



SECTION 081216

**AVALON
INTERNATIONAL
ALUMINUM**

INTERIOR DOOR FRAMES

WWW.AVALONINT.COM | 503.885.9494

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BEST IN THE BUSINESS

QUICK FIELD INSTALLATION

CUSTOM DESIGN & EXPEDITING

PRE-CUT, BOXED, & TAGGED PER OPENING





WELCOME TO **AVALON** INTERNATIONAL ALUMINUM

CUSTOMER SERVICE

For over 40 years, AVALON has been a leader in producing aluminum interior door frames & glazing components, recognized by architects nationwide.

CUSTOM DESIGN

The unparalleled choice for architects seeking top tier aluminum door frames & glazing components.

QUALITY

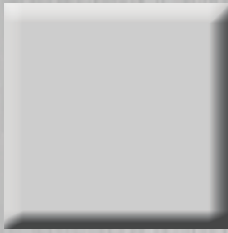
We stand out as the sole provider of the comprehensive Eagle series, catering to non-rated & aluminum 45 minute glazing systems. Architects have favored AVALON's fire-rated frames for over two decades, making them the preferred choice for pre-finished aluminum door frames, sidelites, & glass aluminum doors.

INNOVATION

In 1996, AVALON INTERNATIONAL was unveiled as a contemporary company with new products genuinely demonstrative to our legacy of excellence. AVALON exceeded all expectations with the introduction of an unprecedented new product line; an all new 45-minute Fire-Rated Aluminum Sidelite & Borrowed lite system.



POWDER COATING



Clear Anodized



Standard Black



Standard Bronze



Standard White



Champagne



Standard Grey

Far superior to the liquid paints typically used in the aluminum door frame industry & much more consistent than color anodized finishes.

All AVALON frames manufactured in our facility are finished with the highest quality powder coatings available.

An epoxy-polyester hybrid is used, which blends the extreme durability of epoxy finishes with the resiliency of a polyester coating.

AVALON can offer a much wider range of colors than those shown, ranging from soft pastels & exotics to veined metallics.

Powder coatings offer vastly superior quality of adhesion & also have a much higher level of impact resistance.

The nicks, scratches, & production contaminations, normally seen in frames with a liquid finish will simply not be found in our powder coating. Additionally, powder will offer a smoother, more attractive finish that can be achieved in a wide range of gloss levels. Coverage is always consistent as the application process ensures a uniform coating density, texture, surface roll, & thickness across all surfaces.



No Solvents or VOCs

No Dangerous Substances

No Toxic Compounds

**ANTI-MICROBIAL
POWDERS**

Prohibits Growth &
Reproduction of Bacteria

NOTE: Colors shown on this page are ink representations only. Colors may vary on actual products.

EAGLE FRAME

Aluminum Frames With Glazing

Non-Rated / 20 - 45 Minute Fire-Rated

Pat. No. US 10,871,024 B2



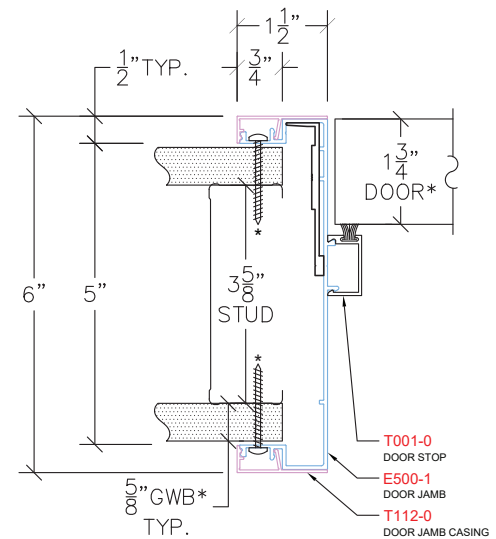
EAGLE is the first aluminum frame to carry a 45 minute fire-rating on sidelite, borrowed lite, & transom applications. The EAGLE series was approved for fire ratings of 20 & 45 minutes.

Sizes up to 6'-0" x 9'-0" (wall combinations from 3-1/2" to 16-1/2") have been shown to meet or exceed the criteria prescribed for ASTM E-152, UL IOB, NFPA 252, CSFM 43.7, UBC 43.2 & CAN4 S-104 for 45 minute fire-rated assemblies.

STC 53 FRAMES AVAILABLE (INDEPENDENTLY TESTED)

EAGLE is a "Snap" to Erect

Headers & jambs fit smoothly into the rough opening, to be easily plumbed & secured. It is then a simple matter to attach the hardware & hang the door. EAGLE's unique casing, which snaps on last, overlaps & hides wallpaper cuts & paint splatters. Profiles are available in standard 1-1/2" or 2"



E100 - DOOR JAMB

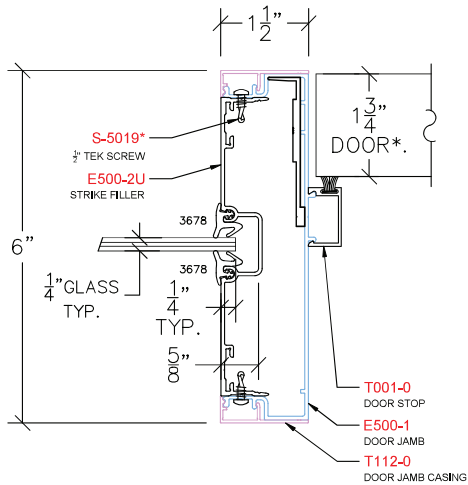
ADDITIONAL CASING SIZES AVAILABLE



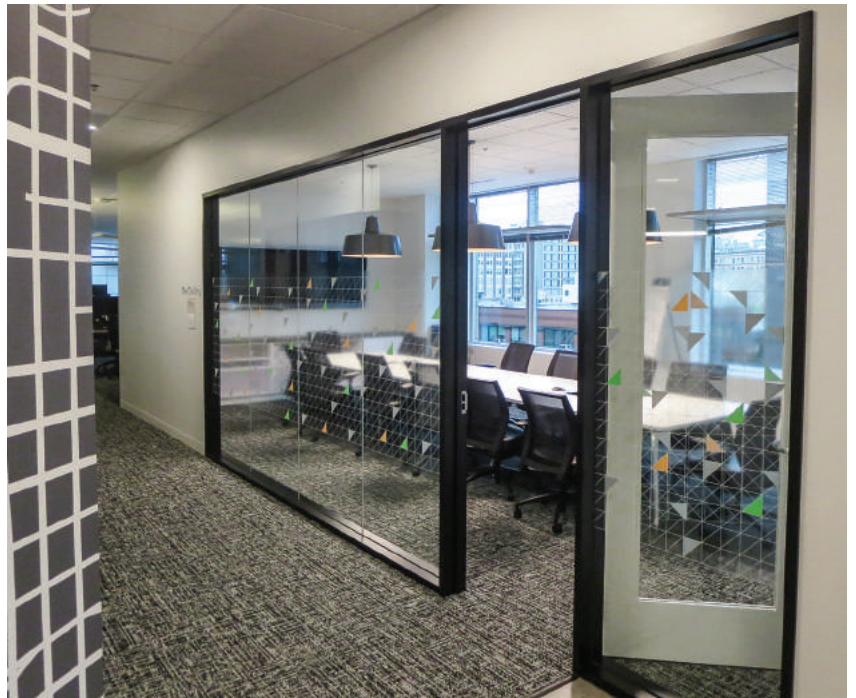
5th Annual **Construction & Engineering Awards 2020**
Avalon International Aluminum was awarded:

- **Leading Manufacturer of Interior Aluminum Frames** North America
- **Most Advanced Aluminum Framing System**
Eagle Series Interior Aluminum Framing System

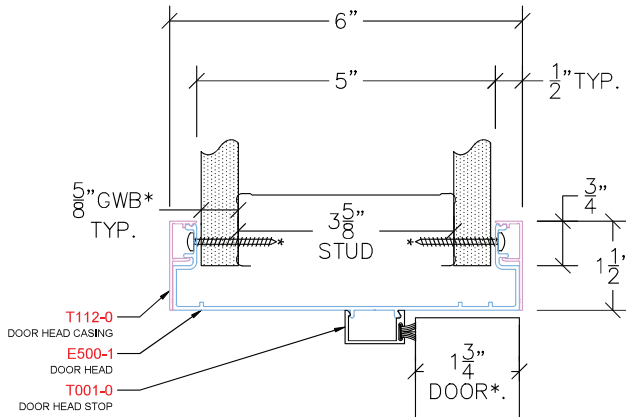
EAGLE FRAME



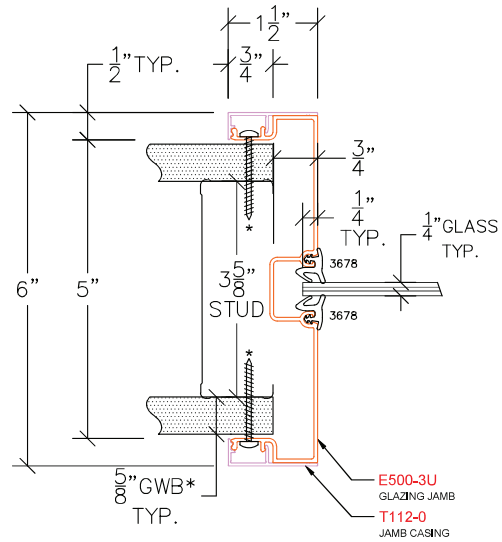
E150 - DOOR JAMB SIDELIGHT



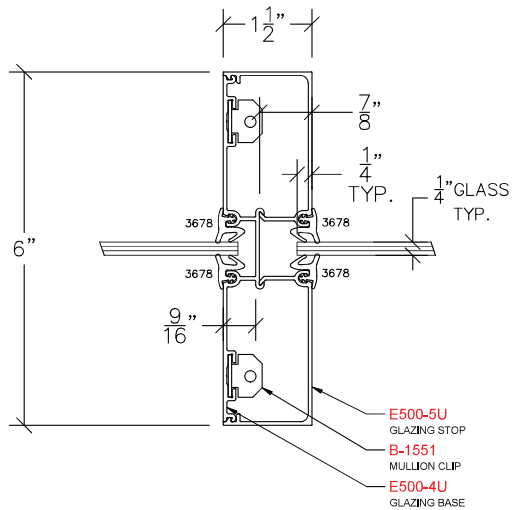
NO SILL STARTER/ BLOCKING NEEDED



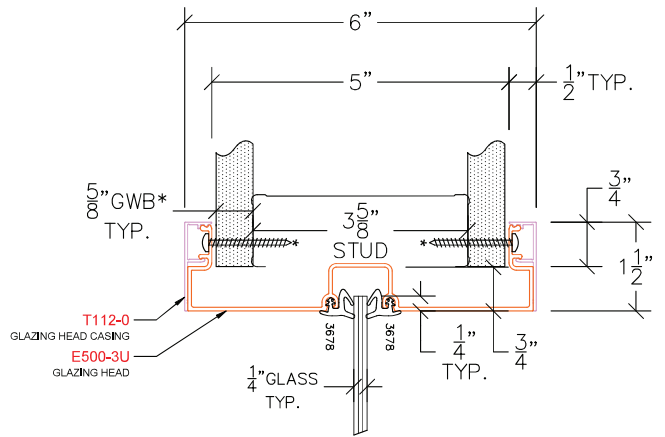
E200 - DOOR HEAD



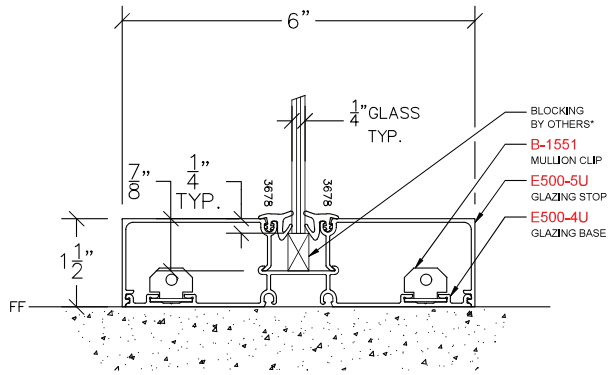
E300 - GLAZING JAMB



E305 - GLAZING INTERMEDIATE VERTICAL



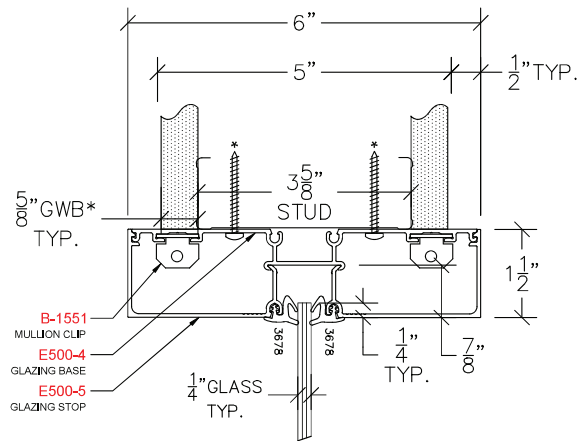
E400 - GLAZING HEAD



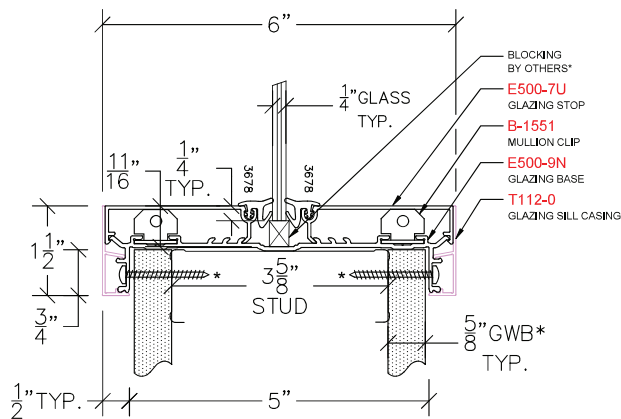
E420 - GLAZING SILL

ALL THROATS FEATURE:

- FLUSH GLAZING
- 3-1/2" TO 16-1/2" WALLS IN 1/8" INCREMENTS



E425 - GLAZING HEAD



E430 - GLAZING SILL KNEEWALL



NO FIELD NOTCHING OF TRIM REQUIRED

PHOENIX FRAME

90 Minute Aluminum Door Frame



PHOENIX was the first aluminum door frame to meet or exceed the criteria specified in ASTM E-152, UL 10B, NFPA 252, CSFM 43.7, UBC 43.2 & CAN4 S-104 for 90 minute fire-rated assemblies.

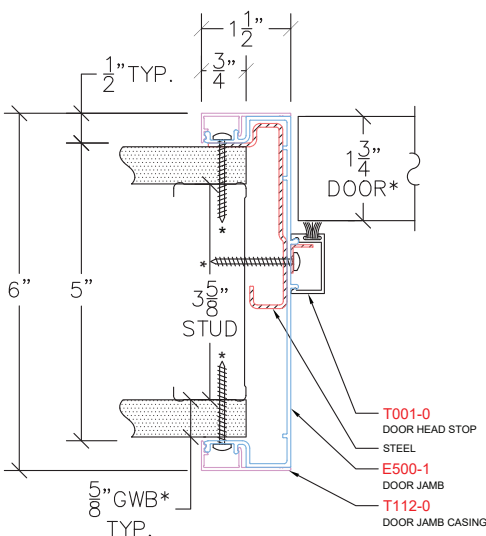
PHOENIX units can be used with prefinished or unfinished wallboard & are shipped with steel components pre-installed for convenient installation; including all installation hardware.

Design continuity in color & profile configurations can be maintained without job site finishing, since PHOENIX is factory finished & design coordinated with AVALON's non-rated/ 20/ 45 minute Eagle series.

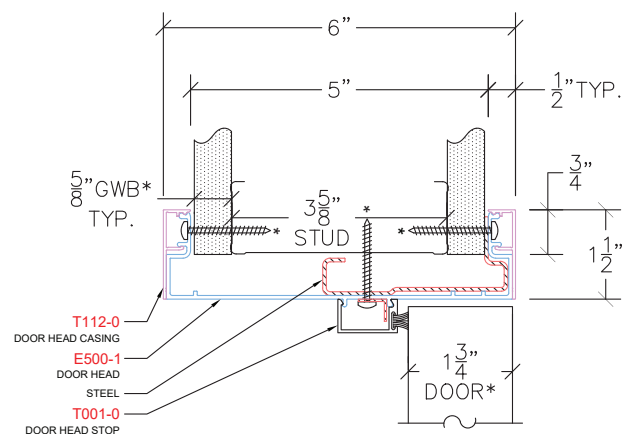
AVAIL. THROAT SIZES:

- 2-1/4" TO 16-1/2" IN 1/8" INCREMENTS
- 1-1/2" & 2" FACE

-MULTIPLE HARDWARE PREPS AVAILABLE
 -MAXIMUM SIZE 8'-0" - 10'-0" AVAILABLE

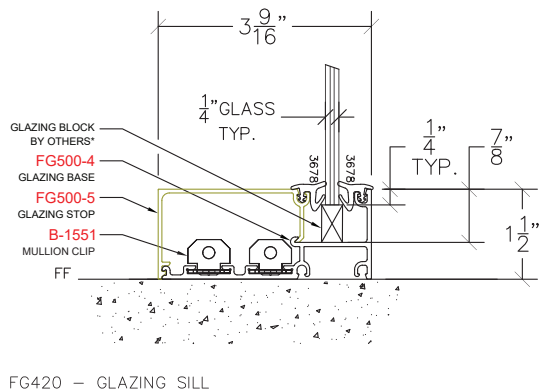
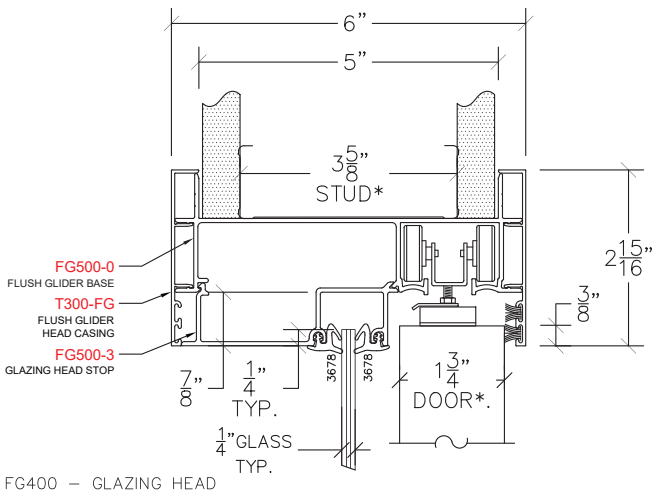
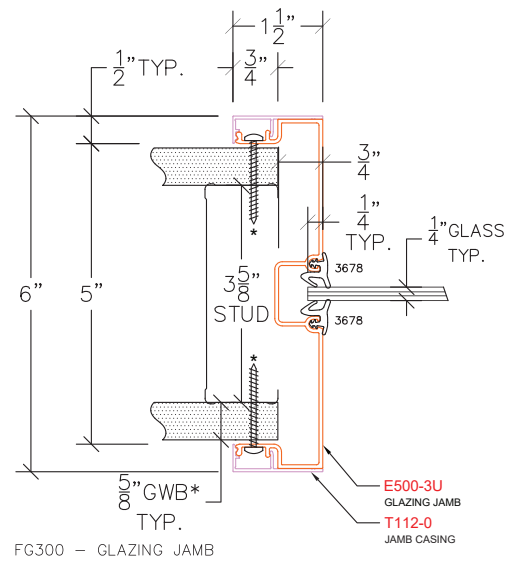
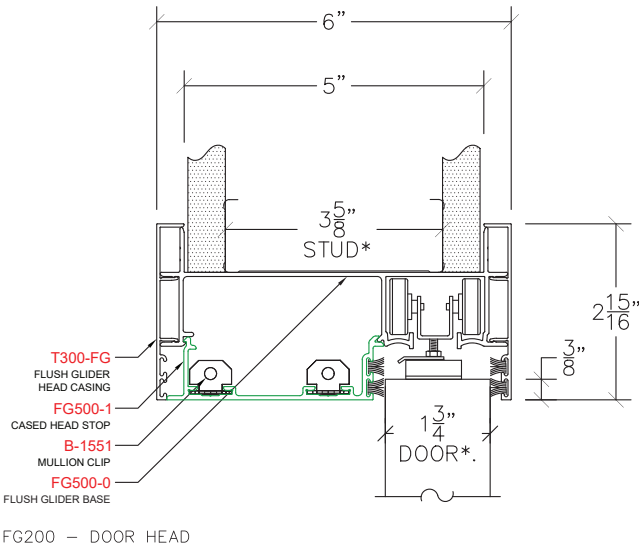
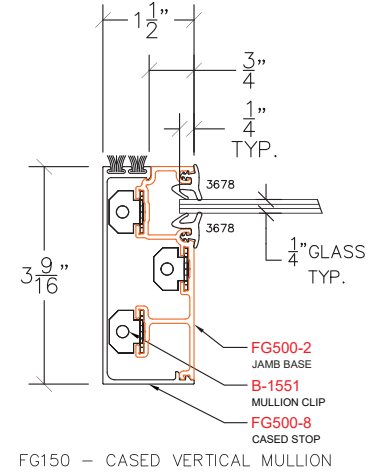
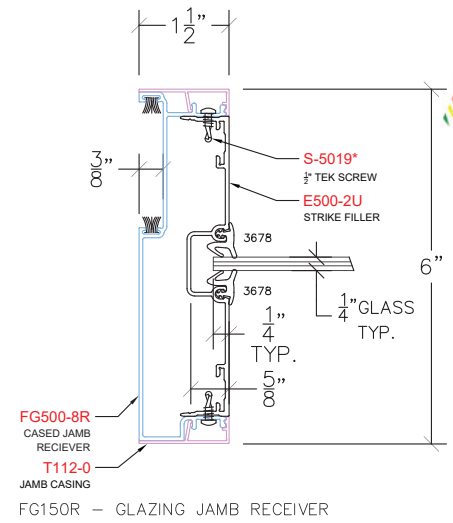


P100 - DOOR JAMB



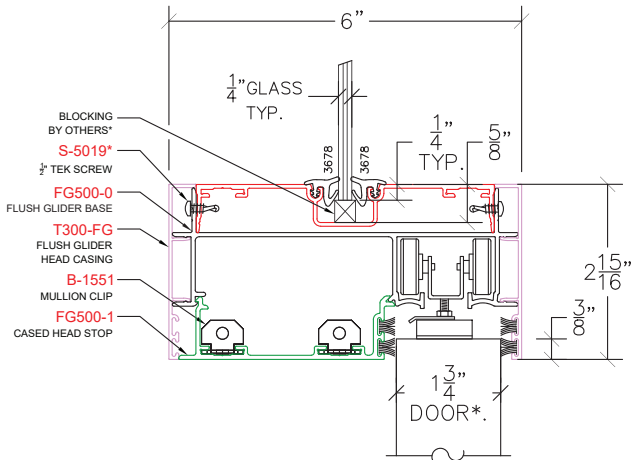
P200 - DOOR HEAD

FLUSH GLIDE



FLUSH GLIDE WITH TRANSOM

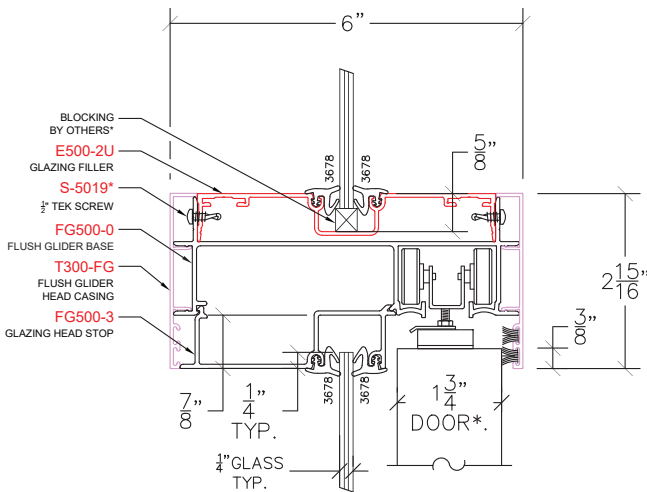
Exclusive double wool pile for superior sound attenuation



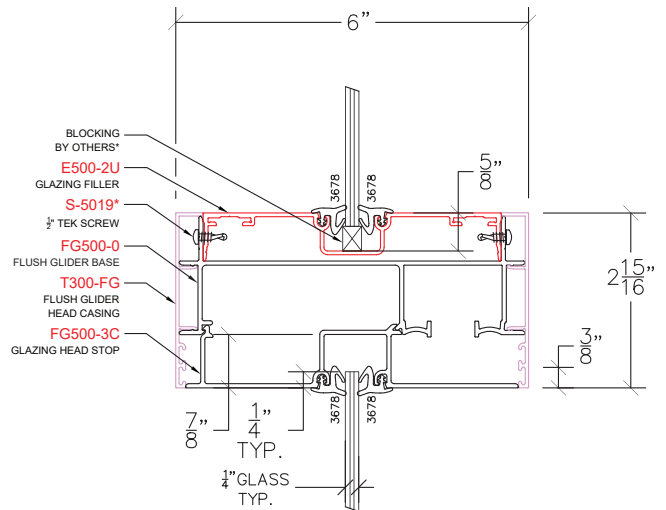
FG216 – DOOR HEAD W/ TRANSOM



FLUSH GLIDE SYSTEM AVAILABLE IN 5" THROAT



FG426 – GLAZING HEAD W/ TRANSOM

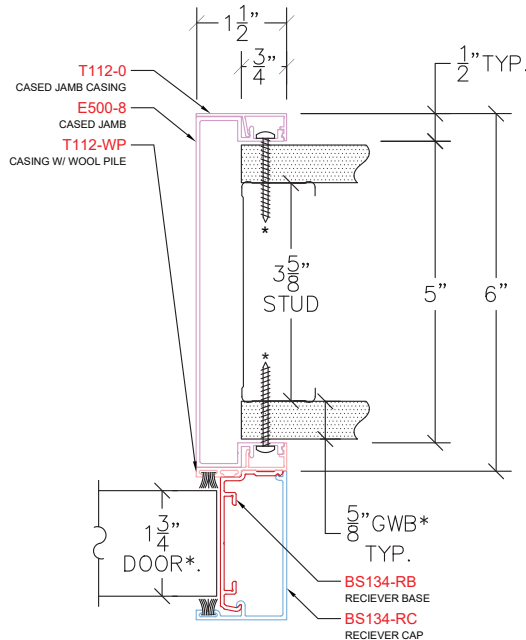
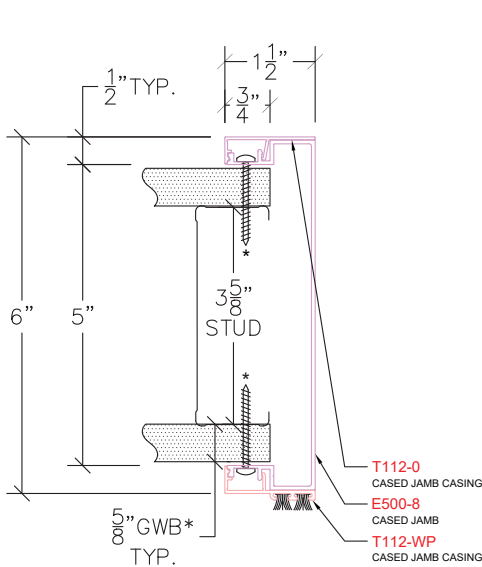
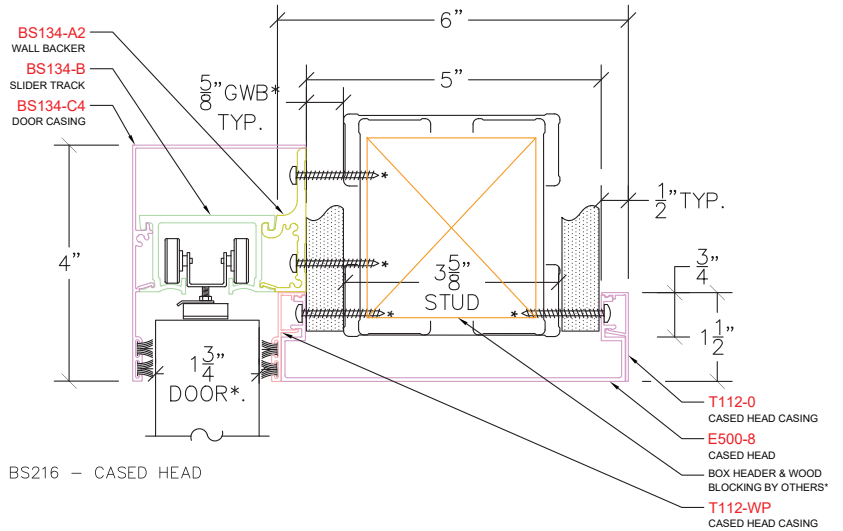
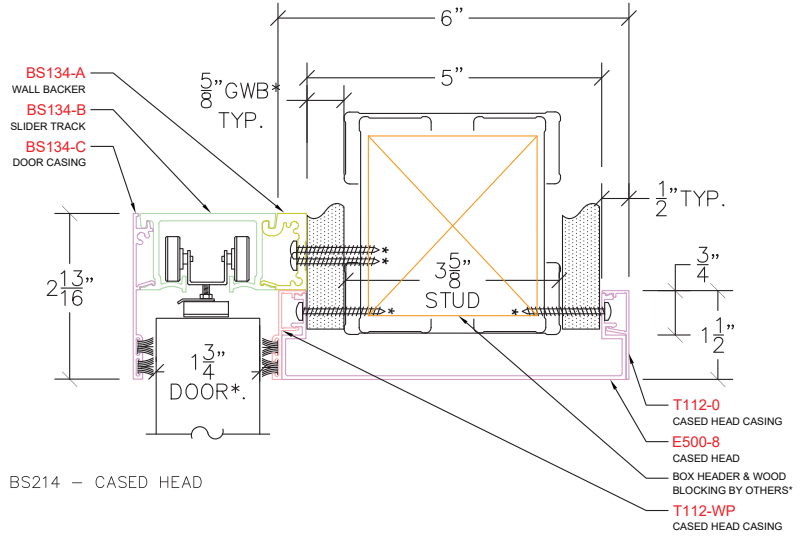


FG426C – GLAZING HEAD COVERED W/ TRANSOM

BARN DOOR SLIDER



Exclusive double wool pile for superior sound attenuation



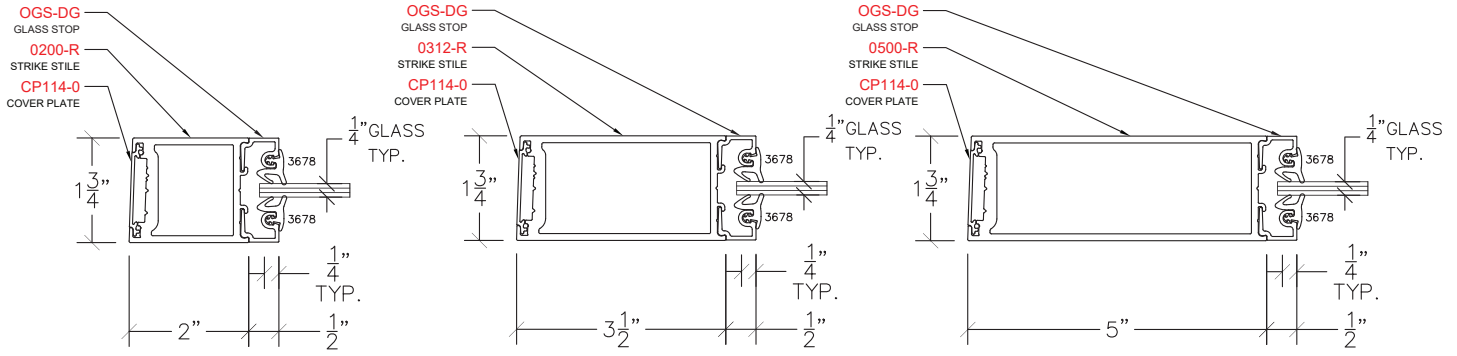
Available Options:

- Pocket Doors
- Bypass Doors

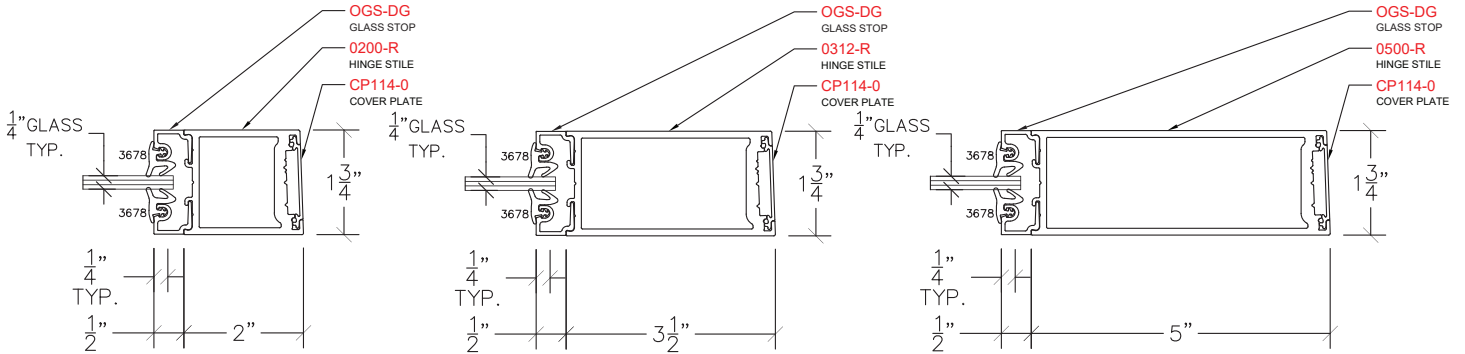
Compatible With:

- 1-3/4" Doors
- 1-3/8" Doors

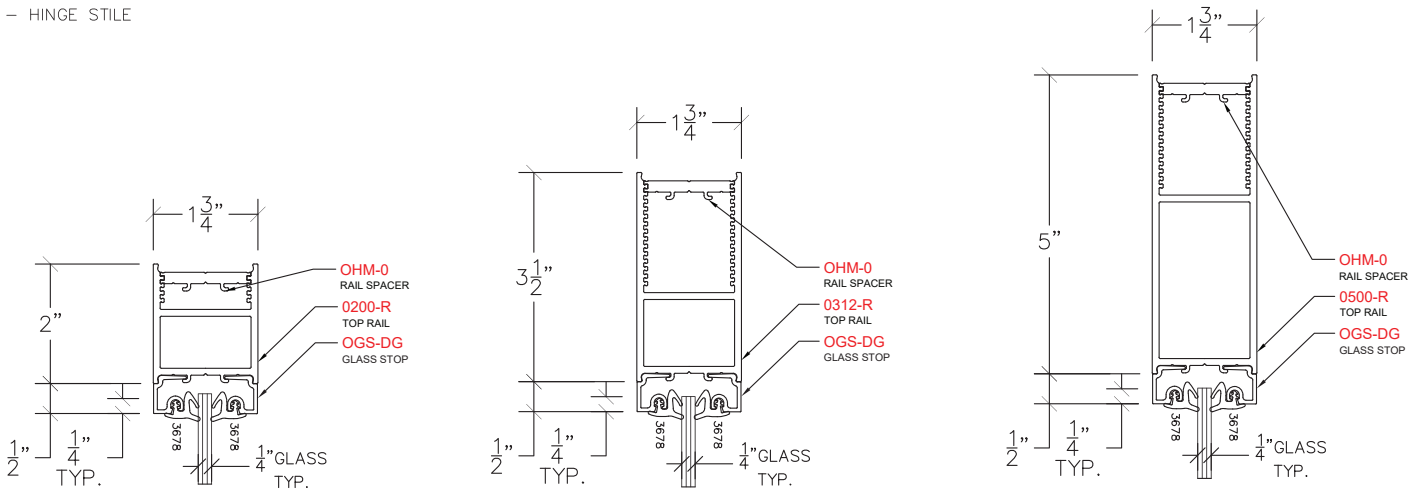
AVALON DOORS



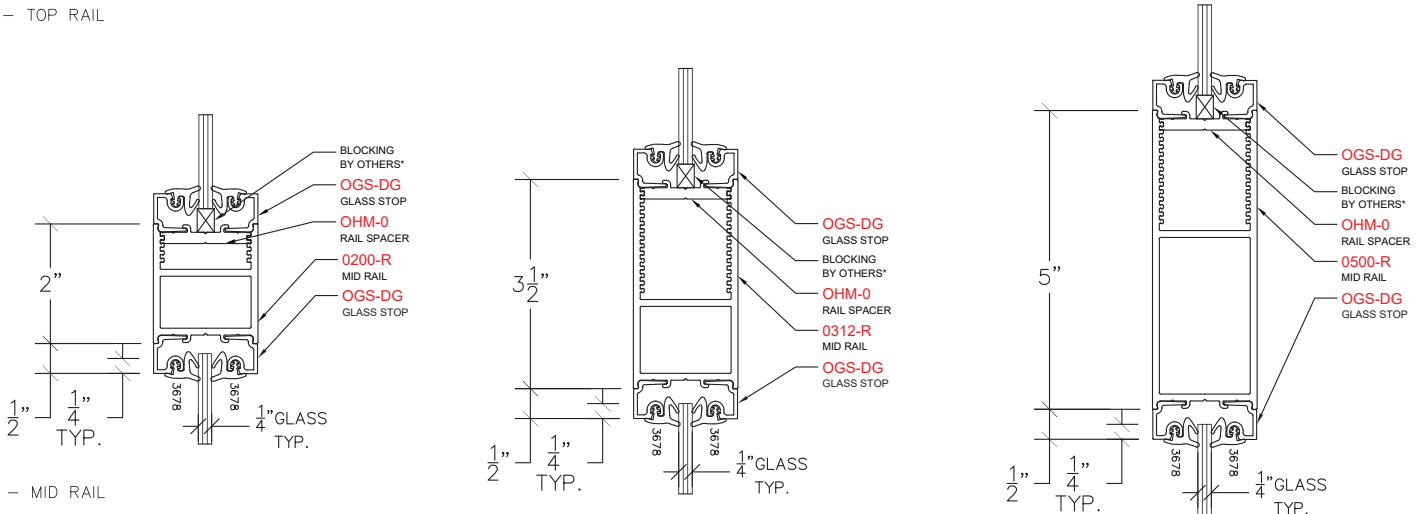
SS - STRIKE STILE



HS - HINGE STILE



TR - TOP RAIL



MR - MID RAIL



**1/4" to 2-1/2"
Glass Thickness**

**1" Insulated
Glass**

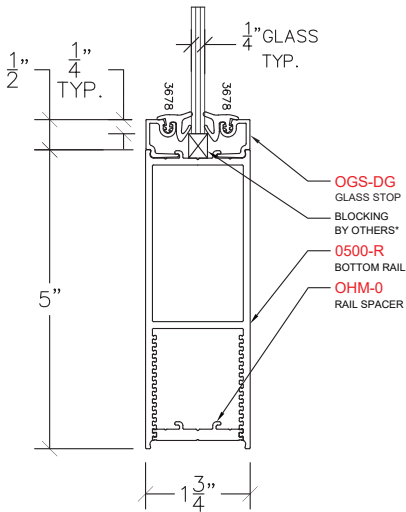
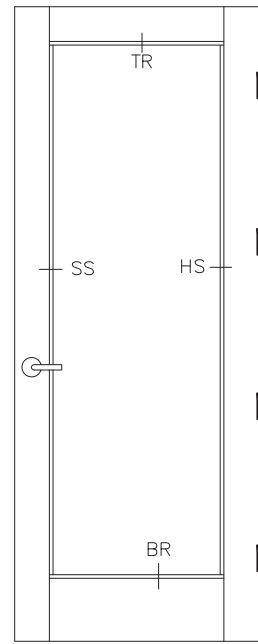
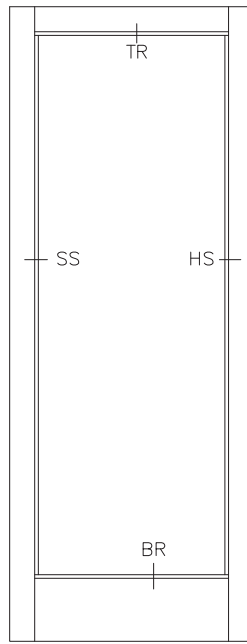
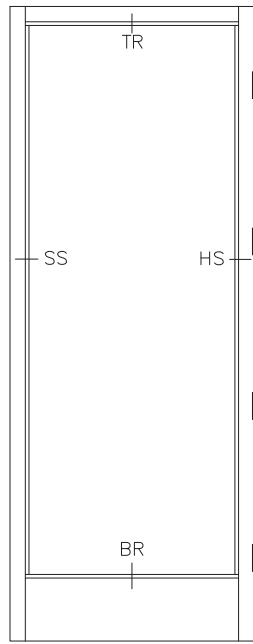
**1" Integrated
Blind Units
(Page 21)**

Inset Panel

NARROW

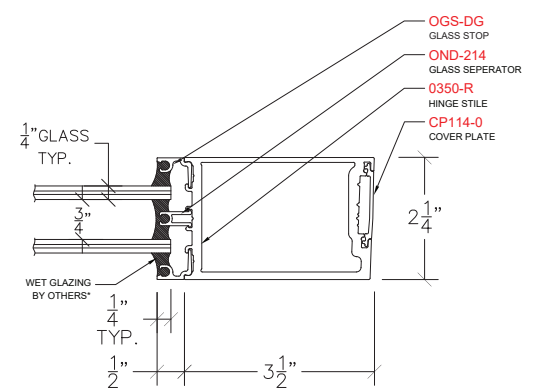
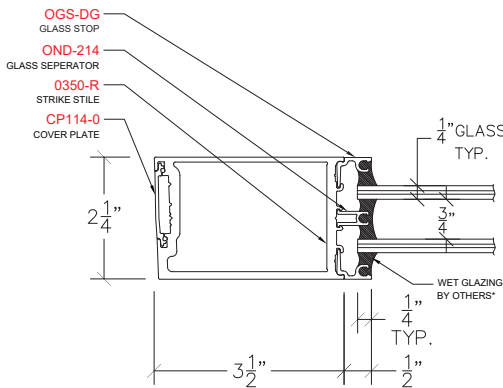
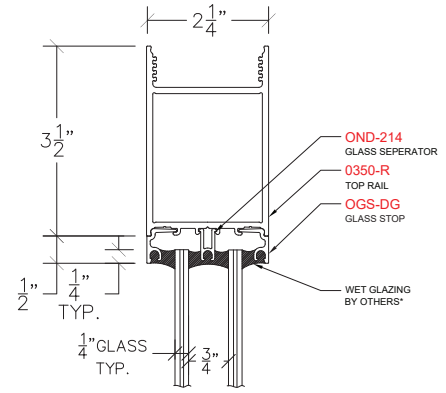
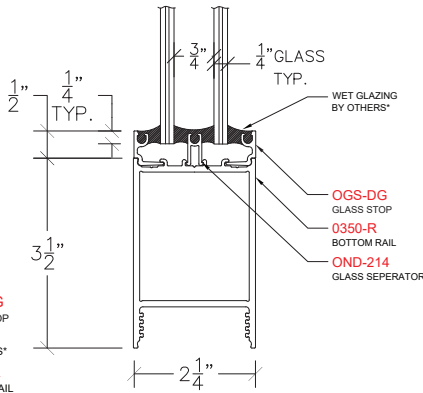
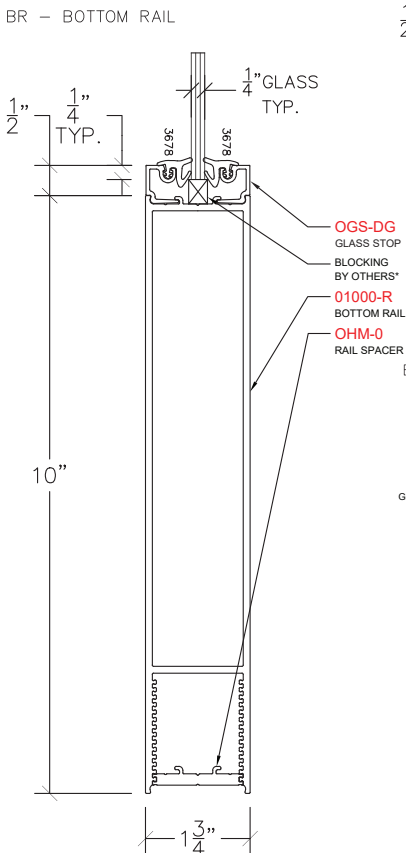
MEDIUM

WIDE



- » BOTTOM RAILS AVAILABLE IN OTHER SIZES
- » STANDARD WIDE STILE DOOR HARDWARE PREPS INCLUDED
- » 10- LINE BORED LOCKSETS & 4.5" x 4.5" BUTT HINGES

DOUBLE GLAZED DOORS



BR - BOTTOM RAIL

SS - STRIKE STILE

HS - HINGE STILE

HARDWARE PREPARATIONS

STANDARD PREPS

4-1/2" x 4-1/2" Hinges

ANSI Strike

No Extended Lip Strike Required

AVALON SPECIALTY FEATURES

1" Wide Door Stop

No Additional Bracket needed for Parallel Arm Closer

Heavy-duty All Aluminum Hinge Backer

Mitre Corners Available

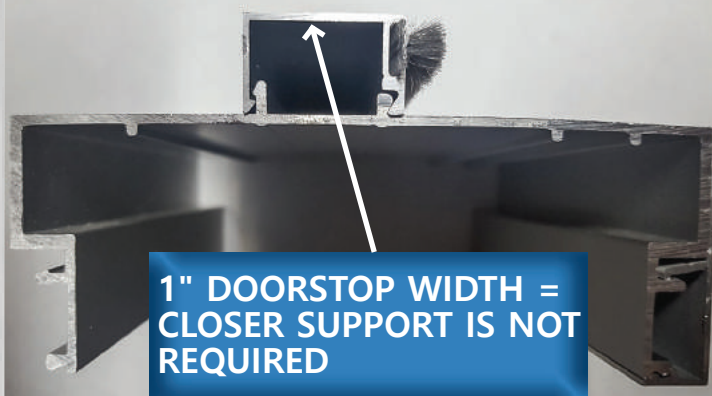
Double-Egress Frame

No Trim Notching Required



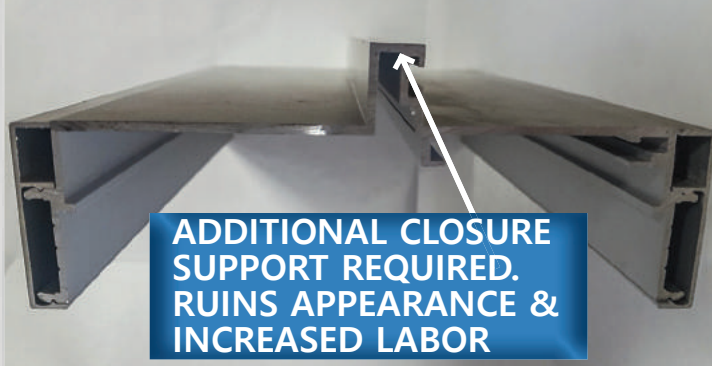
E-STRIKE

AVALON STANDARD



-.062" TO .125" EXTRUSION THICKNESS

COMPETITORS



PREMIER PREPS

Heavy Weight Hinge preps

Electric Hinge preps

5" x 5" Hinge preps

CUSTOM PREPS

Concealed Closers

EPT – Concealed & Hinge types

Electric Strikes - All types

SOSS Hinges - Concealed Hinges

Concealed Overhead Stops

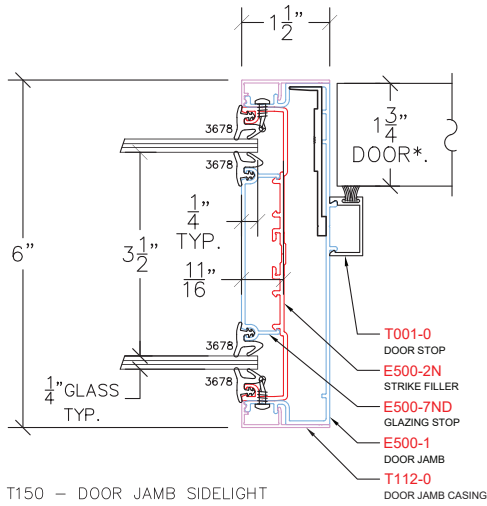
Flush Bolts

*Backers Included & Installed

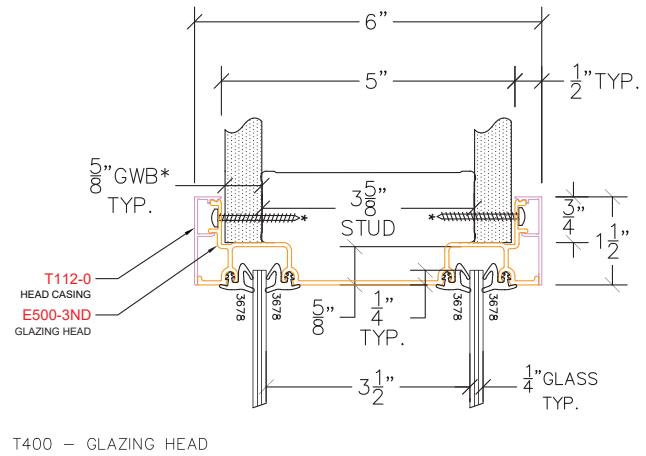
INDEPENDENTLY TESTED STC of 53



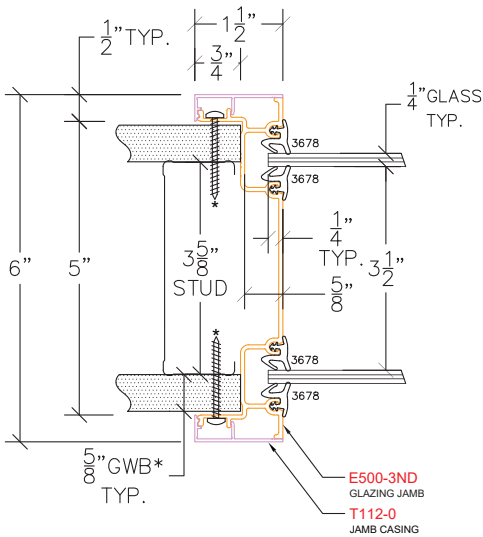
TACITUS



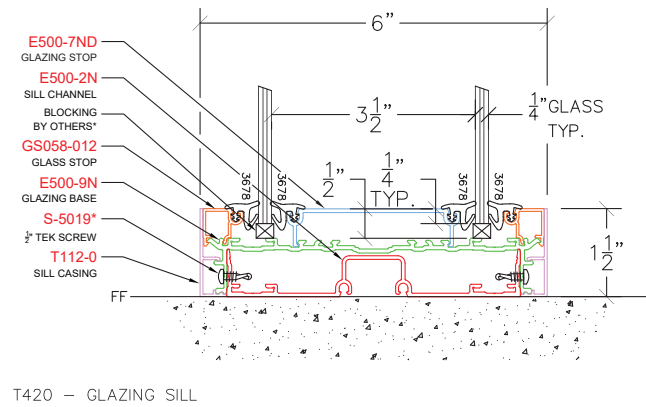
T150 - DOOR JAMB SIDELIGHT



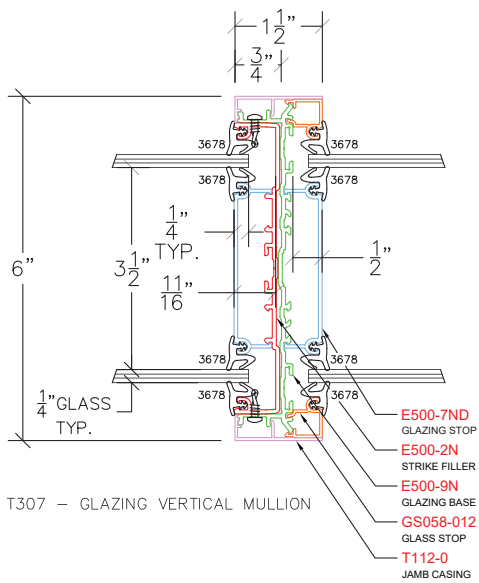
T400 - GLAZING HEAD



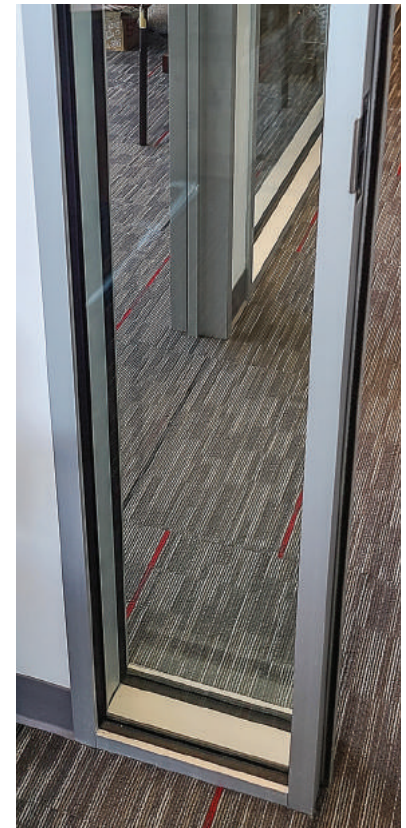
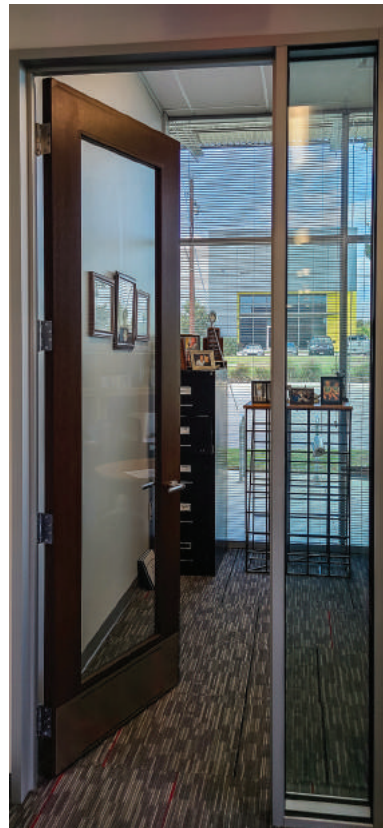
T300 - GLAZING JAMB



T420 - GLAZING SILL



T307 - GLAZING VERTICAL MULLION

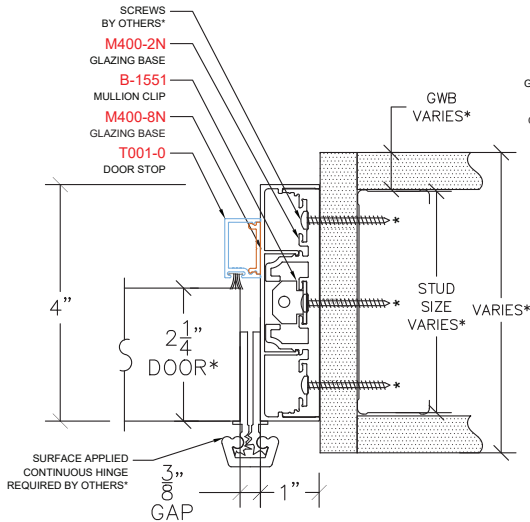


SIDELITE SYSTEM INDEPENDENTLY CERTIFIED WITH STC-53 RATING

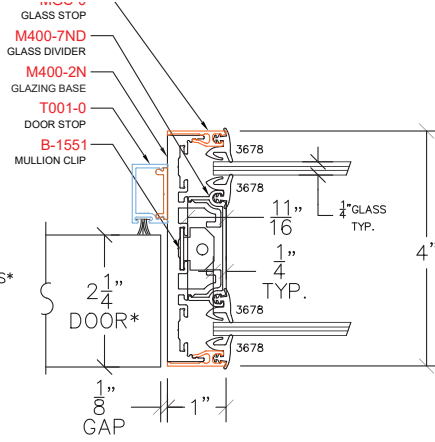
DEMOUNTABLE

When Specified under Div. 102219, AVALON Demountables Qualify for Section 179 Tax Deductions

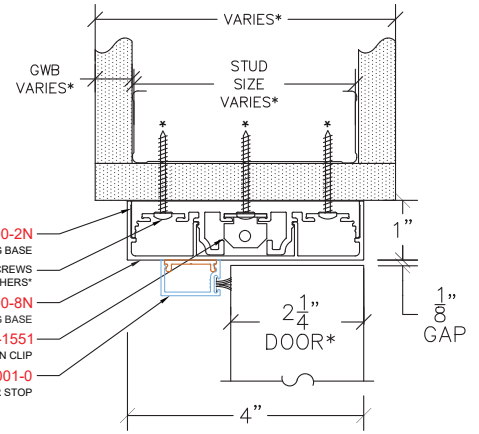
1" FACE DOUBLE GLAZED



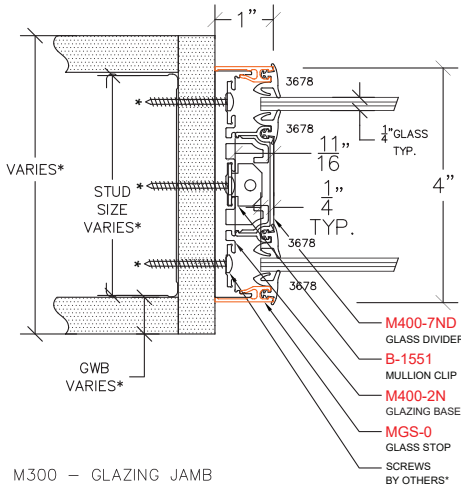
M100 - DOOR JAMB



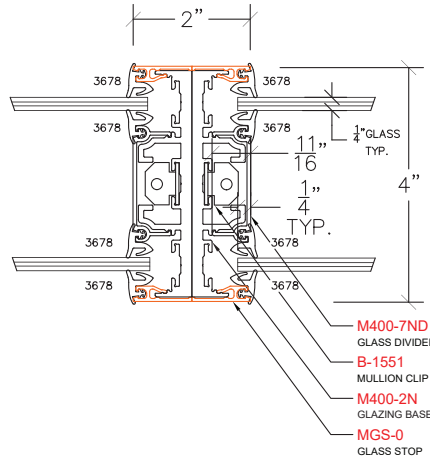
M150 - DOOR JAMB SIDELIGHT



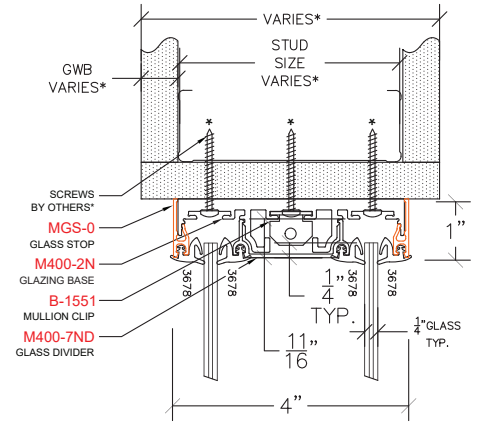
M200 - DOOR HEAD



M300 - GLAZING JAMB

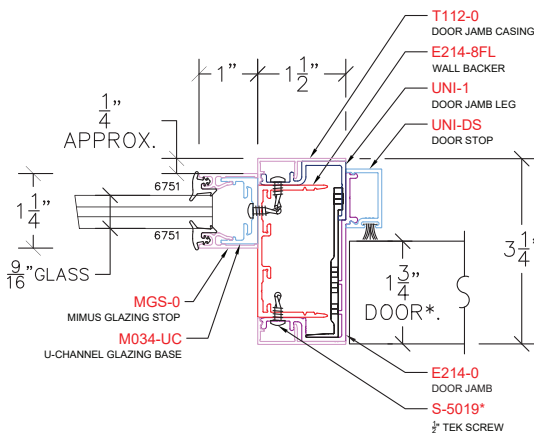


M305 - GLAZING VERTICAL

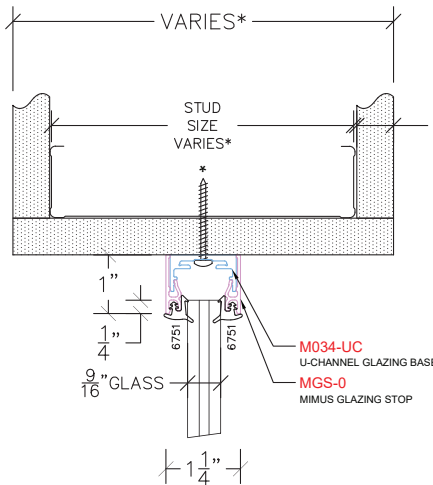


M400 - GLAZING HEAD

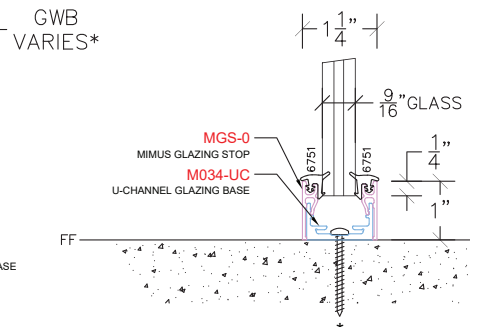
1" FACE U-CHANNEL



M150 - DOOR JAMB SIDELIGHT



M400 - GLAZING JAMB

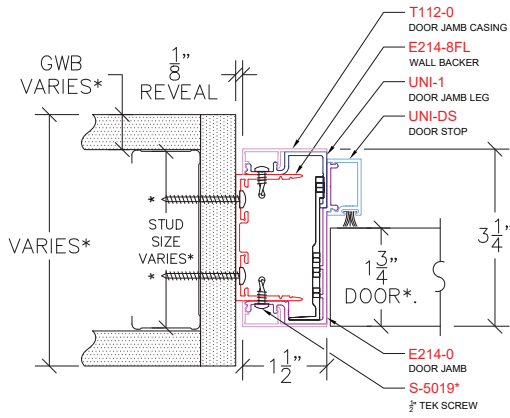


M420 - GLAZING SILL

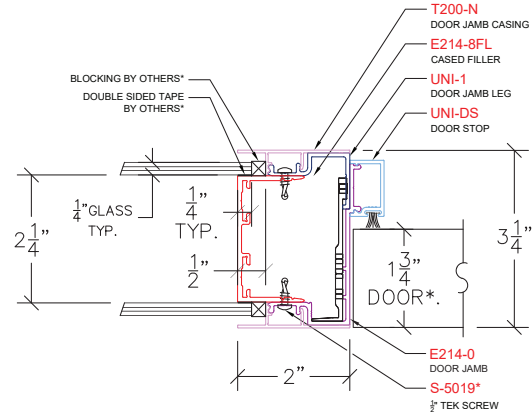
EXPOSED VITRUM SECTION LEG VIEWS - 1 1/2" DOUBLE GLAZED



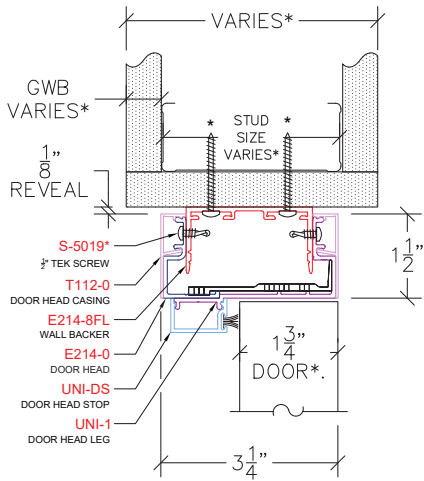
DEMOUNTABLE



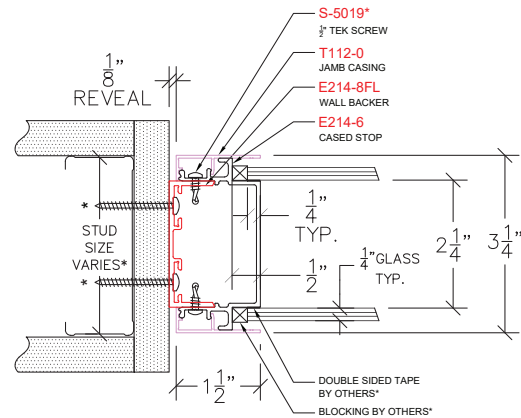
EV108 - DOOR JAMB



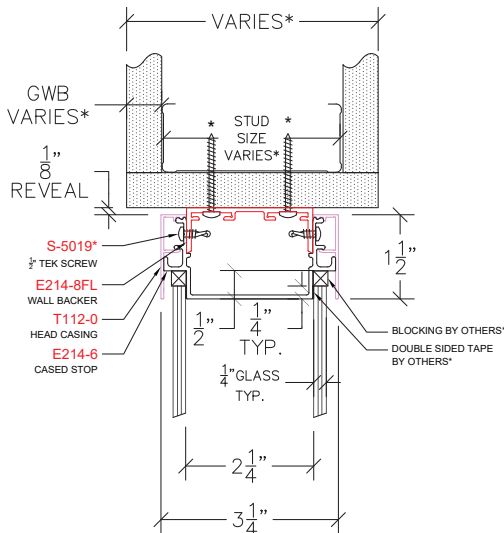
EV150 - DOOR JAMB SIDELIGHT



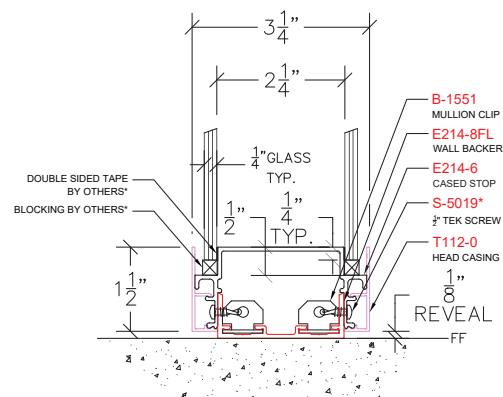
EV208 - DOOR HEAD



EV308 - GLAZING JAMB



EV408 - GLAZING HEAD

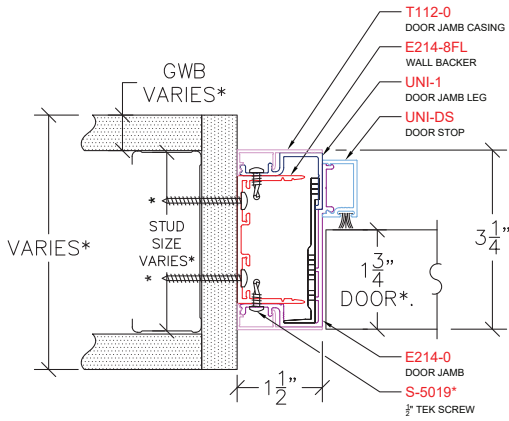


EV420 - GLAZING SILL

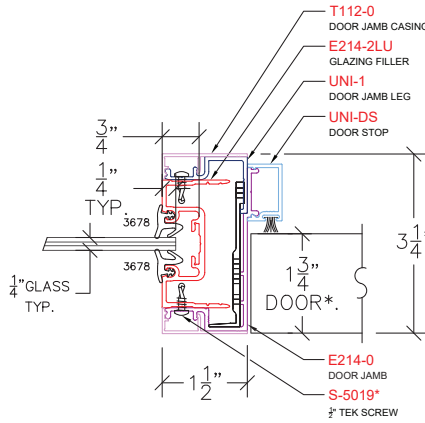
DEMOUNTABLE

When Specified under Div. 102219, AVALON Demountables
Qualify for Section 179 Tax Deductions

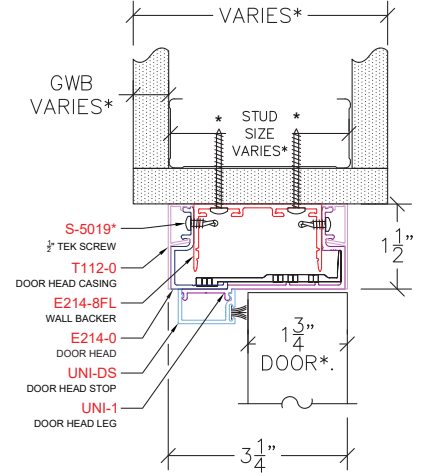
EAGLE SECTION VIEWS - E214



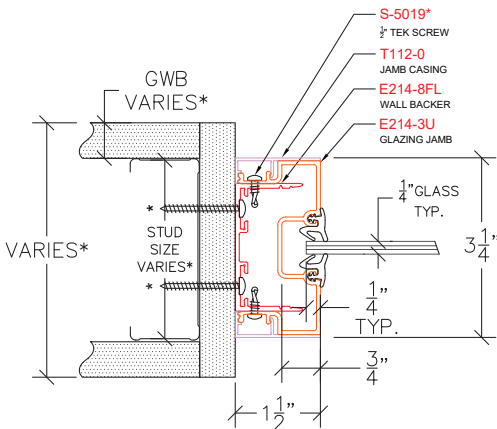
E108 - DOOR JAMB



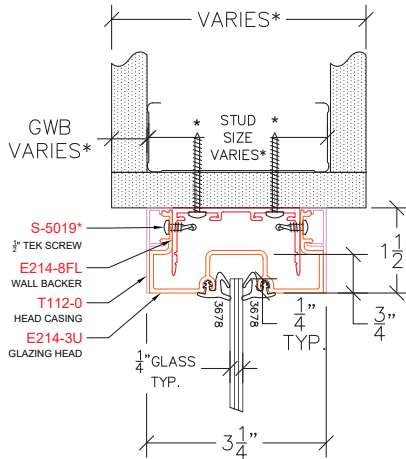
E150 - DOOR JAMB SIDELIGHT



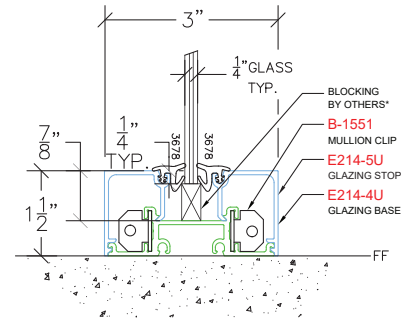
E208 - DOOR HEAD



E308 - GLAZING JAMB



E408 - GLAZING HEAD

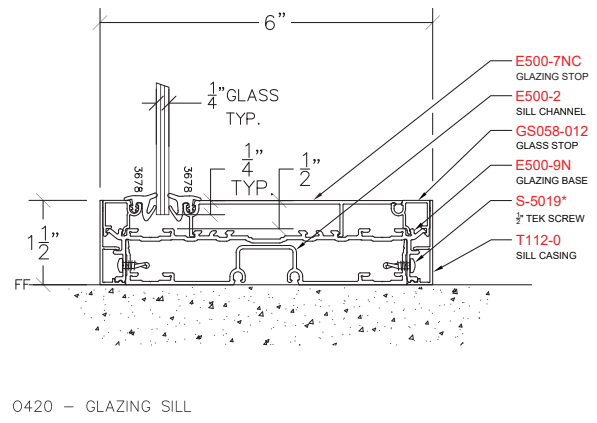
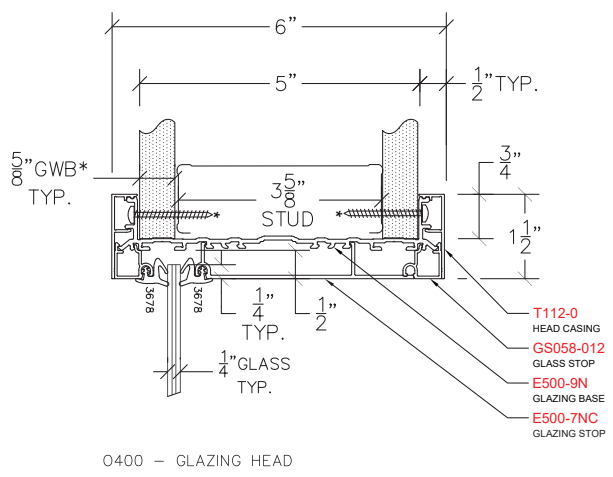
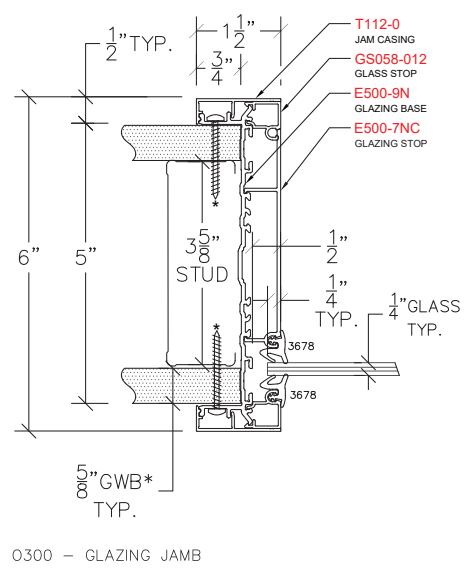
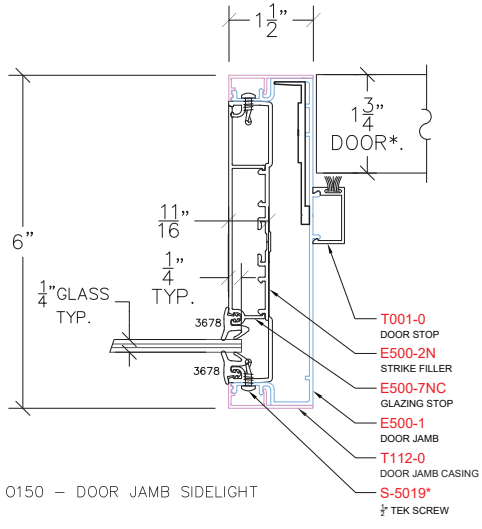


E420 - GLAZING SILL

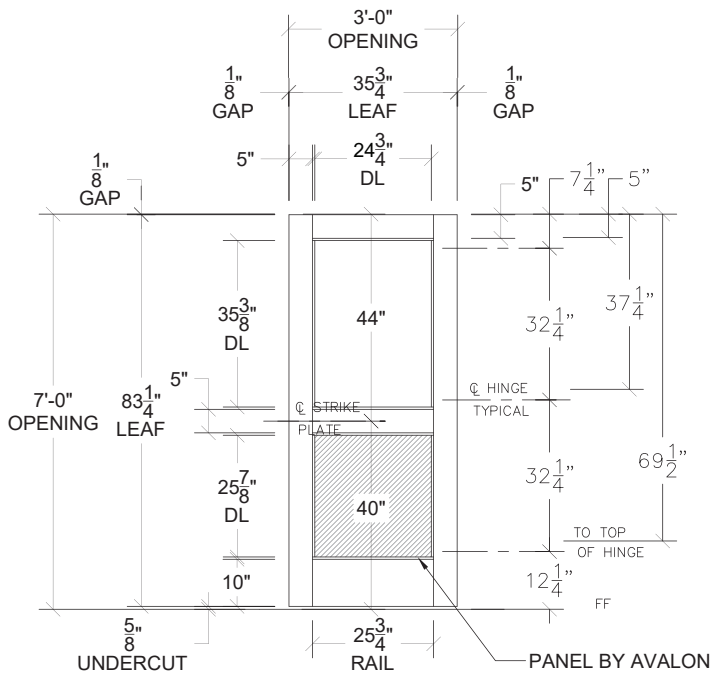
OFFSET GLAZING



SPECIAL SYSTEMS



HALF LITE DOOR



HALF/FULL LITE DOORS AVAILABLE

CUSTOM ENGINEERING AVAILABLE

ROUGH OPENINGS

40" AFF to CL Latch for Cylindrical Locksets

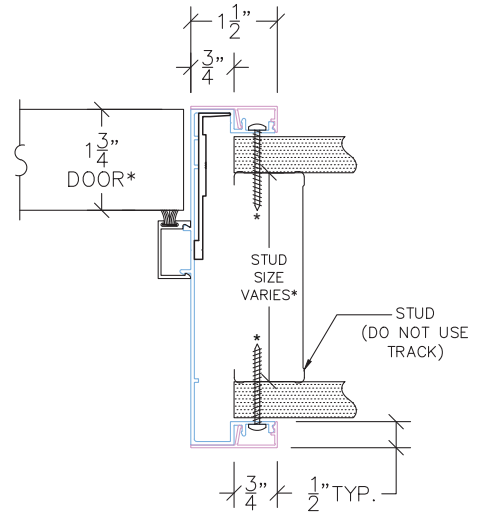


CALCULATING R.O.

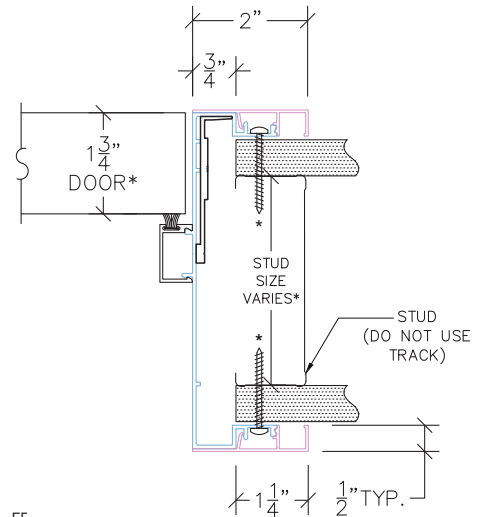
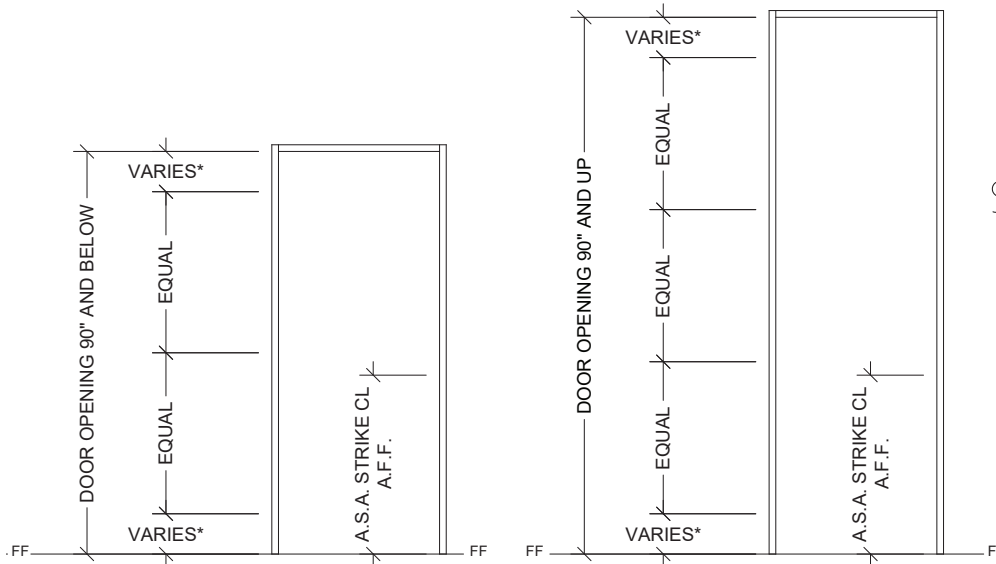
**R.O. FOR 1-1/2" OR 2" PROFILE:
OPENING SIZE + 3/4" EACH SIDE**

EX: 3070 FRAME
 $3/4" + 36"(\text{WIDTH}) + 3/4" = 36\ 1/2" \text{ R.O.}$

EX: 3070 FRAME w/ 12" SIDELITE
 $3/4" + 36"(\text{WIDTH}) + 1-1/2"(\text{PROFILE}) + 12"(\text{SIDELITE}) + 3/4" = 4'-3"$

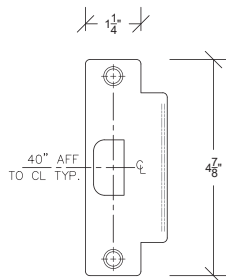
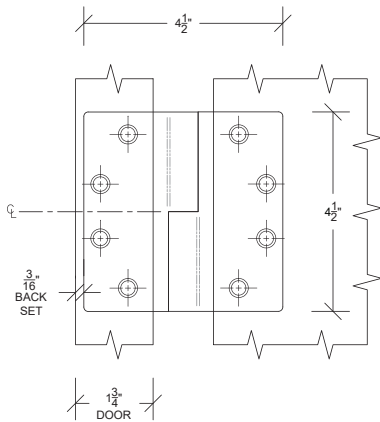


INVERT STUDS FOR GLAZING

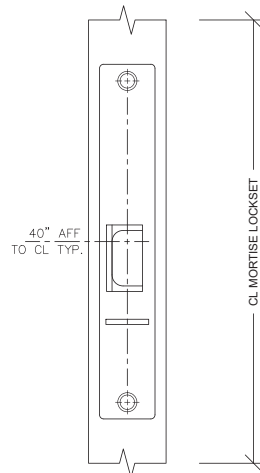


AVALON HINGE STACKS

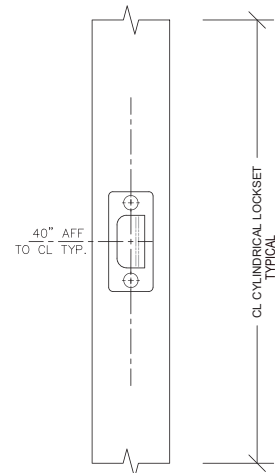
AVALON USES 3 HINGES UP TO & INCLUDING 7'6"; 4 HINGES FROM 7'6" AND UP



A.S.A. STRIKE TYP.



1 3/4" DOOR



1 3/4" DOOR

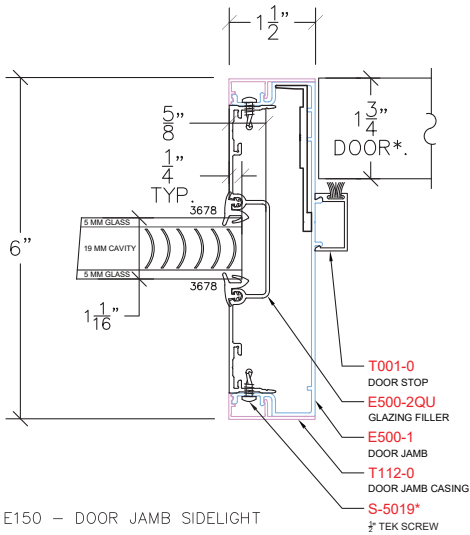
AVALON EAGLE 500

E100 - DOOR JAMB
PROFILE: 1 1/2" TRIM

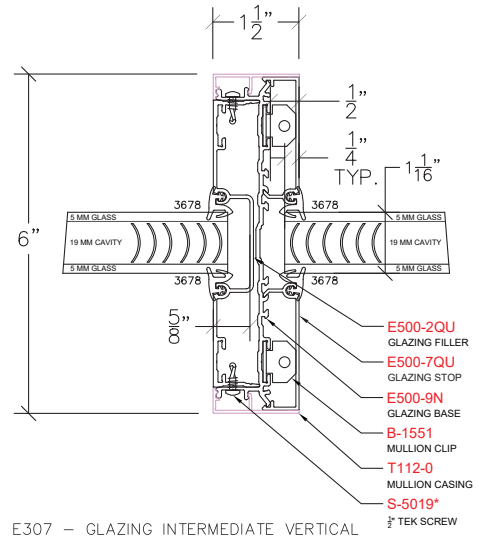
INTEGRAL BLINDS



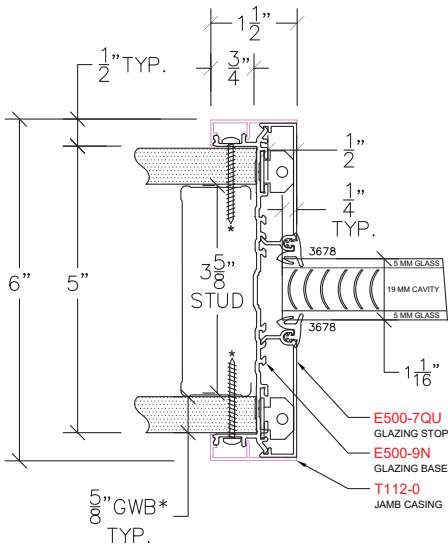
System can accommodate up to 1-1/8" IGU



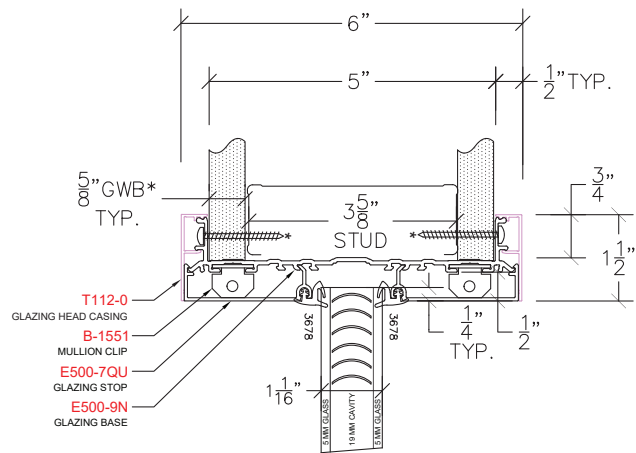
E150 - DOOR JAMB SIDELIGHT



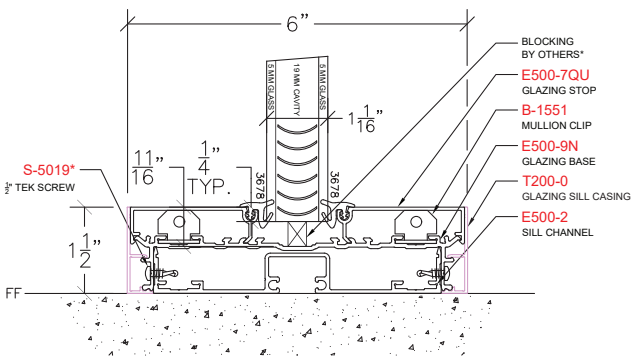
E307 - GLAZING INTERMEDIATE VERTICAL



E309 - GLAZING JAMB



E409 - GLAZING HEAD



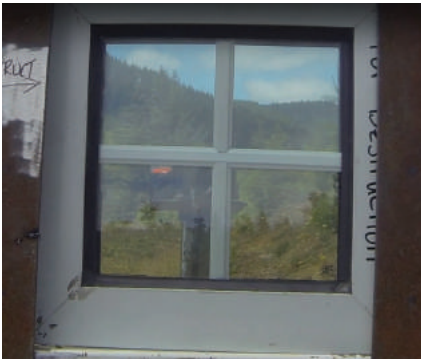
E420 - GLAZING SILL



BLIND IS OPTIONAL

BLAST TESTING

The testing method for the blast resistant windows involved standing the window unit 2m away from the center of a 500g TNT cylindrical explosive (size: 80mmx61mm). After detonating with an electric no. 8 detonator, the overall structure of the aluminum alloy blast resistant window was intact, the sash was broken, the laminated glass was intact, & there was no splash on the back of the glass.



ALUMINUM ALLOY BLAST-RESISTANT WINDOW & TNT BARE CHARGE CYLINDER BEFORE EXPLOSION TEST



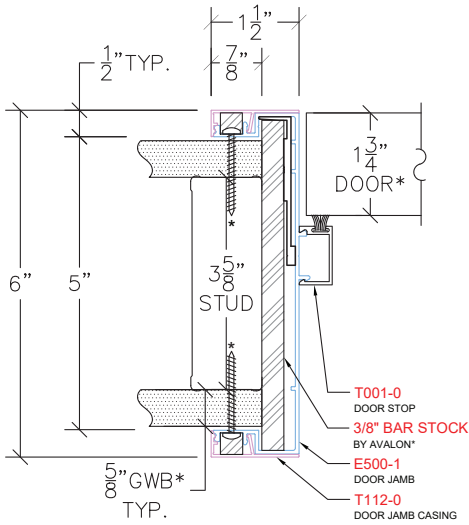
ALUMINUM ALLOY BLAST-RESISTANT WINDOW AFTER EXPLOSION TEST



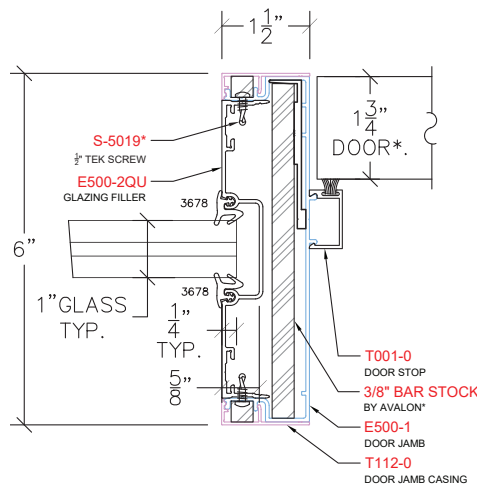
TECHNICAL SPECIFICATIONS

MATERIAL	MATERIAL THICKNESS	BLAST RESISTANT GLASS THICKNESS	IMPULSE PRESSURE RESISTANCE
ALUMINUM ALLOY EXTRUSION	2.0 MM	8MM (GLASS) + 0.76MM (LAMINATE) + 8MM (GLASS)	1424 PA
ALUMINUM ALLOY EXTRUSION	2.0 MM	12MM (GLASS) + 0.76MM (LAMINATE) + 12MM (GLASS)	1424 PA

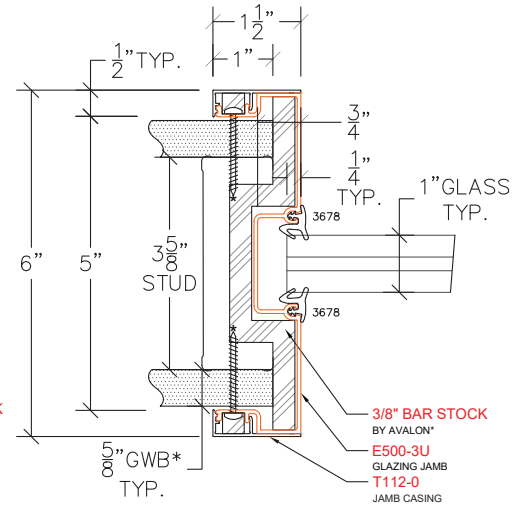
BLAST RESISTANT WINDOWS



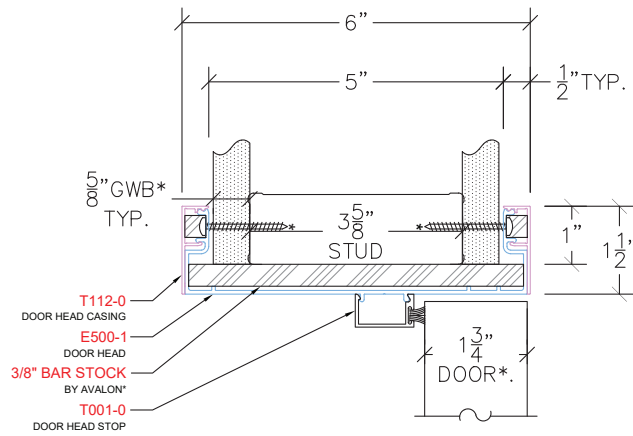
E100 – DOOR JAMB



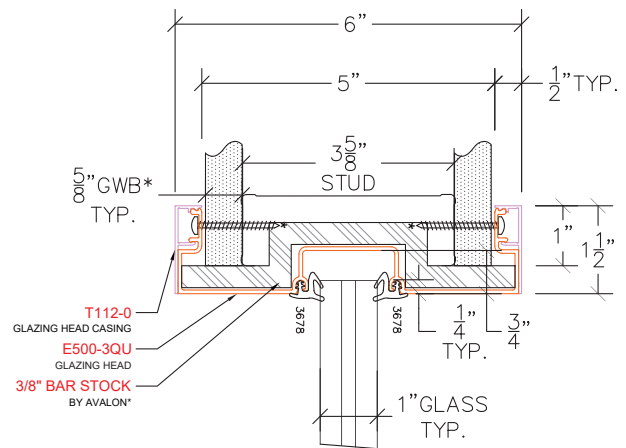
E150 – DOOR JAMB SIDELIGHT



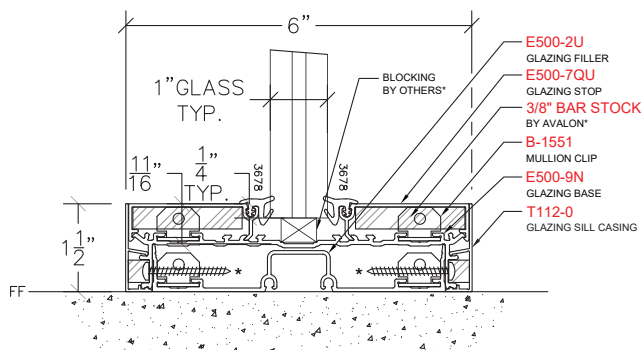
E300 – GLAZING JAMB



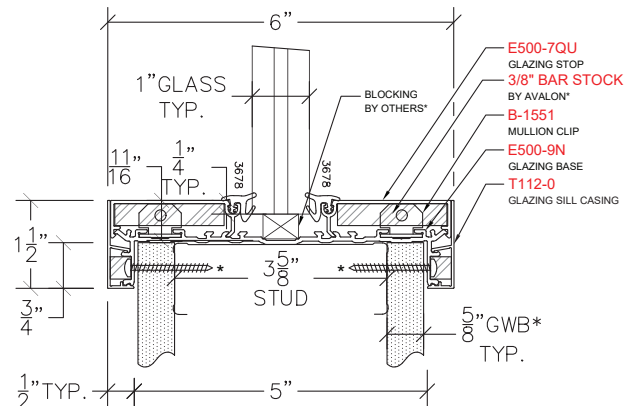
E200 – DOOR HEAD



E400 – GLAZING HEAD



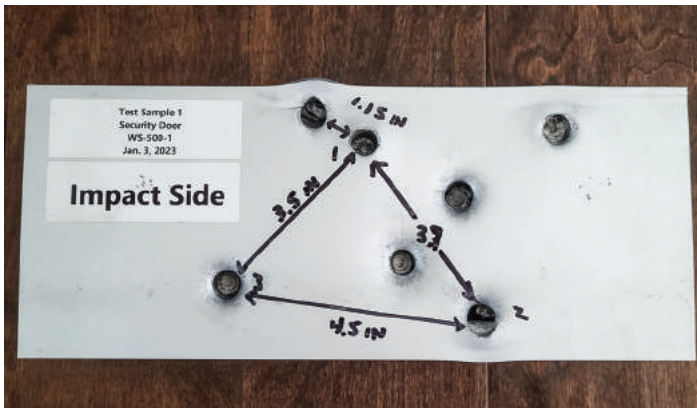
E420 – GLAZING SILL



E430 – GLAZING SILL KNEEWALL

SECURITY DOOR & FRAME

The testing method for the Security Door & Frame, Ballistics Level-3, involved firing multiple shots over each test sample from a .44 Magnum from a distance of 15 feet. In both the Door & Frame testing, no spalling occurred & no shots penetrated the samples. Each sample piece passed the Ballistics test.



IMPACT SIDE OF SECURITY DOOR SAMPLE AFTER BALLISTIC TEST



IMPACT SIDE OF SECURITY FRAME SAMPLE AFTER BALLISTIC TEST

TECHNICAL SPECIFICATIONS

REPORT NUMBER	PRODUCT BEING TESTED	TEST STANDARD	PARTICULAR TEST	RESULT
BTR-02-11-20230102 SAMPLE 1	SECURITY FRAME	UNDERWRITERS LABORATORY UL752	UL LEVEL 3 (.44 MAGNUM SWC) - MULTI-SHOT	PASSED THE TEST
BTR-02-11-20230102 SAMPLE 2	SECURITY DOOR	UNDERWRITERS LABORATORY UL752	UL LEVEL 3 (.44 MAGNUM SWC) - MULTI-SHOT	PASSED THE TEST

CLOSE FOCUS RESEARCH BALLISTIC TEST



ALUMINUM
EXTRUDERS
COUNCIL

ACCORDING TO ISO 14025 & ISO 21930: 2017



We offer LEED compliance credit for MRc2 with EPD, MRc4 credit for ingredients (no VOC), & LEED v4.1 with Low E

Powder coating is the most environmentally friendly finish available. It is harder & more durable than color anodized, covers dye lines & is perfectly consistent in shade & appearance, plus it contains none of the nasty chemicals used in color anodizing. From a favorable ecological perspective, powder coating is far superior to any other finish.



IN-HOUSE POWDER COATING

ENVIRONMENTAL PRODUCT

Part 1 - General

1.01 SECTION INCLUDES

Extruded field assembled aluminum frames for interior wood doors, wood panels, & glazing. Coordinate with Sections 08211 & 08800.

1.02 REFERENCES

American Society for Testing Materials (ASTM): 1. B 221: "Specifications for Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, & Tubes."

Architectural Aluminum Manufacturers Association (AAMA): AAMA 603: Voluntary Performance Requirements & Test Procedures for Pigmented Organic Coatings on Extruded Aluminum.

1.03 SUBMITTALS

Procedures: In accordance with General Conditions.

Shop Drawings: Indicate frame thickness & configuration, location of cutouts for hardware, reinforcement & finish. Show profiles, types, dimensions, anchorage construction, relationships to adjacent structure & interface with adjacent materials. Cross reference to Schedules.

Sample for Verification of Painted Finishes: Submit two samples on 3 by 5 inch standard "Q" panel.

Product data including illustrated isometric installation instructions.

1.04 SEQUENCING & SCHEDULING

Do not begin fabrication of frames until hardware templates have been received from hardware supplier.

1.05 QUALITY ASSURANCE

Installer Qualifications. Capable of installing & authorized by manufacturer to install all products specified in this Section.

1.06 DELIVERY, STORAGE, & HANDLING

Deliver, store, & handle frames in a manner to prevent damage or deterioration.

Provide packaging such as cardboard or other containers, separators, banding, spreaders, & paper wrappings to protect items.

Follow special storage & handling requirements of manufacturer.

Part 2 - Products

2.01 ACCEPTABLE MANUFACTURER

AVALON Eagle, or Phoenix Series, as manufactured by AVALON INTERNATIONAL ALUMINUM, INC. Portland, Oregon, 1-800-678-0566, is specified as design standard.

Glazing Frames: Snap-in type stops with manufacturer's standard neoprene® gaskets. Glass adjacent to metal without intervening gasket not permitted. Intermediate mullions shall remain 1 1/2" or 2" profile.

Substitutions: Acceptable substitution subject to provisions of Sections 2.01 (A) & (D) must be approved ten days prior to bid date.

Other Substitutions: None permitted.

Finish: Thermal-setting powder coating.

1. Type: Hybrid Epoxy-Polyester blend. Minimum film thickness of 1.8 mils required.
2. Application: Finish must be factory applied to ensure controlled film thickness & smooth surface.
3. Color: Standard or Custom color as selected by Architect.

2.02 FRAMES

Aluminum alloy, extruded & fabricated to shapes as required for each application, for knock down field assembly.

Thickness of Main Frame Members: 0.062 inch nominal. Increase to 0.130 inch at frame & hinge anchorage.

Fasteners & Hardware: Aluminum, stainless steel, or other non-corrosive materials compatible with aluminum & acceptable to frame manufacturer, countersunk style. Exposed fasteners not permitted.

Flush 1-1/2" or 2" casing, extended lip strike not permitted.

Throats of frames to be nominal wall thickness plus 1/8".

Part 3 - Execution

3.01 INSTALLATION

Install frames in accordance with manufacturer's instructions. Rough opening to be framed out using steel studs, not steel track.

Coordinate with wall construction for anchor placement.

Field cut jamb legs if required to fit actual finished opening dimensions.

Install plumb & true in line, with all necessary clips, anchors, & fastenings. Direct attachment of frame to metal stud required.

Coordinate installation of glass & glazing to comply with Section 09900 "Glazing" for glazed openings.

Install reinforcement channels between two abutting frames. Anchor to structure & floor.

Accurately join, fit, & reinforce corners to flush hairline joints.

3.02 TOLERANCES

Install frames to permit hanging wood doors to AWI requirements as specified in Section 08211.

3.03 ADJUSTING AND CLEANING

Adjust hardware for smooth & balanced door movement.

Clean completed system promptly after erection taking care to avoid damage to finishes.