



David B. Cohen
Mayor

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January 8, 2002 2003

Original misdated.

See ref. below to December 2002 original proposal.

Mr. Jeffrey Sacks
Chairman
City of Newton, Community Preservation Committee
1000 Commonwealth Avenue
Newton, MA 02459

Re: Funding Proposal of City of Newton Public Buildings Preservation Task Force and Public Buildings Department

Dear Mr. Sacks:

At the request of the Community Preservation Committee, the Public Buildings Preservation Task Force and the City of Newton Public Buildings Department are pleased to submit additional information in support of our application for funding, revised and updated through December 3, 2002, for preservation work on Newton City Hall and War Memorial. We are responding to two requests. First, at the public hearing on our proposal held December 9, 2002, Mr. Dickson asked us to provide additional information on the overall scope of preservation work that the Task Force anticipates for City Hall and the War Memorial, so that the several projects we have proposed for this first round of funding may be viewed in a context. That information follows. Secondly, Mr. McMillan later contacted the Task Force and requested additional detail on the scope of work and costs of the several projects included in the pending proposal. That information is attached and summarized below.

I. Overall Scope of Preservation Work for City Hall and War Memorial

Since beginning work in February 2002, the Public Buildings Preservation Task Force has spent a number of months taking a complete inventory of Newton City Hall and War Memorial in relation to the original architectural plans for the building, the original furniture and furnishings, and the original landscaping. Our ultimate goal is two-fold: to restore the building in a manner that will ensure the long-term preservation of its character as uses evolve over time, and to develop a manual for future "maintenance" work on the building that will support its preservation. We understand the Community Preservation Committee's concern that CPA monies not be used for maintenance, and we would like to take this opportunity to clarify how the Task Force and the Public Buildings Department view these projects as separate from ongoing maintenance.

The Task Force categorizes as "preservation" work on City Hall and the War Memorial intended to be a one-time expenditure. It may be work that cannot be done as routine maintenance because of cost or complexity, or work that is necessary to restore or replicate original features. In either case, the result will be to put the building in a condition where

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ongoing maintenance that will promote preservation may be undertaken at reasonable cost by city employees.

In the long history of City Hall and the War Memorial, one can find many examples of changes undertaken for expediency or efficiency, with little regard for impact on the character of the building – wiring, painting, flooring, and finishes are prime examples. Some of these can be corrected through the process of ordinary maintenance once the Task Force has developed a manual of standard specifications for the Public Buildings Department to use. Others will require substantial one-time expenditures to correct. An example of the latter is the replacement of original custom-built lighting fixtures in the main corridors of City Hall, which is one component of the present proposal. The replacement of original light fixtures (probably removed to increase light levels and lower energy costs) with replicas will lower energy costs even further, provide much richer lighting in the corridors, and restore ceremonial elegance to the portion of City Hall seen most by the public.

The other two projects proposed by the Task Force fall into the category of work that cannot be completed as routine maintenance because of cost or complexity. Painting of the lead-coated copper balustrade and the copper base of the War Memorial cupola was postponed because project funding was used to replace deteriorated components with custom fabricated, very high quality, preservation-appropriate components with a greater life expectancy than materials that were more readily available at a lower cost. The decision to delay painting of these components, although historically inaccurate and visually jarring, did not compromise their long-term life expectancy.

Completion of the window restoration project was delayed for almost identical reasons. When window deterioration made action imperative, the City proposed undertaking the most economical solution to the problem – replacement with wood or vinyl replacement windows. At the urging of the Historical Commission, and with the support of the Board of Aldermen, this approach was abandoned in favor of rehabilitating the original wood windows and retrofitting them with more energy efficient individual insulating glass panes. This approach, while more expensive, retained the original materials and maintained the appropriate historical scale of these monumental windows. With proper routine maintenance, these windows should far outperform replacements in vinyl or aluminum.

In short, from our viewpoint, these three projects, for differing reasons, are not maintenance. They are at the top of a list of projects as having the greatest impact on the long-term preservation of the building and on the public's experience of Newton City Hall and War Memorial.

Beyond these three initial projects, the Task Force to date has identified the following as future preservation needs, some or all of which may be the subject of future funding requests to the Community Preservation Committee. We are already investing alternative funding sources for several of these projects, and look forward to discussing them with the Committee in the future.

1. Resetting and Repair of War Memorial Steps. The granite steps and limestone stair walls leading to the War Memorial entrance have been damaged and pushed out of alignment by the intrusion of water and its freezing and thawing. In some cases, individual stones have been damaged and must be repaired or entirely replaced. The dislocated and damaged masonry pose the risk of increased leakage and damage to underlying structural elements – an aesthetic concern for the character of the building and a potential safety hazard. The Task Force sees this issue as a critical one for the near future.
2. Correction of Leaks at the War Memorial Cupola and Restoration of Interior Plaster and Finishes. City Hall and the War Memorial have been plagued for many years by leaks related to the flashing and drains installed around the War Memorial cupola. These leaks have resulted in severe water damage in the interior of the War Memorial stair wells and the ceilings over the dais of the Aldermanic Chamber and the stage in Memorial Hall. Numerous efforts to repair these structural components have resolved some but not all of the problems. The Task Force is convinced that the situation requires investigation by a roofing consultant, followed by repair of the leaking systems and full restoration of the damaged interior areas under the cupola.
3. Restoration of Memorial Hall. Memorial Hall is an elegant, nearly original space that has been underutilized in recent years due to poor acoustics, poor lighting, and inadequate audio-visual systems. Although its acoustics and lighting do not lend themselves to contemporary uses, pressure on the space for various types of meetings continues to grow. The Task Force would like to bring in experts to study the space and recommend acoustical, lighting and audio-visual system improvements in keeping with its historical character, and then undertake a restoration of the hall so that it can be utilized and enjoyed by a wider spectrum of Newton's citizens.
4. Restoration of Public Meeting Rooms in City Hall. Anyone who attends committee meetings of the Board of Aldermen or meetings of any of the City's commissions and task forces is familiar with the condition of the several second-floor meeting rooms originally designed to support the legislative functions of the Board of Aldermen and provide conference space. Over time, maintenance in these well-used spaces has resulted in a mix of new and original materials and furniture, an assortment of wiring, various finishes and floor treatments, inconsistent lighting, and generally the appearance of incremental decision-making. The Task Force would like to see these rooms restored to their original handsome character, particularly Room 209, which was designed as a more elegant conference room, and see them outfitted properly with the wiring and technology that will make them useful for contemporary purposes.
5. HVAC Upgrades. The need for air conditioning and enhanced ventilation in City Hall has resulted in far-reaching incremental changes in recent years, beginning with the systematic closing off of one department after another so that individual air conditioning systems would work efficiently. Air conditioning equipment for these spaces has been

installed in convenient, but often visually intrusive, locations on the ground around the perimeter of City Hall and on the roof. These units represent some of the most visible compromises to the historic exterior of City Hall. The Task Force sees this piecemeal approach as terribly unfortunate from a preservation viewpoint, but acknowledges that it was made necessary because monies were not available to do the entire job all at once with an upgraded central air handling system. Parts of City Hall, including the Aldermanic Chamber, remain without air conditioning, and issues have been raised about air quality in other parts of the building. The Task Force would like to take a comprehensive approach to this problem, even if belatedly, and develop a plan with the assistance of appropriate consultants who will map out a transition to a proper centralized HVAC system that will eliminate the need for additional departmental systems and improve the quality of air in City Hall and the War Memorial for all who work and visit there.

6. Landscape Restoration. The Task Force has spent considerable time studying the original landscaping of City Hall and the War Memorial according to the design of Frederick Law Olmsted's firm. The Task Force views the landscaping as integral to the character of the building and a critical component of the public experience of the site. A few of the original plantings appear to remain, and the Task Force has enlisted the voluntary efforts of Marion Pressley to help it understand the broad landscaping concepts that defined the original design and should be followed in the future. Replacement of plantings consistent with the original will be integral to the preservation of the overall landscaping scheme. The Task Force has met with representatives of the city's Landscape Advisory Committee, the Commissioner of Parks and Recreation, and the City Forester to begin to assess what funds may be available to improve the maintenance of the grounds of City Hall and War Memorial, but may require certain additional capital funding for plantings that will restore the appearance of the grounds to the original character.

II. Additional Information on Costs and Scope of Proposed Projects

The following information is attached to provide further detail about the scope and costs of the three projects proposed for CPA funding:

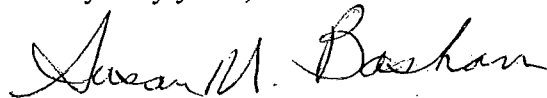
- A proposal with alternatives from St. Louis Antique Lighting Company for reproducing either the "urn" type corridor lighting fixture found in the corridor between the City Hall rotunda and the War Memorial, or the "flat bowl" type found in the alcove on the northeast side of the rotunda. St. Louis Antique Lighting has been the most responsive of the several companies with which we have worked on the reproduction of these fixtures, and its estimate of cost has been the most reasonable. The proposal assumes that the City will buy the fixtures directly from the manufacturer, and it contains a 10% contingency for unknown details of the fixture.

- A specification for the rehabilitation and upgrading of the remaining unrehabilitated windows in City Hall and the War Memorial, with photos, dimensioned sketches and numbers of each type of window affected.
- A location plan and specification for the painting of the unpainted balustrade and War Memorial cupola base on the roof of City Hall.

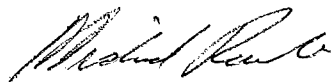
In summary, the Public Buildings Preservation Task Force and Public Buildings Department have given careful thought to the long- and short-term preservation needs of Newton City Hall and War Memorial -- the most public of the City's public buildings. Ours is a work in progress. We may yet identify other needs, and our sense of the priorities may shift as we continue our efforts. For the present, however, we believe we have identified the tasks most necessary to the preservation of the structure and its character, and we ask that the Community Preservation Committee consider our proposal in this light. We would be pleased to provide any additional information you may require.

Thank you for your continuing consideration.

Very truly yours,



Susan M. Basham
Co-Chair, Public Buildings Preservation Task Force



Michael Rourke
Co-Chair, Public Buildings Preservation Task Force

801 North Skinker Blvd.
St. Louis, MO 63130

**St. Louis Antique
Lighting Company**
Phone: (314) 863-1414
Fax: (314) 863-6702

Email: slalco@mindspring.com

Fax

To: SOLOMON-BAUER ARCH.

From: GARY BEHM

LARRY BAUER

Phone: 1-617-924-6885

Pages: 1

Project:

Date: 1-3-03

Re: NEWTON CITY HALL LTG.

CC:

Urgent

For Review

Please Reply

* Comments:

MR. BAUER: PER YOUR REQUEST TO ESTIMATE THE COST TO REPLICATE THE HISTORIC LIGHTING FIXTURES FOR NEWTON, MASS. CITY HALL, WE ARE PLEASED TO QUOTE THE FOLLOWING:

"URN" FIXTURE; QTY.-16 EXACT REPLICATION, GLASS AND BRONZE; FINISH TO MATCH ORIGINAL AND LACQUERED WITH INCRALAC; LAMPING TO BE COMPACT FLORESCENT WITH VERTICALLY MOUNTED ELECTRONIC BALLAST, TWO-32 WATT LAMPS @2700K; OVER-ALL-LENGTH-AS SPECIFIED. PRICE: \$5300 EACH. (TWO 32 WATT CF LAMPS ARE EQUIVALENT TO APPROX. 250 WATTS OF INCANDESCENT)

"FLUTED BOWL" STYLE FIXTURE; QTY.-16 EXACT REPLICATION; GLASS AND BRONZE; FINISH TO MATCH ORIGINAL, LACQUERED WITH INCRALAC. FOUR 32 WATT CF LAMPS @ 2700K WITH TWO-TWO LAMP ELECTRONIC BALLASTS; OVER-ALL-LENGTH AS SPECIFIED. PRICE \$4200 EACH. (4 32 WATT CF LAMPS ARE THE EQUIVALENT OF APPROX. 500 WATTS OF INCANDESCENT.) TO USE A COLD CAST POLYESTER SHADE RATHER THAN GLASS, THE PRICE WOULD BE \$3100.

FIXTURES SHALL BEAR THE APPROPRIATE UNDERWRITERS'S LABORATORY LABEL.

PRICE INCLUDES ALL ENGINEERING AND COMPLETE FULL SCALE DRAWINGS (AUTOCAD 2000), ALSO LAMPS, GRATING, SHIPPING AND INSURANCE.

THE ABOVE PRICING ASSUMES WE SHALL BE ABLE TO USE AN EXISTING FIXTURE FROM WHICH WE CAN DO OUR DRAWINGS AND MAKE OUR MOLDS.

ALLOW 6-9 MONTHS FOR DELIVERY.

TERMS: NORMALLY, 50% DOWN ON CUSTOM ORDERS. THIS IS NEGOTIABLE.

PLEASE CONTACT ME IF YOU REQUIRE ANYTHING FURTHER.

SINCERELY,

GARY H. DENM; HISTORIC LIGHTING CONSULTANT

PRESIDENT; ST. LOUIS ANTIQUE LIGHTING COMPANY, INC.

SECTION 08600
WOOD WINDOW RESTORATION

1. GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 DESCRIPTION OF WORK

- A. General: Provide all labor, materials, equipment, and services required for wood window restoration, single to double-paned window conversion, and finish painting for the indicated existing windows in the Newton City Hall and War Memorial.
1. Work shall be conducted as specified herein, as shown on drawings, and as may be required by field conditions and regulatory authorities.

1.03 QUALITY ASSURANCE

- A. Installer shall be an experienced installer of double paned glass conversions in historic structures.

1.04 HAZARDOUS MATERIALS

- A. It is highly likely that paint on window sashes and frames contains lead, and it is possible that glazing compound and sealants may contain asbestos. Subcontractor shall have these and any other suspect materials tested for the presence of hazardous materials before beginning work.
- B. If hazardous materials are found by testing, subcontractor shall prosecute all work involving removal and work with the materials in accordance with all laws, regulations, and guidelines for working with the specific hazardous materials found.

1.05 SUBMITTALS

- A. Submit evidence and references attesting to compliance with Paragraph 1.03 Quality Assurance, Article A that demonstrates capabilities and experience. Include a list of at least three (3) completed projects on buildings listed on the State Register of Historic Places in the New England region or on the National Register of Historic Places. List project names, addresses, names of Architect and Owner, plus a list of general wood window projects. Company must have a minimum of 5 years experience in conversion of windows in historic buildings to double-paned glass. This information shall be submitted in conjunction with the shop drawings.
- B. Shop Drawings:
1. Where repairs to the wood portions of the sash are required, Subcontractor shall submit complete shop drawings to the Architect for approval. The drawings shall include dimensioned elevations and sections as well as full size details of all typical members and joinery, types of materials, and shall show hardware and methods of securing and fastening members to adjacent work.
 2. Window shop drawings shall clearly indicate any deviation from the design or detailing of the existing conditions.
- C. Product Data: Subcontractor shall submit the following and obtain approval prior to the start of work:
1. Materials list of items proposed to be provided and materials to be used in the work of this Section;
 2. Manufacturers' specifications and other data needed to prove compliance with the specified requirements.
 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the work.
- D. Reference Sample Window
1. The subcontractor shall complete full restoration and conversion of one of the monumental arch topped windows in the War Memorial Hall to be used as a reference example of quality before undertaking restoration of the balance of the windows.

2. The subcontractor shall make adjustments to this reference sample until the quality of the workmanship is satisfactory to the Owner and meets the requirements of the specifications and drawings.

E. Upon completion of work required by this section, the subcontractor shall submit to the Owner a list of components used by type and size. Include instructions for periodic inspections, care and maintenance.

1.06 PRODUCT DELIVERY AND STORAGE

A. All materials to be delivered to job site by licensee or suppliers in good condition.

1.07 WINDOW REMOVAL

A. All window sash, retaining beads, parting beads, and counterweights and chains shall be removed from window frames for conversion and restoration in subcontractors shop. Openings shall be covered with plywood of 3/4" minimum thickness, or other covering approved by the Owner.

B. All removed pieces shall be labeled in a manner that will allow identification after restoration that will assure their reinstallation in the same locations on the same window opening from which they were removed. Subcontractor shall be responsible for the safe removal and storage of all window components. All lost or damaged material shall be replaced by the Subcontractor at no cost to the Owner.

1.08 JOB CONDITIONS

A. Provide all staging, lifts, ladders and other equipment required to remove window sashes from their frames and completely restore frames.

B. All work shall be scheduled with Owner so well in advance so that rooms in which work must take place are available for the work of the contract. Work in each room shall be scheduled to assure the shortest possible shut-down time for the room. The contractor shall thoroughly clean each room as soon as contract work is finished and return it to active use.

C. Restore in-place window frames in strict accordance with manufacturer's literature including Safety Data Sheets pertaining to safety and weather conditions required for work with the material specified.

2. PRODUCTS

2.01 MATERIALS

A. EXISTING SASH

1. After removal and tagging for identification, all glazing and glazing compounds shall be removed from sash using methods that will not damage wood sash components.

2. Existing wood sash shall be examined for condition of all wooden sash members. It is the intent of this specification to preserve and reuse as much original fabric as possible. Any members which are too far deteriorated for repair shall be marked for re-inspection with Owner present. After joint concurrence, the deteriorated members shall be removed from sash and replaced with new components of identical profile and wood species.
3. All deteriorated existing wood sash members that are not replaced shall be restored utilizing fillers and consolidants as specified below, and when finished shall meet the agreed upon standard set with the reference sample window - joints strong and complete, surfaces smooth and even matching original member profile, and glazing rebate routed out as required for conversion to insulating glazing material.

B. GLASS

1. Insulated units factory fabricated of double-strength glass. Nominally ½" thick.
2. Dual sealed edges using aluminum, Swiggle (manufactured by Tremco), or Warm Edge Technology (manufactured by Edge Tech), spacer predetermined at time of sample. Dual seal to use butyl and Polysulfide sealant.
3. Glass units to have factory replacement warranty covering unit "free from moisture between the two glass surfaces for a period of ten (10) years".
4. Units shall be gas filled, with a low E coating on surface #2.

C. GLAZING

1. Existing sash shall be modified to receive thicker insulating glass un its by cutting a deeper glazing rebate into the existing wood muntin bars and sash frame members. The additional depth may be less than the difference in thickness of the existing and new glazing if it is determined in consultation with the Owner that a steeper wash on the exterior glazing putty is acceptable. All rebate surfaces shall be cleaned back to a raw wood surface.
2. Use Norseal (manufactured by Norton) PVC Foam gasket to back bed glass to sash.
3. Maintain an air space of 1/8"± 1/16" around glass.

4. Exterior glazing stop to be of milled wood or equivalent, sealed and mechanically fastened to the existing sash. Wood to be primed white ready for finish painting.
5. Compatible glazing sealant shall be used to seal exterior stop against moisture infiltration. Sealant shall meet ANSI/ASTM C-834-76.

D. WINDOW BALANCES

1. Reuse existing window balance, chain, and pulley system:
2. Existing weights to be balanced to new, heavier glass. Weight pockets sealed to control air infiltration. Replace chains as required. Install weather-stripping on sides of sash using either, or both, vinyl corner seal and ribbed felt spline.

E. BALANCE COMPONENT SPECIFICATIONS

1. Existing broken sash chains shall be replaced with plated steel, 250 lb. test chains. Weights shall be added with 2 lb. stackable cast iron 4" sections or pre-sized lead weights. Sash pulleys shall be replaced where needed with red bronze housing and wheel, with a steel axle, and matched to existing size and design.

F. WEATHER-STRIPPING

1. All weather-stripping to be installed into a saw kerf.
2. Horizontal weather-stripping shall be 1/4" tubular silicone rubber with a saw kerf bar.
3. Vertical weather-stripping shall be a brush with vinyl center fin, 1/4" pile, held in a polypropylene saw kerf bar.
4. Check rail shall be bulb covered with low friction plastic coating.
5. End of check rail shall come in contact with brush plug in jambliner or parting stop.
6. All weather-stripping shall be applied in accordance with Manufacturer's specifications.

G. HARDWARE

1. Reuse existing historic sash locks and other historic window hardware. Replace missing hardware with hardware that matches the original.

H. WOOD REPAIR

1. All shallow, non structural filler shall be exterior rated. Latex flexible (can be painted) filler shall be used. Filler will be used on surface, not structural parts, of window.

2. Make appropriate deep repairs to window components using epoxy consolidants and fillers, and wood dutchmen where appropriate. Epoxy consolidant should not be diluted with any solvent, such as alcohol, to increase degree of penetration (doing this will create an inherently weak resin once cured).
3. For wood deterioration less than 1/2" deep (defined as "punkiness" of wood, tested with an ice pick using moderate hand pressure), brush-apply epoxy resin on to clean wood surfaces.
 - a. Follow manufacturer's instructions for mixing of components, application temperatures, and material handling.
 - b. Apply heavy coat of epoxy resin and allow to soak into wood. Apply additional coat while previous coat is uncured to completely saturate the deteriorated areas of wood.
5. For wood deterioration greater than 1/2" deep (defined as punkiness and not loss of wood):
 - a. Drill three-eighths inch (3/8") diameter holes through approximately 90% of thickness of wood. Stagger holes on approximately two inch (2") centers.
 - b. Apply heavy coat of epoxy resin and allow to soak into wood. Apply additional coat while previous coat is uncured to completely saturate the deteriorated areas of wood.
 - c. Pour low modulus, low viscosity epoxy resin into each hole until hole has been filled. As epoxy is absorbed into the wood, top off holes with epoxy as required until all holes will accept no more but without allowing epoxy to pool on surface.
 - d. Brush the remaining weathered portions with epoxy. Repeat brush application until all surfaces being treated are saturated with epoxy but there is no pooling of epoxy on the surface. Excess epoxy may be removed with an alcohol-soaked rag.
 - e. Thoroughly sand epoxy-treated wood to provide proper surface for bond of paint. Curing time varies with ambient temperature and product used.
 - f. Protect epoxy from prolonged exposure to ultraviolet light. Prime paint shall be applied within 48 hours after cure.
6. For losses, holes, cracks and gouges:
 - a. Fill with epoxy filler, mix and apply epoxy wood filler in accordance with manufacturer's recommendations. Fill

flush with surface of wood, matching profile of historic wood.

- b. Sand to smooth finish and tool to match existing wood after filler is completely cured.
7. Where practicable and necessary, repair deteriorated, split, or missing wood with dutchmen repairs. Dutchmen repairs shall be performed in the following manner:
- a. Neatly cut out defective materials and enough sound wood to bond dutchmen to sound substrate. Form a prismatic void in existing wood with square corners and edges. Cut dutchmen to exactly fit void, with exposed portion matching historic profile of woodwork, and grain of dutchmen insert parallel to historic wood grain direction.
 - b. Secure dutchmen with waterproof adhesive and clamp (or for frames, nail) in place until glue is set.
 - c. Where necessary to cut off an end of a component and install dutchmen, use a diagonal scarf joint for end-to-end joints.
 - d. Dutchmen should match the existing joinery in both the type of joint and the number of separate elements being joined (two separate elements connected by a joint should not be replaced with a single piece).
 - e. For dutchmen repairs of stiles and rails, join dutchmen to existing wood using interlocking diagonal scarf joints or interlocking joints (such as open mortise and tenon joints) or both to increase the bonding surface of the joint and the structural strength of completed assembly.

I. WOOD PRESERVATIVE

1. Treat all bare wood surfaces with wood preservative, according to manufacturer's instructions. Liberally apply two coats to all surfaces. Allow 24 hours between coats and three (3) days prior to painting.

J. FINISH PAINTING

1. After repair as specified above, all window frames, sash and interior and exterior window casings shall be sanded smooth and cleaned ready to receive primer and finish paint as follows:
 - a. All previously painted surfaces shall be spot primed to cover all portions of bare wood.
 - b. All interior wood surfaces shall receive two coats of satin finish alkyd enamel paint, Benjamin Moore Satin Impervo

Enamel or Owner approved equal in color to match existing interior window trim color.

- c. All exterior wood surfaces shall receive two coats of high gloss exterior alkyd enamel paint, Benjamin Moore Impervo Enamel or Owner approved equal, in color to match existing exterior window and trim.

3. EXECUTION

3.01 INSPECTION

- A. Before reinstallation of window sash and hardware begins, openings shall be inspected and surfaces shall be dry.

3.02 INSTALLATION

- A. Installer shall conform to safety regulations as required by federal, state, and local laws.
- B. Re-Installation
 1. Cut saw kerfs and install weather-stripping in frames and sash to match approved reference sample.
 2. Re-install sash in openings from which they were originally removed attaching chains and sash weights.
 3. Reinstall salvaged parting beads or new parting beads as required.
 4. Salvaged inside stop shall be screwed back into place using new screws to match those removed, in existing screw hole locations.

3.03 ADJUST AND CLEAN

- A. Adjust and check each operating item of hardware, and each window to ensure proper operation and function of every unit and a tight but workable fit between operating components.
- B. Clean all glass.

++ END OF SECTION 08600 ++

7 January 2003

**Newton Public Buildings Preservation Task Force
Window Restoration Cost Estimate**

See Window Elevations for Unit Types

Aldermanic Chamber/War Memorial Arch Topped Units	
21 Units @ \$5000.00/unit	\$105,000.00
Ground Floor War Memorial Units	
8 Units @ \$1200.00/unit	9,600.00
City Hall North & South Stairway Units	
2 Units @ \$1600.00/unit	3,200.00
Ground Floor War Memorial Toilet Units	
2 Units @ \$800.00/Unit	<u>1,600.00</u>
Total	\$119,400.00