

FACADE + ENVELOPE ENGINEERING



McLaren
ENGINEERING GROUP



About Us

McLaren Engineering Group is a leading full-service engineering firm renowned for its trusted, high quality, and innovative approach to solving complex challenges. With industry experts in multiple technical disciplines, our team has provided customized solutions for over 20,000 projects through consultation, design, inspection, and construction management. With over four decades of experience, a staff of 200+, and 11 offices worldwide, McLaren addresses every project's specific needs with technical excellence and creative innovation.

49
STATES
LICENSED

20k+
PROJECTS
COMPLETED

46
YEARS OF
APPLIED INGENUITY

11
OFFICES
WORLDWIDE



Core Technical Divisions

STRUCTURAL | CIVIL + SITE | MARINE + COASTAL | BRIDGE, HIGHWAY + RAIL
ENTERTAINMENT | GEOTECHNICAL | FACADE + BUILDING ENVELOPE
CONSTRUCTION ENGINEERING | FORENSICS | SURVEY + MAPPING



FACADE + ENVELOPE ENGINEERING

McLaren's Façade Engineering services focus on the building envelope - the largest, most important element in the technical performance and overall aesthetic of any structure.

Built on a foundation of construction engineering knowledge and structural understanding, our unique capabilities help engineer building enclosure projects of every size, shape, and complexity, from consultation and design, to final punch-list inspection.

Our dedicated, client-focused Façade Design team of engineers, architects, and specialists, develop innovative, project-specific solutions to helping improve constructability, maximize energy efficiency, improve security, and support the owner and architect's vision.

- 1.** BUILDING ENVELOPE CONSULTATION
- 2.** DELEGATED DESIGN + SPECIALTY STRUCTURES
- 3.** GLAZING + MULLIONS
- 4.** METAL PANELS + CLADDING
- 5.** INSPECTION, INVESTIGATION + REMEDIATION

1 BUILDING ENVELOPE CONSULTATION

With a diverse portfolio of projects and knowledge of various material types, McLaren's building envelope engineers provide consultation services with accurate and creative solutions.

Our team of experts take into consideration the complexities associated with building movements, installation requirements, thermal and condensation performance, and installation sequencing to support superior building envelope functionality, constructability, and resiliency.

SPECIFICATION & DESIGN
CRITERIA

THERMAL & CONDENSATION
PERFORMANCE REVIEW

WATERPROOFING DETAILING

STRUCTURAL ENGINEERING

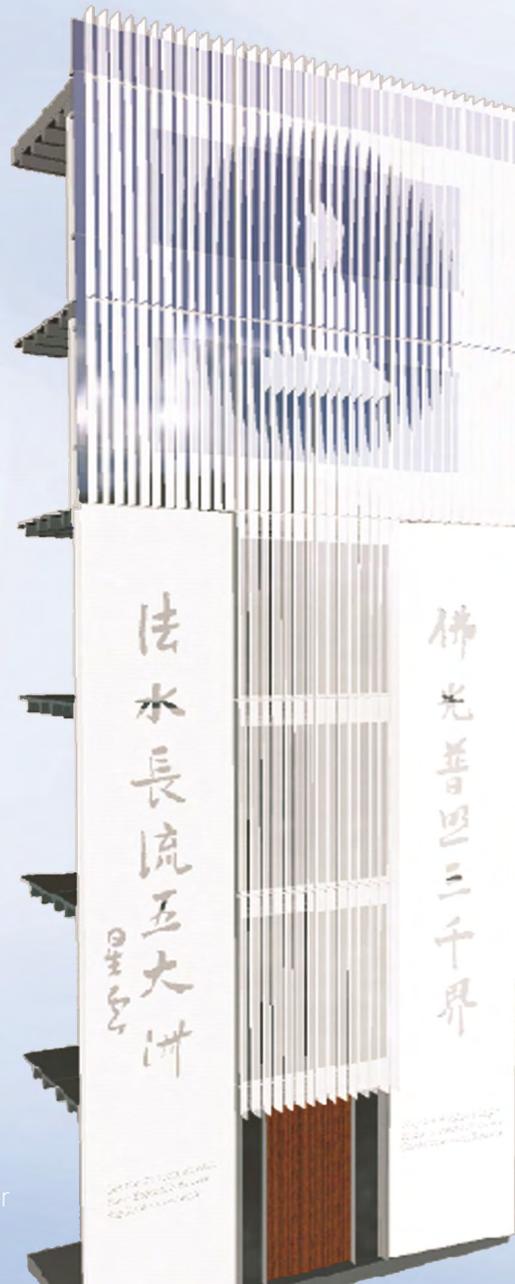
BID REVIEW & CONSTRUCTION
ADMINISTRATION SUPPORT

BUILDING ENVELOPE PRODUCT
CODE REVIEW + RENEWAL
SERVICES

ENGINEERING JUDGEMENT (EJ)
FOR SPECIFIC CONDITIONS

SAFETY TIE OFF SYSTEMS
ENGINEERING

DESIGN SUPPORT: SCHEMATIC
DESIGN, DESIGN DEVELOPMENT
& CONSTRUCTION DOCUMENTS



APPLIED INGENUITY



TWA TERMINAL HOTEL



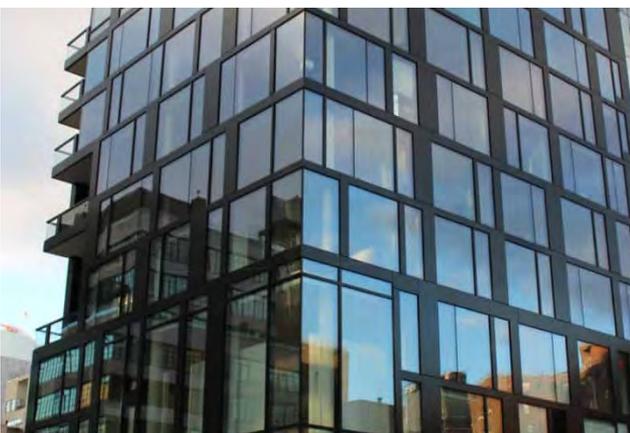
HAYDEN PLANETARIUM



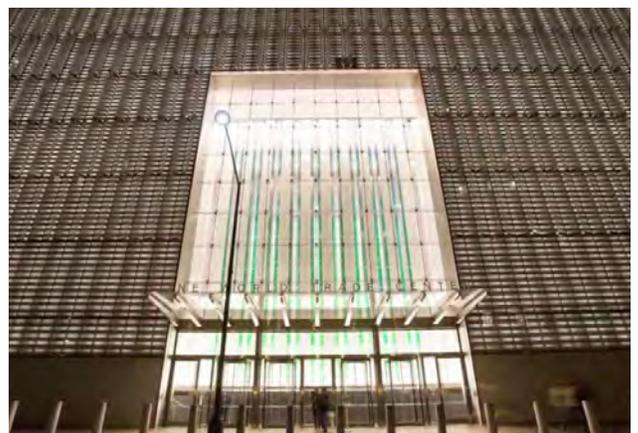
GOLDMAN SACHS CANOPY



LAGUARDIA AIRPORT CTB RENOVATION



239 TENTH AVENUE



1 WORLD TRADE CENTER

2 DELEGATED DESIGN + SPECIALTY GLASS

The ability to solve complex challenges from all angles helps our facade engineering team made up of delegated design experts provide high-quality design and installation solutions. Through specialty analysis, state-of-the-art material research, design aesthetics, constructability, and client specifications our team has engineered curtain walls, feature walls, canopies, and specialty glass structures around the world.

Taking into account erection methods, durability, and maintenance, our facade engineers work collaboratively with our clients to provide innovative systems that last and meet all project goals.

STRUCTURAL GLASS SYSTEM
DESIGNS

GLASS & MULLION DESIGN

CONNECTION DESIGN

METAL PANELS & CLADDING

BLAST ENGINEERING & DESIGN

FLOOD VENTS NET AREA
CALCULATION

SHOP DRAWINGS



APPLIED INGENUITY



COLUMBIA BUSINESS SCHOOL, MANHATTANVILLE
CAMPUS-CUSTOM CURTAIN WALL



VIRGIN HOTEL
UNITIZED CURTAIN WALL



200 E 21ST STREET
GLASS FIBER REINFORCED CONCRETE FACADE



500 W 25TH STREET
STONE FACADE



AMERICAN WATER HEADQUARTERS
METAL PANEL FACADE



GOLDMAN SACHS CANOPY

3 GLAZING + MULLIONS ENGINEERING

Our facade engineering team has the capability to recognize and respond to design and installation challenges with a unique staff of expert architects and engineers.

Having worked on hundreds of projects including curtain walls, canopies and glass structures, we work collaboratively with clients to provide systems that last, deliver on all of the project's goals, and take into account erection methods, durability, and maintenance.

In addition to design and engineering of glass and mullions, our experts also support superior building envelope functionality, constructability, and resiliency.

STATIC & DYNAMIC BLAST
ANALYSIS

THERMAL & CONDENSATION
ANALYSIS

DESIGN ASSIST

BALANCED DESIGN FOR
GLASS + MULLIONS

CONNECTION DESIGN

LOAD / SPAN TABLES

BATTEN & LOUVER DESIGN



APPLIED INGENUITY



195 BROADWAY
STRUCTURAL GLASS WALL, NYC



BOSTON CHILDREN'S HOSPITAL
PEDESTRIAN SKYWAY



THE HOUSE AT CORNELL TECH
PASSIVE HOUSE GLAZING, NYC



560 LEXINGTON AVE
CURVED GLASS, NYC



101 SEAPORT
CABLE MULLION WALL, BOSTON



NATIONAL AQUARIUM BALTIMORE
RAINFORREST GLASS FACADE

4 METAL PANELS + CLADDING

The structural design possibilities of metal are endless, and when done correctly, can result in a beautiful aesthetic which is highly durable and low maintenance.

From light gage metal framing to intricate metal facades, McLaren's cladding specialists understand the capabilities and challenges of working with various metal mediums and can provide a variety of services to complement any project. Whether the project calls for flat systems or insulated walls, ACM or copper, we specialize in custom building envelope solutions.

In addition to design and engineering of metal panels and cladding systems, our experts also support superior building envelope functionality, constructability, and resiliency.

METAL PANELS

CUSTOM CLADDING

ACM + HONEYCOMB

ARCHITECTURAL METALS

MASONRY, STONE, PRECAST
PANEL + GFRC

PHENOLIC PANELS SYSTEMS

THERMAL + CONDENSATION
ANALYSIS

WATERPROOFING DETAILING



APPLIED INGENUITY



NATIONAL PURPLE HEART HALL OF HONOR



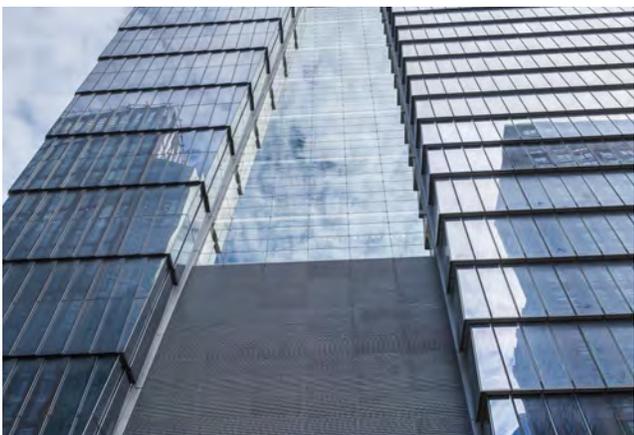
138 WILLOUGHBY STREET (RENDERING)



30 EAST 31ST STREET, NYC



15 HUDSON YARDS SKYTOP



10 HUDSON YARDS, NYC



1101 OCEAN AVE, ASBURY PARK

5 INSPECTION, INVESTIGATION + REMEDIATION

By analyzing project-specific design details and performance requirements, our team performs building envelope inspection, investigation, and remediation services.

With a unique knowledge of structural and construction engineering principles, along with the resources of a talented in-house surveying group, McLaren provides comprehensive support throughout the project lifecycle.

We are also a Class I certified special inspection group for curtain wall and facade systems.

NYC BC 1704.10 SPECIAL
INSPECTIONS

LEAK INVESTIGATION

FORENSIC INVESTIGATION

ROOFING INVESTIGATION

RECOMMENDATIONS FOR
REMEDICATION OF DEFICIENT
SYSTEMS

SPRAT CERTIFIED ROPE
INSPECTION

DRONE INSPECTION

STRUCTURAL WATERPROOFING

TDI REGULATIONS REVIEW &
INSPECTION



APPLIED INGENUITY



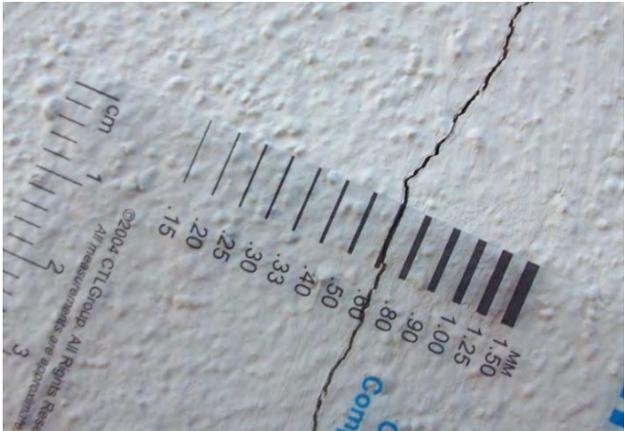
NATIONAL AQUARIUM ENVELOPE INSPECTION



111 VARICK SPECIAL INSPECTIONS



YONKERS FIREHOUSE FACADE INSPECTION



COLLEGE PARK COMMUNITY CENTER FORENSIC FACADE INSPECTION



BROOKLYN STEEL ENVELOPE CONDITION ASSESSMENT



HISTORIC JAMAICA STATION BUILDING EXTERIOR CONDITION ASSESSMENT



McLaren

ENGINEERING GROUP

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APPLIED INGENUITY

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