

IN THE SUPREME COURT OF NEVADA

PANORAMA TOWERS CONDOMINIUM
UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation,

Appellant,

vs.

LAURENT HALLIER, an individual;
PANORAMA TOWERS I, LLC, a Nevada
limited liability company; PANORAMA
TOWERS I MEZZ, LLC, a Nevada limited
liability company; and M.J. DEAN
CONSTRUCTION, INC., a Nevada
corporation,

Respondents.

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APPEAL

from the Eighth Judicial District Court, Clark County, Nevada
The Honorable Susan H. Johnson, District Judge
District Court Case No. A-16-744146-D

APPELLANT'S APPENDIX VOL 9 OF 27

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necessary for the purposes of access, inspecting, testing, redesigning, correcting, or improving any portion of Property, including Unit and Common Elements. Declarant shall have the right to redesign, correct, or improve any part of the Community, including Units and Common Elements.

(b) Right of Entry. In addition to the above easement, Declarant reserves for itself and its employees, agents and representatives, a right of entry onto a Unit upon reasonable notice to the Owner; provided, in an emergency, no such notice need be given. Except in an emergency, entry into a Unit shall be only after Declarant notifies the Owner and agrees with the Owner regarding a reasonable time to enter the Unit to perform such activities. Each Owner agrees to cooperate in a reasonable manner with Declarant in Declarant's exercise of the rights provided to it by this Section.

(c) Common Elements. Entry onto the Common Elements and into any Improvements and structures thereon other than Units not owned by Declarant may be made by Declarant at any time, provided advance notice is given to the Association, except that in an emergency no notice need be given.

ARTICLE 11 ALLOCATION OF LIMITED COMMON ELEMENTS

A Common Element not previously allocated as a Limited Common Element may be so allocated only pursuant to the provisions of this Article. All allocations will be made by amendments to the Declaration specifying to which Unit or Units the Limited Common Element is allocated.

Declarant has reserved the right, under Sections 7.1(b) and 7.1(c), to create Limited Common Elements. If created, such Limited Common Elements shall be assigned to particular Units by amendment to this Declaration. Any Limited Common Elements which are not allocated by Declarant pursuant to the Development Rights reserved hereunder, may be so allocated by the Association by amendment to this Declaration.

Limited Common Elements may not be reallocated between Units without the consent of the Association and Declarant, so long as Declarant owns any of the Property described on Exhibits "A" or "B". Provided such approval has been obtained, any reallocation of such Limited Common Elements shall be pursuant to an amendment of this Declaration executed by the affected Unit Owners and the Association in accordance with NRS 116.2108.

All amendments shall specify to which Unit or Units the Limited Common Element is allocated. Such amendment shall require the approval of all holders of Security Interests in the affected Units. The Person executing the amendment shall provide an executed copy of the amendment to the Association, which shall Record it, provided that the amendment complies with the provisions of this Declaration and the Act. The amendment shall contain words of conveyance and must be Recorded and indexed in the names of the parties and the Community.

The parties executing the amendment shall be responsible for the preparation of the amendment and shall reimburse the Association for its reasonable attorneys' fees in connection with the review of the amendment and for the Recording costs.

ARTICLE 12
ADDITIONS, ALTERATIONS AND IMPROVEMENTS

Section 12.1 Requisite Approvals and Procedures for Owner Alteration.
Without limiting any other provision of this Declaration requiring approval of Declarant, the ARC or the Association, no structure or thing shall be placed, erected, installed, or posted on the Property and no Improvements or other work (including staking, clearing, excavating, grading and other site work, exterior alterations of existing Improvements, or planting or removal of landscaping), including the alteration or construction of a Building, fence, wall or other structure or the placement, erection or alteration of any Limited Common Element, except in compliance with this Article and the Architectural Guidelines.

Section 12.2 General:

(a) Subject to those restrictions contained elsewhere in this Declaration, an Owner may make any improvements or alterations to the interior of his or her Unit that do not impair the structural integrity or mechanical systems or lessen the support of any portion of the Community or violate any Law. However, and without limiting any other provision of this Declaration, modifications to Balconies, windows, doors and similar portions of a Unit or otherwise visible from outside the Unit shall be subject to the approval process set forth in this Article 12.

(b) After acquiring an adjoining Unit, an Owner, subject to compliance with this Article 12, may remove or alter any intervening partition or create apertures therein even if the partition in whole or in part is a Common Element, if those acts do not impair the structural integrity or mechanical systems or lessen the support of any portion of the Community or violate any Law. Removal of partitions or creation of apertures under this paragraph is not an alteration of boundaries. If a part of an adjoining Unit is acquired, boundaries will be relocated in accordance with Section 4.3.

(c) Any applications to any Governmental Authority for a Permit to make any addition, alteration or improvement in or to any Unit must be approved by Declarant or the ARC prior to submission to the Governmental Authority. Such approval will not, however, create any liability on the part of the Association or any of its Members to such Governmental Authority or any contractor, subcontractor or materialman on account of the addition, alteration or improvement or to any Person, including claims for injury to person or damage to property arising from the Permit.

(d) Any member or authorized consultant of the Board of Directors or Declarant or the ARC, or any authorized officer, employee or agent of the Association may enter upon any Unit at any reasonable time after notice to the Owner, without being deemed guilty of trespass, in order to inspect any structural addition, alteration or Improvement constructed or

under construction in the Unit to determine whether the work has been or is being built in compliance with the Plans approved by Declarant or the ARC or to inspect the placement of any furniture, furnishing, decoration, equipment or appliance within the Unit to determine whether such placement is in compliance with this Declaration and applicable Law.

(e) All additions, alterations and Improvements to the Units and Common Elements shall not, unless otherwise approved by Declarant or its designee in its sole discretion, cause any increase in the premiums of any insurance policies carried by the Association or by the Owners of any Units other than those affected by such change.

(f) All additions, alterations and improvements to the Units and Common Elements shall be designed by and built in accordance with the drawings and specifications of an architect or building designer licensed in Nevada, unless otherwise approved by Declarant or its designee in its sole discretion.

Section 12.3 Architectural Review:

(a) By Declarant. Each Owner, by accepting a Deed or other instrument conveying any interest in any portion of the Property, acknowledges that, as the developer of the Property and as an Owner of portions of the Property as well as other real property within the vicinity of the Property, Declarant has a substantial interest in ensuring that the Improvements within the Property enhance Declarant's reputation as a community developer and do not impair Declarant's ability to market, sell, or lease its real property. Therefore, and without limiting any other provision of this Declaration, each Owner agrees that no activity within the scope of this Article shall be commenced on, within or to such Owner's Unit unless and until Declarant or its designee has given its prior written approval for such activity, which approval may be granted or withheld in the sole discretion of Declarant or its designee.

In reviewing and acting upon any request for approval, Declarant or its designee shall act solely in the interest of Declarant and shall owe no duty to any Person other than Declarant. The rights reserved to Declarant under this Article shall continue so long as Declarant owns any portion of the Property or Annexable Property or has the right to expand the Property pursuant to Section 7.1, unless earlier terminated in a Recorded instrument executed by Declarant.

Declarant may delegate a portion of its reserved rights under this Article to an Architectural Review Committee appointed by the Board of Directors ("ARC") to administer and enforce the architectural controls. Such delegation shall be in writing, setting forth the fact of delegation, the scope of responsibilities delegated, and the name and address of the contact person at the ARC, and, if applicable, any term of such delegation. Such delegation shall be subject to: (i) the right of Declarant to revoke such delegation at any time (so long as Declarant's rights have not otherwise terminated under this Section) and reassume jurisdiction over the matters previously delegated; (ii) the requirement that any variance granted by the ARC be approved by Declarant, prior to the granting of such variance, in its sole discretion; and (iii) the right of Declarant to veto any decision by the ARC which Declarant determines, in its sole discretion, to be inappropriate or inadvisable for any reason. So long as Declarant has any rights under this Section, the jurisdiction of the ARC shall be limited to such matters as Declarant specifically delegates.

(b) Architectural Review Committee. Upon Declarant's delegation to the Association, or upon expiration or termination of Declarant's rights under Section 12.3(a), the Association, acting through the ARC, shall assume jurisdiction over all architectural matters. The ARC, when appointed, shall consist of at least three (3), but not more than seven (7), individuals who shall be approved, shall serve, and may be removed and replaced in the Board's discretion. The ARC may, in the Board's direction, be divided into one or more committees, each of which shall have the sole responsibility for performance of those ARC responsibilities as may be designated by the Board. The members of the ARC need not be Members of the Association or representatives of Members, and may, but need not, include architects, engineers, or similar professionals, who may be compensated in such manner and amount as the Board may establish.

Unless and until such time as Declarant delegates all or a portion of its reserved rights to the ARC or Declarant's rights under this Article terminate, the Association shall have no jurisdiction over architectural and landscaping matters.

Section 12.4 Architectural Guidelines. Declarant may prepare the initial Architectural Guidelines, which shall contain general provisions applicable to all of the Property. Architectural Guidelines are intended to provide guidance to Owners regarding matters of particular concern to Declarant or the ARC in considering applications. Architectural Guidelines are not the exclusive basis for decisions, and compliance with the Architectural Guidelines does not guarantee approval of any application.

Declarant shall have sole and full authority to amend the Architectural Guidelines as long as it owns any portion of the Property or Annexable Property or has the right to expand the Property pursuant to Section 7.1, notwithstanding a delegation of reviewing authority to the ARC, unless Declarant also delegates in writing the power to amend to the ARC. Upon termination or delegation of Declarant's right to amend, the ARC shall have the authority to amend the Architectural Guidelines with the Board's consent. Any amendments to the Architectural Guidelines shall be prospective only and shall not require modifications to or removal of structures previously approved once the approved construction or modification has commenced. There shall be no other limitation on the scope of amendments to the Architectural Guidelines, and such amendments may remove requirements previously imposed or otherwise make the Architectural Guidelines more or less restrictive.

The Architectural Guidelines shall be made available to Owners and any requesting prospective purchaser who is a party to a binding contract to purchase a Unit. In Declarant's sole discretion, such Architectural Guidelines may be Recorded, in which event the Recorded version, as it unilaterally may be amended from time to time, shall control in the event of any dispute as to which version of the Architectural Guidelines was in effect at any particular time.

Section 12.5 Fees; Assistance. During the time that Declarant is performing the architectural review functions hereunder, Declarant may establish and charge reasonable fees for review of applications under this Article and may require such fees to be paid in full prior to review of any application. Once an ARC is established, the ARC may establish and charge reasonable fees for review of applications and may require such fees to be paid in full prior to review of any application. Such fees may include the reasonable costs incurred in having any application reviewed by architects, engineers, or other professionals. Declarant and the

Association may employ architects, engineers, or other persons as deemed necessary to perform the review. The Board may include the compensation of such persons (including Declarant) in the Association's annual operating budget.

Section 12.6 No Applicability to Construction by Declarant or Association. The provisions of this Article 12 shall not apply to (i) the Declarant at any time or (ii) the Association after the Declarant Control Period. Neither the Board of Directors nor any ARC appointed by the Board of Directors shall have any authority or right to approve or disapprove any construction by Declarant in the Community.

Section 12.7 Procedures:

(a) Application. Prior to commencing any activity within the scope of this Article or if otherwise required by this Declaration, an Owner shall submit an application for approval of the proposed activity in such form as Declarant, the Architectural Guidelines or the ARC may specify. A prospective purchaser who is a party to a binding contract to purchase a Unit also may be permitted to submit an application for approval. Such application shall include drawings and specifications ("Plans") showing site layout, structural design, elevations, materials and colors, drainage, lighting and other features of proposed construction, as applicable. Declarant, the Architectural Guidelines and the ARC may require the submission of such additional information as the Declarant or the ARC deem reasonably necessary to consider any application.

(b) Review Criteria. In reviewing each submission, Declarant or the ARC, or any committee or designee of Declarant or the ARC (as applicable, the "Authorized Reviewer"), may consider any factors it deems relevant. Decisions may be based on purely aesthetic considerations. Each Owner acknowledges that determinations as to such matters are purely subjective and opinions may vary as to the desirability or attractiveness of particular Improvements. Except to the extent of the rights reserved to Declarant under Article 7 or Section 12.3, the Authorized Reviewer shall have the sole discretion to make final, conclusive, and binding determinations on matters of aesthetic judgment and such determinations shall not be subject to appeal so long as they are made in accordance with the procedures set forth herein.

(c) Procedures Applicable to ARC. The Authorized Reviewer shall, within forty-five (45) days after receipt of a completed application and all required information, respond in writing to the applicant at the address specified in the application. The response may: (i) approve the application, with or without conditions; (ii) approve a portion of the application and disapprove other portions; or (iii) disapprove the application. The Authorized Reviewer may, but shall not be obligated to, specify the reasons for any objections and/or offer suggestions for curing any objections. However, no approval, whether expressly granted or deemed granted pursuant to the foregoing, shall be inconsistent with the Architectural Guidelines unless a variance has been granted pursuant to Section 12.9 or an exemption exists pursuant to Section 12.7(e).

In the event that the Authorized Reviewer fails to respond within the forty-five (45) day period, disapproval of the application shall be deemed to have been given. Notice shall be deemed to have been given at the time the envelope containing the response is deposited with the U. S.

Postal Service. Personal delivery of such written notice shall, however, be sufficient and shall be deemed to have been given at the time of delivery to the applicant.

Until expiration of Declarant's rights under Section 12.3, the ARC shall notify Declarant in writing within three (3) business days after the ARC has approved any application relating to proposed activity within the scope of matters Declarant delegated to the ARC. The Notice shall be accompanied by a copy of the application and any additional information Declarant may require. Declarant shall have ten (10) days after receipt of such Notice to veto any such action, in its sole discretion, by written Notice to the ARC and the applicant.

(d) Effectiveness of Approval. If construction does not commence on a project for which Plans have been approved within one hundred twenty (120) days, unless otherwise set forth in the approval, from the date of approval, such approval shall be deemed withdrawn and it shall be necessary for the Owner to reapply for approval before commencing any construction activity. Once construction is commenced, it shall be diligently pursued to completion. All construction shall be completed within one (1) year of commencement unless otherwise specified in the notice of approval or unless the Authorized Reviewer grants an extension in writing, which it shall not be obligated to do. If approved construction is not completed within the required time, it shall be considered nonconforming and, unless an extension of time is granted, shall be subject to enforcement action by the Association, Declarant or any aggrieved Owner.

(e) Exemptions. The Board, with the consent of Declarant (which must be in writing), may, by resolution, exempt certain activities from the application and approval requirements of this Article, provided such activities are undertaken in strict compliance with the requirements of such resolution.

(d) The Authorized Reviewer shall, by appointment, make an inspection of the approved construction upon completion to ensure conformance with the approved Plans.

Section 12.8 No Waiver of Future Approvals. Each Owner acknowledges that the persons reviewing applications under this Article will change from time to time and that opinions on aesthetic matters, as well as interpretation and application of the Architectural Guidelines, may vary accordingly. In addition, each Owner acknowledges that it may not always be possible to identify objectionable features of proposed activity until the work is completed, in which case it may be unreasonable to require changes to the Improvements involved, but the Authorized Reviewer may refuse to approve similar proposals in the future. Approval of applications or Plans for any work done or proposed, or in connection with any other matter requiring approval, shall not be deemed to constitute a waiver of the right to withhold approval as to any similar applications, Plans or other matters subsequently or additionally submitted for approval.

Section 12.9 Variances. An Authorized Reviewer may, upon the request of an Owner and the submission of an application for a variance, authorize variances from compliance with any of the Architectural Guidelines when circumstances such as hardship, location or size of Unit or aesthetic or environmental considerations warrant, in the sole discretion of the Authorized Reviewer, as appropriate, but only in accordance with duly adopted regulations and

only within the scope of the Authorized Reviewer's authority (e.g., the ARC may not grant a variance with respect to matters not within the delegation of authority to the ARC). No variance shall (a) be effective unless in writing; (b) be contrary to this Declaration; or (c) estop the Authorized Reviewer from denying a variance in other circumstances. For purposes of this Section, the inability to obtain approval of any governmental agency, the issuance of any Permit, or the terms of any financing shall not be considered a hardship warranting a variance. No variance may be impliedly approved. If a variance is required in connection with an application, the variance(s) shall be specifically listed and requested on the application. Notwithstanding the above, the ARC may not authorize variances without the consent of Declarant, so long as Declarant owns any portion of the Property or has the right to expand the Property pursuant to Section 7.1, and no such variance shall be effective unless the variance is expressly approved by Declarant. No provision of this Article 12 shall be deemed to require the Recordation of any variance.

EACH OWNER ACKNOWLEDGES THAT DETERMINATIONS AS TO VARIANCES HEREUNDER ARE PURELY SUBJECTIVE AND OPINIONS MAY VARY AS TO THE AESTHETIC EFFECT OF ANY PARTICULAR WAIVER. THEREFORE, EXCEPT TO THE EXTENT OF THE RIGHTS RESERVED TO DECLARANT UNDER ARTICLE 7, SECTION 12.3 AND THIS SECTION, EACH AUTHORIZED REVIEWER SHALL HAVE THE SOLE DISCRETION TO MAKE FINAL, CONCLUSIVE, AND BINDING DETERMINATIONS ON VARIANCES (SUBJECT TO DECLARANT'S APPROVAL, AS APPLICABLE) AND THEREFORE SUCH DETERMINATIONS SHALL NOT BE SUBJECT TO APPEAL. THERE ARE NO THIRD PARTY BENEFICIARIES TO ANY VARIANCE WHICH MAY BE GRANTED PURSUANT TO THIS SECTION 12.9. FURTHERMORE, NEITHER DECLARANT NOR THE ARC SHALL HAVE ANY DUTY TO DISCLOSE THE GRANTING OR EXISTENCE OF ANY VARIANCE. EVERY OWNER AGREES, BY ACQUIRING TITLE AND/OR POSSESSORY RIGHTS TO ANY UNIT, THAT HE OR SHE WILL NOT (AND HEREBY WAIVES ANY RIGHT TO) BRING ANY ACTION OR SUIT AGAINST DECLARANT, THE ASSOCIATION OR THE ARC OR ANY AUTHORIZED REVIEWER OR DESIGNATED REPRESENTATIVE OF ANY OF THE FOREGOING FOR THE RECOVERY OF DAMAGES BY REASON OF ANY REQUEST FOR A VARIANCE MADE BY SUCH OWNER, ANY OTHER OWNER OR ANY OTHER PERSON, WHETHER SUCH REQUEST IS GRANTED OR DENIED.

Section 12.10 Limitation on Liability of ARC. The standards and procedures in this Article are intended as a mechanism for maintaining and enhancing the overall aesthetics of the Property but shall not create any duty to any Person. Neither (1) Declarant nor (2) the Association, the Board or the ARC or any committee or member of the foregoing, nor (3) any Person retained by an Authorized Reviewer as a consultant, nor (4) any employee, agent or representative of those listed in (1), (2), (3) above, (collectively, "Protected Persons") shall be held liable for any claim whatsoever arising out of construction on or modifications to any Unit. Review and approval of any application are made on the basis of aesthetic considerations only, and no Protected Person shall bear any responsibility for ensuring (a) structural integrity or soundness of approved construction or modifications; (b) compliance with Laws, including building codes and other Governing Authority; (c) approval of the construction or modification by the governing municipality or whether such approval will be obtained; or (d) conformity of quality, value, size, or design with other Units or the Improvements. Except as may be expressly

provided in this Declaration, any consent or approval of Declarant, the Board of Directors, ARC or Association that is required under the provisions hereof may be granted or withheld in the sole and absolute discretion of Declarant, the Board of Directors, ARC or Association, as applicable. In that regard, the granting or withholding of such consent or approval shall not be subject to any objective standards of "reasonableness" or otherwise. Further, the approval of or consent to any matter shall not be deemed to be a waiver of the right to disapprove the same or similar matters in subsequent requests for consents or approvals from the same or other parties.

No Protected Person shall be held liable for soil conditions, drainage, or other general site work; any defects in Plans revised or approved hereunder; any loss or damage arising out of the action, inaction, integrity, financial condition or quality of work of any contractor or its subcontractors, employees, or agents (including any contractor approved by any Protected Person); or any injury, damages, or loss arising out of the manner or quality or other circumstances of approved construction on or modifications to any Unit. In all matters, the Protected Persons shall be defended and indemnified by the Association as provided in Section 20.10.

Section 12.11 Enforcement. Any construction, alteration or other work done in violation of this Article or the applicable Architectural Guidelines shall be deemed to be nonconforming. Upon written Notice from Declarant, the Association or the ARC, the Owner of such Unit shall, at his or her own cost and expense and within such time frame as set forth in such written Notice, cure such nonconformance to the satisfaction of the requester or restore the Unit or other real property to substantially the same condition as existed prior to the nonconforming work. Should an Owner fail to remove and restore as required, Declarant or the Association or their designees shall have the right to Record a Notice of Non-Compliance and/or to enter the Unit or other real property, remove the violation, and restore the Unit or such real property to substantially the same condition as previously existed. All costs (which may include administrative charges and legal fees), together with interest thereon, may be assessed against the non-conforming Unit under this Section 12.11 and collected as a Specific Assessment unless otherwise prohibited in this Declaration. The right of the Declarant, the Association or their designees to remove a non-conforming construction, alteration or other work in violation of this Article or otherwise remedy the non-compliance shall be in addition to all other rights and remedies which Declarant, the Association or their designees may have at law, in equity or elsewhere in the Governing Documents.

All approvals granted hereunder shall be deemed conditioned upon completion of all elements of the approved activity and all activity previously approved with respect to the same Unit, unless approval to modify any application has been obtained. If an Owner fails to commence and diligently pursue to completion all approved activity by the deadline set forth in the approval, Declarant or the Association or their designees, shall be authorized, after Notice and Hearing, to enter upon the Unit and remove or complete any incomplete work and to assess all costs incurred against the Unit and the Owner thereof as a Specific Assessment unless otherwise prohibited in this Declaration.

All acts by any contractor, subcontractor, agent, employee or invitee of an Owner shall be deemed as an act done by or on behalf of such Owner. Any contractor, subcontractor, agent, employee or other invitee of an Owner who fails to comply with the terms and provisions of this Article and the Architectural Guidelines may be excluded from the Property, subject to

applicable Notice and Hearing procedures. In such event, Declarant, the Association, and their officers and directors, employees, agents or representatives shall not be held liable to any Person for exercising the rights granted by this paragraph.

The Association and Declarant shall have the authority and standing to pursue all legal and equitable remedies available to enforce the provisions of this Article and the decisions of the Authorized Reviewers. To the fullest extent permitted by Law, enforcement of this Article by the Association or Declarant shall not be subject to laches or any statute of limitations. Any Specific Assessment levied for costs due under this Section 12.11 shall not be considered a fine or penalty and may be imposed apart from, or in conjunction with any other Specific Assessment permitted under this Declaration.

ARTICLE 13 AMENDMENTS TO DECLARATION

Section 13.1 In General. Except in cases of amendments that may be executed (i) by Declarant under Section 28.9 or otherwise in the exercise of its Special Declarant's Rights under Article 7 or NRS 116.211, (ii) by the Association under Article 11, Sections 4.3 or 21.4(c), or NRS 116.1107, 116.2106, 116.2108, 116.2112, 116.2113 or 116.31134 or (iii) by certain Owners under Article 11, Sections 4.3 or 28.9, and NRS 116.2108, 116.2112, 116.2113 or 116.2118, and except as limited by Article 16 and Section 13.4 and including a Plat, may be amended only by vote or agreement of a Majority of Owners. The procedure for amendment must follow the procedures set forth in the Act.

Section 13.2 Recordation of Amendments. Each amendment to this Declaration must be Recorded in the Recording Office, and the amendment is effective only upon Recording.

Section 13.3 Limitation of Challenges. An action to challenge the validity of an amendment adopted by the Association pursuant to this Article may not be brought more than one year after the amendment is Recorded.

Section 13.4 Unanimous Consent. Except to the extent expressly permitted or required by other provisions of this Declaration or the Act, an amendment may not create, increase, or decrease Special Declarant Rights, increase the number of Units, change the boundaries of any Unit, change the Allocated Interests of a Unit or change the uses to which any Unit is restricted, except by unanimous consent of the Owners whose Units are directly affected and the consent of a Majority of Owners and Declarant, so long as Declarant owns any of the real property described on Exhibits "A" or "B".

Section 13.5 Execution of Amendments. An amendment to this Declaration required by the Act to be Recorded by the Association, which has been adopted in accordance with this Declaration and the Act, must be prepared, executed, Recorded and certified on behalf of the Association by an officer of the Association designated for that purpose or, in the absence of designation, by the president of the Association.

Section 13.6 Special Declarant Rights. Provisions in this Declaration creating or otherwise affecting Special Declarant Rights may not be amended without the consent of Declarant.

Section 13.7 Consent of Holders of Security Interests. Amendments are subject to the consent requirements of Article 16.

ARTICLE 14 AMENDMENTS TO BYLAWS

The Bylaws may be amended or repealed by the vote or written consent of a Majority of the Owners and in accordance with Article 12 of the Bylaws.

ARTICLE 15 TERMINATION

Termination of the Community may be accomplished subject to the notice and consent requirements of the Eligible Insured and Eligible Mortgagees under Section 16.4(b), only upon the approval of the Owners of 80% of the total number of Units within the Community, and then in accordance with the provisions of the Act.

ARTICLE 16 MORTGAGEE PROTECTION

Section 16.1 Introduction. This Article establishes certain standards and covenants which are for the benefit of the holders, insurers and guarantors of certain Security Interests. This Article is supplemental to, not a substitution for, any other provisions of the Governing Documents, but in the case of conflict, this Article shall control.

Section 16.2 Percentage of Eligible Mortgagees. Wherever in this Declaration the approval or consent of a specified percentage of Eligible Mortgagees is required, it shall mean the approval or consent of Eligible Mortgagees holding Security Interests in Units which in the aggregate have allocated to them that specified percentage of votes as compared to the total votes allocated to all Units in the Association then subject to Security Interests held by all Eligible Mortgagees.

Section 16.3 Notice of Actions. The Association shall give prompt written notice to each Eligible Mortgagee and Eligible Insurer of:

(a) Any condemnation loss or any casualty loss which affects a material portion of the Community or any Unit in which there is a first Security Interest held, insured or guaranteed by that Eligible Mortgagee or Eligible Insurer, as applicable;

(b) Any delinquency in the payment of Common Expense Assessments owed by an Owner which remains uncured for a period of sixty (60) days and whose Unit is subject to a first Security Interest held, insured or guaranteed by that Eligible Mortgagee or Eligible Insurer, as applicable;

(c) Any lapse, cancellation or material modification of any insurance policy maintained by the Association; and

(d) Any proposed action which would require the consent of a specified percentage of Eligible Mortgagees as specified in Section 16.4 of the Declaration.

Section 16.4 Consent and Notice Required:

(a) Document Changes. Notwithstanding any requirement permitted by this Declaration or the Act, no amendment of any material provision of the Governing Documents by the Association or Owners described in this Section may be effective without notice to all Eligible Mortgagees and Eligible Insurers, as required by Section 16.3 above, without the vote of at least sixty-seven percent (67%) of the Owners (or any greater Owner vote required in this Declaration or the Act) and without approval by at least fifty-one percent (51%) of the Eligible Mortgagees (or any greater Eligible Mortgagee approval required by this Declaration). The foregoing approval requirements do not apply to amendments effected by the exercise of any Development Right. A change to any of the following would be considered material:

(i) Any provision of this Declaration pertaining to voting rights;

(ii) Any provision of this Declaration pertaining to limitations on increases of Base Assessments that raise the previously assessed amount by more than twenty-five percent (25%), Assessment liens, or the priority of Assessment liens;

(iii) Any provision of this Declaration pertaining to Reserves;

(iv) Any provision of this Declaration pertaining to responsibility for maintenance and repairs;

(v) Any provision of this Declaration pertaining to the reallocation of interests in the Common Elements or Limited Common Elements, or rights to their use;

(vi) Any provision of this Declaration pertaining to the definition of any Unit boundary;

(vii) Any provision of this Declaration pertaining to the convertibility of Units into Common Elements or vice versa;

(viii) Any provision of this Declaration pertaining to expansion or contraction of the Community, or the addition, annexation or withdrawal of property to or from the Community;

(ix) Any provision of this Declaration pertaining to hazard or fidelity insurance requirements;

(x) Any provision of this Declaration pertaining to leasing of Units;

(xi) Any provision of this Declaration pertaining to imposition of any restrictions on Owners' right to sell or transfer their Units; or

(xii) Any decision by the Association to establish self-management if professional management had been required previously by the Governing Documents or by an Eligible Mortgagee or Eligible Insurer;

(xiii) The restoration or repair of the Community (after damage or partial condemnation) in a manner other than as specified in the Governing Documents;

(xiv) Any provision of this Declaration that expressly benefits holders, insurers or guarantors of Security Interests.

(b) Actions. Notwithstanding any lower requirement permitted by this Declaration or the Act, the Association may not take any of the following actions, other than rights reserved to Declarant as Special Declarant Rights, without notice to all Eligible Mortgagees and Eligible Insurers, as required by Section 16.3 above, and approval of at least 51% (or the indicated percentage, if higher) of the Eligible Mortgagees:

(i) Termination of the Community after occurrence of substantial destruction or condemnation;

(ii) The termination of the Community for reasons other than substantial destruction or condemnation, for which approval of at least sixty-seven percent (67%) of Eligible Mortgagees is required;

(iii) The assignment of the future income of the Association, including its right to receive Common Expense Assessments; or

(iv) Any action taken not to repair or replace the Community in the event of substantial destruction of any part of a Unit or the Common Elements.

(c) Limitations. The Association may not change the period for collection of regularly budgeted Common Expense Assessments to other than monthly collection without the consent of all Eligible Mortgagees.

(d) Implied Approval. The failure of an Eligible Mortgagee or Insurer to respond within 30 days to any written request for approval of an addition or amendment to the

Governing Document wherever Eligible Mortgagee or Insurer approval is required, when such request is delivered by certified or registered mail, return receipt requested, shall constitute an implied approval of the addition or amendment.

Section 16.5 Inspection of Books. The Association must maintain current copies of the Declaration, Bylaws, Rules, Articles, books, records and financial statements of the Association. The Association shall permit any Eligible Mortgagee, Eligible Insurer, or other first mortgagee of Units, to inspect the books and records of the Association during normal business hours.

Section 16.6 Financial Statements. The Association shall provide any Eligible Mortgagee, or Eligible Insurer who submits a written request with a copy of an annual financial statement. It shall be provided within one hundred twenty (120) days following the end of each fiscal year of the Association.

Section 16.7 Enforcement. The provisions of this Article are for the benefit of Eligible Mortgagees and Eligible Insurers and their successors and may be enforced by any of them by any available means, at law or in equity.

Section 16.8 Attendance at Meetings. Any representative of an Eligible Mortgagee or Eligible Insurer may attend and address any meeting which an Owner may attend.

Section 16.9 Appointment of Trustee. In the event of damage or destruction subject to Article 21 or condemnation of all or a portion of the Community, any Eligible Mortgagee may require that the insurance or condemnation proceeds be payable to a Trustee established pursuant to this Declaration. This Trustee may be required to be a corporate trustee licensed by the State of Nevada. Proceeds will then be distributed pursuant to Article 20 or pursuant to a condemnation award. Unless otherwise required, the members of the Board of Directors, acting by majority vote through the president, may act as Trustee.

ARTICLE 17

ASSOCIATION MAINTENANCE FUNDS AND ASSESSMENTS

Section 17.1 Personal Obligation of Assessments. Declarant, on behalf of itself and all future Owners, hereby covenants and agrees to pay, and each Owner by accepting title to a Unit or any interest therein, whether or not it shall be expressed in the Deed or other instrument conveying title, shall be deemed to covenant and agree to pay to the Association on a monthly basis or as otherwise determined by the Board, Base Assessments, Capital Improvement Assessments, Reconstruction Assessments, Special Assessment and Specific Assessments and other amounts as required or provided for in this Declaration. All such Assessments, together with any and all late charges, fines, interest, attorneys fees and other costs or expenses incurred by the Association in collecting unpaid amounts shall be a charge on the Unit, against which such Assessment is made, enforceable and collectible as Assessments. Each Assessment, together with late charges, interest, costs and reasonable attorney's fees, shall also be the personal obligation of the Person who was the Owner of the Unit at the time when the Assessment fell due. The personal obligation cannot be avoided by abandonment of the Unit or by an offer to

waive use of the Common Elements. The personal obligation for delinquent Assessments shall not pass to any new Owner unless expressly assumed by the new Owner, however, any lien for unpaid Assessments shall remain in effect notwithstanding the transfer of a Unit.

Section 17.2 Maintenance Funds of Association. The Board shall budget and keep at least the following accounts (the "Association Maintenance Funds") into which shall be deposited all monies paid to the Association, and from which disbursements shall be made in the Association's performance of its functions:

(a) Common Areas and Residential Operating Fund. A separate Common Areas and Residential Operating Fund for current expenses of the Association.

(b) Common Areas and Residential Reserve Fund. A separate adequate "Common Areas Reserve Fund" for the deposit of Reserves attributable to Improvements within the Property which the Association is obligated to maintain.

The Association Maintenance Funds shall be established as trust accounts at a federally insured bank or other financial institution whose accounts are federally insured. Reserves may be deposited, in the Directors' business judgment, in depositories other than banks. Nothing contained herein shall limit, preclude or impair the establishment of additional Association Maintenance Funds by the Association, so long as the amounts assessed to, deposited into, and disbursed from any such fund are earmarked for specified purposes authorized by this Declaration. Any surplus funds of the Association (as determined by the Board) remaining after payment of or provision for Common Expenses and any prepayment of Reserves or any other fund established by the Board must be paid to the Members in proportion to their liability for Common Expenses or credited to them in proportion to their liability for Common Expenses to reduce their future Assessments for Common Expenses.

Section 17.3 Purpose of Assessments. The Assessments levied by the Association shall be used exclusively for the operation, replacement, repair, improvement and maintenance of the Common Elements and any other portion of the Property which the Association is obligated to operate, repair, replace or maintain, and to discharge any other obligations of the Association under this Declaration. All amounts deposited into the Operating Funds must be used solely for the benefit of all the applicable Owners and Units for purposes authorized under this Declaration. Disbursements from the Operating Funds shall be made by the Board for such purposes as are necessary for the discharge of its responsibilities herein. The Board shall make disbursements from the Reserve Funds only for the purposes specified in the definition of "Reserves." Nothing in this Declaration shall be construed in such a way as to require the use of Assessments or funds to abate any annoyance or nuisance emanating from outside the boundaries of the Property.

Subject to the provisions hereof, the Board shall have the power and authority to determine all matters in connection with Assessments, including the power and authority to determine where, when and how Assessments shall be paid to the Association, and each Owner shall comply with all such determinations. Except as emergencies may require, the Association shall make no commitments or expenditures in excess of the funds reasonably expected to be available to the Association.

Section 17.4 Funds and Assessments:

(a) Budget for Daily Operation. The Board shall, not less than thirty (30) days nor more than sixty (60) days before the beginning of the Fiscal Year of the Association, prepare and distribute to each Member a copy of the budget for the daily operation of the Association (the "**Operating Budget**"). The Operating Budget must include, at a minimum, for each of the Common Areas Operating Fund and the Residential Operating Fund, the estimated annual revenue and expenditures of the Association from the various Operating Funds and any contributions to be made to the Reserve Funds of the Association.

(b) Budget to Maintain Reserves. The Board shall, not less than thirty (30) nor more than sixty (60) days before the beginning of the Fiscal Year of the Association, prepare and distribute to each Member a copy of the budget to provide adequate funding for the various Reserve Funds required by the Act and this Declaration (the "**Reserve Budget**"). This Budget must include, at a minimum, for each of the Common Areas and Residential Areas, the following:

(i) The current estimated replacement cost, estimated remaining life and estimated useful life of each Major Component;

(ii) As of the end of the Fiscal Year for which the Budget is prepared, the current estimate of the amount of cash Reserves that are necessary, and the current amount of accumulated cash reserves that are set aside, to repair, replace or restore the Major Components;

(iii) A statement as to whether the Board has determined or anticipates that the levy of one or more Special Assessments or Capital Improvement Assessments will be required to repair, replace or restore any Major Component or to provide adequate Reserves for that purpose; and

(iv) A general statement describing the procedures used for the estimation and accumulation of cash Reserves including the qualifications of the Person responsible for the preparation of the Reserve Study required by the Act.

(c) Distribution of the Budgets. In lieu of distributing copies of the Budgets, the Board may distribute to each Member a summary of those Budgets, accompanied by a written notice that the Budgets are available for review at the business office of the Association or other suitable location and that copies of the Budgets will be provided at the Member's expense upon request.

Section 17.5 Initial Year of Operations. The Base Assessment per Unit for the first Fiscal Year of the Association shall be as set forth in the initial Budget adopted by the Board. If during the first Fiscal Year of the Association the Board determines that the Base Assessment should be increased, the Board shall provide a summary of the increased Budget to all Owners and shall call a meeting of the Members to consider ratification of the increased Budget. The date of such meeting shall be not less than fourteen (14), nor more than thirty (30)

days after the date of mailing of the increased Budget summary. Unless Members controlling a majority of the voting power of the Association reject the increase, the increase shall be deemed ratified, whether or not a quorum is present at the meeting. The Budget, as ratified, shall be binding on all Members. Notwithstanding the foregoing, the Members entitled to vote on an increase of the Budget for the Residential Areas shall be limited to Owners of Residential Units.

Section 17.6 Subsequent Fiscal Years. Following the initial Budget, and within the time required by Section 17.4, the Board shall annually adopt a proposed Budget for the Property for the upcoming Fiscal Year. Within thirty (30) days after such adoption, the Board shall provide a summary of the Budget to all Members and shall call a meeting of the Members to consider ratification of the proposed Budget. The date of such meeting shall be not less than fourteen (14) nor more than thirty (30) days after the date of mailing of the Budget summary. Unless Members controlling a majority of the voting power of the Association reject the Budget, the Budget shall be deemed ratified, whether or not a quorum is present at such meeting. If the Budget is rejected, then the Budget last ratified shall be continued until such time as a new proposed Budget is ratified. If during such upcoming Fiscal Year the Board determines that the Base Assessment should be increased above the amount reflected in the Budget then in effect for such Fiscal Year, the Board shall provide a summary of the increased Budget to all Members and the provisions set forth above concerning a meeting of the Members to ratify a new Budget shall be applicable to such proposed increase. The Budget, as ratified, shall be binding on all Members. If the Board fails to determine or cause to be determined the total amount to be raised by Base Assessments in any Fiscal Year and/or fails to notify the Owners of the amount of such Base Assessments for any Fiscal Year, then the amounts of Base Assessments shall be deemed to be the amounts assessed in the previous Fiscal Year. Notwithstanding the foregoing, the Members entitled to vote on a Budget for the Residential Areas shall be limited to the Owners of Residential Units.

Section 17.7 Budgeting and Allocating Cost Center Expenses. If applicable, at least sixty (60) days before the beginning of each Fiscal Year, the Board shall prepare a separate budget covering the estimated Cost Center Expenses for any Cost Center on whose behalf Cost Center Expenses are expected to be incurred during the coming year. Each such budget shall be prepared in compliance with the Act, and shall include any costs for additional services or a higher level of services provided by the Association through the Cost Center and an adequate reserve for the repair, replacement and restoration of the Major Components and other Cost Center Improvements attributable to the applicable Cost Center. The budget shall also reflect the sources and estimated amounts of funds to cover such expenses, which may include any surplus to be applied from prior years, any income expected from sources other than Assessments levied against the Units included within the applicable Cost Center and the amount required to be generated through the levy of Cost Center Assessments and Specific Assessments against the Units in such Cost Center.

(a) The Association is hereby authorized to levy Cost Center Assessments equally against all Units in a Cost Center to fund Cost Center Expenses.

(b) If any proposed budget for any Cost Center is rejected, the periodic budget last ratified by the applicable Owners continues until the Owners ratify a subsequent budget proposed by the Board of Directors for that Cost Center in accordance with the Act.

(c) Subject to the limitations set forth in Section 17.9, the Board may revise the budget for any Cost Center and the amount of any Cost Center Assessment from time to time during the year, subject to the notice requirements and the right of the Owners of Units in the affected Cost Center to disapprove the revised budget as set forth above.

(d) Cost Center income and expense funds shall be kept in segregated accounts from the general funds of the Association, but need not be kept in separate deposit accounts.

Section 17.8 Reserve Study:

(a) Period and Purpose. The Board shall cause to be conducted at least once every five (5) years, a study of the Reserves ("**Reserve Study**") required to repair, replace and restore the Major Components. The Board shall review the results of the study at least annually to determine if the Reserves are sufficient and make any adjustments it deems necessary to maintain the required Reserves.

(b) Qualifications. The Person conducting the Reserve Study, which may include a Director, a Member of the Association, the Manager or any other person, qualified by education or experience to conduct studies of the Reserves, shall meet the qualifications of training and experience required by the Act.

(c) Contents. The Reserve Study must include, at a minimum:

(i) A summary of an inspection of the Major Components the Association is obligated to repair, replace or restore;

(ii) An identification of the Major Components that the Association is obligated to repair, replace or restore which have a remaining useful life of less than thirty (30) years;

(iii) An estimate of the remaining useful life of each Major Component identified pursuant to Section 17.8(c)(ii);

(iv) An estimate of the cost of repair, replacement or restoration of each Major Component identified pursuant to Section 17.8(c)(ii), during and at the end of its useful life; and

(v) An estimate of the total annual Assessment that may be required to cover the cost of repair, replacement or restoration of the Major Components identified pursuant to Section 17.8(c)(ii), after subtracting the Reserves of the Association as of the date of the study.

(d) Base Assessments; Commencement; Collection. The amount to be raised by Base Assessments during a Fiscal Year shall be equal to: (a) the Operating Funds necessary to satisfy the Operating Budget for such period, plus (b) the Reserve Funds to be set aside for

such period, less the amount attributable to the Operating Budget collected but not disbursed in the immediately preceding Fiscal Year or partial Fiscal Year; provided, however, that in lieu of such subtraction the Board may elect, in its discretion, to refund any surplus to the Owners or to prepay future Reserves.

Base Assessments shall commence on all Units in a Phase as determined by the Declarant at its sole discretion. Until the Association makes a Base Assessment, the Declarant shall pay all Common Expenses. All Base Assessments shall be assessed against the Members and their Units pursuant to Section 17.15, below. Base Assessments for fractions of any month involved shall be prorated.

Each Owner shall pay to the Association the Base Assessment in installments at such frequency and in such amounts as established by the Board. Each installment of Base Assessments may be paid by the Owner to the Association in one check or in separate checks as payments attributable to deposits into specified Association Maintenance Funds. If any payment of an installment of a Base Assessment is less than the amount assessed and the payment does not specify the Association Maintenance Fund or Funds into which it should be deposited, the receipt by the Association from that Owner shall be credited in order of priority first to the Operating Funds, until that portion of the Base Assessment has been satisfied, and second to the Reserve Funds.

From time to time and consistent with the Act (NRS 116.3114) and this Article 17, the Board may determine that all excess funds in the operating fund be retained by the Association and used to reduce the following year's Base Assessments. Upon dissolution of the Association incident to the abandonment or termination of the Community, any amounts remaining in any of the Association Maintenance Funds shall be distributed to or for the benefit of the Owners in the same proportions as such monies were collected from the Owners, subject to the rights of any creditors of the Association as set forth in NRS 116.21183 to 116.2119, inclusive.

Section 17.9 Limitations on Maximum Base Assessment. From and after January 1st of the year immediately following the first Close of Escrow, the maximum annual Base Assessment may not be increased by more than fifteen percent (15%) of the annual Operating Budget for the previous year unless approved by the vote or written assent of a Majority of Owners.

Section 17.10 Special Assessments. In addition to Base Assessments, the Association may levy Special Assessments, payable over the period of the Association's Fiscal Year: (a) for the purpose of defraying any other expense incurred or to be incurred by the Association as provided in this Declaration; or (b) to cover any deficiency in the event that, for whatever reasons, the amount received by the Association from Base Assessments is less than the amount determined to be necessary and assessed by the Board. Special Assessments for these purposes may not be levied unless approved by Members holding a majority of the votes held by all Members.

Section 17.11 Delinquency. Any installment of an Assessment provided for in this Declaration shall be delinquent if not paid within fifteen (15) days of the due date as established by the Board. Upon such delinquency, the full amount of the Assessment (i.e., not

simply the delinquent installment) shall immediately become due and payable. The Board shall be authorized to adopt a system pursuant to which the full amount of any Assessments not paid within thirty (30) days after the due date, plus all reasonable charges and other costs of collection (including attorneys' fees) and late charges, shall bear interest commencing thirty (30) days from the due date until paid at the rate determined by the Board, as provided herein. The Association need not accept any tender of less than the entire amount of an installment of an Assessment and all costs and attorneys fees attributable thereto. **Notwithstanding the foregoing, the Association may accept partial payments without waiving any of its rights or remedies to collect the unpaid portion of such amounts or exercise any remedy attendant to the failure to pay the entire amount due. The acceptance by the Association or its agent of any partial payment shall not be deemed to be a waiver of the Association's right to demand and receive full payment of all amounts due or a waiver of the Association's right to continue the enforcement of its remedies, including lien enforcement, with respect to balance of the amounts due and payable to the Association.**

Section 17.12 Liens:

(a) Creation of Lien. All sums assessed and fines imposed in accordance with the provisions of this Declaration shall constitute a lien on the respective Unit from the time such sums become due prior and superior to all other liens and encumbrances thereon except: (i) liens and encumbrances Recorded before Recordation of this Declaration; (ii) a first Mortgage on the Unit Recorded before the date on which the Assessment sought to be enforced became delinquent, except a lien imposed by the Association in accordance with this Declaration shall have priority for six (6) months of Base Assessments and related charges including late charges, interest, and attorneys fees, pursuant to NRS 116.3116(2); and (iii) liens for real estate taxes and other assessments or charges by any Governmental Authority against the Unit. A lien for unpaid Assessments is extinguished unless proceedings to enforce the lien are instituted within three (3) years after the full amount of the Assessment becomes due.

(b) Enforcement of Liens. The Association may enforce the lien described in Section 17.12(a) in any manner permitted by the Act or by Law. Without limiting the foregoing, the Association may enforce its lien in accordance with the following procedures:

(i) the Association must mail by certified or registered mail, return receipt requested, to the Unit's Owner, at his address if known and at the address of the Unit, a notice of delinquent Assessment in the form required by the Act ("Notice of Delinquent Assessment"), which includes: (A) the amount of the Assessment and other authorized charges and interest; (B) a description of the Unit against which the same has been imposed; and (C) the name of the Record Owner of the Unit;

(ii) the Association or other Person conducting the sale (1) must execute and cause to be Recorded a Notice of Default and Election to Sell the unit to satisfy the lien, in the form required by the Act ("Notice of Default"), signed by any officer or authorized agent of the Association, which contains: (A) the same information as the Notice of Delinquent Assessment; (B) a description of the deficiency in payment; and (C) the name and address of the Person authorized to

enforce the lien by sale; and (2) must mail the Notice of Default in accordance with the Act; and

(iii) If the Owner or its successor in interest has failed to pay the amount of the lien (including costs, fees and expenses incident to its enforcement) for ninety (90) days following Recordation of the Notice of Default, the Association must give Notice of Sale in accordance with the Act.

(iv) The Association or other Person conducting the sale shall, after the expiration of the ninety (90) day period and before selling the Unit, give notice of the time and place of the sale in the manner and for a time not less than that required by the Act, including such mailing posting and personal service as may be required by the Act. The lien shall relate only to the individual Unit against which the Assessment was levied and not to the Property as a whole.

(c) Release of Lien. Upon payment to the Association of the full amount claimed in the Notice of Delinquent Assessment, or other satisfaction thereof, the Board shall cause to be Recorded a Notice of Satisfaction and Release of Lien ("**Notice of Release**") stating the satisfaction and release of the lien based on such Notice of Delinquent Assessment. The Board may demand and receive from the applicable Owner a reasonable charge, to be determined by the Board, for the preparation and Recordation of the Notice of Release before Recording it. Any purchaser who has acted in good faith and extended value may rely upon the Notice of Release as conclusive evidence of the full satisfaction of the lien for the sums stated in the applicable Notice of Delinquent Assessment.

(d) Sale of Property. It shall be the duty of the Board to enforce the collection of any amounts due under this Declaration by one or more of the alternative means of relief afforded by this Declaration or in any other manner permitted by Law, subject to the limitations contained in the Act with respect to the enforcement of liens for fines. Accordingly, without limiting any other remedy of the Association, the lien on a Unit may be enforced by sale of the Unit in accordance with the Act (a "**Foreclosure Sale**"). The Foreclosure Sale may be conducted by the Association, the Association's attorneys, any title insurance company authorized to do business in Nevada or other Persons authorized to conduct the sale as a trustee, after failure of the Owner to pay any Assessment, or installments thereof, as well as any charges, late charges, interest or attorneys fees as provided herein. The Association, through its agents, shall have the power to enter a credit bid on the Unit at the Foreclosure Sale, and to acquire and hold, lease, mortgage and convey the Unit, should the Association be the successful bidder at the sale. Upon completion of the Foreclosure Sale, an action may be brought by the Association or the purchaser at the sale in order to secure occupancy of the defaulting Owner's Unit, and the defaulting Owner shall be required to pay the reasonable rental value for such Unit during any period of continued occupancy after the sale by the defaulting Owner or any persons claiming under the defaulting Owner.

(e) Other Remedies. The Association may maintain a suit to recover a money judgment for unpaid Assessments, charges, penalties, fines, late charges, interest and attorneys fees, without foreclosing or waiving any lien securing the same, but this provision or any institution of suit to recover a money judgment shall not constitute an affirmation of the

adequacy of money damages. Any recovery resulting from a suit at law or in equity initiated pursuant to this Section may include reasonable attorneys' fees as fixed by the court.

Section 17.13 Waiver of Use. No Owner shall be exempt from personal liability for Assessments duly levied by the Association, or effect the release of such Owner's Unit from the liens and charges thereof, by waiving or delegating use and enjoyment of the Common Elements as set forth in this Declaration or by abandoning such Owner's Unit.

Section 17.14 Capital Contributions to the Association. At the Close of Escrow, each Owner of a Unit shall contribute to the capital of the Association in the amount of two (2) monthly installments of Base Assessments attributable to such Owner's Unit ("**Capital Contribution**"). This amount shall be deposited by the buyer into the Unit purchase and sale escrow and disbursed therefrom to the Association to be used for any Association related expenses or reimbursement to the Declarant for expenses the Declarant incurs or incurred in establishing or maintaining the Common Elements or providing services or subsidies in connection with the Community. The Capital Contribution shall not be considered prepayment of the Base Assessment, and shall be in addition to the Owner's continuing obligation to pay the Base Assessment.

Section 17.15 Rate of Assessments. Base Assessments and any Special Assessments shall be levied upon the Units based on a combination of two (2) Assessment components, as described below.

(a) Assessment Components

(i) Commercial Units. The Base Assessments and any Special Assessments levied upon Commercial Units shall consist of one (1) component: the Common Areas Amount determined as described below.

(ii) Residential Units. The Base Assessments and any Special Assessments levied upon Residential Units shall consist of two (2) components: (a) a "**Common Areas Amount**," and (b) a "**Residential Areas Amount**," determined as described below.

(b) Commercial and Residential Expenses. The Board in preparing the Budget of the Association, shall use reasonable efforts to divide Common Expenses into two (2) categories: "**Common Areas Expenses**," and "**Residential Areas Expenses**." So long as the Board is acting in good faith and exercising reasonable judgment, its allocation of expenses shall not be subject to challenge.

(i) "**Common Areas Expenses**" shall include all expenses of the Association related to the Common Areas.

(ii) "**Residential Area Expenses**" shall include all expenses of the Association related to the Residential Areas.

(c) Calculation of Assessment Components.

(i) **"Common Areas Amount."** Common Areas Expenses shall be allocated to each Unit based on the ratio of the approximate square footage of each Unit to the total square footage of all Units subject to Assessment.

(ii) **"Residential Areas Amount."** Residential Area Expenses shall be allocated to each Residential Unit based on the ratio of approximate square footage of each Residential Unit to the total square footage of all Residential Units subject to Assessment.

(d) Adjustments by the Board. Subject to the provisions of this Declaration, the Board may from time to time reallocate items between Common Areas Expenses and Residential Areas Expenses as it may in its reasonable discretion determine appropriate and consistent with the methodology described above.

(e) Limited Utilities or Services. In the event one or more utilities or other services are not separately metered or sub-metered and are therefore billed to the Association, but do not supply all of the Residential or Commercial Units, the expenses of such utilities will be allocated among only the Residential or Commercial Units which are supplied by such utility, based on the ratio of the approximate square footage of floor area of each Residential or Commercial Unit so supplied to the total square footage of floor area of all Residential or Commercial Units so supplied.

(f) Rate of Specific Assessments for Repairs. Any (i) Reconstruction Assessment or Capital Improvement Assessment to raise funds for the rebuilding or major repair of a portion of the structural Common Elements and (ii) Special Assessments shall be levied against each Unit in the Community against which the Association's regular Assessments have commenced. Such Assessments shall be levied upon the basis of the ratio of the square footage of the approximate floor area of the Unit to be assessed to the total approximate square footage of the aggregate floor area of all Units to be assessed. Notwithstanding the above, such Assessments for the Residential Areas shall only be assessed against the Residential Units.

ARTICLE 18
RIGHT TO ASSIGN FUTURE INCOME

The Association may assign its future income, including its right to receive Common Expense Assessments, only upon the approval of a Majority of Owners, at a meeting called for that purpose, and with the Eligible Mortgagee consent described in Article 16.

ARTICLE 19
PERSONS AND UNITS SUBJECT TO DOCUMENTS: ENFORCEMENT

Section 19.1 Compliance with Documents. All Owners, Guests, Family, Mortgagees and Occupants of Units shall comply with the Governing Documents. The acceptance of a Deed or the exercise of any incident of ownership or the entering into of a Lease

or the occupancy of a Unit constitutes agreement that the provisions of the Governing Documents are accepted and ratified by that Owner, Guest, tenant, Mortgagee or Occupant. All provisions of the Governing Documents Recorded in the Recording Office are covenants running with the land and shall bind any Persons having at any time any interest or estate in any Unit.

Section 19.2 Indemnification. Each Owner shall be liable to the other Owners for any damage to the Common Elements and or other portions of the Property that may be sustained by reason of the negligence or willful misconduct of that Owner, or the Owner's Family, Guests or other Occupants. Each Owner, by acceptance of its Deed, agrees for such Owner and for the Owner's Family, Guests or other Occupants, to protect, defend, indemnify and hold harmless each and every other Owner against any claim of any Person for personal injury or property damage caused by the negligence or willful misconduct of such Owner or such Owner's Family, Guests or other Occupants, unless the injury or damage occurred by reason of the negligence or willful misconduct of any other Owner (or its Family, Guests or other Occupants) or the Association. Upon demand by the Association, each Owner shall be responsible for the payment of any deductible amount payable under the Association's insurance policy as a result of any claims arising as a result of the negligent or willful misconduct of such Owner or the Owner's Family, Guests or other Occupants.

Section 19.3 Enforcement. The Board may impose sanctions for violation of the Governing Documents after Notice and Hearing. The Board shall establish a range of penalties for such violations, with violations of the Declaration, unsafe conduct, harassment, or intentionally malicious conduct treated more severely than other violations. Such sanctions may include:

(a) imposing reasonable monetary fines which shall, to the fullest extent permitted under the Act, constitute a lien upon the Unit owned or occupied by the Owner, Occupant or other Person determined by the Board, after Notice and Hearing, to be in violation of the Governing Documents (a "Violator"). The amount of each such fine must be commensurate with the severity of the violation and shall in no event exceed the maximum amount permitted by the Act. If a fine is imposed pursuant to this Section 19.3(a) and the violation is not cured within fourteen (14) days or such longer cure period as the Board establishes, the violation shall be deemed a continuing violation and the Board may thereafter impose an additional fine for the violation for each seven (7) day period or portion thereof that the violation is not cured. Any additional fine may be imposed without notice and an opportunity to be heard. In the event that any Occupant, Guest, or Family member of an Owner violates the Governing Documents and a fine is imposed, the fine shall first be assessed against the Violator; provided, however, if the fine is not paid by the Violator within the time period set by the Board, the Owner shall pay the fine upon Notice from the Board. The Board shall notify each Owner of fines applicable to particular violations;

(b) suspending an Owner's right to vote;

(c) suspending any Person's right to use the Recreational Facilities; provided, however, nothing herein shall authorize the Board to limit ingress or egress to or from a Unit or his or her Parking Space;

(d) suspending any services provided by the Association to an Owner or the Owner's Unit if the Owner is more than thirty (30) days delinquent in paying any Assessment or other charge owed to the Association;

(e) entering a Unit and, if necessary, exercising self-help or taking action to abate any violation of the Governing Documents in a non-emergency situation;

(f) requiring an Owner, at his or her own expense, to remove any structure or Improvement on such Owner's Unit in violation of Article 12 and to restore the Unit to its previous condition and, upon failure of the Owner to do so, the Board or its designee shall have the right to enter the property, remove the violation and restore the property to substantially the same condition as previously existed and any such action shall not be deemed a trespass;

(g) without liability to any Person, precluding any contractor, subcontractor, agent, employee, or other invitee of an Owner who fails to comply with the terms and provisions of Article 12 and the Architectural Guidelines from continuing or performing any further activities in the Property;

(h) levying Specific Assessments to cover costs incurred by the Association to bring a Unit into compliance with the Governing Documents; and

(i) Recording a Notice of Non-Compliance against a Unit.

Section 19.4 Notice of Non-Compliance. In addition to any other enforcement rights, if an Owner fails properly to perform his or her maintenance responsibility after Notice and Hearing, the Association may issue a notice of violation, then the Board, at its option, may Record a Notice of Non-Compliance and may peacefully remedy the non-compliance, and the Owner shall reimburse the Association, upon demand, for all expenses incurred in connection therewith. If such expenses are not promptly repaid by the Owner to the Association, the Board shall levy a Specific Assessment against such Owner for reimbursement as provided in this Declaration. The right of the Association to remove a non-complying Improvement or otherwise remedy the non-compliance shall be in addition to all other rights and remedies which the Association may have at law, in equity, or in this Master Declaration.

Section 19.5 Cumulative Remedies. All remedies set forth in the Governing Documents shall be cumulative of any remedies available at law or in equity. In any action to enforce the Governing Documents, if the Association prevails, it shall be entitled to recover all costs, including attorneys' fees and court costs, reasonably incurred in such action.

Section 19.6 Enforcement. The decision to pursue enforcement action in any particular case shall be left to the Board's discretion, except that the Board shall not be arbitrary or capricious in taking enforcement action. Such decision shall not be construed a waiver of the Association's right to enforce such provision at a later time under other circumstances or preclude the Association from enforcing any other covenant, restriction or Rule. The Association, by contract or other agreement, may enforce applicable Laws, and shall permit all applicable Governmental Authorities to enforce their respective Laws within the Property for the benefit of the Association and its Members.

Section 19.7 Implied Rights; Board Authority. The Association may exercise any right or privilege given to it expressly by the Governing Documents, by the Act or reasonably implied from or reasonably necessary to effectuate any such right or privilege. Except as otherwise specifically provided in the Governing Documents or by law, all rights and powers of the Association may be exercised by the Board without a vote of the membership.

Section 19.8 Interest and Costs. All amounts payable to the Association hereunder which are not paid when due, including out of pocket costs and expenses incurred by the Association shall bear interest from the date due at the rate of eighteen percent (18%) per annum or such other Rate as the Board may determine from time to time in its discretion, not to exceed, however, the highest rate allowed by law.

ARTICLE 20 INSURANCE AND INDEMNIFICATION

Section 20.1 Insurance Coverage. To the extent reasonably available, the Board of Directors shall obtain and maintain insurance coverage as set forth in this Article. If such insurance is not reasonably available, and the Board of Directors determines that any insurance described in this Article will not be maintained, the Board of Directors shall promptly cause notice of that fact to be hand-delivered or sent prepaid by United States mail to all Owners and Eligible Mortgagees at their respective last known addresses.

Section 20.2 Property Insurance Coverage:

(a) Coverage. Property insurance will cover:

(i) The facilities of the Community, including all Buildings, for example, the Units and all fixtures, equipment and any improvements and betterments whether part of a Unit or a Common Element, and such personal property of Owners as is normally insured under building coverage, but excluding land, excavations, portions of foundations below the undersurface of the lowest basement floors, underground pilings, piers, pipes, flues and drains and other items normally excluded from property policies; and

(ii) All Association Property.

(b) Amounts. The insurance will be for an amount (after application of any deductions) equal to one hundred percent (100%) of the actual cash value of the covered items at the time the insurance is purchased and at each renewal date.

The Board of Directors is authorized to obtain appraisals periodically for the purpose of establishing replacement cost of the insured items, and the cost of such appraisals shall be a Common Expense.

(c) Risks Insured Against. The insurance shall afford protection against "all risks" of direct physical loss commonly insured.

(d) Other Provisions. Insurance policies required by this Section shall provide that:

(i) Each Owner is an insured person under the policy with respect to liability arising out of the Owner's interest in the Common Elements or membership in the Association.

(ii) The insurer waives the right to subrogation under the policy against an Owner or its Family.

(iii) An act or omission by an Owner, unless acting within the scope of the Owner's authority on behalf of the Association, will not void the policy or be a condition of recovery under the policy.

(iv) If, at the time of a loss under the policy, there is other insurance in the name of an Owner which covers the same risk covered by the policy, the Association's policy provides primary insurance.

(v) Losses must be adjusted with the Association.

(vi) Insurance proceeds shall be paid to any insurance Trustee designated in the policy for that purpose, and otherwise to the Association, but, in any case, it is to be held in trust for each Owner and the Owner's Mortgagee.

(vii) The insurer may not cancel or refuse to renew the policy until 30 days after notice of the proposed cancellation or nonrenewal has been mailed to the Association, to each Owner and to each holder of a Security Interest to whom a certificate or memorandum of insurance has been issued, at their respective last known addresses.

(viii) The name of the insured shall be substantially as follows:

Panorama Towers Condominium Unit-Owners' Association, Inc., for the use and benefit of the individual Owners.

Section 20.3 Liability Insurance. Liability insurance, including medical payments insurance, will be maintained as determined by the Board of Directors. This insurance shall cover all occurrences commonly insured against for death, bodily injury and property damage arising out of or in connection with the use, ownership or maintenance of the Common Elements and the activities of the Association.

Insurance policies carried pursuant to this Section shall provide that:

(i) Each Owner is an insured person under the policy with respect to liability arising out of the Owner's interest in the Common Elements or membership in the Association;

(ii) The insurer waives the right to subrogation under the policy against an Owner and Family.

(iii) An act or omission by an Owner, unless acting within the scope of the Owner's authority on behalf of the Association, will not void the policy or be a condition to recovery under the policy.

(iv) If, at the time of a loss under the policy, there is other insurance in the name of an Owner covering the same risk covered by the policy, the policy of the Association provides primary insurance.

(v) Losses must be adjusted with the Association.

(vi) Insurance proceeds shall be paid to any insurance Trustee designated in the policy for that purpose, and otherwise to the Association, but, in any case, it is to be held in trust for each Owner and the Owner's mortgagee.

(vii) The insurer issuing the policy may not cancel or refuse to renew it until 30 days after notice of the proposed cancellation or nonrenewal has been mailed to the Association, each Owner and each holder of a Security Interest to whom a certificate or memorandum of insurance has been issued at their last known addresses.

Section 20.4 Fidelity Bonds. A blanket fidelity bond shall be provided for anyone who either handles or is responsible for funds held or administered by the Association, whether or not they receive compensation for their services. The bond shall name the Association as obligee and shall cover the maximum funds that will be in the custody of the Association or the Manager at any time while the bond is in force. In no event shall the bond be for an amount less than the sum of three months' Assessments plus all Reserves. The bond shall include a provision that calls for ten (10) days' written notice to the Association, each holder of a Security Interest in a Unit, each servicer that services a FNMA-owned or FHLMC-owned Security Interest on a Unit and the insurance Trustee, if any, before the bond can be canceled or substantially modified for any reason. When either: (a) separate bank or other accounts for Operating Funds and Reserve Funds are maintained and monthly checks are sent directly to the Association, (b) a Manager maintains separate records and bank or other accounts for each Reserve account of the Association, or (c) two Directors must sign any check written on the reserve account, then the fidelity bond may be in an amount equal to three months Common Expense Assessments on all Units.

Section 20.5 Owner Policies. An insurance policy issued to the Association does not preclude Owners from obtaining insurance for their own benefit.

Section 20.6 Workers' Compensation Insurance. The Board of Directors shall obtain and maintain Workers' Compensation Insurance to meet the requirements of applicable Laws.

Section 20.7 Directors' and Officers' Liability Insurance. The Board of Directors shall obtain and maintain directors' and officers' liability insurance, if available, covering all of the directors and officers (including the members of the ARC) of the Association. This insurance will have limits determined by the Board of Directors.

Section 20.8 Other Insurance. The Association may carry other insurance which the Board of Directors considers appropriate to protect the Association and/or the Owners.

Section 20.9 Premiums and Deductibles. Insurance premiums and deductibles for insurance carried or to be carried by the Association shall be a Common Expense.

Section 20.10 Indemnification of Officers, Directors and Others:

(a) Indemnification. The Association shall protect, defend, indemnify, and hold harmless Declarant and every other Protected Person against all liabilities, damages and expenses, including counsel fees, reasonably incurred in connection with any Proceeding (including settlement of any Proceeding, if approved by the then Board of Directors) to which he, she or it (including its employees) may be a party by reason of being or having been an officer, director, agent or committee member, or having entered into any contract, commitment or agreement on behalf of the Association, except that the obligations of the Association under this Section shall be limited to those actions for which liability is limited under this Section, the Articles, the Bylaws and Nevada Law. The Association shall, as a Common Expense, maintain adequate general liability and officers' and directors' liability insurance to fund this obligation, if such insurance is commercially reasonably available.

(b) Claims Related to Breach of Duty. The officers, directors, agents, and committee members of the Association shall not be liable for any mistake of judgment, negligent or otherwise, except for their own individual willful misfeasance, malfeasance, misconduct, or bad faith. The officers and directors of the Association shall have no personal liability with respect to any contract or other commitment made or action taken in good faith on behalf of the Association (except to the extent that such officers or directors may also have liability as a Member of the Association).

(c) Litigation. Decisions whether to institute litigation are no different from other decisions Directors make. There is no independent legal obligation to bring a civil action against another party, and no provision of the Governing Documents shall be construed to impose a duty upon the Board to sue under any circumstances. In deciding whether to bring a civil action against another party, a director is protected by the business judgment rule as explained in the Bylaws.

(d) Exclusion from Liability for Other Tortious Acts:

(1) Volunteer directors, officers, committee members and any other Members of the Association acting in an official capacity on behalf of the Association (as applicable, a "Volunteer") are intended to be protected by the Association to the extent of the Association's coverage of insurance with respect to any Person who suffers injury, including but not limited to, bodily injury, emotional distress, wrongful death, or property damage or loss as a result of the Volunteer's tortious act or omission as long as the following requirements are met by the Volunteer and the Association:

(a) the Volunteer's act or omission was performed within the scope of his or her duties or otherwise in an official capacity on behalf of the Association;

(b) the Volunteer's act or omission was performed in good faith;

(c) the Volunteer's act or omission was not willful, wanton, or grossly negligent; and

(d) the Association maintained and had in effect (at the time the act or omission of the Volunteer occurred and at the time a claim was made) one or more insurance policies which included coverage for general liability of the Association and individual liability of directors, officers, agents, committee members, and other Members of the Association acting in an official capacity on behalf of the Association for negligent acts or omissions in that capacity.

(2) The payment or reimbursements for actual expenses incurred in the execution of his or her duties shall not affect the status of an officer or director as a Volunteer under this Section 20.10.

Section 20.11 Indemnities Non-Exclusive. The rights to indemnification contained in Section 20.10 or elsewhere in the Governing Documents shall not be exclusive of any other rights to which any present or former officer, director, committee member, or other Member acting in an official capacity on behalf of the Association may be entitled. Without limiting the foregoing, a right to indemnification in any particular section of this Declaration does not preclude indemnification under any other section.

ARTICLE 21 DAMAGE TO OR DESTRUCTION OF PROPERTY

Section 21.1 Duty to Restore: Any portion of the Community for which insurance is required under the Act (NRS 116.31135) that is damaged or destroyed must be repaired or replaced promptly by the Association unless:

(a) The Community is terminated; or

(b) Repair or replacement would be illegal under any state or local statute or ordinance governing health or safety; or

(c) The Owners of eighty percent (80%) of the total number of Units in the Community, including each Owner of a Unit or assigned Limited Common Element that will not be rebuilt, vote not to rebuild.

Section 21.2 Cost: The cost of repair, replacement or restoration in excess of insurance proceeds and Reserves is a Common Expense.

Section 21.3 Plans: The Property must be repaired and restored in accordance with either the original plans and specifications or other plans and specifications which have been approved by the Board of Directors, a Majority of Owners and fifty-one percent (51%) of Eligible Mortgagees.

Section 21.4 Replacement of Less Than Entire Property:

(a) The insurance proceeds attributable to the damaged Common Elements shall be used to restore the damaged area to a condition compatible with the remainder of the Community.

(b) Except to the extent that other persons will be distributees:

(i) The insurance proceeds attributable to a Unit and Limited Common Elements that are not rebuilt must be distributed to the Owner of the Unit and the Owner of the Unit to which the Limited Common Elements were allocated, or to holders of Security Interests, as their interests may appear; and

(ii) The remainder of the proceeds must be distributed to each Owner or holder of a Security Interest, as their interests may appear, in proportion to the Common Element interests of all the Units.

(c) If the Owners vote not to rebuild a Unit, the Allocated Interests shall be automatically reallocated following such vote as if the Unit had been condemned under the Act (NRS 116.1107(1)), and the Association promptly shall prepare, execute and Record an amendment to the Declaration reflecting the reallocation of the Allocated Interests.

Section 21.5 Insurance Proceeds. The Trustee, or if there is no Trustee, then the Board of Directors, acting by the President, shall hold any insurance proceeds in trust for the Association, Owners and holders of Security Interests as their interests may appear. Subject to the provisions of Section 21.1(a) through Section 21.1(c), the proceeds shall be disbursed first for the repair, replacement or restoration of the damaged Property. The Association, Owners and holders of Security Interests are not entitled to receive payment of any portion of the proceeds unless there is a surplus after the Property has been completely repaired or restored, or unless the Community is terminated.

Section 21.6 Certificates By Board of Directors. The Trustee, if any, may rely on the following certifications made in writing by the Board of Directors:

(a) Whether or not damaged or destroyed Property is to be repaired, replaced or restored; and

(b) The amount or amounts to be paid for repairs, replacement or restoration and the names and addresses of the parties to whom such amounts are to be paid.

Section 21.7 Certificates by Title Insurance Companies. If payments are to be made to Owners or Mortgagees, then the Board of Directors and the Trustee, if any, shall obtain and may rely on a title insurance company's certificate or a title insurance policy based on a search of the Records in the Recording Office stating the names of the Owners and the mortgagees.

ARTICLE 22 NOTICE AND HEARING

Section 22.1 Right to Notice and Comment. Before the Board of Directors amends the Bylaws or the Rules, whenever the Governing Documents require that an action be taken after "**Notice and Comment**," and at any other time the Board of Directors so determines, the Board shall give the Owners Notice of the proposed action and permit the Owners the right to comment orally or in writing. The Notice shall be given not less than thirty (30) days before the proposed action is to be taken. It shall invite comment to the Board of Directors orally or in writing before the scheduled time of the meeting.

Section 22.2 Right to Notice and Hearing. Whenever the Governing Documents require that an action be taken after "**Notice and Hearing**," the following procedure shall be observed: The Person proposing to take the action (e.g., the Board of Directors, a committee, an officer, the Manager, etc.) shall give Notice of the proposed action to all Owners or Occupants of Units whose interest would be significantly affected by the proposed action. The Notice shall include a general statement of the proposed action and the date, time and place of the hearing. At the hearing, the affected Person shall have the right, personally or by a representative, to give testimony orally, in writing or both (as specified in the Notice), subject to reasonable rules of procedure established by the party conducting the meeting to assure a prompt and orderly resolution of the issues. Any evidence shall be duly considered, but is not binding in making the decision. The affected Person shall be notified of the decision in the same manner in which Notice of the hearing was given. In connection with the enforcement of the Governing Documents, Notice and Hearing shall satisfy the requirements of the Act.

Section 22.3 Appeals. Any Person having a right to Notice and Hearing shall have the right to appeal to the Board of Directors from a decision of persons other than the Board of Directors by filing a written notice of appeal with the Board of Directors within ten (10) days after being notified of the decision. The Board of Directors shall conduct a hearing within thirty (30) days, giving the same notice and observing the same procedures as were required for the original hearing.

ARTICLE 23
BOARD OF DIRECTORS

Section 23.1 Association Records and Minutes of Board of Directors Meetings.

The Board of Directors shall maintain and make available, subject to the provisions of the Bylaws and the Act, to any Owner, any Eligible Mortgagee or any Eligible Insurer, current copies of the Governing Documents, and such other books, records and other papers of the Association, including but not limited to the financial statements, budgets and reserve studies, as may be required to be made available under the Act.

Section 23.2 Powers and Duties:

(a) Generally: The Board of Directors may act in all instances on behalf of the Association, except as provided in this Declaration, the Bylaws or the Act. The Board of Directors shall have, subject to the limitations contained in this Declaration and the Act, the powers and duties necessary for the administration of the affairs of the Association and of the Community, which shall include, but not be limited to, the powers set forth elsewhere in this declaration and in the Bylaws. Without limiting the generality of the foregoing, the Board shall:

(i) Annually prepare Operating and Reserve Budgets consistent with Article 17.

(ii) Cause Association financial statements to be prepared as required by the Act, including annual financial statements of the Association, which shall be audited by an independent certified public accountant, the cost of which shall be a Common Expense.

(iii) Cause all officers or employees having fiscal responsibilities to be bonded, as the Board may deem appropriate and purchase directors' and officers' liability insurance as it deems necessary.

(iv) Review annually all insurance policies and bonds maintained by the Association.

(v) Acting for itself and for all Owners and others, obtain and maintain at all times insurance of the type of policy and amount as set forth hereinafter for the benefit of the Owners and the Association and other parties as its interest may appear, in accordance with Article 20. Payments of premiums for such insurance shall be considered a purpose for which Assessments may be levied by the Association pursuant to Article 17.

(vi) Exercise any and all powers described in the Act where not in conflict with any specific limitation contained in this Declaration or the Governing Documents.

(vii) Exercise any and all other rights, privileges, and powers set forth in the Governing Documents.

(b) Execution of Land Use Documents. In addition to those powers set forth in the Bylaws, the Act and elsewhere in this Declaration, the Association, through the Board shall have the authority to execute all documents or consents, on behalf of all Owners (and their Mortgagees), required by all Governmental Authorities in connection with land use and development matters (including applications for zoning reclassifications and use permits, applications for tentative maps, parcel maps or other land divisions or amendments thereof, final maps and parcel maps and amendments thereof, covenants, etc.), and in that regard, each Owner, by acceptance of the deed to such Owner's Unit, and each Mortgagee of an Owner by acceptance of a lien on a Unit, appoints and designates the President of the Association, as such Owner's agent and attorney in fact to execute any and all such documents or consents.

(c) Quarterly Reviews. At least once every ninety (90) days, the Board shall review at one of its meetings:

- (i) A current reconciliation of the Operating Funds;
- (ii) A current reconciliation of the Reserve Funds of the Association;
- (iii) The actual revenues and expenses for the Reserve Funds, compared to the budget for that account for the current year;
- (iv) The latest account statements prepared by the financial institution(s) in which the Operating Funds are maintained;
- (v) An income and expense statement, prepared on at least a quarterly basis, for the Operating and Reserve Funds of the Association; and
- (vi) The current status of any Proceeding or claim submitted to arbitration or mediation in which the Association is a party.

(d) Capital Improvements. Subject to the terms of this Declaration, the Board may, on its own motion or acting on a petition signed by two-thirds ($\frac{2}{3}$) of the Owners, approve the construction, installation or acquisition of a new capital improvement to the Common Elements; provided however, if such proposed Improvement would be a Residential Limited Common Element, then only the consent of two-thirds ($\frac{2}{3}$) of the Residential Owners shall be required, and if such Capital Improvement would constitute a Commercial Limited Common Element, then only the consent of two-thirds ($\frac{2}{3}$) of the Commercial Owners shall be required.

Section 23.3 Board of Directors Limitations: The Board of Directors may not act on behalf of the Association to amend this Declaration, to terminate the Community or to elect members of the Board of Directors or determine the qualifications, powers and duties or terms of office of Board of Directors members, but the Board of Directors may fill vacancies in

its membership for the unexpired portion of any term, subject to the terms of the Bylaws and the provisions of the Act.

Section 23.4 Make Up of Board. Upon the termination of the Declarant Control Period, the Board of Directors shall consist of five Directors, two of whom shall be elected by the Owners of Units in Phase 1, two of whom shall be elected by the Owners of Units in Phase 2 and one of whom shall be elected by the Commercial Owners in Phase 1 and Phase 2. Matters pertaining to the election of Directors and their terms of office are described in and subject to the Bylaws.

ARTICLE 24 DISPUTE PROCEEDINGS

Section 24.1 Legal Proceedings. The Association, acting through the Board, shall have the power and the duty to reasonably defend the Association (and, in connection therewith, to raise counterclaims) in any pending or potential Proceeding. The Association, acting through the Board, shall have the power, but not the duty, to reasonably institute, prosecute, maintain and/or intervene in a Proceeding, in its own name, but only on matters affecting or pertaining to this Declaration or the Common Elements and as to which the Association is a proper party in interest, and any exercise of such power shall be subject to full compliance with the following provisions:

(a) Any Proceeding commenced by the Association: (i) to enforce the payment of an Assessment or an Assessment lien or other lien against an Owner as provided for in this Declaration, or (ii) to otherwise enforce compliance with the Governing Documents by, or to obtain other relief from, any Owner who has violated any provision thereof, or (iii) to protect against any matter which imminently and substantially threatens all of the health, safety and welfare of the Owners, or (iv) against a supplier, vendor, contractor or provider of services, pursuant to a contract or purchase order with the Association and in the ordinary course of business, or (v) for money damages wherein the total amount in controversy for all matters arising in connection with the action is not likely to exceed Ten Thousand Dollars (\$10,000.00) in the aggregate; shall be referred to herein as an "**Operational Proceeding**." The Board from time to time may cause an Operational Proceeding to be reasonably commenced and prosecuted, without the need for further authorization.

(b) Any and all pending or potential Proceedings other than Operational Proceedings shall be referred to herein as a "**Non-Operational Controversy**." To protect the Association and the Owners from being subjected to potentially costly or prolonged Non-Operational Controversies without full disclosure, analysis and consent; to protect the Board and individual Directors from any charges of negligence, breach of fiduciary duty, conflict of interest or acting in excess of their authority or in a manner not in the best interests of the Association and the Owners; and to ensure voluntary and well-informed consent and clear and express authorization by the Owners, strict compliance with all of the following provisions of this Section 24.1 shall be mandatory with regard to any and all Non-Operational Controversies commenced, instituted or maintained by the Board, including Proceedings governed by Article 27.

The Board shall first endeavor to resolve any Non-Operational Controversy by good faith negotiations with the adverse party or parties. In the event that such good faith negotiations fail to reasonably resolve the Non-Operational Controversy, the Board shall then endeavor in good faith to resolve such Non-Operational Controversy by mediation, provided that the Board shall not incur liability for or spend more than Ten Thousand Dollars (\$10,000.00) in connection therewith (provided that, if more than such amount sum is reasonably required in connection with such mediation, then the Board shall be required first to reasonably seek approval of a majority of the voting power of the Members for such additional amount for mediation before proceeding to either arbitration or litigation). In the event that the adverse party or parties refuse mediation, or if such good faith mediation still fails to reasonably resolve the Non-Operational Controversy, the Board shall not be authorized to commence, institute or maintain any Proceeding of such Non-Operational Controversy until the Board has fully complied with the following procedures:

(1) The Board shall first investigate the legal merit, feasibility and expense of prosecuting the Non-Operational Controversy, by obtaining the written opinion of a licensed Nevada attorney regularly residing in Clark County, Nevada, with a Martindale-Hubbell rating of "av", expressly stating that such attorney has reviewed the underlying facts and data in sufficient, verifiable detail to render the opinion, and expressly opining that the Association has a substantial likelihood of prevailing on the merits with regard to the Non-Operational Controversy, without substantial likelihood of incurring any material liability with respect to any counterclaim which may be asserted against the Association. The Board shall be authorized to spend up to an aggregate of Ten Thousand Dollars (\$10,000.00) to obtain such legal opinion, including all amounts paid to the attorney therefor, and all amounts paid to any consultants, contractors and/or experts preparing or processing reports and/or information in connection therewith. The Board may increase the Ten Thousand Dollar (\$10,000.00) limit, with the express consent of more than fifty percent (50%) or more of all of the Members of the Association, at a special meeting called for such purpose.

(2) The attorney opinion letter shall also contain the attorney's best good faith estimate of the aggregate maximum "not-to-exceed" amount of legal fees and costs, including court costs, costs of investigation and all further reports or studies, costs of court reporters and transcripts, and costs of expert witnesses and forensic specialists (all collectively, "**Quoted Litigation Costs**") which are reasonably expected to be incurred for prosecution to completion (including the basis on which attorneys fees and costs would be calculated for any appeal) of the Non-Operational Controversy. The opinion letter shall also include a draft of any proposed fee agreement with such attorney. If the attorney's proposed fee arrangement is contingent, the Board shall nevertheless obtain the Quoted Litigation Costs with respect to all costs other than legal fees, and shall also obtain a written draft of the attorney's proposed contingent fee agreement. (Such written legal opinion, including the Quoted Litigation Costs, and also including any proposed fee agreement, contingent or non-contingent, are collectively referred to herein as the "**Attorney Letter**"). The Attorney Letter shall also set forth the

expected length of the Proceeding and the expected impact on the Members of the Association and the individual Units and Owners.

(3) Upon receipt and review of the Attorney Letter, if two-thirds (2/3) or more of the Board affirmatively vote to proceed with the institution or prosecution of, and/or intervention in, the Non-Operational Controversy, the Board thereupon shall duly notice and call a special meeting of the Members. The written notice to each Member of the Association shall include a copy of the Attorney Letter, including the Quoted Litigation Costs and any proposed fee agreement, contingent or non-contingent, together with a written report ("**Specific Assessment Report**") prepared by the Board: (A) itemizing the amount necessary to be assessed to each Member ("**Special Litigation Assessment**"), on a monthly basis, to fund the Quoted Litigation Costs, and (B) specifying the probable duration and aggregate amount of such Special Litigation Assessment. At the special meeting, following review of the Attorney Letter, Quoted Litigation Costs, and the Specific Assessment Report, and full and frank discussion thereof, including balancing the desirability of instituting, prosecuting and/or intervening in the Non-Operational Controversy against the desirability of accepting any settlement proposals from the adversary party or parties, the Board shall call for a vote of the Members, whereupon: (x) if not more than eighty percent (80%) of the total voting power of the Association votes in favor of pursuing such Non-Operational Controversy and levying the Special Litigation Assessment, then the Non-Operational Controversy shall not be pursued further, but (y) if more than eighty percent (80%) of the total voting power of the Association (i.e., more than eighty percent (80%) of all of the Members of the Association) affirmatively vote in favor of pursuing such Non-Operational Controversy, and in favor of levying a Special Litigation Assessment on the Members in the amounts and for the duration set forth in the Specific Assessment Report, then the Board shall be authorized to proceed to institute, prosecute, and/or intervene in the Non-Operational Controversy. In such event, the Board shall engage the attorney who gave the opinion and quote set forth in the Attorney Letter, which engagement shall be expressly subject to the Attorney Letter. The terms of such engagement shall require (i) that the attorney shall be responsible for all attorneys' fees and costs and expenses whatsoever in excess of one hundred twenty percent (120%) of the Quoted Litigation Costs, and (ii) that such attorney shall provide, and the Board shall distribute to the Members, not less frequently than quarterly, a written update of the progress and current status of, and the attorney's considered prognosis for, the Non-Operational Controversy, including any offers of settlement and/or settlement prospects, together with an itemized summary of attorneys fees and costs incurred to date in connection therewith.

(4) In the event of any bona fide settlement offer from the adverse party or parties in the Non-Operational Controversy, if the Association's attorney advises the Board that acceptance of the settlement offer would be reasonable under the circumstances, or would be in the best interests of the Association, or that the attorney no longer believes that the Association is assured of a substantial likelihood of prevailing on the merits without prospect of material liability on any

counterclaim, then the Board shall have the authority to accept such settlement offer. In all other cases, the Board shall submit any settlement offer to the Owners, who shall have the right to accept any such settlement offer upon a majority vote of all of the Members of the Association.

(c) In no event shall any Association Reserve Fund be used as the source of funds to institute, prosecute, maintain and/or intervene in any Proceeding (including, but not limited to, any Non-Operational Controversy). Association Reserve Funds, pursuant to Article 17, are to be used only for the specified repairs, replacements and restorations of Common Elements, and for no other purpose whatsoever.

(d) Any provision in this Declaration notwithstanding: (i) other than as set forth in this Section 24.1, the Association shall have no power whatsoever to institute, prosecute, maintain, or intervene in any Proceeding, (ii) any institution, prosecution, or maintenance of, or intervention in, a Proceeding by the Board without first strictly complying with, and thereafter continuing to comply with, each of the provisions of this Section 24.1, shall be unauthorized and ultra vires (i.e., an unauthorized and unlawful act, beyond the scope of authority of the corporation or of the Person(s) undertaking such act) as to the Association, and shall subject any Director who voted or acted in any manner to violate or avoid the provisions and/or requirements of this Section 24.1 to personal liability to the Association for all costs and liabilities incurred by reason of the unauthorized institution, prosecution, or maintenance of, or intervention in, the Proceeding; and (iii) this Section 24.1 may not be amended or deleted at any time without the express prior written approval of both: (1) Members representing not less than seventy-five percent (75%) of the total voting power of Association; (2) not less than seventy-five percent (75%) of the total voting power of the Board of Directors; and (3) so long as Declarant owns any portion of the Property or the Annexable Property, Declarant and any purported amendment or deletion of this Section 24.1, or any portion hereof, without both of such express prior written approvals shall be void. Without limiting anything contained in this Section 24.1, a Proceeding which is commenced prior to satisfying all of the requirements of this Section 24.1, but subsequently ratified shall be deemed to be in violation of this Section 24.1.

ARTICLE 25 OPEN MEETINGS

Section 25.1 Access. All meetings of the Board of Directors will be open to the Owners and to the Declarant, except as hereinafter provided.

Section 25.2 Executive Sessions. Meetings of the Board of Directors may be held in executive session, without giving notice and without the requirement that they be open to Owners, only if the action taken at the executive session involves (i) consultation with the Association's attorney regarding proposed or pending litigation which consultation involves privileged attorney-client information; (ii) personal matters; (iii) alleged violations of the Governing Documents committed by an Owner; or (iv) any other matter permitted by Law to be discussed in an executive session.

ARTICLE 26
CONDEMNATION

If part or all of the Community is taken by any Person having the authority of eminent domain, all compensation and damages for and on account of the taking shall be payable in accordance with the Act (NRS 116.1107).

ARTICLE 27
ALLEGED DEFECTS: RIGHT TO CURE AND ARBITRATION:
DISCLAIMER OF WARRANTIES AND IMPORTANT NOTICES

Section 27.1 Declarant's Right to Cure: Intention. It is Declarant's intent that all Improvements of every type and kind which may be installed by Declarant as part of the Community, including, but not limited to, Buildings, Balconies, Recreational Facilities, patios, stairs, sidewalks, driveways, streets, fences, walls, landscaping, signs, utility pipes, lines or wires, sewer and drainage systems and grading on all of the Units and Common Elements within the Community (collectively, the "**Declarant Improvements**") be of a quality that is consistent with construction and development practices for developments of this type. Nevertheless, due to the complex nature of construction and the subjectivity involved in evaluating such quality, disputes may arise as to whether a defect exists and Declarant's responsibility therefor. It is Declarant's intent to resolve all disputes and claims regarding "Alleged Defects" (as defined below) amicably, and without the necessity of time consuming and costly litigation, which will affect all Owners. Accordingly, all Owners and the Association, the Board of Directors, the ARC shall be bound by the claim resolution procedure set forth in this Article 27.

(a) Declarant's Right to Cure. If the Association, the Board of Directors, the ARC or any Owner (as applicable, collectively, "**Claimant**") claim, contend or allege that any portion of a Unit and/or any Declarant Improvements are defective or incomplete, or that Declarant or its agents, consultants, contractors or subcontractors (collectively, "**Declarant's Contractors**") were negligent in the planning, design, engineering, grading, construction or other development within the Community (collectively, an "**Alleged Defect**"), Declarant hereby reserves the right to inspect, cure, repair and/or replace such Alleged Defect as set forth herein.

(b) Notice to Declarant. If a Claimant discovers an Alleged Defect, Claimant shall, within a reasonable time after discovery, notify Declarant, in writing, to the attention of Chris Yergensen at 4230 South Decatur Blvd., Suite 200, Las Vegas, Nevada 89103, or such other address at which Declarant maintains its principal place of business or which Declarant may provide for notice pursuant to a Recorded written notice of address making reference to this Section, of the specific nature of such Alleged Defect ("**Notice of Alleged Defect**"). The President of the Association or an appointed representative of the President shall annually make a visual inspection the Limited Common Elements and the Common Elements to ensure the integrity of the building.

(c) Right to Enter, Inspect, Cure and/or Replace. Immediately after the receipt by Declarant of a Notice of Alleged Defect or the independent discovery of an Alleged Defect by Declarant or any Governmental Authority, and for a reasonable time thereafter, as part

of Declarant's reservation of right, Declarant and any applicable Declarant Contractors shall have the right, upon reasonable notice to Claimant and during normal business hours, to enter onto or into, as applicable, any Unit or the Common Elements, and/or any Declarant Improvements for the purposes of inspecting and, if deemed necessary by Declarant or any applicable Declarant Contractors, curing, repairing and/or replacing the Alleged Defect. In conducting such inspection, cure, repairs and/or replacement, Declarant or any applicable Declarant Contractors shall be entitled to take any actions as it shall deem reasonable and necessary under the circumstances.

(d) Legal Actions. No Claimant shall initiate any Proceeding against Declarant alleging (i) damages for the costs of curing, repairing, or replacing any Alleged Defect, (ii) the diminution in value of any real or personal property resulting from such Alleged Defect or (iii) consequential damages resulting from such Alleged Defect, unless and until Claimant has (1) delivered to Declarant a Notice of Alleged Defect and (2) Declarant or any applicable Declarant Contractors has, within one hundred twenty (120) days after its receipt of the Notice of Alleged Defect, either (y) failed to cure, repair or replace the Alleged Defect or (z) if the Alleged Defect cannot reasonably be cured, repaired or replaced within such one hundred twenty (120) day period, failed to commence such cure, repair or replacement of the Alleged Defect and, thereafter, failed to pursue diligently such cure, repair or replacement to completion. During any such period while Declarant or any applicable Declarant Contractors is diligently pursuing to completion the cure, repair, or replacement of the Alleged Defect, Claimant shall not stop, restrict, hinder, interrupt or otherwise interfere with any reasonable action or activity taken by Declarant, its employees, agents, or any applicable Declarant Contractors, to inspect, cure, repair or replace the Alleged Defect, whether or not such action or activity is taken, or is proposed to be taken, on property owned by Claimant.

(e) No Additional Obligations. Nothing set forth in this Article shall be construed to impose any obligation on Declarant or any applicable Declarant Contractors to inspect, cure, repair or replace any item or Alleged Defect for which Declarant is not otherwise obligated to do under applicable law or any limited warranty provided by Declarant or any applicable Declarant Contractors in connection with the sale of the Units and/or the Declarant Improvements constructed thereon, nor shall anything set forth in this Article constitute an express or implied representation, warranty or guarantee by Declarant or any applicable Declarant Contractors concerning any Declarant Improvements, the Property, any Annexable Property or the Community. The right of Declarant or any applicable Declarant Contractors to enter, inspect, cure, repair and/or replace reserved hereby shall be irrevocable and may not be waived and/or terminated except by a writing, in recordable form, executed and Recorded by Declarant in the Recording Office.

(f) NRS Chapter 40. The terms, conditions and procedures set forth in this Article 27 are in addition to the terms, conditions and procedures set forth in NRS Chapter 40, and shall, to the maximum extent permitted by law, be exercised by any Claimant prior to instituting a claim and/or commencing an action under Chapter 40 for "constructional defects" as defined in Chapter 40; provided, however, the procedures set forth in this Article 27 shall not abrogate any of the requirements of Claimant under Chapter 40, inclusive of the requirement that Claimant, at the end of the foregoing one hundred twenty (120) day period, notify Declarant in writing of any alleged constructional defects which Declarant failed to cure during that one

hundred twenty (120) day period at least sixty (60) days prior to bringing an action under Chapter 40 (subject to the limitations contained in Section 27.1(a)). Such notification shall be given in a format that substantially complies with the notice requirements of NRS 40.645. Further, to the extent any provisions of this Article 27 are inconsistent with the provision of Chapter 40, the provisions of this Article 27 shall apply to the maximum extent permitted by law and shall extend all the time periods set forth in NRS 40.645 until expiration of the one hundred twenty (120) day period set forth in this Article 27. It is the express intent of Declarant to provide, by this Article 27, an initial one hundred twenty (120) day period for Declarant to investigate and cure any constructional defects alleged by Claimant before the provisions of Chapter 40 are implemented and initiated by Claimant including the notice of claim, inspection, offer of settlement, and repair provisions of Chapter 40.

Section 27.2 Arbitration of Disputes:

DECLARANT AND EACH CLAIMANT, BY ACCEPTING TITLE TO OR AN INTEREST IN ANY PORTION OF THE PROPERTY, AGREE AS FOLLOWS:

(a) Definitions. For purposes of this Section 27.2, the following definitions shall apply:

(i) **"Declarant"** includes not only the Person executing this Declaration, but also its respective predecessors, successors, subsidiaries, and/or affiliated corporations, parent companies, sister companies, divisions, or other entities, partners, joint venturers, the general contractors for the Community, affiliates, owners, officers, directors, employees, shareholders, agents, and assigns.

(ii) **"Claimant"** means one or more Owners, the Association, the Board and their respective successors, heirs, assigns, subsequent Owners, and any third party claiming any right or interest in the Property through them.

(b) Arbitration is Sole Remedy. Subject to Declarant's right to cure any Alleged Defect pursuant to the provisions of this Article, the arbitration procedures described below shall be the sole, exclusive, and final means of resolving any "Dispute" between Declarant and a Claimant and/or between their respective successors-in-interest. As used herein, **"Dispute"** shall mean any claim, cause of action (whether at law or in equity) or disagreement of any nature whatsoever (**"Claim"**) arising from, in connection with or by reason of the sale of any portion of the Property to Claimant, construction or installation of any improvements on the Property or Community, the grading of the Property, performance of customer service work by or on behalf of Declarant, or any work or services performed by or on behalf of Declarant on or in connection with any Unit or other portion of the Property or Community, other than a Claim governed by the mandatory arbitration provisions of NRS 38.300 to 38.360. Disputes subject to the arbitration procedures set forth in this Article include Claims for real and personal property damage, construction defects (whether patent or latent), including any Claims subject to the provisions of NRS 40.600 to 40.695 (as may be amended from time to time, the **"Construction Defect Act"**), bodily injury or wrongful death, nondisclosure, misrepresentation, fraud, emotional distress, monetary damages, rescission of any agreement, enforceability of this Article 27, and/or specific

performance. As a condition to Declarant's obligation to arbitrate Disputes under this Section 27.2, Declarant may require in its sole discretion that any or all third parties, including contractors, subcontractors, suppliers, consultants, partners, affiliates, or agents of Declarant (collectively, the "**Third Parties**") who may have liability in connection with the Dispute, including any right of contribution or indemnity Declarant may have against such Third Party, shall have agreed to be participants in and bound by the arbitration procedure described in this Section 27.2. Notwithstanding the foregoing, Declarant may, in its sole discretion, waive the foregoing condition.

(c) Applicable Procedures. With respect to any Dispute governed by the Construction Defect Act, after all prerequisites to initiating a civil action under the Construction Defect Act are satisfied or waived in accordance with the provisions of that act, and with respect to all other Disputes, at all times, the following procedures shall apply thereto:

(i) Any dispute between Claimant and Declarant where the claim of damage is Ten Thousand Dollars (\$10,000) or less, including Disputes governed by the provisions of the Construction Defect Act where the estimated cost of repair or replacement of the item(s) in dispute is Ten Thousand Dollars (\$10,000) or less, shall be within the sole jurisdiction of the Justice Court and arbitration (as set forth in this Article 27) shall not be applicable unless both Claimant and Declarant so agree in writing.

(ii) Any Dispute between Claimant and Declarant where the claim of damage is more than Ten Thousand Dollars (\$10,000), including disputes governed by the provisions of the Construction Defect Act where the estimated cost of repair or replacement of the item(s) in dispute is more than Ten Thousand Dollars (\$10,000), , shall, upon request by either Claimant or Declarant, be submitted to arbitration conducted in accordance with the Rules for Residential Construction Disputes then in effect with the American Arbitration Association ("AAA") or, in the event of the non-existence or revocation of the Rules for Residential Construction by the AAA, the AAA Commercial Arbitration Rules shall apply, in either case, as such rules are expressly amended hereby. Arbitration shall be initiated by the filing by either party of a written Demand for Arbitration with the AAA, accompanied by the required filing fee, and concurrently mailing a copy of the demand to the other party. Unless Claimant and Declarant agree otherwise, the Procedures for Large, Complex Construction Cases issued by the AAA shall apply to all cases to the extent such procedures are not in conflict with the Federal Arbitration Act or the Uniform Arbitration Act.

(d) Notice of Arbitration. Before any Dispute can be submitted to arbitration, the party wishing to submit the Dispute must first, at least sixty (60) days prior to filing a Demand for Arbitration, give the other party written notice of the Dispute describing with reasonable specificity the actions that should be taken by the other party to resolve the Dispute. With respect to any Dispute regulated by the Construction Defect Act, this sixty (60) day notice, if given by Claimant, shall comply with the requirements of NRS 40.645. Each party may, prior to the arbitration hearing, conduct discovery as provided in NRS 40.680, and Nevada Rules of Civil Procedure Section V, Rules 26 to 37, inclusive. The provisions of this Section 27.2 are

intended to be binding upon Claimant and Declarant for all claims regulated by the Construction Defect Act, after all the requirements of NRS 40.645 to 40.675 for resolution of the dispute prior to commencement of a civil action have been satisfied or waived by Claimant and Declarant in accordance with such statutes and in place and instead of any court action described therein.

(e) Applicable Rules of Arbitration. The arbitration shall be commenced in a prompt and timely manner and shall take place in the office of the AAA nearest to the Property, at such time and date selected by the arbitrator unless otherwise agreed by the parties. Any dispute regarding the scope of the arbitration or the procedures to be followed in the arbitration shall be resolved by the arbitrator. Only compensatory damages as recognized by Nevada law, are recoverable and the arbitrator chosen for the arbitration shall have no authority to award damages for emotional distress, consequential, punitive, or any other nature of damages. When applicable to one or more particular Units, in no event shall one party's liability to the other exceed the original purchase price of the applicable Unit(s). The combined cost (fee and expenses) of the AAA and of the arbitrator shall be apportioned equally between Claimant and Declarant. Each party shall bear its own attorneys' fees and other costs. The award rendered by the arbitrator must be accompanied by a written decision of the arbitrator that contains written findings of fact and conclusions of law and, once so rendered, shall be binding, final and non-appealable as to all parties in the arbitration to the fullest extent permitted by Nevada law. Notwithstanding the preceding sentence, an appeal may be taken if any award is based on any deviation by the arbitrator from the terms of this Article 27. In furtherance thereof, and to the fullest extent permitted by Nevada law, Claimant and Declarant waive the provisions of NRS 38.145. Judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction. Except as otherwise expressly set forth in this Section, the arbitrator shall base his or her decision on the substantive law of Nevada.

To the maximum extent allowed by law, no statutes of limitation and/or repose shall be tolled, or the running thereof otherwise stopped, by any notice, claim, or communication between Claimant and Declarant. In addition to the AAA Rules for Residential Construction Disputes (or other then applicable AAA rules as provided above), the following additional rules shall govern the arbitration: (i) with the exception of contractors, subcontractors, suppliers, consultants, partners, affiliates, and agents added by Declarant as provided herein, the parties to the arbitration shall be limited to Claimant and Declarant, and (ii) Claimant and Declarant shall each pay one-half (1/2) of the initial fee for such arbitration and all of its own attorneys' fees and other costs in connection therewith, but the fees and costs of arbitration shall ultimately be borne as determined by the arbitrator.

(f) Consolidation. Declarant may, in its sole discretion, consolidate claims of any other Person(s) who are buying or have bought Units from Declarant in the Las Vegas metropolitan area with any Dispute, in the event that such Claims are, in Declarant's opinion, similar in nature to a Dispute submitted to arbitration hereunder. Further, if Declarant elects to consolidate such Claims with a Dispute, if the aggregate amount of damage claimed by the Claimant and such Person(s) exceeds Ten Thousand Dollars (\$10,000), the procedures governing such consolidated matters will be those governing Disputes where the claim of damage is more than Ten Thousand Dollars (\$10,000) as set forth in Section 27.2(c)(ii).

(g) Severability. If any provision or aspect of this Section 27.2 is determined by a court of competent jurisdiction to be invalid or unenforceable, or if any provision or aspect of this Section 27.2 is superseded or rendered unenforceable by any Law which becomes effective after the date this Declaration is Recorded, the remaining provisions of this Section 27.2 shall nevertheless remain in full force and effect and continue to be binding. If there is any conflict between this Section 27.2 and the other provisions of this Declaration, including the other provisions of this Article 27, the provisions of this Section 27.2 shall control.

(h) Effect. By accepting a deed conveying an interest in a portion of the Property, each Claimant: (i) for Disputes for which the amount in controversy exceeds Ten Thousand Dollars (\$10,000) (including Disputes aggregated as provided in Section 27.2(f) above), agrees to have any such Dispute decided by neutral, binding arbitration as set forth above and waives any rights such Claimant may possess to have any such Dispute litigated in a court of law, including in a trial by jury; (ii) in connection with any Dispute, waives any rights such Claimant may have to recover: (1) damages for emotional distress, and (2) any damages other than direct, compensatory damages as recognized by Nevada law, when applicable to one or more particular Unit(s), in an amount not to exceed the original purchase price of the Units as originally conveyed by Declarant. By way of illustration and not limitation, the damages which each Claimant waives any right to recover include: punitive, exemplary, indirect, or consequential. Furthermore, by accepting a Deed, each Claimant also waives any rights it may have to discovery and appeal, except as those rights are expressly included in this Section 27.2. If a Claimant fails or refuses to submit to arbitration as set forth herein, such Claimant may be compelled by Nevada law to participate in good faith in such arbitration proceedings or may have an unfavorable and binding decision rendered by the arbitrator, notwithstanding such refusal of failure to participate in arbitration. Each Claimant acknowledges that its agreement to the arbitration provisions set forth herein is voluntary.

Section 27.3 Disclaimer of Warranties: Declarant hereby disclaims any and all express or implied warranties as to design, construction, sound transmission, noise from exterior conditions (whether from nearby construction, vehicular or air passage or otherwise), furnishing and equipping of the Property and the Community, except only those that cannot be disclaimed pursuant to NRS 116.4115(2) of the Act, to the extent applicable and to the extent that same have not expired by their terms. As to such warranties which cannot be disclaimed, and to other claims, if any, which can be made as to the aforesaid matters, all incidental and consequential damages arising therefrom are hereby disclaimed and the statute of limitation for bringing any such claim shall be limited to a maximum of two (2) years from the Recording of this Declaration.

All Owners, by virtue of acceptance of title to their respective Units (whether from the Declarant or another party) shall be deemed to have automatically waived all of the aforesaid disclaimed warranties and incidental and consequential damages.

Section 27.4 View Impairment. NEITHER DECLARANT NOR THE ASSOCIATION GUARANTEES OR REPRESENTS THAT ANY VIEW FROM ANY UNIT, OVER AND ACROSS THE PROPERTY, THE VIEW OF ANY COMMON ELEMENTS FROM UNITS ADJACENT TO THE COMMON ELEMENTS, INCLUDING ANY VIEW OF THE "LAS VEGAS STRIP" OR MOUNTAINS WILL BE PRESERVED WITHOUT

IMPAIRMENT. DECLARANT AND THE ASSOCIATION SHALL NOT HAVE ANY OBLIGATION TO RELOCATE, PRUNE, OR THIN TREES OR OTHER LANDSCAPING THAT MAY LIMIT OR IMPAIR THE VIEW FROM A UNIT. ADDITIONAL AND OTHER IMPROVEMENTS, TREES AND OTHER LANDSCAPING MAY BE ADDED TO THE COMMON ELEMENTS FROM TIME TO TIME SUBJECT TO APPLICABLE LAW AND THE GOVERNING DOCUMENTS.

Section 27.5 Disclosures and Disclaimers of Certain Other Matters.

Without limiting any other provision in this Declaration, by acceptance of a Deed, each Owner shall conclusively be deemed to understand, and to have acknowledged and agreed to, all of the following:

(a) that the Property is or may be located within or nearby certain airplane flight patterns, and/or subject to significant levels of airplane traffic noise; and that Declarant hereby specifically disclaims any and all representations or warranties, express and implied, with regard to or pertaining to airplane flight patterns, and/or airplane noise; and each Owner hereby waives and releases Declarant from any and all claims arising from or relating to airplane flight patterns or airplane noise; and

(b) that the Community is or may be located adjacent to or nearby major roadways, and subject to levels of traffic thereon and noise, dust, and other nuisance from such roadways and vehicles; that Declarant hereby specifically disclaims any and all representations or warranties, express and implied, with regard to or pertaining to roads and/or noise, dust, and other nuisance therefrom; and each Owner hereby waives and releases Declarant from any and all claims arising therefrom or relating thereto; and

(c) that construction or installation of Improvements by Declarant, other Owners, or third parties, involves the operation of noisy equipment, generates dust and traffic, and may impair or eliminate the view, if any, of or from any Unit and/or Common Elements; and each Owner hereby waives and releases Declarant from any and all claims arising from or relating to such activities, impairment or elimination including, but not necessarily limited to, any claims for nuisance or health hazards; and

(d) that construction is an industry inherently subject to variations and imperfections, and items that do not materially affect safety or structural integrity shall be deemed "expected minor flaws" (including, but not limited to: reasonable wear, tear or deterioration; shrinkage, swelling, expansion or settlement; squeaking, peeling, chipping, cracking, or fading; touch-up painting; minor flaws or corrective work; and like items) and not constructional defects; and

(e) that: (1) the finished construction of the Units and the Common Elements, while within the standards of the industry in metropolitan Las Vegas, Clark County, Nevada, and while in substantial compliance with the plans and specifications, will be subject to expected minor flaws; and (2) issuance of a Certificate of Occupancy by the relevant Governmental Authority with jurisdiction shall be deemed conclusive evidence that the relevant Improvement has been built within such industry standards; and

(f) that creation of the Property shall not create any presumption, or duty whatsoever of Declarant or the Association (or their respective officers, directors, managers, employees, agents, and/or contractors), with regard to security or protection of person or property within or adjacent to the Property and no warranty or assurances are given with respect to the hours of operation of any such security feature; and

(g) that Declarant presently plans to develop only those Units which have already been included as part of the Property, and that Declarant has no obligation with respect to future phases, plans, zoning, or development of other real property contiguous to or nearby those Units; (b) proposed or contemplated residential and other developments may have been illustrated in the plot plan or other sales literature distributed by a Declarant's sales personnel, and/or Owner may have been advised of the same in discussions with sales personnel; however, notwithstanding such plot plans, sales literature, or discussions or representations by sales personnel or otherwise, Declarant is under no obligation to cause the construction of such future or planned developments or units, and the such construction shall not occur in the event that Declarant, for any reason whatsoever, decides not to cause such construction to occur; (c) Owner is not entitled to rely upon, and in fact has not relied upon, the presumption or belief that the same will be built; and (d) no sales personnel or any other person in any way associated with Declarant has any authority to make any statement contrary to the provisions set forth in the foregoing or any provision of the written purchase agreement.

Section 27.6 Safety. THE ASSOCIATION, THE BOARD, THE MANAGER AND DECLARANT SHALL NOT IN ANY WAY BE CONSIDERED INSURERS OR GUARANTORS OF SECURITY WITHIN THE COMMUNITY, NOR SHALL ANY OF THE ABOVE PERSONS BE HELD LIABLE FOR ANY LOSS OR DAMAGE BY REASON OF FAILURE TO PROVIDE ADEQUATE SECURITY OR INEFFECTIVENESS OF SECURITY MEASURES UNDERTAKEN. NO REPRESENTATION OR WARRANTY IS MADE THAT ANY SYSTEMS OR MEASURES, INCLUDING ANY MECHANISM OR SYSTEM FOR LIMITING ACCESS TO ANY PORTION OF THE PROPERTY, CANNOT BE COMPROMISED OR CIRCUMVENTED, NOR THAT ANY SUCH SYSTEMS OR SECURITY MEASURES UNDERTAKEN WILL IN ALL CASES PREVENT LOSS OR PROVIDE THE DETECTION OR PROTECTION FOR WHICH THE SYSTEM IS DESIGNED OR INTENDED.

EACH OWNER ACKNOWLEDGES, UNDERSTANDS, AND COVENANTS TO INFORM ITS GUESTS AND ALL OCCUPANTS OF ITS UNIT THAT THE ASSOCIATION, ITS BOARD, COMMITTEES AND ALL OTHER PERSONS INVOLVED WITH THE GOVERNANCE, MAINTENANCE AND MANAGEMENT OF THE COMMUNITY, AS WELL AS DECLARANT, ARE NOT INSURERS OF SAFETY OR SECURITY WITHIN THE COMMUNITY. ALL OWNERS AND OCCUPANTS OF ANY UNIT AND THEIR GUESTS ASSUME ALL RISKS OF PERSONAL INJURY AND LOSS OR DAMAGE TO PERSONS, UNITS AND THE CONTENTS OF UNITS AND FURTHER ACKNOWLEDGE THAT THE ASSOCIATION, ITS BOARD AND COMMITTEES, THE MANAGER AND DECLARANT HAVE MADE AND MAKE NO REPRESENTATIONS OR WARRANTIES, NOR HAS ANY OWNER, OCCUPANT, OR ANY GUEST OF ANY OWNER OR OCCUPANT RELIED UPON ANY REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED,

RELATIVE TO ANY ENTRY GATE, PATROLLING OF THE PROPERTY, ANY FIRE PROTECTION SYSTEM, BURGLAR ALARM SYSTEM, COMMUNICATION SYSTEM, OR OTHER SECURITY SYSTEMS RECOMMENDED OR INSTALLED OR ANY SECURITY MEASURES UNDERTAKEN WITHIN ANY PORTION OF THE PROPERTY.

Section 27.7 Releases. BY ACCEPTANCE OF A DEED TO A LOT, EACH OWNER, FOR ITSELF AND ALL PERSONS CLAIMING UNDER SUCH OWNER, SHALL CONCLUSIVELY BE DEEMED TO HAVE ACKNOWLEDGED AND AGREED, TO WAIVE AND RELEASE DECLARANT, THE ASSOCIATION, AND EACH OF THEIR RESPECTIVE OFFICERS, MANAGERS, PARTNERS, MEMBERS, AGENTS, EMPLOYEES, SUPPLIERS AND CONTRACTORS, FROM ANY AND ALL LOSS, DAMAGE OR LIABILITY (INCLUDING, BUT NOT LIMITED TO, ANY CLAIM FOR NUISANCE OR HEALTH HAZARDS) RELATED TO OR ARISING IN CONNECTION WITH ANY DISTURBANCE, INCONVENIENCE, INJURY, OR DAMAGE RESULTING FROM OR PERTAINING TO ALL AND/OR ANY ONE OR MORE OF THE CONDITIONS, ACTIVITIES, OCCURRENCES DESCRIBED IN SECTIONS 27.4, 27.5 or 27.6.

ARTICLE 28 MISCELLANEOUS PROVISIONS

Section 28.1 Enforcement:

(a) Declarant, the Association and any Owner shall have the right to enforce by any proceedings at law or in equity, each covenant, condition, restriction and reservation now or hereafter imposed by the provisions of this Declaration. Each Owner shall have a right of action against the Association for any failure by the Association to comply with the provisions of the Governing Documents. Failure by the Association or any Owner to enforce any covenant, condition, restriction or reservation contained herein shall not be deemed a waiver or the right to do so thereafter.

(b) In the event the Association, Declarant, or any Owner shall commence any Proceeding (to the extent permitted by the Governing Documents) to enforce any of the covenants, conditions, restrictions or reservations herein contained, the prevailing party in such litigation shall be entitled to costs of suit and such attorney's fees as the Court may adjudge reasonable and proper. The "prevailing party" shall be the party in whose favor a final judgment is entered.

Section 28.2 Captions. The captions contained in the Governing Documents are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of the Governing Documents or the intent of any provision thereof.

Section 28.3 Rules of Construction. As used in this Declaration or any exhibit or schedule referred to herein (collectively, "**Operative Document**"), unless the context otherwise requires:

(a) any term defined below by reference to another instrument or document shall continue to have the meaning ascribed thereto whether or not such other instrument or document remains in effect;

(b) words importing the singular include the plural and vice versa;

(c) words importing a gender include any gender;

(d) a reference to a part, clause, section, article, exhibit or schedule is a reference to a part, clause, section and article of, and exhibit and schedule to, such Operative Document; unless otherwise indicated, a reference to a Section, Article, Exhibit or Schedule in an Operative Document means a Section, Article, Exhibit or Schedule of that Operative Document;

(e) a reference to any statute, regulation, proclamation, ordinance, code or law includes all statutes, regulations, proclamations, ordinances or laws amending, supplementing, supplanting, varying, consolidating or replacing them, and a reference to a statute includes all regulations, proclamations and ordinances issued or otherwise applicable under that statute;

(f) a reference to any agreement (including any Operative Document), document or instrument means such agreement, document or instrument as amended, modified, restated or supplemented and in effect from time to time in accordance with the terms thereof and, if applicable, the terms of the other Operative Documents;

(g) a reference to a Person includes that Person's successors and assigns but, if applicable, only if such successors and assigns are permitted by the Operative Documents, and reference to a Person in a particular capacity excludes such Person in any other capacity or individually;

(h) a reference to "including" (or "includes") means including (or includes) without limiting the generality of any description preceding such term and for purposes hereof the rule of ejusdem generis shall not be applicable to limit a general statement followed by or referable to an enumeration of specific matters to matters similar to those specifically mentioned;

(i) all exhibits and schedules to any Operative Document, either as originally existing or as the same may from time to time be supplemented, modified or amended, are incorporated into such Operative Document by this reference. A matter disclosed on any schedule shall be deemed disclosed on all schedules;

(j) "hereunder", "hereof", "hereto", "herein" and words of similar import shall be deemed references to an Operative Document as a whole and not to any particular Article, Section or other provision thereof;

(k) relative to the determination of any period of time, "from" means "from and including" and "to" means "to but excluding";

(l) a term has the meaning assigned to it and any of the terms defined in this Agreement may be used in the singular or the plural depending on the reference; and

(m) "or" is not exclusive.

Section 28.4 Waiver. No provision contained in the Governing Documents is abrogated or waived by reason of any failure to enforce the same, irrespective of the number of violations or breaches which may occur.

Section 28.5 Invalidity. The invalidity of any provision of the Governing Documents does not impair or affect in any manner the validity, enforceability or effect of the remainder, and if a provision is invalid, all of the other provisions of the Governing Documents shall continue in full force and effect.

Section 28.6 Security Interests. Any breach of any provision of this Declaration shall not defeat or render invalid the lien of any first priority Security Interest made in good faith and for value as to any Unit, or any part thereof, but such provisions, restrictions or covenants shall be binding and effective against any Owner whose title thereto is acquired by foreclosure, trustee's sale or otherwise.

Section 28.7 Conflict. The Governing Documents are intended to comply with the requirements of the Act in effect as of the date this Declaration is recorded, and the Governing Documents shall be interpreted, if at all possible, so as to be consistent with the Act. If there is any conflict between the Governing Documents and the provisions of the foregoing statutes, the provisions of the applicable statutes shall control. The Governing Documents are intended to be consistent with each other and shall be interpreted, to the extent possible, so as to be consistent with each other. Neither the Articles nor Bylaws shall, for any reason, be amended or otherwise changed so as to be inconsistent with this Declaration. If there should exist any ambiguity in any provision of the Articles or Bylaws, then such provision shall be construed so as to be consistent with the provisions of this Declaration. In the event of any conflict between this Declaration and any other Governing Document, this Declaration shall control.

Section 28.8 Notices. Any notice required or permitted to be given under this declaration ("Notice") shall be in writing. Notice may be given in any manner permitted under the Rules and the Act, including, if so permitted: U.S. mail; electronic telecommunication (i.e., fax or "e-mail") with confirmation of receipt; publication in the community newsletter delivered or mailed to each Owner (provided that such notice is clearly identified under a separate headline in the newsletter) or posting. If delivery is made by mail, Notice shall be deemed to have been delivered on the third day (other than a Sunday or a legal holiday) after a copy of the same has been deposited in the United States mail, postage prepaid, addressed to the Person at the address given by such Person to the Association for the purpose of service of notices, or to the residence of such Person which, in the case of any Owner, unless the Association is otherwise notified in writing, shall be deemed to be an Owner's Unit if no address has been given to the Association. Such address may be changed from time to time by Notice given by such Person to the Association.

Section 28.9 Unilateral Amendment By Declarant. Declarant may unilaterally amend this Declaration if such amendment is (i) necessary to bring any provision into compliance with any applicable Laws; (ii) necessary to enable any reputable title insurance company to issue title insurance coverage on the Units; (iii) required by an institutional or governmental lender or purchaser of mortgage loans, to enable such lender or purchaser to make or purchase mortgage loans on the Units; (iv) necessary to enable any Governmental Authority or reputable private insurance company or lender to insure or purchase mortgage loans on the Units; or (v) otherwise necessary to satisfy the requirements of any Governmental Authority. However, any such amendment shall not adversely affect the title to any Unit unless the Owner shall consent thereto in writing. So long as Declarant still owns property described in Exhibit "A" or Exhibit "B" for development as part of the Community, it may unilaterally amend this Declaration for any other purpose, provided the amendment has no material adverse effect upon right of any Owner.

Section 28.10 No Public Right or Dedication. Nothing contained in this Declaration shall be deemed to be a gift or dedication of all or any part of the Property to the public, or for any public use.

Section 28.11 No Representations or Warranties. No representations or warranties of any kind, express or implied, have been given or made by Declarant or its agents or employees in connection with the Community or any portion of the Community, or any Improvement thereon, its physical condition, zoning, compliance with applicable laws, fitness for intended use, or in connection with the subdivision, sale, operation, maintenance, cost of maintenance or taxes, except as specifically and expressly set forth in this Declaration.

Section 28.12 Term. This Declaration, including all of the covenants, conditions and restrictions hereof, shall run with and bind the Property for a term of sixty (60) years from the date this Declaration is Recorded. After such time, the covenants, conditions and restrictions contained herein, shall be automatically extended for successive periods of ten (10) years, unless an instrument is signed by the Owners of at least two-thirds (2/3) of the total number of Units in the Community and Recorded in the Recording Office within the year preceding the beginning of each successive period of ten (10) years, agreeing to change the terms of this Declaration, in whole or in part, or to terminate the same, in which case this Declaration shall be modified or terminated as specified herein.

IN WITNESS WHEREOF, Declarant has caused this Declaration to be executed as of the date set forth above.

"DECLARANT"

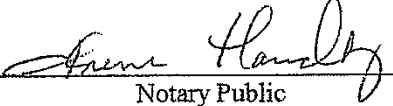
PANORAMA TOWERS I, LLC, a Nevada limited liability company

By: HALLIER PROPERTIES, LLC, a Nevada limited liability company, its manager

By: 
Laurence Hallier, its manager

STATE OF NEVADA)
) SS:
COUNTY OF CLARK)

This instrument was acknowledged before me on November 7, 2006, by Laurence Hallier, as Manager of Panorama Towers I, LLC


Notary Public
My commission expires: 4-4-2010

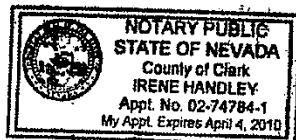


EXHIBIT "A"

THE LAND - LEGAL DESCRIPTION

Located in Clark County, Nevada and more particularly described as all of Panorama Towers I, as set forth by map thereof, recorded August 18, 2006, in Book 133, Page 43 of Plats, in Official Records, Clark County, Nevada Recorder.

EXHIBIT "B"

ANNEXABLE PROPERTY – LEGAL DESCRIPTION

Panorama Towers II (162-20-302-021)

THAT LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF NEVADA, COUNTY OF CLARK, DESCRIBED AS FOLLOWS:

THAT PORTION OF THE NORTHEAST QUARTER (NE ¼) OF THE SOUTHWEST QUARTER (SW ¼) OF SECTION 20, TOWNSHIP 21 SOUTH, RANGE 61 EAST, M.D.M., DESCRIBED AS FOLLOWS:

PARCEL TWO (2) AS SHOWN BY MAP THEROF IN FILE 108 OF PARCEL MAPS, PAGE 93 IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUTNY, NEVADA.

Panorama Towers III (162-20-210-012, 014)

PARCEL I (162-20-210-012)

Lot Twelve (12) of INTERSTATE INDUSTRIAL PARK, as shown by map thereof on file in Book 31 of Plats, Page 61 in the Office of the County Recorder of Clark County, Nevada.

EXCEPTING therefrom that portion conveyed to the County of Clark in that certain Grant Bargain, Sale Deed recorded April 4, 2001 in Book 20010404 as Document No. 00517, of Official Records, Clark County, Nevada.

PARCEL II (162-20-210-014)

Lot Thirteen (13) of INTERSTATE INDUSTRIAL PARK, as shown by map thereof on file in Book 13 of Plats, Page 61, in the Office of the County Recorder of Clark County, Nevada.

EXCEPTING therefrom that portion conveyed to the County of Clark in that certain Grant, Bargain, Sale Deed recorded June 3, 1999 in Book 990603 as Document No. 00298, of Official Records.

AND ALSO EXCEPTING that portion lying Northerly of the land Dedicated for Roadway Purposes in that certain Grant, Bargain, Sale Deed recorded June 3, 1999 in Book 990603 as Document No. 00298, of Official Records.

EXHIBIT "C"

COMMON ELEMENTS - LEGAL DESCRIPTION

All of the Common Elements as show on that particular map recorded August 18, 2006, in Book 133, Page 43 of Plats, in Official Records, Clark County, Nevada Recorder.

EXHIBIT "D"

TABLE OF ALLOCATED INTERESTS

TYPE	UNIT #	Percentage Ownership
	300	0.413%
	301	0.375%
	302	0.294%
	303	0.330%
	304	0.307%
	305	0.360%
	306	0.301%
	307	0.495%
	412	0.277%
	410	0.150%
A 2	400	0.313%
B	411	0.234%
C	409	0.364%
C1A	407	0.219%
D	405	0.236%
D1	403	0.222%
D2	401	0.201%
E	408	0.285%
E1	406	0.272%
E2	404	0.187%
E3	402	0.160%
A-3	512	0.278%
E-4	510	0.149%
A 2	500	0.312%
B	511	0.233%
C	509	0.360%
C1	507	0.320%
D	505	0.235%
D1	503	0.222%
D2	501	0.200%
E	508	0.286%
E1	506	0.271%
E2	504	0.187%
E3	502	0.160%
A-3	612	0.278%
E-4	610	0.149%
A 2	600	0.312%
B	611	0.233%
C	609	0.360%
C1	607	0.320%
D	605	0.235%
D1	603	0.222%
D2	601	0.200%
E	608	0.286%

D-1

E1	606	0.271%
E2	604	0.187%
E3	602	0.160%
A-3	712	0.278%
E-4	710	0.149%
A 2	700	0.312%
B	711	0.233%
C	709	0.360%
C1	707	0.320%
D	705	0.235%
D1	703	0.222%
D2	701	0.200%
E	708	0.286%
E1	706	0.271%
E2	704	0.187%
E3	702	0.160%
A-3	812	0.278%
E-4	810	0.149%
A 2	800	0.312%
B	811	0.233%
C	809	0.360%
C1	807	0.320%
D	805	0.235%
D1	803	0.222%
D2	801	0.200%
E	808	0.286%
E1	806	0.271%
E2	804	0.187%
E3	802	0.160%
A-3	912	0.278%
E-4	910	0.149%
A 2	900	0.312%
B	911	0.233%
C	909	0.360%
C1	907	0.320%
D	905	0.235%
D1	903	0.222%
D2	901	0.200%
E	908	0.286%
E1	906	0.271%
E2	904	0.187%
E3	902	0.160%
A-3	1012	0.278%
E-4	1010	0.149%
A 2	1000	0.312%
B	1011	0.233%
C	1009	0.360%
C1	1007	0.320%
D	1005	0.235%

D-2

D1	1003	0.222%
D2	1001	0.200%
E	1008	0.286%
E1	1006	0.271%
E2	1004	0.187%
E3	1002	0.160%
A-3	1112	0.278%
E-4	1110	0.149%
A-2	1100	0.312%
B	1111	0.233%
C	1109	0.360%
C1	1107	0.320%
D	1105	0.235%
D1	1103	0.222%
D2	1101	0.200%
E	1108	0.286%
E1	1106	0.271%
E2	1104	0.187%
E3	1102	0.160%
A-3	1212	0.278%
E-4	1210	0.153%
A-2	1200	0.308%
B	1211	0.233%
C	1209	0.360%
C1	1207	0.319%
D	1205	0.233%
D1	1203	0.222%
D2	1201	0.204%
E	1208	0.282%
E1	1206	0.272%
E2	1204	0.185%
E3	1202	0.153%
A	1412	0.432%
A1	1400	0.475%
B	1411	0.233%
C	1409	0.360%
C1	1407	0.324%
D	1405	0.235%
D1	1403	0.222%
D2	1401	0.200%
E	1408	0.285%
F	1406	0.463%
A	1512	0.432%
A1	1500	0.475%
B	1511	0.233%
C	1509	0.360%
C1	1507	0.324%
D	1505	0.235%
D1	1503	0.222%

D-3

D2	1501	0.200%
E	1508	0.285%
F	1506	0.463%
A	1612	0.432%
A1	1600	0.475%
B	1611	0.233%
C	1609	0.360%
C1	1607	0.324%
D	1605	0.235%
D1	1603	0.222%
D2	1601	0.200%
E	1608	0.285%
F	1606	0.463%
A	1712	0.432%
A1	1700	0.475%
B	1711	0.233%
C	1709	0.360%
C1	1707	0.324%
D	1705	0.235%
D1	1703	0.222%
D2	1701	0.200%
E	1708	0.285%
F	1706	0.463%
A	1812	0.432%
A1	1800	0.475%
B	1811	0.233%
C	1809	0.360%
C1	1807	0.324%
D	1805	0.235%
D1	1803	0.222%
D2	1801	0.200%
E	1808	0.285%
F	1806	0.463%
A	1912	0.432%
A1	1900	0.475%
B	1911	0.233%
C	1909	0.360%
C1	1907	0.324%
D	1905	0.235%
D1	1903	0.222%
D2	1901	0.200%
E	1908	0.285%
F	1906	0.463%
A	2012	0.432%
A1	2000	0.475%
B	2011	0.233%
C	2009	0.360%
C1	2007	0.324%
D	2005	0.235%

D-4

D1	2003	0.222%
D2	2001	0.200%
E	2008	0.285%
F	2006	0.463%
A	2112	0.432%
A1	2100	0.475%
B	2111	0.233%
C	2109	0.360%
C1	2107	0.324%
D	2105	0.235%
D1	2103	0.222%
D2	2101	0.200%
E	2108	0.285%
F	2106	0.463%
A	2212	0.432%
A1	2200	0.475%
B	2211	0.233%
C	2209	0.360%
C1	2207	0.324%
D	2205	0.235%
D1	2203	0.222%
D2	2201	0.200%
E	2208	0.285%
F	2206	0.463%
A	2312	0.432%
A1	2300	0.475%
B	2311	0.233%
C	2309	0.360%
C1	2307	0.324%
D	2305	0.235%
D1	2303	0.222%
D2	2301	0.200%
E	2308	0.285%
F	2306	0.463%
A	2412	0.432%
A1	2400	0.674%
B	2411	0.234%
C	2409	0.360%
C1	2407	0.318%
D1	2403	0.223%
E	2408	0.286%
G2	2406	0.440%
A	2506	0.428%
H	2500	0.406%
B	2505	0.235%
G	2501	0.487%
J	2503	1.362%
K	2504	0.322%
A	2606	0.432%

D-5

H	2600	0.406%
B	2605	0.226%
G	2601	0.487%
K	2604	0.322%
A	2706	0.427%
H	2700	0.406%
B	2705	0.235%
G	2701	0.487%
J	2703	0.637%
K	2704	0.322%
A	2812	0.431%
A1	2800	0.472%
B	2811	0.235%
C	2809	0.360%
C1	2807	0.319%
D	2805	0.237%
D1	2803	0.223%
D2	2801	0.203%
E	2808	0.283%
F	2806	0.452%
A	2912	0.431%
A1	2900	0.472%
B	2911	0.235%
C	2909	0.360%
C1	2907	0.319%
D	2905	0.237%
D1	2903	0.223%
D2	2901	0.203%
E	2908	0.283%
F	2906	0.452%
A	3012	0.431%
A1	3000	0.472%
B	3011	0.235%
C	3009	0.360%
C1	3007	0.319%
D	3005	0.237%
D1	3003	0.223%
D2	3001	0.203%
E	3008	0.283%
F	3006	0.452%
A	3112	0.431%
A1	3100	0.472%
B	3111	0.235%
C	3109	0.360%
C1	3107	0.319%
D	3105	0.237%
D1	3103	0.223%
D2	3101	0.203%
E	3108	0.283%

D-6

F	3106	0.452%
A	3212	0.431%
A1	3200	0.472%
B	3211	0.235%
C	3209	0.360%
C1	3207	0.319%
D	3205	0.237%
D1	3203	0.223%
D2	3201	0.203%
E	3208	0.283%
F	3206	0.452%
W D	3305 (3302)	0.585%
N C	3309 (3300)	0.966%
S A	3312 (3304)	1.027%
E B	3311 (3303)	0.669%
TH B	UNIT 1	0.355%
TH A	UNIT 2	0.348%
TH A	UNIT 3	0.348%
TH B	UNIT 4	0.355%
TH A	UNIT 5	0.348%
TH A	UNIT 6	0.348%
TH A	UNIT 7	0.348%
TH A	UNIT 8	0.348%
TH C	UNIT 9	0.284%
TH D	UNIT 10	0.327%
B (PENT)	VILLA	0.533%
A	VILLA 1	0.233%
A	VILLA 2	0.233%
A	VILLA 3	0.233%
A	VILLA 4	0.233%
A1	VILLA 5	0.216%
Retail Space		1.026%

100.000%

D-7

EXHIBIT "E"

PARKING

Panorama Parking Lower Level

Stall number	Unit
L-001	1600
L-002	1600
L-003	2600
L-004	2600
L-005	2501
L-006	2501
L-007	2406
L-008	2406
L-009	402
L-010	400
L-011	407
L-012	405
L-013	411
L-014	411
L-015	408
L-016	406
L-017	412
L-018	410
L-019	404
L-020	401
L-021	403
L-022	409
L-023	409
L-024	2100
L-025	2100
L-026	2212
L-027	2212
L-028	2305
L-029	1400
L-030	1400
L-031	1512
L-032	1512
L-033	2412
L-034	2200
L-035	3111
L-036	2300
L-037	1608
L-038	2601
L-039	2601
L-040	1500
L-041	1500
L-042	1712
L-043	1712
L-044	1700
L-045	1700
L-046	1812
L-047	1812
L-048	1800
L-049	1800
L-050	1912
L-051	1900
L-052	1900
L-053	2012
L-054	2012
L-055	2000

Stall number	Unit
L-056	2112
L-057	2112
L-058	2808
L-059	2908
L-060	2908
L-061	3208
L-062	2006
L-063	2312
L-064	2312
L-065	2206
L-066	2206
L-067	2306
L-068	1403
L-069	2806
L-070	2906
L-071	2906
L-072	3006
L-073	3006
L-074	3106
L-075	3106
L-076	3211
L-077	2408
L-078	3011
L-079	2911
L-080	2811
L-081	2705
L-082	2605
L-083	2505
L-084	2411
L-085	2311
L-086	2211
L-087	2211
L-088	3205
L-089	3105
L-090	3005
L-091	2905
L-092	2805
L-093	607
L-094	607
L-095	2205
L-096	3203
L-097	3203
L-098	3103
L-099	3003
L-100	2903
L-101	2803
L-102	2403
L-103	2403
L-104	2303
L-105	2101
L-106	3201
L-107	3101
L-108	3001
L-109	2901
L-110	2801

Stall number	Unit
L-111	TH8
L-112	2401
L-113	2201
L-114	2208
L-115	2308
L-116	2308

Panorama Parking Level One

Stall number	Unit
1-000	H/C
1-001	H/C
1-002	H/C
1-003	H/C
1-004	H/C
1-005	H/C
1-006	H/C
1-007	H/C
1-008	507
1-009	1-101
1-010	1-101
1-011	1-102
1-012	1-103
1-013	2-104
1-014	2-104
1-015	2-105
1-016	2-106
1-017	2-107
1-018	2-108
1-019	2-109
1-020	3303
1-021	3303
1-022	2706
1-023	2706
1-024	2506
1-025	2506
1-026	2-110
1-027	2900
1-028	2900
1-029	2300
1-030	2300
1-031	3300
1-032	3300
1-033	3300
1-034	2503
1-035	2503
1-036	2503
1-037	2503
1-038	3302
1-039	3302
1-040	2500
1-041	2500
1-042	2703
1-043	2703
1-044	2703
1-045	2703
1-046	3304
1-047	3304
1-048	3304
1-049	2700
1-050	2700
1-051	2701
1-052	2701

Stall number	Unit
1-053	2704
1-054	3200
1-055	3200
1-056	3212
1-057	3212
1-058	3112
1-059	3112
1-060	3100
1-061	3100
1-062	3012
1-063	3012
1-064	3000
1-065	3000
1-066	2800
1-067	2800
1-068	2606
1-069	2606
1-070	2812
1-071	2812
1-072	2912
1-073	2912
1-074	2504
1-075	1412
1-076	1412
1-077	1400
1-078	1400
1-079	1612
1-080	1612
1-081	2604
1-082	2809
1-083	2809
1-084	2909
1-085	2909
1-086	3009
1-087	3009
1-088	2409
1-089	2409
1-090	2309
1-091	2209
1-092	2209
1-093	3209
1-094	3209
1-095	3207
1-096	3207
1-097	3109
1-098	3107
1-099	3007
1-100	2907
1-101	2907
1-102	2807
1-103	2407
1-104	2407
1-105	2307

Stall number	Unit
1-106	2307
1-107	2207
1-108	3206
1-109	3206

Panorama Parking Level Two

Stall number	Unit
2-000	1401
2-001	1501
2-002	1601
2-003	1701
2-004	1801
2-005	1801
2-006	1901
2-007	2001
2-008	2203
2-009	205
2-010	1503
2-011	1603
2-012	1703
2-013	1803
2-014	1903
2-015	202
2-016	202
2-017	200
2-018	200
2-019	200
2-020	201
2-021	201
2-022	204
2-023	204
2-024	203
2-025	203
2-026	2003
2-027	2103
2-028	2103
2-029	1411
2-030	1511
2-031	1611
2-032	1711
2-033	1811
2-034	1911
2-035	2011
2-036	2111
2-037	1405
2-038	1505
2-039	1605
2-040	1705
2-041	1805
2-042	1905
2-043	2105
2-044	2005
2-045	2005
2-046	1408
2-047	1408
2-048	1508
2-049	1708
2-050	1808
2-051	1908
2-052	2008
2-053	2108
2-054	2108

Stall number	Unit
2-055	1407
2-056	1507
2-057	1607
2-058	1707
2-059	1707
2-060	1807
2-061	1807
2-062	1907
2-063	1907
2-064	2007
2-065	2007
2-066	2107
2-067	1409
2-068	1509
2-069	1200
2-070	1200
2-071	1000
2-072	1100
2-073	1100
2-074	900
2-075	800
2-076	700
2-077	600
2-078	1609
2-079	1709
2-080	1709
2-081	1809
2-082	1809
2-083	1909
2-084	1909
2-085	2009
2-086	2009
2-087	2109
2-088	1406
2-089	1506
2-090	1506
2-091	1806
2-092	1606
2-093	1606
2-094	1706
2-095	1706
2-096	1906
2-097	1906
2-098	2106
2-099	2106

Panorama Parking Level Three

Stall number	Unit
3-000	510
3-001	610
3-002	710
3-003	810
3-004	910
3-005	1010
3-006	1110
3-007	1210
3-008	502
3-009	602
3-010	702
3-011	802
3-012	902
3-013	1002
3-014	1102
3-015	1202
3-016	504
3-017	604
3-018	704
3-019	804
3-020	904
3-021	1004
3-022	1104
3-023	1204
3-024	506
3-025	506
3-026	606
3-027	706
3-028	806
3-029	906
3-030	1006
3-031	1106
3-032	1206
3-033	508
3-034	608
3-035	708
3-036	808
3-037	908
3-038	1008
3-039	1108
3-040	1108
3-041	1208
3-042	501
3-043	601
3-044	701
3-045	801
3-046	901
3-047	1001
3-048	1101
3-049	1201
3-050	503
3-051	603
3-052	703
3-053	803
3-054	903

Stall number	Unit
3-055	511
3-056	611
3-057	711
3-058	811
3-059	911
3-060	1011
3-061	1111
3-062	1211
3-063	505
3-064	605
3-065	705
3-066	805
3-067	905
3-068	1005
3-069	1105
3-070	512
3-071	707
3-072	807
3-073	907
3-074	1007
3-075	1009
3-076	1207
3-077	709
3-078	1003
3-079	3108
3-080	1103
3-081	1203
3-082	1203
3-083	1107
3-084	1109
3-085	509
3-086	609
3-087	809
3-088	909
3-089	1209
3-090	307
3-091	307
3-092	500
3-093	612
3-094	612
3-095	712
3-096	1205
3-097	306
3-098	305
3-099	304
3-100	812
3-101	912
3-102	912
3-103	1012
3-104	1112
3-105	1212
3-106	303
3-107	302
3-108	301
3-109	300

Stall number	Unit
3-110	300
3-111	3008

Panorama Parking Level Four

Stall number	Unit
4-000	Valet/Guest
4-001	Valet/Guest
4-002	Valet/Guest
4-003	Valet/Guest
4-004	Valet/Guest
4-005	Valet/Guest
4-006	Valet/Guest
4-007	Valet/Guest
4-008	Valet/Guest
4-009	Valet/Guest
4-010	Valet/Guest
4-011	Valet/Guest
4-012	Valet/Guest
4-013	Valet/Guest
4-014	Valet/Guest
4-015	Valet/Guest
4-016	Valet/Guest
4-017	Valet/Guest
4-018	Valet/Guest
4-019	Valet/Guest
4-020	Valet/Guest
4-021	Valet/Guest
4-022	Valet/Guest
4-023	Valet/Guest
4-024	Valet/Guest
4-025	Valet/Guest
4-026	Valet/Guest
4-027	Valet/Guest
4-028	Valet/Guest
4-029	Valet/Guest
4-030	Valet/Guest
4-031	Valet/Guest
4-032	Valet/Guest
4-033	Valet/Guest
4-034	Valet/Guest
4-035	Valet/Guest
4-036	Valet/Guest
4-037	Valet/Guest
4-038	Valet/Guest
4-039	Valet/Guest
4-040	Valet/Guest
4-041	Valet/Guest
4-042	Valet/Guest
4-043	Valet/Guest
4-044	Valet/Guest
4-045	Valet/Guest
4-046	Valet/Guest
4-047	Valet/Guest
4-048	Valet/Guest
4-049	Valet/Guest
4-050	Valet/Guest
4-051	Valet/Guest
4-052	Valet/Guest
4-053	Valet/Guest
4-054	Valet/Guest

Stall number	Unit
4-055	Valet/Guest
4-056	Valet/Guest
4-057	Valet/Guest
4-058	Valet/Guest
4-059	Valet/Guest
4-060	Valet/Guest
4-061	Valet/Guest
4-062	Valet/Guest
4-063	Valet/Guest
4-064	Valet/Guest
4-065	Valet/Guest
4-066	Valet/Guest
4-067	Valet/Guest
4-068	Valet/Guest
4-069	Valet/Guest
4-070	Valet/Guest
4-071	Valet/Guest
4-072	Valet/Guest
4-073	Valet/Guest
4-074	Valet/Guest
4-075	303
4-076	2208
4-077	2408
4-078	1812
4-079	502
4-080	1206
4-081	1112
4-082	TH9
4-083	3108
4-084	804
4-085	Valet/Guest
4-086	3008
4-087	1605
4-088	708
4-089	3200
4-090	Valet/Guest
4-091	Valet/Guest
4-092	Valet/Guest
4-093	Valet/Guest

EXHIBIT "F"

LIMITED COMMON ELEMENTS

DESCRIPTION OF LIMITED COMMON ELEMENTS

Floor No. 5

- A lobby service area will be a limited common element for units 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511 and 512.

Floor No. 6

- A lobby service area will be a limited common element for units 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611 and 612.

Floor No. 7

- A lobby service area will be a limited common element for units 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711 and 712.

Floor No. 8

- A lobby service area will be a limited common element for units 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811 and 812.

Floor No. 9

- A lobby service area will be a limited common element for units 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911 and 912.

Floor No. 10

- A lobby service area will be a limited common element for units 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011 and 1012.

Floor No. 11

- A lobby service area will be a limited common element for units 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111 and 1112.

Floor No. 12

- A lobby service area will be a limited common element for units 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211 and 1212.

Floor No. 14

- A lobby service area will be a limited common element for units 1400, 1401, 1403, 1405, 1406, 1407, 1408, 1409, 1411 and 1412.

Floor No. 15

- A lobby service area will be a limited common element for units 1500, 1501, 1503, 1505, 1506, 1507, 1508, 1509, 1511 and 1512.

Floor No. 16

- A lobby service area will be a limited common element for units 1600, 1601, 1603, 1605, 1606, 1607, 1608, 1609, 1611 and 1612.

Floor No. 17

- A lobby service area will be a limited common element for units 1700, 1701, 1703, 1705, 1706, 1707, 1708, 1709, 1711 and 1712.

Floor No. 18

- A lobby service area will be a limited common element for units 1800, 1801, 1803, 1805, 1806, 1807, 1808, 1809, 1811 and 1812.

Floor No. 19

- A lobby service area will be a limited common element for units 1900, 1901, 1903, 1905, 1906, 1907, 1908, 1909, 1911 and 1912.

Floor No. 20

- A lobby service area will be a limited common element for units 2000, 2001, 2003, 2005, 2006, 2007, 2008, 2009, 2011 and 2012.

Floor No. 21

- A lobby service area will be a limited common element for units 2100, 2101, 2103, 2105, 2106, 2107, 2108, 2109, 2111 and 2112.

Floor No. 22

- A lobby service area will be a limited common element for units 2200, 2201, 2203, 2205, 2206, 2207, 2208, 2209, 2211 and 2212.

Floor No. 23

- A lobby service area will be a limited common element for units 2300, 2301, 2303, 2305, 2306, 2307, 2308, 2309, 2311 and 2312.

Floor No. 24

- A lobby service area will be a limited common element for units 2400, 2403, 2407, 2408, 2409, 2411 and 2412.

Floor No. 25

- A lobby service area will be a limited common element for units 2500, 2501, 2503, 2504, 2505, and 2506.

Floor No. 26

- A lobby service area will be a limited common element for units 2600, 2601, 2604, 2605, and 2606.

Floor No. 27

- A lobby service area will be a limited common element for units 2700, 2701, 2703, 2704, 2705, and 2706.

Floor No. 28

- A lobby service area will be a limited common element for units 2800, 2801, 2803, 2805, 2806, 2807, 2808, 2809, 2811 and 2812.

Floor No. 29

- A lobby service area will be a limited common element for units 2900, 2901, 2903, 2905, 2906, 2907, 2908, 2909, 2911 and 2912.

Floor No. 30

- A lobby service area will be a limited common element for units 3000, 3001, 3003, 3005, 3006, 3007, 3008, 3009, 3011 and 3012.

Floor No. 31

- A lobby service area will be a limited common element for units 3100, 3101, 3103, 3105, 3106, 3107, 3108, 3109, 3111 and 3112.

Floor No. 32

- A lobby service area will be a limited common element for units 3200, 3201, 3203, 3205, 3206, 3207, 3208, 3209, 3211 and 3212.

Floor No. 33

- A lobby service area will be a limited common element for units 3305, 3309, 3311 and 3312.

Exhibit “E”

Exhibit “E”

A M E R I C A N A R C H I T E C T U R A L

AAMA AG-13

AAMA Glossary



M A N U F A C T U R E R S A S S O C I A T I O N

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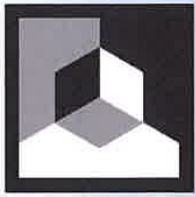


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FOREWORD

This document is a listing of terms used throughout AAMA documents and should be used for reference purposes. These definitions are to be used throughout all AAMA documents unless otherwise noted in the "Definition" section of the document by stating:

Please refer to AAMA Glossary (AG-13) for all definitions except for those appearing below (which apply only to this xxx).

Definitions within this glossary shall supersede when any conflicts in AAMA documents may arise.

If there are any questions or concerns regarding this publication, please contact AAMA at:

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NOTE: The originating document from where the definition of a term came from is indicated in **bold** and *italics*.

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TERM	DEFINITION	LOCATION(S)
AAMA	American Architectural Manufacturers Association. A national trade association that establishes voluntary standards for the window, door and skylight industry.	<i>101/I.S.2-97</i>
ABSORBED	The collection of dissolved resin in condensed form in and on the anodic film.	<i>612-02</i>
ACCESS DOOR	Entryway, for service purposes, to closeted area where sliding wall panels stack.	<i>SFM-1-87</i>
ACCESSIBLE WINDOW UNIT	Operable window assembly, including frame, infill, hardware, and all other appurtenances, required by project specifications and/or applicable codes, to be <i>"accessible to and usable by people with such physical disabilities as the inability to walk, difficulty walking, reliance on walking aids, blindness and visual impairment, deafness and hearing impairment, in coordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes of physical size."</i> (Portion in italics from ICC A117.1.)	<i>513-12</i>
ACCESSORY GROOVE	A shape included on a fenestration product frame that is designed to mate with installation accessories.	<i>IM-TM</i>
ACOUSTICS	A science that deals with the production, control, transmission, reception, and effects of sound	<i>101/I.S.2/A440-08, 101/I.S.2-97, IPCB-08</i>
ACRYLIC	A group of thermoplastic resins formed by polymerizing the esters of acrylic acid.	<i>850-91, GAG-1-97</i>
ACTIVATOR	A material which, when added to the base compound of a multi-component system, will initiate or accelerate the curing mechanism.	<i>GAG-1-97</i>
ACTIVE DOOR (OR LEAF)	First operating door of a pair, when unlocking; the door usually equipped with cylinder control for locking mechanism.	<i>SFM-1-87</i>
ACTIVE MULTIPOINT LOCKING HARDWARE	A lock with at least two locking points other than the combination of one latch bolt and one deadbolt.	<i>909-13</i>
ACTIVE SOLAR HEAT GAIN	Solar heat that passes through a material and is captured by mechanical means.	<i>IGMA Glossary</i>
ADDITION	The construction of a sunroom that is attached to an existing structure.	<i>2100-02</i>
ADHESION	That property of a coating or sealant which measures its ability to adhere or bond to the surface to which it is applied.	<i>850-91, GAG-1-97</i>
ADHESION PEEL TEST	The separation of a bond, whereby the material is pulled away from the surface at a 90-degree angle or a 180-degree angle to the plane to which it is adhered. Values are expressed in pounds/inch width. Failure is defined as adhesive or cohesive.	<i>850-91</i>
ADHESION-IN PEEL TEST	A quantitative measure of bond strength, whereby the material is pulled away from the mating surface at a 90 degree angle or a 180 degree angle to the plane to which it is adhered. Values are generally expressed in pounds per inch width and as to whether failure mode was adhesive or cohesive.	<i>GAG-1-97</i>
ADHESIVE FAILURE	Failure of the bond between the sealant and the surface to which it is in contact.	<i>850-91, GAG-1-97</i>
ADHESIVE MATERIAL	Provides the seal between the facing material and the surface to which it adheres.	<i>711-13</i>
ADJUSTABLE	Accessible without major construction of the window, door, TDD, SSP, roof window, or unit skylight to bring the parts of the product to a true or more effective relative position	<i>101/I.S.2/A440-11</i>
AEROELASTIC (DYNAMIC) MODEL	This is a building model that is constructed to deflect and oscillate in response to fluctuating air flow induced forces. Strain gauges mounted on elastic elements and accelerometers attached to the frame of this type of model are used to measure peak and mean values of fluctuating moments, deflections and accelerations for the overall building. While this type of model is not primarily used for curtain walls, curtain wall performance can be affected by in-plane and out-of-plane racking of the curtain wall system as the building deflects. Peak deflections obtained from the aeroelastic model tests can be used to estimate maximum deflections of the system elements.	<i>CW-11-85</i>
AEROSOL FOAM SEALANT	A sealant that expands in volume as it is dispensed from a container, using propellant under pressure, to form a rigid or semi-rigid cellular mass.	<i>100-12, 200-12, 300-12, 812-04, IPCB-08</i>
AESTHETICS	The science and philosophy of beauty.	<i>SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
AIR AND WATER BARRIER (AIR/WATER BARRIER)	Wall system layer(s) that limits the transfer of liquid water and air through the system. The barrier shall be adequate to withstand design wind load requirements, either independently or through a backup system. The terms "air and water barrier" and/or "air/water barrier" may also indicate a material that is also a vapor retarder.	508-07, 509-09
AIR BARRIER	The assembly of materials used in building construction to cut down on the passage of air in and out of the building.	IM-TM, IPCB-08
AIR BARRIER FOAM SEALANT	Also referred to as expanding foam. An aerosol foam product dispensed as a bead into the air gap area around the fenestration perimeter to reduce the infiltration or ex-filtration of air between the fenestration product and the rough opening.	504-05
AIR INFILTRATION	The amount of air that passes between a window sash and frame, a door panel and frame, or the glazing system of fixed windows.	IGMA Glossary 101/I.S.2/A440-11, 101/I.S.2-97, 503-03, 504-05 507-12, 2001-07, IM-TM, IPCB-08
AIR LEAKAGE	The flow of air which passes through fenestration products.	2100-02
AIR LEAKAGE RESISTANCE	The amount of air leaking through cracks in walls, windows, and doors.	SFM-1-87
AIR LOCK STRIP	The weatherstripping attached to the edges of each wing of a revolving door.	NFRC Glossary
AIR MASS	The ratio of the mass of atmosphere along the actual observer-to-sun line to the mass that would exist if the observer was at sea level, a standard barometric pressure and if the sun was directly overhead (at the zenith).	GAG-1-97
AIR POCKETS	Bubbles of air entrapped within a sealant, or between two adjacent beads of sealant applied successively in a joint.	100-12, 200-12, 300-12
AIR SEAL	A continuous seal put into the air gap area around the interior side, exterior side or both sides of the fenestration perimeter to restrict infiltration or exfiltration of air past the fenestration product.	510-06
AIRBLAST OVER-PRESSURE	The variation of air pressure caused by a blast event relative to ambient pressure conditions.	101/I.S.2/A440-11, IPCB-08
AIRSPACE	The space between adjacent layers in a multi-layer glazing system	SFM-1-87
ALL-GLASS DOOR	See GLASS DOOR .	101/I.S.2/A440-11, 2100-11
ALTERATION	Any modification of the original test specimen as defined in the bill of materials or drawings.	507-03
ALUMINUM SPACER	$U_{EOG} = 0.223 + 0.842U_{COG} - 0.153U_{COG}^2$	TIR-A8-04
AMBIENT TEMPERATURE/ CONDITIONS	The temperature or conditions (humidity, air velocity, light exposure, etc.) which surround or encompass the area of concern, i.e., a test specimen, framing member, etc.	TIR-A1-04
AMPLITUDE	The difference between the maximum and minimum pressure that is developed in a sound pulse.	IM-TM, IPCB-08, SFM-1-87
ANCHOR	Any device used to secure a building part or component to adjoining construction or a supporting member. See also FLOOR ANCHOR and JAMB ANCHOR .	450-06, 1701.2-02, 1702.2-02
ANCHORAGE	The attachment of the individual products or mullied fenestration assembly to the rough opening with regard to transferring load.	TIR-A8-04
ANGULAR DISTORTION	The rotation of the exterior face of the framing member from its nominal position. Normally this is caused by thermal stresses during pouring and curing, improper handling or uneven glazing pressures.	GDSG-1-87, IM-TM, IPCB-08
ANNEALED GLASS	Raw glass used as a glazing product. Further processing is required to transform annealed glass into safety glass.	GAG-1-97
ANNEALING LEHR	An on-line, controlled heating/cooling apparatus located after the tin bath and before the cooling conveyor of a float glass production line. Its purpose is to relieve induced stress from the flat glass product to allow normal cold end processing.	DDGA-89
ANNUAL ENERGY	The composite fuel and electric energy at the building site boundary for heating, cooling, and lighting the building, including pump energy and fan energy.	DDGA-89
ANNUAL LOADS	The separate energy requirements for each of the three factors heating, cooling, and lighting.	

TERM	DEFINITION	LOCATION(S)
ANODIC COATING/FINISHES	Anodic coatings are composed of aluminum oxide and are an integral part of the aluminum substrate. Careful control is essential to the electrolytic anodizing process, and it provides substantial improvement over the natural oxide film due to the greater thickness, density and hardness of these factory-produced finishes. They may be clear (natural) or colored. Color is electrolytically deposited or integral. Pre-anodic chemical treatments clean and prepare the aluminum for the anodic finish.	<i>IM-TM, IPCB-08, SFM-1-87</i>
ANODIZE	To give an aluminum oxide coating by electrolytic action.	<i>SFM-1-87</i>
ANODIZING ALUMINUM	Aluminum that is treated by electrolysis to develop a finished surface (an extremely hard, noncorrosive oxide film). The electrochemical process produces an anodic coating by converting aluminum into aluminum oxide by electrolytic action. The resulting finish may be either clear or colored, and is an integral part of the aluminum.	<i>IGMA Glossary</i>
ANTI-REFLECTIVE COATING	A transparent coating, typically 150 nm thick, which reduces surface reflectance by using destructive interference between light reflected at the substrate surface and light reflected at the coating surface.	<i>IGMA Glossary</i>
ANTI-WALK BLOCKS	Elastomeric blocks that limit glass from moving lateral in the glazing rabbet which may result from thermal, seismic, wind load effects, building movement, and other forces that may apply.	850-91, <i>GAG-1-97, GDSG-1-87</i>
APPEAL	Request to AAMA by a licensee for reconsideration of a decision, which may have resulted from a complaint or dispute. Appeals must be in writing, directed to the Validator, the AAMA Chief Engineer, Certification Programs, the Certification Policy Committee, or the Board of Directors, as appropriate.	<i>103-09</i>
APPLICATION LIFE	The period of time during which a sealant, after being mixed with a catalyst or exposed to the atmosphere, remains suitable for application; also referred to as work life, or pot life.	<i>GAG-1-97</i>
APPLIED COATING	The process of applying an organic coating using various application methods on a prepared surface and curing it into a continuous film.	<i>623-07, 624-07, 625-07</i>
APPLIED FLANGE	A separate flange that may be added to or removed from the window or door frame. (a.k.a. <i>field-applied/mechanically attached, non-integral flange</i>)	<i>300-12</i>
APPLIED MUNTIN	A profile member applied to the exterior or interior of a lite of glass to simulate individual glass lites. The members may be tape applied, sandwiched with the glass and glazed in, or designed to be removable.	<i>101/I.S.2-97</i>
APPLIED STOP	Surface mounted stop attached to a cased opening frame.	<i>101/I.S.2-97</i>
APRON	A molding applied horizontally to the wall, directly below the window sill. It is used to hide the rough edge of the drywall or plaster below the window framing.	<i>IM-TM</i>
ARCHITECTURAL CLEAR ANODIC COATINGS	Conventional aluminum oxide coatings which are formed in sulfuric acid based electrolytes. These coatings are transparent and allow the natural aluminum color to show through.	<i>611-98</i>
ARCHITECTURAL COLOR ANODIC FINISHES	Clear aluminum oxide coatings that are dyed to produce a range of colors including gold, red, yellow, blue, turquoise and black. Only colors meeting the weathering requirements as outlined in Section 9.7, Weathering, are covered by this specification. Anodizing process recommendations of the dye manufacturer are to be strictly followed. Additional coating thickness in excess of Class I may be necessary for exterior color-fastness. Electrodeposited coatings may also be over-dyed.	<i>611-98</i>
ARCHITECTURAL COORDINATION DETAILS	Fenestration details provided in architectural drawings, at bid or contract document stages, usually in large 1" = 1'-0" or 3" = 1'-0" scale, indicating fenestration external and internal profiles, adjacent materials, and interfaces; along with scope definition and coordination notes. These are typically generated as supplemental or overlaid 2-D drawings, not solely as "views" of the overall building BIM model.	<i>912-13</i>
ARCHITECTURAL PROFILE DETAILS	Fenestration details provided in architectural drawings, at concept or design-development stages, usually in small 1/16" = 1'-0" or 1/8" = 1'-0" scale, indicating fenestration external profiles only, without great detail in adjacent materials, and interfaces. These are typically generated as "views" of the overall building BIM model.	<i>912-13</i>

TERM	DEFINITION	LOCATION(S)
ARCHITECTURAL TERRACE DOOR	A door primarily used for terrace access in high-rise applications/buildings. Architectural terrace doors consist of one or more glazed panels contained within one master frame. The operable panels will be hinged on either jamb, and can swing either to the exterior or interior (not both). The door is not used as a primary entrance door because of the nature of the sill/threshold design used to meet performance requirements. Architectural terrace doors are not tested for limited water and meet the requirements of AAMA 910.	<i>101/I.S.2/A440-11</i>
ARCHITECTURAL WALLS	Walls having formed framing members (usually extrusions) and sizeable areas of glass, often with opaque panel areas also.	<i>CW-DG-1-96</i>
AREA	Thermal performance characteristics of fenestration products are dependent on the vision area, spandrel area, center-of-glass area, edge-of-glass area, frame area and total area.	<i>507-12</i>
ARGON GAS (ARGON FILLED)	An inert, nontoxic gas placed between glass panes in insulated glass units in order to improve the insulating value of sealed glass units.	<i>IGMA Glossary</i>
ARMORED FACEPLATE	Tamper-proof faceplate or front of a lock mortised in the edge of a door to cover the lock mechanism.	<i>SFM-1-87</i>
ASPECT RATIO	The quotient of the long side of a glazing lite over the short side of that lite.	<i>GAG-1-97</i>
ASSEMBLED UNIT	A unit, complete in its entirety, shipped with all parts and sub-assemblies in complete connection with each other and with no separate pieces. Screens, if offered, may be shipped separately.	<i>1701.2-02, 1702.2-02</i>
ASSEMBLY DRAWINGS	Drawings that show typical cross sections of the egress window system.	<i>1704-01</i>
ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)	A group that develops test methods and materials standards that are widely used by the construction and building design industries. Considered one of the bases for acceptable testing levels of quality for materials used in construction.	<i>FSCOM-1-09</i>
ASTRAGAL	A vertical member placed at the meeting edges of a double door to provide a weather seal and may be used to anchor the fixed door.	<i>101/I.S.2-97, SFM-1-87</i>
ASYMETRICAL INSULATING GLASS UNIT	Insulating glass units in which the panes of glass are of a different thickness or type or both.	<i>GDSG-1-87</i>
AT-REST POSITION	The position of the levers of the handle set when not in use. The at-rest position of the levers is typically horizontal.	<i>903-12</i>
ATRIUM	A large enclosed open space with the shell of a building.	<i>DDGA-89</i>
ATRIUM GLAZING	Horizontal (or similar) light transmitting material located in the roof sections of the atrium space; the glazed area is assumed to be uniformly distributed over the entire atrium roof with a minimum of ten percent of the gross glazed area used for structural support members.	<i>DDGA-89</i>
AUTO ADHESION	The adhesion of a specific uncured sealant to the same cured sealant.	<i>850-91</i>
AUTOMATIC OPERATOR	Power-operated door activating device and control, actuated by approaching traffic or remote switch.	<i>SFM-1-87</i>
AUXILLARY TESTS	Additional mandatory testing of a specimen as outlined in Clause 9.3.6 of 101/I.S.2/A440-11	<i>101/I.S.2/A440-11</i>
AWNING WINDOW	See AWNING, HOPPER, and PROJECTED WINDOW .	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
AWNING, HOPPER AND PROJECTED WINDOW	A window consisting of one or more sash hinged at the top or bottom which project outward or inward from the plane of the frame. An awning rotates about its top hinge(s) and projects outward. A hopper window rotates about its bottom hinge(s) and projects inward.	<i>101/I.S.2/A440-11</i>
AZIMUTH	The horizontal angle subtended between two planes, one being the plane passing vertically through the position of the sun and normal to the earth's surface and the other being the plane aligned to the north and south, and normal to earth's surface.	<i>NFRC Glossary</i>
BACK CHECK	A resistance to cushion and slow down the opening swing of a door before reaching the closer swing limit.	<i>SFM-1-87</i>
BACK CLOSURE	Complementary member used in forming tube for side jamb.	<i>SFM-1-87</i>
BACK DAM	The rear upturned leg of a masonry sill, sill pan or sub-sill designed for the purpose of diverting liquid water. A sealant joint can also be used to form a back dam provided it is part of a continuous air seal.	<i>100-12, 200-12, 300-12</i>

TERM	DEFINITION	LOCATION(S)
BACK PLATE (A.K.A ESCUTCHEON)	A plate typically featuring a bearing for the rotation of a lever. It is also used to cover and protect bored preparations used to install hardware in the door.	903-12
BACK STOP	A mechanical feature of a door closer which completely stops the opening swing of a door at a pre-set position.	SFM-1-87
BACK UP	A material placed into a joint, primarily to control the depth of the sealant.	850-91
BACKER ROD	A material placed into a joint, primarily to control the depth and shape of the sealant. Also serves as a bond breaker.	GAG-1-97, IM-TM, IPCB-08
BACKSET	The distance from the front of the face plate of the locking hardware to the rotation axis of the actuation lever or knob.	909-13, SFM-1-87
BAFFLE	A shielding surface in a test apparatus located to separate the specimen from the heating or cooling equipment.	NFRC Glossary
BALANCE	A mechanical device used in hung windows as a means of counterbalancing the weight of the sash.	101/I.S.2/A440-11, 101/I.S.2-97
BALANCE RATED TRAVEL RANGE (BRTR)	The rated travel range of the balance as specified by the manufacturer.	902-07, 908-02
BALANCED DOOR	A door equipped with double-pivoted hardware so designed as to cause a semi-counterbalanced swing action when opening.	SFM-1-87
BALCONY	An exterior floor that projects from the wall of a building, is completely supported by the building structure, and is enclosed by a parapet or railing.	2200-01
BARRIER FREE	The elimination of barriers or obstructions to permit ready access to and through entrances for those who are confined to wheelchairs or otherwise physically handicapped.	SFM-1-87
BARRIER SYSTEMS	The location of the weatherability is determined by the integrity of the first (exterior) surface of the wall and the first surface of the window or door. The two surfaces are usually connected together by a sealant joint, effectively creating a water barrier for the building.	IM-TM, IPCB-08
BARRIER WALL	A wall system that is intended to manage all water at the exterior surface.	200-12
BASELINE UNIT	One test specimen representative of the product line under evaluation fabricated using standard construction for that product line with the highest conductivity glazing option for that product line. A baseline test specimen glazed with an insulating glass unit (IGU) shall be filled with air.	1505-03
BASEMENT WINDOW	Any window type intended for the purpose of ventilating or illuminating a basement or cellar.	101/I.S.2/A440-11, 101/I.S.2-97
BASIC WIND SPEED	The wind velocity used to calculate external pressures acting on a surface or structure. Basic Wind Speed is expressed in miles per hour (mph) or kilometers per hour (kph) and is based on wind speed maps included in building codes or other related standards.	2100-11
BEAD	A sealant after application in a joint irrespective of the method of application, such as sealant bead, etc. A strip of metal or wood used around the periphery of a lite of glass to secure it in place (also referred to as a stop). A strip of sealant, glazing compound or putty.	850-91, IM-TM, IPCB-08
BEAM	A horizontal, weight-supporting member of a structural frame.	SFM-1-87
BED OR BEDDING	The bead of compound applied between two materials, normally the glass or panel and the stop or frame.	850-91, GAG-1-97
BEDDING OF STOP	The application of sealant at the base of a channel, just before the stop is placed in position, or buttered on the inside face of the stop.	850-91
BEIGE PROFILE	A profile, the color of which is defined by the color space falling within the parameters $L_H = 61$ to 87 , $a_H = -2.5$ to 4.0 , and $b_H = 6.5$ to 23 .	310-12
BENT GLASS	Glass that has been curved by heating to above its softening point and then bent by gravity or press molds; also termed "curved glass."	GDSG-1-87
BETWEEN GLASS MUNTIN	A small profile member installed between the lites of glass, in a sealed insulating glass unit, to simulate individual glass lites.	101/I.S.2-97
BEVEL	A sloped or canted surface contiguous with a vertical or horizontal one.	SFM-1-87
BEVEL OF SEALANT BEAD	In glazing, a bead of sealant applied to provide a slanted top surface so that water will drain away from the glass or panel.	850-91

TERM	DEFINITION	LOCATION(S)
BITE	The dimension by which the inner or outer edge of the frame or glazing stop overlaps the edge of the glazing.	101/I.S.2/A440-11, 101/I.S.2-97, 510-06, 850-91, GAG-1-97, GDSG-1-87, IM-TM, IPCB-08, SFM-1-87
BITE FAILURE	Glazing or infill panel disengagement from the fenestration system that is attributed to an inadequate bite.	510-06
BITUMINOUS	Describing cement, mastic, or roofing, indicating a product in which asphalt is a major ingredient.	IPCB-08, SFM-1-87
BLANK	Thin plastic sheeting or other suitable material applied to the exterior surface of the test specimen (tare reading).	503-03
BLAST (EXPLOSION)	A rapid chemical or nuclear reaction that produces sound, heat, light and a shock wave.	510-06
BLAST CONSULTANT	An individual, firm or institution employing such persons that have demonstrated experience with the accepted practices for blast resistant design.	510-06
BLAST EVENT	An explosion resulting in a time-dependent variation of air pressure that radiates from the explosion.	510-06
BLAST TESTS	Tests designed to simulate the effects on an explosion.	510-06
BLEEDING	A migration of a liquid to the surface of a component or into/onto an adjacent material.	850-91, GAG-1-97
BLIND NAILING	Nailing in such a way that the nail heads are not visible on the face of the finished work.	IM-TM
BLIND STOP	A rectangular molding attached to the side and head of a window to serve as a stop for storm windows and screens.	IM-TM, IPCB-08
BLISTER	A rounded elevation of the pultruded surface with boundaries that may be more or less sharply defined.	305-06
BLOCK	A small piece of elastomeric or other suitable material used to support or position the glass in the frame	850-91
BLOCK FRAME FENESTRATION PRODUCT	A type of non-finned fenestration product (either window or door) that has no factory-applied moldings and that is installed into the rough opening either by driving fasteners through shimmed side jambs or by use of installation clips or brackets. (Sometimes called "Box Frame".)	ASTM E2112-07
BLOCKING	A lineal piece of suitable material designed to support and prevent rotation of the replacement window sill.	2410-13
BOND BREAKER	A material used to prevent three-sided adhesion in sealant joints.	850-91, GAG-1-97, IM-TM, IPCB-08
BOOKFOLD	All four or three wings of a revolving door folded so that they are parallel and point in the same direction.	SFM-1-87
BOTTOM ARM	The arm mechanism attached to the bottom rail of a door and connecting to the spindle of a floor closer or pivot.	SFM-1-87
BOUNDARY LAYER	The atmospheric layer from the ground surface up to a height where ground based obstacles such as buildings, trees and low hills cease to affect wind characteristics. In this layer the vertical distribution of mean wind speed, turbulence intensity and scale (gustiness) are determined primarily by surface features.	CW-11-85
BOUNDARY LAYER WIND TUNNEL (BLWT)	A low velocity wind tunnel with a long test section designed to physically model the atmospheric boundary layer. The floor of the wind tunnel is covered with surface features scaled to the same scale as the structure under study so as to develop a boundary layer with air flow characteristics similar to those for the actual site.	CW-11-85
BOX FRAME	Door or window frame with no exterior casing or flange for mounting to a wall. (a.k.a. Non-Flanged Door/Window)	300-12
BOX STRIKE	See STRIKE .	SFM-1-87
BRAKE SHAPE	Sheet stock bent or "broken" to desired shape, as required by specific job, on a power or manual brake machine. This shape is often used to cover conditions which cannot be covered by stock shape.	IPCB-08, SFM-1-87
BREAKAWAY FORCE	The force required to start a sash (or panel) in motion from a fully closed position.	101/I.S.2-97

TERM	DEFINITION	LOCATION(S)
BREAKAWAY MECHANISM	See COLLAPSING MECHANISM .	<i>SFM-1-87</i>
BREAKOUT	Individual fiberglass strands which are loose or frayed, typically near fabricated edges.	<i>305-06</i>
BREATHER (TUBE) UNITS	An insulating glass unit where a tube or a hole is factory-placed into the unit's spacer to accommodate elevation of pressure differences encountered in shipping. These tubes or holes are to be sealed on the job-site prior to unit installation.	<i>IGMA Glossary</i>
BRICKMOLD (BMC)	A molding used as an exterior door or window casing. (a.k.a. Exterior Casing)	<i>101/I.S.2/A440-11, 300-12, IM-TM, IPCB-08</i>
BRIDGE	The portion of the extruded framing member which connects the exterior face with the interior structural portion of the frame. This portion of the thermal break cavity is removed by sawing or milling after pouring and curing of the thermal break material	<i>TIR-A8-04</i>
BRITISH THERMAL UNIT (BTU)	The heat required to increase the temperature of 1 lb. of water 1 degree F.	<i>101/I.S.2/A440-11</i>
BUBBLE	An inclusion of a gaseous or liquid material within the vinyl or at the glass-vinyl interface.	<i>TSGG-04</i>
BUBBLING	Open or closed pockets in a sealant caused by release, production, or expansion of gasses.	<i>GAG-1-97</i>
BUCK	A code compliant framework built into a door or window opening in a concrete or masonry wall to which the door or window frame is secured.	<i>200-12</i>
BUILDING ENVELOPE	The assembly or assemblies of materials and components that enclose building spaces and are exposed to exterior space or separate conditioned interior space from unconditioned interior space.	<i>101/I.S.2/A440-11, GAG-1-97, IPCB-08, IM-TM</i>
BUILDING INFORMATION MODELING (BIM)	An integrated construction project workflow and process, in which up-to-date, reliable information is used to coordinate design, manufacturing, and construction activities of all parties involved, with information kept in a single building model.	<i>912-13</i>
BUILDING PAPER	A membrane material made of cellulose paper impregnated with asphalt (to inhibit passage of liquid water through the material) and which is commonly used as a concealed water-resistive barrier (WRB), similar to polymer house wraps, in membrane/drainage walls.	<i>100-12, 300-12</i>
BIM ELEMENTS	BIM elements represent different parts of a building, such as a window or door.	<i>912-13</i>
BIM FAMILIES	BIM families are collections of similar elements, such as windows, sometimes referred to as Industry Foundation Classes (IFCs).	<i>912-13</i>
BIM MANAGER	The project executive, often employed by the construction management firm or architect of record, responsible for maintaining the project BIM model, and all related processes and protocols. The project BIM manager's responsibilities as defined herein are not the fenestration manufacturer's.	<i>912-13</i>
BUILDING SEISMIC SAFETY COUNCIL (BSSC)	The Building Seismic Safety Council was established in 1979 under the auspices of the National Institute of Building Sciences (NIBS) for dealing with the complex regulatory, technical, social, and economic issues involved in developing and promulgating building earthquake hazard mitigation regulatory provisions that are national in scope. Building Seismic Safety Council, 1090 Vermont Avenue, N.W., Suite 700, Washington, DC 20005.	<i>501.4-00</i>
BUILDING PAPER	A membrane material typically made of cellulose paper impregnated with asphalt (to inhibit passage of liquid water through the material) and which is commonly used as a concealed water-resistive barrier (WRB), similar to polymer house wraps, in membrane/drainage walls.	<i>100-07</i>
BULKHEAD	The member of an entrance frame which forms a base for a sidelight.	<i>SFM-1-87</i>
BULL-NOSE	Convex rounding of a member, such as a radius face plate.	<i>SFM-1-87</i>
BUMPER BAR	See GUARD BAR .	<i>SFM-1-87</i>
BUTT	Abbreviation for Butt Hinge, which is a hinge designed for application to the edge of a door.	<i>SFM-1-87</i>
BUTT GLAZING	The installation of glass products where the vertical glass edges are without structural supporting mullions	<i>IGMA Glossary</i>
BUTT JOINT	A meeting of two members squarely end to end.	<i>IPCB-08, SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
BUTTERING	Application of sealant compound to the flat surface of some member before placing the member into position, such as the buttering of a removable stop before fastening the stop in place.	850-91, GAG-1-97, <i>IM-TM, IPCB-08</i>
BUTT-HUNG DOOR	A door hung on Butt Hinges.	<i>SFM-1-87</i>
BUTYL	A non-hardening compound formed by the copolymerization of isobutylene with isoprene.	850-91, <i>GAG-1-97</i>
CAMBER	A slight rising from a plane to gain an actual or apparent effect of arching.	<i>SFM-1-87</i>
CAMING	Material that divides and hold pieces of glazing together to form a single decorative glazing panel.	<i>NFRC Glossary</i>
CAP BEAD	A beveled seal applied to the top of the glazing rabbet to shed water away from the glazed infill.	850-91, <i>GAG-1-97, IPCB-08</i>
CAPILLARY TUBE UNITS	An insulating glass unit where a very small metal tube of specific length and inside diameter is factory-placed into the unit's spacer to accommodate both the pressure differences to the point of installation and also the pressure differences encountered daily after installation. Capillary tubes are not sealed after installation.	<i>IGMA Glossary</i>
CAPSTOCK	The outer layer in a co-extrusion generally exposed to weathering. It could also be the outer layer designated for color, appearance or other performance criteria.	<i>306-04, 311-13</i>
CASEMENT WINDOW	A window consisting of one or more sash hinged to open from the side (adjacent to the jambs), which project outward or inward from the plane of the window in the vertical plane.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
CASING	An exterior or interior trim molding.	<i>IM-TM, SFM-1-87,</i>
CATALYST	A material which speeds the cure of a compound.	850-91, <i>GAG-1-97, TIR-A8-04</i>
CAULK	The application of a sealant to a joint, crack, or crevice.	<i>850-91, GAG-1-97, SFM-1-87</i>
CAVITY	The hollow, channel or void provided in the extruded framing member into which the liquid thermal break material is poured.	<i>509-09, QAG-2-12, TIR-A8-04</i>
CAVITY TO VENT RATIO	The volume of the drainage and ventilation cavity in m ³ (ft ³) between the rain screen and the air/water barrier, divided by the area of the vent in the rain screen in m ² (ft ²). It does not include the volume of rigid non-air permeable insulation such as closed cell foams, but does include the volume of fibrous insulation such as mineral wool insulation. The cavity to vent ratio shall be expressed as m ³ / m ² (ft ³ /ft ²).	<i>508-07</i>
CAVITY WALL	A type of building wall construction consisting of an outer wall secured to an inner wall separated by an air space.	<i>GAG-1-97</i>
CELLULOSIC COMPOSITE MATERIAL	A composite material whose ingredients include cellulosic elements. These cellulosic elements appear in the form of, but are not limited to, distinct fibers, fiber bundles, particles, wafers, flakes, strands, and veneers.	<i>101/I.S.2/A440-11, 311-13</i>
CEMENT CASING	The pan installed in the floor to house the floor bearing and/or operator of a revolving door or the floor mounted operator or closer for a swinging door.	<i>SFM-1-87</i>
CENTER SHAFT	The vertical shaft to which the wings of a revolving door are fastened.	<i>SFM-1-87</i>
CEMENTITIOUS MATERIAL	Material binding aggregate particles together into heterogeneous mass.	<i>IM-TM</i>
CENTER-HUNG DOOR	A door hung on center pivots.	<i>SFM-1-87</i>
CENTER-OF-GLASS AREA (COG)	For thermal transmittance, this includes all vision area except the area within 64 mm (2.5 in.) of the primary sash or frame. For VT and SHGC determination, center-of-glass area is taken to be the vision area.	<i>507-12</i>
CENTER-PIVOT	Swing hardware having its pivot axis on the thickness centerline of the door and normally located about 2 3/4" from the hinge jamb.	<i>SFM-1-87</i>
CERTIFICATION	A process that indicates a representative sample of a product line has been tested, that the product meets specified requirements, and that the product is subject to ongoing inspections by an outside certification agency.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
CERTIFICATION PROGRAM	A program sponsored by a HUD approved organization concerned with product evaluation. This organization maintains periodic testing, inspection and listing of products that meet this standard.	<i>1701.2-02, 1702.2-02, 1704-01</i>
CERTIFIED PRODUCT	A product which meets all requirements of the certification program and is included in that listing.	<i>1701.2-02, 1702.2-02, 1704-01</i>

TERM	DEFINITION	LOCATION(S)
CHANNEL	A three-sided, U-shaped opening in a sash or frame to receive a lite or panel, as with sash or frame units in which the light or panel is retained by a removable stop. Contrasted to a rabbet, which is a two-sided L-shaped opening, as with face-glazed window sash.	850-91, <i>IM-TM</i> , SFM-1-87
CHANNEL DEPTH	The measurement from the bottom of the channel to the top of the stop, or measurement from sight line to base of channel.	850-91, <i>IM-TM</i>
CHANNEL GLAZING	The sealing of joints around lites or panels set in a U-shaped channel employing removable stops.	850-91, <i>IM-TM</i>
CHANNEL WIDTH	The measurement between stationary stops (or between a stationary stop and removable stop) in a U-shaped channel.	850-91, <i>IM-TM</i>
CHASE	A rough channel formed in the inner face of a wall to receive piping, wiring, or duct-work and keep it behind the finished surface.	SFM-1-87
CHECK	See DOOR CLOSER .	SFM-1-87
CHECK RAIL	See MEETING RAIL .	101/I.S.2/A440-11, <i>IM-TM</i> , IPCB-08
CHECK STILE	See MEETING STILE .	<i>IM-TM</i> , IPCB-08
CHEMICAL COMPATIBILITY	"Chemical Compatibility" is in accordance with a definition outlined in ASTM C717, "Standard Terminology of Building Seals and Sealants." Compatibility is defined as the capability of two or more materials that can be placed in contact or close proximity with one another with each material maintaining its usual physical or chemical properties, or both. Specifically, this is to ensure that the components do not interact (chemically or otherwise) to the extent that their properties are altered, which could adversely affect the performance of each component.	713-08
CHEMICALLY BONDED	(When related to a welded corner) A process where the two polymer profiles or pieces are heated and fused together with the aid of a chemical reaction. The reaction and bonding is similar to the original extrusion process.	101/I.S.2/A440-11
CHEMICAL CURING SEALANT	A sealant that cures primarily through chemical reaction.	850-91, GAG-1-97
CHEMICALLY STRENGTHENED GLASS	Glass that has been strengthened by an interchange of molecules at the glass surface, the modified molecules are larger than the original, placing the glass surface in compression.	GDSG-1-87
CHIPS	Minor damage to the pultruded or coated surface that removes material, but does not cause a crack or craze.	305-06
CHORD	For bent glass, the dimension measured straight across the bend.	GDSG-1-87
CHROMOGENIC GLAZING	A broad class of switchable glazings including active materials (i.e.: electrochromic) and passive materials (photochromic and thermochromic).	<i>IGMA Glossary</i>
CLADDING	See FENESTRATION CLADDING .	101/I.S.2/A440-11, CW-11-85
CLADDING SUPPORT	A sub-support between the exterior wall cladding and the building frame that acts to transfer loads back to the structure. Not to be confused with panel stiffener, which typically acts to limit cladding deflection.	509-09
CLADDING SYSTEM	Material assembly applied to a building as a non-load-bearing wall, or attached to a wall surface as a protective and ornamental surface.	<i>IM-TM</i> , IPCB-08
CLASH DETECTION	Identification of physical interference between building components in a virtual (modeled) environment.	912-13
CLASS I (A4)	High performance anodic finishes used in exterior applications receiving periodic maintenance such as curtain walls. Minimum coating thickness of 18 microns (0.7 mil).	611-98
CLASS II (A3)	Commercial anodic coatings used in interior applications or exterior applications receiving regularly scheduled cleaning and maintenance such as storefronts. Minimum coating thickness of 10 microns (0.4 mil).	611-98
CLEAR GLASS	Architectural clear glass is mostly of the soda-lime-silica type, and composition varies between manufacturers, but is generally 70 - 74 percent silica, 5 - 12 percent lime, and 12 - 16 percent soda, with small amounts of magnesium, aluminum, iron, and other elements.	<i>IGMA Glossary</i>
CLEARANCE	See DOOR CLEARANCE .	SFM-1-87
CLIPPED CANOPY	See REVOLVING DOOR CANOPY .	SFM-1-87
CLIPS	Wire spring devices to hold glass in a rebated sash, without stops, and face glazed.	850-91
CLOSER	See DOOR CLOSER .	SFM-1-87

TERM	DEFINITION	LOCATION(S)
CLOSING FORCE	See OPERATING FORCE and FORCE TO LATCH DOOR	<i>101/I.S.2/A440-11, 612-02, 613-05, 614-05, 615-05, 620-02, 621-02, 623-10, 624-10, 625-10, 2603-02, 2605-11</i>
COALESCENCE	To unite, to join together.	<i>850-91</i>
COATING	A protective and/or decorative layer applied to a surface without the use of an adhesive.	<i>305-11, 2604-05</i>
COEFFICIENT OF EXPANSION	A value denoting the rate at which a material expands with rising temperature.	<i>SFM-1-87</i>
COEFFICIENT OF VARIATION	A fraction or percentage indicative of the variability or distribution of a value.	<i>GDSG-1-87</i>
COEXTRUSION	Profiles extruded from two or more concentric streams of compounds. The separate streams may be compounded to provide different characteristics such as strength or weathering.	<i>306-04, 311-13</i>
COHESIVE FAILURE	Failure characterized by splitting within the sealant resulting from over-extension.	<i>850-91, GAG-1-97</i>
COHIBITION POINT	A location where movement is restricted between the sash and the frame, e.g., at a hinge or lock.	<i>IM-TM</i>
COIL-APPLIED COATING	The process of applying a resinous coating onto a coil of aluminum, and curing it into a continuous film, prior to the fabrication process.	<i>620-02, 621-02, 2605-13</i>
COINCIDENCE DIP	A frequency or set of frequencies at which the sound transmission loss across a material will decrease due to the resonant characteristics of the material.	<i>TIR-A1-04</i>
COLD FLOW	Deformation, under gravitational force, at or below room temperature.	<i>850-91</i>
COLLABORATION SOFTWARE	An application that facilitates file sharing, reading various file types and bringing them together in one user interface.	<i>912-13</i>
COLLAPSING MECHANISM	The revolving door mechanism, top and bottom, that allows the door to turn properly and breakaway when required.	<i>SFM-1-87</i>
COLORLED MARKING	Discoloration on the surface of the pultruded product that cannot be removed by rigorous cleaning.	<i>305-06</i>
COLOR-HOLD GUIDELINES	Predictive target color regions within a three-dimensional model which constitute acceptable appearance retention levels of color change resulting from weathering of a specific product type and color.	<i>310-12</i>
COLUMN	A supporting pillar.	<i>SFM-1-87</i>
COMBINATION ASSEMBLY	An assembly formed by a combination of two or more separate fenestration products whose frames are mullioned together utilizing a combination mullion or reinforcing mullion.	<i>101/I.S.2/A440-11</i>
COMBINATION DOORS	A door composed of a prime door with a storm door affixed to the exterior face of the assembly. Combination doors are offered by the manufacturer as a complete factory pre-assembled or integral unit. Operation of the prime door and storm door shall be completely independent of each other. Combination doors are marked and tested as single integral units.	<i>1702.2-02</i>
COMBINATION MULLION	A horizontal or vertical member formed by joining two or more individual fenestration units together without a mullion stiffener.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 450-06</i>
COMBUSTION	A chemical process of oxidation that occurs at a rate fast enough to produce a temperature rise and usually a light, either as a glow or flame.	<i>FSCOM-1-09</i>
COMMERCIAL BUILDING (AS DEFINED IN THE IECC)	All buildings other than detached one- and two-family dwellings, townhouses and residential buildings, Groups R-2 and R-4.	<i>507-03</i>
COMMERCIAL ENTRANCE SYSTEM	A system of products used for ingress, egress and rescue in non-residential buildings. Commercial entrance systems typically utilize panic hardware, automatic closers, and relatively large amounts of glass. Commercial entrance systems are often site assembled. They are typically subject to high use and possibly abuse and are designed to withstand such use and abuse.	<i>101/I.S.2/A440-11</i>

TERM	DEFINITION	LOCATION(S)
COMMON MULLIONS	Occur when two or more similar units are assembled in rows or ribbons (back to back). The individual units must be tested to the appropriate section(s) of this standard, but may be either factory or field mulled. Evidence of compliance shall be either by testing or mathematical calculation.	<i>101/I.S.2-97</i>
COMPARTMENTALIZATION (SEGMENTATION)	The principle of dividing the vent and drainage cavity into smaller confined air cavities to control vertical or horizontal air flow inside the wall for the purpose of maintaining the pressure equalized air space.	<i>508-07, 509-09</i>
COMPATIBILITY	When materials maintain physical and functional properties when in direct contact or close proximity to each other. The ability of two or more materials to exist in close association for an indefinite period with no adverse effect of one on the other.	<i>100-12, 200-12, 300-12, GAG-1-97, IPCB-08</i>
COMPATIBLE	Two or more substances which can be mixed or blended or in close proximity without separating, reacting, or affecting the material adversely.	<i>850-91</i>
COMPATIBLE MATERIALS	Materials that can exist in contact or close proximity to one another without detrimental effects on either.	<i>713-08</i>
COMPLETE WINDOW REPLACEMENT	The installation of a replacement window, where the previously installed window is completely removed.	<i>IM-TM, IPCB-08</i>
COMPLIANT	Expression of dissatisfaction (other than Appeal) to the AAMA Validator or Chief Engineer, Certification Programs by a licensee, any person, or organization, relating to either the operation of the certification program or qualifications of a certified product, where a response is expected. Complaints and responses must be in writing. If the complainant deems the response unsatisfactory, he may file an Appeal.	<i>103-09</i>
COMPOSITE MATERIALS	Window and door members that are comprised of two or more materials. They are structurally combined or connected so as to perform structurally as a singular material (e.g., poured and debridged aluminum shapes, fiberglass, and man-made wood products).	<i>IM-TM, IPCB-08</i>
COMPOSITE SECTION	A framing member consisting of an interior and exterior extruded aluminum section, both of which are mechanically joined by a polyamide structural thermal barrier to improve the thermal performance of the assembly.	<i>QAG-2-12, TIR-A8-04</i>
COMPOSITE UNIT	A fenestration product consisting of two or more sash, leaves, lites or sliding door panels within a single frame utilizing an integral mullion (not to be confused with products made from cellulosic composite materials).	<i>101/I.S.2/A440-11</i>
COMPOUND	A chemical formulation of ingredients, usually grouped as vehicle or polymer pigment and fillers, to produce caulking compound, elastomeric joint sealant, etc.	<i>850-91, GAG-1-97, IM-TM, IPCB-08</i>
COMPRESSION	Pressure exerted on a sealant in a joint, as by placing a light or panel in place against bedding, or placing a stop in position against a bead of sealant.	<i>850-91</i>
COMPRESSION GASKET	A gasket designed to function under compression.	<i>850-91, GAG-1-97, IPCB-08</i>
COMPRESSION SET	The permanent deformation of a material after removal of the compressive stress.	<i>701/702-11, 850-91, GAG-1-97, JS-91</i>
COMPRESSION STRENGTH	The maximum compressive stress which a material is capable of sustaining. Compressive strength is calculated from the maximum load during a compression test and the original cross-sectional area of the specimen.	<i>TIR-A8-04</i>
CONCENTRATED LOAD	A force applied to a fixed point load on a window, door, TDD, SSP, roof window or unit skylight component.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 2200-01</i>
CONCRETE MASONRY UNIT (CMU)	A pre-cast masonry block used to construct walls.	<i>200-12</i>
CONDENSATION	The deposition of moisture (liquid or frost) on the surface of an object caused by warm, moist air coming into contact with a colder object.	<i>101/I.S.2/A440-11, 101/I.S.2-97, IPCB-08</i>
CONDENSATION GUTTER	A trough for carrying off condensed water; this may be drained to the exterior or allowed to evaporate.	<i>GDSG-1-87</i>

TERM	DEFINITION	LOCATION(S)
CONDENSATION RESISTANCE FACTOR (CRF)	A rating number obtained under standard test conditions as prescribed in AAMA 1503. The CRF is essentially the ratio of the difference between an average inside surface temperature and the outside air temperature, and the difference between the inside air temperature and the outside air temperature. The CRF allows for comparison of the relative performance of fenestration systems based on the point at which an objectionable amount of condensation occurs. The CRF is dimensionless and expressed as a number between 1 and 100. The higher the CRF, the higher the resistance to condensation.	503-03, 507-07, 1503-09, IPCB-08, TIR-A8-04
CONDITIONED	Space within a building that is provided with a heating and/or cooling system.	2100-02
CONDITIONED SPACE	An area or room within a building that: <ul style="list-style-type: none"> (a) is heated or cooled by any equipment or appliance; (b) contains un-insulated ducts; or (c) has a fixed opening directly into an adjacent area or room that is heated or cooled by any equipment or appliance or contains un-insulated ducts. 	101/I.S.2/A440-11, 2100-11
CONDUCTION	The transfer of heat through matter, whether solid, liquid, or gas.	IGMA Glossary
CONSERVATORY	A sunroom featuring a high percentage of glazed surfaces used as walls and roof systems.	2100-02
CONSISTENCY	The degree of softness or firmness of a sealant, as supplied in the container, and varying according to method of application, such as gun, knife, tool, etc.	850-91, GAG-1-97, IM-TM
CONSTRUCTION JOINT	The linear void between two adjacent building elements.	FSCOM-1-09
CONSTRUCTION DOCUMENTS	Architectural drawings, specifications, shop drawings, manufacturing details, test reports or contracts, building permits.	IM-TM, IPCB-08
CONTROL JOINT	A joint acting to regulate the location and degree of cracking and separation resulting from the dimensional change of different elements of a structure.	850-91
CONVECTION	The transfer of heat through a liquid or gas, when that medium hits against a solid surface.	IGMA Glossary
COORDINATOR	A mechanism which controls the order of closing of a pair of swing doors, used with doors equipped with overlapping astragals and certain panic hardware which requires one door to close ahead of the other.	SFM-1-87
COPE	To join two molded strips at an angle by fitting one over the other, instead of mitering.	SFM-1-87
CO-POLYMER	A polymer containing two or more chemically different types of monomers.	850-91
CORNER BRACKET	A bracket which is connected to a door frame jamb and head at the upper hinge corner to support an exposed overhead door closer. Used only on out-swinging doors.	SFM-1-87
CORNER POST	A glass-holding mullion which connects two plates of glass at an angle, forming a corner.	SFM-1-87
CORNER SEAL	Formed when a sealant is installed to prevent air and water intrusion at corner details.	850-91
CORROSION	The deterioration of metal by chemical or electro-chemical reaction resulting from exposure to weathering, moisture, chemicals or other agents or media.	101/I.S.2/A440-11, 101/I.S.2-97
COUNTER-FLASHING	Horizontally applied sheet (flashing) material that joins layers of flashings where they join the weather resistant barrier, enhancing drainage by gravity.	ASTM E2112-07
COUPLING	The ability of materials that are rigidly connected, to transmit vibrations or sound energy from one point to another location. The amount of energy transfer will depend upon the type of material.	TIR-A1-04
COVER PLATE	A finish plate used to cover the exposed face of a floor closer not covered by the threshold; also, a plate used to cover the exposed face of a closer mounted in the head of a door frame or a section of threshold over a floor closer.	SFM-1-87
COVERING	A surface or component that provides protection or security by its position over a space. Coverings include, but are not necessarily limited to roofs, roof systems, glazed surfaces, screened panels or other similar assemblies.	2100-11
CRASH BAR	The cross bar of a panic exit device, serving as a push bar to actuate the panic hardware.	SFM-1-87
CRASH BAR HOUSING	The housing at either end of a crash bar which is mounted on the surface of a door.	SFM-1-87
CREEP	Time dependent part of strain resulting from stress.	850-91

TERM	DEFINITION	LOCATION(S)
CREMONE	A locking device consisting of two long rods, the ends of which engage at sill and head.	<i>SFM-1-87</i>
CRIPPLE STUD	A short stud above or below a window or door opening.	<i>IM-TM</i>
CRITICAL INTERFACE	The interface between the fenestration product or other building component, and the surface of the building that requires protection from water intrusion. The critical interface can include, but is not limited to, any or all of the following: the mounting flange/nailing fin, exterior frame of a non-flanged product, the exterior edge of a casing of a brick mold of the fenestration product and the sheathing WRB or rough opening frame; the trim and siding/cladding interface; or it can be the nail or other penetrations through the window trim.	<i>711-13</i>
CROSS RAFTER	In a skylight system, a structural framing member between rafters; generally at or near horizontal.	<i>GDSG-1-87</i>
CURB	A wall or frame used to raise roof windows, skylights, or sloped glazing above the surface of the roof.	<i>NFRC Glossary</i>
CURE TIME	The period of time that a reacting thermosetting material is exposed to specific conditions to reach a specified property level. The time required for a poured and debridged section to develop maximum physical properties.	<i>TIR-A8-04</i>
CURING	Chemical process of developing ultimate properties of a finish or other material over a specified period of time. Compare to Drying.	<i>IM-TM, IPCB-08, TIR-A8-04</i>
CURING AGENT	Generally one part of a two-part sealant which, when added to the base, will cause the base to change its physical state by chemical reaction between the two parts.	<i>850-91, GAG-1-97, IM-TM, IPCB-08</i>
CURTAIN WALL	A non-load-bearing exterior wall cladding that is hung to the exterior of the building, usually spanning from floor to floor. Curtain wall vertical framing members run past the face of floor slabs, and provision for anchorage is typically made at vertical framing members only. In contrast to combination assemblies and composite units, non-residential curtain wall systems often need to meet additional performance requirements for inter-story differential movement, seismic drift, dynamic water infiltration, etc. Operating vents and entrance doors are provided as separate inserts.	<i>101/I.S.2/A440-11; 501.4-00, 501.6-01, 503-03, 507-12, CW-DG-1-96, FSCOM-1-09, IM-TM</i>
CURVED GLASS	See BENT GLASS .	<i>GDSG-1-87</i>
CUT-BACK	(For replacement windows without old frame tear-out.) The difference between the measured opening size and the manufactured frame dimensions that allows the installation of the window with the manufacturer's recommended clearances. Similar to Rough Opening Gap for new windows.	<i>IM-TM</i>
CYCLIC BENDING	The repeated application and removal of a bending load to a framing member so as to investigate fatigue life, composite interaction, possible changes in physical properties, etc.	<i>TIR-A8-04</i>
CYLINDER	The cylindrical mechanism which receives the key used to operate a locking mechanism.	<i>SFM-1-87</i>
CYLINDER CAM	Usually refers to the flat metal plate on the end of a mortise type cylinder, serving to actuate the lock mechanism.	<i>SFM-1-87</i>
CYLINDER GUARD	Hardened protective shield to prevent pulling of cylinder.	<i>SFM-1-87</i>
CYLINDER RING	Spacing collar to accommodate longer cylinders.	<i>SFM-1-87</i>
DAMP SURFACE	For the purposes of this document, a 'damp surface' is 'damp-to-touch' and is characterized by a lack of visible water on the surface and no transfer to the skin upon touching.	<i>714-12</i>
DARK BROWN PROFILE	A profile, the color of which is defined by the color space falling within the parameters $L_H = 13$ to 33 , $a_H = -1.0$ to 6.0 , and $b_H = 1.0$ to 6.5 .	<i>310-12</i>
DARK GREEN PROFILE	Color defined by the color space falling within the parameters $L_H = 20$ to 40 ; $a_H = -20$ to -2 ; $b_H = -2$ to 4	<i>310-12</i>
DAYLIGHT OPENING	Minimum clear opening of the pre-existing window frame after removal of sash, glass and all sash components	<i>2410-03</i>
DAYLIGHTING	The effective use of natural lighting from both the sun and the sky for meeting at least part of the lighting needs within an occupied space. Associated with this is an assumption that all or part of the installed lighting system uses some type of lighting control strategy to respond to the available daylight.	<i>DDGA-89</i>
DEAD LOAD	Load from the permanent parts of a building or structure; loads on glass from twist or camber in framing members are dead loads.	<i>2200-01, GDSG-1-87, IPCB-08</i>

TERM	DEFINITION	LOCATION(S)
DEADLATCH	A latch bolt having an auxiliary feature which prevents its retraction by end pressure when in projected position.	<i>SFM-1-87</i>
DEADLOCK	A lock in which a bolt is moved by means of a key or thumb turn, and is positively stopped in its projected position.	<i>SFM-1-87</i>
DEADSTOP	See BACKSTOP .	<i>SFM-1-87</i>
DEBRIDGING	The process whereby the aluminum bridge connecting the exterior and interior portions of the extruded thermal break cavity is removed either by milling or sawing.	<i>TIR-A8-04</i>
DEBRIDGING TIME	The minimum time required for the mixed thermal break material to develop sufficient hardness to allow debridging.	<i>TIR-A8-04</i>
DECK	An exterior floor supported on at least one side by an adjacent structure, posts, piers or other independent supports.	<i>2200-01</i>
DECORATIVE LAMINATE	A layer of natural or synthetic material bonded with an adhesive system to the interior or exterior surface of a plastic skylight, window and door profiles.	307-05, <i>312-05</i>
DECORATIVE PROFILE	Profiles that do not comprise part of the main-frame or sash, are not integral to the structure of the assembled unit, and/or are not components related to the retention of glass, such as decorative muntin and glazing stop profiles.	<i>305-11</i>
DECOUPLING	The ability of materials to isolate vibrations or sound energy from one point to another location. Resilient materials, such as foam or rubber would provide this type of isolation.	<i>TIR-A1-04</i>
DEFLECTION	Displacement due to flexure of a member under an applied load.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 450-06, 1701.2-02, 1702.2-02, IM-TM, IPCB-08</i>
DEFLECTION RESISTANCE	The ability of the thermal break material to resist distortion due to wind loading, gasket pressure, fabrication or handling which would exceed the deflection limits specified for the product.	<i>TIR-A8-04</i>
DELAMINATION	The separation of two or more layers or plies of reinforcing material within pultrusion.	<i>305-06, TSGG-04</i>
DENSITY	The mass per unit volume of a material, i.e., the mass of the thermal break material divided by the volume of that material.	<i>TIR-A8-04</i>
DENSITY TOLERANCE	Insures that the finished profiles conform to the original design, weight, and to a lesser extent, the dimensions presented in the drawings.	<i>308-05</i>
DESICCANTS	Porous crystalline substances used to absorb moisture and solvent vapors from the air space of insulating glass units. (More properly called absorbents.)	<i>IGMA Glossary</i>
DESIGN DISPLACEMENT	<p>The portion of total vertical movement resulting from live load, system dead load and/or column creep and, unless otherwise specified, is defined to be 80% of the total vertical displacement (unless otherwise quantified through detailed calculations, and clearly called out in project specifications.</p> <p>Or</p> <p>The design earthquake lateral displacements, excluding additional displacement due to actual and accidental torsion. Numerically, this is the calculated elastic deflection multiplied by an appropriate deflection amplification factor that approximates the actual inelastic displacement.</p>	<i>501.4-00, 501.6-01, 501.7-11</i>
DESIGN EARTHQUAKE	An earthquake that would produce ground motions at the site under consideration having a 90% probability of not being exceeded in 50 years. (Previously, some referred to this as the "probable earthquake.") As defined in 1997 SBC: "the earthquake at the site under consideration that produces ground motions having 90% probability of not being exceeded in 50 years." As defined in 1997 UBC: "the design basis ground motion is that ground motion that has a 10% chance of being exceeded in 50 years as determined by a site specific hazard analysis or may be determined from a hazard map."	<i>501.4-00, 501.6-01</i>
DESIGN FACTOR	For glass, the average resistance to external loads for given size, type and thickness divided by the loads corresponding to the maximum allowable breaking probability.	<i>GDSG-1-87</i>

TERM	DEFINITION	LOCATION(S)
DESIGN INTENT (DI) MODELS	Fenestration BIM models of standard “catalog” products, of standard size and configuration, often made available through manufacturers’ websites or industry warehousing/library sites, intended for use in early stages of design for visualization, rendering, product selection, and other high-level conceptual purposes as “basis of design.” DI models are provided prior to fenestration purchase order issuance.	912-13
DESIGN PRESSURE (DP)	A rating that identifies the load, induced by wind and/or static snow, that a product is rated to withstand in its end-up application. Loads induced by static snow are applicable only to unit skylights, roof windows, and TDDs. (Not to be confused with Performance Grade (PG) or Structural Test Pressure (STP)).	101/I.S.2/A440-11, 101/I.S.2-97, 450-06, 1701.2-02, 1702.2-02, 2100-11, IPCB-08
DESIGN WIND LOAD	The wind load pressure a product is required by the specifier to withstand in its end use application.	101/I.S.2/A440-11
DEW POINT TEMPERATURE	The temperature at which water vapor in air will condense at a given state of humidity and pressure.	NFRC Glossary
DIE-PARTING LINE	A lengthwise flash or depression on the surface of a pultruded part.	305-06
DIFFUSER	A translucent glazing layer or fenestration product accessory designed to transmit direct-beam radiation diffusely, i.e. many directions.	NFRC Glossary
DIMENSIONAL STABILITY	The degree that an extruded profile retains its original length and resists shrinkage, after being subjected to elevated temperatures. Dimensional stability is an excellent indicator of any internal or residual stresses in the profile that may have resulted from the extrusion process.	303-08, 304-07, 306-04, 308-08, 812-04
DISENGAGEMENT	Separation of one decking system component from another, as in a fastener head pulling completely through a plank. Disengagement does not include movement of one component relative to another.	2200-01
DISPLACEMENT	A vector or the magnitude of a vector from the initial position to a subsequent position assumed by a body.	501.4-00, 501.6-01
DISPUTE	Disagreement between two parties (typically a licensee and a test lab, or a licensee and a customer) which is brought to AAMA for a decision based on procedural documents. Disputes shall be addressed, in writing, to the Validator, the AAMA Chief Engineer, Certification Programs, or the Certification Policy Committee, as appropriate. A response unsatisfactory to any party may result in an Appeal.	103-09
DISTORTION	The optical effect due to the variation of sheet glass thickness.	IGMA Glossary
DIVIDER	A member that divides glazings into separate vision areas. Dividers are either structural or decorative. Other common terms are muntin, true divided lite (TDL), simulated divided lite (SDL), grill, grid, or bar in glass.	101/I.S.2/A440-11, IM-TM, IPCB-08
DIVISION BAR	A resilient member used vertically or horizontally, supporting lightweight building materials when combined with a structural element.	SFM-1-87
DOCK	A deck designed and located for the reception of water-going vessels and the loading/unloading of people and materials to/from docked vessels.	2200-01
DOGGING DEVICE	A device used to lock the crash bar on a panic exit device in the open position.	SFM-1-87
DOOR	A means of access for the purpose of ingress and egress. See also COMMERCIAL ENTRANCE SYSTEM, DUAL-ACTION SIDE-HINGED DOOR, FOLDING DOOR SYSTEM, INTERIOR DOOR, PASSIVE DOOR, REVOLVING DOOR, SECONDARY STORM PRODUCT, SIDE-HINGED DOOR SYSTEM, SLIDING DOOR, STORM DOOR, and VEHICULAR-ACCESS DOOR.	101/I.S.2/A440-11, 507-12
DOOR BACKSET	Dimension from plane of face of door to plane of face of frame.	SFM-1-87
DOOR BUCK	A door frame of rough material to which the finished door frame is attached.	SFM-1-87
DOOR CLEARANCE	The margin of clearance around the edge of a door, between door and frame.	SFM-1-87
DOOR CLOSER	A device or mechanism to control a door during its opening and closing cycle; may be overhead or floor mounted, and either exposed or concealed.	SFM-1-87
DOOR FRAME	The assembly of members into which a door fits when closed, consisting of jambs and head but no sill.	SFM-1-87
DOOR HOLDER	A hardware device designed to limit the swing of a door and hold it in an open position.	SFM-1-87
DOOR LIGHT (LITE)	The glass area in a glazed door.	SFM-1-87
DOOR OPENING	The opening dimension of a doorway, measured from inside of jambs and from floor line to underside of head of frame. The opening size is usually the nominal door size, and is equal to the actual door size plus clearances and threshold height.	SFM-1-87

TERM	DEFINITION	LOCATION(S)
DOOR SIZE (ACTUAL)	a) For swing doors, the actual width and height of the door leaf itself. b) For revolving doors, the inside diameter of the enclosure walls and the height from floor to underside of ceiling.	<i>SFM-1-87</i>
DOOR SIZE (NOMINAL)	See DOOR OPENING .	<i>SFM-1-87</i>
DOOR STOP	a) A moulding or projecting element on a door frame which overlaps the edge of a door, causing it to stop in its closed position. b) A bumper mounted on the floor or wall to limit the extent of the door opening. c) An accessory feature of a door holder, serving to limit the swing of a door.	<i>SFM-1-87</i>
DOOR SWEEP	See SWEEP STRIP .	<i>SFM-1-87</i>
DOOR SYSTEM	One or more leaves or panels contained within one master frame with a sill/threshold and with or without mullions or hardware. The operable panels are hinged or sliding. The hinged panels can swing inward or outward.	<i>101/I.S.2/A440-08</i>
DOUBLE ACTING DOOR	A door equipped with hardware which permits it to swing in both directions from the plane of its frame.	<i>SFM-1-87</i>
DOUBLE GLAZING	In general, any use of two thicknesses of glass, separated by an air space, within an opening, to improve insulation against heat transfer and/or sound transmission.	<i>101/I.S.2-97, GDSG-1-87</i>
DOUBLE-HUNG WINDOW	A hung window with two sash in which both sash are operable.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
DRAINDOWN	The observed dripping/sag/flow of any component from the constructed sample as a result of the softening or liquification of the self-adhered flashing adhesive or sealant.	<i>713-08</i>
DRAINAGE AND VENTILATION CAVITY	A cavity which is located behind the rain screen cladding element of the wall system and is on the exterior side of the air and water barrier (AWB) that allows the system to drain and vent.	<i>508-07, 509-09</i>
DRAINED AND BACK VENTILATED RAIN SCREEN WALL CLADDING SYSTEM (D&BV)	A wall system that consists of an exterior cladding, a cavity, and an AWB while providing for exterior ventilation. Ventilation shall be incorporated into the cladding system design and/or included at the top and bottom of the wall. Water that penetrates the cavity is directed to the exterior by use of flashing, drainage paths and weeps.	<i>509-09</i>
DRAINED CAVITY WALL CLADDING	A wall system that consists of an exterior cladding, a cavity, and an AWB to manage air leakage and water penetration. The exterior cladding sheds the majority of water. Water that penetrates the cladding is drained to the exterior of the building with flashing, drainage paths and weeps.	<i>509-09</i>
DRESS PLATE	See COVER PLATE .	<i>SFM-1-87</i>
DRIFT	Generally refers to horizontal displacement. Story drift (or inter-story drift) refers to lateral movement (displacement) of one level (story) of a structure with respect to the level (story) above or below due to the design lateral forces. Story drift is the calculated elastic drift that has been amplified by factors required by government regulations or codes.	<i>501.4-00, 501.6-01</i>
DRIP	Any exterior horizontal course or molding that projects over a wall or other surface to divert away water. A small groove on the underside of a drip cap or window sill to prevent water from running back under the cap or window.	<i>IM-TM, SFM-1-87</i>
DRIP CAP	A molding or flashing commonly installed over windows and doors to direct water away from the building in order to prevent seepage, also called a drip molding.	<i>300-12, IM-TM</i>
DRIP MOLD	A molding shaped for drip.	<i>SFM-1-87</i>
DROPPED DART IMPACT RESISTANCE	Measures the resistance of the profile to cracking or breaking during the fabrication processes, such as sawing, routing and punching. Impact resistance also indicates resistance to general abuse during transportation, storage and installation.	<i>303-05, 304-07</i>
DRUM	The curved sides of the enclosure, either glass or sheet metal of a revolving door.	<i>SFM-1-87</i>
DRY GLAZING	A flexible seal made from rubber, vinyl, etc., or other acceptable material that does not have adhesive properties.	<i>GAG-1-97, GDSG-1-87, IM-TM, IPCB-08, SFM-1-87</i>
DRY SEAL	Accomplishment of a weather seal between the glass and sash by use of elastomeric or other flexible material strips or gaskets.	<i>850-91</i>
DUAL ACTION HINGED GLASS DOOR	Dual action hinged glass doors consist of one or more glazed panels contained within an overall frame designed so that one of the glazed panels is operable in a swing mode and can be tilted inward from the top for ventilation.	<i>101/I.S.2-97</i>

TERM	DEFINITION	LOCATION(S)
DUAL-ACTION SIDE-HINGED DOOR	A door system consisting of one or more leaves contained within an overall frame and designed such that one of the leaves is operable in a swing mode and can be tilted inward from the top for ventilation.	<i>101/I.S.2/A440-11</i>
DUAL-ACTION WINDOW	A window consisting of a sash that tilts from the top and swings inward from the side for cleaning of the outside surface. Also referred to as "tilt-turn" window.	<i>101/I.S.2/A440-11</i>
DUAL DOOR	A side-hinged door composed of one of the configurations listed in Clause 4.5.1 of 101/I.S.2/A440-11.	<i>101/I.S.2/A440-11</i>
DUAL GLAZING	Two layers of glazing material mounted in a common frame and/or sash, separated by a space, and sealed or non-sealed.	<i>101/I.S.2/A440-11</i>
DUAL MODE	The primary and secondary window/door, or both primary windows/doors, are closed, the primary windows/doors are locked, and the insect screen (when offered or specified by the manufacturer) is in the stored position.	<i>101/I.S.2/A440-11</i>
DUAL WINDOW	A window composed of one of the configurations listed in Clause 4.5.1 of 101/I.S.2/A440-11 and offered by the manufacturer as a complete factory pre-assembled or integral unit.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 1701.2-12, 1702.2-12</i>
DUAL-SEALED UNITS	Sealed insulating glass units fabricated with an inner seal and an outer secondary seal. Generally, each of the two seals has been selected for its special performance characteristic, i.e. adhesion and moisture vapor transmission properties.	<i>IGMA Glossary</i>
DURABILITY	The capability of maintaining the serviceability of a product, component, assembly or construction over a time.	<i>701/702-04</i>
DUROMETER	An instrument to measure hardness of a material. (See SHORE HARDNESS .)	850-91, GAG-1-97, IM-TM, <i>IPCB-08</i>
DUSTPROOF STRIKE	See STRIKE .	<i>SFM-1-87</i>
DWELL TIME	The time from the point the test apparatus clutch slips until the apparatus changes direction.	<i>901-10</i>
DYNAMIC GLAZING	Any Glazing System/Glazing In-fill that has the fully reversible ability to change its performance properties, including U-factor, SHGC, or VT. This includes, but is not limited to, shading systems between the glazing layers and chromogenic glazing.	<i>NFRC Glossary</i>
EDGE BLOCKS	Continuous or short lengths of elastomeric materials located at both jambs of the frame for centering the glass in the framed opening and for preventing lateral "walking." They also protect the glass edges from being nicked during installation.	GDSG-1-87, <i>SFM-1-87</i>
EDGE CLEARANCE	The dimension between the edge of glass or panel and its surrounding frame, measured normal to the edge in the plane of the glass or panel.	GDSG-1-87, <i>SFM-1-87</i>
EDGE COVER	The dimension by which the inner edge of the frame or stop overlaps the edge of the glass or panel.	<i>SFM-1-87</i>
EDGE ENGAGEMENT	See BITE .	<i>GDSG-1-87</i>
EDGE-OF-GLASS AREA (EOG)	For thermal transmittance, this area includes all vision area within 64 mm (2.5 in) of the primary sash or frame.	<i>507-12</i>
EDGE SLIP (EDGE MISMATCH)	An edge condition in which one component glass of a (edge mismatch) laminate extends beyond the other.	<i>TSGG-04</i>
EFFECTIVE MOMENT OF INERTIA	The moment of inertia or ability of the composite structure to resist deflection under load. This property is usually determined by testing the composite rather than attempting to mathematically predict composite performance.	<i>TIR-A8-04</i>
EFFECTIVE THERMAL CONDUCTIVITY	The combined effects of conduction, convection, and radiation in fluid-filled (gas-filled) enclosures and cavities, converted into an apparent or effective conductivity of a solid.	<i>IGMA Glossary</i>
EGRESS	The act of leaving an enclosed space. In the window industry the term refers to the dimensions of the opening of a window or door (the horizontal clear distance, vertical clear distance and the area of the opening which are established by the building codes). The reason for establishing minimum egress dimensions is to insure that a person attempting to leave a building in an emergency situation will have room to maneuver. Also proper "egress" will allow a fireman to enter a home while wearing emergency equipment. In 1985, the minimum egress dimensions required by most codes are 22" horizontally, 24" vertically and 5.7 square feet in area. Some areas of the country use different dimensions.	<i>101/I.S.2-97, IM-TM, IPCB-08, SFM-1-87</i>
EGRESS WINDOW	A window providing egress.	<i>101/I.S.2-97</i>

TERM	DEFINITION	LOCATION(S)
EGRESS WINDOW SYSTEM	A “primary window” and, if provided, any screen, secondary window or other device, together with the necessary operating instructions constitute an “Egress Window System,” which complies with the requirements of this standard and that, when properly installed in a manufactured home, provides a means of egress when access to the exterior passage doors are unavailable.	<i>1704-01</i>
ELASTIC RECOVERY	Elastic recovery is the ability of the cross-linked sealant to recover from a constant external deformation. Elastic recovery is a measure of the cross-linking density of the system.	<i>JS-91</i>
ELASTOMER	An elastic, rubber-like substance which may either occur naturally or be produced synthetically.	<i>850-91, IM-TM, IPCB-08</i>
ELASTOMERIC	An elastic rubber like substance.	<i>GAG-1-97</i>
ELASTOMERIC MATERIAL	A term often used for rubber and polymers that have properties similar to those of rubber. Thermal break polymers having the elastic properties of natural rubber.	<i>TIR-A8-04</i>
ELECTRIC STRIKE	See STRIKE .	<i>SFM-1-87</i>
ELECTROCHROMIC (GLAZING)	Glazing with optical properties that can be varied continuously from clear to dark with a low-voltage signal. Ions are reversibly injected or removed from an electrochromic material.	<i>IGMA Glossary</i>
ELECTRODEPOSITED COLOR ANODIC FINISHES (A44)	Colored anodic coatings achieved in a multi-step process involving a clear anodizing step, followed by an electrolytic deposition of stable metal compounds at the pore base of the anodic coatings to obtain the color. A wide range of colors including the champagnes, bronzes, black, blue, burgundy, green, gray and gold can be achieved through different electrochemical techniques. A44 finishes may be over dyed to produce additional colors (A44/A43).	<i>611-98</i>
ELECTROLYSIS	Chemical decomposition of metal surface by the action of dissimilar metals and moisture.	<i>SFM-1-87, IPCB-08</i>
ELECTROLYTIC COLORING	A multi-step process involving a clear anodizing step, followed by an electrolytic deposition of stable metal compounds at the pore base of the anodic coatings to obtain the color.	<i>612-02</i>
ELONGATION	Increase in length expressed as a percentage of original length. The extension or growth of a material in one direction usually with a shrinkage or reduction in one or both of the other orthographic directions.	<i>850-91, TIR-A8-04</i>
EMERGENCY RELEASE	A safety device other than panic hardware which permits egress under emergency conditions.	<i>SFM-1-87</i>
EMISSION	The relative ability of a surface to radiate heat, with emissivity factors ranging from 0.0 (or 0 percent) to 1.0 (or 100 percent).	<i>IGMA Glossary</i>
EMITTANCE	Heat energy radiated by the surface of a body, usually measured per second, per unit area.	<i>IGMA Glossary</i>
ENCLOSURE WALL	The curved wall components of a revolving door.	<i>SFM-1-87</i>
END DAM	Any means provided to stop the flow of water out of the ends of a sill, panning system or subsill and into the wall cavity, such as sealant, upstands, plates or gasketing. End dams shall be of a height equal to the height of the back dam or higher.	<i>100-12, 200-12, 300-12, IM-TM</i>
ENERGY PANEL	A glazed Fenestration Attachment designed to be mounted to the interior or exterior of a primary fenestration product such that a gap is created between the glazing systems of the attachment and the primary fenestration product.	<i>NFRC Glossary</i>
ENTRANCE	The doorway, vestibule or lobby through which one enters a building.	<i>SFM-1-87</i>
EPDM	A synthetic rubber; Ethylene Propylene Diene Monomer.	<i>GAG-1-97</i>
EQUIVALENT COMBINED LOAD	Various long and short term loads combined into a single load; loads are combined in a manner that considers the variability of glass strength with load duration.	<i>GDSG-1-87</i>
EQUIVALENT GLASS AREA	Triangular or quadrilateral glass areas interpreted into equivalent rectangular areas for the purpose of determining resistance to loads.	<i>GDSG-1-87</i>
EQUIVALENT TRIANGULAR LOAD DURATION (TD)	The time duration of the positive phase of a blast pressure pulse idealized as a triangle.	<i>510-06</i>

TERM	DEFINITION	LOCATION(S)
EQUIVALENT WEATHERSTRIP	Manufacturers shall classify their products in groups called Series. Each series defines significant properties of the product group that relate to its component materials, construction, and intended application. Changes in component materials such as yarn, fin, and backing materials that alter the product's performance or application shall denote a change in series. Changes in a product's construction such as method of attachment to a base, number of extending fins that alter the product's performance or application shall also denote a change in series.	701/702-04
EVACUATED GLAZING	An insulating glazing composed of two glass layers, hermetically sealed at the edges, with a hard vacuum between (< 10 ⁻³ Pascals) to eliminate convection and conduction. A spacer system (commonly referred to as "pillars") throughout the surface of glass (rather than just at the edges) is needed to keep the panes from touching.	<i>IGMA Glossary</i>
EXIT DEVICE	See PANIC EXIT HARDWARE .	<i>SFM-1-87</i>
EXPANSION JOINT	A separation between building elements that allows independent movement without damage to the assembly.	850-91, <i>GAG-1-97</i> , <i>IPCB-08</i>
EXPOSED SURFACES	Those surfaces which are visible when the coated product is installed. These may include both closed and open positions of operating sash, ventilators, doors or panels.	612-02, 613-08, 614-05, 615-05, 620-02, 621-02, 623-07, 624-07, 625-07, <i>2603-13</i> , 2604-05, 2605-05, <i>IPCB-08</i>
EXTENSION BOLT	See FLUSH BOLT .	<i>SFM-1-87</i>
EXTERIOR	Exposed surfaces visible when viewed from the building exterior with operating sash, door, or ventilators in the closed and locked positions.	307-05, <i>312-05</i> , <i>TIR-A8-04</i>
EXTERIOR GLAZED	Glazing infills set from the exterior of the building.	850-91, <i>GAG-1-97</i> , <i>IPCB-08</i>
EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)	A non-load-bearing outdoor wall finish system consisting of a thermal insulation board, an attachment systems, a reinforced base coat, exterior joint sealant, and a compatible finish.	<i>IM-TM</i> , <i>IPCB-08</i>
EXTERIOR PERIMETER SEAL	Sealant that seals the joint between the building construction materials, such as masonry, and doors or windows.	850-91
EXTERIOR RAIN SCREEN	An exterior cladding that allows venting to occur for the purpose of controlling water penetration through the system.	508-07
EXTERIOR STAIN FINISH	Single or multi-layered coating system designed to yield a variegated or grained pattern.	633-11
EXTERIOR STOP	The removable molding or bead located on the exterior side that holds the lite or panel in place. (See INTERIOR STOP .)	850-91
EXTERIOR SURFACE	Exposed surfaces visible when viewed from the building exterior with operating sash or ventilators in the closed and locked positions.	307-11
EXTERIOR WALKING SURFACE	Flooring designed to be used outdoors as a component of decks, docks, balconies and stairs.	2200-01
EXTRANEIOUS AIR	Air entering into the monitored/tested area from sources other than the specimen being tested.	503-03
EXTRUDABILITY LIMITS	A set of guidelines established by The Aluminum Association and the Aluminum Extruders Council that provides quality extrusions with standard tooling. Dimensional tolerances, gap-width ratios, extrusion factor and inscribing circle are examples of these limits.	<i>TIR-A8-04</i>
EXTRUDED	Formed by forcing plastic material or metal through a shaped opening.	<i>SFM-1-87</i>
F-RATING	See INTEGRITY RATING .	<i>FSCOM-1-09</i>
FAÇADE	A face of a building, usually the front.	<i>SFM-1-87</i>
FACE CLEARANCE	The dimension between the face of a light of glass or panel and the nearest face of its retaining frame of stop, measured normal to the plane of the glass or panel.	GDSG-1-87, <i>SFM-1-87</i>
FACE GLAZING	On rabbeted sash without stops, the triangular bead of sealant applied with a glazing knife after bedding, setting and clipping the lite in place.	850-91, <i>GAG-1-97</i>
FACE SEALED SYSTEMS	A wall system that uses an exterior cladding and sealant or gaskets to control air leakage and water penetration. These components are installed to form an air and water tight seal around the building in the plane of the cladding.	509-09

TERM	DEFINITION	LOCATION(S)
FACE SHIM	Spacer placed between the glass face and the glazing stops to center the glass in the glazing channel.	<i>GDSG-1-87</i>
FACING MATERIAL	The integrated structural layer of the self adhering flashing.	<i>711-13</i>
FAILED I.G. UNIT	An installed unit failure exhibits permanent material obstruction of vision through the unit due to accumulation of dust, moisture or film on the internal surface of the glass. Surface numbers 2 or 3 in dual-pane units; surface numbers 2, 3, 4 or 5 on triple-pane units.	<i>IGMA Glossary</i>
FALLING WEIGHT IMPACT RESISTANCE	Measures the resistance of the profile to cracking or breaking during the fabrication processes and general abuse during transportation, storage, installation and use.	<i>306-04</i>
FEMA	Federal Emergency Management Agency, the lead agency for overall administration of the NEHRP program.	<i>501.4-00, 501.6-01</i>
FENESTRATION	Openings in or on the building envelope, such as windows, doors, secondary storm products (SSPs) curtain walls, storefronts, roof windows, tubular daylighting devices (TDDs), sloped glazing, and skylights, designed to permit the passage of air, light, or people.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 507-12, 2100-11, DDGA-89, TIR-A8-04</i>
FENESTRATION CLADDING	The exterior components that cover the frame, sash, leaf, or sliding door panel members and constitute the weather-resistant surface. Some claddings function only as an aesthetic covering, while others contribute partially to the structural strength of the product. This use of cladding should not be confused with the definition of "Components and Cladding - Elements of the building envelope that do not qualify as part of the main wind-force resisting system" as found in ASCE/SEI 7.	<i>101/I.S.2/A440-11</i>
FENESTRATION PRODUCT	An assembly designed to be installed in a fenestration opening to permit or control the passage of air, water, light, and/or people.	<i>812-04, 2100-11, IM-TM</i>
FENESTRATION SYSTEM	Common types of commercial fenestration systems installed in commercial buildings including windows, curtain wall, window wall, storefront and doors.	<i>507-07, 510-06</i>
FIBER BLOOM	A pultrusion surface condition exhibiting a fiber prominence or fiber show that usually has a white or bleached color and a sparkling appearance as a result of incomplete fiber coverage with resin, or resin removal from the surface by degradation.	<i>305-06</i>
FIBER REINFORCED THERMOSET	Material in which fibers are blended with resin materials and cured into thermoset composites.	<i>305-06</i>
FIELD SOUND TRANSMISSION CLASS (FSTC)	A single number rating system, similar to STC, that is applied to field test data under ASTM E336.	<i>TIR-A1-04</i>
FILLET BEAD	Caulking or sealant installed at the intersection of two surfaces which meet at an angle, often 90 degrees.	<i>GAG-1-97, IPCB-08</i>
FILM	A layer of synthetic material applied to the surface of the composite by means of an adhesive.	<i>305-11, 612-02, 613-05, 614-05, 615-05, 620-02, 621-02, 623-07, 624-07, 625-07, 2603-02, 2604-02, 2605-02</i>
FINGER JOINT	A glued joint consisting of a series of interlocking fingers, precision-machined on the ends of two pieces of wood.	<i>IM-TM</i>
FINGER GUARD	A closure strip of soft material such as rubber or plastic, which is applied at the edge of a door or to the pivot jamb adjacent to door, to prevent damage to hands or fingers inserted between door and frame.	<i>SFM-1-87</i>
FINISH HARDWARE	Hardware that is within sight.	<i>SFM-1-87</i>
FIRE ENDURANCE	A measure of elapsed time during which a material or assemblage continues to exhibit fire resistance.	<i>FSCOM-1-09</i>
FIRE EXPOSURE	Process by which or extent to which materials or assemblies are subjected to the conditions created by fire.	<i>FSCOM-1-09</i>
FIRE-RETARDANT BARRIER	A layer of material which, when secured or otherwise interposed between a material and a potential fire source, delays ignition, combustion or other deterioration of the material when the barrier is exposed to fire.	<i>FSCOM-1-09</i>

TERM	DEFINITION	LOCATION(S)
FIRE-TEST-RESPONSE CHARACTERISTIC	A response characteristic of a mater, or assembly of materials, to a prescribed source of heat or flame, under controlled fire conditions per ASTM E119.	<i>FSCOM-1-09</i>
FIXED DOOR	One or more non-operable assembled leaves or sliding door panels within a door frame and threshold/sill.	<i>101/I.S.2/A440-11</i>
FIXED WINDOW	A window designed to be non-operable and consist of a glazed frame or a non-operating sash within a frame. <i>NOTE: This category does not include non-operable unit skylights or TDDs, or products fabricated from curtain wall or storefront systems that are used in window openings.</i>	<i>101/I.S.2/A440-11, 101/I.S.2-97, IM-TM, IPCB-08</i>
FLAME	A hot, usually luminous zone of gas, or particulate matter in gaseous suspension, or both, that is undergoing combustion.	<i>FSCOM-1-09</i>
FLAME RESISTANCE	The ability to withstand flame impingement or provide protection from it.	<i>FSCOM-1-09</i>
FLANGE (FRONTAL FLANGE)	Refers to a type of window which includes a permanent appendage projecting parallel to the plane of the wall, located at or near the exterior surface of the window for the purpose of installing the window against a backstop, buck, receptor or other such stepped features that have been incorporated into the rough opening.	<i>100-12, 200-12, 850-91</i>
FLANKING	Passage of air and/or water around the surface of gasket material.	<i>850-91</i>
FLANKING TRANSMISSION	Sound transmission from the source to the receiving location by a path other than through the test specimen.	<i>TIR-A1-04</i>
FLASHING	Flexible sheet materials with water resistive properties that are used to bridge the joint (gap) between exterior wall penetrations such as window and door framing members and adjacent water-resistive barriers or sealed drainage plane material. The purpose of flashing is to drain water away from the exterior wall penetration and help prevent intrusion of water into the wall assembly.	<i>2400-10, 100-12, 300-12, 713-08, 200-12, IM-TM, IPCB-08</i>
FLASHING SYSTEM	Integrated system of flashings intended to move incidental water to the building exterior.	<i>IM-TM, IPCB-08</i>
FLAT GLASS	A general term covering sheet glass, plate glass, float glass, window glass, and various forms of rolled glass, and named according to the method used in its manufacture. See also FLOAT GLASS, PLATE GLASS, and SHEET GLASS.	<i>IGMA Glossary</i>
FLEXURAL MODULUS	The ratio of nominal stress to corresponding strain below the proportional limit of a material. A constant or coefficient which expresses the degree to which a substance is subject to bending. (The Modulus of Elasticity as determined, by calculation, from a bending test.)	<i>TIR-A8-04</i>
FLOAT GLASS	Flat glass that has been formed on a molten metal, commonly tin. The surface in contact with the tin is known as the tin surface or tin side. The top surface is known as the atmosphere side or air side.	<i>101/I.S.2/A440-11</i>
FLOOR ANCHOR	A metal device attached to the back of a door frame jamb at its base, to secure the frame to the floor. It may be either fixed or adjustable in height.	<i>SFM-1-87</i>
FLOOR CHECK	See FLOOR CLOSER.	<i>SFM-1-87</i>
FLOOR CLOSER	A door closing device which is installed in a recess in the floor below the door to regulate the opening and closing swing of a door.	<i>SFM-1-87</i>
FLOOR HINGE	See FLOOR CLOSER , which is the preferred term.	<i>SFM-1-87</i>
FLOOR PIVOT	A center or offset pivot which is located at the floor or threshold.	<i>SFM-1-87</i>
FLUID HEAD	The amount of thermal break material which is forced ahead of the filling nozzle. This material promotes complete filling of the cavity and reduces the likelihood of entrapped air bubbles or voids.	<i>TIR-A8-04</i>
FLUSH BOLT	A rod or bolt which is mounted flush with the edge or the face of the inactive door of a pair, to lock the door to the frame at head and/or sill. When mounted in the edge, operation is by means of a recessed lever. (See SURFACE BOLT.)	<i>SFM-1-87</i>
FLUSH BOLT BACKSET	The distance from the outside of the face plate to the inside surface of mounting tabs.	<i>SFM-1-87</i>
FLUSH DOOR	A door which has flush surfaces on each side. Such a door may incorporate glass lights, louvers or grilles.	<i>SFM-1-87</i>
FLUSH FIN	A fin projecting from the exterior surface of the window frame parallel to the building wall for the purpose of acting as an outside trim molding.	<i>2410-03</i>
FLUSH GLAZING	A method of setting glass whereby glazing beads are recessed within and flush with the edge of the frame.	<i>SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
FOAM SPACER	Nonconductive, foam material (often closed-cell silicone foam) used to separate the double and triple-pane insulating glass units; improves the thermal performance of the window.	<i>IGMA Glossary</i>
FOGGED UNIT	A permanent deposit of contaminates on the interior glass surfaces of an insulating glass unit.	<i>IGMA Glossary</i>
FOGGING	A deposit of contamination left on the inside surface of a sealed insulating glass unit due to extremes of temperatures or failed seals.	<i>IGMA Glossary</i>
FOLDING DOOR SYSTEM	A door system that has, at a minimum, a hinge or pivot attachment of any type between two leaves and three vertical axes about which the leaves rotate. The leaves can be folded to the interior or exterior of the opening. These systems are either top hung or bottom supported by hardware that attaches to a single track system and include, at a minimum, two pivoting/folding leaves, a frame, and a track and roller assembly. The frame has vertical and horizontal members that are joined at the intersections that fully encompass the operating and inactive leaves in a closed position. A flush set track assembly can exist in place of a sill assembly. Additional hinged and pivoting/folding leaves and/or a single-side hinged leaf can be included in the door system.	<i>101/I.S.2/A440-11</i>
FOOTCANDLE (FC)	The units of luminance (amount of light flux) incident on a surface; in this study assumed to be determined at the horizontal work plane (2.5 ft above the floor).	<i>DDGA-89</i>
FORCE	A push or pull action that tends to change the shape of a deformable body or the state of motion of an object.	<i>501.4-00, 501.6-01</i>
FORCE TO LATCH DOOR	The force required to close door and fully engage latch in accordance with Clause 6.4.5.1 [of AAMA/WDMA/CSA 101/I.S.2/A440-11].	<i>101/I.S.2/A440-11</i>
FORCED ENTRY RESISTANCE (FER)	The ability of a window or door in the locked position to resist entry under a specified load and conditions.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 2100-02</i>
FRAME	The enclosing structure of a window, door, TDD, roof window, SSP or unit skylight which fits into or attaches to the wall or roof opening and receives either glazing, sash, panels, leaves, or vents.	<i>101/I.S.2/A440-11, IM-TM, IPCB-08, SFM-1-87</i>
FRAME AREA	This area includes the area of the framing that is in a plane parallel to the infill. This area can be calculated by multiplying the width of the framing systems times its length.	<i>507-12</i>
FRAME JAMB PRIMARY MATERIAL GROUP	A general category of frame jamb material which is an AAMA approved material type as verified by the frame jamb manufacturer. Aluminum and PVC are separate Frame Jamb Primary Material Groups.	<i>908-02</i>
FRAME JAMB STRUCTURES	The segment of window frame which provides the pocket and guides the vertical travel of the sash of a complete window.	<i>908-02</i>
FRAME LINERS	Vinyl or aluminum track assemblies or covers that are fitted into wood window jambs, heads, and sills.	<i>IM-TM</i>
FREE STANDING	Structurally independent of an adjacent wall or other background, as a free-standing column.	<i>SFM-1-87</i>
FRENCH DOOR	Hinged glass doors consist of one or more glazed panels contained within an overall frame designed so that one or more of the glazed panels are operable. The operable glazed panels swing either to the inside or to the outside (not both).	<i>101/I.S.2-97</i>
FRENCH WINDOW	Two sash, each hinged on one stile and opening in the middle.	<i>101/I.S.2-97</i>
FREQUENCY	The number of sound wavelength cycles that occur within one (1) second represented as cycles per second (cps).	<i>TIR-A1-04</i>
FRICTION ALLOWANCE (FA)	An approximation of additional amount of force required to operate the window unit in either direction over and above the weight of the sash and exclusive of breakaway and sash operating force. This force is due to the frictional factors acting on the window unit; the greater the effect of these factors the higher the frictional allowance. The unit of measure for the FA is Newton's per meter (pounds of force per inch) of sash stile height.	<i>908-02</i>
FRICTION BALANCE ADJUSTMENT (FBA)	FBA is an independent friction setting that contributes to the forces that act upon the vertical movement of a sash in an installed window. Balance adjustment instructions shall be specified by the balance manufacturer for use by the window manufacturer.	<i>908-02</i>
FRICTION BALANCE RATED CAPACITY (FBRC)	The manufacturer's specified minimum and maximum weight capacity per balance based upon the Balance Rated Travel Range (BRTR): FBLRC = Friction Balance Lowest Rated Capacity FBHRC = Friction Balance Highest Rated Capacity	<i>908-02</i>

TERM	DEFINITION	LOCATION(S)
FRICTION SHOE/CLUTCH	A component of a Type 1 balance which uses friction to resist the vertical movement of the sash and provides an engagement location for the pivot pin or pivot bar. The friction shoe/clutch is permitted to provide other functions not related to vertical sash counterbalancing and is available in assorted sizes that suit the pocket size of varied frame designs.	908-02
FRICTION TEST	A test to determine the maximum amount of resistance attainable by a friction shoe in the pocket of a specific frame jamb structure and geometry. The results of this test may be used to qualify existing and new frame jamb structures and materials with the tested friction shoe.	908-02
FULL TRAVEL RANGE	That travel range of the balance from the fully retracted position to the fully extended position.	902-07
FULLY TEMPERED GLASS	Glass that has been heat treated to a high surface and/or edge compression to meet the requirements of ASTM C1048 (kind FT) or CAN/CGSB 12.1. Fully tempered glass, if broken, will fracture into many small pieces (dice) which are more or less cubical. Fully tempered glass is approximately four times stronger than annealed glass of the same thickness when exposed to uniform static pressure loads.	101/I.S.2/A440-11, GDSG-1-87
FUSION WELDED	See WELDED .	101/I.S.2/A440-11
GALVANIC CORROSION	A form of deterioration of metal resulting from the electrochemical reaction that occurs when certain dissimilar metals are in contact in the presence of moisture.	2400-10, IM-TM, IPCB-08
GARAGE DOOR	See VEHICULAR-ACCESS DOOR .	101/I.S.2/A440-11
GARDEN WINDOW	See GREENHOUSE WINDOW .	101/I.S.2/A440-11
GAS FILLED UNITS	Insulating glass units with a gas other than air in the air space to decrease the unit's thermal conductivity U-value and to increase the unit's sound insulating value.	IGMA Glossary
GAS RETENTION	The ability of a sealed insulating glazing unit to retain its original gas-filled composition. In the long term, diffusion through frame and edge-seal materials allows air to progressively replace the original gas(es).	IGMA Glossary
GASKET	Preformed shapes (strips, grommets, etc.) of rubber or rubber-like composition, used to fill and seal a joint or opening, either alone or in conjunction with a supplemental application of a sealant.	850-91, GAG-1-97, IPCB-08
GASOCHROMIC GLAZING	Glazing which uses the phenomenon of chromism due to tin injection / ejection to color the window. The application of gas flow transporting ions to the surface (catalyst), which changes solar and visible transmittance. See also SWITCHABLE GLAZING .	IGMA Glossary
GATEWAY PERFORMANCE REQUIREMENTS	The requirements for minimum gateway test size, air leakage resistance, structural design load and overload testing, water penetration testing, forced-entry resistance, and auxiliary testing which are the conditions permitting a product entry into a performance class. They are specifically indicated for each product operator type in Table 12.2 of AAMA/WDMA/CSA 101/I.S.2/A440-11.	101/I.S.2/A440-11, IPCB-08
GATEWAY TEST SIZE	The test specimen size specified to enter a performance class.	101/I.S.2/A440-11
GEAR-TYPE ROTARY OPERATOR	A mechanical operating device for opening and closing projected windows that are not skylights or roof-windows. It consists basically of an operating handle turning an input shaft, which drives a gear mechanism that causes an arm or arms to pivot, operating a window.	901-10
GEL TIME	The period of time from the initial mixing of the reactants of a plastic or rubber composition to the time when gelatin occurs, as measured by a specific test. The time in seconds for the mixed thermal barrier material to change from a liquid to a solid including mixing time.	TIR-A8-04
GIRTH	For bent glass, the dimension measured along the curve or bend.	GDSG-1-87
GLASS	A hard, brittle substance, usually transparent, made by fusing materials such as soda ash (Na ₂ CO ₃), limestone (CaCO ₃), and sand under high temperatures.	101/I.S.2/A440-11
GLASS DOOR	A door with no stiles in which glass forms the structure. Provision is made for mounting on hinges or pivots.	SFM-1-87
GLASS FIBER BOARD	Fibrous glass insulation consisting of inorganic glass fibers formed into rigid boards using a binder.	FSCOM-1-09
GLASS STOP	A glazing bead which is either applied to, or is an integral part of the frame.	SFM-1-87
GLAZE	To install glass lights or infill material.	SFM-1-87

TERM	DEFINITION	LOCATION(S)
GLAZING (N)	An infill material such as glass or plastic.	101/I.S.2/A440-11, 850-91, 2001-07, 2100-02, GAG-1-97, IM-TM, IPCB-08
GLAZING (V)	The process of installing an infill material into a prepared opening in windows, doors, TDDs, roof windows, SSPs or unit skylights.	101/I.S.2/A440-11, GAG-1-97
GLAZING BEAD	A molding or stop used to hold glazing infills in position.	850-91, GAG-1-97, SFM-1-87
GLAZING CHANNEL	Channel into which the glass is inserted and which retains the glass in place.	GDSG-1-87
GLAZING CHANNEL WIDTH	The measurement between the stationary stop and the removable stop.	IGMA Glossary
GLAZING COMPOUND	A soft, dough-like material used for filling and sealing the spaces between a light of glass and its surrounding frame and/or stops.	SFM-1-87
GLAZING GASKET	A preformed elastomeric or plastic material applied between the face of the glass or panel and the framing to provide resilient support between the glass or panel and the framing and to prevent the passage of air and water. Gaskets are normally used alone but in some installations may be used in conjunction with a supplemental application of sealant.	SFM-1-87
GLAZING STOP	Fixed or removable portion of the glazing channel which prevents inward outward movement of the glass edges.	GDSG-1-87
GRADE	See PERFORMANCE GRADE (PG) .	101/I.S.2/A440-11
GRADIENT WIND	The wind at the top of the atmospheric boundary layer. Wind above the so-called gradient level is not directly influenced by the local surface conditions. In the boundary layer wind tunnel the gradient wind may be referred to as the free-stream wind.	CW-11-85
GRAY PROFILE	A profile, the color of which is defined by the color space falling within the parameters $L_H = 33$ to 74 , $a_H = -3$ to 4 , and $b_H = -5.5$ to 5.5 .	310-12
GREENHOUSE	A glazed enclosure described by the following criteria: 1. Commercial use or detached from other structures; 2. Not accessible to the public; 3. Exclusively for growing plants; 4. Ridge no more than 20 feet above grade	GDSG-1-87
GREENHOUSE WINDOW (GARDEN WINDOW)	A window consisting of a three-dimensional, five-sided structure, with provisions made for supporting plants in the enclosed space outside the plane of the wall. Operating sash are allowed but are not required.	101/I.S.2/A440-11, 101/I.S.2-97
GROOVE	Long narrow grooves or depressions in a surface of a pultrusion parallel to its length. Sometimes referred to as a Sink Line or a Sink Mark.	305-11
GUARD BAR	A protective bar applied to the lower portion of a door or sidelight to prevent accidental contact with glass.	SFM-1-87
GUARD RAIL	A railing for traffic separation and control.	SFM-1-87
GUN CONSISTENCY	Sealant formulated in a softness suitable for application through the nozzle of a caulking gun.	850-91
GUN GRAY CONSISTENCY	Compound formulated to a degree of viscosity suitable for application through the nozzle of a caulking gun.	GAG-1-97
GUNNABLE FOAM SEALANT	An aerosol foam container from which the polymer is extruded through a mechanical dispenser designed for on and off flow at the point of extrusion. A gun-type devise is intended for multiple containers and many re-use cycles.	812-04
HABITABLE	An area designed to afford living space by virtue of its environmental control using heating and/or air conditioning.	2100-02
HAIRLINE CRAZE	Multiple fine pultrusion surface separation cracks that exceed 6 mm (1/4 in) in length and do not penetrate in depth to the equivalent of a full ply of reinforcement.	305-06
HAIR-LINE JOINT	The fine line of contact between abutting members, with a maximum joint width of 1/64".	SFM-1-87
HAND OF DOOR	The designation of direction of swing of door. Viewed in plan, a clockwise swing inward is right hand, and outward is left hand reverse; a counterclockwise swing inward is left hand, and outward is right hand reverse.	SFM-1-87
HANDICAP HARDWARE	Hardware designed specifically to accommodate the needs of the physically handicapped and to provide for ease of operation of doors and accessibility.	SFM-1-87
HANDLE	A component which enables the movement of a sash, leaf, or panel or which activates a mechanism which locks or unlocks a sash, leaf, or panel.	101/I.S.2/A440-11, 903-12

TERM	DEFINITION	LOCATION(S)
HARD COAT(ING)	A low-emittance (low-e), thin-film surface coating on sheet glass which is deposited at a high temperature during the final stage of glass production. It is resistant to abrasion and attack by moisture, atmospheric pollutants, etc. See also PYROLYTIC COATING .	<i>IGMA Glossary</i>
HARDNESS	Resistance to indentation as measured under specific conditions.	<i>850-91, TIR-A8-04</i>
HARDWARE	All the necessary equipment to retain, operate, and lock or unlock the sash, leaf, or panel within the frame.	<i>101/I.S.2/A440-11</i>
HARDWARE AND WEATHERSEAL "PACKAGE"	A unique combination of locks, strikes, hinges, operators (push bars, rotos, etc.), limited opening devices, stay bars, friction adjusters, rollers, counter-balances, snubbers, and/or weather seals, used across a range of individual products.	<i>513-12</i>
HEAD	The horizontal frame member forming the top of a frame.	<i>101/I.S.2/A440-11, IM-TM, IPCB-08, SFM-1-87</i>
HEAD EXPANDER (EXTENDER)	An inverted U-channel installation accessory that may be fitted to the head of a replacement window to accommodate differences between rough opening and window heights.	<i>IM-TM, IPCB-08</i>
HEAD FLASHING	Sheet material, integrated with the water-resistive barrier, that bridges and protects the joint (gap) between the window or door frame members at the head, and the adjacent construction for the purpose of preventing water penetration by draining water away from the window or door.	<i>ASTM E2112-07</i>
HEADER	A horizontal structural member (beam) that supports the load over an opening, such as that of a door or window. The header transfers that load to the vertical members at the sides of the opening.	<i>ASTM E2112-07</i>
HEAT BUILD-UP	A temperature rise above ambient air temperature caused by absorption of the sun's energy. Heat build-up is one of the factors in the dimensional stability of the window assembly.	<i>303-08, 306-04, 308-05, 1506-04</i>
HEAT-ABSORBING GLASS	Glass (usually tinted) formulated to absorb an appreciable portion of solar energy.	<i>IGMA Glossary</i>
HEAT GAIN	Instantaneous rate of heat gain at which heat enters into and/or is generated within a space. Latent heat gain occurs when moisture is added to the space (from occupants or equipment). Sensible heat gain is added directly to the space by conduction, convection, and/or radiation.	<i>IGMA Glossary</i>
HEAT LOSS	The transfer of heat from inside to outside by means of conduction, convection, and radiation through all surfaces of a building.	<i>IGMA Glossary</i>
HEAT LOSS RATE	The rate at which heat is lost from a system or component of a system, per degree of temperature difference between its average temperature and the average ambient air temperature.	<i>IGMA Glossary</i>
HEAT RESISTANCE	Measures the resistance to surface degradation such as blistering, cracking or delamination. The profile is exposed to a temperature well above the material's heat distortion temperature in order to predict or accelerate potential surface imperfections that would not be evident otherwise	<i>303-08, 304-07, 306-04, 308-05</i>
HEAT STRENGTHENED GLASS	Glass that has been heat treated to a specific surface and/or edge compression range to meet the requirements of ASTM C1048 (kind HS). Heat-strengthened glass is approximately two times as strong as annealed glass of the same thickness when exposed to uniform static pressure loads. Heat-strengthened glass is not considered safety glass and will not completely fracture into many small pieces (dice) as with fully tempered glass.	<i>101/I.S.2/A440-11, GDSG-1-87</i>
HEAT TREATED	See FULLY TEMPERED GLASS and HEAT-STRENGTHENED GLASS .	<i>101/I.S.2/A440-11</i>
HEEL BEAD	Sealant applied at the base of a channel, after setting the lite or panel and before the removable stop is installed, to prevent leakage past the stop. Sealant must bridge the gap between the glass and frame.	<i>850-91, GAG-1-97, IPCB-08</i>
HERTZ (HZ)	Dimension of a sound frequency in cycles per second.	<i>TIR-A1-04</i>
HIGH-CYCLIC MOVEMENT SEALANTS	High-cyclic movement sealants are those which have a cyclic movement capability of >12.5%.	<i>851-09</i>
HIGH DENSITY POLYETHYLENE (HDPE)	Those linear polyethylene thermoplastics having a standard density of 0.941g/cm ³ or greater.	<i>309-13</i>

TERM	DEFINITION	LOCATION(S)
HIGH-TRANSMISSION GLASS	Glass that transmits an exceptionally high percentage of visible light.	<i>IGMA Glossary</i>
HINGE	A hardware device by means of which a door is suspended in its frame, allowing it to swing.	<i>SFM-1-87</i>
HINGE BACKSET	Distance from stop side face of door to edge of hinge cut-out on both door and frame.	<i>SFM-1-87</i>
HINGED EGRESS WINDOW	A hinged perimeter frame window assembly consists of any primary window which has passed the applicable performance requirements, in Section 2.1 that is mounted into a stationary perimeter frame and is permanently pivoted or hinged at one jamb to permit	<i>101/I.S.2-97</i>
HINGED GLASS DOOR	Hinged glass doors consist of one or more glazed panels contained within an overall frame designed so that one or more of the glazed panels are operable. The operable panels swing either to the inside or to the outside (not both). Panels shall be all operable or some operable and some fixed. Panels shall lock or interlock with each other or shall contact a jamb member where the panel is capable of being securely locked.	<i>101/I.S.2-97</i>
HINGED RESCUE WINDOW	Any window that is mounted into a stationary perimeter frame and is permanently hinged at one jamb.	<i>101/I.S.2/A440-11</i>
HOLD-BACK FEATURE	A mechanism on a latch which serves to hold the latch bolt in a retracted position.	<i>SFM-1-87</i>
HOLDER	See DOOR HOLDER .	<i>SFM-1-87</i>
HOMOGENEOUS MATERIAL	A material in which relevant properties are not a function of the position within the material.	<i>NFRC Glossary</i>
HOPPER WINDOW	See AWNING , HOPPER and PROJECTED WINDOW .	<i>101/I.S.2/A440-11</i>
HORIZONTAL PIVOTED WINDOW	See PIVOTED WINDOW	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
HORIZONTAL SLIDING WINDOW	A window that consists of one or more sash that slide or roll horizontally within a common frame, and can also contain fixed lites/sash. Typically, operating sash are identified with an (X) and fixed lites or fixed sash are identified with an	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
HOT-APPLIED SEALANT	A sealant that is applied in a molten state and develops properties by cooling to ambient temperature. Also called hot-melt sealant.	<i>850-91</i>
HOUSE WRAP	A polymer-based sheet material provided in a variety of dimensions and used as a WRB (the user of this product shall defer to manufacturer's instructions).	<i>100-12, 300-12</i>
HUMIDITY, ABSOLUTE	The mass of water vapor per unit of volume.	<i>IGMA Glossary</i>
HUMIDITY, RELATIVE	The percentage of moisture in the air in relation to the amount of moisture the air could hold at that given temperature.	<i>IGMA Glossary</i>
HUNG WINDOW	A window consisting of vertically sliding sash which utilize counterbalancing devices to allow the sash to be opened to any variable position between its fully open and fully closed limits. Common types are single hung, double hung, and triple hung. See also VERTICAL SLIDING WINDOW .	<i>101/I.S.2/A440-11</i>
ICBO	International Congress of Building Officials	<i>2100-02</i>
IMPACT STRENGTH	Resistance to fracture under shock force. The ability of the thermal barrier material to resist breaking, cracking or shattering when subjected to a sudden concentrated load. Impact loads may occur during handling, installation or fabrication of the framing members.	<i>TIR-A8-04</i>
IMPALING PIN	A pin-type device with a sharp point that is used to pierce and retain insulation materials in position.	<i>FSCOM-1-09</i>
IMPULSE (I)	The area under the pressure-time history curve with the units of kPa•msec or psi•msec.	<i>510-06</i>
INACTIVE DOOR OR LEAF	The last door of a pair of doors to be released when unlocking, usually the one not equipped with primary lock.	<i>SFM-1-87</i>
INACTIVE MULTIPOINT LOCKING HARDWARE	A lock with at least two lock-points that are driven by a single input.	<i>909-13</i>
INCLUSION	Any foreign matter or particles that are either encapsulated or imbedded in the pultrusion.	<i>305-06</i>

TERM	DEFINITION	LOCATION(S)
INDUSTRY FOUNDATION CLASSES (IFCS)	IFCs define how “things” such as structure, doors, walls and fans (as well as abstract concepts) should be described so that different software packages can use the same information.	912-13
INERT GAS	Refers to the use of chemically nonreactive gas(es) within the cavity of a sealed insulating glass unit for the purpose of reducing conductive/convective heat transfer. See GAS FILLED UNITS .	<i>IGMA Glossary</i>
INDUSTRIAL WALLS	Walls composed either of preformed metal sheets made in stock patterns and sizes, used in combination with standard windows, or of large metal-faced insulated panels, used either with or without fenestration. Typical usage of such walls is on industrial type structures.	<i>CW-DG-1-96</i>
INFILL	Various material glazed into a framing system.	<i>SFM-1-87</i>
INOPERABLE	No longer opening, closing, locking or unlocking as originally designed.	<i>101/I.S.2/A440-11</i>
INORGANIC	Designating or compound of matter that is not animal or vegetable designating or composed of any chemical compound not classified as organic. Most inorganic compounds do not contain carbon and are derived from mineral sources.	<i>IM-TM, IPCB-08</i>
INSIDE RADIUS	The distance from the center of the unit to the inside of the revolving door drum.	<i>SFM-1-87</i>
INSTALLATION ACCESSORIES	Components supplied by the fenestration manufacturer that are specifically designed to mate or “trim out” the product with various surrounding constructions.	<i>IM-TM</i>
INSTALLATION HOLES	Holes in window or door frames that are fabricated by the manufacturer to locate and accommodate installation fasteners.	<i>IM-TM</i>
INSTALLER	For the purpose of this practice the installer, of fenestration products is person or persons who do the installation labor and those who supervise such labor.	<i>ASTM E2112-07</i>
INSULATING GLASS	Insulating glass refers to two or more pieces of glass spaced apart and hermetically sealed to form a single-glazed unit with an air space between.	<i>101/I.S.2-97, GDSG-1-87</i>
INSULATING GLASS UNIT (IG UNIT OR IGU)	Two or more lites of glass spaced apart and hermetically sealed to form a single unit with an air- or gas-filled space between each lite.	<i>101/I.S.2/A440-11, GDSG-1-87, IM-TM, IPCB-08</i>
INSULATING SPACER	$U_{EOG} = 0.120 + 0.682U_{COG} + 0.244U_{COG}^2$	<i>507-03</i>
INSULATION RATING (UL)/T-RATING (OPL)	A measure of the perimeter fire containment system's resistance to both flame passage and heat transfer and requires the maximum temperature rise on the unexposed surface of the fill material or on the interior surface of the curtain wall 25 mm (1 in) above the fill material not to exceed 163°C (325°F) above the starting temperature. For perimeter fire containment systems having a clearance distance of 150 mm (6 in) [100 mm (4 in) for the T-Rating] or greater between the curtain wall and the floor, the Insulation Rating also requires the average temperature rise on the unexposed surface of the fill material not to exceed 121°C (250°F) above the starting temperature.	<i>FSCOM-1-09</i>
INTEGRAL COLOR ANODIC FINISHES (A42 AND A32)	Coatings are formed in special electrolytes that produce colors in the aluminum oxide coating as it forms. A range of colors from light to dark bronze and black is achieved with this process.	<i>611-98</i>
INTEGRAL FIN	A permanent appendage protruding from the body of a window or door, used as either an installation attachment feature or part of the weather resistant barrier interface between the product and the wall, or both. The term “fin” is also known as “flange.”	<i>ASTM E2112-07</i>
INTEGRAL MULLION	A horizontal or vertical member which is bound at either end or both ends by crossing frame members.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 450-06</i>
INTEGRAL VENTILATING SYSTEM/DEVICE	An apparatus that is independent from but installed into a window, door, or unit skylight product for the purpose of controlling the transfer of air through the window, door, or unit skylight product.	<i>101/I.S.2/A440-11, 101/I.S.2-97, TIR-A12-00</i>
INTEGRATION OF THE ASSEMBLY	In a wall assembly the flashing needs to be properly integrated with the water resistive barrier (WRB). Together with the facing material, the integrated flashing and WRB form a weather resistive integrated system.	<i>711-13</i>
INTEGRITY RATING (UL)/F-RATING (OPL)	A measure of the perimeter fire containment system's ability to withstand the fire exposure test without permitting the passage of flame through openings or the occurrence of flaming on an element of the unexposed surface of the fill material or floor or on the interior surface of the curtain wall above the fill material.	<i>FSCOM-1-09</i>
INTERIOR	Exposed surfaces visible when viewed from the building interior with operating sash, doors, or ventilators in the closed and locked position.	<i>307-05, 312-05, TIR-A8-04</i>

TERM	DEFINITION	LOCATION(S)
INTERIOR ACCESSORY WINDOW (IAW)	A glazed frame and/or sash, attached inboard of existing prime windows, curtain wall, or storefront, in commercial buildings, to enhance control of thermal transmittance, solar heat gain, sound, air leakage, and/or daylight. IAWs are not intended for occupant operation or to be used with the exterior windows in the open position, nor are they intended to provide any specific resistance to air leakage or water penetration, or withstand structural load.	101/I.S.2/A440-11
INTERIOR DOOR	A door system not intended for use in exterior applications.	101/I.S.2/A440-11
INTERIOR GLAZED	Glazing infills set from the interior of the building.	850-91, GAG-1-97
INTERIOR GLAZING DEPTH	The measurement from the bottom of the glazing channel to the top of its stops.	IGMA Glossary
INTERIOR STOP	The removable molding or bead located on the interior side that holds the lite or panel in place. (See EXTERIOR STOP .)	850-91
INTERIOR WINDOW	A window system not intended for use in exterior applications.	101/I.S.2/A440-11
INTERLAYER	A layer of material acting as an adhesive between layers of glazing.	NFRC Glossary
INTERMEDIATE PIVOT	A jamb mounted alignment and/or reinforcing offset pivot located between the top and bottom offset pivots on a door.	SFM-1-87
INTERNAL LOADS	Loads from pressures within a building; this may be stack pressures, pressures from air conditioning fans, or pressures caused by air infiltration.	GDSG-1-87
INTERNAL MUNTINS	Decorative grid installed between the glass lites that do not actually divide the glass.	IGMA Glossary
ISOCYANATE	An organic compound having at least one isocyan group united with an oxygen (NCO).	TIR-A8-04
ISOCYANATE COMPONENT	One of the two components of a thermal break system. Normally in this application, it is a polymeric isocyanate or a blend of materials whose major component is an isocyanate.	TIR-A8-04
ISOLATION COATING	A material that separates two adjacent materials to prevent galvanic corrosion of one of the materials by the other material. See also GALVANIC CORROSION .	IM-TM
IZOD IMPACTOR	A machine designed for the testing of the impact resistance of materials such that the specimen is held as a vertical cantilever beam and is broken by a single swing of a pendulum with the line of initial contact at a fixed distance from the specimen clamp and from the centerline of the notch and on the same face as the notch as described in ASTM D256.	TIR-A8-04
JACK STUD	Also known as a trimmer stud, attached to the king stud and carries the load of the header over a door or window.	IM-TM
JAL-AWNING WINDOW	A window consisting of a multiplicity of top-hinged sash arranged in a vertical series within a common frame, each operated by its own control device which swings the bottom edges of the sash outward. See JALOUSIE WINDOW and TROPICAL AWNING WINDOW .	101/I.S.2/A440-11, 101/I.S.2-97
JALOUSIE WINDOW	A window consisting of a series of overlapping horizontal frameless louvers which pivot simultaneously in a common frame and are actuated by one or more operating devices so that the bottom edge of each louver swings outward and the top edge swings inward during operation.	101/I.S.2/A440-11, 101/I.S.2-97
JAMB ANCHOR	A metal device inserted in the back of a metal frame to anchor the frame to the wall. A masonry anchor is used in masonry wall, a stud anchor in a wall built with wood or metal studs.	SFM-1-87
JAMB FLASHING	Sheet material, integrated with the weather-resistive barrier, that bridges and protects the joint (gap) between the window or door frame members at the jambs, and the adjacent construction for the purpose of preventing water penetration by draining water away from the window or door.	ASTM E2112-07
JAMBLINER SYSTEM	Consists of rigid structural members that mount in the jambs of a typical wood-framed hung window and have, as part, a set of installed sash balances. Sash Balances that are designed for exclusive use in jambliner systems rely on the friction between the sash stiles and the jambliner surfaces to hold the sash in a stationary position throughout sash travel.	902-07
JAMB(S)	The upright or vertical members forming the side of the frame.	101/I.S.2/A440-11, 101/I.S.2-97, 850-91, GAG-1-97, IM-TM, IPCB-08, SFM-1-87
JOINT	The space or opening between two or more adjoining surfaces.	850-91, GAG-1-97

TERM	DEFINITION	LOCATION(S)
JOIST	The sub-deck structural element located directly beneath the plank system.	2200-01
JOIST SPACING	The distance between the center of each joist, commonly 16" or 24".	2200-01
KD UNIT	A KD unit is shipped in a disassembled condition and later assembled according to the instructions of the manufacturer utilizing all of the components supplied or specified by the manufacturer.	1701.2-02, 1702.2-02
KEEPER	See STRIKE .	SFM-1-87
KEYED-ALIKE CYLINDERS	Cylinders operated by the same key. (Not to be confused with master-keyed cylinders.)	SFM-1-87
KEYED-DIFFERENT CYLINDERS	Cylinders requiring individual keys for their operation.	SFM-1-87
KICK PLATE	A plate applied to the face of the bottom of a door or sidelight to protect against abrasion or impact loads or to maintain sight lines.	SFM-1-87
KICKER	See ACTIVATOR .	GAG-1-97
KING STUD	Stud to which the trimmer stud is attached increasing the overall structural stability	IM-TM
KNIFE CONSISTENCY	Compound formulated to a degree of firmness suitable for application with a glazing knife such as used for face glazing and other sealant applications.	GAG-1-97
KNOB	A round handle for actuating a locking or latching device.	SFM-1-87
KNOCKED DOWN (KD)	A product that is shipped in a disassembled condition and later assembled according to the instructions of the manufacturer utilizing all of the components supplied or specified by the manufacturer.	101/I.S.2-97
KRYPTON	An inert, nontoxic gas used in insulating windows to reduce heat transfer.	IGMA Glossary
LAITANCE	An accumulation of fine particles on the surface of fresh concrete due to an upward movement of excess water.	850-91
LAMINATE	A layer of film or veneer applied to the surface of the profile.	305-11
LAMINATED GLASS	Two or more lites of glass permanently bonded together with one or more polymer interlayers.	101/I.S.2/A440-11, GDGS-1-87, TIR-A1-04
LATCH	A mechanism having a spring-activated beveled latch bolt but no locking device. Retraction of the latch bolt is by lever handle or knob.	SFM-1-87
LATEX	A colloidal dispersion of a rubber resin (synthetic or natural) in water and which coagulates on exposure to air.	850-91, GAG-1-97
LEAD COMPOUND CONTENT	The percentage by weight of lead or lead compounds in formulations used to make profiles. Restrictions on lead content are meant to ensure that compounds do not contain lead in excess of United States Safety Standards.	303-07, 304-07
LEAD CONTENT	Insures that compounds do not contain lead in excess of United States safety standards	303-07, 306-04, 308-05
LEAF	A part of a side-hinged door system, glazed or unglazed, surrounded by a frame. Leaves can be fixed in place (inoperable) or movable (operable).	101/I.S.2/A440-11, SFM-1-87
LETTER SLOT	See MAIL SLOT .	SFM-1-87
LEVEL	Having a horizontally flat, even surface with no irregularities and no vertical tilt. No part of the surface is higher or lower than any other part.	IM-TM, IPCB-08
LEVER-TYPE OPERATOR	A mechanical operating device for opening and closing project-out windows that are not skylights or roof-windows. It consists basically of a bar-like operating mechanism that is used to push open and pull closed the sash portion of an operable window.	1002.10-93, 1102.7-89
LEVER HANDLE	A bar-like grip which is rotated about an axis at one of its ends to operate a latch.	SFM-1-87
LIFT AND SLIDE HARDWARE	Hardware used in a sliding door or horizontal sliding window application that lifts a sliding sash/panel vertically before the sash/panel can be moved horizontally.	906
LIFT RAIL	A horizontal member applied to the top or bottom of the glass, and used to operate the sash.	IM-TM, IPCB-08
LIGHT BROWN PROFILE	A profile, the color of which is defined by the color space falling within the parameters of $L_H = 33$ to 61 , $a_H = -1.5$ to 12.5 , and $b_H = 3.0$ to 12.5 .	310-12
LIGHT GREEN PROFILE	Color defined by the color space falling within the parameters $L_H = 45$ to 80.5 ; $a_H = -25$ to -3 ; $b_H = 1$ to 14 .	310-12
LIGHTING POWER	The lighting power load including the lamp, density ballast and controls (in watts) associated with a given space area (in square feet); the units are power per unit area, or watts per square foot (w/s.f.).	DDGA-89

TERM	DEFINITION	LOCATION(S)
LIGHT REDUCING GLASS	Glass formulated to reduce the transmission of visible light.	<i>IGMA Glossary</i>
LIMITED TRAVEL RANGE	Any range within the Full Travel Range. The limits of this range shall be measured from the point of full retraction as specified by the balance manufacturer.	902-07, 908-02
LIMITED WATER (LW)	The water penetration resistance performance is achieved by testing at a pressure less than the minimum test pressure required for the indicated performance class and performance grade (design pressure).	101/I.S.2/A440-11
LINEAR-TYPE OPERATOR	A mechanical operating device for opening and closing projected windows that are not skylights or roof-windows. It consists basically of an operating handle turning an input shaft, which drives a gear mechanism that causes an arm to move linearly, operating a window.	901-10
LINTEL	A horizontal structural member (beam) that supports the load over an opening, such as that of a door or window. Also called a Header.	IM-TM, IPCB-08, SFM-1-87
LIQUID APPLIED FLASHING	A material that is fluid at the time of application that provides a water-resistive seal around building openings at or near the interface between the through-wall penetration and the building envelope.	200-12, 300-12, 714-12
LIQUID APPLIED WATER RESISTIVE COATING/SEALANT	A product applied to a surface in a liquid/fluid state to improve the water resistance of the substrate and interfaces with that substrate.	200-09
LISTED	To be included in a list published by a HUD approved certification program.	1701.2-02, 1702.2-02, 1704-01
LITE (LIGHT)	A pane of glass or an insulating glass (IG) unit used in a window, door, TDD, roof window, SSP or unit skylight. Frequently spelled "lite" in industry literature to avoid confusion with visible light.	101/I.S.2/A440-11, 101/I.S.2-97, 850-91, GAG-1-97, GDSG-1-87, IM-TM, IPCB-08
LIVE LOADS	Loads from people and non-permanent parts of a building; loads from window washing and glazing rigs are live loads.	2200-01, GDSG-1-87, IPCB-08
LOCK	The device on a window or door that secures it in a closed position.	101/I.S.2-97, SFM-1-87
LOCK BACKSET	Distance from vertical centerline of leading edge of lock stile of door to centerline of lock cylinder, measured parallel with door face.	SFM-1-87
LOCK FACEPLATE	The exposed plate which sets in the edge of a door to cover a locking mechanism.	SFM-1-87
LOCK-STRIP GASKET	A gasket in which sealant pressure is attained by inserting a keyed locking strip into a mating keyed groove in one face of the gasket. Also called a structural gasket.	850-91
LOW-CONDUCTANCE SPACERS	An assembly of materials designed to reduce heat transfer at the edge of an insulating window. Spacers are placed between the panes of glass in a double or triple-glazed window.	<i>IGMA Glossary</i>
LOW-CYCLIC MOVEMENT SEALANTS	Low-cyclic movement sealants are those having minimum movement capability through their useful life in mechanically restricted joints.	851-09
LOW EMISSIVITY GLASS	Glass with a transparent metallic or metallic oxide coating applied onto or into a glass surface, which reflects long-wave infrared energy and thus improves the U-value.	<i>IGMA Glossary</i>
LOW EMITTANCE (LOW-E) COATING	A coating that has a reduced ability to radiate heat energy; when facing an airspace this property reduces the amount of heat transfer across the space.	GDSG-1-87
MAF RATIO	The manually applied force (MAF) divided by the Test Weight.	908-02
MAIL SLOT	An opening provided in a door, sidelight or adjacent construction for the insertion of mail. (Size and location usually governed by the Postal Code.)	SFM-1-87
MANUALLY APPLIED FORCE (MAF)	That externally applied force required to cause movement of the guide block when a balance is mounted in the test apparatus with test weight attached.	902-07, 908-02
MANUALLY APPLIED FORCE RATIO (MAFR)	The ratio of the maximum MAF to test weight (See Sections 8.4.4 and 8.4.5 of AAMA 902).	902-07
MANUFACTURED HOME	A dwelling, other than site built, constructed in accordance with Federal Manufactured Home Construction and Safety Standards/24 CFR 3280 and 24 CFR 3282.	1701.2-02, 1702.2-02, 1704-01

TERM	DEFINITION	LOCATION(S)
MANUFACTURER	A company which fabricates and/or assembles one or more parts, components, and/or accessories or supplies entire fenestration systems.	101/T.S.2/A440-11, 711-13, TIR-A8-04
MASONRY OPENING	That portion of a masonry wall which is left open, providing for the installation of a window.	200-12
MASS LAW	A rule of sound attenuation stating that the sound transmission loss across a barrier will increase approximately 6 decibels for every doubling of the barrier's mass per projected unit area.	TIR-A1-04
MASTER FRAME	Primary structural system containing sub-assemblies which shall be attached to a manufactured home wall.	1701.2-02, 1702.2-02
MASTER KEY	A key to operate cylinders, each of which may be set to an individual key.	SFM-1-87
MASTIC	A material that, after application as a thin layer, is converted to a solid protective, decorative or functional adherent film.	850-91, GAG-1-97, IM-TM, IPCB-08
MATERIAL CHANGES	Variations in the composition of approved frame jamb primary material groups (PVC, aluminum) that influence the pocket inner wall surfaces or structural characteristics will be considered new frame jamb structures. Material composition variations of frame jamb primary material groups for purposes of material stability, resistance to exposure, service for life, color changes and enhancements for processing shall not constitute a material change. Significant material changes that are indicated, but not itemized by the frame jamb manufacturer may be specifically referenced by the manufacturer's product series identification of the frame jamb.	908-02
MATERIAL SAFETY DATA SHEET (MSDS)	Data for evaluating hazards, toxicity and proper handling of chemicals are furnished by thermal break suppliers in the form of a MSDS.	TIR-A8-04
MAXIMUM CAPABLE EVENT	The maximum intensity of earthquake ground shaking that may ever be expected at the building site within the known geological framework. In areas on NEHRP maps with an A_a (acceleration coefficient) value of 0.3 or greater, this ground shaking intensity may be taken as the level of earthquake ground motion that has a 98 percent change of non-exceedance in 50 years, or an average return period of 2,500 years. This event has also been termed a "Maximum Credible Earthquake," and, most recently (1997 NEHRP "Provisions") a "Maximum Considered Event."	501.6-01
MECHANICALLY ATTACHED FLASHING	Flashing which is permanently attached using screws, staples or other mechanical fasteners.	100-12, 300-12, 2400-10, IM-TM
MEDIUM STILE	See STILE .	SFM-1-87
MEDIUM-CYCLIC MOVEMENT SEALANTS	Medium-cyclic movement sealants are those having a cyclic movement capability of >5% to 12.5% through their useful life.	851-09
MEETING RAIL	One of the two adjacent horizontal sash members that come together when in the closed position (also called Check Rail).	101/T.S.2/A440-11, IM-TM, IPCB-08
MEETING STILE	One of the two adjacent vertical leaf, sash or panel members that come together when in the closed position.	101/T.S.2/A440-11, IM-TM, IPCB-08, SFM-1-87
MEMBRANE/ DRAINAGE SYSTEM	A wall system employing a concealed WRB in which the exterior building surface (e.g., stucco, brick veneer, siding) is not the sole method of protecting the building from moisture penetration.	100-12, 300-12, IM-TM, IPCB-08
METADATA	The collection of attributes associated with a particular object.	912-13
METAL CURTAIN WALL	An exterior curtain wall which may consist entirely or principally of metal, or may be a combination of metal, glass and other surfacing materials supported by or within a metal framework.	CW-DG-1-96
METAL SPACERS	Roll-formed metal shapes used at the edges of an insulating glass unit to provide the desired spacing of the glasses; metal spacers allow areas for sealant applications and contain desiccants.	IGMA Glossary
METHYLENE CHLORIDE	Solvent formerly used for cleaning and flushing thermal break compounds from the nozzles and operating parts of the mixing and filling machine. (Suspected of being an animal carcinogen.)	TIR-A8-04
MIGRATION	Spreading or creeping of oil or vehicle from a sealant out onto adjacent non-porous surfaces. (See BLEEDING .)	850-91, GAG-1-97
MILL FINISHES	Uncoated aluminum that possesses a silvery, natural finish.	IM-TM, IPCB-08
MINERAL FIBER BOARD	A fibrous insulation board composed of either inorganic glass fibers or inorganic steel slag or rock fibers, bonded together using a binder. Commonly, however, this term is used and understood to mean slag wool.	FSCOM-1-09

TERM	DEFINITION	LOCATION(S)
MINIMUM GATEWAY TEST SIZE	The test specimen size specified to enter a performance class at the lowest or minimum level.	<i>101/I.S.2/A440-11</i>
MITERED CORNERS	Usually a 45-degree mitered joint produced in some sash where vertical jamb members meet horizontal head and sill members.	<i>850-91</i>
MIXING RATIO	Amount of resin component with respect to the isocyanate component present in the thermal break material measured either by volume or by weight.	<i>TIR-A8-04</i>
MODEL BUILDING CODE	A construction code developed from input from industry, building officials, and others for use as a guide for the development of state and local building codes. Model building codes have no legislative or jurisdictional power.	<i>GDSG-1-87</i>
MODEL SERVER	Model servers allow centralized storage of IFC information models, allowing them to be accessed and modified via the Internet, and manipulated by a large audience over the building's lifecycle.	<i>912-13</i>
MODULUS	Stress at a given strain, or tensile strength at given elongation.	<i>850-91, GAG-1-97, IM-TM</i>
MOISTURE CONTENT	The percentage of dry weight that is composed of water, such as in wood.	<i>101/I.S.2/A440-11</i>
MOISTURE PENETRATION	Moisture migration between the glass and interlayer which may cause hazing or other discoloration of the interlayer. Normally, this will not be a cause for rejection.	<i>TSGG-04</i>
MOISTURE VAPOR TRANSMISSION RATE (MVTR)	The rate at which moisture vapor permeates through a polymer film.	<i>850-91</i>
MOLDING	A strip of wood or other material having a rounded or otherwise decorative surface; used to conceal joints or to accent and highlight other surfaces.	<i>IM-TM</i>
MORTISE LOCK	A lock to be inserted edgewise in the stile of the door.	<i>SFM-1-87</i>
MORTISE TYPE	Which has a threaded surface which screws directly into a lock case, with a cam which engages the lock mechanism.	<i>SFM-1-87</i>
MOUNTING DISTANCE	The distance from the bottom of the weatherstrip backing to an opposite mating surface.	<i>701/702-04</i>
MOUNTING FLANGE	An appendage protruding from the body of a window or door frame, used as either an installation attachment feature or part of the water-resistive barrier interface between the product and the wall, or both. Also known as MOUNTING FIN or INTEGRAL FIN	<i>100-12, 300-12, 2400-10, IM-TM</i>
MOUNTING SURFACE	The exterior surface(s) of the pre-existing window frame.	<i>2410-03</i>
MULLED FENESTRATION ASSEMBLY	An assembly of two or more individual products that will be installed in a single rough opening (individual products are those primary or dual windows, or primary sliding glass doors as defined herein). Mullion elements may be horizontal, vertical, or both.	<i>450-06, 1701.2-02, 1702.2-02</i>
MULLION	An intermediate connecting member used to "join" two or more fenestration products together in a single rough opening.	<i>101/I.S.2-97, 850-91, GAG-1-97, IM-TM, IPCB-08, SFM-1-87</i>
MULLION ELEMENTS	One or more of the following: •Reinforced or non-reinforced frame member(s) •Reinforced or non-reinforced mullion member(s) •Additional independent reinforcement shapes.	<i>450-06, 1701.2-02, 1702.2-02</i>
MULLION STIFFENER	An additional reinforcing member used in a reinforcing mullion. Mullion stiffeners carry the entire wind load or share the load with adjacent frame members.	<i>101/I.S.2/A440-11, 450-06, 1701.2-02, 1702.2-02</i>
MULLION, COMBINATION	A horizontal or vertical member formed by joining two or more individual fenestration units together without a mullion stiffener.	<i>101/I.S.2/A440-11, 1701.2-02</i>
MULLION, INTEGRAL	A horizontal and/or vertical member which is bounded at either end or both ends by crossing frame members.	<i>101/I.S.2/A440-11, 1701.2-02, 1702.2-02</i>
MULLION, REINFORCING	A horizontal or vertical member with an added continuous mullion stiffener and joining two or more individual fenestration units along the sides of the mullion stiffener.	<i>101/I.S.2/A440-11, 1701.2-12, 1702.2-12</i>
MULTI-BAR HINGE	A mechanical device which, when mounted in a window in accordance with the manufacturer's instructions, is used to support a variety of in-plane sash types; such as, project-out (at bottom), project-in (at top), casement (out-swinging or in-swinging), parallel opening (four sides of sash opening outward) and certain types of sash which are opened primarily for glass cleaning.	<i>904-09</i>

TERM	DEFINITION	LOCATION(S)
MULTI-LAYER FRAME MATERIALS	Frame materials that have laminated or applied, multi-layer structure within the frame pocket must qualify with complete testing according to 8.1 through 8.1.5.2. This test will assure the durability of the lamination when exposed to friction loaded cycle testing. Satisfactory completion of this test will qualify the specific frame jamb structure and it's layered material(s) as a new approved frame jamb material.	908-02
MULTI-POINT HARDWARE	A lock assembly featuring two or more locking points other than the combination of one latch bolt and one deadbolt. Multipoint hardware typically features one latch bolt, one deadbolt, and additional auxiliary locking points.	903-12
MULTIPLE-GLAZED UNITS	Units of three glass lites (triple glazed) or four glass lites (quadruple glazed) with two and three air spaces respectively.	IGMA Glossary
MULTIPLE GLAZING PANEL (MGP)	A glazed panel that can be installed in or on a sash, leaf, or panel on either the interior side or exterior side of the primary glazing. An MGP is tested only in conjunction with a specific primary window or door.	101/I.S.2/A440-11
MUNTINS	A decorative profile that divides a lite of glass or panel into smaller sections. See also DIVIDER .	101/I.S.2/A440-11, 101/I.S.2-97, 850-91, GAG-1-97, GDSG-1-87, IM-TM, IPCB-08, SFM-1-87,
NAIL FLANGE / NAILING FIN	An extension of a fenestration product frame that generally laps over the conventional stud construction and through which fasteners are used to secure the frame in place.	NFRC Glossary
NARROW STILE	See STILE .	SFM-1-87
NATURAL CONVECTION	A heat transfer process involving motion in a fluid (such as air) that is caused by a difference in the density of the fluid and the action of gravity. This is an important part of heat transfer from the glass surface to room air.	IGMA Glossary
NEEDLE GLAZING	Application of a small bead of sealant / compound at the site line by a nozzle gun.	IGMA Glossary
NEGATIVE PRESSURE	Pressure acting in the outward direction.	101/I.S.2/A440-11
NEHRP	National Earthquake Hazards Reduction Program. It was developed in response to the Earthquake Hazard Reduction Act of 1977. The principal agencies involved in the NEHRP are: FEMA – Federal Emergency Management Agency, the lead agency for overall administration of the NEHRP program. NSF – National Science Foundation, which supports academic research studying all aspects of the earthquake hazard problem. NIST – National Institute for Standards and Technology (formerly the National Bureau of Standards), which supports standardization activities, including those related to building construction. USGS – United States Geological Survey, which studies and defines earthquake hazards from the seismological and geological points of view; produces the base maps for seismic hazard.	501.4-00, 501.6-01
NEOPRENE	A synthetic rubber having physical properties closely resembling those of natural rubber. It is made by polymerizing chloroprenes, and the latter is produced from acetylene and hydrogen chloride.	GAG-1-97
NEW FRAME JAMB STRUCTURES	A frame jamb structure that has variation(s) in material composition and/or design geometry to the inner pocket walls of previously approved frame jamb structures.	908-02
NIST	National Institute for Standards and Technology (formerly the National Bureau of Standards), which supports standardization activities, including those related to building construction.	501.4-00, 501.6-01
NOISE REDUCTION (NR)	The difference between the Sound Pressure Level on each side of a barrier for a given measured frequency.	TIR-A1-04
NON-COMBUSTIBLE	Will not combust.	FSCOM-1-09
NON-DRYING	A sealant that does not set up or cure.	850-91, GAG-1-97
NON-FIN	A fenestration product that has no integral appendage attached to the body of the window or door for the purposes of installation or air/water resistance. Also called Block Frame.	IM-TM
NON-HABITABLE	An area designed to afford living space on a less than year-round basis by virtue of its lack of environmental or temperature control systems. Non habitable space is designed to serve as recreational space on a seasonal basis.	2100-02

TERM	DEFINITION	LOCATION(S)
NON-HUNG WINDOW	A window consisting of vertically sliding sash which utilize mechanical retainers or slide bolts to allow the sash to be opened to any one of the pre-selected positions between its fully open and fully closed limits. See also VERTICAL SLIDING WINDOW .	<i>101/I.S.2/A440-11</i>
NON-INTEGRAL DOOR BOTTOM WEATHERSEAL	A door bottom weatherseal which can be readily removed from an assembled and installed door product which is not an integral part of a door panel.	<i>703-11</i>
NON-OPERABLE	Intended to not open or close.	<i>101/I.S.2/A440-11</i>
NON-RESILIENT TAPE	A high solids content, mastic material furnished in varying thicknesses and widths, in a roll form; easily deformed and permanently soft and tacky.	<i>GAG-1-97</i>
NON-SAG	A sealant formulation having a consistency that will permit application in vertical joints without appreciable sagging or slumping. A performance characteristic which allows the sealant to be installed in a sloped or vertical joint application without appreciable sagging or slumping (thixotropy).	<i>850-91, GAG-1-97</i>
NON-SKINNING	A product that does not form a surface skin after application, and usually remains tacky or sticky.	<i>850-91, GAG-1-97</i>
NON-STAINING	Characteristic of a compound which will not stain a surface.	<i>GAG-1-97</i>
NON-VOLATILE	Any substance which does not evaporate or volatilize under normal conditions of temperature and pressure.	<i>GAG-1-97</i>
NORMAL USE	(Pertaining to windows, doors, secondary storm products, operable unit skylights, and roof windows) Intended for operation for reasons in addition to cleaning and maintenance of the window(s), door(s), operable unit skylight(s), or roof window(s) in question.	<i>101/I.S.2/A440-11</i>
NOZZLE	The tubular tip of a caulking gun through which the compound is extruded.	<i>GAG-1-97</i>
NOZZLE SETTING	Adjustment to the filling machine to control the rate of flow of the thermal break material into the cavity and maintain the proper fluid head during filling.	<i>TIR-A8-04</i>
NSF	National Science Foundation, which supports academic research studying all aspects of the earthquake hazard problem.	<i>501.4-00, 501.6-01</i>
OCF	One component foam that is the same as aerosol foam sealant.	<i>812-04</i>
OFF-CENTERNESS	The distances between the respective center-lines of the pile and the overall width evidenced by uneven flanges.	<i>701/702-04</i>
OFFSET	The shape of the strip in which the web of the strip is not aligned with the cavity and looks similar to the letter "C".	<i>QAG-2-12</i>
OFFSET PIVOT	A pin-and-socket hardware device with bearing contact by means of which a door is suspended in its frame, allowing it to swing about an axis which is normally located about 3/4" out from the door face.	<i>SFM-1-87</i>
OLEORESINOUS	A compound consisting of natural and synthetic resins mixed with drying oils.	<i>850-91, GAG-1-97</i>
OPAQUE	Preventing light from traveling through and therefore not transparent or translucent.	<i>2100-11</i>
OPEN UNIT	A unit, complete in its entirety, with the exception of glass, glazing materials or screens, which is shipped in an assembled condition and later glazed according to the instructions of the manufacturer.	<i>1701.2-02</i>
OPEN-AIR ARENA TEST	A blast test conducted in an open field with explosives. Multiple specimens may be included in such a test at various distances and orientations from the detonation source.	<i>510-06</i>
OPEN-STUD FRAMING	A building framing system comprised of unsheathed structural components (studs, headers, sills, plates, etc.) and areas of sheer wall framing.	<i>2400-10</i>
OPENING	A breach or aperture in a wall or roof surface intended to accept a fenestration product or that is left open.	<i>2100-11</i>
OPERABLE DOOR	A door that is intended to be opened and closed.	<i>101/I.S.2/A440-11</i>
OPERABLE WINDOW	A window that is intended to be opened and closed.	<i>101/I.S.2/A440-11</i>
OPERATING FORCE	The force required to initiate or maintain a sash, leaf, or panel motion in either the opening or closing direction.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
OPERATIONAL HARDWARE	Components of an egress system that require manipulation or operation by an occupant to effect egress. For the purpose of this standard, "locks" or "latches" are defined as devices intended to prohibit the opening of the window from the exterior.	<i>1704-01</i>
ORGANIC	Any compound which consist of carbon and hydrogen, with a restricted number of other elements, such as oxygen, nitrogen, sulfur, phosphorous, chlorine, etc.	<i>850-91, GAG-1-97, IM-TM, IPCB-08</i>

TERM	DEFINITION	LOCATION(S)
ORGANIC COATING	Organic coatings including paints, enamels and resins. A wide range of colors is achieved through the addition of pigments.	612-02, <i>IM-TM</i> , <i>IPCB-08</i>
OUTDOOR-INDOOR TRANSMISSION CLASS (OITC)	A single-number rating calculated in accordance with ASTM E1322, using values of outdoor-indoor transmission loss. It provides an estimate of the sound insulation performance of a façade or building elements. The frequency range used is typical of outdoor traffic noises.	101/I.S.2/A440-11, 101/I.S.2-97, TIR-A1-04
OVERALL DIMENSIONS	The external height and width of the product, expressed in millimeters or inches.	101/I.S.2/A440-11
OVERALL HEIGHT ALLOWANCES	This allowance relates to the AAMA Certification Program, under which window and door manufacturers are permitted to use, without a Waiver of Retest, pile weatherstrips whose nominal height is from +0.5mm (+0.020 in) to -0.3mm (-0.010 in) difference than those used in the test window or door.	701/702-11
OVERALL HEIGHT	The total thickness of the weatherstrip excluding appurtenances protruding above the pile.	701/702-04
OVERHEAD CLOSER	a.) Surface type - An exposed door swing control and closer device mounted on the surface of a door and frame at its head; b.) Semi-concealed type - A door swing control and closing device mortised into the door top rail and/or frame head; and c.) Concealed type - A door swing control and closer device enclosed within the door top rail and/or frame head.	<i>SFM-1-87</i>
OWNER'S REPRESENTATIVE	A party designated by the owner to act on his behalf.	503-03
PAN/PANNING	Cosmetic covering, usually found on the exterior of the window or door, to achieve aesthetic sight lines, or to integrate the window or door system into the building surface or weatherproofing system. If panning is being used for weatherability, the panning is not considered cosmetic, but rather part of the window system.	<i>IM-TM</i> , <i>IPCB-08</i>
PAN FLASHING (A.K.A. SILL PAN)	A type of flashing used at the base of a rough opening to divert water to the exterior or to the exterior surface of a concealed WRB. Pan flashings have upturned legs at the rear interior edge (back dam) and right and left sides (end dams), to form a three-sided pan that has the front open for drainage. They are intended to collect and drain water toward the exterior, including water that may enter through the window unit or around the window (between the rough opening and the fenestration). Pan flashing can be made from self-adhered flashing or from rigid or semi-rigid material, such as metal or a semi-rigid polymer.	100-12, 200-12, 300-12
PANE	See LIGHT or LITE	GDSG-1-87, <i>IM-TM</i>
PANEL	The members of a sliding door or sliding door side lite within a frame which are designed to accommodate the glazing	101/I.S.2/A440-11, 101/I.S.2-97
PANEL SUPPORT	A sub-support between the panel and the building frame which is usually continuous and acts to transfer loads back to the structure. Not to be confused with a panel stiffener, which typically acts to limit deflection of the flat area of the panel.	508-07
PANIC BAR	See CRASH BAR .	<i>SFM-1-87</i>
PANIC DEVICE	See PANIC EXIT HARDWARE .	<i>SFM-1-87</i>
PANIC DEVICE CASE	See CRASH BAR HOUSING .	<i>SFM-1-87</i>
PANIC EXIT HARDWARE	A door locking mechanism designed to be always operable from the interior by pressure on a crash bar or lever.	<i>SFM-1-87</i>
PARALLEL OPENING WINDOW	A window consisting of an operable sash that moves outward in a horizontal direction perpendicular to the plane of the frame for the purpose of ventilation. The sash remains parallel to the frame throughout its range of motion.	101/I.S.2/A440-11
PARAMETER	A variable characteristic attribute of an object.	912-13
PARAMETRIC OBJECT	An intelligent object that is part of a single building database, represented in any number of views.	912-13
PASSIVE DOOR	One or more hinged leaves or sliding door panels that are normally held inactive by latching or locking hardware, but can become active on the release of the latching or locking hardware.	101/I.S.2/A440-11
PASSIVE SOLAR HEAT GAIN	Solar heat that passes through a material and is captured naturally, not by mechanical means.	<i>IGMA Glossary</i>

TERM	DEFINITION	LOCATION(S)
PATIO COVER	A one story structure not exceeding 3657 mm (12 ft) in height. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 2032 mm (6 ft. 8 in) of each wall, measured from the floor.	2100-11
PATIO DOOR	Refer to "Hinged Glass Door" or "Sliding Glass Door."	101/I.S.2-97
PATIO ENCLOSURE	A sunroom installed over an exterior surface such as a deck or patio slab.	2100-11
PATTERNED GLASS	Rolled glass having a distinct pattern on one or both surfaces.	IGMA Glossary
PEAK BLAST PRESSURE (P)	The maximum value of the pressure over ambient pressure with units of kPa (psi).	510-06
PEAK DEMAND	The maximum instantaneous power demand experienced at a particular point in time. The peak cooling demand is the heaviest cooling load seen by the air handlers; the peak heating load is the highest instantaneous heating load seen by the heating system.	DDGA-89
PERFORMANCE	The capability of a building product, component, construction or assembly to perform the function(s) for which it was designed and constructed.	703-11
PERFORMANCE CLASS	One of the five performance classes (R, LC, CW, AW, and SK) within the classification system that provides for several levels of performance. <i>NOTE: This allows the purchaser or specifier to select the appropriate level of performance depending on climatic conditions, height of installation, type of building, etc.</i>	101/I.S.2/A440-11
PERFORMANCE CONDITION	Level of protection provided by a fenestration system.	510-06
PERFORMANCE GRADE (GRADE or PG)	A numeric designator that defines the performance of a product in accordance with this Standard/Specification. (Not to be confused with design pressure (DP) or Structural Test Pressure (STP)). Performance grade (PG) shall be achieved only on successful completion of all applicable tests specified in Clause 9 [of 101/I.S.2/A440-11]. See Clause 0.2.3 [101/I.S.2/A440-11] for additional details.	101/I.S.2/A440-11
PERIMETER FIRE CONTAINMENT	The ability of a system of individual components assembled in a specific manner to contain and restrict the migration of flame and hot gases from the floor of origin to the floor(s) above at the building perimeters. These components are: 1) a floor with an hourly fire endurance rating; 2) an exterior curtain wall with or without a hourly fire endurance rating, and 3) the fill material installed between the floor and the curtain wall.	FSCOM-1-09
PERMANENT DEFORMATION	A change in shape or dimension that does not disappear when pressures are no longer applied.	IM-TM , IPCB-08
PERMANENT SET	The amount of deflection left in a member after the application and release of a load.	101/I.S.2-97, 450-06, 1701.2-02, 1702.2-02, JS-91
PERMEABILITY	The time rate of water vapor or gas transmission through a unit area of the material of unit thickness induced by unit vapor pressure difference between two specific surfaces under specified temperature and humidity conditions.	IGMA Glossary
PERMEANCE	The time rate of water vapor or gas transmission through a unit area of a body, normal to specific parallel surfaces, under specific temperature and humidity conditions.	IGMA Glossary
PHOTOCHROMIC GLAZING	Glazing which changes its thermal, solar, and visible transmittance in response to outdoor illuminance or ultraviolet (UV) radiation. See also SWITCHABLE GLAZING .	IGMA Glossary
PHOTOVOLTAIC	A device that produces electricity directly from sunlight (photons).	IGMA Glossary
PHYSICAL INTERLOCK	The provision in the design of the thermal break cavity which involves the incursion of metal lugs into the cavity area. These lugs prevent the pulling apart of the aluminum components from the thermal break material should a loss of adhesion occur.	TIR-A8-04
PICTURE SLIDER	A horizontal sliding window with one or two moving sash located on one or both sides of a fixed panel to make up a two or three panel window.	101/I.S.2-97
PICTURE WINDOW	A non-operating window. A window consisting of frame and glass only.	101/I.S.2-97
PILE WEATHERSTRIP	Upright cut threads or filaments interlaced, woven, or otherwise joined to a backing.	701/702-04
PITCH	The perceived tone of a sound based upon its representative frequency	TIR-A1-04

TERM	DEFINITION	LOCATION(S)
PIVOT	An axis or hardware about which a window, sash, panel, or leaf rotates.	101/I.S.2/A440-11
PIVOT BAR OR PIVOT PIN	Components that link the sash to the friction shoe/clutch of the balance.	908-02
PIVOTED WINDOW	A window consisting of a sash which pivots about an axis within the frame. The pivoting action of the window allows for easy access to clean the outside surfaces of the window. Two common types are the 180 degree compression seal pivoting window and the 360 degree pivoting window.	101/I.S.2/A440-11, 101/I.S.2-97
PLANK SUPPORT SPAN	The distance between plank support, including standard joist spacing and other support configurations such as angled joists.	2200-01
PLANK SYSTEM	Deck planks and the accessories that mate the planks to sub-decking or other deck components. Plank systems include planks, fasteners, installation clips or clip systems.	2200-01
PLANK WALKING SURFACE AREA	The area of the plank that is exposed after assembly and provides the uppermost surface.	2200-01
PLANKS	The uppermost deck components that together comprise the walking surface.	306-04
PLASTIC GLAZING	Plastic infill materials (including, but not limited to, acrylic, co-polyester, fiberglass-reinforced plastic, and polycarbonate) that are glazed or set in a frame or sash.	101/I.S.2/A440-11
PLASTIC FILM	A thin, plastic substrate sometimes used as the inner layers in a triple- or quadruple-glazed window.	IGMA Glossary
PLATE GLASS	Flat glass with surfaces that are essentially plane and parallel; it is formed by a rolling process, ground, and polished on both sides. It is available in thicknesses varying from 3.2 mm to 31.8 mm (1/8 in to 1-1/4 in), but has been replaced by float glass.	IGMA Glossary
PLUMB	To make vertical.	IM-TM, IPCB-08
POCKET (CHANNEL)	A three-sided, U-shaped opening in a sash or frame to receive glazing infill. Contrasted to a rabbet, which is a two-sided, L-shaped section, as with face glazed window sash.	908-02, GAG-1-97
POCKET (CHANNEL) DEPTH	The inside dimension from the bottom of the pocket to the top. Pocket depth equals the bite plus the edge clearance.	GAG-1-97
POCKET (CHANNEL) WIDTH	The measurement between stationary stops (or stationary stop and removable stop) in a U-shaped channel.	GAG-1-97
POINTS	Thin, flat, triangular or diamond shaped pieces of zinc used to hold glass into wood sash by driving them into the wood.	850-91
POLARIZATION	The condition of electromagnetic waves in which the transverse motion or field of the wave is confined to a plane or ellipse.	NFRC Glossary
POLYBUTENE	A light-colored liquid, straight-chain aliphatic hydrocarbon polymer that is non-drying and widely used as a major component in sealing and caulking compounds. It is essentially non-reactive and inert.	850-91, GAG-1-97
POLYESTER RESIN	Any of a group of thermosetting synthetic resins which are poly-condensation products of dicarboxylic acid and dihydroxy alcohol.	GAG-1-97
POLYETHYLENE	A straight chain plastic polymer of ethylene.	GAG-1-97
POLYETHYLENE (PE) BLEND	Thermoplastics based on polymers made with ethylene as essentially the sole monomer. This shall also be permitted to include PE thermoplastics from pre- and post-consumer recycled thermoplastic materials.	309-13
POLYISOBUTYLENE (PIB)	Synthetic rubber manufactured from isobutylene.	850-91, GAG-1-97
POLYMER	A high molecular weight chemical structure consisting of a long chain of small molecular units.	850-91, GAG-1-97
POLYMERIZED	Treated by heating or cooking so that molecules of different substances unite into larger molecules of a different substance with individual characteristics.	GAG-1-97
POLYOL	A polymer or copolymer terminated with one or more hydroxyl groups (OH).	TIR-A8-04
POLYOL COMPONENT	One of the two components of a thermal break system. Normally in this application, it is a fully compounded blend of polyether polyols with small amounts of catalyst and additives present.	TIR-A8-04
POLYPROPYLENE (PP)	Polymer prepared by polymerization of propylene as essentially the sole monomer.	309-13
POLYSTYRENE (PS)	Polymer prepared by polymerization of styrene as essentially the sole monomer.	309-13

TERM	DEFINITION	LOCATION(S)
POLYSULFIDE	Long-chain aliphatic polymers containing disulfide linkages. They can be converted to rubbers at room temperature upon addition of a curing agent.	<i>850-91</i>
POLYSULFIDE BASE	Sealants made from polysulfide synthetic rubber.	<i>850-91</i>
POLYSULFIDE SEALANT	Polysulfide liquid polymer sealant which are mercaptan terminated, long chain aliphatic polymers containing disulfide linkages. They can be converted to rubbers at room temperature without shrinkage upon addition of a curing agent.	<i>GAG-1-97</i>
POLYURETHANE	Product produced by the reaction of a polyfunctional isocyanate with a polyol or other reactant containing two or more hydroxyl groups.	<i>TIR-A8-04</i>
POLYURETHANE SEALANT	An organic compound formed by the reaction of a glycol with an isocyanate.	<i>GAG-1-97</i>
POLYVINYL CHLORIDE	See PVC .	<i>309-13, 850-91</i>
POLYVINYL (CHLORIDE) (PVC) BLEND	A compound based on the polymer prepared by blending non-PVC polymers with vinyl chloride monomer during polymerization with or without grafting or by blending non-PVC polymers physically with polyvinyl (chloride) (PVC) polymer (resin); vinyl chloride content being at least 80% mass. This shall be permitted to include clean PVC rework material or rework containing PVC capstock.	<i>309-13</i>
PORCH ENCLOSURE	A sunroom installed as part of a porch.	<i>2100-11</i>
POROSITY	The presence of numerous visible pits or pin holes at or near the substrate surface.	<i>305-11</i>
POSITIVE PRESSURE	Pressure acting in the inward direction.	<i>101/I.S.2/A440-11</i>
POT LIFE	The time interval following the addition of an accelerator or curing agent, before a chemically curing material will become too viscous to apply satisfactorily. Also called work life.	<i>850-91, GAG-1-97</i>
POUR SPEED	The speed at which the material flows from the nozzle into the cavity and the part being filled moves under the nozzle.	<i>TIR-A8-04</i>
POURED AND DEBRIDGED	Framing system thermal break made by flowing a catalyzed liquid material with low thermal conductivity into a one-piece channel and then removing the base of the channel or bridge after solidification to form a thermally improved extrusion.	<i>TIR-A8-04</i>
PRE-CAST WINDOW SILL (a.k.a. WINDOW SILL)	A product used at the sill of a window masonry opening designed with a slope for the purpose of draining water away from the window masonry opening to the exterior of the building.	<i>200-12</i>
PRELOAD	A positive and negative wind load (a reduced design pressure) that is applied to a fenestration product or wall assembly to condition the system before running an air leakage, water penetration or structural test.	<i>504-05</i>
PRESHIMMED TAPE SEALANT	A sealant having a preformed shape containing solids or discrete particles that limit its deformation under compression.	<i>850-91, GAG-1-97</i>
PRESSURE	Differential force per unit area between the interior and exterior surfaces of the test specimen.	<i>101/I.S.2/A440-08</i>
PRESSURE BUILD OR FOAMING PRESSURE	A value for maximum pressure developed under specified conditions as determined by the test method described in AAMA 812-04.	<i>812-04</i>
PRESSURE COEFFICIENT	A coefficient which is a function of the building shape, a particular location on the building, the direction of the wind and other factors. The pressure on any part of the building is determined by multiplying the velocity pressure by the appropriate pressure coefficient. Pressure coefficients may be positive or negative. What the BLWT test does essentially is determine the maximum pressure coefficients at numerous locations on the building which the designers will need to determine the design wind loads the wall will be subjected to under extreme wind conditions.	<i>CW-11-85</i>
PRESSURE DIFFERENTIAL (ΔP)	The difference between the absolute air pressure on the external surface of a fenestration product, and the absolute air pressure on the internal surface of the same fenestration product. The difference is positive when the external pressure is higher than the internal pressure. When the external pressure is lower than the internal pressure, the difference is negative. This pressure differential is expressed in pounds per square foot (psf) or Pascals (Pa).	<i>IM-TM, IPCB-08</i>
PRESSURE EQUALIZATION	The use of ventilation to achieve a balance in pressure between the drainage and ventilation cavity, and the exterior.	<i>508-07</i>
PRESSURE EQUALIZED RAIN SCREEN WALL SYSTEM (PRWC)	A wall system that functions to control air leakage and water penetration within the cavity through use of an exterior rain screen, a compartmented drainage and ventilation cavity, and an air and water barrier.	<i>508-07, 509-09</i>

TERM	DEFINITION	LOCATION(S)
PRESSURE TAP	A hole, approximately 1 mm in diameter, drilled perpendicularly through the exterior surface of the model wall, into which a metal tube is inserted from the interior surface. The metal tube provides attachment for a plastic tube which leads to the instantaneous pressure measuring device. A sufficient number of pressure taps must be used to adequately define the pressure distribution on the entire wall and on any special exterior architectural feature or geometry.	<i>CW-11-85</i>
PRIMARY DOOR	That door in a dual-door system so designated by the manufacturer, capable of protecting the building's interior from climactic elements (as opposed to a secondary door used mainly for performance enhancement).	<i>101/I.S.2/A440-11</i>
PRIMARY SEALANT	A sealant applied to the inner shoulders of a spacer with its principle purpose to minimize moisture, gas and solvent migration into the unit's air space.	<i>IGMA Glossary, IM-TM, IPCB-08, 101/I.S.2/A440-11,</i>
PRIMARY WINDOW	That window in a dual window unit so designated by the manufacturer, capable of protecting the building's interior from climatic elements (as opposed to a secondary window used mainly for performance enhancement).	<i>101/I.S.2-97, 1701.2-12, 1702.2-02, 1704-01, IM-TM, IPCB-08</i>
PRIME DOOR	A swinging exterior passage door capable of protecting the building's interior from climatic elements. A prime door does not require a storm door to perform as intended, but storm doors may be applied as additional protection from climatic elements.	<i>1702.2-12</i>
PRIMER	A coating specifically designed to enhance the adhesion of sealant systems to certain surfaces, or to form a barrier to prevent migration of components, or to seal a porous substrate.	<i>GAG-1-97</i>
PRIMING	Sealing of a porous surface so that a compound will not stain, lose elasticity shrink excessively, etc., because of loss of oil or vehicle into the surround. A sealant primer or surface conditioner may be used to promote adhesion of a curing-type sealant to certain surfaces.	<i>850-91</i>
PRODUCT DESIGNATIONS	Skylights included in this document are identified by the product designation code, which includes product type, performance class, performance grade and size tested.	<i>1600/I.S.7-00</i>
PRODUCT LINE	A given series of fenestration products typically defined by operator type, frame type and a set of basic frame profiles.	<i>507-07, 1505-03</i>
PRODUCT TYPE	Each product type and class requires testing the largest size (maximum glazed area) for which compliance is desired for entry into the performance class.	<i>1600.I.S.7-00</i>
PRODUCTION UNITS	Primary windows and sliding glass doors which are intended for installation in manufactured housing.	<i>1701.2-02</i>
PRODUCTION UNIT TESTING PROCEDURE	Performance testing of a randomly selected production unit, conducted in accordance with the requirements of the certification program.	<i>1701.2-12, 1702.2-12, 1704-12</i>
PROFILE	Referring to the cross-sectional geometry or property of a frame, sash, or its components.	<i>NFRC Glossary</i>
PROJECT EXECUTION AND COORDINATION (PEC) MODEL	Dimensionally-accurate project-specific fenestration BIM models, provided at pre-defined milestones in the project execution process, for insertion into the project BIM model, representing external extents and attributes of fenestration profiles and accessories; and used in coordination, clash detection, sequencing, and other integrated design activities. PEC models are provided after fenestration purchase order issuance.	<i>912-13</i>
PROJECTED WINDOW	Projected windows have one or more sash hinged or pivoted at the top or bottom which project inward or outward from the plane of the window with or without fixed lites of glass.	<i>101/I.S.2-97</i>
PROPONENT	The entity that orders the test. This may be a window or component manufacturer, an installer, contractor or builder.	<i>504-05</i>
PROPYLENE CARBONATE	Solvent used for cleaning and flushing thermal break compounds from the nozzles and operating parts of the mixing and filling machine.	<i>TIR-A8-04</i>
PROTOTYPE	A unit built strictly for testing purposes.	<i>1704-01</i>
PROTOTYPE UNITS	A unit built strictly for test purposes.	<i>1701.2-02, 1702.2-02</i>
PULL HARDWARE	A fixed handle or grip used to pull a door open.	<i>SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
PULSATING PRESSURE	A pressure in which pressure difference across the specimen is rapidly transitioned from one level of differential air pressure to another and back within a prescribed time period.	520-12
PULTRUSION	Fiberglass reinforced polymer (plastic) structural members having a constant cross-section.	IM-TM, <i>IPCB-08</i>
PUNCHED OPENING	A discrete elevation of curtain wall, storefront or sloped glazing that is surrounded in its entirety by another building wall system such as masonry, EIFS, panels or similarly cladding systems.	503-03
PURLIN	See CROSS RAFTER .	<i>GDSG-1-87</i>
PUSH HARDWARE	A fixed bar or plate used to push a door open.	<i>SFM-1-87</i>
PVC	Polymer formed by polymerization of vinyl chloride monomer. Also known as polyvinyl chloride. (See VINYL .)	309-04, <i>850-91</i> , <i>GAG-1-97</i>
PYROLYTIC COATING	A low-e, thin-film coating applied at high temperature. See also HARD COATING .	<i>IGMA Glossary</i>
R-POINT	Reference anchoring point that has a rigidity equal to double that of other anchors, achieved by using two anchors instead of one, or by using an anchor that is twice as rigid as those used at other points.	<i>IM-TM</i>
R-VALUE	The resistance of conductive heat energy transfer in one hour through a one-square foot area of a specific insulating glass unit assembly for each one degree Fahrenheit temperature difference between the indoor and outdoor air. It is the reciprocal of U-value; $R = 1/U$.	<i>IGMA Glossary</i> , IM-TM, <i>IPCB-08</i>
RABBET	A two-sided L-shaped recess in a sash or frame to receive lites or panels. When no stop or molding is added, such rabbets are face glazed. Addition of a removable stop produces a three-sided U-shaped channel.	<i>850-91</i> , <i>GAG-1-97</i>
RACKING	Movement and distortion of sash or frames so that the corners no longer form their original angles.	<i>850-91</i> , <i>GAG-1-97</i>
RADIATION	Energy released in the form of waves or particles, due to a change in temperature within a gas or vacuum.	<i>IGMA Glossary</i>
RAFTER	For sloped glazing, a main nominally vertical framing member.	<i>GDSG-1-87</i>
RAIL	A horizontal member of a sash, leaf, or panel.	<i>101/I.S.2/A440-11</i> , IM-TM, <i>IPCB-08</i> , <i>SFM-1-87</i>
RAIN SCREEN	An exterior wall construction technique consisting of an exterior cladding (outer leaf), a cavity, and an inner leaf. Rain screens are subdivided into two distinct performance categories, one being pressure equalized rain screen and the second being drained and back ventilated (D&BV).	509-09
REACTION	A mutual action of chemical agents upon each other, resulting in a chemical change.	<i>850-91</i> , <i>GAG-1-97</i>
RECEPTOR	A device installed in a rough opening that is designed to receive the window.	200-09
REFERENCE VELOCITY PRESSURE	The pressure equal to the product of the square of the reference velocity, a factor of one-half and the air density.	<i>CW-11-85</i>
REFLECTANCE	The fraction of incident radiation upon a surface that is reflected from that surface.	<i>IGMA Glossary</i>
REFLECTION	The process by which incident flux leaves a surface or medium from the incident side, without change in frequency.	<i>IGMA Glossary</i>
REFLECTIVE COATED GLASS	Glass with metallic or metallic oxide coatings applied onto or into the glass surface to provide reduction of solar radiant energy, conductive heat energy and visible light transmission.	<i>IGMA Glossary</i>
REFLECTIVITY	The reflectance of a microscopically homogeneous sample with a clean, optically smooth surface and of thickness sufficient to be completely opaque.	<i>IGMA Glossary</i>
REINFORCED THERMOPLASTICS	Compound in which a thermoplastic is blended with or chemically coupled to reinforcing additives, such as fibers, spheres or other materials.	310-12
REINFORCEMENT	The material added to individual sash, leaf, panel, or frame members to increase strength and/or stiffness.	<i>101/I.S.2/A440-11</i> , <i>101/I.S.2-97</i>
REINFORCING MULLION	A horizontal or vertical member with an added continuous mullion stiffener and joining two or more individual fenestration units along the sides of the mullion stiffener.	<i>101/I.S.2/A440-11</i> , 450-06

TERM	DEFINITION	LOCATION(S)
RELATIVE HEAT GAIN	An energy comparison factor for glass products combining the radiant and conductive heat gas in under specific conditions, (200 BTUs times the shading coefficient + 14 degrees times the summer U-value).	<i>IGMA Glossary</i>
RELATIVE HUMIDITY	The percentage of moisture in the air in relation to the amount of moisture the air could hold at that given temperature. At 100 percent relative humidity, moisture condenses and water droplets are formed.	<i>IGMA Glossary, IM-TM, IPCB-08</i>
RELATIVE PRESSURE	The dimensionless ratio of a sound's pressure to a standardized reference sound pressure.	<i>TIR-A1-04</i>
RELEASING AGENT	A petroleum-based agent, usually spray applied to a wall or fixture, that will not permit cementitious material to adhere to the wall or fixture.	<i>IM-TM</i>
REMODEL	To replace or improve a building or its components	<i>IM-TM, IPCB-08</i>
REMOVABLE DOUBLE GLAZING	The use of a second sash or pane of glass as a storm panel to provide an air space between the glass of the window and the storm panel.	<i>101/I.S.2-97</i>
REMOVABLE MULLION	A mullion separating door openings, designed to permit its temporary removal.	<i>SFM-1-87</i>
REMOVABLE MULTIPLE GLAZING PANEL (RMGP)	A glazed panel that can be installed in a sash, leaf, or panel on either the interior side or exterior side of the primary glazing.	<i>101/I.S.2/A440-08</i>
REPLACEABLE WEATHERSEAL	A seal which can be readily removed from a retaining groove of an assembled and installed fenestration product and not an integral part of a framing member or applied with adhesives.	<i>701/702-04</i>
REPLACEMENT INSTALLATION	Installation of a window or door that is designed for replacement of existing like and type product(s), by either destructive or nondestructive installation methods.	<i>IM-TM, IPCB-08</i>
RESIDENTIAL BUILDING	Any building used or intended primarily for a single or multiple family dwelling.	<i>2400-10, 2410-03</i>
RESIDENTIAL BUILDING - GROUP R-2 (AS DEFINED IN THE IECC)	Residential occupancies containing more than two dwelling units where the occupants are primarily permanent in nature such as apartment houses, boarding houses (not transient), convents, monasteries, rectories, fraternities and sororities, dormitories and rooming houses. For the purpose of this code, reference to Group R-2 occupancies shall refer to buildings that are three stories or less in height above grade.	<i>507-03</i>
RESIDENTIAL BUILDING - GROUP R-4 (AS DEFINED IN THE IECC)	Residential occupancies shall include buildings arranged for occupancies as Residential Care/Assisted Living Facilities including more than five but not more than 16 occupants, excluding staff. For the purpose of this code, reference to Group R-4 occupancies shall refer to buildings which are three stories or less in height above grade.	<i>507-03</i>
RESIDENTIAL TRANSLUCENT SLOPED GLAZING SYSTEM	A translucent glazed roof structure over a conditioned or un-conditioned space having a minimum glazed area of 15 square feet.	<i>2001-07</i>
RESILIENT TAPE	A pre-shaped, rubbery sealing material furnished in varying thicknesses and widths, in roll form. May be plain or reinforced with scrim, twine, rubber or other materials.	<i>GAG-1-97</i>
RESIN CHEMICAL FAMILY	Shall refer to the base chemistry of the resin backbone. Examples (not exclusionary) include: Polyester, Vinyl Ester and Urethane.	<i>305-11</i>
RESIN COMPONENT	A synonym for polyol component.	<i>TIR-A8-04</i>
RESPONSIBLE CONTRACTOR	The party contractually responsible for that portion of the work.	<i>503-03</i>
RETROFIT WINDOW	A replacement window designed to be installed over a pre-existing window frame.	<i>2410-03, IM-TM, IPCB-08</i>
REVEAL	The part of the edge of a door or window frame or jamb not covered by the casing.	<i>ASTM E2112-07</i>
REVOLVING DOOR	An exterior door consisting of two or more leaves that pivot about a common vertical axis within a cylindrically shaped vestibule.	<i>101/I.S.2/A440-11, SFM-1-87</i>
REVOLVING DOOR CANOPY	That circular part of a revolving door between the ceiling sheet and the roof sheet. Any canopy that has a flat side and is not a complete circle is referred to as a clipped canopy.	<i>SFM-1-87</i>
REWORK MATERIAL	Principally material from a manufacturer's facility or another facility of known compatible composition that has been reground, pelletized or pulverized after having been previously processed by extrusion.	<i>306-04, 311-13</i>

TERM	DEFINITION	LOCATION(S)
RIGID (STATIC) MODEL	This is a building model of rigid construction which remains undeflected and stationary when placed in the flowing air of the BLWT. It is the type of model used to establish wind load or curtain walls. Pressure taps distributed over the surfaces of this type of model are used to obtain pressure distributions.	<i>CW-11-85</i>
RIM TYPE	Which is mounted on the surface of a door, usually by screws from the reverse side. It is mounted independently of the lock and engages with the lock mechanism by means of a tail piece or metal extension.	<i>SFM-1-87</i>
ROLLER ASSEMBLY	Consists of roller(s), roller axle(s), any roller tire(s), any roller assembly housing(s), any height adjustment mechanism, and where used as an integral part of the roller assembly, sill rail of the sliding glass door operating panel.	<i>906-07</i>
ROLLER LATCH	A hardware device for holding a door in closed position. It consists of a spring-loaded roller mortised into the edge of a door so as to engage with a grooved strike mortised into the frame jamb.	<i>SFM-1-87</i>
ROLLER STRIKE	See STRIKE .	<i>SFM-1-87</i>
ROOF	The cover over a building. Assembly of interacting components designed to weatherproof, and sometimes to insulate the roof surface of a building.	2100-02, <i>IM-TM</i>
ROOF, SUNROOM	The cover over a sunroom structure. Sunroom roofs shall be made of solid panel materials, glazed surfaces, screening or other materials and assemblies.	<i>2100-11</i>
ROOF WINDOW	A sloped application of a fenestration product that provides for in-reach operation. Roof windows used for emergency escape and rescue typically have a balanced sash.	<i>101/I.S.2/A440-11</i>
ROOM TEMPERATURE	Temperature normally experienced in the average workplace and defined as 24°C ± 5°C (75°F ± 10°F).	<i>TIR-A8-04</i>
ROUGH OPENING	The opening in a wall or roof into which a window, door, TDD, roof window, or unit skylight is to be installed.	<i>101/I.S.2/A440-11</i> , <i>101/I.S.2-97</i> , <i>2410-13</i> , <i>IM-TM</i> , <i>IPCB-08</i>
SADDLE	See THRESHOLD .	<i>SFM-1-87</i>
SAFE OFF VOID	The gap or linear void area between the curtain wall system and the structural floor slab.	<i>FSCOM-1-09</i>
SAFETY GLASS	A strengthened or reinforced glass that is less subject to breakage or splintering, such as glass for doors, unit skylights, and some windows. See also FULLY TEMPERED GLASS and LAMINATED GLASS .	<i>101/I.S.2/A440-11</i> , <i>IM-TM</i> , <i>IPCB-08</i> , <i>TSGG-04</i>
SAFETY GLAZING	The use of safety glass and certain plastics in hazardous locations. Building codes require safety glazing in two broad types of hazardous conditions: (1) Glazing subject to accidental human impact, such as indoors, side lites, other glazing that extends to or near the floor or walking surface, and glazing in the walls and enclosures of bathing compartments; (2) Skylights or sloped glazing in walls and roofs greater than 15 degrees from the vertical. Laminated glass or certain plastics are required to reduce the possibility of any part of the glazing from vacating the glazed opening when broken.	<i>IM-TM</i> , <i>IPCB-08</i>
SAFING IMPALING CLIP	A "Z"-shaped, galvanized steel clip used to retain the fire safing materials.	<i>FSCOM-1-09</i>
SAG AND FLOW TEST	A procedure involving vertical applications of sealants to specified surfaces or shapes under predetermined conditions of temperature and time intervals. The tendency to run or sag is observed and is reported as none, very slight, slight, etc., or report	<i>850-91</i>
SAGGING	The inability of a sealant to support its own weight in a joint.	<i>850-91</i>
SASH	The members of a window, secondary storm product, or unit skylight that fit within a frame which are designed to accommodate the glazing.	<i>101/I.S.2/A440-11</i> , <i>101/I.S.2-97</i> , <i>850-91</i> , <i>GAG-1-97</i> , <i>IM-TM</i> , <i>IPCB-08</i> , <i>SFM-1-87</i>
SASH BALANCE	A mechanical device, which, when mounted in a window unit, assists in counterbalancing the sash in such a manner as to permit the sash to remain stationary at any position along the full range of sash travel and allows the sash to operate freely in both directions throughout the full range of sash travel. With the exception of sash balances designed for exclusive use in jambliner systems, sash balance rated capacity and travel range published by the balance manufacturer shall be that which determined without regard to friction and/or sash travel of window unit.	<i>902-07</i>

TERM	DEFINITION	LOCATION(S)
SASH BALANCE ADJUSTMENT	If applicable, enables a single balance or combination of balances, to accommodate a range of sash weights. Adjustment details and sash weight range shall be specified by the balance manufacturer.	902-07
SASH BALANCE RATED CAPACITY	The manufacturer's specified minimum and maximum weight carrying capacity per balance based on the Balance Rated Travel Range (BRTR). BLRC = Balance(s) Lowest Rated Capacity, BHRC = Balance(s) Highest Rated Capacity	902-07
SASH CRACK	The total length of prime sash crack between the sash of the operable lights and the main frame, and between meeting stiles or rails. The crack length of lights that are not normally operable but are easily removable shall be included when determining total crack length. For fixed windows, the crack length is the perimeter of the main frame measured adjacent to the glass.	IM-TM
SASH OPERATING MODE	The direction and movement of the operable portion of a window assembly. Sash operating modes include, but are not limited to, project-out awning, project-in hopper, outward-projecting casement, horizontal sliding or rolling, vertical sliding or hung, etc.	513-12
SASH TRAVEL RANGE	The total range of sash travel, during normal operation, from the fully-closed to the fully-opened positions with restraints such as sash stops or any other limiting means in place.	902-07, 908-02
SASH WEIGHT (WGT)	The total weight of the sash including the glazing material, framing members, latches, lock(s) and all other components and attachments.	902-07, 908-02
SCANT PLASTIC	A condition along the edge of the laminate where the vinyl interlayer does not extend completely to the edge of the innermost glass component. Measurement is made of the maximum extent of the void from the edge of the innermost glass component.	TSGG-04
SCREEN	A product used with a window, door, secondary storm product, or unit skylight, consisting of mesh wire or plastic material used to keep out insects and is not for providing security or for the retention of objects or persons from the interior.	101/I.S.2/A440-11, 101/I.S.2-97, 2100-11
SCREENING	A mesh-like material that can cover a fenestration opening.	2100-02
SCREW-ON BEAD OR STOP	A stop, molding or bead fastened by screws. (See SNAP-IN BEAD OR STOP .)	850-91
SEALANT	A compound used to fill and seal a joint or opening.	100-12, 101/I.S.2/A440-11, 101/I.S.2-97, 200-12, 300-12, 850-91, 2400-10, 2410-13, GAG-1-97, IM-TM, IPCB-08, SFM-1-87,
SEALANT BEAD	A sealant or compound, such as caulking or glazing bead, etc., applied to a joint regardless of the method of application. Also, a molding or stop used to hold glass or panels in position.	GAG-1-97
SEALED INSULATING GLASS UNITS	Units constructed of two or more lites of glass separated and hermetically sealed to spacer frames at the glass edges with the enclosed air changer(s) dehydrated at the plant's atmospheric pressure.	IGMA Glossary
SEALER	A liquid used to seal a porous surface. (See SEALANT .)	850-91
SEALING WIRE	An additional material that is inserted into the head of some polyamide strips and which is heat activated during the curing process of liquid or powder coating.	QAG-2-12
SECONDARY DOOR	That door in a dual-door system so designated by the manufacturer, used on the interior or exterior of, and in tandem with, a primary door designated by the manufacturer to be used for the purpose of performance enhancement. Not to be used by themselves as primary doors.	101/I.S.2/A440-11
SECONDARY LOCK	A secondary lock is any lock that does not allow forced-entry from the exterior by restricting the movement of a sash or vent to less than one-half inch. Any mechanism which allows more than a one-half inch opening shall be classified as a ventilating lock.	101/I.S.2-97
SECONDARY SEALANT	A sealant applied into the exterior glass-spacer cavity to provide elastic, structural bonding of the assembly, in single-sealed units, this sealant also has low gas and moisture vapor transmission property to achieve effective unit performance.	IGMA Glossary

TERM	DEFINITION	LOCATION(S)
SECONDARY STORM PRODUCT (SSP)	A door, window, or skylight product intended to be used only in conjunction with a primary door, window, or skylight product for the purpose of enhancement of performance in a system with the primary product. A secondary storm product can be attached to the internal or external frame or sash of the primary product. A secondary storm product is also considered a secondary door or window.	<i>101/I.S.2/A440-11</i>
SECONDARY WINDOW	That window in a dual window unit so designated by the manufacturer, used on the exterior of, or interior of, and in tandem with a primary window for the purpose of performance enhancement. Not to be used by themselves as primary windows.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 1701.2-02, 1704-01</i>
SEISMIC LOAD	Building movement and forces caused by earthquake motion.	<i>GDSG-1-87, IPCB-08</i>
SELF-ADHERING FLASHINGS	Flexible facing materials coated completely or partially on at least one side with an adhesive material and which do not depend on mechanical fasteners for attachment. They are used to bridge the joint (gap) between fenestration framing members and the adjacent weather resistive barriers or sealed drainage plane material. The purpose of flashing is to drain water away from the fenestration product to the exterior.	<i>100-12, 300-12, 711-13, 713-08, 2400-10</i>
SELF-LEVELING SEALANT	A sealant formulation having a consistency that will permit it to achieve a smooth level surface when applied in a horizontal joint.	<i>850-91, GAG-1-97</i>
SERIES	Manufacturers shall classify their products in groups called Series. Each series defines significant properties of the product group that relate to its component materials, profile, geometry, and intended application. Changes in component materials such as material durometer (greater than $\pm 10\%$), UV stabilizer, or grade of a material that alter the product's performance or application shall denote a change in series. Changes in the density (greater than $\pm 15\%$) of foam filled weatherseals shall denote a change in series. Design and construction characteristics such as profile geometry, designed method of compression, or hollow versus solid foam core that alter the product's performance or application shall also denote a change in series.	<i>701/702-11</i>
SERVICEABILITY	The capacity of a building product, component, construction or assembly to perform the function(s) for which it was designed and constructed.	<i>701/702-04</i>
SERVICEABLE	Accessible without major reconstruction of the window, door, SSP, TDD, roof window, or unit skylight.	<i>101/I.S.2/A440-11</i>
SETTING	Placement of lites or panels in sash or frames; and action of a sealant as it becomes more firm after application.	<i>850-91</i>
SETTING BLOCK	A device or member that supports the weight of the glazing and is in direct contact with an edge of the glazing after final installation.	<i>101/I.S.2/A440-11, 850-91, GAG-1-97, GDSG-1-87, IM-TM, IPCB-08, SFM-1-87</i>
SETTING TIME	A term used rather loosely to describe that period when a material has either dried sufficiently through solvent release, or cured sufficiently through chemical reaction, to reach a specified condition.	<i>850-91</i>
SHADING COEFFICIENT (SC)	The ratio of solar heat gain through a window, under a specific set of conditions, to the solar heat gain through a 3 mm sheet of clear, double-strength glass under the same conditions. Included is the directly transmitted solar radiation, as well as the solar energy absorbed and then redirected to the indoor space.	<i>GDSG-1-87, IM-TM, IPCB-08</i>
SHEAR PANEL	A panel used to brace a building wall against racking; in skylights, glass may be used as a shear panel, requiring special design considerations.	<i>GDSG-1-87</i>
SHEAR STRENGTH	The maximum shear stress that a material is capable of sustaining. Shear strength is calculated from the maximum load during a shear or torsion test and is based on the original dimensions of the cross section of the specimen. Ability of the thermal barrier material to resist slippage or tearing parallel to the line of application of loading (pure or transverse shear) or perpendicular to the line of load application as in bending (longitudinal shear).	<i>TIR-A8-04</i>
SHEATHING TAPE	A tape manufactured for the purpose of sealing horizontal, vertical, and diagonal joints in the weather resistant barrier (WRB). Appropriate materials for this purpose are those recommended by the WRB manufacturer for the intended purpose.	<i>IM-TM</i>
SHEET GLASS	Flat glass made by continuous drawing and whose surface has a characteristic waviness. Because of the long usage of the term, much thin float glass is still incorrectly referred to as sheet glass.	<i>IGMA Glossary</i>

TERM	DEFINITION	LOCATION(S)
SHIM	A thin, flat or wedge-shaped piece of suitable material used to level or plumb a fenestration product frame during installation. Lateral shims are placed at the jambs; setting shims are placed at the sill.	100-12, 200-12, 300-12, 504-05 , 2400-10 , 2410-13, IM-TM , IPCB-08
SHOCK TUBE TEST	A blast test conducted in an enclosure that utilizes compressed air, fuel/air mixtures or explosives to simulate a blast event.	510-06
SHOCK WAVE	A mass of highly compressed air that radiates out from an explosion source producing an increase in ambient air pressure.	510-06
SHOE/CLUTCH	A component of a Type 2 balance which provides an engagement location for the pivot pin or pivot bar. The shoe/clutch is permitted to provide other functions not related to vertical sash counterbalancing and is available in assorted sizes that suit the pocket size of varied frame designs.	908-02
SHORE "A" HARDNESS	Measure of firmness of a compound by means of a Durometer Hardness Gauge (A hardness range of 20-25 is about the firmness of an art gum eraser. A hardness of 90 is about the firmness of a rubber heel).	GAG-1-97
SHORE D HARDNESS	Provides a relative ranking of profile surface hardness.	308-05
SHORE HARDNESS	Measure of the firmness of a material measured by means of a Durometer Hardness Gauge (a range of 20-25 is about the firmness of an art gum eraser; 90 is about the firmness of a rubber shoe heel).	850-91, IM-TM
SHRINKAGE	A permanent loss of overall length due to material construction and/or relaxation from environmental and/or installation factors.	701/702-04
SHRINKAGE TEST	A determination of the percentage loss in volume of a sealant when tested in a specified size and shape under controlled conditions of temperature, humidity, and time intervals.	850-91
SHRINKAGE, DRY	A uniform, end to end contraction of the thermal break material in the extruded cavity after the material has been fully cured. Dry shrinkage is characterized by the absence of thermal break resin on the cavity walls in the "shrink back" area.	TIR-A8-04
SHRINKAGE, WET	The end to end contraction of the freshly poured thermal barrier material as it gels or sets up within the extruded cavity caused by the center of the pour solidifying quicker than the outer perimeter. Wet shrinkage is characterized by a thin layer of thermal barrier resin on the cavity walls in the "shrink back" area.	TIR-A8-04
SIDE JAMB PIVOT	See INTERMEDIATE PIVOT .	SFM-1-87
SIDE LITE	An operable or inoperable product that is designed to be a companion product installed on one or both sides of an operable door or a fixed door. Side lites often have their own separate frame or are contained within the frame of a composite assembly.	101/I.S.2/A440-11 , SFM-1-87
SIDE-HINGED DOOR SYSTEM	A door system having, at a minimum, a hinge attachment of any type between a leaf and jamb, mullion or edge of another leaf but having a single, fixed vertical axis about which the leaf rotates between open and closed positions. These systems include, as a minimum, a single operating leaf, surrounding frame, and components. The surrounding frame has vertical and horizontal members that are joined at the intersection and that fully encompass the operating and/or fixed leaf/leaves. Additional operating and/or fixed leaves, side lites, transoms, framing, and mullions are often included.	101/I.S.2/A440-11
SIDE-HINGED (INSWINGING) WINDOW	A window that consists of sash hinged at the jambs and swings inward using exposed butt hinges or concealed butt hinges and in some cases friction hinges. It is used primarily for cleaning or emergency escape and rescue purposes, but not for ventilation other than in the case of emergency. The gateway test size is larger than for casement windows, but otherwise the same requirements are met. See also HINGED RESCUE WINDOW and TOP-HINGED WINDOW .	101/I.S.2/A440-11 , 101/I.S.2-97
SIDELITE (SIDE LITE)	An operable or non-operable product that is designed to be a companion product installed on one or both sides of an operable door or a fixed door. Side lites often have their own separate frame or are contained within the frame of a composite assembly.	101/I.S.2/A440-11 , 1702.2-02
SIGHT LINE	Imaginary line along the perimeter of lites or panels corresponding to the innermost edge of stationary and removable stops; the line to which sealants contacting the lite or panel are sometimes finished.	850-91 , GAG-1-97 , IM-TM , IPCB-08
SILICONE SEALANT	A sealant having as its chemical composition a backbone consisting of alternating silicon-oxygen atoms.	850-91, GAG-1-97

TERM	DEFINITION	LOCATION(S)
SILL	A lower horizontal member of a window or sliding door frame. The main cross or horizontal member forming the bottom of the frame.	IM-TM, <i>IPCB-08</i> , SFM-1-87
SILL ANGLE	An L-shaped installation accessory that may be employed at the sill of a replacement window to accommodate the slope of the existing sill construction.	<i>IM-TM</i>
SILL HORN	The horizontal projection of a wood window sill that forms the base for the brick molding.	<i>IM-TM</i>
SILL NOSING	A wood member attached to the outside of the sill. This nosing is added to a narrow sill and may help to tie together a single mullion or double mullion unit, etc.	<i>IM-TM</i>
SINGLE-ACTING DOOR	A door mounted to swing in one direction only from the plane of its frame.	<i>SFM-1-87</i>
SINGLE GLAZING	Glazing that is just one layer of glass or other glazing material.	<i>101/I.S.2/A440-11</i>
SINGLE-HUNG WINDOW	A hung window with only one operable sash.	<i>101/I.S.2/A440-11</i> , <i>101/I.S.2-97</i>
SINGLE MATERIAL	Profiles extruded from a single compound. Weathering and other physical characteristics are uniform throughout the profile.	<i>306-04, 311-13</i>
SINGLE MODE	The primary window/door is closed and latched, the secondary window/door or outer primary window/door is opened fully, and the insect screen (when offered or specified by the manufacturer) is in the functional position.	<i>101/I.S.2/A440-11</i>
SINGLE-SEALED UNITS	Sealed insulating glass units where the structural bonding and moisture sealing is accomplished by a single seal at the edge.	<i>IGMA Glossary</i>
SITE-BUILT SYSTEM	A fenestration assembly supplied in an unassembled or partially assembled state consisting of more than one supplier's fabricated parts, components, locking/latching hardware, and/or accessories for final assembly at the project site. Excluded from this definition are door systems that are shipped from a district manufacturer without locking/latching hardware. <i>NOTE: As no individual distinct manufacturer incurs the sole responsibility for the design, composition, and performance of site-built fenestration assemblies, such assemblies are not addressed by this Standard/Specification.</i>	<i>101/I.S.2/A440-08</i>
SKYLIGHT	A glazing and framing assembly consisting of sloped and (sometimes) vertical surfaces; the assembly is generally inserted into the roof of a building to admit daylight. Unit Skylights are a subset of skylights.	<i>101/I.S.2/A440-11</i> , <i>1600 I.S.7-00</i> , <i>GDSG-1-87</i>
SLAB	Part of a hinged door system, glazed or unglazed, surrounded a frame. Slabs may be fixed or operable.	<i>NFRC Glossary</i>
SLAG WOOL/ROCKWOOL	A fibrous insulation board consisting of inorganic steel slag or rock fibers bonded together with thermosetting resins acting as a binder system.	<i>FSCOM-1-02</i>
SLIDER	See HORIZONTAL SLIDING WINDOW .	<i>101/I.S.2/A440-11</i> , <i>101/I.S.2-97</i>
SLIDING DOOR	A door that consists of manually operated door panels, one or more of which slide or roll horizontally within a common frame, and can also contain fixed lites/panels. Typically, operating panels are identified with an (X) and fixed lites or fixed panels are identified with an (O).	<i>101/I.S.2/A440-11</i>
SLIDING GLASS DOOR	Sliding glass doors consist of one or more lites of glass contained in panels which, in turn, are contained within an overall frame designed so that one or more panels are movable in a horizontal direction. Panels shall be all sliding or some sliding and some fixed. Panels shall lock or interlock with each other or shall contact a jamb member where the panel is capable of being securely locked. Doors shall be designed and assembled so that panel to panel contact between horizontal members moving relative to one another does not occur.	<i>101/I.S.2-97</i>
SLOPED GLAZING	A glass and framing assembly that is sloped more than 15° from vertical and which forms essentially the entire roof of the structure. Generally this is a single slope construction. (Other than unit skylights.)	<i>101/I.S.2/A440-11</i> , <i>GDSG-1-87</i> , <i>TIR-A7-83</i>
SLOPED GLAZING SYSTEM	A glass and framing assembly that is sloped more than 15° from vertical and which forms essentially the entire roof of the structure; generally this is a single slope construction.	<i>503-03</i>
SLOUGHING	A condition wherein scales peel off or become loose, either partially or entirely, from the pultrusion.	<i>305-06</i>
SMOKE	The airborne solid and liquid particulate and gases evolved when a material undergoes pyrolysis or combustion.	<i>FSCOM-1-09</i>

TERM	DEFINITION	LOCATION(S)
SMOKE CONTAINMENT	The ability of a system of materials assembled in a specific manner to contain and restrict the migration of smoke from the floor of origin to the floor(s) above.	<i>FSCOM-1-09</i>
SMOKE SEAL	A seal that exhibits the ability to prevent the passage of smoke and hot gases.	<i>FSCOM-1-09</i>
SNAP-IN BEAD OR STOP	A stop, molding or bead that snaps into position without additional fastening. (See SCREW-ON BEAD OR STOP .)	<i>850-91</i>
SNOW LOAD	Loads imposed on a building wall, roof, or skylight by the accumulation of snow; generally a long-term load.	<i>GDSG-1-87</i>
SNUBBER	An inter-locking alignment component or feature, used at the "hinge side" of a projected or casement sash, to ensure proper seating of weather seals, or for structural integrity. Also known as snug bars, or bevel blocks.	<i>513-12</i>
SOFFIT BRACKET	A bracket for mounting an exposed overhead door closer to the underside of a door frame head or transom bar; used for outswinging doors only.	<i>SFM-1-87</i>
SOFT COAT(ING)	Generally refers to silver-based, low-e coating. So called due to its susceptibility to damage through abrasion. The coating generally consists of a multilayer structure of alternate dielectric and thin transparent metal layers which are deposited in a vacuum chamber. Also known as <i>sputtered coating</i> .	<i>IGMA Glossary</i>
SOLAR ABSORPTANCE	Fraction or percent of the sun's radiation that is absorbed by a surface or material; for glass, standard values are normally published for the sun's rays normal to the surface.	<i>GDSG-1-87</i>
SOLAR ENERGY	Thermal radiation from the sun; as measured by short radiation wavelengths, less than three microns long.	<i>IGMA Glossary</i>
SOLAR HEAT GAIN COEFFICIENT (SHGC)	The ratio of solar heat gain entering the space through the glazing product to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation that is then re-radiated, conducted or convected into the space.	<i>507-12, 2001-07, 2100-07, IM-TM, IPCB-08</i>
SOLAR REFLECTANCE	Fraction or percent of the sun's radiation that is reflected by a surface or material.	<i>GDSG-1-87</i>
SOLAR REFLECTING GLASS	Glass with a transparent metal or metal oxide coating which reflects a portion of the sun's radiation.	<i>GDSG-1-87</i>
SOLAR TRANSMITTANCE	Fraction or percent of sun's radiation that is transmitted by a transparent or translucent material.	<i>GDSG-1-87</i>
SOLARIUM	A sunroom featuring a high percentage of glazed surfaces used as walls and roof systems.	<i>2100-02</i>
SOLIDS CONTENT	A determination of the non-volatile matter of a compound at a specified temperature and time interval. Usually expressed in percentage by weight and the difference between this figure and 100%, represents the volatile matter or loss by evaporation.	<i>GAG-1-97</i>
SOLIDS CONTENT TEST	A determination of the non-volatile matter of a sealant at a specified temperature and time interval, usually expressed as percentage by weight of the solid matter left after evaporation.	<i>850-91</i>
SOLVENT RELEASE SEALANT	A sealant that cures primarily through solvent evaporation.	<i>850-91, GAG-1-97</i>
SONE	The unit of measure of loudness defined as 40 dB at 1000 Hz.	<i>TIR-A1-04</i>
SOUND-INSULATING GLASS	Glazing that is fixed on resilient mountings and separated so as to reduce sound transmission. Also known as <i>sound-resistive glass</i> .	<i>IGMA Glossary</i>
SOUND INTENSITY	The square of the relative pressure of a sound representing the power per unit area of the sound in "watts per square meter" (W/m ²).	<i>TIR-A1-04</i>
SOUND POWER (W)	Rate of transmission of a sound's energy in "Watts" (W).	<i>TIR-A1-04</i>
SOUND PRESSURE LEVEL (SPL)	Twenty times (20x) the base ten logarithm of a sound's relative pressure represented in decibels (dB).	<i>TIR-A1-04</i>
SOUND TRANSMISSION CLASS (STC)	A single-number rating calculated in accordance with ASTM E413 using sound transmission loss values. It provides an estimate of the sound insulation performance of an interior partition in certain common sound insulation problems. The frequency range used is typical of indoor office noises.	<i>101/I.S.2/A440-11, 101/I.S.2-97, TIR-A1-04</i>
SOUND TRANSMISSION COEFFICIENT	The fraction of the airborne sound power incident on the test specimen that is transmitted by the specimen and radiated on the other side.	<i>TIR-A1-04</i>
SOUND TRANSMISSION LOSS (STL)	Ten times (10x) the common logarithm of the reciprocal of the sound transmission coefficient. The quantity so obtained is expressed in decibels (dB).	<i>TIR-A1-04</i>

TERM	DEFINITION	LOCATION(S)
SPACER	The linear material that separates and maintains the space between the glass surfaces of insulating glass units.	<i>101/I.S.2/A440-11, 507-12, 850-91, SFM-1-87, IM-TM</i>
SPACER CORNERS	Specific methods used in joining the spacer lengths into spacer frames including interlocking keys, bending, soldering, or welding.	<i>IGMA Glossary</i>
SPACER DEPTH	That dimension of the spacer that is measured perpendicular to the glass surface.	<i>IGMA Glossary</i>
SPACER WIDTH	That dimension of the spacer that is measured perpendicular to the glass surface and establishes the unit's air space.	<i>IGMA Glossary</i>
SPAN	The clear distance measured parallel to the length of a mullion or divider between support points.	<i>101/I.S.2/A440-11, 101/I.S.2-97, 450-06, 1701.2-02, 1702.2-02</i>
SPANDREL	The opaque areas of a building envelope which typically occur at locations of floor slabs, columns, and immediately below roof areas.	<i>101/I.S.2/A440-11, FSCOM-1-09, IPCB-08</i>
SPANDREL AREA	The area of the spandrel infill between the primary sash or frame members.	<i>507-12</i>
SPECIFICATION	A written document often accompanying architectural drawings, giving such details as scope of work, materials to be used, installation method, required performance, and quality of workmanship for work under contract.	<i>101/I.S.2/A440-11</i>
SPECTRALLY SELECTIVE COATING	A low-e coating with optical properties that are transparent to some wavelengths of energy and reflective to others. Typical spectrally selective coatings are transparent to visible light and reflect short-wave and long-wave infrared radiation.	<i>IGMA Glossary</i>
SPECTRALLY SELECTIVE GLAZING	A specially engineered low-e coated or tinted glazing whose optical properties vary with wavelength. See SPECTRALLY SELECTIVE COATING and SPECTRALLY SELECTIVE TINT .	<i>IGMA Glossary</i>
SPECTRALLY SELECTIVE TINT	A tinted glazing with optical properties that are transparent to some wavelengths of energy and reflective to others. Typical spectrally selective tints are transparent to visible light and reflect short-wave and long-wave infrared radiation.	<i>IGMA Glossary</i>
SPEED CONTROL	The mechanism that controls the rate of speed at which a door will operate.	<i>SFM-1-87</i>
SPINDLE (A.K.A SPLIT SPINDLE)	A rigid bar or bars which transfer movement of the handle to the lock mechanism.	<i>903-12</i>
SPRAY COATING	The process of applying a resinous coating by atomizing it into a spray or mist, and curing it into a continuous film.	<i>613-08, 614-05, 615-05, 2603-13, 2604-05, 2605-05</i>
SQUARE	Two construction members that meet at a right (90 degree) angle. In fenestration, the condition in which the jambs are perpendicular to the head and sills.	<i>IM-TM, IPCB-08</i>
STANDARD TEST PROFILE	A specific part selected by the manufacturer that is representative of a single or multiple product series that is to be used in AAMA certified products. The part is representative of a series in component materials, profile geometry, or other characteristics that alter a product's performance or application.	<i>701/702-04</i>
STATIC PRESSURE	Application of a fixed pressure difference across the specimen.	<i>520-12</i>
STATIONARY STOP	The permanent stop or lip of a rabbet onto which the lites or panels are set.	<i>850-91</i>
STC REFERENCE CONTOUR	A curve that is fitted to the measured transmission loss data from 125 Hz to 4000 Hz to determine the Sound Transmission Class of a barrier.	<i>TIR-A1-04</i>
STIFFENER	A reinforcing member which serves to limit the deflection of the member to which it is attached.	<i>SFM-1-87</i>
STILE	A vertical member of a sash, leaf, or panel.	<i>101/I.S.2/A440-11, SFM-1-87, IM-TM, IPCB-08</i>
STOOL	Horizontal interior trim at the base of a single-hung or double-hung window (often mistakenly called the sill). The flat, narrow shelf forming the top member of the interior trim at the bottom of a window.	<i>IM-TM, IPCB-08</i>
STOP	Either the stationary lip or the removable molding of the rabbet, serving to hold the glazing infill in the sash or frame, with the help of spacers.	<i>850-91, GAG-1-97, IM-TM, IPCB-08, SFM-1-87</i>
STORE FRONT SASH	An assembly of moulding members forming a continuous frame for a fixed glass store front.	<i>SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
STOREFRONT	A non-residential system of doors and windows mullied as a composite structure. Typically designed for high use/abuse and strength. <i>Storefront systems are typically designed to accommodate field fabrication and glazing and employ exterior glazing stops at one side only. Storefront employs shallow rectilinear framing profiles (approximately 150 mm [6 in] or less), which are often made available in "stock lengths". Vertical framing members run between the top of the floor slab and structure above, with provision for anchorage at all perimeter conditions. Operating vents and entrance doors are provided as separate inserts.</i>	101/I.S.2/A440-11, 503-03, 507-12
STORM DOOR	See SECONDARY DOOR .	101/I.S.2/A440-11, 101/I.S.2-97, 1702.2-12
STORM WINDOW	See SECONDARY WINDOW .	101/I.S.2/A440-11, 101/I.S.2-97, IM-TM, IPCB-08
STORY DRIFT	See DRIFT	501.4-00
STORY HEIGHT	Vertical distance between a designated point or component at one floor level and the same designated point or component at adjoining floor levels of a building structure.	501.6-01
STRAW FOAM SEALANT	An aerosol foam container from which the polymer is extruded through a simple tube dispenser. A straw-type dispenser is attached to the valve of the container and is controlled by a lever actuator-connector. Normally this device is intended for limited re-use.	812-04
STRESS RELAXATION	Stress relaxation is that property which enables a compound to be extended without increasing its internal stress.	JS-91
STRIKE PLATE	See STRIKE .	SFM-1-87
STRIKE	An opening or retaining device provided in the head, jamb or threshold of a door frame or in the edge of a stile of an inactive door to receive a lock or latch bolt. (Also referred to as a Keeper or Strike Plate). a) Box Strike - A strike consisting of a face plate with rectangular opening and a box-like enclosure attached to the back of the plate and surrounding the opening. b) Dustproof Strike: A strike which is placed in the floor, sill or threshold of an opening, to receive a flush bolt, and is equipped with a spring-loaded follower to cover the recess and prevent its filling with dirt. c) Electric Strike: A strike used with a latch lock and designed to be actuated by a remotely controlled electro-magnet, to permit the door to be opened without retracting the latch. d) Roller Strike: A strike for latch bolts, having a roller mounted in the tip to reduce friction.	SFM-1-87
STRIKING OFF	The operation of smoothing excess sealant at the sight line.	850-91
STRUCTURAL GASKET	A synthetic rubber gasket designed to engage the edge of glass or panel in a surrounding frame by forcing an interlocking filler strip into a grooved recess in the face of the gasket. Such gaskets are structurally capable of transmitting wind and dead loads from the glass or panel to the frame.	SFM-1-87
STRUCTURAL GLASS	(1) Flat glass that is usually colored or opaque and frequently ground and polished, used for structural purposes. (2) Glass block, usually hollow, that is used for structural purposes.	IGMA Glossary
STRUCTURAL GLAZING	Glazing which is part of the structural design of the facade of a building.	IGMA Glossary
STRUCTURAL GLAZING GASKETS	Cured elastomeric channel-shaped extrusions used in place of a conventional sash to install glass products onto structurally supporting sub-frames with the pressure of sealing exerted by the insert of separate lock strip wedging splines.	IGMA Glossary
STRUCTURAL INTEGRITY	A structure's uncompromised ability to safely resist the required loads.	2200-01
STRUCTURAL MULLIONS	Also called "mullion stiffeners," must independently or in conjunction with Common or Combination Mullions be designed to withstand full design load requirements of the project specifications. Evidence of compliance shall be either by testing for mathematical calculation.	101/I.S.2-97
STRUCTURAL SILICONE GLAZING	A system in which the glass product is bonded to the framing members of a curtain wall utilizing a structural silicone adhesive / sealant without the presence of outdoor retainers or stops.	IGMA Glossary

TERM	DEFINITION	LOCATION(S)
STRUCTURAL TEST PRESSURE (STP)	The overload pressure differential applied to a window, door system, TDD, roof window, SSP, or unit skylight. (Not to be confused with design pressure (DP) or Performance Grade (PG)).	101/I.S.2/A440-11, 101/I.S.2-97, 450-06, 1701.2-02, 2100-11
STUCCO	Cementitious mixture used for exterior plaster.	IM-TM, IPCB-08
STYRENE COPOLYMERS	Those polymers incorporating styrene and at least one other functional group in the repeating unit through co-polymerization of the base monomers.	309-13
SUB-ASSEMBLY UNIT	A unit, complete in its entirety, including the glazing of windows or other glazing panels into their respective fixed or moving sash frames, which is shipped with such glazing panels separate from each other or from any master frame. This master frame may either be disassembled or assembled. The connection of the master frame to the glazed, fixed, or moving panels shall take place later according to the instructions of the manufacturer utilizing all of the components supplied by the manufacturer.	1701.2-02, 1702.2-02
SUB-FRAME	A framework built fastened and sealed into a window or door opening in a concrete or masonry wall, to which the window or door frame is secured.	IM-TM, SFM-1-87
SUBSILL	A separate framing member that, when installed on the underside of a sill, becomes an integral part of the sill.	IM-TM, IPCB-08
SUBSTRATE	Inner layer of a co-extrusion.	306-04, 311-13, 850-91, GAG-1-97
SUMMER MODE	When the primary window/door is closed and latched, the secondary window/door or outer primary window/door is opened fully and insect screen (when offered or specified by the manufacturer) is in the functional position.	101/I.S.2/A440-08, 101/I.S.2-97, 1701.2-02, 1702.2-02
SUNLIGHT	The portion of solar energy which is detectable by the human eye; it accounts for about 44 percent of the total radiation wavelength spectrum.	IGMA Glossary
SUNROOM	A one-story structure attached to a dwelling with a glazing area in excess of 40 percent of the gross area of the structure's exterior walls and roof.	101/I.S.2/A440-11, 2100-11
SUNSPACE	A sunroom.	2100-02
SUPPLIER	The source of the thermal break material to the framing manufacturer. (Some suppliers may also pour and debridge stock lengths of framing for the window manufacturer.)	TIR-A8-04
SURFACE BARRIER WALL SYSTEMS	Systems in which the outermost surface of the wall or roof is the sole barrier to intrusion of liquid water.	200-12
SURFACE BOLT	A rod or bolt mounted on the face of a door to lock it to the frame and/or sill. It is operated manually.	SFM-1-87
SURFACE COATING	The deposition of a thin-film coating on a surface.	IGMA Glossary
SURFACE COEFFICIENT (H)	The ratio of steady-state heat exchange between the surface and its external surroundings to the temperature difference between the surface and its surroundings. It is expressed in terms of time rate of heat flow per unit area of a particular surface by the combined effects of radiation, conduction and convection for a unit temperature difference between the surface and the air. Subscripts I and II are used to denote indoor and outdoor air spaces, respectively.	1503-09, IM-TM
SURPLUS PLASTIC	Excess vinyl interlayer extending beyond the glass edges of the laminate. Interlayer should be trimmed flush when required depth of silicone joint exceeds design thickness of outboard ply.	TSGG-04
SUSPENDED FILM	Polymer-based, optically clear glazing layer mounted between glass layers in a multiple-glazed system.	IGMA Glossary
SUSPENDED FILM INSULATING GLASS UNIT	I.G. unit manufactured with a light and energy controlling film suspended within the air space.	IGMA Glossary
SUSPENDED GLAZING	Glazing system suspended from above. This innovation, first achieved in projects of the 1960s, made possible continuous glass facades, without mullions.	IGMA Glossary
SWEEP STRIP OR DOOR SWEEP	A weatherstrip mounted at the top or bottom edge of a swing door.	SFM-1-87
SWING	The direction of opening of a swing door. (Same as Hand of Door).	SFM-1-87
SWING OF WINGS	The arc of travel of the wings of a revolving door beyond the enclosure walls.	SFM-1-87

TERM	DEFINITION	LOCATION(S)
SWINGING EXTERIOR PASSAGE	A swinging exterior passage door installed in an exterior wall. A passage door which is side hinged and operates by swinging inward or outward.	1702.2-12
SWITCHABLE GLAZINGS	Glazings with optical properties that can be reversibly switched from clear to dark or reflective with the application of an external stimulus, e.g.: heat, light, electric signal, etc. Also known as DYNAMIC GLAZING . See also ELECTROCHROMIC GLAZING , PHOTOCHROMIC GLAZING , and GASOCHROMIC GLAZING .	IGMA Glossary
SYMPATHETIC RESONANCE	The phenomenon whereby materials of similar characteristics (mass, stiffness, etc.) respond to incident sound frequencies in a similar manner thereby aiding in the transmission of the sound. The use of dissimilar materials can reduce the transmission of sound.	TIR-A1-04
SYSTEM	The parts, components, hardware, and/or accessories that yield a complete, fully functional assembly.	101/I.S.2/A440-11
TAPE SEALANT	A sealant having a pre-formed shape, and intended to be used in a joint under compression.	850-91, GAG-1-97
TEMPERATE NORTHERN CLIMATE	In weather testing, a North American metropolitan area testing site located within 73 to 100°W longitude and 37 to 50°N latitude.	310-12
TEMPERED GLASS	See FULLY TEMPERED GLASS	101/I.S.2/A440-11, GDSG-1-87
TEMPLATE (FOR HARDWARE)	A master pattern or scaled drawing showing all dimensions and hole spacing for hardware application.	SFM-1-87
TENSILE STRENGTH	The greatest longitudinal stress a substance can bear before rupturing.	850-91, TIR-A8-04
TERNE (METAL)	An alloy of lead and tin applied to steel by dipping steel into molten terne metal. The alloy has a dull appearance resulting from the high lead content.	IM-TM, IPCB-08
TEST PRESSURE DIFFERENCE	Difference between the external pressure and the internal pressure across a closed and locked test specimen expressed as Pascals (lbf/ft ²). It is called positive pressure when the external pressure of windows and doors is higher than the internal pressure and is called negative pressure when the external pressure is lower than the internal pressure.	520-12
TEST SPECIMEN	A complete, fully functioning window, door, SSP, TDD, roof window, or unit skylight supplied by the applicant and fitted in the test apparatus in accordance with the manufacturer's written installation instructions (including manufacturer's instructions for clearance, shimming and anchoring).	101/I.S.2/A440-11
TEST WEIGHT	The amount of weight that is attached to the guide block when performing test procedure from Sections 8.2 and 8.3 of AAMA 902-07. Test weight equals the balance's rated capacity without regard to built-in friction of the window unit. Test weight will equal Balance(s) Lowest Rated Capacity (BLRC) when performing the test procedure from Section 8.2. Test weight will equal Balance(s) Highest Rated Capacity (BHRC) when performing the test procedure from Section 8.3.	902-07, 908-02
THERMAL BARRIER	An element made of material with relatively low thermal conductivity, which is inserted between two members having high thermal conductivity, in order to reduce the heat transfer.	101/I.S.2/A440-11, IM-TM, IPCB-08
THERMAL BREAK	See THERMAL BARRIER	101/I.S.2/A440-11, IM-TM, SFM-1-87, TIR-A8-04, TSGG-04
THERMAL BRIDGE	An entity that allows for large amounts of conductive heat flow (relative to the amount that would flow at that location if the entity were not present) between surfaces at different temperatures.	ASTM E2112-07
THERMAL CONDUCTANCE (C)	The time rate of heat flow through a body per unit area from one of its bounding surfaces to the other for a unit temperature difference between the two surfaces, under steady-state conditions.	1503-09
THERMAL CONDUCTIVITY	The time rate of heat flow per unit area under steady-state conditions from the air on the warm side of a body to the air on the cold side, per unit temperature difference between the warm and cold air.	1503-09, TIR-A8-04
THERMAL CYCLING	The repeated heating and cooling of a specimen from a stated low temperature to a stated high temperature and back again.	TIR-A8-04

TERM	DEFINITION	LOCATION(S)
THERMAL DIFFUSIVITY	Thermal conductivity per unit of heat capacity.	<i>IGMA Glossary</i>
THERMAL EMISSIVITY	Similar to thermal emittance, except that the suffix “-ivity” refers to a property of general material, while “-ance” refers to a specific material with a certain thickness, surface finish, etc.	<i>IGMA Glossary</i>
THERMAL EMITTANCE	The ability of a surface to emit long-wave radiation relative to that of a perfect black body. Also known as the <i>long-wave infrared emittance</i> . A perfect black body has an emittance equal to 1.0, while a perfect reflector has an emittance equal to zero.	<i>IGMA Glossary</i>
THERMAL EXPANSION	An increase in the dimensions of a material in direct proportion to the rise in its temperature and conversely a dimensional shrinking as a result of a drop in temperature.	<i>TIR-A8-04</i>
THERMAL ISOLATION	Physical and space conditioning separation from conditioned space(s) consisting of existing or new walls, doors and/or windows. The conditioned space(s) shall be controlled as separate zones for heating and cooling or conditioned by separate equipment	<i>2100-11</i>
THERMAL MASS	The mass in a building (furnishings or structure) that is used to absorb solar gain during the day and release the heat as the space cools in the evening.	<i>IGMA Glossary</i>
THERMAL MOVEMENT	Thermal movement is the expansion or contraction of the curtain wall elements due to the rise and fall of their temperature.	<i>CWG-1-89</i>
THERMAL RADIATION	The heat transfer by radiation from surfaces at or near the room temperature (i.e.: wavelengths in the range 2.5–50 microns). It is often referred to as far IR radiation or long-wave IR radiation.	<i>IGMA Glossary</i>
THERMAL RESISTANCE	A property of a substance or construction which retards the flow of heat; one measure of this property is R-value.	<i>IGMA Glossary</i>
THERMAL SHORT CIRCUIT	The by-passing of the low conductivity of the thermal break material by a highly conductive material such as aluminum or a steel fastener. If the aluminum bridge were not removed or debridged from the cavity it would become a thermal short circuit.	<i>TIR-A8-04</i>
THERMAL STRESS	Stress in glass caused by temperature differences either between the central area of the glass and the edges or between the surfaces and the thickness center; the latter is often referred to as "thermal shock."	<i>GDSG-1-87</i>
THERMAL TRANSMITTANCE (U-FACTOR) A.K.A. U-VALUE	A measure of the total heat transfer through a fenestration system including boundary air films, due to conduction, convection and radiation under specific environmental conditions expressed in $W/(m^2 \cdot ^\circ C)$ [$Btu/(ft^2 \cdot h \cdot ^\circ F)$]. The lower the U-factor, the less heat will be transferred through the fenestration system. For fenestration systems, the overall U-factor is dependent on the area-weighted U-factors contributed by the center-of-glass, the edge-of-glass and the frame.	<i>507-12, 1503-09, 2001-07, 2100-07, TIR-A8-04</i>
THERMOPLASTIC	A polymer material that turns to liquid when heated and becomes solid when cooled and is able to repeat these processes.	<i>101/I.S.2/A440-11</i>
THIN STILE	See STILE .	<i>SFM-1-87</i>
THRESHOLD	The lower horizontal member of a door frame, which is set on the floor and extends from jamb to jamb.	<i>SFM-1-87</i>
THRESHOLD LIMIT VALUE - CEILING (TLV-C) - (3)	The concentration that should not be exceeded during any part of the working exposure.	<i>TIR-A8-04</i>
THRESHOLD LIMIT VALUE (1)	Time Weighted Average (TLV-TWA) The time weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.	<i>TIR-A8-04</i>
THRESHOLD LIMIT VALUE (2)	Short Term Exposure Limit (TLV-STEL) - The concentration to which workers can be exposed continuously for a short period of time without suffering from 1) irritation, 2) chronic or irreversible tissue damage, or 3) narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce work efficiency, and provided that the TLV-TWA is not exceeded. It is not a separate independent exposure limit, rather it supplements the time-weighted average (TWA) limit where there are recognized acute effects from a substance whose toxic effects are primarily of a chronic nature.	<i>TIR-A8-04</i>
THROUGH-WALL FLASHING	Flashing that extends completely underneath the sill, or over the head of a window, and has an upturned leg on the interior side.	<i>IM-TM, IPCB-08</i>
THROUGH-WALL PENETRATION	Any opening in an exterior wall of a building that penetrates the water protecting surface(s) of the wall.	<i>714-12</i>

TERM	DEFINITION	LOCATION(S)
THROW	The distance which a lock bolt or latch bolt projects when in locked position.	<i>SFM-1-87</i>
THUMBTURN	A permanently attached small lever which, when turned, operates the bolt on a lock in the same manner as a key.	<i>SFM-1-87</i>
TIGHT GRASPING, PINCHING OR TWISTING MOTION	The application of forces that require more than 22.2 N (5 lbf) to be exerted by the fingers, hands, wrists, arms, or other body parts(s). Furthermore, the rotational movement of the wrist, shoulder, or other body part(s) should not exceed 95 degrees. Grasping is the act of wrapping one's hand around an object, such that the opposing finger(s) and thumb contact one another.	<i>513-12</i>
TILT WINDOW	A hung window whose operable sash can be tilted into the room for interior washability.	<i>101/I.S.2-97</i>
TINTED GLASS	Body colored glass of specific batch ingredient formulation to produce light reducing and / or heat absorbing glass products.	<i>IGMA Glossary</i>
TOE BEAD	Sealant applied at the base of the channel, prior to setting the lite or panel, to prevent leakage.	<i>850-91, GAG-1-97</i>
TOOLING	The operation of pressing in and striking a sealant in a joint, to press the sealant against the sides of a joint and secure good adhesion; the finishing off of the surface of a sealant in a joint so that it is flush with the surface.	<i>850-91, GAG-1-97, IM-TM, IPCB-08</i>
TOP-HINGED WINDOW	A window consisting of sash hinged at the head which swings inward or outward using a continuous top hinge or individual hinges, primarily for cleaning or emergency escape and rescue purposes and not for ventilation.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
TORSION	The twist induced in a product by the application of a static load to an extreme free corner of that product and normal to its plane.	<i>101/I.S.2/A440-11</i>
TORSIONAL STRENGTH	The ability of the thermal break material to resist twisting or rotation as a result of a torsional load such as that resulting from thermal stresses, handling, fabrication or uneven glazing pressure.	<i>TIR-A8-04</i>
TOTAL AREA	This area is the area of the entire fenestration system being considered, vision area or spandrel area plus frame area.	<i>507-03</i>
TOTAL DESIGN DISPLACEMENT	The design earthquake lateral displacement, including additional displacement due to actual and accidental torsion.	<i>501.4-00</i>
TOTAL GLASS THICKNESS	The sum of thicknesses of all layers of glass in the window, not including the thickness of any glazing cavities.	<i>IM-TM, IPCB-08</i>
TOTAL HEAT GAIN – SUMMER/DAYTIME	(BTU per hour, per square foot) The sum of the radiant energy and the conductive energy transmitted into the building. (Shading coefficient times ASHRAE solar heat gain factors + summer U-value times the indoor / outdoor temperature differences.)	<i>IGMA Glossary</i>
TOTAL HEAT GAIN – SUMMER/ NIGHTTIME	(BTU per hour, per square foot) The conductive energy transmitted into the building. (Summer U-value times the indoor / outdoor temperature difference.)	<i>IGMA Glossary</i>
TOTAL HEAT LOSS – WINTER/DAYTIME	(BTU per hour, per square foot) The resultant of the radiant energy transmitted into the building and the conductive energy transmitted out of the building. (Shading coefficient times ASHRAE solar heat gain factors + the winter U-value times the outdoor / indoor temperature difference.)	<i>IGMA Glossary</i>
TOTAL HEAT LOSS – WINTER/NIGHTTIME	(BTU per hour, per square foot) The conductive energy transmitted to the outdoors. (Winter U-value times the outdoor / indoor temperature difference.)	<i>IGMA Glossary</i>
TOTAL MAXIMUM DISPLACEMENT	The maximum considered earthquake lateral displacement, including additional displacement due to actual and accidental torsion.	<i>501.6-01</i>
TOTAL VERTICAL MOVEMENT	Vertical movement of one floor slab of a structure relative to adjacent floor slabs.	<i>501.7-11</i>
TRANSLUCENT	A material that permits the passage of light.	<i>2100-11</i>
TRANSMISSION LOSS (TL)	See SOUND TRANSMISSION LOSS	<i>TIR-A1-04</i>
TRANSMITTANCE	The fraction of radiant energy that passes through a given material.	<i>IGMA Glossary</i>
TRANSOM	An operable or non-operable product that is designed to be a companion product installed above a fenestration product. Transoms often have their own separate frame or are contained within the frame of a composite unit.	<i>101/I.S.2/A440-11, 1702.2-12, SFM-1-87</i>
TRANSOM BAR	The horizontal frame member which separates the door opening from the transom.	<i>SFM-1-87</i>
TRANSOM BRACKET	A bracket used to support an all-glass transom over an all-glass door when the latter has no metal top rail and no transom bar is used.	<i>SFM-1-87</i>

TERM	DEFINITION	LOCATION(S)
TRANSPARENT	A material that permits the passage of light with minimal distortion or scattering, so that the bodies lying on the opposite side from the viewer may be clearly seen.	2100-11
T-RATING	See INSULATION RATING .	FSCOM-1-02
TRIBUTARY WIDTH	The width of wind-bearing area contributing to the load on a mullion or divider.	101/I.S.2/A440-11
TRIM	Decorative covering framing the interior of the fenestration product after it's installed.	812-04
TRIM HARDWARE	Decorative finish hardware used to operate functional hardware or the door itself.	SFM-1-87
TRIPLE HUNG WINDOW	Triple hung windows are vertically operating windows in which the sash weight is offset by a counterbalancing mechanism mounted in the window. One or more locking devices are furnished to secure the sash in the closed position. Three sash in a triple hung window are operable.	101/I.S.2-97
TROPICAL AWNING WINDOW	A window consisting of one or more top-hinged or pivoted sash which swings outward at the bottom edge, operated by one control device securely closing them at both jambs without the use of any additional manually controlled locking devices.	101/I.S.2/A440-11, 101/I.S.2-97
TROPICAL WINDOW	See JAL-AWNING WINDOW , JALOUSIE WINDOW , and TROPICAL AWNING WINDOW .	101/I.S.2/A440-11
TRUE DIVIDED LITE (TDL)	A lite in which dividers (muntins) separate the glazing into individual smaller glazing lites.	101/I.S.2/A440-11
TRUE MUNTINS	A profile member used horizontally or vertically to divide a vision area into individual smaller lites of glass.	101/I.S.2-97
TUBULAR DAYLIGHTING DEVICE (TDD)	A non-operable fenestration unit primarily designed to transmit daylight from a roof surface to an interior space via a closed-end tubular conduit. The basic unit consists of an exterior glazed weathering surface, a light-transmitting tube with a reflective inner surface, and an interior-closure glazing in a retainer frame. A TDD product line can be tested and rated in either or both of the following configurations: (a) Close ceiling (CC): the tubular conduit passes through unconditioned space; (b) Open ceiling (OC): the tubular conduit is suspended in conditioned space..	101/I.S.2/A440-11
TURN-TILT WINDOW UNIT	See DUAL-ACTION WINDOW	101/I.S.2/A440-11
TWO-PART (MULTI-COMPONENT) SEALANT	A product comprised of a base and curing agent or accelerator, necessarily packaged in two separate containers which are uniformly mixed just prior to use.	850-91, GAG-1-97
TYPE 1 FRICTION BASED SASH BALANCE	A mechanical device comprised of a lifting force source and an attached friction shoe/clutch, which, when mounted in a window unit, contributes to proper sash operation and maintaining sash position at any point along the full range of travel.	908-02
TYPE 2 FRICTION BASED SASH BALANCE	A mechanical device comprised of a lifting force source and a friction mechanism integral to the balance. The balance, when mounted in a window unit, contributes to proper sash operation and maintaining sash position at any point along the full range of travel.	908-02
TYPE A PRODUCTS	Products that pass this specification without use of a primer. (See Annex 3 in AAMA 711) CAUTION: <i>Type A products may require a primer under certain field conditions. The type classification only relates to passing this specification. Consult the flashing manufacturer for installation conditions and details.</i>	711-07
TYPE B PRODUCTS	Products that require a primer to pass any part of this specification. (See Annex 3 in AAMA 711)	711-07
ULTRAVIOLET	The invisible rays of the light spectrum which are below the visible range consisting of radiation below 400 nanometers.	850-91, GAG-1-97
ULTRAVIOLET EXPOSURE	The exposure of the thermal break material to light in the ultraviolet range of the spectrum primarily from direct or reflected sunlight.	TIR-A8-04
UNCONDITIONED	Interior or exterior space with no temperature control system.	2100-02
UNIFORM BEAD	Sealant applied to a joint, with uniform width and appearance.	850-91
UNIT	Refers to complete or total assembly, such as for fenestration products including all frame, sash, glazing, door slabs, hardware or other elements defining the complete fenestration product.	ASTM E2112-07
UNIT SKYLIGHT	A complete factory assembled glass- or plastic-glazed fenestration unit consisting of not more than one panel of glass or plastic installed in a sloped or horizontal orientation primarily for natural daylighting. Unit skylights are either fixed (non-operable) or venting (operable).	101/I.S.2/A440-11, 2100-11

TERM	DEFINITION	LOCATION(S)
UNITED INCHES	The sum of one length and one width of a lite of glass.	<i>850-91, GAG-1-97</i>
UPSTAND	The vertical portion of a panning, flashing or subsill system that prevents the migration of collected water behind the membrane or into the wall cavity. Collected water is drained to the building exterior.	<i>IM-TM, IPCB-08</i>
URETHANE	Elastomeric material formed by the reaction of a polyol and organic isocyanate. Also called polyurethane.	<i>850-91</i>
URETHANE SEALANT	See POLYURETHANE SEALANT .	<i>GAG-1-97</i>
USGS	United States Geological Survey, which studies and defines earthquake hazards from seismological and geological perspectives, and which produces extensive seismic hazard maps for the United States.	<i>501.4-00, 501.6-01</i>
UV RADIATION	Radiation in the invisible spectrum at shorter wave lengths than visible light; generally reference is to the UV portion of the sun's radiation.	<i>GDSG-1-87</i>
U-FACTOR	The heat transfer per time per area and per degree of temperature difference. The U-Factor multiplied by the interior-exterior temperature difference and by the projected fenestration product area yields the total heat transfer through the fenestration product due to conduction, convection, and long wave infra-red radiation.	<i>2001-07, IM-TM, IPCB-08, NFRC Glossary</i>
U-VALUE	The overall coefficient of heat transfer; a measure of the heat transfer through material or construction due to the difference in air temperature on the two sides.	<i>GDSG-1-87, IM-TM</i>
VAPOR RETARDER (VAPOR BARRIER)	Material used in the building envelope to retard the passage of water vapor or moisture.	<i>IM-TM, IPCB-08</i>
VEHICULAR-ACCESS DOOR	A door that is used for vehicular traffic at entrances of buildings such as garages, loading docks, parking lots, factories, and industrial plants, and that is not generally used for pedestrian traffic.	<i>101/I.S.2/A440-11</i>
VENEER	A layer of natural material applied to the surface of the composite by means of an adhesive.	<i>305-11</i>
VENTILATION	Ventilation is the process of supplying and removing air by natural or mechanical means to and from any space. Such air may or may not be conditioned. Proper ventilation improves indoor air quality by allowing air changes within the indoor environment.	<i>2100-11, TIR-A12-00</i>
VENTILATORS, INTEGRATED	Integrated fenestration ventilators are devices independent from, but installed into a fenestration product for the purpose of providing supplemental air ventilation through the fenestration product. Various configurations are available; commonly these systems consist of an exterior (canopy) component covering an opening fabricated through the fenestration product, coupled with an interior component that may adjust to vary the amount of air that flows through the device.	<i>1701.2-02</i>
VENTING	Providing circulation of air or ventilation between two walls or partitions by the use of tubes, breather vents or openings.	<i>850-91, GAG-1-97</i>
VERTICAL FENESTRATION	Fenestration products that are installed at an angle less than 15 degrees from vertical.	<i>101/I.S.2/A440-11</i>
VERTICAL SLIDING WINDOW	A hung or non-hung window consisting of at least one manually operated sash that slides vertically within a common frame.	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
VERTICALLY PIVOTED WINDOW	See PIVOTED WINDOW	<i>101/I.S.2/A440-11, 101/I.S.2-97</i>
VINYL	Derived from ethylene (hydrocarbon gas), the compounds of which are polymerized to form high molecular weight plastics and resins, such as vinyl acetate, vinyl chloride, styrene, etc. It is a base material for plastisols and organosols, and is also widely used in emulsion form as polyvinyl acetate (See PVC .)	<i>850-91, GAG-1-97</i>
VINYL CHLORIDE COPOLYMER	A compound based on a polymer prepared by the co-polymerization of vinyl chloride and other monomers: the vinyl chloride content being at least 80% mass.	<i>309-13</i>
VINYL GLAZING	A system for holding glass in place with extruded vinyl channel or roll-in shapes.	<i>850-91</i>
VISCOSITY	Resistance of a fluid to uniformly continuous flow with out turbulence, inertia, or other forces. The degree to which the thermal break material resists fluid flow under a given applied load and at a given temperature.	<i>TIR-A8-04</i>
VISCOELASTIC	The property of material that possesses both viscous and elastic behavior. For acoustical applications, a viscoelastic system will dissipate some of acoustical energy in the form of heat.	<i>1801-11</i>

TERM	DEFINITION	LOCATION(S)
VISIBLE TRANSMITTANCE (VT) A.K.A. VISIBLE LIGHT TRANSMITTANCE (VLT)	A measure of the fraction of visible light that a fenestration system allows into the building. The default and most commonly used reference is the normal incidence VT. The VT is dimensionless and is expressed as a decimal less than 1.0. The lower the value for VT the less visible light is transmitted into the building.	507-12, IM-TM, IPCB-08
VISION AREA	The area of the vision infill between the primary sash or frame members.	507-03
VOLUNTARY STANDARD	A standard established by a private sector association, organization or technical society, and available for public use.	Informational
WALKING BEAM PIVOT	A form of retractable to center-hung pivot.	SFM-1-87
WALL	One of the sides of a room or building connecting floor and ceiling or foundation and roof.	IM-TM, IPCB-08
WALL POST	The end components of the enclosure walls of a revolving door.	SFM-1-87
WARM EDGE	Term used to describe technology that uses insulating spacers to achieve better thermal performance of an insulating glass unit, particularly evident in the increase of edge surface temperatures on the indoor side in the winter.	IGMA Glossary
WATER DAMMING	Water retained by an upright surface.	509-09
WATER LEAKAGE	The penetration of water that would continuously or repeatedly wet parts of a building or components not designed to be wetted.	IM-TM
WATER PENETRATION	Penetration of water beyond the plane intersecting the innermost projection of the test specimen, not including interior trim and hardware, under the specified conditions of air pressure difference across the specimen.	101/I.S.2/A440-11, IPCB-08
WATER PENETRATION RESISTANCE	A measurement of the resistance of a fenestration product to the passage of water.	2100-11
WATER PENETRATION RESISTANCE TEST PRESSURE	The pressure differential applied across a test specimen to determine the water penetration resistance rating.	450-06, 1701.2-02, 2100-11
WATER-RESISTIVE BARRIER (WRB)	The surface(s) of a wall system which complies with ICC AC 38 and is responsible for preventing water infiltration to the building interior. A membrane, which can be a house wrap or building paper, whose primary function is to act as a drainage plane for liquid water, which has a permeance low enough to keep liquid water from penetrating through the surface.	100-12, 300-12, 2400-10, 2410-13, IPCB-08
WATER SPRAY VOLUME	Amount of water sprayed onto the test specimen.	520-12
WAVELENGTH	The distance between two consecutive points of maximum pressure in a sound pulse. Represented as "l" or "lambda".	TIR-A1-04
WDMA	Window and Door Manufacturers Association. A national trade association that establishes voluntary standards for the wood window and door industry.	101/I.S.2-97
WEATHER RESISTANT BARRIER (WRB)	The surface or surfaces of a wall responsible for preventing air and water infiltration to the building interior.	504-05, 2400-02, 2410-03, IM-TM
WEATHERABILITY	The ability of a material to maintain durability under the influence of ultraviolet (UV) light, heat, time and moisture as imposed by laboratory weathering devices	303-07, 304-07, 306-04, 308-05, 701/702-11, 703-11
WEATHERSTRIP (WEATHERSEAL)	A flexible component used to reduce air leakage, water penetration, or both between sash, leaf, panel, and/or frame.	101/I.S.2/A440-11, 101/I.S.2-97, IM-TM, IPCB-08, SFM-1-87
WEEP SCREED	A permanent member with gaps designed to allow liquid water to exit from the membrane drainage plane to the exterior of a building; located at the bottom of wall claddings between the membrane drainage plane and the cladding.	100-07

TERM	DEFINITION	LOCATION(S)
WEEPHOLE (WEEP)	An opening that allows water to drain.	101/I.S.2/A440-11, 101/I.S.2-97, 850-91, GAG-1-97, GDSG-1-87, SFM-1-87
WEEPING	Failure of a sealant to support its own weight in a horizontal joint, but less pronounced than sagging; the elimination of water or moisture through weepholes in a wall or sash.	850-91
WEIGHT TOLERANCE	The allowable weight deviation of a finished profile from the specified nominal profile design weight.	303-07, 304-07, 306-04
WEIGHTING	The manipulation of a source sound level profile to better represent the sensitivity of the human ear to sound at specific frequencies. "A" weighting is used for standard evaluation of sound sources but "B" and "C" weightings are also available.	TIR-A1-04
WELDED	When materials are fused by heat to become one when cooled.	101/I.S.2/A440-11
WET GLAZING	Glazing compounds (e.g., sealants and adhesives) that are applied to the exterior, interior or both, that interface between the glass and sash or glazing.	GDSG-1-87, IM-TM, IPCB-08, SFM-1-87
WET SEAL	A method of sealing, utilizing either gunnable sealant or preformed tape as the primary seal.	850-91
WHITE PROFILE	A profile, the color of which is defined by the color space falling within the parameters $L_H = 83$ to 100, $a_H = -4$ to 0, and $b_H = -5.5$ to 5.5.	310-12
WIDE STILE	See STILE.	SFM-1-87
WIND LOAD	Load on a structure and its components due to the effects of the wind.	2200-01, GDSG-1-87
WIND SPEED PROFILE	A profile of mean wind speeds in the boundary layer from ground level to gradient level. The profile is dependent on roughness caused by trees, structures and other obstacles on the surface which cause resistance to the passage of the wind. It is the wind speed profile up-wind of the model building that is simulated in the BLWT.	CW-11-85
WINDOW	An operable or non-operable assembly that is installed in an opening with an exterior wall or roof intended to admit light or air to an enclosure, and is usually framed and glazed.	101/I.S.2/A440-11, 101/I.S.2-97, 507-12
WINDOW CLEANER ANCHOR	An anchor, either single or double-headed, conforming to ASME A39.1, "Standard Safety Requirements for Window Cleaning", that will allow a window cleaner to safely access across a window for cleaning. Also known as a Davit.	IM-TM, IPCB-08
WINDOW UNIT	The total window system, as produced by the window manufacturer, consisting of the main frame, sash, jamb liners, sash balances, weatherstripping, and its other elements. <i>NOTE: The window manufacturer shall install balances according to the balance manufacturer's specifications and recommendations. The window manufacturer bears the responsibility of correctly selecting, installing and adjusting balances to assure proper operation of the hung window with allowances for inherent friction characteristics of all other components.</i>	902-07, 908-02
WINDOW WALL	A non-load-bearing fenestration system provided in combination assemblies and composite units, including transparent vision panels and/or opaque glass or metal panels, which span from the top of a floor slab to the underside of the next higher floor slab. <i>NOTE: Window walls are available with separate or integral slab edge covers and can be fabricated from windows or curtain wall or storefront systems. Primary provision for anchorage occurs at head and sill conditions. Receptor systems can be designed as a part of drainage and movement accommodation provisions.</i>	101/I.S.2/A440-11, 507-12, CW-DG-1-96
WING	One of the rotating leaves of a revolving door.	SFM-1-87
WINTER MODE	When either the primary and secondary window/door, or both primary windows/doors, are closed, the primary windows/doors are locked, and the insect screen (when offered or specified by the manufacturer) is in the stored position.	101/I.S.2/A440-08, 101/I.S.2-97, 1701.2-02, 1702.2-02
WIRED GLASS	Monolithic glass which has had a wire mesh imbedded in roughly the thickness center during manufacture.	GDSG-1-87
WORK LIFE	See POT LIFE.	850-91
WORKFLOW	A set of sequential steps in a process.	912-13

<u>TERM</u>	<u>DEFINITION</u>	<u>LOCATION(S)</u>
ZONE OF INFLUENCE	The atrium and the surrounding space that is affected by the daylighting and thermal energy flows from the atrium.	<i>DDGA-89</i>
Δ FALLOUT	The drift that causes glass fallout from the curtain wall or storefront wall being considered.	<i>501.4-00</i>

Acronyms

- AA – Aluminum Association
- AAMA – American Architectural Manufacturers Association
- AEC – Aluminum Extruders Council
- AIA – American Institute of Architects
- ANSI – American National Standards Institute
- ASHRAE – American Society of Heating, Refrigerating and Air-Conditioning Engineers
- ASME – American Society of Mechanical Engineers
- ASTM – American Society for Testing Materials
- BETEC – Building Enclosure Technology and Environment Council
- BHMA – Builders Hardware Manufacturers Association
- BOAF – Building Officials Association of Florida
- BOCA – Building and Code Administrators
- CABO – Council of American Building Officials
- CFR – Code of Federal Regulations
- CPSC – Consumer Products Safety Commission
- CSA – Canadian Standards Association
- CSI – Construction Specifications Institute
- CWDMA – Canadian Window and Door Manufacturers Association
- DASMA – Door and Access Systems Manufacturers Association
- DHI – Door and Hardware Institute
- DOE – Department of Energy
- EGIA – Electric and Gas Industries Association
- EPA – Environmental Protection Agency
- FMA – Fenestration Manufacturers Association
- GANA – Glass Association of North America
- IBC – International Building Code
- ICBO – International Conference of Building Officials
- ICC – International Code Council
- ICC-ES – International Code Council Evaluation Services, Inc.
- IGMA – Insulating Glass Manufacturers Alliance
- IRC – International Residential Code
- LEED – Leadership in Energy and Environmental Design
- NAHB – National Association of Home Builders
- NPEA – National Patio Enclosure Association
- NFPA – National Fire Protection Association
- NFRC – National Fenestration Rating Council
- NGA – National Glass Association
- NIBS – National Institute of Building Sciences
- NSA – National Sunroom Association
- OSHA – Occupational Safety and Health Administration
- SBCCI – Southern Building Code Conference International
- SGCC – Safety Glazing Certification Council
- SMA – Screen Manufacturers Association
- SWI – Steel Window Institute
- USGBC – U.S. Green Building Council
- VI – Vinyl Institute
- WDMA – Window and Door Manufacturers Association (formerly NWWDA)



American Architectural Manufacturers Association

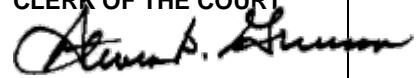
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Attorneys for Plaintiffs,
LAURENT HALLIER; PANORAMA TOWERS I, LLC;
PANORAMA TOWERS I MEZZ, LLC; and M.J. DEAN
CONSTRUCTION, INC.

DISTRICT COURT
CLARK COUNTY, NEVADA

LAURENT HALLIER, an individual;
PANORAMA TOWERS I, LLC, a Nevada
limited liability company; PANORAMA
TOWERS I MEZZ, LLC, a Nevada limited
liability company; and M.J. DEAN
CONSTRUCTION, INC., a Nevada Corporation,

Plaintiffs,

vs.

PANORAMA TOWERS CONDOMINIUM
UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation,

Defendant.

PANORAMA TOWERS CONDOMINIUM
UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation,

Counter-Claimant,

vs.

LAURENT HALLIER, an individual;
PANORAMA TOWERS I, LLC, a Nevada
limited liability company; PANORAMA

) Case No. A-16-744146-D
) Dept. XXII
)
) **APPENDIX TO**
) **PLAINTIFFS/COUNTER-**
) **DEFENDANTS' MOTION FOR**
) **DECLARATORY RELIEF REGARDING**
) **STANDING [Volume III of III]**

1 TOWERS I MEZZ, LLC, a Nevada limited)
liability company; and M.J. DEAN)
2 CONSTRUCTION, INC., a Nevada Corporation;)
SIERRA GLASS & MIRROR, INC.; F.)
3 ROGERS CORPORATION; DEAN ROOFING)
COMPANY; FORD CONTRACTING, INC.;)
4 INSULPRO, INC.; XTREME EXCAVATION;)
SOUTHERN NEVADA PAVING, INC.;)
5 FLIPPINS TRENCHING, INC.; BOMBARD)
MECHANICAL, LLC; R. RODGERS)
6 CORPORATION; FIVE STAR PLUMBING &)
HEATING, LLC, dba SILVER STAR)
7 PLUMBING; and ROES 1 through , inclusive,)
Counter-Defendants.)

10 Plaintiffs/Counter-Defendants Laurent Hallier, Panorama Towers I, LLC, Panorama Towers
11 I Mezz, LLC and M.J. Dean Construction, Inc. (hereinafter collectively referred to as “the Builders”),
12 by and through their attorneys of record Peter C. Brown, Esq. and Jeffrey W. Saab, Esq. of the law
13 firm of Bremer Whyte Brown & O’Meara LLP, hereby submits its Appendix of Exhibits [Volume
14 III of III] to their Motion for Declaratory Relief Regarding Standing.

Exhibit No.	Brief Description	# of Pages (including exhibit page)	Location of exhibit within Motion
F	Affidavit of Simon Loadman in support of Plaintiffs/Counter-Defendants’, Laurent Hallier, Panorama Towers I, LLC, Panorama Towers I Mezz, LLC and M.J. Dean Construction, Inc., Motion for Declaratory Relief Regarding Standing	4	Pages 5 & 14
G	International Building Code 2000	7	Pages 5, 16 & 17
H	Texas Wall System Shop Drawings for the Project	3	Pages 5, 16 & 17

Dated: October 22, 2018

BREMER WHYTE BROWN & O’MEARA LLP

By: 

Peter C. Brown, Esq., NV Bar No. 5887
Jeffrey W. Saab, Esq., NV Bar No. 11261
Attorneys for Plaintiffs/Counter-Defendants
LAURENT HALLIER, PANORAMA
TOWERS I, LLC, PANORAMA
TOWERS I MEZZ, LLC, and M.J. DEAN
CONSTRUCTION, INC.

Exhibit “F”

Exhibit “F”

1 **AFFIDAVIT OF SIMON LOADSMAN IN SUPPORT OF PLAINTIFFS/COUNTER-**
2 **DEFENDANTS', LAURENT HALLIER, PANORAMA TOWERS I, LLC, PANORAMA**
3 **TOWERS I MEZZ, LLC, AND M.J. DEAN CONSTRUCTION, INC., MOTION FOR**
4 **DECLARATORY RELIEF REGARDING STANDING**

5 STATE OF CALIFORNIA)

6 COUNTY OF Los Angeles)

7 I, SIMON LOADSMAN, do swear under penalty of perjury that:

- 8 1. I am an associate of Reid Loadsmen Fenestration Consultants & Associates, LLC, an expert
9 consulting firm which specializes in the field of construction defects. I have worked as a
10 forensic expert in this field for over 10 years. I have been retained by Plaintiffs/Counter-
11 Defendants as a consultant to evaluate the alleged window-related deficiencies contained
12 within Defendant/Counter-Claimant Panorama Towers Condominium Unit Owners'
13 Association's ("Association") Chapter 40 Notice of Defects and amendment thereto.
14 2. I make this Affidavit in support of Plaintiffs/Counter-Defendants', Laurent Hallier,
15 Panorama Towers I, LLC, Panorama Towers I Mezz, LLC, and M.J. Dean Construction, Inc.,
16 Motion For Declaratory Relief Regarding Standing.
17 3. The terms "Window System" and "Window Assembly" are synonymous.
18 4. Based upon my knowledge and experience, pan flashing, when used for weatherability, forms
19 part of a window system, as corroborated by the AAMA AG-13 Glossary, Pg. 35.

20 ///

21 ///

22 ///

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26 ///

27 ///

28 ///

1 5. Based upon my knowledge and experience, the pan flashing described in the Association's
2 expert's March 14, 2018 report, if installed, would form part of the window system, which
3 includes the window and its frameworks, window casings and weather stripping.

4 FURTHER AFFIANT SAYETH NAUGHT.

5
6 

7 SIMON LOADSMAN

8
9 SUBSCRIBED and SWORN to before me

10 this 22nd day of October 2018

11 *See attached certificate*

12 _____
Notary Public in and for

13 County of _____, State of California

CALIFORNIA JURAT

GOVERNMENT CODE § 8802

A notary public or other officer completing this certificate verifies only the identity of the individual(s) who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

Subscribed and sworn to (or affirmed) before me on this 22 day of October, 2018,
by Simon Loandsman

who proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature B



(Seal)

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document _____

Number of Pages _____ Document Date _____

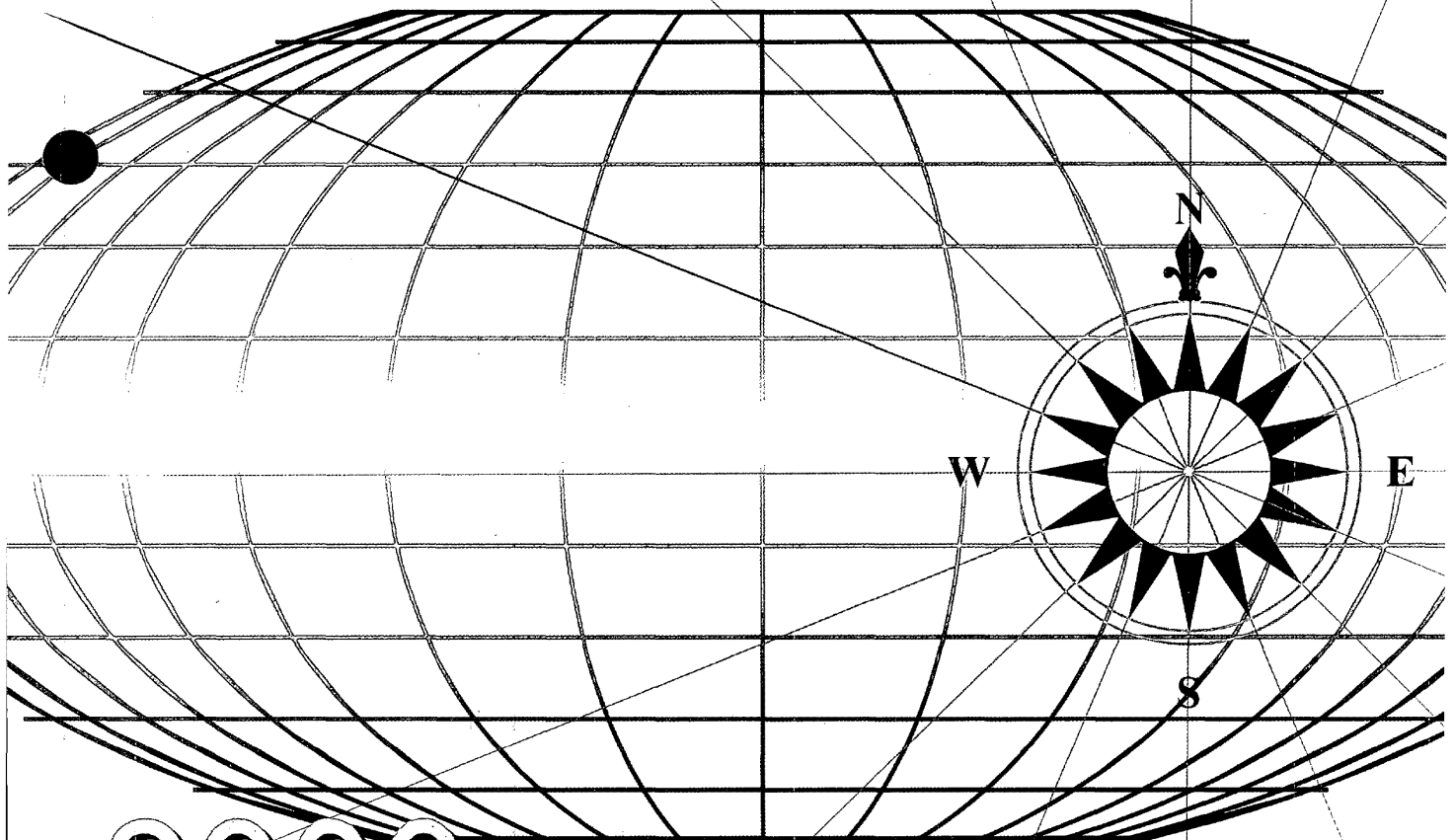
Signers Other Than Named Above: _____

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EXHIBIT “G”

EXHIBIT “G”

International Building Code®



2000



- 2.2. Exterior wall envelope test assemblies shall be at least 4 feet by 8 feet (1219 mm by 2438 mm) in size.
- 2.3. Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (0.297 kN/m²).
- 2.4. Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours.

The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings penetration, or intersections of terminations with dissimilar materials.

1403.3 Vapor retarder. An approved interior noncorrodible vapor retarder shall be provided. Vapor retarders shall be tested in accordance with ASTM E 96.

Exceptions:

1. Where other approved means to avoid condensation and leakage of moisture are provided.
2. Plain and reinforced concrete or masonry exterior walls designed and constructed in accordance with Chapter 19 or Chapter 21, respectively.

1403.4 Structural. Exterior walls, and the associated openings, shall be designed and constructed to resist safely the superimposed loads required by Chapter 16.

1403.5 Fire resistance. Exterior walls shall be fire-resistance rated as required by other sections of this code with opening protection as required by Chapter 7.

1403.6 Flood resistance. For buildings in flood hazard areas as established in Section 1612.3, exterior walls extending below the design flood elevation shall be resistant to water damage. Wood shall be pressure-preservative treated in accordance with AWPA C1, C2, C3, C4, C9, C15, C18, C22, C24, C28, P1 and P2, or decay-resistant heartwood of redwood, black locust or cedar.

SECTION 1404 MATERIALS

1404.1 General. Materials used for the construction of exterior walls shall comply with the provisions of this section. Materials not prescribed herein shall be permitted, provided that any such alternative has been approved.

1404.2 Water-resistive barrier. A minimum of one layer of No. 15 asphalt felt, complying with ASTM D 226 for Type 1 felt, shall be attached to the sheathing, with flashing as described in Section 1405.3, in such a manner as to provide a

continuous water-resistive barrier behind the exterior wall veneer.

1404.3 Wood. Exterior walls of wood construction shall be designed and constructed in accordance with Chapter 23.

1404.3.1 Basic hardboard. Basic hardboard shall conform to the requirements of AHA A135.4.

1404.3.2 Hardboard siding. Hardboard siding shall conform to the requirements of AHA A135.6 and, where used structurally, shall be so identified by the label of an approved agency.

1404.4 Masonry. Exterior walls of masonry construction shall be designed and constructed in accordance with this section and Chapter 21. Masonry units, mortar and metal accessories used in anchored and adhered veneer shall meet the physical requirements of Chapter 21. The backing of anchored and adhered veneer shall be of concrete, masonry, steel framing, or wood framing.

1404.5 Metal. Exterior walls of formed steel construction, structural steel or lightweight metal alloys shall be designed in accordance with Chapters 22 and 20, respectively.

1404.5.1 Aluminum siding. Aluminum siding shall conform to the requirements of AAMA 1402.

1404.6 Concrete. Exterior walls of concrete construction shall be designed and constructed in accordance with Chapter 19.

1404.7 Glass-unit masonry. Exterior walls of glass-unit masonry shall be designed and constructed in accordance with Chapter 21.

1404.8 Plastics. Plastic panel, apron or spandrel walls as defined in this code shall not be limited in thickness, provided that such plastics and their assemblies conform to the requirements of Chapter 26 and are constructed of approved weather-resistant materials of adequate strength to resist the wind loads for cladding specified in Chapter 16.

1404.9 Vinyl siding. Vinyl siding shall conform to the requirements of ASTM D 3679.

SECTION 1405 INSTALLATION OF WALL COVERINGS

1405.1 General. Exterior wall coverings shall be designed and constructed in accordance with the applicable provisions of this section.

1405.2 Weather protection. Exterior walls shall provide weather protection for the building. The materials of the minimum nominal thickness specified in Table 1405.2 shall be acceptable as approved weather coverings.

**TABLE 1405.2
MINIMUM THICKNESS OF WEATHER COVERINGS**

COVERING TYPE	MINIMUM THICKNESS (inches)
Adhered masonry veneer	0.25
Anchored masonry veneer	2.625
Aluminum siding	0.019
Asbestos-cement boards	0.125
Asbestos shingles	0.156
Exterior plywood (with sheathing)	0.313
Exterior plywood (without sheathing)	See Section 2304.6
Fiberboard siding	0.5
Glass-fiber reinforced concrete panels	0.375
Hardboard siding ^c	0.25
Marble slabs	1
Particleboard (with sheathing)	See Section 2304.6
Particleboard (without sheathing)	See Section 2304.6
Precast stone facing	0.625
Steel (approved corrosion resistant)	0.0149
Stone (cast artificial)	1.5
Stone (natural)	2
Structural glass	0.344
Stucco or exterior portland cement plaster	
Three-coat work over:	
Metal plaster base	0.875 ^b
Unit masonry	0.625 ^b
Cast-in-place or precast concrete	0.625 ^b
Two-coat work over:	
Unit masonry	0.5 ^b
Cast-in-place or precast concrete	0.375 ^b
Terra cotta (anchored)	1
Terra cotta (adhered)	0.25
Vinyl siding	0.035
Wood shingles	0.375
Wood siding (without sheathing) ^a	0.5

For SI: 1 inch = 25.4 mm.

- Wood siding of thicknesses less than 0.5 inch shall be placed over sheathing that conforms to Section 2304.6.
- Exclusive of texture.
- As measured at the bottom of decorative grooves.

1405.3 Flashing. Flashing shall be installed in such a manner so as to prevent moisture from entering the top and sides of exterior window and door openings. Flashing shall be installed in such a manner so as to prevent moisture from entering at the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting flanges on both sides under stucco copings; under and at the ends of masonry, wood or metal copings and sills; continuously above projecting wood trim; at the intersection of exterior walls and porches and decks; at wall and roof intersections with the step-flashing method; and at built-in gutters.

1405.3.1 Exterior wall pockets. In exterior walls of buildings or structures, wall pockets or crevices in which

moisture can accumulate shall be avoided or protected with caps or drips, or other approved means shall be provided to prevent water damage.

1405.3.2 Masonry. Flashing and weepholes shall be located in the first course of masonry above finished ground level above the foundation wall or slab, and other points of support, including structural floors, shelf angles and lintels where anchored veneers are designed in accordance with Section 1405.5.

1405.4 Wood veneers. Wood veneers on exterior walls of buildings of Types I, II, III, and IV construction shall be not less than 1-inch (25.4 mm) nominal thickness, 0.438-inch (11.1 mm) exterior hardboard siding or 0.375-inch (9.5 mm) exterior-type wood structural panels or particle-board and shall conform to the following:

- The veneer does not exceed three stories in height, measured from grade, except where fire-retardant-treated wood is used, the height shall not exceed four stories.
- The veneer is attached to or furred from a non-combustible backing that is fire-resistance rated as required by other provisions of this code.
- Where open or spaced wood veneers (without concealed spaces) are used, they shall not project more than 24 inches (610 mm) from the building wall.

1405.5 Anchored masonry veneer. Anchored masonry veneer shall comply with the provisions of Sections 1405.5, 1405.6, 1405.7, and 1405.8 and Sections 6.1 and 6.2 of ACI 530/ASCE 5/TMS 402.

1405.5.1 Support. Exterior masonry veneers having an installed weight of 40 pounds/square foot (1.915 kN/m²) or less shall be permitted to be supported on wood construction where installed in compliance with the following:

- There shall be a vertical movement joint between the veneer supported by the wood construction and the veneer supported by the foundation.
- Members supporting the masonry veneer shall be attached to wood studs with lag screws.
- Horizontal members supporting the masonry veneer shall be designed to limit deflection to 1/600 of the span of the supporting members.
- The design of the wood construction shall consider the weight of the veneer plus any other loads.

1405.5.2 Tolerances. Anchored masonry veneers in accordance with Chapter 14 are not required to meet the tolerances in Article 3.3 G1 of ACI 530.1/ASCE 6/TMS 602.

1405.5.3 Seismic requirements. Anchored masonry veneer located in Seismic Design Category C, D, E or F shall conform to the requirements of Section 6.2.2.10 of ACI 530/ASCE 5/TMS 402, as modified in accordance with Section 1405.5.3.1.

1405.5.3.1 Modifications to ACI 530/ASCE 5/TMS 402, Section 6.2.2.10. Section 6.2.2.10 of ACI 530/ASCE 5/TMS 402 shall be modified as indicated in the following.

1. Revise the title of Section 6.2.2.10.1 to read: Seismic Design Category C.
2. Revise the title of Section 6.2.2.10.2 to read: Seismic Design Category D.
3. Revise the title of Section 6.2.2.10.3 to read: Seismic Design Category E or F.

1405.6 Stone veneer. Stone veneer units not exceeding 10 inches (254 mm) in thickness shall be anchored directly to masonry, concrete or to stud construction by one of the following methods:

1. With concrete or masonry backing, anchor ties shall be not less than 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, formed beyond the base of the backing. The legs of the loops shall be not less than 6 inches (152 mm) in length bent at right angles and laid in the mortar joint, and spaced so that the eyes or loops are 12 inches (305 mm) maximum on center in both directions. There shall be provided not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length bent so that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One-inch (25.4 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.
2. With stud backing, a 2-inch by 2-inch (51 by 51 mm) 0.0625-inch (1.59 mm) corrosion-resistant wire mesh with two layers of waterproof paper backing in accordance with Section 1403.3 shall be applied directly to wood studs spaced a maximum of 16 inches (406 mm) on center. On studs, the mesh shall be attached with 2-inch-long (51 mm) corrosion-resistant steel wire furring nails at 4 inches (102 mm) on center providing a minimum 1.125-inch (29 mm) penetration into each stud and with 8d common nails at 8 inches (203 mm) on center into top and bottom plates or with equivalent wire ties. There shall be not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, looped through the mesh for every 2 square feet (0.2 m²) of stone veneer.

This tie shall be a loop having legs not less than 15 inches (381 mm) in length, so bent that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One-inch (25.4 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.

1405.7 Slab-type veneer. Slab-type veneer units not exceeding 2 inches (51 mm) in thickness shall be anchored directly to masonry, concrete or stud construction. For veneer units of marble, travertine, granite or other stone units of slab form ties of corrosion-resistant dowels in drilled holes located in the middle third of the edge of the units spaced a maximum of 24 inches (610 mm) apart around the periphery of each unit with not less than four ties per veneer unit. Units shall not exceed 20 square feet (1.9 m²) in area. If the dowels are not tight-fitting, the holes shall be drilled not more than 0.063 inch (1.6 mm) larger in diameter than the dowel, with the hole countersunk to a diameter and depth equal to twice the diameter of the dowel in order to provide a tight fitting key of cement mortar at the dowel locations when the mortar in the joint has set. Veneer ties shall be corrosion-resistant metal capable of resisting, in tension or compression, a force equal to two times the weight of the attached veneer. If made of sheet metal, veneer ties shall be not smaller in area than 0.0336 by 1 inch (0.853 by 25.4 mm) or, if made of wire, not smaller in diameter than 0.1483-inch (3.76 mm) wire.

1405.8 Terra cotta. Anchored terra cotta or ceramic units not less than 1.625 inches (41 mm) thick shall be anchored directly to masonry, concrete or stud construction. Tied terra cotta or ceramic veneer units shall be not less than 1.625 inches (41 mm) thick with projecting dovetail webs on the back surface spaced approximately 8 inches (203 mm) on center. The facing shall be tied to the backing wall with corrosion-resistant metal anchors of not less than No. 8 gage wire installed at the top of each piece in horizontal bed joints not less than 12 inches (305 mm) nor more than 18 inches (457 mm) on center; these anchors shall be secured to 0.25-inch (6.4 mm) corrosion-resistant pencil rods that pass through the vertical aligned loop anchors in the backing wall. The veneer ties shall have sufficient strength to support the full weight of the veneer in tension. The facing shall be set with not less than a 2-inch (51 mm) space from the backing wall and the space shall be filled solidly with portland cement grout and pea gravel. Immediately prior to setting, the backing wall and the facing shall be drenched with clean water and shall be distinctly damp when the grout is poured.

1405.9 Adhered masonry veneer. Adhered masonry veneer shall comply with the applicable requirements in Section 1405.9.1 and Sections 6.1 and 6.3 of ACI 530/ASCE 5/TMS 402.

1405.9.1 Adhesion. Adhesion developed between adhered veneer units and backing shall have a shear strength of at least 50 pounds per square inch (0.34 MPa) based on gross unit surface area or shall be adhered in compliance with Article 3.3C of ACI 530.1/ASCE 6/TMS 602.

1405.9.1.1 Interior masonry veneers. Interior masonry veneers shall have a maximum weight of 20 pounds per square foot (0.958 kg/m²) and shall be installed in accordance with Section 1405.9. Where the interior veneer is supported by wood construction, the supporting members shall be designed to limit deflection to 1/600 of the span of the supporting members.

1405.10 Metal veneers. Veneers of metal shall be fabricated from approved corrosion-resistant materials or shall be protected front and back with porcelain enamel, or otherwise be treated to render the metal resistant to corrosion. Such veneers shall not be less than 0.0149-inch (0.378 mm) nominal thickness sheet steel mounted on wood or metal furring strips or approved sheathing on the wood construction.

1405.10.1 Attachment. Exterior metal veneer shall be securely attached to the supporting masonry or framing members with corrosion-resistant fastenings, metal ties or by other approved devices or methods. The spacing of the fastenings or ties shall not exceed 24 inches (610 mm) either vertically or horizontally, but where units exceed 4 square feet (0.4 m²) in area there shall be not less than four attachments per unit. The metal attachments shall have a cross-sectional area not less than provided by W 1.7 wire. Such attachments and their supports shall be capable of resisting a horizontal force in accordance with the wind loads specified in Section 1609, but in no case less than 20 pounds per square foot (0.958 kg/m²).

1405.10.2 Weather protection. Metal supports for exterior metal veneer shall be protected by painting, galvanizing, or by other equivalent coating or treatment. Wood studs, furring strips, or other wood supports for exterior metal veneer shall be approved pressure-treated wood or protected as required in Section 1403.2. Joints and edges exposed to the weather shall be caulked with approved durable waterproofing material or by other approved means to prevent penetration of moisture.

1405.10.3 Back-up. Masonry backup shall not be required for metal veneer except as is necessary to meet the fire-resistance requirements of this code.

1405.10.4 Grounding. Grounding of metal veneers on buildings shall comply with the requirements of Chapter 27 and ICC *Electrical Code*.

1405.11 Glass veneer. The area of a single section of thin exterior structural glass veneer shall not exceed 10 square feet (0.93 m²) where it is not more than 15 feet (4572 mm) above the level of the sidewalk or grade level directly below, and shall not exceed 6 square feet (0.56 m²) where it is more than 15 feet (4572 mm) above that level.

1405.11.1 Length and height. The length or height of any section of thin exterior structural glass veneer shall not exceed 48 inches (1219 mm).

1405.11.2 Thickness. The thickness of thin exterior structural glass veneer shall be not less than 0.344 inch (8.7 mm).

1405.11.3 Application. Thin exterior structural glass veneer shall be set only after backing is thoroughly dry and after application of an approved bond coat applied uniformly over the entire surface of the backing so as to effectively seal the surface. Glass shall be set in place with an approved mastic cement in sufficient quantity so that at least 50 percent of the area of each glass unit is directly bonded to the backing by mastic not less than 0.25 inch (6.4 mm) thick and not more than 0.625 inch (15.9 mm) thick. The bond coat and mastic shall be evaluated for compatibility and shall bond firmly together.

1405.11.4 Installation at sidewalk level. Where glass extends to sidewalk surface, each section shall rest in an approved metal molding, and be set at least 0.25 inch (6.4 mm) above the highest point of the sidewalk. The space between the molding and the sidewalk shall be thoroughly caulked and made water tight.

1405.11.4.1 Installation above sidewalk level. Where thin exterior structural glass veneer is installed above the level of the top of a bulkhead facing, or at a level more than 36 inches (914 mm) above the sidewalk level, the mastic cement binding shall be supplemented with approved nonferrous metal shelf angles located in the horizontal joints in every course. Such shelf angles shall be not less than 0.0478-inch (1.2 mm) thick and not less than 2 inches (51 mm) long and shall be spaced at approved intervals, with not less than two angles for each glass unit. Shelf angles shall be secured to the wall or backing with expansion bolts, toggle bolts, or by other approved methods.

1405.11.5 Joints. Unless otherwise specifically approved by the building official, abutting edges of thin exterior structural glass veneer shall be ground square. Mitered joints shall not be used except where specifically approved for wide angles. Joints shall be uniformly buttered with an approved jointing compound and horizontal joints shall be held to not less than 0.063 inch (1.6 mm) by

an approved nonrigid substance or device. Where thin exterior structural glass veneer abuts nonresilient material at sides or top, expansion joints not less than 0.25 inch (6.4 mm) wide shall be provided.

1405.11.6 Mechanical fastenings. Thin exterior structural glass veneer installed above the level of the heads of show windows and veneer installed more than 12 feet (3658 mm) above sidewalk level shall, in addition to the mastic cement and shelf angles, be held in place by the use of fastenings at each vertical or horizontal edge, or at the four corners of each glass unit. Fastenings shall be secured to the wall or backing with expansion bolts, toggle bolts, or by other methods. Fastenings shall be so designed as to hold the glass veneer in a vertical plane independent of the mastic cement. Shelf angles providing both support and fastenings shall be permitted.

1405.11.7 Flashing. Exposed edges of thin exterior structural glass veneer shall be flashed with overlapping corrosion-resistant metal flashing and caulked with a waterproof compound in a manner to effectively prevent the entrance of moisture between the glass veneer and the backing.

1405.12 Exterior windows and doors. Windows and doors installed in exterior walls shall conform to the testing and performance requirements of Section 1714.5.

1405.12.1 Installation. Windows and doors shall be installed in accordance with approved manufacturers instructions. Fastener size and spacing shall be provided in such instructions and shall be calculated based on maximum loads and spacing used in the tests.

1405.13 Vinyl siding. Vinyl siding conforming to the requirements of this section and complying with ASTM D 3679 shall be permitted on exterior walls of buildings of Type V construction located in areas where the basic wind speed specified in Chapter 16 does not exceed 100 miles per hour (161 km/h) and the building height is less than 40 feet (12 192 mm) in Exposure C. Where construction is located in areas where the basic wind speed exceeds 100 miles per hour (161 km/h), or building heights are in excess of 40 feet (12 192 mm), tests or calculations indicating compliance with Chapter 16 shall be submitted. Vinyl siding shall be secured to the building so as to provide weather protection for the exterior walls of the building.

1405.13.1 Application. The siding shall be applied over sheathing or materials listed in Section 2304.6. Siding shall be applied to conform with the weather-resistant barrier requirements in Section 1403. Siding and accessories shall be installed in accordance with approved manufacturer's instructions. Unless otherwise specified in the

approved manufacturer's instructions, nails used to fasten the siding and accessories shall have a minimum 0.313-inch (7.9 mm) head diameter and 0.125-inch (3.18 mm) shank diameter. The nails shall be corrosion resistant and shall be long enough to penetrate the studs or nailing strip at least 0.75 inch (19 mm). Where the siding is installed horizontally, the fastener spacing shall not exceed 16 inches (406 mm) horizontally and 12 inches (305 mm) vertically. Where the siding is installed vertically, the fastener spacing shall not exceed 12 inches (305 mm) horizontally and 12 inches (305 mm) vertically.

1405.14 Cement plaster. Cement plaster applied to exterior walls shall conform to the requirements specified in Chapter 25.

1405.15 Fastening. Weather boarding and wall coverings shall be securely fastened with aluminum, copper, zinc, zinc-coated or other approved corrosion-resistant fasteners in accordance with the nailing schedule in Table 2304.9.1 or the approved manufacturer's installation instructions. Shingles and other weather coverings shall be attached with appropriate standard-shingle nails to furring strips securely nailed to studs, or with approved mechanically bonding nails, except where sheathing is of wood not less than 1-inch nominal thickness or of wood structural panels as specified in Table 2308.9.3(3).

SECTION 1406 COMBUSTIBLE MATERIALS ON THE EXTERIOR SIDE OF EXTERIOR WALLS

1406.1 General. This section shall apply to exterior wall coverings, balconies and similar appendages, and bay and oriel windows constructed of combustible materials.

1406.2 Combustible exterior wall coverings. Combustible exterior wall coverings shall comply with this section.

Exception: Plastics complying with Chapter 26.

1406.2.1 Ignition resistance. Combustible exterior wall coverings shall be tested in accordance with NFPA 268.

Exceptions:

1. Wood or wood-based products.
2. Other combustible materials covered with an exterior covering other than vinyl sidings listed in Table 1405.2.
3. Aluminum having a minimum thickness of 0.019 inch (0.48 mm).
4. Exterior wall coverings on exterior walls of Type V construction.

1406.2.1.1 Fire separation 5 feet or less. Where installed on exterior walls having a fire separa-

EXHIBIT “H”

EXHIBIT “H”

PANORAMA II

LAS VEGAS, NEVADA

CUSTOMER: SIERRA GLASS
LAS VEGAS, NEVADA

ARCHITECT: KLAI JUBA ARCHITECTS
LAS VEGAS, NEVADA

DESIGN CRITERIA:

DEAD LOAD:
1" VISION GLASS ————— 6.50 PSF
MISCELLANEOUS ALUMINUM ————— 2.00 PSF

WIND LOAD
RESULTS ARE PER RWI FINAL WIND TUNNEL STUDY DATED MAY 11, 2005

DEFLECTIONS
NORMAL (N.L.) — PER AIAA TIR-A11-1986
1/125 FOR SPANS UP TO 13'-6"
1/240 + 1/4" MAXIMUM FOR SPANS OVER 13'-6"
DIFFERENTIAL FLOOR MOVEMENT = 1/4" MAX. (LIVE LOAD)

SEISMIC LOAD
RESULTS ARE PER BC 2000/ ASCE 7-98 REQUIREMENTS:

SEISMIC USE GROUP = I
SOIL SITE CLASS = C
COMPONENT AMPLIFICATION FACTOR, A_p = 1.00 @ BODY
= 1.25 @ CONNECTOR
DESIGN SPECTRAL RESPONSE ACCEL, S_{DS} = .43
COMPONENT RESPONSE MOD. FACTOR, R_h = 2.50 @ BODY
= 1.00 @ CONNECTOR
COMPONENT IMPORTANCE FACTOR, I_p = 1.00
HEIGHT, z = h = 393'-7"
COMPONENT DEAD LOAD = W_d

SEISMIC DESIGN FORCE COMPONENT ATTACHMENT

$$F_p = 0.4 \times A_s \times S_{DS} \times W_p \times [1 + 2 \left(\frac{z}{h} \right)]$$

= 205 W_p @ BODY
= .645 W_p @ CONNECTOR

EXCEPTION: For seismic loads and the resulting story drifts of these buildings, the user of these drawings and the design professional shall consult the applicable provisions of the International Building Code, ASCE 7-98, and the ASCE 7-98 manual for further information.

PRODUCT DESCRIPTIONS:

- ALUMINUM TO BE:
 - 6063-T5, OR 6063-T5 FOR EXTRUSIONS
 - 5053-H14 FOR PAINTED OR MIL SHEET
 - 5053-H34 FOR ANODIZED SHEET
- STEEL TO BE:
 - ASTM A36 FOR HOT-ROLLED SHAPES AND PLATES
 - ASTM A500 GRADE B FOR STEEL TUBING
 - ASTM A588 FOR SHEET
 - ANCHOR BOLTS TO BE SAE J429 (GRADE 5) STEEL (Q36 416, TYPE I)
- EXTERIOR FASTENERS TO BE STAINLESS STEEL (A307, TYPE 304, OR 316) WITH AN ANTI-CORROSION COATING (EPOXY, POLYURETHANE, OR SILICONE) WITH AN ANTI-CORROSION COATING (EPOXY, POLYURETHANE, OR SILICONE)
- INTERIOR FASTENERS TO BE TYPE 1, CLASS 1, CAD PLATED STEEL IN WET AREAS — STAINLESS STEEL (200 SERIES), SAE J429
- WELDS TO BE E70XX ELECTRODE FOR STEEL E70XX ELECTRODE FOR ALUMINUM

FINISH NOTES:

- ALL EXPOSED EXTERIOR ALUMINUM TO RECEIVE CLASS 1 CLEAR ANODIZED FINISH.
- EXPOSED INTERIOR ALUMINUM TO RECEIVE A H-SOLID POLYESTER PAINTED FINISH
- ALL UNEXPOSED ALUMINUM:
 - TO BE MILL FINISH WHEN NOT IN CONTACT WITH STRUCTURAL SILICONE
 - ALL STEEL TO HAVE (1) COAT OF ZINC RICH PRIMER (FIELD TOUCH-UP).

GLASS AND INFILL TYPES:

- | | |
|-----|---|
| 6 | BLUE GLASS VISION |
| 6A | BLUE GLASS VISION W/ Frost INTERIOR |
| 7 | BLUE GLASS SPANDREL |
| 8 | BLUE-GRASS GLASS VISION |
| 8A | BLUE-GRASS GLASS VISION W/ Frost INTERIOR |
| 9 | BLUE-GRASS GLASS SPANDREL |
| 10 | CLEAR GLASS VISION |
| 10A | CLEAR GLASS SPANDREL |
| 11 | SILVER GLASS SPANDREL |

GENERAL NOTES:

- THESE DIMS. WHEN MARKED APPROVED SHALL BE DEEMED AS AN ACCURATE INTERPRETATION OF PROJECT REQUIREMENTS AND SUCH APPROVAL SHALL CONSTITUTE AUTHORIZATION TO PROCEED WITH SHOP FABRICATION.
- TWS, INC. ASSUMES NO RESPONSIBILITY FOR WORK AND/OR ERRORS IN THE DIMS. OR THE SHOP FABRICATION OF THE GLASS.
- ALL MATERIALS TO WHICH TWS, INC. FRAMING IS TO BE APPLIED MUST BE STRUCTURALLY SOUND AND CAPABLE OF SUPPORTING MAXIMUM DESIGN LOADS IMPOSED BY THE CURTAINWALL SYSTEM.
- ALL CONTROL DIMENSIONS AND PROFILES AFFECTING CURTAINWALL DESIGN SHALL BE PROVIDED BY THE ARCHITECT. ALL CORRELATION REVISIONS TO EXISTING CONTRACT DIMS. MUST BE APPROVED IN WRITING.
- TWS, INC. WILL NOT BE RESPONSIBLE FOR CONFLICTS WITHIN THE CONTRACT DIMS. OR ANY RELATED COORDINATION. THIS INCLUDES PRECAST OPENINGS AND DIMENSIONS.

GLAZING NOTES:

- GASKET GLAZING:
 - EXTERIOR GASKETS TO BE EPDM SILICONE COMPATIBLE CLOSED CELL SPONGE GASKET WITH FACTORY WELDED CORNERS (WHERE APPLICABLE) MEETING ASTM C509-79, OPTION 1, WHERE SPONGE GASKETS ARE USED AT INTERIOR APPLICATIONS, THEY WILL BE SHIPPED IN ROLLS.
 - INTERIOR WELDED GASKETS TO BE EPDM SILICONE COMPATIBLE DENSE EPDM (70 +/- 5 DUROM), MEETING ASTM C509-79, OPTION 1, WHERE WELDED GASKETS ARE USED AT INTERIOR APPLICATIONS, THEY WILL HAVE WELDED CORNERS.
 - EXTERIOR THERMO-PLASTIC GASKETS TO BE SILICONE COMPATIBLE DENSE EPDM (70 +/- 5 DUROM) SHIPPED IN ROLLS, MEETING ASTM C509-79, OPTION 1.
 - "W" EDGE BLOCKS TO BE SILICONE COMPATIBLE DENSE EPDM (80 DUROM)
- STRUCTURAL SILICONE GLAZING AT TWS TEST CURTAINWALL SYSTEM:
 - ALL STRUCTURAL GLAZING AND/OR SEALANT APPLICATIONS USING SILICONE SHALL BE REVIEWED BY SEALANT AND GLASS MANUF.
 - METAL AND GLASS SHALL BE CLEANED WITH SOLVENT APPROVED BY SEALANT MANUF.
 - SILICONE SHALL BE APPLIED AND WIPED OFF CLEAN WITH CLEAN, OIL FREE AND LINT FREE CLOTHS (2 CLOTH METHOD—1 CLEAN, 1 WIPER).
 - SPACERS BACKING STRUCTURAL SILICONE TO BE APPROVED DOW CORNING 2-LB DENSITY ETHANOL AND NORTON THERMALBOND V2100 POLYURETHANE FOAM TAPE (SHORE A HARDNESS OF 35, DENSITY OF 3.1 LBS/CU FT.)
 - SETTING BLOCKS TO BE SILICONE COMPATIBLE DENSE EPDM (80 +/- 5 DUROM)
 - INTERNAL SEALANTS TO BE DOW CORNING 795.
 - PERIMETER SEALANTS MUST BE COMPATIBLE WITH FRAME SEALANTS.
 - BACKER RODS TO BE CLOSED CELL FOAM.
 - FOAM BATTLES TO BE 30 PPI RETICULATED PEG COATED URETHANE FOAM.

KLAI JUBA ARCHITECTS	DATE: 10.14.05
PROJECT: PANORAMA II	
REVISIONS: 1	
REVISIONS: 2	
REVISIONS: 3	
REVISIONS: 4	
REVISIONS: 5	
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REVISIONS:
1. REVISIONS TO BE MADE BY THE ARCHITECT.
2. REVISIONS TO BE MADE BY THE ARCHITECT.
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10. REVISIONS TO BE MADE BY THE ARCHITECT.

TEXAS WALL SYSTEMS, INC.
10453 BROOKWOOD RD. DALLAS, TX 75239
(214) 940-7041 FAX (214) 948-9884



CUSTOMER
SIERRA GLASS
LAS VEGAS, NEVADA

ARCHITECT
KLAI JUBA ARCHITECTS
LAS VEGAS, NEVADA

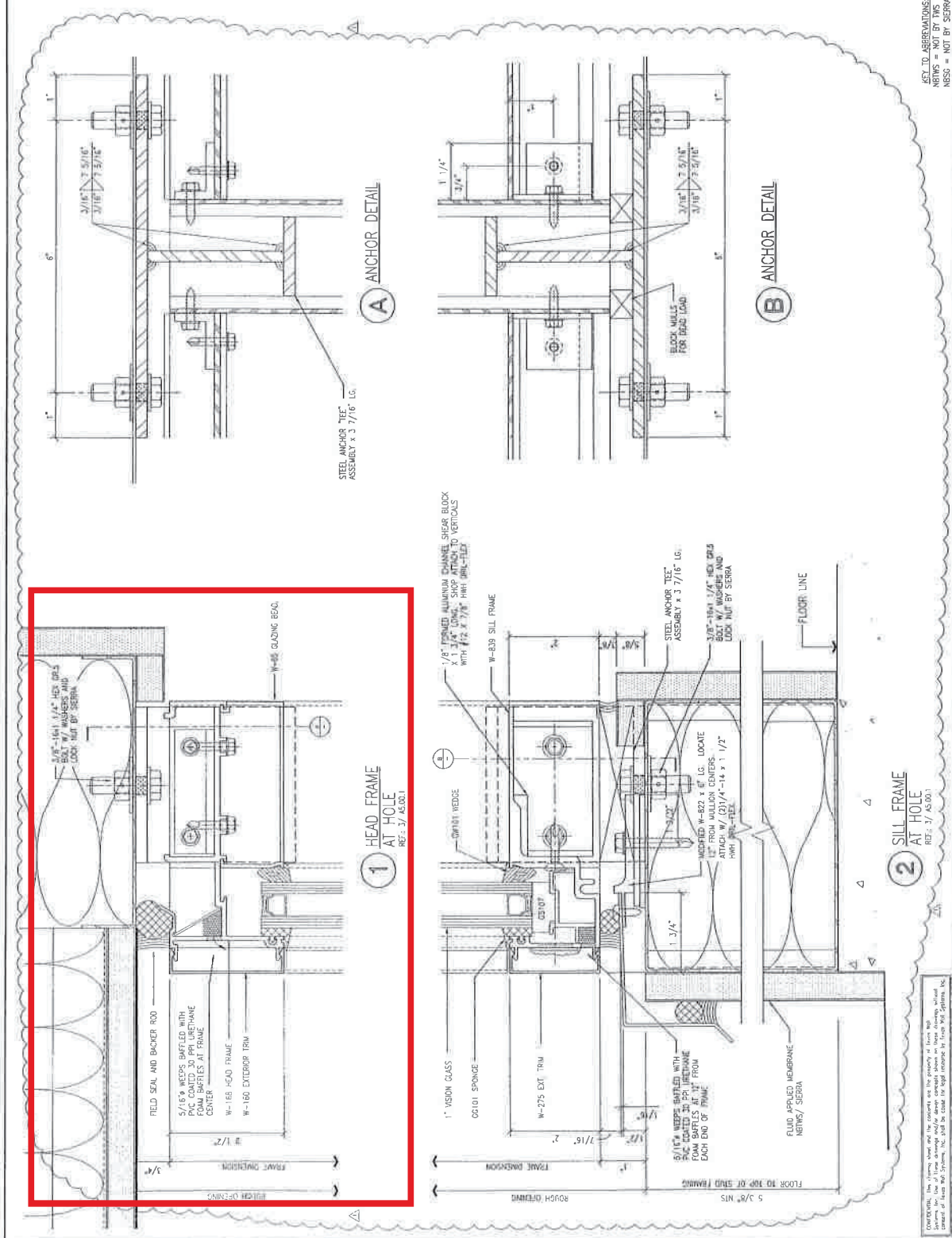
PROJECT
PANORAMA II
LAS VEGAS, NEVADA

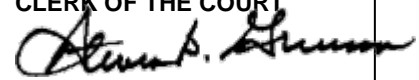
DRAWN
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C.2

PHASE 2
APPROVED FOR
FILE & DISTRIBUTION
SEPTEMBER 21, 2005

PM1254
KEY TO ABBREVIATIONS:
REVISIONS: 1. NOT BY SIERRA GLASS
NISE = NOT BY SIERRA GLASS

Texas Wall
Systems -
Window
Manufacturer





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Condominium Unit Owners' Association*

DISTRICT COURT

CLARK COUNTY, NEVADA

LAURENT HALLIER, an individual;
PANORAMA TOWERS I, LLC, a Nevada
limited liability company; PANORAMA
TOWERS I MEZZ, LLC, a Nevada limited
liability company; and M.J. DEAN
CONSTRUCTION, INC., a Nevada corporation,
Plaintiffs,

vs.

PANORAMA TOWERS CONDOMINIUM
UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation,
Defendant.

Case No.: A-16-744146-D
Dept. No.: XXII

**Defendant's Opposition to Plaintiffs/
Counter-Defendants' Motion for
Declaratory Relief Regarding Standing
and Countermotions to Exclude
Inadmissible Evidence and for Rule 56(f)
Relief**

Hearing Date: December 13, 2018
Hearing Time: 9:00 a.m.

PANORAMA TOWERS CONDOMINIUM
UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation, and Does 1 through
1000,

Counterclaimants,

vs.

LAURENT HALLIER, an individual;
PANORAMA TOWERS I, LLC, a Nevada
limited liability company; PANORAMA
TOWERS I MEZZ, LLC, a Nevada limited
liability company; M.J. DEAN
CONSTRUCTION, INC., a Nevada
Corporation; SIERRA GLASS & MIRROR,
INC.; F. ROGERS CORPORATION;; DEAN
ROOFING COMPANY; FORD
CONTRACTING, INC.; INSULPRO, INC.;
XTREME XCAVATION; SOUTHERN
NEVADA PAVING, INC.; FLIPPINS
TRENCHING, INC.; BOMBARD
MECHANICAL, LLC; R. RODGERS
CORPORATION; FIVE STAR PLINBING &
HEATING, LLC, dba Silver Star Plumbing; and
ROES 1 through 1000, inclusive,

Counterdefendants.

MEMORANDUM OF POINTS AND AUTHORITIES

I.

INTRODUCTION

The Court should deny Plaintiffs' (the Builders') "Motion for Declaratory Relief" for the following reasons. First, as demonstrated by the accompanying declaration of Omar Hindiye, the missing sill pan flashing and head flashing – the focus of the Builders' standing defense – do not fall within the definition of window "apertures" in the HOA's Declaration of Covenants, Conditions and Restrictions, and are therefore "Common Elements" for which the HOA has standing.

Second, from a procedural standpoint, the Builders, without citing any authority allowing the requested procedural device, seek a legal determination from this Court regarding the HOA's alleged lack of standing related to the window design defect claims. The Builders' motion is a premature,

1 legally untenable attempt to have this Court summarily dispose of the HOA’s entire defect claim
2 related to the deficiently designed window assemblies in 616 residential units, without the procedural
3 protections afforded the responding party on a motion for summary judgment. On this basis alone, the
4 Court should deny the Motion.

5 Third, if the Court overlooks this significant flaw and construes the Motion as one seeking
6 summary judgment, even though the Builders neglected to even mention Rule 56, the Motion falls
7 well short of the mark. The Builders seek relief related to two separate defects—the missing sill pan
8 flashing and the missing head flashing—and take a differing approach to each defect.

9 • With respect to the missing head flashing, the Builders ask the Court to weigh the evidence,
10 decide issues of witness credibility, and determine disputed issues of fact about whether head flashing
11 should have been installed. Rule 56 and NRS 30.110 do not allow the Court to do any of these things,
12 which is presumably why the Builders came up with their Motion for Declaratory Relief approach.

13 • As to the missing sill pan flashing, the Builders support their Motion with inadmissible
14 evidence and misleading wordplay rather than following the well-defined requirements of Rule 56(e).
15 Even if the Court were to consider the Builders’ inadmissible evidence, which it should not, that
16 evidence shows that both of the HOA’s window design defect claims involve the Common Elements
17 as defined by the Declaration—a contractual document that must be construed against its drafter:
18 Plaintiff Panorama Towers I, LLC.

19 Finally, the Builders seek relief involving disputed questions of fact, making summary
20 judgment inappropriate at this or any other stage of the case. At a minimum, because discovery just
21 started, Rule 56(f) allows the HOA to request a reasonable amount of time to conduct discovery
22 before having summary judgment entered against it. Here, discovery has only just begun.

23 ///

24 ///

II.

STATEMENT OF FACTS

A. The HOA's Declaration.

On November 7, 2006, Plaintiff Laurent Hallier, as manager of Plaintiff Panorama Towers I, LLC, executed the Declaration of Covenants, Conditions and Restrictions and Grant and Reservation of Easements for Panorama Towers ("Declaration"). *See* Mot., Ex. D at 121. As the declarant, Plaintiffs Panorama Towers I, LLC and Panorama Towers II, LLC had control over and drafted the Declaration. *See id.* at 19 (Section 1.46). The Declaration contains the following relevant provisions:

- All terms used in the Declaration "shall generally be given their natural, commonly accepted definitions unless otherwise specified." *Id.* at 12 (Article 1).
- Common Elements "shall mean all portions of the Property other than the Units" and "shall initially consist of the real property classified as Common Elements in Exhibit 'C'." "By way of example and not limitation the Common Elements may include the following components: . . . "all apparatus, installations, and equipment of any Building **existing for the use of one or more of the Owners**; [and] [a]n **easement of support** in every portion of a Unit which contributes to the support of the Building, other Units and/or any part of the Common Elements." *Id.* at 16–17 (Sections 1.39(c), (e)) (emphasis added).
- A Unit's boundaries "shall be conclusively presumed to be" "the existing physical boundaries" "rather than the description expressed in the Deed, Plat or Declaration." *Id.* at 28 (Section 1.128). A Unit "includes all Improvements situated within its boundaries, including interior walls (except interior bearing walls, if any), appliances, cabinets, interior doors and all electrical, heating, plumbing and other utility fixtures." *Id.*
- A Unit's "boundaries shall be extended to include the windows, doors and other fixtures located in" "apertures in any boundary" "including all frameworks, window cases and weather

stripping thereof, except that exterior surfaces made of glass or other transparent materials . . . shall not be included in the boundaries of the Unit and shall therefore be Common Elements.”

Id. at 38 (Section 4.2(e)).

- The “**contents of any wall**” are excluded from each Unit unless “**specifically included** by other provisions of [Section 4]” of the Declaration. *Id.* at 38 (Section 4.2(f)) (emphasis added).
- The Association “shall maintain, repair and replace all of the Common Elements” with limited exceptions. *Id.* at 43 (Section 6.1). The Association has a specific maintenance obligation for “**all drainage related systems**” in order “to prevent avoidable deteriorations or property damage.” *Id.* at 44 (Section 6.3(c)) (emphasis added).

B. The Uniform Common-Interest Ownership Act.

In Nevada, the Uniform Common-Interest Ownership Act codified as NRS Chapter 116 (“Act”) governs the interpretation of the HOA’s Declaration. To the extent any inconsistencies exist between the Act and the Declaration, the Act prevails. *See* Mot., Ex. D at 119 (Section 28.7). The Act provides in pertinent part as follows:

Except as otherwise provided by the declaration:

1. If walls, floors or ceilings are designated as boundaries of a unit, all lath, furring, wallboard, plasterboard, plaster, paneling, tiles, wallpaper, paint, finished flooring and any other materials **constituting any part of the finished surfaces thereof are a part of the unit**, and **all other portions of the walls, floors or ceilings are a part of the common elements**.

2. If any chute, flue, duct, wire, conduit, bearing wall, bearing column **or any other fixture lies partially within and partially outside the designated boundaries of a unit**, any portion thereof serving only that unit is a limited common element allocated solely to that unit, and **any portion thereof serving more than one unit or any portion of the common elements is a part of the common elements**.

NEV. REV. STAT. § 116.2102 (emphasis added).

///

///

C. The HOA's Repairs of the Window and Related Water Damage in Unit 300.

From approximately August 2013 to July 2016, the HOA incurred more than \$200,000 in expenses to repair the damages caused by water leakage due to, among other things, missing sill pan flashing in Unit 300, on the third floor of Tower No. I. *See Exhibit 1* (Kariger Dec.) at ¶ 2. Before deciding to take responsibility for these significant repairs and expenses, the HOA's Board considered the issue and decided to treat the defective and/or missing components as common elements under the Declaration. *See id.* Since declarant transition occurred in 2008, the HOA has treated the windows and their associated components as common elements for purposes of maintenance and repairs. *See id.* at ¶ 3.

CMA Consulting was the construction manager retained to investigate and repair the water leakage in the exterior wall assemblies of Unit 300, involving leakage into the exterior wall cavities, which had damaged critical components inside the exterior wall. As described in the accompanying declaration of CMA's principal, Omar Hindiyeh, a primary factor in causing the leakage was the failure to install sill pan flashing in the window openings before installing the windows, a design flaw resulting from the failure of the plans and specifications to specify sill pan flashings. *See Exhibit 2* (Hindiyeh Dec.).

D. The HOA's Chapter 40 Notice.

In February 2016, the HOA provided the Builders with a Chapter 40 Notice identifying, among other things, universal design defects due to the failure to specify sill pan flashings and head flashings for the tower window systems. *See Mot., Ex. A* at 1. After the Builders filed suit and obtained a court order requiring the HOA to provide greater detail for the window-related design defects, the HOA served an amended Chapter 40 Notice with the information required by the Court's order. *See Mot., Ex. B* at 3–4 ("Amended Notice"). The Amended Notice, provided in April 2018, includes an expert

1 report explaining the window design defects’ impact on all windows in both towers. *See id.* at 6–48
2 (Ex. A to Amended Notice).

3 **E. The Discovery Process Just Started.**

4 Discovery recently commenced after the Court lifted its stay put in place to accommodate
5 early, potentially case dispositive motion practice. Just last week, the Court approved the Special
6 Master’s recommended Amended Case Agenda governing the discovery process. *See* Special Master
7 Recommendation and District Court Order Amending Case Agenda, filed on November 6, 2018. To
8 date, the Association has not been permitted to perform discovery. To the extent the Court considers
9 the Builders’ Motion, the HOA would like to conduct various discovery to fully prepare itself to
10 respond to the factual issues implicated by the standing arguments. *See Exhibit 3* (Gayan Dec.) at ¶¶
11 5–7.

12 **III.**

13 **LEGAL ARGUMENT**

14 **A. The HOA has Standing Relative to the Missing Sill Pan Flashing and Head Flashing.**

15 As described in the HOA’s Chapter 40 notice, the windows on the 616 tower units were
16 defectively designed without necessary sill pan flashings and head flashings. The Builders contend
17 that the HOA does not have standing to seek recovery for these missing flashings because, if installed,
18 they would not be “Common Elements” that the HOA is obligated to maintain and repair.

19 As to the sill plan flashing, the Builders contend that “pan flashing comprises part of a window
20 system and thus falls within the Unit Boundaries and outside the scope of the ‘Common Elements,’ as
21 defined in the” Declaration (at 8:1-4). While it is true that sill pan flashings can be considered part of
22 the “window system,” they are not included as part of the window “apertures,” as defined in the
23 Declaration. Section 4.2 of the Declaration states in relevant part:

24 Boundaries. The Boundaries of each Unit created by the Declaration are the Unit lines
25 shown or described on a Plat as numbered Units, along with the identifying number, and

are further described as follows:

....

(e) Apertures. Where there are apertures in any boundary, including but not limited to windows ... such boundaries shall be extended to include the windows ... including all frameworks, window casings and weather stripping thereof....

As explained in the accompanying declaration of Omar Hindiyeh, the term “window” refers to a manufactured product that can be installed in a framed window opening. Sill pan flashing, which is not part of the “window,” can be installed by a sheet metal contractor, the framing contractor, the EIFS installer or the window installer, and is separately installed before the “window” or “window unit” is installed. *See* Ex. 2 (Hindiyeh Dec.) at ¶9. Further, sill pan flashings are not “frameworks, window casings [or] weather stripping” (*id.*, ¶10).

If the drafter of Section 4.2 had intended to include flashings generally, or sill pan flashings specifically, it would have been a simple matter to include those terms in the above definition. But without those terms in the above definition, the definition does not include the sill pan flashings that should have been installed in the window assemblies in the Panorama towers.

As to the head flashings, the Builder’s contend that the manufacturer of the Panorama Tower’s window system was Texas Wall Systems (TWS) (Mot. at 8:8-9); that TWS did not require head flashings for the windows at Panorama (*id.* at 8:9-10); that the TWS shop drawings for the project did not require head flashings (*id.* at 16:24-27, Ex H); and that the installation of windows must conform to the manufacturer’s instructions (*id.* at 16:23-24).

First, as explained in the Hindiyeh declaration, the tower windows at Panorama are not TWS windows. *See* Ex. 2 (Hindiyeh Dec.) at ¶¶12-14. Even if they were TWS windows, the fact that TWS did not require head flashings would not be controlling. Because head flashings were required by the EIFS cladding manufacturer, Sto, head flashings were required under the Home Rule Doctrine, pursuant to which the more stringent requirement applies (*id.*, ¶¶15-17).

1 And, more to the point, the head flashings that were required to be installed by the EIFS
2 installer, had they been installed, would have been part of the exterior EIFS cladding system, not part
3 of the window assembly (*id.*, ¶18). Further, had the head flashings been installed by the EIFS installer,
4 they would not have been part of the “window” pursuant to Section 4.2 of the Declaration.

5 In sum, neither the sill pan flashings nor the head flashings, had they been installed, would fall
6 within the definition of window “apertures,” and would therefore have been “Common Elements” for
7 which the HOA has standing. And, significantly, the HOA itself came to this conclusion when leaking
8 windows in Unit 300 were discovered in 2013, having authorized the expenditure of over \$200,000 of
9 HOA funds to repair the windows. *See* Ex. 1 (Kariger Dec.) at ¶¶2-3.

10 **B. Nevada Law Does Not Permit a Motion for Declaratory Relief.**

11 Like any other claim, one seeking declaratory relief may be resolved via one of three
12 procedural vehicles: a motion to dismiss, a motion for summary judgment, or a trial. *See, e.g.,*
13 *Baldonado v. Wynn Las Vegas, LLC*, 124 Nev. 951, 956, 194 P.3d 96, 99 (2008) (referencing summary
14 judgment of declaratory relief claim); *Public Employees’ Benefits Program v. Las Vegas Metropolitan*
15 *Police Dep’t*, 124 Nev. 138, 145, 179 P.3d 542, 547 (2008) (same); *Gordon v. McKee*, 94 Nev. 318,
16 319, 579 P.2d 1245, 1246 (1978) (same). Declaratory relief claims involving “the determination of an
17 *issue of fact* [must] be tried and determined in the same manner as issues of fact are tried and
18 determined in other civil actions.” *Cox v. Glenbrook Co.*, 78 Nev. 254, 266, 371 P.2d 647, 655 (1962)
19 (citing NEV. REV. STAT. § 30.110) (emphasis in original).

20 The Builders may not sidestep the well-established requirements of Rule 56 simply because
21 they assert a claim for declaratory relief. Because the HOA’s standing involves disputed issues of fact,
22 Nevada law requires those issues to be tried and determined by the jury.

23 ///

24 ///

C. Even if Construed as a Motion for Summary Judgment, the Builders’ Motion Must Fail for Several Reasons.

The Builders ask the Court to grant summary judgment and enter an order determining, as a matter of law, that the HOA does not have standing to assert claims related to the sill pan flashing or the head flashing: referred to as Defects 1.01 and 1.02. *See* Mot. at 12:7–16:9 (sill pan flashing), 16:10–17:13 (head flashing). The Builders go about these requests in two different ways. With respect to the missing sill pan flashing, the Builders use several pieces of inadmissible parol evidence¹ to contort the Declaration to their preferred meaning in a strained effort to escape liability for this serious omission in the design and construction of the buildings. *See infra*, Section IV(B)(3).

As for the missing head flashing, the Builders simply ask the Court to weigh differing expert opinions and select their expert as having the correct view of the evidence. *See infra*, Section IV(C). While both methods fail, Nevada law plainly precludes the Court from granting summary judgment based on the Builders’ second strategy. *See Borgerson v. Scanlon*, 117 Nev. 216, 220, 19 P.3d 236, 238 (2001) (holding courts may not “make findings concerning the credibility of witnesses or weight of evidence in order to resolve a motion for summary judgment.”) (citing *Hidden Wells Ranch v. Strip Realty*, 83 Nev. 143, 145, 425 P.2d 599, 601 (1967)); *see also* NEV. REV. STAT. § 30.110 (requiring trial to determine factual issues related to declaratory relief claims).

¹ The HOA objects to the Court’s consideration of the Builders’ inadmissible parol evidence, specifically the Loadman affidavit and the Glossary, to interpret the Declaration at this stage of the proceedings. The parol evidence rule prohibits reliance on extrinsic evidence “to add to, subtract from, vary, or contradict . . . written instruments which dispose of property, or are contractual in nature and which are valid, complete, unambiguous, and unaffected by accident or mistake.” *M.C. Multi-Family Development, L.L.C. v. Crestdale Associates, Ltd.*, 124 Nev. 901, 913–14, 193 P.3d 536, 544–45 (2008). Courts may admit parol evidence “to determine the true intent of the parties when the written instrument is ambiguous.” *Trans Western Leasing Corp. v. Carrao Const. Co., Inc.*, 98 Nev. 445, 447, 652 P.2d 1181, 1183 (1982).

1. Nevada’s summary judgment standard.

Nevada no longer applies the “slightest doubt” standard for summary judgment under Rule 56 and now uses the standard and case law of the federal courts. *Wood v. Safeway, Inc.*, 121 P.3d 1026, 1029–31 (Nev. 2005). To prevent summary judgment, the nonmoving party “must, by affidavit or otherwise, set forth specific facts demonstrating the existence of a genuine issue for trial” *Id.* at 1031 (quoting *Bulbman, Inc. v. Nevada Bell*, 825 P.2d 588, 591 (Nev. 1992)). “Summary judgment, however, may not be used as a shortcut to the resolving of disputes upon facts material to the determination of the legal rights of the parties.” *Collins v. Union Federal Sav. & Loan Ass’n*, 662 P.2d 610, 619 (Nev. 1983) (quoting *Parman v. Petricciani*, 272 P.2d 492, 496 (Nev. 1954)). “A factual dispute is genuine when the evidence is such that a rational trier of fact could return a verdict for the nonmoving party.” *Id.*; *Posadas v. City of Reno*, 851 P.2d 438, 441–42 (Nev. 1993)). The “substantive law controls which factual disputes are material” so as to preclude summary judgment. *Collins*, 662 P.2d at 619.

Nevada law places additional limitations on a trial court’s use of summary judgment, and the Nevada Supreme Court has instructed trial judges to exercise “great caution” in granting summary judgment. *Posadas*, 851 P.2d at 442. When considering a motion for summary judgment, the district court must view “the evidence, and any reasonable inferences drawn from it, . . . in a light most favorable to the nonmoving party.” *Winn v. Sunrise Hosp. & Medical Center*, 277 P.3d 458, 462 (Nev. 2012). Furthermore, “the trial court should not pass upon the credibility of opposing affidavits, unless the evidence tendered by them is too incredible to be accepted by reasonable minds.” *Short v. Hotel Riviera, Inc.*, 378 P.2d 979, 984 (Nev. 1963) (quoting 6 Moore’s Federal Practice 2070); *see also Sawyer v. Sugarless Shops, Inc.*, 792 P.2d 14, 15–16 (Nev. 1990). Finally, the summary judgment tool is not meant “to cut litigants off from their right to trial by jury if they really have issues to try.” *Short*, 378 P.2d at 984 (citing *Sartor v. Arkansas Gas Corp.*, 321 U.S. 620 (1944)).

1 **2. The motion does not satisfy Rule 56(e) and shift any burden to the HOA.**

2 Only “[w]hen a motion for summary judgment is made and supported as provided in this rule”
3 does it shift to the nonmoving party the burden to “set forth specific facts showing that there is a
4 genuine issue for trial.” NEV. R. CIV. P. 56(e). Affidavits submitted in support of a motion for summary
5 judgment “shall be made on personal knowledge, shall set forth such facts as would be admissible in
6 evidence, and **shall show affirmatively** that the affiant is competent to testify to the matters stated
7 therein.” *Id* (emphasis added).²

8 The Motion relies in large part on inadmissible evidence, including a glossary of terms from
9 an unexplained document and an affidavit from a purported expert. The AAMA AG-13 Glossary
10 (“Glossary”) plays the starring role in the Builders’ wordplay, but the Motion makes no effort to show
11 the document’s admissibility or connect it to the parties’ dispute. The Builders provide no explanation
12 of or context for the Glossary, including its purpose, scope, applicability, authors, or application to
13 this case, and ask the Court to accept this unidentified document as the gospel truth in this case. The
14 Declaration, the document the Builders ask this Court to interpret, does not reference the Glossary at
15 all.

16 The Builders provide an affidavit from Simon Loadsman, but Mr. Loadsman says nothing
17 about his competence to testify regarding the matters contained in his statement.³ Rule 56(e) requires
18 Mr. Loadsman, as a purported expert witness, to provide information demonstrating his ability to give
19

20 ² See also *Henry Products Inc. v. Tarmu*, 967 P.2d 444, 445 (Nev. 1998) (“Evidence introduced in
21 support of . . . a motion for summary judgment must be admissible evidence.”); *Saka v. Sahara-Nevada*
22 *Corp.*, 558 P.2d 535, 536 (Nev. 1976) (“The requirements of NRCP 56(e) are clearly stated. It is not
23 sufficient that pleadings be supported by affidavits alleging specific facts; these facts must be made
24 upon the affiant’s personal knowledge, and there must be an affirmative showing of his competency
25 to testify to them.”); see also *Havas v. Hughes Estate*, 643 P.2d 1220 (Nev. 1982) (holding “district
court’s reliance upon an affidavit which does not comply with [Rule 56(e)] may constitute reversible
error.”).

³ Mr. Loadsman says he works in “this field” (which field?) and that two terms are synonymous
without providing any other explanation about the context for those terms. See Mot., Ex. F at ¶¶ 1, 3.

1 expert testimony meeting the requirements of NRS 50.275 and its interpretive case law (*e.g.*, *Hallmark*
2 *v. Eldridge*, 124 Nev. 492, 189 P.3d 646 (2008)). The lack of this information, among other things,
3 precludes the Court from considering Mr. Loadsman’s affidavit.

4 Even if the Court were permitted to consider this inadmissible evidence, the contents of Mr.
5 Loadsman’s affidavit are so obviously incorrect and self-serving to render them useless. For example,
6 Mr. Loadsman provides a suspect statement that conflates the definitions of “pan/panning” and “pan
7 flashing” from the Glossary, a document he claims as support for his opinion. *See* Mot., Ex. F at ¶ 4;
8 *compare* Mot., Ex. E at 38. At a minimum, the Court should allow the HOA to depose Mr. Loadsman
9 before accepting any of his incomplete, suspect opinions for purposes of a Rule 56 motion.

10 **3. The Builders may not obtain summary judgment due to their tacit admission that**
11 **the Declaration contains ambiguous terms.**

12 Where contract interpretation is at issue, summary judgment is only appropriate when there is
13 “the absence of ambiguity or other factual complexities” *Galardi v. Naples Polaris, LLC*, 910
14 P.3d 364, 366 (Nev. 2013) (quoting *Ellison v. Cal. State Auto Ass’n*, 797 P.2d 975, 977 (Nev. 1990)).
15 “Whether a contract is ambiguous likewise presents a question of law.” *Id.* “A contract is ambiguous
16 if its terms may reasonably be interpreted in more than one way” *Id.* When interpreting a contract,
17 the factfinder must “strive[] to discern and give effect to the parties’ intended meaning.” *Id.* at 367.
18 “In determining the parties’ intent, **the trier of fact** must construe the contract as a whole, including
19 consideration of the contract’s subject matter and objective, the circumstances of its drafting and
20 execution, **and the parties’ subsequent conduct.**” *Ringle v. Bruton*, 120 Nev. 82, 93, 86 P.3d 1032,
21 1039 (2004) (emphasis added). Ambiguous contract terms must “be construed **against the party who**
22 **drafted them.**” *Id.* (emphasis added). If the court determines that a contract contains “ambiguity
23 requiring extrinsic evidence to discern the parties’ intent, summary judgment is improper.” *Dickenson*
24 *v. State, Dept. of Wildlife*, 110 Nev. 934, 937, 877 P.2d 1059, 1061 (1994).

1 The Builders, by introducing several pieces of parol evidence to support their interpretation of
2 the Declaration, admit they consider the document they drafted to be ambiguous as it relates to this
3 dispute. The HOA disagrees and believes the Declaration clearly excludes the sill pan flashing and
4 head flashing—if it ever existed in the first place—from the units and places those drainage
5 components squarely within the common elements.

6 If the Court agrees with the Builders and finds the Declaration to be ambiguous, the Builders
7 may not obtain summary judgment for any claim involving the interpretation of the ambiguous
8 Declaration. The jury must determine the parties' intent and should consider, among other things, the
9 parties' subsequent conduct. *See Ringle*, 120 Nev. at 93, 86 P.3d at 1039. Key evidence in interpreting
10 the Declaration, to the extent the Court determines it to be ambiguous, will be the HOA's decisions to
11 treat windows and their components as common elements since declarant transition in 2008 and more
12 recently to coordinate and pay for the windows-related repairs in Unit 300. *See supra*, Section II(C);
13 *see also* Ex. 1 (Kariger Dec.) at ¶¶ 2–3.

14
15 **4. There is, at the very least, a triable issue of fact concerning whether the missing**
16 **sill pan flashing, if it were installed as required, would have been part of the**
17 **Common Elements.**

18 Even if the Court were to weigh the evidence and determine factual issues reserved for the
19 jury, that evidence shows the missing sill pan flashing would have been part of the common elements.
20 The Builders play fast and loose with the language in the Declaration and the Glossary to patch
21 together what appears, at first glance, to be a basis for excluding the missing sill pan flashing from the
22 common elements. However, a closer examination of the Declaration and the Builders' inadmissible
23 evidence exposes the lack of merit in the Builders' position.

24 Beyond the factors addressed in the Hindiyyeh declaration, addressed above, the Builders
25 completely overlook several provisions in the Declaration that show the missing sill pan flashing and
head flashing would have been common elements. First, all parts of the buildings' drainage system

1 fall within the common elements. *See* Mot., Ex. D at 44 (Section 6.3(c)). The missing sill pan flashing
2 and head flashing are both important components of the drainage system. *See* Ex. 2 (Hindiye Dec.)
3 at ¶ 6. Second, the common elements include an easement of support requiring the HOA to ensure the
4 building does not fall down. The missing sill pan flashing and head flashing cause water to enter the
5 exterior walls and corrode critical building components designed to support the building. *See* Mot.,
6 Ex. B at 46:6–13. Third, the Declaration expressly excludes the contents of any wall from the units.
7 *See* Mot., Ex. D at 38 (Section 4.2(f)). The missing sill pan flashing and head flashing—had they been
8 installed as required—would be located behind the finished interior surfaces of the buildings’ exterior
9 walls. *See* Ex. 2 (Hindiye Dec.) at ¶ 6.

10 The Builders and their purported expert conflate the sill pan flashing with a very different,
11 irrelevant component called pan/panning because the Glossary’s definition of pan/panning suits the
12 Builders’ needs. *See* Mot. at 14:6–8. The Glossary defines pan/panning as part of the window system,
13 which is limited to the components **provided by the manufacturer** and cannot include the sill pan
14 **flashing**—a component installed by the contractor. *See* Mot., Ex. E at 38, 60 (compare pan/panning
15 and window unit definitions).

16 The Declaration’s description of a “window” tracks the Glossary’s definition of the “window
17 system” and its related components provided by the manufacturer and **does not include flashing** or
18 any other components installed by the contractor. *Compare* Mot., Ex. D at 38 (Section 4.2(e))
19 (including windows and all frameworks, window casings, and weather stripping) *with* Mot., Ex. E at
20 60 (defining “window unit” to include window system from manufacturer with frame, weather
21 stripping, and other elements). According to the Glossary, the frameworks, casings, and weather
22 stripping have nothing to do with the sill pan flashing. The Glossary defines the “frame” as the
23 “enclosing structure of a window . . . which fits into or attaches to the wall or roof opening . . .” and
24 does not include sill pan flashing. Mot., Ex. E at 25. The Glossary defines “casing” as “exterior or
25

interior trim molding,” something very different from sill pan flashing. *Id.* at 11. The Glossary defines “weatherstrip” as a “flexible component used to reduce air leakage, water penetration, or both between sash, leaf, panel, and/or frame” rather than having anything to do with the sill pan flashing. *Id.* at 59. In case this Court has any doubt, the Declaration also excludes “the contents of any wall” from the Units, which is where the Builders should have installed the sill pan flashing and head flashing. Mot., Ex. D at 38 (Section 4.2(f)). The Act provides the same result. *See* NEV. REV. STAT. § 116.2102(1)–(2).

5. The Motion provides no basis for summary judgment on the HOA’s standing regarding the head flashing missing from all windows.

The Builders asked this Court to find, as a matter of law, that head flashings were not required on the project based on their interpretation of the evidence. *See* Mot. at 16:10–17:13. The Builders do not offer an expert opinion on the subject and ask the Court to accept counsel’s interpretation of various documents, codes, and drawings. The Motion acknowledges the HOA’s disagreement about the need for head flashing and references the conflicting expert opinion. *See id.* at 16:12–18. Simply put, the Court may not weigh conflicting evidence on summary judgment even if it were persuaded by the explanation of the construction documents provided by the Builders’ counsel.⁴ The existence of a credible, contrary opinion from the HOA’s expert precludes summary judgment.

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⁴ *See Borgerson v. Scanlon*, 117 Nev. 216, 220, 19 P.3d 236, 238 (2001) (holding courts may not “make findings concerning the credibility of witnesses or weight of evidence in order to resolve a motion for summary judgment.”) (citing *Hidden Wells Ranch v. Strip Realty*, 83 Nev. 143, 145, 425 P.2d 599, 601 (1967)); *see also* NEV. REV. STAT. § 30.110 (requiring trial to determine factual issues related to declaratory relief claims).

IV.

THE HOA'S COUNTERMOTIONS

A. The HOA's Countermotion to Exclude the Builders' Inadmissible Parol Evidence.

The HOA countermoves to exclude the Glossary and the Loadsman affidavit from the record used to decide the Motion due to the inadmissibility of this impermissible parol evidence. *See supra*, Section IV(A). Unless the Court deems the Declaration to be ambiguous with respect to the disputed issues, which it is not, the Court may not consider any parol evidence to interpret the Declaration. The parol evidence rule prohibits reliance on extrinsic evidence "to add to, subtract from, vary, or contradict . . . written instruments which dispose of property, or are contractual in nature and which are valid, complete, unambiguous, and unaffected by accident or mistake." *M.C. Multi-Family Development, L.L.C. v. Crestdale Associates, Ltd.*, 124 Nev. 901, 913–14, 193 P.3d 536, 544–45 (2008) (quoting *State ex rel. List v. Courtesy Motors*, 95 Nev. 103, 590 P.2d 163 (1979)).

B. The HOA's Conditional Countermotion for a Rule 56(f) Continuance.

Rule 56(f) allows the party seeking a denial or continuance of a motion for summary judgment to provide an affidavit explaining "how further discovery will lead to the creation of a genuine issue of material fact." *Aviation Ventures, Inc. v. Joan Morris, Inc.*, 110 P.3d 59, 62 (Nev. 2005). The Nevada Supreme Court has explained that "summary judgment is improper when a party seeks additional time to conduct discovery to compile facts to oppose the motion." *Id.* Furthermore, it is an abuse of discretion to refuse such a request at an "early stage in the proceedings" where the requesting party has "no dilatory motive."⁵ For the same reasons, it is an abuse of discretion to grant summary

⁵ *Id.* (citing *Halimi v. H.R. Blacketer*, 770 P.2d 531, 531–32 (Nev. 1989) (holding abuse of discretion to deny Rule 56(f) continuance where complaint on file less than one year and party not dilatory in doing discovery)); *see Summerfeld v. Coca Cola Bottling Co.*, 948 P.2d 704, 705–06 (Nev. 1997) (same holding where complaint on file less than two years); *Ameritrade, Inc. v. First Interstate Bank*, 782 P.2d 1318, 1320 (Nev. 1989) (same holding where complaint on file less than eight months); *see*

Should this Court consider the possibility of granting the Motion, the HOA countermoves for a continuance of the summary judgment determination pursuant to Rule 56(f) in order to pursue the necessary discovery. The HOA submits the Declaration of Michael Gayan, Esq. in support of this Countermotion. *See Exhibit 3*. Because discovery just commenced and the HOA has not been dilatory in pursuing discovery, it would be an abuse of this Court’s discretion to deny the HOA a continuance to perform the requested discovery. *See supra*, Sections II(E), III(B).

CONCLUSION

As demonstrated above, the Builders' Motion should be denied for the following reasons. First, the Hindiye declaration shows that the HOA has standing to recover for the missing sill pan flashings and head flashings because they are included within the buildings' Common Elements.

Second, there is no recognized statutory or procedural authority that would allow the Court to entertain a “Motion for Declaratory Relief.” Such a procedure simply does not exist.

Third, the Builders in essence seek summary judgment on the HOA's largest claim in the case, leaking windows, based almost entirely on inadmissible parol evidence and do so just weeks into the discovery process. Even worse, the Builders acknowledge the existence of conflicting expert opinions on key issues and ask this Court to usurp the jury's role by weighing the evidence and determining disputed factual issues. Should the Court accept the Builders' invitation to embark on this impermissible journey, the HOA respectfully countermoves (1) to exclude the Builders' inadmissible

4 *also Harrison v. Falcon Products, Inc.*, 746 P.2d 642 (Nev. 1987) (same holding where complaint on
5 file less than two years).

DATED this 16th day of November, 2018.

/s/ Scott Williams

*Counsel for Defendant Panorama Towers
Condominium Unit Owners' Association*

Certificate of Service

I hereby certify that on the 16th day of November, 2018, the foregoing **Defendant's Opposition to Plaintiffs/Counter-Defendants' Motion for Declaratory Relief Regarding Standing and Countermotions to Exclude Inadmissible Evidence and for Rule 56(f) Relief** was served on the following by Electronic Service to all parties on the Court's service list.

/s/ Angela Embrey

An employee of Kemp, Jones & Coulthard, LLP

EXHIBIT 1

EXHIBIT 1

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16 EIGHTH JUDICIAL DISTRICT COURT
17 CLARK COUNTY, NEVADA
18

19 LAURENT HALLIER, an individual;
20 PANORAMA TOWERS I, LLC, a Nevada
21 limited liability company; PANORAMA
22 TOWERS I MEZZ, LLC, a Nevada limited
liability company and M.J. DEAN
CONSTRUCTION, INC., a Nevada Corporation,

23 Plaintiffs,

24 vs.

25 PANORAMA TOWERS CONDOMINIUM
26 UNIT OWNERS' ASSOCIATION, a Nevada
non-profit corporation,

27 Defendant.
28

CASE NO.: A-16-744146-D

DEPT. NO.: XXII

**DECLARATION OF OMAR HINDIYEH
IN SUPPORT OF DEFENDANT'S
OPPOSITION TO PLAINTIFFS'
MOTION FOR DECLARATORY RELIEF
REGARDING STANDING**

1 PANORAMA TOWERS CONDOMINIUM
2 UNIT OWNERS' ASSOCIATION, a Nevada
3 non-profit corporation, and Does 1 through 1000,

4 Counterclaimants,

5 vs.

6 LAURENT HALLIER, an individual;
7 PANORAMA TOWERS I, LLC, a Nevada
8 limited liability company; PANORAMA
9 TOWERS I MEZZ, LLC, a Nevada limited
10 liability company; M.J. DEAN
11 CONSTRUCTION, INC., a Nevada Corporation;
12 SIERRA GLASS & MIRROR, INC.; F.
13 ROGERS CORPORATION; DEAN ROOFING
14 COMPANY; FORD CONTRACTING, INC.;
15 INSULPRO, INC.; XTREME XCAVATION;
16 SOUTHERN NEVADA PAVING, INC.;
17 FLIPPINS TRENCHING, INC.; BOMBARD
18 MECHANICAL, LLC; R. RODGERS
19 CORPORATION; FIVE STAR PLUMBING &
20 HEATING, LLC, dba Silver Star Plumbing; and
21 ROES 1 through 1000, inclusive,

22 Counterdefendants.

23
24
25
26
27
28
**DECLARATION OF OMAR HINDIYEH IN SUPPORT OF DEFENDANT'S
OPPOSITION TO PLAINTIFFS' MOTION FOR DECLARATORY RELIEF
CONCERNING STANDING**

I, Omar Hindiyyeh, state as follows:

1. I received a Bachelor of Science degree in civil engineering from San Jose State University in 1978. I am a licensed general contractor in California (license no. 757672) and in Nevada (license no. 53133). I am the owner and president of CMA Consulting (CMA), formed in 1985, which specializes in construction management and forensic investigation services.

Attached is copy of my CV, which includes my licenses, certifications and professional affiliations (**Exhibit A**).

2. Among other things, I am and an accredited and certified window installation instructor for the American Architectural Manufacturers Association (AAMA) (there are only three of us in the State of California). AAMA promulgates standards and guidelines for window

1 installation that are generally accepted nationwide and are often adopted by the building code
2 bodies that draft the building codes.

3 3. If called as a witness, I could and would testify to the matters stated herein based
4 on my own personal knowledge.

5 4. CMA Consulting was retained by the Panorama Towers Condominium Unit
6 Owners' Association (the Association) in August 2013, to investigate and repair leakage
7 conditions in one of the units of the Panorama development, Unit 300, located on the third story
8 of Tower 1, 4525 Dean Martin Drive, Las Vegas. When the Association retained CMA,
9 numerous walls of Unit 300 had already been opened by another contractor and the mold
10 conditions in the wall assemblies had been remediated.

11 5. I was personally involved in all phases of CMA's investigation and repair of Unit
12 300, which took place over the period August 2013 through July 2016, at a total cost of \$206,058
13 (exclusive of demolition and mold remediation) to the Association.

14 6. The conditions in Unit 300 that required repair included, but were not limited to,
15 water leakage due the improper design of the exterior wall window assemblies, which lack
16 adequate drainage provisions, such as sill pan flashing and weepage components. The absence of
17 these basic drainage components results in water entering the window cavity assemblies, causing
18 corrosion to the metal framing components of the exterior wall assemblies, including the curb
19 walls that support the windows, thereby compromising the structural integrity of the exterior
20 walls, rather than being diverted to the exterior of the building and draining onto the wall
21 assemblies below.

22 7. Plaintiffs (the Builders) state in their motion that "pan flashing comprises part of a
23 window system and thus falls within the Unit Boundaries and outside the scope of the 'Common
24 Elements,' as defined in the" CC&Rs (at 8:1-4).

25 8. While it is true that sill pan flashings can be considered part of the "window
26 system," they are not included as part of the window "apertures," as defined in the CC&Rs.
27 Section 4.2 of the CC&Rs states in relevant part:
28

1 Boundaries. The Boundaries of each Unit created by the Declaration are the Unit
2 lines shown or described on a Plat as numbered Units, along with the identifying
3 number, and are further described as follows:

4
5 (e) Apertures. Where there are apertures in any boundary, including but not
6 limited to windows ... such boundaries shall be extended to include the windows
7 ... including all frameworks, window casings and weather stripping thereof...

8 9. The term “window” refers to a manufactured product that can be installed in a
9 framed window opening. Sill pan flashing, which is not part of the “window,” can be installed by
10 a sheet metal contractor, the framing contractor, the EIFS installer or the window installer, and is
11 separately installed before the “window” or “window unit” is installed.

12 10. Pan flashings are not “frameworks, window casings [or] weather stripping.” If the
13 drafter of Section 4.2 had intended to include flashings generally, or sill pan flashings
14 specifically, it would have been a simple matter to include those terms in the above definition.
15 But without those terms in the above definition, the definition does not include the sill pan
16 flashings that should have been installed in the window assemblies in the Panorama towers.

17 11. The Builder’s motion further states that the manufacturer of the Panorama
18 Tower’s window system was Texas Wall Systems (TWS) (at 8:8-9); that TWS did not require
19 head flashings for the windows at Panorama (at 8:9-10); that the TWS shop drawings for the
20 project did not require head flashings (at 16:24-27, Ex H); and that the installation of windows
21 must conform to the manufacturer’s instructions (at 16:23-24).

22 12. In fact, the tower windows at Panorama do not appear to be TWS windows. When
23 CMA was performing repairs of the windows in Unit 300, we attempted to identify the window
24 manufacturer because identifying the manufacturer, which will enable us to obtain the
25 manufacturer’s product specifications and installation instructions, is always an important step in
26 performing repairs involving a manufactured building component.

27 13. It is standard practice for window manufacturers to place identifying markings or
28 stamps on their window products. CMA completely dismantled the frames of the windows, but
29 we were unable to identify any product markings on the windows or window components in Unit
30 300.

1
2 14. Coincidentally, an individual who was previously employed by Sierra Glass, the
3 window installer at the Panorama Towers project, and who worked on the Panorama project, was
4 employed by one of the subcontractors working on the Unit 300 repair. He informed me that
5 Sierra Glass had previously installed TWS windows on its projects, but fabricated its own
6 windows for the Panorama project. This explained why there were no manufacturer's markings
7 on the Unit 300 windows.

8 15. As noted, the Builders assert, based on the incorrect assumption that TWS
9 windows were installed in the Panorama Towers, that because the TWS instructions did not
10 require head flashings, they were not required at Panorama. Even if these were TWS windows at
11 Panorama, that would not be true.

12 16. As noted, I am an AAMA accredited and certified window installation instructor.
13 Attached for reference are excerpts from the applicable AAMA training manual, 2000 edition
14 (**Exhibit B**). The Home Rule Doctrine described in the manual states (at 9-3 to 9-4):

15 Because of the large number of specifications, codes, and standards that affect the
16 fenestration industry, conflicts between their requirements will inevitably arise.
17 When a conflict occurs, one should remember the concept of "Home Rule
Doctrine," which means "the most stringent requirement applies."

18 17. In this instance, the head flashings were required by the EIFS manufacturer, Sto.
19 Attached is the Sto installation detail showing the proper installation of head flashing over the
20 window assembly (**Exhibit C**). Regardless of whether these windows were manufactured by
21 TWS, Sierra Glass or someone else, had the manufacture not specified head flashings, the Home
22 Rule Doctrine would have required that the EIFS installer comply with the more stringent Sto
23 requirement to install head flashings.

24 18. Significantly, the head flashings that were required to be installed by the EIFS
25 installer, had they been installed, would have been part of the exterior EIFS cladding system, not
26 part of the window assembly.

27 ///

28 ///

19. I declare under the penalty of perjury under the laws of Nevada that the foregoing is true and correct. If called as a witness, I could and would competently testify thereto.



Omar Hindiye

EXHIBIT 2

EXHIBIT 2

EXHIBIT 2

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REGARDING STANDING**

1 PANORAMA TOWERS CONDOMINIUM
2 UNIT OWNERS' ASSOCIATION, a Nevada
3 non-profit corporation, and Does 1 through 1000,

4 Counterclaimants,

5 vs.

6 LAURENT HALLIER, an individual;
7 PANORAMA TOWERS I, LLC, a Nevada
8 limited liability company; PANORAMA
9 TOWERS I MEZZ, LLC, a Nevada limited
10 liability company; M.J. DEAN
11 CONSTRUCTION, INC., a Nevada Corporation;
12 SIERRA GLASS & MIRROR, INC.; F.
13 ROGERS CORPORATION; DEAN ROOFING
14 COMPANY; FORD CONTRACTING, INC.;
15 INSULPRO, INC.; XTREME XCAVATION;
16 SOUTHERN NEVADA PAVING, INC.;
17 FLIPPINS TRENCHING, INC.; BOMBARD
18 MECHANICAL, LLC; R. RODGERS
19 CORPORATION; FIVE STAR PLUMBING &
20 HEATING, LLC, dba Silver Star Plumbing; and
21 ROES 1 through 1000, inclusive,

22 Counterdefendants.

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**DECLARATION OF OMAR HINDIYEH IN SUPPORT OF DEFENDANT'S
OPPOSITION TO PLAINTIFFS' MOTION FOR DECLARATORY RELIEF
CONCERNING STANDING**

I, Omar Hindiyyeh, state as follows:

1. I received a Bachelor of Science degree in civil engineering from San Jose State University in 1978. I am a licensed general contractor in California (license no. 757672) and in Nevada (license no. 53133). I am the owner and president of CMA Consulting (CMA), formed in 1985, which specializes in construction management and forensic investigation services.

Attached is copy of my CV, which includes my licenses, certifications and professional affiliations (**Exhibit A**).

2. Among other things, I am and an accredited and certified window installation instructor for the American Architectural Manufacturers Association (AAMA) (there are only three of us in the State of California). AAMA promulgates standards and guidelines for window

1 installation that are generally accepted nationwide and are often adopted by the building code
2 bodies that draft the building codes.

3 3. If called as a witness, I could and would testify to the matters stated herein based
4 on my own personal knowledge.

5 4. CMA Consulting was retained by the Panorama Towers Condominium Unit
6 Owners' Association (the Association) in August 2013, to investigate and repair leakage
7 conditions in one of the units of the Panorama development, Unit 300, located on the third story
8 of Tower 1, 4525 Dean Martin Drive, Las Vegas. When the Association retained CMA,
9 numerous walls of Unit 300 had already been opened by another contractor and the mold
10 conditions in the wall assemblies had been remediated.

11 5. I was personally involved in all phases of CMA's investigation and repair of Unit
12 300, which took place over the period August 2013 through July 2016, at a total cost of \$206,058
13 (exclusive of demolition and mold remediation) to the Association.

14 6. The conditions in Unit 300 that required repair included, but were not limited to,
15 water leakage due the improper design of the exterior wall window assemblies, which lack
16 adequate drainage provisions, such as sill pan flashing and weepage components. The absence of
17 these basic drainage components results in water entering the window cavity assemblies, causing
18 corrosion to the metal framing components of the exterior wall assemblies, including the curb
19 walls that support the windows, thereby compromising the structural integrity of the exterior
20 walls, rather than being diverted to the exterior of the building and draining onto the wall
21 assemblies below.

22 7. Plaintiffs (the Builders) state in their motion that "pan flashing comprises part of a
23 window system and thus falls within the Unit Boundaries and outside the scope of the 'Common
24 Elements,' as defined in the" CC&Rs (at 8:1-4).

25 8. While it is true that sill pan flashings can be considered part of the "window
26 system," they are not included as part of the window "apertures," as defined in the CC&Rs.
27 Section 4.2 of the CC&Rs states in relevant part:
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