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# HARRISHORIZONS

APRIL / 09

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## instant installation

Installing Ductwork for the  
Providence Cancer Center

Superior Air Handling (a Harris company) installed nearly 1 million pounds of ductwork for the new Providence Cancer Center in Portland, OR.

When someone is sick with cancer, being able to go to one place that offers comprehensive care is important. It was with that mission in mind that the new Providence Cancer Center in Portland, Oregon was designed and built.

Located adjacent to the existing Portland Medical Center, the new facility is a 490,000 sq ft., 11-story building that houses physician specialists in major tumor types, internationally recognized researchers performing bench-to-bedside clinical trials and such amenities as counseling, a learning center, holistic health services, laundry facilities and a spa.

The space includes unique immunotherapy research facilities, an integrative medicine program, a surgical services suite and 250 patient rooms as well as a 9,000 sq ft. vivarium with an animal bio-safety level 3 (ABSL 3) suite. There are 21 operating rooms including cardiac, orthopedic and neurosurgery, and a 50,000 sq ft. oncology outpatient clinic with radiation oncology services.

Superior Air Handling, a Harris company, was contracted through Turner Construction to install the sheet metal for this project. Superior installed nearly 1 million pounds of ductwork for the new facility in a seven-month span with a peak crew of 60 men.

All ductwork was fully assembled and shipped to the Providence jobsite using 54' enclosed van trailers. The trailers were used because the larger ductwork and fittings needed to be stacked in order to utilize shipping space and protect the ductwork during delivery. Since there was no lay down area for materials once delivered to the Providence site, Superior used a just-in-time delivery method. This required the field workers to unload the ductwork from the trailer and install it directly in the facility. A distribution system was also developed that utilized large rolling bins that were loaded at the fabrication facility and transferred to the jobsite.

Superior worked closely with the entire construction team to complete this project and used past experience in manufacturing,

packaging and shipping ductwork to ensure materials arrived on time and in an organized manner.

The building also features many state-of-the-art mechanical design elements including the implementation of a 100% outside air system with high accuracy airflow terminal units. These units provide constant pressure relationships between adjacent spaces to minimize the risk of spreading infection.

Doors opened in February and Providence can now work to meet the growing needs of the Portland community. ♻️

### who's involved: Superior Air Handling

Owner: **Providence Health & Services**  
General Contractor: **Turner Construction**  
Project Manager: **Steve Wood**  
Superintendent: **Kim Christiansen**  
General Foreman: **John Moeller**



## PRESIDENT'S PERSPECTIVE

Commissioning is a term that has come to common use within our industry. Generally it is a process used in conjunction with new construction. Roughly 5% of new buildings are commissioned today, and owners are beginning to ask how they can apply the same concepts to existing buildings.

To address this concern we have heard new terms in the market place, specifically Retro-Commissioning and Re-Commissioning. The BCA (Building Commissioning Association) now generally uses the term "Existing Building Commissioning" to define commissioning activities in existing buildings.

New Building Commissioning focuses on verifying and documenting that the facility is designed and installed to meet the Owner's Project Requirements. Existing Building Commissioning (EBCx) on the other hand, focuses on meeting the current facility requirements.

Why is EBCx growing in popularity? A study by the Association of State Energy Research Technology Internships and the US DOE, which surveyed 60 existing buildings of various types found some

interesting results. Fifty percent of the buildings studied had control problems, 25% had building automation systems with economizers, VFD's, and other advanced applications that simply weren't working, 40% had HVAC equipment problems, and a startling 15% had missing equipment!

With the above findings, it's not a surprise that owners are looking to the EBCx process to uncover problems in their building that are affecting energy consumption, occupant comfort, occupant productivity, and indoor air quality. What's more, local utilities understand the value of the process and are often willing to fund part of the process in order to help their customers reduce their energy consumption, many times through low cost/no cost Facility Improvement Measures.

For all the reasons above, Harris has put considerable effort into developing a team to help our customers through this process. Now more than ever we must look for opportunities to reduce owning and operating costs. For help with this process, contact Keela Bakken at [kbakken@hmcc.com](mailto:kbakken@hmcc.com), or call her at 651-602-6558. ♡

## GREEN SOLUTIONS

by Nick Rosenberry - Director of Sustainability

The uncertainty in the economy and likely tough times ahead are causing many building owners to look for ways to reduce operating expenses and become more efficient. Improving efficiency also gives building owners a hedge against rapid energy price inflation similar to that experienced during the first half of 2008. For these and other reasons, construction projects focusing on sustainability and energy efficiency are out performing the rest of the construction industry.

A significant component of these sustainable and energy efficient construction projects involve making existing buildings more efficient, thus reducing energy and operating expenses. These energy improvement projects can be completed through a traditional design-bid-build model, but other options often make more sense. A popular alternative model is Performance Contracting (this work is done by an ESCO Energy Service Contractor, or ESP - Energy Service Provider). At Harris, we refer to this as BES (Bundled Energy Solutions).

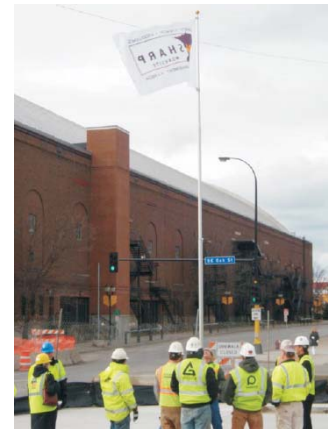
Under the Performance Contracting model, the ESCO will perform an analysis of the building and propose possible energy saving solutions to the owner. The ESCO will also provide costs for the implementation of the solutions and the associated energy savings. The ESCO will then engineer, install and maintain those energy saving solutions that the owner wishes to pursue. The ESCO may also provide the owner with a guarantee of the costs and energy savings. Finally, to ensure that the savings are met, the ESCO will provide measurement and verification of the implemented solutions.

There are several reasons why the Performance Contracting model for energy improvement projects is so attractive. 1) The ESCO assumes the risk that the proposed solution will meet the performance requirements. By guaranteeing performance, it is in the best interest of the ESCO to ensure the system operates most efficiently. 2) Often the energy savings from the project will be equal to or greater than the cost to finance the energy improvements. This allows the owner to improve the building while maintaining their current operating budget. 3) Financing the energy improvement through an ESCO (typically in the form of a lease) rather than a traditional capital improvement, allows the owner to account for the project in the operating budget rather than on their balance sheet. ♡

## ZEROING IN ON SAFETY

On November 28, 2008 the TCF Gopher Stadium was designated as a Safety and Health Achievement Recognition Program (MNSHARP) construction worksite from the Minnesota Department of Labor and Industry. Mortenson, the general contractor, accepted the recognition along with several of the subcontractors on the jobsite.

Like every project, safety is a priority for Harris and the on-site team worked with Mortenson to develop and implement an effective safety program for the project. Key elements of the comprehensive program included: management leadership and employee involvement, an allocation of resources to address safety issues, systems that identify and control workplace hazards, and a plan for employee safety training and education. Harris staff members attended regular safety meetings and participated in all OSHA walk-throughs. Harris used their established safety program to enforce safe practices and safe behavior among its employees.



Flying the MNSHARP Flag at the TCF Gopher Stadium.

This is the third construction project to be recognized as a MNSHARP construction site that Harris has been involved with. The Minnesota Correctional Facility in Faribault (Adolfson & Peterson) and Xcel High Bridge (LG Constructors, Inc.) have also been recognized as MNSHARP construction sites.

MNSHARP recognizes companies whose managers and employees work together to develop safety and health programs that go beyond basic compliance with all applicable OSHA standards, and result in immediate and long-term prevention of job-related injuries and illnesses. ♡

## SECOND STORY

### Harris Mechanical - St. Paul, MN

**Children's Hospital (Minneapolis, MN)** - Harris Mechanical is currently designing and building a vertical expansion project that includes a new central plant, a new front entry and extensive renovations for Children's Hospital. The project consists of a 196,000 sq ft. expansion (Elliott Tower), a 63,000 sq ft. entry and 74,000 sq ft. of in-patient remodeling. Harris has worked extensively with Children's Hospital and Clinics over the years and has provided mechanical work on a previous vertical expansion and an operating room expansion. This project has just started and is expected to be complete in 2011.

### Harris Controls - St. Paul, MN

**Minneapolis/St. Paul International Airport (St. Paul, MN)** - Harris Controls has secured the first phase of a three year effort at the Minneapolis-St. Paul International Airport to convert and upgrade the facility building automation system to a Tridium NiagaraAX framework. The Honeywell WEBsAX control system utilizes the NiagaraAX framework as its backbone. This first phase will encompass nearly 60 main system controllers, making this the largest installation of the NiagaraAX system in Minnesota. **Concordia University (St. Paul, MN)** - Harris Controls will be upgrading the Honeywell EXCEL 5000 system at Concordia University with a Honeywell WEBsAX control system. This project will provide energy savings to the University while also providing a web-based building automation system to allow operators access from any PC on campus. Scott Rasmussen and Destry Reopelle are project managing and engineering this project.

### HiMEC - Rochester, MN

**Owatonna Hospital (Owatonna, MN)** - HiMEC was chosen to install the plumbing, heating and cooling piping, steam & condensate, snowmelt, ductwork, fuel oil system and medical gas piping systems for the new hospital and expanded clinic. HiMEC prefabricated plumbing wall assemblies, showers, hot & cold risers, mechanical room piping and hot & chilled water mains. This prefabrication allowed HiMEC to reduce field labor, and improved job safety and quality by moving the work to a controlled environment. Contract negotiations, equipment purchases and shop drawing approvals were expedited to allow HiMEC to keep up with the compressed schedule. This project is scheduled for completion in July.

### Harris Mechanical Southwest - Phoenix, AZ

**Health South Mesa Rehabilitation Hospital (Mesa, AZ)** - Harris Mechanical Southwest is providing mechanical, plumbing and HVAC services for a 40-bed inpatient rehabilitation hospital in Mesa, AZ. This new single story 51,900-square foot facility will offer comprehensive inpatient and outpatient programs. The facility will include all private rooms and a therapy gym. The project is scheduled for completion in July.

### Harris Mechanical Intermountain - Salt Lake City, UT

**Dugway Proving Grounds BIO/BSL & Chem Labs (Dugway, UT)** - Harris Mechanical Intermountain designed and installed the HVAC systems, electrical systems and plumbing systems in two of the buildings on DPG. The mechanical, plumbing, and electrical systems that were installed support four clean spaces being utilized as laboratories for chemical analysis of contaminants, as well as four, 400 sq ft. target rooms to be used for mock-ups for training purposes. Fabrication of a modular central plant with two boilers, two heating water pumps, two remote chilled water pumps, complete electrical for the central plant, as well as automatic temperature controls was done off-site. When fabrication was completed, the modular central plant was delivered to DPG, off-loaded by a crane and connected to the field installed heating water and chilled water piping. This project is just wrapping up and will be completed in the next month.

### TRAK International - St. Paul, MN & Kelowna, BC

**Eastside Elementary School (Casper, WY)** - TRAK International is providing mechanical design/assist services for this new 64,000 sq ft. Open-Concept elementary school. TRAK is currently in design development with the construction team and forty-eight, 400' deep boreholes will soon be drilled for the GeoExchange piping. The installation will include three, 60-ton heating and cooling and one, 30-ton domestic water ground source water-to-water heat pumps as well as solar panels, specialty HVAC equipment and facility wide energy management controls that will work in conjunction with the GeoExchange system and energy recovery devices. Harris Mechanical is the Mechanical Construction Manager on the project and completion is scheduled for late summer of 2010.



For information on our projects, go to [www.hmcc.com](http://www.hmcc.com).



## Did You Know...

**Harris Companies** has a new website. With our recent growth, we needed a new way to provide information on all our companies in a clear and concise format. We think we've accomplished that and are very excited about the new site. Check it out at [www.hmcc.com](http://www.hmcc.com)

Harris has added eight more LEED AP's to our staff. Congratulations to: **Don Ahlschlager** (St. Paul), **Bob Huey** (Superior), **Jim Cross** (St. Paul), **Ross Nelson** (St. Paul), **Ty Bestor** (HiMEC), **Dennis Smeed** (St. Paul), **Justin Knopps** (St. Paul), **George Dewey** (Utah).

**Greg Hosch**, Harris Companies CEO, was named one of the 40 Minnesotans on the Move by Finance and Commerce. The nomination was based on Minnesotans who are poised to make business history during the coming years.

The **St. Cloud MAC GeoExchange** project made the cover of the March edition of Phc News. Harris Mechanical and TRAK International designed and installed the GeoExchange system for the athletic complex. Check out the article at [www.phcnews.com](http://www.phcnews.com)

**Midwest Fabrication & Supply** has been awarded LEED Silver certification by the U.S. Green Building Council (USGBC). MFS is the first manufacturing facility in Minnesota to receive silver certification.



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Want to receive the electronic version of our newsletter, please send an e-mail to [tmathews@hmcc.com](mailto:tmathews@hmcc.com).

## EMPLOYEE SPOTLIGHT

### 2008 Jerry Dalton Award Winner

#### Ryan Gjestvang

Vice President - Engineering

It was a Monday morning just like any other, except that Ryan Gjestvang, Harris Companies Vice President of Engineering, knew he had to give the Monday Morning presentation. What he didn't know was that he was also about to receive the 2008 Jerry Dalton Award. Not a bad way to start a Monday.

The Jerry Dalton Award is an annual honor that goes to a Harris employee that has gone above and beyond in their field of work. "Ryan is extremely committed to delivering the highest possible quality for clients and his engineering skills are the best in the business," wrote Rawley Brodeen in his nomination for Ryan. Rawley, Vice President of Marketing, feels Ryan, "provides one of Harris' key strengths - high-quality engineering solutions - which sets Harris apart by giving Harris a competitive advantage. He deserves to be recognized for his honesty, integrity, loyalty and work ethic."

Ryan grew up in Devils Lake, ND and graduated from North Dakota State University with a BS in Mechanical Engineering. He worked in consulting engineering firms in ND, IA and MN before coming to Harris in 1997.

Ryan is busy with coordinating activities of the engineering department and participating in business development and formulation of project budgets. "It's a challenge balancing staffing requirements with multiple workloads and deadlines in my position," says Ryan, "but I like the interaction with the various staff members and outside clients that it brings." He also likes that Harris is a very diverse company with capable people that have the ability to successfully complete many different types of projects around the country and overseas.

Outside of work, Ryan enjoys boating, snowmobiling and spending time with his family. He and his wife Ronda, a school teacher, have four children (two boys and two girls) with the oldest being 26 and the youngest a sophomore in high school. ♡

