GRUNAU GRAM

EXCELLENCE SINCE 1920

Mechanical and Fire Protection Contractors and Engineers — Summer/Fall 2001

The President's Corner

by Paul Grunau

One of the key elements in our team's desire for excellence is a complete commitment to safety in the workplace. In particular, jobsite safety is paramount, not only to the health of our workforce, but also to our ability to deliver value to our customers and colleagues. We want our team members and our customers to be confident that our jobsites are safe, that we are proactive in accident prevention, and that we understand that putting safety first ultimately allows us to be more efficient in our work. The only way to instill this confidence is by producing results; and results in jobsite safety are measured by a company's Experience Modification Rate (EMR).

An EMR is essentially a measure of how well, or poorly, a particular company performs regarding safety in relation to all other companies. An EMR of 1.0 is average, ratings below 1.0 are better than average, and ratings above 1.0 are poorer than average.

We made a commitment many years ago to drive our EMR to as low a level as possible, with the ultimate goal being zero accidents. In order to pursue this objective we included a large number of individuals from all areas of the company to work as a Safety Committee. Their charge is to raise awareness, actively engage in safety training, aggressively review jobsites with our project leadership in an effort to correct any safety issues, and proactively follow up on incidents that do occur so that we learn from and prevent them in the future.

The efforts of our Safety Committee, as well as all of our team members, have significantly driven our EMR down; culminating in our year 2000 EMR of .68; a rate of which we are all very proud.

We take great pride in disclosing our EMR, not only to our customers and colleagues, but especially to all of our team members on jobsites. Their safety is a key element of our success, and we will continue to work diligently to eliminate all accidents, and deliver more and more value to our customers.

We recently held our annual Safety Awards Banquet to celebrate our commitment to safety, and our good results over the past year. Only individuals who have worked the past year without an accident are eligible to attend the banquet, and it was a wonderful event. The camaraderie and pride that everyone felt was invigorating, and ensure that we will remain totally committed to safety.

GRUNAU METALS

A Division of Grunau Company

Grunau Metals, a Division of Grunau Company, is led by an experienced team of highly knowledgeable professionals in miscellaneous metals design, fabrication and installation. Areas of expertise include, ornamental/hand railings; pre-engineered stairs; structural steel; equipment supports; platforms; catwalks; animal caging, including mesh walls and containment areas; canopies; and flag poles. On the major industrial side, we have capabilities in heavy gauge steel wind tunnels; wastewater treatment plant clarifiers; storage tanks; silos, etc. We are experienced in shearing, flame or plasma cutting; band sawing; angle shearing; hole punching; bending; rolling; welding; and shot or sand blasting; as well as prime and finish painting.

Two recent projects completed in downtown Milwaukee include the Ivory Tusk Building and the Wisconsin Probation and Parole Facility as summarized below:

Ivory Tusk Renovation

(former Marshall Field's Building)

Ivory Tusk is a 500,000 sq.ft., eight-story, former department store. Grunau Metals was hired to fabricate stairs, and structural steel. This project was fast-track, with construction beginning in January 2000, and completion in March 2001.

The renovation was completed in stages. Grunau Metals worked with J.H. Findorff to fabricate structural beams, columns, supports, stairs, railings, and support steel framing for rooftop units. This was a non-typical project in some areas such as the fabrication of the seven separate sets of stairs, railings, and supports. Each stair and railing system had to be custom fabricated due to the fact that all existing floor elevations varied greatly, not only vertically, but also across floors.

The Ivory Tusk building currently accommodates: ASQ (American Society of Quality); Marriott Residence Inn; Kahler Slater Architects, and the Greater Milwaukee Convention & Visitors Bureau. This project is yet another landmark in the revitalization of beautiful downtown Milwaukee. Our thanks to following individuals and companies:

Irgens Development Partners LLC, Developer, Tim Gasperetti, Vice President Construction Services; J.H. Findorff & Son, Inc., General Contractor, Mike Wolf, Project Manager, and Dennis Schwochert, Field Superintendent; Kahler Slater Architects, Inc., Jeff Neidorfler, Sr. Consultant; Great Lakes Contracting, Stair/Railing Installation, Bill Beson, President; and Grunau Metals, Mark Gall, Division Manager, Joel Matek and Brian Zweibel, Detailers, and Gary Lando, Shop Foreman.

Wisconsin Probation and Parole Facility

Standing at the corner of 10th and State Street in downtown Milwaukee, is the new nine-story holding facility for probation/parole violators, operated by the State of Wisconsin Department of Corrections, Division of Community Corrections.

Grunau Metals worked with J.H. Findorff to perform the detailing and fabrication of the miscellaneous metals work on both the base building and parking structure. Our work entailed perimeter railings and access stairs to cell areas, tube steel grilles at the entrance, and main stair from street level to second floor made of tube steel and anodized aluminum rails. Our parking structure work consisted of access stairs, bollards, security fencing at grade level, perimeter rails at upper levels, and various guard rails.

Teaming once again with J.H. Findorff, Grunau Metals has successfully made another mark in downtown Milwaukee. Our thanks to: J.H. Findorff & Son, Inc., General Contractor, John Cliffe, Senior Project Manager, Julie Wood, Project Manager, and Mike Langowski, Field Superintendent; Grunau Company, Mark Gall, Division Manager, Joel Matek, Detailer, and Gary Lando, Shop Foreman.

Anodized Aluminum Railing

Perimeter Railings & Access Stairs

MARQUETTE UNIVERSITY

Marquette University
Todd Wehr Chemistry Building

In summer 1999, Grunau Company was selected by Marquette University to complete a major renovation of the HVAC, lab exhaust, and plumbing systems at the Todd Wehr Chemistry Building. Grunau's primary goals included replacing the HVAC and plumbing lab systems for new fume hoods, laboratory casework, and tables. Marquette's objective in the renovation was to make the Chemistry teaching and research facilities state of the art.

Project construction was phased to accommodate class schedules, requiring the use of laboratory space during the fall and spring semesters. Interior finish work had to be completed during the summer months and during Christmas break.

The first phase of work involved the construction of the basic HVAC and plumbing infrastructure and the addition of multiple fume hoods on floors three and six. The infrastructure portion included new air-handling equipment, exhaust fans, associated roof level ductwork, penthouse enclosure, vertical distribution shafts, and new domestic water waste and lab gas mains and equipment.

The second phase of the work involved work on floors three through six, as well as installation of a new custom built air-handling unit and laboratory exhaust to be located over the existing penthouse. Grunau Metals fabricated and installed service platforms and ladders around this unit. As the existing building floor plan and floor-to-floor heights were limited, the new air distribution systems were installed in multiple shafts of the building exterior. Pre-cast concrete from existing shafts had to be removed for the installation of new air distribution systems, followed by new shaft enclosure construction.

Grunau's part in the HVAC renovation included installing new chilled water mains from the basement to the new penthouse air-handling unit. These lines were also reconnected to feed the existing air-handling units. A new hot water heat exchanger was installed along with hot water piping to provide building heating and reheat to VAV boxes and Phoenix exhaust valves.

The main air distribution from the new roof mounted air-handling unit to the existing eight exterior building shafts was routed across the existing roof to the vertical shafts. The ductwork was stacked vertically, insulated, and located at the existing penthouse wall to allow installation of a curtain wall to enclose duct.

One of the major challenges of the entire project was the coordination of all new plumbing, duct, and piping services to the new hoods. Upon receiving the hood equipment drawing and final engineering layouts, our coordinator, Rod Patzner, field measured the existing structure and services to remain to prepare the installation drawings for all trades. This service, provided on this job as on all of our mechanical installations, is crucial to success.

The temperature controls for the lab areas consisted of two different systems. The teaching labs, which are used based on classroom schedules, consisted of occupied/unoccupied switches, which allow hoods and make-up valves to operate in sequence only when the labs are in use. The research labs, which have experiments ongoing at all times, required an intricate DDC control system. Phoenix air valves and hood sash sensors allow the exhaust and make-up air systems to provide matching air flow between supply and exhaust.

The plumbing work followed a similar pattern to the HVAC work. New major water services were provided to each floor through new risers. The acid waste to the new lab hoods was reconnected where available to existing mains, or new lines were installed.

New vacuum, air and nitrogen system risers and pumps were provided for the new equipment, with future connections at each floor. Existing services were removed on each floor to allow installation of new branch mains to each floor. Our plumbing foreman, Don Czajka, worked very closely with the lab table and hood suppliers to field route domestic water, drain, and lab gas services to all hoods and lab tables within these cabinets before final installation.

Completion of work on this facility had to be done in such a fashion as to cause minimal disruption to occupied spaces and class schedules. Grunau Company was proud to be part of this exciting project, and especially to have the opportunity to partner with the following team members:

Marquette University, Owner
Tom Ganey, Assistant Director Facilities Services
Dr. Michael McKinney, Committee Chair
Vaughn Ausman, Committee Secretary

Jens Construction, General Contractor
Tom Krause, PE, Vice President
Leon Ruder, Foreman

Holabird & Root LLP, Architect
Ernest Wagner, AIA, Associate
Burcin Moehring, AIA, Project Architect

Affiliated Engineers, Inc., Engineer
Pat Coenen, Project Manager
Ron Kausch, Mechanical Engineer

Grunau Company
Ron Kwiatkowski, Vice President
Tom Gorak, Project Manager
Mark Gall, Metals Division Manager
Rod Patzner, MEP Coordinator
Don Czajka, Plumbing Foreman
Mark Berger, Sheet Metal Foreman
Alonzo Williams, Piping Foreman
Bob Niedzwiecki, Air Balancing
Dick Wirt, Commissioning Superintendent
Dale Poweleit, Controls Foreman
Ralph Przybylski, Electrical Foreman
Bob Antczak, Metals Foreman

Lab Hood Exhaust Stacks

Access Platforms

Custom Air Handling Unit

Overhead Mechanical Services for Lab Hoods & Tables

TIME WARNER CABLE

Time Warner Cable Headquarters

Time Warner Cable, Wisconsin's largest cable operator, recently relocated their corporate headquarters into a building, formerly known as the Commerce Street Power Plant. Up until 1987, this building was used by Wisconsin Electric Power Company, but had been vacant since.

In order for the building to be renovated, major structural remodeling had to be performed. The exterior was brick, and with a little tuckpointing and chemical cleaning was left intact. The roof on the east half was completely replaced, while the existing roof on the west half was covered by a new roof. The original interior was a five-story open structure with a few mezzanine floors, and some large concrete foundations where equipment once sat. In order to provide space for the new office building, foundations were removed and mezzanines demolished. A new steel skeleton was then erected inside the building by adding interior columns and fastening to the exterior brick walls.

Grunau Company assumed the role of design/build mechanical contractor. While the floors were being finished and prepared for construction, Grunau engineers were busy designing and coordinating each floor just prior to their completion, so we were ready for the plumbing, HVAC, and fire protection installations.

The HVAC system utilizes chilled water from the Schlitz Park central plant for cooling. We installed 10" underground chilled water supply and return piping from the central plant to the renovated office building approximately 1500 feet away. Once inside, chilled water is distributed to each floor, where it serves separate 60 ton air-handling units. Each air-handling unit is supplied with outside and exhaust air through a central shaft running vertically up through the roof. A 100 ton rooftop unit serves the fourth floor. Each floor consists of a VAV distribution system with zone reheat.

The HVAC system utilizes steam from WEPCO's distribution system for heating. This involved the installation of a steam pressure reducing station, heat exchanger, and pumps in the lower level to provide hot water throughout the building. The hot water is then distributed to each floor to serve perimeter baseboard radiation as well as zone reheat at each VAV box.

In addition to the main cooling and heating requirements, there are additional areas within the building that required special cooling systems to accommodate Time Warner's needs. We installed separate air-handling units for each space requiring cooling, served by a chilled glycol loop that runs to the roof, where 70 ton and 20 ton air-cooled chillers provide required glycol cooling.

The plumbing system utilized the existing water and sanitary utilities already present at the building. A new storm lateral was also installed to the building. The lower level is below the sanitary sewer coming into the building, so all plumbing on the lower level drains to sump pumps, which pump the effluent up and out into the sanitary sewer.

The main toilet rooms are located in the center of the building and stacked directly above each other on each floor; they consist of 40 water closets, 10 urinals, and 30 lavatories. Also located throughout the building are five break areas with sinks and coffee stations; two men's and women's locker rooms each with a toilet, lavatory and shower; and a serving kitchen/cafeteria consisting of a three-compartment sink with grease trap, and a one-compartment hand and mop sink, which are served by two above ceiling water heaters. The building has six freezeless hose bibbs serving the exterior; the three on the riverside had to be 30" long to be installed through the building exterior brick walls.

The fire protection system required the installation of 1700 sprinkler heads, and 18,700 feet of sprinkler pipe to adequately protect the building. All five floors are protected by wet pipe fire protection systems. Each floor has its own control valve, drain, and flow switch for isolation purposes. A 750 gpm fire pump was installed to supply both the standpipes and sprinkler systems. Sprinklers were installed above clouded ceilings to protect concealed space, and also in drop ceilings to protect floor space. A water curtain was installed to protect the 120'-0" vertical opening in the third floor.

The complexity of this project was driven by the fact that the building already had the exterior skin in place, which completely changed the sequencing of construction from a traditional project. The exterior skin also dictated how much room was available for floor to floor clearances, causing significant design and coordination challenges to allow enough room for all Time Warner requirements. Another challenge was the concept of keeping the aesthetics of the building in line with exposed brick and steel along with "clouded ceilings" instead of a continuous ceiling. Without the exterior drywall walls, boxed out columns, and concealed ceiling spaces, forethought and care had to be used to try and hide the necessary plumbing, heating, fire protection, and wiring required to operate the building.

Key team members involved in the transformation of the Commerce Street Power Plant into the Time Warner Cable Headquarters were:

Time Warner Cable, Owner
Bev Greenberg, VP of Comm. & Gov. Relations
Randy Cicatello, VP of Engineering
Don Trivison, Fleet & Facilities Manager

Grunau Project Development, Construction Manager
Shawn McKibben, Project Manager
Keith McNamee, Asst. Project Manager
Brad Beyer, Project Superintendent
Carol Jones, Project Superintendent

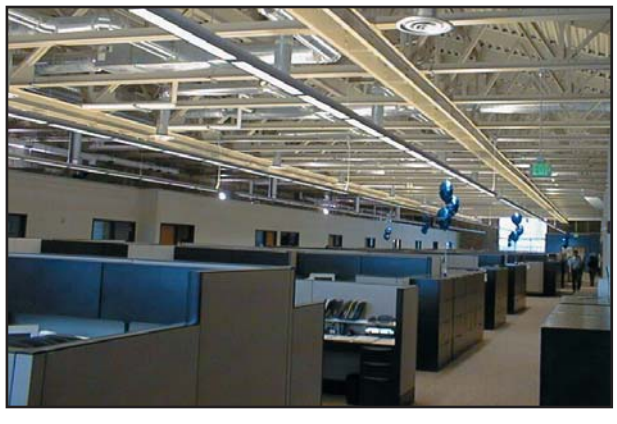
Eppstein-Uhen Architects
Tom Stacey, Sr. Project Manager
Glenn Roby, Project Assistant

Uihlein Electric, Design/Build Electrical Engineer
Paul Acker, Project Manager
Bob Jarchow, Project Engineer

Grunau Company
Larry Loomis, Project Manager
Eric Radke, Fire Protection Project Manager
Tom Owen, Electrical Project Manager
Ken Dottai, HVAC Designer
Howie Laumer, Plumbing Designer
Aaron Block, Plumbing Designer
Dave Garces, Fire Protection Designer
David Bartoshevich, Project Engineer
Rod Patzner, Sheet Metal/Detailer
Tom Greiner, Sheet Metal Superintendent
Mike Reynders, Piping Superintendent
George Bachman, Plumbing Superintendent
Dennis Laney, Excavation Superintendent
Brad Shepherd, Electrical Superintendent
Mike Sommers, Sheet Metal Foreman
Randy Duemke, Piping Foreman
Jerry Beiter, Piping Foreman
Dave Brown, Plumbing Foreman
Paul Sperbeck, Plumbing Foreman
Tim Sadowske, Excavation Foreman
Brent Trickel, Electrical Foreman
LaShawn Walsh, Electrical Foreman
Greg Herzog, Fire Protection Foreman

Custom Air Handling Unit & Chillers

Steam Service Room



Office Area

EMPLOYEE SERVICE AWARDS PRESENTED

At the annual Grunau Company Family Picnic service awards are presented each year to recognize individuals for their continuous service to the Grunau TEAM and our customers. Congratulations!

10 YEAR

(l to r) Neal Wallace, Steve Garbarek, Alan Brinkman, Jr., Mario Angiolo, Gerry Leischer, Jon Shorougian, Jim Cefalu with Gary and Paul Grunau. Not pictured: (Milwaukee) Bob Antczak, Chuck Ashley, Gary Grosskreuz, Tom Lamere, Don Legler, Jr., Dean Reichert, Kurt Reynolds, Tom Switalski, (Orlando) Brian Horn, (Pittsburgh) Harry Heinl.

25 YEAR

(l to r) Rod Patzner, Dolly Gerschke, Dick Wirt, Ron Kwiatkowski with Gary and Paul Grunau. Not pictured Ken Baas, Jim Edlhuber, Art Sukowatey.

15 YEAR

(l to r) Rick Lando, Doug Ronkoski, Mike Rotar, Kurt Fies with Gary, Paul and Gus Grunau. Not pictured: (Milwaukee) Lee Osten, (Pittsburgh) Jim Flook.

35 YEAR

(l to r) John Bobinski, Tom Carroll, Tom Boschke with Gary and Paul Grunau.

20 YEAR

(l to r) Bob Schorrak with Gary and Paul Grunau. Not pictured (Orlando) Mark Peters.

30 YEAR

(l to r) Randy Kusch with Gary and Paul Grunau.

40 YEAR

(l to r) Gary Grunau with Paul Grunau.

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PUBLISHED BY:
Grunau Company, Inc.
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Oak Creek, WI 53154

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