

# PLAINS TALK

A Publication of West Plains Engineering, Inc.

## Sioux Falls WPE: Girls, Inc. of Sioux City, IA

- Girls Inc. of Sioux City *"Inspiring all girls to be strong, smart and bold."*

Girls Incorporated of Sioux City was housed in a small facility unable to accommodate the full scale of national programs available. With the help of M+ Architects, the vision of a state of the art facility became a reality. The facility consists of a kitchen, cafeteria, classrooms, library, gymnasium, weight room and offices.

Girl's Incorporated is a nonprofit organization that has inspired young women since 1864. The facility is a place for young women ages 6-18 to challenge themselves in physical, intellectual and emotional challenges. There are several programs offered such as math, science, pregnancy and drug abuse prevention, economic literacy, violence prevention and sports participation. The handicap accessible facility, full-sized gymnasium and concession stand, locker rooms and weight room lend itself not only to the young women, but also to the entire community. The gym has been utilized by the NAIA volleyball team, by Mercy Hospital Child Advocacy Fund Raising Carnival and as a voting station. The annual benefit auctions are also held at the facility each year.

The facility was designed to be a fun and safe learning environment. There are security features throughout the facility to ensure the safety of all personnel. Some of these features include all block walls, secu-

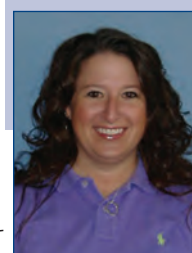


*Girls, Inc. gymnasium being utilized by youth in the community.*

rity cameras and lockable doors. To make certain learning and fun would continue for years, the mechanical system was designed with comfort in mind along with a good indoor air quality.

The facility is furnished with an addressable fire alarm system, a security system, public address system for paging, television system, gymnasium sound system and a communication system. There is energy efficient lighting, colorful pendant lighting in the Multipurpose room and Lobby, decorative wall sconces in the corridors, high bay lighting in the gymnasium, and emergency lighting throughout the building. Dyson electric hand dryers were installed in the locker rooms and toilet rooms. And the entire building is powered by a new 480 volt, 3 phase electric service.

The rest of the team included Faulk Brothers for plumbing, Interstate Mechanical for HVAC, Lewis Electric and Klinger Brothers was the General Contractor.



About the Author:  
**Sara Horner** is an Electrical Designer in the Sioux Falls Office.



About the Author:  
**Jeremy Goodroad** is a Mechanical Designer in the Sioux Falls Office.

# 2011 Design Conference at Cedar Shore Resort, Chamberlain, SD

• The 2011 Design Conference was held at Cedar Shores in Chamberlain, SD on the beautiful Missouri River. The Design Conference gives employees of West Plains Engineering a chance to gather together and share unique projects they have worked on over the last year, to work together strengthening team building skills, and of course a little time to catch up and see how everyone has spent the last year traveling, fishing or even playing on their softball team.

This year the annual West Plains Design Conference was held September 13th and 14th and included employees from the West Plains Engineering's four offices. Over the two days of the Design Conference, each of the four offices presented projects they worked on over the last year that were unique and what they had learned from the project. During the presentations, the content of the information shared will assist employees in staying ahead of the curve in producing continued quality work.

Malcolm Chapman with Chapman group also spoke at the Design Conference. He spoke to the employees about the "The Challenge of Change & the Five Powers," which teaches people to take risks and make decisions, use teamwork and imagination, and how to adapt to change.

The Design Conference wasn't just all presentations and speakers. There were also projects designed to help



Staff enjoy break time during the 2011 Design Conference.



Kevin Groves provides a Utilities Division update.



Team "Rat Mobile" were our top champions in the mousetrap powered vehicle contest!

employees improve on team building skills while having fun doing it. This year's challenge was to build a vehicle powered completely by a mousetrap. At supper the night before the Design Conference, teams were given a sealed box containing an

assortment of common objects including, duct tape, rope, string, balsa wood and dowels. The teams then had to assemble their vehicle for the race the last day of the conference. There was a wide range of designs for each team vehicle and a lot of fun was had while creating their cars.

The winners of the prettiest mousetrap powered vehicle was Team "WPE Wacer" constructed by Bonnie Berg & David Dowling from Rapid City, Sara Horner from Sioux Falls, and Kurtis Sweat from Casper. The overall champions of the race was Team "Rat Mobile" which included team members Dave Riemenschneider from Rapid City, Mark Grebner & Aaron Kompelien from Sioux Falls and Justin Cooper from Cedar Rapids.

Overall there was a lot of good information shared between at the Design Conference amongst the employees and now we are ready for another great year of projects.

About the Author:

**Isaac Anderson** is a Mechanical Designer in the Sioux Falls Office.



## Video Conferencing at West Plains Engineering

• West Plains Engineering, Inc. recently acquired video conferencing in all offices. Duane Evert from the Rapid City office provided installation and training of video conferencing at each office, demonstrating how to use the new system.

The video conferencing capabilities allow us to have the ability to visit other offices and clients without leaving our own offices. We can and have used "Go to Meeting" and "Skype." Having the ability to see our clients and visit with them through video conference is a great benefit for our clients as well as West Plains

Engineering.

Video conferencing has been a great advantage to the Cedar Rapids office. With Todd Baack recently transferring from the Cedar Rapids office to the Sioux Falls office, the video conferencing makes it feel like he is still in the Cedar Rapids office.

About the Author:

**Blake Pauls** is a CAD Technician in the Cedar Rapids Office.



# What's New at WPE

After 27 years of service to West Plains Engineering, David L. Berg, P.E. retired from West Plains Engineering at the end of June 2011. Dave was an original founder of the corporation back in January of 1984 serving as President of the corporation until his retirement.

Following his retirement, the Board of Directors is pleased to announce the following Board changes:

- Robert W. Thompson, P.E., another original founder of the corporation has been named the new President of West Plains Engineering.
- Mark G. Grebner, P.E. and Marten H. Christensen, P.E. have been named Vice Presidents of the Board and Douglas R. Feterl, P.E. has been named Secretary/Treasurer.

We are also pleased to announce the following promotions and management changes within the corporation:

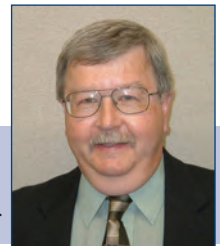
- Mark Grebner, former Office Manager in Sioux Falls, has been named the Building Services Division Manager. Mark will be responsible for overall operations of the four West Plains Engineering offices located in Rapid City, SD; Sioux Falls, SD; Casper, WY; and Cedar Rapids, IA.
- Doug Feterl, former Office Manager in Rapid City, has been named the Business Development Manager. Doug will

be responsible for overall business development efforts throughout the corporation.

- Marty Christensen has been named the Office Manager of the Sioux Falls office. Marty is the former Mechanical Engineering Department Head in Sioux Falls.
- Michael Sigman has been named the Office Manager of the Rapid City office. Mike is a former manager of the Casper, WY office.

The above individuals join the other managers; Jeffrey Reinhart in Cedar Rapids, Jeffrey Eidsness in Casper, and Kevin Groves in the Utility Division as the core management team for West Plains Engineering.

These team members are committed to continuing West Plains Engineering's excellence in providing mechanical and electrical engineering services to all our customers throughout our service territory. Please congratulate them the next time you see them.



About the Author:

**Bob Thompson** is a Founder and President of West Plains Engineering.

## WPE COMPANY NEWS ★ WPE COMPANY NEWS ★ WPE COMPANY NEWS



Congratulations...**Bonnie Berg** who was recognized for 27 years with West Plains Engineering.



Congratulations...**Debbie Robertson** who was recognized for 15 years with West Plains Engineering.



Congratulations...**Darrin Tille** who was recognized for 5 years with West Plains Engineering.



Congratulations...**Doug Feterl** who was recognized for 20 years with West Plains Engineering.



Congratulations...**Daren Beckloff** who was recognized for 5 years with West Plains Engineering.



Congratulations...**Russ Allen** who was recognized for 5 years with West Plains Engineering.

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## Rapid City WPE: Historic Swander Building Receives LEED® Silver Certification

• The historic Swander Grocery building downtown Rapid City was once the home of the Swander Grocery business. From the early 1900's to today, the Rapid City downtown area provides vital services for residences of Rapid City.

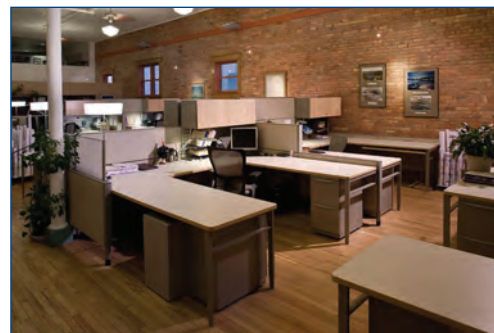
The building has housed several businesses and tenants and eventually became vacant, fell into disrepair and was slated for demolition. Fred Thurston, the current owner of the building, was contacted to assess if any feasible repairs could be made to save the building.

Fred decided to purchase and rehabilitate it rather than creating a vacant lot. The building is on 7th Street between Main and St. Joseph in Rapid City. As Fred merged his business, Architecture by Thurston, with Alliance of Architects into Envision Design and subsequently into FourFront Design, Inc., the owners needed a place for their larger group of employees. West Plains Engineering became a design partner as the Owner wanted to remodel the entire facility and pursue LEED certification. The building is registered as a historic building which presented some challenges for LEED certification. The State Historic Preservation Office (SHPO) ruled that the original portion of the exposed brick wall must remain uninsulated (historic) and some windows must remain with the storm window upgrades only. These requirements conflict with ASHRAE energy efficiency standards. ASHRAE sets standards for modern insulating values in building exteriors (envelope). These insulating systems walls, roofs and windows are an integral part of better performing buildings and energy reduction.

The Swander Restoration project was initially designed using the recommendations of the Advanced Energy Design Guide for Small Office Buildings published by ASHRAE. The building is approximately 18,800 square feet in size which allows for streamlined process for obtaining some Energy and Atmosphere (EA) LEED Credits. The process is a prescriptive method without full



*The newly remodeled interior space.*



energy modeling.

The SHPO requirement for existing conditions conflicted with the LEED requirement to comply with ASHRAE 90.1. An official interpretation by the USGBC was the only way to set a path for resolution. Full energy modeling would be needed to prove the overall upgrades to the envelope would offset the uninsulated portions. The design team took on the task of exceeding the ASHRAE 90.1 standard in numerous places to create an overall building envelope that would perform better.

This energy modeling performed by West Plains Engineering demonstrated a calculated improvement of 28.9% above ASHRAE Standard 90.1 on a cost basis and 35.1% percent improvement on energy usage.

The total savings is a combination of envelope improvements, energy efficient equipment as well as lighting design and control. Other sustainable features include water saving plumbing fixtures, waterless urinals.

The possibility of obtaining LEED certification using high efficiency furnaces for heating and cooling was evident when the energy model was completed. Many regional based materials and recycled materials type credits were obtained through diligent work by the architectural team and the general contractor, MAC Construction. The building still has the historic pressed tin ceilings and many of the original features that provide a unique and modern office environment for a design firm.

*About the Author:*

**Doug Feterl** is the Principal and Business Development Manager in the Rapid City Office

