

2011 NOMINATION FORM

Ida Lee Willis Memorial Foundation Historic Preservation Awards Program

NOMINATIONS must be postmarked or received in the Kentucky Heritage Council office by Monday, April 11. Entries may also be submitted via email to kyheritage@ky.gov or by fax at 502-564-5820. For each entry, submit a completed nomination form, narrative description and supporting documentation to:

Kentucky Heritage Council / State Historic Preservation Office
300 Washington Street
Frankfort, KY 40601
ATTN: Ida Lee Willis Awards

1. Nominee

Name KY State Capitol Rotunda Interior Restoration

Title / Organization K. Norman Berry Associates Architects PLLC

Address 700 Capitol Avenue

City Frankfort State KY Zip 40601

Phone 502-582-2500 Email seggers@knbarch.com,
astilts@knbarch.com

2. Award

(check one)

Memorial Award Preservation Project Award Service to Preservation Award

3. Description

Include a brief narrative description of the project(s) the nominee has accomplished. Relate this description to the criteria for the appropriate award.

4. Supporting Documentation

Attach or enclose any photographs, articles, publications or letters of support for the nominee that would assist in the determining the impact of his/her contribution. Before and after photographs should be included for a Preservation Project Award. When submitting by mail, materials may also be submitted on a CD/DVD attached to the nomination form. When submitting via email, please submit all files in one email in PDF format; do not send multiple files. For questions, contact Diane Comer at 502-564-7005, ext. 120, or diane.comer@ky.gov.

5. Submitter of Nomination

Name Alan Stilts, AIA, LEED AP BD+C, NCARB

Title / Organization K. Norman Berry Associates Architects PLLC

Address 611 W Main Street

City Louisville State KY Zip 40202

Phone 502-582-2500 Email astilts@knbarch.com

April 7, 2011

Kentucky Heritage Council/State Historic Preservation Office
300 Washington Street
Frankfort, KY 40601
ATTN: Ida Lee Willis Awards

Dear Sirs:

This narrative is to consider the Kentucky State Capitol Rotunda Interior Restoration for the 2011 Ida Lee Willis Memorial Foundation Historic Preservation Awards Program for the Preservation Project Award.

Project History

The Kentucky State Capitol building, National Register Number 73000804, was constructed in 1905-1910. It was designed by Frank Mills Andrews using the Beaux-Arts style with classical French interior design aspects. The restoration of the Kentucky State Capitol Rotunda was fully commissioned in the spring of 2009 in order to be complete for the 100th anniversary celebration of the Capitol building in June 2010.

Project Approach

The project was very intricate due to the height of the Rotunda and the historic nature of the building. The first issue to be addressed was the protection of the Capitol building itself and the five (5) statues within the Rotunda, made of bronze, marble and plaster. All five statues were protected and covered with built-in-place wood boxes. The marble floor was then covered with Styrofoam insulation and plywood to protect it from the impending scaffolding. A layer of plastic was placed below the plywood to protect the floor from any paint spillage from above that may seep through the cracks of the plywood protection. The floor was shored from below in the basement and twenty-five (25) 500 pound I-beams were brought in to support the scaffolding weight of 120,000 pounds. All of these I-beams and ten (10) semi-truck loads of scaffolding were carried in by hand in order to protect the floors of the adjacent spaces. The interior scaffolding topped out at approximately 125' above the Rotunda floor and had a plywood platform, measuring the diameter of the inner dome, in which the contractor then used rolling scaffolding to reach the other 35' of the space.

Project Description

- Cleaning of all of the marble walls and archways that had been stained from years of smoking within the building.
- Patching and repair of the plaster walls along with the repainting of all originally painted surfaces. The paint used was a local manufacturer who specializes in the matching of historic paints. The gold paint for the dome pier capitals and the florette ring above the pendentives was custom made with special additives for a more representative appearance of gold leafing.
- The metal windows within the dome drum were refurbished in place with specially manufactured glazing to replace broken panes of glass in order to match the original existing glazing.
- The four (4) existing historic chandeliers were refurbished including a full breakdown of the fixture with the replacement of wiring and other minimal parts as well as being polished. Another factor of the project was to replace all of the incandescent lighting in the rotunda with Light Emitting Diode (L.E.D.) lighting. Twelve (12) new multi-colored L.E.D. spotlight fixtures were installed at the spring line of the inner plaster dome and connected to a computerized lighting controller for the function of changing the color and lighting of the dome both as static colors or specialized light shows to allow for different holidays, functions and events. Since their installation, the First Lady had the dome lit in a pink for breast cancer awareness. Four (4) new L.E.D. light fixtures were installed behind the dome oculus to brighten the appearance of the oculus. They are mounted at an angle across the oculus so that there is not a direct glare of light through the oculus. These four (4) fixtures are also attached to a dimmer switch to be able to adjust the amount of light emitting through the oculus' stained glass. All other existing light fixtures including the four (4) historic chandeliers received L.E.D. replacement light bulbs. Many of the oculus ring globes were cracked or broken and were replaced with new custom fabricated glass globes to match the original historic globes. All of the added accent lighting, including the twelve (12) color changing spotlights of the dome and the sixteen (16) pendentive mural accent lights, were located above cornices and set back from the edge to keep the modern accent lighting hidden from view. These lights are not visible when standing in the floor area of the Rotunda itself, but the mural accent lighting is visible when standing in the upper floors of the Great Halls, looking across the Rotunda.
- The pendentives were prepped for murals that were donated by a private party and installed, not under this project scope, but concurrently in the construction schedule. While the pendentive murals, themselves, were not a part of the scope of this project, the plaster at all four (4) pendentives had to be repaired and primed in preparation for the murals. Also, four (4) L.E.D. spotlights were located at the cornice below each pendentive, for a total of sixteen (16) L.E.D. spotlights, and were aimed across the Rotunda and the archways to give accent lighting to the new murals.

Special Issues

The lighting used during normal operations of this space was a key factor during the basis of design. Before the project began, none of the oculus nor the oculus ring light fixtures worked and had not worked for decades while the four (4) historic chandeliers had lost their luster. With the number of incandescent light bulbs on the four (4) chandeliers and the twelve balcony light fixtures adding up to around two hundred fifty (250) bulbs, it was normal for many bulbs to be burnt out on a regular basis and it was difficult to keep them changed out and all on and working at the same time.

One concern for the project was that of the aesthetics of the L.E.D. bulbs, both the light quality and appearance of the bulbs. Visually exposed L.E.D. bulbs were chosen for the best appropriate appearance and color temperature to match that of the original incandescent bulbs as to not take away from the historic nature of the space. Every bulb that was sufficient for the amount of light needed to light the space and the aesthetic historic nature of the bulb had large heat fins near the bulb base and they only came in a silver color. In order to make the L.E.D. bulbs blend in with the original and historical aesthetics of the space, the lighting supplier had the fins painted gold to blend with the refurbished historic chandeliers. The other concern was the visible diodes of the L.E.D. bulbs in lieu of the original incandescent filaments at the chandeliers. The L.E.D. bulbs used in the four (4) chandeliers have interior panels separating the diodes to create more of an illusion of incandescent filaments.

Another issue arose during the construction portion of the project that suggested moisture infiltration into the Rotunda which could cause damage to the building as well as the restored interior finishes and the new murals. In order to protect the building and its new restored interior finishes, the exterior stone drum of the Rotunda was tuck-pointed, re-caulked, and had new moisture-proofing applied to it.

Summary

The Capitol Rotunda is an icon for the state government as well as tourists. This project is a leading step for the Kentucky State government taking the initiative in making state facilities more sustainable and should boost statewide awareness of energy efficiency and sustainability. The restoration of this space shows a great responsibility of preserving the state's historic heritage as well as looking to the future of energy efficient sustainable buildings.

I would like to thank you for the opportunity and your consideration of the Kentucky State Capitol Rotunda Interior Restoration project for the Preservation Project Award of the 2011 Ida Lee Willis Memorial Foundation Historic Preservation Awards Program.

Sincerely,

K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC



Alan Stilts, AIA, LEED AP BD+C, NCARB
Project Architect

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611 West Main Street • Louisville, KY 40202

p. 502.582.2500

f. 502.582.2501

www.knbarch.com



Marble, Pendentives & Gold Leaf Florette Ring at base of drum (Before)



Cleaned Marble, New Murals at Pendentives with Accent Lighting and Gold Leaf Florette Ring at base of drum (After)



Interior Dome, Stained Glass Oculus & Oculus Light Ring (Before)



Interior Dome, Stained Glass Oculus & Oculus Light Ring (After)

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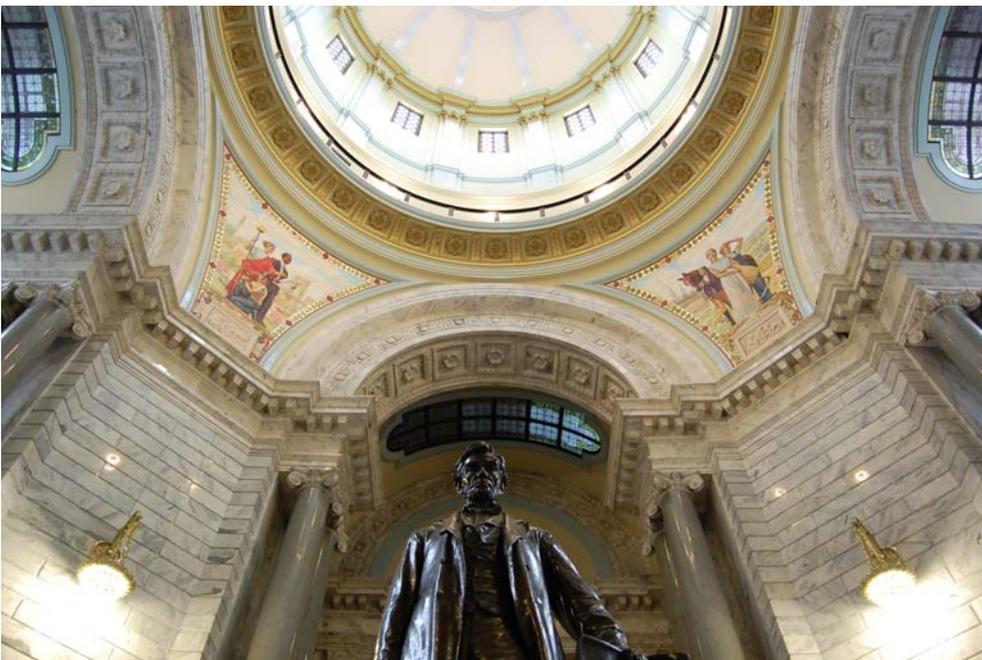
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Drum & Pendentives (Before)



Drum & Pendentives (After)

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Drum, Dome & Pendentives (After)



Oculus & Oculus Light Ring (After)

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L.E.D. Bulbs used at Chandeliers (After)