ENVIRONMENTAL IMPACT EVALUATION:
An Archaeological Assessment of Paradise Hills San Bernardino County, California

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The undersigned certifies that the attached report is a true and accurate description of the results of the survey described herein.

Christopher E. Drover, Ph.D.

For: Yvonne Neal
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12 July 1990

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MANAGEMENT SUMMARY:

In June 1990, Ms. Yvonne Neal, requested an archaeological assessment of the Paradise Hills Project, just north of the campus of California State University, San Bernardino, California. The subject property is under consideration for subdivision for residential use. A cultural resources assessment was necessary to satisfy the requirements of the County of San Bernardino with regard to identification and protection of cultural resources.

An archaeological records check and survey were undertaken in July 1990, for the approximately 375 acre project site located on the San Bernardino North 7.5' USGS quadrangle, to ascertain whether any cultural resources might be impacted by the proposed development. A surface survey conducted on the subject property and a check of the archaeological site records on file at the Archaeological Information Center (AIC), San Bernardino County Museum, were accomplished.

A 7.5' USGS map of the subject property provided the boundary reference for the actual land area surveyed. The subject project lies northwest of San Bernardino, north of the 215 Freeway, just north of the CSUSB Campus, at the mouth of Badger Canyon.

Survey activities resulted in the definition of no new archaeological sites. No cultural resource constraints (mitigation measures) exist for the proposed project.

SUMMARY OF CURRENT KNOWLEDGE:

A review of the archaeological site records on file at the AIC showed no prehistoric sites within the subject property boundaries,

however, older USGS maps did indicate the possibility for potential historic structures or sites within the immediate project area. Other, existing cultural resources were too distant to suffer any adverse impacts from the proposed residential development.

The prehistory of coastal southern California has been outlined by a number of authors who seem to agree on, at least four major prehistoric periods (Wallace 1955; Moriarity 1966 and Warren 1968). These four sequential periods of time, sometimes called Horizons and sometimes Traditions, are each characterized by time-sensitive artifacts. The periods then are not arbitrary, but reflect material-cultural changes at those times.

Horizon I

Due to the time elapsed and the nature of small hunter-collector bands, the upper Pleistocene and lower Holocene occupations of southern California are most difficult to characterize. There is no radiometric evidence to substantiate upper Pleistocene occupation of southern California. The Laguna Woman skull recovered in 1937 in Laguna Beach was dated at 17,150±1470 years while a date of >23,600 years was obtained from the "Los Angeles Man" remains from Baldwin Hills in 1936 (Berger et al. 1971). These early finds were, unfortunately, isolated from any other evidence of material culture and have since been shown to have been inaccurate. The closest finds of the Early Cultures Tradition to yield information regarding material culture is recognized to be distributed in San Diego County, The Colorado Desert, and Sonoran Desert of Arizona where it was first described

by Rogers (1939) and called San Dieguito. The type site of the San Dieguito culture from which most of the available information has been derived is located near Del Mar, California in the San Dieguito River Drainage. Dates from this site range between 8,490±400 B.P. and 9,030±400 B.P. were recovered during a reinvestigation of the site, Warren and True (1961), Warren (1966).

To the north in Redondo Beach, the site of Malaga Cove contained a long stratigraphic sequence beginning with materials which may have been coeval to San Dieguito and ending with a European contact aboriginal site (Walker 1951). While no radiocarbon determinations were available for its lowest components, the lack of millingstone and presence of crude, percussion lithic technology suggests similarities with San Dieguito manifestations further south. The lower beds of Malaga Cove produced an interesting array of faunal material suggesting an intensive use of the littoral environment not reflected in San Dieguito remains. Aside from numerous shellfish, the faunal assemblage included fish, fourteen species of birds, sea otter, sea lion, seal, rabbit, porpoise, deer, coyote and badger (Walker as well a marine littoral fauna 1951:43).

The concept of San Dieguito was eventually refined into a complex by Warren which is postulated as being ". . .an early generalized hunting tradition" (1967:184); the complex was defined as including:

> . . .leaf-shaped knives of several varieties; small leaf-shaped points; stemmed and shouldered points generally termed

> "Lake Mohave" and "Silver Lake" points; ovoid, large domed, and rectangular end and side scrapers; engraving tools; and crescents (1967:177).

Aside from the San Dieguito type site, the Early Cultures period suggests that an already specialized exploitation of marine and littoral resources existed prior to 7,000 years ago.

Horizon II

The next period is termed "Millingstone" or "Encinitas" by Wallace (1955) and Warren (1968) respectively. The Millingstone Horizon or Encinitas Tradition are very similar as described by each author and have a time span beginning about 7-8,000 B.P. and ending between 3-4,000 B.P. This cultural period consists of cultural changes which may have been brought about by the onset of Holocene climatic changes. An increased dependence on plant foods is reflected by processing tools like manos and metates. Projectiles are rare, but, when found, suggest the use of the atlatl or throwing stick. This period is longer-lived the farther one travels south from Los Angeles.

Horizon III

The third period known as the "Intermediate Horizon" or "Campbell Tradition" by Wallace (1955) and Warren (1968) respectively is strongly represented in the Los Angeles region and only suggested for the San Diego area. This period is characterized by numerous small projectile points suggesting increased hunting and the introduction of the use of the bow and arrow. It is during this period that true maritime exploitation and occupation of the Channel Islands flourishes. The duration of this period is roughly

3-1,000 B.P.

Horizon IV

The final prehistoric period begins about 1,000 B.P. and ends upon the arrival of Europeans which, for Orange County, would be the overland exploration of Portola' in 1769. The protohistoric groups continue to expand the broad-based subsistence patterns which had begun during previous periods. After the arrival of the Spanish, native groups were referred to by the names of the Spanish Missions nearest their linguistic group. Hence the linguistic dialect nearest Mission San Diego became known as Dieguen˜o, those near San Luis Rey became Luisen˜o, those near San Juan Capistrano became Juanen˜o and those near San Gabriel became Gabrielin˜o. Localized variants of each of these prehistoric periods have been described elsewhere, however, the present description is designed only to provide background for this study.

At European contact times, the study area was within areas occupied by groups known as the Serrano, named after the Spanish word for "saw" or rugged mountain range (San Bernardino Mountains) where this particular linguistic group frequented (Kroeber 1925; Strong 1929). The Serrano culture area incorporated northwestern Riverside County, northern Orange County, eastern Los Angeles County and was linguistically comprised of a language of the Shoshonean language family (Kroeber 1925: Plate 57). Ethnographic literature pertinent to the Serrano and surrounding ethnographic groups is fairly extensive and has been collected since the 1800's (see Barrows 1900; Sparkman 1908; Kroeber 1925; Strong 1929; White

1963 and Bean 1972).

Considering the nature of the topography and proximity to water, archaeological site density may be expected to be moderate to low. The density of vegetation, and general disturbances on the subject project area, however, may have precluded the observation of the smaller archaeological surface remains typical of the region. Based on settlement/subsistence models generated by local research, temporary food gathering/processing or short-term campsites might be most typically expected near the subject project.

EFFECTIVE ENVIRONMENT:

The physiography of the subject parcel consists of steeply southward sloping foothills of the San Bernardino Mountains at the northern edge of the Cajon Pass alluvial fan. The drainage on the property is north to south, ultimately flowing southeast to the Santa Ana River. Soils on the property consist of decomposed granitics along ridgelines and exposed surfaces with areas of more recent, alluvial topsoil along drainages.

Precipitation is mainly a result of winter dominant, frontal storms from the northwest, although occasional summer thundershowers result from damp air intruding from the southern (Gulf of Mexico--Sea of Cortez) monsoon season.

The property ranges from 1600 to approximately 2600 feet above sea level. It presently contains mostly native vegetation including both a chaparral and riparian plant associations including prominent species such as sycamore (Platanus racemosa), oak

(Quercus spp.), laural sumac (Rhus laurina), and elderberry (Sambucus sp.) The above mentioned plant communities are noted as having some ethnographic uses among the neighboring Cahuilla (Bean and Saubel 1972).

RESEARCH METHODS AND STRATEGY:

Field methods consisted of an on-site, survey, conducted in July by the author, and Messrs. David Smith and Ted Shickler. Survey of the parcel included east-west transects conforming to the existing project boundaries and prominent topographic limitations. Extremely heavy ground cover exists, resulting in poor conditions for observation, especially in the north-south trending Badger Canyon.

RESULTS:

No archaeological sites were located during survey activities although the project area would have been conducive at least for prehistoric plant food gathering and/or processing if not short-term occupation/camp sites. Bedrock grinding features might been expected, especially at the edge of the foothills. However, appropriate bedrock, in this case, was absent from the property.

One vacant building was observed on the subject property which was apparently a residence/farm. The structure and it's out buildings were constructed of formed concrete, reinforced with wire with a superstructure of wood. Bolts were set in the concrete for the attachment of the wood plates and upright architecture. The building and it's associated trash appeared to date to the 1940's-1950's and did not seem to warrant recordation as a historic

resource.

IMPACTS AND MITIGATION:

As no archaeological or historic sites were found, no cultural resource constraints exist for the parcel and no mitigation measures are proposed.

However, if any cultural resources are encountered as a result of grading, is recommended that a qualified archaeologist be consulted.

REFERENCES CITED

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Bean, Lowell J.
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Strong, William Duncan
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1955 "A Suggested Chronology for Southern California Coastal Archaeology." Southwestern Journal of Anthropology, Vol. 11; pp. 214-230.

Walker, E. F.
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1968 "Cultural Tradition and Ecological Adaptation on the Southern California Coast." In Archaic Prehistory in the Western United States. Eastern New Mexico Contributions in Anthropology, Portales, 1(3): 1-14.

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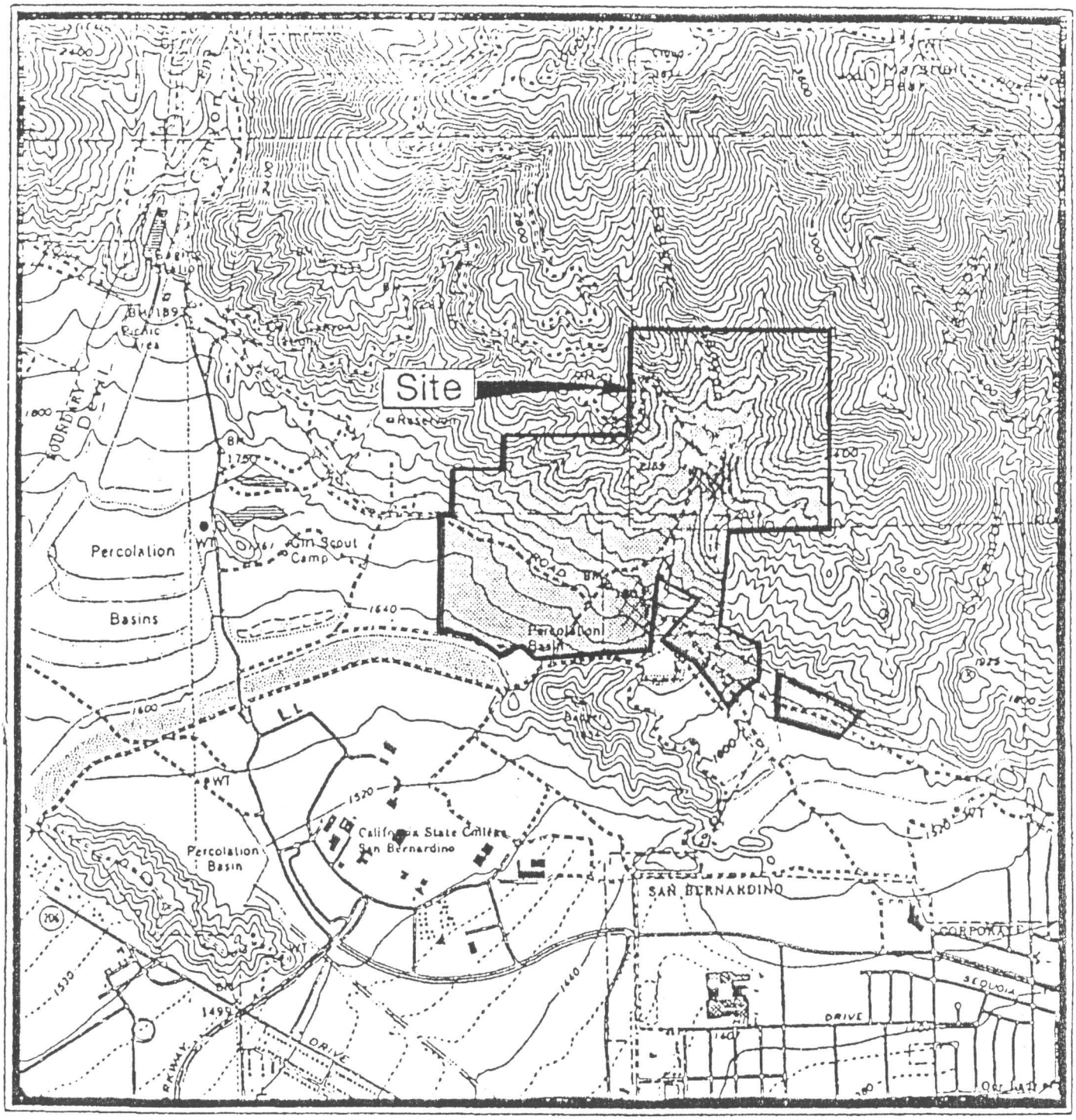

Index Map
OF
375+ ACRES - BADGER CANYON AREA
SAN BERNARDINO, CALIFORNIA
PREPARED FOR
ALLIED INVESTMENT AND DEVELOPMENT, INC.
BASE MAP: USGS
NORTH SAN BERNARDINO QUAD

North

ENVIRONMENTAL

CALIFORNIA
ARCHAEOLOGICAL
INVENTORY

ARCHAEOLOGICAL INFORMATION CENTER
San Bernardino County Museum
2024 Orange Tree Lane
Redlands, California 92374
(714) 792-1497

May 31, 1990

Christopher Drover
13522 Malena Drive
Tustin, CA 92680

Dear Chris:

CULTURAL RESOURCES RECORDS SEARCH FOR: Badger Canyon Area.

In response to your request for information dated May 27, 1990, a record search has been conducted for the above project, located on the USGS San Bernardino North 7.5-minute quadrangle (see enclosed map).

CULTURAL RESOURCES:

Cultural resources may exist within the project area:

Prehistoric Archaeological Resources:
- 0 prehistoric sites
- 0 pending prehistoric sites
- 0 prehistoric isolates

Historical Archaeological Resources (older than 50 years in age):
- 0 historic archaeological sites
- 0 pending historical archaeological sites
- 0 historic isolates
- 3+ possible historical archaeological site locations determined from historic maps (maps searched: Rancho Muscupiabe Plat, surveyed 1867; GLO Plat, surveyed 1884-1896; USGS San Bernardino, surveyed 1893-1894)

Historic Structures (older than 50 years in age):
- 0 historic structures
- 0 pending historic structures
- 5+ possible historic structure locations determined from ca. 50-year or older historic maps (maps searched: USGS Arrowhead, surveyed 1936)

Heritage Properties (designated by State and Federal commissions):
- 0 National Register Listed Properties
- 0 National Register Eligible Properties
- 0 California Historic Landmarks
- 0 California Points of Historical Interest

PREVIOUS CULTURAL RESOURCE INVESTIGATIONS:

Cultural resource reports for the project area include (see enclosed bibliographies):

0 Area-specific survey reports
3 General area overviews

In addition to the Center's cultural resource site files, the following publications, manuscripts or correspondence also were consulted:

American Association for State and Local History
1989 National Register of Historic Places, 1966-1988. Nashville, TN.

California Department of Parks and Recreation
1982 California Historical Landmarks.

California Office of Historic Preservation
1985 National Register of Historic Places -- Eligible Properties, through 3/31/88. Correspondence (photocopy of listing from the National Register).

1986 Points of Historical Interest, SBr-001 through SBr-109, as of June 1986. Correspondence.

1986 National Register of Historic Places -- Listed Properties, as of August 1986. Correspondence.

1986 Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys.

1987 Inventory of Historic Structures -- Records entered into the OHP computer file of historic resources as of February 1987.

1988 Five Views: An Ethnic Sites Survey for California.

National Park Service
1986 National Register of Historic Places; Annual Supplemental Listing of Historic Properties -- Listed and Eligible Properties. Federal Register:
February 6, 1979; Vol. 44(26):7433, 7635;
March 18, 1980; Vol. 45(54):17449, 17493, 17516;
February 3, 1981; Vol. 46(54):10625, 10670;
February 2, 1982; Vol. 47(22):4933, 4956, 4957, 4959;
March 1, 1983; Vol. 48(41):8629, 8673;
February 7, 1984; Vol. 49(26):4612, 4676;
March 5, 1985; Vol. 50(43):8853, 8903;
February 25, 1986; Vol. 51(37):6630, 6675, 6683, 8912; and
May 24, 1988; Vol. 53(100):18662, 18709, 18748, 18758.

San Bernardino County Museum
1980 Historical Landmarks of San Bernardino County. Quarterly of the San Bernardino County Museum Association 28(1-2).

SENSITIVITY OF PROJECT AREA FOR CULTURAL RESOURCES:

Based upon the above information, available historic records and comparisons with similar environmental localities, the sensitivity assessment for this project area is:

Prehistoric Archaeological Resources:

___ Low _X_ Moderate ___ High _X_ Unknown

Historic Archaeological Resources (older than 50 years in age):

___ Low _X_ Moderate to _X_ High ___ Unknown

Historic Structures (older than 50 years in age):

___ Low _X_ Moderate to _X_ High ___ Unknown

RECOMMENDATIONS:

Reviewing available information, the following recommendations are made:

1. Conduct a field survey for prehistoric and historic archaeological resources and historic structures within portions of the project area not surveyed previously for such resources.

2. Inventory all resources older than 45 years using appropriate State record forms, following guidelines in the California Office of Historic Preservation manuals for archaeological resources and historic structures. Submit two copies of the completed forms to the San Bernardino County Archaeological Information Center for assignment of State trinomials.

3. Evaluate the significance and integrity of all prehistoric and historic archaeological resources and historic structures within the project area, using criteria established for the National Register of Historic Places.

4. Propose mitigation measures, and recommend conditions of approval (if a local government action), to eliminate adverse project effects to significant or unique cultural resources, following appropriate CEQA or National Historic Preservation Act - Section 106 guidelines.

5. Prepare a technical cultural resource management report, documenting the inventory, evaluation and proposed mitigation of resources within the project area (follow instructions in the California Office of Historic Preservation guidelines for archaeological resource management reports). Submit one copy of the completed report (preferably with original illustrations) to the San Bernardino County Archaeological Information Center for permanent archiving.

A CEQA Initial Study determination of "MAYBE" for potential adverse environmental impact to prehistoric and historic resources is warranted, unless it can be documented by a qualified professional that no prehistoric or historic archaeological sites and historic structures (older than 50 years; including buildings, roads, agricultural features, mining features, utilities, etc.) exist on the property. Implementation of the above recommendations will ensure that existing cultural resources will be inventoried and evaluated, and that appropriate mitigation measures will be recommended to avoid adverse impacts.

If appropriate mitigation measures are not proposed for important cultural resources within the project area, then subsequent destruction of these resources may violate provisions of the California Environmental Quality Act, National Environmental Policy Act, or National Historic Preservation Act.

If prehistoric or historic artifacts over 50 years in age are encountered during land modification, then activities in the immediate area of the finds should be halted. If a qualified archaeologist is not on-call, contact the San Bernardino County Archaeological Information Center, (714) 792-1497, for the names of qualified professionals. Arrangements should then be made for an archaeologist to assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act (CEQA) and/or the Federal National Environmental Policy Act (NEPA).

If human remains are encountered on any property within San Bernardino County, then the San Bernardino County Coroner's office must be contacted within 24 hours of the find, and all work within the immediate vicinity of the find halted until a clearance is given by that office and any other involved agencies. Contact the county coroner at 825 East Third Street, San Bernardino, CA 92415-0876; (714) 387-2978.

The County of San Bernardino requests that cultural resource data and artifacts collected within this project area be permanently curated at a repository within the county. The repository selected should possess archival and collection standards equivalent to those discussed in 36 CFR 79, Curation of Federally-Owned and Administered Archeological Collections; Proposed Rule, published in the Federal Register, August 28, 1987. For names and addresses of repositories within the county, please contact me at the address and telephone number above.

Sincerely,

Lester A. Ross
Center Coordinator

resource.

IMPACTS AND MITIGATION:

As no archaeological or historic sites were found, no cultural resource constraints exist for the parcel and no mitigation measures are proposed.

However, if any cultural resources are encountered as a result of grading, is recommended that a qualified archaeologist be consulted.