

FOR IMMEDIATE RELEASE
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Vos Glass, Inc. Completes Distinctive Glass Features on Phase II Expansion of Internationally Recognized Van Andel Institute

Grand Rapids, Michigan (December 7, 2009) — The Van Andel Institute (VAI), a Grand Rapids-based, internationally recognized medical research and education facility dedicated to finding the molecular origins of cancer and other diseases, is set to open its Phase II expansion this December. The \$170 million, 240,000-square-foot expansion triples the existing laboratory space, expands educational programs, creates 500 additional jobs, and will impact the local economy in excess of \$300 million. The VAI expansion will increase its capabilities to discover a cure for cancer and other diseases, and is a prime example of Grand Rapids' emergence as a health care research leader.

The Van Andel Institute's Phase II expansion mirrors many of the lines and details of the original VAI building (Phase I). Built in 1998, Phase I was designed in direct response to scientific program demands, specific points of entry and views, and the site's topography. With its hillside cascade of skylight roofs, the building's iconic architecture resembles the falling water of the Grand River that flows in the distance. The building was also designed to achieve LEED NC-Platinum status.

Vos Glass, Inc. Contributions

Vos Glass, Inc., a full-service, family-owned and -operated, Grand Rapids-based glass company, was chosen by VAI to provide and install the extensive and completely unique glass features of the expansion project. The company's 27-year relationship bringing glass to West Michigan has helped change the Grand Rapids skyline, and its highly skilled workforce and expert knowledge of the glass and glazing industry is evident once again at VAI.

Vos Glass, Inc. and its team of fabricators and installers collaborated with the renowned Rafael Viñoly, the lead architect on both Phases, to fulfill his vision for the glass walls, windows and interior elements of the Phase II expansion. "The logistics and installations on this project were challenging, says Ken Graham, project manager on the VAI glass installation and vice president of Vos Glass, Inc. "We committed ourselves to staying

true to the architect's models. Glass is a key feature of the building's architecture and functionality."

Bill Culhane, of Culhane & Fahrenkrug, LLC, owner's representative for the VAI project, says "it was great having the talent to install the unique glass so close to home," and that the overall knowledge of Vos Glass, Inc. was "invaluable considering the complexity of this project."

The Institute's Phase II expansion included three highly complex and completely original glass window and wall designs—the Café curtainwall, the "Angel" wall, and the CEO conference room. Vos Glass, Inc. also provided their glazing expertise on many of the building's interior features.

Three Key Areas and Interior Features

The Café curtainwall, the "Angel" wall and the CEO conference room were designed by Rafael Viñoly to emphasize the landscape and views of Grand Rapids. "Glass is the most prominent and creatively utilized building element in the expansion," says Steve Heacock, Van Andel Institute CAO and Chief Counsel.

The Café curtainwall presented unique building challenges for Vos Glass, Inc. To begin, a Kawneer 5500 aluminum framing system was installed to create 130 individual-framed fenestration openings each measuring 42" x 200". Surrounding each exterior opening, a continuous vertical and horizontal projection measuring 30" x 12' produced an architectural feature as well as a substantial sun control component. A fully engineered substructure also was built to create attachment locations for the projection's cladding.

To create the intended profiles, referred to on the project as "fins," 1/8"-thick sheet aluminum was break formed and post painted with a Kynar finish. A Kawneer 7500 Isoweb aluminum framing system closed the endwalls. Viracon 2" triple pane, "clear" inboard, argon-filled, heat-strengthened insulated glass units (IGUs) were used, offering high thermal performance while maximizing natural light transmission. On each end of the wall opening, the framing and glass are cantilevered, giving the appearance that the glass and frame hang from the building.

Following strict technical requirements and desired performance guidelines, Vos Glass, Inc. had a full-size 40' x 40' mock-up constructed and tested for air and water infiltration at Architectural Testing, Inc. in Pennsylvania. After passing all tests, Vos Glass, Inc. began the installation process during the winter, which required building a fully heated enclosed scaffolding system to protect the workers and materials from the harsh Michigan weather. This one-of-a-kind segmented window wall, measuring 140' x 66' feet, now provides abundant natural light to the cafeteria.

The "Angel" wall began with a 36' x 36' steel frame. The challenge for Vos Glass, Inc. was to not only install the glass, but to find and purchase it. Research led them to Cristacurva, one of only a few glass fabricators capable of fabricating the custom, 9' x 9' triple pane, heat-strengthened IGU's with a specified u-value equaling .18.

The IGUs on the "Angel" wall are four-sided, and are structurally glazed directly to the structural support steel. A stainless steel plate system was designed by Wheaton & Sprague to create a closer tolerance for installation than just the steel structure offered, and additional hidden fasteners aided in supporting the IGUs during installation.

The installation of the glass required that a hydraulic platform scaffolding system be used for glaziers to work safely. Each 2 1/2" IGU weighed in excess of 1500 pounds, which required special glazing suction cups and a power crane during installation. To complete the wall, the Van Andel Institute's logo of an angel was applied to the glass. This 30'-tall angel now overlooks the city of Grand Rapids.

The CEO conference room is the jewel in the overall design of the building. The 40° x 36° semi-circular conference room is composed of full-height glass on three sides. The glass is bent to match the radius and leans out at a seven-degree angle, creating two different radiuses and a completely unique structure.

The specifications for the CEO conference room again called for a u-value equaling .18. The 2 1/2"-thick, triple pane, low-iron IGUs, laminated (with special pvb layers) and high performance coatings went through many mock-ups before the best solution was determined.

The room's individual glass units measure 66" x 151" tall. The original design was that the glass be unsupported vertically, essentially creating one complete wall of glass. However, final engineering analysis required that solid, vertical, custom, stainless steel tees be used to support wind loads. The glass units were captured at the head and sill with a custom designed stainless steel channel system. The final result is a 300-degree panoramic view, 120 feet above Grand Rapids—nothing shy of spectacular.

The interior features glazed by Vos Glass, Inc. include:

- 10,000 square feet of glass entrances and 1/2" floor-to-ceiling glass partition walls.
- Interior rooms on the third and sixth floors maximize natural light transmission by creating transom areas. Custom Kawneer frames with two pieces of 1/2"thick glass create a four-inch airspace as well as a high STC rating for the working environment.
- Custom glass handrail systems installed with bent radius glass on the second and third floors.
- Exterior 3/4" custom glass handrails installed on the sixth floor for the CEO conference room balcony.
- Applied privacy film to separate Phase 1 from Phase 2 sections.
- Smoke baffle glazing installed at open stairwell locations.
- Fire-rated glazing was installed at most fire-rated doors.

Additional exterior features glazed by Vos Glass, Inc. include:

 A Kawneer 7500 system installed for the strip window framing portions of the building with fully captured glazing and two-sided structural glazing at designed locations. Clear vision glass infills included Viracon 2" triple pane IGUs with high performance coatings and 5/8" argon-filled air spaces.

Team Players

Linda Vos-Graham, president of Vos Glass, Inc., is proud of their accomplishments at VAI. "A construction project of this magnitude requires a specialized team of highly skilled and knowledgeable people," Vos-Graham states. "All our glaziers are from right here in West Michigan, and we researched and chose suppliers and subcontractors that could get the job done.

"Vos Glass, Inc. was excited to be a part of such an architecturally challenging glass project, especially one that will impact the lives of so many people, both locally and around the world," Vos-Graham continues. "We hope our glazing offers an inspiring environment for all the Institute scientists and staff to work."

Heacock of the Van Andel Institute says that Vos Glass, Inc. played an important role in the process of bringing together multiple companies during the fabrication and installation process. "From bidding through testing and final installation Vos Glass was a team player turning design vision into construction reality."

Nathan Moore, project manager for Hunt (Hunt/Owen-Ames-Kimball Co. Joint Venture) believes that the help of Vos Glass, Inc. was invaluable in the engineering and detailing of each wall system. "Everything looks like the intended appearance," Moore says. "They understood the importance and unique aspects of the project, and they did whatever was necessary to get the desired results."

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Vos Glass, Inc. is a family-owned and operated professional, full-service glass company located in Grand Rapids, Michigan. Founded in 1982, Vos Glass, Inc. and its over 55 employees have contributed to many major West Michigan projects including DeVos Place Convention Center, Saint Mary's Southwest Outpatient Center, Lemmen-Holton Cancer Pavilion, the Steelcase Learning Center and the Grand Rapids Civic Theatre. Vos Glass, Inc. has received numerous awards including the Western Michigan Chapter of Associated Builders and Contractors, Inc. Safety Training and Evaluation Process Platinum Level Achievement Award; and the Associated Builders and Contractors (ABC) of West Michigan "Award of Excellence" in several glazing categories.



Web: www.vosglass.com

VOS GLASS, INC. FACT SHEET

- Vos Glass, Inc. is a professional, full service, family-owned glass company located in Grand Rapids, MI. The company is committed to quality, integrity and craftsmanship, making certain that every job, whether commercial, residential or automotive, receives impeccable service.
- Founded by Clarence "Jake" Vos, the company serves West Michigan and employs over 55 people.
- Vos Glass, Inc. has provided products and services for commercial, residential and automotive applications since 1982.
- Vos Glass, Inc. is one of the most respected companies in the glass/glazing industry.
- Projects include:

Van Andel Institute (Phase II Expansion); the Steelcase Learning Center; the Grand Rapids Civic Theatre; the Lemmen-Holton Cancer Pavilion; Saint Mary's Southwest Outpatient Center; Butterworth South Pavilion; Butterworth Women & Children's Center; Steelcase Headquarters; Amway Grand Plaza Hotel; Grand Rapids Convention and Visitors Bureau; The Grand Rapids Press printing facility; Grand Valley State University, Lake Ontario Hall; Calvin College, Spoelhof Fieldhouse; DeVos Place Convention Center; Bridgewater Place and more.

- In 2009, Vos Glass, Inc. received the National Associated Builders and Contractors, Inc. Safety Training and Evaluation Process (STEP) Platinum Level Achievement Award for the third consecutive year. Vos Glass, Inc. is the only glazing contractor in Michigan to receive this award.
- Vos Glass, Inc. has received numerous awards including:
 - National Associated Builders and Contractors, Inc. Safety Committee, Gold Level Achievement Safety Award

- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, Specialty Glazing, Saint Mary's Southwest Outpatient Center
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, Restoration Glazing, Grand Rapids Civic Theatre
- National Associated Builders and Contractors, Inc. Safety Committee, Safety Training and Evaluation Process Platinum Level Achievement Award
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, West Michigan Center for Arts and Technology
- National Associated Builders and Contractors, Inc. Safety Committee, Gold Level Achievement Safety Award
- o Business Review, Finalist, Innovation Michigan Award
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, St. Mary's Lacks Cancer Center
- o Grand Rapids' 10th Annual Historic Preservation Award
- National Associated Builders and Contractors, Inc. Safety Committee, Gold Level Achievement Safety Award
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, American Seating Park
- o The Better Business Bureau of Western Michigan, Business of the Year
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Excellence, Park Christian Reformed Church
- The Better Business Bureau of Western Michigan, Small Business Advertiser of the Year
- Associated Builders and Contractors, Inc., Western Michigan Chapter, Award of Merit, Grand Rapids City Centre
- Vos Glass, Inc. is affiliated with the National Glass Association, Michigan Glass Association, Greater Grand Rapids Home Builders Association, Better Business Bureau, Associated Builders and Contractors of Western Michigan, American Subcontractors Association of Michigan, National Federation of Independent Business and Michigan Chamber of Commerce.
- The nationally recognized Vos Glass, Inc. Resource Center offers architects, designers, engineers, contractors, builders, building owners and home owners an interactive, hands-on environment where they can experience options in architectural and decorative glass along with related metals and plastics. It also provides an extensive library of physical glass samples, a workstation where guests can research glass options, and an exterior sculpture with interchangeable glass that allows guests to view samples in natural light.

Leadership

Linda Vos-Graham, President – Media Contact Kenneth U. Graham, Vice President Barbara J. Vos, Secretary/Treasurer



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VAN ANDEL INSTITUTE PHASE II FACT SHEET

Van Andel Institute Phase II Expansion

The Van Andel Institute (VAI) Phase II expansion is a \$170 million, 240,000 square-foot, eight-story building addition that will significantly increase VAI's capability for potentially life-saving research. The expansion:

- Triples laboratory space
- Includes the Jay Van Andel Parkinson Research Lab
- Expands educational programs
- Houses the Van Andel Graduate School, and space that will be used by students of the new Michigan State University College of Human Medicine
- Meets LEED-NC Platinum certification requirements (All exterior glass used in the project is triple-pane insulated glass with low-E coatings on two surfaces—reducing heating and cooling needs)
- Creates 500 new jobs
- Greatly impacts the local economy (could exceed \$300 million annually)

Vos Glass, Inc. Contributions to Phase II Expansion

Vos Glass, Inc. compiled a team of glass fabricators, installers and suppliers to complete the VAI Phase II expansion.

Vos Glass, Inc. provided and installed the glass for the Café curtainwall, the "Angel" wall, the CEO conference room and interior glass elements, including glass railings, glass partitions, entrances and doors.

Details on Café curtainwall, "Angel" wall, and CEO conference room:

Café curtainwall – The Café curtainwall presented unique building challenges for Vos Glass, Inc. To begin, a Kawneer 5500 aluminum framing system was

installed to create 130 individually-framed fenestration openings each measuring 42" x 200". Surrounding each exterior opening, a continuous vertical and horizontal projection measuring 30" x 12' produced an architectural feature as well as a substantial sun control component. A fully engineered substructure also was built to create attachment locations for the projection's cladding.

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Local Interest Points

- Vos Glass, Inc., a Grand Rapids-based glass and glazing company, was a critical member of the construction team for the internationally recognized Van Andel Institute Phase II expansion.
- Linda Vos-Graham is owner and President of Vos Glass, Inc. and has been with the company since 1983. Her husband, Ken Graham, serves as Vice-President and Director of Project Management.
- The Vos Glass, Inc. team includes other husband/wife teams, as well
 as numerous other family relationships, including lead glaziers Jeff and
 Kevin Veltman, both of whom have been with Vos Glass, Inc. for 25
 years. Their father was one of the company's original glaziers.
- Vos Glass, Inc. is a non-union organization.
- All of the glaziers who worked on the VAI project are from West Michigan.
- Tom Johnson, director of Contract Glazing Operations has been with Vos Glass, Inc. since 1983.
- John Kwekel, superintendant, Commercial Division has been with Vos Glass, Inc. since 1985.
- Kwekel and Johnson were pivotal in pulling together the installation strategy for the Van Andel Institute expansion, coordinating with the VAI's construction safety team through Pat Merryweather, Safety Director for Vos Glass, Inc.
- The "fins" on the Café curtainwall were fabricated by Accuform Industries, Inc. of Grand Rapids. Accuform also contributed to the erection of the wall.



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Van Andel Institute Phase II

Designer

Rafael Vinoly Architects PC 50 Vandam Street New York NY 10013

General Contractor

HUNT/O-A-K, A Joint Venture 300 N. Division Avenue Grand Rapids MI 49503

Vos Glass, Inc. Suppliers and Subcontractors

Company	Contact	Address/Telephone/Email
Accuform Industries, Inc.	Mr. Mark A. Holleman	1701 Broadway NW Grand Rapids, MI 49504 (616) 363-3801 mholleman@accuformgr.com
Cristacurva	Mr. Javier Sanchez-Gill	Pedro Martinez Rivas 728 Zapopan Jalisco Mexico 45150 (866) 229-3750 javiersg@cristacurva.com
Erie Architectural Products, Inc. Kawneer Co., Inc.	Mr. Ron Stronks	5 Hyland Drive Blenheim Ontario Canada N0P 1A0 (519) 676-2199 rstronks@erieap.com

Chames, L.L.C. d/b/a Five Star Window Coatings	Mr. Randy Hudson	5357 Plainfield NE Grand Rapids, MI 49525 (616) 363-0000 fivestarwindowtint@sbcglobal.net
Statre Corporation Viracon	Mr. Ted Wantuck	449 Executive Drive Troy, MI 48083 (800) 989-3450 statreted@sbcglobal.net
Wheaton & Sprague Engineering, Inc.	Mr. John L. Wheaton	1100 Campus Drive; Suite 200 Stow, OH 44224 (330) 923-5560 jwheaton@wheatonsprague.com
Architectural Testing, Inc.	Mr. Joe Wise	130 Derry Court York, PA 17406 (717) 764-7700 jwise@archtest.com

Additional Subcontractors who worked in conjunction with Vos Glass, Inc.

<u>Company</u>	<u>Contact</u>	Address/Telephone/Email
Skylight Systems JML Architectural Products, Inc. Old Castle Glass Engineered Products - Naturalite	Mr. Joe Lucchese	19845 Wedgewood Drive Grosse Pointe Woods, MI 48236 (313) 642-1196 jlucchese@comcast.net
Railing Systems Van Dam Iron Works, Inc.	Mr. Bruce Schafer	1813 Chicago Drive SW Grand Rapids, MI 49519 (616) 452-8627 bchafer@vdiw.net



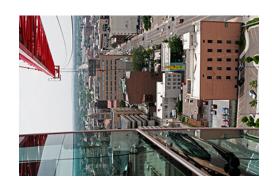




VAI01.jpg VAI04.jpg VAI06.jpg







VAI07.jpg VAI08.jpg VAI11.jpg







VAI12.jpg VAI15.jpg VAI17.jpg







VAI19.jpg VAI26.jpg VAI27.JPG

Vos Glass – VAI Phase 2







VAI28.jpg VAI29.jpg VAI30.jpg







VAI32.jpg VAI33.jpg VAI34.jpg



VAI36.jpg



Brian Kelly_Phase II employee cafeter...



Jeff Dykehouse, Dykehouse Photogra...



Jeff Dykehouse, Dykehouse Photogra...



Jeff Dykehouse, Dykehouse Photogra...



Jeff Dykehouse, Dykehouse Photogra...



VAI Finish01_south elevation.jpg



VAI Finish02_south elevation & cafe w...



VAI Finish03_ariel view:cafe wall.jpg



VAI Finish03_south elevation tight cro...



VAI Finish04_ariel view:cafe wall.jpg



VAI Finish04_cafe walljpg.jpg



VAI Finish07_night view:cafe wall.jpg



VAI Finish78_exterior:south elevation.j...



VAI Finish79_exterior:south elevation.j...



VAI Finish80_exterior:CEO Conf.jpg



VAI Finish81_exterior:Angel wall.jpg



VAI Finish86_exterior:Angel wall2.jpg



VAI Finish88_exterior:north elevation.j...



VAI Finish90_exterior:Angel wall detail...



VAI Finish92_exterior:cafe wall.jpg



VAI Finish93_exterior cafe wall.jpg



VAI Finish96_exterior:cafe wall.jpg



VAI Finish99_exterior:south elevation.j...