

14 December 2023

Tom Thornley Thornley Associates, Inc. 822 Broadway Sonoma, CA 95476

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Mr. Thornley,

At your request, the Anthropological Studies Center (ASC) conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. This cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas. The format of the report is also consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. A copy of the proposed project plans is provided in Appendix A.

The archaeological resources review comprised five main parts: a records and literature search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), administered by the California Office of Historic Preservation (CA-OHP); a further literature review of publications, files, and maps at ASC and online for ethnographic, historic-era, and prehistoric resources and background information; and communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities, who ASC then contacted regarding the project; a pedestrian survey; and a non-invasive subsurface survey using ground penetrating radar (GPR). Maps and figures relating to this study is included in Appendix B and correspondence relating the Native American Heritage Commission and initial contact with Native American Organizations are included in Appendix C.

As a result of the pedestrian survey an updated DPR523 Resource record was produced for P-49-005923, the Castagnasso Farm. The GPR study expanded on the fired adobe feature located during the pedestrian survey and identified a larger sub-surface component of this feature indicating it may be a dam potentially related to the Mission San Francisco Solano agricultural landscape. Preliminary evaluation recommendations for this feature suggest it is potentially eligible for the California Register of Historical Resources.

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PROJECT AREA AND RECORDS SEARCH AREA

The Project Area (Appendix B. Figure 1) is located within an unsectioned portion of the Pueblo Lands of Sonoma, or projected Section 7 of Township 5 North, Range 5 West, Mt. Diablo Base and Meridian, as depicted on the United States Geological Survey (USGS) Sonoma, California, 7.5-minute topographic quadrangle map (USGS 1980). It lies between about 70 and 100 feet above mean sea level.

The Records Search Area comprises the Project Area and a 0.25-mile buffer surrounding it, deemed sufficient to capture any recorded resources likely to be affected by the project, to provide contextual background, and to indicate the potential for unknown resources in the Project Area.

RECORDS SEARCH AND LITERATURE REVIEW METHODS

Samantha Dollinger conducted a records search and literature review on 20 October 2022 at the NWIC. The NWIC, at Sonoma State University in Rohnert Park, California, is administered by the State of California Office of Historic Preservation (OHP) as one of the centers that maintain the California Historical Resources Information System (CHRIS), the official state repository for records and reports on historical resources, including archaeological resources. The NWIC's records cover an 18-county area that includes Sonoma County. Additional research was conducted using maps, files, reports, and publications at ASC and online.

The records search and literature review examined the following documents:

- NWIC maps (USGS 7.5-minute topographic maps with NWIC annotations), to identify recorded archaeological sites, recorded archaeological surveys, and recorded historicera resources of the built environment (buildings, structures, and objects) within the Records Search Area.
- Site records and study reports on file at the NWIC corresponding to those marked on the NWIC maps within the Records Search Area.
- The California Department of Parks and Recreation's (CA-DPR) *California Inventory of Historic Resources* (CA-DPR 1976) and the CA-OHP's *Historic Properties Directory* (HPD, updated 5 April 2012; CA-OHP 2012), to identify California Historical Landmarks, California Points of Historic Interest, and California historic properties that are listed in, or determined eligible for listing in, the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) located within the Records Search Area. This edition of the HPD includes the most updated consolidated listings of these registries available.
- Historic-era maps (*diseños*, General Land Office maps, and 19th- and early-20th-century USGS 15- and 7.5-minute topographic maps), to identify additional historic-era buildings, structures, objects, and areas of elevated archaeological sensitivity located in the Records Search Area.

- *Handbook of North American Indians, Volume 8: California* (Heizer 1978) to identify ethnographic village locations in or near the Records Search Area.
- Online resources including historical map collections, the United States Department of Agriculture (USDA) Web Soil Survey website, United States Geological Survey online map and geological information, websites of local historical museums and societies, tribal websites, and subject-specific search results.

In this report, a "cultural resource" refers to a building, structure, site, or object associated with past human activities, without regard to whether it has been judged significant. An "archaeological resource" is a prehistoric or historic-era cultural resource with material remains suited to archaeological methods of investigation (such as an archaeological site), in contrast to cultural resources of the built environment that are suited to methods used by historians or architectural historians (such as a building), or cultural resources that are identified primarily by traditional knowledge, rather than by material remains (such as a place listed in the Sacred Lands File). "Prehistoric" refers to remains associated with indigenous traditions, which are often, but not always, chronologically earlier than "historic-era" remains.

RESULTS OF RECORDS SEARCH AND LITERATURE REVIEW

The records search identified recorded cultural resources in both the Project Area and Records Search Area.

RECORDED CULTURAL RESOURCES IN THE PROJECT AREA

The records search identified two previously recorded historic-era cultural resources in the Project Area (Table 1). The horse farm located at 196 E. Spain St. (P-49-005923) is listed on the National Register as a contributing element to the Sonoma Plaza District (P-49-004564). P-49-005923, also known as Castagnasso Farm, is a farm with a 2-story farmhouse, two barns, sheds, a small vineyard, and pasture land. The farmhouse is a Queen-Anne Victorian constructed in 1900 (Patri 1978).

Primary	Trinomial	Era	OHP Status	Description	Recorder
No.					
P-29-004564	N/A	Historic-	1S; listed on	Sonoma Plaza District	Crowe 1992;
		era	the		Patri 1978a;
			National		Cox and
			Register		Mulhem 1973
P-49-005923	N/A	Historic-	1D;	Farmhouse, 2 barns, sheds,	Patri 1978e
		era	contributing	vineyard, pasture land	
			element to a		
			NR district		

Table 1. Recorded cultural resources in the Project Area.

RECORDED CULTURAL RESOURCES IN THE RECORDS SEARCH AREA

The records search identified twenty-eight cultural resources outside the Project Area, but within the 0.25-mile radius of the Records Search Area (Table 2).

Primary No.	Trinomial	Era	OHP Status	Description	Recorder
P-49-000346	CA-SON-375H	Historic-era	1D	Mission San Francisco Solano	Darcangelo and Mikkelsen 2019
P-49-001859	N/A	Historic-era	1D	Boccoli Building	Meyer 1997b
P-49-002366	CA-SON-1899H	Historic-era	1D	Footings of Vallejo's tower	Praetzellis 1990a
P-49-002372	CA-SON-1912H	Historic-era	Not evaluated	Artifact concentration	Praetzellis 1990b
P-49-003251	N/A	Historic-era	Not evaluated	Artifact deposit	Meyer 2005
P-49-003294	N/A	Historic-era	1D	Nathanson Creek Bridge	Ham and Hope 2002
P-49-003561	N/A	Historic-era	5	Lawrence Villa	Chattan 2006
P-49-004079	N/A	Historic-era	5	Maysonnave Cottage	Beard 2008b
P-49-004519	N/A	Historic-era	1D	Swiss Hotel and Barn	Dawson 2013a
P-49-004614	N/A	Historic-era	1D	Glendale Federal Savings; Sonoma Valley Bank	Patri 1978b
P-49-004738	N/A	Historic-era	6Z	378 Second St. E house	Dawson 2013b
P-49-004739	N/A	Historic-era	6Z	Acme Leather Factory Complex	Dawson 2013c
P-49-004890	N/A	Historic-era	Not evaluated	Houses at 332 and 318 E. Spain St.	Patri 1978c
P-49-005238	N/A	Historic-era	1D	Presidio of Sonoma Barracks	Patri 1978d
P-49-005927	N/A	Historic-era	1S	Bullotti House	Patri 1978f
P-49-005929	N/A	Historic-era	3S	Carlson Residence	Patri 1978g
P-49-005959	N/A	Historic-era	1D	Blue Wing Inn	Kennedy 2014
P-49-006009	N/A	Historic-era	1D	Adobe Indian House; La Casa de los Criados	Alexander 1982a
P-49-006010	N/A	Historic-era	1D	Tank House	Alexander 1982b
P-49-006011	N/A	Historic-era	1D	Toscano Barn	Alexander 1982c

Table 2. Recorded cultural resources in the Records Search Area.

Primary No.	Trinomial	Era	OHP Status	Description	Recorder
P-49-006012	N/A	Historic-era	1D	Toscano Dining Annex	Alexander 1982d
P-49-006013	N/A	Historic-era	1D	Toscano Dining Annex; Sonoma Area Headquarters Office	Alexander 1982e
P-49-006014	N/A	Historic-era	1D	Toscano Hotel Barn	Alexander 1982f
P-49-006015	N/A	Historic-era	1D	Toscano Hotel; Nathanson's Store	Alexander 1982g
P-49-006061	N/A	Historic-era	6Z	Farm	Brunzell 2015
P-49-006072	N/A	Historic-era	6Z	House	Brunzell 2016c
P-49-006779	N/A	Historic-era	6Z	House	Duffee 2020c
P-49-006780	N/A	Historic-era	6Z	House Duffee 2020d	

Table 2. Recorded cultural resources in the Records Search Area. (continued)

RECORDED CULTURAL-RESOURCE STUDIES

The records search identified one study that covered a portion of the Project Area, and thirty-nine recorded cultural-resource studies that were included in all or part of the Records Search Area (Table 3).

Study No.	Date	Author	Findings	
S-348	1976	Parker	None	
S-1567	1979	Origer	None	
S-6470	1984	Origer	Historic-era features were not recorded	
S-9311	1987	Porter	None	
S-13612	1992	Praetzellis	None- excavated, but did not record	
S-15429	1993	McIlroy	None- excavated, but did not record	
S-16680	1954	Bennyhoff and	P-49-000346	
		Elsasser		
S-17349	1995	Allison	P-49-000346	
S-19179	1997a	Meyer	P-49-001859	
S-19782	1960	Clemmer	P-49-002366	
S-26579	2002	Turnbull et al.	P-49-005959	
S-28204	2002	Koenig	None	
S-30905	2003	Ham	33 resources, including P-49-003294	
S-35736	2008a	Beard	P-49-004079	
S-40274	2013d	Dawson	P-49-004520	
S-40275	2013e	Dawson	P-49-004519	
S-43252	1954	Treganza	P-49-000346	

Table 3. Recorded cultural-resource studies in the Project Area or Records Search Area.

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Study No.	Date	Author	Findings	
S-44604	2013f	Dawson	P-49-004739	
S-44605	2013g	Dawson	P-49-004738	
S-46831	2015a	Duffee	None	
S-46832	2015b	Duffee	None	
S-46834	2015c	Duffee	P-49-04890	
S-50388	2016	Holan	P-49-004079	
S-50728	2014	Dikas	None	
S-51185	2016	Duffee	None	
S-51191	2017	Duffee	P-49-005929	
S-51205	2018	Duffee	None	
S-51672	2012	Byram et al.	P-49-000346	
S-51673	2014	Hilton and Green	P-49-000346 and P-49-004564	
S-51675	2007	Tootelian	P-49-005959	
S-51795	1966	Mosais et al.	P-49-005328	
S-51796	1996	Donaldson and	P-49-000346, P-49-005328, and P-49-005862	
		Magno		
S-51802	2013	Garavaglia	P-49-006009, P-49-006010, P-49-006011, P-49-006012,	
		Architecture, Inc.	P-49-006013, P-49-006014, P-49-006015	
S-51808	2013	Hanes	P-49-004564, P-49-005959, P-49-006009	
S-53191	2016a	Brunzell	P-49-006061	
S-53219	2016b	Brunzell	P-49-006072	
S-53692	2019	Mikkelsen et al.	P-49-000346, and P-49-005862	
S-53834	2019	Duffee	P-49-006119	
S-54889	2020a	Duffee	P-49-006779	
S-54891	2020b	Duffee	P-49-006780	

Table 3. Recorded cultural-resource studies in the Project Area or Records Search Area. (continued)

AGENCY AND TRIBAL COMMUNICATION

ASC contacted the Native American Heritage Commission (NAHC) on 20 October 2022 and requested a review of the Sacred Lands File for information on Native American cultural resources in the project area. On 21 November 2022, the NAHC responded with a list of groups and individuals who may be able to provide information as to the presence of cultural resources in the Project Area. On 28 November 2022, letters (dated 23 November 2022) were sent to individuals and Tribal organizations through mail and email. Copies of all correspondence are provided in Appendix C. As of the date of this letter report, no responses have been received.

PEDESTRIAN ARCHAEOLOGICAL SURVEY

Following the records search and literature review, ASC staff conducted a pedestrian archaeological survey of the Project Area to (1) identify prehistoric and historic-era

archaeological resources visible on the surface, and (2) assess the likelihood that additional resources not currently visible on the surface exist in the Project Area.

METHODS

Samantha Dollinger, ASC Staff Archaeologist, and Mariela Martinez-Garcia, Archaeological Technician, conducted a pedestrian archaeological survey of approximately 1.5 acres of the Project Area on 13 October 2022 (Appendix B. Figure 2). The survey was focused on the approximately 0.8-acre horse pasture and approximately 0.15 acres surrounding the adobe and earthen alignment. Surveyors walked parallel linear transects separated by 5 to 10 m, examining the ground surface for archaeological artifacts and features. Ground visibility was poor (approximately 10%) due to dense coverage by native and nonnative grasses. To offset the poor visibility, the field crew cleared sections of vegetation with hand tools at varying distances along the transects to expose the ground surface and inspect it for indicators of archaeological deposits. They also inspected soil brought to the surface by burrowing animals and other natural processes. In addition, the surveyors were prepared to note non-archaeological cultural resources of the built environment at a basic level as appropriate.

RESULTS

The pedestrian archaeological survey found additional features associated with the Castagnasso Farm, P-49-005923. A copy of the site record is provided in Appendix D.

P-49-005923, Castagnasso Farm

This resource is a horse farm consisting of a house, three barns including one with a partially collapsed shed addition, a vineyard, a fenced horse pasture, and an adobe and earthen mounded alignment. The site was evaluated and is listed on the National Register as a contributing element to the Sonoma Plaza District (Patri 1979). This update did not additionally record the buildings, but did add an artifact concentration in the horse pasture (Ctx. 1) and the fired adobe/brick alignment. The site is limited by the property boundary, approximately 300 ft. long (N/S) and 200 ft. wide (E/W).

GROUND PENETRATING RADAR SURVEY

METHODS

Michael Konzak, ASC Senior Archaeologist and Bryan Mischke, ASC Staff Archaeologists conducted a Ground Penetrating Radar (GPR) survey on 3 November 2023. GPR is an active method of non-invasive geophysical subsurface surveying that transmits an electromagnetic pulse from a surface antenna and measures the time elapsed between sending the pulse and how long it takes to be returned to the surface (Conyers 2013:12-13). As an antenna is moved along a GPR transect (a linear path along the ground) individual reflections are recorded as traces. These individual traces are sequentially combined into two dimensional profiles depicting vertical reflections along and below the GPR transect. These individual transect profiles, when placed parallel in a rectilinear grid, can be combined into an amplitude slice map to display three-dimensional data. This three-dimensional data is depicted in the form of a series of plan view maps depicting amplitude reflection at a variety of depths.

GPR data was collected using the GSSI Utility Scan GPR with an in-built 350 MHz antenna. Antennas with a frequency of 350-400 mhz antenna provide a good balance of power, penetration, and resolution of subsurface features (Conyers 2013:70). GPR data was collected with GSSI's Utility Scan software on a wireless Android tablet. Onboard systems were used to calculate the relative dielectric permeability (RDP) of the soil, which defines the ability of the soil to store and transmit a charge from an applied electromagnetic field (Conyers 2013:48-49, Leach 2019:5). This constant value measures how well radar energy will be transmitted through the soil and the velocity of the radar wave. While this is a constant value for each soil layer, the RDP can vary by stratigraphic layers as soil makeup and moisture changes.

For all GPR transects, both those that make up grids and all individual transects, a profile was collected that summarized the individual GPR traces. These profiles were reviewed in the field as well as transferred to ASC computers to process and analyze the software.

GPR data was processed and analyzed using GSSI's Radan 7 Software and Larry Conyer's GPR Viewer Software. Basic processing steps included using Exponential Range Gain to normalize gain levels and equalize the strength or amplitude of the radar signal and Background Removal to remove horizontal bands derived from external noise (Leach 2019). If more filtration of the data was necessary, an Infinite Impulse Response (IIR) filter was used to limit the frequency of the data. This can be used to identify smaller and less reflective elements or eliminate background noise. Migration, which was mainly used in the grids, can be used to refine the dielectric constant, calibrate the depth, and collapse hyperbolic tails, providing a cleaner view of the amplitude slice maps.

For GPR grids, amplitude slice maps or plan maps were created in Radan 7. The amplitude slice map analysis creates plan (horizontal) maps of the reflective wave amplitude differences from the parallel vertical profiles, with high amplitude values usually denoting buried archaeological features, voids, buried natural features or stratigraphic changes while lower amplitude values equating with uniform soils. Each amplitude slice map combines the amplitude values for a certain layer thickness, similar to that of an arbitrary archaeological excavation layer.

A total of three GPR grids were set up over areas of proposed construction and of an exposed fired-adobe/low fired brick and mortar feature (Appendix B. Figure 3). All grid were laid out using hand tapes, plastic stakes, and string to provide set parallel transects. Multiple tape measures were used to layout the square grid, with the area mapped using a Trimble Total Station. Six GPR transects were placed where the proposed extensions of the house

would go, north of the main house and west of the house through the vineyard. GPR transects were recorded with a sub-foot accurate Trimble GPS.

GPR grids require an open, continuous space but allow for an analysis of both the profile (vertical) and horizontal (amplitude slice maps) data, providing a more complete picture of what may lie below the ground surface. GPR transects are placed in areas with less continuous open space and allow for an analysis of only the profile (vertical) view.

Two grids of 50 cm wide transects were placed over proposed construction area (the proposed location of the swimming pool and a possible new location for the 1904 barn). Grid 1 was placed near the proposed new location for the 1904 barn, which is planned to be relocated in the future. Grid 2 was placed near the proposed location of a swimming pool. Grid 3 was placed over the fired adobe/brick feature that may be related to a lavanderia associated with the Sonoma mission (Thornley 2022, Pers. Comm.) Grids 1 and 2 were recorded in bi-directional transects, starting going from north to south and then returning south to north. Grid 3, placed in a more confined area, data was collected only in the west to east direction.

Grid	Size	Transect spacing Depth		Target	
$1 12 m (N/S) \times 0 m (E/M)$		50 cm bi directional	2 m	Near the proposed are of	
I I	12 m (N/S) x 9 m (E/W)	50 cm, bi-directional	2 III	the Barn's relocation	
2 13 m (N/S) x 5 m (E/W)		E0 and hi directional	2	Approximate location of	
<u> </u>	13 m (N/S) x 5 m (E/W)	50 cm, bi-directional	2 m	swimming pool	
3	12 m (N/S) x 9 m (E/W)	30 cm, unidirectional	2 m	Fired Adobe/ Brick feature	

Table 4. Ground Penetrating Radar Grids

Transects 1, 2, and 3 were placed amid the vineyard rows on the east site of the house. These transects traveled from the edge of the fence/ditch towards the house in a west to east process. The three transects, each approximately 20 m, were placed in parallel to get a comparative sample of vertical subsurface data over the area. Transects 4, 5, and 6. Were placed north of the house. Transect 4 traveled from the gravel open area near the proposed edge of the house extension, south through a gate to the eastern edge of the house. Transects 5 and 6 were placed coming from the house north, transect 5 from the house to the chain link fence, then transect 6 on the other side of the fence, headed north to the proposed edge of the house extension.

GPR SURVEY RESULTS

GPR Grid 1

This 12 m x 9 m grid was placed outside of the entrance to the horse pasture on land near the area proposed for the 1904 barn relocation. A relatively flat spot was chosen adjacent to an existing well and over a portion of the modern concrete channel and away from trees and the channelized drainage ditch. While not exactly in the proposed location, this area appeared to be more intact and provide a better glimpse into the subterranean stratigraphy in this area. This grid does not depict too many subsurface reflections (Appendix B. Figures 4 and 5). A surface mound, as observed in Grid 1 Transect 2, can be seen depicted as a pit. This however is due to the rise in the ground surface at that location and what is depicted is the original ground surface under the mound. Elsewhere on the eastern side of the grid, the continuing reflections from the concrete channel are visible, obscuring anything below it. A few instances of other point reflections, likely metal based upon the intensity and shadowing of the reflection, were observed, but no distinctive reflections identifiable as subsurface archaeological features or distinct stratigraphy was observed in this Grid.

GPR Grid 2

This 13 m x 5 m grid was placed to the south of Grid 1, adjacent to the pasture in a flat area free of trees and brush. This is near or at the proposed pool location.

No distinctive reflections identifiable as subsurface archaeological features or distinct stratigraphy were observed in this Grid (Appendix B. Figures 3, 4 and 6). In one of the most reflected transects, Grid 2 Transect 1, a high amplitude planar reflection was observed on the very southern edge between 0-1 m at a depth of approximately 10 centimeters below surface (cmbs) to 15 cmbs, and several moderate amplitude hyperbolic point reflections were observed in the northern potion, at 9.2 m, 10.2 m, and 10.6 m, with a second higher amplitude planar reflection at 25 cmbs. Similar types of reflections were observed throughout this depth range, as observed in Grid 2 Transect 8. Here there are some wavy planar reflections at a depth of approximately 10-15 cmbs at 1.5-2 m and 3-4.8 m with shallower reflections at 5-10 cmbs from 11-12.4m. The "barber pole" reflection at 1.8 m, starting at a depth of 20 cmbs, is a very distinctive pattern found in buried metal hits but does not appear to be indicative of an archaeological feature.

GPR Grid 3

This grid was placed over the feature that was identified by the low-fired brick/adobe and friable mortar feature in an informal courtyard between the 1904 barn and other outbuildings. While this was partially visible on the surface as a line of material or a rough square, the GPR transects and amplitude slice maps were able to identify a significantly larger feature below the surface (Appendix B. Figures 3, 4 and 7).

In the amplitude slice map, two distinctive rectangular block reflections are visible at a roughly northeast/southwest alignment. A clear channel or break between these features is observed in both the amplitude slice map and in the transect profiles.

In Grid 3 transect 7, located at the northern edge of this channel, a series of high amplitude planar reflections are visible from 2.4-4.6 meters along the profile, with a cut or absence of material at 4.6-5.2 m, followed by additional high amplitude planar reflections from 5.2-6m. The depth of this overall feature, in Grid 3 transect 7, is from 5-10 cmbs, to approximately 100-125 cmbs with the break or channel observed from 15-70 cmbs.

In Grid 3 transect 9, located in the middle of this channel, a high amplitude planar reflection is visible from 3.2-6.6 m, with a depth from surface to 125 cmbs. A hollow, or channel is visible from 4.4-5m at depths of 20 cmbs to the bottom of the feature.

As the features extended outside of the grid to both the southeast and north, it is likely that additional portion of this feature exists under the 1904 barn. While originally reported as a possible lavenderia, an examination of the layout of the feature suggests it is likely a dam to impound and control the flow of water rather than a shallow location along the creek to wash cloth.

GPR Transect 1

Transect 1 was the northern most transect located in the vineyards west of the house and was collected from west to east (Appendix B. Figures 3 and 8). This transect depicts a series of intermittent high to medium amplitude planar reflections within the first 25-40 cmbs. These shallow intermittent reflections are likely related to a fairly disturbed context from roots, bioturbation, and human activities. Repeating high amplitude reflections at 16 m and a medium amplitude reflection at approximately 17.5 m, were observed with both appear to start around 50 cmbs. These may indicate natural or cultural features.

GPR Transect 2

Transect 2 was the middle transect in the vineyards west of the house and was collected from west to east (Appendix B. Figures 3 and 8). This transect again depicts more intermittent reflections within the first 15 cmbs. A high amplitude hyperbolic reflection was at 3.5 m and 25 cmbs. This is likely a large rock or other inclusion. Other repeating reflections are found at 5.5 m, 16 m and 16.4 m at depths of 45 cmbs to 70 cmbs.

GPR Transect 3

Transect 2 was the southernmost transect in the vineyards west of the house and was collected from west to east (Appendix B. Figures 3 and 8). This transect depicts shallower intermittent planar reflections, within the first 15 cmbs. Two medium amplitude hyperbolic point reflections at 0.2 m at 25 cmbs and 6.7 m at 35 cmbs, are the most noticeable reflections. A series of low amplitude reflections at 0.5 m, 4.5 m, 9.2 m, 10.5 m and at 15.2 m all at a depth of approximately 50 cmbs, may indicate a stratigraphic distinction at that layer.

GPR Transect 4

Transect 4 was placed north of the house, starting at the approximate location of the proposed extension, and proceeding south through the gate in the metal fence (Appendix B. Figures 4 and 9). This transect depicts the ground surface on the northern side under the gravels as a medium amplitude planar reflection about 4 m long. A second medium amplitude planar reflection is located about 16 m into the transect corresponding to the area surrounding the fence. This may be related to activities taking place in this area compressing the ground surface or other preparation for a path. For the last 3-4 m of this transect, a series of overlapping low amplitude hyperbolic reflections at about 25 cmbs indicate gravels, roots, or other small objects located below the surface.

GPR Transects 5 and 6

Transects 5 and 6 were placed north of the house and to the west of Transect 4, starting adjacent to the house and proceeding north. This was one linear path, but separated into two transects by the fence (Appendix B. Figures 4 and 9). Transect 6 again illustrates the underlying surface below the gravels at about 25 cmbs in the north. Shallower mid planar reflections are located throughout the southern portions of transect 6. Transect 5 shows some low amplitude hyperbolic point reflections at depths of 25 cmbs, likely representing gravels or roots.

PRELIMINARY EVALUATION

When a project may cause a substantial adverse change to an historical resource, CEQA requires the lead agency to carefully consider the possible impacts before proceeding (Public Resources Code Sections 21084 and 21084.1). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1). In this context "substantial adverse change" is defined as:

physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. :.[which occurs when a project] demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. (CEQA Guidelines Section 15064.S(b))

For the purposes of CEQA, the term "historical resources" includes:

- 1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing the California Register of Historical Resources (Public Resources Code §5024.1, Title 14 CCR, Section 4850 et seq.).
- 2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, may be considered to be an historical resource,

provided the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource is considered to be "historically significant" if the resource meets one of the criteria for listing in the CRHR (Public Resources Code Section 5024.1, Title 14 CCR, Section 4852):

- 1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage;
- 2. Associated with the lives of persons important to local, California or National history; or
- 3. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of an important creative individual, or possesses high artistic value
- 4. has yielded, or may be likely to yield, information important in prehistory or history.

Preliminary recommendations of CRHR Eligibility of the Adobe Feature

We recommend that the Adobe Feature be considered potentially eligible for the CRHR for the purposes of this project. A preliminary evaluation is presented here based off the research and analysis conducted as part of this report.

The GPR study identified a subsurface feature that predates the 1904 barn that overlays it. This feature appears in the GPR profile to be a fairly substantial square structure with an interior channel. This is easily interpreted as a dam with an outlet channel to help direct or limit the flow of water. Given the proximity of the mission, the construction methods of fired adobe, and that the dam pre-dates the barns, we attribute this feature to the mission agricultural system.

The JRP and Caltrans guidance on evaluation procedures and historic context for water conveyance systems in California provides a framework for this evaluation (JRP and Caltrans 2000).

Criterion 1.

The site appears to be eligible under Criterion 1 for its association with the larger landscape of the Mission San Francisco Solano created by the forced Native American laborers.

While the architecture and layout of the Mission San Francisco Solano de Sonoma is well documented in both the historic and archaeological literature (Bryam et. al 2012, Smilie 1975, Treganza 1954, Weber 1981), less has been documented about the natural and agricultural landscape created and modified by the Mission.

An account of the first days of the mission details the excavation of irrigation ditches which indicates that modification of and the water supply was important (Boulé 1988). Other accounts discuss the extensive amount of natural water in the area (Weber 1981) or the

extensive irrigated fields (Smilie 1975). An interpretive display at the Mission also depicts a dam located to the west of the Mission (Woods 2023), but provides little context for the feature other than a title.

Other missions had significant irrigation systems. The Mission San Antonio de Padua had a main canal 3 miles long with segments excavated into limestone cliffs or masonry-lined. Mission San Diego had a dam 245 ft. long and 12 ft. high with a six-mile stone-lined diversion canal (JRP and Caltrans 2000).

While not as elaborate as that found in other missions, this feature is potentially a unique surviving element of the Mission San Francisco Solano's agricultural system.

Criterion 2

The site does not appear to be eligible under Criterion 2 as its association with the lives of important persons occurs after its period of significance.

While the feature is likely associated with the Mission San Francisco De Solano, there is no direct evidence that it is tied to a specific person.

Criterion 3

The resource does not appear to be eligible under Criterion 3 as the resource is not have explicitly unique design or engineering value, is not a good example of this type of property and may not be the best preserved.

Criterion 4

The resource appears to be eligible under Criterion 4. As per JRP and Caltrans guidance, elements of Spanish irrigation systems have the potential to yield important information about vernacular competencies and construction methods (2000:94). The currently unexcavated feature may provide information on construction techniques or the technology employed by the enslaved Native American mission laborers who constructed the dam.

Integrity

Integrity is a term used by both the National Register of Historic Places and the California Register of Historical Resources to describe the ability of a property to convey its historical significance. Both Registers identify seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. A historic property will generally retain multiple aspects of integrity. Different Criteria may be For Criterion 4, integrity considerations fill usually focus on location, design, and materials (JPR and Caltrans 2000).

The resource's overall integrity is fair to good.

Location

Location is the place where the historic property was constructed or the place where the historic event occurred (NPS 1997:40).

The resource possesses excellent integrity of location. The resource is in its historical location.

Design

Design is the combination of elements that create the form, plan, space, structure and style of a property (NPS 1997:40).

The resource possesses good integrity of design. The GPR analysis indicates that despite a large visible presence on the surface, a large portion of the feature is still intact underground.

Setting

The setting is the physical environment of a historic property (NPS 1997:41).

The resource possesses poor integrity of setting. While the resource is in its original location, the abandonment of the resource and the construction of a historic-era barn on top of the resource as well as the larger development of the town of Sonoma no longer correspond with the original physical environment and landscape of the Mission.

Materials

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property (NPS 1997:41).

The resource possesses good integrity of materials. The feature, from what we were able to identify with the GPR, looks relatively untouched. No discernable modifications or impacts were apparent.

Workmanship

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory (NPS 1997:41).

The resource has fair integrity of Workmanship. While only potions of the resource were visible on the surface, those fragments were clearly of a specific technology and manufacturing techniques.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time (NPS 1997:41).

The resource possesses poor integrity of feeling. The buried feature, surrounded by historic-era barns and a modern town, is no longer is able to convey a sense of a particular period or time.

Association

Association is the direct link between an important historic event or person and a historic property (NPS 1997:41).

The resource possesses fair integrity of association. Definitive links to the mission are not yet possible due to the lack of historic-era documentation of the agricultural landscape surrounding the mission. Additional research or analysis of the feature may provide evidence to link it to a particular time and phase of Mission history.

Evaluation Summary

In the opinion of the authors, the appear eligible for listing on the California Register under Criteria 1 and 4.

As an archaeological resource, the resource retains enough integrity to convey the importance of the technology this resource represents as a representative of the results of Native forced labor and of the agricultural modifications of the landscape within the Mission period in both Sonoma County, specifically, and in California, in general.

CONCLUSIONS

The records and literature search identified one previously recorded historic-era resource and one historic-era district in the Project Area. Background research indicates a moderate sensitivity for prehistoric archaeological resources on the surface and a high sensitivity for historic-era archaeological resources on the surface within the Project Area. The area's sensitivity for buried prehistoric archaeological resources is moderate and high for buried historic-era archaeological resources. No information has been received from the NAHC that suggests the presence of other cultural resources in the Project Area. The pedestrian survey identified a historic-era artifact concentration in the horse pasture, and a historic-era fired adobe/brick feature between outbuildings and the 1904 barn. These features were added to an updated site recording of P-49-005923.

The GPR survey identified a significant subsurface extension of the historic-era fired adobe/brick feature in Grid 3 that likely extends below the 1904 barn. An analysis of the other GPR grids and transects indicates that disturbances likely occurred for at least the upper 25 cmbs extending to 50 cmbs in some areas west of the house in the vineyard area. This feature is likely a dam that was part of the Mission San Francisco Solano agricultural landscape that was created by forced Native American labor. This feature is, in the opinion of the author, potentially eligible for the California Register of Historical Resources under Criteria 1 and 4.

While no reflections outside of Grid 3 indicated distinct significant subsurface archaeological features, there remains the possibility of additional subsurface archaeological features or cultural deposits that would have a less reflective radar signature.

As this project will be within the recorded boundaries of P-49-005923, the ASC recommends archaeological monitoring for all ground disturbing activities associated with this project due to the possibility of encountering subsurface archaeological resources and the cultural significance of the area. Archaeological monitoring will be conducted by a

professional archaeologist and an appropriate Native American representative and follow the included Archaeological Monitoring Plan.

While current project plans will not impact the identified fired adobe feature (Figure 10), ground disturbing activities and heavy machinery use within 25 ft. of Grid 3, the historic-era fired adobe/brick feature, should be avoided. The full extent of this feature is unknown and likely extends beneath the 1904 barn. Project activities relating to the movement of the barn should be limited to ensure there is no adverse effect to the feature and a temporary fence should be placed surrounding the archaeological resources while heavy equipment is in use.

Archaeological Monitoring Plan

The archaeological monitor and tribal representative may draw upon different levels of archaeological monitoring, depending upon the archaeological sensitivity of the area and the depth of impact. The archaeological monitor in consultation with tribal representative may adjust the necessary level in response to conditions.

Full-time Monitoring

Full-time monitoring is defined as continuous observation by an archaeologist of all ground-disturbance, regardless of the horizontal or vertical extent of the planned excavation. That is, an archaeologist is physically present to observe project activity from surface groundbreaking to the base of excavation.

Periodic Monitoring

Periodic monitoring is defined as observation of ground-disturbance scheduled at the discretion of the archaeologist monitor, with consideration given to both the horizontal and vertical extent of the planned excavation and to field observations. The archaeologist monitor must be notified a reasonable time before digging is to begin and given the opportunity to be present to monitor excavation. The monitor may only need to monitor a specific horizontal or vertical portion of the excavation. In areas for which periodic monitoring is required and the archaeologist monitor deems it unnecessary to observe, excavation can proceed with mechanical equipment unless an unanticipated discovery is made. If such discoveries occur, the unanticipated discovery protocols must be followed.

Treatment of Human Remains

If potential human remains are discovered, ground-disturbing work will cease in the immediate vicinity of the discovery until the required studies have been completed. The immediate protection of human remains at the site shall be accomplished by (1) keeping any discovery confidential, and (2) securing the location to prevent disturbance of the remains and any associated materials.

The treatment of human remains and associated or unassociated funerary objects discovered during any project activity shall comply with the California Health and Safety Code 7050.5 and Public Resources Code Section 5097.98. The discovery will be reported

immediately to the client and property owner. The archaeologist will consult with the Native American Heritage Commission and notify the appropriate Indian tribe. The tribe may inspect the site and recommend an appropriate means for the treatment and disposition of the site and all artifacts and human remains associated with the site.

Treatment of Post-Review Discoveries

A post-review discovery refers to any situation where previously unidentified human remains or archaeological resources are encountered during project activities. Post-review discovery protocols apply to archaeological finds that are exposed during remediation whether an archaeologist is present or not.

Three types of post-review discoveries are covered by this monitoring plan:

- human remains of Native American or other derivation.
- archaeological resources that have the potential to be significant.
- archaeological resources not requiring further consideration.

Only the archaeological monitor can determine in the field whether or not archaeological resources require further consideration—not construction personnel.

Archaeological resources include stone, brick, and concrete building foundations, isolated historic artifacts, historic landfill deposits, and historic privy pits and household waste deposits that may contain artifacts; and items of Native American derivation such as stone tools, shell and animal bone waste, shell beads, and habitation areas. A more detailed list follows:

- human remains
- concentrations of rock, ash, animal bone or shell
- earth containing a dark, almost black or very dark brown soil often containing charcoal
- easily crumbled dark gray-brown soil with animal bone, charcoal and artifacts such as mortars, pestles, arrowheads, bone tools, etc.
- concentrations of artifacts such as stone bowls, arrowheads, bone tools, etc.
- deposits containing glass bottles, ceramic vessels, metal items, old cans or other obvious artifact dumps (Note: single bottles, modern aluminum cans or beer bottles are not considered post-review discoveries and do not require assessment by the archaeologist)
- foundations (brick or wood)
- wells (outline, brick or wood lined)
- artifact dumps containing food debris (e.g. cut bone, seeds, pits) and

• adobe (unfired or fired) clay bricks.

Materials that do not qualify as archaeological resources may be encountered. These do not require consultation with the archaeologist monitor and include: subsurface utilities such as water or sewer lines.

Actions if an Archaeologist Is Not on Site

If an archaeological monitor is not on site when a discovery is made

- the remediation crew will immediately stop work within a 20 ft. radius of the discovery
- the remediation crew will secure the location to ensure the resource is protected
- the remediation supervisor will immediately report the discovery to the archaeologist
- the work shall not recommence at the discovery location until authorized by the archaeologist

If an archaeological resource is present, the archaeologist shall follow the Post-Review Discovery recommendation outlined above.

Actions if an Archaeologist is on Site

If an archaeologist is on site when a discovery is made, all soils-disturbing activities in a radius of 20 ft. of the deposit shall cease. This radius may be adjusted by the archaeologist as appropriate in relation to the nature of the deposit. The archaeologist shall be empowered to temporarily pause work to allow discovered archaeological deposits to be assessed. If the archaeologist, in consultation with the tribal representative, determines that the discovery is non-significant, the find shall be noted and project actions may proceed.

If the archaeologist determines that the find may constitute a historic property, the archaeologist will follow the Post-Review Discovery recommendations outlined above.

AUTHORSHIP AND CONTACT

This cultural resources study was completed under the supervision of Dr. Thomas Whitley, Registered Professional Archaeologist (RPA) and Director of the Anthropological Studies Center at Sonoma State University. This letter report was prepared by ASC Staff Archaeologists Samantha F. Dollinger, M.A., RPA, and Michael Konzak, M.A., RPA.

If you have any questions about this report, please contact me at (707) 664-2027.

Sincerely,

Samanthe Dalle

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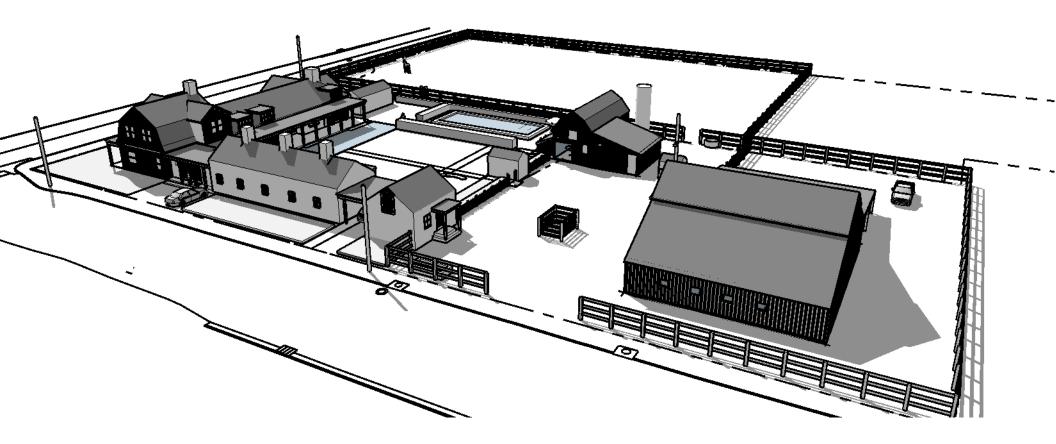
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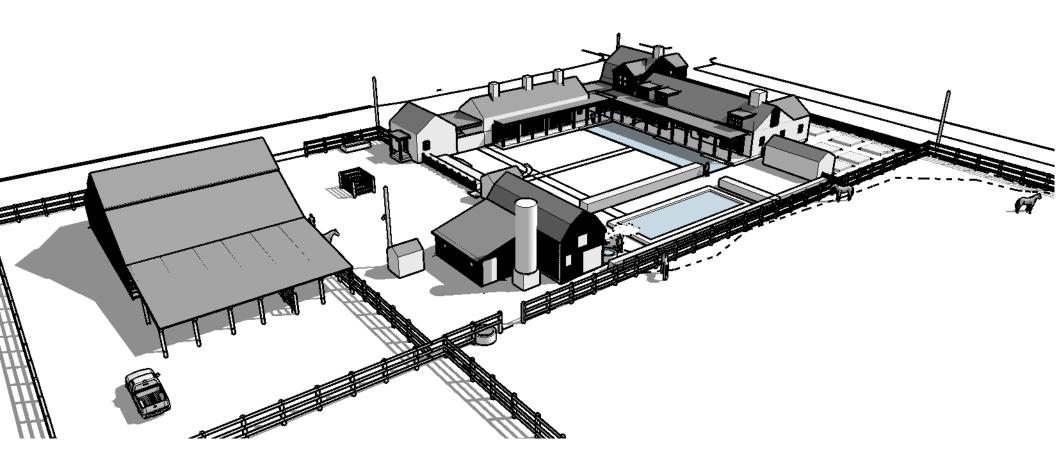
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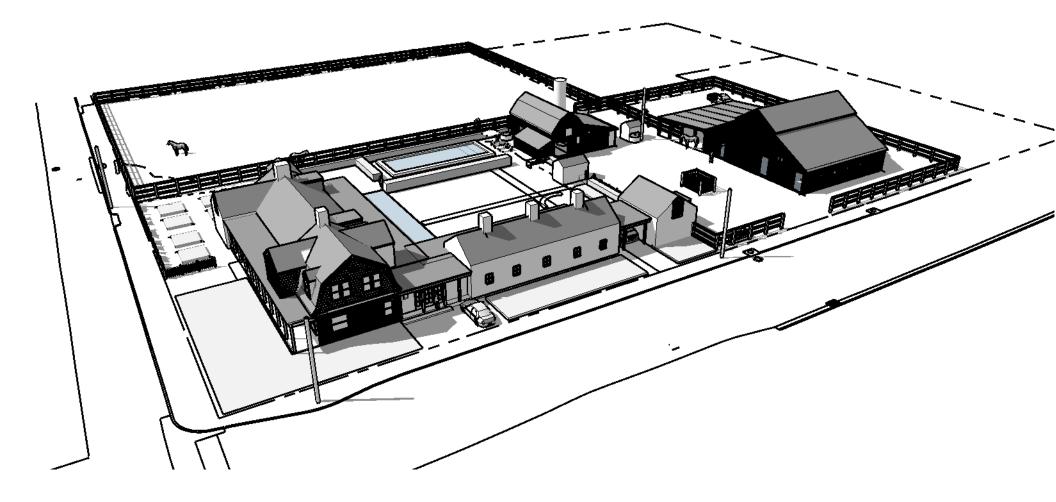
Woods, Peggy

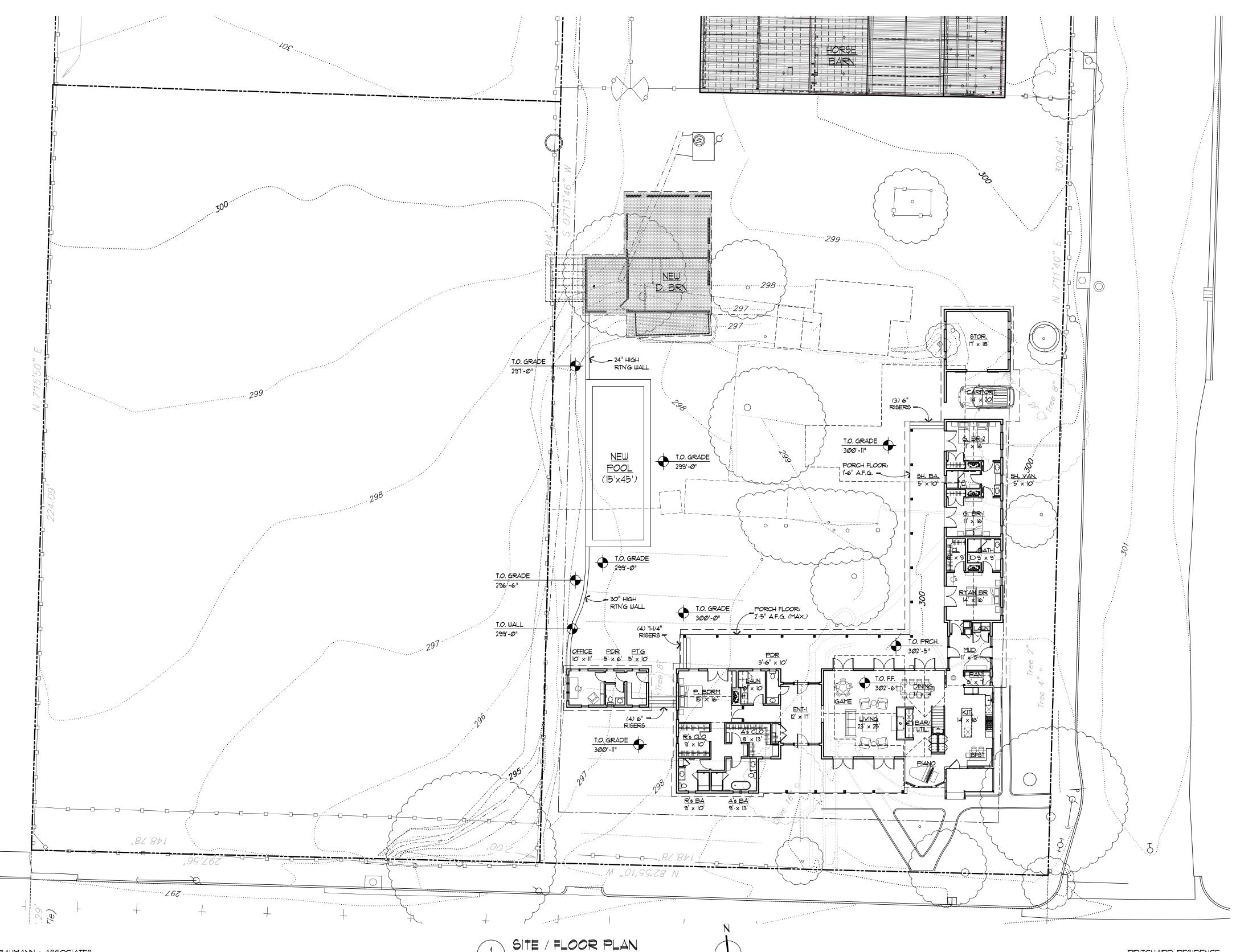
2023 Mission San Francisco Solano in Sonoma CA: Short Life and History. Wander Wisdom https://wanderwisdom.com/travel-destinations/Mission-San-Francisco-Solano-in-Sonoma-CA-Short-Life-and-History (accessed 8 December 2023)

APPENDIX A Proposed Project Plans



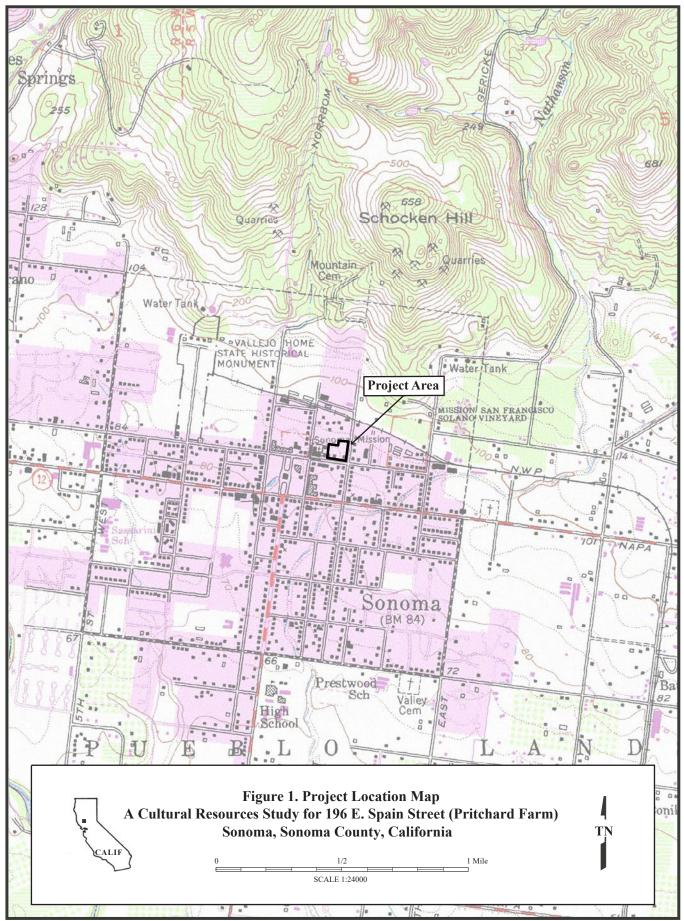






APPENDIX B

Report Maps and Figures



USGS Sonoma, Calif. (1951, pr 1980)



Figure 2. Pedestrian survey coverage of the Project Area and results.

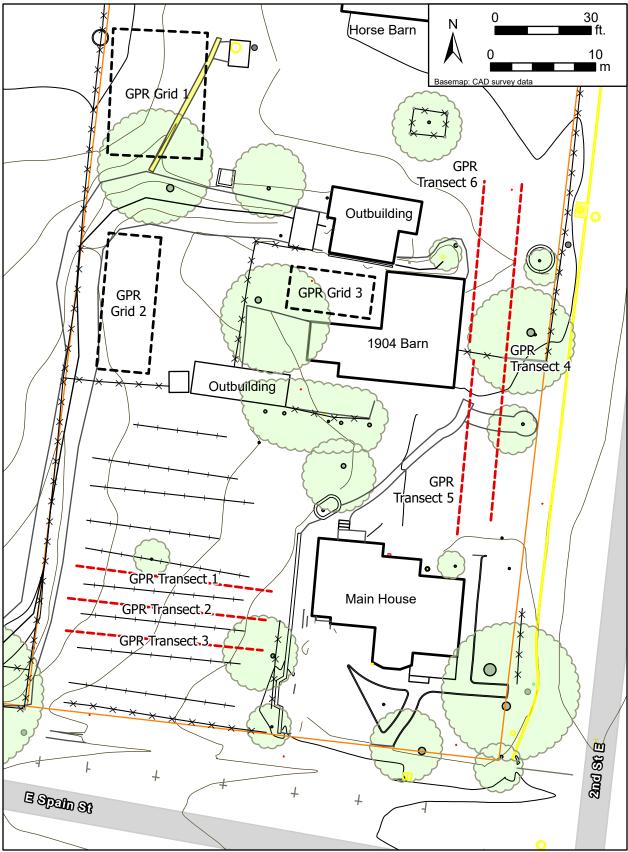


Figure 3. Ground Penetrating Radar Survey Location

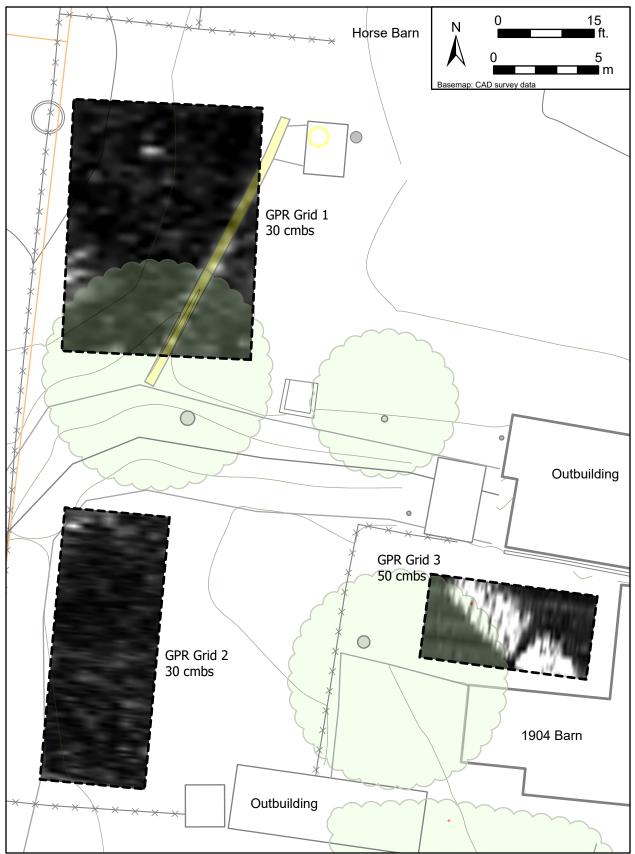


Figure 4. Ground Penetrating Radar Amplitude Slice Maps

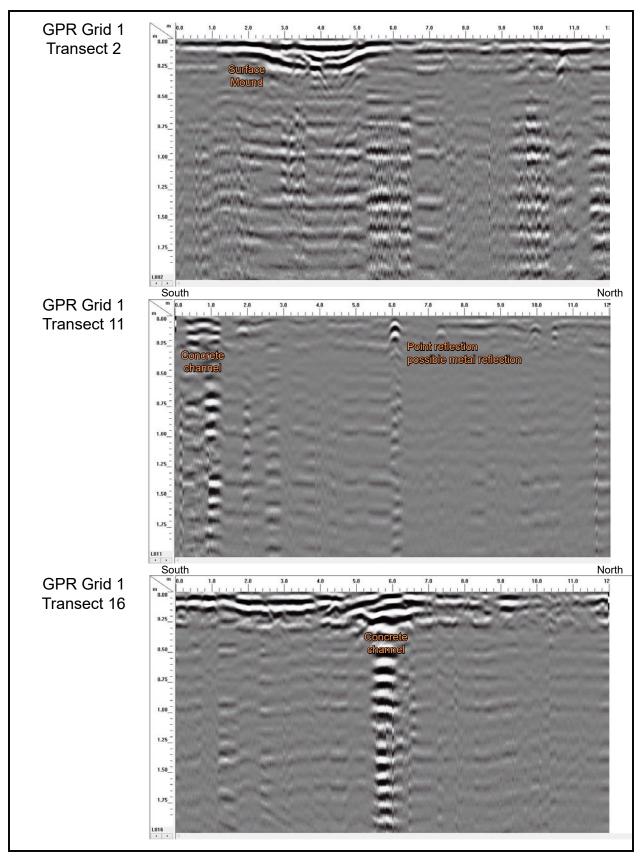


Figure 5. GPR Grid 1 Transect Profiles

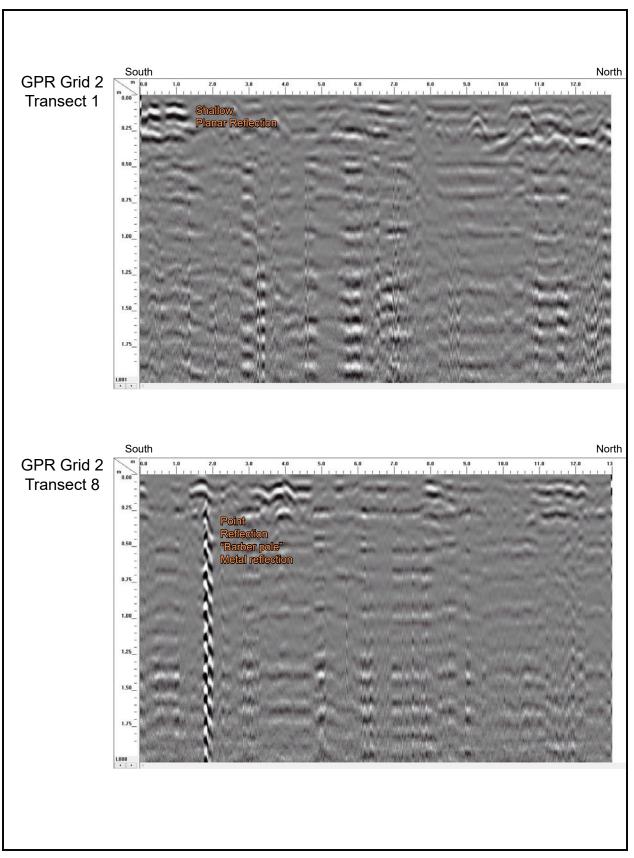


Figure 6. GPR Grid 2 Transect Profiles

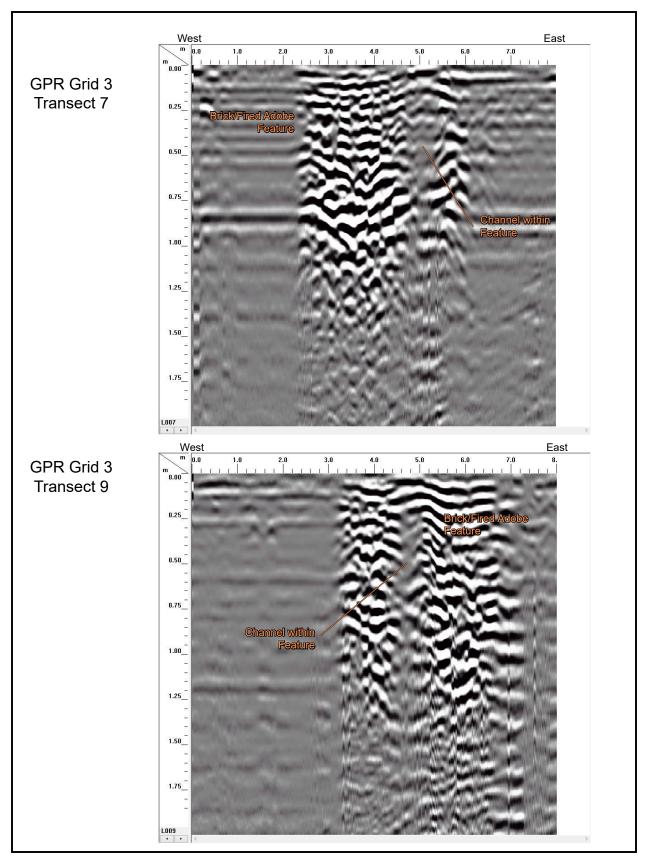


Figure 7. GPR Grid 3 Transect Profiles

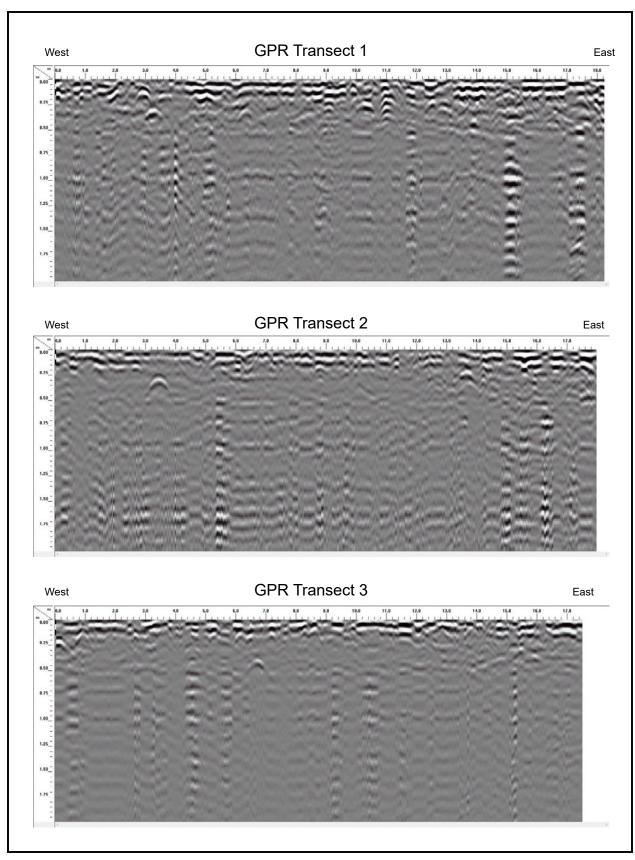


Figure 8. GPR Transects 1, 2, and 3

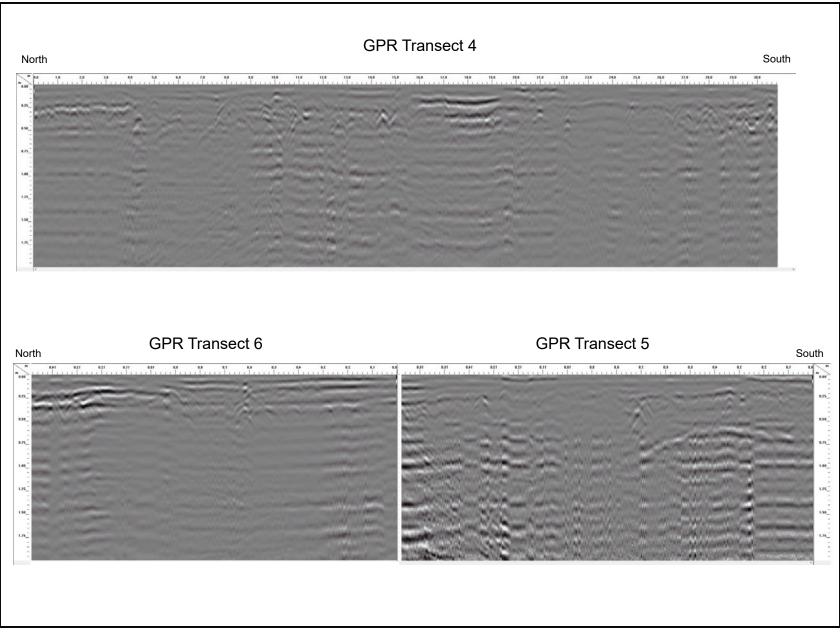


Figure 9. GPR Transects 4, 5, and 6

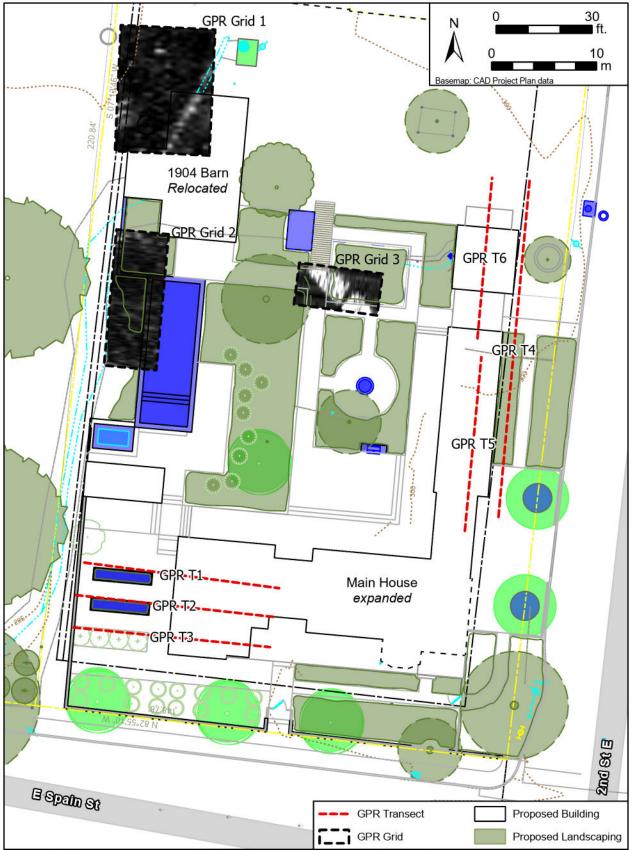


Figure 5. Ground Penetrating Radar Survey Locations on Project Plans

APPENDIX C

NAHC/ Tribal Organization Correspondence

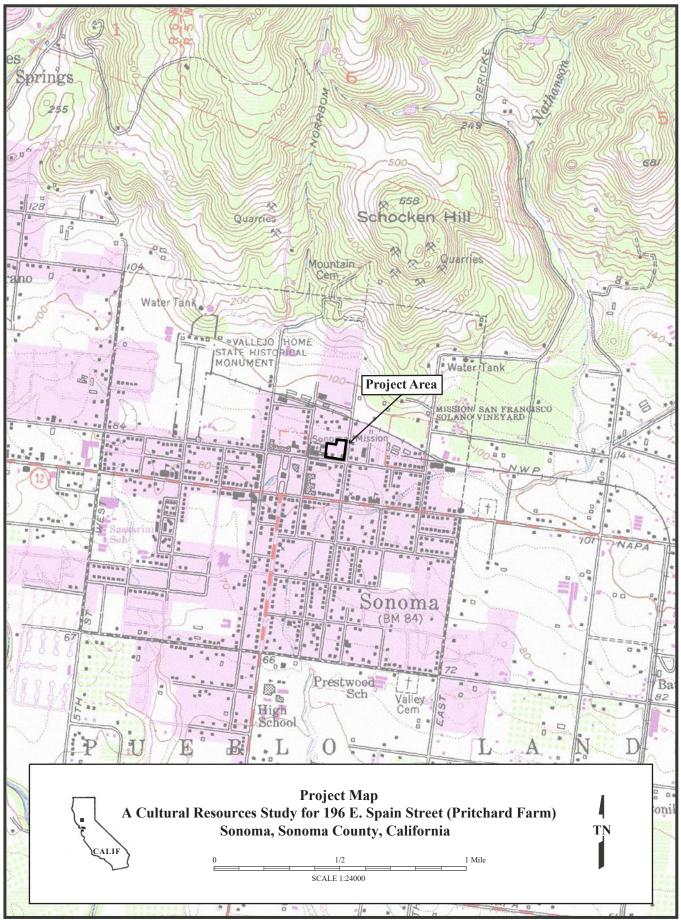
Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission 1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691 916-373-3710 916-373-5471 – Fax nahc@nahc.ca.gov

u u u u u u u u u u u u u u u u u u u	is Required for a Sacred	
Cultural Resources Study for 196 Project:		m), Sonoma, Sonoma County, California.
Sonoma County:		
Sonoma USGS Quadrangle Name:	a, Calif. (1951, pr 1980)
5 North 5 V Township: Range:	Vest Section(s):	7 (projected)
Anthropolog Company/Firm/Agency:	cical Studies Center	
1801 E. Cotati Ave., Bl	•	
Rohnert Park City:		94928 Zip:
(707) 664-2820 Phone:		
(707) 664-4155 Fax:		
samantha.dollinger@sono Email:	ma.edu	

Project Description:

This project is located in an unsectioned portion of Pueblo Lands of Sonoma. The Anthropological Studies Center will be conducting a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, CA. The project involves the construction of a new residential addition to an existing structure, as well as moving/removal of existing structures, and associated landscaping. This cultural resources study is to satisfy the City of Sonoma zoning/construction ordinances related to the development in culturally or environmentally sensitive areas. The format of the report is also consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future.



USGS Sonoma, Calif. (1951, pr 1980)



Sacred Lands File Request- Cultural Resources Study for 196 E. Spain St., Sonoma

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: nahc@nahc.ca.gov Wed, Oct 19, 2022 at 8:51 AM

Hello,

I am requesting a search of the Sacred Lands Files for a project in the City of Sonoma at 196 E. Spain Street. The request form and a project location map are attached. Please let me know if you have any questions.

Thank you,

Samantha Dollinger, M.A., RPA Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Sacred-Lands-File-NA-Contact Form.pdf 127K

Project location map.pdf 1873K



CHAIRPERSON Laura Miranda Luiseño

VICE CHAIRPERSON Reginald Pagaling Chumash

SECRETARY **Sara Dutschke** *Miwok*

COMMISSIONER Isaac Bojorquez Ohlone-Costanoan

COMMISSIONER Buffy McQuillen Yokayo Pomo, Yuki, Nomlaki

Commissioner Wayne Nelson Luiseño

Commissioner Stanley Rodriguez Kumeyaay

COMMISSIONER [Vacant]

COMMISSIONER [Vacant]

Executive Secretary Raymond C. Hitchcock Miwok/Nisenan

NAHC HEADQUARTERS

1550 Harbor Boulevard Suite 100 West Sacramento, California 95691 (916) 373-3710 nahc@nahc.ca.gov NAHC.ca.gov

NATIVE AMERICAN HERITAGE COMMISSION

November 21, 2022

Samantha Dollinger Anthropological Studies Center

Via Email to: samantha.dollinger@sonoma.edu

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm) Project, Sonoma County

Dear Ms. Dollinger:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were <u>negative</u>. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: <u>Cameron.vela@nahc.ca.gov</u>.

Sincerely,

Cameron Vela

Cameron Vela Cultural Resources Analyst

Attachment

Native American Heritage Commission Native American Contact List Sonoma County 11/21/2022

Cloverdale Rancheria of Pomo Indians

Patricia Hermosillo, Chairperson 555 S. Cloverdale Blvd., Suite A Pomo Cloverdale, CA, 95425 Phone: (707) 894 - 5775 Fax: (707) 894-5727 info@cloverdalerancheria.com

Dry Creek Rancheria of Pomo Indians

Chris Wright, Chairperson P.O. Box 607 Pomo Geyserville, CA, 95441 Phone: (707) 814 - 4150 Iynnl@drycreekrancheria.com

Federated Indians of Graton Rancheria

Greg Sarris, Chairperson 6400 Redwood Drive, Ste 300 Rohnert Park, CA, 94928 Phone: (707) 566 - 2288 Fax: (707) 566-2291 gbuvelot@gratonrancheria.com

Federated Indians of Graton Rancheria

Gene Buvelot, 6400 Redwood Drive, Suite 300 Coast Miwok Rohnert Park, CA, 94928 Pomo Phone: (707) 566 - 2288 Fax: (415) 279-4844 gbuvelot@gratonrancheria.com

Guidiville Indian Rancheria

Donald Duncan, Chairperson P.O. Box 339 Talmage, CA, 95481 Phone: (707) 462 - 3682 Fax: (707) 462-9183 admin@guidiville.net

Lytton Rancheria

Marjorie Mejia, Chairperson 437 Aviation Boulevard Santa Rosa, CA, 95403 Phone: (707) 575 - 5917 Fax: (707) 575-6974 margiemejia@aol.com

Pomo

Pomo

Middletown Rancheria

Sally Peterson, THPO P.O. Box 1658 Lake Miwok Middletown, CA, 95461 Pomo Phone: (707) 987 - 3670 THPO@middletownrancheria.com

Middletown Rancheria of Pomo Indians

Jose Simon, Chairperson P.O. Box 1035 Middletown, CA, 95461 Phone: (707) 987 - 3670 Fax: (707) 987-9091 sshope@middletownrancheria.co m

Mishewal-Wappo Tribe of

Alexander Valley Scott Gabaldon, Chairperson 2275 Silk Road Wappo Windsor, CA, 95492 Phone: (707) 494 - 9159 scottg@mishewalwappotribe.com

Pinoleville Pomo Nation

Erica Carson, Tribal Historic Preservation Officer 500 B Pinoleville Drive Pomo Ukiah, CA, 95482 Phone: (707) 463 - 1454 Fax: (707) 463-6601

Pinoleville Pomo Nation

Leona Willams, Chairperson 500 B Pinoleville Drive F Ukiah, CA, 95482 Phone: (707) 463 - 1454 Fax: (707) 463-6601

Pomo

Robinson Rancheria of Pomo

Indians Beniakem Cromwell, Chairperson P.O. Box 4015 Pomo Nice, CA, 95464 Phone: (707) 275 - 0527 Fax: (707) 275-0235 bcromwell@rrcbc-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resource Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Cultural Resources Study for 196 E. Spain Street (Pritchard Farm) Project, Sonoma County.



23 November 2022

Greg Sarris, Chairperson Federated Indians of Graton Rancheria 6400 Redwood Drive, Suite 300 Rohnert Park, CA 94928

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Sarris,

The Anthropological Studies Center (ASC) is conducting a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping.

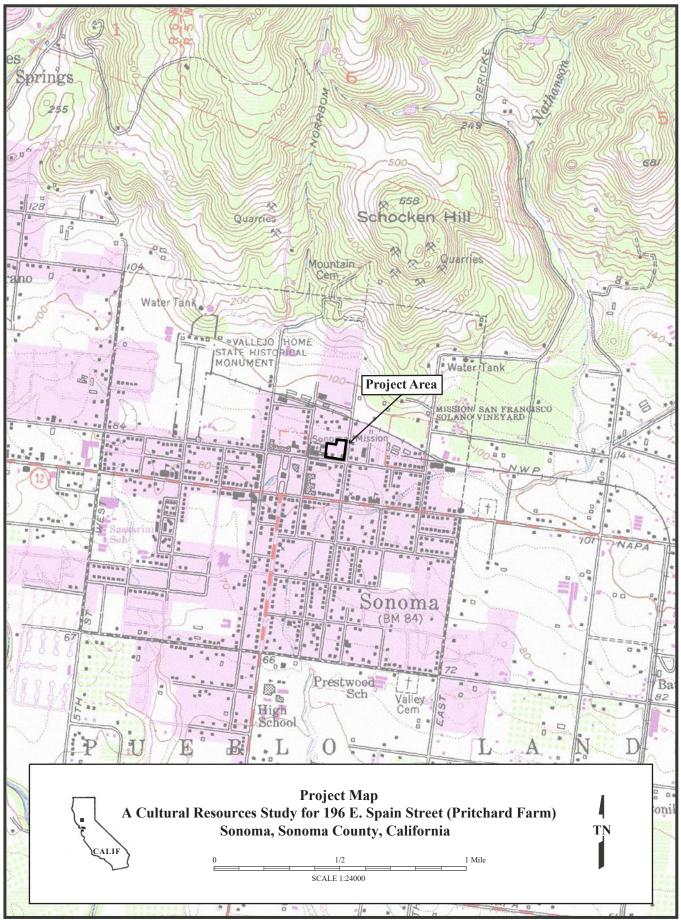
ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The project area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn.

We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at <u>samantha.dollinger@sonoma.edu</u>, or Michael Konzak at (707) 664-3877 or <u>konzak@sonoma.edu</u>. We look forward to hearing from you.

Sincerely,

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY



USGS Sonoma, Calif. (1951, pr 1980)



23 November 2022

Buffy McQuillen, Tribal Heritage Preservation Officer Federated Indians of Graton Rancheria 6400 Redwood Drive, Suite 300 Rohnert Park, CA 94928

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Ms. McQuillen,

The Anthropological Studies Center (ASC) is conducting a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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Sincerely,

adball

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY



23 November 2022



Gene Buvelot Federated Indians of Graton Rancheria 6400 Redwood Drive, Suite 300 Rohnert Park, CA 94928

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Mr. Buvelot,

The Anthropological Studies Center (ASC) is conducting a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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Samantha Dollinger, M.A., RPA Archaeologist/Project Manager



23 November 2022



Beniakem Cromwell, Chairperson Robinson Rancheria of Pomo Indians P.O. Box 4015 Nice, CA 95464

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Cromwell,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park, CA 94928-3609

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

Donald Duncan, Chairperson Guidiville Indian Rancheria P.O. Box 339 Talmage, CA 95481

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Duncan,

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Sincerely,

JardDah

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager



707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

Scott Gabaldon, Chairperson Mishewal-Wappo Tribe of Alexander Valley 2275 Silk Road Windsor, CA 95492

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Gabaldon,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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Sincerely,

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Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY



SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park, CA 94928-3609

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

Patricia Hermosillo, Chairperson Cloverdale Rancheria of Pomo Indians 555 S. Cloverdale Blvd., Suite A Cloverdale, CA 95425

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Hermosillo,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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mAball

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park. CA 94928-3609

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

Marjorie Mejia, Chairperson Lytton Rancheria 437 Aviation Blvd. Santa Rosa, CA 95403

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Mejia,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

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Sincerely,

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park. CA 94928-3609

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

Jose Simon, Chairperson Middletown Rancheria P.O. Box 1035 Middletown, CA 95461

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Simon,

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Sincerely,

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park, CA 94928-3609

23 November 2022

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

Sally Peterson, Tribal Historic Preservation Officer Middletown Rancheria P.O. Box 1658 Middletown, CA 95461

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Ms. Peterson,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping.

ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn.

We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at <u>samantha.dollinger@sonoma.edu</u>, or Michael Konzak at (707) 664-3877 or <u>konzak@sonoma.edu</u>. We look forward to hearing from you.

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

23 November 2022

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park. CA 94928-3609

> Leona Williams, Chairperson Pinoleville Pomo Nation 500 B Pinoleville Dr. Ukiah, CA 95482

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Williams,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping.

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Sincerely,

andball

Samantha Dollinger, M.A., RPA Archaeologist/Project Manager

THE CALIFORNIA STATE UNIVERSITY

SONOMA STATE UNIVERSITY 1801 East Cotati Avenue Rohnert Park, CA 94928-3609

ANTHROPOLOGICAL STUDIES CENTER

23 November 2022

707.664.2381 • Fax 707.664.4155 www.sonoma.edu/asc

Erica Carson, Tribal Historic Preservation Officer Pinoleville Pomo Nation 500 B Pinoleville Dr. Ukiah, CA 95482

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Ms. Carson,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping.

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Samantha Dollinger, M.A., RPA Archaeologist/Project Manager



23 November 2022

Chris Wright, Chairperson Dry Creek Rancheria of Pomo Indians P.O. Box 607 Geyserville, CA 95441

Re: Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

Dear Chairperson Wright,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed.

The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping.

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Samantha Dollinger, M.A., RPA Archaeologist/Project Manager



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu>
To: Beniakem Cromwell <bcromwell@rrcbc-nsn.gov>

Mon, Nov 28, 2022 at 11:00 AM

Chairperson Cromwell,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Cromwell.pdf 1091K



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: scottg@mishewalwappotribe.com Mon, Nov 28, 2022 at 11:00 AM

Chairperson Gabaldon,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Gabaldon.pdf 1094K



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: sshope@middletownrancheria.com Mon, Nov 28, 2022 at 10:59 AM

Chairperson Simon,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Simon.pdf 1087K



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: thpo@middletownrancheria.com Mon, Nov 28, 2022 at 10:58 AM

Ms. Peterson,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Peterson.pdf 1089K



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: margiemejia@aol.com Mon, Nov 28, 2022 at 10:58 AM

Chairperson Mejia,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Mejia.pdf 1084K



Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: admin@guidiville.net Mon, Nov 28, 2022 at 10:57 AM

Chairperson Duncan,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

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Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Project location map.pdf 1873K

Information Request Letter_Duncan.pdf 1088K



Samantha Dollinger <dollings@sonoma.edu>

Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: Buffy McQuillen <BMcQuillen@gratonrancheria.com> Mon, Nov 28, 2022 at 10:56 AM

Ms. McQuillen,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

A formal letter (mailed 11/28/2022) and project area map are attached.

Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

- Project location map.pdf 1873K
- Information Request Letter_McQuillen.pdf



Samantha Dollinger <dollings@sonoma.edu>

Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: lynnl@drycreekrancheria.com Mon, Nov 28, 2022 at 10:55 AM

Chairperson Wright,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

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Samantha Dollinger, M.A., RPA

Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

- Project location map.pdf 1873K
- Information Request Letter_Wright.pdf 1090K



Samantha Dollinger <dollings@sonoma.edu>

Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.

1 message

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: info@cloverdalerancheria.com Mon, Nov 28, 2022 at 10:54 AM

Chairperson Hermosillo,

The Anthropological Studies Center (ASC) has conducted a cultural resources study for the proposed development of approximately 2 acres at 196 E. Spain Street, City of Sonoma, Sonoma County, California. The project is located within Section 7, Township 5 North, Range 5 West, Mt. Diablo Base, and Meridian, as depicted on the USGS Sonoma, Calif. (1980). A map depicting the project area is enclosed. The cultural resources study will satisfy the City of Sonoma zoning/construction ordinances related to development in culturally or environmentally sensitive areas required by the City of Sonoma. The format of the study is consistent with the stipulations of the California Environmental Quality Act (CEQA), should they need to be applied at some point in the future. The proposed project will involve the construction of a new residential addition to an existing structure, move/remove existing structures, and associated landscaping. ASC has conducted a review of the documentation archived at the Northwest Information Center, a pedestrian survey of the property, and a non-invasive ground penetrating radar survey. The Project Area is the Castagnasso Farm, listed on the National Register of Historic Places as a contributing element to the Sonoma Plaza District. The surveys identified a mostly subsurface fired adobe brick feature behind a barn. We respectfully request any information or concerns that you or your organization may wish to share regarding cultural resources within or in the vicinity of the project area. If you have concerns or questions, please do not hesitate to give me a call at (707) 664-2820 or contact me via email at samantha.dollinger@sonoma.edu, or Michael Konzak at (707) 664-3877 or konzak@sonoma.edu. We look forward to hearing from you.

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Samantha Dollinger, M.A., RPA Staff Archaeologist Small Contracts Coordinator Anthropological Studies Center, Sonoma State University 1801 E. Cotati Ave., Bldg. 29, Rohnert Park, CA 94928 (707) 664-2820



2 attachments

Information Request Letter_Hermosillo.pdf 1097K

Project location map.pdf 1873K

APPENDIX D

DPR523 Site Record Update

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**

Primary # P-49-005923 HRI # Trinomial

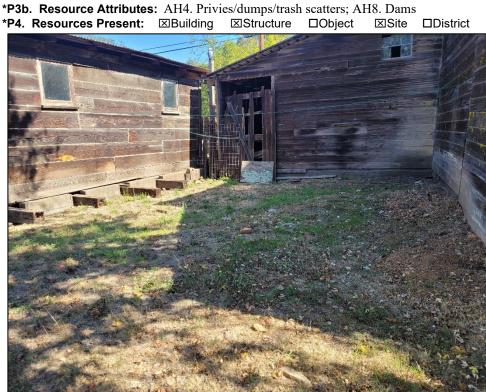
NRHP Status Code 1S

Other Listings Review Code Reviewer Date Page 1 of 6 *Resource Name or #: Castagnasso Farm; 196 Spain Street East P1. Other Identifier: *P2. Location: IN Not for Publication I Unrestricted *a. County Sonoma and *b. USGS 7.5' Quad Sonoma, Calif. Date 1951 (pr 1980) T 5N; R 5W; SW ¼ of NE ¼ of Sec 7 (projected); Mt. Diablo B.M. c. Address 196 Spain Street East City Sonoma Zip d. UTM: Zone 10; 547695 mE/ 4238588 mN at the northeast corner of the horse pasture fence.

e. Other Locational Data: This site is located in unsectioned portion of the Pueblo Lands of Sonoma landgrant. The property is located on the northwest corner of East Spain Street and 2^{nd} Street East.

*P3a. Description:

This resource is a horse farm consisting of a house, three barns including one with a partially collapsed shed addition, a vineyard, a fenced horse pasture, and an adobe and earthen mounded alignment. The site was evaluated and is listed on the National Register as a contributing element to the Sonoma Plaza District (Patri 1978). This update did not additionally record the buildings, but did add an artifact concentration in the horse pasture (Ctx. 1) and the adobe and earthen alignment, which likely functioned as a dam. The artifact concentration consists of fragments of colorless, amber, aqua, olive and milk glass, bricks, and white-improved earthenware. The artifacts are concentrated mainly in the west portion of the horse pasture and appear to be sheet scatter from the continued occupation of the farm since 1900. The adobe and earthen mounded alignment is 25 ft. long and 4 ft. wide and constructed in layers 1 to 4 in. thick.



Element of District DOther
 P5b. Description of Photo:
 Adobe alignment overview, view northeast.
 (Photo Acc. No.: ASC-2208-18)

(111010 Acc. 110.: ASC-2200-10)

*P6. Date Constructed/Age and Sources: ⊠Historic □Prehistoric □Both

*P7. Owner and Address:

Tom Thornley Associates, Inc. 822 Broadway Sonoma, CA 95476 ***P8. Recorded by:** S. Dollinger, M. Martinez-Garcia Anthropological Studies Center 1801 E. Cotati Ave., Bldg. 29 Rohnert Park, CA 94928

***P9. Date Recorded:** 13 October 2022

*P10. Survey Type: Reconnaissance

*P11. Report Citation:

Dollinger, Samantha F. and Michael Konzak

2022 *Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California.* Anthropological Studies Center, Sonoma State University. Prepared for Tom Thornley Associates, Inc., Sonoma, California.

*Attachments: □NONE ⊠Location Map ⊠Sketch Map ⊠Continuation Sheet □Building, Structure, and Object Record ⊠Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record □Artifact Record □Photograph Record □ Other (list)

DPR 523A (1/95)

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION ARCHAEOLOGICAL SITE RECORD Primary # P-49-005923 Trinomial

Page 2 of 6

*Resource Name or #: Castagnasso Farm; 196 Spain Street East

*A1. Dimensions: a. Length 300 ft. (N/S) × b. Width 200 ft. (E/W)
Method of Measurement: □ Paced □ Taped □ Visual estimate ☑ Other: GPS- Trimble Geo XH
Method of Determination (Check any that apply.): ☑ Artifacts ☑ Features □ Soil □ Vegetation □ Topography
□ Cut bank □ Animal burrow □ Excavation ☑ Property boundary □ Other (Explain):

Reliability of Determination: I High I Medium I Low Explain:

Limitations (Check any that apply):
Restricted access
Paved/built over
Site limits incompletely defined
Other (Explain):

A2. Depth: □ None ⊠ Unknown Method of Determination: Did not conduct a subsurface investigation. *A3. Human Remains: □ Present ⊠ Absent □ Possible □ Unknown (Explain): None observed on the surface.

*A4. Features:

Ctx. 2: is an adobe and earth mounded alignment measuring 25 ft. long (NW/SE), 4 ft. wide (NE/SW) and 1 to 4 in. high. The alignment is constructed of three visible layers, each approximately 1 to 4 in. thick. Adobe brick fragments are scattered on and around the alignment.

*A5. Cultural Constituents:

Ctx. 1: is an artifact concentration of fragments of colorless, aqua, olive and milk glass, white-improved earthenware, and bricks. One milk glass mason jar lid liner fragment and one rectangular paneled colorless glass bottle body fragment were observed. Several fragments of white-improved earthenware with a black or dark blue-on-white transfer print were also observed. Most of the artifacts were observed on the west side of the horse pasture, but are sheet scattered throughout the fenced-in pasture. It is likely that additional artifacts are located on the adjacent property. The artifact concentration is 225 ft. long (N/S), 150 ft. wide, and covers approximately 0.8 acres.

*A6. Were Specimens Collected? 🗵 No 🛛 Yes

*A7. Site Condition: 🗵 Good 🛛 Fair 🗆 Poor:

*A8. Nearest Water: A channelized creek runs through the site.

*A9. Elevation: 70-100 ft. amsl

A10. Environmental Setting: Vegetation observed on site includes grape vines, oak trees, grasses, and ornamental trees and shrubs.

A11. Historical Information:

*A12. Age: □ Prehistoric □ Protohistoric □ 1542-1769 □ 1769-1848 □ 1848-1880 ⊠ 1880-1914 ⊠ 1914-1945 □ Post 1945 □ Undetermined

A13. Interpretations: This is the Castagnasso Farm, a horse farm.

A14. Remarks:

A15. References:

A16. Photographs:

Original Media/Negatives Kept at: ASC

*A17. Form Prepared by: S. Dollinger
 Affiliation and Address: Anthropological Studies Center
 1801 E. Cotati Ave., Bldg. 29 Rohnert Park, CA 94928

Date: 13 October 2022

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION LOCATION MAP

Primary # HRI #

Trinomial

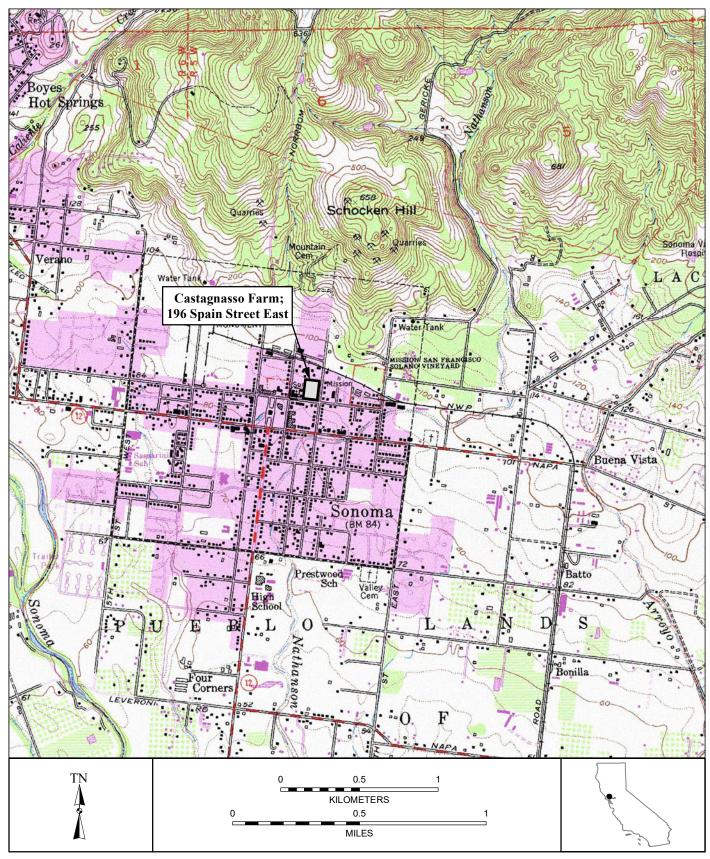
Page 3 of 6

*Resource Name or #: Castagnasso Farm; 196 Spain Street East

*Map Name: Sonoma, Calif.

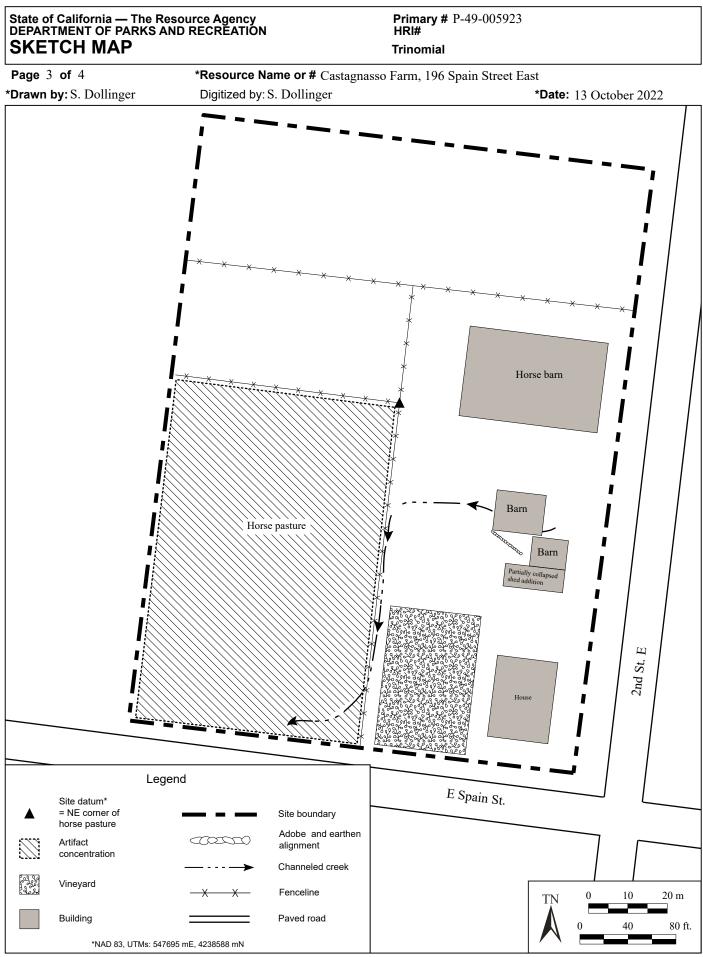
*Scale: 1:24,000

*Date of Map: 1951 (pr 1980)



DPR 523J (1/95)

*Required information



DPR 523K (1/95)

*Required Information

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION CONTINUATION SHEET Primary # P-49-005923 HRI # Trinomial

Page 4 of 5

*Resource Name or #: Castagnasso Farm, 196 Spain Street East

*Recorded by S. Dollinger, M. Martinez-Garcia

***Date** 13 October 2022 ⊠ Continuation □ Update



Artifact concentration in horse pasture, view southwest. (Photo Acc. No.: ASC-2208-06)



Artifact concentration in horse pasture, view south. (Photo Acc. No.: ASC-2208-07)



Adobe and earthen alignment, view northwest. (Photo Acc. No.: ASC-2208-11)



Adobe and earthen alignment, view southeast. (Photo Acc. No.: ASC-2208-13)

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION CONTINUATION SHEET

Primary # P-49-005923 HRI # Trinomial

Page 5 of 5

*Resource Name or #: Castagnasso Farm, 196 Spain Street East

*Recorded by S. Dollinger, M. Martinez-Garcia

*Date 13 October 2022 □ Continuation ⊠ Update



Adobe and earthen alignment, view northeast. (Photo Acc. No.: ASC-2208-12)



Adobe brick fragment. (Photo Acc. No.: ASC-2208-16)



Adobe and earthen alignment, view south. (Photo Acc. No.: ASC-2208-14)



Adobe and earthen alignment with adobe bricks, view southwest. (Photo Acc. No.: ASC-2208-15)



27 December 2023

Tom Thornley Thornley Associates, Inc. 822 Broadway Sonoma, CA 95476

Re: Addendum to Cultural Resources Study for 196 E. Spain Street (Pritchard Farm), Sonoma, Sonoma County, California. – ICF survey

Dear Mr. Thornley,

As an addendum to the Cultural Resources Study for 196 E. Spain Street (Prichard Farm), this letter documents additional communication with the Federated Indians of Graton Rancheria (FIGR), a survey conducted by the Institute of Canine Forensics (ICF), and archaeological monitoring during soil testing.

Continued Native American communications

On 16 December 2022, Buffy McQuillen, Federated Indians of Graton Rancheria (FIGR) Tribal Historic Preservation Officer (THPO) requested a copy of the initial survey report for their review. A copy of the report was provided on 19 December 2022. Additional communications regarding the ICF survey, including organizing a representative to be present during the survey, is included in Appendix A.

Institute of Canine Forensics Survey

On 26 April 2023, an ICF team of three dog handlers and six canine forensic dogs surveyed the majority of the property at 196 E. Spain Street (Appendix B). These dogs are specially trained to alert to the scent of human remains. Their handler teams are able to 'rate' their response in a 1 to 3 scale to gage the nature of the scent and infer the nature of the potential remains. The team was led by Lynne Engelbert, Historic Human Remains Detection Specialist. ASC Archaeologist Michael Konzak was present, as was a representative of FIGR, Robin Meeley.

The entirety of the grounds surrounding the main house and barns, the horse pasture, as well as the interior of the Dairy Barn. The larger barn and the stables containing the horses were not examined due to the presence of the animals, but no part of the proposed project involved that location.

The forensic dogs did not alert to any scent of human remains on the property.

THE CALIFORNIA STATE UNIVERSITY

Bakersfield • Channel Islands • Chico Dominguez Hills • East Bay • Fresno • Fullerton Humboldt • Long Beach • Los Angeles Maritime Academy • Monterey Bay Northridge • Pomona • Sacramento • San Bernardino • San Diego • San Francisco • San José • San Luis Obispo • San Marcos • Sonoma • Stanislaus

Archaeological monitoring of soil testing

On 4 May 2023, ASC Archaeological Monitor Sally Gaston monitored soil testing conducted at 196 E. Spain Street. This activity consisted of the excavation of 6 bore holes throughout the property. All ground disturbing activities were observed and the spoils and collected material examined for any cultural material. No cultural material was observed. While FIGR was contacted regarding having a representative onsite for this activity, contact was made the day before it was to occur and no response was received.

Additional work and discussion with FIGR and other tribal entities are expected as this project proceeds.

If you have any questions about this report, please contact me at (707-664-3877).

Michael Konzak, MA., RPA Senior Archaeologist Anthropological Studies Center Sonoma State University

APPENDIX A

Continued Communications With Federated Indians of Graton Rancheria



Fwd: 196 E. Spain Street (Pritchard Farm), Sonoma

samantha.dollinger@sonoma.edu <samantha.dollinger@sonoma.edu> To: Michael Konzak <konzak@sonoma.edu> Fri, Dec 16, 2022 at 1:39 PM

------ Forwarded message ------From: **THPO@gratonrancheria.com** <**THPO@gratonrancheria.com**> Date: Fri, Dec 16, 2022, 1:35 PM Subject: 196 E. Spain Street (Pritchard Farm), Sonoma To: Samantha Dollinger <samantha.dollinger@sonoma.edu> Cc: Hector Garcia <HGarcia@gratonrancheria.com>

Dear Ms. Dollinger,

Thank you for your outreach and request for identification of cultural resources from the Federated Indians of Graton Rancheria. The project area identified in your correspondence is within the Tribe's ancestral territory and there may be tribal cultural resource impacts. Please provide the Tribe with the results of your research efforts and recommendations. The information can be emailed or mailed to the following address.

Sincerely,

Buffy McQuillen

Tribal Heritage Preservation Officer (THPO)

Native American Graves Protection and Repatriation Act (NAGPRA)

Office: 707.566.2288; ext. 137

Cell: 707.318.0485

FAX: 707.566.2291

Hector Garcia Cabrales

Cultural Resources Specialist

Federated Indians of Graton Rancheria

6400 Redwood Drive, Suite 300

Rohnert Park, CA 94928

Office: 707.566.2288, ext. 138

Mobile: 707.478.1737

Email: <u>hgarcia@gratonrancheria.com</u>

please consider our environment before printing this email.

_

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196 E. Spain Street (Pritchard Farm) Draft Report

1 message

Michael Konzak <konzak@sonoma.edu>

Mon, Dec 19, 2022 at 10:52 AM

To: Hector Garcia <hgarcia@gratonrancheria.com>

Cc: Buffy McQuillen <bmcquillen@gratonrancheria.com>, Samantha Dollinger <samantha.dollinger@sonoma.edu>

Hector and Buffy,

As per your request, please find attached the draft Archaeological and Ground Penetrating Survey letter report for 196 E. Spain Street.

To provide further updates that are not within the report, we have discussed with the development team bringing in the Institute of Canine Forensics to conduct a survey of the property. We have identified no specific evidence of burials on the property through our pedestrian or GPR survey but given the sensitivity of the property, we feel that such an investigation is warranted. We are reaching out to them now and do not have a schedule for this work.

We also discussed the planned relocation of the 1904 dairy barn. We stressed the importance of protecting the underground feature that may extend under the barn. The contractor indicated that there are multiple ways to move the building and recommended a technique as not to cause any ground disturbance. Following the relocation of the building, we plan to conduct additional non-invasive GPR testing following the removal of the barn to identify the extent of the subsurface feature.

A little research into lavanderias associated with missions indicates that the GPR signature of the feature does not match the construction and layout of other lavanderias. It is our opinion that rather than a lavanderia, the feature more resembles a dam. A reservoir was reportedly in this location and this feature is likely associated.

Please let us know a good time to further discuss this project.

Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)



ν

D.	Pritchard Farm 11453K	report	draft_	all.pdf
~	11453K			



196 E. Spain Street - ICF survey

Michael Konzak <konzak@sonoma.edu>

Thu, Mar 2, 2023 at 3:45 PM

To: Buffy McQuillen <bmcquillen@gratonrancheria.com>, Hector Garcia <HGarcia@gratonrancheria.com>

Hello Ms. McQuillen and Mr. Garcia,

I wanted to follow up on the 196 E. Spain Street property project in the city of Sonoma. Our assistance with the cultural resources portion of the private development that is being planned will include an upcoming forensic canine survey. I wanted to follow up on the report we provided and let you know of an upcoming survey.

We are hoping to work with the Institute of Canine Forensics (ICF) on March 8th to conduct a survey of the property. However, depending on the weather and the amount of rain that comes in over the weekend, it may be delayed an additional week to March 15th if there are unfavorable conditions for the dogs.

Please let me know if you would like any additional information or have any comments on either the initial report or the upcoming ICF survey. Tribal representatives are of course welcome on the survey though our client has requested contracting go through them rather than through the university.

I will follow up with any results that come out of the survey.

Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)





Re: 196 E. Spain Street - ICF survey

1 message

Michael Konzak <konzak@sonoma.edu> Thu, Mar 16, 2023 at 9:32 AM To: Buffy McQuillen

soncquillen@gratonrancheria.com>, Hector Garcia <HGarcia@gratonrancheria.com>

Hello Buffy and Hector,

Just to follow up, we have not conducted the detection dog survey due to the weather and saturated ground. I apologize for the delay of notification, but I wanted to make sure we had a relatively stable date before providing an update.

As of now, we're hoping to get out there on the 26th of April. I'll keep you informed if there are other updates.

l hope you are all well. Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)



On Thu, Mar 2, 2023 at 3:45 PM Michael Konzak <<u>konzak@sonoma.edu</u>> wrote: | Hello Ms. McQuillen and Mr. Garcia,

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Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)



RE: 196 E. Spain Street - ICF survey

Hector Garcia <HGarcia@gratonrancheria.com> Thu, Mar 16, 2023 at 9:46 AM To: Michael Konzak <konzak@sonoma.edu>, Buffy McQuillen <BMcQuillen@gratonrancheria.com>

Hi Mike,

Thank you for the update!

Hector Garcia Cabrales

Cultural Resources Specialist

Federated Indians of Graton Rancheria

6400 Redwood Drive, Suite 300

Rohnert Park, CA 94928

Office: 707.566.2288, ext. 138

Mobile: 707.478.1737

Email: hgarcia@gratonrancheria.com

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From: Michael Konzak <konzak@sonoma.edu> Sent: Thursday, March 16, 2023 9:32 AM To: Buffy McQuillen <BMcQuillen@gratonrancheria.com>; Hector Garcia <HGarcia@gratonrancheria.com> Subject: Re: 196 E. Spain Street - ICF survey

Hello Buffy and Hector,

Just to follow up, we have not conducted the detection dog survey due to the weather and saturated ground.

11/27/23, 4:39 PM

Sonoma State University Mail - RE: 196 E. Spain Street - ICF survey

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I hope you are all well.

Thank you,

Mike Konzak

Michael Konzak, M.A., R.P.A.

Senior Archaeologist

Anthropological Studies Center

Sonoma State University

707-664-3877 (office)

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Thank you,

Mike Konzak

Michael Konzak, M.A., R.P.A.

Senior Archaeologist

Anthropological Studies Center

Sonoma State University

707-664-3877 (office)

925-768-7598 (cell)







RE: 196 E. Spain Street - ICF survey

1 message

Hector Garcia <HGarcia@gratonrancheria.com> To: Michael Konzak <konzak@sonoma.edu> Cc: Buffy McQuillen <BMcQuillen@gratonrancheria.com> Tue, Apr 25, 2023 at 11:37 AM

Hi Mike,

Thank you, that works for us. Robin Meely will be the tribal monitor attending the canine survey.

Sincerely,

Hector Garcia Cabrales

Cultural Resources Specialist

Federated Indians of Graton Rancheria

6400 Redwood Drive, Suite 300

Rohnert Park, CA 94928

Office: 707.566.2288, ext. 138

Mobile: 707.478.1737

Email: hgarcia@gratonrancheria.com

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From: Michael Konzak <konzak@sonoma.edu> Sent: Tuesday, April 25, 2023 11:07 AM To: Hector Garcia <HGarcia@gratonrancheria.com> Cc: Buffy McQuillen <BMcQuillen@gratonrancheria.com> Subject: Re: 196 E. Spain Street - ICF survey

Hi Hector,

I left a voicemail at your office and I'm following up with this email.

After a discussion with our client and land owner, we'll be putting together a new agreement with them for you to bill us.

We're starting the PO process now and I'll forward that information on when it is complete.

I'll put the agreement together for at least 3 days with mileage. We only expect there to be 3-4 hours tomorrow, but I'd like to make sure we have a few more days in there for work in the future.

I'm attaching a map I produced this morning for ICF showing the area that will be surveyed. The barn called out on the map will be moved to another location and we will have the dogs try and survey the interior just in case.

Any questions, please let me know. I look forward to working with your representatives tomorrow.

Mike

Michael Konzak, M.A., R.P.A.

Senior Archaeologist

Anthropological Studies Center

Sonoma State University

707-664-3877 (office)

925-768-7598 (cell)





On Tue, Apr 25, 2023 at 9:32 AM Hector Garcia <HGarcia@gratonrancheria.com> wrote:

Hi Mike, thank you for your call. Attached is the monitoring agreement template and instructions.

Sincerely,

Hector Garcia Cabrales

Cultural Resources Specialist

Federated Indians of Graton Rancheria

6400 Redwood Drive, Suite 300

Rohnert Park, CA 94928

Sonoma State University Mail - RE: 196 E. Spain Street - ICF survey

Office: 707.566.2288, ext. 138

Mobile: 707.478.1737

Email: hgarcia@gratonrancheria.com

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From: Hector Garcia Sent: Tuesday, April 25, 2023 8:33 AM To: Michael Konzak <konzak@sonoma.edu>; Buffy McQuillen <BMcQuillen@gratonrancheria.com> Subject: RE: 196 E. Spain Street - ICF survey

Good morning Mike,

Is the canine survey confirmed for tomorrow?

Thank you,

Hector Garcia Cabrales

Cultural Resources Specialist

Federated Indians of Graton Rancheria

6400 Redwood Drive, Suite 300

Rohnert Park, CA 94928

Office: 707.566.2288, ext. 138

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From: Michael Konzak <konzak@sonoma.edu> Sent: Thursday, March 16, 2023 9:32 AM To: Buffy McQuillen <BMcQuillen@gratonrancheria.com>; Hector Garcia <HGarcia@gratonrancheria.com> Subject: Re: 196 E. Spain Street - ICF survey

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Sonoma State University Mail - RE: 196 E. Spain Street - ICF survey

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Thank you,

Mike Konzak

Michael Konzak, M.A., R.P.A.

Senior Archaeologist

Anthropological Studies Center

Sonoma State University

707-664-3877 (office)

925-768-7598 (cell)





On Thu, Mar 2, 2023 at 3:45 PM Michael Konzak <konzak@sonoma.edu> wrote:

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Mike Konzak

Michael Konzak, M.A., R.P.A.

Senior Archaeologist

Anthropological Studies Center

Sonoma State University

707-664-3877 (office)

925-768-7598 (cell)







Spain Street Update

1 message

Michael Konzak <konzak@sonoma.edu> Wed, Apr 26, 2023 at 2:53 PM To: Buffy McQuillen

Sonoma.edu>, Hector Garcia <HGarcia@gratonrancheria.com>

Hello Buffy and Hector,

I just wanted to provide a quick update on ICF's forensic dog survey at 196 E. Spain St. this morning. I'm sure Robin has already provided one but I wanted to follow up with something as well. ICF had three teams of handlers with multiple certified dogs and some dogs in training. They did not identify any scents or locations on the property that indicated human remains or burials.

Since the forensic dog survey did not find any locations of possible human remains, the project's next phase is to do soil testing. I do not have the locations of the soil tests but they have asked whether the archaeologists or tribes would like to monitor this work. I have asked for a map of the locations and I'll pass that along when I get it.

Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)





Re: Spain Street Update

1 message

Buffy McQuillen <BMcQuillen@gratonrancheria.com> To: Michael Konzak <konzak@sonoma.edu> Cc: Hector Garcia <HGarcia@gratonrancheria.com> Wed, Apr 26, 2023 at 9:59 PM

That sounds good. Thank you, Mike. B

Sincerely, Buffy McQuillen, THPO NAGPRA Federated Indians of Graton Rancheria (707) 318-0485

Federated Indians of Graton Rancheria and Tribal TANF of Sonoma & Marin - *Proprietary and Confidential:* This transmittal is a confidential communication or may otherwise be privileged. If you are not the intended recipient, you are hereby notified that you have received this transmittal in error and that any review, dissemination, distribution or copying of this transmittal is strictly prohibited. If you have received this communication in error, please notify this office and immediately destroy this message and all its attachments if any.

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Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)





Fwd: 196 East Spain - Geotechnical investigation

1 message

Michael Konzak <konzak@sonoma.edu>

Fri, Apr 28, 2023 at 4:15 PM

To: Hector Garcia <HGarcia@gratonrancheria.com>, Buffy McQuillen <bmcquillen@gratonrancheria.com> Cc: Thomas Whitley whitley@sonoma.edu

Hector and Buffy,

Here is an update on the soil bore locations for the 196 E. Spain Street construction. They are planning on conducting these soil tests on Wednesday, May 3rd, starting at 9am. So that's just next week.

I've only just received this but a quick look at the two northwestern bore holes are located in two GPR grids we examined and the other four are near or adjacent to some of the GPR transects. We did not find any indications in the GPR data to indicate buried cultural materials or features in those areas.

Would a monitor be available on Wednesday May 3rd for the soil bores?

If you have other comments, please let me know.

I realize this is a quick turn around for comments and I had not been given any indication that this would turn around so quickly.

Mike

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)



------ Forwarded message ------From: **Carol Blampied** <carol@robertbaumann.com> Date: Fri, Apr 28, 2023 at 3:11 PM Subject: 196 East Spain - Geotechnical investigation To: Thomas Whitley <whitley@sonoma.edu>, Michael Konzak <konzak@sonoma.edu> Cc: tom@thornleyassociates.com <tom@thornleyassociates.com>, Ron Pritchard <rpritch@gmail.com>, Amy Pritchard <amy@spaut.com>, Mail@nedforrest.com <mail@nedforrest.com>, Robert Baumann <rb@robertbaumann.com>

Hello Tom and Michael,

As you are likely aware, the forensic dog search at 196 East Spain happened earlier this week, and no sign of human remains were found. Now that the site has been cleared, we have scheduled the geotechnical investigation for next week on Wednesday, May 3. Attached is the site plan showing the bore hole locations that the geotechnical engineers, PJC Associates, had suggested. You had reviewed this back in December when they originally proposed it, and thought all seemed fine, but wanted to confirm that the locations are acceptable before the drilling next week. We let PJC know that you had expressed interest in being present to supervise the drilling, so they are expecting you. Currently, they plan to start drilling at 9am – we will let you know if the schedule changes!

Best,

Carol Blampied

Robert Baumann + Associates

801 Broadway

Sonoma, CA 95476

ph 707-996-7947

www.robertbaumann.com

BitePlan196EastSpain.pdf



196 E. Spain Street

1 message

Michael Konzak <konzak@sonoma.edu>

Mon, Nov 27, 2023 at 12:54 PM

Michael Konzak <konzak@sonoma.edu>

To: Buffy McQuillen <bmcquillen@gratonrancheria.com>, Hector Garcia <HGarcia@gratonrancheria.com> Cc: Thomas Whitley <whitley@sonoma.edu>

Hello Buffy and Hector,

The ASC is currently assisting in the proposed project at 196 E. Spain Street. Our work on this project included a pedestrian survey, assisted ICF in conducting a forensic dog study, and did a GPR study. The results for the ICF study were that there were no alerts for scent on the property. The results of the pedestrian survey were a sparse historic-era artifact sheet deposit throughout certain areas of the property, while the GPR study identified a buried fired adobe structure that could potentially be a dam related to the reservoir associated with the nearby Mission. Some monitoring of soil tests at the beginning of June was the last work that was done on this project.

Our client for this project, ASC Director Tom Whitley, and I are having a meeting with the city of Sonoma's Community Development Director on Wednesday regarding whether the city will be requiring any additional environmental documents such as an Initial Study for permitting. Regardless of the outcome of this meeting, both the client and the ASC are committed to continuing consultation with FIGR to ensure the protection of all resources on the property. The recommendations in our initial survey report for monitoring all ground disturbing activities stands.

Since there has been no movement on this project until now, I wanted to provide an update. We, as always, are open to discuss this project and if there are any additional questions or concerns, please let us know.

Thank you, Mike Konzak

Michael Konzak, M.A., R.P.A. Senior Archaeologist Anthropological Studies Center Sonoma State University 707-664-3877 (office) 925-768-7598 (cell)



APPENDIX B

Institute of Canine Forensics

Institute for Canine Forensics

Historic and Pre-contact Human Remains Detection Dog Services



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Summary of Findings

There were no alerts in the search areas.

General Information

Understanding This Report

The following information is key to understanding the report:

- The percentage of terrain accessible to the dogs affects their Probability of Detection (PoD.)
- Hot weather conditions, especially ground temperatures 85°F and higher, very low humidity, and / or near 100% humidity at ground level may dramatically decrease the dogs' PoD.
- The GPS tracks reported are those of the dogs; in some cases, we use the handler's tracks. The dogs range away from the handlers and cover more area than indicated by the handler's tracks.
- Our dogs are specifically trained to give an "alert" when they detect the scent of human remains. The alert is at the strongest source of the scent they have located.
- It is important to note that the dogs do not necessarily alert directly over a burial.

• Alert Interpretation Key

Each alert is given an interpretation number, 1-3, and is described below. This is based on the handler's experience in observing trained dogs identify burials in a variety of known locations and the dog's behavior while working. It also takes into consideration the knowledge of the site, age of burial, burial customs, and past ground disturbances. This information is offered as a guide to understanding what might be expected.

1. Possible Intact Burial: To our knowledge the ground has been undisturbed. The dog is strongly committed to a single location. Based on this, we believe the burial is most likely intact and may be historic or shallow.

2. **Compromised Burial:** Some ground disturbance may have occurred to the area, either naturally or man-made. The dog is committed to the location, but it may not be as strong of an alert as an intact burial. Based on this and other research, we believe the remains may be an older burial, cremains, reinterned or partial burial, deep, and/or in dense soil.

3. Scattered or Dissipated Remains: This category contains several possible conditions.
The ground has been greatly disturbed, either naturally or man-made. Most common reasons for disturbed burials are construction or farming, especially plowing. Older burials can become so degraded that the remaining bones are small fragments or only grave soil remains. When a body has decomposed in the ground the "grave soil" contains the scent that the dogs recognize as human remains.

Included in this category is the *conduit effect* where scent travels along underground conduits. Items like pipes, cables, tree roots, utility boxes and poles and/or rodent holes passing through remains can act as a channel for scent, bringing it to the surface. An alert on this sort of item does not necessarily mean there are human remains at that location.
In some cases, the dog cannot access the exact location of the source. Or the level of scent available to the dog may be below their *target threshold* (scent strong enough to elicit an alert.) The handler observes the dog is clearly working an area of the target odor

and is searching for stronger scent.

The dog indicates there is scent, but their reaction to this category varies from having a hard time pinpointing an exact location, to giving several alerts in close proximity, or not alerting. Based on this and other research, we believe the remains may be severely fragmented, grave soil, and/or located in different area than the accessible scent. This may mean that finding visible identifiable remains may not be possible.

For more detailed information please refer to Appendix C: Using Historic Human Remains Dogs.

Map and Flag Information

We use consumer level GPS devices with their inherent inaccuracies. Occasionally, an alert waypoint is adjusted to be more correct using the visual reference of satellite imagery. We also change the coordinate information, accordingly. Any waypoint that has been adjusted will be noted.

We use different colored flags for each dog and mark each flag with the team's identification, waypoint number and other important information. The color coding for pin flags, waypoints, and tracks for each handler/dog team in this report are identified in the table below. Note that our Intern and Novice Teams' tracks and waypoints are not reported.

ID	Handler Name	Dog Name	Flag Color	Waypoint Color	Track Color
PE	Lynne Engelbert	Piper	Florescent green	Florescent green	
JK	Joseph Kral	Clíodhna	Orange	Orange	
Q	Karen Atkinson	Quincy	Blue	Blue	
E	Karen Atkinson	Echo	Yellow	Yellow	
AH	Alyson Hart	Bryn	Silver	Novice, no	t reported
JE	Lynne Engelbert	Jazz		Novice, no	t reported

Project Information

Date of Survey: April 26, 2023

Project Name: Sonoma - Spain Street

Client:

Michael Konzak, MA, RPA Senior Archaeologist Anthropological Studies Center Sonoma State University 925-768-7598 (cell)

Other Interested Parties:

Robin Meely Federated Indians of Graton Rancheria, Native Monitor 707-236-2280 707-566-2288

ICF Personnel Responding:

Name	Assignment
Lynne Engelbert & Piper	Dog handler, Project Manager
Karen Atkinson & Quincy and Echo	Dog handler
Joseph Kral & Cliodhna	Dog handler
Larry Atkinson	Field Coordinator, Cartographer
Alyson Hart & Bryn *	Dog handler (Novice team)
Lynne Engelbert & Jazz *	Dog handler (Novice team)

Prepared By: Lynne Engelbert

Project Location

196 E. Spain Street, Sonoma, CA

Pertinent History

Sonoma State is doing a cultural resources survey at this property. To date there has been no evidence of human remains, or potential burials, on the property. The property is fairly close to the Sonoma Mission and known burials.

There is a pet cemetery located somewhere on the property but no one knows where it is.

Project goals

There is going to be some site development on the property and, because of its proximity to the nearby mission, a cultural site survey has been requested, including a canine survey.

Methods

This survey area was broken into two search areas, A and B. Two certified ICF canine teams surveyed each area using a medium grid search pattern.

We were specifically asked to survey the old dairy barn. Two teams worked the perimeter of the barn, its additions, and conducted a free search of the interior areas that were safely accessible.

The client can request an electronic GPS file of the tracks and waypoints of alerts.

Survey Details

Search Area: A (Horse Pasture)

<u>Area Description</u>

Pastureland with mostly close-cropped grasses and a few small areas of longer grass

We estimate this search area was 95% accessible to the dogs' noses.

Alert Details

Handler & Dog: Lynne & Piper					
Search Strate	egy: Medium Grid				
Date and Tin	ne Searched: 04/256/23, 9	:55 - 10:	l4 am		
General Comments:					
GPS Used (dog tracks): Garmin Solar Instinct Watch					
Waypoint # GPS Coordinates, UTM Alert Key Handler Comments					
			No alerts		

Handler & Dog: Karen & Quincy					
Search Strate	egy: Medium grid pattern				
Date and Tin	Date and Time Searched: 04/26/23 10:30 to 10:47 am				
General Com	General Comments:				
GPS Used (dog tracks): Garmin Solar Instinct Watch					
Waypoint # GPS Coordinates, UTM Alert Key Handler Comments					
			No alerts		

Handler & Dog: Karen & Echo	
Search Strategy: Medium grid pattern	
Date and Time Searched: 04/26/23 10:25 to 10:30 am and 10:48 to 11:00 am	
General Comments:	
GPS Used (dog tracks): Garmin Solar Instinct Watch	

Sonoma State University / 1	Spain Street Project
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Waypoint #	GPS Coordinates, UTM	Alert Key	Handler Comments
			No alerts

<u>Map of Alerts:</u> There were no alerts in this area.

<u>Photographs</u>

Photograph of Area A, horse pasture	

Search Area: B (this area had North and South side designations)

Area Description

Mostly mowed grasses with a few areas of longer grass, gravel driveways and a few farm outbuildings. There were areas of concrete, with some cracks where it was possible that any scent rising would be available.

We estimate this search area was approximately 50% accessible to the dogs' noses.

<u>Alert Details</u>

Handler & Dog: Lynne & Piper

Search Strategy: Medium Grid

Date and Time Searched: 04/256/23, 9:55 - 10:14 am

General Comments: Piper and I searched the North side of Area B, including the perimeter and interior of the outbuildings. We accessed the interior of the old dairy barn where it was safe to enter.

GPS Used (dog tracks): Garmin Solar Instinct Watch

Waypoint #	GPS Coordinates, UTM	Alert Key	Handler Comments
			No alerts

Handler & Dog: Karen & Quincy						
Search Strate	Search Strategy: Medium grid pattern mixed with free search					
Date and Tin	Date and Time Searched: 04/26/23 9:25 to 10:15 am					
General Com	General Comments:					
GPS Used (do	GPS Used (dog tracks): Garmin Solar Instinct Watch					
Waypoint #GPS Coordinates, UTMAlert KeyHandler Comments						
No alerts						

Handler & Dog: Joseph & CliodhnaSearch Strategy: free search / medium gridDate and Time Searched: 9:18am - 9:32am and 10:24am - 10:47amGeneral Comments: We did a perimeter search of the outbuildings, including the dairy barn, and
free search of the interiors.GPS Used (dog tracks): Garmin Solar Instinct watchWaypoint
#GPS Coordinates, UTMAlert
KeyHandler CommentsNo alerts

Map of Alerts: There were no alerts in this area

Map of Tracks for Area A and Area B



Mercator Projection WGS84 UTM Zone 10S

Scale 1:900 1 inch = 75 feet



mi

<u>Photographs</u>



ICF Canine Survey



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Appendix A: Project Weather Conditions

Cloud conditions at the start of the April 26, 2023, ICF HHRD survey at Spain Street Sonoma saw crystal clear blue skies and ended with the same.

Air temperature ranged from a low of 60.6°F at 9:00 AM to a high of 78.9°F at 11:30 AM.

Wet bulb temperatures ranged from a low of 55.0°F at 9:00 AM to a high of 64.9°F at 11:25 AM.

Wind was predominantly from 71.1°T (ENE) with speeds from 0.0 mph at 9:25 AM to a maximum of 4.1 mph at 10:45 AM.

Wind averaged 1.4 mph with a mode of 0.0 mph for 26.5% of the time.

The survey saw a relative humidity high of 71.7% at 9:50 AM and a low of 46.9% at 11:30 AM.

At 11:10 AM the dew point was 35.0°F and 232.0°F at 8:55 AM.

The heat index low of 59.4°F and high of 77.9°F at 9:00 AM and 11:30 AM respectively.

The minimum wind chill of 51.0°F occurred at 9:00 AM and maxed at 58.3°F at 11:25 AM.

Ground temperature in the sun ranged from the low of 70.7°F at 9:00 AM to a high of 95.9°F at 11:40 AM.

Spain Street Sonoma ground temperatures in the shade ranged from a low of 61.1°F at 9:00 AM to a high of 75.9°F at 11:40 AM.

Appendix B: Handler Biographies

Lynne Engelbert	Historic Human Remains Detection Specialist Evaluator and Instructor: Human Remains Detection, Disaster Search
	Lynne has 30+ years of detection dog training and handling experience and is an associate with the Institute for Canine Forensics. Lynne and Piper, her border collie, are certified in Historic Human Remains Detection, and FEMA Human Remains Detection (disaster). They were formerly certified to California Office of Emergency Services (CalOES) Human Remains Detection (Type 1). Since 2017, Lynne and Piper have worked with the Alta Heritage Foundation's Cremated Remains Recovery Team, helping locate previously cremated remains for victims of wildfires whose homes have been destroyed. Lynne serves as an evaluator for Human Remains, Historic Human Remains Detection and FEMA disaster search dogs (live-find and HRD). Lynne and her former search partner Lucy (1991-2006) were a FEMA-certified live-find Canine Search Specialist team and became a CalOES certified Cadaver team in January 1999 with several major finds in their career. They deployed to the Oklahoma City Bombing (Lucy with a former handler) and the World Trade Center after 9/11. She was also a certified Canine Search Specialist with the FEMA and CalOES with her live-find disaster search dog, Sweep (2003-2017).
	Lynne is an instructor for Human Remains Detection, disaster search and canine decontamination. She has also worked with local and federal law enforcement agencies in doing maintenance training for narcotics, explosives and arson detection dogs.
	Canine: Piper Historic Human Remains Detection, Certified DOB: April 15, 2010 Breed: Border Collie, Black & White Certifications: Historic Human Remains Detection; certified 2012-2019 and recertified 2020-present FEMA Human Remains Detection, FEMA Urban Search and Rescue standard; initial certification, 2015, re-certified in 2018 (retired) Canine: Jazz
	Canine: Jazz Historic Human Remains Detection, Novice DOB: April 11, 2019 Breed: Border Collie, Black & White

Joseph Kral Historic Human Remains Detection Specialist	
Joseph has been active in Search and Rescue since 1997 and in Human Remains Detection since 1998 and was a director of CSST (Canine Specialized Search Team) at its inception. Joseph was involved with early Historic Human Remains searches in 2000 and has been a test evaluator for both CSST and ICF. Now training his third search dog, he is focusing strictly on Historic Human Remains Detection.	
Joseph has acquired many skills through involvement with Search and Rescue and other Emergency Services including Emergency Medical Responder, Wilderness Navigation, SAR tech II certification, Hazardous Materials Awareness, crime scene operations, and is a radio communications specialist and has served as communications committee chair for a statewide search and rescue organization for more than 20 years. Joseph also has training in search management and is a Community Emergency Response Team member and trainer.	
Professionally, Joseph is a licensed Private Investigator and specializes in locating missing persons and is a certified criminal defense investigator.	
Canine: Clíodhna Historic Human Remains Detection Dog, Certified DOB: November 14, 2020 Breed: Yellow Labrador Retriever Certification: Historical Human Remains Detection 2022	

Karen Atkinson	Historic Human Remains Detection Specialist Evaluator and Instructor: Human Remains Detection
	Karen has been a certified search and rescue K9 handler since 2009 and a Human Remains Detection K9 handler since 2013. She serves as a primary evaluator for HRD and HHRD K9 teams for Institute for Canine Forensics and the California Rescue Dog Association. Karen was a member of the Marin County Sheriff's Search and Rescue Unit until 2018 and served as K9 manager for that unit from 2012 through 2016. In 2018 she joined the Santa Clara County Sheriff's Office Canine Specialized Search Team which includes an on-call team for the FBI. Since 2019, Karen has been working with the Alta Heritage Foundation helping families who have lost their home to fire locating the lost memorial cremains of loved ones.
	Canine: Echo Historic Human Remains Detection, Certified DOB: April 14, 2016 Breed: British Labrador, Yellow Certifications: Historic Human Remains Detection; recertified every year since 2017 Human Remains Detection Santa Clara County Sheriff's Office Canine Specialized Search Team from 2018 through 2021
	Canine: Quincy Historic Human Remains Detection, Certified DOB: July 5, 2021 Breed: British Labrador, Black Certification: Historic Human Remains Detection, Certified March 2022
Larry Atkinson	Technical Specialist, Field Support Larry is an advanced team leader and serves in search and rescue management, operations, planning, communications, safety, training and as a searcher with Marin County Sheriff's Search and Rescue Unit. He is also a search and rescue technical support member, primary evaluator, and instructor with the California Rescue Dog Association.
	 Certifications: Wilderness Emergency Medical First Responder SARTECH I - National Association for Search and Rescue (NASAR) High Angle Rope Rescue Technician & Instructor Rescue Systems II Advanced Rescue Skills (California State Fire Marshal) Direction and Control of the Search Function (NASAR) Search Management courses

Alyson Hart	Historic Human Remains Detection Specialist
	Alyson has been involved in Search and Rescue since 2000 and has certified and successfully deployed two dogs, Osa and Gig, through the California Rescue Dog Association. Alyson has served as a member of the California Rescue Dog Association Board of Directors, Training Group Leader and trailing dog evaluator. Alyson has also been a member of the Alameda County Search and Rescue K9 Team since 2002.
	Alyson is currently in the process of certifying her third K9, Bryn, in Human Remains Detection and gaining field experience as a Novice team with ICF.
	Canine: Bryn Historic Human Remains Detection, Novice DOB: November 20, 2020 Breed: English Shepherd

Appendix C: Using Historic Human Remains Detection Dogs

General Information

The Organization

The Institute for Canine Forensics (ICF) is a 501(c)(3) non-profit corporation established in 1997. ICF is singularly dedicated to training, certifying, and providing Historic Human Remains Detection (HHRD) dog teams. HHRD dogs have unique and specialized training in locating historic and prehistoric human remains. We work closely with archaeologists and anthropologists to ensure our training and methods are consistent with current standards of practice. Over the last 10 years ICF has worked 20 - 40 projects a year with about 70% of that being Native burials.

The Dogs

The use of Historic Human Remains Detection dogs is one of several techniques that may be used to locate historic and prehistoric burials. They are the *only* remote sensing tool that can detect and recognize the scent of human remains. This makes them uniquely qualified to aid archaeologists. HHRD dogs may also be used in combination with other more traditional techniques. For example: GPR can detect anomalies in the ground. HHRD dogs can identify the scent of human remains. Overlapping this information can indicate unmarked burials. Using scientific methodologies, archaeologists can build predictive models to help determine the possibilities for unknown burials in a given location.

Each handler is an independent contractor, owns their own dog and is responsible for their dog's training, health and wellbeing. Along with scent training, the dogs are taught obedience, agility and socialized to other animals and humans. Most of our dogs have flown in-cabin with us all over the country and, in some cases, internationally. We use a variety of dog breeds, mostly from working lines.

Developing a Customized Search Plan

Important Information for Setting up the Project for Success

An initial customized search strategy is based on information given to us by the client during the information gathering phase. The more detailed and complete this information is, the more suitable our initial plan can be. The search plan is re-evaluated on-site and may be modified as needed.

Project Goals and Priorities

Each project is unique, as is each search area. ICF has several techniques that can be deployed to accommodate different needs. For example:

- *Time constraints* For some projects, the need to complete the field survey quickly is paramount. In this case, we might apply more teams for a faster survey.
- *Boundaries* Other projects only require identifying the boundaries of a cemetery so the area can be avoided. We might do a free search outside the assumed boundaries, to help identify any unknown burials.

- Specific Locations Other clients may be seeking the location of each burial for removal / preservation. We might work a tighter grid search, overlapping with multiple teams to make sure as many burials as possible are found.
- *Research* Clients conducting a study may need to exclude bias. In this case, teams can work double blind.

History of the Site

Understanding the history of the site can help us understand what might be found and in what condition remains may currently be in. This information goes toward developing our search plan. For example, it is helpful to know any:

- Prehistoric history including Native culture and their burial practices
- Land grading, especially if any fill soil was added
- Known land use including buildings, agriculture / tilling, etc.
- Any known burials in the area
- Oral history of burials
- Cultural features that have been identified
- Registered archeological site(s) within the search area, if so please provide number(s)

Search Boundaries, Maps, Photos, Terrain, Vegetation and Hazards

It is important that we have explicit search boundaries to ensure we cover all the requested areas. Boundaries can be provided by:

- GPS coordinates / tracks
- Aerial photo with drawn boundaries (e.g., Google Maps / Earth)
- Physical features (e.g., roads, fences, streams)

Knowledge of the terrain, vegetation and any known hazards are very important to the development of a customized plan. For example:

- Height of ground cover, including impenetrable brush
- Fences, especially electric or barbed
- Animals (livestock, rattlesnakes, etc.)
- See more details below in the *Dog Working Conditions* and *Accessible Terrain* sections <u>Current</u> photos of the area are important to see the present-day state of the site, including things that might not have been obvious to the client. (We use Google Maps / Earth so we can visually review the area, but the current conditions are often different.)

How We Work

The search location is broken down into multiple, manageable areas. Our standard practice is for two dog teams to search each area. At times more coverage will be added, for example: difficult terrain, areas with many potential burials or areas where burials will need to be excavated for preservation. Normally we search a short distance outside of the defined boundary, as the scent

from a burial can sometime only be detected a short distance from it. Occasionally this results in the dogs alerting on areas outside the scope of the project.

The dogs work at different times during the day with different weather conditions and for varying lengths of time. The best search strategy is determined based on the need of the client, weather conditions, terrain and the dog searching. Typical search patterns include searching boundaries followed by gridding in two directions. Grid spacing depends on the client's needs, what we are looking for, terrain, soil conditions, etc. Using multiple dogs to cover an area increases the Probability of Detection (PoD.) Typical grid spacings include:

- Free: This style of search lets the dog choose the area it wants to search and is not as controlled as a grid search. It can be useful when speed is needed but it can be more difficult to keep track of the areas the dog has searched. The benefit of this search mode is if the dog has scent they will gravitate to that location and work it first.
- Wide Grid: The size of the grid spacing ranges from 10 to 30 meters, depending on terrain. This style of search covers areas faster and is used when we have limited time or large areas to search. This usually means less coverage of a search area. To increase the probability of detection, the area is often searched with a cross-grid.
- Medium Grid: A medium grid search is commonly used when we are looking for, or believe we have located, a cemetery. It typically uses grid spacing from 3 to 5 meters and often is searched with a cross-grid to get better coverage and Probability of Detection. Having more than one dog search the area also increases the Probability of Detection.
- Fine Grid: A fine grid search is used to search for single bones and teeth. It typically uses a grid of about 1 to 2 meters and often is searched with a cross-grid to get better coverage and Probability of Detection. We do not use it very often in the field because we are usually not asked to search for individual bones and teeth. A Fine Grid Search covers about 1/4 acre per hour. It is tiring on the dog and they usually need a rest break after covering their 1/4 acre.

Dog Working Conditions

Our dogs are living creatures and subject to weather conditions, especially heat. Cool, moist conditions are best. The best conditions are not always possible due to the season or location of the project. We have adopted some standard working practices to help ensure the dogs are safe and we get the best possible results. Our dogs are athletes, and our training program builds their endurance to extend the duration of time they can work.

Below is a list of our basic guidelines:

- The dogs' workday varies from 4 to 6 hours per day, depending on weather and other conditions. A workday is not the same as "nose time". Nose time is the amount of time the dog is actively working.
- The dogs can cover anywhere from 2 to 10 acres per workday depending on what they are looking for, the weather, the terrain and the search strategy used.

- For multiple-day projects our dogs typically work 3 days on and 1 day off.
- Weather, especially ground temperatures and humidity, play a critical role in the dogs' ability to locate scent. We monitor ground temperatures as this directly affects the availability of scent. Hot weather conditions, especially ground temperatures 85°F and higher appear to decrease the scent available to the dog. The ground temperature can be significantly higher than the air temperature.
- In general, ground temperatures below 85°F work best for locating burials. The higher the ground temperature, the lower the Probability of Detection. Ideal ground temperatures are between 40°F and 85°F.
- We stop working dogs when the ground temperature approaches 100°F, or the dogs internal body temperature reaches 104°F.
- We do not work in rain heavier that a slight drizzle, or on ground with standing water, due to degradation of scent conditions. Very high humidity *at ground level* may also severely impact the dogs' PoD.
- Project working time may be changed / delayed to increase the dogs' PoD.
- The safety of our dogs always comes first. For example, we do not work deserts at night in the summer due to the presence of rattlesnakes. We prefer that any electric fences in the area be turned off. Livestock and other animals, like loose dogs, can cause undue safety issues. At some locations we work the dogs on a long line for their safety.
- Each handler has their own personal protective equipment (PPE) including a hard hat, high visibility vest for themselves and a high visibility vest for their dog.

In addition to the ideal cool, moist conditions, our dogs have successfully worked projects in the following conditions:

- Hot, dry desert conditions (Southern California deserts)
- Cold, wet conditions (Alaska)
- Hot, humid tropical conditions (South Pacific, Republic of Kiribati)

Our dogs are trained to perform an alert when they detect the scent of human remains. The alert is either a sit or down at the strongest source of the scent they have located. At times it is not physically possible to alert near the source due to vegetation or other obstacles, or the scent can be channeled through disturbances in the ground (insect or rodent activity) and the scent can be more available a short distance away from the grave. (See *How Scent Travels* below.)

Accessible Terrain

The terrain impacts the PoD. The percent of accessible terrain is estimated by how much of the search area the dogs' noses have access to the surface of the ground. Brush, thick grasses, downed trees, etc. can make it very difficult for the dogs to cover some areas. Dry grasses like foxtails, needle grass, rip gut, and wild rye can be very dangerous to the dogs as they propagate by seed pods that have one-way barbs. These seeds can attach to the animals' fur and can lodge in the

dog's nose, eyes, ears or skin, sometimes requiring surgical removal. In areas where these grasses grow, the work needs to be done in times of the year before the grasses dry or they have been removed.

Dense grass above four inches in height can degrade the PoD. for the dogs. Grass above one foot in height has a significant degradation in PoD. Tall grasses and other groundcover trap scent in a localized area and the dog must pass directly above that area, with their nose at ground level to catch the scent. It is recommended that tall grass be cut a week before a search. If that isn't possible, a shorter time interval than a week is preferable over searching in tall grass. Ideally it is recommended that the cut grass be removed if it leaves large, thick clumps, which can result in trapping the scent between the clumps and the ground and not allowing it to rise.

Paved areas create scent barriers. Asphalt can be worked if it is old, cracked, and/or has holes, although it has a very low PoD. An alert on pavement may occur where there is a crack or hole and not necessary on top of the burial.

How Scent Travels

Human remains scent (vapor) travels away from the decomposing body or skeleton by way of diffusion, or vapor transport. Scent will follow the path of least resistance and can flow by means of water movement, animal or insect activity, and plant or root activity. Burrowing animals, such as rodents, as well as some insects like ants, create channels in the soil that can allow the release of scent to the surface.

Dogs can only detect what is available in the air. Water molecules compete with vapor molecules for binding sites. Water physically displaces odor molecules thus causing human remains scent to appear to be stronger, or pool, at vegetation or moist soil. Humidity is higher in and around photosynthesizing vegetation because it is transpiring. As vegetation transpires, it releases water into the atmosphere and bumps the odor molecules off of whatever they are bound to, making odor in the air more available to a dog's nose. Scent can also travel and then be trapped in depressions or obstacles in its path creating a scent pool.

Underground Utilities

It is common to see alerts on or near underground utility access points. Features such as pipes, cables, utility boxes, power and light poles can act as a channel for scent, bringing it to the surface. Scent can move both horizontally and vertically along utility equipment. We believe alerts in these areas are due to scent traveling along utilities that pass close to burials or fragments of human remains. An alert on utilities does not necessarily mean there are human remains in that location.

It is important to note that the dogs do not necessarily alert directly over a burial. Land disturbance, be it man-made, rodent and/or insect activity or the natural movement of the earth, including floods or landslides, can spread the scent over the area. The soil in which the body has decomposed retains the human scent signature that the dogs are trained to recognize and alert on. Disturbed burials will often create larger scent pools, making pinpointing by the dogs more difficult. However, even after years of disturbance and movement, the dogs can still detect, and alert, in reasonably close proximity to a burial.

Bones that have been on the surface for extended periods of time will deteriorate, losing most of their scent, especially in areas with direct sunlight and hot conditions. Environmental conditions that break down scent include sunlight, heat, and wind. Intact, undisturbed graves have more scent available than do disturbed graves or bones.

Qualifications

Training and Certification

Our training regimen and time training exceeds the best practices for the industry standard. We train in all types of weather conditions and terrains, including buildings, urban and wilderness. We log our training sessions including nose time, location of trainings and whether problems were worked blind or known.

Our certification process consists of pre-certification signoffs that include obedience, compatibility with humans, different environments and scent work. The team is required to pass our skills test observed by an outside evaluator and then the team is required to complete field experience before they are considered certified. Once a team is certified, they must complete an ongoing annual certification that ensures skills and evaluations are done throughout the year and maintain a 75% or higher efficacy.

Additionally, our dogs are:

- not cross-trained for other scent disciplines
- socialized to many different situations, people and places
- trained to alert as close as possible to the strongest scent available
- taught to preserve scent sources and are not allowed to dig or mouth potential remains
- routinely trained with flags present so they learn that flags in their search area are insignificant and do not necessarily relate to an alert by another dog

Working with Native Monitors

We have a good working relationship with many tribes, as well as archaeologists. Because of that we have learned to work areas that Native monitors deem significant due to their knowledge of topography, presence of artifacts or features that were used in historic or prehistoric burial

practices. These areas can be more closely searched for potential burials. The handler/dogs are given a narrowed down area to search but are not told exactly where these features are. This eliminates the potential to cue or guide the dogs to a specific object or location.

Selecting a HHRD Dog Search Team

ICF recommends the following guidelines when considering using a dog team to locate historic or ancient burials. Since there are no national standards, the following criteria should be considered to make sure the team fits well with your needs.

- How long has the organization existed?
 - ICF was established in 1998. We have over two decades of specialized experience training, certifying, and providing Historic Human Remains Detection (HHRD) dog teams.
- Request a list of clients and projects that the team has worked.
 - ICF has a wide range of clients including:
 - Multiple Native Tribes
 - Government agencies at the federal, state and local level
 - International organizations
 - Cultural Resource Management (CRM) agencies
 - Churches / cemetery preservation organizations and universities

Please refer to our web page at www.ICFK9.org for more information, including published papers, past projects, clients, and testimonials.

- How many historic human remains projects do they work per year?
 - o ICF works 20-40 projects annually
- Request a sample report.
 - ICF customizes each report. The template we use as starting point was developed over decades of collaboration with archeologists, Native Tribes / CRMs, and land developers. Please request a sample report from ICF.
- Do they have any published papers or articles relating to their work?
 - ICF has participated in several published studies and projects. Please refer to our web page at www.ICFK9.org for more information, including published papers, past projects, clients, and testimonials.
- Are they covered by both general and professional liability insurance?
 - ICF has both general and professional liability insurance.
- Will they travel to your location? Do they have the experience and knowledge to successfully work projects in unfamiliar environments?
 - ICF has a proven track record of working successfully throughout the United States and internationally. Our dogs are trained to travel and work in a variety of environments. We have proven expertise in travel logistics for handlers and dogs.
- How many certified teams do they have available to work projects?

- ICF has 7 certified teams, 1 intern team (that have passed all their testing and are currently completing their field experience requirements) and 6 novice teams in training.
- Request resumes of available resources. What experience and relevant education / training do they have?
 - ICF has almost 200 years of accumulated detection dog experience and have participated in thousands of projects / searches. We have wide ranging skills set / training on the team including almost 50 years of professional project management. Please request a copy of our teams' bios.
- How are the dogs certified? Request information on testing and skills required.
 - ICF was the 1st organization to write a certification process for HHRD dogs and remains the world leader in these practices. Please request a copy of our certification process.
- Are their dogs *specialized in old burials* or are they trained for multiple scents (e.g., live human, explosives, drugs)?
 - ICF dogs *specialize* in historic human remains detection; they are *not* cross trained to detect any other scents.

Report

We produce a final report on each project for the client. ICF's report is only given to the paying or requesting client unless a written request is given by the client to include additional people/ agencies. All alerts will be included in the report (even alerts encountered outside of requested search areas) unless otherwise requested.

The report generally contains the following information:

- Summary of our findings
- Coordinates of all dog alerts
- A map of the search area(s), dog tracks, and any recorded alerts
- Description of the terrain
- Alert interpretation, comments and observations
- Sample pictures of terrain and dog alerts, as available
- Weather
- Handlers' biographies

Alert Interpretation Key:

Each alert is given an interpretation number, 1-3, and is described below. This is based on the handler's experience in observing trained dogs identify burials in a variety of known locations and the dog's behavior while working. It also takes into consideration the knowledge of the site, age of burial, burial customs, and past ground disturbances. This information is offered as a guide to understanding what might be expected.

- 1. Possible Intact burial: The location where the body was originally interred. To our knowledge the ground has been undisturbed and the burial, is possibly intact. Most likely a historic, or shallow burial. The dog is strongly committed to a single location.
- 2. Compromised Burial: The handler has knowledge of the site, which may include any of the following: older burial, some disturbance has occurred to the location (either natural or man-made), deep burial or dense soil, burial customs include cremation, only bones buried or not all the remains are present at the burial. The dog is committed to the location, but it may not be as strong of an alert as an intact burial.
- 3. Scattered or Dissipated Remains: The site is a known disturbed area, either natural or man-made. The most common reasons for disturbed burials are construction or farming, especially plowing. Older burials can become so degraded that the remaining bones are small fragments or only grave soil remains. When a body has decomposed in the ground the "grave soil" contains the scent that the dogs recognize as human remains. This may also mean that finding visual, identifiable remains may not be possible as only scent is left.

Included in this category is the *conduit effect* where scent travels along in underground utilities. Things such as: pipes, cables, tree roots, utility boxes and poles and/or rodent holes can act as a channel for scent, bringing it to the surface. An alert on utilities does not necessarily mean there are human remains at that location.

The dog's reaction to this category varies from having a hard time pinpointing an exact location to giving several alerts in close proximity or not alerting. The handler observes the dog is clearly working the target odor (sometimes called a scent pool) and is searching for stronger scent, or they cannot access the exact location of the source. Also, the level of scent available to the dog may be below their *target threshold* (scent strong enough to elicit an alert).

All reported alerts are valued. Single-flagged alerts may have the same creditability as multipleflagged alerts. Alerts may not be reproducible by other dogs, depending on condition (e.g., ground temperature and wind.)

Multiple flags in close proximity do not necessarily mean more than one grave but most likely are because each dog chooses a different location to alert on at a single grave. Each burial may be anywhere between 3ft to over 5ft in length. Multiple flags in close proximity can also mean the burial has been scattered by ground dwelling rodents, roots, or earth moving equipment.

When a body has decomposed in the ground the "grave soil" contains the scent that the dogs recognize as human remains. Alerts on disturbed, "scattered" burials can be grave soil, or actual remains (bones/teeth).

Team Status

All dog teams on a project and their status are listed in the report. A dog teams' status determined if their tracks / waypoints are included. Dog Teams status can be:

- Novice has not passed a Basic Skills Test. Tracks and waypoints are not included in the report.
- Intern has passed a Basic Skills Test, their Annual Skills Checklists are up of date, but handler and / or dog have not completed Field Experience. Tracks and waypoints are included in the report.
- **Certified** has passed a Basic Skills Test, their Annual Skills Checklists are up of date and both handler and dog have completed Field Experience. Tracks and waypoints are included in the report.

GPS

Accuracy

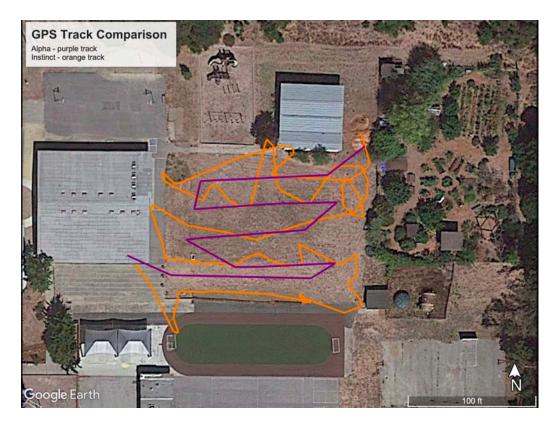
ICF uses consumer grade GPS devices to record dog tracks, as well as waypoint / alerts. In the table below, you will find some of the GPSs ICF uses and examples of their respective accuracy measured in specific conditions. The Precision Open Field is measured to 95% certainty over a 24-hour period with sky unobstructed / no overhead vegetation. Precision will be worse with overhead vegetation. This data is provided for illustrative purposes and will vary depending on field conditions.

Clients that need higher accuracy for waypoints should measure the location of dog alerts (pin flags) themselves. Please contact us if higher accuracy dog tracks are required.

	Sample	Sample
CDC	Waypoint	Dog Track
GPS	Precision,	Precision,
	Open Field	Open Field
UBlox ZED-F9P (RTK Surveyor)	0.9m	
UBlox ZED-F9P (RTK Surveyor) Garmin Instinct Solar Watch	0.9m 1.5m	1.5m
		1.5m

Quantization Error

Some GPS's only allow / record certain positions, and so those tracks only *approximate* where a dog has been (i.e. snap-to-grid.) In the case of the Garmin 200i + TT I5, this introduces a 2.4-meter quantization error in the two-dimensional position. The figure below compares the tracks of the same dog wearing both an Instinct Solar's (orange track) and the Alpha 200i + TT 15 collar (purple track).



Assessing Canine Detection Effectiveness and Limitations

The ICF canine accuracy at finding graves has been measured in only a few unmarked historic cemeteries. In these measurements, the position of the canine alerts is compared to the position of the center of the grave. Results show that the standard deviation of the canine alert position is generally less than 4 meters as compared to geophysical positions taken at the grave. No excavation was done at any of these graves, but location was determined by geophysical means such as GPR. These same tests also showed that the dogs cannot accurately discriminate between burials immediately adjacent to each other. Lack of alert indicates that the scent is below the dog's threshold of detection; it does not, however, mean that an ancient burial is not present, only that it cannot be detected. In all remote sensing techniques, the data is subject to interpretation and there is a potential for false positives or negatives. As such, all remote sensing techniques require ground truthing and controlled studies to be carried out that assess what variables effect efficacy. Most of our work involves Native burials that are usually avoided or reburied. (see *References* for more details)

References

For more information on the Institute for Canine Forensics, including published papers, past projects, clients, and testimonials go to our web page at www.ICFK9.org

APPENDIX C

Monitoring Log – Soil Testing

PROJECT: 196 East Spain Street	JOB # NT235/ASC2213	
TODAY'S DATE: 5/4/2023		
MONITORING LOCATION: 196 East Spain Street		
ARCHAEOLOGIST MONITOR NAME: Sally Gaston	TIME IN: 9am	TIME OUT: 2pm

*Describe activities being monitored, artifacts/features observed and actions taken, equipment redirected and for what period, important conversations with construction/regulatory personal. Note problems and the necessity for future monitoring. * Draw rough sketch map of location monitored on separate sheet and attach to log. (only necessary for large project areas) *Email log to ASC Project Coordinator each morning. Use file name format *"Monitoring log YBM 062815"*

TIME	РНОТО	ACTIVITY
9am	1 of area	Their crew arrived by like 9:15–pretty small only 3 of them. Dustin, Paul, and Andrew
	with	Quite small setup, not the truck mounted thing. At least Andrew is from PJC and associates, seems
	adobe	like the other two doing the actual drilling might be smth else.
		They had already come and staked out their borehole locations.
		Weather is drippy and threatening to actually rain
9:15-10:15	2 photos	They start the hole with rotary blade (seen upright in center at bore location (down ~1ft then drill
		manually by pounding in the tubes
		"Goes soft to hard really fast" -their description of the soil
		Then they like manually lever out the tubes which each have like 1.5' or so, which Andrew does soil/rock characteristics on
		Then they drill down with the rotating one again—I am not sure how I disturbed you can call these
		profile each tube comes out with 3 like 6" sections that each get characterized, according to what
		I could get from Andrew
10:15		Borehole 1 is 8.50 m at 260deg from the closest (Swest) corner of the main house.
10:15-11	1 photo	Borehole 2 at N end of vineyard, starting ~10:15Borehole 2 is 6.95m at 235 Deg from the SW corner
		of the W small shed by the dairy barn.
11-11:45	1 photo	Borehole 3 is near GPR grid 2, starting 11am
		10.55 m at 5 deg from NW corner of far W shed, and 8.35 m at 210 deg from SW corner of grain silo
		thing.
11:45-12:40	2 photos	Borehole 4 is north of the grain silo and S of the horse pens. Top 6-8" is gravel driveway
		In upper part of borehole 4 they brought up some brick (modern, burnt, definitely not Adobe)
		Borehole 4 is 3.3 m at 25 deg from the NW corner of the grain silo and 6.55 m at 200 deg from the
		SE corner of the white pump house
12:40-	2 photos	Borehole 5 starting 12:40. NE of NE corner of dairy barn. Borehole 5 is 2.9m at 75 deg from the NE
		corner of the dairy barn
1:15-2	1 photo	Borehole 6 starting at 1:15. By main house. Top 6" is gravel
		Borehole 6 is 6.9 m at 355 deg from the far NE corner of the house (corner by the footpath)
2pm		Pack up and head out at 2pm
-6		All the points in field maps are not particularly high accuracy—base locations on the taken
		measurements.
		This set up that they used is for 5-8 ft of depth generally, but the soil in Sonoma is bedrock quite
		close to the surface, most of the holes were in the 4-5 ft depth range, which Andrew apparently
		expected.

Communications to ASC office and other problems ie. scheduling, is a monitor needed tomorrow, messages from client etc.):



Area with Adobe Feature Facing E



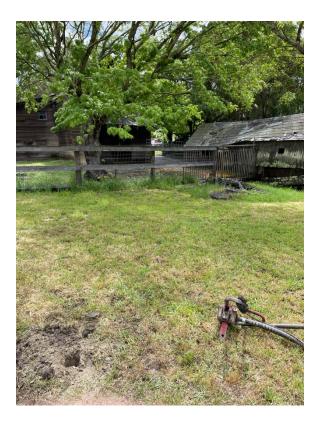
-9:30 First borehole SW of house in vineyard



This is approximately how the manual drilling works.



Borehole 2 in progress, facing NNE (shed of horse barn in background)



Borehole 3 in bottom left corner, facing E



Borehole 4 facing se



Borehole 4 facing nne



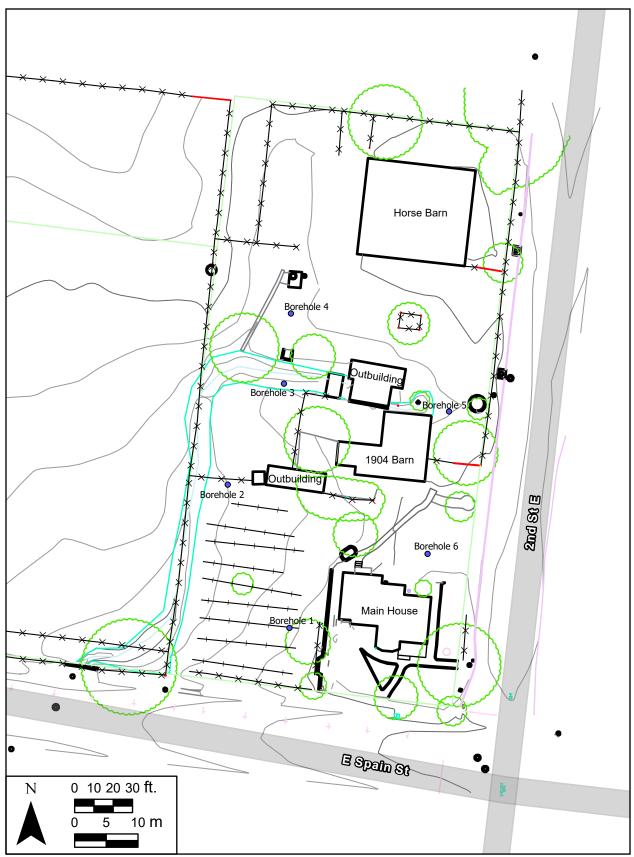
Borehole 5 location (in white circle) behind us NE corner of dairy barn



Borehole 5 facing w



Borehole 6 facing S toward main house.



Borehole Locations