



CITY OF SALEM

555 Liberty St SE
Salem, OR 97301

Revisions to the Agenda City Council

Monday, February 6, 2017

6:00 PM

Council Chambers

City Council Work Session- Police Facility

3.a. [17-58](#)

Police Facility

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

Add - Added Appendices L and M which relate to attachment no. 4 of the staff report.

Appendix L. Cost Estimate

Mr. Allen Dannen, P.E.
Engineering Program Manager
City of Salem, Public Works Department
555 Liberty Street SE, Room 325
Salem, OR 97301-3513

Re: City of Salem Civic Center Seismic Evaluation
Structural Seismic Upgrade Cost Budget

Dear Mr. Dannen,

Per our agreement, we are providing a contractor-based construction cost estimate for the structural portion of the work described in our seismic evaluation of the City of Salem City Hall. We have employed the services of Mr. Jim Schiess of Dalke Construction Company to provide this preliminary budget. Dalke Construction was selected due to their familiarity with the prior retrofit proposal for City Hall as well as their established relationship with staff at the City of Salem and the public community. The goal of this cost estimate exercise was to get a representative contractor's view on the approximate cost associated with our proposed conceptual upgrade plan. In no way is this considered to be an actual bid figure based on in-progress construction documents.

Please find attached the budget provided by Dalke Construction on December 15, 2016. We asked Mr. Schiess to provide an overall budget figure for all the structural work presented in our proposed seismic upgrades (Appendix B) and include the waterproofing of the parking structure and Civic Center plaza. It is also important to highlight that their figures do not include the following costs:

- Division 1 General Conditions (~15%)
- General Contractor Profit & Overhead (~20%)
- Design/Estimate Contingency (~20% - 25%)
- Professional Fees (~10%)
- Project Administration Fees (~10%)

In our experience, these expenses will increase the submitted contractor's budget by as much as 70 percent. Therefore, we advise that these budget figures be increased accordingly. We would defer to facility staff to formulate their own multipliers which may be used similarly at their discretion. Therefore, the total budget provided by Dalke Construction of \$7,280,000 could result in an estimated cost of $\$7,280,000 \times (1.7) = \$12,894,500$. A copy of the Dalke Construction submittal letter is attached for reference.

Thank you for your time. Please do not hesitate to contact Doug Meltzer or myself if you have any questions or concerns regarding this budget pertaining to the structural upgrade portion of the work. We expect that these figures will be merged with those prepared by staff for the broader scope of mechanical and electrical upgrades as well as large capital improvement and deferred maintenance aspects.

Best regards,
MSC Engineers, Inc.

Douglas S. Meltzer, S.E.
Principal

dalke construction co.2180 16th St NE Salem OR 97301

CCB# 63080

MSC Engineers
3470 Pipebend Place NE, Ste 120
Salem, OR 97301

12/15/16

RE: Salem Civic Center Repairs.

Attn: John Lee

The following is our budget proposal to complete the requested concrete demolition, structural upgrades, waterproofing and new concrete/asphalt pavings to the Salem Civic Center, this budget is based on two site visits, 23 page schematic drawing dated 11/02/16 by MSC Engineering, 10 page URS drawing/scope of work, Subcontractor budgets and the following clarifications.

This budget is based on the work being able to be completed in phases and the capability to have reasonable access to the work and to use standard construction equipment for the work. We have made considerations for all construction items as it pertains to access, demolition, rebar, structural concrete, steel, epoxy work, waterproofing, miscellaneous structural deck repairs prior to new waterproofing and associated drainage, replacement concrete, A/C paving or pavers and repairs and landscaping at planters. We have not included any allowances or funds to install, repair or relocate any architectural items including plumbing, mechanical and electrical systems. We have figured all work to be Davis-Bacon wages. We have not included a contingency for our work but we look at it as conservative approach to overcome the obstacles that transpire while performing confined construction of this type.

This budget is not to be viewed as a general contractor's budget for the project but as a contractor providing all services to perform divisions 2, 3 and 5 as indicated on the drawings. We have excluded all design, construction management and general contractor work.

Concrete and other demolition: \$ 605,000

Structural Concrete work: \$3,400,000

Waterproofing/drainage: \$2,100,000

Hardscape replacement:
Including Landscaping: \$1,480,000

Total Budget: \$7,585,000

Respectfully Submitted,

James Schiess

dalke construction

ph 503.585.7403 fax 503.585.1978 cell 503.932.2871

Appendix M. Peer Review Salem Central Public Library Evaluation Report

In addition to the seismic evaluation of the City of Salem Civic Center, our office performed a cursory peer review of the evaluation report produced by BergerABAM dated 2/14/2014 for the City of Salem Central Public Library. This review focuses on the information provided by BergerABAM in the evaluation report (Ref. 3.3) as it relates to design code used, seismic parameters, material specifications, structural systems, gravity and lateral load path description, discussion regarding structural and non-structural deficiencies, and proposed upgrades. As described in the BergerABAM report, the analysis of the auditorium and parking structure was performed using hand calculations. The library structure was modeled using the computer software ETABS®. A copy of this model was provided to MSC Engineer, Inc. on 11/30/2016.

Our peer review entailed reviewing the design calculations and briefly reviewing the computer model created by BergerABAM. We were not authorized at this time to recreate or modify the calculations or model submitted. This review is intended to assist the City's representative in the determination of whether or not the proposed upgrades and described structural and non-structural deficiencies as described in the evaluation report have proper justification.

MSC Engineers, Inc. has conducted the peer review of the City of Salem Central Public Library evaluation report provided by BergerABAM (Ref. 3.3). Based on the considerations stated above, it is determined that the analysis was conducted using adequate code references and seismic parameters. The proposed seismic upgrades for the library, auditorium and parking structure correlate with the need to provide additional stiffness and strengthening to the existing structural systems. We recommend that an additional modal response spectrum analysis be performed to the library and auditorium including current code seismic loading levels. The modal analysis will provide a more representative idealization of the response of the structure. We consider once the auditorium is added to the structural model, the overall dynamic response will change. A shift in the center of rigidity will occur at the roof level and therefore inherit torsion will be added to the system. We anticipate that the resultant torsion force can result in a horizontal irregularity increasing the redundancy factor (ρ) from 1.0 to 1.3. Also, we think that the importance factor (I_e) associate with this structure is 1.25.

In addition, the proposed non-structural recommendations and the cost estimate appear to be accurate and appropriate for the scope of work presented in the report. We recommend that an adjustment factor for inflation should be added to the given cost to update the estimate to reflect current market prices.