



View of Dairy Farm buildings looking northwest

(NPS Photo, 2012)



Tennessee Valley Stables (Cunha/Rapozo Ranch, Ranch A/B)

Cultural Resource Reports and Site Treatment: Cultural Landscape Report Historic Structure Reports Archeological Assessment and Treatment Report

June 10, 2013
United States National Park Service,
Golden Gate National Recreation Area
Division of Cultural Resources

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Introduction

How to Use This Document

This Cultural Resource Report combines historic structures reports, a cultural landscape report, and an archeological assessment for the Tennessee Valley Stables (the historic Cunha/Rapozo Ranch or Ranch M) under one cover for the convenience of the user. Administrative data, contextual information and site history common to all these reports are placed into one common front section in order to avoid repetition. This document is intended to guide the Golden Gate National Recreation Area (GGNRA) and its tenants to manage the property to preserve its essential characteristics, conform to relevant planning documents, comply with the National Historic Preservation Act, and provide interpretive information for the benefit of park users. Historic structure reports are not yet prepared for structures that are not presently anticipated to be treated beyond basic stabilization measures. The precise location of sensitive archeological sites may be redacted from public versions of this document in accordance with National Park Service (NPS) policy and the provisions of the Archeological Resources Protection Act.

Preparation

The United States National Park Service (NPS), Golden Gate National Recreation Area (GGNRA), Division of Cultural Resources and Museum Management (CRMM) is the agency responsible for preparation of this report. Abby sue Fisher, Chief, and Stephen Haller, Branch Chief and Park Historian, directed the preparation of the report. Leo Barker, Archeologist and Peter Gavette, Archeologist, prepared the Archeological Assessment and Treatment Report; Amy Hoke, Historical Landscape Architect prepared the Cultural Landscape Report and Jason Hagin, Historical Architect prepared the Historic Structure Reports, created the architectural drawings (separate in an Addendum) and with Stephen Haller arranged the report for publication.

Relevant Documents

The historic Da Cunha/Rapozo Ranch Dairy, also known historically as Ranch A/B, now known as the Tennessee Valley stables, located in Mill Valley, California is part of the Golden Gate National Recreation Area. The *General Management Plan/Environmental Analysis* (GMP, September 1980) is the main planning document for the Golden Gate National Recreation Area. The GGNRA is currently updating the GMP and *Draft General Management Plan* has already received public comment. Other relevant documents that relate to the planning of the Golden Gate Dairy Creamery building include the *Incomplete Dairy Ranching History and Outline of Land Use in the Marin Headlands*, by Darcy Luce of the NPS, the 2001 *Golden Gate Dairy Ranch House: Physical History Report, Golden Gate Dairy, Muir Beach, California*, by Kristin Baron of the NPS, and the 2003 *Golden Gate Dairy Preservation Guide* by Jane Lehman of the NPS. More broadly based research studies that examine regional ranching are also relevant, of which the revised 1994 *Ranching on the Point Reyes Peninsula: A History of the Dairy and Beef Ranches within the Point Reyes National Seashore* Historic Resource Study and the 1995 *A Good Life: Dairy Farming in the Olema Valley* Historic Resource

Study, both by Dewey Livingston of the NPS, deal with closely related subjects. At the time of this writing, a 2006 *National Register of Historic Places Nomination Form* for the ranch, by Lissa McKee working with the NPS, which was submitted to the State of California Office of Historic Preservation, had been reviewed and a *Determination of Eligibility* to the National Register of Historic Places for the historic dairy farm has been issued. With the property determined eligible, it becomes subject to management via National Park Service Management Policies and *NPS 28: Cultural Resource Management Guidelines*. This Historic Structure Report (HSR) is written in response to the 2012 *Marin Equestrian Plan Environmental Analysis*, which used “Choosing By Advantages” to establish an adaptive reuse concepts for the Tennessee Valley Stables site, including the Main Barn Complex, Auxiliary Residence, Auxiliary Stables and House Barn, as the action alternative. At the time of this writing, a Finding of No Significant Impact and Errata for the *Marin Equestrian Stables Plan Environmental Assessment* is being finalized in alignment with the new park *General Management Plan* (GMP), currently in review of public comments stage, which will be approved in the near future. It is intended that project treatments that are informed by the analysis and follow the guidelines in this document will result in no adverse effect to historic properties.

Executive Summary

The historic Da Cunha/Rapozo Ranch Dairy (Ranch A/B), located north of Sausalito, California is part of the Golden Gate National Recreation Area. Its ranch buildings are contributing features of the Da Cunha/Rapozo Ranch Dairy site, which is an historic property eligible to be listed on the National Register of Historic Places. The site is significant on a local level as an example of a rare surviving Azorean Portuguese dairy ranch in Marin County, California.

First owner of the property in the 1830s was William Richardson who owned almost 20,000 acres of coastal lands he named El Rancho Del Sausalito. In 1858, ownership changed to Samuel Throckmorton and later to the Tamalpais Land and Water Company (TL&W) in 1889. By 1898, ranch land parcels designated alphabetically on TL&W Company maps were sold, largely to the Azorean Portuguese residents who had been tenant-farming there already. The Da Cunha/Rapozo Ranch was listed as (Ranch A and) Ranch B on the TL&W Company maps, and was first purchased by Azorean Portuguese immigrants sometime between 1903 and 1906.

Ranch B’s building cluster was sited on a linear east-west axis that paralleled the natural topography, on a flat within a valley just north of a perennial stream between two prominent hillsides. The front facades of the main historic structures, which include the main residence, house barn, calf barn and main barn face toward each other to form a rudimentary central plaza. Parallel driveways provide access to these structures. A smaller plaza is formed by the rear of the main barn and the auxiliary residence. This closely spaced cluster ensured the functional efficiency of the dairy operation. The 1892 TL&W map shows two small parallel structures and several outbuildings on or near the present ranch site, but a comparison of the configuration shown in 1892 with present

aerial photos indicates few similarities. However the extant east portion of the main barn, though significantly altered, may date from close to this era, possibly as two parallel sheds joined by a high bay roof, housing a milking stable for the early dairy ranch. Hidden under wood and rubber flooring and behind modern partitions, the concrete mangers, feed alleys and gutters remain, hinting at that earlier use. The main residence, house barn, calf barn, main barn complex and auxiliary residence do not appear to have been moved, although the historical record indicates that the main residence is a replacement that was constructed circa 1935 in a nearby location but presumably with the same footprint. The central part of the main barn was rehabilitated in 2002 by the NPS and nothing remains of historic building fabric. But despite recent modifications to existing buildings, the addition of small stables buildings, temporary horse paddocks and riding arenas the dairy era structures contribute to the historical integrity of the dairy ranch. This report will examine all the major historic structures on the property.

The NPS has prepared this report both to document and to provide Rehabilitation treatment recommendations for the landscape and buildings, including the main barn, calf barn, house barn and auxiliary residence buildings. Secondary historical research has been conducted and historic photographs have been analyzed to prepare the buildings' overall developmental histories. Informal interviews of past and current tenants and NPS staff provided the history of the building's evolution just before and during the years of NPS stewardship. The report had to be compiled in a condensed timeframe due to a lack of resource documentation needed to support adaptive reuse concepts for the historic site that are included in the *Marin Headlands Equestrian Stables Plan Environmental Assessment*. The work of this report is concurrent with work to create a Cultural Landscape Report and Archeological Overview and Assessment for site resources.

The main barn, calf barn and auxiliary residence buildings, at the writing of this report, are currently used by the Miwok Livery Stables, which has operated a horse boarding facility on the site since 1983. Miwok Livery is currently under contract with the Miwok Stables Center, a nonprofit that formed in 1994 as a NPS partner. Miwok Center is currently operating the stables under a Special Use Permit with the NPS, allowing for continued use and maintenance of the buildings and the equestrian facilities on the site. As a working document, the purpose of this report is to address any proposed alterations as a Rehabilitation concept, evaluate their effectiveness at meeting the equestrian program needs without adverse effect on the building and site, and, where applicable, make recommendations for Rehabilitation of the buildings that are appropriate to the buildings and site and in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The main barn, calf barn, house barn, and auxiliary residence buildings need a small amount of maintenance in order that they present a uniform level of preservation. Equestrian use of the site has brought to light conflicting and competitive approaches to management of cultural and natural resources. At present, though thoroughly rusticated and aesthetically sympathetic to the landscape, the site is not easily recognized as a dairy ranch. The arrival experience presents an equestrian facility to NPS visitors.

Statement of Significance

The Da Cunha/Rapozo Ranch serves as testimony of the existence of the Portuguese Azorean rancher in Marin, especially as no early literature on these ranches was generated. Although all the owners, tenants, and, likely, laborers at the ranch from its construction until the 1960s were immigrants from the Azores, no material difference from other cultural groups local vernacular dairy ranch buildings is evident in ranch construction. Even if not physically evident, the vernacular buildings, within the relatively intact landscape, are, by all contextual accounts, typical for Portuguese Azorean dairy ranches. The modest residential buildings express the economies necessary when the primary asset was the herd. Distinctive cultural traditions are not obviously manifested in the ranch architecture, except that they represent the resilience and self-sufficiency acknowledged as sustained by familial connections and cultural identity.

With the loss of dozens of similar properties, only this property and Ranch M (Golden Gate Dairy) at Muir Beach, survive to represent the Portuguese dairy ranching in southern Marin County that was a foundation for today's California dairy industry. The Da Cunha/Rapozo Ranch appears to be the older of the two by several years and best represents the connection of the multiple generations of one family that characterized some of these ranches. The Da Cunha/Rapozo Ranch also best represents such dairy ranches in relationship to the local terrain, with stream courses, meadows for close pasturage, steep hillsides used for upper pastures, and the dramatic windbreak tree rows. Though the current horse stabling operations bear little relationship to the historic dairying practices, comparison to historic record indicate little change in the large scale agricultural land uses or in the arrangement of the barnyard cluster. Although the Da Cunha/Rapozo Ranch has undergone a series of changes since it was built in the 1880s, the serial constructions and alterations provide evidence of the changes typical of a small-scale dairy ranch. Those modifications that occurred after the 1920s, when Marin and Sonoma Counties no longer constituted the predominant dairy region, still possess significance by representing the continuity of dairying with subsequent generations of Azorean Portuguese owners and tenants. A period of significance of 1903 to 1955 thus demonstrates the persistence, frugality and hard work that enabled this group to succeed. It also captures the entire time period of the dairying industry in southern Marin County, and addresses the story of the land in an uninterrupted fashion, despite the effects of suburban expansion and the conservation/parklands movement that indirectly resulted in the loss of similar dairy ranch compounds. In the 1903 to 1955 context the property retains integrity of feeling, association, setting, location and partial integrity of design materials and workmanship.

Administrative Data

Building name(s), Construction Date, Use and Layout:

Main Barn complex, Calf Barn (Auxiliary Stables), House Barn, Bunkhouse (Auxiliary Residence), Main Residence (Ranch House).

Date Determined Eligible for National Register: 4 March, 2008

Location: 701 Tennessee Valley Rd, Mill Valley, CA 94941

Acreage of ranch site: 517.69 Acres

Combined Square Footage of Buildings: 17,500

Property Owner: United States National Park Service, Golden Gate National Recreation Area, Fort Mason Building 201, San Francisco, California 94123

Proposed Treatment of Historic Structures: Rehabilitation by tenant for adaptive reuse as equestrian boarding and riding program offices and stables.

Proposed Preservation Treatment of Landscape: Preservation and rehabilitation in association with the adaptive use of the site for equestrian operations and related NPS use. **NOTE:** Future landscape and building stabilization efforts and preservation treatment actions shall be summarized and refer to this report as they occur, citing it where applicable. In no case shall construction occur without notification of the responsible agency. The Da Cunha Ranch buildings and features are protected by the Archaeological Resources Protection Act of 1979, as amended, and preservation actions are subject to review for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Historical Background and Context

The following was adapted, and greatly condensed, from Lissa McKee's 2006 *NRHP Nomination Form*:

Few records detail ranching history in western Marin County. The tenant dairy ranches in western Marin were largely invisible in public records during their tenancy periods. The tenant ranchers were Azorean Portuguese who settled the area in the 1880s. The area was part of the remnant of El Rancho Del Sausalito that was subdivided in 1898 by the Tamalpais Land and Water Company (TL&W). The Da Cunha Ranch was part of TL&W Subdivision Map 3, Lot D.

The tenant ranch appears on the TL&W map with two long (barn) buildings located in the vicinity of the present day indoor arena. The ranch was also delineated as extending beyond the new subdivision lines to utilize a large portion of the bottom land in that part of the Valley, a practice that evidently changed with the subdivision of the land. Oral histories of subsequent owners and tenants do not verify whether this area, now parts of Ranches C, F and G, continued to be used for any period under a lease arrangement after the "ranches" were purchased from the TL&W. The parcel Ranch B, which consisted of 170.05 acres, was purchased from the TL&W by Manuel Ferreira Da Cunha, though not until July 10, 1903, for \$12,150 in gold coin paid in hand.¹ If Da Cunha had been the tenant rancher on the property, as family tradition indicates, the delay in acquiring title was perhaps due to differences between Da Cunha and his landlords at the Throckmorton ranch. Nevertheless, on November 1, 1905 Da Cunha expanded his holdings to the east when he acquired a portion of Ranch A, consisting of 247.68 acres.²

Da Cunha, also known as Manuel Ferreira and Manuel de Cunha, was in Marin County as early as 1880. Born about 1849 he emigrated from the island of San Jorge (Saint George) in the Azores. His obituary in the Saucelito (sic) News, Saturday August 4th, 1917 stated:

“PIONEER CALLED - Manuel F. Cunha (Cunha), a pioneer of Marin County for over forty years, and a father in law of M. J. Leal, died at his home in Tennessee Valley on Monday and his remains laid away in Fernwood Cemetery. He was a native of the Azore Islands. He is survived by a widow and four children, John, Manuel and Joseph Cunha and Mrs. M. J. Leal. He had a very close call to being tried for the murder of Henry Severance, foreman of the Throckmorton ranch. He was arrested and through the confession of the Chinese cook confessing to the murder, an innocent man was saved from being tried and possibly executed for murder on circumstantial evidence. He has always been an upright and good citizen of the community. The funeral was conducted by Stephen Eden of San Rafael.” (Note: the murdered man was apparently named Charles W. Severance and the murderer committed suicide by hanging himself in jail on the day of the funeral in 1880).³

There is little record on the early years of the ranch. However, a November 1928 mortgage on Ranch B arranged by his son John Ferreira De Cunha and John's wife Louise indicated that the assets by that time included one hundred milk cows, two bulls, thirty heifers, two horses, sixteen yearlings, one automobile truck, unspecified ranch implements, hay and other crops.⁴ A September 1929 mortgage by John Da Cunha to the Bank of San Rafael identified fifty-four milk cows, eight yearling, fourteen calves and two bulls. He also mortgaged again the larger holdings for another year to the 1st National Bank.⁵ He arranged for subsequent one year mortgages in 1930 and 1934. These mortgages may have been necessitated to survive the Depression. They may have also been a strategy to leverage the Da Cunha property as they expanded their holdings. Unlike many of their ranching neighbors, the Da Cunha family does not appear to have benefited from the investments of partners who were not family members.

The Marin County Assessment completed circa 1928 provides detail on the ranch at that time. The owners of Ranch A/ B were identified as Manuel Ferreira Da Cunha's wife Bella, also known as Isabella, Da Cunha et al. Their holdings in Tennessee Valley consisted of 517.69 acres Ranch A, excluding the Oakwood Valley Tract, and 270.05 acres in Ranch B. The real estate value was assessed as \$17,000 and the improvements were valued at \$1,300. These included a thirty-three by twenty-four foot main dwelling estimated as being two years old and described as single story, hip-roofed and containing four rooms and a bathroom. A ten by ten foot shed was located to the rear. There was also a thirty by twenty-eight foot dwelling with a five foot deep porch, a hip roof, a wood foundation and a dormer. A one story sixty-six by sixty-two foot milking barn, presumed to have been built in 1920, was described as including board and batten siding, a shingle-clad gable roof, and a concrete foundation. Other dairy buildings included a fourteen by twenty-two foot bunkhouse, a twelve by thirty-three foot separator house, a thirty-six by

thirty-six foot barn, a fifty-two by one hundred thirty-two foot feed barn with a gable roof and a wood foundation, and a twenty-four by twenty foot stable and auto building. Though not noted in the assessment records, the eucalyptus windbreaks planted along the creek at the west end of the compound were undoubtedly established by this time, along with windbreaks following Elk Creek on adjacent the Ranch C. Subsequent changes under Da Cunha ownership included the replacement of the main dwelling, after it burned down around 1935. The Cunha sons and a hired man brought wood from two houses they purchased for parts and constructed the house near the current paddocks.⁶ An oral history of a Cunha family member provides some information on the operation of the ranch. In the 1920s and 1930s the Cunha Dairy delivered milk locally, by driving a route around Sausalito by horse and wagon with milk in ten gallon cans, as well as hauled it to a milk stop “platform” where the Marin Dell trucks picked up the cans to transport them to the San Francisco creamery. The road to Tennessee Valley was just dirt in those days with the portion south from Tamalpais Junction skirting the marsh and often impassable in the winter. They regularly had to use a horse team to pull the truck carrying the milk through the mud. They worked without hired help, which they could not afford. They acquired electricity by this period and thus a refrigeration system. They also purchased milking machines. The process now involved four buckets and milking two cows at a time each. This meant that eight cows were milked at the same time. They would then dump the milk in the four buckets and carry it to the milk house where the cooling system was located. When the wind knocked the lines down, they ran the milking machines by connecting to a belt they put around the wheel of the Model T Ford.

They operated the Tennessee Valley ranch “in division.” This meant that they ran the dry cattle and young cattle on the back ranch. The milk cows would be on a separate ranch. In the spring when the grass was green they would pasture out the cows. The rest of the year they would feed them “at home.” They grew feed hay on their holdings in Oakwood Valley (referred to at the time as Bear Valley). They also cut wood there for fuel to sterilize the milking equipment. They had sufficient spring water (though a tenant in the 1950s was interviewed as saying there was a water problem), but not enough ground to farm in Tennessee Valley. A family member has noted that their holdings in Tennessee Valley were not spread out like the land around Point Reyes. They farmed in Bear Valley and behind the Da Cunha ranch house using a side-hill plow. They would grow hay there, cut and shock the hay, pull it by horse to the barn where they would move it with a suspended track. They also raised some corn as feed for the cattle.⁷

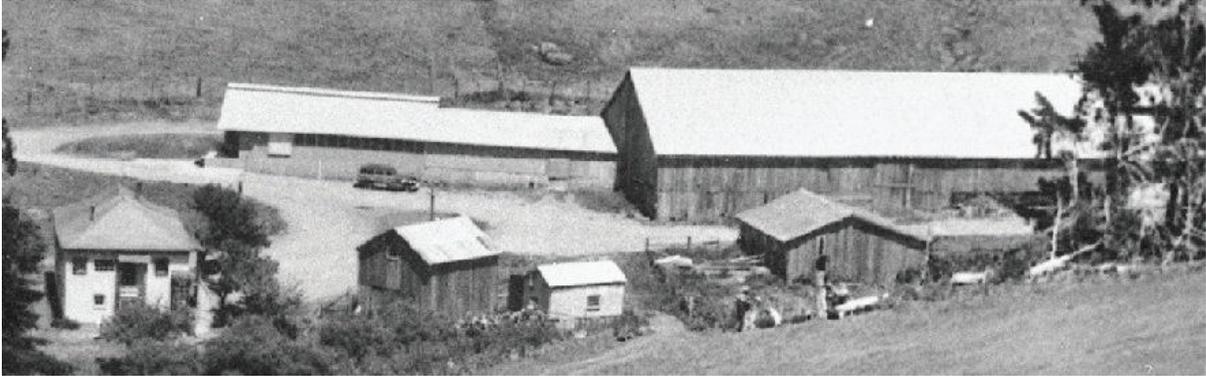
The Cunhas were surrounded on all sides by other dairy ranches operated by Azorean Portuguese immigrants. Although each ranch was isolated by the terrain and the consuming schedule of the ranch, they were linked by the trails and roads that appear on the 1886 US Coast and Geodetic Survey map and exist today. Oral sources indicate that ranch employees and tenants would work at different properties over time and, on occasion, ranch hands married into ranching families. Thus, despite the characterization that the ranches were self-sufficient and somewhat insular, they were simultaneously connected to an extensive community.

Ranchers also expanded their own holdings when feasible. Manuel's son John Da Cunha eventually ran another family ranch on some 200 acres four miles north west of Tennessee Valley in the Alto area (now a subdivision divided by Highway 101). The family also ran a dairy at Tunnel Ranch, which was leased land near the Alto property. A series of deeds of trust from 1928 into the 1939 between John Da Cunha and his parents and siblings (Joseph Da Cunha and Mary Da Cunha Leal) served as a mechanism to protect the other family members and their heirs from the debt that was carried most of the decade on the Tennessee Valley property. After they sold the Ranch A/B property in Tennessee Valley in 1945 they consolidated their holdings with a 2,500 acre ranch near San Rafael at what is now the Peacock Gap subdivision. In October 1955 the Cunha family sold the ranch near San Rafael and quit the dairy business. When they sold out in they had 410 head of cattle.

John Rapozo, also of Portuguese descent, bought Ranch A/B in 1945, reportedly for \$25,000.⁸ His tenants from 1947 onward were his in-laws, Manuel and Laura Lopes, who had been ranching the Sequeira property down-valley since 1941. Before that they had dairy-ranched in Arcata until the property-owner sold the land. Manuel was raised in the Azores and Laura's parents were born there. At the Cunha Ranch, as it was still called during this period, the Lopes and Rapozo either dismantled or moved the older house that was under the trees, according to later interviews with Laura Lopes. The Lopes' and Rapozos also upgraded the barn, rebuilding it as a walk-through. The bunk houses were remembered as having burned down in the 1960s.

The Lopes' were challenged by the limitations of the property. They had problems with the water supply, thought the pipes from the natural springs were obstructed by corrosion, and had to purchase water from Sausalito. They did not grow hay, as it was quickly ruined by mold. Therefore each year they took on debt by purchasing hay for all but two months of the year when there was sufficient grass. They had one hundred and twenty-five head of young stock, with ninety-three milking cows, primarily Holsteins with one third of the herd being Guernseys and Jerseys, in order to produce milk with the requisite low fat content. Driving the cows down from the hills with "cow dogs" (Australian shepherds), they milked at 2 AM and 2 PM. The Lopes generally had one or two hired men, as it took one man to milk three cows with the advent of milking machines. Milk was picked up at 6 PM on the highway.

They did not raise chickens because of the sanitary regulations, but did tend a truck garden of potatoes, fava beans, peas, kale and cabbage, which was lost when Rapozo first rented the property as a stable and constructed the paddocks. They kept three horses in the stable building. One was used for plowing and one was ridden for fence repair, necessary to contain cows. For instance, the Lopes' bull once wandered over the ridge to the west into Green Gulch, where it was injured with pitchforks when the ranch hands there tried to corral it.



Rapozo Ranch ca. 1940, Buildings in foreground from left to right are Main Residence, House Barn/Garage, Shed, Calving Barn, Main Barn Complex above – (PARC Photo)

Ranch A/B no longer operated as a dairy by the 1960s, although the pastures were probably used under a lease with the tenants on the adjacent Ranch C/D where a dairy operated into early 1970. When creameries switched to 2,000 gallon refrigerated stainless steel tank trucking, they dropped the smaller dairies from their route. It became too much trouble and expense to collect from the relatively small producers on winding backroads.⁹ The ranch land then nearly became a residential subdivision. When Rapozo sold 162.6 acres on October 15, 1963 to Gulf Oil, he withheld a 16.98 acre parcel where the ranch/stable was (and is still) located.¹⁰ Other deeds between Rapozo and Gulf Oil were recorded April 20, 1964 and July 19, 1966 completed the transfer of his property. Gulf Oil had purchased the property to augment holdings that were being planned for the massive Marincello subdivision. Before the plans were defeated by environmental activists, the developers constructed an entrance gate near the present Ranch entrance. With the creation of the Golden Gate National Recreation Area, the federal government acquired the Gulf Oil property and negotiated for the property that Rapozo had retained.¹¹ At some point during this period the Ranch A/B barns were leased as a horse stable. National Park Service appraisal files indicate that in 1973 Laura P. Lopes and daughter Diane Lopes were tenants there, along with Gretchen and Marty Stone who managed the stables.

Cunha Ranch, then referred to as the Tennessee Valley Stables, included the two extant houses, and barns, sheds, corrals, and fencing located essentially in the current footprint. The major buildings dated to period of Cunha family ownership. The larger barn was described at that time as one long structure built in three or four phases and in fair to poor condition. According to the appraisal:

“The western portion of this barn is an old milk house which is currently being used for dead storage and horse stalls. The walls and floors of this structure are constructed of reinforced concrete. The pitched roof is covered with galvanized steel panels...The milk shed is connected to the large barn by a passageway which is 14 feet wide. When the building previously described was used as a milk shed, cows were probably led from the large barn through this passageway to the milk shed. This passageway has subsequently been divided into three horse stalls, a short hallway, and a small storage room. The passageway is basically a wood frame structure built on a reinforced concrete floor with a corrugated steel,

pitched roof...The main portion of the barn was built in two sections. These sections are distinguished by the pitched roof on the west portion of the barn, and the monitor-type roof on the east portion. The west portion of the barn is used primarily for a covered riding ring with a dirt floor. Horse stalls are located on the north and south sides of this part of the barn. The east section of the barn is used for the storage of hay and for horse stalls.”¹²

Since that time tenants have further modified the barn, and added corrals and horse rings at the north end of the compound. The houses, particularly the one reportedly built in the 1930s from salvaged parts, are currently in fair condition. The setting has been somewhat altered with the addition of the Golden Gate National Recreation Area parking lot at the west boundary of the ranch.

Chronology of Development and Use

Year	Event	Description
1812-1841	Dairy Business	The Russian settlement at Fort Ross exports dairy products from California to Alaska
1828	Land Transfer	William Richardson applied for the Rancho Saucelito land grant.
ca. 1885	Construction	The ranch complex was built on what later was subdivided as Ranch B. The complex may have included the 30x28 foot dwelling characterized by a five-foot deep porch, hipped roof, wood foundation and a dormer that was mentioned in the ca. 1928 assessment.
1856	Land Transfer	Richardson died in debt, while Samuel Throckmorton negotiated ownership of the Rancho with Richardson’s heirs.
1887	Land Transfer	Throckmorton’s Marin County land holdings were acquired by banking interests who subsequently incorporated the land into the Tamalpais Land and Water Company.
1898	Land Subdivision	The Tamalpais Land and Water Company filed the Subdivision Map of alphabet ranches in southern Marin County
1899	Dairy Business	The first commercial creamery in California opens in Ferndale.
1900-1910	Dairy Business	Cooperative dairies and creameries begin in Southern California
1903	Land Transfer	Manuel Ferreira Da Cunha purchased a 170.05 acre portion of Ranch B.
1905	Land Transfer	Manuel Ferreira Da Cunha purchased a 247.68 acre portion of Ranch A.
1907	Dairy Business	Pasteurized milk becomes commercially practical
1919	Dairy Business	Dairy Council of California Formed
ca. 1920	Construction	Prior to 1928, the property included the following: a 33 x 24 foot single story, hipped-roof main dwelling estimated ca. 1926 as well as an older 28 x 30 foot dwelling, a 10 x 10 foot shed, and a one-

		story 66 x 62 foot milking barn ca. 1920, with board and batten siding, a shingle-clad gable roof, and a concrete foundation. Other dairy buildings included a 14 x 22 foot bunkhouse, a 12 x 33 foot separator house, a 36 x 36 foot barn, a 52 x 132 foot feed barn with a gable roof and a wood foundation, and a 24 x 24 foot stable and auto building.
1924	Dairy Business	USPHS developed the Standard Milk Ordinance, known today as the Pasteurized Milk Ordinance (PMO). This is a model regulation helping states and municipalities have an effective program to prevent milk borne disease.
1930-1935	Dairy Business	Homogenized milk becomes commercially practical
ca.1935	Construction	Replacement dwelling destroyed by fire. Construction of sanitary barn building
1945	Land Transfer	Cunha's heirs sold property to John Rapozo.
ca.1947	Construction	Grade A sanitary barn (now Offices & Stables) was constructed by Rapozo and Lopes.
ca. 1955	Horse Stables	Dairy buildings used for boarding horses
1963-1966	Land Transfer	Rapozo sequentially sold sections of the ranch to Gulf Oil.
ca. 1973	Land Transfer	The United States acquired Gulf Oil/Marincello holdings and final Rapozo rights to the remaining land parcel.
1973	NPS	NPS Appraisal
ca. 1976	MVA	Miwok Valley Association boarding horses on the site through a special use permit with the NPS
1983	MLS	Miwok Livery Stables began offering riding programs and boarding horses
1985	Construction	MLS rebuilds the north side of the main barn complex and adds 9 horse stalls still extant
ca. 1992	Construction	MLS stabilized the main barn complex
1999	MSC	Miwok Stables Center formed as non-profit support partner of the NPS
2002	Construction	Milking barn rebuilt as indoor riding arena by NPS
2002	Construction	MLS replaced the north wall galvanized steel of the milk house shed addition with wood board and batten siding
2005	Construction	NPS and MLS install storm drain system and re-grade roadways
2009	Construction	MLS replaces stairs, repairs windows, paints and stabilizes the main residence
2011	Construction	NPS uses volunteers from Chico State University to stabilize the Red Barn building

¹ Recorders Book 82, pages 250-252.

² Recorders Book 97, pages 31-33.

³ See <http://www.findagrave.com> under memorial #71527487.

⁴ Recorders Book 158, pages 471-472.

⁵ Recorders Book 179, page 437; Recordors Deed Book 179, pages 441-442.

⁶ Cunha 1994 interview and Poole 1995 interview.

⁷ Cunha 1994 interview.

⁸ John Furtado Rapozo and Rosa Veira Rapozo died in 1992 and 1991, respectively, and thus could not be interviewed for this study. However, according to the California Death Index, Rosa or Rose's maiden name was Lopes. Furthermore, her mother's maiden name was Bettencourt. Rosa was also not born in the United States. All these details warrant further research if possible.

⁹ Cassius E. Poole conversation August 13, 2005.

¹⁰ There exist some minor discrepancies about the exact size of the withheld parcel as represented in NPS appraisal records, assessors maps and recorded deeds. Ranches A and B underwent a series of subdivisions between the 1950s and the 1980s, presumably by Rapozo as he sold off the ranch and later as the federal government negotiated to acquire each sub-area based on its appraised value.

¹¹ Records Book 2861, page 168.

¹² Rapozo Appraisal Files.

**Tennessee Valley Stables
(Cunha/Rapozo Ranch, Ranch A/B)**

Cultural Landscape Report

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Cultural Landscape Report

Tennessee Valley Stables

(Cuhna/Rapozo Dairy Ranch, Ranch A/B)

Golden Gate National Recreation Area

Marin County, California

Introduction

Management Summary

Contributing landscape features located within the boundaries of Ranch A/B (Tennessee Valley stables) meet management criteria under Category B: Should be Preserved and Maintained. The landscape meets the necessary requirements for management under this category as a result of its compatibility with Golden Gate National Recreation Area's legislated significance and its continuing purpose or function that is appropriate to its traditional function or use.

Excerpted from the upcoming *General Management Plan*:

Diverse Visitor Opportunities (Tennessee Valley trailhead and the upper stables area)

Trailhead site improvements, including potable water, restrooms, and an improved picnic and parking area, would enhance this “portal” to the park that supports hiking, biking, and equestrian activities. A small food and information kiosk could be included in this area.

In collaboration with Marin County and the community, park managers would explore transit to the trailhead on peak season weekends, extend a multiuse trail to connect with Oakwood Valley and the Mill Valley Bike Path (San Francisco Bay Trail), and manage traffic congestion.

Equestrian facilities would be retained and could be expanded while protecting the historic character of the former dairy ranch. Site improvements would be made to incorporate best management practices and protect the adjacent riparian area. The National Park Service would continue to work with equestrian operators to expand programs that benefit the public.

Modest facilities could be located within this zone that support stewardship, education, youth programs, and the park horse patrol relocated from lower Tennessee Valley.

Diverse Opportunities Zone (Oakwood Valley)

Visitor access improvements, including trailhead and parking, picnicking, and restrooms, would be provided in this zone to support access to the trail system.

Natural Zone (from the trailhead to the ocean and the surrounding uplands including Oakwood Valley)

The main multiuse trail would be enhanced to support family groups and improve accessibility.

All facilities and structures would be removed. Unnecessary management roads could be converted to trails and natural processes restored. Primitive group camping could be retained at Haypress and the Youth Conservation Corps seasonal group camp. All other existing functions could be accommodated closer to the trailhead.

The scenic hills that surround the main trail corridor and trailhead would be managed to preserve and enhance the expanse of undeveloped coastal habitat, outstanding natural features, and the scenic beauty of a large contiguous natural area extending to the north and south. An improved, more sustainable trail system would provide access to the variety of settings. The remaining dams and artificial ponds would be removed. Native wetland and riparian habitat would be restored in these areas.

Scope of Work and Methodology

This document relies on the scholarship of existing documents, namely the 2007 Determination of Eligibility, which received SHPO concurrence September 17, 2008, and the Cultural Landscape Inventory which was signed by the park superintendent on September 23, 2008. Limited historic research was conducted to complete this effort. The front matter for this report includes site history information. The contents of the Treatment Recommendations are influenced by the final action alternative for the area contained in the *Marin Equestrian Stables Plan and Environmental Assessment* of 2011.

Study Boundaries

The analysis and treatment is focused on the developed ranch zone which contains the majority of the resources in the Area of Potential Effect. The Area of Potential Effect, as defined by the *Marin Equestrian Stables Plan* consists of the entire boundaries of historic Ranch A/B.

Summary of Findings

Though it has not formally been entered, Ranch A/B, or the Miwok Stables, has been determined eligible for the National Register at the local level as a rare surviving Azorean Portuguese dairy in Marin County. It is a vernacular landscape comprised of a range of contributing resources and possesses a high level of integrity. Ranch A/B (Miwok Stables) was a small scale family-owned dairy that was operated between 1903 and 1955 by a series of Azorean Portuguese companies and families. Located within Golden Gate National Recreation Area in southern Marin County, California, the 270-acre property today consists of a cluster of buildings and structures, both historic and non-historic, arranged around a central open area, as well as the pasture lands used for grazing and trails used to move the cows.

The extant contributing resources include five buildings (one containing multiple components). The building cluster is composed of the Main Residence (TV-101), Auxiliary Residence (TV-102), House Barn/Garage (TV-106), Auxiliary Stable (TV-107) and the main barn complex (TV-

103, TV-105 and TV-109). Contributing historic circulation features include the Ranch Entrance Road, the Internal Ranch Complex Road, the Pasture Access Road, Concrete Alley and the Old Springs Trail, which was used by ranchers to access the steep pasture lands and move the cows in for milking. Windbreaks composed of cypress and eucalyptus trees and redwood post and barb wire fencing also contribute to the character of the ranch.

The landscape characteristics that define the character of the ranch include spatial organization, natural systems and features, vegetation, circulation, cluster arrangement, small scale features, buildings and structures, and archeological sites. Collectively, these landscape characteristics help convey the overall design and function of the ranch and their association with early twentieth century dairy farming on the Marin Peninsula.

Existing Conditions

The 270-acre Ranch A/B (Tennessee Valley stables) is located within the boundaries of Golden Gate National Recreation Area in the Marin Headlands along Tennessee Valley Road, south of Tamalpais Valley. The ranch's physical boundary is defined by natural features such as ridgelines and streambeds, road alignments and surrounding ranch boundaries. Strategically located in a rural natural setting near the head of Tennessee Valley, the ranch complex is hidden at the head of a draw behind flanking hillsides and windbreaks.

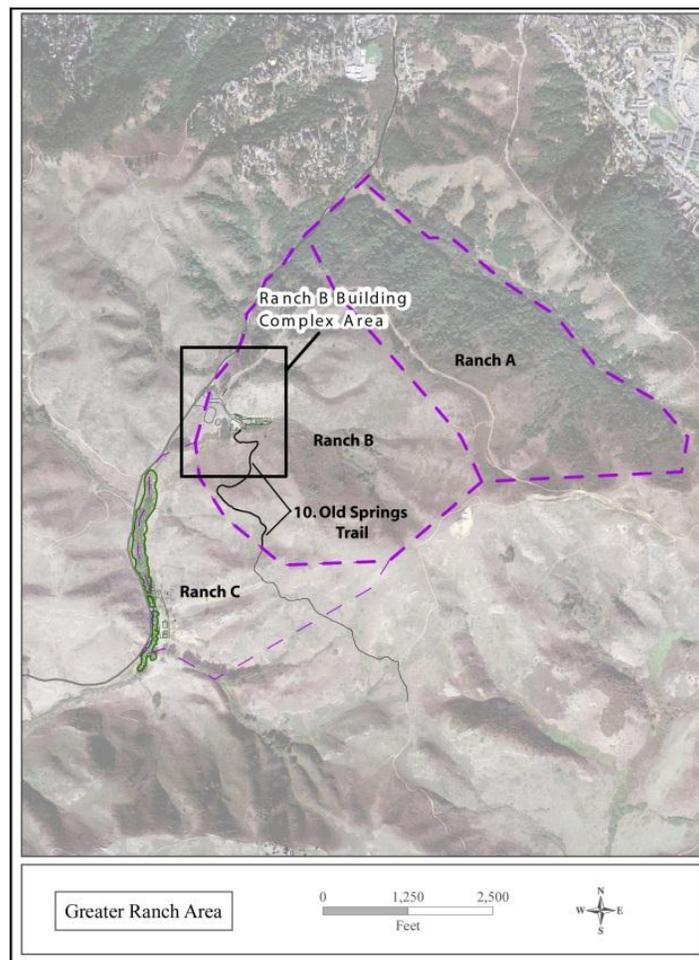
Serving as a small scale family-owned dairy, Ranch A/B was operated between 1903 and 1955 by a series of Azorean Portuguese companies and families. The settlers came in a wave of European immigration during the late nineteenth and early twentieth centuries, and generally settled as tenants on the subdivided ranches, including Ranch A/B. The Azorean Portuguese came from an agrarian society with poor economic conditions and were particularly adept at subsistence agriculture in rugged terrain as a result of their history in the Azores. Their heritage required frugality, hard work and communal cooperation to survive. The land in southern Marin County was unsuitable for market gardening, which occupied many Azorean Portuguese in the eastern and southern San Francisco Bay counties, although it offered opportunities for successful dairying, particularly attracting Azoreans from islands such as San Jorge with dairying traditions.

The collection of buildings was constructed in close proximity to each other for efficiency of dairy activities and to take advantage of the naturally occurring level terrace. Residences were located on the extreme edges of the development east and west, with the more operational structures located between. The alignment and relatively large open spaces between the buildings suggests a rudimentary central square. Historic photos reveal very little in the way of ornamentation between the buildings, and in fact, suggest that the area was kept open and free from vegetation probably through a constant movement of cows or machinery that compacted the earth. Situated between rolling, open hillsides and adjacent to a perennial stream, the buildings were somewhat enclosed by windbreaks that were planted to form the southern edge and western edge.

The Ranch Entry Road, connected to Tennessee Valley Road, was a gentle curve that approached the building core from the northwest. The Internal Ranch Road provided access between the buildings and seems to have occupied most of the space between the buildings within the core.

A Concrete Alley was located along the north edge of the building complex, providing access into the Sanitary Barn. The Pasture Access Road was a north spur off of the Ranch Entry Road which, as the name implies, provided vehicular access to the north pasturelands. The Old Springs Trail traveled southward from the core, crossing the stream just east of the House Barn. Fences crisscrossed the open hillsides above the buildings, which were otherwise free from structures.

Conditions today at Ranch A/B are quite similar to historic, and the several decades long use as an equestrian center remains compatible livestock husbandry, so that most of the character defining features are intact and legible in the landscape. Additions, such as white painted fences and riding rings, detract from the arrival sequence into the Ranch proper and new features within the core compromise the historic character. The windbreak is suffering from lack of maintenance and advanced age. The introduction of paddocks along the western windbreak has caused compaction to the soil around the root systems, potentially accelerating the decline of those trees. Fences have deteriorated, their usefulness having elapsed with the cessation of the dairy herd. The historic character of the ranch is intact, however, due to the remaining features and landscape characteristics that have persisted since the end of the period of significance.



Ranch A/B is located at the head of a long, narrow draw.

Analysis and Evaluation of Landscape Characteristics

The evaluation of cultural landscape characteristics is documented in the Cultural Landscapes Inventory (CLI) for Ranch A/B. Portions of the following evaluation are excerpted from the CLI, and are supplemented with additional information based on research conducted for this report. The focus of the analysis and evaluation is on the cultural landscape characteristics and features that support treatment recommendations informed by anticipated impacts from improving the site as a sustainable and economically feasible equestrian operation as described in the *Marin Equestrian Stables Plan* of 2011.

Landscape characteristics that contribute to the vernacular landscape of Ranch A/B are described in the following sections:

- **Natural Systems and Features** - Describes the response of the development to the conditions of the environment including topography, water, and native vegetation.
- **Spatial Organization** - Describes the relationship between site features.
- **Cluster Arrangement** - Describes the arrangement of buildings in relation to each other.
- **Buildings and Structures** - Describes the structures as an expression of a vernacular architectural style.
- **Circulation** - Describes the designed systems that allow movement through the dairy, connecting to adjacent areas.
- **Small Scale Features** - Describes the collection of features that remain in the landscape.
- **Vegetation** - Describes the overall character of the planted windbreaks and domestic plantings.
- **Archeology** - Both pre-historic and historic archeological remains are known to be on the property.

For each of these characteristics, the physical integrity is documented and evaluated in order to identify the landscape features and attributes that contribute to the significance of Ranch A/B and define its historic character. While Archeology is also considered a landscape characteristic that contributes to the historic character of Ranch A/B, no archeology-specific evaluations or treatment recommendations are made in this CLR. Please refer to the Archeological Assessment and Treatment Report included in this set of cultural resource reports.

Natural Systems and Features

The southern part of the Marin County peninsula is dominated by the steep slopes of 2,571-foot Mount Tamalpais, from which streams fall down canyons, depositing deep sediment on the lowlands and salt marshes before meeting the rough waves of the Pacific on the west and gentler tides of San Francisco Bay on the east. The land's predominant rocks are sedimentary, the result of layers of material that formed on the bottom of the shallow sea that once covered the Bay Area and with heat and pressure fused into an assemblage of chert, sandstone, shale and serpentine. On ridges and seaward slopes, only grasses, low shrubs, and lichen grow, while small trees are confined to leeward slopes and hollows. Here, the open coastal exposure produces frequent wind and foggy conditions characterized by dry, hot summers and wet, cool winters. The native plant communities present when the dairy ranches developed included

Coastal Prairie Grasslands and Coastal Scrub. The Prairie Grassland communities were especially attractive to ranch prospectors because they required little effort for conversion to grazing without the need to remove thick vegetation or forested over story.

In this area, ranch complexes developed near water sources and in the limited flat lands associated with floodplains and meadows. Significantly, the flat lands provided building sites and farm field locations, while adjacent rugged terrain limited access and development on all of the ranches in the area. Early ranch occupants did not have the means or machinery to manipulate the topography to any degree, therefore, the size of ranch improvements, location of structures and other constructed features was dictated by the shortage of flat land available on most ranches. Remote acreage and hillsides were devoted to grazing for dry dairy cows and some beef cattle. Ranches developed as dairy operations at different times, with those having adequate flat useable land and/or better access developing first. Ranch boundaries were laid out on geographic and natural features, ridgelines, along streambeds, and roadways, creating an “organic” division of property.

Ranch A/B was settled in 1903 by immigrants from the Azorean archipelago, an area characterized by rugged volcanic islands, which benefits from a temperate climate, but is subject to severe marine winds similar to the Marin County coast. Constructed in the 1880s adjacent to a small perennial spring, and purchased by the Cunha family in 1903, the Ranch B complex is surrounded on the north, east and west by steep hillsides, which effectively shields the buildings from view, except from the south. The south exposure fronts on the largest flat land area in the Tennessee Valley that merges with Haypress Meadow and the northern portions of Ranch C. The 1892 TL&W ranch division map depicts this meadow complex as a pre-existing pasture as well as planted farmland. Its perimeter was fenced across ranch boundaries and jointly shared by Ranches B, C, F and G, proving communal use by unnamed tenants of the limited flat land for agricultural crops. Following the subdivision of the valley, the hillsides to the south and east were likely used more intensively for remote grazing.

Throughout the dairy ranching period, pasture rangeland was the primary vegetative feature. This served as a functional, utilitarian part of the working dairy operation and also created a low-profile ground cover that defined portions of the open character of the Ranch A/B landscape. The conversion of the land to a dairy ranch altered the native annual grasses and scrub vegetation and those that supported and withstood cattle grazing survived. The native grasses were thinned by the compaction of soil by cattle and accumulated overgrazing.

With the reduction and elimination of grazing in the last several decades, meadows and hillsides have tended towards vegetative succession with a mixture of native plant communities such as coyote brush/sword fern scrub and coastal sage/coyote brush as well as exotics such as annual grasses, fennel, poison hemlock and Pampas grass. The general appearance of seasonally green, then brown, low-lying vegetation is similar to dairy pasturage. Monterey pine, cypress, and eucalyptus are reseeding and changing the original location and configuration of vegetative cover to a limited degree. The topography of the site and the stream remain unchanged.

The minor changes in vegetation types does not compromise the integrity of the response to natural systems and features and it is a landscape characteristic that contributes to the significance of Ranch A/B and helps defines its historic character.



This photo from 1974, about twenty years after the dairy operation had ceased, shows the beginnings of succession in vegetation from grassland to scrub.

Spatial Organization

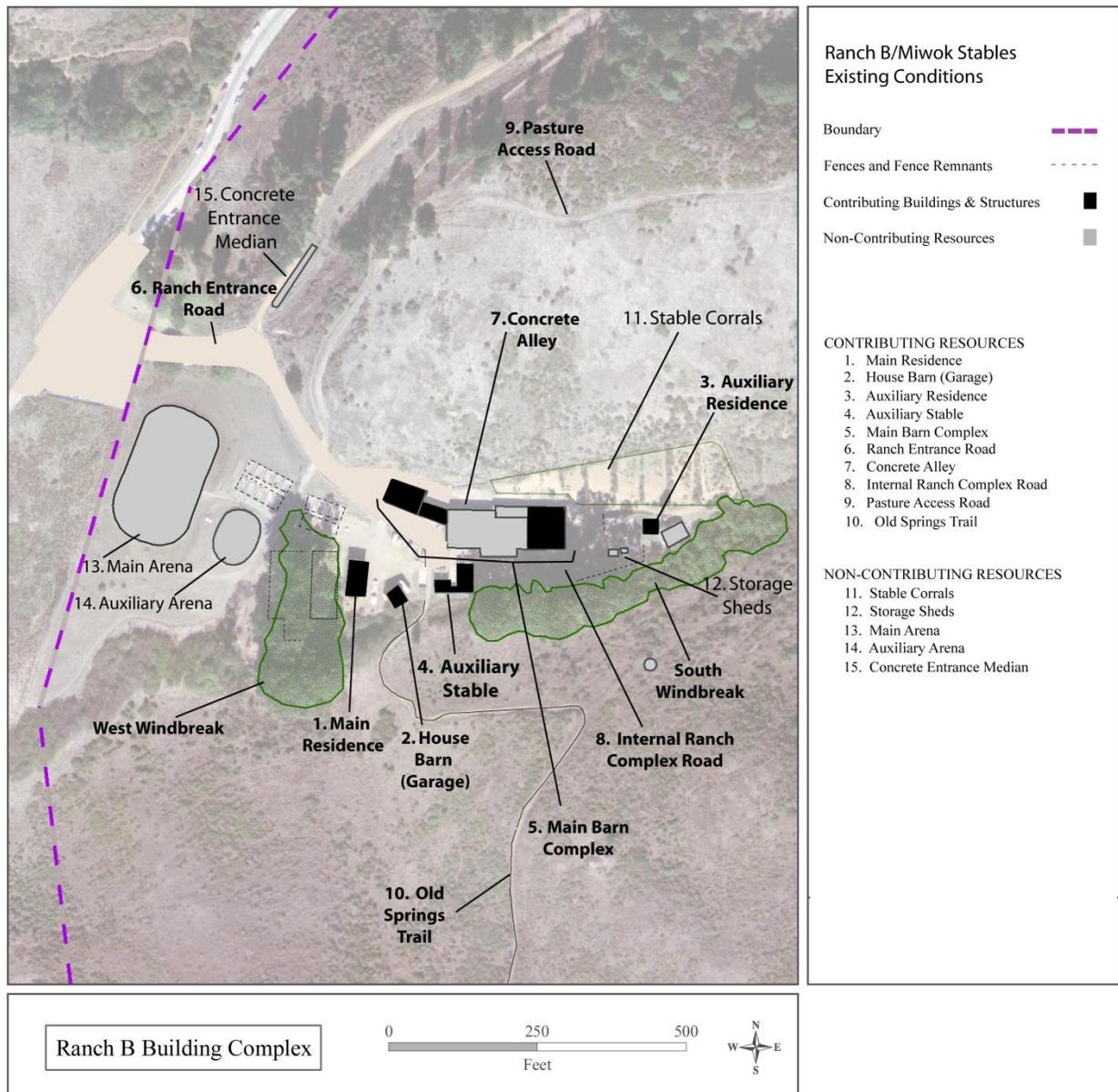
Spatial organization is the three-dimensional arrangement of physical form and visual associations of a landscape that result from the sum of its components. The agricultural landscape associated with the southern Marin County ranches evolved into specific patterns that were influenced by topography, watercourses, circulation, boundary lines and other factors.

The slopes above Ranch A/B were, and are, relatively treeless, with low coastal scrub cover or grasslands. Historically, continued grazing activities maintained their open quality with expansive views and vistas. Buildings were tightly clustered near the flat bottomlands associated with drainages. Bound by windbreaks to the south and west, the buildings were closely sited along an east west axis that took advantage of the available flat land as well as the need for efficiencies in the dairy operation. Circulation systems, including an unpaved automobile road and a concrete alley for moving the dairy herd, flanked the Sanitary, Feed and Hay Barns. Residences were located at the extreme edges of the building complex and watertanks were located on the adjacent hillsides.

Associated with the spatial organization of the site, scattered remnants of redwood fence posts with attached barb wire are located throughout the Tennessee Valley. While it is clear that the fences marked land divisions, no distinct uniform pattern remains to illustrate these divisions. Universally important to control cattle, these fences may also be associated with the communal fencing of agricultural fields and pastures of the tenant period of the ranching era. Regardless, the subdivision of the Rancho in the 1890's into discrete parcels or ranches remains most visible on present day assessor's parcel maps, while on the terrain, natural features such as tree lines, ridgelines as well as road alignments are the most prominent elements marking the historic spatial limits of the ranch.

The Tennessee Valley remains as an agricultural landscape preserving the setting of Ranch A/B. The ranch's spatial relationships have remained the same throughout its history first as a dairy, and later as an equestrian operation. As a result of changing needs, however, the ranch complex has undergone an intensive expansion of its operational footprint to accommodate a large horse stable and riding program operation.

Ranch A/B's spatial organization remains intact and processes a high degree of integrity. The primary change made to accommodate the modern use to an equestrian facility, includes the addition of riding rinks, paddocks and overhead canopies for paddocks, a mounting and grooming area, and storage. The modifications are minor, reversible and do not compromise the historic character.



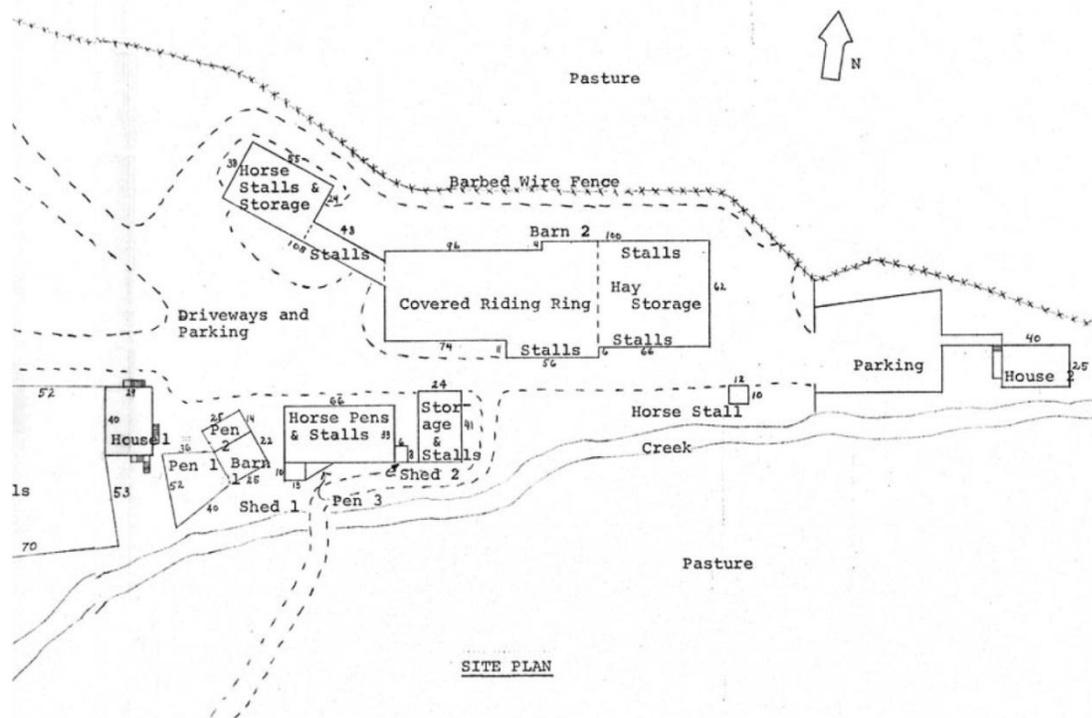
The spatial organization of Ranch A/B corresponds to both the east-west axis of the landform and the need for close proximity between operational functions.

Cluster Arrangement

The location and pattern of ranch buildings, structures and associated outdoor spaces lend character and uniqueness to the particular cultural setting. Most dairy operations were performed within a tight cluster, with milking, milk processing, feed storage, living quarters and equipment storage all in close proximity. Evening and early morning milking necessitated that milking barns and creameries be located in close proximity to quarters with holding corrals and pastures surrounding the main complex to ensure maximum efficiency of operation.

Efficiency of space and logical arrangement of the various elements of the dairy farm were essential in facilitating labor-intensive activities. The efficiency of work flow necessary to run a successful dairy is evident in the cluster arrangement of Ranch A/B. Building clusters are tight, with related facilities adjacent to one another. Cows were driven down from the surrounding pasture slopes to the main barn for milking. Essential facilities, such as the main barn, sanitary barn, and main house are located adjacent each other in a central area. The close proximity and the adjacency of structures reduced excess travel in the processing of the milk. Overall, the arrangement of Ranch A/B is a model of efficiency characteristic of dairy ranches in general and the ranches run by the Azorean Portuguese immigrants in particular.

Ranch A/B's building cluster was predominantly sited on a linear east-west axis that paralleled the natural topography between the adjacent hillside and perennial stream drainage channel. The front facades of the main historic structures, which include the Main Residence, auxiliary residence, house barn/garage, main barn and sanitary barn, face toward each other to form a rudimentary central square. Parallel driveways, one paved primarily for the dairy herd and one unpaved primarily for cars, provided access to the structures, while a smaller square was formed by the rear of the main barn and the auxiliary residence. This closely spaced cluster ensured the functional efficiency of the dairy operation. The 1892 TL&W map indicates dual parallel main barns with only one now remaining. The Main Residence, house barn/garage, main hay/milking barn, sanitary barn, and auxiliary residence are sited in their original locations and orientation, although, the Main Residence is a later replacement that was constructed in the 1930s on the same footprint. Also, the central part of the main barn was reconstructed in 2002. Despite modifications, the cluster arrangement of Ranch A/B possesses a high level of integrity, contributes to the significance of Ranch A/B and helps define its historic character.



This 1974 tax assessor map shows the cluster arrangement that remained intact from the dairy ranch era.

Buildings and Structures

The ranch's primary building cluster is comprised of five contributing buildings, which include the Main Residence, auxiliary residence, house barn/garage, auxiliary stable and the main barn, which is composed of several contributing components, including the hay barn, sanitary barn and the stable annex. Throughout the years, the Ranch A/B building complex has been subject to repeated repair and replacement over its long utilitarian history. According to an 1886 US Coast and Geodetic Survey map, three buildings, at least one presumably a residence and a corral were located in the core building area. By 1892, when the survey was conducted for the subsequent TL&W subdivision, two long barns and apparently four smaller buildings had been expanded or replaced in essentially the same location. Today, there is no clear evidence that any remnant of these early structures survive, all of which predated the Cunha family ownership.

In 1903, Manuel Ferreira Da Cunha purchased Ranch A/B. It is likely that the house barn/garage was added to the complex around this time, if it did not already exist. Based on its characteristics, the small residence, still extant at the rear of the property, was likely constructed in the following decade. In approximately 1920, a milking barn was constructed that is today the hay storage portion of the main barn complex. During the same period, the Cunhas built a 36 x 36 foot calving barn, half of which

still survives as an auxiliary stable. They also constructed a feed barn, which was replaced in 2002 according to the same dimensions.

The Main Residence, constructed circa 1926, which replaced a building that predated Cunha ownership, was destroyed by fire and replaced ca. 1935 by the existing two-story hip roof building. The sanitary barn and auxiliary barn that are part of the main barn complex are also likely to have been constructed during this period. Additional buildings, which were constructed during the period of significance but are no longer extant, may have served similar housing and dairy production roles. These buildings included the bunk house and feed barn recorded in a 1928 property assessment.

Contributing buildings and structures include:

Main Residence (Lopes House) TV-101 (built 1935)

The Main Residence is a 50 x 24 foot wood-frame, two-story structure with horizontal redwood drop board siding underneath asbestos shingles. It has a hip roof with composition shingles and rests on concrete foundations. This structure replaced a 1926 building, which was destroyed by fire ca. 1935. Today, the residence is vacant.

House Barn (Garage/Red Barn) TV-106 (built pre-1928)

The building is a 24 x 20 foot, two-story wood-frame structure, clad in vertical redwood board siding with an open interior and loft. It has a corrugated metal roof and concrete pier and perimeter foundations. The house barn/garage likely served as the horse stable and then later as an auto barn for the Main Residence. The barn was substantially rehabilitated in 2011.

Bunkhouse (Auxiliary Residence) TV-102 (built pre-1928)

This satellite building, located behind the main barn complex is a 28 by 40 foot one-story wood-frame structure with painted clapboard siding and a composition shingle hip roof. It has a covered front porch and its foundation is composed of concrete pier footings. A more recent shed-roofed extension has been added at the rear. Today, the building is occupied as a residence by the equestrian center's manager.

Calf Barn (Auxiliary Stable) TV-107 (built at an unknown date)

This 18 x 36 foot structure is half of what was historically a larger calf barn dating from the dairy era. The calf barn, visible in 1950s era photographs, appears to have been partially demolished and the remainder converted into horse stalls. The remaining portions of the building has board and batten wood siding on wood-framing, a corrugated metal shed roof and wood foundations. In addition, an 8 x 24 foot wood-frame storage unit has been added to the eastern side.

Main Barn Complex

The main barn complex is one structure with three distinct components that were constructed

at different times. It should be noted that the central feed barn (built 1928) portion of the main barn complex was reconstructed in 2002 and does not contain historic material. Today, the non-contributing structure serves as an indoor horse arena.

a) Milking Barn (Hay Barn & Stables) TV-103 (built 1920)

This 62 x 66 foot eastern portion of the main barn complex served as the milking barn in the first part of the dairy era. It is a multi-story wood-frame building with original vertical board siding on a perimeter concrete foundation. This portion of the complex has a corrugated-metal roof, linked to the pitched corrugated metal roof on the remaining building sections. Today, it is utilized as a feed and equipment storage area for the stable operation.

b) Milk House (Office & Stables) TV-105 (built at an unknown date)

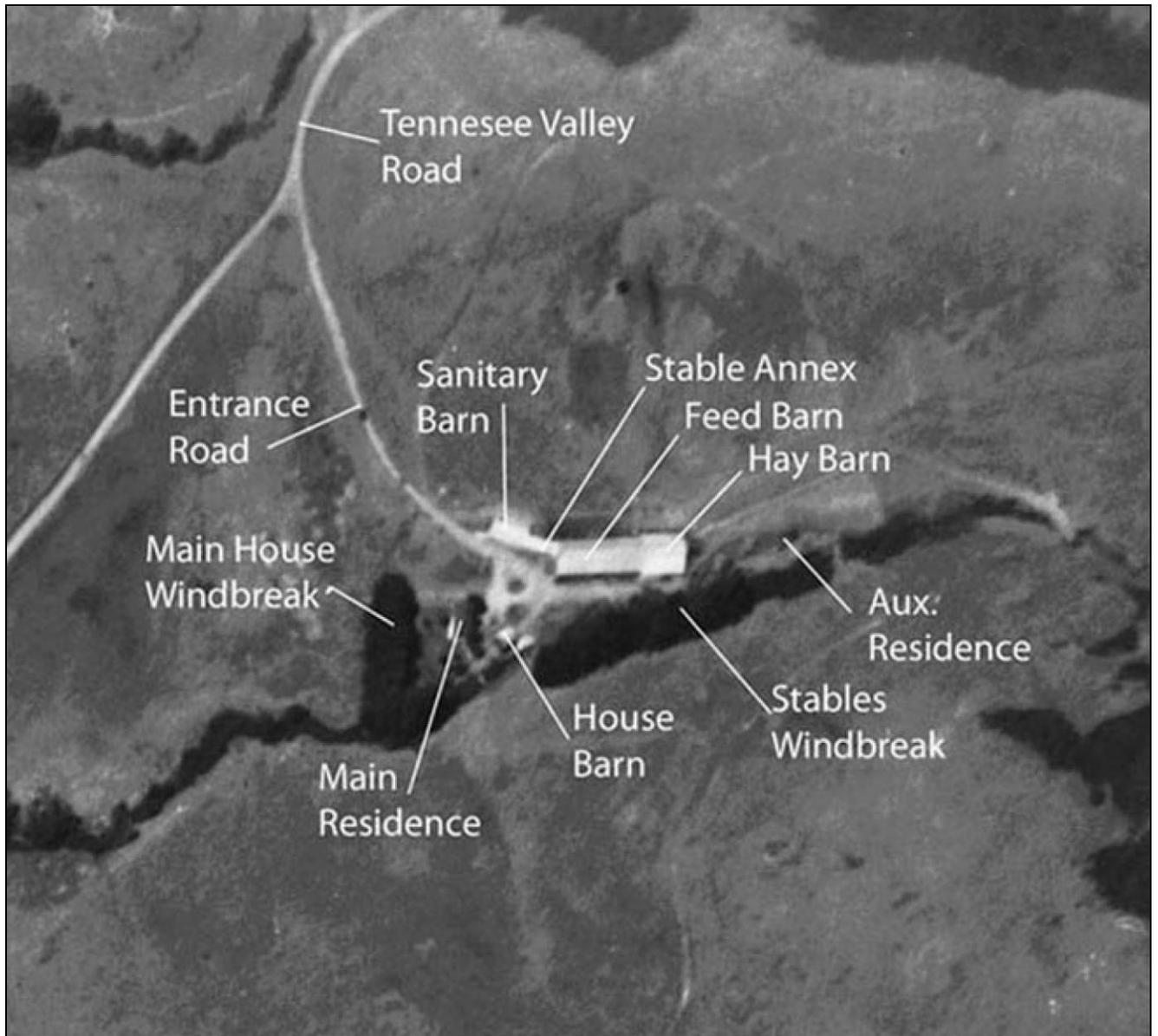
This 38 x 56 foot structure is positioned on the western portion of the complex. The building was constructed as a milking barn when the ranch transitioned from a Grade B to Grade A dairy operation. This sanitary barn is a concrete half-wall and upper wood-framed structure with a corrugated metal upper siding and roof. The building sits on a concrete foundation and has concrete floors. It is presently utilized as offices and for storage.

c) Milk House Shed Addition (Stable Annex & Storage) TV-104 (built at unknown date)

The stable annex is connected to the central portion of the barn by a 52 foot covered stock passageway. Like the sanitary barn, it is also constructed of concrete half-wall and upper wood-frame and has vertical board and corrugated metal siding with a corrugated metal roof. Today, it houses several stalls and storage areas.

In the early 1960s the ranch building complex was converted into a horse boarding and riding operation. As a result of its shifting uses, the complex has experienced a greater intensity of alterations than Ranch A/B in nearby Frank Valley where a former dairy ranch was also leased as a horse stable. The south side of the Ranch A/B barn complex now demonstrates several “pop out” horse stall additions. Furthermore, various temporary pipe rail horse pens as well as a stable constructed of plywood on a wood frame was built at the site of a dairy era storage building to house and care for horses. Three circular riding arenas characterized by horizontal board fencing painted white occupy the western edge of the site, just south of the entry road. None of the horse pens or riding arenas exhibit foundations. As a result, they do not severely detract from the overall integrity of the building complex or the ranch in total.

The existing historic buildings largely remain as constructed during the dairy ranching era. Although the exact construction dates of many of the existing buildings in the complex are unknown, all, except the sanitary barn are described, dimensioned and delineated as extant in the 1928 Marin County Assessor’s report of the property. All of these buildings, with the exception of the reconstructed central portion of the main barn, are contributing historic structures that reflect the Azorean Portuguese immigrant dairying era.



The historic buildings and structures that make up the core of Ranch A/B.

Circulation

Historically, the Tennessee Valley was accessed by a low-grade road that was not improved as a Marin County route until decades after its initial establishment. The 1892 TL&W subdivision map depicts this road as an unpaved track extending exclusively into the Ranch A/B building complex on the same alignment as the present entrance road. According to an 1897 USGS map, the low-grade road eventually extended to Ranch H, farther down the valley.

Significantly, when comparing the Tennessee Valley road to the Sausalito-Bolinas Road, which served a number of other dairy ranches in southern Marin County, the lower standard road access serving the Tennessee Valley may have kept the ranches in this location more isolated from commerce and services than other dairy ranches during the same time period.

In the twentieth century, the Tennessee Valley Road was improved and paved down to the Ranch C complex; however, it remains in its historic location and alignment along the ranch complex entrance road. Today, just past the Ranch A/B entrance road, the Tennessee Valley Road is closed to vehicle traffic except for NPS vehicles, hiking and equestrian access to Tennessee Beach. At this point, the road has been widened to provide unpaved roadside parking and a small unpaved parking area. This terminus serves as a central trailhead for access to Miwok, Old Springs and Marincello Trails as well as the lower Tennessee Valley. The trailhead and parking area are located outside of the boundary of Ranch A/B and do not materially affect the ranch, though there is a visual impact.

Contributing circulation features include:

Ranch Entrance Road

As the unpaved entrance road reaches the building complex, it branches into two parallel historic access routes leading to the dairy structures. The primary access fronts the Main Residence, house barn/garage, sanitary barn, and main barn complex, terminating at the auxiliary residence. The second route is associated with concrete alley, serving the rear of the main barn.

Concrete Alley

The second minor access route, which branches from the primary entrance road described above, flanks the north edge of the sanitary barn and main barn, where it becomes a concrete alley serving the rear of the main barn. Remaining concrete entrance ramps connected to the alley indicates the absence of a structure that was removed during the period of significance.

Internal Ranch Complex Road

The primary modification related to internal circulation features occurred in the 1960s. At this time, the ranch entrance road was widened approximately 150 feet to accommodate traffic associated with the anticipated development of Marincello. The road was subsequently downgraded to trail standards after the development was thwarted by the public opposition and the establishment of Golden Gate National Recreation Area. The remainder of Ranch A/B's entrance road remains unpaved packed earth and gravel, demonstrating the same width and alignment that was present during the historic dairy era.

Pasture Access Road

A vehicular access track leading up the ridge separating the ranch complex from Tennessee Valley Road also existed during the dairy era. Still evident, this road was utilized to access the upland pastures Ranch B and A to the north.

Old Springs Trail

U.S. Coast and Geodetic Survey mapping as early as 1886 indicated that historic access from Tennessee Valley to Rodeo Valley traversed the Ranch A/B complex south over the ridge on the

present day alignment of the Old Springs Trail. The TL&W subdivision survey map confirms this historic alignment. Ultimately, the trail was used to connect the ranches; however, it eventually became a popular recreational hiking trail. Reportedly, sports hunting and hiking down to Tennessee Beach were early popular activities generally accommodated by the ranch operators. Thus some historic uses continue on these circulation features today.

The circulation system retains a high degree of integrity and contributes to the significance of Ranch A/B and helps defines its historic character.



Contributing features of the circulation system includes the Old Springs Trail hiking trail (top center) as well as the Concrete Alley (mostly in shadow adjacent the barn complex) and the Internal Ranch Complex Road. Not show is the Ranch Entry Road, right of the frame.

Small Scale Features

Small scale features at Ranch A/B are confined to a variety of utilitarian elements such as fences, gates, curbs, water tanks, wells, and irrigation lines. Although remnant fences and other objects

remain throughout the ranch and serve as important contributors to the character and association of the landscape, they are of relatively small scale and are not individually counted.

Barb wire was originally developed in the 1860s and it quickly became the universal agricultural stock fencing throughout the West as it was settled. Dairy ranch operator records state that fence repair and upkeep was a major spare time activity. Such features would have been constructed early during the history of the dairy ranch and subject to replacement over time. The TL&W map and extant remnants indicate that fencing was extensively installed around Ranch A/B. These remnants help define the functional land use and boundaries of the ranch.

Today, the ranch retains remnants of split redwood boundary fencing from the dairy era with scraps of barbed wire attached on its common border with Ranch C. In addition to the marker posts present on Ranch A/B's common border on the south with Ranch C, a line of split redwood posts marks A/B Ranch's west boundary with Ranches F, G, and the Tennessee Valley trailhead parking area.

Though not a complete system, evidence of fencing associated with the Ranch A/B's horse stable era remains extant, including metal post/barbed wire fencing and wood board fencing. The metal post/barbed wire fencing serves to separate the horse paddocks north of the main barn, while wood post/horizontal board fencing surrounds numerous corrals and the two riding arenas. Collectively, these remnants help define the functional land use and associated boundaries of the ranch.

Additional small-scale features include several contributing concrete pads or ramps, which are located adjacent to the historic concrete alley behind the main barn/stables building. The location of these ramps indicates that several entrances existed off of the alley leading to a parallel barn structure during the dairy ranching era. Today, the parallel barn structure is no longer extant; however, it was indicated as an existing structure on an 1892 TL&W map.

Though somewhat fractured, the collection of small scale features present across the landscape contributes to the significance of Ranch A/B and helps defines its historic character.



Fence lines are clearly seen in this 1940's photograph of Ranch A/B. Individual posts remain as fragments today. The two windbreaks are also clearly seen.

Vegetation

Ranch A/B exhibits evidence of plant husbandry over an extended period of time. The ranch building complex retains historic windbreaks on two exposures that are contributing features. Early ranch settlers, faced with windy, foggy, damp conditions, utilized readily-available, fast-growing exotics to create windbreaks and to define ranch boundaries. Blue Gum Eucalyptus and Monterey Cypress were selected because of their ready availability, durability and ability to quickly create a buffer from winter storms.

Two historic windbreaks remain extant. The windbreak located west of the main house contains both Monterey Cypress and eucalyptus as does the windbreak located south of the main barn complex, adjacent the stream. According to a 1930 aerial photograph, the westernmost windbreak was more extensive and paralleled another windbreak. This parallel windbreak extended north to the vicinity of the present sanitary barn and east of the residence. By the 1940s, however, the eastern windbreak had largely disappeared, except for two trees directly adjacent to the east elevation of the house and one or two located near the rear of the house.

Today, there is no physical evidence of landscape planting around the buildings structures located within Ranch A/B. The impacts associated with use of the facility as a horse operation since the 1960s has likely erased any evidence of this type of landscaping. It is also possible that the utilitarian nature of the dairy structures, limited resources of the ranchers and demanding nature of dairy operations was not conducive to the implementation of leisure decorative

landscape husbandry. Any decorative plantings of annuals, perennials, bulbs or flowering shrubs would have been limited and associated with the foundation, and entrances to the residences. A photograph from circa 1940 reveals a row of trees east of the Main Residence, setting it apart from the rest of the building complex, and shrubs along the south façade. The trees are small, with the canopies not quite reaching the height of the roof. Period aerial photographs show mostly bare ground and do not provide enough information to ascertain if any additional decorative planting, gardens or fruit trees existed elsewhere on the site.

Though somewhat compromised due to neglect and age of the windbreaks, the collection of vegetation remnants retain integrity and contribute to the significance of Ranch A/B and help define its historic character.

Treatment

Treatment is based on *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (1996). Consideration was given to the historical significance and physical integrity of the resources as well as to the actions proposed within the Marin Equestrian Stables Plan Environmental Assessment (2011). To best accommodate these factors, the treatment proposed for above-grade landscape characteristics is rehabilitation which focuses on contemporary use of the cultural landscape and historic structures.

Rehabilitation is defined by the *Secretary's Standards* as, “the act or process of making possible a compatible use for a property through repair, alterations and additions while preserving those portions or features which convey its historical, cultural, or architectural values.”

Treatment of archeological resources is not detailed in this Cultural Landscape Report. Specific treatments for these resources have been addressed elsewhere in this set of cultural resource reports.

The period of significance for the Ranch A/B spans more than 50 years, from 1903 to 1955 and the nature of dairy ranching necessitated continual physical changes to the property over those years to keep up with modernization and to remain profitable. Therefore, no attempt is made to “freeze” the landscape in a single year; rather the goal is to retain character-defining features that contribute to the integrity of the site and to guide future improvements to ensure modifications are compatible. Treatment focuses on the general attributes and appearances of the landscape and strives to preserve the features and qualities of the 1903 to 1955 setting, to enhance the character.

The *Marin Equestrian Stables Plan and Environmental Assessment* identifies alterations to the cultural landscape needed for programmatic, environmental, life/safety, and other purposes. The purpose of the Treatment section is to set parameters for modification of historic features and provide guidance for the introduction of new features into the landscape in a manner that improves the condition of, is compatible with, and results in no adverse effect to the historic district. This section provides both general preservation principles, and specific recommendations for treatment of cultural landscape resources. Recommendations are topically formatted into categories following the landscape characteristics presented in the analysis and

evaluation. Specific design guidelines are presented to address resources identified within the *Marin Equestrian EA* and are intended to guide the design decision-making process for implementation of the final action alternative.

Treatment Principles

Secretary of the Interior's Standards for Rehabilitation

1. *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*
2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.*
3. *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*
4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*
5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*
6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*
7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*
8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*
9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*
10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Treatment Recommendations

The following Treatment Recommendations are provided by landscape characteristic, with an emphasis given to preserving the historic rural character.

Natural Systems and Features

- Preserve and maintain the natural systems and features that specifically include vegetation types, topography, and watercourse.
 - Remove non-native trees that may have escaped from the windbreaks.

- Manage open grasslands and coastal scrub plant communities that surround the developed area and contribute to the historic character of the site.
- Ensure that all horses, resident or guests, are fed only weed-free feed to reduce the risk of invasive plant introduction.
- Retain and manage the riparian corridor as a natural system.
- As feasible, observe the riparian corridor set back of 50' for all new structures and parking facilities.
- Major changes to existing grades should be avoided, especially those requiring retaining walls.



The cessation of grazing has allowed coastal scrub plant communities to outcompete grasslands.

Spatial Organization and Cluster Arrangement

- Preserve and maintain historic development patterns where feasible, including: the restrained nature of the development, the orientation, and the shape and rudimentary “squares” as defined by the site development, the open nature of the space surrounding the historic building core, the main barn complex flanked by roads, the edge formed by the concrete alley and topography to the

north, and the windbreaks that form the backdrop and the boundary between the building core and the open space beyond.

- Remove the cluster of non-historic stalls and shed at the Auxiliary Stable and the concrete manure pad.
- To the degree possible, restore the historic arrival sequence into the Ranch A/B.
 - Remove horse trailer parking from the west façade of the Sanitary Barn.
 - Consider eliminating the white painted fence along the entry road. If a fence is required for safety, replace existing with a barbless wire fence or an unpainted wooden fence.
 - Metal fences for paddocks or tie ups should be painted or stained a dark color.
 - Consider relocating the parking area south of the main barn to an area out of the 50-foot creek buffer. An appropriate location includes the area east of the Main Residence and south of the stable annex.
- Attempt to locate compatible existing or new program uses within existing historic structures, respecting the recommendations found within the Historic Structure Reports.
 - If it is not possible to re-use existing buildings, avoid siting new structures within the historic cluster of buildings, or on top of historic circulation routes.
- Avoid addition of new buildings, structures or circulation features within the historic core to the degree possible.
 - If new buildings or structures are required, ensure they reflect a compatible, contemporary design that is distinguishable from the historic, but employ materials, massing, and the general vernacular style found at Ranch A/B.
 - New buildings or structures should be as non-intrusive as possible while allowing for utility, functionality, accessibility, and safety.
 - New buildings or structures should recede visually into the landscape, unless they reinforce historic patterns of spatial organization.
 - New structures should be located so as to retain the open “squares” in the core areas as much as possible.



Recommendations to improve the entry sequence include relocating the horse trailer and painting the fence dark brown so it will recede into the landscape.

Buildings and Structures

- When accommodating programmatic needs, it is preferable to reuse existing historic structures rather than construct new facilities. Any modifications must conform to recommendations of Historic Structure Reports and be approved by the park's historical architect.
- Retain the overall rural character by designing new features to appear minimally intrusive and to be compatible, yet distinguishable, from the historic resource.
- New features should match the historic elements of design, color, texture, scale, massing, orientation and materials.
- Any new development should be compatible and reversible.
- Remove all non-historic additions to the historic buildings, including the storage shed on the north side of the Calf Barn.
- Recommend painting or staining metal roofs and posts of non-historic shed buildings. Color should be dark and matte.
- Re-use of the Main Residence for residential, meeting or program space is encouraged. Any new use will require upgrades to the septic system, which should be made in collaboration with park archeologist.
- Install accessible toilet within an existing structure, as feasible.



Non-historic addition on the north side of the calf barn is recommended for removal.

Circulation

- Maintain the historic circulation features in their rustic, understated character including specifically the alignment, width, paving, and absence of asphalt and striping.

- As feasible, restrict use of concrete to the historic limits which include remnant foundations and ramps and the concrete alley north of the main barn complex.
 - Any modifications to the historic concrete must be performed in consultation with the park’s historical landscape architect.
- If a hardened surface is required, consider use of road base with a binding agent, such as Perma-Zyme®, TerraHold or a triple shot of chip seal, as has been proposed for Satterlee Road at Fort Baker.
- Do not attempt to define parking spaces with stripes, wooden curb stops, or any other manufactured features. The use of stones or logs may be appropriate.
- New circulation features should be located outside of the historic building core, where feasible.
- The use of historic building foundations for parking is discouraged.



The rustic, understated circulation features are a character defining feature within Ranch A/B and should be preserved.

Small Scale Features

- Maintain and preserve the fence posts as contributing resources.
- Maintain historic utilities, as feasible.
 - Introduction of contemporary utilities and facilities associated with operations should be visually compatible with historic structures within the core.
- Conduct historical archeological investigations to document remnant historic small scale features throughout the historic district such as dump sites, fence lines, utilities and infrastructure, the location of non-extant structures and foundation ruins.
- Limit the addition of new small scale site features for contemporary use. If new small scale features are required, the following guidelines apply:

- New features should be designed in keeping with the historic character of the district and reflect a vernacular and rustic style in terms of materials, style, color, and simplicity of design.
- The use of unpainted wood for site furniture such as picnic tables, fence material, and footbridges is historically appropriate and compatible with the natural setting.
 - New fences may be unpainted wood or metal that is either stained or painted a dark color
- The use of stone or logs for marking trails and delineating vehicular and pedestrian circulation within the developed area is appropriate.
- Please also refer to *GGNRA Signage and Graphics Guidelines* (also known as the Hunt Guidelines), GGNRA Parkwide Site Furnishings Standards for additional guidance.



Fence posts should be maintained as a contributing resource.

Vegetation

- Preserve and maintain the historic vegetation, which includes 2 windbreaks and the open grasslands.
- In consultation with an arborist, preserve and maintain the historic windbreaks by pruning the trees for long term health.

- Maintain the footprint and continuous canopy of the windbreaks as a primary character feature.
 - Windbreaks should be assessed by a certified arborist to ensure that there are no immediate threats to life/safety, buildings and structures, and the trees themselves.
- When it is no longer safe to maintain existing windbreaks, trees should be removed and replanted en masse in order to achieve an even aged stand.
 - Replacements should match in species and spacing, as possible.
 - Removal of any historic, or possibly historic trees, should be done in a manner that adequately documents the species and location through both photography and GIS information (coordinate with Park GIS specialist).



The two historic windbreaks and grasslands are remnants of the historic vegetation.

- An invasive exotics removal plan was recently coordinated with the natural resource division. Continued collaboration between cultural and natural resources is recommended.
- Introduction of woody material – even indigenous species - is not encouraged outside of the windbreakswind or east of the Main Residence.
- Any tree planting must be done in coordination with the park’s historical landscape architect.

- In collaboration with natural resource staff, restore vegetation on the hillside north of the auxiliary residence to its historic character of low herbaceous.
- A Fire Management Plan should be developed to specifically address preservation of historic vegetation and structures at Ranch A/B (Tennessee Valley stables). At minimum this plan should address specific strategies to:
 - Manage replanting of historic tree stands to minimize the creation of ladder fuels.
 - Manage condition of historic trees that are immediately adjacent to historic buildings.

Design Treatments

The following treatments have been developed to ensure that new landscape features, anticipated to be altered through the actions proposed in the *Marin Equestrian Stables Plan*, are designed in a manner compatible with the historic character of the project area. They have been listed separately to avoid repetition, because they pertain to multiple landscape characteristics.

Recommendations for new turn-out include:

- Avoid building tight curves into the fence line, opting instead for long straight runs and 90 degree or more corners.
- The fence and gate should be utilitarian in character, with no ornamentation.
 - Unpainted wood posts and rails are the preferred material.
- Turn-out may be located south of the largest riding ring.

Compatible locations for a new manure shed or other small auxiliary structure are:

- South-west of the Main Residence, provided it remains out of the 50' creek buffer zone.
- Adjacent the covered paddocks, east of the main barn complex.
- Northeast of the main barn complex, provided no grading or retaining walls are required.
- South of the Stable Annex.
- Please see Treatment Recommendations for Buildings and Structures and Spatial Organization / Cluster Arrangement for more discussion on adding a new features into the historic core.

Recommendations for hay and feed storage include:

- Consider the use of the house barn (red barn).
- Should additional storage be needed, the use of an open-sided canopy, as seen elsewhere on site, is preferred, to be located east of the existing barn complex.

Recommendations for horse trailer parking include:

- To the degree possible, the horse trailers should be located outside of the historic building core.
- Consideration should be given to replacing one of the paddocks along the west windbreak as a parking pad for the trailers. Optional location is north of the auxiliary residence, at the toe of the slope, or on the east side of the Auxiliary Stable.
- To re-establish the historic arrival sequence, trailers should be located away from the historic loading dock (west of the Sanitary Barn).

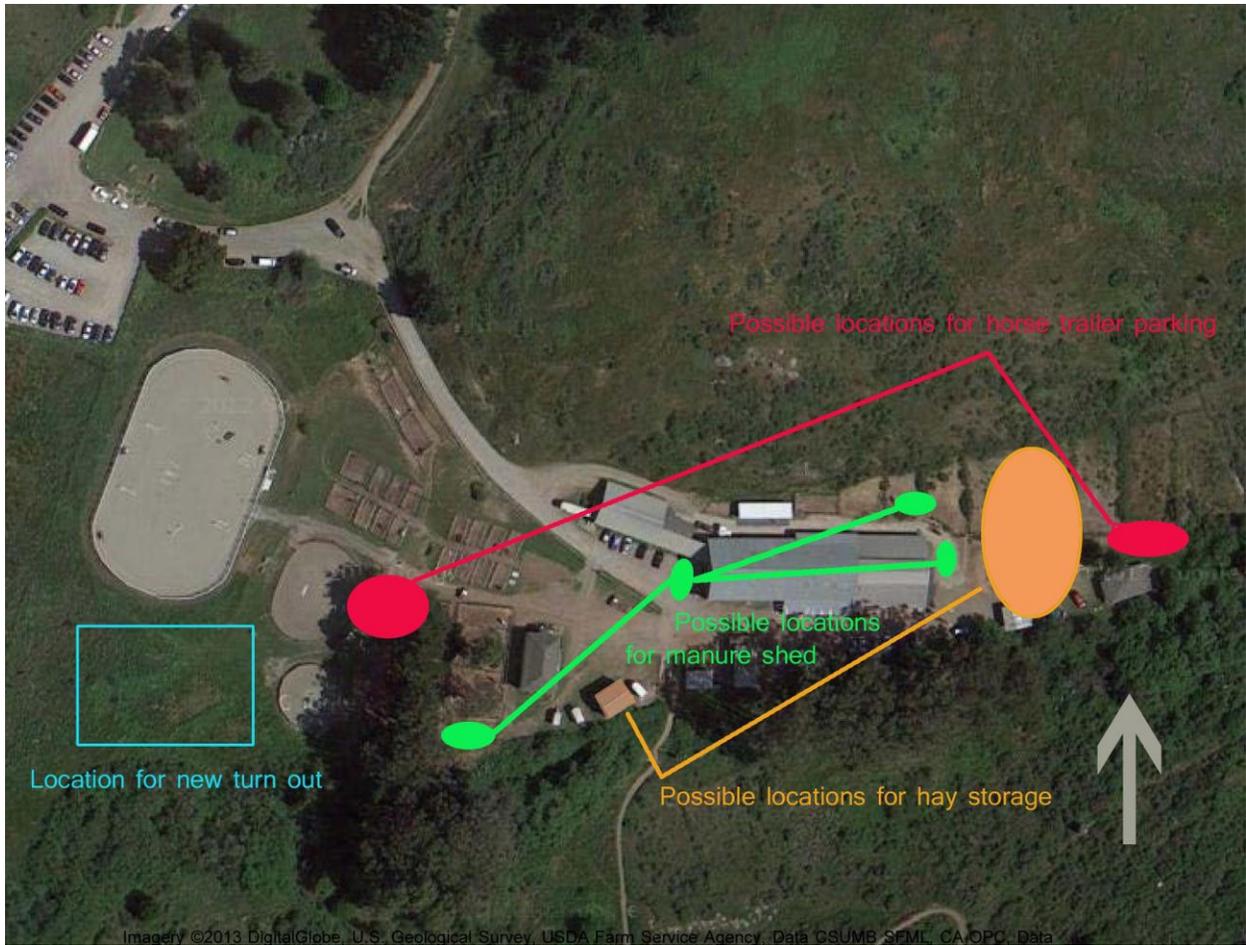


Illustration of Design Treatments

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**Tennessee Valley Stables
(Cunha/Rapozo Ranch, Ranch A/B)**

Historic Structure Reports

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Cuhna/Rapozo Dairy Ranch (Ranch A/B) Looking Northeast ca. 1940

(GGNRA Park Archives and Records Center)

Historic Structure Reports – Bunkhouse (Auxiliary Residence) TV-102, House Barn/Garage TV-106, Calf Barn (Auxiliary Stable) TV-107 and the Main Barn Complex TV-103, TV-104, TV-105 and TV-109.

Tennessee Valley Stables

(Cuhna/Rapozo Dairy Ranch, Ranch A/B)

Golden Gate National Recreation Area

Marin County, California

Physical Description and Condition Assessment

System of Evaluation

The condition assessment of interior and exterior materials, fixtures and finishes consists of a three-part evaluation system ranging from good to poor condition. This system creates a general assessment of material physical condition. No destructive testing or laboratory analysis of materials was performed and no rigorous analysis of the structural system was undertaken. This Physical Description and Condition Assessment is a record of the existing condition of the Main Barn Complex, Calf Barn, House Barn/Garage and Auxiliary Residence that indicates generally the amount of effort required for stabilization repairs and replacements to the buildings. The following evaluation system was employed:

Good Condition: Item requires minor, if any, maintenance or repair such as minor concrete patching, scraping paint, patching small holes in wood or metal, etc., but is essentially intact.

Fair Condition: Item requires considerable amount of repair and/or minor replacement such as concrete wall and foundation repairs, wood and/or metal repairs that include some replacement, rebuilding and repairing wood framing, replacing fixtures and features, etc.

Poor Condition: Item has lost the majority of its physical integrity and requires extensive repairs and/or replacement.



Cuhna/Rapozo Ranch Looking Northeast

NPS Photo, 2012

Exterior Materials

Summary

A comparison of the photos submitted in the *National Register Determination of Eligibility (2008)* with existing conditions today show that little has changed at the Bunkhouse (Auxiliary Residence/TV-102) except for painting and rodent proofing, minor changes have occurred at the Milk House Shed Addition (Stables Annex/TV-104) where the galvanized corrugated steel vertically oriented sheet siding on the north wall was replaced with wood board and batten siding and the House Barn (Garage/Red Barn/TV-106) was saved from loss by a Rehabilitation stabilization treatment. Though perhaps more uniform in appearance due to their being painted brown, the dairy ranch barn buildings still possess a large degree of integrity to the period of significance for the Cunha/Rapozo Ranch (Ranch A/B) site.

	
<p>North wall of Milk House Shed Addition (Stables Annex) (NPS Photo, 2008)</p>	<p>North wall of Milk House Shed Addition (Stables Annex) (NPS Photo, 2012)</p>
	
<p>House Barn (Garage/Red Barn) (NPS Photo, 2008)</p>	<p>House Barn (Garage/Red Barn) (NPS Photo, 2013)</p>

Main Barn Complex



Milking Barn ca. 1920 (Hay Barn & Stables) TV-103

Overall in fair condition

North Wall

- Concrete stem walls are missing or possibly never existed.
- Vertical wood board siding is no longer extant. The furthest east end of the wall was rebuilt as a tack room using T-111 siding and includes a raised floor on pier blocks. The west end of the wall was rebuilt as horse stalls using dimensional lumber and plywood walls anchored atop a concrete footing (slab or sill) of unknown origin.

South Wall

- Concrete stem walls are in poor condition and sections of the concrete appear to have been removed to create doors for horse stalls. The pattern of these wall openings is not regular and as such make it difficult to discern exactly how the walls were altered from milking barn to equestrian use.
- Wood frame walls with 1x12 vertical board siding in fair condition. The wood vertical board siding may in some locations be original, though there is much evidence of repairs. 1x3 vertical battens are missing.

East Wall

- Concrete stem walls and sanitary slabs are in fair condition. Concrete stem wall at south has in-filled door opening and the corresponding opening on north side is either obscured by a small feed shed or no longer extant.
- Main entry opening is off center and siding around the opening has been replaced with plywood, probably as part of the structural stabilization that occurred in 1992. One fascia board is missing on the north gable and overall the siding is in fair condition. This façade has a large modern light fixture and electrical power drop for the bunkhouse (auxiliary residence).

Roof

- Galvanized steel corrugated roofing in good condition (age unknown but appears to be modern replacement)
- Wood louvered gable vent in poor condition

Feed Barn ca. 1928 (Indoor Arena and Stables, 2002) TV-109

Replaced in 2002 and overall in good condition

North, South, East and West Walls

- Concrete stem walls in good condition (recent replacements)
- Wood 12" wide vertical board and 1x3 batten siding in good condition (recent replacements)

Roof

- Galvanized steel (with fiberglass skylights) corrugated sheet roofing in good condition; ridge vent feature in good condition (recent replacements)

	
<p>Looking northeast at south wall of Milking Barn (Hay Barn) stables (NPS Photo, 2012)</p>	<p>East end of south wall of Milking Barn (Hay Barn) roof with missing louvers (NPS Photo, 2012)</p>
	
<p>East wall entry to Milking Barn (Hay Barn) (NPS Photo, 2012)</p>	<p>Looking east from northeast corner of Milking Barn (Hay Barn) roof with louvers extant (NPS Photo, 2012)</p>

Milk House Shed Addition ca. 1935 (Stables Annex & Storage) TV-104

Overall in good condition

North Wall

- Wood 1x12 wide vertical board and 1x3 batten siding roughly 14'-0" high in good condition – recent replacement of galvanized steel siding of unknown installation history

South Wall

- Concrete stem walls roughly 5'-0" high with cold joint at base and vertical form board patterns in fair condition – this wall leans outward to the south and appears to have been constructed in this situation as a later repair, perhaps when the structure was improved to be used as horse stables. The concrete in this wall was poorly consolidated and is cracked.
- Wood 1x12 wide vertical board and 1x3 batten siding roughly 6'-6" high in fair condition (appears to be recent replacement). At the east end of the wall the wood siding drops down 1'-0" over a 7'-0" distance that seems to indicate a former wall opening or section of lowered interior floor.

- Two 2'-0" x2'-0" wall openings with steel wire mesh infill in fair condition at the eaves line (vents for horse stalls) and one modern 2'-0" x2'-0" vinyl window in good condition

Roof

- Galvanized steel corrugated roofing in good condition (recent replacement)

Milk House ca. 1935 (Office & Stables) TV-105

Milking room, lavatory, milk cooling and storage rooms overall in good condition

North Wall

- Concrete stem wall and infill roughly 2'-2" high in good condition. Concrete stucco wall in good condition.
- Wood 1x8 horizontal v-groove board siding in poor condition and missing. Much of the north wall has wood studs exposed to the exterior with only a very small section of v-groove wood siding extant. North wall shows much evidence of past remodeling such that the original wall openings of the milking stable are difficult to discern.
- Wood windows on the north are mix of modern replacements in good condition and original wood sash in poor condition and/or missing. Window openings tend toward a uniform 3'-2" width and 3'-6" height, framed in rough lumber and are set on the 2x4 sill atop the concrete stem wall. A steel track at the eaves is extant in poor condition.

South Wall

- Concrete stucco walls with two 10" wide by 4'-0" tall angled concrete abutments in good condition.
- Wood 1x8 horizontal v-groove board siding in fair condition at rolling door with Plexiglas window in poor condition (historic photo does not show a window opening in this door panel). Most of the south wall is cement stucco with plywood wood frame walls above

East Wall (south end of east wall is obscured by the Shed Addition (Annex))

- Concrete stucco wall in good condition.
- Wood 1x8 horizontal v-groove board siding in poor condition. Large door opening has rolling door track hardware in poor condition. Rolling door at north is in fair condition.

West Wall

- Concrete stucco wall in good condition – two small 9"x14" steel foundation vents in fair condition (crawl space condition unknown).
- Wood 1x8 horizontal v-groove board siding in fair condition.
- Two sets of paired 3'-2" high by 2'-10" wide parallel fixed 3 over 3 divided light wood sash windows (original) in fair condition. The pair of windows to the north has single panes while the pair on the south has divided lights. It is likely that the divided lights are the originals. Screens are missing.
- One 2'-4" high by 2'-10" wide 1 over 1 fixed wood sash window in fair condition. The top pane has mottled patterned obscured glass and appears to be original while the bottom pane is likely a replacement. Screen is missing.
- 3'-2" x5'-6" milk cooler room door at west loading dock is in fair condition.

- Concrete loading dock is in good condition – concrete housekeeping slab to south of loading dock at roadway level is in fair condition. On the north of the loading dock is a modern wood deck built of pressure-treated lumber that obscures any original construction in this area. Since the building is built into the hillside the foundation should be visible at least to the foot of the bermed hill, near where apparently a septic tank is installed. At the far north end of the west wall under the roof eaves is a 6x8 rough cut wood post that may have been part of a gate that closed the roadway at that side of the building.

Roof

- Galvanized steel corrugated roofing in good condition (recent replacement). Capped ridge vent feature in good condition.

	
<p>Milk house loading dock with modern Office entry clutter (NPS Photo, 2012)</p>	<p>Looking east at milk house of Main Barn Complex (NPS Photo, 2012)</p>
	
<p>Milk house north wall detail (NPS Photo, 2012)</p>	<p>Looking west at shed addition stables and milk house (NPS Photo, 2012)</p>

House Barn ca. 1920 (Garage/Red Barn) TV-106

Rehabilitated in 2011 and overall in good condition

North Wall

- Vertically oriented 1x12 rough cut redwood board siding in good condition (recent replacement; painted red). North façade has a mix of original boards and replacements.

South Wall

- Vertically oriented 1x12 rough cut redwood board siding in good condition (recent replacement; painted red).

East Wall

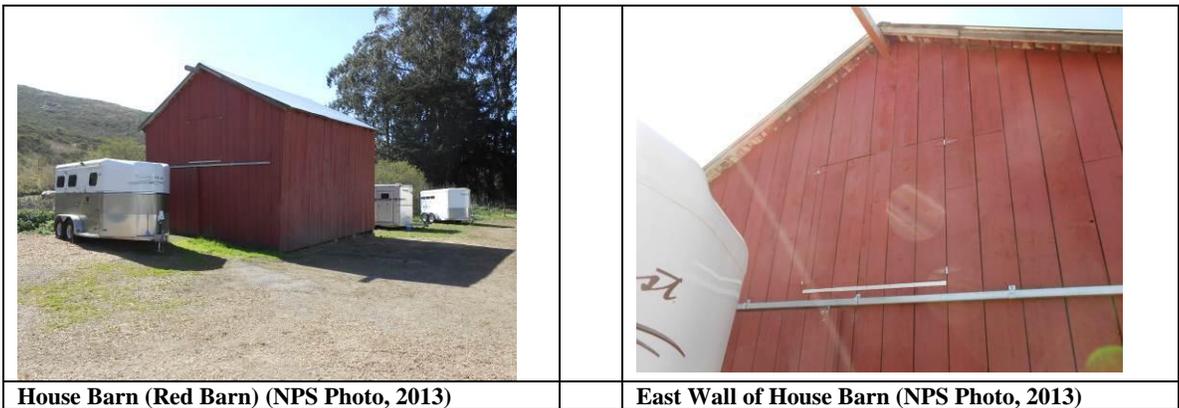
- Vertically oriented 1x12 rough cut redwood board siding in good condition (recent replacement; painted red). 8'-0" x 8'-0" door opening at south side with rolling door in good condition. Ground level floor is roughly 1'-6" below grade. At the loft level there is a double door 5'-0" wide x 5'-0" tall with a 4x6 hoist beam above.

West Wall

- Vertically oriented 1x12 rough cut redwood board siding in good condition (recent replacement; painted red). 8'-0" x 8'-0" door opening at south side with rolling door in good condition. Ground level floor is roughly 2'-6" above grade at this side.

Roof

- Light gauge corrugated galvanized sheet metal roof in good condition (recent replacement). There are no roof penetrations.



Bunkhouse ca. 1913 (Auxiliary Residence) TV-102

Overall in fair condition

North Wall

- Concrete pier footings with wood posts in fair condition; frame walls and 4" wide wood horizontal lap board siding painted red in fair condition; wall has 1x4 end boards painted red in good condition. There are two vent stacks on this wall, one appears quite old, is associated with the kitchen range and is closer to the west end, the other is new, is associated with a water heater in the laundry room and is at the far east end. Above this water heater vent stack, two rows of five 3/4" diameter holes have been drilled through the siding to create (attic) ventilation. There are several areas where the siding has been repaired leaving "ghosts" as evidence of the repair, and the sills under the windows have been painted to match the wall (red) rather than the other trim (white). The east end of this wall is part of a shed addition of unknown installation date having a mix of 4" wide lap siding and 8" wide tongue and groove horizontal board siding – there is a visible gap between the siding of the addition and that of the main building. On this wall the siding meets the ground to create skirting of the crawl space (no vents), and various means of rodent proofing are visible.
- One double (paired) 3'-0" square one over one double hung wood sash window painted white in fair condition. Under the sill of this window the trim has been improperly replaced with siding

that does not match the historic. Sill trim on this wall is painted red and should be painted white to match the adjacent trim. Upper sash (exterior) has simple sash horns.

- One 3'-0" x 4'-0" one over one double hung wood sash window painted white in fair condition. Upper sash (exterior) has simple sash horns.

South Wall

- Concrete pier footings with wood posts in fair condition; frame walls and 4" wide wood horizontal lap board siding painted red in fair to poor condition; wall has 1x4 end boards painted red in fair condition. The east end of this wall is part of a shed addition of unknown installation date having a mix of wood shake siding and 4" wide wood horizontal lap board siding painted red in fair to poor condition. On this wall the siding does not extend to the ground to create skirting of the crawl space so that various means of rodent proofing function as skirting.
- One 3'-10" x 4'-4" sliding aluminum sash window in poor condition. This window appears to be a 1960s era salvage window that was improperly installed. Polyurethane foam has been injected under the trim boards until overflowing and not addressed further.
- One (paired) boarded window 3'-8" with adjacent aluminum sash sliding window 2'-8" in poor condition. This window appears to be a 1960s era salvage window that was improperly installed in a larger wall opening such that the sash had to be framed up from the sill to fit.
- One roughly 4'-0 x 2'-0" window opening boarded with 1x vertical boards
- One 4'-4"x 2'-3" sliding aluminum sash window in poor condition in the shed addition at the east end of the wall.

	
<p>Bunkhouse (Auxiliary Residence) looking east (NPS Photo, 2012)</p>	<p>East Wall of Bunkhouse (NPS Photo, 2013)</p>
	
<p>Bunkhouse looking northeast (NPS Photo, 2012)</p>	<p>Bunkhouse west wall southwest corner (NPS Photo, 2013)</p>

East Wall

- The east wall of the building is the shed addition bearing wall and condition of the structural support for this addition could not be assessed and is presumed fair to poor (several of the post supports for the building appear to be relatively modern additions that perhaps replaced the historic support structure). and has 1x4 tongue and groove horizontal board siding in poor condition.
- One 4'-8"x 2'-3" sliding metal sash window (white) in fair condition.
- One 6'-0"x 4'-0" sliding window (white) in poor condition.
- One 4'-0"x 3'-0" sliding window (white) that is severely racked and is in poor condition.
- One 2'-6" wood entry door with single lite in fair condition.

West Wall

- Concrete pier footings with wood posts in fair to poor condition (several of the post supports for the building appear to be relatively modern additions that perhaps replaced an historic support structure); frame walls and 4" wide wood horizontal lap board siding painted red in fair condition; wall has 1x4 end boards painted red in fair condition.
- Covered entry porch in fair condition; wood stairs in poor condition
- One 2'-6" wood 3 panel entry door with single lite in fair condition.
- Two 3'-0" square one over one double hung wood sash windows painted white in fair condition. Upper sash (exterior) has simple sash horns.

Roof

- Asphalt composition shingles in good condition (recent replacement). The north and south edges of the roof have a unique 6" deep galvanized steel drip edge flashing.

Calf Barn ca. 1920 (Auxiliary Stables) TV-107

Overall in fair condition

North Wall

- Wood framed east half of the original barn gabled wall is extant, is covered in asphalt sheet roofing and is in fair condition. A large portion of the framing does not appear to be original and includes pressure treated lumber. The west half of the gable wall is no longer extant. The north wall has a wood shed addition used as tack room.

South Wall

- Wood framed east half of the original barn gabled wall is extant, has 1x12 rough cut vertical board siding and is in fair condition. A large portion of the framing does not appear to be original and includes pressure treated lumber. The west half of the gable wall is no longer extant, however the only siding on the building that appears to be original is at the far west side of this wall. The south wall has 1x2 battens that appear to be modern replacements and is in fair condition.

East Wall

- Wood framed east wall has four horse stall doors spaced irregularly. A large portion of the framing does not appear to be original and includes pressure treated lumber. This makes it difficult to discern where and how the building was altered from dairy to equestrian use. The east wall has 1x12 vertical board siding with 1x4 battens and is in fair condition.

West Wall

- Wood framed west wall has four horse stall doors spaced irregularly. A large portion of the framing does not appear to be original and includes pressure treated lumber. This makes it difficult to discern where and how the building was altered from dairy to equestrian use. The west wall is actually a partial height (roughly 10'-0" tall) 3'-8" deep shed addition to the enclosed original half-gable of the barn, has 1x12 vertical board siding with 1x4 battens and is in fair condition.

	
<p>Calf Barn (Auxiliary Stables) looking southeast (NPS Photo, 2012)</p>	<p>Calf Barn (Auxiliary Stables) north façade (NPS Photo, 2013)</p>
	
<p>Calf Barn (Auxiliary Stables) looking west (NPS Photo, 2012)</p>	<p>Calf Barn (Auxiliary Stables) south wall siding detail (NPS Photo, 2013)</p>

Roof

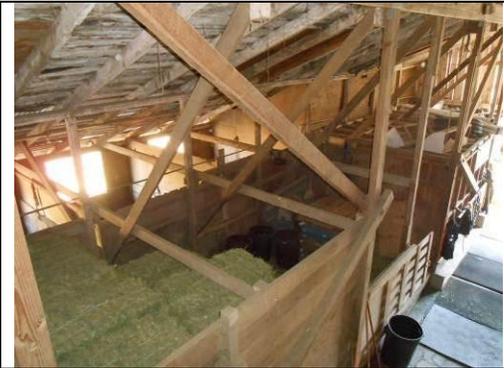
- The majority of the wood frame roof framing appears to be original 2x6s at 2'-6" on center with 1x6 skip sheathing. The roof framing has generally not been repaired, and there are missing and damaged sections of skip sheathing in some places. The light gauge corrugated galvanized steel roof has been partly replaced, though the age of the older sheet roofing is unknown, it is possibly a late 1940s replacement of a wood shingle roof.

Interior Materials

Summary

Except for the Milk House (Offices & Stables) of the Main Barn Complex, which had rooms with plastered walls and concrete floors for cooling milk and washing milking equipment, and the Bunkhouse (Auxiliary Residence TV-102), which except for remnant floor and wall finishes and moldings has mostly modern replacement interior finishes and features, the other portions of the Main Barn Complex and the other standalone buildings, namely the Calf Barn (Auxiliary Stables) and House Barn (Garage/Red Barn) have unfinished barn interiors. Because of their former dairy use and the need to meet sanitary requirements, the dairy building features such as concrete floor slabs with built-in drains, and raised concrete mangers with feed alleys and litter alleys are important and significant character features. In these unfinished and utilitarian spaces, since the dairy operations have been replaced with equestrian ones (stanchions and cow pens removed and replaced with horse stalls) the important character features are the concrete sanitary improvements, visible interior volumes and the exposed (wood) structural systems themselves, which still have a large degree of integrity.

	
<p>Milk House Sanitary Barn (Stables) looking southeast to hall. Note open frame gabled partition wall (NPS Photo, 2012)</p>	<p>Milk House Sanitary Barn, looking north in hall between milking parlor (Stables) and milk storage areas (Office). Note sliding door and transition of finish materials (NPS Photo, 2013)</p>

		
<p>Milking Barn (Hay Barn) concrete manger and raised feed alley (NPS Photo, 2013)</p>		<p>Milking barn (Hay Barn) interior structural detail (NPS Photo, 2013)</p>
		
<p>Milking Barn (Hay Barn) north side structural and roof details (NPS Photo, 2013)</p>		<p>Milking Barn (Hay Barn) east entry wall detail (NPS Photo, 2013)</p>

MILK HOUSE (TV-105)
(Office & Stables)

FEED BARN (TV-109)
(Indoor Arena and Stables)

MILKING BARN (TV-103)
(Hay Barn & Stables)

MILK HOUSE SHED
ADDITION (TV-104)
(Stables & Storage)



Milking Barn (Hay Barn & Stables) TV-103

In the Main Barn Complex the structural system is light wood framing. In the oldest portion of the building, the Milking Barn (Hay Barn & Stables), the structural framing system consists of four parallel post and beam lines running east to west comprised of slender 4x4 posts on 6'-0" centers, with 2x4 top plates. Column lines are braced with 2x6 horizontal bracing at roughly 8'-0" above the floor, and 2x6 rafters at 3'-0" centers with 1x6 skip sheathing support a shed roof of wood shingles under corrugated galvanized steel sheets. In the central high bay space, a modern arrangement of 4x6 beams supporting a glulam beam with 2x6 diagonal braces has been added in parallel to the 20'-0" tall posts of the central

bay, covering the louvered ventilation features that support the gabled roof. The diagonal braces appear to be older than the recent work yet not as old as the original construction and brace the column lines together in two directions. Bracing at the lower column line, between the column and the outer walls is mostly missing, and the few extant braces are discontinuous. This creates a unique and somewhat unorthodox structural system of unknown evolution.

			
<p>Feed Barn (Arena) interior looking east (NPS Photo, 2013)</p>			<p>East end gable wall of Sanitary Barn (NPS Photo, 2013)</p>
			
<p>Sanitary Barn interior detail of roof structure (NPS Photo, 2013)</p>			<p>Sanitary Barn interior structural framing detail (NPS Photo, 2013)</p>

Above the high bay column lines a jack wall originally comprised of light framing members was in-filled with louvered vents and this system supported the gable. The 1x6 tongue and groove board ridge beam is extant, as are 1x6 tongue and groove collar ties. Modern 2x4 rafter ties have been added. The present interior furnishings, finishes and structural repair installations appear to have preserved the concrete dairy features in place, but this cannot be verified without removal of the installations themselves. In the floor of the central high bay space, the floor drains have been filled in with concrete. In many locations the historic 4x4 wood posts have been cut out, perhaps to make room for the new structural work.

Feed Barn (Arena and Stables) TV-109

The Feed Barn was rehabilitated by the NPS in 2002. Due to the extent of structural failure of the historic barn, it appears the large majority of this structure is new work. No historic materials were observed during the site surveys required for the data gathering associated with this report except for a 3'-0" long concrete stem wall foundation that marks the easternmost wall at its connection to the Milk House Shed Addition (Stable Annex). Poured in place concrete stem walls support wood framed walls and an elaborate system of multi-piece wood trusses consisting of double mansard truss bases with a king truss atop.

Milk House Shed Addition (Stables & Storage) TV-104

The Milk House Shed Addition has end walls and side bearing walls comprised of 2x4 studs at 16” on center with 2x4 top plates and 2x4 bottom plates that bear on concrete stem walls (stem walls on the south are taller on the exterior due to a change in grade). Stem walls on the north cannot be verified and may be a raised sanitary slab. The interior structure is concealed behind the materials of the horse stalls.

Milk House and Sanitary Barn (Office & Stables) TV-105

The milking parlor of the Milk House (sanitary barn) has gabled end walls and side bearing walls comprised of 2x4 studs at 16” on center with 2x4 top plates and 2x4 bottom plates that bear on concrete stem walls (stem walls on the south are taller and buttressed on the exterior due to a change in grade). A 12’-0” wide central high bay space is created by four parallel column lines running north to south comprised of double 2x4 posts at 9’-0” centers with double 2x6 beams connected to 2x6 rafters and with 1x6 web members forming a queen post truss-like structural member. However this simple system is modified with 2x6 diagonal struts that appear to be tension members connecting the truss top chord (rafter) to the column of the outermost column line that runs east to west. These diagonal struts may be braces needed for installation the outer (shorter) column line comprised of 3” diameter steel pipe posts with a 2x6 beam that runs east to west in a line roughly 4’-0” inside the side bearing walls. This inner transverse column line may be a later installation but in relation to the diagonal struts and the truss-like structural system creates a unique unorthodox structural condition. The gabled corrugated steel roof is supported by 2x4 purlins over 2x6 rafters on 3’-0” centers and has a capped ridge vent.

Calf Barn (Auxiliary Stables) TV-107

The Calf Barn appears in a ca. 1940 photo in its present location as a gabled structure such that is possible the west gabled half of the building was at one time removed to create the shed form that is extant. Three main lines of parallel structural supports consisting of 4x4 posts and 2x beams, which run north to south, support this notion and are similar to the structural systems seen in the Milking Barn (Hay Barn & Stables). The posts, beams, wood frame walls, skip sheathing and siding of the calf barn are a mixture of modern replacements, older perhaps salvaged lumber and originals, including some unusual (if not unorthodox) structural conditions. The pitch of the roof and the volume of the space however appears to have been preserved.

				
Calf Barn (Auxiliary Stables) interior (NPS Photo, 2013)			Looking up into ridge of Calf Barn (Auxiliary Stables) (NPS Photo, 2013)	

	
<p>House Barn interior shear wall at northwest corner (NPS Photo, 2013)</p>	<p>House Barn interior (NPS Photo, 2013)</p>

House Barn (Garage/Red Barn) TV-106

The House Barn has rough sawn dimensional 2x4 balloon framed stud walls with diagonal blocking. During the rehabilitation of the building, a new wood floor was installed to replace the existing and it was discovered that the existing floor was itself a replacement (built on top of one that had rotted out – the bearing walls were cut to accept the floor and no bottom plate was installed – this detail was retained as a record of the evolution of the structure. A new wood loft at 8’-8” was installed.

Electrical Systems

The electrical systems are rudimentary and in many cases outdated, likely have code violations, could be overstressed and in some cases could pose a hazard. Circuits in the buildings are a collection of abandoned knob and tube and exposed NM sheathed wire.

Plumbing and Fire Protection

Plumbing consists of one kitchen and one full bath at the Bunkhouse (Auxiliary Residence) and a toilet room with lavatory in the Milk House section (Offices) of the Main Barn Complex (no plumbing is currently functioning at the Main House). Water comes from nearby springs, is held in large above ground storage tanks and pumped to where it is needed. Water is not treated (although a rudimentary filtration system was discovered at the Bunkhouse) and considered non-potable such that drinking water for the residents of the Bunkhouse is brought in 5-gallon carboys. Much of the non-potable water used is for watering and washing the horses, facilities and equipment. Waste water from the Bunkhouse and Office toilet room are connected to separate septic systems. There is a two compartment septic tank at the Bunkhouse located on the west, above the seasonal stream. The presence of a leach field cannot be verified. Similarly a septic tank is presumed to exist to the west of the Office but the feature is covered in blackberry – neither the septic tank nor the presence of a leach field could be verified. There are no permanent fire detection, alarm or sprinkler systems in the buildings.

Appliances and Cabinetry

There are no contributing appliances or cabinetry associated to the historical buildings included in this report.

Evaluation of Significant Features

Summary

The Cunha/Rapozo Ranch site buildings have evolved from their dairy use to accept the equestrian programs which operate there today but still retain a good deal of historic character relative to the historic Portuguese dairy ranch use. Many of the changes that have occurred to the historic structures have an undeniable degree of significance to the equine presence on the site, which is not unusual since the site has been in use as a horse boarding and riding facility for roughly forty years. It was for this reason that the Red Barn, as it is locally known, was not painted white to connect it to its dairy history. Similarly the Main Barn Complex seems to be wearing its modern brown paint color well, as opposed to its historic gray and white dairy scheme. But the dairy would not have been at all adorned or decorated, except for perhaps and occasional “lucky horseshoe” whereas today horseshoes and horse adornments abound. It is important to balance these partner tenant improvements, which demonstrate pride in stewardship but alter the historic character of the buildings and confuse the experience of the historic Portuguese dairy use of the site for National Park visitors. The arrival experience to the Stables Office in the Main Barn should showcase the Milk House of the Main Barn Complex, highlighting the milk loading dock and walk-in milk cooler door, not obscuring it with a jumble of signage and modern additions as exist today, and the main internal ranch road that leads to the Bunkhouse should connect the building’s entries in an uncluttered and intimate (pedestrian) way.

Exterior Significant Features

The following exterior features are highly sensitive to alteration:

- Building form and shape (rectangular/rectilinear plans, story heights, volumes)
- Building Siting and Adjacencies (buildings should not be moved)
- Siding (exposed concrete walls with form board patterns or stucco parge and vertically oriented wood board (and batten) siding. It is reasonable to presume that the wood barns all had board and batten siding even though the detail is missing in many locations (at the House Barn altogether) and of differing widths where extant. Narrow battens are typical of an older detail such that wider battens are easily distinguishable as new and are appropriate in situations where existing battens are completely missing and cannot be replaced in kind.
- Trim (simple flat wood door and window casings and simple sills)
- Window and door locations (including ghosts of windows and doors on the east wall of the Milking Barn (Hay Barn & Stables) and the no longer extant fenestration patterns of the Milk House Shed Addition (Stables Annex) that can be seen in the ca. 1940s photograph)
- Original windows, including their size, shape, pattern and details (at the Main Barn Complex on the west and north walls of the Milk House (Office) including window screens and screen hardware – this was a sanitary feature of the dairy facility; windows at the Bunkhouse north and east walls)
- Doors (sliding doors at sanitary barn portion of the Milk House (Offices & Stables) and walk-in refrigerator door; front door of Bunkhouse).
- Roof ventilation features

The following exterior features are less sensitive to alteration:

- Shed additions (at rear of Bunkhouse (Auxiliary Residence/TV-102), north and west sides of Calf Barn (Auxiliary Stables/TV-107), freestanding feed storage shed, tack rooms and other modern additions to the Milking Barn (Hay Barn) portion of the Main Barn complex)
- Foundation walls (board formed and poured concrete with or without stucco parge)
- Replacement windows
- Stable doors, horse stall doors and door hardware (NOTE: horse stall doors that are “popped out” of the building exterior envelope must be compatible with the historic dairy scene – stall doors with an “X” pattern should be avoided and instead doors that have a vertical tongue and groove board pattern or board and batten pattern should become the standard).
- Lighting (replace with RLM down lights or other compatible industrial fixture)

Interior Significant Features

The following interior features are highly sensitive to alteration:

- Concrete mangers, alleys and drains (many of these features could not be verified due to the installation of pads, floors and walls for the horse stalls but are presumed to be preserved in place)
- Hanging sliding doors (at sanitary barn portion of the Milk House (Offices & Stables/TV-105))
- Visible interior volumes (high open spaces without a finished ceiling)
- Circulation patterns (the double string stanchion arrangement in the Milking Barn (Hay Barn/TV-103), generally a central alley with pens on either side)
- Wood (structural) framing (in the Milking Barn (Hay Barn) and sanitary barn (TV-105) particularly, as well the balloon framing of the House Barn)
- Wood interior beadboard, door and window casings, base boards and remnants of historic flooring and miscellaneous historic finishes in the Bunkhouse (TV-102)
- Plan and arrangement of interior spaces in the Bunkhouse (TV-102)
- Sloped concrete slabs/floors and built-in drains in the barns
- Walls and ceiling materials (cement stucco, wood baseboards and beadboard where original)
- Knob and tube wiring/ abandoned electrical panels in the sanitary barn (TV-105) (abandon in place)
- Manufactured refrigerator door to milk cooling room (TV-105)

The following interior features are less sensitive to alteration:

- Modern lighting and electrical circuits
- Plywood cabinets and moveable furnishings

Treatment and Use Recommendations

Requirements

Architectural treatments for the Ranch A/B buildings are subject to the *Code of Federal Regulations CFR 36 Part 68*, the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. The *Secretary of Interior's Standards for Rehabilitation* are listed below.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.



Milk House Loading Dock Today as Stables Office

(NPS Photo, 2013)

Equestrian Use

The NPS supports the continued use of the Cunha Ranch in a horse stables operation as this is a compatible reuse. Where the buildings suffer badly from deferred maintenance, conservation and stabilization measures are needed. Further damage or loss of the resources could present an adverse effect on the historic structures and the historic building cluster. Therefore it is the overarching recommendation of this report that the buildings be remodeled using a Rehabilitation Treatment for reuse suited to an equestrian boarding and riding program operation. Proposals for reuse of site buildings and features must be fully developed within the planning framework of the final action alternative of the *Marin Equestrian Stables Plan and Environmental Assessment* of October 2011 and subsequent *Errata* and *Finding of No Significant Impact*. The internal ranch road, fences, trees, vegetation, and other features of the cultural landscape must be maintained according to treatment recommendations in a Cultural Landscape Report for the site.

Near Term Use Recommendations

1. Manage and control vegetation to provide access to building foundations.

2. In consultation with the GGNRA staff, create concepts for access for people with disabilities to all equestrian lease program offerings.
3. Perform inspections to determine the extent of insect and rodent infestation, treatment and needed repairs for all buildings, and especially the Bunkhouse (Auxiliary Residence/TV-102) and House Barn (TV-106). Evidence of wood boring beetles at these two structures will require treatment of wood with borate or possibly fumigation.
4. Create a Rehabilitation concept for the Bunkhouse (Auxiliary Residence/TV-102) that will address the deterioration of the building exterior envelope and structural deficiencies of the foundation and rear shed addition, including repairs and conservation of the horizontal lap siding, repairs and replacements to the deteriorated rear shed addition, front porch, front stairs and rails, and repairs, replacements and rehabilitation of the windows and doors.
5. Create a Rehabilitation concept for the Calf Barn (Auxiliary Stables/TV107) that will address the needed maintenance of the building exterior envelope and any structural deficiencies of the building, including repairs and conservation of the vertical board and batten siding and roof. The replacement of the missing east side of the building (restoring a compatible gabled barn with access from ranch road and relocation of the shed addition) would be a sensitive approach.
6. Create a Rehabilitation concept for the Milk House (Sanitary Barn & Office/TV-105), and Milk House Shed Addition (Stables Annex/TV-104) that will address the needed maintenance of the building exterior envelope and any structural deficiencies of the building (particularly the concrete foundation on the south), including documentation of the floor drains and concrete dairy features (and any adaptive reuse of these features), repairs and conservation of the horizontal v-groove siding, repairs and replacements to the deteriorated north wall siding, removal and re-design of the wood stairs and lattice rails, signage, bulletin board and satellite dish on the west façade (consider installation of an at grade pedestrian path connected to a single accessible parking stall at the north end of the west wall; consider relocation of horse trailers to a remote parking area) and repairs, replacements and rehabilitation of the windows and doors.
7. Create a Rehabilitation concept for the Milking Barn (Hay Barn/TV-103) portion of the Main Barn Complex that will address the needed maintenance of the building exterior envelope and any structural deficiencies of the building, including documentation of the floor drains and concrete dairy features, replacements of insect damaged, rotted and missing structural members (including rafter tails) where needed, replacements of rotted or damaged wall siding with matching materials, and repair and replacement of missing louvered vents. Any Rehabilitation concept should address the missing structural elements, loss of ventilation and visual compatibility issues created by the ca. 1992 structural stabilization work, detail an appropriate and compatible design concept for the northeast corner of the building and replace the siding on the east wall (around and above the entry way).
8. Perform an inspection and correct deficiencies in the electrical systems of all the buildings.
9. Relocate non-fixed equestrian program features/additions (including portable toilets, vehicles, farm equipment and supplies) out of line of sight of the internal ranch road. Create an uncluttered view up and down the road from the Bunkhouse to the Main Residence and Milk House.



Miwok Livery Stables

(NPS Photo 2013)

Mid-term Use Recommendations

1. Consult a structural engineer to evaluate the existing condition of the Bunkhouse (Auxiliary Residence/TV-102), Milking Barn (Hay Barn/TV-103) portion of the Main Barn Complex, Calf Barn (Auxiliary Stables/TV-107) Milk House and Shed Addition (Office, Sanitary Barn and Stables Annex/TV104 &TV-105) and develop details for structural repairs and upgrades based on approved Rehabilitation concepts. Structural upgrades shall, to the greatest extent feasible, pair an existing member with a new member, brace, or otherwise supplement and reinforce the existing structural member, replacing existing materials with like materials only where necessary to meet requirements for life safety in a seismic event.
2. Consult an electrical engineer to evaluate the existing condition of the site electrical infrastructure and develop details for electrical repairs and upgrades to the buildings based on approved Rehabilitation concepts. The electrical infrastructure should be evaluated in concert with the other campus buildings and deficiencies in the systems of those buildings should be documented. If feasible, then the electrical systems on the site and for each building should be upgraded and divided by tenancy such that the site as a whole receives a uniform level of

treatment. The design and installation of lighting that is compatible with the historic scene and still meets night sky requirements must be utilized.

3. Consult a mechanical engineer and fire protection specialist to make recommendations for fire alarm and detection systems, and fire sprinkler systems, and develop details for water storage sufficient to meet both operations and resource protection needs.

Long-term Use Recommendations

1. Implement Rehabilitation treatment strategies for the Main Barn Complex, The Bunkhouse (Auxiliary Residence/TV-102), the Calf Barn (Auxiliary Stables/TV-107) and the House Barn (TV-106). In making possible the equestrian use and programming via repair, alterations, and additions, care must be given to preserving those portions of buildings or building features that convey its historical, cultural, or architectural value.
2. Manage the buildings in concert with the recommendations of the Cultural Landscape Report for the site.

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Appendix

Record Drawings

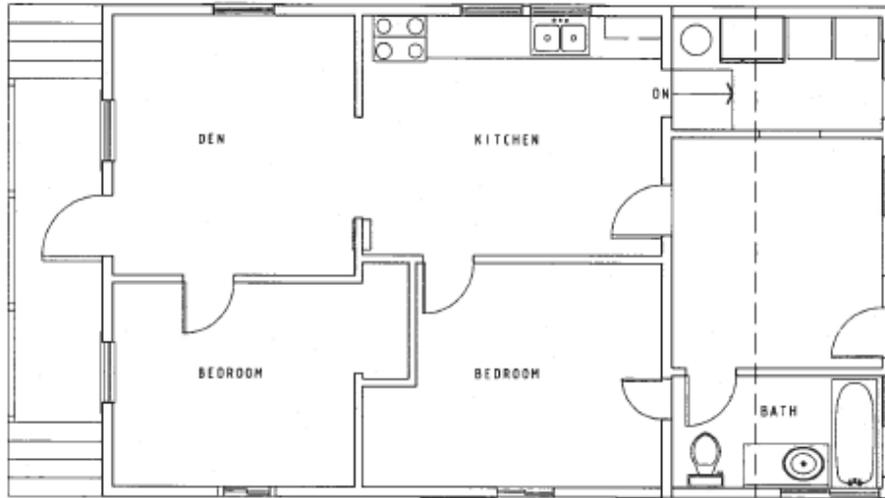
Main Barn Complex (TV-103, TV-104, TV-105, TV-109), Bunkhouse (Auxiliary Residence/TV-102), Calf Barn (Auxiliary Stables/TV-107) and House Barn (TV-106)

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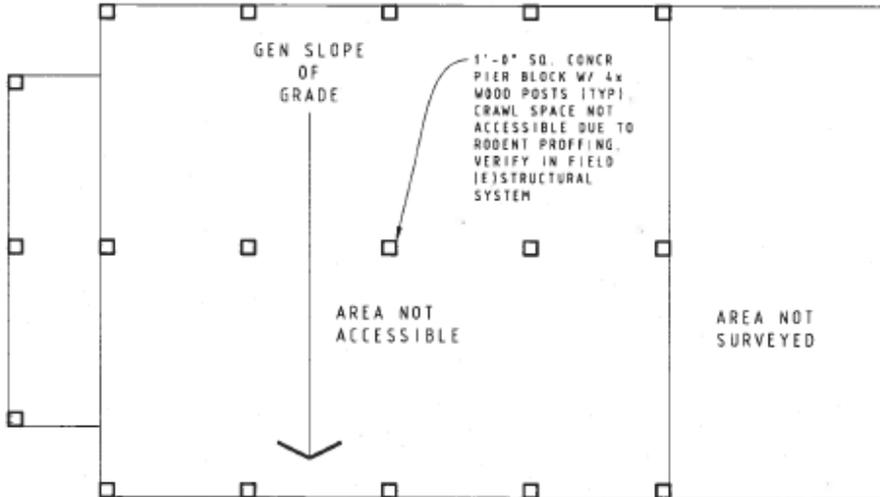
NOTE: Measured Drawings for the Main Barn Complex (TV-103, TV-104, TV-105, TV-109) are being developed and will be completed prior to the start of any work on recommended treatments in this report.

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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		Sheet	1
Area	TENN. VALLEY STABLES			of	
Project	AUX. RES. / BUNKHOUSE	By	HAGIN	Checked	Pkg.
Feature	FLOOR PLANS	Date	05/14/2013	Date	Account



FIRST FLOOR PLAN

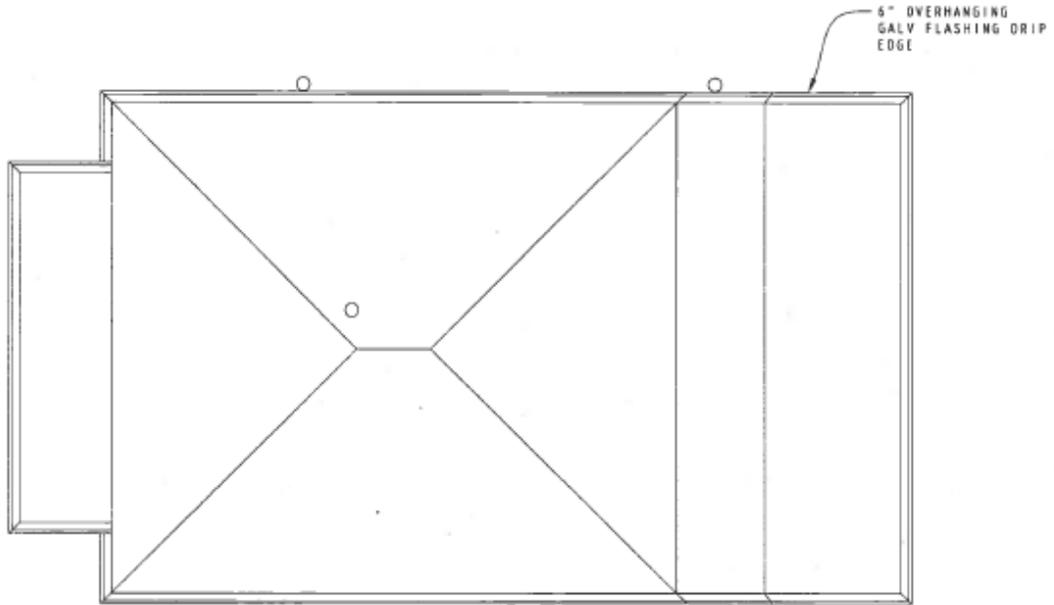


CRAWL SPACE PLAN

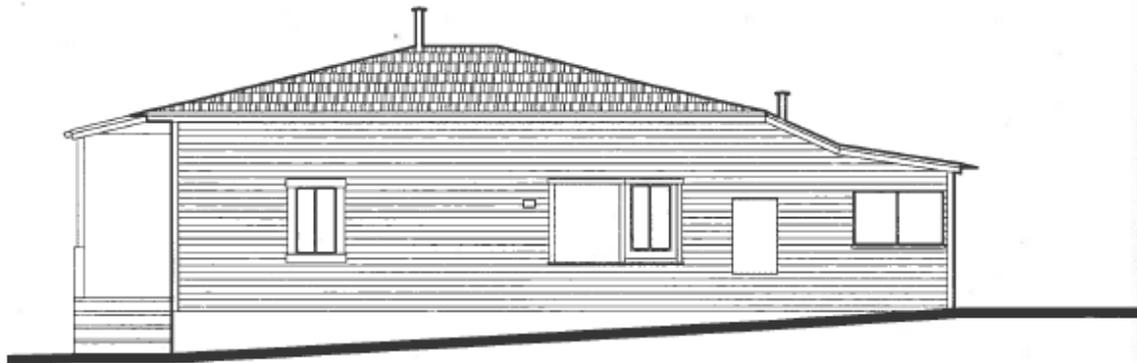


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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		Sheet	2
Area	TENN. VALLEY STABLES			of	
Project	AUX. RES. / BUNKHOUSE	By	HAGIN	Checked	Pkg.
Feature	PLAN & ELEVATION	Date	05/14/2013	Date	Account



ROOF PLAN



SOUTHEAST ELEVATION



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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		Sheet	3
Area	TENN. VALLEY STABLES			of	
Project	AUX. RES. / BUNKHOUSE	By	HAGIN	Checked	Pkg.
Feature	ELEVATIONS	Date	05/14/2013	Date	Account

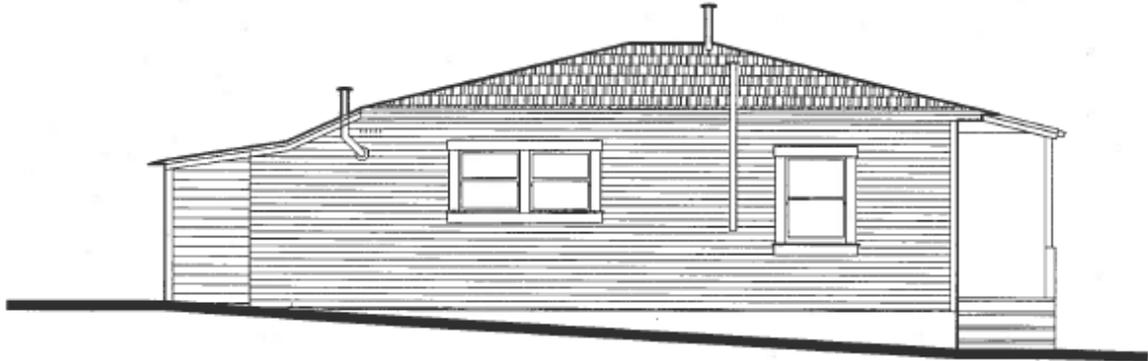


WEST (FRONT) ELEVATION



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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		Sheet	4
Area	TENN. VALLEY STABLES			of	
Project	AUX. RES. / BUNKHOUSE	By	HAGIN	Checked	Pkg.
Feature	ELEVATIONS	Date	05/14/2013	Date	Account



NORTH ELEVATION



EAST ELEVATION

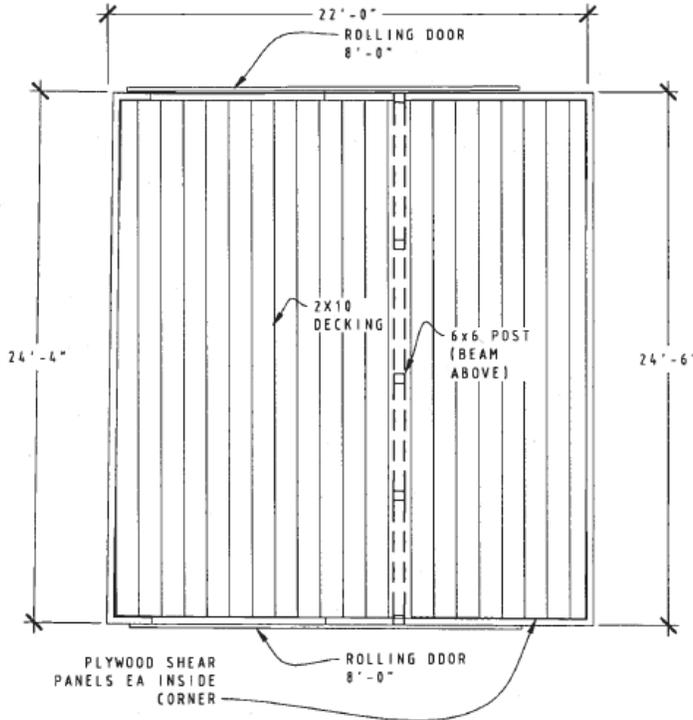


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NOTE: Measured Drawings for the Calf Barn (Auxiliary Stables/TV-107) are being developed and will be completed prior to the start of any work on recommended treatments in this report

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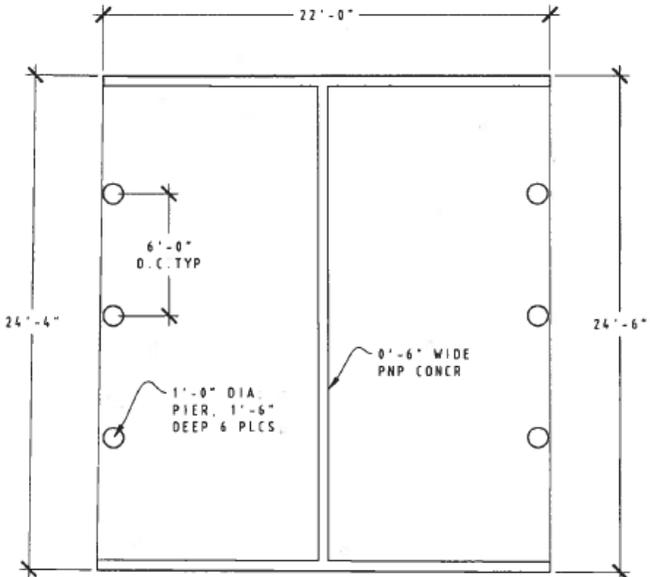
Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA			Sheet	1
Area	TENN. VALLEY STABLES				of	
Project	RED BARN/GARAGE	By	HAGIN	Checked		
Feature	FLOOR PLANS	Date	05/14/2013	Date	Account	



NOTE: THE BUILDING WAS STRUCTURALLY STABILIZED IN 2011. LACK OF BOTTOM PLATE ON THE STUD WALLS AND EVIDENCE OF A WOOD FLOOR BENEATH THE EXISTING INDICATED THE FLOOR WAS REPLACED/BUILT-UP. THIS UNORTHODOX STRUCTURAL DETAIL WAS PRESERVED. CHARACTER FEATURES INCLUDING THE FOLLOWING SHOULD IDEALLY BE RETAINED/RESTORED IN ANY REUSE SCHEME:

- 8'-0" FLOOR TO CEILING HEIGHT
- 1'-0" WIDE ROUGH SAWN VERTICAL SIDING
- FIRST FLOOR 2x8 ROUGH SAWN DECKING
- VISIBLE BALLOON FRAME FULL DIMENSION 2x4 STUD WALLS @ 24" O.C. W/ DIA. BRACING
- LOFT 2x8 @ 24" O.C. W/ 1x8 T&G FLOORING
- ROOF 2x4 RAFTERS W/ VISIBLE WOOD SHINGLES AND 1x DIA. BRACING

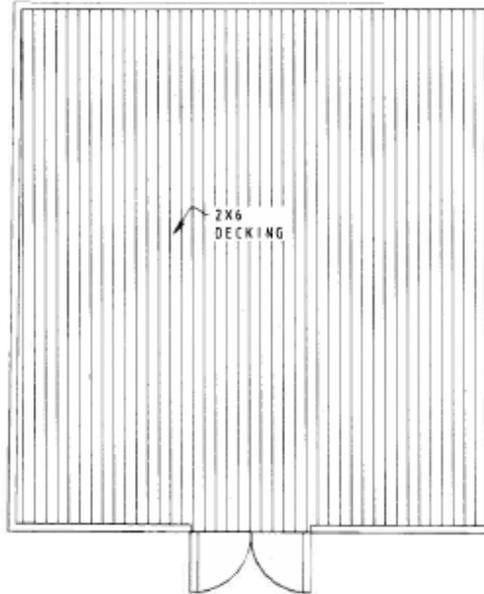
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



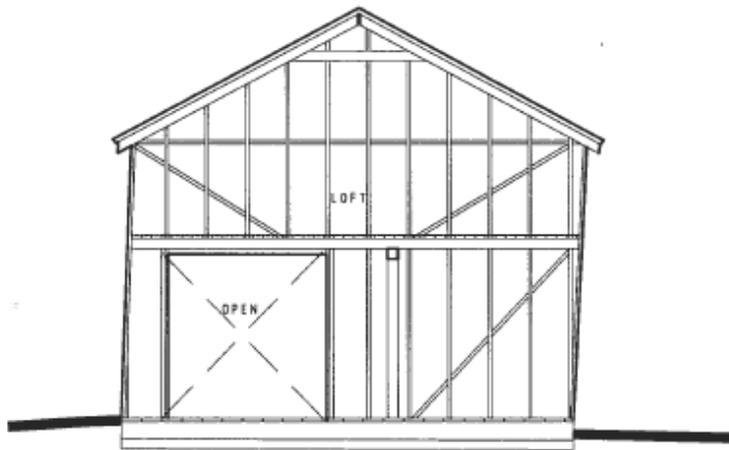
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA			Sheet	2
Area	TENN. VALLEY STABLES				of	
Project	RED BARN/GARAGE	By	HAGIN	Checked	Pkg.	
Feature	FLOOR PLAN & SECTION	Date	05/14/2013	Date	Account	



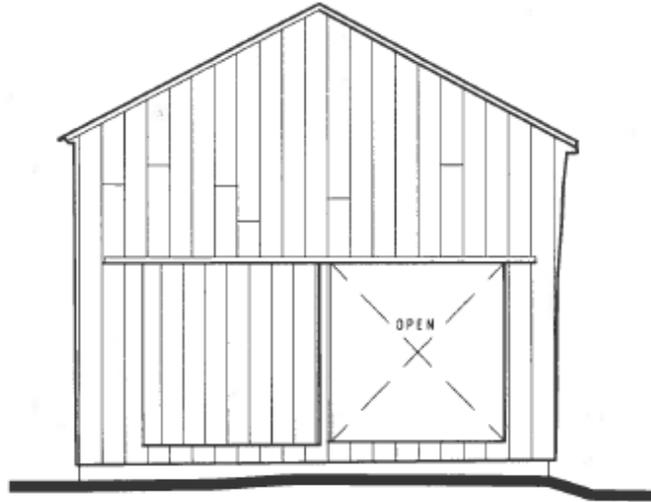
LOFT PLAN
SCALE: 1/2" = 1'-0"



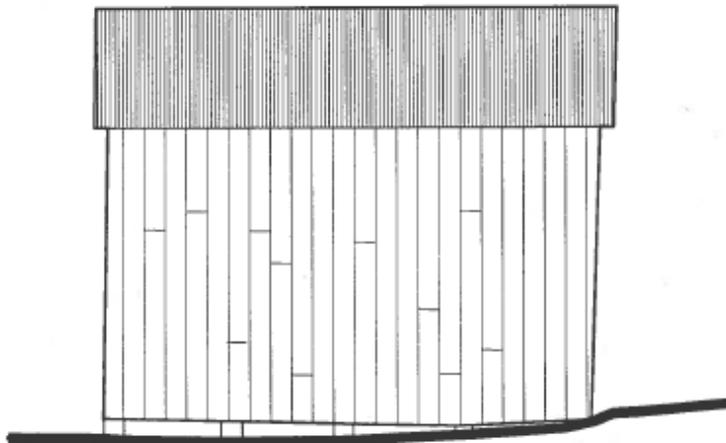
SECTION LOOKING SW
SCALE: 1/2" = 1'-0"

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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA			Sheet	3
Area	TENN. VALLEY STABLES				of	
Project	RED BARN/GARAGE	By	HAGIN	Checked	Pkg.	
Feature	ELEVATIONS	Date	05/14/2013	Date	Account	



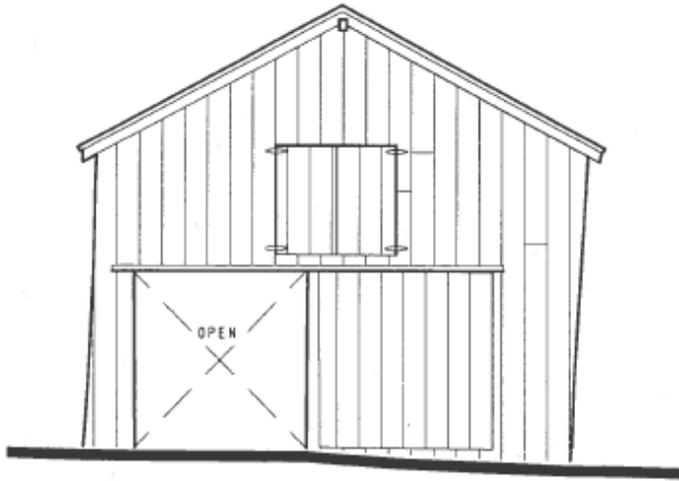
SOUTHWEST ELEVATION
SCALE: 1/4" = 1'-0"



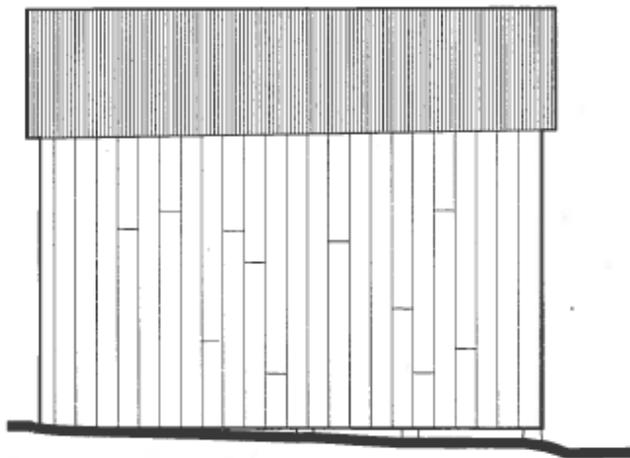
SOUTHEAST ELEVATION
SCALE: 1/4" = 1'-0"

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Park	GGNRA	NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		Sheet	4
Area	TENN. VALLEY STABLES			of	
Project	RED BARN/GARAGE	By	HAGIN	Checked	Pkg.
Feature	ELEVATIONS	Date	05/14/2013	Date	Account



NORTHEAST ELEVATION
SCALE: 1/2" = 1'-0"



SOUTHWEST ELEVATION
SCALE: 1/2" = 1'-0"

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View of Main Residence looking southwest

(NPS Photo, 2013)

Historic Structure Report - Main Residence (Ranch House, Lopes House)

Tennessee Valley Stables (Cunha/Rapozo Ranch, Ranch A/B) Golden Gate National Recreation Area

April 24, 2013
United States National Park Service
Golden Gate National Recreation Area
Division of Cultural Resources

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Options for reuse that would complement the equestrian boarding and riding program operations and meet the *Secretary's Standards for Rehabilitation* for reuse are as follows:

- Guest House
- Rider Club House
- Stables Office Space
- Small Event/Gathering Space

Requirements For Work

Other current applicable codes for the architectural treatment of the main residence are as follows:

International Building Code (IBC)

International Existing Building Code (IEBC)

National Electrical Code (NEC)

International Mechanical Code (IMC)

International Plumbing Code (IPC)

American's with Disabilities Act - ADA Standards for Accessible Design (ADA)

International Energy Conservation Code (IECC)

California Title 24

California Energy Code

Uniform Fire Code and any other NFPA Code relative to project (UFC/NFPA 1)

California State Historic Building Code-Title 24 Part 8

GGNRA Integrated Pest Management Program

The building does not have a fire suppression system or a fire alarm. For certain occupancies, the building will require adequate protection for occupants in case of fire. When designing the new building systems (electrical, plumbing, and mechanical), all current codes are applicable. The building will require new building systems throughout. Pest removal and lead paint abatement will be required. The GGNRA Integrated Pest Management Program and any GGNRA requirements for proper removal of hazardous materials must be followed. The building is not accessible at this time. Rather than try to incorporate a very long ramp into the landscape which would surely affect views of the building, it is recommended that options for a vertical or incline wheelchair lift be explored in a future feasibility study.

Exterior Recommendations

Summary

The exterior of the main residence still has a minimal degree of integrity despite removals and repairs over the years. The building was reviewed to identify deterioration and deficiencies. Materials that are highly sensitive to alteration due to its significance are to be stabilized or repaired. Missing components should be replaced in-kind where required. Visible modifications to the exterior should be minimized. Recommendations are provided to guide long-term maintenance efforts.

Roof Material

Rating: *Less sensitive to alteration (material is modern replacement, but historic form of roof should not be changed)*

Condition: *Good*

Repair Horizon: *Long term*

Condition: The roof material is a shingle type composition roof over hip roof wood framing. The roof appears to have been rehabilitated in the last 10-15 years according to NPS records which indicate roof replacements occurred from 1998-2004. Its installation is showing minimal wear. The thickness of the roof material indicates it may have a 20-30 year lifespan assembly. A photo from the 1970s shows a replacement roof with roof vent penetrations. A roof survey was conducted from the ground and within the attic space. The attic vent and plumbing vents were installed perpendicular to the roof surface which does not match historic photos where roof vents emerge straight from the roof. Minor biological growth was noted on the north side, but most of the roof is in good condition with minor installation issues. No breaches were noted in the roofing material and the substrate appeared intact viewed from within the attic.

Recommendations: The roof is important in keeping the building protected against water intrusion. The roof has a useful life which in time will fail as a result of the weather exposure in this area. The following are general recommendations:

- Remove biological growth at roof material and maintain a clean roof.
- Clean and maintain gutters and leaders on a regular basis.
- Implement a maintenance plan to monitor roof material and assembly to extend the life of the roof. Maintenance should include visual inspection at the exterior and inside the attic and the use of standard repair work when needed.

Roof Drainage

Rating: *Less sensitive to alteration*

Condition: *Good with one poor condition*

Repair Horizon: *Short term*

Condition: A gutter and leader are noted at each facade and at each corner of the building respectively. All leaders are in good condition except one that appears to have been bent near the base of the leader (northwest corner). Two leaders are missing adequate splash blocks and all are missing extensions that lead water a safe distance away from the base of the building. The gutters and leaders are made of a polyvinyl material that is not contributing to the historic fabric of the building, but is required to keep water away from historic building materials (wood siding, framing, and foundation).



Leader conditions

(NPS Photos 2013)

Recommendations: Proper drainage keeps water away from the foundation and facade protecting historic material. Since there is no subsurface drainage system, site drainage needs to be adjusted so that water flows away from the building. Repair and replacement recommendations as well as recommended site changes are as follows:

- Install leader extensions to shed water away from the building.
- According to recommendations of the Cultural Landscape Report, remove and/or replace plantings and pathways and re-grade area around building to shed water away from building. Keep a 3'-0" clearance for access to the foundation.
- Replace damaged section of leader at northwest corner of building to allow for maximum flow of water through leader.
- Clean gutters as part of the building's regular maintenance.
- Create a perimeter French drain system embedded in gravel around the building. Conduct archeological testing prior to any excavation.

Concrete Foundation

Rating: *Highly sensitive to alteration*

Condition: *Fair with a poor condition at the East side*

Repair Horizon: *Short term*

Description: The ground floor foundation is a poured concrete stem wall. The foundation is exposed at the interior basement or ground floor area and at the exterior. The wood frame structure appears to have shifted on its eastern foundation with the concrete stem wall leaning out and the wood framing leaning in with the sill plate as the hinge point. This condition could be a lack of adequate footing to hold the stem wall in place or the result of minor seismic events over time. The walls are clearly out of plumb and one column at the basement interior is visibly bowing which indicates that the building is not adequately supported by the foundation and structural system. Ground floor columns are in connection with dirt in one case or eccentrically loaded on their pier foundation. The system needs further review by a licensed structural engineer.



Eccentrically loaded pier footing at centerline of building and column in connection with dirt. (NPS Photos 2013)

Recommendation: There is only one crack visible in the existing stem wall foundation and the building is not in imminent danger of falling over, however the visible listing of the building is a serious condition that needs stabilization. It is recommended to:

- Consult a structural engineer to suggest options for stabilization. Solutions to consider:
 - Raise the building off its foundation to install a completely new foundations below the wood framed structure and lowering the building onto the new foundation (despite the historic sensitivity of the foundation, life safety would trump keeping the original foundation)
 - Add new pier footings tied to the existing foundation to keep it from listing any further
 - Shoring the building to temporarily protect it from further decline and to buy time to consider the options in the future.
- Keep ground area of foundation clear of water and vegetation to prevent further leaning of stem wall. Soft soils may be an issue in the undermining of the foundation.

Porches/Stairs

Rating: *Highly sensitive to alteration for overall building form*

Condition: *Good*

Repair Horizon: *Long term*

Conditions: Currently there are porches at the north and east facades. These porches are in the same orientation, have original roof projections, and have the general form of the original building porches, but the stairs and landing were rebuilt within the last 5 years. They are not an exact reconstruction of the original stair porches. Previously, there was an original porch at the rear or south facade that was removed to build a larger rear deck in the 1980s. This newer deck became unsafe over the years and was removed by the National Park Service for life safety in 2009. The entry door at the south facade remains covered by plywood. A shadow of the original wood stair and porch is visible in the cement-asbestos shingle siding at the same facade.

Recommendations: The porches and stairs contribute to the overall historical form of the building and remain significant. It is recommended that the third porch at the rear of the building be rebuilt in a form closely related in size and scale to the original. There is one photo from the period of significance that shows the form of the porch with stair though it not a high resolution photo and it is partially obscured by vegetation. Since this is a tertiary facade, this is a low priority with there being two other entrances into the second floor main level interior. Given the change that has occurred at this rear facade, this may

be a good location to locate a vertical or incline wheelchair lift for accessibility to the second or main floor level. With the north and east facades being the primary and secondary facades respectively, this third facade with historic rear entry could be utilized for an accessible entry access, assuming that making one of the other entrances accessible would threaten or destroy the historic character of the property.

Wood Siding

Rating: *Highly sensitive to alteration*

Condition: *Mostly Unknown with some fair portions exposed*

Repair Horizon: *Mid to Long term*

Condition: The building is currently covered with cement-asbestos shingle siding which was installed over the older wood siding. It appears that each facade still maintains some wood siding material. Its condition is unknown due to it being almost entirely covered by the shingle material. However, from the ground floor open area interior and from what is exposed on the exterior, it appears that the wood siding may be able to be rehabilitated.

Recommendation: The wood siding finish is a contributing feature to the overall look of the building. Though the exterior shingle is in fair condition and received a new coat of paint in 2009, revealing and rehabilitating the wood siding would give the residence more integrity. Significant wood repair will be required once the shingle tile has been removed.

Wood Windows and Doors

Rating: *Highly sensitive to alteration*

Condition: *Fair with a few poor locations due to missing material*

Repair Horizon: *Short Term*

Condition: The wood windows and doors are a contributing feature to the building. Most of the 1-over-1 and 1-over-2 double hung sash windows are in fair condition overall, with areas that are in poor condition, rotted or missing. The windows are similar in that they are double hung windows, but the glass divisions change from facade to facade. There are 1-over-1 layouts at the north facade, but 1-over-2 at the east and west facades. The south facade windows and those at the ground floor level are not consistent with the rest of the house which could indicate the house may have used salvaged windows from nearby buildings or other dairy farmhouses in the valley.



Various conditions of windows – shifted glazing, rotted stile, missing mullions (NPS Photos 2013)

The wood interior doors are in better shape and could be rehabilitated. The front and rear exterior doors are showing wear and may require wood repair or replacement and certainly new hardware. The rear door at the south facade is a newer flat wood door and new paneled door may be considered at this location.



Various conditions of exterior doors- crack at north door, rot at south door, east door in good condition (NPS Photos 2013)

Recommendation: Repair or replace wood windows and doors to usable condition. Upper and lower sash should be operable on double hung windows. Windows will require either full rehabilitation or replacement in-kind based on historic photographs as much as possible. Doors should be hung to swing freely and fit in frames without damaging floor or frame.

Vegetation

Repair Horizon: *Short Term*

The foundation is experiencing decay due to the proximity of vegetation growing too close to the base of the building. At a minimum, there should be a 2'-0" to 3'-0" wide clearance around the building to allow access to the foundation and keep vegetation clear of siding. This will assist with Pest Control of insect infestations.

Pest Control

Repair Horizon: *Short Term*

Bats, Deer Mice, and Wood eating insects are the primary pest concern for the Main Residence. Small openings at the foundation and within the siding at frames allow species to access the interior at ground level. Deer mice were observed in the ground floor area during the field survey. Insects, most likely a type of beetle, are damaging the wood siding at some locations. In order to prevent further pest problems, the GGNRA Integrate Pest Management Program should complete another inspection and the proper means of removing any species should be utilized. Once all pests are removed from the building it is recommended that:

- All holes and gaps 1/4" and larger need to be sealed to prevent further entry of bat and deer species (see NPS Mechanical Rodent Exclusion Manual).

- All vegetations at the foundation should be removed to prevent insects from gaining access to the wood trim.
- Damaged sections of wood trim should be replaced in kind
- Further investigation at the ground floor level should be conducted by structural engineer and integrated pest management expert to determine steps in preventing the further decay of historic wood structural elements, framing, siding and trim.
- Railway ties in the landscape have been shown to have signs of termite infestation according to the 2009 house inspection. These ties are still in situ and should be removed as noted in report to prevent feeding in the area.
- Remove unused wood composite building materials in the basement to remove a source material for feeding.

Interior Recommendations

Summary

The interior of the main residence maintains some degree of integrity despite installation of non-original building materials over time. The building was reviewed to identify deterioration and deficiencies. Historically significant materials are to be stabilized or repaired. Missing components should be replaced in-kind where required. Visible modifications to historic fabric should be minimized. Any hazardous materials should be identified and removed or in the case of lead based paint be encapsulated as part of any rehabilitation work in the future. Recommendations are provided to guide long-term rehabilitation and maintenance efforts.

Structural System – Foundation, Columns, Framing

Rating: *Highly sensitive to alteration*

Condition: *Fair overall with areas in poor condition*

Repair Horizon: *Short Term*

Condition: As described in the conditions assessment, the building has shifted on its foundation at the east side of the building and the columns and framing are showing signs of structural distress due to bowing columns or missing wood material. Much of the structural work that was done in the recent past at the first floor, sistered to previous studs, looks to be in good condition. However, the overall condition of the wall framing system is fair with areas of rotted or missing wood material. Photos taken of the attic and roof framing do not reveal any serious conditions in that area.



Attic framing conditions



(NPS Photos 2013)

Recommendation: It is recommended that a structural engineer review the deficiencies in the structural system in the storage area beneath the main floor of the house and throughout. It is likely that the east facade will need a new stem wall foundation. An alternate treatment would be to install new piers and new wall framing to support the listing facade. Missing portions of the wood framing at the south facade will require new wood framing material. A structural engineer should suggest the final treatment for the building (See Concrete Foundations under Exterior Recommendations).

Wall and Ceiling Finishes and Features

Wood finished walls - *Highly sensitive to alteration*

Wood ceiling finishes - *Highly sensitive to alteration*

Wood shelving - *Highly sensitive to alteration*

Acoustical ceiling tile – *Less sensitive to alteration*

Plaster wall and ceiling finishes - *Less sensitive to alteration*

Condition: *Fair overall with areas in good condition*

Repair Horizon: *Short Term*

Condition: Many of the interior rooms are finished with a painted wood wall paneling. There are vertical and horizontal installations and V-groove and beadboard versions of this finish at the wall and ceiling. These finishes are highly sensitive to alteration and should be restored and repaired to the greatest extent possible to maintain the historic integrity of the former farm house interior. A section of panel is missing in the kitchen (possible location of a previous shelf or closet), but the majority of the wood paneling is in fair condition with some areas in good condition requiring some prep and paint. Other architectural features including wood shelves in the pantry and the small shelf in the hallway should be maintained and restored. Less sensitive to alteration of course, are the acoustic ceiling tiles found in most rooms and wallboard finished spaces at the front north part of the building.



Beadboard wood panel (Room 210), pantry shelving (room 209), hallway shelf (Room 211) (NPS Photos 2013)

Recommendation: Restore or repair wood beadboard and V-groove wall finishes. Remove all acoustic ceiling tiles to reveal the remaining wood panel ceiling finishes and restore. Wallboard wall finishes may remain and should not be given new wood panel finishes to match the rest of the house. Surfaces may be painted a new color to suit the new use of the building.

Floor Finishes

Wood Flooring - *Highly sensitive to alteration*

Laminate Flooring – *Less sensitive to alteration*

Condition: *Fair overall with some poor areas due to laminate adhesive*

Repair Horizon: *Short Term*

Condition: There are wood floors throughout the second (main) floor of the main residence. Most of the rooms have a sheet or tile laminate that is adhered directly to the wood floor finish. There shouldn't be a concern regarding asbestos in the floor covering which looks to be vinyl or linoleum, but testing may be required before complete removal. In the pantry (Room 209) and side entry/living area (Room 205), two layers of laminate covering are noted.

Recommendation: All sheet and tile laminate floor covering should be removed and the wood floors restored. Additional substrate may be required to limit the creak and bounce in the floor in some areas. The floor may be painted in bedrooms as there is evidence that they have been painted before though a clear finish is preferred in the hall and main living spaces.



Two layers of laminate (Room 205), wood floor condition (room 211), painted wood floor under laminate (Room 213) (NPS Photos 2013)

Plumbing Fixtures

Rating: *Less sensitive to alteration*

Condition: *Poor*

Repair Horizon: *Short Term*

Condition: Currently there is a toilet room and a bathroom which are separate, small, awkward rooms. It is believed that this part of the house though added sometime during the period of significance is less sensitive to alteration and this location would be a good place for a new accessible toilet room. If there was a desire to maintain the fixtures, they could be cleaned and repurposed though a different location for an accessible toilet would need study. The layout for the rest of the house does not allow for another good location and an addition would be costly if considered.

Recommendation: Remove toilet fixtures and have a design professional redesign this area for a future accessible toilet room. An alternative would be to keep the fixtures and layout, but clean and rehab fixtures for reuse. An accessible toilet room will need to be provided somewhere on site. This condition could be met within a separate structure or a portable unit.

Mechanical Vents

Rating: *Less sensitive to alteration*

Condition: *Fair*

Repair Horizon: *Short Term*

Condition: The existing mechanical system will need replacement with a new furnace and ductwork. Most new occupancies of the house will not be allowed without a new mechanical system. The new mechanical equipment could still be located in the ground floor storage area to duct to floor locations of existing vents. The vents themselves could be retained as they are in fair condition or replaced with more efficient vents with a similar looking style. Wall or ceiling vents are not recommended since this would take away sensitive wood wall paneling material.

Recommendation: The mechanical vents could remain in place or be replaced in kind with new metal vents. If painting floors, the vents could be painted as long as it does not interfere with that vent's operation.

Summary of Treatment Recommendations

*(This list includes both exterior and interior recommendations described above. Items noted with an asterisk * indicate that there is an alternative treatment in lieu of full recommended treatment. These alternative treatments are listed in the next section.)*

- Roof Cleaning and Roof Drainage Maintenance
- Structural/Seismic Upgrade*
- Rear Stair and Landing Design and Construction*
- Wood Siding Restoration*
- Window and Door Rehabilitation
- Planting Removal and Replacement*
- French Drain Installation at foundation*
- Integrated Pest Control
- Wood Paneling Rehabilitation
- Wood Floor Restoration
- Exterior and Interior Painting*
- New Building Systems – Electrical, Mechanical, Plumbing, Sanitary, Fire Protection
- New Accessible Toilet Room Design and Construction*
- Hazardous Material Removal

Summary of Alternative Treatments

(This is a reduced list of alternative treatments to the above recommendations with consequences of putting off the full treatment recommendations)

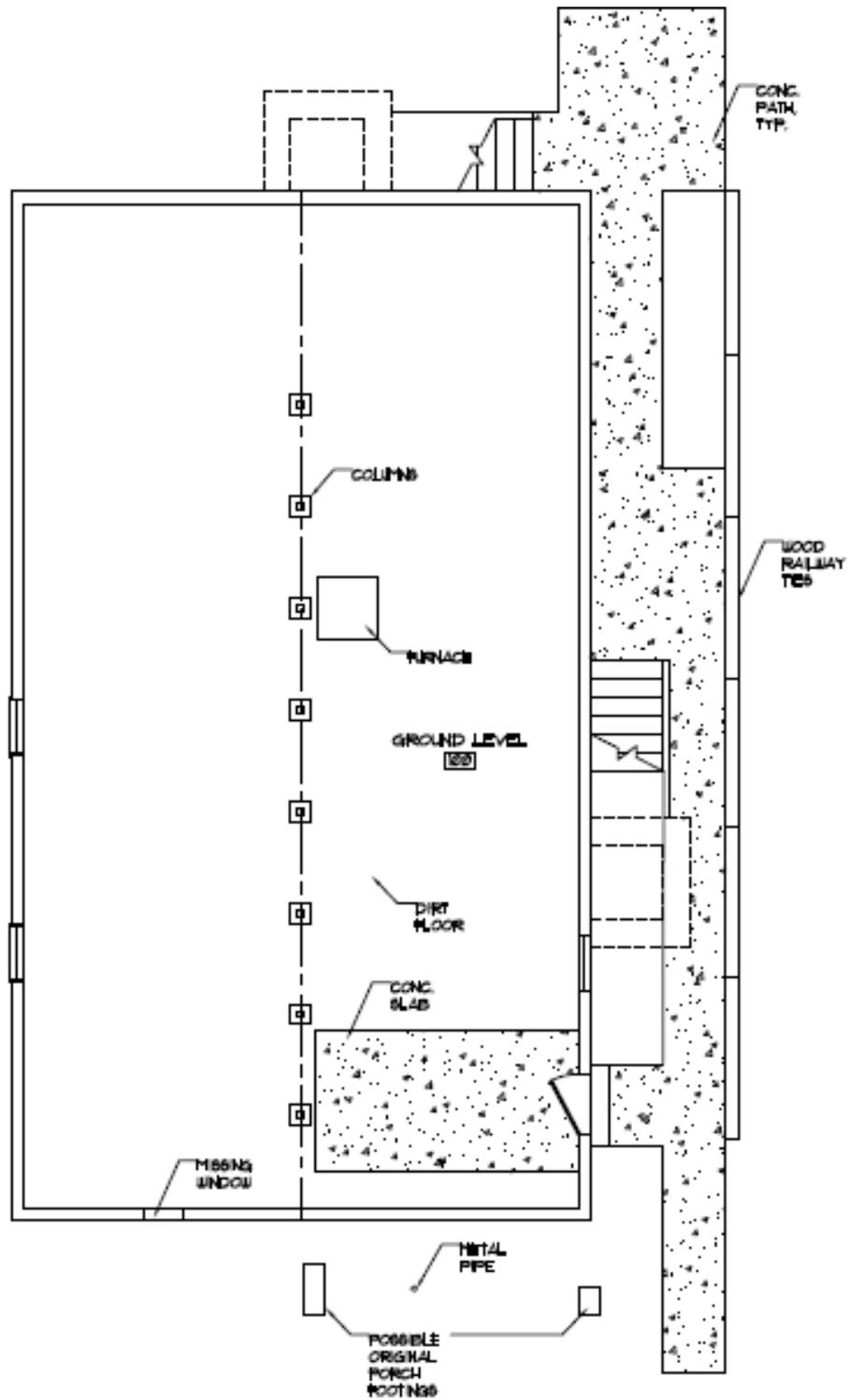
- Structural stabilization (Shoring)
This item includes shoring the south floor area where beams are rotted and stabilizing the east wall to prevent further movement of the building. It is a short term solution that will buy some time until a more permanent solution can be reached. A structural consult should still be used to determine best shoring system.
- Planting removal and required clearance at foundation without new plant installation or French drain installation
This alternate reduces the work associated with maintaining the foundation currently exposed to vegetation. Removal of vegetation is still required as well as the gravel strip to give clearance to the building. Moisture of soil should be monitored and future landscaping plans should avoid planting too close to the foundation.
- Cement-asbestos shingle siding repair with no wood siding restoration
This alternate treatment maintains the shingle siding as is and suggests making repairs only where there is new construction or where wood siding is exposed. Proceeding with this alternate assumes that the wood siding will not be restored in the near future, but will be protected beneath the shingle siding in case future agreements include the full rehabilitation wood siding treatment recommendation. The wood siding has been covered for over 40 years and there should be no adverse effect in leaving it covered.

- Rehabilitate existing toilet and bath rooms & provide separate accessible toilet room structure
The rehabilitation of the toilet and bath rooms assumes that it is too costly or not feasible to design and construct a new accessible toilet room within the house at the same location as the existing fixtures. This does assume that a separate portable or temporary structure will be provided for equal access for those needing an accessible toilet room.

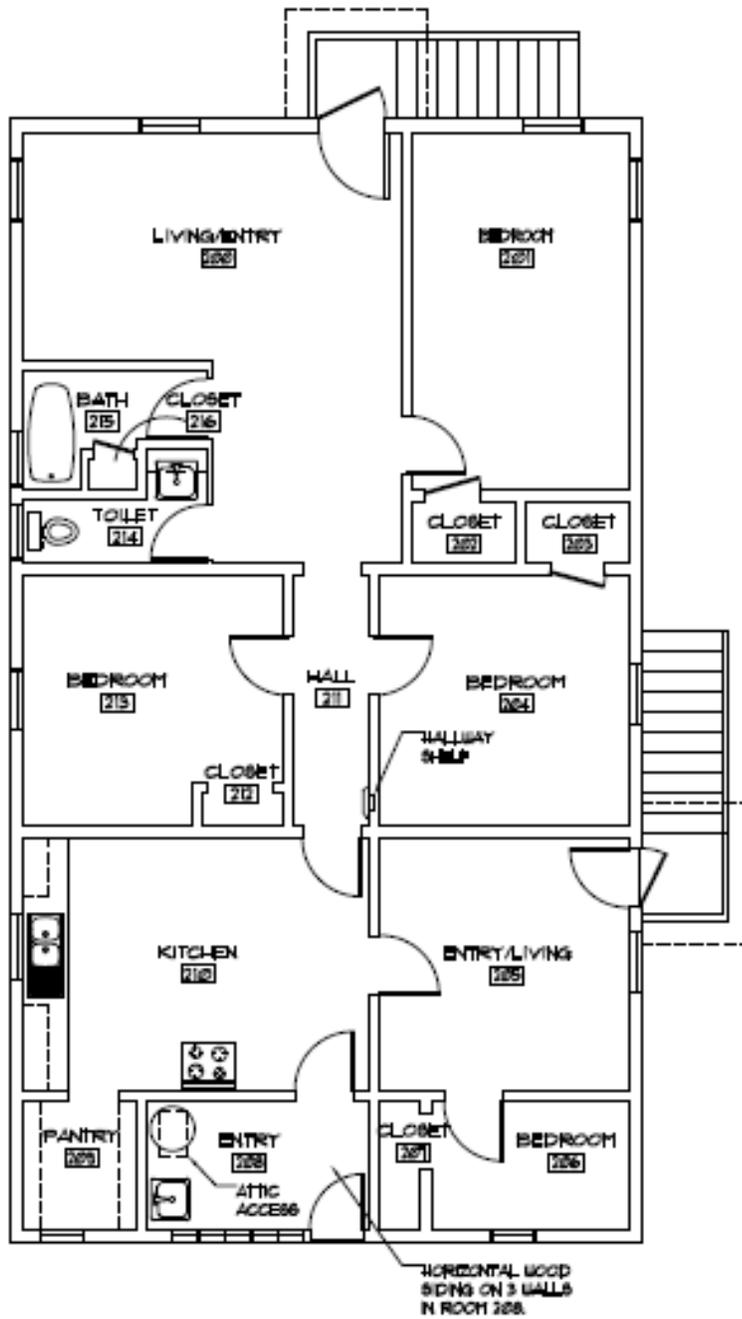
Appendices

Existing Conditions Drawings

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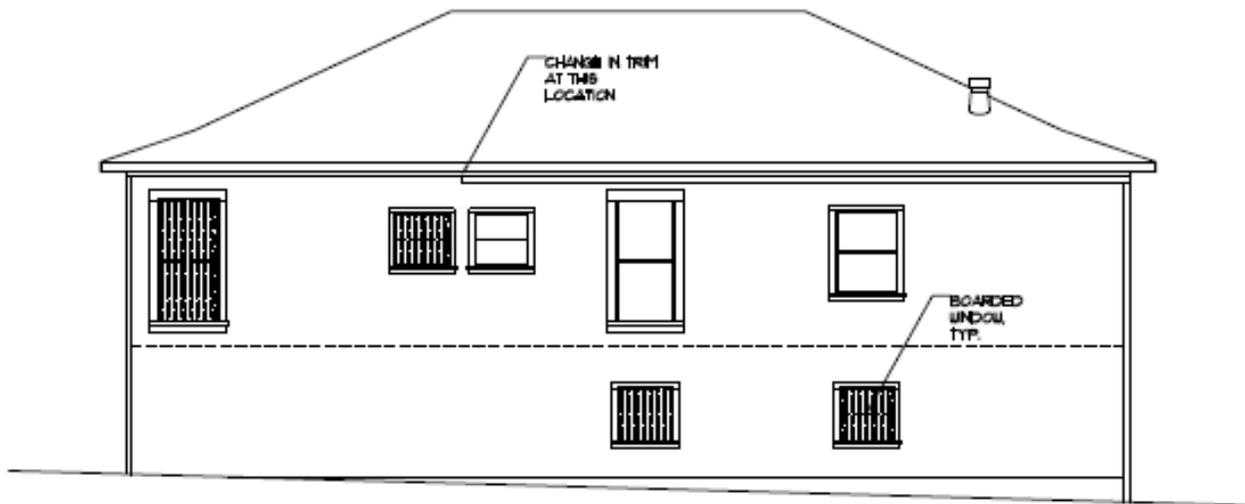

MAIN RESIDENCE - FIRST FLOOR PLAN WITH SITE INFORMATION
 SCALE 



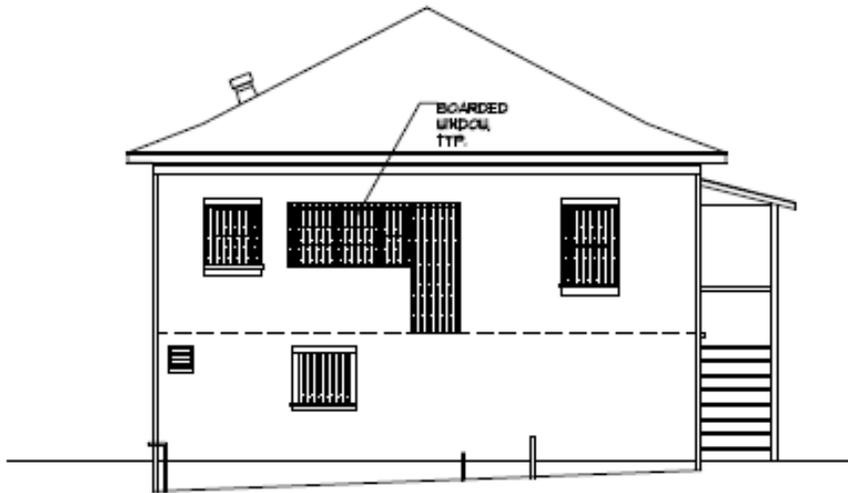
2 MAIN RESIDENCE - SECOND FLOOR PLAN
 2/8 SCALE: 1/4"



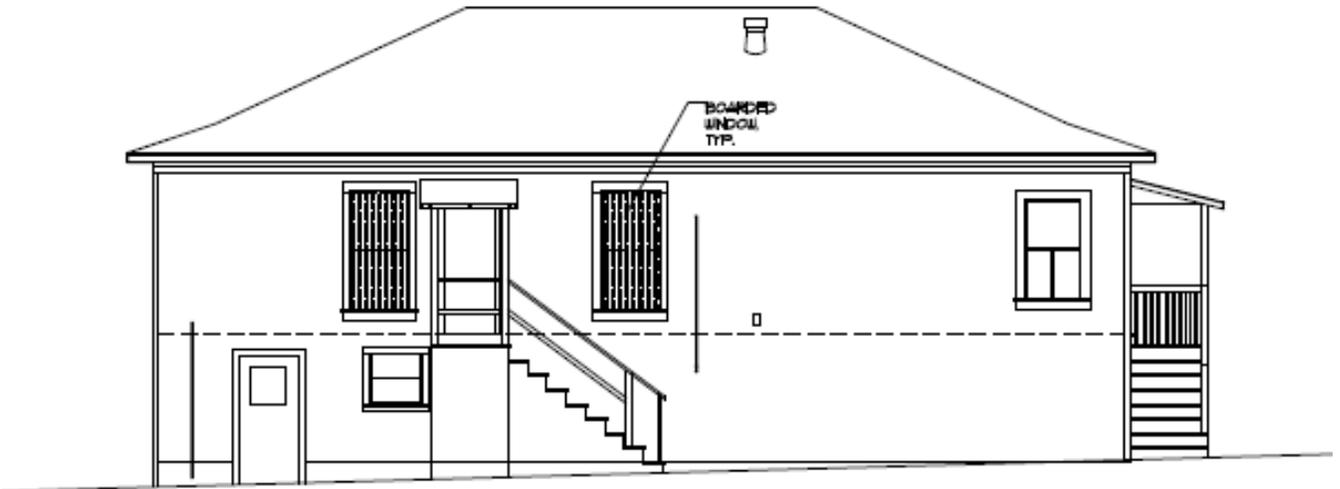
1 MAIN RESIDENCE - NORTH ELEVATION
A238 SCALE: 1/2"



2 WEST RESIDENCE - WEST ELEVATION
A238 SCALE: 1/2"



1 MAIN RESIDENCE - SOUTH ELEVATION
SCALE 1/8" = 1'-0"



2 MAIN RESIDENCE - EAST ELEVATION
SCALE 1/8" = 1'-0"

Tennessee Valley Stables (Cunha/Rapozo Ranch, Ranch A/B)

Archeological Assessment and Treatment Report

AATR Restricted Appendix

Archeological Sites and Survey Location Map

Primary Form P-21-022825

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Archeological Assessment and Treatment Report (AATR)

Tennessee Valley Stables (Cunha/Rapozo Ranch, Ranch A/B) Golden Gate National Recreation Area Marin County, California

Confidentiality Statement

Cultural resource information is protected from public disclosure under Section 304 of the National Historic Preservation Act of 1966, as amended, the Archaeological Resources Protection Act of 1979 (43 CFR 7.18 – Confidentiality of archaeological resource information), and Director’s Order 28, (Cultural Resource Management). Park managers are authorized to restrict information relating to the location or character of the resources when the disclosure of such information may create a substantial risk of harm, theft, or destruction to resources or to the place where resources are located. Sensitive locational information regarding archaeological resources shall be either redacted from general public access, or separated into a restricted appendix.

Context

Historic studies which provide a contextual framework for understanding the archaeological resources present or expected at this project location can be found in the front section of this study and the following sources (Barnaal and Barker 2003; Eastman 1998; King 1979; Meyer 2003; Stewart and Praetzellis 2003).

Sensitivity

Precontact archaeological sites are known in the vicinity along Elk Creek, and are expected in association with landforms like the alluvial fan that the Tennessee Valley Stables complex was constructed on. A GIS-based archaeological sensitivity model constructed in 2003 identifies the location as sensitive to the discovery of precontact sites (Barnaal and Barker 2003)

An historic archeological feature has been found at the Tennessee Valley Stables that may have association with historic dairy functions and with one or more of the families that owned and operated it between 1903 to 1955. No written or artifactual evidence has been discovered that suggests an earlier historic occupation. Archaeological features dating after 1955 are currently not considered historically significant.

Sensitive areas where archeological deposits may be discovered include:

- the alluvial fan the current stables were built on
- the edges of the creek running through the complex
- domestic areas including the main and auxiliary houses
- areas adjacent to dairy operations and structures

Survey and Identification

The park conducted a reconnaissance level survey of all of Tennessee Valley in 1979 (King). At that time surveyors only sought to locate precontact sites, and none were located. Since that time small project specific surveys in the valley have relocated vestiges of one precontact site (CA-MRN-6) and a previously unrecorded site (GOGA00115). Neither of these properties is within the APE of the Tennessee Valley Stables project.

Visible surfaces around the current Tennessee Valley Stables area have been surveyed over the past decade in response to stables management actions including construction of a new paddock to the north of the stables, stabilization of the Lopes House, rehabilitation of a collapsing hay barn, and construction of new tie-ups on the east side of the stables. A reconnaissance survey was conducted of all visible surfaces around the by Leo Barker on September 4, 2009. No depositional archeological properties were found during these surveys, although ruinous concrete features (a road, concrete pads) apparently from the historic dairy were recorded. These were later incorporated in mapping conducted as a part of cultural landscape documentation.

Approximately 70% of the main complex of the Tennessee Valley Stables has been surveyed for archeological properties to date, and one refuse dump has been documented by discovery in a heavily vegetated area. (See AATR Restricted Appendix for survey coverage and supplementary resource information).

On February 14, 2012, during stabilization work on a small hay barn adjacent the Lopes House, a large historic refuse deposit (California Historic Resource Information System (CHRIS) # P-21-022825 – NPS Archeological Sites Management Information System (ASMIS) # GOGA00373) was brought to the archeologist's attention by park staff. It has been documented to park and California State standards.

Significance

No prehistoric sites have been identified at the Tennessee Valley Stables, although the location remains sensitive to the discovery of such properties for management purposes.

A formal assessment has not been conducted on P-21-022825 at the Tennessee Valley Stables. The research value of such sites has been developed by multiple authors, and is discussed in Waghorn's historic archeological context for the park (2003: 283-293):

“A comprehensive discussion of property types found on dairying and farming sites on California's central coast is provided by Eastman (1998)... As Mires and Bullock note (1995:13-14), farmsteads can present profitable sites for archeological inquiry. Farmsteads can have long, continuous histories of occupation and use, often by multiple generations of the same family. As such, they often have extensive associated documentation, including family genealogy, oral histories, and land and taxation records. The long-term occupation that characterizes many farmsteads makes them particularly suitable to archeological investigations focusing on both diachronic and synchronic processes. In addition, the main infrastructure of farms tends to be highly centralized around the homestead and principal barns, even if the farm itself covers large areas of land (Mires and Bullock 1995:13). The centralization of many farming activities allows for their investigation using archeological techniques.”

Research themes include

- Effects of modernization on the technology and cultural landscape of dairies and farms;
- Victorianism and the modernization of the farm and dairy industries;
- Economic, ethnic, and social landscapes of the farm and dairy industries;
- Cultural landscape of the dairies and farms;
- Environmental adaptation of farming practices to local environments”

(Waghorn 2003:283-293)

Archeological features (historic trash deposits, ruinous structures and foundations, and landscape vestiges) associated with the values for which the resources are considered eligible are a part of those eligible resources. These properties also have the potential to add to our knowledge about an historic place as primary, ancillary, or auxiliary sources.

No historic archeological collections have been made from P-21-022825 found at the Tennessee Valley Stables.

Plan Actions and Effects

The purpose of the undertaking is to provide for comprehensive improvement of equestrian sites, facilities, programs and stables management at the Golden Gate Dairy (Lopes Brothers Dairy, Ranch M), the Tennessee Valley Stables (DaCunha/Rapozo Ranch, Ranch A/B) and the Rodeo Valley Stables (Fort Barry Balloon Hangar and Motor

Vehicle Sheds). These actions are intended to improve visitor services and to preserve, protect and enhance cultural resources therein.

Implementation of the plan will involve many actions with the potential to expose, impact, or remove archeological sites, features, or other ruinous material remnants of the Tennessee Valley Stables. Common actions will be the removal of non-historic structures and additions, the construction of new structures (e.g., horse facilities such as a turnout, tie-ups, mounting blocks, stalls, troughs, paddocks, a manure shed, a hay shed, water tanks). Changes on site will include: grading; construction of gravel or paved parking pads for horse trailers; addition of a water tank, generator, and pump for firefighting; installation of a toilet facilities; and associated drainage and utility (plumbing and septic) upgrades.

At Tennessee Valley Stables the intention is to continue an equestrian program while also stabilizing the condition of the buildings and cultural landscape. The Main Residence (Ranch House), Bunkhouse (Auxiliary Residence) , and the Calf Barn (Auxiliary Stable) will be rehabilitated. New stalls will be built north of the Hay Barn, or inside it, and a new turnout will be constructed southwest of the site's historic core.

Archeological features, either documented or discovered as the Marin Equestrian Plan is implemented at the Tennessee Valley Stables, will not be adversely affected by actions planned. The park and any future lessee of the property will manage the archeological resources of the property by specific conditional processes and treatments (listed below). These conditions are designed to allow continued assessments of actions as they are clarified, designed, and implemented, providing for long-term monitoring, inventory, review, and avoidance of physical damage and/or deterioration to significant archeological features.

All work areas subject to ground disturbance, such as grading, trenching and installation of foundations or footings, will be archeologically surveyed prior to work being performed, and monitoring and/or further testing as appropriate will be required in the vicinity of known archeological sites or areas of archeological sensitivity, in accordance with the recommendations of archeological assessments. Such monitoring will include representation from and/or consultation with the Federated Indians of the Graton Rancheria whenever ground-disturbing activities are within 100 feet of known pre-contact archeological sites, or in areas of high sensitivity to the discovery of such resources.

Archeological Treatments and Protocols

The following protocols, conditions, and treatments shall be incorporated into management of the Tennessee Valley Stables historic property:

- Building, structure, and landscape stabilization and rehabilitation shall follow the Secretary of the Interiors Standards at 36 CFR 67.7 (b)(8): Significant archeological resources affected by a project shall be protected and preserved;
- All actions or future plans with the potential to damage a known or expected archeological property, remove vegetation, or disturb the ground surface will be assessed for their effect on archeological resources. Appropriate actions will be taken (survey, monitoring, design alteration, etc.) to avoid adverse effect to significant archeological properties;
- Inability to avoid adverse effect to any significant archeological feature or site will require separate consultation with the SHPO under 36 CFR 800.4 (Identification of historic properties) or 36 CFR 800.13 (Post-review discoveries) depending on the circumstances;
- Portions of the Tennessee Valley Stables remain unsurveyed due to dense vegetative cover and low surface visibility during field survey. An intensive archeological survey will be conducted along the creek on the west side of the property, and in areas of dense vegetation to the south of the Auxiliary Residence and to the south of the Lopes House and site core. Survey should occur when planned actions on the dairy site provide the best opportunity for ground visibility.
- Historic archeological feature P-21-022825 will have an archeological assessment performed, including subsurface exploration to identify and document its boundaries and to assess its age, composition, and eligibility for listing as a contributor to the Tennessee Valley Stables, or for separate listing in the National Register of Historic Places. If it is determined eligible for the NRHP it will be preserved in place with a stabilizing cover. If not, it will be removed and the area revegetated.
- Significant archeological properties will be protected and stabilized if exposure, vandalism, erosion or other factor may be adversely impacting the site or feature. The refuse dump at the Tennessee Valley Stables will be monitored for any necessary stabilization action.
- During any construction or vegetation clearance, work will stop around any archeological sites or features discovered until the park archeologist and project manager can determine best treatment options in accordance with laws including the National Historic Preservation Act (NHPA) (36 CFR 800.13 - Post-review discoveries), and the Native American Graves and Repatriation Act (NAGPRA) (43CFR10.4 - Inadvertent Discoveries). A discovered site shall be documented to NPS ASMIS and State CHRIS standards, and assessed for its value and the effects expected from the relevant action.
- Discovery of or work within 100' of a precontact archeological properties will require consultation with the Federated Indians of Graton Rancheria.
- Remnant roads, pads, foundations and other landscape features will be mapped and incorporated into cultural resource documentation on the Tennessee Valley Stables (Cunha/Rapozo Ranch, Ranch A/B);
- Archeological site records and documentation shall be treated in conformance with 43 CFR 7.18 (Protection of Archeological Resources; Confidentiality of archeological resource information) and in consideration of reporting guidelines developed by the State of California (California Office of Historic Preservation 1990).

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AATR Restricted Appendix

Cunha/Rapozo Ranch, Ranch A/B (Tennessee Valley Stables)

Marin County, California

CHRIS # P-21-022825 (ASMIS #GOGA00373)

Confidentiality Statement

Cultural resource information is protected from public disclosure under Section 304 of the National Historic Preservation Act of 1966, as amended, the Archaeological Resources Protection Act of 1979 (43 CFR 7.18 – Confidentiality of archaeological resource information), and Director’s Order 28, (Cultural Resource Management). Park managers are authorized to restrict information relating to the location or character of the resources when the disclosure of such information may create a substantial risk of harm, theft, or destruction to resources or to the place where resources are located. Sensitive locational information regarding archaeological resources shall be either redacted from general public access, or separated into a restricted appendix.

Survey Coverage and Archeological Feature Location Plan

Primary Form P-21-022825

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GOLDEN GATE

