



MEMORANDUM

Agency: Solano County Department of Public Works

Attention: Craig Pyle, P.E., Engineering Services Supervisor

From: Amy Bakker, Senior Environmental Planner

Subject: Preliminary Environmental Assessment for the Foothill Drive Road Realignment Project

Date: September 20, 2023

Dokken Engineering was retained by Solano County to conduct a preliminary environmental assessment for the Foothill Drive Road Realignment Project (Project), located in the City of Vacaville in Solano County. The project involves realigning Foothill Drive for safety purposes. This memorandum provides the preliminary results for potential biological and cultural resources within the direct impact area and makes recommendations for environmental documentation and regulatory permits that may be required.

Project Description

Foothill drive is an existing connector road from Pleasants Valley Road to Foothill Drive in the City of Vacaville. The current alignment is a Z shaped road with 15 mph sharp turns. The Foothill Drive realignment project will pulverize approximately 1,150 linear feet of the existing, County owned, 24 foot wide asphalt road from 100 feet East of the bridge at Encinosa Creek, to the Vacaville City limit, and construct a 32 foot wide paved roadway on a new alignment for safety purposes. Site amenities will include, asphalt paved driveway connections, sign relocations, roadside ditch installation, one block retaining wall, and on-site mitigation for tree removal and slope stabilization using hydroseed, straw and jute mesh. Three existing corrugated metal pipe (CMP) driveway culverts will be removed, and new CMP culverts installed to fit with the new contoured alignment. An existing Solano Irrigation District (SID) waterline parallels the existing roadway on the north side of the roadway within a 20 foot wide easement on the City of Vacaville parcels. This irrigation line services three parcels, two of which belong to the City of Vacaville, and one private resident on the south side of Foothill drive. The City of Vacaville has determined that they no longer require water access to their parcels. As the new realigned roadway will cross the SID waterline, and that water service is no longer required, the waterline will be teed and capped, with the new alignment crossing the existing roadway approximately 60' east of the bridge at Encinosa Creek in a steel pipe sleeve. The abandoned portion of the waterline will be removed. The water service will extend south, with a new valve and meter installed within the existing ROW. Water service will be restored to the private resident via a 4" waterline on private property to their pumphouse.

Biological Resources Evaluation

The intent of this analysis is to provide a preliminary investigation to identify special-status species and sensitive habitat communities that have potential to occur within the proposed project vicinities. On June 29, 2023, Dokken Engineering biologist Hanna Sheldon conducted a preliminary biological assessment of the proposed Project. The field visit included walking the site, discussing the proposed project features with project engineers, observing habitat communities, and documenting potential sensitive biological resources. Prior to the site visit, database research was conducted through the U.S. Fish and Wildlife Service Information for Planning and Consultation, the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB), the National Marine Fisheries Service, and the California Native Plant Society Inventory of Rare and Endangered Plants to determine the potential for the project sites to support special-status species.



Results and Recommendations

During the site visit, three sensitive habitat communities were identified within and adjacent to the proposed project. Encinosa Creek and its associated riparian habitat are present at the western limits of the project site. In addition, one previously recorded wetland is present within the project site located downslope of Foothill Drive toward the Pleasant Valley Detention Basin. Based on a desktop review of special-status species databases and an initial site visit, the state listed Swainson's hawk (*Buteo swainsonii*) is the only special-status species that has the potential to occur near the project. There are several recent, nearby documented occurrences of Swainson's hawk within a 2-mile radius of the project site. The project site contains marginally suitable nesting habitat for the species including mature trees along Encinosa Creek at the west end of the project limits. Additionally, the detention basin east of Foothill Drive may serve as potentially suitable foraging habitat. However, no Swainson's hawk or raptor nesting was observed within the project limits during the site visit. Given the moderate to low potential for Swainson's hawk to occur at the project site, a pre-construction nesting bird survey is recommended prior to ground disturbance activities and vegetation removal if work is initiated during the nesting season (February 1- August 31). No trees are anticipated for removal within the riparian corridor. Due to the low to moderate potential of the species to occur onsite, and with implementation of a pre-construction nesting bird survey, further coordination with the California Department of Fish and Wildlife, under Section 2081 Incidental Take Permit for Swainson's hawk is not warranted.

The project will require removal of several oak trees, outside of the riparian corridor, to accommodate the realigned road. In accordance with the County's Tree Preservation Code (14.09.250.060), local, native oak acorns will be planted onsite to compensate for tree removal. No impacts are anticipated to occur near or within Encinosa Creek and the associated riparian habitat. Additionally, the realignment has been designed to avoid the wetland feature by creating a retaining wall along the new roadway to avoid permanent fill within the wetland feature.

Cultural Resources Evaluation

On September 14, 2023, Dokken Engineering's Senior Archaeologist, Michelle Campbell conducted a pedestrian survey of the project site. During the survey, exposed subsurface cuts were examined for indications of surface or subsurface cultural resources, soil color change, and/or staining that could indicate past human activity or buried deposits. Visibility was approximately 50% on the road shoulders but was as low as 0% along the proposed alignment where vegetation was high and dense.

No cultural resources were identified during the survey. Inspection of open surfaces and visible cut slopes during the field survey revealed no evidence of subsurface artifacts, features, or other indicators of past human use (such as soil change, soil staining, presence of organic soils, or anthrosoils) within the project limits. The survey confirmed the steep nature of the majority of the project area and general low sensitivity within the creek channel at the culvert and wingwall locations. Archival research conducted and the results of the records search from the Northwest Information Center, however, confirm that the Foothill Drive Realignment Project has low sensitivity for indigenous resources.

Recommendations

At this time, no further archaeological study is required unless project plans change to include areas not previously included in the surveyed area or if additional information is received from other sources or special interest groups.

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey would be needed if project limits are extended beyond the present survey limits.

Section 5097.94 of the Public Resources Code and Section 7050.5 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for the appropriate handling of such remains. If human remains are encountered, work should halt in that vicinity and the county coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation and Caltrans PQS should be contacted. If the human remains are of Native American origin, the coroner must notify the Native American Heritage



Commission within 24 hours of such identification. CEQA details steps to be taken if human burials are of Native American origin.

Environmental Documentation and Permitting Evaluation

The proposed Project would utilize local funds and is therefore subject to compliance with the California Environmental Quality Act (CEQA). Based on the description of work, the Project does not qualify for an exemption under CEQA and an Initial Study with Mitigated Negative Declaration would be the appropriate level of environmental documentation. Based on the results of the biological surveys, no waters of the U.S. or State occur within the study area; therefore, no regulatory permits will need to be obtained.

If you have any questions regarding the results or conclusion, please feel free to contact me at abakker@dokkenengineering.com.

Sincerely,

Amy Bakker
Senior Environmental Planner
Dokken Engineering



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List of Attachments:

Appendix A. Project Location

Appendix B. Preliminary NWIC Cultural Resources Record Search Results



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APPENDIX A. PROJECT LOCATION

 Project Area



Foothill Drive

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Source: ESRI World Street Maps Online; Dokken Engineering 7/13/2023; Created By: astorck



0 110 220 330 440
 Feet

FIGURE 1
Project Location
Foothill Drive Realignment Project
Vacaville, Solano County, California



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APPENDIX B. PRELIMINARY NWIC CULTURAL RESOURCES RECORD SEARCH RESULTS



ACCESS AGREEMENT SHORT FORM

File Number:

I, the the undersigned, have been granted access to historical resources information on file at the Northwest Information Center of the California Historical Resources Information System.

I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III(A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name:	<input style="width: 95%;" type="text" value="Claudia Duda"/>	Date:	<input style="width: 95%;" type="text"/>
Signature:	<input style="width: 100%;" type="text"/>		
Affiliation:	<input style="width: 100%;" type="text" value="SOL-County Department of Resource Management"/>		
Address:	<input style="width: 35%;" type="text"/>	City/State/ZIP:	<input style="width: 30%;" type="text"/>
Billing Address (if different from above):	<input style="width: 100%;" type="text"/>		
Special Billing Information	<input style="width: 100%;" type="text"/>		
Telephone:	<input style="width: 20%;" type="text" value="(707) 784-6765"/>	Email:	<input style="width: 40%;" type="text" value="CDDuda@solanocounty.com"/>
Purpose of Access:	<input style="width: 100%;" type="text" value="Project planning"/>		
Reference (project name or number, title of study, and street address if applicable):	<input style="width: 100%;" type="text"/>		
	<input style="width: 100%;" type="text" value="Foothill Drive"/>		
County:	<input style="width: 100px;" type="text" value="SOL"/>	USGS 7.5' Quad:	<input style="width: 150px;" type="text" value="Fairfield North"/>

Sonoma State University Customer ID:

CALIFORNIA
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<http://www.sonoma.edu/nwic>

January 19, 2023

NWIC File No.: 22-0883

Claudia D. Duda
Solano County Resource Management
Public Works Engineering
675 Texas Street, Suite 5500
Fairfield, CA 9453

Re: Record search results for the proposed Foothill Curve Improvement Project No. 519,
Solano County, California

Dear Claudia D. Duda:

Per your request received by our office on the 5th of December, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Solano County. An Area of Potential Effects (APE) map was not provided; in lieu of this, the map provided depicting the proposed Foothill Curve Improvement project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

As per information provided to this office, Foothill drive is an existing connector road from Pleasants Valley Road to Foothill Drive in the City of Vacaville. The current alignment is a Z shaped road with 15 mph sharp turns. The Foothill Drive realignment project will pulverize approximately 1,150 lf of the existing, County owned, 24 ft wide asphalt road from 100 feet East of the bridge at Encinosa Creek, to the Vacaville City limit, and construct a 32 foot wide Hot Mix Asphalt paved roadway on an improved alignment. The pulverized roadway will be used as fill beneath the new roadway. Site amenities will include, asphalt paved driveway connections, sign relocations, roadside ditch installation, one block retaining wall, and on-site mitigation for tree removal and slope stabilization using hydroseed, straw and jute mesh. Three existing corrugated metal pipe (CMP) driveway culverts will be removed, and new CMP culverts installed to fit with the new contoured alignment. An existing Solano Irrigation District (SID) waterline. parallels the existing roadway on the north side of the roadway within a 20 foot wide

easement on the City of Vacaville parcels. This irrigation line services three parcels, two of which belong to the City of Vacaville, and one private resident on the south side of Foothill drive. The City of Vacaville has determined that they no longer require water access to their parcels. As the new realigned roadway will cross the SID waterline, and that water service is no longer required, the waterline will be teed and capped, with the new alignment crossing the existing roadway approximately 60' east of the bridge at Encinosa Creek in a steel pipe sleeve. The abandoned portion of the waterline will be removed. The water service will extend south, with a new valve and meter installed within the existing ROW. Water service will be restored to the private resident via a 4" waterline on private property to their pumphouse. Abandonment and installation of the waterline must occur prior to the water delivery season commencement April 1, 2023. Due to the possibility of nesting birds in this area, roadway realignment is not scheduled to begin prior to June 15th. The new alignment will cross previously disturbed ground which has been land leveled and used as an orchard starting in the 1970's. In approximately 2009 the City of Vacaville acquired the parcel and excavated a detention pond on the northern portion of the parcel. There was a previous farmhouse on the parcel which has been gone for at least 20 years. The new roadway will not encompass its previous location. The County of Solano is in the process of obtaining Right-of-Way from the City of Vacaville up to the edge of roadway embankment construction. The new roadway alignment will only cross the south-west corner of the existing parcel. All earthwork in area will be limited to clearing & grubbing, and embankment filling to the new roadway grade.

Review of the information on file at the NWIC indicates that there have been five cultural resource studies that cover portions of the proposed Foothill Curve Improvement project area:

Report No.	Addl. Citation Letter	Author(s)	Year	Title
S-031082		S. Heipel	1996	Negative Archaeological Survey Report for the Proposed Reconstruction of the Pleasants Valley Road and Foothill Drive Intersection in Solano County, California
S-031082	a	J. Marvin	1996	Historic Architectural Survey Report for the Proposed Reconstruction of the Pleasants Valley Road and Foothill Drive Intersection in Solano County, California
S-031082	b	S. Heipel	1996	Historic Property Survey Report and Finding of No Effect for the Pleasants Valley Road at Foothill Drive Bridges Replacement Project (No's 23C-93, 23C-94, 23C-84, and B1290-1.75), Solano County, California
S-031082	c	R. Allen	1996	Addendum Historic Landscape Survey Report to the Historic Property Survey Report and Finding of No Effect for the Pleasants Valley Road at Foothill Drive Bridges Replacement Project
S-033698		J. Meyer	2007	Extended Phase I Archaeological Study for the Proposed Pleasants Valley Detention Basin Project, Solano County, California
S-035357		J. Meyer and C. Morgan	2007	Cultural Resource Inventory and Evaluation for the Proposed Encinosa Detention Basins Project, Solano County, California
S-037840		A. Whitaker and K. Carpenter	2010	Data Recovery Excavations at CA-SOL-451, Vacaville, Solano County, California
S-037841		C. Morgan and K. Carpenter	2008	Cultural Resources Treatment Plan for the Encinosa Detention Basins Project, Solano County, California

While the proposed Foothill Curve Improvement project area contains no recorded archaeological resources, one archaeological site [with multiple loci], P-48-000766 [CA-SOL-451], is in close proximity and may extend into the proposed project area. This significant archaeological site has a status code of 2S2, meaning it has been individually determined eligible for the National Register by consensus through the Section 106 process and was listed in the California Register.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists a recorded structure adjacent to the proposed Foothill Curve Improvement project area: Bridge 23C-84 (Otis No. 500653). This bridge was previously determined ineligible for the National Register by consensus through Section 106 process (COE970206A and FHWA970514A) and subsequently demolished and replaced in 1999 with a new bridge that has been recorded as P-48-001904. In addition to those inventories, the NWIC base maps also show a recorded built environment resource within or adjacent to the proposed Foothill Curve Improvement project area that area: P-48-001880, a property at 3942 Foothill Drive. This resource was noted to be built approx. 1995 and was determined ineligible for the National Register by consensus through Section 106 process (DOE- 48-02-0035-0000).

At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Southern Patwin language, part of the Southern Wintuan language family (Johnson 1978:350). There are no Native American resources in or adjacent to the proposed Foothill Curve Improvement project area referenced in the ethnographic literature (Kroeber 1932).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Solano County have been found in near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The proposed Foothill Curve Improvement project area is located within the drainage canyon formed by Encinosa Creek, in the hills between Laggon Valley to the west and Vaca Valley to the east. Given the similarity of these environmental factors and the high archaeological sensitivity of the general area, there is a high potential for unrecorded Native American resources to be within the proposed Foothill Curve Improvement project area.

Review of historical literature and maps gave no indication of the possibility of historic-period archaeological resources within the proposed project area. While the general vicinity of the proposed project underwent early development during the mid to late 19th century, maps from those eras and from the early 20th century fail to show any buildings or structures within the proposed Foothill Curve Improvement project area. With this in mind, there is a low potential of identifying unrecorded historic-period archaeological resources in the proposed Foothill Curve Improvement project area.

RECOMMENDATIONS:

1) The proposed Foothill Curve Improvement project area may contain deposits associated with the recorded Native American archaeological site: P-48-000766 [CA-SOL-451]. It is recommended that a qualified professional archaeologist determine whether this resource extends within the proposed project area, update the conditions of this site on Office of Historic Preservation's DPR 523 resource recordation forms, assess potential impacts of the proposed project activities on this site, and provide project-specific recommendations as warranted.

2) There is a high potential of identifying Native American archaeological resources and a low potential of identifying historic-period archaeological resources in the project area. Due to the passage of time since the previous surveys and the changes in archaeological theory and method since that time, we recommend a qualified archaeologist conduct further archival and field study for the entire project area to identify cultural resources. Field study may include, but is not limited to, pedestrian survey, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of archaeological resources, including a good faith effort to identify archaeological deposits that may show no indications on the surface. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

3) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

4) Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of Solano County conduct a formal

CEQA evaluation. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

5) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

6) If archaeological resources are encountered **during construction**, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

7) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Much". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Bryan Much

Coordinator

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Bennyhoff, James

1977 *Ethnogeography of the Plains Miwok*. Center for Archaeological Research at Davis Publication Number 5. University of California, Davis.

Hope, Andrew

2005 *Caltrans Statewide Historic Bridge Inventory Update*. Caltrans, Division of Environmental Analysis, Sacramento, CA.

Johnson, Patti J.

1978 Patwin. In *California*, edited by Robert F. Heizer, pp. 350-360. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, A.L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

1932 *The Patwin and their Neighbors*. University of California Publications in American Archaeology and Ethnology 35(2):15-22. University of California Press, Berkeley. (Reprint by Kraus Reprint Corp., New York, 1965)

State of California Department of Parks and Recreation

1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Office of Historic Preservation **

2022 *Built Environment Resources Directory*. Listing by City (through September 17, 2022). State of California Office of Historic Preservation, Sacramento.

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review