



# CRL-U.S. ALUMINUM PROJECT PORTFOLIO: AVIATION AND TRANSPORTATION



## SCALABLE SINGLE-SOURCE SOLUTIONS TAILORED TO YOUR PROJECT

Functioning as a piece of infrastructure and an architectural landmark, an airport's complex framework requires project solutions that seamlessly integrate aesthetics, performance, logistics, and operations. Architects, specifiers, and contractors continue to trust C.R. Laurence's ability to effectively deliver innovative products and comprehensive project support.

Large-scale airport renovation and new-build projects involve a broad host of stakeholders that must maintain a strong attention to multiple scopes and project milestone dates. CRL-U.S. Aluminum partners directly with architects, owners, general contractors, and subcontractors to facilitate project efficiency. All of our systems are backed by a team of Construction Documents Technologist (CDT) certified project managers, engineers, estimators, designers, and product specialists that assist project teams from concept to completion.

Manufactured in the U.S.A. in our state-of-the-art ISO 9001:2008 certified facilities, CRL-U.S. Aluminum architectural systems combine solid construction with innovative design and engineering. This ensures long-term structural integrity and enhances project aesthetics. Our comprehensive product portfolio of architectural systems offers solutions to accommodate most applications.

We understand that construction schedules are critical. Our advanced manufacturing capacity offers rapid customization capabilities while our strategic centralized distribution network yields local stock inventories, short lead times, and prompt deliveries.

Innovation, accountability, and quality describe C.R. Laurence's products and their trusted application to projects of all scales across the globe.

## SPECIFY CONFIDENTLY. SPECIFY CRL.



Tom Bradley International Terminal At LAX  
Los Angeles, CA





## CRL-U.S. ALUMINUM TRANSPORTATION PROJECTS:

**American Airlines C.R. Smith Museum**  
Fort Worth, TX

**Baltimore-Washington International Airport (BWI)**  
Baltimore, MD

**Cincinnati/Northern Kentucky International Airport (CVG)**  
Hebron, KY

**Clinton National Airport (LIT)**  
Little Rock, AR

**Dallas/Fort Worth International Airport (DFW)**  
Dallas, TX

**Devils Lake Regional Airport (DVL)**  
Devils Lake, ND

**Fulton Center (Formerly Fulton Street Transit Center)**  
New York, NY

**Greater Rochester International Airport (ROC)**  
Rochester, NY

**Hudson-Bergen Light Rail Station**  
Bayonne, NJ

**Killeen-Fort Hood Regional Airport (GRK)**  
Killeen, TX

**Lambert-St. Louis International Airport (STL)**  
St. Louis, MO

**Lincoln Airport (LNK)**  
Lincoln, NE

**Long Beach Airport (LGB)**  
Long Beach, CA

**Los Angeles International Airport (LAX)**  
Los Angeles, CA

**McCarran International Airport (LAS)**  
Las Vegas, NV

**Newark Liberty International Airport (EWR)**  
Newark, NJ

**O'Hare International Airport (ORD)**  
Chicago, IL

**Phoenix Sky Harbor International Airport (PHX)**  
Phoenix, AZ

**San Diego International Airport – The Green Build (SAN)**  
San Diego, CA

**San Francisco International Airport (SFO)**  
San Francisco, CA

**Toll Plaza**  
Elgin, IL

**World Trade Center Transportation Hub**  
New York, NY

**Calgary International Airport (YYC)**  
Calgary, Alberta, Canada

**Cologne Bonn Airport (CGN)**  
Cologne, Germany

**Halifax Stanfield International Airport (YHZ)**  
Enfield, Nova Scotia, Canada

**Hamad International Airport (ICAO: OTHH)**  
(formerly New Doha)  
Doha, Qatar

**Muscat International Airport (MCT)**  
Muscat, Oman

**Norman Manley International Airport (KIN)**  
Kingston, Jamaica

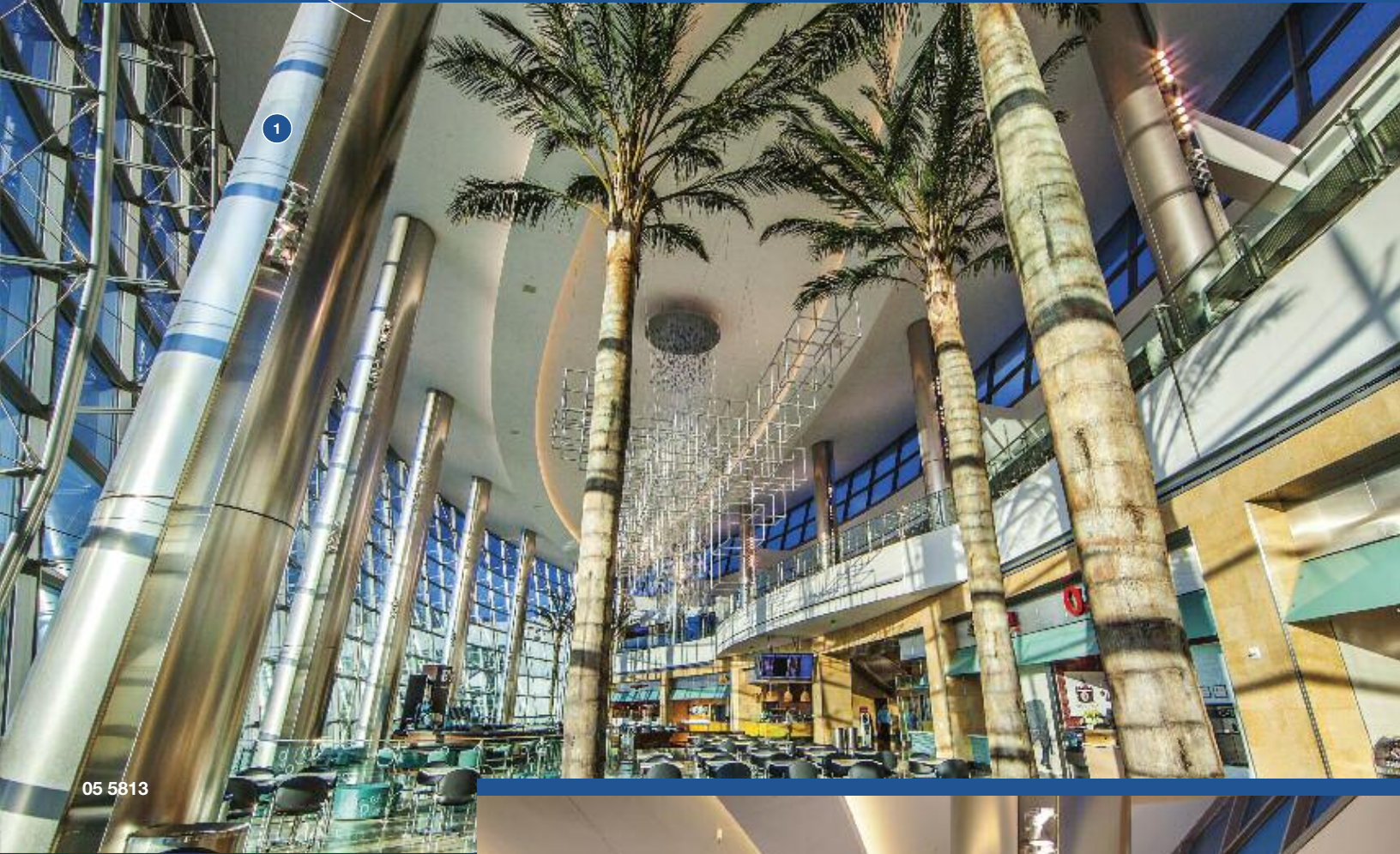
**Regina International Airport (YQR)**  
Regina, Saskatchewan, Canada

**FIND YOUR APPLICATION SOLUTION.** Find out how CRL-U.S. Aluminum can help with your project by contacting Architectural Services at [architect@crlaurence.com](mailto:architect@crlaurence.com) or (800) 421-6144

CASE STUDY:

# SAN DIEGO INTERNATIONAL AIRPORT – THE GREEN BUILD

LOCATION: San Diego, CA  
ARCHITECT: HNTB  
GENERAL CONTRACTOR: Turner/PCL/ Flatiron Joint Venture  
SUBCONTRACTORS: ISEC, Designer Glass and Shower, Division 8





The Green Build is designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification from the U.S. Green Building Council.

The Green Build is the largest architectural design project to date for the San Diego International Airport (SAN). This large-scale redevelopment and expansion focuses on the airport's Terminal 2 West Building and airside. Designed by architecture firm HNTB, this served as the airport's focused effort to upgrade its facilities and operations, with sustainability at the forefront. The Green Build Project is designed to achieve LEED Silver Certification from the U.S. Green Building Council.

The Terminal 2 West Building's 403,000 sq. ft. expansion consists of 10 new aircraft gates that provide additional public seating and amenities for travelers, and redesigned workspaces for airport operations. The airside's massive 1.5 million sq. ft. expansion features added parking, aprons, taxiways and taxi lanes.

A significant joint venture of general contractors along with specialized subcontractors ISEC, Designer Glass and Shower, and Division 8 served as key team members for the major airport expansion. Collaborating closely with the team, CRL-U.S. Aluminum designed, engineered, and manufactured an array of architectural glass and metal systems that met the needs of the project. CRL Premier Dry Seal Stainless Steel Column Covers outfit structural columns throughout the airport's renovated interiors, while CRL SPS Stacking Partition Systems provide elegant "All Glass" solutions for utilizing space more efficiently.

CRL "All Glass" Entrances complete with Patch Fittings, Ladder Pulls, and matching Sidelite Rails line the airport's interiors for both improved function and to stay consistent with the new design's modern aesthetic. C.R. Laurence also provided custom Break Metal and Stainless Steel Stanchions that were used to secure glass walkway partitions throughout the LEED Silver-targeted project.

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## CRL ARCHITECTURAL SYSTEMS



**05 5813** – CRL Premier Dry Seal Column Covers in Starlight and Hairline Pattern Stainless Steel



**08 4126** - "All Glass" Entrance System with CRL Patch Fittings, Ladder Pulls, and matching Sidelite Rails



**05 5800** – CRL Premier Dry Seal Column Covers in Starlight and Hairline Pattern Stainless Steel with Steel Crash Bars



**CASE STUDY:**

# TOM BRADLEY INTERNATIONAL TERMINAL AT LAX

**LOCATION:** Los Angeles, CA  
**ARCHITECT:** Fentress Architects in association with HNTB  
**GENERAL CONTRACTOR:** Walsh Austin Joint Venture  
**SUBCONTRACTORS:** Environmental Interiors, Inc., ISEC



05 1213





2

05 1213  
05 1519



The first of its kind, the TBIT renovation was awarded Silver LEED-EB (Leadership in Energy and Environmental Design – Existing Building) Certification, making it the first U.S. airport renovation to receive this accolade.

**R**edevelopment of the new Tom Bradley International Terminal (TBIT), the centerpiece of Los Angeles World Airports' (LAWA) multi-billion dollar LAX development, was by no means a typical renovation. The owner, architects, city officials, and builders were faced with a multitude of challenges. Substantial upgrades served to significantly improve service and aesthetics while enhancing passenger safety and security. The terminal enhancements were designed to not only improve the passenger experience, but to withstand the traffic of nine million travelers every year. The massive scope of this dramatic modernization required the combined construction capacity of Walsh Group and Austin Commercial, with a broad host of subcontractors. Working in close collaboration with all project stakeholders, CRL-U.S. Aluminum designed, engineered, fabricated and delivered the expansive 2,500 ft elevated secure corridor. The monumental glass structure features 13/16" ultra clear laminated tempered glass mounted in embedded CRL L21 Series Base Shoe Channel and secured with the patented CRL GRS TAPER-LOC® Dry Glaze Taper System and architecturally-exposed structural steel support framing. The top of the corridor is left open, encapsulated with 175,000 total feet of stainless steel tension cables to provide added security and maximize the natural light. Continuous runs of CRL Stainless Steel Linear Grilles spanning the length of the entire structure offer improved ventilation. The elevated glass corridor provides passengers with unobstructed views and safe passage, seamlessly integrating form and function. CRL-U.S. Aluminum architectural systems can be found throughout LAX. All balcony edges and stairwells are now lined with CRL GRS TAPER-LOC® Dry Glaze Glass Railing System, the first and only ICC-ES-approved glass railing system (ESR-3269). Stairwells to provide adequate egress during evacuations are equipped with CRL Smoke Baffles. CRL also fabricated the linen finish stainless steel cladding surrounding the elevators and cased openings.

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**CRL ARCHITECTURAL SYSTEMS**



1

05 1213 – CRL Custom-engineered AESS Elevated Secure Corridor



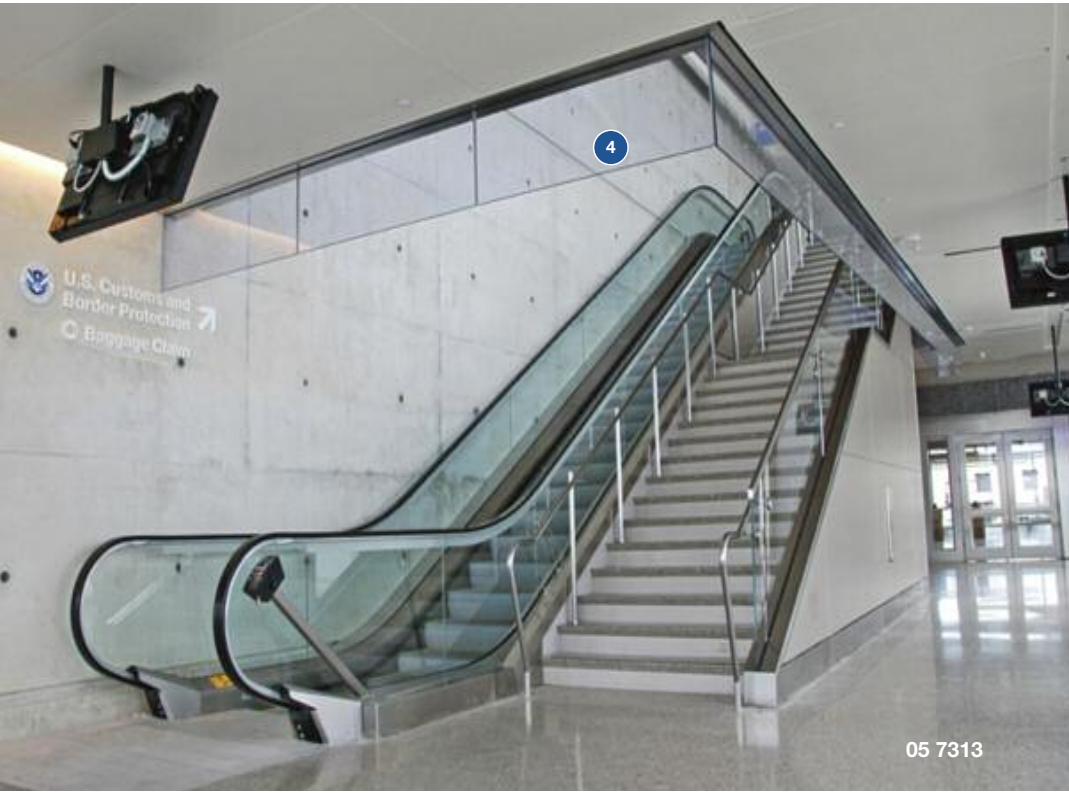
2

05 1519 – CRL Stainless Steel Tension Cable System

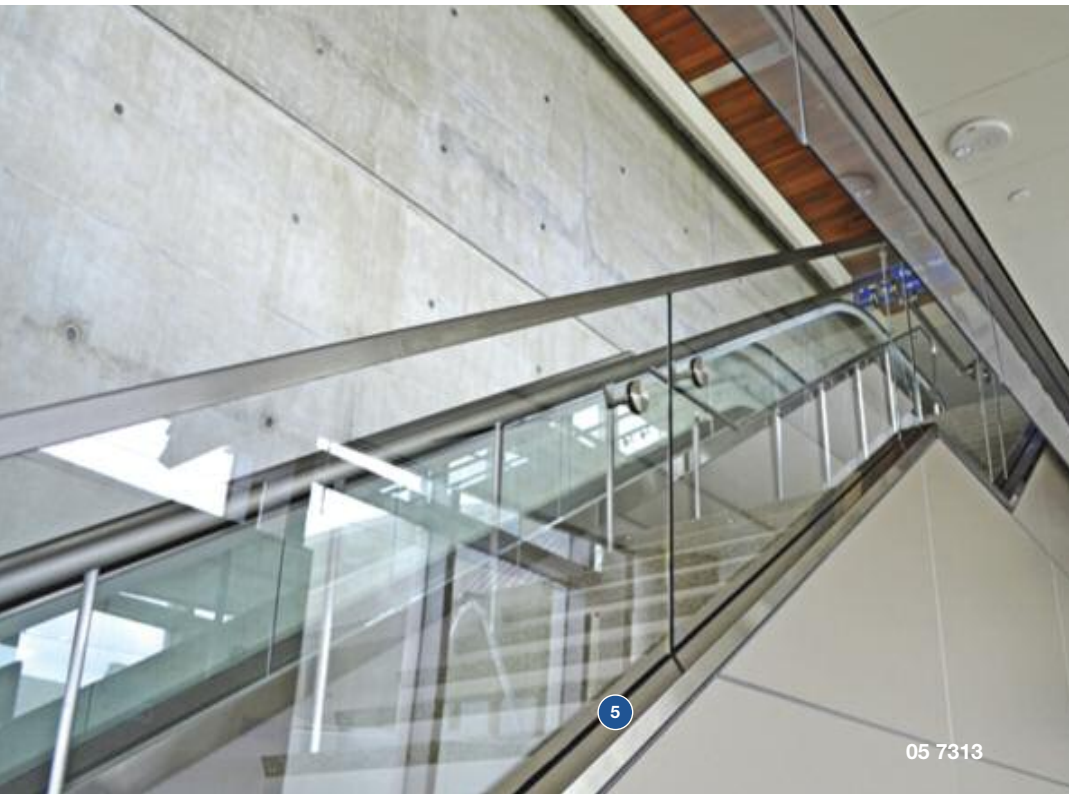
# CASE STUDY: TOM BRADLEY INTERNATIONAL TERMINAL AT LAX







05 7313



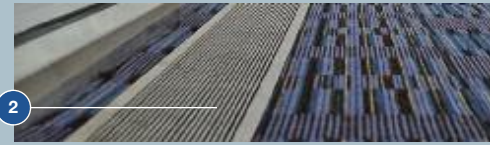
05 7313

### CRL ARCHITECTURAL SYSTEMS



1

05 5313 – CRL Stainless Steel Linear Wall Grilles



2

05 5313 – CRL Stainless Steel Linear Floor Grilles



3

05 7500 – CRL Standard Wet Seal Wall Panel Cladding in Embossed Linen Finish Stainless Steel



4

05 7313 – CRL Smoke Baffle System



5

05 7313 – CRL GRS TAPER-LOC® Glass Railing System with Handrail and Cap Rail



Our award-winning GRS Glass Railing System has received ICC-ES® approval. This means that this documented, certified, and proven railing system eliminates the cost and time delays often required for project-specific engineering. We are proud to say that it's the first glass railing system to have ever received this approval.

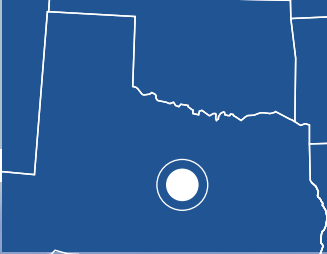
**1.2 Scope:**  
This criteria covers the design and testing compliance with Section 2407 of the IBC and Section R312 of IRC.

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**CASE STUDY:**

# DALLAS/FORT WORTH INTERNATIONAL AIRPORT - TERMINAL D

**LOCATION:** Dallas, TX  
**ARCHITECT:** HKS Architects in association with HNTB and Corgan Associates  
**GENERAL CONTRACTOR:** Austin Commercial



08 4413





**D**allas/Fort Worth International Airport (DFW) is one of the world's busiest airports, serving 57 million passengers a year. To keep up with inbound and outbound international travel demands from the North Texas area, DFW Airport commissioned architecture and design firm HKS Inc. in association with Corgan Associates Inc., HNTB, and project contractor Austin Commercial to design and build a new 2 million sq. ft. international terminal that incorporated advanced technologies with contemporary aesthetics. Terminal D, the grand addition to the Dallas/Fort Worth Airport features high arch ceilings, monumental glass walls, unique building materials, and an attention to detail that has improved travelers' flow throughout the new terminal.

Only the best trade consultants and companies were utilized for the design, security, technology, and operational elements for DFW's new international terminal. CRL-U.S. Aluminum specially engineered two architectural glass systems for the new facility, including a curtain wall system and a host of aluminum entrance doors.

CRL-U.S. Aluminum's Series 3250 Curtain Wall System outfitted the pedestrian sky bridge that connects Terminal D to the airport's parking garage. This thermally improved architectural glass system efficiently manages the sky bridge's interior temperature to ensure an overall comfortable experience for travelers inside the terminal. In addition, the Series 850 Durafront Entrance Doors were installed throughout Terminal D to serve various public and private uses. They are precisely built to handle the extremely high traffic of Dallas/Fort Worth Airport's new international terminal.

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## CRL ARCHITECTURAL SYSTEMS

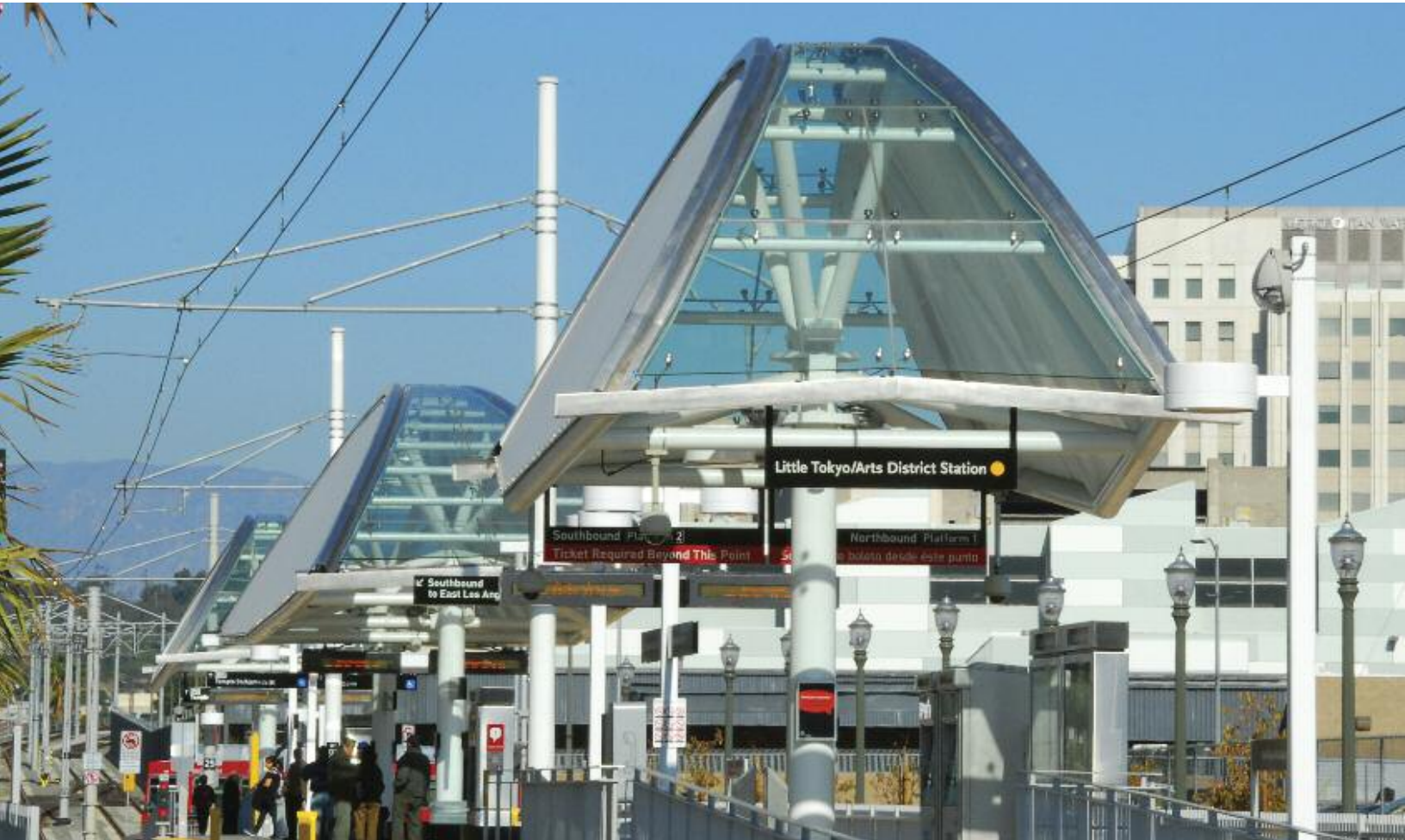


**08 4113** – CRL-U.S. Aluminum Series 850 Durafront Entrance Doors



**08 4413** – CRL-U.S. Aluminum Series 3250 Curtain Wall System

# SYSTEM APPLICATIONS: LIGHT RAIL STATIONS



**Little Tokyo/Arts District Metro Station**  
- Los Angeles, CA

## CRL ARCHITECTURAL SYSTEMS



**08 4426.19 – CRL Spider Fitting Point Supported Glass Awning System**

08 4426.19



08 4426.19

Maravilla Metro Station -  
Los Angeles, CA

CRL ARCHITECTURAL SYSTEMS



08 4426.19 – CRL Swivel Fitting Point  
Supported Glass Awning System

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# SYSTEM APPLICATIONS: EXTERIORS



05 7313

Long Beach Airport (LGB) - Long Beach, CA

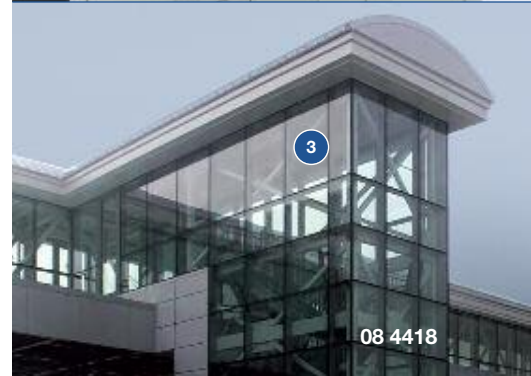


05 7000

Cincinnati/Northern Kentucky International Airport (CVG) - Hebron, KY



08 4418

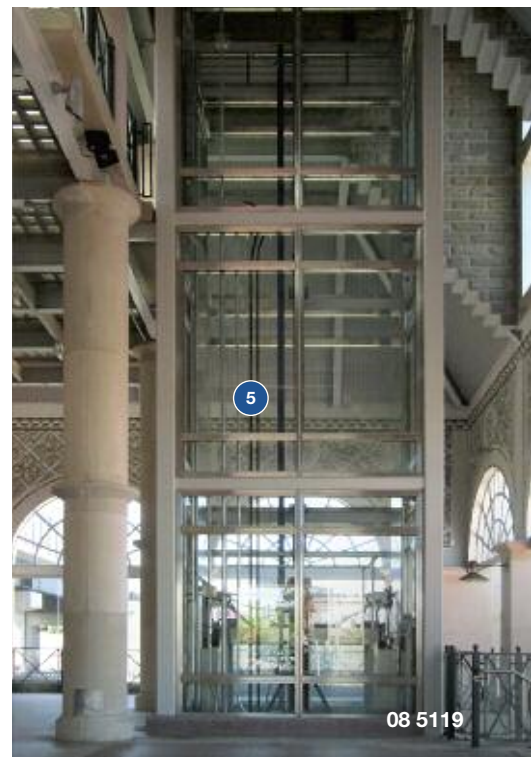


08 4418

Toll Plaza - Elgin, IL



American Airlines C.R. Smith Museum - Fort Worth, TX



Hudson-Bergen Light Rail - Bayonne, NJ



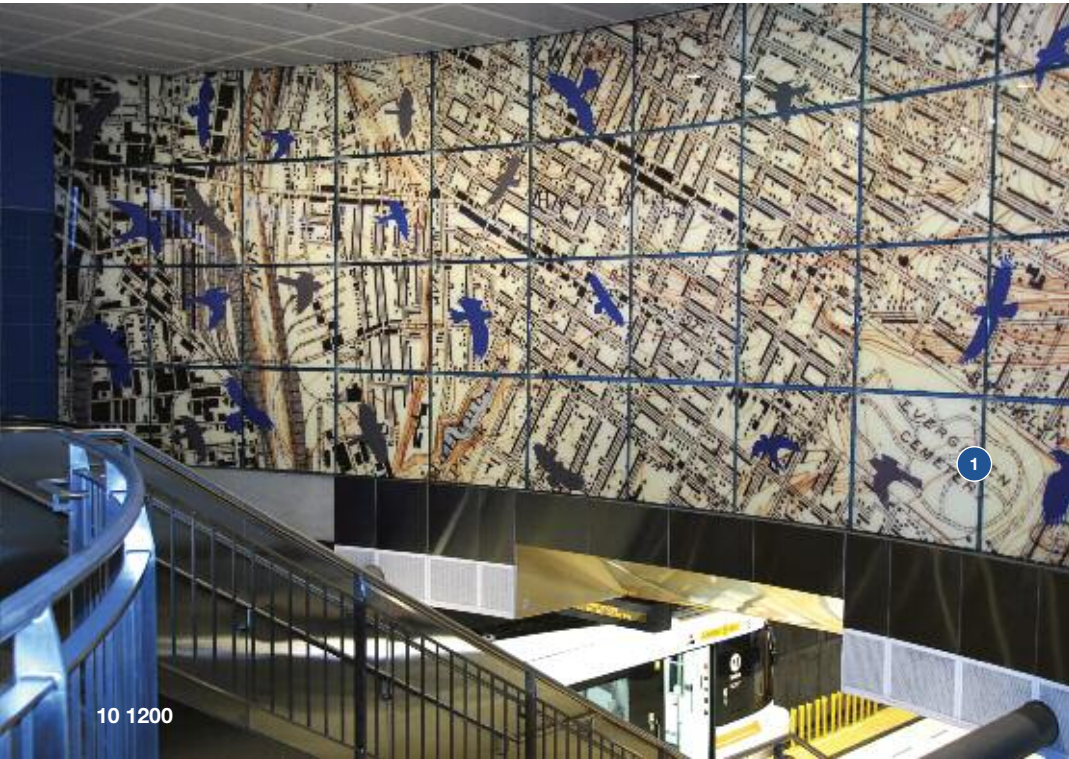
Devils Lake Regional Airport (DVL) - Devils Lake, ND

#### CRL ARCHITECTURAL SYSTEMS

1. **05 7313** - CRL Custom Engineered Glass Wall System with Steel Fins and Point Supported Spider Fittings
2. **05 7000** - CRL Custom Aluminum Truss
3. **08 4418** - CRL Tajima Series 200 Structural Glazed Steel Curtain Wall System
4. **08 4413** - CRL-U.S. Aluminum Series 3250 Curtain Wall System
5. **08 5119** - CRL Tajima Custom Stainless Steel Formed Windows
6. **08 4113** - CRL-U.S. Aluminum Series IT451 Storefront System with Series 550-T Thermal Entrance Doors

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# SYSTEM APPLICATIONS: INTERIORS



10 1200

1

Soto Metro Station – Los Angeles, CA



2

08 4126

San Diego International Airport (SAN) – San Diego, CA



08 3513

3

The Coffee Bean & Tea Leaf – Sherman Oaks, CA



4

11 4600

Lincoln Airport (LNK) – Lincoln, NE



5

10 1200

San Francisco International Airport (SFO) – San Francisco, CA





**Cologne Bonn Airport (CGN) –**  
Cologne, Germany



**Dallas/Fort Worth International Airport (DFW) –**  
Dallas, TX



**Phoenix Sky Harbor International Airport (PHX) –**  
Phoenix, AZ



**Los Angeles International Airport (LAX) –**  
Los Angeles, CA

## CRL ARCHITECTURAL SYSTEMS

1. **10 1200** - CRL Standoff System
2. **08 4126** - CRL "All Glass" Entrance System with Patch Fittings and CRL-Blumcraft® Panic Handle
3. **08 3513** - CRL OTB Overhead Track Full Panel Bi-Fold Door System
4. **11 4600** - CRL Elegant Series Food Service Partition Post System
5. **10 1200** - CRL Tajima Custom Stainless Steel Display Cases
6. **10 2213** - CRL Architectural Wire Cloth System
7. **08 4113** - CRL-U.S. Aluminum Series 850 Durafront Entrance Doors and Flush Front™ Storefront System
8. **05 7313** - CRL Brushed Stainless Steel Post Barrier System With Screened Glass
9. **05 5813** - CRL Premier Dry Seal Column Covers

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## GLOBAL DISTRIBUTION NETWORK



## LOCALIZED PRODUCT AVAILABILITY AND STREAMLINED DISTRIBUTION TO MEET YOUR SCHEDULE

With service centers in key global markets, C.R. Laurence's centralized distribution network provides customers worldwide the quality products and services they need. Over the past few decades, CRL has grown from a single Los Angeles location to include service centers in the United States, Canada, the United Kingdom, Germany, Australia, and Denmark.

Meeting customers' needs and providing shorter lead times has been a priority since day one. Architects never have to compromise their design vision due to product lead times or inventory availability. CRL has done this by investing in its employees and streamlining operations and production methods through an ever-expanding network of service centers.

This innovative and effective network has made it easier for customers to access CRL products wherever they are. CRL and CRL-U.S. Aluminum service centers are strategically located in or near major metropolitan areas to serve customers in person. This allows for local product manufacturing and specialized technical support to regional customers.

## RESOURCES



## BUILDING LIFE CYCLE: CRL SUPPORT THROUGHOUT THE ENTIRE PROCESS

C.R. Laurence's manufacturing, logistics, and rapid customization capabilities, along with standard inventory, make CRL the fastest and most adaptable resource in the industry. CSI-certified CDT's compound this by providing valuable knowledge and expertise in project delivery and management to ensure smooth design, construction, and maintenance phases for architectural projects.



### DESIGN PHASE

CRL's architectural support and outside sales teams can assist customers with specifications, details, and technical support. Shop drawings and personalized engineering services are also available from CRL's certified technical sales teams.



### CONSTRUCTION

Efficient manufacturing methods, logistics, and rapid customization options, paired with an extensive inventory of architectural products and systems, ensure customers' needs are met in a timely manner.



### MAINTENANCE

Worldwide service centers, with access to over 60,000 products, make CRL the trusted go-to for facilities maintenance teams. CRL manufactures its own library of architectural hardware, glass and glazing tools, and cleaning supplies, and carries a vast selection of key products from other major manufacturers.



## CRL-ARCH.COM

### YOUR ONLINE ARCHITECTURAL RESOURCE.



Introducing **CRL-ARCH.com**, C.R. Laurence Company Architectural Products and Services. **CRL-ARCH.com** is the online reference for CRL Architectural Systems including U.S. Aluminum, Blumcraft, Jackson, Tajima, and Guarda. **CRL-ARCH.com** is a valuable reference tool designed with the architect, engineer, and specifier in mind. Here you will find easy access to CAD Drawings, CSI Format Specifications, Engineering Reports, LEED® Statements, Project Galleries, and our extensive catalog library.

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**CRL-U.S. Aluminum Manufacturing Headquarters**  
Los Angeles, CA

CRL-U.S. Aluminum (C.R. Laurence Co., Inc.) is an industry-leading manufacturer and supplier of architectural glazing and metal hardware systems that effectively integrate aesthetics and performance into dynamic architectural projects worldwide.

CRL-U.S. Aluminum delivers durability and superior design for architects with single-source solutions from trusted brands, including CRL®, U.S. Aluminum®, Blumcraft®, Jackson®, Tajima™, and Guarda®. Manufactured in the U.S.A., CRL's advanced ISO 9001:2008 certified facilities are operated by highly trained engineers, designers, project managers, estimators, and specialists who work on projects from concept to completion.

With over 40 worldwide service centers in major markets, CRL ensures short lead times, prompt delivery, and rapid customization of the industry's most comprehensive selection of architectural systems that are backed by an unrivaled global network of customer and technical support.

**Our Brands:**



**Our Partners:**



**C.R. LAURENCE CO., INC.**  
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