COUNTY OF SANTA BARBARA
PLANNING AND DEVELOPMENT

MEMORANDUM

TO: Board of Supervisors

FROM: Glenn Russell, Ph.D., Director, Planning & Development
(805) 568-2085

DATE: May 5, 2014

RE: Pearl Chase Society Appeal (Case No. 14APL-00000-00006) of Decision by Historic Landmarks Advisory Commission Regarding County Landmark #34, Juarez-Hosmer Adobe, First Supervisorial District

---

Planning and Development (P&D) has received additional information since docketing the Board Agenda Letter and is forwarding this information to your Board as Attachment A to this staff memo.

On April 23, 2014, the applicant submitted a new condition assessment and rehabilitation plan for the Juarez-Hosmer Adobe, prepared by Nels Roselund, a CA-licensed structural engineer. The applicant hired Mr. Roselund to assess the condition of the adobe and prepare a report based on a letter from the Pearl Chase Society, which recommended Mr. Roselund as one of two engineers who have the expertise to assess the viability of rehabilitating the Juarez-Hosmer Adobe. Mr. Roselund provides a detailed assessment of current conditions as revealed once construction commenced, and provides additional recommendations for rehabilitating the adobe.

On May 5, 2014, P&D received, via email, a new addendum to the May 2010 approved rehabilitation plan. Prepared by Preservation Planning Associates, it revises the rehabilitation plan and incorporates Mr. Roselund's recommendations and concludes that the revised plan would be consistent with the Secretary of the Interior's Standards and Guidelines for Rehabilitation.

These reports were prepared on behalf of the applicant; they have not been peer reviewed nor have they been considered by the HLAC. The applicant's stated intent is to pursue rehabilitation according to the revised plan and to no longer pursue the demolition and reconstruction plan approved by the HLAC. Please refer to Attachment A, which includes the applicant's emailed request and both of the reports mentioned herein. The additional information does not alter staff's recommendation to your Board to uphold the appeal and set aside the decision of the HLAC.

Attachment A – Email from Katie Hay dated May 5, 2014, Preservation Planning Associates Letter Addendum dated April 30, 2014 and Condition Assessment and Rehabilitation Plan by the Roselund Engineering Company.

ATTACHMENT A

Harris, Julie

From: Katie Hay [katie@ccrellc.com]
Sent: Monday, May 05, 2014 10:52 AM
To: Harris, Julie
Cc: Almy, Anne; Russell, Glenn; Alexandra Cole; Clay Aurell; Nels Roselund; Michelle@taylorsyfan.com
Subject: Letter Addendum from Architectural Historian-461 San Ysidro Road
Attachments: 140430 Preservation Planning Associates Addendum-Final.pdf

Hi Julie -

Please see the attached information which contains the revised project description and rehabilitation plan from architectural historian Alex Cole for the Juarez-Hosmer adobe.

This Addendum to the Phase 2 Cultural Resources Study by Preservation Planning Associates dated May, 2010 is based on the additional investigations preformed recently by Nels Roselund, an adobe expert and structural engineer recommended to us by the Pearl Chase Society **after** their appeal of HLAC's approval to revise the project from "rehabilitation to reconstruction" was filed.

We believe that based on the additional investigation of the adobe's existing condition and information received from the adobe expert after HLAC's approval to "reconstruct" the building; the revised project description and rehabilitation/treatment plan substantially conforms to the original Land Use Permit and Approvals received in 2010. We wish to proceed with the rehabilitation of the Juarez-Hosmer adobe implementing the revised means & methods.

Please let me know if you require any additional information for the hearing tomorrow.
Thank you.

Best regards,
Katie Hay
Central Coast Real Estate, LLC
805-245-5722 Cell
888-869-1960 Fax
Katie@CCRELLC.com

PRESERVATION PLANNING ASSOCIATES
519 Fig Avenue, Santa Barbara, CA 93101
Telephone (805) 450-6658 Email: accole5@yahoo.com

April 30, 2014

Ms. Katie Hay
Central Coast Real Estate
201 West Montecito Street
Santa Barbara, CA 93101

Re: Letter Addendum to Phase 2 Cultural Resources Study Historic Resources Study, 461 San Ysidro Road

Dear Ms. Hay:

As the architectural historian on the project at 461 San Ysidro Road, the Juarez-Hosmer adobe, County Landmark #34, this letter is provided as an Addendum to the revised project plan for the adobe structure. In May 2010, I prepared a Phase 2 Cultural Resource Study for the entire property analyzing the impacts of the proposed rehabilitation of the adobe, water tower, and cottage per CEQA requirements. That report found that the proposed rehabilitation met the Secretary of the Interior's Standards and therefore under CEQA, the project was considered mitigated to a level of less than a significant impact on an historic resource (Class III).

At that time, the proposed and later approved rehabilitation for the adobe included:

1. Stabilize the foundations, the methodology depending upon the report of a soils engineer and structural engineer.
2. Remove the later concrete and chicken-wire covering and repair the adobe walls with new adobe blocks of the same permeability and density. Add adobe mud plaster and a whitewash coating.
3. Remove the roof and add a wood bond beam on the top of the walls to tie them together; repair or replace structural members of the roof, add treated wood shingles.
4. Remove the wood floor; add an interior stem wall adjacent to the cobblestone foundations, which would support a concrete slab independent of the adobe walls on which a new wood floor would be constructed.
5. Replaced bowed wood window elements with new wood.

6. Repair or replace window muntins and glass.

As work progressed on the rehabilitation of the adobe, it became clear that contrary to all prior investigation and information, there was no foundation under the building. Therefore the proposed recommendation for stabilizing the foundation under item 1 could not be undertaken. Based on the requirement to have a structural foundation in order to comply with the approved plans and applicable building codes; it was thought that reconstruction of the adobe was the only option. Since then, adobe rehabilitation expert and structural engineer Nels Roselund (Pearl Chase Society recommended Adobe Expert and Structural Engineer, Exhibit A letter attached) extensively examined the adobe and provided an in-depth Condition Assessment and Rehabilitation Plan providing specific "means and methods" to rehabilitate the adobe using a methodology that continues to meet the Secretary of the Interior's Standards for Rehabilitation while continuing to comply with applicable building and safety requirements (see attached Exhibit B, "Condition Assessment and Rehabilitation Plan" by Nels Roseland.

As a result of Mr. Roselund's report, the treatment plan needs to be amended based on his recommended means and methods for rehabilitating the adobe structure and providing a proper foundation for the structure. Given our greater understanding of the adobe's advanced state of deterioration and compromised structural condition outlined in the Roselund report, we are amending the previously approved rehabilitation plan per the items listed below. Items 1 & 2 from the original Rehabilitation Plan shall be replaced by the following items:

1. Carefully disassemble the adobe walls. Evaluate the adobe blocks for soundness. Sort the blocks into two categories: intact usable adobes and broken adobes. Protect, stack, and store intact adobe blocks in a dry protected location. Store broken or cracked blocks, and mortar from the disassembly, in a dry protected place to be crushed and made into new blocks.
2. Test intact adobe blocks and new blocks for conformance to ASTM C-67. Blocks represented by samples determined by the tests to be in compliance with Section 2109.3 of the CBC may be used in the replacement structure.
3. Construct the required foundation by excavating the foundation trench and constructing a reinforced concrete perimeter footing in the conventional manner based on the soils report recommendations. The Building Code [Section 2109.3.4.3.1] requires that the walls be provided with a concrete foundation that extends not less than 6-in above adjacent grade.
4. Reassemble the adobe masonry walls using adobe blocks conforming to ASTM C-67. Form new stable adobe blocks, from broken adobe and mortar sized to match existing intact adobe blocks, to make up the remainder of the walls. This will help

ensure the preservation of extant historic material and compliance with the Secretary of Interior's Standards for Rehabilitation.

The previously approved rehabilitation measures, items 3, 4, 5, & 6 as outlined in the 2010 rehabilitation report and listed above would continue to be followed, incorporated now as items 5, 6, 7, & 8 as follows:

5. Remove the roof and add a wood bond beam on the top of the walls to tie them together; repair or replace structural members of the roof, add treated wood shingles.
6. Remove the wood floor; ~~add an interior stem wall adjacent to the cobblestone foundations, which would support~~ **pour** a **new** concrete slab independent of the adobe walls on which a new wood floor would be constructed (deleted section is due to discovery of no existing foundation and is therefore no longer necessary; bold additions indicate that a new concrete slab shall be poured).
7. Replaced bowed wood window elements with new wood.
8. Repair or replace window muntins and glass.

Standard 6 of the Secretary of the Interior's Standards for Rehabilitation is operative here for the revised project plan:

> *"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." (Exhibit C attached to this Addendum).*

According to the Guidelines for Interpreting the Secretary of the Interior's Standards for Rehabilitation, specifically Standard 6 under the heading **Replace Deteriorated Historic Materials and Features:**

> *"Rehabilitation guidance is provided for replacing an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair. If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature and an integral part of the rehabilitation, then its replacement is appropriate." (Exhibit D attached to this Addendum).*

Additional guidance for Replacement of Masonry Recommends:

> *"Replacing in kind an entire masonry feature that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence as a model to reproduce the feature." (Exhibit E attached to this Addendum).*

"Replacing in kind an entire masonry feature that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence as a model to reproduce the feature." (Exhibit E attached to this Addendum).

(Exhibits attached to this Addendum have been reproduced from The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings, 2001 website).

The essential form and detailing of the adobe blocks, although deteriorated, is still evident, and the reuse of existing adobe blocks as well as the creation of new blocks to match the old blocks, using the soil from the crumbled blocks, in the replacement of the walls meets the intent of the above guideline as an appropriate treatment plan under the Guidelines above. Therefore it is my professional opinion that the methodology outlined in the Roselund Report for the rehabilitation of the adobe meets The Secretary of the Interior's Standards for Rehabilitation, specifically Standard 6, and therefore under CEQA will not have a significant impact on a historic building.

Monitoring

To ensure that the disassembly of the walls is carried out as described, an architectural historian shall be on-site to observe the process and shall prepare a letter for County Planning and Development vouching that the proper procedure was carried out per this addendum and the recommendations contained within Mr. Roselund's report.

Furthermore, Mr. Roselund shall be contracted as a consultant on the project and will provide his professional review of the installation and evaluation of the adobe blocks in conjunction with an "adobe materials expert" prior to and during re-assembly.

Sincerely,

Alexandra C. Cole

Alexandra C. Cole
Architectural Historian
Preservation Planning Associates

March 6, 2014

To: 461 San Ysidro Road LLC
201 W. Montecito Street
Santa Barbara, CA 93101
ATTN: Katie Hay

From: Pearl Chase Society
P.O. Box 92121
Santa Barbara, CA 93190

PEARL CHASE SOCIETY

Preserving Santa Barbara's Historic Sites of Enduring Community Value

P.O. BOX 92121
SANTA BARBARA
CA 93190-2121

Dear Ms. Hay,

Following are the names and contact information for two engineers who have experience evaluating historic adobe structures that are between 100 and 400 years old and in need of rehabilitation. We are currently researching the possibility of adding another name to this list and will do so as soon as possible. We are confident that either of these two engineers will be able to provide you with an expert assessment of the viability of rehabilitating the Juarez/Hosmer Adobe.

Nels Roselund
Structural Engineer
628-573-2441

Edward Crocker
www.crockerltd.net
info@crockerltd.net
877-982-2448

Sincerely,

Hattie M Beresford

Hattie Beresford
vice-president Pearl Chase Society

EXHIBIT A
PPA Addendum

CONDITION ASSESSMENT AND REHABILITATION PLAN

Juarez/Hosmer Adobe
461 San Ysidro Road
Montecito, CA 93108

the ROSELUND ENGINEERING COMPANY
NELS ROSELUND SE1742, LICENSED BY THE STATE OF CALIFORNIA
8453 EAST YARROW STREET
ROSEMEAD, CA 91770 USA
PHONE: 626-573-2441 | FAX: 626-573-2572
email: njineer@sbcglobal.net

EXHIBIT B
PPA Addendum

Structural Engineering for Strengthening and Repair of Old Buildings

TABLE OF CONTENTS

the ROSELUND ENGINEERING COMPANY
NELS ROSELUND SE1742, LICENSED BY THE STATE OF CALIFORNIA
8453 EAST YARROW STREET
ROSEMEAD, CA 91770 USA
PHONE: 626-573-2441 | FAX: 626-573-2572
email: njineer@sbcglobal.net

1. INTRODUCTION

On March 18, 2014 I visited the Adobe with Katie Hay. Also present were Clay Aurell, AB Design Studio; Michelle Good, Taylor and Syfan; Tim Aguilar Adobe Professional; Alexandra Cole, Preservation Planning Associates.

The purpose of my visit was to observe the adobe building exclusively in order to provide an assessment of its condition and to propose potential alternatives for its rehabilitation.

2. ORIGINAL REHABILITATION PLAN

I understand that the County of Santa Barbara's Planning and Development Department has issued a Land Use Permit and Building Permit for rehabilitation of the adobe structure. The permit conditions state that the rehabilitated building shall have a concrete foundation and that new or reused adobe blocks shall comply with the adobe block strength requirements of the current California Building Code. The additional steps in the approved rehabilitation plan that pertain only to the adobe, include:

a. Stabilize the foundations, the methodology depending upon the report of a soils engineer.
b. Remove the cement stucco and chicken-wire exterior material and repair the adobe walls with new adobe blocks of the same permeability and density. Add adobe mud plaster and a lime wash coating.
c. Remove the roof and add a wood bond beam on the top of the walls to tie them together; repair or replace structural members of the roof, add treated wood shingles.
d. Remove the wood floor; add an interior stem wall adjacent to the cobblestone foundations, which would support a concrete slab independent of the adobe walls on which a new wood floor would be constructed.
e. Replaced bowed wood window and door lintels with new wood.
f. Repair or replace window muntins and glass.

It seems that this rehabilitation plan is an appropriate solution common to rehabilitations of adobe structures. I anticipate that rehabilitation of the adobe is possible provided that it follows the recommendations found in Section 6 below.

3. FIELD OBSERVATIONS

At my request, partial removal of cement stucco in key areas was conducted to allow for observation and general assessment of the building's adobe masonry conditions. Additional stucco removal may reveal conditions not included in this report that may require further study and evaluation of the existing adobe masonry.

I understand that during the rehabilitation process, foundation work that had commenced at the northeast corner of the building uncovered no foundation of any kind under the adobe wall. A

small pit had been dug by hand inside the building interior adjacent to the northeast corner to confirm the absence of a foundation. The discovery of extensively deteriorated soft adobe along the perimeter of the entire building caused the ownership to halt the rehabilitation project until further evaluation and inspection could be performed. The following is a report on my findings during this site visit:

a. General: The building is a single room, single story adobe house approximately 21-ft x 29-ft rectangular exterior dimensions, with wood-framed roof, walls of adobe masonry, and no foundation.

b. Roof: The carpenter-truss-framed wood roof is sheathed with 1x spaced sheathing; its ridge, oriented east-west, rises higher than the gable walls each end, an indication that the current roof framing is not original; roofing has been removed. In the late 1800's, an addition to the adobe was added and the roofline changed. The original ridge beam had been cut off at the interior face of the gable end walls, leaving remnants of the original ridge embedded at the apex of the walls.

c. Walls: The adobe walls are built with un-stabilized adobe blocks and mud mortar; they are 24-in thick walls, approximately 8½-ft high at the north side and south side; gable ends at the east wall and west wall rise to about 3-ft above the side walls. Mud plaster with a thin lime coat has been applied to the adobe at much of the north wall; I understand that this portion of the north wall had been the interior south wall of a room under the late 1800's wood-framed addition to the adobe.

   i. Exterior: Cement stucco had been applied to the exterior surface of the other walls; much of the stucco is detached from the adobe surface and displaced outward about 1-in and more; nails that had secured the stucco to the wall were rusted and pulled out of the wall by the displaced stucco. In some locations expanded metal lath is embedded in the stucco [perhaps an old attempt to bridge across voids in the masonry]; the metal lath is corroded. A water-flow pattern of mud deposits and water channels can be seen on the adobe wall surfaces behind the stucco indicating the adobe masonry has been exposed to water, probably seasonally for many years since the stucco was applied.

   ii. Condition of Blocks: Adobe blocks were measured to be approximately 12-in x 24-in; thicknesses vary. Thicknesses found ranged in size from approximately 3 inches to 4½ inches. There is considerable evidence of long-term exposure of the masonry walls to moisture: the adobe is soft and unstable, easily eroded or crushed by hand in many wall areas uncovered thus far. The condition of the adobe in areas that were not revealed by cutting away the cement stucco has yet to be determined. An adobe materials expert has been part of the evaluation process and has supplied a separate conditions assessment.

   iii. Tops of Walls: much of the masonry at the tops of the north wall and south wall is broken and crumbly, possibly by many seasons of exposure to storm water run-off through roof leaks near the eaves.

   iv. Base of Walls: Adobe masonry at the base of the walls is eroded, broken and deteriorated and can be easily further eroded by hand.

v. Wood Lintels: The wood lintels over doors and windows are seriously insect-damaged and have no structural strength; they are crushed under the superimposed weight of adobe masonry and roof that they have supported.

vi. Wall Cracks: Two major cracks in the south wall are located a few feet from the east corner and from the west corner. These cracks are fine beginning at the base of the wall and widen as they rise to the top. The widened areas near the top are filled with rubble of broken adobe masonry, wooden wedges and cement plaster. The widening of the cracks toward the top of the wall indicates that the wall piers at each end of the wall have broken away from the wall portion between the cracks and have tilted toward the corners. These cracks are probably earthquake damage, perhaps dating from the 1925 earthquake.

d. Foundation: The adobe masonry walls have no original foundation. During my site visit I observed a small pit inside the building at the northeast corner; it was clear that the adobe masonry walls are bearing directly on soil without a foundation. For buildings of this building's era, conventional practice was to found walls of adobe masonry on stone foundations. Stone masonry at the exterior base of the south wall near both the west corner and east corner does not appear at the interior; it may have been an attempt to repair earthquake damage by providing support for the tilted wall piers. The soil directly under the interior of the south wall is not firm; it is soft, easily dug out by small hand tools, and even by hand to a few inches. It is difficult to distinguish soil from adobe at the bottoms of the walls; what appears to be soft soil may be deteriorated adobe masonry.

4. APPLICABLE STANDARDS AND CODE REQUIREMENTS FOR REHABILITATION

a. The Secretary of the Interior's Standards for Rehabilitation & Guidelines for Rehabilitating Historic Buildings [the Standards] provide the Standards Rehabilitation statement and clarifying Guidelines. (Exhibit A)

b. The California Building Code [CBC] provides rules for design and construction of new buildings.

c. The California Existing Building Code [CEBC], an appendix to the CBC contains appendix chapters with building code requirements for structural seismic resistance applicable to buildings that were constructed before the era of the modern building codes.

d. The California Historical Building Code [CHBC] is intended to encourage preservation of qualified historical buildings [CHBC 8-701.2]. It is to be used in conjunction with the other Codes [8-701.3]. The provisions of the modern Codes, CBC and CEBC, are intended to protect health and safety through structural strength [CBC 1.1.2 & 1.1.3] using modern materials and practices; they sometimes conflict with the Standards which are intended for preservation of archaic structural materials and workmanship. The CHBC provides rules for structural safety intended to promote rehabilitation practices that protect historic building materials and character-defining features of historical buildings. Thus, application of reasonably equivalent structural alternatives are, at times, needed to satisfy the intent of both the Standards and the modern Codes. The CHBC provides for use of such reasonably equivalent alternatives and requires building departments to accept them whenever upgrade or reconstruction is undertaken for qualified historical buildings [CHBC 8-701.2 & 8-701.3].

e. The CHBC does not allow a lower level of safety for structural design than that which is reasonably equivalent to the CBC [CHBC 8-702.1].

5. ADDITIONAL REFERENCES

A "Report of Foundation Exploration" by Coast Valley Testing Inc. Reference Number 09-6522 dated October 16, 2009 was reviewed and considered in the assessment of the adobe structure.

This Foundation Exploration Report by Coast-Valley Testing Inc., reports that the upper 12-in to 30-in of surface soil is loose and porous silty sand; this is not an appropriate soil for massive adobe walls; a foundation should be embedded into firm soil. The evaluation of the soil under the walls is not included in the report. However, the cracks in the south wall discussed on page 2 of this report in the OBSERVATION section, possibly caused by rocking of the portions of the south wall near each corner, may be an indicator of inadequate soil under the walls. The Report recommends a reinforced concrete foundation founded at least 30 inches below yard grade. A reinforced concrete foundation will bridge over zones of soft soil and minimize differential settlement; without an effective sound foundation, cracking and tilting of portions of walls during strong shaking is likely.

6. CONCLUSIONS-SPECIFIC RECOMMENDATIONS FOR REHABILITATION

The following recommendations are based on my Observations, the existing condition of the structure and on the referenced Standards and Codes. I believe these recommendations are in harmony with the both the Secretary of the Interior's Standards for Rehabilitation and with the intent of the CHBC applied in conjunction with the CBC and CHBC.

The Guidelines to the Standards For Rehabilitation of Historic Buildings (Exhibit A) has been utilized as a guide in the recommendations for the rehabilitation approach. Based on this, the original plan to rehabilitate the adobe is possible provided that it proceed in accordance with the following recommendations.

Per the Guidelines, it is evident that under rehabilitation, it is appropriate to "Replace Deteriorated Historic Materials and Features". This provision recognizes the appropriateness of reuse of existing adobe blocks within rebuilt walls provided the essential form and detailing of the walls are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation.

I have concluded that due to the deteriorated condition of the walls, installation of a foundation under the walls in place is unsafe and infeasible. Applying this provision of the Guidelines to the Standards to this Rehabilitation project is appropriate.

The following represent the "Means and Methods" for the recommended rehabilitation.

a. The walls should be carefully disassembled and adobe blocks evaluated for soundness. The blocks are to be sorted into two categories: intact usable adobes and broken adobes. The sound blocks are to be protected, stacked and stored in a dry protected location. Broken or cracked blocks, and mortar from the disassembly should also be stored in a dry protected place to be crushed and made into new blocks. Usable adobe blocks and new blocks are required to be tested in conformance to ASTM C-67. Blocks represented by samples determined by the tests to be in compliance with Section 2109.3 of the CBC may be used in the replacement structure.

b. Construct the required foundation by excavating the foundation trench and constructing a reinforced concrete perimeter footing in the conventional manner based on the soils report recommendations. The Building Code [Section 2109.3.4.3.1] requires that the walls be provided with a concrete foundation that extends not less than 6-in above adjacent grade.

c. Reassemble the adobe masonry walls using adobe blocks conforming with ASTM C-67. Broken adobe and mortar shall be formed into new stable adobe blocks sized to match existing, intact adobe blocks. This will help ensure the preservation of extant historic material.

d. Remove the deteriorated wood lintels and replace with preservative-treated sawn lumber of rough sizes matching the existing lintels, to be re-set into the rebuilt walls.

e. The appropriate Building Code provisions for earthquake resistance of rehabilitated historic buildings are the provisions of Appendix Chapter A1 of the [CEBC] applied in conjunction with the CHBC. Building elements regulated by the CEBC include:

   i. Wall height-to-thickness [H/t] ratios: The existing walls comply with Table A1-G of the CEBC requirement of H/t=8 provided the tops of the walls, including the gable end walls are anchored to the roof diaphragm.

   ii. A diaphragm: A horizontal structural element at the roof or ceiling level that interconnects all of the walls so that they respond to strong earthquake shaking together as a unit, forming a box with interconnected sides, top and ends. Without this interconnection strong shaking would tend to cause the various components of the building to respond independently and pose potentially hazardous conditions as they separate and displace in different directions. A diaphragm may consist of the existing straight board sheathing nailed or screwed to the tops of the rafters.

   iii. Wall anchorage and diaphragm shear transfer: Wall anchors and shear anchors are the devices that secure the roof framing and diaphragms to the walls. They generally consist of bolts set into epoxy adhesive in holes drilled into the tops of the masonry walls. Wall anchors are designed to keep walls from separating from the diaphragm and roof framing during earthquake shaking. Shear anchors keep the diaphragm from moving laterally in relation to the walls. Anchors are not reversible but do not visually affect historic authenticity.

   iv. Bond-beams are structural members that are connected to the tops of walls with shear anchors to which the diaphragm and roof framing may be connected using conventional carpentry details. The tops of adobe walls are fragile, without strength to resist strong anchorage forces; for this reason, bond-beam shear anchors must be closely spaced. Bond-beams may be constructed of reinforced concrete or lapped-spliced multi-layered ¾-in [or thicker] plywood that provides top-of-wall continuity at the entire perimeter, including around the corners. Anchored to the tops of the walls, a bond-beam is partially reversible only with difficulty; it does not visually affect historical authenticity, and is conventional as well as essential for adobe building rehabilitation projects in seismically active regions.

   v. Wall in-plane shear capacity: In-plane seismic shear will be determined by structural analysis; I expect that, because of the small size of the building and by use of shear

capacities allowed by the CHBC, this requirement will have no significant effect on this rehabilitation project.

vi. Parapets. Though the building has no parapets, the chimney should be treated as a parapet and be braced in two perpendicular directions with H/t equal to or less than 1.5 above any brace or anchorage to the diaphragm.

Based on the information above, I believe that the rehabilitation plan originally approved by the County may proceed and be constructed in a safe manner. This will result in a rehabilitated historic building with the prospect of long-term serviceability. Disassembling the adobe block walls, installing a proper foundation under the perimeter of the walls, and reassembling the walls using existing adobe blocks and new blocks made from the recycled adobe blocks and mortar from the existing walls is consistent with the Guidelines for Rehabilitating Historic Structures while allowing for the necessary level of safety. Reuse of deteriorated adobe blocks and mortar to remake adobe blocks to be included in the masonry of the walls is recommended to retain even more of the historic material. Given the many decades of neglect and decay of this adobe structure, this approach will, at the very least, allow for this structure to be rehabilitated in a way that addresses a) the Secretary of the Interior's Guidelines for Rehabilitation; b) the building code regulations that govern this project; c) sound rehabilitation practices; and d) a level of construction safety required to perform such work.

Nels Roselund
Structural Engineer

REHABILITATION the approach

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

Choosing Rehabilitation as a Treatment

In **Rehabilitation**, historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation; however, an assumption is made prior to work that existing historic fabric has become damaged or deteriorated over time and, as a result, more repair and replacement will be required. Thus, latitude is given in the **Standards for Rehabilitation and Guidelines for Rehabilitation** to replace extensively deteriorated, damaged, or missing features using either traditional or substitute materials. Of the four treatments, only Rehabilitation includes an opportunity to make possible an efficient contemporary use through alterations and additions.

top

Identify, Retain, and Preserve Historic Materials and Features

Like Preservation, guidance for the treatment **Rehabilitation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Therefore, guidance on ***identifying, retaining, and preserving*** character-defining features is always given first. The character of a historic building may be defined by the form and detailing of exterior materials, such as masonry, wood, and metal; exterior features, such as roofs, porches, and windows; interior materials, such as plaster and paint; and interior features, such as moldings and stairways, room configuration and spatial relationships, as well as structural and mechanical systems.

top

Protect and Maintain Historic Materials and Features

After identifying those materials and features that are important and must be retained in the process of **Rehabilitation** work, then ***protecting and maintaining*** them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, alarm systems and other temporary protective

measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

top

-GUIDELINES-

The Approach

Exterior Materials
Masonry
Wood
Architectural Metals

Exterior Features
Roofs
Windows
Entrances + Porches
Storefronts

Interior Features
Structural System
Spaces/Features/Finishes
Mechanical Systems

Site

Setting

Special Requirements
Energy Efficiency
New Additions
Accessibility
Health + Safety

THE STANDARDS

NELS ROSLUND REPORT EXHIBIT A

Repair Historic Materials and Features

Next, when the physical condition of character-defining materials and features warrants additional work ***repairing*** is recommended. **Rehabilitation** guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind–or with compatible substitute material–of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.

This two-story brick commercial building--with its corner storefront--was originally constructed ca. 1876, then remodeled in 1916 in the Craftsman style and given a new, distinctive roofline. It served a number of uses, including a hotel, boarding house, saloon, restaurant, liquor store, warehouse, and office furniture showroom. The red brick walls had been painted several times over the years. Rehabilitation work included removal of multiple paint layers using a chemical stripper and thorough water rinse; spot repointing with matching mortar; and appropriate interior alterations. The building is now being used as a retail shop. Photos: NPS files.

top

Replace Deteriorated Historic Materials and Features

Following repair in the hierarchy, **Rehabilitation** guidance is provided for ***replacing*** an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, they never recommend removal and replacement with new material of a feature that–although damaged or deteriorated–could reasonably be repaired and thus preserved.

top

Design for the Replacement of Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade; or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Although accepting the loss is one possibility, where an important architectural feature is missing, its replacement is always recommended in the

Rehabilitation guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

top

Alterations/Additions for the New Use

Some exterior and interior alterations to a historic building are generally needed to assure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include the selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character. The construction of an exterior addition to a historic building may seem to be essential for the new use, but it is emphasized in the **Rehabilitation** guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alterative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed. Additions and alterations to historic buildings are referenced within specific sections of the Rehabilitation guidelines such as Site, Roofs, Structural Systems, etc., but are addressed in detail in New Additions to Historic Buildings (see nav bar, right).

top

Energy Efficiency/Accessibility Considerations/Health and Safety Code Considerations

These sections of the guidance address work done to meet accessibility requirements and health and safety code requirements; or retrofitting measures to improve energy efficiency. Although this work is quite often an important aspect of **Rehabilitation** projects, it is usually not a part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of meeting code and energy requirements.

standards for rehabilitation

1. A property will 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 will 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 will 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, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

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

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will 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 will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

EXHIBIT C
PPA Addendum

REHABILITATION
the approach

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

Choosing Rehabilitation as a Treatment

In **Rehabilitation**, historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation; however, an assumption is made prior to work that existing historic fabric has become damaged or deteriorated over time and, as a result, more repair and replacement will be required. Thus, latitude is given in the **Standards for Rehabilitation and Guidelines for Rehabilitation** to replace extensively deteriorated, damaged, or missing features using either traditional or substitute materials. Of the four treatments, only Rehabilitation includes an opportunity to make possible an efficient contemporary use through alterations and additions.

top

Identify, Retain, and Preserve Historic Materials and Features

Like Preservation, guidance for the treatment **Rehabilitation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Therefore, guidance on ***identifying, retaining, and preserving*** character-defining features is always given first. The character of a historic building may be defined by the form and detailing of exterior materials, such as masonry, wood, and metal; exterior features, such as roofs, porches, and windows; interior materials, such as plaster and paint; and interior features, such as moldings and stairways, room configuration and spatial relationships, as well as structural and mechanical systems.

top

Protect and Maintain Historic Materials and Features

After identifying those materials and features that are important and must be retained in the process of **Rehabilitation** work, then ***protecting and maintaining*** them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

EXHIBIT D
PPA Addendum

top

Repair Historic Materials and Features

Next, when the physical condition of character-defining materials and features warrants additional work ***repairing*** is recommended. **Rehabilitation** guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind--or with compatible substitute material--of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.

This two-story brick commercial building--with its corner storefront--was originally constructed ca. 1876, then remodeled in 1916 in the Craftsman style and given a new, distinctive roofline. It served a number of uses, including a hotel, boarding house, saloon, restaurant, liquor store, warehouse, and office furniture showroom. The red brick walls had been painted several times over the years. Rehabilitation work included removal of multiple paint layers using a chemical stripper and thorough water rinse; spot repointing with matching mortar; and appropriate interior alterations. The building is now being used as a retail shop. Photos: NPS files.

top

Replace Deteriorated Historic Materials and Features

Following repair in the hierarchy, **Rehabilitation** guidance is provided for ***replacing*** an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, they never recommend removal and replacement with new material of a feature that--although damaged or deteriorated--could reasonably be repaired and thus preserved.

top

Design for the Replacement of Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade;

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade, or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Although accepting the loss is one possibility, where an important architectural feature is missing, its replacement is always recommended in the **Rehabilitation** guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

top

Alterations/Additions for the New Use

Some exterior and interior alterations to a historic building are generally needed to assure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include the selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character. The construction of an exterior addition to a historic building may seem to be essential for the new use, but it is emphasized in the **Rehabilitation** guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alterative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed. Additions and alterations to historic buildings are referenced within specific sections of the Rehabilitation guidelines such as Site, Roofs, Structural Systems, etc., but are addressed in detail in New Additions to Historic Buildings (see nav bar, right).

top

Energy Efficiency/Accessibility Considerations/Health and Safety Code Considerations

These sections of the guidance address work done to meet accessibility requirements and health and safety code requirements; or retrofitting measures to improve energy efficiency. Although this work is quite often an important aspect of **Rehabilitation** projects, it is usually not a part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of meeting code and energy requirements.

EXTERIOR MATERIALS

masonry

Identify Protect Repair Replace Missing feature

Identify, Retain and Preserve

RECOMMENDED

Identifying, retaining, and preserving masonry features that are important in defining the overall historic character of the building such as walls, brackets, railings, cornices, window architraves, door pediments, steps, and columns; and details such as tooling and bonding patterns, coatings, and color.

The variety and arrangement of the materials is important in defining the historic character, starting with the large pieces of broken stone which form the projecting base for the building walls, then changing to a wall of roughly rectangular stones which vary in size, color, and texture, all with projecting beaded mortar joints. Changing the raised mortar joints, for example, would drastically alter the character. Photo: NPS files.

NOT RECOMMENDED

Removing or radically changing masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing or rebuilding a major portion of exterior masonry walls that could be repaired so that, as a result, the building is no longer historic and is essentially new construction.

Applying paint or other coatings such as stucco to masonry that has been historically unpainted or uncoated to create a new appearance.

Removing paint from historically painted masonry.

Radically changing the type of paint or coating or its color.

top

Protect and Maintain

GUIDELINES

The Approach

Exterior Materials
Masonry
Wood
Architectural Metals

Exterior Features
Roofs
Windows
Entrances + Porches
Storefronts

Interior Features
Structural System
Spaces/Features/Finishes
Mechanical Systems

Site

Setting

Special Requirements
Energy Efficiency
New Additions
Accessibility
Health + Safety

THE STANDARDS

EXHIBIT E
PPA Addendum

RECOMMENDED

Protecting and maintaining masonry by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.

Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.

Carrying out masonry surface cleaning tests after it has been determined that such cleaning is appropriate. Tests should be observed over a sufficient period of time so that both the immediate and the long range effects are known to enable selection of the gentlest method possible.

The iron stain on this granite post may be removed by applying a commercial rust-removal product in a poultice. Photo: NPS files.

Cleaning masonry surfaces with the gentlest method possible, such as low pressure water and detergents, using natural bristle brushes.

Inspecting painted masonry surfaces to determine whether repainting is necessary.

Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., handscraping) prior to repainting.

Applying compatible paint coating systems following proper surface preparation.

Repainting with colors that are historically appropriate to the building and district.

Evaluating the overall condition of the masonry to determine whether more than protection and maintenance are required, that is, if repairs to the masonry features will be necessary.

NOT RECOMMENDED

Failing to evaluate and treat the various causes of mortar joint deterioration such as leaking roofs or gutters, differential settlement of the building, capillary action, or extreme weather exposure.

Cleaning masonry surfaces when they are not heavily soiled to create a new appearance, thus needlessly introducing chemicals or moisture into historic materials.

Cleaning masonry surfaces without testing or without sufficient time for the testing results to be of value. Historic brick damaged by sandblasting.

Sandblasting brick or stone surfaces using dry or wet grit or other abrasives. These methods of cleaning permanently erode the surface of the material and accelerate deterioration.

Abrasive cleaning methods include all techniques that physically abrade the building surface to remove soils, discolorations or coatings. Sandblasting has permanently damaged this brick wall. Photo: NPS files

Using a cleaning method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures.

Cleaning with chemical products that will damage masonry, such as using acid on limestone or marble, or leaving chemicals on masonry surfaces.

Applying high pressure water cleaning methods that will damage historic masonry and the mortar joints.

Removing paint that is firmly adhering to, and thus protecting, masonry surfaces.

Using methods of removing paint which are destructive to masonry, such as sandblasting, application of caustic solutions, or high pressure waterblasting.

Failing to follow manufacturers' product and application instructions when repainting masonry.

Using new paint colors that are inappropriate to the historic building and district.

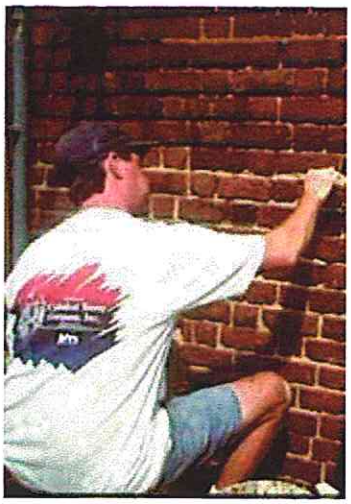
Failing to undertake adequate measures to assure the protection of masonry features.

top

Repair

RECOMMENDED

Repairing masonry walls and other masonry features by repointing the mortar joints where there is evidence of deterioration such as disintegrating mortar, cracks in mortar joints, loose bricks, damp walls, or damaged plasterwork.



Mortars for repointing should be softer or more permeable than the masonry units and no harder or more impermeable than the historic mortar to prevent damage to the masonry units. This early 19th century building is being repointed with lime mortar. Photo: John P. Speweik.

Removing deteriorated mortar by carefully hand-raking the joints to avoid damaging the masonry.

Duplicating old mortar in strength, composition, color, and texture.

Duplicating old mortar joints in width and in joint profile.

Repairing stucco by removing the damaged material and patching with new stucco that duplicates the old in strength, composition, color, and texture.

Using mud plaster as a surface coating over unfired, unstabilized adobe because the mud plaster will bond to the adobe.

Cutting damaged concrete back to remove the source of deterioration (often corrosion on metal reinforcement bars). The new patch must be applied carefully so it will bond satisfactorily with, and match, the historic concrete. Replacement stones tooled to match original.

Repairing masonry features by patching, piecing-in, or consolidating the masonry using recognized preservation methods. Repair may also include the limited replacement in kind--or with compatible substitute material--of those extensively deteriorated or missing parts of masonry features when there are surviving prototypes such as terra-cotta brackets or stone balusters.

Applying new or non-historic surface treatments such as water-repellent coatings to masonry only after repointing and only if masonry repairs have failed to arrest water penetration problems.

NOT RECOMMENDED

Removing nondeteriorated mortar from sound joints, then repointing the entire building to achieve a uniform appearance.

Using electric saws and hammers rather than hand tools to remove deteriorated mortar from joints prior to repointing.

Some aspects of a building's visual character are fragile and are easily lost. This is true of brickwork, for example, which can be irreversibly damaged with inappropriate cleaning techniques or by insensitive repointing practices. The historic character of this front wall is being dramatically changed from a wall where the bricks predominate, to a wall that is visually dominated by the mortar joints. Photo: NPS files.

Repointing with mortar of high portland cement content (unless it is the content of the historic mortar). This can often create a bond that is stronger than the historic material and can cause damage as a result of the differing coefficient of expansion and the differing porosity of the material and the mortar.

Repointing with a synthetic caulking compound. Using a "scrub" coating technique to repoint instead of traditional repointing methods.

Changing the width or joint profile when repointing.

Removing sound stucco; or repairing with new stucco that is stronger than the historic material or does not convey the same visual appearance.

Applying cement stucco to unfired, unstabilized adobe. Because the cement stucco will not bond properly, moisture can become entrapped between materials, resulting in accelerated deterioration of the adobe.

Patching concrete without removing the source of deterioration.

Replacing an entire masonry feature such as a cornice or balustrade when repair of the masonry and limited replacement of deteriorated of missing parts are appropriate.

Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the masonry feature or that is physically or chemically incompatible.

Applying waterproof, water repellent, or non-historic coatings such as stucco to masonry as a substitute for repointing and masonry repairs. Coatings are frequently unnecessary, expensive, and may change the appearance of historic masonry as well as accelerate its deterioration.

top

Replace

RECOMMENDED

Replacing in kind an entire masonry feature that is too deteriorated to repair--if the overall form and detailing are still evident--using the physical evidence as a model to reproduce the feature. Examples can include large sections of a wall, a cornice, balustrade, column, or stairway. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

NOT RECOMMENDED

Removing a masonry feature that is unrepairable and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.

top

The following work is highlighted to indicate that it represents the particularly complex technical or design aspects of Rehabilitation projects and should only be considered after the preservation concerns listed above have been addressed.

Design for the Replacement of Missing Historic Features

RECOMMENDED

Designing and installing a new masonry feature such as steps or a door pediment when the historic feature is completely missing. It may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building.

NOT RECOMMENDED

Creating a false historical appearance because the replaced masonry feature is based on insufficient historical, pictorial, and physical documentation. Introducing a new masonry feature that is incompatible in size, scale, material and color.