



January 17, 2008

Erin L. Demers E.I.T.
Department of Public Works
645 Pine Street, Suit A
Burlington, VT 05402

Re: Memorial Auditorium Restoration

Dear Erin,

As per our meeting and discussion regarding the current condition of the exterior masonry of the Memorial Auditorium on Main Street in Burlington, Vermont, we offer the following evaluation of the current conditions and proposal for immediate emergency repairs.

Current conditions at critical areas:

This structure suffers from sever neglect, and several architectural details that are now resulting in large quantities of water damage in the forms of liquid, ice and rust. Water saturation of the masonry has been allowed to make long-term contact with the unprotected structural steel elements imbedded in the masonry walls and pylons, including I-beams and angle iron window lintels resulting in high-pressure expansion and sever masonry failure of the surrounding areas. The results are large portions of the masonry pylons and pre-cast stone cornice detail becoming unstable fall hazards. (See **photo 1**)

Although the pre-cast stone element deterioration is the most obvious from the ground, it is not the most dangerous and life threatening condition overall. The most critical areas

are the main pylons and top level window header areas, and the masonry above these areas including the pre-cast cornice and copping stones at the top of the parapet wall at the roof level. (See photo 2, 3)

Expanding rust of an embedded horizontal I-beam unit (See photo 4) that ties the main roof truss system together at the top has pushed the upper 10' (+/-) masonry $\frac{3}{4}$ inch up from its original position. This has produced a continuous opening that runs the length of the building on both the north and south elevations from pylon #2 to pylon #9 as indicated on the drawings. (See photo 5) In addition to this, each pylon that contains vertical steel I-beam has corroded/rusted from the top down approximately 15 feet through the pylon, resulting in masonry failure in the form of a large vertical fracture through the center of each pylon. (See photo 6)

Additionally, the window lintels at the top floor have severe corrosion damage and are exerting destructive pressure on the window units and have caused the complete masonry failure of the header course over each window and these failed brick units and those above them are an immediate fall hazard. (See photo 7)

At this point in the project, it isn't necessary to look any further into the general condition of the structure, as these areas are, by far, the greatest risk to the City of Burlington in their potential to cause death or serious injury to pedestrian traffic below.

Although Liszt Historical Restoration has contracted with the City of Burlington for the amount of \$10,000.00 to explore and evaluate the current conditions of this structure, in good faith we are willing to end this phase of the work now with no cost to the City of Burlington after three days of evaluation, having discovered the dire nature of the current conditions and elect to put the whole of the City of Burlington's budgeted moneys directly to addressing the most dangerous and unstable areas, as we anticipate working closely with the City of Burlington to provide a long-term restoration program that puts this historic structure back into a safe and attractive condition over the next 5 years.

Proposal for restoration:

We propose to provide all necessary labor, materials, equipment, planning and other goods and services required for the restoration of the most critical masonry and steel elements of this structure in a limited budget capacity that is in line with a long-term plan for the rehabilitation of this structure where no funds are wasted in temporary measures. This insures that the City of Burlington is investing every dollar toward the end product from the beginning. Realizing that the City of Burlington has only \$100,000.00 to spend toward this project in the current fiscal year, it is necessary to focus these funds on the areas most critical to life/safety issues that require immediate attention.

The most critical areas in need of repair are on the north elevation where sunlight is extremely limited, resulting in an advanced condition of what has been described above. The north elevation is well beyond the southern exposure in terms of deterioration, as the southern side is allowed the warming and drying benefits of the sun. However, the southern elevation will require the same work as the northern elevation, but it must be put off for the immediate need to address severe and dangerous conditions on the northern elevation. Both the western and eastern elevations are less unstable by virtue of their being less reliant upon embedded steel components, as their structures are more traditional load-bearing masonry, so rust has not affected them to the extreme that it has where structural steel elements were required to span great distances with a flat roof: over the gymnasium area.

Work shall be focused on the north wall from pylon #7 to pylon #9, from the top of the windows at the upper level of windows to the copingstones on the parapet wall. Work shall include the total dismantling of the top 10(+/-) feet of the #9 pylon, the single window span between #9 and #8 to the top of the window, # 8 pylon to expose rusted vertical I-beam, the double window span between #8 and #7 pylon down to the top of the windows. These areas will be dismantled, all window lintels removed and where needed replaced with treated steel angle iron. The steel horizontal I-beam units that connect the top of the trusses will be removed and replaced with units approved by Knight Consulting Engineers. These steel elements will be properly painted for rust prevention and attached to the trusses as per the engineer's specifications. These areas will be rebuilt with like in kind brick masonry units, salvaging as many original units as possible, new pre-cast elements provided by ST Griswold. All cement pre-cast stone elements will be coated with a portland cement based protective coating to achieve uniform appearance and provide long-term weather protection.

Work area will be thoroughly sealed off from the interior above the lower truss angle iron and intrude into the gymnasium area a minimum distance to insure no appreciable interference with normal auditorium operations. Exterior areas will be limited to a small area for staging footprint and although the fire escape stairs will be incorporated as necessary there will be no interference with emergency egress. Staging access will be at the roof level and materials to be reused such as brick and pre-cast stones will be stored on the roof in areas well able to bear the load and/or at Liszt Restoration's Essex Jct. shop location.

Liszt Restoration will remove all debris and ensure the ground area is free from material and supplies, and a trash shoot will be provided to insure the controlled delivery into the truck below.

Roofing will be temporarily pulled back a minimum distance and a curbing constructed well within the tented and heated area on the roof to ensure no water intrusion and roofing will be reinstalled into new masonry as per its original design.

Interior reconstructed masonry wall will be repainted with a breathable elastomeric (flexible) coating/paint, white, to provide a durable and attractive finish that will not easily peel or blister and allow normal water vapor transfer.

Product data sheets will be provided for every material used on this project for owner's approval and for future reference.

Project cost—Not to exceed \$100,000.00 unless approved and directed by the City of Burlington to perform additional work above and beyond this scope. Although the investigation and evaluation is detailed and thorough there is not guarantee that unforeseen conditions can arise during the construction process, these conditions will be met and resolved with the written approval of the owner's representative in agreement with Liszt Historical Restoration, Inc.

Project start date—As soon as possible, as weather conditions are currently favorable and there is a minimum of snow on the roof to contend with. It is estimated that the project will be completed by the end of March 2008.

Thank you for the opportunity to work with the City of Burlington in this important restoration project. We look forward to a long term working relationship with the City in this and many future projects.

Sincerely,



Liszt Historical Restoration, Inc.
Paul List President

Memorial Auditorium 08



Photo #1
Masonry fall hazards



Photo #2
Unstable masonry window
headers masonry above
including pre-cast stone

North side

Photo # 3

Unstable pre-cast stone and brick



North side

Photo # 4

Rusted horizontal I-Beam





Photo # 5 rusted I-Beam lifting masonry

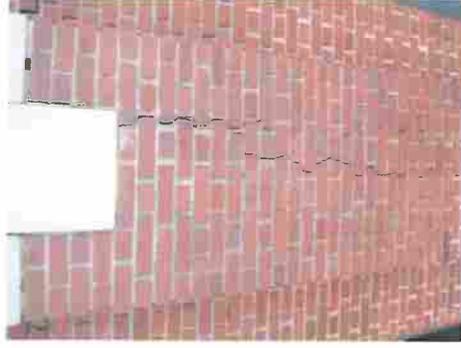


Photo #6 vertical crack in each pylon, caused by rusting vertical I-Beam

Photo #7

Rusted window lintel Failing masonry header

