

The Commonwealth Quarterly

News from around the circuit.

Spring 2015



**Commonwealth
Electric Company**
of the midwest

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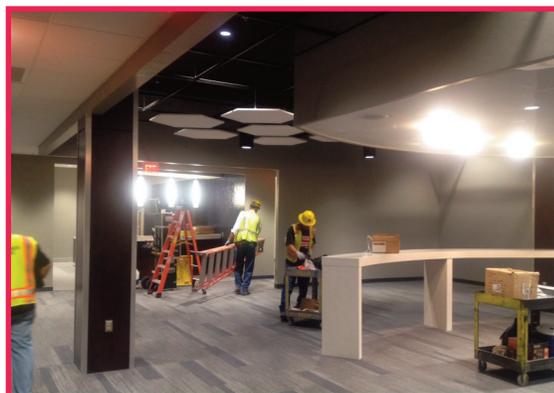
Commonwealth Electric Company of the Midwest – Tucson recently completed the work on a \$1.75M Renovation/Addition project at McKale Center Arena on the University of Arizona campus. The electrical work was performed under a subcontract agreement with M.A. Mortensen Construction of Phoenix, AZ.

The Arena and its supporting spaces on three different levels were renovated for an updated and more appealing look. The locker rooms for the men's and women's basketball, women's volleyball, swimming and baseball programs were all renovated. New player's lounges were added along with theater style, state of the art video rooms for reviewing game films. The coach's offices and lower level concession areas were also renovated. In addition to the renovation work, a new two level eastside expansion was added to include updated laundry and equipment storage facilities for all of the university's athletics' programs. New restrooms and concession areas were added on the concourse level as well.

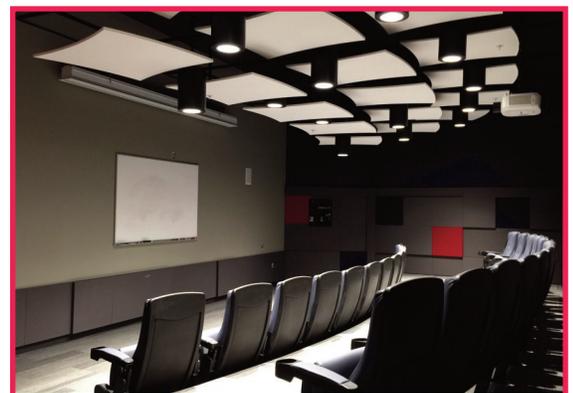
The latest in LED lighting and controls were utilized for both interior and exterior spaces. The fire alarm system for the entire arena was also upgraded as part of the work.

The McKale Center project was started in April 2014 and completed in December 2014. The project was completed in three major phases. We had up to thirty five electricians working; sometimes seven days a week, in order to complete the work within the scheduled time frame. There were many obstacles and numerous challenges on this project. With daily changes and a short, aggressive schedule, this was an extremely challenging project for all parties involved. In spite of everything, Commonwealth Electric met all milestone dates with the help and expertise of general foreman Robert Ervin and his crew.

The McKale Center Renovation project now allows for a comfortable and eye pleasing home for the University of Arizona athletic teams such as Women's Volleyball, Women's Basketball and the 2015 Elite 8 Men's Basketball. Future renovation work is planned at the arena and we are hopeful that we will be part of the construction team to perform that work as well.



Men's Basketball Lounge



Men's Basketball Video Room

AED (Automatic Defibrillation Device)

Ruben J. Bera - Corporate Safety Director

By now, we all have heard that heart attacks are the number 1 killer in America. In the US, every 34 seconds someone suffers from one. There are around 720,000 1st time heart attacks yearly in the U.S. We all know there are several reasons these attacks happen, family history, and diet, lack of exercise, stress and overall health. Many years ago I shared a personal close call I encountered and the changes I made to help prevent me from becoming a statistic. But with all we do to prevent these attacks, sometimes they just happen. Getting the help needed in the right amount of time is vital in preventing further damage or even death.

At job sites, contractors are taking steps to help prevent these from happening. Heart attacks have happened on job sites and will continue until we figure how to prevent these from happening. Until then we need to be ready to assist someone in need. Commonwealth Electric has made the commitment to help by purchasing AED's Automatic Defibrillation Devices, for each of the offices in the Midwest and Southwest. The units were installed and how-to-do classes were conducted. AED's are seen more and more all over the country. Airports, banks, stadiums and other public gathering places. Even large construction sites have AED's readily available. These AED's are simple and easy to use. There may be a time EMS may have to be called. If so they will generally ask if an AED is available. Like insurance, we hope we never have to use it but if we do, we're glad we have it. Commonwealth Electric has demonstrated its commitment to safety by purchasing these AED's.



Another piece of exciting safety news, project managers from several midwest locations recently completed an OSHA 30 hour construction safety course. Most, if not all, field workers have completed the OSHA 10 hour course and some have completed the 30 hour. The 30 hour course is an in-depth look at the OSHA requirements for construction safety. An emphasis on electrical was given. The course was held over 4 days. Many demonstrations and hands on practice. Having the project managers complete this course helps bring another set of eyes when it comes to job site safety. This will also give the PM's a better understanding of what the field worker goes thru daily. Having project managers trained in OSHA also demonstrates to the customers and potential customers our commitment to job site safety. Congratulations to all who completed the course.

AED – Simple and easy to use – Peace of mind

City of Omaha OPW 52200 (CSO) Schedule "B1" Missouri River WWTP

Chuck Fintel - Project Manager

The federal government has identified at least 772 communities nationwide, including Omaha that must reduce their combined sewer overflows (CSO) in order to improve water quality in the receiving streams, all as part of the federal Clean Water Act. The federal mandate means that Omaha must separate its storm and sanitary sewer systems to reduce the number of combined sewer system overflows into the Missouri River and Papillion Creek. A combined sewer overflow is a discharge of raw sewage mixed with storm water into local waterways during a wet weather event, such as a rainstorm. The affected sewer system in Omaha is the combined sewer area located east of 72nd Street. The sewer system west of 72nd St was designed and constructed as a separated system. The combined sewer system covers 28,000 acres, or 6200 square blocks.

The City of Omaha along with its engineering partners developed the Preliminary Long Term Control Plan (LTCP) for its sewer separation back in 2006 / 2007, and labeled the program as Clean Solutions for Omaha (CSO). In 2008 they negotiated the Water Quality Goal; and finalized the LTCP between 2007 and 2009. The Design of CSO Controls started in 2009 and will continue through 2026. The Implementation of CSO Controls (construction) started in 2010 and will continue through at least 2027, and probably longer. The projected cost of the total program, based on 2012 dollars, is two billion dollars.

There are nine different project categories that make up the two billion dollar program. The largest pieces of the program are the multiple Sewer Separation Projects at approximately 700 million dollars and the Deep Tunnel Project, which will be approximately 500 million dollars. The Missouri River Waste Water Treatment Plant (MRWWTP) Improvements will be approximately 106 million dollars.

The MRWWTP modifications were to be constructed in two projects. Schedule "A", which Commonwealth Electric completed last year and Schedule "B". However Schedule "B" ended up being split into two projects. Commonwealth was awarded a contract from Hawkins Construction for Schedule "B1" in early 2014. Commonwealth's Schedule "A" contract was also with Hawkins.



City of Omaha

Matt Fuchs is our foreman on Schedule "B1", as he was on Schedule "A". Matt did a great job of building the project for Schedule "A" and is doing the same excellent job on Schedule "B1". He has created an exceptional working relationship with Hawkins and the engineer.

Our work for Schedule "B1" includes electrical work for a new Municipal Headwork's Facility, new Odor Control Facility, new CSO 102 Chlorination / Dechlorination Facility; and modifications to the In-Plant Lift Station, Primary Clarifiers, North and South Sludge Pump Station Buildings and Primary Splitter Structure. Also included in Schedule "B1" work is site duct bank work for new 15kV distribution and fiber optic communications.

The MRWWTP is located south of the Veterans Memorial Bridge along the Missouri River. Our projects at the MRWWTP are noted as an important early action projects in the City's Long Term Control Plan, as the existing plant does not have enough capacity to accommodate future wet flows. The improvements must be complete and operational no later than the end of 2015 for the City of Omaha to meet its commitments to the Nebraska Department of Environmental Quality. The improvements will result in immediate, significant reductions in the size and number of untreated overflow and the E coli loading to the Missouri River.

Owen Metals Center

Mark Ross - Project Manager

Because of our previous work relationship with Paxton Verling Steel, Commonwealth Electric was chosen to partner with Boyd Jones Construction in the construction of their new production facility in Carter Lake, Iowa. The building has just less than 180,000 square feet of space; the production area is 200'W by 705'L by 37'T, the coil storage area is 94'W by 400'L by 52'T and 7400 square foot of office space on the south side of the building. The building exterior walls and roof are all metal panels with interior insulation.

The main purpose of the building is to house a multi-million dollar steel stretcher/leveler line that has a combined motor load of 2,650 horsepower. This line is approximately 385' long and weighs a little more than 762 tons. To serve the building OPPD brought in a new 600A, 13,800 volt service entrance. The 15kV service entrance switchgear feeds four 13.8/.48kV unit substations spread out in the production area which in turn feed five bus ducts. All building power will come from the unit substation switchboards or bus ducts. We were not allowed to install any conduit below the slab except for the primary service coming into the building as they were concerned with the possibility of the building settling. There are bridge cranes in all areas of the building so all conduit runs have to be tucked up next to the roof purlins rising/dropping at the exterior walls or centerline columns. Our contract includes getting power to this S/L equipment line at various demarcation points but there will be additional conduit and wiring needed to finalize the electrical installation for start-up, which will be handled directly with the Owner. We also had a 175KW generator and 60kVa UPS as part of the install.

Lighting in the plant area is 8 lamp fluorescent 2x4 tandem fixtures, a total of 288. Because of the size of the building the lighting is powered with 480 volts. We used premade Gripple™ style hanger cables and a Caddy™ clip for purlins for our installation and were able to cut considerable time off the estimated time. There are also exterior building mounted

LED wall fixtures and site/parking LED pole lights both being fed with 480 volts. The office area has typical fluorescent and LED fixtures throughout.

Typical of most projects, we had our challenges on this one. All trades who had underground site work to do ran into small to large (12") rocks and pieces of concrete. I believe this was from the demolition that occurred years ago and the fill they used at the time. This slowed down the underground work so as not to damage the equipment. We did receive some restitution for the extra expended labor that was required. Well over 50% of the labor on this project was spent in 60' boom lifts. Our guys did a lot of preplanning on grouping conduit pathways and staging and prepping light fixtures in order to maximize the use of our labor hours while in the lifts.

Josh Kreifels was the foreman on site and we peaked at 14 men. We've had an accident free project to date. Josh did a great job of laying out the work and his men. He was very proactive to get information he needed beforehand so that the project flowed well. The Communications side handled the fire alarm, access control, security cameras and the phone/data. The Owner's equipment has yet to show up at the writing of this article so we will probably pull off for a while and then have to go back to finish the contract portion. We are picking up extra work through the Owner to add data pathways and data cables for their equipment and for additional wiring of the equipment once it shows up.



Josh Kreifels

MUD Florence WTP Filter Plant Upgrade

Cerone Thompson - Project Manager



Commonwealth was selected as the electrical contractor for the MUD Florence WTP Phase II Filter Plant Improvements Project. The project is located at MUD's Florence facility which services most of the metropolitan area. The project is a complete upgrade of the existing Howell Filter Plant building. Hawkins Construction is the GC on the project but what makes this one unique is that we currently have a project going on at this same facility for the MUD SCADA Upgrade.

The project is broken down into three phases. The first phase involves the north half of the building, the second phase is the south half and the third is essentially everything else. The challenging part is that since this is a complete upgrade we have a lot of trades working in a small area at one time. The facility has to remain up and running so, there is no "shutdown" period which would allow for ease of installation. With two projects going on at once in the same building there has to be some careful planning involved. The project is scheduled to be completed in June of 2016.

Santa Comes to the Square - Columbus, NE

Cathy Cole - Service Coordinator

Commonwealth – Columbus has been a part of Santa's house for the last 5-6 years, downtown in our Frankfort Square city park. Sitting next to Santa's house is a very large evergreen tree with bright green and red lights. Sitting just in front of the tree is Santa's sleigh, painted a bright red with gold trim. The walk way up to see the jolly guy has oversize candy canes and lollipops.

This year the Columbus office staff decided to be downtown watching our community bring their little ones to make sure Santa knew they were good little boys and girls and make sure he was up to date with their wish list. We set up a little station and served hot chocolate.

We enjoyed seeing lots of parents and grandparents out with their little ones, and serving them a perfect little cup of warmth to help with the chill in the air. To be honest not sure who had more fun that night...the kid's seeing Santa or our team!



Front Row: Malinda Christensen, Dusty Romshek;
Back Row: Cathy Cole, Andy Sueper, Jake Gable

Mardi Gras

Jamee Strickland - Omaha Office

Brought back by popular demand, the Omaha Office was able to put on another Seafood boil to celebrate Fat Tuesday. Unfortunately, this year the Southern part of the country was hit by an ice storm, causing us to be without crawfish. However, we were able to order wild caught Gulf Shrimp. They were flash frozen with the heads still attached and they were flown in.

Head on Shrimp is something that most people in the middle of the country have never seen, let alone eaten. A few people were a little weary of the heads & eyes. But, once you get the hang of cleaning them & tasting them, a person can get over that pretty quick.

The afternoon was full of music, food & friends. Thank you to Neil Davidson, Eric Hoge & Eron Strickland for making all the arrangements for our "Omaha Fat Tuesday".

A HUGE Thank you to the guys in the Fab Shop for all of your help, we couldn't have pulled this off without you!

Laissez Les Bon Temps Roulez!



Mardi Gras