberian elms which is not in compliance with the recommended urban forest species composition.

The 2015 City of Missoula, Montana Urban Forest Master Management Plan explains the importance of species diversity, “First and foremost, species diversity reduces the likelihood of a serious disease or insect pest decimating the urban forest. Dutch elm disease in the 1960s and emerald ash borer in the 2000s are two examples of introduced host specific pests that decimated urban forests across the country. To minimize the risk, the recommended urban forest species composition is no more than 10 percent of one species, 20 percent of one genus and no more than 30 percent of one family.”

The Urban Forest Master Management Plan also explains the importance of age diversity in trees, “Clusters of even-aged trees are particularly evident in areas such as the University District and new developments. An ideal forest structure would contain trees evenly distributed across all size classes. Similar to species diversity, age diversity is important because it promotes urban forest stand stability, resistance to biotic and abiotic disturbances and resilience

after a disturbance. This diversity reduces the likelihood of losing even-aged trees in a short time period."

To promote the age diversity of trees, the removal of trees is proposed to be completed in stages. The first stage will remove trees that pose a safety risk. Other trees will be removed in phases to match the phased construction of the site. The trees will also be replaced in phases as construction is completed.

The landscaping proposed for the Fort Missoula Commons site is intended to provide visual continuity within the larger context of Fort Missoula. This includes providing street trees at regular intervals for a consistent pattern along the streets as well as a strong alignment of elements. Additionally, foundation plantings will be provided at the base of buildings that include shrubs and perennials utilizing species found throughout Fort Missoula. These plantings will ground the buildings as well as provide continuity in the relationship of the raised front porches to the street. Please see the Schematic Landscape Plan and the Plant Palette Exhibit providing imagery of trees, shrubs, perennials, and grasses recommended for the site.

Open space has been preserved from the street to the Old Post Hospital maintaining the existing pattern and view corridors to the Hospital. Additional view corridors from the street to the south have been preserved. These open space areas will serve as the activity area, or common recreation area, required by zoning.

To provide a transition from the riparian area south of the property, native plants are being proposed along the southern property boundary. The native plants will protect the adjacent bank and enhance the existing vegetation and wildlife corridor.

Proposed site materials are simple and functional to be consistent with the character of the Fort. This includes site furniture such as bike racks, benches, and bear-proof trash receptacles, split-rail fencing, and concrete. The fence is intended to deter people from walking onto adjacent property, but it will still allow for visual access. Please see the Site Materials Exhibit for example imagery of the proposed materials.

For the fire lane, concrete turf pavers are proposed. The fire lane provides emergency access to the site while limiting vehicular traffic next to the Old Post Hospital. The concrete grass pavers will minimize the visual impact of the fire lane while providing an appropriate surface for emergency services vehicles.

Concrete pavers are proposed for the residential patios. This material will not be visible from the streets and is primarily provided along the southern property line. The pavers are a permeable surface that allow for storm water infiltration on site. Additionally, a swale will be provided along the southern property line to minimize storm water runoff onto the adjacent bank.

On the Schematic Landscape Plan, a summary of the landscaping zoning requirements is provided. The project as proposed meets the landscaping zoning requirements except for the street frontage landscaping. Shrubs are not provided within the street frontage area but are instead provided at the base of the buildings to match the historic character. 20.65.030.B.1 allows for an exception to the street frontage landscaping to be consistent with the historic character or alternative compliance may be used to address the street frontage landscaping.

Sincerely,
WGM Group, Inc.



Kate Dinsmore
Professional Landscape Architect, SITES AP

KD:mfp

EXHIBIT F

ARBORIST ASSESSMENT

DVG Architecture and Planning, P.C.
10.14.2022

6/27/2022

Kate,

I completed a detailed walk through of the Fort Missoula Hospital and assessed all of the trees on the property. I gave each tree an ID number, identified the species, gave it a rating on a scale of 0-5, 0 being dead, 5 being in "great" condition and took notes on crown defects, indications of decay, and other factors that may contribute to the tree being viable or if it should be removed prior to construction.

Major defects resulting in a recommendation for tree removal include: major canopy dieback (30% or more), slime flux discharge, visible cavities, included bark or large cracks at major branch unions, major crown leans, large previous old breaks or damage to the trunk or main branches. Disturbance to root structures on existing trees due to previous adjacent tree uproot may also be cause to remove trees due to possible hazardous conditions.

All tree removal and pruning shall be done to ANSI A300 standards. "Removed" trees should be cut down to stumps and the stumps ground down several inches below grade and the sites leveled to grade for new landscape. "Pruned" trees shall follow strict pruning parameters, raise crowns to clear structures, sidewalks. roadways, mower height, etc., deadwood canopy to 1", thin live canopy no more than 25%, remove broken and otherwise potentially hazardous limbs. "Stump grinding" includes grinding newly cut or existing stumps 12" below ground level, grinding visible surface roots below grade, and scraping site level to grade.

"Tree protection during construction" shall be done to ANSI A300 standards including erection of protective fencing at or as close to the drip line as possible of trees to be preserved, mulching as needed, and supplemental irrigation as needed for the duration of the construction project. A qualified arborist should be contracted to oversee tree protection for the duration of the construction project to ensure that the tree protection standards are being adhered to and submitting a follow up assessment after the project has been completed.

Please see attached map for reference with tree ID number.

- 1-22: Siberian elms, all trees scored 0-3, most trees had major dieback or major crown defects, trees are of no historical significance and can/should be removed.
- 23: Siberian elm, 2, evidence of major decay at main crotch, should be removed.
- 24: Siberian elm, 1, dead/dying, should be removed.
- 25: Siberian elm, 0, dead, should be removed.
- 26: Siberian elm, 4, some dieback in the crown, should be pruned and protected during construction.
- 27. Existing stump.
- 28. Siberian elm, 4, some dieback in the crown, should be pruned and protected during construction.
- 29. Colorado blue spruce, 2, heavy crown lean, used to have another spruce next to it of similar size which more than likely fell during wind event, high likelihood of compromised root system, should be removed as it poses a hazard.
- 30. Boxelder, 1, dead/dying, should be removed.
- 31. Spruce, 1, dead/dying, should be removed.
- 32-36: Spruces, 1, dead/dying, should be removed.
- 37-43. Doug firs, all trees scored 3-4, should be pruned and protected during construction.

- 44. Spruce, 2, leaning into existing hospital structure, should be removed to prevent future damage.
- 45-48: Common lilacs, 4, should be pruned and protected during construction.
- 49-50: Arborvitaes: 2, planted too close to existing structure, should be removed to prevent future damage.
- 51: Spruce: 3, heavy lean into adjacent Siberian elm, should be removed to promote health of viable Siberian elm.
- 52: Siberian elm, 4, should be pruned and protected during construction.
- 53: Siberian elm, 2, dead/dying, should be removed.
- 54: Siberian elm, 4, should be pruned and protected during construction.
- 55: Siberian elm, 2, dead/dying, should be removed.
- 56-57: Existing stumps.
- 58: Spruce, 4, individual tree, good growth habit, should be pruned and protected during construction.
- 59-71: Siberian elms, 0-2, trees are either dead/dying or have major defect and evidence of rot, should be removed.
- 72-74: Spruce trees in clump, 2, evidence of other spruce trees that likely fell during wind events, high likelihood of compromised root systems, should be removed because they are potentially hazardous.
- 75-76: Existing stumps.
- 77-78: Norway maples, 4, should be pruned and protected during construction.
- 79-84: Siberian elms, 0-3 trees are either dead/dying or have major defects and evidence of rot, should be removed.
- 85: Boxelder, 1 dead/dying, should be removed.
- 86: Common lilac, 4, should be pruned and protected during construction.
- 87: Norway maple, 5, 6-10 years old, should be pruned and protected during construction.
- 88-89: Flowering plums, 5, 6-10 years old, should be pruned and protected during construction.
- 90-91: Norway maples, 5, 10-15 years old, should be pruned and protected during construction.
- 92-96: Siberian elms, 1-3, trees are either dead/dying or have major defects and evidence of rot, should be removed.
- 97: Existing stump,
- 98: Rocky mountain juniper, 1, dead dying, should be removed.
- 99: Siberian elm, 2, major defects and evidence of rot, should be removed.
- 100: Boxelder, 3 major dieback and evidence of rot, should be removed.

Please feel free to contact me with any questions.

Malcolm Miller
Superintendent, Treasure State Tree Service, Inc.
ISA Certified Arborist RM-7532A
AAS Urban Forest Management
1916 South 3rd Street West
Missoula, MT 59801
(406) 240-4095 Office
(406) 493-4709 Cell
malcolm@treasurestatetree.co

ESTIMATE

SETTING THE STANDARD SINCE 1988

Date: June 27, 2022
W.O. # 0000

Job: Fort Missoula Hospital tree removals, stump grinding, tree pruning. All prices include complete clean up.

To:
Kate Dinsmore
WGM Group
kdinsmore@wgmgroup.com
1111 East Broadway
Missoula, MT 59802
(406)531-4735
Customer ID 0000000

Quantity	Description	Unit Price	Line Total
22	Remove small/medium Siberian elms #1-22 and grind stumps.	$600.00/ea	$13,200.00
3	Remove medium/large Siberian elms #23-25 and grind stumps,	$1,000.00/ea	$3,000.00
1	Prune large medium/large Siberian elm #26.	$400.00/ea	$400.00
1	Grind existing stump #27.	$200.00	$200.00
1	Prune medium/large Siberian elm #28.	$500.00	$500.00
1	Remove large spruce #29 and grind stump.	$2,100.00	$2,100.00
1	Remove boxelder #30 and grind stump.	$1,200.00	$1,200.00
6	Remove medium spruces #31-#36 and grind stump.	$800.00/ea	$4,800.00
7	Prune large doug fir trees #37-#43.	$300.00/ea	$2,100.00
1	Remove spruce #44 and grind stump.	$800.00	$800.00
4	Prune lilacs #45-48.	$200.00/ea	$800.00
2	Remove arborvitaes #49-#50.	$600.00/ea	$1,200.00
1	Remove spruce #51 and grind stump.	$1,650.00	$1,650.00
1	Prune large Siberian elm #52.	$500.00	$500.00
1	Remove Siberian elm #53 and grind stump.	$1,000.00	$1,000.00
1	Prune large Siberian elm #54.	$550.00	$550.00
1	Remove Siberian elm #55 and grind stump	$1,000.00	$1,000.00
2	Grind 2 existing stumps #56, #57.	$300.00/ea	$600.00
1	Prune large spruce #58.	$450.00	$450.00
8	Remove medium large Siberian elms #59-66 and grind stumps.	$1,000.00/ea	$8,000.00
5	Remove large Siberian elms #67-71 and grind stumps.	$1,800.00/ea	$9,000.00
3	Remove large spruces #72-74 and grind stumps.	$1,700.00/ea	$5,100.00
2	Grind existing stumps #75 and #76.	$400.00/ea	$800.00
2	Prune 2 large Norway maples #77 and #78.	$500.00/ea	$1,000.00
6	Remove large Siberian elms #79-84 and grind stumps.	$1,400.00/ea	$8,400.00
1	Remove large boxelder #85 and grind stump.	$1,400.00	$1,400.00
1	Prune #86 lilac	$100.00	$100.00

5	Prune #87-91 young maples, flowering plums.	$100.00/ea	$500.00
5	Remove Siberian elms #92-96 and grind stumps,	$1,400.00/ea	$7,000.00
1	Grind existing stump #97.	$300.00	$300.00
1	Remove rocky mountain juniper #98 and grind stump.	$700.00	$700.00
1	Remove Siberian elm #99 and grind stump.	$1,100.00	$1,100.00
1	Remove boxelder #!00 and grind stump.	$1,100.00	$1,100.00
		Subtotal	$68,650.00
		Discounts	
		Total	$68,650.00

Payment is due at time of completion. If billing arrangements are made, payment is due within five (5) days of billing. Estimate valid for 30 days. Subject to change due to undetected material in the tree. We may be forced to leave a high stump or additional fee may be charged on tree removals. Estimate is cash price. Transaction fee may be charged on credit cards.

EXHIBIT G

CONTACTS/CIRRICULA VITARUM

North of the Border, LLC – Ken Wolf & Max Wolf
Historic Building Adaptive Reuse Background and Experience

North Of The Border, LLC ("NOB") is a family investment entity whose members include Ken Wolf and his son, Max Wolf. NOB has been renovating, for a variety of uses, old buildings that are either on the national registry of historic places with the US National Park Service or State of Colorado registered buildings located within a local historic district. Thriving off the challenges presented when trying to maintain the historic nature and character of these buildings, while changing its use, NOB has established a track record of successful projects that resonate with the communities they are located within and a base of creative and energized tenants who appreciate saving these pieces of history.

In the early 90's NOB started buying buildings in Denver that had some historic significance and architectural interest. After accomplishing several great projects in Denver, NOB has branched out to Kansas City, Missouri, where NOB found several gems in the historic Crossroads Art District and Missoula, Montana where Max Wolf lives. While NOB has extensive redevelopment experience across multiple property types, below is a list of completed projects[1] that involved historic structures and districts:

2601 Blake St. **Denver, CO**	Description:	35,000 square foot, multi-story manufacturing and office building originally constructed in 1909.
	Scope:	Exterior renovation of a dilapidated structure, restoring brick, replacing windows, and other building system infrastructure. Interior tenant finish renovations for each tenant.
	Final Uses:	Office, light manufacturing, and showroom.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
2601 Walnut St. **Denver, CO**	Description:	25,000 square foot, two-story manufacturing and warehouse building originally constructed in 1948.
	Scope:	Exterior renovation of a dilapidated structure, restoring brick, replacing windows, new roof, creation of new tenant entries executed to respect the historic façade and receive Landmark Commission approval. Interior tenant finish renovations for each tenant.
	Final Uses:	Restaurant, bar, art gallery, retail, and light manufacturing.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
US Army – Denver Medical Depot **3821-3893 Steele St.** **Denver, CO**	Description:	480,000 square feet comprised of eleven (11) brick and timber warehouse buildings originally construction in 1942 by the US Army Corps of Engineers for use by the United States Army as a medical supply depot and associated office spaces.

	Scope:	Complete restoration of the exterior of each building including new windows, new roofs and brick restoration. To accommodate demising into smaller tenant spaces, new openings for entrances and garage doors were installed to make the buildings, formerly served by rail, usable for today's businesses.
	Final Uses:	Office, showroom, brewery, restaurants, creative manufacturing, and warehouse.
	Historic Significance:	The US Army Denver Medical Depot is listed on the National Register of Historic Places as governed by the National Parks Service and is further protected by The State of Colorado Historic Preservation Office, The Colorado Historical Society, and the Denver Landmark Commission.
2636-44 Walnut St. Denver, CO	Description:	A 12,500 square foot, brick and timber warehouse building originally construction in 1931.
	Scope:	Exterior renovation of a dilapidated structure, restoring brick, replacing windows, and other building system infrastructure. Interior tenant finish renovations for each tenant.
	Final Uses:	Art gallery, fitness studio, hair salon, and elixir bar.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
The Casselman's Building 2620 Walnut St Denver, CO	Description:	A 12,500 square foot, brick and timber, bow truss barrel roof, warehouse building with dock high loading across the front street facing façade. Originally construction in 1946.
	Scope:	Exterior renovation working within the existing openings to create a historically representative façade but usable for the new brewery use that would ultimately move in. Interior renovations involved a complete demolition of the interior returning the building to its original structure and rebuilding it for 10 Barrell Brewing Company.
	Final Uses:	Brewery, retail, and restaurant.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
H.H. Tammen Building 2669 Larimer St. Denver, CO	Description:	25,000 square foot historic retail and curiosity shop building construction in 1928 by H.H. Tammen for the sale and production of his old west souvenirs and curiosities. Later uses include a car dealership, office spaces, residential and an architectural salvage warehouse.
	Scope:	Exterior renovation of a dilapidated structure, restoring brick, replacing windows, new roof, and other building system infrastructure. Interior tenant finish renovations for each tenant.

	Final Uses:	Gourmet market and food hall (Denver Central Market), office space, custom jewelry manufacturing and sales, jazz super club and wine bar.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
Studio Como **2535 Walnut St.** **Denver, CO**	Description:	A 25,000 square foot, two-story, brick, manufacturing and storage building originally constructed in 1957. At the time of acquisition, the property was being used to store legal files for a local law firm.
	Scope:	Exterior renovation of the existing brick, replication of historic windows and incorporating two new entrances to accommodate a high-end retail furniture showroom and several small office/showroom suites for design related uses. Interior renovations involved a complete demolition of the interior finishes to expose the historic structure.
	Final Uses:	Retail, showroom and office.
	Historic Significance:	This building is located within the Ballpark Neighborhood Historic District of Denver, Colorado and considered a contributing building to the district. As a contributing building, it falls under the purview of Denver's Landmark Preservation Commission.
Empire Lounge **816 Main St** **Louisville, CO**	Description:	A 5,000 square foot historic main street building located originally constructed in the early 1900's and renovated in 1950. The current use of the property is a restaurant with a vintage neon sign dating back to the 1950 renovation.
	Scope:	Exterior restoration and interior restoration of the old west wooden bar and interior details.
	Final Uses:	Restaurant
	Historic Significance:	This building is located within the downtown Louisville Historic District of Louisville, Colorado and is considered a contributing building to the district. As a contributing building, it falls under the purview of Louisville's Historic Preservation Commission.

[1] *Other significant projects that are historic but currently under renovation are (i) Broadway Bank Building - 2045 Broadway & 335-337 SW Blvd, Kansas City, MO, (ii) Screenland Building - 1656 Washington St., Kansas City, MO, (iii) The Belfry Building - 1530-1532 Grand Blvd., Kansas City, MO, (iv) West Bottoms Building - 1413 W 11th St., Kansas City, MO, and (v) Fort Missoula – 3255 Lt Moss Rd., Missoula MT.*

Jim Pelger bio.:

- **Partner in development team: Originally from PA, but has lived in Mssoula for 26 years**
- Married to Erin Pelger, a real estate broker, with four kids with deep ties in the community
- **Involved in construction and development for over 35 years**
- **Specializing in adaptive reuse of blighted and historic buildings and sites**
- **Emphasis on repurposed materials and green building practices**
- **Licensed & bonded as a general, electrical, mechanical, and utility contractor**
- **Established and managed condominium and homeowner's associations for over 20 years**
  - **Past projects:**

1) **Regent Place mixed use development – we adapted a blighted 1960's single story office building into a mix of office and residential condominium spaces. We have maintained majority ownership in the project and have managed the association for over 17 years**
2) **The Factory mixed use development – we adapted a 1940's dental tool factory into a mix of residential and commercial condominium spaces. We were able to deconstruct the existing structure and repurpose a high percentage of materials into the final design of the building**
3) **Hellgate Elks building redevelopment – we partnered with the Hellgate Elks organization to redevelopment and reconstruct the second and third floors of their turn-of-the-century historic registered building into living spaces**
4) **Lincoln School development – complete redevelopment of a 1914 blighted schoolhouse into four living spaces. Blended new function while maintaining the historic character of the building. Winner of the 2018 historic preservation award for this project**

  - **Current projects:**

1) **Basecamp development – adapted a blighted nursing home and site into 15 living structures using infill strategies. Completion scheduled for early 2023**
2) **1500 S Russell Missoula – adapting the former Diamond Bar meats building into a new retail space. We are incorporating the mid century Circle K convenience store design style into the new space**
3) **Midtown Apartments Missoula – deconstructing a blighted residence in midtown Missoula and replacing it with a 25 unit, high density work-live building**
4) **Alberton railroad workers cabin – deconstruct and complete remodel of a 1914 railroad worker's cabin. Incorporating many original design elements into a modern living space**
5) **Twin Creek subdivision – phase 2 and 3 of the Twin Creek subdivision in Stevensvile, Mt. 49 mid-range residences built within the town limits and utilizing existing town infrastructure**

FIRM BACKGROUND



DVG Architecture and Planning was formed in 2013 in Missoula, Montana. The goal is to provide high quality, environmentally responsible, innovative architectural design and planning services at a reasonable cost. **David V. Gray LEED Green Associate**, the Principal Architect and leads a team of creative and experienced professionals and consultants. David, a Montana native, has a commitment to helping maintain the highest quality of life in this great state by looking forward to positive, well-planned growth and change in our communities.

This firm provides a unique combination of architectural design and construction related services including: Green Building Consultation, land-use analysis, conventional architectural services, 3D modeling, and project management. David has the diverse experience required to make projects into reality, with dedication from the beginning. DVG Architecture and Plannings goal is to provide each client with the personal attention necessary to provide a quality product.

Due to the variety of clients needs the firm has experience on a wide range of projects from single-family homes, multifamily residential, schools, office, Grandstands, industrial facilities, historic preservation, historic reconstruction, Breweries, distilleries and medical facilities. The firm works for private individuals, state and local governments, school districts, non-profit organizations and where our services are required.

A commitment to a strong and positive dialogue with our clients ensures good communication and a solid understanding of the specific needs at all phases of the project. The design process is successful only if the end result is completely satisfying to the Owner and users.

Much of the firms work is the result of satisfied repeat clients returning for high quality, professional services provided on time and on budget.

CAPABILITIES and EQUIPMENT



Firm Location:

DVG Architecture and Planning
111 North Higgins Ave Suite 420
Missoula, Montana 59802
Phone: (406) 241-7707
E-mail General: admin@dvgarchitects.com
E-mail Direct: david@dvgarchitects.com
Website: www.dvgarchitects.com

Firm Capabilities:

Project/Site Feasibility Studies
Spatial Programming
Schematic Design & Design Development
ADA and FHA Barrier Surveys
Field Surveys and Facility Analysis
Construction Drawings & Specifications
Construction & Project Cost Estimating
Contract Bidding or Negotiation
Construction Administration
Green Construction Consultation
BIM – Building Information Modelling

Presentation Capabilities:

3D Computer Modeling & Rendering
CAD rendering and drafting
Presentation quality architectural models
Study/design development models
Color printing
3D printing

Insurance:

DVG Architecture and Planning P.C. carries full Errors and Omissions insurance coverage. Policy specifics are available upon request.

PRINCIPALS and STAFF



David V. Gray, Architect LEED Green Associate
Principal, DVG Architecture and Planning. Missoula, MT
Licensed Architect, Montana
Graduate, Montana State University School of Architecture
Principal in charge of design and financial affairs
Architect involved in all aspects of projects

Kelly Kinney
Office Administrator

AWARDS and PUBLICATIONS

Historic Preservation Award – Lincoln School Adaptive Reuse 2018
Historic Preservation Award – Montgomery Distillery 2012
Historic Preservation Award – The Pepper Pot 2010
Historic Preservation Award – Scott Residence 2009
Historic Preservation Award – The LaFlesch Building 2007
Historic Preservation Award – Trask Apartments. 2005

Big Sky Journal HOME 2012 – Volume XVIII No. 4 – "Modern Vision"

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EXHIBIT H

NATIONAL REGISTER NOMINATION FORM

NPS Form 10-900
(3-82)

OMB No. 1024-0018
Expires 10-31-87

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received 3/17/87
date entered APR 29 1987

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

1. Name

historic Fort Missoula Historic District

and/or common Fort Missoula

2. Location

street & number Reserve St. and South Ave. n/a not for publication

city, town Missoula n/a vicinity of

state Montana code 030 county Missoula County code ~~062~~ 063

3. Classification

Category	Ownership	Status	Present Use	
X district	X public	X occupied	___ agriculture	X museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	X yes: restricted	X government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	___ transportation
	n/a	___ no	X military	___ other:

4. Owner of Property

name Multiple, see continuation sheet

street & number

city, town ___ vicinity of state

5. Location of Legal Description

courthouse, registry of deeds, etc. Missoula County Courthouse

street & number 200 West Broadway

city, town Missoula state Montana

6. Representation in Existing Surveys

title Fort Missoula Survey has this property been determined eligible? X yes ___ no

date 1983-1984 ___ federal ___ state ___ county X local

depository for survey records Montana State Historic Preservation Office

city, town Helena state Montana

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	_X_ unaltered	_X_ original site
_X_ good	___ ruins	_X_ altered	___ moved date n/a
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Fort Missoula Historic District clearly represents five relatively distinct periods of construction. The first four periods of development are associated with the actual operation of the military Fort and the fifth period reflects new infill construction after parcels of land were leased or sold by the Department of the Army to other entities. The five periods of building activity of Fort Missoula are listed below:

1. ORIGINAL FORT MISSOULA 1877-1900
2. FORT RECONSTRUCTION 1900-1912
3. CIVILIAN CONSERVATION CORPS 1933-1941
4. WORLD WAR II PRISON CAMP 1941-1944
5. CONTEMPORARY DEVELOPMENT 1970-PRESENT

The district retains a high degree of historic architectural integrity. Although modern development has occurred on three sides of the present Fort complex, the cluster of historic Fort buildings, roadways, cemetery, and the two separate parade grounds remain intact and accurately convey the historical development of the military post during the historic period from 1877-1944.

The original entrance to Fort Missoula is marked by two stone pylons, which were constructed by the Civilian Conservation Corps in 1935, at the intersection of South Avenue and Reserve Street in Missoula, Montana. A road running diagonally to the southwest and lined with trees leads to the main Fort complex. Although the roadway is still in place, the original entrance is blocked due to the increased traffic on Reserve Street. The boundary for the Fort Missoula Historic District encompasses a strip of land along the original entrance road, the whole of the built Fort complex that exists today, which represents each of the five major periods of Fort development, and the discontiguous Fort cemetery, which is located to the north of the Fort complex. Much of the land of the original Fort has been leased or sold by the Department of the Army to other agencies and individuals. The new structures have been developed along the original entrance roadway leading to the historic district are excluded from this submission. The building numbers in parentheses in the text reference standing structures with corresponding numbers on the site map.

ORIGINAL FORT MISSOULA

The original Fort Missoula consisted of log and frame structures built around the parade ground that is marked on the accompanying site map as the "recreation field", with the Officers' Quarters of frame construction to the north and the barracks and Laundress' Quarters of log construction to the east and west. The logs came from the Fort Missoula Military Timber Reservation in Pattee Canyon and the frame structures were built from materials cut at the Fort's sawmill. The Officers' Row houses had an appearance of Colonial Revival styling and featured one and one-half story front sections and a one-story back sections, forming a T-shaped plan with central access. The structures had large, gable roofs with dormers on the front. The walls typically had wood lap siding and the roofs were covered with wood shingles.

Few of the structures dating from the earliest period of the Fort's history remain today. The Laundress' Quarters and a few of the barracks buildings were

destroyed by fire during the early 20th Century. Most of the original Fort buildings that surrounded the original parade ground remained standing at the time of the Army's abandonment of the property in 1948. During the 1960's, the General Services Administration undertook a program of systematic removal of the earliest Fort structures. However, numerous foundations remain to clearly depict the functional relationship and the original lay-out of the early Fort buildings. The building that served as the Non-Commissioned Officers' Quarters (#201) stands today at the northwest corner of the original parade ground. Its associated carriage house (#202) has been recently restored to its original location adjacent to the NCO Quarters. The only other original structure dating from this period is the stone powder magazine (#334) that sits to the west of the parade ground near the Clark Fork River.

FORT RECONSTRUCTION

During the second period of Fort construction, from 1900-1912, buildings designed in the Mission style of architecture were most commonly built. Reinforced concrete was used as the major building material. These structures were built to the east of the original Fort and were part of the reconstruction and reorientation of the Fort around a new parade ground. Color and texture are provided in the broad red-tiled hipped roofs of the buildings of this period. Roof eaves with exposed rafters extend well beyond the walls of many of the buildings. On some buildings, the plain wall surfaces continue upward forming stepped parapets. Minimal surface ornamentation was used, consisting primarily of plain string courses that outline gables, balconies, and windows. This style is seen in the Post Hospital (#9), Officers' Row (#27-#33), the barracks buildings (#24, #26), the Quartermaster's stables (#142), and the new Post Headquarters (#2). Other structures constructed during this period are the Quartermaster's root cellar (#323), the water tower, the Post Bakery (#105), and two Non-Commissioned Officers' quarters (#14, #16). These structures retain excellent historic architectural integrity and form the basis for the military Fort as it is seen today.

CIVILIAN CONSERVATION CORPS

The third period of development came between 1933 and 1941 when the Fort became the western Montana headquarters for the Civilian Conservation Corps. The architecture of this period reflects function more than any particular style. A series of barracks (#12, #314), an administrative building (#316), and numerous warehouses (#203, #312) and shop buildings (#327, #328) that served the area's CCC camps and were built during this period. These buildings were later utilized by the National Guard. The buildings were simple frame structures with wood lap siding and wood shingle roofs. Members of the CCC crews also constructed a monument and two stone pylons at the entrance to the Fort at Reserve Street that are still in existence today. Because the Fort was a fully developed but chronically under-utilized facility in 1933 when it became the CCC regional headquarters, very little new construction was required.

INTERNMENT CAMP

The fourth period of development was during World War II when prison facilities were built to house Italian nationals and later expanded to include an internment

camp for Japanese-Americans. The internment camp buildings were simple wood frame structures with lap siding, gable roofs, and set on concrete pads. All of the internment camp buildings were systematically dismantled shortly after the war. Still visible today are the remains of the concrete pad foundations and depressions that clearly outline the placement of the two rows of closely built barracks. Two of the original frame guard towers are part of the Fort Missoula Historical Museum collection and will be restored to their original location in the future.

Immediately after the close of the war, the Fort was used as a medium security army prison camp. In 1946, two additional flat roofed cell blocks (#156, #157), built of concrete block, were constructed to house American army prisoners, i.e. American soldiers convicted of criminal activity. These two cell blocks and the 1946 Provost Marshall's Office (#63) remain at the Fort and do not contribute to an understanding of the historical development of the complex.

MODERN DEVELOPMENT

The fifth period of development at the Fort Missoula property may be broken down into two phases. The first consists of contemporary structures that were built on lands sold to private or public groups, i.e. the Community Hospital, Missoula County, and private developers. These structures are primarily located on properties near Reserve Street and South Avenue, and encroach upon the original entrance road. The new structures by and large are not designed in a fashion that achieves compatibility with the overall scale and massing of the structures within the original Fort. Because they are located at some distance from the Fort structures, however, these newer buildings do not seriously undermine the visual integrity of the original Fort complex. Previously undeveloped areas immediately surrounding the Fort have been made into recreation areas, i.e. golf course, soccer fields, etc. The boundary for the Fort Missoula Historic District is drawn so as to exclude all of these new developments from the nomination.

The Bureau of Land Management recently constructed a building within the boundaries of the historic district located near the fire station/guard house (#46) at the back end of Officers' Row. Careful attention was given to the design of this building so as to minimize its impact upon the architectural integrity of the historic district. The BLM office building keeps the appearance of the Mission style of architecture. Even though the building is only one story, the white, stucco wall material and red tile, hipped roof tie in with the Fort structures and lend the building a fair degree of compatibility.

Another aspect of development that occurred within the original Fort area was the importation of several historic buildings at the northwestern end of the complex by the Historical Museum at Fort Missoula. These structures do not relate to the history of the Fort, but, due to their placement away from the present parade ground, they do not interfere in any important way with the interpretation of the various periods of Fort Missoula's history.

The Fort Missoula Historic District is composed of 32 contributing structures, a post cemetery, two historic parade grounds, and two groupings of foundations (those of the 19th Century Officers' Row and those of the World War II internment camp barracks) that date from the district's period of significance from 1877-1944 and are directly associated with the historical development of the Fort. Twelve non-contributing newer buildings exist within the historic district boundaries. Fourteen other non-contributing structures and two sentry boxes which are associated with the Fort Missoula Historical Museum's artifact collection, are located at the northwestern corner of the district.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	X architecture	___ education	___ military	X social/ humanitarian	
___ 1700–1799	___ art	___ engineering	___ music	___ theater	
X 1800–1899	X commerce	___ exploration/settlement	___ philosophy	___ transportation	
X 1900–	___ communications	___ industry	X politics/government	___ other (specify)	
		___ invention			

Specific dates 1877-1944 **Builder/Architect** multiple

Statement of Significance (in one paragraph)

Fort Missoula, the only permanent military post in Montana west of the Continental Divide, was established in June, 1877. The strategic intent of the choice of the Fort location was for greater military control of the Indian tribes of western Montana and to assure the protection of white settlers from hostile Indian attack. By 1877, however, reservation lands had been established in western Montana and few major uprisings occurred which involved the soldiers. Fort Missoula's significance rests less with its direct military role in quelling uprisings and more with the sequence of non-combative military uses of the property by the federal government and the consistent contribution Fort personnel have made to local economic development. Through the years, Fort Missoula has been used as the headquarters for the Black 25th Infantry Regiment, the place from where the potential military applications of the bicycle were explored, a government training school for skilled mechanics to aid in the World War I effort, the largest Civilian Conservation Corps Headquarters in the United States during the 1930's, a detention camp for Italian artists and seaman as well as Japanese-Americans during World War II, and, for a short time following World War II, Fort Missoula became a medium security prison camp for American soldiers. Fort Missoula was chosen by the Federal government to fulfill these various functions because it was an extant and chronically under-utilized military facility and due to its remote siting in western Montana. The one-hundred year history of Fort Missoula may be read in the buildings and structures that survive today as well as in the evidences of previous structures whose foundation remains clearly demonstrate previous use, spacing, lay-out, and functional relationships.

Due in large measure to the lack of a compelling military need for Fort Missoula, the Fort was plagued by recurrent threats of closure by the Army. However, Missoula business people were well aware that the presence of the Fort contributed significantly to the local economy and they worked hard to maintain the Fort's existence. Through the effective lobbying efforts of U.S. Senator Joseph Dixon from Missoula during the first years of the 20th Century, Congressional appropriations were secured for the complete reconstruction of the Fort in 1904, although no discernible military purpose for the complex had been identified. With its collection of substantial, well designed new buildings, Fort Missoula continued to flounder through the 19'teens and 1920's, until its most active period of use began with the establishment of the Fort as the Rocky Mountain Regional Civilian Conservation Corps administrative center from 1933-1942.

Fort Missoula was the largest CCC headquarters in the United States and the buildings and structures associated with CCC use of the property gain exceptional significance due to their association with this highly successful work program for young men during the depression years. The program contributed significantly to the general economic recovery of not only the city of Missoula but the Montana-Idaho-Wyoming region, an area characterized by sparce population, heavy timber, and extensive grasslands. The CCC is known in the West as the most

9. Major Bibliographical References

see continuation sheet

10. Geographical Data

Acreage of nominated property approx. 170

Quadrangle name NW Missoula **Quadrangle scale** 1:24000

UTM References

	Zone	Easting	Northing		Zone	Easting	Northing
A	11	725760	5192400	B	11	374880	5191220
C	11	724500	5191050	D	11	723840	5191520
E	11	723780	5191940	F	11	724750	5191890
G	11	724380	5192140	H			

Verbal boundary description and justification

see continuation sheet

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

state	n/a	**code**	**county**	**code**
state		**code**	**county**	**code**

11. Form Prepared By

name/title James R. McDonald, P.C. and Patricia Bick, Deputy SHPO

organization Montana State Historic Preservation Office **date** August, 1986

street & number 104 Broadway **telephone** 406-444-7715

city or town Helena **state** Montana

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___X___ state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature Marcella Sheehy

title SHPO **date** March 11, 1987

For NPS use only

I hereby certify that this property is included in the National Register

Keeper of the National Register **date** 4/29/87

Attest: **date**

Chief of Registration

GPO 911-399

popular of the New Deal programs. In addition to providing employment for thousands of young men during the Depression era, the CCC program resulted in a wide variety of significant improvements to the environment, including land reclamation and water development projects, fencing, road building, bridge construction, fire control and improvements to the state and national parks of the Rocky Mountain region. Strong community interest in having a CCC camp located nearby is evidenced by the fact that the program directors at Fort Missoula were careful to achieve a wide geographical distribution of the camps so that the benefits of the program would be shared equitably. Fort Missoula's role as the administrative headquarters lends those buildings constructed during this period, some of which are less than fifty years old, exceptional historical significance.

When World War II began and the CCC activities abated, the Fort became the nation's largest internment camp for non-military foreign and native persons. The Fort perfectly fit the U. S. Immigration and Naturalization Service's (INS) criteria and was chosen as one of the numerous inland internment camps for approximately 1200 Italian nationals and 1000 Japanese-Americans during World War II. The Fort's involvement with the INS detention and screening of the Issei is of exceptional national significance, and the foundation remains of the internment camp serve as a poignant reminder of one of the more tragic periods of the nation's history.

Fort Missoula was the primary internment camp in the United States for Japanese-born American citizens and was distinct from the numerous camps operated during the war by the War Relocation Authority (WRA) for the detention of over one hundred thousand citizens of Japanese descent who were born in the United States (Nisei). The Japanese-born Issei were perceived as a particular threat to United States security at the start of World War II. Lists of prominent Issei had been developed by the Federal Bureau of Investigation prior to the initiation of the hostilities between the United States and Japan. Within ten days of the bombing of Pearl Harbor, hundreds of Issei residents in West Coast cities had been rounded up and were on their way to Fort Missoula where the INS staged immigration and "loyalty" hearings. When the Fort Missoula internment camp had reached its capacity within weeks of the beginning of the war, the INS established another camp at Fort Lincoln in North Dakota to accommodate additional Issei prisoners.

New construction to meet the needs of the internment camp during World War II made the Fort a prime location for an Army prison camp immediately following the War, when the wartime internees were released. Two maximum security cell blocks and a limited number of other improvements at the Fort were constructed during this final phase of the Fort's history, and do not qualify as exceptional, although they are integral components of the evolution and historical adaptive use of Fort Missoula by the U.S. Army over a 70-year period, which is characterized by the lack of military uses for the property. Only foundation remains exist to mark the location and arrangement of the rows of internment camp barracks buildings. These wood frame barracks were systematically dismantled after 1947

but the exceptional significance of the events that took place on this site at the east end of the Fort complex are recalled by the rows of concrete pads in the open, windswept field.

HISTORICAL NARRATIVE

CREATION AND CONSTRUCTION

In 1867, Chief Red Cloud's war against the forts along the Bozeman Trail, especially Fort C.F. Smith in Montana Territory and Fort Phil Kearny in Wyoming Territory, caused panic among Montanans. The panic resulted in a deluge of telegrams from acting Gov. Thomas R. Meagher to Secretary of War Edwin Stanton requesting additional federal troops and permission to call out the Montana militia. Neither request was officially granted, but the militia took up arms and roamed about the countryside. They accomplished very little, except to run up a bill for $1,100,000 which was forwarded to the War Department. After a series of investigations, the territorial government was reimbursed $515,343 in 1872, but no forts were built for the defense of western Montana.

In the spring of 1874, when President Ulysses Grant ordered the removal of the Flathead Indians from the Bitterroot Valley, Chief Charlo refused to leave. Fearing the outbreak of hostilities, Governor Benjamin Potts and territorial delegate Martin Maginnis issued a series of petitions to Congress requesting a military post to be located in Missoula, ostensibly to control the area's Indians. Local newspapers stated that the presence of soldiers would "invite immigration ... stimulate the development of resources . . . and would be an advantage to business." Variations of this theme appeared all through 1874 and 1875.

Bowing to political pressure, the War Department sent Lt. Col. Wesley Merritt to the Missoula Valley in January, 1876. After examining several locations, he recommended that a one- or two-company post be built at or near Hellgate Pass. Two men were sent that same year to select and survey the location and later in 1876, the Quartermaster General appropriated $20,000 to build the new post. In June 1877, two companies from the Seventh Infantry were sent to Missoula to construct the Fort. They marched the 217 miles from Fort Shaw in 17 days and began work on the Fort in late June. Lack of equipment, the long distances over which supplies had to be hauled and the small labor force hampered the construction effort, but the majority of the Fort was finished in 1878.

Fort Missoula, contrary to the popular picture of forts, was never surrounded by walls. After 1870, most of the forts constructed in the West were of a new design and were intended to be the logistical center for an army actively patrolling and policing the countryside. Fort Missoula and her sister fort, Fort Huachuca in Arizona, both built in 1877, reflect this more aggressive policy. Open, exposed clusters of buildings, most still surrounding the traditional rectangular parade ground, was the new design. Of the eleven major posts constructed in Montana between 1866 and 1892, only four were fortified in some manner; the rest were all built without walls or other defensive works.

NEZ PERCE WAR

The only Indian battle involving Fort Missoula was against the Nez Perce, a tribe living outside the boundaries of the present state of Montana. When the Nez Perce had been ordered by the government to relocate to a reservation in Idaho away from their ancestral lands, they attempted to flee to Canada. During the course of their retreat from Oregon, the Indians traveled east, following the Lolo Trail into Montana. The soldiers at Fort Missoula were ordered to arrest and disarm them. An earth and log barricade was set up across the Lolo Creek Canyon, about five miles above the mouth of the creek, to stop the fleeing Indians. The Indians refused to surrender and changed their course of travel to bypass the fortification. This site was ever after referred to as Fort Fizzle. The soldiers returned to their post and a few days later joined a column led by Col. John Gibbon, commander of Fort Shaw. Loaded into wagons, they set off in pursuit of the slow-moving tribesmen, catching them about 125 miles southeast of Missoula at a place called the Big Hole.

On August 9, 1877, a dawn attack was launched against the sleeping Indian encampment. In 20 minutes, the soldiers were in possession of the camp and the Nez Perce were fleeing in confusion. To cover their families' escape, the warriors rallied and counter-attacked, driving the white men from the village and onto a hillside, besieging them there. During the fierce battle, heavy casualties were inflicted on both sides. The soldiers suffered 40 percent casualties, both wounded and dead, and only the approach of additional soldiers on August 10 saved the garrison from complete destruction. The Indian survivors continued their doomed flight toward Canada and were finally captured by the Army in the Bear Paw Mountains in north-central Montana. A few Nez Perce escaped that battle and made it into Canada but ran into trouble later when they attempted to return to Idaho.

Meanwhile, on November 8, 1877, the post had officially been named Fort Missoula. Companies B, D, H, and I, 3rd infantry Regiment, had replaced the 7th Infantry garrison on November 14. Newly arrived from Texas, these men lived in tents until frame barracks and non-commissioned officers' quarters were completed in February, 1878. The officers continued to rent quarters in Missoula, four miles away until their quarters were completed in mid-summer of 1878.

A limited number of buildings remain at Fort Missoula today to represent this early period of the Fort's history. The first parade ground, which was originally surrounded by regularly placed one and two story log and frame buildings that served as the officers' quarters and barracks for the enlisted men in the late 19th Century, is now defined by the surrounding foundations of these structures. Although not used for ceremonial purposes since the reconstruction of the Fort in 1908, the original parade ground remains clearly visible and distinct. One Non-commissioned Officers' Quarters (#201) and carriage house (#202) and a stone powder magazine (#334) remain standing at a short distance from the original parade ground and retain a high degree of historic architectural integrity. The .88 acre original post cemetery, established in

1878, is located approximately one-half mile from the original Fort complex and is included in this nomination as a discontiguous, contributing element.

THE 25TH INFANTRY REGIMENT

May of 1888 witnessed the arrival of the most unique group of soldiers to be stationed at Fort Missoula: members of the 25th Infantry. This unit was one of four Negro regiments surviving the Army Reorganization of 1869. After many years of duty in the southwest and upper midwest, the regiment was transferred to Montana. Fort Missoula became regimental headquarters, and the Commanding Officer, non-commissioned staff, band and four companies formed the garrison. The remainder of the unit was used at various times to garrison Fort Custer, Fort Harrison, Fort Shaw, and Fort Assinniboine.

Normal military duties, such as practice marches, target practice, drill and ceremonies, and care of buildings and grounds filled the regiment's day. But there were additional tasks of a special nature that were also included, such as the 1890 involvement of Companies F and H from Fort Missoula in the quelling of Sioux "Ghost-Dance" violence in Pine Ridge Agency, South Dakota and the 1892 and 1894 suppression of violence resulting from labor unrest and the march of "Coxey's Army" in Montana and Idaho. The most unusual task assigned to the regiment, however, was to evaluate the military possibilities of the bicycle.

Lieutenant James A. Moss, an active cycling enthusiast, was ordered to form the 25th Infantry Bicycle Corps. By a series of trips, both long and short, throughout the area, he hoped to impress the War Department with the usefulness of the bicycle. He organized a trip from Fort Missoula to St. Louis, Missouri. He felt that a trek of 1900 miles in length over a variety of terrain and through several climactic zones would best demonstrate the endurance of both men and machines. His men had to be able to do more than just ride the bicycles. They had to learn to perform drill, to scale fences, to ford streams and rivers, and to travel forty miles a day, carrying all of their equipment.

Lt. Moss, Asst. Surgeon J.M. Kennedy, and twenty enlisted men comprised the unit making the trip to St. Louis. They departed from Missoula at 5:30 a.m. on Monday, June 14, 1897. They arrived at St. Louis at 6:00 p.m. on Saturday, July 24, having taken only four days of rest in the forty days since their departure. They had endured heat, cold, mud, dust, too much water, too little water, pleasant conditions and hellish ones. The Army was not impressed; the bicycle was not adopted by the U.S. Army as a means of transportation. The Bicycle Corps returned to Montana by train. The 25th Infantry Regiment left Fort Missoula in 1898.

THREATENED FORT ABANDONMENT

On March 20, 1898, the Army ordered the abandonment of Fort Missoula due to the lack of clear purpose and the fact that the Fort was built upon land with unclear title due to an error in the original land survey at the time of initial Fort

construction in 1877. Abandonment did not occur immediately and was ultimately forestalled.

A locally-raised volunteer cavalry company, Troop F of the 3rd U.S. Volunteer Cavalry, was temporarily garrisoned at Fort Missoula in May of 1898. Four troops had been raised in Montana as part of the contribution to the Spanish-American War efforts. Never to receive the fame accorded to the Rough Riders (1st U.S. Volunteer Cavalry Regiment), Grigsby's Cowboys, as the 3rd U.S.V.C. was known, through no fault of their own never left U.S. soil. They did, however, suffer from heat, disease and official neglect. They left Montana for Camp Thomas, Georgia in the latter part of May. They returned to Missoula in September with one man dead and many others very ill as a result of unsanitary conditions at the Georgia camp.

Local citizen protest against the Army's order of abandonment and their rapid mobilization to secure the land of unclear title for donation to the Army resulted in the Fort's revitalization. Because business people in Missoula recognized that the military presence in Missoula and the active use of the Fort constituted a vital economic resource, they raised the funds necessary to purchase 320 acres upon which the Fort was built and managed to persuade the Northern Pacific Railroad to donate another 240 acres, all of which was turned over to the U.S. Army. Official orders for abandonment were postponed, but the Fort was not actively used for the next four years. In 1902 the Quartermaster General's Report to the Army recommended that Fort Missoula either be completely abandoned or rebuilt.

FORT RECONSTRUCTION

On March 28, 1904, after the concerted lobbying efforts of U. S. Senator Joseph Dixon of Missoula, Congress passed the appropriation necessary to reconstruct Fort Missoula, even though no clear military purpose for the Fort had been identified. Reconstruction began in 1906 and continued through 1912. During this time, some of the earliest log buildings at the original Fort were dismantled. New, cast concrete buildings were erected in a curved row only a few hundred feet to the northeast of the original parade ground.

Eighteen substantial buildings remain today from this period of the Fort's reconstruction. Along the curved boulevard, a new Post Headquarters (#2), seven new, cast concrete, 2 1/2 story buildings forming a new Officer's Row (#27, #28, #29, #30, #31, #32, #33), and the two large Company Barracks buildings (#24, #26), also of concrete construction and 2 1/2 stories in height, mark the edge of the new parade ground. Two Non-Commissioned Officers' Quarters (#14, #16), the Post Bakery (#105), the Post Hospital (#9), the Quarter Master's storehouse (#322) and root cellar (#323), and a new water tower (#19) were constructed at a short distance from the parade ground. At the end of this second building period, the Fort was completely outfitted to serve as a regimental headquarters. However, research indicates that no regimental force was ever actually stationed at Fort Missoula. Between the years 1912 and 1918, the Army repeatedly raised questions about closing of the Fort.

WORLD WAR I

Just prior to America's entry into World War I, Fort Missoula finally was abandoned as a military post. However, the War did not entirely bypass the Fort. The University of Montana contracted to operate a training school, utilizing some Fort buildings. On August 15, 1918, the first group of 200 men arrived to begin two-month training courses in automobile repair, blacksmithing, wireless (radio), and general mechanics. The University was responsible for housing, feeding and instructing the men. Instructors were hired by the University, from the civilian skilled manpower pools. Eight hours of instruction were provided each day. Equipment was supplied by the University, with the government providing all the funding for the program.

Not long after the Armistice was signed on November 11, 1918, the school was closed. Fort Missoula was once again idle. In 1918, a bill was passed in Congress to permit the military to lease or sell portions of the Fort property to other entities. The Fort would not be regarrisoned until September, 1921.

DEPRESSION YEARS AND THE CCC

Activities at the Fort between 1921 and the 1933 were routine and not particularly unusual, with a small garrison of soldiers residing there. In 1926, the Fort became the summer Civilian Military Training Camp. Again slated for abandonment in 1933 by the Army, the Fort was put to use as the headquarters for the Rocky Mountain Region Civilian Conservation Corps and continued to serve this purpose until 1941. The CCC was established in an effort to provide work for the nation's young men. The U.S. Army, the only federal entity capable of mobilizing the thousands of young enrollees at the start of the program in July, 1933, was responsible for organizing, housing and training the men in usable skills. The enrollees were not given military training. Other federal agencies, including the Forest Service, Soil Conservation Service, Reclamation Bureau, Fish and Wildlife Service and National Park Service, defined the tasks to be accomplished.

Fort Missoula was the largest district CCC headquarters in the United States. As the administrative center for all of the camps located in Montana, Idaho, Wyoming and Yellowstone and Glacier National Parks, Fort Missoula was the place where enrollees were initially trained and assigned. In all, approximately 269 camps were established in the region, some only operating for one or two years. On the average, each year there would be 24 camps in Montana, 57 in Idaho, and 21 in Wyoming. Approximately 200 young men from 18 to 25 years old were stationed at each of the regional CCC work camps. During the first months of the program in the summer of 1941, 400-500 young men arrived at Fort Missoula daily. Over the nine year period of the program, approximately 200,000 men were employed, about 86,000 from the region and 114,000 from other states.

Various services, not available at the dispersed camps, were provided at the administrative headquarters at Fort Missoula. The Post Hospital provided medical

care beyond that which the simple camp dispensaries could provide. Medical problems were resolved by the district surgeon, the district dentist, etc. The Fort handled supplies, finances, religious services, veterinarian needs and education programs. Lack of recreational opportunities, especially during the long winter months, was identified as one major problem at Fort Missoula. A large new recreation hall (#150) was constructed by the WPA in 1940 to fill this need at the Fort, although this building would only be completely outfitted after the Fort had been turned over to the Immigration and Naturalization Service in 1941.

A number of buildings and structures associated with the CCC use of the property remain in existence today: the CCC administration building (#316), two residential buildings (#12, #214), two warehouses (#203, #312), the motor pool shop (#328), a storage building (#327) and the monument located at the entrance to the Fort on Reserve Street. Also, during this period, the Army made improvements at the Fort and constructed a new administration building (#1) and the fire station/guard house (#46).

WORLD WAR II

In the spring of 1941 control and operation of the Fort was transferred to the U.S. Immigration and Naturalization Service. Prior to its entry into World War II, the United States had begun to arrest the crews and confiscate the commercial ships of Nazi Germany and Fascist Italy as they arrived at U.S. seaports. On March 30, 1941, President Franklin Roosevelt ordered Axis ships to be seized at harbor and 69 German, Italian, and Danish ships were seized in the first weekend. Places that provided housing and supply capabilities, and yet were remote from industrial centers and international borders were selected to hold these interned crew members. Fort Missoula was admirably suited to fill this need.

Construction of internment camp barracks began in early 1941 in preparation for the arrival of the Italian nationals. From 1941 until the spring of 1944, as many as 1200 Italian men--civilians, not prisoners of war--were held at Fort Missoula. The presence of German civilian prisoners cannot be documented at this time. Not only were the crew members of confiscated merchant ships and luxury liners sent to Fort Missoula, but individual aliens were rounded up in bars and lodging houses in the east coast cities and a group of about 100 Italian artists, musicians and entertainers who had worked at the New York World's Fair and had overstayed their visas were also sent to the INS camp at Fort Missoula.

Immigration hearings were held at the Fort to determine the official immigration status of each internee and to establish political affiliations. Since deportation was not possible while the war was going on, most Italian men were to wait out the hostilities at the Fort. Some of the internees who were eligible for reassignment to other ships chose instead to remain at Fort Missoula for the duration of the war, where conditions were rather pleasant. Actual control and operation of the facility were in the hands of the U.S. Border Patrol. The internees were largely governed and disciplined by their own officers. The mess

halls, laundry and similar facilities were staffed by the internees themselves. The brand new recreation hall (#150) that was built by the WPA for the CCC camp, and included a basketball court, bowling alley, dance hall and restaurant, was outfitted by the INS camp commander Nick C. Collaer for the internees' use. Although there were armed guards, watchtowers and steel fences, routine security measures amounted to little more than roll calls, bed checks and perimeter patrols that were more useful in turning away curious townsfolk. Theatrical productions and concerts were put on by the internees for their own entertainment, and one concert, to which Missoula citizens were invited, attracted a crowd of over 1000. The name given to the camp by the internees was Bella Vista (Beautiful View). There were no escape attempts.

Due to the local shortage of labor caused by the war effort many Italian men were paroled to work, at prevailing wages within a year and one-half of internment. Two Italian chefs who had worked on oceanliners took charge of the dining room at the Florence Hotel in Missoula. Others were soon hired as bus boys and cleaners. The local hospitals hired Italian seamen as orderlies; lumber companies hired others to work on timber hauling crews. Some of these men lived in town and reported to the Fort only weekly. Restaurants and hotels around the country also wrote to the commanding officer to offer jobs for the parolees. The labor shortage in the Montana sugar beet fields was extreme during the war and numerous work crews were signed out to Montana farmers during the growing season.

A series of 16 wood frame, prefabricated barracks buildings were erected at the southeastern end of the Fort property in May of 1941 to house the approximately 1200 Italian internees. The Italian detainees actually erected these barracks buildings, and were housed in Army barracks for the first few weeks of internment. Barracks construction, however, was continued with the addition of another 16 buildings in July of 1941 to bring the internment camp capacity up to 3000. This newer group of barracks was fenced off from the first collection, likely in preparation for the new type of internee that began to arrive at the Fort in mid-December, 1941.

After the bombing of Pearl Harbor on December 7, 1941, the U.S. Government immediately began arresting men of Japanese birth (Issei) on the West Coast of the United States in the belief that some might be saboteurs or agents for the government of Japan. These included community leaders, newspaper editors, professionals and laborers, political activists--individuals who had been identified by the Federal Bureau of Investigation as being of questionable immigration status and/or possessing organizational abilities and could possibly serve as leaders of an anti-government movement. The majority of the people detained during these first weeks after the bombing were Japanese immigrants, and not themselves citizens of the United States. After 1924, the U.S. immigration laws prevented Japanese immigrants from obtaining citizenship status and prohibited Japanese-born persons from owning land in the United States. Thus, property owned by the Issei was often in the name of their American-born children. On December 18th and 19th, 1941, the Issei detainees began to arrive at Fort Missoula. The Japanese and Italian internees were kept completely

separate at the Fort and the previously lax security measures were considerably tightened.

Fort Missoula was the largest camp operated by the Immigration and Naturalization Service (INS) in the United States and was distinct from those camps that were established during subsequent months by Executive Order of February 19, 1942, and operated by the War Relocation Authority (WRA) for the detention of approximately 107,000 American men, women and children of Japanese ancestry (Nisei). The persons sent to Fort Missoula were the first Japanese-Americans to be arrested and INS Alien Hearing Board quickly initiated proceedings at the Fort on the immigration status and "loyalty" to the U.S. Government of these individuals. Claims of ill treatment of the Issei detainees at Fort Missoula by the INS guards were thoroughly investigated and such brutality curtailed during the early months, under the direction of the INS camp director, Commander N. C. Collear. The barracks at Fort Missoula were quickly filled to capacity and those who could not be accommodated were taken to the INS camp at Fort Lincoln in North Dakota. As a result of the INS hearings at Fort Missoula, some of the Issei detainees were deported as illegal aliens, some were sent to join their families at the WRA detention camps, some were permitted to join the parole work teams in the Montana sugar beet fields and on railroad maintenance crews, and not one was prosecuted for espionage, sabotage, or disloyal conduct.

The last civilian internees left Fort Missoula by the end of 1944, thus marking the end of the period of exceptional historical significance. The barracks that housed the Japanese-American and Italian prisoners during World War II were systematically dismantled shortly after the close of the war. Foundations and ground depressions survive from this period and the spacing, lay-out, and relationship of this development to the original Fort is clearly perceptible. Two of the original internment camp guard towers that were removed from the Fort property during the dismantling were recently recovered by the Fort Missoula Historical Museum staff and plans are being drafted to restore these structures to their original location.

The Army resumed control of Fort Missoula in 1945 and decided to continue its use as a prison camp. It became a medium security facility, known as the Northwestern Branch Disciplinary Barracks, a function which it served for only a short period of time. Two thousand prisoners and a staff of 500 officers, enlisted men and civilian employees occupied the Fort. On October 17, 1946, the first group of 100 prisoners was transferred to Fort Leavenworth, Kansas. This initiated the closure of the disciplinary barracks. As of midnight, April 18, 1947, all staff and prisoners were gone and the camp closed. Two concrete cell block buildings (#157, #157) remain from this later 1945-1947 period of use as a prison camp, as well as the motor pool garage (#330), the Vocational Education building (#154) and the 1946 Provost Marshall's Office (#63). Because these buildings do not possess exceptionally significant historical associations, they are considered to be non-contributing structures within the historic district.

POST-WAR RE-ALLOCATION

The Fort underwent a process that can be best described as dissolution after its period of most intensive use during the depression and war years. In 1948, the

Army began its program to sell or lease portions of the Fort property. Land, buildings, and titles thereto began to shift as if in a kaleidoscope. Agencies involved include various departments of Civil Defense, Army Reserve, Navy Reserve, Marine Corps Reserve, the Montana National Guard, the University of Montana, and the U.S. Forest Service. Missoula County signed a ten year lease with the Army for most of the Fort buildings and 822 acres of Fort property in 1948. The Army canceled the lease after two years, however, and planned to establish the Fort as a northwestern military supply center, which never occurred. The Fort buildings have been put to a wide variety of new uses by federal, state and county agencies, as well as by private organizations. During the 1960's, the General Services Administration began to systematically dismantle the earliest Fort buildings that surrounded the original parade ground at the southwest corner of the complex. During this effort, the original Non-Commissioned Officers quarters (#201) was spared and restoration of this building was completed by the Montana Ghost Town Preservation Society. The integrity of the Fort complex, even with the removal of the earliest buildings, remains extraordinarily high, weathering both ownership changes and adaptive reuse of the individual buildings.

The county-supported Fort Missoula Historical Museum today occupies the 1911 Quartermaster's Storehouse (#322). As part of the museum's artifact collection, twelve buildings and structures have been acquired or donated and moved from their original locations in the Missoula vicinity to a small, 10 acre parcel of undeveloped land to the north of the original parade ground. The land upon which these buildings were placed was used historically as the Fort garden and no Fort buildings were erected here. These moved buildings bear no historical relationship to one another or to the military Fort properties. They are considered to be non-contributing elements within the Fort Missoula Historic District. Because they are clustered in a small, discrete area and, visually, it is immediately apparent that they are not a part of the historical Fort development, the complex of relocated historic structures does not detract significantly from the historical feeling and association of Fort Missoula at large.

Twelve additional buildings have been constructed within the Fort Missoula Historic District boundaries since the end of the historic period in 1944 when the INS internment camp at the Fort was vacated. Two are concrete masonry unit cell blocks, and nine are one story maintenance and ancillary buildings of little importance. In 1984, the Bureau of Land Management completed the construction of a new office building within the Fort complex. Careful attention to the detailing of this new building has resulted in a design and use of materials that are very compatible with the stucco, Mission Revival buildings which comprise the historical Fort complex and date to the period of reconstruction during the early 19'teens.

POST CEMETERY

Although the Post has been deactivated for many years, Fort Missoula does have an active Class IV national cemetery which continues to this day to be one of the

intriguing parts of the Fort. Situated on a .88 acre parcel to the north of the main Post, next to South Avenue and Building #43, the cemetery was established in September, 1878 with the burial of Private William Gerick. Buried here were men who served in the Civil War, Indian Wars, Spanish-American War, World Wars I and II, the Korean War and the Vietnam War. Twenty-two percent of the burials were Black soldiers, dating back to when Fort Missoula was garrisoned by up to four companies of the 25th Infantry Regiment, 1888-1898.

Some time after 1886, the post cemetery at Fort Ellis near Bozeman was abandoned and all of the remains were shipped to other active national cemeteries. Thirty-six bodies were transferred to the Fort Missoula cemetery.

There is a very small number of women in the post cemetery, wives of officers and senior sergeants. However, there is a large number of Fort children-- 21 girls, 20 boys, and 12 babies--who died from a variety of causes including premature birth, rickets, and the flu.

As of March 1983, the Fort Missoula post cemetery had 190 graves. The capacity of the site is 400. The cemetery is in still active use.

Fort Missoula Historic District

Bldg.#	Bldg. Name	Date	Type/Material	Status
	Original Parade Ground and Foundations	1877	parade ground of NW quadrant/ Officers' Qtrs/Barracks	c
201	NCO Quarters	1877	1 story log duplex	c
	Post Cemetery	1878	.88 acre military cemetery	c
334	Powder Magazine	1878	1 story stone storage building	c
202	Carriage House	1880	1 story frame carriage house	c
2	Post Headquarters (Exchange)	1906	1 1/2 story brick offices	c
323	Quartermaster Rootcellar	1908	underground storage cellar	c
	Second Parade Ground	1910	parade ground of SW quadrant	c
14	NCO Quarters	1910	2 story frame duplex	c
16	NCO Quarters	1910	2 story frame duplex	c
24	Company Barracks	1910	2 1/2 story concrete barracks	c
26	Company Barracks	1910	2 1/2 story concrete barracks	c
27	Officers' Quarters	1910	2 1/2 story concrete four-plex	c
28	Officers' Quarters	1910	2 1/2 story concrete duplex	c
29	Officers' Quarters	1910	2 1/2 story concrete duplex	c
30	Commanding Off's Qtr's	1910	2 1/2 story concrete residence	c
31	Officer's Quarters	1910	2 1/2 story concrete duplex	c
32	Officer's Quarters	1910	2 1/2 story concrete duplex	c
33	Officer's Quarters	1910	2 1/2 story concrete duplex	c
142	Quartermaster's Stable	1910	1 1/2 story concrete stable	c
105	Post Bakery	1910	1 1.2 story concrete bakery	c
9	Post Hospital	1911	3 1/2 story concrete hospital	c
322	Quartermaster Storehse.	1911	1 1/2 story brick offices	c
19	Post Water Tower	1912	151' metal water tower	c
	Entrance Road/Monument	1935	stone pylons and commemoration	c
312	Warehouse	1936	2 story frame warehouse	c
316	CCC Admin. Building	1936	1 1/2 story frame offices	c
214	CCC Barracks	1938	1 story frame residence	c
12	Hospital Staff Quarters	1938	1 story frame residence	c
1	Post Headquarters	1940	2 1/2 story frame offices	c
150	Recreation Hall/Gym	1940	3 story frame building	c
203	Warehouse	1940	1 story frame storage building	c
46	Fire Station/Guard Hse	1940	2 story concrete offices/cells	c
327	Oil Storage Building	1940	1 story frame warehouse	c
328	Motor Pool Shop	1940	1 story frame shop	c
	Foundations	1941	Internment camp bldg. depressions	c
	Sentry Boxes (2)	1941	frame guard towers (not in situ)	nc
154	Vocational Ed. Building	1945	1 story metal quonset hut (moved)	nc
156	Solitary Cell Block	1945	1 story concrete block	nc
157	Solitary Cell Block	1945	1 story concrete block	nc
330	Motor Pool Garage	1945	1 story frame garage	nc

Fort Missoula Contributing Building List (continued)

63	Provost Marshall's Off	1945	1 story frame office	nc
325	Shop Building	1945	1 story frame shop	nc
310	Boiler Plant	1947	1 story frame plant/residence	nc
350	Maintanence Shop	1962	1 story concrete block	nc
101	Army Reserve Motor Pool	ca.1947	1 story concrete block	nc
114	U.S.F.S Laboratory	ca.1965	mobile home	nc
21	Electrical Substation	ca.1954	1 story concrete substation	nc
	BLM Regional Offices	1984	1 story concrete office building	nc

Fort Missoula Museum Artifacts: Non-contributing Buildings

Ninemile Homestead	built 1890, moved 1983	1 1/2 story log residence
Homestead Barn	built 1980, moved 1983	1 story log barn
Homestead Outhouse	built c. 1920, moved 1983	1 story outhouse
Pumphouse	built 1983	1 story frame building
Miller Creek Guard Sta.	built 1910-15, moved 1983	1 story log building
Sliderock Lookout	built 1933, moved 1983	L-4 type lookout tower
Bandstand	built 1976, moved 1983	1 story frame gazebo
Grant Creek School	built 1907, moved 1976	1 story frame building
Drummond Depot	built 1910, moved 1982	1 story frame MSPP depot
Drummond Outhouse	built 1910, moved 1982	1 story privy
St. Michael's Church	built 1863, moved 1983	1 story log church
Storage Building	ca.1950	1 story frame building
Rapelling Tower	ca.1950	wooden tower
Trailer	ca.1965	mobile home

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Van Valkenberg, Carol, regarding her research on the internment period, Missoula, Montana, July 25, 1986.

HISTORIC DISTRICT BOUNDARY DESCRIPTION AND JUSTIFICATION

The Fort Missoula Historic Resource Survey resulted in a systematic investigation of the historical and architectural significance of all structures within the survey area. The boundaries of the survey area were South Avenue on the north, Reserve Street on the east, the Missoula Country Club and Bitterroot River on the south, and Western Materials and Vo-Tech to the west. Within these boundaries, the Fort Missoula Historic District boundaries were established to encompass all of the historically significant parts of the original Fort complex that are still in existence. The portion of the Historic District in the immediate vicinity of the 20th Century parade ground has retained the highest degree of historic architectural integrity.

The proposed Historic District boundary starts at the original entrance to Fort Missoula (see site and land ownership maps) and runs behind the trees along both sides of the roadway, measuring approximately 60' in width, centered on the roadway itself. Even though there has been development on both sides of the roadway and the original entrance has been blocked to traffic, the tree-lined road was historically the primary entrance to the Fort and runs in a southwestern direction.

The boundary then proceeds northwest behind the newly constructed Bureau of Land Management building and to the north of the 1911 officers' row. The line connects with the north boundary of the county property which contains the original 1877 fort property. This boundary continues west to the west boundary of the Museum property and extends out and encompasses the original CCC buildings on the west side. The line proceeds south to the Bitterroot River, encompassing many of the features of the original 1877 Fort.

The boundary continues to run along the river to the Missoula Country Club property. Then the boundary runs along the west side of the Country Club and Larchmont Golf course back to the Fort road. This encompasses all of the World War II internment camp area.

The property boundaries for the land areas in the ownership of the Bureau of Land Management, Western Montana Regional Community Mental Health Center, Missoula County, U.S. Army, Western Montana Ghost Preservation Society, State of Montana (University of Montana), the National Guard, and General Services Administration are shown on the accompanying map.

OWNERSHIP LIST

Western Montana Ghost Town
Preservation Society
Helena Hammond, President
P.O. Box 2245
Missoula, MT 59801

Mr. J. Walter Roth
Director of Historic Preservation
General Services Administration
Washington, D.C. 20405

Mr. John G. Douglas
Bureau of Land Management
Department of the Interior
Washington, D.C. 20240

Headquarters
Fort Carson
Fourth Infantry Division (Mech)
Attn. Commanding Officer
Major General Jan R. Hall Jr.
Fort Carson, Colorado 80913-5005

Headquarters
Attn. Commanding Officer
Colonel Hillyard
USA Support Detachment
Salt Lake City, Fort Douglas,
Utah 84113

Irving E. Dayton
Commissioner of Higher Education
33 S. Last Chance Gulch
Helena, MT 59601

Board of County Commissioners
Missoula County Courthouse
200 West Broadway
Missoula, MT 59802

Child Development Center
Mike Morris
Building T-214
Fort Missoula
Missoula, MT 59801

Western Montana Regional
Community Mental Health Center
Clark Anderson, Director
Building T-12
Fort Missoula
Missoula, MT 59801

NPS Form 10-900 OMB No 1024-0018 Expires 5/31/2012

RECEIVED 2280
JAN 13 2012
NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1. Name of Property

historic name Fort Missoula Historic District Addendum and Boundary Increase

other names/site number 24MO0266 (Includes Site #s 24MO0188, 24MO0937 [noncontributing to district], 24MO1616 [noncontributing to district])

2. Location

street & number Intersection of Reserve St. and South Ave.. ☐ not for publication

city or town Missoula ☐ vicinity

state Montana code MT county Missoula code 063 zip code 59807

3. State/Federal Agency Certification

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

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

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

___ national ___ x statewide x local

Mark F. Baumler / SHPO — 1/3/2012
Signature of certifying official/Title — Date

Montana State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

In my opinion, the property ✓ meets ___ does not meet the National Register criteria.

Signature of commenting official — 20111101 Date

ARMY FEDERAL PRESERVATION OFFICER
DASA (ESOH)
Title — United States Army
State or Federal agency/bureau or Tribal Government

In my opinion, the property ✓ meets ___ does not meet the National Register criteria.

Carl M. Davis — 8-4-2011
Signature of commenting official — Date

Regional Archaeologist — United States Forest Service
Title — State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

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

for Edson H. Beall — 2-28-12
Signature of the Keeper — Date of Action

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1. Name of Property

historic name Fort Missoula Historic District Addendum and Boundary Increase

other names/site number 24MO0266 (assigned to the Fort Missoula Historic District. Within the district are: sites 24MO0188 [contributing to district], 24MO0937 [noncontributing to district], 24MO1616 [noncontributing to district])

2. Location

street & number Intersection of Reserve St. and South Ave.. | N/A | not for publication

city or town Missoula | N/A | vicinity

state Montana code MT county Missoula code 063 zip code 59807

3. State/Federal Agency Certification

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

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

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

__national x statewide x local

Mark F. Baumler / SHPO 1/3/2012
Signature of certifying official/Title Date

Montana State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title United States Army
State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title United States Forest Service
State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

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

Signature of the Keeper Date of Action

Fort Missoula Historic District Addendum and Boundary Increase
Name of Property

Missoula Co., MT
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

- [x] private
- [x] public - Local
- [x] public - State
- [x] public - Federal

Category of Property
(Check only **one** box.)

- [ ] building(s)
- [x] district
- [ ] site
- [ ] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
16	16	buildings
5	4	sites
1	6	structures
0	0	objects
22	26	**Total**

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

N/A

Number of contributing resources previously listed in the National Register

36
(3 of these previously listed buildings are now included in the noncontributing count totals above)

6. Function or Use

Historic Functions
(Enter categories from instructions.)

DEFENSE: military facility

Current Functions
(Enter categories from instructions.)

GOVERNMENT: government office

RECREATION AND CULTURE: museum, outdoor recreation, monument/marker

COMMERCE/TRADE: business

7. Description

Architectural Classification
(Enter categories from instructions.)

LATE 19TH AND 20TH CENTURY REVIVALS: Colonial Revival, Mission Revival

OTHER: Mid-20th Century Military/CCC

Materials
(Enter categories from instructions.)

foundation: CONCRETE
walls: WOOD: weatherboard, METAL, CONCRETE
roof: ASPHALT, METAL
other:

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

Fort Missoula is located in the Missoula Valley, a former glacial lake bed. The Missoula Valley is surrounded by the Garnet Mountain Range to the east, the Mission Mountains to the northeast, and the Bitterroot Mountains to the west. The Bitterroot River runs through the west side of the present day city of Missoula and the Clark's Fork River is five miles to the north. Originally separated from the town that bears its name, Fort Missoula, due to encroachment, now sits in the southwest portion of Missoula.

The original Fort Missoula Historic District nomination (listed April 29, 1987) ended the period of significance with the WWII internment. This addendum and boundary increase includes additional contributing properties reflecting an extended period of significance to the post-internment period and also adds significant features of the Civilian Conservation Corp (CCC) occupation not included in the original nomination.

Narrative Description

Introduction

This is an addendum and boundary increase to the existing Fort Missoula Historic District listed in 1987 (NR # 87000865); it provides contributing and noncontributing descriptions for resources not included in the original nomination or whose status has changed. Resources included in the original nomination whose status has not changed are not described below in Section 7.

This addendum and boundary increase updates the original nomination by reflecting an extended period of significance to encompass the post-internment period. This addendum and boundary increase incorporates features related to this period and features associated with the Civilian Conservation Corp (CCC) occupation not recorded in the original nomination. The area of the boundary increase measures 208 acres in size. Forty-eight contributing and noncontributing resources are included in the addendum and boundary increase; thirty-nine occur within the original district boundary and seven are located within the boundary increase.

Forty-one resources associated with the addendum comprise newly recorded features not included in the original nomination, or resources whose status changed from either noncontributing to contributing or vice-versa. Newly recorded contributing and noncontributing resources within the addendum area include 10 contributing buildings whose status was not addressed in the original nomination, 13 noncontributing buildings whose status was either not address or were not present at the time of the original nomination, six noncontributing structures, and three noncontributing sites. Six buildings (21, 63, 156, 157, 310 and 330) recorded as noncontributing in the original nomination are now contributing as they were present during the last phase of the fort's operation as an official military post and now relate to the newly defined period of significance, and three buildings' status changed from contributing to noncontributing due to significant alterations.

In addition to the 41 resources mentioned above, three resources previously counted as one contributing resource in the original nomination have been separated into individual resources in this addendum and boundary increase; these include the stone pillars marking the original entrance to the fort (one contributing object), the original Fort Road (one contributing structure), and the Fort Missoula Dedication Monument (one contributing object). Because these were originally listed as one contributing structure in the 1987 nomination, two contributing objects have been added to the resource count for this addendum/boundary increase on page 2 above but are not included in the counts in the previous two paragraphs.

Building 154, a one-story Quonset, recorded during the original inventory and found noncontributing, and one trailer constructed around 1965 and mentioned in the original nomination were removed from the property. The Respite House (Building 210) constructed in 1998, is a noncontributing element to the district. It is not 50 years old, and is not associated the period of significance for the Fort Missoula Historic District.

A storage building constructed circa 1950 and discussed in the original nomination as being located within the original district boundary has not changed status (still noncontributing), however, it actually sits within the boundary increase area. As it was

originally counted as a resource within the original district boundary, it is not included within the count for the boundary increase area, or within the totals for the addendum.

Addendum Resources

Buildings

Building 11 (Contributing-status not addressed in original nomination)
Building 15 (Contributing-status not addressed in original nomination)
Building 17 (Contributing-status not addressed in original nomination)
Building 18 (Contributing-status not addressed in original nomination)
Building 19 (Contributing-status not addressed in original nomination)
Building 20 (Contributing-status not addressed in original nomination)
Building 34 (Contributing-status not addressed in original nomination)
Building 35 (Contributing-status not addressed in original nomination)
Building 36 (Contributing-status not addressed in original nomination)
Building 37 (Contributing-status not addressed in original nomination)
Building 210 (Noncontributing-status not addressed in original nomination)
Cinder Block Building (Noncontributing-status not addressed in original nomination)
Garage A (Noncontributing-status not addressed in original nomination)
Garage B (Noncontributing-status not addressed in original nomination)
Restroom (Noncontributing-status not addressed in original nomination)
Log Cabin (Noncontributing-status not addressed in original nomination)
Ticket Booth (Noncontributing-status not addressed in original nomination)
ADC Barracks (Noncontributing-status not addressed in original nomination)
Gable Roof Board-and batten Shed (Noncontributing-status not addressed in original nomination)
Gambrel Roof Shed (Noncontributing-status not addressed in original nomination)
Concession Booth (Noncontributing-status not addressed in original nomination)
Trolley Car Building (Noncontributing-status not addressed in original nomination)
Building 351(Noncontributing-status not addressed in original nomination)
Building 21 (Contributing-status changed from noncontributing)
Building 63 (Contributing-status changed from noncontributing)
Building 156 (Contributing-status changed from noncontributing)
Building 157 (Contributing-status changed from noncontributing)
Building 310 (Contributing-status changed from noncontributing)
Building 330 (Contributing-status changed from noncontributing)
Building 203 (Noncontributing-status changed from contributing)
Building 214 (Noncontributing-status changed from contributing)
Building 316 (Noncontributing-status changed from contributing)

Structures

Forestry Interpretive Display (Three noncontributing)
Tipi Burner (Noncontributing)
Truck Port (Noncontributing)
Wood Frame Open Shed (Noncontributing)

Site

Tennis Court (Noncontributing-status not addressed in original nomination)
24MO1616 (Noncontributing)
Historic Stone Alignment (Noncontributing-status not addressed in original nomination)

Resources within the boundary increase area include five contributing sites, one noncontributing site, and one contributing structure. Contributing sites include 24MO0188 (an historic Fort Missoula dump), the Original Post Bakery Site, the site of a CCC warehouse (Building 308), the site of an 1880s-era trash deposit, and the fort's historic landscape. Site 24MO0188, the Original Post Bakery Site, the CCC Warehouse Building 308 Site, and the 1880s-era Trash Deposit Site all yielded subsurface materials. The Internment Camp Foundations Site, listed as a contributing resource in the original nomination, only addressed the actual physical foundation and depression remains; the archaeological investigations at the other four previously mentioned sites demonstrate the existence of good

subsurface deposits throughout the property, suggesting buried deposits associated with the Internment Camp Foundations are also likely. Guardsman Lane, also known as the Civilian Conservation Corps (CCC) Road, is counted as one contributing structure.

Boundary Increase Resources
Sites
24MO0188 (Contributing)
Original Post Baker Site (Contributing)
CCC Warehouse Building 308 Site (Contributing)
Trash Deposit Site (Contributing)
Fort Missoula Landscape (Contributing)
24MO0937 (Noncontributing)

Structure
Guardsman Lane (Contributing-status not addressed in original nomination)

Description of Resources

Buildings

Building 11 (one contributing building, circa 1958) is a one-story balloon frame garage built by the Civilian Conservation Corps (CCC) (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). The structure has a hipped roof with green rolled asphalt roofing. It has traditional wall cladding using horizontal wood boards in a simple drop style. It has open eaves with exposed rafters, one single pane wood frame window on both the east and west elevations, and six sets of double doors on the north elevation. The white paint on the main building is deteriorated. Historic photographs provide evidence that Building 11 was present by at least 1940-1942, indicating it was most likely built in 1938 when several other fort buildings were constructed. Building 11 is in good condition and retains integrity.

Building 15 (one contributing building, 1938) is a one-story balloon frame garage built circa 1938, most likely by the CCC. The structure has a hipped roof and open eaves with exposed rafter ends. It currently has corrugated metal roofing that has been added since its original construction. Building 15 has traditional wall cladding with horizontal wood boards in a simple drop style. There are four sets of double doors on the northeast elevation. On the northwest elevation, there are two, wood-frame, fixed, 12-light windows and one paneled door. There is also one large window on the southeast elevation. Historic photographs provide evidence that Building 15 was present by at least 1940-1942, indicating it was most likely constructed in 1938 when several other structures at the fort were constructed. The building is similar in design, materials and construction to other garages built by the CCC. The building is of the proper age to be associated with the CCC. The CCC constructed numerous buildings at Fort Missoula during this time period. The historic record indicates that the CCC was the only agency constructing buildings at Fort Missoula at this point in time. Building 15 is in good condition and has retained integrity.

Building 17 (one contributing building, 1941) was constructed in 1911 as a pump house in association with the fort water tower (*The Sunday Missoulian*, 9 April 1911). Building 17 consists of a semi-subterranean concrete bunker with attached concrete block entrance shed. The bunker is approximately 11 ft 5 in square with a 12 ft 5 in square slightly sloped concrete lid or roof. The roof has an extended cylindrical access pipe in the center. The bunker is whitewashed and has egress windows on the north and south elevations. The entrance shed is 7 ft 5 in long by 5 ft wide. It has a shed roof and a door on the east. Its exterior is unchanged although the interior is vacant with the original equipment removed. Building 17 is in good condition and retains integrity.

Building 18 (one contributing building, 1911) is a balloon frame structure built as a transformer shed in association with the fort water tower in 1911 (*The Sunday Missoulian*, 9 April 1911). Building 18 is located in the northeast corner of the fenced water tower base area. It is 7 ft long and 6 ft wide and has a front gabled moderately pitched roof with corrugated sheet metal siding, two screened windows (one on the north and one on the south), and one door on the west. Though the original equipment has been removed from the interior, the exterior is unchanged. Building 18 is in fair condition and retains integrity.

Building 19 (one contributing building, 1911) is a one-story balloon frame structure built in 1911 as a well-housing shed used to protect the connection between the fort water tower's tank and the tower's well (*The Sunday Missoulian*, 9 April 1911). The original nomination form lists Building 19 as the fort water tower. The correct number designation for the water tower is 51. Building 19 is

located slightly west of center directly under the tower tank. This Building is 10 ft by 8 ft 6 in with corrugated sheet metal siding and a shed roof. There is a door on the north elevation. The electrical box on the west elevation and the meter on the east elevation are not currently operating. A single central metal pipe runs from the cone-shaped base of the water tank into the roof of Building 19. Building 19 is in good condition and retains integrity.

Building 20 (one contributing building, 1911) is a one-story, partially submerged concrete building constructed as a pump house in association with the fort water tower in 1911 (*The Sunday Missoulian*, 9 April 1911). Building 20 consists of a semi-subterranean concrete bunker with attached concrete block entrance shed. The bunker is approximately 11 ft 5 in square with a 12 ft 5 in square slightly sloped concrete lid or roof. The roof has an extended cylindrical access pipe in the center. The bunker is whitewashed and has egress windows on the north and south elevations. The entrance shed is 7 ft 5 in long by 5 ft wide. It has a shed roof and a door on the east elevation. The exterior is unchanged but the original interior equipment has been removed. Building 20 is in good condition and retains integrity.

Building 21 (one contributing building, circa 1940) is a one-story frame building constructed for the Alien Detention Camp (Internment Camp) as an electrical substation. It has a front gable roof with asphalt shingle roofing, wood plank siding, and wide boxed eaves with brackets. It has one wood frame door and one fixed six light wood frame window on the west elevation. It was originally listed as being constructed in 1954 but historical photographs indicate its construction timeframe as circa 1940. Historic photographs provide evidence that Building 21 was providing electricity to the Detention Camp facility in the early 1940s. It is currently vacant with the original equipment removed. Building 21 is in good condition and retains integrity.

Building 34 (one contributing building, 1938) is a four-car garage with balloon frame construction. The garage was constructed with elements mimicking the red hipped roof and white body of the buildings on Officers' Row. The building has red asphalt shingle roofing, wide open eaves with exposed rafters, and simple horizontal wood drop style siding. There are two rectangular wood frame sliding 6-light windows with a central mullion and simple wood surround on both the north and south elevations. A single, paneled wood-frame door is present on the south elevation and there are four overhead garage doors on the west elevation, facing F Street. The building was constructed in 1938 (Jim Azzara, personal communication, January 15, 2008). The building is similar in design, materials and construction to other garages built by the CCC. The building is of the proper age to be associated with the CCC. The CCC constructed numerous buildings, including similar garages, at Fort Missoula during this time period. The historic record indicates that the CCC was the only agency constructing buildings at Fort Missoula at this point in time. Building 34 is in good condition and retains integrity.

Building 35 (one contributing building, 1938) is a single-car garage with balloon frame construction. It is similar to Building 34, with a red asphalt shingle hipped roof and white body. It also has wide open eaves with exposed rafters, and simple horizontal wood drop style siding. It has two, rectangular, wood-frame, fixed 6-light windows with a central mullion and simple wood surround on both the north and south elevations and one overhead garage door on the west elevation, facing F Street. It was built in 1938 (Jim Azzara, personal communication, January 15, 2008). The building is similar in design, materials and construction to other garages built by the CCC. The building is of the proper age to be associated with the CCC. The CCC constructed numerous buildings, including similar garages, at Fort Missoula during this time period. The historic record indicates that the CCC was the only agency constructing buildings at Fort Missoula at this point in time. Building 35 is in good condition and retains integrity.

Building 36 (one contributing building, 1938) is a four-car garage with balloon frame construction. This structure is identical to Building 34 with the exception that the windows are fixed 6-light. It was built in 1938 (Jim Azzara, personal communication, January 15, 2008). The building is similar in design, materials and construction to other garages built by the CCC. The building is of the proper age to be associated with the CCC. The CCC constructed numerous buildings at Fort Missoula during this time period. The historic record indicates that the CCC was the only agency constructing buildings at Fort Missoula at this point in time. Building 36 is in good condition and retains integrity.

Building 37 (one contributing building, 1938) is a four-car garage with balloon frame construction. This feature is identical to Building 36, including the fixed 6-light windows. It was built in 1938 (Jim Azzara, personal communication, January 15, 2008). The building is similar in design, materials and construction to other garages built by the CCC. The building is of the proper age to be associated with the CCC. The CCC constructed numerous buildings at Fort Missoula during this time period. The historic record indicates that the CCC was the only agency constructing buildings at Fort Missoula at this point in time. Building 37 is in good condition and retains integrity.

Building 63 (one contributing building, 1945) is a one-story wood frame building constructed circa 1945 as the Provost Marshall's Office (McDonald and Bick, 1986). This building has a side gable roof with green asphalt shingle roofing and narrow, simple, wood drop siding. The side eaves are wide and boxed without brackets. It has three separate, equidistant, single-sash, rectangular, wood-frame 9-light casements on both the east and west elevations. Three similar windows are located off-center towards the east on the north elevation. There are four windows on the south elevation; two are identical to those on the west and east elevations. One of the other two windows on the south elevation is a double-hung 6-over-6 rectangular wood frame window located towards the west. The other is a single light, square, wood-frame sliding window located near the one simple wood-frame door.

The Provost Marshall was the chief military police authority at the fort. This position would most likely have had an office within the Fire Station Guard House (Building 46) constructed circa 1940. During the use of the fort as an internment camp and subsequent military prison, this position would have required additional staff and space. Research conducted by a Fort Missoula historian indicates the Provost Marshall's Office was most likely constructed circa 1945 to accommodate this need (Wallace Long, personal communication, February 20, 2008). The building is similar in design and materials with the prefabricated barracks, which housed the internees at the adjacent internee camp, and it may be related to those buildings. Building 63 is in good condition and retains integrity.

Building 156 (one contributing building, 1944) is a one-story concrete block building constructed in 1944. Historically, this building served as a 48-man solitary confinement standard detention unit. Originally, the building had two main sections or wings, one on the east and one on the west, connected on the north and south ends by a concrete wall that enclosed an open-air internal compound. The open-air compound was covered with a system of pipes and bars covered with wire mesh or cloth to prevent escape. The brackets and support braces from this system are still intact along the interior walls. The original open-air compound is apparent in aerial photographs in 1958 and was subsequently covered with a roof structure in 2001 (Kevin Krebsbach, personal communication, March 12, 2008). The building was renovated in 2008 for adaptive reuse; the renovation accurately conveys the historic roof design of the two wings. Elements that have been retained since the renovation include the shed roofs on the original two wings with wide boxed eaves on the low end of each roof, 14 square, fixed, casement windows below the eaves, and one large brick chimney on the south end of the structure. Building 156 was used in conjunction with Building 157 to house medium security Army prisoners from 1944 to 1947 (Long 2005:1-2). Building 156 is in good condition and retains integrity.

Building 157 (one contributing building, 1944) is a one-story concrete block building constructed in 1944 and is similar to Building 156. Both this building and Building 156 were used to house medium security Army prisoners from 1944 to 1947 (Long 2005:1-2). This building was the first of these two buildings to be renovated for adaptive reuse. The open-air central compound is apparent in aerial photographs in 1958 and the roof addition over the open-air compound was constructed circa 2001. This monitor roof addition rises above the original building height. While these changes impact the integrity of design and association, the building retains sufficient integrity to convey its significance as a contributing resource.

Building 203 (one noncontributing building, circa 1930) is a one-story frame garage built by the CCC in the 1930s (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). It is currently used as storage for the Historical Museum at Fort Missoula. The building was originally identified as a contributing resource to the Fort Missoula Historic District but since then the structure has had substantial alterations to its interior and exterior. Building 203 has had substantial alterations to its interior configuration, exterior walls, doors, and structural materials. The simple drop siding was replaced with new T-1 panel siding. The poor condition of the doors required reconstruction of the walls in that vicinity and new overhead garage doors were installed. In addition, the original roofing material was replaced with corrugated metal (L. Jane Richards, personal communication, February 21, 2008).

The integrity of location, setting, and association for Building 203 remain intact. The integrity of design, materials, workmanship, and feeling has been diminished by the alterations to the building. The non-compatible reconstruction of the exterior bay door walls, installation of new overhead doors, replacement of the siding materials, and the addition of corrugated metal roofing has significantly altered the design, use of materials, and workmanship once exhibited by the building. Building 203 has lost key aspects of integrity and is now counted as a noncontributing building.

Building 214 (one noncontributing building, 1938) is a one-story frame residence built as a barracks by the CCC in 1938 (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). It is currently used as offices for the Child Development Center (CDC). Building 214 was originally listed as a contributing resource to the Fort Missoula Historic District but has had significant alterations including incompatible additions to the original structure. A large rear addition consisting of two stories was added to the south elevation of the original one-story building. The building has been remodeled three times. The first remodel was conducted circa 1983. It was remodeled again in 1988 and the large addition was added to the back of the structure circa 1998 (Chris Volinkaty,

personal communication, February 19, 2008). The back addition was most likely located in the area where Building 215 had existed. Building 215, the garage behind 214, had previously been removed (Wallace Long, personal communication, January 31, 2008).

Although the integrity of location, setting, and association for Building 214 remain intact, the integrity of design, materials, workmanship, and feeling has been diminished by the non-compatible alterations and additions to the building. Specifically, the large non-conforming addition to the rear has significantly altered the original size and shape of the building and the vinyl siding does not conform to the original materials. The large mass and scale of the addition intrudes on the historic part of the building. Building 214 has lost key aspects of integrity and is counted as a noncontributing building.

Building 210 (one noncontributing building, 1998) is a new building constructed by the CDC in 1998 to the east of Building 214 (Chris Volinkaty, personal communication, February 19, 2008). This new building, called the Respite House (now designated Building #210), mimics Building 214, which is directly east. The original Building 210 was a one-story frame structure built as a garage by the CCC in 1938 (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). It was originally located north of an unnamed dirt road behind the original officers' quarters on the north edge of the original parade grounds and was most likely dismantled when other buildings in this area were removed in the early 1960s (Wallace Long, personal communication, March 11, 2008). Although the new structure that uses the designation 210 was built to mimic the original Building 214, it is not 50 years old, it is not associated in any way with the original Building 210, and it is not associated with any period of historic significance for the Fort Missoula Historic District. Therefore, the building currently designated as 210 is not a contributing resource to the district and is counted as one noncontributing building.

Building 310 (one contributing building, 1945) is a one-story wood frame building with a basement and a brick cooling tower built circa 1947 as a boiler plant. The L-Shaped building has a front gable roof and a side-gable wing that extends to the south. Asphalt shingles cover the roof, which features wide boxed eaves on the gable ends, and open eaves with exposed rafters on the sides. The siding is of the simple wood horizontal drop style. The east elevation has one ribbon of three, rectangular, wood-frame, 8-light casements at the north side and one wood-frame door with a two-light window at the south side. A bracketed, wood-frame gable roof shelters the door. The north elevation has five windows, including a pair of casements at the east side. The other three are separate double-hung wood frame 4-over-1 windows. The south (side) elevation features the gable end of the wing, and the side gable of the main bay to the east. A 6-light casement is centered in the wing's bay, which also features a louvered vent in the gable end. Within the east bay, two, 4-over-1-light double-hungs fill the west side, and a single 6-light casement rests within the east side. The massive, exterior, brick, boiler chimney stands against the gable wall on the west elevation. North of the chimney, there is a single wood entry door and a single 6-light wood-framed casement. A louvered opening vents the attic from within the gable end. Another 6-light casement is centered on the west elevation's side-gable wing. The boiler operator also used the building as a residence. Building 310 is unchanged. It is in good condition and retains integrity.

Building 316 (one noncontributing building, 1936) is a one and one-half story wood frame building built in 1936 as the Administration Building for the CCC (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). It is currently occupied by the Montana National Guard and is being used as the Rocky Mountain Museum of Military History.

Building 316, originally counted as a contributing resource is counted now as a noncontributing building to the Fort Missoula Historic District. The original roofline design has been significantly altered by the removal of the full-length dormer on the west roof slope. The shed dormer contained ribbons of double-hung, 3-over-2 windows across its 200-foot span and was removed in 1999 (Phillip Maechling, personal communication, February 21, 2008). The remodel also resulted in the replacement of the wood-frame 3-over-3 double-hungs on the main floor with single-hung wood-frame 9-over-9 windows. The original three-tab asphalt shingle roof material has been replaced with corrugated metal.

Though Building 316's integrity of location, setting, and association remain intact, its integrity of design, materials, workmanship, and feeling have been diminished by the alterations to the building. In particular, because the dormer has been removed, the building no longer retains its integrity of design. This, combined with the loss of the historic windows and roofing material, has rendered the building unable to accurately convey its associations with the historic district.

Building 330 (one contributing building, 1938) is a one-story frame building constructed as the Motor Pool Garage in 1938 by the CCC (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). It has a side gable roof with rolled asphalt roofing. It has simple horizontal drop wood siding and 16 pairs of three-panel doors fill the north side. Building 330 is prominent on the western edge of the fort complex with several other CCC structures. The Montana National Guard currently occupies the building. Building 330 is in fair condition and retains integrity.

Building 351, MRIF Building, (one noncontributing building, circa 1962), is a rectangular concrete block building that displays an almost flat roof and parapets on its east and west sides. A small rectangular, flat-roofed extension projects off the northeast corner of the building. The east and west parapetted walls display stucco while the north and south elevations are painted white concrete block. Three doors are located in the east elevation; two oversized overhead doors allow the passage of vehicles in the main portion of the building and a pedestrian door located in the small extension also provides ingress. This building was constructed circa 1962 and serves as a storage facility for the Montana National Guard.

Cinder Block Building (one noncontributing building, circa 1990). Located south of Building 101, this small, square, gable-roofed building displays cinder block construction. A wood pedestrian door allows access through the north elevation. This building was constructed circa 1990.

Garage A (one noncontributing building, 1975) displays a rectangular footprint and is protected by a front gable roof with false-front. Asphalt shingles cover the roof which has boxed eaves. The upper halves of the elevations exhibit vertical tongue-and-groove cladding and the lower halves consist of clapboard siding with cornerboards. The garage is painted green. A single tongue-and-groove pedestrian door occupies the north elevation while paired tongue-and-groove door allow access through the south wall. Garage A was constructed at this location in 1974-1975 to serve as a firehouse for a planned recreated western town that never reached fruition.

Garage B (one noncontributing building, 2005) sits parallel to Garage A and also exhibits a rectangular footprint. A front gable roof topped with asphalt shingles displaying open eaves and exposed rafters and fronted by a false-front protects the building. Cladding consists of clapboard siding and cornerboards. The garage is painted green. Paired vertical tongue-and-groove doors allow access through the north elevation and paired metal doors provide ingress through the south wall. Garage B was constructed in 2005.

Trolley Car Barn (one noncontributing building, 2011) consists of a new large, rectangular, two-story gable-roof building with an almost equal length smaller shed addition off the north wall. The roof is topped with green corrugated metal roofing and displays open eaves and enclosed rafters. The upper halves of the elevations are clad with vertical tongue-and-groove siding while the lower portions display horizontal clapboard. The east elevation contains two sets of paired double doors; one set in the principle portion of the building under the gable, and a smaller set in the shed portion. Ingress through the west side of the building is limited to the shed portion, which sports identical doors as the shed portion of the west elevation. A single 4-light fixed window is located just below the gable in the east and west elevations. The south elevation contains three sets of paired 3-light sliding windows immediately below the eaves and the north elevations displays two sets of paired 4-light windows. The Trolley Car building rests on a concrete foundation. Two rails project from just below the larger paired door under the gable.

Restroom (one noncontributing building, 2000) is a rectangular front gable building. Wood shingles top the steeply-sloped gable roof that displays open eaves with enclosed rafter and ornamental brackets; soffits consist of beadboard. Wood shingles cover the gable ends, vertical tongue-and-groove clad the upper halves of the elevations, and clapboard covers the lower portions. Paired vertical tongue-and-groove sliding doors replete with a single fixed window provide access through the west elevation. A single vent is located in each gable end just below the roofline. The building rests on a cinder block foundation. This building was built in 2000 to serve as a restroom for the museum.

Log Cabin "Fort Missoula Mercantile" (one noncontributing building, 1998) is a recently-constructed rectangular log cabin. A front-gable roof sporting an extended gable topped with corrugated metal roofing protects the building. The roof exhibits open eaves and exposed rafters. A single one-light metal door is located in the north and south elevations and two, 1-by-1 sliding vinyl windows are in the west and east elevations. This building rests on a timber foundation. A modern wood sign painted with "Fort Missoula Mercantile" hangs over the north door. This building was constructed in 1998 for the Fort Missoula Theatre Company.

Ticket Booth (one noncontributing building, 1998). This almost-square wood-frame building displays a gable roof covered with wood shingles. The gable elevations are protected with wood shingles. The upper portions of the elevations are clad with clapboard and cornerboards and the lower portions exhibit vertical beadboard cladding and cornerboards. A six-panel metal door is located in the north elevation and a single 1-by-1 sliding window is in the south and east wall. The ticket booth was constructed in 1998 for the Fort Missoula Theater Company.

ADC Barracks (one noncontributing building, 1942, moved to present location in 1995), located immediately west of Building 203, consists of a long, rectangular, single-story, gable roof building. The roof, covered with green rolled asphalt roofing, displays

open eaves and exposed rafters. Twenty-two static vents project from the roof's east slope. The building is clad with clapboard siding and sports evenly spaced vertical battens across the length of the building. Thirteen 1-by-1 windows are located in the east elevation and 15, 9-light windows are evenly spaced across the west elevation. Both the north and south elevations exhibit a 5-panel wood pedestrian door flanked on each side by a 9-light window and paired 6-light windows above the door in the gable; a wood screen door fronts the southern entry door. The barracks rest on a concrete foundation. This building was constructed in 1942 and moved to this location in 1995.

Gable Roof Board-and-batten Shed (one noncontributing building, 2009) consists of a wood-frame, rectangular building located immediately east of the depot. The shed is covered by a side gable roof topped with asphalt shingles and has open eaves and exposed rafters. Board-and-batten cladding protects the exterior of the shed. Two paired vertical tongue-and groove doors are located in the south elevation and a single 4-light fixed window is placed in the east and west elevations. The shed sits on wood timbers. The railroad club constructed this building in 2008-2009.

Gambrel Roof Shed (one noncontributing building, circa 2000). This building is a small, rectangular, pre-fabricated, gambrel roof shed located immediately north of the USFS trailer. The roof is protected with brown asphalt shingles and has open eaves and exposed rafters. The walls are clad with a vertical groove pattern plywood siding. A 2-light/4-panel overhead metal door fills most of the east elevation and a 1-light fixed window is in the north wall. This small shed is fairly recent addition to the property and likely dates to the last 10 years.

Concession Booth (one noncontributing building, 1998). This building displays a rectangular footprint. A shed roof topped with wood shingles covers the building. Cladding consists of clapboard on the upper half and beadboard on the lower half of the elevations. A 6-panel metal door provides ingress through the south wall. The east elevation contains paired waist level doors to sell concessions. Constructed in 1998, this building originally served as the technical shed for light and sound for the Fort Missoula Theatre Company. It was moved to its present location in 2004.

Structures

Forestry Interpretive Display (engine and four rail cars counted as one noncontributing structure, logging related machinery protected by a recent gable roof shelter counted as one noncontributing structure, sawmill display including a Case engine covered by a recent gable roof shelter counted as one noncontributing structure, 1990-2005) consists of a collection of forestry and logging related machinery and artifacts. These include a Shay steam engine and four rail cars consisting of logging flat cars, a log-loading slide jammer, and shuttle car. Two recently constructed gable roof shelters covered with metal roofing (one supported by vertical 12 inch diameter posts and the other supported by 6 inch square posts) protect a working sawmill and a collection of antique forestry machinery. The arrival of the machinery first began in the mid-1980s and continues to the present. Both shelters were constructed between 1990 and 2005.

Tipi Burner (one noncontributing structure, 1946, moved to present location in 2004). Circular in form and constructed of sheet metal, this structure contains multiple paired sheet metal doors around its base. Constructed circa 1946 in Conner, Montana, the Ravalli County Fairgrounds acquired the structure; their donation in 2004 allowed for its current placement at Fort Missoula.

Truck Port (one noncontributing structure, circa 2000). This structure was designed to provide shelter to large vehicles during their servicing and washing. It is located immediately west of Building 101, the Army Reserve Motor Pool. The open rectangular structure consists of a metal gable roof supported by six vertical I-beams set in a concrete footing. The north and south sides of the structure are completely open while the east and west sides display corrugated metal sheeting from the bottom of the eaves to half way down the elevation. The structure was constructed circa 2000

Wood Frame Open Shed (one noncontributing structure, 1990.) consists of a rectangular gable roof shed. The roof and gables are covered with corrugated metal sheeting. Fourteen 6' by 6' vertical posts set in a concrete pad support the structure. This structure sits south of Building 105, the post bakery, and was constructed circa 1990.

Guardsman Lane, also known as the **CCC Road**, (**one contributing structure, 1941**), is a two-lane access road from South Avenue constructed in 1941 by a local contractor for the CCC (*The Missoula Sentinel*, 25 October, 1941). The road provided access to the CCC facilities located on the west end of the Fort Missoula complex. It is currently paved and provides the main access to the west end of the fort complex. It is in good condition and retains integrity.

The **Original Fort Missoula Road (one contributing structure, circa 1877)** is a two-lane paved road running diagonally to the southwest that accesses the main fort complex. Although the roadway is still in place, the original entrance is blocked due to increased traffic on Reserve Street. According to the Fort Missoula Historic Resource Study, "The first 300 yards of the Fort Road was closed to public use in 1974. The remainder of the 4,753-foot entryway is joined by roadways from both Reserve and South Avenue. This raised road is lined on both sides by elms, which were planted by the Civilian Conservation Corps about 1934. The road originally led to a sentry box and the Provost Marshall's office prior to the abandonment of the fort by the regular army in 1947. It now joins the fort's internal road system near the Army Reserve Center and the Nez Perce War Memorial" (the Fort Missoula Dedication Monument) (McDonald, Long, and Hardin 1984:64).

The original nomination combined the original Fort Road, the two stone pillars marking the northeast end of the original Fort Road entrance, and the fort dedication monument as one contributing resource. These resources are separated in this addendum and boundary increase and count as three contributing elements. The Original Fort Missoula Road is one contributing structure. The road relates to the defined periods of significance and to the significance of the district. The road is in good condition and retains integrity.

Objects

The **Fort Missoula Entrance Pillars (one contributing object, circa 1928)** consist of two stone pillars marking the original entrance to Fort Missoula. The pillars were constructed sometime between 1927 and 1929 by John Taylor, a civilian who worked as the Fort Missoula Post Engineer from the late 1880s until he retired in 1927 (Wallace Long, personal communication, January 31, 2008). When originally constructed, the pillars marked the junction of the Fort Road with the Missoula-Bitterroot Valley Road. Currently they face the intersection of South Avenue and Reserve Street. The short, tapered, square pillars are constructed of fieldstones and mortar and are capped by a concrete slab. The sign between the pillars that denotes the original entrance was dedicated in 1977 by the County of Missoula (McDonald, Long, and Hardin 1984:64). The structure is in good condition and retains integrity.

The original nomination combined the original Fort Road, the two stone pillars marking the northeast end of the original Fort Road entrance, and the fort dedication monument as one contributing resource. These resources are separated in this addendum and boundary increase and count as three contributing elements. The Fort Missoula Entrance Pillars is one contributing object. The pillars relate to the defined periods of significance and to the significance of the district. The pillars are in good condition and retain integrity.

The **Fort Missoula Dedication Monument, (one contributing object, circa 1928)**, is constructed of stone in the shape of an obelisk and includes a plaque donated by the Anaconda Mining Company. The plaque notes that the establishment of the fort resulted from the Nez Perce War. The monument relates to contributions made to the post by civilian employees and commemorates the creation of the fort. The copper plaque was most likely made at the Tuttle Manufacturing and Supply Company foundry in Anaconda, a company owned by Marcus Daly (Wallace Long, personal communication, January 31, 2008). The monument body is constructed of local granite with the stones squared and mortared. It measures 6 ft square at the base and is oriented so the four corners point to the cardinal directions. It stands 8 ft 4 in tall and is topped with a flat capstone that measures 3 ft square. The plaque is bolted to the southeast face, which looks towards the fort complex access road, G Street.

The monument was most likely constructed sometime between 1927 and 1929 by John Taylor. Mr. Taylor came to the fort as a soldier in the 3rd Infantry Regiment in either 1883 or 1884. Upon his discharge, he applied for and received a civil service position as the Post Engineer. His pay came directly from Washington D.C., most likely from the War Department. He was responsible for the maintenance of the post water and electrical systems. In April of 1893 he married Mary Emily Anderson. She was working at the fort as a maidservant to Lieutenant and Mrs. Duvall. Mr. Taylor and his family lived on the Post until his retirement at age 65 in 1927. During his time at the fort Mr. Taylor served as one of the caretakers when no regular garrison was present. His workload expanded as new water, sewer, and electrical systems were required. Even after he retired he continued to do odd jobs at the fort. Three examples of his skill in construction still exist, including the Fort Dedication Monument and the two stone pillars that hold up the sign that marks the original entrance to the fort. Both the pillars and the monument were constructed within a few years of Mr. Taylor's retirement. Mr. Taylor died February 10, 1945 and is buried in the Missoula Cemetery (Wallace Long, personal communication, January 31, 2008).

The original nomination combined the original Fort Road, the two stone pillars marking the northeast end of the original Fort Road entrance, and the fort dedication monument as one contributing resource. These resources are separated in this addendum and boundary increase and count as three contributing elements. The stone dedication monument is one contributing object and relates to contributions made to the post by civilian employees and commemorates the inception of the fort. The monument relates to the defined periods of significance and to the significance of the district. The monument is in good condition and retains integrity.

Because it is "a single marker that is a component of a district," it does not need to meet Criteria Consideration F for Commemorative Properties (USDI NRHP Bulletin 15 2002:39).

Sites

24MO0188, The Fort Missoula Historic Dump (one contributing site, associated with early use of the fort) was initially recorded by Dr. Carling Malouf, Department of Anthropology of the University of Montana, in 1982. Dr. Malouf first noted the site in 1944 while he was stationed at Fort Missoula as a first lieutenant. Dr. Malouf led classes of university students in excavation and testing for several decades that recovered thousands of artifacts currently housed in the Anthropology Department at the University of Montana. These artifacts include bottles, dishes, buckles, cans, metal fragments, animal bones, and clothing fragments. Dr. Malouf suggested the dump appears to encompass approximately one acre and extend about three feet in depth. An investigation conducted in 2004 further defined the site boundaries and provided additional information regarding the subsurface potential of the site (Hall and Knudsen 2004:4, 24-25). The site is in good condition and retains integrity.

The **Original Post Bakery Site (one contributing site, 1897)** is the location of the original Post Bakery, constructed in 1878. The bakery was a one-story log structure used into the early 1900s. Forty-two 1 m x 1 m units, two 2 m x 50 cm trenches, one 50 cm x 50 cm unit and numerous shovel probes were used to investigate the site (Ogborne et al. 2008). Materials recovered include foundation feature remains and building related materials such as mortar, hardware, chinking, brick fragments, wood fragments, glass fragments, tar paper, ceramic fragments, flanges, knobs, washers, bolts, rebar and electrical related artifacts; non-building related materials recovered include a saddle rivet, a horseshoe nail, various cartridge casings, two bullet tips, two ammunition clips, a friction primer tube for a Model 1861 rifle cannon, various faunal remains, numerous glass fragments dominated by Coca Cola bottle fragments, 34 ceramic fragments, an infantry collar pin, a harmonica fragment, over 1400 clinkers, and a salt or pepper shaker top. Spatial analysis of artifact placement suggests an oven sat in the northern portion of the excavation and a potential living area occurred in the southern portion. The investigation also suggests the building was dismantled and moved rather than being demolished in place.

The **CCC Warehouse Building 308 Site (one contributing site, 1938)** is the location where Building 308, a one-story frame warehouse was constructed in 1938 by the CCC (Ed Sharp Collection, Map B - 1388, Montana Historical Society, Helena). Forty-eight 1 m x 1 m units, five 1 m x 50 cm units, and numerous shovel probes were used to investigate the location of the CCC Warehouse Building resulting in the identification of foundation remains (the warehouse's north foundation), the presence of an earlier building, and a variety of artifacts (Ogborne et al. 2008). Materials associated with the actual building represent the majority of the artifacts recovered, with nails and window glass dominating the assemblage and cement fragments, tar paper, mortar fragments, bricks and brick fragments, tile fragments, wire, and door stripping represented to a lesser degree. Electrical based artifacts recovered include light bulb glass, light bulb fragments, insulator fragments, wire and wire insulation, and a fuse. Other materials recovered include three spark plugs or plug fragments, tail light glass, wires, bolts, nuts, washers, springs, screws, metal strapping, two face plates, one door hinge, one socket, one horseshoe nail, six cartridge casings and three shotgun shells, a small number of faunal remains (likely post-depositional), glass fragments (consisting of clear, brown, green, red and amethyst), Mason jar fragments, ceramic fragments, three buttons (including one military button), two button snaps, a safety pin, two tokens, two lipstick canisters, a small clear glass bottle, artifacts related to medical use (such as pill vial fragments and syringe fragments), clinkers, a pocket knife, a bicycle tire tube, a key, metal brackets, chain links, a coat hanger, cardboard fragments, machine parts, a paint can lid, metal piping, bed springs, plastic tape, and plumbing pipe.

The **Trash Deposit Site (one contributing site, associated with early use of the fort)** is the location of a trash deposit associated with the early use of the fort (Hall 2003:12). Seventeen 1 m x 1 m units, one 1 m x 50 cm unit comprising a block were excavated in this site. Although the excavations terminated at 30 cmbs, the results indicate the area above 30 cmbs may have been plowed; the excavations revealed a trash scatter and mixed stratigraphy associated with a plow zone. The artifacts recovered from this area include late 1800s and early 1900s standard military issue clips, casings, and cartridges. Additional artifacts recovered include ceramics, a few round nails, butchered and burned bone, one clear glass fragment, clinkers, and one small projectile and possible flake. The projectile point resembles an Avonlea or Galt point from the Late Prehistoric Period (Ogborne et al. 2008). The site is in good condition and retains integrity.

24MO1616, Historic Landfill (one noncontributing site, beginning 1956) consists of a 0.3-acre site located immediately south of buildings 351 and 330. A previously documented study revealed only that 24MO1616 served as a refuse area between 1956 to 1980. The landfill is believed to be associated with the construction and expansion of the Montana Army National Guard's physical properties and training activities. Surface findings included only two smashed brick fragments, a small band of steel and a bent guide

wire anchor. The period during which the landfill was in use falls outside the period of significance established for the Fort Missoula Historic District Addendum and Boundary Increase and considered a noncontributing resource (Krigbaum 2010).

24MO0937, prehistoric lithic scatter (individual National Register eligibility undetermined; one noncontributing site to the Fort Missoula Historic District Addendum and Boundary Increase) consists of six obsidian flakes identified on the site surface, and an additional three obsidian flakes, one agate flake, one clear glass fragment, one mammal bone fragment, and several charcoal flecks recovered from a 1 m x 1 m test unit (Hall and Knudsen 2004). This site falls outside the period of significance established for the Fort Missoula Historic District Addendum and Boundary Increase.

Tennis Court (one noncontributing site). This site consists of a concrete pad that originally served as a tennis court. Although the posts that supported the net no longer exist, a tall metal fence constructed of light wire mesh and vertical metal poles that served to restrict the movement of errant tennis balls stands at each end of the court. The tennis court was constructed circa 1950, outside of the period of significance.

Historic Stone Alignment (one noncontributing site). Located just northwest of Building 142 and partially aligned with, and visible in J Street (unpaved), this alignment measures 100 ft long (NE-SW) and 2 ft wide. It is constructed from large stones that average approximately 1 ft in size. Historic maps and consultation with Fort Missoula personnel failed to identify the use of, or when this alignment was constructed.

Fort Missoula Historic Cultural Landscape (one contributing site). When the Fort Missoula Historic District was formally listed in the National Register of Historic Places in 1987, the historic landscape was not included. A cultural landscape is produced when human interaction with the land leaves traces of historically significant use. A key component of a cultural landscape is its visual character. Analyzing the visual character of a cultural landscape includes identifying the area's original configuration, significant changes that have occurred through time, and current condition.

The visual character of any historic district is determined by three fundamental factors including the site configuration of the natural or manmade topography and vegetation, the layout or the way in which the travel routes are laid out and property parcels are arranged, and the architecture, specifically, the design of the buildings, structures, and objects (Francaviglia 1991:13).

In addition to the site configuration, layout, and architecture, the extended viewshed of a historic property provides its larger visual context, how the property fits into its surroundings. Viewsheds are determined from and towards a central point of focus that include the significant elements of a project area and its surrounding landscape (USDI NRHP Bulletin 30). The point of focus at Fort Missoula is the second parade ground. This area is centrally located within the Fort Historic District and has been in use since the reconstruction of the original post in 1908 (McDonald and Bick 1986).

The historic district's cultural landscape generally reflects two significant periods within the context of Fort Missoula history. The first consists of an attempt to "beautify" the area following a national trend during the late 1800s and early 1900s. The second period consists of the landscaping conducted by the Civilian Conservation Corps (CCC) in the 1930s and early 1940s.

Site Configuration

Originally, the location of Fort Missoula was an open prairie terrace located on the north bank of a large bend in the Bitterroot River four miles southwest of the town of Missoula. Native plant communities would have included bluebunch wheatgrass (*Pseudoreugnaria spicata*), rough fescue (*Festuca scabrella*), Idaho fescue (*Festuca idahoensis*) and junegrass (*Koeleria macrantha*) as dominant grasses. Silky lupine (*Lupinus sericeus*), larkspur (*Delphinium bicolor*), arrowleaf balsamroot (*Balsamorhiza saggittata*), and penstemon (*Penstemon wilcoxii*) would have been common spring wildflowers, and hairy golden aster (*Chrysopsis villosa*), blanket flower (*Gaillardia aristata*), and asters (including *Aster pansus* and *A. falcatus*) were common late-season wildflowers. Forested sections, primarily the riparian area along the Bitterroot River, were dominated by old growth black cottonwood (*Populus trichocarpa*) and mixed deciduous shrubs including chokecherry, hawthorn, and dogwood. Native grasses and sedges, snowberry and false Solomon's seal dominated the under story (Marler 2006).

With the arrival of the military, the landscape of the area began to change. The first significant period reflecting the fort's landscape development resulted from the "City Beautiful" movement, which swept the nation in the late 1800s and early 1900s (Wilson 1964:xiii). The movement, which developed between 1880 and 1920, reached its climax between 1900 and 1910. This movement attempted to fashion American cities into beautiful functional places that would inspire civic pride and moral responsibility. The ideal

found physical expression in urban design, with public and semi-public buildings, civic centers, and park and boulevard systems, with extensions or embellishments to the existing systems. These changes were the "tokens of the improved environment" that constituted the goal of the movement. These tokens of improvement were also found in ordinary street improvements, including "good pavement, attractive fixtures such as lampposts, and carefully selected and maintained trees" (Wilson 1989:1).

A prime example of a military post influenced by the City Beautiful movement is the Presidio in San Francisco. In the late 1890s and early 1900s, the Presidio saw an increase in troop numbers and a subsequent need for additional buildings and access routes. The post consulted with Daniel Burnham, a city planner who utilized City Beautiful ideals in his designs. Burnham recommended the drives and concourses around the Presidio be arranged so the public could enjoy the best views of the landscape. This paralleled his design ideas for the city (Benton-Short 1998:39). In her book, *The Presidio: From Army Post to National Park*, Lisa Benton-Short described the City Beautiful influence on the Presidio as helping to craft "a distinctive cultural landscape" at the post. She states, "Intentional beautification efforts had changed the natural environment and brought into being an intensely humanized landscape," (Benton-Short 1998:39).

The landscape at Fort Missoula reflects the City Beautiful movement in several ways. Examples from the fort landscape are evident in the very design of the fort complex as well as elements like the widened boulevard system, the careful selection and planting of ornamental shrubs and trees, and the addition of wrought iron fences, concrete sidewalks, raised boardwalks, raised planter flower boxes along the sidewalks on Officers Row, seeded grass lawns, and decorative fire hydrants and lampposts.

Beautifying of the fort during its initial construction in the late 1870s and early 1880s included attempts to organize the layout and natural configuration with manageable transportation routes and introduced vegetation. The Fort Missoula historic record from this period is sprinkled with references to the goals and ideals of the City Beautiful movement. An 1884 letter from the post commander to the Adjutant General's office indicated that in regards to "beautifying of the post" long lines of cottonwoods transplanted from nearby groves and yards had been added in front of the officers' quarters. These improvements were watered by a three-inch main from the Bitterroot River (Fort Missoula Collection, Series 1, Box 1, Folder 2 "Correspondence 1877-1899":216).

The military post at Missoula, which had an "open design" from the beginning, also followed the City Beautiful movement during the renovation of the fort complex between 1908 and 1912 (Flaherty 1978:15-16). During the renovation of the fort, tokens of improvement following the City Beautiful ideals were incorporated in the street and landscaping design. These included wider transportation routes around the new parade ground, street trees, lampposts, sidewalks, and low wrought-iron fencing to protect the new lawns seeded in front of the new officers' quarters. The sidewalks delineating the seeded lawns and new trees around the Post Hospital during this time were of a raised wooden plank construction, a unique system at Fort Missoula. Other landscaping improvements included raised flower boxes lining the sidewalks along Officers Row. These tokens of improvements, including the open interior views, delineated and cultivated lawns and street trees, and widened boulevards, helped craft a distinctive cultural landscape at Fort Missoula. As with the Presidio in San Francisco, Fort Missoula became both a park and a small military community within the larger and continually growing urban community of Missoula (Benton-Short 1998:39).

The general use of the fort complex, including but not limited to renovations, new construction, transportation routes, landscaping, and the introduction of grain and hay-fed livestock into the greater fort area, allowed for the continued reduction of native vegetation and the increasing presence of non-native elements. Non-native invasive plant species that have become established in the fort area over the course of time include spotted knapweed, leafy spurge, sulfur cinquefoil, henbane, baby's breath, quack grass, and smooth brome, in varying densities (Marler 2006).

The second significant period of the fort's landscape configuration reflected the efforts of the Civilian Conservation Corps (CCC). Between 1933 and 1942 Fort Missoula served as a regional headquarters for the Corps. During the CCC's presence at the fort, the Corps conducted numerous landscaping projects including the planting of boulevard trees along the original entrance road and other areas of the fort.

Multiple lines of evidence suggest the CCC planted the Siberian Elms at Fort Missoula. One source notes "the trees along the original entrance road were planted by the CCC in 1934" (McDonald, Long, and Hardin 1984:64). A May 1935 edition of the *Green Guideon*, a monthly newsletter published by the CCC, mentions that the Corps conducted landscaping at the fort, but does not describe what specific landscaping activities occurred (*Green Guideon*, 31 May, 1935). Historic aerial photographs taken during the CCC period depict ornamental trees and shrubs around the buildings along Officers Row, including shrubs in the backyards that define the individual yards much like fences. According to the Missoula City Urban Forester, the Siberian Elms at the fort are of the proper age to have been planted by the CCC (Scott Stringer, personal communication, August 8, 2007). The final line of evidence, and the most

compelling, comes from historic photographs. The trees along what would become E and H streets and along the main entrance road were already well established by the time these photographs were taken in the early 1940s, indicating they were likely planted before the internment camp presence suggesting a CCC association.

The CCC utilized a large portion of the western edge of the fort during the 1930s and early 1940s creating a need for additional buildings and access routes. This increased use of a wider area of the fort, with additional structures and transportation routes, continued to impact the remaining native vegetation. In the riparian area along the river, some ornamental shrubs and box elder were introduced, specifically on Sleven's Island located south of the original parade grounds. Since box elder is not native west of the continental divide, it is an artificial assemblage. In addition, non-native grasses and forbs, including several noxious weeds such as common tansy, hounds tongue, and Canadian thistle are present. Exotic grasses present include Kentucky bluegrass (*Poa pratense*) and reed canary grass (*Phalaris arundinacae)* (Marler 2006).

Site Layout

Fort Missoula was constructed using an open design implemented by the military in the 1870s. Based on this design, the fort had no palisade walls or defensive earthworks. This open design was used for forts constructed primarily in the West and was meant to create a "logistical center for an army actively patrolling and policing the countryside," (McDonald and Bick 1986). This open design assisted with monitoring travel to and from the military post. The design called for "open, exposed clusters of buildings" around the traditional rectangular parade grounds. Seven of the eleven major military posts built in Montana during the late 1800s used the open design (McDonald and Bick 1986).

The original design of the fort had the post structures arranged around a rectangular parade ground with the long southern edge of the parade ground paralleling the Bitterroot River. The structures included a hospital, dead house, headquarters, chapel, laundress quarters, a Chinese laundry, a post sutler, barracks, officers' quarters, adjutant's office, gymnasium, powder magazine, guardhouse, subsistence storehouse, quartermaster's storehouse, non-commissioned officers' quarters, and bakery. The officers' quarters were located along the long north leg of the parade ground, facing the river. The laundress quarters and barracks were on the east and west end of the complex (Long 1991).

During the late 1800s, transportation routes included a southwest-running dirt road that accessed the fort from town. There was also a second access to the fort area from the west, an access road from the fort to the Post Cemetery located several hundred feet to the north, and unnamed dirt lanes that provided access between the structures.

Based on research conducted by Dale Jones, a Montana railroad historian, the Northern Pacific Railroad (NP) reached Missoula in 1883 but provided no rail access to the fort. The Missoula and Bitterroot Valley Railroad, a subsidiary of the NP, built a rail line that ran southwest from Missoula towards Hamilton in 1888. This line had a siding named "Post" in the vicinity of the Missoula-Bitterroot Valley Road southeast of the fort. The siding was 1,051 ft long and listed on Northern Pacific timetables from 1888 to 1968 (Dale Jones, personal communication, January 26, 2008). Any freight from the Northern Pacific's mainline or the Bitterroot branch line intended for the fort was most likely moved by wagon from the Post siding or from Missoula proper. This "Post" siding may have leant its name to the Post Siding Road that accesses the fort complex running northwest from the old Highway 93 route, which was originally known as the Missoula-Bitterroot Valley Road (McDonald, Long, and Hardin 1984:64).

North of the fort complex is an area that historically served and continues to be open space. This area, east and west of the Post Cemetery, was historically used as a target range for artillery practice. The artillery was set up near the fort and directed away from the buildings and structures. When not utilized for target practice, cattle grazed the area. Later, the open space served as tent camping for the CCC. Because of its proximity to the fort, the area also allowed for both passive recreation and more organized forms of recreation by the military and later the CCC.

The reconstruction of the fort during the early 1900s moved the focus of the post design a few hundred feet to the northeast. A new parade ground was established with a curved row of new officers' quarters and barracks on the north and east sides facing the new grounds. A new post hospital, guardhouse, water tower, post-exchange, and headquarters were also added (Long 1991:12-13). In addition, two non-commissioned officers' quarters, a post bakery, quartermaster's storehouse and root cellar were added a short distance southeast and east of the new grounds (McDonald and Bick 1986).

Transportation routes within the fort complex were added to access the new structures. The Fort Road, which ran southwest, and the Post Siding Road, which ran west-northwest, connected the military post with the Missoula-Bitterroot Valley Road. The Fort Road led

to a sentry box and the Provost Marshall's Office until the fort was abandoned by the military in 1947. It now connects with the fort complex's internal road system at G Street (McDonald, Long, and Hardin 1984:64). Routes that would become A, D, E, F, H, and J Streets outlined the new parade grounds and followed the curve of the new officers' quarters.

In the early decades of the 1900s, the Post Siding Road was used as a street railway route by the Missoula Streetcar Company. The street railway route did not enter the fort proper but ended at a "roundabout" located in the triangle point between the Post Siding Road and the original Fort Road, directly east of the Fire Station. The streetcar company operated from the early 1910s into the late 1930s when all lines were abandoned (Dale Jones, personal communication, January 26, 2008).

The use of the fort as a regional headquarters for the CCC increased activity on the western edge. This in turn required additional access routes. New routes included what would become B and C Streets. An unnamed street that ran north of and parallel to E Street was also added Although this unnamed street no longer exists, evidence of it remains as a linear arrangement of trees along its route.

At the onset of World War II, several rows of barracks were constructed to house internees. These were built on the southeast end of the fort complex in an open field located east of the two large army barracks built during the reconstruction of the fort. Unnamed dirt roads and I Street provided access between the internee barracks and the rest of the fort complex. In the fall of 1941, a road was constructed by a contractor for the CCC so they could access their facilities on the northwest end of the fort complex and would not have to pass through the internment camp area constructed on the southeast end of the fort (The Missoula Sentinel, 25 October, 1941). This is the road known as Guardsman Lane and/or the CCC Road that currently accesses the west end of the fort complex from South Avenue and is the main access route to the fort cemetery. An unnamed dirt road that is no longer maintained accessed the fort cemetery running north from the west end of Officers' Row. This road may have been a continuation of D Street and was most likely used to access the Fort Missoula Gun Club established by military personnel in the 1940s (Hall 2003:12).

Viewshed

The original fort viewshed was extensive on three sides. The natural vegetation along the Bitterroot River limited the view from and towards the fort on the south. The distance from the main town, and its increasing residential and commercial construction, coupled with the open design, flat topography, and sparse vegetation, provided an expansive view from and towards the fort. After the reconstruction of the fort in the early 1900s, the new officers' quarters and barracks reduced the direct line of sight to the east. Even so, the fort viewshed was still fairly expansive and its configuration in an open prairie on the north bank of a bend in the Bitterroot River was still quite evident. During this phase of the fort's development, the water tower was one of the more prominent elements.

The fort's viewshed remained fairly open and the water tower served as one of the most commanding visible structures during the use of the fort by the CCC and subsequent use an internment camp. The most unobstructed view from the second parade grounds was towards the northwest. Although trees and structures have reduced the expansiveness of the original viewshed, the fort area was still highly visible along the open plains between the town of Missoula and the Bitterroot River as late as 1950.

Current Conditions

Although the visual character of the original 1878 post has been compromised by subsequent periods of construction and use, elements remain. These include the non-commissioned officers' quarters, the powder magazine, some of the original transportation routes, the open space north of the fort complex, and the still undeveloped location of the original parade grounds; these provide a connection to the original fort plan.

The visual character of the reconstruction period, which occurred during the height of the City Beautiful movement nationwide, is the strongest presence within the fort complex. The Fort Hospital building, the buildings along Officers' Row, the large barracks buildings, the post-exchange and headquarters buildings, additional transportation routes, and the still undeveloped second parade grounds, all remain from the reconstruction period. The lawns and street trees, first added during this time and further improved upon during the landscaping efforts of the CCC, also serve as visual reminders of the fort's early history.

Currently, most of the transportation routes within the fort complex have been improved and paved. Some of these routes date to the original layout of the fort and some remain from the reconstruction period, the CCC period, and the internment camp period. Other routes, including the one north and parallel to E Street, no longer exist. Most of the original post structures were removed beginning in the 1960s. Many of the reconstruction period buildings are still being used although some have been altered from their original design. CCC period structures are still being utilized although two large warehouses no longer exist. Several additional structures were erected

within the main fort complex after 1947 though most are maintenance and ancillary buildings for existing structures (McDonald and Bick 1986).

Although the removal of some of the Siberian elms planted along the Fort Road occurred and some replaced, the majority remains, and the tree-lined corridor along this historic entryway still elicits the historic aspect associated with the road. In a few areas, most of the elms, specifically along the front of the fort's reconstruction-era Officers' Row, have been removed; however, many of the boulevards still posses their tree-lined visage evoking the historic period of Fort Missoula in a compelling fashion. The elms and other trees planted along streets, plants resulting from landscaping and watering, in association encroaching development, power lines, and structures, has resulted in a diminished viewshed to and from the second parade ground.

At present, the open area north of the fort complex continues to serve in a recreational capacity. Though artillery fire no longer peppers the area, the section east of Guardsman Lane/CCC Road is home to multiple baseball diamonds, a tennis court, and continues to be used for cattle grazing, while the area west of the road contains two soccer fields. The low profile of these features does not detract, nor are noticeable, from the fort itself. So while the specific use of the open space has changed since its inception, its intended use as an open space to accommodate a variety of functions remains; it currently still serves a variety of recreational functions as it did historically.

As early as the 1930s, the area surrounding the fort complex began to be developed. The Missoula Country Club was one of the first entities to establish itself in the vicinity of the fort. It is directly southeast of the fort complex and within 75 feet of the water tower. As the town of Missoula grew, and with the sale or lease of portions of the fort's holdings starting in 1948, additional development in the area was inevitable. Community Hospital, a recreational complex, a public golf course, and other private entities have been established on what was once part of the fort's holdings to the east of the main complex along the original access route from Missoula.

STATEMENT OF INTEGRITY

The Fort Missoula Historic District and Boundary Increase retains a high degree of historic and archaeological integrity. Although modern development has occurred on three sides of the fort complex, the buildings and landscape resources evoke much of the setting and feeling of the Fort reflected during its different iterations of use. From the resources dating to the earliest period of the Fort's history, through the CCC period and culminating with the post-interment period of use, the Fort Missoula Historic District and Boundary Increase area provide a glimpse of an evolving military facility. The essential physical features that comprise the district include the buildings, structures, objects, and sites associated with the Fort Missoula Military Post, the Civilian Conservation Corps, the Alien Detention Camp, the Northwestern Branch United States Disciplinary Barracks, and the overall historic landscape. These features graphically and evocatively convey the significance of the historic district. One of the most compelling physical features of the district is the historic landscape. The historic landscape retains a high degree of integrity representing the use of an area for specific purposes while integrating the natural environment. While undergoing some changes, the landscape still strongly reflects the rural setting of the original Fort.

The Fort is directly associated with significant historical events and, because the fort area has retained significant historic characteristics, it still evokes a sense of those past events. In the mid-to-late 1940s, after the fort's most intensive use, the Army sold or leased portions of the fort property to various agencies including the Department of Civil Defense, the Marine Corps, the Montana National Guard, the Forest Service, the University of Montana, and both the Army and Navy Reserves. The transfer of different portions of the property resulted in a wide variety of uses of the fort by federal, state and county agencies, and private organizations. The 1960s witnessed the systematic dismantling of the earliest fort buildings near the southwest corner of the fort by the General Service Administration. The restoration of the original Non-Commissioned Officers Quarters (Building 201) by the Montana Ghost Town Preservation Society occurred at this time. The non-profit Northern Rockies Heritage Center owns and preserves much of the heart of the current Fort Missoula Historic District.

The county supported Fort Missoula Historical Museum today occupies the 1911 Quartermaster's Storehouse (Building 322). As part of the museum's artifact collection, several buildings and structures have been recently acquired or donated and moved from their original locations in the Missoula vicinity to a small, 10 acre parcel of undeveloped land to the north of the original parade ground. The land upon which these buildings were placed was used historically as the fort garden and no fort buildings were erected here. Although these recently moved buildings bear no historical relationship to one another or to the military fort properties and are noncontributing elements within the Fort Missoula Historic District, they do not overly detract from the setting and feeling of the district. The integrity of the fort complex, even with the removal of the earliest buildings and the addition of more recent elements, remains extra high, weathering both ownership changes and adaptive reuse of the individual buildings and property.

Subsurface investigation at 24MO0188 (the historic Fort Missoula dump), the Original Post Bakery Site, the CCC Warehouse Building 308 Site, and the 1880s-era Trash Deposit Site indicate the presence of intact subsurface deposits with good integrity exist at the Fort based on the identification of artifacts and structural remains. The identification of several areas displaying archaeological integrity strongly suggests other such areas exist on the fort property. These archaeological deposits provide another avenue of inquiry regarding the history and use of Fort Missoula.

Fort Missoula Historic District Addendum and Boundary Increase, Contributing and Noncontributing Resources

Note: All resources recorded in the 1987 nomination and in this addendum and boundary increase are included in this table. Each resource is presented in two lines. Information presented in the first line relates to the original 1987 nomination and the second line provides current information including present ownership and/or use. The information provided in the second line pertains to this addendum and boundary increase.

Table 1. Contributing and Noncontributing Resources of the Fort Missoula Historic District Addendum and Boundary Increase

NO.	NAME	DATE(S)	DESCRIPTION/COMMENT	C OR NC	CLASSIFICATION
1	Post Headquarters	1940*	2 ½ story frame, Offices	C	Building
1	(Lolo NF, vacant)		Unchanged	C	
2	Post Exchange	1906	2 ½ story brick, Offices	C	Building
2	(NRHC, Heritage Hall)		Restored in 1998	C	
9	Post Hospital	1911	3 ½ story concrete, Hospital	C	Building
9	(WMMHC - offices)		Unchanged	C	
11	Garage	Ca. 1938	1 story balloon frame, Constructed by the CCC	N/A	Building
11	(WMMHC – storage)		Unchanged	C	
12	Hospital Staff Quarters	1938	1 story frame residence, Constructed by the CCC	C	Building
12	(WMMHC – Family Services)		Minor modifications – windows and doors replaced, modernized	C	
14	NCO Quarters	1910	2 story frame duplex, Windows and doors boarded over	C	Building
14	(U. of M., vacant)		Unchanged	C	
15	Garage		1 story balloon frame, Storage	N/A	Building
15	(U. of M.)	Ca. 1938	Unchanged	C	
16	NCO Quarters	1910	2 story frame duplex	C	Building
16	(U. of M., vacant)		Unchanged, Windows and doors boarded over	C	
17	Pump house		1 story cement, partially submerged, Associated with Water Tank	N/A	Building
17	(NRHC)	Ca. 1912	Exterior unchanged, Vacant, equipment removed	C	
18	Transformer shed		Balloon frame, Associated with Water Tank	N/A	Building
18	(NRHC)	Ca. 1912	Exterior unchanged, Vacant, equipment removed	C	
19	Shed		1 story, balloon frame, Base of Water tank	N/A	Building
19	(NRHC)	Ca. 1912	Unchanged	C	

20	Pump house		1 story cement, partially submerged, Associated with Water Tank	N/A	Building
20	(NRHC)	Ca. 1912	Exterior unchanged, Vacant, equipment removed	C	
21	Electrical Substation	Ca. 1954	1 story concrete substation	NC	Building
21	(NRHC)	Ca. 1940	Unchanged, constructed for Internee Camp, Vacant	C	
24	Company Barracks	1910	2 ½ story concrete barracks	C	Building
24	(Lolo National Forest SO)		Unchanged	C	
26	Company Barracks	1910	2 ½ story concrete barracks	C	Building
26	(U.S. Army)		Unchanged	C	
27	Officers Quarters	1910	2 ½ story concrete fourplex	C	Building
27	(NRHC)		Unchanged	C	
28	Officers Quarters	1910	2 ½ story concrete duplex	C	Building
28	(NRHC)		Unchanged	C	
29	Officers Quarters	1910	2 ½ story concrete duplex	C	Building
29	(NRHC)		Unchanged	C	
30	Commanding Officer's Quarters	1910	2 ½ story concrete residence	C	Building
30	(NRHC Offices)		Unchanged	C	
31	Officers quarters	1910	2 ½ story concrete duplex	C	Building
31	(NRHC)		Unchanged	C	
32	Officers Quarters	1910	2 ½ story concrete duplex	C	Building
32	(NRHC)		Unchanged	C	
33	Officers Quarters	1910	2 ½ story concrete duplex	C	Building
33	(NRHC)		Unchanged	C	
34	Garage		4 car, balloon frame	N/A	Building
34	(NRHC)	Ca. 1938	Unchanged	C	
35	Garage		Single car, balloon frame	N/A	Building
35	(NRHC)	Ca. 1938	Unchanged	C	
36	Garage		4 car, balloon frame	N/A	Building
36	(NRHC)	Ca. 1938	Unchanged	C	
37	Garage		4 car, balloon frame	N/A	Building
37	(NRHC)	Ca. 1938	Unchanged	C	
46	Fire Station/ Guard House	1940	2 story concrete offices	C	Building
46	(Lolo NF)		Unchanged	C	

51	Water tank	1912	151' metal tower, Mistakenly listed as T-19 on some references	C	Structure
51	(NRHC)		Unchanged	C	
63	Provost Marshall's Office	1945	1 story frame office	NC	Building
63	(BLM, storage)		Unchanged	C	
101	Army Reserve Motor Pool	Ca. 1947	1 story concrete block	NC	Building
101	(U.S. Army)		Altered doors	NC	
105	Post Bakery	1910	1 ½ story concrete	C	Building
105	(U.S. Army)		Unchanged	C	
114	USFS Laboratory	Ca. 1965	Mobile home laboratory	NC	Building
114	(USFS)		Unchanged	NC	
142	Quartermaster's Stable	1910	1 ½ story concrete stable	C	Building
142	(U. of M.)		Unchanged	C	
150	Recreation Hall/Gym	1940	3 story frame building	C	Building
150	(U.S. Army)		Unchanged	C	
154	Vocational Education Building	1945	1 story metal Quonset hut, Moved in 1987	NC	Building
154			Removed	NC	
156	Solitary Cell Block	1945	1 story concrete block	NC	Building
156	(U. of M., academic labs)		Unchanged	C	
157	Solitary Cell Block	1945	1 story concrete block	NC	Building
157	(U. of M., academic labs)		Unchanged	C	
201	NCO Quarters	1877	1 story log duplex	C	Building
201	(Historical Museum at Fort Missoula)		Unchanged	C	
202	Carriage House	1880	1 story frame	C	Building
202	(Historical Museum at Fort Missoula)		Unchanged	C	
203	Warehouse	1940	1 story frame, Built by CCC	C	Building
203	(Historical Museum at Fort Missoula)		Doors and roof substantially altered	NC	
210	Respite House	1998	1 story frame	N/A	Building
210	(CDC)		New construction	NC	

214	CCC Barracks	1938	1 story frame residence	C	Building
214	(CDC)		Altered, incompatible additions	NC	
310	Boiler Plant	Ca. 1947	1 story frame plant, residence	NC	Building
310	(U.S. Army)		Unchanged	C	
312	Warehouse	1936	2 story frame warehouse	C	Building
312	U.S. Army		Unchanged	C	
316	CCC Admin Building	1936	1 ½ story frame offices	C	Building
316	(RMMMH)		Incompatible alterations, reduced integrity	NC	
322	Quartermasters Storehouse	1911	1 ½ story brick offices	C	Building
322	(Fort Missoula Historical Museum)		Unchanged, stabilized	C	
323	Quartermasters root cellar	1908	Underground storage cellar	C	Building
323	(Fort Missoula Historical Museum)		Unchanged, stabilized	C	
327	Oil Storage Building	1940	1 story frame warehouse, built by CCC	C	Building
327	(U.S. Army)		Unchanged	C	
328	Motor Pool Garage	1940	1 story frame garage, built by CCC	C	Building
328	(U.S. Army)		Unchanged	C	
330	Motor Pool Garage	1945	1 story frame garage, built by CCC	NC	Building
330	(U.S. Army)		Unchanged	C	
334	Powder Magazine	1878	1 story stone storage building	C	Building
334	(NRHC)		Unchanged	C	
350	Maintenance Shop	1962	1 story frame shop	NC	Building
350	(U.S. Army)		Unchanged	NC	
351	Storage	Ca. 1962	1 story cinder block	N/A	Building
351	(U.S. Army)		Unchanged	NC	
	Gambrel Roof Shed	Ca. 2000	Recent small pre-fabricated gambrel roof shed	N/A	Building
	(USFS)			NC	
	Cinder Block Building	Ca. 1990	Small, square gable roof building	N/A	Building
	(U.S. Army)			NC	
	Wood frame open shed	Ca. 1990	Rectangular open gable roof shed supported by 14 vertical wood posts	N/A	Structure
	(U.S. Army)			NC	

	Truck Port	Ca. 2000	Metal gable roof supported by six vertical I-beams	N/A	Structure
	(U.S. Army)			NC	
	Bureau of Land Management Building	1984	1 story stucco	NC	Building
	Bureau of Land Management		Unchanged	NC	
	Miller Creek Guard Station	Ca. 1910	Log cabin with gable roof	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1983	Unchanged	NC	Building
	Hays Homestead, cabin, barn and outhouse	Ca. 1900	Referred to as Ninemile Homestead in original nomination	NC NC NC	Building Building Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1974	Barn restored	NC NC NC	
	Pumphouse	1983	Small, wood frame, gable roof building.	NC	Building
	(Fort Missoula Historical Museum)		Unchanged	NC	
	Sliderock Lookout	1933	L-4 type lookout	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1983	Unchanged	NC	
	Grant Creek School	1907	Wood frame school	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1976	Restored	NC	
	Drummond RR Depot	1910	Wood frame depot originally located in the town of Drummond	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1982	Restored	NC	

	Drummond RR Outhouse	1910	Wood frame outhouse associated with the depot	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1982	Restored	NC	
	St. Michael's Church	1863	One story log church constructed by Jesuits at Hell Gate, four miles west of Missoula	NC	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1981	Unchanged	NC	
	Storage Building	Ca. 1950	One story frame building	NC	Building
	(Fort Missoula Historical Museum)		Unchanged	NC	
	Garage A	Recently construct-ed	Wood frame, front gable.	N/A	Building
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 1990s		NC	
	Garage B	Built 2005	Wood frame, front gable	N/A	Building
	(Fort Missoula Historical Museum)			NC	
	Trolley Car Building	2011	Wood Frame gable building with shed addition	N/A	Building
	(Fort Missoula Historical Museum)			NC	
	Restroom	Modern	Gable roof restroom, similar in style to RR depot	N/A	Building
	(Fort Missoula Historical Museum)	Built in 2000		NC	
	Log Cabin "Fort Missoula Mercantile" Building	1998	Recent, gable roof log building	N/A	Building
	(Fort Missoula Historical Museum)			NC	

	Ticket Booth	1998	Recent gable roof building	N/A	Building
	(Fort Missoula Historical Museum)			NC	
	ADC barracks	1941	Large rectangular gable roof building	N/A	Building
	(Fort Missoula Historical Museum)	Moved to present location in 1995		NC	
	Gable Roof Board-and-batten Shed	2008-2009	Recent small gable roof building with board-and-batten siding	N/A	Building
	(Fort Missoula Historical Museum)			NC	
	Concession Booth	1998	Recent shed roof building east of RR depot	N/A	Building
	Fort Missoula Historical Museum)	Moved in 2004		NC	
	Sentry boxes	1941	Not in-situ	NC NC	Building Building
	(Fort Missoula Historical Museum)		Unchanged, moved several times, additional moves planned	NC NC	
	Original Fort Missoula Road	1880s	Delineated within the original Fort Missoula Historic District Boundary	C	Structure
			Unchanged	C	
	Guardsman Lane / CCC Road	1941	Two lane road, constructed for CCC	N/A	Structure
	(City of Missoula Parks and Recreation)			C	
	Bandstand	1976	South of Main Museum Bld.	NC	Structure
	(Fort Missoula Historical Museum)	Moved 1983	Unchanged	NC	
	Forestry Interpretive Display	1985 to present	Consists of forestry and logging related machinery and artifacts. Two gable roof sheds cover much of the equipment	N/A N/A N/A	Structure Structure Structure
	(Fort Missoula Historical Museum)			NC NC NC	
	Rappelling Tower	Ca. 1950	Wood tower	NC	Structure
	(NRHC)		Unchanged	NC	

	Tipi Burner	Ca. 1916	Sheet metal construction	N/A	Structure
	(Fort Missoula Historical Museum)	Moved to Fort Missoula in 2006		NC	
	Fort Entrance Monument/ Pillars	1929	Stone pillars (2) and commemorating sign	C	Object
	Dearborn & Reserve, LLP		Unchanged	C	
	Fort Missoula Dedication Monument	1929	Stone obelisk with plaque, plaque made by ACM Co., Notes Fort Missoula origins	C	Object
	(NRHC)		Unchanged	C	
	Second Parade Grounds	1910	Parade ground of the SW quadrant	C	Site
	(NRHC)		Unchanged, Center of today's Fort complex	C	
	Original Parade Grounds and Foundations	1877	Parade ground of the NW quadrant / Officers Quarters and Barracks	C	Site
	(Fort Missoula Historical Museum)		Unchanged, Center of the original Fort complex	C	
	Post Cemetery	1878	0.88 acre military cemetery	C	Site
	(U.S. Army)		Unchanged	C	
	Foundations – Internment Camp depressions	1941	Internment camp building foundations and depressions	C	Site
	(U. of M.)		Paved parking lots (2) are located in the vicinity of foundations	C	
	24MO0188, Fort Missoula Historic Dump	1880s	Excavations by the University of Montana Department of Anthropology	N/A	Site
	(U. of M.)		Unchanged	C	
	Original Post Bakery Foundation Site	1878	Site from 1 story log structure	N/A	Site
	(City of Missoula Parks and Recreation)		SHPO Concurrence, contributing resource, 01/14/2005, Data recovery mitigation excavations	C	
	Tennis Court	Ca. 1950	Concrete tennis court immediately north of rappelling tower	N/A	Site
	(NRHC)			NC	

	CCC Warehouse, Building 308 Site	CA. 1938	site of 1 story frame warehouse	N/A	Site
	(City Of Missoula Parks And Recreation)		Data Recovery Mitigation Excavations	C	
	Trash Deposit Site	Ca. 1880s	Previously unknown trash scatter	N/A	Site
	(City of Missoula Parks and Recreation)		Data recovery mitigation excavations	C	
	24MO0937, prehistoric lithic scatter	prehistoric	Not addressed during original nomination process.	N/A	Site
	(U. of M.)		Six obsidian surface flakes and five obsidian flakes recovered from a 1 m x 1 m unit.	NC	NC to Addendum and Boundary Increase area; NR eligibility undetermined
	24MO1616 historic landfill	1956-80	Not addressed during original nomination process.	N/A	Site
	(U.S. Army)			NC	
	Historic Stone Alignment	Unknown	Not addressed during original nomination process.	N/A	Site
	(U. of M.)			NC	
	Fort Missoula Historic Landscape	1877-present	Not addressed during original nomination process.	N/A	Site
	(Various)			C	

C=Contributing resource to the historic district, NC= Noncontributing resource to the historic district. Original building number T and P designations, Temporary and Permanent, removed to simplify the numbering system. N/A – the 1987 nomination did not address this building or feature. NRHC=Northern Rockies Heritage Center, WMMHC=Western Montana Mental Health Center, U. of M.=University of Montana, CDC=Child Development Center, RMMMH=Rocky Mountain Museum of Military History

**Recent investigations indicate the original chapel located on the campus was moved and converted into Building (T)1 between 1932 and 1935 (Adler Architects 2011).*

Fort Missoula Historic District Addendum and Boundary Increase
Name of Property

Missoula Co., MT
County and State

8. Statement of Significance

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

[x] A Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] B Property is associated with the lives of persons significant in our past.

[x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[x] D Property has yielded, or is likely to yield, information important in prehistory or history.

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

Property is:

[ ] A Owned by a religious institution or used for religious purposes.

[ ] B removed from its original location.

[ ] C a birthplace or grave.

[ ] D a cemetery.

[ ] E a reconstructed building, object, or structure.

[ ] F a commemorative property.

[ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

POLITICS/GOVERNMENT
COMMERCE
MILITARY

Period of Significance

1877-1947

Significant Dates

1877, 1933, 1944

Significant Person
(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder

Period of Significance (justification)

This addendum and boundary increase extends the period of significance from the closing date of the original Fort Missoula Historic District nomination (listed April 1987) from 1944 to 1947. The original nomination closed with the end of WWII internment activities; this document extends the period of significance by including the significant post-internment period, when the fort served as a medium-security Army prison camp, and also documents features not discussed in the original nomination.

Criteria Considerations (explanation, if necessary)

N/A

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

The Fort Missoula Historic District, including the boundary increase area nominated here, is eligible for listing in the National Register of Historic Places at the state and local level of significance. The Fort Missoula Historic District, amended through this addendum, retains its eligibility under Criterion C. This boundary increase and addendum provides additional information regarding the district's eligibility under Criterion A, particularly the expanded period of significance. This document also provides a new Criterion D discussion associated with subsurface archaeological features not identified in the original nomination.

The period of significance for the original nomination area and the boundary increase is extended from 1944, when the fort was used for WWII internment, to 1947, to capture the post-internment area period and include those features associated with this later period of use. Though indirectly related to the military's role in quelling tribal uprising in the area, the Fort Missoula Historic District Addendum and Boundary Increase gains greater significance and is eligible under Criterion A for its early role in non-combative military uses of the property by the federal government and its associated contribution to the local economic development of the area. The Fort was also used to investigate possible military uses of the bicycle by the Black 25th Infantry Regiment, the establishment of a government training school for mechanics in WWI, the largest CCC headquarters in the United States in the 1930s, its use as an Italian and Japanese detention camp during WWII, and for a brief period its use as a medium security prison for American soldiers. Improvements made at the fort during this period are integral components that display the evolution and historic adaptive reuse of the property. Though the barracks were removed after 1947, the remaining foundations provide a stark reminder of this later history of this era of the fort.

Additional significance is gained under Criterion D established through subsurface investigations in several portions of the district. Sites 24MO0188, the Original Post Bakery Site, the CCC Warehouse Building 308 Site, and the Trash Deposit Site have all displayed excellent potential to contribute information important to the Fort and its various permutations related to its different uses. This information is not restricted to the cultural materials but extends to information about non-extant buildings. Study of the archaeological record would greatly enhance the understanding of military life specific to fort costumes and culture, both locally and likely regionally.

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

(Revisions to addendum and boundary increase incorporated into Significance statement from original nomination)

Under Criterion A, the Fort Missoula Historic District Addendum and Boundary Increase area is eligible for listing for its association with military history, its important contribution to local and regional commerce, and by its political and governmental associations. Although constructed to serve a military capacity, the Fort in fact, functioned less in a military role and more in a non-combative military use resulting in increased economic benefit to the area. Constant scrutiny of the Fort for possible closure was strongly resisted by the local business community of Missoula, which was well aware of the significant economic contribution the Fort provided and who fought to maintain its presence. Congressional appropriations allowed for the reconstruction of the Fort in 1904, though it wasn't until its establishment as the Rocky Mountain Regional Civilian Conservation Corps (CCC) administrative center from 1933-1942 that its most active period of use occurred resulting in an increased economic assist to the city of Missoula and the region. With the start of World War II and concurrent decrease in CCC activities, the Fort became the largest internment camp for non-military foreign and native persons. The Fort fit perfectly the U. S. Immigration and Naturalization Service's (INS) criteria and was chosen as one of the numerous inland internment camps for approximately 1200 Italian nationals and 1000 Japanese-Americans during World War II. After the close of the War, the Fort served as an Army prison camp with the release of wartime internees. Foundations serve as the only physical above ground evidence of the location and arrangement of the rows of internment camp barracks buildings which were systematically dismantled after 1947.

The Fort Missoula Historic District Addendum and Boundary Increase area gains additional significance under Criteria D established through archaeological investigations conducted at the property through the last 30 years. Subsurface investigations at sites 24MO0188, the Original Post Bakery Site, the CCC Warehouse Building 308 Site, and the Trash Deposit Site all yielded valuable deposits. Criterion D significance is derived not only through recoverable artifacts, but also through information derived from the actual physical structural remains associated with former buildings; recent excavations at the Original Post Bakery Site and the CCC Warehouse Building 308 Site indicate the presence of both structural elements and historic artifacts that will allow further interpretation of the history and use of the Fort (Ogborne et al, 2008). Investigations at 24MO0188, the Fort Missoula Historic Dump, yielded a variety of artifacts dating to the earliest use of Fort Missoula from 1877 to 1900; further investigation could provide additional information regarding this embryonic period. Subsurface investigations at the Trash Deposit Site revealed disturbed artifacts dating from the late 1800s to the early 1900s within the 0-30 cmbs plow zone; however, shovel probes and the use of metal detectors indicate the majority of the trash deposit remains undisturbed below 30 cmbs (Hall 2003:12). The presence of recoverable archaeological data from the above four mentioned sites strongly suggest buried deposits likely also occur at the Internment Camp Foundations site.

Developmental history/additional historic context information (if appropriate)

HISTORICAL NARRATIVE

Introduction (Original Nomination with revisions)

Due in large measure to the lack of a compelling military need for Fort Missoula, the fort was plagued by recurrent threats of closure by the Army. However, Missoula business people were well aware that the presence of the fort contributed significantly to the local economy and they worked hard to maintain the fort's existence. Through the effective lobbying efforts of U.S. Senator Joseph Dixon from Missoula during the first years of the 20th Century, Congressional appropriations were secured for the complete reconstruction of the Fort in 1904, although no discernible military purpose for the complex had been identified. With its collection of substantial, well-designed new buildings, Fort Missoula continued to flounder through the 1910s and 1920s, until its most active period of use began with the establishment of the Fort as the Rocky Mountain Regional Civilian Conservation Corps (CCC) administrative center from 1933-1942.

Fort Missoula was the largest CCC headquarters in the United States and the buildings and structures associated with CCC use of the property gain significance due to their association with this highly successful work program for young men during the depression years. The program contributed greatly to the general economic recovery of not only the City of Missoula but the Montana-Idaho-Wyoming region, an area characterized by sparse population, heavy timber, and extensive grasslands. The CCC is known in the West as the most popular of the New Deal programs. In addition to providing employment for thousands of young men during the Depression era, the CCC program resulted in a wide variety of significant improvements to the environment, including land reclamation and water development projects, fencing, road building, bridge construction, fire control and improvements to the state and national parks of the Rocky Mountain region. Strong community interest in having a CCC camp located nearby is evidenced by the fact that the program directors at Fort Missoula were careful to achieve a wide geographical distribution of the camps so that the benefits of the program would be shared equitably. Fort Missoula's role as the administrative headquarters lends those buildings constructed during this period historical significance.

When World War II began and the CCC activities abated, the Fort became the largest internment camp for non-military foreign and native persons. The Fort fit perfectly the U. S. Immigration and Naturalization Service's (INS) criteria and was chosen as one of the numerous inland internment camps, confining approximately 1200 Italian nationals and 1000 Japanese-Americans during World War II. The Fort's involvement with the INS detention and screening of the Issei is of great significance, and the foundation remains of the internment camp serve as a poignant reminder of one of the more tragic periods of the nation's history.

Fort Missoula was the primary internment camp in the United States for Japanese-born American citizens and was distinct from the numerous camps operated during the war by the War Relocation Authority (WRA) for the detention of over one hundred thousand citizens of Japanese descent who were born in the United States (Nisei). The Japanese-born Issei were perceived as a particular threat to United States security at the start of World War II. Lists of prominent Issei had been developed by the Federal Bureau of

Investigation prior to the initiation of the hostilities between the United States and Japan. Within ten days of the bombing of Pearl Harbor, hundreds of Issei residents in West Coast cities were rounded up and transported to Fort Missoula where INS staged immigration and "loyalty" hearings. When the Fort Missoula internment camp had reached its capacity within weeks of the beginning of the war, the INS established another camp at Fort Lincoln in North Dakota to accommodate additional Issei prisoners.

After the close of the War, the fort served as a prime location for an Army prison camp when the wartime internees were released. Two maximum-security cellblocks and a limited number of other improvements at the fort were constructed during this phase of the fort's history. The two cell blocks and other improvements related to the Army prison camp are integral components of the evolution and historical adaptive use of Fort Missoula by the U. S. Army over a 70-year period, which is characterized by the lack of military uses for the property. Only foundation remains exist to mark the location and arrangement of the rows of internment camp barracks buildings. These wood-frame barracks were systematically dismantled after 1947 but the significance of the events that took place on this site at the east end of the fort complex are recalled by the rows of concrete pads in the open, windswept field.

CREATION AND CONSTRUCTION

The following information, except when noted, is from the original Fort Missoula Historic District National Register nomination (NR#87000865) [McDonald and Bick 1986]

In 1867, Chief Red Cloud's war against the forts along the Bozeman Trail, especially Fort C.F. Smith in Montana Territory and Fort Phil Kearny in Wyoming Territory, caused panic among Montanans. The panic resulted in a deluge of telegrams from active Gov. Thomas R. Meagher to Secretary of War Edwin Stanton requesting additional federal troops and permission to call out the Montana militia. Neither request was officially granted, but the militia took up arms and roamed about the countryside. They accomplished very little, except to run up a bill for $1,100,000.00 which was forwarded to the War Department. After a series of investigations, the territorial government was reimbursed $515,343 in 1872, but no forts were built for the defense of western Montana.

In the spring of 1874, when President Ulysses Grant ordered the removal of the Flathead Indians from the Bitterroot Valley, Chief Charlo refused to leave. Fearing the outbreak of hostilities, Governor Benjamin Potts and territorial delegate Martin Maginnis issued a series of petitions to Congress requesting a military post to be located in Missoula, ostensibly to control the area's Indians. Local newspapers stated that the presence of soldiers would "invite immigration... stimulate the development of resources... and would be an advantage to business." Variations of this theme appeared all through 1874 and 1875.

Bowing to political pressure, the War Department sent Lt. Col. Wesley Merritt to the Missoula Valley in January, 1876. After examining several locations, he recommended that a one- or two-company post be built at or near Hellgate Pass. Two men were sent out that same year to select and survey the location and later in 1876, the Quartermaster General appropriated $28,000 to build the new post. In June 1877, two companies from the Seventh Infantry were sent to Missoula to construct the Fort. They marched the 217 miles from Fort Shaw in 17 days and began work on the Fort in late June. Lack of equipment, the long distances over which supplies had to be hauled and the small labor force hampered the construction effort, but the majority of the Fort was finished in 1878.

Fort Missoula, contrary to the popular picture of forts, was never surrounded by walls. After 1870, most of the forts constructed in the West were of a new design and were intended to be the logistical center for an army actively patrolling and policing the countryside. Fort Missoula, and her sister fort, Fort Huachuca in Arizona, both built in 1877, reflect this more aggressive policy. Open, exposed clusters of buildings, most still surrounding the traditional rectangular parade ground, was the new design. Of the eleven major posts constructed in Montana between 1866 and 1892, only four were fortified in some manner; the rest were all built without walls or other defensive works.

NEZ PERCE WAR

The only Indian battle involving Fort Missoula was against the Nez Perce, a tribe living outside the boundaries of the present state of Montana. When the Nez Perce had been ordered by the government to relocate to a reservation in Idaho away from their ancestral lands, they attempted to flee to Canada. During the course of their retreat from Oregon, the Indians traveled east, following the Lolo Trail into Montana. The soldiers at Fort Missoula were ordered to arrest and disarm them. An earth and log barricade was set up across the Lolo Creek canyon, about five miles above the mouth of the creek, to stop the fleeing Indians. The Indians refused to surrender and changed their course of travel to bypass the fortification. This site was ever after referred to as Fort Fizzle. The soldiers returned to their post and a few days later joined a column led by Col. John Gibbon, commander of Fort Shaw. Loaded into wagons,

they set off in pursuit of the slow-moving tribesmen, catching them about 125 miles southeast of Missoula at a place called the Big Hole.

On August 9, 1877, a dawn attack was launched against the sleeping Indian encampment. In 20 minutes, the soldiers were in possession of the camp and the Nez Perce were fleeing in confusion. To cover their families' escape, the warriors rallied and counter-attacked, driving the white men from the village and onto a hillside, besieging them there. During the fierce battle, heavy casualties were inflicted on both sides. The soldiers suffered 40 percent casualties, both wounded and dead, and only the approach of additional soldiers on August 10 saved the garrison from complete destruction. The Indian survivors continued their doomed flight toward Canada and were finally captured by the Army in the Bear Paw Mountains in north-central Montana. A few Nez Perce escaped that battle and made it into Canada but ran into trouble later when they attempted to return to Idaho.

Meanwhile, on November 8, 1877, the post had officially been named Fort Missoula. Companies B, D, H, and I, 3rd Infantry Regiment, had replaced the 7th Infantry garrison on November 14. Newly arrived from Texas, these men lived in tents until frame barracks and non-commissioned officer's quarters were completed in February, 1878. The officers continued to rent quarters in Missoula, four miles away until their quarters were completed in mid-summer of 1878.

A limited number of buildings remain at Fort Missoula today to represent this early period of the Fort's history. The first parade ground, which was originally surrounded by regularly placed one and two story log and frame buildings that served as the officer's quarters and barracks for the enlisted men in the late 19th Century, is now defined by the surrounding foundations of these structures. Although not used for ceremonial purposes since the reconstruction of the Fort in 1908, the original parade ground remains clearly visible and distinct. One Non-commissioned Officer's Quarters (#201) and a carriage house (#202) and a stone powder magazine (#334) remain standing at a short distance from the original parade ground and retain a high degree of historic architectural integrity. The .88 acre original post cemetery, established in 1878, is located approximately one-half mile from the original Fort complex and is included in this nomination as a contributing element.

THE 25TH INFANTRY REGIMENT

May of 1888 witnessed the arrival of the most unique group of soldiers to be stationed at Fort Missoula: members of the 25th Infantry. This unit was one of four Negro regiments surviving the Army Reorganization of 1869. After many years of duty in the southwest and upper Midwest, the regiment was transferred to Montana. Fort Missoula became regimental headquarters, and the Commanding Officer, non-commissioned staff, band and four companies formed the garrison. The remainder of the unit was used at various times to garrison Fort Custer, Fort Harrison, and Fort Assinniboine.

Normal military duties, such as practice marches, target practice, drill and ceremonies, and care of buildings and grounds filled the regiment's day. But there were additional tasks of a special nature that were also included, such as the 1890 involvement of Companies F and H from Fort Missoula in quelling of Sioux "Ghost-Dance" violence in Pine Ridge Agency, South Dakota and the 1892 and 1894 suppression of violence resulting from labor unrest and the march of "Coxey's Army" in Montana and Idaho. The most unusual task assigned to the regiment, however, was to evaluate the military possibilities of the bicycle.

Lieutenant James A. Moss, an active cycling enthusiast, was ordered to form the 25th Infantry Bicycle Corps. By a series of trips, both long and short, throughout the area, he hoped to impress the War Department with the usefulness of the bicycle. He organized a trip from Fort Missoula to St. Louis, Missouri. He felt that the trek of 1,900 miles in length over a variety of terrain and through several climactic zones would best demonstrate the endurance of both men and machines. His men had to be able to do more than just ride the bicycles. They had to learn to perform drill, to scale fences, to ford streams and rivers, and to travel forty miles a day, carrying all of their equipment.

Lt. Moss, Asst. Surgeon J.M. Kennedy, and twenty enlisted men comprised the unit making the trip to St. Louis. They departed from Missoula at 5:30 a.m. on Monday, June 14, 1897. They arrived at St. Louis at 6:00 p.m. on Saturday, July 24, having only taken four days of rest in the forty days since their departure. They had endured heat, cold, mud, too much water, too little water, pleasant conditions and hellish ones. The Army was not impressed; the bicycle was not adopted by the U.S. Army as a means of transportation. The Bicycle Corps returned to Montana by train. The 25th Infantry Regiment left Fort Missoula in 1898.

THREATENED FORT ABANDONMENT

On March 20, 1898, the Army ordered the abandonment of Fort Missoula due to the lack of a clear purpose and the fact that the Fort was built upon land with unclear title due to an error in the original land survey at the time of the initial Fort construction in 1877. Abandonment did not occur immediately and was ultimately forestalled.

A locally-raised volunteer cavalry company, Troop F of the 3rd U.S. Volunteer Cavalry, was temporarily garrisoned at Fort Missoula in May of 1898. Four troops had been raised in Montana as part of the contribution to the Spanish-American War efforts. Never to receive the fame accorded to the Rough Riders (1st U.S. Volunteer Cavalry Regiment), Grigsby's Cowboys, as the 3rd U.S. V.C. was known, through no fault of their own never left U.S. soil. They did, however, suffer from heat, disease and official neglect. They left Montana for Camp Thomas, Georgia in the latter part of May. They returned to Missoula in September with one man dead and many others very ill as a result of unsanitary conditions at the Georgia camp.

Local citizen protest against the Army's order of abandonment and their rapid mobilization to secure the land of unclear title for donation to the Army resulted in the Fort's revitalization. Because business people in Missoula recognized that the military presence in Missoula and the active use of the Fort constituted a vital economic resource, they raised the funds necessary to purchase 320 acres upon which the Fort was built and managed to persuade the Northern Pacific Railroad to donate another 240 acres, all of which was turned over to the U.S. Army. Official orders for abandonment were postponed, but the Fort was not actively used for the next four years. In 1902 the Quartermaster General's Report to the Army recommended that Fort Missoula either be completely abandoned or rebuilt.

FORT RECONSTRUCTION

On March 28, 1904, after the concerted lobbying efforts of U.S. Senator Joseph Dixon of Missoula, Congress passed the appropriation necessary to reconstruct Fort Missoula, even though no clear military purpose for the Fort had been identified. Reconstruction began in 1906 and continued through 1912. During this time, some of the earliest log buildings at the original Fort were dismantled. New, cast concrete buildings were erected in a curved row only a few hundred feet to the northeast of the original parade ground.

Eighteen [*sic*] substantial buildings remain today from this period of the Fort's reconstruction. Along the curved boulevard, a new Post Headquarters (#2), seven new, cast concrete, 2 ½ story buildings forming a new Officer's Row (#27, #28, #29, #30, #31, #32, #33), and two large Company Barracks buildings (#24, #26), also of concrete construction and 2 ½ stories in height, mark the edge of the new parade ground. Two Non-Commissioned Officer's Quarters (#14, #16), the Post Bakery (#105), the Post Hospital (#9), the Quartermaster's storehouse (#322) and root cellar (#323), and a new water tower (originally #19, correct number is 51) were constructed at a short distance from the parade ground. At the end of this second building period, the Fort was completely outfitted to serve as a regimental headquarters. However, research indicates that no regimental force was ever actually stationed at Fort Missoula. Between the years 1912 and 1918, the Army repeatedly raised questions about closing of the Fort.

WORLD WAR I

Just prior to America's entry into World War I, Fort Missoula finally was abandoned as a military post. However, the War did not entirely bypass the Fort. The University of Montana contracted to operate a training school, utilizing some Fort buildings. On August 15, 1918, the first group of 200 men arrived to begin the two-month training courses in automobile repair, blacksmithing, wireless (radio), and general mechanics. The University was responsible for housing, feeding and instructing the men. Instructors were hired by the University, from the civilian skilled manpower pools. Eight hours of instruction were provided each day. Equipment was supplied by the University, with the government providing all the funding for the program.

Not long after the Armistice was signed on November 11, 1918, the school was closed. Fort Missoula was once again idle. In 1918, a bill was passed in Congress to permit the military to lease or sell portions of the Fort property to other entities. The Fort would not be re-garrisoned until September, 1921.

DEPRESSION YEARS AND THE CCC

Activities at the Fort between 1921 and 1933 were routine and not particularly unusual, with a small garrison of soldiers residing there. In 1925, the Fort became the summer Civilian Military Training Camp. Again slated for abandonment in 1933 by the Army, the Fort was put to use as the headquarters for the Rocky Mountain Region Civilian Conservation Corps and continued to serve this purpose until 1941. The CCC was established in an effort to provide work for the nation's young men. The U.S. Army, the only federal entity capable of mobilizing the thousands of young enrollee at the start of the program in July, 1933, was responsible for organizing, housing and training the men in usable skills. The enrollees were not given military training. Other federal agencies, including the Forest Service, Soil Conservation Service, Reclamation Bureau, Fish and Wildlife Service and National Park Service, defined the tasks to be accomplished.

Fort Missoula was the largest district CCC headquarters in the United States. As the administrative center for all of the camps located in Montana, Idaho, Wyoming and Yellowstone and Glacier National Parks, Fort Missoula was the place where enrollees were initially trained and assigned. In all, approximately 269 camps were established in the region, some only operating for one or two years. On the average, each year there would be 24 camps in Montana, 57 in Idaho, and 21 in Wyoming. Approximately 200 young men from 18 to 25 years old were stationed at each of the regional CCC work camps. During the first months of the program in the summer of 1941, 400 – 500 young men arrived at Fort Missoula daily. Over the nine year period of the program, approximately 200,000 men were employed, about 86,000 from the region and 114,000 from other states.

Various services, not available at the dispersed camps, were provided at the administrative headquarters at Fort Missoula. The Post Hospital provided medical care beyond that which the simple camp dispensaries could provide. Medical problems were resolved by the district surgeon, the district dentist, etc. The Fort handled supplies, finances, religious services, veterinarian needs and education programs. Lack of recreational opportunities, especially during the long winter months, was identified as one major problem at Fort Missoula. A large new recreation hall (#150) was constructed by the WPA in 1940 to fill this need at the Fort, although this building would only be completely outfitted after the Fort had been turned over to the Immigration and Naturalization Service in 1941.

A number of buildings and structures associated with the CCC use of the property remain in existence today: the CCC administration building (#316), two residential buildings (#12, #214), two warehouses (#203, #312), the motor pool garage (#330), a storage building (#327) and the monument located at the entrance to the Fort on Reserve Street. Also, during this period, the Army made improvements at the Fort and constructed a new administration building (#1) and the fire station/guard house (#46).

WORLD WAR II (Revisions to Original Nomination)

In the spring of 1941, control and operation of the fort was transferred to the U.S. Immigration and Naturalization Service (INS). Prior to its entry into World War II, the United States had begun to arrest the crews and confiscate the commercial ships of Nazi Germany and Fascist Italy as they arrived at U.S. seaports. On March 30, 1941, President Franklin Roosevelt ordered Axis ships to be seized at harbor and 69 German, Italian and Danish ships were seized in the first weekend. Locations such as Fort Missoula were chosen for their locations far from industrial centers and international borders (Van Valkenburg 1988:5-8).

As many as 1200 Italian male civilians were transported to Fort Missoula for internment in April of 1941. While the presence of some Germans has been suggested, evidence for this is lacking. The Italian detainees included crewmen from confiscated merchant ships and luxury liners, individuals arrested from East coast bars and lodging houses, and approximately 100 artists, musicians and entertainers from the New York World's Fair with expired visas. Individuals were originally housed in cramped dormitories until the INS authorized the construction of thirteen additional prefabricated bunkhouses. Detainees were paid by the INS to serve as construction workers on these projects (Van Valkenburg 1988:10-11, 14-16, 29-30; Fox 1990:164-165; Long 1991:18).

Immigration hearings, reportedly held at the fort, determined the official immigration status of each internee and to establish political affiliations. Since deportation was not possible while the war was ongoing, most Italian men waited out the hostilities at the fort. Some of the internees who were eligible for reassignment to other ships chose instead to remain at Fort Missoula for the duration of the war, where conditions were rather pleasant. Actual control and operation of the facility were in the hands of the U.S. Border Patrol. The internees were largely governed and disciplined by their own officers. It is important to note that according to oral histories, no such hearings were conducted (Long 1991:18, Fiset 1997:45).

The Italian internees named the camp "Bella Vista" meaning "beautiful view." Although there were armed guards, watchtowers and steel fences, routine security measures amounted to little more than roll calls, bed checks and perimeter patrols more useful in turning away curious locals. The mess halls, laundry and similar facilities were staffed by the internees themselves. Internees had access to a new recreation hall (#150) built by the WPA for the fort's previous incarnation as a CCC camp. It included a basketball court, bowling alley, dance hall and restaurant, and was outfitted by the INS camp commander Nick C. Collaer for the internees' use. Theatrical productions and concerts were put on by the internees for their own entertainment. One concert, to which Missoula citizens were invited, attracted a crowed of over 1000 (Van Valkenburg 1988:9-10, 16, 17, 27, 29-30; Fox 1990:164-165). There were no escape attempts.

Due to the local shortage of labor caused by the war effort, many Italian men were paroled to work within a year and a half of interment. Initial work was limited to field labor in sugar beet fields near Missoula and later near Butte. They were also employed as orderlies at the St. Patrick's Hospital, in hotels as cooks and maids, by the Forest Service and as railroad workers (Van Valkenburg 1988:127-128; Fox 1990:165). Some of these men lived in town and reported to the fort only weekly. Restaurants and hotels around the country also wrote to the commanding officer to offer jobs for the parolees.

Barracks construction continued with the addition of another 16 buildings in July of 1941 to bring the internment camp capacity up to 3000. This newer group of barracks was fenced off from the first collection, likely in preparation for the new type of internee that began to arrive at the fort in mid-December, 1941.

After the bombing of Pearl Harbor on December 7, 1941, the U.S. Government immediately began arresting men of Japanese birth (Issei) on the West Coast of the United States in the belief some might be saboteurs or agents for the government of Japan. Even before the commencement of hostilities, the Federal Bureau of Investigation began to compile lists of Japanese individuals suspected of being potential security risks to the United States and likely saboteurs. Targeted individuals included community leaders, newspaper editors, professionals, laborers, and political activists. The majority were immigrants, not citizens, as U.S. law after 1924 prevented Japanese immigrants from obtaining citizenship (Burton et al 1999; Fiset 1997:28-31).

The first Issei detainees arrived at the fort on December 18, 1941. The two groups of detainees were kept separate, the Italians in the stucco barracks and the Japanese in the wood prefabricated barracks, with the two areas divided by a fence. Initial reports at the fort indicated that the Italian and Japanese groups did not interact and were openly unfriendly with one another. The new Japanese community quickly established its own internal system of organization with a community mayor. Like their Italian counterparts, the Japanese had access to various recreational sports and activities within the confines of the fort, attended religious services and held classes in English and History taught by other detainees. Eventually, they were allowed outside of the fort for outdoor recreation and paroled for labor. However, unlike the Italians, the Japanese endured censorship in their correspondence with family and friends, payment of taxes and greater restricted mobility. Letters written by detainee Iwao Matsushita indicate that eventually the Italians and Japanese arrived at an amicable relationship, both groups participating in musical performances and playing baseball (Aren 1942; Van Valkenburg 1988:84; Long 1991:18; Fiset 1997:40-46, 51-58, 158; Burton et al 1999).

Fort Missoula was the largest camp operated by the INS in the United States and was distinct from those camps established during subsequent months by Executive Order of February 19, 1942, and operated by the War Relocation Authority (WRA) for the detention of approximately 107,000 American men, women and children of Japanese ancestry (Nisei). Unlike with the Italians, the INS commenced Alien Enemy Hearing Boards to determine which of the Japanese detainees to free, parole or hold for the entire war. By the end of the year, 633 Japanese were detained at the fort, and the population eventually reached approximately 1,000. Beginning in the summer of 1942, many of the detainees were relocated to WRA detention centers or other INS facilities. By the fall of that year only 28 Japanese men were left at the fort, existing in a state of relocation limbo. The last of the Japanese detainees were relocated in 1944, the Italians having been released earlier in 1943 (Van Valkenburg 1988:79-84, 114; Fiest 1997:46, 50; Burton et al. 1999). Foundations and ground depressions survive from this period and the spacing, lay-out, and relationship of these developments to the original fort is clearly perceptible. Two of the original internment camp guard towers removed from the fort property during the dismantling were recently recovered by the Fort Missoula Historical Museum staff and plans include the restoration of these structures to their original location.

Shortly after the departure of the Japanese detainees, the Army resumed control of Fort Missoula in June of 1944. Due to its then current condition of a detention center, the Army selected it for adaptation into their disciplinary barracks system. With the addition of

a few structures, Fort Missoula became the Northwestern Branch of the United States Disciplinary Barracks. In addition to the detention blocks already constructed, the Army added two solitary confinement barracks (buildings #156 & 157) that could hold up to ninety-six men in total. The fencing system was also improved, resulting in a three-fence system to deter prisoner escape. The two and a half years the fort was used as Disciplinary Barracks boasted the largest military garrison; 803 personnel in total consisting of officers, enlisted and civilian personnel. The prison population was nearly double this: approximately 1,800 inmates. Of this population, only 110 escape attempts were recorded, the majority were captured within a few hours though a few escapees managed to last a few months before being captured. Two were shot while attempting escape, one of which survived (Long 2005:1-4, 11, 27-29). In 1946, all of the prisoners were relocated to other disciplinary centers, the Army personnel leaving the fort in the spring of 1947 (Long 1991:210). The buildings constructed during the fort's tenure as disciplinary barracks represent a continuation of the detention facility theme first exhibited by the fort's use by the INS. This last period in the fort's historical significance reflects the national trend of the Army's expansion during the years of WWII and is also the largest garrison in the fort's history.

POST-WAR RE-ALLOCATION (Revisions to the Original Nomination)

The fort underwent a process best be described as dissolution after its period of most intensive use during the Great Depression and World War II. During this period of dissolution, the Army began its program to sell or lease portions of the fort property. Land, buildings, and titles thereto began to shift as if in a kaleidoscope. Agencies involved include various departments of Civil Defense, Army Reserve, Navy Reserve, Marine Corps Reserve, the Montana National Guard, the University of Montana, and the U.S. Forest Service. Missoula County signed a ten year lease with the Army for most of the fort buildings and 822 acres of fort property in 1948. The Army cancelled the lease after two years, however, intending to establish the fort as a northwestern military supply center, plans that never materialized. The fort buildings have been put to a wide variety of new uses by federal, state and county agencies, as well as by private organizations. For example, during the 1960s, the General Services Administration began to systematically dismantle the earliest fort buildings that surrounded the original parade ground at the southwest corner of the complex. During this effort, the original Non-Commissioned Officers Quarters (#201) was spared and the Montana Ghost Town Preservation Society completed restoration of this building. The Northern Rockies Heritage Center, a non-profit organization, owns and preserves much of the heart of the current Fort Missoula Historic District, including the historic buildings along Officers Row.

Archaeological Significance

The archaeology of the Fort Missoula Historic District will contribute to a better understanding and interpretation of the extant and former features of the district. Site 24MO0188, the Original Post Bakery Site, the CCC Warehouse Building 308 Site and the Trash Deposit Site have all demonstrated the archaeological potential to yield important information regarding the property. While the archaeology of Site 24MO0188 and the Trash Deposit Site are restricted to information related to cultural material, both the CCC Warehouse Building 308 Site and the Original Fort Bakery Site yielded structural remains of the buildings that once occupied these locations in addition to cultural material.

The earliest archaeological investigations at Fort Missoula occurred in 1982 when Dr. Carling Malouf of the University of Montana began testing at 24MO0188 (Malouf 1982), while the latest occurred in 2010 with the investigation of the Trash Deposit Site (Krigbaum 2010). To date, subsurface investigations yielded a variety of artifacts related to building construction, diet, dress, munitions, machinery, medical, and items related to personal use. The materials date from the late 1800s through the CCC use of the Fort.

Investigations at site 24MO0188, the Fort Missoula Historic Dump, indicate very good potential to address research issues about material culture and habits related to the military post. The physical information can augment the written documentation and be used to confirm or rebut the written record. This information would not only be useful in further interpretation of Fort Missoula, but could also be used to better understand similar sites throughout the West.

Examination of the Original Post Bakery Site indicates several research questions can be addressed through subsurface investigation. Information regarding the actual physical footprint of the bakery can be compared to the written record regarding the construction of such buildings. The cultural materials recovered from the site may also shed light on dietary information outside of the known culinary activities associated with the bakery; what foods was the bakery staff consuming while manning the bakery? Were these other foods representative of the rest of the Fort? Although documentation indicates rotating shifts of bakers, does artifactual evidence exist suggesting certain individuals operated the bakery more than others?

The recovery of a substantial amount of artifacts and the identification of structural remains indicates the CCC Warehouse Building 308 Site has excellent potential to yield additional information regarding this period of the Fort's use. A comparison of recovered artifacts to CCC period supple lists would allow delineation between artifacts requested by the CCC and items of a more personal nature. Initial exploration suggests the northeast portion of the excavation served as a gathering location based on the recovery of a high concentration of personal use items (Ogborne et al. 2008); additional block excavations within other parts of the building's footprint may corroborate if personal use items are restricted to one location. The recovery of three female-oriented artifacts (cosmetic) within a nine meter area in the northeast portion of the excavation indicates the building was not restricted to men. More intensive subsurface excavations in other portions of the site could explore the possibility of women frequenting a larger area of the building than indicated by the recovery of the three artifacts.

Although the Trash Deposit Site exhibits mixed stratigraphy, the site's use dates to the 1880s. Despite a low number of recovered artifacts, a very high magnetic amplitude associated with magnetic data collected prior to testing indicates the origin of the magnetic anomaly was not located, suggesting additional subsurface investigation could yield further information related to the early disposal practices at the Fort. Ammunition related artifacts comprise the majority of the recovered cultural material; additional investigations may indicate if such artifacts were disposed of in different locations from the usual everyday trash associated with the operation of the Fort.

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The University of Montana Archives and Special Collections

Collection Name: Fort Missoula
Collection Number:
Series 1, Box 1, Folder 2 "Correspondence 1877-1899":216
Series 2, Box 1, Folder 1 "Annual Reports from all of the Major Camps in Montana, 1937 – 1940.

Collection Name: General Photograph Collection, no name.
Ascension Number: 76-443: Officer's Row at Fort Missoula 1918.

Collection Name: Grant Maclay
Ascension Number: 92-24.7: Fort Missoula from old Sutler's Store 1886.

Collection Name: R. H. McKay
Ascension Number: 94-0295: Fort Missoula, aerial view, looking northwest, ca. 1941
Ascension Number: 94-2378: Fort Missoula, new Barracks and Officers' Row, 1931.
Ascension Number: 94.2977: Post Hospital, undated.
Ascension Number: 94.2375: Parade grounds, officers' quarters, and barracks, 1931.
Ascension Number: 94.2373: Fort Missoula from Blue Mountain, ca. 1931.
Ascension Number: 94-0283: Aerial view of the Fort Complex, 1950.

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Fort Missoula Historic District Addendum and Boundary Increase
Name of Property

Missoula Co., MT
County and State

Previous documentation on file (NPS):

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

Primary location of additional data:

_X_ State Historic Preservation Office
___ Other State agency
___ Federal agency
_X_ Local government
___ University
___ Other
Name of repository: Missoula City Historic Preservation Office

Historic Resources Survey Number (if assigned):

10. Geographical Data

Acreage of Property 208
(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)
(See Continuation Sheet for 1:24,000 USGS topographic map of UTM Reference Points)

001	11	723586E	5192515N	011	11	724283E	5192056N	021	11	723587E	5192049N
002	11	724883E	5192562N	012	11	724259E	5191941N				
003	11	724906E	5192351N	013	11	723972E	5192022N				
004	11	724809E	5192334N	014	11	723713E	5192126N				
005	11	724823E	5192135N	015	11	723620E	5191788N				
006	11	724907E	5192130N	016	11	724373E	5191219N				
007	11	724914E	5192070N	017	11	724340E	5191178N				
008	11	724821E	5192007N	018	11	723973E	5191439N				
009	11	724718E	5192061N	019	11	723311E	5191715N				
010	11	724470E	5191982N	020	11	723315E	5192028N				

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

The Fort Missoula Historic District Addendum and Boundary Increase starts at point 1 on South Avenue. Proceed east along the south side of South Avenue 0.8 miles to point 2, the northeast corner of Missoula County Park. From point 2, follow the park/hospital property boundary south about 0.15 miles to point 3. From point 3, follow the property boundary west about 0.05 miles to point 4. From point 4, follow the property boundary south almost 0.15 miles to point 5. From point 5, follow the property boundary east 0.05 miles to point 6. From point 6, follow the property boundary south about 0.02 miles to point 7, on the north edge of the tree-lined Fort Missoula Road. From point 7, proceed southwest along the north edge of the Original Fort Missoula Road for approximately .15 miles to Point 8. Turn northwest and go about .1 mile to Point 9. At Point 9, proceed southwest for about .15 mile to Point 10. Turn northwest and proceed less than .15 mile to Point 11 located on D Road and just north of the intersection of D Road and G Road. Turn south-southwest and proceed just less than .1 mile to the intersection of D and G roads (Point 12). Proceed northwest along G Road for about .2 mile to the intersection of B and G roads (Point 13). Continue in a northwesterly direction for about another .2 mile to Point 14 at the most western end of G Road. Go southwest almost .25 mile along an unnamed road to the northwest tip of Sleven's Island in the Bitterroot River. The boundary then follows the northern bank of Sleven's Island for about .65 mile (point 16) where it turns southwest following the east edge of the island for just over .1 mile (Point 17). The boundary then moves northwest along the south edge of Sleven's Island back to Point 15. It proceeds almost .2 miles west from this location to Point 19, on the north bank of the Bitterroot River. At this point it turns north for just under .25 miles (point 20) where it again turns east for just under .25 mile to a location on Guardsman Lane (Point 21). The boundary turns north for about .25 miles to return to Point 1.

Boundary Justification (Explain why the boundaries were selected.)

The Fort Missoula Historic District Boundary Increase area is based upon the original historic district boundary, the historic cultural landscape, and the results of recent historical studies and historical archaeological excavations conducted by the University of Montana, archaeologist Dagny Krigbaum, and Western Cultural, Inc. The boundary increase utilizes a combination of property boundaries, visual breaks, and natural and manmade features to include the historic resources within the original district boundary, the historic cultural landscape, newly located historical archaeological resources, the post cemetery and the historic dump site excavated by the University of Montana. The original district boundary included the Fort Missoula Road, historically the primary entrance to the Fort, and the manmade tree-lined corridor feature through which the road runs in a southwest direction. This tree-lined corridor was originally measured at 60 feet in width, centered on the road itself. This measurement has been corrected to 65 feet, centered on the road, to reflect the actual width of the corridor.

11. Form Prepared By

name/title Dan Hall
organization Western Cultural Inc. date March 2008
street & number Building 28, Suite 2, Fort Missoula Road telephone (406)829-0301
city or town Missoula state MT zip code 59806
e-mail

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property:
City or Vicinity:
County: State:
Photographer:
Date Photographed:
Description of Photograph(s) and number:
1 of ___.

See Continuation Sheets

Property Owner:

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

name/title: United States Army
street & number: Fort Missoula Road **telephone:**
city or town: Missoula **state:** MT **zip code:** 59804

name/title: Missoula County
street & number: 200 W. Broadway St. **telephone:**
city or town: Missoula **state:** MT **zip code:** 59802

name/title: Northern Rockies Heritage Center
street & number: PO Box 1884 **telephone:**
city or town: Missoula **state:** MT **zip code:** 59806-1884

name/title: Western Montana Comprehensive Child Development Center
street & number: T-214 Fort Missoula Road **telephone:**
city or town: Missoula **state:** MT **zip code:** 59804-7209

name/title: Western Montana Regional Community Mental Health Center
street & number: 9 Fort Missoula Road **telephone:**
city or town: Missoula **state:** MT **zip code:** 59801

name/title: University of Montana Board of Regents
street & number: Campus Bld. 32 Facilities Services **telephone:**
city or town: Missoula **state:** MT **zip code:** 59812-0001

name/title: City of Missoula
street & number: 435 Ryman Street **telephone:**
city or town: Missoula **state:** MT **zip code:** 59802-4207

name/title: Jim Pope
street & number: 3255 Fort Missoula Road **telephone:**
city or town: Missoula **state:** MT **zip code:** 59804-7204

name/title: Community Medical Center, Inc.
street & number: 2827 Fort Missoula Road **telephone:**
city or town: Missoula **state:** MT **zip code:** 59804-7408

name/title: Lolo National Forest
street & number: Fort Missoula, Bld. 24 **telephone:**
city or town: Missoula **state:** MT **zip code:** 59804

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

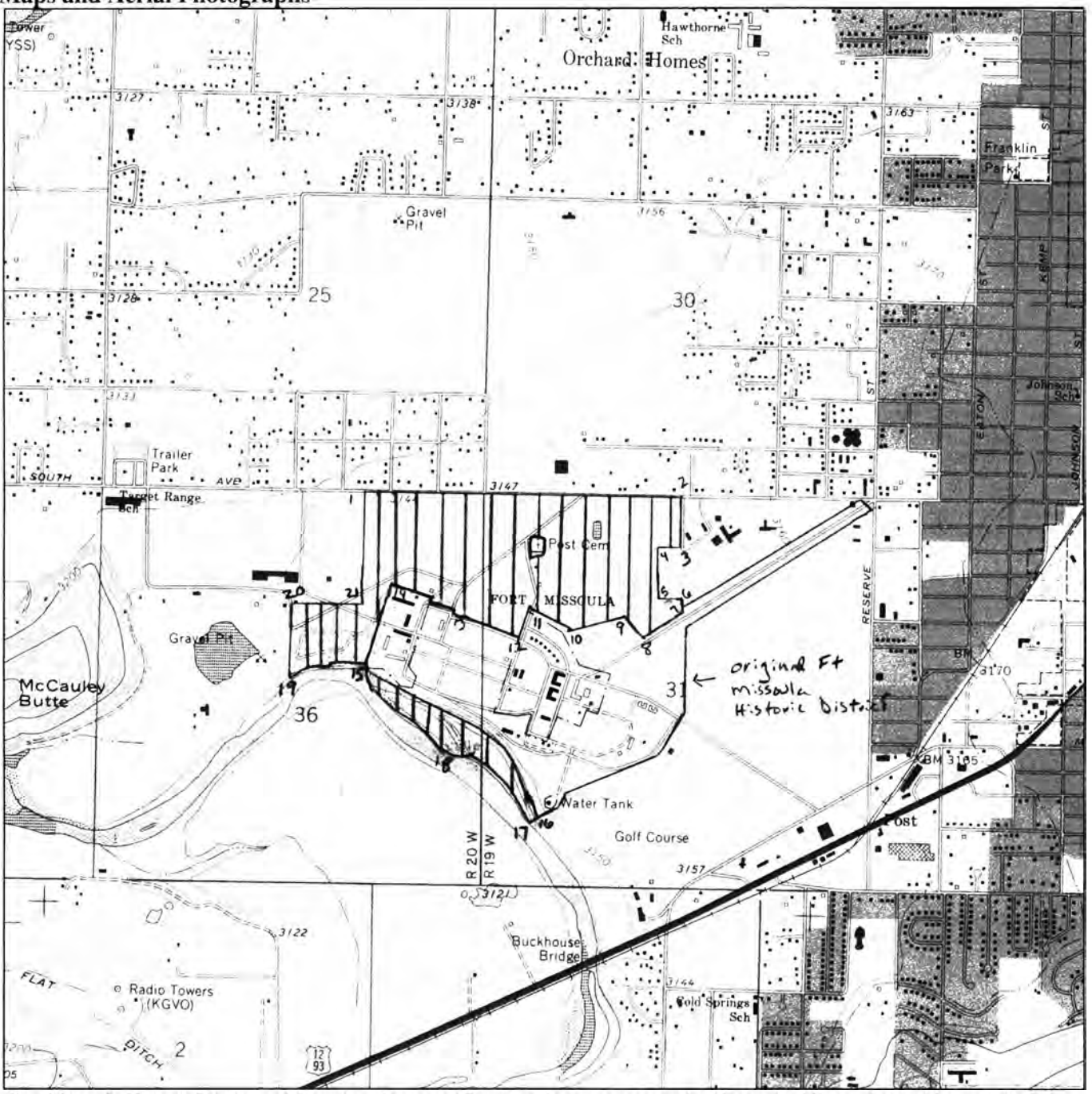
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number Maps and Aerial Photographs Page 1

Fort Missoula Historic District Addendum and Boundary Increase
Name of Property
Missoula Co., MT
County and State
Name of multiple listing (if applicable)

Maps and Aerial Photographs

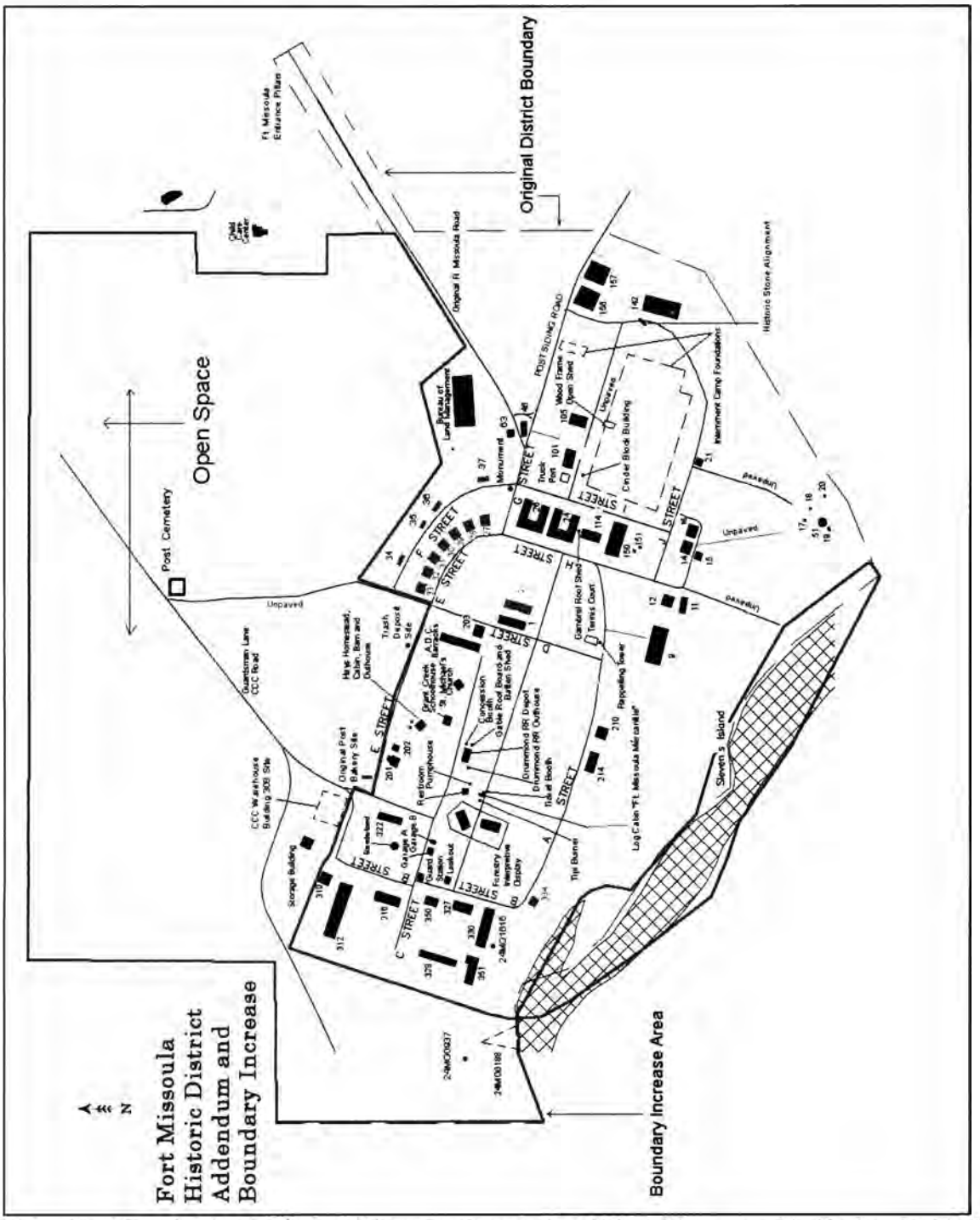


Fort Missoula Historic District and Boundary Increase (Boundary Increase area marked by vertical lines. Area without vertical lines represents original district/addendum area). Found on: Southwest Missoula, Montana 1964, Photorevised 1978, 7.5' quadrangle

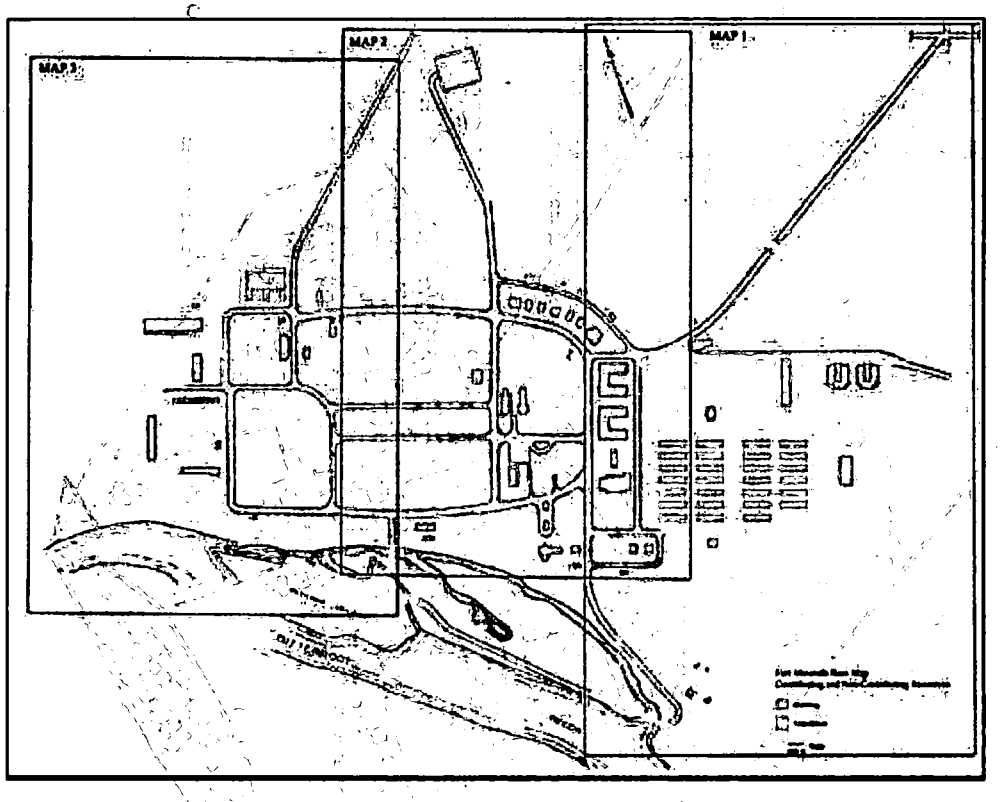
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet
Section number Maps and Aerial Photographs Page 2

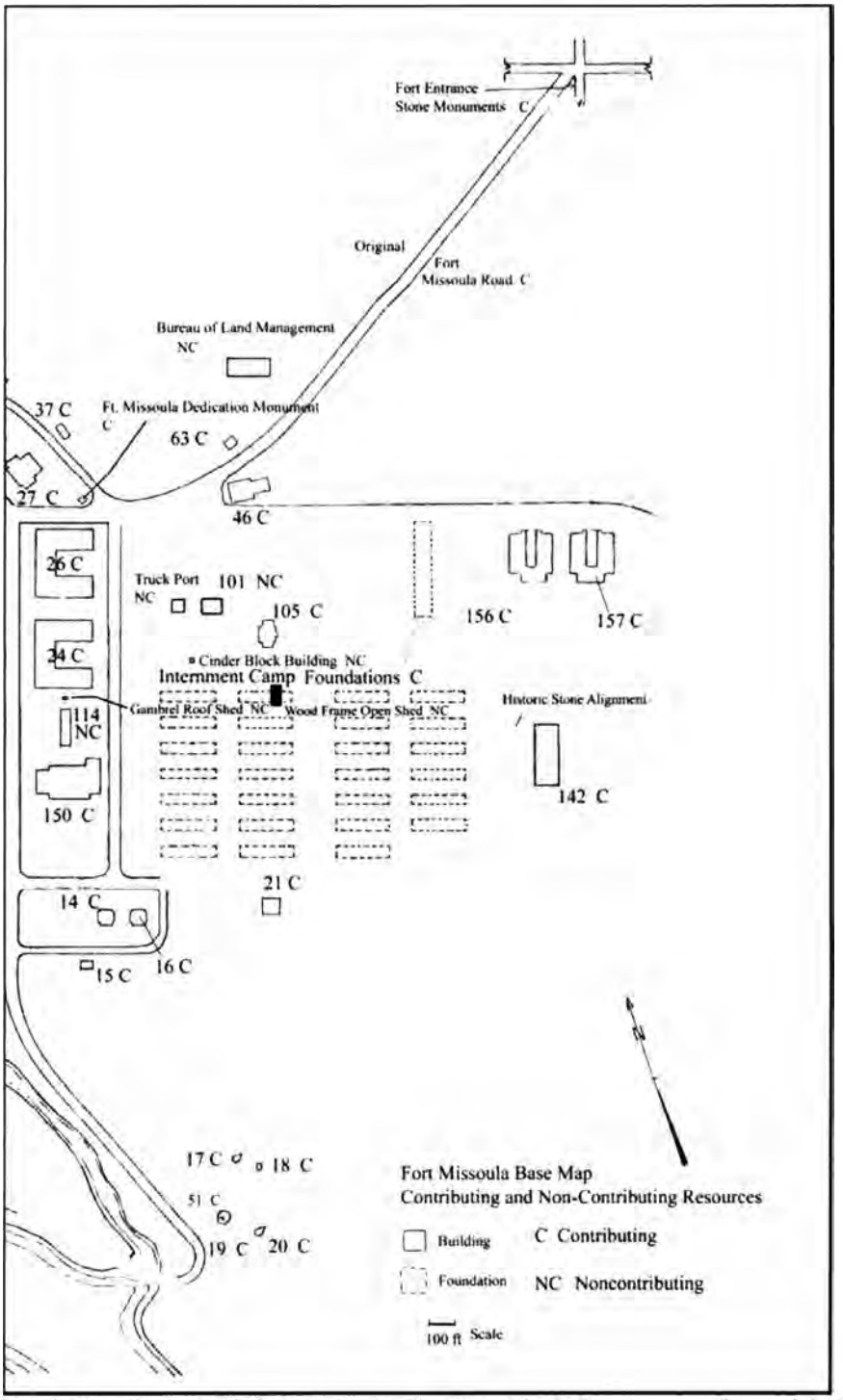
Fort Missoula Historic District Addendum and Boundary Increase
Name of Property
Missoula Co., MT
County and State
Name of multiple listing (if applicable)



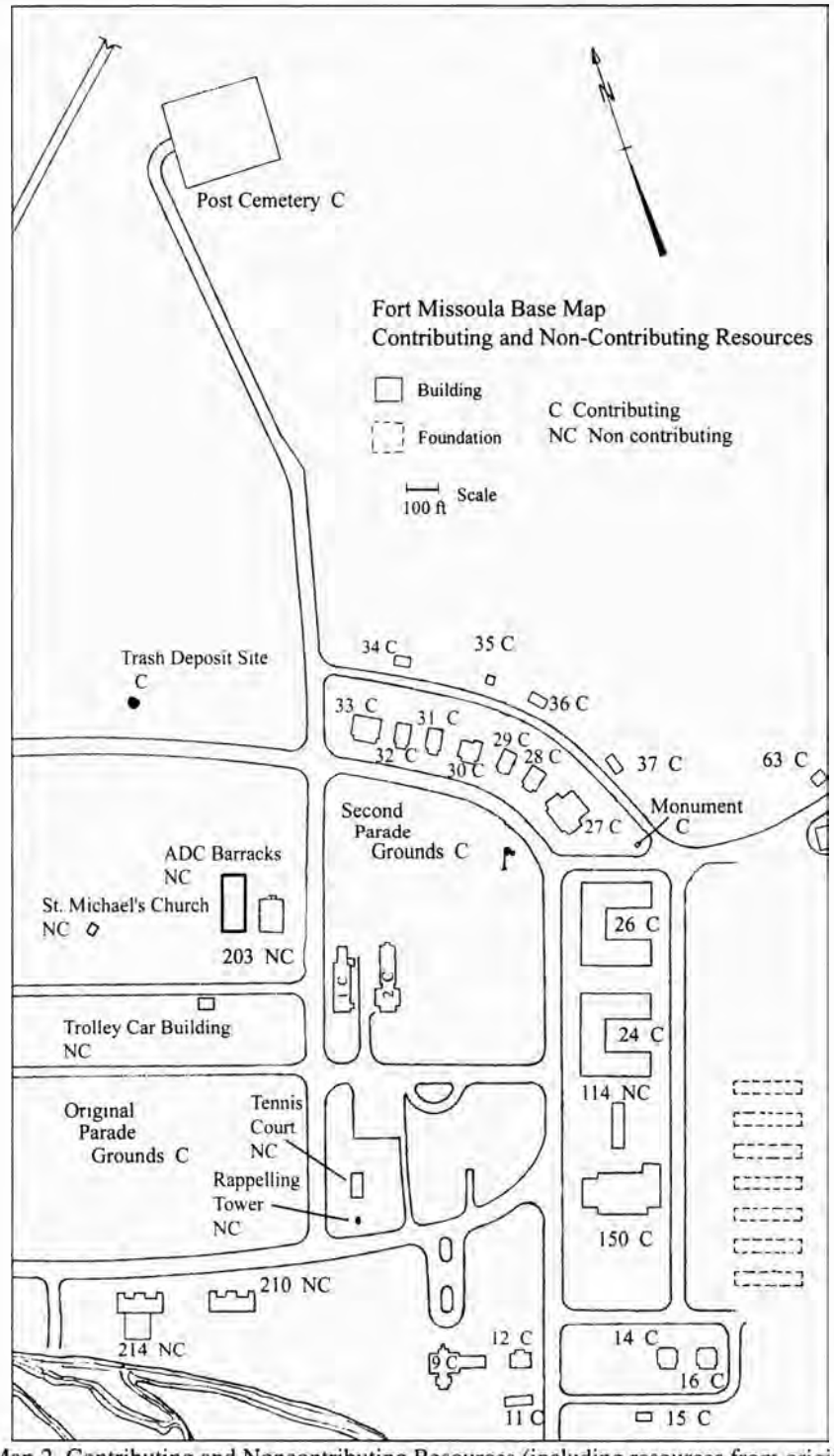
Map of Original Fort Missoula Historic District and Boundary Increase Area (Adapted from map of the Northern Rockies Heritage Center). Boundary increase area conscribed by dark solid line.



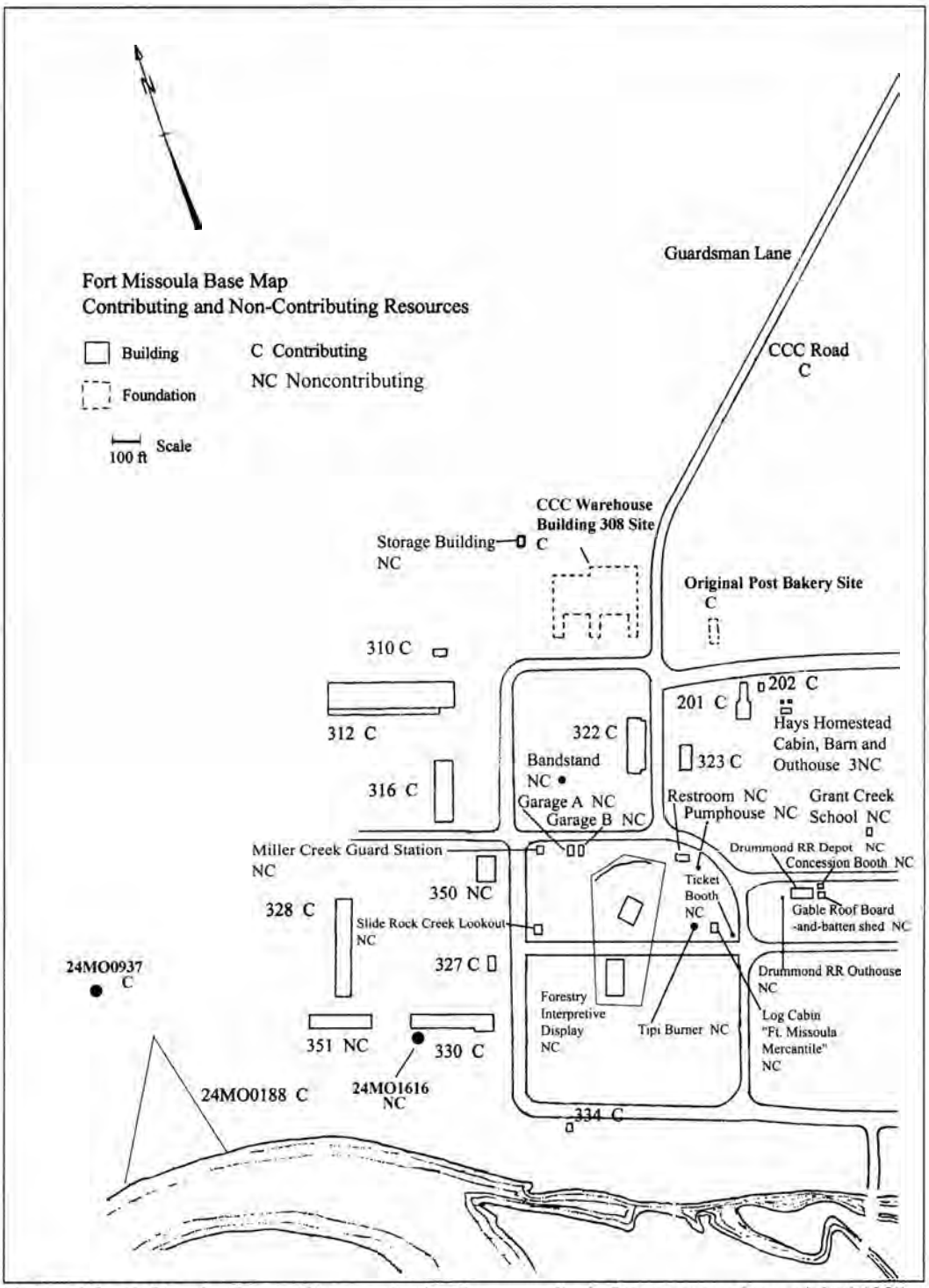
Fort Missoula Addendum and Boundary Increase Base Map.



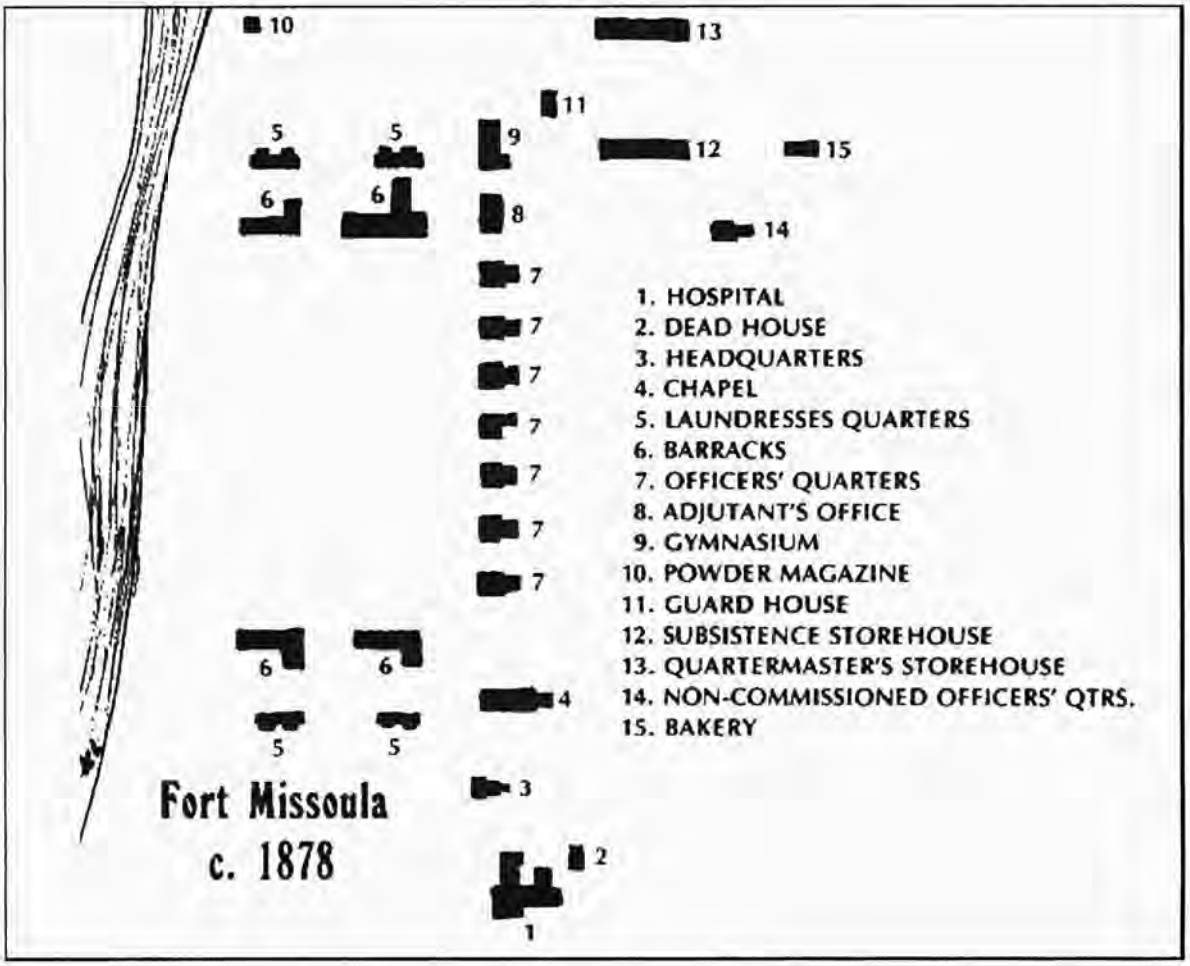
Fort Missoula Base Map 1, Contributing and Noncontributing Resources (including resources from original 1987 nomination).



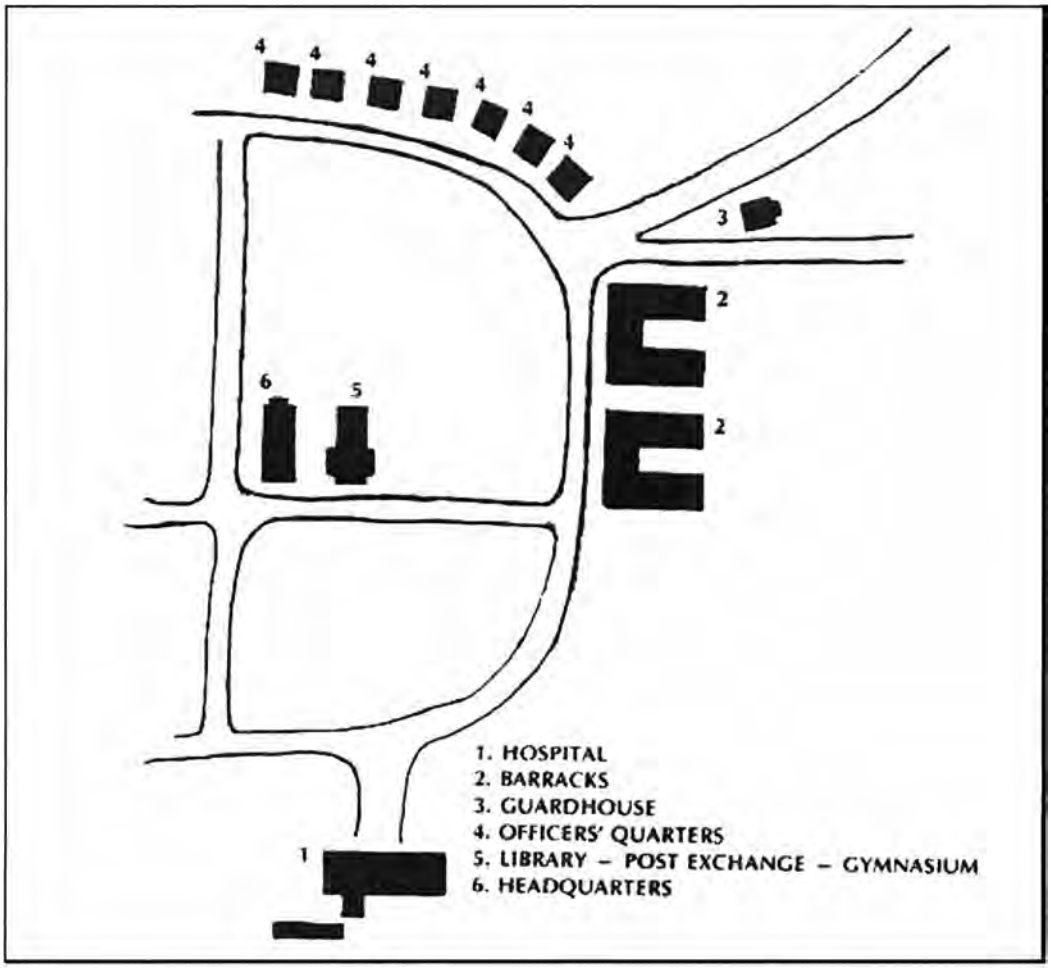
Fort Missoula Base Map 2, Contributing and Noncontributing Resources (including resources from original 1987 nomination).



Fort Missoula Base Map 3, Contributing and Noncontributing Resources (including resources from original 1987 nomination).



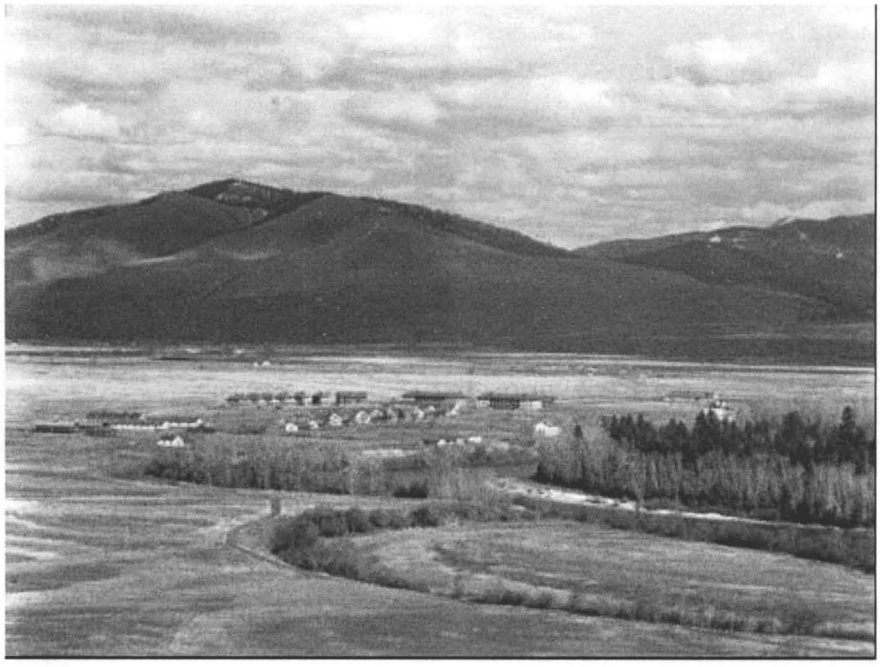
1878 plan of Fort Missoula (Long 1991)



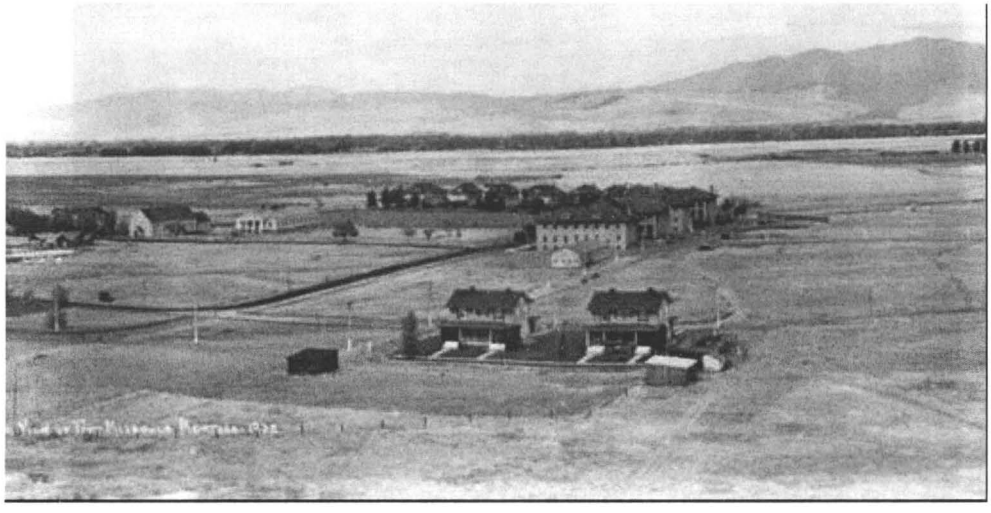
Second Fort Plan, circa 1906 (Long 1991:13)



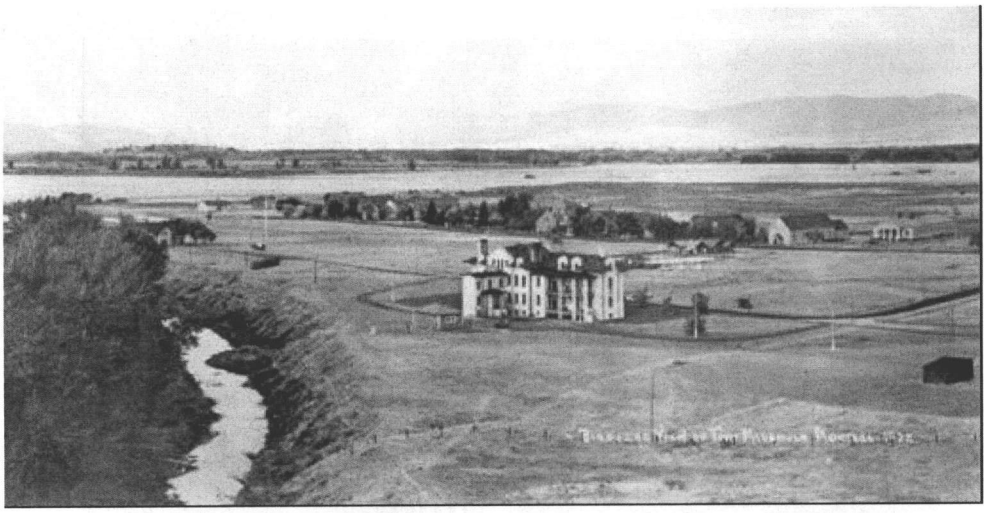
Overview of the Fort Complex, ca 1886, looking east-northeast from the west of the complex (photo courtesy of the Historical Museum at Fort Missoula)



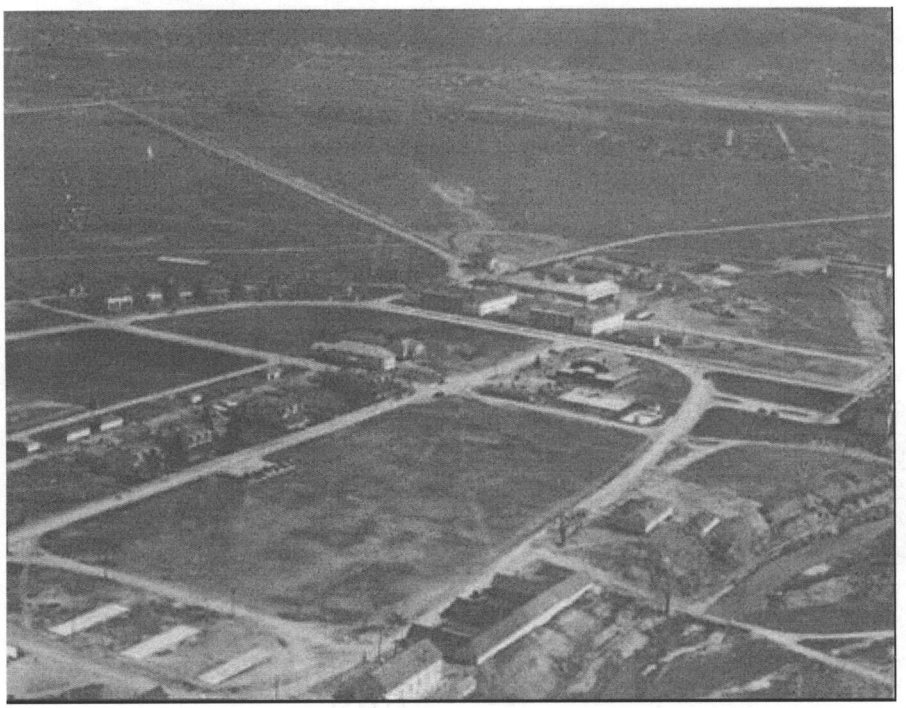
View of Fort Missoula from Blue Mountain, October 20, 1931 (94.2373, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



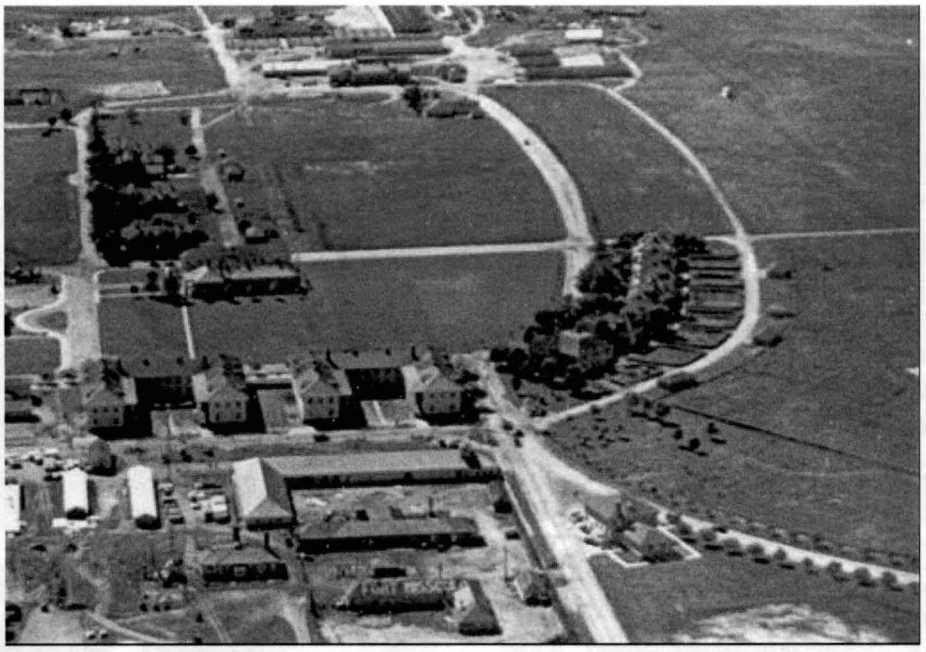
Fort Missoula, 1932 (87.056, Archives and Special Collections, The University of Montana - Missoula)



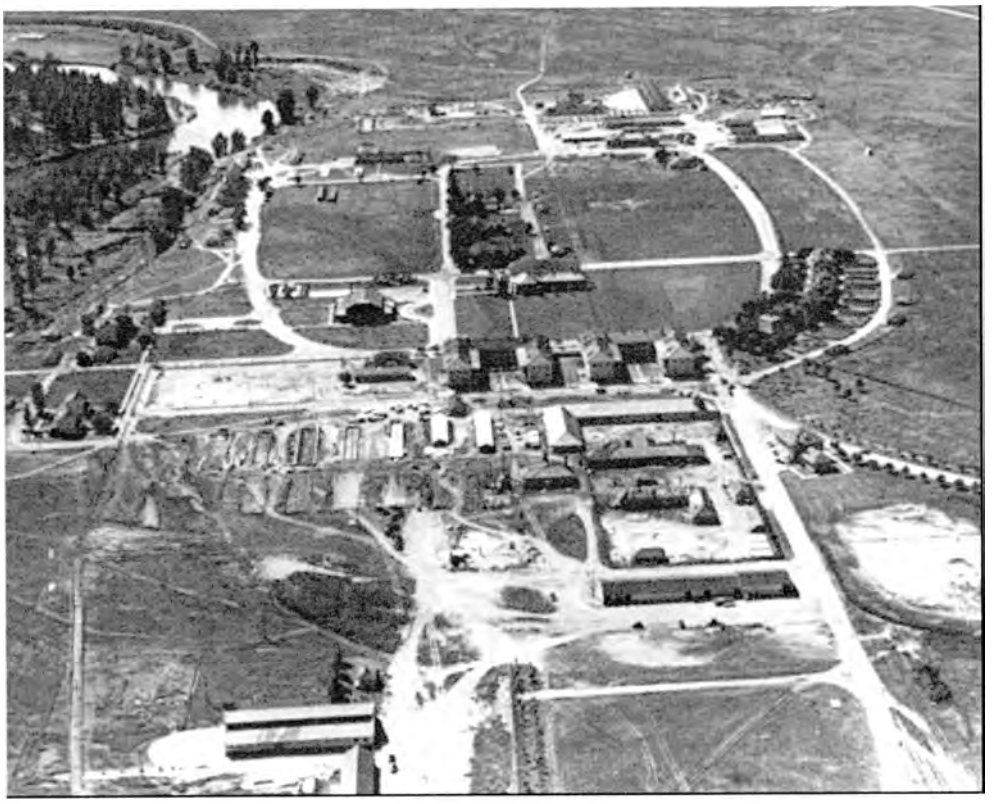
Fort Missoula aerial, 1932 (87.058, Archives and Special Collections, The University of Montana - Missoula)



Fort Missoula aerial, 1935 (Courtesy of The Historical Museum, Fort Missoula, Missoula, Montana)



Aerial view of Fort Missoula, looking west, 1941 (82-11, James E. Murray Collection, Archives and Special Collections, The University of Montana)



Fort Complex aerial view, ca. 1941. CCC structures in top-right of photo (82-11, James E. Murray Collection, Archives and Special Collections, The University of Montana-Missoula)



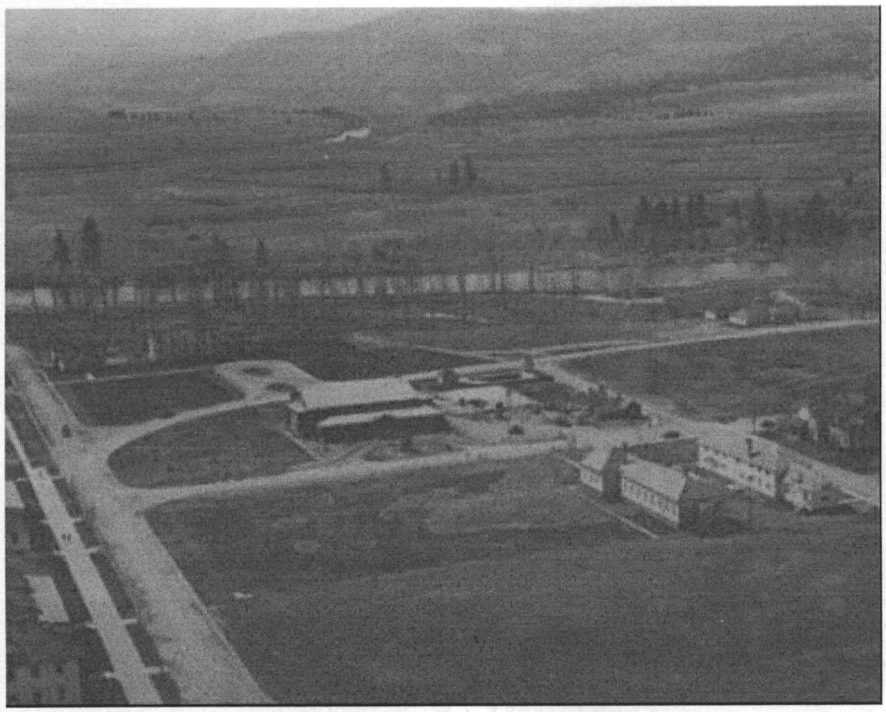
Fort Missoula aerial, 1944 (94.0295, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



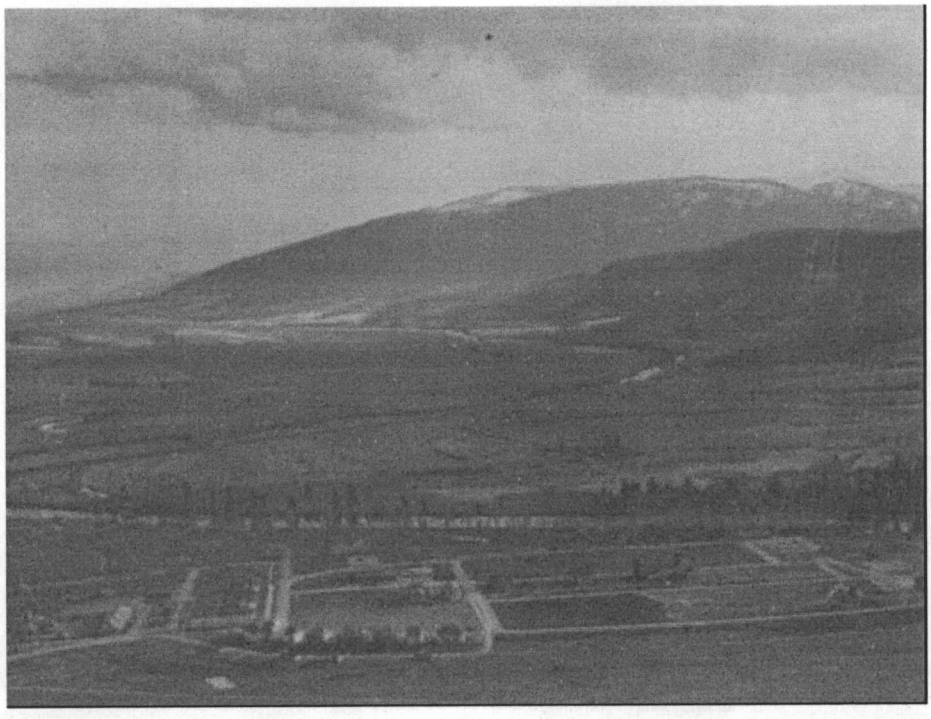
Fort Missoula aerial, 1950 (94.0283, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



Aerial photograph of the Fort Historic District, August 5, 2005 (Natural Resource Information System



Description/View: Fort Missoula aerial, unknown date

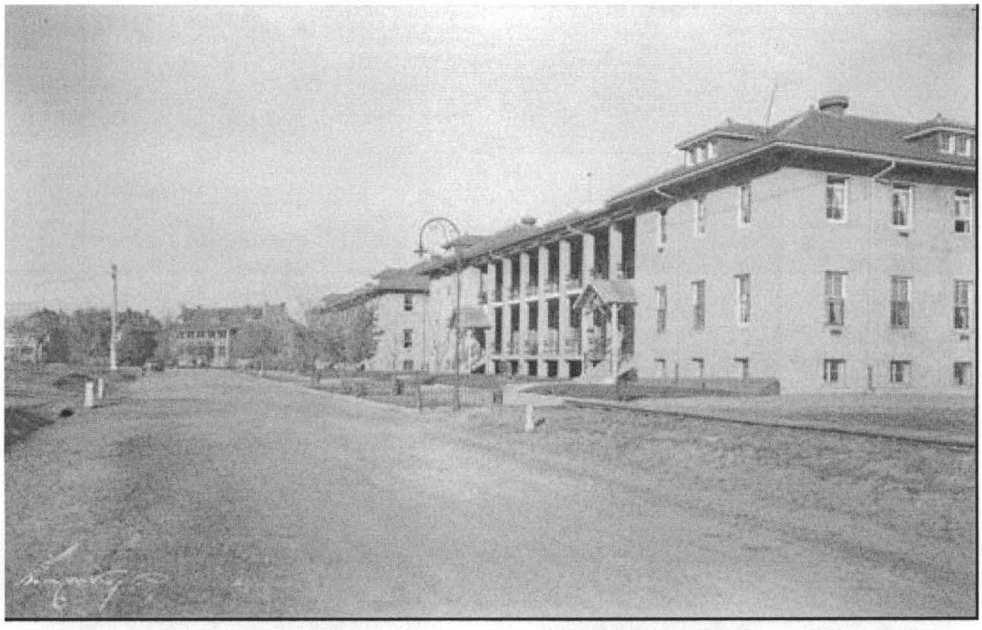


Description/View: Fort Missoula aerial, unknown date

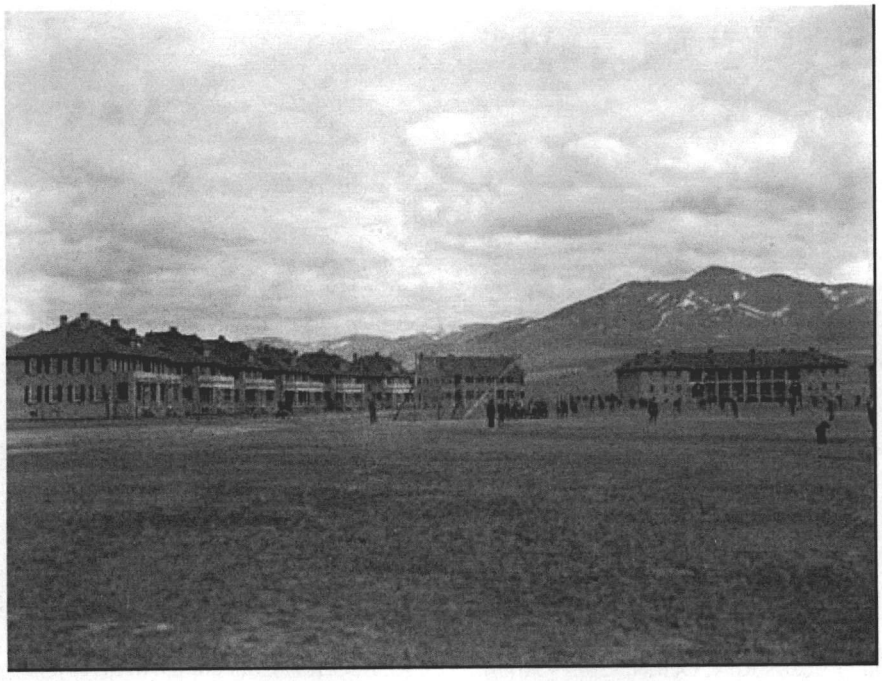
Historic Photographs



Fort Missoula Post Hospital and Water Tower, 1912 (Courtesy of the Historical Museum, Fort Missoula)



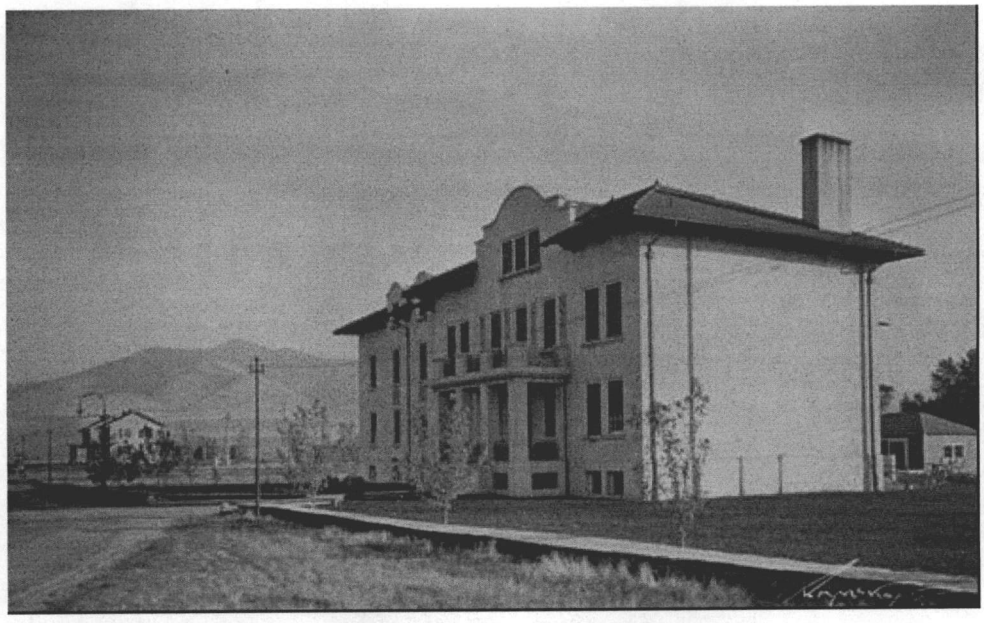
Fort Missoula, Barracks and Officer's Row, October 20, 1931 (94.2378, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



Fort Missoula Parade Grounds, October 20, 1931 (94.2375, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



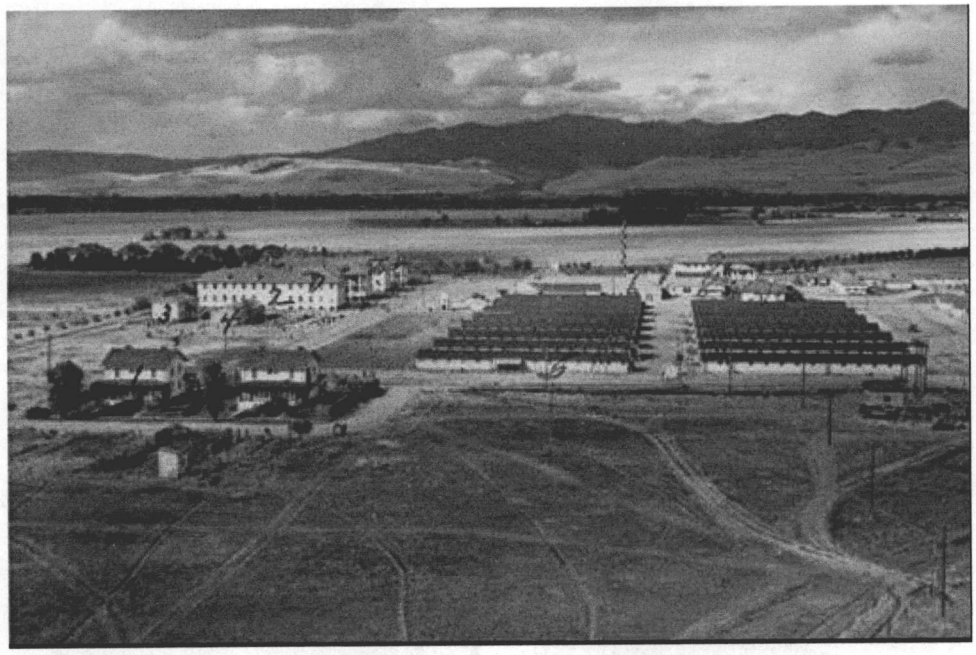
Fort Missoula Internment Camp Barracks, 1945 (83.39, Archives and Special Collections, The University of Montana - Missoula)



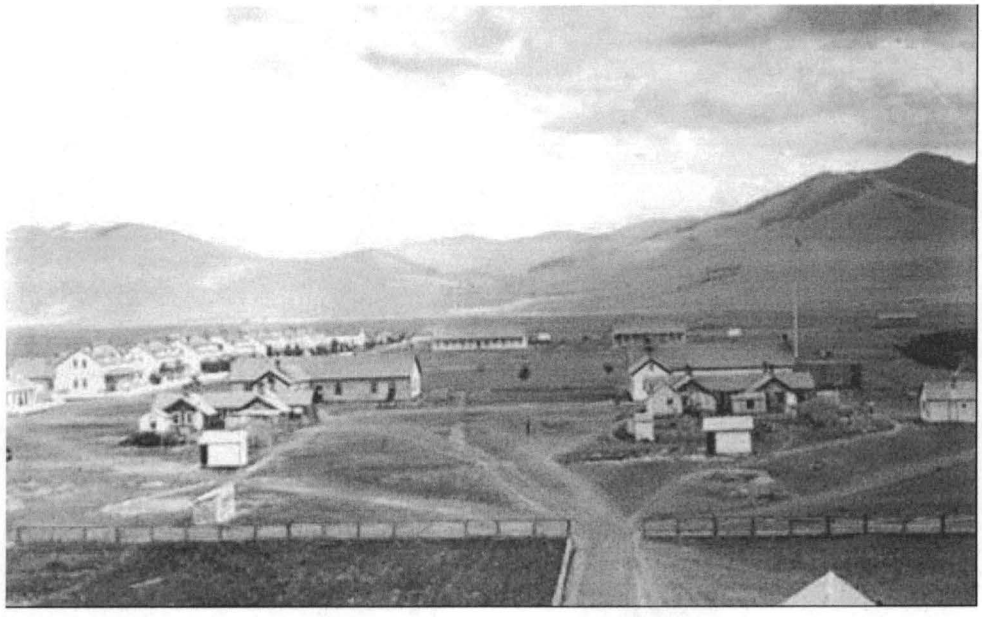
Description/View: Fort Missoula Post Hospital, Undated (94.2977, R.H. McKay Collection, Archives and Special Collections, The University of Montana - Missoula)



Officer's Row, circa 1918. (76.443, Archives and Special Collections, The University of Montana-Missoula)



Fort Missoula Aerial, 1940 (82.0220, James E. Murray Collection, Archives and Special Collections, The University of Montana-Missoula)



Fort Missoula, ca. 1886, looking east from old Sutler's store (92-24.7, Grant Maclay Collection, Archives and Special Collections, The University of Montana-Missoula,)



MSR #2 at Fort Missoula, December 30, 1921. (Charles A. Lane-LOK)

Missoula Streetcar Company trolley that ran to Fort Missoula, 1921 (Interurbans Magazine Spring 1970:75)

National Register Photographs
Photograph Log

The photographs accompanying this nomination are digital images. In accordance with the National Register of Historic Places March 2005 Photo Policy expansion, the photos are printed on glossy HP Premium Plus Photo Paper, using the Hewlett Packard Vivera Ink (97 tri-color cartridge). This combination of paper and ink is included on the NR's list of "Acceptable Ink and Paper Combinations for Digital Images." The images are also recorded as .tif files on a CD-R at or larger than 1600x1200 pixels at 300 ppi in 8-bit or higher format.

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 11, Garage, facing southwest
Photograph Number 0001

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 15, Garage, facing southwest
Photograph Number 0002

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 17, Pump House, facing northwest
Photograph Number 0003

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 18, Transformer Shed, facing southeast
Photograph Number 0004

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 19, Shed, facing northwest
Photograph Number 0005

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 20, Pump House, facing southwest
Photograph Number 0006

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 21, Electrical Sub Station, facing east
Photograph Number 0007

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 34, Garage, facing northwest
Photograph Number 0008

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 002007
Location of Original Negative: MT SHPO
Description/View: Building 35, Garage, facing northeast
Photograph Number 0009

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 36, Garage, facing northwest
Photograph Number 0010

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 37, Garage, facing north
Photograph Number 0011

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 63, Provost Marshall's Office, facing northwest
Photograph Number 0012

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 156, Solitary Cell Block, facing southwest
Photograph Number 0013

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 157, Solitary Cell Block, facing southeast
Photograph Number 0014

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 203, Garage, facing northwest
Photograph Number 0015

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 214 with rear addition, CCC Barracks, facing west
Photograph Number 0016

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 310, Boiler Plant, facing southwest
Photograph Number 0017

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 316, CCC Administrative Building, facing southwest
Photograph Number 0018

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 330, CCC Motor Pool Garage, facing southwest
Photograph Number 0019

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 351, Storage Building/Garage, facing northwest
Photograph Number 0020

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: 24MO0188, Historic Dump site, facing west
Photograph Number 0021

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Unknown
Date of Photograph: ca. 1986
Location of Original Negative: MT SHPO
Description/View: Building 316, view of the west side, circa 1986, facing northeast
Photograph Number 0022

Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 316, view of the west side, October 2007, facing northeast
Photograph Number 0023

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Building 351, view of the east and north elevations, facing southwest.
Photograph Number 0024

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Cinder Block Building, view of the east and north elevations, facing southwest.
Photograph Number 0025

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Garage B and A, view of the east and north elevations, facing southwest.
Photograph Number 0026

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Trolley Car Barn, view of the east and north elevations, facing southwest.
Photograph Number 0027

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Restroom, view of the west and south elevations, facing northeast.
Photograph Number 0028

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Log Cabin "Fort Missoula Mercantile", Ticket Booth, tipi burner, restroom, pumphouse, Forestry Interpretive Display, view of the east elevations, facing west.
Photograph Number 0029

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: ADC Barracks, view of the west elevation, facing east.
Photograph Number 0030

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Shed west of Building 203 and Concession Building, view of the west and south elevations, facing east-northeast.
Photograph Number 0031

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Gambrel Roof Shed, view of the east and north elevations, facing southwest.
Photograph Number 0032

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Forestry Interpretive Display, facing east.
Photograph Number 0033

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Forestry Interpretive Display, facing southeast.
Photograph Number 0034

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Tipi Burner with part of Forestry Interpretive Display in background, facing northwest.
Photograph Number 0035

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Truck Port with Army Reserve Motor Pool Building in background, north and west elevations, facing southeast.
Photograph Number 0036

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Wood Frame Open Shed, facing southeast.
Photograph Number 0037

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Tennis Court, facing northeast.
Photograph Number 0038

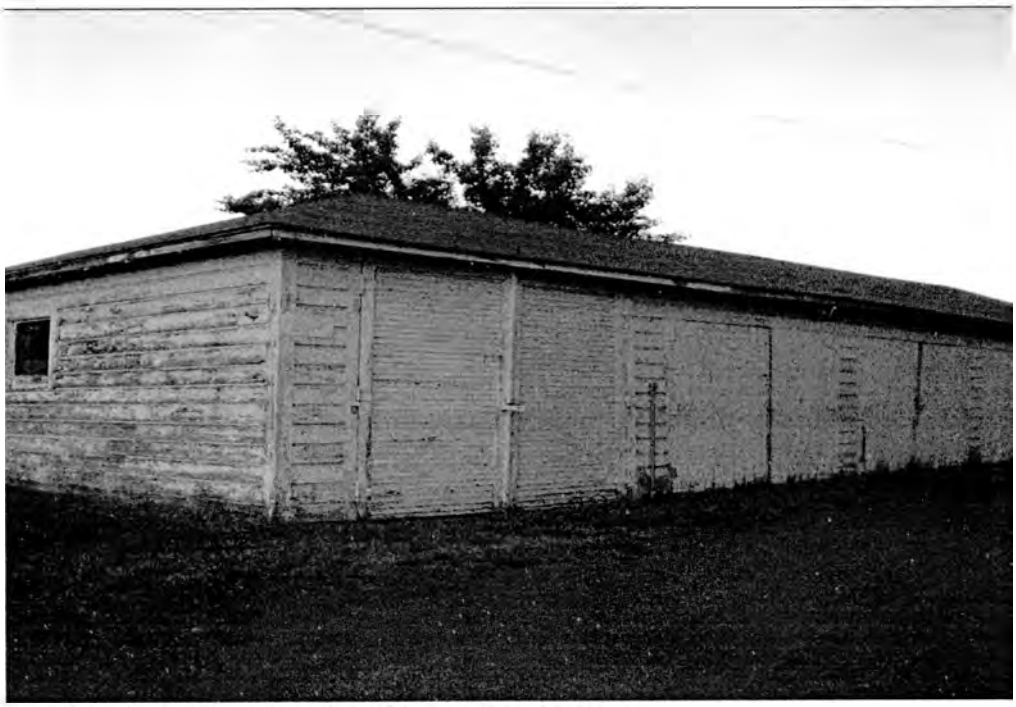
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Philip Maechling
Date of Photograph: June 2011
Location of Original Negative: MT SHPO
Description/View: Post Cemetery with cattle grazing in open space in background, facing north.
Photograph Number 0039

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Philip Maechling
Date of Photograph: June 2011
Location of Original Negative: MT SHPO
Description/View: Open Space north of fort, facing east.
Photograph Number 0040

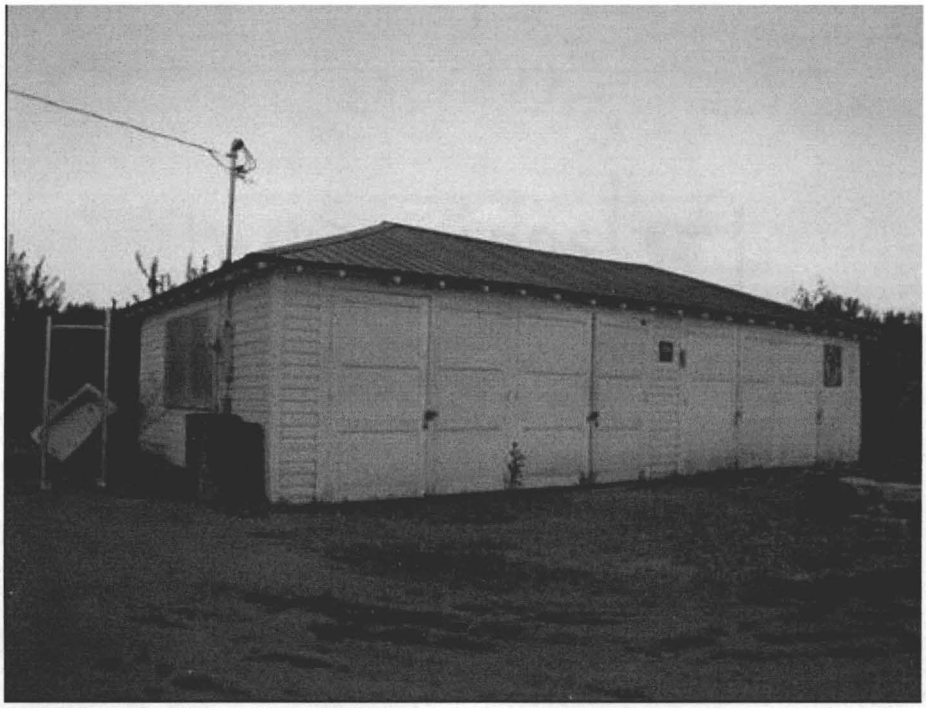
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Hay Homestead Buildings with Original Fort Bakery Foundation Site near trees in background, facing north-northwest
Photograph Number 0041

Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: NCO Quarters, Building 201 with CCC Warehouse Building 308 Site near trees in background, facing north-northwest.
Photograph Number 0042

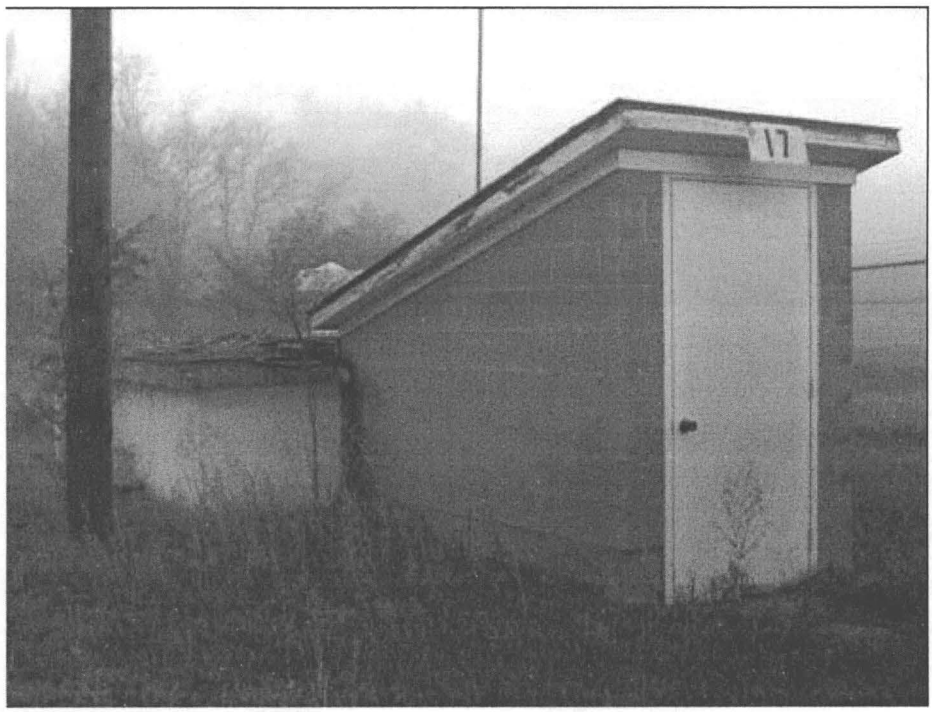
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: September 2011
Location of Original Negative: MT SHPO
Description/View: Historic stone alignment, facing northeast.
Photograph Number 0043



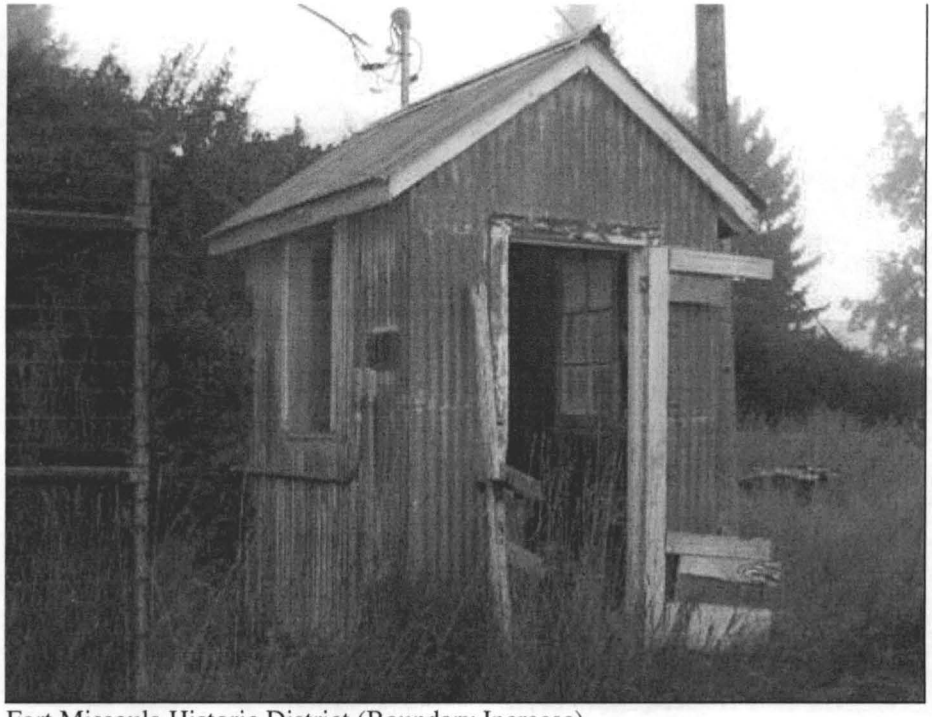
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 11, Garage, facing southwest
Photograph Number 0001



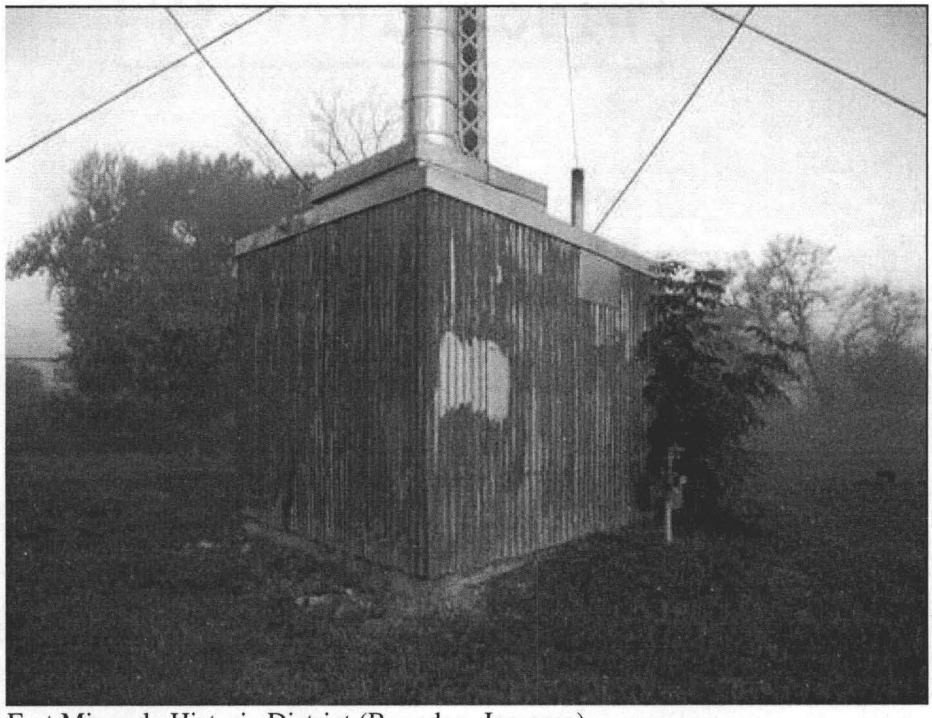
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 15, Garage, facing southwest
Photograph Number 0002



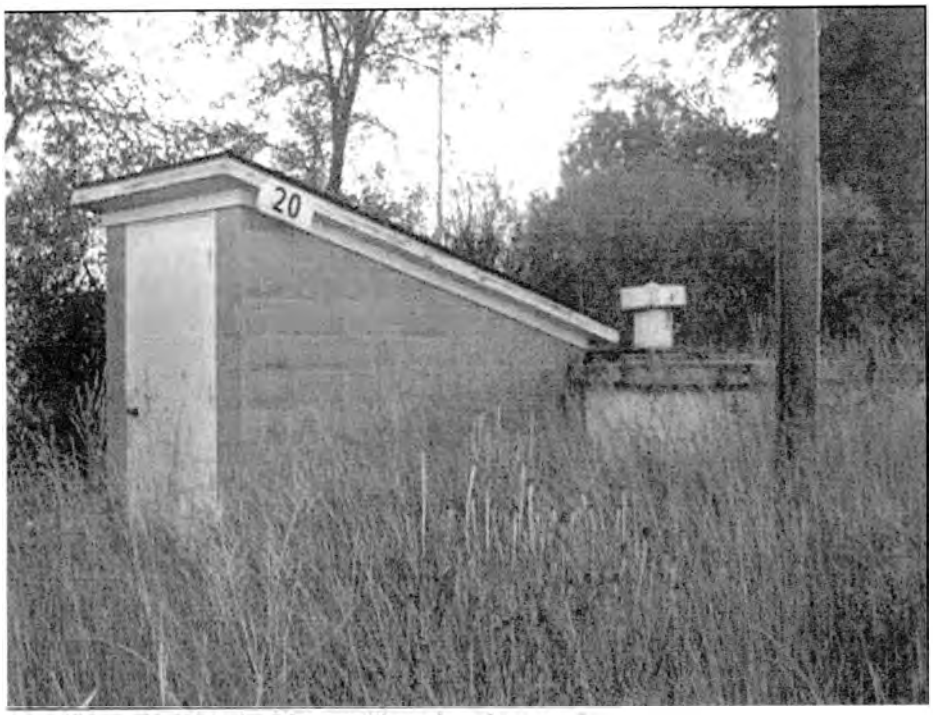
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 17, Pump House, facing northwest
Photograph Number 0003



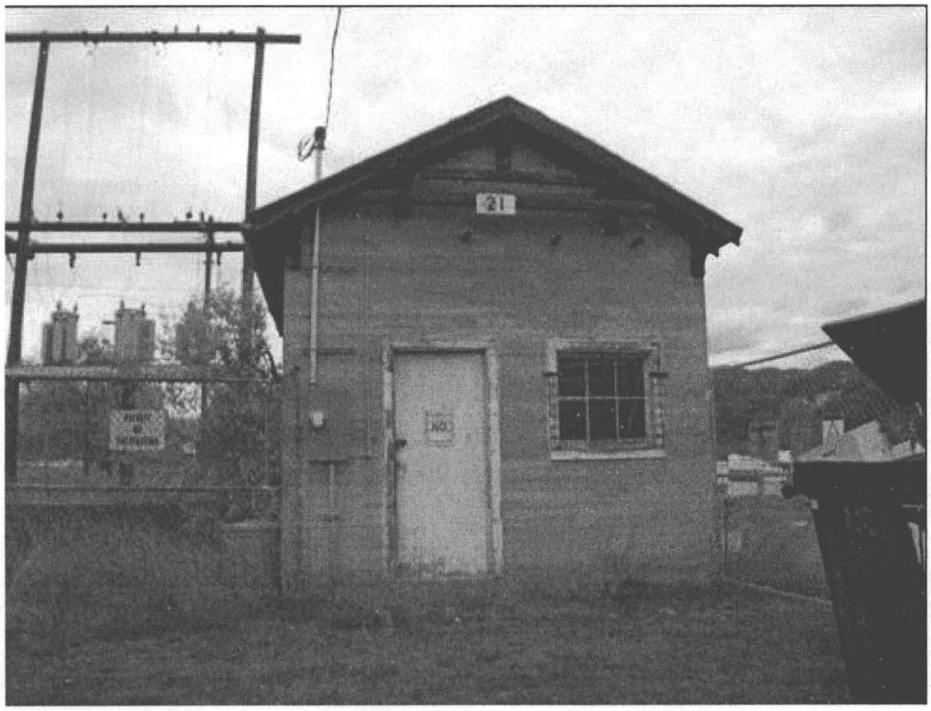
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 18, Transformer Shed, facing southeast
Photograph Number 0004



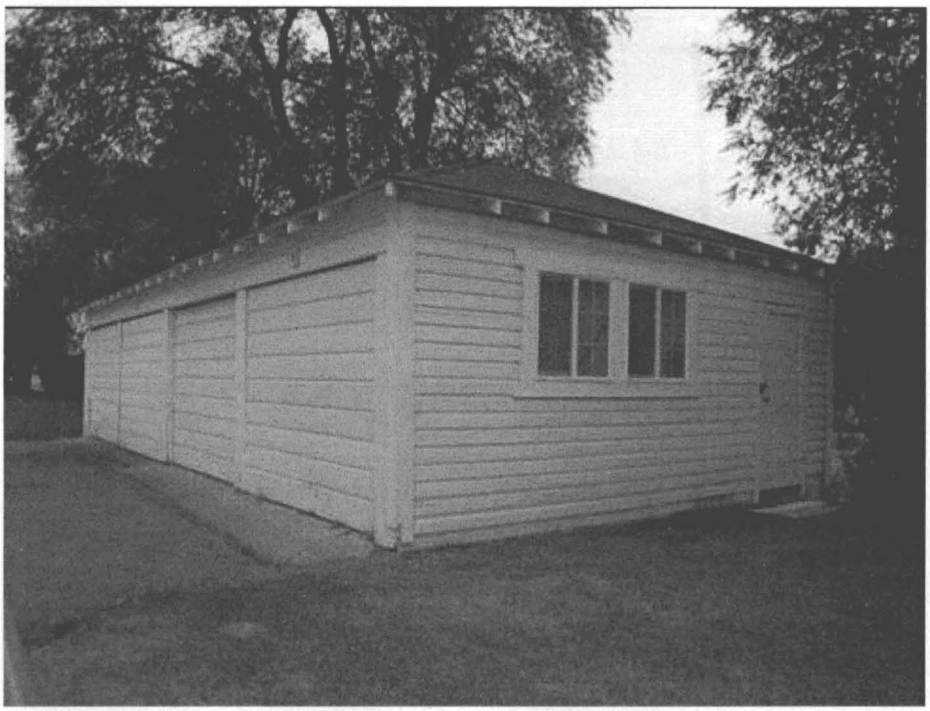
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 19, Shed, facing northwest
Photograph Number 0005



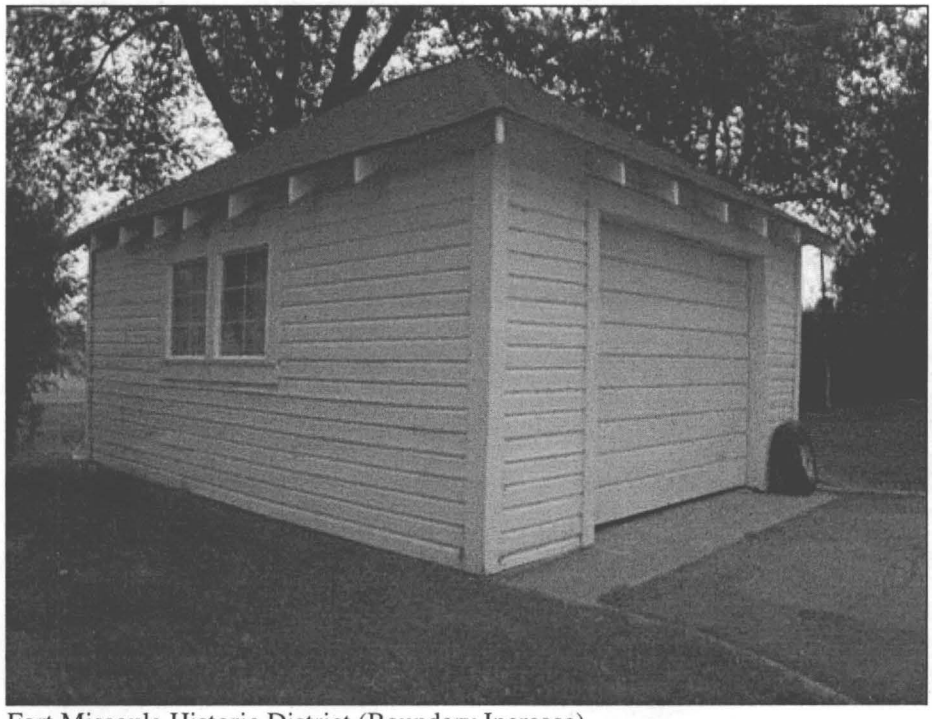
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 20, Pump House, facing southwest
Photograph Number 0006



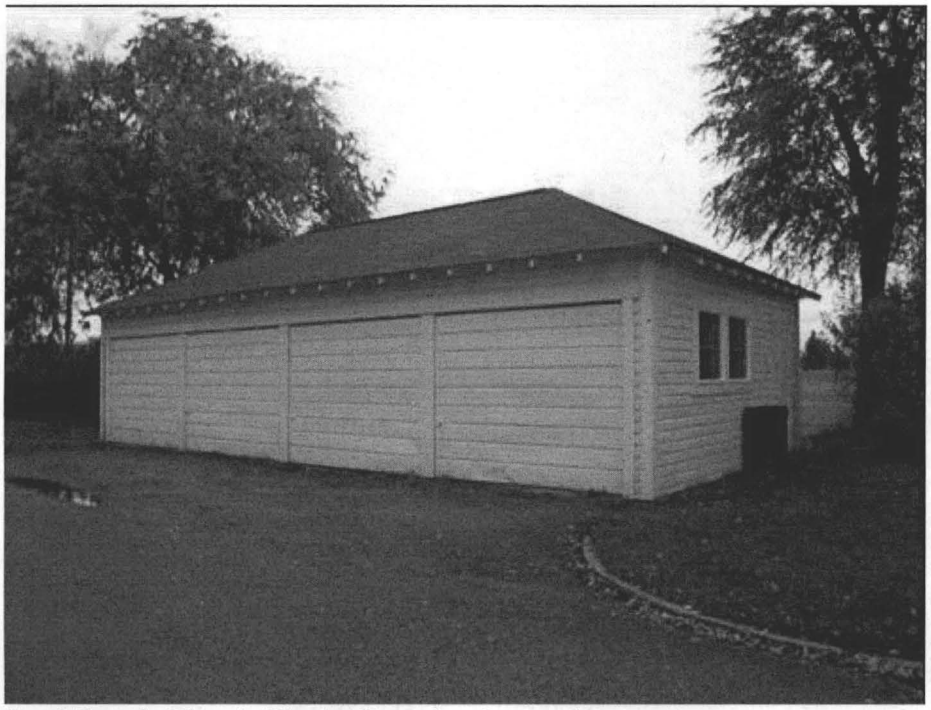
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 21, Electrical Sub Station, facing east
Photograph Number 0007



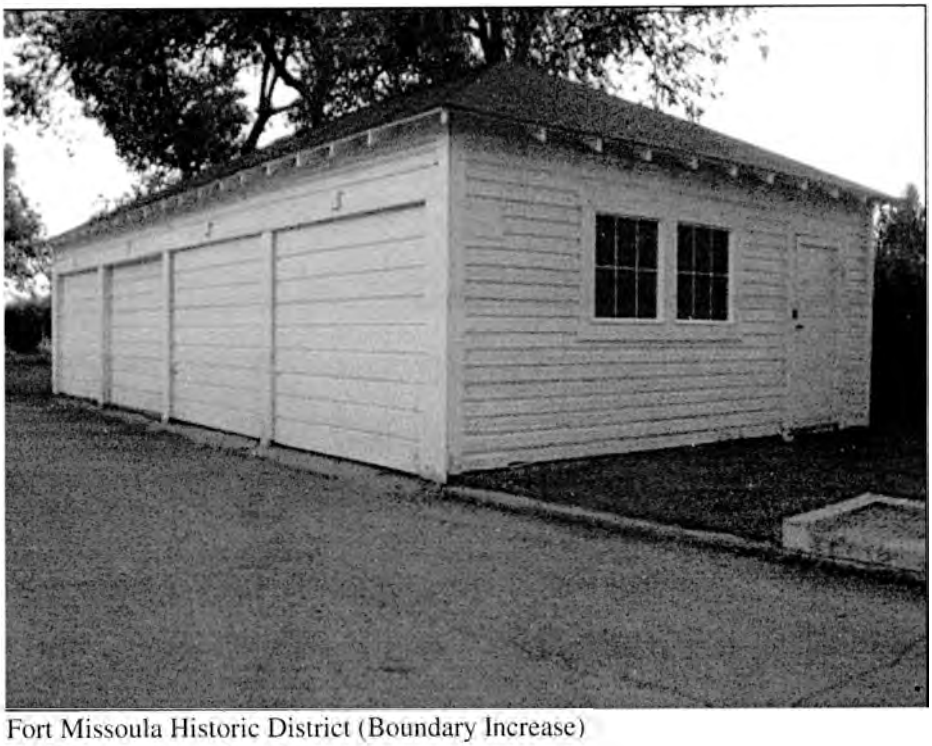
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 34, Garage, facing northwest
Photograph Number 0008



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 002007
Location of Original Negative: MT SHPO
Description/View: Building 35, Garage, facing northeast
Photograph Number 0009



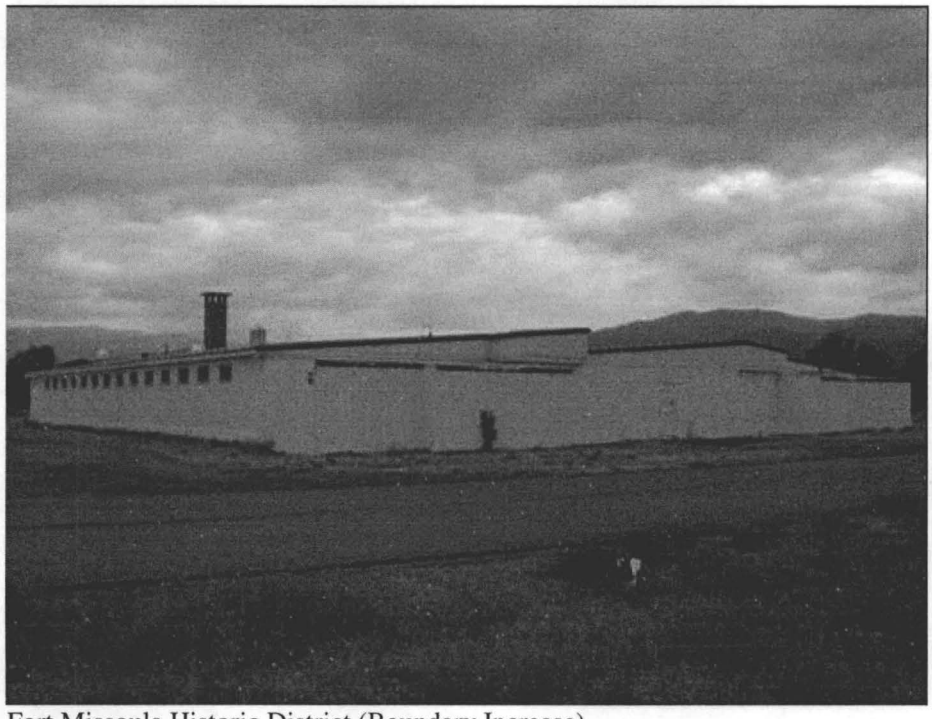
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 36, Garage, facing northwest
Photograph Number 0010



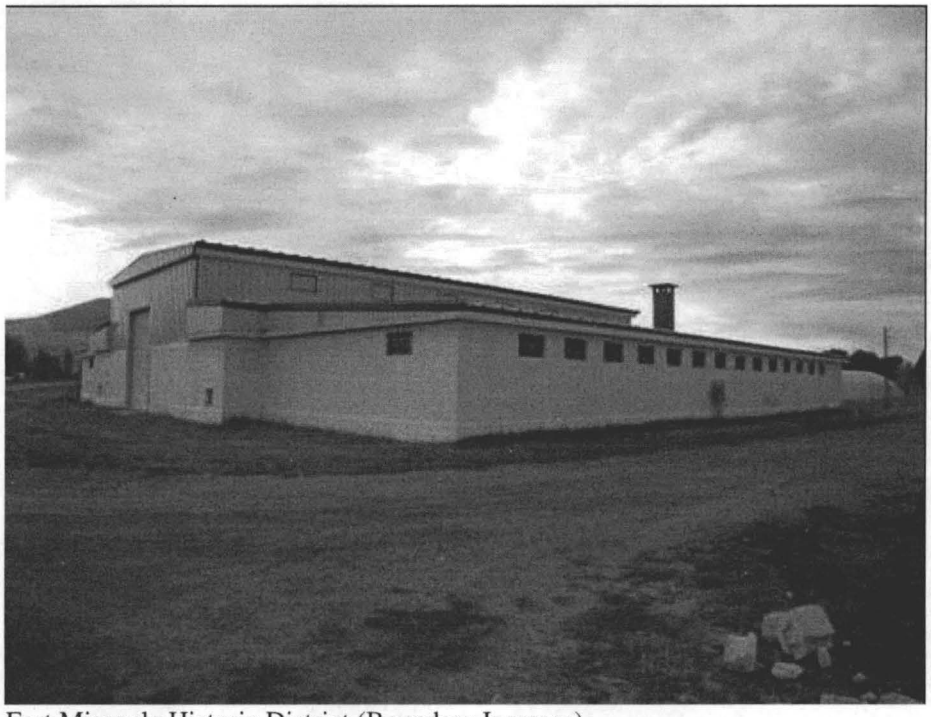
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 37, Garage, facing north
Photograph Number 0011



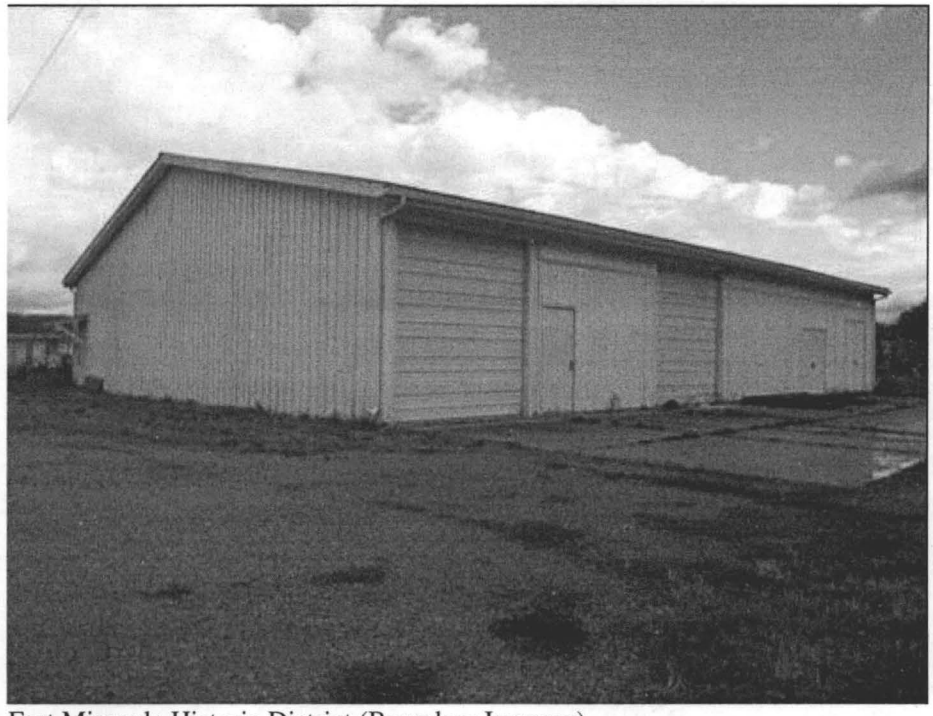
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 63, Provost Marshall's Office, facing northwest
Photograph Number 0012



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 156, Solitary Cell Block, facing southwest
Photograph Number 0013



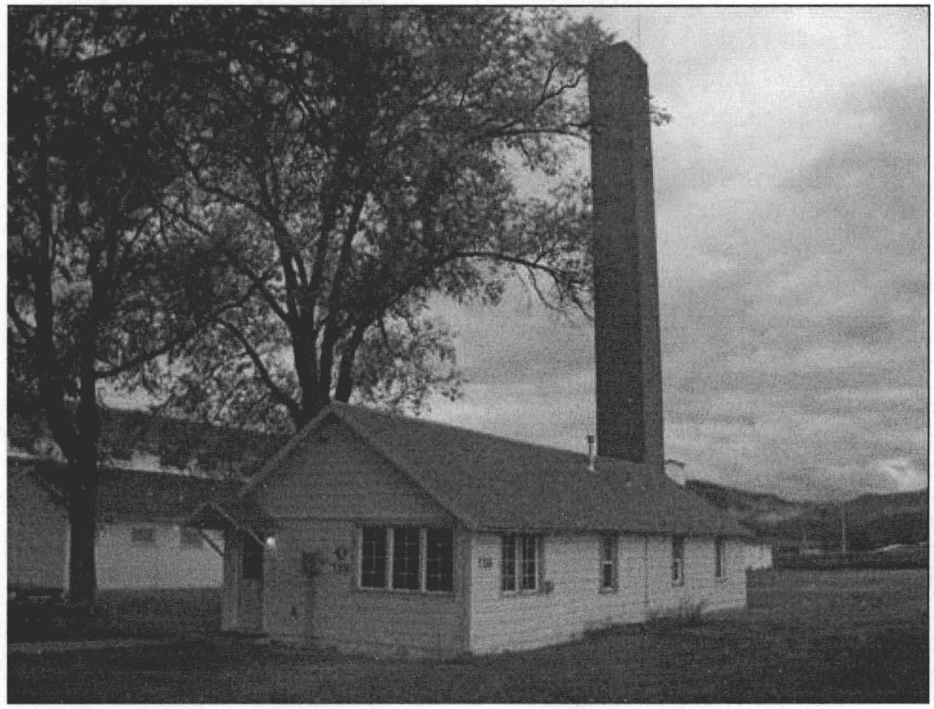
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 157, Solitary Cell Block, facing southeast
Photograph Number 0014



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 203, Garage, facing northwest
Photograph Number 0015



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 214 with rear addition, CCC Barracks, facing west
Photograph Number 0016



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 310, Boiler Plant, facing southwest
Photograph Number 0017



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 316, CCC Administrative Building, facing southwest
Photograph Number 0018



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 330, CCC Motor Pool Garage, facing southwest
Photograph Number 0019



Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 351, Storage Building/Garage, facing northwest
Photograph Number 0020



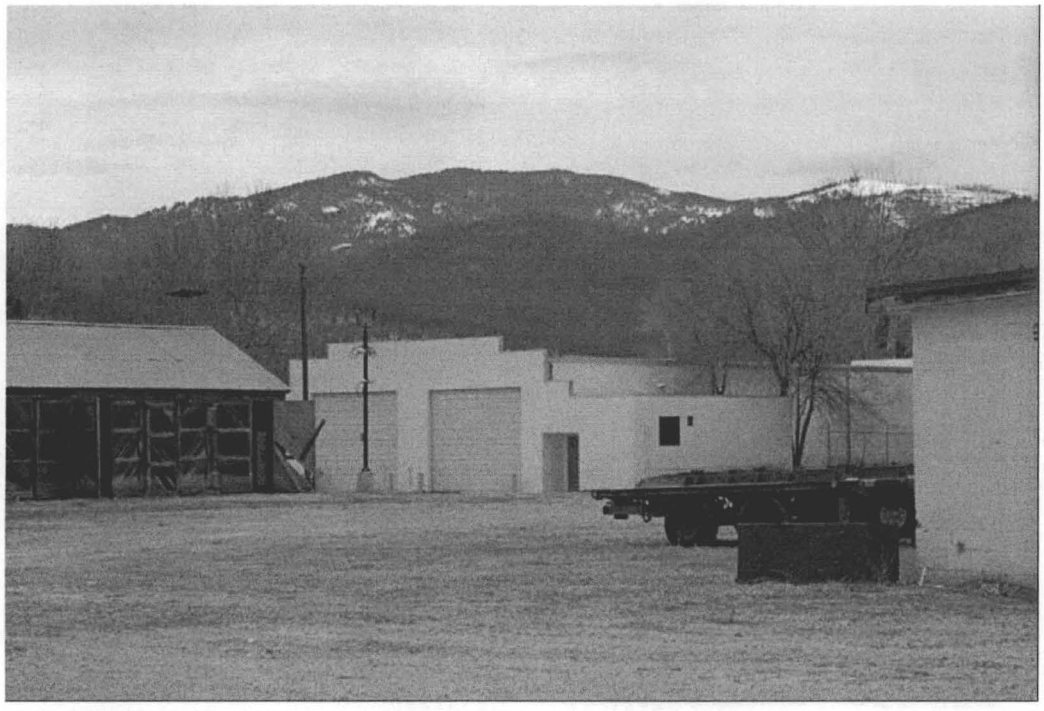
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: 24MO0188, Historic Dump site, facing west
Photograph Number 0021



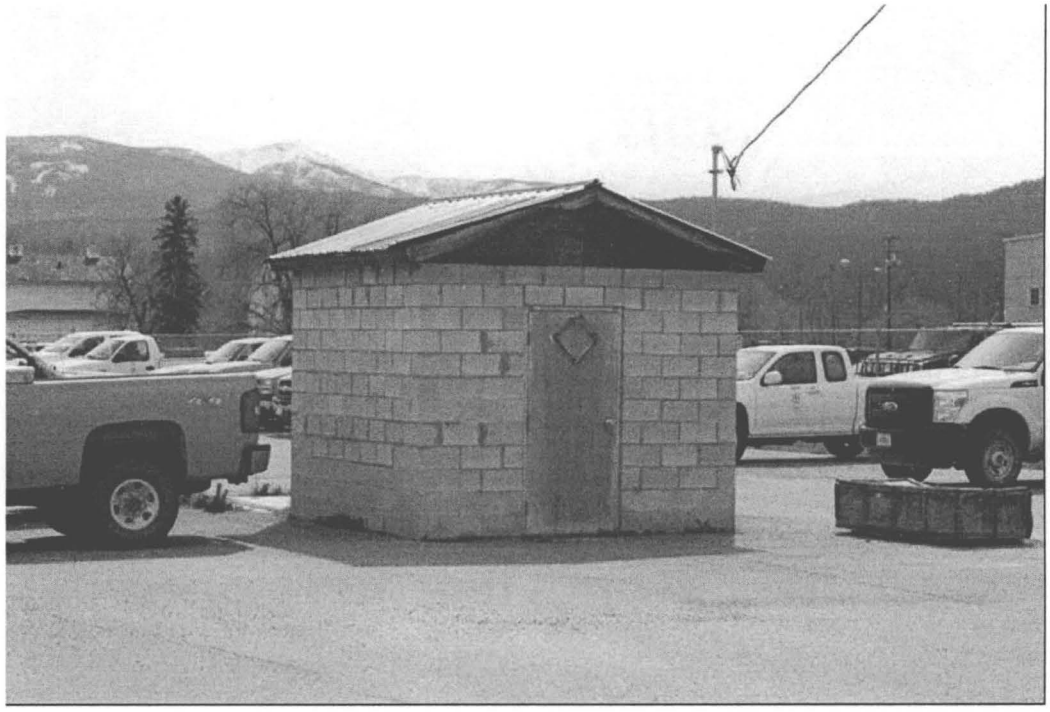
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Unknown
Date of Photograph: ca. 1986
Location of Original Negative: MT SHPO
Description/View: Building 316, view of the west side, circa 1986, facing northeast
Photograph Number 0022



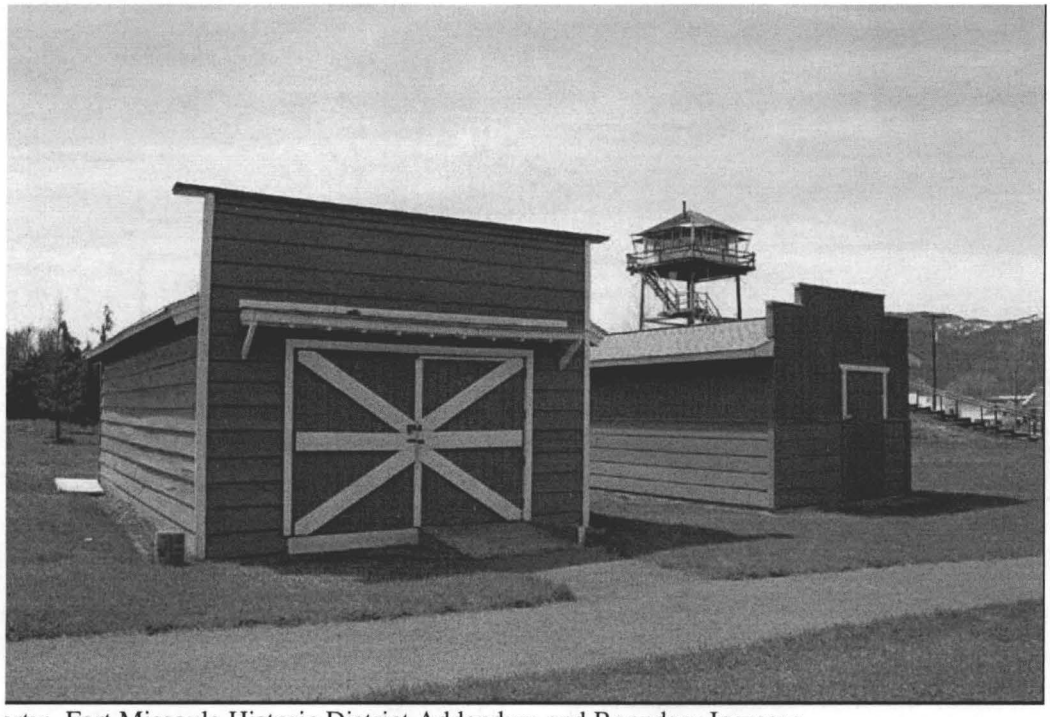
Name of Property: Fort Missoula Historic District (Boundary Increase)
County and State: Missoula County, Montana
Name of Photographer: Helen Keremedjiev and John Fielding
Date of Photograph: 2007
Location of Original Negative: MT SHPO
Description/View: Building 316, view of the west side, October 2007, facing northeast
Photograph Number 0023



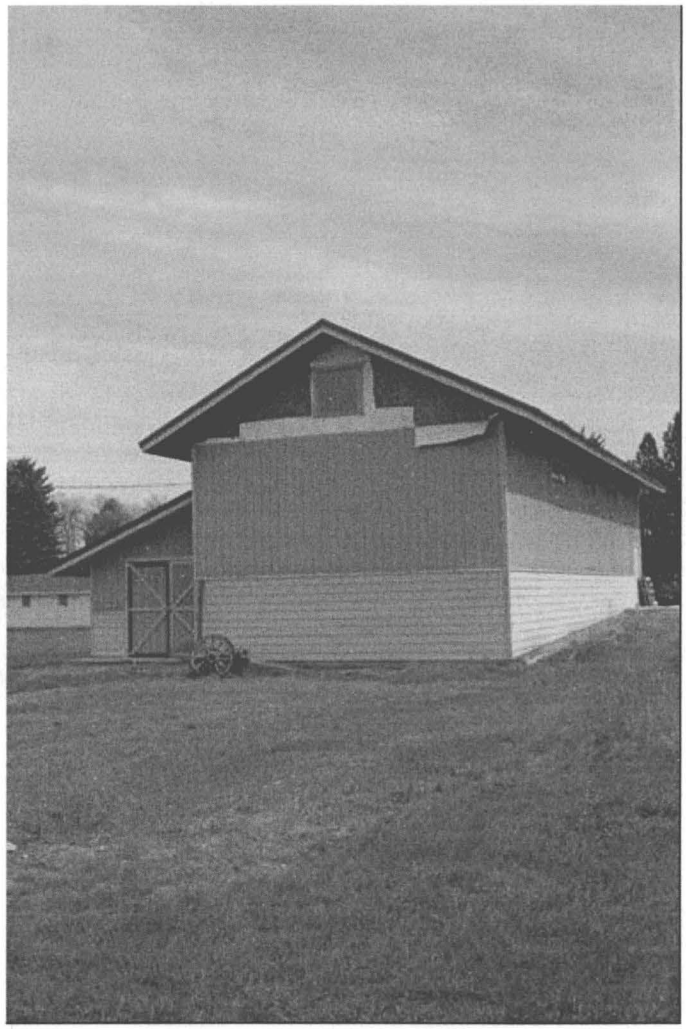
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Building 351, view of the east and north elevations, facing southwest.
Photograph Number 0024



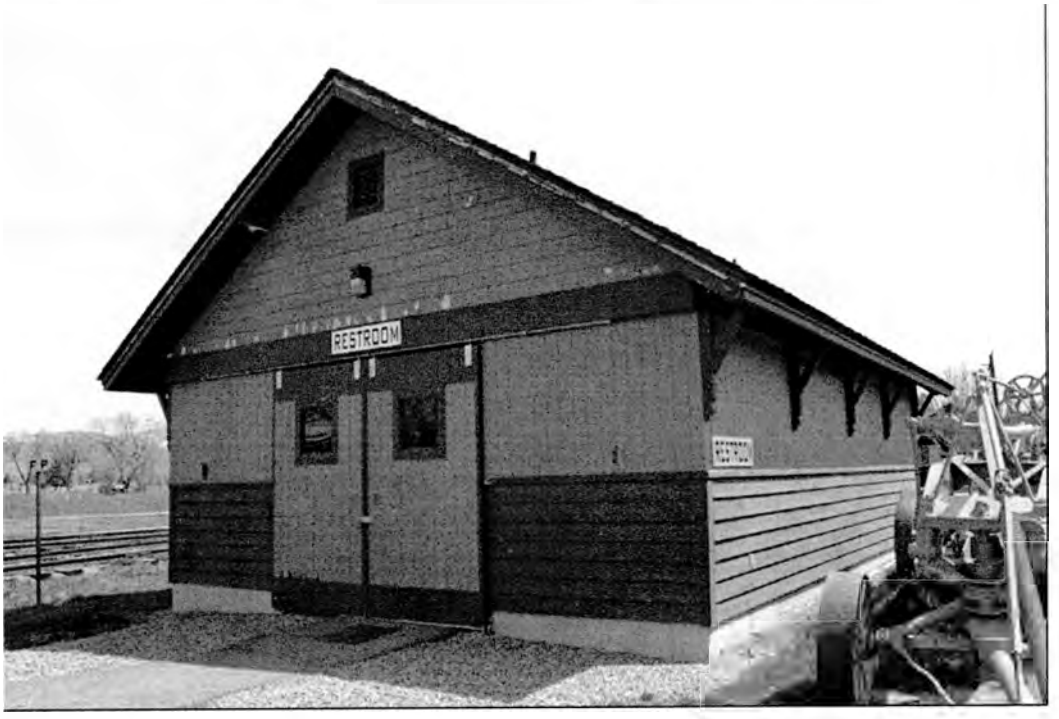
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Cinder Block Building, view of the east and north elevations, facing southwest.
Photograph Number 0025



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Garage B and A, view of the east and north elevations, facing southwest.
Photograph Number 0026



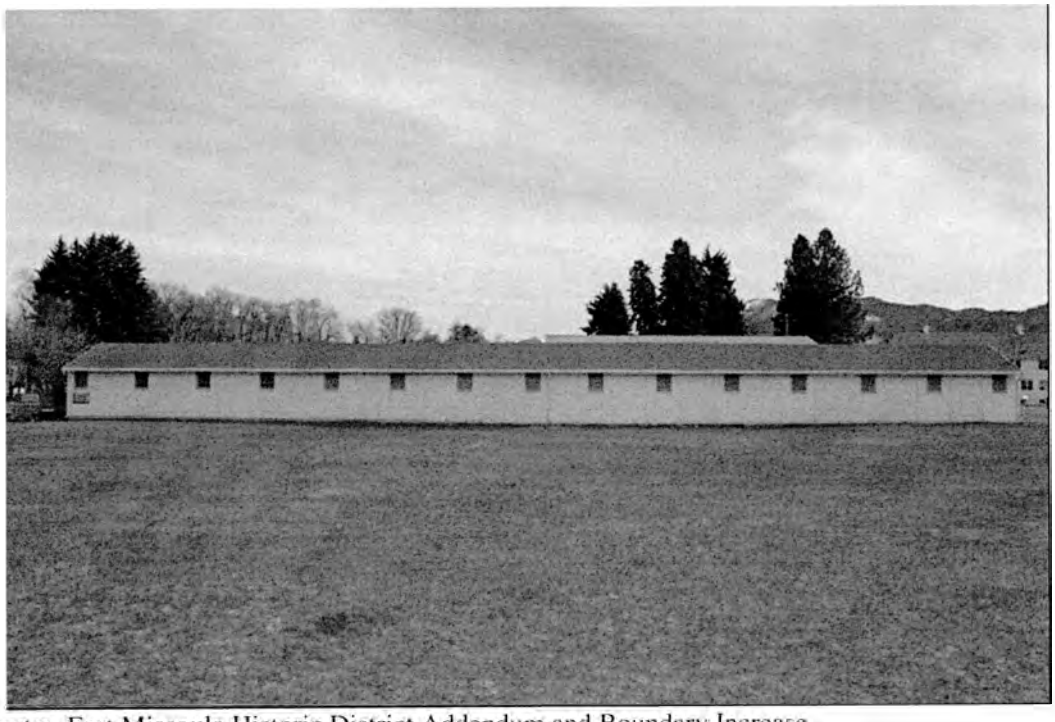
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Trolley Car Barn, view of the east and north elevations, facing southwest.
Photograph Number 0027



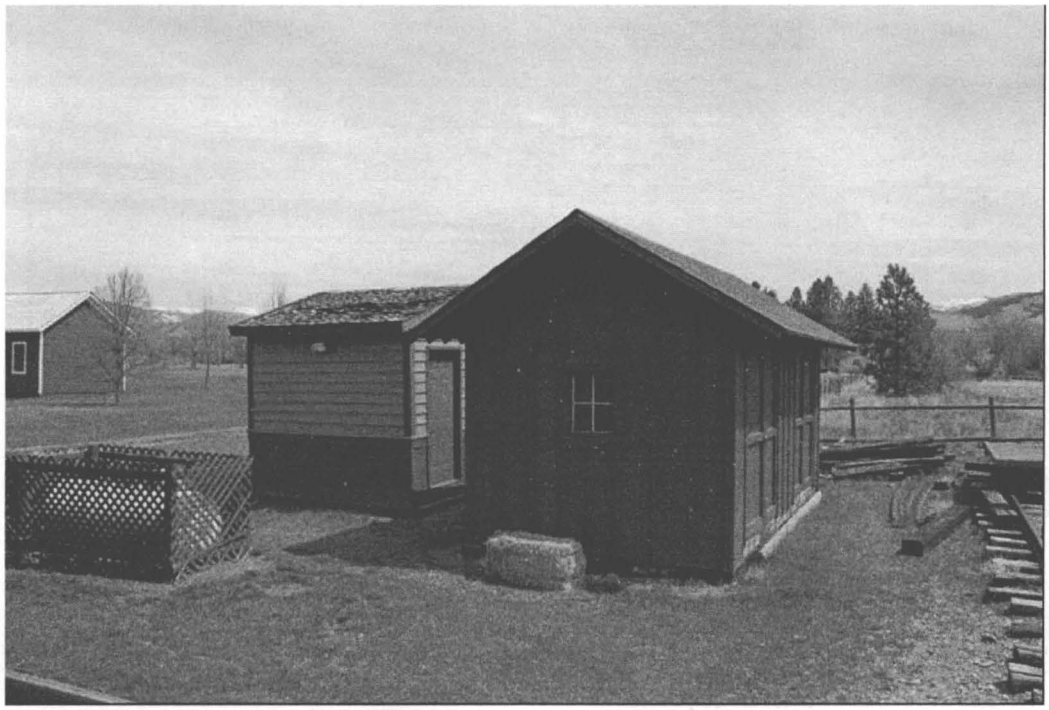
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Restroom, view of the west and south elevations, facing northeast.
Photograph Number 0028



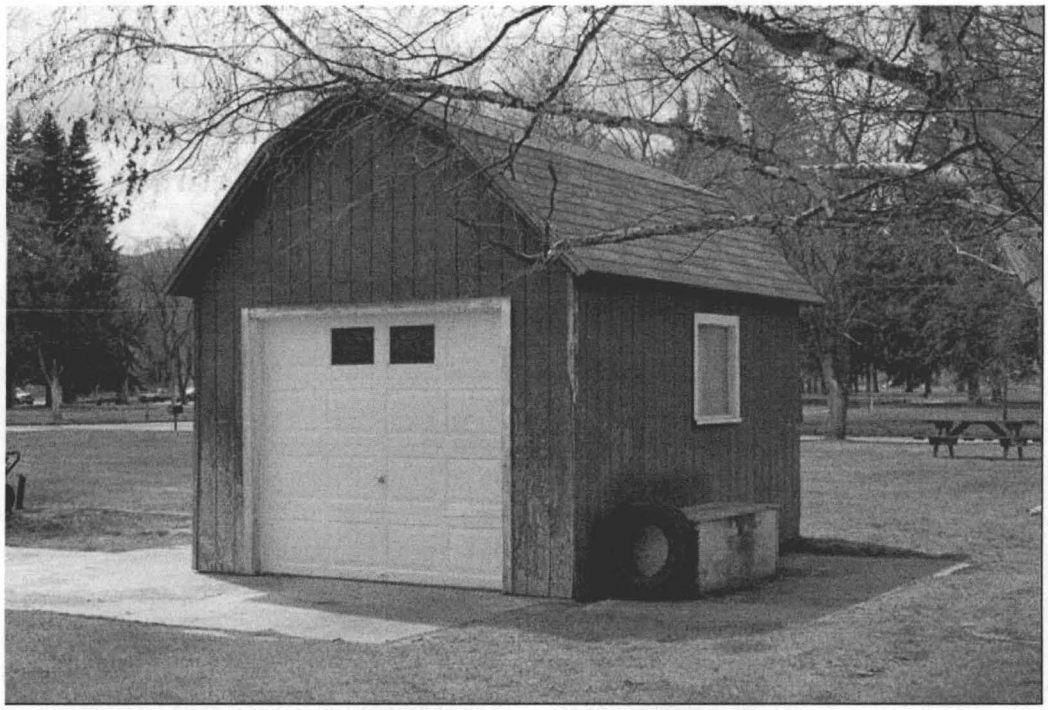
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Log Cabin "Fort Missoula Mercantile", Ticket Booth, tipi burner, restroom, pumphouse, Forestry Interpretive Display, view of the east elevations, facing west.
Photograph Number 0029



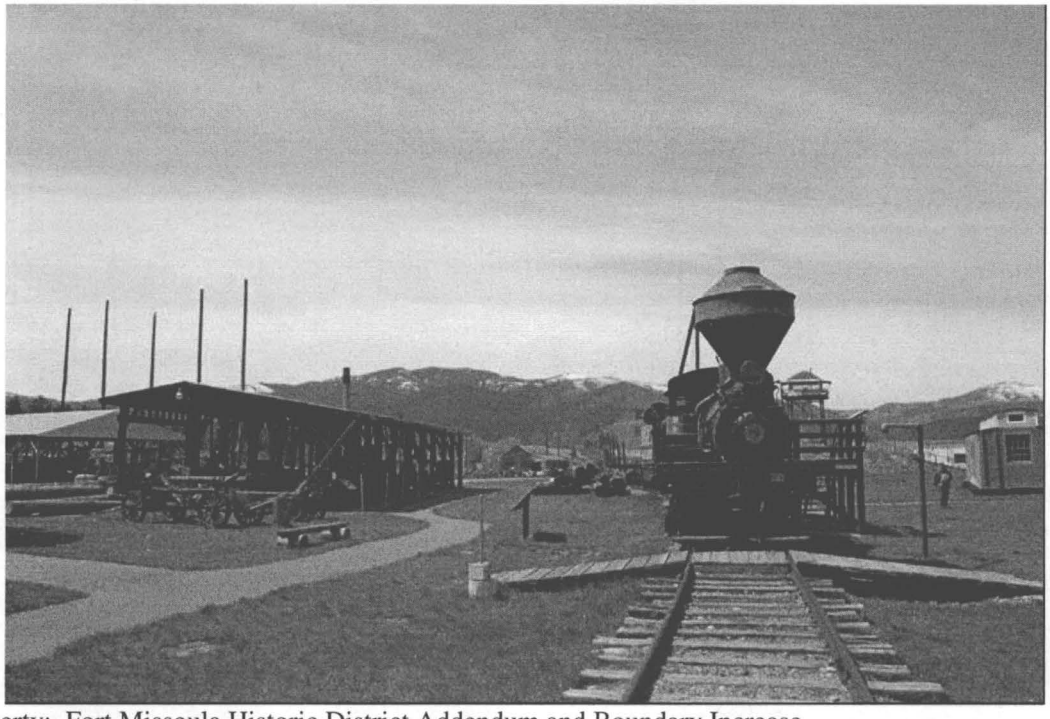
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: ADC Barracks, view of the west elevation, facing east.
Photograph Number 0030



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Shed west of Building 203 and Concession Building, view of the west and south elevations, facing east-northeast.
Photograph Number 0031



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Gambrel Roof Shed, view of the east and north elevations, facing southwest.
Photograph Number 0032



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Forestry Interpretive Display, facing east.
Photograph Number 0033



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Forestry Interpretive Display, facing southeast.
Photograph Number 0034



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Tipi Burner with part of Forestry Interpretive Display in background, facing northwest.
Photograph Number 0035



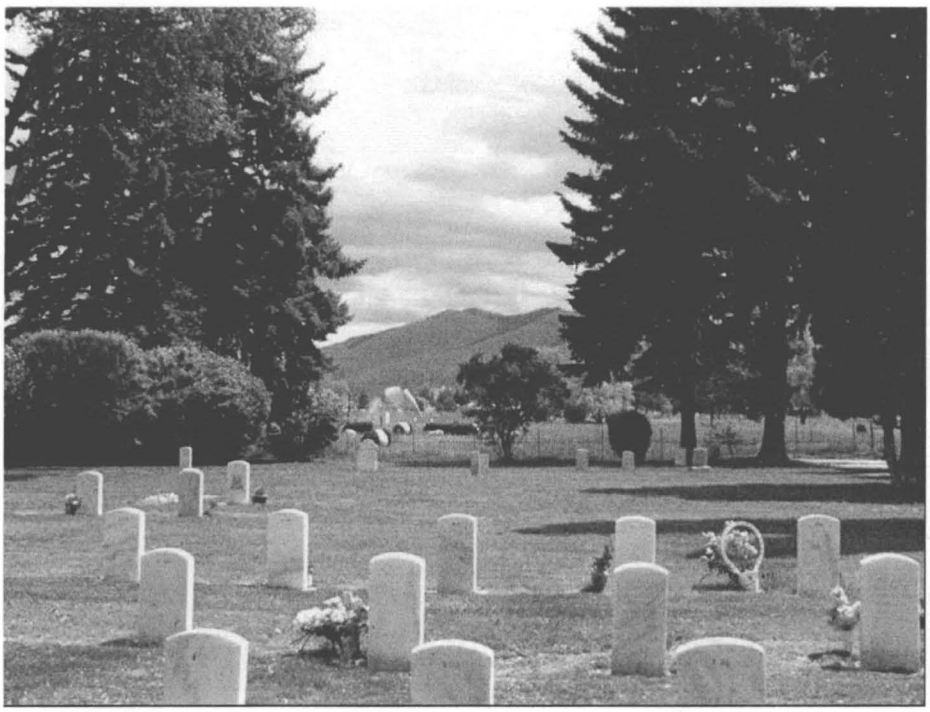
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Truck Port with Army Reserve Motor Pool Building in background, north and west elevations, facing southeast.
Photograph Number 0036



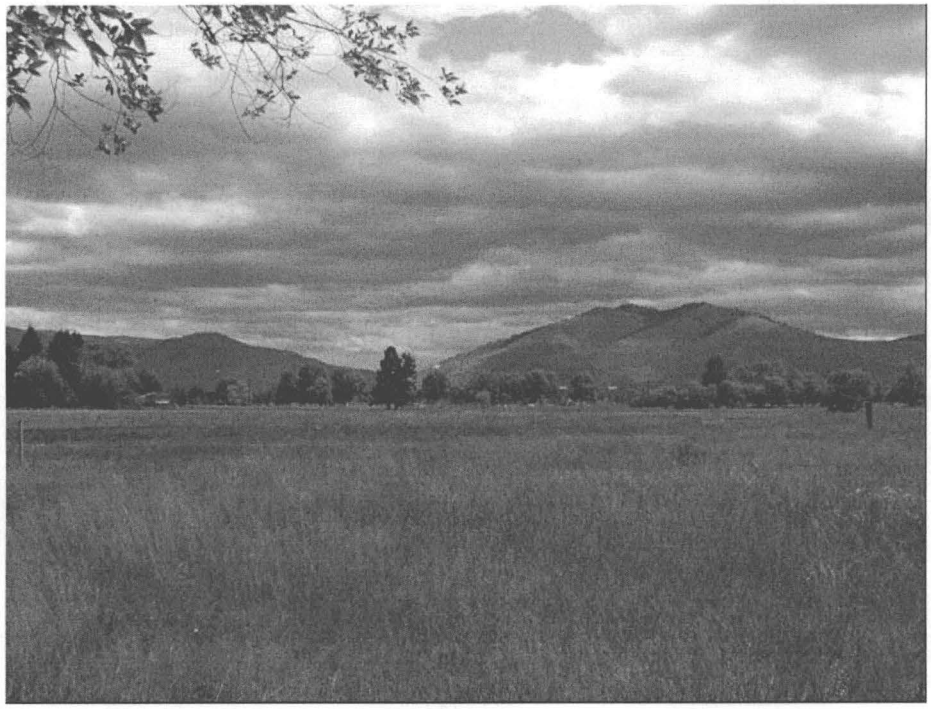
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Wood Frame Open Shed, facing southeast.
Photograph Number 0037



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Tennis Court, facing northeast.
Photograph Number 0038



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Philip Maechling
Date of Photograph: June 2011
Location of Original Negative: MT SHPO
Description/View: Post Cemetery with cattle grazing in open space in background, facing north.
Photograph Number 0039



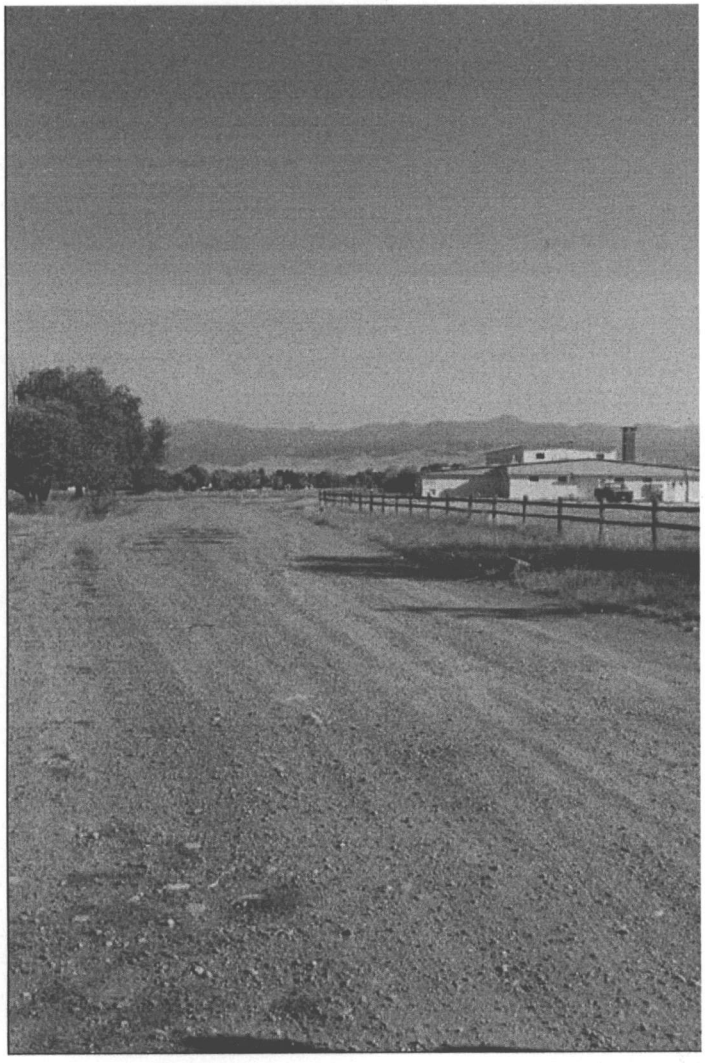
Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Philip Maechling
Date of Photograph: June 2011
Location of Original Negative: MT SHPO
Description/View: Open Space north of fort, facing east.
Photograph Number 0040



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: Hay Homestead Buildings with Original Fort Bakery Foundation Site near trees in background, facing north-northwest
Photograph Number 0041



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: May 2011
Location of Original Negative: MT SHPO
Description/View: NCO Quarters, Building 201 with CCC Warehouse Building 308 Site near trees in background, facing north-northwest.
Photograph Number 0042



Name of Property: Fort Missoula Historic District Addendum and Boundary Increase
County and State: Missoula County, Montana
Name of Photographer: Kate Hampton
Date of Photograph: September 2011
Location of Original Negative: MT SHPO
Description/View: Historic stone alignment, facing northeast.
Photograph Number 0043

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Fort Missoula Historic District (Boundary Increase)

MULTIPLE NAME:

STATE & COUNTY: MONTANA, Missoula

DATE RECEIVED: 1/13/12 DATE OF PENDING LIST: 2/06/12
DATE OF 16TH DAY: 2/21/12 DATE OF 45TH DAY: 2/28/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 12000051

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___ RETURN ___ REJECT 2-28-12 DATE

ABSTRACT/SUMMARY COMMENTS:

Entered in
The National Register
of
Historic Places

RECOM./CRITERIA_____

REVIEWER_____ DISCIPLINE_____

TELEPHONE_____ DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo No 0001



Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo No 0002


17

Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co. MT

Photo No. 0003


18

Ft. Missoula Historic District Addendum
and Boundary Increase
Missoula Co., MT

Photo No. 0004



Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo No. 0005


20

Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo No. 0006


21
PRIVATE
NO
TRESPASSING
NO

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0007



Ft. Missoula Historic District Addendum
and Boundary Increase
Missoula Co., MT

Photo No. 0008



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0009



Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo No. 0010



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0011


T63
T63

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0012



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0013



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0014



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co. MT

Photo No. 0015



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0016


T310
T310

Ft Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0017



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0018


1330

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0019



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0020



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0021



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0022



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No 0023



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0024


4x4

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0025



Ft. Missoula Historic District Addendum and
Boundary Increase
Missoula Co., MT
Photo No. 0026



Ft. Missoula Historic District
Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0027


RESTROOM

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0028


WILL CALL

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0029


EXIT

Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

photo #10: 0030



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0031



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

photo NO. 0032



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0033



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0034



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula Co., MT

Photo No. 0035



Ft. Missoula Historic District Addendum
and Boundary Increase

Missoula Co., MT

Photo # 0036



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula (vic.) MT

Photo No. 0037



Ft. Missoula Historic District Addendum and
Boundary Increase
Missoula Co., MT
Photo No. 0038



Ft. Missoula Historic District Addendum
and Boundary Increase
Missoula Co., MT
Photo No. 0039



Ft. missoula Historic District Addendum and Boundary Increase

missoula Co., MT

Photo No. 0040



Ft. missoula Historic District Addendum and Boundary Increase

Missoula, MT

Photo # 0041



Ft. Missoula Historic District Addendum and Boundary Increase

Missoula, MT

Photo # 0042



Ft. Missoula Historic District
Addendum and Boundary Increase

Missoula, MT
photo # 0043

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SOUTHWEST MISSOULA QUADRANGLE
MONTANA—MISSOULA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

3177 I NW (PRIMROSE)
3177 I NE (NORTHWEST MISSOULA)
3277 IV NW (NORTHEAST MISSOULA)
3177 I SW (BLUE MOUNTAIN)
3277 IV SW (SOUTHEAST MISSOULA)
(CARLTON LAKE) 3177 II NW
(FLORENCE) 3177 II NE
(CLEVELAND MTN.) 3277 III

114°07'30" 46°52'30" 114°00' 46°45' 47°30'

Fort Missoula Historic District
#addendum and Boundary Increase

Missoula, Montana
UTM Zone 11

1:	723586 E	5192515 N
2:	724883 E	5192502 N
3:	724906 E	5192351 N
4:	724809 E	5192334 N
5:	724823 E	5192135 N
6:	724907 E	5192130 N
7:	724914 E	5192070 N
8:	724821 E	5192007 N
9:	724718 E	5192061 N
10:	724470 E	5191982 N
11:	724283 E	5192056 N
12:	724259 E	5191941 N
13:	723972 E	5192022 N
14:	723713 E	5192126 N
15:	723620 E	5191788 N
16:	724373 E	5191219 N
17:	724340 E	5191178 N
18:	723973 E	5191439 N
19:	723311 E	5191715 N
20:	723315 E	5192028 N
21:	723587 E	5192049 N

▥ = Ft. Missoula Historic District Boundary Increase

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grid based on Montana coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Red tint indicates area in which only landmark buildings are shown

Fine red dashed lines indicate selected fence lines

Purple tint indicates extension of urban areas

Revisions shown in purple and recompilation of woodland areas compiled from aerial photographs taken 1976. Map edited 1978
This information not field checked

UTM GRID AND 1978 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U.S. Route

MONTANA
QUADRANGLE LOCATION

SOUTHWEST MISSOULA, MONT.
N4645—W11400/7.5

1964
PHOTOREVISED 1978
AMS 3177 I SE—SERIES V894

MONTANA OUTDOOR SPORTS
708 N. MAIN
HELENA, MT 59601
406-443-4119

Fort Missoula Historic District National Register Nomination (UNCLASSIFIED)
Patton-Williams, Toni Ms CIV USA ASA IEE [toni.m.pattonwilliams@us.army.mil]
Sent: Tue 11/1/2011 11:33 AM
To: Boughton, John
Cc: McLaughlin, Kathleen A Ms CIV US USA ACSIM; Manning, Derek Mr CIV NG NGB ARNG; Guldenzopf, David B Dr CIV USA ASA IEE

Classification: UNCLASSIFIED
Caveats: NONE

Dear Mr. Boughton:

Please accept our sincere apology for the delay in returning the National Register of Historic Places Registration Form. Mr. Hew Wolfe, Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health (DASA (ESOH)) who also serves as the Army's Federal Preservation Officer, has signed and dated the registration form. The original is being mailed today, November 1, 2011, in a flat envelope as requested. A copy of the document is attached.

Again, we apologize for the delay. Please feel free to email me if you have any questions.

Toni Patton-Williams
Office of the Deputy Assistant Secretary of the Army
Environment, Safety and Occupational Health
(703) 697-3937
Classification: UNCLASSIFIED
Caveats: NONE

Big Sky. Big Land. Big History.
Montana
Historical Society

RECEIVED 2280
JAN 13 2012
NAT REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

Historic Preservation
Museum
Outreach & Interpretation
Publications
Research Center

January 3, 2012

Carol Shull, Keeper
National Register of Historic Places
National Park Service
1201 Eye St. NW
8th Floor (MS 2280)
Washington, D.C. 20005

Dear Ms. Shull,

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

Fort Missoula Historic District Addendum and Boundary Increase, Missoula County, Montana.

Please be advised that I submit the enclosed nomination under your revised procedures. I notified the owners and public officials in excess of 30 days prior to the Preservation Review Board meeting and received no notarized objections to the nomination from the property owners of record. The Review Board unanimously recommended that this property be nominated and I concur with its recommendation.
Also, please note the cover page of the nomination is a scanned copy bearing the signatures of the US Army Federal Preservation Officer (Mr. Hew Wolfe), the Regional Archaeologist of the US Forest Service (Mr. Carl Davis), and the original signature of the Montana State Historic Preservation Officer (Dr. Mark Baumler). After both the Regional Archaeologist and the US Army Federal Preservation Officer signed the cover page, the Army sent the hardcopy bearing the original signature back to the Montana State Historic Preservation Officer on November 1, 2011; unfortunately, the hardcopy was never received at the Montana SHPO. However, the Army did scan and e-mail the cover page prior to sending the hardcopy.

Please note on page 2 of this letter is the e-mail communiqué from Toni Patton-Williams, Office of the Deputy Assistant Secretary of the Army, Environment, Safety and Occupational Health to John Boughton, National Register Coordinator at the Montana SHPO indicting Mr. Wolfe had signed the nomination cover sheet and the original copy was being placed in the mail. Page three of this letter is the scanned e-mail attachment from the Army (prior to it being signed by the Montana State Historic Preservation Officer).

Thank you for your consideration.

Sincerely,

Mark Baumler

Mark Baumler, PhD
State Historic Preservation Officer

Enclosure

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

EXHIBIT I

APPENDIX A – DEVELOPMENT GUIDELINES AND STANDARDS

APPENDIX A – DEVELOPMENT GUIDELINES AND STANDARDS

Response

DVG Architecture and Planning, P.C.
10.14.2022

APPENDIX "A" (City/County)

DEVELOPMENT GUIDELINES AND STANDARDS for the Fort Missoula Historic District

Guideline Intentions. It is the intentions of these guidelines to:

1. Reinforce the character of the historic Fort area, and to protect its visual aspects;
2. Improve the quality of growth and development;
3. Protect the value of public and private investment which might otherwise be threatened by the undesirable consequences of poorly managed growth;
4. Provide an objective basis for the decisions of a design review board; and
5. Provide a tool for designers and their clients to use in making preliminary design decisions.

The guidelines are not intended to limit growth, or regulate where growth and development take place. They address only the visual impact of growth. Growth itself is a separate issue that must be addressed elsewhere. Finally, the guidelines can do nothing to guarantee the creativity essential to the best of sensitive design.

General Development Guidelines. Fort Missoula, which was placed on the National Register of Historic Places in 1987, retains the highest degree of historic architectural integrity in the portion of the historic district in the immediate vicinity of the 20th century parade ground. This area was developed between 1900 and 1912 and is characterized by the primarily Mission Revival architecture of the buildings that face the parade ground.

These structures are made of reinforced concrete, with the color and texture provided by the broad red tiled hipped roofs. The roof eaves exhibit exposed rafters well beyond the walls of the buildings, and the walls of the structures continue upwards in places forming step parapets and evidence minimal surface ornamentation, such ornamentation consisting primarily of plain string courses that outline gables, balconies, and windows. The architecture of these structures finds its source in the design of Fort Hauchuca which was constructed at the same time near Tucson, and as such is unique to this region, as Mission Revival architecture had little, if any, precedent in the Northern Rockies at the time of the Fort's construction.

Therefore, the development standards for this district have been established according to the principle that the Fort's architecture should not be challenged in its uniqueness. Genuinely historic structures are irreplaceable. Any attempts to duplicate or imitate them with new construction would lessen our understanding of the historic context of the Fort's architecture, diminish the original architectural statement, and would be a poor tribute to their value. Instead of pseudo-old buildings that falsify or confuse the historic record of the Fort's architecture, development standards will require that they control design without legislating taste or unduly constraining creativity. While it is the standards' intent to encourage the development of an architecture that employs major elements that characterize those structures created between 1910 and 1912 in the Fort, they are not intended to result in slavish imitations of this architecture or in the creation of pseudo-old buildings.

A genuinely historic building is a very real, valuable, and irreplaceable document from the past, and imitation is merely a forgery that lessens the worth of the original document and warps our understanding of our heritage. History is a record of change, and modern imitations of historic building styles falsify the record. The original Fort architecture contains buildings from a period that represents a history that would be less vital if its architecture were to be mimicked.

General Site Development Standards. While imitation of the architecture of the buildings at the historic Fort will be discouraged, the replication of major site development design aspects as observed in the Fort area will be encouraged, so that new development will employ the existing pattern of regularity in the placement of structures; the spaces between them; front yard setbacks; and type, placement and size of landscape elements. All of these different elements need to be developed in place with a sense of alignment, relationship, and continuity, so that there finally is a sense of unity among all elements, sites, and structures.

Particular attention should be paid to the appearance of any new development as it is seen by pedestrians so that there will be encouraged a sense of scale appropriate and inviting to the pedestrian; all buildings should have some entry statement visible from the street, not the least of which would be porches. All on-site parking should be located out of public view as much as possible and should not be at the expense of public on-street parking. Curb cuts should be kept to a minimum and not allowed to interrupt the regular placement of boulevard plantings or other site development items. Cooperative parking between adjacent landowners will be encouraged, and the placement of parking will be done with the goal of minimizing the impact of the automobile on the pedestrian boulevard presentation.

General Building Design Standards. It is the intent of the design standards that they control design without legislating taste or unduly constraining creativity. It is the standards intent to encourage the development of an architecture that employs major elements that characterize the historic Fort structures, while not copying them. The existing structures should provide a point of departure and reference for the design of new structures and development within the project area. The existing historic style should provide the framework to define new construction in terms of height, scale, setback, rhythm, materials, patterns, textures, details, roof shapes, color, and other elements that help define the distinct character of what already exists. The final result should evidence the use of new and creative interpretations of past styles to service contemporary needs. Use of materials should be similar in scale and texture to those used already, and the employment of new and creative interpretations of details is to be encouraged.

The foundation of the intent of the district's development standards is to be concerned not specifically with styles, periods, or architectural themes, but with relationships of spaces, building details, and street scape. The final result of development within the district is to represent the construction of buildings that, while modern and contemporary, retain reference and regard for the context within which they are placed. The goal, finally, is the creation of strong visual continuity within the context of contemporary design solutions, playing upon and within historic themes, so that ultimately the development is recognized as a product of the present and not a false product of the past.

Four terms will be very useful to identify basic relationships among buildings and spaces without specific references to styles of architecture. These terms are pattern, alignment, size, and shape.

1. Pattern, which can be defined in words such as "objects arranged in a formal or regular manner, where the arrangement is reproducible" can be better defined in drawings. Some of the most familiar patterns are found in building materials, such as brick, stone, and wood siding. Patterns formed by building materials repeat throughout a neighborhood area, contributing to a sense of cohesiveness. Windows, signs, columns, ornamentation, and other facade elements also create patterns that unify the look of a building or series of buildings. Buildings also form patterns, particularly when there is a regularity of spaces between them, and a regularity of setback from streets. Landscape elements such as trees, planted at regular intervals along the street, can also contribute to a sense of pattern and continuity. They can also re-emphasize the pattern of the buildings behind them, contributing to a regular object - space - object - space alternation that imparts a sense of unity to the street.

2. Alignment. Maintaining or strengthening alignment, which is the arrangement of objects in a straight line, is one of the most effective ways to create a sense of relationship, connection, and unity among elements of a street. A significant way to provide for alignment might be the strong organization of building facade elements along horizontal lines, such as windows, cornices, porch eaves, roof ridges, and other building elements. Building setbacks off streets relate to alignment if they are consistent in their setback, lending to a sense of continuity. Trees and major plantings that are aligned create a strong edge to the street; when their alignment parallels that of building faces, the unity of the street is reinforced. Alignment contributes to the regularity that creates a pattern, such as street trees, or buildings themselves.

3. Size and Shape. Size can be defined as the dimensions of a building or part of a building, and shape as the form of a building or part of a building. For our purposes, similarity of size and shape is important, because similarity contributes to visual continuity. For instance, buildings may share a similar shape, while being of different sizes, and vice versa. Pattern and alignment are often the result of similarities of size and shape. For instance, windows align and form a pattern primarily when they are similar in size and shape.

Finally, what needs to be recognized is that what is of most concern is not style, periods, or architectural themes, but relationships of spaces, buildings, building details, and building materials.

DEVELOPMENT GUIDELINES AND STANDARDS for the Fort Missoula Historic District – Appendix A Response

The guidelines are not intended to limit growth or regulate where growth and development take place.

As the guidelines are not intended to limit growth or regulate where growth and developments takes place, we have studied the development patterns of the remaining historical buildings and campus of the district to determine what would be the most appropriate pattern of development. Parcels to the East and West of this project have covered more of their lots with buildings and surface parking. We have maintained the visual balance of the main thoroughfare and buildings creating a street defining wall of facades with porches. We studied buildings that have been lost to time and how they created additional density on what is currently open space. The review of the past development practices helped us determine a reasonable development pattern that preserved historic open space. Buildings and parking lots existed to the West and South of the Old Post Hospital. We have kept our development to the West and South of the Old Post Hospital to follow historic development practices on the site.

…the development standards for this district have been established according to the principle that the Fort's architecture should not be challenged in its uniqueness. Genuinely historic structures are irreplaceable. Any attempts to duplicate or imitate them with new construction would lessen our understanding of the historic context of the Fort's architecture, diminish the original architectural statement, and would be a poor tribute to their value.

We have tried to not mimic and dishonor the Mission Revival architecture of the 1910-1912 era of the Fort. We have kept an architectural style that is sympathetic to the history of the Fort as it would impact or take away from the views from the parade grounds or streets into the site. We have kept a sense of development over time within the site so the new development doesn't have a single style that could dominate or diminish Contributing buildings on the site. We have stayed aways from an ultra-modern clean style of development but maintained a minimalist trim language that is present on the Old Post Hospital. We maintained a vertical proportion to windows in primary facades to keep in harmony with the Old Post Hospital and adjacent buildings to the site. We have some diversity in fenestration to fit the needs of the new development but not to the extent it would dominate a particular view around the site.

Particular attention should be paid to the appearance of any new development as it is seen by pedestrians so that there will be encouraged a sense of scale appropriate and inviting to the pedestrian; all buildings should have some entry statement visible from the street, not the least of which would be porches.

Commercial buildings #1 and #2 maintain the front porch in close proximity to the sidewalks with boulevards and defined entries facing the street. The residential buildings do not front the street but they still maintain a stoop and covered entry.

General Building Design Standards. It is the intent of the design standards that they control design without legislating taste or unduly constraining creativity. It is the standards intent to encourage the development of an architecture that employs major elements that characterize the historic Fort structures, while not copying them. The existing structures should provide a point of departure and reference for the design of new structures and development within the project area. The existing historic style should provide the framework to define new construction in terms of height, scale, setback, rhythm, materials, patterns, textures, details, roof shapes, color, and other elements that help define the distinct character of what already exists. The final result should evidence the use of new and creative interpretations of past styles to service contemporary needs.

Commercial buildings #1, #2 and the Community building keep the hip roofs, historically sympathetic styles, and patterns of the district. The Commercial buildings keep a plinth for the buildings to rest on with the 1st floor above grade. Steeper roof pitches and exposed rafter tails, at times, were employed. The Community building scale is sympathetic to the CCC constructed building to the West of the site. The Residential and Commercial buildings have a vertical proportion to their design which is closer to those of the Old Post Hospital.

Four terms will be very useful to identify basic relationships among buildings and spaces without specific references to styles of architecture. These terms are pattern, alignment, size, and shape.

The Commercial Buildings #1 and #2 maintain the street development pattern and alignment with the street edge, though the property line of this parcel is the street edge which is different than the rest of the district. We are proposing installing the boulevard and sidewalks within the property to preserve the historic street curb location and character to the East and North.

The footprints of each of the buildings are not smaller nor larger than what is existing in the district. Tall dominant ceilings are planned for the commercial building interiors which will be evident in the size and massing of the buildings similar to the historic buildings in the district. Columns along the front porches maintain particular patterns of the main streets.

The shape of the new buildings are simple rectilinear forms prominent within the district without oblique angles or large curved protrusions preserving the development pattern. We have sidewalks and pathways connecting all buildings on the site as they meander whilst connecting unimproved dirt paths on adjacent parcels. We also maintained the open space fronting the major streets in front of the Old Post Hospital preserving its historic vista.

Finally, what needs to be recognized is that what is of most concern is not style, periods, or architectural themes, but relationships of spaces, buildings, building details, and building materials.

This development will create similar relationships of exterior space, places to gather and building details of the district. Material aesthetics shall be maintained for a cohesive language of the district.

EXHIBIT J

EXTERIOR FINISH SPECIFICATIONS

DVG Architecture and Planning, P.C.
10.14.2022

January 18, 2023

Exterior Finish Specifications

Commercial Building #1 Specifications:

1) Siding:
   a) Horizontal Siding with Medium Exposure – 8" lap siding with +/- 7" exposure
      i) Texture to be woodgrain
      ii) Material shall be one or more of the following: cementitious, wood, wood composite.
      iii) Finish
         (1) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.) Metal corner trims shall be used on each lap of siding.
         (2) Alt #1: Stain, in place of painted. Miter and bevel cut corners to match.
   b) Box Columns
      i) Base Bid: Cementitious siding – smooth finish and Mnfr extruded corner trims,
      ii) Alt #2: Direct applied EIFS over concrete board. Textured to be selected from mnfr. standard selection of textures.

2) Trim and Fascia
   a) 4/4" thickness and mnfr. standard widths and lengths per the construction documents.
   b) Texture shall be smooth.
   c) Material shall be one or more of the following: cementitious, wood, wood composite.
   d) Finish:
      i) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.) Metal corner trims shall match paint finish.
      ii) Alt #1: Stain, in place of painted.

3) Roofing:
   a) Base Bid: Asphalt Architectural Shingles (Three Tab shall not be allowed) over mnfr. required underlayment.
   b) Alt #1: Clay tile French Roof Tile profile or approved equal over mnfr. required underlayment.
   c) Alt #2: Stamped metal roofing that looks like "Spanish Tile" over mnfr. required underlayment. Kynar or Hylar finish
   d) Color shall be selected from mnfr. standard colors.

4) Windows:
   a) Fiberglass windows
      i) Low E glazing
      ii) Colored exterior as selected by the Architect.
      iii) Screens on operable units.
      iv) Basis of Design: Pella Impervia or approved equal.

5) Exterior Doors:
   a) Base Bid: Stained wood with insulated glazing
   b) Alt #1: Fiberglass with Gel stain and insulated glazing
   c) Alt #2: Aluminum Storefront assembly; Medium frame style, with insulated glazing.

Commercial Building #2 Specifications:

1) Siding:
   a) Horizontal Siding with Medium Exposure – 8" lap siding with +/- 7" exposure
      i) Texture to be woodgrain
      ii) Material shall be one or more of the following: cementitious, wood, wood composite.
      iii) Finish
         (1) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.) Metal corner trims shall be used on each lap of siding.
         (2) Alt #1: Stain, in place of painted. Miter and bevel cut corners to match.
   b) Box Columns
      i) Base Bid: Cementitious siding – smooth finish and Mnfr extruded corner trims,
      ii) Alt #2: Direct applied EIFS over concrete board. Textured to be selected from Mnfr. standard selection of textures.

2) Trim and Fascia
   a) 4/4" thickness and mnfr. standard widths and lengths per the construction documents.
   b) Texture shall be smooth.
   c) Material shall be one or more of the following: cementitious, wood, wood composite.
   d) Finish:
      i) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.) Metal corner trims shall match paint finish.
      ii) Alt #1: Stain, in place of painted.

3) Roofing:
   a) Base Bid: Asphalt Architectural Shingles (Three Tab shall not be allowed) over mnfr. required underlayment.
   b) Alt #1: Clay tile French Roof Tile profile or approved equal over mnfr. required underlayment.
   c) Alt #2: Stamped metal roofing that looks like "Spanish Tile" over mnfr. required underlayment. Kynar or Hylar finish
   d) Color shall be selected from mnfr. standard colors.

4) Windows:
   a) Metal Clad Wood Windows with Historical Sticking
      i) Low E glazing
      ii) Colored exterior as selected by the Architect.
      iii) Screens on operable units.
      iv) Basis of Design: Pella Reserve™ - Traditional Line or approved equal.

5) Exterior Doors:
   a) Base Bid: Stained wood with insulated glazing
   b) Alt #1: Fiberglass with Gel stain and insulated glazing
   c) Alt #2: Aluminum Storefront assembly; Medium frame style, with insulated glazing.

Old Post Hospital Specifications:

1) Siding:
   a) Existing Stucco – power wash to clean, Two coats of Paint
   b) Elevator Addition: Direct applied thin Stucco finish over concrete board. Textured to be selected from Mnfr. standard selection of textures for a close match to the existing.

2) Trim and Fascia
   a) 1x material to match the existing trim to be replaced.
   b) Texture shall match existing.
   c) Custom cut profile as required for moldings.
   d) Finish:
      i) Prime with two coats paint.

3) Roofing:
   a) Existing Tile to be reused.
   b) Continuous drain material
   c) Underlayments as required
   d) Rigid foam with OSB coverboard as required
   e) Vapor barrier over continuous substrate.
   f) Flashing shall match existing where exposed
   g) New roof sheathing per structural as required.
   h) Adhered Membrane or liquid applied membrane over masonry copings. Restore damaged copings to match. No Exposed termination bars on the public face of masonry copings.

4) Windows:
   a) Metal Clad Wood Windows with Historical Sticking
      i) Low E glazing
      ii) Colored exterior as selected by the Architect.
      iii) Screens on operable units.
      iv) Basis of Design: Pella Reserve™ - Traditional Line or approved equal.

5) Exterior Doors:
   a) Primed and Painted wood with insulated glazing. Door style shall match historic samples on site.

Community Center Specifications:

1) Siding:
   a) Horizontal Plank Shiplap
      i) Texture to be woodgrain
      ii) Material shall be one or more of the following: cementitious, wood, wood composite.
      iii) Finish
         (1) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal

2) Trim and Fascia
   a) 4/4" thickness and mnfr. standard widths and lengths per the construction documents.
   b) Texture shall be woodgrain.
   c) Material shall be one or more of the following: cementitious, wood, wood composite.
   d) Finish:
      i) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.)

3) Roofing:
   a) Base Bid: Asphalt Architectural Shingles (Three Tab shall not be allowed) over mnfr. required underlayment.
   b) Color shall be selected from mnfr. standard colors.

4) Windows:
   a) Fiberglass windows
      i) Low E glazing
      ii) Colored exterior as selected by the Architect.
      iii) Screens on operable units.
      Basis of Design: Pella Impervia or approved equal

5) Exterior Doors:
   a) Base Bid: Stained wood with insulated glazing
   b) Alt #1: Fiberglass with Gel stain and insulated glazing
   c) Alt #2: Aluminum Storefront assembly; Medium frame style, with insulated glazing.

6) Exterior Garage Doors
   a) Aluminum Sectional Door
      i) Finish: As selected from manufacturer's standard colors
      ii) Glazing shall be insulated Low-E units.
   b) Solid Sectional Door
      i) Wood or simulated wood texture Carriage Style Garage Door
      ii) Outswing
      iii) Prime with two coats paint.

Residential Unit Specifications:

7) Siding:
   a) Vertical Siding – Channel siding or Vertical Shiplap.
      i) Texture to be woodgrain
      ii) Material shall be one or more of the following: cementitious, wood, wood composite.
      iii) Finish
         (1) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.) 2x2 trim at corners shall be used match paint finish.
         (2) Alt #1: 2x2 trim at corners shall be used. Stain, in place of painted.

8) Trim and Fascia
   a) 4/4" thickness and mnfr. standard widths and lengths per the construction documents.
   b) Texture shall be woodgrain.
   c) Material shall be one or more of the following: cementitious, wood, wood composite.
   d) Finish:
      i) – Base Bid: Prime with two coats paint. (Mnfr painted material shall be an acceptable equal.)
      ii) Alt #1: Stain, in place of painted.

9) Roofing:
   a) Base Bid: Asphalt Architectural Shingles (Three Tab shall not be allowed) over mnfr. required underlayment.
   b) Color shall be selected from mnfr. standard colors.

10) Windows:
   a) Fiberglass windows
      i) Low E glazing
      ii) Colored exterior as selected by the Architect.
      iii) Screens on operable units.
      iv) Basis of Design: Pella Impervia or approved equal.

11) Exterior Doors:
   a) Base Bid: Stained wood with insulated glazing
   b) Alt #1: Fiberglass with Gel stain and insulated glazing

Exhibit K



Courtyard

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tel:406.241.7707
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david@gaechandplan@gmail.com

Fort Missoula Commons
3255 LT Moss Rd.
Missoula Montana

REV. #	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-

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6-8-2022

Courtyard

A0.0

HPC App

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Site Ariel View

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Bird's Eye View

A0.1

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-	-	-

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6-8-2022

Bird's Eye View

A0.2

HPC App

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General Notes:

1. Maximum Building Coverage is Less than 45% of the parcel area as required in the underlying zoning.
2. Commercial Building uses shown are "Potential Uses" and are not intended to limit the areas or suites to that specific use. The Potential uses listed are intended to demonstrate the services which could be provided that are currently, not allowed in the underlying zoning, causing the deficiency of services at Fort Missoula. The deficiency of services at the Fort were discovered in the "Listening Secessions" during the scoping phase of the project.
3. The Side yard setback for the South and Southeast yards vary from the underlying zoning. This is being proposed to preserve open space, and view sheds around the Old Post Hospital. This will allow more screening of new parking from Lt Moss Road as an additional benefit.

PARKING CALCULATIONS:

		OPTION #1	OPTION #2	OPTION #3
RESIDENTIAL BUILDING #1		4.5 STALLS	4.5 STALLS	4.5 STALLS
UNIT #1	$850-1999 S.F. 1.5			
UNIT #2	$850-1999 S.F. 1.5			
UNIT #3	$850-1099 S.F. 1.5			
RESIDENTIAL BUILDING #2		4.5 STALLS	4.5 STALLS	4.5 STALLS
UNIT #1	$850-1999 S.F. 1.5			
UNIT #2	$850-1999 S.F. 1.5			
UNIT #3	$850-1099 S.F. 1.5			
RESIDENTIAL BUILDING #3		6 STALLS	6 STALLS	6 STALLS
UNIT #1	$850-1999 S.F. 1.5			
UNIT #2	$850-1999 S.F. 1.5			
UNIT #3	$850-1099 S.F. 1.5			
UNIT #4	$850-1099 S.F. 1.5			
RESIDENTIAL BUILDING #4		9 STALLS	9 STALLS	9 STALLS
UNIT #1	$850-1999 S.F. 1.5			
UNIT #2	$850-1999 S.F. 1.5			
UNIT #3	$850-1099 S.F. 1.5			
UNIT #4	$850-1099 S.F. 1.5			
UNIT #5	$850-1099 S.F. 1.5			
UNIT #6	$850-1099 S.F. 1.5			
COMMERCIAL BUILDING #1 (POTENTIAL USES)				
SUITE #1	±1100 S.F.	1/480 = 2.3 YOGA	1/480 = 2.3 ARTIST	1/360 = 3 RETAIL
SUITE #2	±1660 S.F.	1/480 = 3.5 OFFICE	1/360 = 4.6 RETAIL	1/480 = 3.5 B.S.S.
SUITE #3	±1680 S.F.	1/480 = 3.5 B.S.S.	1/480 = 3.5 YOGA	1/360 = 4.7 RETAIL
COMMERCIAL BUILDING #2 (POTENTIAL USES)				
SUITE #1	±1762 S.F.	= 20 COFFEE	= 20 COFFEE	= 20 COFFEE
SUITE #2	±1733 S.F.	1/360 = 4.8 P.I.S.	1/360 = 4.8 RETAIL	1/480 = 7.2 MEDICAL
SUITE #3	±2205 S.F.	= 10 CHILDCARE	1/480 = 4.6 P.I.S	1/360 = 6.1 RETAIL
OLD POST HOSPITAL (EXISTING) (COUNTED BUT NOT PROVIDED)	±20,000 S.F.	1/240 = 83 MEDICAL	1/240 = 83 MEDICAL	1/240 = 83 MEDICAL
NURSES QUARTERS (EXISTING) (COUNTED BUT NOT PROVIDED)	±1200 S.F.	1/480 = 2.5 OFFICE	1/480 = 2.5 OFFICE	1/480 = 2.5 OFFICE
TOTAL PARKING COUNTS		154 STALL	149 STALLS	154 STALLS
STALLS PROVIDED	75 NEW STALLS			
STALLS COUNTED	86 (E) STALLS			
TOTAL STALLS USED FOR = PARKING COUNTS	161 STALLS			

1 Site Plan
1/40" = 1'-0"

North

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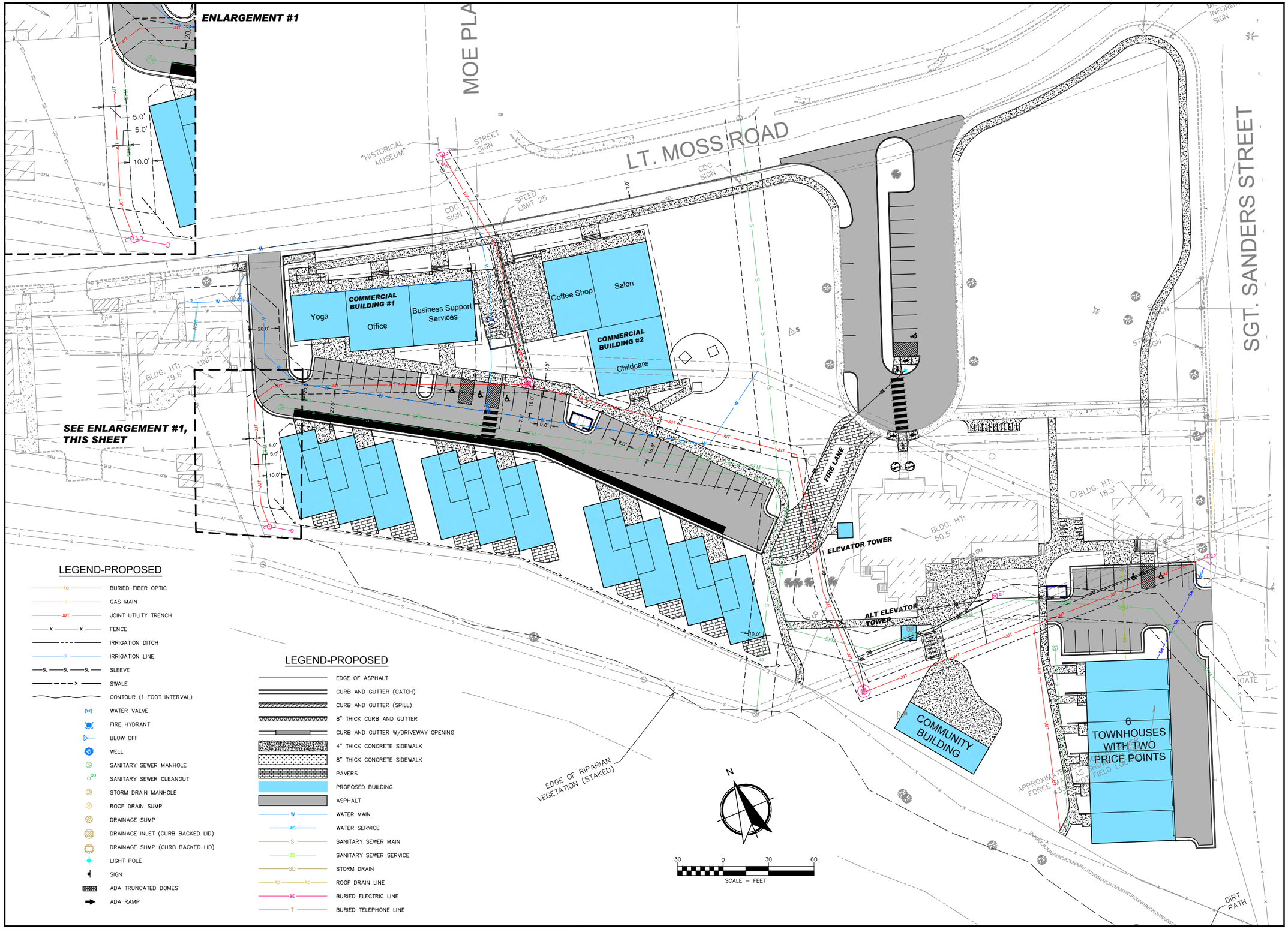
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6-8-2022

Site Plan

A0.3

HPC App



LEGEND-PROPOSED

- BURIED FIBER OPTIC
- GAS MAIN
- JOINT UTILITY TRENCH
- FENCE
- IRRIGATION DITCH
- IRRIGATION LINE
- SLEEVE
- SWALE
- CONTOUR (1 FOOT INTERVAL)
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- WELL
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- STORM DRAIN MANHOLE
- ROOF DRAIN SUMP
- DRAINAGE SUMP
- DRAINAGE INLET (CURB BACKED LID)
- DRAINAGE SUMP (CURB BACKED LID)
- LIGHT POLE
- SIGN
- ADA TRUNCATED DOMES
- ADA RAMP

LEGEND-PROPOSED

- EDGE OF ASPHALT
- CURB AND GUTTER (CATCH)
- CURB AND GUTTER (SPILL)
- 8" THICK CURB AND GUTTER
- CURB AND GUTTER W/DRIVEWAY OPENING
- 4" THICK CONCRETE SIDEWALK
- 8" THICK CONCRETE SIDEWALK
- PAVERS
- PROPOSED BUILDING
- ASPHALT
- WATER MAIN
- WATER SERVICE
- SANITARY SEWER MAIN
- SANITARY SEWER SERVICE
- STORM DRAIN
- ROOF DRAIN LINE
- BURIED ELECTRIC LINE
- BURIED TELEPHONE LINE

WGM GROUP
WWW.WGMGROUP.COM

PRELIMINARY
PLOTTED: 1/18/23
SAVED: 1/18/23

OVERALL SITE PLAN
FORT MISSOULA COMMONS
MISSOULA, MONTANA

REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT: 20-01-18
LAYOUT: C2.0
SURVEYED: WGM GROUP
DESIGN: MH
DRAFT: DB
APPROVE: SR
DATE: JANUARY 2023

SHEET C2.0

FILE: W:\Projects\20018\CAD Data\Design\20018SP.dwg



LEGEND-EXISTING

- SUBJECT PROPERTY BOUNDARY
- EASEMENT LINE
- LOT LINE
- EXTERIOR BUILDING WALL
- CONCRETE SIDEWALK
- EDGE OF ASPHALT
- CURB AND GUTTER
- EDGE OF GRAVEL
- W — WATER MAIN
- WS — WATER SERVICE (APPROX.)
- S — SANITARY SEWER MAIN
- SS — SANITARY SEWER SERVICE (APPROX.)
- SFM — SANITARY SEWER FORCE MAIN (APPROX.)
- AP — AERIAL POWER LINE
- T — BURIED TELEPHONE LINE
- G — GAS MAIN
- X — X — FENCE
- EDGE OF WATER
- CONTOUR (1 FOOT INTERVAL)
- W/V — WATER VALVE
- FIRE HYDRANT
- YARD HYDRANT
- S — SANITARY SEWER MANHOLE
- CO — SANITARY SEWER CLEANOUT
- M — MANHOLE LID
- DRAINAGE SUMP
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- TEL — COMMUNICATIONS PEDESTAL
- GM — GAS METER
- EVERGREEN TREE (SIZE AS NOTED)
- DECIDUOUS TREE (SIZE AS NOTED)
- BUSH
- MAIL BOX
- SIGN

SURVEY CONTROL POINTS

POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
5	977494.73	828833.93	3152.67	WGM OPC
6	977233.74	828801.73	3148.82	WGM RPC
7	977237.38	829088.13	3151.48	WGM RPC
8	977618.90	829205.60	3151.23	MAG NAIL

BASIS OF BEARINGS:
GRID NORTH OF MONTANA STATE PLANE COORDINATE SYSTEM – NORTH AMERICAN DATUM 1983 (CORS)

VERTICAL DATUM:
NAVD88

R1: RECORD DATA PER CERTIFICATE OF SURVEY NO. 5112
FD FOUND DATA
RM REFERENCE MONUMENT

N

50 0 50 100
SCALE – FEET

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PRELIMINARY
PLOTTED: 10/12/22
SAVED: 10/10/22

EXISTING CONDITIONS
FORT MISSOULA OLD POST HOSPITAL SITE
MISSOULA, MONTANA

REVISIONS:

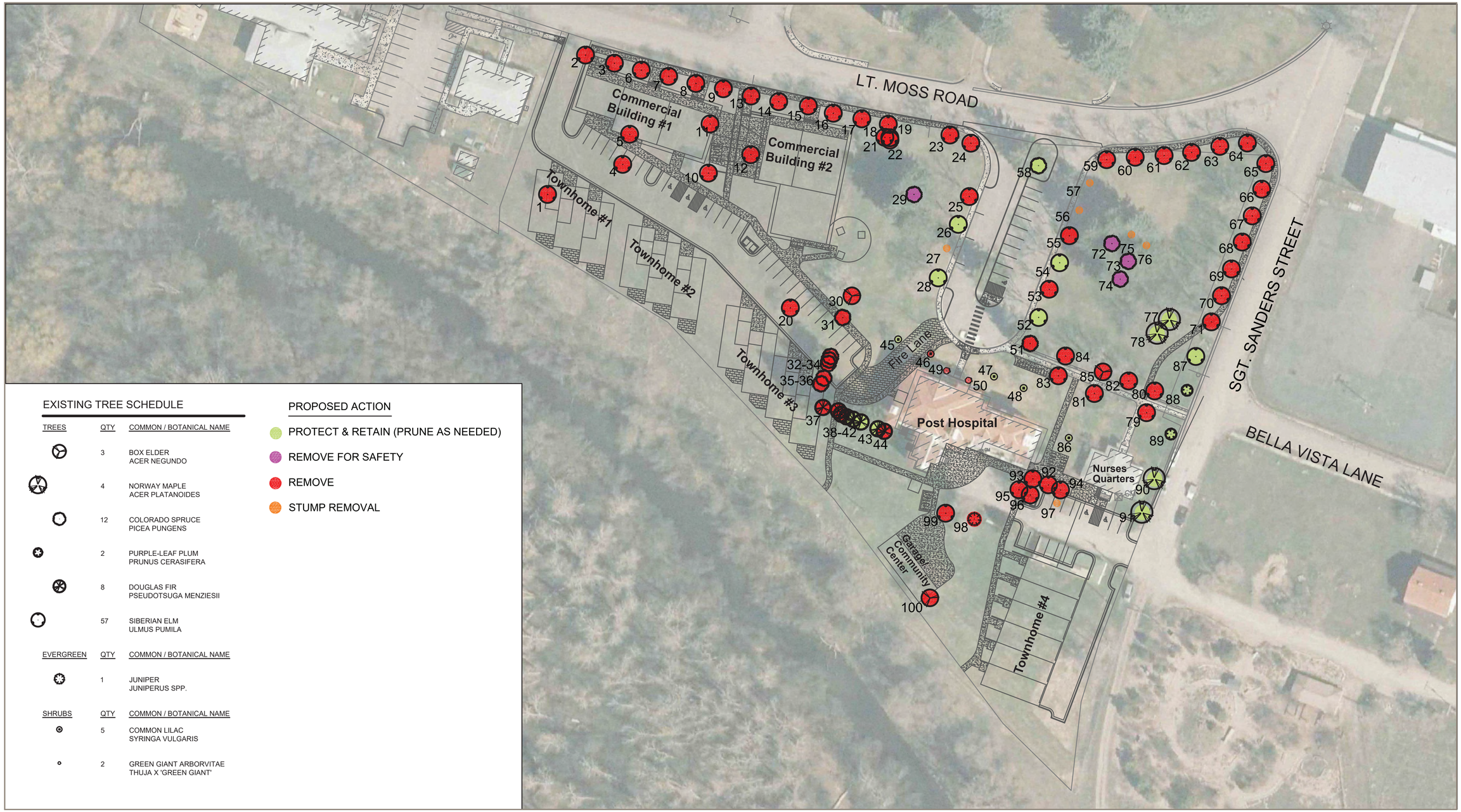
NO.	DESCRIPTION	DATE

PROJECT: 20-01-18
LAYOUT: EXISTING CONDITIONS
SURVEYED: ---
DESIGN: ---
DRAFT: CEG
APPROVE: JRS
DATE:

OCTOBER 2022

SHEET 1 OF 1

FILE: W:\Projects\20018\CAD Data\Design\200118_base-E.dwg



EXISTING TREE SCHEDULE

TREES	QTY	COMMON / BOTANICAL NAME
	3	BOX ELDER ACER NEGUNDO
	4	NORWAY MAPLE ACER PLATANOIDES
	12	COLORADO SPRUCE PICEA PUNGENS
	2	PURPLE-LEAF PLUM PRUNUS CERASIFERA
	8	DOUGLAS FIR PSEUDOTSUGA MENZIESII
	57	SIBERIAN ELM ULMUS PUMILA

EVERGREEN	QTY	COMMON / BOTANICAL NAME
	1	JUNIPER JUNIPERUS SPP.

SHRUBS	QTY	COMMON / BOTANICAL NAME
	5	COMMON LILAC SYRINGA VULGARIS
	2	GREEN GIANT ARBORVITAE THUJA X 'GREEN GIANT'

PROPOSED ACTION

- PROTECT & RETAIN (PRUNE AS NEEDED)
- REMOVE FOR SAFETY
- REMOVE
- STUMP REMOVAL

WGMGROUP

FORT MISSOULA COMMONS

Existing Trees

Project Number: 200118

Octobter 11, 2022

N

0 40 80 120’



20.65.020 GENERAL SITE LANDSCAPING REQUIREMENTS

TOTAL SITE AREA	208,099 SF		
REQUIRED LANDSCAPE AREA	15% X 208,099 = 31,215 SF		
REQUIRED ACTIVITY AREA	20% X 208,099 = 41,620 SF		
TOTAL PROVIDED LANDSCAPE AREA	61,629 SF + 41,620 SF OF ACTIVITY AREA		
TOTAL TREES REQUIRED	31	TOTAL SHRUBS REQUIRED	187
TOTAL TREES PROVIDED	79	TOTAL SHRUBS PROVIDED	TBD - 187 MIN.

20.65.030 STREET FRONTAGE LANDSCAPING

REQUIRED LANDSCAPE AREA	877’ X 10’ = 8,770 SF
LANDSCAPE AREA PROVIDED	4,843 SF
TREES REQUIRED 9	SHRUBS REQUIRED 53
TREES PROVIDED 11	SHRUBS PROVIDED 0

20.65.040 INTERIOR PARKING LOT LANDSCAPING

TOTAL PAVED VEHICULAR USE AREA	36,191 SF
LANDSCAPE AREA REQUIRED	10% X 36,191=3,619 SF
LANDSCAPE AREA PROVIDED	3,810 SF

20.65.050 PERIMETER PARKING LOT LANDSCAPING

PERIMETER PARKING LOT LANDSCAPING IS NOT REQUIRED BECAUSE 50% OF THE REQUIRED PARKING SPACES ARE LOCATED OUTSIDE OF THE ARE BETWEEN THE PRIMARY BUILDING FACADE AND STREET RIGHT-OF-WAY.

20.65.100 ALTERNATIVE COMPLIANCE

THE STREET FRONTAGE LANDSCAPING REQUIREMENTS ARE NOT MET BECAUSE SHRUBS ARE NOT PROVIDED WITHIN THE STREET FRONTAGE AREA BUT ARE INSTEAD PROVIDED AT THE BASE OF THE BUILDINGS TO MATCH THE HISTORIC CHARACTER. 20.65.030.B.1 ALLOWS FOR AN EXCEPTION TO THE STREET FRONTAGE LANDSCAPING TO BE CONSISTENT WITH HISTORIC CHARACTER.

20.40.090.E.4.e. MULTI-DWELLING BUILDING DEDIGN FEATURES

LANDSCAPING IS INCORPORATED ADJACENT TO THE TOWNHOME UNITS INCLUDING ONE TREE AND FIVE SHRUBS PER EACH 25 LINEAR FEET OF BUILDING FACADE THAT FACES A PUBLIC STREET OR (NON-ALLEY) RIGHT-OF-WAY.

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Fort Missoula Commons

Schematic Landscape Plan

Project Number: 200118

January 17, 2023

Commercial Building #1
Commercial Building #2
Courtyard
Activity Area
Playground
Activity Area
Townhome #1
Townhome #2
Townhome #3
Townhome #4
Snow Storage
Snow Storage
Snow Storage
Snow Storage
Fire Lane
Post Hospital
Nurses Quarters
Community Building
Fence
Swale
12'
42'
Approx. 85' Varies
41'
36'
Approximately 500' from Property Line to River Channel
Edge of Riparian Vegetation
Top of Bank
Toe of Bank
Edge of Water (Mapped 1/27/20)
Approximate Location of River Channel

- Asphalt
- Concrete
- Pavers
- Turf Pavers
- Lawn
- Planter Beds: Shrubs, Perennials, and Grasses
- Existing Trees
- Proposed Trees

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Fort Missoula Commons

Riparian Exhibit

Project Number: 200118
January 17, 2023

N

0 40 80 120'



FREEMAN MAPLE
Acer x freemanii



EUROPEAN HORNBEAM
Carpinus betulus



AMERICAN LINDEN
Tilia americana



SERBIAN SPRUCE
Picea omorika



SPRING SNOW CRABAPPLE
Malus x Spring Snow



SILVER MAPLE
Acer saccharinum



PRAIRIE PRIDE HACKBERRY
Celtis occidentalis ‘Prairie Pride’



BURR OAK
Quercus macrocarpa



PONDEROSA PINE
Pinus ponderosa



GLADIATOR CRABAPPLE
Malus x adstringens ‘durleo’



SWAMP WHITE OAK
Quercus bicolor



DISCOVERY ELM
Ulmus davidiana var. japonica
‘Discovery’

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FORT MISSOULA COMMONS | TREES
200118
October 2022



REDOSIER DOGWOOD*
Cornus sericea



WINTERCREEPER
Euonymus fortune



SHRUBBY CINQUEFOIL*
Potentilla fruticosa



NOOTKA ROSE*
Rosa nutkana



SNOWBERRY*
Symphoricarpos albus



SILVERBERRY*
Elaegnus commutata



HIMALAYAN JUNIPER
Juniperus squamata



CHOKECHERRY*
Prunus virginiana



JAPANESE SPIREA
Spiraea japonica



COMMON LILAC
Syringa vulgaris



BURNING BUSH
Euonymus alatus



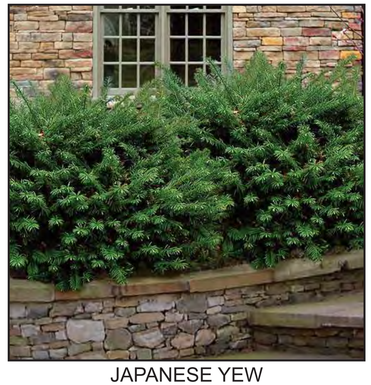
WINNIPEG PARKS ROSE
Rosa ‘Winnipeg Parks’



GOLDEN CURRANT*
Ribes aureum



VANHOUTTE SPIREA
Spiraea vanhouttei



JAPANESE YEW
Taxus cuspidate

* Native

WGMGROUP

FORT MISSOULA COMMONS | SHRUBS
200118
October 2022



GROUND ELDER
Aegopodium podagraria



ENGLISH LAVENDER
Lavandula angustifolia



NATIVE CONEFLOWER*
Echinacea angustifolia



WILD BLUE FLAX
Linum lewisii



HOSTA
Hosta spp.



NEW ENGLAND ASTER
Symphyotrichum novae-angliae



BLANKET FLOWER*
Gallardia aristata



ROCKY MOUNTAIN PENSTEMON*
Penstemon strictus



BEARDED IRIS
Iris x germanica



IDAHO FESCUE*
Festuca idahoensis



TUFTED HAIRGRASS
Deschamsia caespitosa



GREAT BASIN WILDRYE*
Leymus cinereus

* Native

WGMGROUP

FORT MISSOULA COMMONS | PERENNIALS & GRASSES
200118
October 2022



PLAYGROUND EQUIPMENT OPTION



BENCH



CITY APPROVED BIKE RACK



TURF PAVERS



CURB



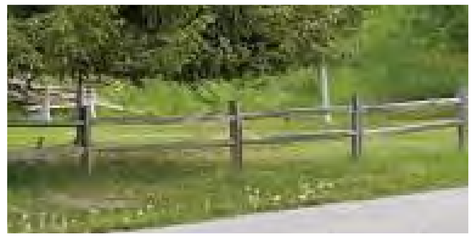
PAVERS



PLAYGROUND EQUIPMENT OPTION



BEAR PROOF TRASH RECEPTACLE



FENCE

Fort Missoula Commons
Old Post Hospital

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Old Post Hospital

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Old Post Hospital
3255 LT Moss Rd.
Missoula Montana

REV. #	DESCRIPTION	DATE
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-	-	-
-	-	-

DRAWN BY: DAVID V. GRAY - ARCHITECT

6-8-2022

Cover Sheet

A0.0

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6-8-2022

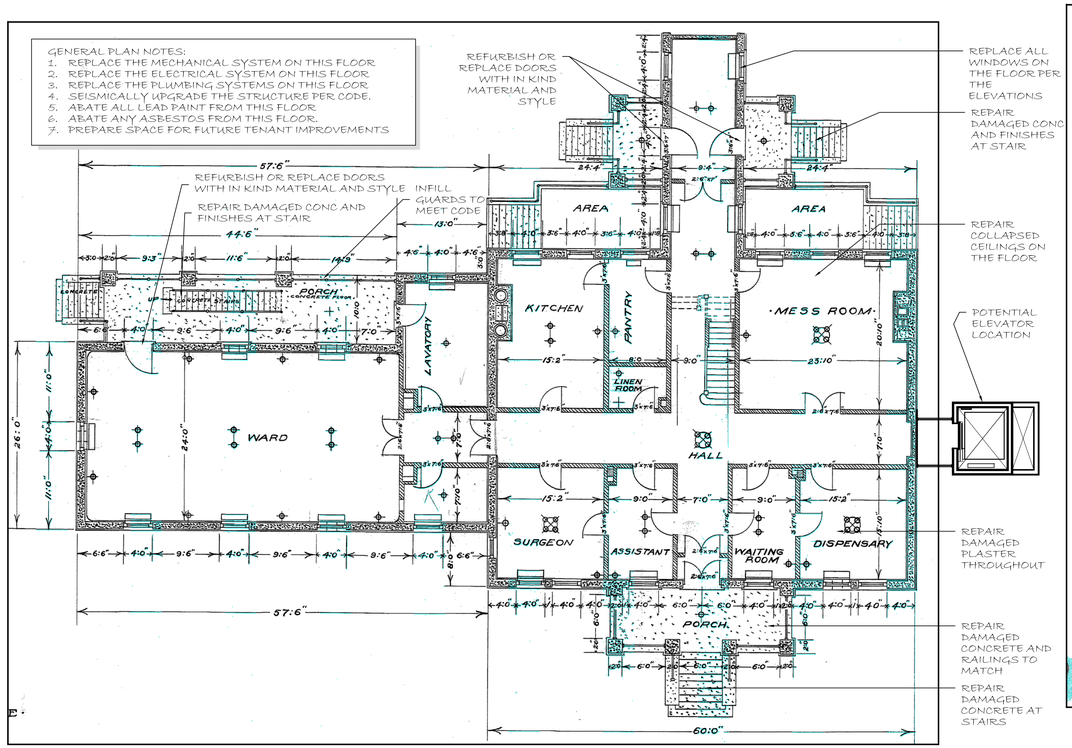
Bird's Eye View

A0.2

HPC App

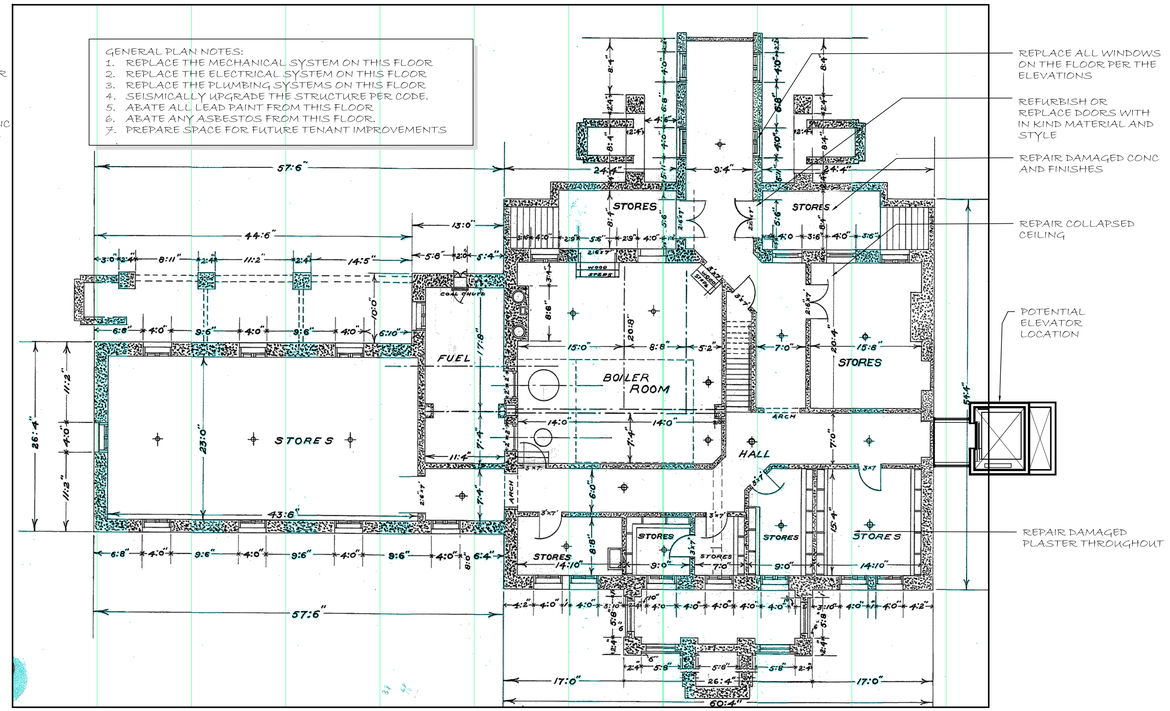
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GENERAL PLAN NOTES:
1. REPLACE THE MECHANICAL SYSTEM ON THIS FLOOR
2. REPLACE THE ELECTRICAL SYSTEM ON THIS FLOOR
3. REPLACE THE PLUMBING SYSTEMS ON THIS FLOOR
4. SEISMICALLY UPGRADE THE STRUCTURE PER CODE.
5. ABATE ALL LEAD PAINT FROM THIS FLOOR
6. ABATE ANY ASBESTOS FROM THIS FLOOR.
7. PREPARE SPACE FOR FUTURE TENANT IMPROVEMENTS



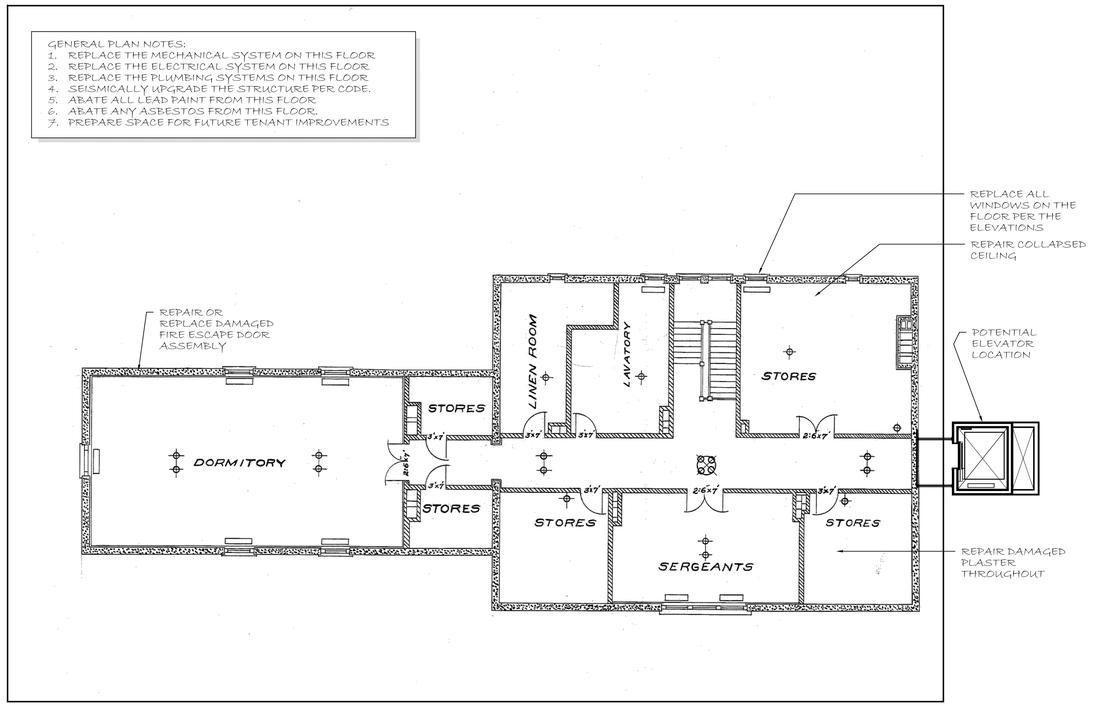
B 1st Floor Plan
1/10" = 1'-0"

GENERAL PLAN NOTES:
1. REPLACE THE MECHANICAL SYSTEM ON THIS FLOOR
2. REPLACE THE ELECTRICAL SYSTEM ON THIS FLOOR
3. REPLACE THE PLUMBING SYSTEMS ON THIS FLOOR
4. SEISMICALLY UPGRADE THE STRUCTURE PER CODE.
5. ABATE ALL LEAD PAINT FROM THIS FLOOR
6. ABATE ANY ASBESTOS FROM THIS FLOOR.
7. PREPARE SPACE FOR FUTURE TENANT IMPROVEMENTS



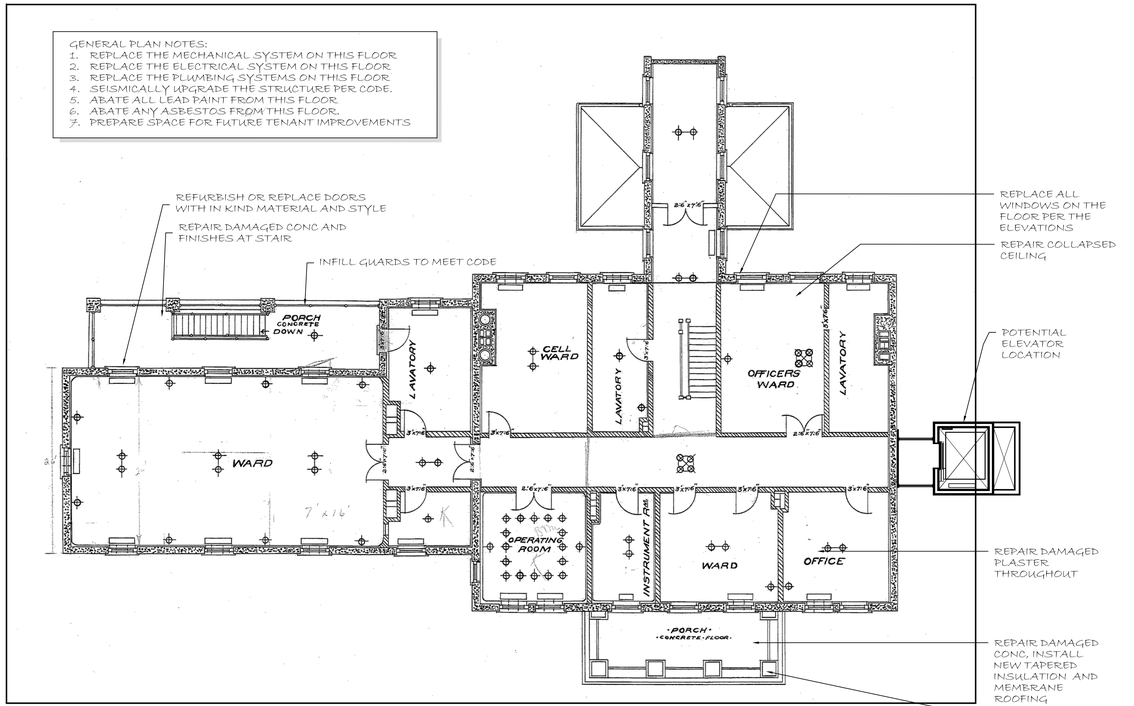
A Basement Plan
1/10" = 1'-0"

GENERAL PLAN NOTES:
1. REPLACE THE MECHANICAL SYSTEM ON THIS FLOOR
2. REPLACE THE ELECTRICAL SYSTEM ON THIS FLOOR
3. REPLACE THE PLUMBING SYSTEMS ON THIS FLOOR
4. SEISMICALLY UPGRADE THE STRUCTURE PER CODE.
5. ABATE ALL LEAD PAINT FROM THIS FLOOR
6. ABATE ANY ASBESTOS FROM THIS FLOOR.
7. PREPARE SPACE FOR FUTURE TENANT IMPROVEMENTS



D 3rd Floor Plan
1/10" = 1'-0"

GENERAL PLAN NOTES:
1. REPLACE THE MECHANICAL SYSTEM ON THIS FLOOR
2. REPLACE THE ELECTRICAL SYSTEM ON THIS FLOOR
3. REPLACE THE PLUMBING SYSTEMS ON THIS FLOOR
4. SEISMICALLY UPGRADE THE STRUCTURE PER CODE.
5. ABATE ALL LEAD PAINT FROM THIS FLOOR
6. ABATE ANY ASBESTOS FROM THIS FLOOR.
7. PREPARE SPACE FOR FUTURE TENANT IMPROVEMENTS



C 2nd Floor Plan
1/10" = 1'-0"

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Fort Missoula Commons
Old Post Hospital

3225 LT Moss Rd.
Missoula Montana

REV. #	DESCRIPTION	DATE
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-	-	-
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-	-	-
-	-	-

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6-8-2022

Floor plans & Notes

A2.0

HPC App



- REMOVE AND SALVAGE ROOF TILE FOR REINSTALLATION. REPAIR WATER DAMAGE TO ROOF STRUCTURE AND SHEATHING. UPGRADE STRUCTURE PER THE STRUCTURAL ENGINEER. INSULATE CAVITY, INSTALL NEW SHEATHING, VAPOR RETARDER, CONTINUOUS INSULATION, COVER BOARD, MEMBRANE UNDERLAYMENT, DRAIN LAYER AND REINSTALL TILE.
- RESTORE COPING CAPS. INSTALL ADHERED MEMBRANE OVER CAPS
- REFURBISH FASCIA, EAVE, EXPOSED RAFTER TAILS, EXPOSED SOFFIT SHEATHING OR REPLACE AS NEEDED WITH IN KIND MATERIALS, PROFILES. PRIME AND PAINT
- REMOVE AND REPLACE (E) WINDOWS THROUGHOUT WITH NEW HISTORIC STICKING WINDOWS IN (E) OPENING. REFURBISH TRIM OR REPLACE WITH IN KIND TRIM - PAINT
- RESTORE COPING CAPS. INSTALL ADHERED MEMBRANE OVER CAPS
- REPAIR STUCCO FINISH AND REPAINT ENTIRE BUILDING
- REMOVE MESH OVER WINDOWS

(E) Windows have been painted shut w/ lead based paint, vandalized, and cause excessive damage from ice and water on interior finishes.

2 North Elevation
N.T.S.



- REMOVE AND SALVAGE ROOF TILE FOR REINSTALLATION. REPAIR WATER DAMAGE TO ROOF STRUCTURE AND SHEATHING. UPGRADE STRUCTURE PER THE STRUCTURAL ENGINEER. INSULATE CAVITY, INSTALL NEW SHEATHING, VAPOR RETARDER, CONTINUOUS INSULATION, COVER BOARD, MEMBRANE UNDERLAYMENT, DRAIN LAYER AND REINSTALL TILE.
- REFURBISH FASCIA, EAVE, EXPOSED RAFTER TAILS, EXPOSED SOFFIT SHEATHING OR REPLACE AS NEEDED WITH IN KIND MATERIALS, PROFILES. PRIME AND PAINT
- REMOVE AND REPLACE (E) WINDOWS THROUGHOUT WITH NEW HISTORIC STICKING WINDOWS IN (E) OPENING. REFURBISH TRIM OR REPLACE WITH IN KIND TRIM - PAINT
- REPAIR CRACKS IN STUCCO FINISH AND REPAINT ENTIRE BUILDING
- REPAIR DETERIORATED CONCRETE TO MATCH.
- REMOVE AND REPLACE ROOFING W/ NEW MEMBRANE AND TAPERED INSULATION.
- REMOVE AND RESTORE COPING CAPS. INSTALL ADHERED MEMEBRANE UNDER CAPS PRIOR TO REINSTALLATION
- REFURBISH (E) STAIR OR REPLACE WITH LIKE CONSTRUCTION
- REFURBISH (E) ENTRY AND REPLACE NEWER DOOR WITH HISTORIC STYLE DOOR

1 North Elevation
N.T.S.



- REMOVE AND SALVAGE ROOF TILE FOR REINSTALLATION. REPAIR WATER DAMAGE TO ROOF STRUCTURE AND SHEATHING. UPGRADE STRUCTURE PER THE STRUCTURAL ENGINEER. INSULATE CAVITY, INSTALL NEW SHEATHING, VAPOR RETARDER, CONTINUOUS INSULATION, COVER BOARD, MEMBRANE UNDERLAYMENT, DRAIN LAYER AND REINSTALL TILE.
- RESTORE COPING CAPS. INSTALL ADHERED MEMBRANE OVER CAPS
- REFURBISH FASCIA, EAVE, EXPOSED RAFTER TAILS, EXPOSED SOFFIT SHEATHING OR REPLACE AS NEEDED WITH IN KIND MATERIALS, PROFILES. PRIME AND PAINT
- REMOVE AND REPLACE (E) WINDOWS THROUGHOUT WITH NEW HISTORIC STICKING WINDOWS IN (E) OPENING. REFURBISH TRIM OR REPLACE WITH IN KIND TRIM - PAINT
- REPAIR DETERIORATED CONCRETE TO MATCH.
- REFURBISH (E) STAIR OR REPLACE WITH LIKE CONSTRUCTION

5 East Elevation
N.T.S.



- REMOVE AND SALVAGE ROOF TILE FOR REINSTALLATION. REPAIR WATER DAMAGE TO ROOF STRUCTURE AND SHEATHING. UPGRADE STRUCTURE PER THE STRUCTURAL ENGINEER. INSULATE CAVITY, INSTALL NEW SHEATHING, VAPOR RETARDER, CONTINUOUS INSULATION, COVER BOARD, MEMBRANE UNDERLAYMENT, DRAIN LAYER AND REINSTALL TILE.
- RESTORE COPING CAPS. INSTALL ADHERED MEMBRANE OVER CAPS
- REFURBISH FASCIA, EAVE, EXPOSED RAFTER TAILS, EXPOSED SOFFIT SHEATHING OR REPLACE AS NEEDED WITH IN KIND MATERIALS, PROFILES. PRIME AND PAINT
- REPAIR DETERIORATED CONCRETE TO MATCH.
- INFILL (E) GUARDS TO MEET CODE W/ GLAZING PANELS
- REFURBISH (E) STAIRS OR REPLACE WITH LIKE CONSTRUCTION
- (N) MATCHING GUARDS TO MEET CODE W/ GLAZING PANELS
- RECONSTRUCT ROOF SECTIONS THAT HAVE FALLEN OFF OF BUILDING TO MATCH
- REMOVE AND REPLACE (E) WINDOWS THROUGHOUT WITH NEW HISTORIC STICKING WINDOWS IN (E) OPENING. REFURBISH TRIM OR REPLACE WITH IN KIND TRIM - PAINT
- REPAIR DETERIORATED CONCRETE TO MATCH.

4 South Elevation
N.T.S.



- REMOVE AND SALVAGE ROOF TILE FOR REINSTALLATION. REPAIR WATER DAMAGE TO ROOF STRUCTURE AND SHEATHING. UPGRADE STRUCTURE PER THE STRUCTURAL ENGINEER. INSULATE CAVITY, INSTALL NEW SHEATHING, VAPOR RETARDER, CONTINUOUS INSULATION, COVER BOARD, MEMBRANE UNDERLAYMENT, DRAIN LAYER AND REINSTALL TILE.
- RESTORE COPING CAPS. INSTALL ADHERED MEMBRANE OVER CAPS
- REFURBISH FASCIA, EAVE, EXPOSED RAFTER TAILS, EXPOSED SOFFIT SHEATHING OR REPLACE AS NEEDED WITH IN KIND MATERIALS, PROFILES. PRIME AND PAINT
- REPAIR DETERIORATED CONCRETE TO MATCH.
- INFILL (E) GUARDS TO MEET CODE
- POTENTIAL ELEVATOR ADDITION IN THIS LOCATION
- REMOVE AND REPLACE (E) WINDOWS THROUGHOUT WITH NEW HISTORIC STICKING WINDOWS IN (E) OPENING. REFURBISH TRIM OR REPLACE WITH IN KIND TRIM - PAINT
- REFURBISH (E) STAIRS OR REPLACE WITH LIKE CONSTRUCTION
- REPAIR DETERIORATED CONCRETE TO MATCH.

3 West Elevation
N.T.S.

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Fort Missoula Commons
Old Post Hospital

3255 LT Moss Rd.
Missoula Montana

REV. #	DESCRIPTION	DATE
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-	-	-
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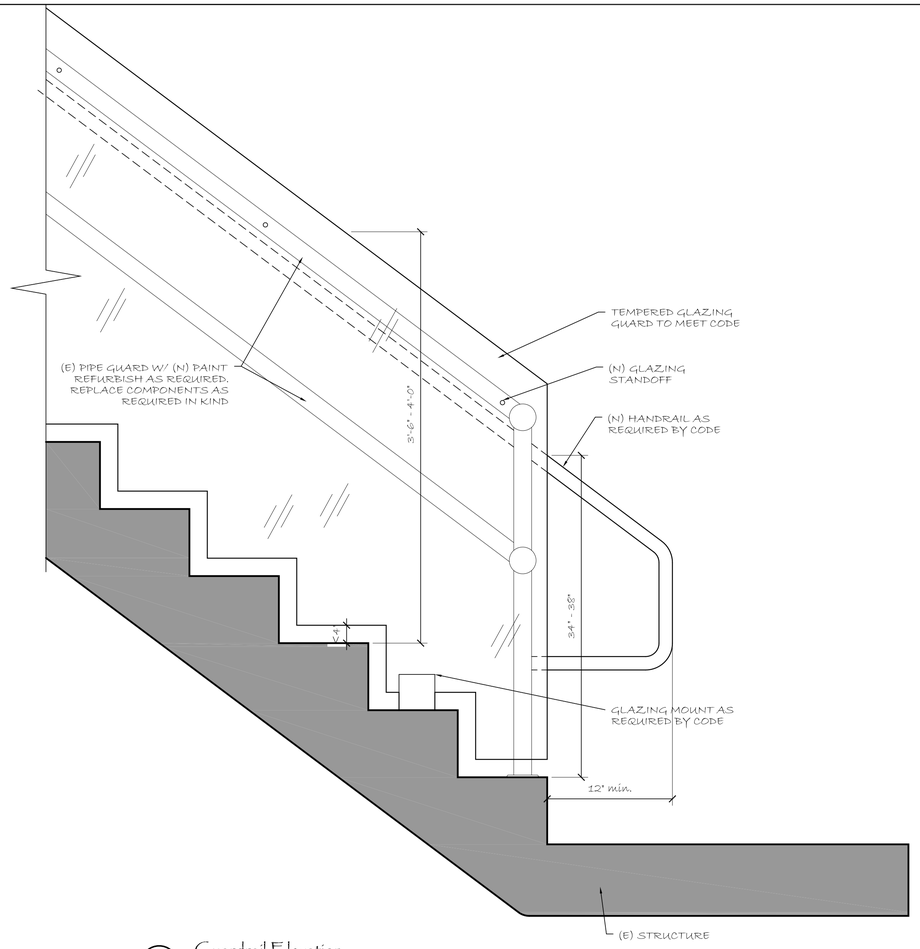
6-8-2022

Elevations & Notes

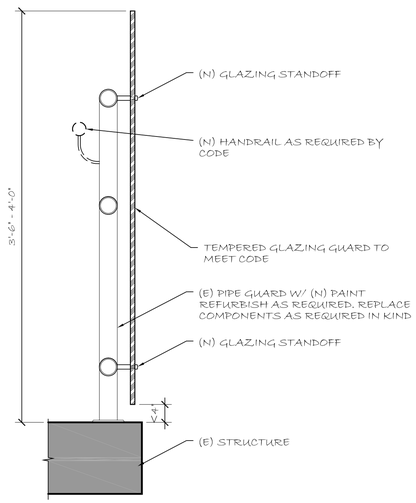
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HPC App

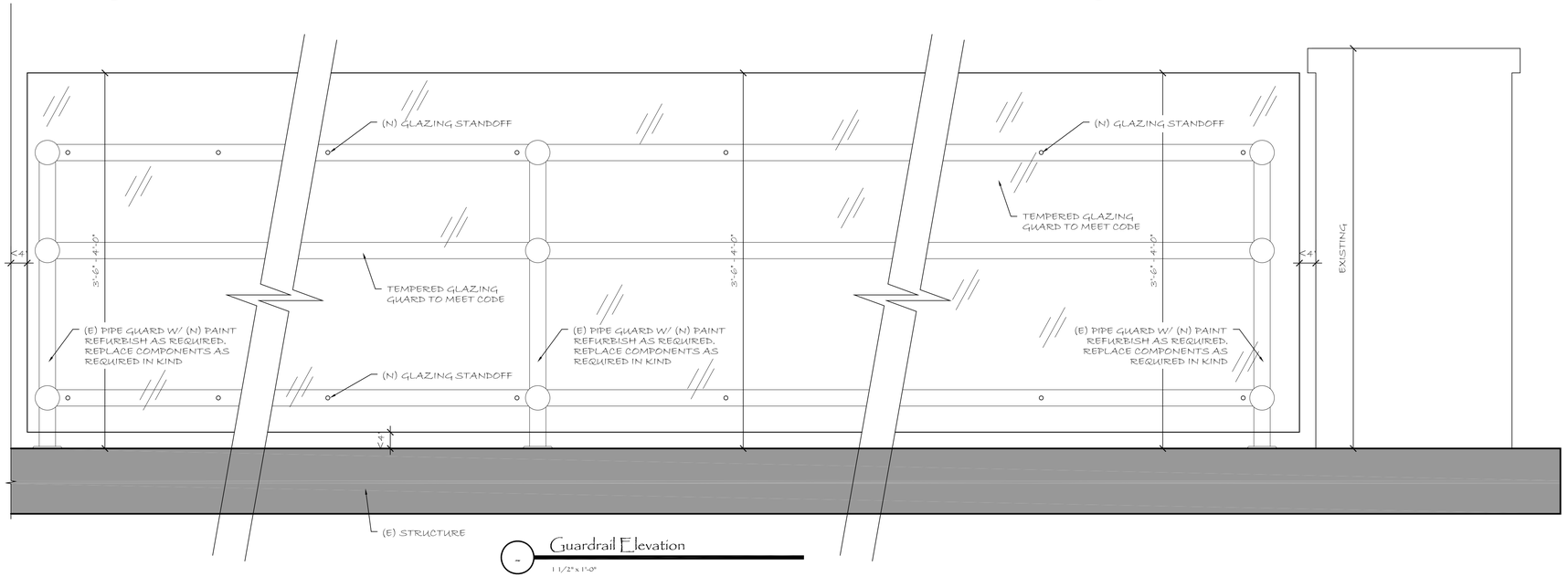
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Guardrail Elevation
1 1/2"x1'-0"



Guardrail Section
1 1/2"x1'-0"



Guardrail Elevation
1 1/2"x1'-0"

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Guardrail Details

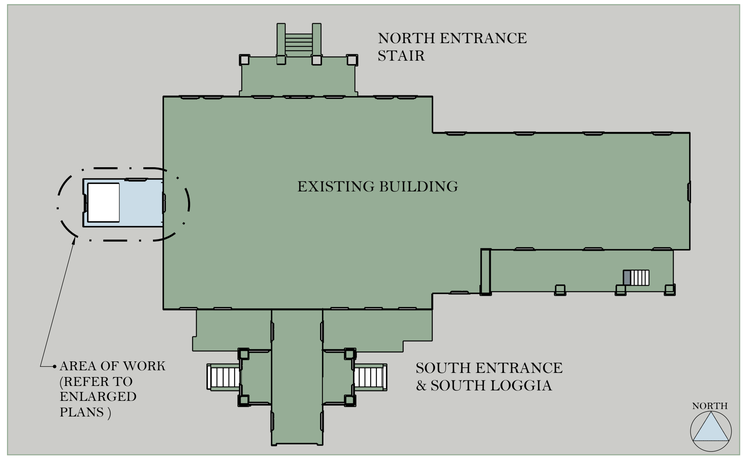
A3.1

HPC App

Fort Missoula Commons
Old Post Hospital
Elevator Addition

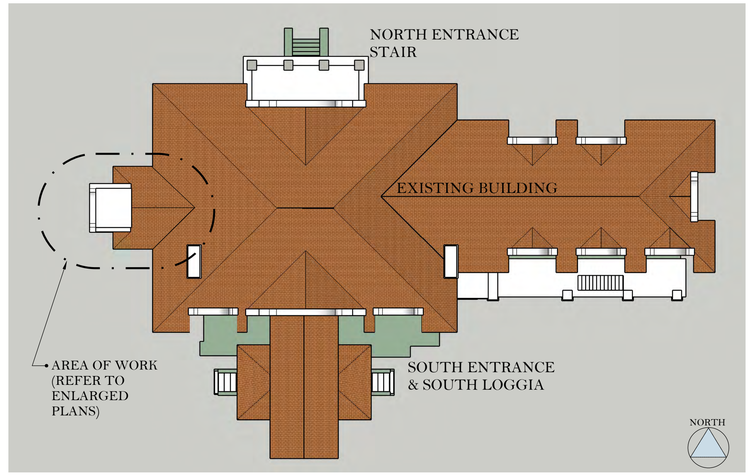
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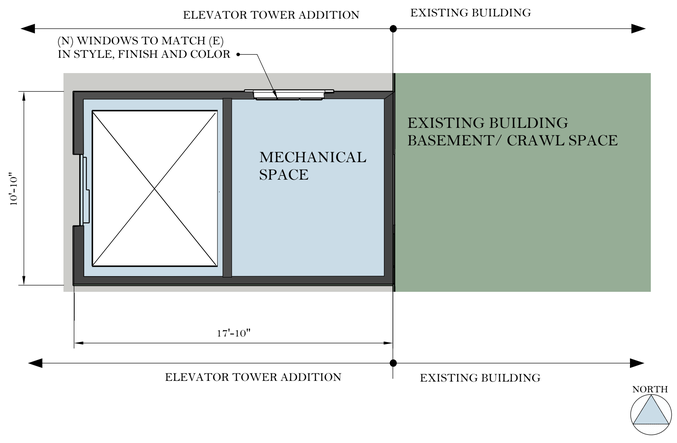
1 Main Floor Plan

1/16"= 1'-0"



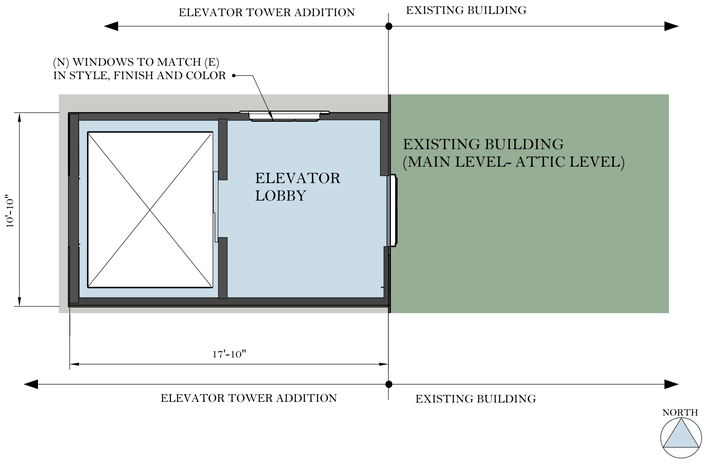
2 Roof Plan

1/16"= 1'-0"



3 Enlarged Floor Plan - Elevator Entrance Level

1/4"= 1'-0"



4 Enlarged Floor Plan - Main Floor - Attic Level

1/4"= 1'-0"

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Old Post Hospital Elevator Addition

Fort Missoula Commons

Missoula Montana

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10-14-22

Floor Plans

A2.0

HPC Application

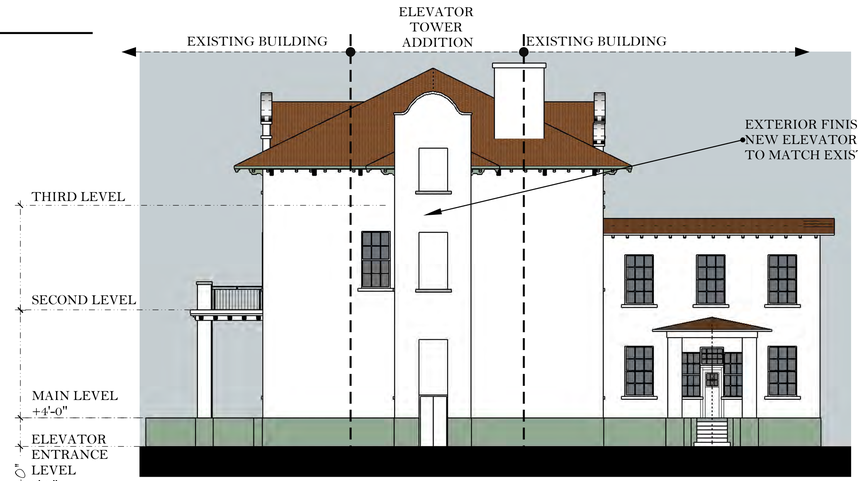
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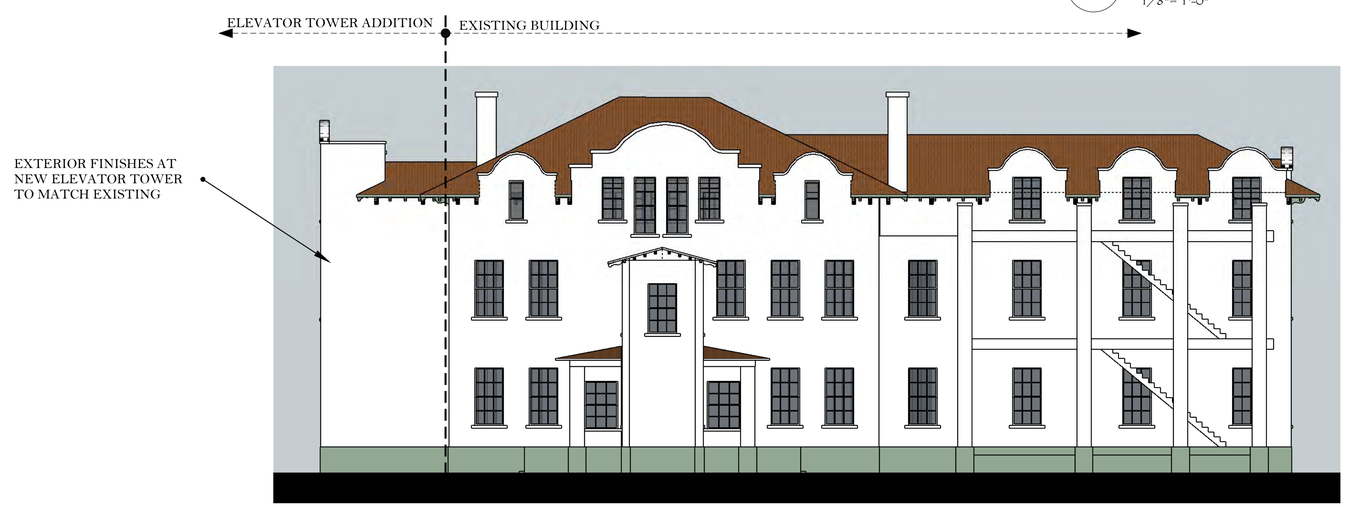
1 North Elevation
1/8"= 1'-0"



2 East Elevation (No Work)
1/8"= 1'-0"



3 West Elevation
1/8"= 1'-0"



4 South Elevation
1/8"= 1'-0"

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Old Post Hospital Elevator Addition

Fort Missoula Commons

Missoula Montana

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1	-	-

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Elevations

A3.0

HPC Application

Fort Missoula Commons
Commercial Building #1

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Fort Missoula Commons
Commercial Building 1

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REV. #	DESCRIPTION	DATE
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Commercial Building #1 Cover Sheet

A0.0

HPC App

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Courtyard

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6-8-2022

Courtyard

A0.1

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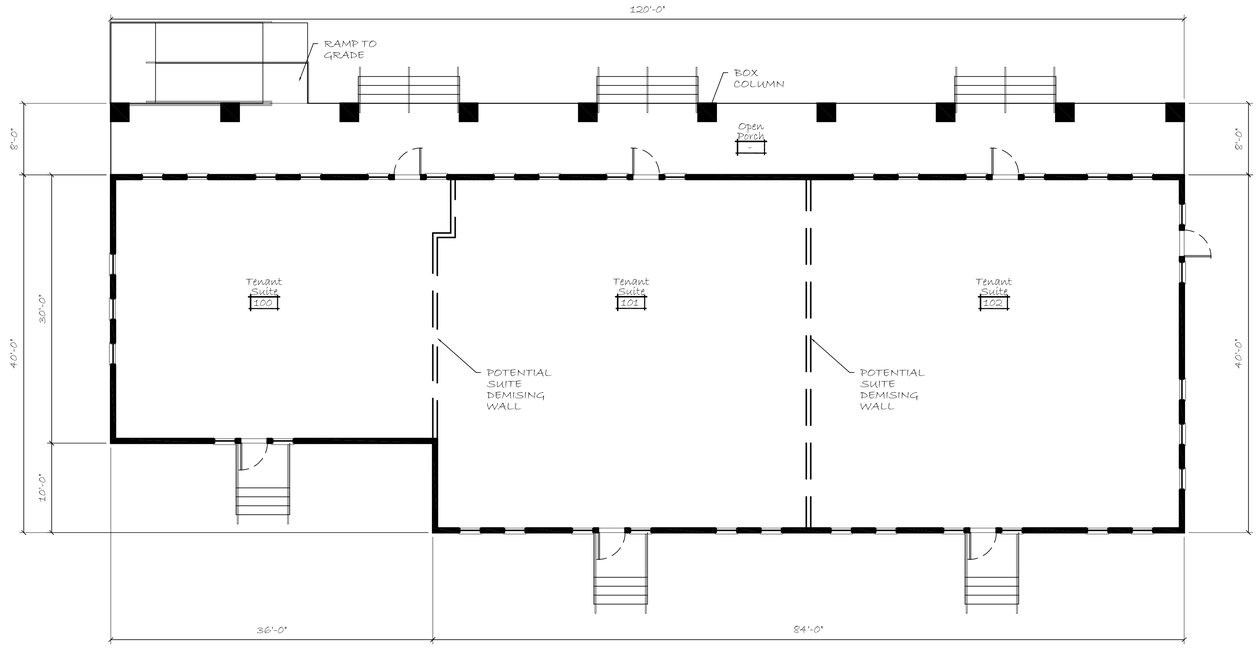
6-8-2022

Bird's Eye View

A0.2

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A Commercial Building #1 Plan

1/8"=1'-0"

North

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Fort Missoula Commons
Commercial Building 1

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Missoula Montana

REV. #	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
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6-8-2022

Commercial Building #1 Plan

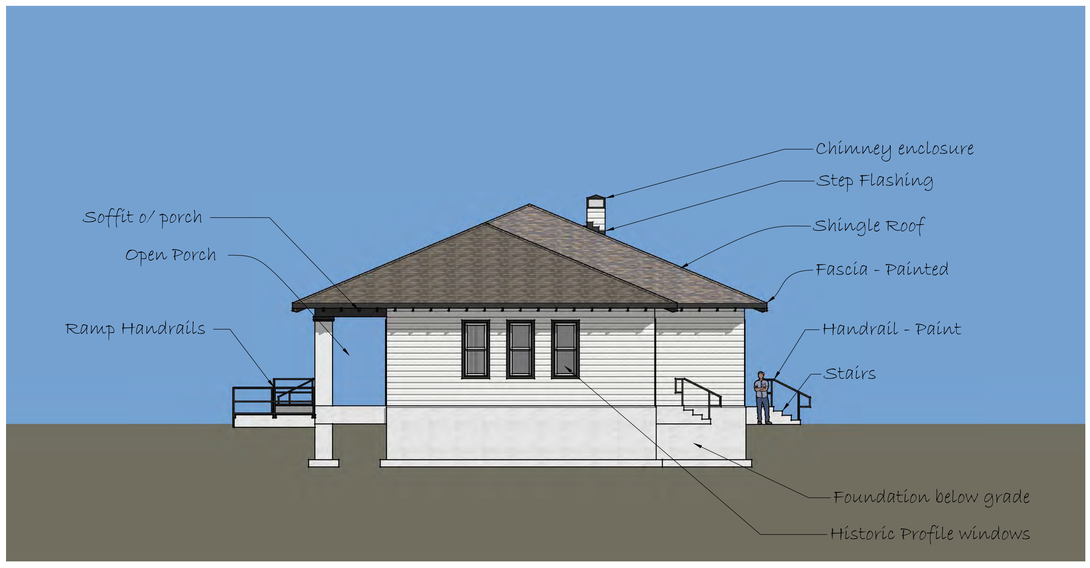
A2.0

HPC App



1 North Elevation

1/8" = 1'-0"



2 West Elevation

1/8" = 1'-0"



3 Perspective View

N.T.S.

DVG Architecture and Planning P.C.
111 North Higgins Ave.
Suite 420
Missoula MT 59802
tel:406.241.7707
email:
david@dvgarchitects.com

Fort Missoula Commons
Commercial Building #1
3255 LT Moss Road
Missoula
Montana

REV. #	DESCRIPTION	DATE
-	-	-

DRAWN BY: DAVID V. GRAY - ARCHITECT

6-8-2022

Elevations

A3.0

HPC App

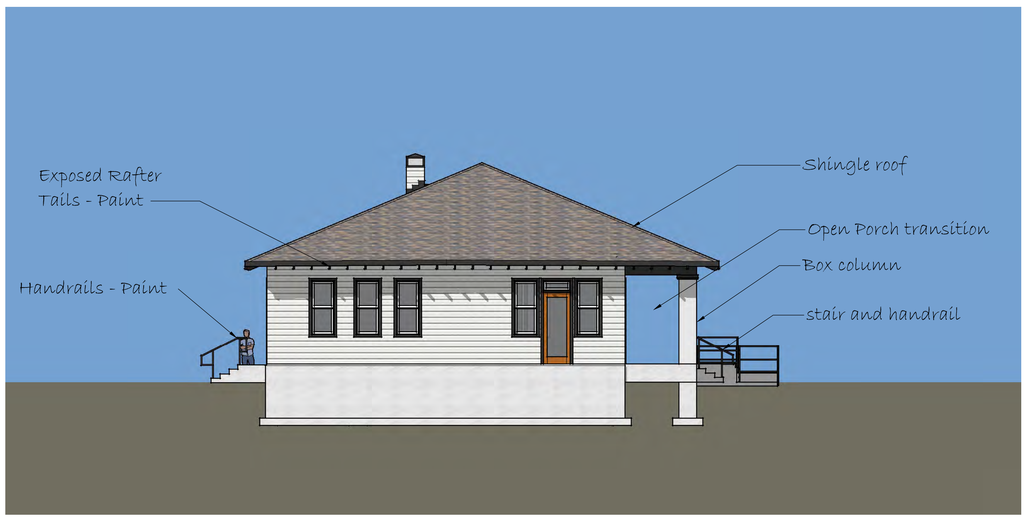
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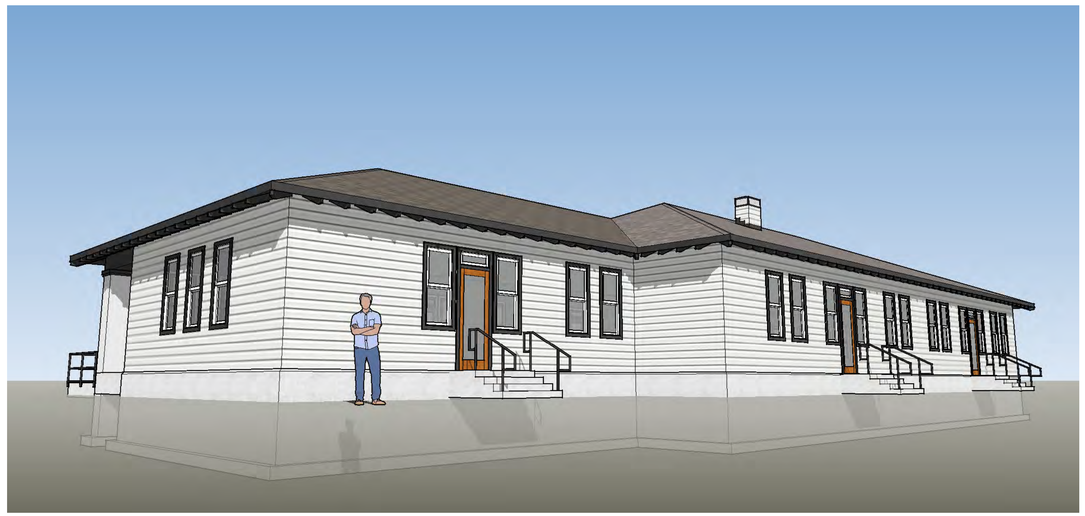
1 South Elevation

1/8"= 1'-0"



2 East Elevation

1/8"= 1'-0"



3 Parking Lot View

N.T.S.

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6-8-2022

ELEVATIONS

A3.1

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Fort Missoula Commons
Commercial Building #2

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Commercial Building 2
3255 LT Moss Rd.
Missoula Montana

REV.- #	DESCRIPTION	DATE
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DRAWN BY:DAVID V. GRAY - ARCHITECT

6-8-2022

Commercial Building #2 Cover Sheet

A0.0

HPC App

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REV. #	DESCRIPTION	DATE
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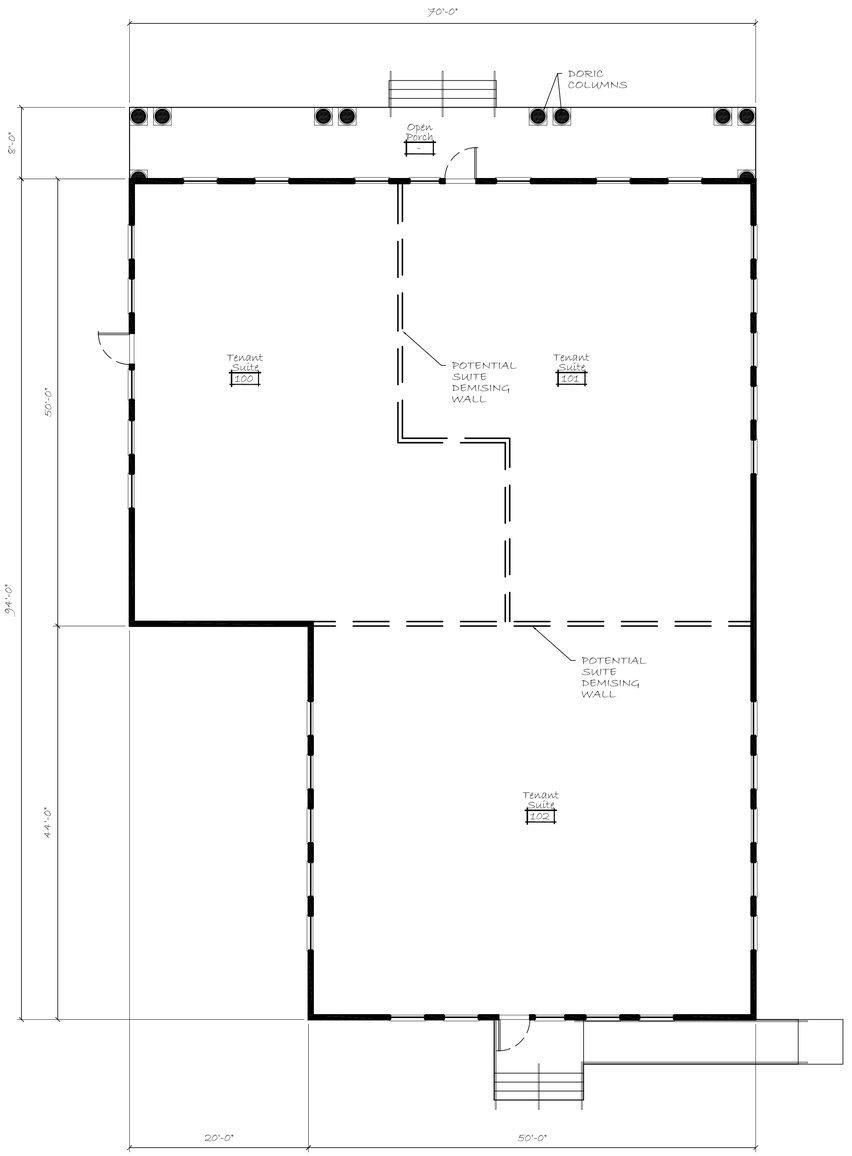
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Bird's Eye View

A0.1

HPC App

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A Commercial Building #2 Plan

1/8" - 1'-0"

North

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Fort Missoula Commons
Commercial Building 2

3255 LT Moss Rd.

Missoula Montana

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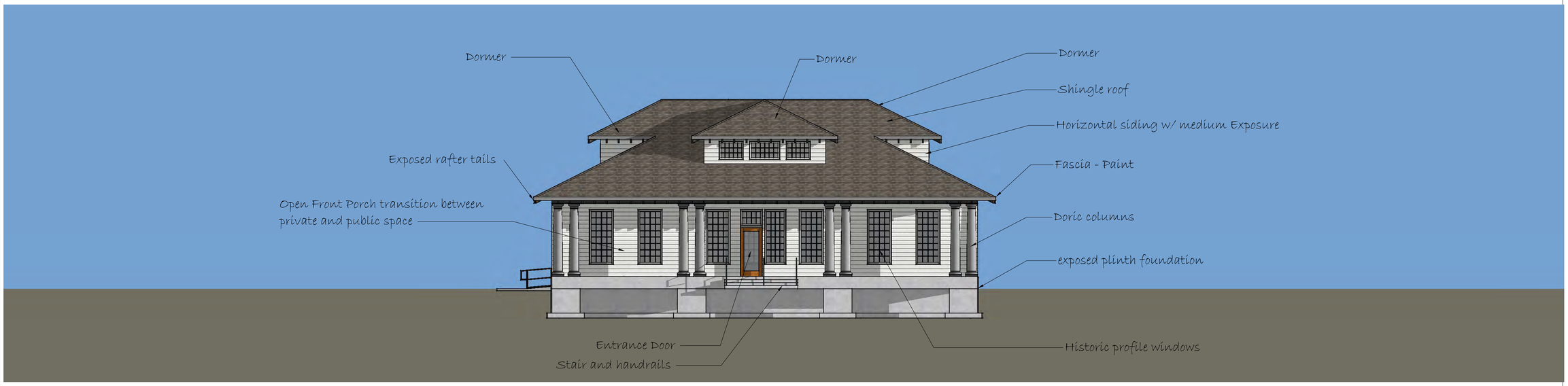
6-8-2022

Commercial Building #2 Plan

A2.0

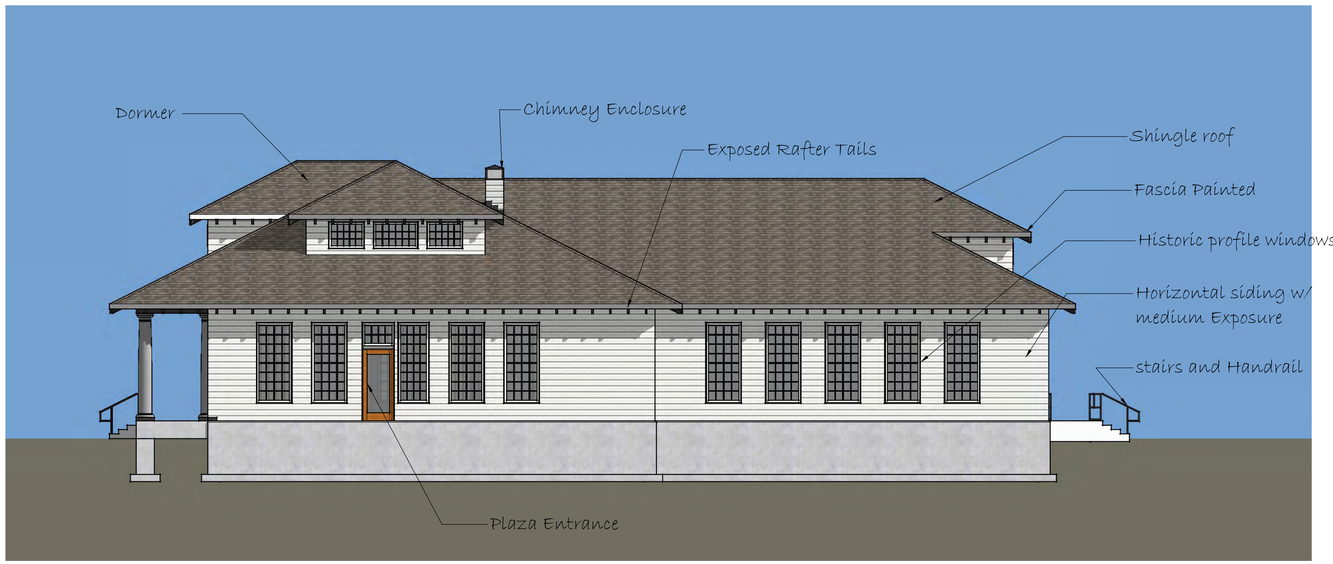
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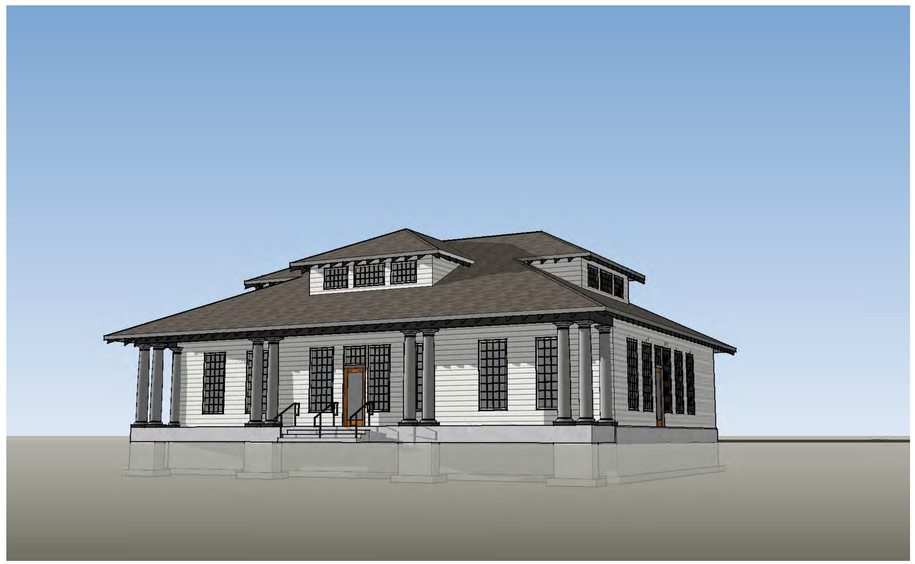
A North Elevation (Front)

1/8"= 1'-0"



B West Elevation

1/8" = 1'-0"



C Perspective View

N.T.S.

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Commercial Building #2
3255 LT Moss Road
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6-2-2022

Commercial Building #2 Elevations

A3.0

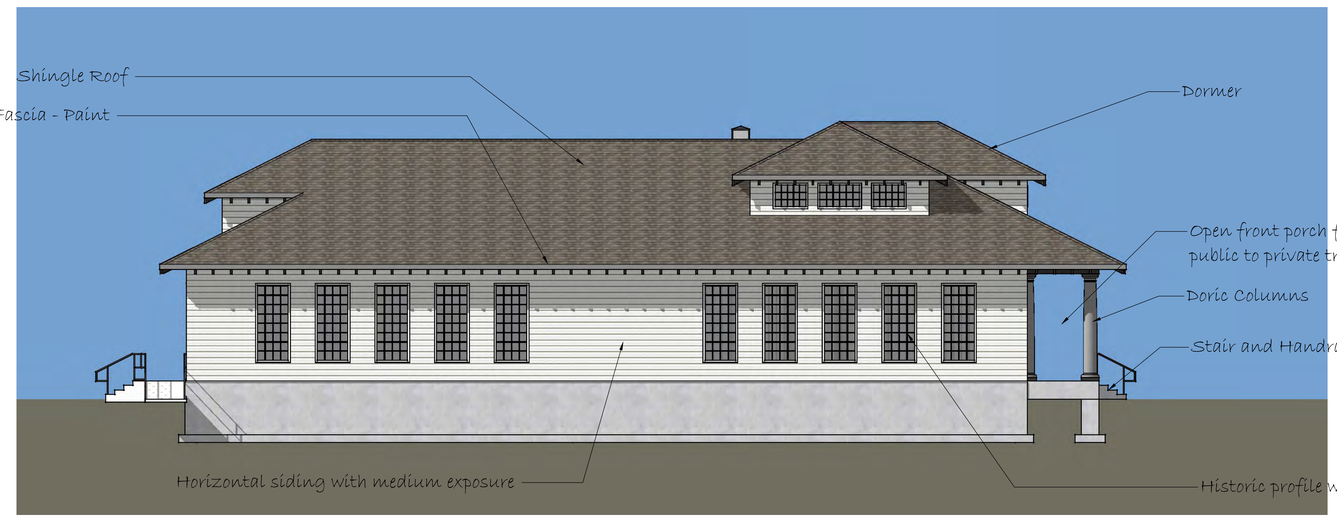
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1 South Elevation

1/8"= 1'-0"



2 East Elevation

1/8"= 1'-0"



3 Parking Lot View

N.T.S.

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6-2-2022

Commercial Building #2 Elevations

A3.1

HPC App

Fort Missoula Commons
Community Center

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Community Center

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Fort Missoula Commons
Community Center

3255 LT Moss Rd.
Missoula Montana

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6-8-2022

Optional Community Center Cover Sheet

A0.0

HPC App

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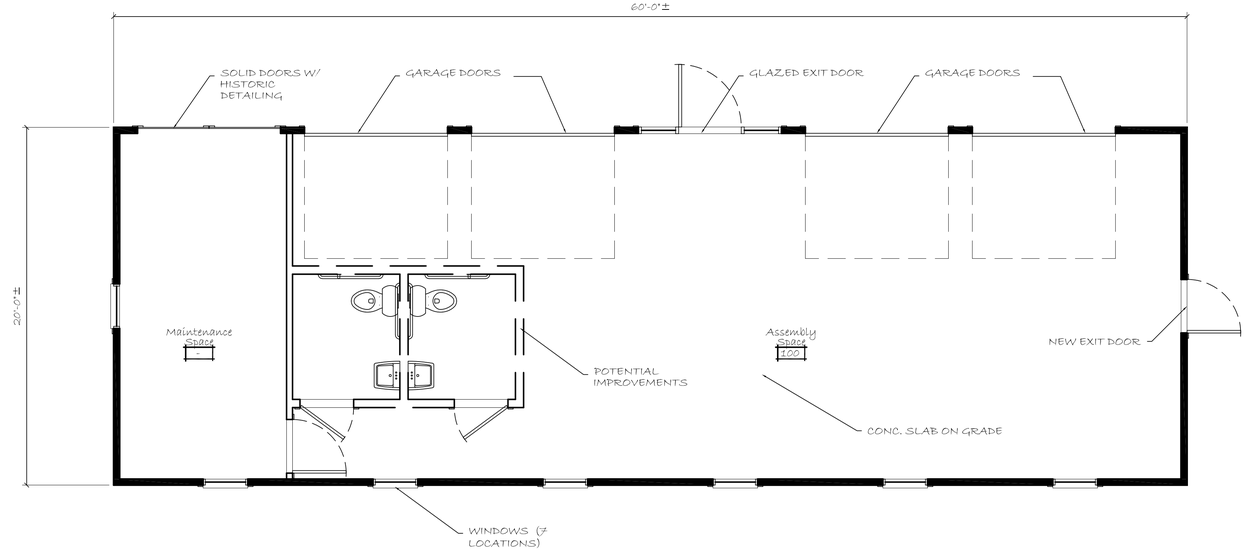
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Bird's Eye View

A0.1

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A Building Plan
1/8" = 1'-0"

North

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email:
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Fort Missoula Commons
Community Center

3255 LT Moss Rd.

Missoula Montana

REV. #	DESCRIPTION	DATE
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6-8-2022

Optional Community Center Plan

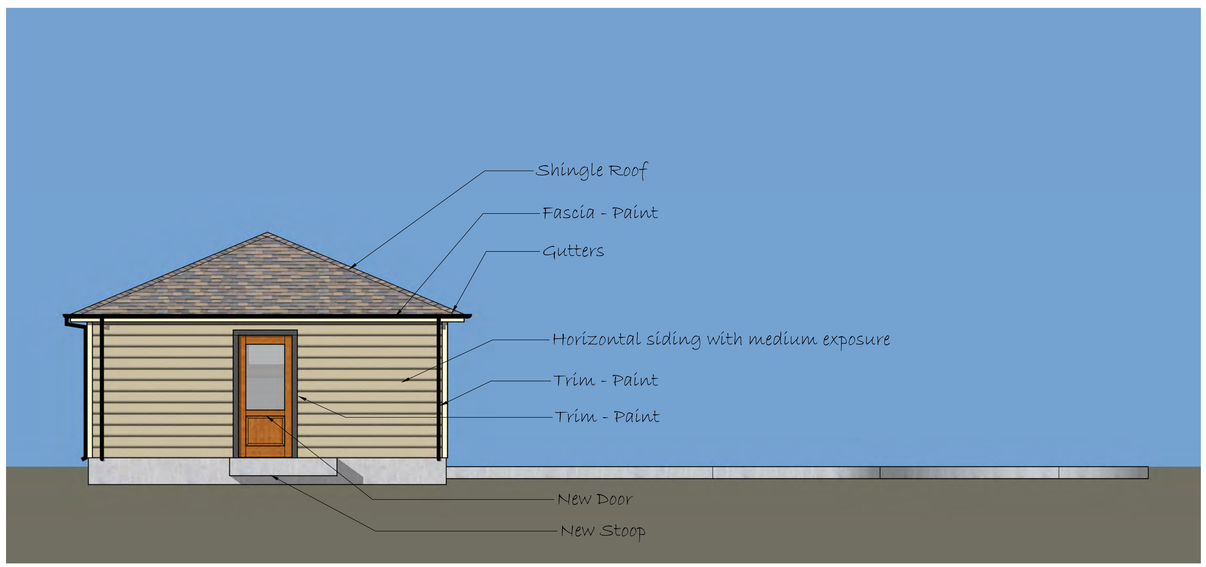
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HPC App



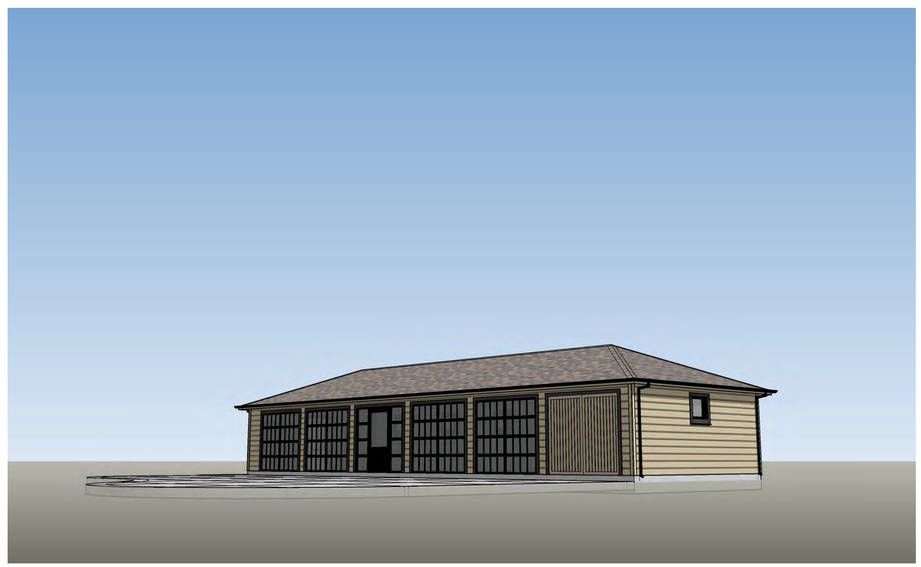
1 Front (North) Elevation

1/4" = 1'-0"



2 East Elevation

1/4" = 1'-0"



3 Front View

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Fort Missoula Commons
Community Center

3255 LT Moss Road

Missoula

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REV. #	DESCRIPTION	DATE
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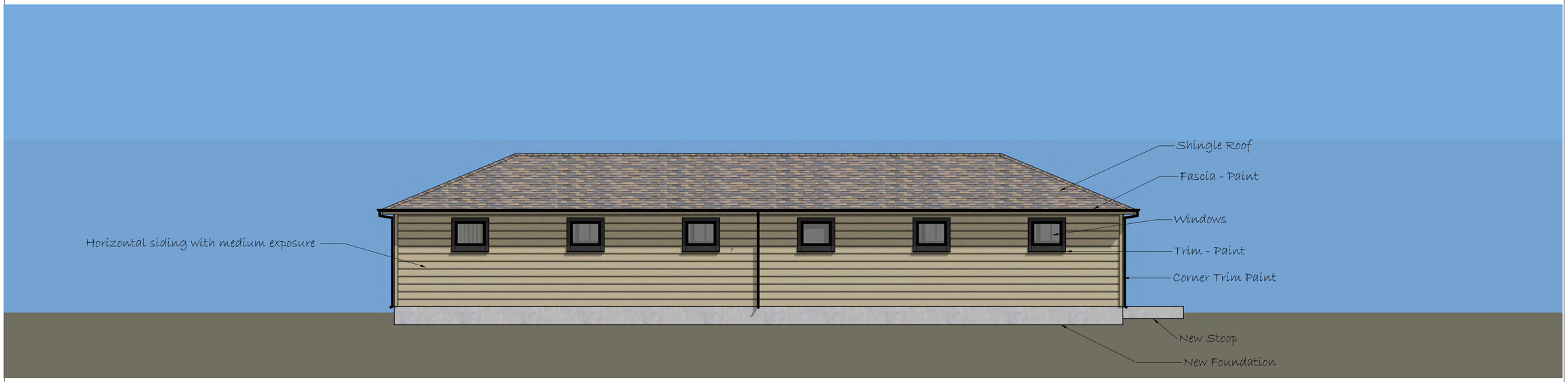
6-8-2022

Elevations

A3.0

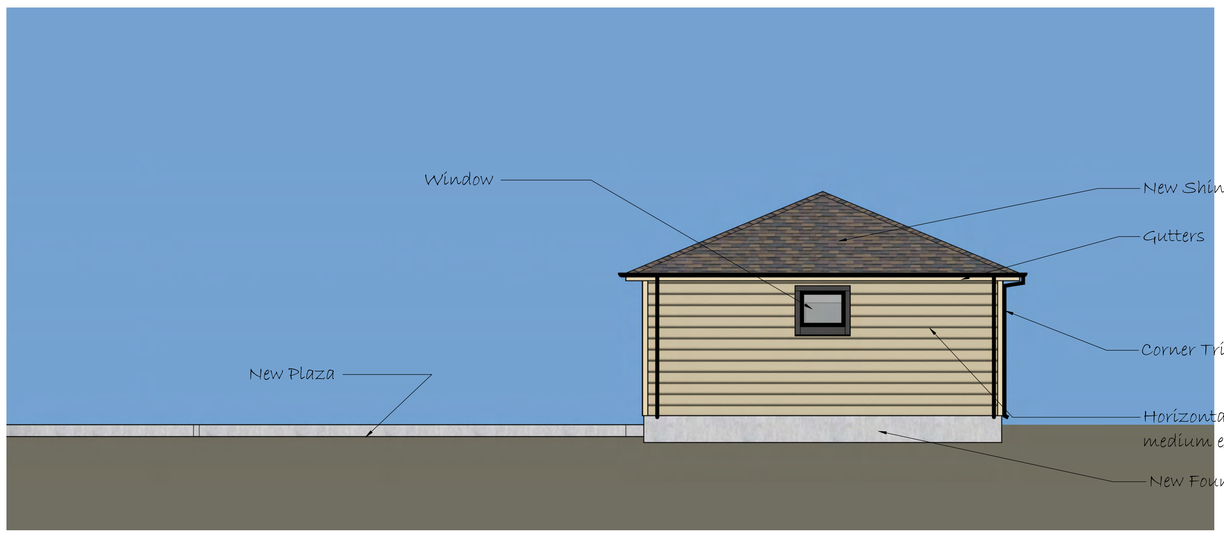
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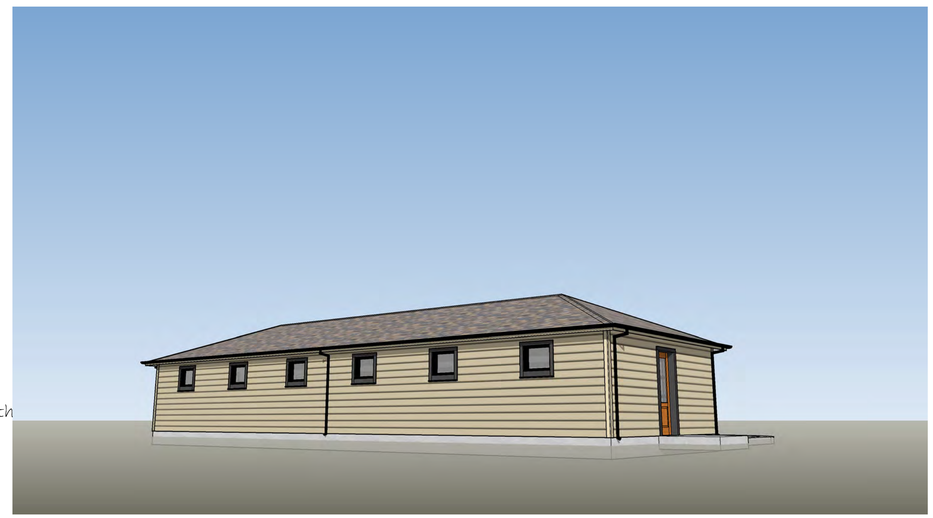
1 Rear (South) Elevation

1/4"= 1'-0"



2 East Elevation

1/4"= 1'-0"



3 Back View

N.T.S.

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Missoula
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6-8-2022

Elevations

A3.1

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Fort Missoula Commons
Residential Building #1 & #2

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Townhome #1



Townhome #2

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Fort Missoula Commons
Townhome / Multifamily Building 1 & 2
3255 LT Moss Rd.
Missoula Montana

REV. #	DESCRIPTION	DATE
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Townhome / Multifamily Bldg1&2 Cover Sheet

A0.0

HPC App

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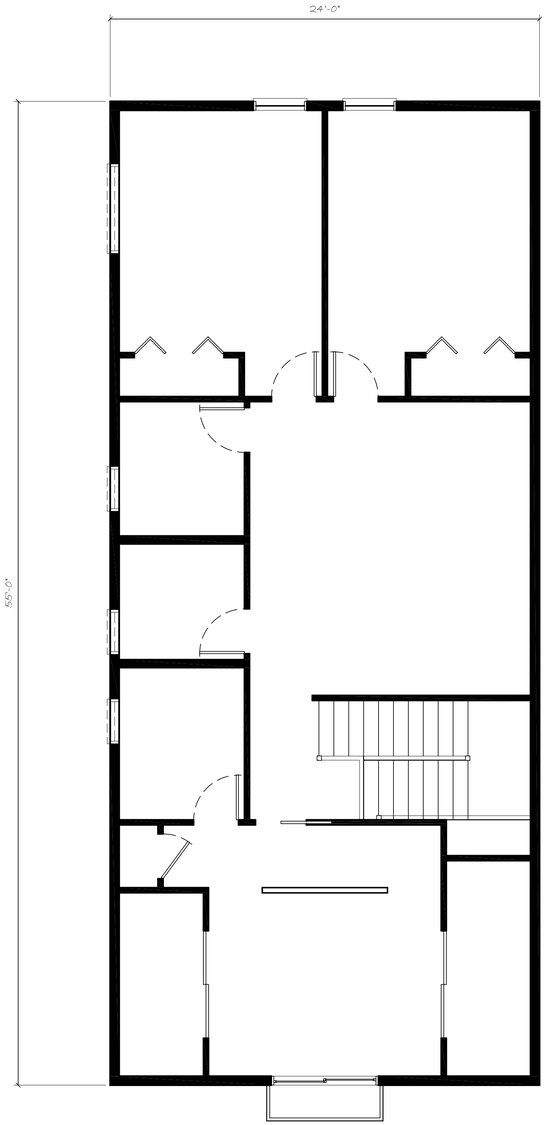
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Bird's Eye View

A0.1

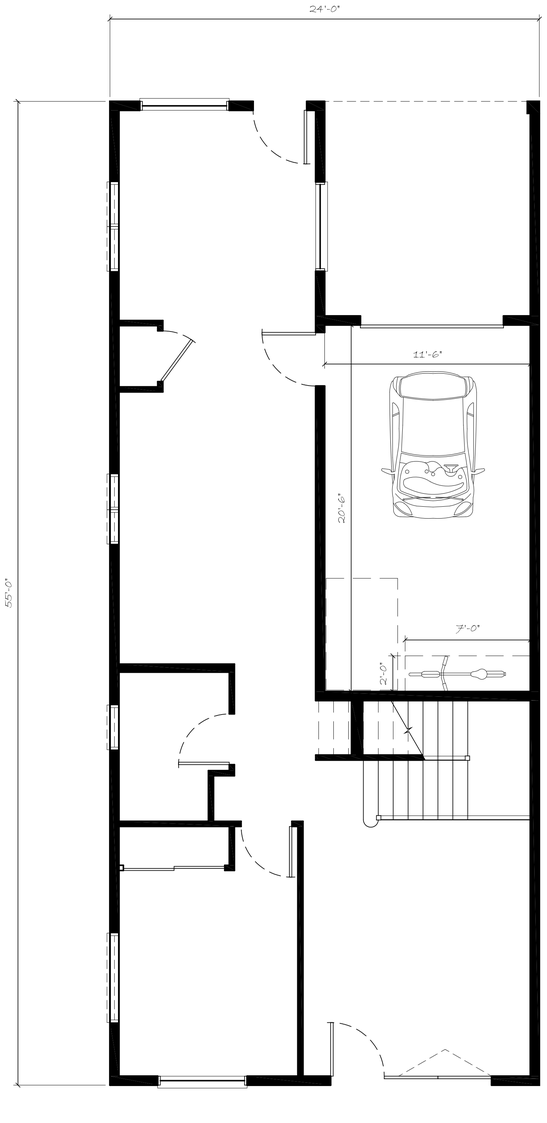
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B Concept Townhouse #1 2nd Flr

1/4" = 1'-0"





A Concept Townhouse #1 1st Flr

1/4" = 1'-0"



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Fort Missoula Commons
Townhome / Multifamily Building 1 & 2

3255 LT Moss Rd.
Missoula Montana

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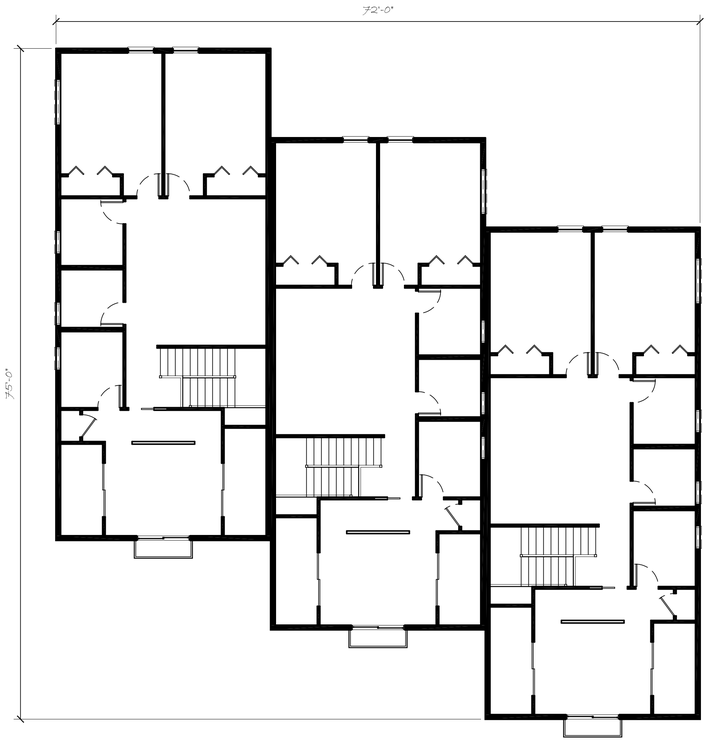
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Residential Unit #1 & 2 Plans

A2.0

HPC App

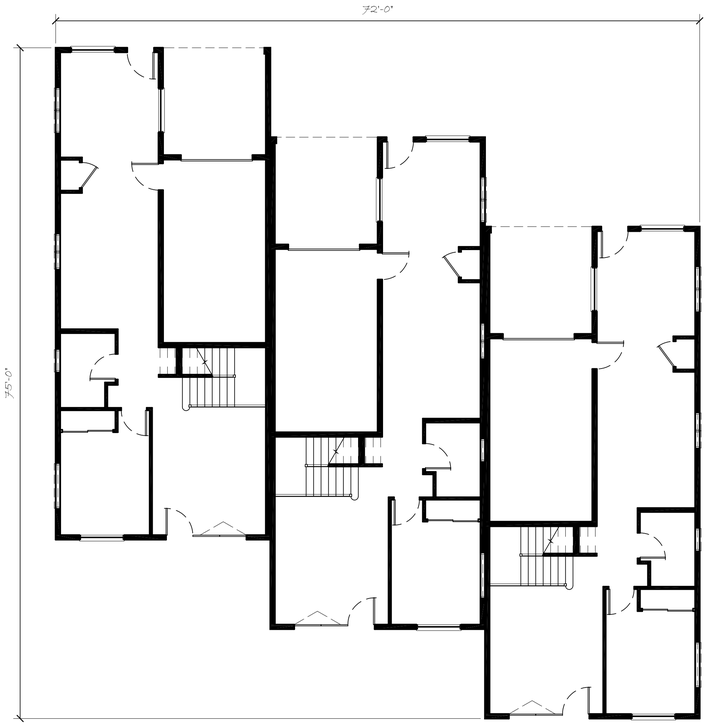
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2 Residential Unit #1 &#2 Upper Plan

1/8" = 1'-0"

Plan North



1 Residential Unit #1 &2l Lower Plan

1/8" = 1'-0"

Plan North

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Conceptual Townhouse Overall

A2.1

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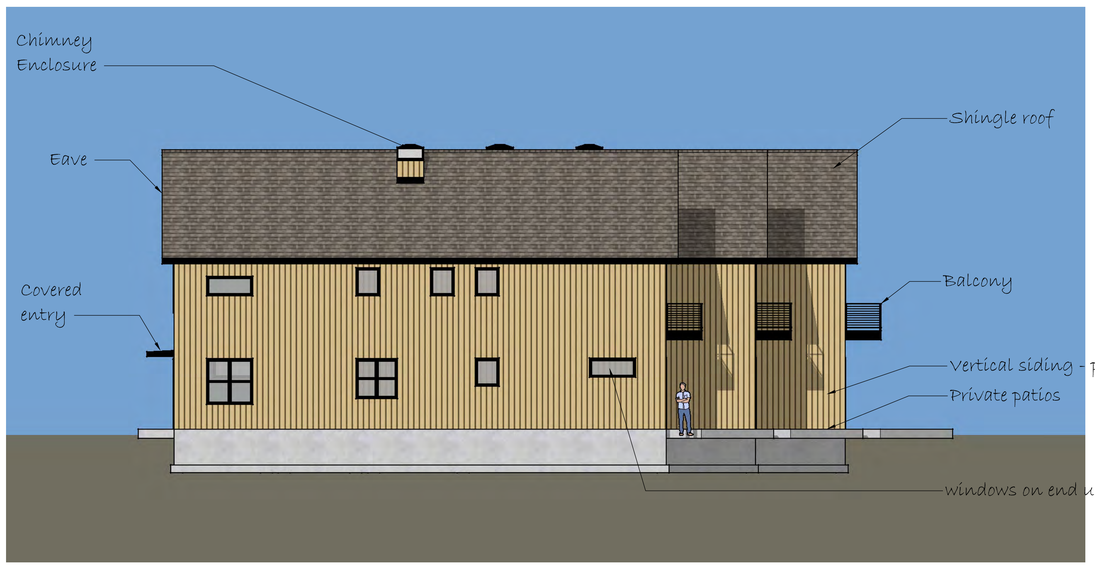
20.40.090.H.1 - The Front Facade has 12% glazing so the proportions of the windows preserve the Historic Old Post Hospital character and verticality.

20.40.090 - Multi-dwelling Building
20.40.090.E.4 - A, E & F are met



A Front (North) Elevation

1/8"= 1'-0"



B West Elevation

1/8" = 1'-0"



C Front View

N.T.S.

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Elevations

A3.0

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1 Rear (South) Elevation

1/8"= 1'-0"



2 East Elevation

1/8"= 1'-0"



3 River View

N.T.S.

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Elevations

A3.1

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Residential Building #3

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Townhome / Multifamily Bldg 3 Cover Sheet

A0.0

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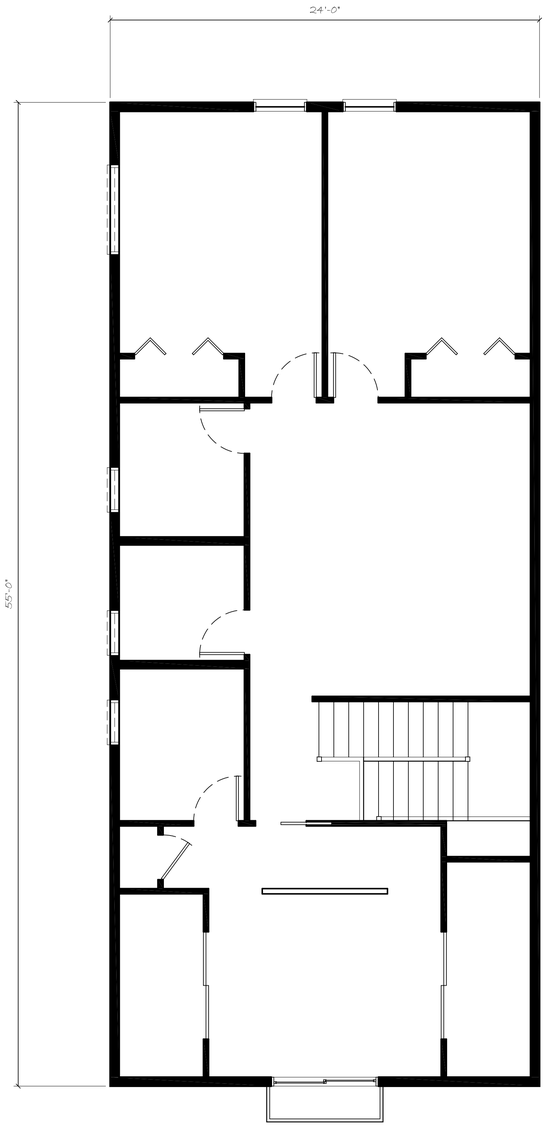
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Bird's Eye View

A0.1

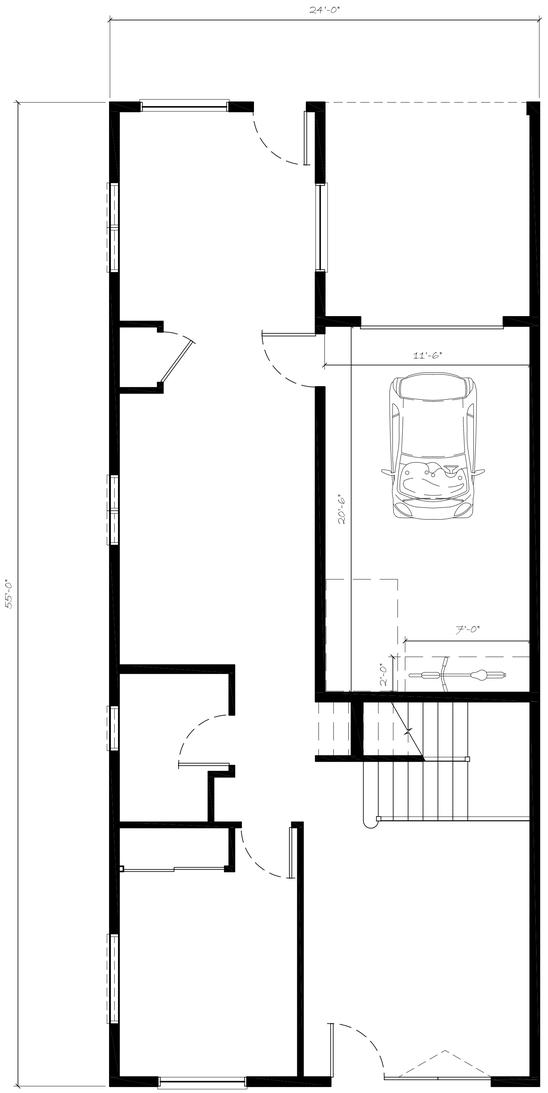
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B Concept Townhouse #1 2nd Flr

1/4" = 1'-0"



A Concept Townhouse #1 1st Flr

1/4" = 1'-0"



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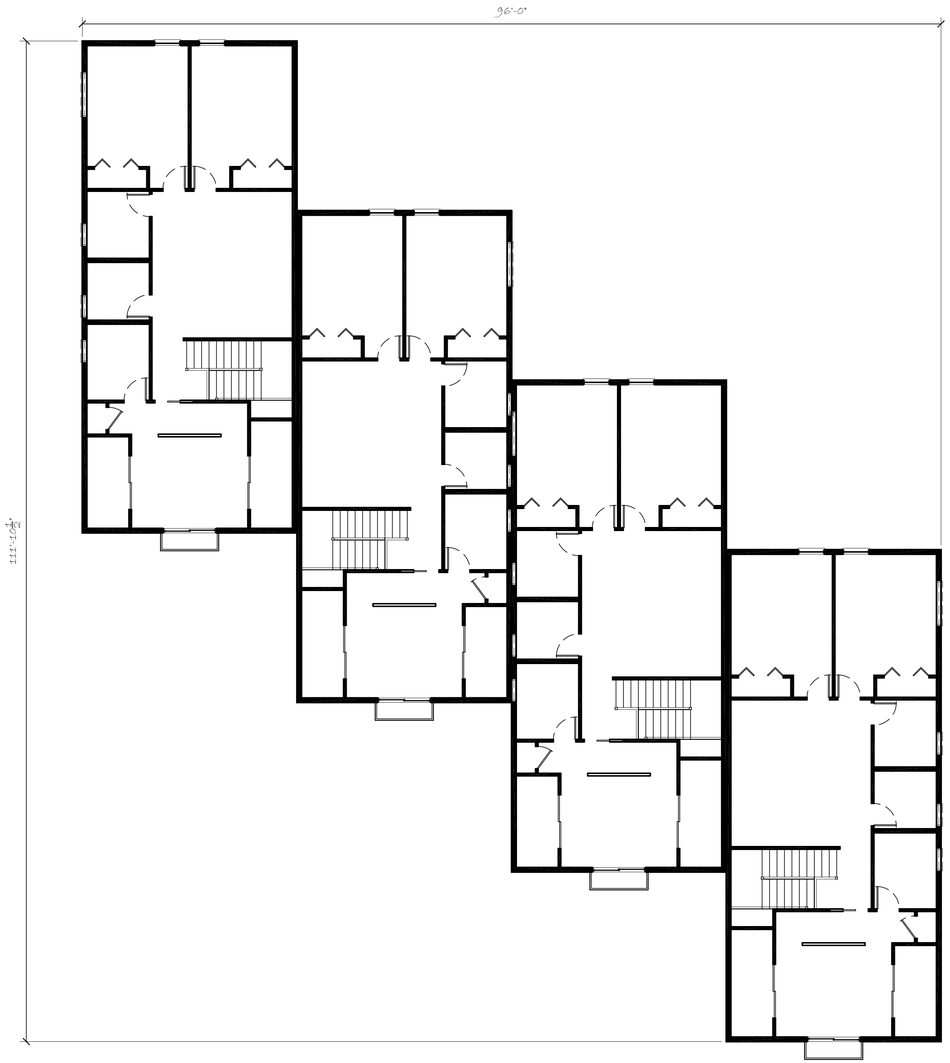
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Residential Unit #3 Plans

A2.0

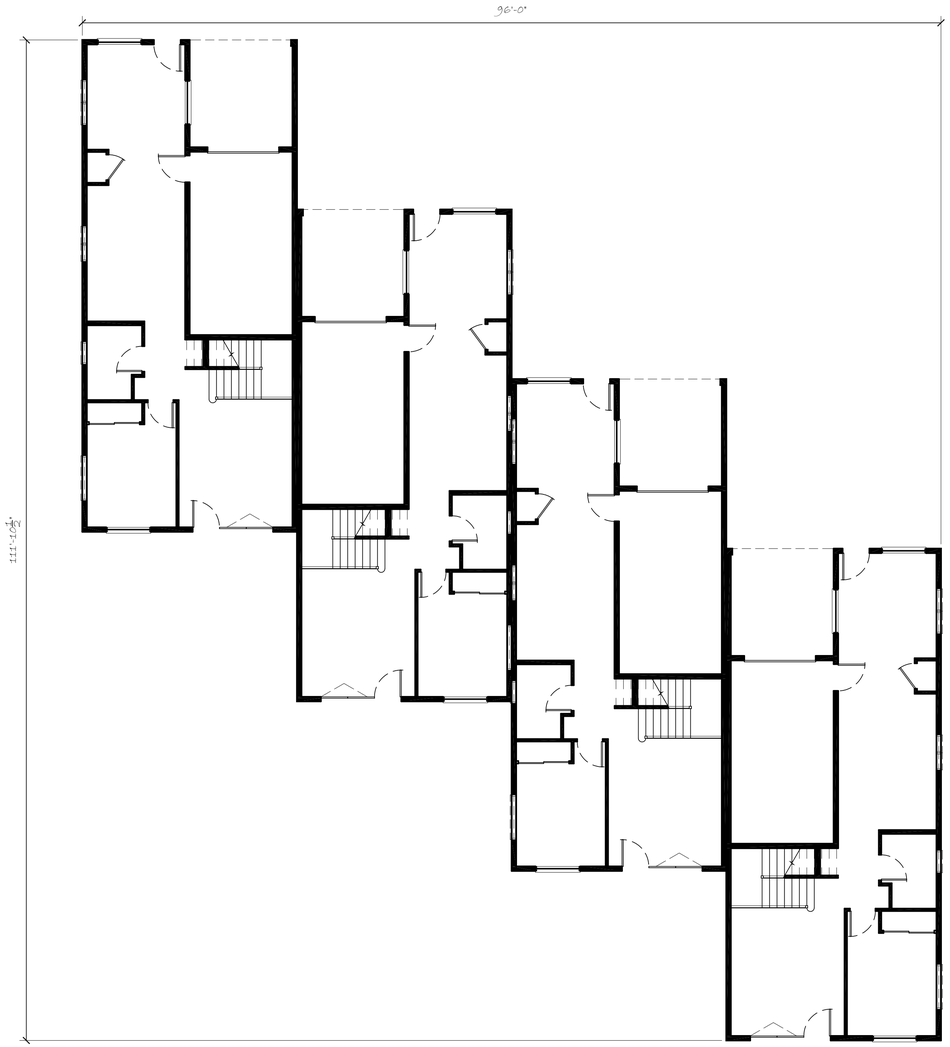
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2 Residential Unit #3 Upper Plan
1/8" = 1'-0"

Plan North



1 Residential Unit #3 Lower Plan
1/8" = 1'-0"

Plan North

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Residental Unit #3 Overall

A2.1

HPC App

20.40.090.H.1 - The Front Facade has 12% glazing so the proportions of the windows preserve the Historic Old Post Hospital character and verticality.

20.40.090 - Multi-dwelling Building
20.40.090.E.4 - A, E & F are met



A Front (North) Elevation

1/8"= 1'-0"



B West Elevation

1/8" = 1'-0"



C Front View

N.T.S.

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Elevations

A3.0

HPC App

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1 Rear (South) Elevation

1/8"= 1'-0"



2 East Elevation

1/8"= 1'-0"



3 River View

N.T.S.

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Elevations

A3.1

HPC App

Fort Missoula Commons
Residential Building #4

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Townhome #4

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Townhome / Multifamily Bldg 4 Cover Sheet

A0.0

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Bird's Eye View

A0.1

HPC App

B Concept Townhouse #4 2nd Flr

1/4" = 1'-0"

A Concept Townhouse #4 1st Flr

1/4" = 1'-0"

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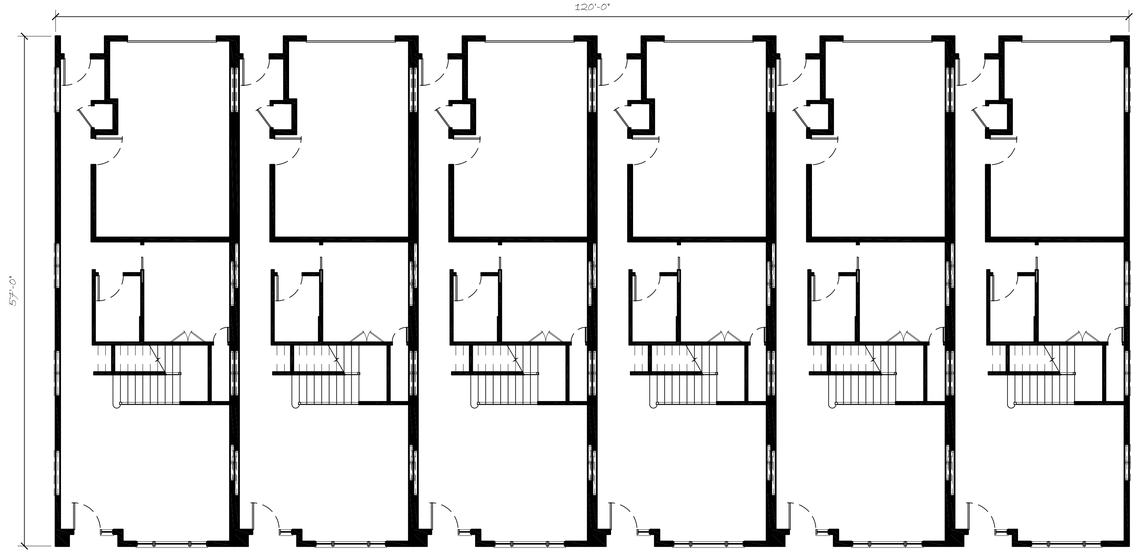
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Residential Unit #4 Plans

A2.0

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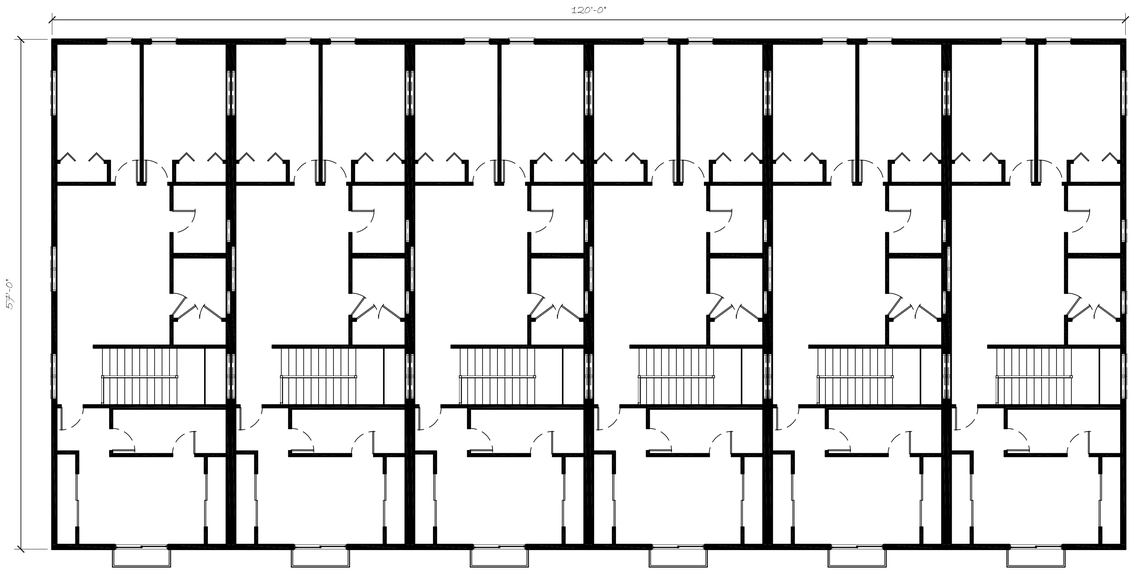
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1 Residential Unit #4 Lower Plan

1/8" = 1'-0"

Plan North



2 Residential Unit #4 Upper Plan

1/8" = 1'-0"

Plan North

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Residental Unit #4 Overall

A2.1

HPC App

The Front Facade has 22% glazing

20.40.090 - Multi-dwelling Building
20.40.090.E.4 - A, E & F are met



1 Front (West) Elevation

1/8"= 1'-0"



2 South Elevation

1/8" = 1'-0"



3 Front View

N.T.S.

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Elevations

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1 Rear (East) Elevation

1/8"= 1'-0"



2 North Elevation

1/8"= 1'-0"



3 Back View

N.T.S.

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Elevations

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