

**Draft
Environmental Site Assessment
Phase I Gravesite Expansion
Construction Project
Fort Logan National Cemetery
Denver, Colorado**



**U.S. Department of Veterans Affairs
Office of Construction and Facilities Management**



Table of Contents

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION	1-1
1.1 Background	1-1
1.2 Purpose and Need	1-2
1.3 Federal Decision To Be Made	1-3
1.4 Agency and Native American Tribal Coordination	1-3
1.5 Resources Eliminated From Further Analysis	1-4
2.0 Description of Proposed Action and Alternatives	2-1
2.1 Introduction	2-1
2.2 Development of Alternatives	2-1
2.2.1 Alternatives Eliminated From Further Consideration	2-1
2.3 Alternatives Retained for Detailed Analysis	2-1
2.3.1 Proposed Action	2-1
2.3.2 No-Action Alternative	2-7
2.4 Comparison of the Potential Effects of the Analysis	2-7
3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	3-1
3.1 Criteria of Analysis of Impacts	3-1
3.2 Significance Criteria	3-1
3.3 Air Quality	3-2
3.3.1 Effects of the Proposed Action	3-4
3.3.2 Effects of the No-Action Alternative	3-6
3.4 Noise	3-6
3.4.1 Effects of the Proposed Action	3-6
3.4.2 Effects of the No-Action Alternative	3-7
3.5 Geology, Topography, and Soils	3-8
3.5.1 Effects of the Proposed Action	3-8
3.5.2 Effects of the No-Action Alternative	3-8
3.6 Hydrology and Water Quality	3-9
3.6.1 Effects of the Proposed Action	3-9
3.6.2 Effects of the No-Action Alternative	3-10
3.7 Wildlife and Habitat	3-11
3.7.1 Effects of the Proposed Action	3-12
3.7.2 Effects of the No-Action Alternative	3-14
3.8 Floodplains and Wetlands	3-14
3.8.1 Effects of the Proposed Action	3-18
3.8.2 Effects of the No-Action Alternative	3-19
3.9 Cultural Resources	3-19
3.9.1 Effects of the Proposed Action	3-20
3.9.2 Effects of the No-Action Alternative	3-21
3.10 Cumulative Effects	3-21
3.11 Potential for Generating Substantial Controversy	3-21

4.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT 4-1

5.0 MITIGATION 5-1

6.0 CONCLUSIONS 6-1

7.0 LIST OF PREPARERS 7-1

8.0 REFERENCES 8-1

9.0 LIST OF ACROYMNS AND ABBREVIATIONS 9-1

Tables

Table 2- 1 Comparison of the Potential Effects of the Analyzed Alternatives 2-7

Table 3- 1 National Ambient Air Quality Standards 3-3

Table 3- 2 Build Alternative Estimated Construction Emissions - Annually 3-5

Table 3- 3 Estimated Rifle Salute Noise Levels at Varying Distances 3-7

Table 3- 4 USFWS and Species Listed for Project Area 3-11

Figures

Figure 2-1 Proposed Action 2-2

Figure 2-2 Present Casket Burial 2-3

Figure 2-3 Columbarium Wall within Existing Cemetery 2-5

Figure 2-4 Drainage and Channel Improvements 2-6

Figure 3-1 Aquatic Features Delineated 3-16

Figure 3-2 Floodplain Map (Panel 0800460193H, Effective 9/4/2020) 3-17

Appendices

A Public Involvement

- Notice of Intent Letters and Responses
- Consultation Request and Responses
- Draft EA Notice of Availability
- Comments Received

B Previous Studies and IPAC

- Waters of the United States Delineation Report
- Cultural Resources Survey
- IPAC Report

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The Department of Veterans Affairs (VA) proposes to construct and operate additional burial sites at the existing Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado. This Environmental Assessment (EA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with this Proposed Action.

National Environmental Policy Act (NEPA) of 1969, as amended, requires federal agencies to consider environmental consequences in their decision-making process. The President's Council on Environmental Quality (CEQ) has issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required environmental impact analysis. The intent of NEPA is to protect, restore, or enhance the environment through a well-informed decision making process. The CEQ was established under NEPA to implement and oversee federal policy in this process. To this end, the CEQ issued the Regulations for Implementing the Procedural Provisions of NEPA. The CEQ regulations declare that an EA serves to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI);
- Aid in an agency's compliance with NEPA when an EIS is not necessary; and
- Facilitate preparation of an EIS when necessary.

The VA accomplishes adherence to this act through 38 Code of Federal Regulations (CFR) Part 26 (Environmental Effects of the Department of Veterans Affairs Actions) and VA's *NEPA Interim Guidance for Projects* (2010), and *VA NEPA Implementation, Directive 0067* (2013). These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. This EA has been prepared in accordance with the regulations and guidance documents.

This section of the EA provides introductory and background information for the Proposed Action and its associated NEPA analysis, including a statement of purpose and need; the federal decision to be made; regulatory agency and tribal coordination, consultation, and input; and applicable federal, state, and local regulations. **Section 2** includes a description of the Proposed Action and alternatives considered, including those alternatives eliminated from further analysis.

1.1 Background

The United States (US) Department of Veterans Affairs is responsible for providing programs that benefit veterans and their families. The VA provides health care (including rehabilitation and counseling); burials; and a variety of benefits including education, home loans, and pensions. The Veterans Bureau was established in 1921, the bureau consolidated the Veterans Bureau, the Bureau of Pensions of the Interior Department, and the National Home for Disabled Volunteer Soldiers. The Veterans Bureau provided insurance for service personnel, disability compensation,

and medical care. In 1930, Executive Order (EO) 5398 was signed and the Veterans Bureau was designated as the Veterans Administration, at which time the National Homes and Pension Bureau was transferred to the Veterans Administration. In 1988, the Veterans Administration was raised to a cabinet-level executive department and the Veterans Administration was renamed the Department of Veterans Affairs, the VA.

On 17 July 1862, the US government purchased cemetery grounds to be used as national cemeteries “for soldiers who shall have died in the service of their country”; creating the National Cemetery System. The US government established 14 cemeteries. By 1870, 73 national cemeteries had been established. In 1930 new national cemeteries were established to service those who were living in major metropolitan areas, and not near a battle field. In 1973, 82 national cemeteries were transferred from the Department of the Army to the Veterans Administration; creating a total of 103 cemeteries under the National Cemetery System. In 1998, the National Cemetery System was renamed the National Cemetery Administration (NCA). As of today, there are 150 national cemeteries and the VA administers 153 cemeteries, two of these cemeteries are maintained by the Department of the Army (Arlington and US Soldiers the Airman’s Home National Cemetery), and 14 are maintained by the Department of the Interior (cemeteries that are located within National Parks). To date, more than 21,400 acres of land have been designated for use as national cemeteries (US Department of Veterans Affairs 2018).

In 1950, Fort Logan National Cemetery (FLNC) was established on the western 160 acres of the former Fort Logan Military Reservation. Fort Logan Military Reservation was established in the late 1880s and closed in 1946. In 1946, the reservation was used by the VA as a temporary health care facility for Veterans until the VA hospital was constructed and open in 1960s. FLNC was later expanded to 214 acres. In 2019, the FLNC was again expanded by the acquisition of 49.4 acres.

FLNC provides National Cemetery burial benefits to Veterans and their families in the Denver area and is operated by the VA National Cemetery Administration (NCA). VA estimates approximately four to six years of remaining burial capacity, excluding cremains, on existing FLNC land before additional gravesite capacity for interments is needed to be able to continue providing National Cemetery burial benefits to the regional Veteran community (Denver Channel 2016).

1.2 Purpose and Need

The mission of the NCA is to honor Veterans and their eligible family members “with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation.” The mission is accomplished by providing burial space for Veterans and their eligible family members, maintaining the cemeteries as national shrines in honor and memory of those entombed or memorialized at the cemetery, mark Veterans graves with a government furnished markers and to provide Presidential Memorial Certificates, and administer grants for establishing or expanding state and tribal government veteran cemeteries.

The purpose of the Proposed Action is to expand burial capacity to include traditional inground burials, in-ground cremains, columbarium niches, and support burial requests for eligible Veterans, family members, and staff at the FLNC.

The Proposed Action is needed to provide accessible interment services to Veterans and their families. The existing infrastructure, crypts, and columbariums cannot support burial requests for

eligible individuals to support the needs of Veterans, family members, and staff. Projections anticipate that burial capacity will be depleted by 2027 (cremains and memorials) to 2028 (full casket crypts).

1.3 Federal Decision To Be Made

The VA is the federal decision-maker concerning this Proposed Action and controls the federal funds that would be used for its implementation, this is a federal Proposed Action. The purpose of this EA is to inform decision-makers of the potential environmental effects of the Proposed Action and alternatives prior to making a decision to move forward with any action. In this manner, decision-makers can make a fully informed decision, aware of the potential environmental effects of their Proposed Action. Overall, the purpose of this EA is to:

- Document the NEPA process;
- Inform decision-makers of the possible environmental effects of the Proposed Action and its considered alternatives, as well as methods to reduce these effects;
- Allow for regulatory agency and tribal input into the decision-making process; and
- Allow for informed decision-making by the federal government.

This decision-making includes identifying the actions that the federal government will commit to undertake to minimize environmental effects, as required under the NEPA, CEQ Regulations, 38 CFR Part 26, and *VA NEPA Implementation, Directive 0067*.

The decision to be made is whether, having taken potential physical, environmental, cultural, and socioeconomic effects into account, VA should implement the Proposed Action and, as appropriate, carry out mitigation measures to reduce effects on resources. Based upon the analysis, no potentially significant adverse impacts have been identified. VA will ultimately decide if the action is funded and constructed.

VA, as the federal proponent of the Proposed Action, will document their decision in a Finding of No Significant Impact (FONSI), if appropriate. The VA will carefully consider comments received from regulatory agencies and tribes in this decision-making process.

1.4 Agency and Native American Tribal Coordination

Federal, state, and local agencies with jurisdiction that could be affected by the proposed or alternative actions have been notified and consulted. A complete listing of the agencies consulted may be found in Chapter 4. The scoping letters and associated responses, as well as the Draft EA Coordination letters and responses are presented in Appendix A. This coordination fulfills EO 12372, *Intergovernmental Review of Federal Programs* (superseded by EO 12416 and subsequently supplemented by EO 13132), which require federal agencies to cooperate with and consider federal, state, and local views in implementing a proposal.

Federal agencies are required to consult with federally recognized Native American tribes in accordance with the NEPA, the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and EO 13175, *Consultation and Coordination with Indian Tribal Governments*, 6 November 2000. As part of this NEPA process, VA consulted with six federally recognized tribes (Cheyenne and Arapaho Tribes of Oklahoma; Apache Tribe of

Oklahoma; Arapaho Tribe of the Wind River Reservation, Wyoming; Fort Belknap Indian Community of the Fort Belknap Reservation of Montana; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; and the Comanche Nation, Oklahoma) that are associated with lands within Denver County, Colorado, in accordance with applicable regulations.

1.5 Resources Eliminated From Further Analysis

Per 40 CFR 1501.7(a)(3) subject matter experts can “identify and eliminate from detailed study the issues which are not significant, or which have been covered by prior environmental review (40 CFR Part 1506.3), narrowing the discussion of these issues in the statement [EA] to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.” These resources that are anticipated to not have a significant impact and have been eliminated from further study in this document and the rationale for eliminating them are discussed below.

Aesthetics: Buildings, roads, columbariums, and burial areas associated with Phase I will be designed, constructed, and operated in accordance with NCA Facility Design Guide Criteria, VA Program Guide PG 18-15, H-18-8 Seismic Design Requirements, and VA Signage Design Guide Chapter 12 National Cemetery Signs, and will mirror the existing design of the FLNC National Cemetery; therefore no impact to aesthetics is anticipated.

Land Use: The site, including the entire property is owned and operated by the VA and is designated for use as cemetery. The site, is currently zoned as CMP-H2, Special Campus, Health care. The zoning requires the site to be used for health care with more restrictive standards. The CMP-H2 district is generally adjacent to a single unit, two unit, or row house residential zone district to act as a transition zone by requiring more open space and limiting building height more than in the CMP-H zone. In all other respects, the CMP-H2 is similar to the CMP-H district. Any CMP-H2 District shall be incorporated into the Zone Lot plan for the adjacent CMP-H District. As a Federal agency, VA is not subject to local zoning regulations. Future use of the Site as a cemetery would be compatible with the current surrounding land uses, and consistent with the northerly adjacent FLNC.

Socioeconomics: The Proposed Action is anticipated to have a minor, short-term, temporary positive impact on the local economy as a result of construction activities within the area. The temporary positive impact should be caused by incidental spending by construction workers and the purchase of construction materials. No adverse impacts to socioeconomic resources would be expected.

Community Services: Additional community services, including police, fire, and medical, are not anticipated to be needed during the construction and upon completion of the Proposed Action. The area is currently serviced by these agencies. No adverse impacts to these services or to the site from these services are anticipated.

Solid and Hazardous Waste: The construction activities include ground disturbance associated with the pond, gravesites, new administration facilities, and fencing. Solid wastes that would be generated may include concrete, scrap wire, and packing materials. Excavated soils would be reutilized onsite in accordance with site design specifications as well as stored within the new soil storage areas for use with in cemetery operations. Cemetery operations associated with the

Proposed Action would generate similar amounts of solid waste as current operations. Current and future solid waste generation would be a minor contributor to overall solid waste generation in the area; therefore no adverse impact is anticipated. Additionally, a Phase I and Phase II Environmental Site Assessments were conducted in May and October 2017. The findings of these investigations stated that “Shallow soil at the site contains coal, coal ash and some construction debris. Although no soil impacts in excess of the CDPHE Soil Screening Values were identified, localized area of impacted soil may be present. Soil excavated from the site during cemetery development should be properly managed. Excess soil that cannot be reused on-site, if any, should be characterized prior to off-site disposal” and no further investigation was warranted. Proper soil management will allow for no adverse impacts.

Transportation and Parking: The Proposed Action does not include activities associated with state and local roadways. Additional access (ingress or egress) to the site will not be constructed under this Proposed Action. Short-term impacts on these roadways are anticipated during construction, additional traffic associated with the mobilization/demobilization of equipment and labor and delivering of materials. These impacts are anticipated to be short-term, only occurring during the construction of the additional facilities. With the increase in additional interment space, the potential for an increase in visitors is present; however, it is anticipated that the additional visitors would not congregate at one time; therefore, an increase in traffic to the point to where it is noticeable is not anticipated. No adverse impacts to transportation and parking associated with the Phase I expansion and operation is anticipated.

Utilities: The FLNC will continue operating with to utilize existing utilities currently under contract with the FLNC, including the City of Denver and Xcel Energy. The Proposed Action will require new utility lines to service the new burial areas; however, the new line(s), would utilize existing systems within cemetery. No impact to utilizes are anticipated.

Environmental Justice: There are no low-income or minority communities located within or adjacent to the boundaries of the FLNC; the surrounding area does not include residential areas. Since the Proposed Action would occur within the boundaries of the cemetery no adverse impacts to minorities, or low-income populations are anticipated.

2.0 Description of Proposed Action and Alternatives

2.1 Introduction

This section of the EA provides a brief history of the formulation of alternatives, identification of alternatives eliminated from further consideration, a description of the Proposed Action, and a description of the No Action Alternative. The screening criteria and process developed and applied by VA to hone the number of reasonable alternatives for the Proposed Action are described, providing the reader with an understanding of VA's rationale in ultimately analyzing one Action Alternative, the Proposed Action.

2.2 Development of Alternatives

The NEPA, CEQ Regulations, and 38 CFR Part 26 require a range of reasonable alternatives to be explored rigorously and evaluated objectively. Alternatives that are eliminated from detailed analysis must be identified, along with a brief discussion of the reasons for eliminating them. For the purposes of analysis, an alternative was considered "reasonable" only if it would enable VA to accomplish the primary mission "To care for him who shall have borne the battle, and for his widow, and his orphan" that meets the purpose of and need for the Proposed Action. "Unreasonable" alternatives would not enable VA to meet the purpose or need for the Proposed Action. Based upon the mission, three alternatives were identified.

- No Action Alternative – Utilize existing developed areas within the FLNC and not strengthen the existing dam.
- Proposed Action - Construct additional burial sites, associated roadways, administrative buildings (including maintenance and general administration), infrastructure, and strengthen the existing dam on existing NCA property.
- Alternative - Purchase undeveloped property beyond the boundaries of the NCA property and construct additional burial sites, associated roadways, administrative buildings (including maintenance and general administration), and infrastructure.

2.2.1 Alternatives Eliminated From Further Consideration

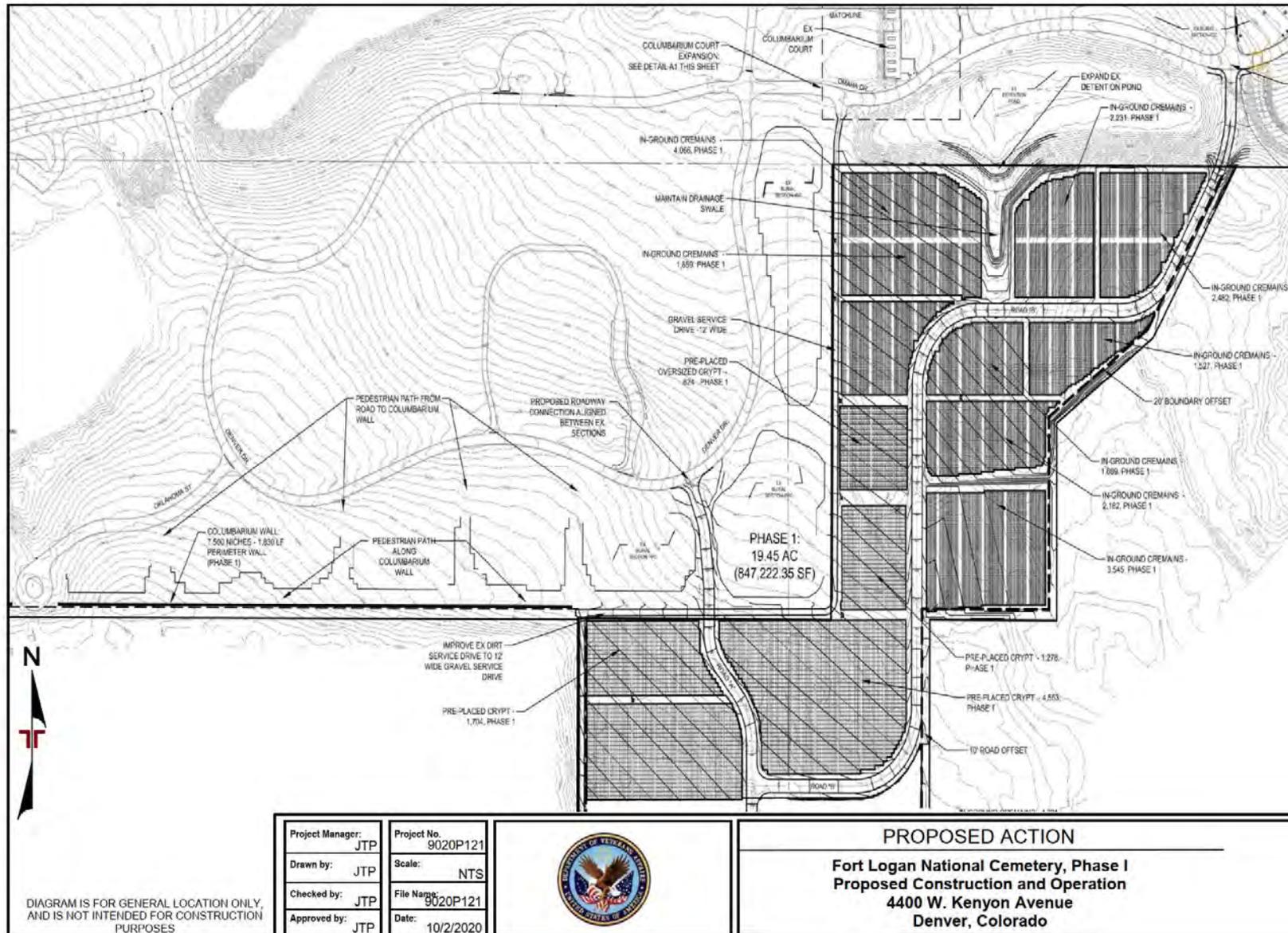
Undeveloped property is available for purchase and development beyond the boundaries of the FLNC; however, to date, approximately 62.24 acres on the FLNC property are undeveloped, therefore the potential purchase and development of additional properties alternative was eliminated.

2.3 Alternatives Retained for Detailed Analysis

2.3.1 Proposed Action

Under the Proposed Action (Phase I), the VA would construct additional burial sites and associated roadways, expand and construct maintenance and administrative structures, see Figure 2-1. It is estimated that the total acreage of temporary and permanent impacts is *19.45 acres*.

Figure 2-1 Proposed Action



The various types of burial sites to be constructed will provide additional inventory of approximately 19,581 in-ground cremains and 8,159 (3'x8') pre-placed crypt full casket gravesites. The various types of burial sites to be constructed are anticipated to provide a 15-year inventory. The burial site will fit the topography of the expansion area and no crypt sections will have to be stepped up to achieve walkable and operational slopes of four percent or less.

The gravesites will have a similar appearance to those that are already existing, see Figures 2-2. Design and general guidance for this proposed action will follow original master plan concepts, RFP guidelines, NCA Facility Design Guide Criteria, VA Program Guide PG 18-15, H-18-8 Seismic Design Requirements, and VA Signage Design Guide Chapter 12 National Cemetery Signs.

Figure 2-2 Present Casket Burial



Two roadways would be constructed. Roadways A and B would link the additional burial sites to the existing roads. Road A would be linked to Denver Road and Road B would be linked to Omaha Road. Each roadway would include two lanes, allowing for two-way traffic, and would be approximately 28 foot in width, an additional ten foot (five feet on each side) would be constructed to allow for street parking for the roadway that circles the burial and cremains area. A minimum of ten feet of turf grasses should be planted adjacent to roadways.

Independent of Phase I construction, under the Proposed Action, spillway improvements would occur as well as construction of a columbarium wall and columbarium court the southern boundary of the existing FLNC. See Figure 2-3 for the columbarium wall and location. There are two embankment dams located in series on the Marston Lake North Drainageway within the FLNC that are owned and operated by the VA. The upper dam impounds Veterans Lake and is located about a quarter mile upstream of the lower dam that impounds Memorial Lake. Both dams provide water for irrigation storage for the FLNC. Under the Proposed Action, Veterans Lake Dam upper dam impoundment the area would be cleared and grubbed, and soils removed, within the 100-year floodplain from Denver Road to Kenyon Avenue. The lower dam, above Marston Lake would

include removal of 65 linear feet of curb and gutter, remove the existing pipe culvert, remove a portion of memorial walk and associated rock walls, and remove 300 linear feet of street, curb/gutter and paving including inlets along Denver Road. Additionally, the spillways/dams associated with both lakes would be brought into compliance with the latest revision to the Colorado Rules and Regulations for Dam Safety and Dam Construction. The Memorial Dam is currently, undersized and not capable of conveying an inflow design flood from a 1,000 year critical storm. Under the Proposed Action, a new spillway would be constructed which would consist of a labyrinth weir with a crest at the existing spillway crest elevation, weir height at 9.5 feet, a spillway channel width of 42.4 feet and include an energy dissipator (hydraulic jump basin with a length of 33.5 feet and 145feet in height). Additionally, the existing inlet gate and operating stem would be replaced and connected to the new culvert crossing to be constructed under Denver Drive (Wheeler 2022a). The Veterans Dam has several large joint separations allowing for internal erosion and the spillway is undersized allowing for dam to almost be overtopped several times over the past fifteen years. The new spillway for Veterans will consist of a labyrinth weir with a crest at the existing spillway crest elevation, weir height at 9.5 feet, a spillway channel width of 45 feet; and include an energy dissipator (hydraulic jump basin with a length of 21.5 feet and 14 feet in height) (Wheeler 2022b). See Figure 2-4.

During construction of the Proposed Action staging areas and stockpiles maybe required and removed upon completion of the construction activities. Areas associated with the construction of burial sites could be cleared of vegetation and regraded to add in the construction of the roadways and the burial sites. Soils removed from the cemetery will either remain on site to be used at a later date or removed from the site. It is assumed that approximately all of the 19.45 acres of the site will be disturbed either by temporary impacts or by clearing activities associated with the construction activities for Phase I.

Figure 2-3 Columbarium Wall within Existing Cemetery

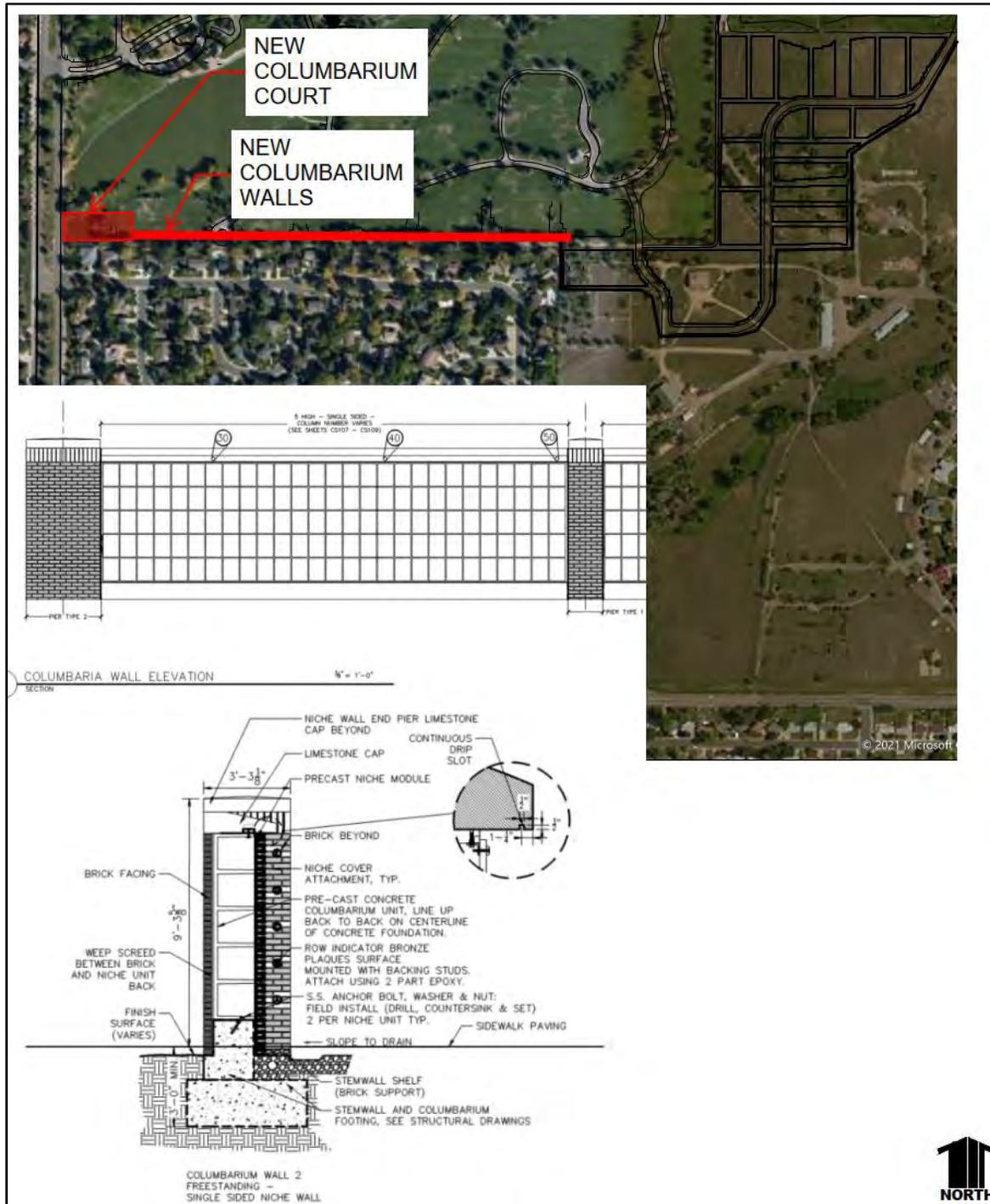
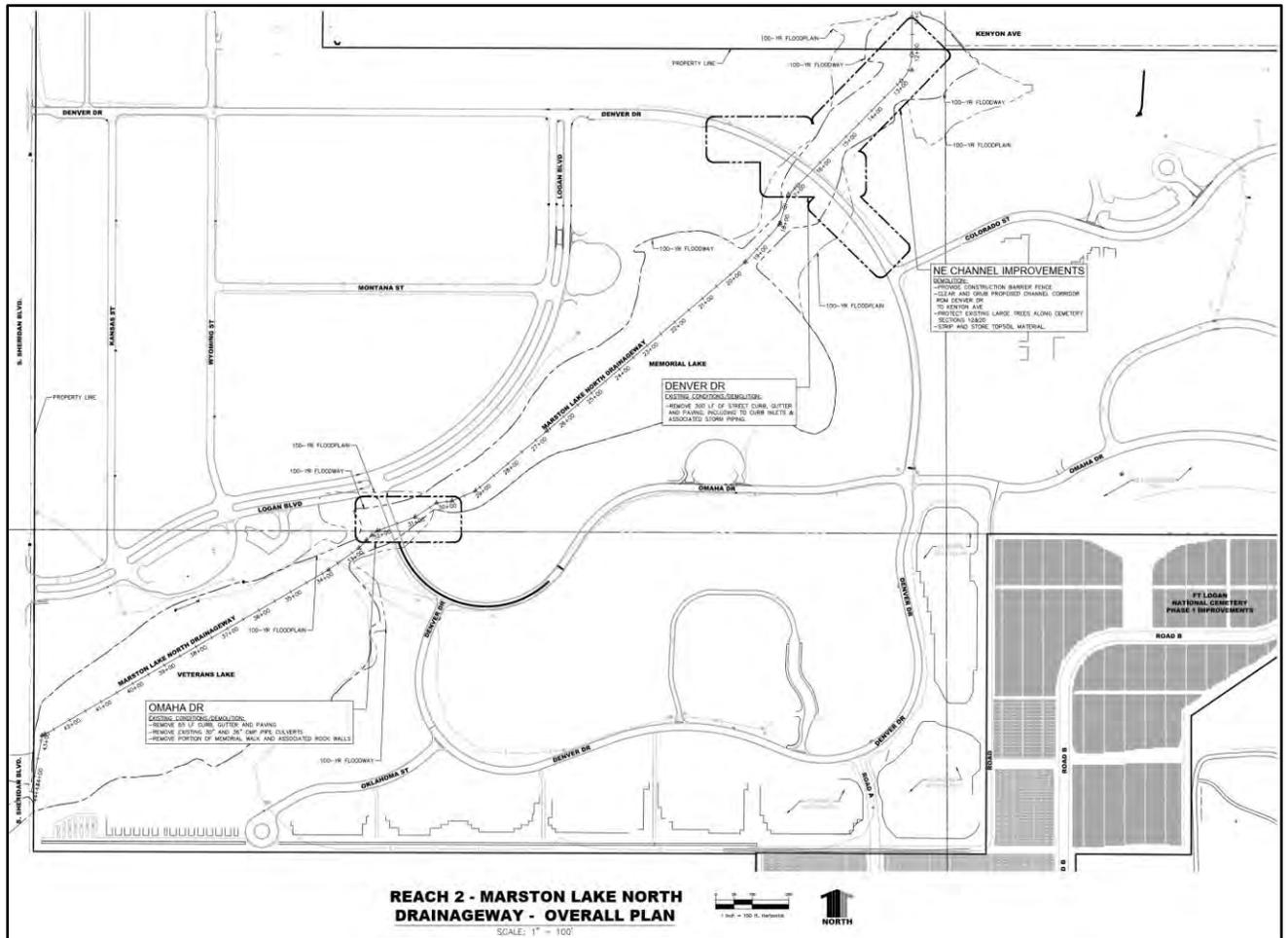


Figure 2-4 Drainage and Channel Improvements



2.3.2 No-Action Alternative

Under the No-Action Alternative, the VA would not construct additional burial sites, roadways leading to the burial areas, and perform spillway improvements. The FLNC would only have the capacity that is available to date and the current dams and associated spillways would remain potentially hazardous. Under the No-Action Alternative, the VA could not meet its mission as well as satisfy the purpose and need for the Proposed Action; however this alternative was retained to provide a comparative baseline, against which to analyze the effects of the Proposed Action, as required under CEQ Regulations (40 CFR Part 1502.14).

2.4 Comparison of the Potential Effects of the Analysis

The existing condition of the environmental resources at the FLNC and its vicinity that are potentially impacted are presented in **Section 3**. **Section 3** also presents an analysis of each alternative's potential effects on the Resource Areas that were analyzed fully. The resource areas that were eliminated from further analysis in Section 1.5 are not discussed within Section 3.

In accordance with CEQ Regulations at 40 CFR Part 1502.14 and VA Directive 0067 of 21 June 2013 *VA NEPA Implementation*, Table 2-1 presents “the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public.”

Table 2- 1 Comparison of the Potential Effects of the Analyzed Alternatives

Resource	Proposed Action	No Alternative
Air Quality	Short-term, direct, minor, and adverse impacts - Due to the increase emissions from heavy equipment used during the construction of Phase I and activities associate with the spillways. These impacts are less than significant.	No change - therefore, no impact
Noise	Short-term, direct, minor, and adverse impacts and long-term, direct, negligible, and adverse impacts – During the construction of Phase I and soil removal associated with the spillway activities noise associated with construction equipment will be present; however the equipment would not generate noise so intense that averaged over a year would produce a 65 dB(A) DNL. Long-term impacts are consistent with the current noise levels within and extending beyond the boundaries of the FLNC since the location of the rifle salutes will remain the same. These impacts are less than significant.	No change - therefore, no impact
Geology, Topography, and Soils	Short-term, direct, minor, and adverse impacts - During the construction of the burial areas, roads, and spillway the designated areas would be cleared, graded, and stabilized, where necessary, exterior slabs-on-grade should be over excavated to a depth of at least three feet, moisture conditioned, and recompacted to grade. These impacts are less than significant.	No change - therefore, no impact
Hydrology and Water Quality	Short-term and long-term direct, minor, and adverse impacts are anticipated on surface water resources; no impact to groundwater – During construction, soils will be disturbed, potentially increasing the opportunity for sediment to leave the construction site and enter surface	No change; therefore, no impact

	waters, potentially increasing sediment loading and decreasing water quality. Additionally during construction, dewatering activities will occur modifying the quantity of water within the lakes as well as the spillways, and potentially water features to the west of the site. Long-term impacts are associated with the increase in impervious cover in connection with the new roads and burial areas should impact the surface water runoff generated during a rain event. These impacts are less than significant.	
Wildlife and Habitat	Short-term and long-term, direct, minor and adverse impact – The construction and operation of the Phase I has the potential to remove nesting vegetation for migratory; however; conducting tree clearing activities outside of nesting season would reduce the impacts to migratory birds to less than significant. Dewatering of lakes will reduce quantity of water within lakes and downstream features limiting the habitat for fish and other aquatic species during the work within the lakes (short-term impact), until water levels return. If increased mortality of these species occurs, dewatering activities will cease reducing the impact to less than significant.	No change; therefore, no impact
Floodplains and Wetlands	Long-term direct and indirect, moderate and beneficial impact to floodplains and an adverse impact to wetlands -With the increase in capacity of the existing floodplains within the spillways, a beneficial impact is anticipated on FLNC as well as upstream and downstream during rain events. Aquatic features identified within the drainage and channel improvement area will be modified. USACE permitting is on-going and mitigation measures may be required. Mitigation measures identified by the USACE will provide no-significant impact to wetlands. No floodplains and wetlands are present within Phase I. These impacts are less than significant.	Long-term, direct, moderate adverse impact to floodplain and no impact to wetlands– Without the removal of sediment that has accumulated overtime, during rain events, the potential for the lakes to exceed their banks remain. Not removing the sediment would continue to decrease the functionality of the floodplain, to retain surface water during rain events. No construction activities would occur and the areas designated as wetlands would not be filled in or modified; therefore no impact. These impacts are less than significant.
Cultural Resources	No adverse impacts – Two eligible historic districts are present within the area of potential effects; however the SHPO has determined that there is no adverse impact on historic structures and therefore associated districts.	No change; therefore, no impact

Notes:

No Change or None – There are no impacts expected

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the baseline, existing conditions of environmental resources (Technical Resource Areas) at and near the FLNC potentially subject to effects from implementation of the Proposed Action. Collectively, this is the Proposed Action's Region of Influence (ROI). The baseline conditions presented in this section are described to the level of detail necessary to support analysis of potential impacts associated with the Proposed Action.

3.1 Criteria of Analysis of Impacts

After each description of the relevant baseline conditions of each considered Technical Resource Area, the potential direct and indirect effects of the Preferred Action and No Action Alternative are analyzed. The significance of an action is also measured in terms of its context and intensity. For the purposes of this analysis, the potential environmental impacts are described in terms of duration, whether they are direct or indirect, the magnitude of the impact, and whether they are adverse or beneficial, as summarized in the following paragraphs:

Short-term or long-term. In general, short-term impacts are those that would occur only with respect to a particular time-lined activity, for a finite period, or only during the time required for construction or installation activities. Long-term impacts are those that are more likely to be persistent and chronic.

Direct or indirect. A direct impact is caused by an action and occurs around the same time at or near the location of the action. An indirect impact is caused by an action and might occur later in time or be farther removed in distance but still be a reasonably foreseeable outcome of the action.

Adverse or beneficial. An adverse impact is one having unfavorable or undesirable outcomes on the man-made or natural environment. A beneficial impact is one having positive outcomes on the man-made or natural environment.

3.2 Significance Criteria

Significance is based on the twin criteria of context and intensity (40CFR 1508.27). Context means the affected environment in which a proposed action would occur; it can be local, regional, national, or all three, depending upon the circumstances. Context means that the significance of an action must be analyzed in several contexts such as society as a whole (human/national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant. Intensity refers to the severity of impact, ranging from negligible, minor, or moderate.

Negligible impacts are generally those that might be perceptible but are at the lower level of detection. A minor impact is slight, but detectable. A moderate impact is readily apparent. Significant impacts are those that, in their context and due to their magnitude (severity), have the potential to meet the thresholds for significance set forth in the CEQ regulations (40 CFR 1508.27)

and, thus, warrant heightened attention and examination for potential means for mitigation to fulfill the policies set forth in NEPA. Significance criteria by resource area are presented below.

Air Quality. The potential for emissions to result in a considerable net increase of any criteria pollutant within the Denver Metro/North Front Range Ozone Non-Attainment Area that is not in compliance with the State Implementation Plan.

Noise: The potential to result in noise levels in exceedance of 65 decibels (dB) within residential hours for a prolonged duration of time, impacting the quality of life of those within the residential areas.

Geology, Topography, and Soils. The potential to alter the geologic or soil composition, structure, or function within the project area.

Hydrology and Water Quality. The potential to result in a violation of applicable water quality and quantity objectives within the Denver Basin Aquifer system and the State of Colorado.

Wildlife and Habitat. The potential to result in a reduction of a wildlife species to a level that meets the definition of threatened, endangered, or candidate species within project area per the ESA or state regulations. This includes long-term or permanent disturbance or displacement of substantial portions of local populations of listed, proposed, or candidate plant or animal species, or species of special concern. Disturbance can include interference with the movement or migration of any resident or migratory wildlife species within the project area.

Floodplains and Wetlands. The potential to result in major disturbances in the natural flow, discharge, and recharge of water resources within the project or adjacent areas. This includes the potential for a substantial loss, degradation, or fragmentation of wetland habitat.

Cultural Resources. The potential to result in ground disturbing/construction activities that may adversely affect known or unidentified cultural resources (archeological and/or historic) within the project area.

3.3 Air Quality

The United States Environmental Protection Agency (USEPA) established primary and secondary National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA), 42 United States Code § 7401 et seq. The CAA also set emission limits for certain air pollutants from specific sources, set new source performance standards based on best demonstrated technologies, and established national emission standards for hazardous air pollutants.

The CAA specifies two sets of standards – primary and secondary – for each regulated air pollutant. Primary standards define levels of air quality necessary to protect public health, including the health of sensitive populations such as people with asthma, children, and the elderly. Secondary standards define levels of air quality necessary to protect against decreased visibility and damage to animals, crops, vegetation, and buildings. Federal air quality standards are currently established for six pollutants (known as criteria pollutants), including carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), sulfur oxides (SO_x), commonly measured as sulfur dioxide [SO₂], lead, particulate matter equal to or less than 10 micrometers in aerodynamic

diameter (PM₁₀) and particulate matter equal to or less than 2.5 micrometers in aerodynamic diameter (PM_{2.5}). Although O₃ is considered a criteria pollutant and is measurable in the atmosphere, it is often not considered as a pollutant when reporting emissions from specific sources, because O₃ is not typically emitted directly from most emissions sources. Ozone is formed in the atmosphere from its precursors – nitrogen oxides (NO_x) and volatile organic compounds (VOCs) – that are directly emitted from various sources. Thus, emissions of NO_x and VOCs are commonly reported instead of O₃. The NAAQS for the six criteria pollutants are shown in Table 3-1.

Table 3- 1 National Ambient Air Quality Standards

Pollutant	Primary/Secondary	Value	Form
Carbon Monoxide 1-hr average 8-hr average	Primary	35 ppm 9 ppm	No to be exceeded more than once per year
Nitrogen Dioxide 1-hr average Annual average	Primary Primary and Secondary	100 ppb 53 ppb	Hourly - 98th percentile of 1-hour daily maximum concentrations, averaged over 3 years Annual Average – Annual Mean
Ozone 8-hr average ^(b)	Primary and Secondary	0.070 ppm	Annual fourth highest maximum 8-hour concentration, averaged over 3 years
Lead	Primary and Secondary	0.15 µg/m ³	Rolling average
Particle Matter ₁₀ 24-hr average	Primary and Secondary	150 µg/m ³	Not to be exceeded more than one per year on average over 3 years
Particle Matter ₅ 24-hr average Annual average Annual average	Primary and Secondary Primary Secondary	35 µg/m ³ 12.0 µg/m ³ 15.0 µg/m ³	98 th Percentile, averaged over 3 years Annual mean, averaged over 3 years Annual mean, averaged over 3 years
Sulfur Dioxide 1-hr average 3-hr average	Primary Secondary	75 ppb 0.5 ppm	99 th Percentile of 1-hr daily maximum concentrations, averaged over 3 years Not to be exceeded more than one per year

Source: USEPA 2019

The USEPA classifies the air quality within an Air Quality Control Region (AQCR) according to whether the region meets federal primary and secondary air quality standards. An AQCR or portion of an AQCR may be classified as attainment, non-attainment, or unclassified with regard to the air quality standards for each of the criteria pollutants. “Attainment” describes a condition in which standards for one or more of the six pollutants are met in an area. The area is considered an attainment area for only those criteria pollutants for which the NAAQS are met. “Nonattainment”

describes a condition in which standards for one or more of the six pollutants are not met in an area. "Unclassified" indicates that air quality in the area cannot be classified and the area is treated as attainment. An area may have all three classifications for different criteria pollutants.

The CAA requires federal actions to conform to any applicable state implementation plan (SIP). USEPA has promulgated regulations implementing this requirement under *40 CFR Part 93*. A SIP must be developed to achieve the NAAQS in non-attainment areas (i.e., areas not currently attaining the NAAQS for any pollutant) or to maintain attainment of the NAAQS in maintenance areas (i.e., areas that were non-attainment areas but are currently attaining that NAAQS). General conformity refers to federal actions other than those conducted according to specified transportation plans (which are subject to the Transportation Conformity Rule). Therefore, the General Conformity rule applies to non-transportation actions in non-attainment or maintenance areas. Such actions must perform a determination of conformity with the SIP if the emissions resulting from the action exceed applicability thresholds specified for each pollutant and classification of nonattainment. Both direct emissions from the action itself and indirect emissions that may occur at a different time or place but are an anticipated consequence of the action must be considered.

Denver County is currently designated as a moderate non-attainment area for 8-hour ozone (2008), and a marginal non-attainment area for 8-Hour Ozone (2015). Denver County is also listed as a maintenance area for carbon monoxide and particulate matter (PM-10). As such, the VA must demonstrate that a proposed action would not cause or contribute to any new violations of the NAAQS, would not interfere with provisions in the SIP, would not increase the frequency or severity of existing violations, or would not delay timely attainment of any standard. The federal agency must provide documentation that the total of direct and indirect emissions from such future actions would be below the conformity determination emission rates that are established in 40 CFR 93.153.

3.3.1 Effects of the Proposed Action

Under the Proposed Action, construction activities would generate minor amounts of fugitive dust (PM₁₀) and gaseous emissions of CO, VOC, NO_x, SO₂, and PM_{2.5} from the combustion of fuel by construction equipment and vehicles. These quantities would be below the Applicability for Conformity as noted in Table 3-1.

The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land worked on and the level of construction activity. The USEPA estimates that uncontrolled fugitive dust emissions from ground-disturbing activities is emitted at a rate of 80 pounds (lbs) of total suspended particulate (TSP) per acre day of disturbance. In a USEPA study of air sampling data at a distance of 164 feet downwind from construction activities, PM₁₀ emissions from various open dust sources were determined based on the ratio of PM₁₀ to TSP sampling data. The average PM₁₀ to TSP ratios for topsoil removal, aggregate hauling, and cut and fill operation are reported as 0.27, 0.23, and 0.22, respectively. Using 0.24 as the average ratio for purposes of this analysis, the emission factor for PM₁₀ dust emissions becomes 19.2 lb per acre per day of disturbance. During construction and soil removal associated with the spillway, the fugitive dust emissions would increase due to the nature of ground disturbance; however, the impact is short-term in duration. The closest receptors are residing within the residential area

immediately adjacent to the southwest corner of Phase I; approximately 20 feet from the western most boundary of Phase I. Additionally, the USEPA estimates that the effects of fugitive dust from construction activities are reduced significantly with an effective watering program. Watering the disturbed area of the construction site twice per day with approximately 3,500 gallons per acre per day reduces TSP emissions as much as 50 percent (USEPA 2009). The effects from fugitive dust last only as long as the duration of construction activity, fall off rapidly with distance from the construction site, and do not result in long-term impacts.

Combustive emissions, which include CO, VOCs, NO_x and SO₂, from construction equipment exhaust were estimated by using USEPA-approved emissions factors for heavy-duty diesel-powered construction along with the emission factors for the estimated types and numbers of equipment expected to be used during construction. The emission estimates are shown in Table 3-2. As with fugitive dust emissions, construction equipment would produce slightly elevated air pollutant concentrations on an annual basis. However, the estimated emissions would not exceed the applicable conformity level.

Table 3- 2 Build Alternative Estimated Construction Emissions - Annually

	CO	VOC	NO _x	SO _x	PM ₁₀
Proposed Action	35.708	5.959	81.287	8.677	5.329
Applicability for Conformity	100	100	100	100	100
Notes: CO = carbon monoxide NO _x = nitrogen oxides PM ₁₀ = particulate matter equal or less than 10 micrometers in diameter SO _x = sulfur oxides tpy = tons per year VOC = volatile organic compound					

There would be a short-term, adverse, direct, and minor impact in air quality due to the increase emissions from heavy equipment used during the construction of Phase I and spillway facilities as well as those used during the operation of the facility. It is assumed that the heavy equipment used at the FLNC would remain unchanged to operate the activities within Phase I; therefore, no impact to air quality during the operation is anticipated.

In addition, since the Proposed Action, does not disturb 25 or more acres of contiguous land, an Air Pollutant Emission Notice for Land Development to the Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division is not required.

Based upon the estimated construction emissions and the assumption that the level of emissions associated with operating the facility will remain consistent, the Proposed Action would not have adverse significant long-term operational impacts on local air quality; therefore, no mitigative actions would be required. However, to mitigate short-term impacts, best management practices (BMPs) should be implemented to reduce emissions during the construction. These BMPs could include:

- The construction contractor will implement the following air quality Best Management Practices (BMPs), to reduce the combustion/engine emissions (CO, VOC, NOx, SO₂) and PM₁₀ emissions during construction.
- Use appropriate dust suppression methods during on-site construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.
- Define and post appropriate speed limits to minimize dust generated by vehicles and equipment on unpaved surfaces.
- Shut off equipment when it is not in use.

Visually monitor all construction activities regularly and particularly during extended periods of dry weather and implement dust control measures in addition to scheduled period when needed.

Under the Proposed Action, impacts to air quality would be short-term, minor, direct, and adverse; but not significant.

3.3.2 Effects of the No-Action Alternative

Under the no action alternative, existing conditions would be maintained, and air quality would not be affected.

3.4 Noise

The Noise Control Act of 1972 (Public Law 92-574) and Quiet Communities Act of 1978 directs federal agencies to comply with applicable federal, state, interstate, and local noise control regulations. USEPA and the U.S. Department of Housing and Urban Development have identified noise levels to protect public health and welfare with an adequate margin of safety. These levels are considered acceptable guidelines for assessing noise conditions in an environmental setting. Noise levels below 65 decibels (dB) are considered to be acceptable in suitable living environments.

The existing noise environment at FLNC is a relatively quiet park setting with no significant noise generation sources. Current noise generating activities at FLNC include noise from the rifle salutes, internment of veterans, and maintenance activities. The noise is considered to be short in duration and occurs only during weekday business hours.

Potential sensitive noise receptors include the residential subdivision located immediately adjacent southwest side of the site. The remaining adjoining properties are the existing cemetery to the north and undeveloped land to the south and east; these areas do not represent sensitive noise receptors.

3.4.1 Effects of the Proposed Action

Construction activities associated with the Proposed Action would temporarily increase noise levels in the project vicinity, including the spillways. Noise associated with the operation of the construction equipment would be limited to the construction period, approximately 12 months. Noise associated with construction activities does not typically generate a predicted noise

exposure of 65 dB(A) DNL or greater because even at extremely high rates of operation, the equipment itself does not generate noise so intense that averaged over a year would produce a 65 dB(A) DNL. The nature of sound is such that the temporary noise effects from the operation of construction equipment are not significant. The short-term, direct, minor, and adverse impacts are not significant.

To minimize increases in noise levels during construction activities, all equipment would be fitted with noise reducing features (e.g., mufflers) and construction activities would be limited to daytime hours (7 a.m. to 9 p.m. in the summer months and 8 a.m. to 6 p.m. during winter months).

Under the operation of Phase I, ceremonial rifle salutes would continue to occur; however, no additional committal shelters are associated with this phase; therefore higher noise levels extending beyond the FLNC are anticipated. Due to the increase of available interment, it is assumed that additional services will be held, and the frequency of rifle salutes will increase. The US Army has estimated the noise levels of rifle salutes, utilizing blank M-16 rounds, at varying distances, these estimates and associated distances are noted within Table 3-3. The potential increase in rifle salutes would occur at three existing committal shelter. The nearest committal shelter to the residential area, Committal Shelter C, is approximately 282 feet (86 meters) from the residential area. Based upon the A-Weighted Exposure Level, at a distance of 80 meters the noise level would be below 65 dB(A); therefore, considered to be acceptable in suitable living environments.

Table 3- 3 Estimated Rifle Salute Noise Levels at Varying Distances.

Distance (meters)	A-Weighted Exposure Level (dBA)	A-Weighted Maximum Level (dBA)
50	67	76
100	61	70
200	54	63
400	40	49
800	32	41
1,000	22	31

US Army 1983.

Additionally, noise would be generated from maintenance activities and visitor traffic occurring within the area. The noise generated from these activities would be similar to current cemetery operations. To ensure operational maintenance noises do not become a nuisance, the maintenance equipment would be maintained in good working order. Additionally, maintenance equipment would be operated during daylight working hours.

The activities and associated noise levels are consistent with the current noise levels within and extending beyond the boundaries of the FLNC; therefore the long-term, direct, negligible, adverse impacts are significant.

3.4.2 Effects of the No-Action Alternative

Under the no action alternative, existing conditions would be maintained, and no additional noise generating activities are anticipated; therefore no impacts to noise are anticipated.

3.5 Geology, Topography, and Soils

No active faults are known extend through the subsurface geology within Phase I or the spill way. The Site is not located in an area where karst conditions and associated sinkholes are known to be present (USGS 2020). Surficial geologic conditions near the site, as mapped by the U.S. Geological Survey (USGS) (Lindvall, 1978), consist primarily of Slocum Alluvium of Pleistocene Age with localized deposits of Piney Creek Alluvium of Holocene Age and artificial fill. The surficial deposits are underlain by the Denver and Arapahoe Formation bedrock unit of Paleocene and upper Cretaceous Age (Terracon 2020a).

A geotechnical investigation for Phase I, was performed in 2020 for Phase I and the spill way. Soils within the Phase I area consist of fill materials, including clay with varying amounts of sand and gravel; native clay; native sand; claystone; and sandstone. Fill materials were present between seven and eight feet below ground surface (bgs). Below the fill between eight and thirteen feet were the natural, undisturbed soils which included native clay; native sand. Bedrock or claystone or sandstone were below the native soils. (Terracon 2020b).

Soils within the spillway are of similar composition; however the depths vary. Depth to fill material range from 9 to 22 ft bgs and bedrock (claystone or sandstone) are encountered between 17 and 26.5 ft bgs (Terracon 2021).

The Phase I area slopes to the northeast, with the highest elevation located at the southwest corner, at approximately 5,445 ft above mean sea level (amsl) and the lowest at 5,400 ft at the northeast corner. Two small circular rises in elevation, of 10 ft, are noted within the north east corner and the north portion of the area, directly south of Omaha Drive. The Memorial Dam spillway as an approximate elevation of 5,390 ft amsl and the Veterans Dam spillway is 5,410 ft amsl (USGS 2019).

3.5.1 Effects of the Proposed Action

During the construction of the burial areas and roads, the areas would be cleared, graded, and stabilized, where necessary, with compacted fill to provide foundations for construction of the structures and roads as needed. The existing fill material should be removed as it could not support structures and stormwater conveyances. For exterior slabs on-grade and any flatwork constructed on the on-site expansive materials will have a moderate to high risk of movement. To mitigate the risk of movement the exterior slabs-on-grade should be over excavated to a depth of at least three feet, moisture conditioned, and recompact to grade. During the activities associated with the spillway improvements, soils would be removed; however, these soils are fill and would be re-used at a location within FLNC or disposed of off-site in an appropriate manner.

The Proposed Action would have short-term, direct, minor adverse impacts effects on geology and soils at the FLNC; however, these impacts would not be significant .

3.5.2 Effects of the No-Action Alternative

Under the No-Action Alternative, the area proposed for the expansion would not be impacted and no construction or improvement activities would take place; therefore, the soils and grade would remain undisturbed, no impacts are anticipated.

3.6 Hydrology and Water Quality

FLNC is located within the South Platte River Watershed. Surface water runoff slopes in the direction of Bear Creek, located approximately 2,800 feet north of the Site. The South Platte River Watershed has a drainage area of about 24,300 square miles and is located in parts of Colorado (79 percent of the basin), Nebraska (15 percent of the basin), and Wyoming (6 percent of the basin). The South Platte River originates in the mountains of central Colorado at the Continental Divide and flows about 450 mi northeast across the Great Plains to its confluence with the North Platte River at North Platte, Nebraska (USGS 2016). Surface water runoff from FLNC as well as the golf course to the west and the residential areas to the west and south flow into Veterans Lake and overflow discharges into Memorial Lake. These surface water bodies then feed into Bear Creek via an un-named tributary.

The FLNC is located within above the Denver aquifer system, specifically the Denver Aquifer. The aquifer system underlies an area of about 7,000 square miles that extends from Greeley south to near Colorado Springs and from the Front Range east to near Limon. The Denver Basin aquifer system is not well connected to other major aquifers in the area. The surficial aquifer along the South Platte River Valley is the only other major aquifer near the Denver Basin. The surficial aquifer associated with the South Platte River Valley directly overlies the Denver Basin aquifer system only along the valley of the South Platte River from Denver to just east of Greeley.

Recharge of the aquifers primarily occurs in the highland areas between stream channels in the topographically higher southern part of the basin, negligible amounts of recharge are derived from precipitation. (USGS 1995). Within Phase I, groundwater was not encountered during the geotechnical investigation; however, the areas associated with the spillway improvements, groundwater was encountered between 3.7 and 26.1 feet bgs at the Memorial Dam and 19.1 and 28.5 ft bgs for Veterans Dam.

3.6.1 Effects of the Proposed Action

During construction approximately 19.45 acres of soils will be disturbed, potentially increasing the opportunity for sediment to leave the construction site and enter surface waters, potentially increasing sediment loading and decreasing water quality. Due to the quantity of soil disturbed, over one acre for Phase I, the proposed action would require authorization under the Colorado Department of Public Health and Environment General Permit Stormwater Discharges Associated with Construction Activity Authorization to Discharge Under the Colorado Discharge Permit System (CDPS), CDR400000. If the spillway improvements exceed one acre of soil disturbance, then authorization under the permit would be required. To obtain authorization under the permit, prior to any ground disturbance, an application for permit coverage through the Colorado Environmental Online Services system must be filled in at least 10 days prior to the commencement of construction activity and a Stormwater Management Plan (SMWP) must be prepared and implemented; minimizing the impact and meeting effluent limitations. Specific control measures are required to be included within the SMWP including:

- Vehicle tracking controls shall either be implemented to minimize vehicle tracking of sediment from disturbed areas

- Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one control measure to minimize sediment in the discharge.
- Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible
- Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.
- Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.
- Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.
- Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

Implementation of the SWMP and associated best management practices (BMP) documented within the SWMP are anticipated to reduce the impacts to less than significant. Additionally, upon completion, all disturbed areas will be covered either with impervious surface or native grasses, removing the potential impact associated with sediment loading.

Prior to removal of the sediment from the lakes, the lakes would be dewatered. Dewatering would occur by impeding the water flowing into the cemetery, dewatering the lakes by continuing to irrigate the existing cemetery to a pre-determined level, and dewatering any groundwater that seeps into the spillway areas. To dewater any groundwater seepage, authorization under the Colorado Discharge Permit System General Permit COG080000 – Discharges from Short-term (< 2 year) Construction Dewatering Activities must be obtained prior to activities.

Short-term and long-term direct, minor, and adverse impacts are anticipated on surface water resources, in association with the construction and operation of the cemetery as well as spillway improvements.

Upon completion of the construction, there will be an increase in impervious cover in connection with the new roads and burial areas should impact the surface water runoff generated during a rain event. The impacts are minimized with the construction of existing drainage system as well as new systems which will be connected with the existing one. In addition, the additional flow would be discharged to surface water and floodplain located immediately to the east of the project area.

Under the proposed action, no additional groundwater is anticipated to be withdrawn, to maintain the vegetated areas, and the increase in impervious cover would not impact the recharge to the aquifer; no impact to groundwater is anticipated.

3.6.2 Effects of the No-Action Alternative

Under the No-Action Alternative, groundwater wells would not be constructed, and the quantity of pervious cover would remain; therefore, there would be no impact to the groundwater or surface water resources.

3.7 Wildlife and Habitat

USFWS has the authority under the Endangered Species Act (ESA) to list and monitor the status of species whose populations are considered imperiled. USFWS regulations that implement the ESA are codified and regularly updated in 50 CFR Part 17. The federal process identifies potential candidates based on biological vulnerability. The vulnerability assessment considers several factors affecting a species within its range and is linked to the best scientific data available to the USFWS. Species listed as endangered or threatened by the USFWS are afforded full protection under the ESA, including the prohibition of indirect take such as the destruction of designated critical habitat.

The USFWS Information for Planning and Conservation (IPaC) website was queried to generate an Official Species List for the proposed project site. The search area for the query consisted of an area approximately 20 acres with current fields and associated structures and vacant/graded land. No critical habitat, refuges or hatcheries were identified through the IPaC species list. Suspect wetlands within the search area were identified, but they will not be impacted by site development. The Official Species List, provided in Appendix B, identified six federally listed threatened or endangered (T&E) species in the search area. These species are listed in the following table.

Table 3- 4 USFWS Species Listed for Project Area

Species Common Name	Species Scientific Name	Status	Species Habitat	Habitat Present
Gray Wolf	<i>Canis lupus</i>	Endangered	Habitat includes require large areas of contiguous habitat that can include forests and mountainous terrain.	No; absence of suitable habitat within or near the study area.
Piping Plover	<i>Charadrius melodus</i>	Threatened	Habitat includes wide, flat, open, sandy beaches with very little grass or other vegetation. Nesting territories often include small creeks or wetlands. Suitable habitat for this species was not observed onsite.	No; absence of suitable habitat within or near the study area.
Whooping Crane	<i>Grus americana</i>	Endangered	Breeds, migrates, winters, and forages in a variety of wetland and other habitats including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural fields. During migration, whooping cranes use a variety of habitats; wetland mosaics appear to be the most suitable. Suitable habitat for this species was not observed onsite.	No; absence of suitable habitat within or near the study area.
Pallid Sturgeon	<i>Scaphirynchus albus</i>	Endangered	Bottom-oriented, large river obligate fish that inhabit	No; absence of suitable habitat within or near the

Species Common Name	Species Scientific Name	Status	Species Habitat	Habitat Present
			floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters. Often associated with sand and fine bottom materials. Suitable habitat for this species was not observed onsite.	study area.
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened	Moist environments including alkaline wetlands, moist meadows, floodplains, flooded river terraces, sub-irrigated or spring-fed abandoned stream channels and valleys, lakeshores, irrigation canals, berms, levees, or irrigated meadows within Colorado, Idaho, Montana, Nebraska, Nevada, Utah, Washington, Wyoming.	No; Ute Ladies'-tresses were not observed during delineation and wetlands delineated were not noted as alkaline.
Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	Threatened	Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.	No; absence of suitable habitat within or near the study area
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	Adults are found in a variety of habitats including native prairies, pastures, open woodlands and savannas, desert scrub, roadsides, and other habitats with abundant nectar plants, including urbanized areas. Although adults may be present year round, they are primarily encountered between March and November, and are most commonly observed in the summer and fall during breeding and migration. Caterpillars are found on various species of the family Asclepiadaceae (occasionally treated as a subfamily of Apocynaceae). Frequently observed between April and September."	No; absence of suitable habitat within or near the study area

3.7.1 Effects of the Proposed Action

Implementation of the Proposed Action would remove the existing vegetation and displace the existing wildlife within the area as well as those species that use the project intermittently or seasonally for nesting. In addition, due to the vegetation present, trees and bushes, migratory birds may be present. To minimize impact to migratory birds that could be nesting in the trees and bushes, USFWS recommends activities requiring vegetation removal or disturbance to be

conducted during times outside the nesting period of March through August. Undergoing this recommendation would reduce the impacts to migratory to less than significant.

The typical terrestrial wildlife species that could be impacted are widely distributed; thus, loss of some individuals and habitat would not measurably impact population abundance or distribution throughout their range. Areas to the south east of the FLNC will remain undisturbed and could provide areas for those species that are disturbed, to relocate. Noise from construction activities, increased traffic, and earth moving would temporarily disturb wildlife near the construction areas. This disturbance is expected to be short-term and minor. The areas to the northeast and south of the site are undeveloped and would provide an area for the displaced wildlife.

To remove the accumulated sediment within Veterans and Memorial Lake, the levels of the lakes would be lowered during irrigation activities to the point to where work could be conducted within the lakes and associated spill ways. The level of water within the lake would not be lowered to the point where the existing fish and other aquatic fauna would be without sufficient water to survive during the proposed action. Dewatering activities would be conducted by closing off the flow of water into the lakes and continuing to utilize the lakes for irrigation. Dewatering activities and construction within the lakes would be conducted during times of year when rain is limited controlling the potential for water to backup into Norgen Lake and associated pond to the west of the site. During the de-watering activities, a qualified wildlife biologist should be present to monitor stress on aquatic species, on-site, and have the authority to stop work and either remove the impacted species from the lake or provided recommendations as to how the construction activities can be modified to reduce the impact. Features downstream of the cemetery, between the cemetery and Bear Creek, receive overland flow Veterans and Memorial Lake during rain events, once the height of the water reaches the current (and future) spillway. During construction activities these features would not receive overflow from the cemetery lakes. The aquatic features between the cemetery and Bear Creek, located within Bear Creek Park, are dependent upon receiving overland flow during rain events to remain wet and have gone through periods of decreasing in size due to available rainfall. It is anticipated that the construction activities within the lakes will be concluded within one year upon commencement, limiting the potential reduction of the quantity of water provided by the lakes. During construction activities, qualified wildlife biologists, will request permission from the City of Lakewood to monitor the water levels within Bear Creek Park and observe the fauna present within the features. Impacts upstream of the cemetery are not anticipated since the aquatic features are anticipated to have the capacity to retain surface runoff that would be discharged into the lakes due to the quantity (including impoundments and drainage features linking each impoundment. If the fauna experience stress associated with water levels, after a rain event, the VA should reach out to the city to discuss how the water levels can be increased during the construction activities.

Since no critical habitat or listed species were observed no impact to threatened or endangered species is anticipated. However potential impacts to migratory birds located within trees located in Phase I and fauna located within the two lakes is present. With short-and long-term mitigation measures present, for both migratory birds and aquatic species, the Proposed Action should have a less than significant, long-term, direct, minor, and adverse impact.

3.7.2 Effects of the No-Action Alternative

Under the no action alternative, existing conditions would be maintained, and no adverse impacts to wildlife or vegetation are anticipated.

3.8 Floodplains and Wetlands

Preliminary Waters of the United States Delineations were performed for the project area, including Phase I and the drainage area located within the existing FLNC. The delineations were performed in accordance with the 1987 U.S. Army Corps of Engineers (USACE) Manual and 2010 Great Plains Regional Supplement. Delineations included a desktop review of U.S. Geologic Survey 7.5-minute topographic maps (USGS maps), USFWS Wetlands Inventory data, U.S. Department of Agriculture (USDA) soil survey data, and aerial photographs to assist in identifying potential WOUS and wetland areas in the study area walking the project area and documenting changes in vegetation, soil, and hydrologic conditions utilizing USACE data forms for the Great Plains Region.

According to the Federal Register (33CFR §328.3(a)), WOTUS may include intrastate rivers and streams, including impoundments and other waters. Since the 2006 Supreme Court decision (*Rapanos v. U.S.*, 547 S. Ct. 715), the USACE and EPA have continued to assert jurisdiction over traditionally navigable waters; non-navigable tributaries of traditionally navigable waters where the tributaries are relatively permanent waters (i.e. streams with perennial or Intermittent Tributary); and wetlands directly abutting such tributaries.

Current USACE guidelines require a significant nexus evaluation for: (1) waterbodies and tributaries that are not relatively permanent waters (i.e. ephemeral), including adjacent wetlands if present; and, (2) wetlands adjacent to, but not directly abutting, a traditionally navigable or relatively permanent water. A significant nexus exists if the aquatic features in question have more than a speculative or insubstantial effect on the chemical, physical, or biological integrity of a traditionally navigable water. Establishment of a significant nexus is necessary to establish jurisdiction as a WOTUS.

Following the Rapanos decision, the USACE and the Environmental Protection Agency (EPA) released a series of guidance documents summarizing the types of features that would typically be considered jurisdictional, features that would be evaluated on a case-by-case basis via significant nexus determinations, and features that are generally not considered jurisdictional even when a significant nexus may exist. The guidance document states that agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow);
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

Only the USACE can make a determination as to whether the aquatic features identified are within their jurisdiction under Section 404 of the Clean Water Act and subject to the regulations associated with discharge, fill, and modification.

The delineations did not identify aquatic features within Phase I; however, aquatic features were identified within the drainage area within the existing cemetery. The aquatic features included four non-wetland waters (channel at the outlet of Veteran's Lake, Veteran's Lake, Memorial Lake, and unnamed pond located along the northern boundary of FLNC) and five wetlands. The five wetlands were located at the base of Veterans Lake (WL-1), along the channel between Denver Drive and Kenyon Avenue (WL-2), and adjacent to the unnamed pond located (WL-3, WL-4, and WL-5) along the northern boundary. WL-1 met all three criteria (hydrophytic vegetation, hydric soils, hydrological/wetland indicators), WL-2 met one criteria (hydrophytic vegetation), and WL-3, WL-4, and WL-5 met two of the criteria (hydrophytic vegetation and hydric soils) as outlined within the USACE Manual. Of the five wetlands, two are potentially jurisdictional; WL-1 and WL-2. WL-1 met all three criteria, along with having an apparent connection (significant nexus) to Veterans Lake and Bear Creek and WL-2 even only meeting one of the criteria but has an apparent connection (significant nexus) to Veterans Lake and Bear Creek and therefore should be considered potentially jurisdictional based under the prevailing guidance documents.

The Phase I area is not located within a floodplain, the area is located within Zone X, an area that has a minimal flood hazard and is higher in elevation than a 100-or 500-year floodplain. Phase I is located within FEMA panel 0800460193H. Spillways are located within the same panel; however, are located within a floodway, Zone AE and located within the Marston Lake North Drainageway. Zone AE are areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods and have known base flood elevations. For the spillway associated with Veterans Lake, the base flood elevation is 5,433, immediately adjacent to the lake, to 5,424 feet, adjacent to Omaha Drive and Memorial Lake spillway ranges from 5,398, immediately adjacent to the lake to 5,383 feet at Denver Drive (FEMA 2019).

Figure 3-1 Aquatic Features Delineated



Figure 3-2 Floodplain Map (Panel 0800460193H, Effective 9/4/2020)



S

3.8.1 Effects of the Proposed Action

Under the Proposed Action, construction and operation activities associated with Phase I would not occur in a floodplain or in areas containing wetlands; however, activities occurring with the existing built out portion of the cemetery would occur within the drainage system/floodplain associated with Memorial and Veterans Lakes as well as within wetlands located to the north of the Memorial spillway. Activities occurring within the existing cemetery have the potential to beneficially impact the floodplain and adversely impact the delineated wetlands.

Under the proposed action, the spillways will be cleared and grubbed, and soils removed; increasing capacity of these floodways. Due to the modification of floodplain, if the improvements result in an increase of the 100-year floodplain limits, the floodway, or base flood elevations in excess of the 2012 Flood Hazard Area Delineation, a Conditional Letter of Map Revision (CLOMR) will need to be completed and reviewed by FEMA. The increase in the floodplain limit should allow additional surface water to be held within the floodways during rain events, decreasing quantity and velocity of water downstream and decreasing the potential for overflow upstream; creating a beneficial long-term direct impact to FLNC and an indirect impact to the Marston Lake North Drainageway. These floodways are not located within the City & County of Denver's jurisdiction; however, since these floodways are located within the Marston Lake North Drainageway, the proposed action has a potential to impact the drainageway comprehensively. If the improvements do extend beyond the limits of FLNC, either a No Rise Scenario analysis and report must be completed and submitted for approval by the City and County of Denver and the Mile High Flood District, or if there is an increase to the floodplain, a CLOMR may be required.

Activities associated with the improvement/modifications to the existing drainage system include removal of sediment from Memorial and Veterans lake as well as improving the flow between the two lakes and off site to the north by re-constructing the existing spill ways and constructing a culvert under Denver Drive. These activities are anticipated to reduce the flooding that occurs within and adjacent to Memorial Dam and its outfall. Reduction in flooding will ensure that visitors will be able to visit those interred near Memorial Lake and reduce the potential for the burial sites to be impacted by standing water. The impacts to potentially jurisdictional waters, associated with this activity, are anticipated to include: 1,965 cubic yards of dredging material removed from Memorial Lake, 2,805 cubic yards dredging material removed Veterans Lake, and 0.17 acres of fill into wetlands (between Memorial and Veterans Lake and north of Memorial Lake outfall). With the potential loss of wetlands, mitigation may be required under authorization of the Nationwide Permit. If mitigation is required, the USACE will inform the VA the ratio as to the quantity of wetlands replaced. An arrangement and documentation of the mitigation (ex: Mitigation Plan) should be provided to the USACE and approved prior to modification of the lakes and/or potentially jurisdictional wetlands.

At the time in which this EA is being prepared, coordination with the USACE including submission of the delineation report for approved jurisdictional determination and a pre-construction notification to authorize discharge activities under a Section 404 Clean Water Act Nationwide Permit 3 (b) - Discharges associated with removal of accumulated sediments and debris in the

vicinity of existing structures, including intake and outfall structures and associated canals is ongoing with the USACE Omaha District, Denver office.

The increase in impervious cover associated with the additional roadways and the modifications to the topography, under Phase I, should increase surface water flow entering into the on-site lakes; however, upon completion of the dredging the lakes are anticipated to have the capacity to store the additional overland flow.

Additionally, as the lakes are dewatered surface flow to the northern portion of the site would cease temporarily due to the lack of flowing surface water. Dewatering would occur through the irrigation of the existing portions of the cemetery. Once the materials have been removed from the lake and the spillways improvements completed, the flow would resume. Upon completion of the spillway improvements, the frequency of flooding is anticipated to be reduced potentially allowing for a more consistent flow to the north.

Upon completion of the Proposed Action, long-term and direct and indirect, moderate and beneficial impact to floodplains are anticipated. Short and long-term and direct, moderate negative impacts to potential waters of the United States are anticipated; however the impacts associated with the lack of flow will be temporary and both short and long-term impacts can be mitigated; therefore these impacts are not significant.

3.8.2 Effects of the No-Action Alternative

Under the no action alternative, existing conditions would be maintained, and the spillways would remain as. During rain events, the potential for the two lakes have the potential to exceed their banks and flood the interment areas surrounding Memorial Lake as well as potentially impede access to burial sites. Under this alternative a long-term, direct, and moderate adverse impact is anticipated to the floodplain since the capacity of the system would remain reduced, decreasing the floodplains functionality. Since no construction would occur within the wetlands, no impact to the wetlands are anticipated.

3.9 Cultural Resources

Cultural resources are prehistoric and historic sites, districts, structures, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. A historic district is an area that “possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development” (NPS 1997).

The nature and potential significance of cultural resources are identified by considering the following definition: historic properties, under 36 CFR Part 800, are defined as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP).” For the purpose of these regulations this term includes artifacts, records, and remains that are related to and located within such properties. The term “eligible for inclusion in the National Register” includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet NRHP-listing criteria.

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data,

pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired. The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018.

A Historic Resources Survey was conducted in September 2021 (Terracon 2021). A reconnaissance-level historic resources survey was conducted for historic-age resources greater than 45-years old located adjacent to the southeast boundary of the FLNC. The structures are located at 4601-5101 West Oxford Avenue and 4102 South Vrain Street and were constructed between 1963–1966. The structures are located within the Pinehurst Estates development and are examples of the post-modern Ranch and Minimal Traditional style residences; but evidence of its original workmanship from Koelbel no longer exist. The structures, have not been greatly altered at their exteriors since original construction; however, when alterations have been undertaken, they appear to be limited to modern windows and fixtures. The survey concluded that the houses as individual properties do not express enough significance to be considered eligible to the NRHP. The Historic Resources Survey was provided to the Office of Archaeology and Historic Preservation for review and concurrence on findings on October 22, 2021. On December 14, 2021 the SHPO responded to the survey and concurred with the stated recommendation that none of the properties are individually eligible for inclusion in the NRHP; however, all eighteen of the structures reviewed contribute to the potentially eligible Pinehurst Estates Historic District and eligible for inclusion in the National Register for Section 106 consultation purposes.

3.9.1 Effects of the Proposed Action

Under the proposed action, the court and associated columbarium would be constructed adjacent to the property boundaries of the eligible Pinehurst Estates Historic District and within the existing FLNC District. To establish impacts, a request for no-adverse impact concurrence was submitted on October 22, 2021 to the SHPO and subsequent calls were held with SHPO staff and NCA staff, on February 17, 2022, and March 30, 2022. A finding of no adverse effect to historic properties including the Fort Logan Historic District and the Pinehurst Estates Historic District in association with the construction and operation of the columbarium court and wall was received on May 25, 2022.

Additionally, the other construction and operation activities within the expansion area of Phase I falls under the Memorandum of Agreement (MOA), dated May 13, 2019, between the NCA and the SHPO regarding the expansion of the FLNC. The proposed project will not alter the boundaries of the eligible NRHP Fort Logan Historic District and will not have any indirect effects on any character-defining features of the Fort Logan Historic District. Additionally the proposed project will not require the demolition of the two contributing resources; therefore no adverse effect is anticipated. The SHPO acknowledged that the expansion activities are classified as activities and boundaries included within the MOA and were adequately addressed in previous consultation and MOA within the letter received on May 25, 2022.

Due to the lack of archaeological resources with integrity and no adverse impact determination from the SHPO on historic structures, no adverse impacts are anticipated.

3.9.2 Effects of the No-Action Alternative

Under the no action alternative, existing conditions would be maintained and, no construction within the FLNC District would occur. No impact is anticipated.

3.10 Cumulative Effects

The consideration of cumulative impacts consists of an assessment of the total effect on a resource, ecosystem, or community from past, present and future actions that have altered the quantity, quality, or context of those resources within a broad geographic scope. The CEQ regulations define cumulative effects as "...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time." (40 CFR 1508.7) The cumulative effects analysis considers the aggregate effects of direct and indirect impacts from federal, nonfederal, public, and private actions on the quality or quantity of a resource.

The intent of the cumulative-effects analysis is to determine the magnitude and significance of cumulative effects, both beneficial and adverse, and to determine the contribution of the proposed action to those aggregate effects.

At the time in which this EA has been prepared, future projects (within five years) located adjacent to the FLNC have yet to be identified. No additional construction is anticipated to the west, due to the fully developed single-family subdivision, nor to the east since the property is utilized by the State of Colorado as well as the Riverside Soccer Club. to the east Additional expansion projects could occur to meet the future needs of the VA community, however, the expansion would occur beyond the five year timeline and these impacts would be similar to those identified within this document.

3.11 Potential for Generating Substantial Controversy

The VA has solicited input from various federal, state, and local government agencies concerning to the Proposed Action. None of these agencies have expressed any concerns with the Proposed Action, at this time. Additionally, upon submission of this Draft EA for public comment, comments received by the public will be incorporated into this document. Given the nature and consistent land use (within existing VA property) of the Proposed Action, it is anticipated that the Proposed Action would not generate substantial controversy.

4.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

As stated in Section 1.5, per 38 CFR Part 26 and the VA's NEPA Interim Guidance for Projects, VA has consulted with federal, state, and local agencies and Native American tribes concerning this Proposed Action. Comments received from all parties have been considered and incorporated within this EA. Communications received during this process are located in **Appendix A**.

Public participation opportunities with respect to the EA, as well as decision making on the Proposed Action, are guided by 38 CFR Part 26. Letters of Intent and Consultation letters were sent to various stakeholders including, but not limited to, the following:

- United States Fish and Wildlife Service
- United States Environmental Protection Agency, Region 8
- United States Army Corps of Engineers – Omaha District
- Apache Tribe of Oklahoma
- Arapaho Tribe of the Wind River Reservation, Wyoming
- Cheyenne and Arapaho Tribes, Oklahoma
- Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Comanche Nation, Oklahoma
- Colorado Department of Natural Resources - Northeast Region
- Colorado Parks and Wildlife
- Colorado Department of Public Health & Environment
- Colorado Department of Public Health & Environment - Hazardous Materials and Waste Management Division
- Colorado Department of Public Health & Environment Air Pollution Control Division
- Colorado Department of Natural Resources - Division of State Lands
- Colorado Department of Natural Resources - Division of Water Conservation
- Colorado Department of Natural Resources - Division of Water Resources
- Colorado Department of Natural Resources - Northeast Region
- Colorado Office of Archaeology and Historic Preservation
- Denver Department of Transportation and Infrastructure
- Denver Community Planning and Development Services
- Denver Department of Environmental Health Environmental Quality
- Friends of Historic Fort Logan

A Public Notice is required. The purpose of the notice is to announce the availability of the Draft EA for public review. The Notice of Availability (NOA) will be published in the Denver Post for two consecutive days. The Draft EA will be available on the NCA website. This section will be updated upon receipt of comments.

The public notice records are included within Appendix A.

5.0 MITIGATION

Mitigation measures include those actions intended to reduce, avoid, or compensate for potential adverse effects to the human or natural environment. Based on the findings of this Draft Final EA, the Proposed Action would result in temporary, minor impacts to air quality and hydrology and water quality, and a long-term, hydrology and water quality. None of the environmental consequences documented in **Section 3** above would result in “significant” adverse impacts to the human environment. However, the VA would implement routine BMPs as necessary, to minimize or avoid adverse environmental impacts from the implementation of the Proposed Action. Mitigation measures for each resource discussed in **Section 3** are noted below.

Air Quality: - BMPs should be implemented to reduce impacts. These BMPs could include:

- The construction contractor will implement the following air quality Best Management Practices (BMPs), to minimize the combustion/engine emissions (CO, VOC, NOx, SO2) and PM10 emissions during construction:
- Use appropriate dust suppression methods during on-site construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, and wheel washers; and suspension of earth-moving activities during times in which dust is visible from moist and dry surfaces due to the wind.
- Maintain an appropriate speed, less than 15 mph, to minimize dust generated by vehicles and equipment on unpaved surfaces (EPA 2009).
- Shut off equipment when it is not in use.
- Cover haul trucks with tarps.

Noise: To minimize increases in noise levels during construction activities, all equipment would be fitted with noise reducing features (e.g., mufflers) and construction activities would be limited to daytime hours (7 a.m. to 9 p.m. in the summer months and 8 a.m. to 6 p.m. during winter months)

Geology, Topography, and Soils: To mitigate the risk of movement the exterior slabs-on-grade should be over excavated to a depth of at least three feet, moisture conditioned, and recompacted to grade.

Hydrology and Water Quality: BMPs associated with the SWMP should be implemented to reduce impacts. These BMPs could include:

- Vehicle tracking controls shall either be implemented to minimize vehicle tracking of sediment from disturbed areas
- Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one control measure to minimize sediment in the discharge.
- Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible
- Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.
- Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.

- Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.
- Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

Additionally BMPs associated with authorization under the Colorado Discharge Permit System General Permit COG080000 should be implemented to reduce impacts during dewatering activities.

Wildlife and Habitat: USFWS recommends activities requiring vegetation removal or disturbance avoid the peak nesting period of March through August to avoid destruction of individuals, nests, or eggs. If project activities must be conducted during this time, we recommend surveying for nests prior to conducting work. If a nest is found, and if possible, the USFWS recommends a buffer of vegetation remain around the nest until the young have fledged or the nest is abandoned. For nesting sites discovered within active or imminent construction areas, nest protection practices would be developed in consultation with VA Office of Construction & Facilities Management environmental staff, on a case-by-case basis in consideration of nest location, bird species and habitat requirements, expected duration of nesting activity, and the location, type, and duration of construction activities. During dewatering activities, aquatic fauna would be monitored on and off-site to ensure that mortality rates of the aquatic species present within the lakes do not rise. If water levels decrease to the point where mortality increases work would stop and construction parameters revised to restore existing systems back to functionality.

Floodplains and Wetlands: At the time in which this EA is being prepared, coordination with the USACE including submission of the delineation report for approved jurisdictional determination and a pre-construction notification to authorize discharge activities a Nationwide Permit. Authorization under the Nationwide Permit may require mitigation for loss of potentially jurisdictional wetlands. Prior to filling or modifications of these aquatic features, a Mitigation Plan would be prepared and approved by the USACE mitigating the loss of the wetlands. Additionally, if water levels decrease to the point to where existing potential wetlands are impacted, work would stop and construction parameters revised to restore existing systems back to functionality.

6.0 CONCLUSIONS

This Draft EA evaluates VA's Proposed Action to expand burial sites, install and construct associated infrastructure within the FLNC, in Denver, Colorado. This EA analyzes the Proposed Action and the No Action Alternative of the Proposed Action. The Proposed Action includes construction of additional burial sites and associated roadways and perform spillway improvements within the existing FLNC property. The activities associated with the Proposed Action would require approximately 19.45 acres of disturbance. The No Action Alternative would not include the expansion of the existing burial sites, roadways leading to the burial areas, and perform spillway improvements. The FLNC would remain unchanged. Evaluation of the alternatives includes analyzing the following resources: air quality; noise, geology, topography, soils; hydrology and water; wildlife and habitat floodplains; and wetlands.

This Draft EA concludes there would be no significant impact or cumulative adverse impact to the human health and the environment associated with either the Proposed Action or No-Action Alternative as long as the VA implements the routine management measures, regulatory compliance measures, BMPs and mitigation measures specified in this EA.

7.0 LIST OF PREPARERS

Name	Agency/Organization	Resource Area
Fernando L. Fernandez, REM	US Department of Veterans Affairs	Environmental Planning
Jennifer Trombley Peters	Terracon	Project Manager and Resource Lead
Jamie Binyon	Terracon	Resource Lead / Biologist
Juan Morlock	Terracon	Resource Lead / Archaeologist
Nicolle Martinez	Terracon	Administrative Assistant
Rachel A. Keane	Terracon	Approved Project Reviewer

8.0 REFERENCES

- Denver Channel 2016. Fort Logan National Cemetery: Some Want Expansion. Published April 28. Available at: <https://www.thedenverchannel.com/news/front-range/denver/lawmakers-want-state-to-sell-15-acres-of-property-for-expansion-of-ft-logan-national-cemetery>
- Federal Emergency Management Agency (FEMA). 2019. FEMA Flood Map Service Center. FEMA Panel Number 0800460193H, effective 09/04/2020. Available at: <https://msc.fema.gov/portal/search?AddressQuery=fort%20logan%2C%20co#searchresultsanchor>
- Federal Highway Administration. 2009. Construction Equipment Noise Levels and Ranges. Highway Construction Noise Handbook Website. November.
- Harris, Cyril M., Johnson, D.L., A.H. Marsh. 1991. Inverse Square Law of Noise Propagation. Handbook of Acoustical Measurements and Noise Control. New York: Columbia University.
- NPS. National Park Service. 1997. National Park Service. *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin 15. Washington, D.C.: US Department of the Interior, National Park Service, Interagency Resources Division.
- Terracon 2021. Historic Resources Survey Report. September 2021.
- Terracon 2020a. Fort Logan National Cemetery Phase I on New Land SD Geotechnical Report. October 15, 2020.
- Terracon 2020b. Fort Logan National Cemetery Phase I Expansion Geotechnical Engineering Report. December 24, 2020.
- US Army Environmental Hygiene Agency. 1983. Data Base for Assessing the Annoyance of the Noise of Small Arms. Aberdeen Proving Ground, MD. June
- US Department of Housing and Urban Development. 2009. Noise Abatement and Control Guidance. Available at: <https://www.hudexchange.info/resource/313/hud-noise-guidebook/>
- US Department of Veterans Affairs. 2018. About VA – History – Department of Veterans Affairs. Available at: https://www.va.gov/about_va/vahistory.asp Updated August 6, 2018.
- US Department of Veterans Affairs. 2019. Environmental Assessment of The Proposed Land Acquisition for the Expansion of the Fort Logan National Cemetery. June 12, 2019
- United States Environmental Protection Agency (USEPA) 2019. NAAQS Table. Available at: <https://www.epa.gov/criteria-air-pollutants/naqs-table> Updated December 20, 2016
- USEPA 2009. Compilation of Air Pollutant Factors, Volume 1: Stationary Point and Area Sources (AP-42), 5th edition, United States Environmental Protection Agency, Ann Arbor, January 1995. Updated 2009
- United States Geologic Survey (USGS) 1995. Ground Water Atlas of the United States Arizona, Colorado, New Mexico, Utah, Ha 730-C
- USGS 2016. Water Quality in the South Platte River Basin, Colorado, Nebraska, and Wyoming, 1992-95. Available at: <https://pubs.usgs.gov/circ/circ1167>
- USGS. 2019. Fort Logan, CO [map]. 1:24,000, 7.5-minute series topographic quadrangle. U.S. Department of the Interior, U.S. Geological Survey, Washington D.C. Electronic map

USGS 2020. US Quaternary Faults. USGS Geologic Hazards Science Center, Golden, CO.

Available at

<https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf> Updated January 12, 2017

Wheeler 2022a. Design Summary Report for Memorial Dam Rehabilitation (aka Fort Logan Dam). Prepared for US Department of Veterans Affairs and Calibre Engineering. January 14, 2022

Wheeler.2022b. Design Summary Report for Veterans Dam Rehabilitation (aka Incinerator Dam). Prepared for US Department of Veterans Affairs and Calibre Engineering. January 14, 2022

9.0 LIST OF ACROYMNS AND ABBREVIATIONS

AQCR	Air Quality Control Region
CAA	Clean Air Act
CDPS	Colorado Discharge Permit System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CLOMR	Conditional Letter of Map Revision
CO	carbon monoxide
EA	Environmental Assessment
EPA	Environmental Protection Agency
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
IPAC	Information, Planning, and Consultation System
NAAQS	National Ambient Air Quality Standards
NCA	National Cemetery Administration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOI	Notice of Intent
O ₃	ozone
PGMA	Priority Groundwater Management Area
SO _x	sulfur oxides
SMWP	Stormwater Management Plan
TSP	total suspended particulate
US	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VA	Veterans Affairs
VOCs	volatile organic compounds

Appendix A
Public Involvement



History Colorado

Mr. William E. Hooker
Historic Architect/Cultural Resources Manager
US Department of Veterans Affairs
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Hooker:

Thank you for your correspondence dated April 27, 2022, which our office received on April 29, 2022, regarding consultation for the aforementioned project under Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC § 306108), and its implementing regulations, 36 CFR Part 800, and the Memorandum of Agreement (MOA) executed for such in 2019.

We disagree with the broad interpretation and application of the MOA suggested in your letter, most notably your use of Stipulation IV, “Future Consultation.” The original definition and intent of the undertaking, and our understanding of the proposed work, was clearly described in the MOA’s first whereas clause: “to acquire and develop land formerly developed as Fort Logan . . . for the purposes of the expanding the VA FLNC.” For this very reason Stipulation IV specifically referred to “the expansion area.” We disagree with your assertion that Stipulation IV allows the Department of Veterans Affairs to use the executed MOA to fulfil Section 106 consultation for work that was not mentioned in prior consultation and will not occur within the defined expansion area. It is inappropriate to use the MOA in this manner, unless the MOA were amended to account for such in accordance with Stipulation IX.

To use the MOA as it currently stands, proposed work must: (1) occur on lands acquired from the Fort Logan medical facility that are included within the expansion area as it was defined in 2019; and (2) any effects caused by that work must only affect properties that are located within the originally defined area of potential effect (APE). In accordance with 36 CFR § 800.5(a), those effects may include indirect effects such as the introduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significant historic features. Any work that does not fall within these parameters must be submitted as a separate undertaking and follow the standard Section 106 four-step process outlined in 36 CFR Part 800, or the MOA must be amended to account for such.

While the MOA does not specifically mention a phased expansion approach, we acknowledge that the language of the agreement does assume the lands included in the expansion area will eventually be developed to become part of the cemetery, and such was considered when the agreement was executed in 2019. Therefore, we acknowledge that the proposed new cemetery



History Colorado

development construction area (“Phase 1”) does in fact fall within the expansion area defined in initial consultation and the executed MOA. Thus, in our opinion the proposed Phase I expansion area within the proposed new chain linked fence has been adequately addressed in prior consultation and the project MOA. We look forward to consulting with your office further upon receipt of documentation intended to fulfill Stipulation III, “Mitigation.”

If your office desires to continue to apply the broad interpretation of the MOA as suggested in your April 27 letter, we request the Advisory Council on Historic Preservation be included in future consultation to resolve the matter in accordance with Stipulation VIII, “Dispute Resolution.”

Regarding the proposed columbarium court and wall, it is our opinion the court and wall *do not* fall under the terms of the MOA as it is currently written. It was for this reason that our office requested in prior consultation that the APE be expanded and the MOA be amended to account for such. With that said, our office has received adequate information to evaluate the effects of the proposed court and wall *as a separate undertaking*.

We have reviewed the information submitted regarding the proposed columbarium court and wall, some of which was not presented for our review until your April 27 letter and submission. It is our opinion the proposed court and wall as described will result in *no adverse effect* to historic properties, including the Fort Logan National Cemetery (5DV.4344) and the Pinehurst Estates Historic District.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR §800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Dawn DiPrince
State Historic Preservation Officer



DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
WASHINGTON DC 20420

27 April 2022

Dawn DiPrince
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

RE: Continuation of Section 106 consultation for the Fort Logan National Cemetery, Phase I
Proposed Construction and Operation Project
City and County of Denver, Colorado, History Colorado No. 78867

Dear Ms. DiPrince,

Thank you for your letter of December 14, 2021 regarding the Phase I Proposed Construction and Operation Project at Fort Logan National Cemetery (FLNC). The National Cemetery Administration (NCA) understands that History Colorado (SHPO) disagrees with NCA's finding of no adverse effect for the proposed improvements associated with Phase I of the referenced undertaking. Consequently, pursuant to Stipulation VIII. (Dispute Resolution) of the [Memorandum of Agreement between the U.S. Department of Veterans Affairs, National Cemetery Administration, and the Colorado Historic Preservation Officer regarding Expansion of the Fort Logan National Cemetery](#) (MOA), executed May 13, 2019, NCA is providing this letter to continue further consultation with the SHPO to resolve the objection. This letter serves as a written follow-up to two consultation calls held with SHPO staff, on February 17, 2022, and March 30, 2022, which also sought to resolve the disagreement. NCA maintains its finding of no adverse effect to historic properties and anticipates that the additional information provided herein is sufficient justification to substantiate its finding.

Project Purpose and Need

[NCA's primary purpose](#) is to provide burial space for Veterans and their families. FLNC is the only national cemetery in the Denver, Colorado metropolitan area. In FLNC, as in other national cemeteries, NCA provides burial options for Veterans, including casketed burials in crypt gravesites, in-ground cremation gravesites, and columbarium niche cremation sites. Based on current rates of internment, NCA is projecting that FLNC will run out of casketed gravesites by October 2028, and cremation gravesites – both in-ground and columbarium niches – by February 2027. To ensure NCA continues to serve Veterans in the Denver metropolitan area, our agency must create additional burial space in FLNC. Phase I development will provide for an additional 15 years of burial capacity.

Undertaking Description, APE, and Consultation Timeline

The undertaking remains the expansion and development of FLNC as noted in the MOA. Pursuant to Stipulation IV. (Future Consultation) of the MOA, and as stated in NCA's initiation letter of May 17, 2021, NCA is continuing consultation on future design features at FLNC. In the May 17 letter, NCA provided additional project details, which include construction on land NCA acquired in 2019, a new columbarium wall on the southern edge of FLNC, a columbarium court on the southwestern corner of the cemetery, and other improvements.

SHPO requested more information about the design features on June 3, 2021, which NCA provided on June 24, 2021. SHPO responded on July 1, 2021, requesting NCA expand the area of potential effects (APE) to include the residential neighborhoods (Pinehurst Estates, Sunrise at Pinehurst, and The Pines at Pinehurst) located to the south of the western portion of FLNC and to identify any historic properties within the expanded APE. NCA determined that expanding the APE to include the three neighborhoods per SHPO's request did not fit with the definition of the APE per 800.16(d), as the undertaking would have no potential to cause alterations in the character or use of historic properties, if any such properties exist, within the entirety of the requested expansion. However, in response to SHPO's request, NCA did agree to expand the APE to include the portion of the Pinehurst Estates neighborhood directly adjacent to the FLNC, which includes the homes along the north side of W. Oxnard Avenue (Attachment 1). In its October 22, 2021 letter, NCA informed SHPO of its revised APE, provided a Historic Resources Survey Report that concluded the homes along W. Oxnard Avenue are not eligible for the National Register of Historic Places (NRHP), and reaffirmed its finding of no adverse effect. At this time and per SHPO's request, NCA also submitted architectural inventory forms for each of the Pinehurst Estates residences located within the revised APE, which suggested that while the homes were not individually eligible, there was the potential for them to contribute to a larger residential historic district, should one be extant.

On December 14, 2021, SHPO replied to NCA and stated that the homes along W. Oxnard Avenue "*contribute to the potentially eligible Pinehurst Estates Historic District*" and "we will consider the district eligible for inclusion in the National Register for Section 106 consultation purposes." While NCA does not agree with this assessment, it will not dispute it at this time, as it finds that even if the homes contributed to a historic district, the undertaking would have no adverse effect to them, or the larger district.

However, SHPO also noted the following in its December 14 letter,

"We do not concur with your assessment the undertaking will result in no historic properties affected. The proposed Columbarium Court and 9-foot wall slated for construction between the cemetery and the Pinehurst Estates Historic District will introduce a significant visual change and result in an adverse effect to both historic properties. As the scope of work and area of potential effects for the undertaking have significantly changed in recent months, and because the memorandum of agreement (MOA) executed for the proposed undertaking did not take into account the proposed columbarium court and wall, and does not address the phased expansion approach being employed by the Department of Veterans Affairs, it is our opinion the project

MOA should be replaced with a new agreement to adequately and properly address all aspects of the undertaking. We will consult with your office further to execute such an agreement.”

As SHPO’s response focused on the columbarium, the remainder of this letter will primarily address that aspect of the undertaking.

NCA disagrees with SHPO’s assertion that the scope of work and APE for the undertaking have significantly changed and that the MOA does not account for a phased expansion approach. The proposed columbarium clearly falls into the description of the undertaking as defined in the MOA, which is the expansion and development of the FLNC to increase burial capacity. Additionally, the MOA expressly provides an opportunity for consulting party review of future design phases in Stipulation IV. (Future Consultation) by explicitly referencing the section of the regulations (36 CFR 800.4(b)(2)) that covers “phased identification and evaluation” and alluding to the section of the regulations (36 CFR 800.5(a)(3)) that covers “phased application of criteria” when it states that future consultation is “to avoid and/or minimize additional adverse effects to historic properties when the design phase for the expansion area of the VA FLNC has begun.” Finally, the APE has been expanded only slightly to include the homes along W. Oxnard Avenue, and that decision was based on SHPO’s request upon receipt of NCA’s proposed design.

Regarding the proposed columbarium, which SHPO describes as a “9-foot wall,” NCA would like to emphasize that this structure will hold the remains of Veterans and their families, which is precisely what the FLNC was designated by Congress in 1950 to do. The proposed columbarium will not be a continuous structure but will be a series of independent columbarium units. In sections, the columbarium will be closer to seven feet above grade. Additionally, as the topography slopes downward toward the FLNC, the columbarium will appear lower on the horizon than its height suggests. The columbarium is five niches high, which is standard for columbarium in national cemeteries. NCA notes that an existing columbarium in FLNC, which contributes to the FLNC Historic District, is also five niches high.

The proposed columbarium is sited in this location because there are few remaining spaces in FLNC to build columbaria. Much of the cemetery holds existing in-ground burials. NCA cannot bury to the edge of the property line because the facility needs open space at the edge of the cemetery to move landscaping and maintenance vehicles, and because a buffer between the burial sections and the property line is a character defining feature of the cultural landscape of the cemetery.

Assessment of Adverse Effect – FLNC

There are two existing columbaria in FLNC, constructed in 2011 and 2013. Both are contributing structures listed in the NRHP nomination for the FLNC Historic District, which was signed in 2016. These structures, three and five years old at the time that the nomination was signed, were considered eligible immediately upon use due to the NRHP policy on National Cemeteries (see Attachment 2). As the significance of national cemeteries, and the individual resources in national cemeteries, is drawn from “the presence of the remains of military personnel who have served the country throughout its history,” NCA understands that the proposed columbarium will become a contributing resource to the FLNC Historic District once built. The NRHP policy recognizes that “national cemeteries continue to expand”

and are “properties considered ever-changing and recognized for their continuing exceptional importance.” It also recognizes that “It is anticipated that most cemeteries will represent multiple layers of expansion with new sections being acquired and developed for use periodically as available grave sites are depleted.” Further, it notes that “This policy means that recently developed areas are to be included with the boundaries of the district and recently constructed resources are to be recognized as contributing resources.” As a result, the proposed undertaking – *which will construct the exact type of resource through which the property derives its historic significance* – does not trigger the criteria of adverse effect. In fact, the addition of this structure will serve to enhance both the significance and integrity of the FLNC historic property.

The NRHP policy also states that “Generally national cemeteries are significant under Criterion A for their association with significant events related to the nation’s military history and the role of the Department of Veterans Affairs. Those having artistic or architectural significance as designed landscapes or for the design of memorials, monuments, or historic buildings, may also be documented under Criterion C.” While it bears noting that the proposed columbaria is similar in design, materials, and scale to the existing columbaria in the cemetery and thus will not diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association, NCA would also like to point out that the 2016 NRHP nomination states that FLNC is eligible for the NRHP solely under criterion A and not under C, as the built environment exhibits a variety of architectural styles and materials.

Finally, NCA notes that in its experience consulting on the construction of new columbaria in national cemeteries in different states, it has never before encountered a SHPO that felt installation of a columbarium in a national cemetery resulted in an adverse effect to that national cemetery. NCA maintains that the Phase I Proposed Construction and Operations Project will not adversely affect the FLNC.

Assessment of Adverse Effect – Pinehurst Estates

NCA notes that Pinehurst Estates is included in the Metro Denver Residential Subdivisions 1940-65 Multiple Property Submission (MPS) - [NRIS#64501105](#), as a neighborhood that warrants further review and this MPS lays out clear criteria for historic district eligibility. Based upon past consultation with your office, there has not yet been a full historic district evaluation for this neighborhood beyond NCA’s analysis of the homes along W. Oxnard Avenue; therefore, it is unknown if Pinehurst Estates is eligible for the NRHP as a historic district. As most of the neighborhood is outside of the APE, it is clearly beyond the scope of this consultation to complete a full NRHP evaluation of the neighborhood, a reality acknowledged by both NCA and SHPO. Consequently, as noted previously in this letter, SHPO is assuming Pinehurst Estates is eligible for the NRHP for the purposes of this consultation.

Given that position, NCA reviewed the Metro Denver Historic Subdivisions MPS for information related to viewsheds. NCA notes that it is clear the significance of any historic district under this MPS is not based on the viewsheds to adjoining properties; however, there are references to views of the Rocky Mountains. Notably, every mention of Pinehurst Estates in the MPS notes its proximity to FLNC but not that the view toward the FLNC is significant. NCA notes that the homes on W. Oxnard Avenue (dated 1963-1966) do not face the FLNC; rather, it is the backyards bordered by mature vegetation with

partially obscured views of FLNC that adjoin with the non-entry boundary of the FLNC. It is not an area of high visibility. Regardless, as the neighborhood was developed a decade after the FLNC was already extant, it stands to reason that association with the FLNC – with its characteristic everchanging nature due to the ongoing development of burial space – has been a feature of Pinehurst Estates' setting from its inception.

NCA maintains that the proposed undertaking will not diminish the integrity of the potential district's location, design, setting, materials, workmanship, feeling, or association.

Future Consultation

NCA notes that the reason for the inclusion of Stipulation IV. (Future Consultation) is stated in the MOA as the following: "FLNC acknowledges that the Sheridan Historical Society [SHS] has expressed concerns about future design features, as communicated in their letter dated August 21, 2018, and will continue consultation with them and other consulting parties..." In the 2018 letter, one of the concerns raised by SHS focused on the location of the proposed columbarium. NCA consulted with SHS on the Phase I Proposed Construction and Operation Project and on July 27, 2021, NCA received the following comments from SHS: "We have reviewed the information provided and have no concerns or objections to the Phase I expansion as indicated...We continue to recognize the need and support the expansion of Fort Logan National Cemetery." NCA's reasoning for bringing this to SHPO's attention is two-fold. First, because the SHS' potential concerns were the primary driver in including the stipulation for future consultation and SHS has now indicated it has no further concerns. Second, because SHPO has indicated in all its correspondence with NCA that "additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings."

NCA would also like to inform the SHPO that VA has spoken with the NRHP Program about this undertaking and its relation to the NRHP policy on national cemeteries, and the NRHP Program has indicated they are available to speak with SHPO about the particulars of the policy, should SHPO have interest in consulting them.

Finding of No Adverse Effect

As we are closing in on a year for this consultation, our project timelines have been adversely affected. Developing contract requirements, awarding contracts, and construction itself is a multi-year process. If the construction contract is not awarded soon, the project itself may be in jeopardy, which could lead to FLNC running out of cremation burial space before the columbarium is finished. Consequently, NCA would greatly appreciate an expedited response from your office.

Ms. DiPrince
Page 6

Pursuant to 36 CFR Part 800.5(b), NCA finds that this undertaking will result in no adverse effect to historic properties. We request your concurrence with this finding. Please respond to this letter by sending an email to William.Hooker@va.gov.

Sincerely

W. Edward Hooker, III
NCA Historic Architect

Cc: Mitchell K. Schaefer, Section 106 Compliance Manager, History Colorado
Dr. Holly Kathryn Norton, Deputy State Historic Preservation Officer, History Colorado
Alexis Clark, Historic Preservation Specialist, Advisory Council on Historic Preservation
Lisa Deline, Senior Historian, National Register of Historic Places, National Park Service
Héctor M. Abreu-Cintrón, Federal Preservation Officer, Department of Veterans Affairs

Attachments: APE Map
National Register Policy for National Cemeteries: A Clarification of Policy



History Colorado

Mr. William E. Hooker
Historic Architect/Cultural Resources Manager
US Department of Veterans Affairs
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Hooker:

Thank you for your correspondence dated October 22, 2021, which our office received on November 23, 2021, regarding consultation for the aforementioned project under Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC § 306108), and its implementing regulations, 36 CFR Part 800.

We have reviewed all documentation submitted to date for this undertaking and concur with the stated recommendations of eligibility regarding eighteen (18) residential properties located to the south of the Fort Logan National Cemetery within the Pinehurst Estates subdivision and identified with the following Smithsonian ID numbers: 5DV.53712 through 5DV.53729. While none of the eighteen properties are individually eligible for inclusion in the National Register of Historic Places, we concur with the stated recommendations that all *contribute* to the *potentially eligible* Pinehurst Estates Historic District. Unfortunately, the documentation did not include a broader recommendation regarding the district itself. As such an evaluation would require additional time, research, and documentation that may exceed the scope of the present undertaking, we will consider the district *eligible* for inclusion in the National Register for Section 106 consultation purposes. As noted in prior correspondence, the Fort Logan National Cemetery was *listed* in the National Register of Historic Places in 2016 (NRHP#16000810).

We do not concur with your assessment the undertaking will result in no historic properties affected. The proposed Columbarium Court and 9-foot wall slated for construction between the cemetery and the Pinehurst Estates Historic District will introduce a significant visual change and result in an *adverse effect* to both historic properties. As the scope of work and area of potential effects for the undertaking have significantly changed in recent months, and because the memorandum of agreement (MOA) executed for the proposed undertaking did not take into account the proposed columbarium court and wall, and does not address the phased expansion approach being employed by the Department of Veterans Affairs, it is our opinion the project MOA should be replaced with a new agreement to adequately and properly address all aspects of the undertaking. We will consult with your office further to execute such an agreement.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR §800.3 is required to be notified of the undertaking, and with other



History Colorado

consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Determinations of National Register eligibility subject to this letter were made in consultation pursuant to the implementing regulations of Section 106 of the National Historic Preservation Act, 36 CFR Part 800. Please note other Federal programs such as the National Register of Historic Places and the Federal Investment Tax Credit Program may have additional documentation and evaluation standards. Final determinations remain the responsibility of the Keeper of the National Register.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Dawn DiPrince
State Historic Preservation Officer



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

October 22, 2021

Office of Archaeology and Historic Preservation
Steve Turner, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

RE: Continuation of Section 106 Consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery, Denver, Colorado (Number 78867)

Dear Mr. Turner:

Pursuant to request for additional information from the Colorado State Historic Preservation Office (CO SHPO), received on July 1, 2021, a Historic Resources Survey and associated report (including completed OAHP 1403 Forms) was conducted and prepared for the area of concern as indicated by the CO SHPO. The expanded Area of Potential Effects (APE) included parcels directly adjacent to the proposed project area which consists of approximately 2,500 feet of proposed wall construction located on the south perimeter of the cemetery extending east from Sheridan Boulevard in Denver, Denver County, Colorado. The survey report along with an exhibit of the revised APE is attached.

Based upon the results of the survey, and pursuant to 36 CFR 800.4(d)(1), the National Cemetery Administration (NCA) has determined that no historic properties within the APE will be affected by the undertaking and requests the SHPO's concurrence on our original finding (submitted via letter on May 17, 2021) per 36 CFR Part 800.

Should you require further information, please contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov. Thank you in advance for your consideration.

Sincerely,

**WILLIAM E.
HOOKER 911259**

Digitally signed by WILLIAM
E. HOOKER 911259
Date: 2021.10.28 15:07:09
-04'00'

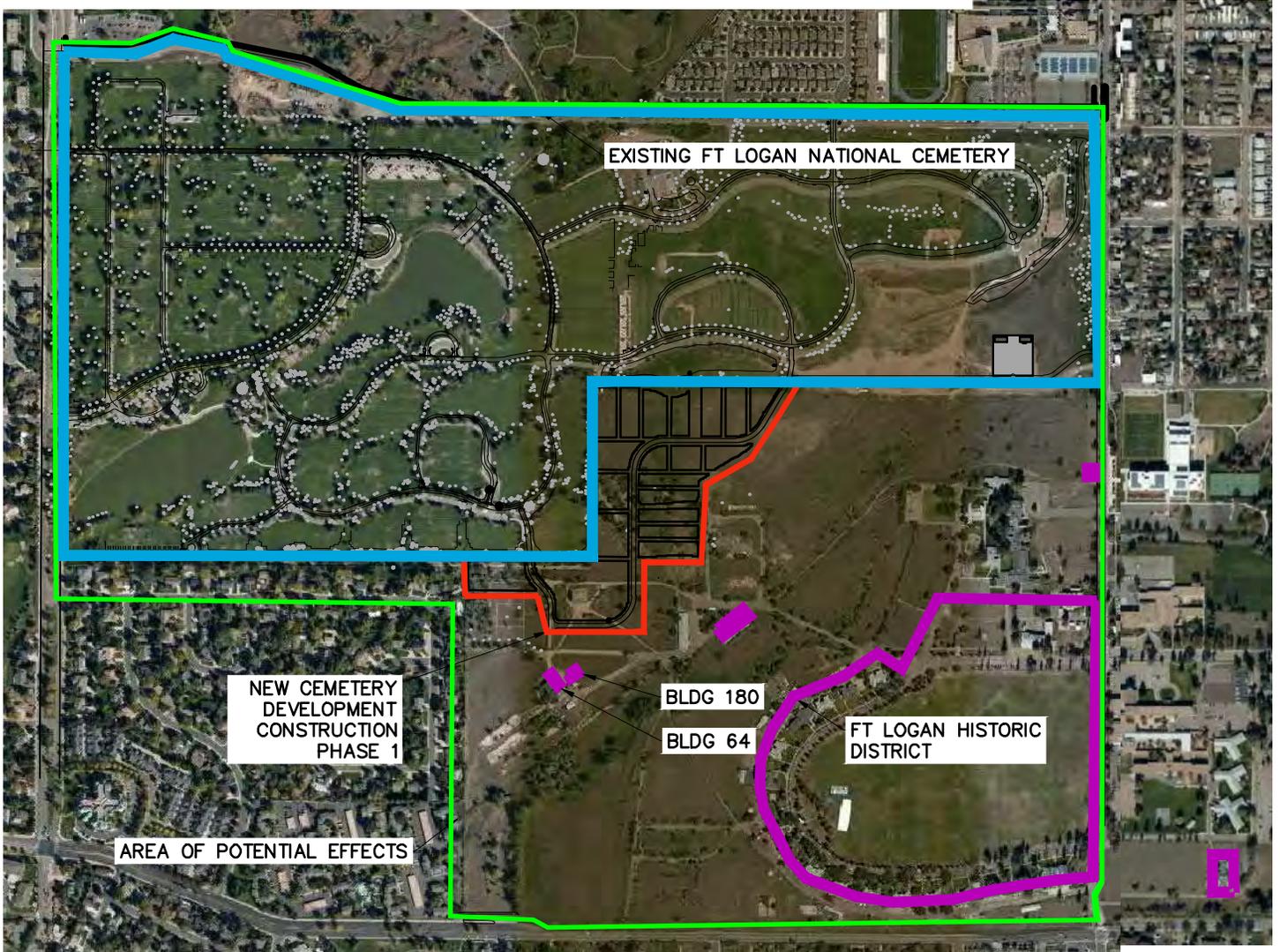
W. Edward Hooker, III
Historic Architect/Cultural Resources Manager

Attachment:

APE Map

Historic Resources Survey Report

CC: Fernando Fernandez, VA Environmental Engineer
Douglas Pulak, VA Federal Preservation Officer
Dallas Hall, President, Sheridan Historical Society
Annie Levinsky, Executive Director, Historic Denver



LEGEND

- EXISTING FT LOGAN NATIONAL CEMETERY
- FT LOGAN HISTORIC DISTRICT
- NEW CEMETERY DEVELOPMENT CONSTRUCTION PHASE 1
- AREA OF POTENTIAL EFFECTS



P:\VACEM FT LOGAN NC PH1\CADD\EXHIBITS\ SHPO Exhibit.dwg

Calibre

Calibre Engineering, Inc.
 9090 South Ridgeline Boulevard, Suite 105
 Highlands Ranch, CO 80129 (303) 730-0434
 www.calibre-engineering.com
 Construction Management Civil Engineering Surveying

VACEM FORT LOGAN
 PHASE 1 SHPO

Sheet

Scale N.T.S.
 Date 03/11/2021



Mr. William E. Hooker
Historic Architect/Cultural Resources Manager
US Department of Veterans Affairs
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Hooker:

Thank you for your correspondence dated May 17, 2021, which our office received on May 25, 2021, regarding consultation for the aforementioned project under Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC § 306108), and its implementing regulations, 36 CFR Part 800. Our office requested additional background information regarding the undertaking on June 3, 2021, and your office provided that documentation on June 24, 2021. Please note the project was previously reviewed under History Colorado No. 72063, but will be archived under No. 78867 moving forward.

We have reviewed all documentation submitted to date for this undertaking. As the project scope of work has changed substantially in recent months, it is appropriate to modify the undertaking's area of potential effects (APE) accordingly. Considering the proposed new Columbarium court and nine-foot (9') wall intended for the southern boundary of the cemetery, we request the APE be expanded to include the residential neighborhood located south of the western portion of the cemetery; specifically, the neighborhood found east of South Sheridan Boulevard and north of West Quincy Avenue. The entire APE for the undertaking should now be defined as the lands located east of South Sheridan Boulevard, north of West Quincy Avenue, west of South Lowell Boulevard, and south of West Kenyon Avenue.

Historical aerial imagery indicates many residential dwellings located south of the western portion of the cemetery were constructed prior to 1971. Presently our office has no information regarding individual properties in that area. To fully evaluate the potential effects of the new Columbarium court and wall, we request Architectural Inventory (OAHIP 1403) forms be prepared for all properties that are forty-five (45) years or older *and* are located immediately south of the cemetery; that is, roughly all properties located along the north side of West Oxford Street between South Sheridan Boulevard and South Vrain Street. These 1403 forms should also evaluate whether the properties contribute to a potential historic district.

As much of the aforementioned neighborhood was initially developed sometime between 1956 and 1971, the possibility exists of identifying a historic district in the area. We have attached to this electronic submission a Google Earth aerial map indicating the possible boundaries of such a district. These rough boundaries have been prepared based on available historical aerial imagery, should not be interpreted as the final boundary of any district, and are provided only for reference and as a guide for researchers. As the setting of the neighborhood could be affected as a result of the proposed undertaking



(i.e., the new Columbarium Court and wall), we request a 1403 form be prepared to document and evaluate the potential for a historic district in the neighborhood.

All 1403 forms should be complete and prepared in accordance with the instructions available on our website by a qualified professional meeting the *Secretary of the Interior's Historic Preservation Professional Qualification Standards* for the applicable field (48 FR 44716, September 29, 1983, and 62 FR 33708, June 20, 1997). Each form should provide brief historical narratives for each documented property, complete evaluations in accordance with the four Criteria for Evaluation (36 CFR § 60.4), justifiable periods of significance and resource boundaries, and various contemporary color photographs to reflect the different properties, including at least ten (10) street scape images of the possible historic district. Google Street View images are subject to copyright and are not acceptable for this purpose. We will provide additional comments upon receipt of the requested inventory forms.

Lastly, please note that due to the project's modified scope of work it may be necessary to amend the memorandum of agreement that was executed in 2019; however, this will largely depend on the results of the documentation prepared for the residential neighborhood and the individual properties.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR §800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer
ST/mks

Attachment: 1 image

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at <https://www.historycolorado.org/submitting-your-data-preservation-programs>.



Mr. Fernando L. Fernandez
Environmental Engineer
US Department of Veterans Affairs
VA Office of Construction and Facilities Management
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Fernandez:

Thank you for your correspondence that our office received on November 4, 2020, regarding the review of the above referenced project under Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR Part 800.

We have reviewed all documentation submitted for this project. As you know, the Fort Logan National Cemetery (5DV.4344) was listed in the National Register of Historic Places in 2016. Though the proposed project area does not fall within the listed boundary of the historic cemetery, the undertaking holds the potential to indirectly affect that property. It may also directly or indirectly affect other properties such as nearby residences or archaeological sites.

In accordance with Section 106 and implementing regulations in 36 CFR §§ 800.4 and 800.5, we request a cultural resource survey be completed to identify potential historic properties within and near the identified project boundaries. Keep in mind consultation must consider direct effects imposed within the project area as well as indirect effects on the surrounding setting (i.e., visual, atmospheric, or audible effects). We note that the area has not been previously inventoried by an archaeologist and the area shows the potential for previously unidentified archaeological remains. In particular, we note that the area shows the potential for surface and subsurface remains associated with 5DV.9376, 5DV.9419, and the historic Fort Logan Mental Health Center. Our Survey Manual, site forms, and instructions are available online at <https://www.historycolorado.org/survey-inventory-forms>. Also, keep in mind that all properties should be evaluated for historical significance by a qualified professional meeting the *Secretary of the Interior's Historic Preservation Professional Qualification Standards* for the applicable field (48 FR 44716, September 29, 1983, and 62 FR 33708, June 20, 1997). We will provide additional comments upon receipt of the requested information.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR § 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the thirty-day review period provided to other consulting parties.

Lastly, if human remains are discovered during ground disturbing activities, the requirements under CRS 24-80 Part 13 apply and must be followed.



Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer
ST/mks

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at <https://www.historycolorado.org/submitting-your-data-preservation-programs>.



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
WASHINGTON DC 20420

October 6, 2020

Office of Archaeology and Historic Preservation
Steve Turner, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

**RE: Request for Stakeholder Participation
Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project**

Dear Mr. Turner:

The U.S. Department of Veterans Affairs (VA) is preparing an environmental assessment (EA) to assist in the Federal decision-making process concerning the proposed Phase 1 expansion at Fort Logan National Cemetery (FLNC) located in Denver County, Colorado. The Phase 1 expansion will include the construction and maintenance of additional interment areas (including crypts and columbarium buildings), improve existing infrastructure and bank rehabilitation and dredging of the existing spillway on approximately 19.45-acres of undeveloped area within the FLNC (please see **Attachment 1**).

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 US Code (USC) §4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Analysis of VA Actions*); and the VA Interim Guidance for Projects (September 2010), the Department of Veterans Affairs is preparing an Environmental Assessment that will evaluate the environmental, cultural, and socioeconomic effects associated with the Proposed Action.

The existing crypts and columbarium, at the FLNC cannot support burial requests for eligible individuals and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. The construction and maintenance of the new burial areas and associated infrastructure is needed to accommodate these burial requests.

The purpose of the Phase 1 expansion is to address the depletion of gravesites remaining portion of FLNC, thereby extending the longevity of the facility for Veterans and their eligible family members in Denver Colorado and surroundings communities for approximately 10 years. The proposed burial areas would consist of approximately 9,100 casketed remains including pre-placed crypts and traditional gravesites, approximately 19,397 at markers for cremains, approximately 9,045 columbarium niches. Additionally infrastructure upgrades such as roadways leading to/from the new burial areas will also be constructed. It is assumed that approximately all the 19.45 acres will be disturbed (please see **Attachment 2**). The Proposed Action will be fully described and analyzed in the EA.

As part of the NEPA process, the VA would like to invite you to participate as a stakeholder in this process. We request your participation, opinion, or suggestions early in the process, and ask that your response is received with in a 30-day period after receipt of this letter. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to cumulative effects. If you would have an interest, please contact Mr. Fernando Fernandez at

Mr. Turner
6 October 2020
Page 2

fernando.fernandez@va.gov or at (202) 632-5529. In your communication please make reference to "FLNC Phase 1". If you have initial concerns with impacts of the project, please note them in your response.

Sincerely,

Fernando Fernandez
Environmental Engineer,
VA Office of Construction and Facilities Management

Attachments
Site Location Map
Proposed Action Map



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

May 17, 2021

Steve Turner, State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

RE: Continuation of National Historic Preservation Act Section 106 Consultation: Expansion of the Fort Logan National Cemetery, Phase I Development (HC # 72063)

Dear Mr. Turner:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations (36 CFR Part 800), the U.S. Department of Veterans Affairs (VA) National Cemetery Administration (NCA) is continuing consultation with the Colorado State Historic Preservation Office (SHPO) for the above referenced undertaking pursuant to Stipulation IV (Future Consultation) of the Memorandum of Agreement (MOA) between NCA and the SHPO regarding the expansion of the Fort Logan National Cemetery (FLNC), executed on May 13, 2019 (2019 MOA). FLNC is located at 4400 West Kenyon Avenue, Denver, Colorado 80236 (Attachment 1). Phase I development will extend FLNC burial capacity for approximately 10 years.

The undertaking remains the expansion of FLNC as covered by the 2019 MOA. NCA is currently in design for Phase I development, which will include construction on 19.49 acres of the land NCA acquired in 2019 and other limited improvements. The project will provide for 19,581 in-ground cremains and 8,159 pre-placed crypt casket gravesites, a visitor access road, and a chain-link fence along the perimeter of the newly developed area (Attachments 2 and 3); other Phase I work is within previously developed areas of FLNC: new columbarium wall along the southern boundary (Attachment 4), pedestrian pathways leading to/from Denver Drive and the columbarium wall, stormwater conveyance, and improvements to the Veterans and Memorial Lakes spillway. Phase I actions are all within the previously determined area of potential effects (APE).

As part of prior consultation for the cemetery expansion, the SHPO concurred with NCA's identification of two historic properties within the APE: FLNC Historic District (5DV.4344) and the Fort Logan Historic District (5DV.694). No archeological resources were found eligible for the National Register of Historic Places (National Register).

Phase I will have no effect on the Fort Logan Historic District as its contributing resources are outside the project limits and there will be no alteration to its National Register qualifying characteristics. Although Phase I will affect the FLNC Historic District, this effect will not be adverse as no qualifying characteristics will be diminished. The design follows NCA guidelines and is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Rehabilitation) as planned alterations and

additions are distinct yet compatible with the current cemetery and the historic property use will continue.

Therefore, NCA finds that Phase I development avoids any additional adverse effect to the historic properties beyond that previously found and stated in the 2019 MOA: future demolition of historic buildings 64 (5DV.9221) and 180 (5DV.9371). NCA requests your review of this finding.

By copy of this letter, NCA is notifying the Sheridan Historical Society and Historic Denver, concurring parties to the 2019 MOA, of the continuation of consultation for Phase I design and requesting their review within 30 calendar days.

Pursuant to Stipulation VII (Monitoring and Reporting) of the 2019 MOA, NCA is also providing a summary report of the overall undertaking to date (Attachment 5).

If there are questions or more information needed about the Phase I development, please contact Fernando Fernandez at VACOEnvironment@va.gov. Thank you in advance for your consideration.

Sincerely,

W. Edward Hooker, III
Historic Architect/Cultural Resources Manager

Attachments:

- 1: Project Location
- 2: Phase I Schematic Design
- 3: Chain Link Fencing Schematic
- 4: Columbarium and Wall Schematic
- 5: FLNC Expansion Summary Report

CC: Dallas Hall, President, Sheridan Historical Society
Annie Levinsky, Executive Director, Historic Denver
Fernando Fernandez, VA Environmental Engineer
Douglas Pulak, VA Federal Preservation Officer



Mr. Fernando L. Fernandez
Environmental Engineer
US Department of Veterans Affairs
VA Office of Construction and Facilities Management
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Fernandez:

Thank you for your correspondence that our office received on November 4, 2020, regarding the review of the above referenced project under Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR Part 800.

We have reviewed all documentation submitted for this project. As you know, the Fort Logan National Cemetery (5DV.4344) was listed in the National Register of Historic Places in 2016. Though the proposed project area does not fall within the listed boundary of the historic cemetery, the undertaking holds the potential to indirectly affect that property. It may also directly or indirectly affect other properties such as nearby residences or archaeological sites.

In accordance with Section 106 and implementing regulations in 36 CFR §§ 800.4 and 800.5, we request a cultural resource survey be completed to identify potential historic properties within and near the identified project boundaries. Keep in mind consultation must consider direct effects imposed within the project area as well as indirect effects on the surrounding setting (i.e., visual, atmospheric, or audible effects). We note that the area has not been previously inventoried by an archaeologist and the area shows the potential for previously unidentified archaeological remains. In particular, we note that the area shows the potential for surface and subsurface remains associated with 5DV.9376, 5DV.9419, and the historic Fort Logan Mental Health Center. Our Survey Manual, site forms, and instructions are available online at <https://www.historycolorado.org/survey-inventory-forms>. Also, keep in mind that all properties should be evaluated for historical significance by a qualified professional meeting the *Secretary of the Interior's Historic Preservation Professional Qualification Standards* for the applicable field (48 FR 44716, September 29, 1983, and 62 FR 33708, June 20, 1997). We will provide additional comments upon receipt of the requested information.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR § 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the thirty-day review period provided to other consulting parties.

Lastly, if human remains are discovered during ground disturbing activities, the requirements under CRS 24-80 Part 13 apply and must be followed.



Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer
ST/mks

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at <https://www.historycolorado.org/submitting-your-data-preservation-programs>.



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 6, 2020

Office of Archaeology and Historic Preservation
Dr. Holly Kathryn Norton, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

RE: History Colorado Number 78867. Fort Logan National Cemetery, Phase I Proposed Construction and Operation

Dear Dr. Norton:

On December 3, 2020, Department of Veterans Affairs (VA) received your response concerning our Request for Stakeholder Participation (dated November 4, 2020) sent for the referenced project. The intent of letter was to inform your office that the National Cemetery Administration (NCA) intends to construct and maintain additional burial sites in an expanded area within the existing Fort Logan National Cemetery. Prior to construction and operation, the VA will analyze potential impacts to human health and the environment as it relates to these activities in accordance with the National Environmental Policy Act (40 Code of Federal Regulations [CFR] Parts 1500-1508).

The Proposed Action, will occur with a 19.45 acre parcel (Area of Potential Effects [APE]) of VA owned property, a portion of the 49,4 acres of property that was acquired in 2019. Prior to the acquisition, in 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (July 2017), and is attached for your reference.

The historic structures survey, associated with the Cultural Resources Inventory, identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP. Based upon these findings a Memorandum of Agreement was drafted and signed by the NCA and the Colorado Historic Preservation Office to demolish the two buildings. None of the structures noted within the survey are within the APE nor is their demolition part of this Proposed Action.

The archaeological survey, associated with the Cultural Resources Inventory, identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018.

In accordance with the Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the NCA will initiate consultation with the Colorado Office of Archaeology and Historic Preservation (SHPO) regarding the identification of and associated impacts to historic properties including standing structures and archaeological resources under a separate letter.

The VA looks forward to consulting with you in the future. If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachment:

Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
WASHINGTON DC 20420

October 6, 2020

Office of Archaeology and Historic Preservation
Steve Turner, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

**RE: Request for Stakeholder Participation
Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project**

Dear Mr. Turner:

The U.S. Department of Veterans Affairs (VA) is preparing an environmental assessment (EA) to assist in the Federal decision-making process concerning the proposed Phase 1 expansion at Fort Logan National Cemetery (FLNC) located in Denver County, Colorado. The Phase 1 expansion will include the construction and maintenance of additional interment areas (including crypts and columbarium buildings), improve existing infrastructure and bank rehabilitation and dredging of the existing spillway on approximately 19.45-acres of undeveloped area within the FLNC (please see **Attachment 1**).

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 US Code (USC) §4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Analysis of VA Actions*); and the VA Interim Guidance for Projects (September 2010), the Department of Veterans Affairs is preparing an Environmental Assessment that will evaluate the environmental, cultural, and socioeconomic effects associated with the Proposed Action.

The existing crypts and columbarium, at the FLNC cannot support burial requests for eligible individuals and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. The construction and maintenance of the new burial areas and associated infrastructure is needed to accommodate these burial requests.

The purpose of the Phase 1 expansion is to address the depletion of gravesites remaining portion of FLNC, thereby extending the longevity of the facility for Veterans and their eligible family members in Denver Colorado and surroundings communities for approximately 10 years. The proposed burial areas would consist of approximately 9,100 casketed remains including pre-placed crypts and traditional gravesites, approximately 19,397 at markers for cremains, approximately 9,045 columbarium niches. Additionally infrastructure upgrades such as roadways leading to/from the new burial areas will also be constructed. It is assumed that approximately all the 19.45 acres will be disturbed (please see **Attachment 2**). The Proposed Action will be fully described and analyzed in the EA.

As part of the NEPA process, the VA would like to invite you to participate as a stakeholder in this process. We request your participation, opinion, or suggestions early in the process, and ask that your response is received with in a 30-day period after receipt of this letter. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to cumulative effects. If you would have an interest, please contact Mr. Fernando Fernandez at

Mr. Turner
6 October 2020
Page 2

fernando.fernandez@va.gov or at (202) 632-5529. In your communication please make reference to "FLNC Phase 1". If you have initial concerns with impacts of the project, please note them in your response.

Sincerely,

Fernando Fernandez
Environmental Engineer,
VA Office of Construction and Facilities Management

Attachments
Site Location Map
Proposed Action Map



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
WASHINGTON DC 20420

October 6, 2020

Apache Tribe of Oklahoma
Bobby Komardley, Chairman
PO Box 1330
Anadarko, OK 73005
bkomardley@outlook.com

**RE: Request for Stakeholder Participation
Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project**

Dear Chairman Komardley:

The U.S. Department of Veterans Affairs (VA) is preparing an environmental assessment (EA) to assist in the Federal decision-making process concerning the proposed Phase 1 expansion at Fort Logan National Cemetery (FLNC) located in Denver County, Colorado. The Phase 1 expansion will include the construction and maintenance of additional interment areas (including crypts and columbarium buildings), improve existing infrastructure and bank rehabilitation and dredging of the existing spillway on approximately 19.45-acres of undeveloped area within the FLNC (please see **Attachment 1**).

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 US Code (USC) §4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Analysis of VA Actions*); and the VA Interim Guidance for Projects (September 2010), the Department of Veterans Affairs is preparing an Environmental Assessment that will evaluate the environmental, cultural, and socioeconomic effects associated with the Proposed Action.

The existing crypts and columbarium, at the FLNC cannot support burial requests for eligible individuals and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. The construction and maintenance of the new burial areas and associated infrastructure is needed to accommodate these burial requests.

The purpose of the Phase 1 expansion is to address the depletion of gravesites remaining portion of FLNC, thereby extending the longevity of the facility for Veterans and their eligible family members in Denver Colorado and surroundings communities for approximately 10 years. The proposed burial areas would consist of approximately 9,100 casketed remains including pre-placed crypts and traditional gravesites, approximately 19,397 at markers for cremains, approximately 9,045 columbarium niches. Additionally infrastructure upgrades such as roadways leading to/from the new burial areas will also be constructed. It is assumed that approximately all the 19.45 acres will be disturbed (please see **Attachment 2**). The Proposed Action will be fully described and analyzed in the EA.

As part of the NEPA process, the VA would like to invite you to participate as a stakeholder in this process. We request your participation, opinion, or suggestions early in the process, and ask that your response is received with in a 30-day period after receipt of this letter. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to

Chairman Komardley

6 October 2020

Page 2

cumulative effects. If you would have an interest, please contact Mr. Fernando Fernandez at fernando.fernandez@va.gov or at (202) 632-5529. In your communication please make reference to "FLNC Phase 1". If you have initial concerns with impacts of the project, please note them in your response.

Sincerely,

Fernando Fernandez
Environmental Engineer,
VA Office of Construction and Facilities Management

Attachments

Site Location Map

Proposed Action Map



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
WASHINGTON DC 20420

October 6, 2020

Colorado Department of Public Health & Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-B2
Denver, CO 80246

**RE: Request for Stakeholder Participation
Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project**

Dear Regulator:

The U.S. Department of Veterans Affairs (VA) is preparing an environmental assessment (EA) to assist in the Federal decision-making process concerning the proposed Phase 1 expansion at Fort Logan National Cemetery (FLNC) located in Denver County, Colorado. The Phase 1 expansion will include the construction and maintenance of additional interment areas (including crypts and columbarium buildings), improve existing infrastructure and bank rehabilitation and dredging of the existing spillway on approximately 19.45-acres of undeveloped area within the FLNC (please see **Attachment 1**).

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 US Code (USC) §4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Analysis of VA Actions*); and the VA Interim Guidance for Projects (September 2010), the Department of Veterans Affairs is preparing an Environmental Assessment that will evaluate the environmental, cultural, and socioeconomic effects associated with the Proposed Action.

The existing crypts and columbarium, at the FLNC cannot support burial requests for eligible individuals and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. The construction and maintenance of the new burial areas and associated infrastructure is needed to accommodate these burial requests.

The purpose of the Phase 1 expansion is to address the depletion of gravesites remaining portion of FLNC, thereby extending the longevity of the facility for Veterans and their eligible family members in Denver Colorado and surroundings communities for approximately 10 years. The proposed burial areas would consist of approximately 9,100 casketed remains including pre-placed crypts and traditional gravesites, approximately 19,397 at markers for cremains, approximately 9,045 columbarium niches. Additionally infrastructure upgrades such as roadways leading to/from the new burial areas will also be constructed. It is assumed that approximately all the 19.45 acres will be disturbed (please see **Attachment 2**). The Proposed Action will be fully described and analyzed in the EA.

As part of the NEPA process, the VA would like to invite you to participate as a stakeholder in this process. We request your participation, opinion, or suggestions early in the process, and ask that your response is received with in a 30-day period after receipt of this letter. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to

cumulative effects. If you would have an interest, please contact Mr. Fernando Fernandez at fernando.fernandez@va.gov or at (202) 632-5529. In your communication please make reference to "FLNC Phase 1". If you have initial concerns with impacts of the project, please note them in your response.

Sincerely,

Fernando Fernandez
Environmental Engineer,
VA Office of Construction and Facilities Management

Attachments
Site Location Map
Proposed Action Map



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
WASHINGTON DC 20420

October 6, 2020

Office of Archaeology and Historic Preservation
Steve Turner, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

**RE: Request for Stakeholder Participation
Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project**

Dear Mr. Turner:

The U.S. Department of Veterans Affairs (VA) is preparing an environmental assessment (EA) to assist in the Federal decision-making process concerning the proposed Phase 1 expansion at Fort Logan National Cemetery (FLNC) located in Denver County, Colorado. The Phase 1 expansion will include the construction and maintenance of additional interment areas (including crypts and columbarium buildings), improve existing infrastructure and bank rehabilitation and dredging of the existing spillway on approximately 19.45-acres of undeveloped area within the FLNC (please see **Attachment 1**).

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 US Code (USC) §4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Analysis of VA Actions*); and the VA Interim Guidance for Projects (September 2010), the Department of Veterans Affairs is preparing an Environmental Assessment that will evaluate the environmental, cultural, and socioeconomic effects associated with the Proposed Action.

The existing crypts and columbarium, at the FLNC cannot support burial requests for eligible individuals and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. The construction and maintenance of the new burial areas and associated infrastructure is needed to accommodate these burial requests.

The purpose of the Phase 1 expansion is to address the depletion of gravesites remaining portion of FLNC, thereby extending the longevity of the facility for Veterans and their eligible family members in Denver Colorado and surroundings communities for approximately 10 years. The proposed burial areas would consist of approximately 9,100 casketed remains including pre-placed crypts and traditional gravesites, approximately 19,397 at markers for cremains, approximately 9,045 columbarium niches. Additionally infrastructure upgrades such as roadways leading to/from the new burial areas will also be constructed. It is assumed that approximately all the 19.45 acres will be disturbed (please see **Attachment 2**). The Proposed Action will be fully described and analyzed in the EA.

As part of the NEPA process, the VA would like to invite you to participate as a stakeholder in this process. We request your participation, opinion, or suggestions early in the process, and ask that your response is received with in a 30-day period after receipt of this letter. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to cumulative effects. If you would have an interest, please contact Mr. Fernando Fernandez at

Mr. Turner
6 October 2020
Page 2

fernando.fernandez@va.gov or at (202) 632-5529. In your communication please make reference to "FLNC Phase 1". If you have initial concerns with impacts of the project, please note them in your response.

Sincerely,

Fernando Fernandez
Environmental Engineer,
VA Office of Construction and Facilities Management

Attachments
Site Location Map
Proposed Action Map

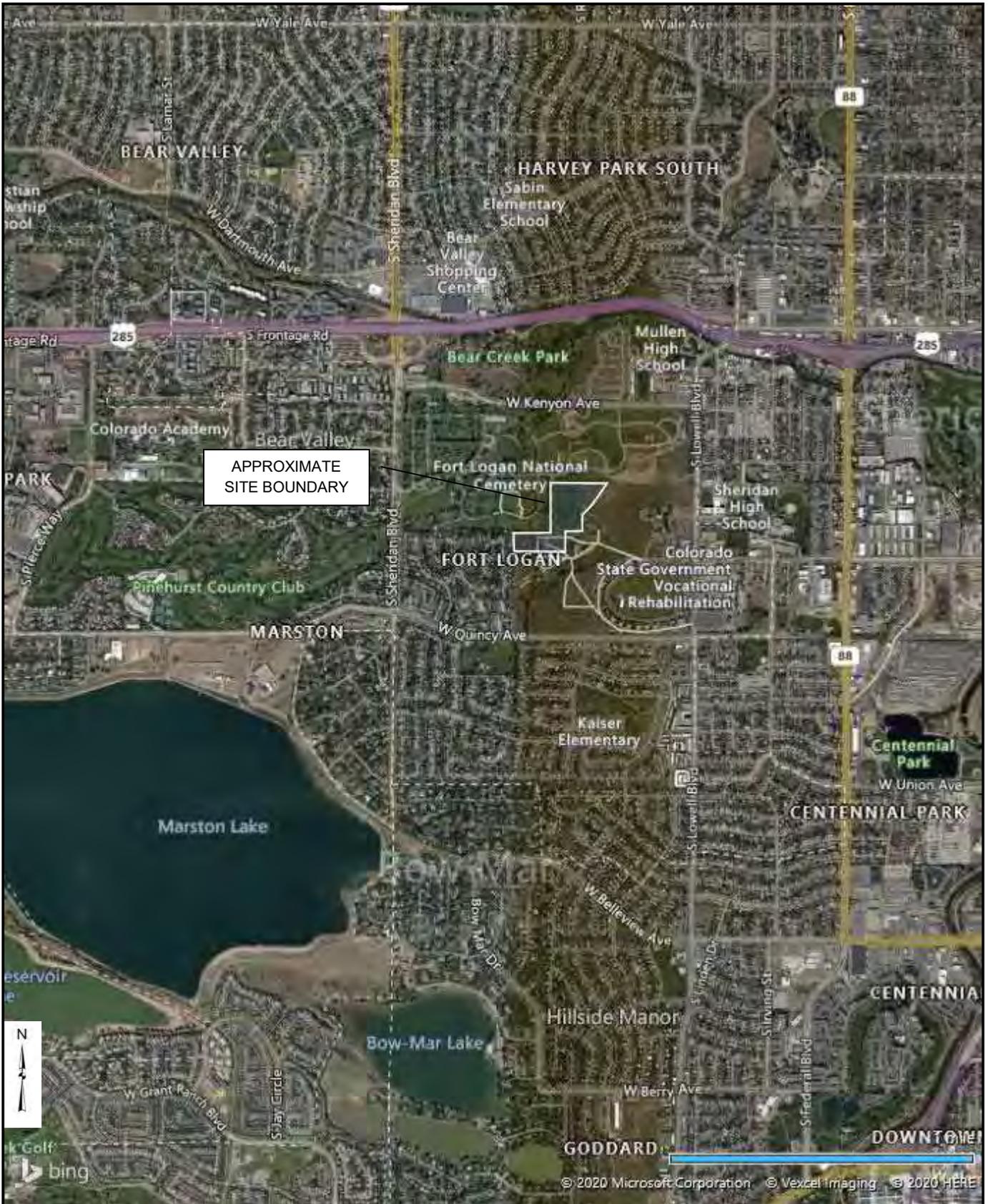


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager:	JTP	Project No:	9020P121
Drawn by:	JTP	Scale:	AS SHOWN
Checked by:	JTP	File Name:	9020P121
Approved by:	JTP	Date:	10/2/2020



LOCATION MAP

**Fort Logan National Cemetery, Phase I
Proposed Construction and Operation Project
4400 W. Kenyon Avenue
Denver, Colorado**

Figure

1

COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Cheyenne and Arapaho Tribes, Oklahoma
Reggie Wassana, Governor
P.O. Box 167
Concho, OK 73022



9590 9402 6256 0265 6635 66
7020 1810 0000 0460 6214

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
B. Received by (Printed Name) C. Date of Delivery
James Curry 11/5/20

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Priority Mail Express®
 Adult Signature
 Registered Mail™
 Adult Signature Restricted Delivery
 Certified Mail®
 Certified Mail Restricted Delivery
 Signature Confirmation™
 Signature Confirmation Restricted Delivery
 Collect on Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Cheyenne and Arapaho Tribes, Oklahoma
Reggie Wassana, Governor
P.O. Box 167
Concho, OK 73022



9590 9402 6256 0265 6635 97
7020 1810 0000 0460 6214

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Cheyenne and Arapaho Tribes, Oklahoma
Max Bear, Tribal Historic Preservation Officer
700 Black Kettle Blvd
Concho, OK 73022



9590 9402 6256 0265 6635 80
7020 1810 0000 0460 6221

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
B. Received by (Printed Name) C. Date of Delivery
J Scott 11/2

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Priority Mail Express®
 Adult Signature
 Registered Mail™
 Adult Signature Restricted Delivery
 Certified Mail®
 Certified Mail Restricted Delivery
 Signature Confirmation™
 Signature Confirmation Restricted Delivery
 Collect on Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Cheyenne and Arapaho Tribes, Oklahoma
Max Bear, Tribal Historic Preservation Officer
700 Black Kettle Blvd
Concho, OK 73022



9590 9402 6256 0265 6635 80
7020 1810 0000 0460 6221

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
B. Received by (Printed Name) C. Date of Delivery
Rosa Hall 11-4-20

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Priority Mail Express®
 Adult Signature
 Registered Mail™
 Adult Signature Restricted Delivery
 Certified Mail®
 Certified Mail Restricted Delivery
 Signature Confirmation™
 Signature Confirmation Restricted Delivery
 Collect on Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
B. Received by (Printed Name) C. Date of Delivery
Lafred Scott 11-7-20

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

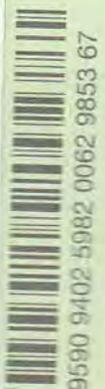
3. Service Type
 Priority Mail Express®
 Adult Signature
 Registered Mail™
 Adult Signature Restricted Delivery
 Certified Mail®
 Certified Mail Restricted Delivery
 Signature Confirmation™
 Signature Confirmation Restricted Delivery
 Collect on Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana
Analea Whiteman Pena, President
PO Box 128
Tongue River, MT 59043



9590 9402 5982 0062 9853 67

Article Number (Transfer from service label)

7020 1810 0000 0460 6412

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

1. Article Addressed to:
the of the Wind River Reservation,
Chairman
Tongue River, WY 82520



9402 6256 0265 6634 36

Article Number (Transfer from service label)

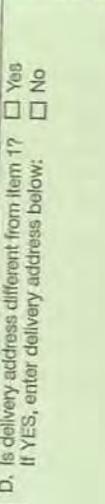
7020 1810 0000 0460 6191

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

1. Article Addressed to:
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Andrew Werk, President
656 Agency Main
Harlem, MT 59526



9590 9402 5982 0062 9854 35

Article Number (Transfer from service label)

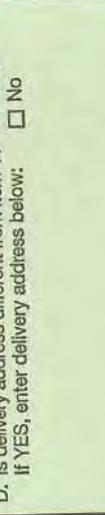
7020 1810 0000 0460 6344

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

1. Article Addressed to:
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Michael Blackwolf, THPO
656 Agency Main
Harlem, MT 59526



9590 9402 5982 0062 9854 11

Article Number (Transfer from service label)

7020 1810 0000 0460 6368

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

1. Article Addressed to:
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Andrew Werk, President
656 Agency Main
Harlem, MT 59526



9590 9402 5982 0062 9854 35

Article Number (Transfer from service label)

7020 1810 0000 0460 6344

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

1. Article Addressed to:
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Michael Blackwolf, THPO
656 Agency Main
Harlem, MT 59526



9590 9402 5982 0062 9854 11

Article Number (Transfer from service label)

7020 1810 0000 0460 6368

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Comanche Nation, Oklahoma
 Bobby Komardley, Chairman
 PO Box 1330
 Anadarko, OK 73005



9590 9402 6256 0265 6635 11
 Article Number (Transfer from service label)

7020 1810 0000 0460 6290
 PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) Date of Delivery
 Bobby Komardley 10-26-20

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- Priority Mail Express®
 - Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Apache Tribe of Oklahoma
 Bobby Komardley, Chairman
 PO Box 1330
 Anadarko, OK 73005



9590 9402 6256 0265 6634 43
 Article Number (Transfer from service label)

7020 1810 0000 0460 6184
 PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tribe of the Wind River Reservation,
 Bobby Komardley, Tribal Historic Preservation Officer
 PO Box 1330
 Anadarko, WY 82524



9590 9402 6256 0265 6636 03
 Article Number (Transfer from service label)

7020 1810 0000 0460 6207
 PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) Date of Delivery
 Bobby Komardley

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- Priority Mail Express®
 - Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Comanche Nation, Oklahoma
 Martina Minthorn, Tribal Historic Preservation
 Officer
 6 SW D Avenue
 Lawton, OK 73502



9590 9402 6256 0265 6635 04
 Article Number (Transfer from service label)

7020 1810 0000 0460 6306
 PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) Date of Delivery
 TAMIA SANDERS

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- Priority Mail Express®
 - Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
- Priority Mail Express®
 - Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Steve Small
 Assistant Regional Director for Ecological Services
 US Fish and Wildlife Service
 PO Box 25486, DFC
 Denver, CO 80225

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 50
 7020 1810 0000 0460 6429

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 David Bohan 11/3/2020

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Steve Small
 Assistant Regional Director for Ecological Services
 US Fish and Wildlife Service
 PO Box 25486, DFC
 Denver, CO 80225

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 50
 7020 1810 0000 0460 6429

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 David Bohan 11/3/2020

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Lois Cleckley
 Executive Director, Denver Department of Transportation and Infrastructure
 1 West Colfax Avenue
 Apartment 608
 Denver, CO 80202

2. Article Number (Transfer from service label)

 9590 9402 6256 0265 6635 42
 7020 1810 0000 0460 6276

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 Cindy Garcia 10-31-20

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Lois Cleckley
 Executive Director, Denver Department of Transportation and Infrastructure
 1 West Colfax Avenue
 Apartment 608
 Denver, CO 80202

2. Article Number (Transfer from service label)

 9590 9402 6256 0265 6635 42
 7020 1810 0000 0460 6276

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 Cindy Garcia 10-31-20

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Colorado Department of Public Health & Environment
 Water Quality Control Division
 4300 Cherry Creek Drive South
 WQCD-B2
 Denver, CO 80246

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 43
 7020 1810 0000 0460 6436

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 NOV 04 2020 1:14 PM

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Colorado Department of Public Health & Environment
 Water Quality Control Division
 4300 Cherry Creek Drive South
 WQCD-B2
 Denver, CO 80246

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 43
 7020 1810 0000 0460 6436

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 NOV 04 2020 1:14 PM

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Denver, State Historic Preservation
 1000 Broadway
 Denver, CO 80203

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 98
 7020 1810 0000 0460 6382

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 CHEPT 331 CV19 10-31-20

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Denver, State Historic Preservation
 1000 Broadway
 Denver, CO 80203

2. Article Number (Transfer from service label)

 9590 9402 5982 0062 9853 98
 7020 1810 0000 0460 6382

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
 CHEPT 331 CV19 10-31-20

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Priority Mail Express®
 Adult Signature Registered Mail™
 Certified Mail®
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery
 Insured Mail
 Insured Mail Restricted Delivery (over \$500)

Domestic Return Receipt

COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: Colorado Department of Public Health & Environment Air Pollution Control Division 4300 Cherry Creek Drive South Denver, CO 80246

2. Article Number (Transfer from service label) 9590 9402 6256 0265 6635 73

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature [Signature] NOV 04 2020 1:14 PM B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? If YES, enter delivery address below:

3. Service Type: Adult Signature, Registered Mail, Certified Mail, Signature Confirmation, Restricted Delivery, Insured Mail (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: Colorado Department of Public Health & Environment Air Pollution Control Division 4300 Cherry Creek Drive South Denver, CO 80246

2. Article Number (Transfer from service label) 9590 9402 6256 0265 6635 73

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature [Signature] NOV 04 2020 1:14 PM B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? If YES, enter delivery address below:

3. Service Type: Adult Signature, Registered Mail, Certified Mail, Signature Confirmation, Restricted Delivery, Insured Mail (over \$500)

Domestic Return Receipt

COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: Department of Natural Resources - Northeast Region 6050 Broadway Denver, CO 80216

2. Article Number (Transfer from service label) 9590 9402 6256 0265 6634 67

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature [Signature] B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? If YES, enter delivery address below:

3. Service Type: Adult Signature, Registered Mail, Certified Mail, Signature Confirmation, Restricted Delivery, Insured Mail (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: Department of Natural Resources - Northeast Region 6050 Broadway Denver, CO 80216

2. Article Number (Transfer from service label) 9590 9402 6256 0265 6635 28

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature [Signature] B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? If YES, enter delivery address below:

3. Service Type: Adult Signature, Registered Mail, Certified Mail, Signature Confirmation, Restricted Delivery, Insured Mail (over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3.
Print your name and address on the reverse so that we can return the card to you.
Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Ren Mandujano
Source Team Lead
Denver Federal Center
Building 56, Room 2604
Box 25426
Denver, CO 80225-0426



9590 9402 6256 0265 6635 59

Article Number (Transfer from service label)

629 0940 0000 0187 0202

Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee
B. Received by (Printed Name) C. Date of Delivery
LISA HUNT
D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No



3. Service Type
- Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)
 - Priority Mail Express®
 - Registered Mail™
 - Registered Mail Restricted Delivery
 - Signature Confirmation™
 - Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Northern Cheyenne Tribe of the Northern
Cheyenne Indian Reservation, Montana
Teanna Limpy, Tribal Historic Preservation
Officer
PO Box 128
Lame Deer, MT 59043



9590 9402 5982 0062 9854 04

2. Article Number (Transfer from service label)

7020 1810 0000 0460 6375

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee
B. Received by (Printed Name) C. Date of Delivery
L-11
10-27-20
D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
- Adult Signature
 - Adult Signature Restricted Delivery
 - Certified Mail®
 - Certified Mail Restricted Delivery
 - Collect on Delivery
 - Collect on Delivery Restricted Delivery
 - Insured Mail
 - Insured Mail Restricted Delivery (over \$500)
 - Priority Mail Express®
 - Registered Mail™
 - Registered Mail Restricted Delivery
 - Return Receipt for Merchandise
 - Signature Confirmation™
 - Signature Confirmation Restricted Delivery

Domestic Return Receipt



Mr. Fernando L. Fernandez
Environmental Engineer
US Department of Veterans Affairs
VA Office of Construction and Facilities Management
sent electronically

RE: Fort Logan National Cemetery, Phase I Proposed Construction and Operation Project
City and County of Denver, Colorado
History Colorado No. 78867

Dear Mr. Fernandez:

Thank you for your correspondence that our office received on November 4, 2020, regarding the review of the above referenced project under Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR Part 800.

We have reviewed all documentation submitted for this project. As you know, the Fort Logan National Cemetery (5DV.4344) was listed in the National Register of Historic Places in 2016. Though the proposed project area does not fall within the listed boundary of the historic cemetery, the undertaking holds the potential to indirectly affect that property. It may also directly or indirectly affect other properties such as nearby residences or archaeological sites.

In accordance with Section 106 and implementing regulations in 36 CFR §§ 800.4 and 800.5, we request a cultural resource survey be completed to identify potential historic properties within and near the identified project boundaries. Keep in mind consultation must consider direct effects imposed within the project area as well as indirect effects on the surrounding setting (i.e., visual, atmospheric, or audible effects). We note that the area has not been previously inventoried by an archaeologist and the area shows the potential for previously unidentified archaeological remains. In particular, we note that the area shows the potential for surface and subsurface remains associated with 5DV.9376, 5DV.9419, and the historic Fort Logan Mental Health Center. Our Survey Manual, site forms, and instructions are available online at <https://www.historycolorado.org/survey-inventory-forms>. Also, keep in mind that all properties should be evaluated for historical significance by a qualified professional meeting the *Secretary of the Interior's Historic Preservation Professional Qualification Standards* for the applicable field (48 FR 44716, September 29, 1983, and 62 FR 33708, June 20, 1997). We will provide additional comments upon receipt of the requested information.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR § 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the thirty-day review period provided to other consulting parties.

Lastly, if human remains are discovered during ground disturbing activities, the requirements under CRS 24-80 Part 13 apply and must be followed.



Thank you for the opportunity to comment. If we may be of further assistance, please contact Mitchell K. Schaefer, Section 106 Compliance Manager, at (303) 866-2673 or mitchell.schaefer@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer
ST/mks

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at <https://www.historycolorado.org/submitting-your-data-preservation-programs>.



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 6, 2020

Office of Archaeology and Historic Preservation
Dr. Holly Kathryn Norton, State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

RE: History Colorado Number 78867. Fort Logan National Cemetery, Phase I Proposed Construction and Operation

Dear Dr. Norton:

On December 3, 2020, Department of Veterans Affairs (VA) received your response concerning our Request for Stakeholder Participation (dated November 4, 2020) sent for the referenced project. The intent of letter was to inform your office that the National Cemetery Administration (NCA) intends to construct and maintain additional burial sites in an expanded area within the existing Fort Logan National Cemetery. Prior to construction and operation, the VA will analyze potential impacts to human health and the environment as it relates to these activities in accordance with the National Environmental Policy Act (40 Code of Federal Regulations [CFR] Parts 1500-1508).

The Proposed Action, will occur with a 19.45 acre parcel (Area of Potential Effects [APE]) of VA owned property, a portion of the 49,4 acres of property that was acquired in 2019. Prior to the acquisition, in 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (July 2017), and is attached for your reference.

The historic structures survey, associated with the Cultural Resources Inventory, identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP. Based upon these findings a Memorandum of Agreement was drafted and signed by the NCA and the Colorado Historic Preservation Office to demolish the two buildings. None of the structures noted within the survey are within the APE nor is their demolition part of this Proposed Action.

The archaeological survey, associated with the Cultural Resources Inventory, identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018.

In accordance with the Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the NCA will initiate consultation with the Colorado Office of Archaeology and Historic Preservation (SHPO) regarding the identification of and associated impacts to historic properties including standing structures and archaeological resources under a separate letter.

The VA looks forward to consulting with you in the future. If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachment:

Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Apache Tribe of Oklahoma
Bobby Komardley, Chairman
PO Box 1330
Anadarko, OK 73005
bkomardley@outlook.com

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear Chairman Komardley,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with the Apache Tribe of Oklahoma (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately 19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at https://www.cem.va.gov/CEM/docs/EA/FortLogan_NC_Expansion_Final_EA_App_A_B_C_D_E.pdf.

Therefore, no historic structures or archaeological sites were identified within the APE.

Chairman Komardley

4 January 2021

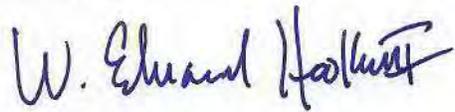
Page 3

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,



W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:

Regional Location Map

APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Arapaho Tribe of the Wind River Reservation, Wyoming
Ben Ridgley, Tribal Historic Preservation Officer
PO Box 67
St. Stevens, WY 82524

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear Tribal Historic Preservation Officer Ridgley,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with the Arapaho Tribe of the Wind River Reservation, Wyoming (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately

19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at https://www.cem.va.gov/CEM/docs/EA/FortLogan_NC_Expansion_Final_EA_App_A_B_C_D_E.pdf.

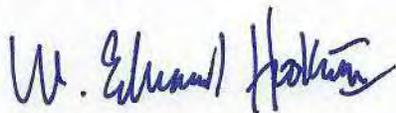
Therefore, no historic structures or archaeological sites were identified within the APE.

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

A handwritten signature in blue ink that reads "W. Edward Hooker, III". The signature is written in a cursive style with a large initial "W" and a prominent "H".

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:

Regional Location Map
APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Cheyenne and Arapaho Tribes, Oklahoma
Max Bear, Tribal Historic Preservation Officer
700 Black Kettle Blvd
Concho, OK 73022

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear THPO Bear,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with the Cheyenne and Arapaho Tribes, Oklahoma (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately

19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at https://www.cem.va.gov/CEM/docs/EA/FortLogan_NC_Expansion_Final_EA_App_A_B_C_D_E.pdf.

Therefore, no historic structures or archaeological sites were identified within the APE.

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

A handwritten signature in black ink that reads "W. Edward Hooker, III". The signature is written in a cursive, slightly slanted style.

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:
Regional Location Map
APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Comanche Nation, Oklahoma
Martina Minthorn, Tribal Historic Preservation Officer
6 SW D Avenue
Lawton, OK 73502

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear THPO Minthorn,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with Comanche Nation, Oklahoma (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately

19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at https://www.cem.va.gov/CEM/docs/EA/FortLogan_NC_Expansion_Final_EA_App_A_B_C_D_E.pdf.

Therefore, no historic structures or archaeological sites were identified within the APE.

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

A handwritten signature in blue ink that reads "W. Edward Hooker, III". The signature is written in a cursive style with a large, stylized "H".

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:
Regional Location Map
APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Michael Blackwolf, Tribal Historic Preservation Officer
656 Agency Main
Harlem, MT 59526

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear Tribal Historic Preservation Officer Blackwolf,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with the Fort Belknap Indian Community of the Fort Belknap Reservation of Montana (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately

19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at [https://www.cem.va.gov/CEM/docs/EA/FortLogan NC Expansion Final EA App A B C D E.pdf](https://www.cem.va.gov/CEM/docs/EA/FortLogan%20NC%20Expansion%20Final%20EA%20App%20A%20B%20C%20D%20E.pdf).

Therefore, no historic structures or archaeological sites were identified within the APE.

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,



W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:
Regional Location Map
APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs



**DEPARTMENT OF VETERANS AFFAIRS
NATIONAL CEMETERY ADMINISTRATION
Design and Construction Service
Washington DC 20420**

January 4, 2021

Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana
Teanna Limpy, Tribal Historic Preservation Officer
PO Box 128
Lame Deer, MT 59043

Subject: Initiation of Section 106 consultation for the Proposed Construction and Operation of Phase I at the Fort Logan National Cemetery

Dear THPO Limpy,

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, the U.S. Department of Veterans Affairs (VA) is initiating consultation with the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana (Tribe) for the proposed completion of the planned Phase I expansion, including construction and operation, at the Fort Logan National Cemetery (FLNC) in Denver, Denver County, Colorado, detailed in Figures 1 and 2 attached. The National Cemetery Administration (NCA) is conducting this cemetery expansion project to increase burial capacity at the FLNC which serves veterans in the Denver metropolitan area as well as surrounding cities.

Background

The FLNC is located in Denver, Denver County, Colorado, bound by S. Sheridan Boulevard to the west, W. Kenyon Avenue to the north, S. Lowell Boulevard to the east, and Quincey Avenue to the south. A residential area is located to the southwest, west, and south of FLNC; a park to the north; and mixed use/residential area to the east.

The FLNC was part of the 940-acre Fort Logan Military Reservation, established in the late 1880s and closed in 1946. In 1946, Fort Logan Military Reservation was used by VA as a temporary health care facility for Veterans until the VA constructed and completed a hospital in Denver. In 1950, FLNC was established on the western 160 acres of the former Fort Logan Military Reservation. FLNC was later expanded to 214 acres. In 1960, approximately 308 acres of Fort Logan Military Reservation were transferred to the State of Colorado to construct a new mental health center; those buildings were later demolished and have been added to the FLNC. In 2019, 49.4 acres were acquired, Phase I (the area associated with the Proposed Action) is a portion of these acres acquired. Since the inception of the FLNC, the cemetery has expanded from the original 160 acres to 214 acres.

Undertaking

The NCA has defined the undertaking as clearing and grading activities associated with the development of approximately 19.45 acres of land within FLNC; no new property would be acquired. Approximately

19.45 acres of previously undisturbed and developed areas will be disturbed as part of this proposed action. The expansion would also include landscaping, drainage, and irrigation system as well as renovated spillway associated with Veterans Lake. The expansion will be designed and constructed in accordance with NCA cemetery design standards and overall character of the surrounding area serve as guiding considerations in the ultimate expansion design.

The NCA's mission is to honor Veterans and their eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to our Nation. It is projected that by 2030, the FLNC will not be able support burial requests and provide sufficient onsite parking to support the needs of Veterans, family members, and staff. Phase I is needed to fulfil this mission.

Area of Potential Effect

The Area of Potential Effect (APE) is defined as the area designated as Phase I area within FLNC, approximately 19.45 acres as Figure 2, attached.

Identification of Historic Properties

In 2017, a records and literature search of Colorado Office of Archeology and Historic Preservation (State Historic Preservation Office) files and National Register of Historic Places (NRHP) data, pedestrian survey for historic structures, and a pedestrian archaeological survey of the APE as well as area that were to be acquired (Phases II and III) were conducted. The report documenting the findings is titled Class III Cultural Resources Inventory for the Fort Logan National Cemetery Expansion, Denver, Colorado (June 2018).

The historic structures survey identified the APE is within an NRHP-eligible Colorado Mental Health Institute at Fort Logan (CMHIFL) National Register Historic District (NRHD). Two buildings (Building 64 – Garage and Repair Shop and Building 180 – Combined Filling Station and Oil House) located within the district, but not within the APE, were determined to be contributing resources to the NRHP-eligible CMHIFL NRHD. Additionally, the FLNC was identified on the NRHP.

The archaeological survey identified nine areas with surface features, one surface artifact scatter, and one subsurface artifact scatter. All were identified as lacking integrity due to having been bulldozed. Based on the lack of integrity, all archaeological resources identified at the Site were recommended to be noncontributing resources to the CMHIFL NRHD. The Office of Archaeology and Historic Preservation agreed in a letter dated July 3, 2018. The archaeological survey is available for review at https://www.cem.va.gov/CEM/docs/EA/FortLogan_NC_Expansion_Final_EA_App_A_B_C_D_E.pdf.

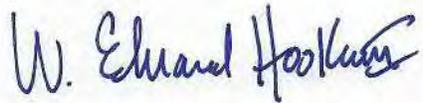
Therefore, no historic structures or archaeological sites were identified within the APE.

Determination of Findings

Therefore, pursuant to 36 CFR 800.4(d)(1), the VAMC VA has determined that no historic properties will be affected by the undertaking and requests the Tribe's concurrence on the agency's finding per 36 CFR Part 800.

If you have any questions, please do not hesitate to contact Fernando Fernandez for additional information at Fernando.Fernandez@va.gov.

Sincerely,

A handwritten signature in blue ink that reads "W. Edward Hooker, III". The signature is written in a cursive style with a large, stylized "W" and "H".

W. Edward Hooker, III
Historic Architect/ Cultural Resources Manager
U.S. Department of Veterans Affairs
National Cemetery Administration
Design and Construction Service

Attachments:

Regional Location Map
APE Map

CC: Fernando Fernandez, Environmental Engineer, Department of Veterans Affairs, OCFM
Douglas Pulak, Federal Preservation Officer, U.S. Department of Veterans Affairs

Appendix B
Previous Studies

Historic Resources Survey Report
Proposed Columbarium Wall at Fort Logan National Cemetery
4400 West Kenyon Avenue
Denver, Denver County, Colorado



Prepared By:

Nicholas C. Powell

September 2021

Terracon Project No. 9620P121.6

Nicholas C. Powell

Architectural Historian

Principal Investigator, Architectural History

For: S. Beth Valenzuela, M.A.

Architectural Historian

Authorized Project Reviewer

Prepared For:

Calibre Engineering, Inc.
Highlands Ranch, Colorado

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



ABSTRACT

On behalf of Calibre Engineering, Inc, Terracon Consultants, Inc. (Terracon) conducted a National Register of Historic Places (NRHP) eligibility assessment of historic-age resources within the area of potential effects (APE) for visual effects of a proposed columbarium wall within Fort Logan National Cemetery. The proposed project area consists of approximately 2,500 feet of proposed wall construction located on the south perimeter of the cemetery extending east from Sheridan Boulevard in Denver, Denver County, Colorado (APE for direct effects). For the purposes of this project, the APE for visual effects included parcels directly adjacent to the project area. A reconnaissance-level historic resources survey was conducted for historic-age resources greater than 45-years old within the area after consultation with the Colorado State Historic Preservation Office (see Figures 1 and 2).

Prior to fieldwork, a background research and literature review was conducted using the Colorado State Historic Preservation Office's Compass Database. No previous cultural resources survey overlaps the visual APE. Fieldwork was conducted on September 8, 2021. The historic resources survey was performed by Mr. Nicholas Powell over a period of two hours. The fieldwork results were overseen by Beth Valenzuela, a Principal Investigator who meets the *Secretary of the Interior's Professional Qualifications Standards* for Architectural History.

Terracon surveyed the project area within the Fort Logan National Cemetery (APE for direct effects). Fort Logan National Cemetery, as with all National Cemeteries, is eligible for inclusion on the NRHP as "a result of their Congressional designation as nationally significant places of burial and commemoration." Terracon recommends a finding of **No Adverse Effect to Historic Properties** within the APE for direct effects. Terracon surveyed eighteen historic-age buildings within the APE for visual effects and recommends the individual buildings Not Eligible for inclusion on the NRHP. Therefore, Terracon recommends a finding of **No Historic Properties Present** within the APE for visual effects.



TABLE OF CONTENTS

1.0 PROJECT INFORMATION 4
2.0 PROJECT AREA DESCRIPTION 4
3.0 ENVIRONMENTAL SETTING 4
4.0 CLASS I RECORDS REVIEW 8
4.1 Area of Potential Effect (APE) 8
5.0 STATEMENT OF OBJECTIVES & RESEARCH DESIGN 8
6.0 NRHP EVALUATION & RECOMMENDATIONS 8
6.1 Direct Effects APE 8
Figure 3. House at 5101 West Oxford Avenue (PE01), façade looking north.10
Figure 4. Residence at 5071 West Oxford Avenue (PE02).11
Figure 5. Residence at 5031 West Oxford Avenue (PE03).12
Figure 7. Residence at 4961 West Oxford Avenue (PE05).14
Figure 8. Residence at 4941 West Oxford Avenue (PE06).15
Figure 9. Residence at 4921 West Oxford Avenue (PE07).16
Figure 11. Residence at 4891 West Oxford Avenue (PE09).18
Figure 12. Residence at 4851 West Oxford Avenue (PE10).19
Figure 13. Residence at 4801 West Oxford Avenue (PE11).20
Figure 14. Residence at 4781 West Oxford Avenue (PE12).21
Figure 15. Residence at 4741 West Oxford Avenue (PE13).22
Figure 16. Residence at 4701 West Oxford Avenue (PE14).23
Figure 17. Residence at 4661 West Oxford Avenue (PE15).24
Figure 18. Residence at 4631 West Oxford Avenue (PE16).25
Figure 20. Residence at 4102 South Vrain Street (PE18).26
7.0 SUMMARY OF RECOMMENDATION29
REFERENCES CITED30
APPENDIX 1

LIST OF FIGURES

Figure 1. Topographic Location Map..... 6
Figure 2. Project Diagram 7

LIST OF TABLES

Table 1. Site Information4
Table 2. Physiographic information for site and surrounding area 7

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



1.0 PROJECT INFORMATION

Terracon understands that Calibre Engineering is proposing to construct a columbarium walls under the following specifications:

Table 1: Site Information

Project Name:	Columbarium Wall at Fort Logan National Cemetery
Terracon Project Number:	9620P121.6
Address:	4400 West Kenyon Avenue
City, County, State:	Denver, Denver County, Colorado
Section/ Township/ Range:	Section 6/ Township 5S/ Range 68W
Topo Quad Name/Date:	USGS 7.5-Minute Quadrangle, <i>Fort Logan, Colorado, 1994</i>
Area of Potential Effect:	2,500 linear feet within Fort Logan National Cemetery (direct effects) Immediate adjacent properties south of proposed wall (visual effects)

On behalf of the Calibre Engineering, Inc., Terracon Consultants, Inc. (Terracon) conducted a historic resources survey for a proposed columbarium wall (Undertaking). The project area is located within landscaped cemetery grounds. It is Terracon's understanding that the proposed columbarium wall will be approximately a half-mile long along the southern perimeter of the cemetery. The goal of the evaluation was to determine if National Register of Historic Places (NRHP)-eligible or NRHP-listed properties are located within the Area of Potential Effect (APE) for the proposed project. The APEs for direct and visual effects for this project are summarized in the above table (see Figure 1 and Figure 2).

2.0 PROJECT AREA DESCRIPTION

The project is located within the Fort Logan National Cemetery at 4400 West Kenyon Avenue, southeast of the intersection of Kenyon Avenue and Sheridan in Denver, Denver County, Colorado. The proposed project area is landscaped cemetery grounds. Surrounding properties consist of suburban development to the south and west, landscaped cemetery grounds to the north, and partially undeveloped parcels to the east.

3.0 ENVIRONMENTAL SETTING

The APE is located approximately 1,663 meters (5,456 feet) above mean sea level and is located on private land (see Figure 1). The area lies within the Colorado Piedmont-Great Plains physiographic province of Colorado and is part of the Upper South Platte Watershed. In terms of present conditions, the APE consists of primarily landscaped land.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Table 2. Physiographic information for site and surrounding area.

Soil Type	No Data Available
Geologic Formation	Quaternary
<i>Description</i>	Older gravels and alluviums (Tweto 1979).



**PROPOSED
PROJECT LOCATION**

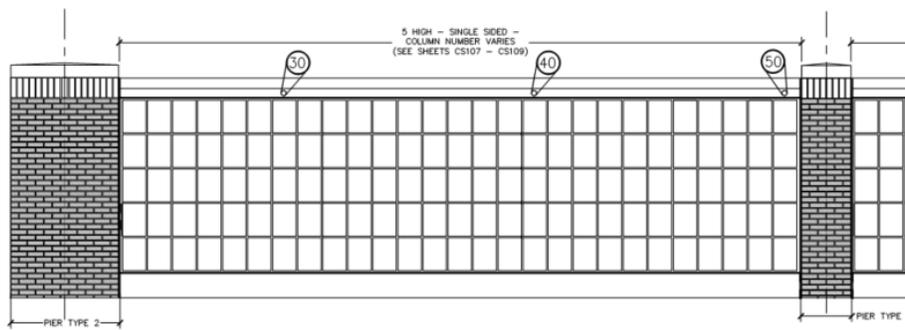
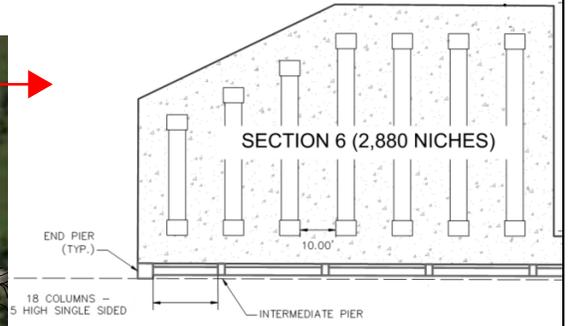
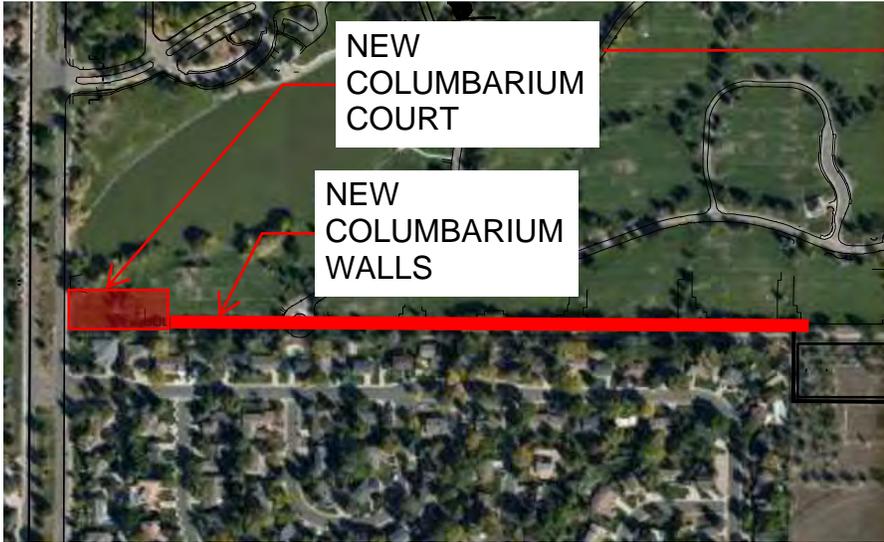
TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILT0dos
Approved by:	SEV
Date:	9/23/2021

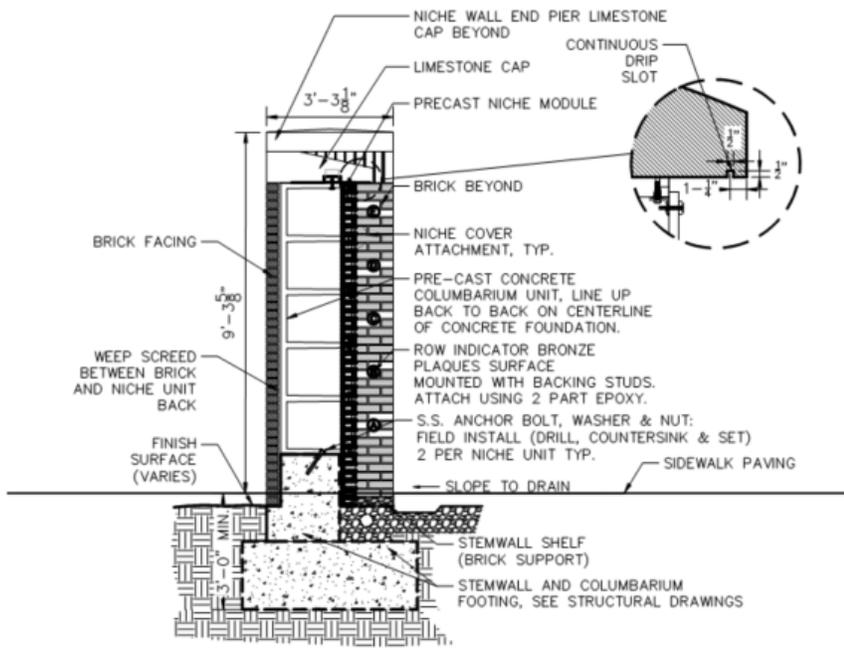
Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
 Proposed Columbarium Wall at Ft Logan
 4400 W. Kenyon Ave
 Denver, CO

Figure	1
--------	---



1 COLUMBARIA WALL ELEVATION SECTION 3/8" = 1'-0"



COLUMBARIUM WALL 2 FREESTANDING - SINGLE SIDED NICHE WALL



P:\VACEM FT LOGAN NC PH1\CADD\EXHIBITS\SHPO Blank Exhibit.dwg



Calibre Engineering, Inc.
 9090 South Ridgeline Boulevard, Suite 105
 Highlands Ranch, CO 80129 (303) 730-0434
 www.calibre-engineering.com
 Construction Management Civil Engineering Surveying

VACEM FORT LOGAN PHASE 1 SHPO

NEW COLUMBARIUM COURT AND WALL CONSTRUCTION
 ON EXISTING FT LOGAN NATIONAL CEMETERY

Sheet
 CE

Scale N.T.S.
 Date 03/11/2021

4.0 CLASS I RECORDS REVIEW

4.1 Area of Potential Effect (APE)

The APE for direct effect includes the project area, located within the Fort Logan National Cemetery. National cemeteries are considered eligible for the NRHP, per the National Park Service's 2011 guidance, "National Register Eligibility of National Cemeteries – A Clarification of Policy." Therefore, the direct effect APE includes the historic property, Fort Logan National Cemetery.

The Secretary of the Interior (SOI) qualified architectural historian recommends the visual APE as the adjacent land parcels that directly abut the project area to the south. An online review was conducted of the National Historic Landmark (NHL) database and the Colorado Office of Archaeology and Historic Preservation (OAHP) Compass databases to identify previously evaluated historic properties that are listed or determined eligible for inclusion in the NRHP, within the visual effects APE of the proposed project. Research was conducted by Terracon on September 7, 2021. According to this research, no previously evaluated historic-age resources are located within the visual effects APE. Historic-age resources are considered to be those buildings or structures constructed more than 45 years ago.

Using the Denver Property Taxation and Assessment System database, research indicates there are eighteen parcels containing historic-age resources within the defined visual APE (see Appendix C). The proposed columbarium wall will be visible from the eighteen historic-age resources on those parcels. The nature of the project will introduce visual elements not historically associated with the surrounding viewshed. The eighteen single-family residences were built between 1963–1966 per the Denver Assessment System.

5.0 STATEMENT OF OBJECTIVES & RESEARCH DESIGN

The objective of the historic resources survey was to identify NRHP-eligible or NRHP-listed historic properties within the APEs for the proposed undertaking and assess the potential effect of the undertaking on historic properties. To achieve this objective, the architectural historian reviewed pertinent site and survey records for the area and conducted a field survey of the project area to identify historic-age resources within the APE.

6.0 NRHP EVALUATION & RECOMMENDATIONS

6.1 Direct Effects APE

The Fort Logan National Cemetery is within the project's direct APE and it is eligible for listing in the National Register under Criterion A. Additional development within the property for additional

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



cemetery space or structures does not constitute an adverse effect. The 2011 Clarification of Policy regarding the National Register eligibility of National Cemeteries classifies improvements for cemetery use as contributing to a historic property. In short, the proposed columbarium wall is not historic at this time but will become historic once operational. Currently the proposed project area within the Cemetery is an un-landscaped area with two-track trail and various suburban fencing from the adjoining neighborhood. It is Terracon's recommendation that the proposed wall will not have an adverse effect on the cemetery or its eligibility for the NRHP (see Appendix).

6.2 Visual Effects APE

In consultation with SHPO, the visual APE for this project includes parcels immediately adjacent to the south of the project area and proposed wall.

An online review was conducted of the NHL database and the Colorado OAHP's Compass databases to identify resources listed or recommended eligible for listing in the NRHP within the visual effects APE of the proposed project. Research was conducted by Terracon on September 7, 2021. The research indicates there are no previously recorded historic properties within the determined visual APE. Upon further research using the Denver Property Taxation and Assessment System, eighteen parcels within the determined visual APE contain historic-age resources that are 45-years or older, requiring NRHP-eligibility evaluations. Located south of the project area are suburban parcels part of the Pinehurst Estates with eighteen unevaluated historic-age buildings. The buildings were surveyed using windshield survey methods from the public right-of-ways.

Survey Results

Terracon documented the eighteen properties with unevaluated historic-age buildings (PE01-PE18) within the visual APE for the proposed columbarium wall on September 8, 2021. The properties and their estimated construction dates are as follows: (Built in 1963 – PE01, PE02, PE03, PE04, PE09, PE10, PE12; Built in 1964 – PE05, PE06, PE07, PE11, PE13, PE14, PE15, PE17; Built in 1965 – PE18; Built in 1966 – PE08, PE16).

Architectural Descriptions

PE01: 5101 West Oxford Avenue, Parcel #08063-01-003-000 (built 1963)

The house at 5101 West Oxford Avenue is a one-story Ranch-style single-family residence located in Denver, Denver County, Colorado (see Figure 3). The house is an example of a Neo-traditional Ranch and has not been heavily modified.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 3. House at 5101 West Oxford Avenue (PE01), façade looking north.

The roof is gabled with two front facing cross-gables at each end of the house with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and tan-painted board-and-batten siding. On the sides of the house, horizontal siding can be seen in the gable ends. The façade of the house features a wide variety of windows including one false-window over the garage. The front-facing gables of the house also feature distinctive trim with decorative curved edges.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



PE02: 5071 West Oxford Avenue, Parcel #08063-01-004-000 (Built 1963)

The building at 5071 West Oxford Avenue was constructed in 1963, as indicated by the Denver Assessment records (see Figure 4). This L-shaped, one-story concrete-block, stone-clad house fronts on Oxford Avenue. The house is designed in a mid-century modern Ranch style. The building measures approximately 61-feet long by 65-feet wide with a moderate-pitched gabled rooftop. According to the Denver County Assessor, the building is 2,043 square feet with three bedrooms and two and a half baths with finished basement.



Figure 4. Residence at 5071 West Oxford Avenue (PE02).

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



PE03: 5031 West Oxford Avenue, Parcel #08063-01-005-000 (built 1963)

The house at 5031 West Oxford Avenue is a one-story Ranch-style single-family residence located in Denver, Denver County, Colorado (see Figure 5). The house is an example of a Neo-traditional Ranch and has not been heavily modified. The roof is gabled with two front facing cross-gables at each end of the house with gray asphalt shingles. The front-facing gable at the western edge of the house houses a two-car garage with two singular doors. The house, built in 1963 according to Denver Assessment records, is clad with stone (east side) and cream-painted board-and-batten siding (central and west side). The façade of the house features a wide variety of windows and a double-door front entry.



Figure 5. Residence at 5031 West Oxford Avenue (PE03).

PE04: 5001 West Oxford Avenue, Parcel #08063-01-006-000 (built 1963)

The house at 5001 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado (see Figure 6). The house is an example of a Mid-century Modern Ranch and does not seem to have been heavily modified. The roof is gabled with one front-facing cross-gable at the west end of the house creating an L-shape with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with orange brick and white-painted board-and-batten siding. Above the garage portion of the house, the roof features a simple cupola structure with exposed rafter tails and board-and-batten siding. At the entrance sidewalk, the house features a prominent wide-exterior brick chimney, typical of mid-century modern buildings. Adjacent to the chimney is a prominent corner casement window

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



with built-in brick planter. Over the house's front entry is a shed roof with a distinctive curved support.



Figure 6. Residence at 5001 West Oxford Avenue (PE04).

PE05: 4961 West Oxford Avenue, Parcel #08063-01-007-000 (built 1964)

The house at 4961 West Oxford Avenue is a two-story Minimal Traditional house with Colonial Revival detailing located in Denver, Denver County, Colorado (see Figure 7). The roof is side-gabled with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with horizontal siding and brick. The two-story house features various distinctive and unique characteristics. Above the doorway is a front-gabled pediment supported with simple cylindrical columns featuring a modern sun with rays. The second-story six-over-six windows feature fence-like shutters. On the façade's first floor, the front door is flanked with two bay windows.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 7. Residence at 4961 West Oxford Avenue (PE05).

PE06: 4941 West Oxford Avenue, Parcel #08063-01-015-000 (built 1964)

The house at 4941 West Oxford Avenue is a one-story Ranch-style single-family residence located in Denver, Denver County, Colorado (see Figure 8). The house is an example of a Classic Ranch and has not been heavily modified. The roof is gabled with one front-facing cross-gable at the west end of the house creating an L-shape with wood-shingles. The house, built in 1964 according to Denver Assessment records, is clad with red brick siding. This house features a double-entry drive-through driveway with access to the two-car garage. Other character-defining features of the house includes a metal-roofed cupola with weather vane over the garage, as well as, an interior wide brick chimney seen on the roofline.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 8. Residence at 4941 West Oxford Avenue (PE06).

PE07: 4921 West Oxford Avenue, Parcel #08063-01-016-000 (built 1964)

The house at 4921 West Oxford Avenue is a two-story house located in Denver, Denver County, Colorado (see Figure 9). The house is an example of a Colonial Revival-influenced Minimal Traditional and has been moderately modified. The roof is side-gabled with some type of synthetic roof tile with four minor gables over the house's second-story windows. The house, built in 1964 according to Denver Assessment records, is clad with brick and horizontal siding. The first-story portion of the façade features a double door entry with sidelights flanked with a large window to the west and two-car garage on the west. The door and window are slightly inset over a one-story porch overhang supported by three Doric columns. The second-story features four windows underneath the earlier mentioned slight gables in the roofline. Additionally, a character-defining wide brick chimney can be seen from the west elevation of the house.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 9. Residence at 4921 West Oxford Avenue (PE07).

PE08: 4901 West Oxford Avenue, Parcel #08063-01-008-000 (built 1966)

The house at 4901 West Oxford Avenue is a two-story house located in Denver, Denver County, Colorado (see Figure 10). The house is an example of a Minimal Traditional-style single-family residence and has not been heavily modified. The roof is side-gabled with two one-story side-gabled projecting wings from the main two-story structure, all featuring brown asphalt shingles. The house, built in 1966 according to Denver Assessment records, is clad with red brick and green-painted decorative horizontal siding. The second-story of the house features two double six-over-six windows with distinctive shutters. The first-story of the house's façade features various windows and a single-door entry with sidelights. This house's garage is on the eastern elevation and also features an exterior brick chimney on the west elevation.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 10. Residence at 4901 West Oxford Avenue (PE08).

PE09: 4891 West Oxford Avenue, Parcel #08063-01-017-000 (built 1963)

The house at 4891 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado (see Figure 11). The house is an example of a Cottage-influenced Ranch and has not been heavily modified. The roof is gabled with one front-gable creating an L-shape, featuring with wood shingles. The house, built in 1963 according to Denver Assessment records, is clad with orange brick and white-painted vertical siding. According to the Denver Property System, the house is a 1,722 square foot home with three bedrooms with three bathrooms with a partially finished basement. The house features various windows of six-over-six and four-over-four windows with single door entrance. The garage is located within the L-shaped portion of the house, not directly facing Oxford Avenue. The garage features a unique window with large diamond panes.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 11. Residence at 4891 West Oxford Avenue (PE09).

PE10: 4851 West Oxford Avenue, Parcel #08063-01-009-000 (built 1963)

The house at 4851 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado (see Figure 12). According to the Denver Property System, the house is 2,316 square feet with four bedrooms and three and a half bathrooms with a partially finished basement. The house is an example of a Minimal Traditional-style single-family residence with Colonial Revival detailing and has been moderately modified. The roof is side-gabled with gray asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and yellow-painted horizontal siding. The house's three-quarter front porch is a shed-roof with posts over the double door entry. The house also features window dormers on the second floor with a prominent wide interior brick chimney. Lastly, the house's two-car garage is an attached front-gabled portion of the house located on the east side.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 12. Residence at 4851 West Oxford Avenue (PE10).

PE11: 4801 West Oxford Avenue, Parcel #08063-01-010-000 (built 1964)

The building at 4801 West Oxford Avenue is a Split-level Ranch-style house located in Denver, Denver County, Colorado (see Figure 13). According to the Denver Property System, the 2,221 square foot house has five bedrooms and three bathrooms with a partially finished basement. The house is an example of a Minimal Traditional home and has not been heavily modified. The roof is gabled with an L-shaped form with gray asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and white/cream-painted horizontal siding. The house prominently features eight-over-eight windows with faux shutters and a single door entry with sidelight. Another distinctive feature is the house's entry with a raised circular brick planter.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 13. Residence at 4801 West Oxford Avenue (PE11).

PE12: 4781 West Oxford Avenue, Parcel #08063-01-011-000 (built 1963)

The house at 4781 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado (see Figure 14). According to the Denver Property System, the 2,205 square-foot house has four bedrooms and two and a half bathrooms with an unfinished basement. The house is an example of a Minimal Traditional and has not been heavily modified. The roof is side-gabled with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and tan-painted horizontal siding. The house features a single-door entry with six-over-six windows accompanied by faux shutters. The two-car garage is attached as a wing on the east side of the house and features a simple cupola on the gable of the garage.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 14. Residence at 4781 West Oxford Avenue (PE12).

PE13: 4741 West Oxford Avenue, Parcel #08063-01-012-000 (built 1964)

The house at 4741 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado (see Figure 15). According to the Denver Property System, the 1,942 square-foot house has four bedrooms and three and a half baths with a partially finished basement. The house is an example of a Minimal Traditional ranch and has not been heavily modified. The roof is gabled in a L-shape with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with red brick and cream-painted horizontal siding. The house features a single-door entry with various horizontal sliding glass windows. The house's most distinctive features are located on the house's roof. These include a decorative wide interior brick chimney and a cupola over the garage.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 15. Residence at 4741 West Oxford Avenue (PE13).

PE14: 4701 West Oxford Avenue, Parcel #08063-01-013-000 (built 1964)

The house at 4701 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado (see Figure 16). According to the Denver Property System, the 2,612 square-foot home has four bedrooms and two and a half baths with an unfinished basement. The house is an example of a dutch colonial-influenced minimal traditional and has not been heavily modified aside from the garage door which looks like it has been replaced. The side-gambrel roof with shed roof flares has four window dormers with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with white-painted brick and white-painted horizontal siding. The house's porch features turned posts and a railing enclosing the space. A wide brick chimney can be seen on the exterior of the east elevation.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 16. Residence at 4701 West Oxford Avenue (PE14).

PE15: 4661 West Oxford Avenue, Parcel #08063-01-014-000 (built 1964)

The house at 4661 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado (see Figure 17). The house is an example of a minimal traditional and has not been heavily modified. The roof is side-gabled with brown asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with brick and yellow-painted horizontal siding. The house's most distinctive characteristic is the brick pattern and the disorganized and wavy nature of it. The post-supported porch protects a single-door entry with a modern five-window bay window. A small simple brick chimney can be seen emerging from the interior of the house through the roofline.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 17. Residence at 4661 West Oxford Avenue (PE15).

PE16: 4631 West Oxford Avenue, Parcel #08063-01-018-000 (built 1966)

The house at 4631 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado (see Figure 18). According to the Denver Property System, the 2,196 square-foot house has four bedrooms and three and a half baths and a partially finished basement. The house is an example of a minimal traditional and has not been heavily modified. The roof is side-gabled with three second-story small roofline dormers with brown asphalt shingles. The house, built in 1966 according to Denver Assessment records, is clad with brick and tan-painted horizontal siding. The home features a double-door entry with one-over-one windows, featuring faux shutters on the first-floor façade. The house also features a two-car garage.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 18. Residence at 4631 West Oxford Avenue (PE16).

PE17: 4601 West Oxford Avenue, Parcel #08063-01-019 -000 (built 1964)

The house at 4601 West Oxford Avenue is a tri-level home located in Denver, Denver County, Colorado (see Figure 19). According to the Denver Property System, the 2,238 square-foot house has three bedrooms and three baths with a partially finished basement. The house is an example of a minimal traditional and has not been heavily modified. The roof is gabled with one front facing cross-gable at the east end of the house with wood shingles. The house, built in 1964 according to Denver Assessment records, is clad with brick and tan-painted board-and-batten siding. The house features a bay window and horizontal sliding windows. The second story and main-level windows feature faux shutters. The single-door entry features sidelights and house also features an external wide brick chimney.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Figure 19. Residence at 4601 West Oxford Avenue (PE17).

PE18: 4102 South Vrain Street, Parcel #08063-01-020-000 (built 1965)

The house at 4102 South Vrain Street is a one-story ranch located in Denver, Denver County, Colorado (see Figure 20). According to the Denver Property System, the 2,453 square-foot house has four bedrooms and three baths with a finished basement. The house is an example of a minimal traditional ranch and has not been heavily modified. The roof is hipped with valleys in an H-shape with gray asphalt shingles. The house, built in 1965 according to Denver Assessment records, is clad with red brick and white-painted horizontal siding. The house features various windows with a single-door entry with sidelights and a two-car garage.



Figure 20. Residence at 4102 South Vrain Street (PE18).

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



Historic Context & Significance

In accordance with the *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*, a property is eligible for listing if one of the following criteria for significance are met.

The quality of significance in American History, architecture, archaeology, engineering, and culture is present in buildings, districts, sites, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. *That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. *That are associated with the lives of significant persons in our past; or*
- C. *That embody the distinctive characteristics of a type, period, or method of construction, or that represent with work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- D. *That have yielded or may be likely to yield, information important to history or prehistory.*

PE01-PE18: 4601-5101 West Oxford Avenue, 4102 South Vrain Street (Built 1963-1966)

CRITERION A: HISTORY

In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings" (The Colorado Transcript).

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region (Koelbel).

While the neighborhood development may have significance as a whole, the individual properties surveyed do not possess the requisite level of historical significance under Criterion A.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



CRITERION B: PEOPLE

Research for the project revealed associations with Carl Norgren and Walter Koelbel with the suburban development of the Pinehurst Estates and Country Club. The houses individually do not possess significance under Criterion B.

CRITERION C: ARCHITECTURE

The buildings are modest examples of the suburban minimal traditional and mid-century modern Ranch style, and the house's lack significant architectural merit at an individual scale. Therefore, the historic-age buildings do not possess significance under NRHP Criterion C.

CRITERION D: INFORMATION POTENTIAL

This site was not evaluated for its potential to yield archaeological data or additional information regarding cultural traditions related to agriculture.

INTEGRITY

The *National Register Bulletin 15* defines the integrity of historic properties as:

The ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the National Register criteria, but it must also have integrity. The evaluation of integrity...must always be grounded in an understanding of a property's physical features and how they relate to its significance.

The physical integrity and associative qualities of the subject property were evaluated according to the seven aspects of integrity and is as follows:

LOCATION

The subject properties remain in their original locations.

DESIGN

Though no historical photographs were located for the resources, the houses have been minimally altered by various minor additions and moderately reflect their original designs.

SETTING

Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resources.

MATERIALS

The buildings are clad in various materials and most seem to have not changed greatly. Some windows and roof materials have been altered and include modern materials.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



WORKMANSHIP

The buildings are examples of the post-modern Ranch and Minimal Traditional style residences; but evidence of its original workmanship from Koelbel no longer exist.

FEELING

The resources do retain feeling due to the development of the surrounding area. Additionally, the properties themselves have not changed from residential houses.

ASSOCIATION

The buildings have been and are still associated with the Pinehurst Estates development and Country Club.

NRHP ELIGIBILITY RECOMMENDATION

The buildings at 4601-5101 West Oxford Avenue and 4102 South Vrain Street, constructed between 1963–1966, have not been greatly altered at their exteriors since original construction as part of the Pinehurst Estates development. When alterations have been undertaken, they appear to be limited to modern windows and fixtures. However, the houses as individual properties do not express enough significance to be considered eligible to the NRHP. Terracon recommends the buildings Not Eligible for inclusion on the NRHP.

7.0 SUMMARY OF RECOMMENDATION

Terracon surveyed the project area within the Fort Logan National Cemetery (APE for direct effects). Fort Logan National Cemetery, as with all National Cemeteries, is eligible for inclusion on the NRHP as “a result of their Congressional designation as nationally significant places of burial and commemoration.” Terracon recommends a finding of ***No Adverse Effect to Historic Properties*** within the APE for direct effects. Terracon surveyed eighteen historic-age buildings within the APE for visual effects and recommends the individual buildings Not Eligible for inclusion on the NRHP. Therefore, Terracon recommends a finding of ***No Historic Properties Present*** within the APE for visual effects.

Historic Resources Survey Report

Columbarium Wall at Fort Logan Nat'l Cemetery ■ Denver, Colorado
September 2021 ■ Terracon Project No. 9620P121.6



REFERENCES CITED

Colorado Historical Society

2007 Colorado Cultural Resource Survey Manual. Electronic Document,
www.historycolorado.org/sites/default/files/files/OAHP/crforms, September 7, 2021.

Colorado Historical Society Office of Archaeology and Historic Preservation Compass
<http://gis.co.gov/compass>, accessed September 7, 2021.

Colorado Historical Society- Office of Archaeology and Historic Preservation Listings by County
<http://www.historycolorado.org/oahp/listings-county>

Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

Tweto, Ogden

1979 *Geologic Map of Colorado: U.S. Geological Survey Special Geologic Map*, scale
1:500,000.

URS Group, Inc. (URS)

2012 *Preliminary Draft Environmental Assessment John Law Ditch Flood Mitigation Project
Town of Windsor, Colorado*. URS Group, Inc., Omaha, Nebraska.

USDA Web Soil Survey

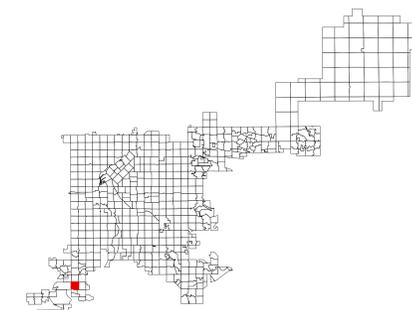
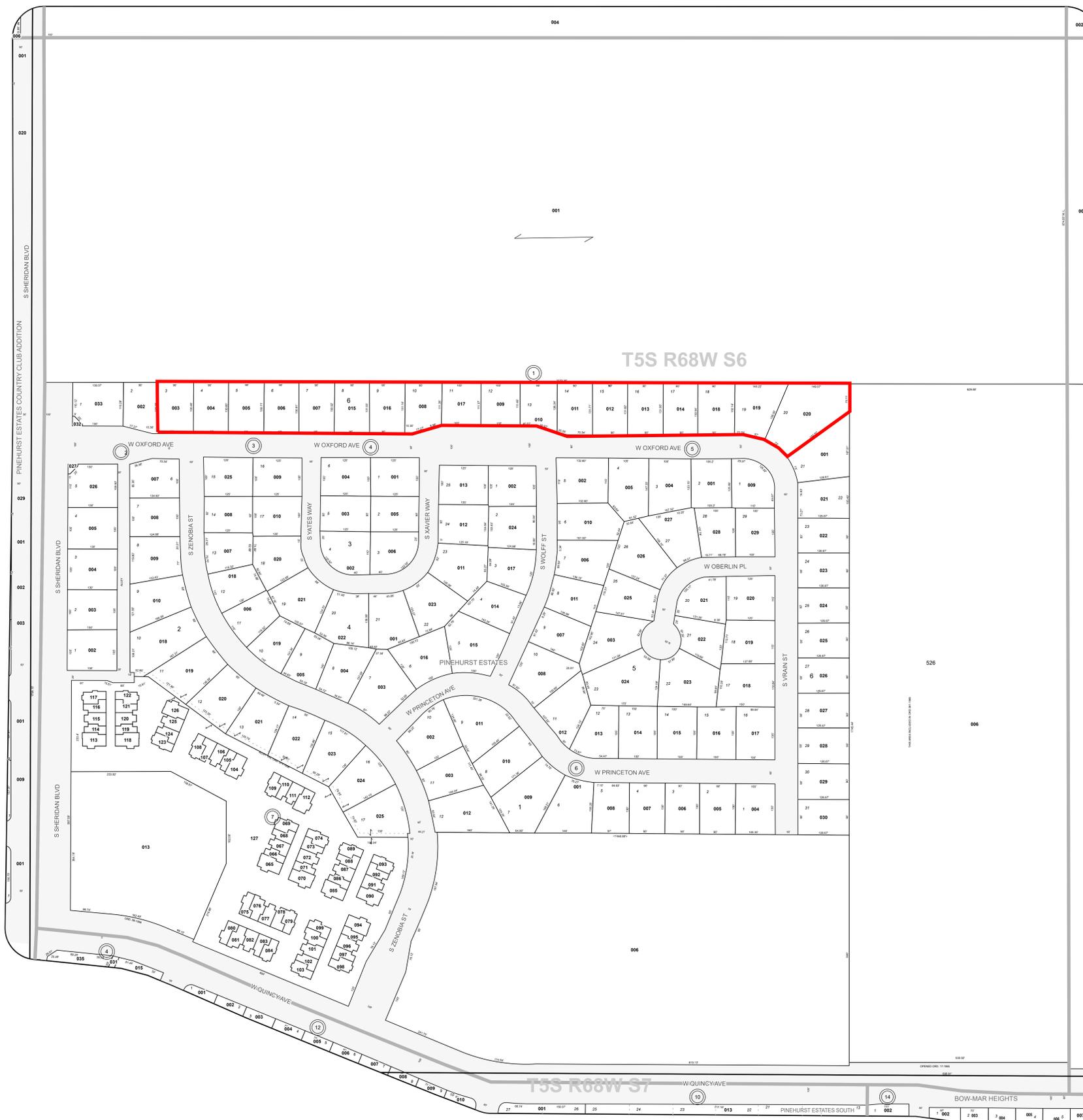
2021 Weld County, CO USDA-NRCS Web Soil Survey Version 10; September 7, 2021.

APPENDIX

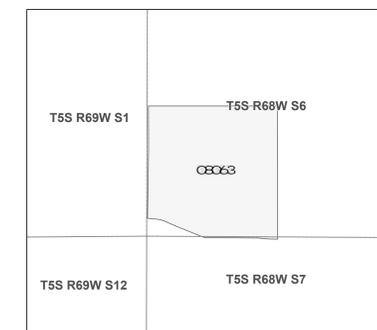
Maps & Photographs

Denver County Assessor's Map

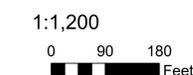
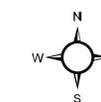
08063



City and County of Denver
Assessor Map Index



Surrounding Mapsheets



Projection: StatePlane
 Units: US Survey Feet
 Colorado Central Zone 502
 Horizontal Datum: NAD83/92 HARN
 Vertical Datum: NAVD83
 Map Updated: 6/24/2021

Disclaimer: The City and County of Denver shall not be liable for damages of any kind arising out of the use of this information. The information is provided "as is" without warranty of any kind, express or implied, including, but not limited to, the fitness for a particular use. This is not a legal document.



Photo #1 View of proposed columbarium wall location. View to the southwest.



Photo #2 View of proposed columbarium wall location. View to the southeast.



Photo #3 View of proposed columbarium wall location. View to the west.



Photo #4 View of proposed columbarium wall location. View to the east.



Photo #5 View of proposed columbarium wall location. View to the east.



Photo #6 View of proposed columbarium wall location. View to the west.



Photo #7 View of proposed columbarium court location. View to the east.



Photo #8 View of proposed columbarium wall from cemetery. View to the southeast.



Photo #9 View of proposed columbarium wall from Denver Drive. View to the southeast.



Photo #10 View of proposed columbarium wall from Denver Drive. View to the southwest.



Photo #11 View of West Oxford Avenue from Sheridan Boulevard. View to the east.



Photo #12 View of West Oxford Avenue. View to the northeast.



Photo #13 View of 5101 West Oxford Avenue (PE01). View to the north.



Photo #14 View of 5071 West Oxford Avenue (PE02). View to the north.



Photo #15 View of 5031 West Oxford Avenue (PE03). View to the north.



Photo #16 View of 5001 West Oxford Avenue (PE04). View to the north.



Photo #17 View of 4961 West Oxford Avenue (PE05). View to the northeast.



Photo #18 View of 4941 West Oxford Avenue (PE06). View to the north.



Photo #19 View of 4921 West Oxford Avenue (PE07). View to the north.



Photo #20 View of 4901 West Oxford Avenue (PE08). View to the southeast.



Photo #21 View of 4891 West Oxford Avenue (PE09). View to the northeast.

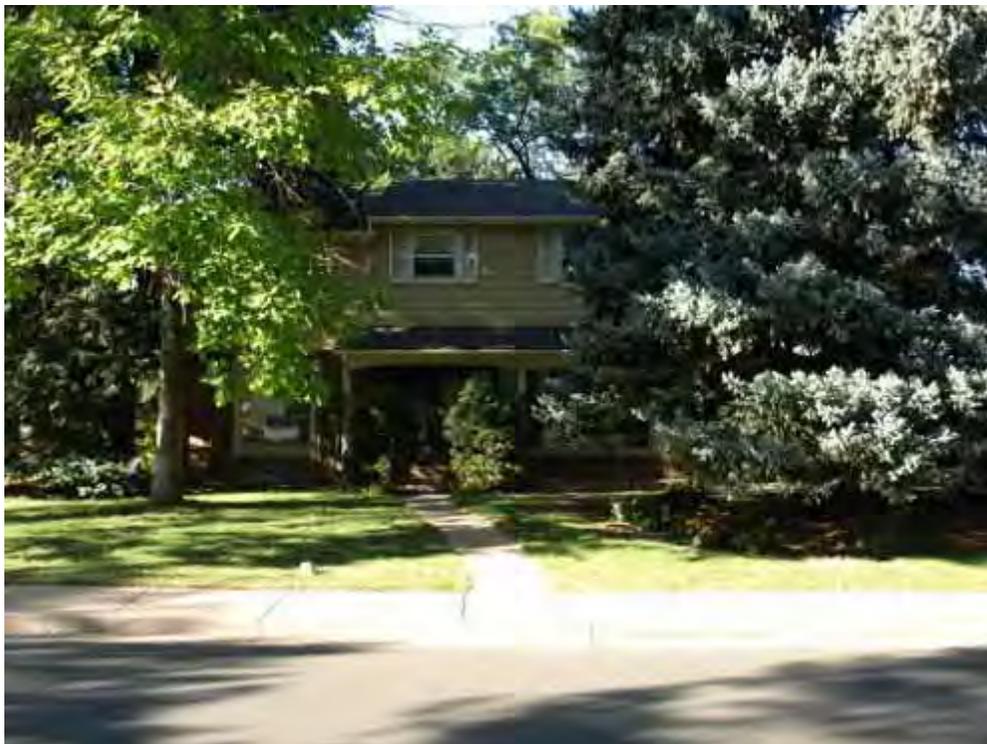


Photo #22 View of 4851 West Oxford Avenue (PE10). View to the north.



Photo #23 View of 4801 West Oxford Avenue (PE11). View to the north.



Photo #24 View of 4781 West Oxford Avenue (PE12). View to the north.



Photo #25 View of 4741 West Oxford Avenue (PE13). View to the north.



Photo #26 View of 4701 West Oxford Avenue (PE14). View to the north.



Photo #27 View of 4661 West Oxford Avenue (PE15). View to the north.



Photo #28 View of 4631 West Oxford Avenue (PE16). View to the northwest.



Photo #29 View of 4601 West Oxford Avenue (PE17). View to the northeast.



Photo #30 View of 4102 South Vrain Street (PE18). View to the northeast.



Photo #31 View of Fort Logan National Cemetery from West Oxford Avenue. View to the north.

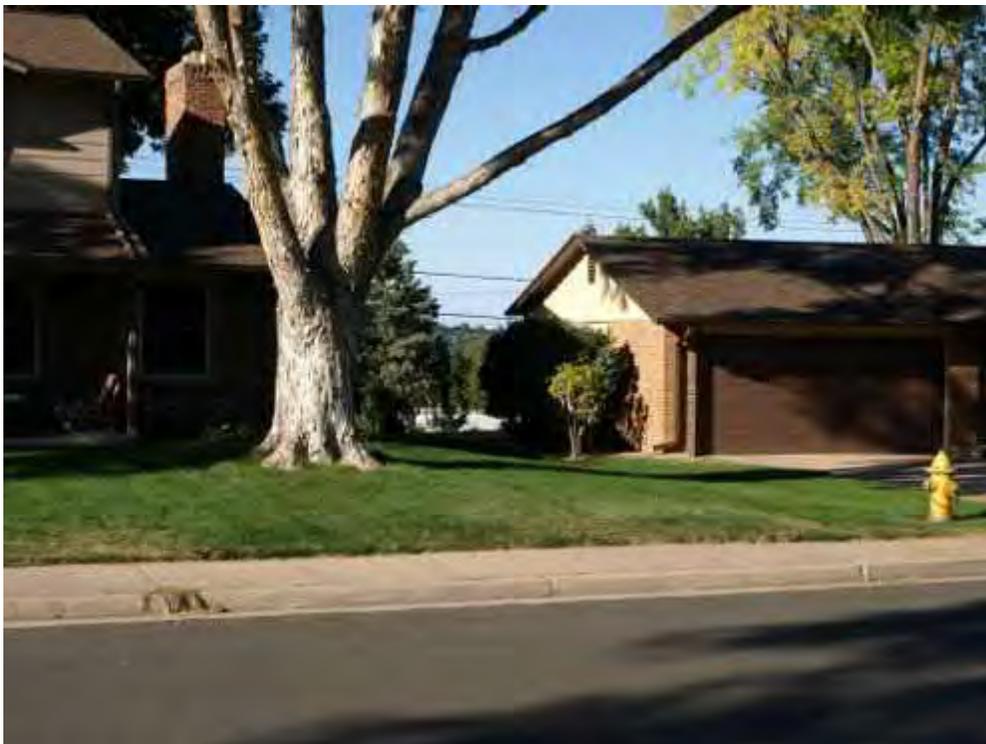


Photo #32 View of Fort Logan National Cemetery from West Oxford Avenue. View to the northeast.

SHPO Forms

Resource Number:
Temporary Resource Number: PE01

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE01
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 5101 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:
Henry Jr. and Roslyn A. Navarro
5101 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 5 3 4 mE 4 3 8 8 1 7 7 mN
11. USGS quad name: FORT LOGAN, CO _____
Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.
12. Lot(s): 3 Block: 6
Addition: Pinehurst Estates Year of Addition: N/A _____
13. Boundary Description and Justification:
Property boundaries are the extent of the parcel (08063-01-003-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~75' x Width ~45'
16. Number of stories: 1
17. Primary external wall material(s): BRICK, BOARD & BATTEN
18. Roof configuration: GABLED ROOF: CROSS GABLED ROOF

Resource Number:

Temporary Resource Number: PE01

19. Primary external roof material: ASPHALT ROOF

20. Special features: FENCE, STOOP, ATTACHED GARAGE, PATIO

21. General architectural description:

The house at 5101 West Oxford Avenue is a one-story ranch located in Denver, Denver County, Colorado. The house is an example of a neo-traditional ranch and has not been heavily modified. The roof is gabled with two front facing cross-gables at each end of the house with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and tan-painted board-and-batten siding. On the sides of the house, horizontal siding can be seen in the gable ends. The façade of the house features a wide variety of windows including one false-window over the garage. The front facing gables of the house also feature distinctive trim with decorative curved edges.

22. Architectural style/building type: NEO-ECLECTIC, RANCH TYPE

23. Landscaping or special setting features: Grass Lawn, Flower Beds, Concrete Patio and Driveway, Brick Planter with Lightpost.

24. Associated buildings, features, or objects: None.

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A_____ Actual: 1963_____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved _____ Date of move(s): N/A

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

Resource Number:

Temporary Resource Number: PE01

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: N/A_

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

X C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

___ D. Has yielded, or may be likely to yield, information important in history or prehistory.

Resource Number:

Temporary Resource Number: PE01

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

Resource Number:
Temporary Resource Number: PE01

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3
Negatives filed at: Terracon
48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado
49. Date(s): September 8, 2021
50. Recorder(s): Nicholas C. Powell
51. Organization: Terracon
52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033
53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE01
 5101 West Oxford Avenue
 Denver, CO

Figure	1
--------	---



Photo #1 View of 5101 West Oxford Avenue. View to the northeast.



Photo #2 View of 5101 West Oxford Avenue. View to the north.



Photo #3 View of 5101 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE02

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE02
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 5071 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Kimberly J. Roybal and Leonard R. Ward
5071 West Oxford Avenue, Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3; 4 9 5 5 6 3 mE 4 3 8 8 1 8 3 mN
11. USGS quad name: FORT LOGAN, CO _____
Year: 1994 ___ Map scale: 7.5' X 15' ___ Attach photo copy of appropriate map section.
12. Lot(s): 4 Block: 6
Addition: N/A Year of Addition: N/A
13. Boundary Description and Justification:

Property boundaries are the extent of the parcel (08063-01-004-000)

III. Architectural Description

14. Building plan (footprint, shape): L-SHAPED
15. Dimensions in feet: Length ~61' x Width ~65' _____
16. Number of stories: 1
17. Primary external wall material(s): STONE
18. Roof configuration: GABLED ROOF
19. Primary external roof material: ASPHALT ROOF

Resource Number:

Temporary Resource Number: PE02

20. Special features: ATTACHED GARAGE

21. General architectural description: The building at 5071 West Oxford Avenue was constructed in 1963, as indicated by the Denver Assessment records. This L-shaped, one-story concrete-block, stone-clad house fronts on Oxford Avenue. The house is designed in a mid-century modern Ranch style. The building measures approximately 61-feet long by 65-feet wide with a moderate-pitched gabled rooftop. According to the Denver County Assessor, the building is 2,043 square feet with three bedrooms and two and a half baths with finished basement.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass Lawn, Concrete Driveway

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1963____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The

Resource Number:

Temporary Resource Number: PE02

club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family.

In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

X C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

___ D. Has yielded, or may be likely to yield, information important in history or prehistory.

___ Qualifies under Criteria Considerations A through G (see Manual)

___ Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

Resource Number:

Temporary Resource Number: PE02

40. Period of significance: 1963

41. Level of significance: National ___ State X Local X

42. Statement of significance: The building at 5071 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible ___ Not Eligible X Need Data ___

45. Is there National Register district potential? Yes X No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing X Noncontributing ___

46. If the building is in existing National Register district, is it: Contributing ___ Noncontributing ___

Resource Number:

Temporary Resource Number: PE02

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-2

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE02
5071 W. Oxford Ave

Figure
1



Photo #1 View of 5071 West Oxford Avenue. View to the north.



Photo #2 View of 5071 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE03

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE03
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 5031 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Tara A. Nalty
5031 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 5 9 1 mE 4 3 8 8 1 8 1 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.
12. Lot(s): 5 Block: 6
Addition: _____ Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-005-000).

III. Architectural Description

14. Building plan (footprint, shape): L-SHAPE
15. Dimensions in feet: Length ~55' x Width ~72'
16. Number of stories: 1
17. Primary external wall material(s): STONE, WOOD: BOARD & BATTEN
18. Roof configuration: GABLED ROOF

Resource Number:

Temporary Resource Number: PE03

19. Primary external roof material: ASPHALT ROOF

20. Special features: FENCE, CHIMNEY, ATTACHED GARAGE

21. General architectural description: The house at 5031 West Oxford Avenue is a one-story Ranch-style single-family residence located in Denver, Denver County, Colorado. The house is an example of a Neo-traditional Ranch and has not been heavily modified. The roof is gabled with two front facing cross-gables at each end of the house with gray asphalt shingles. The front-facing gable at the western edge of the house houses a two-car garage with two singular doors. The house, built in 1963 according to Denver Assessment records, is clad with stone (east side) and cream-painted board-and-batten siding (central and west side). The façade of the house features a wide variety of windows and a double-door front entry.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass lawn, driveway, mature shrubbery, lamp post.

24. Associated buildings, features, or objects: None.

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A_____ Actual: 1963_____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Copmany

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location Moved Date of move(s): N/A

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

Resource Number:

Temporary Resource Number: PE03

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

X C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

___ D. Has yielded, or may be likely to yield, information important in history or prehistory.

Resource Number:

Temporary Resource Number: PE03

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 5031 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

Resource Number:

Temporary Resource Number: PE03

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE03
5031 W. Oxford Ave

Figure
1



Photo #1 View of 5031 West Oxford Avenue. View to the north.



Photo #2 View of 5031 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE04

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE04
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 5001 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Lynnee C. Parker Trust
5001 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 6 1 8 mE 4 3 8 8 1 7 9 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 Map scale: 7.5' X 15' Attach photo copy of appropriate map section.

12. Lot(s): 6 Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-006-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~76' x Width ~55' _____
16. Number of stories: 1

Resource Number:

Temporary Resource Number: PE04

17. Primary external wall material(s): BRICK, WOOD: BOARD AND BATTEN

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: CHIMNEY, CUPOLA, SHED ROOF ENTRY HOOD, ATTACHED GARAGE

21. General architectural description: The house at 5001 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado. The house is an example of a Mid-century Modern Ranch and does not seem to have been heavily modified. The roof is gabled with one front-facing cross-gable at the west end of the house creating an L-shape with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with orange brick and white-painted board-and-batten siding. Above the garage portion of the house, the roof features a simple cupola structure with exposed rafter tails and board-and-batten siding. At the entrance sidewalk, the house features a prominent wide-exterior brick chimney, typical of mid-century modern buildings. Adjacent to the chimney is a prominent corner casement window with built-in brick planter. Over the house's front entry is a shed roof with a distinctive curved support.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass lawn, concrete driveway, brick planters, iron railing, light post, mature trees

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1963____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):
Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE04

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING
32. Intermediate use(s): N/A
33. Current use(s): DOMESTIC: SINGLE DWELLING
34. Site type(s): Suburban Home
35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:
Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE04

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 5001 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE04

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE04
5001 W. Oxford Ave

Figure
1



Photo #1 View of 5001 West Oxford Avenue. View to the north.



Photo #2 View of 5001 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE05

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE05
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4961 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Benjamin Dickson
4961 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 6 4 6 mE 4 3 8 8 1 7 6 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 7 Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-007-000).

III. Architectural Description

14. Building plan (footprint, shape): RECTANGULAR PLAN
15. Dimensions in feet: Length ~60' x Width ~40' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE05

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: FENCE, GABLED ENTRY HOOD, COLUMN, ATTACHED GARAGE

21. General architectural description: The house at 4961 West Oxford Avenue is a two-story Minimal Traditional house with Colonial Revival detailing located in Denver, Denver County, Colorado. The roof is side-gabled with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with horizontal siding and brick. The two-story house features various distinctive and unique characteristics. Above the doorway is a front-gabled pediment supported with simple cylindrical columns featuring a modern sun with rays. The second-story six-over-six windows feature fence-like shutters. On the façade's first floor, the front door is flanked with two bay windows.

22. Architectural style/building type: NEO-COLONIAL

23. Landscaping or special setting features: Grass Lawn, Concrete driveway and sidewalk, mature trees, fencing

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE05

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

Resource Number:

Temporary Resource Number: PE05

C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

D. Has yielded, or may be likely to yield, information important in history or prehistory.

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4961 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

Resource Number:

Temporary Resource Number: PE05

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager: NCP	Project No. 9620P121	 5307 Industrial Oaks Blvd Ste 160 Austin, TX 78735-8821	TOPOGRAPHIC MAP	Figure
Drawn by: NCP	Scale: 1"=2,000'		<div style="border: 2px solid red; padding: 5px;"> PE05 5961 W. Oxford Ave </div>	<div style="border: 2px solid red; padding: 10px; font-size: 2em;">1</div>
Checked by: SEV	File Name: FILTodos			
Approved by: SEV	Date: 9/23/2021			



Photo #1 View of 4961 West Oxford Avenue. View to the northeast.



Photo #2 View of 4961 West Oxford Avenue. View to the north.



Photo #3 View of 4961 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE06

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE06
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4941 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Robert O. & Grace Read
4941 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 6 7 4 mE 4 3 8 8 1 3 8 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 15 Block: 6
Addition: Pinehurst Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-015-000).

III. Architectural Description

14. Building plan (footprint, shape): T-SHAPED PLAN
15. Dimensions in feet: Length ~70' x Width ~65' _____
16. Number of stories: 1

Resource Number:

Temporary Resource Number: PE06

17. Primary external wall material(s): BRICK

18. Roof configuration: GABLED

19. Primary external roof material: ASPHALT ROOF

20. Special features: CHIMNEY, CUPOLA, ATTACHED GARAGE, FENCE

21. General architectural description: The house at 4941 West Oxford Avenue is a one-story Ranch-style single-family residence located in Denver, Denver County, Colorado. The house is an example of a Classic Ranch and has not been heavily modified. The roof is gabled with one front-facing cross-gable at the west end of the house creating an L-shape with wood-shingles. The house, built in 1964 according to Denver Assessment records, is clad with red brick siding. This house features a double-entry drive-through driveway with access to the two-car garage. Other character-defining features of the house includes a metal-roofed cupola with weather vane over the garage, as well as, an interior wide brick chimney seen on the roofline.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass lawn, wraparound concrete driveway, mature trees and shrubs

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location Moved Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE06

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority:

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

Resource Number:

Temporary Resource Number: PE06

C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

D. Has yielded, or may be likely to yield, information important in history or prehistory.

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4941 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

Resource Number:

Temporary Resource Number: PE06

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE06 4961 W. Oxford Ave

Figure
1



Photo #1 View of 4941 West Oxford Avenue. View to the northeast.



Photo #2 View of 4941 West Oxford Avenue. View to the north.

Resource Number:
Temporary Resource Number: PE07

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE07
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4921 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Richard P. Salgado
1057 Rose Avenue
Mountain View, CA 84040

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 7 0 1 mE 4 3 8 8 1 7 5 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 16 _____ Block: 6
Addition: Pinehurst Estates _____ Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-016-000).

III. Architectural Description

14. Building plan (footprint, shape): RECTANGULAR PLAN
15. Dimensions in feet: Length ~50' x Width ~40' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE07

17. Primary external wall material(s): WOOD: HORIZONTAL SIDING, BRICK

18. Roof configuration: GABLED ROOF: SIDE GABLED

19. Primary external roof material: ASPHALT ROOF

20. Special features: DORMER, CHIMNEY, COLUMN: DORIC, PORCH, ATTACHED GARAGE, FENCE

21. General architectural description: The house at 4921 West Oxford Avenue is a two-story house located in Denver, Denver County, Colorado. The house is an example of a Colonial Revival-influenced Minimal Traditional and has been moderately modified. The roof is side-gabled with some type of synthetic roof tile with four minor gables over the house's second-story windows. The house, built in 1964 according to Denver Assessment records, is clad with brick and horizontal siding. The first-story portion of the façade features a double door entry with sidelights flanked with a large window to the west and two-car garage on the west. The door and window are slightly inset over a one-story porch overhang supported by three Doric columns. The second-story features four windows underneath the earlier mentioned slight gables in the roofline. Additionally, a character-defining wide brick chimney can be seen from the west elevation of the house.

22. Architectural style/building type: NEO-COLONIAL

23. Landscaping or special setting features: Grass lawn, light post.

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A ____ Actual: 1964 ____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE07

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DONESTIC: SINGLE DWELLING
32. Intermediate use(s): N/A
33. Current use(s): DOMESTIC: SINGLE DWELLING
34. Site type(s): Suburban House
35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes No Date of designation: _____
Designating authority: N/A

Resource Number:

Temporary Resource Number: PE07

38. Applicable National Register Criteria:

A. Associated with events that have made a significant contribution to the broad pattern of our history;

B. Associated with the lives of persons significant in our past;

C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

D. Has yielded, or may be likely to yield, information important in history or prehistory.

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4921 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

Resource Number:

Temporary Resource Number: PE07

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible ___ Not Eligible X Need Data ___

45. Is there National Register district potential? Yes X No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing X Noncontributing ___

46. If the building is in existing National Register district, is it: Contributing ___ Noncontributing ___

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE07
4921 W. Oxford Ave

Figure
1



Photo #1 View of 4921 West Oxford Avenue. View to the northeast.



Photo #2 View of 4921 West Oxford Avenue. View to the north.



Photo #3 View of 4921 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE08

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE08
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4901 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Ruth Ann Rowley Manro Life Estate
4901 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 7 3 1 mE 4 3 8 8 1 7 9 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 8 Block: 6
Addition: Pinehurst Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-008-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~72' x Width ~44' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE08

17. Primary external wall material(s): BRICK, WOOD

18. Roof configuration: GABLED ROOF: SIDE GABLED

19. Primary external roof material: ASPHALT ROOF

20. Special features: CHIMNEY, PATIO, ATTACHED GARAGE

21. General architectural description: The house at 4901 West Oxford Avenue is a two-story house located in Denver, Denver County, Colorado (see Figure 10). The house is an example of a Minimal Traditional-style single-family residence and has not been heavily modified. The roof is side-gabled with two one-story side-gabled projecting wings from the main two-story structure, all featuring brown asphalt shingles. The house, built in 1966 according to Denver Assessment records, is clad with red brick and green-painted decorative horizontal siding. The second-story of the house features two double six-over-six windows with distinctive shutters. The first-story of the house's façade features various windows and a single-door entry with sidelights. This house's garage is on the eastern elevation and also features an exterior brick chimney on the west elevation.

22. Architectural style/building type: NEO-CRAFTSMAN

23. Landscaping or special setting features: Grass lawn, mature trees, concrete driveway and sidewalk, lightpost with brick planter.

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A ____ Actual: 1966 ____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "County Commissioners Consider Zoning Change at Hampden, Sheridan," May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):
Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE08

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING
32. Intermediate use(s): N/A
33. Current use(s): DOMESTIC: SINGLE DWELLING
34. Site type(s): Suburban Home
35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes No Date of designation: _____
Designating authority: N/A

Resource Number:

Temporary Resource Number: PE08

38. Applicable National Register Criteria:

- A. Associated with events that have made a significant contribution to the broad pattern of our history;
- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1966

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

Resource Number:

Temporary Resource Number: PE08

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible ___ Not Eligible X Need Data ___

45. Is there National Register district potential? Yes X No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing X Noncontributing ___

46. If the building is in existing National Register district, is it: Contributing ___ Noncontributing ___

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE08 4901 W. Oxford Ave

Figure
1



Photo #1 View of 4901 West Oxford Avenue. View to the northeast.



Photo #2 View of 4901 West Oxford Avenue. View to the north.



Photo #3 View of 4901 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE09

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE09
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4891 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Patricia Stadler
4891 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 7 6 1 mE 4 3 8 8 1 8 6 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 17 Block: 6
Addition: Pinehust Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-017-000).

III. Architectural Description

14. Building plan (footprint, shape): L-SHAPED PLAN
15. Dimensions in feet: Length ~60' x Width ~65' _____
16. Number of stories: 1
17. Primary external wall material(s): BRICK, WOOD: VERITCAL SIDING

Resource Number:

Temporary Resource Number: PE09

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: SHED ROOF ENTRY HOOD, PATIO, ATTACHED GARAGE

21. General architectural description: The house at 4891 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado. The house is an example of a Cottage-influenced Ranch and has not been heavily modified. The roof is gabled with one front-gable creating an L-shape, featuring with wood shingles. The house, built in 1963 according to Denver Assessment records, is clad with orange brick and white-painted vertical siding. According to the Denver Property System, the house is a 1,722 square foot home with three bedrooms with three bathrooms with a partially finished basement. The house features various windows of six-over-six and four-over-four windows with single door entrance. The garage is located within the L-shaped portion of the house, not directly facing Oxford Avenue. The garage features a unique window with large diamond panes.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: concrete driveway, grass lawn, mature trees and shrubbery

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1963____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE09

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE09

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE09

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: N/A

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE09
4891 W. Oxford Ave

Figure
1



Photo #1 View of 4891 West Oxford Avenue. View to the northeast.



Photo #2 View of 4891 West Oxford Avenue. View to the north.



Photo #3 View of 4891 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE10

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE10
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4851 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:
Greg W. & Mary R. Johnson
4851 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 7 8 7 mE 4 3 8 8 1 7 9 mN
11. USGS quad name: FORT LOGAN _____

Year: 1994 Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.
12. Lot(s): _____ Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-009-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~50' x Width ~35' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE10

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, FENCE

21. General architectural description: The house at 4851 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado. According to the Denver Property System, the house is 2,316 square feet with four bedrooms and three and a half bathrooms with a partially finished basement. The house is an example of a Minimal Traditional-style single-family residence with Colonial Revival detailing and has been moderately modified. The roof is side-gabled with gray asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and yellow-painted horizontal siding. The house's three-quarter front porch is a shed-roof with posts over the double door entry. The house also features window dormers on the second floor with a prominent wide interior brick chimney. Lastly, the house's two-car garage is an attached front-gabled portion of the house located on the east side.

22. Architectural style/building type: NEO-COLONIAL

23. Landscaping or special setting features: Mature trees and shrubs, grass lawn, concrete sidewalk and driveway.

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1963____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location Moved Date of move(s):

Resource Number:
Temporary Resource Number: PE10

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING
32. Intermediate use(s): N/A
33. Current use(s): DOMESTIC: SINGLE DWELLING
34. Site type(s): Suburban House
35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:
Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE10

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 4851 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE10

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE10 4851 W. Oxford Ave

Figure
1



Photo #1 View of 4851 West Oxford Avenue. View to the northeast.



Photo #2 View of 4851 West Oxford Avenue. View to the north.



Photo #3 View of 4851 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE11

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE11
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4801 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:
Eugene M. & Lou Ann Ligrani
4801 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 8 1 5 mE 4 3 8 8 1 8 2 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.
12. Lot(s): 10 _____ Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-010-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~75' x Width ~63' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE11

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, FENCE

21. General architectural description: The building at 4801 West Oxford Avenue is a Split-level Ranch-style house located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,221 square foot house has five bedrooms and three bathrooms with a partially finished basement. The house is an example of a Minimal Traditional home and has not been heavily modified. The roof is gabled with an L-shaped form with gray asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and white/cream-painted horizontal siding. The house prominently features eight-over-eight windows with faux shutters and a single door entry with sidelight. Another distinctive feature is the house's entry with a raised circular brick planter.

22. Architectural style/building type: MINIMAL TRADITIONAL

23. Landscaping or special setting features: Grass lawn, brick planter, lamp post, mature trees.

24. Associated buildings, features, or objects: None.

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE11

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE11

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4801 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE11

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE11 4801 W. Oxford Ave

Figure
1



Photo #1 View of 4801 West Oxford Avenue. View to the northeast.



Photo #2 View of 4801 West Oxford Avenue. View to the north.



Photo #3 View of 4801 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE12

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE12
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4781 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Julie Gomez
4781 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 8 4 9 mE 4 3 8 8 1 7 5 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 11 Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-011-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~68' x Width ~35' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE12

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, FENCE, STOOP

21. General architectural description: The house at 4781 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,205 square-foot house has four bedrooms and two and a half bathrooms with an unfinished basement. The house is an example of a Minimal Traditional and has not been heavily modified. The roof is side-gabled with brown asphalt shingles. The house, built in 1963 according to Denver Assessment records, is clad with red brick and tan-painted horizontal siding. The house features a single-door entry with six-over-six windows accompanied by faux shutters. The two-car garage is attached as a wing on the east side of the house and features a simple cupola on the gable of the garage.

22. Architectural style/building type: MINIMAL TRADITIONAL

23. Landscaping or special setting features: Mature trees, light post, grass lawn, concrete sidewalk and driveway.

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1963____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE12

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban House

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE12

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1963

41. Level of significance: National State Local

42. Statement of significance: The building at 4781 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE12

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager: NCP	Project No. 9620P121	 5307 Industrial Oaks Blvd Ste 160 Austin, TX 78735-8821	TOPOGRAPHIC MAP	Figure
Drawn by: NCP	Scale: 1"=2,000'		<div style="border: 2px solid red; padding: 5px;"> PE12 4781 W. Oxford Ave </div>	<div style="border: 2px solid red; padding: 10px; width: 40px; margin: 0 auto;">1</div>
Checked by: SEV	File Name: FILTodos			
Approved by: SEV	Date: 9/23/2021			



Photo #1 View of 4781 West Oxford Avenue. View to the northeast.



Photo #2 View of 4781 West Oxford Avenue. View to the north.



Photo #3 View of 4781 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE13

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE13
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4741 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Caron M Jeffers
4741 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 8 7 0 mE 4 3 8 8 1 7 9 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 12 Block: 6
Addition: Pinehurst Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-012-000).

III. Architectural Description

14. Building plan (footprint, shape): L-SHAPED PLAN
15. Dimensions in feet: Length ~78' x Width ~72' _____
16. Number of stories: 1

Resource Number:

Temporary Resource Number: PE13

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, STOOP, FENCE, CUPOLA, FINIAL

21. General architectural description: The house at 4741 West Oxford Avenue is a one-story Ranch located in Denver, Denver County, Colorado. According to the Denver Property System, the 1,942 square-foot house has four bedrooms and three and a half baths with a partially finished basement. The house is an example of a Minimal Traditional ranch and has not been heavily modified. The roof is gabled in a L-shape with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with red brick and cream-painted horizontal siding. The house features a single-door entry with various horizontal sliding glass windows. The house's most distinctive features are located on the house's roof. These include a decorative wide interior brick chimney and a cupola over the garage.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass lawn, mature trees, concrete driveway, light post

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE13

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE13

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE13

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE13
4741 W. Oxford Ave

Figure
1



Photo #1 View of 4741 West Oxford Avenue. View to the northeast.



Photo #2 View of 4741 West Oxford Avenue. View to the north.



Photo #3 View of 4741 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE14

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE14
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4701 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Shawn R Thompson
4701 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW 1/4 of SW 1/4 of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 9 0 2 mE 4 3 8 8 1 7 4 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 13 Block: 6
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-013-000).

III. Architectural Description

14. Building plan (footprint, shape): RECTANGULAR PLAN
15. Dimensions in feet: Length ~52' x Width ~40' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE14

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GAMBREL ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, PATIO, FENCE, DORMER

21. General architectural description: The house at 4701 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,612 square-foot home has four bedrooms and two and a half baths with an unfinished basement. The house is an example of a dutch colonial-influenced minimal traditional and has not been heavily modified aside from the garage door which looks like it has been replaced. The side-gambrel roof with shed roof flares has four window dormers with gray asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with white-painted brick and white-painted horizontal siding. The house's porch features turned posts and a railing enclosing the space. A wide brick chimney can be seen on the exterior of the east elevation.

22. Architectural style/building type: NEO-COLONIAL

23. Landscaping or special setting features: Grass lawn, concrete driveway, mature trees

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE14

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban House

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE14

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

Resource Number:

Temporary Resource Number: PE14

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE14 4701 W. Oxford Ave

Figure
1



Photo #1 View of 4701 West Oxford Avenue. View to the northeast.



Photo #2 View of 4701 West Oxford Avenue. View to the north.



Photo #3 View of 4701 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE15

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE15
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4661 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Grace M Lopez
4661 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 9 2 8 mE 4 3 8 8 1 7 4 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 6 Block: 14
Addition: Pinehurst Estates Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-014-000).

III. Architectural Description

14. Building plan (footprint, shape): RECTANGULAR PLAN
15. Dimensions in feet: Length~54' _____ x Width ~40' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE15

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, FENCE

21. General architectural description: The house at 4661 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado. The house is an example of a minimal traditional and has not been heavily modified. The roof is side-gabled with brown asphalt shingles. The house, built in 1964 according to Denver Assessment records, is clad with brick and yellow-painted horizontal siding. The house's most distinctive characteristic is the brick pattern and the disorganized and wavy nature of it. The post-supported porch protects a single-door entry with a modern five-window bay window. A small simple brick chimney can be seen emerging from the interior of the house through the roofline.

22. Architectural style/building type: MINIMAL TRADITIONAL

23. Landscaping or special setting features: Grass Lawn, Mature trees and shrubs, concrete driveway

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A_____ Actual: 1964_____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved _____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE15

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING
32. Intermediate use(s): N/A
33. Current use(s): DOMESTIC: SINGLE DWELLING
34. Site type(s): Suburban House
35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:
Colorado Transcript, The, Volume 94, Number 50,
"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE15

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4661 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE15

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP
PE15 4661 W. Oxford Ave

Figure
1



Photo #1 View of 4661 West Oxford Avenue. View to the northeast.



Photo #2 View of 4661 West Oxford Avenue. View to the north.



Photo #3 View of 4661 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE16

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE16
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4631 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Joseph C. & Susan L. Hebert
4631 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 9 5 7 mE 4 3 8 8 1 7 3 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 18 Block: 6
Addition: Pinehurst Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-018-000).

III. Architectural Description

14. Building plan (footprint, shape): RECTANGULAR PLAN
15. Dimensions in feet: Length ~56' x Width ~35' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE16

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, DORMER

21. General architectural description: The house at 4631 West Oxford Avenue is a two-story home located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,196 square-foot house has four bedrooms and three and a half baths and a partially finished basement. The house is an example of a minimal traditional and has not been heavily modified. The roof is side-gabled with three second-story small roofline dormers with brown asphalt shingles. The house, built in 1966 according to Denver Assessment records, is clad with brick and tan-painted horizontal siding. The home features a double-door entry with one-over-one windows, featuring faux shutters on the first-floor façade. The house also features a two-car garage.

22. Architectural style/building type: MINIMAL TRADITIONAL

23. Landscaping or special setting features: Grass lawn, mature tree, concrete driveway and sidewalk

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1966____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s):

Resource Number:
Temporary Resource Number: PE16

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE16

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1966

41. Level of significance: National State Local

42. Statement of significance: The building at 4631 West Oxford Avenue, constructed in 1966, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE16

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILTodos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE16
4631 W. Oxford Ave

Figure
1



Photo #1 View of 4631 West Oxford Avenue. View to the northeast.



Photo #2 View of 4631 West Oxford Avenue. View to the north.



Photo #3 View of 4631 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE17

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE17
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4601 West Oxford Avenue, Denver, CO 80236
8. Owner name and address:

Charles Frederick Salotti
4601 West Oxford Avenue
Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 5 9 8 7 mE 4 3 8 8 1 7 1 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.

12. Lot(s): 19 _____ Block: 6
Addition: Pinehurst Estates Year of Addition: _____

13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-019-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~75' x Width ~42' _____
16. Number of stories: 2

Resource Number:

Temporary Resource Number: PE17

17. Primary external wall material(s): BRICK, WOOD: BOARD AND BATTEN

18. Roof configuration: GABLED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, STOOP

21. General architectural description: The house at 4601 West Oxford Avenue is a tri-level home located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,238 square-foot house has three bedrooms and three baths with a partially finished basement. The house is an example of a minimal traditional and has not been heavily modified. The roof is gabled with one front facing cross-gable at the east end of the house with wood shingles. The house, built in 1964 according to Denver Assessment records, is clad with brick and tan-painted board-and-batten siding. The house features a bay window and horizontal sliding windows. The second story and main-level windows feature faux shutters. The single-door entry features sidelights and house also features an external wide brick chimney.

22. Architectural style/building type: MINIMAL TRADITIONAL

23. Landscaping or special setting features: Grass lawn, shrubs, light post

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A____ Actual: 1964____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved ____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE17

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE17

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1964

41. Level of significance: National State Local

42. Statement of significance: The building at 4601 West Oxford Avenue, constructed in 1964, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE17

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



**APPROXIMATE
RESOURCE
LOCATION**

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP	Project No.	9620P121
Drawn by:	NCP	Scale:	1"=2,000'
Checked by:	SEV	File Name:	FILTodos
Approved by:	SEV	Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE17
4601 W. Oxford Ave

Figure	1
--------	---



Photo #1 View of 4601 West Oxford Avenue. View to the northeast.



Photo #2 View of 4601 West Oxford Avenue. View to the north.



Photo #3 View of 4601 West Oxford Avenue. View to the northwest.

Resource Number:
Temporary Resource Number: PE18

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
 Determined Eligible- NR
 Determined Not Eligible- NR
 Determined Eligible- SR
 Determined Not Eligible- SR
 Need Data
 Contributes to eligible NR District
 Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number: PE18
3. County: Denver
4. City: Denver
5. Historic building name:
6. Current building name:
7. Building address: 4102 South Vrain Street
8. Owner name and address:

Charles Koval

4102 South Vrain Street

Denver, CO 80236

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5S Range 68W
NW ¼ of SW ¼ of section 6 _____
10. UTM reference
Zone 1 3 ; 4 9 6 0 1 4 mE 4 3 8 8 1 6 3 mN
11. USGS quad name: FORT LOGAN, CO _____

Year: 1994 _____ Map scale: 7.5' X 15' _____ Attach photo copy of appropriate map section.
12. Lot(s): 20 Block: 6
Addition: Pinehurst Estates _____ Year of Addition: _____
13. Boundary Description and Justification: Property boundaries are the extent of the parcel (08063-01-020-000).

III. Architectural Description

14. Building plan (footprint, shape): IRREGULAR PLAN
15. Dimensions in feet: Length ~90' x Width ~58' _____
16. Number of stories: 1

Resource Number:

Temporary Resource Number: PE18

17. Primary external wall material(s): BRICK, WOOD: HORIZONTAL SIDING

18. Roof configuration: HIPPED ROOF

19. Primary external roof material: ASPHALT ROOF

20. Special features: ATTACHED GARAGE, STOOP, FENCE

21. General architectural description: The house at 4102 South Vrain Street is a one-story ranch located in Denver, Denver County, Colorado. According to the Denver Property System, the 2,453 square-foot house has four bedrooms and three baths with a finished basement. The house is an example of a minimal traditional ranch and has not been heavily modified. The roof is hipped with valleys in an H-shape with gray asphalt shingles. The house, built in 1965 according to Denver Assessment records, is clad with red brick and white-painted horizontal siding. The house features various windows with a single-door entry with sidelights and a two-car garage.

22. Architectural style/building type: RANCH TYPE

23. Landscaping or special setting features: Grass lawn, lamp post, concrete driveway and sidewalk

24. Associated buildings, features, or objects: None

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: N/A_____ Actual: 1965_____

Source of information: Denver Property Taxation and Assessment System

26. Architect: Unknown

Source of information: N/A

27. Builder/Contractor: Koelbel & Company

Source of information: The Colorado Transcript: "*County Commissioners Consider Zoning Change at Hampden, Sheridan,*" May 18, 1967

28. Original owner: Unknown

Source of information: N/A

29. Construction history (include description and dates of major additions, alterations, or demolitions):

Unknown

30. Original location X Moved _____ Date of move(s): N/A

Resource Number:
Temporary Resource Number: PE18

V. HISTORICAL ASSOCIATIONS

31. Original use(s): DOMESTIC: SINGLE DWELLING

32. Intermediate use(s): N/A

33. Current use(s): DOMESTIC: SINGLE DWELLING

34. Site type(s): Suburban Home

35. Historical background: In the years after World War II, America saw a massive movement of people into suburbs which helped drive the postwar economic boom and a new type of development and community planning in the United States. In 1958, Pinehurst Country Club opened its doors in southwest Denver. The club's lush golf course was created from land historically operated as a dairy farm by the Carl Norgren family. In addition to the development of the Country Club, in conjunction the Pinehurst Estates suburban development was born. In September 1960, the Jefferson County Planning Commission approved the rezoning of the area for the "Pinehurst Estates Development Co." in which "the 370 acres will have a series of multiple family dwellings."

The neighborhood's homes were built by Koelbel & Co. founded by Walter A. Koelbel. The Koelbel & Co. firm was founded in 1952 and the Pinehurst Estates was the company's flagship property and through it, the company quickly gained prominence. Since then, Koelbel & Co. has continued to sustain prominence in Denver and Colorado and today is the longest operating family-owned real estate development firm in the region.

36. Sources of information:

Colorado Transcript, The, Volume 94, Number 50,

"Commissioners Okay Development Zoning," September 22, 1960

Koelbel

"Our History," <https://www.koelbelco.com/about/>, accessed September 7, 2021.

Pinehurst Country Club

"History," <https://pinehurstcountryclub.com/home/history>, accessed September 7, 2021.

VI. SIGNIFICANCE

37. Local landmark designation: Yes ___ No X Date of designation: ___

Designating authority: N/A

38. Applicable National Register Criteria:

X A. Associated with events that have made a significant contribution to the broad pattern of our history;

Resource Number:

Temporary Resource Number: PE18

- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance: ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT

40. Period of significance: 1965

41. Level of significance: National State Local

42. Statement of significance: The building at 5101 West Oxford Avenue, constructed in 1963, has been not greatly altered at its exterior since original construction as part of the Pinehurst Estates development. The building has undergone changes with modern windows and fixtures. However, the house as an individual property does not express enough significance alone. Terracon does not recommend the property significant enough to be eligible for inclusion on the NRHP.

43. Assessment of historic physical integrity related to significance: **LOCATION:** The subject property remains in its original location. **DESIGN:** Though no historical photographs were located for the resource, the house has been altered by various minor additions and moderately reflect its original designs. **SETTING:** Located in the City of Denver, adjacent to Sheridan Boulevard and Fort Logan National Cemetery, the immediate area has become developed with suburban and commercial developments related to the initial Pinehurst Estates development and reflects the historic setting of the resource. **MATERIALS:** The building is clad in materials and seems to have not changed greatly. Some windows and roof materials have been altered and include modern materials. **WORKMANSHIP:** The building is an example of the post-modern neo-classical ranch style; but evidence of its original workmanship from Koelbel no longer exist. **FEELING:** The resource does retain feeling due to the development of the surrounding area. Additionally, the property itself has not changed from a residential house. **ASSOCIATION:** The building has been and is still associated with the Pinehurst Estates development and Country Club.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible Not Eligible Need Data

Resource Number:

Temporary Resource Number: PE18

45. Is there National Register district potential? Yes No

Discuss: If the entire Pinehurst Estates was surveyed the neighborhood development could be significant for Criterion A and C for Architecture and Community Planning and Development.

If there is National Register district potential, is this building: Contributing Noncontributing

46. If the building is in existing National Register district, is it: Contributing Noncontributing

VIII. RECORDING INFORMATION

47. Photograph numbers: #1-3

Negatives filed at: Terracon

48. Report title: Historic Resources Survey Report: Proposed Columbarium Wall at Fort Logan National Cemetery, 4400 West Kenyon Avenue, Denver, Denver County, Colorado

49. Date(s): September 8, 2021

50. Recorder(s): Nicholas C. Powell

51. Organization: Terracon

52. Address: 10625 W. I-70 Frontage Rd. N, Suite 3, Wheat Ridge, CO 80033

53. Phone number(s): (303) 423-3300

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



APPROXIMATE
RESOURCE
LOCATION

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	NCP
Project No.:	9620P121
Drawn by:	NCP
Scale:	1"=2,000'
Checked by:	SEV
File Name:	FILT0dos
Approved by:	SEV
Date:	9/23/2021

Terracon
 5307 Industrial Oaks Blvd Ste 160
 Austin, TX 78735-8821

TOPOGRAPHIC MAP

PE18
 4102 S. Vrain St

Figure
1



Photo #1 View of 4102 South Vrain Street. View to the east.



Photo #2 View of 4102 South Vrain Street. View to the northeast.



Photo #3 View of 4102 South Vrain Street. View to the north.

Staff Resumes

S. Elizabeth Valenzuela

SENIOR ARCHITECTURAL HISTORIAN

PROFESSIONAL EXPERIENCE

Ms. Valenzuela is an architectural historian in Terracon's Austin, Texas office. She has 20 years of professional experience in the field of preservation and historic architecture. She has supervised and participated in historic resources surveys, building documentation, archival research, and historic context development projects throughout the United States. She has worked with municipal governments, and state and federal agencies to identify, document, and provide National Register of Historic Places (NRHP) eligibility assessments for commercial, residential, governmental, industrial, rural resources and cultural landscapes. These projects have involved archival research using primary and secondary source materials at local, state, and national repositories, and condition assessments and field documentation using standardized field survey forms and digital and 35mm photography.

Ms. Valenzuela earned a Masters of Architecture degree from Texas Tech University and during her career has managed a broad range of cultural resource projects. These projects have included the identification and assessment of resources dating mostly from the early nineteenth century to the mid-twentieth century and have encompassed utilitarian structures, rural landscapes, vernacular and high-style residential, commercial, and institutional buildings. Ms. Valenzuela meets the *Secretary of Interior Standards for Professional Qualifications* in Architecture, Historic Architecture, and Architectural History.

SELECTED PROJECT EXPERIENCE

National Register Nomination for the Eureka Springs Cemetery – Eureka Springs, Arkansas*

Project director and author for the NRHP nomination of a large, rural community burial ground located east of the main commercial center of Eureka Springs. Completed archival research, fieldwork, digital photography and NRHP form preparation per NPS Standards. Accepted by the Arkansas SHPO in January 2018. Accepted by the Arkansas State Board of Review in April 2018 and forwarded to the National Park Service for listing in the NRHP.

Historic Resources Survey and National Register Nomination for the Meadow Spring Historic District – Fayetteville, Arkansas*

Project director and report author for an intensive-level historic resources survey for 96 historic-age resources located within the original town center, just west of the historic downtown core for the City of Fayetteville. Completed Arkansas Historic Preservation Program (AHPP) Site File forms, mapping, digital photography, and archival research for each resource. Survey accepted by the Arkansas SHPO in August 2017. Author of NRHP nomination for the historic district, based on the results of the survey. To be presented at the August 2018 Arkansas State Board of Review meeting and forwarded to the National Park Service for listing in the NRHP.

Interpretive Master Plan for Magoffin Home State Historic Site – El Paso, Texas*

Preservation Specialist for interpretive master plan for a Texas Historical Commission historic site. The Magoffin Home, on a 1.5-acre site near downtown El Paso, is noteworthy for its architecture and association with El Paso pioneer and businessman, Joseph Magoffin. Completed a site assessment of both the building and the surrounding site, developed recommendations for the interpretation of significant site and cultural landscape elements, outlined recommendations for visitor flow through the site, and analyzed historical and projected site visitation and potential audiences. Project to be complete September 2018.

EDUCATION

Masters of Architecture, Texas Tech University, 1998

CERTIFICATIONS

Section 106 Training, National Preservation Institute, 2007

TxDOT Pre-certification, Categories 2.8.1 and 2.11.1, 2004

PROFESSIONAL ACTIVITIES

District 2 Commissioner, City of Austin Historic Landmark Commission, 2016-present

WORK HISTORY

Terracon Consultants, Inc., Senior Architectural Historian, 2018-Present

Valenzuela Preservation Studio, LLC Principal/Preservation Specialist, 2010-2018

Hardy-Heck-Moore, Inc., Preservation Specialist/Project Manager, 2003-2010

Volz & Associates, Inc., Architectural Intern, 2000-2003

Parshall + Associates, Architectural Intern, 1998-2000

PRESENTATIONS/PUBLISHED ARTICLES

"Tear Down or Treasure: A Case for Historic Preservation," presented at the Rio Grande Valley American Institute of Architects annual convention, September 2017.

"Architecture of Survival: A Brief History of Building Techniques of the Big Bend Region" presented at the Southeast Chapter of the Society of Architectural Historians, November 1998.

* Work performed prior to joining Terracon.

S. Elizabeth Valenzuela (continued)

Historic Resources Survey for Roadway Widening – McAllen, Hidalgo County, Texas

Project director and report author for a reconnaissance-level historic resources survey of parcels abutting a roadway widening project, according to Texas Department of Transportation (TxDOT) *Documentation Standards for Historic Resources Research Design and Survey Report*. Completed field survey, mapping, digital photography, archival research, NRHP eligibility assessment and potential impacts analysis for each identified resource. Accepted by TxDOT in August 2017 and THC in October 2017.

Historic Resources Survey of Northwest Travis County – Travis County, Texas*

Architectural historian for an reconnaissance-level historic resources survey for 1500 historic-age resources located in northwest Travis County, Texas. Completed Texas SHPO Site File forms, mapping, digital photography, and archival research for each medium- and high-priority resource to assess their current integrity. Accepted by the Texas SHPO in September 2017.

Historic Resources Survey Update for Central Avenue National Register District– Hot Springs, Arkansas*

Project director and report author for intensive-level historic resources survey for 63 historic-age resources located along the main commercial center for the City of Hot Springs. Completed AHPP Site File forms, mapping, digital photography, and archival research for each resource to re-evaluate their current integrity. Accepted by the Arkansas SHPO in July 2017.

Historic Resources Survey Update for Southwest-West Travis County – Travis County, Texas*

Architectural historian for an reconnaissance-level historic resources survey for 1500 historic-age resources located in southwest and west Travis County, Texas. Completed Texas SHPO Site File forms, mapping, digital photography, and archival research for each medium- and high-priority resource to assess their current integrity. Accepted by the Texas SHPO in December 2016.

Historic Context and Windshield Survey of Mexican-American Settlements – Travis County, Texas*

Report author for historic context and windshield-level historic resources survey of properties within Travis County associated with Mexican-American settlement (1520-1970). Identified 26 predominantly Mexican-American communities within the county and documented representative historic-age resources within identified communities. Completed extensive archival research, field survey and digital photography, and developed a historic context and recommendations for future research. Accepted by THC in September 2016.

Historic Resources Survey Update for Pleasant Street National Register District – Hot Springs, Arkansas*

Project director and report author for an intensive-level historic resources survey for over 90 historic-age resources located southwest of the historic downtown core for the City of Hot Springs. Completed AHPP Site File forms, mapping, digital photography, and archival research for each resource to assess their current integrity. Accepted by the Arkansas SHPO in April 2016.

Historic Resources Survey for Akin Tracts at 4301 Slaughter Lane – Travis County, Texas

Project director and report author for a reconnaissance-level historic resources survey of two parcels subject to THC consultation and coordination under the *Antiquities Code of Texas* and *Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106)*. Completed field survey, mapping, digital photography, archival research, and NRHP eligibility assessment for each identified resource.

Historic Resources Survey for Toutant-Beauregard Road – Bexar County, Texas

Project director and report author for a reconnaissance-level historic resources survey of parcels abutting a roadway widening project and subject to THC consultation and coordination under *Section 106*. Completed field survey, mapping, digital photography, archival research, NRHP eligibility assessment and potential impacts analysis for each identified resource.

Historic Resources Survey for Acme Road Multi-Family Site Development – Bexar County, Texas

Project director and report author for a reconnaissance-level historic resources survey for parcels impacted by a proposed multi-family residential development subject to THC consultation and coordination under *Section 106*. Completed field survey, mapping, digital photography, archival research, NRHP eligibility assessment and potential impacts analysis for each identified resource.

S. Elizabeth Valenzuela (continued)

Historic Resources Survey for Upper Valley Strahan Road – El Paso, Texas*

Project director and report author for a reconnaissance-level historic resources survey of parcels impacted by a waterline improvement project and subject to THC consultation and coordination under *Section 106*. Completed field survey, mapping, digital photography, archival research, NRHP eligibility assessment and potential impacts analysis for each identified resource. Impacted resources included linear elements associated with irrigation farming in the Elephant Butte Irrigation District, and historic residential and agricultural complexes.

Historic Structures Reports for Communications Complex and Secret Service Command Center – LBJ Ranch National Historical Park, Stonewall, Texas*

Report author for two historic structures reports documented four buildings associated with the security and communications for President Johnson while he visited the “Texas White House.” Completed field survey and condition assessments, measured drawings, and rehabilitation recommendations for each building. Report was accepted by National Park Service in March 2014 and March 2015.

Interpretive Master Plan for La Bajada Mesa – Santa Fe, New Mexico*

Preservation Specialist and Project Manager for interpretive master plan for a USFS site in Santa Fe National Forest. Provided recommendations to assist the USFS convey the history and rich cultural landscape of the basalt escarpment that divides the Rio Arriba and Rio Abaja of northern New Mexico. Administered by NPS National Trails Intermountain Region, Ms. Valenzuela participated in public outreach meetings with project stakeholders, USFS and NPS staff. Together with the project team, she provided a review of significance of the cultural landscape, an assessment of issues and influences affecting interpretation, described desired visitor experience and provided the framework for interpreting storylines and themes of La Bajada. Project accepted by USFS in 2015.

National Register Nomination for the Broadway Cemetery Historic District – Galveston, Texas*

Project director and primary author for the NRHP nomination for a large, urban burial ground centrally located within the city of Galveston, Texas. Responsibilities included contract administration, public outreach efforts, supervision and participation in archival research, fieldwork, digital and 35mm photography and NRHP form preparation, per NPS Standards. Accepted by NPS and listed in the NRHP on June 13, 2014.

Historic Context for Neoclassical, Colonial Revival and Queen Anne Architectural Styles – State of Louisiana*

Project director and architectural historian for the historic context project. Conducted archival research, field surveys and oral histories to develop a historical background, identify relevant examples of each style, illustrate common and unique characteristics across property types, and develop a baseline for NRHP registration requirements. Accepted by the Louisiana SHPO in June 2012.

Historic Property Eligibility Study – Fort Huachuca, Arizona

Project director and architectural historian for historic-age property evaluations for resources at Fort Huachuca in southeastern Arizona. Conducted reconnaissance-level historic resources survey of 21 identified resources; final report included a historic context for specific themes relevant to the historic-age resources, architectural descriptions and NRHP-eligibility recommendations under an expedited schedule. Accepted by Arizona SHPO in 2011.

Historic Property Eligibility Study – Fort MacArthur, San Pedro, California and Los Angeles Air Force Base (LAAFB), Los Angeles, California and Camp Parks Communications Complex, Dublin, California*

Project director and architectural historian for historic-age property evaluations for resources at installations under the management of LAAFB. Conducted reconnaissance-level historic resources survey of 17 identified resources, completed a historic overview of the three installations, a historic context that provided information on specific themes related to the historic-age resources at Camp Parks and prepared NRHP-eligibility recommendations under an expedited schedule. Accepted by California SHPO in 2011.

Historic Structures Reports – Floyd Lamb Park at Tule Springs, Las Vegas, Nevada*

Project manager and architectural historian for historic structures reports for more than 30 historic structures associated with a working guest ranch significant during the period 1941-1959. Conducted a code-compliance assessment, field investigations and archival research in Las Vegas, documenting structures using survey forms, mapping and photography. Final report accepted by Las Vegas Historic Preservation Officer in 2009.

S. Elizabeth Valenzuela (continued)

Unpublished Government Documents

HABS/HAER DOCUMENTATION

- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Brig, South Avenue, Pensacola, Escambia County, FL: Building No. 8." HABS No. FL-243 (Addendum). HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2006. "U.S. Naval Air Station, Marine Barracks, Pensacola, Escambia County, FL: Building No. 18." HABS No. FL-246 (Addendum). HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Paint Shop, Pensacola, Escambia County, FL: Building No. 52." HABS No. FL-490. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Public Restroom, Pensacola, Escambia County, FL: Building No. 67." HABS No. FL-491. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Refrigeration Plant, Pensacola, Escambia County, FL: Building No. 107." HABS No. FL-492. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, YMCA, Pensacola, Escambia County, FL: Building No. 322." HABS No. FL-493. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Assembly and Repair Shop, Pensacola, Escambia County, FL: Building No. 604." HABS No. FL-494. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Laundry, Pensacola, Escambia County, FL: Building No. 636." HABS No. FL-495. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Valenzuela, Sarah E. 2005. "U.S. Naval Air Station, Telephone Workshop and Storehouse, Pensacola, Escambia County, FL: Building No. 738." HABS No. FL-496. HABS Level II Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Keller, S. Elizabeth. 1997. "Barker Lodge, Main House (A) and Garage (B), Panther Junction, Brewster County, TX," HABS No. TX-3490. HABS Level I Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.
- Keller, S. Elizabeth. 1996. "K-Bar Ranch, Main House & Garage, Panther Junction, Brewster County, TX," HABS No. TX-3412. HABS Level I Documentation. Library of Congress, Prints and Photograph Division, Washington, D.C. Historic American Buildings Survey – Built in America.

Nicholas C. Powell

ARCHITECTURAL HISTORIAN

PROFESSIONAL EXPERIENCE

Mr. Nicholas Powell is a Secretary of the Interior-qualified Architectural Historian in Terracon's Denver, Colorado office. As part of the NEPA Group, he is responsible for contributing to Cultural Resource Surveys, Section 106 historic resource surveys and reviews. Additionally, he serves as an Architectural Historian for the Western Operating Group within Terracon and a Subject Matter Expert for Terracon's Arizona offices. His skills include identification of historic structures, archival research, report writing, documentation of historic sites, knowledge of design guidelines, and assessments of National Register eligible resources.

Mr. Powell's experience includes an internship with Main Street Chillicothe in Chillicothe, Missouri, where he worked on a variety of projects that included developing, creating and presenting a Façade Rehabilitation and Upper story Development Showcase with printed materials which resulted in Main Street Chillicothe receiving an award for Outstanding Community Education at the 2016 Missouri Main Street Conference. Powell has experience working in an accredited National Main Street Program under the Main Street Approach and knowledge in appropriate historic preservation techniques and practices for historic structures.

PROJECT EXPERIENCE

Capitol North Historic District Expansion – Cheyenne, WY

Field technician and architectural historian for pedestrian survey of project area within expanded district boundaries. Responsibilities included survey of Capital North neighborhood, photographing and mapping buildings, field notes, completing Wyoming State Historic Preservation Office (SHPO) survey forms, and updating a 1980 National Register of Historic Places (NRHP) nomination of the historic district to include resources within the new district boundaries.

Lifetime at Leadville – Leadville, CO

Project Manager and architectural historian for historical pedestrian survey of project area. Documented an unevaluated historic resource for the client by completing a Historic Building Survey and Assessment. Responsibilities included completing an Colorado SHPO Management Data Form 1403 during a field survey and documenting the historic structure. Responsibilities also included archival research, evaluating integrity and eligibility under the National Register Criteria for Evaluation, and report writing. Project responsibilities also included ongoing consultation for client with the City of Leadville's Historic Preservation Commission.



EDUCATION

Master of Science, Historic Preservation, University of Colorado Denver, In Progress

Bachelor of Science, Historic Preservation, Southeast Missouri State University, 2016

AFFILIATIONS

Lambda Chi Alpha Fraternity

Historic Preservation Association

WORK HISTORY

Terracon Consultants, Inc.
Architectural Historian
2017-Present

Main Street Chillicothe, Executive Assistant – 2015

*Indicates projects completed prior to joining Terracon

Nicholas C. Powell (continued)

Falcon Stadium at United States Air Force Academy Level II Historic Resource Documentation – Colorado Springs, CO

Field Director and architectural historian for survey documenting Falcon Stadium beyond basic cultural resource surveys as mitigation for the addition of ADA elevators. Documentation of the historic stadium in the project area included full descriptive and historical narrative (including relevant contexts), measured drawings, and medium format black and white photography, all in archivally stable format, as well as, visual effects survey from area of potential effects. Responsibilities included documenting the historic building through appropriate forms, field notes, and report writing. Documenting historic building.

Pioneer Park National Register of Historic Places Nomination – Billings, MT

Principal researcher for architectural history as mitigation plan of adverse impacts to historic properties. Completing archival research, historic contexts, and survey findings regarding the park into a nomination for the National Register of Historic Places. Responsibilities includes the survey and documentation of the historic park and its buildings, determination of the significance of the historic park, and report writing.

Village Cooperative of Lakewood and Longmont Level II Historic Resource Documentation – Lakewood & Longmont, CO

Field Director and architectural historian for survey documenting historic project area beyond basic cultural resource surveys. Documentation of historic farmsteads in the project area included full descriptive and historical narrative (including relevant contexts), measured drawings, and medium format black and white photography, all in archivally stable format. Responsibilities included documenting historic buildings through appropriate forms, field notes, and report writing.

Village Cooperative of Lakewood and Longmont Class III Cultural Survey – Lakewood & Longmont, CO

Field technician and architectural historian for archaeological and historical pedestrian survey of project area. Researched and documented farmstead properties and evaluating integrity and eligibility under the National Register Criteria for Evaluation. Responsibilities included documenting findings through appropriate forms, field notes, and report writing.

The Right Place HUD Environmental Assessment – Pueblo, CO

Assisted in completing an Environmental Assessment for the application for the US Department of Housing and Urban Development LIHTC and an architectural visual effects survey of project area. During project, documented and evaluated a midcentury modern church designed by Elizabeth Wright Ingraham, Frank Lloyd Wright's granddaughter. Responsibilities included documenting findings through appropriate forms, GIS, and field notes; report writing.

Blue Bell Architectural Evaluation – Greeley, CO

Documented an unevaluated 4.27-acre farmstead property for the Colorado State Historic Preservation Office – Office of Archaeology and Historic Preservation (OAHP). Responsibilities included completing an OAHP Management Data Form 1400 during a field survey of the historic farmstead and evaluating integrity and eligibility under the National Register Criteria for Evaluation and report writing.

Fort Irwin Cantonment Survey – Fort Irwin, CA

Field technician for historical architectural pedestrian survey of project area. Researched and documented fort cantonment buildings/structures over 50-years of age. Survey responsibilities included locating resources, photographing, and documenting resources with appropriate SHPO survey forms.

Nicholas C. Powell (continued)

Journey Home Cañon City HUD Environmental Assessment – Cañon City, CO

Assisted in completing an Environmental Assessment for the application for the US Department of Housing and Urban Development LIHTC and an archaeological pedestrian survey of project area. Responsibilities included documenting findings through appropriate forms, GIS, and field notes; report writing.

Poudre Canyon Firehouse Categorical Exclusion – Red Feathers, CO

Field Architectural Historian responsible for conducting a Cultural Resources Survey for an Environmental Report (ER), in anticipation of a Categorical Exclusion (CE) application for the U.S. Department of Agriculture (USDA) Rural Development (RD) program, for the proposed firehouse.

Aurora Commerce Center Class III Cultural Survey – Aurora, CO

Assisted in completing an archaeological and historical pedestrian survey of project area. Responsibilities included documenting findings through appropriate forms, GIS, and field notes; report writing.

Cultural Resource Survey/Historic Building Survey – Greeley, CO

Field technician of architectural history for telecommunications site in Greeley, Colorado. Completed archival research, historic contexts, and survey findings regarding the proposed telecommunications site. Responsibilities included the survey and documentation of historic buildings, determination of direct and indirect effects to historic properties, documentation of historic properties through the State Historic Preservation Office's Form 1400, and report writing.

Various Telecommunication Projects – Various Locations, CO/UT/WY/OR/WA/AZ

NEPA and Section 106 of the National Historic Preservation Act (NHPA) compliance. Process including Tribal consultation, in-house research, and on-site assessment.

Subject Matter Expert for Telecommunication Projects – Various Locations, AZ/WA/OR

NEPA and Section 106 reviewer of telecommunications projects with visual effects for regulatory compliance reports. Process includes reviewing visual impacts within an area of potential effects and impact on historic properties listed in or eligible for the National Register of Historic Places.

Historic Theaters Feasibility Assessment – Cape Girardeau, MO*

Provided consultation on how to properly rehabilitate two historic theaters, the Broadway Theater and the Esquire Theater, and how to reintegrate them into the community for use. Process included site survey and photographic documentation, deterioration assessments, reuse planning, and feasibility evaluation. Reporting included a demographic study and presentation to the Historic Preservation Council for the City of Cape Girardeau.

Various Façade Rehabilitation Consultations – Chillicothe, MO*

Provided consultation on how to properly rehabilitate historic commercial buildings and their facades through appropriate practices to preserve and restore the historic integrity of historic downtown Chillicothe. Process included site survey, photographic documentation, and building history research and research on appropriate rehabilitation options. Consultations with downtown building owners included a historic report of the building and sketches/drawings of proposed façade rehabilitations.

Dr. J.L. Jenkins House Nomination – Jackson, MO*

Provided architectural descriptions and photographs of contributing building for nomination to the National Register of Historic Places. Process included site documentation, research through archives and additional records, and submission.

Nicholas C. Powell (continued)

Survey of Historic Red Star District – Cape Girardeau, MO*

Conducted a survey and record for buildings within a few square blocks of the Historic Red Star District in the city of Cape Girardeau. Responsibilities included survey of Red Star District neighborhood, photographing and mapping buildings and filing records of historic homes to National Register.

St. Mark's Masonic Lodge #93 Archival Finding Aid – Cape Girardeau, MO*

Created and presented an archival finding aid for the archives of the St. Mark's Masonic Lodge #93 after extensive organizing and filing of untouched historic documents.

Comprehensive Historic Resource Survey for Chillicothe & Cape Girardeau, Missouri Historic Downtown Districts*

Conducted surveys of two historic districts, including field interviews with owners and photographs of sites, as well as historic building research and report preparation.



October 6, 2020

Attn: Mr. John D. Strandberg
Calibre Engineering
9090 S. Ridgeline Blvd., Suite 105
Highlands Ranch, CO 80129

Telephone: (303) 339-5409
E-mail: jstrandberg@calibre-engineering.com

Re: Wetlands and Waters of the U.S. (WOTUS) Delineation Report
Fort Logan National Cemetery Expansion Project
Denver, Denver County, Colorado
Terracon Project No. 9020P121

Dear Mr. Strandberg:

Terracon Consultants Inc. (Terracon) appreciates the opportunity to provide Calibre Engineering, (client) with the following Wetlands and Waters of the U.S. (WOTUS) Report for the above-referenced project. This project was performed in accordance with Terracon's Proposal P25207264.

A WOTUS Delineation Report was prepared by Terracon for the client. This report summarizes the findings of the wetland delineation for areas that may/may not require permitting with the United States Army Corps of Engineers (USACE).

This WOTUS Delineation Report summarizes findings of the delineation performed by Terracon in accordance with the USACE 1987 Wetland Delineation Manual. Additionally, work performed for this delineation follows the USACE 2010 Great Plains Regional Supplement.

The area surveyed for this delineation report includes lands onsite. This report has been prepared for the exclusive use and reliance of the client. Use or reliance by any other party except a governmental entity having jurisdiction over the site (i.e., USACE) is prohibited without the written authorization of the client and Terracon.

Reliance on this WOTUS Delineation Report by the client and all authorized parties will be subject to the terms and conditions agreed to between the client and Terracon Consultants, Inc.

1.0 PROJECT INFORMATION

1.1 Site Description

The project site is identified as Denver County parcel number 0806400006000 and is located southeast of the Fort Logan National Cemetery and north of West Quincy Avenue in Denver,

Colorado. The site consists of mostly undisturbed land with unimproved roads and various maintenance buildings in the central portion. Onsite vegetative communities are predominantly comprised of grasslands, with a forested riparian/drainage area transecting the site through the central and eastern portions of the site. The vegetative community of the riparian area consists of poplar trees (*Populus deltoides*), willow trees (*Salix laevigata*), brome grasses (*Bromus tectorum*), common milkweed (*Asclepias syriaca*), American plum (*Plumus americana*), and bull thistle (*Cirsium vulgare*). The site is adjoined by existing cemetery grounds to the north and northwest, residences to the west and south, and associated maintenance and general operations buildings to the east (Appendix B, Exhibit 1).

2.0 PRELIMINARY DATA GATHERING AND ANALYSIS

To complete the aquatic resources evaluation for the site, Terracon performed a limited desktop evaluation and performed a site visit on August 19, 2020. The purpose of the site visit was to delineate potential wetlands for the purposes of identifying potentially jurisdictional waterbodies that may be regulated by the USACE.

2.1 Desktop Review

Terracon conducted a limited desktop review for the site to evaluate potential presence of apparent jurisdictional Waters of the U.S. (WOTUS), including wetlands, as defined and regulated by federal authority under 33 CFR Parts 320-330. This review may not identify state/locally-designated wetlands.

Wetlands as defined by the U.S. Environmental Protection Agency (EPA) and the USACE, in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, (Federal Interagency Committee for Wetland Determination, 1989), are “those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Jurisdictional wetlands, regulated under Section 404 of the Clean Water Act/1972, have undergone increasing regulation (Clean Water Act/1977 and 1987, Farm Bills/1985 and 1990), and are important for protection of aquatic species and waterfowl, water purification, and flood control. Specific permitting requirements may be necessary if wetlands or other waters of the U.S., including intermittent/ephemeral drainages, are located on the project site.

Terracon reviewed the following resources to evaluate the potential presence of jurisdictional WOTUS, including suspected wetlands, at the site:

Topographic Map and Aerial Image Review

The United State Geologic Survey (USGS) Fort Logan, Colorado 7.5-Minute Topographic Quadrangle map of the site was reviewed to identify drainages or other potential WOTUS mapped within the site. No aquatic features are depicted within or immediately surrounding the site. The

nearest mapped water feature is an unnamed pond approximately 0.15-mile northwest of the site. (Appendix A, Exhibit 1).

National Wetlands Inventory Map

National Wetlands Inventory (NWI) data for the site was reviewed to identify potential wetland/waterbody areas. NWI data for the site was published by the U.S. Department of the Interior's (DOI) U.S. Fish and Wildlife Service (USFWS) and depicts possible wetlands mapped within the site. The NWI map did not display onsite aquatic resources. NWI layers in the vicinity of the site are available in Appendix A, Exhibit 2.

Soil Survey

The Natural Resources Conservation Service (NRCS) web soil survey (NRCS 2020) was reviewed for soil information for the project area (Appendix A, Exhibit 3). The presence of hydric soils can indicate the potential for wetlands and/or aquatic resources.

No data for the site was available via the NRCS web soil survey. Portions of the site have been historically disturbed due apparent development; therefore, the site may consist of non-native fill.

3.0 FIELD METHODOLOGY

3.1 Wetlands

Terracon personnel conducted a wetland delineation of the site on August 19, 2020 to identify the presence of potential wetlands and water, if observed. Characteristics of wetlands and aquatic resources were assessed in general accordance with methods outlined in the USACE 1987 Wetland Delineation Manual and Great Plains Regional Supplement (USACE 2010). The Great Plains Regional supplement is used to identify specific wetland features unique to areas with low precipitation located in the western U.S.

The USACE defines "wetlands" as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR 328.3b). Wetlands generally have three essential characteristics: hydrophytic (wetland) vegetation, hydric soils, and wetland hydrology.

During the site visit, Terracon personnel traversed the project site as well as adjacent areas and evaluated areas with the potential to contain wetland characteristics. Upland areas and/or areas lacking the potential to contain wetlands (i.e. hillslopes, rangeland, roadways, etc.) were assumed to be non-jurisdictional. Data regarding the three essential characteristics were gathered within observed suspect wetland areas, if observed, to further delineate boundaries.

3.2 Plant Community Assessment

Suspect areas were visually observed to determine the species, when possible, and absolute percentage of ground cover for four strata of plant community types. Herbs were generally observed within a two-meter square (m²) radius, shrubs/saplings within a 5-m² radius (as applicable), and trees and woody vines (if present) within a 10-m² radius of the observation location.

For each plant species observed, the wetland indicator status was evaluated. The indicator statuses were determined using the USACE National Wetlands Plant List (NWPL). Indicator status categories for vegetation are presented below:

- Obligate Wetland (OBL) – occur almost always (estimated probability greater than 99%) under natural conditions in wetlands.
- Facultative Wetland (FACW) – usually occur in wetlands (estimated probability 67%-99%) but occasionally found in non-wetlands.
- Facultative (FAC) – equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
- Facultative Upland (FACU) – usually occur in non-wetlands (estimated probability 67%-99%) but occasionally found in wetlands.
- Obligate Upland (UPL) – rarely occur in wetlands, but occur almost always (estimated probability greater than 99%) under natural conditions in non-wetlands.

The percent cover of each stratum was determined and dominance was evaluated, if wetland vegetation was present. Dominant species were the most abundant species that accounted for more than 20 percent of the absolute percent coverage of the stratum. The number of dominant species with an indicator status of OBL, FACW, and/or FAC was compared to the number of dominant species across the strata. Typically, when more than 50 percent of the dominant species had an indicator status of OBL, FACW, and/or FAC, hydrophytic vegetation was present.

If the percentage of dominant species with an indicator status of OBL, FACW, and/or FAC was less than 50 percent, prevalence index and morphological adaptations may have been evaluated to confirm if hydrophytic vegetation was present or absent.

3.3 Hydric Soils Assessment

After Terracon evaluated wetland vegetation, subsurface soil samples were evaluated in suspect wetland areas. The samples were evaluated to a depth of approximately 20 inches below ground

surface and were visually compared to *Munsell Soil Color Charts* (Munsell 2009). *Field Indicators of Hydric Soils in the United States* manual (NRCS 2017) was utilized to aid in the evaluation and identification of hydric soils indicators. The soil samples were further examined for hydric soil indicators including, but not limited to, histosols, thick dark surface, sandy gleyed matrix, sandy redox, loamy gleyed matrix, redox dark surface, and/or redox depressions (i.e. mottling). If these or other hydric soils indicators were observed in the subsurface soil sample, the observation location was considered to have hydric soil. Sandy loam soils dominate the site.

3.3 Wetland Hydrology Assessment

Visual indicators of wetland hydrology were evaluated, if present. Examples of primary wetland hydrology indicators include, but are not limited to, surface water, high water table, soil saturation, water marks, sediment deposits, drift deposits, iron deposits, inundation visible on aerial imagery, and water-stained leaves. Examples of secondary wetland hydrology indicators include, but are not limited to, surface soil cracks, drainage patterns, water-stained leaves, and drainage patterns. If at least one primary wetland hydrology indicator or two secondary wetland hydrology indicators were observed, the observation location was considered to have wetland hydrology.

3.4 Classification of Wetlands

Upon completion of the review of the three wetland criteria at each area, a wetland classification was made. Under normal circumstances, if one or more of the wetland criteria were not identified, the area was not considered to be a wetland. Additional observations were made throughout wetland areas (if present) to define the wetland/non-wetland boundary (only if wetlands were present). Vegetation, soil and hydrology assessment data from identified wetland areas were recorded on a USACE Great Plains Region Wetland Determination Data Form. The recorded data forms (wetland determination data points 1 through 4) for the project site and point locations can be found in in Appendix B. Sample point locations are located throughout the site to evaluate the potential presence/absence of wetland characteristics.

4.0 SUMMARY OF FIELD OBSERVATIONS AND RESULTS

On August 19, 2020, Terracon performed field observations of the project site and identified areas that contained suspect wetland characteristics. At the time of the field investigation, the weather was sunny with an ambient air temperature of 90°F. Field conditions appeared to be typical of this time of year.

Sample point locations and the Wetland Determination Field Forms are provided in Appendix B. Site photographs, included in Appendix C, provide an indication of the physical Site characteristics, provide an indication of the physical characteristics observed during the site visit. Descriptions of the determination data collected at each point are provided below.

4.1 Summary of Wetland Determination Field Data

Point 1 – Wetland

As shown in Appendix B, Exhibit 1, wetland determination data Point 1 was located in the southeastern portion of the site. Data for hydrophytic vegetation, hydric soil, and wetland hydrology are recorded on the determination data form for Point 1 (Appendix B). This point contained evidence of hydrophytic vegetation, hydric soil and hydrology; therefore, this point represents a wetland location. This point is shown in Photo 1, Appendix C.

Summary: *Hydrophytic vegetation:* **Yes** *Hydric Soils:* **Yes** *Wetland hydrology:* **Yes**

Point 2 – Wetland

As shown on Exhibit 1, wetland determination data Point 2 was located in the southwestern portion of the site. Data for hydrophytic vegetation, hydric soil, and wetland hydrology are recorded on the determination data form for Point 2 (Appendix B). This point contained evidence of wetland hydrology, but not hydrophytic vegetation or hydric soils; therefore, this point does not represent a wetland location. This point is shown in Photo 2, Appendix C.

Summary: *Hydrophytic vegetation:* **No** *Hydric Soils:* **No** *Wetland hydrology:* **Yes**

Point 3 – Non-Wetland

As shown on Exhibit 1, wetland determination data Point 3 was located in the western portion of the site. Data for hydrophytic vegetation, hydric soil, and wetland hydrology are recorded on the determination data form for Point 3 (Appendix B). This point did not contain evidence of hydrophytic vegetation, hydric soil or hydrology; therefore, this point does not represent a wetland location. This point is shown in Photo 3, Appendix C.

Summary: *Hydrophytic vegetation:* **No** *Hydric Soils:* **No** *Wetland hydrology:* **No**

Point 4 – Non-Wetland

As shown on Exhibit 1, wetland determination data Point 4 was located in the northwestern portion of the site. Data for hydrophytic vegetation, hydric soil, and wetland hydrology are recorded on the determination data form for Point 4 (Appendix B). This point did not contain evidence of hydrophytic vegetation, hydric soil or hydrology; therefore, this point does not represent a wetland location. This point is shown in Photo 4, Appendix C.

Summary: *Hydrophytic vegetation:* **No** *Hydric Soils:* **No** *Wetland hydrology:* **No**

4.2 Wetland Summary

Upon completion of the review of the three wetland criteria at each area, a wetland classification was made. Under normal circumstances, if one or more of the wetland criteria were not identified,

the area was not considered to be a wetland. Additional observations were made throughout wetland areas (if present) to define the wetland/non-wetland boundary (only if wetlands were present). Vegetation, soil and hydrology assessment data from identified wetland areas were recorded on a USACE Wetland Determination Data Form.

Positive indicators of wetland characteristics were observed throughout portions of the riparian/drainage area. The riparian area consists of approximately 0.25 acres of wetlands (Appendix B, Exhibit 1). Wetlands at the site appear to be limited to the southern portion of the riparian area onsite, near the southern site boundary. Hydrology in this area likely originates from a stormwater drainage, resulting in intermittent flow.

The project site is not associated with interstate or foreign commerce nor is it associated with the sale of fish or shellfish or agriculture use.

5.0 CONCLUSIONS

According to the inventory of the site, resource document review, and site visit observations, no wetlands were identified at the site. Hydrology in this area likely originates from stormwater runoff from adjacent development, as well as during high precipitation events (i.e., convective thunderstorms), water may flow in the area and fill up. At the time the wetland delineation was conducted, water was not observed at the surface. An ordinary high-water mark was not observed during the site visit, but the depressed area where some wetland characteristics were observed indicates that this area may hold surface water intermittently. Based on the results of the WOTUS Delineation, potentially jurisdictional WOTUS, including wetland areas, were not observed. **At this time, Terracon does not recommend additional assessment related to WOTUS.** However, the U.S. Army Corps of Engineers (USACE) is the official agency to make the final determination of the location, type, and extent of jurisdictional WOTUS and on the need for permit processing and compensatory mitigation.

6.0 GENERAL COMMENTS

The wetland delineation was performed using the USACE Manual and the Great Plains Regional Supplement. The manuals provide assistance for delineating wetlands based on the three criteria discussed. However, the manuals alone may not have provided enough information to document whether or not the three criteria were met. Various physical properties or other visual signs used to evaluate whether the three wetland identification criteria areas were satisfied may not be straightforward, especially in disturbed or problem areas. The manuals also allow the user to visually estimate certain indicators such as the percentage of area covered by dominant species for the community. Terracon did not attempt to identify every possible plant species and did not classify soil type by laboratory methods. Due to seasonal changes, Terracon cannot guarantee the area to exhibit or not to exhibit wetland characteristics at all times of the year. The limitations of this wetland delineation should be recognized.

This report has been prepared in accordance with generally accepted scientific and engineering evaluation practices. This report is for the exclusive use of the client for the project being discussed. No warranties, either expressed or implied, are intended or made.

7.0 CLOSING

Terracon appreciates the opportunity to provide this letter report to Caliber Engineering. Should you have questions, please feel free to contact us.

Sincerely,
Terracon Consultants, Inc.

Jaymee Binion
Staff Scientist

Jennifer Peters
Environmental Planning Group
Manager

8.0 REFERENCES

Munsell. 2017. Munsell Soil Color Charts.

Natural Resources Conservation Service (NRCS). 2017. Field Indicators of Hydric Soils in the United States, Version 8.1.

United States Army Corps of Engineers. 2010. Great Plains Regional Supplement, Version 2.0. Available at:
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046489.pdf

United States Department of Agriculture Natural Resources Conservation Service (USDA). 2020. Web Soil Survey. Electronic document, <http://websoilsurvey.nrcs.usda.gov/>, accessed August 2020.

United States Fish and Wildlife Service. 2018. National Wetlands Inventory. Available at:
<https://www.fws.gov/wetlands/>.

United States Geological Survey (USGS). 1994. Fort Logan, CO [map]. 1:24,000, 7.5-minute series topographic quadrangle. U.S. Department of the Interior, U.S. Geological Survey, Washington D.C. Electronic map, available from the USGS Historical Topographic Map Explorer, <http://historicalmaps.arcgis.com/usgs/>, accessed August 2020.

APPENDIX A

Exhibits



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: FORT LOGAN, CO (1/1/1994) and LITTLETON, CO (1/1/1994).

Project Manager:	JTP
Drawn by:	JLB
Checked by:	JTP
Approved by:	JTP

Project No.	9020P121
Scale:	1"=2,000'
File Name:	SITE FIGURE
Date:	8/19/20

Terracon
 6911 Blanco Rd
 San Antonio, TX 78216-6164

TOPOGRAPHIC MAP
 Ft. Logan National Cemetery - Phase 1
 4400 W Kenyon Ave
 Denver, CO

Exhibit	1
---------	---



August 25, 2020

Wetlands

- | | | |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland | Lake |
| Estuarine and Marine Wetland | Freshwater Forested/Shrub Wetland | Other |
| | Freshwater Pond | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



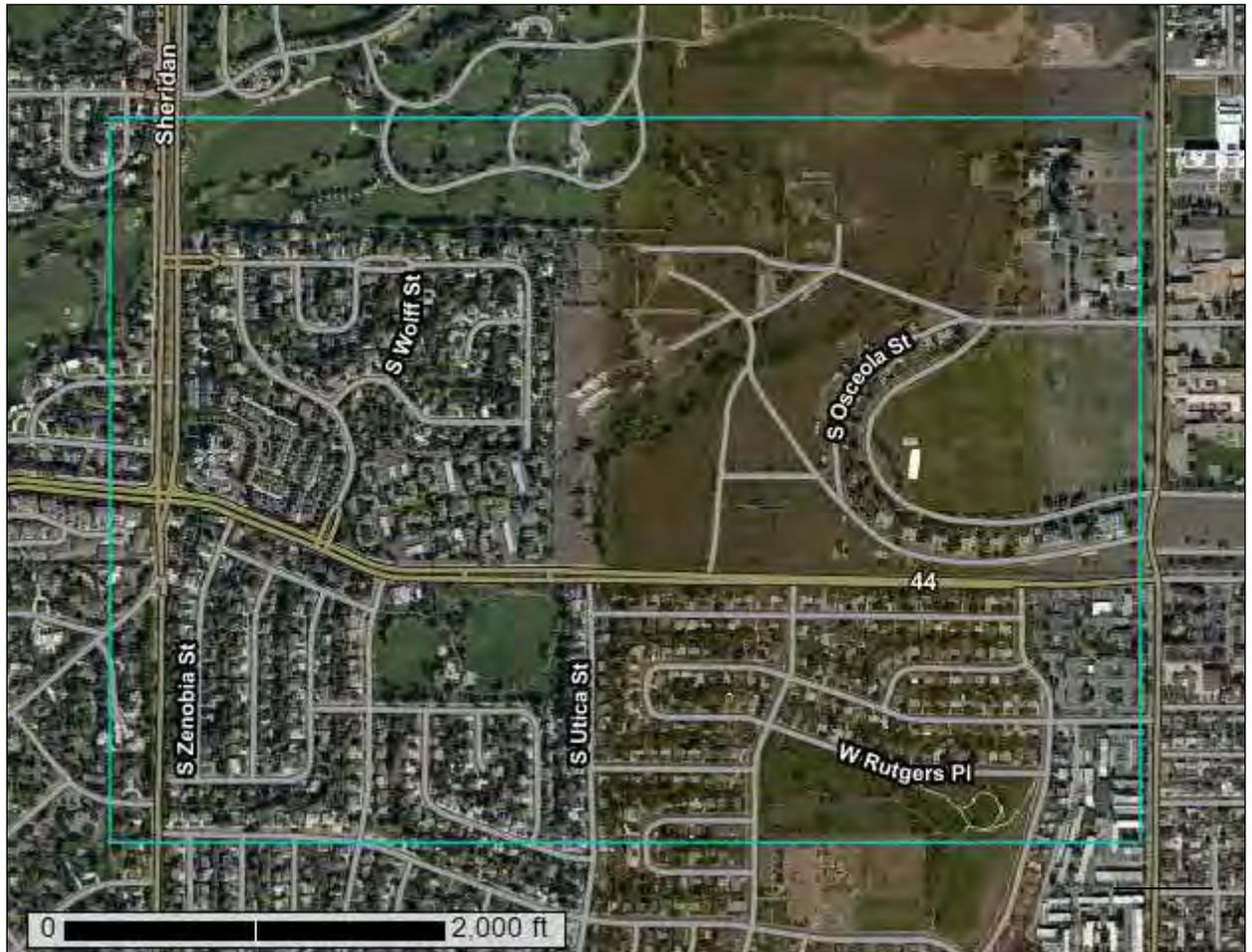
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Denver County Area, Colorado; and Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties



Exhibit

3

August 25, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
Denver County Area, Colorado.....	15
NOTCOM—No Digital Data Available.....	15
Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties.....	16
32—Denver-Kutch-Urban land complex, 5 to 9 percent slopes.....	16
35—Denver-Urban land complex, 2 to 5 percent slopes.....	18
41—Englewood clay loam, 0 to 2 percent slopes.....	20
80—Leyden-Primen-Standley cobbly clay loams, 15 to 50 percent slopes.....	22
106—Nunn-Urban land complex, 2 to 5 percent slopes.....	25
132—Renohill loam, 5 to 9 percent slopes.....	27
163—Ulm-Urban land complex, 5 to 9 percent slopes.....	29
References	32

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

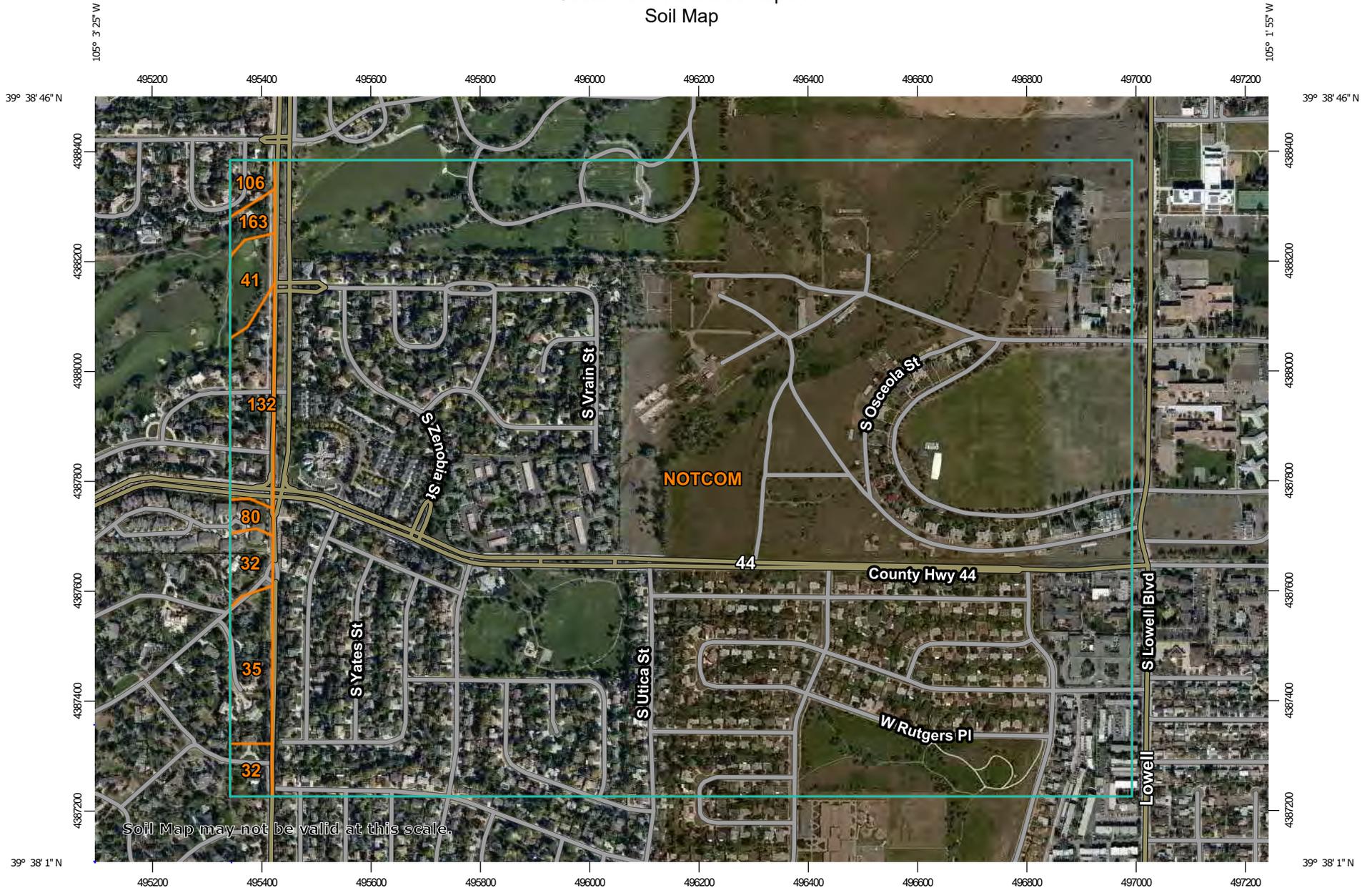
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

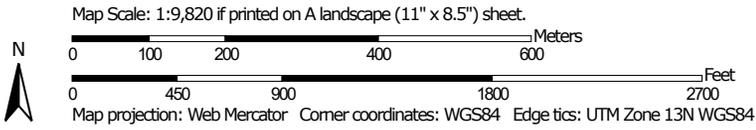
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



MAP LEGEND

- Area of Interest (AOI)**
-  Area of Interest (AOI)
- Soils**
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Denver County Area, Colorado
 Survey Area Data: Version 2, Sep 12, 2019

Soil Survey Area: Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties
 Survey Area Data: Version 15, Jun 5, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

MAP LEGEND

MAP INFORMATION

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 25, 2018—Apr 9, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NOTCOM	No Digital Data Available	451.6	95.2%
Subtotals for Soil Survey Area		451.6	95.2%
Totals for Area of Interest		474.4	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
32	Denver-Kutch-Urban land complex, 5 to 9 percent slopes	4.0	0.9%
35	Denver-Urban land complex, 2 to 5 percent slopes	5.2	1.1%
41	Englewood clay loam, 0 to 2 percent slopes	2.8	0.6%
80	Leyden-Primen-Standley cobbly clay loams, 15 to 50 percent slopes	1.1	0.2%
106	Nunn-Urban land complex, 2 to 5 percent slopes	1.6	0.3%
132	Renohill loam, 5 to 9 percent slopes	6.7	1.4%
163	Ulm-Urban land complex, 5 to 9 percent slopes	1.4	0.3%
Subtotals for Soil Survey Area		22.8	4.8%
Totals for Area of Interest		474.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Custom Soil Resource Report

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion

Custom Soil Resource Report

of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Denver County Area, Colorado

NOTCOM—No Digital Data Available

Map Unit Composition

Notcom: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Notcom

Properties and qualities

Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties

32—Denver-Kutch-Urban land complex, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: jpnl
Elevation: 5,200 to 6,500 feet
Mean annual precipitation: 13 to 17 inches
Frost-free period: 126 to 142 days
Farmland classification: Not prime farmland

Map Unit Composition

Denver and similar soils: 40 percent
Kutch and similar soils: 25 percent
Urban land: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denver

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous, clayey alluvium

Typical profile

H1 - 0 to 6 inches: clay loam
H2 - 6 to 29 inches: silty clay, clay
H2 - 6 to 29 inches: silty clay, clay loam, clay
H3 - 29 to 60 inches:
H3 - 29 to 60 inches:
H3 - 29 to 60 inches:

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very high (about 25.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Custom Soil Resource Report

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Kutch

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Calcareous, clayey residuum weathered from shale and/or colluvium

Typical profile

H1 - 0 to 3 inches: clay loam
H2 - 3 to 19 inches: clay loam, clay
H2 - 3 to 19 inches: clay loam
H3 - 19 to 26 inches: weathered bedrock
H4 - 26 to 30 inches:

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Englewood

Percent of map unit: 4 percent

Landform: Alluvial fans

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Midway

Percent of map unit: 4 percent

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: R049XY212CO - Shaly Foothill

Hydric soil rating: No

Nunn

Percent of map unit: 4 percent

Landform: Fans

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Renohill

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

35—Denver-Urban land complex, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: jnpn

Elevation: 5,200 to 6,500 feet

Mean annual precipitation: 13 to 17 inches

Frost-free period: 126 to 142 days

Farmland classification: Not prime farmland

Map Unit Composition

Denver and similar soils: 65 percent

Urban land: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denver

Setting

Landform: Terraces, alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous, clayey alluvium

Typical profile

H1 - 0 to 6 inches: clay loam

H2 - 6 to 29 inches: silty clay, clay

H2 - 6 to 29 inches: silty clay, clay loam, clay

H3 - 29 to 60 inches:

H3 - 29 to 60 inches:

H3 - 29 to 60 inches:

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 25.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)

Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components

Ulm

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Englewood

Percent of map unit: 5 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Nunn

Percent of map unit: 5 percent
Landform: Terraces, fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

41—Englewood clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: jpnx
Elevation: 5,200 to 6,500 feet
Mean annual precipitation: 13 to 17 inches
Frost-free period: 126 to 142 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Englewood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Englewood

Setting

Landform: Drainageways, alluvial fans
Down-slope shape: Linear
Across-slope shape: Concave, linear

Custom Soil Resource Report

Parent material: Calcareous, clayey alluvium

Typical profile

H1 - 0 to 9 inches: clay loam
H2 - 9 to 39 inches: clay, clay loam
H2 - 9 to 39 inches: clay loam, clay
H3 - 39 to 60 inches:
H3 - 39 to 60 inches:

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very high (about 17.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Minor Components

Haverson, rarely flooded

Percent of map unit: 3 percent
Landform: Drainageways, flood plains
Down-slope shape: Linear
Across-slope shape: Concave, linear
Ecological site: R049XY036CO - Overflow
Hydric soil rating: No

Nunn

Percent of map unit: 3 percent
Landform: Fans
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Urban land

Percent of map unit: 3 percent
Hydric soil rating: No

Denver

Percent of map unit: 3 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear

Custom Soil Resource Report

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Englewood, wet, rarely flooded

Percent of map unit: 3 percent
Landform: Drainageways, flood plains
Down-slope shape: Linear
Across-slope shape: Concave, linear
Ecological site: R048AY265CO - Salt Meadow
Hydric soil rating: No

80—Leyden-Primen-Standley cobbly clay loams, 15 to 50 percent slopes

Map Unit Setting

National map unit symbol: jpq9
Elevation: 5,200 to 6,500 feet
Mean annual precipitation: 13 to 17 inches
Frost-free period: 126 to 142 days
Farmland classification: Not prime farmland

Map Unit Composition

Leyden and similar soils: 35 percent
Primen and similar soils: 30 percent
Standley and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Leyden

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear, convex
Parent material: Calcareous, gravelly, cobbly, stony, and clayey slope alluvium over residuum weathered from mudstone

Typical profile

H1 - 0 to 3 inches: cobbly clay loam
H2 - 3 to 35 inches: gravelly clay loam, gravelly clay
H2 - 3 to 35 inches: weathered bedrock
H3 - 35 to 39 inches:

Properties and qualities

Slope: 15 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Primen

Setting

Landform: Hillslopes, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Cobbly, gravelly, clayey material over residuum weathered from sandstone

Typical profile

H1 - 0 to 9 inches: cobbly clay loam
H2 - 9 to 14 inches: cobbly clay loam, cobbly clay
H2 - 9 to 14 inches: gravelly clay loam, gravelly clay
H3 - 14 to 18 inches: weathered bedrock
H3 - 14 to 18 inches:
H4 - 18 to 22 inches:

Properties and qualities

Slope: 15 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Standley

Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous, gravelly, cobbly, stony, and clayey alluvium and/or colluvium

Typical profile

H1 - 0 to 9 inches: cobbly clay loam

H2 - 9 to 22 inches: gravelly clay, gravelly clay loam

H2 - 9 to 22 inches: gravelly clay loam, gravelly loam

H3 - 22 to 60 inches:

H3 - 22 to 60 inches:

Properties and qualities

Slope: 15 to 50 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Available water capacity: Very high (about 17.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)

Hydric soil rating: No

Minor Components

Nunn

Percent of map unit: 3 percent

Landform: Fans

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Denver

Percent of map unit: 3 percent

Landform: Alluvial fans

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Custom Soil Resource Report

Hydric soil rating: No

Kutch

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Midway

Percent of map unit: 3 percent

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: R049XY212CO - Shaly Foothill

Hydric soil rating: No

Urban land

Percent of map unit: 3 percent

Hydric soil rating: No

106—Nunn-Urban land complex, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: jpkk

Elevation: 5,200 to 6,500 feet

Mean annual precipitation: 13 to 17 inches

Frost-free period: 126 to 142 days

Farmland classification: Not prime farmland

Map Unit Composition

Nunn and similar soils: 65 percent

Urban land: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nunn

Setting

Landform: Fans, terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Clayey, calcareous alluvium

Typical profile

H1 - 0 to 6 inches: clay loam
H2 - 6 to 30 inches: clay, clay loam
H2 - 6 to 30 inches: clay loam, loam
H3 - 30 to 60 inches:
H3 - 30 to 60 inches:

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Very high (about 19.3 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Denver

Percent of map unit: 5 percent
Landform: Alluvial fans, terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Englewood

Percent of map unit: 5 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Standley

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

132—Renohill loam, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: jplh
Elevation: 5,200 to 6,500 feet
Mean annual precipitation: 13 to 17 inches
Frost-free period: 126 to 142 days
Farmland classification: Not prime farmland

Map Unit Composition

Renohill and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Renohill

Setting

Landform: Hillslopes, ridges
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Residuum weathered from calcareous shale

Typical profile

H1 - 0 to 3 inches: loam
H2 - 3 to 16 inches: clay loam, clay
H2 - 3 to 16 inches: loam, clay loam
H3 - 16 to 32 inches: unweathered bedrock
H3 - 16 to 32 inches:
H4 - 32 to 36 inches:

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Minor Components

Ulm

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Stoneham

Percent of map unit: 3 percent
Landform: Knobs
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R048AY202CO - Loamy Foothill
Hydric soil rating: No

Manzanola

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Kutch

Percent of map unit: 2 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Urban land

Percent of map unit: 2 percent
Hydric soil rating: No

Midway

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R049XY212CO - Shaly Foothill
Hydric soil rating: No

163—Ulm-Urban land complex, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: jpm1
Elevation: 5,200 to 6,500 feet
Mean annual precipitation: 13 to 17 inches
Frost-free period: 126 to 142 days
Farmland classification: Not prime farmland

Map Unit Composition

Ulm and similar soils: 65 percent
Urban land: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ulm

Setting

Landform: Terraces, hillslopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous, clayey alluvium derived from calcareous shale

Typical profile

H1 - 0 to 6 inches: clay loam
H2 - 6 to 21 inches: clay
H3 - 21 to 50 inches: clay, clay loam
H3 - 21 to 50 inches: clay loam
H4 - 50 to 60 inches:

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

Custom Soil Resource Report

Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very high (about 15.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)
Hydric soil rating: No

Description of Urban Land

Setting

Landform: Terraces, hillslopes
Down-slope shape: Linear
Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Denver

Percent of map unit: 3 percent
Landform: Hillslopes, terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Manzanola

Percent of map unit: 3 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49
Hydric soil rating: No

Renohill

Percent of map unit: 3 percent
Landform: Hillslopes, ridges

Custom Soil Resource Report

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Nunn

Percent of map unit: 3 percent

Landform: Hillslopes, terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

Englewood

Percent of map unit: 3 percent

Landform: Drainageways

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX B

Point Locations and Determination Forms

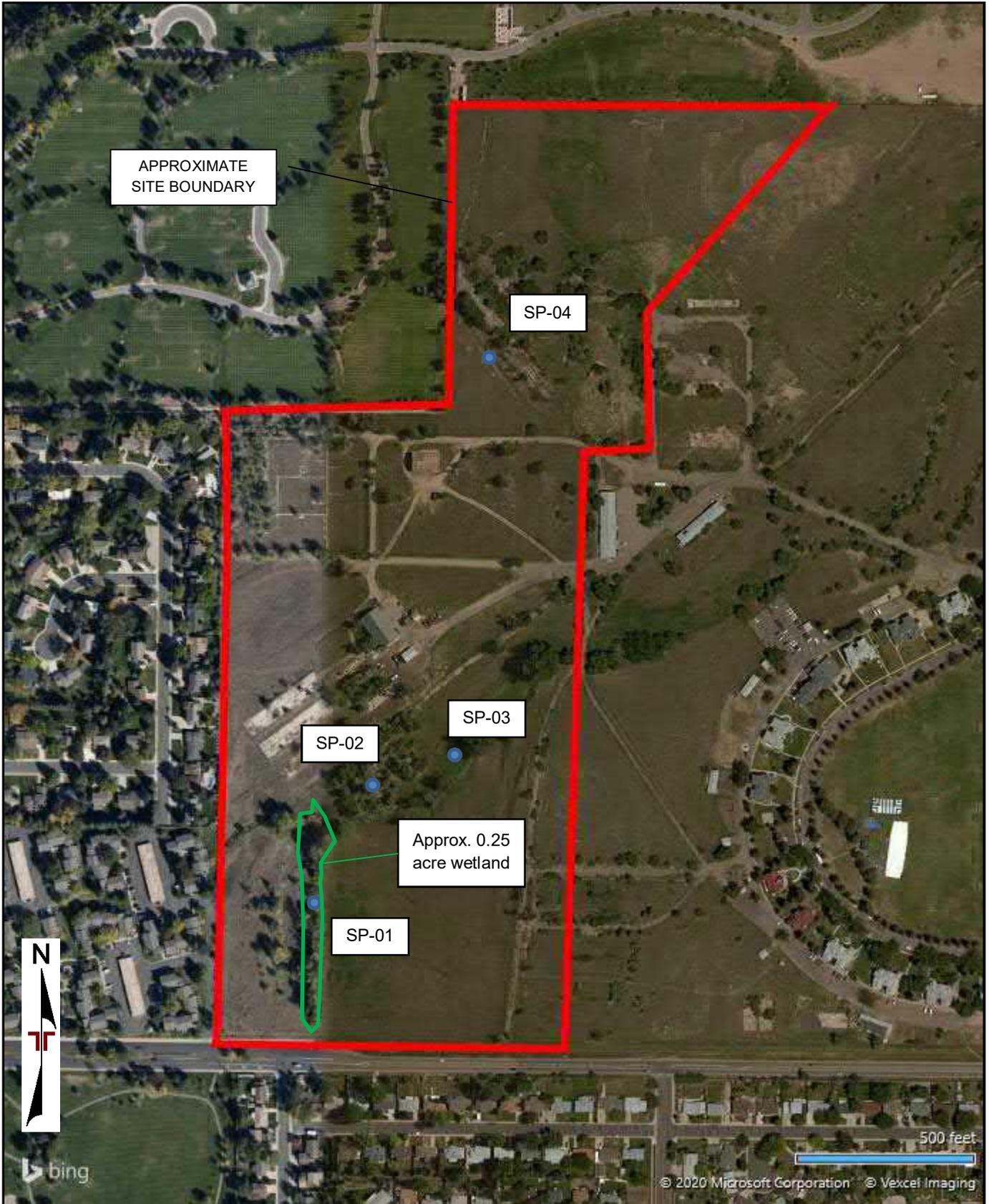


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager:	JTP	Project No.	9020P121
Drawn by:	JLB	Scale:	AS SHOWN
Checked by:	JTP	File Name:	SITE
Approved by:	JTP	Date:	8/19/20

Terracon
 6911 Blanco Rd
 San Antonio, TX 78216-6164

SITE DIAGRAM
 Ft. Logan National Cemetery - Phase 1
 4400 W Kenyon Ave
 Denver, CO

Exhibit	1
---------	---

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: _____ City/County: _____ Sampling Date: _____
 Applicant/Owner: _____ State: _____ Sampling Point: _____
 Investigator(s): _____ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: _____ _____ _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 ___ 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks: _____

SOIL

Sampling Point:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR I, J)
 - Coast Prairie Redox (A16) (LRR F, G, H)
 - Dark Surface (S7) (LRR G)
 - High Plains Depressions (F16)
 - (LRR H outside of MLRA 72 & 73)**
 - Reduced Vertic (F18)
 - Red Parent Material (TF2)
 - Very Shallow Dark Surface (TF12)
 - Other (Explain in Remarks)
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3)
- (where not tilled)**
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3)
- (where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Fort Logan National Cemetery Expansion City/County: Denver Sampling Date: 8/19/20
 Applicant/Owner: Calibre State: CO Sampling Point: SP-02
 Investigator(s): Jaymee Binion Section, Township, Range: S6, T5S, R68W
 Landform (hillslope, terrace, etc.): Flat plain Local relief (concave, convex, none): Concave Slope (%): 0-2
 Subregion (LRR): Great Plains Lat: 39.640374 Long: -105.044749 Datum: NAD83
 Soil Map Unit Name: No soil data for area NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Point near drainage, north of SP-01	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Populus deltoides</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>60</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Salix laevigata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>5</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Bromus tectorum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Asclepias syriaca</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>35</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>5'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Fort Logan National Cemetery Expansion City/County: Denver Sampling Date: 8/19/20
 Applicant/Owner: Calibre State: CO Sampling Point: SP-03
 Investigator(s): Jaymee Binion Section, Township, Range: S6, T5S, R68W
 Landform (hillslope, terrace, etc.): Flat plain Local relief (concave, convex, none): Concave Slope (%): 0-2
 Subregion (LRR): Great Plains Lat: 39.640848 Long: -105.043746 Datum: NAD83
 Soil Map Unit Name: No soil data for area NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland point near end of drainage area.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Bromus tectorum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cirsium vulgare</u>	<u>20</u>	<u>N</u>	<u>UPL</u>	
3. <u>Asclepias syriaca</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>60</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>5'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

SOIL

Sampling Point: SP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/2						Silty loam	No moisture
8-16	10YR 4/2						Silty loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	(where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
(where not tilled)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No hydrology	

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Fort Logan National Cemetery Expansion City/County: Denver Sampling Date: 8/19/20
 Applicant/Owner: Calibre State: CO Sampling Point: SP-04
 Investigator(s): Jaymee Binion Section, Township, Range: S6, T5S, R68W
 Landform (hillslope, terrace, etc.): Flat plain Local relief (concave, convex, none): Concave Slope (%): 0-2
 Subregion (LRR): Great Plains Lat: 39.644058 Long: -105.043368 Datum: NAD83
 Soil Map Unit Name: No soil data for area NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: SP near hydrant. No evidence of hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Bromus tectorum</u>	<u>60</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Bromus secalinus</u>	<u>20</u>	<u>N</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>80</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>5'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
 Total Number of Dominant Species Across All Strata: 0 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = _____
 FACW species 0 x 2 = _____
 FAC species 0 x 3 = _____
 FACU species 0 x 4 = _____
 UPL species 80 x 5 = 400
 Column Totals: 80 (A) 400 (B)
 Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks:

APPENDIX C
Site Photographs



1. View of riparian area from center of site, facing south.



2. View of riparian area and grassland, facing south.



3. View of riparian area and grassland, facing north.



4. View of site to the west of riparian area, facing west.



5. View of site to west of riparian area, facing north.



6. View of site to west of riparian area with adjacent residential area visible, facing northwest.



7. View of southern edge of riparian area, facing north from southern site boundary.



8. View of eastern site addition, facing east.



9. View of SP-01.



10. View of vegetation around SP-01.



11. *Asclepias syriaca*, near SP-01.



12. *Salix laevigata*, near SP-01.



13. General location of SP-02.



14. Populus deltoides, near SP-02.



15. Salix laevigata, near SP-02.



16. Vegetation and general location of SP-03.



17. Vegetative community near SP-03.



18. View of drainage/riparian area near SP-03.



19. View of SP-04.



20. Vegetation and general location of SP-04.



21. General view of northwestern area of site.



22. General view of forested northwestern area of site.

Class III Cultural Resources Inventory for the
Fort Logan National Cemetery Expansion, Denver, Colorado

Submitted to:
U.S. Department of Veterans Affairs

Submitted by:
Environmental Research Group, LLC



and

Historical Research Associates, Inc.
Lisa M. Smith, PhD
T. Weber Greiser, MA
Jim Pritchard, MA
Katy Coyle, MA

Missoula, Montana
July 2017



HISTORICAL
RESEARCH
ASSOCIATES, INC.

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

Abstract

ISI Professional Services, Inc., contracted Row 10 Historic Preservation Solutions, LLC to conduct an Initial Cultural Resources Impact Prediction study. This study recommended a cultural resources investigation, as well as consultation with suggested consulting parties (Appendix B). Following the recommendations of that study, ISI contracted Environmental Research Group, LLC (ERG), and Historical Research Associates, Inc. (HRA), to conduct cultural resources investigation for the proposed Fort Logan National Cemetery (FLNC) expansion project. The investigation involved a Class III archaeological survey of a 66-acre parcel controlled by the State of Colorado (Figure 1). The parcel, located in Denver, Colorado, in Sections 6 and 7 of Township 5 South, Range 68 West, 6th Meridian, is subject to land transfer to the National Cemetery Administration of the U.S. Department of Veterans Affairs (NCA) and will be utilized for the FLNC expansion. The investigation led to identification of cultural resources associated with Fort Logan, in operation from 1887 to 1946. In 1960, 300 acres of the Fort Logan property were acquired by the State of Colorado for the Mental Health Center. With the exception of four standing structures in the current project area, much of the Fort Logan infrastructure in the project area of potential effects (APE) was bulldozed to make way for this facility. Due to lack of integrity and inability to contribute to the historical narrative of Fort Logan, the archaeological resources, documented as 5DV.39428, in the APE are recommended not eligible for the National Register of Historic Places (NRHP). Likewise, these resources are recommended as not contributing to the NRHP eligibility of the proposed Fort Logan District (5DV.694) and the Fort Logan National Cemetery Historic District (5DV.4344).

History Colorado-Office of Archaeology and Historic Preservation
COLORADO CULTURAL RESOURCE SURVEY
 Cultural Resource Survey Management Information Form

I. PROJECT SIZE

Total federal acres in project _____	Total federal acres surveyed _____
Total state acres in project <u>66</u>	Total state acres surveyed <u>66</u>
Total private acres in project _____	Total private acres surveyed _____
Total other acres in project _____	Total other acres surveyed _____

II. PROJECT LOCATION

County: Denver
 U.S.GS Quad _____
 Map: Fort Logan
 Principal Meridian: 6th

Township <u>5S</u>	Range <u>68W</u>	Section <u>6</u>	<u>NE</u> 1/4	<u>NW</u> 1/4	<u>SE</u> 1/4	<u>SW</u> 1/4
Township <u>5S</u>	Range <u>68W</u>	Section <u>7</u>	<u>SW</u> 1/4	_____ 1/4	_____ 1/4	_____ 1/4
Township _____	Range _____	Section _____	_____ 1/4	_____ 1/4	_____ 1/4	_____ 1/4
Township _____	Range _____	Section _____	_____ 1/4	_____ 1/4	_____ 1/4	_____ 1/4
Township _____	Range _____	Section _____	_____ 1/4	_____ 1/4	_____ 1/4	_____ 1/4

III. SITES

Smithsonian Number	Resource Type				Eligibility				Management Recommendations						
	Prehistoric	Historic	Paleontological	Unknown	Eligible	Not Eligible	Need Data	Contributes to a District	No Further Work	Preserve / Avoid	Monitor	Test	Excavate	Archival Research	Other
5DV.39428	X				X				X						
5DV.16777	X				X				X						
5DV.16778	X				X				X						
5DV.16779	X				X				X						
5DV.4784.6	X				X				X						
5DV.16780.1	X				X				X						

IV. ISOLATED FINDS

Smithsonian Number	Resource Type			
	Prehistoric	Historic	Paleontological	Unknown

Smithsonian Number	Resource Type			
	Prehistoric	Historic	Paleontological	Unknown

Table of Contents

ABSTRACT	I
1. INTRODUCTION	8
2. ENVIRONMENT	12
2.1 PHYSIOGRAPHY	12
2.2 CLIMATE	12
2.3 GEOLOGY	12
2.4 SOILS	13
2.5 FLORA AND FAUNA	14
2.6 FORT LOGAN NATIONAL CEMETERY (FLNC) EXPANSION APE	14
3. CULTURE HISTORY AND PREVIOUS WORK	15
3.1 PRECONTACT CONTEXT	15
3.1.1 PLATTE RIVER BASIN PREHISTORY	15
3.2 HISTORIC CONTEXT	18
3.2.1 EUROPEAN EXPLORATION: 1541-1819	18
3.2.2 U.S. ARMY EXPLORATION: 1803-1865	18
3.2.3 TRAPPERS AND TRADERS: 1800-1870	19
3.2.4 THE GOLD RUSH AND TERRITORIAL PERIOD: 1859-1876	20
3.2.5 EUROAMERICAN AND NATIVE AMERICAN CONFLICT: 1860-1869	21
3.2.6 POST-CIVIL WAR RAILROAD DEVELOPMENT AND EXPANSION: 1865-1895	22
3.2.7 MILITARY ESTABLISHMENT AND EXPANSION: 1900-1945	23
3.2.8 FORT LOGAN AND FORT LOGAN NATIONAL CEMETERY HISTORY	24
3.3 PREVIOUS WORK	26
3.3.1 PREVIOUSLY IDENTIFIED CULTURAL RESOURCES IN THE APE	39
3.3.2 FORT LOGAN DISTRICT (5DV.694)	39
3.3.3 FORT LOGAN NATIONAL CEMETERY HISTORIC DISTRICT (5DV.4344)	42
3.3.4 DENVER AND RIO GRANDE WESTERN RAILROAD (5DV.4784)	42
4. STATEMENT OF OBJECTIVES	43
4.1 RESEARCH THEMES FOR ARCHAEOLOGICAL RESOURCES UNDER CRITERION D	43
5. FIELD METHODS	45
5.1 ARCHAEOLOGICAL FIELD METHODS	45
5.2 BUILT RESOURCE FIELD METHODS	46
6. RESULTS	47

6.1	ARCHAEOLOGICAL RESULTS	47
6.2	SITE 5DV.39428	52
6.2.1	HRA-FEATURE LOCATION 1	52
6.2.2	HRA-FEATURE LOCATION 2 (5DV.4784.6)	54
6.2.3	HRA-FEATURE LOCATION 3	59
6.2.4	HRA-FEATURE LOCATION 4 (5DV.16777)	61
6.2.5	HRA-FEATURE LOCATION 5 (5DV.16780.1)	64
6.2.6	HRA-FEATURE LOCATION 6	67
6.2.7	HRA-FEATURE LOCATION 7 (5DV.16778)	70
6.2.8	HRA-FEATURE LOCATION 8	71
6.2.9	HRA-FEATURE LOCATION 9 (5DV.16779)	73
6.2.10	HRA-ARTIFACT SCATTER 1	76
6.2.11	HRA-ARTIFACT SCATTER 2	77
6.3	BUILT RESOURCES	79
6.3.1	GARAGE AND REPAIR SHOP (5DV.9421)	79
6.3.2	COMBINED FILLING STATION AND OIL HOUSE (5DV.9371)	82
6.3.3	STORAGE BUILDING (5DV.9442)	84
6.3.4	POST ENGINEER GARAGE (5DV.9376)	84
6.3.5	PINEHURST ESTATES	86
7.	EVALUATIONS AND RECOMMENDATIONS	88
7.1	ARCHAEOLOGICAL RECOMMENDATIONS	88
7.2	BUILT RESOURCE RECOMMENDATIONS	89
7.3	PROCEDURES FOR THE INADVERTENT DISCOVERY OF HUMAN REMAINS	89
8.	EVALUATION OF RESEARCH	91
9.	SUMMARY AND CONCLUSIONS	92
10.	REFERENCES CITED	93
	APPENDIX A. SHOVEL PROBE RESULTS	97
	APPENDIX B. INITIAL CULTURAL RESOURCES IMPACT PREDICTION STUDY	112

List of Figures

Figure 1.	Fort Logan NCA expansion location.	10
Figure 2.	Updated work outline overview.	11
Figure 3.	Fort Logan District (5DV.694) site map (information drawn from Norgen 1989).	41
Figure 4.	Site 5DV.39428 location map.	48
Figure 5-1.	Site 5DV.39428 site map.	49
Figure 5-2.	Site 5DV.39428 site map	50
Figure 5-3.	Site 5DV.39428 site map	51
Figure 6.	HRA-FL1, bulldozed area; view north.	53

Figure 7. HRA-FL1, raised brick and mortar manhole cover.	53
Figure 8. HRA-FL1, historic artifact scatter.	54
Figure 9. Linear resource 5DV.4784.6 location map.	55
Figure 10. 5DV.4784.6, railroad grade; view north.	56
Figure 11. HRA-FL2, Feature FL2-1, a brick footing that was part of an icehouse building located along the railroad grade; view west.	57
Figure 12. HRA-FL2, Feature FL2-2, a raised platform that was part of a coal shed located along the railroad grade; view east.	58
Figure 13. HRA-FL3, grade; view north.	60
Figure 14. HRA-FL3, stairs that extend up to the top of a grade; view east.	60
Figure 15. FL4, overview of bulldozing and building demolition; view west.	61
Figure 16. HRA-FL4, Feature FL4-2, a concrete slab for a building used for unknown purposes, with telephone line (5DV.16777) to the south; view west.	62
Figure 17. HRA-FL4, Feature FL4-4, CCC Barrack 2; view southwest.	63
Figure 18. Linear resource 5DV.16780.1, overlain historic map of Fort Logan, circa 1940-1946.	65
Figure 19. HRA-FL5, a road grade that is part of complex 5DV.16780.1, extending north-south through the north polygon of the APE; view northwest.	66
Figure 20. HRA-FL5, road grade that is part of road complex 5DV.16780.1, which extends east-west through FL9; view west.	66
Figure 21. HRA-FL6, Feature FL6-2, personnel quarters; view northwest.	68
Figure 22. HRA-FL6, Feature FL6-4, and unknown gate/post; view west.	69
Figure 23. HRA-FL6, Feature FL6-5, a sidewalk extending between FL6-1 and FL6-2; view northeast.	69
Figure 24. HRA-FL7, railroad bridge that crosses a modified, natural drainage.	71
Figure 25. HRA-FL8, Features FL8-1 and FL8-2, foundations of temporary training camp buildings; view east.	72
Figure 26. HRA-FL8, Feature FL8-6, unknown gate/post with wood posts and cable; view south.	73
Figure 27. HRA-FL9, Feature FL9-1, front entry and footprint of a building used for unknown purposes, and a sidewalk extending along footprint; view east.	74
Figure 28. HRA-FL9, stairs leading up to a terrace south of the building foundations; view south.	75
Figure 29. HRA-FL9, 5DV.16779, ditch and culvert extending along the north edge of the area; view west.	75
Figure 30. HRA-AS1 overview; view east.	76
Figure 31. HRA-AS2 overview; view west.	78
Figure 32. HRA-AS2, STP 87, excavated materials with burned twigs and branches and newspaper fragments, found at 25 to 52 cmbs.	78
Figure 33. 5DV.9421, Garage and Repair Shop, north elevation.	81
Figure 34. 5DV.9421, Garage and Repair Shop, east elevation.	81
Figure 35. 5DV.9371, Combined Filling Station and Oil House, south and east elevations.	83
Figure 36. 5DV.9371, Combined Filling Station and Oil House, west elevation.	83
Figure 37. 5DV.9442, storage building, north and east elevations.	84
Figure 38. 5DV.9376, Post Engineer Garage, south elevation.	85
Figure 39. 5DV.9376, Post Engineer Garage, north elevation.	86
Figure 40. Excerpt, USGS Quadrangle Map, 1965 (Photorevised 1971), Denver, CO.	86

List of Tables

Table 1. Precontact Chronology of the Platte River Basin (after Gilmore et al. 1999:3)	15
Table 2. List of Previous Surveys Conducted in the Vicinity of the Fort Logan Expansion APE.	27
Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.	28
Table 4. HRA-AS2, positive shovel probe data.	79
Table A-1. Shovel Probe Results.	97

1. Introduction

This report describes the results of a cultural resource survey conducted for the Fort Logan National Cemetery (FLNC) expansion project, Colorado (Figure 1). The property is catalogued as parcel number 0806400003000 and is situated directly south of the current FLNC boundaries. Formerly part of the Fort Logan military installation, established in 1887, the property is currently owned by the State of Colorado; although the goal of this land exchange is to expand the FLNC, not all of the acreage will be developed for that purpose. Based on current development plans, approximately 48 acres will be impacted by the undertaking, which will involve grading and debris removal to create a 2 to 4 percent ground slope across the entire site (Figure 2). Proposed redevelopment of the parcel could also include installation of headstones and columbaria.

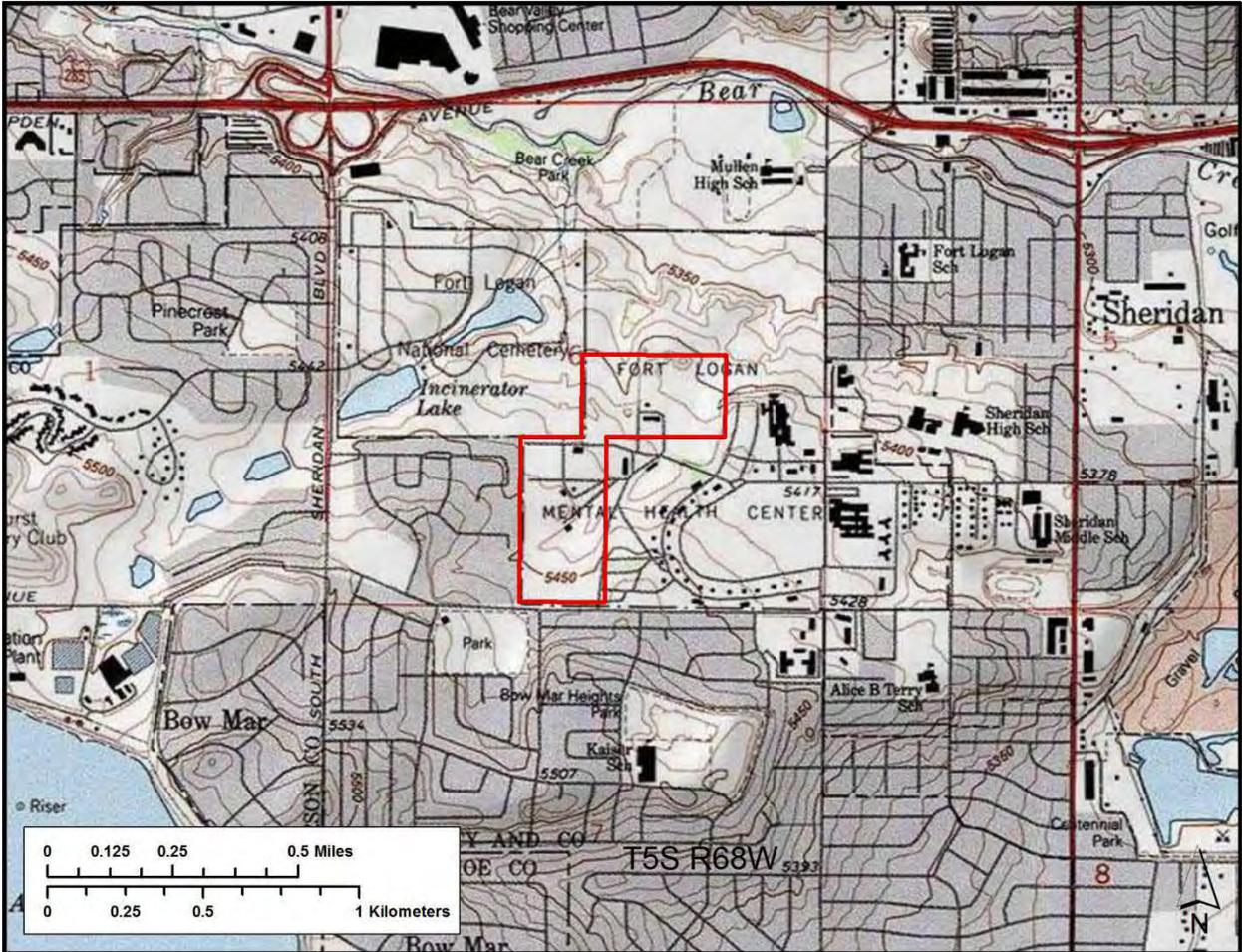
In accordance with Section 106 of the National Historic Preservation Act (NHPA), a Class III cultural resource inventory was conducted on the entire 66 acres proposed to be transferred to the NCA, all of which is considered to be the area of potential effects (APE) as part of the general land exchange. The APE consists of two connected rectangular polygons, 0.16 by 0.29 miles (mi) and 0.17 by 0.33 mi in size, respectively, which are located south and east of the current FLNC boundary. The cultural resource survey was conducted by Environmental Research Group, LLC (ERG), and Historical Research Associates, Inc. (HRA), from April 25 to 28, 2017. Personnel involved in this investigation included Principal Investigator Lisa Smith (HRA), GIS lead/archaeologist Gabe Frazier (HRA), and field technicians Shawn Webb (ERG) and Chris Lankford (ERG).

The field investigation resulted in identification of one historic archaeological site in the APE (5DV.39428), with features and artifacts all associated with Fort Logan. Most of the features are remnants of buildings that once stood in the Fort, all of which were intentionally demolished over time, though there are also linear resources in the form of ditches, roads, a railroad grade, and a telephone line. Artifacts found on ground surfaces and in subsurface tests were mostly construction debris related to the demolished buildings or unknown glass and ceramic fragments. Results of the pedestrian survey and subsurface tests demonstrate the site lacks surficial and subsurficial integrity. The site contains no information important to history, including the history of Fort Logan or Fort Logan National Cemetery. As such, site 5DV.39428 is recommended not eligible for the National Register of Historic Places (NRHP). The site is recommended as not contributing to the eligibility of the Fort Logan Historic District (FLHD)(5DV.694). Additionally, the site is recommended as not contributing to the eligibility of the Fort Logan National Cemetery Historic District (5DV.4344).

The field investigation also resulted in the identification four standing structures in the APE (5DV.9371-d, 5DV.9376-d, 5DV.9421-d, and 5DV.9442-d). All four of these structures had been previously evaluated for their contributing status to the FLHD. Of the four, only 5DV.9421-d was found to be a contributing element to the FLHD. A reassessment of all four of these standing structures confirmed the earlier conclusion: 5DV.9421-d is eligible for the NRHP as a contributing element to the FLHD, while 5DV.9371-d, 5DV.9376-d, and 5DV.9442-d do not possess the integrity of materials, design, setting, or feeling necessary for inclusion in the NRHP either as contributing elements, or as individual properties.

It is reasonably foreseeable that these buildings will be demolished as part of the Fort Logan National Cemetery Expansion project. This will constitute an adverse effect to building 5DV9421. The conversion of the proposed area of expansion will not result in a change of the boundaries of the FLHD, however, it will constitute a change of use for the project area. This change of use of the project area from empty land to cemetery land will not be adverse to the FLHD, as the cemetery has always been a part of the Fort Logan military installation, and the empty land being acquired is not a character-defining feature of the FLHD.

The proposed project will have a direct effect on the physical boundaries of the FLNC, which will expand it from their current limitations. However, the effect is not adverse, because the National Park Service policy clarification on National cemeteries recognizes that “National cemeteries continue to expand” and are “ever-changing” (NPS 2011).



Area of Potential Effects (APE)

Fort Logan NCA Expansion



HISTORICAL
RESEARCH
ASSOCIATES, INC.

Date: 6/27/2017

Coord./Project	Datum	Scale
NAD 1983 UTM Zone 13N Transverse Mercator	NAD83	1:24,000
Township/Range	Quadrangle	
T5S R68W	T5S R68W	

Historical Research Associates, Inc.
 Service Layer Credits: Copyright © 2013 National Geographic Society, i-cubed
 Content may not reflect National Geographic's current map policy. Sources:
 National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA,
 METI, NRCAN, GEBCO, NOAA, increment P Corp.

Figure 1. Fort Logan NCA expansion location.

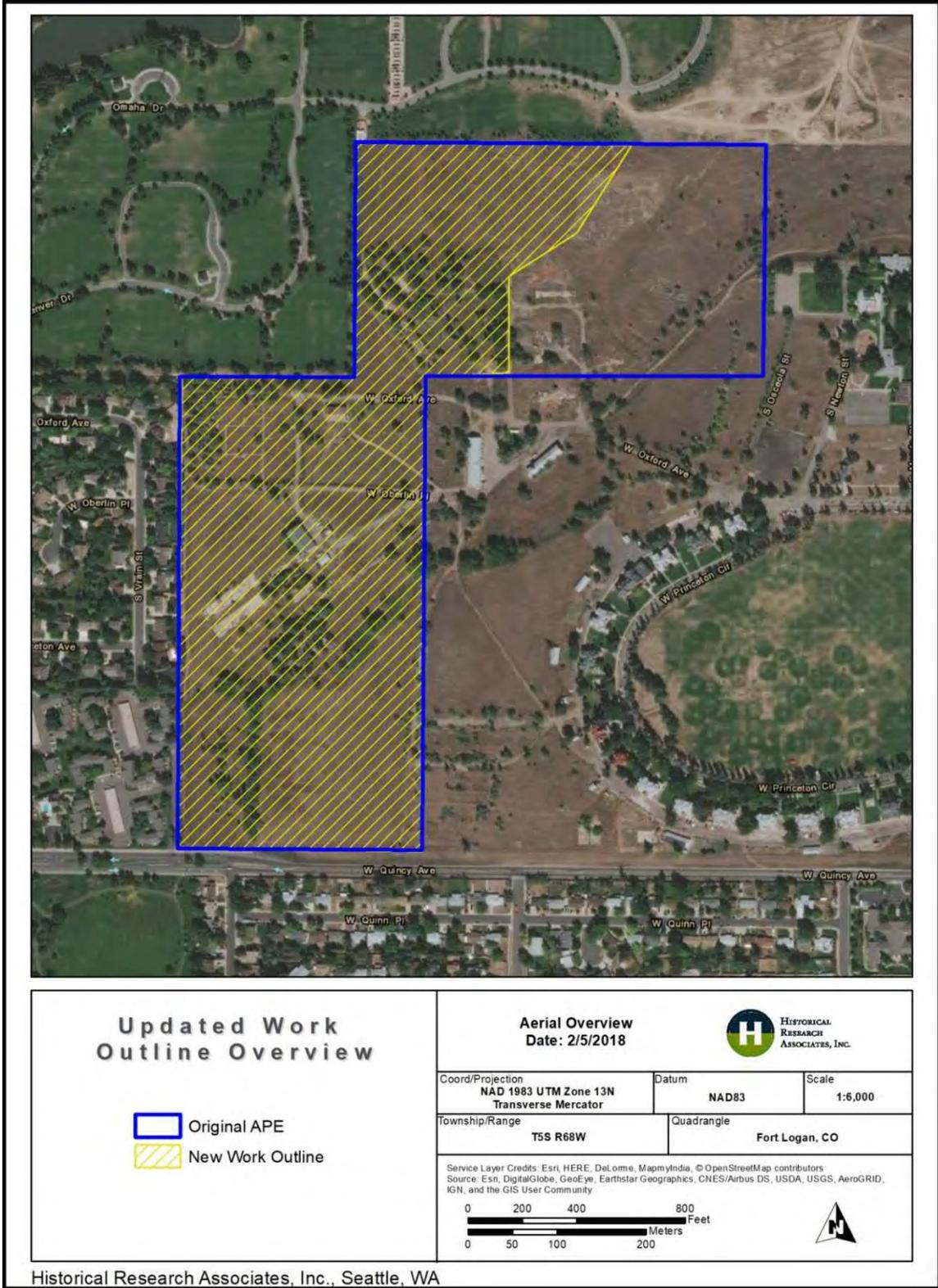


Figure 2. Updated work outline overview.

2. Environment

Information regarding the environmental context of Fort Logan is, for this report, primarily derived from Tate and Gilmore (1999) and the on-line Denver County Area Soil Survey found at the Natural Resource Conservation Service's Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/>).

These two data sets characterize the area's physiography, climate, geology, soils, and flora and fauna.

2.1 Physiography

Fort Logan falls within the Great Plains physiographic region. The Great Plains is a broad belt of highland resembling a plateau that extends from Canada to Texas. It is bounded on the west by the Rocky Mountains and the Wyoming Basin. Elevation across the Great Plains ranges from 1,500 feet (ft.) on the east to as much as 6,000 ft. in the west. Structurally, this province is a broad geosynclinal feature that includes many basins separated by arches or uplifts (Tate and Gilmore 1999:7). One of three major basins is the Denver Basin, which covers most of eastern Colorado, including Fort Logan.

2.2 Climate

Colorado has a continental-type climate, which is characterized by great diurnal and annual temperature variation. The High Plains exhibit hot daytime temperatures in summer. These are frequently relieved by afternoon thunderstorms (Tate and Gilmore 1999:11). Night temperatures are generally cool. In winter, there are alternating periods of severe cold when snows are accompanied by heavy winds, and blizzard conditions result (Tate and Gilmore 1999:12). Average January temperatures range from 26–29°F at various points on the High Plains; average July temperatures in the area range from about 71–76°F. Annual precipitation, most of which falls in spring and summer, ranges from 13–17 inches in the High Plains (National Climatic Data Center [NCDC] 1982, 1984).

2.3 Geology

Much of the Plains is underlain by rocks of Cretaceous age, while a veneer of Tertiary rocks is often present where this veneer has been removed by erosion. The rocks of the Great Plains are mainly Mesozoic and Cenozoic in origin, and Cretaceous beds form the surface geology. The Tertiary formations range in age from the Paleocene to the Pliocene (Tate and Gilmore 1999:13). The most common of the Tertiary formations are the Fort Union, Wasatch, White River, Chadron, Brule, Arikaree, and Ogallala. Pleistocene deposits of glacial till in the north and silt clay, volcanic ash, dune sand, and fluvial gravels in other locations are locally important (Thornbury 1965).

Since the end of the Cretaceous period, the Plains have been above sea level. Terrestrial deposits of the earlier Tertiary period are primarily materials removed from the Rocky Mountains in a series of erosional cycles, dominant of which are those of the Pliocene, which reduced the Rockies to an area of only moderate relief (Tate and Gilmore 1999:13). During this period, the widespread mantle of Ogallala alluvium spread across the Plains (Thornbury 1965).

The fluviatile covering of the High Plains surface is a remnant of the great mantle that extended from the Rocky Mountains eastward, the uppermost of numerous formations being Ogallala. Comprising mainly sandy alluvium, this formation also includes beds of gravel, silt, clays, and freshwater limestone. Quaternary deposits on the Colorado High Plains represent primarily local accumulations of gravels, sands, clays, silts, and freshwater limestone in the numerous basins of the Plains. Scattered deposits of volcanic ash, loess, Pleistocene terrace gravels, dune sands, sand sheets, and recent alluvium are also found there (Thornbury 1965).

The most significant feature of the Quaternary period, which encompasses first the Pleistocene and later the Holocene, is glaciation (Tate and Gilmore 1999:15). While continental glaciation covered much of North America during the Pleistocene, it did not extend into Colorado. However, valley glaciation occurred in many Colorado mountain ranges. The Southern Rocky Mountains experienced at least three distinct episodes of glaciation during the Pleistocene epoch: the Buffalo, Bull Lake, and Pinedale (Thornbury 1965). Glaciers formed along the crests of all the major mountain ranges in the Platte River drainage basin (Chronic and Chronic 1972).

One result of the geological processes that have shaped the area of the Platte River basin is that in many places, cryptocrystalline quartz materials have been left exposed or shallowly buried. Those of relatively high quality were exploited by precontact peoples for tool stone. Such sources include, for example, quartzite from the Dakota Formation, which in one area of the South Platte is found at the edge of the Denver Basin (Tate and Gilmore 1999).

2.4 Soils

Five orders of soils have been identified in Colorado's Platte and Arkansas drainage basins. They are Alfisols, Aridisols, Entisols, Inceptisols, and Mollisols. These have been further divided by soil suborder, great group, and subgroup (Heil et al. 1977). This soil system is based upon soil properties that are observable and measurable. The properties are selected so that soils of similar genesis and method of origin are grouped. Those properties that differentiate soil orders provide broad climatic groups, with three exceptions: Entisols, Inceptisols, and Histosols, which occur in many different climates (Tate and Gilmore 1999:17).

2.5 Flora and Fauna

Shelford's (1963) zones for the Platte River drainage area include the Douglas-fir Grassland zone, in which Fort Logan is included. Principal shrubs include a whortleberry, bearberry, honeysuckle, currant, russet buffaloberry, and willow. Dominant faunal species of this zone are elk and mule deer, along with bison until the historic period. Minor influents are porcupines, striped skunk, long-tailed weasel, snowshoe hare, and various squirrels, chipmunks, mice, shrews, and voles. Numerous species of birds are also represented here. Visitors include coyote, red fox, various mice, and pocket gopher (Shelford 1963).

2.6 Fort Logan National Cemetery (FLNC) Expansion APE

The area of potential effects (APE) is located in Denver, Colorado, on a floodplain in a semi-arid, high desert environment in the South Platte River Valley. Sediments in the APE consist of fluviially deposited silt loam with more than 5 percent gravels and pebbles. A creek extends through the southern half of the APE, which has been modified with the addition of culverts. The flora in the APE includes yucca (*Yucca* sp.), sage (*Artemisia* sp.), prickly pear cactus (*Opuntia* sp.), amaranth (*Amaranthus* sp.), and mixed grasses; cottonwood trees (*Populus* sp.) occur along the banks of the creek. Animals occupying the area include coyotes (*Canis latrans*), rabbits (*Lagomorpha*), and a variety of avian species. Currently, the area is utilized by homeless people, evidenced by recently established camps, and by employees of the Colorado Mental Institute at Fort Logan for recreational activities. Impacts to the area, which have affected the cultural resources, include grading and/or plowing, and bulldozing of topsoil and buildings.

3. Culture History and Previous Work

3.1 Precontact Context

3.1.1 Platte River Basin Prehistory

The precontact through the protohistoric stage of the Platte River Basin, as shown in Table 1 and covered in detail in the volume by Gilmore et al. (1999), will be briefly summarized since no precontact or protohistoric materials were recovered during fieldwork.

Table 1. Precontact Chronology of the Platte River Basin (after Gilmore et al. 1999:3)

Stage	Period	Date Range
Paleoindian		12,000–7500 B.P.
	Clovis	12,000–11,000 B.P.
	Folsom	11,000–10,000 B.P.
	Plano	10,000–7500 B.P.
Archaic		7500–1850 B.P.
	Early Archaic	7500–5000 B.P.
	Middle Archaic	5000–3000 B.P.
	Late Archaic	3000–1800 B.P.
Late Prehistoric	Early Ceramic	1800–850 B.P.
	Middle Ceramic	850–460 B.P.
Protohistoric		460–140 B.P.

Documented human prehistory of the Platte River Basin begins with the Clovis period and is based on a limited number of sites (n = 7) consisting of animal kill sites, camp sites, a cache, and a few sites where lithic materials were found, including an isolated point. The number and type of Paleoindian sites increase in the subsequent Folsom (n = 23) and Plano (n = 45) periods. Folsom sites include 2 kill sites, 9 camp sites, a quarry site with an open camp, an open architectural site, and

10 sites where lithic materials were found, including 2 isolated points. Plano sites include 7 kill sites, 23 camp sites, a quarry site with an open camp, 2 open architectural sites, 11 sites where lithic materials were found, including 3 isolated points, and a site of unknown type. The increased number of Paleoindian sites through time may either be the result of increased population or better preservation and visibility. Chenault (1999) does not report any Paleoindian sites closer than about 10 mi from the project area.

Tate's (1999) summary of sites and research of the Archaic stage in the Platte River Basin indicates that low Archaic site numbers on the Plains resulted from extensive dry periods over several thousand years when animal and human survival was challenged. However, it appears that there is greater site density in the hogback/foothills portion with seasonal use of the higher elevation mountains. Archaic stage sites where animal and plant remains are preserved indicate the people exploited a broader range of animals—both large and small—and plants became an important part of their diets. Deer and rabbit remains are more frequent at sites than bison remains. These changes are also reflected in the increase in ground stone tool assemblages and the decrease in projectile point size, which are both stemmed and notched varieties. During the Late Archaic, there is a reported increase in sites both on the Plains and generally in the Platte River Basin.

Archaic site types “include open and sheltered lithic sites, open and sheltered camps, open and sheltered architectural sites, quarries, kill sites, game processing and butchering sites, ceremonial sites, burials, and rock art” (Tate 1999:99) and isolated finds. The Archaic sites discussed by Tate are limited to those that have been tested or excavated, many of which produced radiocarbon dates or diagnostic artifacts, and a number are multi-component. Summary discussions of 26 Early Archaic, 35 Middle Archaic, and 40 Late Archaic sites are presented. Tate reports no dated sites closer than about 10 mi from the project area, mainly in the hogbacks and foothills to the west throughout the stage, but Middle and Late Archaic sites are also documented on the Plains to the south and southeast (Tate 1999).

Diagnostic materials of the Late Prehistoric stage include the bow and arrow, indicated by smaller projectile points, ceramics introduced from farther east, and the addition of limited horticulture to the subsistence system. As an apparent result of increased population from the Late Archaic, there is an increased number of dated Early Ceramic sites ($n = 67$) that were either occupied for longer periods of time or reoccupied often. With increased moisture toward the end of the Early Ceramic period, horticulture became more productive, bison became more important in the diet, and people settled in small village sites in northeastern Colorado. In addition, the number of dated Early Ceramic sites increases through time as elevation decreases with few sites at any elevation after 400 B.P. However, following the Early Ceramic, there are fewer documented sites in most of the Platte River Basin, and there does not appear to be any architectural development. The decrease in dated Middle Ceramic sites ($n = 31$) may be the result of visibility or differential preservation. As with Archaic sites, Late Prehistoric sites discussed in detail are the majority of those that have produced dateable material (Gilmore 1999).

Early Ceramic period site types include open and sheltered camps, open lithic sites, open and sheltered architectural sites, quarries, burials, game drives, and isolates. The habitations at the dozen sites from this period consist of “stone rings; rockshelter lean-to walls; subrectangular stone wall structures; and shallow pit structures” (Gilmore 1999:240). Gilmore reports no dated sites closer than about 10 mi from the project area, with a number in the hogbacks and foothills to the west and an increased number from the Late Archaic on the Plains to the south and southeast. However, two of the reported Early Ceramic burials appear to be within 10 mi of the project area (Gilmore 1999).

The majority of Middle Ceramic period sites (n = 31) are known from multicomponent sites with well documented Early Ceramic components indicating a similar settlement pattern. Definition of Middle Ceramic components is based on dates in the post-A.D. 1000 range since there is little change in technology, except for lack of Upper Republican collared rim ceramics. Several explanations for the decreased number of sites and components during this period include destruction or burial of sites due to geologic processes, climatic changes leading to decreased moisture, and a decrease in the human population. Middle Ceramic period site types also include open and sheltered camps, open lithic sites, open and sheltered architectural sites, quarries, burials, game drives, and isolates (Gilmore 1999).

The Protohistoric period (A.D. 1540–1860), also referred to as the late Ceramic period, begins with entry of the Spanish into the general region and ends with discovery of gold in the Platte River Basin. Following several hundred years of drought conditions, the climate improved and the human population of the Plains increased and changed through time. Utes controlled the mountains and foothills regions of the Basin, which they shared at times with the Shoshonis and Comanche. Early in the period, sites of the Dismal River complex, ancestral to the Apache, occupied the Plains portion of the Basin. By the 1700s, horse mounted Utes and Comanche drove the Apaches from the Basin. The Arapaho and Cheyenne then joined the Comanche on the Plains until the Comanche moved south to New Mexico and Texas. Mixed camps of Kiowas and Kiowa-Apaches with Arapaho, Cheyenne, and Comanche were reported in the early 1880s (Clark 1999).

Protohistoric period site types include open and sheltered camps, open and sheltered lithic sites, open architectural sites (mainly stone circles/tipi rings), rock art, battlefields, trails, peeled trees, game drives and kill sites, and ceremonial sites. With extensive herds available, bison became the basis for both subsistence and technology of the Plains dwellers, especially following introduction of the horse. Of the more than 130 sites with Protohistoric period components in the Platte River Basin, Clark (1999) summarizes data from 26, none of which are closer than 10 mi from the project.

3.2 Historic Context

3.2.1 *European Exploration: 1541-1819*

Early sixteenth-century reports of the seven cities of gold prompted Francisco Vasquez de Coronado to launch his ill-fated attempt at finding Cibola (Hammond 1982). While never reaching the area, his wanderings on the Great Plains were the basis of Spanish claims to all the Colorado plains.

During the mid-seventeenth century, Spanish explorers reached the South Platte River, which they named the Rio de Chato (Goetzman 1966). Conflict with Native New Mexicans stopped Spanish exploitation of the new discoveries until the early eighteenth century, when Juan de Ulibarri traveled to Colorado's plains. Subsequent reports filtered back to New Mexico of French traders being on the Plains in violation of Spain's claims to the region. Spanish authorities sent two military detachments in 1719 under Antonio de Valverde (to patrol the Arkansas River) and Pedro de Villasur (to patrol the South Platte). Villasur's group reached the junction of the North and South Platte Rivers in 1720, where a group of Pawnees, long-time trading partners of the French, ambushed Villasur and killed most of the detachment (Ubbelohde et al. 1982).

Following the Spanish setback on the Platte, French traders became emboldened about their activities on the High Plains. Despite the next three decades of French expansion of the trade of guns and other European goods in the region, a treaty signed to end the Seven Years War in 1763 forced France to give Spain all French claims west of the Mississippi River (Ubbelohde 1982).

For the next 60 years, Spain had a free hand on the Colorado plains, though Spanish explorers and traders seldom made trips to the region. With the United States' 1803 purchase of Louisiana, which included most of eastern Colorado, Spanish activity increased in the early nineteenth century. Until the 1819 passage of the Adams-Onis Treaty, the two powers laid charges of trespass against one another due to the inexact boundaries of the Louisiana Purchase. With the title dispute cleared, and the border set at the Arkansas River, American explorers began crossing the Colorado plains in large numbers (Bannon 1974).

3.2.2 *U.S. Army Exploration: 1803-1865*

The purchase of Louisiana in 1803 from France led to intense American interest in the West. President Thomas Jefferson authorized many expeditions to the area to catalog what the purchase contained, the first and most famous being the Lewis and Clark effort along the Missouri. The results of their explorations led to further efforts by the U.S. government (Goetzman 1976; Hayden 1880).

One of the explorations was carried out by Lieutenant Zebulon Pike. He was charged with exploring the Red and Arkansas Rivers. Pike's group left Fort Belle Fontaine near St. Louis in the summer of 1806 and made their way across the Colorado plains, which Pike later labeled desert lands, to the

Front Range, where they discovered “Grand Mountain” which today bears Pike’s name. Pike’s party was captured by Spanish troops in the San Luis Valley (Goetzman 1976).

Ten years later, Major Stephen H. Long, U.S. Army, made the next official exploration of Colorado’s plains. In June 1820, his party headed west along the Platte until they reached a point on the South Platte where the Rockies became visible. Long proceeded along the river to the Front Range, where his party turned south until they came to the base of what is now Pike’s Peak. Upon returning from the Plains, both Long and James (the party’s naturalist) published accounts of the trip. Each put heavy emphasis on the aridity of the Plains, saying the best use would be for pasturage. These findings influenced American perceptions of the area well into the 1880s (Goetzman 1976).

From 1820 until the early 1840s, the only government activities on the Colorado plains were Army patrols to control the Native Americans. By the 1840s, the United States had established the idea of a coast to coast nation and a view of the West as the land of future promise. This reflected the sense of Manifest Destiny that Americans felt during the decade, a sense of preordination that the United States should settle all land from the Mississippi River to the Pacific Ocean. This spirit led political leaders to authorize creation of a special group within the U.S. Army, the Corps of Topographical Engineers, whose duty it was to explore and map paths for future development in the West (Goetzman 1976).

From 1845 to 1860, the U.S. Army made regular patrols of the Plains, usually travelling out of Fort Laramie, Wyoming or Bent’s Fort in Colorado. During the 1850s, to facilitate these troop movements and supply shipments from the east, an Army road was laid out along the Smokey Hill and Republican Rivers and then overland to Bent’s Fort. Parts of this trail were later used by settlers as parts of the Smokey Hill and Republican River roads (Hayden 1880).

3.2.3 *Trappers and Traders: 1800-1870*

Following the Louisiana Purchase, Euroamerican trappers and traders came into the area in search of beaver and other fur-bearing animals. The Colorado high plains and their waterways became popular travel routes for the trappers on the way to and from the Rockies. This caused many posts to be built on the Plains and established routes along waterways that were used later by gold rushers and settlers (Weber 1970).

In 1820, the situation changed dramatically. During the two years before, some trappers began to work the streams west of the Plains and discovered that buffalo robes and tongues were valuable commodities in the East. During the 1820s, robes and tongues were hunted and traded by Euroamericans and Native Americans. Most trade goods and fur products travelled overland to and from the Rockies, but in 1836, the first (albeit unsuccessful) attempts were made at floating flat-bottomed boats loaded with furs down the South Platte (Hughes 1976; Weber 1970).

The distance between supplies and the mountains was solved somewhat when Bent’s Fort opened on the Arkansas. While the Bent’s economic orientation was toward New Mexico, their post

attracted mountain men from all over the Plains. The profitability of their operations attracted the attention of others. Through the early 1840s, the development of a series of outposts along the Front Range from Wyoming to the Arkansas made the Colorado plains a popular wintering spot and exchange location for mountain men (Weber 1970).

Operations at all the trading posts were similar. Guns, knives, gun powder, shot, tobacco, lead, traps, and liquor were bartered to the trappers and Native Americans in exchange for their pelts. The Native Americans found the forts to be full of things their culture did not have, especially alcohol. Also, they were exposed to European diseases such as smallpox, for which they had no natural immunity (Hughes 1976; Weber 1970).

By the late 1840s, some retired mountain men began to settle the region in small numbers. At their residences and at the trading posts, some limited farming took place to supply the area's inhabitants. Others did likewise so that by 1850, the plains of Colorado had a very thin line of Euroamerican settlements (Weber 1970).

After the gold rush and Civil War, the fur business returned to the Colorado high plains when buffalo robes came back into fashion. The buffalo hide trade prospered from 1865 to 1880, at which point the supply of animals was exhausted. By 1870, a group of professional buffalo hunters organized to cash in on the market revival. These hunters were much better equipped and more efficient at killing the buffalo than earlier Euroamericans or Native Americans had been. Armed with .50 caliber Sharps repeating rifles, hunters decimated the bison population. By 1880, so few bison were left that robe hunting was no longer profitable. This marked the final closing of the fur trade on Colorado's plains (Weber 1970).

3.2.4 *The Gold Rush and Territorial Period: 1859-1876*

The discovery and utilization of Colorado's mineral wealth was the single most important factor in the state's early history and that of the Plains region. Gold brought thousands of people to the Rockies, many of whom stayed on and populated the area. Those who stayed but failed at mining were responsible for the development of early ranching and farming on the Plains. Their presence led to the spread of a transportation network, and in many ways, the Front Range and Plains became the cradle of Colorado statehood. All these things came about because the mountains held treasure chests of gold, silver, and other minerals (Athearn 1976; Downing 1970; Ubbelohde et al. 1982).

With the Panic of 1857, the Mississippi Valley was locked in the depths of financial depression, and the news of a gold discovery in Colorado found an eager audience. During the spring and summer of 1859, thousands poured west to the Rockies, most to find disappointment and chaos. Some chose to stay, but most joined the "go-backer" movement, a reverse migration. Those people proclaimed Pike's Peak gold to be a hoax and cursed all involved in promoting the rush. The individuals who stayed did so feeling that even if they could not find gold, Colorado was a good place for them to

make a new life. They sought business opportunities and built an ordered society out of the residue of the 1859 rush (Athearn 1976; Downing 1970; Ubbelohde et al. 1982).

One of the first problems attacked by the early Coloradans was that of government (Hensel 1957). When gold was first found in the South Platte's tributaries, the land was part of two jurisdictions; south of the 40th Parallel was Kansas Territory and north of the line was Nebraska Territory. Both governments were headquartered on the far side of the Great Plains, at least two weeks' travel from the gold fields. In 1861, Congress created Colorado Territory, largely because of the activities of Front Range boosters and a need for organized government.

Because the nation was plunged into a Civil War only a few weeks after Colorado Territory was created, the officers chosen were picked because they were loyal Unionists and Republicans (Athearn 1976). During the War, because of the large number of Southerners in the gold fields, Confederate flags appeared more than once. As a result, Colorado Governor William Gilpin pressed the legislature and had strict loyalty oath laws enacted.

Despite these problems of government, the area's residents, especially in Denver, Colorado City, and near Fort Collins, sought to create a permanent settlement at the foot of the mountains. Denver was particularly active in this effort, realizing it had no gold to attract people (Downing 1970). Denverites quickly adopted a policy of being the commercial, business, and supply center for the mountain mining camps. To do this, the boosters had to encourage farming, trading, and other activities on the Plains. To a lesser degree, this same strategy was attempted at Colorado City. Out of this early period, patterns of the future for the Colorado plains began to emerge, and the area became the cradle of the state (Ubbelohde et al. 1982).

3.2.5 *Euroamerican and Native American Conflict: 1860-1869*

The Native Americans of the Colorado plains—the Pawnee, Sioux, Cheyenne, and Arapahoe—accustomed to Euroamericans coming and going through the region since the 1820s, thought little about the influx of settlers in 1859 and 1860. During the fur trade-era, the region's Native Americans had become dependent on Euroamerican goods for survival, especially iron products. During the 1850s, government annuities supplied their needs, but by 1859, these giveaways had almost stopped. Many reports from the gold rushers told of Indians begging and starving along the trail. Their needs were not satisfied by the occasional handouts, and they soon found it more profitable to attack freight wagons and small parties of travelers. The stock herds kept at stage stations and ranches also enticed Native American raids. These activities continued with varying intensity for the rest of the 1860s (Bracey 1939).

To prevent violence, federal authorities sought a treaty with the Native Americans in 1861. The Treaty of Fort Wise, which set aside reservations for the Cheyenne and Arapahoe along the Arkansas River, was the product of these negotiations. Four years later, Territorial Governor Alexander C. Hunt held another round of talks with those tribes that resulted in further Native

American relinquishments of lands. Many whites felt these two agreements were more than fair to the Indians and could not understand the hostilities that made travel on the Colorado plains risky until 1869 (Bracey 1939).

Euroamerican-Coloradans, with a heritage of militia service, quickly organized military units for their own defense. By and large, these companies proved ineffective at controlling Native American attacks, and the Civil War made regular Army troops scarce. During the summer of 1864, raids became so intense, especially along the South Platte River, that U.S. Army authorities closed the trail. Skirmishes continued between the First Colorado Regiment and the Cheyenne, encouraging the construction of several U.S. Army forts during late 1864 to protect the trail. These were Camp Rankin (later known as Fort Sedgewick), Camp Tyler (later Fort Wardell and even later Fort Morgan), Camp (later Fort) Collins, and Camp Weld near Denver as a supply base. The final struggles between the U.S. Army and Native Americans came in 1869 with the defeat of Tall Bull by the 5th U.S. Cavalry at the Battle of Summit Springs (Adams 1930; Bracey 1939).

3.2.6 *Post-Civil War Railroad Development and Expansion: 1865-1895*

Colorado entered the railroad age in 1867 when the Union Pacific mainline entered the area near Old Julesburg. After the 1869 completion of Union Pacific, the Kansas Pacific and the Denver Pacific were finished in 1870. As the region grew rapidly, this was furthered as other companies such as the Denver and Rio Grande Railway began to construct their own lines (Quiett 1934; Reigel 1926; Winther 1974).

The Panic of 1873 slowed this rapid expansion during the mid-years of that decade. However, by the end of the 1870s, not only were the nation's older railroad companies expanding, but also others were moving toward the Rockies. Two of these, the Burlington and Missouri River, part of the Chicago, Burlington, and Quincy, and the Rock Island Line (Chicago, Rock Island, and Pacific), reached the Front Range by the early 1880s as the Union Pacific, by then owner of the Kansas Pacific, Denver Pacific, and Colorado Central, built a new cut-off along the South Platte from Julesburg to LaSalle. Governor John Evans was building a line, the Denver and New Orleans, south along the Front Range to Pueblo and on toward Texas. The Atchison, Topeka and Santa Fe entered into an agreement to serve Denver and then built its own line to the Colorado capitol (Quiett 1934; Reigel 1926; Winther 1974).

These companies continued to grow throughout the 1880s, but the rapid expansion led to heavy debts. During 1893, as the nation slipped into a depression, the Colorado railroads were unable to meet mortgage payments, and by the end of the nineteenth century, almost all of them had been reorganized or consolidated. Except for a few route adjustments and the building of interurbans around Denver and its suburbs, very little new rail construction was undertaken after the depression of the 1890s. During the period from 1900 to 1945, railroads continued to be important to the businesses, farms, and commerce of the Plains, but as highways were built and auto ownership increased, the role of rail transport declined and their share of the area's traffic shrank. Despite this

shift, the railroads had played a significant role in the economic and social development of the Colorado plains before 1945 (Winther 1974).

The availability of rail transportation during the late nineteenth century was the key to economic growth of the era. The impacts that the early railroads had on regional growth, both population and economic, were extensive. The first decade of rail service to the region (1870–1880) has been labeled as the boom decade. Population nearly tripled, dozens of new towns were founded, Denver began to develop into the commercial center of the Rocky Mountains region, and statehood was achieved. Beyond these dramatic changes, the presence of railroads made eastern Colorado part of national markets. No longer could farmers depend on exchanges to set prices that reflected local supply since railroads controlled many of the grain elevators and the growers were forced to accept whatever price they set. Yet ranchers could more easily send the stock to major markets such as Chicago. All these elements combined during the late nineteenth century to change the Plains from wilderness to a settled area (Winther 1974).

3.2.7 *Military Establishment and Expansion: 1900-1945*

The increased presence of the federal government in Colorado has been one mark of the twentieth century, and a major part of this has been the founding and growth of military facilities and bases. The expansion of U.S. Army posts was in direct relation to United States participation in wars. By 1900, all the earlier Army forts in Colorado had been long abandoned, except for Fort Logan, which remained in continuous use as a military reservation since the 1860s.

The first new facility of the twentieth century was Fitzsimons Army Hospital. Its presence in the region was a direct result of Denver boosters. The Army began looking at Colorado as a potential site for the hospital as the United States prepared to actively enter World War I. Many towns tried to convince the locators to choose their community. Denver bought and made available to the Army a large tract of land on the eastern edge of the metropolitan area for the hospital. This offer convinced the Army, and Fitzsimons Army Hospital was built on that tract of land to care for the wounded and lung disorder sufferers from World War I (Dorsett 1977). Following 1995's Base Realignment and Closure, the hospital closed in 1999. It was subsequently redeveloped into civilian use, which currently includes an extensive medical campus comprising the University of Colorado Hospital's Anschutz Inpatient Pavilion, the Children's Hospital, and the University of Colorado Denver medical education and research facilities.

During the 1920s and 1930s, no new military construction took place within the Plains region. By the end of the 1930s, as the clouds of war darkened over Europe, the United States government began to prepare for another war. As part of this preparation, the War Department began seeking ways to acquire new bases for troop training. Colorado Springs boosters sought the location of a military facility in their town to stimulate the economy. The city's promoters invited War Department representatives to visit the area in 1940, and through their hospitality and offers of local assistance in land purchasing and construction, Colorado Springs convinced the Army to build a

training camp nearby. In 1941, Camp Carson was under construction. The camp was used not only to train troops for mountain warfare but also served as a hospital camp and prisoner-of-war holding area. Before World War II was over, more than 100,000 troops had undergone basic training at Camp Carson. At the same time, the Army also took over the local airport, Peterson Field, and used it as a base (Dorsett 1977). After the war, these facilities continued in operation, and since 1954, Camp Carson has been designated as Fort Carson. Today, Fort Carson extends across 137,000 acres.

Denver was the other major beneficiary of the government building programs of World War II. Fitzsimons Hospital was expanded, while Lowry Army Air Base and Buckley Naval Air Station and associated bombing ranges were built to train pilots. La Junta and other cities in the region also received new or improved airports, as the Colorado plains became a major flight school region. The other major facilities built for American participation in World War II were the Denver Ordnance Plant and Rocky Mountain Arsenal. In 1940, Denver promoters made the Army an offer of local assistance if a munitions factory was located near the town. That year, the War Department, working with the Works Progress Administration, built the Denver Ordnance Plant. The factory originally produced .30 and .50 caliber ammunition through contracts with Remington Arms Company. Later in the war, the Henry Kaiser Company used the facility to build artillery shells. The boost to the economy provided by this factory and the military bases not only helped end the Great Depression for much of the Plains region, but after 1945, these facilities, either as bases or federal installations, continued to contribute to the local economy (Dorsett 1977).

3.2.8 *Fort Logan and Fort Logan National Cemetery History*

On February 17, 1887, President Grover Cleveland signed a bill to establish a military post in Denver, Colorado (Edwards 1962:3; Scheuber & Darden 2007:5). At the time, Denver was the largest city in Colorado and was quickly developing into a bustling urban center. The location of the post was chosen by General Philip Sheridan, at a site that encompassed a 640-acre area situated approximately 10 mi southwest of Denver. Located on the Morrison Branch of the South Park Railroad, the site had level topography, ample water, and a railroad siding, making it an ideal location for consolidating military troops. Initially, the post was called “Sheridan Post, USA”, though on April 5, 1889, the name was changed to Fort Logan in honor of General John Alexander Logan, known as the “most distinguished volunteer officer of the Civil War” (The Fort Logan Mental Health Center n.d.:3, as quoted in Scheuber & Darden 2007:5). Construction of the original fort started in June 1888, and lasted until December 1889 (Scheuber & Darden 2007:6). The structures that were constructed included officers’ quarters, barracks, post headquarters, field officers’ quarters, a hospital, and a guardhouse. During this period, a post cemetery was also established with the allotment of 3.2 acres for burials (Webb and Tupek 1980).

Beginning in 1890, the United States military entered into what has become known as the Progressive Era, marking a period of military growth and modernization brought on by the Spanish American War and World War I (Scheuber & Darden 2007:6). During this time, troops were

consolidated into larger installations throughout the nation in areas located near railroads, while small frontier posts were being abandoned. As a result, the War Department expanded the practice of building permanent structures with access to water and utilities. At Fort Logan, the Progressive Era marked the completion of the post, which took place in 1894 and cost approximately half a million dollars (Scheuber & Darden 2007:8). The buildings at the post included officers, cavalry troops, and infantry housing; stables; a bakery; administration buildings; and a guardhouse. While many of the buildings were constructed using standardized fort blueprints, the residences reflected the Queen Anne style popular during that time. During this early post period, the cemetery expanded to 376 burials, the first being Mable Peterkin, daughter of Private Peterkin, Co. E., 18th Infantry, who died on June 28, 1889 (Webb and Tupek 1980).

The military fell into decline at the end of World War I, a conflict which generated a large debt for the War Department and left garrisons throughout the country in disrepair (Scheuber & Darden 2007:11). To mitigate the damages that had befallen the posts, in 1926, Congress passed Public Law No. 45, which permitted the military to shutter 43 cantonments and give the money to existing posts for repairs and new building construction (Scheuber & Darden 2007:12). Over the course of the next decade or so, more money was allocated to improving posts with the 1932 Emergency Construction and Relief Act and the New Deal programs initiated by President Franklin D. Roosevelt, beginning in 1933. At Fort Logan, the improvements included construction of a Citizens Training Camp and Non-Commissioned Officers (NCO) Quarters in the standardized Colonial Revival style of the time (Scheuber & Darden 2007:13). Funds were also dedicated to improving old buildings through maintenance and additions such as garages and porches.

By June 1940, expansion of military posts stalled as the United States prepared to enter World War II (Scheuber & Darden 2007:12). However, as a result of the country becoming entangled in the conflict, the size of the military expanded from 270,000 to 6,000,000 men, creating a massive military housing shortage (Scheuber & Darden 2007:14). To overcome the housing shortfalls, Series 700 and 800 cantonments were erected, which were prefabricated structures constructed to last five to twenty years. The United States entered World War II in 1941, during which time Fort Logan transformed into a clerical school and secondary post to Lowry Field, increasing its facilities to accommodate up to 1,500 students by installing Series 700 buildings in the west side of the post (Scheuber & Darden 2007:15). In 1944, the clerical school at Fort Logan was closed and the property was transformed into an Army Air Force convalescent hospital. In 1944, the post became a discharge center, by which time it expanded into a “small town” that included over 200 buildings and 5,500 personnel within its 980-acre plot. For two years, Fort Logan continued to be a discharge center and convalescent hospital, and then in July 1946, discharge operations ceased and roughly 580 acres of the locale were transferred to the Veterans Administration (VA).

As World War II came to a close in 1946, the United States began to decommission many of its military posts (Scheuber & Darden 2007:17). At Fort Logan, after 580 acres were transferred to the VA, 280 acres of the plot along the western edge of the property were set aside for FLNC, and some of the original buildings and the war-period Series 700 buildings were demolished (Edwards 1962:2).

All of the other remaining buildings were used to support medical and convalescent operations, or patient and employee recreational activities. In the mid-1950s, the governor of Colorado lobbied for a state hospital in Denver and money to establish the facility on the Fort Logan property (Scheuber & Darden 2007:18). In 1959, \$150,000 was allotted for startup operations and engineering surveys, and in 1960, the State of Colorado was given 308 acres of Fort Logan to establish a hospital. Many of the last historic buildings stood upon this land. Throughout the early 1960s, additional money was appropriated to construct additional structures, including intensive treatment units, a medical and surgical hospital, a chronic disease unit, and a hospital for emotionally disturbed children. In addition, brick barracks (Building 42) were remodeled into kitchen and dining facilities and occupational and recreational facilities, and some of the officers and NCO quarters were transformed into physicians and nurses housing. In the late summer of 1962, the facility opened as the Fort Logan Mental Health Center, and it was renamed the Colorado Mental Health Institute at Fort Logan in 1991.

3.3 Previous Work

As part of the pre-field research, HRA conducted background research on the APE through the Colorado Cultural Resource On-line Database (Compass) and requested background information about the APE and surrounding area from the Colorado Office of Archaeology and Historic Preservation (OAHP). OAHP provided a list of all the surveys and cultural resources identified in the immediate area of the APE in Township 5 South, Range 68 West, Sections 5, 6, and 7. In total, four surveys have been conducted in this area, three of which have been conducted within the original Fort Logan Property (Table 2). Resulting from these surveys, a total of 84 sites have been identified in this area, all of which are historic archaeology sites, historic buildings, or a historic district (Table 3). The majority of these sites are associated with Fort Logan, the Fort Logan Health Center, or FLNC.

Table 2. List of Previous Surveys Conducted in the Vicinity of the Fort Logan Expansion APE.

Survey ID	Name	Completion Date	Site Count
DV.SHF.R301	SURVEY REPORT, FORT LOGAN MASTER PLAN, DENVER (SHF 2005-01-025)	05/07/2008>04/2006	74
DV.VA.NR1	A CULTURAL RESOURCE SURVEY FOR IN-GROUND CREMAINS AND PRE-PLACED CRYPTS AT FORT LOGAN NATIONAL CEMETERY IN DENVER, DENVER COUNTY, COLORADO	08/11/2015>05/27/2015	0
DV.VA.R1	FORT LOGAN NATIONAL CEMETERY, DENVER COUNTY, COLORADO: RESULTS OF AN INTENSIVE PEDESTRIAN CULTURAL RESOURCES SURVEY OF A PROPOSED EXPANSION AREA	03/17/2003>08/26/2003	9
MC.CH.NR8	A CULTURAL RESOURCE SURVEY ALONG U.S. 285 AT SHERIDAN BOULEVARD AND BEAR CREEK, JEFFERSON AND DENVER COUNTIES, COLORADO (BRF FR 285-4(43))	07/18/1991>02/21/2008	0

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5AH.216	DENVER SOUTH PARK AND PACIFIC	Historic>Historical Archaeology		Field not eligible
5AH.796		Historic	3800 S KING ST, SHERIDAN, CO	Officially not eligible
5AH.3131	BROUGHTON RESIDENCE	Historic	3773 S GROVE ST, SHERIDAN, CO 80110	Officially not eligible>Officially not eligible>Field not eligible>Field not eligible
5AH.3248	VALTAKIS RESIDENCE	Historic	3782 S HAZEL CT, SHERIDAN, CO 80110	Officially not eligible>Field not eligible
5AH.3382	CLARK'S CORNER GROCERY AND SERVICE STATION	Historic	3000 W HAMPDEN AVE, ENGLEWOOD, CO 80110	Officially needs data>Officially not eligible>Field not eligible>Field not eligible
5DV.694	FORT LOGAN MENTAL HEALTH CENTER	Historic District	W. OXFORD AVE. & LOWELL BLVD., DENVER, 80223	Field eligible
5DV.694.6	FT. LOGAN STABLES	Historic	S. STUART ST. AND S. QUITMAN ST., DENVER	Field eligible
5DV.694.11	FIELD OFFICER'S QUARTERS, FORT LOGAN ~ BUILDING 10, COLORADO METAL HEALTH INSTITUTE AT FORT LOGAN	Historic	3742 W. PRINCETON CIR., DENVER, CO 80236	Listed on the State Register>Rejected by Washington DC for National Register listing
5DV.4344	FORT LOGAN NATIONAL CEMETERY	Historic>Historical Archaeology	3698 S SHERIDAN BLVD, DENVER, CO 80235	Listed on National Register>Keeper - Officially eligible>106 - Officially eligible>Officially not eligible>Field not eligible>Noncontrib. to Officially elig. dist.>Field not eligible

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.4784.3	DENVER & RIO GRANDE RAILROAD, FORT LOGAN BRANCH	Historic>Historical Archaeology		Officially not eligible>Field not eligible
5DV.8351		Historical Archaeology		Officially not eligible>Field not eligible
5DV.8352		Historical Archaeology		Officially not eligible>Field not eligible
5DV.8353		Historical Archaeology>Historic		Officially not eligible>Field not eligible
5DV.8354	MCBROOM DITCH	Historic>Historical Archaeology		106 - Officially eligible>Field eligible
5DV.8355		Historical Archaeology		Officially not eligible>Field not eligible
5DV.8357		Historical Archaeology		Officially not eligible>Field not eligible
5DV.8358		Historical Archaeology		Officially not eligible>Field not eligible
5DV.9367	COMPANY OFFICER'S QUARTERS ~ #2 PATIENT HOUSING	Historic	3620 W. PRINCETON CIR., DENVER, CO>3630 W PRINCETON CIR, DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9368	OFFICER'S HOUSING	Historic	4136/4138 S. KNOX CT., DENVER, CO>4138 S. KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9369	GUARD HOUSE NO. 4 ~ BUILDING 55-OFFICE OF BEHAVIORAL HEALTH & HOUSING, PROGRAM SHOP	Historic	3685 W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field eligible
5DV.9370	FIRE STATION #5 ~ BUILDING #91 PATIENT WORKSHOP	Historic	3785 W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field eligible
5DV.9371	FILLING STATION & OIL HOUSE ~ MOTOR VEHICLE GAS STATION	Historic	W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9372	F-3 PATIENT HOUSING	Historic	4137 S. KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9373	FLAG POLE NO. 3	Historic	W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible
5DV.9374	FORT LOGAN ENTRANCE GATE	Historic	S. LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field eligible
5DV.9375	CENTRAL BOILER PLANT ~ J CENTRAL BOILER PLANT	Historic	4075 S. LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible
5DV.9376	POST ENGINEER GARAGE ~ RIVERSIDE SOCCER ASSOCIATION STORAGE	Historic	W. OXFORD AVE., DENVER, CO	Noncontrib. to Officially elig. dist.>Field not eligible

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9377	INFANTRY BARRACKS ~ #42 DEPT OF HUMAN SERVICES - DIV. OF YOUTH CORRECTIONS - OFFICES	Historic	4255 S. KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field eligible
5DV.9378	COMMISSARY ~ #87 DEPT. OF HUMAN RESOURCES - OFFICE OF OPERATIONS - PROCUREMENT	Historic	4100 W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field eligible
5DV.9379	PRINCETON HOUSE ~ COMPANY OFFICER'S QUARTERS ~ #8- ARTS PROGRAM- PATIENT HOUSING	Historic	3722 W. PRINCETON CIR., DENVER, CO>3726 W PRINCETON CIR, DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9380	BACHELOR OFFICER'S QUARTERS ~ #15 DEPT OF HUMAN SERVICES - DIV. OF DEVELOPMENTAL DISABILITIES	Historic	3824 W. PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field eligible
5DV.9381	COMMANDING OFFICERS' QUARTERS ~ #11 - ARTS PROGRAM	Historic	3762 W. PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field eligible
5DV.9383	PARADE GROUND ~ SOCCER FIELDS	Historic	S. LOWELL BLVD. & W. PRINCETON, DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field eligible
5DV.9384	GARAGE FOR OFFICERS' QUARTERS 21-25	Historic	W. PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9385	CLASSROOMS	Historic	W. PRINCETON CIR., DENVER, CO	Noncontrib. to Officially elig. dist.>Field not eligible
5DV.9386	BUILDING A-E	Historic	3520 W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9387	FORT LOGAN WEST ENTRANCE GATE	Historic	W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible
5DV.9388	MEETING ROOM	Historic	W. PRINCETON CIR., DENVER, CO	Noncontrib. to Officially elig. dist.
5DV.9389	BUILDING F-1 PATIENT HOUSING	Historic	4177 S. KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9390	BUILDING F-2 PATIENT HOUSING	Historic	4157 S. KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible
5DV.9391	GERIATRIC/AFTE RCARE/DEAF SERVICES ~ DEPT. OF HUMAN SERVICES - OFFICE OF BEHAVIORAL HEALTH & HOUSING	Historic	3525 W. OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible
5DV.9392	DHS - BUILDING KA ~ DEPT. OF HUMAN SERVICES-OFFICE OF OPERATIONS-ACCOUNTING	Historic	4055 S. LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible
5DV.9393	BUILDING KB	Historic	4055 S. LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9394	DHS-BUILDING KC ~ UCHSC- ARTS PROGRAM-PATIENT TRAINING OFFICE	Historic	4055 S LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9395	DHS- BUILDING K ~ COURTHOUSE, INC.- PATIENT HOUSING OFFICE	Historic	4055 S LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9396	DHS- BUILDING KE ~ DEPARTMENT OF HUMAN SERVICES- OBHH- SUPPOERTIVE HOUSING & HOMELESS PREGRAMS OFFICES	Historic	4055 S LOWELL BLVD., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9397	COMPANY OFFICER'S QUARTERS ~ #3 COURTHOUSE, INC. -PATIENT HOUSING	Historic	3640 - 3648 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9398	COMPANY OFFICER'S QUARTERS ~ #4 DEPARTMENT OF HUMAN SERVICES- OFFICE OF INFORMATION TECHNOLOGY	Historic	3650 - 3656 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9399	COMPANY OFFICER'S QUARTERS ~ #5 UCHSC- ARTS PROGRAM-PATIENT HOUSING	Historic	3660 - 3670 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9400	COMPANY OFFICER'S QUARTERS ~ #6 UCHSC- ARTS PROGRAM- PATIENT HOUSING	Historic	3680 - 3690 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9401	COMPANY OFFICER'S QUARTERS ~ #7 UCHSC- ARTS PROGRAM- PATIENT HOUSING	Historic	3702 - 3712 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9402	COMPANY OFFICER'S QUARTERS ~ #9 UCHSC- ARTS PROGRAM - PATIENT HOUSING	Historic	3732 - 3738 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9403	COMPANY OFFICER'S QUARTERS ~ #13 COURTHOUSE, INC.- PATIENT HOUSING	Historic	3804 - 3808 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9404	COMPANY OFFICER'S QUARTERS ~ #14 COURTHOUSE, INC. - TRAINING FACILITY	Historic	3814 - 3818 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9405	COMPANY OFFICER'S QUARTERS ~ #16 UCHSC- ARTS PROGRAM - HOUSING	Historic	3844 - 3854 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9406	COMPANY OFFICER'S QUARTERS ~ #17 COURTHOUSE, INC. - HOUSING	Historic	3864 - 3874 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9407	COMPANY OFFICER'S QUARTERS ~ #18 SENIOR HOUSING ALTERNATIVES - PATIENT HOUSING	Historic	3884 - 3894 W PRINCETON CIR., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9408	OFFICER'S HOUSING ~ #19 OFFICES	Historic	4106 - 4108 S KNOX CT., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9409	OFFICER'S HOUSING ~ #20 OFFICES	Historic	4116 - 4118 S KNOX CT., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9410	OFFICER'S HOUSING ~ #21 OFFICES	Historic	4126 - 4128 S KNOX CT., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9411	OFFICER'S HOUSING ~ #23 OFFICES	Historic	4141 - 4143 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9412	OFFICER'S HOUSING ~ #24 OFFICES	Historic	4131 - 4133 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9413	OFFICER'S HOUSING ~ #25 OFFICES	Historic	4121 - 4123 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9414	OFFICER'S HOUSING ~ #26 OFFICES	Historic	4111 - 4113 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9415	OFFICER'S HOUSING ~ #27 OFFICES	Historic	4110 - 4112 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9416	OFFICER'S HOUSING ~ #28 OFFICES	Historic	4120 - 4122 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9417	OFFICER'S HOUSING ~ #29 OFFICES	Historic	4130 - 4132 S JULIAN WY., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9418	TEMPORARY BUILDING ~ DEPARTMENT OF HUMAN SERVICES-OFFICE OF BEHAVIORAL HEALTH & HOUSING-STORAGE	Historic	3685 W OXFORD AVE., DENVER, CO	Noncontrib. to Officially elig. dist.>Field not eligible>Field Assess.: Non-contributing to District
5DV.9419	QUARTERMASTER S OFFICE/WAREHOUSE USE ~ #59 MAINTENANCE SHOP AND SUPPLY	Historic	4301 W OXFORD AVE., DENVER, CO	Contrib. to Officially elig. dist.>Field eligible>Field Assess.: Contrib. to District
5DV.9420	#62 CONFERENCE ROOM/OFFICES	Historic	4112 S KNOX CT., DENVER, CO 80236	Noncontrib. to Officially elig. dist.>Field not eligible>Field Assess.: Non-contributing to District
5DV.9421	GARAGE AND REPAIR SHOP ~ AUTO REPAIR SHOP	Historic	4390 W OXFORD AVE., DENVER, CO 80236	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9422	DOUBLE GARAGE ~ PRIVATE STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9423	DOUBLE GARAGE ~ STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9424	DOUBLE GARAGE ~ PRIVATE STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9425	PRIVATE VEHICLE GARAGE ~ GARAGE	Historic	S JULIAN WY., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9426	PRIVATE VEHICLE GARAGE ~ GARAGE	Historic	S JULIAN WY., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9427	GARAGE OFFICERS QUARTERS 1-6 ~ COURTHOUSE, INC. PROGRAM SHOPS	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9428	GARAGE OFFICERS QUARTERS 7-12 ~ UCHSC ARTS PROGRAM-STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9429	GARAGE OFFICERS QUARTERS 13-18 ~ UCHSC ARTS PROGRAM-STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9430	GARAGE OFFICERS QUARTERS 72-77 ~ COURTHOUSE, INC. STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9431	GARAGE ~ UCHSC ARTS PROGRAM-STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9432	GARAGE ~ UCHSC ARTS PROGRAM-STORAGE	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9433	PRIVATE VEHICLE GARAGE ~ GARAGE	Historic	ALLEY EAST OF S JULIAN WY., DENVER, CO, Denver	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9434	PRIVATE VEHICLE GARAGE ~ GARAGE	Historic	ALLEY EAST OF S JULIAN WY., DENVER, CO, Denver	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9435	PRIVATE VEHICLE GARAGE ~ #174 GARAGE	Historic	ALLEY WEST OF S. JULIAN WY., DENVER, CO, Denver	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9436	PRIVATE VEHICLE GARAGE ~ GARAGE	Historic	ALLEY WEST OF S JULIAN WY., DENVER, CO, Denver	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9437	TRANSFORMER VAULT ~ #176	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9438	TRANSFORMER VAULT ~ #177	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9439	TRANSFORMER VAULT ~ RIVERSIDE SOCCER STORAGE ~ #178	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District
5DV.9440	TRANSFORMER VAULT ~ RIVERSIDE SOCCER STORAGE ~ #179	Historic	S OSCEOLA ST., DENVER, CO	Contrib. to Officially elig. dist.>Field not eligible>Field Assess.: Contrib. to District

Table 3. List of Previously Identified Cultural Resources in the Vicinity of the Fort Logan Expansion APE.

Site ID	Site Name	Resource Type	Address	Assessment
5DV.9442	STORAGE	Historic	W OXFORD AVE., DENVER, CO	Noncontrib. to Officially elig. dist.>Field not eligible>Field Assess.: Non-contributing to District
5DV.11489	SERVICE BUILDING~MAINTENANCE FACILITY~OLD MAINTENANCE BUILDING	Historic	3698 S SHERIDAN BLVD, DENVER, CO	Contributes to NR district>Officially not eligible>Field not eligible

3.3.1 Previously Identified Cultural Resources in the APE

Based on pre-field research, four previously identified historic properties fall within the FLNC expansion APE, but outside the project boundaries. All of these are buildings associated with Fort Logan or the Colorado Mental Health Institute at Fort Logan and appear to be currently in use by the latter. These buildings recently have been evaluated for the FLNC project by Row 10 Historic Preservation Solutions (Coyle 2017a, 2017b, 2017c, 2017d). These buildings are described below, in section 6.3

3.3.2 Fort Logan District (5DV.694)

The Fort Logan District is located just south and east of the project APE. The district was recommended by Norgren (1982), who proposed it incorporate areas and buildings of the fort that “directly relate to and front the parade grounds” (Figure 10). Norgren recommended the Fort Logan District eligible for the NRHP due to its “local, state, and national significance from 1887 to 1947, for its architectural significance and its association with persons of national importance” (Norgren 1982). It was recommended to be eligible for its association with significant events (Criterion A), significant persons (Criterion B), and for its representation of a type period, or methods of construction (Criterion C) (See Section 3.2.8 for more details). Since the recommendation was made, the Fort Logan District has not been formally nominated and thus the only official NRHP eligibility determinations made by Colorado OAHP are found on the standing structure forms.

Properties that were recommended to be part of Fort Logan District include:

1. Parade Ground 5DV.830
2. Flag Pole 5DV.821
3. Guard House 5DV.822
4. Fire Station 5DV.823

5. Bachelor Officer's Quarters 5DV.827
6. Duplex (Princeton House) 5DV.826
7. Commanding Officer's House 5DV.828
8. Field Officer's Quarters 5DV.829
9. Field Officer's Housing 5DV.820
10. Infantry Barracks (Bldg. 42) 5DV.819
11. Stable 5DV.824
12. Warehouse 5DV.825
13. South Lowell Entrance Gate 5DV.831

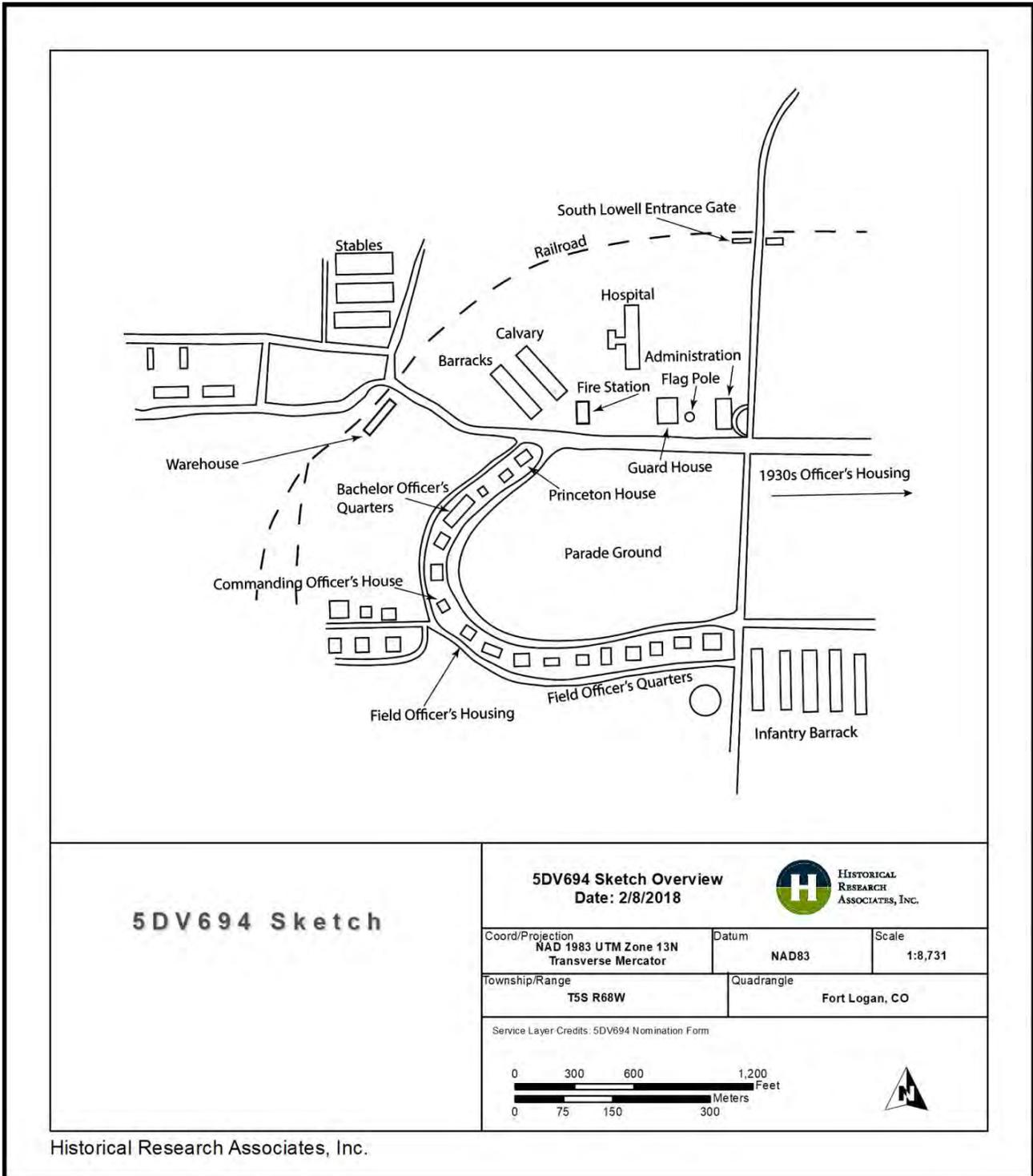


Figure 3. Fort Logan District (5DV.694) site map (information drawn from Norgen 1989).

3.3.3 *Fort Logan National Cemetery Historic District (5DV.4344)*

In 1980, Fort Logan National Cemetery was nominated for the NRHP for its association of events significant to our military, political, and social history during the late nineteenth and early twentieth century. The area of significance in the cemetery was proposed to be the 40.8 acres that were developed for burial purposes. All buildings in the cemetery were recommended as not contributing to the cemetery's eligibility. In 1981, the Keeper of the National Register responded in agreement with the eligibility recommendations. Thus, the Fort Logan National Cemetery Historic District (5DV.4344) was listed in the NRHP, as eligible under Criterion A (significant events) and as an exception under Criterion D (yields information important to history).

3.3.4 *Denver and Rio Grande Western Railroad (5DV.4784)*

The location of Fort Logan was selected in part due to there being a railroad spur on the property. Part of the Morrison Branch of the South Park Railroad, the spur was also a portion of the broader Denver and Rio Grande Western Railroad, which, once completed in 1871, was significant to the settlement and development of Denver, Colorado, and the American West (Keeley 2007). Due to the property being associated with events that have made a significant contribution to broad patterns in our history, Denver and Rio Grande Western Railroad is eligible for inclusion in the NRHP under Criterion A. Thus far, five sections of the railroad (5DV.4784.1—5DV.4784.5) have been evaluated for the contributions they make to the railroad's NRHP eligibility. Of these, two sections (5DV.4784.4 and 5DV.4784.5) are recommended to be contributing to the NRHP eligibility for their retention of structural integrity (Keeley 2007; Marmor 2003). The other sections (5DV.4784.1—5DV.4784.3) are recommended as being not eligible for the NRHP due to their lack of integrity (Heerbst and Rottman 1989; Painter 1999; Tucker and Fariello 2003). Additionally, they are recommended as not contributing to the overall NRHP eligibility of Site 5DV.4784.

4. Statement of Objectives

The objective of this investigation was to identify all cultural resource in the FLNC expansion project APE and to assess which of the properties may be negatively impacted by the proposed undertaking. For the purposes of ease of reporting and review, each section of field methods, results, and evaluations and recommendations will be broken into two sections: Archaeological resources and built resources.

Based on pre-field research, it was hypothesized that all archaeological cultural resources found in the area would be associated with Fort Logan or the Colorado Mental Health Institute at Fort Logan. Most of the resources in the APE were expected to be building foundations and debris, roads, and a railroad grade, in addition to four standing structures. Aerial maps and historical documents show that most of the resources in the APE were intentionally demolished, and so it was expected that most of the properties would lack integrity and significance for NRHP eligibility. Therefore, it was expected that no archaeological resources would be negatively impacted by the proposed FLNC expansion project undertaking.

In accordance with Section 106 of the NHPA, for this project all resources were evaluated for their potential to be included on the NRHP using the criteria described in 36.CFR 60.4., which states:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the live of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or methods of construction, or that value the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.

In general, archaeological sites tend to be evaluated under Criterion D; however, integrity of the characteristics listed above is also important for sites that are recommended eligible for the NRHP. Integrity of built resources largely determine whether standing structures contribute to the NRHP.

4.1 Research Themes for Archaeological Resources Under Criterion D

A site's eligibility is additionally assessed within the context of research themes relevant to the area, in particular, whether sites have potential to retain information important to the themes. Sites with

potential are likely to be recommended eligible as long as they also retain integrity of the characteristics listed in the section above. Research themes for the project are centered on the development of Fort Logan and Fort Logan National Cemetery, described in Section 3.2.8. Research questions related to these themes include:

1. Do the archaeological resources contribute to a better understanding of the development of Fort Logan during its period of significance, circa 1887–1945?
2. Do the archaeological resources contribute to a better understanding of the development of Fort Logan Nation Cemetery?
3. Are there features or artifacts that contribute to a better understanding of important people associated with Fort Logan or Fort Logan National Cemetery?
4. Are there features or artifacts that contribute to a better understanding of important events associated with Fort Logan or Fort Logan National Cemetery?
5. Does the railroad grade, as being important to the logistics of Fort Logan, retain information that can contribute to a better understanding of events associated with the fort?

5. Field Methods

5.1 Archaeological Field Methods

The Phase III cultural resource investigation for the FLNC project took place on April 25 to 28, 2017. Fieldwork for the project was supervised by HRA research archaeologist Lisa Smith, with the assistance of Gabe Frazier (HRA), Shawn Webb (ERG), and Chris Lankford (ERG), with the goal of identifying all cultural resources within the project APE. In doing so, ERG/HRA adhered to standard cultural resource definitions as described by the Colorado OAHP, when provided. ERG/HRA expected to encounter three main types of cultural resources: isolated finds, historic archaeological sites, and historic linear features. Isolated finds are generally small areas with cultural resources that represent a single activity. An example of a single-use historic isolate is a can dump resulting from a brief stop along a travel route. Historic archaeological sites are those with features and/or artifacts that represent broader levels of activities than isolated finds. An example of an historical archaeological site is a mining camp that was extensively used, evidenced by an array of features and/or artifact types (e.g., cans, tent foundations, fire rings) present at the site. For all intents and purposes, ERG/HRA also defined archaeological sites as being cultural resource areas containing at least 10 artifacts. Finally, linear sites are cultural resources that are “designed to convey something (people, goods, power, communications, etc.) across long distances [...] and those that are designed to bound or separate areas or contain something” (OSHPO 2013:2). Examples of linear features include roads, trails, railroads, irrigation ditches, walls, and levees.

To identify cultural resources within the APE, ERG/HRA conducted an intensive pedestrian survey of the entire area using 20-meter wide transects that extended north–south across each of the APE polygons. In addition, all landforms (e.g., cutbanks) and features (e.g., foundations, road cuts) were systematically explored based on the ways in which they unfolded across the landscape. Shovel probes were excavated to investigate for evidence of subsurface cultural materials, and were concentrated around surface features and in high probability areas (i.e., not on slopes or in natural drainages) that appeared to contain undisturbed sediments. Areas with evidence for toxic materials (e.g., asbestos tiles) were avoided. Probes were at least 30 centimeters (cm) in diameter and were excavated to a depth of 50 cm or upon reaching sterile and/or impassable coarse sediments. All excavated sediments were screened through 0.25-inch mesh to identify small cultural items that were present. Artifacts observed in the tests were recorded on HRA shovel test forms along with sediment descriptions and termination depths. Diagnostic artifacts that offered evidence of age, function, and specific material types (e.g., makers marks, non-generic ceramics) were collected for further analysis, while non-diagnostic artifacts were redeposited into the tests before they were backfilled. All shovel probes were documented using an iPad synced with a Trimble R1 GNSS

receiver. This GPS device was used to map landform and archaeological features, as well as artifact scatters and site boundaries.

Photographs were also taken as part of the documentation process. APE overview and viewshed images were recorded, in addition to images of feature and artifact scatters, and areas with visible ground disturbance (e.g., bulldozed areas). Digital photographs, along with scanned images of all field notes, are archived in a FLNC project folder in HRA's secured digital drive. Hard copies of all field notes are stored at HRA's Missoula, Montana, office, in secured storage. Any artifacts collected from the field will be curated and stored at the Colorado OAHP through HRA's curation agreement, entered into on February 28, 2017.

5.2 Built Resource Field Methods

Row 10 conducted a records and literature search of Colorado SHPO files related to built resources on January 10, 2017. The historic portion of the CMHIFL that contained Fort Logan is identified in the Colorado SHPO records as an historic district eligible for listing in the National Register of Historic Places. However, this appears to simply be a SHPO determination, as there is no recorded survey of the historic district, nor is there a report on the survey findings. SHPO records identify 54 buildings in the Fort Logan historic district, of which 46 are contributing elements. Additionally, the Fort Logan National Cemetery is listed in the National Register of Historic Places. Additional historic research also was conducted at the Colorado State Archives, the Colorado State Museum, the Colorado State Library, the Sheridan, Colorado Library, and the Englewood, Colorado Library.

On January 9, 2017, an architectural historian who exceeds the *Professional Qualification Standards* established by the Secretary of the Interior visited the proposed expansion parcel to identify properties in the area that are more than 50 years of age and that retain sufficient integrity to warrant listing in the National Register of Historic Places.

In addition to pedestrian survey of the proposed expansion parcel, an architectural historian who exceeds the *Professional Qualification Standards* established by the Secretary of the Interior conducted a windshield survey of the neighborhoods surrounding the Fort Logan National Cemetery. These neighborhoods are within one-mile of the project area but outside the recommended Area of Potential Effect.

6. Results

6.1 Archaeological Results

Field conditions during the survey aligned with the expectations that were generated during background research. Conducted prior to the fieldwork, the research suggested that most of the cultural resources in the APE were intentionally demolished around 1960, once parcels of historic Fort Logan were transferred to the State of Colorado to be used for the location of the Fort Logan Mental Health Center (Scheuber & Darden 2007). ERG/HRA documented one historic site in the APE (5DV.39428). Site 5DV.39428 is a large, historic site associated with Fort Logan, and is represented by an expanse of separately clustered features and/or artifacts that reflect the way in which the property evolved over time (Figure 11 and Figure 12[1–3]). Altogether ERG/HRA noted 11 discrete areas with cultural resources. In order to streamline the discussion and NRHP analysis of the site, the areas are labeled as “feature areas” and “artifact scatters”. Of these 11 areas, there are 9 feature areas (HRA-FL1 through HRA-FL9), one surface artifact scatter (HRA-AS1), and one subsurface artifact scatter (HRA-AS2). Most of the features in the site are building footings or slabs; however, there are also linear features, including a railroad grade, road complex, a telephone line, and ditches. This section provides descriptions of these resources according to the way they cluster into the different areas.

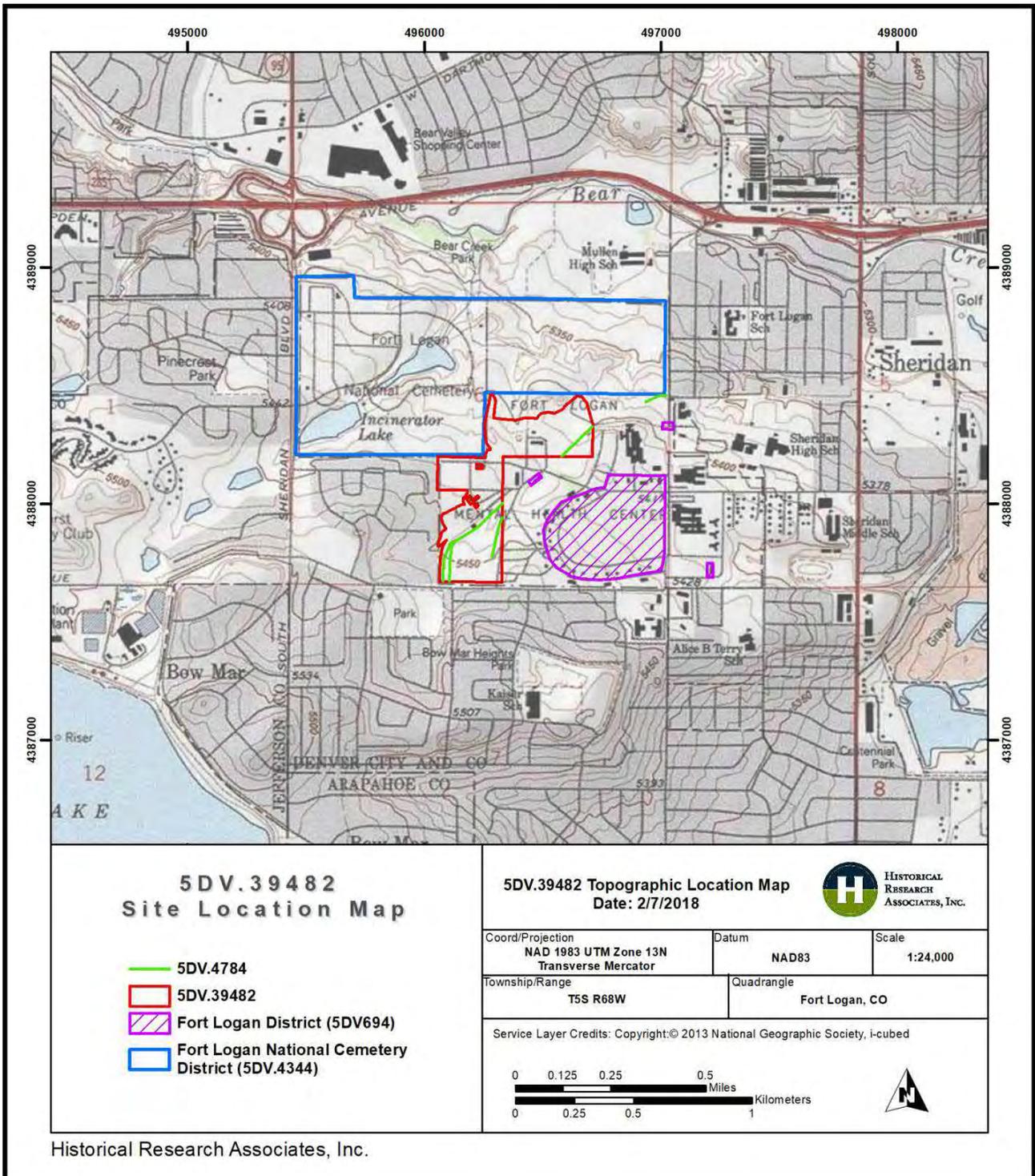
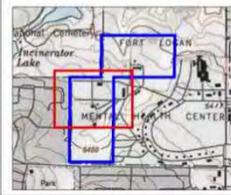


Figure 11. Site 5DV.39428 location map.

**HRA Survey Results
SDV.39482**

NOTES:
Produced by Historical Research Associates, Inc. The spatial information used to generate this map is based on collected or derived GIS data for the most current project area, and is considered reliable only at the scale at which the data was created and the scale at which the map was published. This drawing is prepared solely for the use of the contractor team partners and assumed to liability to any other party for any misinterpretations contained in these drawings. This map must be printed at full scale (100%) in order for the scale to remain correct.



Source Info: Aerial Layer Credits: Copyright © 2013 National Geographic Society, 10000
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airbase DS, USDA, USDA, AeroGRID, IGN, and the GIS User Community

SDV.39482 AERIAL MAP

PROJECTION UTM	DATUM NAD83	CONTRACTOR NAME ERG
ZONE # 18	DATE 7 Feb 2018	PROJECT NAME Fert Logan
SCALE 1:1,500	MAP NUMBER Page 2 of 3	

**CONTAINS PRIVILEGED INFORMATION
DO NOT RELEASE**

Legend

- Surface Artifact or Reference Point
- Positive Shovel Probe
- Negative Shovel Probe
- Linear Feature
- ▭ Feature Outline
- ▭ SDV.39482
- ▭ SDV694 Previous Boundary
- ▭ Previously Recorded Sites
- ▭ Area of Potential Effects (APE)

Historical Research Associates, Inc.

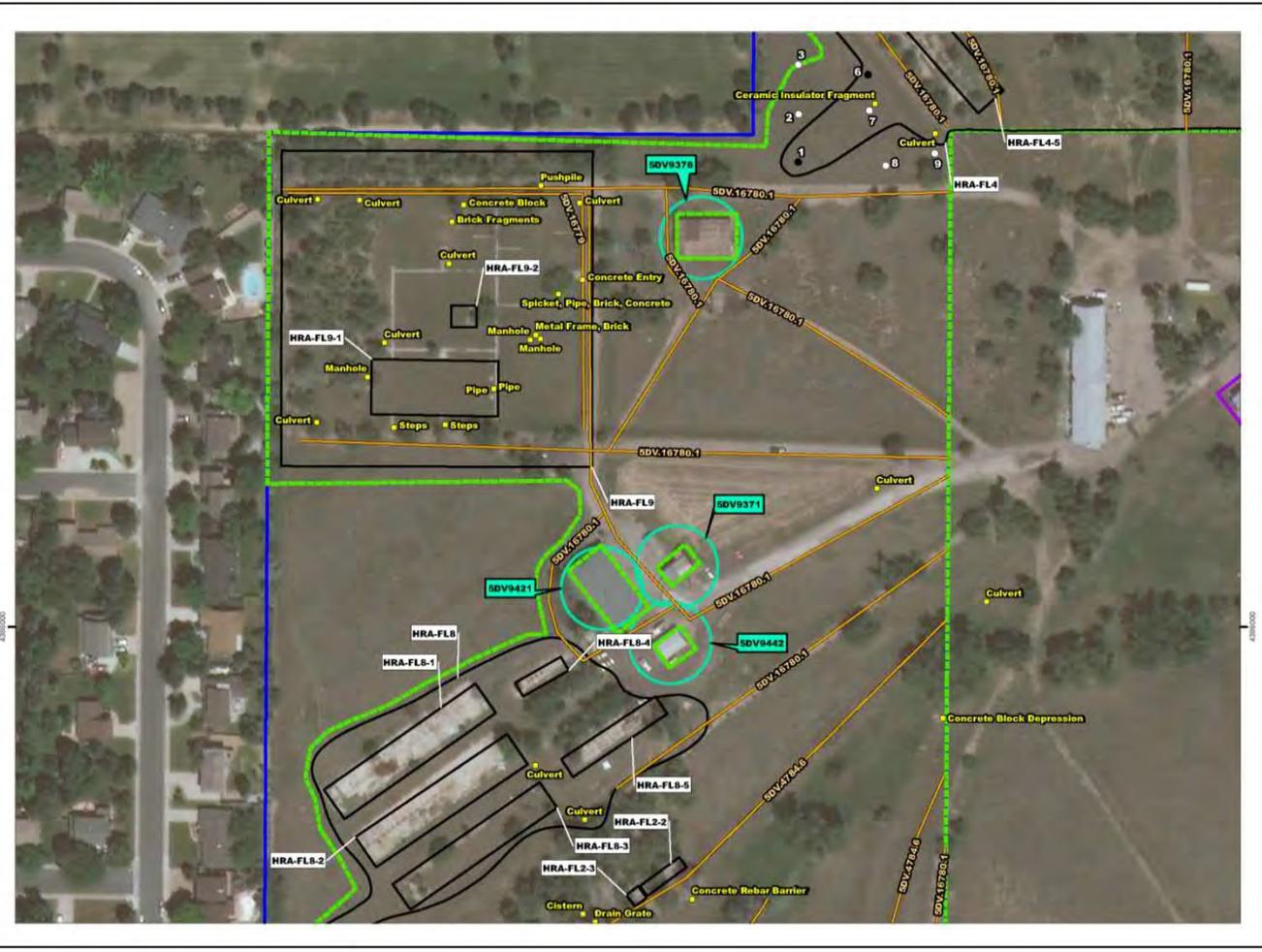


Figure 5-2. Site 5DV.39428 site map

6.2 Site 5DV.39428

6.2.1 HRA-Feature Location 1

Feature Location 1 (HRA-FL1) is a large bulldozed area in the northeast portion of the APE that measures 429 ft. northeast–southwest by 189 feet northwest–southeast (Figure 5[1] and Figure 6). The area contains two raised brick and mortar manhole covers (Figure 7) possibly associated with an old sewage line, and a historic trash scatter (Figure 8). Based on pre-field research, no Fort Logan buildings were located in this area (Scheuber & Darden 2007). In addition to being bulldozed, the area has been impacted by coyote dens and recent use, evidenced by modern trash dispersed throughout the area.

The historic artifact concentration measures 3.28 by 9.84 ft. A 3.28-by-3.28-ft. area of the concentration was sampled, in which 90 artifact fragments were identified: 47 colorless container glass fragments (1920s–present), 10 brown container glass fragments (modern), 7 green container glass fragments (modern), 5 aqua container glass fragments (ca. 1870–1920s), 8 milk glass fragments (1890s–present), 3 decorated porcelain fragments, 2 decorated white wear fragments, and 7 undecorated white wear fragments. In addition, one clear glass base with a Hazel Atlas (1923–ca. 1982) maker’s mark was observed. Based on the artifacts, this scatter appears to be associated with recent use and with the Inter-War Years Period after World War I, during which “military cantonments fell into disrepair” (Scheuber & Darden 2007:6+11).

Due to being heavily impacted by human and natural events, this area does not retain surficial or subsurficial integrity. The area has not and will not yield information important to the history of Fort Logan or the FLNC. The area has not and will not provide information for a greater understanding of the development of the Fort Logan Historic District during its period of significance, circa 1887–1945. HRA-FL1 is recommended as not contributing to the eligibility of site 5DV.39428 as a whole. It is also recommended as not contributing to the eligibility of historic districts 5DV.694 (Fort Logan District) and 5DV.4344 (Fort Logan National Cemetery Historic District). According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because HRA-FL1 is recommended not eligible for the NRHP, there will be no effects on the property as a result of the proposed undertaking.



Figure 6. HRA-FL1, bulldozed area; view north.



Figure 7. HRA-FL1, raised brick and mortar manhole cover.



Figure 8. HRA-FL1, historic artifact scatter.

6.2.2 HRA-Feature Location 2 (5DV.4784.6)

Feature Location 2 (HRA-FL2) contains a railroad grade (5DV.4784.6; Figure 9), extending northeast–southwest through the APE, one building foundation (Feature Location 2-Feature 1 [FL2-1]), and two raised concrete platforms (Feature Location 2-Feature 2 [FL2-2] and Feature Location 2-Feature 3 [FL2-3]), both of which are associated with the grade (Figure 5 [1–3]). Part of the larger Denver and Rio Grande Railroad, the railroad grade (5DV.4784.6 [9.84 ft. by 0.81 mi]) is situated along the Morrison Branch of the South Park Railroad, and splits into east and west forks in the southern survey polygon. Based on historical documents (Scheuber & Darden 2007), the spur was constructed prior to 1887, the year in which the property was selected to be the location of Fort Logan—the railroad being among the reasons for establishing the fort at this locale (Figure 10). The railroad does not retain integrity; all of the rails and all but two degrading ties have been removed; all that remains is the grade and a few ties that were observed downslope from the grade.

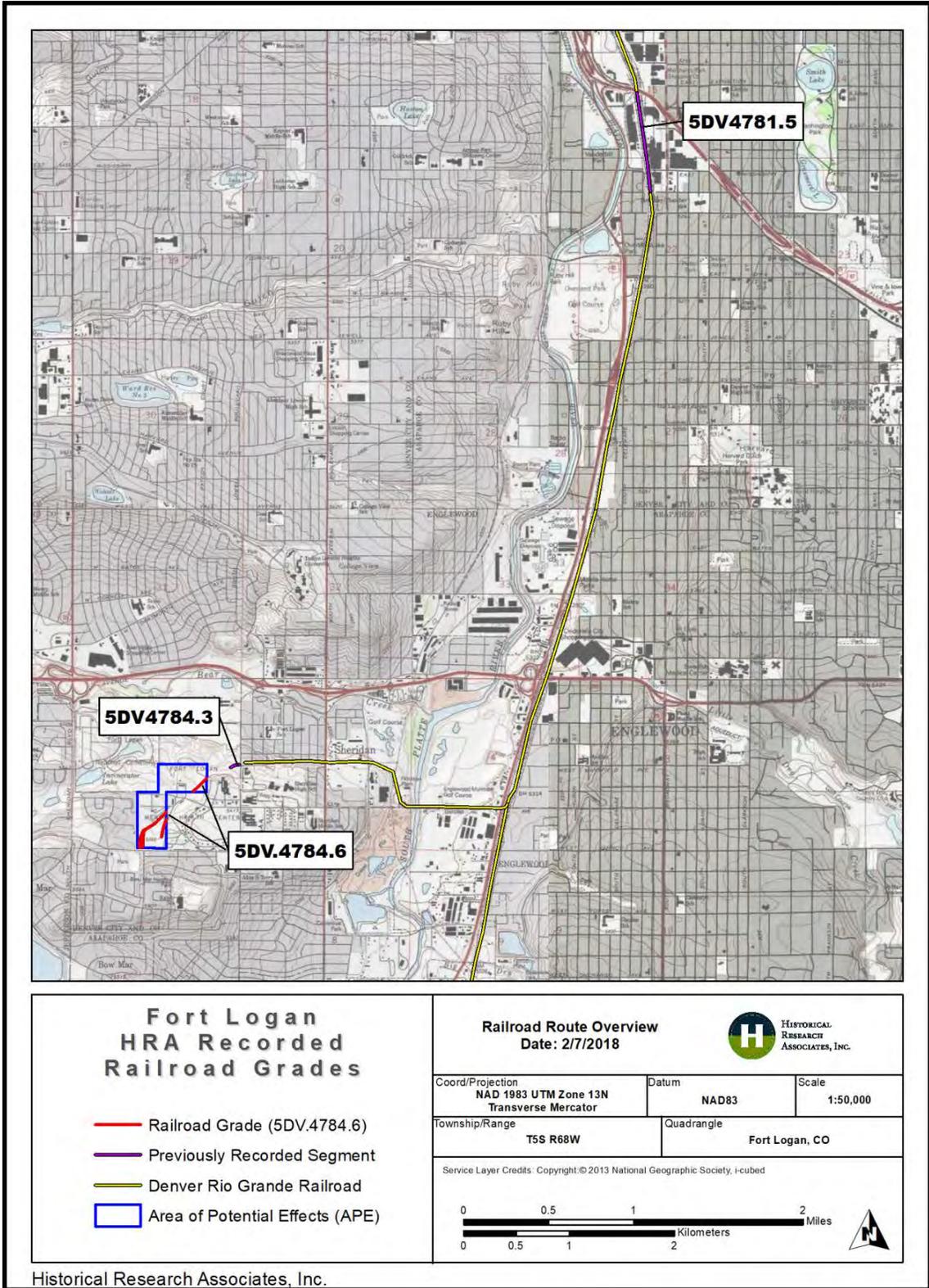


Figure 9. Linear resource 5DV.4784.6 location map.



Figure 10. 5DV.4784.6, railroad grade; view north.

6.2.2.1 Site 5DV.4784.6

Site 5DV.4784.6 is a section of the Denver and Rio Grande Railroad, which was completed in 1871, and was recommended eligible for the NRHP under Criterion A, for its role in the settlement and development in the American West (Keeley 2007). Previously, five sections of the property had been evaluated for the NRHP for their contributions to the eligibility of the railroad (5DV.4784.1—5DV.4784.5). Of these, two are recommended as being contributing (5DV.4784.4—5DV.4784.5) and three are recommended as not contributing (5DV.4784.1—5DV.4784.3) to the resource’s NRHP eligibility, based on retention or non-retention of structural integrity.

Due to removal and/or destruction of critical features of the railroad grade, 5DV.4784.6 does not retain integrity. It has not and will not yield information important to the Denver and Rio Grande Railroad and development of the American West; thus it does not support the overall integrity of linear resource 5DV.4784. It has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of this property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended to be non-contributing to the eligibility of the property. Site 5DV.4784.6 is recommended to be not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because 5DV.4784.6 is

recommended not eligible for the NRHP, there will be no effects on the property as a result of the proposed undertaking.

6.1.2.2 Feature Location 2—Feature 1 (FL2-1)

The building footing, FL2-1 (~10 by 15 ft.) is located at the southern end of the east fork of the railroad grade (Figure 11). Constructed in 1897 during the Military and Progressive Era, the building was used as an icehouse but was intentionally demolished between 1957 and 1963 (Scheuber & Darden 2007: Table 6, Historic Building #86). Due to its destruction, the building retains no archaeological integrity.



Figure 11. HRA-FL2, Feature FL2-1, a brick footing that was part of an icehouse building located along the railroad grade; view west.

6.2.2.3 Feature Location 2—Feature 2 (FL2-2) and Feature 3 (FL2-3)

The raised concrete platforms are located along the west fork of the grade and were constructed in 1889 (FL2-2) and 1892 (FL2-3), respectively (Scheuber & Darden 2007: Table 6, Historic Building #s 59 and 79). FL2-2 (8 by 73 ft.) was the foundation of a coal shed (Figure 19) and FL2-3 (8 by 21 ft.) the foundation of a granary. Both of these buildings were intentionally demolished (FL2-2, between 1957 and 1963; FL2-3, date unknown) and retain no integrity. In addition, the area has been impacted by modern use, evidenced by trash and homeless camps scattered throughout the area. Due to impacts of demolition and modern use, these retain no archaeological integrity.



Figure 12. HRA-FL2, Feature FL2-2, a raised platform that was part of a coal shed located along the railroad grade; view east.

No subsurface testing was conducted near the raised foundations (FL2-2, FL2-3), due to asbestos tiles being scattered throughout the area. Disturbance was visible on ground surfaces surrounding the features, however, making testing unnecessary for evaluating the site's integrity. In addition, no subsurface testing was conducted near the building foundation (FL2-1), due to it being located on a graded slope next to the railroad. The areas beneath the grade were part of a low-lying natural drainage with little potential for subsurface materials.

6.2.2.3.1 Recommendations

Due to removal and/or complete destruction of structures associated with FL2-1, FL2-2, and FL2-3, these features do not retain integrity. They have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL2-1, FL2-2, and FL2-3 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because FL2-1, FL2-2, and

FL2-3 are recommended not eligible for the NRHP, there will be no effects on the properties as a result of the proposed undertaking.

6.2.3 HRA-Feature Location 3

Feature Location 3 (HRA-FL3) consists of a grade and two sets of stairs, one that extends up to the grade from below (Figure 5[1]; Figure 13 and Figure 14) and another that extends from the grade to an upper terrace that at one time contained Fort Logan structures. Based on historic maps, the grade appears to have extended north–south below South Oseola Way and along buildings that were constructed between 1890 and 1918 (Scheuber & Darden 2007:Table 6). All of these buildings were intentionally demolished, the remains of which are located outside of the east boundary of the APE, along with South Oseola Way. Shovel testing was conducted along the grade and the terrace above (STPs 20–28). One test was positive (STP 24), yielding a colorless glass fragment between 0–10 cm below surface (bs), which appears to have been part of a light fixture cover (see Appendix A for more details). Testing of the grade suggests it may have been part of a natural terrace that was modified as a walkway or recreation area, as the soils consist of alluvial deposits with rounded coarse sediments.

Based on the types of features and dearth of artifacts in this locale, this area has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; the area is recommended as not contributing to the eligibility of the property. HRA-FL3 has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. HRA-FL3 is recommended as not contributing to the eligibility of site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because HRA-FL3 is recommended not eligible for the NRHP, there will be no effects on the properties as a result of the proposed undertaking.



Figure 13. HRA-FL3, grade; view north.



Figure 14. HRA-FL3, stairs that extend up to the top of a grade; view east.

6.2.4 HRA-Feature Location 4 (5DV.16777)

Feature Location 4 (HRA-FL4) is an area that once had 16 buildings, a series of road grades (5DV.16780.1; see Section 6.1.5), a railroad spur (5DV.4784.6; see Section 6.1.2), and a telephone line (5DV.16777), all constructed during different periods of Fort Logan history (Figure 5[2]; Figure 15). The remains of one building in the locale consists of a visible dirt footing (Feature Location 4-Feature 1 [FL4-1]), and the remains of five of the buildings consist of intact concrete slabs (Feature Location 4-Feature 2 [FL4-2] through Feature Location 4-Feature 6 [FL4-6]). Evidence for other buildings was not visible on the surface due to extensive demolition. All of the buildings in this area were intentionally demolished, and the surrounding area shows evidence for extensive bulldozing (Figure 15). Homeless camps are also scattered throughout the area.



Figure 15. FL4, overview of bulldozing and building demolition; view west.

6.2.4.1 Feature Location 4—Features 1 (FL4-1) through 6 (FL4-6)

FL4-1 is a dirt footing (20 by 48) associated with a paint shop building that was constructed between 1940 and 1946 and demolished between 1957 and 1963 (Scheuber & Darden 2007:Table 11, Bldg. #190). FL4-2 is a building footing (47 by 145 ft.) that extends east–west along a section of the telephone line (Figure 16). The building was used for unknown purposes; it was constructed between 1940 and 1946 and demolished between 1957 and 1963 (Scheuber & Darden 2007:Table 11). FL4-3 through FL4-5 (FL4-3: 25 by 92 ft.; FL4-4 and FL4-5: 22 by 200 ft.) are three slabs located along a railroad spur, which were all constructed between 1919 to 1940 and demolished between 1950 and 1957 (Figure 17). These buildings were used as Civilian Conservation Corps (CCC) barracks (Scheuber & Darden 2007:Table 11, CCC 1–3). FL4-6 (17 by 54 ft.) is the footing of

a barracks building that was constructed in 1941 and demolished between 1950 and 1957. No historic artifacts were found in association with these building remains. Asbestos tiles were observed scattered throughout the area, and thus no subsurface testing was conducted at this location. None of the features or surrounding areas retain archaeological integrity.

Due to removal and/or complete destruction of structures associated with FL4-1, FL4-2, FL4-3, FL4-4, FL4-5, and FL4-6, these features do not retain integrity. They have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL4-1, FL4-2, FL4-3, FL4-4, FL4-5, and FL4-6 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because FL4-1, FL4-2, and FL4-3, FL4-4, FL4-5, and FL4-6 are recommended not eligible for the NRHP, there will be no effects on the properties as a result of the proposed undertaking.



Figure 16. HRA-FL4, Feature FL4-2, a concrete slab for a building used for unknown purposes, with telephone line (5DV.16777) to the south; view west.



Figure 17. HRA-FL4, Feature FL4-4, CCC Barrack 2; view southwest.

6.2.4.2 Site 5DV.16777

5DV.16777 is a small section (423 ft.) of telephone line of unknown age with five transmission posts with brown-glazed porcelain insulators, located along a road in FL4 (See Figure 16). The posts and insulators are mostly intact, though small insulator fragments were observed on the ground in the right-of-way. This telephone line is not depicted on historic plats or United States Geologic Survey (USGS) maps of Fort Logan; therefore, the year in which it was built is unknown. However, it does not appear to have been a segment of one of the early transmission lines that extended across Denver, as depicted in a 1948 USGS map of the area. Due to the dearth of information available for this telephone line, and its lack of evidence for being associated with early transmission lines of the area, it has not and will not yield information about the early communication history of Denver. Telephone line 5DV.16777 has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of this property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of that property. 5DV.16777 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because 5DV.16777 is

recommended not eligible for the NRHP, there will be no effects on the property as a result of the proposed undertaking.

6.2.5 HRA-Feature Location 5 (5DV.16780.1)

Feature Location 5 (HRA-FL5) represents the road complex (5DV.16780.1[~16 ft. by 2 mi.]) that connects all of the different areas of Fort Logan (Figure 5[1–3]; Figures 18 through 20). None of the roads in the APE appear to be associated with the initial development of the fort during the Civil War period; all of the original roads appear to be located outside of the survey area. However, it appears most of the roads were established within the Fort’s period of significance, circa 1887–1945.

The road complex extends into the Fort Logan District (5DV.694), though none of the roads are recommended to support the overall NRHP eligibility of the property (Norgen 1989; see Section 3.3.2). Of the roads that are part of 5DV.16780.1, one road segment, which extends through FL9, has three culverts, and all of the other roads are grades without culverts. Many of the roads are still in use and display evidence of being graded and/or modified over time. The roads that are not in use have been impacted by nearby grading and bulldozing and vegetation growth. Some of these roads are relatively ephemeral and may have been used for short periods of time. Subsurface testing (STPs 10–19) took place along one road section in the north end of the polygon, due to its lack of surface features and potential to have subsurface deposits. One test (STP 19) was positive with a brick fragment observed at 0–10 cmbs (see Appendix A for more details).

Based on the fact that the road complex shows evidence for being recently modified in some spots, and impacted by grading and vegetation growth in others, it does not retain archaeological integrity. Moreover, the complex has a dearth of associated, intact features and artifacts. Road complex 5DV.16780.1 has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of this property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of the property. 5DV.16780.1 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because 5DV.16780.1 is recommended not eligible for the NRHP, there will be no effects on the property as a result of the proposed undertaking.

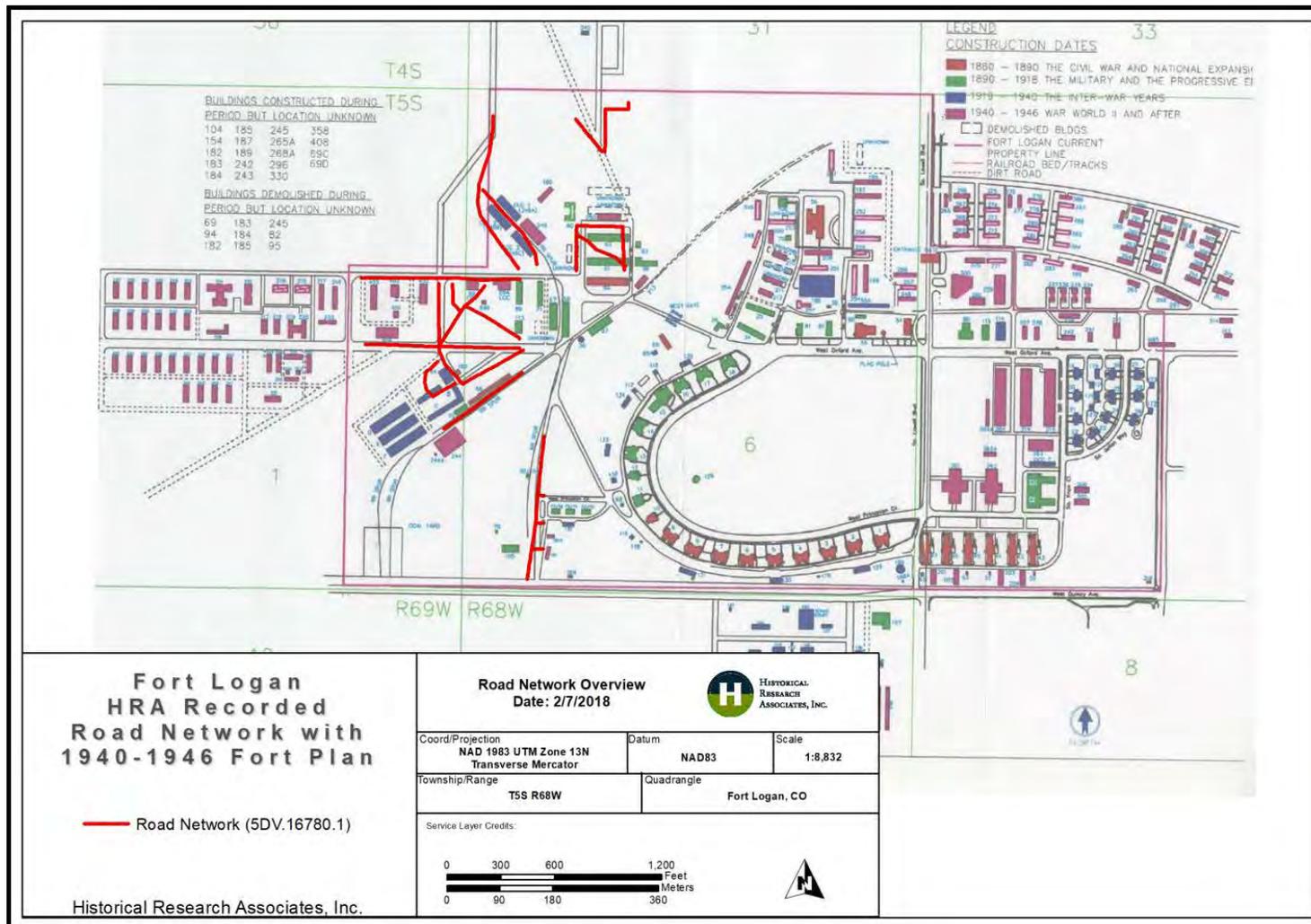


Figure 18. Linear resource 5DV.16780.1, overlain historic map of Fort Logan, circa 1940–1946.



Figure 19. HRA-FL5, a road grade that is part of complex 5DV.16780.1, extending north–south through the north polygon of the APE; view northwest.



Figure 20. HRA-FL5, road grade that is part of road complex 5DV.16780.1, which extends east–west through FL9; view west.

6.2.6 HRA-Feature Location 6

Feature Location 6 (HRA-FL6) contains three building footings (Feature Location 6-Feature 1 [FL6-1] to Feature Location 6-Feature 3 [FL6-3]), 1 gate/post (FL6-4), and one sidewalk (FL6-5) located east of a road grade (5DV.16780.1; see Section 6.1.5) at the south end of the APE (Figure 5[3]). The building footings are all brick and mortar with no interior prepared pad. All of the buildings have been intentionally demolished. FL6-1 (13 by 25 ft.) is not depicted on any historic map and thus is of unknown age and function. FL6-2 (23 by 35 ft.) and FL6-3 (21 by 30 ft.) are footings of buildings that were built between 1940 and 1946 and demolished between 1965 and 1968 (Scheuber & Darden 2007:Table 9, Bldg. #181 and 181A). FL6-2 (Figure 21) was used for personnel quarters and FL6-3 was a greenhouse. Due to being intentionally demolished, features FL6-1 to FL6-3 do not retain archaeological integrity. In addition to the building footings, there is a gate/post (FL6-4) and sidewalk (FL6-5) in Feature Location 6. Both features are intact but alone do not contribute to the historical narrative of the built environment of Fort Logan (Figure 22 and Figure 23).

Shovel tests were excavated west of these features (STPs 60, 64, 69, and 70), below the road grade (5DV.16780.1), and one (STP 70) yielded household and construction debris between 0–13 and 43–50 cmbs (Figure 5[3]; see Appendix A for more details). However, because the tests excavated were along the base of the grade below the features, it is difficult to say whether the artifacts are associated with them.

Due to removal and/or complete destruction of structures associated with FL6-1, FL6-2, and FL6-3, these features not retain integrity. They have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, ca. 1887-1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL6-1, FL6-2, and FL6-3 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

The gate/post (FL6-4) and sidewalk (FL6-5) in Feature Location 6 are intact but alone do not contribute to the historical narrative of the built environment of Fort Logan. These features have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL6-4 and FL6-5 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

Household and construction debris fragments unearthed in a test pit (STP 70) at the base of a road grade (5DV.16780.1) cannot be definitively associated with the features. All of the artifacts are non-diagnostic. These artifacts have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended

as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. The artifacts are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because FL6-1, FL6-2, FL6-3, FL6-4, and FL4-5, and associated artifacts, are recommended not eligible for the NRHP, there will be no effects on the resources or property as a result of the proposed undertaking.



Figure 21. HRA-FL6, Feature FL6-2, personnel quarters; view northwest.



Figure 22. HRA-FL6, Feature FL6-4, and unknown gate/post; view west.



Figure 23. HRA-FL6, Feature FL6-5, a sidewalk extending between FL6-1 and FL6-2; view northeast.

6.2.7 HRA-Feature Location 7 (5DV.16778)

Feature Location 7 consists of a modified natural drainage (5DV.16778; measuring 3 by 1,314 ft.) with a railroad bridge and two culverts, of unknown age (Figure 5 [2–3]; Figure 24). The feature has been impacted by erosion and siltation, and modern use, evidenced by extensive trash floating in the channel and scattered along the bank. Due to natural and human impacts, the feature does not retain archaeological integrity.

Site 5DV.16778 lacks diagnostic features and associated artifacts, and lacks archaeological integrity, and thus, is recommended not eligible for the NRHP. The linear resource has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. The site has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. Site 5DV.16778 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because 5DV.16778 is recommended not eligible for the NRHP, there will be no effects on the resource as a result of the proposed undertaking.

Shovel tests (STPs 29–34, 37–44, and 93–95) were conducted along the edges of the drainage and yielded no evidence for subsurface cultural materials (see Appendix A for more details).



Figure 24. HRA-FL7, railroad bridge that crosses a modified, natural drainage.

6.2.8 HRA-Feature Location 8

Feature Location 8 (HRA-FL8) has five building slabs (Feature Location 8-Feature 1 [FL8-1] through Feature Location 8-Feature 4 [FL8-4]: all measuring 50 by 250 ft.; Feature Location 8-Feature 5 [FL8-5]: measuring 18 by 75 ft.; FL8-5: 27 by 133 ft.) and one gate/post with wood posts and cables (Feature Location 8-Feature 6 [FL8-6]). Four of the building slabs are concrete or asphalt (Figure 5[2–3]; Figure 25) and one of the prepared areas is dirt. All of these buildings were temporary and were constructed in 1920 to be used as a training camp (Scheuber & Darden 2007:Table 7, Bldgs. T-A through T-F). The buildings were all demolished between 1950 and 1957. None of these features retain archaeological integrity. In addition to the concrete, asphalt, and dirt slabs there is a gate/post (FL8-6) (Figure 26). This feature is intact but alone does not contribute to the historical narrative of the built environment.

Due to removal and/or complete destruction of structures associated with FL8-1, FL8-2, FL8-3, FL8-4, and FL8-5 these features not retain integrity. They have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL8-1, FL8-2, FL8-3, FL8-4, and FL8-5 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

The gate/post (FL8-6) is intact but alone does not contribute to the historical narrative of the built environment of Fort Logan. This feature has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. FL8-6 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because FL8-6 is recommended not eligible for the NRHP, there will be no effects on the resource as a result of the proposed undertaking.



Figure 25. HRA-FL8, Features FL8-1 and FL8-2, foundations of temporary training camp buildings; view east.



Figure 26. HRA-FL8, Feature FL8-6, unknown gate/post with wood posts and cable; view south.

6.2.9 HRA-Feature Location 9 (5DV.16779)

Feature Location 9 (HRA-FL9) once had five buildings with surrounding sidewalks (Figure 27) and stairs (Figure 28) that lead to an upper terrace to the south (Figure 5[2]). All of the buildings were built between 1940 and 1946 and demolished prior to 1950 (Scheuber & Darden 2007:Table 9, Bldg. #s 400–405). The buildings all appear to have been used for administration or storehouses. Two of the building footprints (Feature Location 9-Feature 1 [FL9-1] and Feature Location 9-Feature 2 [FL9-2]) were found during the pedestrian survey. FL9-1 (75 by 170 ft.) is the footprint of a building used for unknown purposes, and FL9-2 (40 by 40 ft.) is the footprint of a building that was used as a storehouse. All of the other building footprints appear to have been destroyed during bulldozing or by vegetation. In addition, there is a ditch (2 by 373 ft.) with one culvert (5DV.16779) extending along the north edge of the area, next to a road grade (FL5; 5DV.16780.1) (Figure 29). The ditch (5DV.16779), though impacted by erosion and vegetation, does retain integrity.

Due to removal and/or complete destruction of structures associated with FL9-1 and FL9-2 these features not retain integrity. They have not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; they are recommended as not contributing to the eligibility of the property. They have not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and are recommended as not contributing to the eligibility of this property. Features FL9-1 and FL9-2 are recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

The ditch (5DV.16779) is intact but alone does not contribute to the historical narrative of the built environment of Fort Logan. The feature has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. Linear resource 5DV.16779 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because FL9-1, FL9-2, and 5DV.39428 are recommended not eligible for the NRHP, there will be no effects on the resources or property as a result of the proposed undertaking.

Asbestos tile fragments were observed scattered about FL9 and thus no subsurface testing was conducted in this area.



Figure 27. HRA-FL9, Feature FL9-1, front entry and footprint of a building used for unknown purposes, and a sidewalk extending along footprint; view east.

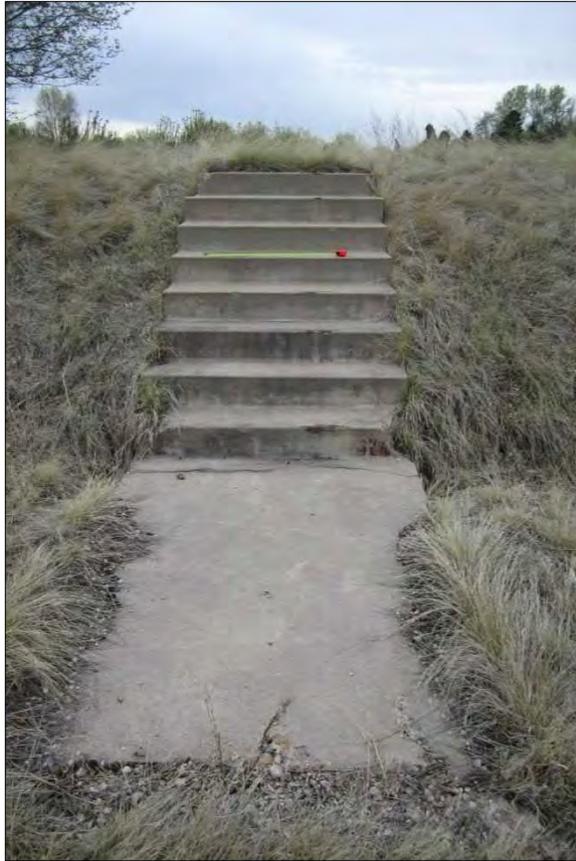


Figure 28. HRA-FL9, stairs leading up to a terrace south of the building foundations; view south.



Figure 29. HRA-FL9, 5DV.16779, ditch and culvert extending along the north edge of the area; view west.

6.2.10 HRA-Artifact Scatter 1

Artifact Scatter 1 (HRA-AS1; measuring 25 by 125 ft.) is located in a bladed area between HRA-FL1 and HRA-FL4, and contains one milk glass base fragment with no maker's mark and three brick fragments (Figure 5 [1]; Figure 30).

Due being a small cluster of non-diagnostic artifacts, this area yields no data that can contribute to a better understanding of the history of Fort Logan or Fort Logan National Cemetery. The area has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. HRA-AS1 is recommended as not contributing to the eligibility of site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because HRA-AS1 is recommended not eligible for the NRHP, there will be no effects on the resources or property as a result of the proposed undertaking.



Figure 30. HRA-AS1 overview; view east.

6.2.11 HRA-Artifact Scatter 2

Artifact Scatter 2 (HRA-AS2; measuring 250 by 462 ft.) is an area located at the southern end of the APE with a small surface scatter of artifacts and subsurface artifacts (Figure 5 [3]; Figure 31). The surface scatter includes a well head and pipe, a concrete and brick slab fragment, and a piece of unknown metal. Subsurface artifacts include mostly building debris deposited between 0 and 86 cmbs (Table 4) (see Appendix B for more details). Based on historical documents, two buildings once stood in this area: a “magazine” building and an ordinance warehouse (Scheuber & Darden 2007:Table 6, Bldg. #s 78 and 105). Both of these buildings were constructed between 1890 and 1918, during the Military and Progressive Era, and demolished between 1957 and 1963. Evidence for these buildings could not be found. However, the artifacts in most of the shovel tests are among layers of disturbed sediments and burned branches, bark, and twigs, suggesting there may have been trees in the area that were burned and bulldozed, and possibly mixed with bulldozed building debris. Additionally, a newspaper fragment found in a shovel test with burned wood dates to November 30, 1969, demonstrating that modern materials are mixed with historic debris (Figure 32).

Due to the buildings being bulldozed and mixed with burned wood and modern debris, this area does not retain surficial or subsurficial integrity. The area has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. It has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property. HRA-AS2 is recommended as not contributing to the eligibility of Site 5DV.39428 as a whole.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because HRA-AS2 is recommended not eligible for the NRHP, there will be no effects on the resources or property as a result of the proposed undertaking.



Figure 31. HRA-AS2 overview; view west.



Figure 32. HRA-AS2, STP 87, excavated materials with burned twigs and branches and newspaper fragments, found at 25 to 52 cmbs.

Table 4. HRA-AS2, positive shovel probe data.

Shovel Probe	Maximum Depth	Cultural Materials Identified
51	93	44–86 cmbs: 1 wire nail, 1 brick fragment, 11 burned glass fragments, 1 brick fragment
52	30	10–20 cmbs: 1 window pane glass fragment
56	45	22–35 cmbs: 1 brick fragment
62	42	0–27 cmbs: 1 amethyst glass fragment
66	60	0–32 cmbs: 2 brick fragments 49–60 cmbs: 5 brown glass fragments, 1 brick fragment
76	50	0–15 cmbs: 1 large brick fragment
79	30	0–30 cmbs: 1 colorless glass fragment
83	26	0–12 cmbs: 1 wire nail
86	34	25 cmbs: 1 bolt
87	52	25–52 cmbs: burned and partially burned layers of newspaper, dated November 30, 1969

6.3 Built Resources

In addition to the archaeological survey, a survey of the project area was conducted to identify built resources in the project area, and APE. As noted in the Previous Work section above (3.3), the FLHD contains 74 buildings, of which 60 have structure forms that indicate they contribute to the district. Four of these buildings are located within the APE. These four buildings include three that do not contribute to the FLHD (5DV.9371, 5DV.9376, and 5DV.9442) and one that does (5DV.9421).

6.3.1 Garage and Repair Shop (5DV.9421)

The Garage and Repair Shop building is located adjacent to the proposed project area; it is a “simple gable red brick structure with a tall brick chimney on the east elevation,” which was constructed in 1939 during the “height of the largest construction periods of the military post” (Darden 2005c)

(Figure 33 and Figure 34). Darden, in the 5DV.9421 form *Statement of Significance*, describes the resource as being:

[...] an excellent example of a contemporary maintenance garage with large vehicle openings and large steel sash windows to provide light and ventilation in the building. This building is important in its association of the Fort Logan Military Post and the military's adaption of contemporary architectural styles and building types to installation construction. This building was constructed as changes occurred when the motor vehicle took place of the horse and mule drawn wagons. Maintenance shops of this era were primarily brick utilitarian buildings with industrial steel sash windows and were bigger than their predecessors to accommodate the repair of larger equipment or motorized vehicles. [Darden 2005c]

Darden (2005c) recommended this property not individually eligible for the National Register of Historic Places (NRHP) based on modifications that it has undergone. However, it was recommended as contributing to the eligibility of a potential Fort Logan Administrative District (FLAD) as part of a “collection of resources associated with the military history of the Fort Logan Post” (Darden 2005c).

As part of the current project, an architectural historian who meets the *Secretary of Interior's* qualifications in the field reevaluated the property in 2017. This property is largely intact, although the garage doors have been replaced, and the large windows have been partially blocked up. This building does possess integrity of design, workmanship, location, and materials. It was previously identified as a contributing element to the Fort Logan Administrative District (2007), according to records of the Colorado State Historic Preservation Office; the condition, significance, and integrity of the building has not changed since that time. Therefore, this building appears to possess the qualities of significance for listing in the NRHP as a contributing element to the FLAD under Criteria A and C. It does not possess the qualities of significance for individual listing in the NRHP.



Figure 33. 5DV.9421, Garage and Repair Shop, north elevation.



Figure 34. 5DV.9421, Garage and Repair Shop, east elevation.

6.3.2 Combined Filling Station and Oil House (5DV.9371)

The Combined Filling Station and Oil House, also located just east of the project area, is a “simple gable red brick structure with a tall brick chimney on the north elevation,” which was constructed in 1941 during the “height of the largest construction periods of the military post” (Darden 2005a) (Figure 35 and Figure 36). Darden, in the 5DV.9371 form *Statement of Significance*, describes the resource as being:

[...] an excellent example of a contemporary fueling station known as “house with a canopy gas station.” This building type was predominantly built between 1910 and 1920, but was used at this facility in the 1940s. The character defining features are a front gable with a flat roof extending over the automobile driveway, pair of corner posts at the automobile drive, brick veneer, and a small square office building. [Darden 2005a]

Darden (2005a) recommended this property eligible for the NRHP based its maintained structural integrity. It was also recommended as contributing to the eligibility of a potential FLAD as part of a “collection of resources associated with the military history of the Fort Logan Post” (Darden 2005a). However, the Colorado OHP form indicates that it did not concur with this finding, and notes the building as a non-contributing element to the FLHD.

As part of the proposed FLNC expansion this property has been reevaluated. Although the building is largely intact, the gas pumps that gave it its primary use are no longer extant. It also has a small lean-to addition on the east elevation. This building does not possess integrity of materials, feeling, setting, and association. It was previously identified as a non-contributing element to the Fort Logan Administrative District (2007), according to records of the Colorado State Historic Preservation Office; the condition, significance, and integrity of the building has not changed since that time. It also does not possess the qualities of significance for inclusion in the NRHP individually.



Figure 35. 5DV.9371, Combined Filling Station and Oil House, south and east elevations.



Figure 36. 5DV.9371, Combined Filling Station and Oil House, west elevation.

6.3.3 Storage Building (5DV.9442)

The third building in the automotive repair area located just east of the project area is a storage building is a “utilitarian structure with little detail of ornamentation [and a] modern wood framed structure with T1-11 siding,” which was constructed in 2000 to “provide equipment storage to the Department of Facilities Management” (Darden 2005d) (Figure 37). Darden, in the 5DV.9442 form *Statement of Significance*, describes the resource as having “no historical significance.”

Darden (2005d) recommended this property not eligible for the NRHP due to its lack of historical significance. Likewise, it was recommended as not contributing to the eligibility of a potential FLAD for the same reason (Darden 2005d).

This property was reassessed in 2017 as part of the proposed FLNC expansion. This building is not eligible for the NRHP due to lack of historical significance.



Figure 37. 5DV.9442, storage building, north and east elevations.

6.3.4 Post Engineer Garage (5DV.9376)

Finally, in the FLNC expansion project area is the Post Engineer Garage is a “wood framed building with vertical galvanized corrugated metal siding with a cross gable roof sheath with corrugated metal roofing,” which was constructed in 1943 as a “support facility to house the new more modern vehicles which were used during World War II and utilized for training at facilities like these (Darden 2005b) (Figure 38 and Figure 39). Darden, in the 5DV.9376 form *Statement of Significance*, describes the resource as being:

[...] important because of its association with the Fort Logan Military Post. It also signifies a change in the military in the use of horse and mule drawn wagons to motorized vehicles. During World War II, the use of modern vehicles and equipment was pivotal to winning the war. The equipment and vehicles were utilized on the base for training purposes prior to sending troops overseas. [Darden 2005b]

Darden (2005b) recommended this property not eligible for the NRHP due to it being a temporary structure and its “deteriorated condition.” However, it was recommended as contributing to the eligibility of a potential FLAD as part of a “collection of resources associated with the military history of the Fort Logan Post” due to it being the “only remaining contemporary building constructed during this timeframe” (Darden 2005b). In 2007, however, the Colorado OHP disagreed with this evaluation, and the building is listed as a non-contributing element to the FLHD.

As part of the current proposed FLNC expansion this property has been reevaluated. Although the building dates from the period of significance, it is severely dilapidated. The character defining feature – its row of six sliding garage doors – has been replaced. Moreover, most of the former military support buildings that were in this area have been demolished. This building does not possess integrity of setting, feeling, materials, workmanship, or association.

The property does not possess the qualities of significance for inclusion in the NRHP, either as an individual resource, or as a contributing element to the FLHD.



Figure 38. 5DV.9376, Post Engineer Garage, south elevation.



Figure 39. 5DV.9376, Post Engineer Garage, north elevation.

6.3.5 Pinehurst Estates

Additionally, there is a neighborhood located directly to the west of the APE that dates from the late 1960s to the early 1970s. USGS quadrangle maps dating from 1965, and photo-updated in 1971, show the Pinehurst Estates development laid out between those dates. This development is shielded from the view of the APE by tree cover, and a fence. The houses all face away from the project area. Although the scope of this project did not include a definitive evaluation of adjacent areas for NRHP eligibility, this development was always adjacent to the FLNC, and the expansion of the cemetery will not be an adverse effect to this neighborhood, if it is determined to be eligible.

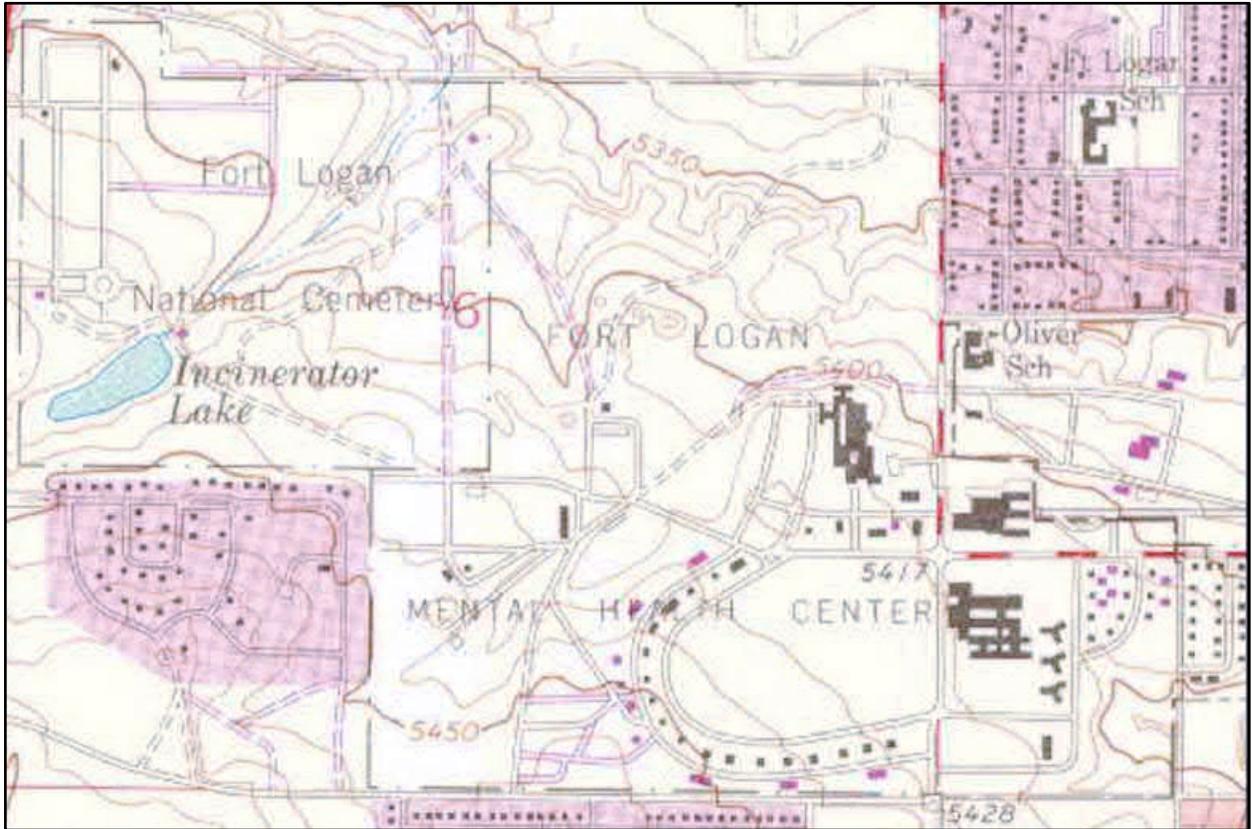


Figure 40. Excerpt from 1965 USGS Quadrangle Map, 1965 (Photorevised 1971), Denver, CO.

7. Evaluations and Recommendations

7.1 Archaeological Recommendations

Phase III investigations were conducted in the proposed FLNC expansion APE, which resulted in identification of one historic site (5DV.39428) and five linear resources (5DV.4784.6, 5DV.16777, 5DV.16778, 5DV.16779, and 5DV.16780.1) associated with Fort Logan. Based on intensive pedestrian survey, it has been determined that most of archaeological resources in the site lack integrity due to being intentionally demolished and/or bulldozed. Only a gate/post (FL6-4) and sidewalk (FL6-5) in Feature Location 6, a gate/post (FL8-6) in Feature Location 8, and a ditch (5DV.16779) in Feature Location 9 retain integrity, though as stand-alone features they do not yield information important to history. Additionally, subsurface testing in the highest probability areas of the APE revealed no evidence for intact subsurface deposits. Thus, in general, the site lacks integrity of design, setting, materials, workmanship, feeling, and association.

Although Site 5DV.39428 and the linear resources therein are associated with events that have made a significant contribution to the broad pattern of our history and are associated with the lives of persons significant in our past, due to a lack of integrity, the site is recommended not eligible for the NRHP under Criteria A and B. In addition, due to lack of integrity, the site does not embody distinctive characteristic of a type, period, or method of construction, or represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; therefore the site is recommended not eligible for the NRHP under Criterion C. Finally, due to a lack of surficial and subsurficial integrity the site has not yielded and will not yield information important to Fort Logan or Fort Logan National Cemetery history, and thus, it is recommended not eligible for the NRHP under Criterion D.

Site 5DV.39428 has not and will not yield information important to the history of Fort Logan District (5DV.694) during its period of significance, circa 1887–1945; it is recommended as not contributing to the eligibility of the property. The site has not and will not yield information important to the history of Fort Logan National Cemetery Historic District (5DV.4344) and is recommended as not contributing to the eligibility of this property.

According to 36 CFR 800.5(1) an adverse effect is “when an undertaking may alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Thus, because Site 5DV.39428 and the linear features therein are recommended not eligible for the NRHP, there will be no effects on the resources or property as a result of the proposed undertaking. No further work is recommended.

The proposed project will have a direct effect on the physical boundaries of the FLNC, which will expand it from their current limitations. However, the effect is not adverse, because the National Park Service policy clarification on National cemeteries recognizes that “National cemeteries continue to expand” and are “ever-changing” (NPS 2011).

7.2 Built Resource Recommendations

There are four built resources in the Fort Logan cemetery expansion area. These buildings are located in the middle of the project area, and they include one contributing element to the FLHD (5DV.9421), and three non-contributing buildings, which also are not eligible for individual inclusion on the NRHP. The proposed project will not change the boundaries of the FLHD, although it will result in a change of use in the project area. This change of use will not have an effect on any character-defining features of the FLHD. Additionally, the cemetery has been adjacent to the FLHD throughout the period of significance, and this change in boundaries of the FLNC will not be adverse to the FLHD.

However, it is reasonably foreseeable that this FLNC expansion project will result in the demolition of these four buildings; demolition of 5DV.9421, the Garage and Repair Shop, will be an adverse effect to the FLHD. VA proposes to consult with the Advisory Council on Historic Properties (ACHP), the Colorado OHP, interested tribes, and local governments entities and historical societies to resolve this adverse effect. This likely will result in the execution of a Memorandum of Agreement, outlining the treatment measures agreed upon during consultation.

7.3 Procedures for the Inadvertent Discovery of Human Remains

Pursuant to Colorado Statutes CRS 24-80-401-411, Section 24-80-1302, if human skeletal remains are discovered during the course of project activities, then all activity **must** cease that may cause further disturbance to those remains and the area of the find must be secured and protected from further disturbance. In addition, the finding of human skeletal remains **must** be reported to the Denver County coroner **and** local law enforcement or the National Cemetery Administration of the U.S. Department of Veterans Affairs (NCA) in the most expeditious manner possible. The remains should not be touched, moved, or further disturbed.

The Denver County coroner will conduct an on-site examination within 48 hours of notification to make a determination of whether those remains are forensic or non-forensic. If the county is unable to make a determination, the law enforcement, the coroner, or the NCA shall request the forensic anthropologist of the Colorado bureau of investigation to assist in making such determinations. If it is confirmed the remains are human but of no forensic value, the coroner shall notify the state archaeologist of the discovery. The state archaeologist shall recommend security measures for the

site, and the human remains will be examined by a qualified archaeologist to determine if the remains are more than 100 years old and to evaluate the integrity of the archaeological context. If the on-site investigation determines the human remains are Native American, the state archaeologist shall notify the Commission of Indian Affairs. The remains shall be disinterred in accordance with proper archaeological methods by a qualified archaeologist who holds a permit issued under sections 24-80-405 and 24-80-406. The archaeologist conducting the disinterment will assume temporary custody of the human remains for a period not to exceed one year from the date of disinterment for the purpose of study and analysis. Upon completion of the studies the state shall consult with the Commission of Indian Affairs regarding reinternment. Those remains which are verifiably non Native American and are otherwise unclaimed will be delivered to the county coroner for further conveyance to the Colorado State Anatomical Board.

8. Evaluation of Research

It was expected that the cultural resources in the FLNC expansion project APE would all be associated with Fort Logan or the Colorado Mental Health Institute at Fort Logan. Based on aerial images and historical documents, it was hypothesized that all archaeological cultural resources would lack integrity due to being impacted by intentional demolition that took place around 1960. The results of the pedestrian survey and subsurface testing in the APE support the pre-established expectations that all of the archaeological resources, surface and subsurface, lack integrity due to being impacted by bulldozing and grading.

9. Summary and Conclusions

ISI Professional Services contracted Row 10 Historic Preservation Solutions (built resources), ERG and HRA (archaeological resources) to conduct a cultural resources investigation for the proposed FLNC expansion project. It was expected that there would be four standing structures in the APE and archaeological resources associated with Fort Logan and the Colorado Mental Health Institute at Fort Logan. Evaluations of the four structures were conducted by Row 10 Historic Preservation Solutions and a single contributing element to the FLHD was identified, 5DV.9421. It is anticipated that this structure will be demolished in order to expand the FLNC, which will constitute an adverse effect to the FLHD. Consultation with ACHP, Colorado OHP, interested tribes, and local governments entities and historical societies is recommended to resolve this adverse effect. This likely will result in the enactment of a Memorandum of Agreement, outlining the treatment measures agreed upon during consultation.

As for the archaeological resources, all were expected to have been impacted by intentional demolition, and results of the survey support these expectations. One historic site (5DV.39428) was found during the survey, containing eleven clusters of features and/or artifact scatters, most of which lack integrity due to having been bulldozed. Five linear features were also documented in the site (5DV.4784.6, 5DV.16777, 5DV.16778, 5DV.16779, and 5DV.16780.1). Due to lack of integrity and inability to address research questions associated with the Fort Logan and Fort Logan National Cemetery, Site 5DV.39428 and the linear resources therein are recommended not eligible for the NRHP. Likewise, the site and linear resources are recommended as not contributing to the NRHP eligibility of Fort Logan Historic District (5DV.694) or the Fort Logan National Cemetery Historic District (5DV.4344). It is the recommendation of ERG and HRA that the FLNC expansion project will not negatively impact archaeological resources in Site 5DV.4344, and that the undertaking can be carried out as planned. It is also recommended that the undertaking will not adversely affect the integrity of Fort Logan National Cemetery Historic District (5DV.4344) due to its boundaries being expanded. In the event that human remains are discovered during the undertaking, ERG and HRA recommends the procedures for inadvertent discoveries, described above, be followed.

10. References Cited

- Adams, Blanche
1930 Colorado in the Civil War. Master's thesis, University of Colorado, Boulder.
- Athearn, Robert G.
1976 *The Coloradans*. University of New Mexico Press, Albuquerque.
- Bannon, John F.
1974 *The Spanish Borderlands Frontier*. University of New Mexico Press, Albuquerque.
- Bracey, Jessie A.
1939 Colorado Indians and Their Removal. Master's thesis, Colorado State Teachers College, Greeley.
- Chenault, Mark L.
1999 Chapter 4: Paleoindian Stage. In *Colorado Prehistory: A Context for the Platte River Basin*, by Kevin P. Gilmore, Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.
- Chronic, J., and H. Chronic
1972 Prairie, Peak, and Plateau: A Guide to the Geology of Colorado. *Colorado Geological Survey Bulletin No. 32*.
- Clark, Bonnie
1999 Chapter 7: The Protohistoric Period. In *Colorado Prehistory: A Context for the Platte River Basin*, by Kevin P. Gilmore, Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.
- Coyle, Katy
2017a Architectural Inventory Form: 5DV9371. Form on file at Colorado Office of Archaeology and Historic Preservation.
2017b Architectural Inventory Form: 5DV9376. Form on file at Colorado Office of Archaeology and Historic Preservation.
2017c Architectural Inventory Form: 5DV9421. Form on file at Colorado Office of Archaeology and Historic Preservation.
2017d Architectural Inventory Form: 5DV9442. Form on file at Colorado Office of Archaeology and Historic Preservation.
- Darden, Barbara
2005a Architectural Inventory Form: 5DV9371. Form on file at Colorado Office of Archaeology and Historic Preservation.
2005b Architectural Inventory Form: 5DV9376. Form on file at Colorado Office of Archaeology and Historic Preservation.

2005c Architectural Inventory Form: 5DV9421. Form on file at Colorado Office of Archaeology and Historic Preservation.

2005d Architectural Inventory Form: 5DV9442. Form on file at Colorado Office of Archaeology and Historic Preservation.

Dorsett, Lyle

1977 *The Queen City*. Pruett Press, Boulder, Colorado.

Downing, Bonnie P.

1970 The Mining Interest in the Colorado Statehood Movement. Master's thesis, University of Colorado, Boulder.

Edwards, Evan

1962 The Historical Background of Fort Logan, Colorado. Document on file at the Denver Library, Denver, Colorado.

The Fort Logan Mental Health Center

n.d. *Historical Background of the Old Fort, Development of the Mental Health Center*.

Gilmore, Kevin P.

1999 Chapter 6: Late Prehistoric Stage (A.D. 150-1540). In *Colorado Prehistory: A Context for the Platte River Basin*, by Kevin P. Gilmore, Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.

Gilmore, Kevin P., Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood

1999 *Colorado Prehistory: A Context for the Platte River Basin*. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.

Goetzmann, William

1966 *Exploration and Empire*. Random House, New York.

1976 *Army Exploration in the Far West*. University of Nebraska Press, Lincoln.

Hammond, George P.

1982 Coronado's Seven Cities. In *A Colorado Reader*, edited by C. Ubbelohde. Pruett Press, Boulder, Colorado.

Hayden, F.V.

1880 *The Great West*. C.R. Brodix, Bloomington.

Heil, R.D., D.S. Romine, D.C. Moreland, R.K. Dansdill, R.H. Montgomery, and J.E. Cipra

1977 *Soils of Colorado*. Colorado State University Experiment Station Fort Collins Bulletin 566S.

Hensel, Donald W.

1957 A History of the Colorado Constitution in the Nineteenth Century. Ph.D. dissertation, University of Colorado, Boulder.

Herbst, R. and V. Rottman.

1989 Inventory Record: 5DV4784.1. Form on file at Colorado Office of Archaeology and Historic Preservation.

Hughes, J. Donald

1976 *American Indians in Colorado*. Pruett Press, Boulder, Colorado.

- Marmor, J.
- 2003 Inventory Record: 5DV4784.4. Form on file at Colorado Office of Archaeology and Historic Preservation. National Climatic Center
 - 1982 Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1951—1980. *Climatology of the United States No. 81*.
 - 1984 *Climatology Data Annual Summary, Colorado 1984, Vol. 89, No. 81*. National Oceanic and Atmosphere Administration, National Climate Center, Asheville.
- Norgren, B.
- 1989 Inventory Record: 5DV694. Form on file at Colorado Office of Archaeology and Historic Preservation.
- NPS (National Park Service)
- 2011 National Register Eligibility of National Cemeteries – A Clarification of Policy – A Clarification of Policy (9/8/2011). Electronic document, https://www.cem.va.gov/CEM/pdf/Final_Eligibility_of_VA_cemeteries_A_Clarification_of_Policy_rev.pdf, accessed February 14, 2018.
- OSHPO (Oregon State Historic Preservation Office)
- 2013 *Guidance for Recording and Evaluating Linear Cultural Resources*. Oregon Parks and Recreation Department.
- Painter, M.W..
- 1999 Inventory Record: 5DV4784.2. Form on file at Colorado Office of Archaeology and Historic Preservation. Quiett, Glenn
 - 1934 *They Built the West, An Epic of Rails and Cities*. Appleton-Century, New York.
- Reigel, Robert
- 1926 *The Story of Western Railroads*. University of Nebraska Press, Lincoln.
- Scheuber & Darden Architects, LLC
- 2007 *Fort Logan Master Plan, Denver (SHF 2005-01-025)*. Report on file in the Colorado Office of Archaeology and Historic Preservation (OAHP) archives.
- Shelford. V.E.
- 1963 *The Ecology of North America*. University of Illinois Press, Urbana.
- Tate, Marcia
- 1999 Chapter 5: Archaic Stage. In *Colorado Prehistory: A Context for the Platte River Basin*, by Kevin P. Gilmore, Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.
- Tate, Marcia, and Kevin P. Gilmore
- 1999 Chapter 2: Environment. In *Colorado Prehistory: A Context for the Platte River Basin*, by Kevin P. Gilmore, Marcia Tate, Mark L. Chenault, Bonnie Clark, Terri McBride, and Margaret Wood. Colorado Council of Professional Archaeologists and the Colorado Archaeological Society, Denver.
- Thornbury, W.D.
- 1965 *Regional Geomorphology of the United States*. Wiley, New York.

Tucker, G.C. and J.J. Fariello.

2003 Inventory Record: 5DV4784.3. Form on file at Colorado Office of Archaeology and Historic Preservation. Ubbelohde, Carl, Maxine Benson, and Duane A. Smith

1982 *A Colorado History*. Pruett Press, Boulder, Colorado.

Webb, Sandra M., and Karen E. Tupek

1980 National Register of Historic Places – Inventory/Nomination Form. Fort Logan National Cemetery (5DV4344). Form on file at Colorado Office of Archaeology and Historic Preservation.

Weber, David J.

1970 *The Taos Trappers*. University of Oklahoma Press, Norman.

Winther, Oscar O.

1974 *The Transportation Frontier*. University of New Mexico Press, Albuquerque.

Appendix A. Shovel Probe Results

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
1	1	44	0–44 cmbs: dark brown (10 YR 3/4) mechanically disturbed silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	0–5 cmbs: colorless glass fragment in disturbed sediments
1	2	34	0–23 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 23–34 cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	None
1	3	34	0–19 cmbs: dark brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 19–34 cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	None
1	4	50	0–17 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 17–50 cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	None
1	5	50	0–41 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 41–50 cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	23–41 cmbs: wood fragments, 3 wire nails, 1 colorless glass fragment, 1 porcelain fragment, 1 unknown metal fragment

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
1	6	45	0–20 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 20–45cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	0–10 cmbs: 6 brick fragments, 2 window glass fragments
1	7	47	0–29 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam angular pebbles 29–47 cmbs: light yellowish brown (10 YR 6/4) compact silty clay loam B horizon with angular gravels	None
1	8	42	0–16 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 16 cmbs: light gray (10 YR 7/2) ashy sandy loam 16–50 cmbs: dark grayish brown (10 YR 4/2) silt loam; terminated at compact silty clay loam B horizon with angular gravels	None
1	9	50	0–16 cmbs: brown (10 YR 4/3) mottled with light yellowish brown (10 YR 6/4) mechanically disturbed silt loam 16 cmbs: light gray (10 YR 7/2) ashy sandy loam 16–50 cmbs: dark grayish brown (10 YR 4/2) silt loam; terminated at compact silty clay loam B horizon with angular gravels	None
1	10	40	0–40 cmbs: dark brown (10 YR 3/4) silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	None
1	11	38	0–26 cmbs: brown (10 YR 5/3) silt loam 26–38 cmbs: very dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
1	12	34	0–23 cmbs: brown (10 YR 5/3) silt loam 23–34 cmbs: very dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None
1	13	22	0–22 cmbs: dark brown (10 YR 3/4) silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	None
1	14	27	0–15 cmbs: brown (10 YR 5/3) silt loam 15–27 cmbs: dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None
1	15	32	0–32 cmbs: dark brown (10 YR 3/4) silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	None
1	16	30	0–15 cmbs: brown (10 YR 5/3) silt loam 15–30 cmbs: dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None
1	17	30	0–30 cmbs: dark brown (10 YR 3/4) silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	None
1	18	40	0–15 cmbs: brown (10 YR 5/3) silt loam 15–40 cmbs: dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None
1	19	30	0–30 cmbs: dark brown (10 YR 3/3) silt loam with small, angular gravels; terminated at compact silty clay loam B horizon with angular gravels	0–10 cmbs: 1 brick fragment
2	20	52	0–12 cmbs: brown (10 YR 5/3) silt loam 12–52 cmbs: dark brown (10 YR 3/3) compact silty clay loam B horizon with angular gravels	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
2	21	25	0–5 cmbs: organic loam 5–25 cmbs: light yellowish brown (10 YR 6/4) sand with rounded to subrounded coarse sediments, alluvium; impasse at 25 cmbs	None
2	22	38	0–35 cmbs: light yellowish brown (10 YR 6/4) sandy loam 35–38 cmbs: very pale brown (10 YR 8/3) mottled with yellowish brown (10 YR 5/4) sandy loam; impasse at 52 cmbs	None
2	23	38	0–20 cmbs: brown (10 YR 4/3) sandy loam with gravels 20–33 cmbs: dark brown (10 YR 3/3) sandy loam with gravels 33–38 cmbs: very pale brown (10 YR 8/3) sandy loam with gravels; impasse at 38 cmbs	None
2	24	28	0–6 cmbs: organic loam 6–28 cmbs: light yellowish brown (10 YR 6/4) sand with rounded to subrounded coarse sediments, alluvium; impasse at 28 cmbs	0–10 cmbs: 1 colorless glass, possible light fixture fragment
2	25	30	0–5 cmbs: organic loam 5–30 cmbs: light yellowish brown (10 YR 6/4) sand with rounded to subrounded coarse sediments, alluvium; impasse at 30 cmbs	None
2	26	37	0–37 cmbs: brown (10 YR 4/3) sandy loam with gravels; impasse at 33 cmbs	None
2	27	33	0–20 cmbs: brown (10 YR 4/3) sandy loam with gravels 20–33 cmbs: dark grayish brown (10 YR 4/2) sandy loam with gravels; impasse at 33 cmbs	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
2	28	37	0–31 cmbs: brown (10 YR 4/3) sandy loam with gravels 31–37 cmbs: dark grayish brown (10 YR 4/2) sandy loam with gravels; impasse at 37 cmbs	None
3	29	24	0–15 cmbs: brown (10 YR 4/3) sandy loam with coal flecks 15–24 cmbs: very dark brown (10 YR 2/2) sandy loam with coal; terminated at coarse sediments	None
3	30	35	0–18 cmbs: very dark brown (10 YR 2/2) silt loam 18–35 cmbs: dark grayish brown (10 YR 4/2) mottled with very dark brown (10 YR 2/2) silt loam with coal; terminated at coarse sediments	None
3	31	30	0–15 cmbs: brown (10 YR 4/3) sandy loam with coal flecks 15–30 cmbs: very dark brown (10 YR 2/2) sandy loam with coal; terminated at coarse sediments	None
3	32	28	0–10 cmbs: brown (10 YR 4/3) silt loam 10–19 cmbs: dark grayish brown (10 YR 4/2) to very dark brown (10 YR 2/2) silt loam with coal 19–25 cmbs: black (10 YR 2/1) coal layer 25–28 cmbs: dark yellowish brown (10 YR 4/4) compact silt loam with gravels; terminated at coarse sediments	None
3	33	15	0–15 cmbs: with very dark brown (10 YR 2/2) sandy loam with coal and rounded gravels, pebbles, and cobbles; terminated at coarse sediments	None
3	34	11	0–9 cmbs: brown (10 YR 4/3) silt loam 9–11 cmbs: dark yellowish brown (10 YR 4/4) compact gravels	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	35	15	0–15 cmbs: with very dark brown (10 YR 2/2) disturbed silt loam with coal and rounded gravels, pebbles, and cobbles; terminated at coarse sediments	None
3	36	26	0–12 cmbs: dark grayish brown (10 YR 4/2) disturbed silt loam with coal 12–26 cmbs: light brownish gray (10 YR 6/2) silty clay with charcoal; terminated at coarse sediments	None
3	37	50	0–15 cmbs: dark grayish brown (10 YR 4/2) silt loam 15–50 cmbs: very pale brown (10 YR 8/2) mottled with yellowish brown (10 YR 5/4) compact very fine silt loam	None
3	38	13	0–13 cmbs: brown (10 YR 4/3) sandy loam with rounded gravels; terminated at coarse sediments	None
3	39	17	0–17 cmbs: brown (10 YR 4/3) sandy loam with rounded gravels; terminated at coarse sediments	None
3	40	30	0–6 cmbs: brown (10 YR 4/3) silt loam 6–30 cmbs: very dark brown (10 YR 4/4) compact clay loam B horizon with rounded gravels and pebbles; terminated at coarse sediments	None
3	41	28	0–17 cmbs: dark brown (10 YR 3/3) silt loam 17–28 cmbs: yellowish brown (10 YR 5/4) mottled with brown (10 YR 4/3) silty clay loam B horizon	None
3	42	17	0–5 cmbs: brown (10 YR 4/3) silt loam 5–17 cmbs: dark yellowish brown (10 YR 4/4) sandy loam with rounded gravels and 2 rounded cobbles	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	43	40	0–25 cmbs: very dark brown (10 YR 2/2) silt loam 25–33 cmbs: brown (10 YR 4/3) silty clay 33–40 cmbs: dark yellowish brown (10 YR 4/4) silty clay	None
3	44	36	0–12 cmbs: dark grayish brown (10 YR 4/2) silt loam 12–26 cmbs: brown (10 YR 5/3) compact silt loam 26–36 cmbs: dark yellowish brown (10 YR 4/4) silty clay	None
3	45	46	0–36 cmbs: brown (10 YR 4/3) mechanically disturbed silty clay loam with moderate coal and charcoal inclusions 36–46 cmbs: very pale brown (10 YR 8/3) mottled with brown (10YR 5/3) compact silty clay loam B horizon	0–36 cmbs: 1 colorless container glass fragment
3	46	36	0–5 cmbs: brown (10 YR 4/3) silt loam 5–36 cmbs: very pale brown (10 YR 8/3) clay loam with gravels	None
3	47	30	0–5 cmbs: brown (10 YR 4/3) silt loam 5–30 cmbs: very pale brown (10 YR 7/3) clay loam with rounded gravels	None
3	48	38	0–6 cmbs: brown (10 YR 4/3) silt loam 6–38 cmbs: very dark brown (10 YR 3/3) mottled with very pale brown (10 YR 7/3) clay loam with gravels	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	49	45	<p>0–13 cmbs: brown (10 YR 5/3) silt loam</p> <p>13–33 cmbs: black (10 YR 2/1) lens with burned timber</p> <p>33–45 cmbs; dark grayish brown (10 YR 4/2) ash layer with charcoal; terminated at encountered asbestos tile fragment</p>	33–45 cmbs: 1 machine cut nail, 1 colorless glass fragment, 1 asbestos tile fragment
3	50	42	<p>0–5 cmbs: brown (10 YR 5/3) loam</p> <p>3–23 cmbs: yellowish brown (10 YR 5/4) sandy clay loam</p> <p>23–24 cmbs: black (10 YR 2/1) charcoal layer</p> <p>24–42 cmbs: dark yellowish brown (10 YR 4/4) compact, sandy clay loam with charcoal and 1 large rounded cobble; terminated at coarse sediments</p>	None
3	51	93	<p>0–24 cmbs: yellowish brown (10 YR 5/4) silt clay loam</p> <p>24–44 cmbs: black (10 YR 2/1) mottled with yellowish brown (10 YR 5/4) charcoal layer with burned timber and intact unburned timber</p> <p>44–86 cmbs: dark grayish brown (10 YR 4/1) ash layer with fine silt loam</p> <p>86–93 cmbs: light brownish gray (10 YR 6/2) and very pale brown (10 YR 8/2) compact, burned clay</p>	44–86 cmbs: 1 wire nail, 1 brick fragment, 11 burned glass fragments, 1 brick fragment
3	52	30	<p>0–3 cmbs: brown (10 YR 5/3) loam</p> <p>3–17 cmbs: yellowish brown (10 YR 5/4) fine sandy loam</p> <p>17–30 cmbs: brown (10 YR 5/3) compact clay loam mixed with degraded granite, pebbles, and cobbles</p>	10–20 cmbs: 1 window pane glass fragment

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	53	38	0–2 cmbs: brown (10 YR 5/3) loam 2–16 cmbs: grayish brown (10 YR 5/2) sandy clay loam 16–38 cmbs: yellowish brown (10 YR 5/4) compact sandy clay loam with coarse sediments.	None
3	54	43	0–36 cmbs: dark yellowish brown (10 YR 4/4) fine silty loam 36–38 cmbs: dark grayish brown (10 YR 4/2) compact silty clay with coal and charcoal 38–43 cmbs: dark grayish brown (10 YR 4/2) compact silty clay B horizon	None
3	55	36	0–2 cmbs: brown (10 YR 5/3) loam 2–28 cmbs: yellowish brown (10 YR 5/4) sandy loam 28–36 cmbs: dark brown (10 YR 3/3) compact silty clay loam	None
3	56	45	0–22 cmbs: brown (10 YR 4/3) silty loam 22–35 cmbs: black (10 YR 2/1) mottled with brown (10 YR 4/3) and very pale brown (10Yr 8/2) charcoal layer with burned timber 35–45 cmbs: light brownish gray (10 YR 6/2) and very pale brown (10 YR 8/2) compact, burned clay B horizon	22–35 cmbs: 1 brick fragment
3	57	46	0–35 cmbs: brown (10 YR 4/3) silt loam 35–46 cmbs: light brownish gray (10 YR 6/2) and very pale brown (10 YR 8/2) compact silty clay	None
3	58	29	0–29 cmbs: brown (10 YR 4/3) mottled with pale brown (10 YR 5/3) silt loam, very gravelly; impasse at 29 cmbs	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	59	35	0–4 cmbs: brown (10 YR 4/3) loam 4–11 cmbs: yellowish brown (10 YR 5/4) sandy loam 11–35cmbs: yellowish brown (10 YR 5/4) sandy clay loam with burned timber (twigs and branches)	None
3	60	30	0–2 cmbs: brown (10 YR 4/3) loam 2–30 cmbs: yellowish brown (10 YR 5/4) sandy loam; terminated at very pale brown (10 YR 7/3) compact clay loam	None
3	61	30	0–3 cmbs: brown (10 YR 4/3) loam 3–30 cmbs: yellowish brown (10 YR 5/4) clay loam; terminated at very pale brown (10 YR 7/3) compact clay	None
3	62	42	0–27 cmbs: brown (10 YR 4/3) silt loam 27–38 cmbs: black (10 YR 2/1) mottled with brown (10 YR 4/3) and yellowish brown (10 YR 6/6) charcoal layer 38–42 cmbs: very pale brown (10 YR 8/3) and brown (10 YR 4/3) silty compact clay B Horizon	0–27 cmbs: 1 amethyst glass fragment
3	63	41	0–29 cmbs: yellowish brown (10 YR 5/4) silt loam 29–41 cmbs: brown (10 YR 4/3) compact silty loam	None
3	64	36	0–3 cmbs: brown (10 YR 4/3) loam 3–36 cmbs: yellowish brown (10 YR 5/4) compact clay loam	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	65	39	0–12 cmbs: dark yellowish brown (10 YR 4/4) silt loam 12–28 cmbs: very pale brown (10 YR 8/3) and brown (10 YR 4/3) silty clay with charcoal inclusions 28–39 cmbs: brown (10 YR 4/3) and pale brown (10 YR 6/3) compact silty clay B Horizon	None
3	66	60	0–32 cmbs: pale brown (10 YR 6/3) silt loam 32–49 cmbs: black (10 YR 2/1) charcoal layer with burned and unburned timber/sticks 49–60 cmbs: light brownish gray (10 YR 6/2) ash layer	0–32 cmbs: 2 brick fragments 49–60 cmbs: 5 brown glass fragments, 1 brick fragment
3	67	28	0–2 cmbs: brown (10 YR 4/3) loam 2–28 cmbs: yellowish brown (10 YR 5/4) compact clay loam; terminated at dark brown (10 YR 3/3) clay loam	None
3	68	38	0–5 cmbs: brown (10 YR 4/3) loam 5–25 cmbs: yellowish brown (10 YR 5/4) clay loam 25–38 cmbs: yellowish brown (10 YR 5/4) clay loam	None
3	69	27	0–4 cmbs: brown (10 YR 4/3) loam 4–14 cmbs: yellowish brown (10 YR 5/4) compact clay loam 14–27 cmbs: dark brown (10 YR 3/3) compact clay loam	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	70	60	0–13 cmbs: dark grayish brown (10 YR 4/2) silt loam 13–43 cmbs: pale brown (10 YR 6/3) mottled with dark grayish brown (10 YR 4/2) silt loam with moderate charcoal 43–60 cmbs: dark grayish brown (10 YR 4/2) silty clay loam	0–13 cmbs: 2 cut stone fragments, 1 clear glass fragments 43–50 cmbs: 1 wire nail, 1 light green glass fragment
3	71	35	0–3 cmbs: brown (10 YR 4/3) loam 3–30 cmbs: yellowish brown (10 YR 5/4) compact clay loam 30–35 cmbs: very pale brown (10 YR 8/2) compact clay loam	None
3	72	27	0–5 cmbs: brown (10 YR 4/3) loam 5–27cmbs: brown (10 YR 5/3) silty clay loam	None
3	73	34	0–5 cmbs: brown (10 YR 4/3) loam 5–34cmbs: brown (10 YR 5/3) mottled with yellowish brown (10 YR 5/4) and pale brown (10 YR 6/3) clay loam	None
3	74	37	0–5 cmbs: brown (10 YR 4/3) loam 5–37 cmbs: brown (10 YR 5/3) mottled with yellowish brown (10 YR 5/4) and pale brown (10 YR 6/3) clay loam; terminated at dark brown (10 YR 3/3) compact clay loam	0–20 cmbs: 1 lead bullet
3	75	41	0–5 cmbs: brown (10 YR 4/3) silt loam 5–41cmbs: very pale brown (10 YR 8/3) silty clay loam	None
3	76	50	0–15 cmbs: dark grayish brown (10 YR 4/2) mottled with pale brown (10 YR 5/3) silt loam 15–28 cmbs: black (10 YR 2/1) charcoal layer 28–50 cmbs: brown (10 YR 4/3) silty clay loam	0–15 cmbs: 1 large brick fragment

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	77	42	0–3 cmbs: brown (10 YR 4/3) loam 3–39 cmbs: brown (10 YR 4/3) mottled with yellowish brown (10 YR 5/4) and light yellowish brown (10 YR 6/4) clay loam with burned tree root at 30 cmbs 39–42 cmbs: light yellowish brown (10 YR 6/4) compact clay loam	None
3	78	18	0–3 cmbs: brown (10 YR 4/3) loam 3–18 cmbs: very pale brown (10 YR 8/3) compact clay loam	None
3	79	30	0–17 cmbs: dark grayish brown (10 YR 4/2) and brown silty clay with moderate charcoal 17–19 cmbs: brown (10 YR 4/3) silt loam 19–30 cmbs: brown (10 YR 4/3) compact silty clay loam	0–30 cmbs: 1 colorless glass fragment
3	80	28	0–3 cmbs: brown (10 YR 4/3) organic loam 3–25 cmbs: brown (10 YR 4/3) loam 25–28 cmbs: pale brown (10 YR 6/3) compact clay loam with degraded granite cobbles	None
3	81	37	0–26 cmbs: dark grayish brown (10 YR 4/2) mottled with pale brown (10 YR 5/3) silt loam 26–37cmbs: brown (10 YR 4/3) compact silty clay loam	None
3	82	25	0–5 cmbs: brown (10 YR 4/3) organic loam 5–25 cmbs: brown (10 YR 4/3) loam; terminated at light yellowish brown (10 YR 6/4) compact clay loam	None
3	83	26	0–12 cmbs: brown (10 YR 4/3) silt loam 12–26 cmbs: dark yellowish brown (10 YR 4/4) mottled with very pale brown (10 YR 8/3) silty clay loam	0–12 cmbs: 1 wire nail

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	84	26	0–16 cmbs: brown (10 YR 4/3) silt loam 16–26 cmbs: brown (10 YR 5/3) silty clay loam	None
3	85	26	0–12 cmbs: dark brown (10 YR 3/3) silt loam with moderate charcoal inclusions 12–26 cmbs: yellowish brown (10 YR 5/4) and very pale brown (10 YR 8/3) compact silty clay loam	None
3	86	34	0–4 cmbs: brown (10 YR 4/3) loam 4–30 cmbs: brown (10 YR 5/3) clay loam with charcoal flecks 26–34 cmbs: brown (10 YR 3/4) compact clay loam	25 cmbs: 1 bolt
3	87	52	0–5 cmbs: brown (10 YR 4/3) loam 5–25 cmbs: brown (10 YR 5/3) clay loam 25–52 cmbs: black (10 YR 2/1) compact clay loam with charcoal	25–52 cmbs: burned and partially burned layers of newspaper, dated November 30, 1969
3	88	30	0–24 cmbs: dark brown (10 YR 3/3) silt loam 24–30 cmbs: yellowish brown (10 YR 5/4) and very pale brown (10 YR 8/3) compact silty clay loam	None
3	89	24	0–8 cmbs: brown (10 YR 5/3) silt loam 8–24 cmbs: brown (10 YR 5/3) and very pale brown (10 YR 8/3) compact silt loam	None
3	90	30	0–4 cmbs: brown (10 YR 4/3) organic loam 4–10 cmbs: brown (10 YR 5/3) loam 10–30 cmbs: brown (10 YR 5/3) compact clay loam with degraded granite and cobbles	None
3	91	24	0–12 cmbs: brown (10 YR 5/3) silt loam 12–24 cmbs: brown (10 YR 5/3) and very pale brown (10 YR 8/3) compact silt loam	None

Table A-1. Shovel Probe Results.

Test Area	Shovel Probe	Maximum Depth (cmbs)	Soil Description	Cultural Materials Identified
3	92	30	0–12 cmbs: dark brown (10 YR 3/3) silt loam 12–30 cmbs: yellowish brown (10 YR 5/4) and very pale brown (10 YR 8/3) silty clay loam	None
3	93	38	0–5 cmbs: brown (10 YR 4/3) organic loam 5–23 cmbs: brown (10 YR 5/3) sandy loam 23–38 cmbs: very pale brown (10 YR 8/3) compact clay loam	None
3	94	28	0–15 cmbs: dark brown (10 YR 3/3) silt loam 15–28 cmbs: brown (10 YR 5/3) and very pale brown (10 YR 6/3) compact silty clay loam	None
3	95	28	0–10 cmbs: dark brown (10 YR 3/3) silt loam 10–28 cmbs: very pale brown (10 YR 8/3) and brown (10 YR 5/3) compact silty loam	None

Appendix B. Initial Cultural Resources Impact Prediction Study



January 31, 2017

Richard Banchoff
Legal Counsel
ISI Professional Services
1201 15th Street, NW
Suite 200
Washington, D.C. 20005

RE: Initial Cultural Resource Impact Prediction for the Proposed Expansion of the Fort Logan National Cemetery, Denver County, Colorado

Dear Mr. Banchoff,

Row 10 Historic Preservation Solutions, LLC (Row 10) is pleased to have this opportunity to assist ISI Professional Services and the National Cemetery Administration of the Department of Veterans Affairs (NCA), in Denver County, Colorado. This Initial Cultural Resource Impact Prediction (ICRIP) is developed specifically to assist the NCA in conducting its due diligence effort, and to assist in identifying any large and potentially fatal flaws related to cultural resources in the proposed acquisition of land adjacent to the current boundaries of the Fort Logan National Cemetery.

The National Historic Preservation Act of 1966, as amended (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties both individually and cumulatively. This report contains an ICRIP for the Proposed Expansion of the Fort Logan National Cemetery, Denver County, Colorado. A map of the proposed expansion is included at the end of this letter report.

The current report consists of preservation consultation to NCA for its proposed expansion, and includes:

- Existing documentation regarding National Historic Landmarks and National Register of Historic Places listed or inventoried properties, districts, objects, landscapes, sites, landforms and/or cemeteries that are within the boundaries of or adjacent to the proposed acquisition;
- Results of a records search at the Colorado Office of Archaeology & Historic Preservation (the Colorado State Historic Preservation Office [CO SHPO]);
- Results of a site visit to examine potential historic properties in the proposed acquisition area;
- Identification of the preliminary steps for consultation, and recommendations on defining the undertaking, defining the Area of Potential Effects, and identifying a preliminary list of potential consulting parties; and,
- Recommendations on the next steps forward to ensure compliance.

It should be noted that this effort did not include any Section 106 consultation, nor will it substitute for that process as it relates to the proposed action.

Proposed Project

The NCA is seeking additional space to expand the Fort Logan National Cemetery in Denver, Colorado. NCA is seeking to acquire up to 66 acres in the northwest portion of the Fort Logan Campus located at 3685 W. Oxford Avenue, Denver, Colorado, Denver County, listed as assessor parcel number 0806400003000, located just south of the current boundaries of the Fort Logan National Cemetery. The grounds of this parcel were formerly part of Fort Logan military installation, founded in 1887. The Fort closed after World War II, and all but 75 acres were sold to the State of Colorado. The reserved acreage included the former Fort cemetery, and became the Fort Logan National Cemetery. The cemetery added 65 acres to the west of the original acreage in 2003.

Brief History of Fort Logan

Fort Logan was founded in 1887, as a military outpost to protect nascent Denver. Founded on the Johnson Tract ten miles southwest of the town, along the Morrison branch of the South Park Railroad, the outpost initially consisted of 640 acres.¹ Construction of the brick buildings was complete by 1894 to house 28 officers, two cavalry troops, eight infantry companies, and a band, and included over 17 buildings.² The fort, named after General John Alexander Logan of Illinois, added an additional 333 acres in 1908.³ Between the Spanish-American War and World War II, the fort was home to a recruitment center, a dirigible squadron, battalions of engineers, a supply camp for the Civilian Conservation Corps, and a large receiving station for newly enlisted personnel. In 1946, 577 acres of the fort were transferred to the Veterans Administration, precursor to the modern-day Department of Veterans Affairs, who operated the fort hospital as a makeshift health care facility for Veterans, while the new facility in Denver was being constructed. In 1960, 308 acres of VA land were transferred to the State of Colorado, to construct a new mental health center. The VA retained 132 acres for the Fort Logan National Cemetery Association.⁴

Area of Potential Effect

The area of potential effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The proposed acquisition of the proposed parcel would alter the existing boundaries of the Fort Logan National Cemetery and the Fort Logan portion of the Colorado Mental Health Institute at Fort Logan (CMHIFL); the full acreage of the historic portions of both properties is recommended for inclusion in the APE. The newer development of the CMHIFL is not included in this recommendation. See Figure 2 below.

Proposed redevelopment of the proposed parcel could include installation of headstones and, possibly, columbarium(a). These headstones could affect the viewshed of the former Fort Logan buildings. However, this possible effect might not be considered adverse, since the Fort has always included a cemetery.

Identification of Historic Properties

Identification efforts for this ICRIP included a walking survey of all acreage of the proposed parcel. Survey also included windshield survey and limited walking survey of the Fort Logan National Cemetery. Survey further included windshield survey of a one-mile radius of the proposed acquisition parcel. Note- the roadways did not permit strict adherence to the one-mile radius. This radius at times exceeded one mile.

Built Resources

Row 10 conducted a records and literature search of Colorado SHPO files related to built resources on January 10, 2017. The historic portion of the CMHIFL that contained Fort Logan is identified in the Colorado SHPO records as an historic district eligible for listing in the National Register of Historic

¹ Edwards 1962:4.

² USGS topographic quadrangle map, Denver, 1901.

³ Ibid, 8.

⁴ Ibid, 8-13.

Places. However, this appears to simply be a SHPO determination, as there is no recorded survey of the historic district, nor is there a report on the survey findings. SHPO records identify 54 buildings in the Fort Logan historic district, of which 46 are contributing elements. Additionally, the Fort Logan National Cemetery is listed in the National Register of Historic Places.

On January 9, 2017, an architectural historian who exceeds the *Professional Qualification Standards* established by the Secretary of the Interior visited the proposed expansion parcel to identify properties in the area that are more than 50 years of age and that retain sufficient integrity to warrant listing in the National Register of Historic Places. There are four buildings on the proposed acquisition parcel: a large warehouse that does not appear to contribute to the historic district; and a grouping of three buildings, a 4-bay garage, a single-bay garage, and a former gasoline pump building, that appear to date to the 1930s and do contribute to the identified Fort Logan historic district. Unfortunately, there has been no report on the historic district, so it is not possible to confirm that these buildings are contributing.

In addition to pedestrian survey of the proposed expansion parcel, an architectural historian who exceeds the *Professional Qualification Standards* established by the Secretary of the Interior conducted a windshield survey of the neighborhoods surrounding the Fort Logan National Cemetery. These neighborhoods are within one-mile of the project area but outside the recommended Area of Potential Effect. The Pinehurst Estates development are located to the south and west of the cemetery, and it appears to be a development of late 1960s to mid-1980s single-family houses with a connection to the Pinehurst Golf Course. To the north, the Westbridge subdivision is a densely packed development of single-family homes from the 1990s and later. These dates are borne out by an examination of the changes in the Fort Logan USGS topographic maps, 1965 base, updated in 1967, 1973, 1980, and 1994. These neighborhoods do not appear to possess the qualities of significance for inclusion in the National Register of Historic Places. To the east is a development that appears to date from the 1950s, and it may possess the qualities for a cohesive historic district eligible for the National Register of Historic Places.

Archaeological Resources

Row 10 conducted a records and literature search of CO SHPO files related to archaeological resources on January 10, 2017. As part of the required analysis for a Fort Logan NCA expansion in 2003, all acreage that was part of that expansion was surveyed to identify historic properties. This survey identified nine sites, ranging in date from 1859-1954; although one was identified as eligible for listing in the NRHP, its research potential was exhausted in the field effort. No survey of the proposed acquisition has been conducted.

Traditional Cultural Properties

No Traditional Cultural Properties have been identified on the proposed acquisition parcel, or in the recommended Area of Potential Effect. However, this ICRIP did not include an ethnographic study, or consultation with Native American groups to definitively identify TCPs.

Effects of the Proposed Project on Historic Properties

Adverse effects of an undertaking occur when the action directly or indirectly alters the characteristics of a historic property that qualify it for inclusion in the National Register of Historic Places. Reasonably foreseeable effects that are caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative also need to be considered.

The proposed project will have a direct effect on the physical boundaries of the Fort Logan National Cemetery, which will expand from their current limitations. However, this effect is not adverse, because the NPS policy clarification on national cemeteries specifically recognizes that “National cemeteries

continue to expand,” and that they are “ever-changing.”⁵ The three contributing elements to the Fort Logan historic district will be adversely effected if NCA acquires this property. This will be an adverse effect to the entire Fort Logan historic district. Although no archaeological sites have been identified within the grounds of the proposed acquisition parcel, the presence of prehistoric, historic, and paleontological archaeological deposits in the area and the history of the land as part of the former acreage of the original Fort Logan parcel increases the potential for subsurface archaeological deposits. Redevelopment of the proposed acquisition parcel therefore may affect as-yet unidentified archaeological deposits in the area.

The potentially-eligible historic district to the east of the NCA boundaries lies across South Lowell Boulevard from the NCA. South Lowell Boulevard is a four-lane road. Additionally, the portions of this neighborhood that abut South Lowell Boulevard face away from the street, and the backyards are separated from the street by a long, cohesive (presumably municipal) dividing fence. Therefore, the addition of the project parcel well over 500 yards away will not be an adverse effect to this potential district.

Initial Steps

NCA needs to fulfill its obligations under Section 106 of the National Historic Preservation Act (NHPA) by consulting with the CO SHPO and any Federally recognized Native American Tribes with an interest in or association to the proposed acquisition area. In this case, it is recommended that, at a minimum, this include the Southern Ute Indian Tribe of the Southern Ute Reservation, and the Ute Mountain Tribe of the Ute Mountain Reservation, as well as the tribes that were consulted as part of the 2003 Environmental Assessment: the Cheyenne, Arapaho, Kiowa, Apachean Groups, and Comanche. In order to do this, submission of the consultation letter attached to this report as Attachment C is the recommended course of action. This letter outlines the Undertaking, the Area of Potential Effect, the Historic Properties identified to date, and initiates the Section 106 consultation. Consultation steps are outlined below.

Recommendations for a Consultation Process

In many cases, NHPA compliance efforts related to a project with few or no adverse effects to historic properties can be handled through a simple letter or “paper consultation” with the CO SHPO and Native American Tribes and their respective Tribal Historic Preservation Officers (THPOs). However, this is not the case at Fort Logan, where the historic district will be adversely affected. In this case, the steps below are recommended to ensure full compliance with the National Historic Preservation Act.

Invite Consulting Parties to Participate

Section 106 of the NHPA requires federal agencies to consult with experts and organizations with special expertise in the affected historic property (or properties), as well as with members of the public. Entities that must be invited to participate in the consultation include the SHPO, the Advisory Council on Historic Preservation (ACHP), and Native American Tribes with geographic or cultural affiliation to the project area; in this case, it is recommended that, at a minimum, Tribes include the Southern Ute Indian Tribe of the Southern Ute Reservation, and the Ute Mountain Tribe of the Ute Mountain Reservation. It is further recommend that consultation include those Tribes that were party to the 2003 Environmental Assessment (the Cheyenne, Arapaho, Kiowa, Apachean Groups, and Comanche). NCA should consult with the Colorado Commission of Indian Affairs, and the Denver American Indian Commission to determine if additional Tribes should be invited. The ACHP has the right to decline an invitation to participate in consultation and only review the agreement to resolve adverse effects at the end of a consultation process. Native American Tribes similarly have the right to decline to participate or participate only in portions of the consultation that pertain to their areas of interest.

⁵ National Park Service, National Register Eligibility of National Cemeteries – A Clarification of Policy – A Clarification of Policy (9/8/2011), September 2011.

A list of recommended consulting parties is included as Attachment A to the letter. Mandatory or required groups include the CO SHPO, the ACHP, and federally-recognized Native American Tribes in Colorado. The list also includes organizations in the Fort Logan area with specific interest or expertise in the affected historic properties. This includes groups dedicated to the preservation of Fort Logan, Veterans Service Organizations, and historic preservation organizations in the Fort Logan/Sheridan area. As noted above, NCA should also consider including additional tribes with historic ties to the area. Once NCA enters consultation, additional organizations may request consulting party status or may be suggested as consulting parties. Neither the NHPA nor its implementing regulations restrict the number of consulting parties nor limit when a party may be added to consultation.

Engage in Public Outreach

The NHPA requires federal agencies to seek input from the public about historic properties affected by proposed undertakings. The regulations are flexible, and NCA will have the option to post notices in newspapers, social media, or on websites. A draft advertisement is included in Attachment B.

Conduct Archaeological Survey

NCA should contract with a Secretary of Interior-qualified archaeologist to conduct an archaeological inventory that meets SHPO/THPO requirements on the proposed acquisition parcel. The archaeologist should consult with SHPO regarding methodology for this survey. The results of this survey should be forwarded to both SHPO and THPOs with a request for consultation and concurrence. If no intact deposits are located, and SHPO and THPOs concur with the results of the archaeological survey, NCA has fulfilled archaeological obligations. If, however, intact deposits are found, they will need to be evaluated for eligibility for inclusion in the National Register of Historic Places.

Resolve Adverse Effects to Historic Properties

Because the acquisition of the proposed parcel will be an adverse effect to historic properties under 36 CFR 800 to the Fort Logan historic district, this adverse effect will need to be resolved. NCA will need to seek a resolution of these adverse effects to historic properties through the negotiation and enactment of a Memorandum of Agreement (MOA). The Memorandum of Agreement will include provisions that will be taken by NCA to avoid, minimize, and/or mitigate adverse effects. These measures could include photographing the buildings that will be demolished, producing an historic survey of the Fort Logan campus, Historic American Building Survey (HABS) documentation, or other such processes. The consulting parties who were invited to participate, and who accept that invitation, will participate in the development of this document, and will be signatories and/or invited signatories to any final document. It is recommended that an archeological survey of the proposed acquisition parcel be conducted prior to negotiating mitigation measures, because if intact deposits are identified, that are eligible for the National Register of Historic Places, adverse effects to these historic archaeological properties will need to be resolved in the MOA as well.

During the course of the Section 106 consultation, NCA should have some details about the proposed acquisition and development of the project property, but should not be in design schematics, which could foreclose on participants' opportunity to comment. If you have any questions regarding this report, federal agency obligations under NHPA, or recommended actions, please do not hesitate to contact me at katy@row10hps.com or 504-210-9234.

Sincerely,



Katy Coyle
Partner

References:

Edwards, Evan. "The Historical Background of Fort Logan." Denver Public Library Manuscript Collection, 1962.

National Park Service, database of National Historical Landmarks, <https://www.nps.gov/nhl/find/statelists/co/CO.pdf>.

-- National Register Eligibility of National Cemeteries – A Clarification of Policy – A Clarification of Policy (9/8/2011), September 2011.

United States Geologic Service, Topographic and Quadrangle Maps, Fort Logan, CO, 1901; 1965; 1967; 1973; 1980; 1994.

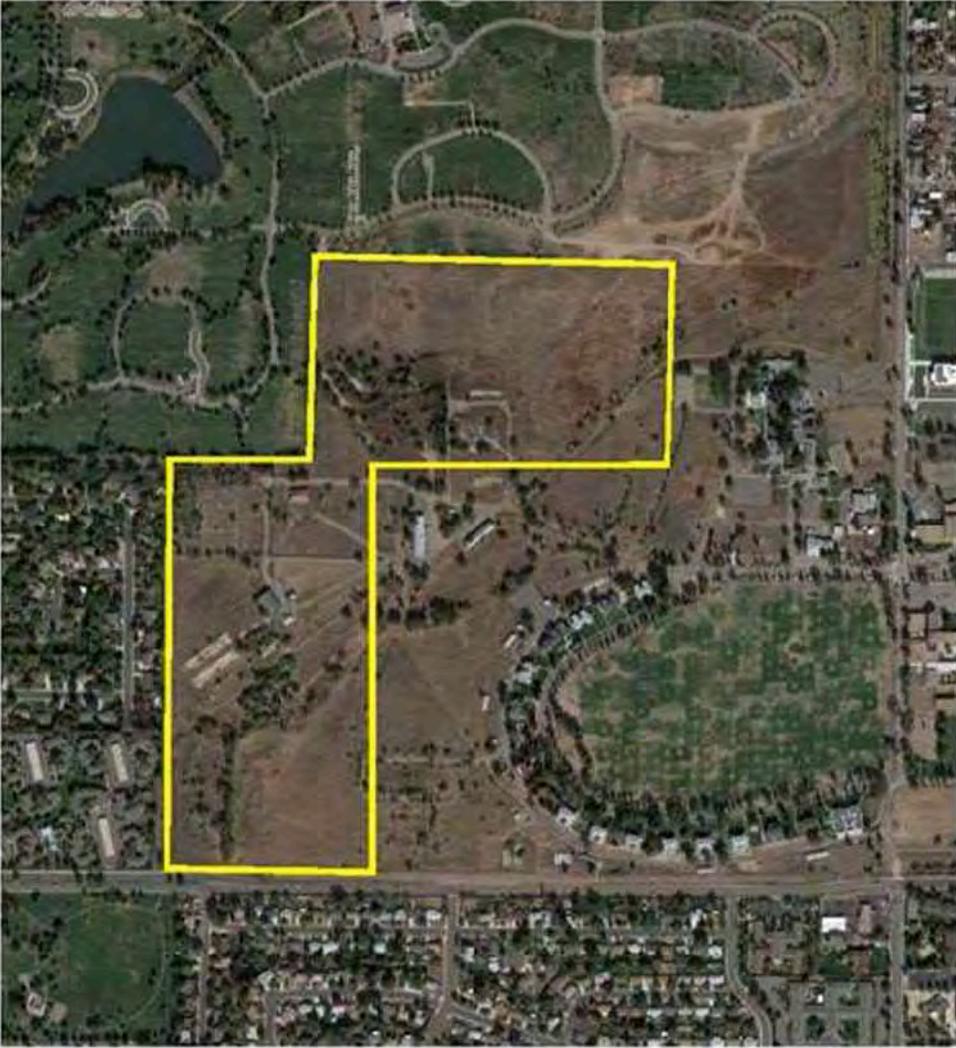


Figure 1 Map of Proposed 66 Acre Acquisition Parcel



Figure 2 Recommended Area of Potential Effect

Attachment A
Recommended Consulting Parties

Organization	Contact	Street Address	City	State	Zip	Phone	Email
Advisory Council on Historic Preservation	John Fowler, Executive Director	401 F Street NW, Suite 308	Washington	DC	20001-2637	202-517-0200	jfowler@achp.gov Note- should be submitted through e106@achp.gov . See below for form.
Advisory Council on Historic Preservation	VA Liaison (currently vacant)	401 F Street NW, Suite 308	Washington	DC	20001-2637	202-517-0223	cdaniel@achp.gov
Colorado State Historic Preservation Office	Steve Turner	1200 Broadway	Denver	CO	80203	303-866-2305	Steve.turner@state.co.us
Friends of Fort Logan		PO Box 36011	Denver	CO	80236		Historic.fort.logan@gmail.com
Colorado Mental Health Institute at Fort Logan	Christopher Burke, Ph.D.	3520 West Oxford Avenue	Denver	CO	80236	303-866-7066	Sheridan.garcia@state.co.us
Colorado Commission of Indian Affairs	Ernest House, Jr.	1300 Broadway, 6 th Floor	Denver	CO	80203	303-866-5470	Ernest.house@state.co.us
Sheridan Historical Society	Clifford Mueller	4104 S. Federal Blvd.	Sheridan	CO	80110		
Southern Ute Indian Tribe	Clement Frost, Chairman	P.O. Box 737	Ignacio	CO	81137	970-563-0100 x2319	
Ute Mountain Tribe	Manuel Heart, Chairman	General Delivery	Towoac	CO	80203	970-565-3751 x201	

Attachment B
Draft Advertisement

NOTICE

The National Cemetery Administration of the U.S. Department of Veterans Affairs (NCA) is seeking information about historic properties to inform consultation in accordance with the National Historic Preservation Act of 1966, as amended, and its' implementing regulations.

NCA has proposed to expand the Fort Logan National Cemetery by acquiring a 66 acre parcel adjacent on the southwest edge of the current NCA boundaries for use as burial grounds. This action has the potential to affect buildings, structures, and landscapes within the acquired parcel, Fort Logan historic district, and the Fort Logan National Cemetery. This action also may affect the research potential of archaeological sites within the boundaries of the expansion parcel.

If you have any information about historic properties in the vicinity of the 66 acre parcel, Fort Logan and/or the Fort Logan National Cemetery; if you have data related to archaeological sites within these areas; or, if you would like to comment on the potential effects of expanding the Fort Logan National Cemetery to the south, please contact the NCA at [dedicated project email or dedicated staff person]. The opportunity to provide information or comment will be open until 5:00 PM [date].

Attachment C

Draft Consultation Letter, Initiating Consultation, and Inviting Participation in the Section 106 Process

[Date]

[First Name] [Last Name]

[Title]

[Organization]

[Address 1], [Address 2]

[City], [State] [Zip]

RE: Consultation on the Expansion of the Fort Logan National Cemetery

Dear [title] [Last Name],

The Fort Logan National Cemetery in Denver, Denver County, Colorado, proposes to acquire a 66 acre site adjacent to the current southern boundary of the cemetery, to provide additional interment space for our nation's Veterans (Attachment A- map). The National Cemetery Administration (NCA) of the U.S. Department of Veterans Affairs (VA) proposes to acquire and develop this proposed site to include more headstones, public access roads, and a columbarium (Undertaking).

Brief History of Fort Logan

Fort Logan was founded in 1887, as a military outpost to protect nascent Denver. Founded on the Johnson Tract 1ten miles southwest of the town, along the Morrison branch of the South Park Railroad, the outpost initially consisted of 640 acres.¹ Construction of the brick buildings was complete by 1894 to house 28 officers, two cavalry troops, eight infantry companies, and a band, and included over 17 buildings (USGS topographic quadrangle map, 1901). The fort, named after General John Alexander Logan of Illinois, added an additional 333 acres in 1908.² Between the Spanish-American War and World War II, the fort was home to a recruitment center, a dirigible squadron, battalions of engineers, a supply camp for the Civilian Conservation Corps, and a large receiving station for newly enlisted personnel. In 1946, 577 acres of the fort were transferred to the Veterans Administration (now the US Department of Veterans Affairs [VA]), who operated the fort hospital as a makeshift health care facility for veterans, while the new facility in Denver was being constructed. In 1960, 308 acres of VA Land were transferred to the State of Colorado, to construct a new Mental Health Center. The VA retained 132 acres for the Fort Logan National Cemetery.³

Area of Potential Effect

The area of potential effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The proposed acquisition of the proposed parcel would alter the existing boundaries of the Fort Logan National Cemetery, and the Fort Logan portion of the Colorado Mental Health Institute at Fort Logan (CMHIFL); the full acreage of the historic portions of both properties is recommended for inclusion in the APE. The newer development of the CMHIFL is not included in this recommendation.

¹ Edwards 1962:4.

² Ibid, 8.

³ Ibid, 8-13.

Proposed redevelopment of the proposed parcel could include installation of headstones and, possibly, columbarium(a). These headstones could affect the viewshed of the former Fort Logan buildings. However, this possible effect might not be considered adverse, since the Fort has always included a cemetery.

Identification of Historic Properties

NCA has determined the presence of two known historic properties within the APE: the CMHIFL and the Fort Logan National Cemetery. The CMHIFL includes 54 buildings, 46 of which have been determined to contribute to the historic district.

In addition, NCA has determined that a 1950s-era neighborhood east of the Fort Logan National Cemetery may possess the integrity necessary for listing in the National Register of Historic Places. The potentially-eligible historic district lies across South Lowell Boulevard from the Fort Logan National Cemetery. South Lowell Boulevard is a four-lane road. Additionally, the portions of this neighborhood that abut South Lowell Boulevard face away from the street, and the backyards are separated from the street by a long, cohesive (presumably municipal) dividing fence. Therefore, the addition of the project parcel well over 500 yards away will not be an adverse effect to this potential district.

As part of the required analysis for a Fort Logan NCA expansion in 2003, all acreage that was part of that expansion was surveyed to identify historic properties. This survey identified nine sites, ranging in date from 1859-1954; although one was identified as eligible for listing in the NRHP, its research potential was exhausted in the field effort. No survey of the proposed acquisition has been conducted.

No Traditional Cultural Properties have been identified on the proposed acquisition parcel, or in the recommended Area of Potential Effect. However, this ICRMP did not include an ethnographic study, or consultation with Native American groups to definitively identify TCPs.

Effects of the Proposed Project on Historic Properties

Adverse effects of an undertaking occur when the action directly or indirectly alters the characteristics of a historic property that qualify it for inclusion in the National Register of Historic Places. Reasonably foreseeable effects that are caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative also need to be considered.

The proposed project will have a direct effect on the physical boundaries of the Fort Logan National Cemetery, which will expand from their current limitations. However, this effect is not adverse, because the National Park Service (NPS) policy clarification on national cemeteries specifically recognizes that “National cemeteries continue to expand,” and that they are “ever-changing.”⁹ Additionally, three contributing elements to the Fort Logan historic district will be adversely effected if the NCA acquires this property. This will be an adverse effect to the entire historic district. Although no archaeological sites have been identified within the grounds of the proposed acquisition parcel, the presence of prehistoric, historic, and paleontological archaeological deposits in the area and the history of the land as part of the former acreage of the original Fort Logan parcel increases the potential for subsurface archaeological deposits. Redevelopment of the proposed acquisition parcel therefore may affect as-yet unidentified archaeological deposits in the area.

⁹ National Park Service, National Register Eligibility of National Cemeteries – A Clarification of Policy – A Clarification of Policy (9/8/2011), September 2011.

This letter serves as an invitation to participate in consultation regarding the proposed expansion of the Fort Logan National Cemetery. Please respond to this letter not later than [date], to acknowledge your interest in participating in this process as a Consulting Party. A list of proposed consulting parties is located in Attachment A. Please include any recommendations concerning organizations with a vested interest in historic properties potentially affected as a result of this undertaking.

NCA intends to host a Consulting Party meeting via conference call the week of [date] to discuss the Undertaking, the proposed Area(s) of Potential Effect, identified historic properties within this area, the potential for archaeological resources within the project footprint, the level of effect posed by the proposed alternatives, and possible measures to resolve these adverse effects. We will forward call information to your organization should you elect to participate in consultation regarding this project. It is anticipated that adverse effects may be resolved through consultation on the project, and negotiation of a Memorandum of Agreement (MOA) as outlined in 36 CFR 800.6 (c).

We thank you for your organization's ongoing support of historic properties in our state. If you have any questions about this project, please contact [person] at [email], [phone].

Sincerely,

[Person]

[Title]

National Cemetery Administration