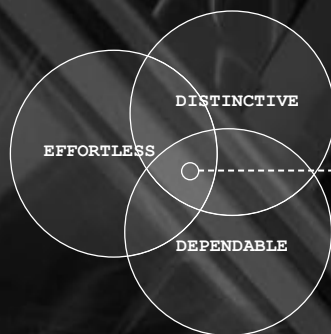


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# BALANCED

DOORS AND ENTRANCE SYSTEMS

MADE IN THE U.S.A.



**C.R. LAURENCE COMPANY**

Worldwide Manufacturer and Supplier

Glazing, Architectural, Railing, Construction, Industrial, and Automotive Supplies

[crl-arch.com](http://crl-arch.com) | [crlaurence.com](http://crlaurence.com)



# BALANCED

## DOORS AND ENTRANCE SYSTEMS

EFFORTLESS

DISTINCTIVE

DEPENDABLE

Value-minded construction and growing urbanization constantly drive the demand for better-performing, economically viable entrance systems. CRL-U.S. Aluminum welcomes this challenge, introducing the latest edition to our extensive Door Systems, Balanced Doors.

CRL-U.S. Aluminum Balanced Doors deliver an entrance solution that is rugged, performance-driven, and truly remarkable. Manufactured to withstand the most demanding design requirements, Balanced Doors are ideally suited for commercial projects with monumental entrances requiring oversized, heavy doors. Not only do they require less operating space than conventionally hinged doors, they also qualify as a “barrier free door”, meeting A.D.A. requirements without power operators, and allow for the easy operation of doors weighing up to 700 pounds (317 kg).

Our comprehensive selection of Balanced Doors and Entrances offers a variety of options that will fit any budget. Our advanced production capacity affords us the ability to offer Balanced Door options at prices and lead times competitive with standard commercial entrance doors. Our custom fabrication capabilities, dedicated engineering staff, and honed craftsmanship permit endless possibilities in design, finish, and functionality.

We are pleased to introduce you to our new line of Balanced Doors; a collection that effectively demonstrates the performance and craftsmanship you’ve come to expect from the globally-recognized leader in innovative entrance solutions – CRL-U.S. Aluminum.

### BALANCED MECHANICS

The door pivots on two single-piece cast bronze or stainless steel arms located at the top and bottom of the door. These are attached to a pivoting hinge tube that runs the entire height of the door. The hinge tube contains a torsion bar that provides the closing force for the door, and is connected to a hydraulic checking device located in the header, and a tension adjusting gear box at the sill.



## > EFFORTLESS

When our Balanced Doors open, approximately two thirds of the door swings outward while one third swings inward, allowing wind or stack pressure to assist rather than hinder the operation of the door. Air pressure balances itself out around the rolling pivot, so less force is needed to operate the door.



This door design neutralizes two naturally occurring pressures, atmospheric (wind) and interior stack pressure, allowing effortless opening and positive closing.

	BALANCED DOOR	REGULAR DOOR
WIND	5 LBS. SPRING PRESSURE	5 LBS. SPRING PRESSURE
m.p.h.	lbs. pressure to open	lbs. pressure to open
10	1 + 5 = 6 lbs.	3 + 5 = 8 lbs.
20	3 + 5 = 8 lbs.	11 + 5 = 16 lbs.
30	7 + 5 = 12 lbs.	26 + 5 = 31 lbs.
40	13 + 5 = 18 lbs.	47 + 5 = 52 lbs.
50	21 + 5 = 26 lbs.	73 + 5 = 78 lbs.
60	30 + 5 = 35 lbs.	105 + 5 = 110 lbs.

PHOTO: STONEHILL & TAYLOR ARCHITECTS, PC.

## > DISTINCTIVE

State-of-the-art manufacturing technology paired with a deeply-rooted tradition of craftsmanship yields limitless design options to create a bold entrance that delivers a lasting impression. Our Balanced Doors are custom designed and engineered using only the finest materials and finishes, manufactured with near flawless lines and surfaces.

## > DEPENDABLE

Our Balanced Doors are engineered, fabricated, and tested to withstand the highest traffic conditions. Manufactured in the U.S.A. in our ISO 9001:2008 certified facilities, CRL Balanced Doors combine quality, performance, and durability. Our robust manufacturing capacity and strategically located distribution centers ensure short lead times and prompt delivery to meet project deadlines.

CRL-U.S. Aluminum Balanced Doors are tested to perform for over 1.5 million cycles, and are backed by a 10 year warranty.



## BALANCED DOOR TYPES



ALUMINUM STILE + RAIL

Full-Framed



'ALL GLASS'

Frameless



FORMED BRONZE / STEEL

Full-Framed Monumental



Cad details, 3-part specifications, and additional resources are available at: [crl-arch.com](http://crl-arch.com)

## BALANCER™ SERIES EXTRUDED ALUMINUM STILE + RAIL

CRL Balancer™ Extruded Aluminum Standard Balanced Doors and Frames are available for budget-sensitive projects. These doors and frames offer the look of a Formed Monumental Door at the cost of a clad aluminum door. Balancer™ Series Aluminum Balanced Doors are fabricated from tubular aluminum extrusions with a wall thickness of 3/16" (4.8 mm). The door features job-tested, mechanically fastened and welded corner construction to provide long-lasting performance and durability. CRL offers narrow, medium, and wide stile doors with a

minimum bottom rail height of 6" (152 mm). The Balancer™ Series features rugged 6063-T5 alloy stiles and rails available in clear or dark bronze anodized finishes. Custom powder coat, Newlar, and Kynar finishes are also available, as well as cladding options in nine finishes. CRL can complete your opening by providing matching frames, storefronts, and curtain walls, creating a cohesive, architecturally pleasing entrance. These entrances can easily accommodate a wide variety of stock and custom hardware for specific job requirements.



### INTRODUCING THE NEW STANDARD FOR COMMERCIAL ENTRANCES

CRL's Balancer™ Series is not only a cost effective solution for applications requiring Balanced Doors; it is the ideal option for many high-traffic commercial entrances. The Balancer™ Series combines the value and rugged construction of the proven U.S. Aluminum Entrance Door with the operating performance benefits of a Balanced Door.

Our expansive manufacturing facilities and advanced production capacity affords us the ability to offer the Balancer™ Series at prices and lead times competitive with standard commercial entrance doors offered by others. Additionally, the Balancer™ Series offers an A.D.A. compliant entrance without the annual maintenance costs associated with a power operated door.



## BALANCER™ SERIES 'ALL GLASS' FRAMELESS



CRL Balancer™ 'All Glass' Frameless Balanced Doors offer all of the performance benefits of a standard Balanced Door without compromising the improved aesthetics offered by 'all glass' entrances and storefronts. CRL Balancer™ 'All Glass' Frameless Balanced Doors come completely glazed with either 1/2" or 3/4" (12 or 19 mm) fully tempered glass, and are available with or without mini vertical stiles. 4" (102 mm) or 6" (152 mm) rails top and bottom are required, with optional 10" (254 mm) bottom rails to meet A.D.A. requirements for

framed doors. Balanced Door packages are available with concealed or exposed vertical tubes and are 'install ready' when shipped. There is no additional cutting or prepping required, simply install the header or frame, hang the pre-glazed door panel(s) and make a few final adjustments to complete your installation.

***Your Complete Entrance System – Engineered, Manufactured, Tested, and Delivered.***



### > ADVANTAGES OF THE BALANCER™ SERIES

- Cost Effective Alternative to Standard Entrance Doors
- Maximum Size for Balancer™ Series is 48" Wide x 108" High
- Wind and Stack Pressures Work for You Instead of Against You
- Assures Easy Operation and Positive Closing
- Designed With Dependable Hydraulic Check Connected Directly to Door
- Adjustable Hydraulic Back Check for Consistently Smooth Operation
- Latching Speed, Closing Speed, Back Check, and Spring Power are All Adjustable Without Removing Hardware or Covers
- Compact Header With Integral Guide Track
- Requires Less Operating Space Than Conventionally Hinged Doors
- Hardware is Fully Capable of Supporting and Controlling Large and Monumental Doors
- Easily Installed in New or Remodeled Buildings, Exterior or Interior





## PREMIUM SERIES FORMED BRONZE MONUMENTAL

A remarkable building design deserves a remarkable door. Premium Series Formed Bronze Monumental Balanced Doors from C.R. Laurence provide just that. The product of meticulous craftsmanship, uncompromised detail, and the finest materials; the Premium Series delivers an entrance that is both elegant and distinctive.

CRL Premium Series Formed Bronze Monumental Balanced Doors and Frames are constructed of 14 gauge Alloy 464 Naval Bronze, providing superior strength and excellent corrosion resistance. All doors are custom designed and engineered to your specifications. Our in-house ability to create custom ribbon accents, embossed patterns, and custom ornamental infill shapes yield virtually limitless design options. State of the art waterjet technology ensures precision cuts without heat affected zones or markings.

**NOTE:** Stile width is 2" (51 mm) with a minimum top rail height of 3-1/2" (89 mm) and a minimum bottom rail height of 6" (152 mm). Available in polished, brushed, non-directional and oil rubbed finishes.

“We looked to bronze doors because they convey an elegance and timelessness that cannot be easily achieved with other materials. From a functional perspective, a smooth door operation with little effort was critical as the chapel was intended to be welcoming to people of all ages and abilities. For a public building like this, the balanced hardware became a key design component as it allowed for the ease of use we were looking for.

**CRL’s Balanced Doors provided the appearance, functionality and design versatility we were looking for.”**

- Christopher Payne  
Project Architect

Sullivan Goulette & Wilson, Ltd. Architects  
**Mother Cabrini Shrine** – Chicago, IL (pictured above)



## PREMIUM SERIES FORMED STAINLESS STEEL MONUMENTAL



Discerning architects specify CRL Premium Series when the project demands an entrance that makes a bold statement. The pinnacle of performance and aesthetics, CRL Premium Series Formed Stainless Steel Monumental Balanced Doors provide clean lines, detailed articulation, and superb operation. CRL Premium Series Formed Stainless Steel Monumental Balanced Doors and Frames are constructed from 14 gauge Alloy 304 or 316 stainless steel to ensure structural integrity and long-lasting performance.

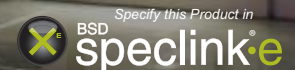
With our laser cutting capabilities we can produce practically any infill panel or overlay with clean oxide and burr free cut edges, giving architects and designers the freedom to create any custom design.

**NOTE:** Stile width is 2" (51 mm) with a minimum top rail height of 3-1/2" (89 mm) and a minimum bottom rail height of 6" (152 mm). Available in polished, brushed, and non-directional finishes.

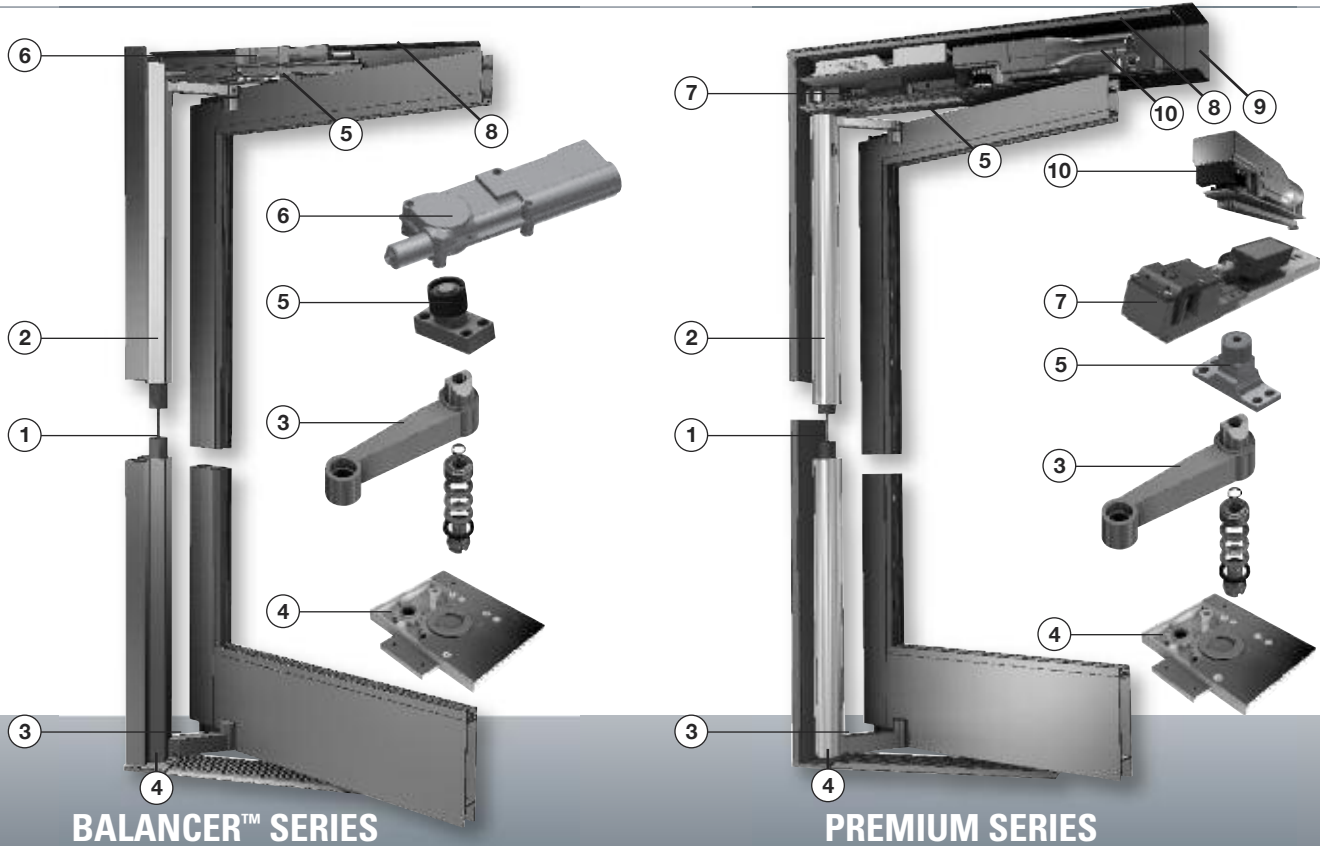


### > ADVANTAGES OF THE PREMIUM SERIES

- Constructed Using 'V-Groove' Technology to Produce 'Crisp' Corners and Tight Joints
- Hardware is Fully Capable of Supporting and Controlling Large and Monumental 2" Thick Doors
- Maximum Size for Premium Series is 50" Wide x 120" High
- Wind and Stack Pressures Work for You Instead of Against You
- Assures Easy Operation and Positive Closing
- Adjustable Bronze Cast Hydraulic Back Check for Consistently Smooth Operation
- Latching Speed, Closing Speed, and Spring Power are Adjustable Without Removing Hardware or Covers
- Compact Header With Integral Guide Track
- Requires Less Operating Space Than Conventionally Hinged Doors
- Easily Installed in New or Remodeled Buildings, Exterior or Interior
- Automatic Operator Available



## ANATOMY OF BALANCED DOORS SIDE BY SIDE COMPARISON



#	COMPONENT	BALANCER™	PREMIUM
1	<b>HINGE TUBE</b> - Cold drawn butt weld carbon steel tube to support tall or heavy doors. Covered with corrosion resisting sleeve. Optional metal sleeve in matching finish for exposed hinge tube construction.	✓	✓
2	<b>HINGE TUBE JAMB</b> - Hinge tube jambs may be of contemporary narrow line or traditional box shape. May be exposed or concealed in the mullion.	✓	✓
3	<b>ARMS AND PIVOTS</b> - High strength wrought metal finished to architectural specifications. Pivot bearings rated to easily support a door weighing up to 700 lbs. (318 kg). Arms are field replaceable in case of damage.	✓	✓
4	<b>GEAR BOX</b> - Self-aligning, anti-friction bearings and gears can support a weight of 2330 lbs. (1057 kg), and handle a radial load of 3400 lbs. (1542 kg).	✓	✓
5	<b>BALANCING GUIDE ROLLER</b> - Rigidly mounted, yet self aligning to overcome any misalignment between door and frame. Sturdy and maintenance free.	✓	✓
6	<b>HYDRAULIC CHECK</b> - Completely concealed in the header. Dependable and easy to adjust without removing hardware or covers. A hydraulic back check cushions the limiting point of the door swing.	✓	
7	<b>CAST BRONZE HYDRAULIC CHECK</b> - Completely concealed in the header. Has first and second speed adjustment. Removable without requiring the removal of the door.		✓
8	<b>COMPACT HEADER</b> - Header with integral guide roller track, requires only 2-7/8" x 4-1/2" (73 x 114 mm) above door to house the Hydraulic Check.	✓	✓
9	<b>FORMED DOORS AND FRAMES</b> - Solid and welded stainless steel and brass monumental doors and frames, formed to custom dimensions and constructed to ensure structural integrity and long lasting performance.		✓
10	<b>OPTIONAL MOTORIZED OPERATOR</b> - Heavy-duty (low energy) concealed overhead electromechanical power operator with control box, conforming to ANSI/BHMA A156.19. Motor permanent magnet, DC 3/16 HP (minimum), 1.25 AMP, 120V AC, UL listed. Adjustable slow opening speed and adjustable time delay.		✓



## DOOR MANUFACTURING CRAFT MEETS INNOVATION

**CRL**  
US ALUMINUM

### TRADITIONAL CRAFTSMANSHIP BACKED BY ADVANCED TECHNOLOGY

As a vertically integrated company with process control over everything from engineering to extrusions, fabrication to finishing, we have the experience and capability to produce high quality products on time at a competitive price. All CRL-U.S. Aluminum Balanced Doors are made in the United States in our ISO 9001:2008 certified manufacturing facilities. Where fine craftsmanship meets state of the art technology, our innovative doors are the product of an ongoing commitment to supporting American jobs and providing the finest commercial and architectural products on the market.

CRL-U.S. Aluminum Formed Metal Doors and Entrances are manufactured with near flawless lines and seamless surfaces, minimizing "oil canning" and distortion. Each system is adapted to meet the demanding requirements of your project.

Our Formed Metal Doors are made of minimum 14 gauge metal sheet that is formed to the desired shapes and sizes required. Welded construction and reinforcing provides strength and durability throughout years of heavy use.

By forming the individual parts that make up the door itself, we are able to easily make doors of varying design without the cost and lead time of expensive extrusion dies and minimum quantity orders. We can also design around unique hardware combinations that do not normally fit in a standard door.



Expansion of our manufacturing capability has brought our total manufacturing floor space in California to roughly 650,000 square feet. CRL now has approximately 1 million square feet of distribution and manufacturing capability in the local area.



## BALANCED DOOR PANIC HANDLES BY BLUMCRAFT BP100 SERIES

**The First of its Kind. A Code-Compliant Panic Device Exclusively Designed for Balanced Doors, Brought to You by the Industry Standard for Access Control Handles.**

CRL-Blumcraft Balanced Door Panic Handles were created to meet the building code requirements for Balanced Doors, while maintaining an excellent appearance. The building code states that the push pad shall not extend more than one-half the width of the door measured from the latch side, and this creates an undesirable appearance.

Our BP100 Series has a fixed handle portion that extends toward the hinge side of the door, with a clearly defined push pad handle portion at the latch side of the door. This wider handle has greatly improved aesthetics over a handle that only spans one-half of the door's width. Yet another fine example of C.R. Laurence's commitment to meeting building code requirements, while at the same time delivering the beautiful hardware that our architectural customers demand.



### > CRL-BLUMCRAFT BP100 SERIES FEATURES

- Specifically Designed for Balanced Doors
- UL, ULC, and ANSI/BHMA Certified
- For 1/2" or 3/4" (12 or 19 mm) Tempered Glass
- Available in Polished and Brushed Stainless, Satin and Polished Brass, and Oil Rubbed Bronze
- Custom Finishes Available by Special Order
- Custom Sizes Ship Within Two Weeks

CRL-Blumcraft BP100 Series Panic Handles for Balanced Doors comply with Section 1008.1.9 of both IBC and NYC Building Codes.



**BLUMCRAFT®**  
A DIVISION OF C.R. LAURENCE CO., INC.

Blumcraft of Pittsburgh is a member of the C.R. Laurence family of companies. An icon in the architectural metal and glass industry, Blumcraft has been designing, manufacturing, and delivering high quality products to the architectural metal and glass industry for over 95 years. The company's tempered glass doors, panic hardware, hand rails, and display doors are well known to architects, contractors, and installers in their building trades.

Blumcraft metalwork elements have been installed in more than 80,000 buildings throughout the world, including the White House, the Smithsonian Institute, the Metropolitan Museum of Art, the Louvre in Paris, and many other prestigious buildings.

## COMPLETE ENTRANCE SYSTEMS BALANCED DOOR HARDWARE



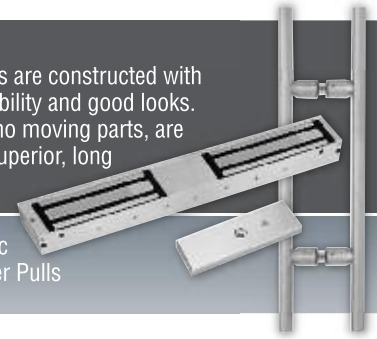
C.R. Laurence offers a comprehensive range of door control hardware for all your Balanced Door and Entrance System needs. Having made strategic acquisitions and subsequent investments in U.S. Aluminum, Blumcraft of Pittsburgh, and Jackson Corporation, our suite of trusted brands delivers a diverse product portfolio to provide innovative door control solutions for any application and budget.



### ELECTROMAGNETIC LOCKS

CRL Standard Electromagnetic Locks are constructed with rugged aluminum housings for durability and good looks. Intended for interior use, they have no moving parts, are maintenance free, and will provide superior, long lasting performance.

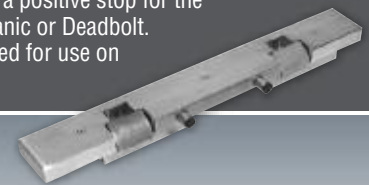
< **MLST1202U** Double Electromagnetic Locks with CRL Straight Style Ladder Pulls



### HEADER MOUNT ELECTRIC STOP/STRIKES

Our CRL ESK Series Stop/Strikes come with a Folger Adams 310 1-3/4" NFS Electric Strike. It provides a positive stop for the door, and a strike or keeper for the Panic or Deadbolt. ESK Series Stop/Strikes can be ordered for use on either single or double doors.

< **MODEL ESK2** Stop/Strike with CRL-Blumcraft® **BP100** Panic Handle



### PUSH PAD PANIC EXIT DEVICES DESIGNED FOR BALANCED DOORS

CRL Jackson Panic Exit Devices are designed to withstand wear and tear, yet remain aesthetically pleasing. Each part is manufactured from the highest quality materials, which are hand fitted and adjusted for a smooth, whisper-quiet operation.

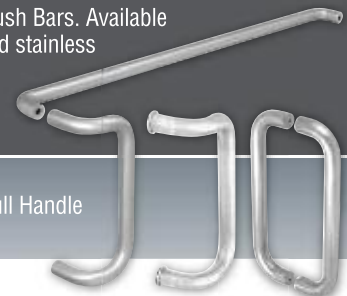
< **CRL JACKSON 20 SERIES** Panic Exit Device



### COMMERCIAL DOOR HANDLES

CRL Offset/Straight Pull Handles and Push Bars. Available in Astral II extruded solid aluminum, and stainless steel or brass tubing.

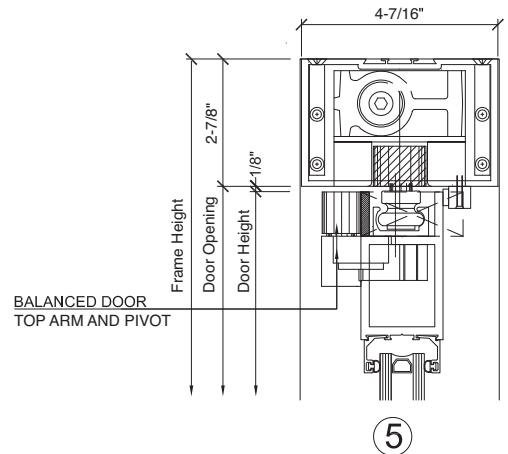
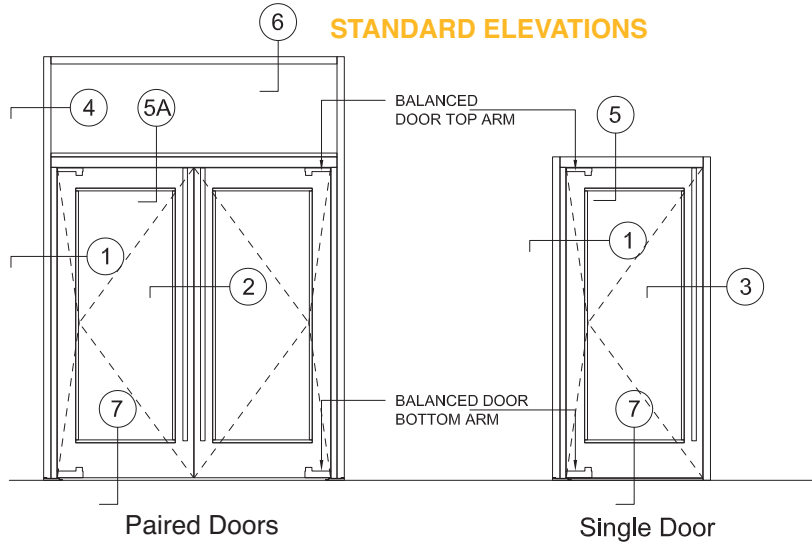
< **CD10BR** Tubular Offset Single-Sided Pull Handle



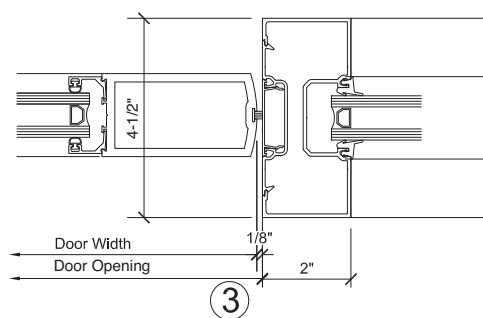
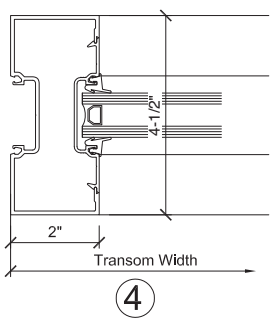
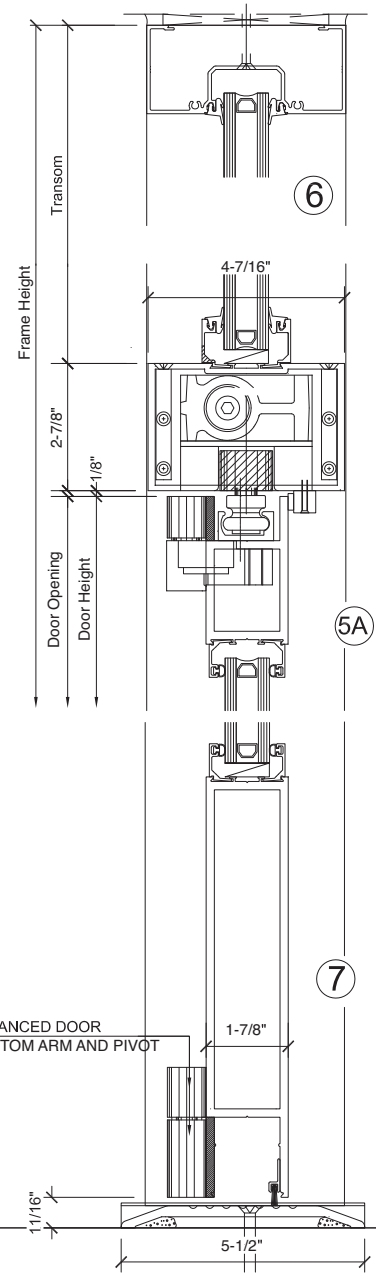
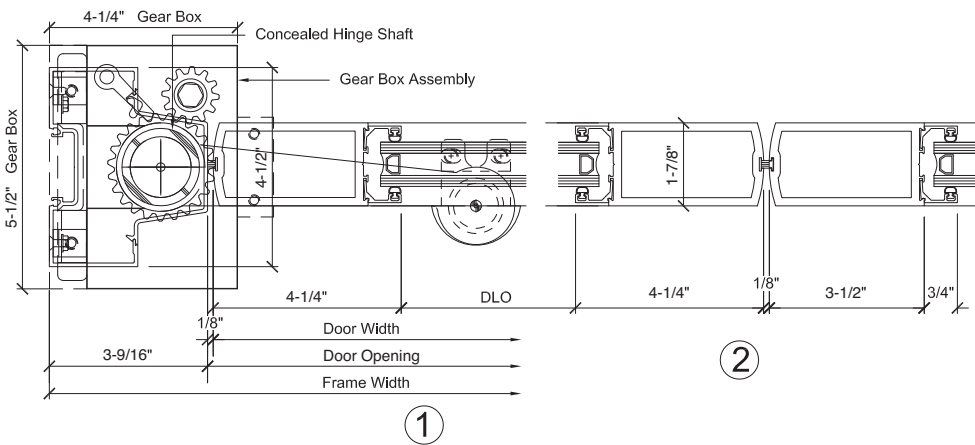
## EXCEPTIONAL PRODUCTS. EXCEPTIONAL SUPPORT.

CRL supports our extensive line of products with dedicated Technical Specialists who work directly with architects, specifiers, hardware consultants, and contractors to assist with hardware selection. CRL offers hardware options in a variety of designs, sizes, materials, and finishes to suit design aesthetics, application performance, and code accessibility/egress requirements. For technical assistance and product support, contact CRL Technical Sales at (800) 421-6144 in the U.S., or (877) 421-6144 from Canada, and ask for Ext. 7520.

# BALANCER™ SERIES EXTRUDED ALUMINUM STILE + RAIL (CONCEALED SHAFT)



## TYPICAL DETAILS



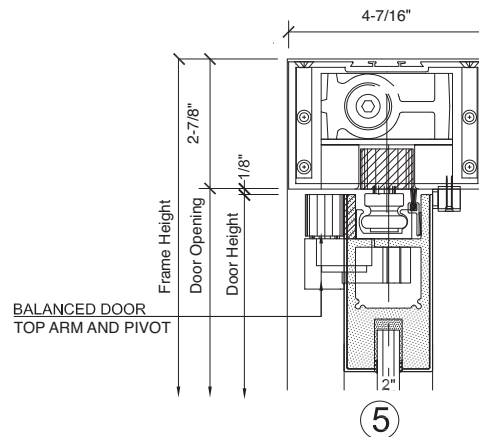
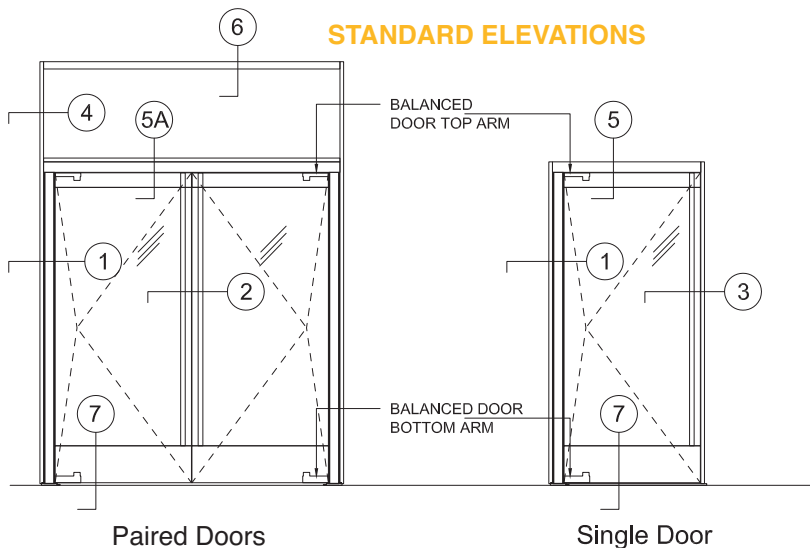
- Featured Options:**
- Exposed or Concealed Shaft
  - Finishes Available
    - Anodized and Painted
    - Clad Stainless Steel and Brass
  - Low Cost and Short Lead Time



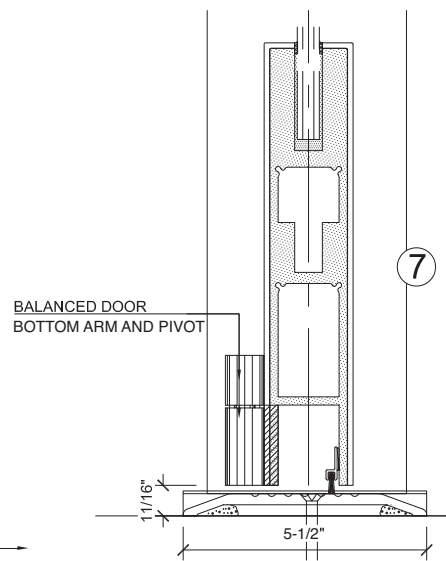
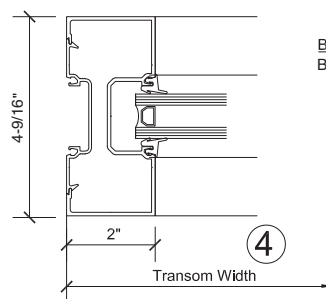
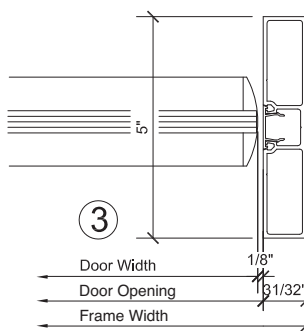
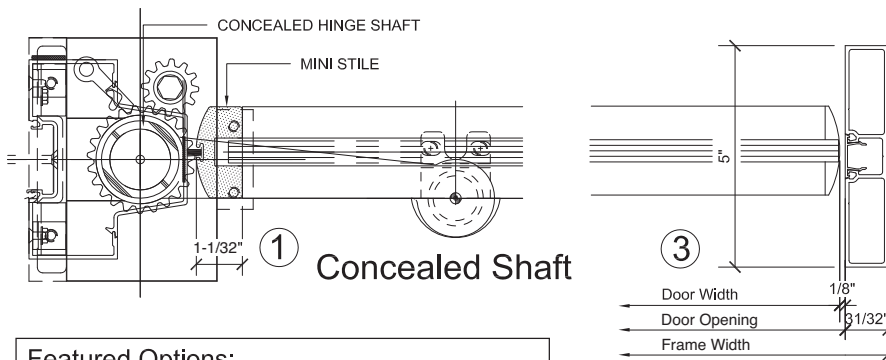
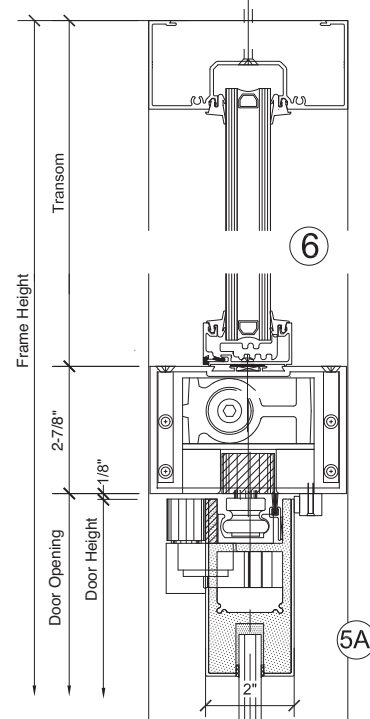
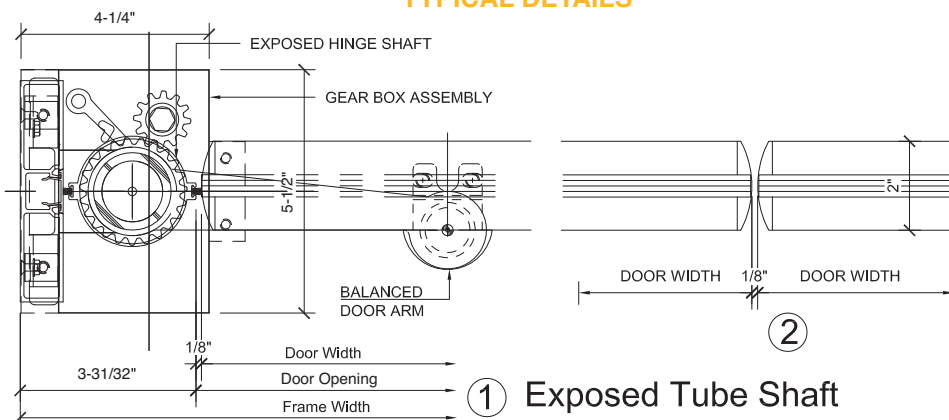
Cad details, 3-part specifications, and additional resources are available at: [crl-arch.com](http://crl-arch.com)

# BALANCER™ SERIES 'ALL GLASS' FRAMELESS

## STANDARD ELEVATIONS



## TYPICAL DETAILS

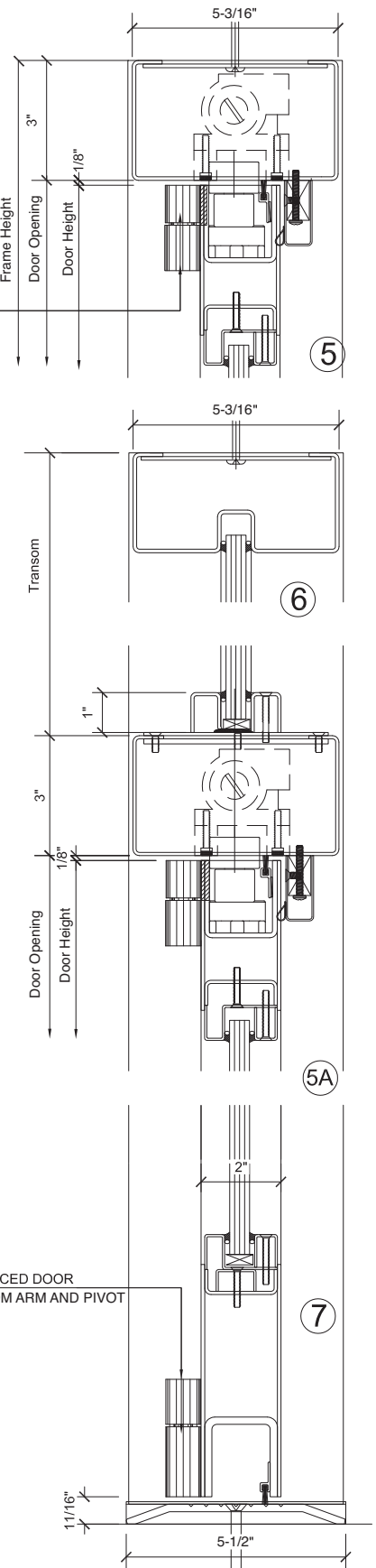
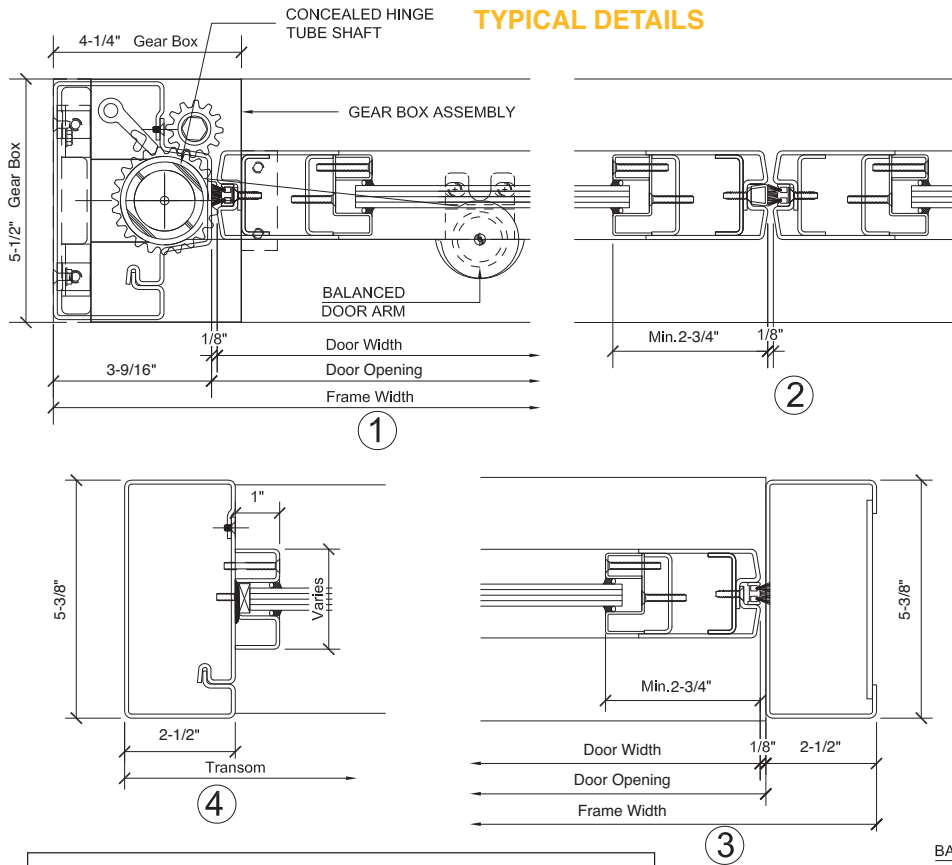
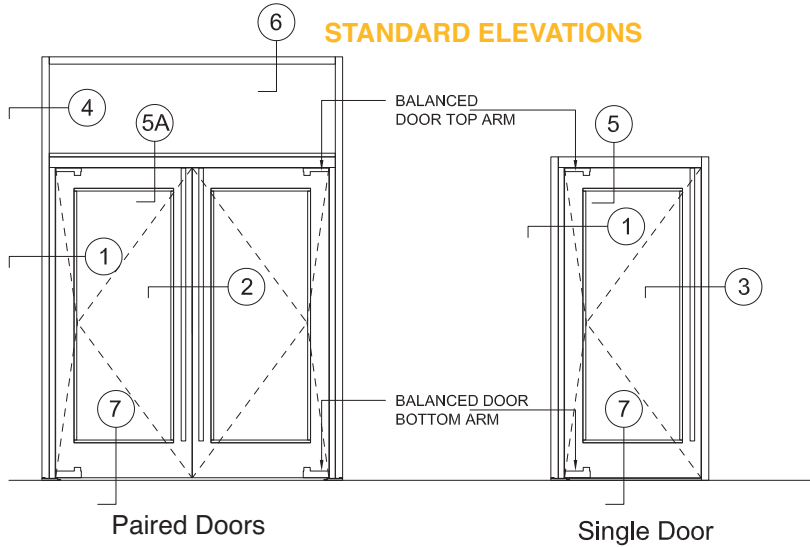


### Featured Options:

- Exposed or Concealed Shaft
- Tempered Glass by CRL
- Wet Set Assembly
- Finishes Available
  - Anodized and Painted
  - Clad Stainless Steel and Brass
- Mini Stile



# PREMIUM SERIES FORMED MONUMENTAL STILE + RAIL (CONCEALED SHAFT)



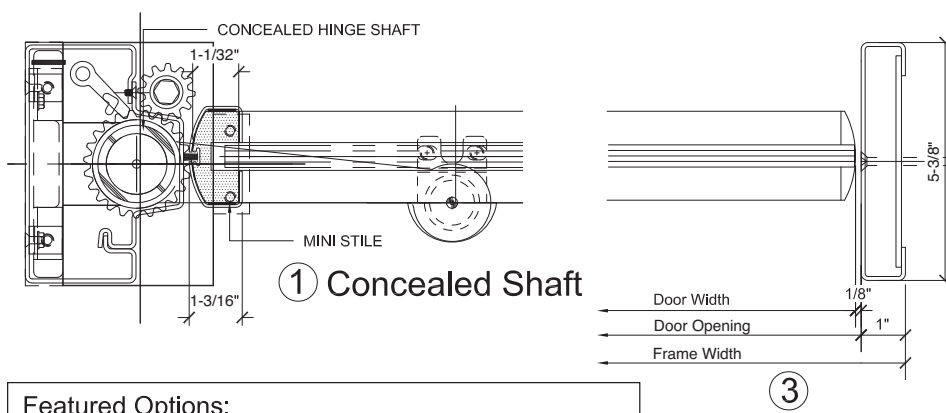
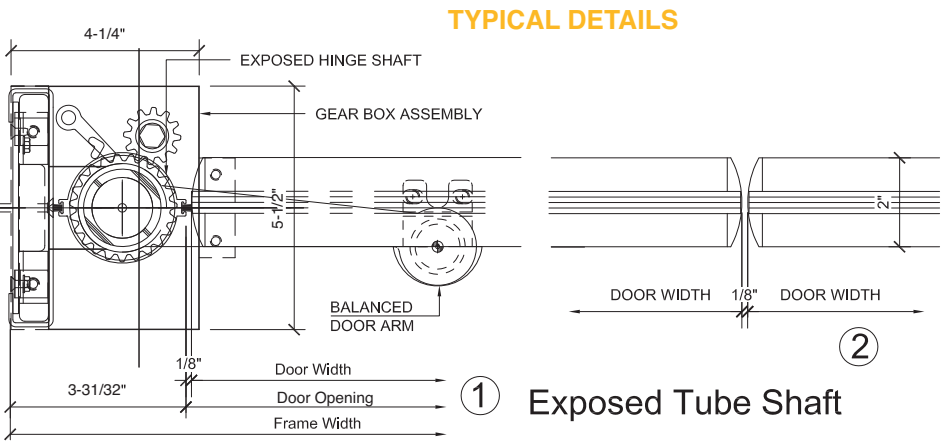
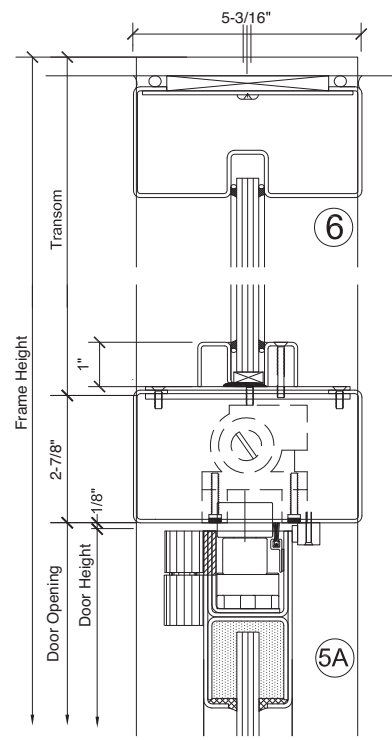
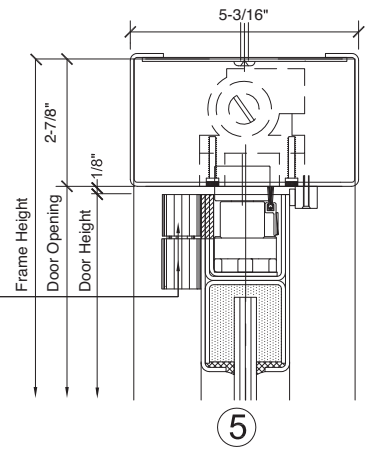
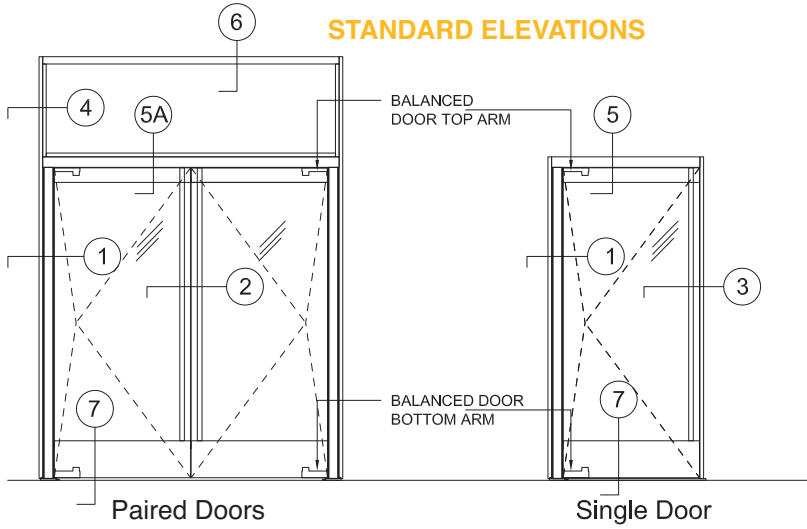
- Featured Options:**
- Exposed or Concealed Shaft
  - Finishes Available
    - Stainless Steel and Brass .090 Thick
    - Brushed, Polished and Non-Directional
  - Custom Sizes



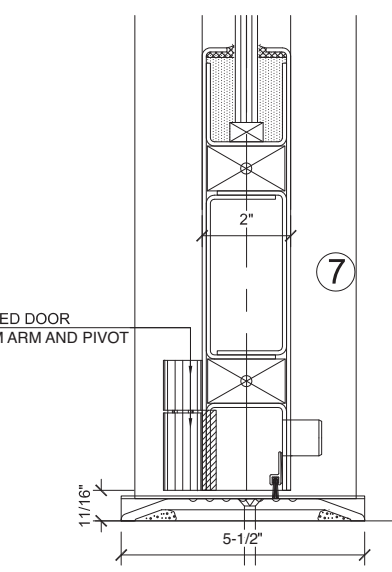
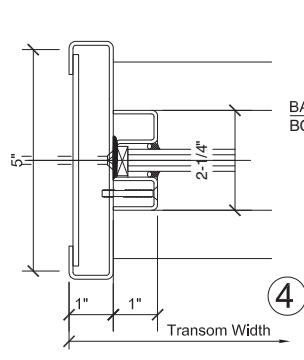
Cad details, 3-part specifications, and additional resources are available at: [crl-arch.com](http://crl-arch.com)



# PREMIUM SERIES FORMED 'ALL GLASS' FRAMELESS



- Featured Options:**
- Exposed or Concealed Shaft
  - Tempered Glass by CRL
  - Wet Set Assembly
  - Finishes Available
    - Stainless Steel and Brass .090 Thick
    - Brushed, Polished and Non-Directional
  - Mini Stile





# BALANCED

DOORS AND ENTRANCE SYSTEMS  
EFFORTLESS. DISTINCTIVE. DEPENDABLE.



C.R. Laurence Co., Inc.  
2503 E. Vernon Ave.  
Los Angeles, CA 90058-1897  
(800) 421-6144  
crl-arch.com | crlaurence.com



Specify our Products in  
**speclink<sup>®</sup>e**

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