SURE-KLEAN®
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ProSoCo News

National Building Museum Opens Its Doors In Revitalized Pension Building

Nestled among Washington D.C.'s imposing government structures, the Pension Building had been ignored for years. Dirty and covered with carbon, its red brick exterior was imposing but not visually interesting. In fact, Washington residents had taken to calling the structure, the "Old Red Barn". Today, after a thorough cleaning and total renovation, the Pension Building is receiving nationwide attention. This January, President Reagan danced in the Great Hall of the Pension Building during one of his nine inaugural balls.

In 1980, the Congress of the United States mandated the National Building Museum to commemorate and encourage the American Building Arts. As part of that order, Congress gave the Museum, a privately funded organization, free use of the historic Pension Building. As the National Building Museum took over the Pension Building, the first phase of developing the Museum was restoration of the Building.

Built in 1881, the Pension Building was designed by General Montgomery C. Meigs as an office building for the 1,500 clerks needed to process the pensions awarded after the Civil War. The building's surface had become blackened and crusted with carbon, the interior was badly in need of paint and the roof needed repair. The Building Museum set out to restore the old Pension Building to its original splendor.

Testing for exterior cleaning began in October of 1983. Norman Weiss, Columbia University Preservation Consultant, met with John Bourne and David Boyer of ProSoCo Inc. and ProSoCo rep Ken Houck to apply test panels to the century-old brick and terra cotta exterior.

The Pension Building is a massive structure, 400 linear feet by 200 linear feet in size, encompassing 15,500,000 bricks. The entire exterior surface was cleaned by crews from Historic Restoration, Inc. Cleaning began in September of 1984 and continued through December when winter set in. Work began again in April of this year, continuing until June.

When work commenced, specifications called for the use of a prewash. Contractor Ed Kirby of Historic Restorations, Washington, D.C., found that Heavy Duty Restoration Cleaner restored the brick beautifully. Restoration Cleaner was used on the

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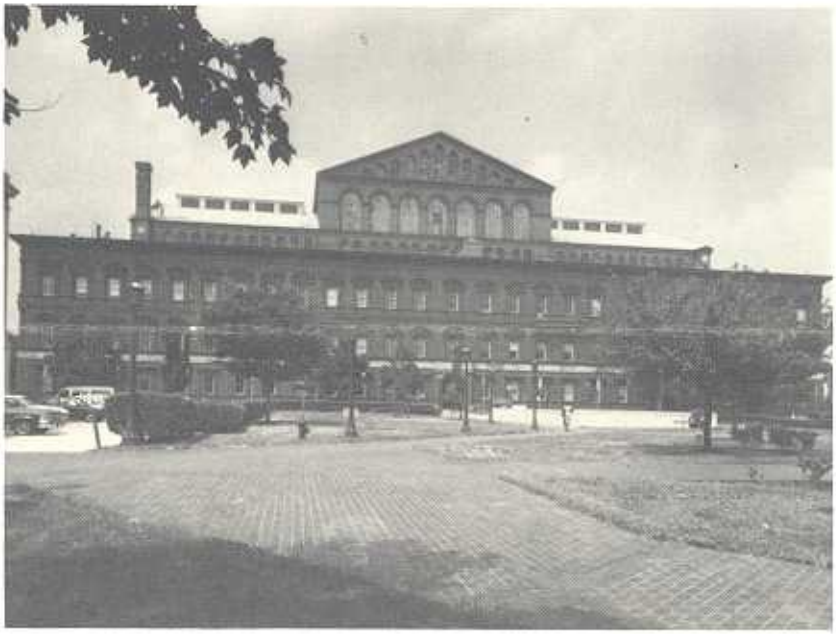

(Above) Built in 1881, the Pension Building in Washington, D.C. is now the National Building Museum.

(Right) Encircling the entire Pension Building is a sculptured terra cotta band or frieze, 1,200 feet long, and three feet high. Sculptor Caspar Buberl designed the frieze to depict various aspects of life in the Union Army during the Civil War – horses pulling wagons, soldiers in various garb and condition, even boats of sailors rowing past. In the fall '84 issue of National Building Museum ***Blueprints,*** *editor Joyce Elliott notes that "the frieze has come to life and is revealed as a major work of American 19th century sculpture", now that it is "freed from a century of severely encrusted dirt".*

Museum (Continued)

terra cotta frieze which encircles the building. There was no need for a prewash application on either surface. GSA inspectors visiting the site twice a day, concurred. Cleaning materials were rinsed from the surface with 500-600 psi cold water.

As the Pension Building came clean, decorative brickwork and sculptured terra cotta slowly became visible. Photographers and observers watching the Pension Building remarked that each time they visited the site there was more to see as the building emerged from beneath the layers of grime. *Blueprints*, the official publication of The National Building Museum, noted in their fall '84 issue, "The effect of the cleaning has been astounding passersby who are seeing for the first time the startlingly beautiful color of the brick walls and terra cotta ornament contrasted with the buff colored frieze".

Inside the Pension Building is the famous Great Hall, a huge vaulted open court where inaugural balls were held for years. The Hall is an airy, light space with a 75 foot ceiling painted light blue to suggest the sky. This unusual use of open space was considered very radical in 1881. The eight massive columns in the Great Hall are constructed of 55,000 brick, seventy-five feet high, painted to look like marble.

Sure Klean® Heavy Duty Paint Stripper was used to remove paint which was 15-20 layers deep on the massive columns. Two applications of Heavy Duty Paint Stripper were used, the first with a dwell time of 4-6 hours, the second coat being left on overnight. Working inside meant that the contractor used a small gas-powered pressure washer and collected residues with a wet vac. Pressure was maintained around 400 psi. The pressure rig was operated in a doorway with doors open for ventilation.

The Great Hall columns have been repainted to suggest Siena marble. Elaborate studies of the building archives suggested the historical color scheme which was chosen to paint the interior, including the columns.

As the National Building Museum readies its exhibit for public display, renovation of the Great Building is nearly complete. Legend has it that General Meigs' ghost still inhabits some shadowy corners of the Great Hall. Having a son killed in the Civil War, Meigs felt very strongly about this building. He intended it to be not only a livable office space, but a monument to all of those who gave their lives in the service of their country. There could not be a more fitting building to serve as the home of the National Building Museum.

The terra cotta frieze stretches down the side of the cleaned Pension Building.

The beautiful Great Hall, with columns marbleized.

ProSoCo announces Two Regional Managers

Walt Hunter

WESTERN REGION

We are pleased to announce that Walt Hunter is our new Western Region Sales Manager. Walt has 28 years experience in chemical coatings, surface preparation and construction related specifications. Walt lives in the San Francisco Bay area and has been an active member of CSI for many years. Walt may be reached at 415/782-3507.

SOUTHEAST REGION ►

Alan Simon has been named Southeast Region Manager, working out of our Stone Mountain office. Alan is a graduate civil engineer who has been involved in the construction industry for 12 years. Alan lives in Atlanta and may be reached at 404/939-9890.

Alan Simon

REHABILITATION TAX CREDITS

Will Their Past Success Assure Their Future Survival?

Reprinted from Sweet's *TopStory,* June 1985

Virtually every federal program is fair game as legislators work to curb federal expenditures and dent the deficit. And the tax credits for historic preservation are no exception.

But that threat has spurred the renovation industry to marshal some very impressive statistical evidence on the effectiveness of the rehabilitation tax credits. The National Trust for Historic Preservation, in a special report in its *Historic Preservation* magazine, estimates that more than $2.1 billion of private money went into 2,100 historic rehabilitation projects in 1984, two-thirds of which wouldn't have been done without the tax incentives.

"Once a pastime for a few, historic preservation has become part of the engine driving our economy," says J. Jackson Walter, president of the National Trust. "About 250,000 buildings are listed in the National Register of Historic Places. Only a few of those can or should be museums. The others will survive only if they can serve a productive, profitable use as someone's home, office, business or factory."

Value of projects

The Trust reports that nearly 11,000 historic preservation/rehabilitation projects have occurred since the first tax credits were established in 1976 and that the annual dollar value has soared from $140 million that first year to an estimated $2.4 billion this year. The staggering number of renovation projects represented by that figure becomes apparent when one considers that most of that total is spent on projects costing less than $150,000 and most of the work is done by small entrepreneurs, not big developers.

The current federal incentives for taking on restoration work are the 25% investment tax credit for all costs involved in restoring a structure that is registered as historic or located in a district that is certified as historic, and the new 15-year cost-recovery period by which an owner can depreciate a building over a much shorter time than previously.

These two incentives are critical in making a renovation project profitable and even feasible. In one way, the credit enables an individual developer to afford the carrying costs of the construction debt during the years before the project reaches full-income status. Used another way, the incentives enable developers to attract investors to reconstruction projects who can use the credit to offset their other taxable income.

In other statistics compiled by the Trust, developers in three states were found to have spent more than $400 million in renovating older buildings since the first tax credits: Massachusetts, Pennsylvania, and Illinois. Seven other states were found to have spent more than $200 million on such projects in the same six-year period: California, New York, New Jersey, Kentucky, Missouri, Louisiana, and Texas.

Size of projects

Research into the size of preservation projects revealed that the lion's share of residential projects (49%) each spend less than $100,000. For commercial projects, a comparable percentage (48%) spend over $250,000, with 20% spending more than $1 million each.

The Trust's lobbying argument for the continuation of the tax credits draws heavily on the financial impact of the restoration dollar *(see chart)*. But it also reaches beyond statistical and financial data to argue that the credits have saved abandoned and ignored parts of the nation's cities, engendered a new sensitivity to historical values by architects and developers, and preserved irreplaceable testaments to our nation's history.

The Renovation Dollar: Its Investment Impact

1982: $1.1 billion renovation expenditure costing U.S. taxpayers $245 million:
- **created 39,005 jobs and**
- **generated $882 million in local salaries**
- **and $3 billion in local sales/ business**

1983: $2.2 billion renovation expenditure costing U.S. taxpayers $270 million:
- **created 71,440 jobs and**
- **generated $1.6 billion in local salaries**
- **and $5.5 billion in local sales/ business**

1984: $2.1 billion renovation expenditure costing U.S. taxpayers $320 million:
- **created 70,050 jobs and**
- **generated $1.6 billion in local salaries**
- **and $5.4 billion in local sales/ business**

Source: National Trust for Historic Preservation

TECHNIQUES

Window Protection

During restoration cleaning projects, and some applications of masonry water repellents, window glass must be tightly covered. Contractors who do not take the time to do so may have a real problem on their hands. Many restoration cleaners can etch glass. Overspray from weather seal products may adhere to windows and create a problem to remove afterwards. It's safer and easier in the long run to protect all glass before starting a job.

A heavy gauge polyethylene is frequently used to cover windows. The polyethylene is cut to fit and taped around the edges with duct tape, or stapled to window frames. This method can be effective however it has limitations:

1. Windows can't be opened and closed while cleaning progresses. This can be a serious problem if an occupied building does not have air conditioning, especially if the cleaning continues over a long period of time.

2. Installation and removal of the polyethylene requires a lot of time and labor.

3. The material often comes loose and has to be replaced, sometimes three times or more during a job. Kevin Petri of All Purpose Steam Cleaning, in windy Mizzoula, Montana, says "... when we estimate the cost of window protection using polyethylene we allow enough labor and material to repair the polyethylene at least twice."

One alternative is to use a liquid masking agent such as Sure Klean® Acid Stop®. This is a liquid chemical protection that dries on the window to protect it. After the cleaning job is finished, the material is simply peeled off the glass or metal surface. Acid Stop® is easier to apply, allows windows to be opened and closed, and stays in place after the material is applied.

Application of Acid Stop® can be five times faster than putting up polyethylene. Workmen simply brush or roller apply the material to the glass or metal surface, taking care to keep the coating off porous masonry, wood and painted surfaces. The coating should be 1.5 to 2 mils thick, creating a uniformly white area. The masking agent is allowed to thoroughly dry (20 minutes) before exposing it to cleaning solutions, water pressure, etc. When cleaning is complete the material is simply peeled from the surface by lifting one corner and pulling off in one piece.

Caution: Acid Stop® should not be used on synthetic or safety glass. Many newer windows are made of this material. Also, some of the newer tinted and reflective glass has a surface treatment that may be damaged by the masking material. Always test Acid Stop® on a small area of the glass to be protected to assure satisfactory results.

Easy removal of Acid Stop® – lift and peel.

Polyurethane, used to protect windows during restoration cleaning, often comes loose several times during a job.

Acid Stop® allows windows to be opened while job is progressing.

Q&A

Q: I have been interested in your sprayable Paint Stripper, but I'm not sure what kind of equipment is required to apply it. What do you recommend?

A: The product you are referring to is Sure Klean® Heavy Duty Paint Stripper (Spray-Grade). The advantage to this product is obvious when one considers the labor savings in spray applying paint stripper on large jobs or to decorative carved surfaces.

The best equipment for application of Heavy Duty Paint Stripper (Spray Grade) is a gasoline or air powered airless sprayer with the following features:

- Minimum capacity of "flow rate" of one gpm.
- Pump component should be stainless steel with caustic resistant (viton or teflon) seals, aluminum, brass and other metal parts should be replaced with stainless steel or plastic.
- Spray hose should be a poly-lined chemical resistant hose pressure rated for the spray.
- Spray gun should be stainless steel and fitted with a fan type spray tip. Minimum orifice size of the spray tip should be .031 and reusable tips are recommended for the most effective operation.

A suitable sprayer for Heavy Duty Paint Stripper (Spray Grade) is available from most all major manufacturers, however, the above modification will normally have to be made in the manufacturer's standard units. We suggest locating a reliable equipment dealer in your area who maintains a good supply of replacement seals, tips and other parts necessary for regular maintenance.

When spraying Heavy Duty Paint Stripper, the spray should be adjusted to the lowest possible pressure setting, to avoid atomizing the stripper. Heavy Duty Paint Stripper is applied in a heavy coat (½"-¾" thick on the surface) and for the most efficient spray application, large airless sprayers perform best.

Rinse the stripper and residues from the surface with pressure washing, 600-1200 psi at 4-8 gpm. Hot water will improve the efficiency of the stripper.

When using the Spray-Grade Stripper, workers should always wear proper personal safety equipment. Each applicator should wear a full rubber rain suit, rubber boots, safety goggles, face shield and a cartridge type respirator when spraying the stripper.

GALLERY

GLESSNER HOUSE
Chicago, Illinois

Project:	*Cleaning of exterior granite*
Architect:	*John Vinci, Inc., Chicago, Illinois*
Technical Consultant:	*Susan Tindall Architectural Terra Cotta and Tile Limited, Chicago, Illinois*
Contractor:	*Sourlis Masonry Restoration, Chicago, Illinois*
Products:	*Sure Klean® T-972 Limestone Prewash* *Sure Klean® Limestone Afterwash* *Sure Klean® Acid Stop®*

Twelve hand-carved pieces of granite were used to create the organic motif above the entrance to Glessner House.

The Glessner House is one of Chicago's real treasures. Built in 1887, it is the finest example of a residential structure by noteworthy architect H. H. Richardson. The house is a National and City Landmark and is the home of the Chicago Architectural Foundation.

Windows in the Glessner House are valued at $10,000 each, and are constructed of French hand-rolled glass from the 1880's. Sourlis Restoration used Acid Stop® to protect the windows and then covered them with ⅝" particle board, taped around the edges.

Cleaning of the pink-gray granite was done under the guidance of Susan Tindall and following historical research. Original specifications called for a 24 hour dwell for the first coat of Prewash followed by a three hour dwell for the Afterwash. When actual work began temperatures had dropped as late fall approached and it was necessary to increase the dwell to 48 hours for each product.

Cleaning was completed by February and everyone involved with restoration of the Glessner House said the change was amazing. Before cleaning began, the Glessner House was a dark, heavy structure that looked like a fortress. Now that it has been cleaned, Susan Tindall, says "the granite just sparkles. The entire house has a totally different mood."

Editors Note: *The prolonged dwell times of 24-48 hours described here are not normally necessary or recommended. Variations from recommended procedures or product labels should be tested thoroughly before large scale applications.*

Water vapor escapes into the air as workers clean the arched granite entrance of the Warren Chambers.

WARREN CHAMBERS BUILDING
Boston, Massachusetts

Architect:	*Childs, Bertman, Tseckares & Casembino Boston, Massachusetts*
Contractor:	*Chapman Waterproofing Boston, Massachusetts*
Project:	*Cleaning of exterior limestone*
Products:	*Sure Klean® Restoration Cleaner* *Sure Klean® Limestone Prewash/Afterwash*

The 19th century Warren Chambers Building in Boston was restored as part of a trade-off agreement in the Boylston-Back Bay area of Boston. Although several buildings were torn down to make way for new development, protests by preservation groups in the area persuaded the developers to rehabilitate the Warren Chambers, a steel-frame "skyscraper" listed on the National Historic Register.

The Warren Chambers was named after Dr. John Warren, founder of the Harvard Medical School. For many years in the late 1800's the building housed medical offices.

White marble covers the first two floors of the Warren Chambers with marble rosettes and other decorations ornamenting the upper six floors of the red brick building.

Peter Dalton of Chapman Waterproofing mentioned, "we used garden oscillators to presoak the building and loosen carbon" on the white marble facade. After presoaking, Limestone Prewash/Afterwash was used to clean the marble, Restoration Cleaner was used to clean the brick.

GALLERY

NEW YORK STATE SUPREME COURT BUILDING

New York City, New York

Project:	*Cleaning of exterior granite* *Pigeon protection*
Architect:	*John J. Kassner* *New York City*
Contractor:	*Bush-Weiner Corporation* *New York City*
Products:	*Sure Klean® Heavy Duty Restoration Cleaner* *Sure Klean® Acid Stop®* *Conservare® Pigeon Control*

The New York State Supreme Court Building is an unusual hexagonal shape, designed in a neo-classical style with columns and stone sculptures giving it a heroic Roman look. A New York City Landmark, the Supreme Court Building was designed by famed Boston architect Guy Lowell and constructed in 1927. The Courthouse is a huge granite structure, occupying a complete city block and being nine stories tall.

Located in the heart of New York City, this building was plagued with pigeons. Because of the decorative style of the structure, the many set-backs and indentations, large flocks of New York City pigeons had made it their home. Contractor Harold Bush stated that "the building was filthy", from city pollution and especially from pigeon droppings.

In the summer of 1984, the Courthouse was cleaned using Sure Klean® Heavy Duty Restoration Cleaner. Windows were protected with Acid Stop®. Following cleaning and other repairs, Conservare® Pigeon Control was put in place. The netting in a gray color (to blend with the gray granite) was attached around cornices, statuary and decorative stone work, to protect the structure from pigeons in the future.

(Above) Pigeon Control netting on the New York State Supreme Court Building is not visible from the street. (Right) Telephoto closeup shows Pigeon Control around column capitals.

APT International Conference Meets in San Francisco

The 1985 Annual Conference of the Association for Preservation Technology convened in San Francisco September 1-8. The nine-day conference concentrated on the technology of systems and the conservation of materials in the process of preservation.

ProSoCo hosted a reception at the Whittier Mansion, a National Register Landmark and headquarters of the California Historical Society. The reception was held the evening of September 5 and offered delegates the opportunity to see the massive sandstone mansion built in 1984 for William Franklin Whittier. The mansion contains many remarkable innovations for that era and is one of the few 19th century houses to survive the earthquake in San Francisco.

Whittier Mansion, San Francisco.

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