



# Novogradac Journal of Tax Credits

News, Analysis and Commentary On Affordable Housing, Community Development and Renewable Energy Tax Credits

January 2014 • Volume V • Issue I

Published by Novogradac & Company LLP

## HISTORIC TAX CREDIT TOOL BOX



### Getting Through Windows

JOHN M. TESS

HERITAGE CONSULTING GROUP

**W**indows are critical to a building's design and historic character. According to the National Park Service's (NPS's) Illustrated Guidelines for Rehabilitated Historic Buildings, "As one of the few parts of a building serving as both an interior and exterior feature, windows are nearly always an important part of the historic character of a building. In most buildings, windows also comprise a considerable amount of the historic fabric of the wall plane and thus are deserving of special consideration in a rehabilitation project." Given this position, it is not surprising that the agency devotes 22 Preservation Tech Notes to the topic.

Many developers start rehabilitation projects with the intention of replacing windows, even when other practical alternatives exist. In some instances, it is a matter of code, including energy efficiency standards, Americans with Disabilities Act (ADA) considerations and operational requirements; in other instances, the developer believes that replacement will provide greater budget and schedule certainty.

Because the 20 percent historic rehabilitation tax credit (HTC) conveys 100 percent project design review to the NPS, a developer must receive NPS approval to replace windows – even when the existing windows are replacements – to be approved for HTCs. This approval is distinct from any other design reviews. Although most jurisdictions have historic

design requirements that address window replacement and the project will also have to meet the local requirements, that process is entirely separate from the NPS's review and has no effect on the NPS determination.

Chuck Fisher, program manager at the NPS, has authored many of the NPS Tech Notes on windows, and has long been recognized as an expert on windows in historic buildings. With this extensive experience, Fisher has a lot of salient guidance for developers.

"It is important to recognize that the Park Service approaches window replacement in the larger context of the building and the rehabilitation project," he said. "Important questions are 'What is the significance of the building and what is the relationship of the windows to that significance?' 'How visible are the windows?'" He added, "Windows on a smaller building are viewed different from those of a high-rise. Windows on the rear are viewed different than those on more publically visible elevations."

Fisher also warns that for HTC projects, the NPS approval for window replacement is not a given. "A common problem is that developers develop the construction schedule and budget without taking into consideration the historic tax program's requirements and processes," he said. "It is important to address the window issue early in the planning

continued on page 2

continued from page 1

process. It is also recommended that the developer involve a window expert in the process, someone who is familiar with the Park Service requirements, the window industry capabilities and the manufacturing processes.”

Rather than jumping to window replacement, Fisher suggests that developers consider windows in a similar manner as other building components. He also encourages developers to properly evaluate window condition. There are numerous occasions when window replacement is unnecessary and windows may be repaired and supplemented with interior or (if appropriate) exterior storm windows. Such an evaluation shouldn't be limited to simply assessing the sashes, but should cover the entire window, including functional and decorative features; such features can include frames, sash, muntins, glazing, sills, heads, hoodmolds, paneled or decorative jambs, and moldings. If there is more than one type of window in the building, it is imperative that each principal type be evaluated as well. Only by conducting a proper survey of these elements early in the process, and noting both their individual and collective condition, can the development team fully understand its options. Such a survey need not encompass 100 percent of all windows, but it does need to be systematic. Hence, a survey shouldn't pick the best or worst, but rather use some reasonable calculation, such as examining 100 percent of every window on every third

floor. This analysis should be done by someone who is well-versed with historic window types, construction and materials, and who is experienced with window rehabilitation involving historic buildings, particularly with HTC projects.

If a building's historic windows are found to be in good condition, NPS reviewers will likely require that they be retained and repaired. If the majority of windows are in fair to poor condition and the nature of the deterioration makes repair unfeasible, reviewers usually will accept a proposal to replace the windows with appropriate, historically compatible units. It isn't uncommon that the accepted solution involve several different treatments, such as the repair of monumental windows on the lower two floors; replacing windows on upper floors of readily visible facades with a closely matching unit; and replacing windows on rear elevations with a less detailed unit.

Fisher advises against relying on the project's general contractor to find a replacement window manufacturer and product. Windows are a particular skill set, and Fisher recommends using the skills of a knowledgeable consultant, much like a developer would hire a mechanical engineer or a terra cotta rehabilitation expert. It is also important to allocate sufficient time for finding an appropriate replacement product. Off-the-rack windows

continued on page 3

*Photo: Courtesy of Heritage Consulting Group*

**The windows at 450 Sutter Street in San Francisco were replaced with prototype windows made to match the original historical windows and their features.**



continued from page 2

are invariably cheaper but they are rarely acceptable. Off-the-rack windows rarely reflect the historical proportions and necessary detailing. Often window replacement can be accomplished through a semi-custom process where a manufacturer augments an existing product with customized details. A number of window companies have built up semi-custom products to serve the historic rehabilitation market. However, on some HTC projects, the historic windows being replaced may have distinctive features that require the creation of new dies and tooling to replicate important details. These costs can be amortized over a large order so that the added expense may be only a few dollars per window. The take-away here, again, is that the developer should engage a window expert who is familiar with the tax credit process, windows and window manufacturing.

To develop replacement windows, the first step is to get detailed, measured drawings of each major window type. These drawings are provided to the manufacturer who is charged with providing shop drawings of the proposed replacements that meet the budget, operation goals, performance goals and project design. These two drawings are then submitted to State Historic Preservation Office (SHPO) and the NPS for review. Background information about the manufacturer and product specifications should be included with the drawing submittal. It is critical that the written specification cross reference and support the depicted details, and that any required customization is labeled. This last point is particularly important. The submission should contain details about important character-defining elements such as the proposed glazing and material finish. For example, it's common that in the rehabilitation of a larger office building, existing standard upper floor wood windows can be replaced with aluminum. Upon review, depending upon the match, SHPO or the NPS may require design changes. This process may take several different passes and conversations.

The next step, which is advantageous to all parties, should be the installation of a prototype. Typically, for a medium to large project, the window manufacturer will



*Photo: Courtesy of Heritage Consulting Group*

**An original window at the Meier & Frank Delivery Depot in Portland, Ore. before the windows were replaced during the property's rehabilitation and conversion into the Vestas headquarters.**

supply a prototype unit at no cost. Building in sufficient lead time for installation of a mock-up is critical to the process. The field mock-up provides the best opportunity to ensure that the proposed replacement window will be a close match to the historic window. This also allows the development team to see firsthand any potential problems with the unit or the installation process. It is often the most expeditious way to get approval for the window work from SHPO and the NPS, as well as from a local historic review commission. The adage "seeing is believing" holds true in the historic review process.

The NPS is most demanding about the design of highly visible windows, such as those on the lower floors of street elevations. The agency is less concerned with less-visible windows, such as those on rear elevations. Additionally, for high-rise buildings, the NPS is more flexible on design as visibility decreases, provided the basic visual qualities are not compromised.

continued on page 4

continued from page 3

It is important to recognize that window evaluation and replacement in the HTC program is not static. Heritage Consulting Group's window expert, Sam Wharton, is a fenestration expert who has been involved in the historical window replacement marketplace since 1980. In the 1980s, few window manufacturers saw potential in the historic marketplace and they were generally unwilling to modify designs to accommodate the "historics." Manufactured wood and aluminum windows had established their own identity, which was principally to fill holes in new construction. Products at that time had scant resemblance to the wood or steel sashes that graced window openings during the late 19th and early 20th centuries. In deference to a stock-sized, mass-produced market, fenestration had suffered a loss of character. Windows were being produced without shape or shadow. When confronted with a historic building, the manufacturer's solution was simply to adapt the window opening to its needs; articulated perimeter brick molds were covered, arched and Palladian topped openings were paneled over.

It was then that the NPS, under Fisher's guidance, began to prod, encourage and challenge the window industry to be more responsive to the shapes, proportions, articulated material depths and stratified surfaces that distinguished historical window materials. During the past 30 years, the commercial window industry has responded to the challenge. Accessories have been extruded to match common historic profiles. Sash frames with applied muntins and beveled inside edges became more readily available and more closely resembled historic versions. In some instances, new products were created to replicate specific historic window types.

While window companies have improved their offerings for replacing historic windows, a project team may still make the wrong choices unless they are well-versed in the specific capabilities of various window companies. Those wrong choices can result in needless delays, as well as a drawn out review process by the SHPO and NPS. That is why it is imperative to include a fenestration expert on the project team.

As historic preservation faces the challenges of sustainability, energy codes and new technology, the expectation is that manufacturers will continue to develop better windows for the historic marketplace. In the meantime, developers must recognize the challenges and procedures for changing windows on historic buildings within the HTC program. The process can consume substantial time and money, significantly affecting the project schedule. For these reasons, it is important to work with a design team as early in the process as possible, preferably a team that has experience in window replacement, as well as with SHPO and the NPS. The reward is twofold: ensuring the building's architectural integrity and securing HTCs. ❖

---

*John M. Tess is president and founder of Heritage Consulting Group, a national firm that assists property owners seeking local, state and federal historic tax incentives for the rehabilitation of historic properties. Since 1982 Heritage Consulting Group has represented historic projects totaling more than \$1 billion in tax credits. He can be reached at 503-228-0272 or [jmtess@heritage-consulting.com](mailto:jmtess@heritage-consulting.com).*

---

*This article first appeared in the January 2014 issue of the Novogradac Journal of Tax Credits.*

© Novogradac & Company LLP 2014 - All Rights Reserved

*Notice pursuant to IRS regulations: Any U.S. federal tax advice contained in this article is not intended to be used, and cannot be used, by any taxpayer for the purpose of avoiding penalties under the Internal Revenue Code; nor is any such advice intended to be used to support the promotion or marketing of a transaction. Any advice expressed in this article is limited to the federal tax issues addressed in it. Additional issues may exist outside the limited scope of any advice provided – any such advice does not consider or provide a conclusion with respect to any additional issues. Taxpayers contemplating undertaking a transaction should seek advice based on their particular circumstances.*

*This editorial material is for informational purposes only and should not be construed otherwise. Advice and interpretation regarding property compliance or any other material covered in this article can only be obtained from your tax advisor. For further information visit [www.novoco.com](http://www.novoco.com).*

## EDITORIAL BOARD

PUBLISHER

**Michael J. Novogradac, CPA**

EDITORIAL DIRECTOR

**Alex Ruiz**

TECHNICAL EDITORS

**Robert S. Thesman, CPA**

**James R. Kroger, CPA**

**Owen P. Gray, CPA**

**Thomas Boccia, CPA**

**Daniel J. Smith, CPA**

## COPY

ASSOCIATE EDITOR

**Jennifer Dockery**

STAFF WRITERS

**Teresa Garcia**

**Mark O'Meara**

EDITORIAL ASSISTANT

**Elizabeth Orfin**

CONTRIBUTING WRITERS

**Jana Cohen Barbe**

**Brandi Day**

**Scot Keller**

**Richard Gerwitz**

**Jim Kroger**

**Peter Lawrence**

**Forrest Milder**

**Brent R. Parker**

**Rodney Sommers**

**John M. Tess**

**Jillian Toole**

## ART

CARTOGRAPHER

**David R. Grubman**

PRODUCTION

**Alexandra Louie**

**Jesse Barredo**

**James Matuszak**

## CONTACT

CORRESPONDENCE AND EDITORIAL SUBMISSIONS

**Alex Ruiz**

**alex.ruiz@novoco.com**

**415.356.8088**

ADVERTISING INQUIRIES

**Emil Bagalso**

**emil.bagalso@novoco.com**

**415.356.8037**

EDITORIAL MATERIAL IN THIS PUBLICATION IS FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE CONSTRUED OTHERWISE.

ADVICE AND INTERPRETATION REGARDING THE LOW-INCOME HOUSING TAX CREDIT OR ANY OTHER MATERIAL COVERED IN THIS PUBLICATION CAN ONLY BE OBTAINED FROM YOUR TAX ADVISOR.

## ADVISORY BOARD

### LOW-INCOME HOUSING TAX CREDITS

**Bud Clarke**

BOSTON FINANCIAL INVESTMENT MANAGEMENT

**Jana Cohen Barbe**

DENTONS

**Tom Dixon**

BOSTON CAPITAL

**Rick Edson**

HOUSING CAPITAL ADVISORS INC.

**Richard Gerwitz**

CITI COMMUNITY CAPITAL

**Rochelle Lento**

DYKEMA GOSSETT PLLC

**John Lisella**

U.S. BANCORP COMMUNITY DEV. CORP.

**Philip Melton**

CENTERLINE CAPITAL GROUP

**Thomas Morton**

PILLSBURY WINTHROP SHAW PITTMAN LLP

**Mary Tingerthal**

MINNESOTA HOUSING FINANCE AGENCY

**Rob Wasserman**

U.S. BANCORP COMMUNITY DEV. CORP.

### PROPERTY COMPLIANCE

**Michael Kotin**

KAY KAY REALTY

**Michael Snowdon**

HIGHRIDGE COSTA HOUSING PARTNERS

**Gianna Solari**

SOLARI ENTERPRISES INC.

**Kimberly Taylor**

HOUSING DEVELOPMENT CENTER

### HOUSING AND URBAN DEVELOPMENT

**Flynann Janice**

RAINBOW HOUSING

**Ray Landry**

DAVIS-PENN MORTGAGE CO.

**Denise Muha**

NATIONAL LEASED HOUSING ASSOCIATION

**Monica Sussman**

NIXON PEABODY LLP

### NEW MARKETS TAX CREDITS

**Frank Altman**

COMMUNITY REINVESTMENT FUND

**Merrill Hoopengardner**

ADVANTAGE CAPITAL

**Scott Lindquist**

DENTONS

**Matthew Philpott**

U.S. BANCORP COMMUNITY DEV. CORP.

**Matthew Reilein**

JPMORGAN CHASE BANK NA

**Ruth Sparrow**

FUTURES UNLIMITED LAW PC

**Elaine DiPietro**

ENTERPRISE COMMUNITY INVESTMENT INC.

### HISTORIC TAX CREDITS

**Jason Korb**

CAPSTONE COMMUNITIES

**John Leith-Tetrault**

NATIONAL TRUST COMM. INVESTMENT CORP.

**Bill MacRostie**

MACROSTIE HISTORIC ADVISORS LLC

**John Tess**

HERITAGE CONSULTING GROUP

### RENEWABLE ENERGY TAX CREDITS

**Bill Bush**

BORREGO SOLAR

**Ben Cook**

SOLARCITY CORPORATION

**Jim Howard**

DUDLEY VENTURES

**Forrest Milder**

NIXON PEABODY LLP

**John Pimentel**

FOUNDATION WINDPOWER

© Novogradac & Company LLP

2014 All rights reserved.

ISSN 2152-646X