

CRL®



Oldcastle
BuildingEnvelope

ARCHITECTURE
FOR LEARNING



Where Learning Takes Shape

Every design decision shapes how learning is experienced

Learning environments do more than support education - they shape how students feel, focus, and engage each day.

Light, transparency, and openness create spaces that feel inviting and connected, while durability, safety, and long-term performance ensure those spaces continue to serve students and educators over time.

The building is the vital anchor in this balance, ensuring schools remain functional, welcoming, and resilient—without compromise.



Exceptional Design

Without Compromise

School design is a dynamic balance of diverse priorities, creating spaces that are as safe as they are inspiring, and as quiet as they are light-filled. We provide the high-performance solutions to harmonize these priorities, protecting your design intent and future students.

Occupant Wellness
Maximize daylighting to support student health and focus while effectively managing glare and heat gain.

Environmental Protection
Impact-rated framing, glass and hardware to protect students and staff during extreme weather events.

Thermal Control
Achieve ambitious energy targets and lower operational costs with insulating glass and framing with advanced thermal-break technology.

Acoustic Comfort
Integrate specialized noise-reducing glazing and interior partitions for flexible, and functional learning spaces.

Security
Forced-entry and bullet-resistant solutions to fortify while maintaining an open, welcoming aesthetic.

Long-Term Durability
Framing and hardware engineered to endure the high-traffic demands of daily school life.



Security Solutions

Without Sacrifice

Where Clarity Replaces Compromise

Educational facilities are expected to be open, light-filled, and welcoming while meeting increasingly complex safety and security expectations. These priorities no longer have to compete.

Built to Withstand Real-World Threats

ASTM F3561 is the only industry standard developed specifically for school security. It evaluates complete fenestration systems - glass, framing, and hardware - after ballistic impact to confirm the assembly continues to resist forced entry. This system-level approach removes uncertainty and establishes a clear, defensible benchmark for performance.

Design Freedom Meets Documented Performance

When clients question transparency versus safety, or when administrators want “more security” without understanding trade-offs, our certified systems give you the data to defend good design.

Our Solutions – storefronts, entrances, and curtain walls – integrate protective performance into standard architectural detailing. Coupled with strategically placed bullet-resistant glass and transaction windows, layers of security are available to meet each project’s needs. You specify security the same way you specify any fenestration system, with the documentation to back every decision.



Integrated Solutions

From Vision to Ribbon Cutting

Modern schools are dynamic environments
where design directly impacts student well-being and success. Architects, designers, and school districts face a complex balancing act: creating beautiful, light-filled spaces while meeting rigorous safety standards and strict budgets.

As North America's leading single-source manufacturer, we provide the integrated glass, hardware, and framing solutions needed to optimize your project from concept to ribbon-cutting.

We're Everywhere You Build
Our expansive manufacturing and service footprint across the U.S. and Canada provides local expertise and rapid response wherever you build. This regional presence ensures reliable delivery and on-the-ground support from initial design to final installation.

Partnership
As your technical partner, we provide the product, engineering and budget expertise to translate ambitious designs into pragmatic, code-compliant environments.

Performance
Maximize daylighting for student performance with systems built for energy resilience, layered security, and long-term durability.

Proven Results
Decades of education project success ensure reliable schedules, certified data and trusted systems that help you manage construction and operational costs.

First Impressions

Fountain Inn High School



Matilda Torres High School



Iowa State University



Indian Residential School

The entry experience sets expectations from the very first moment.
Safety, openness, and identity meet here - shaping an experience that feels intuitive and welcoming from the start.

Storefronts & Entrances
Where openness, protection, and access meet.

Architectural Glass & Glass Partitions
Defining space while preserving openness and connection.

Curtain Wall, Architectural Windows & Sunshades
Daylight where it's needed. Performance where it matters.

Railings, Hardware & Accessories
Clarity, color and texture - grounded in durability.

Storefronts & Entrances



ArmorDefend™ Storefront

Forced-entry resistant storefront designed and tested with ArmorGarde™ glass for complete system performance. Seamlessly integrates with ArmorDefend Entrance.

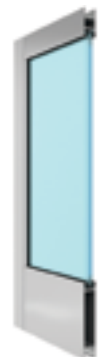
- Tested to ASTM F3561, ASTM 2395
- 2" Sight Line; 4-1/2" System Depth
- Infill: 1", 1-1/4". Min: 7/16"



FG-3000 Storefront

Non-thermal standard flush glaze storefront system that is easily adaptable to many different infills ranging from 1/4" to 1-1/8". Thermal versions available.

- Door framing components
- Sidelite bases to match door bottom rail



Rugged StormMax® Entrances

Designed for high-velocity hurricane impact resistance and superior durability ideal for heavy-traffic areas and essential facilities. Seamlessly integrates with StormMax® storefront systems.

- Large Missile (ASTM E1996 Level E) Impact and Cycling
- Florida HVHZ Approved
- Single and paired door options
- Door opening 96" x 96"; Height with transom 120"



MS-375TC / WS-500TC Thermal Composite Door & Frame

Medium and Wide stile high thermal doors designed and tested for high traffic applications in both single door and pair applications.

- Tested to AAMA 1304-02, AAMA 920, AAMA 1503
- Infill: 1" insulating or 1-1/2" triple glazing
- Max Height: 96"; Max Width: 48"

Architectural Glass & Glass Partitions



ArmorGarde™ Glass

Laminated forced-entry resistant safety glass with proprietary makeups.

- Tested to ASTM F1233, ASTM F3561, ASTM 2395, 5-aa1
- Monolithic or IG units (1" <)
- Various glass types, including low-E, clear or tinted



ArmorResist® Glass

Bullet-resistant laminated glass for critical access points.

- Meets UL752 up to level 8
- All-glass laminate or glass-clad polycarbonate
- Nominal glass thickness: 1-3/16 - 2.27



Insulating Glass Units

Insulating Glass (IG) Units provide thermal and acoustical performance in a variety of make-ups, air space options, low-e coatings and decorative interlayers.

- Glass thicknesses: 1/8" to 3/4"
- Airspace thicknesses: 3/16" to 7/8"
- Double pane, triple pane or Vacuum Insulating Glass (VIG) as thin as 1/4"

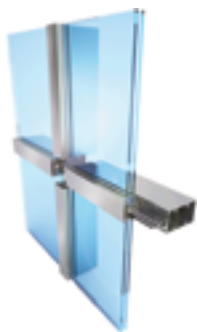


CRL 487 Interior Partition

A refined interior glass partition that blends the best of framed and acoustically rated interior partition designs.

- Can be used with Aluminum or Wood doors
- AR (Acoustically Rated from STC 35 to 47)
- Door options: pivot door or hinged door

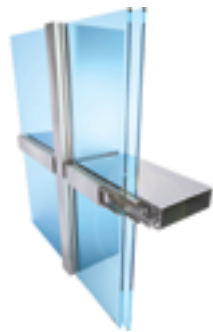
Curtain Wall, Architectural Windows & Sunshades



Reliance™ Curtain Wall

Thermally broken curtain wall system featuring a zone-glazed, pressure-equalized curtain wall system offering both captured and structural silicone glazed vertical mullions.

- Exceptional water control and thermal performance
- 2-1/2" Sightline; 5-1/4" to 10-3/8" System depths with veneer options
- Infill: 1/4", 1", 1-1/4"



Reliance™ StormMax® High Performance Curtain Wall

Impact-resistant curtain wall engineered for larger spans and high-velocity hurricane zones. Designed for essential facility applications and seamless integration with StormMax® storefront and entrance systems.

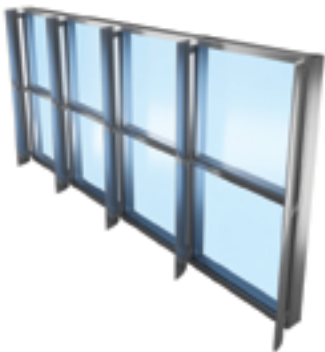
- Hurricane resistant; FPA, TDI
- 2-1/2" Sightline; 7-1/2" System depth
- Infill: 1-5/16" laminated insulating glass



Graham GT2200 Single Hung Window

High-thermal hung window designed for performance and durability with removable sash for easy maintenance without special tools.

- Dual strut thermal breaks
- Block & tackle balances for superior operation
- Full-length extruded lift handles
- Exterior-beveled (putty) glazing leg & up to 15/16" insulating glass



Solar Eclipse Sunshade

Adjustable single air foil blade or outrigger-and-louver configurations that provide beautiful building accents and passive solar control.

- Pairs seamlessly with many of our storefront and curtain wall products
- Modular construction for easy installation
- Available in 5" increments up to 35" with no pre-set angle

Railings, Door Hardware & Accessories



CRL TURBOFLEX Glass Railing System

Innovative frameless glass railing system for guardrail and windscreen applications. Base shoe accommodates monolithic and laminated glass thicknesses from 1/2" to 27/32" to simplify specification and installation.

- Integrated ±2 degrees of glass tilt adjustment
- Passed Miami-Dade HVHZ impact testing
- Hollow base shoe design uses 60% less material
- Full selection of cap rails, handrails, and cladding finishes



CRL DRX Modular Door Rail

Modular door rail system for all-glass doors. Side covers can be slid on or removed at any point during, or after installation. ADA-compliant 4" tapered height is available as well as a complementary modular door header.

- Allows ±2 degrees of angle adjustment for precise alignment
- Door rails can be converted to patch fittings
- Passed pull-force test of 1300 pounds
- For 3/8" to 3/4" monolithic or laminated tempered glass



CRL Blumcraft® Panic Devices

The original and iconic panic device, engineered for fluid emergency egress in high-traffic environments. Features a patented top security latch that provides stronger engagement with the overhead door strike.

- For glass doors up to 12 feet tall
- Tested to over 500,000 cycles
- Sleek 1-1/4" tubular design enhances aesthetics
- Designer Series handles available with unique D-shape grip



CRL Atlas Ladder Pull

Part of the Latitude 34" door hardware collection, the Atlas Ladder Pull is made of solid 300 series stainless steel for lasting durability and performance in high-traffic areas.

- Sand blasted texture on grip
- Concealed fasteners
- 24", 36", and 48" lengths
- Black stainless and brushed stainless finishes



Connect & Engage



Charter Oak International Academy

CLASROOMS & OFFICES



Quinnipiac University

Learning happens best when environments support focus and calm.

In classrooms, learning spaces, and offices, light, sound, and comfort quietly influence how students and educators focus, connect, and engage throughout the day.

Storefronts & Entrances

Balancing protection, acoustics, and access with natural light and clear sightlines.

Architectural Glass & Glass Partitions

Separation that quiets the room - without closing it in.

Architectural Windows, Sunshades & Skylights

Where thermal performance and daylight support comfort and focus.

Railings, Door Hardware & Accessories

Architecturally integrated elements for separation, service and display.

Storefronts & Entrances



ArmorDefend™ Storefront

Forced-entry resistant storefront designed and tested with ArmorGarde™ glass for complete system performance. Seamlessly integrates with ArmorDefend Entrance.

- Tested to ASTM F3561, ASTM 2395
- 2” Sight Line; 4-½” System Depth
- Infill: 1”, 1-1/4”. Min: 7/16”



Rugged Door & Frame

Engineered for long-lasting durability in high-traffic areas. A 2” deep door profile adds strength while maintaining smooth, uninterrupted lines with no exposed fasteners.

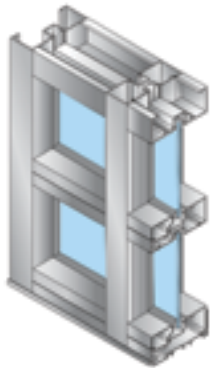
- Heavy-duty tubular construction with 3/16” wall thickness and 2” depth
- Dual-welded corners with heavy corner shear block and steel backup plates
- 1” diameter push/pulls and steel back-up plates for hinges



FG-2000 Storefront

Non-thermal standard flush glaze storefront system that is easily adaptable to many different infills ranging from 5/16” to 3/8”, commonly used for interiors.

- Door framing components
- Sidelite bases to match door bottom rail
- Multiple corner post configurations



U.S. Aluminum - IT 451 Storefront

Strong security with thermal efficiency using Poly-Aluminizer™ and a secure top-load E.P.D.M. gasket that firmly positions and weatherseals the glass. Compatible with most entrance doors for a strong, reliable installation.

- 2” x 4-1/2” thermal frame
- 1” Glazing infill
- Struct-Link™ thermal break

Architectural Glass & Glass Partitions



Decorative Glass

Silk-screened, spandrel, and digitally printed i-Glass® options compatible with monolithic, IGU, and laminated glass.

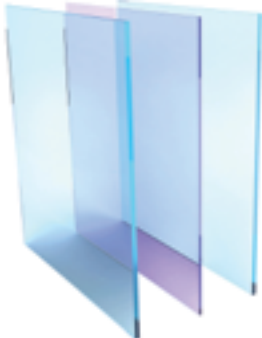
- i Glass® digital print
- Silkscreen and ceramic frit
- Acid or laser etched finishes
- Colored interlayers



TGP Fire-Rated Glass

Fire-rated, impact-safety glass panels that deliver clear, resilient wall protection.

- Fire-rated for up to 120 minutes with required hose stream test
- FireLite® NT / FireLite® Plus
- FireLite® IGU
- FireLite® NT



Laminated Glass

A safety-glazing solution that provides impact resistance, noise reduction, and UV protection in a range of colors and configurations.

- Sound control
- Security
- Impact protection
- Reduce solar energy transmittance



CRL 487 Interior Partition

A refined interior glass partition that blends the best of framed and acoustically rated interior partition designs.

- Can be used with Aluminum or Wood doors
- AR (Acoustically Rated from STC 35 to 47)
- Door options: pivot door or hinged door

Architectural Windows, Sunshades & Skylights



BMS-3000 Skylight

Customized with design versatility and ultra-high performance, this skylight is available in standard and custom configurations with various pitches.

- Tested for air, static and dynamic water resistance, acoustic and thermal performance
- StormMax™ and BlastMax™ are available for impact-resistant applications
- Fully-captured, two-sided, and four-sided structural glazing options



Graham GT6700 Series Window

Impact-rated window system combining slim historic sightlines with advanced joinery, larger unit capabilities, and strong hurricane-resistant performance.

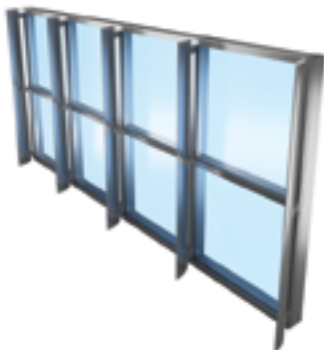
- Provides large and small missile impact protection
- 1 5/8" slim historic profiles with a 3" frame depth
- Superior joinery supports larger units and more configurations
- Larger thermal strut technology for excellent energy performance



Graham HIS1400 Fixed Offset Window

Fixed hurricane-impact windows offering large-missile protection, energy efficiency, and a historic hung-window appearance.

- Provides large missile impact protection and passive defense from wind borne debris
- Thermally broken frame with IG option for superior energy savings
- Bead glazing up to 1" thick
- Putty bead frame style with historic grids



Solar Eclipse Sunshade

Adjustable single air foil blade or outrigger-and-louver configurations that provide beautiful building accents and passive solar control.

- Pairs seamlessly with many of our storefront and curtain wall products
- Modular construction for easy installation
- Available in 5" increments up to 35" with no pre-set angle

Railings, Door Hardware & Accessories



CRL TURBOFLEX Glass Railing System

Innovative frameless glass railing system for guardrail and windscreen applications. Base shoe accommodates monolithic and laminated glass thicknesses from 1/2" to 27/32" to simplify specification and installation.

- Integrated ±2 degrees of glass tilt adjustment
- Passed Miami-Dade HVHZ impact testing
- Hollow base shoe design uses 60% less material
- Full selection of cap rails, handrails, and cladding finishes



CRL DRX Modular Door Rail

Modular door rail system for all-glass doors. Side covers can be slid on or removed at any point during, or after installation. ADA-compliant 4" tapered height is available as well as a complementary modular door header.

- Allows ±2 degrees of angle adjustment for precise alignment
- Door rails can be converted to patch fittings
- Passed pull-force test of 1300 pounds
- For 3/8" to 3/4" monolithic or laminated tempered glass



CRL Blumcraft® Panic Devices

The original and iconic panic device, engineered for fluid emergency egress in high-traffic environments. Features a patented top security latch that provides stronger engagement with the overhead door strike.

- For glass doors up to 12 feet tall
- Tested to over 500,000 cycles
- Sleek 1-1/4" tubular design enhances aesthetics
- Designer Series handles available with unique D-shape grip



CRL Atlas Ladder Pull

Part of the Latitude 34° door hardware collection, the Atlas Ladder Pull is made of solid 300 series stainless steel for lasting durability and performance in high-traffic areas.

- Sand blasted texture on grip
- Concealed fasteners
- 24", 36", and 48" lengths
- Black stainless and brushed stainless finishes

Shared Environments



Capitola Library

SPACES FOR GATHERING



Lisle Elementary



Manor New Tech Middle School

Spaces designed for exchange, movement, and belonging

Through openness, visibility, and scale, these shared environments including cafeterias, gyms, libraries, courtyards, auditoriums, and sports complexes bring people together - supporting safety, ease, and flow under daily use.

Storefronts & Entrances

Durable, accessible systems that balance passage and protection.

Architectural Glass & Glass Partitions

Defining space without interrupting visibility or flow.

Curtain Walls & Architectural Windows and Transaction Windows

Large spans and high-performance glazing that preserve openness, comfort, and safety.

Railings, Door Hardware & Accessories

Transparent protection along open edges creates defined moments for interaction and information in shared spaces.

Storefronts & Entrances



ArmorDefend™ Storefront

Forced-entry resistant storefront designed and tested with ArmorGarde™ glass for complete system performance. Seamlessly integrates with ArmorDefend Entrance.

- Tested to ASTM F3561, ASTM 2395
- 2" Sight Line; 4-½" System Depth
- Infill: 1", 1-1/4". Min: 7/16"



Rugged Door & Frame

Built for long-lasting performance in high-traffic areas, with a 2" deep profile for added strength and smooth lines with no exposed fasteners.

- Heavy-duty tubular construction with 3/16" wall thickness and 2" depth
- Dual welded door corner construction with heavy corner shear block and steel back-up plates
- 1" diameter push/pulls and steel back-up plates for hinges



FG-5750T Rugged StormMax® Storefront

A thermally broken, impact-resistant storefront system delivering Level E hurricane protection for essential facilities, with flexible wet or dry glazing options and a clean 2-1/2" sightline profile.

- Hurricane resistant; FPA, TDI
- Large Missile (ASTM E1996 Level E) impact and cycling
- 2-1/2" Sightline
- 5" System depth



MSD-375/ WSD-500 StormMax® Door & Frame

A hurricane-resistant entrance system engineered to meet Florida's strict code requirements for medium and wide stile applications.

- Hurricane resistant design approved for HVHZ, FPA, and TDI
- Impact rated performance available in both medium and wide configurations
- Maximum sizes up to 96" height and 48" width

Architectural Glass & Glass Partitions



Decorative Glass

Silk-screened, spandrel, and digitally printed i-Glass® options compatible with monolithic, IGU, and laminated glass.

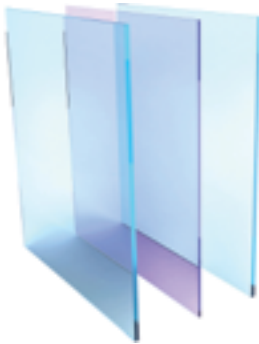
- i Glass® digital print
- Silkscreen and ceramic frit
- Acid or laser etched finishes
- Colored interlayers



Insulating Glass Units

Insulating Glass (IG) Units provide thermal and acoustical performance in a variety of make-ups, air space options, low-e coatings and decorative interlayers.

- Glass thicknesses: 1/8" to 3/4"
- Airspace thicknesses: 3/16" to 7/8"
- Double pane, triple pane or Vacuum Insulating Glass (VIG) as thin as 1/4"



Laminated Glass

A safety-glazing solution that provides impact resistance, noise reduction, and UV protection in a range of colors and configurations.

- Sound control
- Security
- Impact protection
- Reduce solar energy transmittance

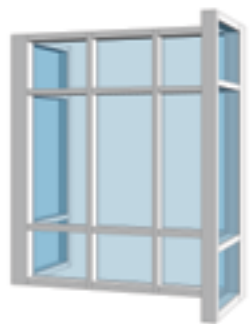


CRL 487 Interior Partition

A refined interior glass partition that blends the best of framed and acoustically rated interior partition designs.

- Can be used with Aluminum or Wood doors
- AR (Acoustically Rated from STC 35 to 47)
- Door options: pivot door or hinged door

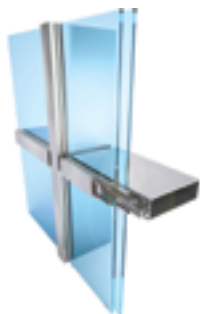
Curtain Walls, Architectural Windows & Transaction Windows



US Aluminum 3250 Curtain Wall

Thermally improved, exterior-glazed curtain wall system with concealed joinery and multiple mullion depths for varied structural loading.

- 2-1/2" face with 1" glazing
- Exterior-glazed, pressure-bar system; no exposed fasteners
- Multiple mullion and system depths for various spans
- Two-tone, coated, or anodized finish options



Reliance™ Curtain Wall

Thermally broken curtain wall system featuring a zone-glazed, pressure-equalized curtain wall system offering both captured and structural silicone glazed vertical mullions.

- Hurricane resistant; FPA, TDI
- 2-1/2" Sightline; 7-1/2" System depth
- Infill: 1-5/16" laminated insulating glass



Graham S1400 Fixed Offset Window

Fixed hurricane-impact windows offering large-missile protection, energy efficiency, and a historic hung-window appearance.

- Provides large missile impact protection and passive defense from wind borne debris
- Thermally broken frame with IG option for superior energy savings
- Bead glazing up to 1" thick
- Putty bead frame style with historic grids



CRL Bullet Resistant Barriers

Bullet resistant transaction windows from service windows to partitions and clip-on barriers.

- Customizable bullet resistance from level 1-3
- Accessory ecosystem with built-in speak- thrus, non-ricochet trays
- Built-to-order or snap-together sashes for retrofits

Railings, Door Hardware & Accessories



CRL TURBOFLEX Glass Railing System

Innovative frameless glass railing system for guardrail and windscreen applications. Base shoe accommodates monolithic and laminated glass thicknesses from 1/2" to 27/32" to simplify specification and installation.

- Integrated ±2 degrees of glass tilt adjustment
- Passed Miami-Dade HVHZ impact testing
- Hollow base shoe design uses 60% less material
- Full selection of cap rails, handrails, and cladding finishes



CRL Blumcraft® Panic Devices

The original and iconic panic device, engineered for fluid emergency egress in high-traffic environments. Features a patented top security latch that provides stronger engagement with the overhead door strike.

- For glass doors up to 12 feet tall
- Tested to over 500,000 cycles
- Sleek 1-1/4" tubular design enhances aesthetics
- Designer Series handles available with unique D-shape grip



Blumcraft® 1301 Series Large Display Case

From sleek wall-mounted options to expansive large glass cabinets, display cases are available in a variety of options.

- Customizable sizes and finishes
- Adjustable glass thicknesses and mounting; options for cable and rod displays
- Comprehensive accessories include edge grips and cabinet hardware



CRL Atlas Ladder Pull

Part of the Latitude 34" door hardware collection, the Atlas Ladder Pull is made of solid 300 series stainless steel for lasting durability and performance.

- Concealed fasteners
- 24", 36", and 48" lengths
- Black stainless and brushed stainless finishes with sand blasted texture on grip



Beyond Products

Your Design Partner

Every exceptional project starts with a conversation.

Great educational spaces demand more than standard solutions. That's where our design-assist and consultation services make the difference.

We work alongside architects, owners, and developers to turn complex challenges into achievable realities. Our team provides:

- Real-time design support through your project life cycle
- Thermal modeling to optimize energy performance and comfort
- Structural analysis ensuring integrity and code compliance
- Manufacturing insights that streamline constructibility and reduce costs

When off-the-shelf won't work, we collaborate to engineer what will. Our expertise in glass, metal and hardware systems, combined with hands-on technical support, help you deliver innovative educational environments that inspire learning and stand the test of time.

The result? Smarter designs. Fewer headaches. Better buildings.

Whether you're planning a new campus building, renovating existing spaces, or facing a design challenge that needs creative problem-solving, our team is here to help.

Let's build something remarkable together.



CRL®

 **Oldcastle**
BuildingEnvelope

Oldcastle BuildingEnvelope

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