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APPENDIX

1. Structural investigation for: The Dresbach-Hunt-Boyer Pumphouse, Davis, CA, by Marr Shaffer & Miyamoto, Structural Engineers, Inc., MSM Job # 00053, dated April 20, 2000. On file at City of Davis.
2. California Building Code, 2001 Edition. Table 5-A
3. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for preserving, rehabilitating, restoring and reconstructing historic buildings. www.cr.nps.gov/hps/tps.standguide/
5. Cost Estimate, by Harrison Construction, Inc., 2940 Spafford Street, Ste. 100, Davis, CA 95616-6800.

EXECUTIVE SUMMARY

This purpose of this study is to evaluate the present physical condition of the Dresbach-Hunt-Boyer Mansion tank house and assess the potential for rehabilitation of the tank house in its present location as well as the potential for alternate locations on the Mansion property. The study includes cost estimates to rehabilitate the tank house in its present location as well as an alternate location.

The existing tank house, built between 1871 and 1875, was moved to its present location in the late 1970's to accommodate the Mansion Square development project on the southern portion of the Dresbach-Hunt-Boyer Mansion property. At that time approximately 1'-6" of the bottom portion of the structure was removed to eliminate dryrot. Since the relocation, the dryrot has progressed and in 1998 the city Building Official determined that the building was not structurally sound due to extensive rotting of the supporting timbers. In 2000, Marr Shaffer and Miyamoto Structural Engineers conducted a thorough structural investigation and provided extensive rehabilitation measures to correct the structural safety issues.

Summary of Findings:

S2Architects was asked to evaluate the current physical condition of the tank house and assess the potential for rehabilitation. The findings of our assessment conclude that over 75% of the siding and all of the structural members up to the roof have deteriorated beyond repair. The only original materials remaining in a condition that can be feasibly restored in part or whole include the fascia and some of the trefoil trim.

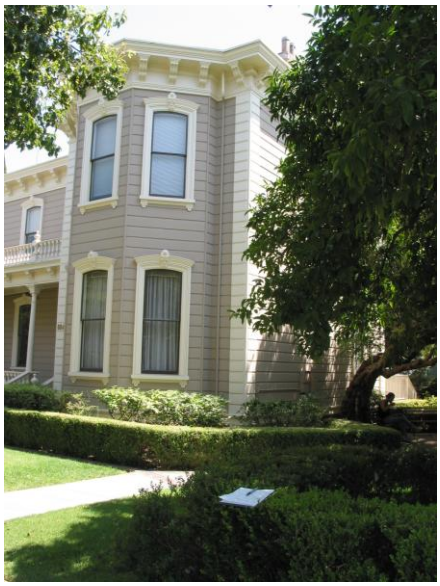
Given this, it is our opinion that to rehabilitate the tank house it must be disassembled and reconstructed in a manner consistent with the Secretary of the Interior Standards.

In addition to the rehabilitation of the tank house this report also looks at the potential for relocation of the tank house to an alternative location on the existing Mansion property. Alternate locations considered include the North, South and West of the Mansion. The study concludes the best alternate location within the Mansion site is immediately to the West of the Mansion. The exact placement of the tank house at this location should be carefully evaluated to minimize impacts on the Mansion and the visibility into the Mansion Square property to the south.

The estimate cost of construction, including fees, permits, and contingency, is $160,000.

Jerry Schroeder, AIA
Architect

A. HISTORICAL CONTEXT



The Dresbach-Hunt-Boyer Mansion (DHBM), located at 604 2nd Street is a stick-Italianate Victorian and is listed in the National Register of Historic Places as well as the California Register of Historic Resources. The Mansion, together with its important auxiliary features, the tank house, cistern, century old orange trees and gardens, was built between 1871 and 1875. To the east is the Varsity Theatre, constructed in 1950, designated as a City Landmark Building and eligible for the California Register. The Varsity Theatre is a late Streamline Modern design that has had minor alterations to the exterior.

The DHBM tank house is believed to have been constructed between 1874 when the house was built and 1888 when it appears on the City's first Sanborn Map. The tank house was moved to its present current location in 1979 when the commercial development, Mansion Square, was constructed just to the south of the present parcel. Modifications were later made to add a second floor with an external stairway and windows in order to use the building as an office. It was leased for various commercial purposes until the mid-90's. In 1998, the City of Davis Building Official declared the building condemned due to structural concerns.

A Structural Investigation was conducted in 2000 by Marr Shaffer Miyamoto, Structural Engineers, Inc.[1] This report pointed out severe dryrot, particularly below the second floor. MSM indicated that the second floor and roof framing were in good condition. Recommended repairs included replacement of the studs below the second floor and installation of braces and other work.

Recently the City of Davis solicited and received a proposal for development of the parcel where the Tank house now sits. The Tank house is in poor condition and S2 Architects were retained to study how and where the Tank house might be moved and/or repaired.

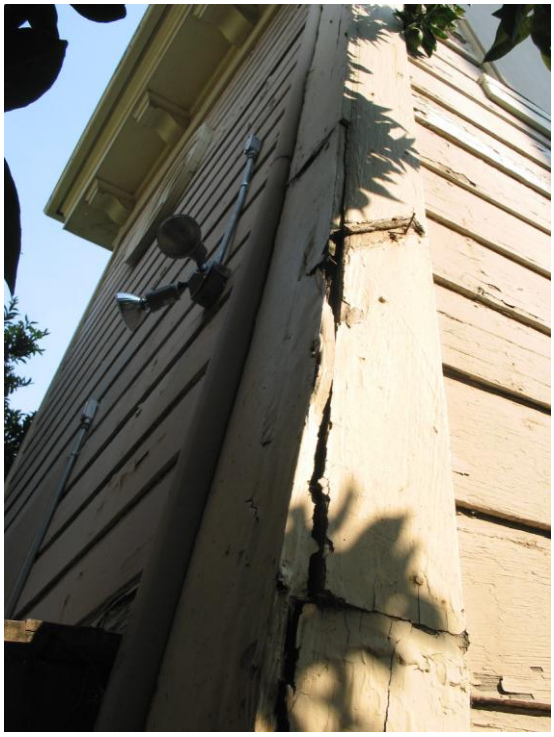
[1] Structural Investigation for: The Dresbach-Hunt-Boyer Pumphouse, Davis, CA, by Marr Shaffer & Miyamoto, Structural Engineers, Inc., MSM Job No. 00053, dated April 20, 2000. On file at City of Davis.

B. CONDITION ASSESSMENT

In July, August and September, 2006, Jerry Schroeder, AIA, Architect, of S2 Architects visited the Tank house building and site, took measurements, photographs and evaluated the conditions. It is obvious that deterioration noted by MSM has continued and become worse. On the south side, it appears the building lists to the East by at least 2 feet. The added stairs have been removed, so access to the previously added second floor was unavailable. Studs inside at the ground floor level were severely dryrotted and pieces could be pulled from them with the bare hand. We observed numerous penetrations through the walls where windows, unit air conditioners, panels, conduit and lights had been attached through the siding, compromising the structural integrity as well as the waterproof membrane. In some places the corner trim had been pulled back and we observed dryrot in the ends of the siding under the 1X6 corner trim.

Pronounced list

Siding penetrations and conduit



Corner trim with dryrot behind trim into siding
Conduit and lights on exterior

Old balcony added at second level
Stairway removed
Siding rotted

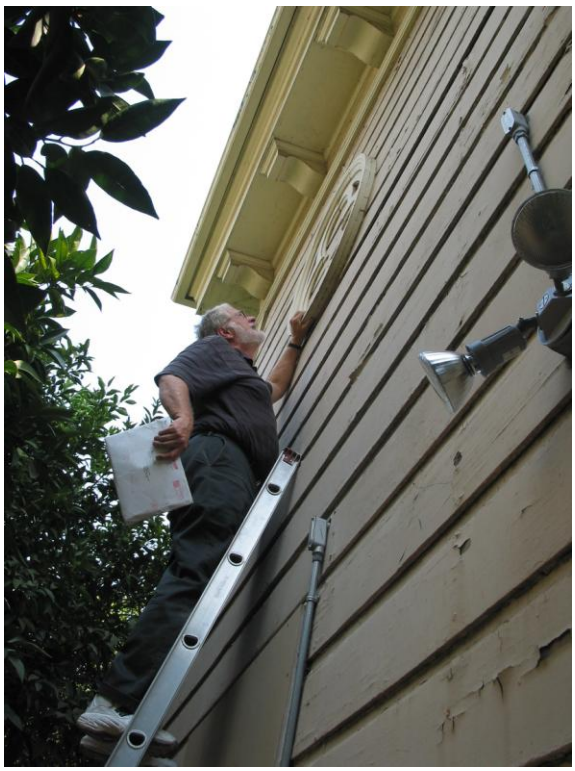
Rotted trim board at window

Peeling paint, siding deteriorated beneath

Rotted siding boards

Siding, showing wood deterioration and crack

Siding, showing board pulling loose from rot



Inspecting Trefoil

Cracked siding, electrical boxes, corner trim

Fascia at corner. Paint flaking, but board appears be solid.

Beam under fascia. Wood appears to be solid.

Rotted siding behind trim

Inside studs, rotted, and in some places can see through siding joints.
Note the 2X4's scabbed to inside of 4X4 studs that are now rotting too.

We counted siding boards that could possibly be reused and it is our evaluation that over 75% of the siding boards themselves need replacement.[2] In addition, the vertical trim boards need complete replacement. The original building had a structure of 4X4's extending in one piece from the foundation to the roof. All of these boards within view have been rotted in the lower part of the building.

Dryrotted interior studs

We did look carefully at the fascia and upper trim and it appears to be salvageable. Close observation from a ladder extending up from the Second floor deck indicated the boards were sound. City personnel indicated this past winter there were no signs of roof leaks, which would be further indication of dryrot problems in the roof structure.

Existing Fascia and fascia beam

Trefoils

[2] Siding Assessment, see Appendix

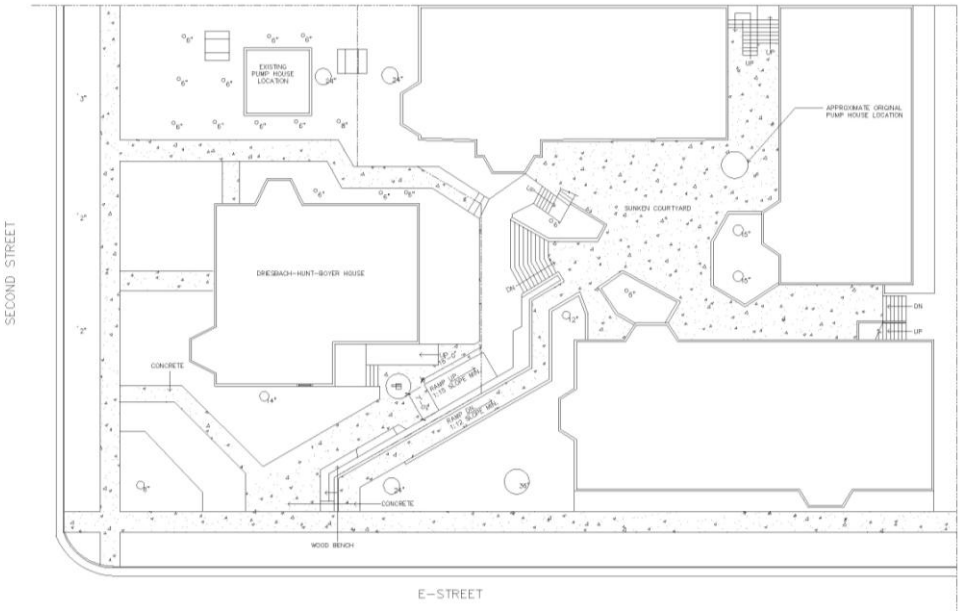
On three sides there are decorative round "trefoils". Those on the existing north and west sides appear to be in good condition, but the one on the east side has a notch cut out when what appears to be an air conditioner was installed through it. There is no trefoil on the south side at all; perhaps it was removed when the door and window was installed at the time of the Second floor addition. We were able to reach the south facing trefoil from an extension ladder and it appeared to be sound. We feel the damaged trefoil(s) can be reconstructed to match the original and the existing ones restored.

Door Jamb

The window on the south side appears to be the original wood double hung casement. It is boarded up and we could not assess the condition, however from the inside it appears to be sound and can probably be restored. The door was a metal replacement, inconsistent with the original character, and should be replaced. The jamb shows some signs of damage but we believe it can be restored.

C. THE SITE

As part of our scope, we evaluated possible areas within the remaining Mansion property to rehabilitate or relocate the tank house. The options were relatively limited as much of the original open space of the property has been developed.



D. SITE OPTIONS CONSIDERED

1. Move the Tank house to the west side of the DHBM site.

   This option would locate the footprint within the side yard and the sidewalk extending back to the Mansion Square development.

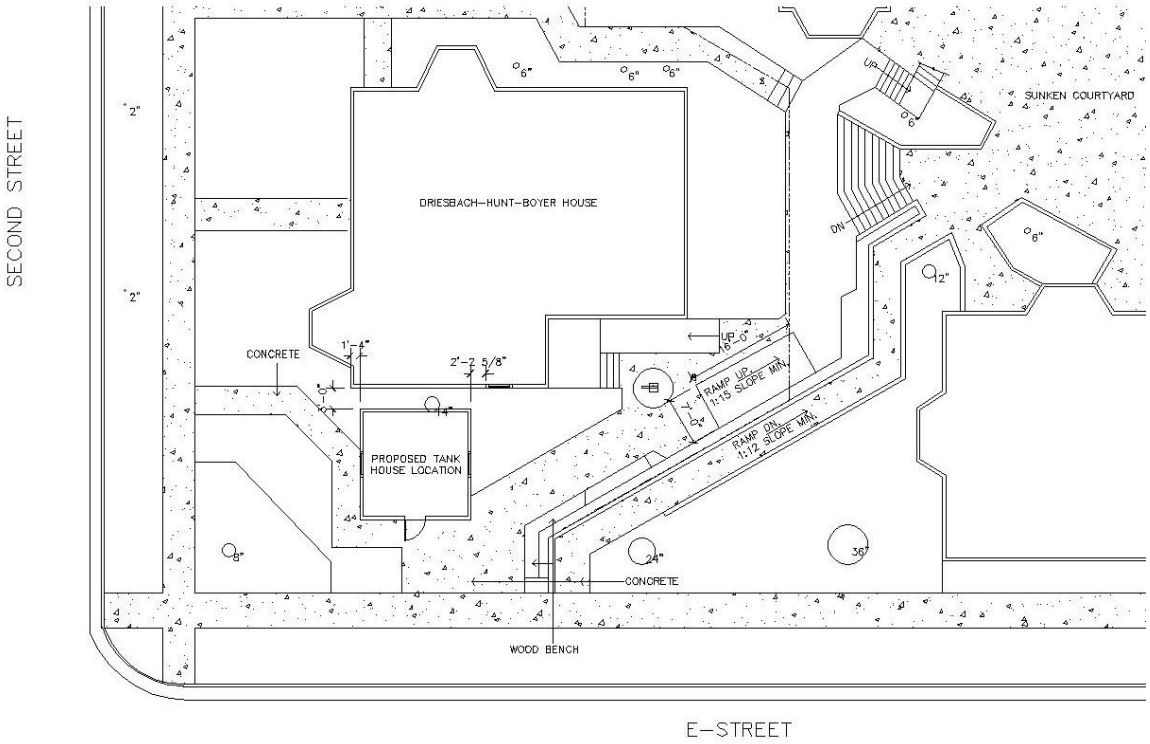
2. Move the Tank house to the north side of the DHBM site. This option would locate the Tank house in the front yard.

3. Move the Tank house to the south side of the DHBM site. This option would locate the tank house in the back yard towards Mansion Square.

4. Reconstruct the Tank house to the East of the DHBM site. This option includes both the existing location and moving it within the east part of the site.

Considering these locations in detail, we found the following:

1. Moving the Tank house to the west side of the DHBM site appears to be feasible, with the following issues:



There is an existing landscaped setback of approximately 29' to the back of the sidewalk, providing enough room for the required footprint.

- The west façade of the Mansion has a large unfenestrated wall of approximately 18 feet. Locating the tank house adjacent to this blank wall would not block any salient architectural features, nor block views from the windows.

- There is a substantial old Myrtle growing at the base of the west wall that has two strikingly beautiful trunks. This Myrtle was likely planted as a shrub with the initial landscaping. It currently obscures visibility of a large portion of the west façade and would need to be removed to accommodate the tank house.

Myrtle at West Facade

- The west side is the primary diagonal pedestrian access to Mansion Square, the business development behind the DHBM. Any installation of the tank house would have some impact on the views and access towards the businesses within this complex.

View to Mansion Square

Park bench. Recommend move back to rear bench, redesign with non-deteriorating materials.

- Part of the existing planting area behind the bench at the street should be removed (the planting bed is not being used now) and the bench moved back in order to increase access to Mansion Square businesses.

- There are sprinkler controllers and valve boxes located on the west wall, although we believe the tank house can be located so as to retain most of these. Irrigation piping would need to be relocated, and a recently installed fiber optic line would need to be relocated or built under a new foundation for the tank house. There is nothing critical about these utilities. Water and sewer pass by the site, but can be avoided.

- The bulk of the tank house would be readily apparent from the street, although its bulk would be somewhat hidden among the remaining trees.

We recommend that this site be considered as a feasible location.

2. Moving the Tank house to the north side of the DHBM site would place the tank house in the front yard of the Mansion.

- Although part of the historical fabric of the complex, the tank house lacks the detail and significance of the Mansion and the front yard would be an entirely inappropriate location.

- The front yard is approximately 22 feet deep at the porch/entry side, and 17' deep at the bow window. The tank house, located at the bow window side, hardly has room before touching the sidewalk and would block the views of and from the bow window. Located farther east the tank house would block the ornate front porch.

We do not recommend this location as we feel it is an entirely inappropriate location for the tank house.

3. Moving the Tank house to the south side of the DHBM site would not fit.

- The adjusted property line configured at the time of the Mansion Square development left a property setback of approximately 15', smaller than the 16' footprint of the tank house.

- The south yard of the Mansion currently houses pad-mounted air conditioning condenser units and electrical meters and panels.

- Readjustment of the property line, if possible after negotiations with Mansion Square, would trigger code setback and fireproofing issues that would be extremely expensive.

We do not recommend this location as we feel the tank house does not fit and any adjustment of the property line would be expensive and incur significant additional costs.

4. Reconstruct the Tank house to the East of the DHBM site.

This option includes both the existing location and moving it within the east part of the site.

- A restored/reconstructed tank house obviously would fit in its present location.

- The tank house could be moved forward, but this would require removal of some of the orange grove.

- One primary reason for this study is that the City has solicited and received proposals for other development of this site. Locating the tank house on this side would most likely preclude this development.

We have no opinion as to if the city should develop this site for other uses or move the tank house.

E. CODE ISSUES

One code issue considered was for the fire protection of the Tank house and it's relation to the Mansion House. The California Building Code allows no openings in walls between buildings if they are less than 5' apart, and any openings facing each other need to be protected if they are less than 10' apart.[3] Walls between buildings require a fire separation rating. However, discussion with the City Building Official noted that the code also considers that the total square footage of two buildings, if less than the total allowable code area for one, can be considered as one building. If the Tank house were to be considered a part of the Mansion house, special protection between the two buildings would not be required as the total area is less than the code limits.

F. WEST SIDE PLAN DEVELOPMENT

We considered options for locating the Tank house on the west side.

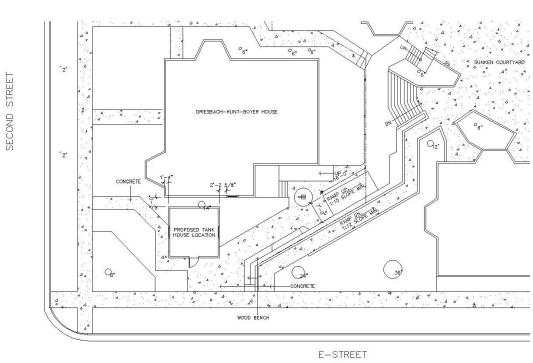
- First, we set the footprint back 1'-4" from the front corner to still feature the quoins on the Mansion corner, meanwhile keeping it as far as possible back from the window down the wall.

- We set the footprint back from the existing Mansion House wall by 3' in order to be able to maintain the space between the two buildings, yet keep it as tight as possible to reduce the intrusion onto the sidewalk to the west. This will allow existing irrigation controllers and valve boxes to remain.

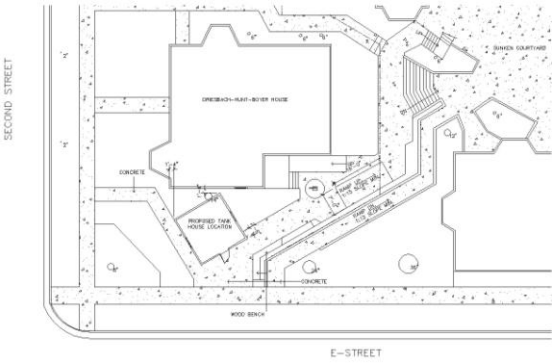
[3] 2001 California Building Code, Table 5-A

- We considered placing the building square to the Mansion house, and then skewing the tank house to the angle of the walk leading back to the Mansion Square. Neither option allowed for retaining the existing Myrtle tree which we tried hard to retain.

Locating the tank house square to the Mansion House results in the corner protruding some 3 feet into the existing Mansion Square sidewalk, blocking it somewhat. We recommend the existing bench be redesigned to eliminate the unused flower bed behind and make a larger pedestrian entry to Mansion Square. Placing the building square to the original Mansion House is probably more in keeping with the historical layout context of the time.



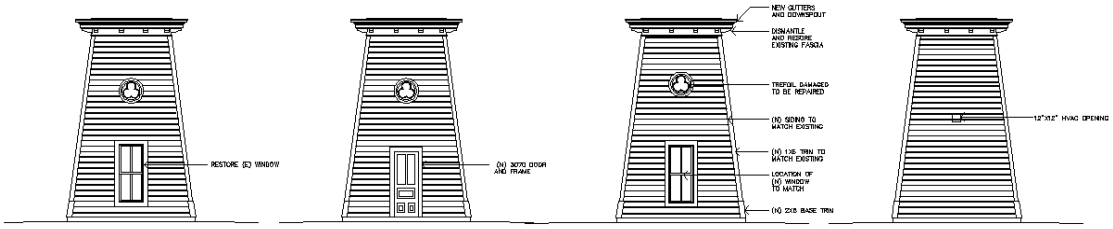
Tank House located square



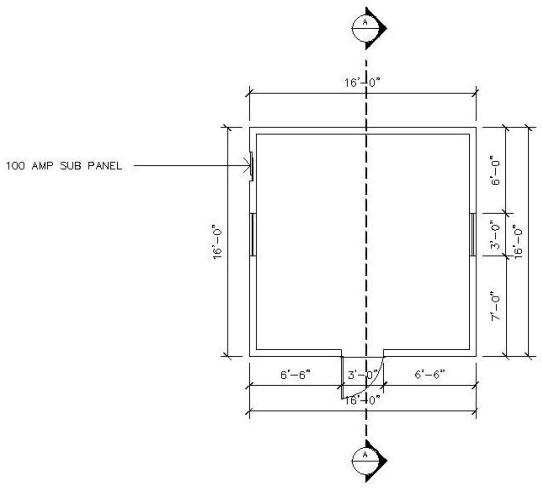
Tank House skewed

Skewing the tank house to the angle of the Mansion Square walk and shifting it a foot closer at the closest point to the Mansion, the solution actually ends up intruding into the sidewalk approximately 4'. It also blocks the view slightly out of the Mansion window. While at first glance we thought this might offer better view access to Mansion Square, after developing the plan it is apparent it does not. We also hoped it might help retain part if not all of the Myrtle tree, but that was not possible.

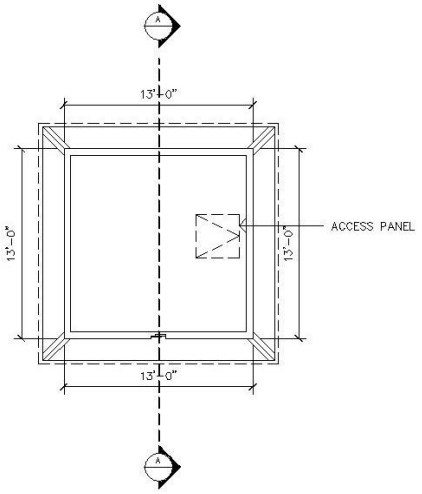
We recommend squaring the tank house to the Mansion.



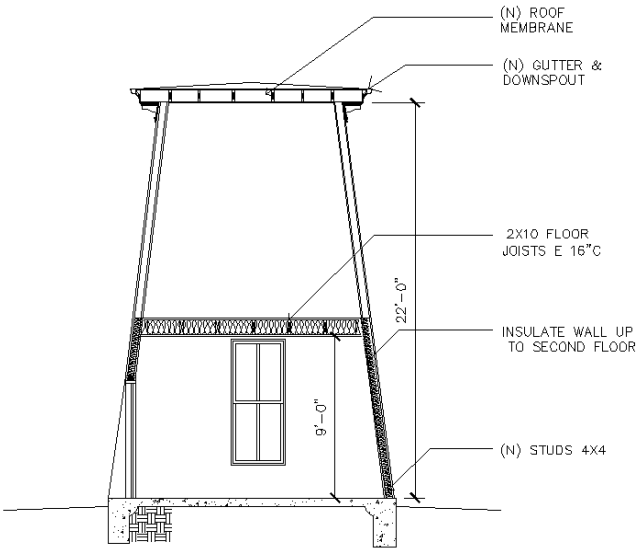
North West South East



First Floor Plan



Second/Attic Floor Plan



Section

Proposed view of Tank House from corner of 2nd and B Streets.

G. RECONSTRUCTION OR RESTORATION

We then considered how to move the building from its present site to the new location.

If the building were to be picked up and moved forward out into 2nd Street, then around to the new location, at least some of the old orange grove trees would need to be cut down. In addition, the large citrus tree on the corner of 2nd and E would need to be significantly trimmed if not removed to obtain access. This all assumes the existing structure would remain intact during the moving process when it got to the corner tree. We strongly question if it could make the trip in its present condition without extensive reinforcement.

Another option is to dismantle the tank house, salvaging the fascia, trefoils, door frame and possibly the window, and reconstruct the tank house, restoring salvaged materials and features. This certainly would be an easier way to move the building to a new location.

H. RECONSTRUCTION

From the Secretary's Guidelines, the following definitions apply to this project.

> **Reconstruction** is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.
>
> **Restoration** is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.[4]

While the tank house appears to need reconstruction, from the Guidelines for Restoration, the Secretary's Guidelines say:

> ### Replace Extensively Deteriorated Features from the Restoration Period
>
> In **Restoration**, ***replacing*** an entire feature from the restoration period (i.e., a cornice, balustrade, column, or stairway) that is too deteriorated to repair may be appropriate. Together with documentary evidence, the form and detailing of the historic feature should be used as a model for the replacement. Using the same kind of material is preferred; however, compatible substitute material may be considered. All new work should be unobtrusively dated to guide future research and treatment. If documentary and physical evidence are not available to provide an accurate re-creation of missing features, the treatment Rehabilitation might be a better overall approach to project work.

[4] The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for preserving, rehabilitating, restoring and reconstructing historic buildings.

Beginning with the tank house structure, the unique technique used was the one-piece 4X4 studs extending from the foundation to the roof. Any restoration would require that at the very least, these members be spliced, as at least half of them have rotted away. We recommend that they be replaced in their entirety to maintain the historical context of the original construction technique. It is our opinion that splicing would be a larger variation than complete replacement in context.

The siding is normal redwood boards, easily found today just as they were in the 1870's. The board profile can be easily replicated.

There is no existing provision for shear, and there has been obvious shear failure with the severe list. We recommend that a plywood shear panel be installed between the studs and the siding boards. The structural engineer[5] indicates that a second floor or ceiling should be installed mid-height to provide structural integrity.

The window could possibly be restored, but the door is not original nor in context and needs to be replaced. The frame appears to be restorable. The upper floor windows and door, a later addition, should be removed and not reinstalled.

Looking at the need for almost total structural and skin replacement, it is our recommendation that the tank house be dismantled and reconstructed, salvaging those elements that can be saved such as the fascia, trefoils, door frame and possibly the window.

While the outlined construction program appears to be Reconstruction, study of the Secretary's guidelines for Restoration does allow for the complete replacement of entire features that are too deteriorated to repair.

[5] Discussion with William Bevier, SE., Bevier Structural Engineers, Inc, 2479 Sunrise Blvd. Rancho Cordova, CA 95670

I. CONSIDERATIONS FOR FUTURE USE

The Tank house has had some use other than storage over its life.

1. In the '70's, an office was added to the second floor volume and an exterior stairway was installed to provide access. We do not recommend that this space be improved again for "occupancy" due to visual and waterproofing issues associated with providing the exterior stairway access. In addition, a 225 SF useable ground floor plate (or the lesser 144 SF useable second floor) is really not large enough to serve anything more than a minimal function. We do believe that a pull-down stair providing interior access to a second floor for storage and access to HVAC equipment should be provided. See Second Floor Plan above.

2. Currently the Tank House has a single door and one window on the ground floor. The addition of a new window on the opposite façade elevation from the existing window would significantly improve the light and ventilation within the structure. If added, we recommend that the new window match the existing window and trim in size and materials.

3. To improve the viability of either a public or private reuse, we suggest that agreements be made to use the adjacent toilet facilities in the Mansion. This would allow for maximum use of the limited floor space in the Tank House and reduce infrastructure needs for the building.

J. RECONSTRUCTION CONSIDERATIONS

- Foundation and Floor: The building will need a new foundation if moved, and with its height to width configuration, wind will probably be an overriding consideration, requiring a heavier and deeper foundation than would be normally needed to support solely the building weight. The floor should be a simple slab-on-grade. The existing concrete foundation is not the original, so we have no issues with building a foundation and floor to modern codes.

- Walls: The walls need completely new studs, and we recommend using new 4X4's @ 24" OC to match the historical context. We also recommend that structural sheathing be applied between the studs and the siding to accommodate shear. Evidence of the extreme list indicates that the lap siding alone cannot provide the shear resistance needed.

- Wall Height: We understand that when the building was moved in the '70's that some 18 inches of height was removed. Measuring the building, it appear that the studs were probably 22 feet, a common dimension, and by replacing them with

new 22 foot long studs, the building would be increased in height by about 1'-4" from today's height. We recommend returning to the 22 foot studs.

- Siding and Trim: In as much as 75% of the existing redwood siding needs replacement because the boards have been cut, bored, punched and rotted, and those in good condition will have nail holes when recycled, we recommend they all be replaced to match the existing profile and species. The trim is simple 1X6 or 1X8 redwood boards and should be replaced. It appears from old drawings that a thicker and wider base trim, probably 2X8, was used on the original building. We recommend replicating this.

- Roof: The roof is a "warped" structure, although the fascia appears to be square. Warping is needed to drain the water off, and the new roof should be reconstructed with some similar type of warp. We recommend that during demolition, the historic methods for warping be determined and matched. The roof historically was probably a Built-Up-Roof, made of felts and asphalt. These roofs today do not last well in the Sacramento Valley for several reasons: the quality asbestos felts that were used and gave along life are no longer available, and the quality of asphalt has been drastically lowered because of air quality regulations. As a result, we recommend a single-ply roof membrane be used, even though it is not "historic". The membrane would be hidden from view from the street level, so this change should not impact the historical context significantly. The Secretary's guidelines appear to allow for this if the new material can be similar in color, texture, etc. We believe this can be done using modern high performing materials.

- Window(s): The historic wood double hung casement window can probably be restored, or matched if it has deteriorated beyond repair. A second window can easily be matched in kind from readily available matching products in today's market.

- Door: The historic frame should be repaired or matched in profile and material (Douglas Fir). The current door is a metal one that has been installed at a later date and has no merit. A new wood stile and rail door of the period should be installed with a glazed lite to let more light into the building.

- Inside Finishes: We recommend that an attic floor be installed similar to the later installed second floor, both to provide structural strengthening and to provide a ceiling over a useable first floor. We suggest an attic access panel or drop stairway to provide access from the inside, but not to the extent that the space becomes useable. Walls and ceiling should be insulated and finished with drywall and painted.

- Mechanical: The historic building has been severely compromised by randomly penetrating the walls with unit air conditioners. To date no provision seems to have been made for plumbing. We recommend a new HVAC unit be installed,

possibly in the second floor/attic, and properly flashed. If minimal plumbing is to be installed, such as a small sink, we recommend it be plumbed now so that crude exterior penetrations will not be needed in the future.

- Electrical: The historic building has been severely compromised by the outside installation of panels, conduits, light fixtures, etc. We recommend that the Tank house be tied to the existing service of the Mansion, with a new sub-panel located inside to serve the small space. Connection should be made to the present panel serving the existing tank house. Exterior lighting needs to be integrated, using period fixtures that can also provide modern lighting security. Additional provisions for security, such as alarms, cameras, etc., should be integrated at this time.

K. COST OF RECONSTRUCTION

Harrison Construction, Davis, CA, has made the enclosed estimate of Cost of Construction.[6] Included is the cost of dismantling the existing building, salvaging the fascia, trefoils, door frames, windows, etc., and removing the foundation, leaving the existing site graded and bare. They have included rebuilding the tank house, complete with foundation, floor, walls, second floor/attic, roof, interior finishes, and incorporating the salvaged and restored materials. They will include bringing in electrical service from the Mansion and stubbing in H&C water supply, DWV piping for a sink, wiring and power for lights on the interior and exterior, and a security system.

The cost of Construction is estimated as $160,000, including fees, permits, materials, labor and contractor's markups. Additional funds must be provided for inflation beyond today, depending upon the time it takes to obtain approval and to proceed to construction.

We recommend a factor of 10 percent per year be applied for construction inflation. While normally a 5% would be more common, over the past 2 years the higher 10% has been the case. We recommend the more conservative and higher figure.

[6] See Cost Estimate, Appendix by Harrison Construction, Inc., 2940 Spafford Street, Ste. 100 Davis, CA 95616-6800.

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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.

RESTORATION GUIDELINES

Replace Extensively Deteriorated Features from the Restoration Period

In Restoration, *replacing* an entire feature from the restoration period (i.e., a cornice, balustrade, column, or stairway) that is too deteriorated to repair may be appropriate. Together with documentary evidence, the form and detailing of the historic feature should be used as a model for the replacement. Using the same kind of material is preferred; however, compatible substitute material may be considered. All new work should be unobtrusively dated to guide future research and treatment. If documentary and physical evidence are not available to provide an accurate re-creation of missing features, the treatment Rehabilitation might be a better overall approach to project work.

Re-Create Missing Features from the Restoration Period

Most Restoration projects involve re-creating features that were significant to the building at a particular time, but are now missing. Examples could include a stone balustrade, a porch, or cast iron storefront. Each missing feature should be substantiated by documentary and physical evidence. Without sufficient documentation for these "re-creations," an accurate depiction cannot be achieved. Combining features that never existed together historically can also create a false sense of history. Using traditional materials to depict lost features is always the preferred approach; however, using compatible substitute material is an acceptable alternative in Restoration because, as emphasized, the goal of this treatment is to replicate the "appearance" of the historic building at a particular time, not to retain and preserve all historic materials as they have evolved over time. If documentary and physical evidence are not available to provide an accurate re-creation of missing features, the treatment Rehabilitation might be a better overall approach to project work.

Standards

1. A property will be used as it was historically or be given a new use which reflects the property's restoration period.

2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.

3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

6. Deteriorated features from the restoration period 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.

7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

8. 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.

9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

10. Designs that were never executed historically will not be constructed.