

Mess, Camie

From: Werner, Jeffrey B
Sent: Wednesday, November 21, 2018 12:52 PM
To: whudson@bdarchitects.com
Cc: Mess, Camie
Subject: BAR Action - November 20, 2018 - 512-514, 600 West Main Street

November 21, 2018

Certificate of Appropriateness Application
BAR 16-01-04
512-514, 600 West Main Street
Tax Parcel 290007000, 290006000, and 290008000
Heirloom West Main Development LLC, Owner/Applicant
Amendments to the COA

Dear Applicant,

The above referenced project was discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on November 20, 2018. The following actions were taken (512-514, 600 West Main request approved via the Consent Agenda):

Motion to approve the Consent Agenda: Balut moved. Schwarz seconded. Approved (7-0). (Approval of the Consent Agenda acknowledged and approved, without amendment or conditions, the recommended motions for 600 West Main Street and 214 18th Street NE.)

Motion re: 512-514, 600 West Main Street: Having considered the standards set forth within the City Code, including City Design Guidelines for New Construction, I move to find that the proposed storefront renovations and paint color selections satisfy the BAR's criteria and are compatible with these properties and other properties in the West Main Street ADC District, and that the BAR approves the application as submitted.

If you would like to hear the specifics of the discussion, the meeting video is on-line at:
http://charlottesville.granicus.com/MediaPlayer.php?view_id=2&clip_id=1331

This certificate of appropriateness shall expire in 18 months (May 20, 2020), unless within that time period you have either been issued a building permit for construction of the improvements if one is required, or if no building permit is required, commenced the project. You may request an extension of the certificate of appropriateness before this approval expires for one additional year for reasonable cause. (See City Code Section 34-280. *Validity of certificates of appropriateness.*)

If you have any questions, please contact me at 434-970-3130 or wernerjb@charlottesville.org.

Sincerely yours,
Jeff Werner

Jeff Werner, AICP

Historic Preservation and Design Planner
City of Charlottesville
Neighborhood Development Services
City Hall | P.O. Box 911
610 East Market Street
Charlottesville, VA 22902
Phone: 434.970.3130
Email: wernerjb@charlottesville.org

**CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
November 20, 2018**



Certificate of Appropriateness Application

BAR 16-01-04

512-514, 600 West Main Street

Tax Parcel 290007000, 290006000, and 290008000

Heirloom West Main Development LLC, Owner/Applicant

Amendments to the COA: Blue Moon Diner & Mini Mart – paint colors, storefronts



Background

510 West Main Street

Vacant.

512-514 West Main Street

Built by Andrew Hartnagle in 1884 and known as the Hartnagle-Witt House, it was originally a tenement house. Constructed in 1949, the single-story addition on the front originally functioned as The Waffle Shop and is currently home to the Blue Moon Diner.

600 West Main Street

Built by James Hawkins in 1873 and known as the Hawkins-Perry House, it originally functioned as a rental house. In 1931, new owner Cecil Perry added to the front the single-story market, which currently operates as a convenience store.

Both 512-514 and 600 are contributing structures in the West Main Street ADC District. The original residential structures (behind the commercial additions) are the only, late-19th century, vernacular dwellings remaining along West Main Street. (Historic Surveys attached.)

BAR Actions 2018: (Motions prior to 2018 appended to the end of this report.)

January 17, 2018 - BAR approves the application as submitted, with the request that the applicant submits design details of how the lower stucco meets the ground. Balut seconded. Approved (4-2, with Miller and Schwarz opposed.) [Note: Detail was submitted and approved by the BAR via e-mail, March 28, 2018.]

August 21, 2018 –

Signs - the BAR approves the signs in-concept with the provision that all illuminated signage shall appear to be lit white at night. Balut seconded. Approved (7-0)

Brick infill at south elevation of 512-514 West Main Street - the BAR approves the application as submitted. Balut seconded. Approved (7-0.)

Painting of brick at south and west elevations of 512-514 West Main Street - the BAR denies this portion of the application as submitted. Balut seconded. Denied (7-0.)

Color scheme for Blue Moon diner and Mini Mart - moved to accept the applicant's request for deferral. Balut seconded. Approved (7-0.)

Storefront renovation of historic, single-story commercial additions- the BAR approves the application with the following modifications:

- Maintain the wood storefront on Blue Moon diner (514 West Main Street), and replace in-kind
- Approve the replacement of the aluminum door of the Blue Moon diner (514 West Main Street), with the door replacement to come back to be put on the consent agenda for the next month's meeting
- Approve the replacement of the storefront of the Mini Mart (600 West Main Street); lite pattern and dimensions to match existing
- Approve the replacement of plywood panels [in Mini Mart storefront] with glazed panels

Application

Applicant submitted:

- Bushman Dreyfus submittal dated October 30, 2018: letter of approval request (page 1), paint color details (page 3-5), storefront revision (page 6-7), and cut sheets (page 8-26).

Requesting amendment to the COA for approval of paint colors and storefront renovations at the Blue Moon Diner and the Mini Mart. Items were deferred at the August 2018 BAR meeting.

Discussion and Recommendations

Applicant has revised the paint colors and storefront renovations consistent with the BAR's direction during the August 2018 meeting. The selected colors will distinguish the two buildings from the new construction at the site. The requested changes to the storefronts are appropriate.

Suggested Motion

Having considered the standards set forth within the City Code, including City Design Guidelines for New Construction, I move to find that the proposed storefront renovations and paint color selections satisfy the BAR's criteria and are compatible with these properties and other properties in the West Main Street ADC District, and that the BAR approves the application as submitted.

...as submitted with the following conditions...

Criteria, Standards, and Guidelines

Review Criteria Generally

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

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

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

Pertinent Standards for Review of Construction and Alterations include:

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

Pertinent Standards for Rehabilitation:

B. Facades and Storefronts

Over time, commercial buildings are altered or remodeled to reflect current fashions or to eliminate maintenance problems. Often these improvements are misguided and result in a disjointed and unappealing appearance. Other improvements that use good materials and sensitive design may be as attractive as the original building and these changes should be saved. The following guidelines will help to determine what is worth saving and what should be rebuilt.

- 1) Conduct pictorial research to determine the design of the original building or early changes.
- 2) Conduct exploratory demolition to determine what original fabric remains and its condition.
- 3) Remove any inappropriate materials, signs, or canopies covering the façade.
- 4) Retain all elements, materials, and features that are original to the building or are contextual remodelings, and repair as necessary.
- 5) Restore as many original elements as possible, particularly the materials, windows, decorative details, and cornice.
- 6) When designing new building elements, base the design on the 'typical elements of a commercial façade and storefront'.
- 7) Reconstruct missing or original elements, such as cornices, windows, and storefronts, if documentation is available.
- 8) Design new elements that respect the character, materials, and design of the building, yet are distinguished from the original building.
- 9) Depending on the existing building's age, originality of the design and architectural significance, in some cases there may be an opportunity to create a more contemporary façade design when undertaking a renovation project.
- 10) Avoid using materials that are incompatible with the building or within the specific districts, including textured wood siding, unpainted or pressure-treated wood, and vinyl or aluminum siding.
- 11) Avoid introducing inappropriate architectural elements where they never previously existed.

K. Paint

A properly painted building accentuates its character-defining details. Painting is one of the least expensive ways to maintain historic fabric and make a building an attractive addition to a historic district. Many times, however, buildings are painted inappropriate colors or colors are placed incorrectly. Some paint schemes use too many colors, but more typical is a monochromatic approach in which one color is used for the entire building. On particularly significant historic buildings, there is the possibility of conducting paint research to determine the original color and then recreating that appearance.

- 1) Do not remove paint on wood trim or architectural details.
- 2) Do not paint unpainted masonry.
- 3) Choose colors that blend with and complement the overall color schemes on the street. Do not use bright and obtrusive colors.
- 4) The number of colors should be limited. Doors and shutters can be painted a different color than the walls and trim.
- 5) Use appropriate paint placement to enhance the inherent design of the building.

BAR Actions prior to 2018

November 17, 2015 – This application was discussed as a preliminary discussion which requires no motion. The BAR was not in favor of the demolition of the two structures because of their age, they provide scale, they relate to other historic buildings nearby, and they help tell the story of how West Main Street developed from residential to commercial.

January 19, 2016 – The BAR approved (8-0) only the removal of the rear frame additions to 512-514 West Main Street, and the removal of the front second floor addition to 600 West Main Street, as submitted.

The BAR accepted (8-0) the applicant's request for deferral of the application for a new mixed-use building.

February 17, 2016 - The BAR approved (7-1 with Miller opposed) only the massing and siting as submitted.

July 19, 2016 – No action was taken; the BAR made comments, some of which are summarized here:

- The rear building should be a backdrop for the two historic buildings; like use of Corten
- Like historic buildings – creating backdrop

May 16, 2017- Schwarz moved: Having considered the standards set forth within the City Code, including City Design Guidelines for New Construction, Rehabilitations, and for Site Design and Elements, I move to find that the proposed final details satisfy the BAR's criteria and are compatible with this property and other properties in the West Main Street ADC District, and that the BAR approves the plan as submitted, with the stipulations that the BAR will review the lighting and the final metal finish in the field; signage to come back later; VLT 60 on south side only and VLT 70 everywhere else (the exception was approved because the south, rear façade faces an unbuildable site and no pedestrian activity would come close to it). Balut seconded.

Approved 8-1 with Miller opposed.



October 30, 2018

Jeff Werner
City of Charlottesville, Neighborhood Development Services
610 East Market Street
Charlottesville, VA 22902

Re: 510-600 West Main Street: BAR approval request for paint color and outstanding items.

Dear Jeff,

Paint Colors

We are requesting approval of our paint/color selections for the Blue Moon Diner and Mini Mart buildings at this time. In August we listened to comments from the BAR members and have taken time to consider the request for more color and a distinction between the two structures. We believe we have chosen colors that will set the buildings apart from one another, set them apart from the new building behind and are still in keeping with the overall branding and concept of the full Six Hundred West Main project.

At the August BAR meeting we were asked to follow up with some additional information regarding the windows and doors on the Blue Moon Diner and the Mini Mart. We have included the product cut sheets and revised elevations in this package. This information was also included in an email to Camie Mess and Jeff Werner dated September 13, 2018, in which we requested confirmation that we are okay to proceed as planned, but have not received a response. Please review the content listed below and confirm approval.

Blue Moon

- 3 picture windows will be replaced with new double paned glazing set in wood frames.
- The storefront door to be replaced by EFCO D300. Product cut sheet attached. Sidelite to be EFCO 403T center-set storefront system.

Mini Mart

- The storefront will be replaced with EFCO 433T front-set storefront system, the new door will be EFCO D300. The mullion pattern will match the existing windows, with plywood at the top replaced with glass and the area below divided into 3 equal vertical sections.

For both buildings the glazing in the new windows and doors will be the same 70% VLT BAR-approved glazing that we are using for the new building and the frames will be dark bronze, as indicated in our BAR submission.

We look forward to reviewing these topics with you and the BAR in person.
Thank you for your consideration.

Sincerely,

Whitney Hudson
Project Architect



510-600 WEST MAIN STREET
CHARLOTTESVILLE, VA 22902



BAR SUBMISSION FOR NOVEMBER 20th MEETING
10.30.2018

PAINT COLORS

RENDERING

LIST OF PAINT COLORS & LOCATIONS

PAINT CHIPS



LIST OF PAINT COLORS & LOCATIONS

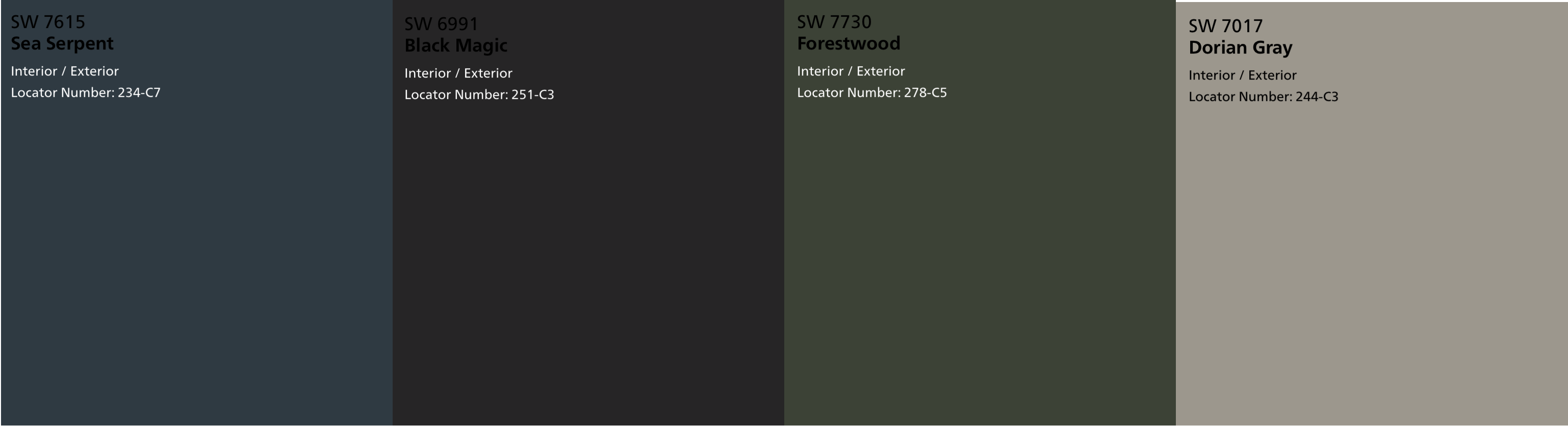
BLUE MOON

roof + window trim + doors + roof edge + fascia: SW6991 – Black Magic
 diner: SW7615 – Sea Serpent
 house + brick fascia + triangle: SW7017 – Dorion Gray

BLADE SIGNS TO MATCH STOREFRONT: dark bronze

MINI MART

main color + fascia: SW7730 - Forestwood
 trim + windows + roof edge: SW6991 – Black Magic
 roof (shingles): GAF charcoal color asphalt
 roof (metal): SW6991 – Black Magic



LIST OF PAINT COLORS & LOCATIONS

BLUE MOON

roof + window trim + doors + roof edge + facia: SW6991 – Black Magic
diner: SW7615 – Sea Serpent
house + brick facia + triangle: SW7017 – Dorion Gray

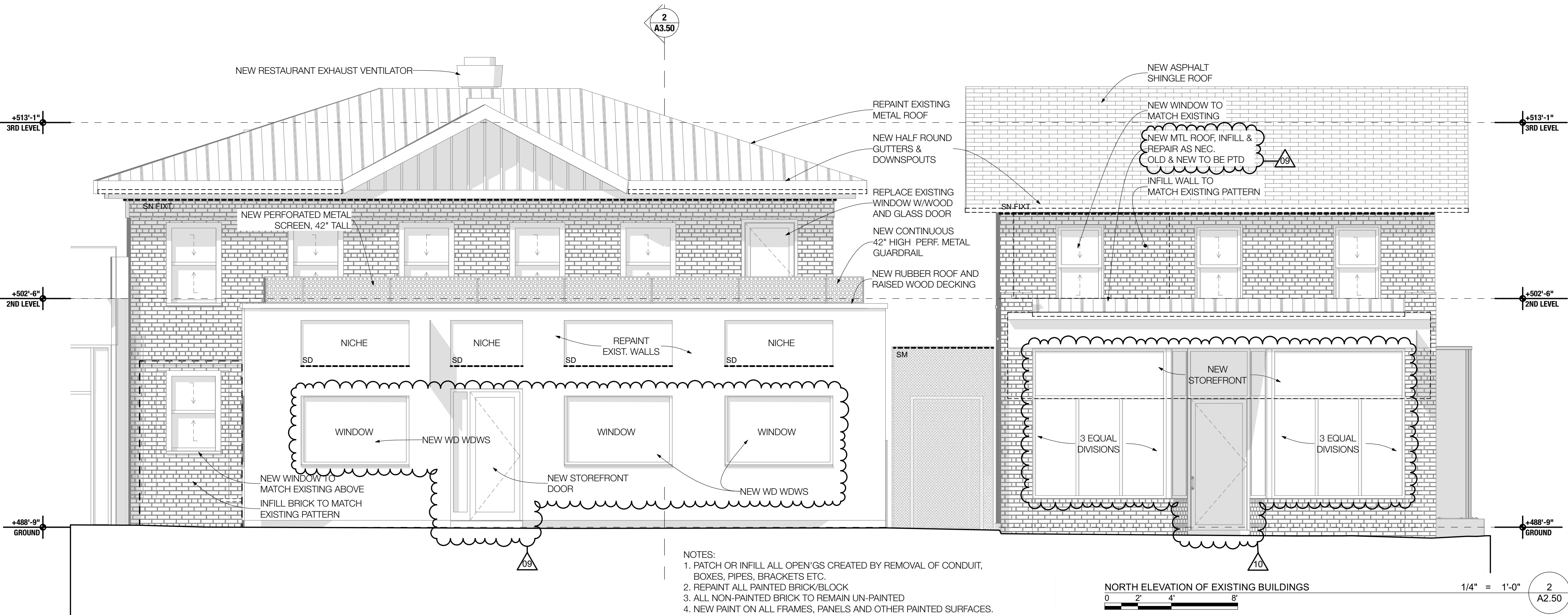
BLADE SIGNS TO MATCH STOREFRONT: dark bronze

MINI MART

main color + facia: SW7730 - Forestwood
trim + windows + roof edge: SW6991 – Black Magic
roof (shingles): GAF charcoal color asphalt
roof (metal): SW6991 – Black Magic

STOREFRONT REVISION

BLUE MOON DINER AND MINI MART BUILDING ELEVATIONS
PRODUCT DATA



ARCHITECT
BUSHMAN DREYFUS ARCHITECTS PC
820 East High Street
Charlottesville VA 22902
434.295.1936

DEVELOPER
HEIRLOOM WEST MAIN DEVELOPMENT
c/o Grayson Consulting
2093 Goodling Road
North Garden VA 22959

CIVIL ENGINEER/LANDSCAPE
TIMMONS GROUP
608 Preston Avenue, Suite 200
Charlottesville VA 22903

MEP, FP ENGINEERS
STAENGL ENGINEERING
1159 Crozet Avenue, Suite A
Crozet, VA 22932

STRUCTURAL ENGINEER
Dunbar Milby Williams Pittman & Vaughan
110 Third Street
Charlottesville, VA 22902



address:
**510-600 WEST
MAIN STREET
CHARLOTTESVILLE, VA**

PROJECT #15171

EDITIONS/REVS		
MARK	DATE	DESCRIPTION
	4/26/17	CD Set
02	5/16/17	Addendum 02
07	4/16/18	Value Management Set
09, 10	9/19/18	Construction Administration

**NORTH & SOUTH
ELEVATIONS OF EXSTG
BLDGS**

**CONSTRUCTION SET
05.25.2018**

printed 2:49 PM, 10/30/18

A2.50



Series D200 Narrow Stile • Series D300 Medium Stile • D500 Wide Stile 1 3/4" Standard Aluminum Swing Entrance Doors

CONFIGURATIONS

Narrow Stile (2 1/8") • Medium Stile (3 1/2") • Wide Stile (5")

EFCO's standard entrances are designed for educational facilities, shopping centers, offices and other facilities requiring security and egress capabilities. EFCO standard entrances are joint plug welded at every corner to provide superior strength in all applications. Offered in narrow, medium and wide stiles, EFCO standard entrances can accommodate a wide range of applications. Multiple glazing options provide flexibility to meet specific design requirements, and the product's ability to accommodate most hardware applications increases its versatility. EFCO's standard entrances provide the complete solution for your fenestration needs.

Features

Bracket reinforced and deep penetration welded corners

Accepts most major brands of locking hardware and panic devices

Accommodates up to 1" glazing

Accommodates all surface mounted, concealed overhead and floor closers

Tall bottom rails available

Variety of cross rails, door sweeps, and crash bars available

Anodized and painted finishes available

Benefits

Meets or exceeds most specifications for commercial entrances

Able to comply with special hardware specifications

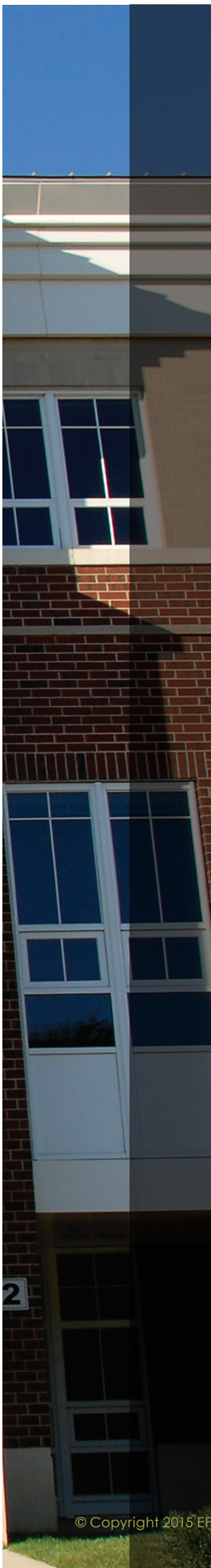
Flexibility in design requirements for glazing

Unrestricted closer choices

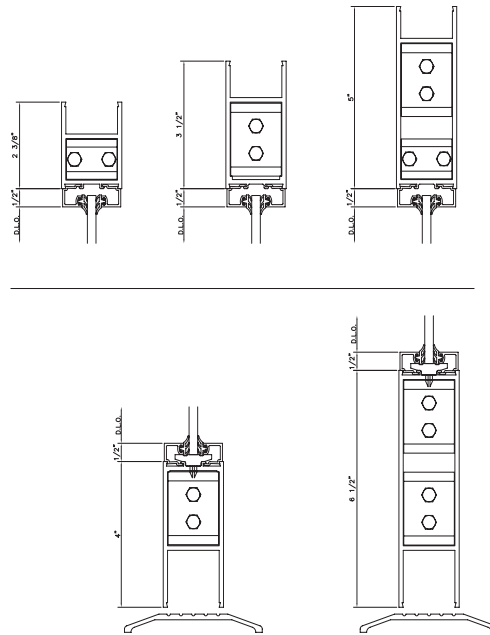
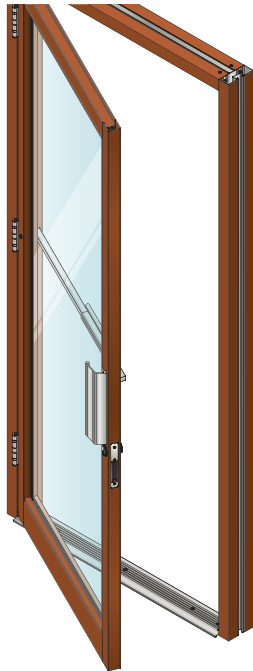
Meets ADA requirements

Increases configuration options

Multiple options to answer economic and aesthetic concerns



Series D200 Narrow Stile • Series D300 Medium Stile • D500 Wide Stile 1 3/4" Standard Aluminum Swing Entrance Doors



PERFORMANCE DATA

D200 NARROW STILE (SINGLE DOOR LEAF)	
AIR INFILTRATION	< .50 CFM/SF @ 1.57 PSF
D300 MEDIUM STILE (SINGLE DOOR LEAF)	
AIR INFILTRATION	< .50 CFM/SF @ 1.57 PSF
D500 WIDE STILE (SINGLE DOOR LEAF)	
AIR INFILTRATION	< .50 CFM/SF @ 1.57 PSF

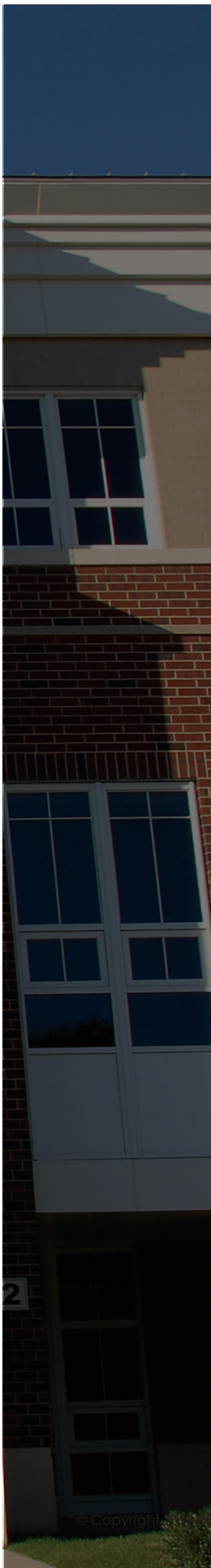
Note: All performance value data is based on laboratory testing per AAMA 101/15.2/A440 for Air/Water/Structural, ASTM E90 and or E413 for Acoustical, AAMA 507 and or NFRC 100/200/500 for UFactors and AAMA 1503 for Condensation Resistance Factor (CRF). Printed values are subject to change pending the frequency of recertification testing. Field results will vary depending on size, the field test method, the addition of sub-frames, panning, mullions, accessories and installation into the surrounding condition.

D200, D300, & D500 GLAZING CHART	POLYCARBONATE			GLASS OR PANEL											
	3/16"	1/4"	5/16"	1/4"	1/4" ⁸	5/16"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	15/16"	1"	1-1/16"
MONOLITHIC GLASS	A	A	C	A	A	A	C	C	C	C					
INSULATED GLASS													A	A	C

** - Laminated Glass Thickness
 A - Available Glazing Option
 C - Adaptor and/or gasket required
 blank - N/A

Note: Job specific performance ratings may vary due to differences in glass and glass spacer selection. If NFRC certified ratings are required, EFCO recommends requesting a CMA Bid Report at the bid stage from EFCO's Product Technical Support Group to ensure performance will meet project specifications





Series D200 Narrow Stile • Series D300 Medium Stile • D500 Wide Stile 1 3/4" Standard Aluminum Swing Entrance Doors

Door Construction

Door rails and stiles have a depth of 1 3/4", and are constructed of 6063-T6 aluminum alloy. Nominal material wall thickness is .125". Corner construction utilizes a heavy, concealed, reinforcement bracket that is deep penetration and fillet welded. See Illustration 1.

Weather-Stripping

Single doors are weather-stripped at the frame with ASTM E2203 compliant bulb gasket and extruded door stops, which are available in integral, snap-in, and surface mounted varieties. See frame section. All pairs of doors are dual weather-stripped at the astragal with Poly-Pile.

Hardware

EFCO standard doors accommodate most hardware types. Doors accept offset pivots, center pivots, butt hinges, or continuous gear hinges. Maximum security deadbolts, short throw deadbolts, hook bolts, latch locks, and flush bolts are a few of the compatible types of locks. Panic devices include concealed rod devices, rim devices and removable mullions. Concealed overhead, surface mounted and floor closers are accommodated. EFCO Ultraline™ push-pulls are standard.

Glazing

Doors are glazed with extruded aluminum, pressure fitting glass stops. Glazing of 3/16" to 1 1/16" insulated units are available. See Glazing chart for exact size.

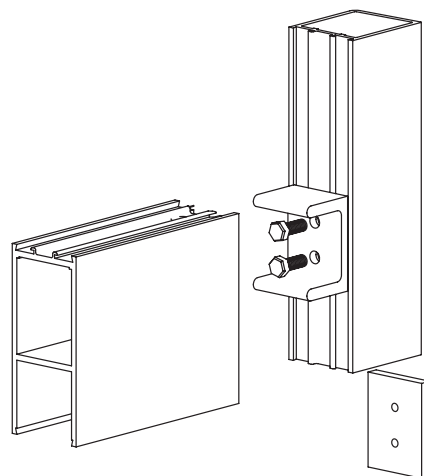


Illustration 1





Series 403

2" x 4 1/2" Thermal Storefront Framing

CONFIGURATIONS

Shear Block • Screw Spline

This economical flush glaze system is available in both shear block and screw spline fabrication methods. Series 403 Storefront can accommodate all standard 1 3/4" Entrances as well as WV410 vents. This series is thermally broken, enhancing energy savings potential. Vertical mullions will accept steel reinforcement to enhance structural performance.

Features

Thermally broken frames
Screw spline construction
Shear block construction
The optional Roto-Vent™ ventilator
2-way corner mullions (90° & 135°)
3-way corner mullions (T-mullions)
0°-15° and 15°-30° variable mullions
Accommodates up to 1 1/16" glazing
Uniform glazing gasket is used for exterior and interior
Various height intermediate horizontals and sills
Accessory line of perimeter anchors, pocket fillers, door adaptors, etc.
Anodized or painted finishes available

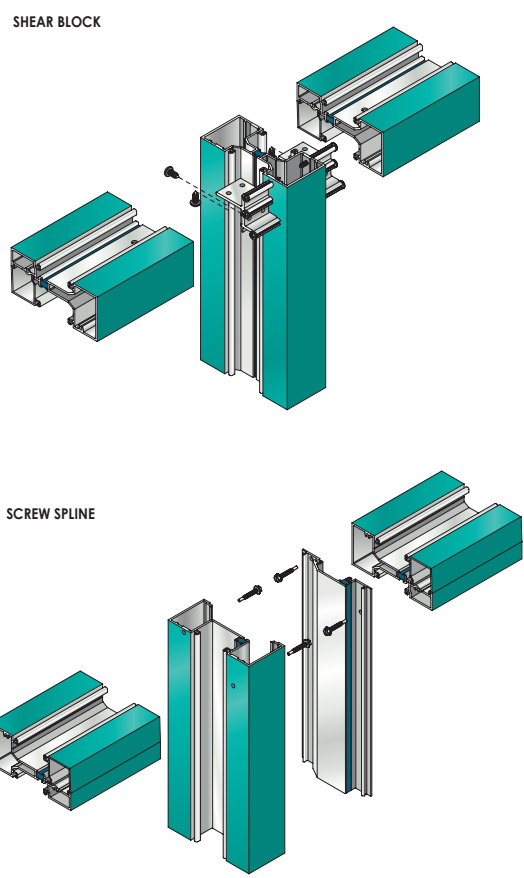
Benefits

Enhanced thermal performance
Allows assembly of sections prior to installation
Decreases installation time
Ability to erect on the job site
Allows fresh air into the room, yet maintains security
Design flexibility
Multifaceted elevations
Custom applications
Expands design and energy savings options
Allows optimized use of gasket
Simplifies ordering and installation
Ability to maintain desired sight line
Increased product versatility
Multiple options to answer economic and aesthetic concerns



Series 403

2" x 4 1/2" Thermal Storefront Framing



PERFORMANCE DATA

SYSTEM 403 STOREFRONT FRAMING	
AIR INFILTRATION	<.06 CFM/SF @ 6.24 PSF
WATER	NO LEAKAGE @ 12.0 PSF
STRUCTURAL	visit MyEFCO at www.efcocorp.com
CRF FRAME	56
CRF-GLASS	63

Note: All performance value data is based on laboratory testing per AAMA 101/I.S.2/A440 for Air/Water/Structural, ASTM E90 and or E413 for Acoustical, AAMA 507 and or NFRC 100/200/500 for Ufactors and AAMA 1503 for Condensation Resistance Factor (CRF). Printed values are subject to change pending the frequency of recertification testing. Field results will vary depending on size, the field test method, the addition of sub-frames, panning, mullions, accessories and installation into the surrounding condition.

403 THERMAL U-FACTORS*			
CENTER OF GLASS U-FACTOR	CONFIGURATION AND SIZE		
	FIXED**		FIXED
	78 3/4" X 78 3/4"	120" X 120"	
0.46	0.55	0.52	
0.34	0.46	0.41	
0.30	0.42	0.38	
0.24	0.38	0.33	
0.20	0.34	0.29	

* Based on NFRC 100
**NFRC Gateway size

*Note: Based on NFRC 100. Job specific performance ratings may vary due to differences in glass and glass spacer selection. If NFRC certified ratings are required, EFCO recommends requesting a CMA Bid Report at the bid stage from EFCO's Product Technical Support Group to ensure performance will meet project specifications

GLAZING
SYSTEM 403 CAN BE INSIDE OR OUTSIDE GLAZED WITH EXTRUDED ALUMINUM, SNAP-IN GLAZING BEAD. GLASS IS "DRY GLAZED" WITH TOP LOAD GASKET. GLAZINGS OF 3/16" TO 1-1/16" INFILL PANELS ARE ACCOMMODATED. SEE GLAZING CHART BELOW FOR EXACT SIZE.

SYSTEM 403 GLAZING CHART	POLYCARBONATE			GLASS OR PANEL												
	3/16"	1/4"	5/16"	3/16"	1/4"	1/4"	5/16"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	15/16"	1"	1-1/16"
	C	C	C	C	C	C	C					C		C	A	C
MONOLITHIC GLASS																
INSULATED GLASS																

*-Obscure glass thickness
**-Laminated glass thickness
A-Available glazing option
C-Adaptor and/or gasket required
Blank - N/A





Series 403

2" x 4 1/2" Thermal Storefront Framing

Frame Construction

The frames have a depth of 4 1/2", and the nominal material wall thickness is .080". Members are extruded 6063-T6 aluminum alloy. Corner construction employs screw spline or shear block method. See Illustration 1 & 2.

Door Frames

System 403 offers integral System 402 entrance frames as a part of the entrance framing system. Members are nominally .080" in thickness.

Weather Stripping

All entrance frames are weather-stripped with bulb gasket.

Thermal Barrier

All frames and vents are thermally broken using the latest technology in two part, high density polyurethane.

Glazing

Series 403 can be inside or outside glazed with extruded aluminum, snap-in glazing bead. Glass is "dry glazed" with top load gasket. Glazings of 3/16" to 1 1/16" infill panels are accommodated. See Glazing Chart for exact size.

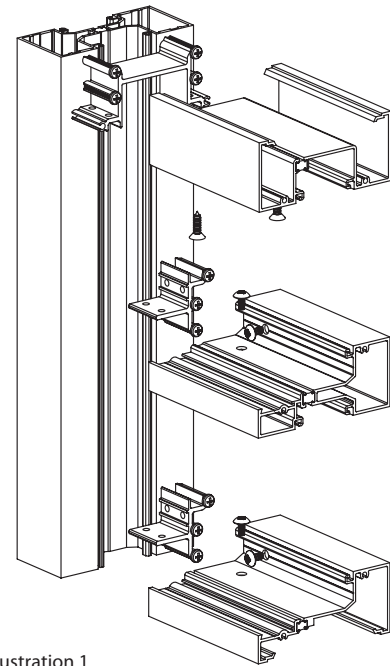


Illustration 1

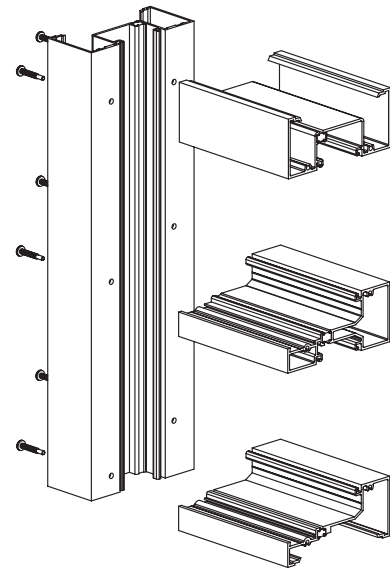


Illustration 2



Series 433

2" x 4 1/2" Thermal Triple Set® Storefront Framing

CONFIGURATIONS

Screw Spline • Shear Block

System 433 is a thermally broken storefront framing system. Glass planes can be placed in an outside set, center set or inside set configuration, which gives you design flexibility to meet any multi-plane glazing specification. Series 433 is compatible with all EFCO entrances.

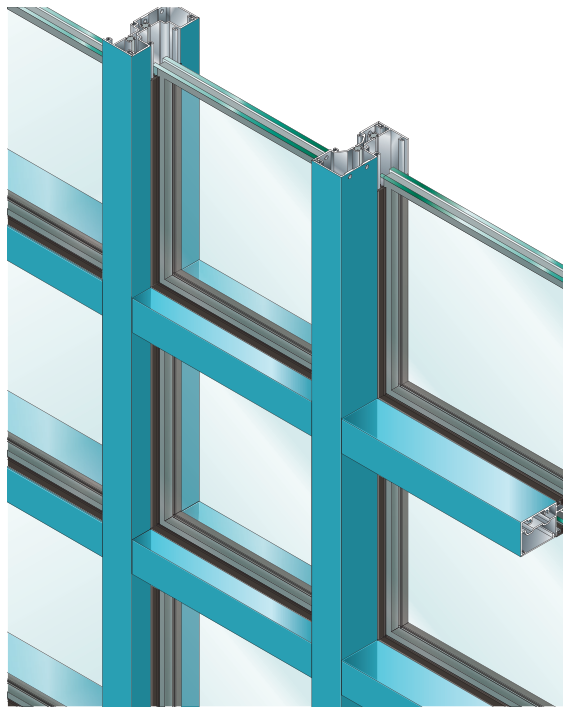
Features

Benefits

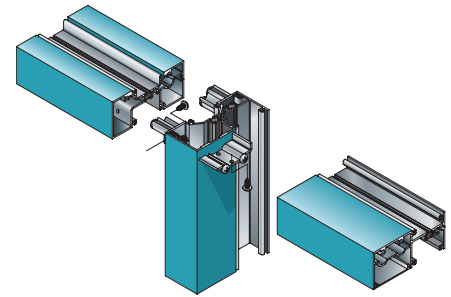
Thermally broken frames	Enhanced thermal performance
Three glass planes	Create shadow box effect, match vision of architect
All joints and horizontal mullions are square cut	Facilitates shop fabrication of "ladders" that can be transported as a unit to job sites for quick installation
	Allows quick fabrication in the field
Door frames will accommodate glass in three planes	Glass plane effect can continue at door frames
	Accommodates multifaceted elevations
90° and 135° inside and outside corner mullions	Utilizes a common mullion with standard verticals attached to reduce number of dies
All joint fasteners are #12 screws	Strengthens system to allow transportation of ladders without damage to joinery system
	Simplifies fabrication
Steel is available for mullions as stock steel bars or custom fabricated steel shapes	Eliminates the cost of customer steel fabrication
	Allows system performance enhancements
Accommodates up to 1 1/16" glazing	Energy savings options
Inside or outside glazing in all glass planes	Allows flexibility of construction methods
Uniform glazing gasket is used for exterior and interior	Allows optimized use of gasket
	Simplifies ordering and installation
Stock length or fabricated	Provides customers with an option
Anodized or painted finishes available	Multiple options to answer economic and aesthetic concerns

Series 433

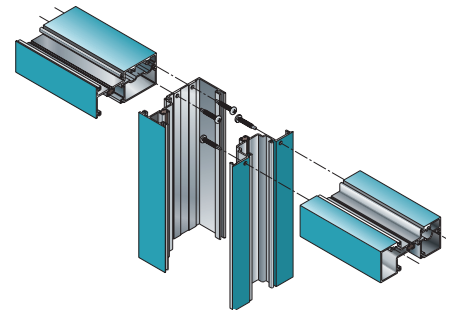
2" x 4 1/2" Thermal Triple Set® Storefront Framing



SHEAR BLOCK



SCREW SPLINE



PERFORMANCE DATA

SYSTEM 433 STOREFRONT FRAMING

AIR INFILTRATION	<.06 CFM/SF @ 6.24 PSF
WATER	NO LEAKAGE @ 10.0 PSF
STRUCTURAL	visit MyEFCO at www.efcocorp.com
CRF-FRAME	67
CRF-GLASS	66

Note: All performance value data is based on laboratory testing per AAMA 101/I.S.2/A440 for Air/Water/Structural, ASTM E90 and or E413 for Acoustical, AAMA 507 and or NFRC 100/200/500 for UFactors and AAMA 1503 for Condensation Resistance Factor (CRF). Printed values are subject to change pending the frequency of recertification testing. Field results will vary depending on size, the field test method, the addition of sub-frames, panning, mullions, accessories and installation into the surrounding condition.

GLAZING

SYSTEM 433 CAN BE INSIDE OR OUTSIDE GLAZED WITH EXTRUDED ALUMINUM, SNAP-IN GLAZING BEAD. GLASS IS "DRY GLAZED" WITH TOP LOAD GASKET. GLAZING OF 3/16" TO 1-1/16" INFILL PANELS ARE ACCOMMODATED. SEE GLAZING CHART BELOW FOR EXACT SIZE.

433 THERMAL U-FACTORS*		
CENTER OF GLASS U-FACTOR	CONFIGURATION AND SIZE	
	FX/FX**	FX/FX
	78 3/4" X 78 3/4"	120" X 120"
0.46	0.56	0.51
0.34	0.46	0.41
0.30	0.43	0.37
0.24	0.39	0.32
0.20	0.35	0.28

* Based on NFRC 100

**NFRC Gateway size

*Note: Based on NFRC 100. Job specific performance ratings may vary due to differences in glass and glass spacer selection. If NFRC certified ratings are required, EFCO recommends requesting a CMA Bid Report at the bid stage from EFCO's Product Technical Support Group to ensure performance will meet project specifications

SYSTEM 433 GLAZING CHART	POLYCARBONATE			GLASS OR PANEL												
	3/16"	1/4"	5/16"	3/16"	1/4"	1/4"	5/16"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	15/16"	1"	1-1/16"
MONOLITHIC GLASS	C	C	C	C	C	C	C	C	C	C						
INSULATED GLASS												C		C	A	C

*-Obscure glass thickness

**-Laminated glass thickness

A-Available glazing option

C -Adaptor and/or gasket

Blank - N/A

Series 433

2" x 4 1/2" Thermal Triple Set® Storefront Framing

Frame Construction

Members are extruded 6063-T6 aluminum alloy with a nominal wall thickness of .080". Corner construction employs a screw spline or shear block method and utilize #12 fasteners. Frame members have a face sight line of 2" and frame depth of 4 1/2". See Illustration 1 & 2 for system joinery.

Glass planes can be placed in an outside set, center set, or inside set configuration. Both inside and outside glazing is available. 90° and 135° inside and outside corners are available.

Door Frames

Series 433 offers integral entrance frames in shear block construction. Members are nominally .080" in thickness. A standard entrance header is available as well as an entrance header that is designed for use with concealed overhead closers. Transom lite glazing is accommodated through either applied glass stops and glazing beads or extruded in place glazing pockets. Door stops are available as extruded in place or screw applied configurations.

Weather Stripping

All entrance frames are weather-stripped with bulb gasket.

Thermal Barrier

All frames and vents are thermally broken using the latest technology in two part, high density polyurethane.

Glazing

Series 433 can be inside or outside glazed with extruded aluminum, snap-in glazing bead. Glass is "dry glazed" with top load gasket. Glazing of 3/16" to 1 1/16" infill panels are accommodated. See Glazing Chart for exact size.

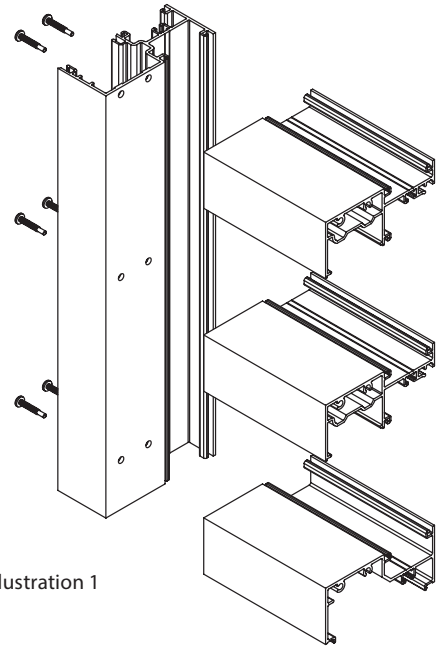


Illustration 1

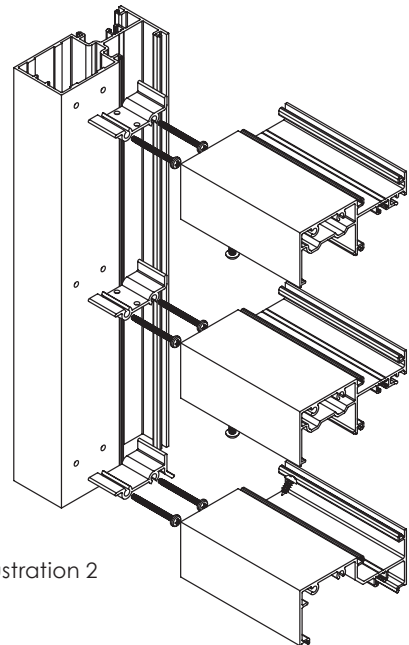
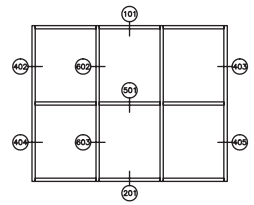
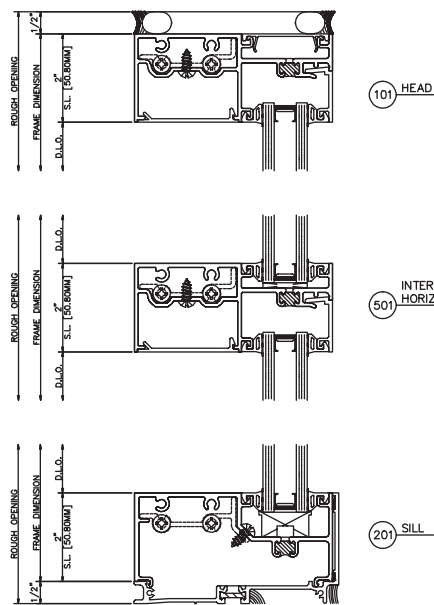
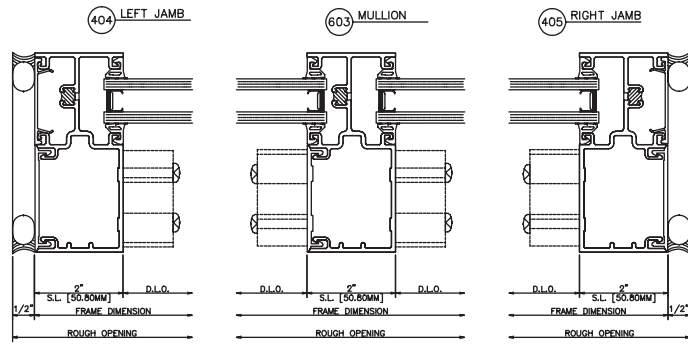
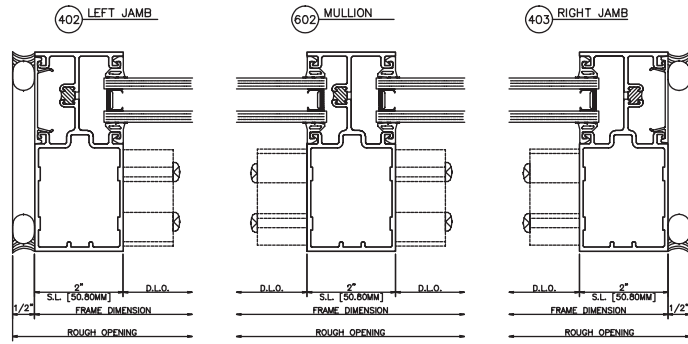
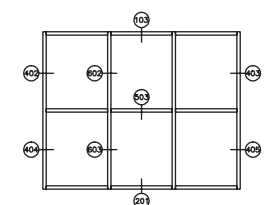
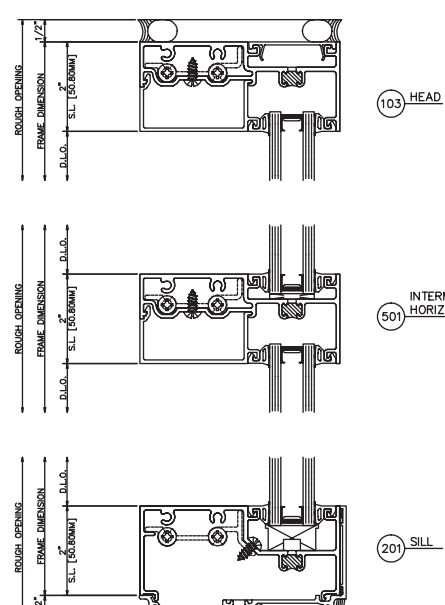
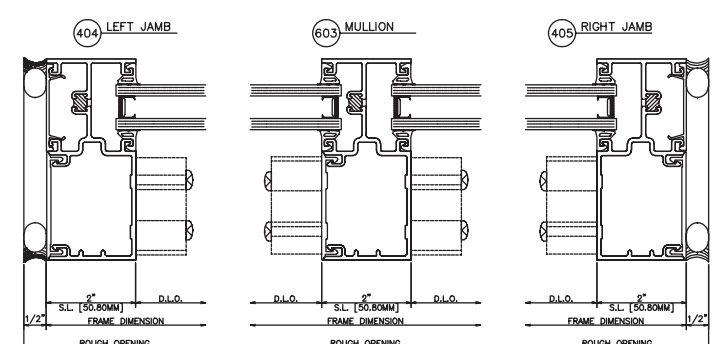
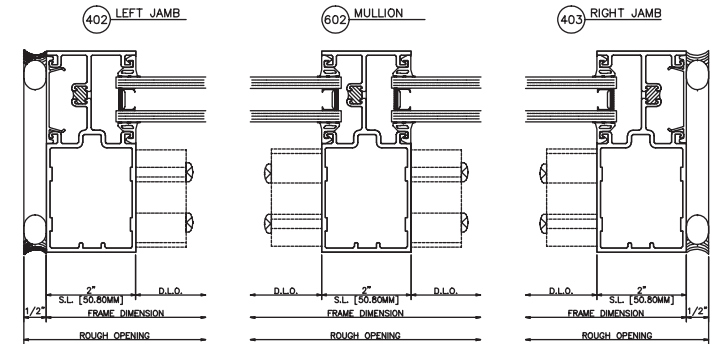


Illustration 2



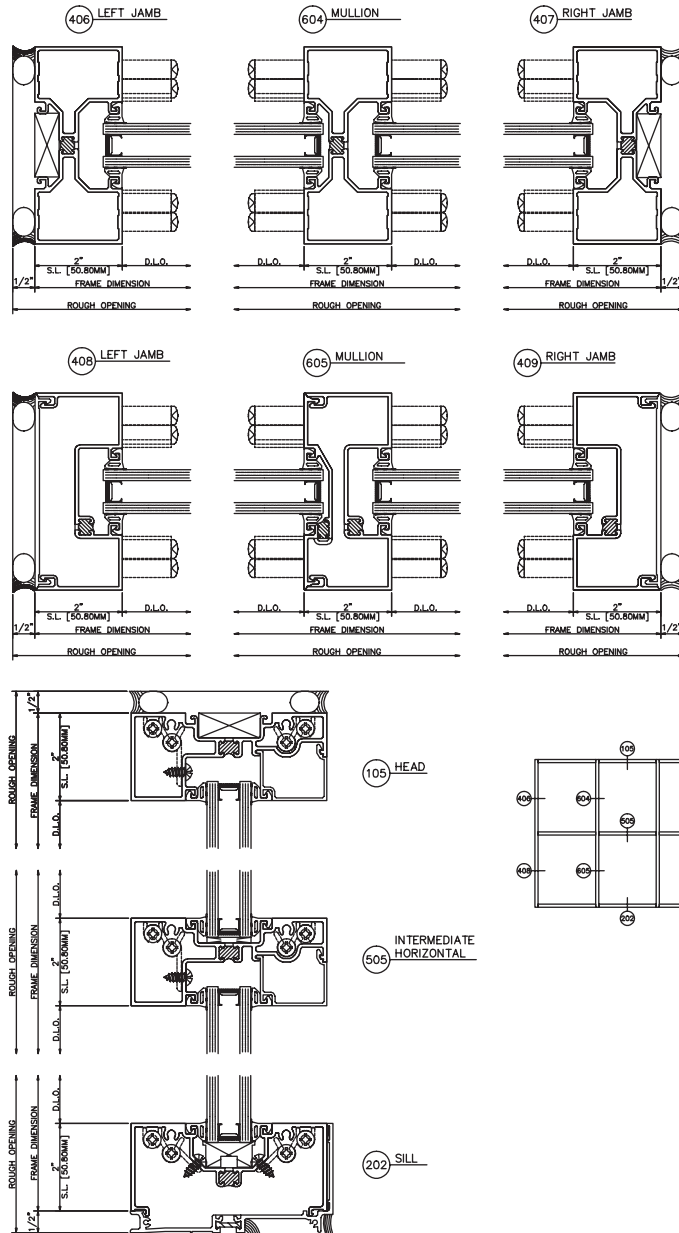
433 Shear Block
Inside Glazed • Inside Set



433 Shear Block
Outside Glazed • Inside Set

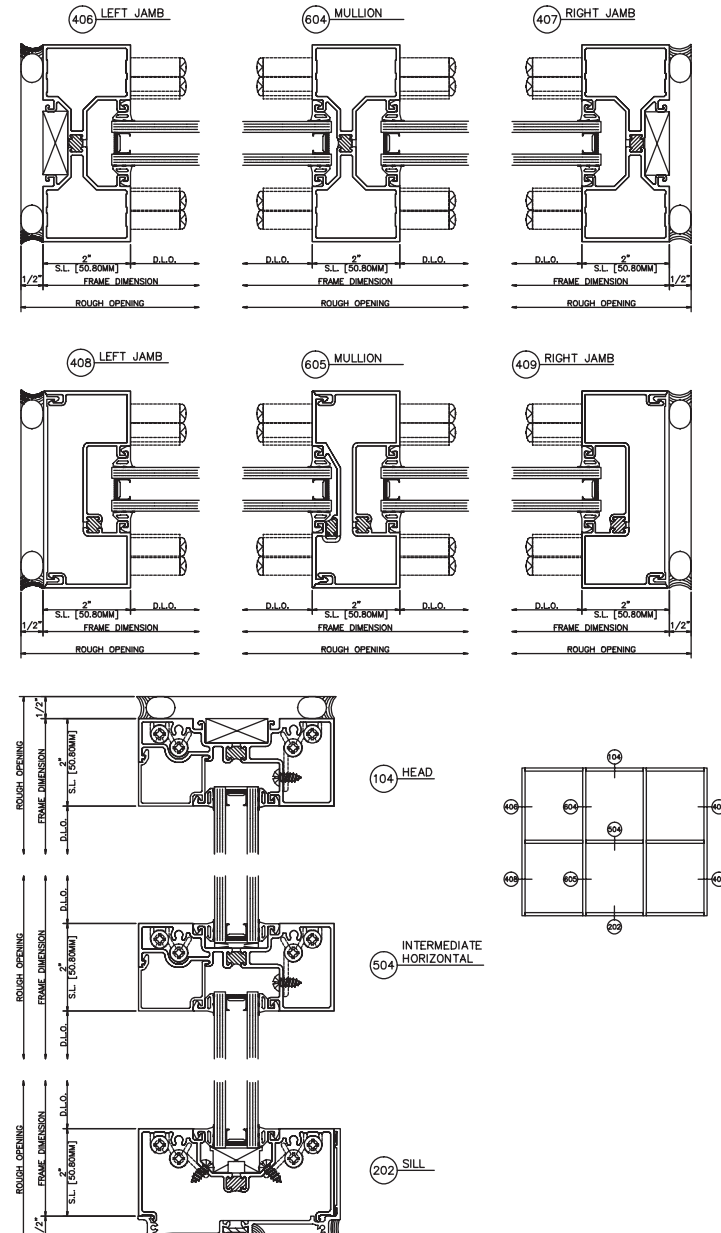
433 Shear Block

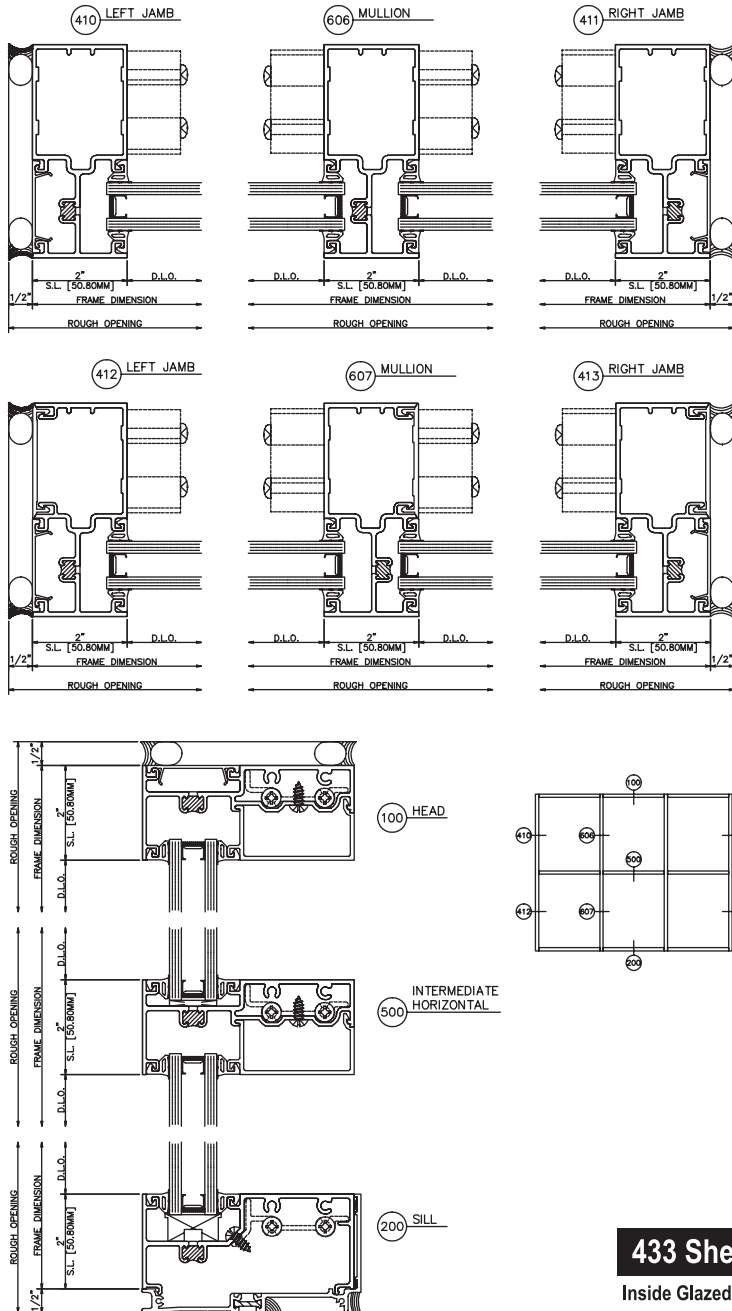
Inside Glazed • Center Set



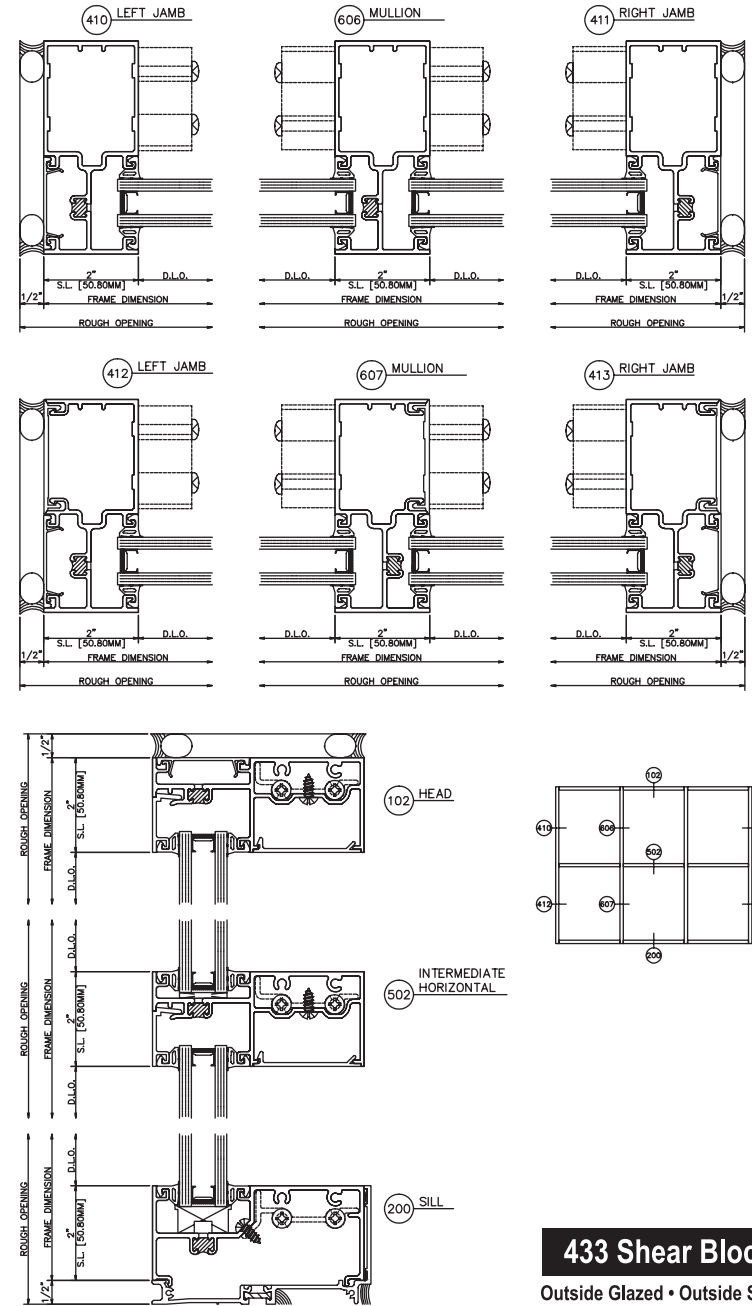
433 Shear Block

Outside Glazed • Center Set





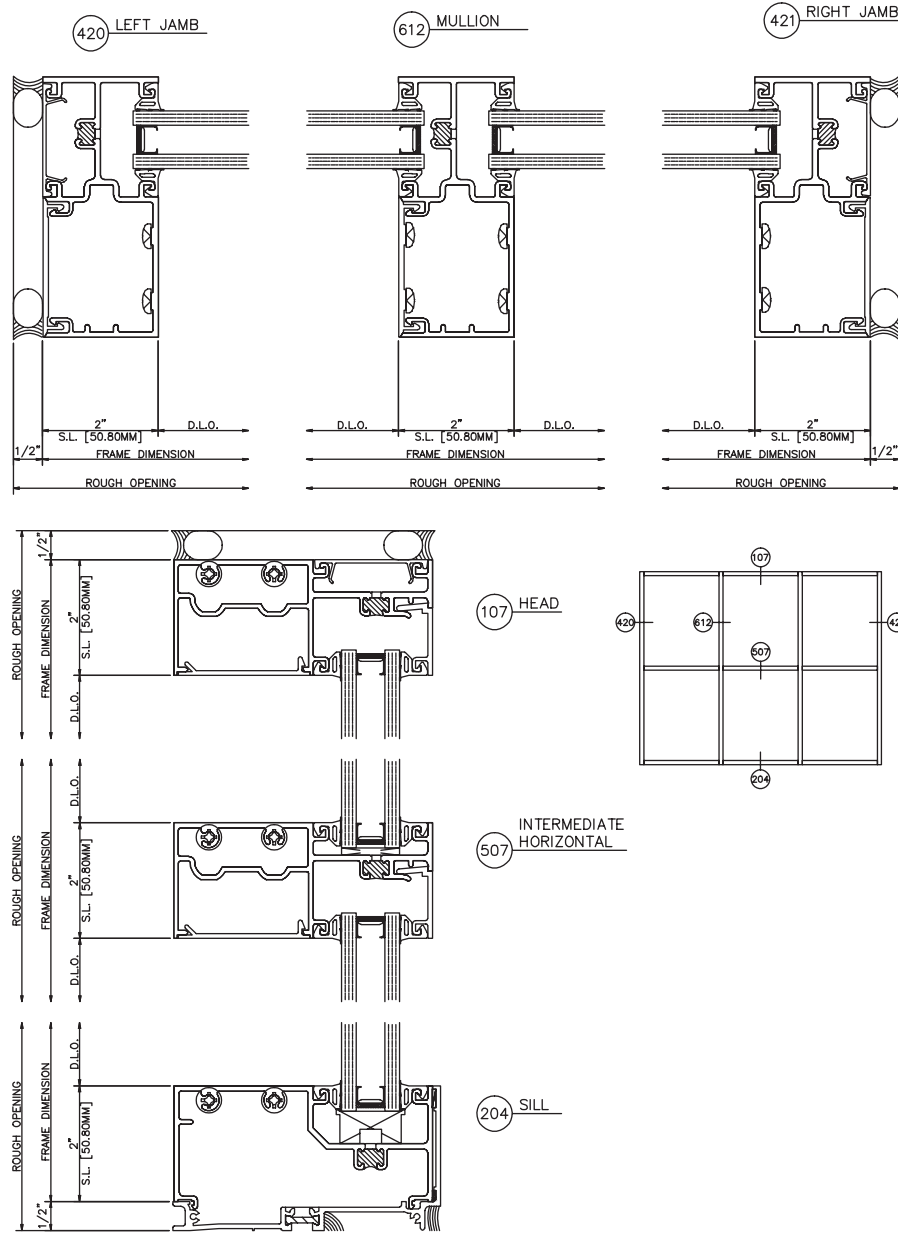
433 Shear Block
Inside Glazed • Outside Set



433 Shear Block
Outside Glazed • Outside Set

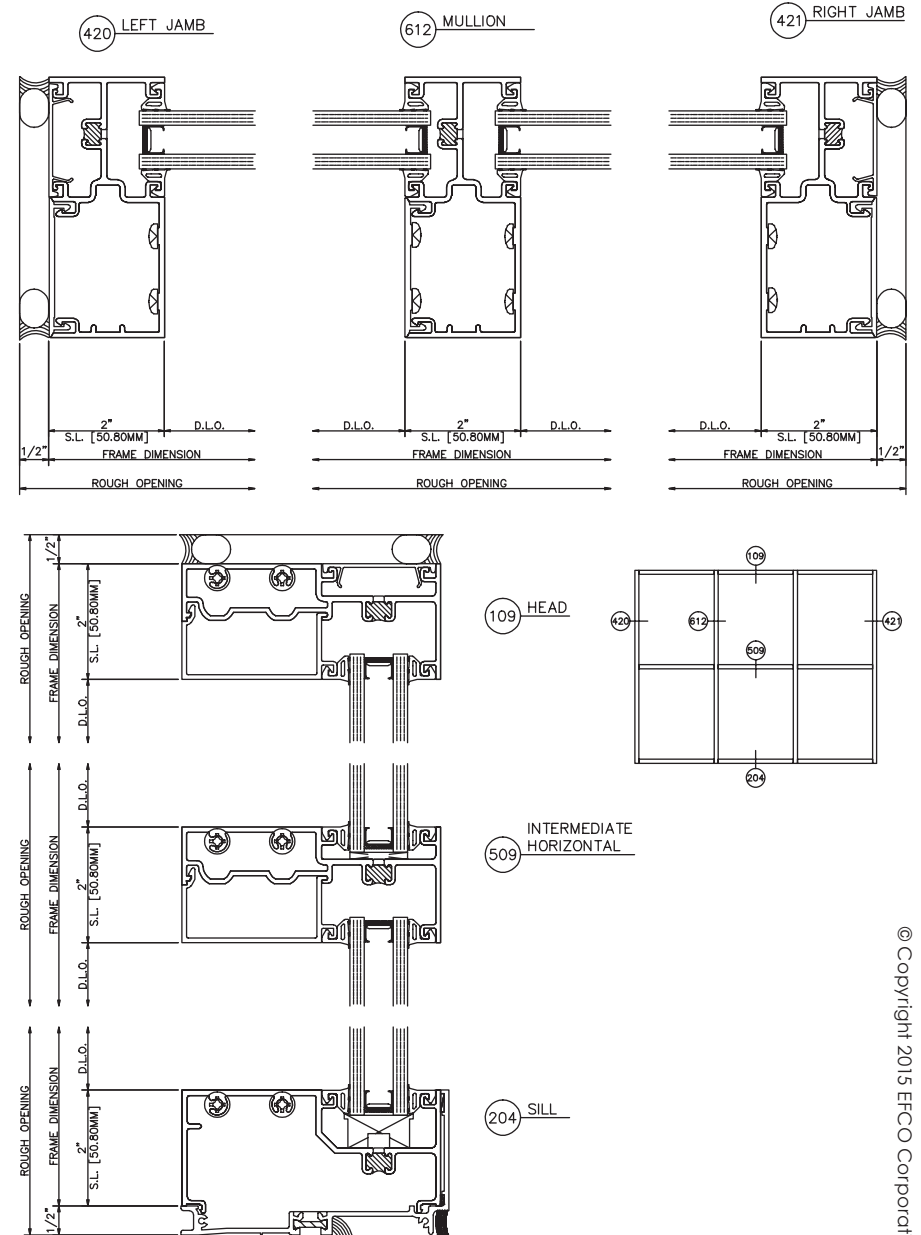
433 Screw Spline

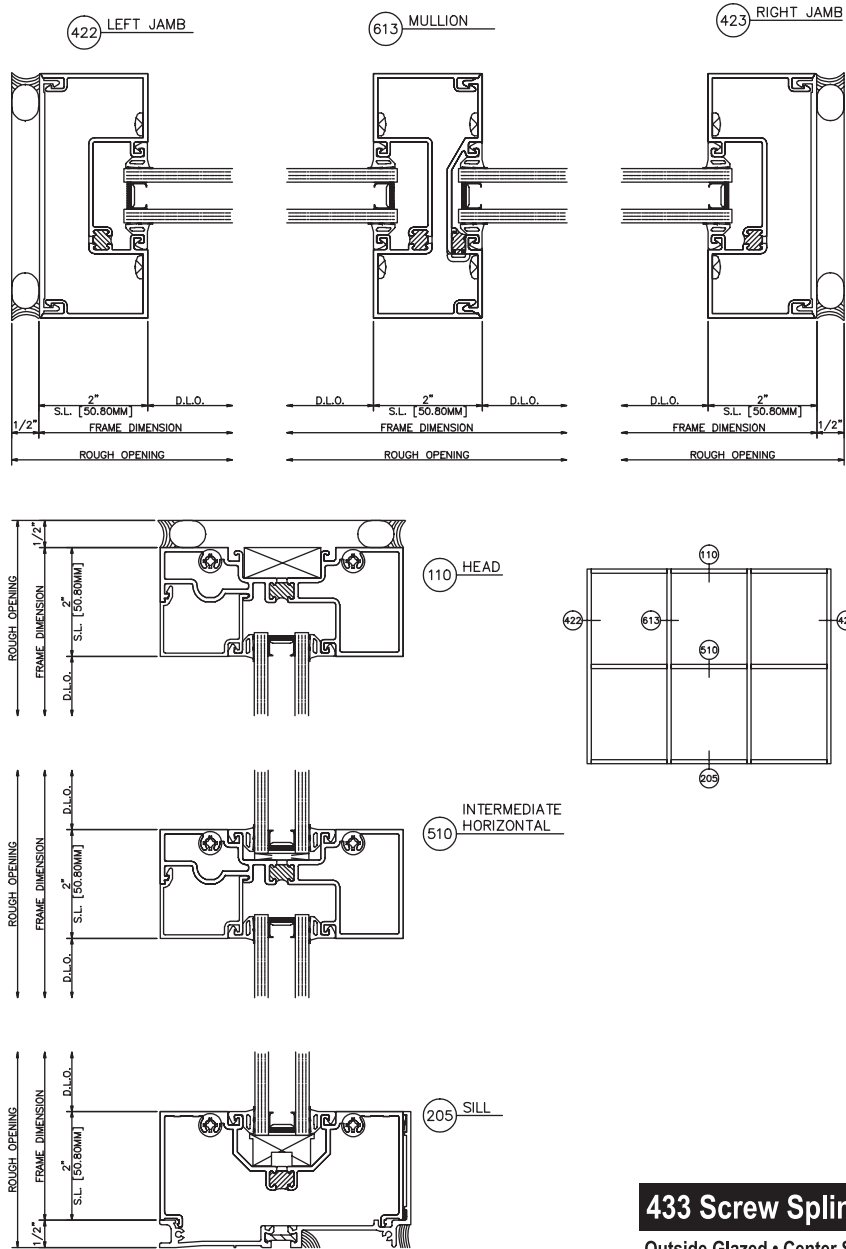
Inside Glazed • Inside Set



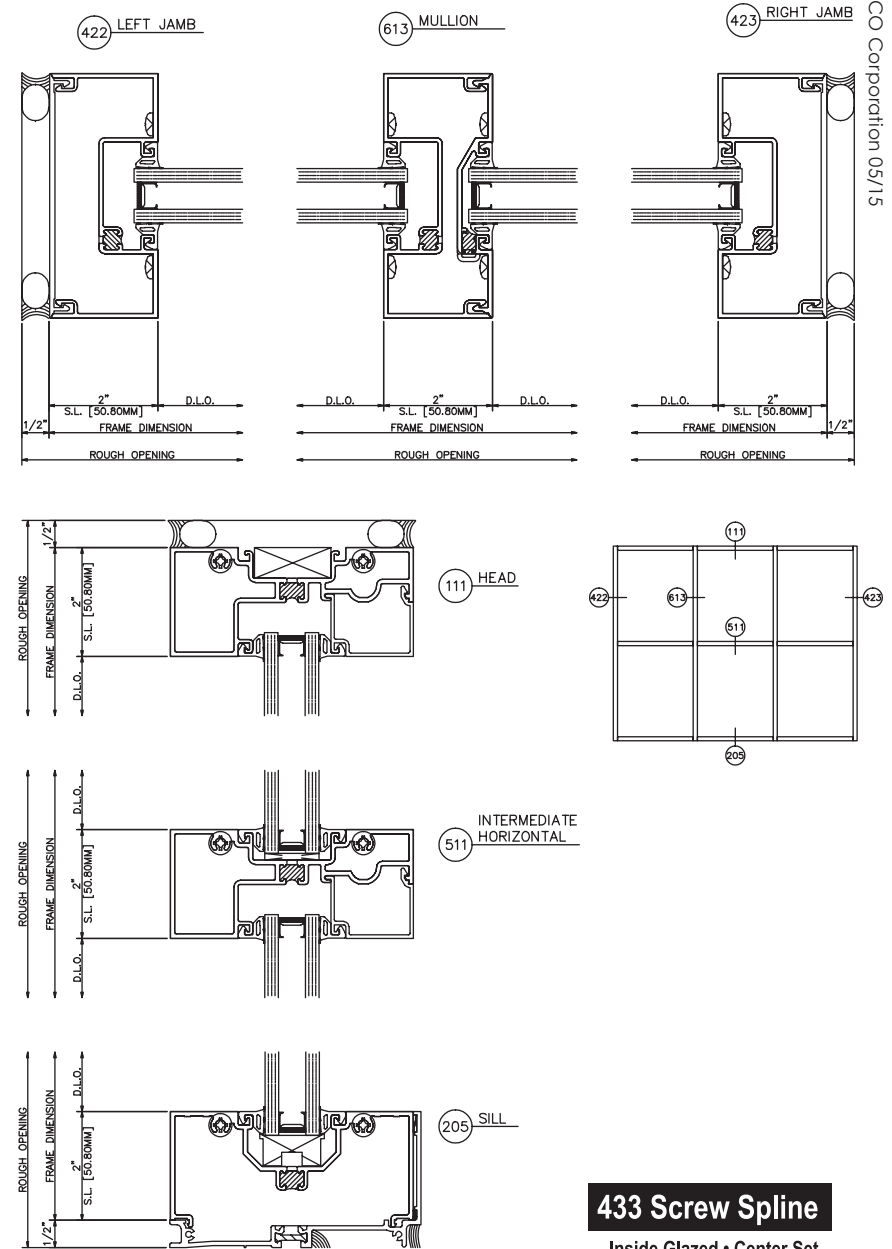
433 Screw Spline

Outside Glazed • Inside Set





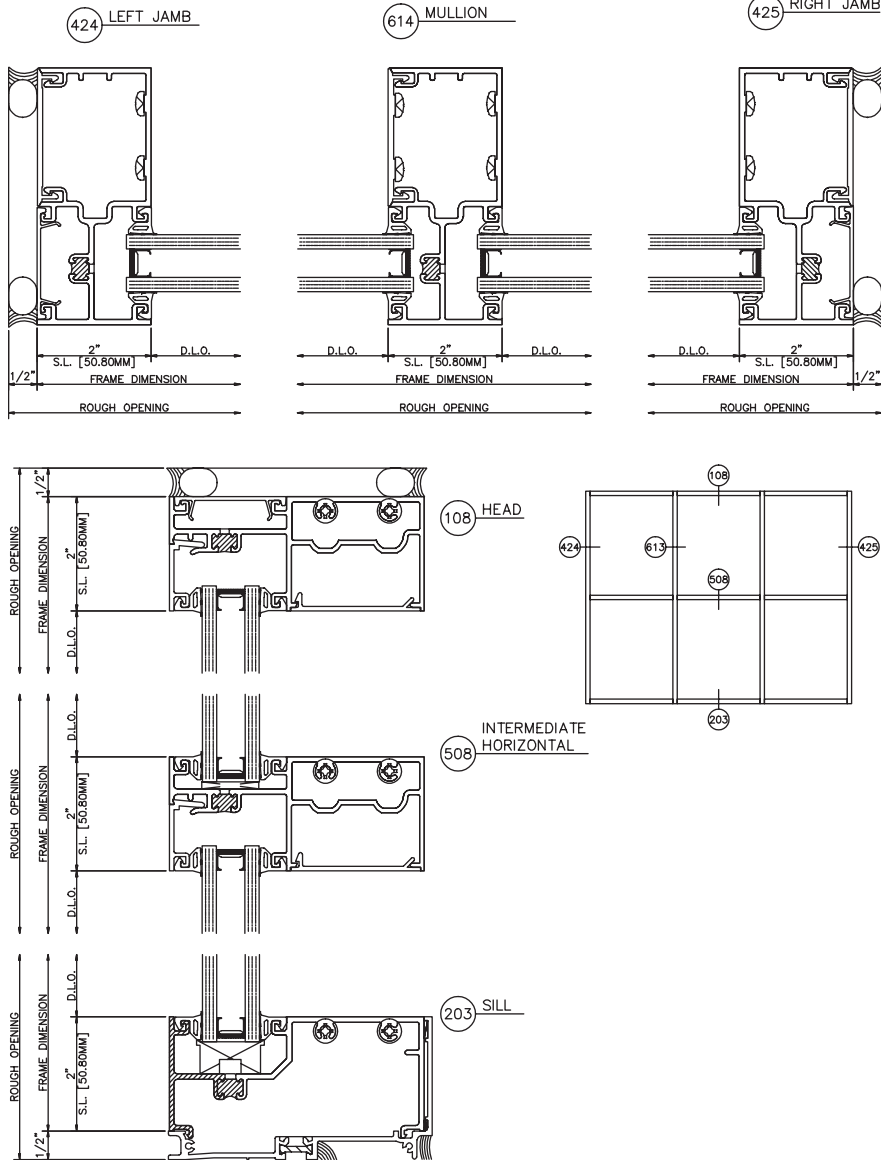
433 Screw Spline
Outside Glazed • Center Set



433 Screw Spline
Inside Glazed • Center Set

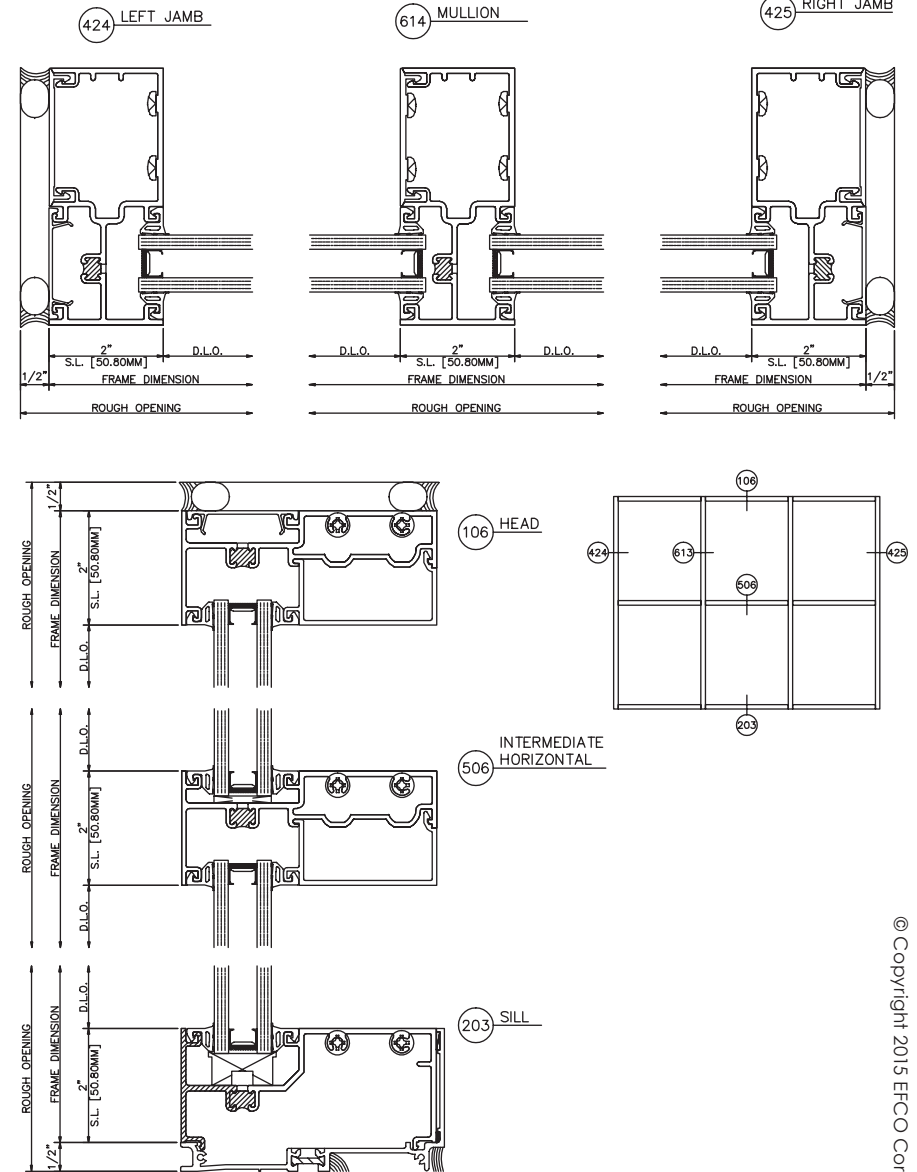
433 Screw Spline

Outside Glazed • Outside Set



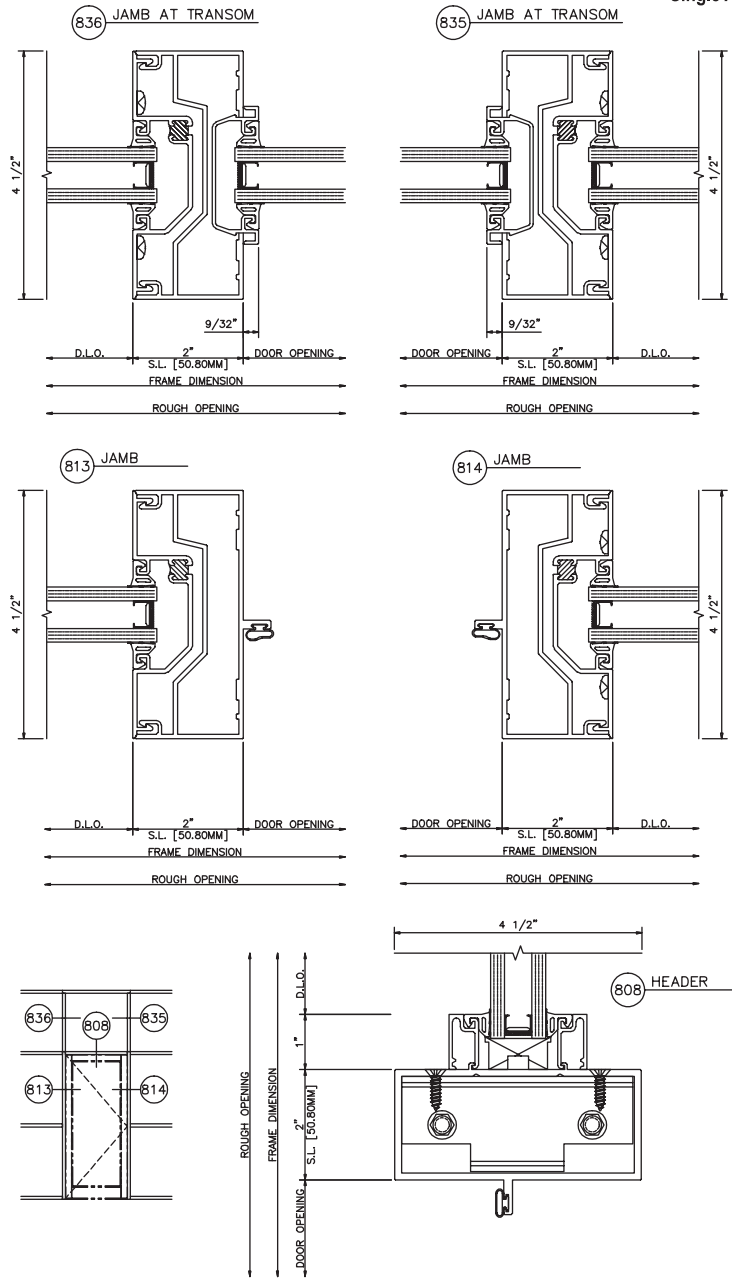
433 Screw Spline

Inside Glazed • Outside Set



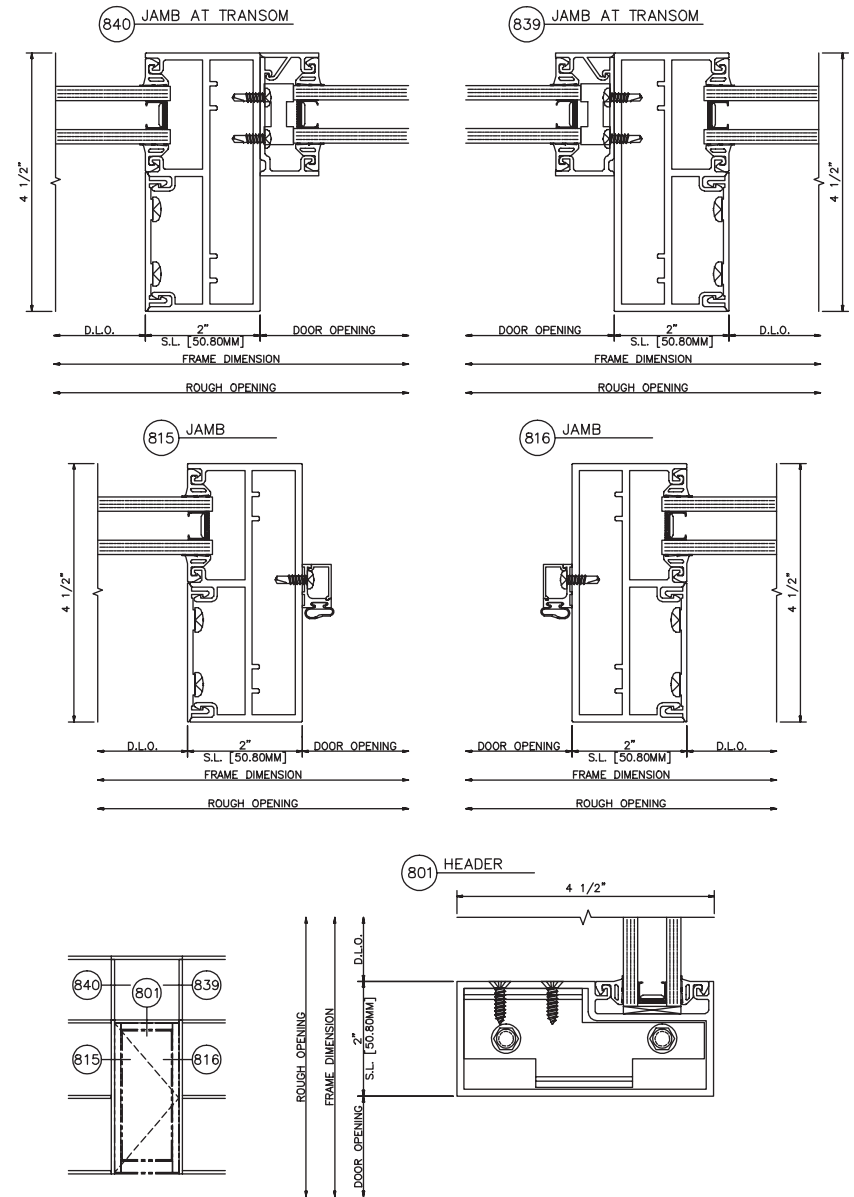
433 Door Frame with Transom

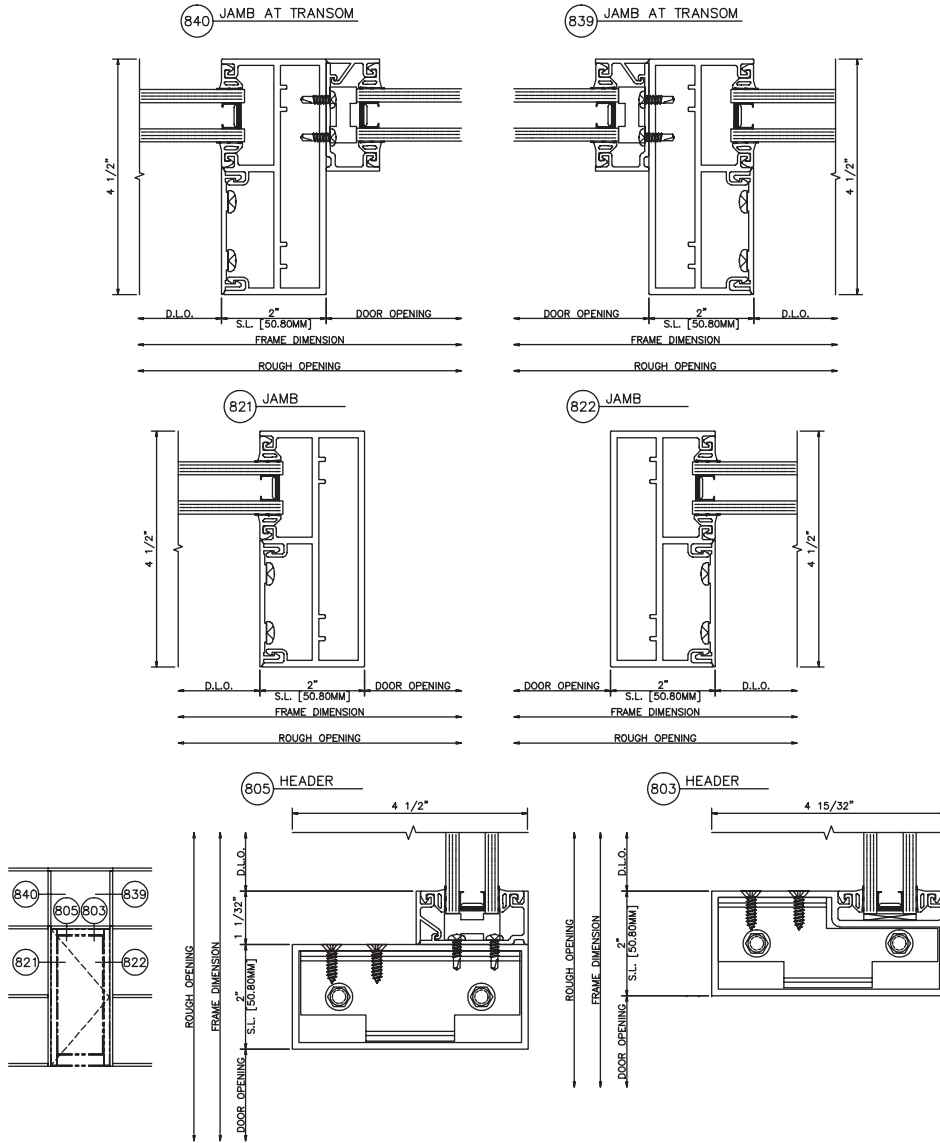
Single Acting • Center Set



433 Door Frame with Transom

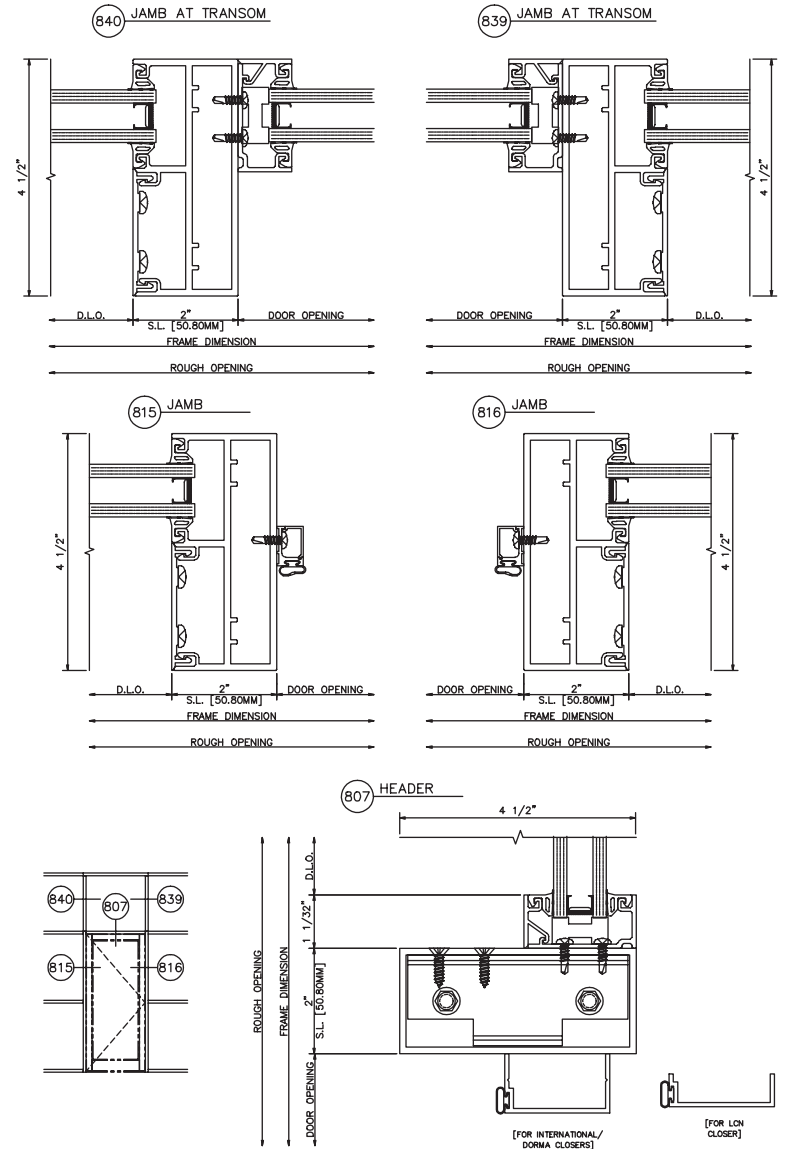
Single Acting • Inside Set





433 Door Frame with Transom

Dual Acting • Inside Set

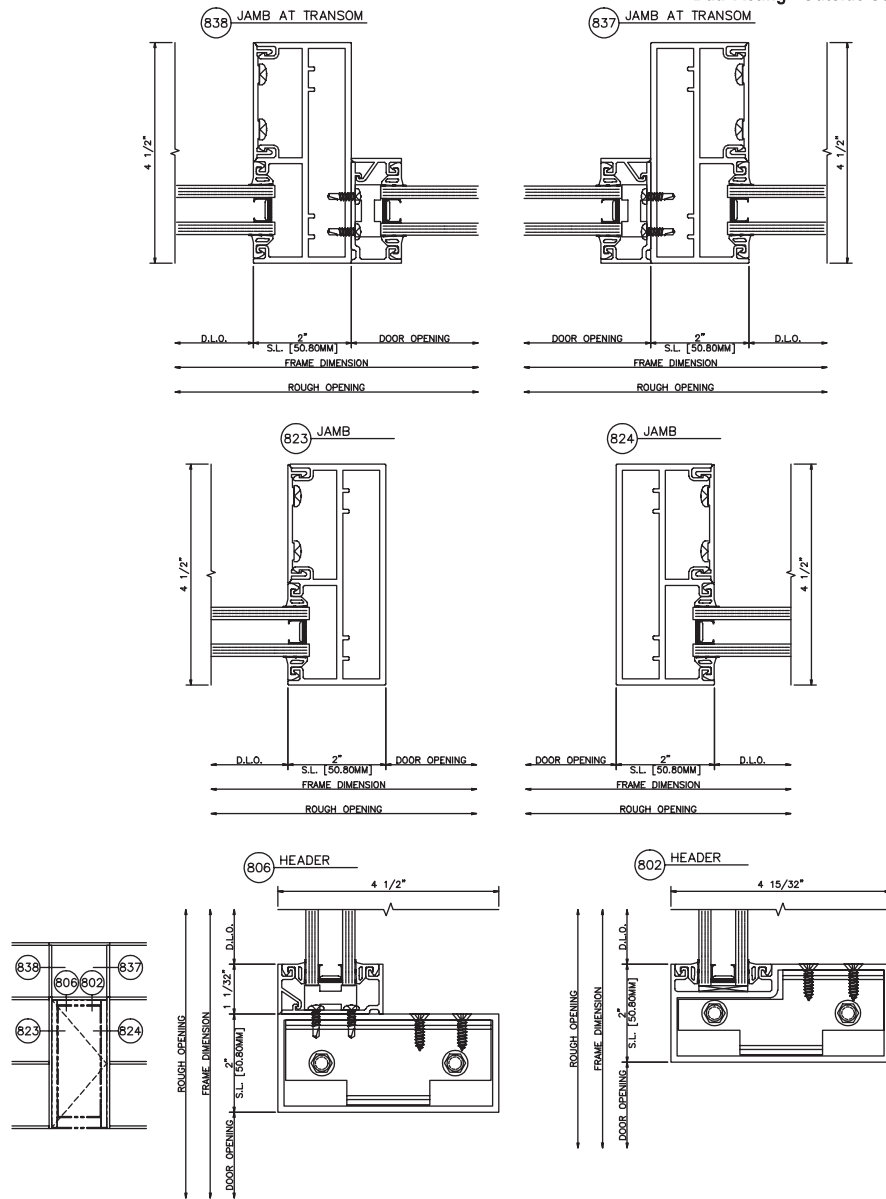


433 Door Frame with Transom

Single Acting w/C.O.C. • Inside Set

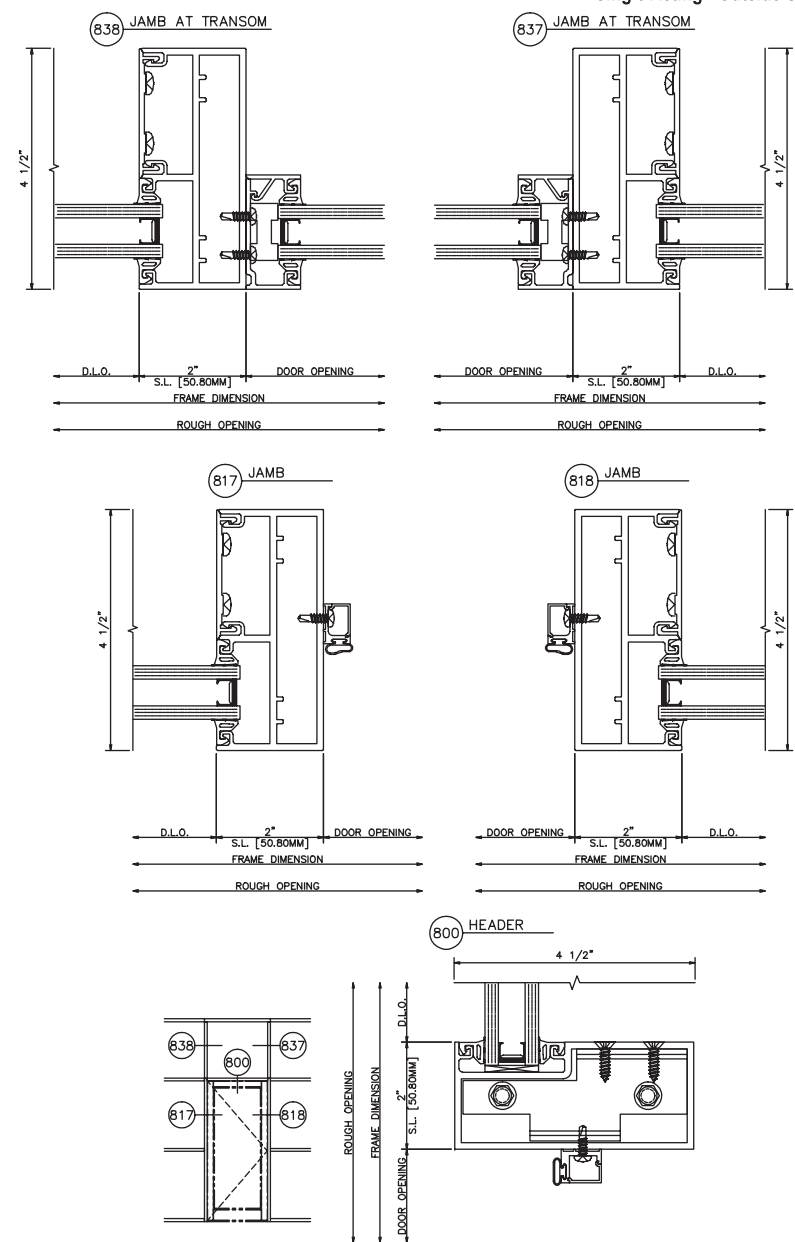
433 Door Frame with Transom

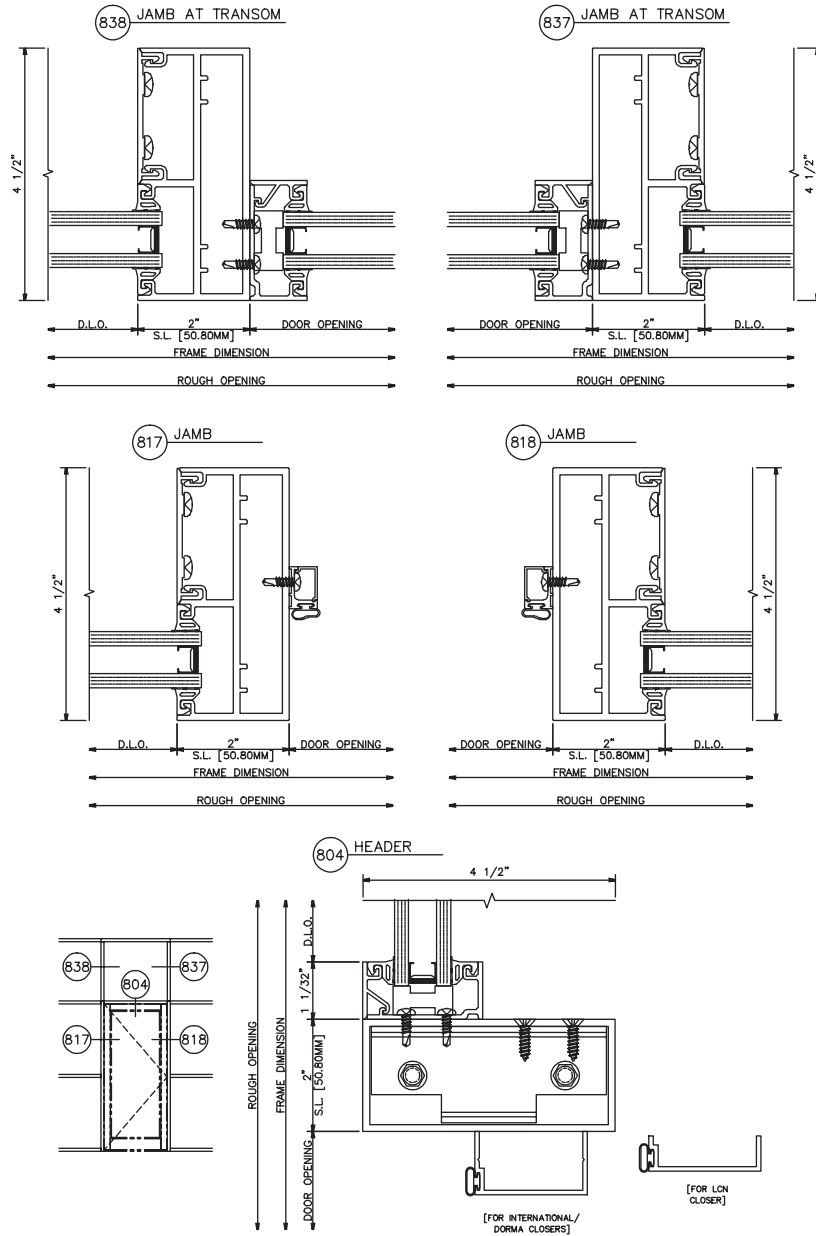
Dual Acting • Outside Set



433 Door Frame with Transom

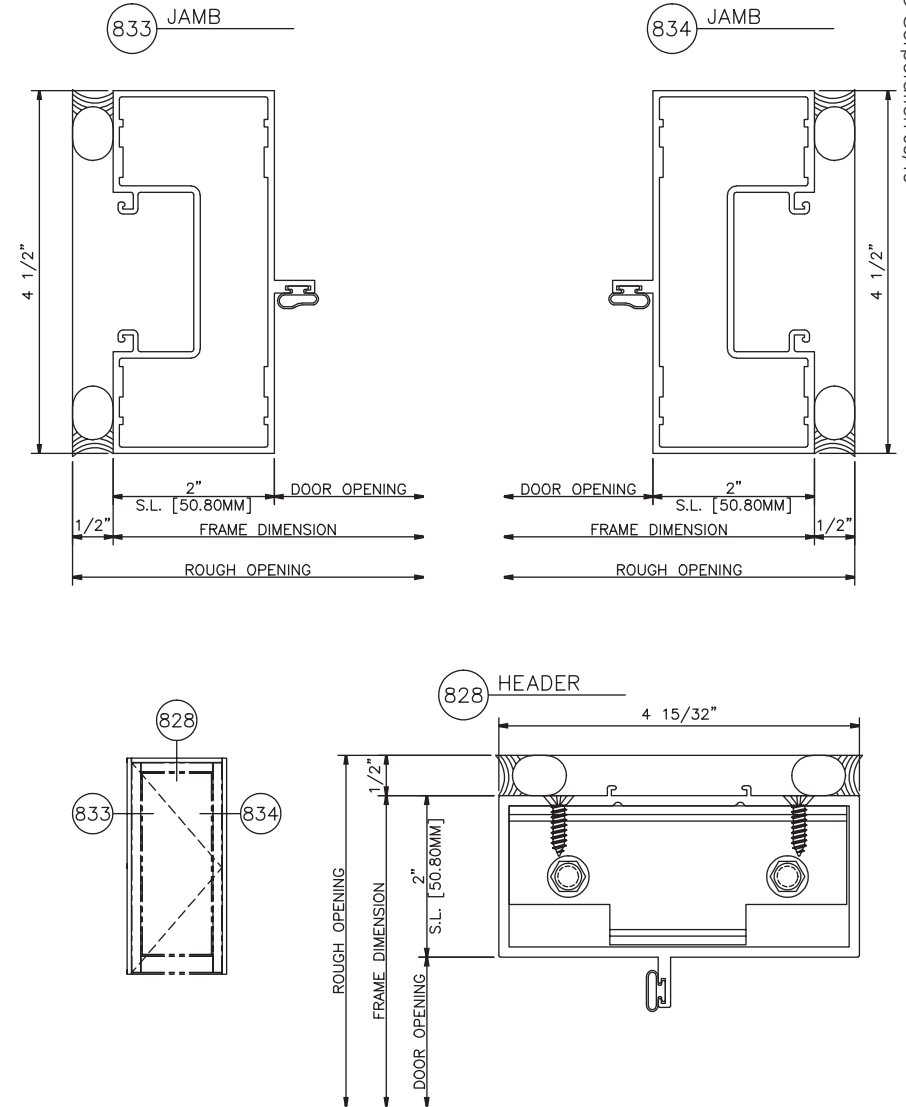
Single Acting • Outside Set





433 Door Frame with Transom

Single Acting w/C.O.C. • Outside Set

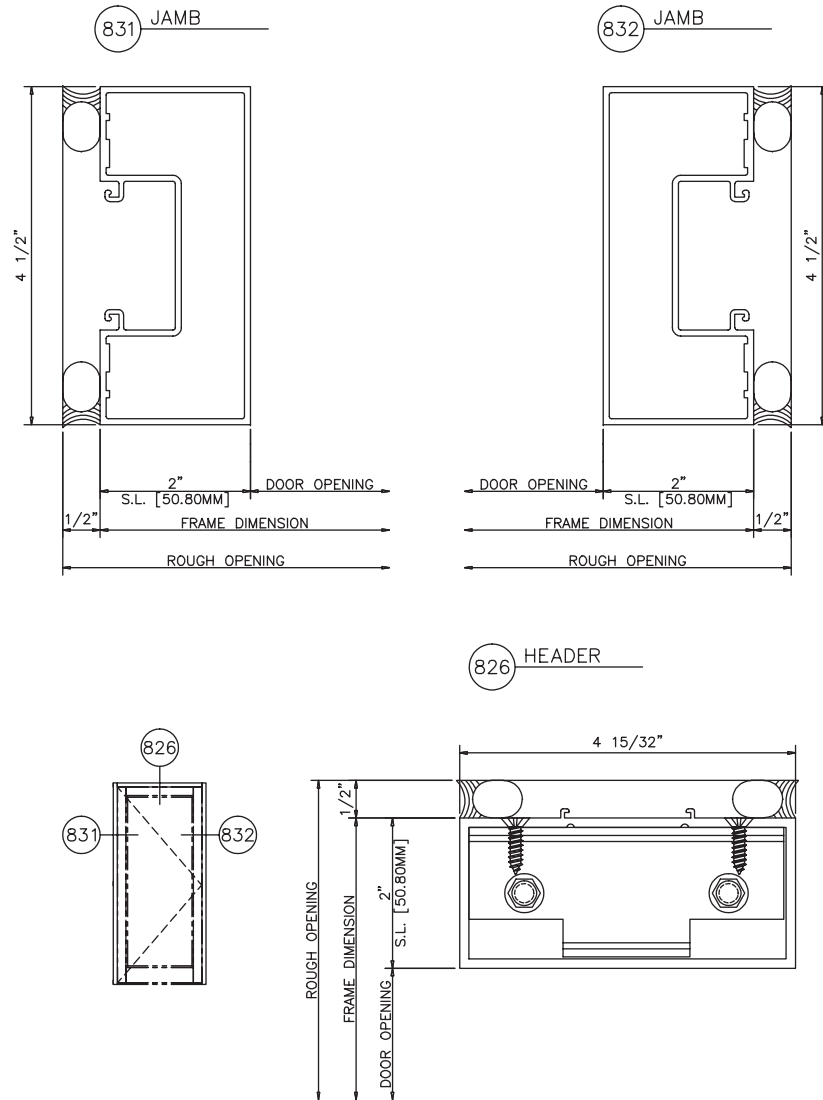


433 Door Frame with Transom

Dual Acting • Center Set

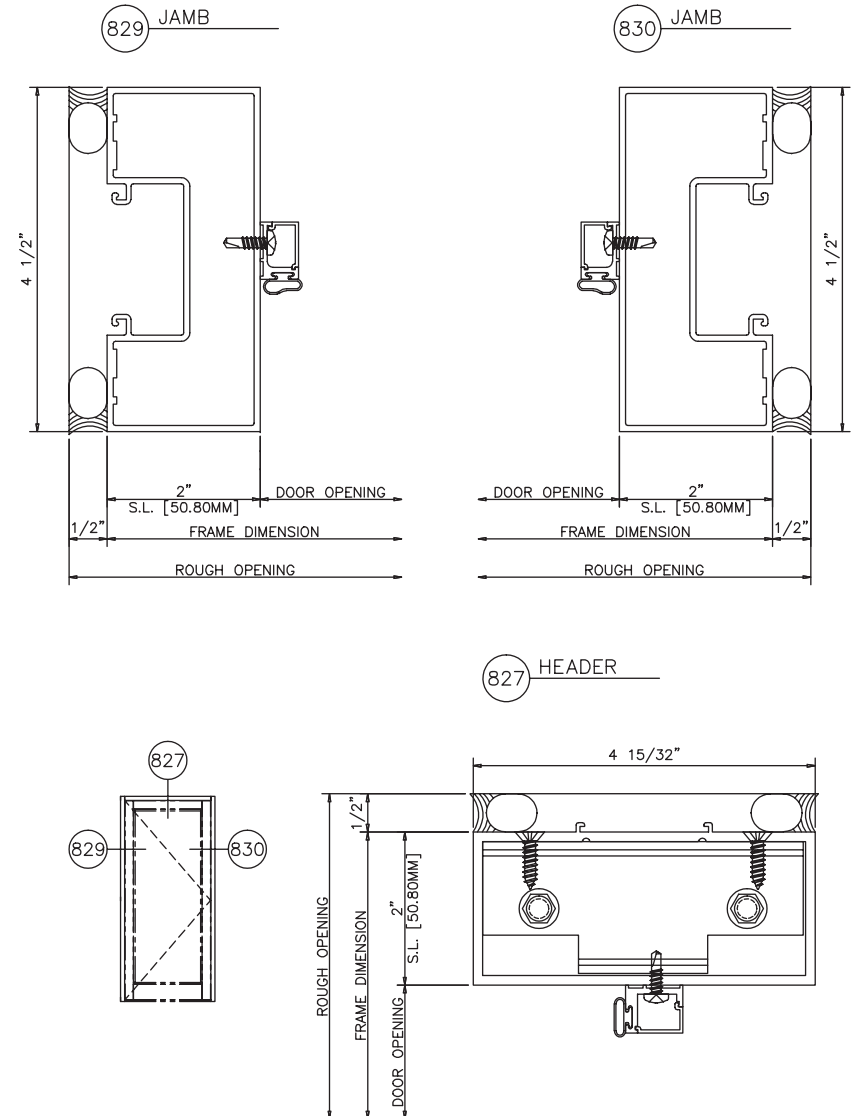
433 Door Frame Without Transom

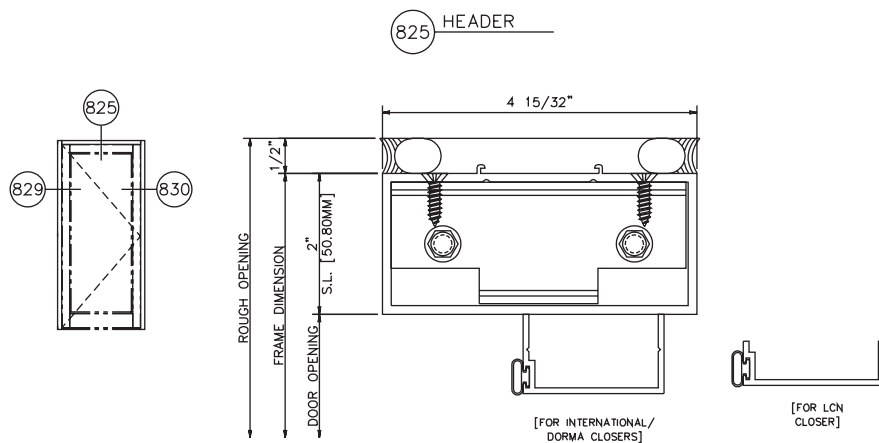
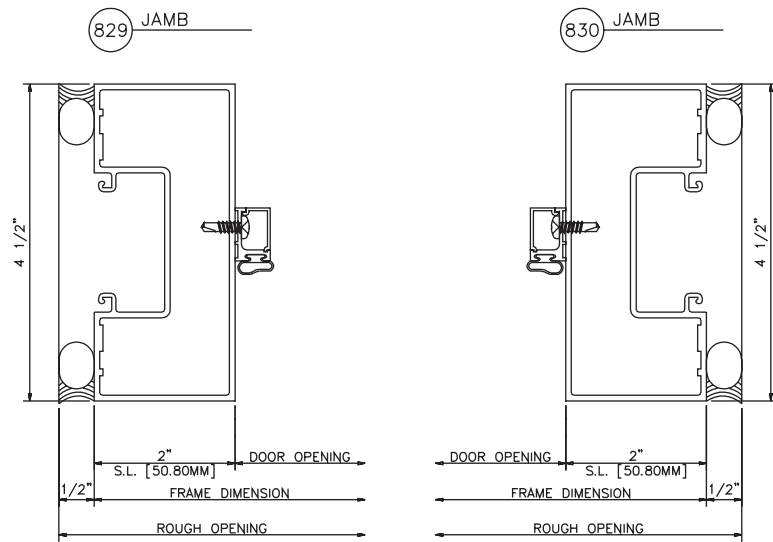
Dual Acting



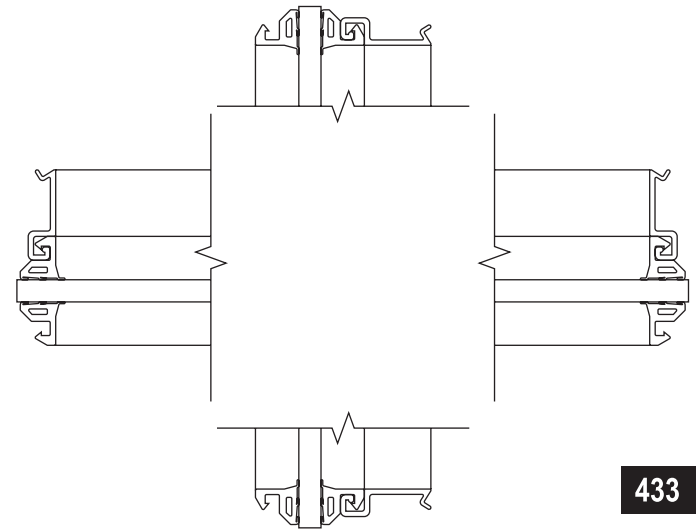
433 Door Frame Without Transom

Single Acting with Applied Stops

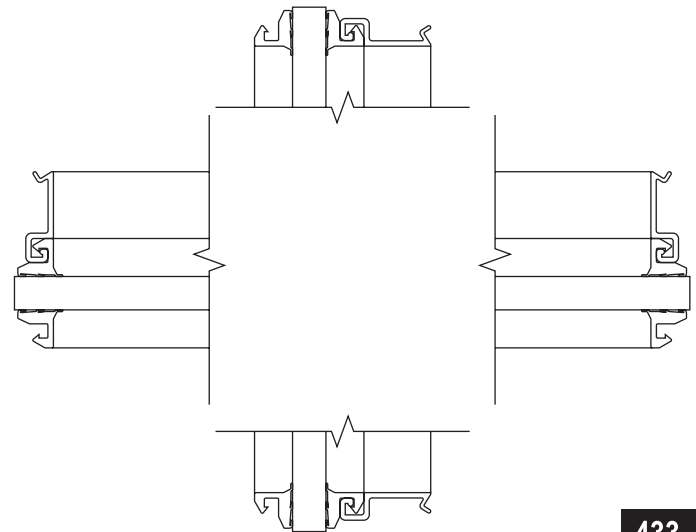




433 Door Frame Without Transom
Single Acting

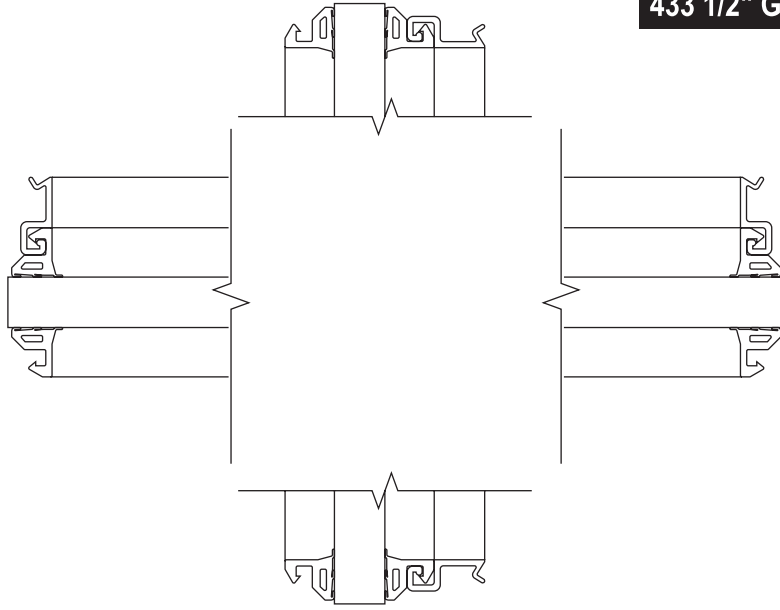


433 1/4" Glazing

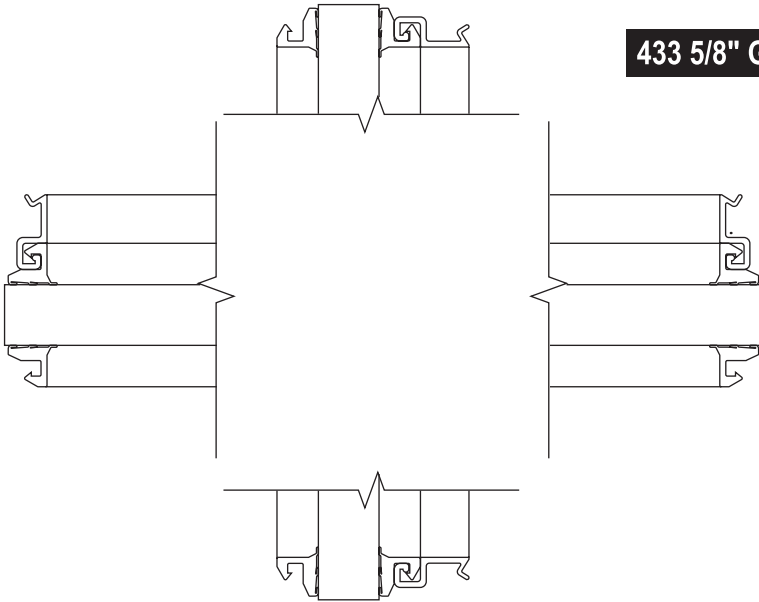


433 3/8" Glazing

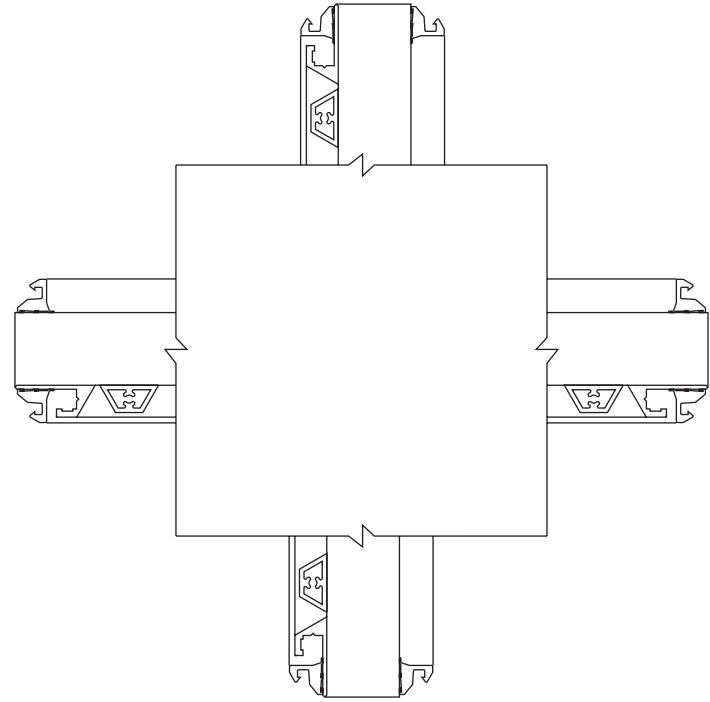
433 1/2" Glazing

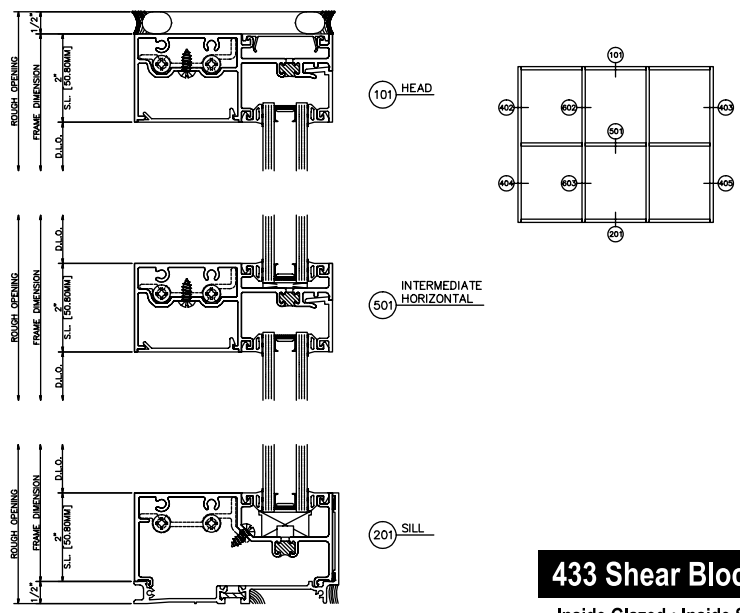
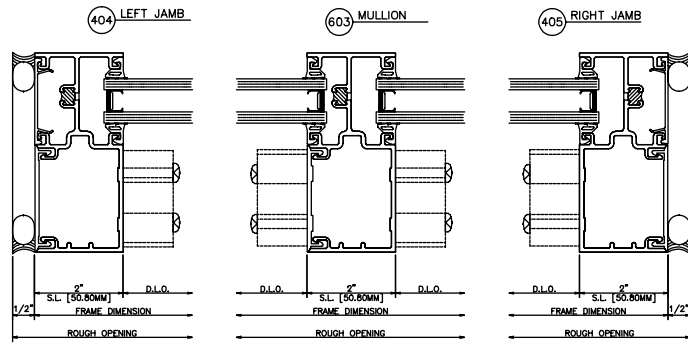
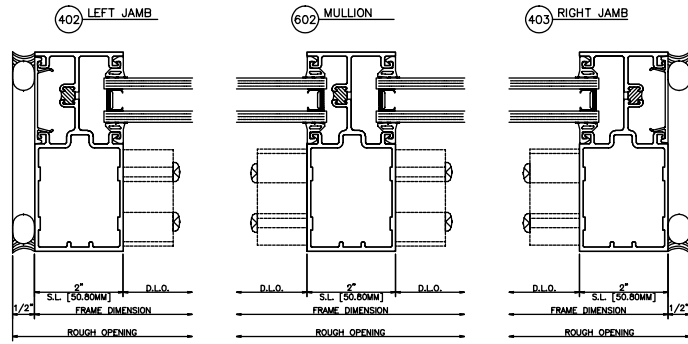


433 5/8" Glazing

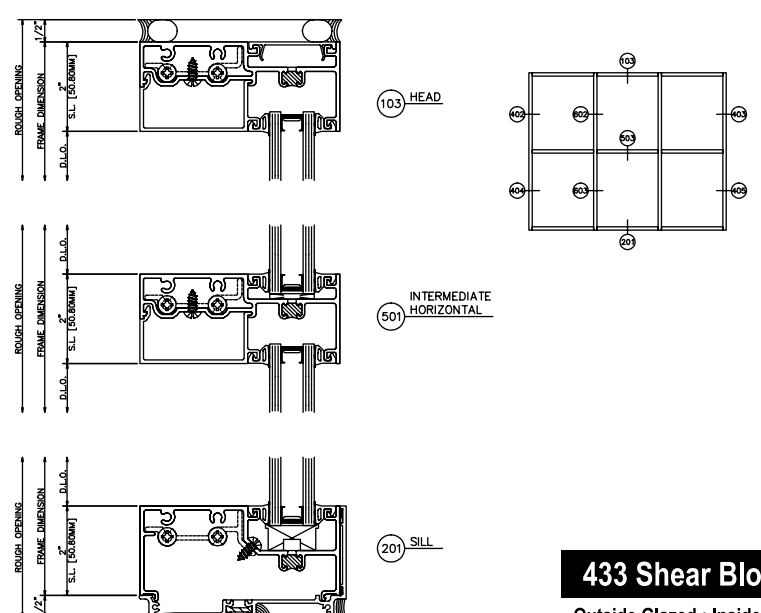
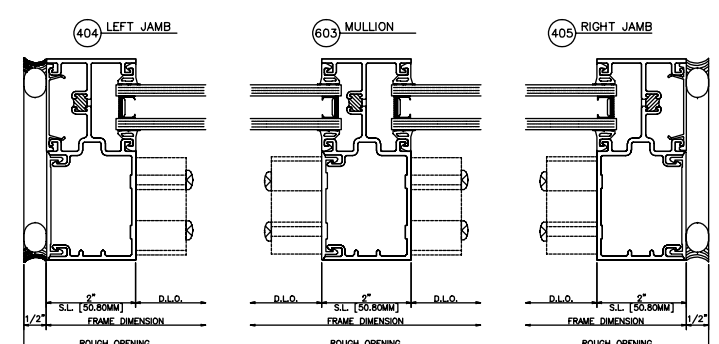
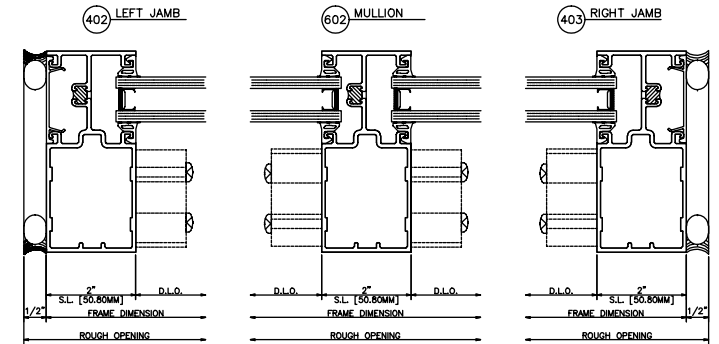


433 1" Glazing





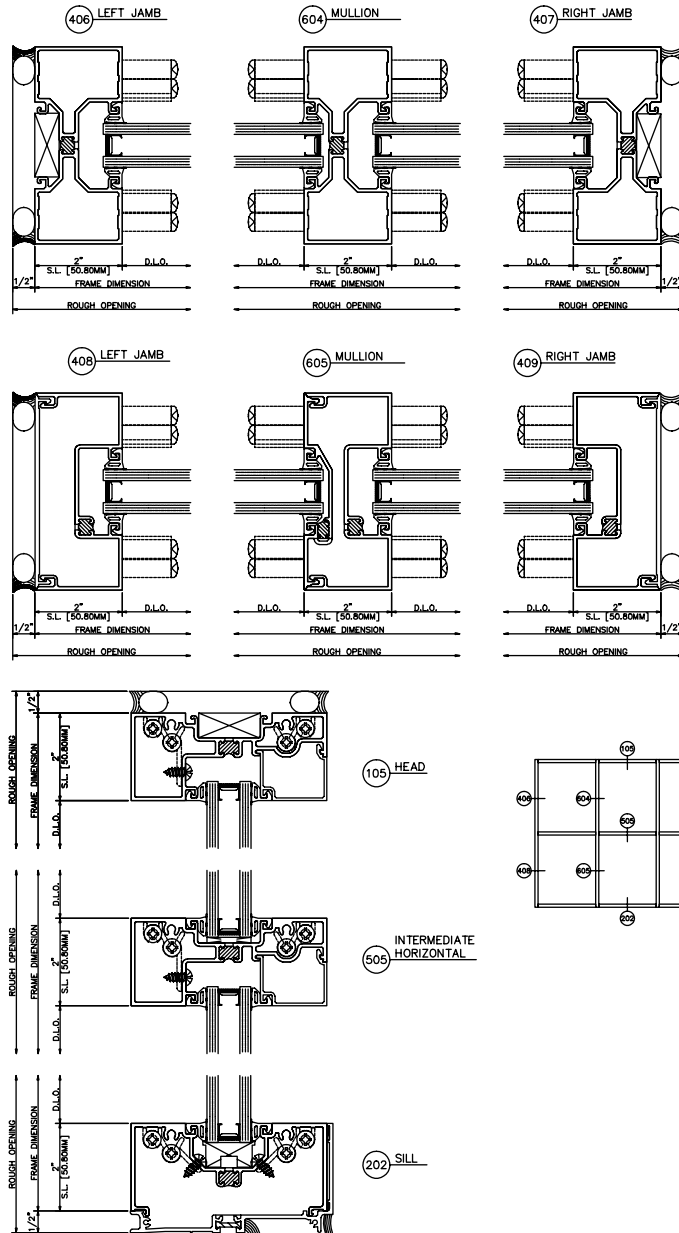
433 Shear Block
Inside Glazed • Inside Set



433 Shear Block
Outside Glazed • Inside Set

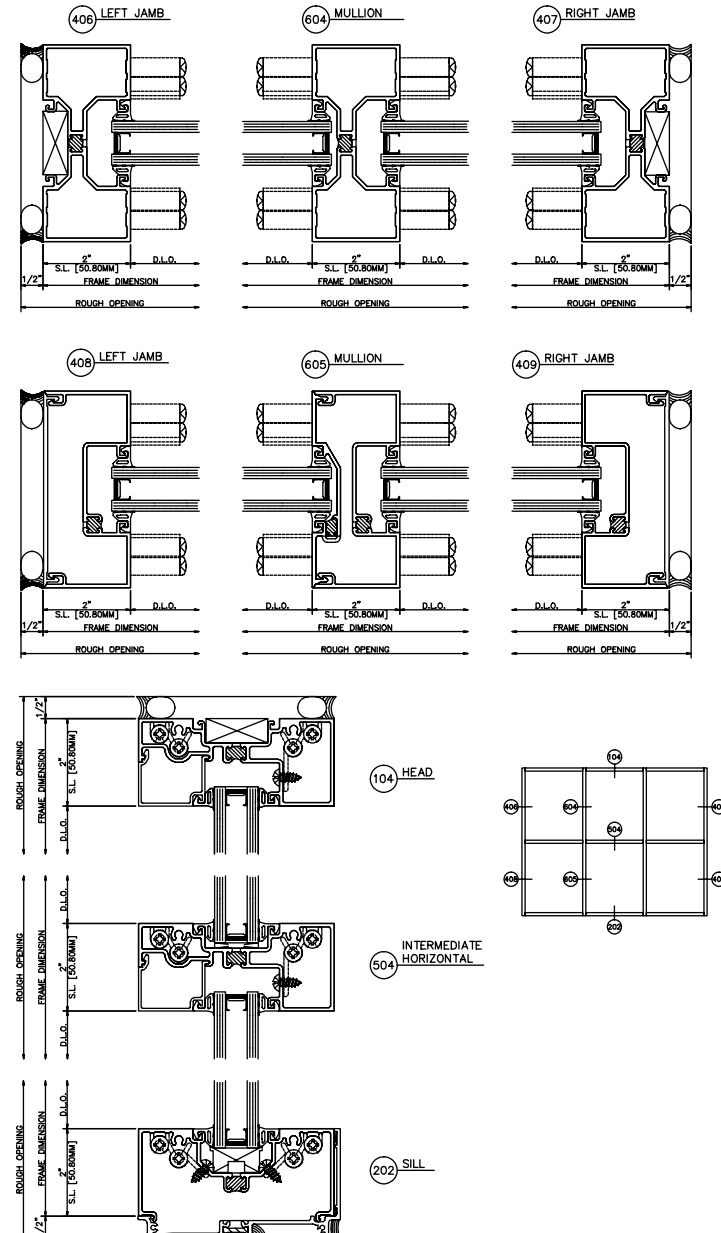
433 Shear Block

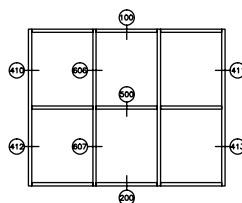
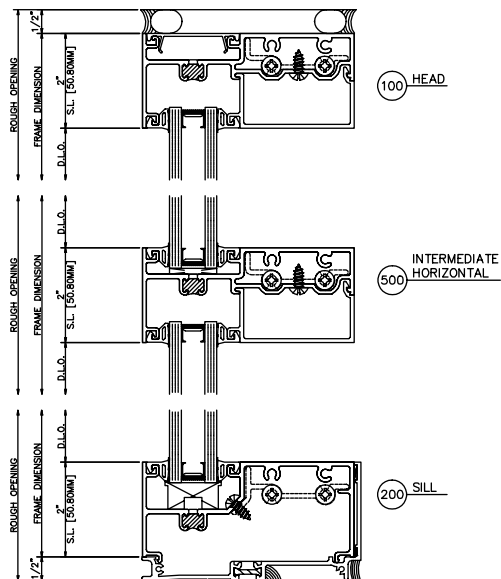
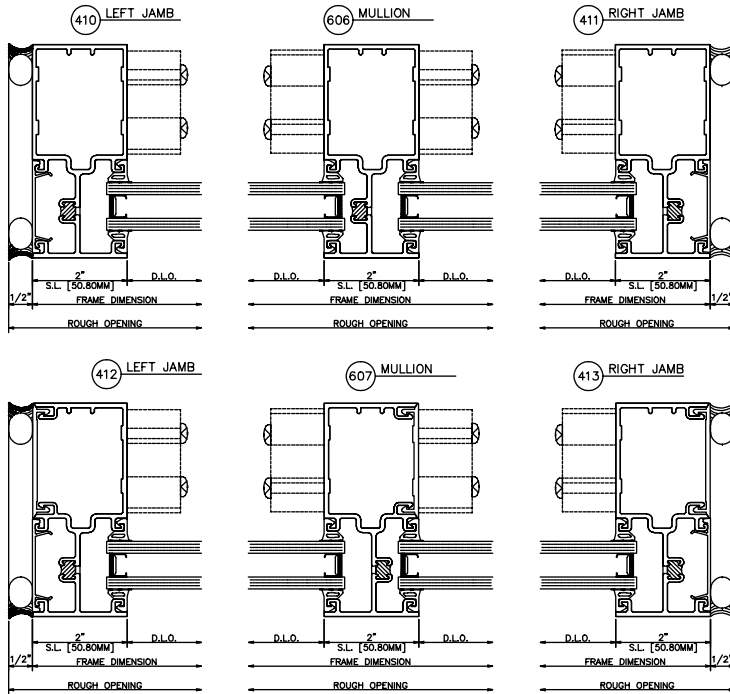
Inside Glazed • Center Set



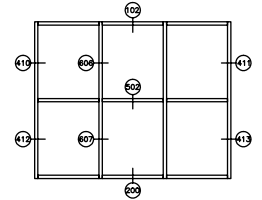
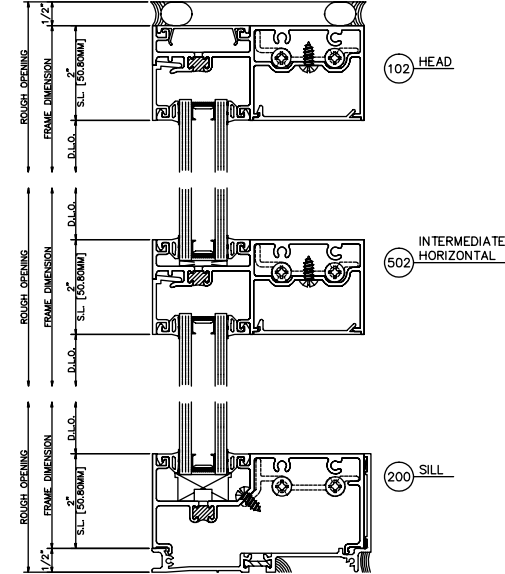
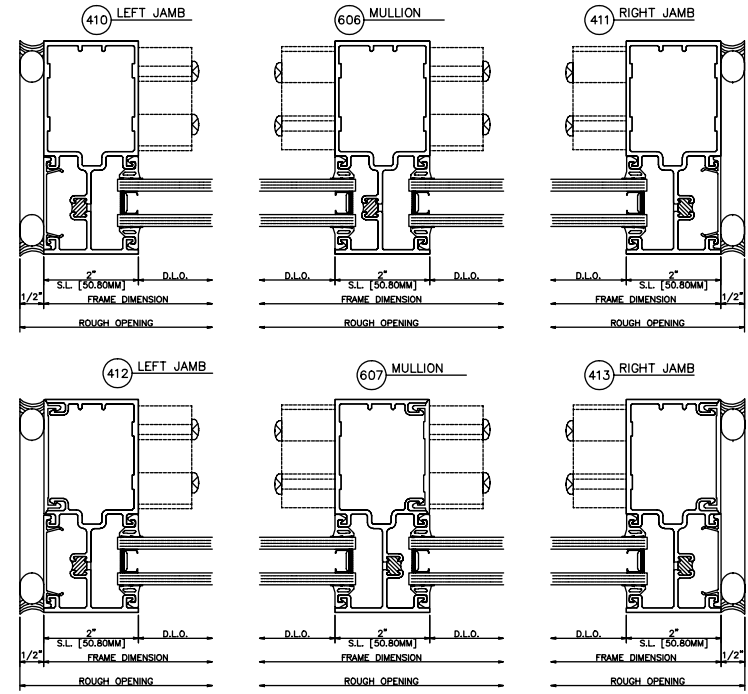
433 Shear Block

Outside Glazed • Center Set





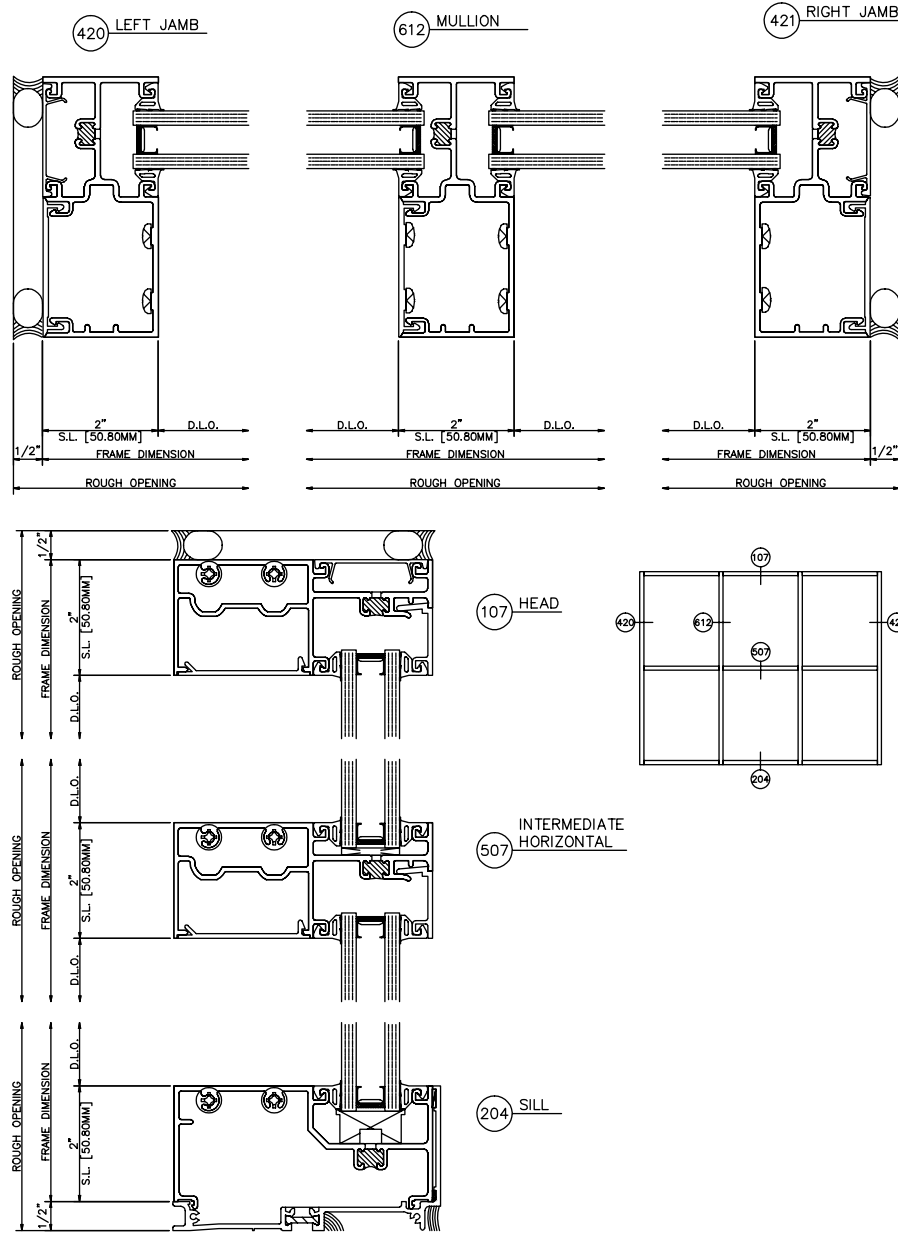
433 Shear Block
Inside Glazed • Outside Set



433 Shear Block
Outside Glazed • Outside Set

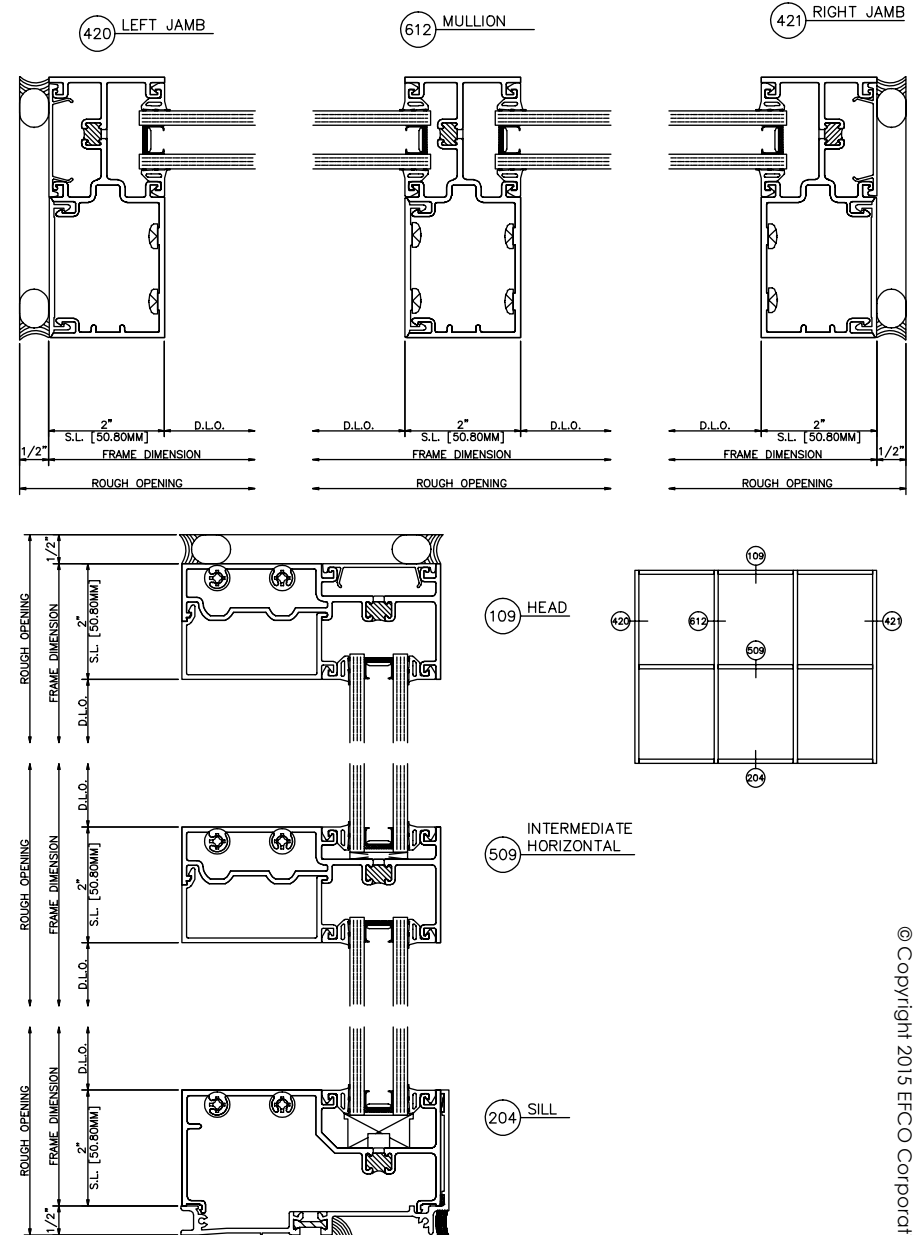
433 Screw Spline

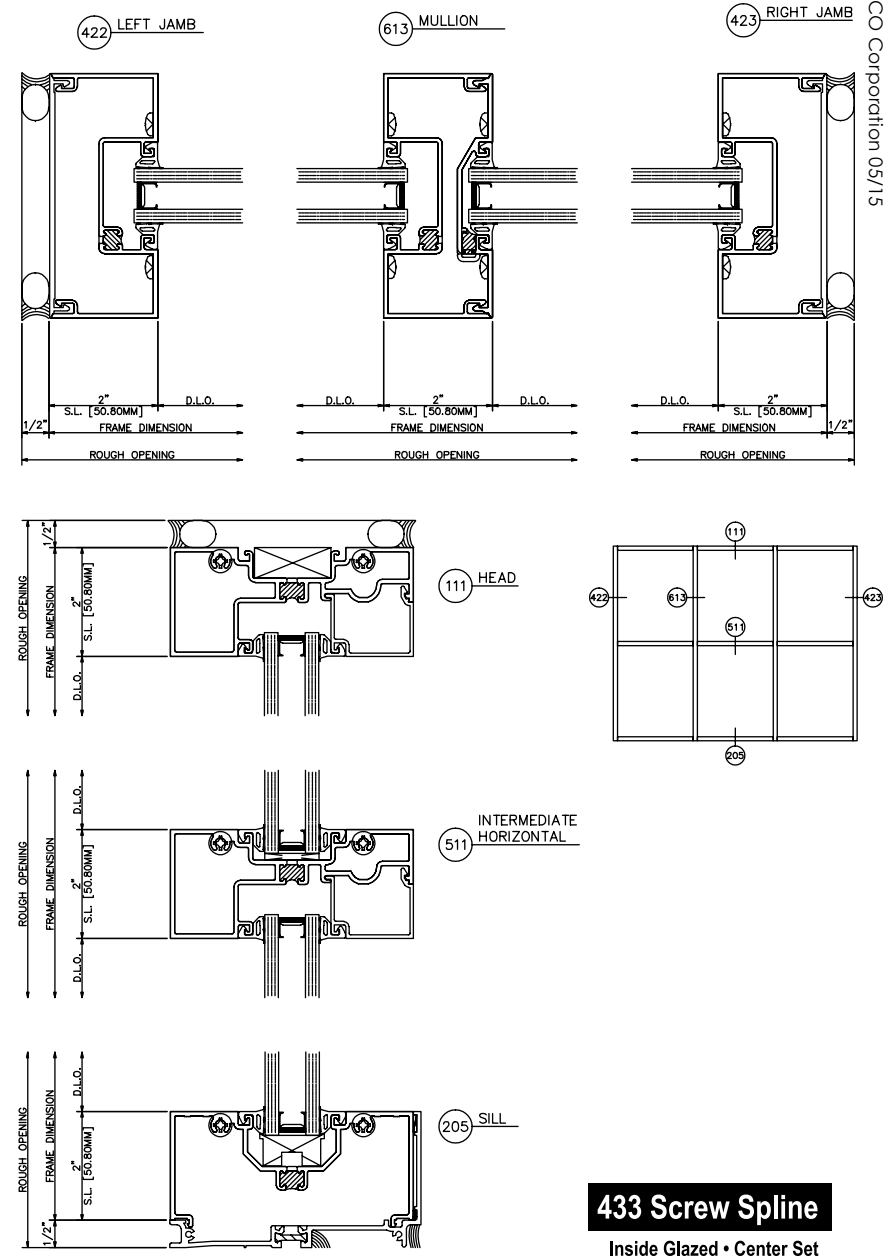
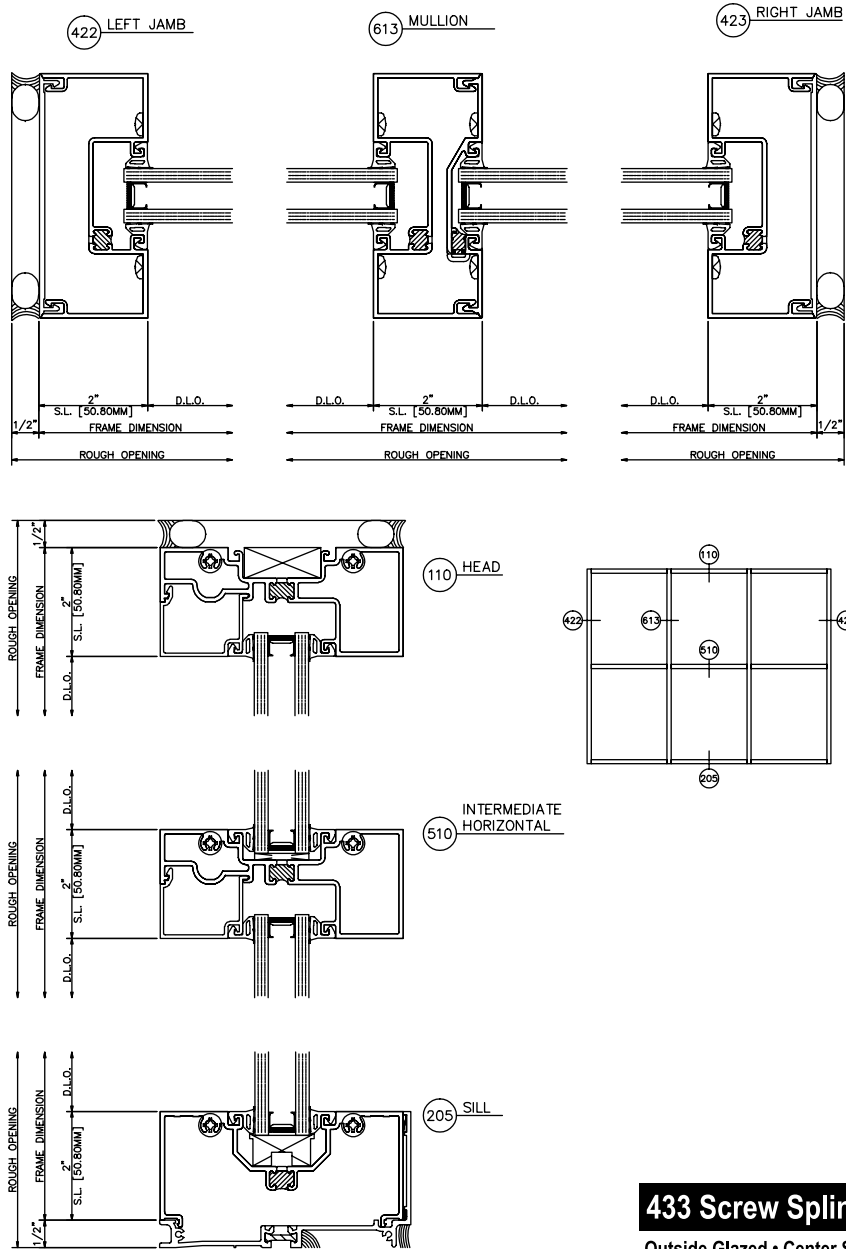
Inside Glazed • Inside Set



433 Screw Spline

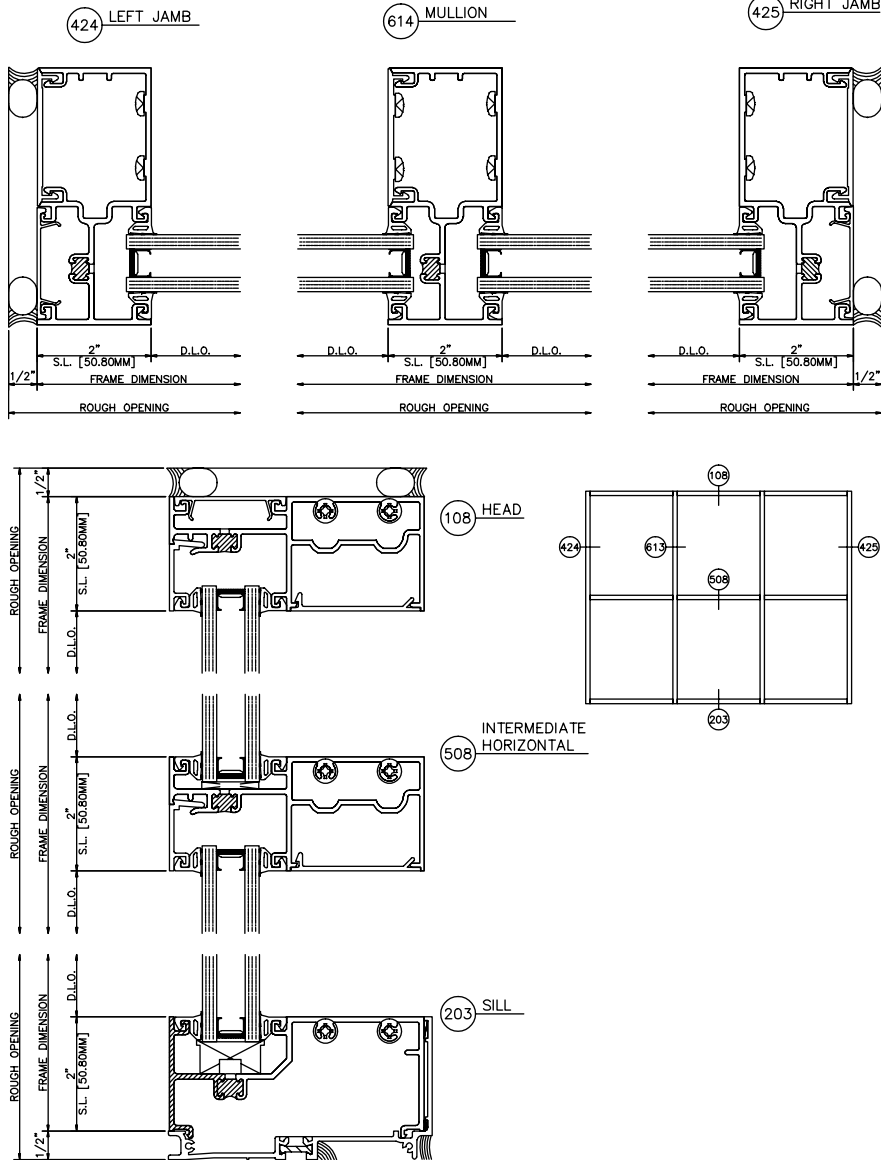
Outside Glazed • Inside Set





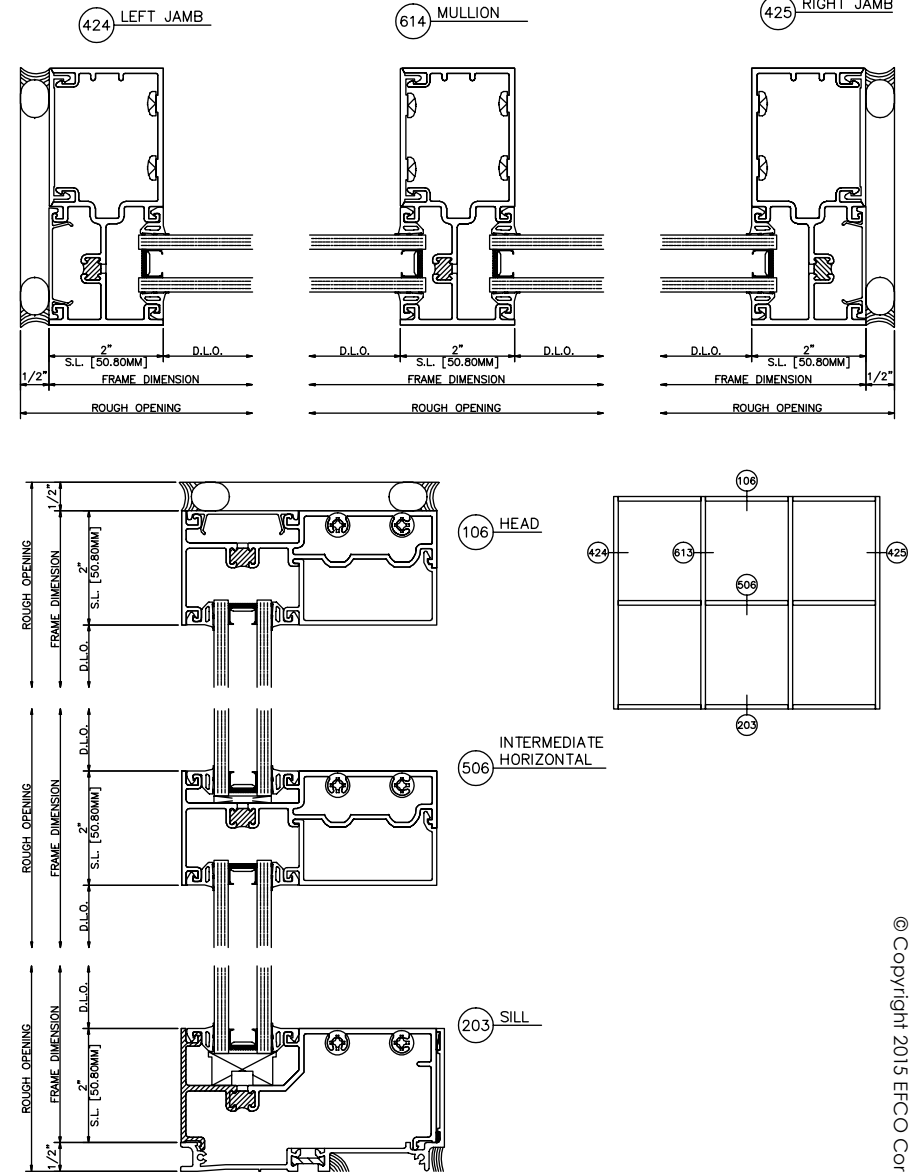
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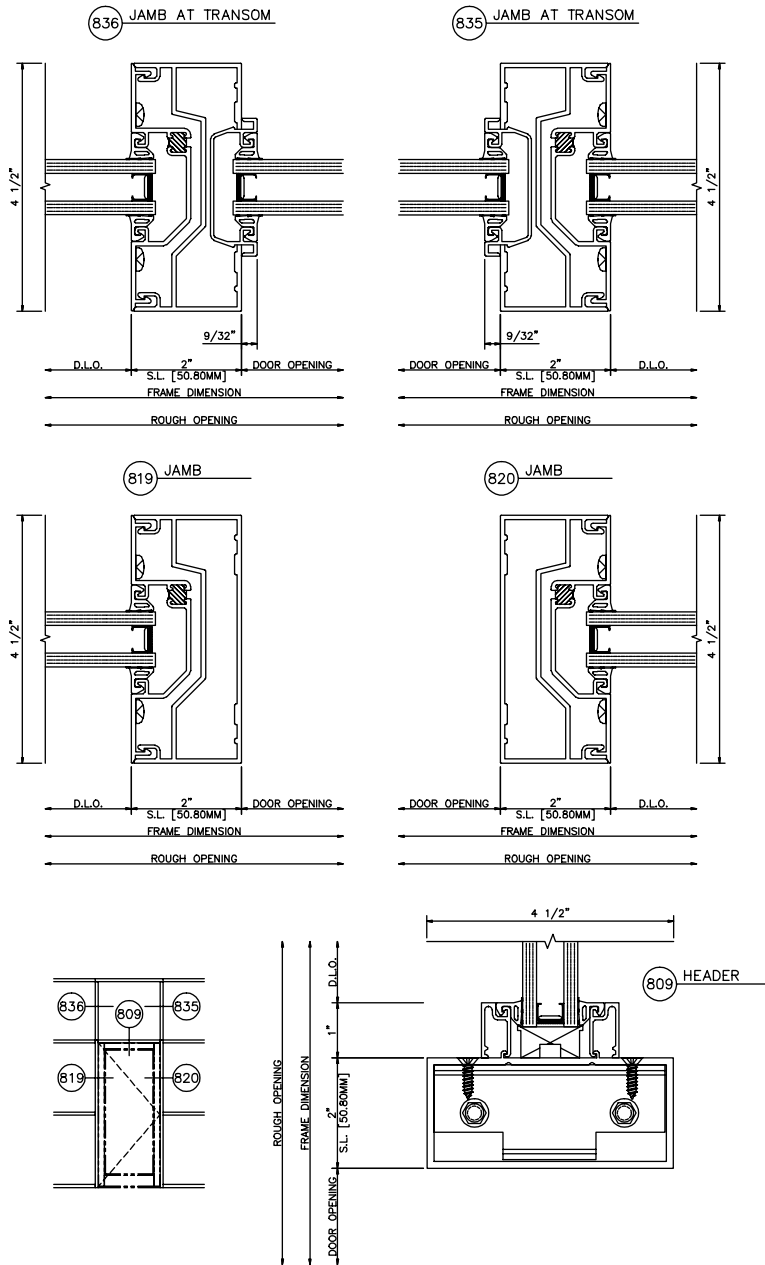
Outside Glazed • Outside Set



433 Screw Spline

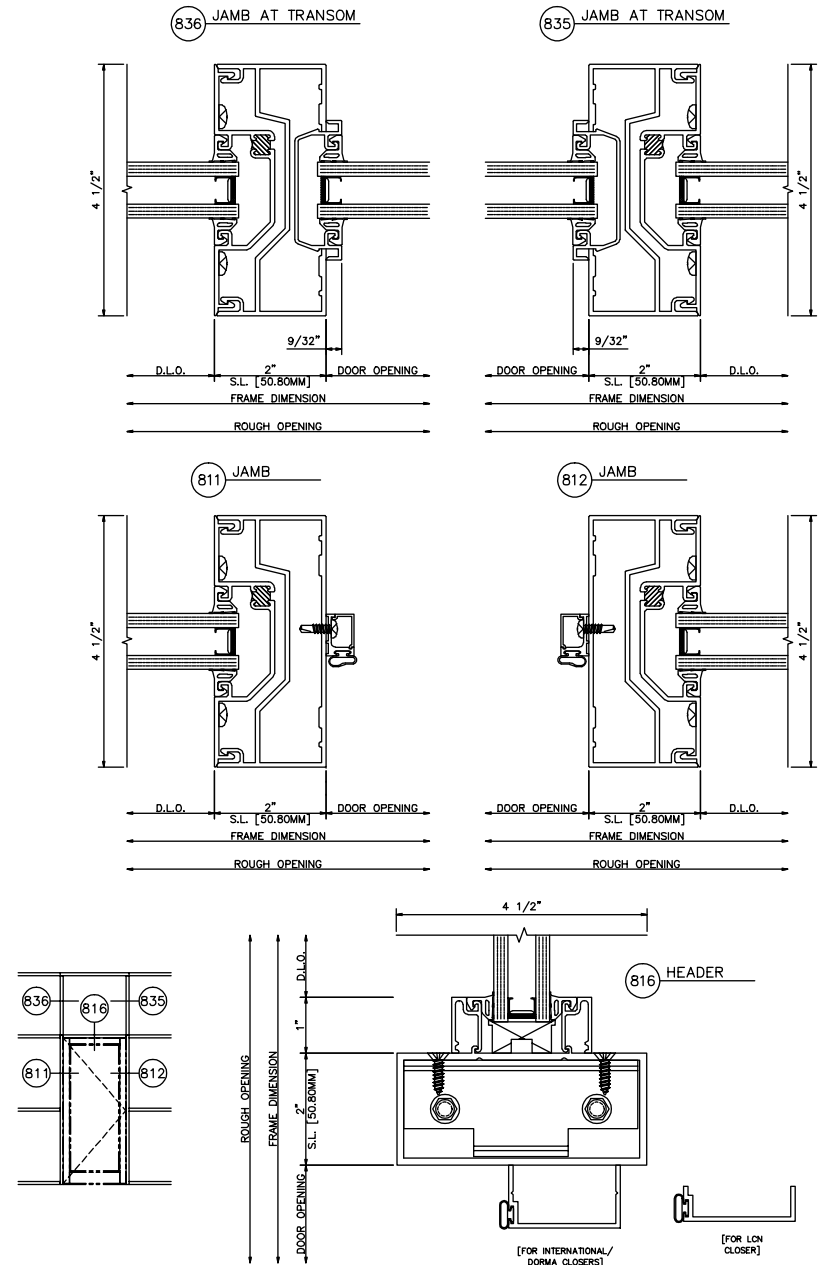
Inside Glazed • Outside Set





433 Door Frame with Transom

Dual Acting • Center Set

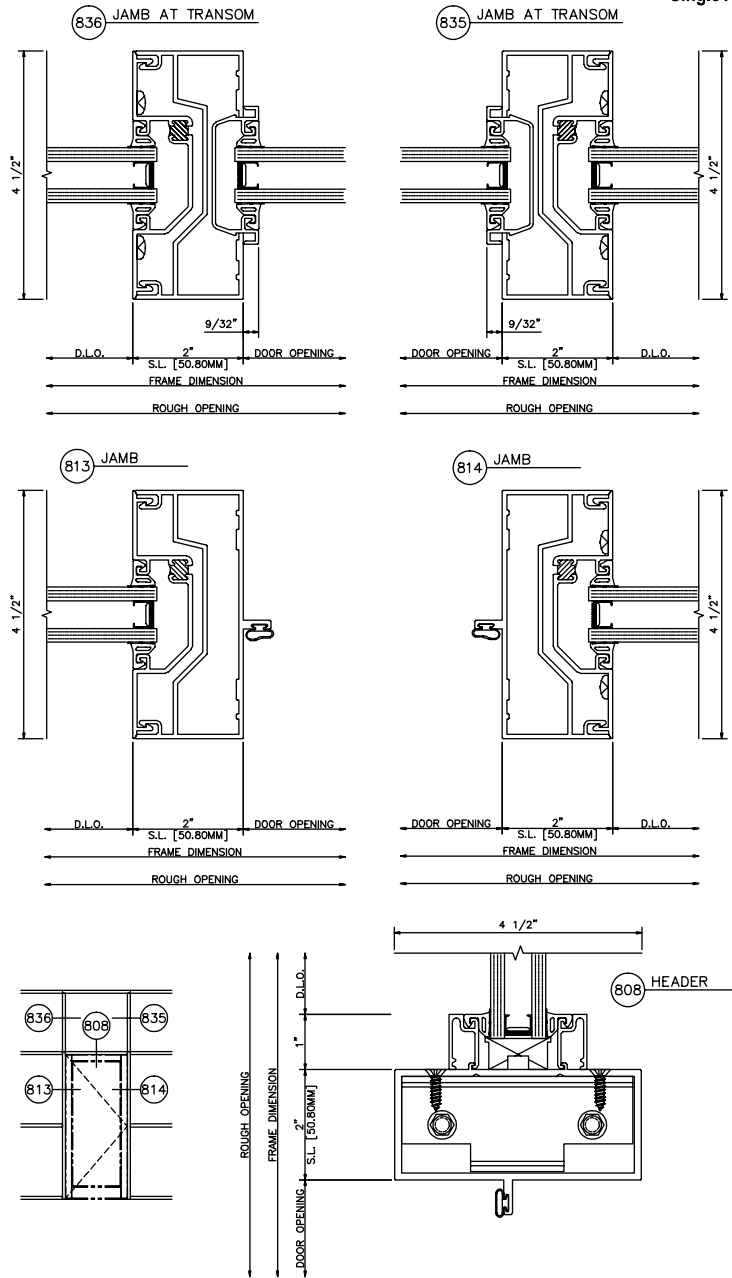


433 Door Frame with Transom

Single Acting w/C.O.C. • Center Set

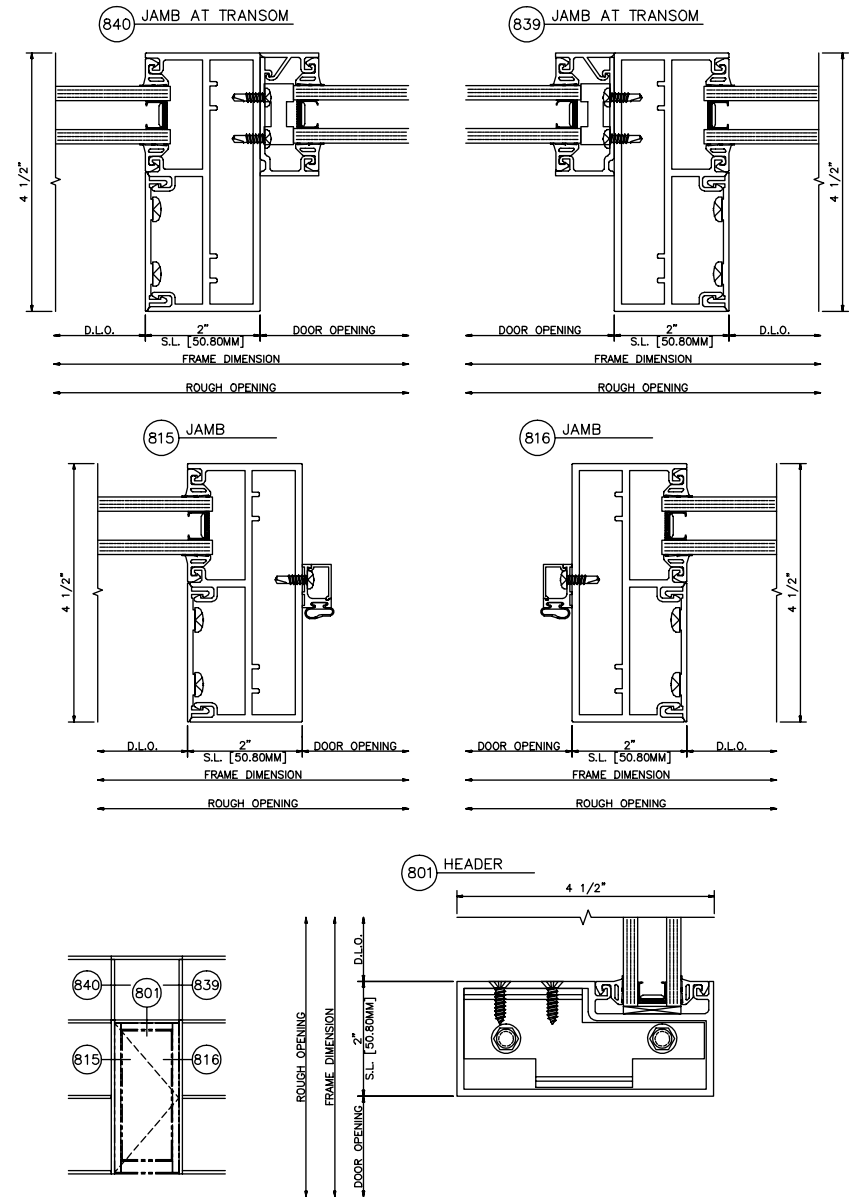
433 Door Frame with Transom

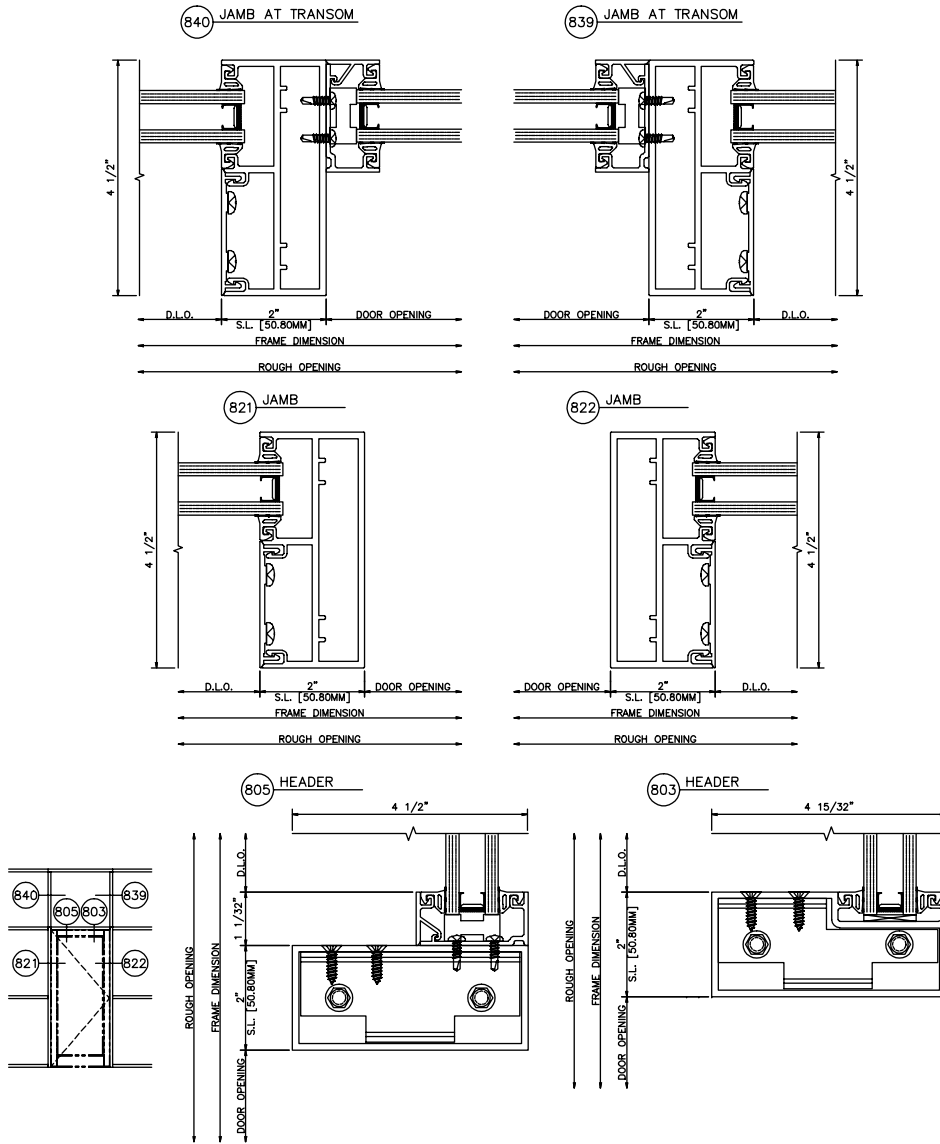
Single Acting • Center Set



433 Door Frame with Transom

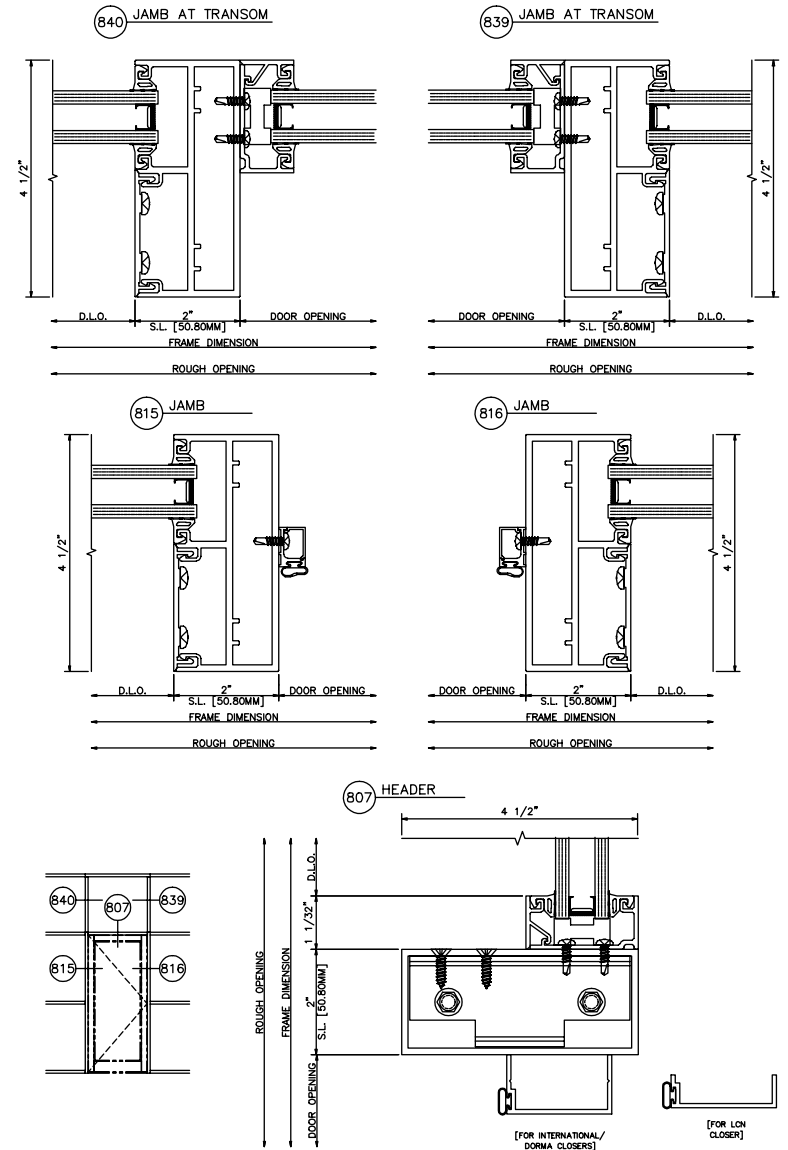
Single Acting • Inside Set





433 Door Frame with Transom

Dual Acting • Inside Set

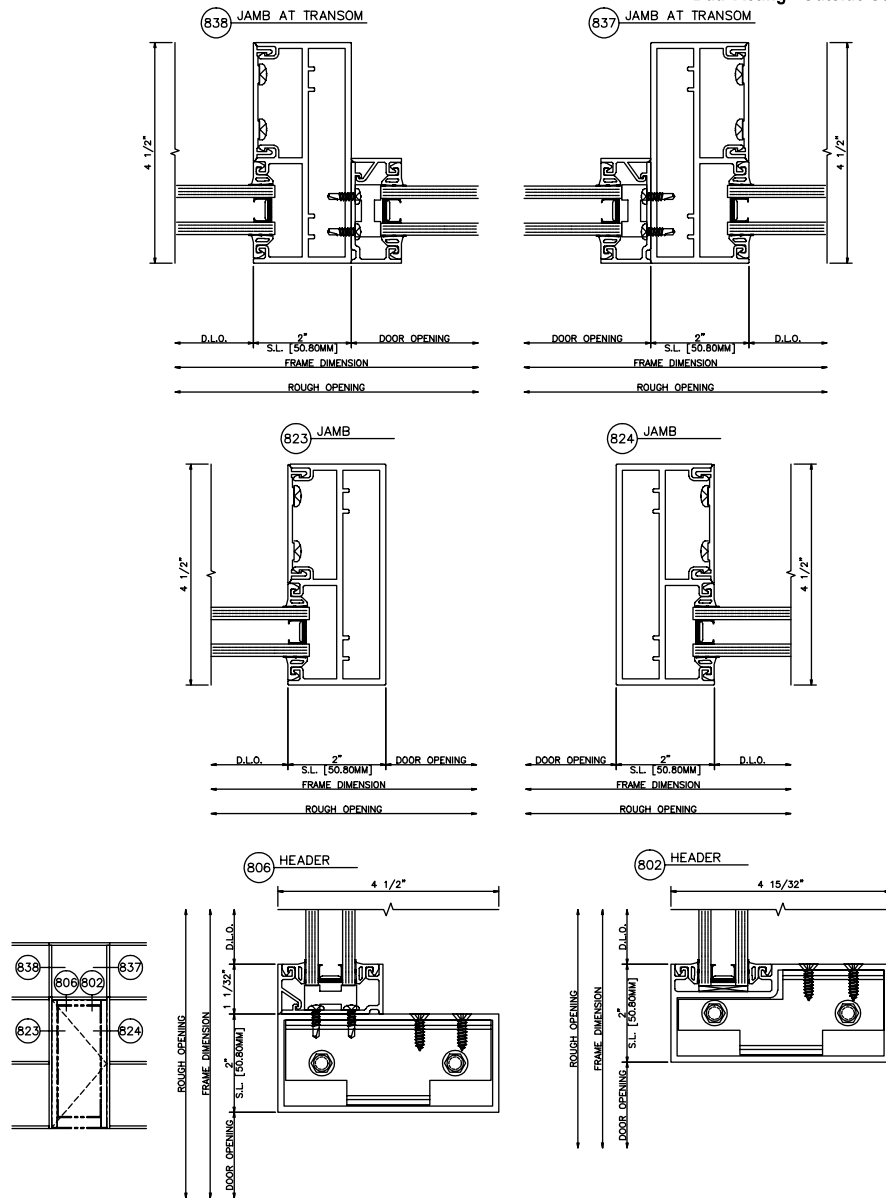


433 Door Frame with Transom

Single Acting w/C.O.C. • Inside Set

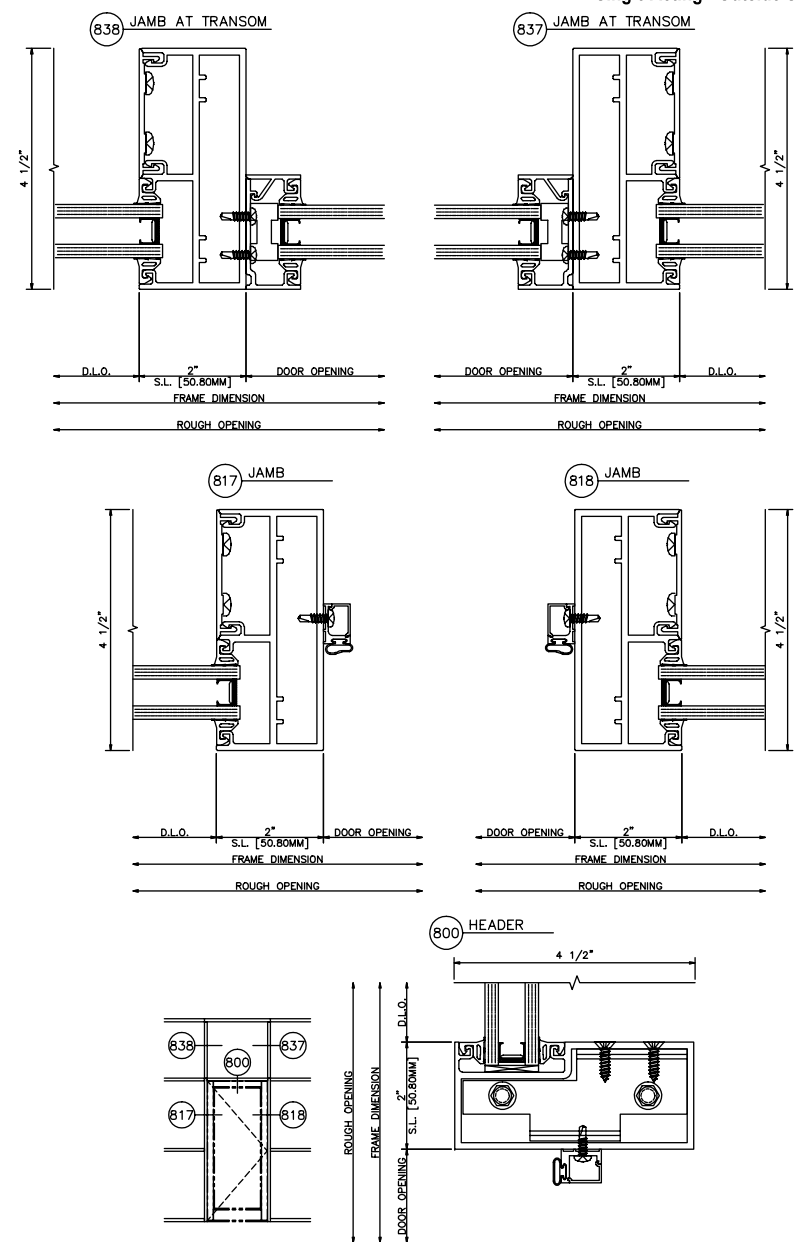
433 Door Frame with Transom

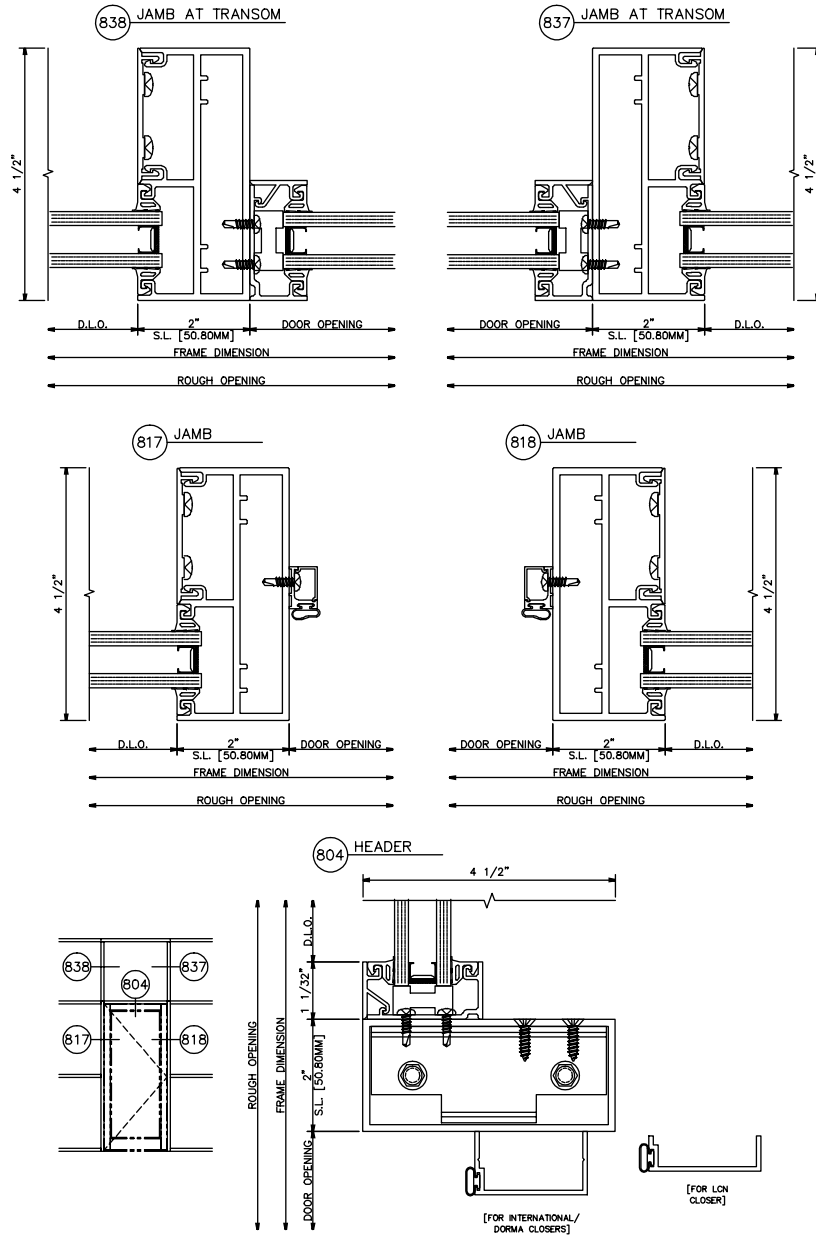
Dual Acting • Outside Set



433 Door Frame with Transom

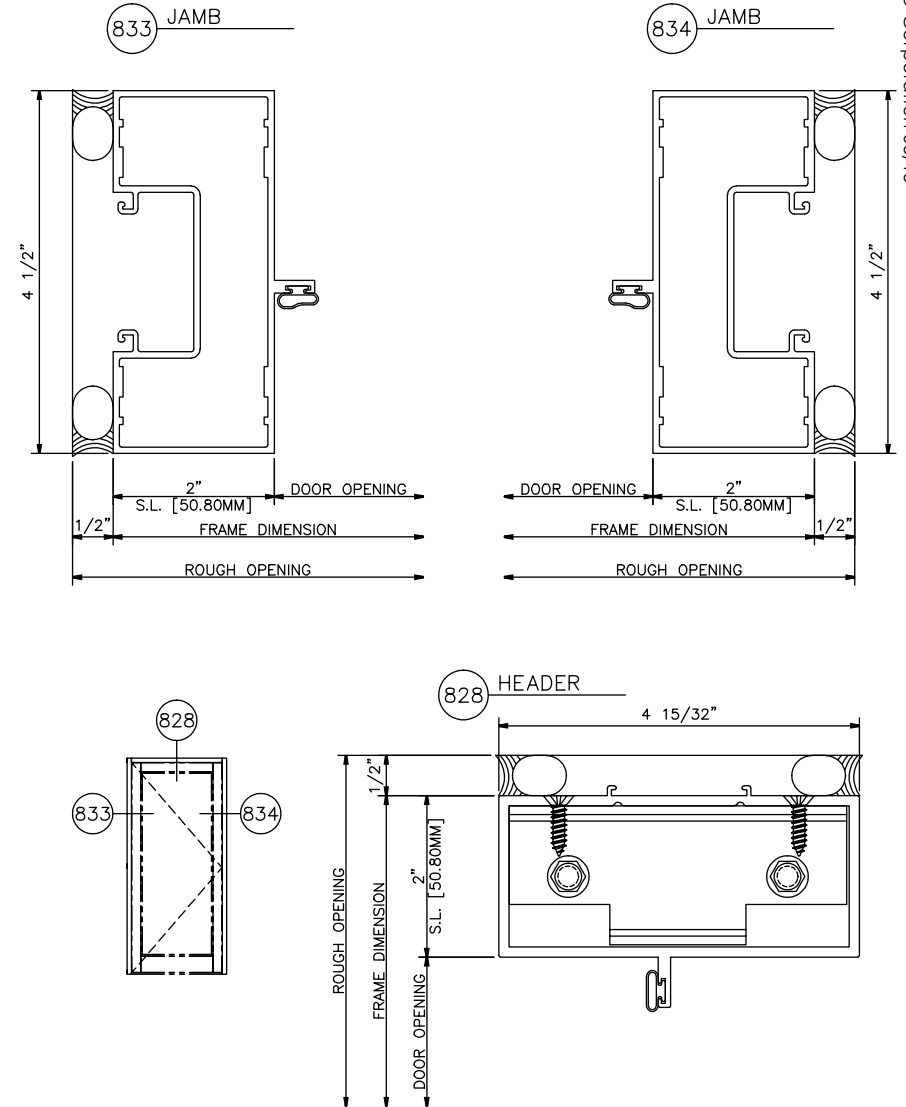
Single Acting • Outside Set





433 Door Frame with Transom

Single Acting w/C.O.C. • Outside Set

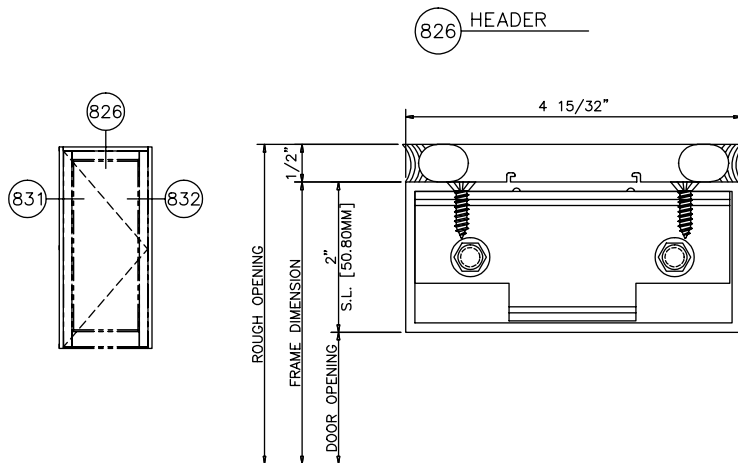
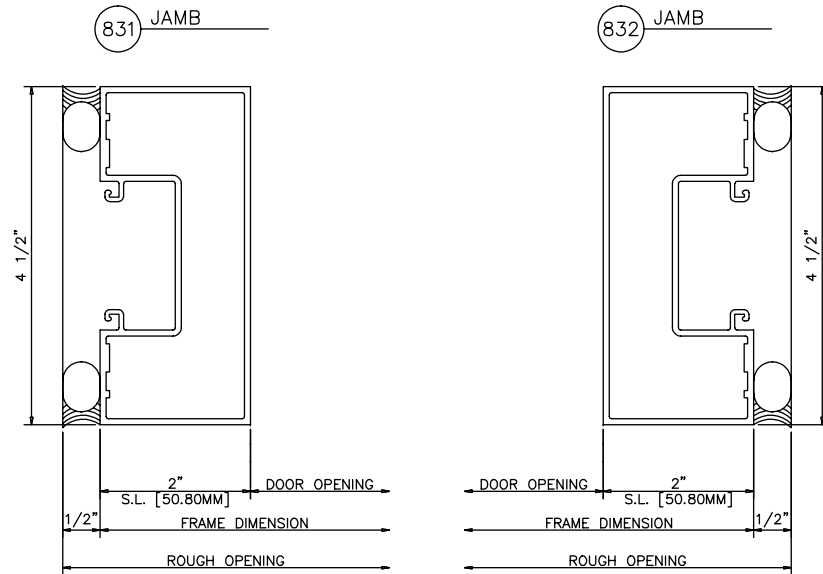


433 Door Frame with Transom

Dual Acting • Center Set

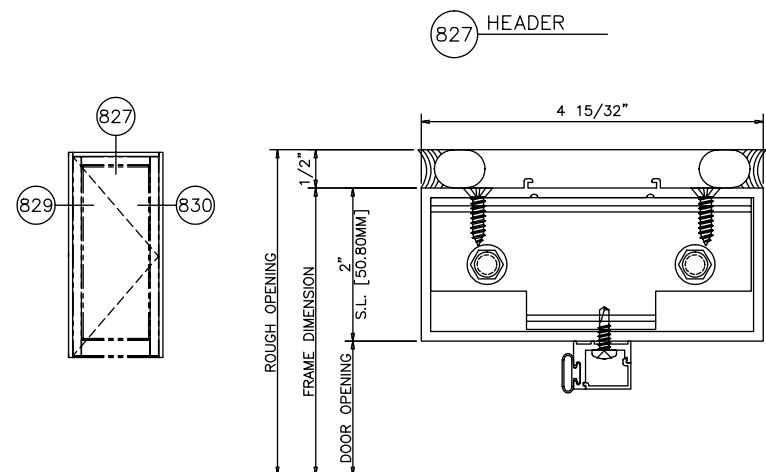
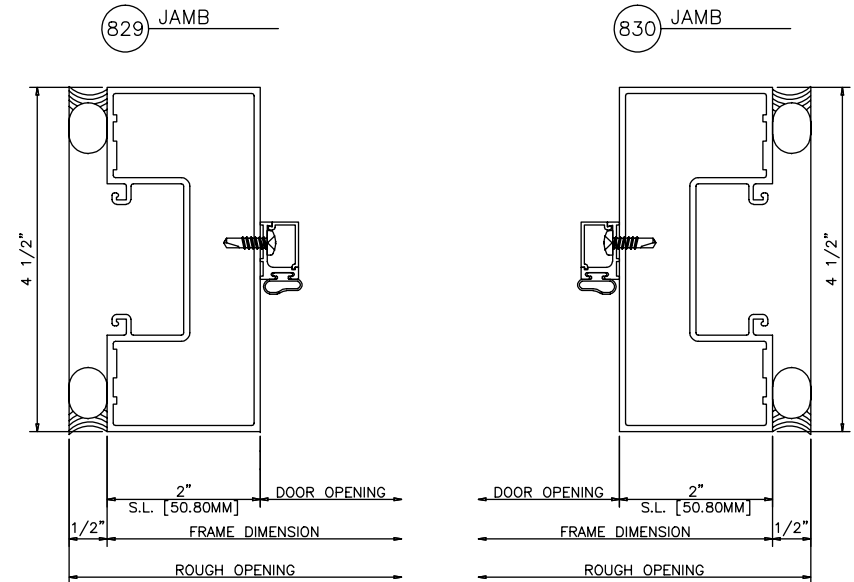
433 Door Frame Without Transom

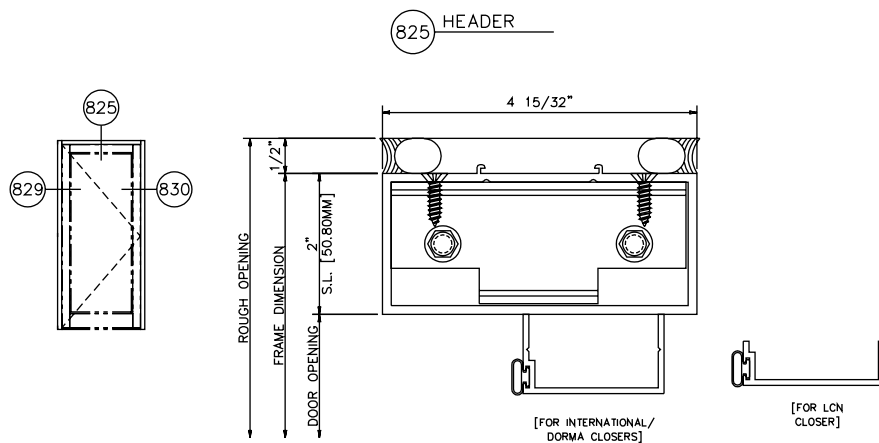
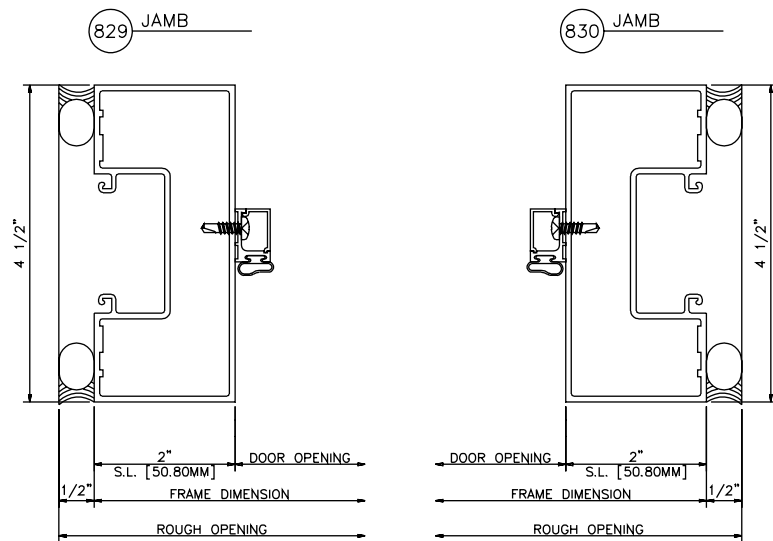
Dual Acting



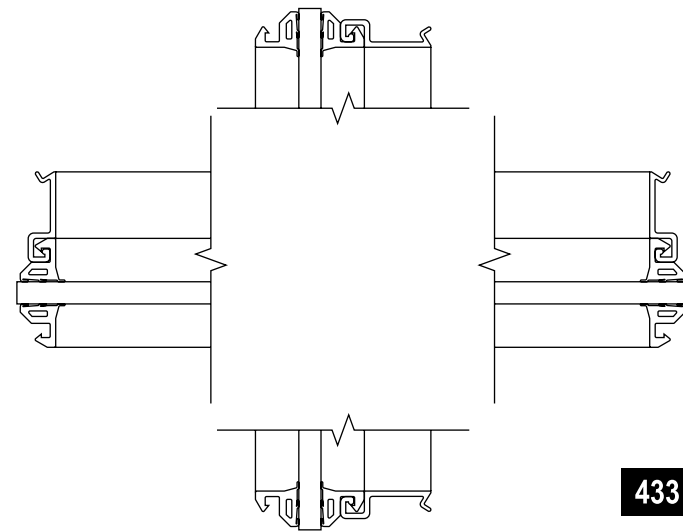
433 Door Frame Without Transom

Single Acting with Applied Stops

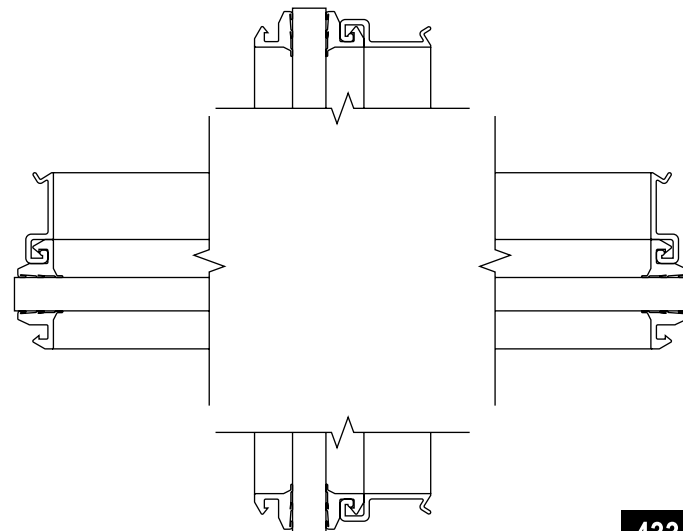




433 Door Frame Without Transom
Single Acting

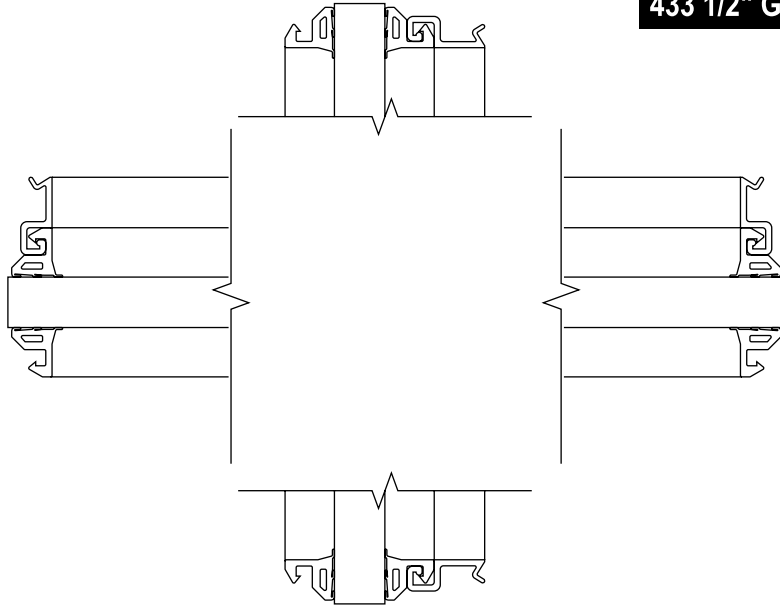


433 1/4" Glazing

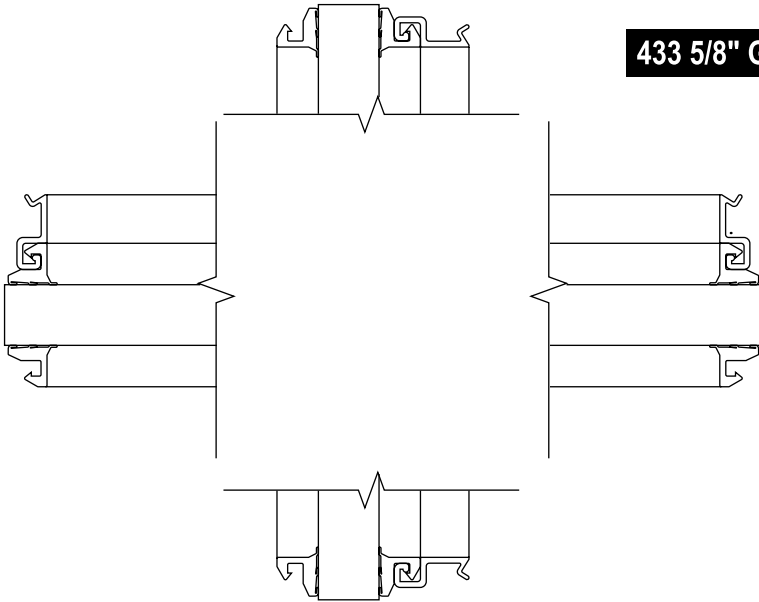


433 3/8" Glazing

433 1/2" Glazing



433 5/8" Glazing



433 1" Glazing

