GRAHAM
ARCHITECTURAL PRODUCTS

CURTAIN WALL SOLUTIONS

YOUR VISION. OUR EXPERIENCE.™

Curtain Wall • Unitized Curtain Wall • Fixed Windows • Sunshades • Light Shelves • Entrance Systems

YOUR VISION.

OUR EXPERIENCE.™

OUR PRODUCTS ARE MANUFACTURED TO LAST A LIFETIME

Graham Curtain Wall Solutions (GCWS), a division of Graham Architectural Products, is a full-service exterior framing manufacturer. We provide architects and building owners with a complete package including application engineering assistance, calculations, shop drawings, fabrication, assembly and glazing. All of these services are provided at our 137,000 sq. ft. facility in Merrill, Wisconsin.

We offer a complete product line including custom framing systems, unitized curtain wall, curtain walls, entrances, window wall systems, custom sunshades, custom light shelves, blinded access panels, zero sightline vents and blast resistant fenestration.

What makes us special is our ability to provide custom solutions for all size projects. We work with our dealers to provide architecturally correct, installer friendly solutions to framing issues other manufacturers walk away from.

GCWS is a premium quality producer offering competitive prices with turn-key simplicity. We thrive on projects that require a high level of engineering and can provide solutions that simplify installation, resulting in better quality installation without compromise.

We have built our reputation on dependable and consistent quality, innovative and expert design capability, and most importantly, on collaborative, long-term customer relationships. GCWS has solutions for architects, building owners, and contractors. We stand ready to address your project needs and to help you develop a logical and comprehensive design, using our comprehensive range of products and services.

OUR COMPANY

A WIDE VARIETY OF SERVICES TO HELP ENSURE PROPER APPLICATION AND INSTALLATION, INCLUDING:

Project Design Assistance:

- Work with glazing contractor, architect, owner and or GC to provide specific project design assistance
- Proposal details
- Engineering
- Budgets
- Project specifications

Estimating:

- Quotes are provided from architectural drawings and specifications
- Project scope is discussed and verified with customer prior to bid
- Products quoted meet plan and specification requirements
- Product details furnished with quote upon request

Project Management:

- Each project will have a designated Project Manager
- One point of contact through the duration of a project
- PM's will work with customers on:
  - Project submission requirements
  - Lead times
  - Sequencing
  - Shipping requirements and schedules

Engineering:

- Shop drawings incorporate all required building conditions to ensure proper attachment and sealing requirements
- Additions and revisions to drawings
- Structural calculations with PE stamps in all 50 states
- Large projects can be engineered in phases to meet project schedules
- NFRC Thermal modeling is available
- Mock-up drawings
- Caulking details

Glazing:

- Glazing of customer supplied glass or glass supplied by Graham
- Both captured and structural glazing options are available
- Documented quality control program

Shipping:

- Our products are shipped on dedicated carriers, typically tarp-covered flat bed trailers
- Finished goods are crated per customer agreed upon weight and sequencing
- Insured warehouse to hold finished goods

CONTACT US:

GRAHAM CURTAIN WALL SOLUTIONS
1101 North Mill Street
Merrill, Wisconsin 54452
715-536-4927

Visit us online ...
www.grahamwindows.com

PRODUCTS OFFERED BY GRAHAM CURTAIN WALL SOLUTIONS

Pressure Wall (Series 2500)

- System widths available in 2”, 2-1/2”, 3”, or 4”
- Custom sizes available upon request or as required by project
- Overall system depths available from 5-1/4” to 10 1/4”
- All systems utilize a split male/female stacking mullion to allow shop assembled framing
- Curtain wall back members have a minimum 1/8” wall thickness
- Systems incorporate a 3/8” minimum thermal isolator
- Pressure plates are pre-punched for attachment screws and weeps
- Exterior covers and pressure plates are cut to size by Graham
- Exterior covers available in varying depths and profiles
- All systems have been tested to industry standards for air infiltration, water penetration, structural, and thermal performance
- Anodized or painted finishes are available

Unitized Curtain Wall (Series US8375)

- Custom designs available on a project to project basis
- Systems are designed to meet project performance specifications
- Mock-up as required per specifications
- Other Graham products can be incorporated, such as sunshades, lightshelves and doors, to provide a single source
- Systems available fully captured or structurally glazed
- Glass can be furnished by Graham or customer supplied
- Anodized or painted finishes are available

Sunshades & Light shelves

- Graham offers a complete line of standard sunshade profiles and attachments
- Custom sunshade and lightshelf profiles and attachments are available
- Constructed entirely of aluminum for light weight and finish match
- Fully assembled by Graham with stainless steel fasteners
- Can be easily integrated into other products offered by Graham
- Sunshades can also be mounted directly on to the building
- Structural calculations can be provided
- Anodized or painted finishes are available

Fixed Windows (Series 450 T)

Standard

- System has a 2” face width and depth of 4-1/2”
- Can be used in a punched opening or strip window application
- All framing is fabricated, assembled and sealed in the factory
- Vision glazing is from the interior, spandrel is from the exterior
- Glazing is done in the field
- Custom anchoring is available depending on specific wall conditions
- System is fully tested and certified test reports are available
- Anodized or painted finishes are available

Blinded Blast Series

- System has a 2” face width and 4-3/4” deep
- Incorporates an exterior removable glazing bead at all sides, allowing for exterior glazing with structural silicone joints at the perimeter
- Poured and debridged thermal barrier
- Blinded access panel improves thermal and acoustic performance while controlling light and privacy

Entrance Doors

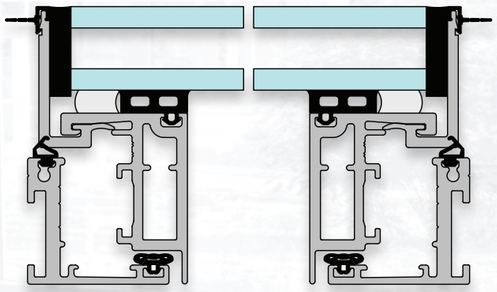
- Provided as part of a package with our curtain wall
- Doors can be standard 1-3/4” thick or monumental 2” thick
- Stile widths from 2-1/8” to 6”
- Rail widths from 3” to 12”
- All doors are engineered, fabricated and assembled in the factory
- Tie rod and welded optional construction on all doors
- Hardware can be installed in the factory
- Hardware can be furnished by Graham or customer supplied
- Anodized or painted finishes are available

Blast Mitigation Products

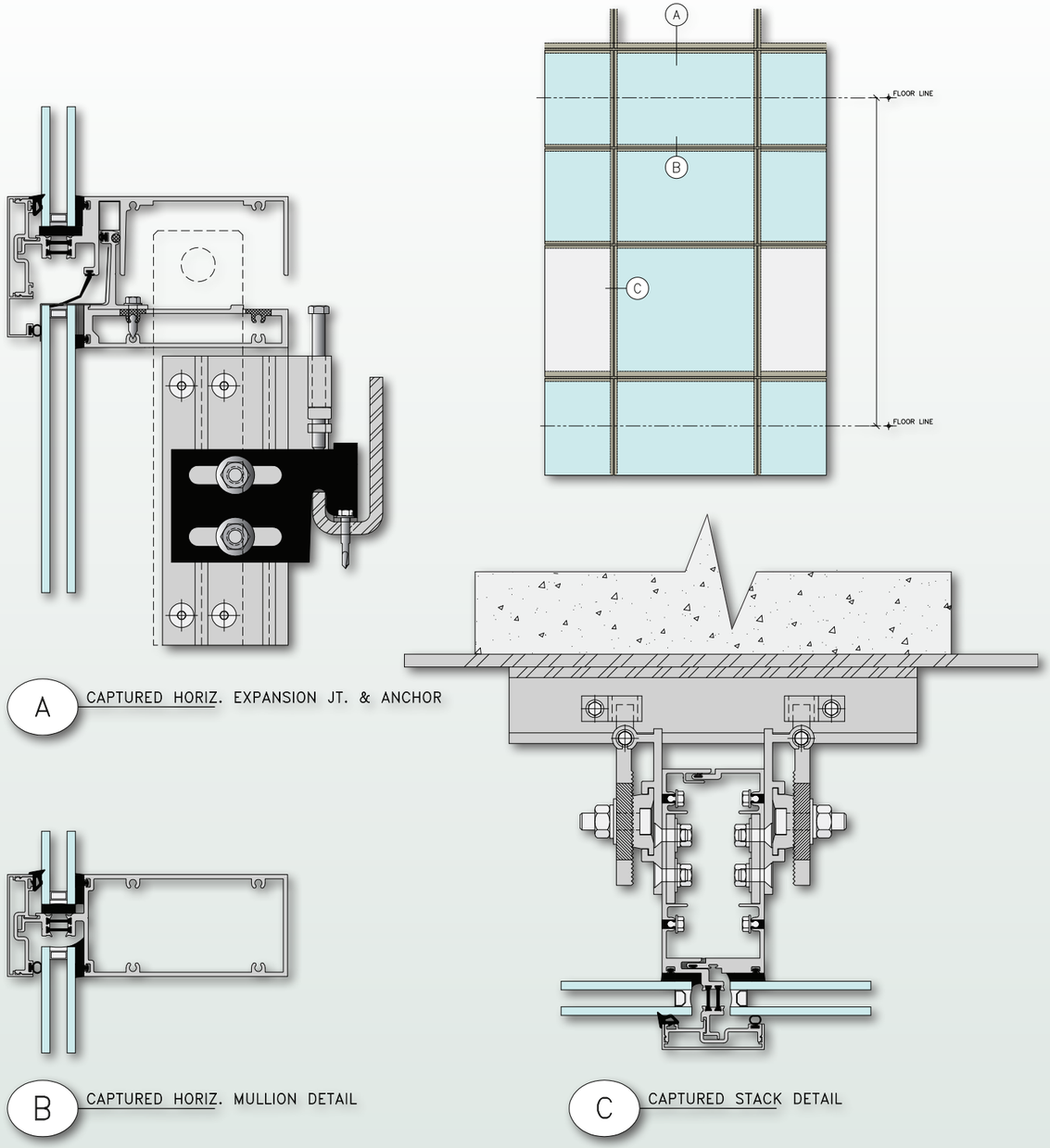
- Custom designed blast resistant products including, unitized curtain wall, pressure wall, fixed and operable windows, and doors
- Blast resistant designs to meet project specific criteria
- Performance mock-ups available for all systems
- All systems are to UFC or GSA standards
- Easily integrated with other Graham products for a truly custom project
- Anodized or painted finishes available

Zero Sightline Vent (Series CW6100)

- Designed to be installed in our captured curtain wall systems
- We can pre-glaze in our factory or ship open



Zero Sightline Vent



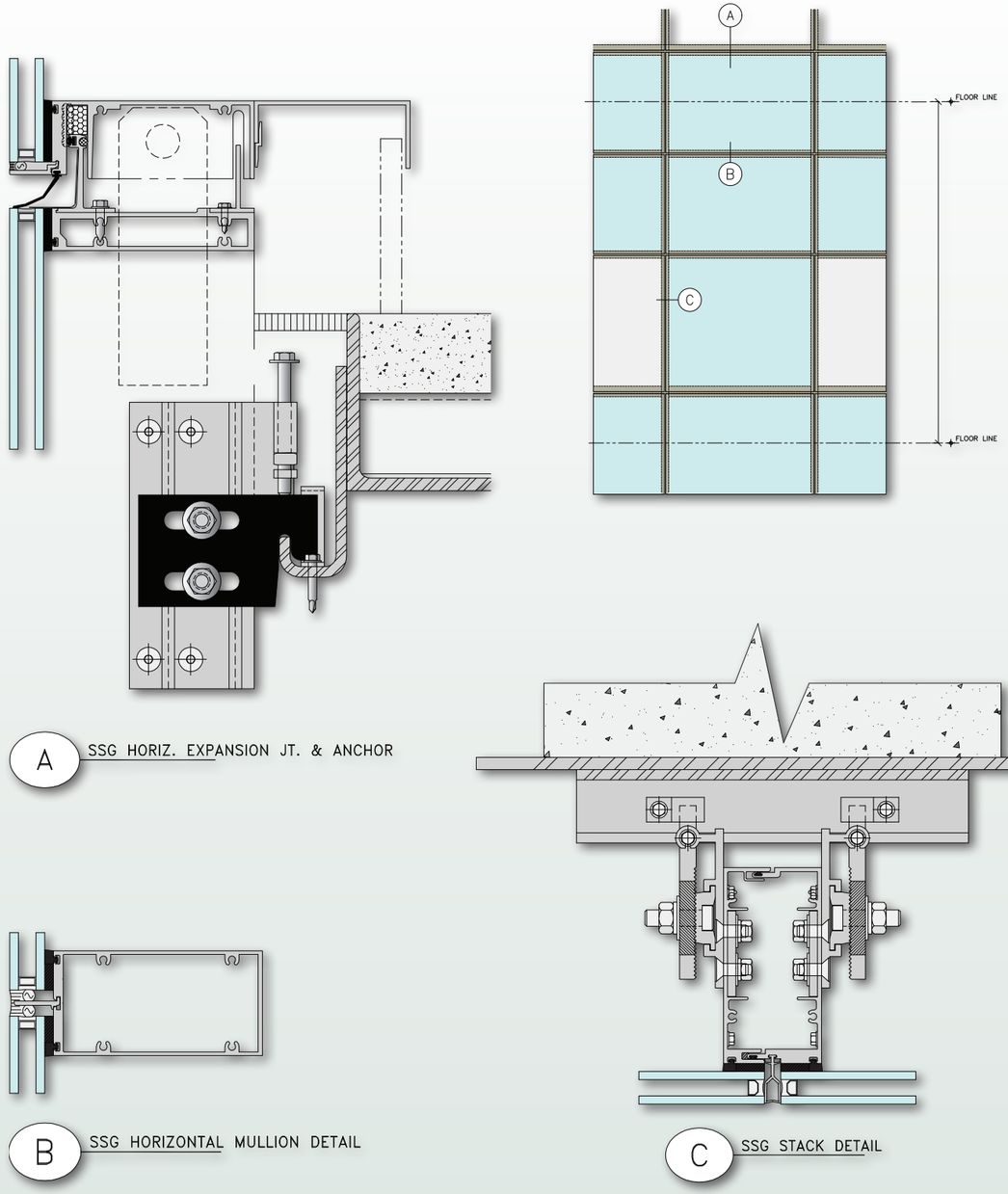
A CAPTURED HORIZ. EXPANSION JT. & ANCHOR

B CAPTURED HORIZ. MULLION DETAIL

C CAPTURED STACK DETAIL

Unitized Captured Curtain Wall

US8375C



A SSG HORIZ. EXPANSION JT. & ANCHOR

B SSG HORIZONTAL MULLION DETAIL

C SSG STACK DETAIL

Unitized Structurally Glazed Curtain Wall

US8375S

Green Lane Building, Kean University, Union, NJ

PROJECT DESCRIPTION

A six-story, 102,274 SF mixed-use academic building with a unique footprint and a four story segmented, inverted, sloped feature wall. The design included a 56-degree outside corner, parapets, soffits and – the pièce de résistance – a tilted ellipse feature wall. The intent of the tilted ellipse was to keep the radius constant, with the center of the radius projecting out 4 ½' at e very floor as you move up the building.

ARCHITECT

Gruskin Group
Springfield, NJ

GENERAL CONTRACTOR

Dobco, Inc.
Wayne, NJ

INSTALLER

Union County Plate Glass Co.
Elizabeth, NJ

PRODUCTS USED

- US8375S Structurally Glazed Unitized Curtain Wall
- Sunshades

COMPLETION DATE

2012

Norton Women's & Kosair Children's Hospital, Louisville, KY

PROJECT DESCRIPTION

52,000+ SF of pre-glazed unitized curtain wall and fabricated/assembled field glazed pressure bar curtain wall for a 373-bed hospital at the center of a $117.8 million construction project. Originally planned as stick-built and field-glazed, a tight timeline and a compelling pitch from Akins Company and Graham caused the owner and architects to rethink their approach, utilizing our pre-glazed unitized system instead.

ARCHITECT

- HKS, Dallas, TX
- Laughlin Millea Hillman Architecture, LLC
  Louisville, KY

INSTALLER

Akins Company
Louisville, KY

PRODUCTS USED

- US8375S Series Custom Unitized
- 4-Sided SSG Curtain Wall
- 2500 Series Pressure Wall

COMPLETION DATE

2011

Western Carolina University
Health & Human Sciences Building, Cullowhee, NC

PROJECT DESCRIPTION

The architect wanted a LEED® Gold project. Graham's role in bringing that vision to life involved designing a curtain wall with custom sunshades, sunscreens and catwalk, including custom brackets, custom anchor bolts and custom anchor plates. This state-of-the-art, highly thermally efficient curtain wall design helped to attain LEED points in several categories, including energy performance, thermal comfort, daylight views, innovative design and recycled content.

ARCHITECT

Clark Nexsen

INSTALLER

Blue Ridge Glass
Waynesville, NC

PRODUCTS USED

- 2500 Series Curtain Wall (approx. 21,500 ft²)
- Custom Sunshades & Sunscreens

AWARDS

- 2013 Virginia Society AIA Honor Award
- 2013 AIA North Carolina Merit Award
- 2008 AIA Asheville Honor Award (Unbuilt)

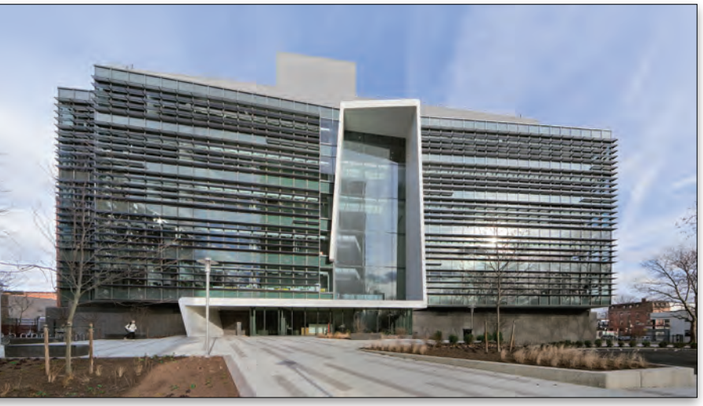
LEED® CERTIFICATION

Gold

COMPLETION DATE

2012

Pratt Institute, Myrtle Hall, Brooklyn, NY



PROJECT DESCRIPTION:

The Pratt Institute's Myrtle Hall is the first educational facility in Brooklyn to receive a LEED® Gold certification. Pratt incorporated almost 33,000 square feet of Graham curtain wall along with nearly 6,000 feet of custom sunshades. The unique design helped Pratt achieve a LEED® Gold certification. Myrtle Hall also won Masterworks award from the Municipal Art Society of New York.

ARCHITECT

WASA/Studio A
New York, NY

INSTALLER

Crowne Architectural Systems
North Bergen, NJ

PRODUCTS USED

- US8375C Series Unitized Curtain Wall (26,000 ft^2)
- 2508C Series Captured Curtain Wall (7,300 ft^2)
- Custom Sunshades

LEED® CERTIFICATION

Gold

COMPLETION DATE

2011

Froedtert Hospital, Cancer Care Addition, Milwaukee, WI

ARCHITECT
OWP/P | CannonDesign
Chicago, IL

GENERAL CONTRACTOR
M.A. Mortenson Co.

INSTALLER
Simmons Building Products, Inc.
Wauwatosa, WI

PRODUCTS USED
- US8375S Series Custom Unitized Curtain Wall (70,000 ft^2)
- 2510S Series Structurally Glazed Curtain Wall (5,000 ft^2)

COMPLETION DATE
2008

PROJECT DESCRIPTION
This project consisted of approximately 70,000 square feet of unitized curtain wall with painted shadow boxes, back pans and insulation at all floor slab locations. The floor heights were 18'-0" and the mullion spacing was 6'-0", which resulted in some very large frames. Due to the unique shape of this building with the number of corners, setbacks and notches, in addition to having to design for +/- 3/4" live load deflection, this project had numerous challenges that Graham had to design for.

Philadelphia Community College, Philadelphia, PA

ARCHITECT
Burt Hill
Philadelphia, PA

BUILDING OWNER
Philadelphia
Community College

CUSTOMER
Colory metal & Glass Co.
Bensalem, PA

PRODUCTS USED
- 2500 Series Segmented Curtain Wall
- Sunshades

COMPLETION DATE
2008

PROJECT DESCRIPTION:
The Pavilion at Philadelphia Community College includes three different 2500 Series captured curtain wall system depths, including 5, 7, and 8 inch depths. The front fascia is a segmented radius wall with custom perforated sunshades designed to filter afternoon light to reduce heat gain and energy consumption.

University of Massachusetts, Amherst, MA

PROJECT DESCRIPTION

The 175,000 sf Integrated Sciences Building at the University of Massachusetts features a unique curtain wall and terra-cotta sunscreen. Since the structural portion of the building is actually outside the curtain wall, the structural steel truss framing that supports both systems is on the exterior.

Special knife edge anchors were designed to accomplish the installation. These anchors are strategically located to provide the support needed for the curtain wall and to reduce thermal transmission from the exterior steel truss. Graham worked closely with Payette, Suntech and the structural steel truss manufacturer to design the attachments.

The traditional brick facade with the high tech curtain wall was a departure from traditional design for the University. The large lobby/atrium behind the curtain wall is designed as a meeting place for the students.

ARCHITECT

Payette
Boston, MA

INSTALLER

Suntech of Connecticut, Inc.
Branford, CT

PRODUCTS USED

- 2500 Series Curtain wall (approx. 18,000 ft^2)

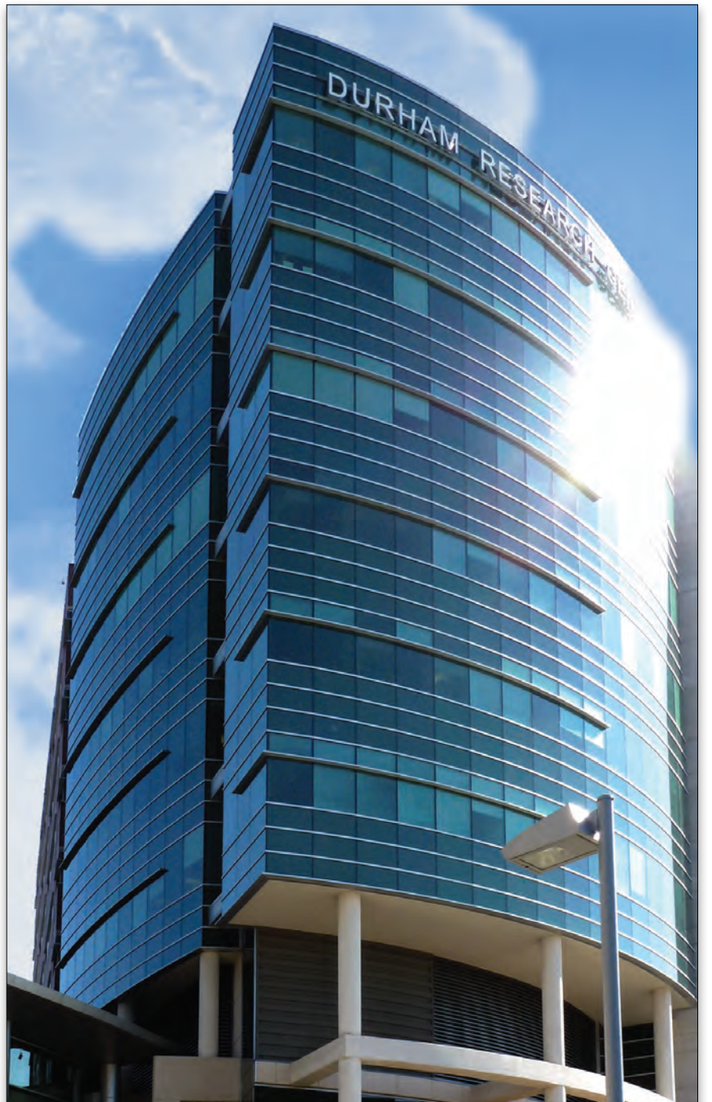
COMPLETION DATE

2009

Durham Research Center II, Omaha, NE

PROJECT DESCRIPTION

The Durham research center was named for Charles (Chuck) Durham, former CEO and chairman of HDR Architects and Omaha area philanthropist. The research center is the second such building to be named for Mr. Durham. The center, which includes some 50,000 square feet of Graham curtain wall, cost $74 million, has 10 levels, 95 laboratories and 252,179 gross square feet.



ARCHITECT

HDR Architects, Inc.
Omaha, NE

GENERAL CONTRACTOR

Hawkins Construction Co.
Omaha, NE

INSTALLER

The Redglaze Group
Omaha, NE

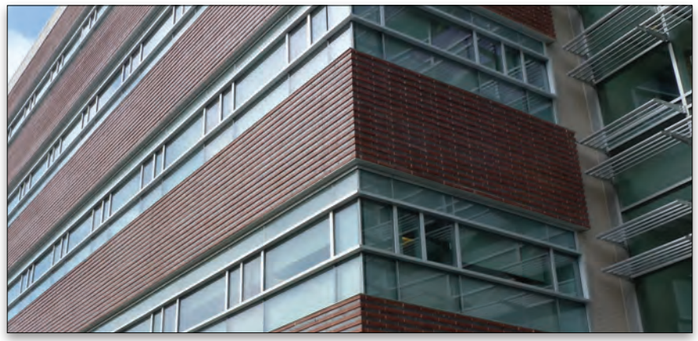
PRODUCTS USED

- 2500 Series Captured & SSG Curtain Wall (approx. 50,000 ft²)

COMPLETION DATE

2011

Medgar Evers College, Brooklyn, NY



ARCHITECT
Ennead Architects, LLP
New York, NY

GENERAL CONTRACTOR
Whitestone Construction
Woodside, NY

PRODUCTS USED
- 2500 Series Captured & SSG Curtain Wall (approx. 27,000 ft²)
- Sunshades

COMPLETION DATE
2010

PROJECT DESCRIPTION
The building at Medgar Evers, housing the School of Science, Health and Technology, is the first new building of the College's master plan. The design includes nearly 27,000 square feet of Graham captured and structurally glazed curtain wall. The building received awards from The Society for College and University Planning (SCUP) and the American Institute of Architects Committee on Architecture for Education (AIA-CAE) for Excellence in Architecture for a New Building. The SCUP Awards recognize excellence in comprehensive campus design and planning.

The new building features light-filled corridors with curtain wall that provides views of the community while allowing the community outside to view the activity within. The multifaceted curtain wall illuminates the neighborhood at night, contributing to the projects' goal of transparency within the community.

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