



TECHNICAL REFERENCES

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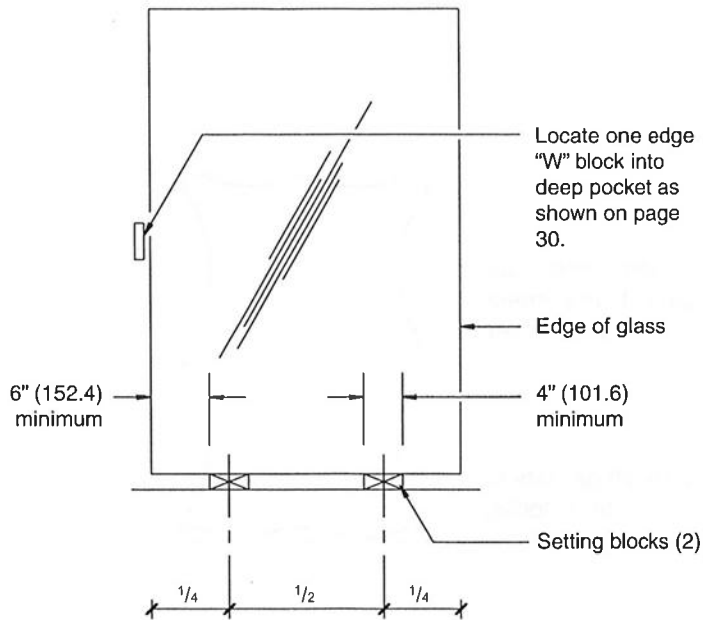
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NOTE: Dimensions in parentheses () are millimeters unless otherwise noted.

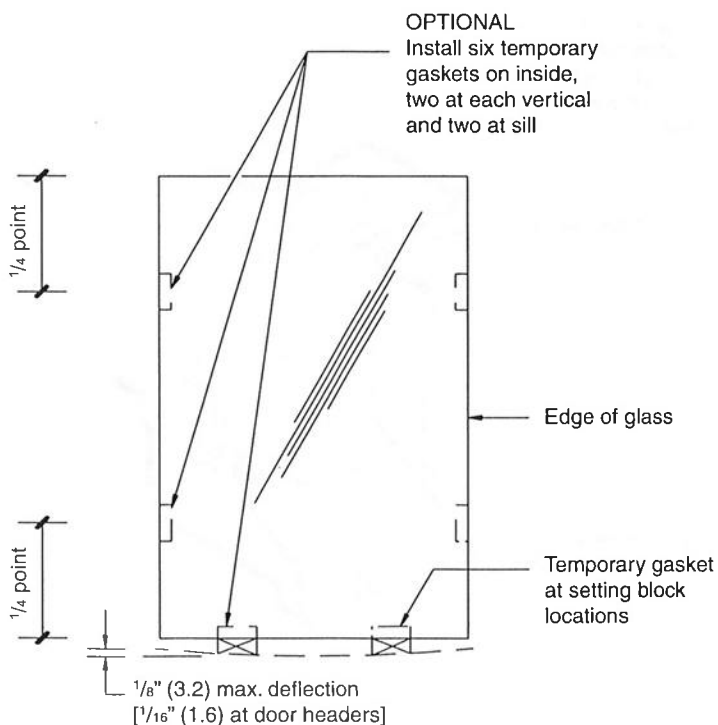
Other metric units shown in this manual are:

m - meter	Kg - kilogram
Pa - pascal	KPa - kilopascal
MPa - megapascal	

Glazing Instructions



DETAIL A



DETAIL B

Prepare the frame opening by removing all dirt and debris from the glazing pockets and gasket reglets.

SETTING BLOCKS

Glass should always be set on two identical setting blocks having a Shore A Durometer of 85 + or - 5. The preferred location is at the $\frac{1}{4}$ points.

If the $\frac{1}{4}$ point location causes excessive deflection of the horizontal it may be acceptable to move the setting blocks equally towards the corners of the light as far as the $\frac{1}{8}$ points, but in no instance should the outer end of the block be closer than 6" (152.4) to the corner of the glass.

See DETAIL A

The length of each setting block must be the greater of 4" (101.6) long or 0.1" per square foot of glass. (27.3 mm/m²)

Deflection of the intermediate horizontal must not exceed $\frac{1}{8}$ " (3.2). [$\frac{1}{16}$ " (1.6) maximum at door headers] See DETAIL B. Check deadload charts for proper setting block locations.

Insert the back gasket in the frame reglet as shown on page 30, or install six temporary gaskets, approximately 4" (101.6) long, as shown on DETAIL B.

Set glass onto setting blocks and push it tight against the back gasket.

EDGE BLOCKS

Edge blocking should be used to limit lateral movement (side-walking) of the glass caused by horizontal expansion or contraction, building vibration and other causes. See page 30.

One edge block should be installed at midpoint into the deep vertical glazing pockets, or as recommended by the glass manufacturer. See DETAIL A and page 30.



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Glossary

The following list of terms is associated primarily with the manufacture, fabrication and construction of architectural aluminum entrances, storefronts, window walls, curtain walls, interior framing, and slope glazed systems. This list is meant as a guide to trade terminology, and is not intended to include an exact definition of every term likely to be used within the aluminum industry.

A

Access Door - A door, usually small, which is provided through a finished construction, as into a duct, through a ceiling, behind a wall, in a large piece of mechanical equipment, etc.; used to provide a means of inspection of equipment or services housed within.

Active Door (or Leaf) - Usually the first operating leaf in a door having a pair of leaves; the leaf to which the latching or locking mechanism is attached.

Addendum - A document that is added to a contract to amend it or is in addition to the main body of the contract.

Adjustable Astragal - An integral component with weatherstripping located within the inactive meeting stile on pairs of doors which can be adjusted to close the clearance gap for weathering purposes.

Adjustable Base Anchor - A device used to hold a door frame above the finished floor.

Adjustable Bottom Rail - Vertical stiles on an aluminum door designed to allow the bottom rail to be adjusted upward so the vertical stiles can be field trimmed.

Adjustable Door Frame - A door frame which has an adjustable jamb so that it can be installed in walls of different thicknesses.

Air Leakage - The volume of air which flows through a closed window or door in a given length of time as a result of the difference in air pressure on its opposite faces.

AIA - American Institute of Architects.

Allowable Stress - The maximum unit stress permitted under working loads by codes and specifications.

Alloy - A composition of two or more metals fused together to obtain a desired property.

Aluminum Door - A door having aluminum stiles and rails; usually glazed.

AAMA - American Architectural Manufacturers Association is a trade association of firms engaged in the manufacture and sale of architectural building components and related products.

ANSI - American National Standards Institute is an independent association of trade organizations, technical societies, professional groups and consumer organizations which establishes and publishes standards at the national level.

Anchor - Any device used to secure a building part or component to adjoining construction or to a supporting member. Also see Floor Anchor and Jamb Anchor.

Glossary

B

Back Check - A resistance to cushion and slow down the opening swing of a door before reaching the closer swing limit.

Back Member - A composite vertical or horizontal mullion consisting of two or more aluminum extrusions. The interior portion is the back member or gutter and the extreme exterior portion is the face cover. Some systems have an intermediate pressure plate which holds the glass secure against the back member with fasteners. The face cover then snaps over the pressure plate to conceal the fasteners. Also see Pressure Plate.

Backer Rod - A round compressible material, either open or closed cell, placed into voids between materials to insulate and allow a backing for the application of sealant. Backer rod is available in multiple diameters. Also see Sealant Backing.

Backing Veneer - The layer of veneer used on the reverse side of a piece of plywood opposite the face or decorative side.

Backset - *Door Backset* - Dimension from the face plane of door to the face plane of frame.

Flush Bolt Backset - The distance from the outside of the face plate to the inside surface of mounting tabs.

Hinge Backset - Depth of hinge leaf that is mortised into door stile or door jamb.

Lock Backset - Distance from the edge of the locking stile to the centerline of the cylinder, measured parallel to the face of the door.

Back Stop - A mechanical feature of a door closer which completely stops the opening swing of a door at a pre-set position.

Baffle - A material used in aluminum storefronts, fixed horizontal ribbon windows and curtain walls to impede the flow of water or air into the framing system through weep slots.

Barrier Free - The elimination of barriers or obstructions to permit ready access to and through entrance doors to physically challenged individuals using wheelchairs, crutches, walkers, etc.

Bead Molding - A small, convex molding of semicircular or greater profile; also called a half round, roundel or baguette.

Bearing Wall - A wall that supports loads in addition to its own weight.

Bevel - The angle which one surface of a body makes with another surface when they are not at right angles.

Beveled Edge - Of a door; a vertical door edge which has a slope of 1/8 in. (0.3 cm) in 2 in. (5 cm) from a plane perpendicular to the door face.

BHMA - Builders Hardware Manufacturing Association.



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Bottom Rail - The bottom horizontal structural member of a door.

Bow - A curvature along the door height, or a deviation from a flat plane from top to bottom on wood doors. Also see Warp.

Box Strike Plate, Box Strike - A metal plate on a door frame into which the bolt of a door lock projects, and which provides a complete housing that protects the bolt opening from tampering.

Box Track - A type of track used with top hung sliding doors.

Brake Metal Shape - Aluminum sheet stock bent or "broken" to desired shape, as required by specific job conditions, on a power or manual press brake. This shape is often used to cover conditions which cannot be covered by a stock extruded aluminum shape.

Brashness - Condition of wood characterized by a low resistance to shock and by abrupt failure across the grain without splintering.

Bridge - Each aluminum extrusion profile being used as a thermally broken framing member has an integral channel shaped cavity designed into it for receiving and holding poured polyurethane thermal break material during the filling process. After the polyurethane has cured, the aluminum bridge web connecting the exterior and interior portions of the extruded thermal break cavity is removed by either milling or sawing. Also see Debridging and Struct-Link™.

Bruise - To dent or mar wood by striking it with a hard object, such as a hammer.

BTU - British Thermal Unit.

Bulkhead - The bottom member of an entrance frame which forms a base for a sidelight next to the door.

Bull Nose - Convex rounding of a member, such as an extruded aluminum snap-on radius face cover used on aluminum curtain walls.

Bumpers (Sliding Door) - Stops to limit the closing or opening movement of a sliding door.

Butyl - A synthetic rubber formed by the co-polymerization of isobutylene with isoprene. It is used as a sealant and as an architectural glazing tape.

Butt - Abbreviation for butt hinge, which is a hinge designed for application to the edge of a door consisting of two rectangular metal plates joined together with a pin.

Butt Glazing - Glass panels with two sides siliconed together (butt joint) without a back-up structural mullion and two sides captured in a metal glazing pocket.



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Ceiling Plenum - In an air-conditioning system, the space between a suspended ceiling and the underside of a floor slab above, where this space is used as a plenum for return air.

Ceiling Sound Transmission - In a suspended ceiling construction, the transmission of sound between adjoining rooms by way of the path consisting of the ceiling of each room and the continuous plenum over, and common to, both rooms.

Ceiling Sound Transmission Class, Ceiling STC - A single-number rating of the sound-insulating value of a suspended ceiling between adjacent rooms.

Ceiling STC - Same as Ceiling Sound Transmission Class.

Ceiling Strap - A strip of wood, nailed to the underside of floor joists or rafters, from which a ceiling is suspended or fastened.

Ceiling Suspension System - A system of metal members designed to support a suspended ceiling, typically an acoustical ceiling. Also may be designed to accommodate lighting fixtures or air diffusers usually consisting of the following components:

- a) **Acoustical Tile** - An acoustical material in board form, usually having unit dimensions of 24 in. by 24 in. (approx. 61 cm by 61 cm) or less. Usually used on ceilings but also may be applied to sidewalls.
- b) **Carrying Channel** - In suspended ceiling construction, a three-sided metal member used to support the entire ceiling assembly.
- c) **Cross Runner** - In a suspended acoustical ceiling, a secondary member of the suspension system. Usually attached perpendicular to main runner. Also see Cross-Furring.
- d) **Hanger Wire** - A wire attached to an overhead structure used to support the framework of a suspended ceiling.
- e) **Main Runner** - A large supporting runner for a suspended ceiling; a primary member of the suspension system; usually 1 1/2" (3.8-mm) metal channels, held by hangers or rods from the building structure.

Center Hung Door - A door hung on center pivots.

Center Pivot - Swing hardware having its pivot axis on the thickness centerline of the door and normally located about 2³/₄" from the hinge jamb.

Chamfer - To bevel a sharp external edge. A beveled edge.

Change Order - A document used in construction to request and/or authorize the change of material specification or other items involved in construction.

Clerestory - An upper zone of wall pierced with windows that admit light to the center of a lofty room.



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Counterbore - To enlarge a hole to a given depth.

Countersink - To form a depression to fit the conic head of a screw or the thickness of a plate so that the face will be level with the surface.

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.

Crash Bar - The cross bar of a panic exit device serving as a push bar to actuate the panic hardware on entrance doors.

Crash Bar Housing - The housing at either end of a crash bar which is mounted on the surface of a door.

Crazing - Minute cracks in a surface or coating caused by force bending a material, such as aluminum, beyond the recommended minimum radius.

Crosscutting - Sawing across the grain.

CSI - Construction Specifications Institute.

Cup - A curvature across the door width or a deviation from a flat plane from side to side of a wood door. Also see Warp.

Cure - To change the physical properties of an adhesive or sealant by chemical reaction, which may be condensation, polymerization, or vulcanization; usually accomplished by the action of heat and catalyst, alone or in combination, with or without pressure.

Curing - The process of allowing sealants to dry and harden over a given period of time.

Curtain Wall (Aluminum) - An exterior building wall which carries no roof or floor loads and consists of a combination of aluminum, glass and other surfacing materials supported by the aluminum framework.

Cylinder - The cylindrical mechanism has a keyhole which receives the key used to operate a locking mechanism. There are two basic types of cylinders:

Mortise type - has a threaded surface for screwing it directly into a lock case and has a cam on the interior end which engages the lock mechanism.

Rim type - is mounted on the surface of a door with 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.

Cylinder Cam - Usually refers to the flat metal plate on the end of a mortise type cylinder which actuates the lock mechanism when rotated by the key.



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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.

Door Frame - An assembly of members, consisting of jambs and a header, into which a door or doors fit when closed. The door frame may also include transom lights and adjacent sidelights. Also see Threshold.

Door Holder - A hardware device designed to limit the swing of a door and hold it in an open position.

Door Jamb - One of two vertical members of a door frame. The hinge jamb is the jamb to which the hinges or pivots are mounted; the lock jamb is the jamb at the leading edge of the door where a lock bolt may be engaged.

Door Light - The glass area in a door.

Door Opening - The opening dimension of a doorway is measured from inside of jambs and from floor line to underside of frame header. The opening size is usually the nominal door size and is equal to the actual door size plus clearances and threshold height.

Door Protection Plate - Protective material applied to the face of a door and generally made of approximately 0.050 in. (1.2 mm) thick brass, bronze, aluminum or stainless steel or 1/8 in. (3.2 mm) thick laminated plastic.

Door Size (actual) - The actual width and height of the swing door leaf.

Door Size (nominal) - See Door Opening.

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.

Dote, Doat, Doze - A form of decay in which wood becomes soft and weak and has a dull lifeless appearance.

Double Acting Door - A door equipped with hardware which permits it to swing in both directions from the plane of its frame.

Double Egress Doors - A pair of swinging doors, each leaf of which swings in the opposite direction of the other.

Drip Mold - An exterior molding (extrusion or brake shape) contoured for controlling or deflecting dripping water.

Drwl - Abbreviation for drywall.



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E

Edge Band - A strip along the outside edges of the two sides and/or top and bottom of the door. High Pressure Decorative Laminate Edge Band: A separate strip of high pressure decorative laminate, applied to the edges of the stile or rail.

Edge Blocks - Short lengths of elastomeric materials located at one or both sides of a glass light to limit lateral movement ("walking") caused by horizontal expansion/contraction, minimal building sway or other factors.

Edge Clearance - The dimension between the edge of the glass or panel and its surrounding frame which is measured in the plane of the glass or panel.

Edge Cover - The dimension by which the inner edge of the frame or stop overlaps the edge of the glass or panel.

Edge Pull - A pull which is mortised into the edge of a sliding door.

Egress - Exit or way out.

Egress Side - The side of an opening from which traffic exits.

Elasticity - The condition or property of being elastic; flexibility.

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.

Electrolysis - Chemical decomposition of a metal surface by the action of dissimilar metals and moisture.

Emergency Release - A safety device other than panic hardware which permits egress through an entrance door under emergency conditions.

End Grain - The surface of wood exposed after cutting across the fibers.

Entrance - The doorway, vestibule or lobby through which one enters a building.

E.P.D.M. - (Ethylene Propylene Diene Monomer) is a type of elastomeric material which has excellent resistance to ozone, sunlight, and severe weather conditions and is ideal for outdoor service. E.P.D.M. is commonly used for pre-formed glazing gaskets.



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Glossary

Extrusion Press - A hydraulic press used for forcing heated aluminum ingots (billets) through a hole in a steel die of the desired shape.

Extrusion Pressure - The pressure available for aluminum extrusion is determined by dividing the press capacity in pounds by the cross-sectional area of the bore of the container in square inches.

Extrusion Ratio - This is determined by dividing the cross-sectional area of the bore of the container by the sum of the cross-sectional areas of the holes in the die. It is the measure of the deformation required to reduce the aluminum billet size to the extrusion size.

Extrusion Side Wall Clearance - One-half the difference between the container diameter and the layout circle. This clearance is necessary to avoid feed-in of the liquated outer surface of the extrusion billet or of the skull that may adhere to the wall of the container. Greater side wall clearances are specified for extrusions with very critical surface requirements. Also see Extrusion Circle Size.

F

Fabricate - To cut, punch and subassemble members.

Facade - The exterior face of a building, especially the principal face.

Face Clearance - The dimension measured between the face plane of a light of glass or panel and the nearest face of its retaining frame or stop.

Face Cover - The exterior snap-on cover used with composite type mullions (mullions consisting of two or more extrusions). Also see Back Member and Pressure Plate.

Face Panel - The hardwood plywood, high pressure laminate, hardboard or composition panels or combination thereof, whether flat or configured, which are used for the faces of flush doors.

Face Veneer - The decorative veneer on the face of the panel; the exposed side, be it wall paneling, furniture, cabinet or doors.

False Ceiling - A secondary ceiling formed to provide space for services (such as ductwork) above it, to change room proportions, etc; also see Suspended Ceiling.

False Door, Blind Door - The representation of a door, inserted to complete a series of doors or to give symmetry; a blank door.



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Fire Resistance Rating - The time, in minutes or hours, that materials or assemblies have withstood a fire exposure as established in accordance with the test procedures of NFPA 251, "Standard Methods of Fire Tests of Building Construction and Materials".

Fixed Door Mullion - Vertical member set in a double door opening which will allow both leaves to be active. Also see Removable Mullion.

Flake Core - Particleboard.

Flat Bar Astragal (FBA) - A 2" wide metal strip which runs top to bottom across the meeting edges of a pair of 20- minute fire rated doors to maintain fire rating.

Flat Filler - An extrusion which snap fits into a mating vertical or horizontal member to provide a continuous flat surface.

Float - A flat tool with a handle on the back; used on cement or plaster surfaces for smoothing or for producing textured surfaces.

Floor Anchor - A metal device attached to the back of a door frame jamb at its base for securing the frame to the floor. It may be either fixed or adjustable in height.

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.

Floor Deflection - The displacement of the floor from its static position, or from an established direction or plane, as a result of forces acting on the floor.

Floor Pivot - A center or offset pivot which is located at the floor or threshold of entrance doors.

Flush Bolt - A rod or bolt which is mounted flush with the edge or the face of the inactive door of a pair for locking the door to the frame at head and/or sill. A flush bolt mounted in the edge is operated by means of a recessed lever.

Flush Bolts, Automatic - A mortised bolt installed near the top or bottom of the inactive leaf of a pair of doors. The bolt holds the inactive leaf in a closed position until the active leaf is opened.

Flush Bolt Backset - The distance from the vertical center line of the leading edge of a door to the center line of the bolt.

Flush-Cup Pull - A door pull which is mortised flush into a door, having a recess to receive fingers to actuate the slide of the door.



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Grille - See Louvers.

Guard Bar - A protective bar applied to the lower portions of a door or sidelight to prevent accidental contact with glass.

Guard Rail - A railing for separation and control of traffic passing in opposite directions through automatically operated doors.

Gum Spots - Gum or resinous material of color spots caused by prior resin accumulations sometimes found on panel surfaces.

Gutter - See Back Member.

H

Hairline Joint - The fine line of contact between abutting members with the maximum joint width limited to 1/64".

Hardware for the Physically Challenged - Hardware designed specifically to accommodate the needs of the physically challenged and to provide for ease of operation and accessibility.

Hand of Door - The designation for describing the direction a door swings. Visualize your back to the hinge or pivot jamb. If the door swings right, it is a right-handed door. If the door swings left, it is a left-handed door.

Hanger (Sliding Door, Horizontal) - A member used to attach the horizontally sliding door to the track and to cause the door to roll on or in the track.

Hardboard - A product made in similar manner to chipcore (particle core) except finer wood particles are used, resulting in a denser board and, ordinarily, with one smooth hard surface and a matted back surface. It is produced in various grades of varying properties. There are numerous processes for making particle board (chipcore) and hardboard, all of which result in basically similar products.

Hardwoods - Common classification including all broad-leaved trees as opposed to the general category of the conifers, or cone-bearers, which constitute Softwoods. The hardness or texture of the wood itself has no bearing on the grouping.

Head or Header - The horizontal frame member which forms the top of a frame.

Hinge - A hardware device consisting of two rectangular plates joined together by a pin which supports the door and connects it to its frame, thus enabling it to swing open or closed.

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Infill - Various materials glazed into a framing system.

Inlay - A shaped piece of one material embedded in another as part of a surface ornamentation.

Interior Glazing - A method in which glass is secured in an opening from the interior of the building.

Insulating Glass - An integral glass unit made up of two or three individual lights of glass separated by an air space.

Interior Window Wall - Long run of fixed windows used to make an interior wall partition.

Insulation - Material that has the ability to reduce heat or cold transmission.

Intermediate Butt Hinge - A butt hinge located between the top and bottom hinges on a door.

Intermediate Pivot - A jamb mounted alignment and/or reinforcing offset pivot located between the top and bottom offset pivots on a door.

Intumescent Strip - A strip of material which expands to many times its thickness when exposed to open flames or hot gases. Used to seal off the gap between doors and door frames as well as between double doors. Intumescent strips prevent flames and hot gases from passing around the door stop into the unexposed room.

J

Jamb - The end vertical member of an aluminum framing system which terminates at the intersection of a wall. It is often referred to as a wall jamb.

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 a masonry wall and a stud anchor in a wall built with wood or metal studs.

Jamb Depth - The overall width of the frame section, also referred to as throat dimension. This is equal to the width of the wall over which the frame will be required to fit.

Jig - A device for guiding or holding a part or parts in correct mechanical alignment, either in the process of fabrication or in the final assembly of the parts.

Joining - The junction of two separate plaster applications of the same coat, usually within a single surface plane.

Joint Compound - In gypsum board construction, a compound used for taping and/or finishing joints.



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L

Labeled Frame - A frame that conforms to all the applicable requirements and procedures of the governing labeling authority and bears this authority's identification label. Usually refers to a frame with a fire label.

Laminated Glass - A sandwich of two or more lights of glass bonded together with resilient plastic interlayers.

Lap - A condition where the veneers composing plywood are so misplaced that one piece overlaps the other and does not make a smooth joint.

Lap Mounted (Sliding Door, Swinging Door) - Refers to doors mounted on the face of a wall and overlapping the opening by a prescribed dimension.

Latching Device - A spring-loaded latch bolt or a gravity operated steel bar that after release by physical action returns to its operating position and automatically engages the strike plate when the door is returned to the closed position.

Latch Lock - See Lock.

Lead Lined Door - A non-rated or 20-minute door which receives a particle core plus either one or two sheets of lead, depending on specifications. Occasionally stave core is specified in lieu of particleboard.

Lead Lined Frame - A non-rated or 20-minute door frame which receives a lead subframe.

Leaf - An individual door used either as a single or in multiples (leaves).

Level - The condition of perfect horizontal alignment.

Lever Handle - A bar-like grip which is rotated about an axis at one of its ends to operate a locking or latching device.

Light - Term for a pane or finished piece of glass. Also see Lite.

Lintel - A horizontal structural member that spans an opening at the head to carry the weight of construction above the opening.

Lite - Same as Light.

Liveload - Loads from non-permanent parts of the building (window washing and glazing rigs are liveloads).



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Medium Density Fiberboard (MDF) - The generic name for a panel manufactured from lignocellulosic fibers combined with a synthetic resin or other suitable binder and bonded together under heat and pressure in a hot press by a process in which the entire bond is created by the added binder.

Medium Density Overlay (MDO) - A paper impregnated with thermosetting resin impregnated paper applied to a door face to provide the optimum surface for paint finish.

Medium Stile - See Stile.

Meeting Stile - The stiles of the active and inactive leaves which meet when a pair of doors is closed.

Mineral Core Door - A 45, 60 or 90 minute door which receives a fire rated core.

Miter - A joint made up of two members, each of which is cut one-half the total angle of the joint.

Mortise - A rectangular cutout which is fabricated in the aluminum entrance door and/or frame in preparation to receive a lock or butt hinge.

Mortise Lock - A lock designed to be installed in a mortise on the stile of the door rather than applied to the door's surface.

MSDS - A Material Safety Data Sheet is a detailed information bulletin prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures. Information on an MSDS aids in the selection of safe products and helps prepare employers and employees to respond effectively to daily exposure situations as well as to emergency situations.

Mullion - An intermediate vertical or horizontal framing member used for separating lights of glass or panels set in a series.

Muntin - A secondary framing member used to hold panes within a window, window wall or glazed door.



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Overhead Closer - *Surface type* - an exposed door swing control and closer device mounted on the surface of a door and frame at its head.

Semi-concealed type - a door swing control and closing device mortised into the door top rail and/or frame head.

Concealed type - a door swing control and closer device concealed in the head of a door frame; has an arm which connects with the door at the top rail.

P

Panic Exit Hardware - A door locking device used on exit doors; the door latch releases when a bar located across the interior leaf of the door is pushed.

Mortise type - panic exit hardware having the lock mechanism mortised into the edge of the door or concealed within the door.

Rim type - panic exit hardware having the lock mechanism mounted on the push side of the door.

Vertical rod type, surface or concealed - panic exit hardware having latches in or on the top and/or bottom of the door, which are activated through the crash bar by a rod linkage extending vertically on or in the door stile.

Pair Matched Veneers - For pairs (or other sets of doors) used together in the same frame, or in different frames placed very close together on the same wall, the veneers should be matched so that the grains look very similar to each other, maintaining continuity.

Parallel Arm - A door closer mounted opposite the hinged stile, with the arms parallel to the floor.

Particle Board - A product made of wood chips, mixed with a bonding material, and pressed into boards or panels of stock sizes and thicknesses such as 3/4" x 4' x 8'. This is core material for thick plywood where otherwise lumber core is used. Obviously, it is a product of much higher utilization than lumber and has become highly specialized with advancing technology. The "wood chips" may be anything from shavings to finely ground particles and various combinations thereof with a high degree of sophistication in the density and character of the binder.

Particle Core Door - A non-rated or 20-minute door which receives a fibrous core of 28-32 PSI particleboard.

Patches - Matching wood pieces carefully inserted and glued into the door face after defective portions have been removed.

Pilot Hole - A hole which serves as a guide for a nail or screw, or for drilling a larger-size hole.

Plant-On - A decorative trim applied to the surface of a door. See Applied Molding.



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Puttied - See Fill.

Putty Smear - Where putty has been incorrectly placed in surrounding area of wood as well as into the open defect that the putty was intended to repair. Putty smears are not allowed where the expression "well puttied" is used.

Q

Quotation - A price quoted by a contractor, subcontractor, material supplier, or vendor to furnish materials, labor, or both.

R

Rabbet - The recess or offset formed in the frame to receive the door.

Racking - The forcing out-of-plumb of structural components, usually by wind, seismic stress, or thermal expansion or contraction.

Rafter - Beams or mullions supporting the purlins in slope glazed systems.

Rail - A horizontal door member located at the top and bottom of the door or in an intermediate location.

Rails (Wood Door) - The cross or horizontal pieces of the core assembly of a wood flush door.

Ream - To finish a drilled or punched hole very accurately with a rotating fluted tool of the required diameter.

Receptor - A channel-shaped, telescopic member which adapts the frame of a window wall or storefront system to the size of the window wall or storefront system opening; an adapter.

Reface Door - A door which needs mending by putting a new skin of veneer or laminate on it.

Removable Mullion - A door mullion which can be removed temporarily from a door frame to permit large objects to be moved through the frame.



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Sealant Backing - A compressible material inserted into a joint prior to applying a sealant to limit the depth of the applied sealant. Also see Backer Rod.

Self-Closing Doors - Doors that, when opened and released, return to the closed position.

Self-Latching Bolt - An automatic latching device that engages in a keeper to hold a door leaf in a closed position and that requires manual release.

Setting Block - A small piece of neoprene, E.P.D.M., silicone or other material placed in a frame to distribute the weight of the glass, to center the glass vertically within the frame and to prevent glass-to-metal contact. The recommended durometer for setting block material is 85 ± 5 Shore A scale. Also see Shore A.

Shear Block - A type of joinery that uses a clip (the shear block) attached to a vertical mullion. The horizontal member fits over the clip and is secured by screws driven into the shear block.

Shim - A spacer of uniform thickness and varying sizes used to plumb and level frames.

Shore A - Test used to measure the durometer (hardness) of elastomeric glazing gaskets and usually referred to as Shore A (Shore Instrument Company - Scale A). Also see Durometer.

Sidelight - The glazed frame or frames placed on one or both sides of a door.

Silicone - A chemical used as a lubricant or as a sealant.

Single Acting Door - A door mounted to swing in one direction only from the plane of its frame.

Sill - The bottom horizontal member of a framing system which rests on the floor slab.

Slope Glazed - A glass and framing assembly that is sloped more than 15° from vertical.

Smoke - The visible fine particles that pass into the air from a burning substance.

Smoke Gasketing - Gasketing used to inhibit the passage of smoke through a door and door frame assembly. Labeled smoke gasket will be tested to UL-1284 and NFPA 105-1993 for both ambient smoke (75(F/24(C) and hot smoke (400(F/204(C).

Snowload - Loads imposed on slope glazed structures by the accumulation of snow.

Softwoods - These are the coniferous or cone-bearing trees, the Gymnosperms as described in comparison under Hardwoods.

Span - Distance between centers of supports of a truss, beam or girder.

Soffit - The exposed undersurface of any overhead component of a building, such as an arch, balcony, beam, cornice, lintel, or vault.



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Strike Jamb - See Door Jamb (lock jamb).

Strike Plate - A metal plate or box which is set in a doorjamb and is either pierced or recessed to receive the bolt or latch of a lock, fixed on a door. Also see Box Strike Plate.

Strut Guide - In a door frame, a metal piece within the throat opening of the frame; serves as a guide for the ceiling strut.

Struct-Link™ - The process of intermittently debridging the aluminum thermal cavity leaving a small portion intact to create a structural link between the exterior and interior surfaces without compromising materially the thermal performance of the system. Also see Debridging.

Structural Glazing - High modulus silicone is used to transmit the loads from the glass to the building structure or the aluminum members behind.

Stud - An upright post or support, especially one of a series of vertical structural members which act as the supporting elements in a wall or partition.

Stud Anchor - An anchor used in a wall built with steel or wood studs.

Stud Driver - A device for driving a hardened steel nail (a stud) into concrete or other hard material; the driver, containing a stud, is held against the concrete; then a blow on the head of the driver forces the stud into the concrete.

Stud Gun - A stud driver in which the impact is provided by the firing of a blank cartridge.

Stud Opening - A rough opening in a wood or metal stud framework.

Stud Partition - A partition using studs, as the vertical structural members; usually faced with wallboard.

Stud Shooting - Inserting studs by means of a stud gun.

Stud Wall - See Stud Partition.

Subframe - A supporting frame installed prior to and concealed by a finished door frame.

Subsill - An aluminum extruded profile installed beneath the primary sill of a framing system specifically designed to function as a secondary defense for collecting infiltrated water which is then weeped to the exterior.

Surface Bolt - A rod or bolt mounted on the face of the inactive door of a pair, to lock it to the frame and/or sill; operated manually by means of a small knob.



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Thermal Break - An insulating material of low thermal conductivity placed between materials of high conductivity within the system itself to inhibit the flow of cold or heat.

Thermal Cavity - The hollow, channel or void provided in the extruded framing member into which the liquid thermal break material is poured.

Thermal Expansion and Contraction - 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.

Thermal Stress - Strain on the edges of a glass pane caused by the faster expansion rate of the center of the light when exposed to heat.

Thermal Transmittance (U Value) - The time rate of heat flow per unit area under steady state conditions through a body for a unit air temperature difference on the two sides of the body.

Thermally Improved - Framing systems which for the most part have a continuous thermal isolator between the exterior and interior aluminum framing members but which have intermittent contact between the exterior and interior by a highly conductive material such as aluminum or a steel fastener used on popular pressure bar framing systems creating a thermal short circuit.

Thin Stile - See Stile.

Three Point Latch - A self-latching device designed to latch a door at the top, bottom and edge by an interconnected mechanism so that all latches operate simultaneously.

Throat Opening - The inside dimension between the flanges on channel shaped extruded aluminum framing systems which fit over the dry wall construction at door and borrowed light openings. The most common throat openings are designed to fit over 3 1/2", 3 3/4", 4 5/8" and 4 7/8" dry wall construction.

Threshold - The lower horizontal member of a door frame extending from jamb to jamb that lies directly under a door and is set on the floor. Thresholds are not required on all door frames.

Throw - The distance which a lock bolt or latch bolt projects when in the locked position.

Thumbturn - A permanently attached small lever which, when turned, operates the bolt on a dead lock in the same manner as a key.

Top Rail - The top horizontal structural member of a door.

Transom - The frame area immediately above a door opening which contains fixed glass or an operating sash.

Transom Bar - The horizontal frame member (header) which separates the door opening from the transom.

Transom Frame - A door frame with a transom bar, and glass, a panel, or a louver above the door opening.



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V

Valley - The trough or gutter formed by the intersection of two inclined planes on a roof. The inclined planes are perpendicular to each other.

Vault - An arched structure forming the supporting structure of a ceiling or roof.

Veneer - A thin surface layer glued to a base of inferior material. To overlay (a surface) with a thin layer of a fine or decorative material.

Veneer Joint - The line of juncture between the edges or ends of two adjacent sheets of veneer.

Vestibule - A small entrance hall or passage between the outer door and the interior of a building.

Viewer - A viewing device installed in a door to permit observation of persons opposite the security side of the door without having to open the door.

Vision Panels - Metal frames which are used for holding glass in light cutouts of wood doors. May be used in non-rated or rated doors.

W

Walking Beam Pivot - A form of retractable top center hung pivot.

Wall Size - The total horizontal dimension of a wall over which a frame will fit. Also see Throat Size.

Warnock Hersey International - A testing and labeling agency similar to Underwriters' Laboratories which provides certification that doors, doorframes, windows and hardware have passed ASTM E-152 when fabricated according to specifications using certified materials.

Warp - Any distortion in the plane of a wood door itself and not its relationship to the frame or jamb in which it is to be hung. The term "warp" includes bow, cup and twist.

Glossary

XYZ

Zinc Chromate - A bright yellow stable pigment used in paint and metal primers as a rust inhibitor.