City of
FRESNO

Capital Projects Department

MEMORANDUM

DATE: January 25, 2024

TO: GEORGEANNE A. WHITE, City Manager

FROM: RANDALL W. MORRISON, PE, Director
Capital Projects Department

AARON A. AGUIRRE, Director
Parks, After School, Recreation, and Community Services Department

SUBJECT: UNIQUE QUALIFICATIONS OF BROOKS RANSOM ASSOCIATES TO PROVIDE DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR ROESSLER WINERY BUILDING PROJECT

Fresno Municipal Code Section 4-107(h) states the City of Fresno (City) shall follow an objective process in the selection of consultants "unless the City Manager determines in writing that emergency or exigent circumstances exist, or the consultant is uniquely qualified." The City is recommending approval of a Consultant Agreement with Brooks Ransom Associates to provide professional architectural and engineering services for the structural preservation of the Roessler Winery Building Project. The proposed Consultant Agreement is for an amount not to exceed $67,500 with a $15,000 contingency.

This memo documents the findings that Brooks Ransom Associates is uniquely qualified to perform these services.

The City of Fresno Parks, After School, Recreation and Community Services Department (PARCS) proposes to structurally reinforce and weatherize the Roessler Winery Building located at 1944 North Winery Avenue for the purposes of preservation.

Brooks Ransom Associates is a structural design firm that is professionally and legally capable of performing the services under this contract. The scope of the proposed services under this contract generally include:

- Structurally reinforce the archway openings on the east and west ends of the building.
- Provide soil report to assist with the final design of the restoration.
- Design steel brace frame system, including steel columns and beams, to provide a full structural retrofit to the building.

In November, 2023, Capital Projects Department (CPD) and PARCS selected Brooks Ransom Associates through the Uniquely Qualified Process (UQM) to assess the existing conditions of the building and provide structural assessment and retrofit recommendations. The report drafted by Brooks Ransom Associates, highlighting the recommended procedures to preserve the historic nature of the building, has been approved by the Historic Preservation Commission (HPC).

Throughout this process, Brooks Ransom Associates gained in-depth knowledge of the project and the existing site challenges that must be considered for design. Attached is a report of the structural assessment of the building. As such, Brooks Ransom Associates experience is a valuable asset to the City and uniquely qualifies the firm to continue the design work on the proposed project.

For all the reasons above, I find that Brooks Ransom Associates is uniquely qualified to perform the design work required.

✓ Approved ___Denied

Georgeanne White, City Manager

Attachment:
Structural Assessment Report

BrooksRansom ASSOCIATES

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October 26, 2023 Project No 23067

Harlav Brar, PE
Utilities and On-Site Project Management
Capital Projects Department

Subject: Roessler Winery Structural Report

Pursuant to the request of Harlav Brar of the City of Fresno we have performed a field investigation and facilitated adobe brick testing on the structure in question for the above referenced project. This report summarizes our investigation and our interpretation of the adobe brick testing.

Background

Brooks Ransom was retained to provide document searches, site investigation, and consult with the design team. On October 4 of 2023 and October 12 of 2023 Brooks Ransom performed site investigations on the Roessler Winery Building located at 1902 N. Winery Ave, Fresno, CA 93703. The adobe brick testing is forthcoming as this is a draft report to be reviewed by the City of Fresno.

General Building Discussion

The construction of the structure at the 1902 N. Winery is as follows: All four walls of the structure are unreinforced adobe brick **(See Photo No. 1)**. The walls terminate at an approximate elevation of 14'-10" above finish floor and transition to a 1x8 finish to the roof elevation. The floor framing consists of 8x8 beams supported by 8x8 posts. In some instances, the beams appear to be 8x12 still supported by 8x8 posts. The floor framing consists of 2x12 joists at 16"o.c spacing **(See Photo No. 3 and Exhibit No. 1).** In some bays of the structure the floor framing switches to 32"o.c. spacing, but these areas would need to be infilled to have a consistent floor framing system at 16"o.c. The floor sheathing itself appears to be 1x8 straight sheathing. The roof framing is field built trusses at 48"o.c. consisting of 2x6 top chords, 2x4 bottom chords and 1x8 web members **(See Photo No. 2 and Exhibit No. 2)**. There is a post and beam system helping to support the roof trusses at both the north and south lines of the

MEMBER:
STRUCTURAL ENGINEERS ASSOCIATION
AMERICAN COUNCIL OF ENGINEERING COMPANIES
AMERICAN SOCIETY OF CIVIL ENGINEERS
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INTERNATIONAL CODE COUNCIL

building. The roof appears to be unsheathed from a structural standpoint and has a corrugated metal roof running over the trusses. Foundations at this time are unknown, but are assumed to be built of rubble material similar to the adobe bricks used for the walls.

Severe cracks and deflection appear on the east and west ends of the building at the archways **(See Photo No. 5)**. Both archways are primarily adobe brick with some red brick infill. Based on the appearance of the archways it is our professional opinion to structurally reinforce the openings. Our recommendation is to design and install steel lintels that will only be visible from the interior of the building. The lintels can be installed with post-installed anchors into the adobe brick. Most likely the reinforcing will need to be on both the lintel and the jambs, encompassing three sides of the opening. Alternative solutions would involve completely rebuilding the lintels with masonry or concrete, but those solutions would involve the removal of the existing adobe bricks.

On the north and south sides of the building, settlement occurs at the foundation level **(See Photo. No. 4)**. No measures have been taken to mitigate the settlement. A soils engineer should be retained to perform a site investigation and provide a soils report to be utilized in the final design of the rehabilitation. The existing rubble foundations do not provide structural capacities to bridge the settlement issues. See the structural retrofit recommendations for more information on new foundations that will undermine the existing rubble foundations to stabilize the structure.

Based on site investigation and pending adobe brick testing, it is our professional opinion that occupancy of this building shall require a full structural retrofit. See the next section for retrofit recommendations and preservation of the historic nature of the structure. A structural engineer should be retained to provide further analysis.

Structural Retrofit Recommendations

The existing main structural system relies on the adobe brick to take both lateral and gravity loads down to the rubble foundation. Because of the brittle nature of the adobe brick and the historical aspect of the building three different retrofit systems are recommended. All of the systems would occur on the inside of the building to preserve the adobe brick look from the outside of the structure.

The first system involves installing wood shearwalls as the main lateral force resisting system. Wood post and beams would be used to stabilize the gravity system.

The second system involves installing a shotcrete shearwall system as the main lateral force resisting system. Either wood or steel post and beams would be used to stabilize the gravity system.

The third system involves installing a steel brace frame system as the main lateral force resisting system. Steel columns and beams would be used to stabilize the gravity system. **(See Exhibit No. 4)**

Based on site investigation and conversations with the City of Fresno it is our professional opinion that a steel brace frame, steel columns, and steel beams would be the best system for this type of structure. Plywood floor sheathing will need to be installed to provide a structural diaphragm for the new lateral force resisting system. Rod-bracing can be utilized at the roof level to act as a structural diaphragm, but still allowing the existing sheet metal roof to be seen from the underside. New foundations would be recommended to stabilize the existing walls. Based on limited information, the existing foundations would need to be undermined by the new foundations.

The steel brace frame system is the only recommended system that would allow the adobe brick to be seen from the inside. Because of the historical nature of the building, this system would allow the ability to preserve the adobe brick from the outside, but also admire the bricks from the inside. A structural engineer should be retained to provide further analysis.

Structural Retrofit Probable Cost

The probable cost of retrofitting a historic structure such as the Roessler Winery building is extremely difficult to estimate. Until the final design is completed, the estimate may have a large range depending on the amount of work needed to make the building compliant to the current code. A cost per square foot estimate is typically used in this scenario. Upon consulting estimators in the industry a cost of $200 per square foot shall be used for the structural retrofit. The building is approximately 5,000 square feet. Therefore, the probable cost of retrofit would be $1,000,000.

Photograph No. 1
View from the street

Photograph No. 2

Field built trusses

Photograph No. 3

Floor framing

Photograph No. 4

Adobe walls covered by plaster

Photograph No. 5

Adobe and brick archway presenting cracks and deflection

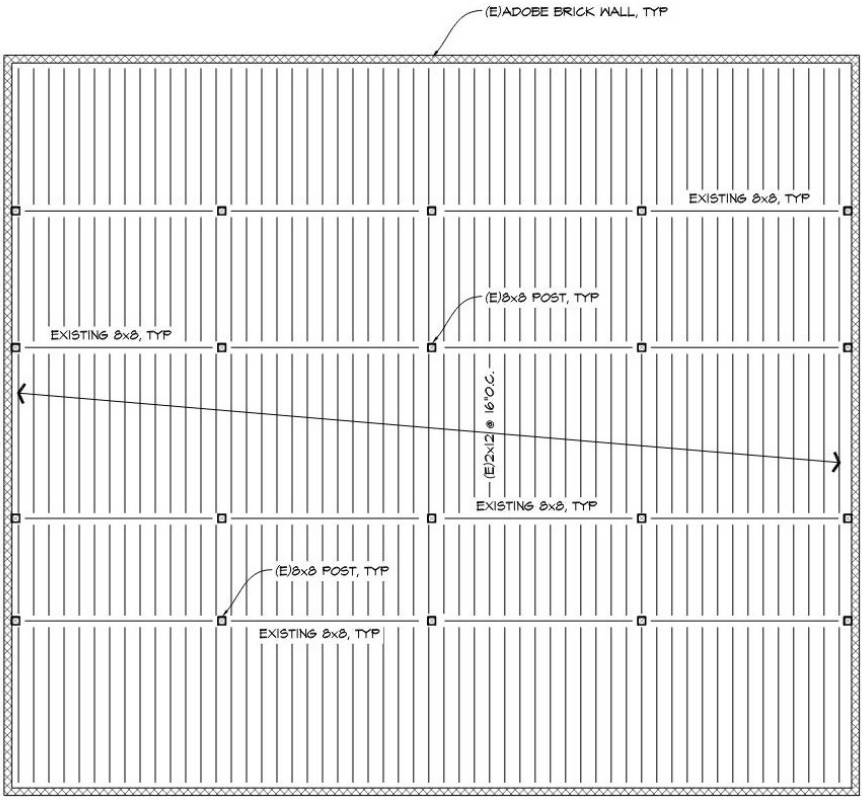

Exhibit No. 1

Floor framing system

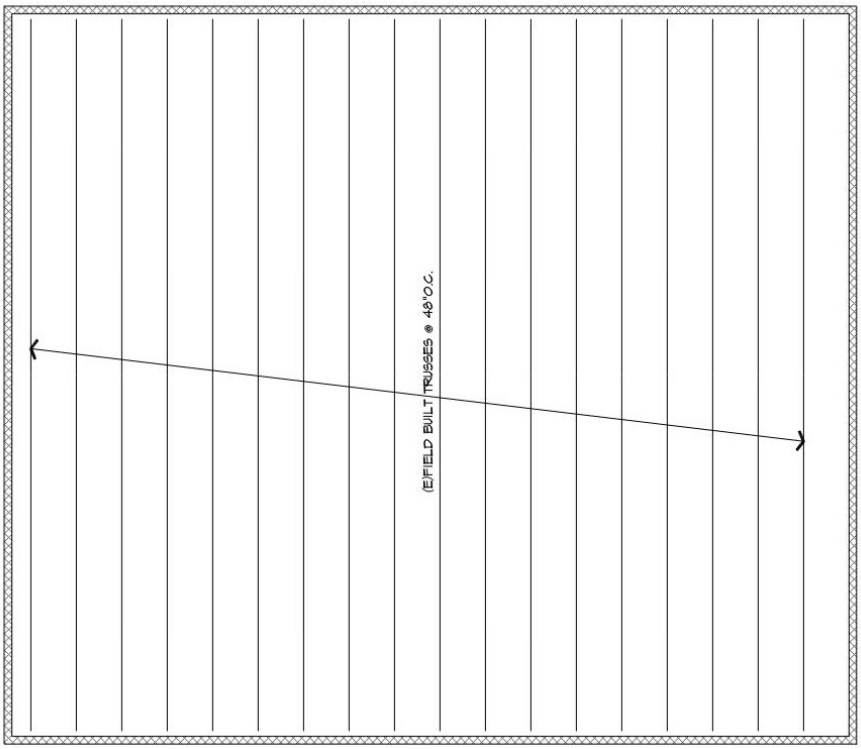

Exhibit No. 2

Roof framing system

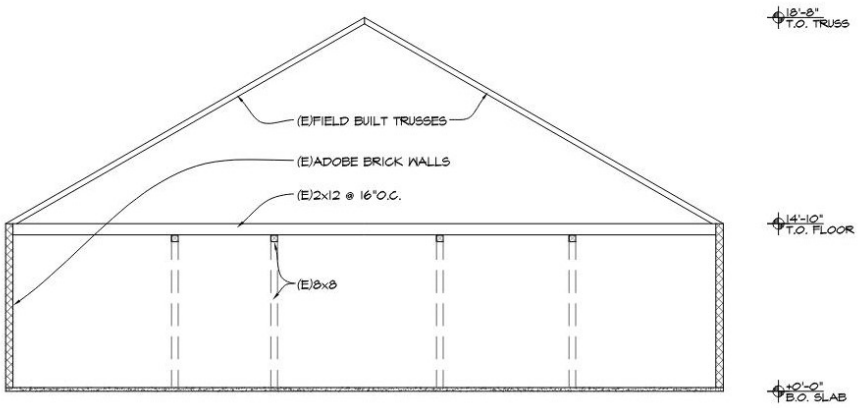

Exhibit No. 3

Section through building

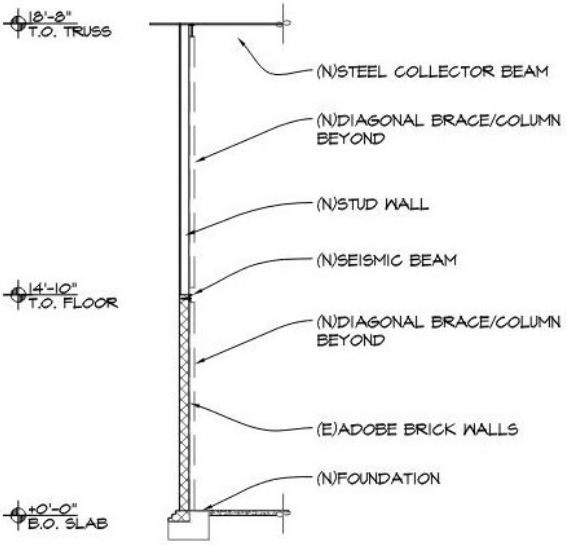

Exhibit No. 4

Wall section with proposed structural system

Respectfully Submitted,
Scott Carter
Principal/CEO