



JOHNSON CONTROLS GLOBAL HEADQUARTERS EXPANSION PROJECT

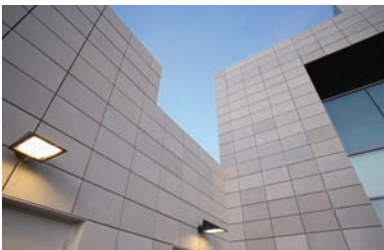
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MASONRY SOLUTION:

Controlling the Envelope

Mason contractor creativity delivers a unique exterior wall package.



When a company is named “Green Business of the Year,” a major overhaul of its headquarters is bound to be equally exceptional. On track to earn LEED Platinum certification, the Johnson Controls Global Headquarters Expansion Project involved innovation and true collaboration between owner, designer, construction manager/general contractor and masonry contractor.

With a unique rain screen wall technology making its debut, collaboration was essential, particularly since designers at Gensler expressed their intent without dictating the solution. “We wanted it to be integral with the rest of the process,” says Senior Associate Stephen Katz.

JOHNSON CONTROLS GLOBAL HEADQUARTERS EXPANSION PROJECT

GLENDALE, WISCONSIN

Project Details

Architects: Gensler

Construction Managers: Hunzinger Construction Company

Masonry Contractor: Kinateder Masonry, Inc.

Craftworkers: BAC Wisconsin Administrative District Council

New construction: 124,400 square feet





custom anchoring, a unique insulation system and a durable water/air/vapor barrier. The trick was finding a single subcontractor to handle all four. Hunzinger Construction managers knew from previous collaborations that Kinateder Masonry could bring a lot to the table and take responsibility for the exterior building envelope, from the back-up wall out.

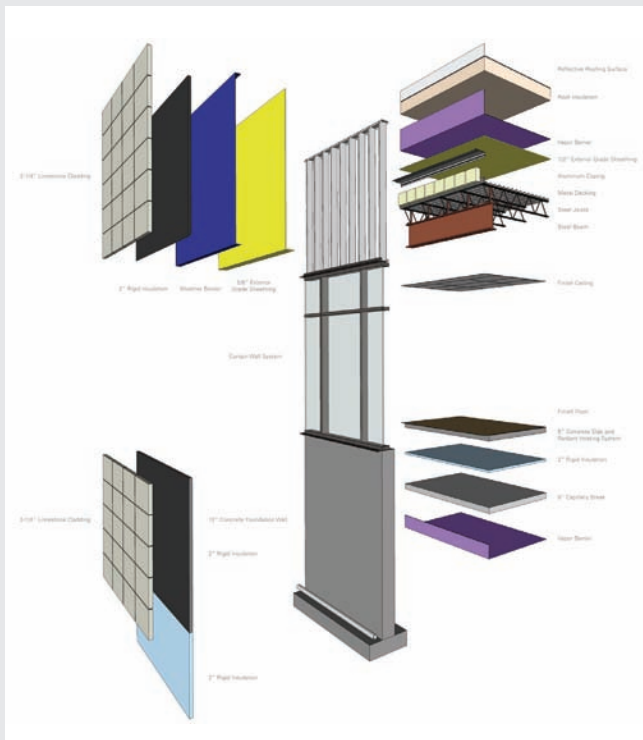
Gensler quickly discovered that as well during the bid process, where well-prepared Kinateder Masonry drawings and ideas provided what Katz calls “a comfort factor” that trumped low bid.

President Fred Kinateder, Sr. isn’t surprised. “When we can get in on the ground floor and show them what we can do, giving them what they want and still make it buildable, it’s a no-brainer,” he says, adding that his firm prides itself on two attributes: “flexibility and creativity.”

The building envelope featured several innovations: an open-jointed rain screen wall design with thick stone,

and a durable water/air/vapor barrier.

RAIN SCREEN WALL



Courtesy of Gensler

Those attributes were certainly the clincher when it came to the rain screen wall.

Originally designed with all open joints, Kinateder, Sr. suggested a flexible and durable channel-anchored system, with each dramatically sized (16” x 30”x 3” thick) Indiana Limestone panel independently supported. Kinateder worked with an engineer and the International Masonry Institute (IMI) to provide some innovative veneer anchorage options.

Hunzinger Senior Project Manager Dan Davies notes that IMI “was very helpful on the front end” because of experience with similar projects. Arranging site visits let the team “kick the tires” and learn what to expect on their maiden voyage.



Another concern was lining up the joints perfectly. For Kinateder masons, that meant working from both the designer’s and limestone supplier’s plans. “Our guys in the field did a really good job working from two sets of drawings,” says project manager Fred Kinateder, Jr.



TRIPLE-THREAT AIR BARRIER

Rain screen walls are getting a lot of attention for the pressure-equalized effect on wind-driven rain made possible by open-jointed cladding systems, allowing free flow of air into the wall but not getting into the building. Wanting to lessen the thermal loss associated with stud back-up walls, “We moved the insulation outside the building,” says Katz. Hunzinger’s Davies sees that as a growing trend. “It’s another ounce of prevention from a water-management perspective.”



Waukesha Air & Vapor Barrier, Inc. selected a fluid-applied elastomeric polymer membrane to control moisture, air and vapor. To protect the integrity of this barrier, self-sealing adhesive membrane strips were used around masonry anchor penetrations and other potential discontinuities in the back-up wall.



Due to large joints nearly twice the typical 1/4” size seen with limestone panels, Gensler called for a grey insulation that would blend in.



ONE TRADE DOES IT ALL



An equally important factor in the project’s success was having a single source of responsibility for the exterior building envelope, to ensure proper performance and avoid finger-pointing.

“Placing stone and mortar is just a small part of what we’re seeing them do,” says Hunzinger project manager Dan Davies.

“It takes a
sophisticated
mason contractor
these days.”

MASTER MOCKUP



Given the scope of the project and the unfamiliar terrain of open-jointed rain screen wall technology, the team went for an oversized mockup, with particular attention to where curtain wall and stone met. "It contained all the building components

and all the possible conditions we could come across on the project," says Kinateder, Jr. "It also helped clarify everyone's role," notes Katz. "The mockup really gets people's heads working together."



"The whole cladding system

is **OUR**
responsibility."

- Fred Kinateder, Sr.

Kinateder Masonry, Inc.



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The International Masonry Institute is a labor/management cooperative serving the interests of the International Union of Bricklayers and Allied Craftworkers and the contractors who employ its members.

The International Masonry Institute presents programs in four broad categories: apprenticeship and training, market development and technical services, research and development, and labor/management relations.

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