

**PHASE 2 CULTURAL RESOURCES STUDY
HISTORIC RESOURCES
461 SAN YSIDRO ROAD
MONTECITO, CALIFORNIA
APN 009-060-049**

FINAL

**Prepared for
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1. INTRODUCTION

The following revised Phase 2 Historic Resources Study is being prepared for 461 San Ysidro Road as requested by Santa Barbara County Planner Julie Harris. The property is County Landmark #34 (Hosmer-Juarez Adobe) and the previously approved rehabilitation plan is being revised. Due to unknown structural damage, years of neglect and lack of proper maintenance from the prior owner, it is necessary to revise the prior rehabilitation plan to include demolition and reconstruction of the existing structures. The features on the property that are included in the Landmark designation are the adobe with its wood-frame additions, the two-story water tower, the frame cottage, the sycamore tree and the Moreton Bay fig tree (The Torrey pine which was also listed has since died). This revised Phase 2 Study, complementing the Phase 1 study prepared by Preservation Planning Associates in 1996, and updating the Phase 2 Study prepared in 2010, will evaluate the impacts of the revised plan - from rehabilitation to reconstruction -, on the historic buildings (see Figure 1 for Vicinity Map). The report meets the County requirements for a Phase 2 Historic Resources Study. Alexandra C. Cole of Preservation Planning Associates (PPA) prepared the report.

2. PROJECT DESCRIPTION

The original proposed project in 2010 was to rehabilitate the adobe main house, water tower, and cottage, and make additions to them. As work commenced to rehabilitate these structures, it became evident that the condition of the adobe main house and the water tower was no longer structurally sound and too far deteriorated to perform the work originally intended under the rehabilitation plan. A report, prepared in February 2014 by Taylor & Syfan, attached to this report, documents the structural observations indicating that rehabilitation of these two historic buildings was no longer an option. As a result, the revised project is for demolition of the adobe and water tower and the non-historic cottage, and their reconstruction.

3. SITE DESCRIPTION

The property at 461 San Ysidro Road consists of a .81-acre flat parcel just west of San Ysidro Road adjacent to upper Manning Park. To the north is a private road, Hosmer Lane, which connects to the Hosmer adobe site, and beyond the lane is the Montecito Village shopping center. The Hosmer adobe is set back on a private driveway from San Ysidro Road, and is hidden behind a mature Moreton Bay fig tree. Behind the adobe house is a modern garage, a nineteenth-century two-story water tower, and a post-1958 cottage.

Figure 1 - Vicinity Map



Figure 1. Vicinity Map
U. S. G. S. Map. Santa Barbara Quadrangle. 1995

4. SITE HISTORY

The adobe was constructed in the 1830s, by Victor Delores Juarez, after his marriage to Maria Dominguez. This building was not the Juarez home but rather an outbuilding used by the Juarez sons as a place to sleep and to guard the farm animals from bears and mountain lions. Victor died in the late 1860s, and Maria sold a seventeen-acre parcel with the adobe to Bradbury True Dinsmore in 1871. Dinsmore owned the San Ysidro ranch and developed a citrus industry there. When his daughter Frances married Thomas Hosmer, Dinsmore gave the Juarez adobe and property to them. Four children were born to the Hosmers, and the family grew up in the adobe. The redwood additions were constructed at this time to house the family, and a wood floor was added. As well a barn and water tower were added to the west.

When the children were grown, Martha and Helen remained in the house. In 1917, Martha married James Ord, and she, James, and Helen lived in the house. It is surmised that the kitchen wing as well as the redwood wainscoting and the dropped redwood ceiling were added at this time, as well as the wings on the redwood water tower, which Ord used as a tool shed. When the Hosmer sisters died, their niece Phyllis Zakheim moved into the house. In later years her son Nathan Zakheim inherited the house and rented it out to a series of tenants until the current owners bought the property in 2009. At that time, the property was overgrown and full of trash, and the buildings were in great disrepair.

5. BUILDING DESCRIPTION

Main house

The Juarez-Hosmer residence consists of the original adobe section, a one-story rectangular building measuring 19'6" x 27', with an irregularly shaped one story addition of shingle siding and board and batten siding to the north. The foundation of the adobe was not visible when the 2009 report was written, and it was thought that the foundation was made of the traditional courses of cobblestones from a stream with a leveling course at the top. In places on the south and east sides of the adobe portion several courses of rounded cobblestones, mortared with cement, had been added around the base of the walls.

The adobe walls are eighteen inches thick and have been covered with concrete plaster. The side-gabled roof is covered with asphalt shingles. The two windows, on the east and west sides, are six-over-six light double-hung in wood sash, with narrow muntins and flat surrounds. The wood entry door on the south side consists of three lower recessed panels with a single upper glass pane. A similar door is located on the north side.

A large irregularly shaped shingle-clad addition, with a side-gabled roof, is attached to the north side of the adobe building by a cross-gabled section that is one room deep. The rear portion of the addition has a poured concrete continuous footing. The cross-gabled central section linking the adobe portion to the side-gabled section does not have the same continuous foundation and has settled. A shed-roof addition, housing the bathroom and porch, extends from the north. A board and batten gable-roof kitchen wing with a shed-roof porch extends to the west.

The shingle addition has two-over-two light double-hung windows on the east, west, and north sides. There are two-pane horizontal slider windows on the later addition to the north. Three-panel doors with glass upper panes provide access on the east and north sides of the addition, and a four panel wood door opens from the kitchen to the porch on the west side.

Alterations

The house has had a number of additions. The first appears to have been the side-gabled redwood section to the north with the small room connecting it to the adobe. Judging from the construction materials and window configuration, this addition appears to have been a Dinsmore or Hosmer expansion to house their growing family. The roof line was altered to give a higher ceiling, and the resultant gables were clad in long shingles.

The kitchen wing was built c. 1917 by Martha and Helen Hosmer, who also remodeled the adobe portion by adding redwood paneling on the walls and ceiling. The bathroom wing and porch to the north, was enlarged by Nathan Zakheim in the recent time period. At some time concrete plaster was added over the adobe walls. The cobblestone additions at the base of the north and east sides of the adobe were added in the recent past by Sam Romero, who lived in a cottage at Manning park, to solve the problem of deterioration around the base of the house (N. Zakheim, personal communication, 1996).

Present Condition

Rehabilitation work on the adobe commenced in November, 2013 based on plans that were reviewed and approved by the Historic Landmarks Advisory Commission. While implementing the rehabilitation plan, it was quickly determined that this structure was built without a foundation. During efforts to underpin the building and secure the structure for rehabilitation, the lower adobe walls began to crumble. Decay from years of moisture wicking from the soil into the adobe walls was exacerbated by the application of (incompatible) Portland cement plaster used to seal the structure decades prior. When the cement plaster was removed, the blocks crumbled to a point where they are indiscernible from the mortar that was placed between them. This condition makes re-keying of new adobe bricks into the existing walls as outlined in the rehabilitation plan impossible to perform. Furthermore, disassembly of the roof revealed that extensive dry rot from rain leaking in had rendered the original rafters unusable and caused deterioration of the upper adobe blocks, causing them to crack and crumble (see Plates 8-13).

Additional investigation of the condition of the adobe bricks by an expert adobe brick manufacturer revealed that the adobe blocks had been formed without the use of a stabilizing agent. These factors, coupled with the lack of proper maintenance over many decades and extensive water damage to the adobe walls has caused the irreparable decay and instability of the adobe structure.

Water tower

A twelve-foot square two-story water tower is located to the northwest of the residence. Its foundation on the north and south sides consists of a row of dressed sandstone blocks resting on stream cobbles. A redwood watercourse which once extended above the sandstone foundation is now lying on the ground. The beveled tongue and groove

redwood siding measures 7", with 1" x 6" corner boards. The tower contains two rooms, connected by a two-stage wooden exterior staircase. The first floor door has a two-panel wood lower section with a multi-paned glass upper section. The second floor door, a four-panel Eastlake door, has been removed. The three-over-three pane windows located on the north and south sides have been removed and are stored inside the water tower. A water tank originally stood on the flat roof. Water was pumped up to it from Oak Creek across San Ysidro Road; a horse provided the power to drive the pump (Zakheim).

The tower was built in 1874. In 1917, a board and batten shed-roof storage area was added to the north, accessed by an opening cut through the north wall of the water tower and by a wood plank door on the east side. A second shed-roof board and batten storage room was added to the west of this addition, with a three-over-three window on the north side and a wood-plank door on the south side. According to Nathan Zakheim, these wings were added by his uncle James Ord as his tool rooms. The 1917 date appears accurate, because Ord was married to Martha Hosmer in 1917 and the additions show up on the 1918 Sanborn Map. At some time a two-pane window was added on the east side at the ground floor.

Present Condition

The work to carry out the rehabilitation plan of the water tower began in November, 2013. As the siding was disassembled, it revealed interior framing, joists and structural members that had been severely damaged by dry rot, damage from moisture intrusion and pest infestation. The instability of the structural members is so profound that the water tower shifted off plumb during the disassembly of the 1917 shed-roof addition (see Plates 18-20). The existing structural condition caused by the extensive rot, decay and damage to the water tower's wood frame necessitates the dismantling of the water tower and its reconstruction using new structural members to match existing. The exterior siding has been removed and stored and shall be reused.

Cottage

A one story two room cottage is located to the north of the main house. The L-shaped plan has a front-gabled main room with a cross-gabled wing extending to the west. A narrow addition for a water heater extends to the south of the wing, and a shower addition was added to the north of this wing. The walls are clad in plywood with battens and the roof is covered with wood shakes. The quarry tile front entry is sheltered by a wood lattice roof. The front door is wood-paneled with an ochre-colored leaded glass upper pane and hammered metal strap hinges. A stained glass bay window extends from the south side and a second bay with six-over-six windows with flat muntins extends from the east side.

6. POTENTIAL IMPACTS

Effects criteria

CEQA defines a potential adverse effect as one that would cause a substantial change in the significance of a resource. Such a substantial change means demolition, destruction, relocation, or alteration of the physical characteristics of the resource or its immediate surroundings that justify its inclusion in a local register of historic resources.

According to CEQA guidelines, if alterations to significant historical resources follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Standards)* (Weeks 1995), the project is considered to be mitigated to a level of less than a significant impact on the historic resource (PRC Section 15064.5 (b) (3)). The Standards are as follows:

1. A property shall be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, shall not be undertaken.
4. Changes to a property that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and, where possible, materials. Replacement of missing features shall be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatments that cause damage to historic materials shall not be used.
8. Archeological resources shall be protected and preserved in place. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a way that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Analysis of Impacts

The proposed plan would demolish the existing adobe house and water tower because of deterioration and deferred maintenance, as outlined in the final report of Structural Conditions prepared by Taylor & Syfan in February 2014. The adobe and water tower are considered significant resources and the impact of their demolition will be analyzed below. The cottage will be demolished as well to implement the construction required under the rehabilitation plan. Although the cottage is part of the County Landmark, it is not considered historically significant, and therefore the impact of its demolition and

reconstruction is not considered a significant impact. The relevant Standards for assessing the impacts of demolition are Standards 1, 2, 5, 9, and 10.

Proposed Project:

Main house

Standard 1. A property shall be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The main house would be demolished. The proposed project would therefore not meet Standard 1.

Standard 2. The historic character of a property shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property shall be avoided.

The main house would be demolished. The proposed project therefore would not meet Standard 2.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

The proposed demolition would remove the character-defining materials of the main house and the redwood additions. The proposed project therefore would not meet Standard 5.

Standard 9. New additions, exterior alterations, or related new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

As enumerated above in Standard 5, demolition would remove the character-defining materials of the main house. The proposed project therefore would not meet Standard 9.

Standard 10. New additions and adjacent or related new construction shall be undertaken in such a way that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Because the proposed project would demolish the main house, the essential form of the building would be removed. The proposed project therefore does not meet Standard 10.

Water tower

The proposed project would dismantle the water tower and add a 177- square-foot addition to the south of the west lean-to wing.

Standard 1. A property shall be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The original use of the water tower was to hold the water tank high enough to provide pressure. It is not known what the two rooms were used for. According to Nathan Zakheim, the wings to the north and west were added c.1917 as tool rooms for his uncle. The water tower would be demolished. The proposed project therefore does not meet Standard 1.

Standard 2. The historic character of a property shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property shall be avoided.

The water tower would be demolished. The proposed project therefore does not meet Standard 2.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

The water tower would be demolished. The proposed project therefore does not meet Standard 5.

Standard 9. New additions, exterior alterations, or related new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The water tower would be demolished. The proposed project therefore does not meet Standard 9.

Standard 10. New additions and adjacent or related new construction shall be undertaken in such a way that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Because the water tower would be demolished, the essential form of the building would be removed. The proposed project therefore does not meet Standard 10.

7. CONCLUSION

Because the proposed demolition of the adobe and the water tower does not meet the Secretary of the Interior's Standards for Rehabilitation, the project is considered to have a significant adverse impact by removing two buildings that are part of a County Landmark (Class II). With the following mitigation measures, the impact can be reduced to a less than significant level (Class III).

- A. Large-format photographs of the adobe and water tower shall be taken by a County-approved photographer. These photographs and a copy of this report shall be deposited in the archives of the Montecito History Committee.

- B.** The reconstruction of the adobe and the water tower shall meet the Secretary of the Interior's Standard's for Reconstruction, as follows:
1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to the public understanding of the property.
 2. Reconstruction of a landscape, building, structure, or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts, which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.
 3. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.
 4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color, and texture.
 5. A reconstruction will be clearly identified as a contemporary re-creation.
 6. Designs that were never executed historically will not be constructed.

(Weeks, Kay and Anne Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*. Washington, D. C.: U. S. Department of the Interior. National Park Service. Cultural Resource Stewardship and Partnerships. Heritage Preservation Services).

The final plans for the reconstruction of the adobe and water tower have not been finalized; however the team is working with the County Building & Safety Department to establish a pathway toward reconstruction. The proposed plan is to follow the Secretary of the Interior's Standards for Reconstruction, particularly Standards 3 and 4, which are appropriate for this project.

8. PROPOSED RECONSTRUCTION PLAN

Adobe:

The following steps will be taken in conjunction with the engineering firm of Taylor & Syfan and the reconstruction adobe expert Tim Aguilar with assistance from the County Building & Safety Department.

- A. Carefully dismantle the existing adobe building, using photographs and sketches to document the building's construction in terms of the layment of the adobe blocks and the interface of the adobe mortar.
- B. Reconstruct the building, using existing measured drawings, with stabilized 4" x 8" x 18" adobe bricks fabricated on-site.
- C. Finish exterior and interior building with lime plaster.
- D. Reconstruct new windows to match existing.

- E. Reconstruct new roof, using wood shakes to match existing.
- F. Reuse original south-facing entry door.
- G. Carefully disassemble the redwood wainscoting and reassemble on the reconstructed building.

Water Tower:

- G. Dismantle the existing water tower.
- H. Reconstruct the framing, using existing measured drawings, to match existing.
- I. Reuse the existing siding. Where the siding is too deteriorated, fabricate new siding to match original and place it on the north and west elevations away from the adobe.
- J. Repair the existing doors and windows and re-use. Fabricate new 3/3 light windows to match existing.

Because these final plans cannot be realized until the Building Permit requirements are solidified, the additional requirement to mitigate the impact of demolition to a Class II includes the following mitigation measure as well.

- K. The final plans for the reconstruction of the adobe and the water tower shall be reviewed by a County-qualified architectural historian to determine that the proposed plans are consistent with the Secretary of the Interior's Standards for Reconstruction.

With the implementation of the above mitigation measures, the impacts will be reduced to a less than significant Class III.

9. REFERENCES

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10. PLATES



Plate 1. Adobe with kitchen wing at left to be altered. Facing northeast. April 2010. A. C. Cole



Plate 2. Detail of window at left to be removed and re-used and the opening enlarged for the new front entry. Facing east. April 2010. A. C. Cole

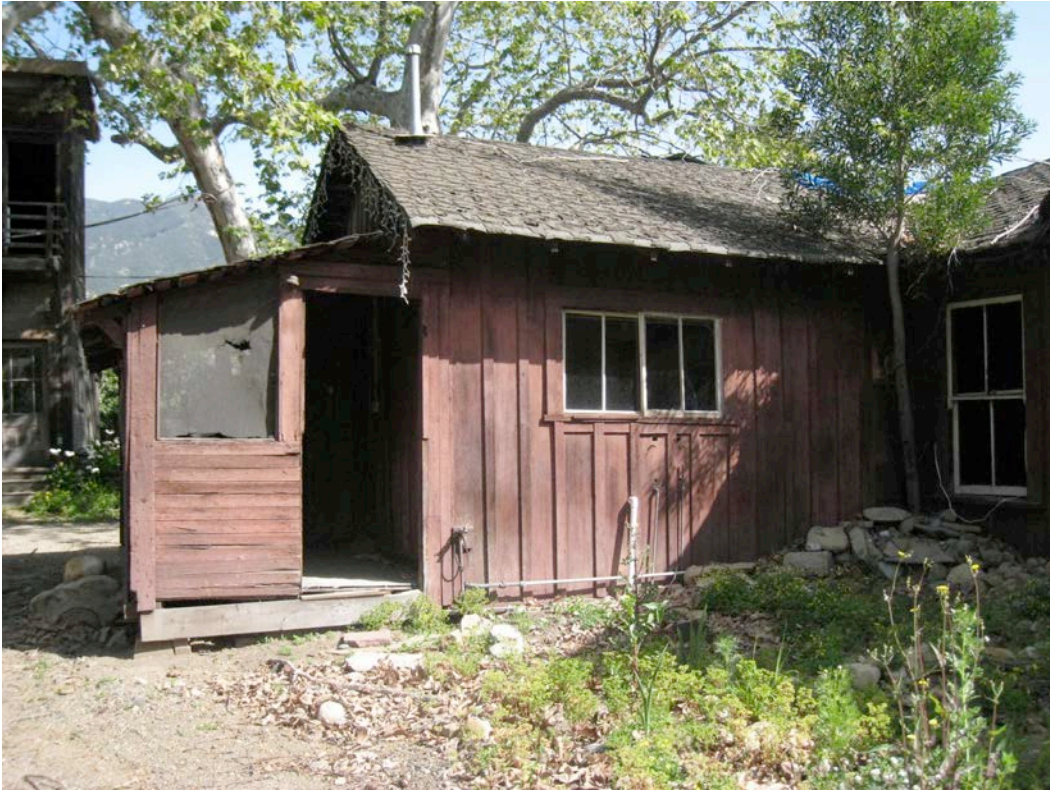


Plate 3. South side of kitchen wing. Lean-to at left to be replaced with a gabled extension and paired 2/2 pane windows to be added. Facing north. April 2010. A. C. Cole



Plate 4. North side of kitchen wing. Lean-to at right to be replaced with a gabled extension and paired 2/2 pane windows to be added. Facing south. April 2010. A. C. Cole



Plate 5. Detail of east and north elevations of 1870s shingled addition. Wall will be extended east and a third 2/2 pane window added on east elevation. Facing southwest. April 2010. A. C. Cole



Plate 6. Detail of north elevation, showing roofline of wing at right to be extended eastward. Facing southwest. April 2010. A. C. Cole



Plate 7. Detail of east and south elevations of 1870s shingled addition. Wall will be extended east and a third 2/2 pane window added on east elevation. Facing northwest. April 2010. A. C. Cole



Plate 8. Deteriorated adobe walls at foundation. November 2013.



Plate 9. Detail of adobe west wall showing dry rot in structural wood member. November 2013.



Plate 10. Upper adobe wall showing crumbling blocks. November 2013.



Plate 11. Upper adobe wall showing crumbling blocks. November 2013.



Plate 12. Crumbling blocks at the roof line. November 2013.



Plate 13. Crumbling blocks adjacent to fireplace. November 2013.



Plate 14. South and east elevations of water tower.
Facing northwest. April 2010. A. C. Cole



Plate 15. Detail of south elevation of west shed-roof wing on water tower, to be expanded south and 2/2 pane windows added. Facing north. April 2010. A. C. Cole



Plate 16. Detail of north and west elevations of north and west shed-roof lean to wings to water tower to have 2/2 pane windows added. Facing southeast. April 2010. A. C. Cole



Plate 17. Detail of west elevation of west shed-roof lean-to showing relationship to water tower at rear.
Facing east. April 2010. A. C. Cole



Plate 18. Tower showing deteriorated structural members.



Plate 19. Deteriorated tower structural members.



Plate 20. Deteriorated tower structural members resting on stone foundation.



Plate 21. Cottage. South elevation showing recessed porch area to be replaced with storage addition. Facing north. April 2010. A. C. Cole



Plate 22. Cottage. East elevation. Facing northwest. April 2010. A. C. Cole



Plate 23. Cottage. North elevation. Facing south. April 2010. A. C. Cole

11. STRUCTURAL REPORT

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From: Michelle McCovey-Good, PE
Taylor & Syfan Consulting Engineers
Project: Historical Rehabilitation Project
461 San Ysidro Road, Santa Barbara, California
T&S Job No.: 13371

Subject: Report of Existing Structural Conditions

This report is a detailed synopsis of the structural condition of the Adobe, Water Tower and Cottage Structures on the property located at 461 San Ysidro Road. This report is an in-depth follow up to two previous reports provided by our office on November 15, 2013 and December 16, 2013. It is meant to provide further justification for our findings in an effort to assist in the process of resolving the appeal filed by the Pearl Chase Society (PCS) on January 22, 2014. In particular, addressing the concern presented by the PCS of due process of the project in evaluating the conditions of the existing structures.

To give some background on our firm's history on the project, we originally provided structural repair design and details for all existing and historic buildings located on the private property. For the Adobe in-particular, we followed the recommendations outlined in a report, that was commissioned by the owner, and provided by Robert S. Vessely Engineering dated May 20, 2010. Robert S. Vessely Engineering is a reputable civil and structural firm that specializes in historic rehabilitation exclusively on the central coast. Mr. Vessely's report was incorporated into our evaluation and structural design to rehabilitate the Adobe Structure where applicable and allowable under the building code. All preservation measures, structural design, and details were reviewed and approved by the County of Santa Barbara Building and Safety Department.

As the contractor meticulously began the process of implementing these detailed repairs, it became apparent that the structural integrity of the existing structures was in a far greater state of disrepair than anyone originally anticipated. Years of neglect and faulty attempts by prior owners to repair and patch the Adobe walls and exterior facade have led to serious defects. This is a very common situation, as not all conditions are visible until finishes are removed and the underlying support structure is revealed. We have carefully evaluated the conditions uncovered on site and have consulted with Tim Aguilar – a local Adobe manufacturer – on the assessment of the existing Adobe walls.

The following is a more comprehensive report to provide a greater understanding of the conditions that are present in the field.

The Juarez-Hosmer Adobe:

Extensive cracking of the existing adobe walls is currently present due to excessive differential settlement of this building. The adobe structure sits directly on grade with no existing foundation system (see image 1). This has led to years and years of wicking of water from the soil into the adobe walls. This in combination with the structure being sealed with incompatible Portland cement plaster (versus adobe or lime plaster, which would have allowed for the adobe to breathe) has caused the adobe bricks to erode to a point where they are indiscernible from the mortar that was placed between them (see image 2). This makes re-keying of new adobe bricks into the existing walls impossible to perform. This is exacerbated by the fact that this deterioration occurs predominantly at the base of the wall where grading at the site allowed for water to pond against the exterior wall line of the adobe. Any attempts to repoint or replace adobe at the base of these walls would result in the further settlement and/or collapse of these walls. Poor weatherproofing of the roof has caused significant erosion in the adobe bricks at the top of the adobe walls as well (see image 3). This in combination with pest infestation (see image 4) has caused the tops of the walls to disintegrate upon the use of hand tools.

When attempting to remove the existing, incompatible plaster, the brittleness the water intrusion has created causes the adobe to disintegrate, even with the delicate use of hand tools. Therefore, shoring up of the existing structure to provide underpinning has not been a plausible solution for the placement of a foundation system. Currently, any attempt made to perform any of the detailed repairs outlined in the Rehabilitation Plan is causing the adobe walls to slough off into piles of dirt.

Adobe repairs must be performed with like materials for the plaster as well as the brick material itself, including a binding material that does not seem to be apparent in the remnants of adobe on this structure. In the instance of this particular adobe, well-intended patches and quick fixes performed over the years by laypersons using incompatible materials have contributed to a structure that is physically unable to be repaired. As the structure sits today, it should not be inhabited and any attempt at rehabilitating the structure would likely result in the failure of the building. With the disintegration at the bottom and top of the wall, we do not see any way to take the measures necessary to safely rehabilitate and inhabit the Adobe for use by the owner.

Water Tower:

The interior framing, wood siding, and floor and roof joists of the water tower structure have suffered extensive dry rot and damage from moisture intrusion and pest infestation. The most extensive damage occurs at key connection locations (see image 5 to 7). As indicated in the images, there are sections of posts that should be bearing on sill plates that have completely deteriorated leaving a void. Due to the extensive number of voids present throughout the structure's framing, the possibility of providing any kind of patch repair to the existing wood members is not feasible. The tower's main structural members have lost all structural integrity, as their cross sections have been reduced significantly from this damage (see image 8).

The tower sits on a stone foundation that occurs only on two sides of the structures footprint (see image 9). We anticipate maintaining the existing stone base on the two sides of the structure and placing a new foundation inboard, non-visible to the naked eye, that would provide the structural support needed for this tower element. However, that cannot be done effectively if the framing members supporting the structure are not of a capacity that can deliver the necessary loading to the foundation.

During efforts to rehabilitate the tower, the structure itself shifted out of plumb several inches. This tower is in severe disrepair and in the interest of human safety to the

construction crew on-site, it should be carefully dismantled as soon as possible as indicated in our previous reports and reconstructed using any salvageable timber on site, in addition to replacement wood framing.

Cottage:

The cottage is not historic in nature based on the report from the Historian, however it is part of the landmark for the Hosmer-Juarez property. As part of the Rehabilitation Plan, a structural design was provided to rehabilitate this structure as well. It has been determined that the cottage sits on a slab that does not have adequate embedment into the competent bearing material (see image 10). Additionally, the walls of the cottage are fabricated with flat 2x studs (see image 11). This is a convention that does not meet current code standards and is structurally unstable to adequately support the roof framing or provide lateral resistance during a seismic event. A vast majority of the wood framing of the cottage also suffers from significant rot and damage due to moisture exposure, parasite infestation, and lack of maintenance (see image 12). This building should be reconstructed to create a life safety factor that allows for the future use of the structure.

Conclusions:

Our firm has worked on damaged missions, and historic adobe retrofits, including the Arvin Adobe in Arvin, CA. While the missions projects, for which our firm has provided consultation, are older than this particular adobe structure, the missions have been carefully maintained by the inhabitants, and have had the advantage of continuous use since their construction by persons versed in adobe construction. The adobe at 461 San Ysidro has unfortunately not benefited from the same measure of diligent care and attention that has more successfully preserved other extant adobe structures. The extensive period of neglect is apparent in the structure's current dilapidated state.

We respectfully request that the cottage be omitted from the appeal for this project so that work may be continue on it, since it is not itself a historic structure. We would also, with equal respect, request the tower structure and adobe be meticulously deconstructed, cataloged and reconstructed, thus allowing the opportunity to rebuild these structures to current building code standards, utilizing new structural members in conjunction with any salvageable remnants of the existing structures to provide the necessary strength and capacity for the applicable seismic and wind zone.

To their credit, the owners of the property at 461 San Ysidro have gone to great effort and expense to save these structures. They have hired numerous experts in the field of historic rehabilitation for consultation. In our firm's experienced opinion, we feel these structures are sadly, and unfortunately, not salvageable. Our firm is very conscious of historical landmark status, as is reflected in our statement of qualifications, but human safety must be of equal consideration in this process.

If there are any questions, comments, or further clarification required, please do not hesitate to contact our office.

Sincerely,



Michelle McCovey-Good, PE
Principal / COO
Taylor & Syfan Consulting Engineers

Robert S. Vessely May 20, 2010 Juarez-Hossmer Adobe Report Recommendation Excerpts with Taylor & Syfan Consulting Engineering, Inc. Responses due to Field Conditions:

1. Vessely Recommendation: *Grade around the building so that the surface of the soil is below the base of the adobe walls, exposing the top of the stone foundation and sloping substantially away from the walls. It is critical that the drainage and even landscaping adjacent to the adobe walls is such that little or no moisture is allowed to collect near the building. It may be appropriate to install a french drain or moisture barrier around the building depending on anticipated soil moisture.*

- Taylor & Syfan Response: It is intended to slope the site away from the walls to prevent ponding against the adobe structure, however, there is no stone foundation present as is typical with adobe construction.

2. Vessely Recommendation: *Have a soils engineer evaluate the soil conditions under the building. The optimum would be that by removing the moisture from the base of the walls, the settlement would stop and the building could be stabilized where it sits. If not, or if there turns out to be compressible soil under the footings, some foundation remediation such as underpinning may be appropriate.*

- Taylor & Syfan Response: There is no existing foundation system in place. During the exploratory phase of trying to implement this recommendation, the walls have crumbled at their bases. It is feared that any additional excavation at the base of the walls will cause collapse, therefore making underpinning nonviable as the walls continue to settle and crumble when attempts are made to pothole beneath the structure.

3. Vessely Recommendation: *Remove the existing Portland cement plaster from the walls inside and out and evaluate the walls. It is likely that erosion has occurred at the outside base of the walls and that those cavities have been filled with cement plaster. These can be repaired using mud plaster if the erosion is not too deep or by installing partial blocks with dry-pack mortar. Cracks in the walls should be repaired at this point by either 'keying-in' new blocks, filling with adobe mortar by hand or pressure grouting with adobe mud mortar. It is not proposed that any reinforcement be installed in the walls. It is the massive, monolithic nature of the walls that provides shear and compressive strength as well as overall stability.*

- Taylor & Syfan Response: While removing the existing Portland cement plaster, deep erosion, versus surface erosion, has been revealed. The areas where the cement plaster has been successfully removed have exposed conditions where the adobe bricks are indiscernible from the mortar, thus making keying-in of new adobe block unfeasible. The application of any kind of pressure grouting is moot if the structure cannot be stabilized on a new foundation.

4. Vessely Recommendation: *Remove the existing composition shingles, wood shingles and any sheathing or framing that is deteriorated beyond help. Expose the tops of the walls and depending on their condition and the configuration of the rafters, install a heavy wood plate, possibly a 4x8 completely around the perimeter of the building. Drill through the plate and install fiberglass all-thread using a modified adobe mud or epoxy adhesive down into the walls approximately two or three feet. Tie the plates together at the corners. This provides a continuous tie or "bond-beam" around the tops of the walls that keeps the individual portions of the building from moving independently under seismic loads. The roof framing can then be replaced and the ceiling framing reinforced where needed, a diaphragm*

installed if required by the structural analysis, spaced sheathing reinstalled around the eaves and new roofing installed.

- Taylor & Syfan Response: In their current condition, it is feared that the walls would not be able to be drilled to install the anchors recommended for the placement of a wood bond beam to support the roof framing. Without being able to place a bond beam, the roof framing would not have adequate support which creates a life safety issues in the event of a seismic event. Additionally, the tops of the walls are not level due to excessive settlement of the walls caused by the lack of the presence of a foundation system.

5. Vessely Recommendation: Remove the existing wood flooring, salvaging what can be reused and excavate the area to the tops of the stone footings. If the footings would benefit from stabilization, excavate a trench around the inside of the footings and pour a concrete footing. Based on the architectural requirements, I understand that a concrete slab is to be installed with pressure-treated sleepers for the wood flooring and radiant floor heating elements.

- Taylor & Syfan Response: There are no existing concrete footings and all efforts to excavate around the base of the structure have resulted in further erosion of the decaying adobe walls.

6. Vessely Recommendation: After the walls have been repaired, the adobe mud plaster, inside and out should be repaired and coated with lime plaster or white wash depending on the historic treatment and architectural requirements. Lime plaster may not have been the original surface but will provide a more durable and serviceable surface without changing the original appearance.

- Taylor & Syfan Response: The final structure will be properly sealed with adobe compatible materials in hopes to prevent water intrusion, erosion and decay.

Site Photos:

Photo 1 : Adobe sitting on Soil vs Stone Foundation



Photo 2 : Area of Wall where mortar and adobe brick are indiscernible



Site Photos:

Photo 3 : Deep Erosion at top perimeter of wall line due to water intrusion



Photo 4 : Pest Intrusion typical at all wood to adobe interface



Site Photos:

Photo 5 : Vertical support posts completely rotted at sill plate



Photo 6 : Rot at upper floor where cross bracing meets floor plate. Corner post completely gone.



Site Photos:

Photo 7 : Rot at key structural connection



Photo 8 : Connection of brace post to sill plate completely rotted away



Site Photos:

Photo 9: Stone Foundation at Tower on right, earth to wood contact on left



Photo 10: Excavation at perimeter of slab at Cottage showing the absence of a footing



Site Photos:

Photo 11: 2x flat stud construction at load bearing perimeter wall



Photo 12: Rot at Floor Framing joists

