

## 4.7 CULTURAL RESOURCES

The information presented below is based on the Historic Property Survey Report prepared by William Self and Associates for the North Connector Project (Project), January 2004. This section addresses the potential impacts to cultural resources (archaeological and paleontological) and mitigation of impacts to significant cultural resources associated with implementation of the Project.

### Methodology

The objective of the cultural resources assessment was to locate, record, and evaluate the significance of all cultural resources within the Archaeological and Architectural Areas of Potential Effect (APE). The APEs for the Project include all right-of-way requirements and construction activities. The Archaeological APE includes all locations where ground disturbance would occur. The Architectural APE includes all lands within and one parcel back from anticipated disturbance. Some of these lands are vacant farming lands that may contain no structures; others contain properties over 45 years in age, while some contain more modern structures.

An archaeological field survey of the entire Project area APE was not possible due to entry permit restrictions.<sup>1</sup> The west end of the Project APE is comprised of approximately 100 acres consisting primarily of the Mangels Ranch property located on the south rise north of the intersection of Red Top Road and SR12. The east end of the Project APE begins just west of Suisun Creek and continues east along the north side of Interstate 80 (I-80) to Abernathy Road where it intersects I-80.

An archaeological field survey of the Project APE was conducted on May 1 and June 4, 2003. An additional survey was conducted on May 12, 2003. The reconnaissance survey was conducted at an interval of 15 meters or less and consisted of an intensive field survey of all open areas. The channel and adjacent banks of Suisun Creek were intensively examined. Ground visibility was fair to poor due to dense duff and vegetation along Suisun Creek. Trowel or foot-clearing was occasionally used to displace vegetation to improve ground visibility. All visible ground surface, gopher burrows, and other exposed soil was examined for the presence of historic or prehistoric site indicators such as charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, and pockets of dark, friable soil (for prehistoric sites), and glass, metal, ceramics, brick, wood, and similar debris (for historic sites).

An additional survey was conducted on May 3 and 4, 2005. Six test trenches were dug by backhoe in the area between Suisun Valley Road and Suisun Creek as this was the area identified as being most likely to contain sensitive archaeological resources. Five trenches in 3 meter segments were dug to a depth of 1.5 meters (5 feet). One trench in a 10 meter segment was dug to a depth of 2 meters. This trench was later extended to a depth of 5.1 meters (17 feet), to verify the presence of deeply buried deposits. Due to the high water table in the area, the larger trench began to fill with water at a depth of 4.5 meters (15 feet). A 10-gallon sample of excavated soil from each level was screened

---

<sup>1</sup> As provided in table 4 of the Archeological Survey Report prepared by William Self Associates, parcels not in the APE included: the existing Department of Transportation Truck Scale, just west of I-80 (APN 27-350-010), the Valine Property at 4004 Russell Road, north of I-80 (APN 27-271-060 and 27-251-330), Moore Tractor Company at 4088 Russell Road, north of I-80 (APN 27-271-060 and 27-251-330), and a business located at 4947 Russell Road (APN 27-510-040).

with a 0.25-inch screen to recover any cultural materials that might be uncovered during excavation.

## **EXISTING CONDITIONS**

### **Cultural Characteristics**

The history of the Project area can be divided into several periods of influence. For the purposes of establishing a historic context from which to assess the potential significance of historic sites in the Project area, the area is described below in terms of prehistoric and historic periods.

#### **Prehistoric Period**

Following the commencement of archaeological research in Central California during the early 20<sup>th</sup> century, the Central California Taxonomic System (CCTS) was developed to characterize prehistoric cultural periods.<sup>2</sup> The CCTS was further refined through analysis of factors such as environmental change, settlement and subsistence strategy, modes of exchange, and population movements. These studies led to the establishment of archaeological sub-sequences for many regions of Central California, the most well received of which being the concept of cultural “Patterns.”<sup>3</sup> The patterns concept centers on the understanding that there were local variations to a widespread culture-horizon. A pattern is an adaptive mode extending across one or more regions, characterized archaeologically by technology, particular artifacts, economic systems, trade networks, burial practices, and other aspects of culture.<sup>4</sup> For the Greater Sacramento River Delta region, the area in which the Project is located, there are three predominant archaeological patterns in the Project vicinity. The first pattern is the Windmill Pattern, followed by the Berkeley and Augustine patterns.

The Windmill Pattern is seen in archaeological sites dating back 4,500 to 2,000 years. Windmill sites are often situated in riverine, marshland, and valley floor settings, and atop small knolls above prehistoric seasonal floodplains. Most Windmill sites have contained burials in what may be characterized as cemeteries. Typically, bodily remains are extended ventrally, oriented toward the west, and contain copious amounts of “grave goods.” Grave artifacts include large projectile spear or dart points and a variety of fishing paraphernalia. Seed grinding implements at the sites show that gathering and processing of seed resources was common and other artifacts indicates that trade and a degree of ceremonialism was practiced.

The Windmill pattern was followed by the Berkeley Pattern, covering a period dating back 2,500 to 1,500 years. To a degree, this pattern overlaps with the Windmill Pattern. Berkeley Pattern sites are much more common and well documented, and therefore better understood than Windmill Pattern sites. The sites are distributed in more diverse environmental settings, although a riverine focus is common.

Deeply stratified midden deposits (resulting from generations of occupation) are common to Berkeley Pattern sites, as are an abundance of milling and grinding stones for the processing of vegetal resources. Projectile points are progressively smaller and lighter

---

<sup>2</sup> Lilliard, J.B., R.F. Heizer, and F. Ferenga, An Introduction to the Archaeology of Central California, Sacramento Junior College, Department of Anthropology Bulletin 2. Sacramento, 1939.

<sup>3</sup> Moratto, Michael J., California Archeology, Academic Press, Orlando, 1984.

<sup>4</sup> Frederickson, David, Early Cultures of the North Coast Ranges, California. Ph.D. dissertation, University of California, Davis, 1973.

over time, culminating in the introduction of the bow-and-arrow during the late prehistoric period. As mentioned above, although there are shared traits with Windmill Pattern manifestations, artifacts unique to Berkeley Pattern sites include slate pendants, steatite beads, stone tubes and ear ornaments, and burial techniques utilizing variable directional orientation, flexed bodily positioning, and a general reduction of mortuary goods.<sup>5</sup>

The late prehistoric period, characterized as the Augustine Pattern, ranges from about 1,500 to 150 years ago.<sup>6</sup> This pattern is typified by intensive fishing, hunting and gathering, the latter focusing on acorns. In addition, the pattern is characterized by a large population increase, increased trade and exchange networks, increases in ceremonial and social attributes and the practice of cremation, in addition to flexed burials. Certain types of artifacts typify the pattern, including bone awls for use in basketry, small notched and serrated projectile points indicative of introduction of the bow-and-arrow, occasional pottery, clay effigies, bone whistles, and stone pipes. The presence of certain types of artifacts suggests a southward moving influx of Wintuan populations into the Sacramento Valley, providing an important stimulus to this pattern.<sup>7</sup> Skeletal evidence from several sites suggests the expansion was not altogether friendly.<sup>8</sup> The Augustine Pattern can be characterized as the apex of American Indian cultural development in this part of California.

### **Ethnographic Setting**

At the time of first historic contact with Spanish missionaries and explorers, the Project area was most likely occupied by the Wintuan speaking Patwin Native American groups in Yolo and Solano Counties. The Patwin have been the subject of several major cultural descriptions.<sup>9</sup> Scholars have suggested that the early Californian environment offered a large assortment of resources for use by the native people. Acorns, fish, and game mammals provided the principal dietary staples.<sup>10</sup> Some researchers have stressed the acorn with various other seeds grasses nuts berries and roots being of significant importance. Plant food collection and preparation formed the center of Patwin technology.<sup>11</sup>

Plant, animal, and fish resources were available in unlimited quantities in the Sacramento and San Joaquin River Delta area. Tule elk were common in the marshlands, as were rabbits and small game.<sup>12</sup> The Delta area also provided much of the natural resources necessary for production of the day-to-day material goods used by native populations. The Patwin comprised a group of people that were united by language but broken into smaller tribal entities, each occupying defined territories over which they controlled access to natural resources. Although each tribal group had one or more permanent villages, their territory contained numerous smaller campsites used as needed during rounds of resource exploration.

---

<sup>5</sup> Id.

<sup>6</sup> Id.

<sup>7</sup> Moratto, Michael J., *California Archeology*, Academic Press, Orlando, 1984.

<sup>8</sup> Id.

<sup>9</sup> Kroeber, Alfred, *Handbook of the Indians of California*. Third Edition. California Book Company, Ltd., Berkeley, 1970.

<sup>10</sup> Baumhoff, Martin A., "Ecological Determinants of Aboriginal California Populations". *University of California Publications in American Archaeology and Ethnology* 49(2):155-236, Berkeley, 1963.

<sup>11</sup> Kroeber, Alfred, *Handbook of the Indians of California*. Third Edition. California Book Company, Ltd., Berkeley, 1970.

<sup>12</sup> Schenck, W.E. and E.J. Dawson, "Archaeology of the Northern San Joaquin Valley", *University of California Publications in American Archaeology and Ethnology* 25(4):289-413, Berkeley, 1929.

Extended families lived in domed, conical structure built of thatched grass or earth covered limbs and branches. Semi-subterranean men's houses were built at larger village sites, also using grass and earth cover.<sup>13</sup> Given an abundant and continuous subsistence base, ceremony in Patwin life was fairly extensive and scholars have written much about it based on early ethnographic accounts.<sup>14</sup> Rituals associated with death were of significant importance. Two forms of internment were practiced and grave goods were often placed into graves at the time of burial. Cremation was also practiced.

### Historic Period

Due to its distance from the San Francisco Bay, the Project area was largely isolated during the Spanish and Mexican periods of California history. Therefore, events associated with the Spanish and Mexican periods and cultural remains from those periods are not expected to be reflected within the entire Project area, but are discussed briefly as a point of reference. The Spanish Period in California began in 1775 and ended in 1822. This was followed by the Mexican Period, which began in 1822 and ended in 1848. Finally, the American Period began in 1848 and continues to the present day.

### The Spanish Period

The earliest European overland exploration of the San Francisco Bay Area was that of the Fages-Crespi Expedition in 1772. Traveling from what are now Milpitas, Oakland, and Berkeley, the party reached the site of modern day Pinole on March 28, 1772.<sup>15</sup> From there they traveled through what is now Rodeo and Crockett to Martinez, made a brief foray into the Delta region of the Central Valley, and camped somewhere near modern day Pittsburg or Antioch. In his journal, Crespi described the land in the Project area as "covered with grass with stream beds overgrown with alders, cottonwood, laurels, roses and other shrubs."<sup>16</sup>

The Anza-Font Expedition reached the East Bay hills in March of 1776 by following a similar route to that used by the Fages-Crespi Expedition. Based on analysis of the detailed notes from this earlier expedition, it is assumed that the vegetation present in the region in 1776 was substantially similar to that described by American settlers in the 1850's and not unlike that which is found in the area today.<sup>17</sup>

In 1775, Captain Juan Miguel Ayala's expedition explored the San Francisco Bay and ventured up the Sacramento and San Joaquin Rivers in search of suitable mission sites. The first mission in the region was established in 1776 with the completion of Mission San Francisco de Asis (Mission Dolores) in San Francisco. It was followed three months later by Mission Santa Clara de Asis and 1797 by Mission San Jose de Guadalupe. The California Mission Era, which lasted for the next 46 years, led to the establishment of numerous missions and outposts. The "missionization" of native groups caused their decline and ultimately the decimation of the Native Californians due to foreign disease and subjugation. During the Spanish Period, many exploratory and punitive expeditions were

---

<sup>13</sup> Kroeber, Alfred, Handbook of the Indians of California. Third Edition. California Book Company, Ltd., Berkeley, 1970.

<sup>14</sup> Bennyhoff, James A., "The Ethnography of the Plains Miwok", Center for Archaeological Research at Davis Publications 5, University of California, Davis, 1977.

<sup>15</sup> Cook, Sherburne F., The Aboriginal Populations of Alameda and Contra Costa Counties, California. Anthropological Records at the University of California Anthropological Survey, Berkeley, California, 1957.

<sup>16</sup> Id.

<sup>17</sup> Id.

undertaken, both to search for runaway mission neophytes and to convert the “heathen” to Christianity.

The arrival of the Spanish in the San Francisco Bay Area led to the rapid demise of the native population, including the Patwin. Disease introduced by early expeditions and missionaries killed a large number of local peoples, exemplified by a mass burial of 18 people adjacent to the Hotchkiss Mound site near Oakley.<sup>18</sup>

With abandonment of the Mission system and the Mexican takeover in 1822, numerous Ranchos were established. What few Indians remained were forced to work on the Ranchos. The native lifestyle in much of Northern California ceased to exist by the mid-19<sup>th</sup> Century and much of the native population vanished with it.

### The Mexican Period

The Mexican Period led to secularization of the Spanish mission system. By 1845, the last of the mission land holdings was relinquished, opening the way for the creation of large Ranchos common to California during the mid-19<sup>th</sup> century. Predominant land use on the ranchos was ranching and livestock grazing. In Solano County, Rancho Suisun was the first of the six Mexican grants that were confirmed by the United States government. In an 1837 petition to the United States government, Francisco Solano, grantee of Rancho Suisun, described himself as “Principal Chief and born captain of the Suisun.”<sup>19</sup> The grant was temporarily made to him and confirmed by Governor Pio Pico in 1845. Bordering the town of Fairfield, the 17,745 acre parcel was purchased by General Marianno Vallejo, who sold it to Archibald A. Ritchie in 1857. American explorers, mostly traders and beaver trappers, were also flocking to the west during this time and their “trails” helped lead to the settlement of the territory.<sup>20</sup>

The Suscol Rancho, located in southern and western Solano County and parts of Napa County, included what would become the cities of Vallejo, Benicia, and the Village of Cordelia, and a rural district known as Green Valley. Originally granted to General Vallejo by the Mexican government, the Suscol Rancho was in dispute between squatters who settled on the property and General Vallejo, represented by his son-in-law, John Frisbie. General Vallejo never occupied or cultivated the land, resulting in invalidation of his land claim.

Following the dissolution of the Spanish missions, some native peoples returned to their native lands, but most remained to work on the large ranchos. The arrival and proliferation of cattle and horses constituted one of the principal reasons for the disappearance of California’s grasslands. By 1851, wild oats, an introduced species noted as an excellent livestock food, dominated the valleys and foothills of the Project area. Today, nearly 400 introduced species, mostly annuals carried from the Mediterranean by Spanish explorers, grow in California. Agriculture and the construction of extensive irrigation systems have also changed the face of the native vegetation in much of the California grasslands.

---

<sup>18</sup> Heizer, Robert F., “The Archaeology of Central California I: The Early Horizon”, University of California Anthropological Records, Vol. 12, No. 1:1-84, Berkeley, 1954.

<sup>19</sup> Kyle, Douglas E., et al, Historic Spots in California, Stanford University Press, Stanford, 1990.

<sup>20</sup> Id.

### The American Period

In 1848, California was ceded to the United States under the Treaty of Guadalupe Hidalgo, ending the Mexican-American War. The onset of the American Period with the admittance of California to the Union led to dramatic changes for the region.

The California Gold Rush of 1848 and 1850 brought an increase in population to Solano County. Although some prospecting for gold was done in the foothills, most immigrants realized that the fortune to be made in Solano County was through farming and ranching. Land use changes resulted as livestock grazed some native grasses to extinction; woodlands were cut for lumber, railroad ties and mine timbers; and agricultural development occurred on nearly all arable land.

### **Regional History**

Solano County's history began with two local political figures, General Vallejo and Dr. Robert Semple, founder of the City of Benicia. The county was named after Suisun Chief, Sem Yeto, baptized Francisco Solano. Solano County began at an early date to make use of water transportation for freight and passengers. Maine Prairie, a landing on an island slough, shipped much of the wild oat hay and wheat from northern Solano County. The flood of 1862 and advent of railroads decreased the prosperity of this community near Fairfield.

The village of Cordelia was named in honor of the wife of Captain R.H. Waterman, founder of the City of Fairfield. Situated at the lower end of Green Valley, it was a stopping over place for stage coaches and a hotel that accommodated passengers was operated there in 1855 by John Charles Pitman. Stone quarried near Cordelia was taken by barge through the Cordelia Slough and across the Bay to San Francisco where it was used in building and street paving. The shipping point was called Bridgeport. In 1868, following the construction of the California Pacific Railroad, the community of Cordelia was relocated a short distance to the south.<sup>21</sup>

North of Cordelia, just across Interstate 80, is Cherry Valley, an area now more residential than agricultural. Rockville, located approximately two miles north of I-80, was a settlement on the old stage road between Benicia and Sacramento. By 1852, summer camp meetings were held regularly on the banks of Suisun Valley Creek where settlers spent a week sleeping in tents and listening to circuit preachers. A stone chapel was constructed in 1856 by volunteer labor on land donated by local settlers.<sup>22</sup> Rockville Road is the northernmost boundary of the Project area.

### **Cultural Resources**

No cultural resources were identified within the Project area. The following sections describe the evaluation taken to evaluate the presence of archaeological and architectural resources.

---

<sup>21</sup> Id.

<sup>22</sup> Id.

## **Archaeological Resources**

Subsurface archaeological testing was conducted to determine the presence/absence of buried cultural resources within the Archaeological APE. The testing effort was conducted in phases focusing on areas of higher potential for buried sites (e.g. along existing creeks) utilizing manual shovel probes and auger probes, and backhoe trenches in some areas, as described previously. The combined testing program is summarized below.

1. In October 2000, testing occurred along the western bank of Suisun Creek in the area of the proposed new bridge across the creek and possible biological mitigation site.
2. In November 2003, testing occurred along an unnamed creek that flows through Jameson Canyon at Red Top Road in areas where Red Top Road would be widened.
3. In May 2005, six trenches were excavated by backhoe to determine the presence/absence of archaeological material and to inform the geo-archaeological assessment of the Project APE.
4. Geo-archaeological testing was conducted in conjunction with the presence/absence testing.

The testing, while not finding any previously unrecorded archaeological deposits, determined that there is a potential for buried archaeological sites in the Project APE. The highest potential for buried sites is located in the Antioch-San Ysidro, Brentwood, Rincon, and Yolo map units depicted on soils map of the Project area. This suggests that the highest potential for encountering burial archaeological deposits is along Green Valley and Suisun creeks.

## **Architectural Resources**

In addition to subsurface archaeological testing, seven newly identified architectural resources within the APE underwent formal evaluation for inclusion on the National Register of Historic Places (National Register). Eligibility for inclusion on the National Register automatically qualifies a resource for inclusion on the California Register of Historical Resources (CRHR). All identified architectural resources were evaluated for eligibility for inclusion on the CRHR in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines using criteria outlined in Section 5024.1 of the California Public Resources Code. One previously recorded architectural resource, the Ferrari Ranch/Redtop Stables, had been previously determined not to be eligible for the National Register. In addition, six newly identified architectural resources were also determined not to be eligible for inclusion on the National Register. One resource, the Mangels Sheep Barn was initially identified as eligible for inclusion on the National Register and the CRHR. The State Historic Preservation Office (SHPO) reviewed the eligibility determinations for the seven architectural resources within the APE, and in a letter dated March 29, 2006, concurred with the not eligible findings for six of the properties. The SHPO disagreed with the initial eligibility finding for the Mangels Sheep Barn and as a result all seven properties have been determined not to be eligible for the National Register or the CRHR. These resources are described below.

## **Known/Previously Recorded Sites Within the APE**

The Red Top Stables/Ferrari Ranch/Freitas Family Farm (P-48-487) located in the West End, south of SR12 West, was evaluated by Caltrans in 1988 and found to not be eligible for the National Register or the CRHR. No other previously evaluated or

recorded cultural resources are located within the APE. Twenty previously recorded cultural resources are located within 0.5-mile of the Project area but outside the APE.

**Newly Identified Resources Within the APE**

Seven structures located within the APE were evaluated for their eligibility to be listed on the National Register. As described in Table 4.7-1 below, none of these structures was determined to be eligible for the National Register or the CRHR.

**Table 4.7-1. New Discoveries within the APE**

	<b>Name/Address</b>	<b>Status</b>
<b>West End</b>		
	Mangels Sheep Barn	Not Eligible
	R.W. Dittmer Ranch 3533-3539 Mangels Boulevard	Not Eligible
<b>East End</b>		
	Valine Farm 4004 Russell Road	Not Eligible
	Del Monte Warehouse 4974 Russell Road	Not Eligible
	4136 Russell Road	Not Eligible
	4164 Russell Road	Not Eligible
	Green Valley Tractor 4135 Abernathy Road	Not Eligible

Source: William Self Associates, Inc., 2004.

**REGULATORY SETTING**

**California Environmental Quality Act (CEQA)**

CEQA requires public or private projects financed or approved by public agencies to assess the effects of the Project on cultural resources that might qualify as being historical, as defined by statute. Pub.Res.Code § 21084.1. Potentially historical resources could include buildings, sites, structures, or objects, each of which may have historical, architectural, cultural, or scientific importance.

In addition, CEQA requires that alternative plans or mitigation measures be considered if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource. Prior to the assessment of effects or the development of mitigation measures, it must first be determined whether a particular resource is “historical.”

The steps that are taken in a cultural resources investigation for CEQA compliance are as follows:

- evaluate whether potentially historical resources are in fact historical
- identify potential historical resources
- evaluate the effects of a project on all historical resources

CEQA guidelines define three ways that a property can qualify as a significant historical resource for the purposes of CEQA review: 1) if the resource is listed in or determined eligible for listing in the CRHR; 2) if the resource is included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code unless a preponderance of evidence demonstrates that it is not historically or culturally significant; or 3) the lead agency determines the resource to be historically significant or significant in the architectural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record. 14 Cal.Code Regs., § 15064.5. The CRHR was created by the State Legislature in 1992 and is intended to serve as an authoritative listing of historical and archaeological resources in California.

Additionally, the eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of potential historical resources for purposes of satisfying CEQA. This establishes a consistent set of criteria to be applied in the evaluation process for all public agencies statewide.

For a potential historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following four criteria:

- it is associated with lives of persons important in our past;
- it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- it has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources automatically listed in the CRHR include those historic properties listed in, or formally determined eligible for listing in, the National Register.

According to the CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant impact on the environment. CEQA Guidelines, §15064.5(b). The CEQA Guidelines further state that a substantial adverse change in the significance of an historical resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. Actions that would materially impair the significance of an historic resource are those that would demolish or adversely alter those physical characteristics that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of § 5020.1(k) and 5024.1(g) of the Public Resources Code.

## **CULTURAL RESOURCES IMPACT ANALYSIS**

### **Significance Criteria**

#### **California Environmental Quality Act (CEQA)**

Appendix G of the CEQA Guidelines identifies environmental issues to be considered when determining whether the project could have a significant effect on the environment. STA has applied these standards of significance for evaluating impacts related to the Project.

The Project would have a significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5,
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5,
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or
- Disturb any human remains, including those interred outside of formal cemeteries.

## **ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

### **Less than Significant Impacts**

No less than significant impacts related to geology and soils were identified for this Project.

### **Significant and Potentially Significant Impacts and Mitigation Measures**

**4.7-1: The Project could potentially result in a substantial adverse change in the significance of an historical or archeological resource pursuant to Section 15064.5. This is considered a potentially significant adverse impact.**

Three periods of test excavations within the APE were conducted between 2000 and 2005. While geo-archaeological testing determined that there may be a potential for buried archaeological sites in the Project APE, no prehistoric or historical resources, as defined under §15064.5, were identified within the Project area.

Similarly, the identified architectural resources within the APE underwent formal evaluation for architectural significance and were determined to be historically insignificant as defined by §15064.5. Although past testing and evaluation of archeological resources within the Project area have not yielded any resources of significance, construction activities (such as grading and excavation) could result in the potential find of previously undiscovered archeological resources. Therefore, impacts related to substantial adverse change in the significance of a historical or archeological resource pursuant to § 15064.5 is considered a potentially significant impact.

Implementation of the following mitigation measure would reduce impacts related to potentially buried archaeological sites in the Project APE to a less-than-significant level.

**Mitigation Measure 4.7-1:** Should any previously undiscovered cultural (historic, archeological) and/or paleontologic resources be found during construction, work shall stop, in accordance with CEQA §15064.5(f) and consistent with local requirements, until such time that the resource can be evaluated by a qualified archaeologist/paleontologist and appropriate mitigative action taken as determined necessary. Project personnel shall not collect or move any cultural or paleontologic resources found on the Project site.

Implementation of this mitigation measure would reduce impacts associated with cultural and/or paleontologic resources to a less-than-significant level.

**Significance after Mitigation:** Less than significant.

**4.7-2: The Project could potentially result in the direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.**

There is a remote possibility that construction of the Project may result in impacts to these resources. This is considered a potentially significant impact. The Cultural and Paleontological Resources Background Report for the Solano County General Plan Update describes the types of soil in Solano County that have demonstrated evidence of the presence of paleontological resources.<sup>23</sup> Two types of soil within the vicinity of the West End, pleistocene alluvium and Sonoma volcanics, have been identified as being highly sensitive for paleontological resources. Regardless, investigation of the APE provided no indication that unique paleontological resources or unique geological features are present within the Project area.

**Mitigation Measure 4.7-2:** Implementation of Mitigation Measure 4.7-1 described above would reduce impacts related to paleontological resources or unique geologic features to a less-than-significant level.

**Significance after Mitigation:** Less than significant.

**4.7-3: The Project could potentially result in disturbance to human remains, including those interred outside of formal cemeteries.**

Investigation of the APE provided no indication of the presence of human remains within the Project area. However, a remote possibility exists that human remains may be unearthed as a result of construction activity. Under CEQA, disturbance of human represents a significant impact.

Implementation of the following mitigation measure would reduce impacts related to disturbance of human remains, including those interred outside of formal cemeteries, to a less-than-significant level.

---

<sup>23</sup> Cultural and Paleontological Resources Background Report, Solano County General Plan Update, October 2006.

**Mitigation Measure 4.7-3:** If human remains are found during construction, STA shall stop construction work and immediately contact the Solano County Coroner. Both state and local law requires that the Solano County Coroner, upon recognizing the remains as being of Native American origin, take responsibility for contacting the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." STA shall provide a preconstruction worker training to achieve compliance with this requirement for protection of human remains. Worker training shall instruct workers as to the potential for discovery of cultural or human remains, the need for proper and timely reporting of such finds, and the consequences of failure thereof. Additionally, a qualified archaeologist shall intermittently monitor the construction site to ensure compliance with Public Resources Code sections 5097.98 and 5097.99.

**Significance after Mitigation:** Less than significant.