

**PROPOSAL FOR ARCHAEOLOGICAL  
AND NATIVE AMERICAN MONITORING  
AND ARCHAEOLOGICAL TESTING,  
EVALUATION, AND DATA RECOVERY  
SERVICES FOR THE UNIVERSITY PARK  
WATER LINE REPLACEMENT PROJECT**

**CITY OF LOMPOC  
RFP-01-W-2**

Submitted by:  
Applied EarthWorks, Inc.  
3292 East Florida Avenue, Suite A  
Hemet, California 92544



August 29, 2008

# PHASE 1

## SCOPE OF WORK

Applied EarthWorks, Inc. (Æ) is pleased to submit this proposal to provide archaeological and Native American monitors for the University Park Water Line Replacement Project in the City of Lompoc. Proposed construction plans by the City entail replacement of water lines in the University Park area subdivision. The effort will include excavation of linear segments of trench to a depth of 4-feet, all within existing streets. Trench locations that will require monitoring include:

- C Street spanning south from Locust Avenue to Willow Avenue;
- Locust Avenue between C and E streets;
- Fir Avenue between C and E Streets;
- E Street between Locust and Fir Avenues; and
- The alley between D and E streets, spanning south from Locust Avenue to Fir Avenue.

In addition to main water line trenching in the street, lateral trenches will also be installed and archaeological monitoring is recommended for these areas. Æ understands that much of the trenching will take place in existing, previously disturbed utility trenches. However, isolated pockets of archaeologically sensitive, undisturbed native sediments may be encountered, particularly in lateral trenches, and monitoring is recommended for all excavations. If cultural deposits are exposed, Phase 2 archaeological testing, evaluation and data recovery may be necessary and a contingency scope of work has been attached. Based on information provided by the City, it is assumed that work will commence in early October 2008 or four weeks following notice to proceed.

University Park Subdivision surrounded the former site of the Mission Vieja de la Purisima. The Mission was established in 1787. In 1812 it was totally destroyed by an earthquake and subsequently rebuilt elsewhere. According to Costello's cultural sensitivity map developed for the Mission, a designated National Register of Historic Places site, much of the proposed construction area has the potential to be culturally sensitive (Costello 1993:Figure 40). Thus, the University Park Water Line Replacement Project may affect significant intact historical archaeological deposits relating to the Mission and a nearby Chumash village. Monitoring of electric utility replacement in University Park by Æ in 2002 and 2003 resulted in the discovery of mission period features including remnants of an aqueduct, midden containing bone, seeds, beads, and ceramics, and elements of the neophyte village (Hamilton and Abdo-Hintzman 2004). These deposits were found intact beneath the roadbed.

Recognizing the sensitivity of this area, the City has recommended limited archaeological testing in advance of construction as outlined in the Request for Proposal (RFP-01-W-2) and this approach will be incorporated in the monitoring strategy. Following the notice to proceed, the Æ team will consult further on the preconstruction testing with the City Planning Department and the construction company. The location of proposed laterals will be considered in relationship to known areas of cultural sensitivity. If laterals or locations of the main alignment cross areas considered high in sensitivity, alternatives will be discussed to determine minor adjustments that

could be made in the alignment to potentially avoid exposure of significant archaeological deposits. Once a final approach is confirmed the construction company will be required to selectively excavate in areas along the trench route considered to have a high probability of finding subsurface Mission related features. This strategy is intended to determine in advance of construction the level of prior disturbance as well as the presence/absence of Mission related deposits. Native American features and artifacts may also be encountered.

- Prior to preparation of this monitoring proposal, historic maps, photographs, and prior reports were examined to identify areas of “High Cultural Sensitivity.” The following locations have been identified as such: Area 1 comprises E Street, between Locust and Fir Avenues, a distance of approximately 300 feet
- Area 2 includes Fir Avenue, East from E street for a distance of 250 feet.
- Area 3 encompasses Locust Avenue east of E Street for a distance of 250 feet.

During construction trenching, both “high cultural sensitivity areas” and the remaining potentially sensitive areas as defined by Costello in 1993 will be carefully monitored by qualified archaeologists and a single Chumash Native American monitor. Information gathered during preconstruction testing will be employed in implementing construction monitoring and defining locations of directional drilling if necessary.

During construction monitoring, the equipment operator will be instructed to systematically remove soil in shallow lifts, the thickness of which will be determined by the archaeological monitor(s) as revealed during preconstruction testing. The excavation equipment will use a smooth-bladed bucket to minimize impacts to archaeological deposits and allow for a quicker evaluation process. Mechanical excavation will continue to the maximum depth of construction, generally up to 4-feet, unless archaeological features or materials are observed.

The Monitor will need the City Engineer to grant the Monitor authority to ask the mechanical equipment operator to halt excavation or change the method of excavation, if artifacts or cultural deposits are discovered during trenching. If artifacts are encountered, or organically rich soils are observed, a closer inspection maybe required. If excavation is halted or the method changed by the Monitor, the Monitor shall immediately inform the Field Inspector of the situation. The City's Field Inspector and Environmental Coordinator will be notified immediately if a discovery is made. Following evaluation of the discovery's potential significance, further testing or mitigative measures may be necessary and management options will be discussed with the City Engineer and the City Environmental Coordinator.

If human remains are unearthed, work will be halted in that area and the County Coroner will be contacted to make a determination as to the nature of the remains. If the remains are determined to be of Native American descent, the Native American Heritage Commission will be promptly notified and the most likely descendent will consult with the City regarding the final treatment of remains.

The City of Lompoc is aware that there may be delays in construction due to the discovery of archaeological deposits. The purpose of this work is to determine if historic features or other

cultural materials are present within the construction easement, and if so, delineate the appropriate avoidance, testing, or mitigative measures. It is not always possible to fully assess features integrity and significance during archaeological monitoring. So if warranted, Phase-2 Archaeological Testing will be decided upon in consultation with the Senior Environmental Coordinator and the City Field Inspector. Nonetheless, all efforts will be made to avoid significant archaeological deposits. Where avoidance is not possible, preservation in place will be considered. Only if avoidance and preservation in place is not possible, will data recovery be undertaken. In the event that Phase 2 Archaeological Testing and Data Recovery is required, a separate cost estimate has been attached to this proposal as a contingency

Specific details regarding the Project execution are stated below. Phase 1 services shall include but not be limited to, the following:

- *Meetings with the City related to the project.*

Æ assumes a preconstruction kick-off meeting will need to be attended by the Project Manager and Archaeologist.

An additional meeting will be required to coordinate with the City Planning Department in order to develop a preconstruction testing strategy. This meeting will be attended by the Project Archaeologist.

Further, periodic meetings may be required as construction issues and discoveries arise.

- *Determination of specific areas of “high cultural sensitivity” or areas most likely to contain buried archaeological features within the construction work, and recommendations to the City on how best to proceed with construction in such areas.*

Maps and previous investigation reports will be consulted and sensitive Areas 1, 2, and 3 as identified above will be refined. These areas have been selected due to proximity of known Mission features such as the aqueduct and the discovery of Mission period deposits by Æ in 2002 and 2003. These areas will be correlated with construction plans and specifications. In consultation with the City Engineers and Planners, problem areas will be isolated and options will be considered to refine the approach to providing individual services to residence.

- *Preliminary potholing, to be conducted by the archaeologists, with assistance from the contractor, as necessary, within the proposed utility alignment to determine the location of suspected resources. This is intended to allow for alignment changes to avoid identified cultural resources.*

Pot holing will be undertaken in the “high cultural sensitivity” areas along the utility alignment and along lateral lines where previous disturbances are considered less likely. If archaeological resources are identified, a plan for avoidance will be developed as feasible. Any line adjustments or subsequently identified new alignments will also require potholing if in the “high cultural sensitivity” areas.

- *Archaeological and Native American Monitoring where determined necessary by the*

*consulting archaeologist, as needed for the entire location and duration of project work;*

Monitoring will be undertaken for all earthmoving activities within high sensitivity areas by qualified archaeological monitors who meet the Secretary of the Interior Standards for Archaeology and a Native American. If excavations are in clearly and extensively disturbed soils and archaeological potential is determined to be limited, monitoring may be reduced to part-time or spot checking. Reduction of monitoring procedures will be at the discretion of the Project Archaeologist with the approval of the Project Manager and the City Senior Environmental Coordinator. If excavation occurs at more than one location at a time, the Native American monitor will rove between locations. As necessary a second Native American monitor will be employed.

The archaeological monitor, when at the project site, will be under the full authority of the Engineer or his designated representative. Recommendations by the archaeological monitor over the manner in which trenching occurs shall be relayed to the Contractor by the Engineer. Direct communication with the Contractor by the archaeological monitor will only occur under the authority of the Engineer.

- *Examining excavated material for evidence of archaeological features, notifying the City and providing necessary recommendations regarding how to address such features if found.*

Monitors will examine back dirt as it is piled adjacent to the construction trench. The base and walls of the trench will be examined for evidence of intact soil, features, artifact concentration, or diagnostic artifacts.

A limited amount of hand excavation and screening may be required to assess the potential integrity and significance of any exposed deposits. Assessment may require water screening. It is assumed the city will facilitate a connection to the City water supply and a place to perform the necessary processing of any artifacts collected.

- *Examining trenches and/or excavations for evidence of archaeological artifacts, notifying the City's Senior Environmental Coordinator and Project Engineer and providing recommendations regarding treatment of artifacts if found.*

As above, Monitors will examine back dirt for evidence of artifacts and features. Upon making a credible discovery and completing a preliminary significance assessment, the archaeological monitor will notify the Project Archaeologist who will in turn immediately notify the City Senior Environmental Coordinator and Project Engineer. Recommendation for treatment of discoveries will be contingent on the nature of the discovery. Avoidance and preservation in place options will be considered. All options for treatment will be discussed with the Senior Environmental Coordinator and Project Engineer. Actual implementation of treatment will occur during Phase 2.

- *Compliance with all applicable state and federal laws related to cultural resources.*

Æ has vast experience with the monitoring and reporting procedures required for compliance

with the California Environmental Quality Act as well as the National Historic Preservation Act. We understand the eligibility criteria of the National Register of Historic Places and the California Register of Historical Resources. Staff is also familiar with the Mitigated Negative Declaration published on April 17, 2001 that requires an archaeological monitor to be present for all utility installation within the sensitivity zone surrounding the Mission.

- *Consulting with City of Lompoc's Engineering, Environmental, and Water Division staff as necessary to provide recommendations and consulting support throughout the project.*

The Project Manager and Project Archeologist will be in direct communication with City staff throughout the project. Project updates will be provided on a daily and weekly basis. In addition, all discoveries will be coordinated through the City Senior Environmental Coordinator and Project Engineer. A protocol to ensure that communication channels are clearly established will be set at the project kick off meeting.

- *Preparing technical reports summarizing the consulting work performed, detailing the results of all findings, and summarizing all recommendations.*

A monitoring report will be prepared following completion of the waterline installation project. It will meet the standards set by the Office of Historic Preservation and include but not be limited to a description of the project, methods employed, personnel involved, and a summary of findings. If artifacts are collected a description of their origin of recovery, and analysis of their temporal placement and function will be provided in as far as identification is possible. If artifacts are found to be significant, recommendations for curation will be made to the City.

Should Phase 2 data recovery be implemented, a data recovery report will be prepared. Similar to the report prepared for the University Park electric utility line, this report will detail, all of the above, as well as provide detailed analysis for artifacts and samples collected, an interpretation of site contents, and further management recommendations.

## **PHASE 2**

Additionally, the RFP requires the preparation of Phase 2 services recognizing there is a high likelihood of encountering significant intact archaeological deposits within the proposed Waterline Replacement easement. The Æ team is prepared to undertake data recovery of such deposits were they to be found within the project right-of-way. Similar deposits were recovered during the University Park electric utility replacement project performed in 2003/04. The tasks anticipated by the City needed to respond to the exposure of significant Mission-era archaeological deposits include but are not be limited to, the following:

- Meetings with the City related to the project,
- Performing all work in compliance with applicable state and federal laws,
- Providing necessary Archaeological testing, evaluation, and data recovery of materials recovered during construction,
- Discovery/Identification of potentially important archeological resources exposed,
- Assessment of the significance of the archaeological deposits exposed,

- Assessment of project impacts on the archaeological deposits exposed.
- Treatment to mitigate impacts to cultural resources,
- Preparing plans for and identifying options for mitigation, including but not limited to: avoidance, preservation, partial preservation, or excavation and curation,
- Implementation of the plans for preservation of artifacts in accordance with the decisions and direction of the city
- Manually excavating in areas containing archaeological materials appearing to be significant, according to standard stratigraphic techniques,
- Providing photographs and mapping stratigraphic profiles,
- Preparing all necessary documenting reports to be filed with the State Historic Preservation Office and the City of Lompoc,
- Cataloging and preparation of recovered artifacts, as required, for placement with a repository
- Assisting the City of Lompoc with all processes and with compliance with all legal requirements relating to the performance of the Phase 2 archaeological services.

In the event that Phase 2 archaeological testing, evaluation, and data recovery becomes necessary for the University Park Waterline Replacement Project, the following scope of work will be implemented. The specific approach for each discovery will be negotiated separately, but this plan will direct the field methods employed. This testing/recovery program will evaluate archaeological deposits exposed during waterline installation and assess the significance of those deposits, pursuant to CEQA. Compliance with CEQA's archaeological provisions require three phases of field work: (1) discovery/identification of potentially significant resources; (2) evaluation of the resources and assessment of project impacts on those resources; and (3) treatment to mitigate impacts to less than significant levels. Phase 1 monitoring will accomplish task 1. Mitigation options that will reduce Project impacts to a less than significant level will be identified and implemented, as directed by the City of Lompoc.

The Mitigated Negative Declaration for the all University Park utility project requires that when archaeological deposits are exposed:

An evaluation of the artifacts and the site shall be conducted and an appropriate plan for the preservation of the artifacts from the site shall be prepared by an experienced Archaeologist and implemented while being overseen by that Archaeologist.

Because the University Park Waterline Replacement Project lies within an existing subdivision, the evaluation of resources and assessment of project impacts on those resources, along with identification of treatment options and mitigation will be undertaken as a single task. The results of Phase 2 fieldwork will be reported in a separate document from the monitoring report to be filed with the OHP and the City of Lompoc.

Archaeological deposits and artifacts of historical significance and association with the Mission Vieja de la Purisima may be identified during construction monitoring. Where archaeological deposits are encountered, they will be exposed in the trench and insofar as possible the horizontal limits will be defined within the area of direct impact. Each discovery will be photographed in a digital color format and 35 mm color slides. Features will be mapped in relation to a permanent site datum using GPS/GIS technology.

An effort to determine the stratigraphic sequence (layering of deposits), approximate date of deposition, integrity (degree of disturbance), and range and quantity of artifacts will be made. If a deposit is determined to be potentially significant according to CEQA and/or associated with the Mission, then hand excavations will be employed to determine the best strategy for mitigation of project impacts. The Archaeologist shall identify the options for mitigation, including, but not limited to: avoidance, preservation, partial preservation, or excavation. All significant finds will be curated at the close of the project. Because the location of final curation has not been determined curation costs are not included in the current budget.

The Archaeologist shall consult with the Project Engineer (Site Inspector) and the Senior Environmental Coordinator and advise them of the type of deposit or artifact found, its extent and potential significance. Possible methods of avoidance or preservation/partial preservation will be identified for consideration by the Project Engineer and Senior Environmental Coordinator. The estimated costs of the methods of treatment shall be provided to the City. Mitigation shall take place as directed by the Project Engineer and Senior Environmental Coordinator and in accordance with professional archaeological standards.

#### **Order of Work**

Mitigation, as required by CEQA and directed by the Senior Environmental Coordinator, shall take place in a manner coordinated with the other aspects of construction. Unless otherwise directed by the Engineer, work to evaluate the possibility of using directional drilling to place the waterline underneath archaeological features such as an aqueduct shall be accomplished first. All attempts shall be made to assist the contractor in being allowed to continue work in the areas of significant finds. If possible, material to be studied shall be removed first so that waterline installation can proceed in the area of the find.

#### **Excavation and Data Recovery**

The proper level of effort for each discovery will be determined by the Project Archaeologist in consultation with the Principal Investigator (Project Manager), and the City Project Representative. Excavated soil will be screened, as appropriate, to retrieve an adequate sample of all artifact classes present. As necessary, samples of organic fill will be collected for any specialized analysis as allowed by CEQA, or for future studies not associated with this project.

#### **Process**

During hand excavation, the artifacts and fill deposits will be evaluated for historical significance and association with the nearby Mission. If other cultural resources are exposed they will be evaluated according to CEQA standards. Features or deposits appearing to possess significance will be excavated manually by a qualified archaeologist according to standard stratigraphic techniques, that is, according to physical layers of deposition. Features/deposits will be hand excavated, to the extent they will be directly impacted by the Project, removing half or a representative portion of each to provide a cross section. This will allow exposure of a vertical profile of the stratigraphic layering of accumulated fill. Each stratigraphic profile will be mapped and photographed. Generally, excavations will proceed by cultural levels. Where physical layers of deposition are not present, excavations will be controlled by means of arbitrary, measured levels (e.g. in 10 cm lifts). Midden deposits, such as the one exposed on Fir Avenue during the University Park electric utility installation, will be excavated in arbitrary units (1 x 1 m squares)



and in incremental levels. Artifacts will be recovered by passing the dirt through 1/8" hardware mesh. A source of water and a suitable site to ensure storm water protection will be required for activities requiring screening of archaeological sediments.

Where deposits are determined not to be significant, excavations will be halted and construction trenching will resume. In most cases, the reason for a determination of non-significance will be that the deposit is too recent or that the feature does not retain integrity because it is disturbed by later period activities. Selected artifacts from ineligible features may be retained if they have significance for interpreting the surrounding deposits; all other materials will be discarded. The second half of each deposit, within the area of impact, will be assessed for significance and if found eligible will be fully excavated.

#### Resuming Trench Work

After conferring with the Principal Investigator, the Project Archaeologist will notify the Engineer or his representative (the Field Inspector) that the evaluation/recovery process is complete. It will be the Engineer's responsibility to instruct the Contractor to resume trenching. Concurrently, the Project Archaeologist will notify the City Senior Environmental Coordinator of the results of archaeological investigations.

#### **Discard Policy**

This streamlined approach to CEQA compliance as described herein requires prompt analysis and evaluation of discovered deposits so that timely decisions about significance can be made in the field. To facilitate this process, preliminary artifact processing and recording will occur on-site.

Materials recovered will be washed and processed utilizing methods described below, at a nearby site selected by the City. Collections will be sorted into primary context (those recovered from significant features) and secondary collections (those considered ineligible under CEQA). As appropriate, secondary collections will not be retained for curation, although artifacts suitable for exhibit may be collected.

Some types of material, even that from significant features/deposits, may be discarded on-site after they have been counted, weighed, and recorded. If items are discarded, they will be noted in the catalog/field records. Selection of material for discard will be based on lack of long-term research value, excessive quantity, poor condition, redundancy, and/or health and safety risks. Discarding will be at the discretion of the Project Archaeologist in consultation with the City. Discarded artifact types might include the following:

- Window glass (less than 1/4 inch)
- Unidentifiable curved glass fragments
- Nails (after identifying MNI, function, penny weight, and counts)
- Leather and textile requiring special conservation through use of toxic chemicals
- Metal scraps, sheets, strips, and wire
- Corroded, unidentifiable ferrous metal
- Slag and amorphous melted glass

## **Human Remains**

Previous documentation has suggested that human remains are likely to be associated with the Mission Vieja de la Purisima or the nearby neophyte village. As stated above, if remains are discovered during project monitoring or data recovery, work will be halted in that area. The County Coroner will be notified to make a determination as to the cause of death and nature of the remains. If the remains are determined to be of Native American descent, the Native American Heritage Commission will be promptly notified and the most likely descendent will recommend the final treatment of the remains, in consultation with the City.

## **Post-Field Investigations**

Following field work, the assemblage from each significant deposit will be transported to Æ's laboratory. There, initial processing will be undertaken and will include sorting by material type. Preliminary sort classes will include glass, ceramics, bone, shellfish, metal, building materials (e.g., stone, tile, adobe, wood), and miscellaneous material.

Initial sorting will be based on broad functional classes as recommended by Stanley South (1977). This system has been refined employing methods used on other southwestern and western historical archaeological sites and will adhere to Æ's standard laboratory procedures (Hamilton and Abdo-Hintzman 2006). Artifacts will be separated into broad functional groupings that will be further subdivided by category and type. The latter two steps in the classification system reflect daily use and a description of the artifact itself. The resulting system consolidates large quantities of like artifacts under descriptive headings, which will allow for the interpretation of features/deposits and final curation according to State of California Guidelines (1993).

## **Specialized Analysis**

Depending on the type of materials recovered, specialized analysis may be recommended. For example, zooarchaeological remains (mammal, bird, shell fish, and bird bone) can yield important information about historical occupants' diet. Archaeobotanical (floral) and pollen analysis can be performed to further explore diet and environmental change through time. Flotation samples are taken when it is likely that seeds, prehistoric beads, or other small artifacts could be present. During this type of analysis a sample of fill is removed from a deposit and taken to the lab for further processing. A specialist sorts the recovered material and identifies the type of seeds, wood, or other carbonized artifacts present. It is expected that an analysis of non-human bone fragments will be required. Æ has specialists on staff including a faunal analyst, a shell analyst, ceramic specialist, and a bead specialist. Outside analysis will only be required for ethnobotanical analysis. Æ generally relies on Virginia Popper of the University of California, Los Angeles. She analyzed the collection from the University Park electric utility project, the Santa Barbara Historical Museum remediation project, and the Brand Park Community Center Project. She currently retains the comparative knowledge for these local Spanish-era projects and offers the expertise required to fully analyze any University Park Waterline Replacement Project samples.

## **Curation**

*California's Guidelines for the Curation of Archaeological Collections* (1993:online) state that significant archaeological collections should be housed at a qualified curation facility. Æ will assist the City of Lompoc in the negotiation of a final curatorial facility. The selected facility

should be consistent with the State Historical Resources Commission guidelines and the collection should remain in Santa Barbara County.

Providing a timely selection is made, Æ will inventory, accession, label, and catalog items in the collection according to standards set by the receiving facility. The final collection will contain artifacts, special samples, photographs, field notes, and other relevant site documentation.

### **Report Preparation**

In order to fully mitigate project impacts to cultural resources it will be necessary to complete artifact analysis, prepare a report, and to disseminate the findings to the community and professionals. To this end, a final report of the archaeological data recovery investigations will be prepared for distribution by the City to the Regional Information Center, local libraries, and interested professionals. This document will describe the methods of excavations and interpretation of artifact analysis and specialized studies. It will be necessary to update the site record. The report and site record will follow guidelines presented in the California Office of Historic Preservation's *Archaeological Resource Management Reports: Recommended Content and Format*.

## **SUPPORTING DOCUMENTATION**

### **APPLIED EARTHWORKS' EXPERIENCE**

All of the above Phase 2 professional services can be provided by Æ who have recent and extremely relevant experience working with the City of Lompoc and in the University Park area. Monitoring of electric utility replacement by Æ in 2002 and 2003 resulted in the discovery of Mission period features in streets within the University Park Subdivision included in the current project area. After close consultation with the City and consideration of avoidance and preservation in place options, data recovery was undertaken and the results were presented as "*A Glimpse into the Mission De La Purisima. University Park Electric Utility Project. Archaeological Data Recovery*" (Hamilton and Abdo-Hintzman 2004). This report has received positive review from other Cultural Resources Management professionals. A similar approach will be taken in this situation and the level of detail will depend on the type and nature of the deposits encountered.

Other recent similar projects undertaken by Æ include data recovery of Mission era deposits at the site of the former Santa Barbara Manufactured Gas Plant. In 2006, Æ prepared a report of data recovery efforts for monitoring of Phase I/II remediation. This report was reviewed and accepted by the City of Santa Barbara, Southern California Edison, the Santa Barbara Historical Society Museum, and the Santa Barbara Landmarks Commission. Data Recovery of Mission era deposits and structural remains associated with the San Fernando Mission located in Mission Hills, California was completed by Æ Historical Division staff in 2006. An Interim Data Recovery Report for Phase IIIA construction monitoring was prepared in December 2006. This Report has been accepted by the City of Los Angeles and the City Department of Recreation and Parks. Final data recovery reports are underway on subsequent monitoring efforts for both projects.

## **SIMILAR PROJECTS**

### **Manufactured Gas Plant, Santa Barbara, California: 1999-2008**

Æ staff performed archaeological monitoring, testing and data recovery excavations prior to Southern California Edison remediating contaminated soil from the historic Santa Barbara I Manufactured Gas Plant site. Excavations focused on the area immediately adjacent to two extant historic adobes and in the rear lot of the Cooley House. The site is situated opposite the Santa Barbara Presidio. Archaeological field investigations proceeded in three stages—monitoring, testing/evaluation, and feature recovery to mitigate impacts from remediation of contaminated soil. Physical evidence expressed in the archaeological record represented early Mission modifications to the environment, changing land use strategies during the Spanish, Mexican, and American periods of coastal dominance, site urbanization/residential expansion during the Victorian era, and industrialization of the landscape with the construction of a gas manufacturing plant in 1875. The phased monitoring/data recovery project spanned 1999 through 2008. Cultural resource investigations yielded archaeological deposits including historical surfaces, interfaces between stratified deposits, hollow artifact-filled features, architectural remains, and designed landscape elements.

#### **Contact Person:**

Amalia Coffey, Senior Environmental Specialist  
URS  
805-964-6010

### **Brand Park**

Between July 2004 and present, Applied EarthWorks Inc. (Æ) staff, under contract to the City of Los Angeles Department of Recreation and Parks, completed a cultural resources assessment, Phase II testing, and data recovery at the Brand Park Community Center. The City of Los Angeles proposed to build a new community center within Mission Hills in San Fernando Valley. Because of the close proximity of the San Fernando Mission and because Brand Park Memory Garden is considered to be a California Historical Landmark, the site was considered a highly sensitive area. Phase II testing demonstrated the presence of intact archaeological remains associated with the San Fernando Mission. Æ archaeologists and historians then developed a research design filed with the Office of Historic Preservation to recover significant archaeological deposits. Coordinating the project involved Æ, the City of Los Angeles Department of Recreation and Parks, the City of Los Angeles Department of Public Works, Bureau of Engineering, the construction contractor, and concerned Native American groups. Data recovery was completed in two phases, the first prior to construction and the second in conjunction with construction. These coordinated efforts resulted in the recovery of significant Mission era deposits, including extensive midden, a rock foundation and tile floor associated with the mission granary, and the tile base of a cooking feature. Mitigation monitoring continued after data recovery. Full laboratory analysis is underway and a report of findings is pending.

#### **Contact Person:**

Paul A. Davis, Environmental Specialist  
City of Los Angeles Department of Recreation and Parks  
213-928-9137

## COST ASSUMPTIONS

Our estimate reflects an anticipated 25 days of monitoring by qualified archaeologist(s) and one Native American monitor. Excavation that occurs in two spatially discrete areas will require two archaeologists to be on-site to monitor. A lead monitor has been identified, Robert Peterson, Jr. An alternative monitor will be selected, from a number of staff members located in the Lompoc office who will be a qualified archaeological monitor under the Secretary of Interiors Standards and Guidelines including, but not limited to, Erin Enbright and Leeann Haslouer. Keith Warren is the designated Historical Archaeologist, while Ann Munns will be Co-Project Archaeologist. M. Colleen Hamilton is the Senior Historical Archaeologist, Historical Division Manager and will serve as the Project Principal Investigator. All decisions relating to significance determinations and data recovery approach will be the sole responsibility of Ms. Hamilton. It will be she who consults with the City to determine how to proceed if discoveries area made.

During Phase I monitoring carefully controlled backhoe trenching will be monitored in all areas of identified cultural sensitivity. Work, including travel time, will not exceed eight (8) hours per day. If daily work hours are suspended due to construction restraints or inclement weather, a minimum of four hours will be billed by Æ's on-site staff and the Native American Monitor. Additional time is allocated for coordination, mobilization, and demobilization of archaeological and Native American personnel. Pre-construction testing has been allocated two days. Æ agrees to prepare a monitoring report documenting the results of the archaeological monitoring, along with copies of photographs taken in the field. If any potentially significant discoveries are made, the Phase 2 testing, evaluation, and data recovery approach will be negotiated with the City.

We estimate that 614 hours of staff time will be required to complete the monitoring and prepare a quality technical report(s) detailing the results of our findings. The proposed Not-to-Exceed-Fee of \$59,432 for Phase 1 monitoring including the services of a Native American monitor and two archaeological monitors on an as needed basis. The work will be conducted as a time and materials contract. If the work takes less than 25 days to complete, then the City will realize a cost savings. However, if the work takes longer than anticipated to complete, then the City will be charged at an additional rate of \$600 per monitor per day, plus the daily rate for the Native American monitoring (\$420) and his/her coordination costs. The results of monitoring will be documented in a site summary report including a synopsis of monitoring activities and all discoveries made. The monitoring report will summarize mitigation measures decided upon in consultation with the City. Following acceptance of the monitoring report final billing will be made.

Testing, evaluation, and data recovery is estimated to require 1986 hours of staff time at a proposed Not-to Exceed-Fee of \$119,214. The Phase 2 fee is based on the occurrence of three discoveries requiring eight (8) days to accomplish. Any changes in this scenario will require adjustments to the contract. Phase 1 and Phase 2 charges will be limited to a "Not-to- Exceed Fee" unless the City authorizes additional charges in writing. Payment will be for actual time and materials expended in furnishing authorized professional services up to said "Not-to-Exceed Fee." Payments for each discovery requiring data recovery will be negotiated separately.

Æ understands that the RFP shall be incorporated in its entirety as part of the Consultant's Proposal and the RFP and the Consultant's Proposal will jointly become part of the "Agreement

for Professional Consultant Services” for this project when said agreement is fully executed by the Consultant and the City of Lompoc. The professional services provided by Æ and fees therefore will be in accordance with the City’s RFP except as otherwise specified herein under the heading “Exceptions or Additions to the City’s Request For Proposal.”

## **EXCEPTIONS OR ADDITIONS TO THE CITY’S REQUEST FOR PROPOSAL**

Hours of work shall be limited to Monday through Friday between the hours of 7 a.m. and 5 p.m. No legal holidays or nightshifts will be worked. The monitoring budget is based on 25 field days and the testing, evaluation and data recovery budget is based on three discoveries requiring eight days to mitigate. Adjustments may be required to the post field analysis budget based on the type of artifacts and samples recovered. Æ provided for possible contingencies; however, the amount and types of material that will be recovered is unknown at this time. Individual costs will be negotiated following each discovery made and adjustment to the contract will be requested. Any undertakings beyond those stated above will be outside the current scope of services and will require contract renegotiation.

Contrary to the article V.2 Payment (S) to Consultant s stipulated in the RFP-01-W-2 disallowing Monthly invoicing, Æ would prefer to bill the project at certain mile stones including the following:

- completion of monitoring field work
- submission of the draft monitoring report
- submission of the final monitoring report
- completion of data recovery field work
- completion of laboratory analysis
- submission of the draft data recovery report
- acceptance of the final data recovery report.

## **INSURANCE CERTIFICATES**

Applied EarthWorks (Æ) does not maintain the requested \$3,000,000 General Liability (GL) coverage limit. However, Æ does maintain \$2,000,000 in GL coverage and has an Umbrella Policy with an additional \$2,000,000 in coverage which can be added to the existing GL coverage thus fulfilling the requested dollar limits. Insurance Certificates are attached.

## **Æ NON-DISCRIMINATION PRACTICES**

Consultant will not discriminate against any employee or applicant for employment because of race, sex (including pregnancy, childbirth, or related medical condition), creed, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition (cancer-related), marital status, ancestry, or sexual orientation. Consultant will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to race, sex (including pregnancy, childbirth, or related medical condition), creed, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition (cancer-related), marital status, ancestry, or sexual orientation. Such action shall

include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; or in terms, conditions or privileges of employment, and selection for training. Consultant agrees to post in conspicuous places, available to employees and applicants for employment, the provisions of this nondiscrimination clause.

## **APPLIED EARTHWORKS CORPORATE PROFILE**

Applied EarthWorks, Inc. specializes in history, archaeology, and cultural resources management. Current laws and regulations mandate consideration of prehistoric and historical remains. Our company uses a variety of procedures to manage these resources without impeding progress. Through effective communication, technical expertise, economical and efficient project management, and creative solutions, Applied EarthWorks makes it possible to build for the future without sacrificing our cultural heritage.

The company's highest priority is to ensure client satisfaction through skilled consultation and the timely delivery of high-quality documentation that satisfies regulatory requirements. Our archaeologists, historians, anthropologists, geologists, paleontologists, and other specialists offer extensive experience in environmental consulting, field and laboratory research, project management, and administration. These professionals can determine specific client needs and formulate appropriate management strategies for each project.

Our staff has successfully completed all phases of cultural resources studies for small- and large-scale projects on behalf of cities, counties, public utilities, construction and engineering firms, developers, and state and federal agencies. By providing services that promote project advancement, Applied EarthWorks has facilitated reservoir and water pipeline construction, transportation improvements, updated communications systems, community development and infrastructure upgrades, urban redevelopment, environmental remediation, and improved energy generation and transmission. Since the 1970s our senior personnel have completed the preparation of technical reports/special studies, and Environmental Impact Reports/Statements along with ND/ MNDs. Finally, our team has in place more than sufficient facilities, equipment, fiscal resources, and computerized accounting systems to meet all project requirements outlined in the current RFP.

## **PROJECT PERSONNEL**

### **M. Colleen Hamilton M.A., RPA, Principal Investigator**

Ms. Hamilton has many years of experience at overseeing cultural resources management projects. Since beginning her career, Ms. Hamilton has designed, organized, and directed significance evaluation and mitigative treatment involving historical archaeological resources. Her archaeological expertise includes site significance assessments and determination of project impacts pursuant to Section 106 of the National Historic Preservation Act. Since joining the staff of Applied EarthWorks, Inc., Ms. Hamilton has managed a variety of archaeological projects throughout California as required to comply with the California Environmental Quality Act (CEQA). Relevant to the current project, Ms. Hamilton oversaw the construction monitoring at University Park during electric utility line installation. She authored the final data recovery report which was completed in 2004. At the Santa Barbara I Manufactured Gas Plant site, Ms.

Hamilton directed archaeological monitoring of remediation and the recovery of stratified archaeological deposits dating from the Spanish Mission period through the early twentieth-century. This work has been ongoing since 1999. Ms. Hamilton is current compiling the final data recovery effort for this extensive project. Between 2004 and present, Ms. Hamilton served as project manager for construction monitoring at the Brand Park Community Center, the former site of the Mission San Fernando. Data Recovery efforts were completed in two phases to facility construction while ensuring compliance with the Project Mitigated Negative Declaration. An interim data recovery report was completed in 2006 and the final data recovery analysis is underway. Ms. Hamilton has been a Registered Professional Archaeologists (RPA) since 1990, and is a member in good standing with the Society for California Archaeology, Society for Historical Archaeology (SHA), and the Society for Industrial Archaeology (IA).

**Keith Warren Project, Co-Project Archaeologist**

Mr. Warren has more than 20 years of international experience at directing and reporting cultural resources management projects. His archaeological expertise includes the supervision of field crews and stratigraphic site excavations. Mr. Warren has supervised a variety of archaeological projects throughout California as required to comply with the California Environmental Quality Act (CEQA). He has supervised mitigation efforts for nineteenth- and twentieth-century resources in Avila Beach, in portions of five city blocks in urban Sacramento, and in downtown Los Angeles, including projects at Union Station and First and Main Streets. At the Santa Barbara I Manufactured Gas Plant site, Mr. Warren supervised the recovery of stratified archaeological deposits dating from the Spanish Mission period through the early twentieth-century. Mr. Warren also supervised the recovery of Mission period deposits and structural remains at the San Fernadno Mission. He is certified in Hazardous Waste Operations and Emergency Response (HAZWOPER).

**Ann M. Munns, M.A. Co-Project Archaeologist/Shell Analyst**

Ms. Munns has conducted or supervised more than 50 investigations on Vandenberg Air Force Base, elsewhere in Santa Barbara County and the surrounding region, and in portions of northern California. During the past 21 years, she has participated in and directed the full range of phases and tasks, including survey, testing and data recovery excavations, laboratory processing, specialist analysis, database management, collection curation preparation, construction monitoring, monitoring coordination, and report preparation and editing. She has served as principal or co-principal investigator for several NHPA Section 106 or CEQA-regulated data recovery projects in central California. She directed additional data recovery investigations as part of her graduate research, focused on shell bead production on the northern Channel Islands.

As director of Applied EarthWorks' Lompoc laboratory, Ms. Munns has managed and carried out collections processing, specialist analyses, and curation preparation for more than a dozen projects, including several that encompass large volumes of diverse sample materials, several of which involved multiple project phases. Ms. Munns has completed the Advisory Council on Historic Preservation Section 106 training course and is certified in Hazardous Waste Operations and Emergency Response (HAZWOPER).

**Robert R. Peterson Jr. M.A, RPA Lead Monitor**

For more than 20 years, Mr. Peterson has served as a field supervisor, crew chief, and technician for various archaeological projects throughout California, primarily in the Sierra Nevada and



Central Coast regions. In this capacity he has participated in survey, extended survey, testing and evaluation, and data recovery projects at both prehistoric and historical sites. Additionally, Mr. Peterson has authored and contributed to numerous National Historic Preservation Act Section 106 and California Environmental Quality Act compliance documents. Since joining Applied EarthWorks, Mr. Peterson has served as a monitor on numerous projects, participated in testing and data recovery excavation, and authored a number of technical reports for the U.S. Air Force on Vandenberg Air Force Base and for the City of Santa Barbara and private entities.

**Erin A. Enright M.A., Monitor/Faunal Analyst**

Since 1999, Ms. Enright has participated in archaeological projects involving archival research, survey, mapping, testing and data recovery excavations, laboratory processing, and specialist faunal analysis for projects in central California and New Mexico, and in ancient Old World Greek sites in Cyprus and Crete. Her experience in central California includes survey, excavation, construction monitoring, and report preparation for projects at prehistoric as well as historic sites in San Luis Obispo and Monterey counties. Ms. Enright's technical capabilities include human and faunal bone identification and analysis. Her Master's thesis focused on analysis of faunal remains and their subsistence and ritual implications within the ancient Chacoan Southwest.

**Leeann G. Haslouer, Monitor Alternate**

Ms. Haslouer has more than 14 years of professional experience, conducting and supervising survey, excavation, laboratory analysis, construction monitoring, and historical research. Ms. Haslouer has extensive expertise in Spanish Colonial and Californio era archaeology and architectural reconstruction, gained during 12 years spent working with El Presidio de Santa Barbara and the surrounding adobes. She has also managed and conducted complex, multi-year monitoring projects in Santa Barbara County. Her technical skills include lithic and shell analyses and geographical information systems computer applications.

**SUBCONSULTANTS**

Currently the only subcontractor requested will be Virginia Popper. Her credentials are explained in detail under the Phase 2 work strategy.

Dr. Virginia Popper, Director  
Paleoethnobotany Laboratory  
Cotsen Institute of Archaeology  
Box 951510 Fowler A210  
University of California, Los Angeles  
Los Angeles, CA 90095-1510

# ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
9/28/2007

PRODUCER (559) 432-0222  
DIBuduo & DeFendis Insurance Brokers, LLC  
License #0E02096  
P.O. Box 5479  
Fresno, CA 93755-5479

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED Applied Earthworks, Inc.  
5090 N. Fruit Ave., #101  
Fresno, CA 93711-0000

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Federal Insurance Company	
INSURER B: Redwood Fire & Casualty Insurance Comp	
INSURER C: Executive Risk Indemnity Inc	
INSURER D:	
INSURER E:	

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	35384352	10/1/2007	10/1/2008	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A		<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	73241226	10/1/2007	10/1/2008	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		<b>GARAGE LIABILITY</b> <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
A		<b>EXCESS/UMBRELLA LIABILITY</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ None	79863399	10/1/2007	10/1/2008	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$ \$
B		<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	W7A37196	10/1/2007	10/1/2008	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C		<b>OTHER</b> Professional Liability	81702590	10/1/2007	10/1/2008	\$25,000 Deductible \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

On award of the contract, the job description, projection number and job location will be included in this space.

### CERTIFICATE HOLDER

On award of the contract, the Certificates Holders name and address will be included in this space

### CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

