



*City of Arts & Innovation*

# Metropolitan Museum Board

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**TO: HONORABLE BOARD MEMBERS** **DATE: JULY 12, 2017**

**FROM: MUSEUM & CULTURAL AFFAIRS DEPARTMENT**

**SUBJECT: SCOPE OF SERVICES FOR NATIONAL HISTORIC LANDMARK HARADA HOUSE STRUCTURAL ENGINEERING ASSESSMENT**

**ISSUE:**

Receive and file the scope of services for National Historic Landmark Harada House structural engineering assessment.

**RECOMMENDATION:**

That the Board receive and file the scope of services for the National Historic Landmark Harada House Structural engineering assessment.

**BACKGROUND:**

The reaccreditation decision letter dated November 1, 2016 from the American Alliance of Museums (AAM), notified the Riverside Metropolitan Museum (Museum) that the Museum's reaccreditation was tabled, "so that the museum can address, through planning, some serious deficiencies in collections stewardship".

One of these areas of deficiency was the condition of the National Historic Landmark Harada House. Per AAM's reaccreditation decision letter, "By the end of the tabling period, we need to see measurable plans and evidence of concrete steps taken to address the urgent need to stabilize, then conserve, then open the Harada House."

**DISCUSSION:**

The first step in stabilizing the Harada House is to perform a comprehensive structural engineering assessment to understand what is happening with the Harada House as a complete structure. Previous structural work and assessment focused solely on the foundation, yet there are other structural issues with the Harada House must be explored in order to understand and develop comprehensive plans to stabilize the Harada House.

The Structural Engineering Assessment Scope of Services (Attached) is the plan for the structural engineering assessment of the Harada House. This plan involves hiring a contractor to perform selective dismantling of the Harada House to understand how the structure was constructed initially, the current condition of the structure, and what needs to be done to stabilize the structure.

The findings from the structural engineering assessment will support the development of the overall plan for the Harada House.

The steps for the engineering assessment and estimated durations are as follows:

<b>Step 1 April 2017</b>	<b>Step 2 May-July 2017</b>	<b>Step 3* Aug-Feb 2018</b>	<b>Step 4 Mar-April 2018</b>	<b>Step 5 2018</b>
Initial meeting with structural engineer, preservation architect, conservator, City Historic Preservation Officer, General Services Staff, Museum Staff, and Assistant City Manager to establish next steps for Harada House project.	Structural Engineer develops plan for selective dismantling to be performed by contractor to reveal structural conditions of Harada House	Contractor performs selective dismantling to reveal structural conditions of Harada House, based on plan developed by Structural Engineer in Step 2.	Based on findings from Step 3, Structural Engineer writes report of findings and recommendation for immediate, short-term (1-2 years) and permanent structural stabilization work and presents report to City.	Findings and recommendations will inform the capital campaign for the structural stabilization work.

\*Durations include time to comply with municipal contracting requirements.

**FISCAL IMPACT:**

The Structural Engineering assessment by the structural engineer will cost \$37,600 and will be funded by the Museum’s Harada House budget and Harada House donations. The costs for the contractor to perform the selective dismantling and reassembly of the dismantling will be determined after the conclusion of step 2.

Prepared by: Alexander T. Nguyen, Assistant City Manager/Acting Museum Director

Attachment: NHL Harada House Structural Engineering Assessment Scope of Services



May 19, 2017

Chris Sauve, Project Coordinator  
General Services Department  
Building Services Division  
City of Riverside  
8095 Lincoln Avenue  
Riverside, CA 92504

Reference: **PROPOSAL FOR STRUCTURAL ENGINEERING SERVICES  
STRUCTURAL RE-ASSESSMENT OF THE HARADA HOUSE  
3356 LEMON STREET  
RIVERSIDE, CALIFORNIA 92501  
[S.F. PROJECT #17126]**

Dear Chris:

We are very pleased to present this proposal to provide structural consulting services related to an overall structural assessment of the Harada House at 3356 Lemon St. in Riverside, CA. This proposal is based on our experience with previous phases of evaluation and design on the house, our meeting at the Riverside City Hall with City of Riverside personnel and project team members on April 27, 2017 and our discussions with you regarding the scope of work for the project. For this proposal, we have made assumptions based on the available information and believe that we have provided a proposal that is appropriate for the project as envisioned.

We understand a major shift in the direction of the project is underway. Several years of minimal activity has led to several occasions where temporary measures were implemented to address obvious building deficiencies. While these temporary measures have prolonged the life of the Harada House, it is clear a revised approach is needed to finally undertake a full renovation of the Harada House.

Based on our meetings and discussions, we envision the following tasks will be required on the project:

- Overall Building Re-assessment – As we have discussed, everyone on the team agrees it is time to step back and take a fresh look at the existing structure of the Harada House. This will involve re-assessing the structural deficiencies that need to be addressed. Some selective exploratory dismantling of the exterior siding of the house will be required to fully understand the condition of the structure. At this time, we anticipate the siding will be dismantled on the south elevation, the north elevation, the east elevation and the west elevation. As we have discussed on multiple occasions, extreme caution must be taken to protect the inscription on the wall of the 2<sup>nd</sup> Floor southwest bedroom.
- Site Visits/Meetings – We have assumed a total of eight (8) site visits/meetings will be required on the project. Our first site visit will likely be a day long visit for the initial re-assessment effort. Subsequent site visits will involve observing the portions of the south, north, east and

west wall that are exposed through exploratory dismantling of the exterior siding. We have assumed our site visits will average 5 hours of time spent including travel time from our Gardena, CA office.

- Temporary Immediate Repairs – Based on our experience with historic structures, we anticipate there will be some surprises as we investigate the existing condition of the house. It is possible these hidden conditions will require immediate resolution. We anticipate this might include temporary shoring, repairs that are deemed to be critical in nature, sketches and/or drawings associated with the repairs, and engineering calculations supporting the recommended repairs. We will provide our services for our engineering services related to hidden conditions on an hourly, not-to-exceed basis.
- Final Report – We will assemble a final report that will contain our findings, conclusions, and recommendations for moving forward with the renovation of the Harada House. The report will prioritize the recommendations into three categories: 1) Immediate, 2) Short Term, and 3) Permanent. More information on the final report can be found below.

### **Scope of Structural Engineering Services**

Based on the above description of the project, we envision the following scope of services.

#### Overall Building Re-assessment:

- Visit the site to observe the existing condition of the building. This site visit will likely be a day long visit for the initial re-assessment effort. It will involve a thorough observation of the existing basement, ground floor, second floor, and attic space. Any previously noted deficiencies will be confirmed, and any new deficiencies will be noted.
- Prepare a step by step dismantling plan for removing the siding on the exterior in areas where exploratory removal is required to expose the condition of the existing structure. Careful consideration will be given to protecting the Inscription Wall on the 2<sup>nd</sup> Floor southwest bedroom. The dismantling plan will include phasing to outline the sequence that needs to be followed when removing the siding. We anticipate the dismantling plan sequencing will work hand in hand with the reconstruction plan sequencing (see next item) to assure the house remains stable throughout the exploratory dismantling. The dismantling plan drawings will be suitable for bidding and permitting (if required).
- Prepare a step by step reconstruction plan for stabilizing the building after the removal of the siding. Careful consideration will be given to protecting the Inscription Wall on the 2<sup>nd</sup> Floor southwest bedroom. The reconstruction plan will include phasing to outline the sequence that needs to be followed when restoring the house to a suitable temporary condition. We anticipate the reconstruction plan sequencing will work hand in hand with the dismantling plan sequencing to assure the house remains stable throughout the exploratory dismantling. As we have discussed, we anticipate this will involve adding plywood sheathing to the building exterior with a final finish to be agreed upon during the design process. While we cannot specify waterproofing, we will provide a note that waterproofing of the exterior wall needs to be addressed. The reconstruction plan drawings will be suitable for bidding and permitting (if required).

- Site visits for observation of the exposed wall and floor condition after removal of the siding. We have anticipated up to seven (7) visits will be required.

#### Temporary Immediate Repairs:

- We will provide our services to address any hidden conditions that are exposed and determined to require immediate repair. We anticipate this might include temporary shoring, repairs that are deemed to be critical in nature, sketches and/or drawings associated with the repairs, and engineering calculations supporting the recommended immediate repairs.
- Prepare structural sketches and/or drawings for any immediate repairs that are required. These documents will be suitable for bidding and permitting (if required).
- Because the temporary immediate repairs involve work that is unknown at this time, we cannot anticipate the scope for this work. Therefore, our services will be provided on an hourly, not-to-exceed basis.
- No long-term repairs will be addressed under this scope. Long term repairs will be identified in the final report (see below) and addressed when the final construction drawings are updated as part of the next phase of the project.

#### Final Report:

- We will prepare a final written report documenting our findings, conclusions, and recommendations. The final report will address recommendations for measures that need to be taken to stabilize the Harada House and will be broken into three categories: 1) Immediate Future – This category will include items already addressed as part of the temporary immediate repairs described above as well as items that need to be addressed within 6 months of issuing the report; 2) Short Term Measures – This will include items that need to be addressed in the next 2 years; and 3) Permanent Solution – This final category will include all items that need to be completed for the permanent renovation of the Harada House.
- We anticipate the following items will be specifically addressed in the final report: foundation recommendations, floor and roof framing recommendations, wall framing recommendations, shear wall recommendations, floor and roof diaphragm recommendations, and implications associated with making the house level and plumb versus leaving it at its current elevations (not level and out of plumb).
- Meet with the project team to discuss our findings and develop a strategy for moving forward. This meeting is in addition to the eight (8) site visits described above and will not be considered a site visit in this proposal.

#### **Exclusions**

The following services are not included in this proposal and are excluded from our scope of work:

- Any efforts related to documenting and storing the materials removed through the exploratory dismantling efforts – We are not qualified to provide documentation guidelines and storage recommendations.

- All work related to mitigating hazardous materials on the site – We will add notes to the drawings that indicate where hazardous materials are known to be present based on information provided by you, but we cannot be responsible for documenting the scope for mitigating hazardous materials.
- Waterproofing – We are not qualified to specify waterproofing details for any portions of the Harada House. That scope will need to be addressed by others.
- Updated Harada House Renovation Construction Drawings – Updating our previous drawings dated April 20, 2016, will require completion of this re-assessment scope in order to completely understand the full structural scope for the renovation. We will provide a proposal for updating the Renovation Construction Drawings once the scope covered under this proposal is complete and our findings are developed.
- Any efforts related to extending the monitoring survey that has been part of our previous work on the project – There is one remaining monitoring survey that the surveyor is under contract to perform. All efforts beyond that will need to be provided under a separate contract for additional fees.
- Any services outside of structural engineering other than our own reasonable coordination efforts with the other disciplines.
- Additional meetings or site visits above the number listed above.

### **Compensation**

We propose to provide these services on both a lump sum basis as well as an hourly not-to-exceed basis for the scope items specifically referenced below. A copy of our hourly rates is attached for reference. In addition to our proposed fees, we have also included an allowance for reimbursable expenses including a ten percent markup. The breakdown of proposed fees is as follows:

<b>Scope</b>	<b>Proposed Fees</b>	<b>Reimbursable Allowance</b>
Overall Building Re-assessment	\$19,300	\$1,600
Site Visits (Maximum of 8)	\$9,200	\$800
Temporary Immediate Repairs	\$6,400 Hourly NTE	\$300
<b>Totals</b>	<b>\$28,500 Lump Sum</b> + <b>\$6,400 Hourly NTE</b>	<b>\$2,400</b> + <b>\$300</b>

### **General Conditions**

We propose to provide these services in accordance with our *Structural Engineering Services - General Conditions and Compensation*, a copy of which is attached for your reference. We will invoice each month based on our time spent plus our reimbursable expenses (with 10% markup).

Thank you very much for the opportunity to work with you on this challenging and interesting project. If this proposal is acceptable, please authorize us to begin by returning a signed copy of this letter. Please note that this proposal is valid for 60 days. If you have any questions, please feel free to contact us at your convenience.

Sincerely,  
STRUCTURAL FOCUS



Russell Kehl, S.E.  
Principal



David W. Cocke, S.E.  
President

Reference: **PROPOSAL FOR STRUCTURAL ENGINEERING SERVICES  
STRUCTURAL RE-ASSESSMENT OF THE HARADA HOUSE  
3356 LEMON STREET  
RIVERSIDE, CALIFORNIA 92501  
[S.F. PROJECT #17126]**

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Attachments