

SAN FRANCISCO PLANNING DEPARTMENT

Certificate of Appropriateness Case Report

HEARING DATE: MAY 20, 2015

Filing Date:	May 7, 2014
Case No.:	2014.0690A
Project Address:	Conservatory of Flowers, Golden Gate Park
Historic Landmark:	No. 50: Conservatory of Flowers
Zoning:	P (Public)
	OS (Open Space) Height and Bulk District
Block/Lot:	1700/001
Applicant:	Matt Jasmin, Recreation and Parks Department
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PROPERTY DESCRIPTION

1000 GREAT HIGHWAY, GOLDEN GATE PARK CONSERVATORY OF FLOWERS, between John F. Kennedy Drive and Conservatory Drive. Assessor's Block 1700, Lot 001. The Conservatory of Flowers is an individual landmark located within the National-Register listed Golden Gate Park Historic District. The property is designated as Landmark No. 50 in Planning Code Article 10 and as State Landmark No. 841 in the National Register. The Conservatory was constructed between 1878 and 1879. It is modeled after the conservatory in the Royal Botanic Gardens in Kew, England. It covers 15,000 square feet and is one of the largest conservatories in the United States. The glass and wood building was the first municipal greenhouse in California and the first building in Golden Gate Park. The conservatory was built by Lord and Burham, greenhouse manufacturers in Irvington, New York, upon order of James Lick, and was shipped in crates to California. The building was partly destroyed by fire in 1883, but was rebuilt the following year. Please see the attached Landmark Designation Report for a full architectural description. It is zoned P (Public) District and is in an OS (Open Space) Height and Bulk District.

PROJECT DESCRIPTION

The San Francisco Recreation and Parks Department (RPD) proposes to address deteriorating glazing putty at the Conservatory of Flowers roof by installing a silicone cap over the existing wood muntins. RPD also proposes to increase security at the site by installing security cameras at 9 locations.

Muntin Caps

The proposed project involves removal of existing loose and deteriorated glazing putty at all vertical wood muntins on the Conservatory of Flowers roof (main building – including central dome, entry vestibule, and wings) and installation of a new silicone system. Sound putty that is well adhered will

remain in place as removal efforts could harm the historic muntins. As a substitute for the glazing putty, an extruded silicone cap of similar size, shape, and color to the existing wood muntin will be applied over the existing wood component and secured to the glass on both sides of the wood with silicone sealant. Prior to installation of the silicone caps, a biocide may be used on the end grain of the muntins to stop or prevent rot and preserve the wood. Formed in a trapezoidal configuration, the extruded silicone cap will fully cover the existing muntins. The width of the extrusion will match the profile of the historic muntin with glazing putty, and it will be consistent in width along the entire run of each muntin. The extruded cap will be white to match the existing painted wood, and will have a similar visual texture and finish as that of the existing. The size will be only slightly larger than the existing muntin, so it can cover and protect this original feature in place. (See Appendices 1-9 for details and product information related to the silicone cap installation.)

Security Cameras

The RPD proposes to install up to nine (9) security cameras around the Conservatory of Flowers building to prevent vandalism of the facility. No cameras will be attached to the conservatory structure. The cameras will be placed at the following locations:

- Cameras 1 4 will be installed at the gable ends of the two non-historic kiosks in front of the Conservatory of Flowers.
- Cameras 5 8 will be installed on the façades of support buildings and sheds that surround the north, rear, side of the Conservatory of Flowers. Of these support buildings, only the Orchid Building is a historic structure.
- Camera 9 will be installed on the non-historic metal fence behind the Conservatory of Flowers.

Installation will require a small hole through the attachment surface for a conduit and wire that will be concealed by, and provide power to, the camera. Cameras 1-8 will be secured to wood surfaces with four small fasteners and plastic wedge anchors. Camera 9 will be mounted to a fencepost at the east entry gate with the Mega Dome Pole Mount Adaptor as shown on Page 69 of this application. The camera finish is powder coated aluminum. The standard color is white, which is the same color as the surface that the camera will be attached to for all locations except for 5 and 9. Locations 5 and 9 are located at the rear service yard and the neutral white color is proposed in these areas as well. (See Appendices 10-13 for proposed security camera locations and for product information on the security cameras and attachments.)

OTHER ACTIONS REQUIRED

The Conservatory of Flowers property is subject to pending CEQA, Certificate of Appropriateness, General Plan Referral, Conditional Use Authorization, and Civic Design reviews to legalize construction of the Orchid Gallery, an event pavilion, which occurred in 2012. Review of the current application to address the failing putty in the conservatory roof structure and ongoing security issues is necessary to ensure proper maintenance and protection of the site.

COMPLIANCE WITH THE PLANNING CODE PROVISIONS

The proposed project complies will all sections of the Planning Code.

APPLICABLE PRESERVATION STANDARDS

ARTICLE 10

Pursuant to Section 1006.2 of the Planning Code, unless exempt from the Certificate of Appropriateness requirements or delegated to Planning Department Preservation staff through the Administrative Certificate Appropriateness process, the Historic Preservation Commission is required to review any applications for the construction, alteration, removal, or demolition of any designated Landmark for which a City permit is required. Section 1006.6 states that in evaluating a request for a Certificate of Appropriateness for an individual landmark or a contributing building within a historic district, the Historic Preservation Commission must find that the proposed work is in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, as well as the designating Ordinance and any applicable guidelines, local interpretations, bulletins, related appendices, or other policies.

THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

Standard 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The proposed changes will support the property's continued historical use as a conservatory without causing any changes to its distinctive materials, features, spaces, or spatial relationships.

Standard 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

The wood muntins that compose the conservatory roof are a distinctive visual feature of the landmark. The proposed work will retain and preserve the wood components in place with minimal change to the material or design integrity. The proposed silicone cap will protect the wood muntin while matching the color and profile.

The proposed security cameras will be located in discrete areas that preserve the character of the conservatory's setting and exterior spaces, and their installation will not require removal or alteration of any character-defining features of the site.

Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

No conjectural features will be added to the landmark site. The silicone muntin caps will be a clearly contemporary intervention to address the repeated failure of the historic glazing putting.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

This Standard does not apply to the proposed project. No aspects of the building or site involved in the proposed project have gained significance over time.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The project will not remove distinctive elements of the property. The glazing putty itself is not a distinctive material, but the wood muntins and their white-painted finish are distinctive visual features of the roof. The proposed project retains and preserves the muntins in place and mimics the appearance of the painted muntin and glazing putty.

The security cameras will be installed on support buildings and structures surrounding the main conservatory building, but will not attach to principal facades. Installation of the cameras does not involve alteration of any distinctive materials, features, or finishes.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Though the existing glazing putty is the best quality of its type, it has been proven to have a short service life and constitutes a significant recurring maintenance cost. The existing putty was a faithful match to original material and met the historic preservation criteria when installed as part of the restoration in 2003. This putty has not performed as anticipated. The poor performance may be due to the fact that the glazing is not set vertically, but rather is sloped. This allows water to remain on the putty for a longer amount of time than in a traditional installation. Further, the building is subjected to chloride-laden fog which may have also contributed to the failure of the putty.

Failure of the glazing putty allows for water intrusion and subsequent damage to the muntins. Further, the loss of adhesion of the putty presents a safety hazard since individual glass panes may become loose and fall. The proposed solution will extend the service life of the muntins, which are a distinctive feature of the historic structure, by 20 to 30 years. Since the new silicone system, which has an expected 10-20 year service life, will require little to no painting and is relatively maintenance free, long-term maintenance costs for the building will also be reduced. The new extruded cap will be opaque white to match the existing paint, and will have a trapezoidal shape to match the profile of the historic muntin with putty. The cap will have a similar visual texture as the existing painted wood.

Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The use of a biocide on the end grain of the muntins to stop or prevent rot may be used if deemed necessary to preserve the wood. The biocide will preserve the existing and historic wood components.

Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

This Standard does not apply to the proposed project. No archaeological resources will be potentially affected as part of the proposed project.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The proposed work will not destroy historic materials or features that characterize the property. The new silicone cap will be formed in a trapezoidal configuration of similar size, shape, color, and texture to the existing wood component. This treatment will be applied uniformly to all muntins and therefore differentiation of new and old will not be immediately apparent; however, upon close inspection, a preservation professional will be able to easily identify the intervention. The wood component will remain intact underneath the cap and the integrity of the overall property will be protected.

The proposed security camera housing is light in color and the cameras are small in size for minimal visibility. They will also be installed in discrete locations. The cameras will not destroy historic materials, features, and spatial relationships that characterize the property. The only historic structure that will be affected is the Orchid House, where the installation will only create a small hole in the upper, unadorned trim surrounding the door. The cameras are modern in design and will not read as part of the historic resource.

Standard 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

No new additions or adjacent new construction are proposed as part of this project. However, the proposed work will be undertaken in a manner that, if removed in the future, the essential form and integrity of the historic property would not be impaired. The silicone cap proposed for installation over the existing muntins will adhere only to the glass on either side of the wood component, not to the wood itself, thereby protecting the existing material in place without bonding to the historic material. Therefore, the cap can be peeled away in the future without disturbing the historic material beneath it.

The security cameras will require minimal attachments to adjacent surfaces and may easily be removed in the future without damage to the historic resource or site.

PUBLIC/NEIGHBORHOOD INPUT

The Department has received no public input on the project at the date of this report.

STAFF ANALYSIS

Based on the requirements of Article 10 and the Secretary of Interior's Standards, staff has determined that the proposed work is compatible with the character-defining features of the subject site and with the landmark site.

Muntin Caps

The proposed project is in conformance with the requirements of Article 10 and the Secretary of the Interior's Standards for Rehabilitation. It involves removal of the existing deteriorated glazing putty at all vertical wood muntins on the Conservatory of Flowers' roof and installation of an extruded silicone cap over the muntin. The project maintains the historic use of the property and does not propose changes that create a false sense of historical development. It does not include alterations to features that have acquired significance over time or have the potential to affect any archeological resources.

The proposed work retains and preserves distinctive materials and features, thereby maintaining the historic character of the property. A biocide may be used on the end grain of the muntins to stop or prevent rot. This treatment will not cause damage to the existing materials and will preserve the existing wood material. The new extruded silicone cap will be formed in a trapezoidal configuration of similar size, shape, and color to the existing wood muntin, and will not destroy historic materials, features, or spatial relationships that characterize the property. Because the cap will be secured to the glass on both sides of the wood (and not to the wood itself) with silicone sealant, it can be removed in the future without damage to the existing wood component; therefore the essential form and integrity of the property will be unimpaired.

Security Cameras

Security cameras will be mounted to an existing metal fence on the east side of the building and on support building facades which surround the main Conservatory building. The building use, historic character, and all character-defining features of the property are being maintained, and the proposed work will not require removal or alteration of features that characterize the property. All work will be undertaken with the gentlest means possible to avoid damage to historic materials. Camera installation requires minimal attachments, and all cameras may be removed in the future without damage to the integrity of the historic property.

ENVIRONMENTAL REVIEW STATUS

The Planning Department has determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Sections 15301 (Class One - Minor Alteration of Existing Structure) because the project includes a minor alteration of an existing structure that meets the Secretary of the Interior's Standards.

PLANNING DEPARTMENT RECOMMENDATION

Planning Department staff recommends APPROVAL WITH CONDITIONS of the proposed project as it appears to meet the Secretary of the Interior Standards for Rehabilitation. Staff recommends the following conditions:

- The project sponsor shall provide a condition assessment report to the Planning Department regarding the silicone muntin caps 5 years from the date of installation.
- The project sponsor shall provide specifications and a maintenance schedule for future roof cleaning and white-washing to the Planning Department prior to issuance of the building permit.
- The Project Sponsor shall test the proposed biocide treatment in an unobtrusive area of the roof prior to widespread application to determine whether or not the product changes the visual appearance of the muntin.

ATTACHMENTS

Draft Motion Parcel Map 1998 Sanborn Map Aerial Photograph Certificate of Appropriateness Application with Appendices 1-13

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Historic Preservation Commission Motion No.

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ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOT 001 IN ASSESSOR'S BLOCK 1700, WITHIN A P (PUBLIC) ZONING DISTRICT AND AN OS (OPEN SPACE) HEIGHT AND BULK DISTRICT.

PREAMBLE

WHEREAS, on May 7, 2014, the Recreation of Parks Department, (Project Sponsor) filed an application with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness to address deteriorating glazing putty at the Conservatory of Flowers by installing a silicone cap over the existing wood muntins and to increase security at the site by installing security cameras at 9 locations.

WHEREAS, the Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (hereinafter "Commission") has reviewed and concurs with said determination.

WHEREAS, on May 20, 2015, the Commission conducted a duly noticed public hearing on the current project, Case No. 2014.0690A ("Project") for its appropriateness.

WHEREAS, in reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

MOVED, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans labeled Exhibit A on file in the docket for Case No. 2014.0690A based on the following conditions of approval and findings:

CONDITIONS OF APPROVAL

- The project sponsor shall provide a condition assessment report to the Planning Department regarding the silicone muntin caps 5 years from the date of installation.
- The project sponsor shall provide specifications and a maintenance schedule for future roof cleaning and white-washing to the Planning Department prior to issuance of the building permit.
- The Project Sponsor shall test the proposed biocide treatment in an unobtrusive area of the roof prior to widespread application to determine whether or not the product changes the visual appearance of the muntin.

FINDINGS

Having reviewed all the materials identified in the recitals above and having heard oral testimony and arguments, this Commission finds, concludes, and determines as follows:

- 1. The above recitals are accurate and also constitute findings of the Commission.
- 2. Findings pursuant to Article 10:

The Historical Preservation Commission has determined that the proposed work is compatible with the character of the landmark as described in the designation report.

- The project maintains the historic use of the property and does not propose changes that create a false sense of historical development.
- The project does not include alterations to features that have acquired significance over time or have the potential to affect any archeological resources.
- The project retains and preserves distinctive materials and features, thereby maintaining the historic character of the property.
- The proposed biocide treatment for the wood muntins will not cause damage to the existing materials and will preserve the existing wood material.
- The new extruded silicone cap will be formed in a trapezoidal configuration of similar size, shape, and color to the existing wood muntin, and will not destroy historic materials,

features, or spatial relationships that characterize the property.

- The silicone cap will be secured to the glass on both sides of the wood (and not to the wood itself) with silicone sealant and can be removed in the future without damage to the existing wood component; therefore the essential form and integrity of the property will be unimpaired.
- Camera installation requires minimal attachments, and all cameras may be removed in the future without damage to the integrity of the historic property.
- The proposed project meets the requirements of Article 10 of the Planning Code.
- The proposed project meets the following *Secretary of the Interior's Standards for Rehabilitation*:

Standard 1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

Standard 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Standard 3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Standard 5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

Standard 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

3. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

I. URBAN DESIGN ELEMENT

THE URBAN DESIGN ELEMENT CONCERNS THE PHYSICAL CHARACTER AND ORDER OF THE CITY, AND THE RELATIONSHIP BETWEEN PEOPLE AND THEIR ENVIRONMENT.

GOALS

The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1

EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

POLICY 1.3

Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.

OBJECTIVE 2

CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.4

Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.

POLICY 2.5

Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.

POLICY 2.7

Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character.

The goal of a Certificate of Appropriateness is to provide additional oversight for buildings and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.

The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the landmark for the future enjoyment and education of San Francisco residents and visitors.

- 4. The proposed project is generally consistent with the eight General Plan priority policies set forth in Section 101.1 in that:
 - A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

The proposed project is for the rehabilitation of a greenhouse facility and will not have any impact on neighborhood serving retail uses.

B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

The proposed project will strengthen neighborhood character by respecting the character-defining features of the site in conformance with the Secretary of the Interior's Standards.

C) The City's supply of affordable housing will be preserved and enhanced:

The project will not reduce the affordable housing supply as the existing unit will be retained.

D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.

E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

The proposed will not have any impact on industrial and service sector jobs.

F) The City will achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

Preparedness against injury and loss of life in an earthquake is improved by the proposed work. The work will be executed in compliance with all applicable construction and safety measures.

G) That landmark and historic buildings will be preserved:

The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.

H) Parks and open space and their access to sunlight and vistas will be protected from development:

The proposed project will not impact the access to sunlight or vistas for the parks and open space.

5. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation, General Plan and Prop M findings of the Planning Code.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **GRANTS a Certificate of Appropriateness** for the property located at Lot 001 in Assessor's Block 1700 for proposed work in conformance with the renderings and architectural plans labeled Exhibit A on file in the docket for Case No. 2014.0690A.

APPEAL AND EFFECTIVE DATE OF MOTION: The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135).

Duration of this Certificate of Appropriateness: This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on May 20, 2015.

Jonas P. Ionin Acting Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED:

Parcel Map





Certificate of Appropriateness Ca**se Number 2014.0690A** Conservatory of Flowers Golden Gate Park

Sanborn Map*





Certificate of Appropriateness Ca**se Number 2014.0690A** Conservatory of Flowers Golden Gate Park

Aerial Photo





Certificate of Appropriateness Ca**se Number 2014.0690A** Conservatory of Flowers Golden Gate Park



SAN FRANCISCO PLANNING DEPARTMENT

Planning Department 1650 Mission Street Suite 400 San Francisco, CA 94103-9425

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APPLICATION PACKET FOR Certificate of Appropriateness

Section 1002(a)(2) states that the Historic Preservation Commission ("HPC") shall review and decide on applications for construction, alteration, demolition and other applications pertaining to landmark sites and districts regulated under Article 10 of the Planning Code.

The first pages of this packet consist of instructions which should be read carefully before the application form is completed. Planning Department staff are available to advise you in the preparation of this application. Call (415) 558-6377 for further information.

WHAT IS A CERTIFICATE OF APPROPRIATENESS AND WHEN IS IT NECESSARY?

Incorporated into the Planning Code in 1968, Article 10 outlines the process for the review and entitlement of alterations to properties locally designated as City Landmarks. An individual landmark is a stand-alone building, site, or object that is important for its contributions to San Francisco. A landmark district is a group of properties or a portion of a neighborhood that is architecturally, historically, or culturally important. Designated properties that are recognized for their architectural, historic, and cultural value to the City, are subject to the review and entitlement processes outlined in Article 10 of the Planning Code. The Historic Preservation Commission oversees and regulates these properties.

A Certificate of Appropriateness is the entitlement required to alter an individual landmark and any property within a landmark district. A Certificate of Appropriateness is required for any construction, addition, major alteration, relocation, removal, or demolition of a structure, object or feature, on a designated landmark property, in a landmark district, or a designated landmark interior. Depending on the scope of a project, some require a hearing before the Historic Preservation Commission. For those that don't, they're called Administrative Certificates of Appropriateness and are approved by Planning Department Preservation staff.

HOW DOES THE CERTIFICATE OF APPROPRIATENESS PROCESS WORK?

- File the Certificate of Appropriateness application with the Department. Instructions about this process is below. The application will be assigned to a Preservation Planner, who will review the materials for completeness.
- When the Preservation Planner determines that the application is complete, the project will be scheduled for a hearing at the Historic Preservation Commission.
- All Certificates of Appropriateness require public notification prior to the scheduled hearing. Projects must have a 20-day mailed notice and poster erected on the project site.
 - For individual landmarks, notice must be mailed to all owners and occupants of the property and within 150-feet from the property. Interested parties and neighborhood groups must also receive notice.

- For properties located within historic districts, notice must be mailed to all owners within 300feet of the property and occupants within 150-feet of the property. The radius includes properties that are located outside of the designated historic district, if applicable. Interested parties and neighborhood groups must also receive notice.
- At the public hearing, the Historic Preservation Commission will make a decision on the proposed project and approve, disapprove, or approve with modifications, the Certificate of Appropriateness.
- After the hearing, the Department issues the Certificate of Appropriateness document.
- Department staff will review the associated building permit to make sure that the work conforms to what the Historic Preservation Commission approved. If the proposed work conforms, the permit will be approved and routed to the Department of Building Inspection for final issuance.

WHO MAY APPLY FOR A CERTIFICATE OF APPROPRIATENESS?

A Certificate of Appropriateness is an entitlement that runs with the property; therefore, the property owner or a party designated as the owner's agent may apply for a Certificate of Appropriateness. [A letter of agent authorization from the owner must be attached.]

INSTRUCTIONS:

Gather the information needed and fill out the attached application, which includes a project description, necessary contact information, and two sets of findings that must be answered. The first set of findings is for compliance with preservation standards. The second set of findings are the General Plan Priority Policy Findings, which determine San Francisco General Plan consistency. Please answer all questions fully. If you need assistance, contact the Planning Information Center, 1660 Mission Street, 1st Floor; Telephone No. (415) 558-6377; open Monday through Friday.

Contact the Department to schedule an Application Intake at (415) 558-6378. At your scheduled appointment with a Preservation Planner, please bring the application and related materials. Note that all plans and materials submitted with this application will be retained as a part of the permanent public record for the case. Please provide the following materials with this application:

- Authorization: If the applicant in this case is the authorized agent of the property owner, rather than the owner, a letter signed by the owner and creating or acknowledging that agency must be attached and is included in the application for a Certificate of Appropriateness.
- Drawings: The application must be accompanied by plans sufficient for proper determination of the case. One full set of architectural plans showing existing conditions and proposed scope of work. All plans shall include a site plan with the area of work identified, and existing and proposed floor plans, elevations (including those of adjacent properties), and section(s) at either 1/8" or 1/4" scale dependent on the size of the project, and detail drawings at 1/2" scale.
- Photographs: The application must include photographs of the subject property, including the primary facade and where the work is proposed. In addition, photographs must be submitted of the adjacent properties and street frontages that accurately depict the existing context. Please submit historic photos of the project, if applicable. All photographs should be large enough to show the nature of the property but not over 11 x 17 inches.
- Specifications & Material Samples: Include product specifications if there is any cleaning and/or repair of historic materials. If there is repointing or material replacement, product samples must be submitted.
- **Cut-Sheets:** For replacement windows and other features, product cut sheets must be submitted.
- Notification Radius Map, Address List, and Labels: See instructions on the following pages for more details.

Fees:

Please refer to the Planning Department Fee Schedule available at **www.sfplanning.org** or at the Planning Information Center (PIC) located at 1660 Mission Street, First Floor, San Francisco for the applicable application fees. For questions related to the Fee Schedule, please call the PIC at (415) 558-6377. Fees will be determined based on the estimated construction costs. Time and materials charges will be added if staff costs exceed the initial fee.

CEQA Review:

The California Environmental Quality Act (CEQA) and Chapter 31 of the San Francisco Administrative Code implementing that act may require an Environmental Evaluation before the application may be considered. Please consult the Planning Department staff to determine if an Environmental Evaluation application must be submitted with this application. A separate fee is required for environmental review.

Historic Preservation Commission Hearing Material:

This time line includes a deadline for project sponsors to submit material to staff to be included in the Commission packet. If the Project Sponsor does not submit the necessary material by the deadline, the project will be continued to a later hearing date.

- Three weeks prior to hearing: Project Sponsor submits draft project graphics (plans, renderings etc) to project planner.
- Two weeks prior to hearing: Project planner submits Draft staff report (must include draft attachments) to Team Leader for review.
- Ten days prior to hearing (5pm on Monday): Deadline for submittal of all sponsor material and public comment to be included in Commission packets.
- One week prior to hearing: Project planner delivers complete Commission packets to the Commission Secretary.

To file your Certificate of Appropriateness application, please call (415) 558-6378 in advance to schedule an intake appointment. At your scheduled appointment with a staff planner, please bring your completed application with all required materials.

What Applicants Should Know About the Public Hearing Process and Community Outreach

- A. The Historic Preservation Commission encourages applicants to meet with all community groups and parties interested in their application early in the entitlement process. Department staff is available to assist in determining how to contact interested groups. Neighborhood organization lists area available on the Department's website. Notice of the hearing will be sent to groups in or near the neighborhood of the project. The applicant may be contacted by the Planning Department staff with requests for additional information or clarification. An applicant's cooperation will facilitate the timely review of the application.
- B. The Historic Preservation Commission requests that applicants familiarize themselves with the procedure for public hearings, which are excerpted from the Historic Preservation Commission's Rules and Regulations below.

Hearings. A public hearing may be held on any matter before the Commission at either a Regular or a Special Meeting. The procedure for such public hearings shall be as follows:

- 1. A description of the project by the Department staff along with the Department's recommendation.
- 2. A presentation of the proposal by the project sponsor's team for a period not to exceed 10 minutes.
- 3. Public testimony from proponents of the proposal. An individual may speak for a period not to exceed 3 minutes. An organization or group will be given a period not to exceed 5 minutes if the organization or group is represented by one speaker. Members of such groups are not allowed separate three (3) minutes of testimony.
- 4. Public testimony from opponents of the proposal would be taken under conditions parallel to those imposed on proposal proponents, 3 minutes for an individual and 5 minutes for a group or organization if the group or organization is represented by one speaker.

- 5. In public hearings on Draft Environmental Impact reports, each member of the public may speak for a period not to exceed three (3) minutes.
- 6. Discussion and vote by the Historic Preservation Commission on the matter before it.
- The President may impose time limits on appearances by members of the public and may otherwise exercise his or her discretion on procedures for the conduct of public hearings.
- C. **Private Transcription.** The Commission President may authorize any person to transcribe the proceedings of a Regular, Special or Committee Meeting provided that the President may require that a copy of such transcript be provided for the Commission's permanent records.
- D. **Opportunities for Appeals by Other Bodies:** Historic Preservation Commission actions on Certificates of Appropriateness are final unless appealed to the Board of Appeals, or to the Board of Supervisors when applicable, within **30 days** of Commission action.

Notification Instructions

- 1. **Radius Map:** The required notification map must show all properties within the 150-foot or 300-feet (whichever is applicable; see page 1-2 for specifics) of the EXTERIOR boundaries of the property; a 150-foot or 300-foot radius map, drawn to a scale of 1 inch to 50 feet, either the original on TRACING paper or a blueprint copy (no photocopy accepted) is required for submittal with Certificate of Appropriateness applications.
- 2. Labels: Submit two lists of the names and addresses, including the block and lot for each one, of all owners of the properties within 150 feet or 300 feet of the subject property and self-adhering labels with the same data. The latest Citywide tax roll is available at the Office of the Treasurer and Tax Collector, City Hall Room 140, 1 Dr. Carlton B. Goodlett Pl., San Francisco, CA 94102, for the preparation of this list. The labels will be used to mail notice of the time and place of the public hearing required.

EXAMPLE OF MAILING LABEL



- 3. If you wish to prepare the materials yourself, block maps may be traced at the office of the Assessor, 81 Dr. Carlton B. Goodlett Place, City Hall, Room 190. The width of the public right-of-way for the streets separating the blocks may be determined at the Department of Public Works, Bureau of Street Use and Mapping, 875 Stevenson Street, Room 460, 554-5810.
- 4. You may, for a fee that varies by firm, have a private drafting or mailing service prepare these materials.



NOTE: THIS EXAMPLE IS NOT TO REQUIRED SCALE

The following businesses have indicated that they provide professional notification services. This listing does not constitute an endorsement. Other professionals can also perform this work and can be added to this list upon request.

Build CADD 3515 Santiago Street San Francisco, CA 94116 (415) 759-8710

Javier Solorzano 3288 - 21st Street #49 San Francisco, CA 94110 (415) 724-5240 Javier131064@yahoo.com

Jerry Brown Designs 619 - 27th Street, Apt. A Oakland, CA 94612 (415) 810-3703 *jbdsgn328@gmail.com*

Ted Madison Drafting P.O. Box 8102 Santa Rosa, CA 95407 (707) 228-8850 tmadison@pacbell.net Notificationmaps.com Barry Dunzer (866) 752-6266 www.notificationmaps.com

Radius Services 1221 Harrison Street #18 San Francisco, CA 94103 (415) 391-4775 radiusservices@aol.com

Notice This (650) 814-6750

APPLICATION FOR Certificate of Appropriateness

1. Owner/Applicant Information

PROPERTY OWNER'S NAME:				
San Francisco Recreation and Parks Department (Eric Andersen, Superintendent GGP - primary contact)				
PROPERTY OWNER'S ADDRESS:	TELEPHONE:			
McLaren Lodge-Golden Gate Park	(415) 831-6818			
501 Stanyan Street EMAIL:				
San Francisco, CA 94117 eric.andersen@sfgov.org				

APPLICANT'S NAME:			
Matt Jasmin, Project Manager (secondary project contact for security camera work)			
APPLICANT'S ADDRESS:	TELEPHONE:		
30 Van Ness Ave	(415) 581-2552		
5th Floor	EMAIL:		
San Francisco, CA 94102	matt.jasmin@sfgov.org		

CONTACT FOR PROJECT INFORMATION:	
David Wessel	Same as Above
CONTACT PERSON'S ADDRESS:	TELEPHONE:
Architectural Resources Group	(415) 421-1680
Pier 9, The Embarcadero	EMAIL:
San Francisco, CA 94111	david@argsf.com

2. Location and Classification

STREET ADDRESS OF PROJECT:	ZIP CODE:
100 John F. Kennedy Drive, San Francisco, CA	94118
CROSS STREETS:	
John F. Kennedy Drive and Conservatory Drive West	

ASSESSORS BLOCK/L	.OT:	LOT DIMENSIONS:	LOT AREA (SQ FT):	ZONING DISTRICT:	HEIGHT/BULK DISTRICT:
1700	/ 001		4,195,976 sf	P - PUBLIC	OS
ARTICLE 10 LANDMAF	K NUMBER			HISTORIC DISTRICT:	
Landmark #50				Golden Gate Park National	Register District

3. Project Description

See Continuation Sheet for project description.		
Building Permit Application No. <u>Not required</u>	Date Filed:	N/A

4. Project Summary Table

If you are not sure of the eventual size of the project, provide the maximum estimates.

GROSS SQUARE FOOTAGE (GSF)	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
Residential				
Retail				
Office				
Industrial / PDR Production, Distribution, & Repair				
Parking				
Other (Specify Use)	Assembly			
Total GSF				
PROJECT FEATURES	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units Hotel Rooms	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units Hotel Rooms Parking Spaces	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units Hotel Rooms Parking Spaces Loading Spaces	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units Hotel Rooms Parking Spaces Loading Spaces Number of Buildings	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES Dwelling Units Hotel Rooms Parking Spaces Loading Spaces Number of Buildings Height of Building(s)	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION: 0	PROJECT TOTALS: no change no change

Please provide a narrative project description, and describe any additional project features that are not included in this table:

See Continuation Sheet for project description.

Findings of Compliance with Preservation Standards

	FINDINGS OF COMPLIANCE WITH PRESERVATION STANDARDS	YES	NO	N/A
1	Is the property being used as it was historically?	X		
2	Does the new use have minimal impact on distinctive materials, features, spaces, and spatial relationship?			X
3	Is the historic character of the property being maintained due to minimal changes of the above listed characteristics?	\boxtimes		
4	Are the design changes creating a false sense of history of historical development, possible from features or elements taken from other historical properties?		X	
5	Are there elements of the property that were not initially significant but have acquired their own historical significance?		X	
6	Have the elements referenced in Finding 5 been retained and preserved?			X
7	Have distinctive materials, features, finishes, and construction techniques or examples of fine craftsmanship that characterize the property been preserved?	X		
8	Are all deteriorating historic features being repaired per the Secretary of the Interior Standards?	\boxtimes		
9	Are there historic features that have deteriorated and need to be replaced?	×		
10	Do the replacement features match in design, color, texture, and, where possible, materials?	X		
11	Are any specified chemical or physical treatments being undertaken on historic materials using the gentlest means possible?	X		
12	Are all archeological resources being protected and preserved in place?			\boxtimes
13	Do exterior alterations or related new construction preserve historic materials, features, and spatial relationships that are characteristic to the property?	\boxtimes		
14	Are exterior alterations differentiated from the old, but still compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment?	X		
15	If any alterations are removed one day in the future, will the forms and integrity of the historic property and environment be preserved?	X		

Please summarize how your project meets the Secretary of the Interior's *Standards for the Treatment of Historic Properties*, in particular the *Guidelines for Rehabilitation* and will retain character-defining features of the building and/or district:

See Continuation Sheet.

Findings of Compliance with General Preservation Standards

In reviewing applications for Certificate of Appropriateness the Historic Preservation Commission, Department staff, Board of Appeals and/or Board of Supervisors, and the Planning Commission shall be governed by *The Secretary of the Interior's Standards for the Treatment of Historic Properties* pursuant to Section 1006.6 of the Planning Code. Please respond to each statement completely (Note: Attach continuation sheets, if necessary). Give reasons as to *how* and *why* the project meets the ten Standards rather than merely concluding that it does so. IF A GIVEN REQUIREMENT DOES NOT APPLY TO YOUR PROJECT, EXPLAIN WHY IT DOES NOT.

1. The property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships;

See Continuation Sheet for Findings of Compliance with General Preservation Standards (all Standards).

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided;

 Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken; 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved;

5. Distinctive materials, features, finishes, and construction techniques or examples of fine craftsmanship that characterize a property will be preserved;
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence;

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used; 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken;

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment;

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would not be impaired;

PLEASE NOTE: For all applications pertaining to buildings located within Historic Districts, the proposed work must comply with all applicable standards and guidelines set forth in the corresponding Appendix which describes the District, in addition to the applicable standards and requirements set forth in Section 1006.6. In the event of any conflict between the standards of Section 1006.6 and the standards contained within the Appendix which describes the District, the more protective shall prevail.

Priority General Plan Policies Findings

Proposition M was adopted by the voters on November 4, 1986. It requires that the City shall find that proposed projects and demolitions are consistent with eight priority policies set forth in Section 101.1 of the City Planning Code. These eight policies are listed below. Please state how the project is consistent or inconsistent with each policy. Each statement should refer to specific circumstances or conditions applicable to the property. Each policy must have a response. IF A GIVEN POLICY DOES NOT APPLY TO YOUR PROJECT, EXPLAIN WHY IT DOES NOT.

1. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced;

The Conservatory of Flowers is not a commercial property; therefore, the proposed project will not have any

impact on neighborhood-serving retail uses.

2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods;

The Conservatory of Flowers is in Golden Gate Park, a holding of the San Francisco Recreation and Parks

Department, and not in a residential neighborhood. As such, the proposed project will not impact existing

housing or neighborhood character.

3. That the City's supply of affordable housing be preserved and enhanced;

The Conservatory of Flowers is a San Francisco Recreation and Parks Department facility and is not related to affordable housing in San Francisco. Therefore, the project will not have any impact on the City's affordable housing supply.

4. That commuter traffic not impede Muni transit service or overburden our streets or neighborhood parking;

The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.

5. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced;

The Conservatory of Flowers is a public park facility and is not related to the City's industrial or service sectors;

therefore, the proposed project will not have any impact on industrial and service sector jobs.

6. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake;

The Conservatory of Flowers has already been seismically strengthened; this policy does not apply to the

proposed project.

7. That landmarks and historic buildings be preserved; and

The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the

Interior's Standards (see discussion under the Findings of Compliance with General Preservation Standards -

Continuation Sheet).

8. That our parks and open space and their access to sunlight and vistas be protected from development.

The proposed project will not impact access to sunlight or vistas for the park's open space.

Estimated Construction Costs

TYPE OF APPLICATION:			
Security/Maintenance - Certificate of Appropriateness			
OCCUPANCY CLASSIFICATION:			
A3			
BUILDING TYPE:			
V-B			
TOTAL GROSS SQUARE FEET OF CONSTRUCTION:	BY PROPOSED USES:		
11,807			
ESTIMATED CONSTRUCTION COST:			
\$1,000,000.00 (muntin cap), \$35,000 (security cameras)			
ESTIMATE PREPARED BY:			
ARG Conservation Services (muntin cap), MicroBiz Security Consultants & SF RPD (security cameras)			
FEE ESTABLISHED:			
\$6,100			

Applicant's Affidavit

Under penalty of perjury the following declarations are made:

- a: The undersigned is the owner or authorized agent of the owner of this property.
- b: The information presented is true and correct to the best of my knowledge.

c: Other information or applications may be required.

Signature:

Date: _____

Print name, and indicate whether owner, or authorized agent:

Owner / Authorized Agent (circle one)

Certificate of Appropriateness Application Submittal Checklist

The intent of this application is to provide Staff and the Historic Preservation Commission with sufficient information to understand and review the proposal. Receipt of the application and the accompanying materials by the Planning Department shall only serve the purpose of establishing a Planning Department file for the proposed project. After the file is established, the Department will review the application to determine whether the application is complete or whether additional information is required for the Certificate of Appropriateness process. Applications listed below submitted to the Planning Department must be accompanied by this checklist and all required materials. The checklist is to be completed and **signed by the applicant or authorized agent**.

REQUIRED MATERIALS (please check correct column)	CERTIFICATE OF APPROPRIATENESS
Application, with all blanks completed	\boxtimes
Site Plan	
Floor Plan	
Elevations	
Prop. M Findings	X
Historic photographs (if possible), and current photographs	\boxtimes
Check payable to Planning Department	
Original Application signed by owner or agent	
Letter of authorization for agent	
Other: Section Plan, Detail drawings (i.e. windows, door entries, trim), Specifications (for cleaning, repair, etc.) and/or product cut sheets for new elements (i.e. windows, doors)	X

NOTES:

Required Material. Write "N/A" if you believe the item is not applicable, (e.g. letter of authorization is not required if application is signed by property owner.)
 Typically would not apply. Nevertheless, in a specific case, staff may require the item.

PLEASE NOTE: The Historic Preservation Commission will require additional copies each of plans and color photographs in \land reduced sets (11" x 17") for the public hearing packets. If the application is for a demolition, additional materials not listed above may be required. All plans, drawings, photographs, mailing lists, maps and other materials required for the application must be included with the completed application form and cannot be "borrowed" from any related application.

:		Date:
	FOR MORE INFORMATION: Call or visit the San Francisco F	Planning Department
	Central Reception 1650 Mission Street, Suite 400 San Francisco CA 94103-2479	Planning Information Center (PIC) 1660 Mission Street, First Floor San Francisco CA 94103-2479
SAN FRANCISCO PLANNING DEPARTMENT	TEL: 415.558.6378 FAX: 415 558-6409 WEB: http://www.sfplanning.org	TEL: 415.558.6377 Planning staff are available by phone and at the PIC counter.

Continuation Sheet – Conservatory of Flowers Certificate of Appropriateness

(Items 3 and 4 from C of A Application): Narrative Project Description

The San Francisco Recreation and Parks Department (RPD) proposes to address the issue of deteriorating glazing putty at the Conservatory of Flowers with a compatible silicone cap system. RPD also proposes to increase security at the site through the installation of security cameras at select locations. A project description for each effort is provided below.

New Muntin Caps¹

The proposed project involves removal of the existing deteriorated glazing putty at all vertical wood muntins on the Conservatory of Flowers roof (main building – including central dome, entry vestibule, and wings) and installation of a new silicone system appropriate for glazing. Though the existing putty is the best quality of its type, it has been proven to have a short service life and constitutes a significant recurring maintenance cost to the City's Recreation and Park Department. The existing putty was a faithful match to original material and met the historic preservation criteria when installed as part of the restoration. This putty has not performed as anticipated. The poor performance may be due to the fact that the glazing is not set vertically, but rather is sloped. This allows water to remain on the putty for a longer amount of time than in a traditional installation. Further, the building is subjected to chloride-laden fog which may have also contributed to the failure of the putty.

Failure of the glazing putty allows for water intrusion and subsequent damage to the muntins. Further, the loss of adhesion of the putty presents a safety hazard since individual lites may become loose and fall. The proposed solution will extend the service life of the muntins by 20 to 30 years with minimal visual impact to the Conservatory. Since the new silicone system will require little to no painting and is relatively maintenance free, long-term maintenance costs for the building will also be reduced.

As a substitute for the glazing putty, an extruded silicone cap of similar size, shape, and color to the existing wood muntin will be applied over the existing wood component and secured to the glass on both sides of the wood with silicone sealant. Prior to installation of the silicone caps, a biocide may be used on the end grain of the muntins to stop or prevent rot and preserve the wood. Formed in a trapezoidal configuration, the extruded silicone cap will fully cover the existing muntins and can be removed in the future without damage to these original building features. The width of the extrusion will match the profile of the historic muntin with glazing putty, and it will be consistent in width along the entire run of each muntin. The extruded cap will be white to match the existing painted wood, and will have a similar visual texture and finish as that of the existing. The size will be only slightly larger than the existing muntin, so it can cover and protect this original feature in place. (See Appendices 1-8 for details and product information related to the silicone cap installation.)

Security Camera Installation

The San Francisco Recreation and Park Department proposes to install up to a total of nine security cameras at and around the Conservatory of Flowers building to prevent damage to the facility. The cameras will be placed at the following locations:

¹ A muntin is defined by Oxford Dictionaries as a "bar or rigid supporting strip between adjacent panes of glass," http://www.oxforddictionaries.com/us/definition/american_english/muntin (accessed February 2015).

- Cameras 1 4 will be installed at the gable ends of the two kiosks in front of the Conservatory of Flowers.
- Cameras 5 8 will be installed on the façades of support buildings and sheds that surround the north, rear, side of the Conservatory of Flowers.
- Camera 9 will be installed on an existing metal fence behind the Conservatory of Flowers.

Installation will require a small hole through the attachment surface for a conduit and wire that will be concealed by, and provide power to, the camera. Cameras 1-8 will be secured to wood surfaces with four small fasteners and plastic wedge anchors. Camera 9 will be mounted to a fencepost at the east entry gate with the Mega Dome Pole Mount Adaptor as shown on Page 69 of this application. The camera finish is powder coated aluminum. The standard color is white, which is the same color as the surface that the camera will be attached to for all locations except for 5 and 9. Locations 5 and 9 are located at the rear service yard and the neutral white color is appropriate in these areas. (See Appendix 10 for proposed security camera locations, and Appendices 11-13 for product information on the security cameras and attachments.)

(from Page 8): Please summarize how your project meets the Secretary of the Interior's Standards for the Treatment of Historic Properties, in particular the Guidelines for Rehabilitation and will retain characterdefining features of the building and/or district:

New Muntin Caps

The proposed project is compliant with the Secretary of the Interior's Standards for Rehabilitation. It involves removal of the existing deteriorated glazing putty at all vertical wood muntins on the Conservatory of Flowers' roof and installation of an extruded silicone cap over the muntin. The project maintains the historic use of the property (Standard 1) and does not propose changes that create a false sense of historical development (Standard 3). It does not include alterations to features that have acquired significance over time (Standard 4) or have the potential to affect any archeological resources (Standard 8).

The proposed work retains and preserves distinctive materials and features (Standards 2 and 5), thereby maintaining the historic character of the property. A biocide may be used on the end grain of the muntins to stop or prevent rot. This treatment will not cause damage to the existing materials and will preserve the existing wood material (Standard 7). The new extruded silicone cap will be formed in a trapezoidal configuration of similar size, shape, and color to the existing wood muntin (Standard 6), and will not destroy historic materials, features, or spatial relationships that characterize the property (Standard 9). Because the cap will be secured to the glass on both sides of the wood (and not to the wood itself) with silicone sealant, it can be removed in the future without damage to the existing wood component; therefore the essential form and integrity of the property will be unimpaired (Standard 10).

Security Camera Installation

Security cameras will be mounted to an existing metal fence on the east side of the building and on support building facades which surround the main Conservatory building. The building use, historic character, and all character-defining features of the property are being maintained, and the proposed work will not require removal or alteration of features that characterize the property. All work will be undertaken with the gentlest means possible to avoid damage to historic materials. Camera installation requires minimal attachments, and all cameras may be removed in the future without damage to the integrity of the historic property.

Findings of Compliance with General Preservation Standards (from pages 9-11)

1. <u>The property will be used as it was historically or be given a new use that requires minimal</u> <u>change to its distinctive materials, features, spaces, and spatial relationships;</u>

The proposed work does not include a change of use and is compliant with this Standard.

2. <u>The historic character of a property will be retained and preserved. The removal of distinctive</u> <u>materials or alteration of features, spaces, and spatial relationships that characterize the</u> <u>property will be avoided;</u>

The project includes removal of the existing deteriorated glazing putty and installation of an extruded silicone cap to protect the existing wood muntins on the Conservatory of Flowers' roof. The cap will protect the wood components in place and will match the color and profile of the historic muntin with putty. The existing glazing putty itself is not a distinctive material, but the wood muntins are distinctive visual features of the roof. The proposed action retains and preserves the wood components in place with minimal impact and is compliant with this Standard.

The proposed installation of nine security cameras on site will maintain all character-defining features of the property, and the proposed work will not require removal or alteration of features that characterize the Conservatory building or site. The camera installation is therefore compliant with this Standard.

3. <u>Each property will be recognized as a physical record of its time, place and use. Changes that</u> <u>create a false sense of historical development, such as adding conjectural features or elements</u> <u>from other historic properties, will not be undertaken;</u>

The proposed project does not propose changes that create a false sense of historical development. No conjectural features or elements from other historic properties will be added to the building or site as part of the proposed work. As such, the project is compliant with this Standard.

4. <u>Changes to a property that have acquired historic significance in their own right will be retained</u> <u>and preserved;</u>

This Standard does not apply to the proposed project. No aspects of the building or site involved in the proposed project have gained significance over time.

5. <u>Distinctive materials, features, finishes, and construction techniques or examples of fine</u> <u>craftsmanship that characterize a property will be preserved;</u>

See discussion under Standard 2 above. The glazing putty itself is not a distinctive material, but the wood muntins are distinctive visual features of the roof. The proposed project retains and preserves the muntins in place and is compliant with this Standard.

The security cameras will be installed on support buildings and structures surrounding the main conservatory building, but will not attach to principal facades. Installation of the cameras does

not involve alteration of any distinctive materials, features, or finishes, and is therefore compliant with this Standard.

6. <u>Deteriorated historic features will be repaired rather than replaced. Where the severity of</u> <u>deterioration requires replacement of a distinctive feature, the new feature will match the old in</u> <u>design, color, texture, and, where possible, materials. Replacement of missing features will be</u> <u>substantiated by documentary and physical evidence;</u>

See discussion under Standards 2 and 5 above. An extruded silicone cap will be installed over the existing wood muntins. This cap will be attached to the glass with a silicone sealant to address the problem of the inadequate seal provided by the existing glazing putty. The new extruded cap will be opaque white to match the existing paint, and will have a trapezoidal shape to match the profile of the historic muntin with putty. The cap will have a similar visual texture as the existing painted wood, and is therefore compliant with this Standard.

7. <u>Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means</u> possible. Treatments that cause damage to historic materials will not be used;

The use of a biocide on the end grain of the muntins to stop or prevent rot may be used if deemed necessary to preserve the wood. The biocide will preserve the existing and historic wood components and its use is compliant with this Standard.

8. <u>Archeological resources will be protected and preserved in place. If such resources must be</u> <u>disturbed, mitigation measures will be undertaken;</u>

This Standard does not apply to the proposed project. No archaeological resources will be potentially affected as part of the proposed project.

9. <u>New additions, exterior alterations, or related new construction will not destroy historic</u> <u>materials, features, and spatial relationships that characterize the property. The new work shall</u> <u>be differentiated from the old and will be compatible with the historic materials, features, size,</u> <u>scale and proportion, and massing to protect the integrity of the property and its environment;</u>

The proposed work will not destroy historic materials or features that characterize the property. The new silicone cap will be formed in a trapezoidal configuration of similar size, shape, color, and texture to the existing wood component. This treatment will be applied uniformly to all muntins and therefore differentiation of new and old will not be immediately apparent; however, the wood component will remain intact underneath the cap and the integrity of the overall property will be protected.

The camera housing is light in color and the cameras are small in size for minimal visibility. The cameras will not destroy historic materials, features, and spatial relationships that characterize the property. The cameras are modern in design and will not read as part of the historic resource. As such, the proposed project is compliant with this Standard.
10. <u>New additions and adjacent or related new construction will be undertaken in such a manner</u> <u>that, if removed in the future, the essential form and integrity of the historic property and its</u> <u>environment would not be impaired;</u>

No new additions or adjacent new construction are proposed as part of this project. However, the proposed work will be undertaken in a manner that, if removed in the future, the essential form and integrity of the historic property would not be impaired. The silicone cap proposed for installation over the existing muntins will adhere to the glass on either side of the wood component, not to the wood itself, thereby protecting the existing material in place.

The security cameras will require minimal attachments to adjacent surfaces and may easily by removed in the future without damage to the historic resource or site. As such, the proposed project is compliant with this Standard.

Appendices

- 1. Existing, Proposed, and Drip Edge Detail drawings for Conservatory muntins
- 2. Muntin cap test parameters
- 3. Muntin cap test photographs and site map
- 4. Glazing putty vs. silicone muntin cap treatment comparison
- 5. Local examples of similar silicone extrusion installations
- 6. Muntin cap installation specifications
- 7. Dow Corning 795 Silicone Building Sealant product information
- 8. Dow Corning 123 Silicone Seal product information
- 9. Silicone extrusion and sealant maintenance and monitoring plan
- 10. Proposed security camera locations
- 11. MegaDome 2 product information
- 12. MegaDome wall mount and cap product information
- 13. MegaDome 2 Installation Manual

Existing, Proposed, and Drip Edge Detail drawings for Conservatory muntins



Muntin cap test parameters

Several years after the restoration of the Conservatory of Flowers, Conservatory staff observed deterioration of the fish oil putty. The putty was installed as part of the restoration project of 2003, to secure and waterproof the glass lights that are installed in a shingle-like configuration. After 12 years, the putty had developed cracking perpendicular to its length and was detaching from the substrate.

Given that the traditional window putty material failed in a relatively short period of time, and that maintenance of putty on the arched glass exterior of the Conservatory requires mobilization of special access equipment and associated costs, a less maintenance intense solution is desired.

ARG used the following characteristics to identify an appropriate substitute material for the fish putty:

- Reversible
- Long service life
- Visually the same as the original
- Less maintenance than fish oil putty
- Proven in-service track record
- Protects historic fabric and provide good weathering protection

Several glazing contractors suggested considering silicone sealant for its durability, elongation qualities, and service life of 10 to 20 years when applied by a qualified applicator. Further, silicone is now a standard in the glazing industry. Other putty materials had the same limitations as the fish oil putty. For that reason, silicone sealant was investigated.

Two types of silicone sealant applications were identified for testing. The first was as a substitute for the fish oil putty to be installed in exactly the same manner as window putty. The second application was as a silicone extrusion to be applied over the muntin. Each edge of the color-matched extrusion would be set in a bead of silicone sealant on the glass lites and tooled.

The test panels installed on-site included silicone used as a putty substitute and a white colored extrusion. The Tremco Company agreed to supply the first sample of silicone extrusion to be tested.

The use of silicone as a putty substitute was found to be problematic. Although the putty adhered well to the glass, in some cases it did not adhere to the wood rabbit of the muntin. The adhesion of the silicone appeared to be affected by the moisture content of the wood and also the condition of the primer coating. Areas with moisture or poorly adhered primer failed.

Conservatory of Flowers Putty Repair: **PARAMETERS OF MUNTIN CAP TEST**

The first extrusions installed performed well for adhesion as the extrusions were set in sealant on the glass lites and not dependent on the condition of the wood. However, the profile of the first extrusion sample was wider than that of the muntin and was rejected for that reason.

A second extrusion was supplied by Dow Corning. The profile of this extrusion was a very close match to the muntin. From a distance of 10 feet the test extrusion was virtually indistinguishable from the adjacent wood muntins.

There was a concern that the application of the extrusion could affect the moisture content of the wood muntin. A testing program was developed to record the moisture content of muntins with and without the extrusions. The moisture content of selected mutins was checked over a period of one year. There was no detectable increase in moisture for those mutins covered by the extrusion nor was there a significant difference between muntins with and without extrusion. In some cases the moisture content decreased in the muntins protected with the silicone extrusions.

It appears that since extrusion covers only a very small portion of the muntin it does not raise moisture content in the mutins. The majority of the muntin section is located on the opposite side of the glass, inside the building. The extrusion provides a sound waterproofing shield for the wood muntin, and may, over the long term, decrease rainwater saturation.

It was observed that the most vulnerable location on the muntins is at the base where the end grain wicks moisture into the wood. This occurs because water flows down the glass lites and is concentrated at the muntin base. By extending the extrusion a short distance over the end of the muntin saturation has been greatly reduced.

Based upon the test panels and moisture content readings over the period of one year, the following conclusion were made concerning the appropriate muntin caps for the project:

- The extrusion is reversible because it is only attached to the glass and not the wood. It can easily be removed by cutting the setting bead with sharp blade. Residue of silicone is easily removed from the glass.
- Silicone has a proven service life of at least 10 years and manufacturer's warranties for as long as 20 years are possible to obtain with qualified applicators. Thus, the criteria of long service life and proven in-service records are met.
- The extrusion is a virtual match in size and form for the existing muntin. Further, silicone will not change color over time and remains flexible. Its flexibility and adhesive qualities will keep broken glass in place until replacement.

- Because silicone is durable in an outdoor environment, there will be minimal maintenance costs until replacement is necessary in 10 to 20 years. The only maintenance necessary will be cleaning and checking proper adhesion of the silicone bedding bead.
- The installation design of the extrusion is such that the wood muntin is unaffected. The extrusion protects the muntin from rain and ultraviolet degradation but is only attached to the glass. Thus, historic fabric is protected and the extrusion system provides better weather protection for the muntins as it shields the wood from rainwater. Further, extending the extrusion over the base of the muntins provides protection of the vulnerable end grain.

For reasons explained, it was determined that the use of a silicone extrusion was a viable option for this application.

Muntin cap test photographs and site map

The use of silicone sealants and extrusions as a substitute for putty were tested on the Conservatory at three muntin locations on May 16, 2013. Two of the test muntin locations were located at the south side of the east wing, while the third muntin location was on the north side of the east wing. On December 23, 2014, the mock ups were reviewed to assess their long term performance. Ultimately, after all the test mockups, it was concluded that the most successful products and method of application were Dow Corning 123 Seal (silicone extrusion), paired with Dow Corning 795 (silicone sealant) applied on the outside of the extrusion. The following pages contain: (1) photos of the deteriorated conditions of muntins; (2) plans and photos which specify the three test locations of the mock ups; and (3) photo details of successful and unsuccessful mockups.

1. Existing Conditions



The red arrows indicate the failed putty and biological growth at the wood muntins (photos taken by ARG on May 16, 2013).





The red arrows indicate the failed putty and biological growth at the wood muntins (photos taken by ARG on May 16, 2013).

2. Test Locations







At South Test Location #1 the first extrusions with silicone putty tests (see five blue arrows to left) and just silicone putty tests (see two orange arrows to right) were installed. Ultimately, the first extrusions with silicone putty tested were rejected because they were too wide and did not match the appearance of the

existing muntins. The silicone putty tests required extensive preparation of the wood substrate for good adhesion including priming and painting. Obtaining warranty from the manufacturer is problematic due to silicone being applied to wood substrate. In sum, all these tests were deemed unsuccessful for the reasons just stated.



South Test Location #2 (photo taken by ARG on December 23, 2014)

At South Test Location #2 the second round of extrusions were installed (see red arrows) that have a narrower profile closely matching the existing muntins in appearance. How these two tests differ is in their application, in how the sealant has been applied with the extrusion. For the best seal and adhesion, it was found that applying the sealant outside the extrusion (see red arrow to the right) was better than applying it to the inside of the extrusion (see red arrow to the left). The muntin cap to the right was deemed to be the most successful and is proposed for use in this Certificate of Appropriateness application.



North Test Location #3 (photo taken by ARG on December 23, 2014)

At North Test Location #3 the first extrusions with silicone putty tests (see three blue arrows on left) and just silicone putty tests (see two orange arrows on right) were installed. These were all later rejected and deemed unsuccessful test mockups for the same reasons previously described at South Test Location #1, such as aesthetics and application.

3. Photo Details (photo taken by ARG on December 23, 2014)



Detail photo of extrusion installed at South Test Location #2. This extrusion (indicated by the red arrow) is a close visual match to the existing muntins. This is the silicone and muntin cap proposed for use in this Certificate of Appropriateness application.



Detail of South Test Location #1. The muntin on the left is an unsuccessful silicone extrusion that was considered having too wide a profile. The muntin on the right shows silicone sealant used as substitute for fish oil glazing putty. While this muntin appears to be successful in appearance, it was unsuccessful in its ease of application and cost making it an unsuccessful mockup.



Detail photo of extrusion installed at South Test Location #2. Wood muntin (indicated by the red arrow) underneath silicone cap and sealant is protected and exhibits no signs of biogrowth at South Test Location #2 after one year.

Glazing putty vs. silicone muntin cap treatment comparison

Conservatory of Flowers Putty Repair: GLAZING PUTTY VS. SILICONE MUNTIN CAP TREATMENT

	Glazing Putty	Silicone Seal and Cap Muntin Treatment	
Installation Time	Substrate must first be primed. Installed putty requires 4 weeks to set before paint can be applied over installation for additional protection.	The silicone sealant dries within 1 minute after being gunned out. The silicone cap does not require top coat primer and additional protective paint coatings.	
Ease of Use	Must be applied at temperature above 40°F. Surfaces must be primed with oil based primer. Additional linseed oil may be used to thin product for better workability. Easy removal with mineral spirits before setting.	All temperature gunnability, easy tooling, low odor cure byproduct, and ready to use as supplied. Surface temperature cannot exceed 50°C (122°F). Silicone sealant is only applied to glass and not wood. Sealant can easily be removed with sharp blade and reset with new sealant with no impact on wood.	
Material Cost	Material will be costly as more will have to be used due to more frequent repairs.	Saves cost in long run because requires fewer repairs. It has a 10-20 year service life.	
Product Longevity	Becomes brittle, shrinks, and cracks within 3 years (field observation). Shelf life is one year.	A 10-year project specific warranty is available if adhesion testing is done in the field; however, it will likely last 20 years.	
Required Maintenance	Putty and wood must be monitored for repairs. Repair areas require preparation of substrate before new putty can be applied.	No maintenance other than cleaning.	
Retreatability	Areas in need of new putty must be prepped (old putty removed and wood stripped, sanded, primed, etc.). Preparation for new putty installation could damage wood due to tightly adhered putty.	Sealant used to adhere extrusion is easily removed from glass and new extrusion can easily be installed.	
Safety	Medium flexibility, for "typical" weather conditions. Putty becomes brittle.	High flexibility. Seals joints subject to extreme movement +200/-75%. Meets global standards (Americas, Asia, and Europe). Will retain cracked glass in place.	
Appearance	Available in white, natural, and gray. Must be painted with latex or oil based paint that is compatible with sealant within 4 weeks time.	Available in 13 different colors, custom colors also available to match existing Conservatory color.	
Waterproofing	Medium flexibility, for "typical" weather conditions. Cracked material allows moisture penetration.	Tough and flexible. Seals joints subject to extreme movement +200/-75%. Excellent weatherability - virtually unaffected by sunlight, rain, snow, ozone and temperature extremes of -40°F (-40°C) to 300°F (149°C).	

Local examples of similar silicone extrusion installations

Below is a list of (5) local buildings in which ARG has installed a similar system of extruded silicone sealant and cap for waterproofing:



1. 450 Sutter, San Francisco, CA 94108: silicone extrusion at side jambs (indicated by arrows).

2. 888 Brannan, San Francisco, CA 94103: silicone extrusion on skylights (indicated by arrows).



Conservatory of Flowers Putty Repair ARG EXAMPLE BUILDINGS



3. Hilton, 333 O'Farrell Street, San Francisco, CA 94102: silicone extrusion on skylights (indicated by arrows).







- 4. Ghiradelli Square, 900 North Point Street, San Francisco, CA 94109: silicone extrusion used in roof flashing. No images available.
- 5. Flood Building, 870 Market Street, San Francisco, CA 94102: silicone extrusion used in roof flashing. No images available.

Muntin cap installation specifications

Note: See associated product information in Appendices 7 and 8

SECTION 07900 - CAULKING AND SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Work of this Section includes labor, materials, equipment and services necessary to complete the work as described on the drawings, as specified in this Section, and as may be required by conditions and regulatory agencies, including, but not limited to the following:
 - 1. Caulking at window frame perimeters designated as accessory work of window rehabilitation.

1.2 QUALITY ASSURANCE

- A. Applicator: The sealant work shall be performed by a firm having 5 years experience in the installation of specified materials on projects of comparable scale, scope and nature to this Project. The firm shall have the approval of the sealant materials manufacturer. Employ qualified tradespersons having minimum two (2) years experience with sealant applications on buildings of similar scope and nature.
- B. Manufacturer's Representative:
 - No sealants may be used unless the manufacturer agrees to have a qualified representative at the Site at the start up of the work of this Section. The Contractor shall give the manufacturer notice one week prior to start-up that his presence will be required, to ensure proper installation of his materials.
- C. Manufacturer's Instructions: Follow the manufacturer's printed instructions for the use and installation of his products; except, follow the Specifications given herein when they are more restrictive.
- D. Where sealants are installed by several trades, prior to commencing work, coordinate sealant work with adjacent sealant work of other installers, relative to scheduling and sequencing of work and compatibility of materials used by each trade. Report differences to Architect.
- E. Pre-Installation Meeting: Prior to the installation of sealant, and at the Contractor's direction, meet at the project site to review the material selections, joint preparations, installation procedures and coordination with other trades. Meeting shall include the sealant Installer, Owner's Project Representative, Contractor, Architect, Manufacturer's representative, and representatives of other trades or subcontractors affected by the sealant installation. Examine sample installations that have been prepared and determine and record whether everyone present is in agreement that the proposed installations are likely to perform as required. Notify Architect and Owner's Project Representative prior to meeting as to time, place and date of meeting.

F. Testing: Contractor shall select at random (2) sealant joints for adhesion testing. Contractor shall submit digital photographs and results of adhesion test to Architect for review.

1.3 SUBMITTALS

- A. Submit product data and samples under provisions of Section 01300 "Submittals".
- B. Product Data: Submit the following information from the manufacturer:
 - Certification (in the form of standard data sheet or letter) that each type of sealant and sealant to be furnished complies with these Specifications. Silicone sealant manufacturer's test data on adhesion to samples of finished metal panels and surfaces.
 - 2. Statement that each product to be furnished is recommended for the application shown.
 - 3. Complete instructions for handling, storage, mixing, priming, installation, curing and protection of each type of sealant.
 - 4. Compatibility statement from silicone sealant manufacturer that materials in contact with sealant (such as finished metals, glass, gaskets, spacers, backer rods, setting blocks) are compatible with sealant after 21 days exposure to ultra violet 2000-4000 (micro watt U.V. radiation). Compatibility shall include staining and adhesion.
 - 5. Submit sealant manufacturer's written test reports and recommendations regarding cleaning and priming.
- C. Samples: Submit samples of specified products, 12 in. long and installed between samples of the materials to be sealed for the Project. Provide (2) 6-inch long sample beads taken from (2) randomly selected tubes of custom colored sealant for Architects review and approval. Architect's acceptance will be for color and workmanship only. Compliance with other requirements is the Contractor's responsibility.
- D. Statement of Application: Submit copy of statement, in an approved form, signed by the Contractor, stating that the products comply with these Specifications and were the proper selections for the applications made, and that the installation methods complied with the manufacturer's printed instructions and their field representatives' verbal instructions and were proper and adequate for the condition of installation and use.
- E. Adhesion Test Results: Submit digital photographs and samples from random adhesion tests required throughout Project for Architect's review.

1.4 PRE-CONSTRUCTION TESTING

- A. Pre-construction Compatibility and Adhesion Testing: Prior to testing of mock-ups, submit samples of all materials that will contact or affect sealants to sealant manufacturers for compatibility and adhesion testing, as indicated below:
 - Use test methods standard with manufacturer to determine if priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of sealants to joint substrates. Perform tests under conditions of 72 deg. F. temperature and 50% relative humidity. Manufacturer(s) of sealant(s) shall submit written recommendations when installations involve adverse temperature or humidity conditions.
 - 2. Submit not less than 3 pieces of each type of material, including joint substrates, shims, joint sealant backings, secondary seals, and miscellaneous materials.
 - 3. Schedule sufficient time for testing and analysis of results to prevent delay in the progress of the Work.
 - Investigate materials failing compatibility or adhesion tests and obtain sealant manufacturer's written recommendations for corrective measures, including use of specially formulated primers.
 - 5. Testing will not be required when sealant manufacturer is able to submit joint preparation data required above, which is acceptable to Architect and is based on previous testing of current sealant products for adhesion to, and compatibility with, joint substrates and other materials matching those submitted.
- B. Pre-construction Stain Resistance Testing of Silicone Sealants: Prior to testing of mock-ups, submit samples of all materials that will contact or affect silicone sealants to sealant manufacturers, in sizes as required, for stain testing, as indicated below:
 - Use test methods standard with manufacturer to determine resistance to staining. Submit quantities of each type of contiguous joint substrate material, in sizes as required by the sealant manufacturer for testing.
 - 2. Schedule sufficient time for testing and analysis of results to prevent delay in the progress of the Work.
- C. Pre-construction Field Testing: Prior to installation of sealants, field-test their adhesion to joint substrates as follows:
 - 1. Locate test joints where indicated or, if not indicated, as directed by Architect.
 - 2. Conduct field tests for each application indicated below:
 - a. Each type of elastomeric sealant and joint substrate indicated.
 - b. Each type of non-elastomeric sealant and joint substrate indicated.

- 3. Field Mock-ups and Test Panels: Prior to installation, prepare the following sample panels and sample areas on building where directed by Architect. Repeat mock-ups and test panels as necessary, adjusting methods and procedures, until acceptance by Architect is achieved. Retain acceptable panels in undisturbed condition, suitably marked, during restoration as a standard for judging completed work.
- 4. Test Method: Test sealant by hand pull method described below:
 - Install sealants in 5 ft. joint lengths using same materials and methods for joint preparation and sealant installation required for completed Work. Allow sealants to cure fully before testing.
 - b. Make knife cuts as follows: A horizontal cut from one side of joint to the other followed by 2 vertical cuts approximately 2 in. long at side of joint and meeting horizontal cut at top of 2 in. cuts. Place a mark 1 in. from top of 2 in. piece.
 - c. Use fingers to grasp 2 in. piece of sealant just above 1 in. mark; pull firmly down at a 90 deg. angle or more while holding a ruler along side of sealant. Pull sealant out of joint to the distance recommended by sealant manufacturer for testing adhesive capability, but not less than that equaling specified maximum movement capability in extension; hold this position for 10 seconds.
- Report whether or not sealant in joint connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate.
- Evaluation of Field Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.5 MOCK-UPS

- A. Provide sealant, extrusion caps, and related accessories and miscellaneous materials for testing mock-ups, as specified under other Sections, representing the materials and installation techniques which will be used in the final Work.
- B. Before proceeding with the final Work, prepare sample joints as required to match the typical construction of joints in all respects. Prime joints and install sealant in the presence of the manufacturer's representative, not less than one (1) week in advance of the scheduled installation. Just prior to installation of sealant on the Project examine the sample installation in the presence of the manufacturer's representative.
- 1.6 DELIVERY, STORAGE AND HANDLING
 - A. Contractor shall protect caulking materials before, during and after installation. Contractor shall protect the installed work of other trades during installation.
- 1.7 JOB CONDITIONS
 - A. Contractor shall not proceed with the installation of sealant if the joint width is less than designed, or if any detrimental conditions exist, until written acknowledgment with an order to proceed is provided by the Architect.
 - B. Do not install materials when the temperature is below 40 deg. F., unless the manufacturer specifically recommends application of his materials at lower temperatures. If job progress or any other condition requires installations when temperatures are below 40 deg. F. (or below the minimum installation temperature recommended by the manufacturer) consult the manufacturer's representative and establish the minimum provisions required to ensure satisfactory work. Record in writing to the manufacturer, with copy to the Architect, the conditions under which such installation must proceed and the provisions made to ensure satisfactory work.
 - C. Do not proceed with installation of sealants during inclement weather unless all requirements and manufacturer's instructions can be complied with and unless the work can proceed in accordance with the agreements of the pre-installation meeting. Do not proceed with the installation of elastomeric sealants under extreme temperature conditions which would cause joint openings to be at either maximum or minimum width or when such extreme temperatures or heavy wind loads are forecast during the period required for initial or nominal cure of elastomeric sealants. Whenever possible, schedule the installation and cure of elastomeric sealants during periods of mean temperatures (nominal joint width shown) so that subsequent stresses upon the cured sealants will be minimized.

- 1.8 WARRANTIES
 - A. Warranty, Silicone Sealants: Submit a written warranty agreeing to repair or replace silicone sealants which have failed to provide airtight and watertight joints for any reason, or which appear to have failed in adhesion, cohesion, abrasion-resistance, migration-resistance, stain-resistance, general durability or any other form of apparent deterioration (excluding inherent qualities and limitations clearly specified in the manufacturer's data which was submitted). Period of warranty shall be twenty (10) years, and warranty shall be signed by the Manufacturer, the Installer and the Contractor. Comply with these Specifications for repair or replacement of work.
 - B. Warranty, Stain Resistance of Silicone Sealants: Submit a written warranty agreeing to repair or replace sealants which have stained contiguous materials (excluding inherent qualities and limitations clearly specified in the manufacturer's data which was submitted). Period of warranty shall be twenty (10) years, and warranty shall be signed by the Installer, Manufacturer, and Contractor. Comply with these Specifications for repair or replacement of work.

PART 2 - PRODUCTS

- 2.1 MATERIALS
 - A. General: Provide sealants, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience. Use non-sag sealants for all other areas except as shown or specified.
 - B. Elastomeric Joint Sealants:
 - Adhesive and Finish Bead Sealant (Exterior): One-Part Silicone Rubber Sealant: One-component elastomeric sealant, FS TT-S-001543, Class A, Type II nonsag:
 - a. Dow Corning 795 Silicone Building Sealant
 - b. Sonneborn Sonolastic 150 Tint Base
 - c. GE SilPruf SCS2000 Sealant
 - 2. Custom extrusion pieces for weather-strip gasket:
 - a. Dow Corning 123 Silicone Seal tape or Approved Equal.
 - 3. Sealant Color: Custom color to match window frame.
 - a. Submit samples for Architect's approval prior to installation.
 - 4. Interior Joint Sealant: Painter's Caulk, shall be compatible with Exterior Sealant

2.2 MISCELLANEOUS MATERIALS

- A. Joint Cleaner: Provide non-staining, chemical cleaners of type which are recommended by and acceptable to manufacturers of sealants and sealant backing materials, which are not harmful to substrates and adjacent nonporous materials, and which do not leave oily residues or otherwise have a detrimental effect on sealant adhesion or in-service performance.
- B. Joint Primer and Sealer: If required by manufacturer, provide non-staining sealants recommended by the manufacturer of the sealant for the specific joint surface and condition.
- C. Bond-Breaker Tape: If required, polyethylene tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.
- D. Masking Tape: Provide non-staining, nonabsorbent type compatible with joint sealants and to surfaces adjacent to joints.

PART 3 - EXECUTION

- 3.1 PRE-INSTALLATION MEETING
 - A. As specified in "Quality Assurance" Section of this Specification.
 - 1. Examine sample installations that have been prepared and determine (and record) whether everyone present is in agreement that the proposed installations will perform as required.
- 3.2 CONDITION OF SURFACES
 - A. Examine the substrates, adjoining construction and the conditions under which the Work is to be installed. Submit certification in writing that substrate is acceptable or if not state specific remedial work required. Do not proceed with the Work until unsatisfactory conditions have been corrected.
- 3.3 PREPARATION
 - A. Surface Condition: Surfaces to receive a sealant shall be sound, smooth, clean, dry and free of all visible contaminants. Existing putty affecting installation shall be completely removed by scraping or using alcohol or methyl ethyl ketone and a two-rag wipe method, taking care not to damage surfaces of adjacent materials.
 - B. Surface Cleaning of Joints: Clean out joints immediately before installing sealants to comply with recommendations of sealant manufacturers and the following requirements:

- Remove all foreign material from joint substrates which could interfere with adhesion of sealant, including dust; paints, except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer; old sealants; oil; grease; waterproofing; water repellents; water; and surface dirt.
- Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile; and other nonporous surfaces by chemical cleaners or other means that are not harmful to substrates or leave residues capable of interfering with adhesion of sealants.
- C. Primer: Contractor shall thoroughly clean joints and apply primer, if recommended by sealant manufacturer, to dry surfaces. Primer shall be applied prior to application of joint backing, bond breaker or sealants.
- D. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces which otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing sealant.
- 3.2 INSTALLATION
 - A. General: Install materials in accordance with the manufacturer's printed instructions, unless otherwise shown or specified. Comply with recommendations of ASTM C1193 for installation of joint sealants and ASTM C962 for installation of elastomeric joint sealants as applicable to materials, applications and conditions indicated.
 - B. Prime or seal substrates, except where manufacturer provides written reports of tests conducted by an independent testing agency, which demonstrates that primer or sealer is not required for the conditions of use and the substrates involved. When priming, comply with the application instructions of the sealant manufacturer.
 - C. Sealant shall be gun applied through a nozzle opening of such a diameter so that the full bead of sealant is gunned into the joint, filling the joint completely. A superficial or skin bead will not be acceptable.
 - Apply sealants in continuous beads without open joints, voids or air pockets so as to provide a watertight and airtight seal for the entire joint length and to allow optimum sealant movement capability.
 - Apply sealants to the depth and width ratio recommended by the sealant manufacturer. Minimum sealant depth not less than I/2 joint width; in no case less than I/2 in. when in contact with cementitious materials and I/4 in. when in contact with other materials. Bond sealant to 2 opposing surfaces; do not bond to bottom surface of joint.

- D. Tooling: Tooling is required to ensure firm full contact with the interfaces of the joint. Contractor shall tool joints to form smooth, uniform beads with slightly concave surfaces. Finish joints shall be straight, uniform, smooth and neatly finished. Excess material shall be struck off with a tooling stick or knife, dipped in solvent to avoid tearing or stripping of the bead.
 - 1. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer
- E. Adjacent surfaces that have been soiled by sealing operations shall be cleaned immediately and left in a clean and neat condition.
- 3.3 PROTECTION AND CLEANING
 - A. Excess sealant shall be cleaned off non-porous surfaces while uncured, using a solvent such as commercial xylol or naphtha. On porous surfaces the excess sealant should be allowed to cure and be removed by non-abrasive mechanical means approved by Architect.
 - B. Protect sealants and related accessories during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated sealants immediately and reseal joints with new materials to produce sealant installations with repaired areas indistinguishable from original work.
 - C. Remove all rubbish, cartons and debris resulting from caulking operations daily during the performance of the work.

3.4 FIELD QUALITY CONTROL

A. Waterproof Test: After curing exterior sealants, test joints for leaks by applying a stream of water perpendicularly from a 3/4 in. hose at normal city water pressure. Test the sealed joint system of not less than 5% of the construction components. Test the sealed joint system comprised of the actual construction components. Conduct tests in the presence of the Architect's representative who will determine the actual percentage of joints to be tested and the period of water flow exposure, based upon any evidence of leakage. Repair leaks or other defects and retest as directed. Repair or replace other work damaged by such leaks.

END OF SECTION

Dow Corning 795 Silicone Building Sealant product information Note: See Appendix 6 for installation specifications

Silicone Sealants

FEATURES

- Suitable for most new construction and remedial sealing applications
- Versatile high performance structural glazing and weather sealing from a single product
- Available in 13 standard colors; custom colors also available

BENEFITS

- Excellent weatherability virtually unaffected by sunlight, rain, snow, ozone and temperature extremes of - 40°F (-40°C) to 300°F (149°C)
- Excellent unprimed adhesion to a wide variety of construction materials and building components, including anodized, alodined, most coated and many Kynar^{® 1}-painted aluminums²
- Ease of application ready to use as supplied
- Ease of use all-temperature gunnability, easy tooling and lowodor cure byproduct
- Meets global standards (Americas, Asia and Europe)

COMPOSITION

• One-part, neutral-cure, RTV silicone sealant

Dow Corning[®] 795 Silicone Building Sealant

Neutral, one-part silicone sealant

APPLICATIONS

- Structural and nonstructural glazing
- Structural attachment of many panel systems
- Panel stiffener applications
- Weather sealing of most common construction materials including glass, aluminum, steel, painted metal, EIFS, granite and other stone, concrete, brick and plastics

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Method	Test	Unit	Result	
As Supplied				
ASTM C 679	Tack-Free Time, 50% RH	hours	3	
	Curing Time at 25°C (77°F) and 50% RH	days	7-14	
	Full Adhension	days	14-21	
ASTM C 639	Flow, Sag or Slump	Inches (mm)	0.1 (2.54)	
	Working Time	minutes	20-30	
	VOC Content ¹	g/L	28	
As Cured-Aft	ter 21 days at 25 C (77 F) and 50% RH			
ASTM D 224	0 Durometer Hardness, Shore A	points	35	
ASTM C 794 Peel Strength		lb/in (kg/cm)	32 (5.7)	
ASTM C 1135 Tension Adhension Strength				
	At 25% extension	psi (MPa)	45 (0.310)	
	At 50% extension	psi (MPa)	60 (0.414)	
ASTM C 719	Joint Movement Capability	percent	±50	
ASTM C 1248 Staining (granite, marble, lime-				
	Stone, brick and concrete)		None	
As Cured-After 21 days at 25 C (77 F) and 50% RH followed by 10,000 hours in a				
QUV weather	rometer, ASTM G 53	•		
ASTM C 113	5 Tensile Adhension Strength			
	At 25% extension	psi (MPa)	35 (0.241)	

Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds. For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dowcorning.com.

¹Kynar is a trademark of Atofina Chemicals Inc. ²Contact your local Dow Corning Sales Application Engineer for specifics.

DESCRIPTION

Dow Corning[®] 795 Silicone Building Sealant is a one-part, neutral-cure, architectural-grade sealant that easily extrudes in any weather and cures quickly at room temperature.

At 50% extension

This cold-applied, non-sagging silicone material cures to a mediummodulus silicone rubber upon exposure to atmospheric moisture. The cured sealant is durable and flexible enough to accommodate ± 50 percent movement of original joint dimension

psi (MPa)

50 (0.345)

when installed in a properly designed weather seal joint. In a properly designed structurally glazed joint, the sealant is strong enough to support glass and other panel materials under high wind load.

APPROVALS/ SPECIFICATIONS

Dow Corning 795 Silicone Building Sealant meets the requirements of:

- Federal Specification TT-S 001 543A (COM-NBS) Class A for silicone building sealants
- Federal Specification TT-S-00230C (COM-NBS) Class A for one- component building sealants
- ASTM Specification C 920 Type S, Grade NS, Class 50, Use NT, G, A and O
- ASTM Specification C 1184 for structural silicone sealants
- Canadian Specification CAN2-19.13- M82

SEALANT. WATERPROOFING & RESTORATION INSTITUTE

Issued to: Dow Corning Co Product: 795 Silicone Bu	orp. uilding Sealant		
C719: Pass 🖌 Ext:+50	% Comp:-50%		
Substrate: Glass, Aluminum [Glass and Aluminum Substrates were tested unprimed]			
C661: Rating 35	e a		
Validation Date: 8/17/07 - 8/16/12			
No. 807-SBS807	Copyright © 2007		
SEALANT VALIDATION			

COLORS

Dow Corning 795 Silicone Building Sealant is available in 13 colors: white, limestone, champagne, natural stone, gray, black, bronze, sandstone, adobe tan, dusty rose, rustic brick, blue spruce, and charcoal. Custom colors may be ordered to match virtually any substrate.

HOW TO USE

Please consult the Dow Corning Americas Technical Manual, Form No. 62-1112, for detailed information on state-of-the- art application methods and joint design. Please contact your local Dow Corning Sales Application Engineer for specific advice.

Preparation

Clean all joints, removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.

Application Method

Install backing material or joint filler, setting blocks, spacer shims and tapes. Mask areas adjacent to joints to ensure neat sealant lines. Primer is generally not required on non-porous surfaces, but may be necessary for optimal sealing of certain porous surfaces. A test placement is always recommended. Apply Dow Corning 795 Silicone Building Sealant in a continuous operation using positive pressure. (The sealant can be applied using many types of air-operated guns and most types of bulk dispensing equipment.) Before a skin forms (typically within 15 minutes), tool the sealant with light pressure to spread the sealant against the backing material and joint surfaces. Remove masking tape as soon as the bead is tooled.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 27°C (80°F), *Dow Corning* 795 Silicone Building Sealant has a shelf life of 12 months from the date of manufacture. Refer to product packaging for "Use By Date."

PACKAGING INFORMATION

Dow Corning 795 Silicone Building Sealant is supplied in 10.3-fl oz (305mL) disposable plastic cartridges that fit ordinary caulking guns, 20-fl oz (590- mL) sausages and 2- and 4.5-gal (7.5- and 1 7-L) bulk containers.

LIMITATIONS

Dow Corning 795 Silicone Building Sealant should not be used:

- In structural applications without prior review and approval by your local Dow Corning Sales Application Engineer
- In below-grade applications
- When surface temperatures exceed 50°C (122°F) during installation
- On surfaces that are continuously immersed in water
- On building materials that bleed oils, plasticizers or solvents that may affect adhesion
- On frost-laden or wet surfaces
- In totally confined joints (the sealant requires atmospheric moisture for cure)
- If the sealant is intended to be painted (paints do not typically adhere to most silicone sealants)
- To surfaces in direct contact with food or other food-grade applications

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Dow Corning 123 Silicone Seal product information Note: See Appendix 6 for installation specifications

Construction Solutions

DOW CORNING

The Ultimate in Weathersealing Versatility *Dow Corning*[®] 123 Silicone Seal


Effective and attractive EIFS restoration



When urethane sealants fail on EIFS-clad buildings, leaks and interior damage typically result. Until the introduction of *Dow Corning* 123 Silicone Seal, remediation was difficult at best.

On this EIFS wall, 123 Silicone Seal was applied over the vertical expansion joints and adhered with *Dow Corning* 795 Silicone Build-

Failed urethane sealant in EIFS joint ing Sealant. The preformed silicone seal spanned the failed joints, elimi-

nating tedious (and potentially damaging) sealant removal. The entire building was then protected and its appearance revitalized with *Dow Corning* AllGuard coating technology.



EIFS joint restored using Dow Corning 123 Silicone Seal

Easy as 1-2-3 to apply

Ensure that the substrate around the joint is clean and dry; masking is recommended. Apply a bead of *Dow Corning* sealant on each side. Wait 10 minutes; then roller the 123 Silicone Seal into place. That's all



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there is to it, whether you're installing a new seal or repairing a failed one.

In remedial applications, there's no need to cut out the old seals – a costly, labor-intensive process that can severely damage EIFS cladding. With *Dow Corning* 123 Silicone Seal, you not only stop leaks. You also save time and money.

Custom Designs ... the Possibilities Are Endless

The world is not flat. Neither are many of your weathersealing challenges. *Dow Corning* 123 Silicone Seal extrusions can be custom designed in special widths with special grooves or notches so you can bend them around or into almost any angle for smooth corners and transitions.

Dow Corning[®] 123 Silicone Seal Custom Designs H.C.

For more complex applications, Dow Corning offers *Dow Corning*[®] 123 Silicone Seal Custom Designs H.C. Made of high consistency silicone rubber, Custom Designs H.C. are even tougher and more versatile than standard 123 Silicone Seal. Choose from 12- to 36-inch translucent or pigmented silicone calendered sheets (excellent for flashing and weatherproofing applications), complex custom extrusions with single or dual durometers, and custom, three-dimensional molded silicone rubber shapes.

With the wide range of durometers and colors available with the 123 Silicone Seal custom molded shapes, there is virtually no end to what you can do:

- Create aesthetically pleasing weep-hole covers, setting blocks, corner and finish pieces.
- Overcome the tolerance limitations of wet sealants in high-movement joints.
- Enhance window systems.
- Create splice joints for curtainwall applications.
- Repair failed weatherseals and zipper gaskets.

We can match almost any color. Challenge us with your color requirement.

Two different tear-resistant formulations (general purpose and high tear) are available in a range of colors and durometers to meet your unique aesthetic and performance needs.



A wide range of colors, textures and widths

To ensure an attractive, substrate-matching seal, *Dow Corning* 123 Silicone Seal is available in both matte and textured finishes in 11 of today's most popular building colors.

Dow Corning 123 Silicone Seal is supplied in 100-foot rolls in widths ranging from 1 to 6 inches in 1/2-inch increments; and from 7 to 12 inches in 1-inch increments.

Custom colors, textures, widths and designs are also available for a "no-limits" approach to weathersealing aesthetics.





The Towers, Mesa, Arizona ...

Problem: Repeated urethane sealant failure, persistent leaks, water-damaged EIFS.

Solution: Don't remove the failed sealant – span it with Dow Corning[®] 123 Silicone Seal and coat the entire building with Dow Corning[®] AllGuard coating technology.

Result: The renovation went faster and cost less than expected. The building is now leak-free and more attractive than ever.

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ow Corning[®] 123 Silicone Seal was designed as a fast, efficient way to repair failed building weatherseals, without having to remove the old caulk. This long-lasting, attractive and extremely versatile alternative to wet sealants has found many innovative uses in new construction, as well.

The 123 sealing system consists of a preformed silicone extrusion or custom shape that can be bonded to a wide variety of construction substrates using *Dow Corning*[®] 795 Silicone Building Sealant or other recommended *Dow Corning*[®] brand sealants, such as 791-Silicone Weatherproofing Sealant.

The 123 Silicone Seal and *Dow Corning* sealant work together to produce a strong, flexible (ultra-low modulus) weatherseal with extremely high movement capability (up to +200/-75 percent). This dynamic seal can withstand thermal expansion and contraction, shear, wind sway and seismic movement that would defeat most conventional wet sealants.

The system can also be used in conjunction with *Dow Corning*[®] AllGuard Silicone Elastomeric Coating to enhance your building's appearance and give it more complete weatherproofing protection.

Ideal for both remedial and new construction applications

With *Dow Corning* 123 Silicone Seal, you can meet some of the toughest weathersealing challenges around ... easily, attractively and cost-effectively.

- Repair failed building weatherseals.
- Restore Exterior Insulation Finish Systems (EIFS).
- Seal thin metal curtainwalls.
- Solve aluminum window problems.
- Seal joints subject to extreme movement.
- Seal parapets, wall intersections, coping joints and transitions, skylights, and window perimeter joints.
- Form tough, flexible flashings.
- Create special aesthetic effects.
- SWRI approved.



Effective, Attractive, Versatile *Dow Corning*[®] 123 Silicone Seal



The Paragon Building, Tampa, Florida ...

Problem: Decorative aluminum panels over a leaking curtainwall interior.

Solution: Dow Corning[®] 123 *Silicone Seal.*

Result: Repairs were made in record time without removing a single panel. The building looks great, the leaks are history, and the 123 Silicone Seal expands and contracts with the aluminum panels under the hot Florida sun.

Backed and warranted by Dow Corning

Dow Corning 123 Silicone Seal and Custom Designs H.C. are backed by Dow Corning Corporation, the global silicone technology leader with more than 50 years of silicone experience. Across the construction industry, worldwide, Dow Corning is known for high performance products, reliable product supply and outstanding technical support.

A 10-year Limited Weatherseal Warranty is available from Dow Corning to give you even greater peace of mind.



Put 123 Silicone Seal to the test

With custom colors, textures, widths, designs and performance properties, *Dow Corning* 123 Silicone Seal is the ultimate in weathersealing versatility. Put it to the test in your next weathersealing project.

For more information

To learn more about *Dow Corning* 123 Silicone Seal or Dow Corning's custom color and design capabilities, contact a Dow Corning sales representative or product distributor. For the name of a distributor in your area, call **1-877-SEALANT** (1-877-732-5268) or **1-989-496-6000**.

Or visit the Dow Corning construction web site on **www.dowcorning.com**. Look for us under "Industries." The construction web site offers downloadable information about the materials and support available from Dow Corning, a product finder, application troubleshooter and other useful tools.

How to contact us

Dow Corning has sales offices, manufacturing sites, as well as science and technology laboratories around the globe. Telephone numbers of locations near you are available on the world wide web at **www.dowcorning.com**, or by calling one of our primary locations listed below.

Your Global Connection

DOW CORNING AMERICAS

Technical Information Center: +1 989 496 6000, or 1 800 248 2481 (Toll-Free from the USA and Canada)

North America

Dow Corning Corporation Tel: +1 989 496 4000

South America

Dow Corning do Brasil Ltda. Tel: +55 19 3887 9797

DOW CORNING ASIA

Technical Information Center: +86 21 3774 7110

DOW CORNING EUROPE

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Cover photos: AV03748, AV05680, AV05391

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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Appendix 9

Muntin cap maintenance and monitoring plan

Conservatory of Flowers Putty Repair: MAINTENANCE PLAN FOR SILICONE EXTRUSION AND SEALANT

Treatments	Annual Tasks	2-5 Years	5-10 Years	10-20 Years
Placement of silicone caps over wood muntins, and application of silicone sealant to joints.	Monitor caps and sealant for cracking, water inflitration, and/or failure.	Apply silicone sealant to regions in need of repair.	Apply silicone caps and sealant to regions in need of repair.	Replace silicone muntin caps and sealant.
Monitor moisture content of the wood.	Check moisture content of wood. See plan drawings for locations.			
Clean caps and glazing of all debris such as biogrowth, dirt, and soot.	Wipedown of surfaces with damp rag using water to remove visible debris such as dirt and soot.		Gently clean with damp rag using basic cleaning agent such as trisodium phosphate (TSP) or Simple Green.	
Inspection of interior and exterior surfaces.	Monitor painted surfaces for failure and record on plan.			
Treatment of paint failure.	Remove loose coatings immediately and recoat with compatible coating. If bare wood is exposed, sand wood to remove weathered surface. Prime with water based primer and recoat.			
Inspection of wood by Wood Technologist.		Visually examine interior and exterior wood elements. Measure moisture content at selected locations to compare with annual inspections. Separate muntin cap extrusion at selected locations to inspect wood condition, including coatings. Reseal extrusion using same silicone sealant. Provide recommendations including repair options if warranted.		

Appendix 10

Proposed security camera locations



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Francisco, CA 94118, USA

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37º46'22.42" N 122º27'36.34" W elev 273 ft

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Appendix 11

MegaDome 2 product information





Celebrating 10 Years of Leading the Way in Megapixel Video

MegaDome[®]2

All-in-One Indoor/Outdoor Day/Night Dome Camera with Remote Focus/Zoom Lens or Manual Lens Options

MegaDome[®]2 Cameras

1.3 Megapixel	1080p	1080p WDR	3 Megapixe	I 3 Meg	gapixel WDF	R 5 Meg	apixel		10 Megapixe	I
AV1255AM	AV2255AM	AV2256PM	AV3255AM	AV325	6PM	AV5255	AM		AV10255AMIR	
AV1255AM-H	AV2255AM-H	AV2256PMIR	AV3255AM-H	AV325	6PMIR	AV5255	AM-H		AV10255AMIR-H	4
AV1255AMIR	AV2255AM-A	AV2256DN	AV3255AMIR	AV325	6PM-A	AV5255	AM-A		_	
AV1255AMIR-H	AV2255AM-AH		AV3255AMIR-	H AV325	6PMIR-A	AV5255	AM-AH			
AV1255DN	AV2255AMIR		AV3255DN	AV325	6DN	AV5255			_	
AV 1255DIN-H	AV2255AMIR-H		AV3255DIN-H			AV5255			_	
	AV2255AMIR-AH					AV5255	AMIR-AH		_	
	AV2255DN					AV5255	5DN		_	
	AV2255DN-H					AV5255	DN-H			
Remote Focus	us/Zoom us/Zoom Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma	anual Lens	Remote Focus/Zoo with IR Illuminato	(M cc an Re ins r r y/Night jwt Filter Vanda	IP) camera v prrected mot IP66 enviro emote focus stall cameras manual lens	vith the faste orized vari-fr nmental rate and remote ; s in our produ models.	est frame ocal lens id / IK10 i zoom ma uct line. N uct line. N o Input/Out -A Models)	rates i (auto-i impact ke Meg /legaDo	n the industry a ris/P-iris with V resistant dome gaDome® 2 the ome® 2 are also 100 Soff Dual Mode: 1080p/ on 10MP Model	and an VDR) in housin easiest availab
on	Pixel Binning Mode 3, 5, and 10MP Models	IR LEDs (IR Models)	WDR Wide Dynamic Range Available on AV2256 and AV3256 Models	Heater Option on Non-WDR Mode	Cas els Maintair on A	A sino Mode™ ns at Least 30fps V2255 Models	s H	ual Enco	ð der ÞEG	
-eatures:				Model Sp	ecific Featu	ures				
All-in-One H.264	Dome Solution	Decelution: Cas O	e eulo de Ole e el e el	Model	Resolution	Frame Rate		1	Features	
and Bright Light C	Conditions Simultaneous	sly (AV2256 and A	V3256)	AV1255	1.3MP	42fps	Auto-Iris			
Manual or Motoriz	zed Lens Options			AV2255	1080p	31fps	Auto-Iris		Casino Mode™	
Remote Focus/Zo	oom with Auto-Iris or P-	Iris Lens (AM/PM	Models)	AV2256	1080p	30fps	P-Iris	WDR		
P-Iris Control to G	Get Best Depth of Field	and Image Clarity	(PM Models)	AV3255	3MP	21fps	Auto-Iris			
IP66 and IK-10 Va	andal-Resistant Dome			AV3256	3MP	21fps	P-Iris	WDR		Binning
Total PoE Solution										Binning
	No External Power Re	equired for Heater	and IR LEDs)	AV5255	5MP	14fps	Auto-Iris			Binning Binning Binning
True Day/Night Fr	n (No External Power Re	equired for Heater	and IR LEDs)	AV5255 AV10255	5MP 10MP	14fps 7fps	Auto-Iris Auto-Iris			Binning Binning Binning Binning
True Day/Night Fu	n (No External Power Re unctionality with Mechar Conformant	equired for Heater nical IR Cut Filter	and IR LEDs)	AV5255 AV10255	5MP 10MP	14fps 7fps	Auto-Iris Auto-Iris			Binning Binning Binning
True Day/Night Fu ONVIF and PSIA (New User-Friendly	n (No External Power Re unctionality with Mechar Conformant v Webpage	equired for Heaten nical IR Cut Filter	and IR LEDs)	AV5255 AV10255 Options	5MP 10MP	14fps 7fps	Auto-Iris Auto-Iris			Binning Binning Binning Binning
True Day/Night Fu ONVIF and PSIA (New User-Friendly Fasily Adjustable)	n (No External Power Re unctionality with Mechar Conformant y Webpage	equired for Heater nical IR Cut Filter	and IR LEDs)	AV5255 AV10255 Options AM	5MP 10MP Remote Foo	14fps 7fps us, Remote Zoo	Auto-Iris Auto-Iris om, Auto-iri	s, Day/N	ight	Binning Binning Binning
True Day/Night Fu ONVIF and PSIA (New User-Friendly Easily Adjustable 3	n (No External Power Re unctionality with Mechan Conformant y Webpage 3-Axis Gimbal	equired for Heater nical IR Cut Filter	and IR LEDs)	AV5255 AV10255 Options AM PM	5MP 10MP Remote Foo Remote Foo	14fps 7fps us, Remote Zoo us, Remote Zoo	Auto-Iris Auto-Iris om, Auto-iri om, P-iris, E	s, Day/N Day/Nigh	ight t	Binning Binning Binning
True Day/Night Fu ONVIF and PSIA (New User-Friendly Easily Adjustable : Dual Encoder H.2 Optional Audia 15	n (No External Power Re unctionality with Mechar Conformant y Webpage 3-Axis Gimbal 264/MJPEG	equired for Heater	and IR LEDs)	AV5255 AV10255 Options AM PM DN	5MP 10MP Remote Foc Remote Foc Manual Lens	14fps 7fps us, Remote Zoo us, Remote Zoo s, Day/Night	Auto-Iris Auto-Iris om, Auto-iri om, P-iris, [s, Day/N Day/Nigh	ight t	Binnin Binnin Binnin
True Day/Night Fu ONVIF and PSIA (New User-Friendly Easily Adjustable 3 Dual Encoder H.2 Optional Audio, IF	n (No External Power Re unctionality with Mechar Conformant y Webpage 3-Axis Gimbal 264/MJPEG R LEDs and Heater (No	equired for Heater nical IR Cut Filter Heater Required 1	for WDR Models)	AV5255 AV10255 Options AM PM DN IR	5MP 10MP Remote Foc Remote Foc Manual Lens IR LEDs, Da	14fps 7fps us, Remote Zoo us, Remote Zoo s, Day/Night	Auto-Iris Auto-Iris om, Auto-iri om, P-iris, [s, Day/N	ight t	Binnin Binnin Binnin Binnin

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Audio

- Binning Mode for Strong Low-Light Performance on 3MP, 5MP and 10MP Resolutions
- Privacy Mask, Motion Detection, Flexible Cropping and Forensic Zooming



MegaDome[®]2

Specifications

Camera Ima	aging Specifications			WDR		WDR		
Model		AV1255	AV2255	AV2256	AV3255	AV3256	AV5255	AV10255
Image Senso	r (CMOS)	1.3MP*	2.07(1080p)	2.07(1080p)*	3MP*	3MP	5MP	10MP
Optical Format		1/2.7"	1/2.7"	1/3.2"	1/2.5"	1/3.2"	1/2.5"	1/2.3"
Pixel Pitch		3µm	3µm	2.2µm	2.2µm	2.2µm	2.2µm	1.67µm
Minimum	Color (day mode)	0.1 Lux	0.1 Lux	0.3 Lux	0.3 Lux	0.3 Lux	0.3 Lux	0.42 Lux
Illumination	Color Binning (day mode)	-	-	-	0.15 Lux	0.15 Lux	0.15 Lux	0.21 Lux
	B/W (night mode)	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive
Full FOV Res	olution	1280 H x 1024 V	1920 H x 1080 V	1920 H x 1080 V	2048 H x 1536 V	2048 H x 1536 V	2592 H x 1944 V	3648 H x 2752 V
1/4 Resolution		640 H x 512 V	960 H x 540 V	960 H x 540 V	1024 H x 768 V	1024 H x 768 V	1296 H x 972 V	1824 H x 1376 V
Dynamic Range		69 dB	69 dB	WDR up to 100dB	70.1 dB	WDR up to 100dB	70.1 dB	57.2dB
Maximum SNR		45 dB	45 dB	49 dB	45 dB	49 dB	45 dB	40 dB
Frame	At Max Resolution	42fps (1280x1024)	31fps (1920x1080)	30fps (1920x1080)	21fps (2048x1536)	21fps (2048x1536)	14fps (2592x1944)	7fps (3648x2752)
Rates	Cropped	-	42fps (1280x1024)	41fps (1280x1024)	29fps (1920x1080) 41fps (1280x1024)	30fps (1920x1080) 31fps (1600x1200) 41fps (1280x1024)	21fps (2048x1536) 29fps (1920x1080) 41fps (1280x1024)	12fps (2592x1944) 18fps (2048x1536) 25fps (1920x1080) 37fps (1280x1024)
	Binning Mode	-	-	-	46fps (1024x768) 64fps (960x540)	21fps (1024x768) 27fps (800x600) 31fps (960x540) 32fps (640x512)	34fps (1296x972) 46fps (1024x768) 64fps (960x540)	29fps (1920x1080) 26fps (1824x1376) 43fps (1296x972) 54fps (1024x768)
Lens MegaDome 2	Motorized Lens (AM/PM)	3-9mm, 1/2.7", F1.2, RZ, RF, Auto-iris H-FOV = 77°-25°	3-9mm, 1/2.7", F1.2, RZ, RF, Auto-iris H-FOV = 115°-37°	3-9mm, 1/2.7", F1.2, RZ, RF, P-iris lens H-FOV = 82°-27°	3.6-9mm, 1/2.5", F1.8, RZ, RF, Auto-iris, H-FOV = 76°-28°	3–9mm, 1/2.7", F1.2, RZ, RF, P-iris lens H-FOV = 87°-29°	3.6-9mm, 1/2.5", F1.8, RZ, RF, Auto-iris, H-FOV = 96°-36°	4.7-9mm, 1/2.3", F2.8, RZ, RF, Auto-iris H-FOV = 78.8°-37°
Lens MegaDome 2 Manual	Manual Lens (DN)	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 62°-24°	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 93°-36°	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 68°-26°	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 73°-28°	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 72°-28°	3.3-10.5mm, 1/2.5", F1.6, H-FOV = 92°-36°	-

*effective

Data Transmission	Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG					
		21 levels of quality					
	Transmission Protocols	RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP					
		100Base-T Ethernet Network Interface					
	Multi-Streaming	8 non-identical streams					
Brogrommobility	Remote focus, remote zoon	and auto-iris or P-iris (AM or PM models)					
Togrammability	Motion detection and privacy mask with up to 1024 detection zones						
	Auto adjustment between WDB and LDB modes (WDB models Only)						
	Programmable shutter spee	d to belo control motion blur					
	Pixel Binning Mode (3, 5 and						
	Casino Mode [™] maintains 30	fps (AV2255 model)					
	Flexible Cropping (resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264)						
	Low light noise filter control						
	Bit rate and bandwidth limitation control						
	Backlight compensation and multi-matrix white balance						
	50/60Hz selectable flicker control						
	Electronic pan, tilt, zoom (PTZ) and image flip 180°						
	Programmable resolution, b	rightness, saturation, gamma, sharpness, tint					
Compliance	Industry Standard	ONVIF and PSIA Conformant					
	Listings	UL (CB)					
	FCC Compliance	47 CFR 15 Class A					
	Environmental	RoHS, REACH, WEEE					
	Markings	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1					
	Mechanical	IK-10 (EN62262), IP66 (EN60529)					
Environmental	Operating temperature	-40°C (-40°F) to +50°C (122°F) w/ Heater -20°C (-4°F) to +50°C (122°F) w/o Heater					
	Humidity	0% to 90% (non-condensing)					
	Stable image temperature	0°C (32°F) to +50°C (122°F)					
	Storage temperature	-40°C (-40°F) to +60°C (140°F)					
Electrical	Alarm Input/Output	General purpose opto-coupled					
	Power Over Ethernet	PoE 802.3af, Class 2					
	Auxiliary Power	12–48V DC, 24V AC					

Max Power Consumption (Watts DC power)

		DN	DN-H	AM/PM	AMIR/PMIR	AM-H/PM-H AMIR-H/PMIR-H		
AV1255/AV2	255	6.1	10.2	9.7	11.6	12.3		
AV2256/AV3256		6.6	-	10.1	12.1	-		
AV3255/AV5255		6.1	10.3	9.7	11.9	12.4		
AV10255		-	-	-	11.6	12.3		
					_			
Audio Electrical (-A models only)		Streami	ng		Two-way			
		Compression			G.711 PCM 8 kHz			
		Input/ou	utput		Microphone in or line in / line output			
IR Illuminator (-IR models only)		24 peo 850pm EDp. / 15 meter ID distance (max) / 40° ID angle						
		24 pcs 6501111 LEDS / 15 Theter in distance (max) / 40 in angle						
		No external power required						
Heater Electrical (-H models only) (Non-WDR models only)		Power 0	Consum	ption	2.28 W Max			
		Switch			On: 4°C (32.9°F),	Off: 6.5°C (43.7°F)		
		Total PoE Solution			No external powe	er requirement		
Mechanical Casing		Die-cast aluminum chassis with 4" polycarbonate dome bubble						
		IP66 weather proof standard						
		Vandal resistant, IK-10 rated						
	Gimbal	Easily adjustable 3-axis camera gimbal w/360° pan, 90° tilt and 360° z-axis						
	Total Unit	Unit	Q	Ø 5.5" (140mm) x 4.9" H (125mm)				
	Dimensions	Package	ed 8	8" W (203mm) x 7.5" L (190mm) x 6" H (152mm)				
	Mainht	Unit	2	.25 lbs (1.	02kg)			
	weight	Package	ed 2	2.85 lbs (1.27kg)				





Accessory	SV-JBA	Junction Box Adapter
	SV-EBA	Electrical Box Adapter
	MD-PMA	Pole Mount Adapter
	MD-CRMA	Corner Mount Adapter
	MD-WMT2	Wall Mount (Fit 1.5" NPT)
	MD-CMT	Ceiling Mount (Fit 1.5" NPT)
	MD-FMA	Flush Mount Adapter
	MD-CAP	Wall Mount Cap Only w/ 1.5" NPT

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Appendix 12

MegaDome wall mount and cap product information

MD-WMT2/MD-CAP



Indoor/Outdoor wall mount and 1.5" NPT mount Cap for MegaDome® Series

MD-WMT2Wall Mount with CapMD-CAP1.5" NPT Mount Cap Only



The MD-WMT2/MD-CAP is a high quality wall mount and cap accessory designed for the Megadome Series. Combining MD-WMT2 and MD-CAP accessories with the superior imaging of an AV camera provides the perfect solution for environments requiring wall or pendant mounting configurations.

Arecont Vision Advantages:

Superior Solution for Various Environments

- Indoor or outdoor applications
- **Excellent Enclosure Protection**

• Heavy duty enclosure features an IP66 rating for applications in harsh environments

Easy Installation

• Easy installation and superior design, perfect for indoor or outdoor applications

Full View in All Directions

• Use the Megadome Series to ensure outstanding observation with excellent color sensitivity and high resolution

Compatibility

Compatible with 1.5" NPT standard

Vandal Resistant

• Die-cast aluminum, resistant to impact and salt damage

Specification sheets subject to change without notice

MD-WMT2/MD-CAP

Model Numbers:

MD-WMT2Wall Mount with CAPMD-CAP1.5"NPT Mount CAP Only

Mechanical

- Housing material: Aluminum
- Color: Ivory (pantone cool gray 1c)
- Housing Height: MD-CAP : 2.57 in (65.3mm)
- MD-WMT2 : 4.76in (121 mm) • Housing Diameter:
- 6.06 in (154.1 mm) • Weight w/o camera: MD-CAP: 1.02 lbs (465kg) MD-WMT2 : 1.66 lbs (755g)

Environmental

- Enclosure Protection:
- IP66 Outdoor Protection Grade

Compatible Cameras

MegaDome® Series



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MD-WMT2

Arecont Vision

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Appendix 13

MegaDome 2 Installation Manual

Installation Manual



Leading the Way in Megapixel Video[™]



MegaDome[®] 2 Manual

H.264 All-in-One Vari-Focal Lens Day/Night Indoor/Outdoor Dome IP Cameras

Arecont Vision MegaDome[®] 2 Installation Manual (DN Models Only)

MegaDome[®] 2 Installation Manual (DN Models Only)

Inside the box:

- A. Arecont Vision MegaDome[®] 2 camera (DN Models only)
- B. Mounting template
- C. CD with AV100 software and user manuals (License Key Required for Recording)
- D. AC & DC power cable
- E. I/O cable
- F. Pack of four (4) wood screws and four (4) dry wall anchors
- G. Security L-Key
- H. One double-sided hex key
- I. One single-sided hex key
- J. Magnetic core

Not included but needed:

- #1 Phillips head screwdriver
- #2 Phillips head screwdriver



Image 1

Mounting the Camera:

- 1. Remove the camera and hardware from the box.
- 2. Using the mounting template, prepare the mounting surface for camera installation. *NOTE: the 19.5mm diameter hole on the Mounting template is where the Ethernet cable will be exiting the MegaDome*[®]2 align accordingly. If using the side conduit hole, please see **step 4** following.
- 3. Using Security L-key, loosen the four (4) screws securing the dome cover (Image 2). Remove the vandal resistant dome cover. *NOTE: Do not remove the screws from the dome cover.*



Image 2

4. If you are using the side conduit opening, remove the conduit plug by first removing the socket set screw using the provided double-sided hex key (Image 3).





Note: Make sure that you install the rubber gasket on the bottom of the camera to form a weather tight seal with the mount surface.

- Run the Ethernet cable through the gasket and the hole on the bottom of the camera (Image 4) or run the cable through the side conduit and plug it into the RJ45 port. NOTE: If the camera will be powered via PoE, please skip to step 6.
- 6. If the camera will be powered by an AC or DC power supply, run the supplied power cable through the gasket and the hole on the bottom of the camera or run the cable through the side conduit and connect it to its respective connector inside the camera (Image 3).

NOTE: Make sure that your installation of wires complies with Electrical Code of the local government where the camera is installed and that no bare wires are exposed.





- Align the holes in the camera with the prepared holes on the mounting surface. Attach the camera to the mounting surface with the wood screws or any optional hardware suitable for the mounting surface.
- 8. Use appropriate mounting accessories to ensure a water tight installation. Use of silicon does not guarantee a water resistant install.

Adjusting the Tilt, Pan, Z-Axis (yaw) and Focus:

- To adjust the tilt, use a #1 Phillips screwdriver to loosen the screw on the side of the plastic lens bracket 1/4 turn (Image 5). CAUTION: Do not remove the screw!
- 10. Adjust lens tilt as required and tighten the screw.
- To adjust the pan, use a #2 Phillips screwdriver to loosen the screw as shown in Image 5.

CAUTION: Do not remove the screw.

- 12. Adjust the pan as required and tighten the screw.
- To adjust the Z-Axis, or yaw, for vertical wall mounting, loosen the set screw as shown in Image 5-1.

NOTE: There are two set screws on opposite sides; both need to be loosened.

CAUTION: Do not remove the screw.

- 14. Adjust the Z-Axis as required and tighten the set screws.
- 15. To adjust back focus, loosen the three (3) set screws with the appropriate Allen key as shown **Image 5-2** (only one of two screw holes shown). Adjust the silver back focus ring as needed and tighten down the set screws.
- 17. To focus the lens, loosen the three set screws as shown in **Image 5-2** and adjust each as needed.



Image 5-1



Image 5-2

16. Remove the protective film from the camera dome.

NOTE: Be careful not to scratch the vandal dome cover.

17. Secure the vandal dome cover to the camera using the provided security L-Key.

Camera Installation:

- Install the AV100 application manager Software as shown in Image 7 (found on the CD).
- Run the AV100 application manager by double clicking on the icon as shown in Image 8 (found on your desktop).





Image 7

Image 8

Select "Run" next to "Setup Cameras" from the AV100 application manager as shown in Image 9 and wait for "Arecont Vision Camera Installer" window to appear as shown in Image 10.

Camera Installer	
Setup cameras	Run
Video System	· · · · · ·
Live video	Run
AVI Maker	-

Image 9

21. Click "Mode" tab to select desired install mode on Arecont Vision Camera Installer as shown in **Image 10**.

NOTE 1: Basic Mode (default setting): software will automatically discover and change / assign IP address to match PC subnet. NOTE 2: Advanced Mode: software will automatically discover but allow manual update of the IP address. See "AV100 Installation Manual" (found on the CD) for details on Advanced Mode.



Image 10

- 22. Select "Install Cameras" on Arecont Vision Camera Installer as shown in **Image 10**.
- 23. Confirm all cameras connected to the network switch appear in the upper window.
- 24. Repeat **Step 22** if all of the cameras do not appear in the upper window.

CAUTION: If the software does not find a camera, the software utility may be blocked by the anti-virus or Windows[®] firewall. Before turning them off, please consult your IT manager.

NOTE : Double click the camera model on the Camera Installer as shown in **Image 11** to access the camera web interface. See "AV

Camera Web Page User Manual" (found on the CD) for details on the web interface.



Image 11

- 25. When all cameras appear, select "Save/Exit." The AV100 application will appear.
- 26. From the "AV100 Application Manager" menu, select "Run" to view live images.

NOTE: See the "AV100 Installation Manual" (found on CD) for details on camera configurations.

Important Note

How to correctly install MegaDome® 2 on a ROUGH surface wall

Correct Installation:

Please install the MegaDome[®] 2 with wall mount, (MD-WMT2) and junction box adapter (SV-JBA) to avoid water leakage risk on ROUGH surface wall surface as shown in Image 15.



Image 15

Note: Please see how to install MD-WMT2 on page 9 and SV-JBA on page 10.

Inappropriate Installation:

Attaching the MegaDome[®] 2 directly onto a ROUGH wall surface may result in water leakage see **Image 16**!



Image 16

NOTE: Water damage from improper installation is not covered by the warranty!

MegaDome[®] 2 Accessory (Sold Separately)

Wall Mount (MD-WMT2) Installation Instructions

Caution:

MD-WMT2 only fits with SV-JBA and SV-EBA but not with the older MD-JBA and MD-EBA!

Inside the box:

- A. Wall mount
- B. Top shield
- C. Mounting template
- D. One double-sided hex key
- E. Pack of four (4) machine screws
- F. Pack of four (4) wood screws and four (4) dry wall anchors

Not included but needed:

• #2 Phillips head screwdriver



Image 17

1. Remove the wall mount and hardware from the box.



Image 18

- 2. Using the mounting template, prepare the mounting surface.
- 3. Attach wall mount to the wall using drywall screws or any optional hardware suitable for the mounting surface.
- 3. Install top shield on the wall mount as shown in **image 18**.
- 4. Fasten the socket set screw using the doubleside hex key (D).
- 5. Run the Ethernet cable and outside power cable (if necessary) through the wall mount.
- 6. For installation of the camera, please reference "Mounting the Camera."

MegaDome[®] 2 Accessory (Sold Separately)

Junction Box Adapter (SV-JBA) for MD-WMT2 Installation Instruction

Caution:

SV-JBA should always be used in conjunction with a wall mount, MD-WMT2, for outdoor installation.

SV-JBA will only fit with the MD-WMT2 wall mount. It does not fit the camera dome or older wall mount MD-CMT!

Inside the box:

- A. Junction Box Adapter
- B. Pack of four (4) machine screws
- C. One double-sided hex key
- D. Pack of four (4) wood screws and four (4) dry wall anchors
- E. Mounting template

Not included but needed:

- #2 Phillips head screwdriver
- Wall Mount, MD-WMT
- ¾" NPT Conduit (if necessary)



Image 19

1. Remove junction box adapter and hardware from the box



Image 20

- Remove the conduit plug by first removing the socket set screw using the provided hex key (C).
- 3. Attach the junction box adapter to the wall using drywall screws or any optional hardware suitable for the mounting surface.
- 4. Attach the wall mount to junction box adapter then attach cap to the wall mount as shown in **Image 20**.
- 5. Connect ¾" NPT Conduit to the junction box adapter.
- Run Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter and Wall Mount.
- 7. For installation of the camera, please reference "Mounting the Camera."

MegaDome[®] 2 Accessory (Sold Separately)

Pendant Mount (MD-CMT) Installation Instructions

Inside the box:

- A. Top shield
- B. Pendant Mount
- C. Mounting template
- D. Pack of four (4) small machine screws
- E. Pack of four (4) machine screws
- F. Pack of four (4) wood screws and four (4) dry wall anchors
- G. One double-sided hex key
- H. Small square rubber gasket
- I. Large round rubber gasket

Not included but needed:

J. #2 Phillips head screwdriver





1. Remove Pendant Mount and hardware from the box.



Image 22

Image 23

- 2. Using the mounting template, prepare the mounting surface for camera installation.
- 3. Place small gasket onto pendant mount shown in **image 22.**
- Attach the top shield to the pendant as shown in Image 23 using four machine screws (E) provided.
- 5. Install the large round rubber gasket onto the pendant as shown in **image 23**. Be sure to align the holes appropriately.
- 6. Run the Ethernet cable and outside power cable (if necessary) through the Pendant.
- 7. Attach the pendant to the ceiling using the four wood screws provided or any optional hardware suitable for the mounting surface.
- 8. For installation of the camera, please reference "Mounting the Camera."

MegaDome[®] 2 Accessory (Sold Separately)

Wall Mount Cap (MD-CAP) Installation Instructions

Inside the box:

- A. Wall Mount Cap (MD-CAP)
- B. Pack of four (4) machine screws

Not included but needed:

- 1¹/₂" NPT pipe nipple •
- 1¹/₂" NPT coupling •
- 1½" NPT flange •
- #2 Phillips head screwdriver





- Remove the wall mount cap from the box. 1.
- 2. Assemble the wall mount cap, 11/2" coupling, 1¹/₂" pipe nipple and 1¹/₂" flange as a pendant Mount shown in **image 25**.



Image 25

- 3. Run the Ethernet cable and outside power cable (if necessary) through the pendant.
- Attach the pendant to the ceiling using four 4. wood screws or any optional hardware suitable for the mounting surface
- 5. For installation of the camera, please reference "Mounting the Camera."
Arecont Vision MegaDome® 2 Installation Manual

MegaDome[®] 2 Accessory (Sold Separately)

Flush Mount Adapter (MD-FMA) Installation Instructions

Inside the box:

- A. white trim ring
- B. Flush mount adapter
- C. Mounting template
- D. Pack of four (4) machine screws and one (1) eyelet

Not included but needed:

• #2 Phillips head screwdriver



Image 26

- 1. Remove the flush mount adapter, trim ring and hardware from the box
- 2. Attach the dome to the flush mount adapter as shown in **Image 27**. Please reference "**Mounting the Camera,**" if needed.
- 3. Using the mounting template, cut a hole in surface for mounting.
- 4. Insert the flush mount adapter into the hole.

- 5. Tighten the "lever screws" until the flush mount adapter is snuggly installed, as shown in **Image 27**. The "Support Arm" will ride down the screw to compress the mounting surface. *NOTE: Do not over-torque the lever screws.*
- 6. Attach the trim ring to the flush mount adapter by rotating clockwise as show in **Image 28.**







Image 28

Arecont Vision MegaDome[®] 2 Installation Manual

MegaDome[®] 2 Accessory (Sold Separately)

Electrical Box Adapter (SV-EBA) Installation Instructions

Caution:

SV-EBA fits with MD-WMT2 but not fit with MegaDome[®]2 and MD-CMT!

Inside the box: (Accessory Sold Separately)

- A. Electrical Box Adapter
- B. Pack of four (4) machine screws





Not included but needed:

- #2 Phillips head screwdriver
- Common electrical box, such as single gang box, double gang box, or square electrical boxes shown in Image 30-1~4.
- 1. Remove the electrical box adapter and hardware from the box.
- 2. Attach the wall mount bracket, SV-WMT2, to the electrical box adapter.





Image 30-1 Single gang box



Image 30-2 Double gang box



Image 30-3 Square box



Image 30-4 Square box

Arecont Vision MegaDome[®] 2 Installation Manual

MegaDome[®] 2 Accessory (Sold Separately)

Pole Mount Adapter (MD-PMA) Installation Instructions

Inside the box:

- A. Pole mount adapter
- B. 2x compression fittings
- C. 2x small steel straps
- D. 2x large steel straps
- E. Pack of four (4) machine screws

Not included but needed:

- #2 Phillips head screwdriver
- MegaDome[®] wall mount, MD-WMT2





- Remove the pole mount adapter, compression fittings, steel straps and hardware from the box.
- 2. Install the compression fittings to pole mount adapter as shown in **Image 32**.
- 3. Attach MegaDome[®] wall mount MD-WMT2 to pole mount adapter as shown in **Image 33**.

- 4. Run the Ethernet cable and outside power cable (if necessary) through the compression fittings and MegaDome[®] wall mount, MD-WMT2.
- Use the supplied two steel straps to attach the Pole Mount Adapter to the pole and tighten the compression screws as shown in Image 33.
- Attach the dome to wall mount adapter.
 Please reference "Mounting the Camera," if needed.
- 7. Tighten the compression fittings to seal the wiring holes.





Image 33