

<b>COA # 2010-COA-174 (WD)</b>	<b>INDIANAPOLIS HISTORIC PRESERVATION COMMISSION STAFF REPORT</b>	Hearing Date <b>JUNE 2, 2010</b>
<b>105 S. Meridian St. Wholesale District</b>		NEW CASE
<b>Applicant</b>	<b>RATIO ARCHITECTS FOR 105 S. MERIDIAN, INC.</b>	
mailing address:	107 S. Pennsylvania, Suite 100 Indianapolis, IN 46204	
<b>Owner:</b>	<b>105 South Meridian, Inc.</b>	
	105 S. Meridian Indianapolis, IN 46225	
<b>CASE</b>		
<b>IHPC COA:</b>	<b>2010-COA-174 (WD)</b>	• Replace the steel windows on floors 2 through 9 of the north and west elevations with new aluminum windows
<b>STAFF RECOMMENDATION: Approval</b>		

<b>STAFF COMMENTS</b>
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**Background of the Property**

105 S. Meridian was built in 1929-30 as the Big Four Headquarters owned by the Cleveland, Cincinnati, Chicago and St. Louis Railway. It was designed by D.A. Bohlen & Son and is constructed of a concrete frame, floors and roof. It is rectangular in plan and is eleven bays wide on the Maryland Street side and three bays wide on the Meridian Street end. It is clad in brick and stone and features terra-cotta detailing in the Art Deco and Gothic styles at the cornice.

In 1986, the building was renamed the Chesapeake Building. In 1996, the building was renovated and became the Hampton Inn hotel. It is located at the southeast corner of Maryland and Meridian Streets and is zoned CBD-2. The applicant is requesting to replace all of the windows on floors 2 through 9 of the north and west elevations (219 units). They intend to apply later to replace the windows on the south and east.

**Historic and Existing Windows**

Presently, the north and west elevations have all steel 1/1 sashes. The level of deterioration of the sashes indicates they are old, but staff has not been able to pinpoint their age or be completely certain they are not original. It seems unlikely they are original, as the 1929 construction drawings specify wood windows of varying configurations (see attachments for details) to be installed on the north and west elevations and metal windows only on the south and east. However, historic photos of the building in 1930 do not definitively clarify the original window material. And, in fact, the photos do indicate that some window details were changed from the original plans, as the plans call for 3/1 double-hung windows on the 2<sup>nd</sup> and 9<sup>th</sup> floors of the north and west elevations and the 1930 photo shows all 1/1 double-hung windows.

Additionally, the building changed hands several times prior to district designation in 1990, leaving ample opportunity for alterations to the windows without any review or approvals required.

In 1996, the building did undergo significant renovation in preparation for its conversion to a hotel use, and at that time, the Commission approved new steel windows to be installed. However, staff believes this work was not completed as the condition of the existing windows would suggest the units are older than 14 years and the owner indicates that interior storms were installed at that time.

### **Condition**

A detailed summary of the existing window conditions is attached, but generally, the applicant's survey of the conditions found:

- extensive surface corrosion,
- failing caulk between rough opening and frames,
- failing sash glazing compound,
- failed seals, and
- gaps between the window frames and drywall.

Additionally, the building owner indicates the hotel receives regular complaints from hotel guests about the windows related to heat/cold and noise issues. In 2008, the owner issued 20 refunds totaling \$2,744.80 and in 2009, 26 refunds totaling \$3,326.40 were issued, all because of window related complaints. Additionally, the owner estimates the annual cost to maintain the existing windows is approximately \$14,060 to \$21,090 plus lost revenue from guests who will not return due to the poor condition.

### **Proposed Replacement Windows**

The applicant proposes the 219 units on the north and west elevations between floors 2 and 9 be replaced with a Graham Series 1200 fixed aluminum window. The replacements will fit the existing openings and mimic the existing 1/1 configuration. There are minor alterations to the profile, specifically in the head, sill and jamb (see attached section details).

### **Alternatives to Aluminum Replacement**

The applicant also considered repair of the existing windows as well as replacement with new steel windows and requested quotes for comparison. Based on the significant difference in cost, as well as projected longevity and maintenance needs, the owner determined their preferred option is replacement with new aluminum units.

Koch Repair Quote	\$273,760	219 windows	\$1250/window
Nestel Repair Quote	\$463,623	219 windows	\$2117/window
Koch Aluminum Replacement	\$263,141	219 windows	\$1202/window
Nestel Aluminum Replacement	\$315,141	219 windows	\$1439/window
Koch Steel Replacement	\$665,532	219 windows	\$3039/window

### **Justification for Replacement**

For the following reasons, staff finds the aluminum replacement option appropriate:

1. It is likely the existing windows are replacements windows.
2. The commission has previously approved replacement windows on this building in 1996.
3. The proposed replacement windows have the same configuration to the original and existing windows with minimal changes in dimension/profile and will not create an adverse effect architecturally.
4. From the standpoint of visual aesthetics, the difference between steel and aluminum is limited, if comprehensible at all.
5. The cost between repair and aluminum replacement windows is minimal; with the replacement actually being the more economic option and offering reduced ongoing maintenance.

### **Wholesale District Plan**

*“Retain original windows whenever possible. It is often less expensive to repair the original fabric than to replace the material entirely. If total replacement is necessary, similar materials should be used. Do not change the original shape, size, dimensions, design, and pattern created by the windows.”*

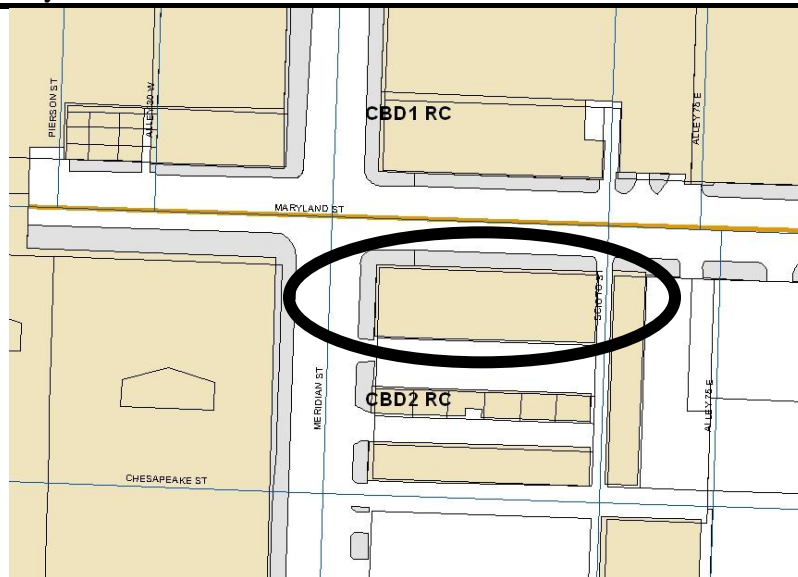
## STAFF RECOMMENDED MOTION

2010-COA-174 (WD):

**To approve a Certificate of Appropriateness for replacement of existing steel windows on floors 2 through 9 at the north and west elevations with new aluminum windows, all per submitted documentation and subject to the following stipulations:**

1. New windows must fit the existing openings; altering existing openings is NOT permitted.
2. No changes to the proposed window specification, design, locations, configuration, or method of installation are permitted without prior consultation with IHPC staff.
3. Glass shall be clear; any addition of beveling, frosting, etching, caming, or stained glass is NOT permitted under this approval.
4. Any deviation from this approach shall be approved by the IHPC prior to installation.

Staff Reviewer: Amy L. Bear



Aerial view looking north

## Description of Work Continuation

The Hampton Inn was constructed as the Big Four Building in 1929-1930. The 1929 construction drawings indicate "wood windows" on the north and west elevations and "metal windows" on the south and east elevations. The windows shown on the 1929 drawings are as follows:

- North Elevation
  - 3/1 wood double hung sash/frames at the 2<sup>nd</sup> and 9<sup>th</sup> floors
  - 1/1 wood double hung sash/frames at 3<sup>rd</sup> thru 8<sup>th</sup> floors
  
- West Elevation
  - 3/1 wood double hung sash/frames at the 2<sup>nd</sup> and 9<sup>th</sup> floors
  - 6/6 wood arched double hung sash/frame flanked by half-arch multi-light fixed wood sash/frame above entry on 2<sup>nd</sup> floor
  - 1/1 wood double hung sash/frames at 3<sup>rd</sup> thru 8<sup>th</sup> floors
  
- East Elevation
  - 3/3 metal double hung sash/frames at 2<sup>nd</sup> thru 9<sup>th</sup> floors
  
- South Elevation and Light Well Elevations
  - 3/3 metal double hung sash/frames at 2<sup>nd</sup> thru 9<sup>th</sup> floors

With the exception of the arched multi-light wood sash over the Meridian Street entrance, all wood sash windows on the North and West elevations have been removed and replaced with 1/1 double-hung steel sash windows. In addition, the multi-light metal windows on the East elevations have been removed and replaced with 1/1 double-hung steel sash windows. When and why the windows at the North, West and East elevations were replaced is unknown, but the current windows were present when the building was last renovated in 1996. As part of that renovation, interior storm sash were installed at all window openings.

Due to the number of complaints from guests and the cost and difficulty of maintaining the 393 existing steel windows, 105 S. Meridian Inc. is proposing to have the windows replaced. Ultimately, they would like to replace all of the windows, however at this time they are planning to complete the work in phases. Phase 1 would consist of all windows on levels 2 through 9 at the north and west elevations. The attached bids vary in terms of quantity of windows (Phase 1 vs. all windows), but are broken down into per window costs below for easier comparison.

Information on the number of refunds per year due to window complaints as provided to us by building management: "In 2008 we had 20 refunds due to heat/cold issues related to the windows. The cost was \$2,744.80. In 2009, the numbers were 26 at \$3,326.40. So far in 2010 (as of February 10<sup>th</sup>), 3 at \$358.90." Please note that not only is this lost current income, it is also lost future income as these guests are likely not to return to the Hampton as a result of the windows.

Current costs per year to maintain existing windows as provided by the building maintenance staff: "We replace around 20 to 30 windows a year. Cost is inside (storm) windows \$166.00 per window and outside window is around \$537.00 a window. We always run behind on replacements so even when we do some windows other are already broke or cracked."

Based on the attached cost estimates, the owner's preferred option is to replace the windows with new, fixed, thermally glazed, aluminum windows, with muntins and mullions to simulate the configuration of the existing windows.

Attachments:

- 1929 Construction Drawings
- Historic Photographs
- Window Condition Survey
- Photographs of Existing Conditions
- Comparative Drawings - Existing Windows vs. Aluminum Replacements
- Cost Estimates

Koch Repair Quote	\$273,760	219 windows	\$1250/window
Nestel Repair Quote	\$711,406	336 windows	\$2117/window
Koch Replacement with Aluminum Quote	\$263,141	219 windows	\$1202/window
Nestel Replacement with Aluminum Quote	\$483,490	336 windows	\$1439/window
Koch Replacement with Steel Quote	\$665,532	219 windows	\$3039/window

Based on the per window unit cost, the Nestel prices for the work in phase one can be extrapolated as:

Koch Repair Quote	\$273,760	219 windows	\$1250/window
<b>Nestel Repair Quote</b>	<b>\$463,623</b>	<b>219 windows</b>	<b>\$2117/window</b>
Koch Replacement with Aluminum Quote	\$263,141	219 windows	\$1202/window
<b>Nestel Replacement with Aluminum Quote</b>	<b>\$315,141</b>	<b>219 windows</b>	<b>\$1439/window</b>
Koch Replacement with Steel Quote	\$665,532	219 windows	\$3039/window

Historic Photographs



1930 North and West Elevations



1965 North and West Elevations



1995 West elevation



1995 Close-up of double hung windows

## Window Condition Survey

The IHPC's rehabilitation guidelines suggest retaining and repairing existing historic windows whenever possible. In order to justify their replacement, existing windows have to be determined to be beyond reasonable technical or economical repair. On Tuesday morning, 8/11/2009, I conducted a visual survey of the windows at the Hampton Inn. By my count there are 393 window openings on the north, south, east and west elevations of floors 2-9. Of these, there is one (1) window opening boarded from the exterior (east elevation), sixteen (16) window openings with HVAC louvers (south elevation), and twenty-four (24) window openings walled off from the interior (south and east elevations). I visually surveyed approximately 15% of the remaining windows from the interior and note the following repairs would need to be undertaken:

- All windows are in need of repainting. The frames and sash need to be scraped, sanded and primed prior to the application of two finish coats.
- Approximately 5% of the window frames and sash viewed on Tuesday exhibit extensive surface corrosion which may require their total replacement.
- All window frames need to be recaulked to the masonry rough opening. The sealant at the juncture between the masonry rough opening and the steel window frames has dried and cracked and is falling out. This is allowing noise, wind and weather into the wall cavity. All remaining sealant should be removed, backer-rod installed as needed and a high quality caulk installed to seal the joint.
- All window sash glazing compound needs to be replaced. The glazing compound has dried and cracked and is falling out. This is allowing window and weather into the space between the exterior sash and the interior storms. All remaining glazing compound should be removed, any cracked glass (approximately 5%) should be replaced and new high quality glazing compound installed to seal the glass to the sash.
- Approximately 20% of the windows viewed on Tuesday appear to have failed seals at the meeting rails. If there was weatherstripping, it has failed allowing noise, wind and weather into the space between the exterior sash and the interior storms. All meeting rails should be inspected and should be sealed with either new weatherstripping or a high quality caulk.
- Approximately 25% of the window openings viewed on Tuesday exhibit gaps between the window frame and the interior drywall return allowing noise, wind and weather to enter the rooms. All window openings should be inspected and any gaps should have backer-rod installed as needed and a high quality caulk installed to seal the gaps.
- Approximately 60% of the window openings facing into the south light well had combinations of replacement clear and original wire glass glazing. These should be reglazed to one uniform appearance.

I would suggest having your contractor create a cost estimate to undertake the above repair treatments on the existing windows. This number can then be used with the staff at the IHPC to compare the cost to retain and repair the existing windows versus the purchase and installation of new windows that match the historic windows in size, shape, dimensions, design and pattern.

## Existing Conditions



Peeling paint and failing sealant at exterior of window. Exterior faces are difficult to reach due to height and location above sidewalks.



Corrosion at exterior sill



Mold growth between interior storm and window.



Broken Glass – Corroded steel is expanding, putting pressure on the panes of glass which then fracture.

# KOCH CORPORATION

1131 Logan Street  
Louisville, KY 40204  
502 636 3571 fax 636 3574

## QUOTATION

**DATE:** March 29, 2010  
**AGENT:** Keith Trump, LLC  
**OWNER:** Hampton Inn  
**ARCHITECT:** na  
**PROJECT:** Hampton Inn, Corner of Maryland and Meridian, Indianapolis  
**SCOPE:** Window Repair and restoration.

We are please to offer this quotation for your use. All prices are for furnished and installed materials per the description and quantities below.

### Scope:

1. 219 total windows (Approx 6263.13sq/ft)
  - a. 16 ( approx. 55" x 86") Inside of steel frame to inside of steel frame with sashes removed, not interior or exterior rough opening.
  - b. 203 ( approx. 55" x 74") Inside of steel frame to inside of steel frame with sashes removed, not interior or exterior rough opening.
2. Remove storm panels
3. Remove exterior caulking and re-caulk exterior of windows
4. Repaint exterior and interior of windows
5. Repair existing balance hardware and or replace if necessary.
6. Repair existing locking hardware and or replace if necessary.
7. Replace interior storm window
8. Koch to provide AIA contract Owner ( Hampton) to Contractor (Koch)

**Misc.:** Work days to be limited Monday through Thursday

For the sum of **\$273,760**

### Qualifications:

1. Proposal includes insurance with Hotel named as the insured and Keith Trump, LLC.
2. Sales tax is included in proposal
3. Price is valid for 30 days

### Terms and Condition:

1. Contract shall be AIA, A105-2007, contract between Owner and Contractor (Koch will provided rough draft for review, see attached).
2. Project billed monthly net 25 days.
3. No retainage shall be held.

# KOCH CORPORATION

1131 Logan Street  
Louisville, KY 40204  
502 636 3571 fax 636 3574

## QUOTATION

**DATE:** January 6, 2009  
**AGENT:** Keith Trump, LLC  
**OWNER:** Hampton Inn  
**ARCHITECT:** na  
**PROJECT:** Hampton Inn, Corner of Maryland and Meridian, Indianapolis  
**SCOPE:** Window replacement

We are please to offer this quotation for your use. All prices are for furnished and installed materials per the description and quantities below.

### Materials:

1. Fixed aluminum windows. HC/AW rating, Graham Series 1200 with replica sill and frame and off set panes.
2. 219 total windows (Approx 6263.13sq/ft)
  - a. 16 ( approx. 55" x 86") Inside of steel frame to inside of steel frame with sashes removed. not interior or exterior rough opening.
  - b. 203 ( approx. 55" x 74") Inside of steel frame to inside of steel frame with sashes removed, not interior or exterior rough opening.
3. Trim & Clip at the head, jamb & sill, with extended log back to interior finish, rat tail.
4. Preset panning at the head, jamb & sill, box panning
5. 2604 powder coat standard finish, one of \_\_\_\_ standard colors (color chart being sent under separate cover) some modifications to color may be available at no cost, manufacture to confirm during 15/10 meeting.
6. 1" IG (1/8" clear annealed w/ low e – 1/8" clear annealed) "High Performance Soft Coat Low E, air cavity filled with argon gas"
7. Window warranty for (1) one year
8. Glass warranty for (10) ten years
9. Finish warranty for (10) ten years
10. Shop drawings included
11. Freight to jobsite
12. Caulking as needed, interior caulk to be low odor.
13. Insulated air cavities as needed
14. No work May 1<sup>st</sup> thru June 1<sup>st</sup> or as directed by Owner or Agent
15. Drapery removal and reinstallation is by Koch
16. Goal to complete each room each day 100% included cleaning.
17. Goal 4 rooms or 8 windows a day
18. Includes moving storms to owner provided storage, Koch can not guarantee usability of condition of storm windows.
19. Koch to provide AIA contract Owner ( Hampton) to Contractor (Koch)
20. Koch to provide drawings for historic approval.

Misc.: Work days to be limited Monday through Thursday

For the sum of \$263,141.00

**Qualifications:**

1. Proposal assumes dimensions and quantities to be correct any changes will require re-pricing
2. Proposal assumes the absence of hazardous materials
3. Proposal includes insurance with Hotel named as the insured and Keith Trump, LLC.
4. Sales tax is included in proposal
5. No field testing or mock-ups

**Terms and Condition:**

1. Contract shall be AIA, A105-2007, contract between Owner and Contractor (Koch will provided rough draft for review, see attached).
2. 5% of bid amount will be paid for shop drawings and field engineering due at signing of contract.
3. Materials to be billed upon arrival and shall be net 25 days
4. Labor shall be billed monthly net 25 days.
5. Billings for labor and materials shall be monthly
6. No retainage shall be held.

Prepared by: *Don Sweeney*

# KOCH CORPORATION

1131 Logan Street  
Louisville, KY 40204  
502 636 3571 fax 636 3574

## QUOTATION

**DATE:** March 29, 2010  
**AGENT:** Keith Trump, LLC  
**OWNER:** Hampton Inn  
**ARCHITECT:** na  
**PROJECT:** Hampton Inn, Corner of Maryland and Meridian, Indianapolis  
**SCOPE:** Window replacement

We are please to offer this quotation for your use. All prices are for furnished and installed materials per the description and quantities below.

### Materials:

1. Steel windows.
2. 219 total windows (Approx 6263.13sq/ft)
  - a. 16 ( approx. 55" x 86") Inside of steel frame to inside of steel frame with sashes removed, not interior or exterior rough opening.
  - b. 203 ( approx. 55" x 74") Inside of steel frame to inside of steel frame with sashes removed, not interior or exterior rough opening.
3. 2604 powder coat standard finish, one of \_\_\_\_ standard colors (color chart being sent under separate cover) some modifications to color may be available at no cost, manufacture to confirm during 1/5/10 meeting.
4. 1" IG (1/8" clear annealed w/ low e -- 1/8" clear annealed) "Standard Performance Soft Coat Low E"
5. Window warranty for (1) one year
6. Glass warranty for (10) ten years
7. Finish warranty for (10) ten years
8. Shop drawings included
9. Freight to jobsite
10. Caulking as needed, interior caulk to be low odor.
11. Insulated air cavities as needed
12. No work May 1<sup>st</sup> thru June 1<sup>st</sup> or as directed by Owner or Agent
13. Drapery removal and reinstallation is by Koch
14. Goal to complete each room each day 100% included cleaning.
15. Goal 2 rooms or 4 windows a day
16. Includes moving storms to owner provided storage, Koch can not guarantee usability of condition of storm windows.
17. Koch to provide AIA contract Owner ( Hampton) to Contractor (Koch)
18. Koch to provide drawings for historic approval.

**Misc.:** Work days to be limited Monday through Thursday

For the sum of **\$665,532.00**

**Qualifications:**

1. Proposal assumes dimensions and quantities to be correct any changes will require re-pricing
2. Proposal assumes the absence of hazardous materials
3. Proposal includes insurance with Hotel named as the insured and Keith Trump, LLC.
4. Sales tax is included in proposal
5. No field testing or mock-ups

**Terms and Condition:**

1. Contract shall be AIA, A105-2007, contract between Owner and Contractor (Koch will provided rough draft for review, see attached).
2. 5% of bid amount will be paid for shop drawings and field engineering due at signing of contract.
3. Materials to be billed upon arrival and shall be net 25 days
4. Labor shall be billed monthly net 25 days.
5. Billings for labor and materials shall be monthly
6. No retainage shall be held.

Prepared by: *Don Sweeney*

12/9/9

Mr. Ron Tedrow  
105 S. Meridian, Inc.  
Indianapolis, IN

Re: Hampton Inn Thermal Windows

Dear Ron:

We are pleased to submit our proposal to add thermal efficient windows at the Hampton Inn. Our price includes labor, material, equipment, insurance and taxes to install 336 windows.

Base Bid EFCO 6711-lead time approx. 10 weeks, weather issue.

Supervision 15 weeks	25,312
Gen. Cond.	36,760
Carpentry	8,400
Glass	351,100
Drapery (allowance)	15,000
P&P Bond	12,000
Mark-Up	34,918
	<hr/>
	\$ 483,490

Qualification: Dumpster and Container space in adjacent lot. Some, if not all, rooms are occupied by construction for one night.

Exclusions: Glass cleaning, final cleaning, painting, blocked-out or grilled windows, muttons.

**ALTERNATE PRICE: REHABILITATION OF EXISTING WINDOWS AND WINDOW FRAMES INCLUDES PAINTING, REPAIR, CAULKING, GLAZING PER RATIO LETTER. ADD \$227,916 TO BASE BID TO REHAB EXISTING WINDOWS IN LIEU OF REPLACING WITH THERMAL EFFICIENT WINDOWS. TOTAL PRICE TO REHAB EXISTING WINDOWS IS \$711,406.**

Best Regards,

NESTEL CONSTRUCTION, INC.

Charles S. Nestel  
President  
Ext 14

1110 E. 22<sup>nd</sup> Street; Indianapolis, IN 46202 FAX 317-243-8770 PHONE 317-243-6175  
www.nestelconstruction.com

PROPOSED REPLACEMENT WINDOW SPECIFICATIONS

**Series 1200 3/4" Frame Depth  
FIXED**

CONFIGURATION



PRODUCT SERIES CAPABILITIES



Brattleboro Union HS – Brattleboro, VT



Brattleboro Union HS – Brattleboro, VT



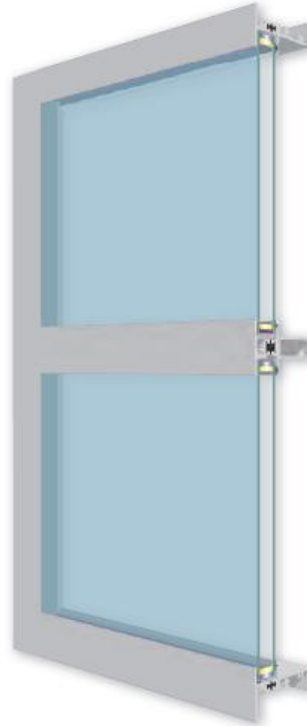
Kahala Nui – Honolulu, HI



**SERIES 1200  
QUICK VIEW:**

This fixed window system mulls to fixed and operable products of the same frame depth.

Contact your nearest sales representative for more information.



**STANDARD FEATURES**

- Mulls to fixed and operable products of same frame depth
- Bead glazing up to 1" thick
- Coped corner construction

**OPTIONAL FEATURES**

- True and exterior-applied muntin grids
- Radius shapes and custom curving to specification
- Offset glazing to simulate single-hung window
- Fixed offset to match Series 2000 available

**SERIES 1200 3/4" FRAME DEPTH PERFORMANCE CHARACTERISTICS**

TYPE	AAMA RATING & TEST SIZE		AIR (cfm/ft <sup>2</sup> ) at 50 mph	WATER (psf)	DESIGN PRESSURE (psf)	UNIFORM LOAD STRUCTURAL (psf)	U-VALUE (Btu/hr/ft <sup>2</sup> /°F)		CRF	STC RATING
	FW-HC90 60x99	FW-AW90 60x99					Low-E glass	Non- coated glass		
FIXED	FW-HC90 60x99	FW-AW90 60x99	0.01	15	90	135	0.35	0.57	63	31-36

**Series 1200 OPTIONS**

The information on this page is current at the time of publication.



Panning Profiles



Muntin/Grid Profiles



Interior Trim Profiles

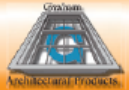
Check website for complete, current information including other installation and hardware options: [www.grahamwindows.com](http://www.grahamwindows.com)  
1551 Mt. Rose Avenue, York, Pennsylvania 17403-2909 • email: [info@grahamwindows.com](mailto:info@grahamwindows.com) • (800) 755-6274 • 717-849-8100

**Series 1200 3/4" Frame Depth  
FIXED**

CONFIGURATION

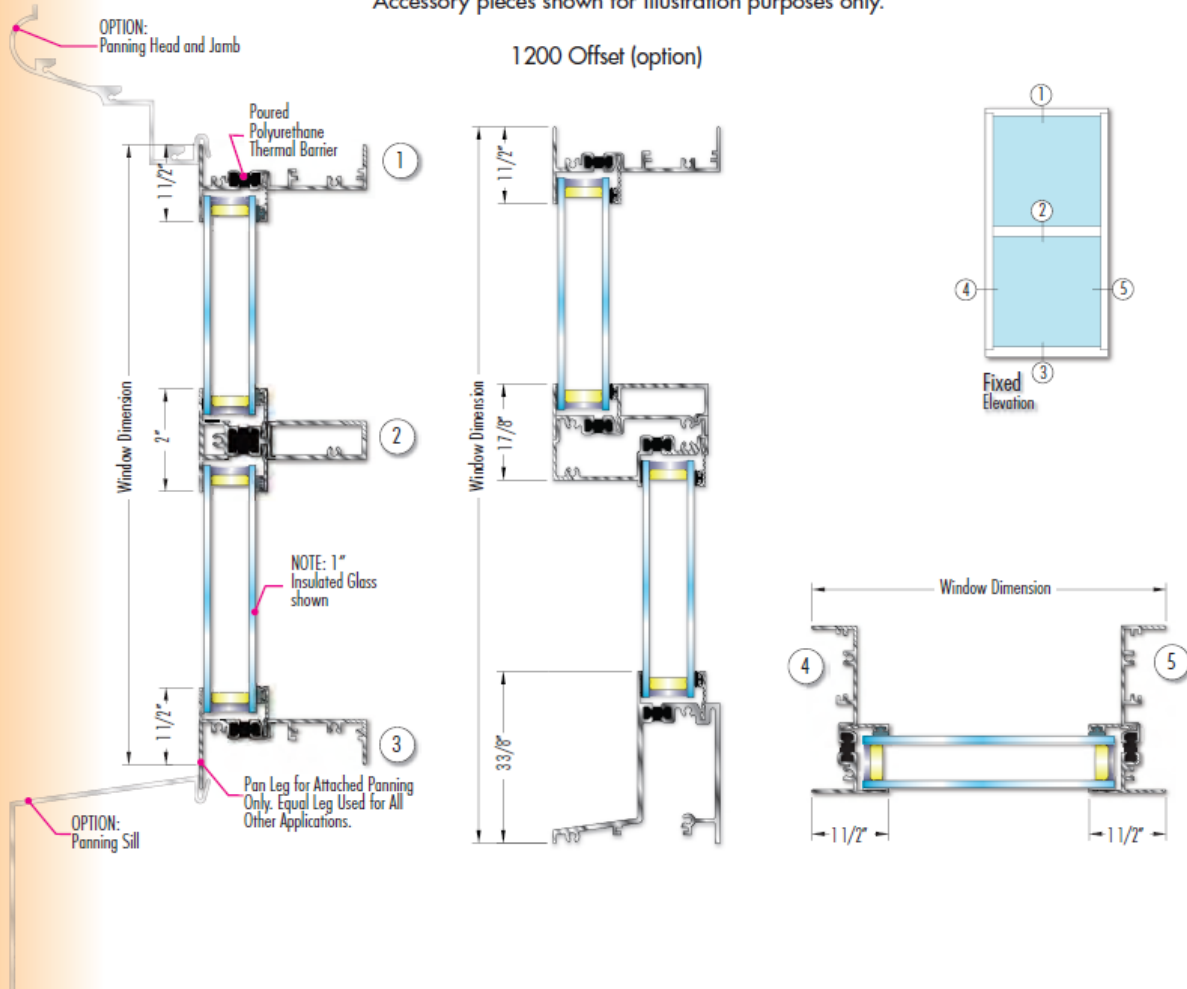


PRODUCT SERIES CAPABILITIES



**STANDARD PRODUCT DETAILS SHOWN**

Accessory pieces shown for illustration purposes only.



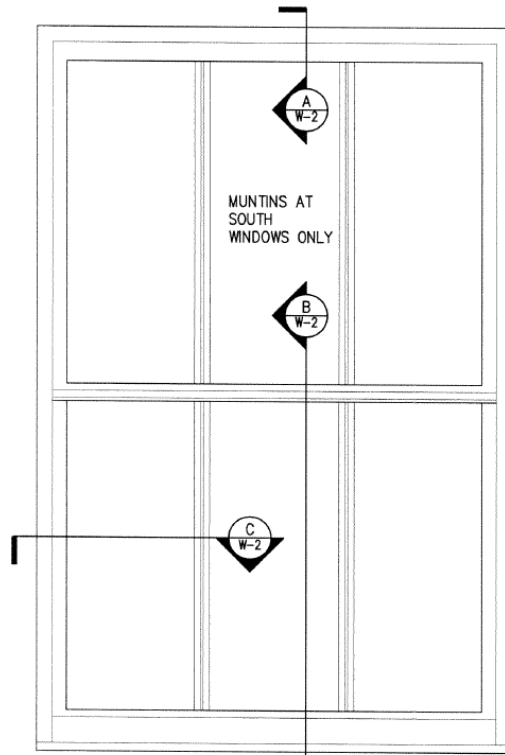
Window Series:  
**1200 FIXED**  
General Specifications & Details

- Nominal Frame/Sill Wall Thickness: 0.062"
- Applications: Educational, Hospitals, Acoustical, and Historic
- Max. Test Size:  
5'0" x 8'3"
- Glazing Options:  
Single Glazed: Available  
Insulated: 1" IG available
- Muntins: Exterior-applied profile muntin grids available

- Finish Options:  
AAMA 2603 – Standard acrylic or polyester  
AAMA 2604 – 2 coat 50% fluoropolymer  
AAMA 2605 – 2 coat fluoropolymer 70% kynar  
Powder Coat  
Anodized
- Accessories:  
Frame Family: 3 1/4"  
Fixed Lite Option System: 1200 Series  
Mullions: Stacking: Integral & fixed-stack mull  
Side: 3-piece mull  
Panning: Available  
Trims: Available  
Receptor Systems: Available
- Exceptions:  
Call Graham sales rep or see website for more information.

**Details Are Not Shown to Scale**  
See website for other available configurations

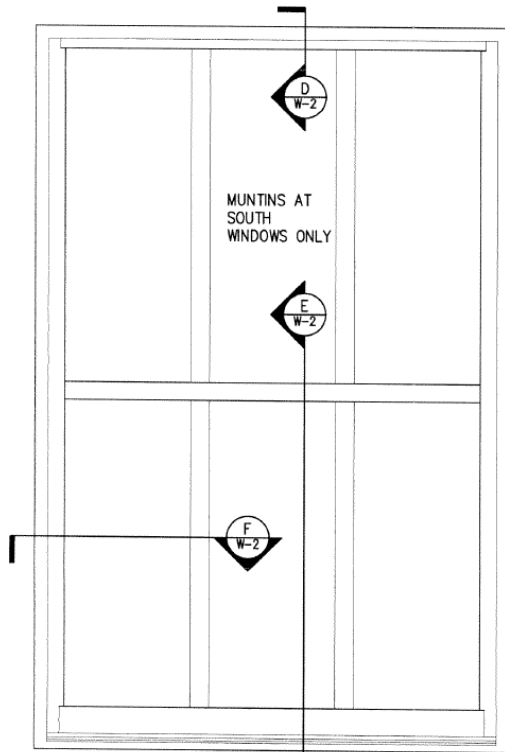
Check website for complete, current information including other installation and hardware options: [www.grahamwindows.com](http://www.grahamwindows.com)  
1551 Mt. Rose Avenue, York, Pennsylvania 17403-2909 • email: [info@grahamwindows.com](mailto:info@grahamwindows.com) • (800) 755-6274 • 717-849-8100



1  
W-1

**EXISTING ELEVATION**

1" = 1'-0"



2  
W-1

**PROPOSED ELEVATION**

1" = 1'-0"



RATIO Architects, Inc.  
 100 Schrader Building  
 107 South Pennsylvania Street  
 Indianapolis, Indiana 46204-3684  
 317 633 4040  
 317 633 4153 Fax

**RATIO**

PROJECT: HAMPTON INN WINDOW REPLACEMENT

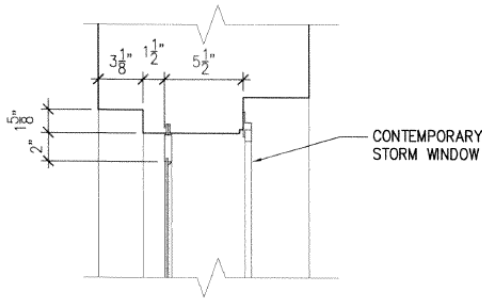
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DATE: 22 JAN 2010 SCALE: 1"=1'-0" DRAWN BY: MB

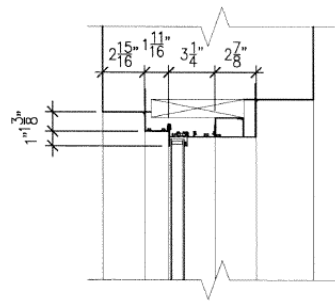
ADDENDUM: \_\_\_\_\_ C.C.D.: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_

A.S.I.: \_\_\_\_\_ P.R.: \_\_\_\_\_

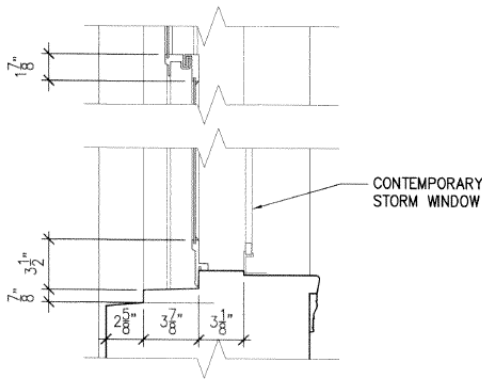
PROJ. NO.: 09046.000 SHEET NO. W-1



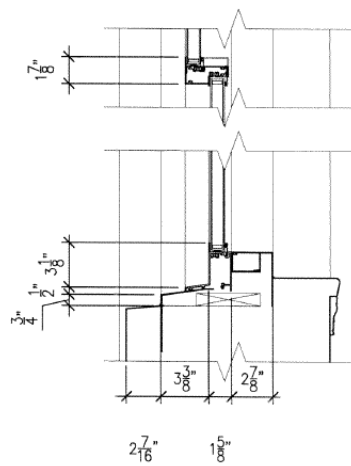
**A**  
W-2  
**EXISTING HEAD**  
1-1/2" = 1'-0"



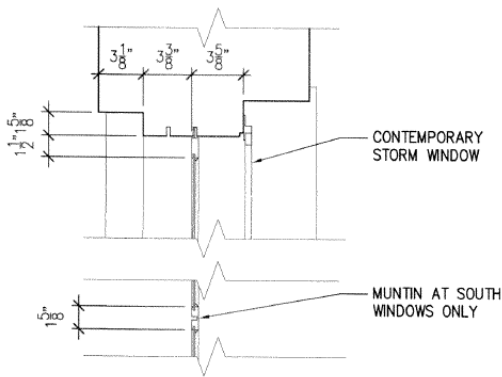
**D**  
W-2  
**PROPOSED HEAD**  
1-1/2" = 1'-0"



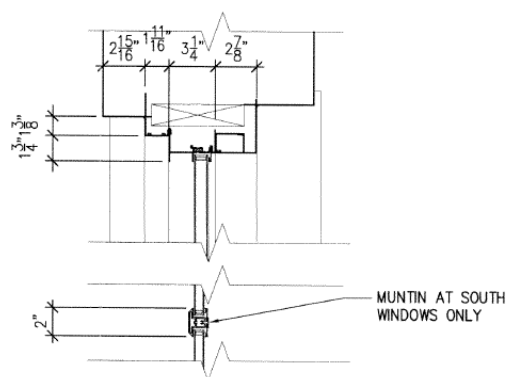
**B**  
W-2  
**EXISTING SILL**  
1-1/2" = 1'-0"



**E**  
W-2  
**PROPOSED SILL**  
1-1/2" = 1'-0"



**C**  
W-2  
**EXISTING JAMB**  
1-1/2" = 1'-0"



**F**  
W-2  
**PROPOSED JAMB**  
1-1/2" = 1'-0"



RATIO Architects, Inc.  
100 Schrader Building  
107 South Pennsylvania Street  
Indianapolis, Indiana 46204-3684  
317 633 4040  
317 633 4153 Fax

**RATIO**

PROJECT: HAMPTON INN WINDOW REPLACEMENT

DWG. REF: \_\_\_\_\_

DATE: 22 JAN 2010 SCALE: 1 1/2"=1'-0" DRAWN BY: MB

ADDENDUM: \_\_\_\_\_ C.C.D.: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_

A.S.I.: \_\_\_\_\_ P.R.: \_\_\_\_\_

PROJ. NO.: 09046.000 SHEET NO. W-2