

President's Column

As the world strives to be more earth-friendly, Grunau is keeping pace with many projects that fall in the sustainability realm. In this GrunauGram edition, our electrical dept is showcasing their capabilities beyond temperature controls to the wide-world of solar photovoltaic systems, wind turbines, and energy-efficient lighting. Grunau has even partnered with ME² to help Milwaukee businesses recoup some of their energy-saving project costs.

We are always proud of our long-time employees and their loyalty to both the Grunau Company and our customers. This summer we celebrated those who have been with us from 10 years all the way to the great accomplishment of 35 years. You may recognize some of the faces in the awards photos on page 2.

You'll also notice we've updated the look of our newsletter in conjunction with a new style in some of our other marketing material. If you haven't visited our website lately, we encourage you to view the updated version at www.grunau.com. We feature a BIM fly-through video so you can see how that technology works if you haven't experienced it yet. We also produced a couple videos expounding upon our Lean Construction culture and events. We have our own Grunau YouTube channel now too with several videos you may find of interest highlighting various projects and trades, with more to come in the future. Check it out at: www.youtube.com/GrunauCompany

Though we've updated our look and are using some newer technology features, we haven't changed our commitment to providing the best value to our customers with trade-specific expertise, creative solutions, and courteous professionalism in all our transactions. We are still dedicated to being your benchmark of excellence, ever since 1920.



Lawrence E. Loomis
President, Grunau Company

As the Wind Blows

Electrical

Werner Electric Supply teamed up with Renewegy and Grunau Company for a wind turbine to help power their Madison headquarters. Werner wanted to display its passion for green, renewable energy and since they are a wholesaler that sells wind turbines as part of their electrical stock, they wanted to "practice what they preach".

Grunau was proud and enthusiastic to be a part of this, our first, wind turbine project, and with our various trade capabilities, could provide a whole package deal. Grunau provided all

the turbine base. The concrete was then allowed to cure for one month.

After Renewegy manufactured the wind turbine & pre-trained Grunau's installation crew, Grunau trucked the various components of the 100-foot tower, turbine head and the "rise kit" from Renewegy's Oshkosh plant to Madison. The "rise kit" consisted of all the hand tools, straps, hauling equipment, both of the hydraulic ram systems, and other miscellaneous parts and pieces required for the complete assembly and erection of the turbine. For Grunau's electrical team, the process of putting the turbine together and the final tip-up was, figuratively, a breeze.



◀ Grunau Electrical Team installing and finalizing the electric control system at base of wind turbine



Attaching 1 of the 3 large turbine blades

the electrical work, assembly and installation of the turbine and concrete foundation, plus the associated trenching for site utilities which included removing several large boulders.

The crew's first step was to relocate a parking lot light pole that interfered with the median space for the new wind turbine. The next step was the excavation and pouring of the foundation by Grunau's underground utilities team. This process included rebar support and placing the embedded ring, bolts and nuts exactly where they needed to be within the concrete to hold



Erecting the assembled wind turbine and tower

"The Werner wind turbine project was an exciting and unique project. Grunau was able to provide installation for all facets of the job: the excavation, the foundation, the electrical, and the assembly of the tower and turbine. This is another sustainable product installation Grunau now offers to help reduce energy consumption and carbon emissions."

~ Kyle Falvey, Grunau Project Manager

Reaching for the ENERGY STAR

Sustainability

With a passion for green energy and to learn what customers may go through for certification, Grunau took the initiative to turn its own headquarters into a certified ENERGY STAR building. ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Dept of Energy to promote energy efficient products and practices. To pursue the



Grunau electrician installing energy-saving lights in office lobby

ENERGY STAR, commercial buildings track their energy usage for comparison. The ENERGY STAR is achieved if the facility performs better than at least 75% of similar buildings nationwide.

Grunau's goal was to reduce enough energy to meet the minimum level for ENERGY STAR building certification. Being a fully functioning office building which houses over 70 employees, there is a high-demand of electricity for lighting, electronic equipment, lunchroom appliances, and running the HVAC and other mechanical systems. Grunau's Sustainability Committee identified and implemented a variety of energy saving measures.

Solar photovoltaic panels were installed on the roof by Grunau's electricians to generate sustainable, green energy. Lighting was replaced with high-efficiency lamps and fixtures, while occupancy sensors were used to regulate lighting in various rooms. Operating

hours of the HVAC equipment was reduced with digital controls to diminish waste when the building is not fully occupied.

In addition to installing quality systems to reduce power, Grunau briefed all employees to increase consciousness of their own energy consumption at their computers, workstations and public office spaces. Cooperation of all employees and a commitment to this project by Grunau's leadership were both required to meet the goal.

Grunau's headquarters' energy performance is monitored and has steadily improved over the past 18 months. Displaying its own devotion to sustainable living, Grunau is proud to display its ENERGY STAR label on its headquarters' doors.



Celebrating Employee Longevity

These photos equate to 350 combined years of experience with employees who celebrated anniversaries in 2012. Their loyalty to Grunau Company and our customers was recognized during the Company's summer picnic at the Milwaukee County Zoo and smaller gatherings in branch offices.



At Grunau's Orlando fire protection branch: Mark Peters (FL Mgr), Leisa Hale (15 yrs), G. Steve Trammel (15 yrs), Casey Harjo (10 yrs)

Front: Rob LaChappelle (15 yrs), Don Czajka (20 yrs), Drew Romanyak (15 yrs).
2nd Row: Earl Moder (35 yrs), Matt Eberhardy (15 yrs), Cary Hamman (10 yrs), Ted Angelo (35 yrs), Doug Mikolainis (10 yrs).
Back: Curt Pronschinske (15 yrs), Mike Lagerman (35 yrs), Dave Klumb (10 yrs), Kyle Falvey (10 yrs), Bob Stich (25 yrs), Mark Berger (25 yrs), Larry Loomis

Larry Loomis presenting a 15-yr anniversary award to Drew Romanyak, from our Pittsburgh fire protection branch, who joined the group at the Company picnic in Milwaukee, WI



At our Indianapolis fire protection branch, Paul Davis receives his 35-year anniversary gift

Recognizing another 375 combined years for those not pictured:

From FL: Norman Mizell (10 yrs), Mark Johnson (15 yrs); **From OH:** Bill Edwards (10 yrs), Jim Alberti (15 yrs); **From IN:** Kenny McKean (15 yrs); **From PA:** Greg Wehner (10 yrs); **From WI:** 10 yrs: Andrew Anderson, Rich Deml, Josh Grube, Bob Tazalla, Mike Zieman; 15 yrs: Dan Aranda, Ron Berger, Gary Bremer, Tim Kuhl, Steve Redell, Carmen Vazquez; 20 yrs: Randy Duemke, Jeff Hintze, Paul Lentz, Ralph Przybylski; 25 yrs: Sam Mack, Greg Urlakis; 30 yrs: Tim Sadowske. **Congratulations to all!**

Lighting the Way at GMIA

With an existing contract in place for Milwaukee County at a different county complex, Mitchell Airport's Engineering Dept approached Grunau's electrical manager about providing a quotation to install owner-provided lights. The airport wanted to save money and achieve a more aesthetically pleasing look by replacing interior and exterior light fixtures with contemporary, energy efficient systems throughout the facility.



Exterior lights at entrance

The majority of the work was done in the visibly high-traffic ticketing area and under the parking canopy. The project was divided into five jobs: bulkhead lighting, 1x4 recessed fixtures, wall-mount lights, indoor LED's, and outdoor LED's. General Mitchell International Airport (GMIA) purchased their own energy saving fluorescent and LED light fixtures to further save money.



Grunau-installed energy-efficient lights span the airport ticketing area

Beyond temperature controls that Grunau's electrical team is most known for, this project demonstrated its capabilities in all types of electrical work. In total, 450 linear feet plus 38 fixtures of high-output fluorescent lighting was installed, 84 incandescent can lights were switched to LED's, and 120 outdoor metal halide lights were replaced with LED fixtures. Existing electrical boxes and conduit around the new lights were also brought up to code.

With the vast number of updated lamps and fixtures, the airport increased luminosity (brightness) while decreasing energy usage.

Electrical

Completing the project on time and under budget, GMIA engineers valued Grunau's respect towards the various airport staff, as well as its expertise and attention to detail on this project.

"Thanks for the good work. I have been getting all positive feedback."

~ Mary Turner, EE PE, Mitchell Airport

Snapshot

Potawatomi Casino Spades

Contract Amount: \$3,000

Details: When Potawatomi Bingo Casino's groundbreaking for their new hotel came up in conversation with Grunau Metals, they inquired if we could help solve a problem for them. Potawatomi's Public Relations Dept had an idea for custom-designed shovels unique to the Casino but needed help to make the idea a reality. Grunau had the right skills and know-how, and set to work. The customer was thrilled with the results. Pictured below are the architectural partners with the shovels. Two sets of shovels were produced and will become a permanent reminder of our partnership and the special day.



Grunau is involved with a wide variety of projects both large and small, on any given day. This "Snapshot" shows an example of a smaller job.

ME² Works for You

Sustainability

If your business or home is in the city of Milwaukee, you qualify for the ME² financial incentives sponsored by the City of Milwaukee Office of Environmental Sustainability, the US Dept of Energy, and Focus on Energy.

Grunau Company is now licensed as an ME² (Milwaukee Energy Efficiency) partner. Our experienced technicians can install energy-savings systems such as solar photovoltaic, upgraded heating and cooling equipment, geothermal, wind turbines, energy-efficient

lighting, VFD (variable frequency drive to power-down motor speed/energy), and more efficient refrigeration systems.

This government-funded program will decrease your budget and lessen the payback time for projects you may be considering to save energy. ME² is currently funded through the end of 2013, so contact us now to find out how we can help you be more green for less greenbacks.

No Trembles with Trimble

When working on the Mukwonago YMCA, Grunau used some newer laser technology to lay out and install fire protection and plumbing hangers in a safer and more efficient manner. Because this new construction job was coordinated using BIM (Building Information Modeling), the information needed was already in the drawings. Grunau uploaded that data into a laser device once the general contractor (GC) laid out some control/work points which are the base points in the building that all trades measure from.



Hangers holding pipe on ceiling

When laying out items such as a 3" dia. core hole, or a sleeve in a 3½" thick wall, you would not want to measure off of components like columns since they are hardly ever perfectly plumb (exactly vertical). The laser device uses the work points to triangulate with its current position and determine the exact orientation of the building.

The YMCA's pool area was a particular challenge since there was not a solid floor to measure from and the roof is sloped. Therefore, Grunau used DR layout which is a reflector-less distance measurement. There are lower-tech measuring devices that have been used throughout construction history, but the DR technology is a one-person operation with no need for a prism to measure difficult or dangerous-to-reach places.

The Trimble laser machine shoots a light to the deck, wall, or floor. Grunau set the laser on the roof of the pool and inputted hanger elevations, as well as control points from the GC. The laser located the vertical axis of every plumbing hanger on the roof above the pool. The amazing part is that because the laser is locating vertical axis, it ignores the slope

Mechanical



Trimble laser machine

of the roof. The laser provided the desired hanger locations and an elevation of the bottom of the rod (where Grunau pre-placed smart tags). Because Grunau had the laser device pointing downward, it told technicians how far down to go to achieve the desired elevation. This number was the cut length of the rod for each hanger. The field worker then recorded this number at each location, cut the rods, drilled the roof deck, and inserted the rod with a nut and washer in each hole. This process expedited the hanger install time by 25%, proving once again that Grunau can provide more value to its customers.

www.grunau.com

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Technical Contributors

President's Corner - *Larry Loomis, President*
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Lighting the Way at GMIA - *Kyle Falvey, Electrical Manager*
Potawatomi Casino Spades - *Dave Douglas, Metals Project Manager*
No Trembles with Trimble - *Dave Brown, CAD Coordinator*

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