GRUNAUGRAM

Spring 2008

Over the last few months I have taken a keen interest in the evolution of the presidential campaign. While I am cynical about how much someone can really "get done" in Washington, I am fascinated by each candidate's unique style and message.

What I find particularly interesting is the discussion of the "unifying message" that is playing a prominent role in this year's political campaigns.

From a business standpoint, we should always think about the broader scope of our work, a cause larger than ourselves—one that adds value and helps others.

In this issue, you will read about our involvement with projects like the Harley Davidson Museum, the Milwaukee Jewish Home and Care Center, the Goodyear Airship Base, and the Humility of Mary hospital. Our work on these projects could be narrowly defined as piping, sheet metal, plumbing, and fire suppression. While this is certainly correct, it also is interesting to think about our work in larger terms; terms that go beyond what we do to include what we accomplish and who we impact.

When we expand our thinking we become part of something larger and more impactful; we contribute to an exceptional visitor experience around an American icon (Harley Davidson), make end-of-life experiences fulfilling for residents (Jewish Home), create an innovative environment to advance technology and safety (Goodyear), and create an environment that maximizes patient experience and successful outcomes (Humility of Mary).

Fundamentally, our responsibility is to advance the interests of our customers and employees. When we set the interests of others ahead of our own we end up in a more fulfilling environment that provides greater rewards. That theme is being echoed in the presidential campaign, and I think the candidate who articulates and lives it best will have a decided advantage.

Paul Grunau
President, Grunau Company

FIRE PROTECTION

GRUNAU UPGRADES FIRE PROTECTION SYSTEM AT GOODYEAR AIRSHIP BASE

When Goodyear's 90-year-old airship base hangar in Suffield, Ohio needed an updated fire protection system, Grunau flew in to the rescue.

Beginning in June 2007, Grunau began installing a modern fire protection system for the hangar, which houses the famous Goodyear blimps. The blimps are used primarily for displaying advertisements at major sporting events and for providing aerial coverage for television networks. Goodyear asked Grunau to install the new fire protection system as a cost-effective solution to replacing the entire existing hangar in the event of a major fire loss. Grunau's Kevin McLaughlin and Andrew Romanyak designed the new sprinkler systems for the newly renovated office and lobby areas. Jeff Nickel also was involved in design and sales.

Grunau designed the new fire alarm system in three phases:

Phase one involved installing fire protection equipment in the recently renovated office and reception areas. In order to install the system without detracting from Goodyear's workflow, Grunau worked with the company to relocate the reception and lobby areas during construction.

The second phase involved monitoring the hangar's existing fire pump systems, sprinkler systems, manual pull stations and smoke and heat detectors.

Bill Edwards and Nickel designed the new fire alarm system to merge modern fire protection technology with the existing blimp facilities. Due to budget constraints, this phase was split into two sub-phases. Grunau first installed equipment in the west half of the hangar, then completed the installation in the east half of the hangar.

The final phase of the system update, which will be completed later this year, is the addition of an audio alert system. To best meet Goodyear's fire protection and financial needs, Grunau recommended two options for this phase of the project. The first alternative would include installation of a standard fire alarm system, using conventional alarm horns and flashing lights through the facility to alert staff of a possible fire hazard.

At Goodyear's 80-year-old airship base, Grunau installed an updated sprinkler system to protect against fire hazards. Next, Grunau plans to install an audio alert system to meet Goodyear's fire protection needs.

The second option uses a voice paging notification where pre-recorded voice announcements are made over speakers. These messages could be used to provide specific instructions or additional information for fire or non-fire related events such as hazardous weather, chemical spills, medical emergencies or terrorist activities. In addition to the pre-recorded messages, live announcements also may be implemented in the event of an emergency.

Because of the flexibility of the second option, Goodyear expressed an interest in implementing it to provide an up-to-date, innovative and multi-faceted emergency system.

"It's exciting to be working with Goodyear to incorporate the new fire protection system," said Edwards, the design manager for the electrical component of the project. "Experiencing the old technology of the blimp working together with the new technologies is especially thrilling."

Grunau technicians worked within Goodyear's budget to implement the best, most cost-effective fire protection solutions to keep the iconic blimp airborne.

Grunau keeps the iconic Goodyear blimps safe and afloat thanks to the newly-installed hangar fire protection system.

FIRE PROTECTION

GRUNAU INSTALLS SPRINKLER SYSTEM IN HUMILITY OF MARY HOSPITAL

Grunau recently completed fire protection design and installation at the new 260,000 square foot, seven-story Humility of Mary hospital in Boardman, Ohio. Grunau worked closely with the engineer and construction manager, Boardman Construction Partners (BCP) to meet the schedule and to provide cost-saving recommendations on the system design.

"We were impressed by Grunau's field coordination with the other contractors," said Dave Pastir, project manager at BCP. "It was great working with them as they made coordination smooth and efficient."

As part of the fire protection system, Grunau installed a new 1000 GPM fire pump. The pump boosted water pressure to the volume needed to support the sprinkler system's hydraulic demand as determined by the hydraulic calculations.

In addition to the sprinkler system, the hospital required, per Ohio Building Code standards, seismic hangars and restraints for earthquakes, which was an uncommon system feature in that part of the country. Grunau took the lead in determining what equipment was required, scheduled onsite training for contractors from the hangar manufacturer and demonstrated expertise while installing the hangars and sway braces.

Grunau's dry fire protection system will help protect sensitive equipment in Humility of Mary hospital operating rooms.

Grunau installed the fire protection system for the newly-constructed Humility of Mary hospital.

To maintain workflow and avoid disruptions with other contractors on site, Grunau's project managers, Bill Nichols and Randy Rubesa, along with foreman Kevin Wilkinson, worked together to provide BCP with work schedules for specific areas. Grunau also provided the manpower as necessary to meet the aggressive schedule.

The individuals who were instrumental to this project were Jim Lowry and Jack Carney, branch managers; Andrew Romanyak, design manager; Tom Campbell, additional design support; Mike Eddy with Elite Sprinkler Design; and key members in the field, Dave Hassay, Andy Crogan and Adam Wilkinson. Administrative support was provided by Lisa Johns and Tracy DiPasqua.

Due to the sales team's (Nichols and Rubesa) cost-saving ideas, this was a very successful project from beginning to end. Thanks to proactive project planning and precise execution, Grunau easily managed the extensive scope of the project. Grunau added value to the project and differentiated itself from competitors by looking out for the owner's best interest, offering cost-saving initiatives and being a significant business resource.

FIRE PROTECTION

GRUNAU INSTALLS NEW FIRE PROTECTION SYSTEM FOR THE UNIVERSITY OF PITTSBURGH

Project wins "Lab of the Year Special Mention Award" from R&D Magazine

Last year, the University of Pittsburgh's newly-constructed, ten-story, 340,000 square foot biomedical science tower (BST3) won the "Lab of the Year Special Mention Award" from R&D magazine. The award was given, in part, for Grunau Company's installation of a comprehensive fire protection system in the BST3 building, which supports the University's increased demand for biomedical research.

As part of the award-winning design and to meet city and insurance fire protection requirements, Grunau utilized a wet pipe system throughout the facility. However, at the loading dock and the nuclear magnetic response lab, a dry pipe system was installed.

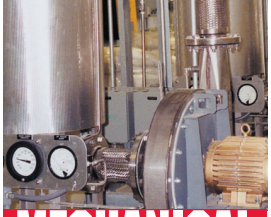
Grunau supplied the building with a low and high zone standpipe system, part of the wet system. This system is used on high-rise buildings, like BST3, to provide the required water pressures to support the sprinkler system. Grunau installed a standpipe riser for the low zone (lower floors) with lower pressure, and in the high zone with higher pressure to reach the upper floors.

Due to the height of the BST3 building Grunau also needed to install a new electric fire pump at 1000 GPM to boost the city water supply to reach the top of the building at the required pressure for fire department use.

Grunau's technicians installed the fire protection system for BST3, the new biomedical science building at the University of Pittsburgh.

The University of Pittsburgh was especially concerned about the second floor chemical storage room and the third floor server room. To prevent potentially damaging equipment and supplies in these areas, Grunau installed an FM-200 system, a gaseous system primarily used for computer rooms, and a pre-action system, a form of dry system that also uses smoke and/or heat detectors wired to a releasing panel. These two types of systems added an extra layer of protection in the event of a fire hazard.

The individuals who were important to this project were Randy Rubesa, branch manager, sales and project manager; Vinnie Viglione, design manager; Andrew Romanyak, design support; Norm Hall, superintendant; Harry Heinl, foreman; Local 542 journeyman, Greg Wehner and Henry Barron. Special Hazards support was provided by Jeff Nickel, Matt Parker and Mike Yuhas. Administrative support was provided by Stacey Gasior and Donna Slaney.



MECHANICAL

GRUNAU INSTALLS HVAC AND PLUMBING SYSTEMS FOR THE MILWAUKEE JEWISH HOME AND CARE CENTER

Grunau recently completed a two-year project installing HVAC and plumbing systems for the five-story Jewish Home and Care Center, a senior living residence in Milwaukee, Wis.

The Jewish Home's older HVAC and plumbing systems were showing their age and had become a costly preventative maintenance problem, so Grunau took on the challenge of upgrading them.

This project was especially challenging because of its location. The east side of the building faced the bluffs of Lake Michigan, rendering it virtually inaccessible by the crew. The building is attached to another structure within the Jewish Home on the south and to an underground parking structure on the west. The only part of the building that had easy access was the north side, which faced an alley. To allow Grunau and other contractors access to the unreachable parts of the building, the construction manager brought in a large crane to access the three unreachable sides of the building. Grunau coordinated crane usage in setting HVAC and plumbing equipment with other trade usage to provide the greatest value to the Jewish Home.

The existing pan construction was another challenge encountered by Grunau and the construction team as it limited Grunau in how the system could be installed.

▲ *At the Jewish Home and Care Center in Milwaukee, Grunau installed part of the HVAC system on the roof due to the obstructions around the building.*

Another challenge facing Grunau was the lack of space from floor to floor, which, at a height of nine foot, one inch, is uncommonly small for that type of structure. Because of the lack of space, it made horizontal piping and duct work installation virtually impossible. The new plumbing water system was designed with each resident unit directly above the next to accept a strictly vertical piping design. The HVAC system had a vertical fan coil system with 28 sets of risers.

To ensure that the flow of work and traffic continued as usual, residents and staff were relocated to a building in Mequon while the project was in session.

The Jewish Home enjoyed the many advantages of hiring Grunau, one being that Grunau had the ability to coordinate the design early in the project. Grunau also utilized AutoCAD, a computer-assisted design system to electronically communicate among design contractors. From this system, Grunau could work with the architect to adjust walls to get piping and duct to fit the building challenges.

Grunau took approximately four months of coordination and design before beginning and completed the work on time and within budget.

◀ *Grunau installed the HVAC and plumbing systems for the newly constructed Jewish Home and Care Center.*

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Grunau Staff and Clients Benefit from Electronic Documentation

Grunau employees in Milwaukee can now access electronic documentation for technical and service manuals. Over three months, Chuck Freidrichs, a service salesman for APi Facilities Management, converted 600 paper manuals, with more than 300,000 pages of documents to an electronic database of just 16 gigabytes.

Grunau is utilizing the new electronic documentation to save space and make it easier for employees and clients to access important information about maintaining mechanical, plumbing and fire protection equipment

As part of Grunau's LEAN initiatives, electronic documentation increases efficiency and produces less waste. Employees can now update and maintain information more easily than ever before. Field personnel also can access information remotely, allowing them to communicate better with clients and save time. They can cross reference maintenance and repair information from the electronic manual files. The next step is to make electronic documents for field personnel in the mechanical, plumbing and fire protection divisions so they can access drawings and have the owner manuals on site.

"Employees can now easily look up the information they need, instead of sifting through numerous manuals," said Chuck Neumeyer, vice president and service manager of Grunau. "They can call in and ask about a piece of equipment, and within minutes the information they need can be printed out and faxed."

Not only is electronic documentation a valuable resource for employees, it is beneficial for clients as well. For example, during construction a contractor or sub-contractor provides "product submittals" on each piece of equipment to the owner's representative, architect or engineer responsible for the design. These submittals outline important operation and maintenance information on the product.

Product submittals used to only contain 90 percent of the information the owner needs to identify and operate the equipment. The remaining 10 percent included information to maintain and service the equipment including replacement parts. Traditionally it took up to six months after project completion to get this final 10 percent of information into the hands of the owner. Thanks to electronic documentation, Grunau can provide the owner with 100 percent of this vital information through CDs and DVDs at the time the equipment is purchased, allowing the facilities personnel to quickly become familiar with the operation.

As a further benefit to clients, Grunau also has, through database features, tied As-Built drawings, O&M's, digital pictures, equipment data sheets and many other electronic documents together to further enhance the ease of access and the power of use. Imagine the power this provides to clients with large buildings, large campuses of buildings or even regionally separate buildings to manage.

"Electronic documentation is a real service to clients. Now, they know what spare parts they'll need, and how to check on them," said Freidrichs.

Based on feedback in Milwaukee, Grunau plans to implement electronic documentation at its other offices in the near future.

Contact Freidrichs at (414) 216-6897 with questions on electronic documentation capabilities.

METALS

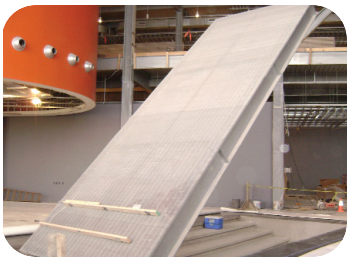
GRUNAU COMPANY REVS UP HARLEY-DAVIDSON MUSEUM

Harley-Davidson Motorcycle Company has never settled for being ordinary. That goes for the structure and atmosphere of its new Milwaukee museum, too, which is why Grunau Metals was selected as the metals contractor of choice for the project. The Grunau team has worked on unique structural and ornamental metals for each of the three buildings in the museum complex, slated to open in time for Harley's 105th anniversary.

In addition to ornamental handrails and egress staircases, Grunau detailed and fabricated metal supports for several motorcycle displays that guests will discover on their journey through the museum. The metals technicians also used a structural I-beam to form the museum's welcome desk. Outside the buildings, Grunau Metals was responsible for steel benches, planters and fencing that complement the look and feel of Harley-Davidson motorcycles.

Grunau's metals technicians fabricated and mounted the support steel on the interior of the Harley Davidson Museum in Milwaukee.

One of the main exterior features of the museum is a massive steel-plate wall made up of two 8'x40' panels. A team led by Grunau fabricated the wall, which is riddled with holes that future guests can fill with personalized rivets. A prototype of the wall also will travel around the country as a Harley-Davidson promotion.



At the Harley Davidson Museum, Grunau installed the metal décor that will be used alongside the exhibits.

In order to echo Harley's unique brand image, Grunau Metals used galvanized or exposed steel for all structural supports. To achieve a true galvanized look, the metals team relied on bolts, instead of welding, to secure the structural metals. Grunau worked closely with a metals technician to use a flame-spray process, originally developed by NASA, to complete galvanizing touch-up. The museum also used unique metal finishes like blackened steel to give it an industrial look.

While working on the museum's steel elements, Grunau Metals had to ensure the protection of Harley's specialized concrete floor. Because of the floor's polished finish, it was important that no damage be inflicted after the finishing process was completed. Grunau took extra precaution to install the steel without damaging the floor.

As a result of Grunau Metals' expertise, Harley Davidson is creating a museum that reflects the company's brand, products and attitude.

GRUNAU METALS
Customer focused. Built on values.

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