We would like to thank everyone who contributed articles, photos, and elements of this newsletter. Your contributions are appreciated and are imperative to the future of Facilities Connection.

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Cover Photo:
The University was closed for two days in January 2014 and moved a lot of snow. Most of the Landscape Services team pose at a large mound of snow at the West Michigan Avenue turn-around by Sangren Hall.
Welcome back to a new year and the start of the Spring academic semester. It certainly does not feel like Spring. In fact, at the publication time for this newsletter, we received 60.4” of snow, which is more than last year’s total.

This will be the last edition of the traditional Facilities Connection newsletter. The Facilities Management Department will transition to more frequent news pieces offered through our website. This change came out of our WEcare (Western Employees Care) program. Customer service, communication, quality improvement, metrics, and facilities best-in-class are the principals of this FM program. You will see threads of the WEcare program throughout this newsletter.

The FM professionals in our Department continue to focus on our 2014 goals. If you have not seen them, they are published at: http://www.fm.wmich.edu/administration. Our team is also proud of many recent accomplishments. The Robert M. Beam Power Plant reached a significant milestone of generating one billion kilowatt hours of electricity. This state-of-the-art plant is truly best-in-class and a model for others in the United States. Our Planning Division is bringing the campus and community together with the East Hall Alumni Center plans. The Construction and Projects Division completed several renovations and capital projects and will soon start the Residence Halls and East Hall projects. The Engineering Division is completing a comprehensive assessment and condition analysis of our extensive utility distribution system and has several projects to keep the district utilities reliable. All of our operating units make up most of the employees in FM. Landscape Services has excellent plans to remove snow during the winter months. In fact, they recently presented their best practices to other universities in the midwest. Building Custodial and Support Services continues to make changes that improve service and efficiencies. Maintenance Services and the FM Service Center have improved customer service and communication with campus stakeholders. Look for their new Customer Service Guide. Transportation Services and the Power Plant work quietly behind the scene and do an excellent job of keeping operations stable.

The entire FM team is focused on the goals of the University as well as the Office of Business and Finance. We take our facility stewardship role very seriously, and we care about the people and physical assets on our campus. We measure our key performance indicators and strive to improve every year. Our customer service focus should keep us in the best-in-class category. Our campus community and tax payers deserve no less.
It took over 16 years to get to this point, but Halloween was special this past year, not for tricks, but for a “treat.”

At about nine o’clock on Halloween, it was estimated that the Robert M. Beam Power Plant generated its one-billionth kilowatt hour since WMU took over ownership and operation of the Power Plant from its former owners, the Kalamazoo Psychiatric Hospital, in 1994.

At the time the Power Plant transferred to Western, it was a 100 percent coal-fired facility with 40 to 50 year-old boilers that had become unreliable and environmentally non-compliant. The first order of business for Western was to restore safety, reliability, environmental compliance and efficiency. Western proceeded to invest over $20 million at the time to install all new electric switchgear, a new, safer (no acid or caustic) water treatment system with full makeup capability, an 800 kilowatt gas-fired engine generator for peak shaving and emergency black start capabilities, a 900 kilowatt steam turbine electric generator for efficiency and, most significantly, a co-generation system consisting of two new 5,000 kilowatt gas combustion turbines with heat recovery steam generators. These became the primary steam dispatch units to campus when they first came on line over 16 years ago in August 1997. It was basically at that point that Western became exclusively a natural gas-fired plant and compliant with all regulated emission requirements. The old coal boilers that had powered the facility since the 1920’s were shortly retired along with their environmental liabilities.

The total electrical output from operation of the two gas turbines beginning in August 1997 together with the smaller capacity engine generator and steam turbine that came on line a little over a year later in October 1998 finally reached this historic milestone of one billion kilowatt hours after over 16 years of operation. Put into perspective, this represents over 80 percent of the total overall electrical use of all the end users (Western and KPH) during this time frame. The operation of the gas turbines allowed the University to significantly reduce the amount of more expensively priced electricity it has to import from Consumers Energy, resulting in millions of dollars worth of savings.

Also, and perhaps more importantly, not only were these turbines used to generate electricity, they were also used to co-generate steam for heating and cooling the many buildings on campus. These particular gas turbines are literally “jet engines” that generate a lot of heat in the process of combustion to initially produce electricity. For example, the jet streams you see looking at up in the sky are the same hot exhaust gases condensing in the cold upper atmosphere. Here in the Power Plant, the 1,000 degree Fahrenheit exhaust gas from these turbines is captured and routed through a heat recovery steam generator (i.e., boiler) to essentially boil water and recover as much energy as possible contained in this hot exhaust gas. Each turbine has the capacity to generate 25,000 pounds per hour of “free” steam just from this hot exhaust gas. The term “free” steam is used to differentiate this steam as no additional fuel was used to generate it. To generate this same amount of steam through a conventional boiler would require some 30,000 cubic feet of natural gas per hour. To put this into further perspective, the overall steam production of the Power Plant over this 16-year period was approximately 11 billion pounds, 50 percent of which was comprised of this “free” steam. This resulted in further savings of millions of dollars not to mention the avoidance of burning and exhausting into the atmosphere an estimated additional five billion cubic feet of natural gas. This one aspect alone has become increasingly important with the escalating emphasis on our carbon footprint and in reducing our carbon emissions.
Group of workers shown next to the co-generation system consisting of two new 5,000 kilowatt gas combustion turbines with heat recovery steam generators.
The schematic design phase is in process for the renovation of East Hall to become the new WMU Alumni Center. The center wing of the building will be retained to house the Development and Alumni Relations offices, several general purpose conference rooms, an alumni lounge, cafe, and banquet facility.

The new design focuses on conserving historical features of the original 1905 building to provide a multi-use facility for all members of the WMU community. Displays will be provided throughout the building celebrating WMU alumni over the years. The site design emphasizes the creation of green space for events as well as casual use, preserving and enhancing the spectacular views from the hilltop site.

Construction is expected to be completed by Summer 2015.
Most people associate Landscape Services with flowers, trees, and beautiful landscapes; however, we are knee-deep in removing snow and ice from campus grounds come winter. It is our job to keep roads, parking lots, sidewalks, steps, and entrances open and safe for our campus community. Our snow removal season lasts up to five months because the preparations for snow removal begin in October. These preparations include the following:

- Maintenance on all snow removal equipment including plow trucks, tractors, snow blowers, etc. to ensure everything is in good shape for the season ahead.

- Bulk road salt and anti-icing products are delivered and stored for future use.

- Updates and revisions to our Snow Book include detailing and prioritizing plow routes for roads, parking lots, and walks. We incorporate special needs, weekend needs, response to emergency situations, along with resources and contacts in the Snow Book.

- Installation of sidewalk markers.

- Installation of ‘steps closed’ signs for steps that are deemed a convenience, not a necessity. This allows us to provide better service with the resources available on the remaining steps.

- Placement of salt barrels in strategic locations for quick and easy use on steps and entrances.

- Installation of silt fencing to protect landscapes from de-icing products.

- Maintenance of all snow-melt systems to ensure they are up and running. We have over 30,000 square feet of building entrances with snow-melt systems. These include the Dalton Center, Administration Building, Chemistry Building, College of Engineering and Applied Sciences, Sindecuse Health Center, College of Health and Human Services, Sangren Hall, the West Michigan round-a-bout, and the Zhang Legacy Collections Center.

The Western News is notified of our snow removal efforts to explain how the campus community can contact Landscape Services with requests for special needs and events/activities. Advance notice allows us to plan and schedule our resources accordingly.

A complete look at our snow removal book and procedures can be found at www.fm.wmich.edu/lss
The new vehicles today are out of this world...or should we say from all over the world. Not so many years ago the big three auto makers, GM, Ford and Chrysler, dominated the automotive industry. When automotive technology changed, it was the small things that changed unless, of course, it was mandated by the government. In the past ten years the technology in the automotive industry has changed dramatically; the automotive industry has become a global marketplace. Just look around and you will see not only the big three but a multitude of automobile manufacturers like Honda, Toyota, Nissan, Hyundai, Fiat, Kia, BMW, Volkswagen and the list goes on and on. Today, all auto makers are searching for better fuel efficiency and cleaner emissions. In order to achieve the better fuel economy and cleaner exhaust emissions, the automotive industry has had to incorporate more and more electronics into the vehicles. The addition of these new technologies are making the new cars more complex; there may be as many as 50 microprocessors in a car today. The things that were all mechanical before now have sensors or motors that are controlled
by these microprocessors. The engines now have variable valve timing, direct fuel injection, cylinder deactivation technology, and many more things you do not realize. All these things are new and highly sophisticated.

The day when you could do it yourself is gone. At best you might still be able to change your oil; just remember to use the right oil (yes they now even have special oils). Transportation Services is fortunate to have three exceptional master mechanics on the payroll.

These mechanics repair and maintain 268 vehicles from across our campus. They also work on 28 stationary and portable generators, all of the heavy construction equipment, numerous pieces of smaller equipment like emergency exhaust fans, sump pumps, small generators, golf carts, four wheelers, pallet jacks and an occasion mower. If it is mechanical and in need of repair, it eventually finds its way to our doorstep. Our mechanics attend continuous training seminars throughout the year in an attempt to keep up with the ever-changing technologies.
Summer 2013 was another productive year for construction projects across campus impacting both interior and outdoor areas that support positive changes. From plaza river walk enhancements, to new turf fields and new building construction, there was continuous excitement in Facilities Management as new construction and renovation projects continue to evolve on campus.

ZHANG LEGACY  With a warm welcome, Western Michigan University’s archives moved into their new space in the new Charles C. & Lynn L. Zhang Legacy Collections Center this August. This 16,373 square foot facility is designed to be LEED Silver certified, which includes special features such as rain gardens, a geothermal heating and cooling system, LED lighting, occupancy sensors and low ‘e’ glass with UV filters to name a few. Through careful planning to maintain archival storage at specific temperature and humidity levels, this facility was designed with a high performance HVAC system along with select materials for their durability and sustainability with the ability for future expansion.

WESTERN VIEW APARTMENTS  With exciting anticipation of Phase II completion, the two new apartment buildings and new community center came to a grand finish in August. These new LEED certified facilities provide space for 174 additional residents totaling over 83,900 square feet.

Moving to the outdoors, FOUNTAIN PLAZA was redesigned to provide a more park-like experience and to be used as a gathering and social point by students and the community. The new riverwalk colored concrete walkway and an added east ramp help enhance pedestrian traffic and provide accessibility to the lower plaza. These features, along with more than 7,000 square feet of green space added and a new stone wall fountain waterfall feature help create a more intimate and relaxing space. Also, starting in May, old Sangren Hall abatement and demolition was completed and replaced with green space landscaping, pedestrian access walkways and vehicular drop-off and parking areas. These site improvements bring the new Sangren Hall to full completion and have dramatically enhanced the student learning experience on campus.
Athletic facilities also had many new exciting improvements over the summer, including Soccer Field improvements, new field turf for Waldo Stadium and the Seelye practice field as well. Bill Brown Alumni Center also has various building improvements in progress. New dynamic and bold building graphics were added throughout the building. Through use of these graphics, strong visual branding is evident which will help promote team history pride, showcase accomplishments and build school team spirit. Renovations in the locker room, weight room and additional lobby displays are currently in progress and are planned to be completed in 2014.

In addition to these vast improvements and new construction, various academic and student space building renovations were also impacted this summer. The Bernhard Center main cafeteria and Bronco Mall were redesigned with new furniture, fixtures, counters and finishes that dramatically improved the space ambiance and use. The College of Arts and Sciences Advising Office was also completely remodeled and expanded. With an impressive new front glass wall entrance, and custom designed reception and office spaces, this space welcomed fall students with a surprising new bold look. Classroom and public space improvements also took place in various buildings such as carpet mat replacements, ceiling and fixture replacements and painting. Elevator and life safety projects were also in full swing with completion of new fire alarm system upgrades in the Dorothy U. Dalton Center and Zimmerman Hall, as well as continued improvements with lighting and exit signage in various buildings. Several elevators were also upgraded to help improve use operation in several residence halls in the Valley.

With the completion of these various projects and new building construction, students, faculty and the campus community will continue to have more opportunities to learn, engage and discover new experiences at Western Michigan University!
There exists an extensive underground network of pipes and wires that keep our campus buildings efficient and comfortable. Although unseen by students, faculty and most staff, to a dedicated few in Facilities Management, utilities are the lifeblood of campus and a career passion.

The dedicated management of our utility assets is a continual and ever-changing priority within Facilities Management. Whether it is increasing the efficiency by taking advantage of technological advances, addressing problems as a result of aging infrastructure, or working with campus initiatives that may reduce our carbon footprint, FM staff keep it all working.

FM staff is responsible for maintaining 30 miles of storm sewer, 19 miles of sanitary sewer, 27 miles of high and low voltage electric lines, 9 miles of steam line, and 1 1/2 miles of chilled water lines.

A key component in maintaining these assets is WMU’s extensive Geographic Information System (GIS). The GIS system is used to maintain current locations and sizes of the various utilities.

Advances in GIS systems are allowing WMU staff to test the mapping of utilities in three dimensions allowing construction projects to work with and around campus utilities more easily as well as anticipate problems before they occur. In addition, development of capital projects, construction plans, locations of critical components of infrastructure required by emergency staff during a loss of service, and various maps for the campus community are but a small portion of the demands required of the GIS system.

Large scale improvements are planned for annually and construction is done while classes are not in session so as to minimize inconvenience to students, faculty, and staff.

FM utility projects have made significant impacts to the campus and the surrounding community. Storm water control efforts have reduced phosphorus (a major pollutant) loadings by 25 percent. Electrical initiatives to convert street and parking lot lighting to LED has and will continue to reduce our energy usage.
Building Custodial and Support Services has been making a transition to the 3M Stone Floor Protector System and the 3M Resilient Floor Protector System. These systems use new cutting edge technology that reduces the overall labor and supply costs by as much as 20 percent. These systems also increase safety by reducing slip and fall possibilities. They are certified by National Floor Safety Institute (NFSI) as “High Traction” under ANSI B101.1 wet test. Some of the buildings that have these systems in use are Waldo Library, Student Recreation Center, Lawson Ice Arena, Parkview Café, and Moore Hall. The system can be utilized on terrazzo, concrete, and other natural stone flooring. These processes require special training. The floor refinishing crew consists of Jeff Benton, Chris Blum, Marquise Hummel, Laurie Miley, Anna Murphy, Rene’ Riggins, Gary Snell,
The Friendly Faces of Facilities

The Facilities Management (FM) Service Center is the heartbeat of the Facilities Management Department. Staffed from 7 a.m. to 5 p.m. Monday through Friday, the FM Service Center serves as a single point of contact for customers in need of assistance with a facilities matter for their residence, office, or classroom. The staff at the FM Service Center process nearly 17,313 work requests each year that are submitted either by phone or through an online system called Bronco Fix-It and handles the majority of the customer service requests that the occupants at WMU have come to appreciate and rely on. All calls, emails, and online requests submitted to the FM Service Center are met by the customer-oriented staff that is always ready to help out a member of the campus community.

In addition to these basic functions, there are many underlying services that the FM Service Center provides to the Facilities Management Department. The staff supplies the Engineering and Maintenance employees with administrative and reception assistance. It takes responsibility for tasks such as closing work orders, running queries, and communicating with vendors. The FM Service Center also offers help on larger tasks that the whole department participates in such as deferred maintenance meetings and winter closure. Another one of the major duties of the FM Service Center is providing communication between the divisions to ensure that everyone is aware and able to work together to achieve the common goals of the Facilities Management Department.
In the event of an emergency, the Service Center becomes the hub for the Damage Assessment Team and link to the WMU Emergency Operation Center. It also monitors fire alarms, elevators, and a status board of equipment not in service to ensure that all the information is available if needed.

The helping hand does not stop with the Facilities Management Department though. The FM Service Center has a great amount of communication with the campus community as well. It acts as the single point of contact for the Facilities Management Department and often takes calls from students, faculty, and staff that are directed to other departments on campus. By offering a center to call, it relieves the customer of trying to decipher who is responsible for helping them. The FM Service Center has taken many processes that were frustrating and reduces them to a single form that can be submitted, such as an event request form. Once the form is submitted, it is processed and the information is doled out to each division requested. It also acts as a liaison between the customer and the supervisors/tradespeople. This method keeps the processes of the department efficient and provides quality control for the level of customer service provided.

In some ways, the FM Service Center is much like an air traffic control tower at an airport – continuously monitoring traffic, providing information and direction, and working to ensure that campus operations run smoothly so all members of the community can have the best experience possible.

Each year Facilities Management employees in the Physical Plant building generously provide gifts to children through the Salvation Army’s Angel Tree program. Christmas 2013 was no exception with over 40 gifts being donated.
Facilities Management Staff Provides Service

Three Facilities Management employees received Make a Difference Awards in 2013 and are shown in the photo with WMU President John M. Dunn. This prestigious award is reserved for WMU’s most outstanding staff employees—those who reach far beyond their assigned responsibilities to give generously and creatively of their time and talents, making our University an even finer place to work and study.

(Pictured above L-R: Kevin Villadsen, Maintenance Services; President John M. Dunn; Deanna Bowling, Landscape Services; Steve Keto, Landscape Services.)

Hi Tim,

Just wanted to say “thank you” and “keep up the good work” for getting all the snow removed from the handicap parking areas. For those of us that use these spots, it is hard to get out and around when only the center core of the parking spots are cleared. You can not get a firm footing when getting out of your car if the snow is piled up around it. The group that has been working on these spots between Ellsworth Hall and Bernhard Center have gone the extra length to make sure these are plowed to the curb so we won’t be slipping or falling when we get out of cars. Please make sure you let them know that this extra effort is really appreciated.

Hope you have a great weekend,

Mary

Hi Terry,

Thanks for sending out the report and thanks again to everyone who helps keep our facilities in such great shape. We have a high school conference swimming and diving meet being held this weekend and have had numerous compliments on the facility!

Sincerely,

Kyle Oberhill

Hi Moe,

I wanted to let you know that I appreciate all of the help our EHS office received from your maintenance group over the past few weeks with the heating (or lack thereof!) issues and leaking roof problems here at our new digs at EWB. Your staff was very diligent and competent and a pleasure to work with. I appreciate the professionalism they held to and am thrilled that I am sitting in a warm, heated office today!

Please pass along my thanks and appreciation to your staff!

Best regards,

Lu

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