Attachment

Cultural Resources Technical Study

Aspire Apartments Project

Cultural Resources Technical Study

prepared for

Many Mansions
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Thousand Oaks, California 91362
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prepared by

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Executive Summary

Many Mansions retained Rincon Consultants, Inc. (Rincon) to complete a cultural resources technical study for the Aspire Apartments Project (project/undertaking), located at 536 and 538 Meta Street, in the city of Oxnard, Ventura County, California. Many Mansions is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD) to complete the project. Therefore, per 36 Code of Federal Regulations 800.2(0), it is considered a federal undertaking subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency and the City of Oxnard (City) is acting as the Responsible Entity (RE) for the project.

The study summarized in this report includes the delineation of the Area of Potential Effects (APE), searches of the California Historical Resources Information System (CHRIS) and the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), background and archival research, a built environment and archaeological pedestrian survey of the APE, outreach to Native American tribes and local interested parties, and evaluation of one property for listing in the National Register of Historic Places (NRHP).

Dates of Investigation

In 2020, Rincon prepared a cultural resources technical study for Many Mansions for the Central Terrace Apartments Project located at 217 East 6th Street, an adjacent parcel south of the current undertaking (Madsen et al. 2020). To inform the current study, Rincon utilized the results of SLF and CHRIS searches conducted in support of the previously prepared study, which were received on September 1, 2020, and September 11, 2020, respectively. Rincon conducted an additional updated CHRIS search on December 18, 2023, as part of the current effort. Built environment and archaeological surveys were conducted on December 19, 2023. The background and archival research, Native American and local interested party outreach, and historical evaluation summarized in this study were ongoing throughout December 2023 and January 2024.

Summary of Findings

The APE delineated for the undertaking is composed of the parcels on which the project would occur, 536 and 538 Meta Street (Ventura County Assessor's Parcel Numbers [APN] 201-0-213-080, 201-0-213-090 and 201-0-213-010).

The CHRIS searches resulted in the identification of three previously recorded historic-period cultural resources within a 0.5-mile radius of the proposed undertaking, none of which were located within or adjacent to the APE. The NAHC SLF search resulted in negative findings. On January 2, 2024, as part of the Native American outreach effort, Chairperson Matthew Vestuto of the Barbareño/Ventureño Band of Mission Indians and Chairperson Anthony Morales of the Gabrieleno/Tongva San Gabriel Band of Mission Indians, recommended archaeological and Native American monitors be present on site for all earth disturbing activities associated with the project, as downtown Oxnard is considered sensitive for cultural resources and previous development projects had not been properly monitored.

The interested party outreach indicated that there are no known eligible or designated historic properties located on or near the APE. Communication with the County of Ventura Planning Division indicated that the likelihood of the proposed project impacting paleontological or cultural resources in the APE is unlikely.

The archaeological pedestrian survey of the APE was negative for archaeological resources and determined that the APE has been highly disturbed by previous development. Due to ongoing construction in the adjacent property, the APE is currently being used as a staging area for construction equipment and personnel. The built environment survey identified one historic-age property in the APE: 536 and 538 Meta Street. The property was previously recorded in 2005 by the San Buenaventura Research Associates (SBRA) and recommended ineligible for listing in the NRHP, the California Register of Historical Resources, and as a City of Oxnard Landmark. Due to the cursory nature of the SBRA evaluation, which was completed as part of a large-scale survey effort over 10 years ago, updated California Department of Parks and Recreation 523 series forms were prepared for 536 and 538 Meta Street as part of the current study.

As a result, 536 and 538 Meta Street is recommended ineligible for listing in the NRHP under all criteria and is, therefore, not considered a historic property as defined by 36 CFR 800.16(l)(1).

The previous study prepared by Rincon in 2020 for the adjacent Central Terrace Apartments Project located at 217 East 6th Street consisted of an Extended Phase I (XPI) investigation via backhoe to determine the presence or absence of archaeological deposits associated with pre-World War II Japanese immigrant farm worker housing identified as part of the background research (Madsen et al. 2020). The mechanical excavation of four backhoe trenches primarily produced building materials (e.g., brick, concrete, tile, lumber, nails, metal and ceramic pipes), utilitarian glass and ceramic fragments, and faunal bone from 8 to 28 inches below ground surface. Two features, a mortar and brick feature of unknown function/purpose with a cobble pathway or driveway were also identified at depths of 8 inches and 19 inches below ground surface, respectively; however, the identification of the two features was expected and the features could not provide any additional information regarding the occupation or use of the property. The testing areas within the subject property exhibited a high-level of ground disturbance from previous underground utility installation and removal, as well as building demolition and grading. Due to the high level of previous disturbance, amount of archaeological excavation that had taken place within the subject property, and limited artifact density and diversity identified during testing, Rincon determined no additional testing was necessary and recommended a finding of no adverse effect to historic properties. Rincon did not conduct an XPI for the current study due to the property currently being utilized as an active construction laydown yard, as well as the proximity of the adjacent project and the likelihood that an additional XPI would yield similar results.

A geotechnical study, conducted in 2020 by Advanced Geotechnical Services, Inc. (AGS) in support of the current project and reviewed by Rincon as part of this study, determined the APE is underlain by native, younger alluvial soils extending from the existing grade to 51.5 feet below the ground surface (AGS 2020). The study indicated that the APE at 536 Meta Street is underlain by native, younger alluvial materials reaching 51.5 feet below the existing site grade. Sediments encountered consisted of the following: clayey to silty sand from the ground surface to approximately 5 to 6.5 feet below ground surface (bgs); medium dense to very dense sand from approximately 6.5 to 25 feet bgs, sandy to silty clay from approximately 25 to 33 feet bgs, and alternating layers of sandy or clayey soils from a depth of 33 to 51.5 feet below the ground surface.

The alluvial sediments underlying the APE have an episodic nature and have an increased likelihood of burying archaeological deposits (Borejsa et al. 2014; Waters 1992). Sudden burial of artifacts is

often identified when there are buried A horizons in a soil series. The APE primarily consists of Hueneme Soil Series, an alluvial loamy fine sand with no documented buried A horizons (California Soil Resource Lab 1997). Considering the geologic setting of the APE and the high level of disturbance from previous excavations and development, the potential for buried archaeological deposits is considered low.

The City of Oxnard Community Development Department requires a standard condition of approval for all development projects located within the city of Oxnard. This standard condition of approval is provided below. Compliance with existing regulations would also be required in the unlikely event of an unanticipated discovery of human remains.

Based on the results of the study, Rincon recommends a finding of ***no historic properties affected*** under Section 106 for the proposed undertaking.

Standard Conditions of Approval

Archaeological and Native American Monitoring

In accordance with the City of Oxnard's standard condition of approval, archaeological and Native American monitoring of project-related ground disturbing activities is required. Archaeological monitoring should be performed under the direction of the qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983). The qualified archaeologist, in consultation with the City and the Native American monitor, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work within a minimum of 50 feet of the find must halt and the find evaluated for California Register of Historical Resources (CRHR) and NRHP eligibility. Should an unanticipated resource be found as CRHR or NRHP eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant.

Regulatory Compliance

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

1 Introduction

Many Mansions retained Rincon Consultants, Inc. (Rincon) to complete a cultural resources technical study for the Aspire Apartments Project (project/undertaking) located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. Many Mansions is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD) to complete the project. Therefore, it is considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency and the City of Oxnard (City) is acting as the Responsible Entity (RE).

The study summarized in this report includes the delineation of an Area of Potential Effect (APE), searches of the California Historical Resources Information System (CHRIS) and the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), background research, an archaeological and built environment pedestrian survey of the APE, outreach to Native American tribes and local interested parties, and the evaluation of one property for listing in the National Register of Historic Places (NRHP).

1.1 Location and Description of Undertaking

The undertaking is situated within Township 1 North, Range 22 West, Section 3 of the United States Geological Survey *Oxnard, California* 7.5-minute topographic quadrangle (Figure 1). Located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, the undertaking involves the demolition of the existing one-story commercial building and parking lot and the development of a 0.64-acre lot made up of three parcels (APNs 201-0-213-080, 201-0-213-090, and 201-0-213-010). The undertaking includes the construction of a five-story building consisting of 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building. The undertaking would provide 45 podium parking stalls, including eight alley-accessible public parking stalls.

1.2 Area of Potential Effects

The APE for an undertaking is defined in 36 Code of Federal Regulations (CFR) 800.16(d) as the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such property exists." The APE for the proposed undertaking was delineated by Rincon in coordination with the City and through analysis of the undertaking's geographic area, its scale and nature, and its potential for effects to archaeological and built environment historic properties (Figure 2).

The APE is composed of the three assessor's parcels on which the undertaking would occur, 536 and 538 Meta Street (APNs 201-0-213-080, 201-0-213-090, and 201-0-213-010). The proposed undertaking would construct a new five-story residential building, consistent with the existing urbanized character of the larger setting which includes one to four story residential and commercial buildings. Therefore, there is no potential for the undertaking to result in indirect effects to any properties, and the APE is limited to the project footprint.

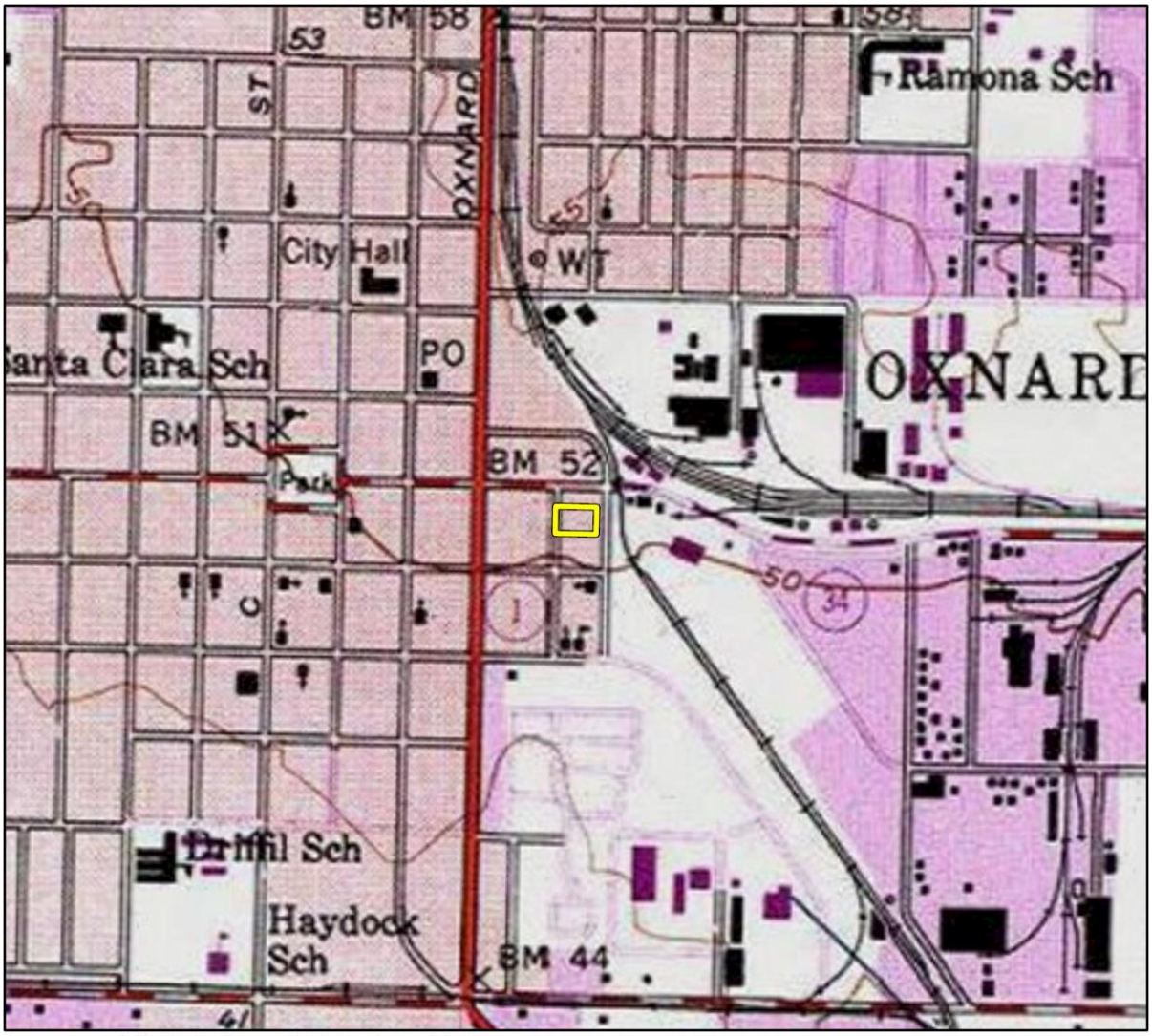
The APE must be considered as a three-dimensional space that includes any ground disturbance associated with construction. The belowground vertical APE is assumed to be a maximum of eight

feet below current ground surface to account for utility installation and other associated construction activities. The aboveground vertical APE extends to 85 feet above grade to account for the height of the proposed building (Figure 3).

1.3 Personnel

This cultural resources study was managed by Rincon Archaeologist and Project Manager, Mary Pfeiffer, BA, with oversight provided by Rincon Senior Architectural Historian Rachel Perzel, MA, and Senior Principal Investigator Ken Victorino, MA, Registered Professional Archaeologist (RPA). Rincon Senior Archaeologist and Project Manager Matthew Gonzalez, BA, conducted the archaeological and built environment pedestrian field survey. Rincon Architectural Historian Ashley Losco, MHP, conducted the background research, served as coauthor of this report, and conducted the historical resource evaluation for the 536 and 538 Meta Street property. Rincon Archaeologist Andrea Ogaz, MA, RPA, conducted an updated CHRIS records search. Rincon Archaeologist Catherine Johnson, PhD, RPA, served as coauthor of this report. Mr. Victorino, Ms. Perzel, Ms. Losco, Ms. Ogaz and Ms. Johnson meet the Secretary of the Interior's Professional Qualification Standards (PQS) for their respective fields (NPS 1997). Figures included in this report were prepared by Rincon Graphic Information Specialist Erik Holtz. Rincon Principal Margo Nayyar, MA, reviewed this report for quality assurance and quality control.

Figure 1 Project Location Map



Basemap provided by National Geographic Society, Esri and their licensors © 2024. Oxnard Quadrangle. T01N R22W S03. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

23-15439 CR
CR Fig X Project Location

Project Location

0 500 1,000 Feet

N

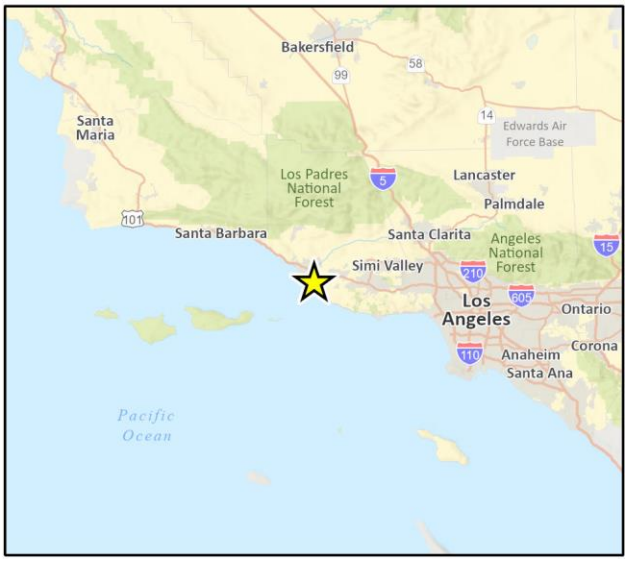


Figure 2 Area of Potential Effects Map

Figure 3 Proposed Project Rendering, Dicecco Architecture Incorporated, 2022

2 Regulatory Framework

This project involves the use of funds provided by the federal government, approved by HUD. Projects that involve federal funding or permitting (i.e., have a federal nexus) must comply with the provisions of the National Historic Preservation Act of 1966 (NHPA), as amended (16 United States Code [USC] 470f). The NHPA of 1966 established a federal program for the preservation of historic properties, including built environment, archaeological, and traditional cultural resources. Towards this end, the NHPA establishes both institutions and defined processes to direct federal agencies and support state and local governments in their historic preservation programs and activities. These institutions and processes include the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPO), the NRHP, and the Section 106 review process.

2.1 Section 106 of the NHPA

Section 106 (16 United States Code 470f) requires federal agencies to account for the effects of their undertakings on historic properties, and to afford the ACHP a reasonable opportunity to comment on such undertakings. Historic properties are defined as buildings, structures, districts, sites, or objects which are included in or eligible for inclusion in the NRHP. Section 106 is implemented through 36 CFR Part 800, which outlines the process for historic preservation review, including participants, identification efforts, and the assessment and resolution of adverse effects. Per 36 CFR 800.16(y), a federal undertaking is defined as any project requiring or receiving a federal permit, license, approval, or funding. Federal agencies must take steps to determine if the undertaking would result in adverse effect to historic properties and take measures to avoid or resolve those effects as feasible.

2.2 National Register of Historic Places

Authorized by Section 101 of the NHPA, the NRHP is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Per 36 CFR Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

Criterion A: Is associated with events that have made a significant contribution to the broad patterns of our history

Criterion B: Is associated with the lives of persons significant in our past

Criterion C: Embodies the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

Criterion D: Has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The NPS recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined in the following manner:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting: The physical environment of a historic property

Materials: The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property

Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory

Feeling: A property's expression of the aesthetic or historic sense of a particular period of time

Association: The direct link between an important historic event or person and a historic property

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The NPS states that 50 years is the general estimate of the time needed to develop the necessary historical perspective to evaluated significance (NPS 1997: 41). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

2.3 California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification.

2.4 California Public Resources Code §5097.98

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains, pursuant to Health and Safety Code §7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

3 Natural and Cultural Setting

This section provides background information pertaining to the natural and cultural setting of the APE. It places the APE within the broader natural environment which has sustained populations throughout history. This section also provides an overview of regional indigenous history, local ethnography, and post-contact history.

3.1 Natural Setting

The APE lies within the city of Oxnard, Ventura County, California. Located approximately 50 feet above mean sea level, the APE is generally situated on a gentle slope above the valley floor. The nearest water source is the Santa Clara River, located approximately three miles northwest of the APE. The soils within the APE include a Hueneme loamy fine sand. The Hueneme series consist of poorly drained soils located within nearly level alluvial plains and basins in stratified alluvium derived from alkaline sedimentary sources (California Soil Resource Lab 2023).

In 2020, Advanced Geotechnical Services, Inc., (AGS) prepared a Geotechnical Engineering Study within the APE. As part of the 2020 study, AGS conducted data research, subsurface exploration, laboratory testing and analysis, and evaluations of the geotechnical and geologic qualities of the site (AGS 2020). The study confirms the presence of younger alluvial sediments reaching 51.5 feet below the existing site grade, consisting of clay, silty clay and silty sand, and sand. Undisturbed, primary sediments were encountered at 33 feet below the ground surface in alternating layers approximately two to 7.5 feet thick, consisting of dense sandy soils or stiff clayey soils. The study encountered groundwater throughout the site at 18 feet below the existing ground surface, noting that water levels at the site vary and are dependent on factors such as seasonal precipitation and climatic conditions.

3.2 Cultural Setting

3.2.1 Indigenous History

The APE is located in what is generally described as the Northern Bight archaeological region, one of eight organizational divisions of California designated by Jones and Klar (2007). The California Bight is located along the southern California coastline and encompasses the previously designated Southern Coast archaeological region described by Moratto (1984). The Northern Bight archaeological region primarily includes the counties of Santa Barbara, Ventura, and portions of Los Angeles, extending from the coastline at Vandenberg Space Force Base (previously Vandenberg Air Force Base) inland to the Cuyama River Valley and south to the Santa Monica Mountains and the Los Angeles Basin. Following Glassow et al. (2007), the prehistoric cultural chronology for the Northern Bight is generally divided into six periods: Paleo-Indian Period (13,000 to 9000 before present [BP]), Millingstone Period (9000 to 7000 BP), Early Period (7000 to 4000 BP), Middle Period (4000 to 2000 BP), Middle-Late Transition Period (2000 to 1000 BP), and Late Period (1000 BP to Historic Contact). These periods are discussed in further detail below.

Paleo-Indian Period (13,000 to 9000 BP)

The Paleo-Indian Period defines the earliest known human occupation of the Northern Bight and describes the cultural trends and subsistence strategies of prehistoric populations from approximately 13,000 to 9000 BP (Glassow et al. 2007). The Paleo-Indian Period in North America is largely recognized by projectile points associated with extinct large mammal remains, such as mammoth, bison, and dire wolves in the Southwest and Plains regions (Erlandson et al. 2007; Huckell 1996). These projectile points have been classified as the Clovis style, which exhibit a lanceolate shape with a flute initiated from the base that extends as far as the midline (Justice 2002).

The earliest accepted dates for human occupation in California were recovered from archaeological sites on two of the Northern Channel Islands, located off the southern coast of Santa Barbara County. Over 90 Paleocoastal sites dating between 13,000 and 8,200 years BP have been documented on the Northern Channel Islands (McLaren et al. 2019). Archaeological deposits from the Daisy Cave site on San Miguel Island establish the presence of people in this area approximately 10,000 BP (Erlandson 1991; Erlandson et al. 2007), and the Arlington Springs site (CA-SRI-173) on Santa Rosa Island has a calibrated date of approximately 11,000 BP derived from the human remains and rodent bones recovered from within the same deposits (Erlandson et al. 2007, Glassow et al. 2007; Johnson et al. 2002).

Recent data from Paleo-Indian middens, lithic scatters, and quarry workshops on the Channel Islands indicate that the area supported substantial human populations during later Paleocoastal times (McLaren et al. 2019). Data from the last 20 years also suggests that the economy was a diverse mixture of hunting, fishing, and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones and Ferneau 2002; Erlandson et al. 2007). Shellfish in particular were heavily relied on, with varying intensities of reliance on fish, marine mammals, seabirds, and waterfowl (McLaren et al. 2019). Archaeological deposits at the Daisy Cave site yielded an assemblage of "the oldest known fishhooks in the Americas" (Erlandson et al. 2007). Shell middens identified on the mainland of California have yielded dates from 10,000 to 9000 BP (Erlandson et al. 2007).

Assemblages on the Channel Islands include chipped-stone bifaces, cores and flake tools, ground-stone artifacts, bone gorges, *Olivella* shell beads, woven sea grass cordage, and red ochre. While no fluted points have been found on the Channel Islands, a few have been found along California's mainland coast (McLaren et al. 2019). One fluted projectile point fragment was recovered from site CA-SBA-1951 on the Santa Barbara Channel coastal plain (Erlandson 1994; Erlandson et al. 1987).

Milling Stone Horizon (9000 to 7000 BP)

Originally identified by D.B. Rogers in 1929, the Millingstone Period, as later described by Wallace (1955, 1978), is characterized by an ecological adaptation to collecting plant resources, such as seeds and nuts, suggested by the appearance and abundance of well-made milling (ground stone) implements, particularly in archaeological sites along the coast of California. It is generally accepted that human occupation of California during the Paleo-Indian Period originated from small, dispersed occupations. Archaeological sites dating to the Millingstone Period, however, indicate a population increase (Glassow et al. 2007).

Wallace (1955, 1978) and Warren (1968) identify ground stone implements including millingstones (e.g., metates, milling slabs) and hand stones (e.g., manos, mullers). Millingstones occur in high frequencies for the first time in the archaeological record of the Central Coast region and become

even more prevalent near the end of the Millingstone Period. The Millingstone Period is named for the dominance of milling implements which is generally associated with the horizontal motion of grinding small seeds and nuts (Glassow et al. 2007). Excavations at the Tank Site (CA-LAN-1) in Topanga Canyon from 1947 to 1948 (Treganza and Bierman 1958) confirmed the presence of a significant number of milling implements that correspond with the Millingstone Period.

Flaked stone assemblages, which include crude core and cobble-core tools, flake tools, large side-notched projectile points, and pitted stones, and shell middens in coastal sites suggest that people during this period practiced a mixed food procurement strategy (Glassow et al. 2007; Jones and Klar 2007). Faunal remains identified at Millingstone sites point to broad-spectrum hunting and gathering of shellfish, fish, birds, and mammals, though large faunal assemblages are uncommon. This mixed food procurement strategy demonstrates adaptation to regional and local environments.

Along the Central Coast, Millingstone Period sites are most common on terraces and knolls, typically set back from the current coastline (Erlandson 1994). However, sites dating to this period have also been identified in various settings, including rocky coasts, estuaries, and nearshore interior valleys (Glassow et al. 2007). The larger sites usually contain extensive midden deposits, possible subterranean house pits, and cemeteries. Most of these sites probably reflect intermittent use over many years of local cultural habitation and resource exploitation.

Early Period (7000 to 4000 BP)

The Early Period of the Northern Bight is marked by a lower frequency of radiocarbon dated archaeological sites, as well as changes in artifact forms. Differences in artifact forms, particularly in ground stone implements, likely represent changes in subsistence (Glassow et al. 2007). The material culture recovered from Early Period sites within the Central Coast region provides evidence for continued exploitation of inland plant and coastal marine resources as well as the incorporation of "newly important food resources" found in specific habitats (Glassow et al. 2007). In addition to the use of metates and manos, prehistoric populations began to use mortars and pestles, such as those recovered from the Sweetwater Mesa (CA-LAN-267) and Aerophysics (CA-SBA-53) sites (Glassow et al. 2007).

Artifact assemblages recovered from Early Period sites also include bipointed bone gorge hooks used for fishing, *Olivella* beads, bone tools, and pendants made from talc schist. Square abalone shell (*Haliotis* spp.) beads have been found in Monterey Bay (Jones and Waugh 1997). The frequency of projectile points in Early Period assemblages also increased, while the style began to change from lanceolate forms to side-notched forms (Glassow et al. 2007). The projectile point trend became apparent at numerous sites along the California coast as well as a few inland sites (e.g., CA-SBA-210 and CA-SBA-530). In many cases, manifestations of this trend are associated with the establishment of new and larger settlements, such as at the Aerophysics site (Glassow et al. 2007; Jones and Klar 2007).

Middle Period (4000 to 2000 BP)

The remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in archaeological deposits along the coast during the Middle Period, suggesting a pronounced trend toward greater adaptation to regional or local resources as well as the development of socioeconomic and political complexity in prehistoric populations (Glassow et al. 2007). Shell fishhooks were introduced, and projectile points changed from side-notched dart points to contracting stem styles.

Flaked stone tools used for hunting and processing—such as large side-notched, stemmed, lanceolate or leaf-shaped projectile points, large knives, edge modified flakes, and drill-like implements—occurred in archaeological deposits in higher frequencies and are more morphologically diverse during the Middle Period. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive became common. Circular fish hooks that date from between 3000 and 1500 BP, compound bone fish hooks that date between 1700 and 1100 BP, notched stone sinkers, and the tule reed or balsa raft, indicative of major developments in maritime technology, became common during this period (Arnold 1995; Glassow et al. 2007; Jones and Klar 2007; King 1990).

Populations continued to follow a seasonal settlement pattern until the end of the Middle Period; large, permanently occupied settlements with formal structures, particularly in coastal areas, appear to have been the norm by the end of the Middle Period (Glassow et al. 2007). Prehistoric populations began to bury the deceased in formal cemeteries with artifacts that may represent changes in ideology and the development of ritual practices (Glassow et al. 2007).

Middle-Late Transition Period (2000 to 1000 BP)

The Middle-Late Transition Period is marked by major changes in settlement patterns, diet, and interregional exchange. Prehistoric populations continued to occupy more permanent settlements, with the continued use of formal cemeteries and the burial of goods with the deceased. The manufacture of the plank canoe, or *tomol*, allowed prehistoric populations to catch larger fish that occupied deeper sea waters (Glassow et al. 2007). Following the introduction of the plank canoe, groups began to use harpoons. The plank canoe appears to have influenced "commerce between the mainland coast and the Channel Islands" (Glassow et al. 2007). Middle-Late Transition Period sites indicate that populations replaced atlatl (dart) technologies with the bow and arrow, which required smaller projectile points. Projectile points diagnostic of both the Middle and Late periods are found within the Central Coast region (Jones and Ferneau 2002). These projectile points include large, contracting-stemmed types typical of the Middle Period, as well as small, leaf-shaped Late Period projectile points, which likely reflect the introduction of the bow and arrow.

Late Period (1000 BP to Historic Contact)

Late Period sites are distinguished by small, finely worked projectile points and temporally diagnostic shell beads. Although shell beads were typical of coastal sites, trade brought many of these maritime artifacts to inland locations, especially during the latter part of the Late Period. Small, finely worked projectile points are typically associated with bow and arrow technology, which is believed to have been introduced to the area by the Takic migration from the deserts into southern California. Common artifacts identified at Late Period sites include bifacial bead drills, bedrock mortars, hopper mortars, lipped and cupped *Olivella* shell beads, and steatite disk beads. The presence of beads and bead drills suggest that low-level bead production occurred throughout the Central Coast region (Glassow et al. 2007). Unlike the large Middle Period shell middens, Late Period sites are more frequently single-component deposits with evidence for only one period of occupation or use. There are also more inland sites, with fewer and less visible sites along the Pacific shore during the Late Period.

3.3 Ethnographic Setting

Ventureño Chumash

The APE is located in the traditional territory of the Ventureño Chumash, a linguistically and culturally distinct Chumash group. The Chumash spoke six closely related Chumashan languages that have been divided into three branches—Northern Chumash (consisting only of Obispeño), Central Chumash (consisting of Purisimeño, Ineseño, Barbareño, and Ventureño), and Island Chumash (Golla 2007). The name "Ventureño Chumash" denotes the people who were administered by the Spanish from the Mission San Buenaventura during the historic period. Their territory includes the areas of present-day Ventura County. Ventureño Chumash extensively occupied interior areas, which had creek corridors that provided intermittent or perennial fresh water sources. A series of trailways into these areas facilitated trade between coastal and other neighboring groups such as the Salinan to the north, the Southern Valley Yokuts and Tataviam to the east, and the Gabrieleno/Tongva to the south (Roman 2017).

Early Spanish accounts from European-Native contact describe the Santa Barbara Channel as heavily populated. Estimates of the Chumash total population range from 8,000 to 10,000 (Kroeber 1925) to 18,000 to 22,000 (Cook and Heizer 1965; Grant 1978a). Santa Cruz Island had at least six villages observed by Juan Rodriguez Cabrillo in 1542 (Johnson 1982). *Wene'mu* or *Quelqueme* (Hueneme), has been described as a place where people from the Channel Islands spent the night when they traveled to the mainland to trade (SBRA 2014). Typical house structures were large (up to 55 feet in diameter) and could accommodate 70 people (Kroeber 1925; Grant 1978b). The village of *šukuw*, (or *shuku*), at Rincon Point, was encountered by Gaspar de Portolá in 1769. This village had 60 houses and seven canoes, with an estimated population of 300 (Grant 1978b). Eastern coastal Chumash lived in hemispherical dwellings covered by interwoven grasses, such as tule, carrizo grass, wild alfalfa, and fern (Grant 1978b). Other structures in a village included small sweathouses and a large ceremonial chamber (Kroeber 1925).

Ventureño Chumash groups were socially and religiously multifaceted (Gamble et al. 2001, Arnold and Green 2002). Historical Spanish period accounts suggest the overarching social structure to be patrilineal chiefdoms. These have been separated into three sub-chief categories: "Big Chief," who lead groups of settlements, "Chief," who was head of a single village, and "Lesser Chief," who was subordinate to the others (Gamble et al. 2001). Social or economic status may also have been indicated through mortuary practices, although this is debated by archaeologists. Mourning rituals consisted of burials in cemeteries with grave goods, such as *Olivella* shell beads, and beads made from other local shells. Other recorded mortuary rituals included burying individuals in the floor of a residence and burning the deceased's house and possessions (Gamble et al. 2001; Arnold and Green 2002).

Chumash exploited multiple subsistence strategies. The acorn was an extremely important resource. It could be gathered, stored, ground into meal, or cooked into paste. Other seeds or fruits like pine nuts and wild cherries would be gathered and processed with a mortar. Hunting and fishing were also an important aspect of Chumash subsistence. Hunters would use a bow and arrow for land mammals like deer, coyote, and fox (Grant 1978b). The *tomol*, or wooden plank canoe, was an especially important tool for the procurement of marine resources and for maintaining trade networks between Coastal and Island Chumash. Sea mammals were hunted with harpoons, while deep-sea fish were caught using nets, hooks, and lines. Shellfish were gathered from beaches using digging sticks, and mussels and abalone were pried from rocks using wood or bone wedges (Johnson

1982). Other subsistence technology included skillet-like flat stones called comals, sandstone storage bowls, and wooden plates and bowls. Archaeological evidence suggests the Ventureño Chumash practiced lithic production of tools from quartzite, chalcedony, and chert in separate lithic workspaces near their occupation sites (Roman 2017). Woven baskets were also used for food storage and food preparation. Tightly woven baskets for holding water were made with coiling or twining techniques (Grant 1978b).

The Chumash were heavily affected by the arrival of Europeans. The Spanish missions and later Mexican and American settlers dramatically altered traditional Chumash lifeways. The Chumash population was considerably reduced by the introduction of European diseases; however, many Chumash descendants still inhabit the region (Grant 1978a).

3.4 Post-Contact Setting

Post-Contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American Period when California became a territory of the United States.

Spanish Period (1769 to 1821)

Spanish explorers made sailing expeditions along the coast of California between the mid-1500s and mid-1700s. Juan Rodríguez Cabrillo in 1542 led the first European expedition to observe what was known by the Spanish as Alta (upper) California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). The Spanish crown laid claim to Alta California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

By the 18th century, Spain developed a three-pronged approach to secure its hold on the territory and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Portolá established the Presidio of San Diego as the first Spanish settlement in Alta California in 1769. Franciscan Father Junípero Serra also founded Mission San Diego de Alcalá that same year, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823 (Graffy 2010).

Construction of missions and associated presidios was a major emphasis during the Spanish Period in California to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns; just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles).

Spain began making land grants in 1784, typically to retiring soldiers, although the grantees were only permitted to inhabit and work the land. The land titles technically remained property of the Spanish king (Livingston 1914).

Mexican Period (1821 to 1848)

Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. Commonly, former soldiers and well-connected Mexican families were the recipients of these land grants, which now included the title to the land (Graffy 2010).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities (Graffy 2010).

American Period (1848 to Present)

The United States went to war with Mexico in 1846. During the first year of the war, John C. Fremont traveled from Monterey to Los Angeles with reinforcements for Commodore Stockton, and evaded Californian soldiers in Santa Barbara's Gaviota Pass by taking the route over the San Marcos grade instead (Kyle 2002). The war ended in 1848 with the Treaty of Guadalupe Hidalgo, ushering California into its American Period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The discovery of gold in the northern part of the state led to the Gold Rush beginning in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom (Waugh 2003).

A severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. In addition, property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Rancheros often were encumbered by debt and the cost of legal fees to defend their property. As a result, much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1994).

Oxnard

The City of Oxnard obtained its name from its founder, Henry T. Oxnard, the owner of a sugar beet factory in Chino, California. Mr. Oxnard was invited to Ventura County to teach local farmers how to successfully grow sugar beets prior to the turn of the 20th century. He and his three brothers constructed a beet processing factory, the American Sugar Beet Co. factory, which became operational in 1899, near Oxnard. In 1903, the City of Oxnard was officially incorporated (Oxnard Visitors Bureau 2017).

The factory attracted many workers to Oxnard, bringing cultural and agricultural diversity to the city. The APE and the surrounding area adjacent to the former factory developed with temporary tents and eventually permanent workers' cabins for the workers of the American Sugar Beet Co. Factory (Sanborn Fire Insurance Company 1929-1950). Over time, the factory diversified its crops to include lima beans and grain, ensuring diversity and productivity until its closure in 1959 (*Los Angeles Times* 1991). Growth continued in Oxnard in the first few decades of the 20th century, with the development of general stores, restaurants, and banks (Oxnard Visitors Bureau 2017). The establishment of Port Hueneme adjacent to Oxnard prior to World War II sparked a population increase in the area and led to expansive suburban development in the war and postwar years. Substantial growth continued into the mid-20th century, with the development of major high-rise commercial buildings, commercial retail and industrial space and the construction of Channel Islands Harbor. Further expansion of residential suburbs has continued. The city's population has more than doubled since the early 1970s. Oxnard is currently the largest city in Ventura County (Oxnard Public Library 2010).

APE Development History

Situated in the central-eastern region of the city of Oxnard, the APE, at 536 and 538 Meta Street, was historically divided into four parcels, 520-526 Meta Street, 528 Meta Street, 532 Meta Street, and 538 Meta Street, adjacent to residential, commercial, and industrial development of the city of Oxnard. A 1927 aerial shows the APE surrounded by commercial and residential development to the north, west, and south, and largely undeveloped or agricultural lands to the east (Figure 4; UCSB 1927). In 1927, the three parcels comprising the APE, then divided into four parcels, are depicted as developed with 15 single-family residences along Meta Street, a two-story rooming house, and ancillary buildings located at the rear of the parcels (UCSB 1927).

Between 1950 and 1959, 11 of the single-family residences and all the ancillary buildings were demolished, and in 1958 owner John Taft had the extant commercial building constructed as a bus depot at the southern end of the APE (Figure 5; Sanborn Fire Insurance Company 1929-1950; NETR Online 2023; SBRA 2005). Between 1963 and 1967, the ancillary buildings for 538 Meta Street were demolished and two single-family residences at the northern property line were demolished, and the lot was utilized as a paved parking lot by the commercial building from 1958 (Figure 6 and Figure 7; UCSB 1963 and 1966; SBRA 2005). From the 1960s to the 1970s, the property was occupied by the Auto Bus Chala Bus Station and Yellow Cab, and an addition to the east elevation of the garage was constructed by owner William D. Jackson in 1969 (SBRA 2005). Between 2010 and 2012, the single-family residence at 538 Meta Street was demolished (NETR Online 2010 and 2012).

Figure 4 Aerial Photograph (APE Outlined in Red); Source: UCSB 1927

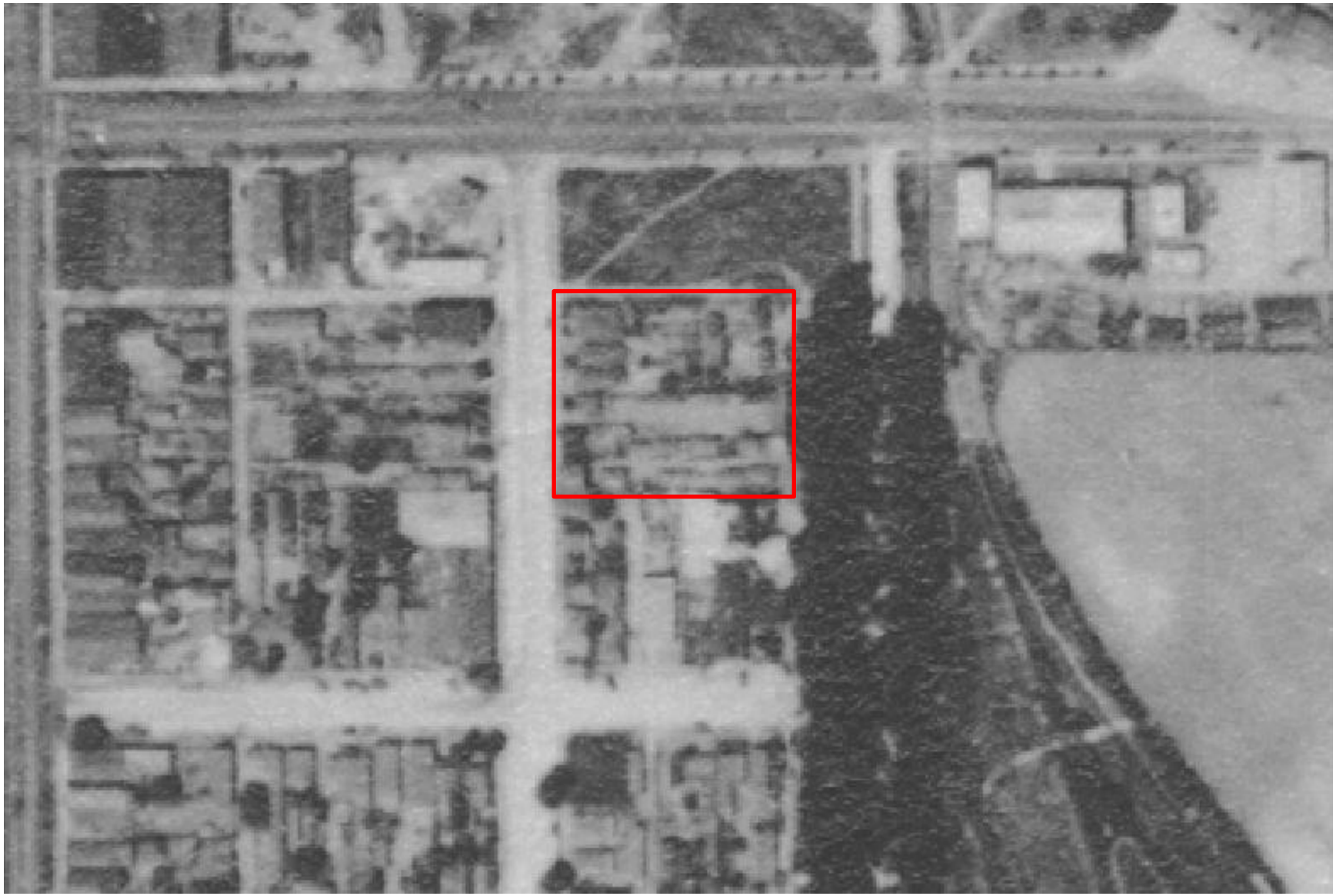


Figure 5 Sanborn Fire Insurance Company Map (APE Outlined in Red); Source: Sanborn Fire Insurance Company 1929-1950

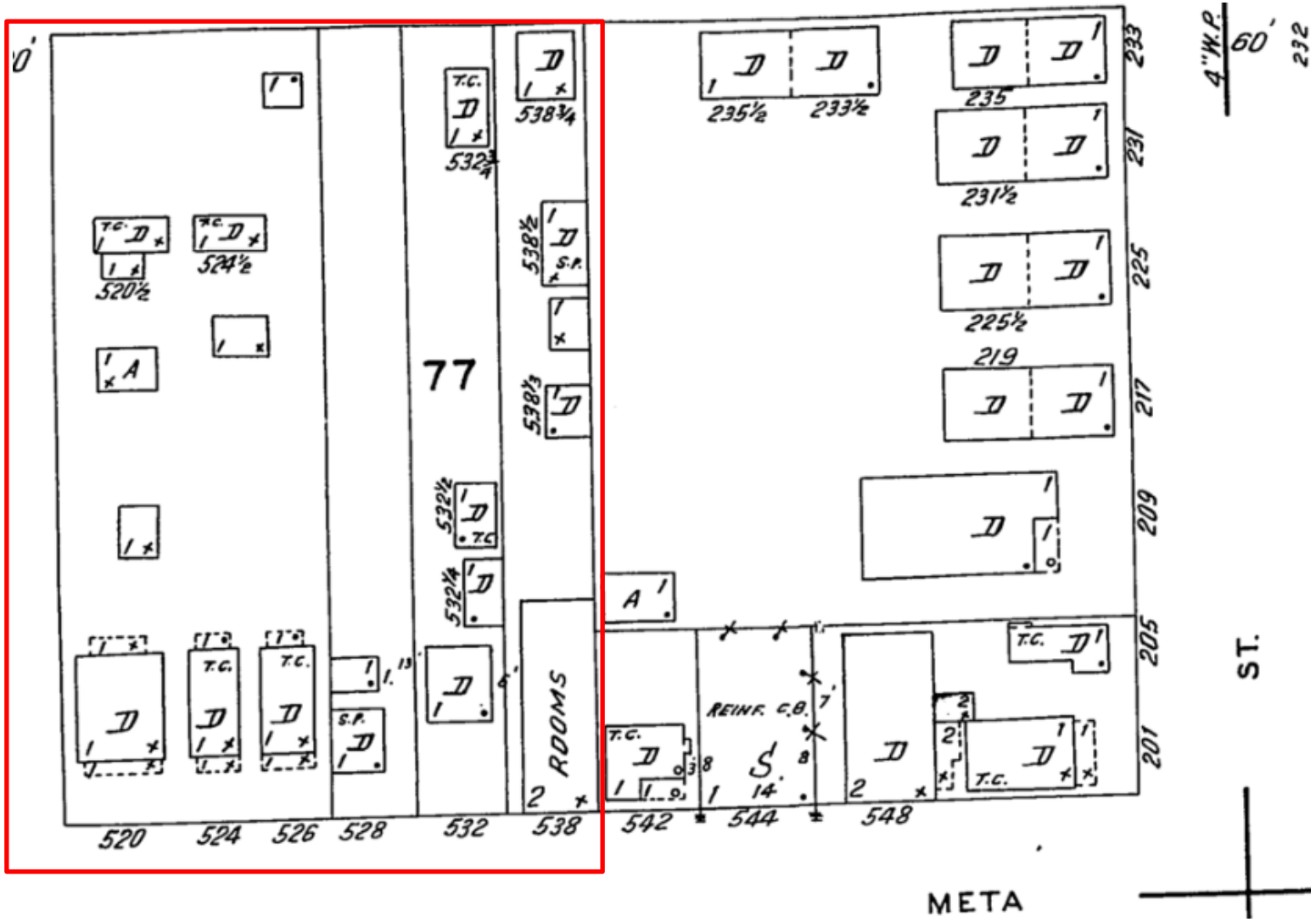


Figure 6 Aerial Photograph (APE Outlined in Red); Source: UCSB 1963

Figure 7 Aerial Photograph (APE Outlined in Red); Source: UCSB 1966

Property History

In 1958, then-owner John Taft commissioned the extant commercial building at the southern end of the subject property to serve as a bus depot for the Chala Auto Bus Company (SBRA 2005). Research did not identify additional information on Mr. Taft, his occupation, or his role within Oxnard or Ventura County. Circa 1968, the property was sold to William D. Jackson who opened a Yellow Cab Company location at the property (*Press-Courier* July 18, 1968). Before moving his business to the subject property, Mr. Jackson's Yellow Cab business was located at 154 East 5th Street in Oxnard (R.L. Polk & Company 1962). No further information was identified on Mr. Jackson. Based on research through city directories, newspapers, and the SBRA 2005 survey, only the two mentioned owners, John Taft and William D. Jackson, were identified.

The 1958 bus depot at 536 and 538 Meta Street is a vernacular, utilitarian building lacking architectural elaborations of a particular architectural style. It has a simple construction of concrete masonry units (CMU) and rectangular plan. The only stylistic elaboration is the wood cornice and brackets along the north elevation which are not characteristic of any of the popular styles of the time including Minimal Traditional nor Mid-Century Modern.

The bus depot was designed by Oxnard architects Miller and Crowell and built by Claude Graham (SBRA 2005). Don Miller and Reg Cowell were active in the Oxnard area during the 1950s and 1960s designing various projects in the Mid-Century Modern architectural style. Their early projects consisted of additions and alterations to existing buildings throughout the county. By the late 1950s their portfolio had expanded to include simple new-build projects such as the subject property and by the early 1960s, larger municipal and institutional projects including the Oxnard Community Center (800 Hobson Way), the Camarillo Municipal Court Building (2220 Ventura Boulevard), the former Oxnard USO building (location not identified), and the YMCA activity house on Hill Street (location not identified) (*Press-Courier* January 14, 1959 and April 8, 1959; *Ventura County Star* April 29, 1963 and September 14, 1964).

4 Background Research

4.1 Archival and Historical Background Research

4.1.1 Methods

Background and archival research for this study was completed throughout December 2023 and January 2024. Research methodology focused on the review of primary and secondary source materials relating to the history and development of the area surrounding the APE. Sources included, but were not limited to, historic-era maps, aerial photographs, and written histories of the area. A list of repositories consulted to identify pertinent materials is included below.

- Historic aerial photographs accessed via the University of California Santa Barbara digital aerial photography collections
- Historic topographic maps accessed via U.S. Geological Survey
- Historic-era newspaper articles accessed via newspapers.com
- Ventura County Assessor's Office
- Building permits accessed via the City of Oxnard
- Sanborn Fire Insurance Company maps accessed via the Los Angeles Public Library
- Oxnard City Directories accessed at Ancestry.com
- *Oxnard Downtown Historic Resources Survey* (described further below)
- *Cultural Resources Technical Report for the Central Terrace Apartments Project, City of Oxnard, Ventura County, California* prepared by Rincon in 2020
- *Geotechnical Engineering Study: Proposed Housing Development 536 Meta Street, Oxnard, California* prepared by AGS in 2020
- Other sources as noted in the references list

4.1.2 Results

Background research identified three previous studies that were relied upon heavily to support the findings presented in the current study. These studies are described in further detail below.

Oxnard Downtown Historic Resources Survey

In 2005, SBRA completed the *Oxnard Downtown Historic Resources Survey*, which was reviewed as part of the background research effort for the current study. As part of the 2005 survey, the property in the current APE, 536 and 538 Meta Street, was recorded and evaluated and recommended ineligible for listing in the NRHP, CRHR, and as a City of Oxnard Landmark under all criteria (SBRA 2005).

Cultural Resources Technical Report for the Central Terrace Apartments Project

In 2020, Rincon prepared a cultural resources technical report for the Central Terrace Apartments Project located at 217 East 6th Street directly adjacent to the south of the current undertaking (Madsen et al. 2020). The study included the delineation of an APE, which included the project

footprint and three adjacent parcels, searches of the CHRIS and NAHC SLF, background and archival research, a built environment and archaeological pedestrian survey of the APE, outreach to Native American tribes and local interested parties, evaluation of two properties for listing in the NRHP, an Extended Phase 1 investigation (XPI) and preparation of a report.

The NAHC SLF search and the archaeological pedestrian survey resulted in negative findings. The built environment survey resulted in identification of two historic-age properties, both of which were recorded and evaluated on DPR forms. As a result of the study, 209 East 6th Street, located directly adjacent to the current undertaking, was recommended eligible for listing in the NRHP at the local level of significance under Criterion B for its association with Henry Kawata, a significant member of Oxnard's Japanese community, active from the 1930s through the 1950s. This property is adjacent to the current undertaking to the south.

The background research identified the project site as previously containing housing units associated with pre-World War II Japanese immigrant farm worker housing. Therefore, an XPI was conducted via backhoe to assess the presence or absence of archaeological deposits associated with the historical occupation of the project site. The mechanical excavation of four backhoe trenches to maximum depths of 4 to 5 feet below ground surface primarily produced building materials (e.g., brick, concrete, tile, lumber, nails, metal and ceramic pipes), utilitarian glass and ceramic fragments, and faunal bone from 8 to 28 inches below ground surface. Two features, a mortar and brick feature of unknown function/purpose with a cobble pathway or driveway were also identified at depths of 8 inches and 19 inches below ground surface, respectively; however, the identification of the two features was expected and the features could not provide any additional information regarding the occupation or use of the property.

The soil throughout the project site consisted of gravel and fill material from the surface to a depth of 18 inches, with a uniform, homogenous fine-grained sand underneath. No intact refuse pits were identified and no historic-period materials that could provide additional information regarding the occupation of the area by Japanese immigrant farm workers were recovered. The testing areas within the subject property exhibited a high-level of ground disturbance from previous underground utility installation and removal, as well as building demolition and grading. Due to the high-level of disturbances and limited artifact density and diversity, Rincon determined no additional testing was necessary and recommended a finding of no adverse effect to historic properties.

As the project was directly adjacent to the current undertaking, NAHC SLF results and CHRIS results from the project were utilized as part of the current project.

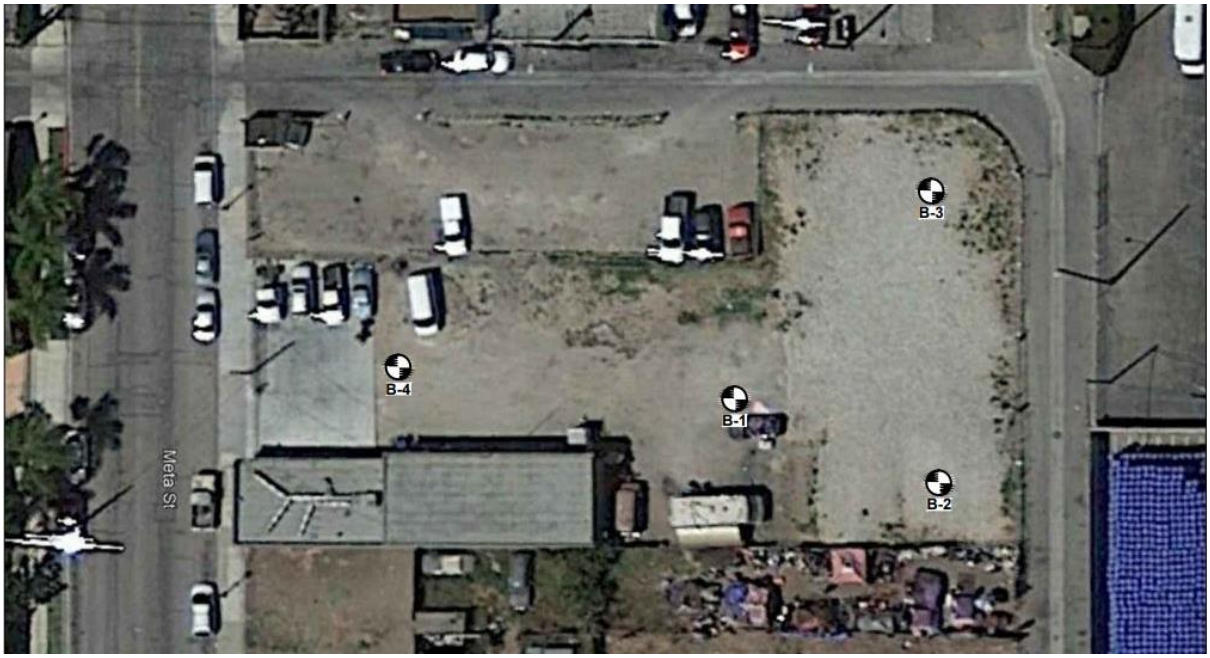
Geotechnical Study

In 2020, AGS prepared a geotechnical engineering study within the APE at 536 Meta Street for the current undertaking. As part of the 2020 study, AGS conducted data research, subsurface exploration, laboratory testing and analysis, and evaluations of the geotechnical and geologic qualities of the APE (AGS 2020). The subsurface exploration consisted of the excavation of four pits at 536 Meta Street using a backhoe or drilling rig as well as digging by hand (Figure 8). The pits were approximately 8 inches in diameter and reached depths of 26.5 feet to 51.5 feet below the existing ground surface.

The study indicated that the APE at 536 Meta Street is underlain by native, younger alluvial materials reaching 51.5 feet below the existing site grade. Sediments encountered consisted of the following: clayey to silty sand from the ground surface to approximately 5 to 6.5 feet below ground surface (bgs); medium dense to very dense sand from approximately 6.5 to 25 feet bgs, sandy to

silty clay from approximately 25 to 33 feet bgs, and alternating layers of sandy or clayey soils from a depth of 33 to 51.5 feet below the ground surface. The full geotechnical investigation can be found in Appendix A.

Figure 8 Location of Geotechnical Study Boring Pits at 536 Meta Street



4.2 California Historical Resources Information System Records Search

4.2.1 Methods

On September 11, 2020, a CHRIS search was completed by in-house staff at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton for the Central Terrace Project (Madsen et al. 2020). Rincon utilized these results for the current study as the properties are directly adjacent. The purpose of the CHRIS search was to identify previously conducted cultural resources studies, as well as previously recorded cultural resources within the APE and a 0.5-mile radius around it. In addition, Rincon reviewed the NRHP, the CRHR, the Built Environment Resource Database, the map of Oxnard Landmarks, and the list of Ventura County Historical Landmarks and Points of Interest to identify known historic properties that have the potential to be affected by the proposed undertaking. As part of the current study, a supplementary in-house CHRIS search was conducted at the SCCIC on December 18, 2023. The purpose of the supplementary search was to identify cultural resources that may be located within or adjacent to the APE since the last search conducted in 2020. The results of the records search are described below, and the full results can be found in Appendix B.

4.2.2 Results

Known Cultural Resource Studies

The 2020 CHRIS search identified 19 cultural resources studies that have been previously conducted within a 0.5-mile radius of the APE. Of these studies, one included a portion of the APE and is discussed in greater detail below.

Study VN-02978

Jim Sharpe and Lori Durio of CH2MHill prepared study VN-02978, *Groundwater Recovery Enhancement and Treatment (GREAT) Program: Cultural Resources Inventory Report*, for the City of Oxnard in February 2004. The study included a records search and field survey of the project area located in the city of Oxnard and surrounding communities. The records search identified two prehistoric resources (CA-VEN-666 and CA-VEN-726) and six historic-period resources (P-56-150013, P-56-150014, P-56-150020, P-56-150023, P-56-150028, and P-56-150029) within the study's APE (Sharpe and Durio 2004). The field survey identified a historic-period isolate (O-1) and six historic-period buildings (4484 Naval Air Road #28, 4456 Naval Air Road #52, 3534 Etting Road, 3542 Etting Road, 4550 Olds Road, and 4529 Hueneme Road) within the study's APE. None of the previously recorded or new cultural resources identified in Study VN-02978 are located within or adjacent to the APE for the current undertaking. The study encompassed 100 percent of the current APE.

Known Cultural Resources

The CHRIS search identified three cultural resources that have been previously recorded within a 0.5-mile radius of the APE (Table 1). All of these resources date to the historic period and include one building, one building/site, and one district. None of the cultural resources identified by the records search are located within or adjacent to the APE. Additionally, their distance from the APE is such that they do not have the potential to be affected by the undertaking.

Table 1 Previously Recorded Cultural Resources within 0.5 mile of APE

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	Historic Status	Relationship to APE
P-56-151213	Historic Building	Oxnard Carnegie Library; Oxnard Chamber of Commerce; Art Club of Oxnard	Faulconer, James R. (1971)	Listed in the NRHR by the Keeper. Listed in the CRHR (1S).	Outside; 0.28 mile northwest
P-56-151357	Historic District	Henry T. Oxnard Historic District	Judy Triem (1981); Moss, Benny & Rosanne (1998)	Listed in the NRHR by the Keeper. Listed in the CRHR (1S).	Outside; 0.48 mile northwest
P-56-153137	Historic Building, Site	Sky View Drive-In Theater	Susan Zamudio-Gurrola (2016)	Found ineligible for NRHP, CRHR, and local designation through survey evaluation (6Z).	Outside; 0.50 mile southeast

Source: South Central Coastal Information Center 2020

4.3 Native American Outreach

4.3.1 Methods

Rincon contacted the NAHC on August 31, 2020, for the Central Terrace Apartments Project located adjacent to the current APE (Madsen et al. 2020) to request an SLF search and a Section 106 contact list of Native Americans culturally and traditionally affiliated with the APE and vicinity. Due to the age of the contact list provided in 2020, Rincon utilized a Section 106 contact list from a previous project completed in 2023 within the city of Oxnard. On December 19, 2023, Rincon electronically sent outreach letters to nine Native American contacts identified by the NAHC. The letters included a description and map of the proposed undertaking and requested information regarding potential cultural resources of Native American origin in the vicinity of the APE. Follow-up telephone calls were placed on January 2, 2024, and January 11, 2024. This outreach does not constitute formal consultation under Section 106. Appendix C provides documentation of Rincon's outreach effort.

4.3.2 Results

The NAHC responded to Rincon's SLF request on September 1, 2020, for the Central Terrace Apartments Project located adjacent to the current APE (Madsen et al. 2020), stating the results of the SLF search were negative, indicating no tribal heritage resources have been noted in the APE vicinity. The NAHC also provided a list of nine Native American contacts who may have knowledge of cultural resources of Native American origin in the area of the APE. The following summarizes the responses received from the NAHC-listed Native Americans contacted by Rincon:

- On January 2, 2024, Chairperson Matthew Vestuto of the Barbareño/Ventureño Band of Mission Indians recommended archaeological and Native American monitoring during all project-related ground disturbances due to the lack of proper precautions during previous development in the area.
- On January 2, 2024, Chairperson Anthony Morales, of the Gabrieleno/Tongva San Gabriel Band of Mission Indians, stated that he has no knowledge of resources within the vicinity of the proposed undertaking; however, due to the proximity to the Pacific Ocean and the railroad, Mr. Morales supports local tribal government recommendations concerning monitoring of all project-related ground disturbances.
- On January 2, 2024, Chairperson Violet Walker, of the Northern Chumash Tribal Council, stated that she has no comments or concerns regarding the undertaking.
- On January 11, 2024, Chairperson Gabe Frausto, of the Coastal Band of the Chumash Nation, stated he did not have knowledge of resources within the vicinity of the proposed undertaking but requested formal consultation under Section 106. Rincon acknowledged his request for consultation which was then forwarded to the City as the RE for the project. Chairperson Frausto provided Rincon with the current email address for their Cultural Resources Management Department, as the email provided by the NAHC is not functioning properly. On January 12, 2024, Rincon sent a follow-up email to the updated email address provided by Chairperson Frausto which contained the original outreach letter that was sent on December 19, 2023.

No additional comments were received from those contacted as part of this outreach effort. Documentation in support of the Native American outreach conducted for this study and the SLF response letter are included in Appendix C of this report.

4.4 Interested Party Outreach

4.4.1 Methods

On December 20, 2023, Ms. Losco electronically sent letters to parties known to have an interest in cultural resources around the APE. Recipients included the City of Oxnard Planning Department, the San Buenaventura Conservancy, the County of Ventura Planning Division, and the Pleasant Valley Historical Society and Museum (PVHS). The letters included a description and map of the proposed undertaking and requested input on known or potential historic properties within the APE or its vicinity. Rincon followed up via a combination of telephone calls and emails. A summary of correspondence completed as part of this effort is included below.

4.4.2 Results

On December 20, 2023, Dillan Muray of the County of Ventura Planning Division responded via email that the Ventura County Cultural Heritage Board researched the APE and found no known eligible or designated historic resources located within or near the APE. The email stated further that the APE is not within an area of known likelihood of containing paleontological resources; and the APE is not within an area of known likelihood of containing archaeological resources.

On December 21, 2023, Steven Schafer of the San Buenaventura Conservancy (SBC) responded via telephone and left a voicemail. Rincon responded on December 28, 2023, via telephone. On the telephone phone call, Mr. Schafer stated the SBC did not have any comments or concerns regarding the project specifically. On December 31, 2023, Mr. Schafer followed up with an email requesting formal consultation under Section 106. He stated the SBC did not have any additional information related to the APE, but he would like to see and comment on the project as it progresses. Mr. Schafer copied Julieanne Polanco, the California State Historic Preservation Officer (SHPO), on his email response. Ms. Polanco, responded to Mr. Schafer's email, and stated she "acknowledge[d] receipt of this email and attached information. I have passed it on to our HUD staff reviewer, Ms. Susan Negrete and her supervisor, Ms. Shannon Pries for their awareness." Rincon also acknowledged Mr. Schafer's request for consultation, which was then forwarded to the City, as the RE for the project.

Rincon conducted two follow-up telephone calls to the City of Oxnard Planning Department and PVHS on January 3 and 11, 2024 with no response. Additional documentation in support of the interested party outreach is included in Appendix D of this report.

5 Field Survey

5.1 Methods

5.1.1 Archaeological Survey

Mr. Gonzalez conducted a pedestrian survey of the APE on December 19, 2023. Due to the partially developed nature of the APE, and the amount of previous disturbances throughout the APE, Rincon employed an opportunistic survey approach, where all unpaved and/or exposed, undeveloped areas within the APE were inspected for the presence of artifacts (e.g., flaked stone tools, tool-making debris and stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and historic debris (e.g., metal, glass and ceramics). Subsurface soils exposed from recent excavations within the APE were visually inspected where safely possible. Survey accuracy was maintained using a handheld Global Positioning System unit and a georeferenced map of the APE. Site characteristics and survey conditions were documented using field records and a digital camera. Copies of the survey notes and digital photographs are maintained at the Rincon Ventura office.

5.1.2 Built Environment Survey

Under the direction of Ms. Perzel, Mr. Gonzalez also conducted a built environment survey of the APE. Mr. Gonzalez visually inspected the historic-period commercial building within the APE to assess overall condition and integrity, and to identify and document any potential character-defining features. The commercial building was photographed and recorded by Mr. Gonzalez and the photos were later reviewed by Ms. Losco for notable architectural elements and alterations. Copies of the survey notes and digital photographs are maintained at the Rincon Ventura office.

5.2 Results

5.2.1 Archaeological Resources

The APE is currently used as a staging area for the construction of the adjacent property to the south/southeast. As a result, the APE contains a large, fabricated construction trailer; several large, metal storage bins; stockpiles of imported gravel and sand; and construction equipment (Figure 9, Figure 10, Figure 11, Figure 12, Figure 13, and Figure 14). In addition, there are numerous piles of construction material such as pipes, wood, metal beams, etc. Lastly, there are several large spoils piles onsite from previous excavations that have recently occurred within the APE. Evidence of these excavations and grading observed during the archaeological survey were mostly present behind the existing building, where new sewer manholes, gas lines, and other utility lines/vaults were recently installed. Several temporary poles for electricity and security cameras were also observed during the survey. Ground visibility within the APE was poor (less than 10 percent) due to the construction related materials and spoils from previous ground disturbing activities spread around the APE, obscuring the native ground surface. Because of the lack of exposed native ground surface, the stock piles from previous ground disturbing activities were examined closely for the presence of archaeological materials, where it was safe to do so around the construction equipment. The soil within the APE is a grayish brown loamy sand intermixed with imported gravel. Modern refuse and

construction debris were scattered along the perimeter of the APE. No archaeological resources were identified within the APE as a result of the pedestrian survey.

Figure 9 Overview of APE, view to the Northwest

Figure 10 Overview of APE, View to the East

Figure 11 Overview of APE, View to the West

Figure 12 Overview of APE, View to the Southwest

Figure 13 Overview of APE, View to the Southeast

Figure 14 Overview of APE, View to the Southeast

5.2.2 Built Environment Resources

536 and 538 Meta Street (subject property) is a commercial property comprised of three parcels (APNs 201-0-213-080, 201-0-213-090 and 201-0-213-010) on the east side of Meta Street in Oxnard, California. The rectangular parcels feature a one-story commercial building at the southwestern corner and paved parking lots and driveways occupying the northern and western sections of the property in addition to a gravel parking lot at the eastern end (Figure 15). The property is surrounded by commercial properties to the north along East 5th Street, residential properties to the west and south, and industrial properties to the east.

The one-story commercial building on the subject property features a rudimentary vernacular design with minimal design elaborations, likely due to its utilitarian use as an automobile maintenance shop. Sited on a concrete foundation, the building is constructed of CMU. The flat roof has a CMU parapet along the west and east elevations and a wood frame cornice with wood brackets along the north elevation (Figure 16). Located on the north elevation are two entrances featuring flush wood doors, one elevated slightly above ground with a concrete ramp; an additional former entrance, now enclosed, and a small horizontal sliding sash window is located in between the entrances. At the eastern end of the north elevation are two large openings featuring wood paneled tilt-up doors. The west elevation has an additional entrance with a metal screen door and an enclosed window with security bars. The south elevation is void of fenestration and integrates no design elements (Figure 17).

At the northwest corner of the property is a trash enclosure constructed of CMUs on a concrete foundation (Figure 18). The enclosure has an opening on the north elevation with a sliding

corrugated metal door on a track to access the interior. The enclosure is topped by a metal framed structure infilled with metal mesh covers.

Figure 15 536 and 538 Meta Street Property Overview, Facing Northwest

Figure 16 536 and 538 Meta Street North and West Elevations, Facing Southeast

Figure 17 536 and 538 Meta Street South and East Elevations, Camera Facing Northwest

Figure 18 536 and 538 Meta Street South Trash Enclosture, Camera Facing Southeast

6 National Register of Historic Places Evaluation

As previously noted, in 2005, Judy Triem and Mitch Stone recorded and evaluated 536 Meta Street as part of the Downtown Oxnard Historic Resources Survey, recommending it ineligible for listing in the NRHP, CRHR, and as a City of Oxnard Landmark under all criteria at that time (SBRA 2005). Due to the cursory nature of the 2005 evaluation, which was completed as part of a large-scale survey effort, in addition to the fact that it was completed over 10 years ago, the potential significance of 536 and 538 Meta Street was reconsidered as part of the current study. The property was recorded and evaluated for NRHP eligibility on update DPR forms, which are included in Appendix E and summarized below.

536 and 538 Meta Street is recommended ineligible for listing in the NRHP under all criteria (A/B/C/D).

Criterion A: The subject property was constructed in 1958 as a bus depot to serve the Oxnard area. Oxnard experienced significant residential growth, and along with it, commercial development, in the post-World War II period. The subject property was constructed within the context of Oxnard's post-World War II commercial development. However, the research conducted for this study, including a review of the SBRA 2005 Oxnard Historic Resources Survey, newspapers, and aerials and maps did not indicate that the property was significant within the context of Oxnard's post-World War II commercial development. Rather, it was one of many commercial properties constructed during this period in support of expansive residential development. It does not appear significant within the context of Oxnard's post-World War II growth in, or any other context. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion A.

Criterion B: Two former owners of the subject property were identified during the research conducted for this study, John Taft and W.D. Jackson. The research effort, via a review of historical newspapers and biographical databases identified no information to suggest that either individual is significant within a specific historical context. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion B.

Criterion C: 536 and 538 Meta Street is a simple, vernacular commercial building with few design elements to express characteristics of a particular type, period, or method of construction. The building's simple utilitarian design was a product of its commercial use as a bus depot, taxi depot, and maintenance shop. The building is not a significant example of a particular architectural style or method of construction and is simply a utilitarian-designed building from 1958. The building was designed by Oxnard architects Miller and Crowell. The firm's body of work is characterized by institutional and commercial projects designed in various Mid-Century Modern styles throughout Oxnard and Ventura County. Compared to their other projects, such as the Oxnard Community Center and the Camarillo Municipal Court Building, the subject property is not representative of their body of work nor an exceptional example. 536 and 538 Meta Street is an early example of their work when they were designing smaller projects and additions. As a utilitarian building with no design elements, the building does not represent their larger body of work of Mid-Century Modern institutional and municipal buildings.

The subject property was constructed by contractor Claude Graham; however, research did not identify any examples of his body of work outside of the subject property. Due to lack of evidence of

other examples of his work, Graham does not appear to constitute a master craftsperson. 536 and 538 Meta Street also does not possess high artistic value because it was not designed with artistic purposes in mind; therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion C.

Criterion D: The property is not likely to yield valuable information that will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as mid-20th century concrete buildings or bus stations. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion D.

In conclusion, 536 and 538 Meta Street is recommended ineligible for listing in the NRHP under all criteria (A/B/C/D) due to lack of association with a historic context. It does not appear to be a historic property as defined by 36 CFR 800.16(l)(1).

7 Findings and Recommendations

The current study included the methods and results of archival and literature review, SCCIC records search, NAHC sacred lands file search, Native American and interested parties outreach, archaeological and built environment field surveys, and an NRHP evaluation of 536 and 538 Meta Street. The resource is recommended ineligible for listing in the NRHP due to lack of association with a historic context and is not a historic property as defined by 36 CFR 800.16(l)(1).

No prehistoric or historic-period archaeological resources were identified. The alluvial sediments underlying the APE have an episodic nature and have an increased likelihood of burying archaeological deposits (Borejsa et al. 2014; Waters 1992). Sudden burial of artifacts is often identified when there are buried A horizons in a soil series. The APE primarily consists of Hueneme Soil Series, an alluvial loamy fine sand with no documented buried A horizons (California Soil Resource Lab 1997). Given the geologic setting of the APE and the amount of previous disturbance that has taken place within the subject property, it is unlikely that additional archaeological excavation within the APE would yield intact materials or features that could provide new or additional information.

Based on the findings of this study, no historic properties were identified and sensitivity for archaeological resources is low. Rincon recommends a finding of ***no historic properties affected*** in accordance with Section 106 for the proposed undertaking.

The City of Oxnard Community Development Department requires a standard condition of approval for all development projects located within the city of Oxnard. This standard condition of approval is provided below. Compliance with existing regulations would also be required in the unlikely event of an unanticipated discovery of human remains.

Standard Conditions of Approval

Archaeological and Native American Monitoring

In accordance with the City of Oxnard's standard condition of approval, archaeological and Native American monitoring of project-related ground disturbing activities is required. Archaeological monitoring should be performed under the direction of the qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983). The qualified archaeologist, in consultation with the City and the Native American monitor, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work within a minimum of 50 feet of the find must halt and the find evaluated for CRHR and NRHP eligibility. Should an unanticipated resource be found as CRHR or NRHP eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant.

Regulatory Compliance

Unanticipated Discovery of Human Remains

In the event human remains are unexpectedly discovered, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. Therefore, in the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours of being granted site access, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

8 References

Advanced Geotechnical Services, Inc. (AGS)

2020 *Geotechnical Engineering Study: Proposed Housing Development 536 Meta Street, Oxnard, California.* Advanced Geotechnical Services, Inc.

Arnold, Jeanne E.

1995 Transportation Innovation and Social Complexity among Maritime Hunter-Gatherer Societies*. American Anthropologist* 97(4):733-747.

Arnold, Jeanne E. and Teresa Green

2002 "Mortuary Ambiguity: The Ventureño Chumash Case." *American Antiquity* 67(4): 760–771.

Bancroft, Hubert Howe

1885 History of California, Volume III: 1825-1840. San Francisco, California: A.L. Bancroft & Co.

Bean, Walton

1968 California: An Interpretive History. New York, New York: McGraw-Hill Book Company.

Borejsa, Aleksander, Charles D. Frederick, Luis Morett Alatorre, and Arthur A. Joyce

2014 Alluvial Stratigraphy and the Search for Preceramic Open-Air Sites in Highland Mesoamerica. *Latin American Antiquity*, Vol. 25, No. 3. 278–299.

California Soil Resource Lab

1997 Soil Data Explorer – Hueneme Series. https://casoilresource.lawr.ucdavis.edu/sde/?series=hueneme#osd (accessed January 16, 2024).

2023 Soils Maps of Oxnard. https://casoilresource.lawr.ucdavis.edu/. Accessed December 2023.

Cook, Sherburne A. and Robert F. Heizer

1965 The Quantitative Approach to the Relations between Population and Settlement Size. University of California Archaeological Survey Reports 64. Berkeley.

Dallas, S.F.

1955 The Hide and Tallow Trade in Alta California 1822-1848. Ph.D. dissertation. Indiana University, Bloomington.

Dumke, Glenn S.

1994 The Boom of the 1880s in Southern California. Southern California Quarterly 76(1):99-114.

Erlandson, Jon M.

1991 Early Maritime Adaptations on the Northern Channel Islands in Hunter-Gatherers of Early Holocene Coastal California. Volume 1: Perspectives in California Archaeology. Jon M. Erlandson and R. Colten, eds. Pp. 101-111. Los Angeles, California: UCLA Institute of Archaeology Press.

Erlandson, Jon M., Theodore Cooley and Richard Carrico

1987 A Fluted Projectile Point Fragment from the Southern California Coast: Chronology and Context at CA-SBA-1951. Journal of California and Great Basin Anthropology 9(1):120-128.

Erlandson, Jon M., Torben C. Rick, Terry L. Jones, and Judith F. Porcasi

2007 One If by Land, Two If by Sea: Who Were the First Californians? *in California Prehistory: Colonization, Culture, and Complexity*. Terry L. Jones and Kathryn A. Klar, eds. Pp. 53-62. Lanham, Maryland: AltaMira Press.

Gamble, Lynn H., Phillip L. Walker, and Glenn S. Russell

2001 "An Integrative Approach to Mortuary Analysis: Social and Symbolic Dimensions of Chumash Burial Practices." *American Antiquity* 66(2): 185–212.

Glassow, Michael A., Lynn. H Gamble, Jennifer E. Perry, and Glenn S. Russell

2007 Prehistory of the Northern California Bight and the Adjacent Transverse Ranges. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, AltaMira Press, Lanham, Maryland.

Golla, Victor

2007 "Linguistic Prehistory." In *California Prehistory: Colonization, Culture, and Complexity*. AltaMira Press, Lanham, Maryland.

Graffy, Neal

2010 Historic Santa Barbara: An Illustrated History. San Antonio, Texas: Historical Publishing Network.

Grant, C.

1978a Chumash: Introduction. In California, edited by R.F. Heizer, pp. 505-508. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor

1978b Eastern Coastal Chumash. In California, edited by R.F. Heizer. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

Gumprecht, Blake

1999 The Los Angeles River: Its Life, Death, and Possible Rebirth. Baltimore, Maryland: Johns Hopkins University Press.

Huckell, Bruce B.

1996 The Archaic Prehistory of the North American Southwest. Journal of World Prehistory 10(3):305-373.

Johnson, John R.

1982 "An Ethnohistoric Study of the Island Chumash." M.A. Thesis, University of California Santa Barbara.

Johnson, John R., Thomas W. Stafford, Jr., Henry O. Ajie and Don P. Morris

2002 Arlington Springs Revisited in Proceedings of the Fifth California Islands Symposium. D. Browne, K. Mitchell and H. Chaney, eds. Pp. 541–545. Santa Barbara, California: Santa Barbara Museum of Natural History.

Jones, Terry L. and Jennifer A. Ferneau

2002 Deintensification along the Central California Coast. *Catalysts to Complexity, Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 205-232. *Perspectives in California Archaeology Vol. 6.* Costen Institute of Archaeology, University of California, Los Angeles.

Jones, Terry L. and Kathryn A. Klar

2007 California Prehistory: Colonization, Culture, and Complexity. Lanham, Maryland: AltaMira Press.

Jones, Terry L. and Georgie Waugh

1997 Climatic Consequences of Population Pragmatism? A Middle Holocene Prehistory of the Central Coast. In *Archaeology of the California Coast During the Middle Holocene*, edited by Jon M. Erlandson and Michael A. Glassow, pp. 111–128. *Perspectives in California Archaeology 4.* Institute of Archaeology, University of California, Los Angeles.

Justice, Noel D.

2002 Stone Age Spear and Arrow Points of California and the Great Basin. Indiana University Press, Bloomington, Indiana.

King, Chester D.

1990 Evolution of Chumash Society: A Comparative Study of Artifacts Used in Social System Maintenance in the Santa Barbara Channel Region Before A.D. 1804 in The Evolution of North American Indians. David Hurst Thomas, ed. New York, New York: Garland Publishing.

Kroeber, Alfred J.

1925 Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78. Originally published 1925, Smithsonian Printing Office, Washington, D.C. Unabridged reprint 1976, Dover Publications, Inc. New York.

Kyle, Douglas E.

2002 Historic Spots in California. Stanford, California: Stanford University Press.

Livingston, M.M.

1914 The Earliest Spanish Land Grants in California. Annual Publication of the Historical Society of Southern California 9(3):195-199.

Los Angeles Times

1991 "Structures: Sweet History: Oxnard Owes its Births to a Sprawling Turn-of-the-Century Sugar Beet Factory, which is Highlighted in a Museum Exhibition." Josef Woodard. 28 March.

Madsen, Alexandra, Rachel Perzel, Mary Pfeiffer, Steven Treffers, Ken Victorino, and Shannon Carmack

2020 *Cultural Resources Technical Report for the Central Terrace Apartments Project, City of Oxnard, Ventura County, California.* Rincon Consultants Project No. 20-10109. Report on file, South Central Coastal Information Center, California State University, Fullerton.

McLaren, Duncan, Daryl Fedje, Quentin Mackie, Loren Davis, Jon Erlandson, Alisha Gauvreau, and Colton Vogelaar

2019 Late Pleistocene Archaeological Discovery Models on the Pacific Coast of North America. *PaleoAmerica* 6(1):43-63.

Moratto, Michael J.

1984 California Archaeology. Orlando, Florida: Academic Press, Inc.

National Park Service (NPS)

1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Washington, DC. https://www.nps.gov/history/local-law/arch_stnds_0.htm , accessed December 2023.

1997 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document, online at http://www.nps.gov/history/local-law-Arch_Standards.htm, accessed December 2023.

NETR Online

2023 Aerial images of Oxnard. Accessed December 2023. Available at https://www.historicaerials.com/viewer.

Oxnard Public Library

2010 A Brief History of Oxnard. Electronic document, online at https://www.oxnard.org/library/oxnard-public-library-local-history-collection/a-brief-history-of-oxnard/, accessed December 2023.

Oxnard Visitors Bureau

2017 History. Electronic document, online at https://visitoxnard.com/about/history/, accessed December 2023.

Press-Courier

1959 "Oxnard Firm Will Design New Center". January 14. Accessed January 2024, through https://www.newspapers.com/image/31901357/?terms=%22miller%20and%20crowell%22&match=1.

1959 "Y Activity House All Set". April 8. Accessed January 2024, through https://www.newspapers.com/image/31906686/?terms=%22miller%20and%20crowell%22&match=1.

1968 "Advertisement". July 18. Accessed January 2024, through ancestry.com.

R.L. Polk & Company

1962 Polk's Oxnard (Ventura County, Calif.) City Directory 1962. Accessed January 2024, through ancestry.com.

Rolle, Andrew

2003 *California: A History*. Arlington Heights, Illinois: Harlan Davidson, Inc.

Roman, Deborah V.

2017 "New AMS Dating Sequences for the Chumash Ventureño Early Period: Revisiting the Question of Antiquity of Ventureño Chumash Inland Occupation." *SCA Proceedings* 31: 181–194.

Sanborn Fire Insurance Company

1929-1950 Fire insurance map for Oxnard, California. Accessed at LAPL.org

San Buenaventura Research Associates (SBRA)

2005 "Downtown Oxnard Historic Resources Survey." Prepared by Mitch Stone and Judy Triem for the City of Oxnard.

2014 *Historic Context Statement and Reconnaissance Survey for the Eastern Oxnard Plain of Ventura County, CA.* December.

Sharpe, Jim and Lori Durio

2004 Groundwater Recovery Enhancement and Treatment (GREAT) Program, Cultural Resources Inventory Report. CH2MHill. Study VN-02978 on file at the South Central Coastal Information Center, California State University, Fullerton.

Treganza, Adan E. and Agnes Bierman

1958 The Topanga Culture: Final Report on Excavations, 1948. University of California Anthropological Records 20(2):45–86.

University of California Santa Barbara (UCSB) Map & Imagery Lab FrameFinder [aerial photograph database]

1927 Flight c-104, Frame f-17. Accessed at http://mil.Library.ucsb.edu/ap_indexes/FrameFinder/.

1963 Flight HA_SH, Frame 50. Accessed at http://mil.Library.ucsb.edu/ap_indexes/FrameFinder/.

1966 Flight HB-IA, Frame 198. Accessed at http://mil.Library.ucsb.edu/ap_indexes/FrameFinder/.

Ventura County Star

1963 April 29. Accessed January 2024, through https://www.newspapers.com/image/625087548/?terms=%22miller%20and%20crowell%22&match=1.

1964 “This is How Camarillo Court will Look”. September 14. Accessed January 2024, through https://www.newspapers.com/image/625122929/?terms=%22miller%20and%20crowell%22&match=1.

Wallace, William

1955 Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11(3):214-230.

1978 Post-Pleistocene Archaeology, 9000 to 2000 B.C. in California. Volume 8: Handbook of North American Indians. Robert F. Heizer, ed. and William C. Sturtevant, general ed. Pp. 505-508. Washington D.C.: Smithsonian Institution Scholarly Press.

Warren, Claude N.

1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In Archaic Prehistory in the Western United States, edited by C. Irwin-Williams, pp. 1–14. Eastern New Mexico University Contributions in Anthropology No. 1. Portales.

Waters, Michael R.

1992 *Principles of Geoarchaeology.* Tucson: The University of Arizona Press.

Waugh, John C.

2003 On the Brink of Civil War: The Compromise of 1850 and How it Changed the Course of American History. Wilmington, Delaware: Scholarly Resources Inc.

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Appendix A

Geotechnical Study

advanced geotechnical services, inc.

June 17, 2020
Client Number 5045
Report Number 10616

Many Mansions
1259 E. Thousand Oaks Blvd.
Thousand Oaks, CA 91362

Geotechnical Engineering Study
Proposed Housing Development
536 Meta Street
Oxnard, California

In accordance with our proposal and your authorization, Advanced Geotechnical Services, Inc., (AGS) has prepared this *Geotechnical Engineering Study* for the proposed multi-family housing development to be constructed at the subject site. This report presents the results of our data research, subsurface exploration, laboratory testing, and our professional opinions regarding the geotechnical engineering factors that may affect the proposed development.

Based on the results of this study, it is our opinion that the site is *suitable* for construction of the proposed housing development, provided recommendations of this report are properly incorporated in the design and implemented during construction.

This opportunity to be of service is sincerely appreciated. This report should be read from cover to cover to understand its limitations and to avoid taking a recommendation out-of-context. If you have any questions, or if we may be of any further assistance, please do *not* hesitate to call. We look forward to being of continued service.

Respectfully submitted,
Advanced Geotechnical Services, Inc.

Kenneth J. Palos
President

Scott Moore, GE
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
SCOTT W. MOORE
No. 2560
GEOTECHNICAL
STATE OF CALIFORNIA

Enclosure: *Report No. 10616*

cc: (5) Addressee (1) File Copy

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GEOTECHNICAL ENGINEERING STUDY

Proposed Housing Development
536 Meta Street
Oxnard, California

Report to
Many Mansions
Thousand Oaks, California

June 17, 2020
Client Number 5045
Report Number 10616

Contents

List of Appendices

1. INTRODUCTION

1.1 General Remarks

This *Geotechnical Engineering Study* has been prepared for the proposed multi-family housing development to be constructed at the subject site. The purposes of this study are to (1) evaluate the seismicity of the site and potential seismic hazards, (2) identify on-site soil conditions that may affect the proposed project, and (3) provide geotechnical recommendations for development of the site, including site preparation and grading, temporary excavations, foundation design, seismic design, floor slab design, and drainage. This report presents the findings of our data review, subsurface exploration, laboratory testing, engineering analyses and evaluations, and our conclusions and recommendations.

Appendices are attached following the main report. Appendix A includes an explanation of the field exploration, and the boring logs; Appendix B includes the laboratory test results; Appendix C includes the results of the seismicity study; Appendix D includes the results of the liquefaction and dynamic dry settlement evaluation; Appendix E includes the references used in this study, and the Figures and Plates referenced in this report are included in Appendix F.

1.2 Scope of Services

This geotechnical engineering study included:

a. Site observation and review of geotechnical and geologic data of the general study area. A *Site Location Map* showing a broad view of the overall area where the site is located is provided as Figure 1, and an *Existing Site Plan* showing more detailed current site conditions is provided as Plate 1. Both of these figures were created using images obtained from the Google Earth (2020) web app. A *Proposed Site Plan* is provided as Plate 2. This plan was created utilizing a *Site Aerial* plan prepared by Dicecco Architecture Incorporated, dated April 14, 2020.

b. Reconnaissance of the site and the immediate vicinity of the subject site.

c. Drilling, sampling, and logging of four borings to depths between approximately 20 and 51.5 feet below the existing ground surface. The exploratory borings were located in the field using a tape measure and approximate reference points. Thus, the actual locations of the exploratory borings may deviate slightly from the locations shown on the attached Plates 1 and 2. The boring logs are included in Appendix A, along with a general description of the field operations.

d. Laboratory testing of selected samples to determine the engineering properties of on-site soils. The results of laboratory testing are presented in Appendix B, and on the boring logs in Appendix A. Soil samples will be *discarded* 30 days after the date of this report, unless this office receives a specific request and fee to retain the samples for a longer period of time.

e. Determination of seismic parameters for potential on-site ground motion.

f. Engineering analysis of the data and information obtained from our field study, laboratory testing, and literature review.

g. Development of geotechnical recommendations for construction of the proposed development.

h. Preparation of this report summarizing our findings, conclusions, and recommendations regarding the geotechnical aspects of the project site.

The scope of this geotechnical study did *not* include an assessment of potential environmental issues.

1.3 Site Description

The subject site is located at 536 Meta Street, in the City of Oxnard, County of Ventura, California. The subject site is currently occupied by a small commercial building located in the southwest corner of the site. The remainder of the site is being utilized for parking, with a portion of the site paved with asphalt, a portion paved with concrete, and a portion covered with gravel. The central portion of the site is unpaved dirt. The current site conditions are shown on the attached Plate 1, *Existing Site Plan*, which was created utilizing an aerial image obtained from the Google Earth (2020) online web app. The subject site is bounded by a vacant strip of city owned land to the south, public alleys to the east and north, and Meta Street to the west. The topography of the subject site and surrounding area is roughly level to gently south to southwesterly sloping, based on our site observations, information available online (Google Earth, 2020) and regional topographic maps. The site is mostly void of vegetation, except for a few scattered weeds.

1.4 Proposed Development

The proposed development will consist of the construction of a new, multi-family housing building, consisting of four stories of housing over a concrete podium deck, with on-grade parking below the majority of the structure, and community services space, a mechanical room and trash room below a portion of the structure. A public plaza with landscaping and walkways will be constructed within the city owned strip of land to the south of the proposed building.

The proposed structure is anticipated to use a combination of concrete and wood frame construction, with a concrete floor slab on grade. Wall loads are expected to be in the range of 1 to 3 kips per foot, and column loads are anticipated to be in the range of 50 to 200 kips.

Grading plans were not available at the time this report was prepared, however, site grading is expected to consist of removal and recompaction of the upper site soils for support of the proposed structure, backfill of related new utilities, and only very minor modifications to the existing site topography, to establish grade for the building pad and site drainage.

2. GEOLOGIC SETTING

2.1 Geology

Geologic conditions beneath the subject property have been interpreted and characterized based upon our review of published and unpublished references, and our subsurface exploration. Our interpretations involve projections of data and assume that geologic conditions are reasonably constant between borings. Work should continue under the review of the Geotechnical Engineer to ensure that geologic conditions different from those described below are recognized and evaluated as soon as possible. Certain subsurface conditions such as groundwater levels and the consistency of near-surface soils will vary with the seasons.

The subject site is located within the Oxnard USGS 7.5-minute quadrangle. According to *Seismic Hazard Zone Report 052* of the Oxnard Quadrangle (CDMG, 2002), the subject site is underlain by younger alluvial materials, which was confirmed during our site exploration.

2.2 Faulting

Southern California is a tectonically active region subject to hazards associated with earthquakes and faulting. Faults are classified as either active, potentially active, or inactive. Active faults are defined by the State of California as faults that have exhibited surface displacement within the last 11,000 years. Potentially active faults are defined by the State as those with a history of movement between 11,000 and 1.6 million years ago. Alquist-Priolo Earthquake Fault Zones are zones that have been established by the State that contain active surface fault traces, and projects that are located within these zones require that a fault investigation be performed to determine if active faulting affects the site. The subject site is *not* located in an Alquist-Priolo Earthquake Fault Zone, and therefore a subsurface fault investigation is not required.

3. EARTH MATERIALS AND SUBSURFACE CONDITIONS

3.1 Alluvium (Qa)

Native, younger alluvial soils were encountered in all four exploratory borings, extending from the ground surface to the total depth explored, 51.5 feet below the existing site grade. From the ground surface to depths of approximately 5 to 6.5 feet the alluvial soils consist of medium dense clayey to silty sand, followed by medium dense to very dense sand to a depth of approximately 25 feet, followed by very stiff sandy to silty clay to a depth of approximately 33 feet, followed by alternating layers approximately 2 to 7.5 feet in thickness of either dense primarily sandy soils, or very stiff primarily clayey soils to the total depth explored, 51.5 feet. The alluvial soils range from light gray to medium and yellowish brown to dark gray, and are generally slightly moist to moist down the near the groundwater level at 18 feet below grade, and very moist to wet below that. More detailed earth material profiles are shown on the attached boring logs in Appendix A.

3.2 Soil Parameters

3.2.1 Compaction

A compaction curve was developed in this study for a representative sample of the upper site soils. The maximum dry density was 124.0 pcf, at an optimum moisture content of 11.5 % for a sample from Boring B-1 obtained between the ground surface and a depth of approximately 5 feet.

3.2.2 Compressibility

Consolidation tests were performed on representative undisturbed samples of the onsite soils, and a remolded sample intended to represent the future compacted fill. The consolidation test results showed a very low potential for hydroconsolidation and overall compressibility on the remolded sample, and a relatively low potential for hydroconsolidation, and low overall level of compressibility on the undisturbed samples tested.

3.2.3 Shear Strength

Direct shear testing was used to measure the peak and ultimate shear strength properties of representative samples of the onsite soils, both remolded and undisturbed, in terms of a cohesion value and a friction angle. The results of the direct shear testing are presented in Appendix B of this report.

3.2.4 Expansion Category

The potential of the soil to swell or expand increases with an increase in soil density, a decrease in initial moisture content, an increase in clay content, and an increase in the activity of the clay content. Expansive soils change in volume (shrink or swell) due to changes in the soil moisture content. The risk of soil expansion increases with an increase in expansion index.

The expansion index of a representative sample of the upper site soils obtained from Boring B-1 between the ground surface and a depth of approximately 5 feet was found to be 29, which is in the *low* expansion category. A representative sample of the blended, recompacted soils should be obtained from the surface of the completed building pad after grading to confirm the expansion index.

3.2.5 Corrosivity

The risk of corrosion of construction materials relates to the potential for soil-induced chemical reaction. The rate of deterioration depends on soil resistivity, texture, acidity, and chemical concentration. A representative sample of the upper site soils was transported to an outside laboratory for corrosivity testing, and the results of these tests are attached in Appendix B, and summarized in the following table. Sulfate and chloride concentrations are expressed in mg/kg on a dry weight basis.

Boring Number	Depth (ft)	Description	pH	Chloride (mg/kg)	Sulfate (mg/kg)	Specific Conductance (umhos/cm)
B-1	0 – 5	CLAYEY TO SILTY SAND	8.0	10	260	260

The sulfate content is negligible (less than 1000 mg/kg) based on ACI 318, and therefore special considerations are not required for concrete which will be in contact with the onsite soils. A representative sample of the blended, recompacted soils should be obtained from the surface of the completed building pad after grading for additional corrosivity testing to confirm the sulfate content.

3.3 Groundwater

At the time of our field exploration, groundwater was encountered at a depth of approximately 18 feet below the existing ground surface. Based on the *Depth to Historically High Groundwater* map, Figure 2 (CDMG, 2002), the historically highest groundwater level below the site was approximately 8 feet below the existing ground surface.

Groundwater elevations are dependent on seasonal precipitation, irrigation, land use, and climatic conditions, among other factors, and as a result fluctuate. Therefore, water levels at the time of construction and during the life of the development may vary from the observations or conditions at the time of our field exploration.

3.3.1 Infiltration Discussion

The intentional introduction of enormous amounts of water into the ground via the infiltration of onsite stormwater is a relatively new concept, and is inherently risky, regardless of any precautions which may be taken. On the subject site, the proposed building footprint takes up nearly the entire site, and therefore any proposed infiltration would have to be implemented directly below the proposed building footprint. In our opinion, *the infiltration of water directly below the proposed building footprint would be especially risky, and ill-advised.* In addition, one of the restrictions related to onsite infiltration is that there must be a minimum of 5 feet of vertical separation between the depth of infiltration and either the current or historically highest groundwater level, whichever is higher. Therefore, since the historically highest groundwater level is 8 feet below the existing ground surface, the bottom of any proposed infiltration features would have to be at 3 feet deep or shallower.

There would also have to be careful coordination of the site utility locations with any proposed stormwater infiltration features. The proposed stormwater infiltration features would *not* be allowed to come into contact with, or to even be in close proximity to utility trench backfill, and utilities would not be allowed to cross above, below or through any proposed infiltration features. The infiltration features would also have to be set back a minimum of 8 feet from all foundations per Ventura County requirements, and based on the nature of the proposed structure, there will be an extensive system of interior pad foundations supporting the podium deck and structure above.

Based on the considerations discussed above, in addition to the presence of expansive soils underlying the subject site, it is our recommendation that stormwater mitigation on the subject site consist of a system which detains, treats and releases the water, in lieu of actual infiltration into the subsurface. Based on our experience with other projects within the City of Oxnard where infiltration was logistically not possible, they allow for a waiver of infiltration requirements. Our understanding of the process of obtaining a waiver of infiltration requirements is that during the plan submittal process, after more complete project plans have been developed and reviewed by our office, a *Letter of Infeasibility* would be prepared by our office detailing the reasons why infiltration is not feasible on the subject site, although the discussion provided above may be sufficient.

4. SEISMICITY

4.1 Seismic Design Criteria

The California Building Code (CBC) is utilized in the seismic design of structures, and is based on the *Maximum Considered Earthquake Ground Motion*. The maximum considered earthquake spectral response accelerations are then adjusted for the general type of earth materials within approximately the upper 100 feet underlying the site,

termed a *Site Class*, which would be D for the subject site. The *Site Class* is based on parameters such as shear wave velocity, standard penetration test resistance, undrained shear strength, and earth material type.

The site-specific seismic design criteria required by the 2019 CBC were determined utilizing the SEAOC/OSHPD (2020) Seismic Design Maps online web app, utilizing the most current, ASCE 7-16 Standard, and the output from this web app is attached, and summarized in the table below.

ASCE Standard	F_a	F_v	PGA	PGA_M	S_S	S_1	S_{MS}	S_{M1}	S_{DS}	S_{D1}
7-16	1.0	Null*	0.754	0.829	1.723	0.635	1.723	Null*	1.148	Null*

*** See Section 11.4.8 of ASCE 7-16**

Conformance to these criteria does *not* constitute a guarantee or assurance that significant structural damage will *not* occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and *not* to avoid all damage, since such design may be economically prohibitive.

4.2 Earthquake Effects

The intensity of ground shaking during an earthquake can result in a number of phenomena classified as ground failure, which include ground rupture due to faulting, landslides, liquefaction, and seismically induced dry settlement. Other seismic hazards include seiches and tsunamis. Descriptions of each of these phenomena and an assessment of each, as it may affect the subject site, are included in the following sections. The Seismic Hazards Mapping Act of 1990, which became effective in 1991, requires mitigation of seismic hazards to a level that does *not* cause collapse of buildings intended for human occupancy, but it does *not* require mitigation to a level of no ground failure or structural damage.

4.2.1 Shallow Ground Rupture

Ground surface rupture occurs when movement along a fault is sufficient to cause a gap or rupture where the upper edge of the fault zone intersects the ground surface, and such ruptures rarely occur as single breaks or are confined to a narrow zone. More commonly, ground rupture associated with faulting is characterized by relatively short segments of faulting that occur over a broad area of the upper plate. In some cases, particularly in unconsolidated alluvial sediments, *secondary ground ruptures* can develop from a number of causes not necessarily related directly to surface rupture of the causative fault. The secondary ruptures may be caused by seismically-induced settlement, landslides, and liquefaction. The subject site is *not* located in an Alquist-Priolo Earthquake Fault Zone, and therefore surface fault rupture is not considered a hazard at the subject site, and a subsurface fault investigation is not required.

4.2.2 Earthquake-Induced Landsliding

Landslides are slope failures that occur where the horizontal seismic forces act to induce soil failure. Seismic Hazard Maps have been released by the California Geological Survey that delineate areas that have been subject to, or are potentially subject to landsliding or permanent ground displacement as a result of earthquake-induced ground shaking. The subject site is not located in a seismic hazard zone for landslides, and the subject site and surrounding areas are relatively flat. Therefore, on-site earthquake-induced landsliding is *not* considered to be a hazard.

4.2.3 Seiches and Tsunamis

Seiches are an oscillation of the surface of an inland body of water that varies in period from a few minutes to several hours. Seismic ground motions can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. Since the site is *not* located close to an inland body of water and is at an elevation sufficiently above sea level to be outside the zone of a tsunami runup, the risk of these two hazards is *not* considered pertinent to this site.

4.2.4 Evaluation of Liquefaction Potential

The subject site is located in an area designated as being potentially liquefiable on the State of California *Seismic Hazard Zones Map* of the Oxnard Quadrangle (CDMG, 2002), as shown on the attached Figure 3 (as indicated by the green shading). Therefore, a detailed liquefaction analysis was performed.

Boring B-1 was excavated to a depth of 51.5 feet, in order to assess the liquefaction potential at the site. The results of the liquefaction analysis are included on Plate D-1 in Appendix D, and the results of this analysis, along with other geologic information about the area, were then used to evaluate the potential for the occurrence of liquefaction. The geotechnical data obtained from Boring B-1, and our laboratory test results, including equivalent standard penetration test (SPT) data, percent fines, clay fraction and Atterberg limits results, were utilized in our evaluation of liquefaction hazard potential at the site. Younger alluvial soils consisting primarily of relatively dense sand, and very stiff clay were encountered from the historically highest groundwater level to the total depth of exploration, 51.5 feet.

The historically highest groundwater level in the vicinity of the site is an estimated 8 feet below the existing ground surface, as shown on the attached Figure 2, *Depth to Historically High Groundwater* map (CDMG, 2002), and existing groundwater was encountered at a depth of approximately 18 feet below the ground surface during our site exploration. Therefore, the potential for liquefaction was analyzed by conservatively using the historically highest groundwater depth of 8 feet, as required.

The methods following the recommendations of the NCEER (Youd and Idriss, 1997; Youd et al, 2001) were used in the liquefaction analysis, supplemented by the recommendations of Bray and Sancio (2006), and Boulanger and Idriss (2006) in the analysis of fine grained soils (clays and silts). A design-level earthquake magnitude of 6.90, and a site acceleration of 0.829g (PGA_M) were utilized to perform the liquefaction evaluation.

Blow counts used for the liquefaction evaluation were based on the blow counts measured with the driven sampler, a modified California sampler. Blow counts using the modified California sampler were adjusted to equivalent blows of a standard penetration test (SPT) sampler using a standard multiplier of ⅔. The measured blow counts were also adjusted for borehole diameter, rod length, fines content, overburden pressure, and delivered energy (Youd and Idriss, 1997 and 2001) to correspond to a driving-energy level of 60%, to obtain the final corrected blow count, $N_1|_{60}$. An energy correction factor of 1.33 was utilized for the automatic hammer utilized during sampling, based on specific energy calibration for this particular hammer and drill rig provided by the drilling subcontractor, Choice Drilling. A slightly conservative wet soil density of 130 pcf was also utilized in the calculations for both liquefaction and dynamic dry settlement.

The earth materials underlying the site from the historically highest groundwater level to a depth of approximately 25 feet consist of a dense to very dense sand, with corrected equivalent SPT blow counts all above 30, followed by very stiff sandy to silty clay from 25 to 33 feet, followed by alternating layers of dense sandy soils (also with corrected equivalent SPT blow counts all above 30), and very stiff clayey soils to the total depth explored, 51.5 feet. Representative samples of the clayey soils were also determined to have plasticity indices of 13 and 15. Therefore, based on the preliminary screening criteria contained within SP117A (CGS, 2008), the sandy materials below the historically highest groundwater level would not be considered subject to liquefaction based on equivalent SPT blow counts all above 30, and the very stiff clayey earth materials would be expected to 'behave like clays' (Boulanger and Idriss, 2006; CGS, 2008), and would not be considered susceptible to liquefaction, or any of the related phenomena.

4.2.5 Dynamic Dry Settlement

The potential for seismically-induced dry settlement of the soils underlying the subject site as a result of densification of the sandier earth materials during seismic shaking was analyzed, and the results are shown on the attached Plate D-2 in Appendix D. The calculations were performed utilizing the corrected, equivalent SPT blow counts (as described in the previous section of this report), and the methods of Pradel (1998). The analysis was

conservatively performed from the ground surface to a depth of 20 feet, slightly below the current groundwater level. Soils below the groundwater level would not be prone to dynamic dry settlement.

In accordance with standard local practice, the acceleration to be utilized in the dynamic dry settlement is the greater of $S_{DS}/2.5$ or $^2/_3$ PGA_M (Blake, 2015). The greater of these values is $^2/_3$ $PGA_M = 0.553$ (which is greater than $S_{DS}/2.5 = 0.459$). The upper 5 feet of earth materials underlying the proposed structure will consist of future compacted fill, which would not be considered subject to significant dynamic dry settlement (blow count of 50 assumed).

The results show a maximum potential seismically-induced dry settlement of approximately 0.08 inches from the ground surface to a depth of 20 feet, which would be considered to be negligible.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions and Design Requirements

Based on the findings of our data review, subsurface exploration, laboratory testing, field testing, and engineering analysis, and within the scope of this study, the proposed multi-family housing development is considered *feasible* from a geotechnical engineering viewpoint, provided the recommendations in this report are incorporated into the project plans and implemented during construction. The following is a general discussion of the main geotechnical issues affecting the site, and recommended mitigation measures. More detailed recommendations are provided in subsequent sections of this report.

In order to provide more uniform foundation support for the proposed structure, it is recommended that the upper site soils be over-excavated and recompacted to provide a relatively uniform blanket of newly placed compacted fill for support of the proposed structure. The proposed structure may then be constructed on conventional, shallow spread footings bearing exclusively in newly placed, certified compacted fill, with a minimum of 3 feet of compacted fill underlying all footings. For footings located adjacent to the property lines, the existing native soil beyond the property line may be utilized for passive resistance.

It is recommended that any loose or disturbed upper site soils be over-excavated and recompacted for support of pavements, curbs, sidewalks and any other miscellaneous exterior surface improvements, and it is recommended that an overall minimum of 12 inches of newly placed compacted fill be provided for support of these improvements.

5.1.1 Faults / Seismicity

Although no known active surface fault traces traverse through the subject site, like most of Southern California, the site lies within a seismically active area. Earthquake resistant structural design is recommended. Designing structures to be earthquake-proof is generally considered to be impractical and cost prohibitive. Significant damage to structures may therefore be unavoidable during large earthquakes.

Structural design based on the 2019 CBC (California Building Code) structural analysis procedures specifies the use of the seismic parameters given previously in the *Seismic Design Criteria* section. These minimum code values are intended to protect life and may not provide an acceptable level of protection against significant cosmetic damage and serious economic loss. Significantly higher than code parameter values may be necessary to further reduce potential economic loss during a major seismic event. Structural Engineers, however, often regard higher than code values or procedures as impractical for use in structural design. The Structural Engineer and project Owner must decide if the level of risk associated with code values is acceptable and, if not, to assign appropriate seismic values above code values for use in structural design.

5.1.2 Hazardous Materials

AGS has *not* been retained to provide any type of environmental assessment of the subject property, *nor* to provide recommendations with respect to any contamination that might be present.

5.1.3 Site Grade Adjustments

Grading for the proposed project will consist of removal and recompaction of the upper site soils, and possible slight modification of the topography to create the proposed building pad and provide proper site drainage. A grading plan was not available as of the date of this report, however, the finished building pad area is expected to be at or near the current existing site grade.

5.1.4 Excavation Characteristics

Difficult excavation of the onsite earth materials in terms of hard or cemented materials is not anticipated, however, the relatively sandy earth materials may be subject to caving.

5.1.5 Shrinkage

Shrinkage results when the soil being placed as fill is compacted to a dry density greater than the in-place source materials. Based on experience, it is estimated that an average shrinkage factor of about 15% will result from recompaction of the upper onsite soils. This estimate is based on an average relative compaction of 92% for recompacted materials, and average densities of the undisturbed ring samples. This estimate does not account for the effects of volume losses due to clearing, grubbing and stripping operations, or uncertainty in the density of the in-place materials. If the actual average degree of compaction differs from that used to estimate shrinkage, the actual shrinkage may also differ. Variations in the estimated shrinkage factors should be anticipated and provisions for such variations should be included in the project specifications.

5.1.6 Drainage

All surface runoff must be carefully controlled and must remain a crucial element of site maintenance. Proper drainage and irrigation are important to reduce the potential for excessive infiltration adjacent to foundations. Final grading should provide positive drainage away from footings. All drainage shall be collected and diverted away from the proposed building and foundations in non-erosive devices. Gutters and roof drains should be provided, properly maintained, and discharge directly into glue-joined, watertight subsurface piping. All drainage piping should be watertight and discharge to an appropriate location, as determined by the project Civil Engineer.

All underground plumbing fixtures should be absolutely leak-free. As part of the maintenance program, utility lines should be checked for leaks for early detection of water infiltrating the soils that could cause detrimental soil movements. Detected leaks should be promptly repaired. Proper drainage shall also be provided away from the building footings during construction. This is especially important when construction takes place during the rainy season.

Seepage of surface irrigation water or the spread of extensive root systems into the subgrade of footings, slabs, concrete flatwork or pavements can cause differential movements and consequent distress in these structural elements. Trees and large shrubbery should *not* be planted so that roots grow under foundations and flatwork when they reach maturity. Landscaping and watering schedules should be planned with consideration for these potential problems.

Drainage systems should be well maintained, and care should be taken to *not over* or *under* irrigate the site. Landscape watering should be held to a minimum while maintaining a uniformly moist condition without allowing the soil to dry out. During extreme hot and dry periods, adequate watering may be necessary to keep soil from separating or pulling back from the foundations. Cracks in paved surfaces should be sealed to limit infiltration of surface waters.

5.1.7 Plan Review

When final Grading Plans become available, they should be reviewed by AGS *prior* to submittal to regulatory agencies for approval. Additional analysis *may* be required at that time depending on specific details of the proposed grading and improvements. Approval by this office will be indicated on the plans by signature and stamp.

Please be aware that the contract fee for our services to prepare this report does not include additional work that may be required, such as grading observation and testing, footing observations, plan review, or responses to governmental (regulatory) plan reviews associated with you obtaining a building permit. Where additional services are requested or required, you will be billed on an hourly basis for consultation or analysis. AGS requests a minimum of 24 hours be provided for plan reviews. Please anticipate additional time for plan corrections if all of our geotechnical recommendations have not been added to the plans, prior to our approving and stamping the plans.

5.1.8 Additional Recommendations

The following additional geotechnical recommendations should be incorporated into the final design and construction plans. All such work and design should be in conformance with applicable governmental regulations or the recommendations contained herein, whichever are more restrictive. The following recommendations have *not* been reviewed or approved by any governing agency at this time. These recommendations may change based on obtaining approval from the City. Design of the proposed project should be made following approval from the City.

5.2 Site Preparation

The area of the proposed new structure should be prepared so that foundations are founded above a blanket of newly placed compacted fill with a relatively uniform thickness. General guidelines are presented below to provide a basis for quality control during site grading. It is recommended that all compacted fills be placed and compacted with engineering control under continuous observation and testing by the Geotechnical Engineer and/or their field representative, and in accordance with the following requirements.

5.2.1 Removals

a. When demolishing any existing improvements or subsurface structures in the vicinity of the proposed improvements, the contractor should locate any existing foundations, floor slabs, debris pits, artificial fill, and subsurface trash which may be present. These soils and structures should be completely removed. The resulting excavations should be cleaned of all loose or organic material. In areas to receive fill or to support the proposed structure, deeper removals will be required, as discussed below.

b. Remove all vegetation and loose soil *prior* to fill placement. The general depth of stripping should be sufficiently deep to remove any root systems or organic topsoil which may be present. A careful search shall be made for subsurface trash, abandoned masonry, abandoned tanks and septic systems, and other debris during grading. All such materials, which are *not* acceptable fill material, shall be removed *prior* to fill placement. The removal of trees and large shrubs should include complete removal of their root structures, where applicable.

c. The proposed building area should be over-excavated to a minimum depth of 5 feet below the existing and future site grade, and a minimum of 3 feet below the bottom of the proposed foundations, whichever is deeper. The limits of over-excavation should extend a minimum of 3 feet beyond the outside perimeter of foundations, where possible. The excavated earth materials should be removed and replaced as compacted fill, as described below. Note that the requirement to over-excavate a minimum of 3 feet below the bottom of footings includes the elevator pit footings as well.

d. In areas to receive new exterior hardscape (i.e. concrete paving, sidewalks, curbs, walkways, etc.) or other miscellaneous surface improvements, all existing fill materials and any other loose or disturbed soil should be removed and recompacted. The depth of over-excavation in these areas should be a minimum of either 12 inches below existing grade, or 12 inches below the bottom of any improvements, or supporting aggregate base section, whichever is deeper.

e. A careful search shall be made for any deeper areas of existing fill or loose soil during grading operations. If encountered, these loose areas should be properly removed to the firm underlying soil and properly backfilled and compacted as directed by a field representative of the Project Geotechnical Engineer.

5.2.2 Bottom Stabilization

a. In the event that the soils at the bottom of over-excavation are very moist or wet at the time of grading, additional stabilization of the bottom of over-excavation with large float rock, gravel, and/or geogrid may be required, and/or the use of track-mounted equipment or excavators may be necessary. Stabilization of the bottom of over-excavation may be required, depending on the time of year and recent precipitation at the time of grading, and the type of equipment utilized. Based on the soil moisture conditions and earth material types encountered at the time of our field exploration, however, bottom stabilization is not expected to be required.

5.2.3 Suitable Fill Material

a. The excavated site soils, cleaned of deleterious material, may be utilized for fill. Rock larger than 6 inches should *not* be buried or placed in compacted fill. Rock fragments less than 6 inches may be used provided the fragments are *not* placed in concentrated pockets, and a sufficient percentage of finer grained material surrounds and infiltrates the rock voids.

b. Imported material should generally have engineering properties similar to, or more favorable than those on the subject site, and have an expansion index less than 50. Imported material will require testing to verify the engineering properties, and must be approved by the Geotechnical Engineer *prior* to placement on the site.

5.2.4 Placement of Compacted Fill

a. All fill materials should be placed in controlled, horizontal layers *not* exceeding 6 to 8 inches thick, and moisture conditioned to at least optimum moisture content, but no more than approximately 5% above optimum. Fill materials should be compacted to a minimum 90% of the laboratory maximum dry density, as determined by ASTM D1557. If the relative compaction does not meet this criteria, the contractor should rework the fill until it does meet the criteria. If the fill materials pump (flex) under the weight of construction equipment, difficulties in obtaining the required minimum compaction may be experienced. Therefore, if soil pumping occurs, it may be necessary to control the moisture content to a closer tolerance (e.g., 2 to 3% above optimum), use construction equipment that is not as prone to cause pumping, and/or a stabilizing layer of float rock, gravel, geogrid, or a combination of these, as described above.

b. The field test methods to be used to determine the in-place dry density of the compacted fill shall be in conformance with either ASTM D1556 (sand cone test method) or ASTM D2922 (nuclear gauge method).

c. Subgrade for the support of any concrete pavement subject to vehicular traffic, including the parking garage slab and entry driveways, shall be moisture conditioned as required, and be recompacted to at least 95% of the maximum dry density to a depth of at least 12 inches.

5.2.5 Testing of Compacted Fill

a. At least one compaction test shall be performed for every 500 yd^3 of the fill material. In addition, at least one test shall be performed for every 2 feet of fill thickness.

5.2.6 Inclement Weather and Construction Delays

a. If construction delays or the weather result in the surface of the fill drying, the surface should be scarified and moisture conditioned before the next layer of fill is added. Each new layer of fill should be placed on a rough surface so planes of weakness are not created in the fill.

b. During periods of wet weather and before stopping work, all loose material shall be spread and compacted, surfaces shall be sloped to drain to areas where water can be removed, and erosion protection or drainage provisions shall be made in accordance with the plans provided by the Civil Engineer. After the rainy period, the Geotechnical Engineer and/or his field representative shall *review* the site for authorization to resume grading and to provide any specific recommendations that may be required. As a minimum, however, surface materials previously compacted before the wet weather shall be scarified, brought to the proper moisture content, and recompacted *prior* to placing additional fill.

c. During the construction of concrete foundations and flatwork, construction sequences should be scheduled to reduce the time interval between foundation excavation, subgrade preparation and concrete placement to avoid drying and cracking of the earth materials, or the surface should be covered or periodically wetted to prevent drying and cracking.

5.2.7 Responsibilities

a. Representative samples of material to be used as compacted fill should be analyzed in the laboratory by the Geotechnical Engineer to determine the physical properties of the materials. If any materials other than those previously tested are encountered during grading, the appropriate analysis of this material shall be conducted by the Geotechnical Engineer as soon as practicable. Any imported soil from off-site sources shall be approved *prior* to placement.

b. All grading work shall be observed and tested by the Project Geotechnical Engineer or their field representative to confirm proper site preparation, excavation, scarification, compaction of on-site soil, selection of satisfactory fill materials, and placement and compaction of fill. All removal areas and footing excavations shall be observed by the field representative of the Project Geotechnical Engineer before any fill or steel is placed.

c. The lateral limits and the depths of the required over-excavation should be shown by the Civil Engineer on the grading plans.

d. The grading contractor has the ultimate responsibility to achieve uniform compaction in accordance with the geotechnical report and grading specifications.

5.3 Utility Trench Backfill

The on-site soils are suitable for backfill of utility trenches from 1-foot above the top of the pipe to the surface, provided the material is free of organic matter and deleterious substances. The natural soils should provide a firm foundation for site utilities, but any soft or unstable material encountered at pipe invert should be removed and replaced with an adequate bedding material.

The site Civil Engineer in accordance with manufacturer's requirements should specify the type of bedding materials. Granular soils will need to be imported for bedding and shading of utilities. Jetting of bedding materials should *not* be permitted unless appropriate drainage is provided and the bedding has a sand equivalent greater than 50.

Trench backfill should be placed in 6 to 8-inch lifts, moisture conditioned and properly compacted, as described in the *Site Preparation* section of this report. The upper 1 foot below subgrade in any areas subject to vehicular traffic

should be compacted to a minimum of 95% of the maximum dry density. Jetting of trench backfill is *not* acceptable to compact the backfill.

In areas where utility trenches pass through an existing pavement section, the trench width at the surface shall be enlarged a minimum of 6 inches on each side to provide bearing on undisturbed material for the new base and paving section to match the existing section.

Major underground utilities shall *not* cross beneath buildings unless specifically approved by the Project Civil Engineer and respective utility company. If approved, trenches crossing building areas shall be backfilled with a select gravelly sand compacted to 95% relative compaction.

5.4 Temporary Excavations

It is anticipated that temporary excavations made as part of the required removal and recompaction operations may be made to a maximum vertical height of approximately 5 feet, with excavations over 5 feet in height sloped back at a 1:1 gradient, where space allows. Where there is insufficient space to allow safe temporary excavations, the excavations required as part of the removal and recompaction operations should either be slot cut or shored. It is anticipated that the majority of the temporary excavations where the building perimeter is located in close proximity to the property line could be slot-cut. Shoring will likely be required however, for the removal and recompaction in the elevator pit area, which is located immediately adjacent to the property lines in the southwest corner of the site, since the excavations are anticipated to be approximately 8 to 9 feet deep, and will expose a large vertical cross-section of primarily sandy soils, and may be prone to caving. If permission could be obtained from the city to encroach a sufficient distance into adjacent areas outside the property lines, temporary sloped excavations may be possible, without the need for slot cuts or shoring.

Excavations should *not* be allowed to become soaked with water or to dry out. Surcharge loads should *not* be permitted within a horizontal distance equal to the height of the excavation from the top of the excavation, unless the excavation is properly shored. Excavations that might extend below an imaginary plane inclined at 45 degrees below the edge of an existing foundation should be properly shored to maintain foundation support for the existing structure. All excavations should be observed by a representative of the Geotechnical Engineer during initial excavation, to confirm the anticipated soil conditions, and recommend modifications if necessary.

5.4.1 Slot Cuts

Where safe, temporary vertical or sloped excavations will not be possible, the required removal and recompaction operations should either be performed utilizing the A-B-C slot cut method, or the excavation should be shored, depending on the height of the excavation, proximity to property lines, and earth materials exposed in the excavations. For slot cuts, the individual slots should be a maximum of 8 feet in width. The following sequence of construction should be followed during the removal and recompaction in the A-B-C slots:

a. Make an initial excavation at a 1:1 slope gradient (45 degrees).

b. Excavate the initial A-slots to a sufficient depth to achieve a minimum of 5-foot depth below the current or future grade, whichever is deeper, and also provide a minimum of 3 feet of compacted fill below the bottom of footings. Recompact the earth materials back into the A-slots.

c. Repeat the above procedure in the B-slots, and finally the C-slots, benching the fill into the compacted fill placed in the adjacent slot(s).

During slot cutting operations, additional loads (such as; vehicles, heavy equipment, etc.) should *not* be allowed to operate within 5 feet laterally of the top of the excavation, or within a lateral distance equal to the excavation height, whichever is greater.

5.4.2 Shoring

It is recommended that shoring consisting of drilled soldier piles be utilized to allow safe removal and recompaction in the proposed elevator pit area in the southwest corner of the site, unless permission can be obtained from the city to encroach a sufficient distance into adjacent areas outside the property lines, to allow safe, temporary sloped excavations. Soldier piles typically consist of steel beams placed in drilled holes, and backfilled with concrete up to the anticipated bottom of excavation, and slurry above.

It is anticipated that the soldier piles will be designed as cantilevers, due to the relatively small retained height expected. A triangular distribution of lateral earth pressure may be utilized in the design of cantilever shoring, and any surcharge from adjacent traffic or structures should be added, if necessary.

The following recommendations can be utilized in the design of the shoring system:

a. Soldier piles founded into competent native earth materials can be used for the shoring system. The spacing of the soldier piles should *not* be greater than 8 feet on center.

b. Soldier piles should be embedded a minimum of 8 feet into competent native earth materials, but not less than the depth required for adequate vertical support and lateral resistance. Soldier piles can be assumed fixed at 5 feet below the bottom of temporary excavation.

c. A skin friction of 330 psf can be used to determine vertical support.

d. A triangular distribution of lateral earth pressure may be utilized in the design of the soldier piles, utilizing an equivalent fluid pressure of 30 pcf, plus surcharge loading due to any adjacent structures or other surcharge.

e. Passive earth pressure may be computed as an equivalent fluid having a density of 250 pounds per cubic foot (pcf), with a maximum passive earth pressure of 2500 psf. The allowable passive earth pressure may be increased by 100% for isolated piles. Piles with spacing greater than 3 pile diameters on center can be considered isolated.

f. Drilling of piles should be observed and approved on a continuous basis by a representative of the Geotechnical Engineer. The City Inspector should be notified of the pile drilling *prior* to drilling piles.

g. The exposed earth materials should be inspected during excavation to determine where lagging may be necessary, although due to the sandy nature of the soils, continuous lagging is expected to be required. Due to the arching effect of the soils, a maximum lagging pressure of 400 pounds per square foot may be used for design, providing piles are not spaced greater than 8 feet on center. All lagging should be placed as soon as possible after the excavation is made.

Earth materials exposed in the temporary excavations should be kept moist but not saturated, to limit raveling and sloughing during construction. If wood lagging is used, care should be taken to fill all void spaces between the excavation face and the lagging. All timber lagging must be removed *prior* to permanent construction unless the timbers are properly treated, which they typically are. Any materials used for backfill behind the excavation walls should be free-draining. It is recommended that AGS be allowed to regularly inspect the temporary excavation as work progresses in order to monitor the excavations and verify that conditions assumed for design remain unchanged.

5.5 Foundation Design

After removal and recompaction of the upper site soils as previously discussed in this report, conventional, shallow footings founded exclusively in newly placed, certified compacted fill can be utilized for foundation support for the proposed structure. For footings located adjacent to the property lines, the existing native soil beyond the property line may be utilized for passive resistance. The following design parameters may be used in the design of conventional, shallow footings.

5.5.1 Minimum Footing Dimensions

Minimum required foundation depths and widths are provided below. These embedment depths are into the recommended bearing material, or below the lowest adjacent, final grade, whichever is deeper. Where located adjacent to utility trenches, footings shall extend below a 1:1 plane projected upward from the inside bottom of the trench.

Minimum Footing Embedment Depth, Inches	Minimum Continuous Footing Width, Inches	Minimum Isolated or Pad Footing Width, Inches
24	18	24

5.5.2 Allowable Bearing Pressure and Lateral Resistance

Allowable net vertical soil bearing pressure, including dead and live loads, are given below for footings founded in the recommended bearing material, at the minimum required embedment depths. The bearing capacity can be increased by ⅓ when considering short duration wind or seismic loads.

Bearing Material	Allowable Bearing Pressure, psf	Allowable Sliding Friction Coefficient	Allowable Passive Resistance, psf per foot of depth	Maximum Passive Resistance, psf
COMPACTED FILL	2500	0.35	250	2500

Resistance to lateral loads can be assumed to be provided by friction acting along the base of the foundation, and by passive earth pressure on the side of the footing. For footings located adjacent to the property lines, the existing native soil beyond the property line may be utilized for passive resistance. The allowable friction coefficient may be used with the vertical dead loads, and the allowable lateral passive pressure can be utilized for the sides of footings. These allowable values can be increased by a factor of 1.5 to convert from allowable to ultimate values.

5.5.3 Foundation Settlement

Static settlement of proposed foundations due to dead and frequently applied live loads is not expected to exceed approximately ½ to ¾-inch under the assumed loading conditions, and is expected to occur primarily upon initial application of loading. Differential settlement is not expected to exceed approximately ¼ to ½-inch.

The maximum settlement of the foundations as a result of dynamic dry settlement of the underlying soils in response to strong seismic shaking is anticipated to be a relatively negligible 0.08 inches. The potential differential dynamic dry settlement is typically assumed to be up to approximately ½ of the total settlement, which would be approximately 0.04 inches, and would occur over a distance of 30 feet.

5.5.4 Steel Reinforcement

All foundations should be reinforced with a minimum of four #4 steel bars. Two of these should be placed near the top of the foundation, and two should be placed near the bottom. Final structural details of the footings, such as footing thickness, concrete strength, and amount of reinforcement, should be established by the project Structural Engineer, but should comply with the above minimums. The upper site soils were determined to have an expansion index of 29, which is in the *low* expansion category. Expansion index testing should be performed at the completion of grading to confirm the expansion index at subgrade level of the finished building pad.

5.5.5 Required Observations

Prior to placing concrete in the footing excavations, an observation should be made by a field representative of the Project Geotechnical Engineer to confirm that the footing excavations are free of loose and disturbed soils and are embedded in the recommended earth materials.

5.6 Slab-On-Grade

If earthwork operations are conducted such that the construction sequence is not continuous or if construction operations disturb the surface soils, it is recommended that the exposed subgrade to support concrete slabs be tested within a day of the concrete pour to verify adequate compaction and moisture conditions. If adequate compaction and moisture conditions are not demonstrated, the disturbed subgrade should be over-excavated, scarified, and recompacted in accordance with the guidelines in the *Site Preparation* section of this report *prior* to the slab being poured.

5.6.1 Steel Reinforcing

It is recommended that the proposed concrete slab on grade be a minimum of 5 inches thick, and be reinforced with a minimum of #4 steel bars placed on 18-inch centers each way. The final structural details, such as (1) slab thickness, (2) concrete strength, (3) type, amount, and placement of reinforcing, and (4) joint spacing, should be determined by the project Structural Engineer, but it is recommended that the thickness and steel reinforcing comply with the minimum values provided above. The upper onsite soils are in the *low* expansion range, with an expansion of 29.

Cracking of concrete floor slabs can occur and is relatively common. Steel reinforcement, crack control joints and proper concrete curing are intended to reduce the risk of concrete slab cracking. Fiber reinforced concrete can also be utilized to reduce the risk of slab cracking. In addition, concrete slabs are generally not perfectly level, but they should be within tolerances included in the project specifications.

Tile flooring can crack, reflecting cracks in the underlying concrete slab. Therefore, if tile flooring is used, the slab designer should consider additional steel reinforcement, above minimum requirements, in the design of concrete slabs where tile will be installed. Furthermore, the tile installer should consider installation methods, such as using a vinyl crack isolation membrane between the tile and concrete slab, to reduce the potential for tile cracking.

5.6.2 Vapor Barrier

It is recommended that a minimum 10-mil thick plastic vapor barrier be used under floor slabs in any moisture sensitive areas. The vapor barrier should be installed in accordance with the recommendations contained in the latest version of ASTM E1643. In accordance with our understanding of the latest standard of practice, it is recommended that the concrete slab be poured directly on top of the vapor barrier. It is recommended that no sand be placed between the vapor barrier and concrete slab, however, due to the expansive nature of the onsite soils, it is recommended that 4 inches of sand be placed on top of the finished subgrade, and below the vapor barrier. Seams of the vapor barrier should be overlapped and sealed. Where pipes extend through the vapor barrier, the barrier should be sealed to the pipes. Tears or punctures in the vapor barrier should be completely repaired *prior* to placement of concrete. The concrete mix should be designed so as to minimize possible curling of the slab. The concrete slab should be allowed to cure properly before placing vinyl or other moisture-sensitive floor coverings.

5.7 Concrete and Asphalt Pavement Design

All areas to be paved with asphalt or concrete should be graded in accordance with the recommendations provided in the *Site Preparation* section of this report. Compaction tests will be required for all asphalt and aggregate base. A minimum relative compaction of 95% is required for the asphalt, aggregate base, and upper 12 inches of subgrade soils in areas subject to vehicular traffic. The aggregate base should have a minimum *R*-value of 78 and meet Caltrans Class II specifications. Base materials should be placed and compacted in lifts not exceeding 6 inches. Asphalt should *not* be placed if the base is pumping. Base materials are *not* required beneath curbs and gutters. However, if base materials are not utilized beneath the curbs and gutters, it is recommended that the subgrade soils

be scarified to a minimum depth of 12 inches below the bottom of curb, and recompacted to at least 95% relative compaction.

5.7.1 Asphalt Pavements

The following design criteria are provided in the event that asphalt paving will be utilized for the small exterior parking area proposed at the northwest corner of the site. Asphalt pavement section calculations were performed for asphalt pavement design for a range in traffic indices. Selection of the appropriate traffic index to use should be made by the Project Civil Engineer based on their knowledge of traffic flow and loadings, however, a traffic index of 5 would likely be sufficient for regular passenger car and truck parking.

The structural sections for asphalt pavement were computed in general accordance with the Caltrans method (**California Department of Transportation Highway Design Manual**), using an assumed *R*-value of 15 for the upper site soils. The recommended pavement sections for various traffic indices are summarized in the following table. The City of Oxnard will likely require that additional traffic index testing be performed on a representative sample of the subgrade soils after completion of the parking lot grading.

Traffic Index	Thickness, Inches	
	Asphalt Concrete	Aggregate Base
5.0	4.0	6.0
6.0	4.5	9.0
7.0	5.0	12.0

5.7.2 Concrete Pavements

It is recommended that all exterior concrete pavement subject to vehicular traffic be a minimum of 5 inches thick, and be underlain by a minimum of 4 inches of aggregate base. Concrete flatwork subject only to pedestrian traffic (i.e. walkways, sidewalks, etc.) should be a minimum of 4 inches thick, and may be placed directly on compacted subgrade. All exterior concrete should be reinforced with a minimum of #4 steel bars placed on 24-inch centers each way.

5.7.3 Pavement Maintenance

Pavement section design assumes that proper maintenance practices, such as sealing and repair of localized areas of distress, are employed throughout the design life of the pavement.

5.8 Retaining Wall Design Criteria

The following general retaining wall design criteria is provided for use in the design of elevator pit retaining walls, and any other miscellaneous small retaining walls which may be incorporated into the project design, although the exact locations and heights of any other miscellaneous proposed retaining walls which may be utilized are not yet known. It is anticipated that all proposed retaining walls will retain less than 6 feet of earth materials, and therefore seismic lateral forces need not be incorporated into the design.

Retaining wall foundations may be designed utilizing the criteria provided in the *Foundation Design* section of this report.

5.8.1 Lateral Earth Pressures

The earth pressure behind retaining walls depends on the allowable wall movement, type of backfill materials, backfill slopes, surcharges, and hydrostatic pressures if any. The following equivalent fluid pressures are recommended for vertical walls with no hydrostatic pressure, no surcharge, no seismic effects, and a backfill slope with a gradient less (flatter) than 5(H):1(V). Seismic lateral forces would be in addition to the static wall pressures provided below, and would be required for walls retaining more than 6 feet, which is not currently anticipated.

	Equivalent Fluid Unit Weight, pcf			
Wall Movement	Clean Sand or Gravel Backfill (GW, GP, SW, SP)	Silty Sand or Silty Gravel Backfill (SM, GM)	Clayey Sand, Clayey Gravel Backfill (SC, GC)	Silts, Clays (ML, CL)
FREE TO DEFLECT	30	40	45	55
RESTRAINED	40	50	60	80

In areas where the retaining walls retain sloping ground steeper than 5(H):1(V), the equivalent unit weights in the above table should be increased by 13 pcf for gradients up to 2(H):1(V).

These values are applicable for backfill placed between the wall stem and an imaginary plane rising at a 45-degree angle from below the edge (heel) of the wall footing. If the onsite soil is used as backfill within this zone, the equivalent fluid unit weight associated with a soil classification of SC should be used.

The surcharging effect of anticipated adjacent loads on the wall backfill due to traffic, footings, or other loads, should be included in the wall design. The magnitude of lateral load due to surcharging depends on the magnitude of the surcharge, the size of the surcharge-loaded area, the distance of the surcharge from the wall, and the restraint of the wall. We can provide assistance in evaluating the effects of surcharge loading, if desired, once details are known and provided.

5.8.2 Backfill and Drainage

Except for the upper 18 to 24 inches, the soil immediately adjacent to backfilled retaining walls should be free-draining filter material (such as Caltrans Class 2 permeable material), or gravel wrapped in filter fabric, within a minimum horizontal distance of 1-foot from the back face of the wall. As an alternative to either one of these, a drainage tile product such as Miradrain may be applied to the back face of wall, over the waterproofing. Weep holes and/or a subdrain pipe, as appropriate, should be installed at the base of retaining walls. Subdrain pipe should consist of a minimum 4-inch diameter perforated PVC pipe meeting ASTM D2729 or better, surrounded by a minimum of 1 cubic foot of gravel per lineal foot of pipe, and the entire pipe and gravel system should be wrapped in filter fabric, such as Mirafi 140N. Accordion or similar type pipe is *not* acceptable for subdrain pipe. The top 18 to 24 inches should be backfilled with less permeable compacted fill to reduce infiltration.

During grading and backfilling operations adjacent to any wall, heavy equipment should not be allowed to operate within 5 feet laterally of the wall or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand-operated equipment should be used to compact the backfill soils.

6. OBSERVATIONS AND TESTING

Prior to the start of site preparation and/or construction, *it is recommended that a meeting be held with the Contractor to discuss the project*. We recommend that AGS be retained to perform the following tasks prior to, and/or during construction. Please *advise* AGS a minimum 24 hours *prior* to any required site visit. *All approved plans, permits, and geotechnical reports must be at the jobsite and be made available during inspections.*

a. *Review* grading, foundation, and drainage plans to *verify* that the recommendations contained in this report have been properly interpreted and are incorporated into the project specifications. *If we are not accorded the opportunity to review these documents, we can take no responsibility for misinterpretation of our conclusions and recommendations.*

b. *Observe and advise* during all grading activities, including site preparation and placement of fill, temporary excavations and slot cutting, installation of shoring, and all foundation excavations, to *confirm* that suitable fill soils are placed upon competent material, and to allow

design changes if subsurface conditions differ from those anticipated, *prior* to the start of construction.

c. *Observe* the installation of all drainage devices.

d. *Test* all fill placed for engineering purposes to *confirm* that suitable fill materials are used and properly compacted.

7. LIMITS AND LIABILITY

All building sites are subject to elements of risk that cannot be wholly identified and/or entirely eliminated. Building sites are subject to many detrimental geotechnical hazards, including but *not* limited to the effects of water infiltration, erosion, concentrated drainage, total settlement, differential settlement, expansive soil movement, seismic shaking, fault rupture, landsliding, and slope creep. The risks from these hazards can be reduced by employing subsurface exploration, laboratory testing, analyses, and experienced geotechnical judgment. Many geotechnical hazards, however, are highly dependent on the property owner properly maintaining the site, drainage facilities, and slope and by correcting any deficiencies found during occupancy of the property in a timely manner. Even with a thorough subsurface exploration and testing program, significant variability between test locations and between sample intervals may exist. Ultimately, geotechnical recommendations are based on the experience and judgment of the geotechnical professionals in evaluating the available data from site observations, subsurface exploration, and laboratory tests. Latent defects can be concealed by earth materials, deposition, geologic history, and existing improvements. If such defects are present, they are beyond the evaluation of the geotechnical professionals. No warranty, expressed or implied, is made or intended in connection with this report, by furnishing of this report, or by any other oral or written statement. Owners and developers are responsible for retaining appropriate design professionals and qualified contractors in developing their property and for properly maintaining the property. Retaining the services of a geotechnical consultant should *not* be construed to relieve the Owner, Developer, or Contractors of their responsibilities or liabilities.

The analysis and recommendations submitted in this report are based in part on our subsurface exploration, laboratory testing, site observations, and provided data on geology and the proposed site development. Our descriptions and the boring logs may show distinctions between fill and native soils, between native (e.g., alluvium, colluvium, slopewash) and bedrock formation, and between soil type (e.g., sands and silty sands). Such distinctions were based on geologic information, grading plans when available, intermittent recovered soil/bedrock samples, and judgment. Delineations between these categories of materials may not be perfect and may be subject to change as more information becomes available. For example, judgments may be clouded when recovered samples are intermittent and small in comparison to the volume of soil under study, and macrostructure that would aid the identification process are not as apparent as they would be when the borehole is geologically downhole logged by entering the excavation. When the age of the fill is old, the difference between the structure of the fill and native materials may be less pronounced, or the degree of bedrock formation weathering sometimes makes it difficult to distinguish between overlying alluvium, colluvium, or slopewash and weathered bedrock formational material. In general, our recommendations are based more on the properties of the materials than on the category of the material type such as fill, alluvium, colluvium, slopewash, or bedrock formation. Furthermore, the actual stratigraphy may be more variable than shown on the logs.

Although this report may comment on or discuss construction techniques or procedures for the design engineer's guidance, this report should *not* be interpreted to prescribe or dictate construction procedures or to relieve the contractor in any way of their responsibility for the construction.

Please be aware that the contract fee for our services to prepare this report does not include additional work that may be required, such as grading observation and testing, footing observations, plan review, or responses to governmental (regulatory) plan reviews associated with you obtaining a building permit. Where additional services

are requested or required, you will be billed for any equipment costs and on an hourly basis for consultation or analysis.

The Geotechnical Engineer's actual scope of work during construction is very limited and does *not* assume the day-to-day physical direction of the work, minute examination of the elements, or responsibility for the safety of the contractor's workers. Our scope of services during construction consists of taking soil tests and making visual observations, sometimes on only an intermittent basis, relating to earthwork or foundation excavations for the project. We do *not* guarantee the contractor's performance, but rather look for general conformance to the intent of the plans and geotechnical report. Any discrepancy noted by us regarding earthwork or foundations will be referred to the Owner, project Engineer, Architect, or Contractor for action.

This report is issued with the understanding that it is the responsibility of the Owner, or of their representative, to ensure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor carry out such recommendations in the field. Advanced Geotechnical Services, Inc., (AGS) has prepared this report for the exclusive use of the Client and authorized agents, and this report should *not* be considered transferable. We do recommend, however, that the report be given to future property Owners for the sole purpose of disclosing the report findings.

Findings of this report are valid as of the date of issuance. Changes in conditions of a property may occur with the passage of time whether attributable to natural processes or works of man on this or adjacent properties. Furthermore, changes in applicable or appropriate standards occur due, for example, to legislation and broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, *this report is subject to our review and remains valid for a maximum period of one year*, unless we issue a written opinion of its continued applicability thereafter.

In the event of any changes in the nature and design of the proposed improvements, the conclusions and recommendations contained in this report shall *not* be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

This report may be subject to review by controlling agencies, and any modifications they deem necessary should be made a part thereof, subject to our technical acceptance of such modifications. All submissions of this report should be in its entirety. Under no circumstances should this report be summarized and synthesized to be quoted out of context for any purpose.

Test findings and statements of professional opinion do *not* constitute a guarantee or warranty, and *no* warranties, either expressed or implied, are made as to the professional advice provided under the terms of this agreement. We have strived, however, to provide our services in accordance with generally accepted geotechnical engineering practices in this community at the time of this report.

Appendix A

Field Exploration and Boring Logs

Appendix A
Field Exploration and Boring Logs

The field exploration included a site reconnaissance and subsurface exploration. During the site reconnaissance, the surface site conditions were noted, and the approximate locations of any exploration points were determined. The following descriptions of exploration methods are generic and may include methods not used on this project. Reference to the boring logs can be made to determine which methods are applicable to this project, and any differences between what is described below and actually occurred is described on the boring logs or in the main body of the report.

The test borings were advanced by either hand digging, digging with a backhoe, or drilling. In the case of drilling, a truck-mounted rotary drilling rig with a hollow-stem auger or bucket was used to advance the borings. When we expect to encounter shallow groundwater, a wet rotary drilling operation is usually used. The method actually used is noted on the boring logs. For geologic studies when the need for visual examination of the bedding and other stratigraphic features is needed along with engineering data, the larger bucket augers are used to allow a geologist to enter the excavation for visually logging the hole. When geologically logging borings and trenches, the sides are scraped prior to logging. A prefix B is used to designate a boring made with a drilling rig. When hand dug, the boring numbers have a prefix HB. When a backhoe was used, prefixes TP (test pit) or T (trench) are used. The difference between a trench and test pit being the length of the exploration; a trench being a long narrow exploration, most commonly used for fault studies. In each case, the soils were logged by technical personnel from our office and visually classified in the field in general accordance with the Unified Soil Classification system. The field descriptions have been modified as appropriate to reflect laboratory results when preparing the final boring logs.

Relatively undisturbed samples of the subsurface materials were obtained at appropriate intervals in the borings using a steel drive sampler (2.5-inches inside diameter, 3-inches outside diameter) lined with brass, one-inch-high sample rings with a diameter of 2.4 inches. This is referred to as a modified California sampler. The boring may be advanced by drilling with a hollow-stem auger or with a wet rotary operation. If below the groundwater, the hollow-stem is filled with water or drilling mud to counteract the fluid pressure of the groundwater. The sampler was usually driven into the bottom of the borehole with successive drops of a 140-pound safety hammer connected to the sampler with either A or AW rod and falling 30 inches. An automatic hammer is usually used when drilling with a CME dill rig, and a Safe-T-Driver is used when drilling with a Mobile drill rig. When above the groundwater level, a downhole Safe-T-Driver is usually used. Studies have shown that hammer efficiencies of the automatic hammer is over 90% while that of the Safe-T-Driver is about 70%, based on impact velocities. When a bucket auger is used to advance the boring, the driving weights change with depth, depending on the weight characteristics of the telescoping kelley bar, but the height of fall is usually 18 inches. Sampler driving resistance, expressed as blows per 6 inches of penetration, is presented on the boring logs at the respective sampling depths. When the borings or trenches are excavated with a backhoe, the sampler is pushed into the soil with the force of the backhoe. A hand sampler is used when the borings or trenches are advanced by hand digging or in some cases when a backhoe is used to make the excavation. This hand sampler is similar to the conventional California sampler, but lighter weight. An approximately 8-pound hammer falling about 18 inches is used to drive the hand sampler about 6 inches into the bottom of the exploration. The type of sampler used is noted on the boring logs. In some cases the hammer weight and falling distance deviate from those given above. The actual conditions are shown on the boring logs and supersede the conditions given above.

Ring samples were retained in close-fitting, moisture tight containers for transport to our laboratory for testing. Bulk samples, which were collected from cuttings, were placed in bags and transported to our laboratory for testing.

When noted on the boring logs, standard penetration test (SPT) samples were obtained using either a 20-inch or a 32-inch long split-barrel sampler with a 2-inch outside diameter and a 1.375-inch inside diameter when liners are used (1.5-inch inside diameter without liners). Unless noted otherwise, liners are used. This sampler is driven into

the soil with successive drops of a 140-pound, safety hammer falling 30 inches. The blows are recorded for each 6 inches of penetration for a total penetration of 18 or 24 inches. The sum of the number of blows for the last 12 inches of an 18-inch penetration or the middle 12 inches of a 24-inch penetration is referred to as the *N* value.

Logs, which are presented on Plates at the end of this Appendix, include a description and classification of each stratum, sample locations, blow counts, groundwater conditions encountered during drilling, results from selected types of laboratory tests, and drilling information. Keys to *Soil and Bedrock Symbols and Terms* are included on Plate A-1 and Plate A-2.

Each boring or trench, unless noted otherwise, was backfilled with cuttings at the completion of the logging and sampling. The backfill, however, may settle with time, and it is the responsibility of our client to ensure that such settlement does *not* become a liability.

Advanced Geotechnical Services

Key to Soil Symbols and Terms

Major Divisions			USCS Group Symbols	Typical Names
Coarse-Grained Soils (More than half of material is larger than No. 200 sieve)	Gravels (More than half of coarse fraction is larger than No. 4 sieve)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravels with fines (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand, clay mixtures
	Sands (More than half of coarse fraction is smaller than No. 4 sieve)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sand, little or no fines
			SP	Poorly graded sands, gravelly sands little or no fines
		Sands and fines (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (More than half of material is smaller than No. 200 sieve)	Silts and Clays Liquid Limit < 50		ML	Silts and very fine sands, rock-flour, silty or clayey fine sands, or clayey silts with slight plasticity
			CL	Inorganic clays of low or medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit > 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
	Highly Organic Soils		Pt	Peat and other highly organic soils

Legend of Laboratory Tests

G - Grain Size	C - Consolidation	PP - Pocket Penetrometer
A - Atterberg Limits	DS - Direct Shear	CH - Chemical
P - Compaction	U - Unconfined	
S - Swell/Expansion	T - Triaxial	

Sampler Type

Modified California / Hand Sampler — SPT / Shelby Tube — Rock Core / Bulk — No Recovery

Terms used in this report for describing soils according to their texture or grain size distributions are generally in accordance with the Unified Soil Classification System.

Terms Describing Density and Consistency

Coarse Grained soils (major portion retained on No. 200 sieve) include (1) clean gravels, (2) silty or clayey gravels, and (3) silty, clayey, or gravelly sands. Relative density is related to SPT blow count corrected for overburden pressure or drive energy.

Density		SPT *N* Value Blows/Ft	Relative Density %
Very Loose	vl	0 to 4	0 to 15
Loose	l	4 to 10	15 to 35
Medium Dense	md	10 to 30	35 to 65
Dense	d	30 to 50	65 to 85
Very Dense	vd	> 50	85 to 100

Fine Grained soils (major portions passing No. 200 sieve) inlcude (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shear strength as indicated by penetrometer readings, direct shear, or SPT blow count.

Consistency	Shear Strength, ksf	SPT *N* Value
Very Soft	< 0.25	0 to 2
Soft	0.25 to 0.50	2 to 4
Firm	0.50 to 1.00	4 to 8
Stiff	1.00 to 2.00	8 to 16
Very Stiff	2.00 to 4.00	16 to 32
Hard	> 4.00	> 32

Terms Characterizing Soil Structure

Slickensided	Having inclined planes of weakness that are slick and glossy in appearance.
Fissured	Containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical.
Laminated	Composed of thin layers of varying color and texture.
Interbedded	Composed of alternate layers of different soil types.
Calcareous	Containing appreciable quantities of calcium carbonate.
Well Graded	Having wide range in grain sizes and substantial amounts of intermediate particle sizes.
Poorly Graded	Predominately one grain size, or having a range of grain sizes with some intermediate sizes missing.
Porous	Having visibly apparent void spaces through which water, air, or light may pass.

Soil Moisture

From low to high, the moisture content is indicated by:

Dry	D
Slightly Moist	Sl M
Moist (near optimum for compaction)	M
Very Moist	V M
Wet	W

Size Proportions

Designation	Percent by Weight
Trace	< 5
Few	5 to 10
Little	15 to 25
Some	30 to 45

Grain Size Distribution

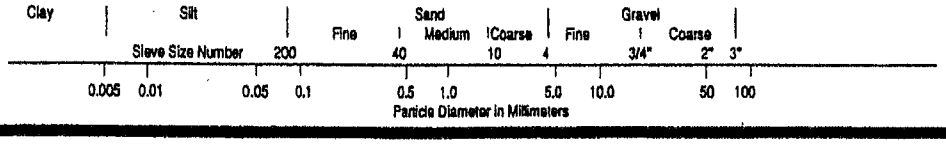


Plate A-1

Advanced Geotechnical Services

Key to Bedrock Symbols and Terms

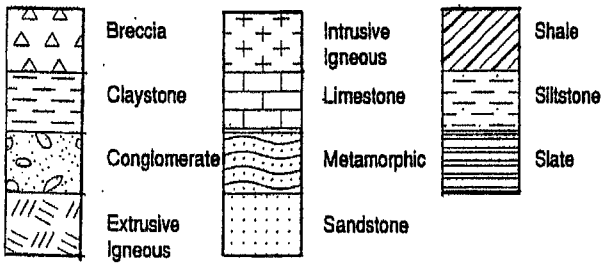
Degree of Weathering
Diagnostic Feature

Descriptive Term	Discoloration Extent	Fracture Condition	Surface Characteristics	Original Texture	Grain Boundary Condition
Unweathered	None	Closed or discolored	Unchanged	Preserved	Tight
Slightly Weathered	Less 20% of fracture spacing on both sides of fracture	Discolored, may contain thin filling	Partial discoloration	Preserved	Tight
Moderately Weathered	Greater than 20% of fracture spacing on both sides of fracture	Discolored, may contain thick filling, cemented rock	Partial to complete discoloration, not friable except poorly cemented rocks	Preserved	Partial Opening
Highly Weathered	Throughout		Friable and possibly pitted	Mainly Preserved	Partial Separation
Completely Weathered	Throughout		Resembles a soil	Partly Preserved	Complete Separation

Discontinuity Spacing

Description for Structural Feature: Bedding, Foliation, or Flow Banding	Spacing		Description for Joints, Faults, or Other Fractures
Very Thickly (Bedded, Foliated, or Banded)	More than 2 m	More than 6 ft	Very Widely (Fractured or Jointed)
Thickly	60 cm to 2 m	2 to 6 ft	Widely
Moderately	20 to 60 cm	8 to 24 in.	Medium
Thinly	60 to 200 mm	2.5 to 8 in.	Closely
Very Thinly	20 to 60 mm	0.75 to 2.5 in.	Very Closely
Description for Microstructural Features: Bedding, Foliation, or Cleavage			
Intensely (Laminated, Foliated, or Cleaved)	6 to 20 mm	0.25 to 0.75 in.	Extremely Close
Very Intensely	< 6 mm	< 0.25 in.	

Graphic Symbols - Bedrock



Rock Hardness

Classification	Field Test
Very Weak	Can be dug by hand and crushed with fingers.
Weak	Friable, can be gouged deeply with a knife and will crumble readily under light hammer blows.
Moderately Strong	Can be peeled with a knife. Material crumbles under firm blows with the sharp end of a geologic pick.
Strong	Cannot be scaped or peeled with a knife point. Hand held specimen breaks with firm blows of the pick.
Very Strong	Difficult to scratch with knife point. Cannot break hand held specimen.

Separation of Fracture Walls

Description	Separation of Walls, mm
Closed	0
Very Narrow	0 to 0.1
Narrow	0.1 to 1.0
Wide	1.0 to 5.0
Very Wide	> 5.0

Fracture Filling

Description	Definition
Clean	No fracture filling material
Stained	Discoloration of rock only. No recognizable filling material.
Filled	Fracture filled with recognizable filling material.

Surface Roughness

Description	Classification
Smooth	Appears smooth and is essentially smooth to the touch. May be slickensided.
Slightly Rough	Asperities on the fracture surfaces are visible and can be distinctly felt.
Medium Rough	Asperites are clearly visible and fracture surface feels abrasive to the touch.
Rough	Large angular asperites can be seen. Some ridge and high-side angle steps evident.
Very Rough	Near vertical steps and ridges occur on the fracture surface.

Where slickensides are observed, the direction of the slickensides should be recorded after the standard discontinuity surface description.

PLATE A-2

advanced geotechnical services, inc.

Boring Log B-1

Sheet 1 of 2

Project **Many Mansions** Client No. **5045** Date Drilled **5/21/20**

Comment **536 Meta Street, Oxnard**

Drilling Company/Driller **Choice Drilling** Equipment **Hollow Stem Auger**

Driving Weight (lbs) **140** Average Drop (in.) **30** Hole Diameter (in.) **8**

Elevation _____ ft Depth to Water _____ ft After _____ hrs on _____ Logged By **CMW**

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
				Alluvium (Qa) Dark brown Clayey to Silty SAND, moist, med. dense, fine grained					E.I.=29
		3 3 5				102.4	16.5		
5		5 5 9		@5 feet grades Sandier		115.1	11.7		
				Dark yellowish-brown fine grained SAND with some medium and coarse grains, moist, medium dense, poorly graded					
		9 12 27		@8 feet becomes dense		102.3	3.9		
				Light gray fine to coarse SAND, moist, dense, well-graded					
10		15 19 32				109.2	2.6		
		19 27 40				111.5	4.3		
15		12 19 25				111.8	4.7		
				@18 feet Groundwater					
20		17 21 28		Gray fine to coarse SAND, saturated, dense, well-graded		119.8	13.0		
25		19 15 12		Dark gray Sandy to Silty CLAY, very moist, very stiff (no recovery)					

Plate A- 3

advanced geotechnical services, inc.

Boring Log B-1

Sheet 2 of 2

Project **Many Mansions** Client No. **5045** Date Drilled **5/21/20**

Comment **536 Meta Street, Oxnard**

Drilling Company/Driller **Choice Drilling** Equipment **Hollow Stem Auger**

Driving Weight (lbs) **140** Average Drop (in.) **30** Hole Diameter (in.) **8**

Elevation _____ ft Depth to Water _____ ft After _____ hrs on _____ Logged By **CMW**

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
		9 12 15		@30 feet-No Recovery					
		9 13 18				100.7	25.8		
				Gray Clayey to Silty SAND, very moist, medium dense, fine grained					
35		12 19 22				105.1	21.3		
				Dark gray Silty CLAY, very moist, very stiff					
40		32 50-5"				103.2	24.2		
				Dark gray fine SAND, very moist, dense, poorly graded					
				Dark gray Silty CLAY, very moist, very stiff					
45		9 12 16				97.3	27.6		
				Dark gray to black Silty CLAY, very moist, very stiff					
50		9 12 18				96.7	26.3		
				Total Depth Explored 51.5 feet **Groundwater Encountered @ 18 feet** **Boring backfilled with Cuttings 5/21/2020**					
55									

This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

advanced geotechnical services, inc.

Boring Log B-2

Sheet 1 of 1

Project **Many Mansions** Client No. **5045** Date Drilled **5/21/20**

Comment **536 Meta Street, Oxnard**

Drilling Company/Driller **Choice Drilling** Equipment **Hollow Stem Auger**

Driving Weight (lbs) **140** Average Drop (in.) **30** Hole Diameter (in.) **8**

Elevation _____ ft Depth to Water _____ ft After _____ hrs on _____ Logged By **CMW**

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
				Alluvium (Qa) Medium brown Silty SAND, moist, medium dense, fine grained					
		6 6 8		Becomes Coarser with depth		97.3	16.0		
5		5 6 7				96.7	7.8		
		5 12 16		Light gray fine SAND, moist, medium dense, poorly graded		107.4	6.4		
10		15 19 27		Gray fine to coarse SAND interbeds, stained yellow and orange (Fe), slightly moist, medium dense to dense, well-graded		106.1	27.4		
15		15 18 50-4"		Grayish brown fine to medium SAND, slightly moist to moist, very dense, moderately well-bedded		104.3	3.8		
20		19 27 37		Dark gray fine to coarse SAND with small sub-rounded GRAVELS, saturated, dense, well-graded, groundwater @ 18 feet		86.7	11.9		
25		15 17 21							
				Total Depth Explored 26.5 feet **Groundwater Encountered @ 18 feet** **Boring backfilled with Cuttings 5/21/2020**					

Plate A- 5

advanced geotechnical services, inc.

Boring Log B-3

Sheet 1 of 1

Project **Many Mansions** Client No. **5045** Date Drilled **5/21/20**

Comment **536 Meta Street, Oxnard**

Drilling Company/Driller **Choice Drilling** Equipment **Hollow Stem Auger**

Driving Weight (lbs) **140** Average Drop (in.) **30** Hole Diameter (in.) **8**

Elevation _____ ft Depth to Water _____ ft After _____ hrs on _____ Logged By **CMW**

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
		6 9 13		**Alluvium (Qa)** Medium brown Silty SAND, moist, medium dense, minor white calcium carbonate staining, fine grained		116.9	13.4		
5		6 9 11		Gray fine to medium SAND with some coarse grains and infrequent small sub-rounded Gravels, stained yellow and orange (Fe), slightly moist, medium dense, moderately well graded. Coarsening with depth to yellow brown fine to coarse SAND with small Gravels		106.4	4.9		
		10 12 18				103.7	4.0		
				Yellowish-brown fine SAND, slightly moist, medium dense, friable, poorly graded					
10		10 17 21		Light gray fine to coarse SAND with small sub-angular to sub-rounded, slightly moist, medium dense, well graded		107.6	3.3		
15		19 21 32		Light gray fine to medium SAND, slightly moist, dense, poorly graded		115.1	3.8		
				Gray coarse SAND and GRAVEL, poorly graded, and fine to coarse SAND, saturated, dense, well-graded @18 feet Groundwater					
20		10 24 30				108.5	16.5		
25		18 21 35		Gray fine to medium SAND with some coarse grains, very moist to saturated, dense, poorly graded		99.9	24.0		
				Total Depth Explored 26.5 feet **Groundwater Encountered @ 18 feet** **Boring backfilled with Cuttings 5/21/2020**					

Plate A- 6

advanced geotechnical services, inc.

Boring Log B-4

Sheet 1 of 1

Project **Many Mansions** Client No. **5045** Date Drilled **5/21/20**

Comment **536 Meta Street, Oxnard**

Drilling Company/Driller **Choice Drilling** Equipment **Hollow Stem Auger**

Driving Weight (lbs) **140** Average Drop (in.) **30** Hole Diameter (in.) **8**

Elevation _____ ft Depth to Water _____ ft After _____ hrs on _____ Logged By **CMW**

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
		3 4 6		**Alluvium (Qa)** Medium brown Clayey to Silty SAND with some Gravels, moist, med. dense, fine grained		104.9	16.9		
5		5 7 14		Light gray fine to coarse SAND with some small Gravels, slightly moist, medium dense, well-graded		106.1	3.1		
		10 12 19		Yellowish-brown fine to medium SAND with some small Gravels, slightly moist, dense, well-graded		99.3	2.5		
10		15 19 22		Yellow brown fine to medium SAND and sub-rounded Gravel, slightly moist, dense, moderately well-graded		112.7	3.3		
15		18 27 32		Gray fine to coarse SAND and GRAVEL, moist, dense, well-graded, occasional brown and gray Clay lenses		84.8	10.7		
				@18 feet Groundwater					
20		27 37 50-6"		Gray fine to coarse SAND with small Gravels, saturated, very dense		118.9	15.3		
				Total Depth Explored 21.5 feet **Groundwater Encountered @ 18 feet** **Boring backfilled with Cuttings 5/21/2020**					
25									

Plate A- 7

Appendix B

Laboratory Testing

Appendix B
Laboratory Testing

A laboratory test program is designed for each project to evaluate the physical and mechanical properties of the soil and bedrock materials encountered at the site during our field exploration program. Laboratory tests were conducted on representative samples for the purpose of classification and determining their properties for use in analyses and evaluations. The most common laboratory tests include moisture-density, Atterberg limits, grain-size analyses (sieve and hydrometer analyses), sand equivalent, direct shear, consolidation, compaction, expansion index, and *R*-values. The following descriptions of test methods are generic and may include methods not used on this project. Reference to the boring logs and test results on Plates attached to this appendix will show which tests were performed for this project. Laboratory testing is performed in general accordance with the most recent ASTM (2007) test designations available at the time of testing.

Classification Tests

Classification testing is performed to identify differences in material behavior and to correlate the results with shear strength and volume change characteristics of the materials. Classification testing includes unit weight (e.g., dry density), moisture content, Atterberg limits, grain size analyses (sieve and hydrometer), and sand equivalent.

Moisture-Density Test

Site soils were classified in the laboratory in accordance with the Unified Soil Classification System. Moisture contents are performed in general accordance with ASTM Test Designation D2216 and unit weights were determined in general accordance with ASTM Test Designation D2937. Field moisture contents and dry unit weights were determined for the ring samples obtained in the field. Field moisture contents and dry unit weights are shown on the boring logs in Appendix A.

Sieve Analysis

Sieve analysis tests were conducted on the on-site soils in general accordance with sieve analysis test procedure from ASTM Test Designation D422. This method covers the quantitative determination of the distribution of particle sizes in soils. If this test was performed, the results are presented on Plates attached to this appendix.

Hydrometer Test

Hydrometer tests were performed in general accordance with ASTM Test Designation D422. If this test was performed, the results are presented on Plates attached to this appendix. Samples with obviously little course material and a high percentage of fines were prepared with a wet method (ASTM Test Designation D2217) rather than air-drying the sample and pulverizing with a mortar and pedestal.

Shear Tests

Direct shear tests were performed in general accordance with ASTM D3080 to determine the shear strength parameters of undisturbed on-site soils or remolded soil specimens. The samples are usually tested in an artificially saturated condition. This is accomplished by soaking the specimens in a confined container for a period of one or 2 days, depending on the permeability of the material. The specimen, 1-inch-high and 2.4-inch-diameter, is placed in the shear device, and a vertical stress is applied to the specimen. The specimen is allowed to reach an equilibrium state (swell or consolidate). The specimen is then sheared under a constant rate of deformation. The rate of deformation for a slow test, sufficiently slow to presumably allow drainage, is selected from computed or measured consolidation rates to simulate full drainage (full dissipation of any tendency for pore water pressure changes) during shear. A rate of displacement of 0.005 inches per minute was used for the most tests. The process usually is repeated for 3 specimens, each under different vertical stresses. The results from the 3 tests are plotted on a diagram of shear stress and normal (vertical) stress at failure, and linear approximations are drawn of the failure curves to determine the angle of internal friction and cohesion. The first moisture content shown on the graphs (associated with peak values) is for either the in-situ condition or the remolded condition, and the second moisture content (associated with ultimate value) is for the soaked condition.

Consolidation Test

Consolidation tests were performed in general accordance with ASTM D2435 and D5333 on selected samples to evaluate the load-deformation characteristics of the earth soils. The tests were performed primarily on material that would be most susceptible to consolidation under anticipated foundation loading. The soil specimen, contained in a 2.4-inch-diameter, 1.0-inch-high sampling ring, is placed in a loading frame under a seating pressure of 0.1 ksf. Vertical loads are applied to the samples in several geometric increments, and the resulting deformations were recorded at selected time intervals. When the pressure reaches a preselected effective overburden pressure (often 2 ksf) and the specimen has consolidated under that pressure, the laboratory technician adds water to the test cell and records the vertical movement. After the specimen reaches equilibrium with the addition of water, the technician continues the loading process, usually up to a pressure of about 8 ksf. The specimen is then unloaded in increments, and the test is dismantled. The results of the test are presented in terms of percent volume change versus applied vertical stress. If this test was performed, the results are presented on Plates attached to this appendix.

Compaction Test

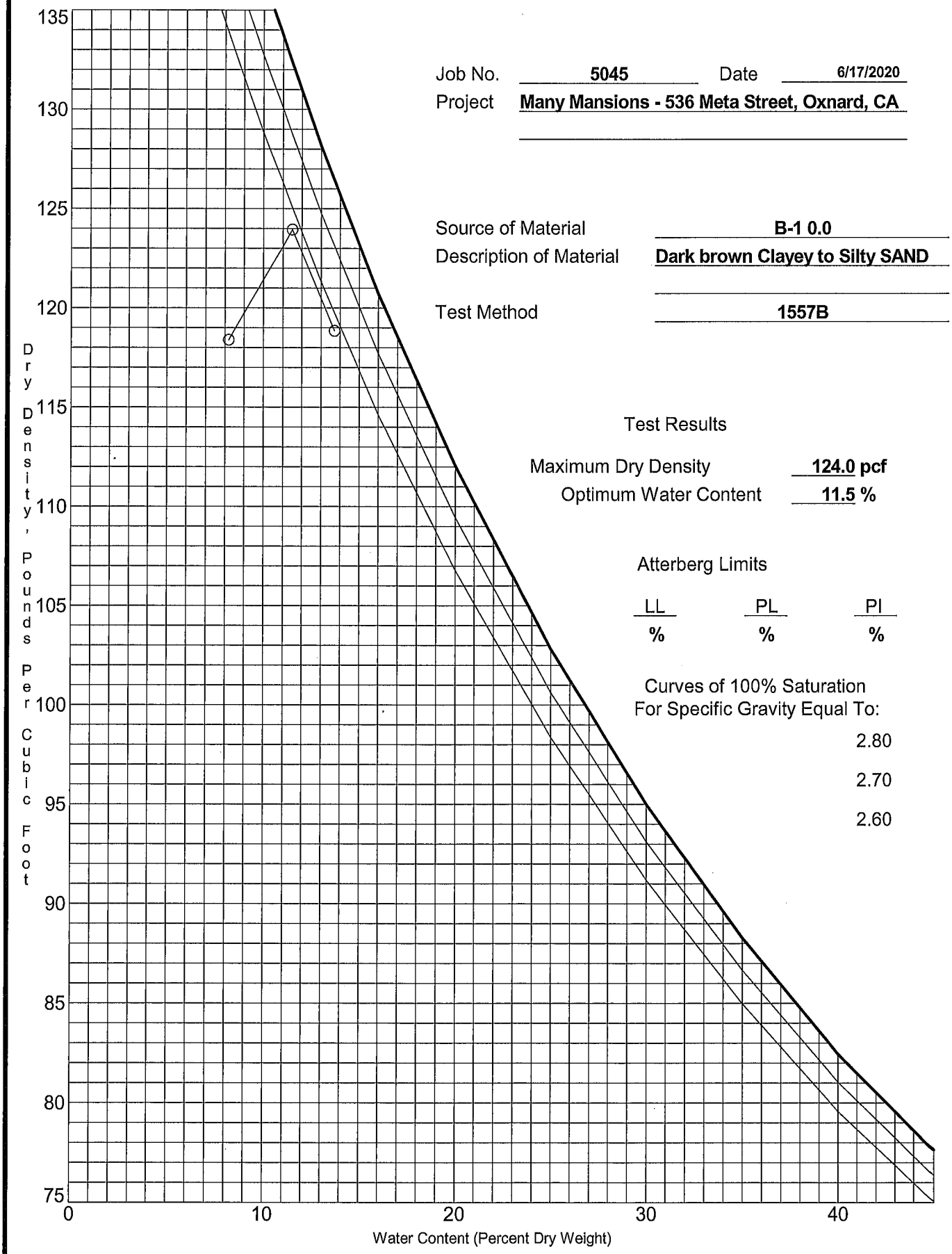
Compaction tests provide information on the relationship between moisture content and dry density of the soil compacted in a given manner. The maximum density is obtained for a given compaction effort at an optimum moisture content. Specifications for earthwork are in terms of the unit weight (or dry density) expressed as a percentage of the maximum density, and the moisture content compared to the optimum moisture content. Compaction tests were performed in general accordance with ASTM Test Designation D1557 to determine the maximum dry densities and optimum moisture contents of the on-site soils. If this test was performed, the results are presented on Plates attached to this appendix.

Expansion Index Test

The expansion index test provides an assessment of the potential for expansion or heave that could be detrimental to foundation or slab performance. Expansion Index tests are performed on shallow on-site soils in general accordance with expansion test procedures in ASTM D4829. In this test, a specimen is compacted at a degree of saturation between 45% and 55% in a 4.01-inch-diameter, 1.0-inch-high ring. The specimen is subjected to a seating pressure of 144 psf, water is added to the test cell, and swell is monitored until the expansion stops. The volume of swell is converted to an expansion index. Any test results are summarized on the boring logs in Appendix A.

Sample Remolding

In some cases remolded samples are used when performing direct shear tests and consolidation tests. Samples are remolded to a specified moisture and density by compacting the soil in a 2.42-inch-diameter sample ring. The specified moisture content is either at optimum or a few percentage points above optimum. The specified dry density is usually at a relative compaction of 90%. The required moisture is added to and mixed with dry soil, providing a homogeneous mixture. A 2.42-inch-diameter ring is placed in a 6-inch-diameter compaction mold, and soil is placed in the mold to above the ring. The soil is then compacted with a 5.5-pound hammer with a free-fall drop of 12 inches. The sample is trimmed, and the dry density is determined. If the dry density deviates more than about one pound per cubic foot from the specified dry density, the process is repeated with the number of blows altered to better achieve the specified dry density.



Job No. 5045 Date 6/17/2020

Project Many Mansions - 536 Meta Street, Oxnard, CA

Source of Material B-1 0.0

Description of Material Dark brown Clayey to Silty SAND

Test Method 1557B

Test Results

Maximum Dry Density 124.0 pcf

Optimum Water Content 11.5 %

Atterberg Limits

LL	PL	PI
%	%	%

Curves of 100% Saturation For Specific Gravity Equal To:

2.80

2.70

2.60

Moisture-Density Relationship

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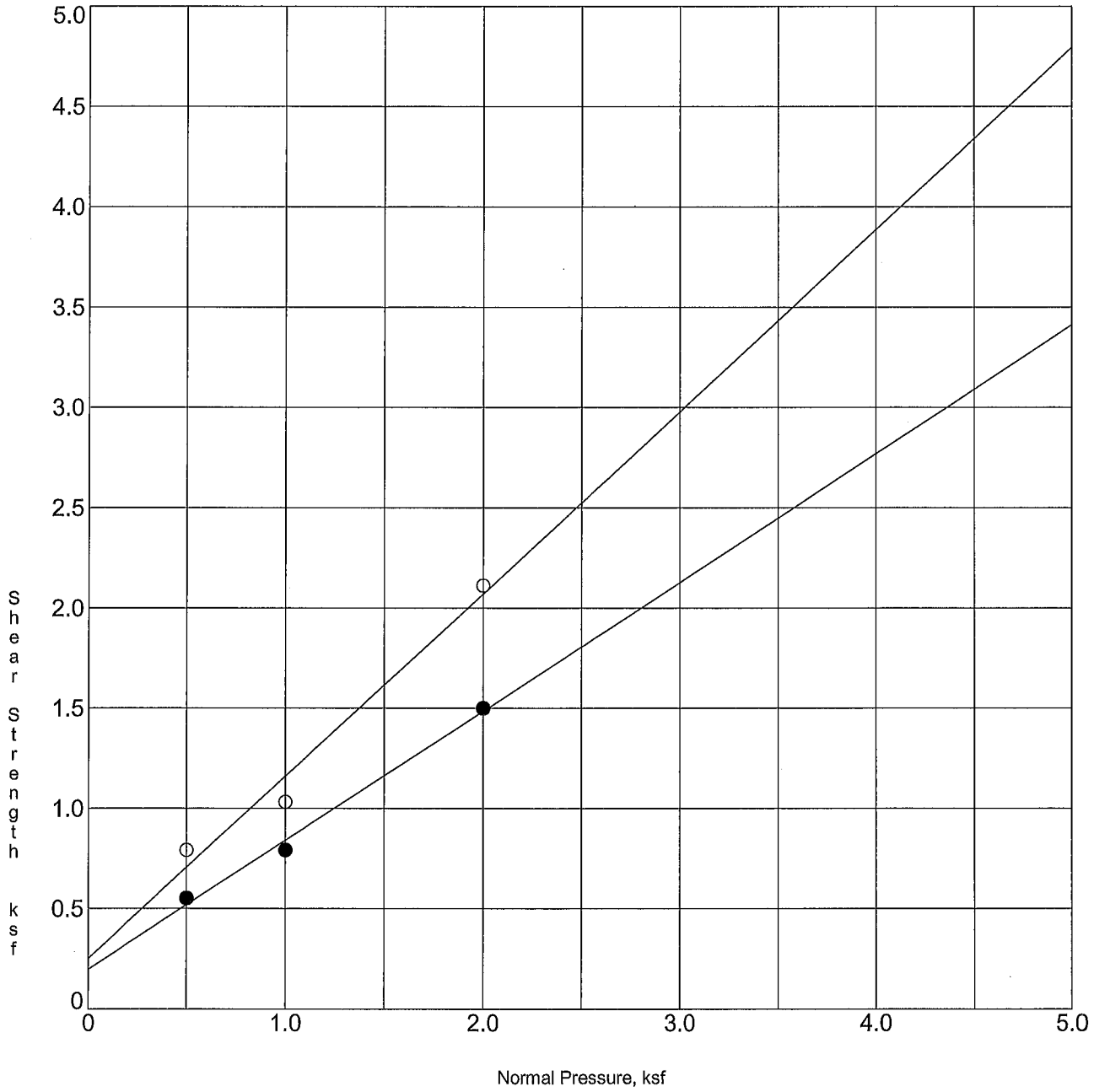
Plate B- 3



○ - Peak Shear ● - Ultimate Shear △ - Residual Shear

	Specimen Identification		Classification	DD	MC%	c, ksf	phi
○	B-1	0.0	Dark brown Clayey to Silty SAND			0.25	42
●	B-1	0.0	*REMOLD*			0.20	33

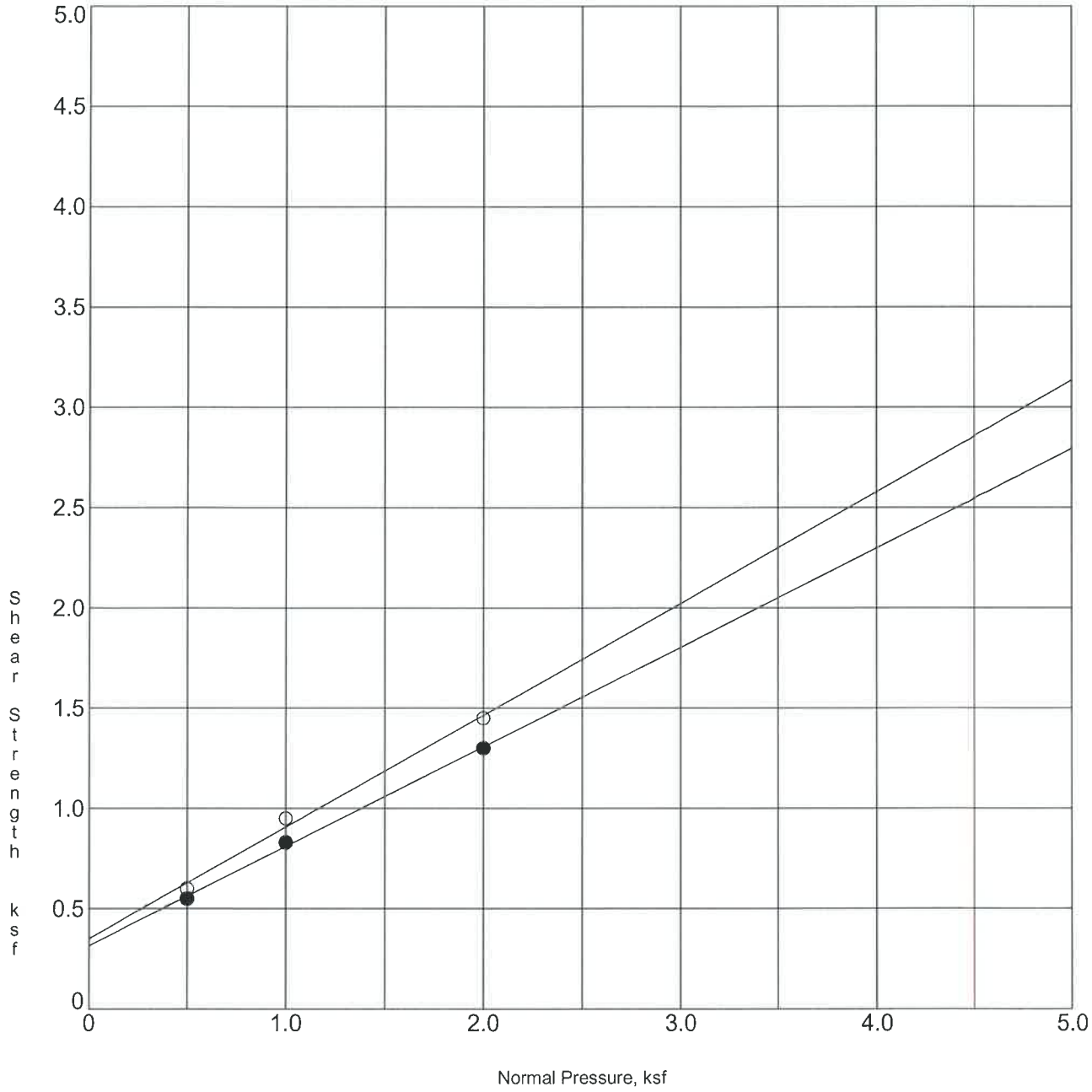
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Shear Test Diagram

Advanced Geotechnical Services, Inc.

Plate B- 4



○ - Peak Shear ● - Ultimate Shear △ - Residual Shear

	Specimen Identification		Classification	DD	MC%	c, ksf	phi
○	B-4	2.5				0.35	29
●	B-4	2.5				0.32	26

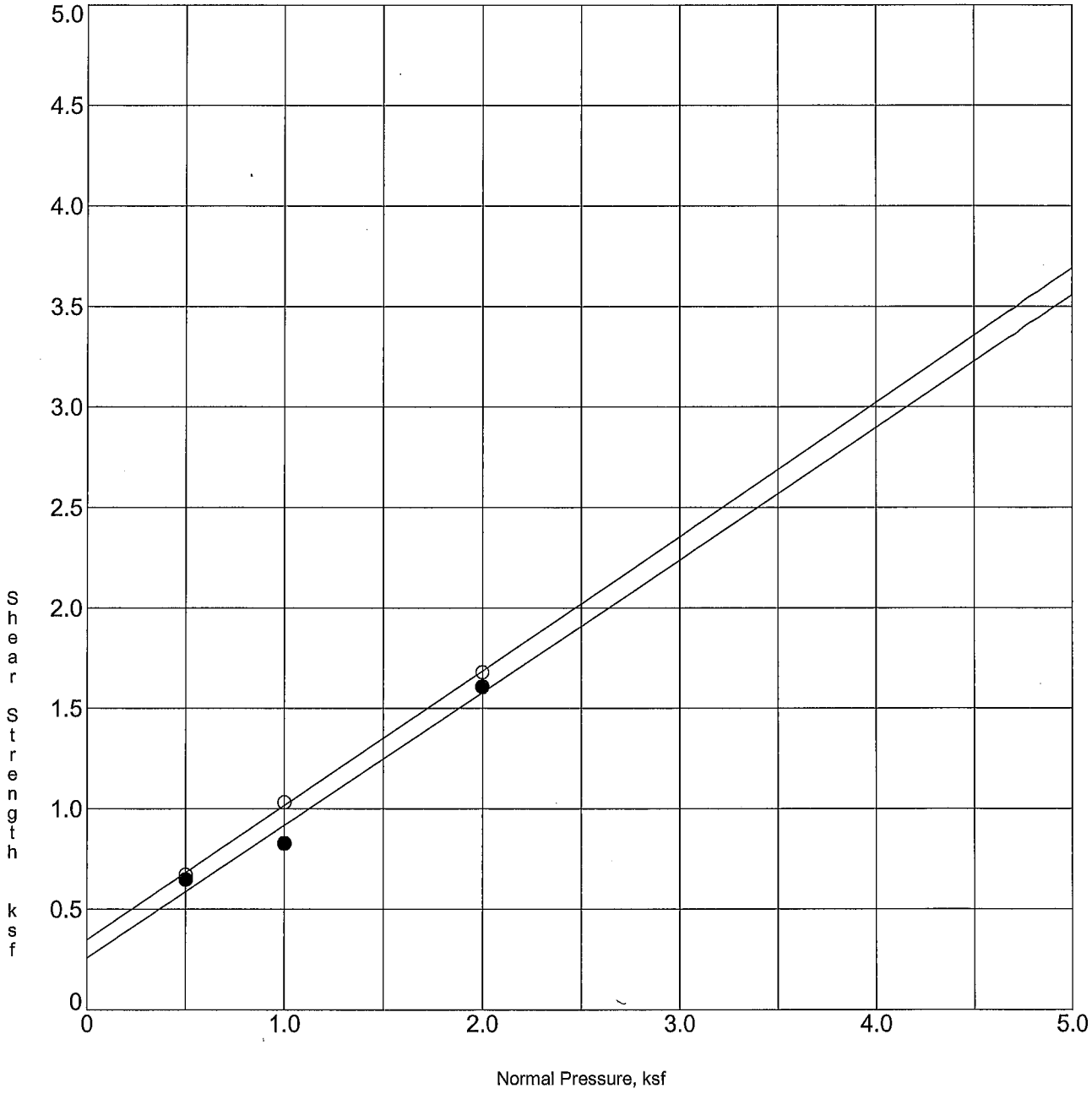
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Shear Test Diagram

Advanced Geotechnical Services, Inc.

Plate B- 5



○ - Peak Shear ● - Ultimate Shear △ - Residual Shear

Specimen Identification			Classification	DD	MC%	c, ksf	phi
○	B-3	5.0	Gray fine to medium SAND			0.35	34
●	B-3	5.0	*UNDISTURBED*			0.26	33

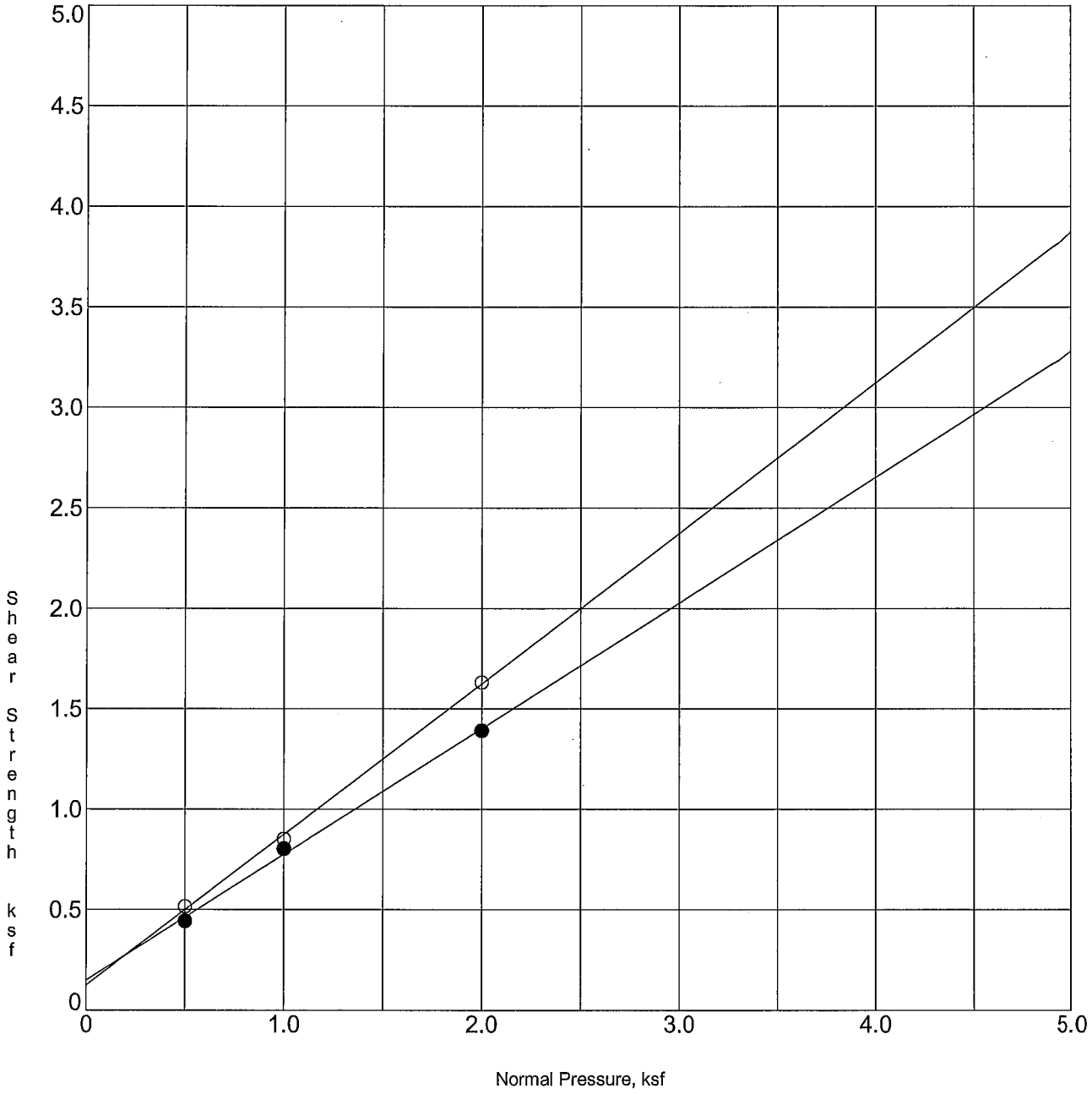
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Shear Test Diagram

Advanced Geotechnical Services, Inc.

Plate B- 6



○ - Peak Shear ● - Ultimate Shear △ - Residual Shear

	Specimen Identification		Classification	DD	MC%	c, ksf	phi
○	B-2	7.5	Light gray fine SAND			0.13	37
●	B-2	7.5	*UNDISTURBED*			0.15	32

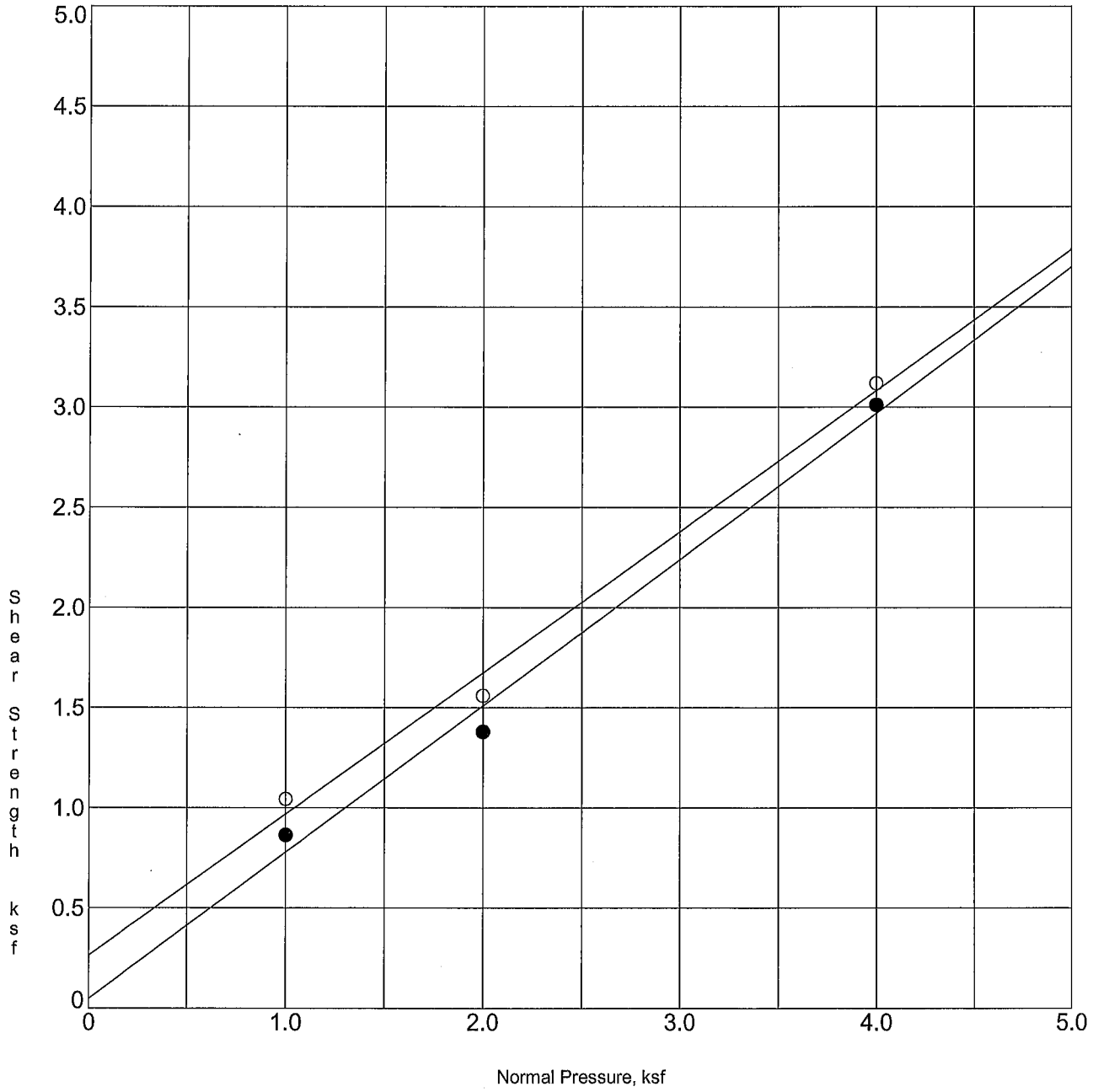
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Shear Test Diagram

Advanced Geotechnical Services, Inc.

Plate B- 7



○ - Peak Shear ● - Ultimate Shear △ - Residual Shear

Specimen Identification			Classification	DD	MC%	c, ksf	phi
○	B-1	10.0	Light gray fine to coarse SAND			0.26	35
●	B-1	10.0	*UNDISTURBED*			0.05	36

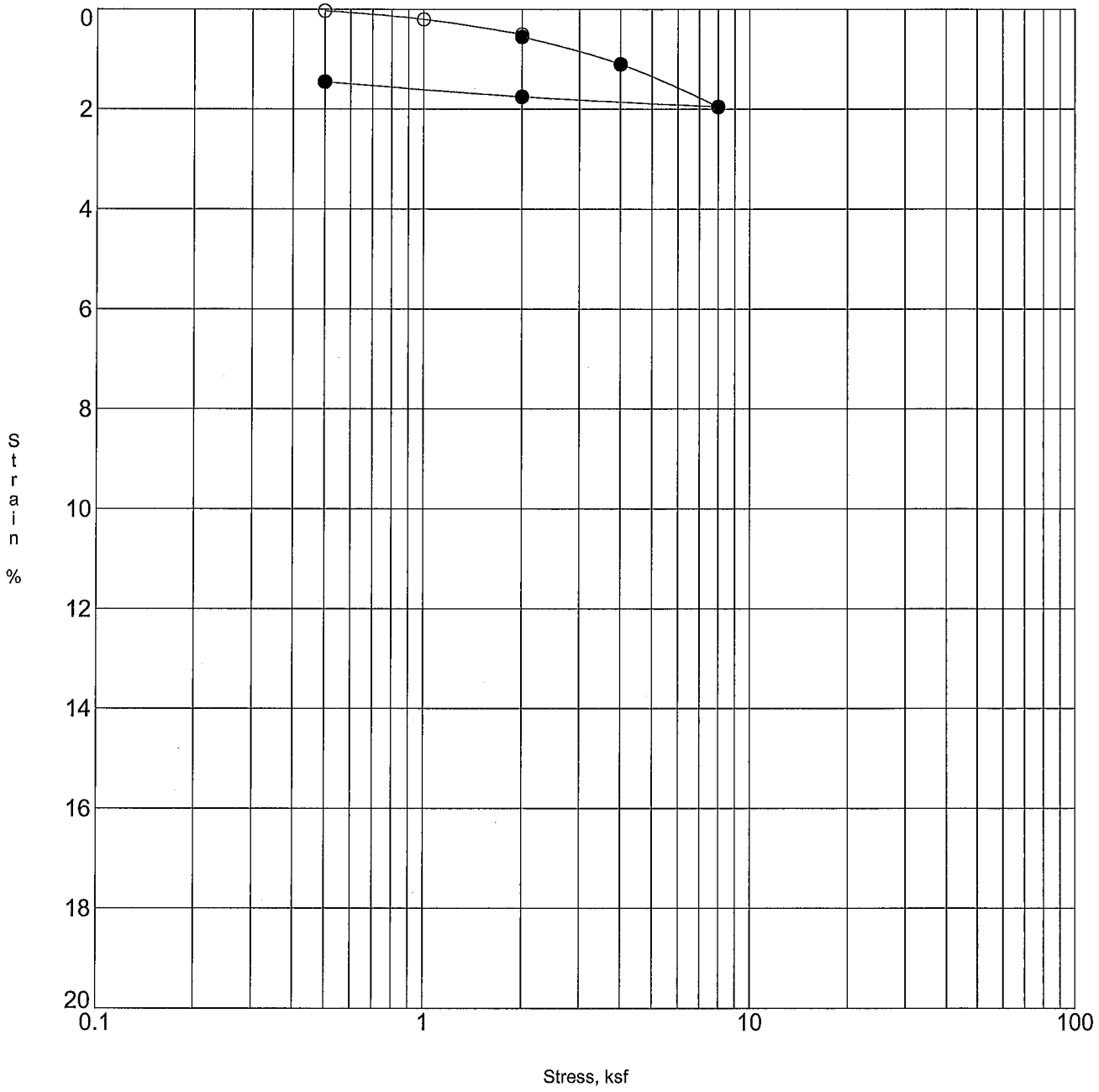
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Shear Test Diagram

Advanced Geotechnical Services, Inc.

Plate B- 8



Open Symbol At Field Moisture, Solid Symbol After Submersion in Water

Specimen Identification			Classification	DD	MC%
○	B-1	0.0	Dark brown Clayey to Silty SAND	123.2	10.9
●	B-1	0.0	*REMOLD*	121.6	5.7

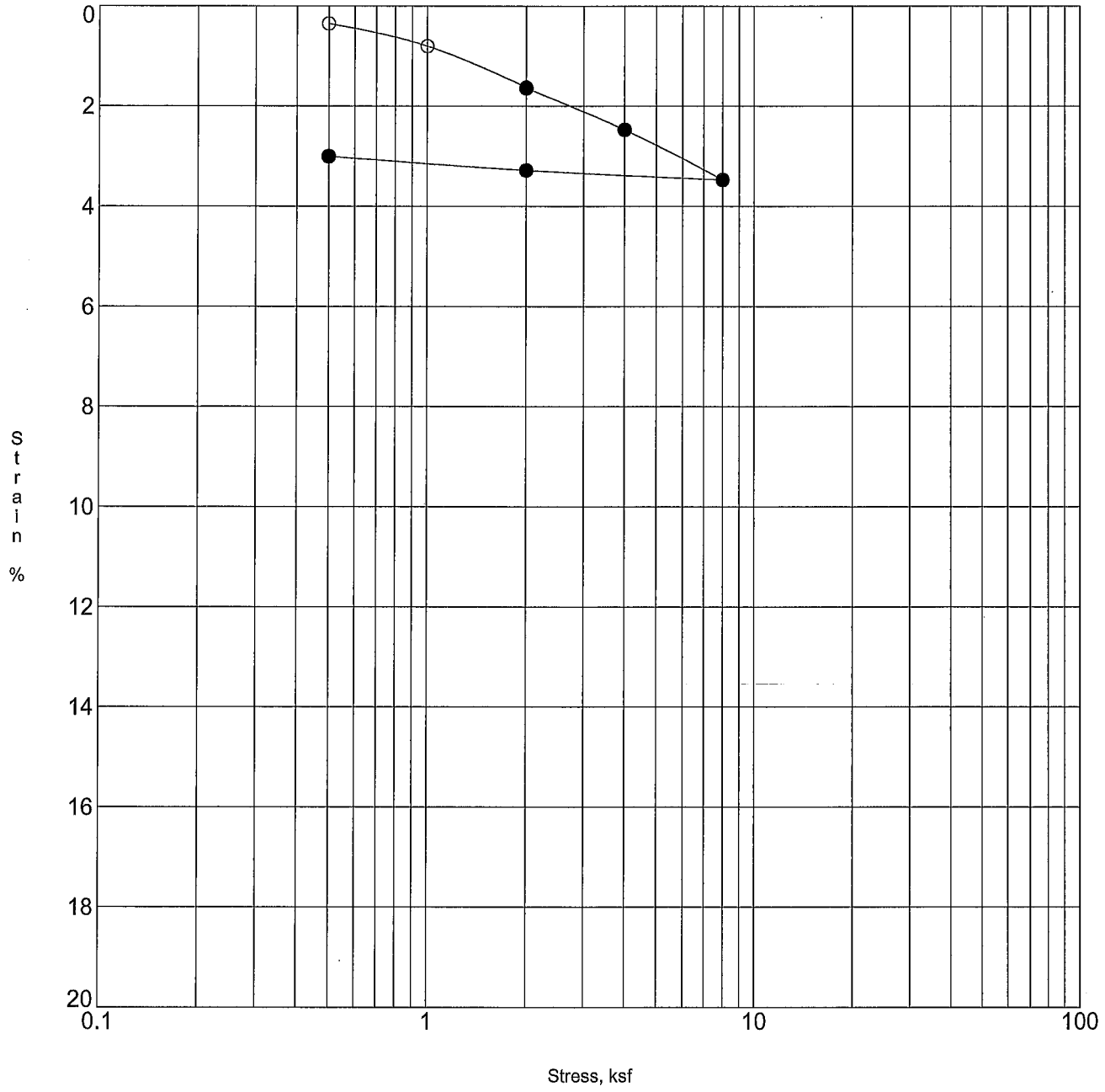
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Consolidation Test

Advanced Geotechnical Services, Inc.

Plate B- 9



Open Symbol At Field Moisture, Solid Symbol After Submersion in Water

	Specimen Identification		Classification	DD	MC%
○	B-2	5.0	Medium brown Silty SAND	101.8	0.8
●	B-2	5.0	*UNDISTURBED*	104.9	13.8

Project: Many Mansions - 536 Meta Street, Oxnard, CA

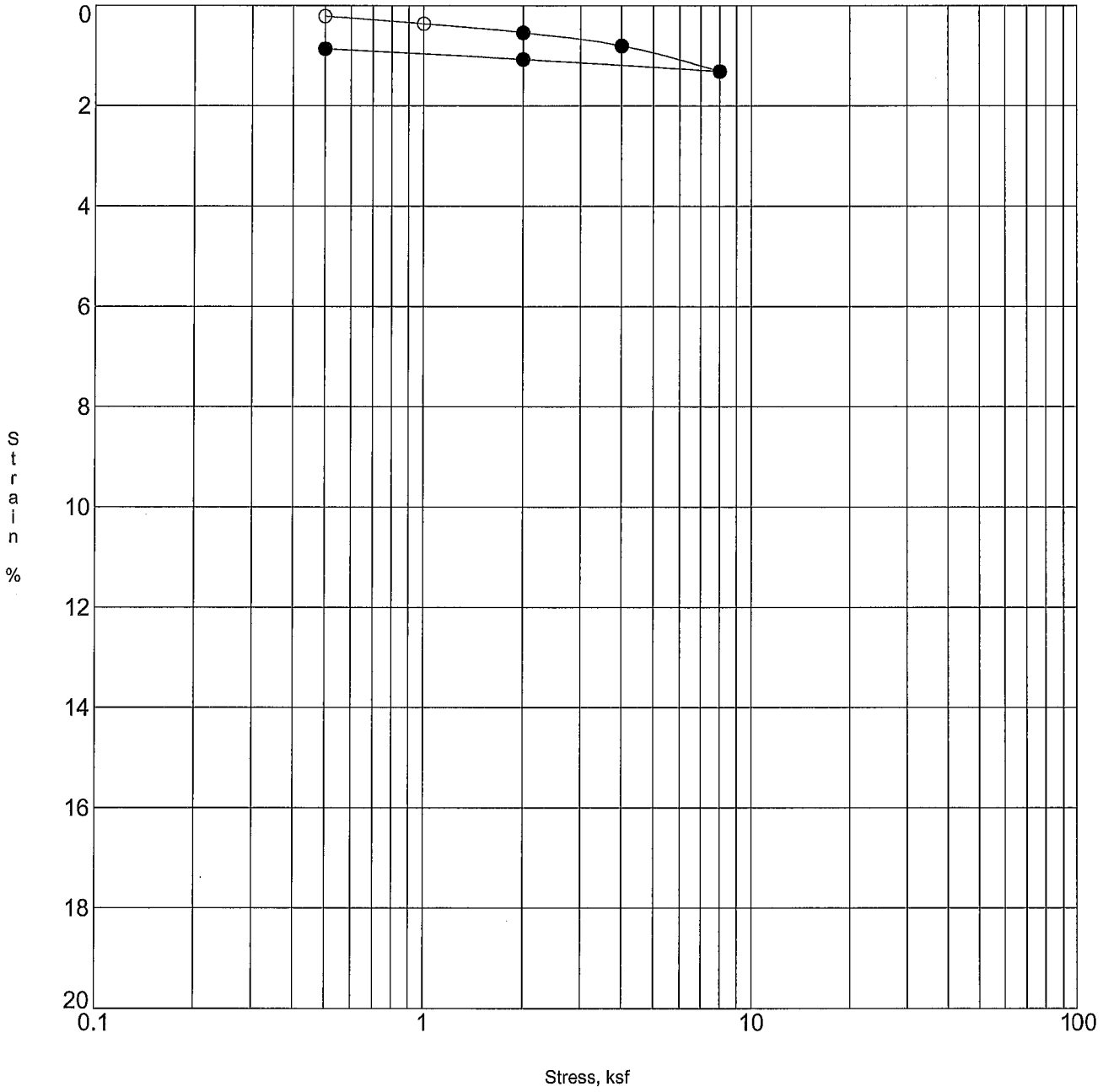
Client No. 5045

Date 6/17/20

Consolidation Test

Advanced Geotechnical Services, Inc.

Plate B- 10



Open Symbol At Field Moisture, Solid Symbol After Submersion in Water

	Specimen Identification		Classification	DD	MC%
○	B-4	7.5	Light gray fine to coarse SAND	92.7	5.4
●	B-4	7.5	*UNDISTURBED*	93.5	21.4

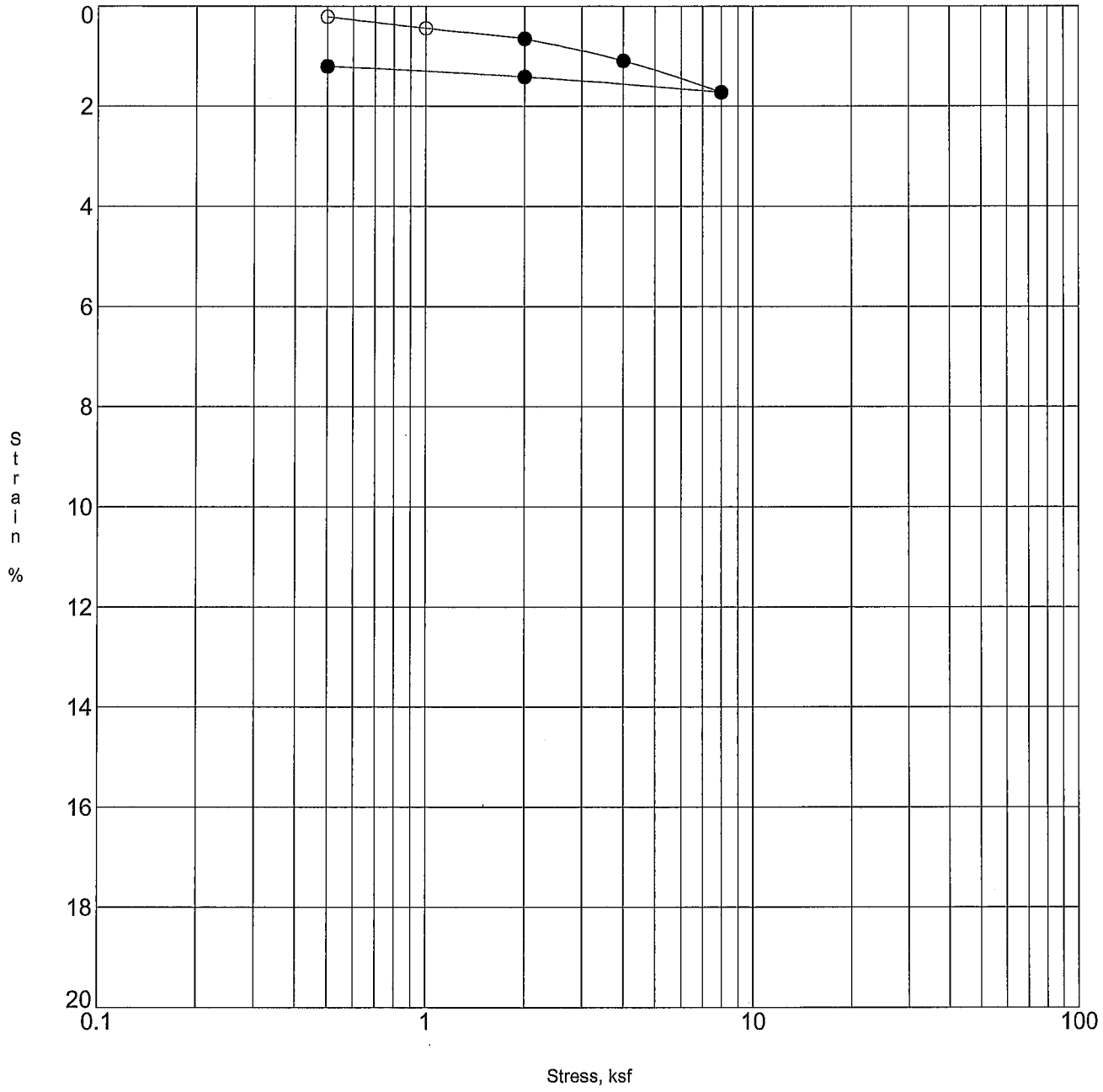
Project: **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Consolidation Test

Advanced Geotechnical Services, Inc.

Plate B- 11



Open Symbol At Field Moisture, Solid Symbol After Submersion in Water

	Specimen Identification		Classification	DD	MC%
○	B-3	10.0	Yellowish-brown to light gray SAND	99.3	4.2
●	B-3	10.0	*UNDISTURBED*	100.5	34.2

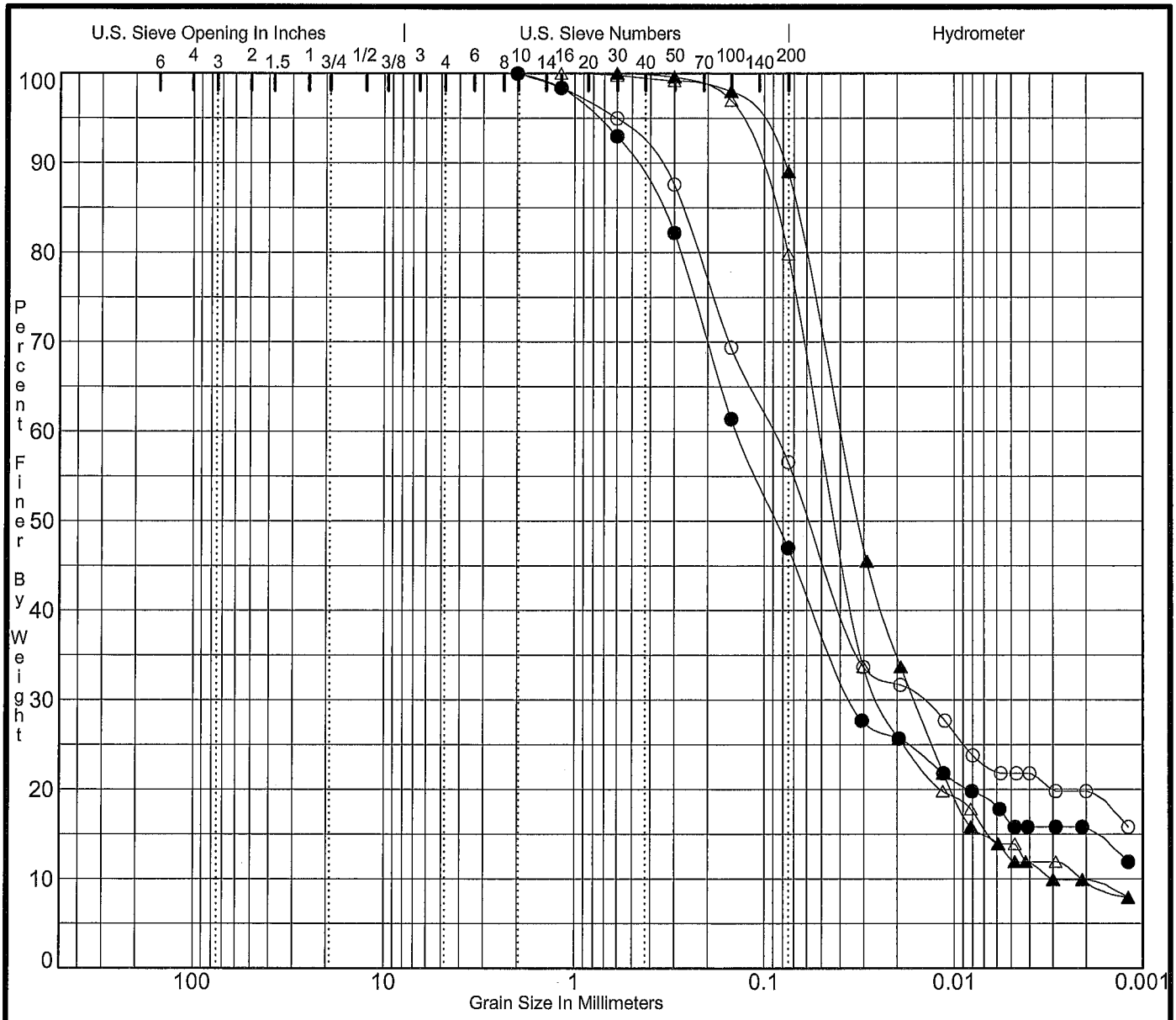
Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Consolidation Test

Advanced Geotechnical Services, Inc.

Plate B- 12



Cobbles	Gravel		Sand			Silt Or Clay
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
○	B-1	32.0	Dark gray Sandy to Silty CLAY		32	17	15		
●	B-1	35.0	Gray Clayey to Silty SAND						
△	B-1	45.0	Dark Gray Silty CLAY						
▲	B-1	50.0	Dark Gray to Black Silty CLAY		35	22	13		

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
○	B-1	32.0	2.00				0.0	43.4	34.8	21.8
●	B-1	35.0	2.00				0.0	53.0	30.8	16.2
△	B-1	45.0	1.18				0.0	20.2	65.9	13.9
▲	B-1	50.0	0.60				0.0	11.0	76.7	12.3

Project **Many Mansions - 536 Meta Street, Oxnard, CA**

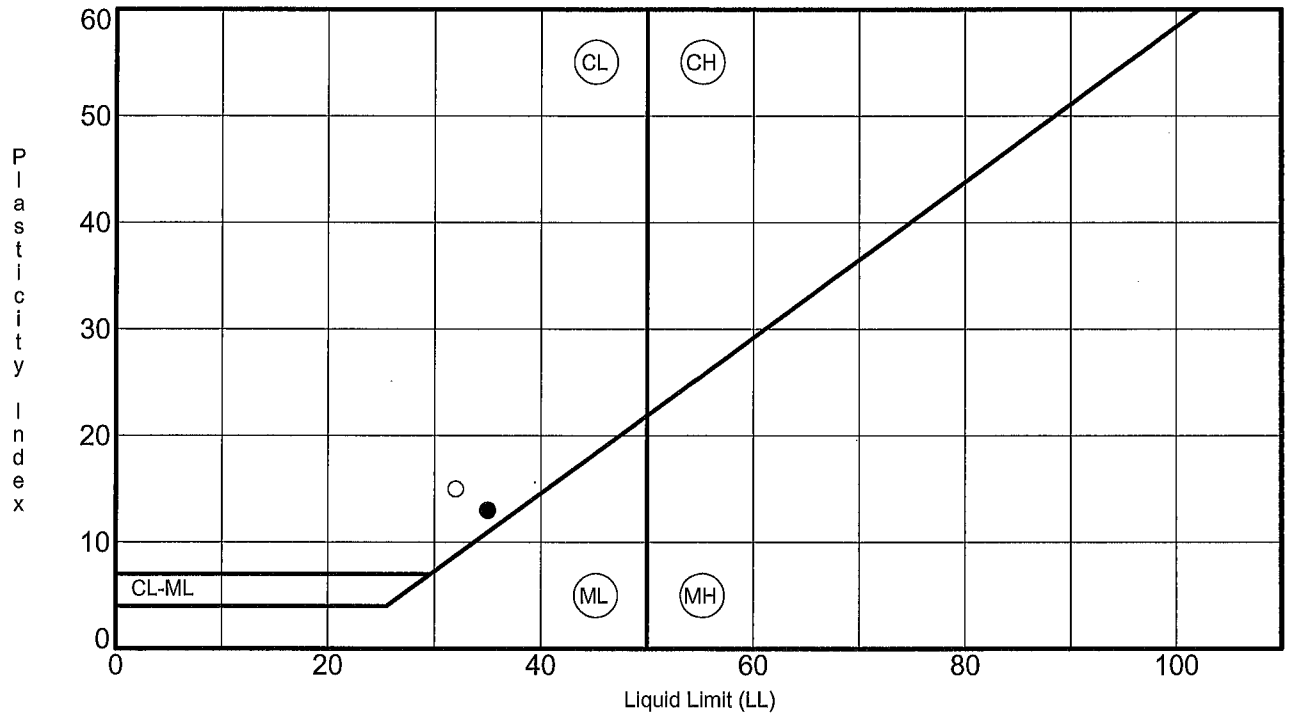
Client No. **5045**

Date **6/17/20**

Gradation Curves

Advanced Geotechnical Services, Inc.

Plate B- 13



	Specimen Identification		LL	PL	PI	Fines	Classification
○	**B-1**	**32.0**	**32**	**17**	**15**		
●	**B-1**	**50.0**	**35**	**22**	**13**		

Project **Many Mansions - 536 Meta Street, Oxnard, CA** Client No. **5045**

Date **6/17/20**

Atterberg Limits' Results

LABORATORY ANALYSIS RESULTS

Client: Advanced Geotechnical Services, Inc.
Project No: 5045
Project Name: Many Mansions

AA Project No: A975199
Date Received: 05/26/20
Date Reported: 06/05/20

ANALYTICAL DATA SUMMARY

Analyte	Sample Name	Result	MRL	Units	Dilution	Prepared	Analyzed	Method
Chloride by Ion Chromatography								
Chloride	B1@0-5	**10**	5.0	mg/kg	1	05/27/20	05/27/20	EPA 300.0
General Chemistry Analyses								
pH	B1@0-5	**8.0**	0.50	pH Units	1	05/27/20	05/27/20	9045C
Specific Conductance (EC)	B1@0-5	**260**		umhos /cm	1	05/27/20	05/27/20	EPA 120.1
Sulfate by Ion Chromatography								
Sulfate	B1@0-5	**260**	10	mg/kg	2	05/27/20	05/27/20	EPA 300.0

Allen Aminian
QA/QC Manager

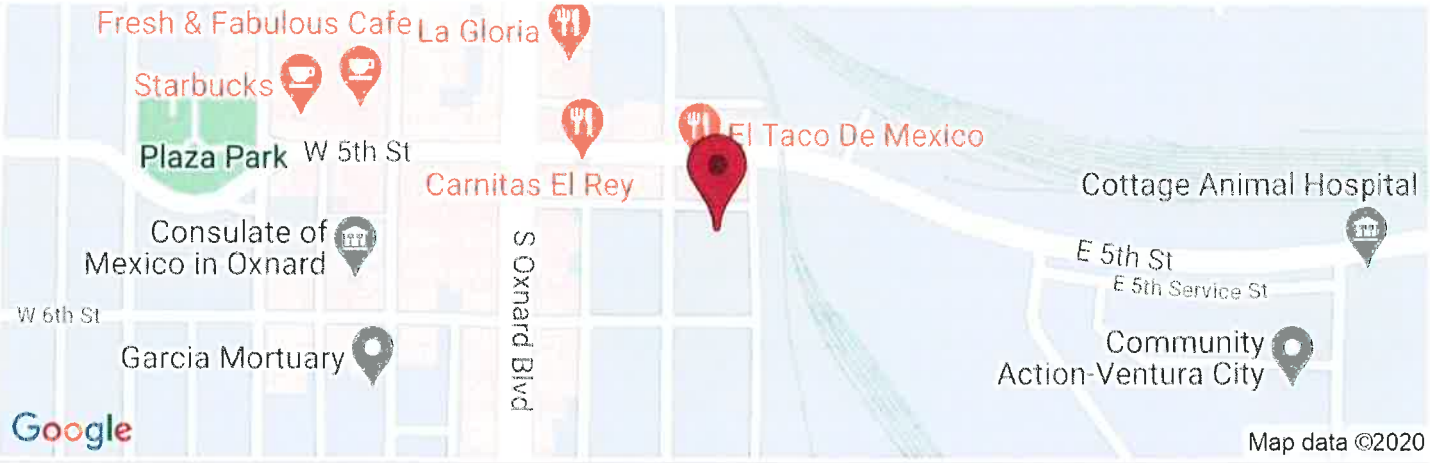
Appendix C

Seismicity Study

OSHPD

Many Mansions, 536 Meta Street Oxnard

Latitude, Longitude: 34.197054, -119.175497



Date	5/29/2020, 2:10:33 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.723	MCE_R ground motion. (for 0.2 second period)
S_1	0.635	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.723	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.148	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.754	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.829	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.723	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.935	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.281	Factored deterministic acceleration value. (0.2 second)
S1RT	0.635	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.714	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.738	Factored deterministic acceleration value. (1.0 second)
PGAd	0.903	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.89	Mapped value of the risk coefficient at short periods
C_{R1}	0.889	Mapped value of the risk coefficient at a period of 1 s

DISCLAIMER

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Appendix D

Liquefaction and Dynamic Dry Settlement Evaluation

Client Number	5045	Client Name	Many Mansions Meta Street
Date Drilled	5/21/20	Boring	B-1

a_{max}/g	0.829		N Adjustments - (for Calif. Sampler)	0.667		Field Groundwater Depth (ft)	18	(Current)
Magnitude	6.90		N Adjustments - Hole Diameter	1.15	(8" Diam.)	Method (S = SPT)	S	(Ring Sample Data Converted to Equiv. SPT)
Groundwater Depth (ft)	8.0	(Historic High)	N Adjustments - Energy (from Calibration)	1.33		Unit Weight of Water (kcf)	0.0624	
Reference Pressure, $p_{a\ (liq)}$	2.1164		Nc	10.08				
Reference Pressure, $p_{a\ (dry)}$	1.0582							

NL = Not Susceptible to Liquefaction

References

Seed, H. B., Tokimatsu, K., (1985), *Influence of SPT Procedures in Soil Liquefaction Resistance Evaluations* , Journal of Geotechnical Engineering, ASCE, Vol. 111, No. 12, pp. 1425 - 1445.

Yould, T. L. and Idriss, I. M. (1997), *Summary Report* , **Proceedings of the NCEER Workshop on Evaluation of liquefaction Resistance of Soils**

Seed, H. B., Tokimatsu, K.,(1987), *Chart for Estimation of Liquefaction-Induced Settlement,* **Journal of Geotechnical Engineering**, ASCE

Pradel, Daniel. (1998), *Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils* , **Journal of Geotechnical Engineering**, ASCE, Vol. 124, No. 4, pp. 364 - 368.

Youd, T. L. et al (2001), *Summary Report on Evaluation of Liquefaction Resistance of Soils, Journal of Geotechnical and Geoenvironmental Engineering,* ASCE, Vol. 127, No. 10, pp. 817-833.

B-1 Liquefaction Evaluation

Depth, Feet	Total Unit Weight, γ_t	Overburden Pressure, σ_v	LIQ Effective Overburden Pressure, σ_v'	Field Effective Overburden Pressure, σ_v'	C_N	r_d	$CSR_{M=7.5}$	Soil Type*	% Fines	N for California Sampler **	$(N_1)_{60}$	Adjusted for Fines Content $(N_1)_{60}$	Rod Length Adjust	K_s	$CRR_{M=7.5}$	Safety Factor, SPT Method	Volumetric Strain	Layer Settlement, (inches)	Cumulative Liquefaction Settlement, (inches)
0.0		0.00	0.00	0.00															
2.5	0.130	0.33	0.33	0.33	1.70	1.00	0.434			50.0	65.0	65.0	0.75	1.00	5.000	Above GWT	0.000	0.000	0.000
5.0		0.65	0.65	0.65															
5.8	0.130	0.75	0.75	0.75	1.68	0.99	0.430			14.0	18.0	18.0	0.75	1.00	0.196	Above GWT	0.000	0.000	0.000
6.5		0.85	0.85	0.85															
7.8	0.130	1.01	1.01	1.01	1.45	0.98	0.428			39.0	43.2	43.2	0.75	1.00	5.000	Above GWT	0.000	0.000	0.000
9.0		1.17	1.11	1.17															
10.8	0.130	1.40	1.23	1.40	1.23	0.98	0.485			51.0	54.4	54.4	0.85	1.00	5.000	NL	0.000	0.000	0.000
12.5		1.63	1.34	1.63															
13.8	0.130	1.79	1.43	1.79	1.09	0.97	0.511			67.0	63.2	63.2	0.85	1.00	5.000	NL	0.000	0.000	0.000
15.0		1.95	1.51	1.95															
17.5	0.130	2.28	1.68	2.28	0.96	0.96	0.542			44.0	41.1	41.1	0.95	1.00	5.000	NL	0.000	0.000	0.000
20.0		2.60	1.85	2.48															
22.5	0.130	2.93	2.02	2.64	0.89	0.95	0.566			49.0	42.5	42.5	0.95	1.00	5.000	NL	0.000	0.000	0.000
25.0		3.25	2.19	2.81															
29.3	0.130	3.80	2.48	3.10	0.83	0.92	0.579	C	56.6	27.0	22.7	32.3	1.00	0.99	0.412	NL	0.000	0.000	0.000
33.5		4.36	2.76	3.39															
36.8	0.130	4.78	2.98	3.61	0.77	0.88	0.580		47.0	41.0	32.0	43.4	1.00	0.96	5.000	NL	0.000	0.000	0.000
40.0		5.20	3.20	3.83															
42.0	0.130	5.46	3.34	3.96	0.73	0.83	0.575			82.0	61.1	61.1	1.00	0.94	5.000	NL	0.000	0.000	0.000
44.0		5.72	3.47	4.10															
46.0	0.130	5.98	3.61	4.23	0.71	0.79	0.570	C	79.8	28.0	20.2	29.2	1.00	0.93	0.370	NL	0.000	0.000	0.000
48.0		6.24	3.74	4.37															
49.8	0.130	6.47	3.86	4.49	0.69	0.75	0.563	C	89.0	30.0	21.0	30.2	1.00	0.92	0.582	NL	0.000	0.000	0.000
51.5		6.70	3.98	4.60															

* Note: C = Clayey soils not susceptible to liquefaction

** Note: Cal Blow Counts of 50 assumed for the future newly placed compacted fill in the upper 5 feet

Total, Inches = 0.00

Plate D-1

Client Number	5045	Client Name	Many Mansions Meta Street
Date Drilled	5/21/20	Boring	B-1

a_{max}/g	0.553		N Adjustments - (for Calif. Sampler)	0.667		Field Groundwater Depth (ft)	18	(Current)
Magnitude	6.90		N Adjustments - Hole Diameter	1.15	(8" Diam.)	Method (S = SPT)	S	(Ring Sample Data Converted to Equiv. SPT)
Groundwater Depth (ft)	8.0	(Historic High)	N Adjustments - Energy (from Calibration)	1.33		Unit Weight of Water (kcf)	0.0624	
Reference Pressure, $p_{a\,(liq)}$	2.1164		Nc	10.08				
Reference Pressure, $p_{a\,(dry)}$	1.0582							

NL = Not Susceptible to Liquefaction

References

Seed, H. B., Tokimatsu, K., (1985), *Influence of SPT Procedures in Soil Liquefaction Resistance Evaluations*, Journal of Geotechnical Engineering, ASCE, Vol. 111, No. 12, pp. 1425 - 1445.

Yould, T. L. and Idriss, I. M. (1997), *Summary Report*, **Proceedings of the NCEER Workshop on Evaluation of liquefaction Resistance of Soils**

Seed, H. B., Tokimatsu, K.,(1987), *Chart for Estimation of Liquefaction-Induced Settlement,* **Journal of Geotechnical Engineering**, ASCE

Pradel, Daniel. (1998), *Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils*, **Journal of Geotechnical Engineering**, ASCE, Vol. 124, No. 4, pp. 364 - 368.

Evaluation of Earthquake Induced Settlements in Dry Sand

Mid-Layer Depth (feet)	$\tau_{induced}$	$(N_1)_{60\text{-}cs}$	σ_V	p	G_{max}	a	b	γ	ε_{15} (%)	ε_{Nc} (%)	Layer Settlement (inches)	Cumulative Settlement (inches)
2.5	0.058	65.0	0.16	0.109	610	0.128	25047	0.00020	0.000049	0.000041	0.0025	0.002
5.8	0.133	18.0	0.37	0.250	603	0.133	15196	0.00093	0.001053	0.000880	0.0158	0.018
7.8	0.178	43.2	0.50	0.338	938	0.136	12704	0.00042	0.000167	0.000140	0.0042	0.023
10.8	0.246	54.4	0.70	0.468	1192	0.141	10440	0.00040	0.000120	0.000100	0.0042	0.027
13.8	0.312	63.2	0.89	0.599	1417	0.146	9006	0.00040	0.000100	0.000083	0.0025	0.029
17.5	0.394	41.1	1.14	0.762	1385	0.152	7793	0.00059	0.000249	0.000208	0.0125	0.042

Total, inches 0.042

Double for Multi-Directional Shaking, inches 0.083

Plate D-2

Appendix E
References

American Society for Testing and Materials (2013), **ASTM Standards**, Section 4: Construction, Volume 04.08 Soil and Rock (I): D 420 – D 5611, West Conshohocken, PA.

Bartlett, S. F. and Youd, T. L. (2002), *Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement*, **Journal of Geotechnical and Geoenvironmental Engineering**, Vol. 128, No. 12, ASCE, ISSN 1090-0241 / 2002/12-1007-1017, December 1, 2002.

Blake, Thomas F. (2015), Personal communication, April 16, 2015.

Bray, J. D., and Sancio, R. B. (2006), **Assessment of the Liquefaction of Susceptibility of Fine-Grained Soils** in *Journal of Geotechnical and Geoenvironmental Engineering*, 132(9), pp. 1165-1177.

Boulanger, R. W., and Idriss, I. M. (2006), **Liquefaction Susceptibility Criteria for Silts and Clays,** in *Journal of Geotechnical and Geoenvironmental Engineering*, 132(11), pp. 1413-1426.

California Geological Survey (2008), **Guidelines for Evaluating and Mitigating Seismic Hazards in California**, Special Publication 117A.

California Division of Mines and Geology (2002), **Seismic Hazard Evaluation of the Oxnard 7.5-Minute Quadrangle, Ventura County, California**, Seismic Hazard Zone Report 052.

California Division of Mines and Geology (2002), **State of California Seismic Hazard Zones, Oxnard Quadrangle**, Released: February 14, 2003.

County of Ventura (2020), **County View** website.
http://gis.ventura.org/Html5Viewer/index.html?viewer=CountyView.CountyView_gvh

Department of the NAVY, NAVFAC Design Manual 7.02, (1986), **Foundations and Earth Structures**, Naval Facilities Engineering Command, September.

Google (2020), Google Earth Interactive web application
http://www.google.com/earth/

International Conference of Building Officials and California Building Standards Commission (2019), **2019 California Building Code**.

Pradel, D. (1998). "Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils." Journal of Geotechnical and Geoenvironmental Engineering Div., ASCE 124(4), 364-368.

Robertson, P. K. and Wride, C. E. (1997), *Cyclic Liquefaction and Its Evaluation based on the SPT and CPT*, **Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils,** National Center for Earthquake Engineering Research, Technical Report NCEER-97-0022, pp. 41 – 87.

SCEC (Southern California Earthquake Center) (1999), **Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California**, Martin, G. R. and Lew, M. Co-Chairs and Editors, University of Southern California, March 1999.

SEAOC/OSHPD (2020), Seismic Design Maps Web App
https://seismicmaps.org/

Tokimatsu, K. and Seed, H. B. (1987), *Evaluation of Settlements in Sands Due to Earthquake Shaking*, **Journal Geotechnical Engineering**, ASCE, Vol. 113, No. 8, pp. 861-878.

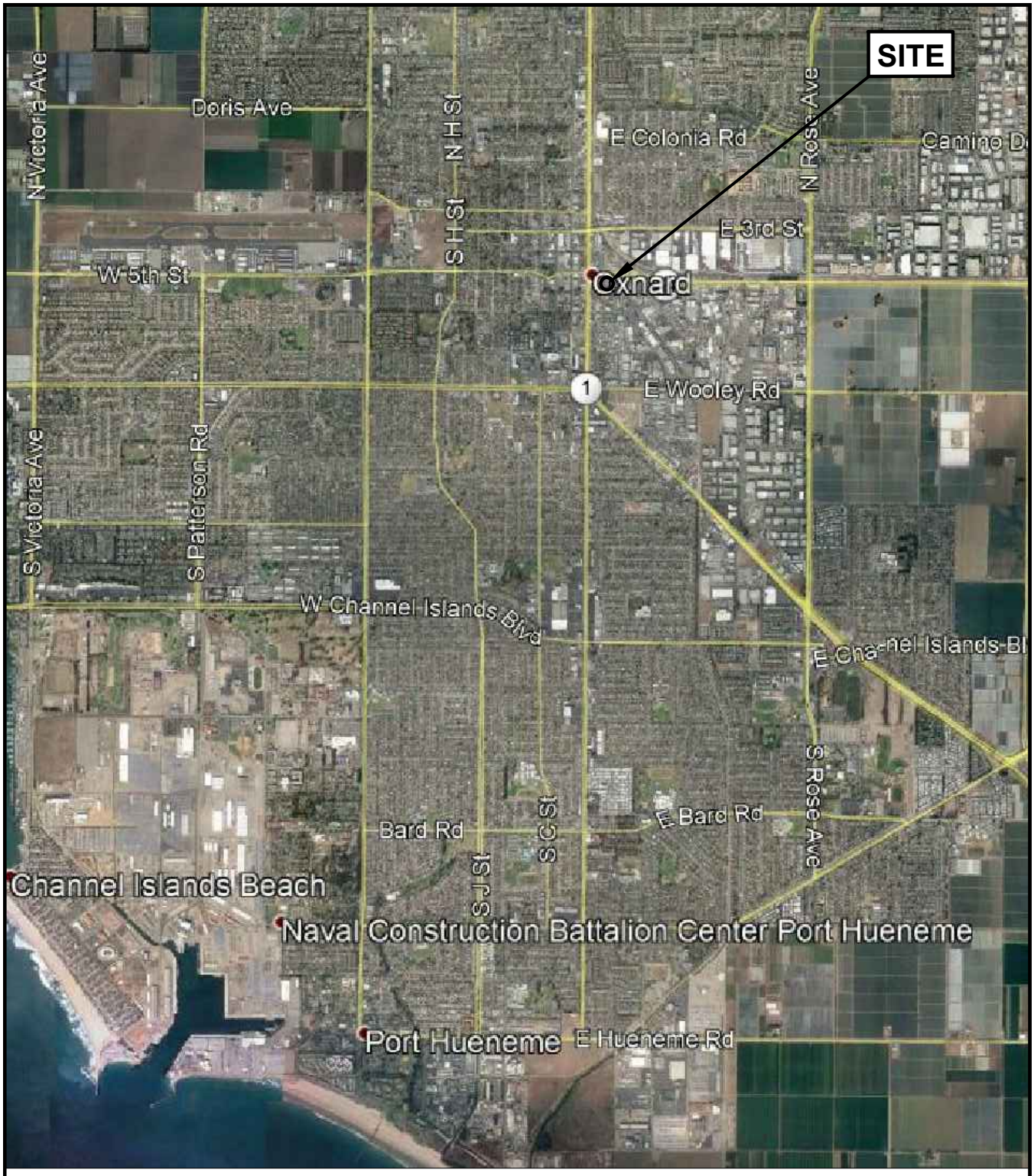
United States Geological Survey, (2014), **Seismic Design Maps** web application, last modified March 10, 2014 http://earthquake.usgs.gov/designmaps/us/application.php

Youd, T. L. and Idriss, I. M. (1997), *Summary Report*, **Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils,** National Center for Earthquake Engineering Research, Technical Report NCEER-97-0022, pp. 1 – 40.

Youd et al (2001), Liquefaction Resistance of Soils: Summary Report from the 1996 and 1998 NCEER/NSF Workshop on Evaluation of Liquefaction Resistance of Soils, **Journal of Geotechnical Engineering**, ASCE, Vol. 127, No. 10, pp. 817-833.

Appendix F

Report Figures and Plates

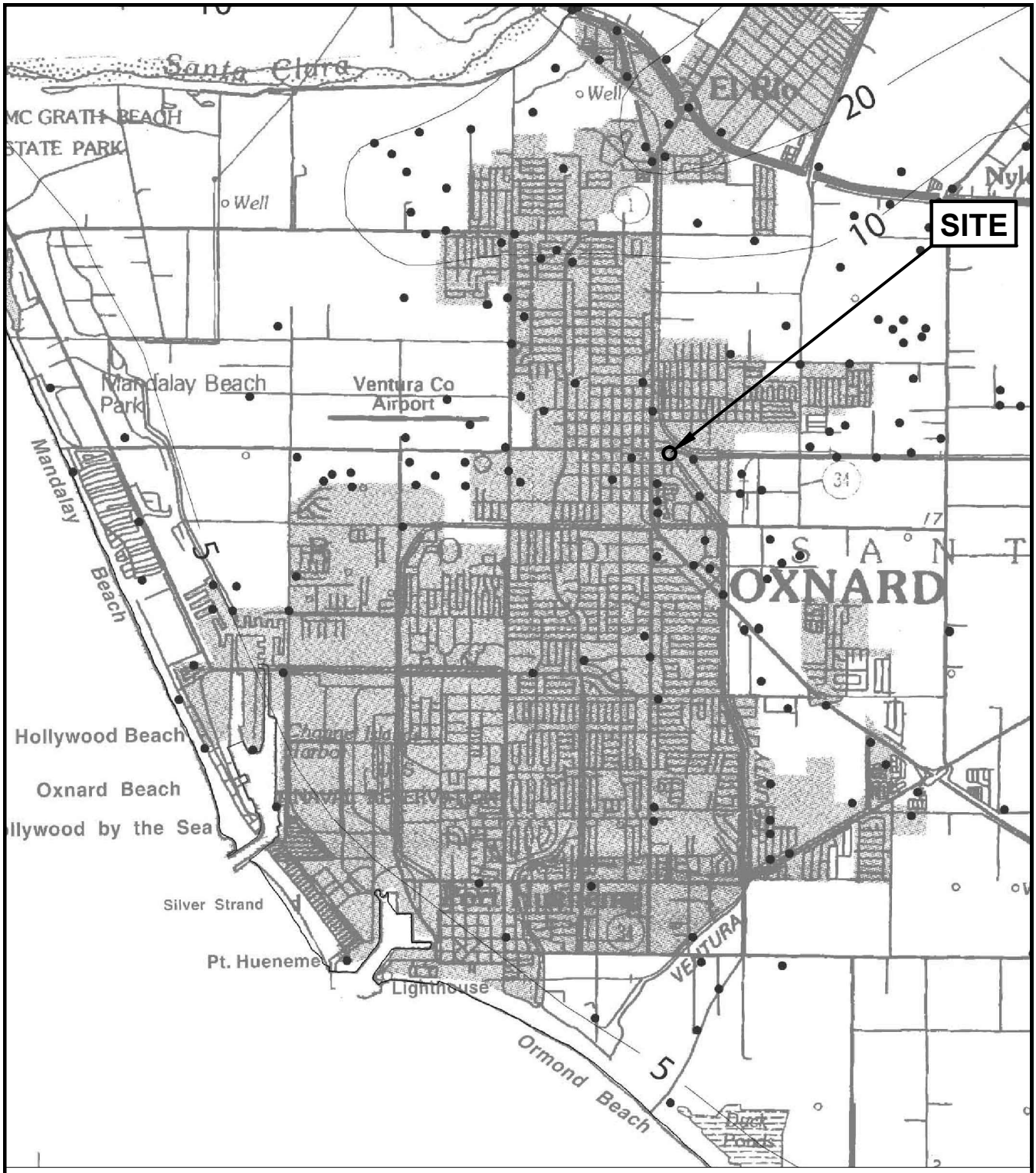


Reference: Google Earth 2020

N

No Scale

Advanced Geotechnical Services	**SITE LOCATION MAP**	**Many Mansions** **536 Meta Street** **Oxnard, California**	
		Client # 5045 **Report # 10616**	**FIGURE 1**



Reference: CDMG, 2002, Seismic Hazard Zone Report 052

N

Scale: 1" = ½ mile

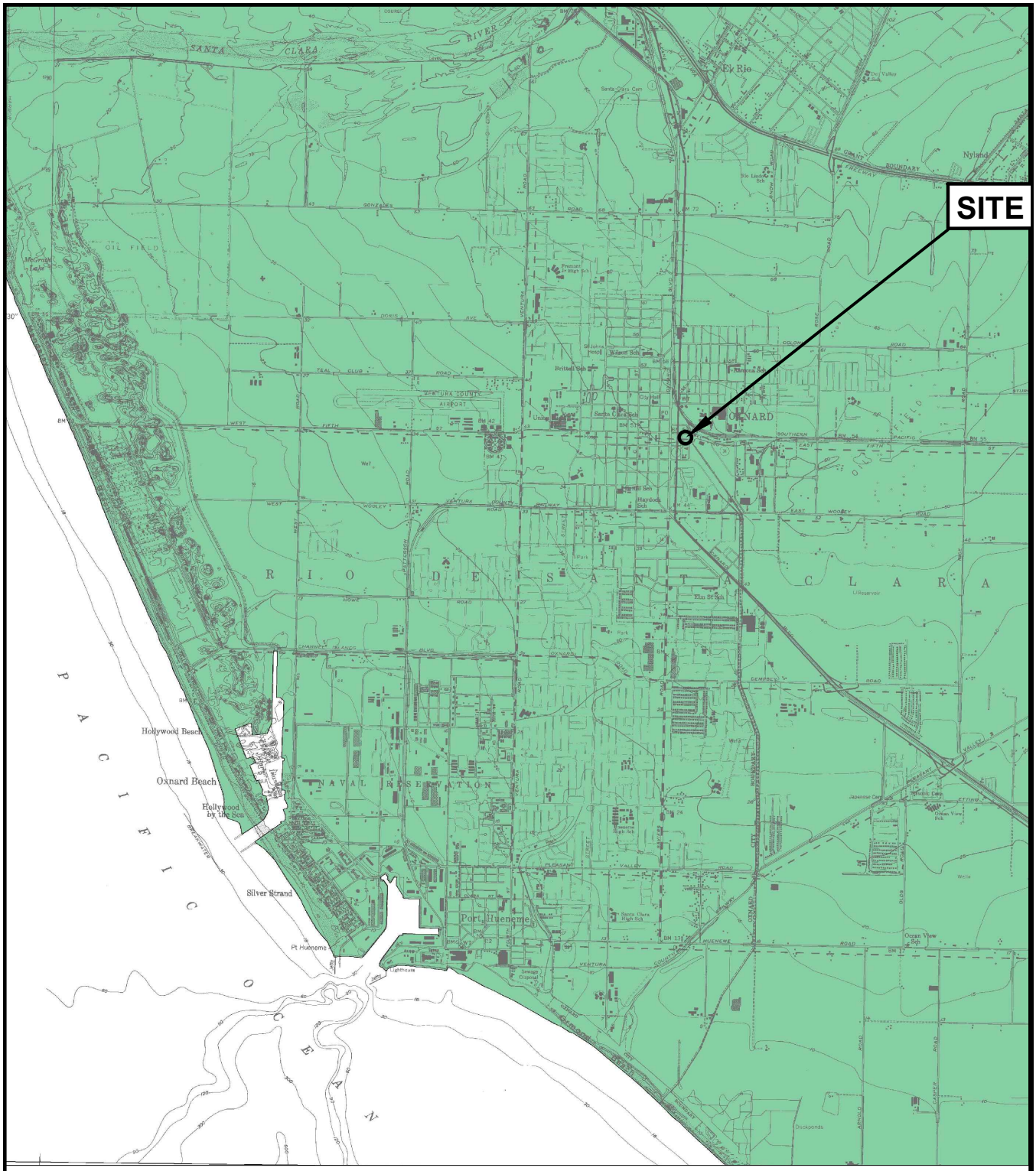
Advanced Geotechnical Services

DEPTH TO HISTORICALLY HIGH GROUNDWATER

Many Mansions
536 Meta Street
Oxnard, California

Client # 5045
Report # 10616

FIGURE 2



Reference: CDMG, 2002, Seismic Hazard Zones - Oxnard Quadrangle

N

Scale: 1" = $\frac{1}{2}$ mile

Advanced Geotechnical Services

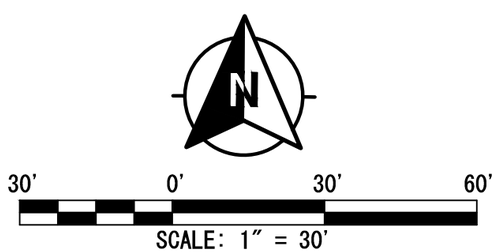
SEISMIC HAZARD ZONES MAP

Many Mansions
536 Meta Street
Oxnard, California

Client # 5045
Report # 10616

FIGURE 3

EXISTING SITE PLAN



EXPLANATION

B-4 Approximate Location of Exploratory Boring

Advanced Geotechnical Services
5251 Verdugo Way, Suite L
Camarillo, California 93012
Office (805) 388-6162/Fax (805) 388-6167

MANY MANSIONS

Geotechnical Engineering Study
Proposed Housing Development
536 Meta Street
Oxnard, California

Client No.	5045	PLATE
Report No.	10616	1
Date	6/17/2020	
Drawing No.	10616cn5045	

PROPOSED SITE PLAN

30' 0' 30' 60'

SCALE: 1" = 30'

EXPLANATION

B-4 Approximate Location of Exploratory Boring

Advanced Geotechnical Services
5251 Verdugo Way, Suite L
Camarillo, California 93012
Office (805) 388-6162/Fax (805) 388-6167

MANY MANSIONS

Geotechnical Engineering Study
Proposed Housing Development
536 Meta Street
Oxnard, California

Client No.	5045
Report No.	10616
Date	6/17/2020
Drawing No.	10616cn5045

PLATE 2

Appendix B

Records Search Results

Alexandra Madsen

From: Alexandra Madsen
Sent: Thursday, August 27, 2020 9:17 AM
To: South Central Coastal Information Center
Subject: Project Request Submission for 20-10109 Central terrace HUD Project
Attachments: 20-10109 Many Mnsns, Central Terrace HUD Project.pdf; CR RS Shapefiles for IC 20200827.zip; CR_Records Search Map.pdf

Hello,

Please find attached the data request form, shapefiles, and records search map for the 20-10109 Central Terrace HUD Project located in Oxnard, CA.

I am requesting shapefiles for this records search to expedite the process.

Thank you for your time and consideration.

Best,

Alexandra

Alexandra Isabel Madsen, MA, Architectural Historian
Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
213-788-4842 x2064
213-328-6684 Direct
rinconconsultants.com

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

9/11/2020 Records Search File No.: 21657.7753

Alexandra Madsen
Rincon Consultants
250 E 1st Street Suite 1400
Los Angeles CA 90012

Re: Records Search Results for the 20-10109 Many Mnsns, Central Terrace HUD Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Oxnard, CA USGS 7.5' quadrangle. Due to the COVID-19 emergency, we have temporarily implemented new records search protocols. With the exception of some reports that have not yet been scanned, we are operationally digital for Los Angeles, Orange, and Ventura Counties. See attached document for your reference on what data is available in this format. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ shape files ☐ hand drawn maps

Resources within project area: 0	None
Resources within ½-mile radius: 3	SEE ATTACHED LIST
Reports within project area: 1	VN-02978
Reports within ½-mile radius: 18	SEE ATTACHED LIST

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database (spreadsheet):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database (spreadsheet):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Built Environment Resources Directory (BERD) 2019:	☒ available online; please go to https://ohp.parks.ca.gov/?page_id=30338		
Archaeo Determinations of Eligibility 2012:	☐ enclosed	☐ not requested	☒ nothing listed
Los Angeles Historic-Cultural Monuments	☐ enclosed	☒ not requested	☐ nothing listed

Historical Maps: ☐ enclosed ☒ not requested ☐ nothing listed
Ethnographic Information: ☒ not available at SCCIC
Historical Literature: ☒ not available at SCCIC
GLO and/or Rancho Plat Maps: ☒ not available at SCCIC
Caltrans Bridge Survey: ☒ not available at SCCIC; please go to http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Shipwreck Inventory: ☒ not available at SCCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) ☒ not available at SCCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

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

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz
Assistant Coordinator

Enclosures:

(X) Emergency Protocols for LA, Orange, and Ventura County BULK Processing Standards – 2 pages

(X) GIS Shapefiles – 22 shapes

(X) Resource Database Printout (list) – 1 page

(X) Report Database Printout (list) – 2 pages

(X) Resource Record Copies – (all) – 113 pages

(X) Report Copies – (project area only) – 94 pages

(X) Invoice # 21657.7753

Emergency Protocols for LA, Orange, and Ventura County BULK or SINGLE PROJECT Records Searches IF YOU HAVE A GIS PERSON ON STAFF ONLY!!

These instructions are for qualified consultants with a valid Access and Use Agreement.
WE ARE ONLY PROVIDING DATA THAT IS ALREADY DIGITAL AT THIS TIME.

Some of you have a fully digital operation and have GIS staff on board who can process a fully digital deliverable from the Information Center. IF you can accept shape file data and do not require a custom map made for you by the SCCIC, and you are willing to sort the data we provide to you then these instructions are for you. Read further to be sure. You may have only one project at this time or some of you have a lot of different search locations that can be processed all at once. This may save you a lot of time getting results back and if we process your jobs in bulk, and you may enjoy significant cost savings as well.

Bulk processing will work for you if you have a GIS person on staff who can sort bulk data for you and make you any necessary project maps. This type of job can have as many job locations as you want but the point is that we will do them in bulk – at the same time - not one at a time. We send all the bulk data back to you and you sort it. This will work if you need searches in LA, Orange, or Ventura AND if they all have the same search radius and if all the other search criteria is the same– no exceptions. This will not work for San Bernardino County because we are not fully digital for San Bernardino County. You must submit all your shape files for each location at the same time and this will count as one search. If you have some that need a different radius, or different search criteria, then you should submit that job separately with its own set of instructions.

INSTRUCTIONS FOR BULK PROCESSING:

Please send in your requests via email using the data request form along with the associated shape files and pdf maps of the project area(s) at 1-24k scale. PDFs must be able to be printed out on 8.5X 11 paper. We check your shape file data against the pdf maps. This is where we find discrepancies between your shape files and your maps. This is required.

Please use this data request form and make sure you fill it out properly.
http://web.sonoma.edu/nwic/docs/CHRISDataRequestForm.pdf

DELIVERABLES:

1. A copy of the Built Environment Resources Directory or BERD for Los Angeles, Orange, Ventura, or San Bernardino County can now be found at the OHP Website for you to do your own research. This replaces the old Historic Properties Directory or HPD. We will not be searching this for you at this time but you can search it while you are waiting for our results to save time.

2. You will only get shapefiles back, which means that you will have to make your own maps for each project location.

3. You will get a bulk processed bibliographies for resources and reports as selected; you will not get individual bibliographies for each project location.

4. You will get pdfs of resources and reports if you request them, provided that they are in digital formats. We will not be scanning records or reports at this time.

5. You will get one invoice for the bulk data processing. We can't bill this as individual jobs on separate invoices for you. If there are multiple project names, we are willing to reference all the job names on the invoice if needed. If there a lot of job id's we may ask you to send them in an email so that we can copy and paste it into the invoice details. If you need to bill your clients for the data, you can refer to our fee schedule on the OHP website under the CHRIS tab and apply the fees accordingly.

6. We will be billing you at the staff rate of $150 per hour and you will be charged for all resources and report locations according to the "custom map charges". This is in lieu of the $12 per GIS shape file data fee that we normally charge for GIS files and this will only apply during the Covid 19 emergency. You will also be billed 0.15 per pdf page, or 0.25 per excel line as is usual.

7. Your packet will be mailed to you on a CD or via Dropbox if you have an account. We use 7-zip to password protect the files so you will need both. We email you the password.

I may not have been able to cover every possible contingency in this set of instructions and will update it if necessary. You can email me with questions at sccic@fullerton.edu

Thank you,

Stacy St. James

South Central Coastal Information Center

Los Angeles, Orange, Ventura, and San Bernardino Counties

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
VN-00572		1988	Dames and Moore	Phase 1 Cultural Resources Survey Fiber Optic Cable Project, Burbank to Santa Barbara, California for Us Sprint Communications Company	Dames & Moore	56-000027, 56-000196, 56-000202, 56-000240, 56-000241, 56-000341, 56-000342, 56-000550, 56-000643, 56-000644, 56-000655, 56-000729, 56-000789, 56-000895, 56-000896, 56-000916, 56-000917, 56-000918
VN-00952		1990	Simon, Joseph M.	Phase 1 Archaeological Survey and Cultural Resources Assessment for the Fifth Avenue Widening Project, City of Oxnard, Ventura County, California	W & S Consultants	
VN-01110		1992	Howard, William J.	Report of Archaeological Reconnaissance Survey Of: the Proposed Water Reservoir Expansion Project Oxnard Oxnard 7.5' Quadrangle Ventura County, Ca	NCPA	
VN-01153		1991	Peak and Associates, Inc.	Class 3 Cultural Resource Assessment of the Proposed Carpinteria and Southern Reroutes, Santa Barbara, Ventura, and Los Angeles Counties, California	Peak & Associates	56-001089
VN-01265		1992	Reed, L.W.	Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project	Peak and Associates	19-000007, 19-000021, 19-000034, 19-000089, 19-000251, 19-000357, 19-000385, 19-000389, 19-000390, 19-000407, 19-000409, 19-000668, 19-000781, 19-000830, 19-000887, 19-000901, 19-000963, 19-001097, 19-001112, 19-001124, 19-001575, 19-001620
VN-02428		2003	Wlodarski, Robert J.	A Phase I Archaeological Study for Proposed Improvements to the Civic Center Site Bounded by Third Street on the South, Second Street on the North, "a" Street on the East, and "c" Street on the West, City of Oxnard, County of Ventura, California	Historical, Environmental, Archaeological, Research, Team	56-000506, 56-000789
VN-02458		2003	Maki, Mary K.	Phase I Archaeological Survey of Approximately 1.5 Linear Miles for the Oxnard Boulevard Bicycle and Pedestrian Facilities Project Oxnard, Ventura County, California	Conejo Archaeological Consultants	
VN-02466		2004	Wlodarski, Robert J.	A Phase 1 Archaeological Study for the Proposed City of Oxnard Downtown Parking Structure Project (fourth Street, Third Street, and an Alleyway Between a and B Streets), City of Oxnard, County of Ventura, California	Historical, Environmental, Archaeological, Research, Team	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
VN-02504		2006	Arrington, Cindy and Nancy Sikes	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii	SWCA Environmental Consultants, Inc.	
VN-02573		2007	Toren, George A. and John F. Romani	Phase I Archaeological Assessment of 618 South a Street, Oxnard, Ca. APN 2002-0-145-120	Compass Rose Archaeological, Inc.	
VN-02763		2008	Wlodarski, Robert J.	A Phase I Archaeological Study for the Proposed Development at 1117-1205 South Oxnard Boulevard and 1200-1202 Saviers Road, City of Oxnard, California	Historical, Environmental, Archaeological, Research, Team	
VN-02872		2009	Fortier, Jana	TEA-21 Rural Roadside Inventory: Native American Consultants and Ethnographic Study for Caltrans District 7, Ventura County	ICF Jones & Stokes	
VN-02933		2011	Toren, A. George	Phase I Archaeological Investigation for the City of Oxnard Recycled Water Project New Alignment	Compass Rose Archaelogical, Inc.	
VN-02957		2011	Romani, Gwen	Phase I Archaeological Investigation for the City of Oxnard Recycled Water Project New Alignment, Wooley Road and Rose Avenue.	Compass Rose Archaeological, Inc.	56-000789, 56-150003, 56-150005, 56-150006
VN-02978		2004	Sharpe, Jim and Durio, Lori	Groundwater Recovery Enhancement and Treatment (GREAT) Program, Cultural Resources Inventory Report	CH2MHill	56-000506, 56-000662, 56-000664, 56-000665, 56-000666, 56-000726, 56-000789, 56-000918, 56-100060, 56-152779, 56-152780, 56-152781, 56-152782, 56-152783, 56-152784
VN-03094		2002	Foster, John A.	Historic Resource Evaluation Report- Mason Avenue At-Grade Crossing and Safety Improvements Project, Los Angeles City, California	Greenwood and Associates	
VN-03102		2009	Stewart, Noah	relinquish State-owned right of way to the City of Oxnard - State Route 1 (VEN1) from Pleasant Valley Road (PM 15.1) to the intersection of VEN 1 and US 101	CalTrans	
VN-03257		2016	Carmack, Shannon and Susan Zamudio-Gurrola	City of Oxnard Historical Resources Assessment of 1250 S. Oxnard Boulevard	Rincon Consultants, Inc.	56-153137
VN-03262		2016	McDaniel, Heather and David Stone	ARCHAEOLOGICAL SURVEY REPORT GATEWAY STATION APN 204-002-026 1250 SOUTH OXNARD BOULEVARD, OXNARD VENTURA COUNTY, CALIFORNIA	DUDEK	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-56-151213		OHP Property Number - 016607; Resource Name - Oxnard Chamber of Commerce; Other - Oxford Public Library; Other - Art Club of Oxnard	Building	Historic	HP13; HP14; HP15	1971 (Faulconer, James, R., City of Oxnard)	
P-56-151357		OHP Property Number - 016751; Resource Name - Oxnard, Henry T Historic District; Other - Hentry T Oxnard Subdivision	District	Historic	HP02	1981 (Judy Triem, Cutltural Heritage Board); 1998 (Moss, Benny & Rosanne, Friends of Old Oxnard)	
P-56-153137		Resource Name - Sky View Drive-In Theater	Building, Site	Historic	HP10	2016 (Susan Zamudio-Gurrola, Rincon)	VN-03257

Appendix C

Sacred Lands File Search Results and Native American Outreach

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
Sacramento, CA 95814
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Central Terrace Apartment Project

County: Ventura County

USGS Quadrangle Name: *Oxnard*

Township: 1N, Range: 22W, Section(s): 3

Company/Firm/Agency: Rincon Consultants, Inc.

Contact Person: Alexandra Madsen

Street Address: 250 E. 1st Street, Suite 1400

City: Los Angeles Zip: 90012

Phone: (213)788-4842 ext. 2064

Email: amadsen@rinconconsultants.com

Project Description: The Central Terrace Apartments Project is located on a 0.42-acre project site at 217 East Sixth Street in the city of Oxnard. The project would include construction of an affordable housing complex with 87 residential units, 2,375 square feet of common space including offices, and 33 parking spaces. The project site is identified by Assessor's Parcel Number (APNs) 201021312 and 2010021311.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 1, 2020

Alexandra Madsen, Architectural Historian
Rincon Consultants, Inc.

Via Email to: amadsen@rinconconsultants.com

Re: Central Terrace Apartment Project, Ventura County

Dear Ms. Madsen:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,

Sarah Fonseca
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Ventura County
6/26/2023
*Federally Recognized Tribe

Barbareño/Ventureño Band of Mission Indians
Cultural Resource Committee,
P.O. Box 364 Chumash
Ojai, CA, 93024
Phone: (805) 746 - 6685
CR@bvbmi.com

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street Chumash
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net

Coastal Band of the Chumash Nation
Gabe Frausto, Chairperson
P.O. Box 40653 Chumash
Santa Barbara, CA, 93140
Phone: (805) 568 - 8063
cbcntribalchair@gmail.com

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., Gabrielino
#231
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino-Tongva Tribe
Sam Dunlap, Cultural Resource Director
P.O. Box 3919 Gabrielino
Seal Beach, CA, 90740
Phone: (909) 262 - 9351
tongvatcr@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez, Chairperson
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
Chavez1956metro@gmail.com

Northern Chumash Tribal Council
Violet Walker, Chairperson
P.O. Box 6533 Chumash
Los Osos, CA, 93412
Phone: (760) 549 - 3532
violetsagewalker@gmail.com

San Luis Obispo County Chumash Council
Chumash

****Santa Ynez Band of Chumash Indians***
Kenneth Kahn, Chairperson
P.O. Box 517 Chumash
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
Chairman@chumash.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 22-13370 – Oxnard Aquifer Storage Recovery Project, Ventura County.

Aspire Apartments Project Native American Outreach

Contact List	Date Letter Sent	Date of Follow-up	Responses/Comments/Concerns
Barbareño/Ventureño Band of Mission Indians Cultural Resource Committee P.O. Box 364 Ojai, CA 93024 Via email: CR@bvbmi.com Phone: (805) 746 - 6685	December 19, 2023	January 2, 2024	January 2, 2024 - Matt Vestuto - Expressed interest in monitoring for the project due to previous developments that were not properly overseen
Chumash Council of Bakersfield Julio Quair, Chairperson 729 Texas Street Bakersfield, CA, 93307 Via email: chumashtribe@sbcglobal.net Phone: (661) 322 - 0121	December 19, 2023. Letter was undeliverable to the email address provided. Called the number and the phone number has been disconnected	January 2, 2024 January 11, 2024	January 2, 2024 - Phone has been disconnected January 11, 2024 – Phone has been disconnected
Coastal Band of the Chumash Nation Gabe Frausto, Chairperson P.O. Box 40653 Santa Barbara, CA, 93140 Via email: cbcntribalchair@gmail.com Phone: (805) 568 - 8063	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Left voice mail January 11, 2024 – Gabe Frausto expressed interest and said that they would like consultation regarding the project. Provided us with their cultural resources management email: Aandgconsulting805@gmail.com On January 12, 2024, Rincon sent a follow-up email to the email address provided by Mr. Frausto containing the original outreach letter and notifying him that his request for consultation has been passed on.

Contact List	Date Letter Sent	Date of Follow-up	Responses/Comments/Concerns
Gabrieleno/Tongva San Gabriel Band of Mission Indians Anthony Morales, Chairperson P.O. Box 693 San Gabriel, CA, 91778 Via email: GTTribalcouncil@aol.com Phone: (626) 483 - 3564 Fax: (626) 286-1262	December 19, 2023	January 2, 2024	January 2, 2024 - Anthony Morales - Expressed interest in monitoring, does not know any resources within the vicinity of the APE, but is concerned about resources due to the proximity to the ocean and railroad tracks. Would like to be considered for monitoring.
Gabrielino /Tongva Nation Sandonne Goad, Chairperson 106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012 Via email: sgoad@gabrielino-tongva.com Phone: (951) 807 - 0479	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Mailbox is full, unable to leave voicemail January 11, 2024 – Mailbox is full
Gabrielino-Tongva Tribe Sam Dunlap, Cultural Resource Director P.O. Box 3919 Seal Beach, CA 90740 Via email: tongvatcr@gmail.com Phone: (909) 262 - 9351	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Left a voicemail January 11, 2024 – Left a voicemail
Gabrielino-Tongva Tribe Charles Alvarez, Chairperson 23454 Vanowen Street West Hills, CA, 91307 Via email: Chavez1956metro@gmail.com Phone: (310) 403 - 6048	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Phone number has been changed/disconnected January 11, 2024 – Phone number not active

Contact List	Date Letter Sent	Date of Follow-up	Responses/Comments/Concerns
Northern Chumash Tribal Council Violet Walker, Chairperson P.O. Box 6533 Los Osos, CA, 93412 Via email: violetsagewalker@gmail.com Phone: (760) 549 - 3532	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Violet Walker - No comments or concerns
Santa Ynez Band of Chumash Indians Kenneth Kahn, Chairperson P.O. Box 517 Santa Ynez, CA, 93460 Via email: Chairman@chumash.gov Phone: (805) 688 - 7997 Fax: (805) 686 - 9578	December 19, 2023	January 2, 2024 January 11, 2024	January 2, 2024 - Spoke with Karen, Kenneth's assistant, who said that the letters go straight to the CRM department – Crystal Mendoza 805-303-7517. Left a message for Crystal. January 11, 2024 – Left a voicemail

Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Gabrielino-Tongva Tribe
Charles Alvarez, Chairperson
23454 Vanowen Street
West Hills, California 91307
Phone: (310) 403-6048
Email: Chavez1956metro@gmail.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Alvarez:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

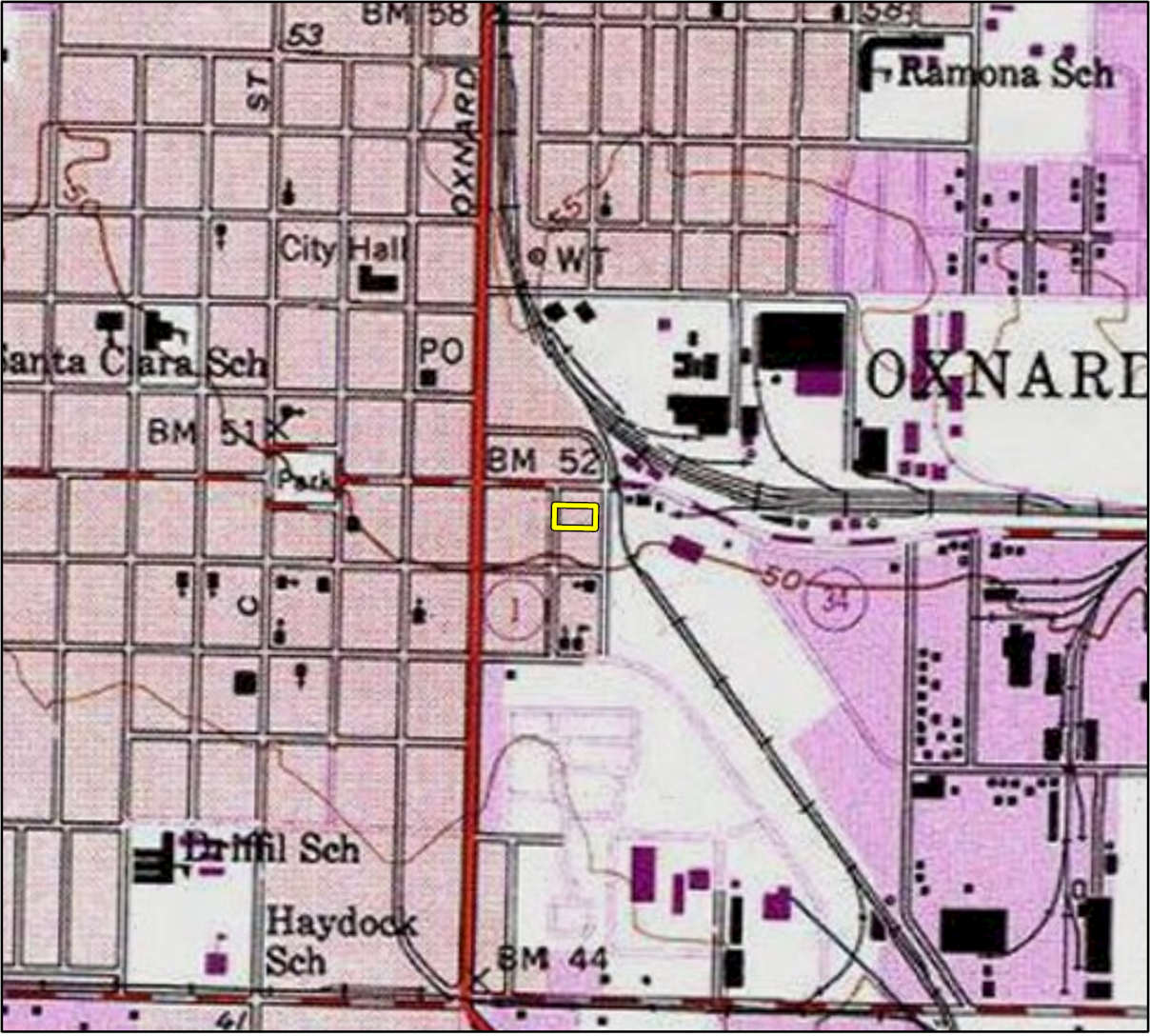
As part of the process of identifying cultural resources for the project, Rincon is contacting Native American tribal organizations and individuals that are traditionally and culturally affiliated with the project's Area of Potential Effect (APE) and who may have knowledge of sensitive cultural resources in or near the APE. Please note this letter is for information gathering purposes only and does not constitute formal consultation under Section 106 of the NHPA.

If you have knowledge of cultural resources that may exist within or near the proposed project site, please do not hesitate to contact me at mpfeiffer@rinconconsultants.com, or by telephone at 712-789-0971. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

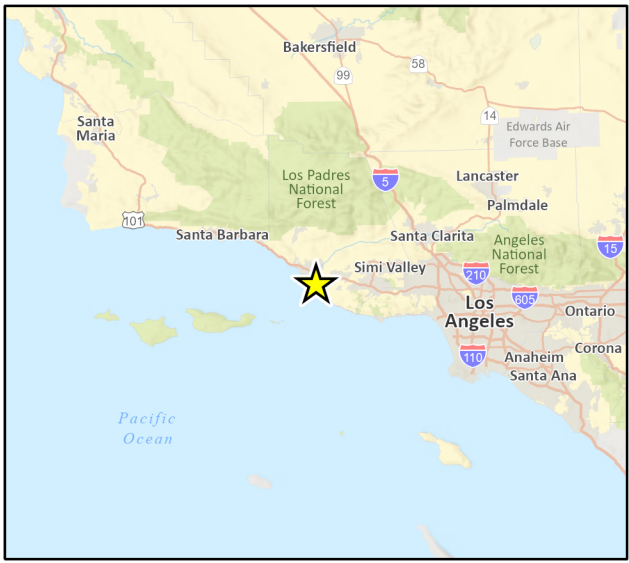
Mary Pfeiffer, BA
Archaeologist and Project Manager

Enclosed: Project Location Map



Basemap provided by National Geographic Society, Esri and their licensors © 2023. Oxnard Quadrangle. T01N R22W S03. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

23-15439 CR
CR Fig X Project Location



Project Location

0 500 1,000 Feet

N

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Barbareño/Ventureño Band of Mission Indians
Cultural Resources Committttee
P.O. Box 364
Ojai, California 93024
Phone: (805) 746-6685
Email: CR@bvbmi.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Cultural Resources Committee:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

As part of the process of identifying cultural resources for the project, Rincon is contacting Native American tribal organizations and individuals that are traditionally and culturally affiliated with the project's Area of Potential Effect (APE) and who may have knowledge of sensitive cultural resources in or near the APE. Please note this letter is for information gathering purposes only and does not constitute formal consultation under Section 106 of the NHPA.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

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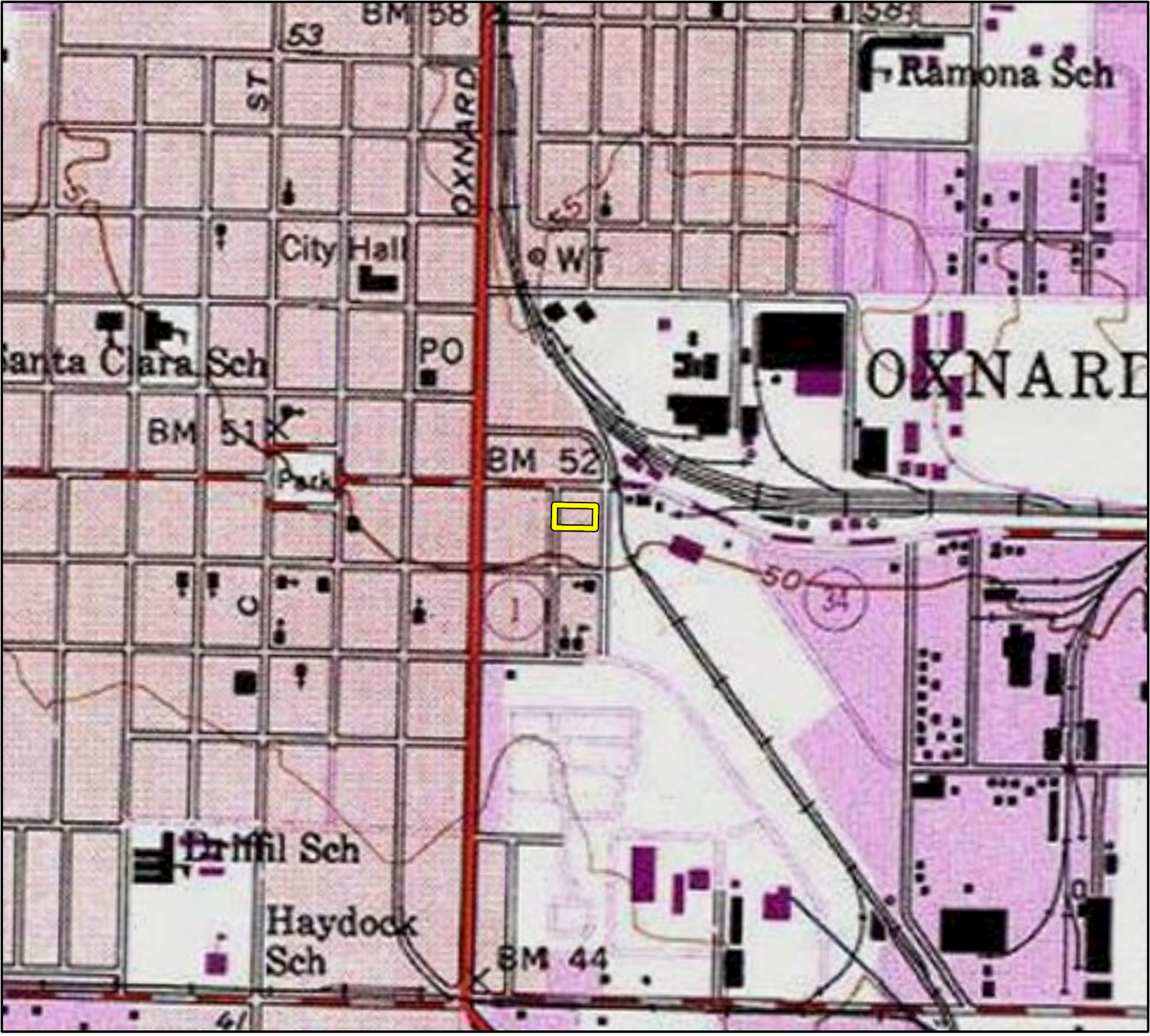
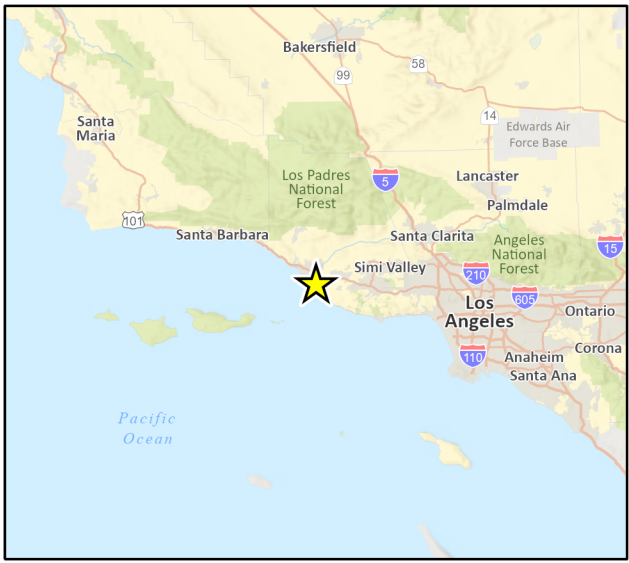


Basemap provided by National Geographic Society, Esri and their licensors © 2023. Oxnard Quadrangle. T01N R22W S03. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

23-15439 CR
CR Fig X Project Location



Project Location

0 500 1,000 Feet

N

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Gabrielino/Tongva Tribe
Sam Dunlap, Cultural Resource Director
P.O. Box 3919
Seal Beach, California 90740
Phone: (909) 262-9351
Email: tongvatcr@gmail.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Mr. Dunlap:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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Sincerely,
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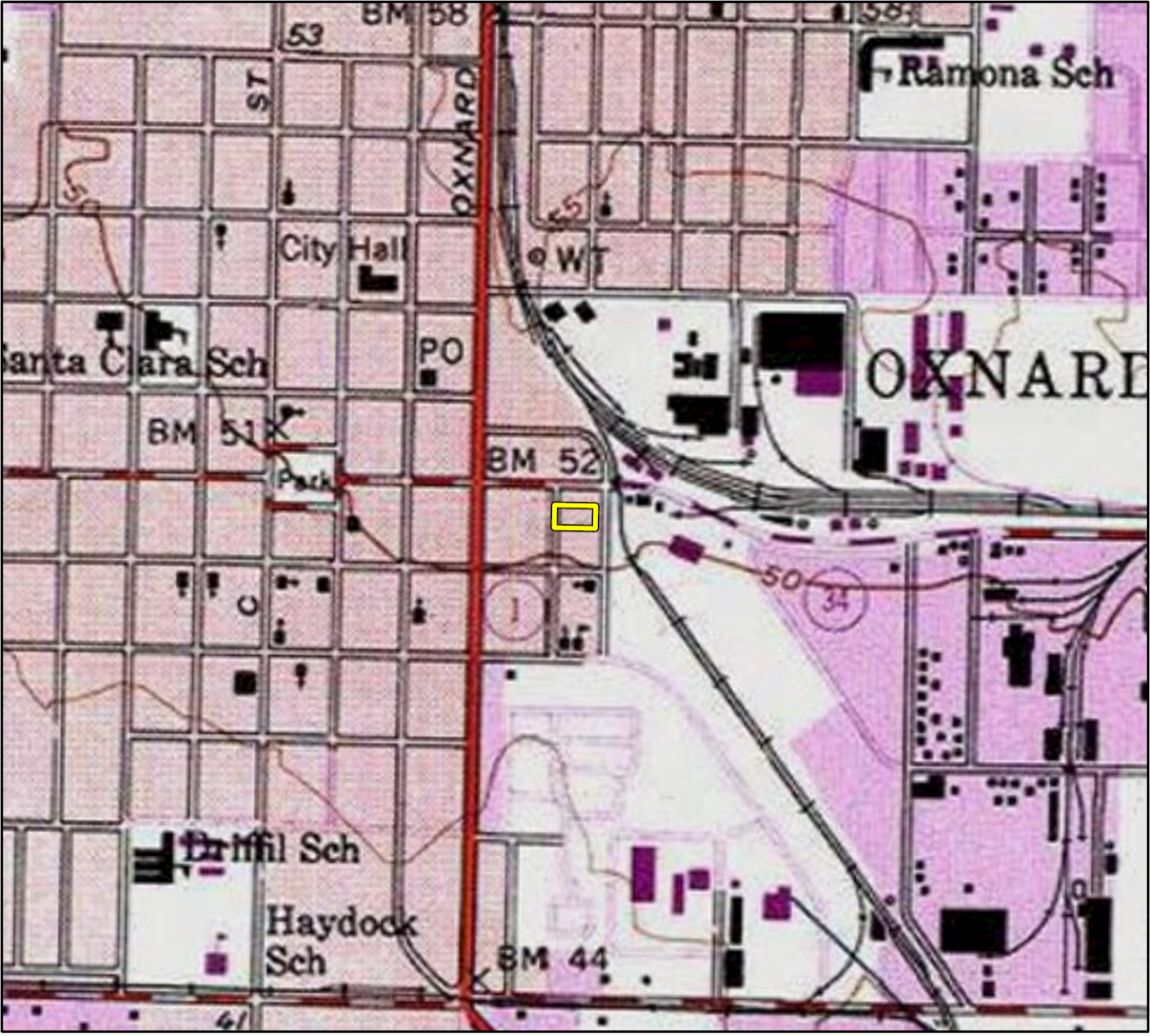
Mary Pfeiffer, BA
Archaeologist and Project Manager

Enclosed: Project Location Map



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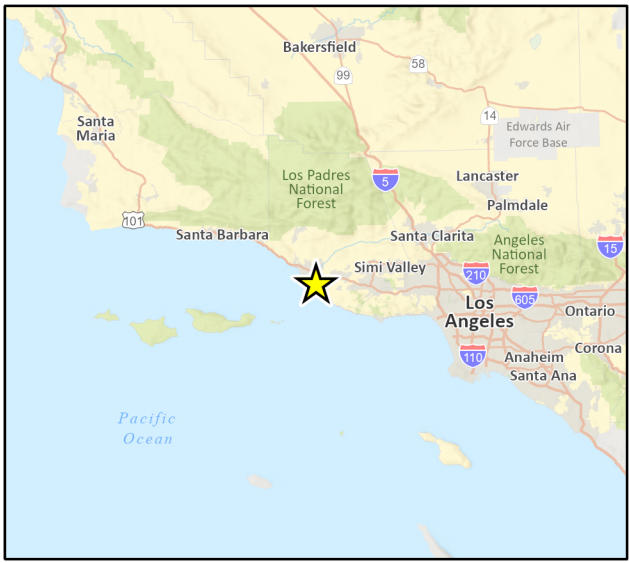
23-15439 CR
CR Fig X Project Location



Project Location

0 500 1,000 Feet

N

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Coastal Band of the Chumash Nation
Gabe Frausto, Chairperson
P.O. Box 40653
Santa Barbara, California 93140
Phone: (805) 568-8063
Email: cbcntribalchair@gmail.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Frausto:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

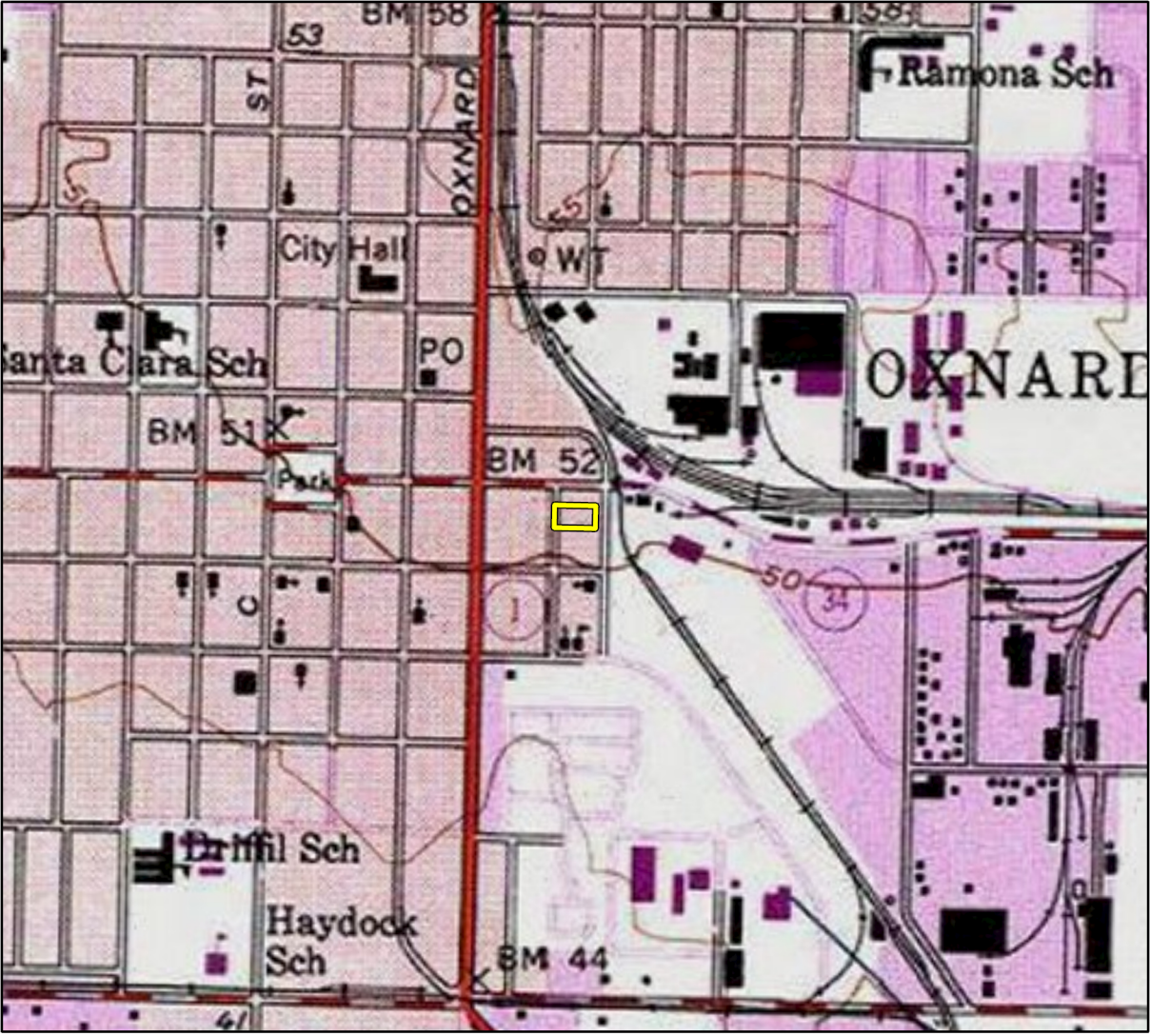
As part of the process of identifying cultural resources for the project, Rincon is contacting Native American tribal organizations and individuals that are traditionally and culturally affiliated with the project's Area of Potential Effect (APE) and who may have knowledge of sensitive cultural resources in or near the APE. Please note this letter is for information gathering purposes only and does not constitute formal consultation under Section 106 of the NHPA.

If you have knowledge of cultural resources that may exist within or near the proposed project site, please do not hesitate to contact me at mpfeiffer@rinconconsultants.com, or by telephone at 712-789-0971. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

Enclosed: Project Location Map



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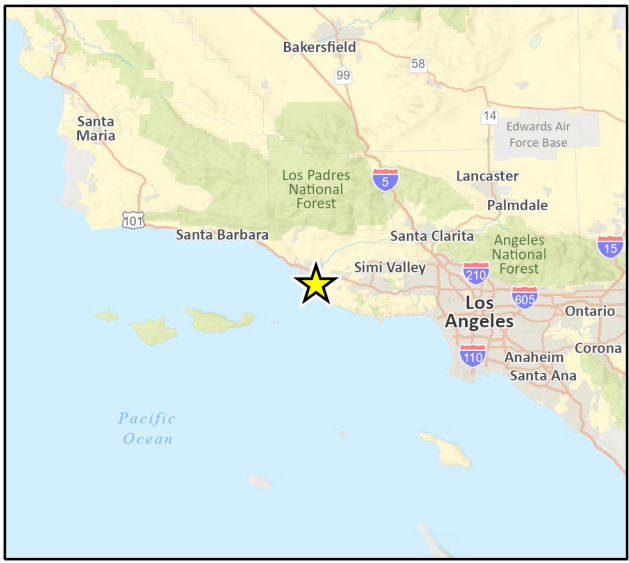

Project Location

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www.rinconconsultants.com

December 19, 2023

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, California 90012
Phone: (951) 807-0479
Email: sgoad@gabrielino-tongva.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Goad:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

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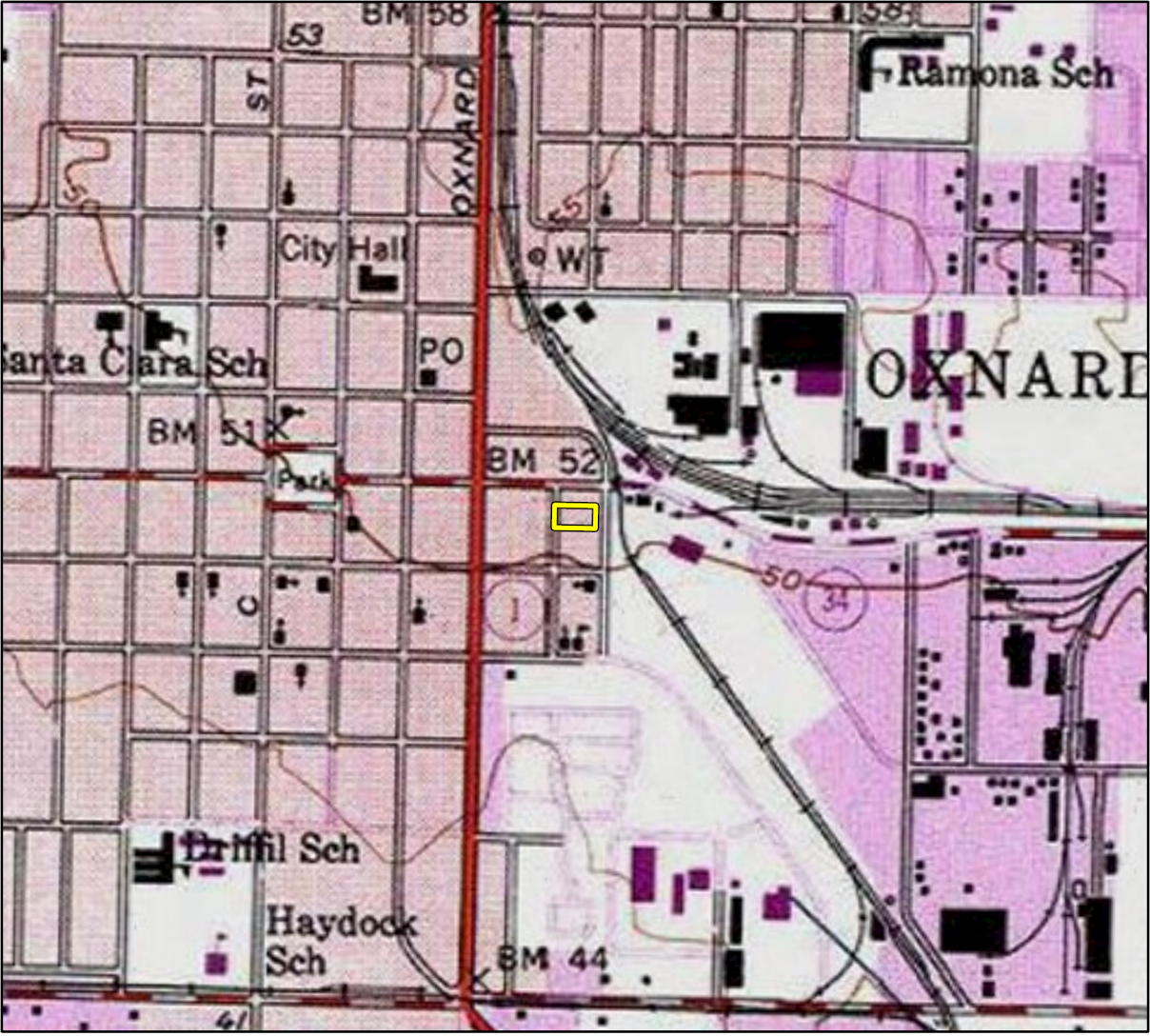

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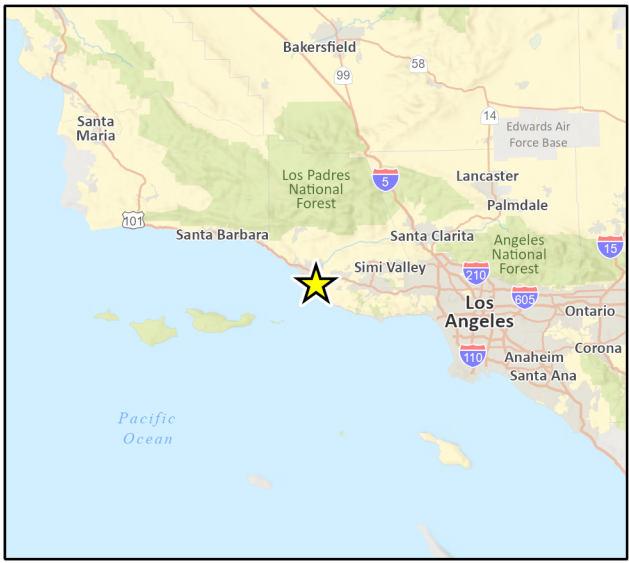

Project Location

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Ventura, California 93003

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www.rinconconsultants.com

December 19, 2023

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517
Santa Ynez, California 93460
Phone: (805) 688-7997
Email: Chairman@chumash.gov

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Kahn:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

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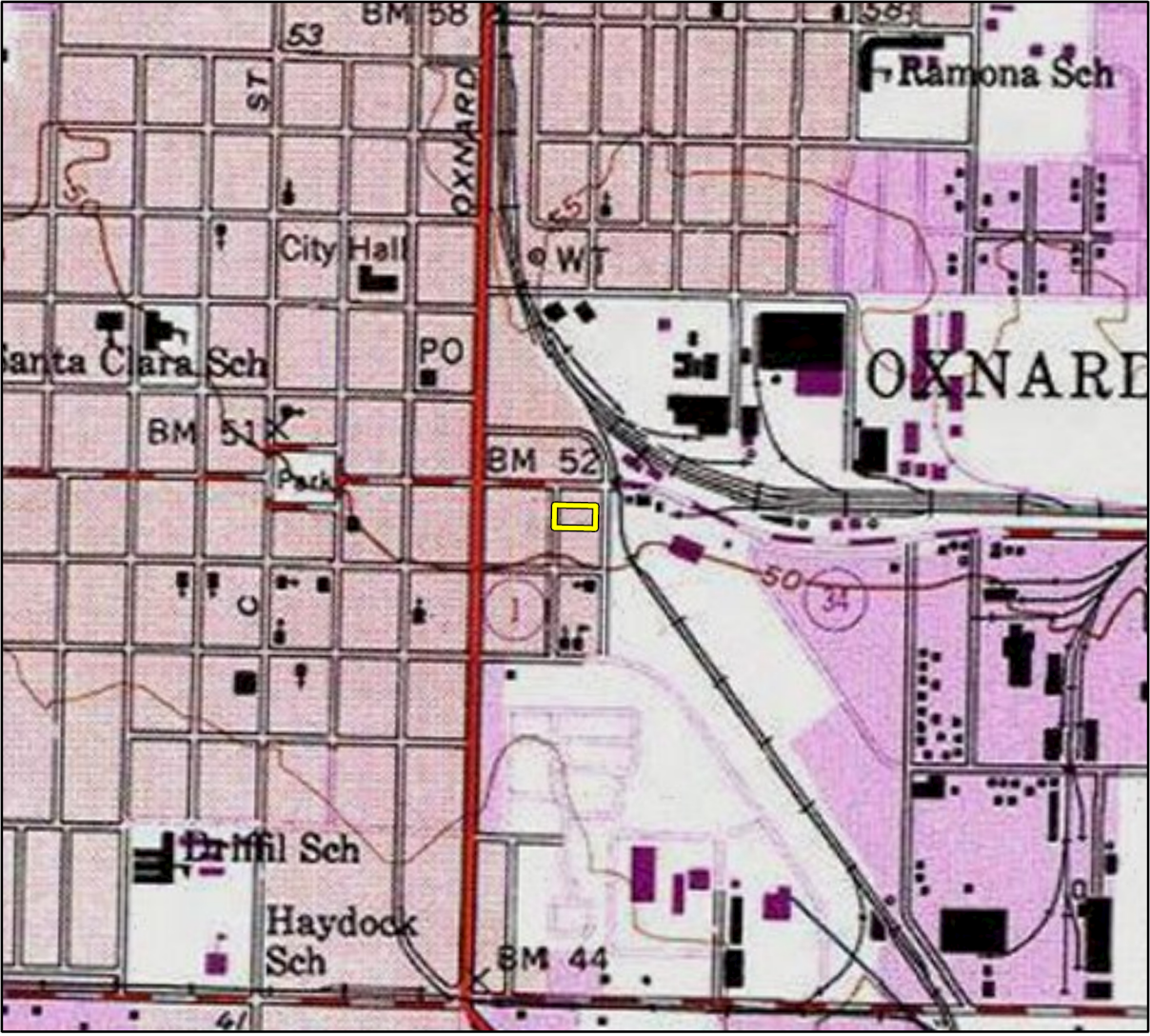

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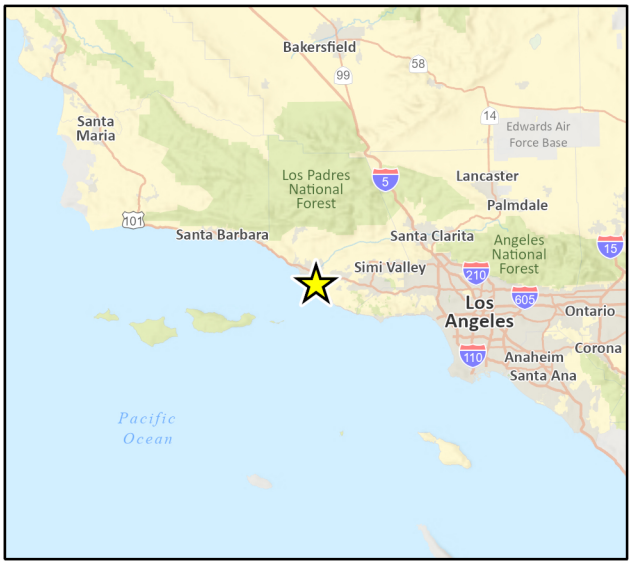

Project Location

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Ventura, California 93003

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info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, California 91778
Phone: (626) 483-3564
Email: GTTribalcouncil@aol.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Morales:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

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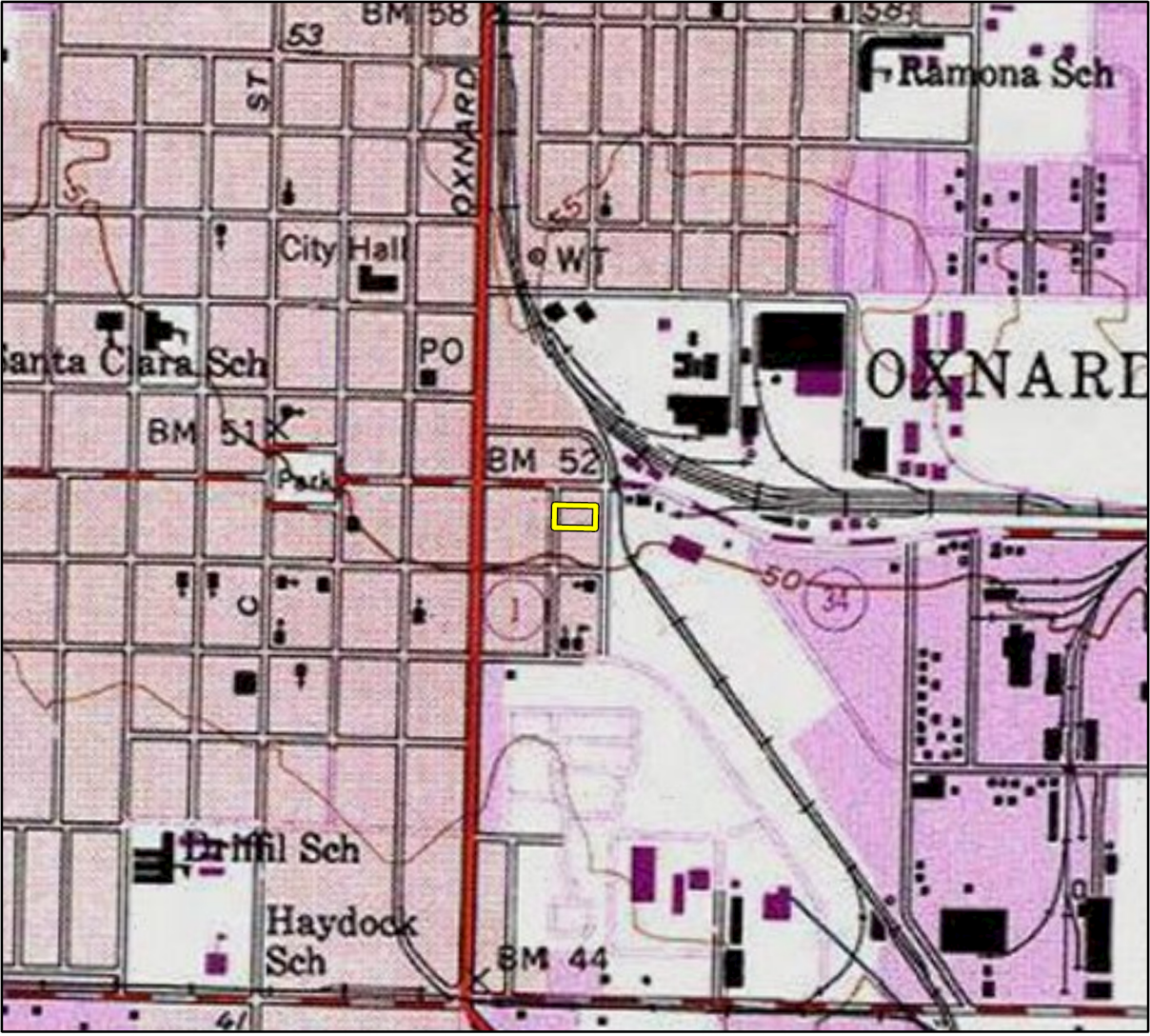

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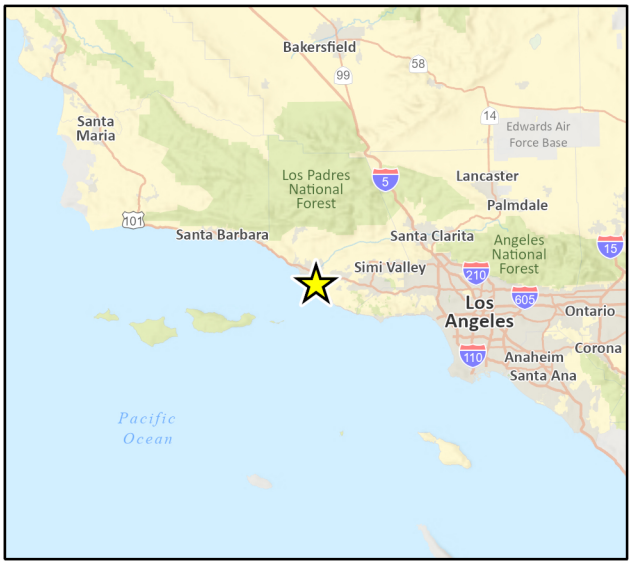

Project Location

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Ventura, California 93003

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info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, California 93307
Phone: (661) 322-0121
Email: chumashtribe@sbcglobal.net

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Quair:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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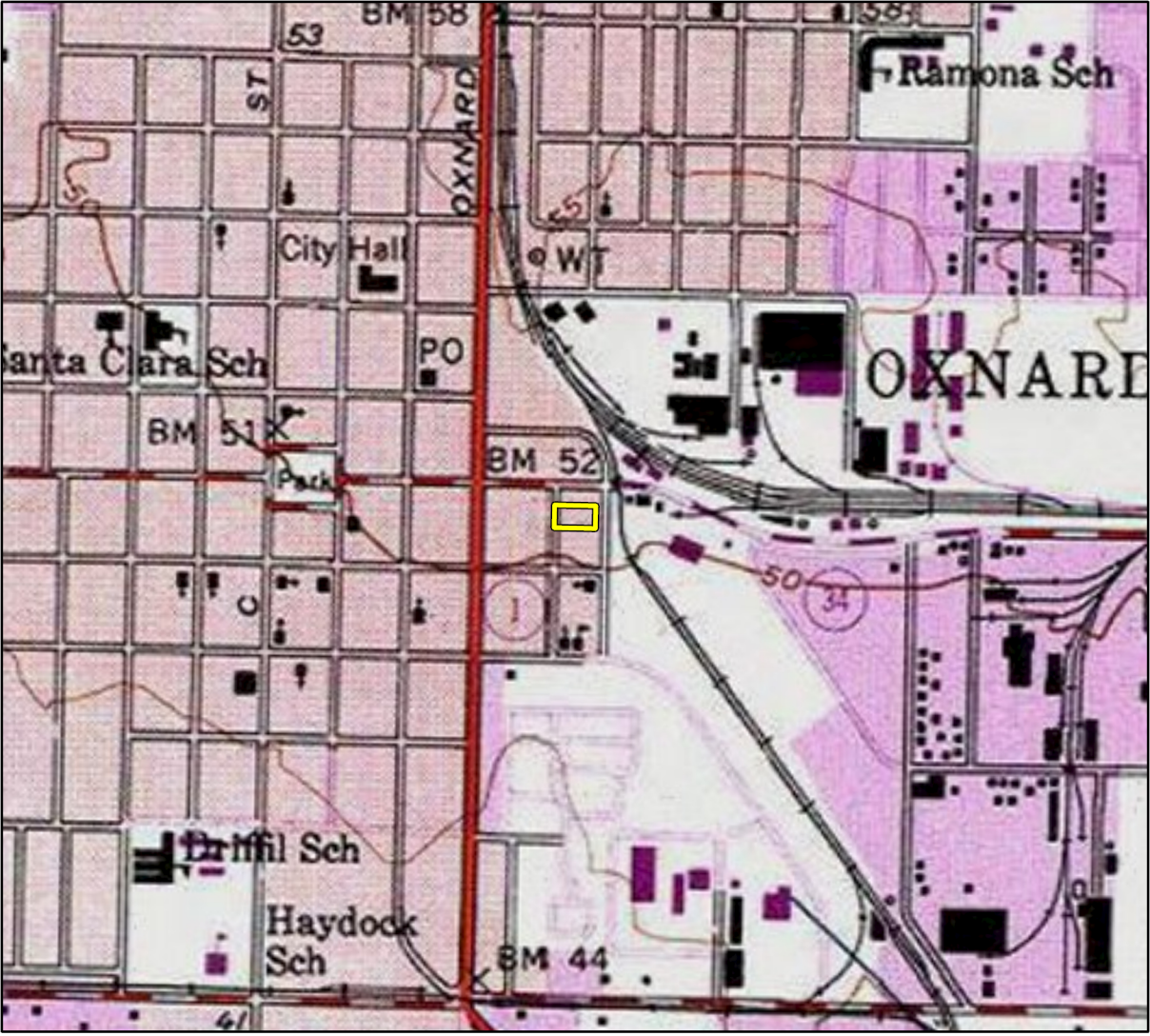
If you have knowledge of cultural resources that may exist within or near the proposed project site, please do not hesitate to contact me at mpfeiffer@rinconconsultants.com, or by telephone at 712-789-0971. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

Enclosed: Project Location Map



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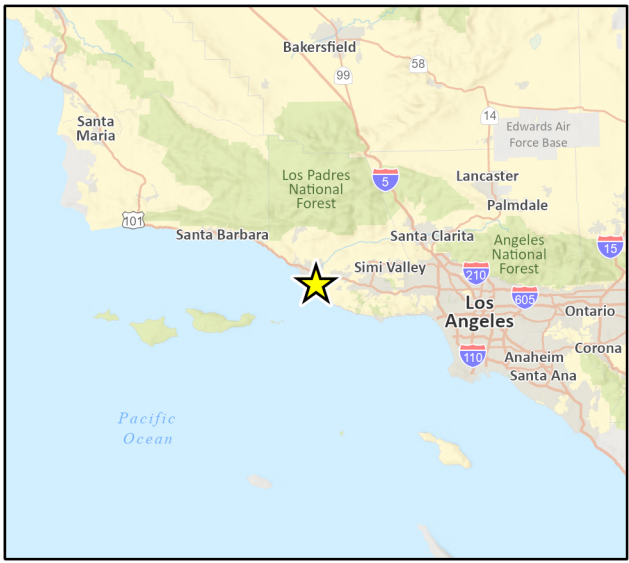

Project Location

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180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2023

Northern Chumash Tribal Council
Violet Walker, Chairperson
P.O. Box 6533
Los Osos, California 93412
Phone: (760) 549-3532
Email: violetsagewalker@gmail.com

RE: Native American Outreach for the Aspire Apartments Project, Oxnard, Ventura County, California

Dear Chairperson Walker:

Rincon Consultants, Inc. (Rincon) was retained by Many Mansions to prepare a cultural resources study for the Aspire Apartments Project (project), located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. The proposed project is seeking federal funding from the U.S. Department of Housing and Urban Development (HUD). It is therefore considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (NHPA). The proposed project includes the construction of an affordable housing complex with 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building within the 0.64-acre project site.

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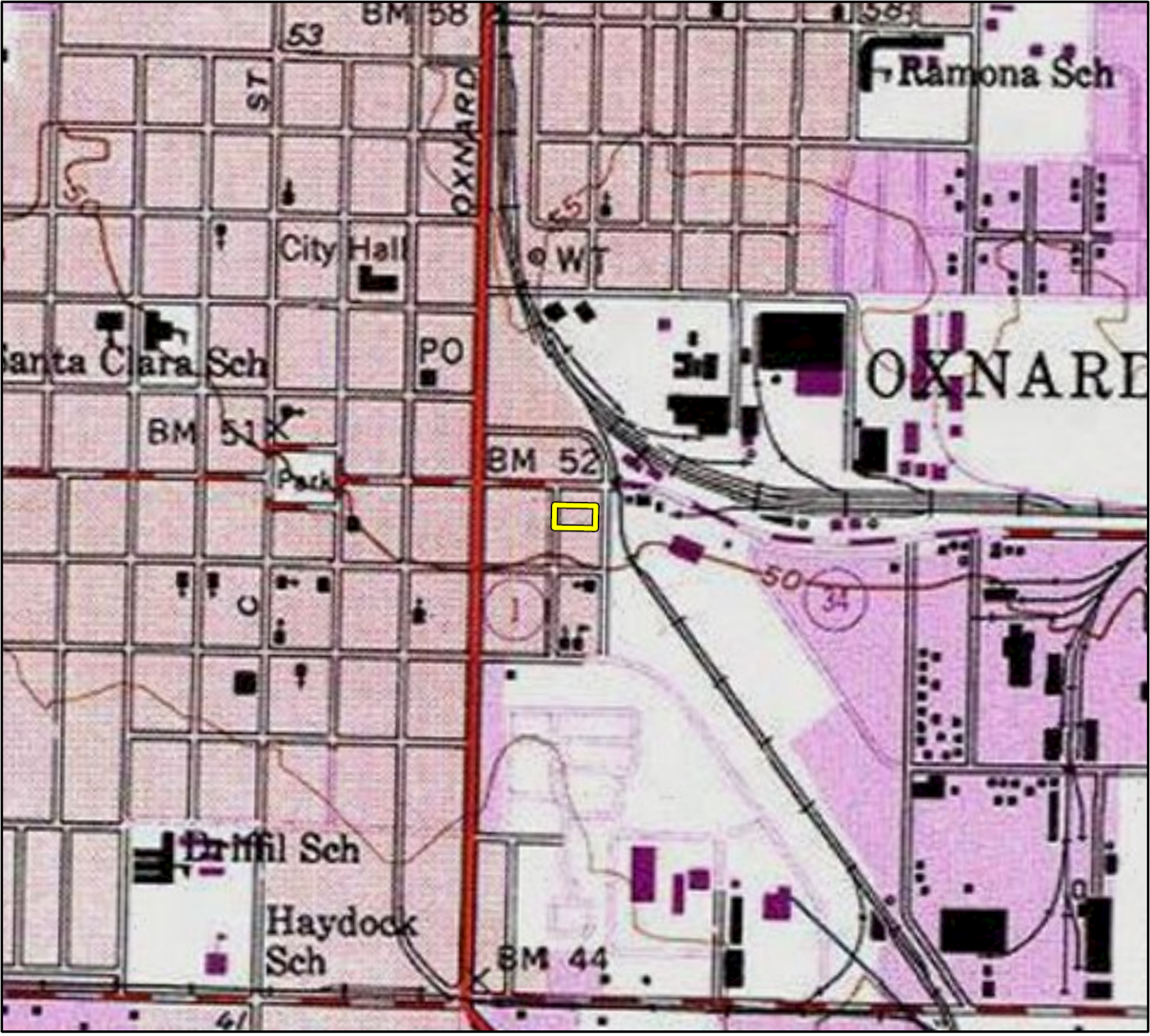
If you have knowledge of cultural resources that may exist within or near the proposed project site, please do not hesitate to contact me at mpfeiffer@rinconconsultants.com, or by telephone at 712-789-0971. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist and Project Manager

Enclosed: Project Location Map



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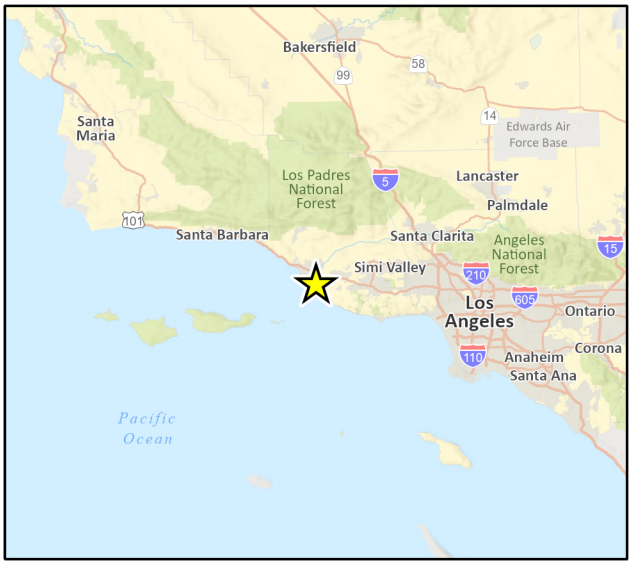


Project Location

0 500 1,000 Feet

N

From: Catherine Johnson
Sent: Friday, January 12, 2024 8:29 AM
To: Aandgconsulting805@gmail.com
Cc: Mary Pfeiffer
Subject: Aspire Apartments Outreach Letter
Attachments: Frausto_12.20.23.pdf

Dear Chairperson Frausto,

It was great speaking with you yesterday regarding the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California. You mentioned on the call that you have been having issues with the NAHC listed email. I wanted to take the opportunity to forward the initial outreach letter that was sent to your Tribe on December 20, 2023, to the new email address that you provided. Please note the attached letter is for information gathering purposes only and does not constitute formal consultation under Section 106 of the NHPA. We will forward your request for consultation to the City of Oxnard, as the Responsible Entity for the project.

Thank you!

Catherine Johnson, PhD, RPA, Archaeologist
805-859-9612 Mobile | 805-947-4824 Direct
cjohnson@rinconconsultants.com

Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers

Ranked 2021 “Best Environmental Services Firm to Work For” by Zweig Group

Appendix D

Local Interested Party Outreach

Table 1 Interested Party Outreach

Interested Party Contact	Rincon Coordination Efforts	Response to Coordination Efforts
San Buenaventura Conservancy P.O. Box 23263 Ventura, CA 93002 Attn: Steven Schafer schaf@west.net (805) 444-5233	**12/20/2023:** Letter sent via e-mail.	**12/21/2023:** Mr. Schafer responded via a phone call and voicemail. **12/28/2023:** Due to the holidays, Rincon responded 12/28/2023. Mr. Schafer stated the San Buenaventura Conservancy did not have any comments or questions for the project. **12/31/2023:** Mr. Schafer followed up with an email requesting formal consultation. He stated the conservancy did not have any additional information but would like to see and comment on the on-going project.
City of Oxnard Planning Department Oxnard Service Center 214 S. C Street Oxnard, CA 93030 planning@oxnard.org (805) 385-7858	**12/20/2023:** Letter sent via e-mail to scott.kolwitz@oxnard.org. **12/20/2023:** Second email sent to planning@oxnard.org. **1/3/2023:** Follow-up phone call with no answer. **1/11/2024:** Follow-up phone call with no answer.	**12/20/2023:** Email to scott.kolwitz@oxnard.org bounced back with "Address not found".
County of Ventura Planning Division Government Center Administration Building, 3rd Floor 800 S. Victoria Avenue Ventura, CA 93009 Attn: Dillan Murray, Associate Planner Dillan.Murray@ventura.org (805) 654-5042	**12/20/2023:** Letter sent via e-mail.	**12/20/2023:** Dillan Murray responded via email that the Cultural Heritage Board researched the subject property and found no known eligible or designated historic resources located on or near the site; the site is not within an area of known likelihood of containing paleontological resources; and the site is not within an area of known likelihood of containing archaeological resources.
Pleasant Valley Historical Society and Museum (PVHS) P.O. Box 570 Camarillo, California 93011 Att: Joy Todd pvhmag@gmail.com (805) 482-3660	**12/20/2023:** Letter sent via e-mail to pvhs@pvhsonline.org. **12/20/2023:** Second letter sent via email to pvhmag@gmail.com. **1/3/2023:** Follow-up phone call with no answer. **1/11/2024:** Follow-up phone call with no answer.	**12/20/2023:** Email to pvhs@pvhsonline.org bounced back with "Address not found".

Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 20, 2023

Project No: 23-15439

Attn: Dylan Murray
County of Ventura Planning Division
Government Center Administration Building, 3rd Floor
800 S. Victoria Avenue
Ventura, CA 93009

Subject: **Interested Party Outreach for the Aspire Apartments Project, City of Oxnard, County of Ventura, CA**

Dear Mr. Murray:

Rincon Consultants, Inc. (Rincon) has been retained to complete a cultural resources technical study in support of the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California (project/undertaking). The project is seeking federal funds from the U.S. Department of Housing and Urban Development (HUD). Therefore, it is considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency, and the City of Oxnard (City) is acting as the Responsible Entity (RE). The proposed undertaking includes the demolition of the existing one-story commercial building and construction of a five-story building consisting of 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building. The undertaking would provide 45 podium stalls, including eight alley accessed public stalls.

As a component of the cultural resources technical study, in support of Section 106, Rincon is reaching out to interested parties to request input on potential or known historic properties or other cultural resources in the project area or its vicinity. In conformance with Section 106, we are in the initial phase, "identify[ing] historic properties potentially affected by the undertaking" (36 Code of Federal Regulations Part 880.1 a). Rincon is currently working to identify any potential cultural resource issues associated with the proposed project. If you or your organization has any knowledge of, or specific concerns regarding cultural resources with the potential to be affected by the project, please respond by telephone at (619) 841-2116 or by email to alosco@rinconconsultants.com. Thank you for your time and assistance.

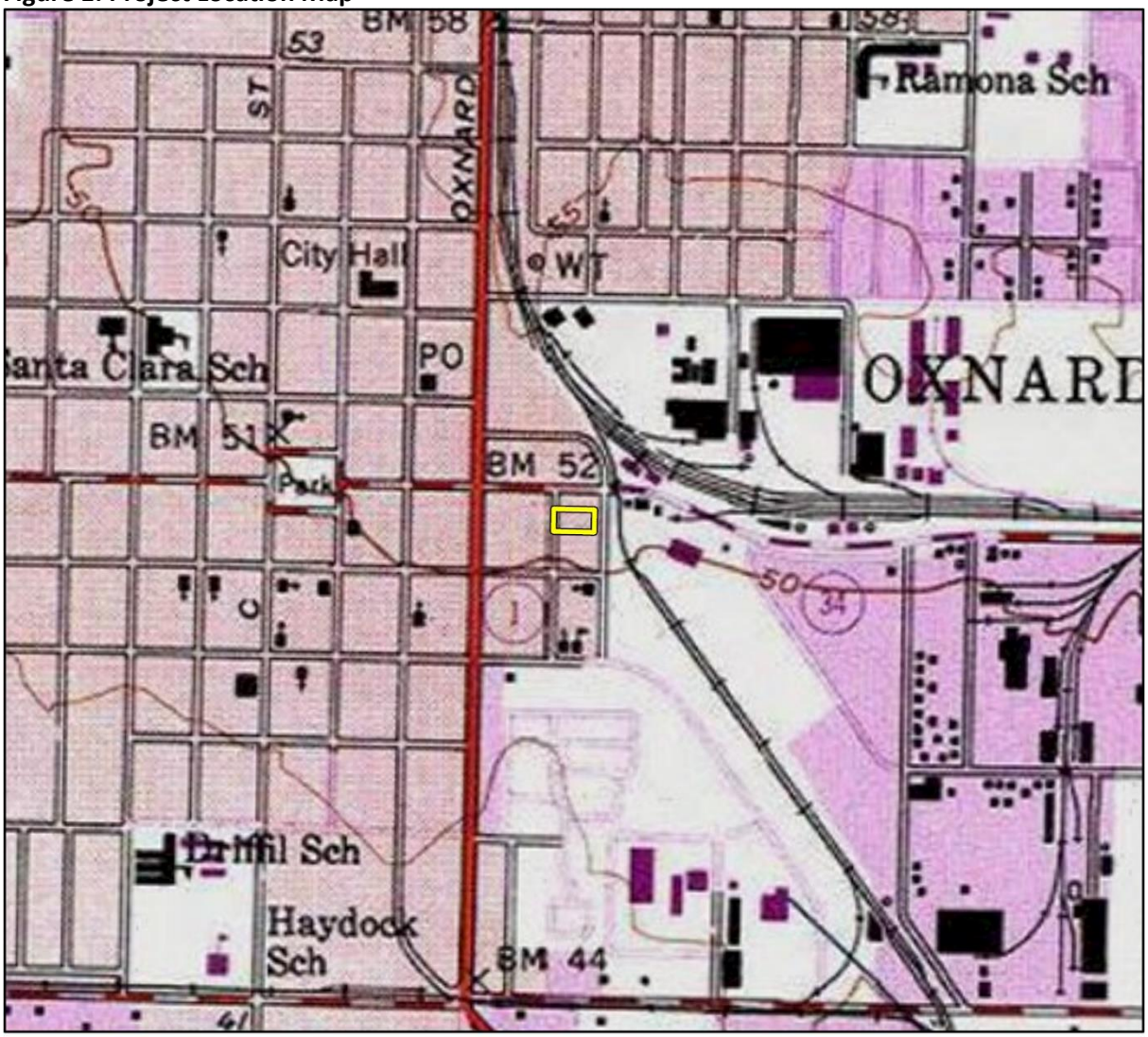
Sincerely,
Rincon Consultants, Inc.

Ashley Losco

Ashley Losco, MHP
Architectural Historian

Enclosure: *Project Location Map*

Figure 1: Project Location Map



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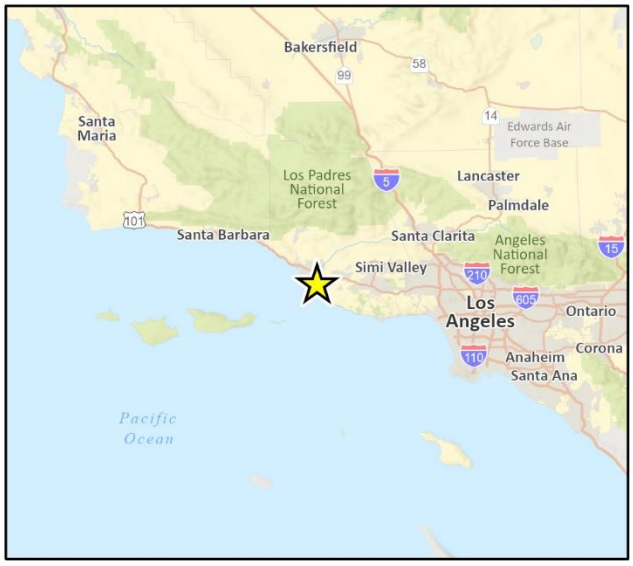

Project Location

0 500 1,000 Feet

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180 North Ashwood Avenue
Ventura, California 93003

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www.rinconconsultants.com

December 20, 2023

Project No: 23-15439

City of Oxnard Planning Department
Oxnard Service Center
214 S. C Street
Oxnard, CA 9303

Subject: **Interested Party Outreach for the Aspire Apartments Project, City of Oxnard, County of Ventura, CA**

To Whom This May Concern:

Rincon Consultants, Inc. (Rincon) has been retained to complete a cultural resources technical study in support of the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California (project/undertaking). The project is seeking federal funds from the U.S. Department of Housing and Urban Development (HUD). Therefore, it is considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency, and the City of Oxnard (City) is acting as the Responsible Entity (RE). The proposed undertaking includes the demolition of the existing one-story commercial building and construction of a five-story building consisting of 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building. The undertaking would provide 45 podium stalls, including eight alley accessed public stalls.

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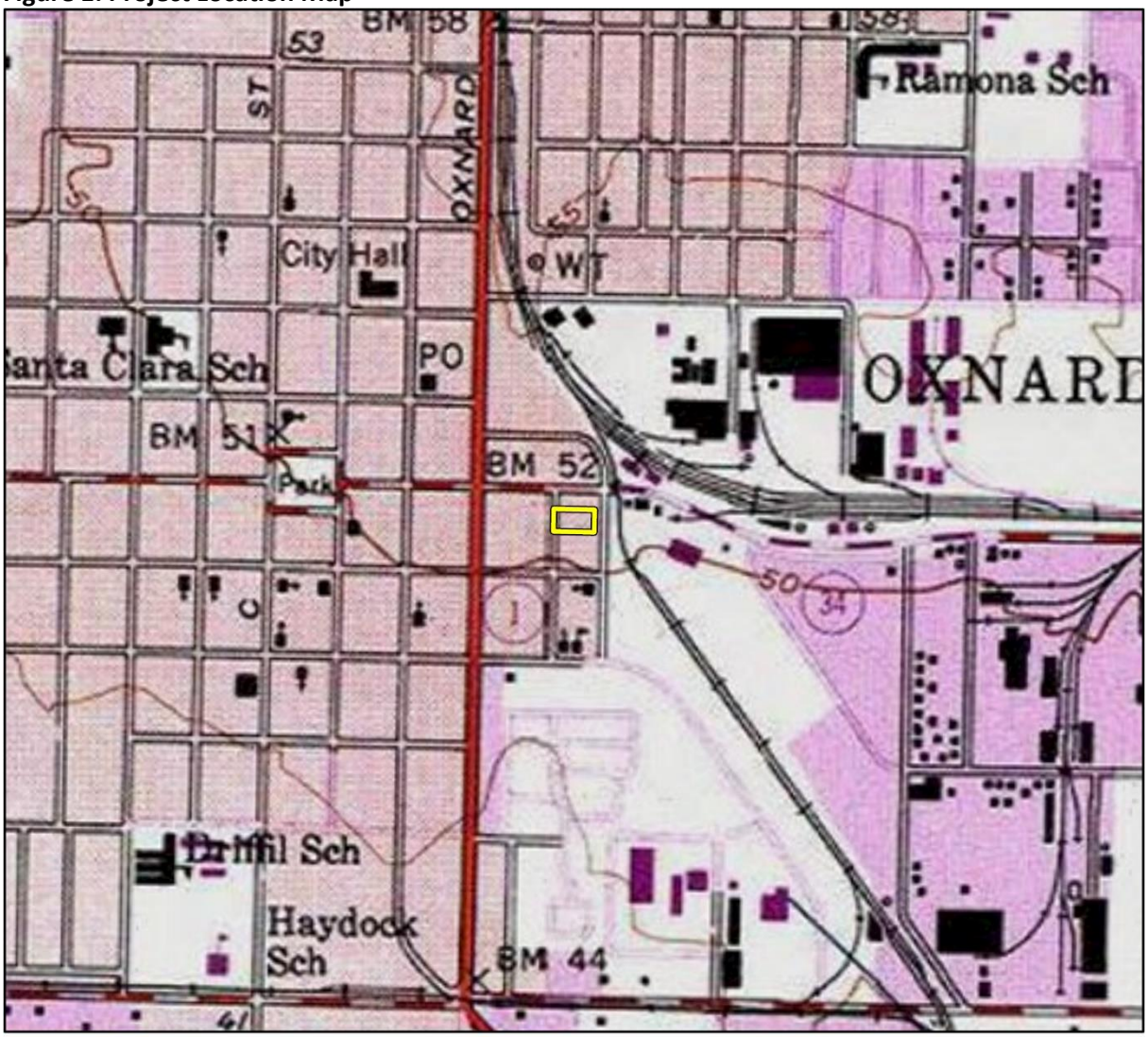
Sincerely,
Rincon Consultants, Inc.

Ashley Losco

Ashley Losco, MHP
Architectural Historian

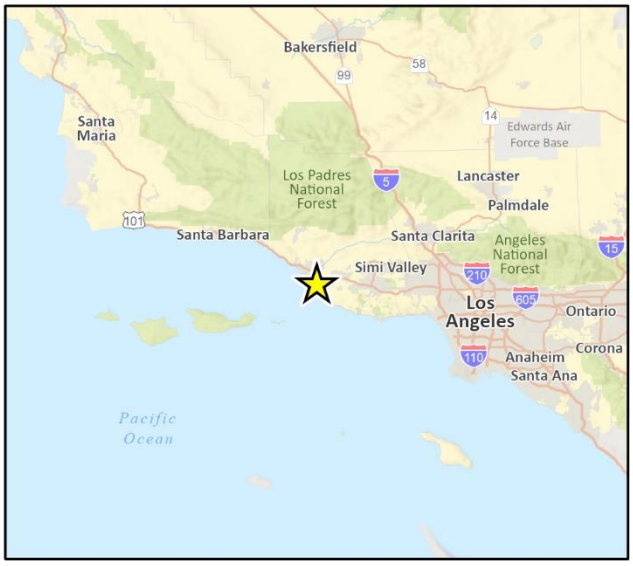
Enclosure: *Project Location Map*

Figure 1: Project Location Map



Basemap provided by National Geographic Society, Esri and their licensors © 2023. Oxnard Quadrangle. T01N R22W S03. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

23-15439 CR
CR Fig X Project Location



Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 20, 2023

Project No: 23-15439

Attn: Joy Todd
Pleasant Valley Historical Society and Museum (PVHS)
P.O. Box 570
Camarillo, California 93011

Subject: **Interested Party Outreach for the Aspire Apartments Project, City of Oxnard, County of Ventura, CA**

Dear Ms. Todd:

Rincon Consultants, Inc. (Rincon) has been retained to complete a cultural resources technical study in support of the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California (project/undertaking). The project is seeking federal funds from the U.S. Department of Housing and Urban Development (HUD). Therefore, it is considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency, and the City of Oxnard (City) is acting as the Responsible Entity (RE). The proposed undertaking includes the demolition of the existing one-story commercial building and construction of a five-story building consisting of 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building. The undertaking would provide 45 podium stalls, including eight alley accessed public stalls.

As a component of the cultural resources technical study, in support of Section 106, Rincon is reaching out to interested parties to request input on potential or known historic properties or other cultural resources in the project area or its vicinity. In conformance with Section 106, we are in the initial phase, "identify[ing] historic properties potentially affected by the undertaking" (36 Code of Federal Regulations Part 880.1 a). Rincon is currently working to identify any potential cultural resource issues associated with the proposed project. If you or your organization has any knowledge of, or specific concerns regarding cultural resources with the potential to be affected by the project, please respond by telephone at (619) 841-2116 or by email to alosco@rinconconsultants.com. Thank you for your time and assistance.

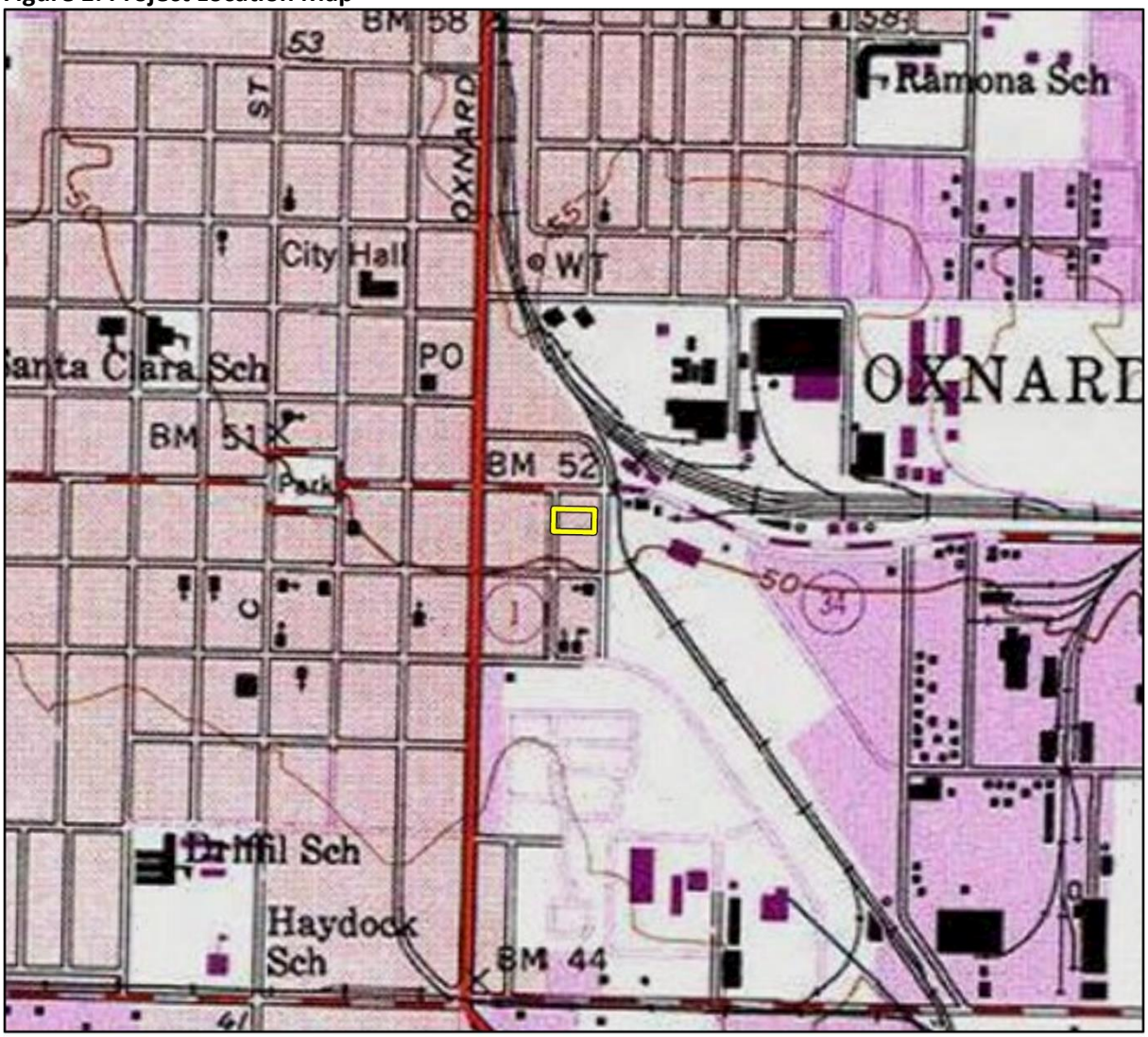
Sincerely,
Rincon Consultants, Inc.

Ashley Losco

Ashley Losco, MHP
Architectural Historian

Enclosure: *Project Location Map*

Figure 1: Project Location Map



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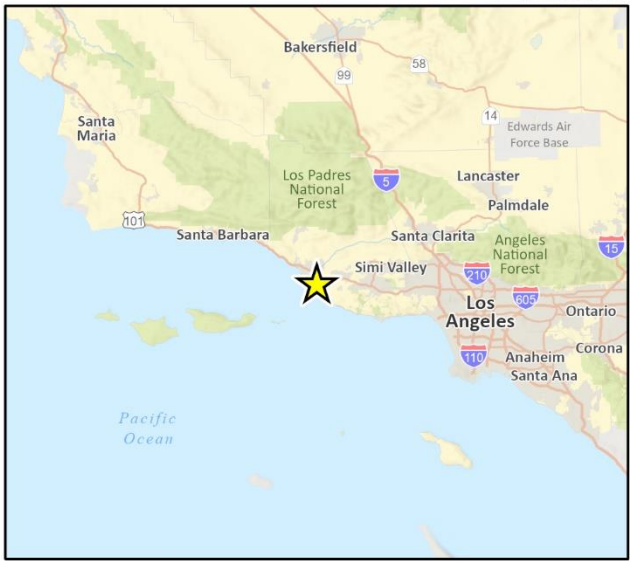
23-15439 CR
CR Fig X Project Location



Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 20, 2023

Project No: 23-15439

Attn: Steven Schafer
San Buenaventura Conservancy
P.O. Box 23263
Ventura, CA 93002

Subject: **Interested Party Outreach for the Aspire Apartments Project, City of Oxnard, County of Ventura, CA**

Dear Mr. Schafer:

Rincon Consultants, Inc. (Rincon) has been retained to complete a cultural resources technical study in support of the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California (project/undertaking). The project is seeking federal funds from the U.S. Department of Housing and Urban Development (HUD). Therefore, it is considered a federal undertaking and is subject to Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead federal agency, and the City of Oxnard (City) is acting as the Responsible Entity (RE). The proposed undertaking includes the demolition of the existing one-story commercial building and construction of a five-story building consisting of 88 dwelling units and approximately 5,605 square feet of a pedestrian paseo south of the residential building. The undertaking would provide 45 podium stalls, including eight alley accessed public stalls.

As a component of the cultural resources technical study, in support of Section 106, Rincon is reaching out to interested parties to request input on potential or known historic properties or other cultural resources in the project area or its vicinity. In conformance with Section 106, we are in the initial phase, "identify[ing] historic properties potentially affected by the undertaking" (36 Code of Federal Regulations Part 880.1 a). Rincon is currently working to identify any potential cultural resource issues associated with the proposed project. If you or your organization has any knowledge of, or specific concerns regarding cultural resources with the potential to be affected by the project, please respond by telephone at (619) 841-2116 or by email to alosco@rinconconsultants.com. Thank you for your time and assistance.

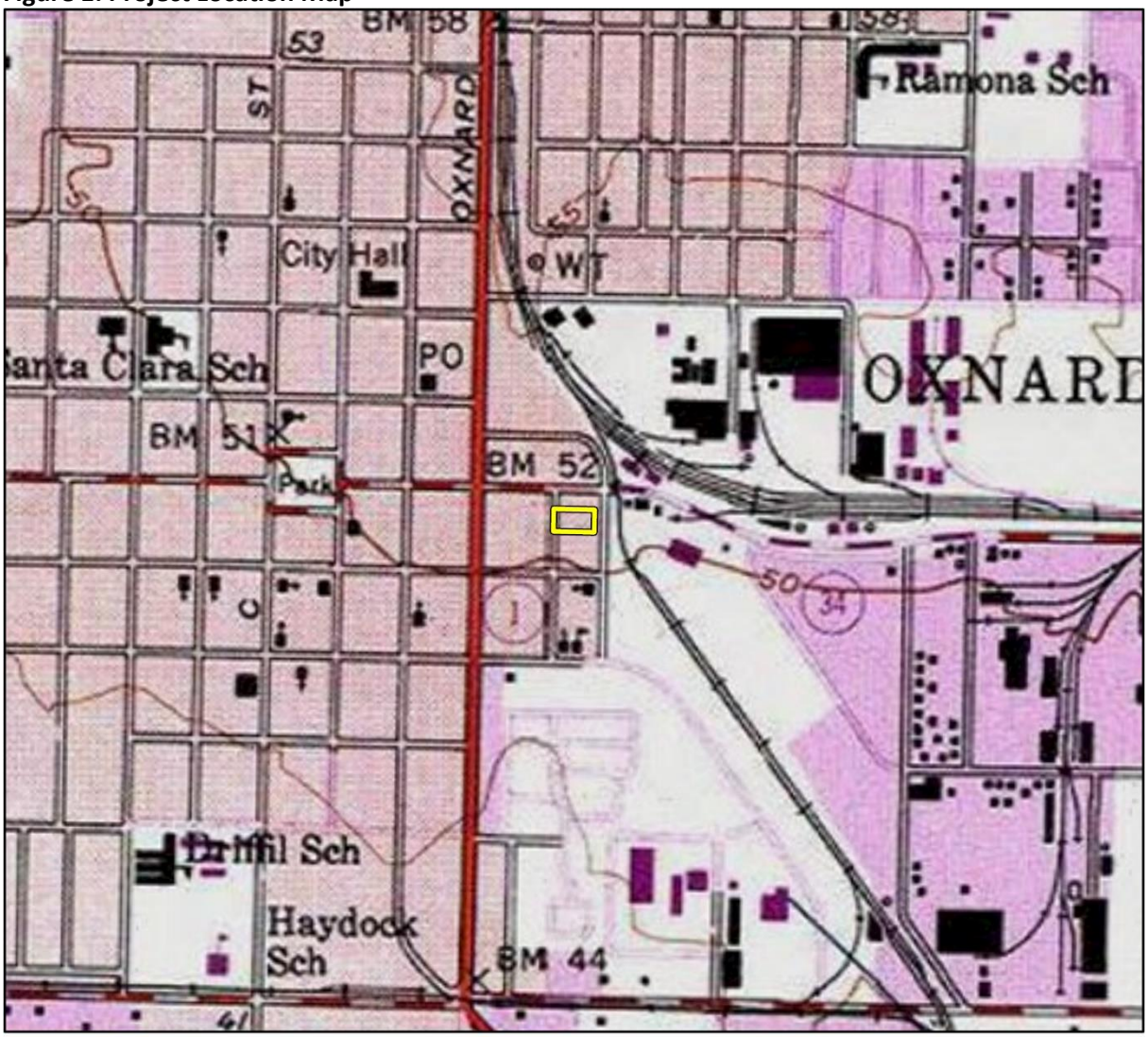
Sincerely,
Rincon Consultants, Inc.

Ashley Losco

Ashley Losco, MHP
Architectural Historian

Enclosure: *Project Location Map*

Figure 1: Project Location Map



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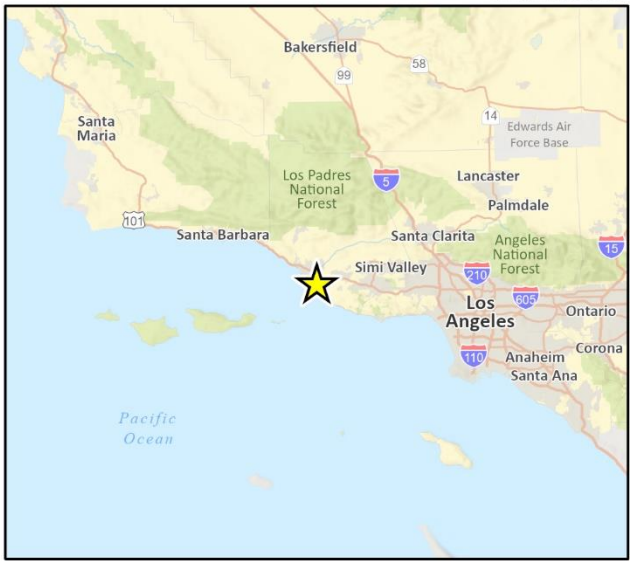
23-15439 CR
CR Fig X Project Location



Ashley Losco

From: Ashley Losco
Sent: Wednesday, December 20, 2023 3:32 PM
To: Murray, Dillan
Cc: Mary Pfeiffer
Subject: RE: [EXT] RE: Local Interested Party Outreach - Aspire Apartments Project

Hi Dillan,

Thank you for your feedback. We appreciate you taking the time to provide the information below. We will let you know if we have any follow-up questions.

Best,
Ashley

From: Murray, Dillan <Dillan.Murray@ventura.org>
Sent: Wednesday, December 20, 2023 3:27 PM
To: Ashley Losco <alosco@rinconconsultants.com>
Cc: Mary Pfeiffer <mpfeiffer@rinconconsultants.com>
Subject: [EXT] RE: Local Interested Party Outreach - Aspire Apartments Project

Hello,

Thank you for reaching out.

Cultural Heritage Board (CHB) staff has researched the subject site, as well as property within the vicinity, and found the following:

- No known eligible or designated historic resources are located on or near the site;
- The site is not within an area of known likelihood of containing paleontological resources; and
- The site is not within an area of known likelihood of containing archaeological resources.

Thank you again for the opportunity to comment on the proposed project. If you require anything further or have questions regarding our findings, please do not hesitate to contact Dillan Murray at dillan.murray@ventura.org or at (805) 654-5042.

Thank you,

Dillan Murray | Associate Planner
Planning Division

Dillan.Murray@ventura.org

Ventura County Resource Management Agency
P. (805) 654-5042 | F. (805) 654-2509
800 S. Victoria Ave., L #1740| Ventura, CA 93009-1700
Visit our website at vcrma.org
For online permits and property information, visit **VC Citizen Access**

From: Ashley Losco <alosco@rinconconsultants.com>
Sent: Wednesday, December 20, 2023 10:31 AM
To: Murray, Dillan <Dillan.Murray@ventura.org>
Cc: Mary Pfeiffer <mpfeiffer@rinconconsultants.com>
Subject: Local Interested Party Outreach - Aspire Apartments Project

Good Morning,

Rincon Consultants, Inc. (Rincon) has been retained to complete a cultural resources technical study in support of the Aspire Apartments Project located at 536 and 538 Meta Street in the city of Oxnard, Ventura County, California (Rincon Project No. 23-15439). As a component of the cultural resources technical study, in support of Section 106 of the National Historic Preservation Act, Rincon is reaching out to interested parties to request input on potential or known historic properties or other cultural resources in the project area or its vicinity. Attached is a formal letter with information on the project and a project location map. Please let us know if you have any information or any questions. Thank you

Best,

Ashley Losco, Architectural Historian/Assistant Project Manager
(*She/Her/Hers*)
805-644-4455 Main | 619-841-2116 Direct
alosco@rinconconsultants.com

Vacation Alert: December 21-27, January 1
*Permanently working from Eastern Standard Time. Please take into consideration when responding to emails and requests. Thank you

Ashley Losco

From: San Buenaventura Conservancy for Preservation <sbconservancy@mac.com>
Sent: Sunday, December 31, 2023 6:02 PM
To: Ashley Losco
Cc: Mary Pfeiffer; Rachel Perzel; juli polanco
Subject: Re: Local Interested Party Outreach - Aspire Apartments Project
Attachments: 2024 106 Consulting Party Oxnard letter.pdf; Untitled attachment 00043.htm; Aspire Apts NEPA Outreach_San Buenaventura Conservancy.docx; Untitled attachment 00046.htm

Dear Ms. Losco,

Attached is the Conservancy's letter requesting the Conservancy be a consulting party on the Section 106 process. The Conservancy does not have any additional information on the site at this time, but as the site and the APE is analyzed, we would like to see and comment on the ongoing project.

-Stephen Schafer
President

SAN BUENAVENTURA CONSERVANCY for Preservation
WWW.SBCONSERVANCY.ORG

January 1, 2024

Ashley Losco,
Rincon Consultants,
180 North Ashwood Ave.
Ventura CA, 93003

Re: Interested Party Outreach for Aspire Apartments, City of Oxnard

Dear Ms. Losco,

The San Buenaventura Conservancy for Preservation is concerned about projects Ventura County that effect historic resources, and their potential impact on historic properties. We understand that consultation has been initiated under Section 106 of the National Historic Preservation Act (NHPA) for projects in Oxnard. For the Aspire Apartments project and ongoing and future projects in Oxnard, the Conservancy requests to participate actively in the review processes as a consulting party. The Conservancy can be a knowledgeable asset to future projects as a "consulting party" under Section 106 of the NHPA, pursuant to 36 C.F.R. §§ 800.2(c)(5) and 800.3(f)(3).

The San Buenaventura Conservancy for Preservation is the primary regional historic and cultural resource education and advocacy organization. The Conservancy's mission is to increase public awareness of irreplaceable historic places and cultural sites, to disseminate information useful in the preservation of structures and neighborhoods, to prevent needless demolition, to champion adaptive reuse and promote the preservation and enhancement of historic and cultural resources in Ventura and surrounding areas. We have an archive of historic information including photographs, maps, charts and documents of regional history. The Conservancy has extensive knowledge regarding the historic and archaeological resources in the region and their research, identification, documentation and treatment. We may be able to assist in identification of potential cultural resources and the meaningful mitigation of any unavoidable adverse impacts.

We look forward to participating as a partner with the city as your review and consultation process moves forward.

Regards,
Stephen Schafer, President

cc: State of California Historic Preservation Office

Ashley Losco

From: Polanco, Julianne@Parks <Julianne.Polanco@parks.ca.gov>
Sent: Tuesday, January 2, 2024 12:23 PM
To: San Buenaventura Conservancy for Preservation
Cc: Mary Pfeiffer; Ashley Losco; Rachel Perzel; Brown, Jody L@Parks; Pries, Shannon@Parks; Negrete, Susan H@Parks
Subject: [EXT] RE: Local Interested Party Outreach - Aspire Apartments Project

Hello,

I acknowledge receipt of this email and attached information. I have passed it on to our HUD staff reviewer, Ms. Susan Negrete and her supervisor, Ms. Shannon Pries for their awareness.

Sincerely,

Julianne Polanco

Julianne Polanco
State Historic Preservation Officer
California Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
916-445-7000
www.ohp.parks.ca.gov

From: San Buenaventura Conservancy for Preservation <sbconservancy@mac.com>
Sent: Sunday, December 31, 2023 3:02 PM
To: Ashley Losco <alosco@rinconconsultants.com>
Cc: Mary Pfeiffer <mpfeiffer@rinconconsultants.com>; Rachel Perzel <rperzel@rinconconsultants.com>; Polanco, Julianne@Parks <Julianne.Polanco@parks.ca.gov>
Subject: Re: Local Interested Party Outreach - Aspire Apartments Project

Dear Ms. Losco,

Attached is the Conservancy's letter requesting the Conservancy be a consulting party on the Section 106 process. The Conservancy does not have any additional information on the site at this time, but as the site and the APE is analyzed, we would like to see and comment on the ongoing project.

-Stephen Schafer
President

Appendix E

California Department of Parks and Recreation 523 Series Forms

***Recorded by:** Ashley Losco, Rincon Consultants, Inc. ***Date**: 12/19/2023 ☐ Continuation ☒ Update

Physical Description:
526 and 538 Meta Street (subject property) is a commercial property comprised of three parcels (APNs 201-0-213-080, 201-0-213-090 and 201-0-213-010) on the east side of Meta Street in Oxnard, California. The rectangular parcels feature a one-story commercial building at the southwestern corner and paved parking lots and driveways occupying the northern and western sections of the property in addition to a gravel parking lot at the eastern end. The property is surrounded by commercial properties to the north along East 5th Street, residential properties to the west and south, and industrial properties to the east.

The one-story commercial building on the subject property features a rudimentary vernacular design with minimal design elaborations, likely due to its utilitarian use as an automobile maintenance shop. Sited on a concrete foundation, the building is constructed of CMU. The flat roof has a CMU parapet along the west and east elevations and a wood frame cornice with wood brackets along the north elevation. Located on the north elevation are two entrances featuring flush wood doors, one elevated slightly above ground with a concrete ramp; an additional former entrance, now enclosed, and a small horizontal sliding sash window is located in between the entrances. At the eastern end of the north elevation are two large openings featuring wood paneled tilt-up doors. The west elevation has an additional entrance with a metal screen door and an enclosed window with security bars. The south elevation is void of fenestration and integrates no design elements.

At the northwest corner of the property is a trash enclosure constructed of CMUs on a concrete foundation. The enclosure has an opening on the north elevation with a sliding corrugated metal door on a track to access the interior. The enclosure is topped by a metal framed structure infilled with metal mesh covers.

Property History
In 1958, then-owner John Taft commissioned the extant commercial building at the southern end of the subject property to serve as a bus depot for the Chala Auto Bus Company (SBRA 2005). Research did not identify additional information on Mr. Taft, his occupation, or his role within Oxnard or Ventura County. Circa 1968, the property was sold to William D. Jackson who opened a Yellow Cab Company location at the property (*Press-Courier* July 18, 1968). Before moving his business to the subject property, Mr. Jackson's Yellow Cab business was located at 154 East 5th Street in Oxnard (R.L. Polk & Company 1962). No further information was identified on Mr. Jackson. Based on research through city directories, newspapers, and the SBRA 2005 survey, only the two mentioned owners, John Taft and William D. Jackson, were identified.

The 1958 bus depot at 536 and 538 Meta Street is a vernacular, utilitarian building lacking architectural elaborations of a particular architectural style. It has a simple construction of concrete masonry units (CMU) and rectangular plan. The only stylistic elaboration is the wood cornice and brackets along the north elevation which are not characteristic of any of the popular styles of the time including Minimal Traditional nor Mid-Century Modern.

The bus depot was designed by Oxnard architects Miller and Crowell and built by Claude Graham (SBRA 2005). Don Miller and Reg Cowell were active in the Oxnard area during the 1950s and 1960s designing various projects in the Mid-Century Modern architectural style. Their early projects consisted of additions and alterations to existing buildings throughout the county. By the late 1950s their portfolio had expanded to include simple new-build projects such as the subject property and by the early 1960s, larger municipal and institutional projects including the Oxnard Community Center (800 Hobson Way), the Camarillo Municipal Court Building (2220 Ventura Boulevard), the former Oxnard USO building (location not identified), and the YMCA activity house on Hill Street (location not identified) (*Press-Courier* January 14, 1959 and April 8, 1959; *Ventura County Star* April 29, 1963 and September 14, 1964).

National Register of Historic Places Evaluation
As previously noted, in 2005, Judy Triem and Mitch Stone recorded and evaluated 536 Meta Street as part of the Downtown Oxnard Historic Resources Survey, recommending it ineligible for listing in the NRHP, CRHR, and as a City of Oxnard Landmark under all criteria at that time (SBRA 2005). Due to the cursory nature of the 2005 evaluation, which was completed as part of a large-scale survey effort, in addition to the fact that it was completed over 10 years ago, the potential significance of 536 and 538 Meta Street was reconsidered as part of the current study. The property was recorded and evaluated for NRHP eligibility on update DPR forms, which are included in Appendix E and summarized below.

536 and 538 Meta Street is recommended ineligible for listing in the NRHP under all criteria (A/B/C/D).

Criterion A: The subject property was constructed in 1958 as a bus depot to serve the Oxnard area. Oxnard experienced significant residential growth, and along with it, commercial development, in the post-World War II period. The subject property was constructed within the context of Oxnard's post-World War II commercial development. However, the research conducted for this study, including a review of the SBRA 2005 Oxnard Historic Resources Survey, newspapers, and aerials and maps did not indicate that the property was significant within the context of Oxnard's post-World War II commercial development. Rather, it was one of many commercial properties constructed during this period in support of expansive residential development. It does not appear significant within the context of Oxnard's post-World War II growth in, or any other context. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion A.

Criterion B: Two former owners of the subject property were identified during the research conducted for this study, John Taft and W.D. Jackson. The research effort, via a review of historical newspapers and biographical databases identified no information to suggest that either individual is significant within a specific historical context. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion B.

Criterion C: 536 and 538 Meta Street is a simple, vernacular commercial building with few design elements to express characteristics of a particular type, period, or method of construction. The building's simple utilitarian design was a product of its commercial use as a bus depot, taxi depot, and maintenance shop. The building is not a significant example of a particular architectural style or method of construction and is simply a utilitarian-designed building from 1958. The building was designed by Oxnard architects Miller and Crowell. The firm's body of work is characterized by institutional and commercial projects designed in various Mid-Century Modern styles throughout Oxnard and Ventura County. Compared to their other projects, such as the Oxnard Community Center and the Camarillo Municipal Court Building, the subject property is not representative of their body of work nor an exceptional example. 536 and 538 Meta Street is an early example of their work when they were designing smaller projects and additions. As a utilitarian building with no design elements, the building does not represent their larger body of work of Mid-Century Modern institutional and municipal buildings.

The subject property was constructed by contractor Claude Graham; however, research did not identify any examples of his body of work outside of the subject property. Due to lack of evidence of other examples of his work, Graham does not appear to constitute a master craftsperson. 536 and 538 Meta Street also does not possess high artistic value because it was not designed with artistic purposes in mind; therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion C.

Criterion D: The property is not likely to yield valuable information that will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as mid-20th century concrete buildings or bus stations. Therefore, the subject property is recommended ineligible for listing in the NRHP under Criterion D.

In conclusion, 536 and 538 Meta Street is recommended ineligible for listing in the NRHP under all criteria (A/B/C/D) due to lack of association with a historic context. It does not appear to be a historic property as defined by 36 CFR 800.16(l)(1).

References:

San Buenaventura Research Associates. 2005. "Downtown Oxnard Historic Resources Survey." Prepared by Mitch Stone and Judy Triem for the City of Oxnard.

***Recorded by:** Ashley Losco, Rincon Consultants, Inc. ***Date**: 12/19/2023 ☐ Continuation ☒ Update

Photos:

Photo 1: 536-538 Meta Street, North and West Elevations, View Southeast

Photo 2: 536-538 Meta Street, South and East Elevations, View Northwest

Photo 3: 536 and 538 Meta Street South Trash Enclosture, View Southeast

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

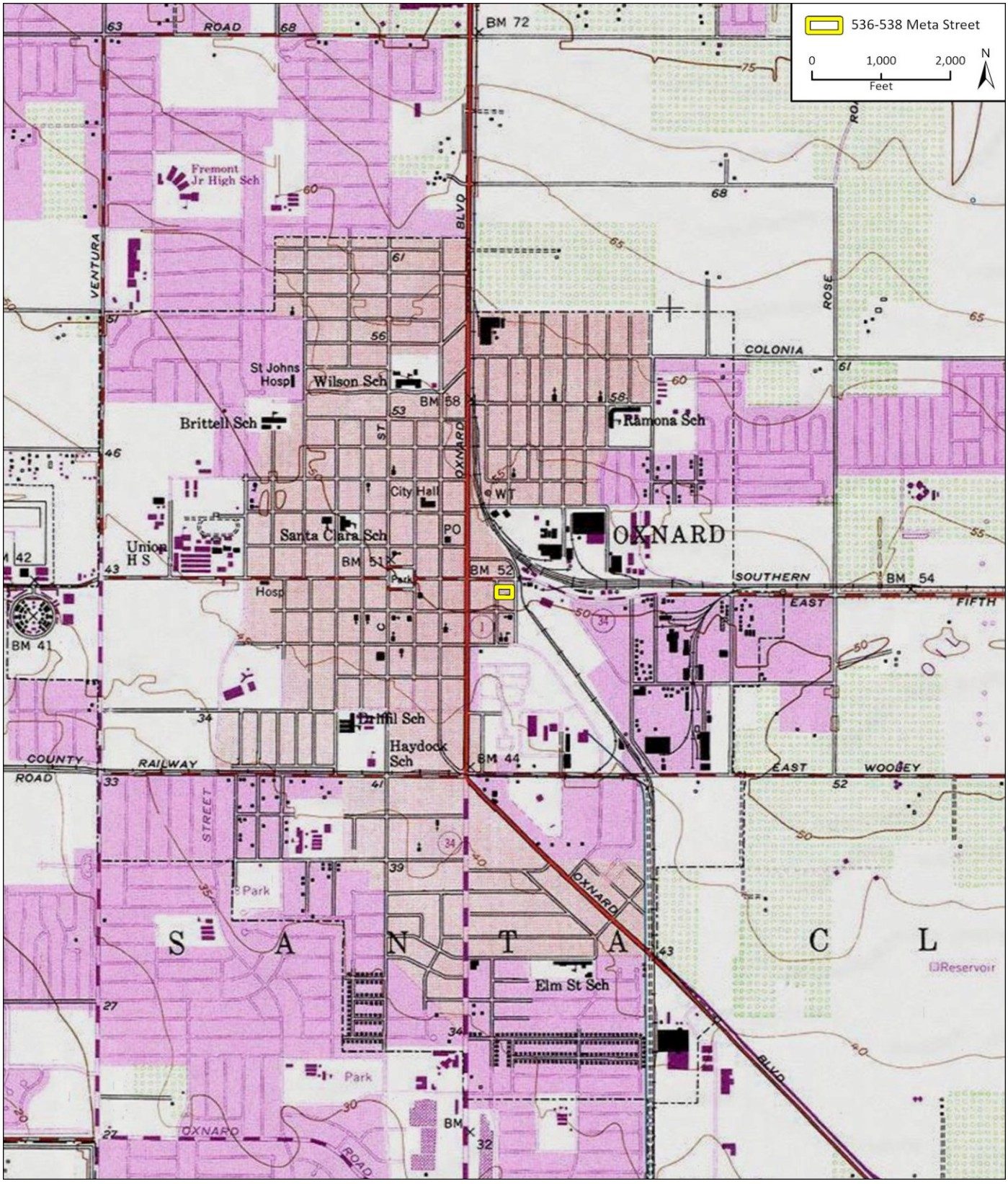
LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name:** 536-538 Meta Street

***Map Name:** *Oxnard, California*

***Scale:** 1:24,000 ***Date of Map:** 1949



***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code *6Z*

Other Listings
Review Code _____ **Reviewer** _____ **Date** _____

 Resource Name or #: (Assigned by recorder) *536 META ST*

P1. Other Identifier: *bus depot*

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** **a. County** *Ventura*

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

b. USGS 7.5' Quad *Oxnard* **Date** *1949/67* **T** ; **R** ; **1/4 of** **1/4 of Sec** ; **B.M.**

c. Address: *536 META ST* City *Oxnard* Zip *93030*

d. UTM: (Give more than one for large and/linear resources) ; **mE/** **mN**

e. Other Locational Data (Enter Parcel #, legal description, directions to resource, elevation, etc., as appropriate)

532 Meta St

Parcel No. *201021309*

P3. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This commercial building has a rectilinear plan. It is one story in height with a flat roof. The building is composed of two sections, both one bay wide: a front portion and a rear portion that rises slightly taller than the front. A parapet rises above the roofline on the main façade. One door and one window are located on the primary façade. The condition of the building is poor.

P3b. Resource Attributes: (List attributes and codes) *HP6 - 1-3 story Commercial Building*

P4. Resources Present ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)

P5b. Description of Photo: (View, date, accession #)
536 Meta Ave. (View toward southeast). Photo No: 113-28, 1/20/2005

P6. Date Constructed/Age and Sources:
☐ Prehistoric ☒ Historic ☐ Both
1958-F, 1969-F

P7. Owner and Address
Juarez Felipe Tr, , 1166 Sixth Pl, Port Hueneme Ca 93041

P8. Recorded by: (Name, affiliation, and address)
Mitch Stone/Judy Triem, San Buenaventura Research Associates, 1328 Woodland Dr, Santa Paula CA 93060

P9. Date Recorded: *7/23/2005*

P10. Survey Type: (Describe)
Intensive-level

P11. Report Citation: (Cite survey report and other sources, or enter "none")
San Buenaventura Research Associates. Downtown Oxnard Historic Resources Survey. City of Oxnard, CA., 2005.

Attachments
☐ NONE ☐ Continuation Sheet ☐ District Record ☐ Rock Art Record ☐ Other: (List)
☐ Location Map ☒ Building, Structure, and Object Record ☐ Linear Feature Record ☐ Artifact Record
☐ Sketch Map ☐ Archaeological Record ☐ Milling Station Record ☐ Photograph Record

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

BUILDING, STRUCTURE, AND OBJECT RECORD **HRI #** **Primary #**

 NRHP Status Code 6Z

Resource Name or #: (Assigned by recorder) *536 META ST*

B1. Historic Name: *unknown*
B2. Common Name: *536 Meta Street*
B3. Original Use: *bus depot* B4. Present Use: *unknown*
B5. Architectural Style: *Utilitarian*
B6. Construction History: (Construction date, alterations, and date of alterations)
1958-F; 1969 (addition)

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date : Original Location:
B8. Related Features: *side storage yard*

B9a. Architect: *Miller & Crowell* b. Builder: *Claude Graham*
B10. Significance: Theme: *Urban Renewal* Area *Oxnard CBD*
Period of Significance: *1945-1960* **Property Type:** *commercial* : **Applicable Criteria:**
(Discuss importance in terms of historical or architectural context as defined by theme, period and geographic scope. Also address integrity.)

This building was constructed in 1958 for owner John Taft as a 24' by 45' bus depot, designed by Oxnard architects Miller and Crowell and built by Claude Graham. In 1960 the site was occupied by the Auto Bus Chala Bus Station. Permits also show Yellow Taxi Cab was leasing the property. In 1969 the owner was W.D. Jackson, who built a garage addition measuring 25' by 60' on the property.

This property is generally associated with the commercial and residential development of Downtown Oxnard, but it lacks sufficient integrity of design, setting, workmanship and materials to be regarded as potentially eligible for individual listing in the NRHP or CRHR, as a City Landmark, or as a contributor to the formation of local, NRHP or CRHR-eligible historic district.

B11. Additional Resource Attributes: (List attributes and codes) *HP6 - 1-3 story Commercial*

B12. References:
Oxnard Building Permits
City Directories 1960

B13. Remarks:

B14. Evaluator: *Mitch Stone/Judy Triem*
Date of Evaluation: *7/23/2005*

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

Please See Figure 1 in Final Report