

POST REVIEW DISCOVERY MANAGEMENT PLAN FOR LAMBERT LANE (10C-0146) OVER ROBINSON CREEK BRIDGE REPLACEMENT PROJECT

Boonville, Mendocino County, California
USGS 7.5' -Minute Topographic Quadrangle: Boonville, CA / 2.92 acres

BRLO 5910(099)

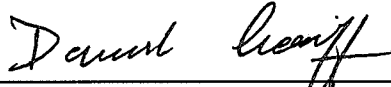
Primary Numbers / Trinomials:

P-23-006338 / CA-MEN-3836H
P-23-006339 / CA-MEN-3837
P-23-006340 / CA-MEN-3838

Prepared for:

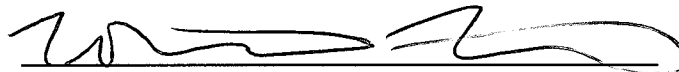
Mendocino County Department of Transportation
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Summary

The Mendocino County Department of Transportation (MCDOT) is proposing to replace the Lambert Lane Bridge (10C-0146) over Robinson Creek. The purpose of this project is to improve public safety by providing a two-lane crossing which meets the current functional and structural standards. The new bridge will also improve the streambed channel to provide greater resilience during storm events and reduce maintenance requirements resulting from scour and erosion.

In 2019, an Archaeological Survey Report and Extended Phase I (XPI) study identified three previously unrecorded archaeological sites (P-23-006338, P-23-0006339, and P-23-006340) located within the project's APE. In 2020, Phase II archaeological field excavations for testing of the sites did not reveal data sets capable of advancing our understanding of local history or prehistory. The Phase II field investigations focused primarily on testing portions of the site(s) within the project's Area of Direct Impact (ADI) that would be directly affected by the undertaking. The sites did contain lithic debitage, formal tools, and fire affected rock. Historic-era deposits associated with the Boonville Hotel was identified. Site context, materials analysis, and interpretation based on a research design with research objectives, study questions, and field methods, were used as a basis for analysis to support eligibility determination.

This document focuses on the probable historic and prehistoric archaeological material culture throughout the APE at Lambert Lane in Mendocino County, California, what is likely to be seen, both prehistoric and historic, and how to manage the discovery of any material culture that meets the threshold of significance. At most, it is anticipated that a few sparse and isolated artifacts, redeposited lithics scatters, and secondary historic refuse deposits will be observed during construction. Much of this material culture is exempt from recording or curation, however, should any primary or secondary deposits within intact strata be observed that meet the thresholds outlined in the document, then the management plan outlined herein shall be followed.

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Introduction

The Mendocino County Department of Transportation (MCDOT) is proposing to replace the Lambert Lane Bridge (10C-0146) over Robinson Creek. The purpose of this project is to improve public safety by providing a two-lane crossing which meets the current functional and structural standards. The new bridge will also improve the streambed channel to provide greater resilience during storm events and reduce maintenance requirements resulting from scour and erosion.

The Mendocino County Department of Transportation (MCDOT), in conjunction with Caltrans, is conducting an environmental assessment for the proposed Lambert Lane Bridge (10C-0146) over Robinson Creek Replacement Project (Project). The project is situated in central Mendocino County adjacent the western side of the community of Boonville (Figure 1). The project site is located on Lambert Lane, west of State Route 128, in between Mountain View 510 Road and Husset Road. The project area is situated on the USGS 7.5' Boonville Quadrangle map in Township 13 North, Range 14 West, in Section 2 of the Mount Diablo Base and Meridian (Figure 2).

The purpose of this project is to improve public safety by providing a two lane crossing which meets the current functional and structural needs. The new bridge will be constructed along the current alignment of the existing bridge with a temporary detour for traffic during construction. The prefabricated steel plate girder-bridge will measure 96 feet long, accommodate two nine foot travel lanes with five foot shoulders.

The three archaeological sites (P-23-006338, P-23-0006339, and P-23-006340) are located within the project's APE and cannot be avoided. Testing of the sites did not reveal data sets capable of advancing our understanding of local history or prehistory. Site context, materials analysis, and interpretation based on research design themes were used as a basis for analysis to support eligibility determination. The portions of the sites within the area of Direct Impact do not appear eligible for inclusion to the NRHP or CRHR (DeGeorgey 2020).

In 2020, an Extended Phase I (XPI) study and Phase II archaeological field excavations were conducted within the three archaeological sites. The Phase II field investigations focused primarily on testing portions of the site(s) within the project's ADI that would be directly affected by the undertaking. The sites did contain lithic debitage, formal tools, and fire affected rock. A historic-era deposits associated with the Boonville Hotel was identified.

This ESA Action and Monitoring Plan provides guidance to ensure that unevaluated portions of sites (P-23-006338, P-23-0006339, and P-23-006340) are not inadvertently affected by construction activities. The ESA shall consist of Temporary High Visibility Fence (ESA Fence). The ESA boundaries will allow construction related traffic to move through the project APE and provide clearly defined limits where excavation can take place. No ground disturbing construction activities will be allowed to take place within any ESA. The ESA Temporary High Visibility Fence (ESA Fence) will be erected as a first order of work and prior to any construction activities under the direction of a qualified professional archaeologist.

This ESA Action and Monitoring Plan provides guidance to ensure that unevaluated portions of sites (P-23-006338, P-23-0006339, and P-23-006340) are not inadvertently affected by construction activities. The ESA

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shall consist of Temporary High Visibility Fence (ESA Fence). The ESA boundaries will allow construction related traffic to move through the project APE and provide clearly defined limits where excavation can take place. No ground disturbing construction activities will be allowed to take place within any ESA. The ESA Temporary High Visibility Fence (ESA Fence) will be erected as a first order of work and prior to any construction activities under the direction of a qualified professional archaeologist.

Description of Undertaking

The new bridge will be constructed along the current alignment of the existing bridge with a temporary detour for traffic on a mobile temporary bridge during construction (Figure 3). The long-span prefabricated steel plate girder-bridge replacement will allow for the increasing of the channel opening and the straightening of the creek alignment. This will reduce hydrologic impacts and serve to lessen local scour issues at this site where the soil is erodible alluvial material. The long span will also allow abutments to be set high in the banks such that the faces of the abutments will remain dry under 100- year storm events. The long span steel plate girder bridge can be fabricated in shorter lengths to facilitate transportation and then assembled on-site. The bridge will measure 96 feet long, accommodate two nine-foot travel lanes with five-foot shoulders.

Preliminary foundation support consists of driven H piles or 24-inch cast-in-drilled-hole concrete piles (CIDH). CIDH will be drilled to a depth of about 50 feet. The abutment embankments will not need to be protected from scour as the abutment foundations will be located below the predicted scour elevation. The abutments will be approximately 20 feet deep. The slope, on both banks of the creek, will be set back to a grade of 1.5-to-1.

Management Considerations

The purpose of this PRDMP is to provide guidelines for the proper treatment of three identified resources: P-23-006338, P-23-0006339, AND P-23-006340. This treatment includes monitoring to identify, assess, and treat potential post-review discoveries (deposits or features which convey the sites significance) during construction. “Historic properties,” as defined by the Advisory Council on Historic Preservation (ACHP), include “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior” (36 CFR 800.16(l)(1)). The eligibility for inclusion in the National Register is determined by applying the following criteria, developed by the National Park Service as per provision of the National Historic Preservation Act (NHPA):

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

- (a) That are associated with events that have made a significant contribution to the broad patterns of our history; or

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- (b) That are associated with the lives of persons significant in our past; or
- (c) That embody the distinctive characteristics of a type, period, or a method of construction, or that represent the work of a master, or that possesses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,
- (d) That have yielded, or may be likely to yield, information important in prehistory or history.

In order to be eligible for listing on the NRHP, a property must be significant under the NRHP criteria and possess sufficient integrity to convey its significance. The NRHP criteria recognize seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association, which are defined under 36 CFR Part 60.4 as:

- Location is “the place where the historic property was constructed or the place where the historic event occurred” (NPS 2000: 36).
- Design is “the combination of elements that create the form, plan, space structure, and style of a property” (NPS 2000: 36).
- Setting is “the physical environment of a historic property. Setting includes elements such as topographic features, open space, viewshed, landscape, vegetation, and artificial features” (NPS 2000: 36).
- Materials refer to “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 2000: 36).
- Workmanship is “the physical evidence of the labor or skill of a particular culture or people during any given period in history” (NPS 2000: 36).
- Feeling is “a property’s expression of the aesthetic or historic sense of a particular period of time” (NPS 2000: 36).
- Association is “the direct link between an important historic event or person and a historic property. Under [Criterion] D it is measured in the strength of association between data and important research questions” (NPS 2000: 36).

Investigations of those portions of sites P-23-006338 (CA-MEN-3836H), P-23-006339 (CA-MEN-3837), and P-23-006340 (CA-MEN-3838) present within the ADI do not yield sufficient information to indicate significance. Furthermore, the sites are lacking in integrity, as all three sites have been disturbed, or were initially scarcely deposited refuse material. Impacts within the ADI will not alter the characteristics of these sites and the tested portions of the sites do not contribute to our knowledge of history and/or prehistory. Portions of sites P-23-006338 (CA-MEN-3836H), P-23-006339 (CA-MEN-3837), and P-23-006340 (CA-MEN-3838) also could not be formally evaluated at this time, as testing was confined to the project ADI. For the purpose of the undertaking, those portions of P-23-006338 (CA-MEN-3836H) and P-23-006339 (CA-MEN-3837) outside of the ADI, and P-23-006340 (CA-MEN-3838) not formally evaluated will be assumed eligible, per PA Stipulation VIII.C.4 of the Caltrans Section 106 PA, and conditions will be imposed to protect of sites assumed eligible, per PA Stipulation X.B.1.a. This includes protecting the resources, managing the observation of material culture related to the resources, and ensuring that any potentially significant information is recorded during the construction of the undertaking.

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Avoidance, Minimization, Resolution of Adverse Effects

Caltrans cultural resource policy is to avoid and, if avoidance is not possible, to minimize adverse effects of transportation projects upon significant cultural resources. Thus, when post-review discoveries are made during construction, or when unanticipated effects occur to known resources during the implementation of a project, Caltrans' first and main goal is to take action to avoid or minimize the impacts to the property. Should avoidance or minimization of impacts not be feasible, Caltrans always seeks to mitigate adverse effects to historic properties.

Caltrans, pursuant to the Project FOE, has determined that in accordance with Stipulation X.B.2 and Attachment 9 of the Undertaking package, that a Finding of No Adverse Effect without Standard Conditions is appropriate for this undertaking because project effects will not alter the characteristics that make P-23-006338, P-23-0006339, AND P-23-006340 listed for the NRHP, presumably under Criterion D. In addition, the data recovery procedures outlined in this PRDMP provides mitigation for impacts to values pertaining to Criterion D.

Decision Thresholds

The decision thresholds that ultimately inform this PRDMP are derived heavily from previous studies within P-23-006338, P-23-0006339, AND P-23-006340. The decision thresholds that establish what will qualify as a post-review discovery, are a direct result of the research design and testing developed during the evaluation of archaeological resources for the undertaking. A primary intact deposit or secondary significant deposit related to P-23-006338, P-23-0006339, and P-23-006340 that retains integrity are discussed in the following section, are considered as meeting the threshold for additional data recovery and are not considered exempt.

This document is not considered an exhaustive evaluation effort in and of itself, and descriptive and theoretical framework including site history, used to create the research design are explored in the attached Archaeological Evaluation Report. This was structured with the intent that the body of the PRDMP would emulate a guide for the PQS and consultant archaeologists on how to best identify, assess, and treat any post-review discoveries in a convenient format. Please see attached documents for a more detailed discussion on the Archaeological Context, Ethnographic Background, Environmental Context, and Research Themes and Questions.

Site constituents and features that characterize P-23-006338, P-23-0006339, AND P-23-006340 within the APE includes:

P-23-006338 (CA-MEN-3836H) Summary

Field studies revealed cultural materials associated with P-23-006338 (CA-MEN-3836H) are present along the eastern stream bank of Robinson Creek northeast of Lambert Lane Bridge. Field investigations revealed intact stratigraphic historic-era archaeological deposits to a depth of approximately 40 cmbs. Although intact contexts were identified, the tested portions of the site are characterized by uniform dense deposit of domestic refuse and

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structural remains dating to the early-to-mid-20th century that are associated with the Boonville Hotel. The tested portions of the site within the ADI did not reveal data sets capable of advancing our understanding of local history.

P-23-006339 (CA-MEN-3837) Summary

Field studies revealed cultural materials associated with P-23-006339 (CA-MEN-3837) are situated along the eastern stream bank of Robinson Creek southeast of Lambert Lane Bridge. Field investigations of the portion revealed intact stratigraphic prehistoric archaeological deposits to a depth of approximately 110 cmbs. Although intact contexts were identified, the tested portions of the site are characterized by a low density deposit of lithic debris that date to the Middle Period (circa 2000 BP) through the Late Period (post 1000 BP). The potential for encountering buried archaeological components is considered high. The tested portions of the site within the ADI did not reveal data sets capable of advancing our understanding of local prehistory.

P-23-006340 (CA-MEN-3838) Summary

Field studies revealed cultural materials associated with P-23-006340 (CA-MEN-3838) are situated along the western stream bank of Robinson Creek west of Lambert Lane Bridge. Field investigations revealed intact stratigraphic prehistoric archaeological deposits to a depth of approximately 60 cmbs. Although intact contexts were identified, the tested portions of the site are characterized by a low density deposit of lithic debris. No time sensitive artifacts were found that could serve to identify the occupational history of the site. The potential for encountering buried archaeological components is considered low. The tested portions of the site within the ADI did not reveal data sets capable of advancing our understanding of local prehistory.

The main research topics and questions regarding prehistoric cultural resources at this location were: (1) cultural chronology, (2) subsistence strategy, (3) settlement system, (4) trade and exchange, (5) geoarchaeology and paleoenvironmental reconstruction. The main research topics and questions regarding historic cultural resources at this location were: (1) consumer behavior, (2) industrialization and technology, and (3) residential and domestic activities.

As there is no likelihood of surface scatter that could contribute to significance due to survey being completed with the APE without ground visibility constraints, the focus for this PRDMP is on intact strata. Disturbance in the area is known, and there may be disturbed strata as well, however, disturbed strata will not be considered for additional Post-Review fieldwork and analysis unless greater than 50 prehistoric artifacts are observed in the disturbed strata or diagnostic artifacts with manufacturer names and dates, and/or patent numbers, not previously recorded, are observed in the disturbed strata. Otherwise, only intact strata will be considered at this time for additional fieldwork and analysis.

Intact Strata with Material Culture Features that Convey Significance

For the current undertaking, Caltrans will assume any of the following resources as a post-review discovery of P-23-006338, P-23-0006339, AND P-23-006340 for listing in the National Register as per 36 CFR 800.13(c), whereby it conveys retains integrity and conveys the significance of the site:

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- Intact strata with primary deposits
 - Prehistoric features such as hearths, house floors, habitation areas, and oven pits
 - Historic features such as residential footprints and landscape design
- Intact strata with secondary deposits
 - Prehistoric features such as tool caches
 - Historic features such as refuse deposits

Primary Prehistoric Deposits

Moderate/dense midden deposits is characterized as a brown/black midden with at least 50 artifacts within a one by one-meter area and an average subsurface density of approximately 250 flakes and/or ecofacts including a minimum of five diagnostic constituents (hand stones, ground stone, projectile points, shell beads, worked bone) per ten-centimeter level. The difference between the two is small, but is established to define what deposits could be eligible in the absence of identifiable midden as well as with it. Midden may be a leached brown/black anthrosol and be characterized as either wholly intact and well sorted and stratified or redeposited and comingled with intrusive dirt or fill. Human remains, either disassociated, disarticulated, or within a burial would also retain integrity, but will be managed in accordance with Discovery of Human Remains section below.

Secondary Prehistoric Deposits

This can be seen as the burial of mortars and pestles. These items were either buried as a permanent disposal or for intended later re-use. There is often very little secondary deposits associated with the prehistoric record in this area, however, mortars and pestles are recovered during excavation, and if these are discovered within an intact strata within the APE, these will be recorded in accordance with the PRDMP. These are sometime buried in an existing hollow or natural pits.

Primary Historic Deposits

Primary deposits consist of artifacts or features that were deposited and remain in situ at the location of its use, such as certain types of sheet refuse, slag, gardens, or foundations. In most instances, these deposits are laid out horizontally and may be reflected in a thin layer of debris or as a series of superimposed layers of varying thickness (Praetzelis and Praetzelis 1997:279). Primary deposits such as sheet refuse and features associated with industry, commercial, and domestic behavior have the potential to address questions concerning the spatial organization of activities, developments in technology, as well as other questions, and will be considered eligible if materials contain discrete deposits in sufficient numbers and are at least 50 years of age at the time of construction. At minimum, primary deposits must have a MNI of at least 35. If these criteria are met, the primary deposit will be considered for eligibility for the NRHP. Isolated refuse dumps or scatters over 50 years of age that lack specific associations will be considered exempt resources under Attachment 4 of the Federal-Aid Highway PA. If it is unclear if a resource meets the thresholds for eligibility or has interpretive potential, it will be assumed eligible for the NRHP.

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Secondary Historic Deposits

Secondary deposits consist of artifacts or features that were deposited at a location separate from where it was originally used and can also contain sheet refuse in addition to hollow/filled features such as backfilled wells, refuse pits, and outhouses (Praetzelis 1997:279). Secondary deposits associated with industry, commercial, and domestic behavior are arranged vertically or horizontally and may contain discrete caches that can be accurately dated. Therefore, secondary deposits may be able to address questions important in history if materials are present in sufficient numbers and are at least 50 years of age at the time of construction. At minimum, artifact caches and features must have an MNI of at least 35. If these criteria are met, the secondary deposit will be considered for eligibility for the NRHP.

Sometimes secondary deposits have a direct association with a family, individual, or residential/agricultural use, such as is the case when a privy is filled with material from a hotel/lodging house. Other times, as is the case with cultural materials found in fill, no clear association can be made, aside from a community or ethnic group at large. Isolated refuse dumps or scatters over 50 years of age that lack specific associations will be considered exempt resources under Attachment 4 of the Federal-Aid Highway PA.

Isolated Artifacts

Isolated finds consist of less than three artifacts within a 100 square meter area and are exempt resources under Attachment 4 of the Federal-Aid Highway PA.

Management Plan

This Management Plan provides guidance to ensure that previously evaluated and unevaluated portions of the three resources (P- 23-006338, P-23-0006339, and P-23-006340) within the APE are not inadvertently affected by construction activities. The Management Plan consists of protecting assumed eligible portions of the three resources (as an Environmentally Sensitive Area), monitoring during construction to observe activities within the ADI, conducting fieldwork and laboratory analysis of deposits that meet the threshold of significance, and determining any resulting effects to portions of sites that contribute to their assumed eligibility under criterion D.

ESA Action Plan

The ESA shall consist of Temporary High Visibility Fence (ESA Fence). The ESA boundaries will allow construction related traffic to move through the project APE and provide clearly defined limits where excavation can take place. No ground disturbing construction activities will be allowed to take place within any ESA. The ESA Temporary High Visibility Fence (ESA Fence) will be erected as a first order of work and prior to any construction activities under the direction of a qualified professional archaeologist. Please see attached ESA Map and the APE Map for the Undertaking.

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i. Pre-Construction

1. Prior to beginning of work, the Caltrans Archaeologist / Consultant Archaeologist shall ensure that the boundaries of the ESA for the archaeological sites are clearly described and illustrated in the final design plans and specifications to guide the construction of the project.
2. This ESA and Monitoring Action Plan will be part of the County Engineer and Construction files and the Environmental Commitment Record.
3. The importance of the ESA will be discussed with the Contractor and their personnel during the preconstruction meeting attended by the County Engineer and the Caltrans Archaeologist / Consultant Archaeologist. The discussion will include all restrictions on the ESA (no ground disturbance within ESAs). The ESAs shall be installed as the first order of work. The Contractor and all construction personnel will also be informed of historic preservation laws that protect historical resources against disturbance.

ii. During Construction

1. Prior to beginning of work, the placement of ESA Fence will take place to ensure that no ground disturbance is allowed in these areas by the contractor. The ESA Fence will be erected by the Caltrans Archaeologist / Consultant Archaeologist as a first order of work and prior to any construction activities.
2. The Contractor shall notify the County Engineer and Caltrans Archaeologist / Consultant Archaeologist ten (10) working days in advance of commencing work to allow the archaeologist to install the ESA Fence.
3. The ESA Fence shall remain in place during the entire course of the project.
4. An archaeological monitor (meeting experience requirements equivalent to Co-Principal Investigator, as described in Attachment 1, 2014 First Amended PA) is required to observe bridge demolition, site preparation and initial excavations within Archaeological Monitoring Areas of the Areas of Direct Impact adjacent to ESAs.
5. If any ground disturbance occurs within the ESA, the contractor will immediately notify the County Engineer and secure the area and stop all operations within 50 feet of the ESA boundary. If an ESA is breached, the County will notify the Caltrans Local Assistance Engineer and Caltrans Archaeologist to assess the impacts and determine what efforts are necessary to remedy the damage; the Contractor is responsible for remedies and all charges related to the impacts.

iii. Post Construction

1. When no longer required for the work, as determined by the County Engineer in consultation with the Caltrans Archaeologist / Consultant Archaeologist, the ESA Fence shall be removed by the Contractor. The County Engineer will inform the Caltrans Archaeologist when construction is completed.

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Monitoring Plan

As a condition of the ESA Action Plan, Archaeological Monitoring will be required. The Archaeological Monitor will be present to ensure that the integrity of the ESAs are maintained and the assumed eligible properties are protected from inadvertent effects. Unanticipated discoveries will be managed in accordance with protocols outlined in this plan.

Monitoring will be required during site preparation and initial ground-disturbing activities. The construction of the structure does not require archaeological monitoring.

Plans, Specifications and Estimates

Any plans and cost estimates for the project, should include the conditions laid out in this ESA and Monitoring Action Plan.

Tasks and Responsible Parties

Table 1. Overview of Action Plan

Stage	Task	Responsible Party
Pre-Construction	The ESA for P-23-006338 (CA-MEN-3836H), P-23-006339 (CA- MEN-3837), and P-23-006340 (CA-MEN-3838) will be clearly described and illustrated in the plans, specifications, and estimates prepared to guide construction of the undertaking.	Caltrans Archaeologist County Engineer
	All responsible parties will review the Plans/Contract prior to awarding.	Caltrans Archaeologist County Engineer
	Caltrans Archaeologist will ensure the ESA Action Plan is included in Environmental Commitment Record (ECR) and the RE Pending File.	Environmental Branch Chief Caltrans Archaeologist County Engineer

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Stage	Task	Responsible Party
	The ESA will be discussed during the preconstruction meeting. The importance of the ESA will be discussed with construction personnel and it will be stressed that no construction activity (including storing or staging of equipment or materials) should occur within the ESA and that workers must remain outside of the ESA at all times. Additionally, construction personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.	Caltrans Archaeologist Consultant Archaeologist County Engineer Contractor
	The Caltrans Project Archaeologist will be notified at least three weeks in advance of construction to ensure that the Caltrans Project Archaeologist will be available to monitor fence installation and allow for a field review of the ESA location.	Caltrans Archaeologist Consultant Archaeologist County Engineer Contractor
	Field review of ESA location at least one week prior to construction activities	Caltrans Archaeologist Consultant Archaeologist County Engineer Contractor
During Construction	Driven t-posts and temporary plastic fencing (Type ESA) will be installed by the contractor along the proposed ESA at least one week prior to initiating any work. Caltrans Archaeologist will coordinate this activity with the County Engineer, and be present to supervise and monitor fence installation.	Caltrans Archaeologist Consultant Archaeologist County Engineer Contractor Archaeological Monitor
	A qualified archaeological consultant and archaeological monitor will be present bridge demolition and to monitor all construction activities adjacent to the ESAs. The archaeological monitor will conduct a weekly check-in/inspection to ensure the integrity of ESAs.	Contractor Archaeological Monitor

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Stage	Task	Responsible Party
	Caltrans Cultural Studies Office (CSO) along with The State Historic Preservation Officer (SHPO) will be notified within 48 hours of any ESA breach by the Caltrans Archaeologist and consult immediately to determine how the breach will be addressed. Representatives of local Native American groups will also be consulted.	District Environmental Branch Chief Caltrans Archaeologist Archaeological Monitor County Engineer
	If buried cultural materials are encountered during construction, it is Caltrans policy that work stop in that area. The Resident Engineer will ensure the find is protected from further harm. The Archaeological Consultant will immediately inspect and determine the nature of the find. Upon determination that the find is archaeological in nature, and not isolated, the consultant will immediately notify the District Environmental Branch Chief and Caltrans Archaeologist. Caltrans CSO along with the SHPO will be notified with 48 hours of discovery. Representatives of local Native American groups will also be consulted.	District Environmental Branch Chief Caltrans Archaeologist Archaeological Monitor County Engineer
	If Human Remains, or remains reasonably suspected of being human are encountered, the County Coroner will also be notified immediately.	District Environmental Branch Chief Caltrans Archaeologist Contractor County Engineer Archaeological Monitor County Coroner
Post Construction	The Caltrans Archaeologist will be informed when construction is finished.	Caltrans Project Archaeologist County Engineer Contractor
	The Contractor, under supervision of the Environmental Construction- Liaison and Caltrans Project Archaeologist will remove temporary fencing at the conclusion of construction.	Caltrans Project Archaeologist County Engineer Contractor

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Table 2. Responsible Parties as of March 2022

Title	Contact	Phone Number
Caltrans Archaeologist	Mark Arsenault	707.684.6897
Caltrans Environmental Branch Chief	Darrell Cardiff	707.298.0904
County Engineer	TBD	
Contractor	TBD	
Consultant Archaeologist	TBD	
Archaeological Monitor	TBD	

Archaeological Fieldwork Procedures

The following set of procedures for the discovery of archaeological features or deposits is intended as guidance for archaeological and tribal monitors and does not replace professional judgement in the field when responding to particular situations.

- Should an archaeological feature or deposit be identified during construction-related earth-moving activities, all construction-related activities within a 30 ft (10 meters) radius shall immediately stop, and steps are to be taken to ensure that the area is protected from further disturbance. This includes informing relevant construction personnel and designating the area as off-limits through staking and signage if such demarcation is deemed necessary.
- The archaeological monitor will immediately conduct a field inspection to determine the nature and extent of the find. A limited number of shovel test units (STUs) may be conducted to collect basic information, such as a description of the feature or deposit as well as dimensions of the find. Equally, machinery may be used to aid in the identification of the horizontal and vertical extent of the find. Artifacts discovered initially will be left in situ and their locations noted via pin flags and recorded via GPS until the appropriate treatment measures can be implemented (see Procedures for Archaeological Excavations below).
- Archaeological monitors, in consultation with Caltrans PQS, will investigate the find to assess whether it qualifies as a post-review discovery, i.e., further characterization of the historical significance of site P-23-006338, P-23-0006339, AND P-23-006340's NRHP-eligibility.
- Caltrans PQS shall notify the following parties within 48 hours:
 1. Caltrans Environmental Branch Chief;
 2. Caltrans Cultural Studies Office (CSO);
 3. State Historic Preservation Officer;
 4. Other consulting parties.

The notification must include the following information:

1. description of the nature and location of the find;
2. action(s) taken to protect the find;
3. extent the find conveys the significance of P-23-006338, P-23-0006339, AND P-23-006340,
4. avoidance or minimization efforts, if feasible; and/or
5. mitigation measures if property will be adversely affected.

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- Upon receipt of the notification, all parties shall have 72 hours to respond with comments and recommendations.
- Caltrans shall take into account the comments and/or recommendations provided, and then carry out appropriate actions.

Should Caltrans determine that archaeological resources characteristic of P-23-006338, P-23-0006339, and P-23-006340 cannot be avoided and will be adversely affected, the archaeological monitor(s), will establish appropriate data recovery procedures. The archaeological monitor(s) will establish appropriate data recovery procedures. The data recovery procedures will generally follow the methods described below. For instance, where further archaeological testing is required, the field methods will be limited to the determination of the nature and extent of the find that further characterizes the historical significance to the NRHP-eligibility of site P-23-006338, P-23-0006339, AND P-23-006340 in a manner that will not impact the contextual integrity of the resource.

For all archaeological excavations, Caltrans shall arrange for a field director who shall implement the agreed upon field methods following the protocols in this PRDMP. The Caltrans PQS shall have final approval over any field decisions, including scope of excavation required to mitigate effects to P-23-006338, P-23-0006339, AND P-23-006340 or to test for significance and integrity.

Intact Strata with Prehistoric Material Culture Features

- For initial investigation of an area with discernable intact strata with features the archaeological monitor will define the extent of the deposit with mechanical assistance or by hand within the ADI. The investigation will reveal the horizontal extent of the find within the ADI where possible.
- A fifty-centimeter by fifty-centimeter STU will be placed within the find and the archaeologist will hand excavate down no greater than twenty centimeters and soil screened through a quarter-inch mesh.
- If the find produces an average subsurface density of approximately 250 flakes and/or ecofacts including a minimum of five diagnostic constituents (hand stones, ground stone, projectile points, shell beads, worked bone) from these twenty centimeters, then it will qualify as a post-review discovery. Further, if avoidance is not feasible and data recovery excavations are deemed appropriate, the excavations will include the steps below.
- Data recovery fieldwork will include hand excavation of shovel test units (STUs) measuring fifty by fifty centimeters and/or, if feasible within the ADI, Control Units (CUs) measuring one by one-meter, dug in arbitrary ten-centimeter increments. The units will be placed within the footprint of the ADI where it intersects the post-review discovery. Units will not be placed outside of the ADI.
- The number of units will depend on the size and nature of the deposit.
- If an excavation unit reveals a separate deposit or feature, additional units will be placed to investigate the find(s).
- All sediments from excavation units will be screened through quarter- or eighth-inch screen, depending on soil conditions and professional best judgement.

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- Within the horizontal ADI, excavation units will proceed to culturally sterile sediments, to the limits of construction-related disturbance, or until significant cultural material decreases, indicating that continued excavation will not yield important or sensitive material.
- If the archaeological deposit extends beyond a depth that can be accessed through manual excavation, a bucket-type auger may be used to determine the true depth of the site within the area of direct impact.
- A column sample (with minimum dimensions of fifteen by fifteen centimeters) may be excavated along a selected side wall of a selected unit, with sediments for each ten-centimeter level of the column collected for the purpose of flotation using a sixteenth-inch screen.
- The number of STUs and/or CUs shall be determined by the consultant archaeologist with involvement of Caltrans and tribal monitors.
- The locations of STUs and CUs will be recorded with a GPS unit.
- All artifacts recovered from the surface of the deposit and/or from excavation units will be bagged, labeled with appropriate provenience, and transferred to the archaeological consultant's offices for analyses.

Intact Strata with Historic Material Culture Features

- For archaeological features, such as house floors, habitation areas, tool caches, and hearths, the fieldwork efforts may include a combination of the following:
- The feature should be excavated to define its horizontal and vertical extent through the placement of CUs, which will be dug in arbitrary 10-cm levels and with all sediments screened through quarter or eighth-inch screen (with screen size dependent on soil conditions and based on professional best judgement). If stratigraphy is discernable, excavations may follow natural layers. The excavation unit(s) will proceed to culturally sterile sediments or until significant cultural material decreases, indicating that continued excavation will not yield important or sensitive material.
- Drawings and photographs of the plan and profile views for the feature should also be generated in the field.
- If feasible, STUs or CUs shall be placed in the immediate vicinity of the feature to determine if associated cultural deposits are present within the ADI.
- A sample of the feature matrix may be collected for flotation.
- A column sample (with minimum dimensions of fifteen by fifteen-centimeters) may be excavated along a selected side wall of the unit, with column samples collected for each ten-centimeter level for flotation using a sixteenth-inch screen.
- The number of STUs and/or CUs shall be determined by the consultant archaeologist with involvement of Caltrans and tribal monitors.
- The locations of STUs and CUs will be recorded with a GPS unit.
- All artifacts recovered from the feature(s) will be bagged, labeled with appropriate provenience, and transferred to the archaeological consultant's offices for analysis
- Fire-affected rocks will be recorded in the field, but not collected.

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Discovery of Human Remains

Human remains identified during Project construction or archaeological excavations must be immediately secured and protected until appropriate management of the remains occurs. All human remains and associated funerary objects will be treated in accordance with California state law (Health and Safety Code §7050.5 and Public Resources Code §5097.94 and §5097.98). All Project personnel will treat identified human remains with respect and maintain any information pertaining to the discovery confidential (i.e., information is only to be divulged on a need-to-know basis).

- All archaeological excavation or construction-related activities at the specific location of the discovery (e.g., excavation unit) shall immediately stop and the remains will be covered with tarp or other available materials (not rock or sediment) for temporary protection. There shall be no further excavation or disturbance of the specific location of the discovery or any nearby area reasonably suspected overlie adjacent remains until the coroner has made his/her assessment(s) (see below).
- If archaeological and/or tribal monitors are not on-site, construction personnel must immediately notify the Caltrans resident engineer or designated field engineer and the Caltrans project archaeologist.
- Immediately following the discovery, Caltrans will contact the Lake County Coroner, who will have two (2) working days to determine whether the remains are subject to his/her authority or are those of a Native American (PRC §7050.5(b)).
- Caltrans will also notify the SHPO within 24 hours of the find.
- If the human remains are Native American, the coroner will notify the Native American Heritage Commission (NAHC) by telephone within 24 hours (prc §7050.5(c)); Caltrans may follow-up with the NAHC to verify that they have been contacted by the coroner. The NAHC is responsible for identifying and immediately notifying the most likely descendent (MLD) regarding the discovery.
- The MLD shall be granted immediate access to the discovery location in order to examine the remains.
- Within 48 hours of notification, the MLD will make recommendations to Caltrans regarding the treatment and disposition of the human remains and any associated funerary items (PRC §5097.98(a)). Thereafter, MLD's recommendations and/or agreed treatment protocols will apply to any additional discoveries of human remains and associated funerary object at the site.
- Caltrans will contact SHPO, and other affiliated tribes as a courtesy notification regarding the find and who was determined to be the MLD.
- Through consultation with the MLD, Caltrans will facilitate identification of reburial location(s) and will assist in the reburial process as needed. If the reburial location is within the project area, the location will be protected by ESA fencing for the duration of the project construction.
- If the NAHC is (1) unable to identify an MLD or; (2) the MLD identified fails to make a recommendation or; (3) a landowner on whose property the remains are identified rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner, Caltrans or the landowner (or his/her authorized representative) shall re-

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inter the human remains and associated grave items with appropriate dignity on the property in a location not subject to further subsurface disturbance.

- Following the re-interment, Caltrans will ensure that documentation is prepared describing the circumstances, nature and location of the discovery; its treatment, including results of analysis (if permitted); and final disposition, including a confidential map showing the reburial location. A formal record about the discovery site will also be prepared to current California standards on Department of Parks and Recreation 523 form (s). Caltrans will ensure that copies of these documents are distributed to the Northwest Information Center (part of the California Historical Resources Information System), to the NAHC, and to the MLD.
- If it is determined appropriate with the MLD, Caltrans PQS will prepare and assist in the generation and submittal of a Sacred Lands File (SLF) item. The SLF item will describe and delineate pertinent information regarding the human remains discovery for future projects and designate the MLD as the point-of-contact for any subsequent activities which may impact the item.

Unanticipated Effects to P-23-006338, P-23-0006339, and P-23-006340

Should unanticipated effects occur to known properties, i.e., there is a breach to an ESA, the following procedures are to be implemented (also refer to the ESA/AMA Action Plan).

- All construction-related activities in the vicinity of the property shall immediately stop and steps will be taken to ensure that all reasonable measures are implemented to avoid, minimize, or mitigate further harm to the property.
- The archaeological monitor and/or Caltrans project archaeologist will immediately conduct a field inspection to determine the nature and extent of the breach.
- Caltrans PQS shall notify the following parties within 48 hours of the breach:
 1. Caltrans Project Archaeologist assigned to this undertaking;
 2. Caltrans Cultural Studies Office (CSO);
 3. State Historic Preservation Officer;
 4. Advisory Council on Historic Preservation;
 5. Other consulting parties.
- The notification must include the following information:
 1. Description of the nature and location of the property;
 2. Action(s) taken to protect the find;
 3. The type and extent of the damage to the property;
 4. Any prudent and feasible treatment measures that would take any effects into account; and
 5. Requests for comments.
- Upon receipt of the notification, all parties shall have 72 hours to respond.
- Caltrans shall take into account the comments and/or recommendations provided, and then carry out appropriate actions to resolve any effects.
- Should archaeological investigations be necessary to assess the extent of impact, the fieldwork procedures will follow those outlined earlier.

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Laboratory Analysis

Laboratory methods for archaeological materials collected as part of the monitoring program include cataloguing and selective analysis of cultural constituents. Laboratory analysis will be restricted to those collections derived from data recovery excavations at P-23-006338, P-23-0006339, AND P-23-006340.

A standard lithic analysis guideline will be implemented to best capture data pertaining to the manufacture and byproduct of toolstone production at P-23-006338, P-23-0006339, AND P-23-006340 (White et al. 2002).

Chemical sourcing or obsidian hydration studies may be pursued; therefore, an appropriate sample of flakes or non-diagnostic tools (as determined by the consultant through consultation with Caltrans) will be submitted for sourcing and hydration studies. Only items that are not deemed to be of special significance to the tribe(s) will be submitted for analysis of this sort. Nondestructive examination of artifacts of special significance to the tribe(s) will be permitted, upon notification of the tribe(s).

Milling stone artifacts will be classified by type, i.e., manos, metates, pestle, mortars, and other items. If deemed necessary by consultant in consultation with Caltrans, and the artifacts were recovered from datable contexts with strong integrity, selected milling stones will be submitted for non-destructive protein and lipid residue (plants and blood), pollen analysis, and starch grain analysis.

Faunal analysis will include determination taxon, element, portion, size, side, age, percent of specimen, surface weathering, rodent gnawing, carnivore chewing, cultural modification, burning, minimum number of specimens, and weight. Macro-botanical studies should focus on any recovered carbonized seeds or plant remains (such as geophyte fragments) which are strong indicators of prehistoric subsistence.

Radiocarbon dating may be pursued for organic materials that have been properly recovered and processed, including charcoal and charcoal-rich soil. The number of samples submitted will be determined by the consultant through consultation with Caltrans. Selected column and/or soil samples will be processed through flotation to recover macrobotanical remains, microfauna, and small artifacts using a sixteenth-inch mesh for the heavy fraction. Flotation will be conducted using a series of five-gallon buckets with screen and mesh covering the top of each bucket. Once separated from the matrix, the light and heavy fractions will be dried thoroughly, catalogued, and analyzed.

Catalog and Data Management

Unless otherwise specified, artifacts should be cleaned and processed to the extent that attributes can be observed and recorded without additional damage to the materials or compromising their data potential (e.g. washing of ground stone may compromise data gained from starch grain analysis). Gentle cleaning with a dry brush is the preferred method, especially on organic materials; however, some materials, such as flaked stone debitage, may require gentle washing.

Once cleaned, the materials will be sorted by class for material identification and described and catalogued individually or in lots. Collections should be sorted by class, object, material, quantity, and weight. Class would follow a broad artifact category such as debitage, flaked-stone tools, bone tools, utilized flakes,

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faunal, ceramics, ground stone, shell, and miscellaneous items. Objects include specific categories of artifacts and includes items such as projectile points, shell beads, bifaces, cores, sherds, bone awls, bone elements. Material is what the catalog entry is composed of and includes obsidian, rhyolite, cryptocrystalline silicate, Olivella, granite, bone, clay. For each entry of sorted site constituents, the collections shall be given a unique catalog number which will also include the collection recovery type (e.g. STU, 1x1 CU, Feature, surface). The location will also be specified and entered by the numbered CU, STU, Feature, etc. Last, the depth will be entered based on where the artifact was located. The surface will be given a "0" and the range given for other entries, such as 0-10 cm or 10-20 cm. The box number will also be provided an entry and another for general comments.

The catalogue will be computer-generated using translatable database software (Microsoft Access[®]). The database and catalogue will be structured to include pertinent fields discussed above in Table 3. A copy of the final artifact catalogue will be included in the final report.

Curation

Because the final disposition of the artifacts shall be at a curation facility, the archaeological consultant will catalogue the recovered materials for curation according to standards set forth at 36 CFR 79 and will arrange for the curation agreement in consultation with Caltrans. All materials subject to curation will be appropriately labeled and boxed, and personally delivered (not shipped) to the curation facility. Consultation with tribes as required by AB 275 under CalNAGPRA will occur with collection information being submitted to the NAHC as well as a request for tribal affiliation for the site.

Reporting

A final report detailing the results of the monitoring program will be completed according to the Secretary of Interior's Standards and Guidelines for Archaeological Documentation (Federal Register 1983:44734-44737) describing methods used, cultural material collected, and the results of the various lines of analyses. The format of the report should be consistent with Caltrans' Standard Environmental Reference handbook (Volume 2: Cultural Resources). Three hardcopies and one electrical draft report will be submitted to Caltrans District 3 PQS for review. Within three months of the completion of construction, the draft report will be submitted to the Caltrans PQS for comments and review. Within six months of the completion of construction, this final report will be provided to Caltrans CSO and SHPO to document the fulfillment of the measures to ensure a No Adverse Effect Finding for this undertaking.

Final copies of all reports will be provided to the appropriate CHRIS at the NWIC.

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