

CAT. NO. UGLZ18



# CRL-U.S. ALUMINUM UNIT-GLAZED SYSTEMS

BRIDGING THE GAP BETWEEN UNITIZED CURTAIN WALLS  
AND TRADITIONAL WINDOW WALLS.



**CRL**  
US ALUMINUM  
[usalum.com](http://usalum.com)

# CRL-U.S. ALUMINUM UNIT-GLAZED SYSTEMS

## ADVANCING THE ENVELOPE

As the design and construction industry continues to innovate and find ways to increase efficiency while streamlining labor and fabrication costs, CRL-U.S. Aluminum has emerged with an innovative solution for installing commercial storefronts and window walls. Our Unit-Glazed Systems allow glaziers to fabricate in their own shop environments, reducing field labor by as much as 50% and accelerate the installation process. This translates into substantial time and cost savings, more competitive quotes, and higher profit margins.

## COMPLETE SUPPORT

We take pride in providing customers with outstanding technical support from start to finish. Our highly trained, CSI CDT Certified technical support team has experience with both small and large-scale project applications, and understands the importance of providing reliable information and estimates early on to more effectively collaborate with project stakeholders. Our commitment to architects, contractors, and installers is evident in our strong attention to meeting and exceeding expectations, because when you thrive so do we.

## MANUFACTURING AND DISTRIBUTION

CRL-U.S. Aluminum's ISO9001: 2008 certified manufacturing and testing facilities provide the highest quality systems with short lead times to comply with strict project deadlines. Our products are tested and proven to perform at the highest industry standards in compliance with AAMA, ASTM, and NFRC criteria.

We apply more than 50 years of experience to the design and manufacturing of our products, and that translates into exceptional quality and proven performance. Couple that with a distribution network 43 locations strong and a global footprint which exceeds 3 million sq ft., you've got a single source manufacturer delivering a level of quality and lead times that others simply cannot compete with.



08 44 13

**ENCORE CONDOMINIUMS**

**Location:** Nashville, TN

**Architect:** Smallwood, Reynolds, Stewart,  
Stewart & Associates Inc.

## PRE-GLAZE ATTRIBUTES AND ADVANTAGES:

### REDUCED FIELD LABOR

Generally, glazing contractors utilize 25% of their time in a shop environment and 75% out in the field. Adopting a pre-glaze fabrication method over a traditional approach will decrease the amount of time spent at the project site to 40% and allow for 60% of production to take place in the shop, saving a minimum of 20% - 25% of labor expense.

### VASTLY INCREASED FIELD PRODUCTION

With more pre-glaze and unitized system fabrication done in the shop and transported to the field, glaziers have the ability to work faster and get more done at the project site.

### INCREASED QUALITY CONTROL AND EFFICIENCY

Assembling units in the shop allows glazing contractors to work in a controlled environment and efficiently monitor attendance, work assignments, along with the quantity and quality of production.

This setting allows for improved fabrication and installation of all required setting blocks, water deflectors, end dams, and gasketing elements. Each of these components are readily available in glass shops, allowing glaziers improved supervision and control with less disruption than may be encountered at the job site.

### INCREASED FACTORY PRODUCTION THROUGH ASSEMBLY LINE TECHNIQUES

In the way that Henry Ford introduced and perfected manufacturing through an assembly line, glazing contractors can teach less qualified individuals specific tasks and fabrication methods that will perfect and increase production.

### INCREASED COMPETITIVENESS ON BOTH SMALLER AND LARGER JOBS

Before targeting more large-scale projects, it is important to first widen your technical scope. This will sharpen your ability to accommodate higher degrees of difficulty and ensure that you remain competitive.

With pre-glaze and unitized systems your ability to compete for jobs is reliant on your efficiency in the factory and the field. These fabrication methods significantly lower your exposure to job site risks where your labor dollars can be mismanaged through loss of production control.

### CURTAIN WALL AESTHETICS WITH WINDOW WALL LOGISTICS

Our innovative Slab Edge Covers will give your project a striking façade with a seamless curtain wall aesthetic, minus all of the structural and performance obstacles that come with it.

See Page 6 for Typical Slab Edge Cover details.





# KEY CONSIDERATIONS

IMPORTANT FACTORS TO ADDRESS BEFORE TAKING  
ON UNIT-GLAZED PROJECTS

08.44.13  
UNIVERSITY OF TEXAS MD ANDERSON  
CANCER CENTER, ALKEK TOWER  
Location: Houston, TX  
Architect: HKS Architects

## TRANSPORTING GLAZED UNITS

Most glazing contractors will utilize steel “A” frame racks from the local glass supplier to transport and lift the units onto the floors. Another typical method is to place the units in crates and lift them onto each floor. Crates can be made to be reusable allowing them to be broken down, transported back to the fabrication facility, and used again.

## EQUIPMENT

Special equipment will help the contractor install the units in the fastest way possible. Typically a contractor should install from the outside on jobs of six stories or less.

The contractor should install from the inside on buildings taller than six stories. When installing from the outside a hoisting device (such as a Beta Max or Vella lift) should be used. The units would be picked directly from the delivery trailer. When installing from the inside, a modified electric pallet jack is usually the best option.

CRL-U.S. Aluminum can help in providing or sourcing the equipment required for the contractor to obtain maximum efficiency.

## WHEN TO ORDER MATERIALS

The earlier the glazing contractor starts the process of fabrication and glazing, the smoother the entire process will be. They will be better able to build in the desired level of quality rather than be rushed for time by a tight schedule. The contractor should look at being several floors ahead of the job in their fabrication and glazing process.

## FREQUENTLY ASKED QUESTIONS

**Q: How do you keep the glass from “walking” in the glass pocket when shipping to the job site?**

**A:** CRL-U.S. Aluminum ships a low durometer block (shore 40 to 45 hardness) to allow for wedging the glass below the horizontals and to wedge the glass in the glass pockets. This block stabilizes the glass and prevents shifting within the pockets.

**Q: Will the glazing contractor need to get on the outside of the building to seal the system?**

**A:** The glazing contractor will typically need to get on the outside of the building to seal their perimeter joint. When using a head can, the glazing contractor may reduce the requirement for exterior sealing of the system to just the jamb condition.

**Q: What if the General Contractor will not “Guarantee” the opening?**

**A:** The general contractor should guarantee the opening dimensions as the glazing contractor must order glass --and have it available to close up the building. The glazing contractor should impress upon the general contractor the speed in closing up the building this installation method offers and the benefits. The general contractor will be able to start the interior finishes much earlier on the schedule than they would otherwise be able to start. This will improve the general conditions and reduce cost. Everyone on the construction team saves money when the building is closed up quickly.

## PROJECT CASE STUDY

### CHALLENGE:

Renovating an active medical center occupied by patients with compromised immune systems along with numerous disruptions due to construction was already a challenge. However, finding a glass window wall solution with a rapid installation process that wouldn't disrupt patients, staff, visitors, or operations was a major goal for the project.

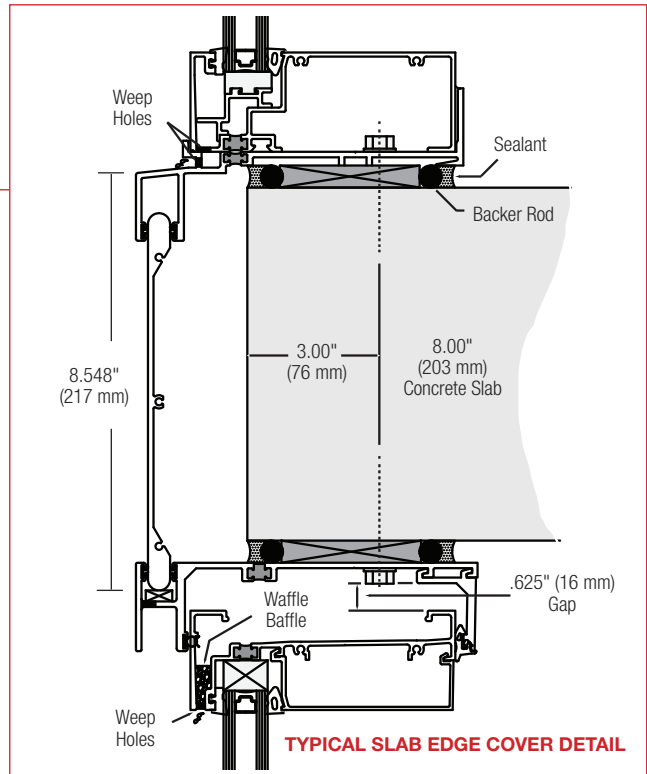
### SOLUTION:

CRL-U.S. Aluminum's Unit-Glazed Systems assisted with the quick and easy installation of a new window wall for the sky-high project. The Unit Glazing Systems significantly improved the look and quality of the window wall without being disruptive or harmful to patients and staff during (and after) construction.

CRL-U.S. Aluminum's Unit-Glazed TT601 Top Notch Window Wall System played an integral role in accelerating the installation of the building's new glass façade. Once the units were delivered to the project site, each section was installed in a matter of minutes thanks to U.S. Aluminum's Unit Split Mullions and Gravity Loaded Sill Flashing. These tools aided the installer with snapping each Unit-Glazed section together in just three simple steps. "The system was well designed and functioned perfectly," says Robert Malone, President of Ranger Specialized Glass, Inc., glazing contractor for the project. "The system did not leak and installed very quickly. It turned into a very profitable job for Ranger."



08 44 13  
**ADELICIA**  
 Location: Nashville, TN  
 Architect: The Preston Partnership, LLC



## UNIT-GLAZED TECHNOLOGY

The key to CRL-U.S. Aluminum Unit-Glazed Systems is our new Unit Split Mullions and Gravity Loaded Sill Flashing. These features enable installers to easily snap each Unit-Glazed section together in the field. All Unit-Glazed Systems have been fully tested and approved for structural integrity, air and water infiltration.

### IT GOES TOGETHER IN 3 EASY STEPS



Series TT601 Top Notch  
Window Wall System

## UNIT-GLAZED SYSTEMS

### 08 44 13 SERIES 4500 SSG STRUCTURAL SILICONE GLAZED WINDOW WALL SYSTEM

- 2-1/4" x 6" or 2-1/4" x 7" Frame
- 1" Glazing
- Optional Slab Edge Cover (7" System Only)

Verticals for Structural Silicone Glazing create the look of a true glass wall with the same labor saving installation. Horizontal framing members run continuous between wall jambs to accomplish a horizontal band appearance.

### 08 43 13 SERIES IT451 CENTER GLAZED THERMAL STOREFRONT SYSTEM

- 2" x 4-1/2" Frame
- 1" Glazing Infill
- Thermally Broken

Series IT451 Thermal Center Glazed Systems offer an outstanding value by combining increased thermal performance with low-cost conventional flush glazing. These systems feature the Poly-Aluminizer™ and Lancer™ Thermal Break Technologies, providing exceptional thermal performance.

### 08 44 13 SERIES TT601 TOP NOTCH WINDOW WALL SYSTEM

- 2-1/4" x 6" Frame
- 1" Glazing
- Glass Offset to Front
- Butt Glazed Vertical Option
- Optional Slab Edge Cover

The Top Notch System offers a shallow face reveal that creates a flush exterior appearance. This system utilizes wedge-type molded corner exterior sponge gaskets for superior air and water performance. Internal water deflectors at intermediate horizontal to vertical intersections allow infiltrated water to be drained into a continuous sill gutter and weeped to the exterior.

### 08 43 13 SERIES FT451 FLUSH FRONT™ OFFSET GLAZED THERMAL STOREFRONT SYSTEM

- 2" x 4-1/2" Frame
- 1" Glazing
- Flush In, Flush Out, or Combination Glazing
- Thermally Broken

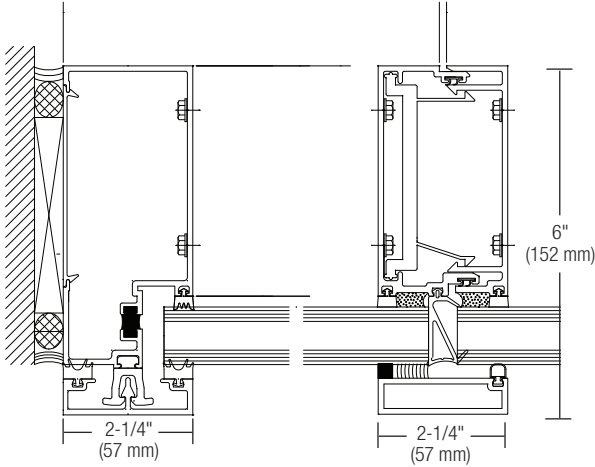
Flush Front™ Systems feature injection molded water deflectors at intermediate horizontals, and a continuous sill gutter with factory pre-punched weep slots to ensure control of any infiltrated water. The plane of the glass may be reversed from exterior to interior or any combination to give these standard systems a custom look. Flush Front™ Series FT451 offers improved thermal performance using the Poly-Aluminizer™ Thermal Break.

All systems are available in an array of architectural coatings and anodized finishes.

# TYPICAL DETAILS

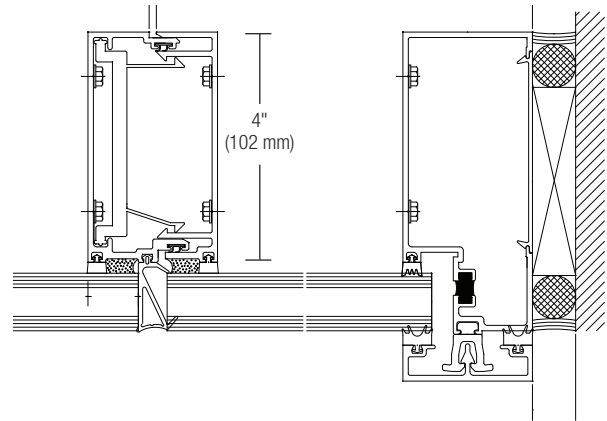
## SERIES 4500 SSG STRUCTURAL SILICONE GLAZE WINDOW WALL SYSTEM

6" (152 mm) System Shown - Go to [usalum.com](http://usalum.com) for More Options



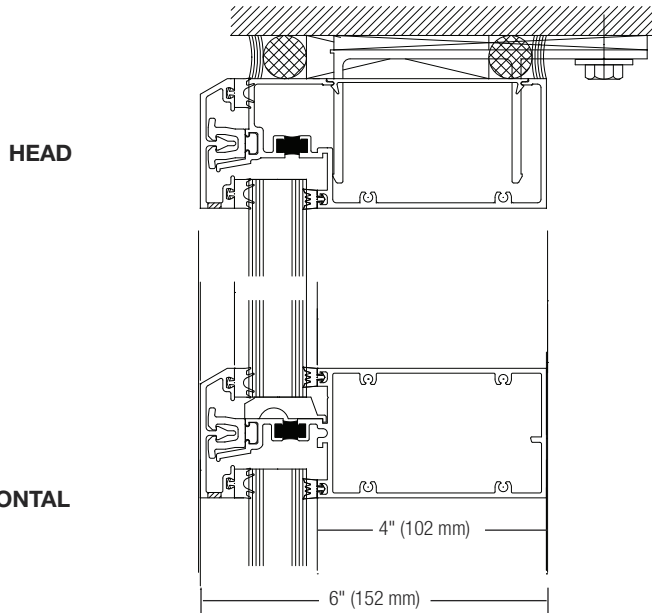
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**MULLION**



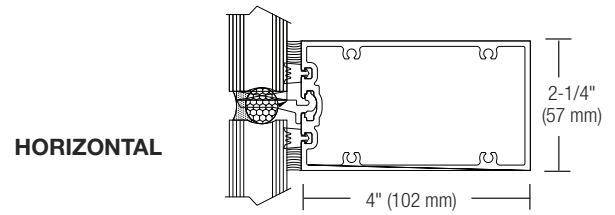
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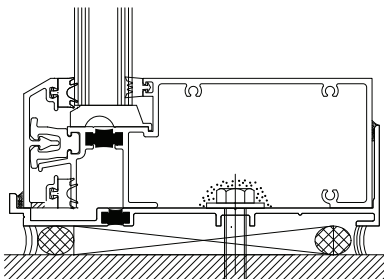


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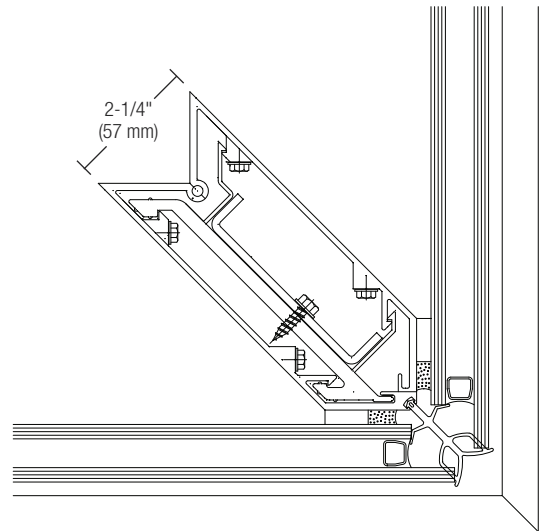
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**HORIZONTAL**



**SILL**

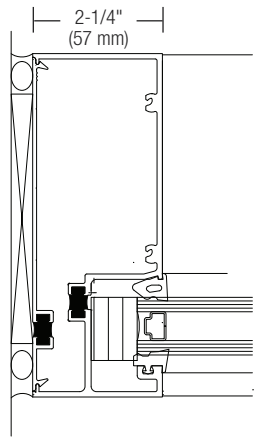


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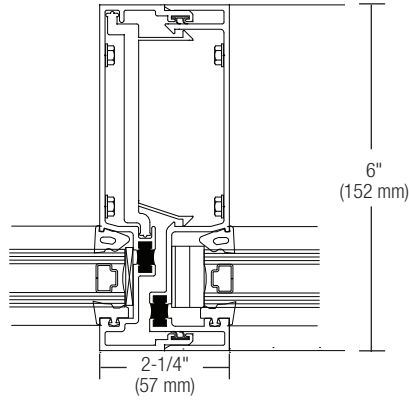


# TYPICAL DETAILS

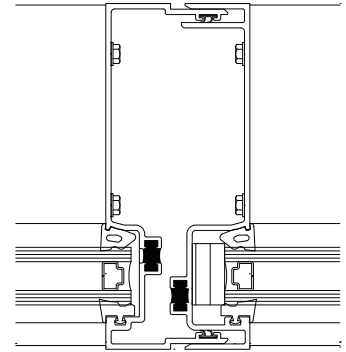
## SERIES TT601 TOP NOTCH WINDOW WALL SYSTEM WITH SLAB COVER



JAMB

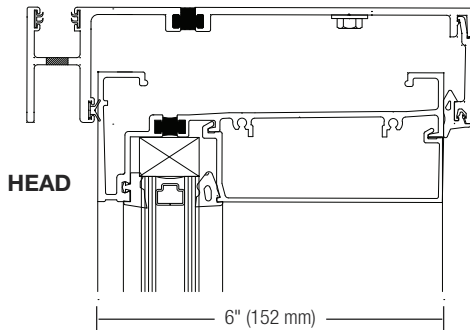


STANDARD UNITIZED MULLION



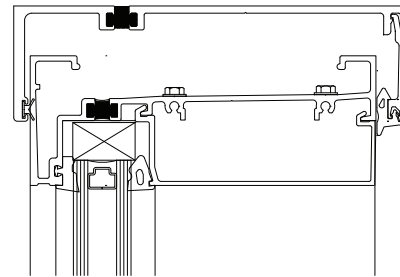
EXPANSION MULLION

### STANDARD SLAB EDGE COVER RECEIVER



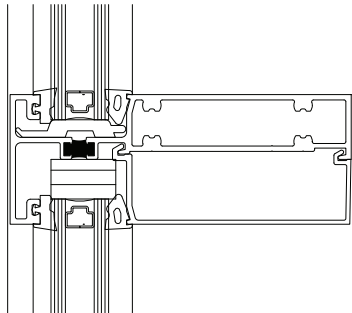
HEAD

### OPTIONAL RECEIVER

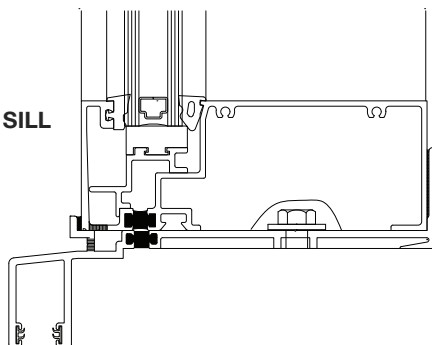


HEAD WITH RECEIVER

HORIZONTAL



SILL

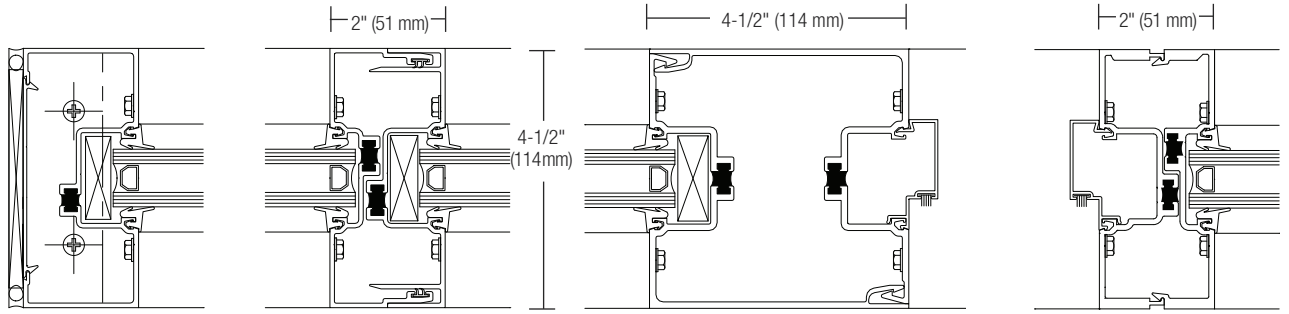


SILL AT BALCONIES

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**FIND YOUR APPLICATION SOLUTION.** Find out how CRL-U.S. Aluminum can help with your project by contacting Technical Sales at [usalum@crlaurence.com](mailto:usalum@crlaurence.com) or (800) 262-5151 Ext. 5305

**TYPICAL DETAILS**  
**SERIES IT451 CENTER GLAZE STOREFRONT SYSTEM**

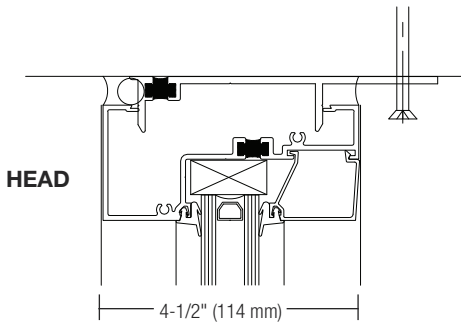


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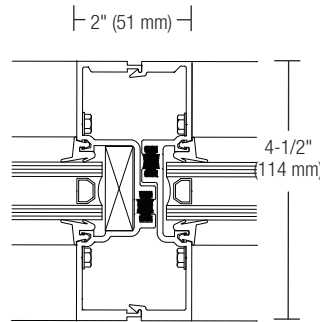
**EXPANSION MULLION**

**DOOR JAMB**

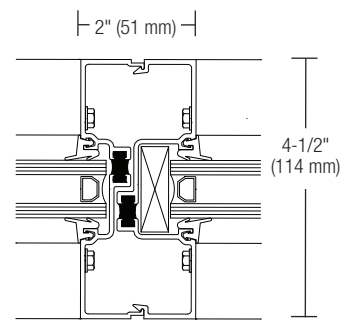
**DOOR JAMB**



**HEAD**

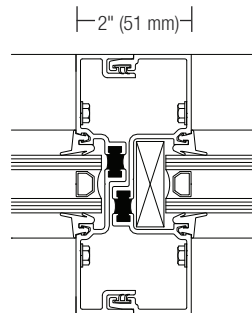
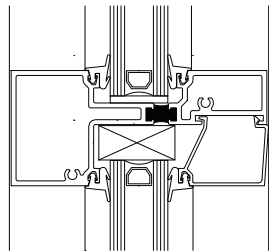


**UNITIZED MULLION HEAVY**

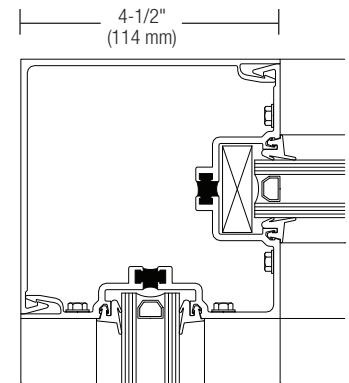


**UNITIZED MULLION STANDARD**

**HORIZONTAL**

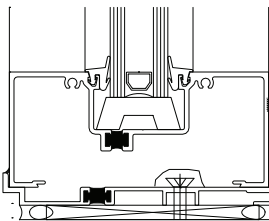


**UNITIZED MULLION**

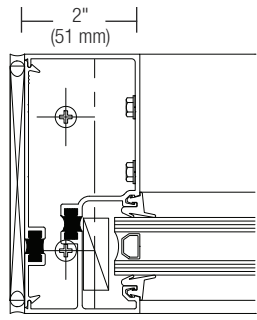


**CORNER**

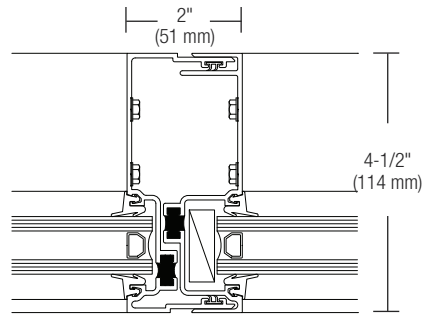
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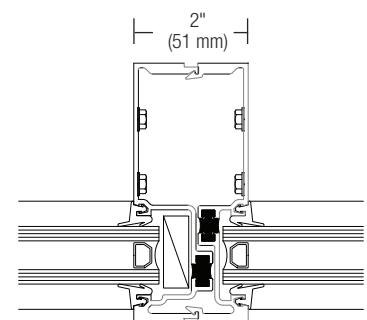
**TYPICAL DETAILS**  
**SERIES FT451 FLUSH FRONT™ OFFSET GLAZE STOREFRONT SYSTEM**



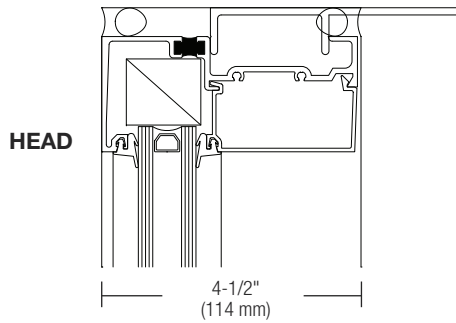
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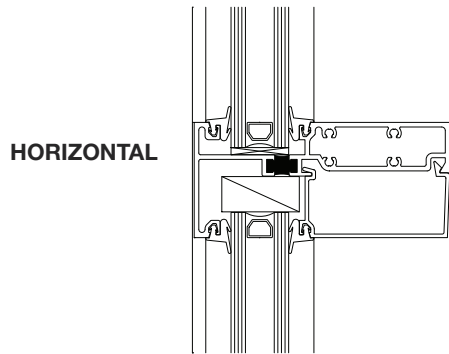
**EXPANSION MULLION**



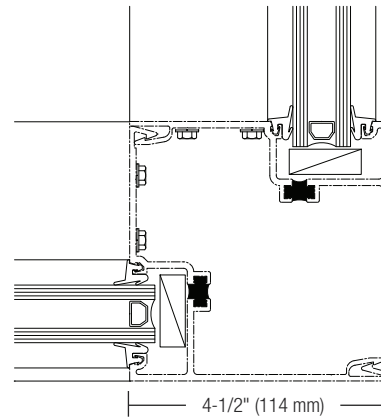
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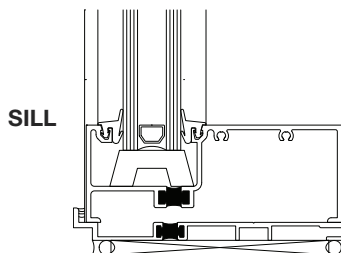
**HEAD**



**HORIZONTAL**



**OUTSIDE CORNER**



**SILL**

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**C.R. Laurence – U.S. Aluminum**  
 Manufacturing Headquarters,  
 Waxahachie, TX

## A BUSINESS PARTNER YOU CAN RELY ON

C.R. Laurence is the leading single-source manufacturer and supplier of architectural glazing systems for numerous CSI divisions. Our comprehensive product portfolio offers customizable solutions for both commercial and residential projects, and for interior and exterior applications.

C.R. Laurence products are designed, engineered, and thoroughly tested to meet the aesthetic expectations, performance requirements, and economic concerns of today's most demanding projects. This takes place in our state-of-the-art, ISO 9001:2008-certified manufacturing facilities.

Every glazing system sold by C.R. Laurence is backed by a team of CSI, CDT-certified product specialists who are there to support you throughout the various stages of your project, from initial design to final installation. We're here to help you succeed in a competitive and ever-evolving market because when you thrive, we thrive.

As an industry leader for many decades, C.R. Laurence has built a solid reputation based on quality, innovative, and installer-friendly products, coupled with exceptional customer service. Our wealth of experience provides absolute peace of mind for those who specify, install, operate, or occupy.

**Build on our experience.**

## CRL ARCHITECTURAL BRANDS:

### Architectural Aluminum Systems

Aluminum Framed Entrances, Storefronts, Curtain Walls, Windows, Window Walls, Thermal Systems, Terrace Doors, High Performance Sliding Doors, Hurricane Resistant Systems, and Blast Mitigation Systems.

### Commercial Hardware

'All Glass' Entrances and Storefronts, Glass Door and Sidelite Rails, Panic Exit Devices, Door Controls, Stacking and Sliding Doors, Structural Glass Fittings and Standoffs, Locking Ladder Pulls, Monumental and Balanced Doors.

### Architectural Railing and Metals

Glass Railing Systems, Aluminum Railing Systems, Stainless Steel Post Railing Systems, Windscreens, Spider Fittings, Perforated Panels, Cladding, Column Covers, Sunshades and Awnings.

### Frameless Shower Hardware

Hinges, Clamps, Knobs, Pulls, Towel/Grab Bars, Headers, U-Channel, Sliding Shower Enclosures, Restroom Partitions, Vanity and Wardrobe Mirrors, Mirror Frames and Channels.

### Security and Transaction Hardware

Bullet Resistant Exchange Windows and Barriers, Drive-Thru and Walk-Up Windows, Speak-Thru Devices, Food Service Sneeze Guards, Partition Posts, Deal Trays, and Package Transfer Systems.

### Interior Office Partition Systems

Framed Aluminum Office Partitions, Frameless Glass Wall Office Systems, Movable Walls, Wood Doors, Fire Rated Systems, Door Pulls, Handles, Center Locks, Sliding and Pivoting Door Configurations, and Area Divider Systems.

Our Brands:

**U.S. ALUMINUM**



Our Partners:



**C.R. LAURENCE CO., INC.**  
 2503 E. VERNON AVE.  
 LOS ANGELES, CA 90058-1826  
 Ph: (800) 262-5151 Fax: (866) 262-3299

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