

From: Scala, Mary Joy
Sent: Tuesday, December 22, 2015 11:21 AM
To: Bill Banowsky (bill@carolinacinemas.com)
Cc: 'Veronica Koltuniak'; 'Robert Crane'; 'Patrick Carpenter'; 'Jack Horn, Jr.'
Subject: BAR Action Dec 15, 2015 - 200 W MAIn Street

December 22, 2015

William S. Banowsky Jr.
1613 W. 5th Street
Austin, Texas 78703

RE: Certificate of Appropriateness Application

BAR 15-10-04

200 West Main Street

Tax Parcel 280010000

William S Banowsky, Jr, Owner/Violet Crown Cinema Charlottesville, LLC, Applicant
Change to approve new materials

Dear Applicant,

The above referenced project was discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on December 15, 2015. The following action was taken:

Miller moved to find that the BAR approves the following changes as submitted:

- the additional trim on the Marquee to address scale issues;
- the additional 4 movie posters to the left of the entrance door and the moved mechanical equipment box;
- the transom on the east side of the building to match the door height transom on the front.

In addition, Miller moved to find that the BAR denies the following design changes, so that the original approved design must be built:

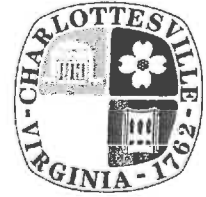
- the change to class tinting must be clear glass with a VLT in the upper 60's or above, and a specification is needed;
- defer the change to the Hardie panels to be determined after samples are submitted and reviewed.

Schwartz seconded. Motion passes (8-0).

In accordance with Charlottesville City Code 34-285(b), this decision may be appealed to the City Council in writing within ten working days of the date of the decision. Written appeals, including the grounds for an appeal, the procedure(s) or standard(s) alleged to have been violated or misapplied by the BAR, and/or any additional information, factors or opinions the applicant deems relevant to the application, should be directed to Paige Barfield, Clerk of the City Council, PO Box 911, Charlottesville, VA 22902.

Please let me know when you have the Hardie samples ready to be viewed by the BAR.
If you have any questions, please contact me at 434-970-3130 or scala@charlottesville.org.

**CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
December 15, 2015**



Certificate of Appropriateness Application (deferred from October)

BAR 15-10-04

200 West Main Street

Tax Parcel 280010000

William S Banowsky, Jr, Owner/Violet Crown Cinema Charlottesville, LLC, Applicant

Change to approve new materials

Background

200 West Main Street is a contributing structure in the Downtown ADC district. The site was originally occupied by two commercial structures, Leggett and Sears, which were combined for use by the Regal Cinema in 1996. Although the façade was completely rebuilt at the time, the Regal Cinema still expressed the idea of the two buildings with different parapet heights.

September 26, 1995 - The BAR approved COA for Regal Six Cinema. The original brick under the Woolworth's building was to be preserved, with brick veneer used on the west end of the façade.

June 14, 1996 - The BAR held a discussion regarding a revised design because the theater was under construction and not being built as approved. The older façade had been demolished, and Dry-vit was being used instead of brick.

June 18, 1996 - The BAR disapproved the latest submitted plans dated June 17, 1996, because they are not in keeping with the original approved plans and not in keeping with the historic character of Downtown and surrounding buildings in design, materials, details and fenestration....The BAR asked for a stop-work order.

June 18, 1996 - A BAR Subcommittee met and agreed upon principles to guide the resolution of the project. Regarding the West Main Street façade: To use brick as the primary material and not stucco...there needs to be some articulation the reflect the second story character of this area....the front should still have windows and doors at the street level...the importance of careful detailing of the front façade so that the building is honest and compatible with the use and character of the area.

June 27, 1996 - The BAR approved with conditions a concept plan, with revisions to return to the BAR.

July 3, 1996 - The BAR approved a revised design.

February 18, 2014 - (preliminary discussion) The consensus was that the BAR really liked the proposed design, except the glass canopy over the patio.

March 18, 2014 - The BAR approved (6-0) the new façade as submitted, and with the following modifications: the 1996 façade is determined to be non-contributing and may be demolished; the wood soffit material shall be submitted to staff for approval; programmable LED white lighting is approved, with color lighting for special events subject to (on-site) approval.

April 2015 - Administrative approval (after consulting BAR) for Belden Brick #661 to replace original brick (Calstar light gray) with matching mortar, horizontal joints raked ¼" deep, and vertical joints tooled flush with brick face.

October 20, 2015- Miller moved to find that the following proposed design changes satisfy the BAR's criteria and are compatible with this property and other properties in the Downtown ADC District, and that the BAR approves the following changes as submitted:

1. The entry doors on the west side, at the center at the restaurant, and at the entrance are approved as built ;
2. The window wall system which has been changed to storefront is approved as built with an exception to be detailed on the east side on our not-approved list;
3. Movie poster holders are approved as installed;
4. Purple sign lighting as installed.

In addition, Miller moved to find that the following proposed design changes *do not* satisfy the BAR's criteria and *are not* compatible with this property and other properties in the Downtown ADC District, and that **the BAR *did not* approve the following changes [as built] with revisions to come back to a future meeting. The BAR's intent was to handle the items "not approved" not as a denial, but as a deferral until the December meeting.**

1. **The Hardie panels – the BAR requests a change in finish with higher contrast, different texture, and much lighter [color];**
2. **The marquee depth – the BAR wants to see alternative trim or other detailing in order to lighten the appearance ;**
3. **The [tinted] glass shall be a clear glass;**
4. **The smaller transom on the east side lower window shall be revised [to match upper window];**
5. **More information in the form of a rendering for the request for paint color on 2nd Street.**

Application

The applicant has returned as requested with additional information regarding proposed design changes at the new Violet Crown Cinema theater.

1. The applicant has submitted a color chip for *Sherwin Williams Accessible Beige* to paint the Hardies panels a lighter color. Sheen is unspecified. *satn finish*
2. A drip edge was added to the bottom of the marquee to match coping at the top. *+ 4 add. movie posters*
3. The applicant has not proposed a clear glass.
4. The transom issue can be corrected with fourteen week lead time.
5. The applicant has decided not to paint the existing painted brick on the Second Street facade.

Criteria, Standards and Guidelines

Review Criteria Generally

Sec. 34-284(b) of the City Code states that,

In considering a particular application the BAR shall approve the application unless it finds:

- (1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the Design Guidelines established by the board pursuant to Sec.34-288(6); and*
- (2) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application.*

Pertinent Standards for Review of Construction and Alterations include:

- (1) Whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;*

- (2) The harmony of the proposed change in terms of overall proportion and the size and placement of entrances, windows, awnings, exterior stairs and signs;*
- (3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;*
- (4) The effect of the proposed change on the historic district neighborhood;*
- (5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;*
- (6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures;*
- (8) Any applicable provisions of the City's Design Guidelines.*

Pertinent Design Review Guidelines for New Construction and Additions

F. SCALE

Height and width also create scale, the relationship between the size of a building and the size of a person. Scale can also be defined as the relationship of the size of a building to neighboring buildings and of a building to its site. The design features of a building can reinforce a human scale or can create a monumental scale. In Charlottesville, there is a variety of scale. For instance, an institutional building like a church or library may have monumental scale due to its steeple or entry portico, while a more human scale may be created by a storefront in a neighboring commercial building.

- 1. Provide features on new construction that reinforce the scale and character of the surrounding area, whether human or monumental. Include elements such as storefronts, vertical and horizontal divisions, upper story windows, and decorative features.*
- 2. As an exception, new institutional or governmental buildings may be more appropriate on a monumental scale depending on their function and their site conditions.*

I. WINDOWS & DOORS

- 1. The rhythm, patterns, and ratio of solids (walls) and voids (windows and doors) of new buildings should relate to and be compatible with adjacent historic facades.

 - a. The majority of existing buildings in Charlottesville's historic districts have a higher proportion of wall area than void area except at the storefront level.*
 - b. In the West Main Street corridor in particular, new buildings should reinforce this traditional proportion.**
- 2. The size and proportion, or the ratio of width to height, of window and door openings on new buildings' primary facades should be similar and compatible with those on surrounding historic facades.

 - a. The proportions of the upper floor windows of most of Charlottesville's historic buildings are more vertical than horizontal.*
 - b. Glass storefronts would generally have more horizontal proportions than upper floor openings.**
- 3. Traditionally designed openings generally are recessed on masonry buildings and have a raised surround on frame buildings. New construction should follow these methods in the historic districts as opposed to designing openings that are flush with the rest of the wall.*
- 4. Many entrances of Charlottesville's historic buildings have special features such as transoms, sidelights, and decorative elements framing the openings. Consideration should be given to incorporating such elements in new construction.*
- 5. Darkly tinted or mirrored glass is not an appropriate material for windows in new buildings within the historic districts.***
- 6. If small-paned windows are used, they should have true divided lights or simulated divided lights with permanently affixed interior and exterior muntin bars and integral spacer bars between the panes of glass.*
- 7. Avoid designing false windows in new construction.*
- 8. Appropriate material for new windows depends upon the context of the building within a historic district, and the design of the proposed building. Sustainable materials such as wood, aluminum-clad*

wood, solid fiberglass, and metal windows are preferred for new construction. Vinyl windows are discouraged.

9. Glass shall be clear. Opaque spandrel glass or translucent glass may be approved by the BAR for specific applications.

K. STREET-LEVEL DESIGN

1. Street level facades of all building types, whether commercial, office, or institutional, should not have blank walls; they should provide visual interest to the passing pedestrian.
2. When designing new storefronts or elements for storefronts, conform to the general configuration of traditional storefronts depending on the context of the sub-area. New structures do offer the opportunity for more contemporary storefront designs.
3. Keep the ground level facades(s) of new retail commercial buildings at least eighty percent transparent up to a level of ten feet.
4. Include doors in all storefronts to reinforce street level vitality.
5. Articulate the bays of institutional or office buildings to provide visual interest.
6. Institutional buildings, such as city halls, libraries, and post offices, generally do not have storefronts, but their street levels should provide visual interest and display space or first floor windows should be integrated into the design.
7. Office buildings should provide windows or other visual interest at street level.
8. Neighborhood transitional buildings in general should not have transparent first floors, and the design and size of their façade openings should relate more to neighboring residential structures.
9. Along West Main Street, secondary (rear) facades should also include features to relate appropriately to any adjacent residential areas.
10. Any parking structures facing on important streets or on pedestrian routes must have storefronts, display windows, or other forms of visual relief on the first floors of these elevations.
11. A parking garage vehicular entrance/exit opening should be diminished in scale, and located off to the side to the degree possible.

L. FOUNDATION and CORNICE

Facades generally have a three-part composition: a foundation or base that responds at the pedestrian or street level, the middle section, and the cap or cornice that terminates the mass and addresses how the building meets the sky. Solid masonry foundations are common for both residential and commercial buildings. Masonry piers, most often of brick, support many porches.

1. Distinguish the foundation from the rest of the structure through the use of different materials, patterns, or textures.
2. Respect the height, contrast of materials, and textures of foundations on surrounding historic buildings.
3. If used, cornices should be in proportion to the rest of the building.
4. Wood or metal cornices are preferred. The use of fypon may be appropriate where the location is not immediately adjacent to pedestrians.

M. MATERIALS & TEXTURES

1. The selection of materials and textures for a new building should be compatible with and complementary to neighboring buildings.
2. In order to strengthen the traditional image of the residential areas of the historic districts, brick, stucco, and wood siding are the most appropriate materials for new buildings.
3. In commercial/office areas, brick is generally the most appropriate material for new structures. "Thin set" brick is not permitted. Stone is more commonly used for site walls than buildings.
4. Large-scale, multi-lot buildings, whose primary facades have been divided into different bays and planes to relate to existing neighboring buildings, can have varied materials, shades, and textures.
5. Synthetic siding and trim, including, vinyl and aluminum, are not historic cladding materials in the historic districts, and their use should be avoided.
6. Cementitious siding, such as HardiPlank boards and panels, are appropriate.
7. Concrete or metal panels may be appropriate.

8. *Metal storefronts in clear or bronze are appropriate.*
9. *The use of Exterior Insulation and Finish Systems (EIFS) is discouraged but may be approved on items such as gables where it cannot be seen or damaged. It requires careful design of the location of control joints.*
10. *The use of fiberglass-reinforced plastic is discouraged. If used, it must be painted.*
11. *All exterior trim woodwork, decking and flooring must be painted, or may be stained solid if not visible from public right-of-way.*

O. DETAILS & DECORATION

The details and decoration of Charlottesville's historic buildings vary tremendously with the different styles, periods, and types. Such details include cornices, roof overhang, chimneys, lintels, sills, brackets, brick patterns, shutters, entrance decoration, and porch elements.

The important factor to recognize is that many of the older buildings in the districts have decoration and noticeable details. Also, many of the buildings were simply constructed, often without architects and on limited budgets that precluded costly specialized building features.

At the same time, some of Charlottesville's more recent commercial historic structures have minimal architectural decoration. It is a challenge to create new designs that use historic details successfully. One extreme is to simply copy the complete design of a historic building and the other is to "paste on" historic details on a modern unadorned design. Neither solution is appropriate for designing architecture that relates to its historic context and yet still reads as a contemporary building. More successful new buildings may take their clues from historic images and reintroduce and reinterpret designs of traditional decorative elements or may have a modernist approach in which details and decoration are minimal.

1. *Building detail and ornamentation should be consistent with and related to the architecture of the surrounding context and district.*
2. *The mass of larger buildings may be reduced using articulated design details.*
3. *Pedestrian scale may be reinforced with details.*

Pertinent Design Review Guidelines for Rehabilitations

C. WINDOWS

15. *Do not use tinted or mirrored glass on major facades of the building.*

Discussion and Recommendations

October 2015 - Apparently the local architect that obtained approval for the design was replaced with a firm, TK Architects, from St. Louis. Changes were made to the design without seeking BAR approval.

The staff report for the March 2014 approval noted: This is a prominent intersection with the 2nd Street vehicular crossing ... The design could reinterpret, but should respect, the traditional character, scale, orientation, materials and colors of the surrounding buildings on the Downtown Mall.

The BAR should discuss and determine if the following changes are appropriate. If not, the approved design would stand:

1. Hardie panels with aluminum channel joints.
2. Egress door design.
3. Marquee depth.
4. Clear finish aluminum window system.
5. Darkly tinted glass.
6. Two pairs of aluminum and glass doors.

The BAR should also review the proposed paint color change to the existing painted bricks walls and service doors and window sash.

The March 2014 BAR approval included a condition that programmable LED white lighting is approved, with color lighting for special events subject to (on-site) approval. The BAR may want to choose a time to preview the colored lighting.

December 2015 – In staff opinion,

- 1. The lighter paint color is appropriate. Staff is unsure how the texture could be made to look smoother like the original ceramic panels; perhaps a semi-gloss sheen would do that.**
- 2. The marquee scale issue has been addressed with the added trim.**
- 3. The applicant’s argument that the building code requires darkly tinted glass is incorrect because this addition is considered a rehabilitation rather than new construction , according to the Building Code Official, so is not subject to the 2009 Energy Code. Staff has provided the architect with specific examples of clear glass products that may be appropriate. The applicant should replace the tinted glass with clear glass per the ADC District Design Guidelines.**
- 4. The applicant said the transom issue can be corrected with fourteen week lead time. Staff advised the applicant to order the new transom. The applicant has been notified that the zoning violation must be corrected sixty days following BAR approval.**
- 5. The applicant is not required to repaint the existing painted brick wall.**

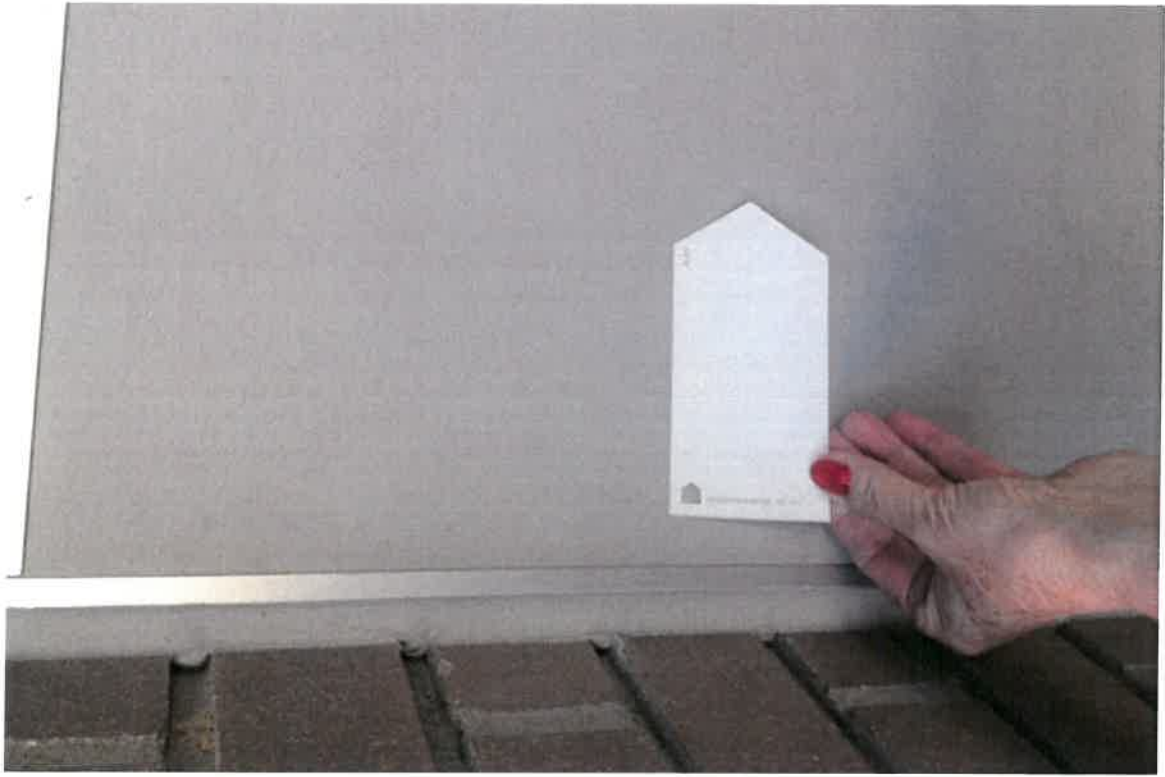
Suggested Motion

Having considered the standards set forth within the City Code, including City Design Guidelines for New Construction, I move to find that the following proposed design changes satisfy the BAR’s criteria and are compatible with this property and other properties in the Downtown ADC District, and that the BAR approves the following changes as submitted:

.....
.....

In addition, I move to find that the following proposed design changes *do not* satisfy the BAR’s criteria and *are not* compatible with this property and other properties in the Downtown ADC District, and that the BAR denies the following changes so that the original approved design must be built:

.....
.....



Scala, Mary Joy

From: Scala, Mary Joy
Sent: Wednesday, December 02, 2015 3:26 PM
To: 'cphilhour@tkarch.com'
Subject: FW: Violet Crown Cinema glass

Chad,

The BAR is currently reviewing a proposal for a new hotel that is using Pilkington Energy Advantage Low-e coating with VLT of 68% and VLR of 17%.

One of the BAR architects provided some additional suggestions below. He mentions Market Plaza, which is new construction.

Whatever you decide upon, you should bring a sample of the glass to the meeting on December 15, or Fed Ex it to me ahead of time. Thank you.

Mary Joy Scala, AICP

Preservation and Design Planner
City of Charlottesville
Department of Neighborhood Development Services
City Hall – 610 East Market Street
P.O. Box 911
Charlottesville, VA 22902
Ph 434.970.3130 FAX 434.970.3359
scala@charlottesville.

From: Carl A Schwarz [mailto:caschwarz83@gmail.com]
Sent: Tuesday, December 01, 2015 12:07 PM
To: Scala, Mary Joy; timohr@tmdarch.com; 'Kurt Keesecker'
Subject: RE: Violet Crown Cinema glass

Mary Joy,

For Market Plaza we are looking at AGC's Energy Select 40 (this has not been finalized, but there are multiple products out there with similar performance numbers). <http://us.agc.com/building-architectural-glass-energy-select#tab8>
This has a Solar Heat Gain Coefficient of .39. I think you're allowed up to .40 in Charlottesville (zone 4 – not marine) in the 2012 building code. I think anything with a VLT in the upper 60s to 70 is probably good enough to consider as clear, and I think that's what we've been seeing from applicants recently. Yes, the Marriot's glass would be another good option.

C402.3 Fenestration (Prescriptive).

Fenestration shall comply with Table C402.3. Automatic daylighting controls specified by this section shall comply with Section C405.2.2.3.2.

TABLE C402.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION

| CLIMATE ZONE | 1 | 2 | 3 | 4 EXCEPT MARINE | 5 AND MARINE 4 | 6 | 7 | 8 |
|------------------------------|------|------|------|-----------------|----------------|------|------|------|
| Vertical fenestration | | | | | | | | |
| U-factor | | | | | | | | |
| Fixed fenestration | 0.50 | 0.50 | 0.46 | 0.38 | 0.38 | 0.36 | 0.29 | 0.29 |
| Operable fenestration | 0.65 | 0.65 | 0.60 | 0.45 | 0.45 | 0.43 | 0.37 | 0.37 |
| Entrance doors | 1.10 | 0.85 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| SHGC | | | | | | | | |
| SHGC | 0.25 | 0.25 | 0.25 | 0.40 | 0.40 | 0.40 | 0.45 | 0.45 |
| Skylights | | | | | | | | |
| U-factor | 0.75 | 0.65 | 0.55 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| SHGC | 0.35 | 0.35 | 0.35 | 0.40 | 0.40 | 0.40 | NR | NR |

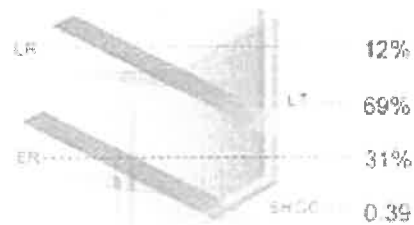
The specs for the AGC glass are below:



AGC Glass Calculator Performance Data



| Configuration: | |
|-------------------------------------|---|
| Exterior Lite | 1/4" (6 mm) Energy Select™ 40 Clear (2) |
| Airspace | 1/2" (13 mm) Spacer |
| Interior Lite | 1/4" (6 mm) Clear |
| Visible Light | |
| Transmittance (LT) | 69% |
| Reflectance - Outdoors (LR) | 12% |
| Reflectance - Indoors | 12% |
| Solar Energy | |
| Transmittance | 34% |
| Reflectance - Outdoors (ER) | 31% |
| U.V. Light | |
| Transmittance | 17% |
| Damage Weighted Index -ISO | 0.533 |
| U-Values | |
| Winter - Air / Argon | 0.29/0.25 |
| Summer - Air / Argon | |
| Other Values | |
| Solar Heat Gain Coefficient (SHGC) | 0.39 |
| Shading Coefficient | 0.44 |
| Relative Heat Gain - BTU/Hr/Sq. Ft. | 92.83 |
| Light to Solar Heat Gain Ratio | 1.79 |



* Performance values are based on representative production samples and product modeling data using LBNL Window Software. Actual values may differ due to variations in the manufacturing process.

* Thermal stresses or building codes may require the use of heat treated glass. This document is not an evaluation of the risk of glass breakage from thermal stresses. Contact AGC's technical services department to ensure the correct form of glass to be supplied for the structure. 1-888-214-8362

By the way, if I'm not mistaken, I'm pretty sure I remember Mike Stoneking mentioning PPG's Starphire glass for this project. PPG combines this with some of their Solarban products, but I understand it's also kind of expensive. <http://www.ppgideascape.com/Glass/Products/Low-E-Glass/SOLARBAN-Solar-Control-Low-e/SOLARBAN-72-Glass.aspx>

I don't think using something like Starphire should be a requirement, but my guess is that Mike Stoneking presented us with something that was both clear and code compliant if Chad wants to look that up. There are other Solarban products that could work just as well. Hope that helps.

November 23, 2015

Robert Crane
Bill Banowsky
Carolina Cinemas
Violet Crown Cinemas

Re: Violet Crown Cinemas – Charlottesville
TKA – 14059.00/110

Robert and Bill,

This submission included information related to outstanding BAR comments at the Violet Crown Cinema. We recognize that the approval process had been made more difficult than it needed to be because the changes were not reviewed with the BAR at appropriate time during the project.

Below is an item by item explanation of proposed modifications to existing construction per feedback received from the BAR, and further information about the glass selection:

Hardie Panels

Hardie panels will be repainted Sherwin Williams Accessible Beige #7036.

Canopy Trim

Added a drip edge to the bottom of the canopy to match the coping that runs along the top profile. Refer to exhibit ASD-9 for details.

Tinted Glass

While it is possible to meet the thermal insulation (U) value required by energy code, it is not possible to meet the Solar Heat Gain Coefficient. Please refer to the attached PPG performance chart. The four lowest performing glass units that meet both the thermal insulation and solar heat gain coefficient requirements are highlighted.

The compliant glazing color choices with the least tinted appearance are Atlantia, Azuria, Pacfica and Solar Gray. We chose the solar gray color as being most compatible with the gray colors and red brick utilized on the exterior.

In the final selection process we chose to specify the higher performance Solarban 70XL Series rather than the Sungate 400 series because the UV performance is significantly better and the reflectance properties are similar.

2009 Virginia Energy Conservation Code

The current building code requires a minimum 0.40 U-factor and 0.40 Solar Heat Gain Coefficient. Starphire glass has a U-factor that ranges from 0.84 to 1.04 and Solar Heat Gain Coefficient that ranges from 0.84 to 0.91 neither of which reach the acceptable values of the energy code requirements.

Green Building Design

As design professional we design energy efficient building and implement Green Building Design in new and remodeled facilities. There are many benefits of high quality commercial window tinting for properties and buildings. Window tinting can reduce up to 85% of the heat from the sun, and give 99% rejection of ultraviolet light and reduce 95% of the glare. Films come in varying degrees of light transmission so you can pick the window film that best meets your individual needs. Visible transmission of clear glass is 70% and mirrored glass is 0%. We selected a medium tint with a visible

transmission of 32%. Window tinting of your building can also enjoy up to 15 degrees of saved temperature from the tint itself which translates into energy cost savings on air conditioning.

Interior space can experience damaging and harmful effects of solar heat and uv rays from the sun, such as fading of merchandise, furniture, carpet, draperies and equipment. Window tinting can reject up to 99% of destructive uv light and solar heat, so it protects your investments so they last longer turning saved dollars into profits.

Any sunlit environment is subject to problems like hotspots, glare, heat and fluctuating temperature. It is important to keep employees, clients, guests and patrons comfortable. Commercial window tinting screen out significant amounts of uv rays, heat and glare from entering your environment, softening the light, balancing the temperature and maintaining a comfortable environment all year-round.

Hours of Operation

The tinted glass is transparent at night when theatres are at their peak performance.

Storefront Sub-contractor

The following is correspondence with the storefront sub-contractor for the Theatre:

“Attached is the current building code as it relates to glass U-values and Solar Heat Gain Coefficient, as well as the minimum glass required to meet that code requirement. As you can see a clear Starfire insulated unit will not come close to meeting the code requirement. A solarban 60 Low E insulated unit will meet the requirements The solarban 70xl will meet the current code requirement but does not need to be on a Starfire substrate. The only reason for using Starfire glass is for clarity. By coating it with a Low E tint you are losing the benefits of it being Starfire. Starfire glass is typically used in shower doors, tables and showcases. The heat and glare allowed into the building because of this glass would also be a downfall. We value engineered this Starfire glass out of the Northside library on Rio Road for the same reasons. They in turn switched to regular clear glass which does not meet code. They had similar issues with heat and glare even with standard clear, so we have since gone back and filmed most of that glass.” Jeff Williams – Charlottesville Glass & Mirror.

These issues raised by Jeff are some of the reasons why we specified medium tinted glass for this client.

Storefront Transom (east side)

The materials have an eight week lead time and with project coordination we would require two;ve to fourteen week to complete the work.

Second Street Building Paint Color

The owner withdraws its proposal to paint the Second Street façade, however if the BAR desires this façade to be painted the Owner request input on the color selection.

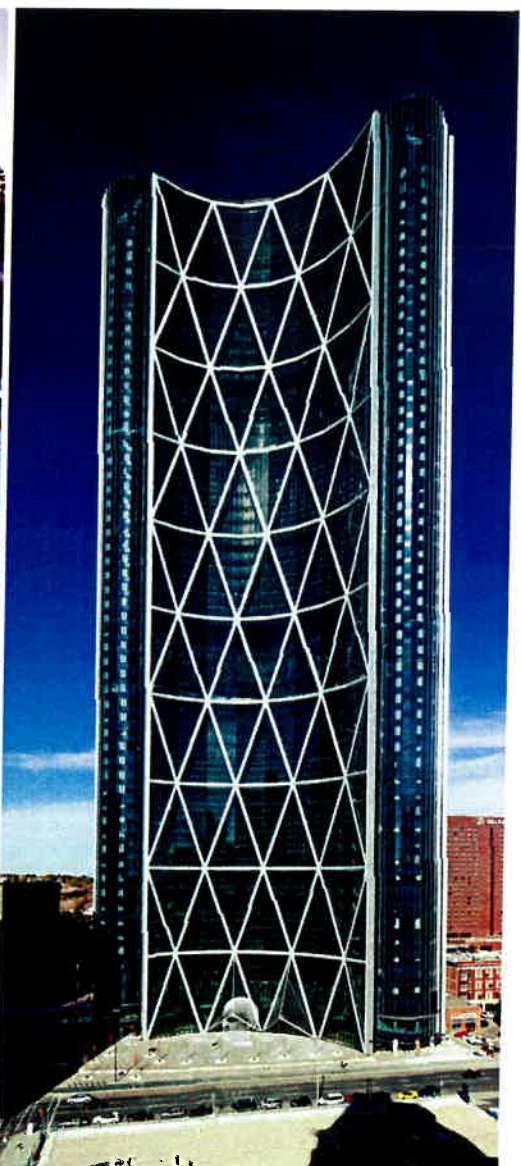
We all appreciate the consideration and extra efforts of the BAR in evaluating this submission. We remain convinced that the changes are the right ones for the long-term best interests of the cinema.

Sincerely,

TK ARCHITECTS INTERNATIONAL, INC.

Chad H. Philhour

Chad H. Philhour
Project Manager



PPG ARCHITECTURAL GLASS PERFORMANCE

Comparisons for One-Inch Insulating Glass Units



One-Inch Insulating Glass Unit Comparisons with PPG Glass

| Insulating Glass Unit Performance Comparisons 1-inch (25mm) units with 1/2-inch (13mm) air fill and two 1/4-inch (6mm) lites; interior lite clear unless otherwise noted | | | | | | | | | | | | | |
|--|-------------------------------|--|----------------------------|--------------|-------------------------------|--------------------------|------------------------|--|------------------------|--|-------------------------------------|---|---|
| Outdoor Lite: Coating if Any (Surface) Glass | Glass Type + | Indoor Lite: Coating if Any (Surface) Glass | Transmittance ² | | | Reflectance ² | | (BTU/hr•ft ² •F) NFRC U-Value ³ | | U-Value ⁴ EN 673 (W/m ² •°C) | Shading Coefficient ⁵ | Solar Heat Gain Coefficient ⁶ | Light to Solar Gain (LSG) ⁷ |
| | | | Ultra-violet % | Visible % | Total Solar Energy % | Exterior Light % | Interior Light % | Winter Night- time | Summer Day- time | | | | |
| Uncoated | | | | | | | | | | | | | |
| | CLEAR | Glass + Clear | 50 | 79 | 61 | 15 | 15 | 0.47 | 0.50 | 2.8 | 0.81 | 0.70 | 1.13 |
| | STARPHIRE® | + STARPHIRE | 77 | 84 | 80 | 15 | 15 | 0.47 | 0.50 | 2.8 | 0.94 | 0.82 | 1.02 |
| | SOLEXIA® | + Clear | 25 | 69 | 39 | 13 | 15 | 0.47 | 0.50 | 2.8 | 0.57 | 0.50 | 1.38 |
| | ATLANTICA® | + Clear | 13 | 60 | 29 | 11 | 14 | 0.47 | 0.50 | 2.8 | 0.47 | 0.41 | 1.46 |
| | AZURIA® | + Clear | 34 | 61 | 28 | 11 | 14 | 0.47 | 0.50 | 2.8 | 0.45 | 0.39 | 1.56 |
| | PACIFICA® | + Clear | 12 | 38 | 23 | 7 | 13 | 0.47 | 0.50 | 2.8 | 0.41 | 0.36 | 1.06 |
| | SOLARBLUE® | + Clear | 25 | 50 | 37 | 9 | 13 | 0.47 | 0.50 | 2.8 | 0.56 | 0.49 | 1.02 |
| | SOLARBRONZE® | + Clear | 21 | 47 | 39 | 8 | 13 | 0.47 | 0.50 | 2.8 | 0.59 | 0.51 | 0.92 |
| | OPTIGRAY® | + Clear | 27 | 56 | 41 | 10 | 13 | 0.47 | 0.50 | 2.8 | 0.60 | 0.52 | 1.08 |
| | SOLARGRAY® | + Clear | 20 | 40 | 33 | 7 | 13 | 0.47 | 0.50 | 2.8 | 0.53 | 0.46 | 0.87 |
| | GRAYLITE® II | + Clear | 2 | 8 | 7 | 4 | 12 | 0.47 | 0.50 | 2.8 | 0.25 | 0.22 | 0.36 |
| Coated | | | | | | | | | | | | | |
| SUNGATE® 400 Low-E Glass | | | | | | | | | | | | | |
| | SUNGATE 400 (2) | Clear + Clear | 28 | 76 | 51 | 14 | 14 | 0.32 | 0.31 | 1.8 | 0.69 | 0.60 | 1.27 |
| | SUNGATE 400 (2) | STARPHIRE + STARPHIRE | 39 | 80 | 65 | 14 | 14 | 0.32 | 0.31 | 1.8 | 0.78 | 0.68 | 1.18 |
| | CLEAR + SUNGATE 400 (3) | Clear | 28 | 76 | 51 | 14 | 14 | 0.32 | 0.31 | 1.8 | 0.73 | 0.63 | 1.21 |
| | SOLEXIA + SUNGATE 400 (3) | Clear | 15 | 66 | 33 | 11 | 13 | 0.32 | 0.31 | 1.8 | 0.50 | 0.44 | 1.50 |
| | ATLANTICA + SUNGATE 400 (3) | Clear | 8 | 58 | 25 | 10 | 12 | 0.32 | 0.31 | 1.8 | 0.40 | 0.35 | 1.66 |
| | AZURIA + SUNGATE 400 (3) | Clear | 20 | 59 | 25 | 10 | 12 | 0.32 | 0.31 | 1.8 | 0.39 | 0.34 | 1.74 |
| | PACIFICA + SUNGATE 400 (3) | Clear | 7 | 37 | 19 | 7 | 11 | 0.32 | 0.31 | 1.8 | 0.34 | 0.30 | 1.23 |
| | SOLARBLUE + SUNGATE 400 (3) | Clear | 15 | 48 | 31 | 8 | 12 | 0.32 | 0.31 | 1.8 | 0.49 | 0.42 | 1.14 |
| | SOLARBRONZE + SUNGATE 400 (3) | Clear | 12 | 46 | 32 | 8 | 12 | 0.32 | 0.31 | 1.8 | 0.50 | 0.44 | 1.05 |
| | SOLARGRAY + SUNGATE 400 (3) | Clear | 12 | 38 | 27 | 7 | 12 | 0.32 | 0.31 | 1.8 | 0.44 | 0.39 | 0.97 |
| | OPTIGRAY + SUNGATE 400 (3) | Clear | 16 | 54 | 34 | 9 | 12 | 0.32 | 0.31 | 1.8 | 0.52 | 0.46 | 1.17 |
| | GRAYLITE II + SUNGATE 400 (3) | Clear | 1 | 8 | 5 | 4 | 11 | 0.32 | 0.31 | 1.8 | 0.17 | 0.15 | 0.53 |
| SOLARBAN® 60 Solar Control Low-E Glass | | | | | | | | | | | | | |
| | SOLARBAN 60 (2) | Clear + Clear | 18 | 70 | 34 | 11 | 12 | 0.29 | 0.27 | 1.6 | 0.45 | 0.39 | 1.79 |
| | SOLARBAN 60 (2) | STARPHIRE + STARPHIRE | 24 | 74 | 39 | 11 | 12 | 0.29 | 0.27 | 1.6 | 0.48 | 0.41 | 1.80 |
| | SOLARBAN 60 (2) | SOLEXIA + Clear | 10 | 61 | 25 | 9 | 12 | 0.29 | 0.27 | 1.6 | 0.37 | 0.32 | 1.91 |
| | SOLARBAN 60 (2) | ATLANTICA + Clear | 5 | 53 | 20 | 8 | 11 | 0.29 | 0.27 | 1.6 | 0.32 | 0.27 | 1.96 |
| | SOLARBAN 60 (2) | AZURIA + Clear | 13 | 54 | 21 | 8 | 11 | 0.29 | 0.27 | 1.6 | 0.32 | 0.28 | 1.93 |
| | SOLARBAN 60 (2) | PACIFICA + Clear | 5 | 34 | 15 | 6 | 10 | 0.29 | 0.27 | 1.6 | 0.26 | 0.22 | 1.55 |
| | SOLARBAN 60 (2) | SOLARBLUE + Clear | 10 | 45 | 21 | 7 | 11 | 0.29 | 0.27 | 1.6 | 0.33 | 0.28 | 1.61 |
| | SOLARBAN 60 (2) | SOLARBRONZE + Clear | 8 | 42 | 21 | 7 | 11 | 0.29 | 0.27 | 1.6 | 0.32 | 0.28 | 1.50 |
| | SOLARBAN 60 (2) | OPTIGRAY + Clear | 10 | 50 | 23 | 8 | 11 | 0.29 | 0.27 | 1.6 | 0.35 | 0.30 | 1.67 |
| | SOLARBAN 60 (2) | SOLARGRAY + Clear | 8 | 35 | 18 | 6 | 10 | 0.29 | 0.27 | 1.6 | 0.29 | 0.25 | 1.40 |
| | SOLEXIA + SOLARBAN 60 (3) | Clear | 10 | 61 | 25 | 10 | 10 | 0.29 | 0.27 | 1.6 | 0.42 | 0.37 | 1.65 |
| | ATLANTICA + SOLARBAN 60 (3) | Clear | 5 | 53 | 20 | 9 | 10 | 0.29 | 0.27 | 1.6 | 0.36 | 0.31 | 1.71 |
| | AZURIA + SOLARBAN 60 (3) | Clear | 13 | 54 | 21 | 9 | 10 | 0.29 | 0.27 | 1.6 | 0.36 | 0.31 | 1.74 |
| | PACIFICA + SOLARBAN 60 (3) | Clear | 5 | 34 | 15 | 6 | 9 | 0.29 | 0.27 | 1.6 | 0.29 | 0.25 | 1.36 |
| | SOLARBLUE + SOLARBAN 60 (3) | Clear | 10 | 45 | 21 | 7 | 9 | 0.29 | 0.27 | 1.6 | 0.38 | 0.33 | 1.36 |
| | SOLARBRONZE + SOLARBAN 60 (3) | Clear | 8 | 42 | 21 | 7 | 9 | 0.29 | 0.27 | 1.6 | 0.37 | 0.32 | 1.31 |
| | OPTIGRAY + SOLARBAN 60 (3) | Clear | 10 | 50 | 23 | 8 | 9 | 0.29 | 0.27 | 1.6 | 0.40 | 0.35 | 1.43 |
| | SOLARGRAY + SOLARBAN 60 (3) | Clear | 8 | 35 | 18 | 7 | 9 | 0.29 | 0.27 | 1.6 | 0.33 | 0.29 | 1.21 |
| | GRAYLITE II + SOLARBAN 60 (3) | Clear | 1 | 7 | 4 | 4 | 8 | 0.29 | 0.27 | 1.6 | 0.14 | 0.13 | 0.54 |
| SOLARBAN® 67 Solar Control Low-E Glass | | | | | | | | | | | | | |
| | SOLARBAN 67 (2) | CLEAR + Clear | 11 | 54 | 24 | 19 | 16 | 0.29 | 0.27 | 1.6 | 0.33 | 0.29 | 1.86 |
| | SOLARBAN 67 (2) | STARPHIRE + STARPHIRE | 15 | 57 | 28 | 20 | 16 | 0.29 | 0.27 | 1.6 | 0.34 | 0.30 | 1.90 |
| | SOLARBAN 67 (2) | SOLEXIA + Clear | 6 | 47 | 19 | 16 | 16 | 0.29 | 0.27 | 1.6 | 0.29 | 0.25 | 1.88 |
| | SOLARBAN 67 (2) | ATLANTICA + Clear | 3 | 41 | 15 | 13 | 16 | 0.29 | 0.27 | 1.6 | 0.26 | 0.22 | 1.86 |
| | SOLARBAN 67 (2) | AZURIA + Clear | 8 | 42 | 16 | 13 | 16 | 0.29 | 0.27 | 1.6 | 0.26 | 0.23 | 1.83 |
| | SOLARBAN 67 (2) | OPTIBLUE + Clear | 8 | 39 | 19 | 12 | 15 | 0.29 | 0.27 | 1.6 | 0.28 | 0.25 | 1.56 |
| | SOLARBAN 67 (2) | PACIFICA + Clear | 3 | 26 | 11 | 8 | 15 | 0.29 | 0.27 | 1.6 | 0.21 | 0.19 | 1.37 |
| | SOLARBAN 67 (2) | SOLARBLUE + Clear | 6 | 34 | 16 | 10 | 15 | 0.29 | 0.27 | 1.6 | 0.26 | 0.22 | 1.55 |
| | SOLARBAN 67 (2) | SOLARBRONZE + Clear | 5 | 32 | 15 | 10 | 15 | 0.29 | 0.27 | 1.6 | 0.25 | 0.22 | 1.45 |
| | SOLARBAN 67 (2) | SOLARGRAY + Clear | 5 | 27 | 13 | 8 | 15 | 0.29 | 0.27 | 1.6 | 0.23 | 0.20 | 1.35 |
| | SOLARBAN 67 (2) | OPTIGRAY + Clear | 6 | 38 | 17 | 12 | 15 | 0.29 | 0.27 | 1.6 | 0.27 | 0.24 | 1.58 |
| | ATLANTICA + SOLARBAN 67 (3) | Clear | 3 | 41 | 15 | 11 | 18 | 0.29 | 0.27 | 1.6 | 0.33 | 0.29 | 1.41 |
| | AZURIA + SOLARBAN 67 (3) | Clear | 8 | 42 | 16 | 11 | 18 | 0.29 | 0.27 | 1.6 | 0.33 | 0.29 | 1.45 |
| | PACIFICA + SOLARBAN 67 (3) | Clear | 3 | 26 | 11 | 7 | 18 | 0.29 | 0.27 | 1.6 | 0.27 | 0.23 | 1.13 |
| | SOLARBLUE + SOLARBAN 67 (3) | Clear | 6 | 34 | 16 | 9 | 18 | 0.29 | 0.27 | 1.6 | 0.34 | 0.30 | 1.13 |
| | SOLARBRONZE + SOLARBAN 67 (3) | Clear | 5 | 32 | 15 | 9 | 18 | 0.29 | 0.27 | 1.6 | 0.33 | 0.29 | 1.10 |
| | OPTIGRAY + SOLARBAN 67 (3) | Clear | 6 | 38 | 17 | 10 | 18 | 0.29 | 0.27 | 1.6 | 0.36 | 0.32 | 1.19 |
| | SOLARGRAY + SOLARBAN 67 (3) | Clear | 5 | 27 | 13 | 8 | 18 | 0.29 | 0.27 | 1.6 | 0.30 | 0.26 | 1.04 |
| | GRAYLITE II + SOLARBAN 67 (3) | Clear | 0 | 5 | 3 | 4 | 18 | 0.29 | 0.27 | 1.6 | 0.14 | 0.12 | 0.42 |

One-Inch Insulating Glass Unit Comparisons with PPG Glass

| Insulating Glass Unit Performance Comparisons 1-inch (25mm) units with 1/2-inch (13mm) air fill and two 1/4-inch (6mm) lites; interior lite clear unless otherwise noted | | | | | | | | | | | | | |
|--|-----------------|--|----------------------------|--------------|-------------------------------|--------------------------|------------------------|--|------------------------|--|--|--|---|
| Outdoor Lite: Coating if Any (Surface) Glass | Glass Type + | Indoor Lite: Coating if Any (Surface) Glass | Transmittance ² | | | Reflectance ² | | (BTU/hr•ft ² •F) NFRC U-Value ³ | | U-Value ⁴ EN 673 (W/m ² •°C) | Shading Coeffi- cient ⁵ | Solar Heat Gain Coeffi- cient ⁶ | Light to Solar Gain (LSG) ⁷ |
| | | | Ultra- violet % | Visible % | Total Solar Energy % | Exterior Light % | Interior Light % | Winter Night- time | Summer Day- time | | | | |
| Marked | | | | | | | | | | | | | |
| VISTACOO[®] Subtly Reflective Glass | | | | | | | | | | | | | |
| VISTACOO [®] (2) AZURIA + Clear | | | 29 | 47 | 22 | 21 | 32 | 0.47 | 0.50 | 2.8 | 0.39 | 0.34 | 1.38 |
| VISTACOO [®] (2) PACIFICA + Clear | | | 10 | 29 | 19 | 11 | 31 | 0.47 | 0.50 | 2.8 | 0.37 | 0.32 | 0.91 |
| SOLARCOOL[®] Reflective Glass | | | | | | | | | | | | | |
| SOLARCOOL [®] (1) SOLEXIA + Clear | | | 7 | 27 | 18 | 37 | 27 | 0.47 | 0.50 | 2.8 | 0.32 | 0.28 | 0.96 |
| SOLARCOOL [®] (2) SOLEXIA + Clear | | | 7 | 27 | 19 | 24 | 38 | 0.47 | 0.50 | 2.8 | 0.36 | 0.31 | 0.87 |
| SOLARCOOL [®] (1) AZURIA + Clear | | | 10 | 23 | 11 | 37 | 24 | 0.47 | 0.50 | 2.8 | 0.25 | 0.21 | 1.10 |
| SOLARCOOL [®] (2) AZURIA + Clear | | | 10 | 24 | 12 | 20 | 38 | 0.47 | 0.50 | 2.8 | 0.29 | 0.25 | 0.96 |
| SOLARCOOL [®] (1) PACIFICA + Clear | | | 4 | 14 | 10 | 36 | 17 | 0.47 | 0.50 | 2.8 | 0.24 | 0.21 | 0.67 |
| SOLARCOOL [®] (2) PACIFICA + Clear | | | 4 | 15 | 11 | 10 | 38 | 0.47 | 0.50 | 2.8 | 0.29 | 0.25 | 0.60 |
| SOLARCOOL [®] (1) SOLARBLUE + Clear | | | 7 | 19 | 19 | 37 | 20 | 0.47 | 0.50 | 2.8 | 0.33 | 0.29 | 0.66 |
| SOLARCOOL [®] (2) SOLARBLUE + Clear | | | 7 | 20 | 19 | 15 | 38 | 0.47 | 0.50 | 2.8 | 0.37 | 0.32 | 0.63 |
| SOLARCOOL [®] (1) SOLARBRONZE + Clear | | | 6 | 18 | 21 | 37 | 19 | 0.47 | 0.50 | 2.8 | 0.35 | 0.31 | 0.58 |
| SOLARCOOL [®] (2) SOLARBRONZE + Clear | | | 6 | 19 | 21 | 14 | 38 | 0.47 | 0.50 | 2.8 | 0.40 | 0.34 | 0.56 |
| SOLARCOOL [®] (1) SOLARGRAY + Clear | | | 6 | 15 | 17 | 36 | 17 | 0.47 | 0.50 | 2.8 | 0.32 | 0.28 | 0.54 |
| SOLARCOOL [®] (2) SOLARGRAY + Clear | | | 6 | 16 | 18 | 11 | 38 | 0.47 | 0.50 | 2.8 | 0.36 | 0.32 | 0.50 |
| VISTACOO[®] and SOLARCOOL[®] with SOLARBAN[®] 60 Solar Control Low-E (3) | | | | | | | | | | | | | |
| VISTACOO [®] (2) AZURIA + SOLARBAN 60 (3) Clear | | | 11 | 42 | 16 | 20 | 24 | 0.29 | 0.27 | 1.6 | 0.30 | 0.26 | 1.62 |
| VISTACOO [®] (2) PACIFICA + SOLARBAN 60 (3) Clear | | | 4 | 26 | 12 | 11 | 23 | 0.29 | 0.27 | 1.6 | 0.25 | 0.21 | 1.24 |
| SOLARCOOL [®] (2) PACIFICA + SOLARBAN 60 (3) Clear | | | 2 | 13 | 6 | 10 | 29 | 0.29 | 0.27 | 1.6 | 0.17 | 0.15 | 0.87 |
| SOLARCOOL [®] (2) SOLEXIA + SOLARBAN 60 (3) Clear | | | 3 | 24 | 10 | 24 | 29 | 0.29 | 0.27 | 1.6 | 0.22 | 0.19 | 1.26 |
| SOLARCOOL [®] (2) AZURIA + SOLARBAN 60 (3) Clear | | | 4 | 21 | 8 | 19 | 29 | 0.29 | 0.27 | 1.6 | 0.19 | 0.17 | 1.24 |
| SOLARCOOL [®] (2) SOLARBLUE + SOLARBAN 60 (3) Clear | | | 3 | 17 | 9 | 14 | 29 | 0.29 | 0.27 | 1.6 | 0.21 | 0.18 | 0.94 |
| SOLARCOOL [®] (2) SOLARBRONZE + SOLARBAN 60 (3) Clear | | | 2 | 17 | 9 | 14 | 29 | 0.29 | 0.27 | 1.6 | 0.21 | 0.18 | 0.94 |
| SOLARCOOL [®] (2) SOLARGRAY + SOLARBAN 60 (3) Clear | | | 2 | 14 | 8 | 11 | 29 | 0.29 | 0.27 | 1.6 | 0.20 | 0.17 | 0.82 |
| VISTACOO[®] and SOLARCOOL[®] with SOLARBAN[®] 70XL Solar Control Low-E (3)[†] | | | | | | | | | | | | | |
| VISTACOO [®] (2) AZURIA + SOLARBAN 70XL (3) | | | 4 | 38 | 14 | 21 | 23 | 0.28 | 0.26 | 1.5 | 0.27 | 0.24 | 1.58 |
| VISTACOO [®] (2) PACIFICA + SOLARBAN 70XL (3) | | | 1 | 24 | 9 | 11 | 22 | 0.28 | 0.26 | 1.5 | 0.22 | 0.19 | 1.26 |
| SOLARCOOL [®] (2) SOLEXIA + SOLARBAN 70XL (3) | | | 1 | 22 | 8 | 24 | 27 | 0.28 | 0.26 | 1.5 | 0.20 | 0.17 | 1.29 |
| SOLARCOOL [®] (2) AZURIA + SOLARBAN 70XL (3) | | | 1 | 19 | 6 | 19 | 27 | 0.28 | 0.26 | 1.5 | 0.18 | 0.15 | 1.27 |
| SOLARCOOL [®] (2) PACIFICA + SOLARBAN 70XL (3) | | | 1 | 12 | 4 | 10 | 27 | 0.28 | 0.26 | 1.5 | 0.15 | 0.13 | 0.92 |
| SOLARCOOL [®] (2) SOLARBLUE + SOLARBAN 70XL (3) | | | 1 | 16 | 6 | 14 | 27 | 0.28 | 0.26 | 1.5 | 0.18 | 0.15 | 1.07 |
| SOLARCOOL [®] (2) SOLARBRONZE + SOLARBAN 70XL (3) | | | 1 | 15 | 6 | 14 | 27 | 0.28 | 0.26 | 1.5 | 0.17 | 0.15 | 1.00 |
| SOLARCOOL [®] (2) SOLARGRAY + SOLARBAN 70XL (3) | | | 1 | 13 | 5 | 11 | 27 | 0.28 | 0.26 | 1.5 | 0.16 | 0.14 | 0.93 |

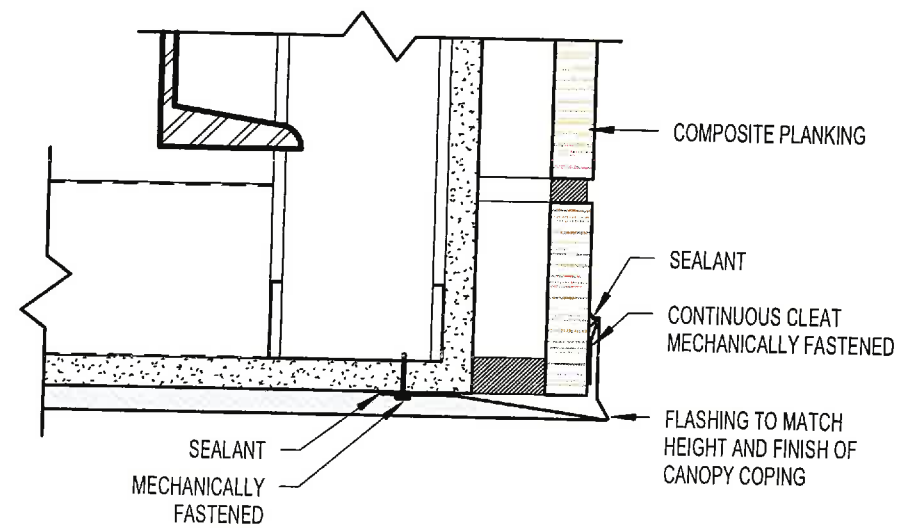
All performance data calculated using LBNL Window 6.3 software, except European U-value, which is calculated using WinDat version 3.0.1 software. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit www.ppgideascesapes.com or request our Architectural Glass Catalog.

- † **Solarban 70XL** for annealed applications is applied to **Starphire** glass; heat treated applications will require either clear or **Starphire** glass depending on manufacturing process.
- †† **Solarban 72 Starphire** data based on using **Starphire** glass for both interior and exterior lites.
- ††† **Optiblu** is a unique substrate by PPG designed specifically for **Solarban 250** and **Solarban 275** glasses.
- 1. Data is based on center of glass performance of representative factory production samples. Actual values may vary due to the production process and manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBNL Window 6.3 software. Variations from previously published data are due to minor changes in the LBNL Window 6.3 software versus Version 5.2.
- 2. Transmittance and Reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.

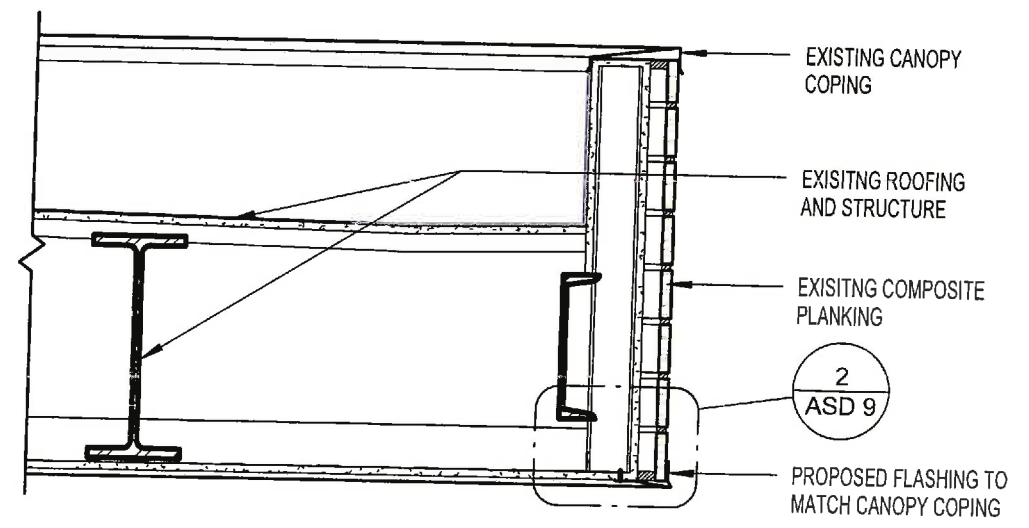
- 3. U-value is the overall coefficient of heat transmittance or heat flow measured in BTU/hr. • ft² • °F. Lower U-values indicate better insulating performance.
- 4. European U-value is the overall coefficient of heat transmittance or heat flow measured in Watts/m² • °C, and is calculated using WinDat WIS version 3.0.1 software.
- 5. Shading coefficient is the ratio of the total amount of solar energy that passes through a glass relative to 1/8-inch (3.0mm) thick clear glass under the same design conditions. It includes both solar energy transmitted directly plus any absorbed solar energy re-radiated and convected. Lower shading coefficient values indicate better performance in reducing solar heat gain.
- 6. Solar heat gain coefficient (SHGC) represents the solar heat gain through the glass relative to the incident solar radiation. It is equal to 86% of the shading coefficient.
- 7. Light-to-solar gain (LSG) ratio is the ratio of visible light transmittance to solar heat gain coefficient.



③ CANOPY REVISION - ELEVATION
1/8" = 1'-0"



② CANOPY DRIP EDGE DETAIL
3" = 1'-0"



① CANOPY REVISION - SECTION
3/4" = 1'-0"



CANOPY DRIP EDGE DETAIL VIOLET CROWN
2015.11.12 14059.00



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ACCESSIBLE BEIGE SW 7036

